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1916.

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1917.

ERRATA.

1,203,800, page 87, third claim, line 3, after the word "bearings" insert the word *and*.

1,203,822, page 95, first claim, line 13, strike out period and insert a comma and the words *said bearing piece engaging said cam throughout the reciprocatory path of said jaw-supporting member.*; second claim, line 9, commencing with the word "said" strike out all to end of claim; same claim, line 9, after the word "member" strike out the comma and insert a period.

1,204,160, page 213, in heading, assignment, name of assignee, for "Gould Storage Battery Company" read *Gould Coupler Company*.

1,205,350, page 697, in heading, assignment, after the word "assignors" insert the words *of one-half*.

1,205,565, page 772, strike out assignment and insert *assignors, by mesne assignments, to Universal Winding Company, Boston, Mass., a Corporation of Massachusetts*.

1,205,817, page 861, fourth claim, line 4, after the word "means" insert the words *on said standard*.

1,206,305, page 1062, second claim, line 6, for the word "rise" read *ride*.

1,206,350, page 1076, in heading, assignment, State of incorporation, for "Missouri" read *Maine*.

1,206,433, page 1104, first claim, line 5, strike out the words "vertically disposed."

1,206,460, page 1114, second claim, line 8, after the word "clamping" insert the word *means*.

14,413, (reissue,) page 291, in heading, after residence of patentee, insert *Assignor to The Sweetland Filter Press Company, Inc., a Corporation of New York*.

49,865, (design,) page 296, in heading, assignment, name of first-mentioned member of assignee-firm, for "J. Ernott Caldwell" read *J. Emott Caldwell*.

CONTENTS.

	Page.
PATENTS AND DESIGNS GRANTED, November 7, 14, 21, 28	3,325,627,943
TRADE-MARKS PUBLISHED AND REGISTERED, November 7, 14, 21, 28	299,597,913,1239
LABELS AND PRINTS REGISTERED, November 7, 14, 21, 28	318,617,933,1257
DECISIONS OF THE COMMISSIONER OF PATENTS, November 7, 14, 21, 28	319,619,935,1259
INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS	1265
ALPHABETICAL LIST OF PATENTEES AND INVENTIONS	i

ANNOUNCEMENTS.

	Page.
ADVERSE DECISIONS IN INTERFERENCE—	
Altorfer, 1,066,070	1264
Anklam, 1,131,652	323
Bibb, 1,158,364	323
Crumpton, 1,138,089	1264
Jensen, 1,148,780	1
Podlesak, 1,155,094	1
AMENDMENTS—	
Rule 73	1,323
AMENDMENTS TO AMENDMENTS—	
Rule 74	941
APPLICATIONS—	
Condition of pending	2,324,626,942
ATTORNEYS—	
Order disbarring Ambrose, William E	623
David, Herbert A	623
Hesse, Charles H	623
Kennedy, David N	623
Maloney, William	623
McDowell, John	623
Peebles, John W	623
Purdee, Armstrong	623
Rothschild, David	623
Williams, Samuel R	623
Order revoking order disbarring Burgardt, Hugo F	623
Wheeler, Thaddeus W	623
Williams, Vernon A	623
CLASSIFICATION OF INVENTIONS—	
Changes in—*Order 2295*	941
Order 2295	941
DISCLAIMERS—	
Dunbar, Francis W	1263
Gammeter, John R., and Walter H. Allen	939
FOREIGN PATENT LAWS—	
China	622
Finland	1263
INTERFERENCE NOTICES—	
Advanced Beet Sugar Construction Company	322,624
Armstrong Co., T. W., The	322
Rattermann, Henry	1264
Turner & Co., J. J	322
INTERNAL REVENUE—	
Act to increase—Stamp act of September 8, 1916	1
INTERNATIONAL CONVENTION FOR THE PROTECTION OF INDUSTRIAL PROPERTY—	
Provisions adopted by reason of the state of war—Austria and Germany	622
PATENTS—	
Instructions relative to ordering copies of	625
List of adjudicated	321,622,939,1263
TRADE-MARKS—	
Notice of cancelation—Hughes Anti-Friction Company, The	322,624,940
Roble, George Thompson	1263
Rules—Amendment to Rule 49—*Order 2287*	

10424

Patents Nos. 1,203,561 to 1,204,386.

THE

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CONTENTS.

	Page.
AMENDMENT TO TRADE-MARK RULES	1
NOTICE—INTERNAL REVENUE—STAMP ACT	1
ADVERSE DECISIONS IN INTERFERENCE	1
AMENDMENTS	1
APPLICATIONS UNDER EXAMINATION	2
PATENTS GRANTED	3
REISSUES	290
DESIGNS	292
TRADE-MARKS—REGISTRATION APPLIED FOR	299
TRADE-MARK REGISTRATION GRANTED	315
LABELS AND PRINTS	318
COMMISSIONER'S DECISIONS—	
Ex parte United Drug Company	319
ADJUDICATED PATENTS	321
ISSUE OF NOVEMBER 7, 1916	321
NOTICE OF CANCELATION	322
INTERFERENCE NOTICES	322

Amendment to Trade-Mark Rules.

(ORDER No. 2,287.)

DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE,
Washington, D. C., October 18, 1916.

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, Rule 49 of the rules of the Patent Office relating to the registration of trade-marks is amended to read as follows:

49. Motions to dissolve an interference upon the ground that no interference in fact exists, or that there has been such irregularity in declaring the same as will preclude a proper determination of the question of the right of registration, or which deny the registrability of an applicant's mark, should contain a full statement of the grounds relied upon, and should, if possible, be made not later than the thirtieth day after the notices of the interference have been mailed. Such motions and all motions of a similar character, if in the opinion of the Commissioner they be in proper form, will be heard and determined by the examiner of trade-marks, due notice of the day of hearing being given by the office to all parties. If in the opinion of the Commissioner the motion be not in proper form, or if it be not brought within the time specified and no satisfactory reason be given for the delay, it will not be considered and the parties will be so notified. Setting a motion for hearing by the examiner of trade-marks will not be a stay of proceedings pending the determination of the motion.

When the motion has been decided by the examiner in charge of trade-marks, the files and papers, with his decision, will be sent at once to the docket clerk.

Motions to shift the burden of proof should be made before, and will be determined by, the examiner in charge of interferences. No appeal from the decision on such motion will be entertained, but the matter may be reviewed on appeal from the final decision upon the question of priority.

THOMAS EWING,
Commissioner.

Notice—Internal Revenue—Stamp Act.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 16, 1916.

The revenue act of October 22, 1914, having been superseded by the act of September 8, 1916, the latter act being effective at midnight on that day, revenue-stamps will not be required on powers of attorney and certificates bearing date as of September 9, 1916, or thereafter.

Powers of attorney and certificates dated between December 1, 1914, and September 8, 1916, both dates inclusive, although not filed in the Patent Office until after September 8, 1916, are required to be stamped in accordance with the act of October 22, 1914.

The Patent Office has on hand a small stock of revenue-stamps for the accommodation of those who may be unable to secure them elsewhere. The cost of these stamps cannot be charged to deposit accounts, but cash should be remitted therefor.

THOMAS EWING,
Commissioner of Patents.

Adverse Decisions in Interference.

PATENT No. 1,148,780.

On September 26, 1916, a decision was rendered that Alexander V. Jensen was not the first inventor of the subject-matter covered by claims 1, 2, 3, 4, 5, 6, 7, 8, and 9 of his Patent No. 1,148,780, subject, "Cement-packing machines," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,155,094.

On October 4, 1916, a decision was rendered that Emil Podlesak was not the first inventor of the subject-matter covered by claims 2, 3, 4, 5, 6, 9, 10, and 11 of his patent No. 1,155,094, subject, "Mixture-producing device and speed-governor," and no appeal having been taken within the time allowed such decision has become final.

Amendments.

In order to insure the prompt delivery of amendments to the proper examining division, applicants are requested in their actions on applications to give the division number and the room number appearing on the last Office letter, as well as the date of such letter.

RULE 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 8, 107.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 8, 1916.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting other action.		No. of applications awaiting action.
		Now.	Amended	
214	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Seeders and Planters; Trees, Plants, and Flowers.	Aug. 10	Sept. 12	419
126	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicine; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 1	Aug. 26	789
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Oct. 25	Oct. 18	60
223	4. Conveyors; Elevators; Excavators; Hoisting, Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Devices; Railway Mail Delivery; Store-Service; Traversing Hoists.	Aug. 16	Oct. 21	224
167	5. Beekbinding; Harvesters; Jewelry; Music.	June 16	Sept. 21	347
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	July 14	Oct. 21	215
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	June 27	Aug. 8	391
131	8. Beds; Chairs; Flexible-sheet Securing Devices; Furniture; Kitchen and Table Appliances; Store Furniture; Supports.	May 3	Aug. 3	1362
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	May 5	July 27	540
288	10. Carriages and Wagons; Spring Devices.	May 3	Aug. 26	888
184	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 11	Oct. 27	103
222	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	July 11	Oct. 2	699
220	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Hornaboo Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	July 17	Sept. 7	507
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 11	Oct. 2	206
303	15. Bread, Pastry, and Confection Making; Cooking; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Sept. 26	Oct. 13	288
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	June 3	July 24	578
266	17. Matrix-Making; Ornamentation; Paper Manufactures; Printing; Type-Bar Making.	July 7	Oct. 19	210
227	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Sept. 27	Oct. 6	188
224	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	May 3	Aug. 15	482
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Oct. 19	Oct. 18	176
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	July 7	Oct. 2	226
240	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 24	July 20	491
270	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanisms.	May 20	July 14	474
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	May 18	July 20	413
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers. Ore Separation.	Sept. 1	Sept. 28	308
100	26. Electricity, Generation; Motive Power.	Mar. 7	July 17	710
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 20	Oct. 3	288
60	28. Internal-Combustion Engines.	Apr. 22	Aug. 26	541
147	29. Cooperage; Fire-Escapes; Ladders; Rods; Wheelwright-Machines; Wooden Buildings; Wood-Bending; Wood-Turning; Woodworking; Woodworking Tools.	May 15	Aug. 5	360
128	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Aug. 24	Oct. 19	289
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gums; Sugar and Salt.	May 10	Aug. 24	306
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Apr. 19	Oct. 2	817
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	July 25	Sept. 8	349
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fastenings.	May 4	June 20	376
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	May 8	Oct. 24	407
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	May 23	Oct. 7	222
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conductors; Electricity, General Applications.	May 31	Aug. 17	306
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationary; Stone-Working; Wells.	Oct. 4	Oct. 6	125
221	39. Water Distribution.	May 6	Sept. 1	276
269	40. Bottles, Bottling and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 6	Sept. 22	366
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	July 7	Sept. 28	220
244	42. Electricity, Conductors; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Apr. 5	Aug. 16	140
302	43. Baths and Closets, Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Sept. 9	Sept. 27	189

Oldest new case, Mar. 7; oldest amended, June 30.
Total number of applications awaiting action..... 19,369

101	TRADE MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Sept. 27	Oct. 17	324
	Designs.....	Sept. 30	Sept. 27	112
	Labels and Prints.....	Oct. 26	Oct. 26	69

PATENTS

GRANTED NOVEMBER 7, 1916.

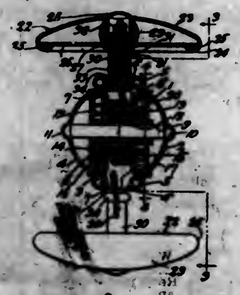
1,203,561. LACE EDGING. MAX N. AARON, Philadelphia, Pa., assignor to Friedberger-Aaron Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 9, 1915. Serial No. 33,013. (Cl. 2—146.)



1. A lace edging for garments comprising a fabric composed of two longitudinal sections of substantially equal width, interconnected loops hinging the sections together, one section being of a comparatively close texture and having a sewing-on edge and the other section containing transverse threads spanning a ribbon space and provided with a sewing on edge.

2. An edging for garments composed of a longitudinal section comprising longitudinally extending rows of stitches forming between them a ribbon space and transverse threads uniting said rows, and a second longitudinal section in hinged relation to the first longitudinal section and comprising a knitted web adapted to be folded over against the first section and form between the two sections a ribbon retaining pocket.

1,203,562. EXTENSIBLE HOLDER. LEE H. ADAMSON, Rogers, Ark. Filed Dec. 13, 1915. Serial No. 66,565. (Cl. 242—107.)

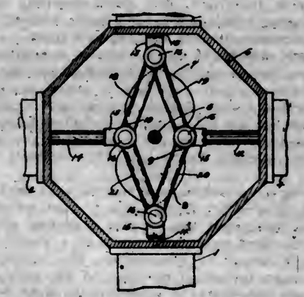


1. In a device of the character described, a shell, a rotary member mounted therein, a reel mounted for rotation upon the rotary member, a flexible element connected to the reel to be normally wound thereon, a spiral spring connecting the reel and rotary member, and a second spring connected to the rotary member and shell whereby the springs act in unison to rotate the reel to wind the flexible elements thereon.

2. In a device of the character described, a shell, a spindle therein, a sleeve mounted for rotation upon the spindle, a reel mounted for rotation upon the sleeve, a pair of flexible elements connected to the reel to be normally wound thereon, a spiral spring connecting the sleeve and reel, and a second spiral spring within the shell connected to the sleeve and shell, both springs being adapted to be wound up when the flexible elements are unwound from the reel.

3. In a device of the character described, a shell comprising a pair of sections, one having an opening and a pair of opposite apertures adjacent said opening, a member detachably engaged within said opening, the other section of the shell being engaged to said member, a spindle within the shell between said apertures and extending thrqugh said member, the sections of the shell having means receiving the ends of the spindle, a sleeve rotatable upon the spindle, a reel rotatable upon the sleeve, a pair of flexible elements extending through said apertures and attached to the reel to be normally wound thereon, a spiral spring connecting said member and sleeve, and a spiral spring connecting the sleeve and reel, the springs being adapted to be wound up in unison when the flexible elements are unwound from the reel.

1,203,563. DEVICE FOR CONVERTING MOTION. GUSTAF ANDERSON, Lynn, Mass. Filed Jan. 3, 1916. Serial No. 69,735. (Cl. 74—14.)



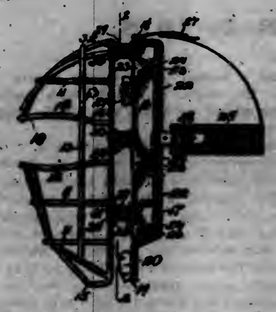
1. A device for converting motion consisting in a rotary shaft having a cam fixed thereon with a pair of oppositely disposed raised lobes alternating with oppositely disposed inset portions, a plurality of reciprocating members extending substantially at right angles to each other and each having an element engageable with said cam, and a pivoted link bar connection between the inner ends of said reciprocating members for the purpose stated.

2. A device for converting motion, comprising a shaft having a cam fixed thereon formed with oppositely disposed raised lobes alternating with oppositely disposed inset portions, two pairs of reciprocating members mounted to coöperate with said cam, the members of each pair being oppositely disposed and the two pairs being at right angles to each other, and a parallel link bar connection between the inner ends of said members, the inner ends of said members having each a roller continuously engageable with said cam for the purpose stated.

3. A device for converting motion, comprising a shaft having fixed thereon a cam formed with oppositely disposed lobes and with inset portions between said lobes, two pairs of piston rods mounted to coöperate with said cam, the rods of each pair being opposite each other and the two pairs at right angles to each other, parallel link bar connections pivotally connecting the inner ends of

said reciprocating members, each of said reciprocating members having a head equipped with a depending roll continuously engageable with the periphery of said cam.

1,203,564. BASE-BALL MASK. SAUL C. APAH, Newark, N. J. Filed Mar. 10, 1916. Serial No. 83,219. (Cl. 2—193.)



1. A mask comprising a head portion, means for holding the head portion firmly on the head, a guard portion, and shock-absorbing elements arranged between the head portion and the guard portion, such elements being arranged to normally hold the portions apart.

2. A mask comprising a head portion, means on the head portion for securing it to the head of a person, a wire guard portion conforming in general outline to the outline of the head portion and being adapted to be normally spaced therefrom, and shock-absorbing elements placed between said portions and being secured to said portions to yieldingly hold them spaced apart.

3. A mask comprising a head portion consisting of an open frame, means on the head portion for securing it firmly to the head of a person, a guard portion, and springs secured to said guard portion and to said head portion, said springs being adapted to be compressed when the portions are moved toward each other and being adapted to normally hold them at a normal distance apart.

4. A mask comprising a head portion, said head portion consisting of a metal frame, pads on the metal frame adapted to fit against the head of a person, means for securing the head portion in position, a guard portion, and springs subject to compression, said springs being placed between the guard portion and the head portion.

5. A mask comprising a substantially rigid head portion having means for attaching it to the head of a person, a substantially rigid guard portion, and comparatively resilient elements arranged between the guard portion and the head portion to materially absorb the force of a blow delivered on the guard portion.

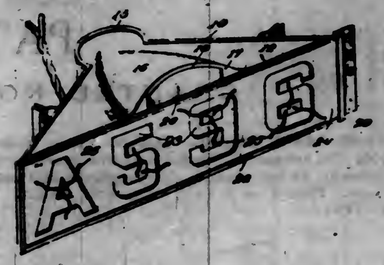
[Claim 6 not printed in the Gazette.]

1,203,565. WIRE-CONNECTOR. ORESTE RAJMA-RIVA, Milan, Italy. Filed Nov. 4, 1915. Serial No. 59,658. (Cl. 173—303.)



A connector for wires and the like, comprising in combination, a double cone sleeve, multi-partite truncated cones adapted to be introduced into said sleeve from opposite ends and adapted to receive the ends of a wire, slitted rings adapted to clamp the parts of said cones on said wires and frictionally engaging the inner walls of said sleeve, and means for limiting the backward movement of said truncated cones, substantially as described.

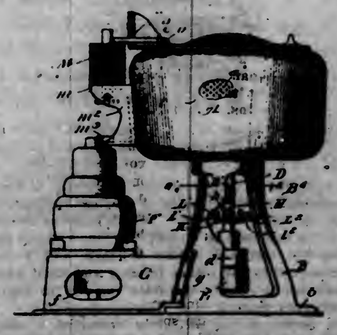
1,203,566. TAIL-LAMP. GALILEO C. BARR, Oklahoma, Okla. Filed Feb. 25, 1915. Serial No. 10,568. (Cl. 40—133.)



1. A device of the character described including a housing having a light chamber and provided with an opening, said housing being formed with walls converging away from said opening into a substantially semicircular wall forming a reflector disposed opposite the said opening, the bottom wall of the housing having an opening formed therein, a flange surrounding the opening in the bottom wall, a socket provided with a flange engaging said first mentioned flange, the socket being adapted to support a lamp projected into the light chamber in front of said reflector, a plate associated with the opening in the housing and adapted to permit the passage of light therethrough, and means for holding said plate in position.

2. A device of the character described including a housing provided with an opening, a receiving member carried by the housing and provided with an opening, a plate associated with the opening in the housing and mounted in said receiving member, the said plate being adapted to permit the passage of light therethrough, a lug carried by the housing adjacent the opening in said receiving member and projecting laterally from the said member, the said lug being adapted to provide a guide for directing the said plate into the receiving member, and a retaining member carried by said lug engaging the plate for maintaining the plate in position.

1,203,567. ELECTRICALLY-OPERATED CENTRIFUGAL EXTRACTOR. WILLIAM BARTHOLOMEW and CHARLES H. ALLEN, Chicago, Ill., assignors to Troy Laundry Machinery Company, Ltd., Chicago, Ill., a Corporation of New York. Filed Feb. 20, 1913. Serial No. 749,604. (Cl. 74—46.)



1. In a centrifugal extractor, the combination with a rotating member, of a safety guard for protecting said member, an electrical motor for rotating said member, and

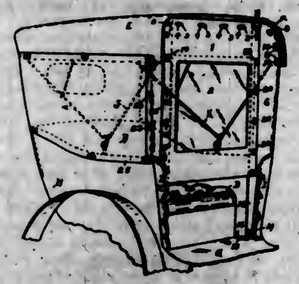
the core, a link normally tilted with respect to said elements, and pivot pins connecting said link and elements, said link having a part extending without the core for lifting purposes, said link arranged when said part is lifted to move toward a normal position with relation to said plug elements and to separate and expand them against the walls of the core, said link formed with arc-shaped bearing surfaces arranged to fit in corresponding surfaces formed in the plugs, whereby strain on the latter is transferred directly to the link without the intermediary of the pivot pins.

4. A tackle mechanism for lifting heavy loads, comprising, a pair of expansible plug elements arranged to freely enter axially aligned openings in opposite ends of a load, levers associated with said plug elements and constructed to expand the latter against the interior surfaces of said openings to grip the load with a distributed pressure, and means to connect said levers, said means arranged to be lifted at a point intermediate said levers to simultaneously actuate the latter and equally grip each end of the load.

5. A lifting device, comprising, two oppositely arranged segmental plugs each having an arc-shaped interior recess, an operating lever provided at one end with a spacing and connecting portion for said plugs and movable with respect thereto, the ends of said spacing portion being provided with corresponding bearing surfaces for the walls of the arc-shaped recess, all constructed and arranged so that the lever may move to space the plugs as desired and the force transmitted from the lever to the plugs may bind the latter against the interior surfaces of a load to be lifted.

[Claim 6 not printed in the Gazette.]

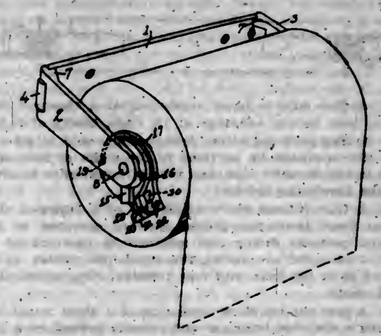
1,203,587. INSIDE WIND-SHIELD FOR VEHICLES. GEORGE V. CAING, Portland, Ind. Filed Sept. 30, 1915. Serial No. 53,238. (Cl. 21—148.)



1. An inside wind-shield for vehicles, comprising a main curtain suspended from a central bow of the vehicle top and adapted to hang down inside the vehicle in the rear of the back of the front seat and in front of the rear seat and adapted to extend to near the floor of the vehicle, the same being of less width than the interior of the vehicle, a transparency in the said main curtain, jamb curtains located on each side of the main curtain and extending outward and rearward and adapted to be attached to the side curtains of the vehicle with their upper edges adapted to be secured to said bow and with their lower edges conforming with the contour of the upholstered sides of the rear seat and adapted to contact therewith, and each terminating in a tongue at its lower end which tongue extends down forward of the rear seat, means for detachably securing said tongues of the jamb curtains to the vehicle, and means for detachably connecting the jamb curtains to the main-curtain, all substantially as set forth.

2. An inside wind-shield comprising a main central curtain adapted to be suspended from the interior of the top of a vehicle and adapted to extend down back of the front seat and near the rear seat and being of less width than the interior of the vehicle, jamb curtains adapted to be attached to each side of the main curtain and extending outward and curved rearward to the side curtains of the vehicle to which they are adapted to be secured and extending down to near the floor of the vehicle, means for detachably connecting the lower ends of the jamb curtains to the body of the vehicle, and means whereby the main curtain may be secured out of operative position in the top of the vehicle, all substantially as shown and described.

1,203,588. PAPER-ROLL HOLDER. JASPER J. CURRIN, Detroit, Mich., assignor to George F. Kearney, Detroit, Mich. Filed Feb. 14, 1916. Serial No. 78,127. (Cl. 211—31.)



1. In a paper roll holder adapted to allow limited forward or reverse rotation of the roll, a spring tending to resist forward rotation of the roll and adapted to reverse the direction of rotation thereof upon release of the roll, means rotatable with the roll limited in the extent of its rotation in either direction, a device held by the roll when of certain diameter adapted to lessen the extent of forward rotation of said rotatable means, said device being released from operative relation upon decrease in diameter of the roll a definite extent whereby the parts are reset to allow full forward rotation of the roll.

2. In a paper roll holder, means for rotatably supporting a paper roll thereon, a rotatable element limited in extent of rotation in either direction, a second element rotatable with the roll, a spring tending to resist forward rotation of said second element, means for holding said second element in fixed relation with the first named element, said means being releasable to allow a definite movement of the second named element relative to the first named element, said means being engaged by the roll as to be held in operative relation when the roll is of a certain diameter and released from operative relation to allow relative movement of the two elements when the diameter of the roll has been decreased a certain extent.

3. In a paper roll holder adapted to rotatably support a paper roll, a rotatable element, a stop limiting the extent of rotation thereof in either direction, an element rotatable with the roll, means for holding said second named element in fixed relation with the first named rotatable element, said means being adapted to be held in operative relation by the roll and released from such relation when the roll has been decreased in diameter a certain extent, and a spring connected with said second named element placed under tension by forward rotation of the roll and adapted to return the parts to original relation upon release of the roll.

4. In a paper roll holder adapted to rotatably support a paper roll, a rotatable element, a stop limiting the extent of rotation thereof in either direction, an element rotatable with the roll adapted to rotate the first named element, the second named element being also adapted for limited movement relative to the first named element, a spring controlled latch member or pawl forced to post-

arranged above and connected to said tray for suspending the same, a rod removably connected to said supporting means and scale, a pair of shafts positioned below said tray, a pair of cog-wheels between the inner and outer wall of the refrigerator for connecting said shafts and imparting a rotary movement thereto, and a pair of projecting arms secured to the said shafts near each end thereof, said arms carrying means adapted to form a supporting base for the tray to rest upon.

1,203,584. CUT-OUT BLOCK. ROBERT C. COLE, Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Nov. 29, 1915. Serial No. 63,964. (Cl. 175—273.)



1. A fuse cut-out block consisting of a stamped sheet metal base having openings at its ends, blocks of insulation having portions fitting said openings and retained in operative position by portions of the walls of said openings in the metallic base, and fuse terminal clips mounted on the insulating blocks.

2. A fuse cut-out block consisting of a stamped sheet metal base, insulating blocks slidably mounted on and having portions fitting and retained by portions of the base, means for preventing the accidental sliding of the blocks from the base, and fuse terminal clips mounted on said blocks.

3. A fuse cut-out block consisting of a sheet metal base having a slot that begins at and extends inward from each end, insulating blocks having portions fitting and retained from upward and downward displacement and from movement toward each other by the walls of said slots, and fuse terminal clips mounted on the blocks.

4. A fuse cut-out block consisting of a sheet metal base having mortises extending inward longitudinally at each end, insulating blocks with longitudinal grooves in their sides, said blocks being slidably mounted on the base with the edges of said mortises in the base fitting the grooves in the blocks, and fuse terminal clips mounted on said blocks.

5. A fuse cut-out block consisting of a sheet metal base with insulating blocks bearing spring clips slidably mounted on the base, said blocks having portions engaged and retained by portions of said base, and means for holding the blocks from sliding along the base.

[Claim 6 not printed in the Gazette.]

1,203,585. TYPE-WRITING-MACHINE COPY-HOLDER. JOHN JOSEPH COOPER, London, England, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 20, 1914. Serial No. 813,151. (Cl. 120—29.)



1. The combination of a channel guide for a telegraph strip, a device slidable along the guide, said device including an actuator and means dependent upon a force applied to said actuator in a direction to advance said device for causing the same to bear upon the strip with a yielding pressure sufficient to cause the strip to move with said device, said means being ineffective upon said strip when said device is moved by said actuator in the opposite direction.

2. The combination of a telegraph tape guide, a carriage, and a lever pivoted on the carriage, and having an arm which constitutes a handle, and having another arm extending in the direction of feed, to exert pressure upon the tape, and provided with a pad of soft material to feed the tape.

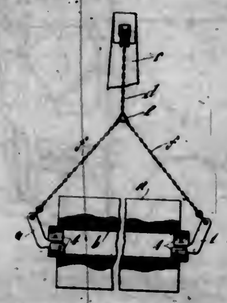
3. The combination with a telegraph tape guide, of a traveler, an actuator by which said traveler may be moved manually to and fro along the guide, and means dependent upon the manual operation of the traveler by said actuator to move the traveler in only one direction for advancing the tape along the guide, the traveler movable along the tape in the opposite direction, whereby the tape may be fed step by step in one direction by moving said traveler to and fro.

4. The combination with a telegraph tape guide, of a traveler, a handle connected to said traveler to move the same to and fro along the guide, and a tape-feeding grip released by said handle when retracting the traveler, but caused by said handle to grip the tape and advance the same when said handle is advancing said traveler, said grip movable along a fresh portion of the tape at each retraction of the traveler to a new gripping position on the tape, so that the tape is fed step by step in one direction.

5. The combination with a telegraph tape channel or guide, of a manually movable traveler, an actuator carried thereby by which the traveler is movable in one direction along said channel independently of the tape, and means dependent upon the movement of the traveler by said actuator in the opposite direction for advancing the tape along the channel, whereby the traveler may be advanced step by step in one direction by operating said actuator to move the traveler to and fro.

[Claims 6 to 10 not printed in the Gazette.]

1,203,586. LIFTING DEVICE. SAMUEL E. COWLES, Woronoco, Mass. Filed Sept. 11, 1915. Serial No. 50,159. (Cl. 57—9.)

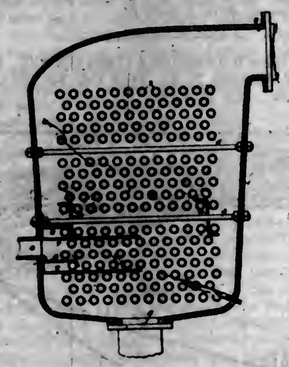


1. A core lifter for hollow cores, comprising, in combination, two oppositely arranged segmental plugs, and a link connecting the plugs and movable with respect thereto, said link having a part extending without the core for lifting purposes, said plugs arranged to freely fit within a core and to be directly spread apart by movement of said link and forced against the walls of the core with a toggle action.

2. A core lifter for hollow cores, comprising, in combination, two oppositely arranged segmental plugs, and a link pivotally connecting the latter having an arm extending without the core for lifting purposes, said link arranged normally in inclined relation to the axes of said plugs, whereby the latter are drawn together to permit free insertion in the end of a core, said arm arranged when moved to force said link toward normal relation with the axes of said plugs, whereby the latter are expanded against the interior walls of said core to grip the same with a toggle force.

3. A core lifter for hollow cores, comprising, in combination, split plug elements arranged to freely fit within

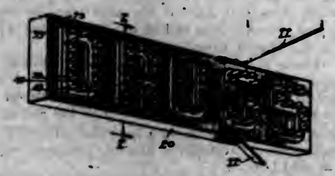
1,203,581. CONDENSER. WILLIAM WYANT CASSIDY, Deadwood, S. D. Filed Aug. 10, 1915. Serial No. 44,714. (Cl. 257—43.)



1. In a condenser of the class described, a casing having a steam inlet at the top thereof, an air outlet adjacent the bottom thereof and a condensate outlet at the bottom of the casing, tie bolts connecting the sides of the casing, rows of cooling tubes disposed transversely of the tie bolts and the air outlet, baffle plates above and below the air outlet extending between the rows of tubes substantially to the middle of the casing and partially lengthwise thereof, and baffle plates above the first-mentioned baffle plates adjacent the air outlet extending through the entire length of the casing, substantially as and for the purpose set forth.

2. In a condenser of the class described, a casing having a steam inlet at the top an air outlet at the side adjacent the bottom and a condensate outlet at the bottom, tie bolts connecting the sides of the plates, rows of cooling tubes within the casing extending transversely of the tie bolts and the air outlet, baffle plates extending from the air outlet above and below the same between the horizontal rows of tubes substantially to the middle of the casing and partially along the casing, baffle plates above each of the first-mentioned baffle plates extending along the casing and located adjacent the air outlet, said second-mentioned baffle plates extending only to the second vertical rows of tubes from the side wall of the casing, and baffle plates extending along the casing between the upper and lower rows of cooling tubes at the tie bolt which is located adjacent the air outlet, said last-mentioned baffle plates being located between the vertical rows of cooling tubes adjacent the sides of the casing.

1,203,582. ELECTRIC SIGN. CHARLES A. CHASE, Chicago, Ill. Filed Oct. 7, 1912. Serial No. 724,424. (Cl. 40—130.)



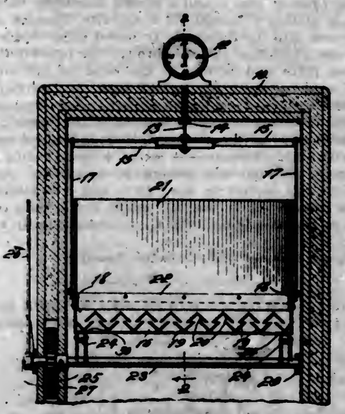
1. In a sign board, a strip of insulating material, a pair of parallel longitudinal conductors spaced apart and embedded therein, a series of lateral conductors extending from each longitudinal conductor toward the other, those connected to one longitudinal conductor alternating with those connected to the other longitudinal conductor, and an exposed contact connected to each lateral conductor, said contacts being arranged in a single line intermediate the longitudinal conductors.

2. In a sign board, a strip of insulating material, a pair of parallel longitudinal conductors spaced apart and embedded therein, a series of lateral conductors extending from each longitudinal conductor toward the other, those connected to one longitudinal conductor alternating with those connected to the other longitudinal conductor, an exposed contact connected to each lateral conductor, said contacts being arranged in a single line intermediate the longitudinal conductors and projecting beyond the face of the strip.

3. In a sign board, a strip of insulating material, a pair of parallel longitudinal conductors spaced apart and embedded therein, a series of lateral conductors extending from each longitudinal conductor toward the other, those connected to one longitudinal conductor alternating with those connected to the other longitudinal conductor, an exposed contact connected to each lateral conductor, said contacts being arranged in a single line intermediate the longitudinal conductors and projecting beyond the face of the strip, and transverse ribs of insulating material intermediate the contacts.

4. An electric sign board of the class described having a longitudinal slot inclined from the front toward the rear of the sign board, a strip of insulating material arranged in said slot and connected to one of the walls thereof, a pair of longitudinal conductors embedded in said strip, each of said conductors having lateral conductors extending toward the other, the lateral conductors on one longitudinal conductor being arranged intermediate the lateral conductors on the other, a contact arranged on each lateral conductor and projecting beyond the face of the strip, and one or more letters having inclined tangs upon their rear faces, said inclined tangs having conductors adapted to make contact with the contacts within the inclined slot.

1,203,583. WEIGHING DEVICE. CHARLES CLINTON CLARK, New York, N. Y. Filed Nov. 27, 1914. Serial No. 874,281. (Cl. 73—46.)



1. An ice weighing device for refrigerators, comprising a tray suspended within the refrigerator, a scale positioned on the upper outer side of the refrigerator, a pair of cross-bars arranged above said tray, each cross-bar having means connected at each end thereof and with the tray for supporting the tray, and a rod removably connected to the cross-bars and scale provided with a closing cap, said tray being provided with a platform and having air channels between the platform and the bottom of the tray, substantially as described.

2. An ice weighing device for refrigerators, comprising a tray suspended within the interior, a scale positioned on the upper outer side of the refrigerator, supporting means

to the interior thereof, and having a delivery passage leading through the base plate, and a pivotal support for the lower end of the delivery pipe mounted in said casting and provided with a passage communicating with the delivery pipe and with the delivery passage in the casting; substantially as described.

3. A mounting for the support of a pivoted oscillating delivery pipe for gasolene tanks and the like comprising the base, a base plate C detachably secured to the bottom of the tank and serving to close an opening therethrough, a casting F carried by the plate C and extending upward through the opening in the attaching plate and bottom of the tank to the interior thereof, said casting being formed with a housing at its top and having a delivery passage leading through the base plate, a hub G having a bearing in said housing formed in said casting F, a delivery pipe H having its lower end secured to and carried by said hub and communicating with the passage leading through the same and connecting with the delivery passage in the casting F; substantially as described.

4. A mounting for the support of a pivoted oscillating delivery pipe for gasolene tanks and the like comprising an attaching plate K permanently secured to the bottom of the tank and having an opening coincident with an opening B in the latter, a plate C detachably secured to the plate K and formed with a depending internally and externally threaded tubular boss E, a casting F carried by the plate C and extending upward through the opening in the attaching plate and bottom of the tank to the interior thereof, said casting being formed with a housing at its top and having a delivery passage leading through said plate C, a hub G having a bearing in said housing formed in the casting F, a delivery pipe H having its lower end secured to and carried by said hub and communicating with the passage leading through the same and connecting with the delivery passage in the casting F; substantially as described.

5. A mounting for the support of a pivoted oscillating delivery pipe for gasolene tanks and the like comprising the plate C detachably secured to the bottom of the tank and formed with a depending internally and externally threaded tubular boss E and a second internally threaded boss D, a casting F having its externally threaded lower end screwed into the internally threaded upper end of the boss E and extending upward through the opening in the attaching plate and bottom of the tank to the interior thereof, said casting being formed with the laterally disposed housing f' at its top and having a delivery passage through it, a hub G having its bearing in the laterally disposed housing f' of the casting F and having connecting radial and axial passages, the latter communicating with the passage through the casting F, a delivery pipe H secured to and carried by the hub G and communicating with the passages extending through it, and a drain cock d secured in the boss D of the plate C; substantially as described.

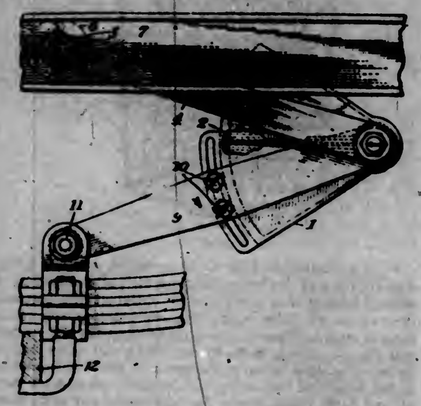
[Claims 6 to 8 not printed in the Gazette.]

1,203,579. BATH-TUB SHOWER AND NEEDLE BATH. HARRY A. CALDOW, Indianapolis, Ind. Filed May 12, 1916. Serial No. 97,163. (Cl. 4—26.)



The combination, with a bath tub having hot and cold water faucets, of a shower and needle bath attachment, water conducting means communicating with the latter, said means having an outlet, a gland at said outlet secured to said conducting means, a pipe telescoping through said gland, and an elastic tip on the outer end of the pipe to receive the nozzle with a tight fit.

1,203,580. SHOCK-ABSORBER CONNECTION. RUSSELL S. CARTER, Hewlett, N. Y. Filed Feb. 24, 1914. Serial No. 820,482. (Cl. 21—105.)



1. An elbow type shock-absorber for vehicles, comprising in combination a closed liquid-containing casing, an oscillatory piston member therein, having a hub, two divergent lever arms concentrically disposed with reference to the hub and provided with means at their free ends for pivotally connecting them respectively to the parts between which shock is to be absorbed, one of said arms being fixed to the hub and the other being movably engaged to the vertical side wall of the casing and provided with clamping means whereby said closed casing may be secured thereto in different angular positions.

2. A vehicle shock-absorber, comprising a closed liquid-containing casing having parallel vertical side walls, an oscillatory piston therein having a hub, a lever arm on such hub adapted at its outer end for connection with one of the parts between which shock is to be absorbed, and a member adjustably secured to one of the said vertical side walls and adapted for connection to the other of the parts between which shock is to be absorbed.

3. A vehicle shock-absorber comprising a closed substantially sector-shaped liquid-confining casing having parallel vertical side walls, an oscillating piston between such walls and a hub for the piston projecting to the exterior thereof, in combination with a pair of members respectively connecting said hub and casing to the parts between which the shock is to be absorbed, both of said means being on the same side of the closed casing and one of them being adjustably fixed to the proximate vertical side wall thereof, whereby the casing can be centered with reference to the piston therein.

4. A vehicle shock-absorber comprising a closed liquid-containing casing having an oscillatory piston therein and a hub for said piston extending to the exterior of the casing, a lever arm on said hub, a boss on the casing, a second arm member hinged to such boss and means for fixing the latter member in different angular positions with reference to said boss.

5. A vehicle shock-absorber comprising a closed liquid-containing casing, an oscillating piston therein connected to one of the parts between which shock is to be absorbed, and means for securing the casing to the other of the parts between which shock is to be absorbed, comprising a member pivotally mounted at one point on the casing and having a bolt-and-slot connection at a remote point with said casing.

[Claim 6 not printed in the Gazette.]

bearing surfaces and gear teeth on said ring, a supporting ring mounted on the machine frame, cylindrical and flange bearing surfaces on said supporting ring fitting and entirely covering the corresponding surfaces on the rotary element ring, said cylindrical bearing surfaces adapted to support the weight of said rotary element and said flange bearing surfaces adapted to locate the rotary element in the supporting ring endwise of the axis of rotation of the rotary element, said supporting ring entirely inclosing the gear teeth and a driving gear contained within said supporting ring adapted to rotate said rotary element.

2. In a mixing machine, a rotatable element, a supporting, guiding and rotating means for said rotatable element consisting of a single ring attached to or forming part of the rotatable element, said ring being located substantially around the center of gravity of said rotatable element with both ends of said element accessibly protruding from said ring, cylindrical and flange bearing surfaces and gear teeth on said ring, a supporting ring having trunnions projecting therefrom, said trunnions being mounted to turn on the machine frame, cylindrical and flange bearing surfaces on said supporting ring fitting and entirely covering the corresponding surfaces on the rotatable element ring, said supporting ring entirely inclosing said gear teeth, a driving shaft extending through one of said trunnions, and a driving gear on said shaft contained within said supporting ring adapted to rotate said rotatable element.

1,203,576. TRAINMAN'S FLASH-LIGHT. JAMES E. BROADHEAD, Bay City, Mich. Filed Jan. 18, 1915. Serial No. 2,980. (Cl. 240—9.5.)



1. A flash-light comprising a cylindrical casing open at both ends, a lens and light detachably positioned at each end of the casing, a second casing located within the first casing and containing electric batteries, a switch located on the outside of the outer casing including a member movable longitudinally of the casing, connections between the lights, batteries and switch for lighting either light by operation of the switch in opposite directions, and means for retaining the batteries in position within the inner casing operated by the connection of one of the lamps to the casing, substantially as described.

2. In a flash-light, a cylindrical outer casing having open ends, an inner cylindrical casing lying lengthwise inside the outer casing, a strip having an upturned end secured to the inner side of the outer casing, a second upturned end hinged to the opposite end of the strip and means for detachably engaging a light against each of said upturned ends and for detachably securing a lens at each end of the outer casing, substantially as described.

3. Means for holding batteries and connecting them in series in an electric flash-light comprising a strip having an upturned integral end and a similar end hinged to the opposite end of the strip, a cylindrical casing lying between the said upturned ends, batteries positioned end to end within said casing and yielding contact connections between the opposed poles of the batteries.

4. In an electric flash-light, an outer cylindrical casing open at both ends, a lens positioned at each end of the casing, a cap detachably securing each lens in place, a reflector having an electric light located back of each lens and bearing thereagainst, a metal strip connected to an inner side of the casing having an integral upturned end against which one light contacts, an insulating block positioned adjacent said end, a member hinged to the other end of said strip and lying vertically against which the other light contacts, electrical connections between the lights and reflectors, an inner casing positioned between the insulating block and the hinged member, batteries connected in series within said casing, a pole of one of said batteries having contact with the hinged member, connections leading from the reflectors, a connection leading from the opposed pole of the other battery and switch mechanism for completing a current through a gap between said last named connection and either of the connections from the reflectors.

5. In a flash-light, a cylindrical casing having a lens secured at each end, an electric light and reflector back of each lens, an electric battery within the casing, electrical connections between the light and their respective reflectors, connections between the lights and one pole of the electric battery, electrical conductors connecting with each of the reflectors and leading therefrom to a position adjacent the center of the casing, a connection leading from the opposite pole of the battery to a point adjacent the said conductors but separated therefrom and switch mechanism for bridging the gap between said last conductor and either of the last named conductors, substantially as described.

[Claim 6 not printed in the Gazette.]

1,203,577. PROCESS AND PRODUCT OF TREATING WOOD. HARRY W. BRADY, Bayside, N. Y., assignor to The Lundin Company, Inc., Long Island City, N. Y., a Corporation of New York. Filed Oct. 27, 1915. Serial No. 58,232. (Cl. 99—12.)

1. The process of preserving wood which consists in coating or lining the walls of its recesses or cavities with a fluid mixture of paraffin and bitumen and causing said mixture to harden in the wood.

2. The process of preserving wood which consists in coating or lining the walls of its recesses or cavities with a fluid mixture of paraffin and asphalt and causing said mixture to harden in the wood.

3. The process of preserving wood which consists in coating or lining the walls of its recesses or cavities with a fluid mixture containing bitumen and causing said mixture to harden in the wood.

4. The process of preserving wood which consists in coating or lining the walls of its recesses or cavities with a fluid mixture containing asphalt and causing said mixture to harden in the wood.

5. As a new article of manufacture, wood the walls of the recesses or cavities of which are coated or lined with a hardened mixture of paraffin and bitumen.

[Claims 6 to 9 not printed in the Gazette.]

1,203,578. SURFACE DISCHARGE APPARATUS FOR TANKS. ROBERT A. BROOKS, Chicago, Ill. Filed Jan. 22, 1913. Serial No. 743,481. (Cl. 137—21.)



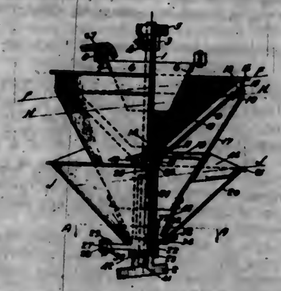
1. A mounting for the support of a pivoted oscillating delivery pipe for gasolene tanks and the like comprising a base plate secured to the bottom of the tank and serving to close an opening therein, a casting carried by said base plate and extending upward through said opening into the tank and provided with a delivery passage leading through said plate, and a pivotal support for the lower end of the delivery pipe having its bearings in said casting and provided with a passage communicating with the delivery pipe and with the passage in the casting; substantially as described.

2. A mounting for the support of a pivoted oscillating delivery pipe for gasolene tanks and the like comprising a base plate detachably secured to the bottom of the tank and serving to close an opening therein, a casting carried by said base plate and extending upward through the opening in the attaching plate and bottom of the tank

said frame, a back pair of legs pivoted to said base, a front pair of legs pivoted to said base and adapted to carry with said back pair of legs said seat frame and so proportioned in relation to the back pair of legs that said seat can be moved within its frame and then folded over with the frame and reversed so as to lie flat with said pairs of legs against said chair base, a folding arm rest pivotally attached to the chair frame, a pawl pivoted to said arm rest and adapted to hold said arm rest in position when set for use.

[Claim 6 not printed in the Gazette.]

1,203,573. MINING-MACHINE. SOPHUS P. C. BORSON, Salida, Colo. Filed Nov. 27, 1914. Serial No. 874,295. (Cl. 83—82.)



1. In combination, a guide casing mounted for rotation upon an inclined axis, a concentrating receptacle mounted upon an inclined axis below and concentric with said guide casing and adapted to receive material for concentration therefrom, said concentrating receptacle partly inclosing said guide casing, means attached to said guide casing adapted to elevate and discharge tailings and gangues from said concentrating receptacle, means for rotating said guide casing about its axis, and means for oscillating said concentrating receptacle about its axis, substantially as shown and described.

2. In combination, a guide casing mounted for rotation upon an inclined axis, a concentrating receptacle mounted upon an inclined axis below and concentric with said guide casing and adapted to receive material for concentration therefrom, said concentrating receptacle partly inclosing said guide casing, means attached to said guide casing adapted to elevate and discharge tailings and gangues from said concentrating receptacle, controllable means for discharging concentrates at the bottom of said concentrating receptacle, means for rotating said guide casing about its axis, and means for oscillating said concentrating receptacle about its axis, substantially as shown and described.

3. In combination, a guide casing mounted for rotation upon an inclined axis, a concentrating receptacle mounted upon an inclined axis below and concentric with said guide casing and adapted to receive material for concentration therefrom, said concentrating receptacle partly inclosing said guide casing, means attached to said guide casing adapted to elevate and discharge tailings and gangues from said concentrating receptacle, controllable means for discharging concentrates at the bottom of said concentrating receptacle, agitating means to prevent the formation of sediment in said concentrating receptacle, means for rotating said guide casing about its axis, and means for oscillating said concentrating receptacle about its axis, substantially as shown and described.

4. In combination, a concentrating receptacle open at the top and converging from top to bottom mounted upon an inclined axis, said receptacle having its bottom pierced to form a plurality of concentrates discharge outlets, controllable means for covering and uncovering said discharge outlets, a guide casing mounted for rotation upon an inclined axis within and partly above said concentrating receptacle, said guide casing being adapted to discharge material for concentration centrally above the bottom of said concentrating receptacle in a manner to prevent contact between entering unconcentrated material and departing treated material, means attached to said guide casing adapted to elevate and discharge tailings and gangues from said concentrating receptacle, means for rotating said guide casing about its axis, and means for vibrating said concentrating receptacle about its axis, substantially as shown and described.

5. In combination, a concentrating receptacle open at the top and converging from top to bottom mounted upon an inclined axis, said receptacle having its bottom pierced to form a plurality of concentrates discharge outlets, controllable means for covering and uncovering said discharge outlets, a guide casing mounted for rotation upon an inclined axis within and partly above said concentrating receptacle, said guide casing being adapted to discharge material for concentration centrally above the bottom of said concentrating receptacle in a manner to prevent contact between entering unconcentrated material and departing treated material, flanged vanes attached to and rotatable with said guide casing and adapted to elevate and discharge tailings and gangues from said concentrating receptacle, means for rotating said guide casing about its axis, agitating means to prevent the formation of sediment in said concentrating receptacle, and means for oscillating said concentrating receptacle about its axis, substantially as shown and described.

[Claims 6 to 13 not printed in the Gazette.]

1,203,574. ENGINE. WALTER BOX, Georgetown, Tex. Filed Sept. 4, 1915. Serial No. 49,063. (Cl. 123—80.)



In an engine, a cylinder, a head therefor having a cylindrical bore, said head being provided with an inlet port and an exhaust port, a hollow cylindrical body portion rotatably disposed within said bore, said body portion having an opening through one side arranged to register successively with said inlet and said exhaust ports, means for rotating said cylindrical body portion, said cylindrical body portion being provided on its periphery with a circumferential groove in alinement with said opening, the ends of the groove terminating short of the opening on each side thereof, and a spring expansion ring disposed within the groove for free expansion and contraction therein and arranged to cover and uncover said ports.

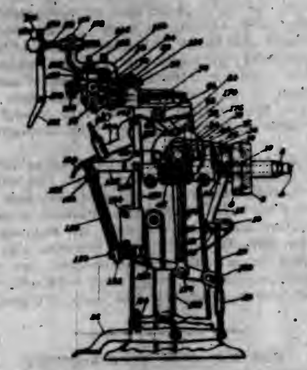
1,203,575. MOUNTING FOR DRUMS OF CONCRETE-MIXERS. EDWARD W. BRACKENBURY, Milwaukee, Wis., assignor to T. L. Smith Company, Milwaukee, Wis. Filed Mar. 31, 1913. Serial No. 757,931. (Cl. 83—73.)



1. In a mixing machine, an element adapted to be rotated, a supporting guiding and rotating means for the rotating element consisting of a single ring attached to or forming part of the rotary element, said ring being located substantially around the center of gravity of said rotary element with both ends of said rotary element accessibly protruding from said ring, cylindrical and flange

present an inclined character-bearing surface normally in front of said element and substantially at right angles to the operator's line of vision, said ring being non-rotatable upon the key head, said element being rotatable within the ring to bring the said surface into a position behind said element where the latter will substantially conceal the said surface.

1,203,571. LAST-PULLING MACHINE. JOHN M. BENJAMIN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 10, 1915. Serial No. 13,385. (Cl. 12—1.)



1. A last pulling machine having, in combination, means for holding a shoe, means for holding a last, mechanism constructed and arranged to effect relative movement of said shoe holding means and said last holding means substantially perpendicularly to the plane of the shoe bottom and lengthwise of the shoe and last to separate said shoe and last, and auxiliary means associated with said mechanism and coöperating with said mechanism in the production of said relative movement.

2. A last pulling machine having, in combination, means for holding a shoe, means for holding a last, mechanism for relatively moving said shoe holding means and said last holding means to effect relative movement of the shoe and last to separate said shoe and last, and auxiliary means associated with said mechanism and constructed and arranged to regulate said relative movement automatically according to the resistance to separation offered by the shoe and last at different stages in a last pulling operation.

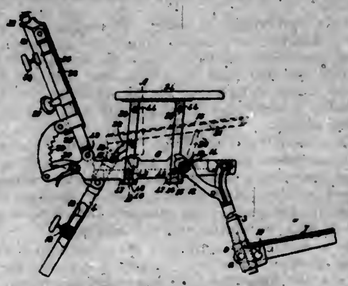
3. A last pulling machine having, in combination, a shoe holder, a last holder, mechanism for relatively moving said holders to effect relative movement of a shoe and last to separate said shoe and last, and auxiliary means operating upon said mechanism to accelerate said relative movement as permitted by said shoe and last.

4. A last pulling machine having, in combination, a shoe holder, a last holder, mechanism for relatively moving said holders to effect movement of a shoe and last to separate said shoe and last, and auxiliary means operating upon said mechanism to retard said relative movement to prevent injuriously straining the shoe.

5. A last pulling machine having, in combination, shoe holding means, last holding means, mechanism for effecting relative movement of said shoe holding means and said last holding means in directions substantially perpendicular to the plane of the shoe bottom and lengthwise of the shoe and last to separate a shoe and last, and auxiliary means coacting with said mechanism and exerting forces tending to accelerate such relative lengthwise movement of said shoe and last to facilitate their separation.

[Claims 6 to 26 not printed in the Gazette.]

1,203,572. DENTAL CHAIR. CHARLES FREDERICK BETTS, North Finchley, London, England, assignor to Dental Manufacturing Co., Ltd., London, England. Filed Mar. 16, 1915. Serial No. 14,807. (Cl. 155—7.)



1. A folding dental chair comprising a base, a seat frame, a movable chair seat within said frame, means for raising said chair seat and tilting it to a desired position above said frame, a back pair of legs pivoted to said base, a front pair of legs pivoted to said base and adapted to carry with said back pair of legs said seat frame and so proportioned in relation to the back pair of legs that said seat can be moved within its frame and then folded over with the frame and reversed so as to lie flat with said pairs of legs against said chair base.

2. A dental chair comprising a base, a seat frame, a back pair of legs pivoted to said base, a front pair of legs pivoted to said base and adapted to carry with said back pair of legs said seat frame and so proportioned in relation to the back pair of legs that said seat frame can be folded over and reversed so as to lie flat with said pairs of legs against said chair base, a movable chair seat adapted to lie within said frame when reversed and to be raised and tilted to a desired position above said frame when in the extended position, a pair of lugs pivoted to the underside of the chair seat, telescoping members attached to said lugs and adapted to telescope in the upper ends of said back pair of legs, a series of ratchet teeth on the underside of said chair seat, and pawls pivoted to said seat frame and adapted to engage with one or other of said ratchet teeth.

3. A folding dental chair comprising a base, a seat frame, a movable chair seat within said frame, means for raising said chair seat and tilting it to a desired position above said frame, a back pair of legs pivoted to said base, a front pair of legs pivoted to said base and adapted to carry with said back pair of legs said seat frame and so proportioned in relation to the back pair of legs that said seat can be moved within its frame and then folded over with the frame and reversed so as to lie flat with said pairs of legs against said chair base, a pair of latches respectively pivotally mounted upon said front pair of legs, members projecting from the sides of the seat frame and adapted to be engaged by said latches and to hold said chair in the extended position.

4. A folding dental chair comprising a base, a seat frame, a movable chair seat within said frame, means for raising said chair seat and tilting it to a desired position above said frame, a back pair of legs pivoted to said base, a front pair of legs pivoted to said base and adapted to carry with said back pair of legs said seat frame and so proportioned in relation to the back pair of legs that said seat can be moved within its frame and then folded over with the frame and reversed so as to lie flat with said pairs of legs against said chair base, a pair of hooked members respectively pivotally mounted on said front pair of legs, pins projecting from the sides of the seat frame adapted to be engaged by said hooked members, thumb nuts adapted to be screwed against said hooked members when in engagement with said pins to lock said chair seat when in the extended position.

5. A folding dental chair comprising a base, a seat frame, a movable chair seat within said frame, means for raising said chair seat and tilting it to a desired position above

electrically actuated means for automatically locking said guard in closed position during the rotation of said member, said means being operative independently of the electromotive force generated by the motor acting as a generator.

2. In a centrifugal extractor, the combination with a rotating member, of a safety guard for protecting said member, electrically actuated means for locking said guard in closed position, and a circuit for said electrically actuated means independent of the armature circuit and comprising a controller automatically operated by said rotating element.

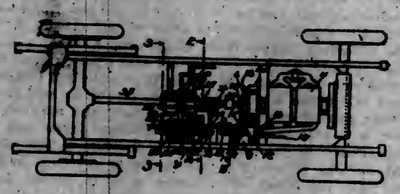
3. In a centrifugal extractor, the combination with a rotating member, of a safety guard for protecting said member, electrically actuated means for locking said guard in closed position, and centrifugal means operated by the rotation of said member for automatically controlling the circuit of said electrically actuated means.

4. In a centrifugal extractor, the combination with a rotating member, of a safety guard for protecting said member, a bolt connected with said guard and reciprocated by the opening and closing thereof, an electromagnet, a sliding plunger actuated by said electromagnet and having a path of movement intersecting that of said bolt, and means actuated by said rotating member for controlling the circuit of said electromagnet, whereby during the operation of said member said plunger will obstruct the movement of said bolt necessary to permit the opening of said guard.

5. In a centrifugal extractor, the combination with a rotating basket, of a cover for said basket, means for rotating said basket, electrically actuated means for locking said cover in closed position, and centrifugal means operated by the rotation of said basket for automatically controlling the circuit of said electrically actuated means.

[Claims 6 to 15 not printed in the Gazette.]

1,203,568. COMBINED ENGINE-STARTING AND GEAR-SHIFTING APPARATUS. ALEXANDER G. BATENEL, Cincinnati, Ohio. Filed Sept. 14, 1914. Serial No. 861,502. (Cl. 74—59.)



1. In combination in an engine starting and gear shifting apparatus, an engine, a change speed gear mechanism, a clutch, a motor, means adapted to operate said clutch and said gear mechanism, and a second means adapted to operatively connect the motor with said engine or said first mentioned means.

2. A combined gear shifting and engine starting apparatus, comprising an engine, a change speed gear mechanism, a motor, driving means connected with said engine, a second driving means connected with said gear mechanism, and a clutch adapted to operatively connect said first or said second mentioned means to said motor.

3. In combination in a combined clutch operating, gear shifting and engine starting device, an engine, change speed gears, a clutch adapted to operatively connect said engine with said change speed gears, a combined clutch operating and gear shifting mechanism connected with said clutch and said change speed gears, a motor, driving means connected with said engine, a second driving means connected with said mechanism, and a second clutch adapted to operatively connect said first or said second mentioned means to said motor.

1,203,569. PAPER VESSEL. GEORGE W. BEARLE, New York, N. Y., assignor to The Single Service Package Corporation, New York, N. Y., a Corporation of New Jersey. Filed Sept. 27, 1915. Serial No. 52,927. (Cl. 229—12.)



1. A vessel having a paper body portion provided with an exterior bead, an interior bead, a disk larger than the interior of said vessel fitting the interior of said first named bead, said disk contacting with and overlying said interior bead, and the extreme edge portion of said vessel being turned in, disposed parallel to said body portion, and crimped down against the outer face of said disk to lock it securely against said interior bead, substantially as described.

2. A paper body portion of a tubular form provided with a closure comprising a disk larger than the interior of said body portion; the extreme edge of said body portion being turned over and crimped down parallel to said body portion against one face of said disk; the material of said body portion being forced inward on the other side of said disk to form an annular locking shoulder; and the material of said body portion being forced outwardly to form an exterior bead in which said disk rests, substantially as described.

1,203,570. KEY-TOP FOR TYPE-WRITERS. ROBERT E. BRAUBIEN, Chicago, Ill. Filed May 28, 1915. Serial No. 30,897. (Cl. 197—103.)



1. A key top comprising a main finger-engaged elastic element, a character-bearing elastic element disposed at an incline with respect to the finger-engaged surface of said main element, and a substantially rigid ring mounted on a key head and partially housing one of said elements and securing both thereof to said key head.

2. A key top comprising a main finger-engaged elastic element, a character-bearing elastic element disposed at an incline with respect to the finger-engaged surface of said main element, and a rigid ring partially housing one of said elements and securing both thereof to a key head ring and affording a cushion normally bridged over the forward edge of said ring.

3. A key top comprising a main finger-engaged elastic element, a character-bearing elastic element disposed at an incline with respect to the finger-engaged surface of said main element, and a ring non-rotatably mounted on a key head and partially housing at least one of said elements and securing both thereof to said key head, said elements being rotatable within the ring.

4. A key top comprising a finger-engaged cushion element having a peripheral groove, a substantially rigid clamping ring having a contracted upper end portion entering said groove, said ring securing the cushion element to a key head, and a soft, resilient and character-bearing element integral with the cushion element and overhanging said ring for guarding the operator's finger against direct contact with the forward edge of said ring.

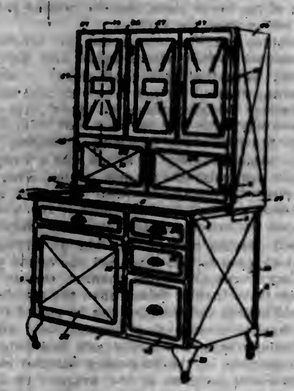
5. A key top comprising a finger-engaged element, a ring partially housing said element and securing the same to a key head, a tab associated with said element and bridging over the forward end of said ring so as to

tion by the roll when of full diameter to hold the two elements in fixed relation to rotate as a unit, said pawl being releasable to allow a relative movement of the two elements as the roll becomes reduced in diameter a certain extent in use, and a spring tending to resist forward rotation of the roll adapted to turn the parts to original position upon release of the roll.

5. In a paper roll holder, a bracket, a shaft adapted to rotatably support a paper roll, a limiting device rotatable on the shaft, a stop limiting the extent of rotation of said device in either direction, an element rotatable with the roll adapted to rotate the limiting element and having limited movement relative thereto, a pawl adapted to hold the two elements in fixed relation to rotate as a unit, said pawl being adapted to be held in operative relation by the roll when of certain diameter, a spring for forcing the pawl out of operative relation when the roll has been reduced in diameter to an extent sufficient to release the pawl, and a spring yieldably resisting forward rotation of the roll and adapted to return the roll and rotatable elements to original position upon release of the roll.

[Claims 6 to 10 not printed in the Gazette.]

1,203,589. KITCHEN-CABINET. DWIGHT R. CURTENIUS, Kalamazoo, Mich., assignor to Kalamazoo Stove Company, Kalamazoo, Mich. Filed June 15, 1914. Serial No. 845,135. (Cl. 45—16.)



1. A cabinet structure comprising upright corner members, angle iron end top pieces secured to the upper ends of said corner members, said top pieces being provided with upwardly projecting arms having inwardly projecting flanges at their upper edges constituting top slides, and a top comprising a rectangular angle iron frame, the rear members of said frame being provided with L-shaped slots open at their lower edges and adapted to receive the said slides and their supporting arms with the projections formed by the slots extending under the slides and constituting keepers, said slides having L-shaped slits, the slit portions being struck down to provide openings through which said keepers may be introduced, the downturned portions constituting guides for the keepers.

2. A cabinet structure comprising upright corner members, end top pieces secured to the upper ends of said corner members, said top pieces being provided with upwardly projecting arms having upwardly projecting flanges at their upper edges constituting top slides, and a top comprising a rectangular angle iron frame, the rear members of said frame being provided with L-shaped slots open at their lower edges and adapted to receive the said slides and their supporting arms with the projections formed by the slots extending under the slides and constituting keepers, said slides having L-shaped slits, the slit portions being struck down to provide openings through which said keepers may be introduced, the downturned portions constituting guides for the keepers.

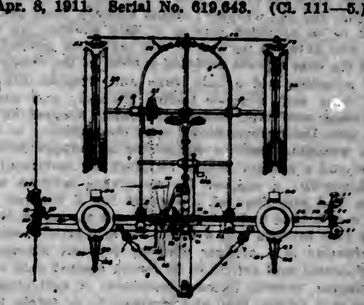
3. A cabinet structure comprising upright corner members, end top pieces secured to the upper ends of said corner members, said top pieces being provided with upwardly projecting arms having inwardly projecting flanges at their upper edges constituting top slides, and a top comprising a rectangular angle iron frame, the rear members of said frame being provided with L-shaped slots open at their lower edges and adapted to receive the said slides and their supporting arms with the projections formed by the slots extending under the slides and constituting keepers, said slides having L-shaped slits, the slit portions being struck down to provide openings through which said keepers may be introduced, the downturned portions constituting guides for the keepers.

1,203,590. MEDICATED POULTRY-BAND. ISAAC OTIS DAY, Ottumwa, Iowa. Filed Mar. 2, 1915. Serial No. 11,612. Renewed Mar. 9, 1916. Serial No. 83,171. (Cl. 119—156.)



A medicated ring adapted to be passed over the leg of a fowl, comprising a resilient hollow annular casing which is split and separated at one point along its circumference, and an absorbent material containing a suitable chemical located inside said casing.

1,203,591. CLUTCH MECHANISM FOR CORN-PLANTERS. SAMUEL K. DENNIS, Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation, a Corporation of New Jersey. Filed Apr. 8, 1911. Serial No. 619,643. (Cl. 111—5.)



1. In a planter, a seed shaft, a rotary clutch mechanism controlling the movement thereof including a pivoted pawl, and an adjustable swinging cam having a plurality of pawl engaging surfaces thereon independently engageable with said pawl in different positions of said cam.

2. In a planter, a seed shaft, rotary clutch mechanism controlling the connection thereof including a pivoted pawl, a cam pivoted at one side of said shaft having pawl engaging arms extending on opposite sides of said shaft, and means for adjusting said cam about its pivot.

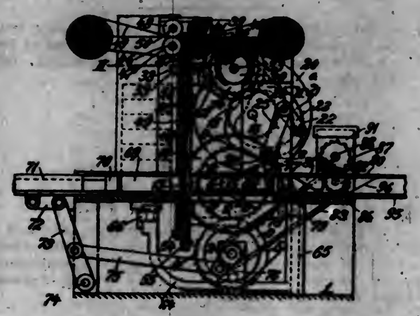
3. In a planter, a seed shaft, rotary clutch mechanism controlling the connection thereof including a pivoted pawl, a cam pivoted at one side of said shaft having pawl engaging arms extending on opposite sides of said shaft, and means carried by one of said pawl engaging arms above said shaft for adjusting said cam about its pivot.

4. In a planter, a seed shaft, rotary clutch mechanism controlling the connection thereof including a pivoted pawl, a cam pivoted at one side of said shaft having pawl engaging arms extending on opposite sides of said shaft, and cam adjusting means supported by said cam in the interval between its arms and engageable with said frame.

5. In a planter, a seed shaft, rotary clutch mechanism controlling the connection thereof including a pivoted pawl, a cam pivoted at one side of said shaft having pawl engaging arms protruding therefrom on opposite sides of said shaft, one of said arms having an arcuate cam surface and the other having a projection thereon, and means for adjusting said cam whereby said pawl may engage either said cam surface or said projection.

[Claims 6 to 13 not printed in the Gazette.]

1,203,592. WRAPPING-MACHINE. HILARIO DE ESCOBALES, New York, N. Y. Filed Feb. 10, 1915. Serial No. 7,280. (Cl. 93—2.)



1. A wrapping machine comprising a wrapper folding channel; means whereby an article, a strip of narrow tape and a wrapper can be forced into said wrapper folding channel, whereby certain portions of the tape and wrapper are folded upon the article, said tape being folded between the article and the wrapper; means whereby paste can be applied to an unfolded portion of said wrapper, an unpasted and unfolded portion of said tape then protruding beyond the edge of said unfolded portion of the wrapper; means whereby said article, tape and wrapper can be moved from said wrapper folding channel; and means for causing said tape and paste coated wrapper to be folded upon the wrapper folded upon the article.

2. A wrapping machine comprising a wrapper folding channel and a plunger having reciprocating movement in line therewith; a support for an article between said plunger and said channel, a support for a wrapper between said article and said channel, and a support for a narrow tape between said wrapper and said article; means for actuating said plunger whereby forward movement thereof causes said article to be forced against said tape and wrapper, further forward movement of said plunger causing said article, tape and wrapper to be forced into said wrapper folding channel, whereby said tape and wrapper are folded upon the article; means whereby paste can be applied to an unfolded portion of said wrapper, an unpasted and unfolded portion of said tape then protruding beyond the edge of said unfolded portion of the wrapper; means whereby said article tape and wrapper can be moved from said wrapper folding channel; and means for causing said tape and paste coated wrapper to be folded upon the wrapper folded upon the article.

3. A wrapping machine comprising a stationary frame and an intermittently rotatable wrapper folding channel section having upper and lower plates and inwardly extending side projections; means whereby an article, a strip of narrow tape, and a wrapper can be forced into said rotatable channel section, whereby said upper and lower plates cause said tape and wrapper to be folded upon the article, and whereby said inwardly extending side projections cause certain other portions of the wrapper to be folded upon the article; means for causing rotary movement of said channel section, whereby unfolded portions of said wrapper and tape are forced against said stationary frame thereby causing said tape and wrapper to be further folded upon the article; means whereby paste can be applied to an unfolded portion of said wrapper, an unpasted and unfolded portion of said tape then protruding beyond the edge of said unfolded portion of the wrapper; and means whereby said article, tape and wrapper can be moved from said channel section, whereby said unpasted tape and said paste coated wrapper are forced against said stationary frame, thereby causing said tape and paste coated wrapper to be folded upon the wrapper folded upon the article.

4. A wrapping machine comprising a wrapper folding channel having inwardly extending side projections, an upper plate provided with downwardly extending inclined side folders, and a lower plate provided with upwardly extending inclined side folders; means whereby an article, a strip of narrow tape, and a wrapper can be forced into said wrapper folding channel, whereby said upper and lower plates cause said tape and wrapper to be folded upon the article; a portion of said tape then protruding beyond one edge of said wrapper; means whereby said article, tape and wrapper can be forced through said wrapper folding channel whereby certain unfolded side portions of the wrapper are forced against said inwardly extending side projections, thereby causing said side portions to be folded upon the article, and whereby upper unfolded side flaps of the wrapper are forced against said inclined side folders of the upper plate thereby causing said upper flaps to be folded upon the article; and lower unfolded side flaps of the wrapper are forced against said inclined side folders of the lower plate, thereby causing said lower flaps to be folded upon the article.

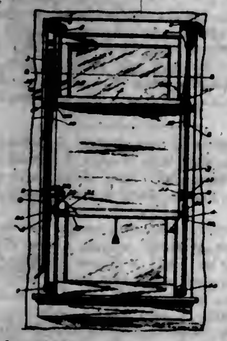
5. A wrapping machine comprising an intermittently rotatable channel section having upper and lower plates and inwardly extending side projections; a stationary wrapper folding channel in line therewith, and having inwardly extending side projections, an upper plate provided with downwardly extending inclined side folders, and a lower plate provided with upwardly extending inclined side folders; means whereby an article and a wrapper can be forced into said rotatable channel section, whereby said upper and lower plates and inwardly extending side projections thereof cause certain portions of the wrapper to be folded upon the article; means for causing rotary movement of said channel section, whereby an unfolded portion of said wrapper is forced against one of the plates of said stationary wrapper folding channel, thereby causing said wrapper to be further folded upon the article; means whereby said article and wrapper can be moved from said rotatable channel section and through said stationary wrapper folding channel, whereby said inwardly extending side projections of the stationary channel cause certain unfolded side portions of the wrapper to be folded upon the article, said downwardly extending inclined side folders causing upper unfolded side flaps of the wrapper to be folded down upon the article; means whereby paste can be applied to lower unfolded side flaps of the wrapper during their travel through said stationary channel; and said upwardly extending inclined side folders causing said lower paste coated side flaps to be folded up against said folded upper flaps.

[Claims 6 to 11 not printed in the Gazette.]

1,203,593. SHADE-CARRIER. HAYWOOD GUION DEWEY, Westminster, and OSCAR D. GREEN, Baltimore, Md. Filed Aug. 3, 1914. Serial No. 854,844. (Cl. 156—27.)

1. In a window shade carrier, vertical guide rods, each rod being formed in a plurality of pieces, the adjacent ends of the several pieces being reduced, means for supporting the upper and lower ends of the rods and intermediate brackets, each bracket having a ferrule of outside diameter equal to the diameter of the rod, the opening in the ferrule being adapted to receive the adjacent ends of the several pieces forming the guides.

2. In a window shade carrier, vertical guide rods, each rod being formed in a plurality of pieces, the adjacent ends of the several pieces being reduced, means for supporting the upper and lower ends of the rods, intermediate brackets, each bracket having a ferrule of outside diameter equal to the diameter of the rod, the opening in the ferrule being adapted to receive the adjacent ends of the several pieces forming the guides, and followers mounted on the rod and provided with ears to receive the pivots of the curtain roll, the followers being in the form of longitudinally slotted tubes, the slots being separated from the points of suspension by an arc of substantially ninety degrees.



3. In a window shade carrier, vertical guide rods, each rod being formed in a plurality of pieces, the adjacent ends of the several pieces being reduced, means for supporting the upper and lower ends of the rods, intermediate brackets, each bracket having a ferrule of outside diameter equal to the diameter of the rod, the opening in the ferrule being adapted to receive the adjacent ends of the several pieces forming the guides, and followers mounted on the rod and provided with ears to receive the pivots of the curtain roll, the followers being in the form of longitudinally slotted tubes, the slots being separated from the points of suspension by an arc of substantially ninety degrees, the intermediate brackets having an L-shaped web supporting the ferrules.

4. In a window shade carrier, vertical guide rods, each rod being formed in a plurality of pieces, the adjacent ends of the several pieces being reduced, means for supporting the upper and lower ends of the rods, intermediate brackets, each bracket having a ferrule of outside diameter equal to the diameter of the rod, the opening in the ferrule being adapted to receive the adjacent ends of the several pieces forming the guides, and followers mounted on the rod and provided with ears to receive the pivots of the curtain roll, the followers being in the form of longitudinally slotted tubes, the slots being separated from the points of suspension by an arc of substantially ninety degrees, the brackets and followers being made of sheet metal.

5. In a window shade carrier in combination vertical guide rods, intermediate supporting members for the rods in the form of an L-shaped bracket, followers mounted on the rods and provided with means for supporting a curtain roll, the followers being in the form of longitudinally slotted tubes and means for supporting the vertical rods at their ends.

[Claims 6 and 7 not printed in the Gazette.]

1,203,594. COLOR CONCENTRATE FOR EDIBLE FATS. CARLETON ELLIS, Montclair, N. J. Filed Dec. 16, 1915. Serial No. 67,139. (Cl. 99—13.)

1. A butter coloring composition comprising the dry liquid constituents of butter fat freed from considerable quantities of the other constituents of normal butter, and being highly charged with artificial coloring matter capable of tinting butter a yellow shade.

2. A butter color concentrate comprising the liquid constituents only of butter fat substantially free from water and casein and at least partially freed from stearin and saturated with yellow coloring matter.

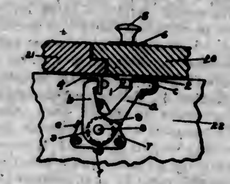
3. A butter color concentrate comprising those constituents only of butter fat which are liquid at ordinary temperatures, the same being substantially free from water and from casein, said material being substantially saturated with yellow coloring matter, all in a sterile condition.

4. A butter color concentrate comprising the liquid constituents only of butter fat substantially saturated with yellow coloring matter.

5. A butter coloring composition comprising at least the normally liquid constituents of butter fat free from casein and containing materially less stearin than ordinary butter, and substantially saturated with yellow coloring material.

[Claims 6 to 9 not printed in the Gazette.]

1,203,595. DOOR-CATCH. CHRISTIAN EVENSEN, Choteau, Mont. Filed Mar. 13, 1916. Serial No. 83,852. (Cl. 70—119.)



In a door catch, a foot-shaped arm, being pivoted at its inner end to shelf or case, and having its longitudinal center line disposed obliquely to the plane of the closed door; in conjunction with door parts comprising a spring-actuated plunger and an adjacent hook so located that when the door is being closed, the inner end of the plunger strikes the arm near its outer end, the aforesaid oblique disposal of the arm, together with the closing movement of the door, causing the arm to engage the hook, in which engagement the arm and the hook are retained by the plunger, all substantially as described for the purpose specified.

1,203,596. DELIVERY APPARATUS. EDWARD J. FERINGME and JOHN O'NEAL, Spokane, Wash. Filed Aug. 28, 1916. Serial No. 117,829. (Cl. 258—26.)



1. A delivery apparatus comprising a plurality of carriers, a holder for each carrier, said holders being arranged in a row and the holders beyond the first one in the row being slidable, means for sustaining the slidable holders above the level of the first holder, and means for releasing the slidable holders in succession.

2. A delivery apparatus comprising a plurality of carriers, a holder for each carrier, said holders being arranged in a row and the holders beyond the first one in the row being slidable, means for sustaining the slidable holders

above the level of the first holder, means controlled by the first holder for releasing the first slidable holder, and means controlled by the first slidable holder for releasing the next slidable holder.

3. A delivery apparatus comprising a plurality of carriers, a holder for each carrier, said holders being arranged in a row and the holders beyond the first one in the row being slidable, means for sustaining the slidable holders above the level of the first holder, grippers on the holders for the respective carriers, said grippers having parts which move when the carriers are removed, a keeper for the sustaining means of the first slidable holder operatively connected to the movable gripper part of the first holder, and a keeper for the sustaining means of the second slidable holder operatively connected to the movable gripper part of the first slidable holder.

4. A delivery apparatus comprising a carrier, a holder for the carrier, grippers on the holder engaging the carrier, one of the grippers having a part which moves when the carrier is removed, a second carrier, a vertically slidable holder for said second carrier, a latch for sustaining said slidable holder in elevated position, a movable keeper for the latch, and an operative connection between the keeper and the aforesaid movable gripper part.

5. A delivery apparatus comprising a carrier, a holder for the carrier, grippers on the holder engaging the carrier, one of the grippers having a part which moves when the carrier is removed, a second carrier, a vertically slidable holder for said second carrier, a latch adapted to be positioned beneath the slidable holder when in elevated position for holding the same in that position, a movable keeper for the latch, and an operative connection between the keeper and the aforesaid movable gripper part.

[Claim 6 not printed in the Gazette.]

1,203,597. GRASS FLOOR-COVERING. JOHN A. FENTON, Oakland, Cal. Filed Feb. 15, 1915. Serial No. 8,158. (Cl. 139—9.)



1. A fabric composed of groups of warp strands lying in substantially straight parallel lines, a weft of cords interwoven between said strands so as to embed said warp groups of strands therein, said cords comprising a plurality of coiled strands each consisting of a plurality of coiled grass fibers.

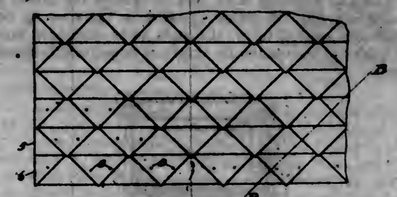
2. In a fabric comprising sea-grass twisted into strands, said strands coiled into cords and said cords forming the weft of the fabric, and groups of warp strands interwoven with and embedded by said weft strands.

1,203,598. ROOFING-STRIP. SILAS M. FORD, St. Paul, Minn. Filed Mar. 6, 1916. Serial No. 82,881. (Cl. 106—7.)

1. As an article of manufacture a roofing strip having multiple parallel plaits formed therein running at an acute angle to the lower edge of said roofing strip and a second series of parallel plaits running at a different acute angle with the lower edge of said roofing strip.

2. As an article of manufacture a roofing strip having a series of multiple parallel plaits running diagonally across said roofing strip, and a second series of multiple parallel plaits running diagonally across said roofing strip and joining said first series of plaits.

3. As an article of manufacture a roofing strip having a series of diagonal plaits therein, and a second series of diagonal plaits crossing said first series of diagonal plaits.



4. As an article of manufacture a roofing strip having a series of diagonal plaits therein, a second series of diagonal plaits crossing said first series, said two series of diagonal plaits joining below the lower edge of said roofing strip.

5. As an article of manufacture a roofing strip having therein a series of plaits running across the face of said roofing strip at one angle, a second series of diagonal plaits running across the face of said roofing strip at a different angle, each one of the plaits in said first series crossing one of the plaits of said second series, said plaits being formed in one instance right-handedly, and in the other instance left-handedly, so that a roofing strip so formed may register and lock with a similar strip superimposed on said roofing strip in shingle fashion.

[Claims 6 to 11 not printed in the Gazette.]

1,203,599. TRAIN-CHECK HOLDER. ALFRED L. FRAIL, Wellsville, Ohio. Filed Mar. 6, 1914. Serial No. 822,722. (Cl. 40—10.)



A train check holder comprising a casing open at one end and having a lateral flange surrounding its open end whereby said casing may be secured in a socketed support, a frame secured within the casing and said flange being parallel to a plane passing over the upper surface of the frame, and a pair of elastic rollers having a fixed journal in opposite sides of the frame and having the adjacent portions of their peripheries spaced apart a relatively small distance whereby said rollers will exert pressure on a train check forced therebetween.

1,203,600. CHERRY-PITTING DEVICE. MILAS O. FRENCH, Dexter, Iowa. Filed Aug. 16, 1915. Serial No. 45,664. (Cl. 146—5.)



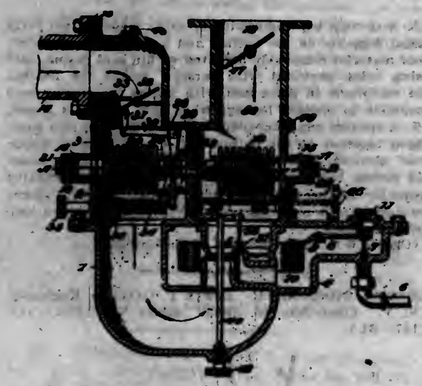
1. In a cherry pitter of the class described, a finger clasp having a rectangular portion of the sides removed, allowing the remaining sides to pass each other in the same circular plane; a portion of the ends of said remaining sides to be curved outwardly, all as substantially set forth.

2. In a cherry pitter of the class described, a bar or sheet of metal having a curved neck and eye in one end; a pointed projection on the inner edge of the sides and at the end of said eye, and set at or near right angles in an upward direction from said eye, all as substantially set forth and described.

3. In a cherry pitter, the combination of a bar or sheet of metal having an enlarged surface, a curved neck, an oblong oval eye in the neck, a pointed projection on the edge of said eye, all on one end and a finger clasp secured to the other end of said bar, substantially as set forth and for the purpose described.

4. In a fruit pitting device, a supporting member designed to be mounted along an intermediate portion of a finger, an arm projecting from each member and adapted to be engaged by a part of the finger extending forward beyond said first member, and a curved portion at the end of said arm having an eye.

1,203,601. CARBURETER. WESTON M. FULTON, Knoxville, Tenn., assignor to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Filed Feb. 4, 1914. Serial No. 816,574. (Cl. 261—39.)



1. In a carbureter, a conduit one end of which is for connection with an internal combustion engine, a valve located at the inlet end of the conduit to control the volume of air supplied to the conduit, means for spraying liquid fuel into the air in the conduit, and a compound thermosensitive device having a connection with said valve and responsive to the temperatures of the incoming air and the outgoing air mixture for operating said valve to proportion the air supply to the varying fuel supply for maintaining a constant composition of the mixture.

2. In a carbureter provided with a valve-controlled air supply and means for spraying liquid fuel into the air current, thermosensitive means exposed to both the entering air and to the air and fuel mixture for operating said inlet valve whereby a constant composition of air and fuel is delivered by said carbureter.

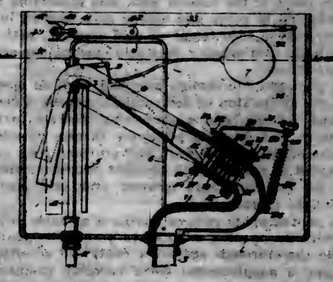
3. In a carbureter, a conduit one end of which is for connection with an internal combustion engine, a valve located at the inlet end of the conduit to control the volume of air supplied to the conduit, means for introducing liquid fuel into the air in the conduit, and means for effecting the mixture of air and fuel, a compound thermosensitive device having a connection with said valve responsive to the temperature of the incoming air and outgoing air mixture for operating said valve to proportion the air supply to the varying fuel supply for maintaining a constant composition of the mixture.

4. In a carbureter adapted for operation under reduced pressure in connection with internal combustion engines, the combination of a carbureter chamber wherein the air and fuel vapor are mixed, said chamber having an air inlet, and a valve controlled discharge outlet, a valve in said inlet controlling the air supply and a thermostatic device having one member in the path of the air supply and having a connection with the inlet valve and another member in the path of the mixed air and vapor.

5. In a carbureter, a conduit one end of which is for connection with an internal combustion engine, a valve located at the inlet end of said conduit to control the volume of air supplied to the conduit, a compound thermosensitive device having a connection with said valve and consisting of connected thermosensitive elements one of which is exposed to the incoming air and the other to the outgoing air mixture, and adjusting means yieldingly connected to said valve and device for adjusting the carbureter to deliver a predetermined and constant air and fuel mixture.

[Claims 6 to 10 not printed in the Gazette.]

1,203,602. FLUSH-TANK. WESTON M. FULTON, Knoxville, Tenn., assignor to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Filed Apr. 28, 1914. Serial No. 834,974. (Cl. 4—5.)



1. In a flush tank, a discharge pipe, a siphon tube, a flexible tubular connection between said elements, flange means for securing the connection to said pipe and tube, and means for flexing said connection and limiting means consisting of a rod and sleeve between the ends of which said flange means has a play for limiting the flexure of said connection.

2. In a flush tank, a siphon tube therein having a horizontally flattened bend, the shorter leg of the siphon including the bend having a sectional area which is larger than that of the delivery end of the tube, a flexible corrugated metal tube connected to said delivery end, hinge members for directing the flexure of said last named tube about a point between the ends of the same, resilient means normally acting on the siphon to hold it in a raised position, and means for limiting the flexure of said tube on both sides of its normal position.

3. In a flush tank, the combination of a discharge pipe, a siphon tube, a flexible corrugated metal tube connecting said siphon and pipe, and means for limiting the flexure of said connection comprising a member fast on one of said inflexible sections and a rod having stop means loosely engaging said member and fast to a stationary part at its opposite end.

4. In a flush tank, the combination of a discharge pipe, a siphon tube having a hinged support on said pipe, yielding means for normally holding said siphon in a predetermined position, a flexible corrugated metal tube connecting said siphon and said metal pipe, and means comprising rigid members fast to said siphon and pipe and a rod provided with stop means having loose engagement with one of said members and held by the other member for limiting the flexure of said flexible connection.

5. In a flush tank, the combination of a discharge pipe, a siphon tube and a corrugated metal tube connected between said elements, an adjustable yielding means having a connection to said siphon for normally holding said tube in a predetermined position, a rod provided with stop nuts and supported on said tube and pipe for limiting the

flexure of said connection in one direction and a sleeve on said rod for limiting the flexure of the connection in the opposite direction.

[Claims 6 to 8 not printed in the Gazette.]

1,203,603. PHOTOGRAPHIC APPARATUS. HENRY J. GAISMAN, New York, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed June 25, 1914. Serial No. 847,356. (Cl. 95—1.1.)



1. A photographic camera provided with an opening to permit the production of designations against a contained sensitised element, and a protecting member carried by the camera and movable relatively thereto parallel with the plane of the camera wall, said protecting member being adapted to cover and expose said opening in different positions of adjustment of said member, with means for retaining said member over said opening for excluding light therefrom.

2. A photographic camera provided with an opening to permit the production of designations against a contained sensitised element, and a protecting member carried by the camera and movable relatively thereto parallel with the plane of the camera wall, and provided with an opening adapted to register with the first named opening, with means for retaining said member over said opening to exclude light therefrom.

3. A photographic camera having a movable cover provided with an opening adapted to permit designations to be made therethrough against a contained sensitised element, and a supplemental cover movably mounted upon the first named cover, adapted to be moved parallel with the plane of said cover, and provided with an opening to register with the first named opening, and means to movably support the supplemental cover in operative relation to the first named opening.

4. The combination with a photographic camera body provided with an opening in a wall thereof adapted to permit arbitrary designations to be made against a contained sensitised element, and a support to hold a portion of said element immediately adjacent said opening, of a cover slidably mounted upon the camera to normally protect said opening and adapted to be moved to expose said opening, the said camera wall being located between the cover and the sensitised element.

5. The combination with a photographic camera having a cover provided with an opening adapted to permit arbitrary designations to be made against a contained sensitised element and a support to hold a portion of said element immediately adjacent said opening, of a supplemental cover slidably mounted upon the exterior of the first named cover to normally protect said opening and adapted to be moved to expose said opening and exterior guides upon the first named cover slidably receiving the supplemental cover.

[Claims 6 to 18 not printed in the Gazette.]

1,203,604. POCKET SPUTUM-CUP. WILLIAM M. GARRISON, Hebron, Me. Filed Oct. 15, 1912, Serial No. 725,778. Renewed Sept. 19, 1916. Serial No. 121,085. (Cl. 4—39.)

1. A sputum cup comprising a casing and a collapsible receptacle removably mounted within said casing, said casing being provided with interior springs for closing the mouth of the receptacle when the casing is closed.

2. A sputum cup comprising a casing made in two parts hinged together and a collapsible receptacle removably mounted within said casing, said casing being provided with interior springs for holding the mouth of said receptacle closed against leakage when said casing is closed.

3. A sputum cup comprising a casing made in two parts hinged together on the bottom and a receptacle of waterproof material removably mounted within said casing; said receptacle being formed of one piece and open at the top and said casing being provided with interior spring-actuated means for holding the receptacle closed when the casing is closed.

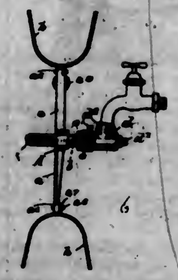


4. A sputum cup comprising a casing made in two parts hinged together on the bottom and a receptacle of waterproof material removably mounted within said casing, said casing being provided with interior means for holding said receptacle in place and with means for closing said receptacle to prevent leakage when said casing is closed.

5. A sputum cup comprising a casing made in two parts hinged together on the bottom and a receptacle of waterproof material removably mounted within said casing, said casing being provided with interior spring-actuated means for holding said receptacle in place and with means for closing said receptacle to prevent leakage when said casing is closed.

[Claims 6 to 32 not printed in the Gazette.]

1,203,605. HOSE-REEL. EDWIN P. GAYLORD, Rochester, N. Y. Filed Jan. 18, 1915. Serial No. 2,826. (Cl. 137—81.)



A hose reel comprising an integral frame or body portion having a series of arms, one of which is hollow and provided with inlet and outlet openings at its inner and outer ends respectively, the outer end of each arm having a rectangular socket in one face thereof, of an integral yoke member detachably connected to each arm and including a lug engaging the aforesaid socket and provided with a slot or opening having one wall inclined with respect to the other, and a bolt member attached to the arm and coöperating with said slot in the lug of the yoke member.

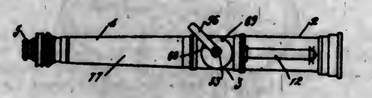
1,203,606. WINDOW-LOCK. HENRY GROSCH, Brooklyn, N. Y. Filed July 19, 1915, Serial No. 40,666. Renewed June 1, 1916. Serial No. 101,158. (Cl. 16—143.)

1. In a lock for windows, the combination of a short cap or thimble having one end open, said end adapted to be inserted in a recess in the sash rail, said cap having its other end closed providing a bottom having an elongated opening therein, the bottom being flat adjacent one side of said opening and being shaped to have a cam surface on the other side, the flat side of the bottom being joined to the inside by an abrupt shoulder, and means adapted to be mounted in an adjacent sash to engage the inclined portion of the bottom of said cap.



2. In a lock for windows the combination of a short cap or thimble having one end open, said end adapted to be inserted in a recess in a sash rail, said cap having its other end closed providing a bottom with an elongated opening therein, the bottom being flat adjacent one side of said opening and shaped to have a cam surface on the other side, the flat side being joined to the inclined side by an abrupt shoulder, a tubular casing adapted to be mounted in a bore through the rail of an adjacent sash in line with said cap, said casing having a perforated nipple in one end adjacent the cap providing a bearing, a bar in said casing having one end projecting through said bearing, and having a finger on said end to enter said opening in the bottom of the cap to engage the cam surface, a sleeve or bushing mounted on said bar at its opposite end extending into the opposite end of the casing, a coiled spring in the casing surrounding the bar and engaging the sleeve and bearing to retract said finger, a handle secured to the bar adjacent said bushing, a perforated disk receiving the end of the casing remote from the bearing, the said end of the casing being formed over to provide a lip to engage the face of the disk and means for securing said disk to said adjacent sash rail.

1,203,607. HOSE-NOZZLE. JESSE G. GLADDING, Providence, R. I. Filed July 15, 1914. Serial No. 851,188. (Cl. 137—17.)

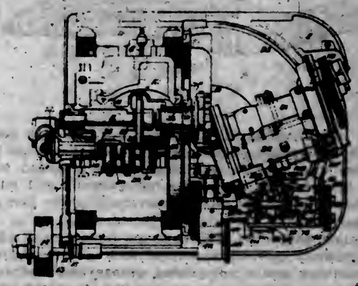


1. In a hose nozzle, the combination of a body provided with a large circular opening in its side, and with a small circular opening in its side opposite the large opening, a valve seat transversely disposed in the body extending to the large opening, a valve rotatably mounted in the seat extending to the large opening, a projection upon one end of the valve, a projection upon the opposite end of the valve extending through the small opening, each of said projections being provided with flat side faces, and with threaded openings, a ball provided with recesses having flat sides adapted to receive the flat faces of the projections, screws in the threaded openings, and heads on the screws engaging the ball.

2. In a hose nozzle, the combination of a body provided with a large circular opening in its side, and with a small circular opening in its side opposite the large opening, a transversely disposed frusto-conical valve seat in the body extending to the opening, an annular inwardly directed seat upon the side of the body concentric with the first mentioned seat and concentric with the small opening, a valve comprising an inclined side registering with the conical valve seat, an end wall bearing against the annular seat, a projection upon the first mentioned end wall, a projection upon the other end wall extending through the smaller opening, each of said projections being provided with flat side faces, and with threaded openings, a ball provided with recesses having flat sides adapted to receive the flat faces of the projections, cavities in the ball adjacent said recesses, screws in the threaded openings, and heads upon the screws registering in the cavities.

3. In a hose nozzle, the combination of a body provided with a frusto-conical valve seat, a frusto-conical valve mounted in said seat and having an exposed outer end wall and an inclosed inner end wall, said valve having coaxial projections, said projections being provided with longitudinally disposed threaded openings, an operating ball having bifurcated ends non-revolubly mounted on said projections, and adjusting means coöperating with said threaded openings.

1,203,608. GEAR-CUTTING MACHINE. JAMES E. GLEASON, ARTHUR L. STEWART, and EDWARD W. BULLOCK, Rochester, N. Y., assignors to Gleason Works, Rochester, N. Y., a Corporation of New York. Filed June 8, 1914. Serial No. 843,720. (Cl. 90—9.)



1. In a gear cutting machine, the combination with a dished bed, of a support movable on said bed, means for oscillating the support, a cutter mounted on the support and embodying a substantially annular cutting portion which is movable through the blank lengthwise of the tooth, means for rotating the cutter, a pivotally mounted frame, a blank carrier arranged on the frame, gearing for rotating the blank carrier, and means for oscillating the frame about its axis.

2. In a gear cutting machine, the combination with a dished bed, of a support movable on said bed, means for oscillating the support, a cutter mounted on the support embodying a substantially annular cutting portion which is movable through the blank lengthwise of the tooth, means for rotating the cutter, a pivotally mounted frame, a blank carrier arranged on the frame and angularly adjustable thereon for changing the position of the blank carrier relatively to the cutter, gearing for rotating the blank carrier alternately in opposite directions, and means for oscillating the frame about its axis.

3. In a gear cutting machine, the combination with a dished bed, of a support movable on said bed, means for oscillating the support, a cutter mounted on the support and embodying a cutting portion which is movable through the blank in a curvilinear path lengthwise of the tooth, means for operating the cutter, a pivotally mounted frame, a blank carrier arranged on the frame, gearing for rotating the blank carrier alternately in opposite directions and means for oscillating the frame about its axis.

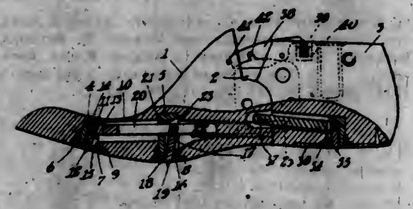
4. In a gear cutting machine, the combination with a dished bed, of a support movable on said bed, means for oscillating the support, a cutter mounted in the support and embodying a cutting portion which is movable through the blank in a curvilinear path lengthwise of the tooth, means for operating the cutter, a pivotally mounted frame, a blank carrier arranged on the frame and adjustable thereon for changing the position of the blank carrier relatively to the cutter, gearing for rotating the blank carrier alternately in opposite directions, and means for oscillating the frame about its axis.

5. In a gear cutting machine, the combination with a dished bed, of a support movable on the bed, a cutter mounted on the support, means for actuating the support,

means for operating the cutter, a pivotally mounted frame, a blank carrier arranged on the frame, means for rotating the blank carrier to generate the profile of a tooth, and means for oscillating the frame.

[Claims 9 to 30 not printed in the Gazette.]

1,203,609. LAST. WILLIAM GORDON, Duxbury, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 12, 1912. Serial No. 670,875. (Cl. 12—141.)



1. A last, having, in combination, a forepart and a heelpart relatively movable to extend and collapse the last, sole retaining means comprising prongs arranged to be forced into the sole, and means for operating said retaining means through the relative movement of the fort part and heel part.

2. A last, having, in combination, a forepart and a heelpart relatively movable to extend and collapse the last, sole retaining means comprising prongs arranged to be forced into the sole, and means for operating said retaining means through the relative movement of the fore part and heel part, so constructed and arranged that said retaining means is held against movement while said last is in one of its extreme positions.

3. A last, having, in combination, a forepart and a heelpart relatively movable to extend and collapse the last, sole retaining means comprising prongs arranged to be forced into the sole, means for operating said retaining means through the relative movement of the fore part and heel part, and means for locking the last in collapsed position.

4. A last, having, in combination, a forepart and a heelpart relatively movable to extend and collapse the last, sole retaining means comprising prongs arranged to be forced into the sole, means for operating said retaining means through the relative movement of the fore part and the heelpart, and means for locking the last in either its extended or collapsed position.

5. A last, having, in combination, a forepart and a heelpart relatively movable to extend and collapse the last, sole retaining means comprising prongs, and means for operating said retaining means through the relative movement of the fore part and heel part to project the prongs when the last is extended, and retract the prongs within the last when the last is collapsed.

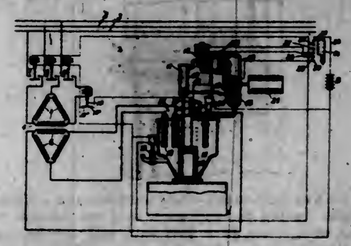
[Claims 6 to 20 not printed in the Gazette.]

1,203,610. CONTROL SYSTEM AND APPARATUS. ARTHUR J. HALL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 4, 1914. Serial No. 829,576. (Cl. 219—57.)

1. The combination with a movable member and a fluid-operated device for actuating said movable member, and means for admitting operating fluid to both ends of said device, of means for reducing the pressure of the operating fluid admitted to one end thereof.

2. The combination with a movable member, and a fluid-operated device for actuating said movable member, of means for admitting operating fluid at different pressures to the respective ends of said device.

3. The combination with a movable member and a fluid-operated device for actuating said movable member, and a source of operating fluid, of valves for governing the admission of operating fluid to the respective ends of said device, and means associated with the source of fluid for reducing the pressure of the fluid admitted to one end of said device.

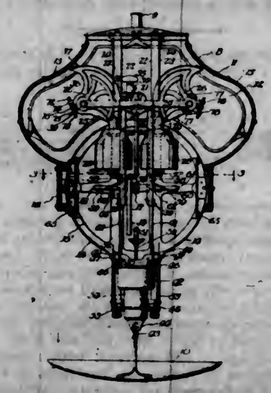


4. A fluid-operated device comprising a movable member adapted to be actuated in opposite directions, a receptacle in which said member is disposed, a source of operating fluid, and means for admitting operating fluid at different pressures to the respective ends of said device.

5. A fluid-operated device comprising a vertically disposed operating cylinder, a movable piston disposed therein, and means for admitting operating fluid at a lower pressure to the upper end of said cylinder than to the lower end thereof.

[Claims 6 to 15 not printed in the Gazette.]

1,203,611. SCALE. CLARENCE H. HAPGOOD, Toledo, Ohio, assignor, by mesne assignments, to The Toledo Scale Company, Toledo, Ohio, a Corporation of Ohio. Filed Dec. 29, 1911. Serial No. 668,404. (Cl. 73—104.)



1. In a scale, a commodity receptacle, a counterbalancing means for the receptacle and the commodity contained therein comprising a pendulum, a segment connected to the pendulum for oscillation therewith, a support, a strap secured to said support and to the lower end of said segment, a second segment whose arc is eccentric to that of the former said segment connected thereto and to the pendulum for movement therewith, a strap connected at one end to the upper end of the arc of the second said segment and at its other end to the commodity receptacle and adapted to lie upon the periphery of the second said segment.

2. In a scale, a commodity receptacle, counterbalancing means for the receptacle and commodity contained therein comprising a pendulum, a circular segment connected to the pendulum for oscillation therewith, a substantially vertical support with which the segment has rolling engagement, a second segment having an eccentric arc connected to the pendulum and former said segment for movement therewith, a vertically movable element with which the second said segment engages at its periphery and by which the latter is operated and connections between the vertically movable element and the commodity receptacle.

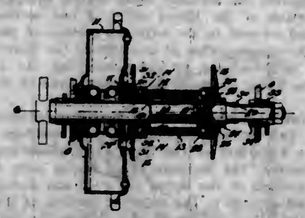
3. In a scale, a commodity receptacle, counterbalancing means for the receptacle and commodity contained therein comprising a pendulum, a circular segment connected to the pendulum for oscillation therewith, a support, a strap engaging the arc of said segment at its lower end and the support at its upper end, a second segment having an eccentric arc connected to the pendulum and former said segment for movement therewith, a vertically movable element with which the second segment engages at its periphery and by which it is operated, and connections between the vertically movable element and commodity receiver.

4. In a scale, a commodity receptacle, counterbalancing means for the receptacle and commodity contained therein comprising a pendulum, a circular segment connected to the pendulum for oscillation therewith, a support, a strap connected at its lower end to the segment and at its upper end to the support, a second segment having an eccentric arc and connected to the pendulum and former said segment for movement therewith, a strap connected at its upper end to the upper end of the arc of the latter segment and at its lower end provided with connections to the commodity receptacle.

5. In a scale, a commodity receptacle, counterbalancing means for the receptacle and commodity contained therein comprising a pendulum, a segment connected to the pendulum for oscillation therewith, a substantially vertical support with which the segment has rolling engagement, a second segment having an eccentric arc and connected to the pendulum and former said segment for movement therewith, means for adjusting the second said segment angularly with respect to the pendulum, a vertically movable element with which the second segment engages at its periphery and by which the latter is operated, and connections between the movable element and the commodity receiver.

[Claims 6 to 26 not printed in the Gazette.]

1,203,612. INTERCHANGEABLE WHEEL-HUB. WILLIAM S. HARLEY, Milwaukee, Wis., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Filed Jan. 17, 1916. Serial No. 72,498. (Cl. 308—45.)

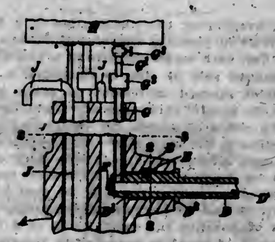


1. In a motorcycle and side car structure including front and rear motorcycle axles and a side car axle, a wheel hub normally adapted to be operatively disposed on the side car axle, means including spacer members for adapting the hub to be operatively disposed on the rear motorcycle axle, and means including spacer members for adapting the hub to be operatively disposed on the front motorcycle axle.

2. In a motorcycle and side car structure including a side car axle and a front motorcycle axle of lesser diameter than the first axle, the combination of a hub adapted to be operatively disposed on the side car axle and means for adapting the hub for operative connection with the front axle including sleeve members engageable on the end portions of the front motorcycle axle and adapted to fit in the ends of the hub bore, and annular abutment ribs carried by the sleeves.

3. In a motorcycle and side car structure including a side car axle, and a rear motorcycle axle of relatively greater length, and carried by fork members, the combination of a hub member adapted to interchangeably engage on the said axles, means for holding the hub spaced from one end of the axle and means for securing the adjacent fork member with respect to the said spacing means.

1,203,613. ORE-ROASTING FURNACE. JOHN HARRIS, Sheffield, England. Filed July 30, 1914. Serial No. 854,143. (Cl. 257—119.)



1. In an ore roasting furnace, the combination of a hollow shaft having an outwardly projecting hollow lug, provided with a transverse passage that intersects the bore of the lug, a rabble arm having a base approximately fitting the interior of the lug, and a locking pin arranged within the transverse passage in the lug and engaging the arm to secure it to the shaft, the pin being shorter than the passage whereby it is entirely within the lug when in operative position.

2. In an ore roasting furnace, the combination of a hollow shaft having an outwardly projecting hollow lug, provided with a transverse passage that intersects the bore of the lug, a rabble arm having a base approximately fitting the interior of the lug, a locking pin arranged within the transverse passage in the lug and engaging the arm to secure it to the shaft, the pin being shorter than the passage whereby it is entirely within the lug when in operative position, and a suitable refractory filling within the ends of said passage.

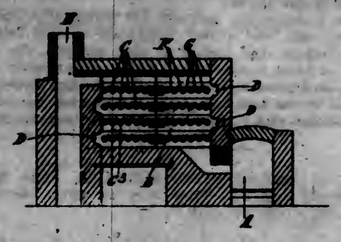
3. In an ore roasting furnace, the combination of a hollow shaft having an outwardly projecting hollow lug provided with a transverse passage that intersects the bore of the lug, a rabble arm having a base approximately fitting the interior of the lug, and a locking pin arranged within the transverse passage in the lug and engaging the arm to secure it to the shaft, the relative position and shape of the passage and form of the pin being such that the resistance to movement of the arm offered by ore being treated acts to increase the locking action of the pin on the arm.

4. In an ore roasting furnace, the combination of a hollow shaft, a hollow arm detachably connected with the shaft, and means for circulating cooling fluid through the arm including a supply pipe connected at one end with the arm, and comprising a plurality of sections, the section connected with the arm being adapted to be detached from the arm independent of any manipulation of any other section.

5. In an ore roasting furnace, the combination of a hollow shaft, a plurality of hollow arms supported by the shaft, an upwardly extending pipe connected with each arm and terminating above the upper end of the shaft, and means for supplying cooling fluid to each of said pipes and permitting any one thereof to be disconnected from the attached arm independent of any adjustment of the others or the fluid supplying means.

[Claims 6 and 7 not printed in the Gazette.]

1,203,614. EVAPORATOR. JOHN HARRIS, Sheffield, England, and DAVID HERBERT THOMAS, Morriston, Wales. Filed Nov. 29, 1915. Serial No. 64,074. (Cl. 127—9.)



1. In an evaporator, the combination of a flue, a plurality of series of pipe-like evaporating vessels extending across the flue, each series comprising a plurality of said vessels arranged side by side to constitute a baffle preventing direct upward movement of gases in the flue throughout the area of said series of vessels, means at one side of each series of vessels for conducting gases from the space below to the space above said vessels, said means being arranged alternately at opposite sides of the flue, and means for conducting liquor from each vessel in one series to the corresponding vessel in the next lower series, substantially as and for the purpose set forth.

2. In an evaporator, the combination of a flue, a plurality of series of pipe-like evaporating vessels extending across the flue, each series comprising a plurality of said vessels arranged side by side, packing closing all of the spaces between the vessels in each series whereby each series of said vessels forms a baffle preventing direct vertical movement of the heating means through any part of the area of said series, means at one side of each series of vessels for conducting gases from the space below to the space above said vessels, said means being arranged alternately at opposite sides of the flue, and means for conducting liquor from each vessel in the upper series to a corresponding vessel in a lower series, substantially as and for the purpose set forth.

3. In an evaporator the combination of a flue, means for passing hot gases therethrough, pipe-like evaporating vessels extending across the flue, through its walls and disposed side by side in a plurality of rows to form preferably horizontal baffles for the flue gases, holes in the flue walls between adjacent vessels to enable asbestos rope packing to be applied between the vessels and means for causing liquor to flow from each vessel in one baffle row to a corresponding vessel in the row below, substantially as set forth.

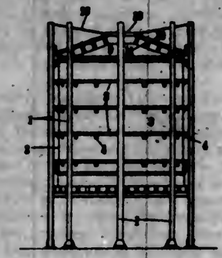
4. In an evaporator a pipe vessel having a weir adjacent to one end limiting the height of liquor in the vessel and an exit in the weir end of the vessel having a larger opening than that above the weir and situated below the top level of the weir, substantially as set forth.

5. In an evaporator a pipe vessel having a weir adjacent to one end limiting the height of liquor in the vessel, an exit in the weir end of the vessel having a larger opening than that above the weir and situated below the top level of the weir, and a sloping lower side to the exit extending from the bottom thereof within the vessel to a line above its floor but below the top level of the weir substantially as set forth.

1,203,615. SULFURIC-ACID CHAMBER. JOHN HARRIS, Sheffield, England, and DAVID HERBERT THOMAS, Morriston, Wales. Filed Mar. 27, 1916. Serial No. 86,999. (Cl. 23—1.)

1. In a structure for supporting a sulfuric acid chamber the combination with pillars around the chamber, of a central member above the chamber roof supported from the said pillars by radial bars, substantially as set forth.

2. In a structure for supporting a sulfuric acid chamber the combination with pillars around the chamber, of a central member above the chamber roof supported from the said pillars by radial tension bars, substantially as set forth.



3. In a structure for supporting a sulfuric acid chamber the combination with pillars around the chamber, of a central member above the chamber roof supported from the said pillars by radial compression bars, substantially as set forth.

4. In a structure for supporting a sulfuric acid chamber the combination with pillars around the chamber, of a central member above the chamber roof supported from the said pillars by radial bars some of which are in tension and some in compression substantially as set forth.

5. In a structure for supporting a sulfuric acid chamber the combination with pillars around the chamber, of a central member above the chamber roof supported from the said pillars by radial bars some of which are in tension and some in compression and a flue passing through the central body, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,203,616. JOINT FOR CORRUGATED PAPER-BOARD. EDGAR M. HAWKINS, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 22, 1916. Serial No. 73,522. (Cl. 93—36.)

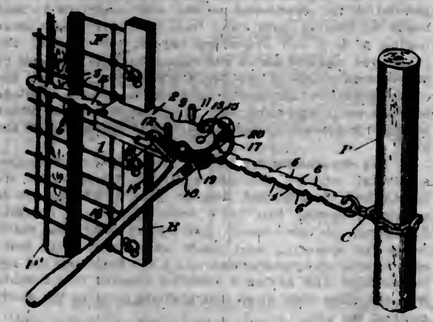


1. A joint for double-faced corrugated paperboard, comprising a pair of complementary board sections one of which has a portion of the filler and one of the lining sheets removed, the sections being mated with the unremoved portion of the lining sheet of one section overlapping and secured to the adjacent portion of the lining sheet of the other section at one side of the latter, and a fastening strip secured to and connecting the adjacent ends of the lining sheets at the opposite side of the board sections.

2. A joint for double-faced corrugated paperboard, comprising a pair of complementary board sections one of which has a portion of the filler and one of the lining sheets removed, the sections being mated with the unremoved portion of the lining sheet of one section overlapping and secured to the adjacent portion of the lining sheet of the other section at one side of the latter and with the adjacent ends of the lining sheets at the opposite side of the sections meeting in a butt-joint, and a fastening strip secured to and connecting the adjacent ends of the lining sheets at said butt-joint.

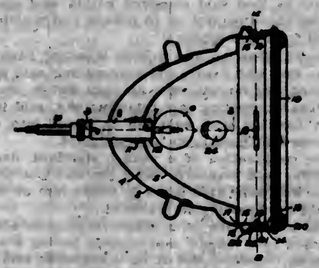
3. A joint for double-faced corrugated paperboard, comprising a pair of complementary board sections disposed in the same plane and one of which has a portion of the filler and one of the lining sheets removed, the sections being mated with the unremoved portion of the lining sheet of one section overlapping and adhesively secured to the adjacent portion of the lining sheet of the other section at one side of the latter and with the adjacent ends of the lining sheets at the opposite side of the sections meeting in a butt-joint, and a fastening strip adhesively secured to and connecting the adjacent ends of the lining sheet at said butt-joint.

1,203,617. WIRE-STRETCHING MEANS. THOMAS LAURENCE HARRIS, Woodbura, Ky. Filed Sept. 4, 1914. Serial No. 860,222. Renewed Mar. 31, 1916. Serial No. 88,170. (Cl. 254—72.)



The herein described construction of wire stretchers including a substantially rectangular carriage having a passage through one of its ends and being bifurcated at its opposite end, a rack bar passing through the bifurcated portion and through the passage of the carriage, the teeth of the bar having forwardly inclined faces and straight shoulders, and the shoulders upon one side disposed centrally between the shoulders upon the opposite side of the said bar, one of the faces at the bifurcated end of the carriage having oppositely inclined edges, a lever pivotally secured to the bifurcated end of the carriage, said lever having an opening through which the rack bar passes, dogs pivotally secured to the lever and disposed to the portions thereof opposite the longitudinal edges of the carriage, said dogs having lateral knobs which normally rest against the opposite inclined faces of one of the sides of the carriage, and a round split spring having lateral ends engaging with the dogs between their pivots and knobs and forcing the working faces of the dogs into contact with the toothed edges of the rack bar.

1,203,618. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Aug. 15, 1913. Serial No. 784,863. (Cl. 240—41.)



1. In a lamp, the combination of a lamp casing provided with inner and outer screw-threads, the groove of one being within the ridge of the other, a reflector provided with a thread engaging said inner thread, and a bezel or door provided with a thread engaging said outer thread.

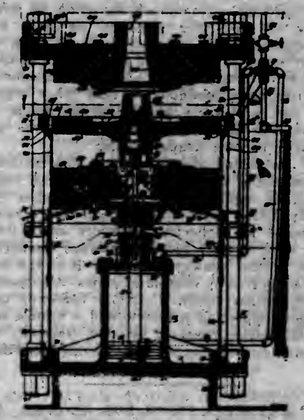
2. In a lamp, the combination of a lamp casing provided with inner and outer screw-threads, a reflector provided with lugs engaging said inner thread, and a bezel or door provided with lugs engaging said outer thread.

3. In a lamp, the combination of a lamp casing provided with inner and outer screw-threads, and having inner and outer shoulders, a reflector engaging said inner shoulder and provided with a thread engaging said inner thread, and a bezel or door engaging said outer shoulder and provided with a thread engaging said outer thread.

4. In a lamp, the combination of a lamp casing the material thereof being distorted into inner and outer screw threads, a reflector provided with a thread engaging said inner thread and a bezel or door provided with a thread engaging said outer thread.

5. In a lamp, the combination of a lamp casing the material thereof being distorted into inner and outer screw threads, a reflector provided with lugs engaging said inner thread and a bezel or door provided with lugs engaging said outer thread.

1,203,619. CASTING APPARATUS. HERBERT H. HAWLEY, Buffalo, N. Y. Filed Feb. 13, 1912. Serial No. 677,857. (Cl. 22—92.)



1. In a casting apparatus, the combination of separable mold-sections, an intermediate chiller movable toward one of the mold-sections, and means for shifting one of said mold-sections and said chiller simultaneously in the same direction and separating the same to open and close the mold.

2. In a casting apparatus, the combination of separable mold sections, a chilling ring interposed between said mold sections, and means for opening and closing the mold and for separating said chilling ring from both of said mold sections when the mold is open, to thereby permit the lateral movement of said chilling ring from between the mold sections.

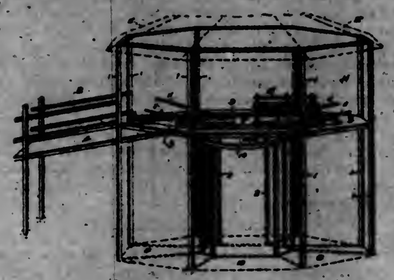
3. In a casting apparatus, the combination of separable mold-sections, means for closing the mold, a chilling ring located between said mold-sections, said chilling ring being free to move laterally from between said mold-sections when the latter are separated and means for supporting said chilling ring during its lateral movement.

4. In a casting apparatus, the combination of separable mold-sections, means for closing the mold, a laterally movable chiller located between said mold-sections and provided with projections or trunnions and rails or supports arranged at the sides of said chiller and whereon the chiller is sustained as it is moved away from the mold-sections.

5. In a casting apparatus, the combination of separable mold-sections, means for closing the mold, a laterally movable chiller located between the mold-sections and provided at opposite sides with anti-friction rollers, and rails whereon said anti-friction rollers will travel as the chiller is moved away from the mold-sections.

[Claims 6 to 21 not printed in the Gazette.]

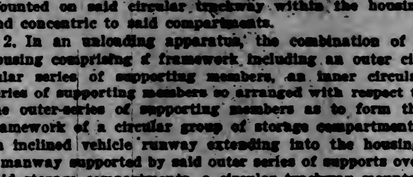
1,203,620. UNLOADING APPARATUS. ANDREW J. HOLT, Maryville, Mo. Filed June 26, 1915. Serial No. 36,517. (Cl. 214—11.)



1. In an unloading apparatus, the combination of a housing comprising a framework including an outer circular series of supporting members, an inner circular series of supporting members so arranged with respect to the outer series of supporting members as to form the framework of a circular group of storage compartments, a circular trackway mounted on said inner supporting members, and a vehicle supporting turntable device mounted on said circular trackway within the housing and concentric to said compartments.

2. In an unloading apparatus, the combination of a housing comprising a framework including an outer circular series of supporting members, an inner circular series of supporting members so arranged with respect to the outer series of supporting members as to form the framework of a circular group of storage compartments, an inclined vehicle runway extending into the housing, a manway supported by said outer series of supports over said storage compartments, a circular trackway mounted on said inner supporting members, and a vehicle supporting turntable device mounted on said trackway concentric to said compartments, and having load-dumping means.

1,203,631. KEY MECHANISM FOR ORGANS. ROBERT HOPE-JONES, North Tonawanda, N. Y., assignor to Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed Sept. 12, 1910. Serial No. 581,622. (Cl. 84—16.)



1. The combination with a pivoted key, of a chambered member located at one side thereof having valve seats on its opposite faces and provided with passages leading therefrom in which a partial vacuum is maintained, separate valve heads coöperating with said valve seats, pivoted levers each connected with said valve heads, a tension rod connecting one of said levers with said key and extending past the other lever and a shoulder on the rod adapted to operate the last mentioned lever after the first lever has been moved.

2. The combination with a pivoted key, of a chambered member arranged beneath it from which air is exhausted, provided with a valve seat, a valve head coöperating with the latter, a lever pivoted exteriorly beneath the chamber having one end connected to the valve head and its other extremity projecting beyond the side of said chamber and a tension rod connecting the said end of the lever to the key.

3. The combination with a pivoted key for musical instruments, of two restraining mechanisms adapted to counterbalance different predetermined touch-pressures on the key, a connecting member arranged between the key and the mechanism counteracting the lighter touch-pressure and a shoulder on said member coöperating with the other heavier-touch-pressure mechanism during the operative movement of the key and after the restraint of the first mentioned mechanism has been overcome.

4. The combination with a movable key for musical instruments, a chambered member at one side of the key, from which air is exhausted, having two valve seats, and valve heads coöperating with the seats, of separate levers pivoted on the chambered member and connected to said heads for moving them away from their seats, each lever having a free end projecting beyond the edge of the chambered member and a rod connecting the free end of one of said levers to the key for actuating it upon the commencement of the movement of the key and a shoulder on said rod coöperating with the free end of the other lever at a pre-determined point in the movement of the key.

5. The combination with a key for musical instruments, a pivotal support therefor arranged intermediate its length and a chambered member from which the air is exhausted having two valve seats opening in opposite directions, of valve heads coöperating with the seats, levers for operating said heads away from their seats each having an operating end and a rod fastening the key to one lever and having a shoulder adapted to coöperate with the other lever at an intermediate point in the movement of the key.

[Claim 6 not printed in the Gazette.]

1,203,622. FOLDING STANDARD FOR VEHICLES. EMIL J. HUFFMAN, Chicago, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Apr. 7, 1916. Serial No. 90,522. (Cl. 21—54.)



1. The combination of a vehicle standard support adapted to be attached to a vehicle, said support having an opening therein, a slot communicating with said opening, a retaining slot in a wall of said opening, and an open diagonal slot intersecting said retaining slot, a standard, and a pin carried by said standard, said pin coacting with said slots to hold said standard within said opening or said communicating slot or to release and withdraw said standard from said support.

2. The combination of a vehicle standard having a pin near one end, and fixed parts surrounding said standard, a retaining slot for said pin, an open slot in one of said fixed parts intersecting said retaining slot, said intersecting slot coacting with said pin to insert into or withdraw from said fixed parts said standard.

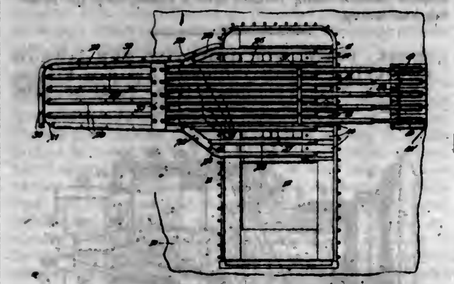
3. The combination of a vehicle standard, fixed parts surrounding said standard, and a pin and slot connection coacting with said fixed parts to insert into or withdraw from said fixed parts said standard.

4. The combination of a standard support adapted to be attached to a vehicle, said support having a rectangular opening therein, a slot at right angles to said opening and communicating with the same, and a straight retaining slot in a wall of said opening, a standard, and a pin near one end of said standard adapted to be engaged by said retaining slot, said standard being adapted to occupy said opening when in an upright position and said communicating slot when in a horizontal position.

5. The combination of a support adapted to be attached to a vehicle, said support having an opening therein, a slot communicating with the opening and a straight retaining slot in a wall of said opening, a standard, and a pin near one end of said standard adapted to be engaged by said retaining slot, said standard being adapted to occupy said opening and said communicating slot.

[Claims 6 to 8 not printed in the Gazette.]

1,203,623. RAILWAY MAIL-EXCHANGE APPARATUS. ALBERT HUFF, Washington, D. C. Filed Feb. 25, 1915. Serial No. 10,532. (Cl. 258—20.)



1. In apparatus of the class described, the combination with a railway car having a side doorway, of a vertical shaft rotatably supported on the interior of the car, brackets secured on said shaft, substantially horizontally arranged spaced bars secured to said brackets and normally projecting through said doorway, means securing the outer ends of said bars together so as to form a mail-receiving chute, and a sliding door, for said doorway, having slots to receive said bars.

2. In apparatus of the class described, the combination with a railway car having a side doorway, of a vertical shaft rotatably supported on the interior of the car, brackets secured on said shaft, substantially horizontally arranged spaced bars secured to said brackets and projecting through said doorway, means securing the outer ends of said bars together so as to form a mail-receiving chute, and a sliding door, for said doorway, having horizontally projecting tongues adapted to enter the spaces between said bars and coöperate with said brackets to close the opening between the rear of said bars and the side of said doorway.

3. In apparatus of the class described, the combination with a car having a side doorway, of a vertical shaft rotatably supported on the interior of the car, a plurality of substantially horisontal bars secured to said shaft and normally projecting through said doorway, said bars having their outer ends secured together to form a mail-receiving chute and their inner ends bent downward.

4. In apparatus of the class described, the combination with a car having a side doorway, of a vertical shaft rotatably supported on the interior of the car, a mail receiving chute secured on said shaft and projecting through said doorway, and a bracing member pivoted to said chute and having a sliding connection with the side of the car.

1,203,624. EYEGLASS-FRAME. CARL F. INGOLD, Milwaukee, Wis., assignor to Milwaukee Optical Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 17, 1916. Serial No. 91,515. (Cl. 88—50.)

1. The combination with a lens strap, of a set of clamping lugs, each secured to one end of said strap, a spring actuated nose guard mounted upon one of the lugs and means for clamping the lugs together independently of the nose guard mounting.

2. The combination with a lens engaging strap provided at its respective ends with clamping lugs, a nose bridge permanently connected with one of said lugs, a spring actuated nose guard mounted upon one side of the lugs, a projection on the opposite side of said lug, the other lug being socketed to receive said projection, and a clamping screw adapted to enter said projection and arranged to bind said lugs together.



3. The combination with a lens engaging strap provided at its respective ends with clamping lugs, a nose bridge permanently connected with one of said lugs, a spring actuated nose guard mounted upon one side of the lugs, a projection on the opposite side of said lug, the other lug being socketed to receive said projection and a clamping screw adapted to enter said projection and arranged to bind said lugs together, said lugs being formed to interlock with each other at one side of said projection.

4. An eye-glass frame including the combination with a nose engaging strap, of a pair of clamping lugs, each connected with one end of the strap, a post on one lug socketed in the other, a clamping screw connected with said post and adapted to bind the lugs together and an interlocking member on one of the lugs, socketed in the opposing lug adjacent to said post and adapted to prevent pivotal oscillation of the lugs upon said post.

5. The combination with a lens engaging band or strap, of a pair of lenses each secured to one end of the strap, a post extending through one of the lugs and removably socketed in the other lug, a clamping screw adapted to engage one end of said post to bind said lugs together, a nose guard mounted on the other end of said post, a removable post cap, and a spring interposed between the said cap and a portion of the nose guard, said spring having one end connected with the nose guard and the other end projected into engagement with the lens strap, said parts being organized to permit independent separation of the clamping lugs or of the nose guard and spring substantially as described.

1,203,625. STEAM-BOILER SUPERHEATER. DAVID S. JACOBUS, Jersey City, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Nov. 2, 1914. Serial No. 869,777. (Cl. 137—112.)



1. A superheater core having a supporting piece adapted to extend through the superheater box or header and to rest at the side of a hand-hole fitting opposite the core.

2. A superheater core having a flexible support adapted to extend through and to be sprung to one side of the opening in the box or header through which the core is introduced.

3. A steam boiler superheater comprising tubes, connected to boxes, said boxes having hand-hole fittings, and

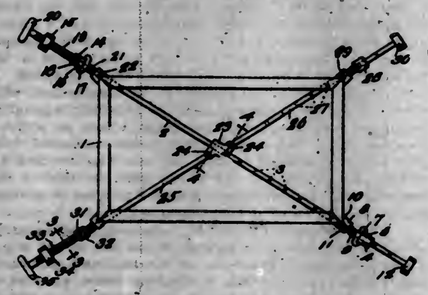
cores in said tubes having supports adapted to rest against the box between the said fittings.

4. A superheater core made up of separable sections and supported by a piece which rests at the side of a hand hole fitting opposite the core.

5. A steam boiler superheater comprising tubes connected to boxes, said boxes having hand hole fittings, and cores in said tubes made up of separable sections and each core having a support resting at the side of the fitting opposite the core.

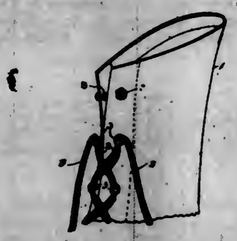
[Claims 6 to 18 not printed in the Gazette.]

1,203,626. PICTURE-FRAME AND DOOR CLAMP. HAROLD P. JOHNSON, Concord, N. H. Filed June 21, 1916. Serial No. 104,962. (Cl. 144—292.)



The combination with a block, of a rod slidable therethrough, legs on the ends of the rod, bars pivoted to the block and extending in angular relation to the rod, legs supporting the ends of the bars, holding members mounted on the rod and bars and means carried by certain of the legs for adjusting said holding members to and away from each other.

1,203,627. SHOE AND GLOVE EYELET. PETER J. JOHNSON, Shelley, Idaho. Filed Feb. 15, 1915. Serial No. 8,320. (Cl. 24—145.)



1. A lacing stud made from a sheet of material, the terminals of said sheet being formed into a tubular sleeve adapted to engage the garment to which the stud is to be attached.

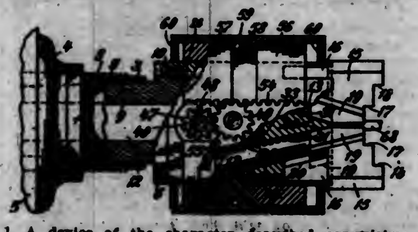
2. A lacing stud made from a sheet of material, the terminals of said sheet being transversely curved and disposed substantially at right angles to the body portion of the sheet, the said terminals being brought together and slitted thereby forming a tubular slitted sleeve adapted to engage the garment to which the stud is to be attached.

3. A lacing stud made from a sheet of material bent upon itself to form a closed loop, the terminals of said sheet being bent at right angles to the body portion and rounded to produce a sleeve when the same are brought together, said terminals being slitted, said sleeve providing means for engaging the garment to which the stud is to be attached.

4. A lacing stud made from a sheet of material, the terminals of said sheet being formed into a tubular sleeve adapted to engage the garment to which the stud is to be attached, said tubular sleeve being provided with a plurality of slits in its free edge for facilitating the engagement of the sleeve with the garment to which the stud is to be attached.

5. A lacing stud made from a sheet of material, the terminals of said sheet being formed into a tubular sleeve adapted to engage the garment to which the stud is to be attached, the material of the sheet intermediate the terminals thereof being formed into a closed loop for receiving the lacing.

1,203,628. DEVICE FOR ADJUSTING THE JAWS OF REVOLVING LATHE-CHUCKS. ABRAHAM KIPNISS, Brooklyn, N. Y. Filed Feb. 2, 1915. Serial No. 5,708. (Cl. 29—128.)



1. A device of the character described comprising a rotating chuck having a series of inclined movable jaws, said chuck having inclined guides in which said jaws are free to move; one end of each of said jaws having radial extensions, and said chuck having radially extending guides in which said radial extensions are free to move; each of said radial extensions being provided with shoulders placed at different distances radially from the center of the chuck, whereby articles of great difference in size may be clutched; and manually operative means for actuating said jaws, whereby they can be moved in a direction adapted to clutch an article, and whereby they can be moved in a direction adapted to release said article.

2. A device of the character described comprising a rotating chuck having a series of inclined movable jaws, one end of each of said jaws having shoulders placed at different distances radially from the center of the chuck, whereby articles of great difference in size may be clutched, each of said jaws having lateral flanges adapted to move in inclined guides formed in said chuck, said chuck also having radially extending guides in which said jaws are free to move; mechanism for actuating said jaws; a manually operative longitudinally reciprocating sleeve forming part of said jaw actuating mechanism; means whereby longitudinal movement of said sleeve in one direction causes movement of said jaws in a direction adapted to clutch an article; and means whereby longitudinal movement of said sleeve in the reverse direction causes movement of said jaws in a direction adapted to release said article.

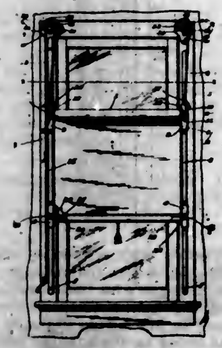
3. A device of the character described comprising a rotating chuck having a series of inclined movable jaws, one end of each of said jaws having shoulders placed at different distances radially from the center of the chuck, whereby articles of great difference in size may be clutched, each of said jaws having lateral flanges adapted to move in inclined guides formed in said chuck, said chuck also having radially extending guides in which said jaws are free to move; mechanism for actuating said jaws; a manually operative longitudinally reciprocating sleeve forming part of said jaw actuating mechanism; and means whereby longitudinal movement of said sleeve in one direction causes movement of said jaws in a direction adapted to clutch an article.

4. A device of the character described comprising a rotating chuck having a series of inclined movable jaws, one end of each of said jaws having shoulders placed at different distances radially from the center of the chuck, whereby articles of great difference in size may be clutched, each of said jaws having lateral flanges adapted to move in inclined guides formed in said chuck, said chuck also having radially extending guides in which said jaws are free to move; a rotatable part having screw threads engaging said screw threads on said inclined movable jaws; and manually operative means for actuating said rotatable screw threaded part whereby it may be rotated in a direction adapted for causing movement of said jaws in a direction to clutch an article, and whereby said rotatable screw threaded part may be rotated in a direction adapted for causing movement of said jaws in a direction to release said article.

5. A device of the character described comprising a rotating chuck having a series of inclined jaws, said chuck having correspondingly inclined guides in which said jaws are free to move longitudinally, one end of each one of said jaws having a lateral extension moving in guides formed in the chuck and extending radially from the center thereof, said lateral extension of said inclined jaws having shoulders placed at different distances radially from the center of the chuck, whereby articles of great difference in size may be clutched, and said lateral extension also having lateral flanges adapted to move in inclined guides formed in the chuck and extending parallel to said inclined guides in which said inclined jaws move; and said inclined jaws being provided with screw threads; a rotatable part having screw threads engaging said screw threads on said inclined movable jaws; and manually operative means for actuating said rotatable screw threaded part whereby it may be rotated in a direction adapted for causing movement of said jaws in a direction to clutch an article, and whereby said rotatable screw threaded part may be rotated in a direction adapted for causing movement of said jaws in a direction to release said article.

[Claims 6 to 13 not printed in the Gazette.]

1,203,629. SHADE-CARRIER. FREDERICK H. KNAPP, Westminster, Md. Filed Aug. 3, 1914. Serial No. 854,853. (Cl. 156—27.)



1. A window shade fixture consisting of a roll, carriages therefor, flexible guide rods on which the carriages travel, means for moving the roll and carriages up and down the guide rods and means for supporting the guide rods at short intervals throughout their length, the guide rods being so flexible that they may be rolled or folded, the whole device being thus packed in a small space for shipment.

2. A window shade fixture consisting of a roll, a carriage therefor, flat flexible guide rods on which the carriages travel, means for moving the roll and carriages up and down the guide rods and means for supporting the guide rods at short intervals throughout their length, the guide rods being so flexible that they may be rolled or folded, the whole device being thus packed in a small space for shipment.

3. In a window shade construction, a roll, flat guide rods, followers engaging the rods, ears for the followers, universal joints connecting the ears to the followers, the ears being slotted and the roll provided with pivots to engage the slots, and means for moving the followers and roll up and down the length of the window, the followers moving over the guide rods.

4. In a window shade construction, a roll, flat guide rods, followers engaging the rods, ears for the followers, the ears being pivotally connected to the followers to swing horizontally relatively thereto and apertured to receive the roll pivots, and means for moving the followers and roll up and down the length of the window, the followers moving over the guide rods.

5. In a window shade construction, a roll, vertical guide rods in the form of flat straps, followers engaging the straps, ears for the followers, universal joints connecting the ears to the followerrs, the ears being slotted and the roll provided with pivots to engage the slots, and means for moving the followers and roll up and down the length of the window, the followers moving over the guide rods.

[Claims 6 to 8 not printed in the Gazette.]

1,203,630. COUPLING DEVICE FOR TUBES. HARRY A. KOENIG, Philadelphia, Pa. Filed Mar. 4, 1916. Serial No. 82,064. (Cl. 137—28.)



1. In a device of the character stated, a nipple adapted to be secured to a tube, a nozzle having threaded engagement with said nipple and provided with a flange adjacent the threaded portion, a spring clip having means adapted to be clamped between said flange and nipple to hold said clip in operative position, a union-head adapted to receive said nozzle and having a shouldered portion and a jaw part on said clip for engagement with said shouldered part.

2. In a device of the character stated, a body of spring material provided with a supporting part arranged at an angle thereto and having an opening therein, said body part also having an offset to provide spring action and an extension secured to said body having a locking jaw integral therewith.

3. In a device of the character stated, a body of spring material provided with a supporting part, a nipple, means to attach said supporting part to said nipple, a nozzle, a union head for receiving said nozzle provided with a shoulder and an extension on said spring body having a jaw adapted to flex to engage said shoulder, whereby said parts are interlocked.

1,203,631. LIFE-SAVING DEVICE. EDWARD KREID, Detroit, Mich. Filed May 22, 1916. Serial No. 99,070. (Cl. 9—11.)



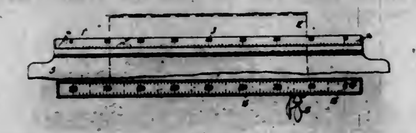
1. A life saving device comprising connected foldable frames having semi-circular portions providing a body well, rings adjacent said semi-circular portions, flexible containers suspended from the rings of said frames, means in said flexible containers adapted to retain said containers

in an extended position, a body container suspended from the semi-circular portions of said frames, a receptacle carried by said frames and adapted to be inflated, and means for closing all of said containers.

2. A life saving device comprising connected frames adapted to fold one upon the other, container rings carried by each frame, flexible containers carried by said rings, lids carried by said rings for said containers, pivoted bars in said flexible containers adapted to retain said containers in extended positions, a body container carried by said frame, and a receptacle supported by said frames and adapted to be inflated to maintain said frames afloat.

3. A life raft comprising a receptacle adapted to be inflated, frames in said receptacle, flexible containers suspended from said frames, lids for said containers, pivoted bars in said containers adapted to retain said containers in extended positions, and a body container centrally of said receptacle.

1,203,632. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 19, 1912. Serial No. 721,122. (Cl. 197—194.)



1. In a typewriting machine, the combination with a paper table having a bead at its upper end, of a scale curved to conform to the shape of said bead, and a clamping device on said scale extensible within the bead to clamp the scale on the bead.

2. As an article of manufacture, a type writer scale semi-cylindrical in cross section and provided with clamping devices on the interior of the scale.

3. As an article of manufacture, a type-writer scale substantially semi-cylindrical in cross section and comprising blocks fixed to the inner surface of the scale, and clamping members threaded into said blocks.

4. In combination with a paper table having a bead at its top edge, a semi-tubular scale conforming with the curvature of said bead, and means located within the semi-tubular scale to clamp the scale to the bead.

5. In combination with a paper table having a bead at its top edge, a semi-tubular scale conforming with the curvature of said bead, and clamping means located substantially wholly within the bead and scale and concealed therein to fasten said scale on said table.

[Claims 6 and 7 not printed in the Gazette.]

1,203,633. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 22, 1912. Serial No. 732,806. (Cl. 155—33.)



1. In a typewriting machine, the combination with the machine frame and feet supporting the weight of the frame, of casings attached to the frame, springs in said casings between each casing and the corresponding foot adapted to absorb lateral shock, and connections between said casings and feet whereby lateral movement of the casings with respect to the feet is permitted.

2. In a typewriting machine, the combination with the machine frame and feet supporting the weight of the frame, of shock absorbers comprising casings attached to said frame and slidable laterally over said feet, and compression springs in said casings between said frame and its supporting feet.

3. In a typewriting machine, the combination with the machine frame and feet carrying the weight of the frame, of shock absorbers comprising casings secured on the frame and slidable laterally over the feet, compression springs between said casings and feet, and means to adjust the tension on said springs.

4. In a typewriting machine, the combination with a main frame and feet of elastic material to support the machine, of casings fixed to the main frame, blocks secured to said feet, bearings between said blocks and casings permitting movement of the frame relative to said blocks in the direction of the carriage travel and shock reducing springs between the casings and feet.

5. In a typewriting machine, the combination with a machine frame and feet supporting the weight of the machine, of shock absorbers comprising blocks fixed to said feet, casings fixed to the main frame and slidable over said blocks, said blocks and casings provided with slots, roller bearings extending through said slots for permitting lateral movement of the frame on said blocks, and springs opposing said lateral movement.

[Claims 6 to 13 not printed in the Gazette.]

1,203,634. WINDOW-SCREEN. BENJAMIN F. LAUDENSCHLAGER and JOHN S. FREDERICK, Emaus, Pa. Filed Aug. 3, 1916. Serial No. 112,993. (Cl. 156—14.)



1. The combination with a window frame, provided with upper and lower sashes and shutters, of shutter-operating devices connected with the shutters and with the sill of the window frame, a screen mounted outside the plane of the upper or outer sash, and a lid hinged to the lower end of the screen having an inner portion above the shutter operating device provided with a front arranged directly below the plane of the upper sash close to the lower or inner sash and between said inner sash and the shutter operating devices.

2. The combination with a window frame, provided with upper and lower sashes and shutters, of shutter-operating devices connected with the shutters and with the sill of the window frame, a screen mounted outside the plane of the upper or outer sash, and a box-like lid above the shutter operating devices hinged to the screen and having a front portion disposed directly below the upper sash and close to the lower or inner sash and between said inner sash and the shutter operating devices.

3. The combination with the window frame, provided with upper and lower sashes and shutters, of shutter-operating devices connected with the shutters and with the sill of the window frame, a screen frame mounted outside the plane of the upper or outer sash and provided on its inner side with wire netting, and a box-like lid arranged over the connection of the shutter-operating devices with the sill, hinged to the lower end of the screen frame and having an inner front portion arranged directly below the upper sash and close to the lower or inner sash.

4. The combination with a window frame, provided with upper and lower sashes and shutters, of a screen located outside the sashes and inside the shutters and having a recessed cross-piece, a lid hinged to the inside of the lower end of the screen frame and having a front portion located in a plane directly below the upper sash and slot-operating devices extending through the recessed cross-piece and having handles projecting into the lid portion of the screen.

5. The combination with a window frame, provided with upper and lower sashes and shutters, of a screen located outside the sashes and inside the shutters hinged to the window frame to swing about a vertical axis, and a box-like lid hinged to the screen and having a front portion disposed directly below the upper sash and close to the lower or inner sash, said lid having one of its ends inclined to provide clearance when the screen is swung on its hinges.

[Claims 6 and 7 not printed in the Gazette.]

1,203,635. SUPPORT FOR METALLIC GLOW-FILAMENTS. ANTON LEDERER, Atzgersdorf, near Vienna, Austria-Hungary. Filed Sept. 18, 1908. Serial No. 453,152. (Cl. 176—39.)

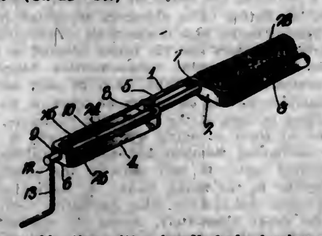
1. In a metal filament incandescent lamp, a support for the metallic filament consisting of a metal wire, coated with an oxygen compound of the metal of the said wire, which coating does not extend beyond the end of the support and is thus interposed between the filament and the said metal wire.

2. In an electric lamp, the combination of a metallic filament and a support for the said filament consisting of a nickel wire, coated with oxid of nickel; said covering being thus interposed between the said filament and the nickel wire.

3. As a support for incandescent metal, a wire of high refractability consisting of a nickel wire coated with an oxid of nickel.

4. A shield for the support of an incandescent metal body, consisting of a coating of an oxid of the metal out of which said support is made, the said coating being thus interposed between the incandescent metal body and the metal of the support.

1,203,636. ROTARY TOOTH-BRUSH. ISIDORE LOUIS, Kansas City, Mo. Filed July 19, 1915. Serial No. 40,613. (Cl. 15—37.)

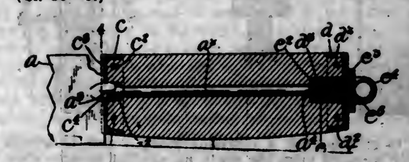


1. The combination with a handle body, having a shoulder at one end provided with a guard extension, having its opposite end turned laterally and extended back along the body, the free end of said body being turned inwardly and apertured to form a bearing, the shoulder and transversely turned part of the body having apertures in alinement with the first named aperture, a shaft rotatably mounted in said apertures, a brush on said shaft lying along the guard extension and a crank member at the opposite end of the shaft for the purpose set forth.

2. The combination of a handle body, having a shoulder at one end provided with a guard extension and having its opposite end bent back to form a bearing and handle grip, the end of the backturned part being turned toward and secured to the handle body, a shaft rotatably mounted in the shoulder and in the bearing portions of the handle, a crank member on said shaft, and a brush on said shaft lying along the guard extension.

3. The combination with a handle member comprising a bar having a portion extended at right angles to the body to form a shoulder of the body and then extended parallel with said body to form a guard, the said handle having a backturned portion at the end opposite the guard, the backturned portion and the shoulder member of the handle having apertures, forming bearings, a shaft rotatable in said bearings, a brush mounted on the shaft and lying along the guard, and a crank on said shaft.

1,203,637. BUTCHER'S KNIFE. WILLIAM F. LUTZ, Brooklyn, N. Y. Filed Sept. 7, 1915. Serial No. 49,198. (Cl. 30—9.)



1. A knife of the class specified, comprising a handle and detachable blade, said handle being provided at each end with a cap, the cap at the outer end of the handle being provided with a rotatable bushing having an internal thread and the cap at the blade end of the handle being provided with a central aperture which is angular in form and which communicates with a corresponding recess in the said end of the handle, and the blade being provided with a shank which passes through said aperture and through the handle, the free end of which is threaded to correspond with the thread of said bushing, said shank being provided adjacent to the blade with a head which is angular in cross section, and adapted to fit in said aperture and the cap at the blade end of the handle being also provided with a central transverse recess to receive the corresponding end of the blade.

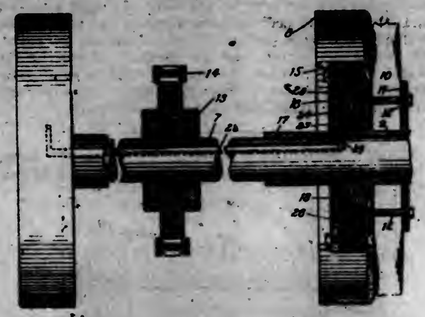
2. A knife of the class described, comprising a handle and a detachable blade, said handle being provided at each end with a cap, the cap at the outer end of the handle being provided with an inwardly directed sleeve in which is a rotatable and non-detachable bushing having an internal thread, said bushing being provided with a finger piece, said blade being provided with a shank which passes through the handle and into said bushing and is threaded to correspond with the thread in said bushing and the cap at the blade end of the handle and the shank of the blade being provided with means to prevent the rotation of said blade whereby said blade may be drawn into position by the rotation of said bushing.

1,203,638. VEHICLE DRIVING MECHANISM. WILLIAM LUXMORE, Chicago, Ill. Filed Nov. 2, 1914. Serial No. 869,806. (Cl. 21—90.)

1. In combination, a rotatable shaft, a pair of wheels loosely mounted upon the shaft, an annular member fixed with respect to each wheel, said annular members provided with internal teeth, a substantially circular block disposed in each annular member and fixed with respect to the shaft, a plurality of recesses formed in the periphery of each of said blocks, a dog disposed in each of said recesses and provided with teeth arranged to cooperate with the teeth of its associated annular member, means for connecting the several dogs associated with each block, and devices for connecting said last-mentioned means.

2. In combination, a rotatable shaft, a pair of wheels loosely mounted upon the shaft, an annular member fixed

with respect to each wheel, said annular members provided with internal teeth, a substantially circular block disposed in each annular member and fixed with respect to the shaft, a plurality of recesses formed in the periphery of each of said blocks, a dog disposed in each of said recesses and provided with teeth arranged to coöperate with the teeth of its associated annular member, a ring for connecting the several dogs associated with each block, and means comprising a rocker shaft for connecting said rings.



3. In combination, a rotatable shaft, a pair of wheels loosely mounted upon the shaft, an annular member fixed with respect to each wheel, a substantially circular block disposed in each of said annular members and fixed with respect to the shaft, a plurality of recesses formed in the periphery of each block, a dog disposed in each of said recesses, each of said blocks and its associated dogs provided with coöperating cam surfaces, devices for connecting the several dogs associated with each block, and mechanism for connecting said devices.

4. In combination, a rotatable shaft, a pair of wheels loosely mounted upon the shaft, an annular member fixed with respect to each wheel, a substantially circular block disposed in each of said annular members and fixed with respect to the shaft, a plurality of recesses formed in the periphery of each block, a dog disposed in each of said recesses, each of said blocks and its associated dogs provided with coöperating cam surfaces, a ring for connecting the several dogs associated with each of said blocks, and means comprising a rocker shaft for connecting said rings.

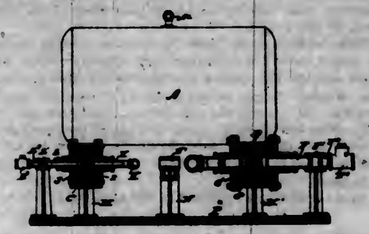
5. In combination, a rotatable shaft, a pair of wheels loosely mounted on said shaft, an annular member fixed with respect to each wheel, a block disposed in each of said annular members and fixed with respect to the shaft, a plurality of recesses formed in the periphery of each block, dogs disposed in said recesses, said dogs arranged to effect connection between their associated block and the annular member, a ring disposed around each block and arranged to embrace the several dogs associated with the block, and means for connecting said rings.

[Claims 6 to 28 not printed in the Gazette.]

1,203,639. STEAM-TRAP. JOSEPH H. MAILHOT, Detroit, Mich. Filed June 26, 1915. Serial No. 36,588. (Cl. 137—101.)

1. In an apparatus of the character described, a base plate, a pair of oscillating valve chambers spaced apart and supported upon the base, a pair of tanks, pipe connection between the oscillating valve chambers and the tanks, each valve chamber having two pair of ports, each pair of ports communicating with one of the pipes leading to the tanks, and a stationary valve housed in each oscillating valve chamber having two pair of ports adapted to co-act with the ports of the respective valve chambers, whereby water and boiler pressure may be delivered alternately to the respective tanks and discharged therefrom.

2. In an apparatus of the character described, a base plate, a pair of oscillating valve chambers spaced apart and supported upon the base, a pair of tanks, pipe connection between the oscillating valve chambers and the tanks, each valve chamber having two pair of ports, each pair of ports communicating with one of the pipes leading to the tanks, means for conveying water to one of the oscillating valve chambers for delivery to the tanks, means for conveying boiler pressure to the other oscillating valve chamber for delivery to the tanks, means for conveying the water discharged from the tanks to the boiler, and means for discharging the boiler pressure from the tanks when released through the operation of one of the oscillating valve chambers.

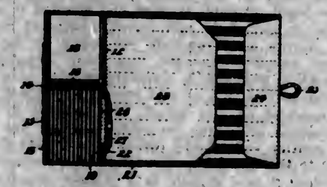


3. In an apparatus of the character described, a base, a pair of oscillating valve chambers spaced apart and supported upon the base, a pair of tanks, pipe connections between the oscillating valve chambers and the respective tanks, each of said oscillating valve chambers provided with two pair of ports, each pair of ports communicating with one of the pipes leading to the tanks, a stationary valve housed within each oscillating valve chamber having two pair of ports adapted to co-act with the ports of its respective oscillating valve chamber to establish communication respectively with the boiler and with a water supply pipe, and between the steam space of the boiler and exhaust pipe, said valves being operably connected with the tanks whereby one of the valves will alternately deliver and discharge water into and from the respective tanks while the other valve admits steam into one tank while exhausting steam from the other tank, a pipe for delivering water to one of the oscillating valve chambers, a check valve to close against the return of said water, means for delivering the water from the respective tanks to the boiler under the control of the oscillating valve chamber, an exhaust pipe for delivering steam from the respective chambers, under control of the other oscillating valve chamber, and a check valve to close against the return of the exhaust, substantially as described.

4. In a device of the character described, a base plate, a pair of oscillating valve chambers supported from the base, a pair of tanks, pipe connections between the oscillating valve chambers and the tanks adapted to support the tanks and to provide communication between the valve chambers and the tank, each of said oscillating valve chambers having two pairs of ports, a stationary valve housed in each of the oscillating chambers, having two pairs of ports co-acting with the ports of the respective oscillating chambers, including the valves, means for conveying water to said chamber for alternate delivery thereby to the tanks, means for delivering steam from the boiler through the other oscillating valve chamber to the tanks alternately, means for cushioning the impact of the tilting tanks, comprising a rocking arm supported by the base having ends adapted to alternately receive the tanks, a pair of disconnected fluid chambers spaced apart and pivoted to the base, a plunger adapted to reciprocate in each of the fluid chambers perforated for the passage of the fluid, and connecting rods engaging the plunger and the respective ends of the rocking arm.

5. In an apparatus of the character described, a base plate, a pair of oscillating valve chambers supported from the base, a pair of tanks, pipe connection between the oscillating valve chambers and the tanks, each valve chamber having two pair of ports, each pair of ports communicating with one of the pipes leading to the tanks, a stationary valve housed in each oscillating valve chamber having two pair of ports adapted to co-act with the ports of the respective valve chambers, whereby water and boiler pressure may be delivered alternately to the respective tanks and discharged therefrom, an adjustable packing ring surrounding each of said ports, having an inwardly projecting flange extending into the stationary valve, and resilient elements to force the ring in contact with the wall of the valve chamber.

1,203,640. COMBINED CIGARETTE AND MATCH BOX. JOHN MALICKI, Amsterdam, N. Y. Filed Aug. 19, 1915. Serial No. 46,350. (Cl. 206—48.)



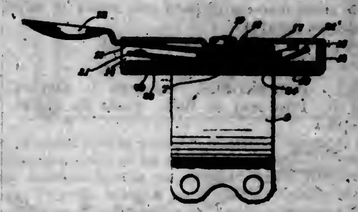
1. A cigarette container comprising a casing having a transverse partition adjacent one end thereof to provide a transverse open-ended compartment, a compartment drawer slidably mounted within said compartment, the said partition adjacent side wall of the drawer having registering openings therein, a cigarette carrier positioned in the opposite end of the casing, and an outstanding tongue carried by the end wall of said carrier adapted to pass through the registering openings in the partition and drawer wall to prevent lateral displacement of the said drawer.

2. A cigarette container comprising an outer casing having a transverse opening therein, a drawer slidably mounted within said opening, a cigarette container slidably mounted within said casing at right angles to the line of movement of the drawer, and coöperative locking means carried by the drawer and container to prevent lateral displacement of the drawer when the container is wholly positioned within the casing.

3. A cigarette container comprising an outer casing having a transverse opening at one end thereof extending therethrough, a drawer slidably mounted in said opening to be removed from either side of said container, a cigarette carrier slidably mounted within the container for movement in a direction at right angles to the sliding movement of the drawer, and interlocking connections between the drawer and cigarette carrier made operative when the drawer and carrier are wholly positioned within the casing.

1,203,641. CIRCUIT-CONTROLLER. RAY H. MANSON, Elyria, Ohio, assignor to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Sept. 29, 1913. Serial No. 792,256. (Cl. 200—27.)

1. In a device of the class described, the combination of a hollow casing long in proportion to its width and low in proportion to its width, one end of the casing being opened and the other closed by a wall having a hole therein, a contact spring completely concealed and covered by said casing, a strip of insulating material insulating said spring from the bottom of the casing upon which it is mounted with the terminal end adjacent the opening in the closed end of the casing, a second contact spring mounted in said casing above the first contact spring, a layer of insulating material between said contact springs, said second contact spring having one of its ends extending through the open end of the casing and accessible from the outside of said casing, the outside end of such contact spring being depressed to form a catch for the finger of the operator, the top of the casing being depressed for the head of a screw and a screw passing through the top and bottom walls of the casing, the contact springs and intervening layers of insulating material and having its head seated in the depression in the top.



2. In a device of the class described, the combination of a hollow casing long in proportion to its width and low in proportion to its width, a contact spring completely concealed and covered by said casing, a strip of insulating material insulating said spring from the bottom of the casing upon which it is mounted with the terminal end adjacent one end of the casing, a second contact spring mounted in said casing above the first contact spring and a layer of insulating material between said contact springs, said second contact spring having one of its ends extending through the casing and accessible from the outside of said casing, the outside end of said second contact spring having a catch formed thereon for the finger of the operator.

3. In a device of the class described, the combination of a support, a contact spring mounted on the support, a layer of insulating material between the contact spring and the support, one end of said contact spring being free, a contact on the free end of said spring, a second contact spring, a layer of insulating material between said contact springs, means to connect said contact springs and insulating material to the base, said contact springs, said base and said layer of insulating material being parallel and a catch formed on the free end of the second contact spring and integral therewith.

4. A switch comprising a hollow casing long in proportion to its width and low in proportion to its width, a contact spring completely concealed and covered by said casing, a strip of insulating material insulating said spring from the bottom of the casing upon which it is mounted with the terminal end adjacent one end of the casing, a second contact spring mounted in said casing above the first contact spring and a layer of insulating material between said contact springs, and operating means to actuate said second contact spring including a part extending through and accessible from the outside of said casing and having a catch formed on said part for the finger of the operator.

1,203,642. COLOR-LAKES FAST TO LIGHT. ERNST MECKBACH, Opladen, near Cologne, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed May 14, 1915. Serial No. 28,104. (Cl. 8—1.)

1. The new color lakes comprising in combination a basic dye, an anthraquinone coloring matter and aluminum, said lakes being distinguished by their great fastness to light, substantially as described.

2. The new color lakes comprising in combination a basic dye, an aminoanthraquinone sulfonic acid compound and aluminum, said lakes being distinguished by their great fastness to light, substantially as described.

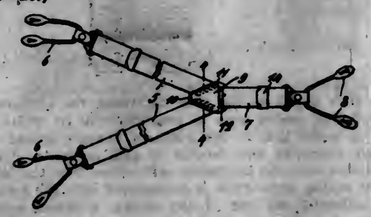
3. The new color lakes comprising in combination an alkylised dehydrothiotoluidin, a polyhydroxyanthraquinone coloring matter and aluminum, said lakes being distinguished by their great fastness to light and purity of color, substantially as described.

4. The new color lakes comprising in combination an alkylized dehydrothiotoluidin, an aminoanthraquinone sulfonic acid compound and aluminum, said lakes being distinguished by their great fastness to light and purity of color, substantially as described.

5. The new color lakes comprising in combination an alkylized dehydrothiotoluidin, an aminooxyanthraquinone sulfonic acid and aluminum, said lakes being distinguished by their great fastness to light and purity of color, substantially as described.

[Claim 6 not printed in the Gazette.]

1,203,643. SUSPENDERS. CHARLES L. MOLLOY, Chicago, Ill. Filed May 10, 1915. Serial No. 27,088. (Cl. 241—16.)



1. The combination with the shoulder straps of suspenders, of a coupling device to which the rear ends of the straps are connected, and from opposite sides of which they extend divergingly, said device comprising opposite jaws between which the strap ends are held, the jaws being resiliently connected at one end and having at the opposite end a transverse slot, a clip engageable over the edge of the slot to hold the jaws closed, a looped strap passing through the slot, and garment attaching means carried by the looped strap.

2. The combination with the shoulder straps of suspenders, of a coupling device to which the rear ends of the straps are connected, and from opposite sides of which they extend, said device comprising opposite jaws open at the sides, and between which jaws the strap ends are held, the jaws being resiliently connected at one end and having their opposite ends provided with alined transverse slots, a clip engageable over the edge of the slot to hold the jaws closed, a looped strap passing through the slot and over the clip, and garment attaching means carried by said looped portion.

1,203,644. MECHANICAL COUNTER. JOSEPH O. MORRISON, Anderson, Ind. Filed Apr. 17, 1912. Serial No. 691,284. (Cl. 235—124.)



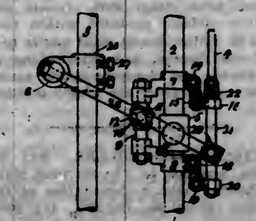
1. In an apparatus of the class described, in combination, a revoluble member normally occupying a predetermined position, operating means for moving the same in one direction, a second revoluble member normally occupying a predetermined position, means controlled by said first mentioned revoluble member and adapted to cause a fractional revolution of said second mentioned revoluble member during each complete revolution of said first mentioned revoluble member, transverse extensions on said revoluble members, and means movable in the reverse direction adapted to engage said extension when the revoluble members are in other than their predetermined positions and thereby return both of said revoluble members to their respective predetermined positions.

2. In an apparatus of the class described, in combination, a revoluble member normally occupying a predetermined position, operating means for moving the same in one direction, a second revoluble member normally occupying a predetermined position, means controlled by said first mentioned revoluble member and adapted to cause a fractional revolution of said second mentioned revoluble member during each complete revolution of said first mentioned revoluble member, transverse extensions on said revoluble members, a revoluble spindle upon which are loosely carried both of said revoluble members, means fixedly mounted on said spindle and adapted to engage the extensions when the revoluble members are in abnormal position and thereby return both of said revoluble members to their respective predetermined positions upon the turning of said spindle in a reverse direction, and means to operate the spindle.

3. In an apparatus of the class described, in combination, a revoluble member normally occupying a predetermined position, operating means for moving the same in one direction, a second revoluble member normally occupying a predetermined position, means controlled by said first mentioned revoluble member and adapted to cause a fractional revolution of said second mentioned revoluble member during each complete revolution of said first mentioned revoluble member, transverse extensions on said revoluble members, a revoluble spindle upon which are loosely carried both of said revoluble members, means fixedly mounted on said spindle and adapted to engage the extensions when the revoluble members are in abnormal position and thereby return both of said revoluble members to their respective predetermined positions upon the turning of said spindle in a reverse direction, and means to operate the spindle.

4. In an apparatus of the class described, in combination, a revoluble member, ratchet means comprising a plurality of ratchet units, said ratchet means controlling the revolution of said revoluble member, a fixed member provided with an opening, said opening being adapted to expose one of said units, a second revoluble member, operating means for causing a revolution of said second mentioned revoluble member, a pawl, normally occupying a predetermined position within said opening and adapted to travel within said opening and thereby to engage said exposed unit once during each revolution of said second mentioned revoluble member, an extension on said pawl, a revoluble spindle, and a member controlled by the revolution of said spindle adapted to engage the extension on said pawl and return the pawl to its normally predetermined position within said opening.

1,203,645. VALVE-ACTUATING MECHANISM FOR FLUID-PRESSURE MOTORS. THOMAS WINTER NICHOLS, Gateshead, England. Filed Sept. 3, 1915. Serial No. 48,782. (Cl. 121—98.)



1. In valve actuating mechanism for fluid pressure motors, the combination of a stationary element, a piston-rod and a valve actuator, in planes substantially parallel to said element, a rectilinearly reciprocatable member on said stationary element, a rocking member connected to the valve actuator and to said reciprocatable member, and an actuating lever fulcrumed in said stationary element and in operative connection with the piston-rod, rocking member and reciprocatable member.

2. In valve actuating mechanism for fluid pressure motors, the combination of a stationary element, a piston-rod and a valve-rod disposed in planes substantially parallel to said element, a member rectilinearly reciprocatable on said element, a sliding gudgeon carried by said reciprocatable member, a rocking member connected to the valve-rod and to said reciprocatable member, and an actuating lever fulcrumed on said element, in operative connection at opposite ends with the piston-rod and rocking member, respectively and intermediate said ends with said sliding gudgeon.

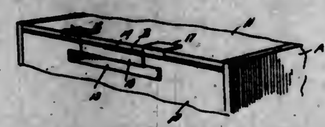
3. In a valve actuating mechanism for fluid pressure motors, the combination of a stationary element, a piston-rod and a valve actuator disposed in planes substantially parallel to said element, a rectilinearly reciprocatable member mounted on said stationary element, a rocking member connected to the valve actuator and to said reciprocatable member, a sliding gudgeon carried by the latter, and a valve actuating lever fulcrumed on said stationary element and in operative connection with said piston-rod, rocking member and gudgeon, said lever being also in sliding relation with said sliding gudgeon.

4. In valve actuating mechanism for fluid pressure motors, the combination of a stationary element, a piston rod and valve actuator disposed in planes substantially parallel to said element, a rectilinearly reciprocatable member mounted on said stationary element, a rocking member including interconnected links pivoted to said reciprocatable member and to the valve actuator, and a valve actuating lever, pivotally connected to said rocking member, fulcrumed on the stationary element and operatively connected to the piston-rod and reciprocatable member.

5. In valve actuating mechanism for fluid pressure motors, the combination of a stationary element, a piston-rod and a valve actuator disposed in planes substantially parallel to said element, a rectilinearly reciprocatable member mounted on said stationary element, a rocking member connected to the valve actuator and to said reciprocatable member, a sliding gudgeon carried by the latter, a valve actuating lever fulcrumed on said stationary element and in operative connection with said piston-rod, rocking member and gudgeon and means for preventing movement of said reciprocating member until its gudgeon reaches its extreme limits of movement.

[Claim 6 not printed in the Gazette.]

1,203,646. HUMIDOR. DAVID T. OLIVER, New York, N. Y. Filed Mar. 30, 1915. Serial No. 18,187. (Cl. 131—30.)



The combination with a box including a front wall provided with engaging means, a hinge lid having a recess therein opening through its free edge, of a moisture carrying element removably engaged in said recess, and a tongue on the outer edge of said element forming a hook for engagement with said engaging means on the front wall of the box to secure the lid in closed position.

1,203,647. TRACTOR DRIVING-GEAR. ALFRED ORTENGREN, Brooklyn, N. Y., assignor to Elisabeth Christie, Weehawken, N. J. Continuation in part of application Serial No. 705,228, filed June 22, 1912. This application filed June 2, 1914. Serial No. 842,455. (Cl. 21—114.)

1. A wheel having an outer relatively rotatable member, an inner member adapted to be pivotally secured to one end of an axle and having a removable annular member on which the rotatable member is mounted.

2. A wheel having an outer relatively rotatable member, a flanged internal gear removably secured thereto, an inner member adapted to be pivotally secured to one end of an axle and having a removable ring on which the rotatable member is mounted.

3. A wheel having an outer relatively rotatable member, a flanged internal gear removably secured thereto, an inner member adapted to be pivotally secured to one end of an axle and having a removable ring on which the rotatable member is mounted, and interposed frictionless bearings between the outer and inner members, said internal gear being arranged to extend freely into the removable ring of the inner member.

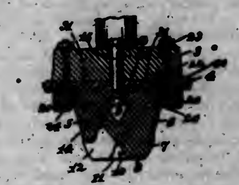


4. A wheel having an outer relatively rotatable member, a removable internal gear secured to the outer member, an inner member having an annular flange adapted to fit loosely over the internal gear of the rotatable member, a removable ring surrounding the annular flange on the inner member, and frictionless bearings between said ring and the outer member.

5. A wheel having an outer relatively rotatable member, a removable internal gear secured to the outer member, an inner member having an annular flange adapted to fit loosely over the internal gear of the rotatable member, a removable ring surrounding the annular flange on the inner member, frictionless bearings between said ring and the outer member, an eccentric sleeve forming a part of the inner member, a pinion rotatively and removably mounted therein and adapted to mesh with the said internal gear.

[Claim 6 not printed in the Gazette.]

1,203,648. SECURING MEANS FOR VEHICLE-TIRES. MAX CYRUS OVERMAN, New York, N. Y. Filed Jan. 12, 1913. Serial No. 741,675. (Cl. 152—6.)



1. In combination, a wheel, a rubber tire having at its sides outwardly projecting basal clamping portions which, when uncompressed, are partially separated from the side of the tire by an upright space extending toward the wheel-periphery, clamping means which compresses said clamping portions toward the wheel-periphery to secure the tire thereto, and relatively incompressible means in the clamping portions extending radially outward in the given clamping portion approximately to its upright space.

2. In combination, a wheel, a rubber tire having at its sides outwardly projecting basal clamping portions, a plurality of longitudinally spaced relatively incompressible tubes extending radially outward through the clamping portions for part of their depth, and a plurality of clamping means compressing the clamping portions toward the wheel-periphery, each comprising a head and a stem, the head engaging the clamping portion, and the stem passing through the clamping portion and one of the aforesaid tubes and engaging the wheel.

3. In combination, a wheel, a rubber tire having at its sides outwardly projecting basal clamping portions, a plurality of longitudinally spaced relatively incompressible tubes extending radially outward through the clamping portions for part of their depth, and a plurality of clamping means compressing the clamping portions toward the wheel-periphery, each comprising a bolt extending from the wheel through one of the tubes, and a plate on the end of said bolt beyond the clamping portion, said plate extending

laterally to the edge of the clamping portion and thence inwardly at the side of the clamping portion and having a foot adapted to contact with the wheel when the clamping portion has been compressed, and means for connecting said foot to the wheel.

4. In combination, a wheel, a rubber tire having at its sides outwardly projecting basal clamping portions which, when uncompressed, are partially separated from the side of the tire by an upright space extending toward the wheel-periphery, clamping means which compresses said clamping portions toward the wheel-periphery to secure the tire thereto, and positive stop means which prevents the clamping-means from over-compressing said outwardly projecting basal clamping-portions at the sides of the tire.

5. In combination, a wheel, a rubber tire having load-supporting walls adjacent an opening in its base, said walls having lateral basal flanges projecting both outwardly and inwardly, the latter into said opening in the base of the tire; and inner and outer clamping means for securing the tire to the wheel, the inner acting upon and compressing the inner basal flanges of the tire toward the wheel-periphery without definite limit to the degree of the compression, and the outer compressing the outer basal flanges toward the wheel periphery only to a limited extent that is short of giving an outward tendency to the tire-walls.

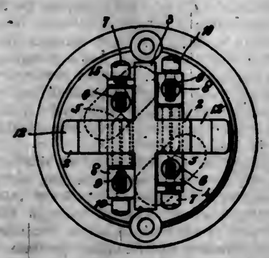
1,203,649. MULTIPLE CARTRIDGE. VASILJ PAPUGA, South Omaha, Nebr. Filed June 19, 1916. Serial No. 104,411. (Cl. 102—15.)



1. A cartridge comprising a shell, an explosive positioned therein, a plurality of missiles arranged within the shell, a securing cord surrounding the said missiles, and a fuse connecting the said cord and explosive.

2. A cartridge comprising a shell, a percussion cap in the closed end thereof, powder packed within the shell adjacent the said cap, a disk engaging the said powder and provided with a perforation therethrough, a plurality of bundles of separate projectiles successively positioned within the shell forwardly of the said disk, combustible securing means surrounding the said bundles, connecting means for the bundles attached to the said securing means, a fuse attached to the said securing means of the separate bundles and having a free end portion extending through the perforation of the said disk and arranged within the said powder, and a closing disk within the outer open end of the shell.

1,203,650. CEILING-ROSE. EDGAR ISON PARKES, Bushey, England. Filed Oct. 26, 1911. Serial No. 656,931. (Cl. 173—329.)



1. In a ceiling rose or like fitting, the combination of an insulating base, a cord grip integral therewith, circuit terminals slidably mounted in and supported by said base, and lamp terminals carried by and slidably mounted in said circuit terminals.

2. In a ceiling rose the combination of an insulating base, an insulating rib integral with said base and upstanding therefrom, terminals slidably mounted in said rib, a cord grip on said rib and a transverse rib on said base separating the terminals of opposite polarity.

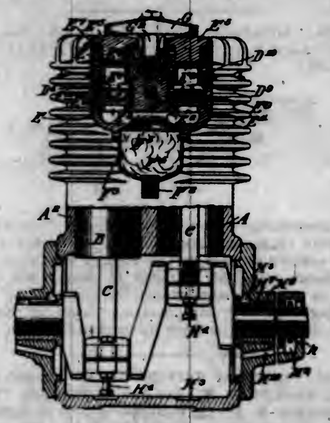
3. In a ceiling rose, the combination of an insulating base, two upstanding ribs on said base arranged to form a cross, one of said ribs having a pair of non-circular holes one on either side of the other rib, a pair of metal blocks each passing through one of said holes, means for connecting one of the main wires to each of said metal blocks, a pair of plugs one fitting into each of said metal blocks and means for connecting the flexible wires to said plugs.

4. In a ceiling rose, the combination of an insulating base, an insulated rib upstanding therefrom and pierced with a pair of non-circular holes passing therethrough, a pair of metal blocks one fitting into each of said holes, a terminal screw for a main wire at one end of each of said metal blocks, a plug terminal at the other end of each of the metal blocks adapted to take the flexible wires, and a stop integral with the insulating base with its effective surface parallel to said pierced rib and at right angles to the direction of sliding of said metal blocks and located to take the thrust of each of the metal blocks when said plugs are inserted and to prevent removal of said metal blocks without removal of said terminal screws.

5. In a ceiling rose, the combination of an insulating base, a perforated insulating rib upstanding therefrom, metal sockets passing through the perforations in said ribs, means for securing circuit wires to said sockets, metal plugs sliding in and making electric connection with said sockets, and means for securing lamp wires to said plugs.

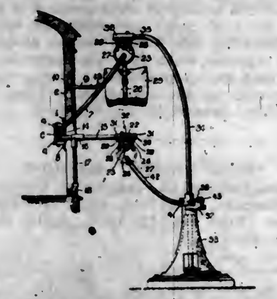
[Claims 6 to 8 not printed in the Gazette.]

1,203,651. FLUID-PUMP. OSCAR H. PIEPER and ALPHONSE F. PIEPER, Rochester, N. Y. Filed Feb. 7, 1914. Serial No. 817,192. (Cl. 230—34.)



In a pump, the combination with a cylinder and a piston therein, of a casing removably attached to said cylinder and embodying a lower section including a pair of valve chambers communicating with the cylinder, a second valve chamber separated from and mounted directly upon each of the first named chambers and each provided with an outlet passage, a seat portion removably carried by the lower portion of each of the upper chambers and having an integral valve seat, a disk valve engaging said seat, a removable top for each of the upper chambers having a downwardly projecting integral portion disposed centrally of the chamber and in the path of said valve to limit its upward movement, a valve seat formed integrally at the bottom of each of the lower chambers, a disk valve engaging each of the last mentioned seats, an integral valve stop portion formed upon the aforesaid seat portions and projecting centrally of the chambers into the path of the valves in the lower chambers, an air inlet connected with said lower section of the casing and an air filtering device attached directly at the bottom of said lower section and supported thereon.

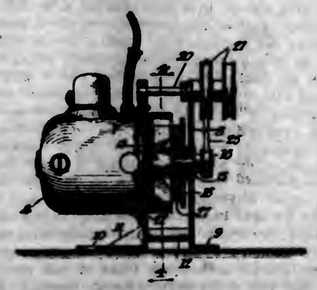
1,203,652. MAIL-BAG CATCHER. MEAKIN RIGNEY, Detroit, Mich., assignor of one-half to Nathan C. Taliaferro, Detroit, Mich. Filed Nov. 9, 1914. Serial No. 871,036. (Cl. 258—26.)



1. In a mail receiving and delivering apparatus, a car equipment comprising a pivoted socket member, receiving and delivery arms carried thereby, a leg supporting said delivery arm, a foldable section carried by the outer end of said arm, a head carried by the outer end of said section, a rearwardly extending pin supported by said head and from which mail matter is adapted to be suspended by a ring, and yieldable detents carried by said head and coöperating with said pin in correctly positioning the ring upon said pin.

2. In a mail receiving and delivering apparatus, a car equipment comprising a pivoted socket member adapted for attachment to the inner side of a car wall, a delivery arm carried thereby and adapted to have the outer end thereof swung out of the car, a leg movable on the floor of the car and supporting the delivery arm, a foldable section carried by the outer end of said arm, a head carried by the outer end of said section, a rearwardly extending pin supported by said head and from which mail matter is adapted to be suspended by a ring, means carried by said head and coöperating with said pin in correctly positioning the ring upon said pin.

1,203,653. POWER-TRANSMITTING DEVICE. AUGUST E. RONNER, Brooklyn, N. Y. Filed Sept. 30, 1915. Serial No. 53,246. (Cl. 64—13.)



1. The combination with a motor and a fan driven thereby, of means coöperating with said fan for transmitting rotary motion from said motor, the organization being such that the removal of the fan proper will break the connection between the motor and said means.

2. The combination with a motor and a fan driven thereby, of means coöperating with the blades of said fan for transmitting rotary motion from said motor, and means for supporting said motion-transmitting means.

3. The combination with a motor and a fan driven thereby, of a clutch member coöperating with the fan proper for transmitting motion from said motor.

4. The combination with a motor and a fan driven thereby, of a clutch member coöperating with said fan for transmitting motion from said motor, and means for supporting said clutch member for rotary movement.

5. The combination with a motor and a fan driven thereby, of means for transmitting rotary motion from said motor and comprising a disk adapted to engage the blades of said fan.

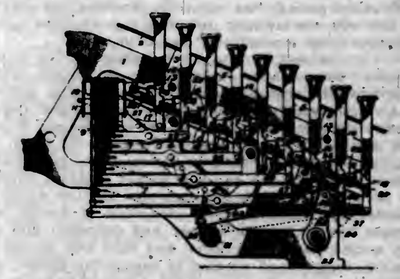
[Claims 6 to 26 not printed in the Gazette.]

1,203,654. INNER TUBE FOR PNEUMATIC TIRES. LEIGH R. SCHAAP, Longmont, Colo. Filed Jan. 28, 1916. Serial No. 74,725. (Cl. 152—13.)



A pneumatic tire, comprising an outer case and an inner tube made of woven fabric saturated with paper fiber, substantially as described.

1,203,655. KEYBOARD. JOHN A. SCHLEICHER, Wilkes-Barre, and CHARLES V. WILGUS, Kingston, Pa., assignors to The Adder Machine Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed June 9, 1913. Serial No. 772,681. (Cl. 235—26.)



1. In a calculating machine, the combination with a main drive shaft, and a lock keyboard, including a series of keys having stems; of locking bars having apertures to confine the keystems; latches on the bars to lock the keys; and means controlled by the main drive shaft to hold the latches normally idle.

2. In a lock keyboard, the combination with a series of keys having notched stems; of locking bars having apertures through which the keystems pass; and means to shift the locking bars and their apertures relatively to the keystems to confine the keystems in the apertures.

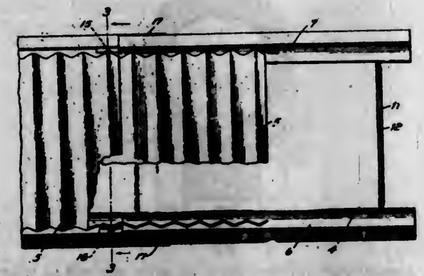
3. In a lock keyboard, the combination with a series of keystems, and catches on the stems; of locking bars having angularly-shaped apertures through which the keystems pass; the catches normally alining with one branch of the respective angular apertures; and means to shift the locking bars relatively to the keystems to interrupt said alinement.

4. The combination with a keyboard; locking means for the keys; and a restraining and restoring member to control the locking means; of a positively driven device flexible in one direction to control the restraining and restoring member.

5. The combination with a keyboard; locking means for the keys; and a restraining and restoring member to control the locking means; of a positively driven arm to control the restraining and restoring member; and a flexible detent on said arm to hold the member against shifting.

[Claims 6 to 11 not printed in the Gazette.]

1,203,636. METAL CULVERT. WILLIAM T. SHANNON, Cincinnati, Ohio. Filed Feb. 3, 1916. Serial No. 76,036. (Cl. 61—9.)



1. A culvert composed of sheet metal sections, each section consisting of an arched cover plate and a substantially flat bottom plate having longitudinally extending trough-shaped grooves formed near its longitudinal edges, the grooves of adjacent bottom plates overlapping and engaging each other, the arched plates being mounted on the bottom plates with their straight edges located in the grooves, the subjacent end of each bottom plate having lugs extending inwardly and each superimposed end of each arched plate having outwardly extending lugs adapted to lock with the inwardly extending lugs when the second mentioned lugs are brought beneath them.

2. In a culvert section, a top member and a bottom member, comprising a substantially flat plate having longitudinally extending top member engaging grooves, and a transversely extending flange-engaging slot formed therein a flange being formed on the opposite end of each flat bottom plate and adapted to occupy the flange engaging slot of each adjacent bottom plate, and locking means formed on the top and bottom members adapted to be engaged to lock the members together when assembled, said locking means consisting of flexible lugs formed on the bottom member and extending into the top member engaging grooves, and rigid lugs formed on the top member and adapted to engage the flexible lugs when the members are brought together whereby the flexible lugs will permit movement of the rigid lugs beyond them and will spring to their normal positions to lock the rigid lugs against withdrawal.

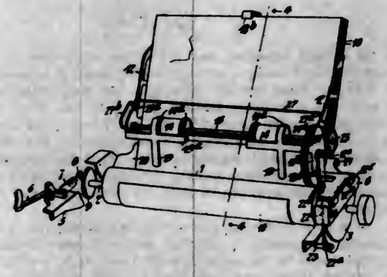
3. A culvert composed of interlocking bottom plates having longitudinally extending cover plate-receiving grooves formed therein, and arched cover plates mounted on the bottom plates with their longitudinal edges in the grooves, said bottom plates having spring lugs formed thereon and said cover plates having rigid lugs formed thereon adapted to lockingly engage one another when the plates are moved to their assembled positions.

4. A culvert composed of interlocking bottom plates having flow-obstructing ribs formed thereon and cover-receiving grooves formed therein, and overlapping arched cover plates mounted on the bottom plates with their longitudinal edges mounted in the grooves, said bottom plates and said cover plates having coöperating lugs formed thereon, adapted to lock the cover plates and bottom plates together, the lugs of one of said sets of plates being spring lugs and the lugs of the other of said sets of plates being rigid.

5. A culvert composed of a series of interlocking sections, each section comprising a bottom plate having cover-receiving grooves formed therein, a flange located at one end thereof, and a flange-receiving slot formed in the other end thereof, and a cover plate mounted on the bottom plate and having its edges mounted in the grooves formed in the cover plate, said cover and bottom plates having coöperating lugs formed thereon adapted to lock the plates together when they are assembled, the lugs of one of said sets of plates being spring lugs and the lugs of the other of said sets of plates being rigid.

[Claim 6 not printed in the Gazette.]

1,203,657. TYPE-WRITING MACHINE. JOHN H. SHECKLER, Chicago, Ill., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 19, 1914. Serial No. 819,687. (Cl. 197—130.)



1. In a typewriting machine, the combination of a traveling carriage; a revoluble platen mounted in said carriage; pressure rolls co-acting with said platen; a paper table for guiding work-pieces between said pressure rolls and said platen, said table having a beading along its upper edge; a sheet magazine located above said paper table; means for consecutively feeding sheets from said magazine to said platen; and retaining means engaging said beading to hold said magazine in position.

2. In a typewriting machine, the combination of a traveling carriage; a revoluble platen mounted in said carriage; pressure rolls co-acting with said platen; a paper table for guiding work-pieces between said pressure rolls and said platen, said table having a beading along its upper edge; a sheet magazine located above said paper table; means for consecutively feeding sheets from said magazine to said platen; retaining means engaging said beading at the rear of said magazine; and a support for the front of said magazine, said retaining means and said support serving to hold said magazine in position.

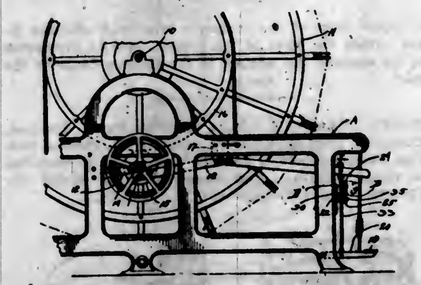
3. In a typewriting machine, the combination of a traveling carriage, a revoluble platen carried thereon, pressure rolls co-acting with said platen, a paper table for guiding work-sheets between said pressure rolls and said platen, a sheet magazine supported at its rear on the upper edge of said paper table, a foot supporting said paper table at its front, and means interlocking with the paper table at the rear of the magazine, to prevent the latter from sliding toward the front or the rear of the machine, said foot being provided with means to prevent endwise movement of the said magazine along the paper table.

4. In a typewriting machine embodying a carriage provided with a paper shelf having a bead on its upper edge, the combination of a work-feeding magazine located above said shelf; a depending extension on said magazine engaging one of the end members of the carriage, to support the magazine and prevent endwise movement thereof relatively to said carriage; and retaining hooks secured to the rear portion of said magazine and engaging said bead of the magazine.

5. In a typewriting machine embodying a carriage provided with a paper shelf having a bead on its upper edge, the combination of a work-feeding magazine located above said shelf; a support on said magazine engaging said carriage, to prevent endwise movement of said magazine relatively to said carriage; retaining hooks secured to said magazine and engaging said bead; and means acting conjointly with said hooks, when so engaged, to prevent tilting of said magazine.

[Claims 6 to 20 not printed in the Gazette.]

1,203,658. TREADLE STARTING MECHANISM FOR MACHINES. MATTHEW VAN DER SLUYS, Paterson, N. J. Filed Apr. 4, 1916. Serial No. 88,964. (Cl. 74—81.)



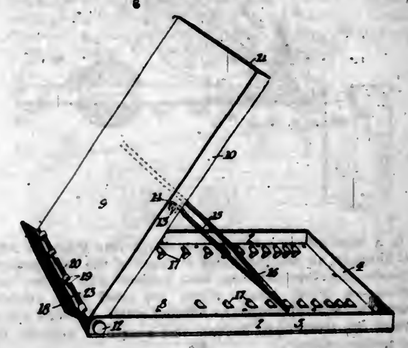
1. In a beaming machine including a frame supporting driving and driven elements one of which is movable into and out of operative relation with the other, an operating lever for the movable element pivoted on the frame, a treadle pivoted on the frame, and connections between each end of the treadle and the lever whereby the depression of either end of the lever will operate the lever in a direction to move the movable element into operative relation with the other element.

2. In a beaming machine including a frame supporting driving and driven elements one of which is movable into and out of operative relation with the other, an operating lever for the movable element pivoted on the frame, a treadle pivoted on the frame, a link connecting one end of the treadle with said lever, and connections between the other end of the treadle and said link whereby the depression of the end of the treadle remote from the link will positively operate the latter to move the lever in a direction to throw the elements into coöperative position.

3. In a beaming machine including a frame supporting driving and driven elements one of which is movable into and out of operative relation with each other, an operating lever for the movable element, pivoted on the frame, a treadle pivoted on the frame, a link connecting one end of the treadle with said lever, an angle lever pivoted on the frame and operatively connected with said link, a second angle lever pivoted on the frame at the side of the latter remote from the first angle lever, a rod connecting given arms of said angle levers, and a link connecting one arm of the second angle lever with the end of the treadle remote from the first angle lever.

1,203,659. COPY-HOLDER. STEPHEN T. SMITH, Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 6, 1914. Serial No. 837,146. (Cl. 120—28.)

1. A copy holder comprising a base plate having upwardly extending walls and a plate with paper supporting means thereon having downwardly extending walls of smaller dimensions, a hinge connection between said plates at one end, a ball pivoted to the second mentioned plate, a series of forwardly directed lugs on the inside bottom of the base plate with which the bottom of the ball may engage in any adjusted position, the said lugs being arranged on each side of the bottom plate near the walls thereof thereby providing spaces between said lugs for storage purposes.



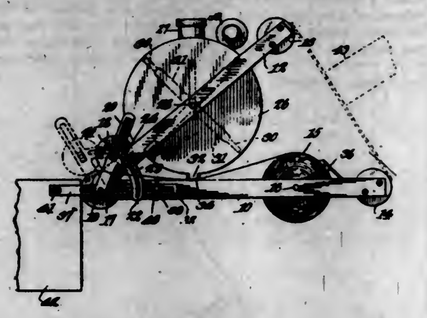
2. A copy holder comprising a base plate and a holder plate having paper supporting means thereon, a hinge connection between said plates at the ends thereof, the holder plate being provided with downwardly extending walls and the base plates with upwardly extending walls of slightly larger dimensions whereby the holder plate may nest within the base plate, a wire bail hinged to the holder plate near the middle thereof and formed at its free end to constitute the foot of the said bail, the bottom of the base plate being provided with forwardly directed lugs struck up from said bottom, the foot of the bail being adapted to engage with said lugs to hold the upper plate in any desired angle.

3. A copy holder comprising a base plate and a holder plate, said holder plate having paper supporting means thereon and said plates having telescoping side walls, a hinge connection for said plates, a member hinged to the side walls of the holder plate and means coöperating therewith to hold said holder plate in various angular adjusted positions upon said base plate.

4. A copy holder comprising a base plate formed of sheet metal and perpendicular walls therefor, a holder plate formed of sheet metal and having perpendicular walls adapted to nest within the walls of the base plate whereby the two form a receptacle, a hinge rod passing through the side walls of the base plate and of the holder plate near one end thereof, the bottom of the base plate being provided on each side near the side wall thereof with a row of forwardly projecting lugs struck up from the metal of the bottom, a wire bail pivoted at its ends thereof to the side walls of the holder plate and its foot being wide enough to extend between the rows of struck up lugs, the length of said bail being sufficiently small to enable it to be folded within the supporting plate, and a ledge pivoted to the supporting plate at one end thereof on its top whereby a folding support for holding copy is provided.

5. A copy holder comprising a base plate and a holder plate, the two being hinged together near one end thereof, the holder plate being provided with a bail and a base plate with lugs with which said base plate engages, whereby the two are held in any adjusted position, and a ledge pivoted to the holder plate at or near its hinged end, said ledge provided with rearwardly extended wings and said supporting plate with inturned portions adapted to be engaged by said wings whereby said ledge is swung outwardly to form a support, the said wings and inturned portions forming a stop to limit the turning movement.

1,203,660. LABEL-AFFIXER. WORTH R. STEARNS and ALBERT H. MCDERMOTT, Spokane, Wash. Filed Oct. 29, 1915. Serial No. 58,583. (Cl. 216—6.)



1. A label affixer comprising a supporting frame, a label roll support, an affixing roller in front of the roll support, a paste reservoir between said support and roller, and having an outlet across which the label strip travels, a tension roller opposite the affixing roller, between which rollers the label strip passes, and a pivoted support for the tension roller.

2. A label affixer comprising a supporting frame, a label roll support, an affixing roller in front of the roll support, a paste reservoir between said support and roller, and having an outlet across which the label strip travels, a tension roller opposite the affixing roller, between which rollers the label strip passes, a pivoted support for the tension roller, and means for locking said support to the supporting frame.

3. A label affixer comprising a supporting frame, a label roll support, an affixing roller in front of the roll support, a paste reservoir between said support and roller, and an edge-guided gage bar extending forward from the supporting frame.

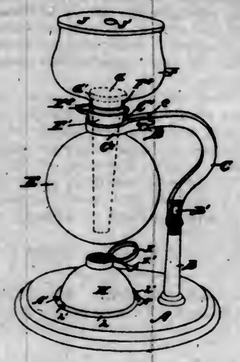
4. A label affixer comprising a supporting frame consisting of laterally spaced bars having upstanding arms at their forward ends, said arms being inclined rearward, handles carried by the rear ends of the bars and the arms, a paste reservoir supported between the arms and having a bottom outlet, a label roll support supported between the rear ends of the bars, and an affixing roller supported between the front ends of the bars, the reservoir outlet being located between said roller and the roll support.

5. A label affixer comprising a supporting frame consisting of laterally spaced bars having upstanding arms at their forward ends, said arms being inclined rearward, handles carried by the rear ends of the bars and the arms, a paste reservoir supported between the arms and having a bottom outlet, a label roll support mounted between the front ends of the bars, an affixing roller between the front ends of the bars, a shaft supporting said roller and carried by the bars, arms pivoted on said shaft, a tension roller carried by said arms and located opposite the affixing roller, and means for locking the arms which carry the tension roller.

1,203,661. COFFEE-PERCOLATOR. HENRY TASK, Detroit, Mich., assignor of one-half to John Laube, Detroit, Mich. Filed June 25, 1915. Serial No. 36,164. (Cl. 53—3.)

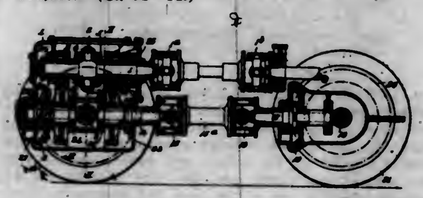
1. In a device of the character described, a fluid container, means for supporting the fluid container, a funnel adapted to be supported within the container having within its bowl an upwardly projecting annular flange encircling the tubular stem of the funnel, a strainer located within the stem of the funnel, and means for securing the strainer to the annular flange of the funnel.

2. In a device of the character described, a fluid container, means for supporting the fluid container, a funnel adapted to be supported within the container having within its bowl an upstanding annular flange encircling



the hollow stem of the funnel, a removable strainer located within the stem of the funnel, and an expansible ring for securing the strainer to the annular flange of the funnel.

1,203,662. GEARING. JOHN GODFREY PARRY THOMAS, Chiswick, London, England, assignor to Thomas Foreign Patents Limited, London, England, a Corporation of Great Britain. Filed June 28, 1913. Serial No. 776,345. (Cl. 74—34.)



1. In a vehicle having two driven axles, the combination with one of said axles of a casing, a driving shaft therein at right angles to said axle, a balance gearing having its central member connected to said shaft, spur pinions attached to the side members of said balance gearing, shafts on a level with but at right angles to the vehicle axle, spur wheels on said shafts meshing with said spur pinions respectively, and means for connecting said shafts with the vehicle axles.

2. In a vehicle having two driven axles, the combination with one axle of a casing thereupon, a driving shaft having bearings in said casing, a balance gearing having its center member secured to said shaft two further shafts in said casing each in driving connection with one of said axles, and gearing within said casing interconnecting the side members of said balance gearing with the shafts in driving connection with the respective vehicle axles.

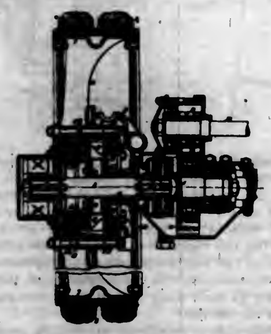
3. In a vehicle having two driven axles, the combination with one axle of a casing, a driving shaft mounted therein, balance gearing having its center member secured to said shaft, spur pinions attached to the side members of said balance gearing, shafts on a level with but at right angles to the vehicle axle mounted in said casing, spur wheels on said shafts meshing with said spur pinions, a bevel wheel on one of said shafts, and a bevel wheel on the vehicle axle meshing therewith.

4. In a vehicle having two driven axles, the combination with one axle of a casing mounted thereupon, a driving shaft mounted in said casing, a balance gearing having its center member attached to said shaft, and reduction gearing included in said casing connecting the side members of said balance gearing with the vehicle axles.

5. In a vehicle having two driven axles, the combination with one of said axles of a casing, a driving shaft therein at right angles to said axle, a balance gearing having its central member connected to said shaft, spur pinions attached to the side members of said balance gearing, shafts on a level with but at right angles to the vehicle axle, spur wheels on said shafts, of greater diameter than said spur pinions, meshing with said spur pinions respectively, and means connecting said shafts with the vehicle axles.

[Claim 6 not printed in the Gazette.]

1,203,663. DRIVING OF ROAD-VEHICLES. JOHN G. P. THOMAS, Chiswick, London, England, assignor to Thomas Foreign Patents Limited, Kensington, London, England, a Corporation of Great Britain. Filed Sept. 25, 1914. Serial No. 863,440½. (Cl. 21—90.)



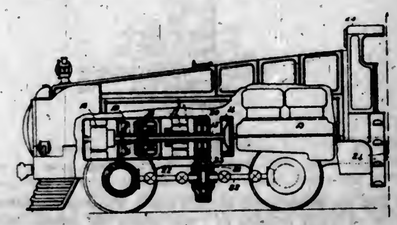
1. In a motor vehicle the combination with a wheel of a frame member, substantially vertical pivots upon said frame member supporting said wheel and arranged in the plane thereof, a shaft passing centrally and freely through said wheel, a driving shaft and universal joints mounted upon said first shaft, with co-planar pins and equidistant from said pivots connecting said shaft with the wheel and with the driving shaft respectively.

2. In a motor vehicle the combination with a wheel of a frame member, pivots in the plane of said wheel supported by said frame member, a sleeve rotatable upon said pivots, bearings interposed between said sleeve and the hub of the wheel, a driving shaft and a driving connection between said shaft and the hub of the wheel comprising universal couplings equi-distant from said pivots on opposite sides thereof and arranged with their corresponding parts in the same plane.

3. In a motor vehicle, the combination with a wheel of a frame member, substantially vertical pivots supported in said frame member in the plane of the wheel and carrying the wheel, a driving shaft, a central shaft passing freely through the center of said wheel, parallel cross-pins with their axes co-planar fast on said central shaft equi-distant from said pivots on opposite sides thereof, die blocks having spherical surfaces engaging upon said cross-pins and guides attached to the driving shaft and wheel hub and engaging the respective die blocks, the one tangentially and the other spherically.

4. In a motor vehicle, the combination with a wheel of a frame member, substantially vertical pivots upon said frame member supporting said wheel and arranged in the plane thereof, a shaft passing centrally and freely through said wheel, a driving shaft transverse to the vehicle with its axis above the center of the wheel in order to leave a substantial free space under the vehicle, an intermediate shaft, universal joints upon said first-named shaft equi-distant from said pivots connecting said first-named shaft with the wheel and with said intermediate shaft respectively, and gearing between said driving shaft and said intermediate shaft.

1,203,664. DRIVING OF ROAD AND RAIL VEHICLES. JOHN G. P. THOMAS, Kensington, London, England, assignor to Thomas Foreign Patents Limited, London, England, a Corporation of Great Britain. Filed Apr. 7, 1915. Serial No. 19,835. (Cl. 105—222.)



1. In an automobile vehicle the combination of a prime motor, an electric generator driven thereby, an electric motor receiving power electrically from said generator, located in line with said prime motor and generator and between them, and gearing connection from said electric motor to the vehicle wheels.

2. In an automobile vehicle the combination of a prime motor, an electric generator driven thereby, an electric motor receiving power electrically from said generator, located in line with said prime motor and generator and between them, and gearing connection from said electric motor to the vehicle wheels located between the motor and the prime motor.

3. In an automobile vehicle the combination with a pair of axles, of a prime motor, an electric generator driven thereby, an electric motor located between the prime motor and the generator and in line with them, the weight of all three machines coming upon the said pair of axles, a differential gear, shafts connecting the said members of said gear with respective vehicle axles, and a driving connection between said electric motor and the center member of said differential gear.

4. In an automobile vehicle the combination with a pair of vehicle axles, of an electromechanical power transmission system borne by the said axles, and comprising a prime motor, an electric generator driven thereby and an electric motor located between said prime motor and generator, a gear casing attached to the casing of said motor, a gear wheel within said casing upon the motor shaft, a differential gear within and supported by said casing and driven by said gear wheel, and connections between the side members of said differential gear and the respective vehicle axles.

5. An automobile vehicle comprising two trucks, a prime motor upon each truck driving the axles thereof through electromechanical transmission mechanism and a driver's cab supported upon the two trucks.

[Claims 6 and 7 not printed in the Gazette.]

1,203,665. GRIDDLE-CAKE TURNER. WILLIAM VOGEL, New York, N. Y. Filed Sept. 28, 1915. Serial No. 52,160. (Cl. 65—3.)

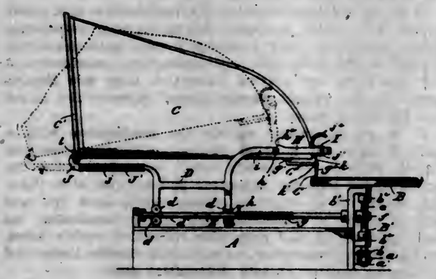
In a griddle cake turner, the combination with a blade and a stem attached thereto, of a handle comprised of a single strand of round wire forming a substantially triangular loop, one side being resiliently movable, and having an upturned end parallel with said stem, a saddle forming a foot bearing for said stem at the apex end of said loop, a second bearing at the end of the handle wire, means for maintaining said stem in its bearings, a perforated crank rigidly secured to said stem beyond the sec-

end bearing, a limit stop formed therewith and a connection between the end of the movable side of the handle



loop and the perforation in said crank whereby the latter may be partially rotated by compressing the handle loop.

1,203,666. PHONOGRAPH. EDWIN WALKER, Erie, Pa. Filed Sept. 25, 1907, Serial No. 394,585. Renewed Mar. 30, 1916. Serial No. 87,874. (Cl. 274—13.)



1. In a phonograph, the combination with a record carrier, of a traveling carriage movable in a path radially with respect to the record carrier, a reproducing trumpet secured to said carriage and having a stylus positioned for contact with a record on said record carrier the weight of said trumpet being jointly supported by the carriage and the stylus, and means for slidably and pivotally securing the trumpet to said carriage, whereby the trumpet may be moved forwardly on the slidable connection and tilted upwardly on the pivotable connection to assume a position free from the record carrier.

2. In a phonograph, the combination with a rotatable record carrier, of a traveling carriage, impelling means for imparting movement to said carriage simultaneously with the rotation of the record carrier, said carriage being operated at less speed than the record carrier and being movable in a path radially to said record carrier, a reproducing trumpet the weight of which is imposed jointly upon said traveling carriage and upon a stylus cooperating with the reproducing trumpet, and means for slidably and pivotally connecting said trumpet to said carriage.

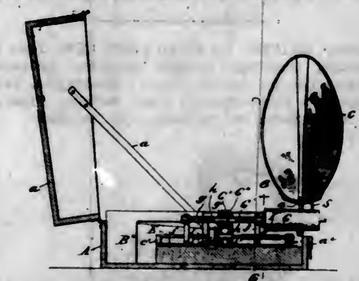
3. In a phonograph, a traveling carriage, a bail pivoted thereto, and a trumpet pivoted to the carriage and to the bail for the purpose of properly positioning the trumpet in operative relation to a disk or record.

4. In a phonograph, a traveling carriage, a bail pivoted thereto, and a combined trumpet and reproducer pivoted to the carriage and to the bail for the purpose of properly positioning the reproducer and trumpet in operative relation to a disk or record, said bail being adapted to be swung on its pivotal axis for tilting the trumpet, whereby the reproducer is removed from its operative position relative to the disk or record.

5. In a phonograph, a traveling carriage, a reproducer and trumpet pivotally and slidably connected to said carriage, and a bail pivoted to the carriage and connected to the trumpet and reproducer for supporting the latter in a raised position.

[Claims 6 and 7 not printed in the Gazette.]

1,203,667. PHONOGRAPH. EDWIN WALKER, Erie, Pa. Filed Sept. 25, 1907, Serial No. 394,584. Renewed Mar. 30, 1916. Serial No. 87,875. (Cl. 274—20.)



1. In a phonograph, a reproducer, a record carrier, a motor for operating one of said parts, a brake element separate from the record carrier, said brake element being rotated by the motor, and a combined brake and reproducer support coöperating with the motor driven brake element and with the reproducer, whereby an adjustment to one position of the combined brake and reproducer support operates to separate the reproducer and the record carrier relatively to each other and to apply the resistance of the brake to the motor.

2. In a phonograph, a relatively stationary reproducer, a mandrel shaft adapted to carry a record mandrel, a motor including a rotatable brake element, said brake element being separate from the record mandrel, means operated by the motor for imparting to the mandrel shaft and the record mandrel a slidable and rotative movement relative to the reproducer, and a combined brake and reproducer support coöperating directly with the motor-driven brake element and with the reproducer.

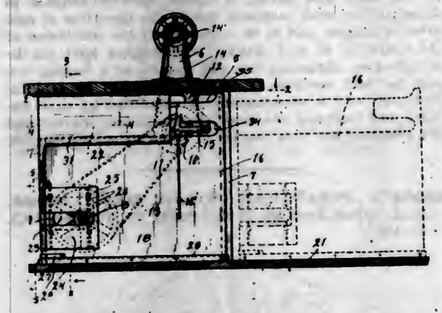
3. In a phonograph, a non-traveling reproducer, a mandrel shaft adapted to carry a record mandrel, a motor, means operated by the motor for imparting to the mandrel shaft and the record mandrel a slidable and rotative movement relative to the reproducer, a brake element separate from the record mandrel, said brake element being operated directly by the motor, and means coöperating with the motor driven brake element and with the reproducer whereby the reproducer may be moved relatively to the record mandrel and the motor arrested at one operation.

4. In a phonograph, a non-traveling reproducer, a mandrel shaft adapted to carry a record mandrel, a motor, means operated by the motor for imparting to the mandrel shaft and the record mandrel a slidable and rotative movement relative to the reproducer, a brake element separate from the record mandrel, said brake element being rotated directly by the motor, a second brake member coöperating with the rotatable brake member, a reproducer support movable to a position for lifting the reproducer from contact with a record on the record mandrel, and means connecting the reproducer support with the second brake member, whereby the adjustment of the reproducer support to one position operates the connecting means to apply the second brake member to the rotatable brake member.

5. In a phonograph, a non-traveling reproducer, a mandrel shaft adapted to carry a record mandrel, a motor, means operated by the motor for imparting to the mandrel shaft and the record mandrel a slidable and rotative movement relative to the reproducer, a brake element separate from the record mandrel, said brake element being rotated directly by the motor, a second brake member coöperating with the rotatable brake member, a slidable reproducer support movable into and out of engagement with the reproducer, and a brake lever intermediate the reproducer support and the second brake member for applying the latter to the rotatable brake member when the reproducer support lifts the reproducer from coöperative relation with the record mandrel.

[Claims 6 to 14 not printed in the Gazette.]

1,203,668. MACHINE-GUARD. ARTHUR WEINS and JOSEPH H. P. J. ROESLER, Milwaukee, Wis. Filed Nov. 22, 1915. Serial No. 62,686. (Cl. 75—56.)



1. The combination, with a supporting table, a sewing machine mounted thereon, a line shaft beneath the table, and power-transmission mechanism operatively connecting said machine with said shaft, of a guard for said machine for inclosing its transmission mechanism beneath said table and a portion of said shaft including a casing slidably movable to a position beneath the table, and means for securing said casing in position.

2. The combination, with a power-operated sewing-machine-supporting table and a transmission mechanism disposed therebeneath, of a guard comprising an end plate secured to the table, and a three sided shell slidably movable to a position beneath the table into engagement with said plate, said plate and shell forming an inclosing casing for said mechanism.

3. The combination, with a power-operated sewing-machine-supporting table and a transmission mechanism disposed therebeneath, of a guard comprising an end plate secured to said table and a side plate extending at an angle thereto and provided with a guideway, a three sided shell having a cut out portion in one side, said shell being slidably movable upon the floor to a position beneath the table, the upper edge of the cut out side being slidably movable in the guideway on said side plate, said plates and shell forming an inclosing casing for said mechanism.

4. The combination, with a power-operated sewing-machine-supporting table and transmission mechanism including a drive-shaft disposed therebeneath, of a guard comprising an end plate secured to the table, a three sided shell having slots in its opposite sides for slidably receiving the drive shaft, and slotted plates adjustably secured to said sides adjacent said slots.

5. The combination, with a power-operated sewing-machine-supporting table and transmission mechanism including a drive-shaft disposed therebeneath, of a guard comprising an end plate and a side plate extending at an angle thereto secured to said table, said end plate being provided with vertically disposed spaced-apart grooves and said side plate having a guideway in its lower edge, a three sided shell having a portion cut out from one side and a slot for receiving said shaft, said shell being slidably movable upon the floor to a position beneath the table with edges of its opposite sides disposed in the grooves of said end plate and the upper edge of the cut out side being slidably movable in the guideway on side plate, said plates and shell forming an inclosing casing for said mechanism.

[Claims 6 to 9 not printed in the Gazette.]

1,203,669. FASTENING DEVICE. ROBERT A. WHITESIDE, Beaver Falls, Pa., assignor of one-half to Alexander M. Neeper, Pittsburgh, Pa. Filed Sept. 29, 1914. Serial No. 864,079. (Cl. 85—10.)



1. A fastening device bent medially to form parallel members and said parallel members then bent back on themselves to form approximately parallel inner and outer members, said inner and outer members being weakened on their outer sides at approximately corresponding points intermediate their ends to define bending points.

2. A fastening device bent medially to form approximately parallel members connected at one end by a semicircular bend and said parallel members then bent back upon themselves to form approximately parallel inner and outer members, said inner and outer members being weakened at approximately corresponding points intermediate their ends to define bending points; said outer members being bent approximately at their ends to form outwardly extending bends therein.

3. A fastening device bent medially and then bent back upon itself to form therein approximately parallel inner members and outer terminal members, the parallel parts of which, adjacent to the bends connecting them, constitute the spreading ends of said device, said outer and inner members being formed, at approximately corresponding points intermediate their ends, for controlling and facilitating the spreading of said spreading ends.

4. A fastening device bent medially and then bent back upon itself to form therein approximately parallel inner members and outer terminal members, the parallel parts of which, adjacent to the bends connecting them, constitute the spreading ends of said device, said outer and inner members being formed, at approximately corresponding points intermediate their ends, for controlling and facilitating the spreading of said spreading ends, said outer terminal members being provided, approximately at their ends, with means integral therewith for preventing said device from passing through objects into which said device is driven.

5. A fastening device bent medially to form a semicircular bend at its medial part, and members inclined in part and parallel in part; said members being bent back upon themselves to form inner and outer members, said outer members being inclined, said outer members bent approximately at their ends to form outwardly extending parts therein; said outer and inner members being weakened at approximately corresponding points intermediate their ends to define bending points.

[Claim 6 not printed in the Gazette.]

1,203,670. DUST-GUARD. LACEY Y. WILLIAMS, Toledo, Ohio. Filed Dec. 10, 1915. Serial No. 66,072. (Cl. 64—22.)

1. The combination with a journal box provided with a dust guard chamber with openings F and G, and a journal within said box, of a metallic dust guard having a circular flange engaging the journal and two flanges extended outwardly from said circular flange at substantially right angles thereto, said latter flanges engaging the vertical surfaces of the metal bounding the dust guard chamber and closing the opening F from the dust guard chamber to the interior of the box so dust cannot pass.

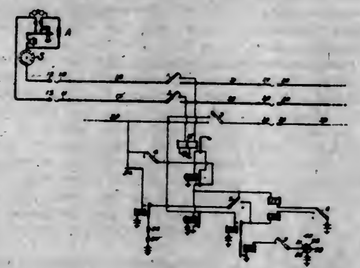
2. A dust guard of resilient metal having a circular flange to engage a journal, and two flanges extending outwardly around said circular flange one of said two flanges being slightly dished, for the purpose set forth.



3. A metallic dust guard of resilient metal comprised of two parts each having a circular flange and a flange extending outwardly from said circular flange, and the circular flange of one part disposed within the circular flange of the other part; one of said outwardly extended flanges being dished or at less than a right angle relative to the circular flanges.

4. The combination with a journal box provided with a dust guard chamber, of a metallic dust guard having an opening for a journal, said opening being bounded by a circular flange, a flange extending outwardly from and around said circular flange and frictionally bearing against the surface of the inner wall defining the dust guard chamber, and means forcing the last mentioned flange and holding it in contact with the surface of the wall, said latter means bearing against the surface of the outer wall of the dust guard chamber.

1,203,671. TELEPHONE-EXCHANGE SYSTEM. SAMUEL B. WILLIAMS, Jr., Brooklyn, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Sept. 23, 1915. Serial No. 52,278. (Cl. 179—18.)



1. In a telephone exchange system, the combination with telephone lines, automatic switches to which said lines are multipled, primary and secondary stepping magnets for said switches, means controlled by said lines for operating said primary magnets, an interrupting machine adapted to operate said secondary magnets, a control magnet for each switch and a circuit therefor adapted to maintain the same energized while the primary magnet of such switch is operating and to be opened upon the conclusion of the operation of said magnet, of a locking circuit for said control magnet including an armature and front contact thereof and controlled by said interrupting machine, and a stepping circuit controlled by said machine and including the associated secondary magnet and the armature and back contact of said control magnet.

2. In a telephone exchange system, the combination with telephone lines, automatic switches to which said lines are multipled, primary and secondary stepping magnets for said switches, means controlled by said lines for operating said primary magnets, an interrupting machine adapted to operate said secondary magnets, a side switch for each of said automatic switches, an escapement magnet for said side switch, a circuit adapted to maintain the same energized while said primary magnet is operating and to be opened upon the conclusion of the operation of said magnet, of a locking circuit including an armature and front contact of said escapement magnet and controlled by said interrupting machine, and a stepping circuit controlled by said machine and including the associated secondary magnet and the armature and back contact of said escapement magnet.

3. In a telephone exchange system, the combination with telephone lines, automatic selector switches to which said lines are multipled, primary and secondary stepping magnets for each of said switches, a sender adapted to operate said primary magnets, an interrupting machine adapted to operate said secondary magnets, a side switch for each of said automatic switches, an escapement magnet for each side switch, a circuit therefor adapted to maintain the same energized during the operation of said primary magnet and to be opened upon the conclusion of the operation of said magnet, said magnet upon its de-energization advancing the side switch, of a locking circuit for said escapement magnet controlled by said interrupter, and a stepping circuit controlled by said machine and including the associated secondary magnet and the armature and back contact of said escapement magnet.

1,203,672. STRAW HAT. WILLIAM WILSON, Newark, N. J. Filed June 26, 1916. Serial No. 105,874. (Cl. 2—108.)



1. A hat provided with a complete relatively stiff crown adapted to be reversed as an entirety to bring its underside uppermost and vice versa.

2. A hat provided with a complete crown pivoted at one of its axes and adapted to be reversed as an entirety to bring its underside uppermost, and vice versa.

3. A hat having the top of its crown pivoted to the upright portion thereof and reversible on said pivotal connection.

4. A hat having a reversible crown provided with a waterproof cover.

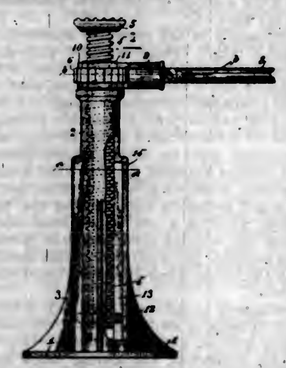
5. A hat having a reversible crown provided with a waterproof cover which is adapted to be drawn over the hat when the crown is reversed.

[Claims 6 to 8 not printed in the Gazette.]

1,203,673. LIFTING-JACK. THEODORE H. WITTLIFF and CHARLES W. PARKER, Dayton, Ohio, assignors, by direct and mesne assignments, to Fannie M. Wittliff, Waco, Tex. Filed Oct. 22, 1914. Serial No. 867,936. (Cl. 254—98.)

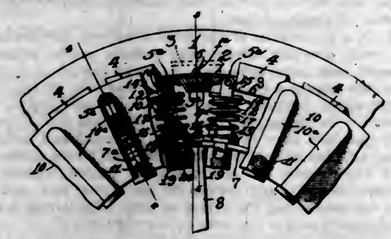
1. A lifting jack comprising a hollow standard having internal grooves in opposite walls, the standard being provided with an opening which intersects one of said grooves, a lifting bar movable in the standard, and a pin extending transversely of the lifting bar and operating at its ends in said grooves, said pin being adapted to pass through the opening of the standard and to be held against movement on the lifting bar by the bottom walls of the grooves.

2. A lifting jack comprising a standard, a lifting bar movable in the standard and having a screw formed thereon, a ratchet nut engaging said screw, a member mounted to turn relatively to the nut and having a non-circular socket, and a lever having a beveled end and a non-circular



portion to fit in said socket so that the beveled end will engage the ratchet nut in either of two positions.

1,203,674. RESILIENT WHEEL. CLINTON L. WOLFE, Brooklyn, N. Y. Filed May 25, 1915. Serial No. 30,346. (Cl. 152—8.)



1. A wheel comprising inner and outer rims, one of which is made up of a circumferential series of sections joined to permit radial flexibility, a series of radially acting resilient spacing means located between the rims, said spacing means comprising coil springs and pneumatic buffers concentrically placed; and alining plates overlying both rims; the joints between the sections embodying pintles parallel to the wheel axis; said resilient means being connected to the sectional rim through the medium of said pintles; said pintles being circumferentially interlocked with but radially movable on said alining plates.

2. A wheel embodying in its structure resiliently spaced inner and outer rims, and alining plates overlying said rims; said alining plates being constructed with inwardly presented radial grooves, said outer rim being constructed with lateral projections which enter and are radially movable in the outer portions of said grooves, said grooves being closed at their outer ends and adapted to limit the outward movement of said projections, and said inner rim being constructed with lateral lugs which enter and are fixed in the inner portions of said grooves.

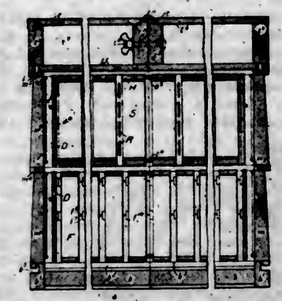
3. A wheel comprising in its structure a radially flexible sectional outer rim having pintles hinging its parts together and projecting laterally beyond the same, an inner rigid rim having laterally presented lugs, resilient spacing means interposed between the rims, said spacing means comprising coil springs and pneumatic buffers concentrically placed; and alining plates overlying said rims and having inwardly presented radial grooves fitting at their inner portions upon the lugs of the inner rim, and receiving the pintles with freedom of radial movement in their outer portions; said plates being bolted to the inner rim through said lugs.

4. In a resilient wheel comprising flexible and rigid rims, with a series of resilient spacing members between them; buffers embodied in said resilient members, said resilient members comprising coil springs, and said buffers being concentric with said springs; dash-pots also positioned concentric with said springs, pistons in said dash-pots having rods projecting into the paths of parts moving with the flexible rim, and said buffers surrounding said piston rods and serving as limit stops for the flexible rim.

5. In a resilient wheel comprising flexible and rigid rims, with a series of resilient spacing members between them; buffers embodied in said resilient members, said resilient members comprising coil springs, and said buffers being concentric with said springs; dash-pots also positioned concentric with said springs, pistons in said dash-pots having rods projecting into the paths of parts moving with the flexible rim, and said buffers surrounding said piston rods and serving as limit stops for the flexible rim, said dash-pots being constructed with seats for the springs.

[Claims 6 to 8 not printed in the Gazette.]

1,203,675. BEEHIVE. GEORGE P. WOOD, Peekskill, N. Y. Filed Aug. 17, 1915, Serial No. 45,948. Renewed Sept. 21, 1916. Serial No. 121,522. (Cl. 6—1.)



1. A hive-section comprising two opposite walls, said walls being united at their ends to fixed parts, at right angles thereto, to form a rectangular compartment with vertical walls for containing movable-frames, said fixed parts having an opening or openings whereby the hive-section is adapted for combination with one or more similar hive-sections in one story by having the corresponding fixed parts containing openings placed in juxtaposition in such manner as to provide communicating passages for the bees from one hive-section to another through same, and also adapted for combination with one or more similar hive-sections or combinations of similar hive-sections in more than one story by placing one over another, and detachable walls for the hive-section adapted for connection to form closed walls outside of the fixed parts containing an opening or openings, the main portion of each of the walls being wedge-shaped in cross section with greatest thickness at base whereby the base of hive-section will extend beyond the top of a like hive-section placed under same.

2. A beehive bottom consisting of a main board reinforced and adapted for use with hive-sections by means of cleats at its edges, one cleat or opposite cleats being detachable, whereby the bottom is adapted for combination with other like bottoms to accommodate a beehive of more than one hive-section per story, and means of rigidly uniting said combined bottoms.

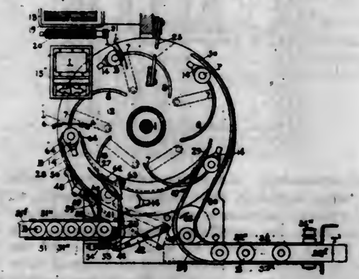
3. A beehive cover consisting of a top attached to a rectangular rim adapted for connection to the tops of hive-sections, said rim comprising one or opposite double sides, the outer parts of which are detachable, whereby the cover is adapted for combination with other like covers to accommodate a beehive of more than one hive-section per story, and means of rigidly uniting said combined covers.

4. A beehive comprising one or more bottoms adapted to be combined with like bottoms, one or more hive-sections corresponding to said bottoms and adapted to be combined with like hive-sections and one or more covers corresponding to said bottoms and hive-sections and adapted to be combined with like covers to form a beehive of more than one hive-section or part per story, each bottom, hive-section and cover being also adapted for use in the formation of a complete beehive of one hive-section or part per story by means of corresponding detachable parts adapted to form the outer ends or walls of hive parts when attached and to be omitted when like hive parts are united in one story, and means of fastening.

5. A hive-section comprising two opposite walls, fixed parts each consisting of horisontal and vertical bars and secured at right angles to the ends of said walls to form a rectangular compartment with vertical walls, detachable walls adapted for connection with and to form closed walls outside of the fixed parts, and a locating device for said detachable walls consisting of protruding parts attached to the said detachable walls in the right position to engage vertical grooves in the ends of the side walls of the hive-section between the horisontal bars of the fixed part of the hive-section.

[Claims 6 to 10 not printed in the Gazette.]

1,203,676. AUTOMATIC BOTTLE-FEED MECHANISM FOR LABELING-MACHINES. FRANK O. WOODLAND, Worcester, Mass.; Frances S. Woodland and Arthur F. Kelley, administrators of said Frank O. Woodland, deceased, assignors to Economic Machinery Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 16, 1915. Serial No. 2,746. (Cl. 193—1.)



1. In a feed mechanism for bottle labeling machines, in combination, a rotary carrier table having upright bottle pushing and centering rests fixed thereon, inner and outer stationary curved fenders forming upright walls adjacently above the carrier table and defining the path in which said pushing rests are carried, a feed-way having a traveling bottom, a transverse barrier and a lateral pass-way at the end of said feed-way; a horisontally swinging feeder-fork fulcrumed in line with the feed-way, its furcated end extending through the barrier into the pass-way and adapted for contact with a bottle and to move it along said pass-way, a catch device engageable with a lug on the feed-fork at its outward position, a bottle actuated means for releasing said catch, means for operating said feeder-fork including a spring for giving forward movement to said fork, and connections actuated by a cam-surface on the carrier for controlling the movement thereof.

2. In a machine for the purpose described, in combination, a rotary carrier having upright rests thereon for the support of bottles or the like at pre-determined intervals, stationary path-defining fenders adjacently above the carrier, a traveling-bed feed-way terminating with a laterally offset pass-way into the path of the carrier, a swinging feed-lever fulcrumed at a position beyond the barrier and in alinement with said feed-way, its free end extending through said barrier into the pass-way and adapted to swing across the end of said feed-way for forcing the foremost bottle from said feed-way to the carrier-path, and means for automatically arresting action of said feed-lever except when a bottle or the like is positioned in the feed-way at the pass-way.

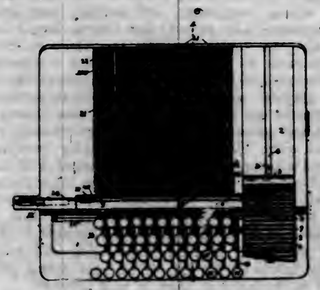
3. In a mechanism of the character described, in combination, with a rotary carrier provided with means for supporting and advancing bottles or the like, a feed-way comprising guides and a traveling conveyer, said feed-way provided with a terminal barrier and a pass-way from said conveyer to said carrier, and a movable feeding-in element adapted for transferring a bottle through said pass-way, of a detaining catch for said feeding-in element, said parts having counter engaging members that mutually interlock to prevent withdrawal of said catch, but are releasable by slight backward movement of the feeding-in element, means including a cam carried upon said rotary carrier adapted for effecting such backward movement of said feeder-in element, and a catch-actuating member that contacts with the bottles when at or near the terminal end of the feed-way.

4. In a mechanism of the class described, a bottle-feeding device, comprising a swinging lever fulcrumed upon an upright axis-member, and having a furcatedly pronged end adapted for supporting and moving single bottles in upright relation, in combination with an in-coming feeding conveyer alined directly toward the fulcrum of said lever, but terminating with a transverse skeleton barrier and pass-way, through and along which the furcatedly pronged end of said feeding-device swings across the conveyer, a moving carrier that receives the bottles therefrom, means including cam surfaces upon said carrier for operating said feeding-devices, and means for controlling the instant of feeding action.

3. In a mechanism of the class described, the combination with a rotary carrier, path defining guards adjacent thereto, and a traveling-belt feed-way having a barrier and pass-way, of a swinging transferring-lever or arm provided with a hingedly connected end member adapted for moving a bottle or the like from said feed-way through said pass-way onto the carrier, said hinged end member being adapted to fold inward during the return stroke of said arm, means for returning said hinged member to normal relation, and means for operating said carrier, and for controlling the action of said transferring lever.

[Claims 6 to 9 not printed in the Gazette.]

1,203,677. TYPE-SETTING MACHINE. WALTER WRIGHT, San Francisco, Cal. Filed Sept. 6, 1906. Serial No. 333,248. (Cl. 101—195.)



1. In a type setting machine, a series of type channels, a track for the type extending past the ends of the channels, comprising a wall on one side thereof, mechanism for advancing the type in each channel, mechanism for advancing along the track a type discharge thereon from a channel, and means for actuating said mechanisms in the above order in a single operation, comprising a key lever, for each channel, a universal bar actuated by each lever when depressed a suitable distance, a pusher engaging said wall and having a keeper pin to form the other side of the track, and an operative connection between the universal bar and the pusher, substantially as described.

2. In a type setting machine, a track for the type comprising a wall on one side thereof and a pusher along the track having a keeper pin adapted to engage the type on the side opposite said wall, substantially as described.

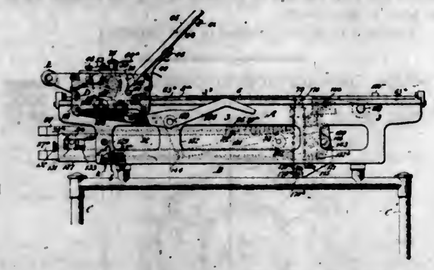
3. In a machine in which type is moved from one point in the machine to another, a type holder, a type receiver, a passage between the holder and receiver, said holder, passage and receiver being in the same horisontal plane and an advancing device moving in said passage and having a retractile member for holding the type against lateral movement while advancing.

4. In a type setting machine, the combination with a magazine having a plurality of type channels terminating on a track-way open thereto and a type form at the end of said track-way all being in the same horisontal plane, of an advancer adapted to traverse said track-way, means combined therewith for engaging a type on the side adjacent to the channels, said means being retractile at the type form, and means for advancing the type form from one channel therein to another.

5. The combination of a holder having a plurality of parallel channels for type all disposed in the same horisontal plane, keys corresponding to the channels, means for advancing type in said channels and discharging the foremost type therefrom, a track-way transverse of said channels, said track-way having a member adapted to engage with type discharged thereupon, a pusher engaging with discharged type and adapted to advance the same along the track-way, a retractile member combined with said pusher adapted to maintain type on said track-way, and means combined with the keys for operating said pusher.

[Claims 6 to 43 not printed in the Gazette.]

1,203,678. PRINTING-MACHINE. WALTER WRIGHT, New York, N. Y., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 27, 1910. Serial No. 589,405. (Cl. 101—1.)



1. In a printing machine for the purpose described, a chase holding a main type surface, a printing or pressure roll coacting therewith to print by rolling pressure thereon, delivery and receiving trays removably supported by the machine and adapted each to interlock with a series of independent form-holders, means for successively removing holders from said delivery tray and conducting and seating the same in the printing plane of said main type surface, whereby the impression may be taken from the latter and said seated holder in one operation, and means for introducing said holders, after the impression, into said receiving tray.

2. In a printing machine for the purposes described, having in combination a bed or table, a chase for holding the type forming the matter to be impressed, an inking ribbon disposed above and movable over the face of the type, a carriage having a printing or pressure roll adapted to revolve upon and over the type, means for throwing said printing or pressure roll into and out of operative position, means comprising removable magazine trays adapted respectively to contain type-surface holders to be delivered to the machine and to receive said holders as they are ejected therefrom, and means for automatically and successively moving said type holders from the one removable magazine tray through the bed into printing position in alinement with the chase and for thereafter ejecting them into the other magazine tray.

3. In a printing machine for the purposes described, having in combination a bed or table, a removable chase for holding the type forming the matter to be impressed, a carriage having a printing or pressure roller adapted to be moved over and revolved upon the type, adjustable bearings for said roller having spring cushions thereunder, means for throwing said roller into and out of operative position, portable containers constituting magazine trays adapted respectively to contain name and address holders to be delivered to the machine and to receive the name and address holders as they are ejected therefrom, and means for automatically and successively moving said name and address holders directly from the one magazine tray through the bed into printing position and for thereafter ejecting them into the other magazine tray.

4. In a printing machine for the purposes described, having in combination a bed or table, a type-holding chase for containing the matter to be impressed, an auxiliary holder for containing the date, a name and address mechanism disposed between them, a carriage having a printing or pressure roller adapted to be revolved over and upon the type, means for throwing said printing or pressure roller into and out of operative position, magazine trays adapted respectively to contain name and address holders to be delivered to the machine, and to receive the same after ejectment therefrom, and means for imparting intermittent motion to the name and address mechanism whereby the holders are successively brought into printing position.

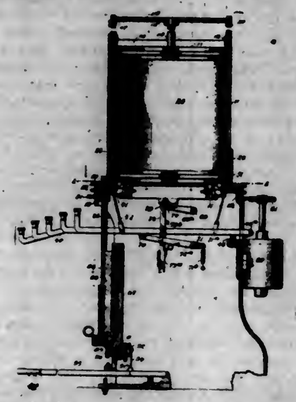
5. In a printing machine for the purposes described, having in combination a bed or table, a type-holding chase for containing the matter to be impressed, an auxiliary holder for containing the date, a name and address mechanism disposed between them, a carriage having a printing or pressure roll adapted to be revolved over and upon the type, means for throwing said printing or pressure roll into and out of operative position, magazine trays, adapted, respectively, to contain name and address holders to be delivered to the machine and to receive the same after ejectment therefrom, means for imparting motion to the name and address mechanism, whereby the holders are successively brought into printing position, and means for afterward ejecting them from the machine.

[Claims 6 to 51 not printed in the Gazette.]

1,203,679. TYPE-SETTING MACHINE. WALTER WRIGHT, New York, N. Y. Filed May 25, 1911. Serial No. 629,394. (Cl. 101—196.)

1. A type-setting machine comprising a type magazine having channels containing type lying flatwise, the said type having guide grooves in opposite sides in which the side walls of the magazine channels are received, and having a third groove across another side of the type, the said machine having a bed presenting a flat surface on which the lowermost types in the channels rest, a type assembling device, the said bed having an outlet extending downward therefrom and forming a throat leading to the assembling device, a barrier at said outlet forming a stop for the type, the said barrier and the opposite side wall of the outlet presenting members corresponding with the side recesses in the types, the mentioned flat surface of the bed extending around the magazine and on a plane with said outlet, key-operated ejectors having each a member received in one of the side recesses of said lowermost types, type-advancing means in the form of a yieldingly mounted pin traveling around the magazine and over the throat of the assembling device, the mentioned ejectors delivering the type into the path of travel of the said type-advancing means, and a vertically shiftable type-controlling device extending around the said path and having a member so positioned thereon as to enter the mentioned third groove in a type after the latter is moved outward by an ejector, connections between the keys and the type-controlled device to lift the latter, the yieldingly

mounted pin having a riding movement over the barrier and over an arrested type and constituting a forcible ejector to discharge the type into the throat leading to the assembling device.



2. A type-setting machine comprising a type magazine, an annular traveler continuously revolving around the magazine in a fixed path, ejectors movable outwardly from the magazine below the path of said traveler, said ejecting means also constituting a means of control for the type until the latter is engaged by said traveler and means for raising said traveler coincident with ejecting the type.

3. A type-setting machine comprising a base having a discharge for type, a type magazine on said base, ejectors operable to eject type outwardly from the magazine, and type advancing means to which the ejectors deliver the type above the plane of type delivery, the ejectors being provided with type controlling means movable transversely in the path of said type advancing means.

4. A type-setting machine comprising a magazine for type, a base upon which the type rest, said base extending annularly beyond the magazine, radially disposed ejectors operable to eject type horizontally away from the magazine, and rotary type-conveying means traveling around the magazine, said base having an outlet conforming to the profile of the type and leading directly downward from the path traversed by said type-conveying means.

5. In a machine in which type is moved from one point to another, a stationary path along which the type travel, type-conveying means traveling over said path, type controlling means also traveling in said path and a type receiving throat in said path, said throat having walls conforming to the profile of the type.

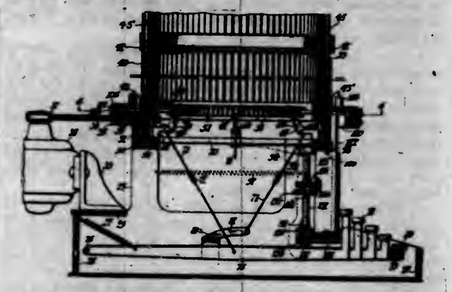
[Claims 6 to 89 not printed in the Gazette.]

1,203,680. TYPE-SETTING MACHINE. WALTER WRIGHT, New York, N. Y. Filed Feb. 28, 1913. Serial No. 751,825. (Cl. 101—196.)

1. A typesetting machine comprising a magazine of type channels, ejector means for the type therein, a race through which the ejected type are moved and a discharge passage therefrom to a place of composition, in combination with a member yielding to the type ejected into the race and coöperating with the associated race-forming parts to maintain the relative position of said type during its transfer through the race.

2. A typesetting machine comprising a series of type channels, ejector means for the type therein, a race through which ejected type are transferred, and a discharge from the race, the said race comprising a yielding member normally closing the same and formed with a type-engaged face by means of which it is displaced to receive the entering type.

3. A typesetting machine comprising in combination with a series of type channels having ejector means for the type therein, a race for transferring the ejected type, said race being formed between upper and lower surfaces, one of said surfaces being rotary and adapted to propel the ejected type through the race, and one of said surfaces having alining engagement with the type to preserve its relative position while within the race, and means whereby the type ejected into said race displaces one of said surfaces in moving into the said alining engagement.



4. A typesetting machine comprising a magazine of type provided with ejecting means, a race and a discharge from the race to a point of composition, in combination with a rotary-ring form member having yielding driving engagement with the type and mounted to be displaced from its normal plane of rotation by relative movement between the type and itself.

5. A typesetting machine comprising a supply of type and means for selectively ejecting the same, a race through which ejected type are moved and a discharge from the race, said race comprising opposite surfaces one of which is formed on a rotary or revolving member, and an actuating supporting element for said member with respect to which the said surface is movable out of its normal plane or path of movement.

[Claims 6 to 33 not printed in the Gazette.]

1,203,681. MOTION-PICTURE COLOR-FILTER. ERNEST ZOLLINGER and SIMON MISCHONSNIKY, Turin, Italy. Filed Dec. 2, 1912. Serial No. 734,549. (Cl. 88—16.4)

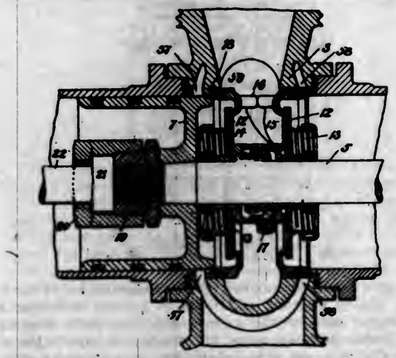


In a motion picture apparatus, means comprising a plurality of color filter areas adapted to pass successively across the path of light, at least one of said areas consisting of a group of adjustable, different color filters, so as to permit a relative variation of area between the filters of said group.

1,203,682. PUMP, ENGINE, AND THE LIKE. JEAN ZWICKY, South Tottenham, England. Filed Feb. 11, 1915. Serial No. 7,610. (Cl. 103—77.)

1. A pump or fluid motor comprising in combination two working cylinders in axial alinement, a separate detachable casting uniting said cylinders and having an interior cylindrical face formed with ports completely around its circumference, a cylindrical valve member moving on said interior face and coöperating with the ports, pistons sliding in said cylinders, and a piston rod connecting said pistons.

2. A pump or cylinder comprising in combination a pair of working cylinders in axial alinement, a cylindrical valve chamber separating the said cylinders and having a ported inner cylindrical surface larger in diameter than said cylinders, a piston valve in said valve chamber coöperating with said interior surface, a piston in each of said cylinders, and a piston rod connecting said pistons.



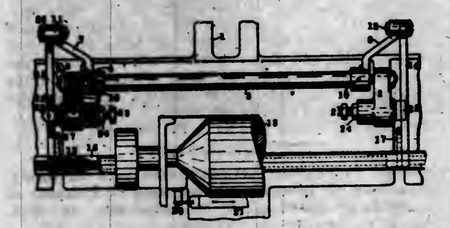
3. A pump or fluid motor comprising in combination two working cylinders in axial alinement, a valve chamber separating said cylinders and provided with an interior cylindrical surface having a ring of ports completely around its circumference, a cylindrical piston valve sliding on said inner surface and coöperating with said ports, pistons in said cylinders and a piston rod connecting said pistons.

4. A water meter comprising two cylinders in axial alinement, a ported surface located between said cylinders and connected with inlet and outlet channels, a valve member located within said surface and controlling its ports, and means for causing said valve member to be completely thrust over and brought into operation when the valve member is moved through half of its travel.

5. A suction pump comprising two cylinders in axial alinement, a ported surface located between said cylinders connected with inlet and outlet channels, a piston in each cylinder, a piston rod joining said pistons, a valve member within said surface controlling its ports, and a one-way valve located between the inlet channel and each cylinder.

[Claims 6 to 15 not printed in the Gazette.]

1,203,683. TYPE-WRITING MACHINE. NILS H. ANDERSON, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn, a Corporation of Connecticut. Filed June 12, 1914. Serial No. 844,659. (Cl. 197—72.)



1. In a typewriting machine, in combination, a fixed part, an arm pivoted thereon, a movable part, a link pivotally connected therewith, said arm and link having their ends pivotally connected, and ball bearings associated with said pivotal connections, said link acting as a lever and having a rolling fulcrum.

2. In a typewriting machine, in combination, a fixed part, an arm pivoted thereon, a movable part, a link pivotally connected therewith, said arm and link having their ends pivotally connected, and ball bearings associated with said pivotal connection, one of said pivotally connected parts acting as a lever and having a rolling fulcrum.

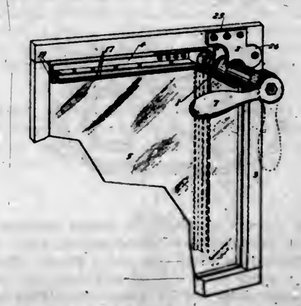
3. In a typewriting machine, in combination, a fixed part, an arm pivotally connected therewith, a movable part, a link pivotally connected with said movable part and said arm and being supported intermediate its ends on said first part, said means of support being a grooved trunnion in which said link has a longitudinal movement, and a roller associated with one of said last-mentioned parts to permit freedom of movement.

4. In a typewriting machine, in combination, a fixed support, adjustable trunnions in said support, adjustable trunnion screws in said support, a shaft supported by said trunnion screws, a shift rail, and linkage between said shaft and said shift rail, a part of said linkage adapted to have a longitudinal movement in said trunnions as said shift rail is moved.

5. In a typewriting machine, in combination, a relatively fixed support, trunnion screws mounted thereon, a shaft between said screws, arms mounted on said shaft, links pivotally connected with the ends of said arms and extending rearwardly of the machine, a shift rail to which opposite ends of said links are pivotally connected, and means for shifting said shift rail, said links being adapted to have a longitudinal movement when said shift rail is actuated.

[Claims 6 to 10 not printed in the Gazette.]

1,203,684. WINDOW-CLEANER. JOSEPH RENÉ AYOTTE, Chicago, Ill., assignor to René Squeegee Company, Chicago, Ill., a Corporation of South Dakota. Filed Dec. 17, 1915. Serial No. 67,414. (Cl. 15—59.)



1. A window cleaner, comprising a bearing, a shaft mounted therein so as to rotate and also shift axially, a squeegee carried by one end of said shaft, a journal on said one end of said shaft fitting within said bearing, a handle connected to the other end of said shaft, a hub on said handle fitting within said bearing so as to provide a journal for the other end of said shaft, said bearing having an annular space around said shaft intermediate said journals so as to provide for the retention of a lubricant, and a spring embracing said shaft intermediate said journals and normally urging said squeegee into a retracted position.

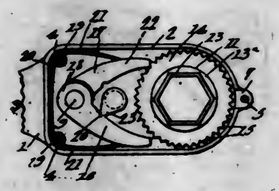
2. A window cleaner, comprising a bearing, a shaft mounted therein so as to rotate and also shift axially, a squeegee carried by one end of said shaft, a journal on said one end of said shaft fitting within said bearing, a handle connected to the other end of said shaft, a hub on said handle fitting within said bearing so as to provide a journal for the other end of said shaft, said bearing having an annular space around said shaft intermediate said journals so as to provide for the retention of a lubricant, and a spring embracing said shaft intermediate said journals and normally urging said squeegee into

a retracted position, said bearing having an aperture communicating with said annular space so as to allow for the admission or escape of air from said space when said shaft is shifted axially.

3. A window cleaner, comprising a bearing, a shaft journaled in said bearing and shiftable axially, a squeegee carried on one end of said shaft, a handle attached to the other end of said shaft for shifting said shaft to move said squeegee into contact with the glass of the window on which said cleaner is mounted and swinging said squeegee to clean the same, and a spring normally urging said squeegee into a retracted position out of contact with the glass, said bearing and handle having a coacting shoulder and recess for locking said squeegee in a certain angular position, said shoulder being arranged to coact with said bearing when released from said recess for permitting said squeegee to be held out of contact with the glass when it is swung from said certain position into position for cleaning the window.

4. A window cleaner, comprising a bearing, a shaft journaled in said bearing and shiftable axially, a squeegee carried on one end of said shaft, a handle attached to the other end of said shaft for shifting said shaft to move said squeegee into contact with the glass of the window on which said cleaner is mounted and swinging said squeegee to clean the same, a spring normally urging said squeegee into a retracted position out of contact with the glass, and a pin on said handle, said bearing having a recess therein for receiving said pin and locking said squeegee in a certain angular position, said pin being arranged to coact with said bearing when released from said recess for permitting said squeegee to be held out of contact with the glass when it is swung from said certain position into position for cleaning the window.

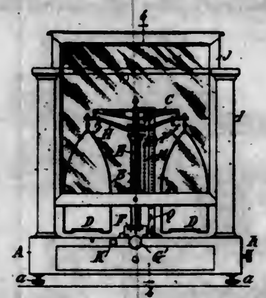
1,203,685. REVERSIBLE RATCHET-WRENCH. CHARLES BAKER, Bloomsburg, Pa. Filed Sept. 11, 1915. Serial No. 50,133. (Cl. 81—62.)



A ratchet wrench embodying a handle provided at one end with an elongated case whose bottom has a circular opening adjacent its outer end and a pintle adjacent its inner end, a cover plate closing said case and having a circular opening adjacent its outer end alining with the first mentioned opening, a pair of securing elements fastening the inner end of the cover to the bottom of the case at the inner corners of the case, a rotatable member journaled through said openings and having an enlarged toothed collar disposed snugly between the bottom of the case and the cover plate, a pair of outwardly projecting pawls coöperable with said collar and having overlapped butts pivoted upon said pintle, a U-shaped wire spring within the case having coils at its bends surrounding said securing elements, the arms of the spring projecting outwardly under the pawls and the ends of the spring extending upwardly into the pawls to swing them into engagement with said collar.

1,203,686. WEIGHING-SCALE. CHRISTOPHER A. BECKER, New York, N. Y., assignor to The Torsion Balance Company, New York, N. Y., a Corporation of New York. Filed June 23, 1915. Serial No. 35,780. (Cl. 73—3.)

1. In a scale or balance, the combination of a scale beam, means whereon said beam is pivoted including a supporting base for the scale, a weighing chain hanging at one end from the beam, a vertically movable slide to which the other end of the chain is hung, an upright guide for the slide, a shaft rotatably supported on the base, and provided with an operating handle at one side of the base, and means controlled by said shaft for operating the slide and including a rotatable member extending from the base parallel to the guide.



2. In a scale or balance, the combination of a scale beam, means whereon said beam is pivoted including a supporting base for the scale, a weighing chain hanging at one end from the beam, a vertically movable slide to which the other end of the chain is hung, an upright guide for the slide, a shaft rotatably supported on the base, and provided with an operating handle at one side of the base, and means controlled by said shaft for operating the slide and including a member extending from the base parallel to the guide, and having screw-threaded connection with the slide.

3. In a scale or balance, the combination of a scale beam, means whereon said beam is pivoted including a supporting base for the scale, a weighing chain hanging at one end from the beam, a vertically movable slide to which the other end of the chain is hung, an upright guide for the slide, and means for operating the slide including a rotatable operating handle adjacent the base and an upright rod operatively connected to said handle and extending from the base parallel to the guide, said rod having a spiral groove, and means connected to said slide engaging said groove.

4. In a scale or balance, the combination of a scale beam, a case inclosing the same, a weighing chain entirely within the case hung at one end from the beam and adjustable at its other end to vary the proportion of its length which shall be carried by the beam, means for indicating the proportion of the weight of the chain supported by the beam, and means operable from outside the case for effecting such adjustment.

5. In a scale or balance, the combination of a scale beam, a case inclosing the same, a weighing chain hung at one end from the beam, a slide to which the other end of the chain is hung, an upright guide for said slide, said guide and slide having reciprocal graduations for indicating the proportion of the weight of the chain supported by the beam, a threaded rod for adjusting it, said chain, slide, guide and threaded rod being all inclosed within the case, and means operable from outside the case for turning said threaded rod, so as to effect a balancing adjustment of the slide and to maintain it at the point of balance without opening the case.

[Claims 6 to 10 not printed in the Gazette.]

1,203,687. METALLIC BARREL. WILLIAM E. BEMIS, New York, N. Y., assignor to Standard Oil Company of New York, New York, N. Y. Filed Mar. 19, 1915. Serial No. 15,419. (Cl. 217—98.)

1. A barrel having a head provided with a vent bung-hole, a vent plug adapted to be mounted detachably within the bung-hole and having a vent therein, a vent tube adapted to have one end thereof engaged within the vent of the said plug, the said tube being reversible in position upon the plug, and discharging means for the barrel.

2. A barrel having a head provided with a vent bung-hole, a vent plug adapted to be mounted detachably within the bung-hole and having a vent therein, a vent tube adapted to have one end thereof engaged within the vent of the said plug, the said tube being reversible in position upon the plug, means for closing the said tube when in one of its positions, and discharging means for the barrel.



3. A barrel having a head provided with a vent bung-hole, a vent plug adapted to be mounted detachably within the bung-hole and having a vent therein, a vent tube adapted to have one end thereof engaged within the vent of the said plug, the said tube being reversible in position upon the plug, the free end portion of the said tube being provided with an angular extension adapted to project radially with respect to the barrel and discharging means for the barrel.

4. A barrel having a head provided with a vent bung-hole, a vent plug adapted to be mounted detachably within the bung-hole and being provided medially with a threaded opening, a vent tube having one of its ends threaded and adapted to be mounted reversibly within the said opening of the plug, and discharging means for the barrel.

5. A barrel having a head provided with a vent bung-hole, a vent plug adapted to be mounted detachably within the bung-hole and being provided medially with a threaded opening, a vent tube having one of its ends threaded and adapted to be mounted reversibly within the said opening of the plug, the threaded end of the tube being adapted to protrude through the plug in either position, a closure cap adapted to be threaded onto the protruding end of said tube, and discharging means for the barrel.

[Claims 6 and 7 not printed in the Gazette.]

1,203,688. BARREL-HOOP. EDWIN F. BEUGLER, Buffalo, N. Y., assignor to E. & B. Holmes Machinery Company, Buffalo, N. Y., a Corporation of New York. Filed May 29, 1915. Serial No. 31,164. (Cl. 217—91.)

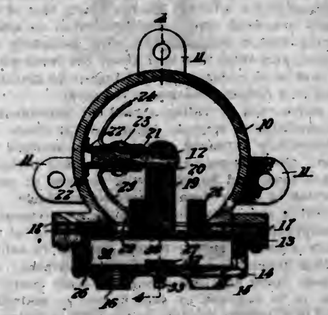


A barrel hoop constructed of a strip of sheet metal having its ends overlapping and united by means which comprise coöperating lips projecting laterally from the ends of said strip and each lip being struck from the stock of said strip so that the rear end of the lip is attached to the strip while its front end is deflected from the side of the lip and forms a forwardly facing edge on the lip and a rearwardly facing edge on the strip adjacent to the front end of the lip, and said lips lying against each other with the forwardly facing edge of the lip in one of said strip ends engaging throughout its width with the rearwardly facing edge of the other strip end.

1,203,689. HYDRAULIC MOTOR. DAVID W. BLUNT, South Cle Elum, and CHARLES L. KELSO, Cle Elum, Wash. Filed Jan. 14, 1915. Serial No. 2,160. (Cl. 188—1.)

1. In a hydraulic motor, the combination with a cylinder and operating parts, of a separate water chest which receives the inlet and outlet water, and slide valves between the water chest and the cylinder governing the inflow and outflow.

2. In a hydraulic motor, the combination with a cylinder and operating parts, of a water chest, valves between the cylinder and the water chest, a valve seat, a skeleton frame lying within the water chest and adjusting screws engaging the frame to regulate the position of the valve seat.



3. In a hydraulic motor, the combination of a cylinder, a central partition dividing the cylinder into chambers, slide valves governing the inlets and outlets to the cylinder and having projecting arms on opposite sides, a shaft, and a piston-wing projecting from the shaft and carrying valve operating wings for engaging the arms of the valve.

4. In a hydraulic motor, the combination with a cylinder and operating piston, of a pair of slide valves having projecting parts against which the piston operates, one of the valves having an imperforate base, the other valve having a perforated base so that when the piston strikes against the projecting arms to slide the valves an orifice will be opened on one side and closed at the other side.

5. In a hydraulic motor, the combination with a cylinder and operating parts, of a water-chest divided into chambers, valves between the cylinder and the water-chest, a valve-seat, a frame lying within the water-chest and supporting the valve-seat, and an adjusting screw operating upon the frame to provide for wear and tear.

1,203,690. HOROLOGICAL INSTRUMENT. HELGE A. BORRESEN, Marquette, Mich., assignor to Max W. Zabel, trustee, Chicago, Ill. Filed Apr. 14, 1911. Serial No. 620,965. (Cl. 58—88.)



1. A watchcase providing a resilient movement support, said movement support comprising a recessed circular band adapted to engage and support a watch movement and the said circular band having extending spring members, the said spring members engaging the interior periphery of the aforesaid watchcase, the said interior periphery having coincident lugs coöperating with the said extending spring members for preventing rotary action.

2. A watchcase providing a resilient movement receptacle, comprising a circular band having perforations producing spring members and providing spaces for universal resilient action of the said spring members, the said spring members engaging the interior periphery of said watchcase, said interior periphery having definitely located

lugs for engaging the aforesaid spring members so as to maintain the aforementioned resilient movement receptacle in a definite relation to the stem.

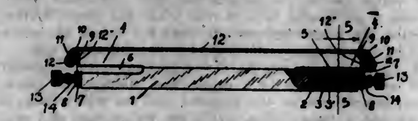
3. A watch case providing a resilient movement receptacle, comprising a circular band, a single row of circumferentially arranged spring fingers secured to said band, said spring fingers engaging the inner periphery of said watch case, and stops provided about the inner periphery of said case to be engaged by said fingers to maintain the said band in a definite relation to the stem.

4. A watch case providing a resilient movement receptacle, comprising a circular band, and a single row of circumferentially arranged spring fingers secured to said band, said spring fingers engaging the inner periphery of said watch case, said fingers having portions of restricted cross section to make them universally yieldable.

5. A watch case providing a resilient movement receptacle, comprising a circular band, a single row of circumferentially arranged spring fingers secured to said band, said spring fingers engaging the inner periphery of said watch case, stops provided about the inner periphery of said case to be engaged by said fingers to maintain the said band in a definite relation to the stem, winding means for said movement, and winding means provided in said case having means to universally engage the winding means of the movement.

[Claims 6 to 9 not printed in the Gazette.]

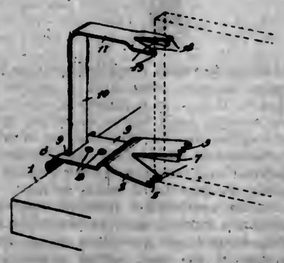
1,203,691. COMBINATION RAZOR STROP-HONE. KARL BRÄCHER, Jr., Belleville, N. J. Filed Apr. 29, 1915. Serial No. 24,731. (Cl. 51—16.)



1. In a device of the character described, a hone, a strop, members having a flat body portion, a flange, and a stamped out portion arranged at right angles to said body portion, said members arranged adjacent each end of the hone for supporting the strop, and means associated with said hone and operatively connected to the members for adjusting the said members thereby tensioning the strop.

2. In a device of the character described, a hone, a strop, members having a body portion and a web, the latter being bent upon itself and arranged at right angles to said body portion, said web having a plurality of teeth adapted to securely hold the strop within said bent portion, said members slidably arranged adjacent each end of the hone for supporting the strop, and an adjusting screw associated with the hone and said members thereby constituting a means for adjusting the strop.

1,203,692. BENCH-CLAMP. JAMES M. BRILES, Victoria, Tex. Filed June 24, 1914. Serial No. 847,063. (Cl. 144—306.)



1. In a bench clamp, a bench, a lower work grip anchored to the bench for engaging the work at the surface of the bench, an upper grip hinged to the bench for engaging the work at a point above the surface grip, and means for locking the upper grip to the lower grip and disposing the upper grip in an operative position, substantially as described.

2. In a bench clamp, a bench, a lower grip formed of sheet metal and anchored to the bench and provided with a toothed edge and a bifurcation extending from the toothed edge, a sheet metal upper grip hinged to the bench and provided with a bifurcated portion adapted to be disposed in vertical alinement with the bifurcated portion of the lower grip, and means for locking the upper grip in an operative position and to the lower grip, substantially as described.

3. In a bench clamp, a bench, a lower grip anchored to the bench and provided with means for engaging the work at the surface of the bench and having butts extending from the bench, an upper grip hinged to the bench and adapted to be moved into an operative position between the butts of the lower grip, and a pin extending through the butts of the lower grip and engaging the upper grip to hold the latter in an operative position, substantially as described.

4. In a bench clamp, a bench, a lower grip having a flat portion anchored to the bench and a grip portion elevated with respect to the surface of the bench and bifurcated to form a work-grip jaw, the bifurcated portion being flanged to fit the same and provide a relatively wide area for grip of the work, an upper grip hinged to the bench and provided with a flange bifurcated portion adapted to be disposed above the bifurcated portion of the lower grip, and means for locking the upper grip in an operative position, substantially as described.

1,203,693. ELECTRIC-CURRENT DISTRIBUTER. WILLIAM C. BRINTON, Jr., Kennett Square, Pa., assignor to Philips-Brinton Company, Kennett Square, Pa., a Corporation of Pennsylvania. Filed Sept. 10, 1915. Serial No. 49,994. (Cl. 123—167.)

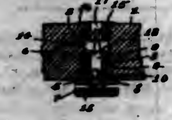


1. A device for closing and opening an electric current successively through a number of binding posts, comprising a cap having a top and a circular side wall, binding posts inserted in and extending below the top, a rotatable member within the cap, and a circuit terminal carried by the rotatable member and whose outer extremity is in its rotation brought successively into circuit-closing relation with, but spaced from, the inner surfaces of the posts above their lower ends, there being free spaces above and below said outer extremity, whereby displacement of the axis of the rotatable member will not affect the circuit closing relation between the circuit terminal and the posts.

2. A device for closing and opening an electric current successively through a number of binding posts, comprising a holder, a rotatable member within the holder, a distributing plate carried by the rotatable member, posts arranged in a line concentric with the axis of the rotatable member, the upright surfaces of the posts opposite the outer edge of the distributer plate in the latter's rotation being roughened to insure the closing of the circuit over the space between said plate and the respective posts.

3. A device for closing and opening an electric current successively through a number of binding posts, comprising a cap, a rotatable head within the cap, a recess in the top of the head, a distributer plate secured to the top of the head, a spring contacting with the plate and extending into said recess, a common terminal post carried by the cap and extending into said depression in contact with said spring, and binding posts carried by the cap and arranged to be brought successively into circuit-closing relation with said plate in the rotation of said head.

1,203,694. SHOE-VENTILATOR. ROY F. BROWER, Syracuse, N. Y. Filed June 21, 1916. Serial No. 105,010. (Cl. 36—3.)



1. A shoe ventilator comprising a part insertible in one end of a perforation in a shoe, and formed with an inlet passage having a check valve therein, and a part insertible in the other end of the perforation and having a passage therethrough, the latter part preventing the perforation in the shoe from closing, substantially as and for the purpose described.

2. A shoe ventilator comprising a part insertible in one end of a perforation in a shoe and formed with a head at its outer end and with an inlet passage, having a check valve therein, said passage terminating short of the outer face of the head and having a lateral branch opening through the sides of the part in the rear of the outer face of the head, substantially as and for the purpose set forth.

3. In a shoe ventilator, a part insertible in one end of a perforation in a shoe, said part comprising a cylindrical casing having an annular flange at its outer end, and a plug threading into the casing and having a head at its outer end opposed to the flange, and an inlet passage provided with a check valve therein, said passage terminating short of the outer face of the head and having a lateral branch opening through the side of the plug in the rear of the head, substantially as and for the purpose described.

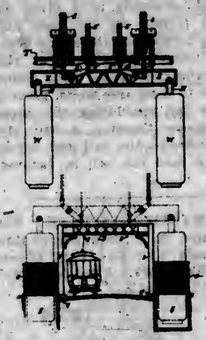
4. In a shoe ventilator, a part insertible in one end of a perforation in a shoe, said part consisting of a cylindrical casing having an annular flange at its outer end, and a plug threading into the casing and having a head at its outer end opposed to the flange, said plug being formed with an inlet passage having an enlargement at its inner end, the bottom of the enlargement constituting a valve seat, and a check valve in the enlargement coacting with the valve seat, said plug being formed with a shoulder located at the outer end of the enlargement in position to partly close the same for preventing removal of the valve, the inlet passage terminating short of the outer face of the head, and having a lateral branch opening through the sides of the plug in the rear near the head thereof, the upper portion of the screw threads on the plug being mutilated to prevent entire removal of the same when the inlet passage is opened, substantially as and for the purpose specified.

1,203,695. BASCULE-BRIDGE. THOMAS E. BROWN, New York, N. Y. Filed May 22, 1915. Serial No. 29,815. (Cl. 14—36.)

1. The combination in a movable bridge of counterweights, counterweight connections and a girder supporting said counterweights on said connections, said girder being extended beyond the planes of the trusses and having the points of support of said counterweights outside of the planes of the trusses of said bridge.

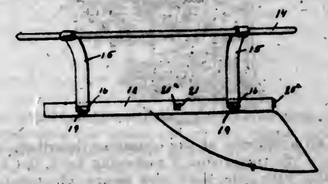
2. The combination with a movable bridge of counterweights, counterweight connections descending over the roadway, and a transverse girder having its ends extended beyond the roadway and supporting said counterweights outside of the roadway of said bridge.

3. The combination with a movabe bridge of counterweights adapted to balance said bridge, counterweight connections in the planes of the trusses and over the roadway and a transverse girder extended beyond the



planes of the trusses and supporting said counterweights outside of the roadway of said bridge.

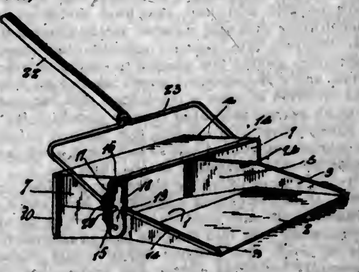
1,203,696. HAIR-DRYING FRAME. MARCUS W. BRUBAKER, Los Angeles, Cal. Filed Dec. 16, 1915. Serial No. 67,168. (Cl. 34—26.)



1. A hair drying frame, comprising a hair supporting ring; braces revolubly mounted on said ring; an adjustable head band having means to secure the lower ends of the braces either collapsibly or detachably connected thereto.

2. A hair drying frame, comprising a hair supporting ring; an adjustable head band; and braces connected to said ring and band; in combination with a visor detachably connected to said head band.

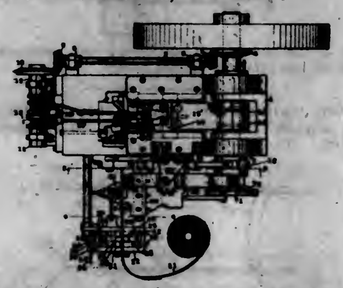
1,203,697. DUST-PAN. ALVAH J. BUMP, Cambridge, Ohio. Filed Feb. 23, 1916. Serial No. 79,994. (Cl. 65—20.)



1. A dust pan comprising a body, a back wall formed integral with said body, a front wall formed integral with the back wall and extending in a plane parallel to the body, side flanges formed on the body and front wall, connecting flanges at the outer edges of the side flanges, the said side flanges being bent at right angles to their respective walls and having their respective connecting flanges connected together, a centrally apertured pivot plate secured to the side flanges to hold their outer ends together and a bail pivoted to said pivot plate.

2. A dust pan comprising a body, a back wall formed integral with said body, front walls formed integral with the back wall and extending in a plane parallel to the body, side flanges formed on the body and front wall, connecting flanges formed at the outer edges of the side flanges, the side flanges being bent at right angles to their respective walls and having their connecting flanges connected together to form side walls, pivot plates secured to the side walls and straddling the seams therein to provide reinforcements therefor, a bail pivoted to said pivot plates, a handle on the bail and notched flanges on the pivot plates to hold the bail in various positions on the device.

1,208,698. NUT-MAKING MACHINE. ELLWOOD BURDSALL, Port Chester, N. Y., assignor to Russell Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y., a Corporation of New York. Filed Nov. 24, 1913. Serial No. 802,623. (Cl. 10—72.)



1. In an apparatus of the character described, in combination, a die comprising a reshaping head and a chamber coaxial with said head, and means adapted to move a blank into and out of said chamber to cause reshaping thereof, said means comprising a blank gripper movable toward and from said die and adapted to hold the blank as the same is being moved.

2. In an apparatus of the character described, in combination, a die comprising a reshaping head and a chamber coaxial with said head, means adapted to move a bar of stock into position opposite said chamber, and means adapted to sever a blank from said bar and carry the same under pressure into said chamber and against said reshaping head, said means comprising a blank gripper adapted to hold the blank as the same is being carried.

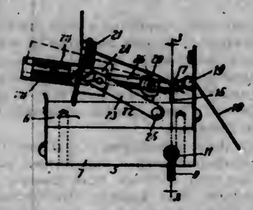
3. In an apparatus of the character described, in combination, a die comprising a reshaping head and a chamber coaxial with said head, said head having an opening communicating with said chamber, means adapted to move a bar of stock into position opposite said chamber, a reciprocatory gripper jaw adapted to operate through said opening, and a reciprocatory punch adapted on movement in one direction to sever a blank from said bar and press said blank against said head thereby reshaping the blank, said punch providing a gripping jaw adapted to coöperate with said first-mentioned jaw to move said blank into said chamber on said movement in one direction.

4. In an apparatus of the character described, in combination, a die comprising a reshaping head and a chamber coaxial with said head, said head having an opening communicating with said chamber, means adapted to move a bar of stock into position opposite said chamber, a reciprocatory combined ejector and gripper jaw adapted to operate through said opening, and a reciprocatory combined punch and gripper jaw adapted on movement in one direction to sever a blank from said bar, coöperate with the combined ejector and gripper jaw to move said blank into said chamber, and press said blank while in said chamber, said combined ejector and gripper being adapted to thereafter move said blank from said chamber.

5. In an apparatus of the character described, in combination, a die comprising a reshaping head and a chamber coaxial with said head, means adapted to move a bar of stock into position opposite said chamber, a reciprocatory member, a punch carried by said member, a sleeve through which said punch passes, means adapted to fix said punch to said sleeve, an abutment on said member against which said perforating punch and said sleeve bear during punching, and manual means adapted to move said abutment into and out of position to be engaged by said sleeve and said punch.

[Claims 6 to 30 not printed in the Gazette.]

1,203,699. ELECTRIC-CIRCUIT-CLOSING DEVICE. WILLIAM W. BURKE, Bennington, Vt., assignor to Cooper Manufacturing Company, Bennington, Vt., a Corporation of Vermont. Filed Mar. 25, 1916. Serial No. 86,779. (Cl. 66—7.)



1. A circuit closing device having, in combination, an electric circuit including a drop device adapted to open and close said circuit and constituting a guide for a strand of yarn, a plurality of guides for said yarn, a lever, and a plurality of guides for said yarn mounted on said lever whereby under abnormal tension said lever may be rocked by said yarn, one of said last-named guides being adjustable toward and away from said drop device.

2. A circuit closing device having, in combination, an electric circuit including a drop device adapted to open and close said circuit and constituting a guide for a strand of yarn, a plurality of guides for said yarn, a lever adapted to engage said drop device, and a plurality of guides for said yarn mounted on said lever whereby when under abnormal tension said lever may be rocked by said yarn to move said drop device to close said circuit, one of said last-named yarn guides being adjustable on said lever toward and away from said drop device.

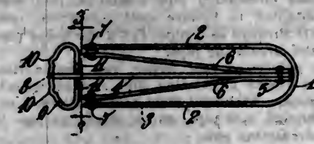
3. A circuit closing device having, in combination, an electric circuit including a drop device adapted to open and close said circuit and constituting a guide for a strand of yarn, a stationary guide for said yarn at one side of said drop device, a pair of movable guides for said yarn on the opposite side of said drop device and means connected with said movable guides and engaging said drop device adapted to be actuated by an abnormal tension on said yarn to move said drop device to close said circuit.

4. A circuit closing device having, in combination, an electric circuit including a drop device adapted to open and close said circuit and constituting a guide for a strand of yarn, a stationary guide for said yarn at one side of said drop device, a pair of movable guides for said yarn on the opposite side of said drop device, and means connected with said movable guides and engaging said drop device adapted to be actuated by an abnormal tension on said yarn to move said drop device to close said circuit, one of said movable guides being adjustable toward and away from said drop device.

5. A circuit closing device having, in combination, an electric circuit including a drop device adapted to open and close said circuit and constituting a guide for a strand of yarn, a plurality of guides for said yarn, a lever, a pivot for said lever and a pair of guides for said yarn mounted on said lever, one of said last-named pair of guides being movable toward and away from said drop device whereby the weight at one side of said pivot may be varied.

[Claims 6 to 9 not printed in the Gazette.]

1,203,700. FOLDABLE SHOE-TREE. WARNER R. BUXTON, Springfield, Mass. Filed Feb. 5, 1916. Serial No. 76,317. (Cl. 12—128.)



1. A shoe tree, adapted to be folded into small compass, comprising, a U-shaped toe piece, a rounded heel member, and toggle links connecting said piece and member, said links arranged to be foldable one within another and within and into the same plane as the heel member and toe piece, said heel member having a pivotal connection with one of said links and adapted to be moved from a position at right angles to the plane of the toe piece to a position in the latter plane, all constructed and arranged so that the shoe tree may be folded into flat, thin, and compact form.

2. A foldable shoe tree, comprising, in combination, a U-shaped toe piece, a pair of links having adjustable pivotal connection at one end with the inner sides of said toe piece and offset so that the other ends are brought inwardly toward one another, another link pivoted at one end to and between said offset ends, and a heel piece pivoted to the opposite end of the last-named link, said pair of links and last-named link adapted to force and hold the toe and heel pieces apart with a toggle action, all constructed and arranged so that the last-named link folds within said pair of links and the folded links fold within and into the plane of the U-shaped toe piece, said heel piece being movable into the common plane of the links and U-shaped member, whereby the shoe tree may be folded in flat, compact, and substantially rectangular form.

3. A shoe tree adapted to be folded into small compass, comprising, a U-shaped part adapted to engage the toe of a shoe, a rounded member adapted to engage the heel of a shoe, a link connected to said member and disposed centrally with respect to said part and links on opposite sides of said first-named link and pivotally connected thereto, each of said last-named links having a detachable pivotal connection with a leg of said U-shaped part, said links adapted to force said part and member into engagement with the extremities of a shoe and to hold them in their moved position with a toggle action, all constructed and arranged so that the first-named link folds within said last-named links and the folded links fold within the U-shaped part whereby the shoe tree may be folded into flat, thin, compact form.

4. A foldable shoe tree, comprising, a U-shaped toe piece having a rounded end adapted to engage the toe of a shoe and two spaced parallel legs, a plurality of eyes formed in each of the latter, a link arranged centrally with respect to said toe piece, a pair of links pivoted at one end to the first-named link on opposite sides thereof, each link of said pair having means at the other end engageable in any of the eyes in said U-shaped member and arranged to bear laterally theresgainst with a spring action, and a rounded heel piece mounted on the end of said first-named link, all constructed and arranged so that the toe and heel pieces may be adjusted for length to fit any desired shoe and so that the said toe and heel pieces may be forced and held apart within the shoe by a toggle action of said links.

5. A shoe tree, adapted to be folded into small compass, comprising, a U-shaped toe piece, a pair of links pivotally connected at one end to the inner sides of said toe piece and offset so that the other ends are brought inwardly toward one another in spaced parallel relation, another link pivoted at one end to and between said offset ends, and a heel piece having a rounded end pivoted to the opposite end of said last-named link and arms inturned from said rounded end to lie closely adjacent said last-named link, said links arranged to be foldable one within another and within and into the same plane as said toe piece, said heel piece adapted to be moved into the common plane of the folded links and toe piece and to be moved to a position at right angles to said plane, said arms adapted to engage the edges of said last-named link to yieldably hold the heel piece in normal relation thereto.

1,203,701. ANIMAL-POKE. OCTAVE CARON, Scranton, N. D., assignor of one-fourth to Ernest W. Christopher, Scranton, N. D. Filed Jan. 22, 1915. Serial No. 3,795. Cl. 119—139.)



1. An animal poke including a frame, a lever movably associated with the lower end of the frame including a wire strand, an intermediate portion of which is formed to provide a parallelogram having feet depending therefrom, the opposite ends of said strand being convoluted about the frame and having the terminals thereof pointed to provide animal-engaging members to inflict injury on the animal when the lever is operated, and means to normally hold said animal-engaging members from penetration in the animal.

2. An animal poke comprising a plurality of adjustable sections, a U-shaped lever secured to and offset from one of the sections and having its arm divergent toward the section, loops attached to the lever for embracing the sides of the section for limiting the movement of the lever, and a second lever secured to the other section.

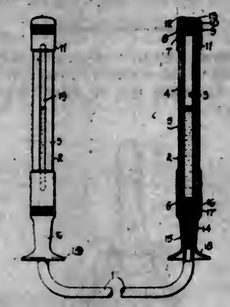
3. An animal poke including a frame of adjustable sections, a U-shaped lever having divergent arms which are coiled about the frame, the free ends thereof extend downwardly and form horizontal loops which receive the side arms of the section, after extending upwardly from said loops, one of the arms is coiled about the arms of the lever, while the other arm is entwined about the first, and both terminate in parallel pricking elements, and a lever secured to the other of said sections.

4. An animal poke including a frame of adjustable sections, levers movably connected to the sections, means for maintaining the levers in vertical position, one of said means comprising a wire strand having its ends coiled about the frame and engaging with a lever and its intermediate part bent to provide a guard for an adjacent pricking element, the other of said means having its ends coiled about the frame and intermediate part coiled about a pricking element secured to the adjacent lever.

1,203,702. LEVEL. ANDREW J. CASHEL, Casper, Wyo., assignor of one-third to William Cashel and one-third to William Snare, Casper, Wyo. Filed Oct. 1, 1915. Serial No. 53,612. (Cl. 33—209.)

1. In a level of the character described, an indicating device including a sleeve, a tube housed therein, a plug mounted in one end of said sleeve and abutting against one end of the tube, said plug having a passage extending

therethrough, and a perforated cap applicable to the end of the sleeve and provided with a protuberance adapted to close said passage, when the cap is in its applied position and forced downward against the plug; as and for the purpose set forth.

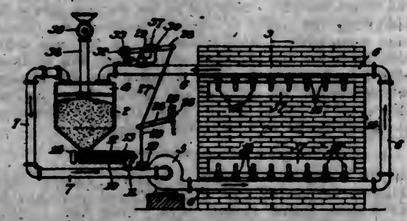


2. In a level of the character described, an indicating device including a sleeve, a tube housed therein, a plug screw threadedly mounted in one end of said sleeve and abutting against one end of the tube, said plug having a passage extending therethrough, and a cap having screw threaded engagement with the end of the sleeve and provided with a protuberance on its inner face adapted to close said passage when the cap is screwed down upon the sleeve, the cap being also formed with an aperture extending therethrough, as and for the purpose set forth.

3. In a level of the character described, an indicating device comprising a sleeve having a chamber formed therein and terminating at one end in a shoulder, a tube mounted in the chamber and abutting against the shoulder, means at one end of the sleeve engaging the sleeve and holding the tube therein, the sleeve being formed at its other end with an exteriorly tapered neck having a passage therethrough, a compressible conduit into which the neck is inserted and by which the conduit is expanded, and a collar having a cylindrical portion having screw threaded engagement with the sleeve and having a tapering portion extending concentrically to the tapering neck and the conduit and when in place clamping the conduit in place.

4. In a level of the character described, an indicating device including a tubular member, a clamping collar mounted upon the tubular member and formed at its end away from the tubular member with an outwardly flared extremity or bell, and a flexible pipe engaging the tubular member and surrounded by the collar, the flared extremity of the collar permitting the pipe to be flexed but limiting the flexing of the pipe.

1,203,703. PULVERIZED-COAL-FEEDING APPARATUS. LA RUE B. CHEVALIER, Iola, Kans. Filed Mar. 6, 1916. Serial No. 82,398. (Cl. 198—10.)



1. In a pulverized coal feeder, the combination of a closed coal bin, pipes connected to said bin and forming therewith a closed, endless circulating passageway, means to circulate air through said passageway, means to supply one of said pipes with coal from said bin without permitting air to pass from the bin with the coal, and a discharge pipe leading from one of said pipes.

2. In a pulverized coal feeder, the combination of a coal bin, a closed circulating pipe communicating with said bin and adapted to receive coal therefrom, means to circulate air through said pipe, and a discharge pipe leading from the circulating pipe.

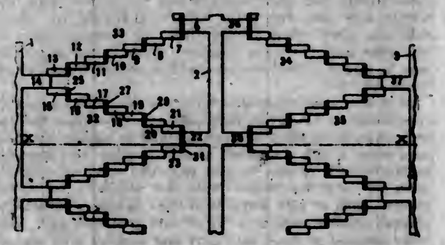
3. In a pulverized coal feeder, the combination of a coal bin, a closed circulating pipe, means operative to supply said pipe with coal from said bin, means to circulate air through said pipe, and a discharge pipe leading from the circulating pipe.

4. In a pulverized coal feeder, the combination of a closed coal bin, a circulating pipe discharging into and leading from the upper portion of said bin, means to discharge pulverized coal from the lower portion of said bin and into said pipe, means to circulate air through said pipe, and a discharge pipe leading from the circulating pipe.

5. In a pulverized coal feeder, the combination of a closed coal bin, a circulating pipe discharging into and leading from the upper portion of said bin, means to supply pulverized coal to the bin, means to discharge pulverized coal from the lower portion of said bin and into said pipe, means to circulate air through said pipe, and a discharge pipe leading from the circulating pipe.

[Claims 6 to 24 not printed in the Gazette.]

1,203,704. EXPANDED-METAL FABRIC. NORRIS ELMORE CLARK, Plainville, Conn. Filed Mar. 11, 1908. Serial No. 420,520. (Cl. 72—117.)

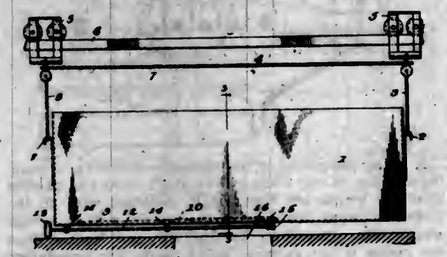


1. An expanded metal fabric consisting of parallel side bars and a center bar, opposite projections integral with the sides of the center bar, the projections on one side being directly opposite and in line of cross tension with the projections on the opposite side, projections integral with the side bars and between the longitudinal positions of the projections carried by the center bar, and extensible strips composed of integrally united strands projecting at right angles to the bars with their edges parallel and connecting the projections and forming diamon shaped openings divided by the bars adjacent connecting strands being independent of each other.

2. An integral expanded metal structure comprising a longitudinal center bar, longitudinal side bars disposed in a plane below the plane of the center bar, strands connected to the center bar and extending horizontally in opposite directions from the sides of said center bar and strips each consisting of integrally united vertical strands connected with the outer ends of the horizontal strands and adjacent strips extending downwardly on opposite inclines and connected with the side bars at their lower ends to form zigzag truss-like sides connecting the horizontal strands and side bars.

3. An expanded metal fabric blank having two rows of longitudinal slits therein spaced apart and with the slits in the respective rows arranged in staggered relation with respect to each other and two series of spaced transverse slits united with each of the longitudinal slits and arranged with one series of transverse slits extending from a longitudinal slit in one row overlapping and alternating with one series of transverse slits extending from a longitudinal slit in the second row and the second series of transverse slits extending from the first-mentioned longitudinal slit in the first row overlapping and alternating with the transverse slits extending from the longitudinal slit in the second row which adjoins the first mentioned longitudinal slit in the second row.

1,203,705. DOUGH-TROUGH. CORBY B. COMSTOCK, New York, N. Y., assignor to Ward Bread Company, a Corporation of New York. Filed May 31, 1911. Serial No. 630,380. (Cl. 107—7.)



1. In an apparatus for holding dough while fermenting and delivering it thereafter, the combination of a bodily horizontally movable trough having an elongated relatively narrow body with a bottom which is substantially horizontal from end to end and adapted to be sustained closely adjacent to a horizontal floor, said bottom having an opening therein of considerably less area than that of the entire bottom, and a manually movable closure for the opening.

2. In an apparatus for holding dough while fermenting and delivering it thereafter, the combination of a bodily horizontally movable trough having an elongated relatively narrow body with a bottom which is substantially horizontal from end to end and adapted to be sustained closely adjacent to a horizontal floor, said bottom having an opening therein of considerably less area than that of the entire bottom through which dough in the trough can be discharged into a similarly sized opening in the said floor, and a manually movable closure for the opening.

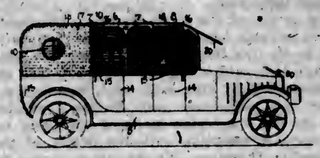
3. In an apparatus for holding dough while fermenting and delivering it thereafter, the combination of a bodily horizontally movable trough having an elongated relatively narrow body with a bottom which is substantially horizontal from end to end and adapted to be sustained closely adjacent to a horizontal floor, said bottom having an opening therein of considerably less area than that of the entire bottom through which dough in the trough can be discharged into a similarly sized opening in the said floor, and a horizontally slidable manually movable closure for the opening.

4. In a dough carrying apparatus, the combination with a support permitting horizontal movement, of an elongated trough body carried by the said support and having a flat bottom provided with a relatively small opening, a parallel edged plate secured to the upper surface of the bottom and provided with an opening in register with that in the bottom, a slidable door having guiding means for engaging the parallel edges of the plate, and means for moving the door into or out of position to cover the openings in the plate and in the bottom.

5. In a dough carrying apparatus, the combination with a support permitting horizontal movement, of a trough body carried by the said support and having a bottom provided with a relatively small opening, and a slidable door above the bottom and held by gravity alone, the said door being movable into and out of position to cover the opening.

[Claims 6 and 7 not printed in the Gazette.]

1,203,706. GUARD FOR VEHICLES. BENJAMIN F. CONN, Ashland, Nebr. Filed Feb. 2, 1916. Serial No. 75,876. (Cl. 21—7.)



The combination with a vehicle body, of a frame structure secured thereto and extending above the side and rear walls of the body, reticulated side, top and rear end walls secured to the frame structure, said frame structure terminating a predetermined point inwardly, of the front end of the vehicle body, the forward end of the frame being open, and a longitudinally disposed reinforcing bar extending centrally over the top of the frame structure and secured thereto, and downwardly to the rear end thereof and having its lower end fixed to the vehicle body, said reinforcing bar at its forward end being downwardly inclined from the frame structure to the front end of the vehicle body and fixed thereto.

1,203,707. REFUSE-TANK. HARRISON TAYLOR CRONK, New York, N. Y., assignor to Cronk-Salter Company, New York, N. Y., a Corporation of New York. Filed May 4, 1912. Serial No. 695,135. (Cl. 4—20.)



1. A closet refuse receptacle, comprising an outer tank and in fluid communication therewith, an inner tank removably carried by said outer tank, baffle plates carried by said inner tank and extending from a wall of said inner tank to the adjacent wall of said outer tank, said baffle plates having apertures extending therethrough, to permit the passage of water from one portion of said outer tank to another portion thereof, and bracing rods connecting certain of said baffle plates.

2. A closet refuse receptacle, comprising an outer tank, an inner tank removably carried by said outer tank and fitting between the top and bottom walls thereof, baffle plates carried by said inner tank and extending from a wall of said inner tank to the opposite wall of said outer tank, said baffle plates having apertures extending therethrough, to permit the passage of fluids from one portion of said outer tank to another portion thereof, and means bracing said baffle plates in position relative to each other.

3. In a device of the class described adapted to be carried on a railroad-car, the combination with an outer tank having an opening thereto for the admission of refuse, and means for closing said tank, of an inner tank removably positioned within said outer tank and in fluid communication therewith supported from the bottom thereof engaging the top thereof and in communication with said opening to receive the refuse inserted through said opening, said inner tank having portions thereof engaging the inner side walls of the outer receptacle to prevent movement of said inner receptacle due to the rocking of the car.

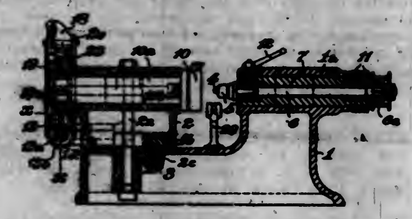
4. In a device of the class described, the combination with an outer tank adapted to contain liquid refuse material, said tank having an inlet thereto, of an inner tank adapted to be inserted within said outer tank resting on the bottom of the outer tank and means bracing said inner tank from movement in all directions, said inner tank adapted to be placed in communication with said

inlet, said inner tank having a fluid communication with said outer tank whereby liquids will drain from said inner into said outer tank while retaining the solid matter within said inner tank.

5. In a device of the class described, the combination with a rectangular tank having an open end and having an inlet in the top thereof, of an inner tank adapted to be inserted into said outer tank through said open end into communication with said inlet, means for closing said open end, said inner tank having a height to fit between the top and bottom walls of said outer tank and having means coextensive with the height of the inner tank extending therefrom for bracing the same from the side walls of the outer tank.

[Claim 6 not printed in the Gazette.]

1,203,708. MILLING AND ROUTING MACHINE. FRANCIS DAVIES, Philadelphia, Pa. Filed May 15, 1916. Serial No. 97,542. (Cl. 90—14.)

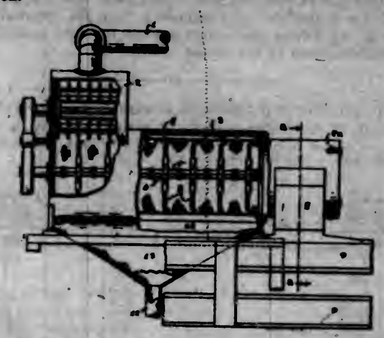


1. In a milling and routing machine, the combination of a frame or bed; a milling cutter rotatable in a bearing thereon; a headstock fitted to traverse on the bed, transversely to the axis of the cutter; a chuck spindle journaled in said headstock; a worm wheel fixed on the chuck spindle; a bearing bracket pivotally supported on the headstock; a feed worm journaled in said bearing bracket and adapted to engage the worm wheel; means for rotating said feed worm; manually operable means for moving the bearing bracket about its pivotal axis to engage the feed worm with the worm wheel; means for retaining said bearing bracket in position to maintain operative engagement of the feed worm and worm wheel; and means automatically operable by the rotation of the chuck spindle, for releasing said retaining means at a predetermined point in the rotation of the chuck spindle.

2. In a milling and routing machine, the combination of a frame or bed; a milling cutter rotatable in a bearing thereon; a headstock fitted to traverse on the bed, transversely to the axis of the cutter; a chuck spindle journaled in said headstock; a worm wheel fixed on the chuck spindle; a bearing bracket pivotally supported on the headstock; a feed worm journaled in said bearing bracket and adapted to engage the worm wheel; means for rotating said feed worm; manually operable means for moving the bearing bracket about its pivotal axis to engage the feed worm with the worm wheel; a bracket arm fixed to the bearing bracket; a trip lever pivoted to the casing of the worm wheel and maintaining operative engagement of the feed worm and wheel by bearing on the bracket arm; and a tripping dog fixed to the worm wheel and adapted to disengage the trip lever and bracket arm at a predetermined point in the rotation of the chuck spindle.

1,203,709. APPARATUS FOR CLEANING COTTON. EUSTICE E. DICKENSON, Fort Worth, Tex. Filed Mar. 1, 1915. Serial No. 11,109. (Cl. 13—19.)

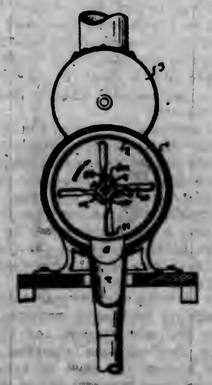
1. In an apparatus of the character described, a cleaning chamber comprising a screen wall, an imperforate casing surrounding the wall, a shaft and stirring paddles revolving within the screen wall combined with means for introducing air and cotton under pressure to one end of the cleaning chamber, a discharge chamber in open communication with the other end of said cleaning chamber, said discharge chamber having an imperforate wall forming a continuation of the imperforate casing and a chute leading from the periphery of the discharge chamber and forming an outlet from said discharge chamber for said cotton.



2. In an apparatus of the character described, a cleaning chamber having a screen wall and a shaft and paddles revolving within the screen wall, combined with an imperforate casing surrounding the screen wall, a trough constituting a discharge for the dirt and leading from the casing to the external air, a means for introducing air and cotton under pressure to one end of the cleaning chamber, a barrel-shaped discharge chamber in open communication with the other end of the cleaning chamber, said discharge chamber having an imperforate wall forming a continuation of the imperforate walls of the casing and a chute leading from the periphery of the discharge chamber and constituting an outlet for the cotton from the cleaning chamber.

3. In an apparatus of the character described, a cleaning chamber having a screen wall, a stirring and fluffing means rotating within said screen wall and a means for introducing air and cotton under pressure to said chamber, combined with an imperforate casing inclosing the screen wall and projecting beyond the cleaning chamber to form an outlet for the cotton and air from said chamber and a means for discharging dirt, blown through said screen wall from the cotton in its passage through the cleaning chamber, from the imperforate casing to the external atmosphere.

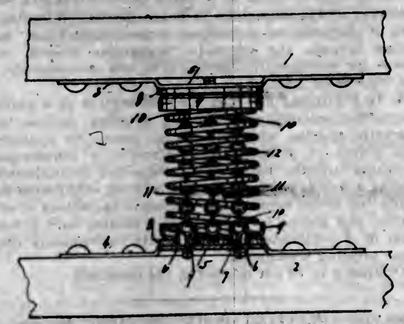
1,203,710. COTTON-CLEANER. EUSTICE E. DICKENSON, Fort Worth, Tex. Filed May 7, 1915. Serial No. 26,478. (Cl. 13—19.)



1. In a cotton cleaner, a casing, a screen chamber inclosed by said casing and concentric therewith, a means for introducing air and cotton under pressure to the interior of the screen chamber, a shaft traversing the screen chamber axially, a series of blades projecting from the shaft and revolving therewith, each of said blades having a flattened body projecting at an angle to the plane of the shank of the blade, and each body provided at its free end with a forwardly and downwardly projecting lip.

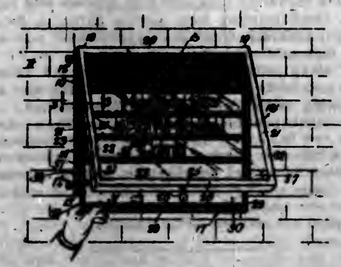
2. In a device of the character described, a paddle blade comprising a shank, a flat surfaced body for the blade formed integral with the shank and projecting with its flat surfaces therefrom at an angle of 45 degrees to the plane of the flat faces of the shank, said body curved forward and downward to form at its free end an overhanging lip.

1,203,711. SHOCK-ABSORBER. JOHN DIERINGER, Tacoma, Wash. Filed Aug. 10, 1915. Serial No. 44,686. (Cl. 267—42.)



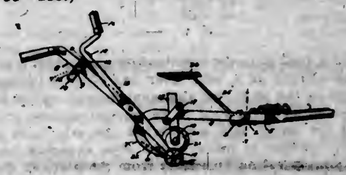
In a shock absorber adapted for automobile use, the combination of a pair of oppositely disposed cupped end plates attachable to the chassis of an automobile, thimbles secured to the inner sides of said end plates, cupped heads arranged between and concentric with the said end plates and having perforations through which the said thimbles normally project, resilient washers interposed between the said heads and end plates, whereby the striking together directly of the end plates and heads is prevented, a coiled spring interposed between the said heads, flexible members within the said coiled spring and adjustably connecting one end plate to the oppositely disposed head, other similar members similarly connecting the other end plate and head, the ends of said flexible members which are secured to the end plates passing through said thimbles.

1,203,712. BULLETIN-BOARD. WILLIAM H. DIETZ, Chicago, Ill. Filed Feb. 12, 1914. Serial No. 818,201. (Cl. 40—140.)



A bulletin board, comprising a closed back frame, a secondary frame adapted to close upon the first named frame and having a transparent face, said back frame comprising rabbeted upper and lower and end frame members, a supplemental frame removably engaged in the rabbeted part of said back frame, said supplemental frame including a backing member, vertically spaced horizontal retaining strips fixed on said backing member, card members adapted to be retained by said strips, each strip comprising a base attached to the backing member and top and bottom flanges spaced from said base, the top flange being of less depth than the lower flange and the vertically adjacent strips being spaced apart at a distance to permit the insertion of the card members between them, the front faces of the supplemental frame and of its card retaining strips being in the same plane as that of the front face of the back frame and said secondary frame being adapted to engage and overlap the lateral edges of said supplemental frame when the secondary frame is in closed position and means for locking said secondary frame in said closed position.

1,203,713. SWEET-POTATO DIGGER. SIMEON DILDAY, Marissa, Ill. Filed Jan. 10, 1916. Serial No. 71,300. (Cl. 55—139.)



A device of the class described, comprising a pair of beams, a tongue having its rear end attached between the beams, said beams having their rear ends terminating in downwardly curved portions, a cutting blade having its ends connected to the lower ends of said portions, handles fixed to the beams, levers pivotally connected to the handles and having wheels rotatably connected at their lower ends, plates carried by the handles and having nuts mounted thereon, said levers being adapted to engage selected nuts to hold the wheels in raised or lowered positions.

1,203,714. ADVERTISING-DART. LOUIS J. DISSEN, Ferguson, Mo. Filed Oct. 3, 1914. Serial No. 864,805. (Cl. 40—25.)

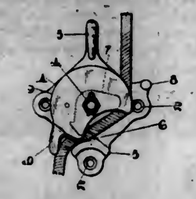


An advertising dart of the character described comprising a rigid and flat plaque-like tail of suitable shape to receive lettering for advertising purposes, a weighted dart point rigidly carried thereby, whereby when the device is thrown it will stick in a desired place, and means for weighting one edge of said tail for the purpose of maintaining the flat side of the tail in a substantially vertical plane when the dart is thrown horizontally.

1,203,715. ROPE-GRIP. JAMES CALIB DOUST, Toronto, Ontario, Canada, assignor of three-fourths to James H. Lumbers, Toronto, Ontario, Canada. Filed Jan. 21, 1915. Serial No. 3,542. (Cl. 24—133.)

1. In a rope grip, the combination of a plate; a gripping member shaped as a bent lever and pivoted intermediate its ends on the plate; an abutment formed on the plate in position to enable a rope to be gripped against it by one end of the lever; and a weighted tail on said lever adjacent the aforesaid end and out of the path of the rope through the grip, said tail tending, when the grip is in normal position, to move the lever toward the abutment, said tail also being directed outwardly and downwardly to act as a guide when a rope is being introduced between the lever and the abutment.

2. In a rope grip, the combination of a plate; a gripping member shaped as a bent lever and pivoted intermediate its ends on the plate; an abutment formed on the plate in position to enable a rope to be gripped against it by one end of the lever, said abutment having a convex surface toward the lever; said lever when the grip is in normal position tending to move to the rope engaging position; a cheek piece projecting beyond the ends of the lever, the latter and the cheek piece being cut away to form a side opening between the lever and abutment when the lever is rocked to a rope disengaging position.

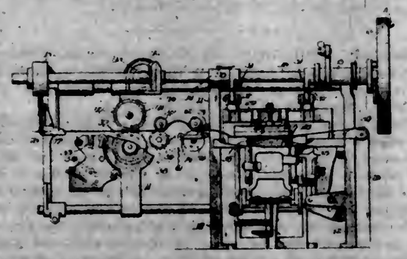


3. In a rope grip, the combination of a plate; a gripping member shaped as a bent lever and pivoted intermediate its ends on the plate; an abutment formed on the plate in position to enable a rope to be gripped against it by one end of the lever; said lever when the grip is in normal position tending to move to the rope engaging position; and a pin projecting forwardly from the plate at the same side of the abutment as the pivot of the lever in substantial alinement with the ends of the lever when the latter is engaged by a rope and spaced sufficiently from the lever for the lateral introduction of a rope between the two.

1,203,716. CURVED PRINTING-PLATE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed July 5, 1913. Serial No. 777,414. (Cl. 101—178.)

A sectional printing element, comprising a metal sheet of relatively narrow width provided with a rearwardly extending flange along one longitudinal edge, and a plurality of longitudinally extending lines of flat-faced printing characters struck up from the body of the metal, said plate being bent between said lines of printing characters, whereby said plate is curved and the printing faces of said printing characters are disposed in planes tangential to a curve concentric to the curvature of said plate.

1,203,717. PRINTING-MACHINE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 28, 1913. Serial No. 787,047. (Cl. 101—1.)



1. In a printing machine, the combination of means for feeding a web through the machine, means for printing periodically changing data at predetermined and successively variable intervals on the web and means for subsequently printing on said web an unchanging impression in predetermined relation to said first printed data.

2. In a printing machine, the combination of means for feeding a strip of paper through the machine, means for printing data at predetermined and successively variable intervals on said strip, and means for subsequently printing additional data on said strip in predetermined relation to said first printed data.

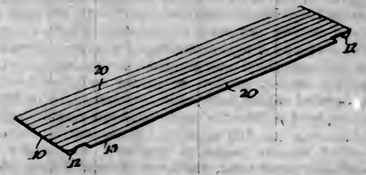
3. In a printing machine, the combination of a manually operated printing platen, means for feeding printing devices into operative relation to said platen, a rotary impression cylinder, means for feeding a web intermittently and successively variable distances past said platen, and means for feeding the web continuously to said cylinder.

4. In a printing machine, the combination of a reciprocatory platen mechanism for feeding printing devices successively from a stack to printing position beneath said platen, a rotary impression cylinder, means for feeding a web of material to be printed intermittently past said platen between the successive operations thereof, and means for subsequently feeding said web continuously to the impression cylinder.

5. In a printing machine, the combination of a platen, means for intermittently feeding printing devices into operative relation with said platen, means for operating said platen at predetermined intervals, a continuously operating printing mechanism, means for intermittently feeding a web of paper or the like between said platen and a printing device between the successive operations of said platen, and means for subsequently feeding said printed strip by a continuous motion to said continuously operating printing mechanism.

[Claims 6 to 13 not printed in the Gazette.]

1,203,718. PRINTING-FORM SECTION. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 31, 1915. Serial No. 69,571. (Cl. 101—169.)



1. A printing form section having a down-turned lug on one edge adjacent each end thereof and type characters struck up from the body of the section closely adjacent the edge thereof between said lugs.

2. A blank printing form section having down-turned lugs on one edge adjacent the ends thereof and a flange extending outwardly from said edge between said lugs.

3. A blank printing form section having a flange extending outwardly from one edge thereof and of less length than said edge.

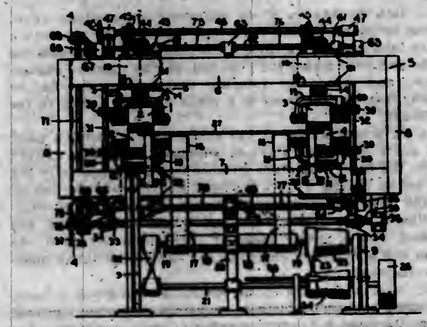
4. A blank printing form section having a flange projecting outwardly from one edge thereof, the ends of said flange being spaced from the ends of the section.

5. A blank printing form section having a character portion and flanges at opposite edges of the section abutting the character portion, the section being weakened between each flange and the character portion to permit the flanges being readily broken off and one of said flanges being of less length than the section.

[Claim 6 not printed in the Gazette.]

1,203,719. CLOTH STRETCHER AND STRAIGHTENER. JOHN EDMUNDS, Waltham, Mass. Filed Oct. 8, 1915. Serial No. 54,781. (Cl. 26—18.)

1. In a machine for stretching and straightening cloth, the combination with two pairs of cloth-feeding and stretching rollers adapted to act on the edges of a web of cloth, of means for adjusting said pairs of rollers toward and from each other to correspond to different widths of cloth, means for positively driving one roller of each pair, and means operative in any adjusted position of said pairs of rollers to vary the relative speed of the driven rollers.



2. In a device of the class described, the combination with two pairs of cloth-feeding and stretching rollers adapted to act on the edges of a web of cloth, of means to adjust the rollers of both pairs simultaneously about an axis at right angles to the axis of the rollers, and means operative in any adjusted position of the rollers for rotating the same.

3. In a device of the class described, the combination with two pairs of cloth-feeding and stretching rollers adapted to act on the edges of a web of cloth, of means to adjust said pairs of rollers toward and from each other to correspond to different widths of cloth, means for rotating said rollers, and means operative in any adjusted position of the rollers to adjust the rollers of both pairs simultaneously about an axis at right angles to the axis of the rollers.

4. In a device of the class described, the combination with two pairs of cloth-feeding and stretching rollers adapted to act on the edges of a web of cloth, of means for positively driving one roller of each pair, means for varying the relative speed of the driven rollers, and means to adjust the rollers of both pairs simultaneously about an axis at right angles to the axis of the rollers.

5. In a device of the class described, the combination with two pairs of cloth-feeding and stretching rollers adapted to act on the edges of a web of cloth, of means for positively driving one roller of each pair, means for varying the relative speed of the driven rollers, and means to adjust the rollers of both pairs simultaneously about axes at right angles to the axes of the rollers.

[Claims 6 to 11 not printed in the Gazette.]

1,203,720. COMPOSITION FOR TREATING RUBBER TIRES, &c. DAVID G. ELDER, Chickamauga, Ga. Filed Apr. 7, 1913. Serial No. 759,441. (Cl. 134—17.5.)

1. A rubber tire treating composition containing a paste, plaster of Paris, chalk, a perfuming medium, alcohol and bismuth subnitrate in proportions substantially set forth in the specification.

2. A rubber tire treating composition in liquid form, containing a paste, plaster of Paris, chalk, alcohol, bismuth subnitrate, and a perfuming medium in proportions substantially set forth in the specification.

3. A rubber tire treating composition in liquid form containing a paste, plaster of Paris, chalk, bismuth subnitrate, rose water, and alcohol in proportions substantially set forth in the specification.

4. A rubber tire treating composition in liquid form containing a paste, plaster of Paris, chalk, bismuth subnitrate, rose water, caramel, and alcohol in proportions substantially set forth in the specification.

1,203,721. HOSPITAL-BED. JOSEPH E. FAZAKERLEY, Pittsfield, Mass. Filed June 1, 1915. Serial No. 31,395. (Cl. 5—12.)



1. In a bed of the character described, the combination with a bed frame of open structure, a mattress support carried on the frame and having a closable transverse opening therethrough, a mattress carried on the mattress support and having a closable transverse opening over said opening in the mattress support, and a receptacle detachably secured to the frame and disposed normally below the location of said openings in the mattress and mattress support, of means for opening the mattress and mattress support to receive said receptacle, said means operating to synchronously elevate the receptacle into position for use.

2. In a bed of the character described, the combination with a bed frame of open structure, a mattress support carried on the frame and having a closable transverse opening therethrough, a mattress carried on the mattress support and having a closable transverse opening over said opening in the mattress support, and a receptacle detachably secured to the frame and disposed normally below the location of said openings in the mattress and mattress support, of means for opening the mattress and mattress support to receive said receptacle, and for synchronously elevating the receptacle into position for use, said means being operable to close said openings in the mattress and mattress support and to synchronously restore said receptacle to its original position.

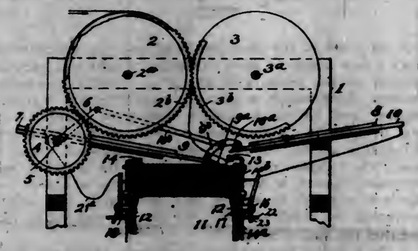
3. In a bed of the character described, the combination with a bed frame of open structure, a mattress support carried on the frame and including relatively adjustable members arranged centrally thereof for providing a closable opening through the mattress support, a mattress carried on the mattress support and comprising a plurality of independent sections, a portion of which sections are movable with said adjustable members of the mattress support, and an adjustable receptacle disposed under the frame adjacent the closable opening in the mattress support, of means operable by the occupant of the bed for simultaneously spacing the said adjustable members of the mattress support to provide a transverse opening through the bed, and elevating the receptacle into said opening for use.

4. In a device of the class described, a frame of open structure, a mattress support carried on the frame, a mattress carried on the mattress support, means for providing a closable opening through the mattress and mattress support, a receptacle secured to the frame and disposed under said closable opening, an adjustable cover for covering the receptacle, and means secured to the frame and operable by the occupant of the bed for synchronously providing an opening through the mattress and mattress support, elevating said receptacle into said opening for use, and withdrawing the cover from the receptacle, said means including means to restore said adjustable members to their original positions.

5. In a device of the class described, a frame of open structure, a mattress support carried on the frame, a mattress carried on the mattress support, means for providing a closable opening through the mattress and mattress support, a movable support secured to the frame and disposed under said closable opening, a receptacle carried on said movable support, a covering provided over the receptacle, means operable by the occupant of the bed for elevating and lowering said receptacle and receptacle support, including means operable by said receptacle adjusting means for synchronously withdrawing said covering

from its normal position over the receptacle when the receptacle is elevated toward said closable opening and restoring said covering to its normal position when the receptacle is withdrawn from said opening.

1,203,722. FOLDING-MACHINE. GEORGE L. FULK, Cleveland, Ohio, assignor to The Postal Supply and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 2, 1914. Serial No. 821,934. (Cl. 101—43.)



1. A folding machine comprising a feeding device adapted to feed a continuous web of material, a pair of oppositely disposed slides, yieldable heads carried by said slides, and a receiving means into which the web is folded.

2. A folding machine comprising a feeding device adapted to feed a continuous web of material, a pair of oppositely disposed slides, yielding heads carried by the slides, means for alternately reciprocating said slides, and receiving means into which the web of material is folded by the slides.

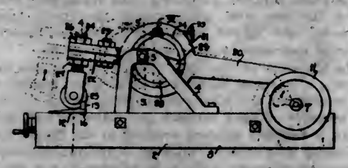
3. A folding machine comprising a feeding means adapted to feed a continuous web of material, a pair of oppositely disposed slides, yielding heads carried by said slides, means for alternately reciprocating said slides, a receiving means having a pair of oppositely disposed walls, said slides folding the web against said walls.

4. A folding machine, comprising a feeding means adapted to feed a continuous web of material, a pair of oppositely disposed slides, a link flexibly connecting adjacent portions of said slides, and means for moving said link to cause the slides to reciprocate.

5. A folding machine, comprising a feeding device adapted to feed a continuous web of material, a receiving chute 11 beneath the feeding means, a pair of reciprocating slides which move across the said chute, a link pivotally connected at its opposite ends to the adjacent or head ends of the slides, a rod pivotally connected to said link, and means for reciprocating said rod.

[Claims 6 to 8 not printed in the Gazette.]

1,203,723. MACHINE FOR DRAWING SHARP EDGES ON METALLIC BODIES. CHARLES FULLER, Gilbert, Ariz., assignor of one-fourth to L. B. McFrederick, Mesa, Ariz., and one-fourth to L. M. Nowell, Gilbert, Ariz. Filed Nov. 10, 1915. Serial No. 60,737. (Cl. 29—83.)



1. In a mechanism of the character described, the combination with an anvil, of a bar having a drawing head at one end, a fixed fulcrum, means for pivotally and slidably supporting the bar intermediate its ends upon said fulcrum, and means for rotating that end of the bar opposite to the head.

2. In a mechanism of the character described, the combination with an anvil, of a bar or shank having a drawing head at one end, a fixed fulcrum, means for pivotally and slidably supporting the bar or shank on said fulcrum, and means for longitudinally shifting and oscillating the bar.

3. In a mechanism of the character described, an anvil, a bar or shank having a drawing head at one end and a yoke intermediate its ends, a fulcrum passing through the yoke and with which the yoke has sliding rotative engagement, and means for rotating that end of the bar or shank opposite the head in a plane at right angles to the fulcrum.

4. In a mechanism of the character described, a base, an anvil supported thereon, supports extending upward from the base, a fulcrum member on said supports, a bar or shank having a drawing head at one end, the bar or shank intermediate its ends being formed with a longitudinally slotted yoke through which the fulcrum pin passes, and a power operated crank mounted upon the base and operatively engaging the end of the shank opposite the head.

5. In a mechanism of the character described, a base, an anvil supported thereon, supports extending upward from the base, a fulcrum member on said supports, a bar or shank having a drawing head at one end, the bar or shank intermediate its ends being formed with a longitudinally slotted yoke through which the fulcrum pin passes, a power operated crank mounted upon the base and operatively engaging the end of the shank opposite the head, and means whereby the angle of the slot in said yoke may be changed.

[Claims 6 to 11 not printed in the Gazette.]

1,203,724. VALVE CONSTRUCTION FOR WATER-CLOSET APPARATUS. ALBERT F. GARRELL, Philadelphia, Pa., assignor to I. X. L. Pump and Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 7, 1914. Serial No. 865,438. (Cl. 137—69.)



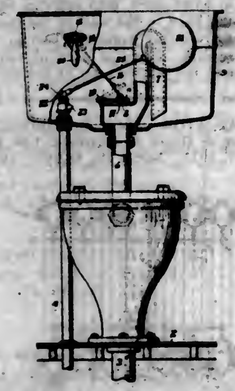
In mechanism of the character described, the combination of a water supply pipe, a waste pipe for discharging water from a portion of said pipe, a longitudinally movable rod situated in said water supply pipe provided with a valve at its lower end for closing the outlet of said waste pipe when the said rod is in raised position, a valve for controlling the passage of water through the said supply pipe said valve having a stem which extends upwardly through the said first-mentioned valve and which has slidable connection with the said rod, the lower end of the first-mentioned valve or an extension therefrom normally resting against the said second-named valve to hold it in closed position, and means whereby the said rod may be raised to move the first-named valve into closed position and to release the second-named valve whereby the latter may be opened by the pressure of the water against the under side thereof, said last-mentioned valve being adapted to be closed in case the back pressure of the water should be greater than the pressure of water against the underneath side thereof while the said rod is in raised position.

1,203,725. WHEELBARROW-SAW. ARMSTRONG E. GANO, Thayer, Kans. Filed Apr. 23, 1915. Serial No. 23,407. (Cl. 143—63.)



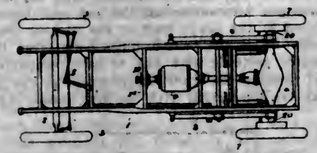
The combination with a portable frame, of a member carried by said frame and projecting forwardly therefrom, a vertically disposed lever pivoted upon said member to swing in a vertical plane, a horizontally disposed extension carried by the lower end of said lever, a saw having one of its ends pivoted upon said extension, said saw lying and operating in a horizontal plane, spring means engaged with said saw and with the extension and acting to impel the saw laterally and toward the work and means carried by the frame for actuating said lever.

1,203,726. FLUSH-TANK-VALVE-ACTUATING MECHANISM. WILLIAM U. GRIFFITHS, Philadelphia, Pa. Filed Apr. 14, 1914. Serial No. 831,717. (Cl. 4—5.)



The combination of a flush tank valve, a rotatable member having an arm, a link having connection with the said valve and with the said arm, the said link and arm being normally in substantial alinement, and means for rotating said member in either direction for opening the said valve.

1,203,727. MOTOR-VEHICLE. EMIL GRUENFELDT, Cleveland, Ohio, assignor to The Baker Motor Vehicle Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 21, 1914. Serial No. 820,114. (Cl. 21—90.)



1. In an electric motor vehicle, the combination with a frame and wheeled supports at the front and rear ends thereof, including rear axle driving mechanism having a housing, of an electric motor having a casing, a rigid connection between the motor casing and said casing, and means arranged in front of said motor and motor casing and between the motor casing and said frame for movably supporting said motor, the said means comprising a ball and socket joint and a connection between the front end of the motor casing and said joint, slidably supported in the ball of said joint whereby said rear axle, motor and connections therebetween as a unit may swing in all directions relatively to the frame and move to and fro longitudinally of the frame.

2. In an electric motor vehicle, the combination with a frame and wheeled supports at the front and rear ends thereof, including rear axle driving mechanism having a housing, of an electric motor having a casing, a rigid connection between the motor casing and said housing, and means arranged in front of said motor and motor casing and between the motor casing and said frame for movably supporting said motor, the said means comprising a ball and socket joint and a connection between the front end of the motor casing and said joint, slidably supported in the ball of said joint, and the axis of said joint being in line with the axis of the shaft for said motor whereby said rear axle, motor and connections therebetween as a unit may swing in all directions relatively to the frame and move to and fro longitudinally of the frame.

3. In an electric motor vehicle, the combination with a frame and wheeled supports at the front and rear ends thereof, including rear axle driving mechanism having a housing, of an electric motor having a casing, a rigid connection between the motor casing and said casing, a member fixed to and extending from the front end of the motor casing, a universal joint arranged in front of said motor and comprising ball and socket members, the ball member being provided with a diametrically extending bearing to slidably and rotatably receive said member extending from the motor casing, and means for rigidly securing said socket member to said frame whereby said rear axle, motor and connections therebetween as a unit may swing in all directions relatively to the frame and move to and fro longitudinally of the frame.

4. In an electric motor vehicle, the combination with a frame and wheeled supports at the front and rear ends thereof, including rear axle driving mechanism having a housing, of an electric motor having a casing, a rigid connection between the motor casing and said housing, and means arranged in front of said motor and motor casing and between the motor casing and said frame for movably supporting said motor, the said means comprising ball and socket members and a connection extending forward from the front end of the motor casing and slidably mounted in the ball member of said supporting means whereby said rear axle, motor and connections therebetween as a unit may swing in all directions relatively to the frame and move to and fro longitudinally of the frame.

5. In an electric motor vehicle, the combination with a frame and wheeled supports at the front and rear ends thereof, including rear axle driving mechanism having a housing, of an electric motor having a casing, a rigid connection between the motor casing and said housing, a member fixed to and extending from the front end of the motor casing in line with the axle of the shaft for said motor, a universal joint arranged in front of said motor and comprising ball and socket members, the ball member being provided with a diametrically extending bearing to slidably and rotatably receive said member extending from said motor casing, and means for rigidly securing said socket member to said frame whereby said rear axle, motor and connections therebetween as a unit may swing in all directions relatively to the frame and move to and fro longitudinally of the frame.

[Claims 6 to 10 not printed in the Gazette.]

1,203,728. WRENCH. HARRY VERNON HAINES, Farrell, Pa. Filed July 24, 1916. Serial No. 111,062. (Cl. 81—177.)

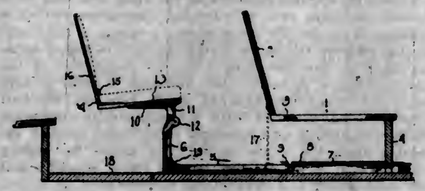
A wrench of the class described comprising a sleeve, a second sleeve extending therefrom and providing a handle member for the wrench, a shank slidably disposed through both of said sleeves and extending beyond the second sleeve, said shank being provided at its inner end with a jaw, a portion of the shank extending beyond the second

sleeve being adapted to be grasped to force said jaw of the shank into engagement with the work, a holding dog pivotally engaged with the second named sleeve and coacting with the shank for holding the same against movement in a direction away from the work, a retractile



member positioned within the sleeve and coacting with the shank to impart movement thereto in a direction away from the work when the holding dog is disengaged from the shank, and a second jaw operatively engaged with the first named sleeve.

1,203,729. AUXILIARY SEAT FOR VEHICLES. MORGAN J. HAMMERS, Detroit, Mich. Filed July 3, 1915. Serial No. 37,983. (Cl. 21—43.)

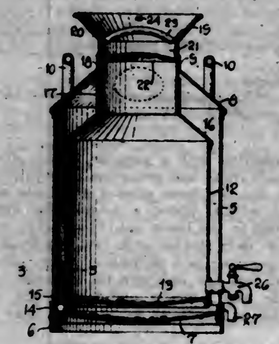


1. In a vehicle, the combination with the floor and a seat thereon having an opening in the back below the seat deck of guides housed under the seat and disposed longitudinally of the vehicle, standards having forwardly extending arms in sliding engagement with the guiding means, a seat articulated to the standards to fold forward into an inverted position over the standard arms and to fold back on the standards into sitting position and a back articulated to the seat to fold downwardly onto the latter and rearwardly into sitting position, the standards resting on the portion of the floor back of the seat when extended and leaving that portion of the floor unimpeded and clear when telescoped with the guides.

2. In a vehicle, the combination with the floor a back seat and a front seat having an open back below the seat deck, of guiding members housed under the front seat extending rearwardly from the heel board, standards having forwardly extending arms in sliding engagement with the guides, a seat articulated to the rear upright end portions of the standards to fold downwardly into an inverted position at an interval above the standard arms and to turn back of the standards into sitting position and a back articulated to fold downwardly onto the seat and rearwardly into operative position, the standards resting on the portion of the floor back of the seat when extended and leaving that portion of the floor entirely unimpeded when telescoped with the guides.

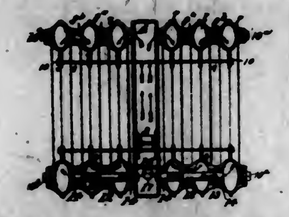
3. In a vehicle, the combination with a back seat and a front seat having an opening in the back thereof below the seat deck, of guiding means underneath the forward seat disposed longitudinally of the vehicle, L-shaped standards the horizontal portions of which are in sliding engagement with the guiding means, seat irons articulated on the upright portions of the standards by rule joints that break forwardly, a back frame and means articulating the back frame to the seat to swing forwardly onto the seat, the seat and attached parts when folded and moved forward on the guides, being housed completely by the front seat, the standards resting on the portion of the floor back of the seat when extended and leaving that portion of the floor entirely unimpeded when telescoped with the guides.

1,203,730. MILK-CAN. JOHN H. HARDCASTLE, Edenwold, Tenn. Filed Nov. 24, 1915. Serial No. 63,157. (Cl. 220—138.)



A container of the class described including an outer shell, an inner receptacle concentrically spaced from the wall of said shell, and a ring or annulus laterally spaced from the lower edge of the receptacle and tightly engaging against said outer shell, said annulus being offset at spaced points and fixed to the wall of the receptacle, said ring or annulus projecting below the bottom of the receptacle to support said receptacle with its bottom wall in spaced relation to the bottom wall of the shell.

1,203,731. RADIATOR. OTTO J. HARTFIELD, Oakland, Cal., assignor to Helen A. Hartfield, Los Angeles, Cal. Filed Dec. 27, 1915. Serial No. 68,725. (Cl. 126—91.)

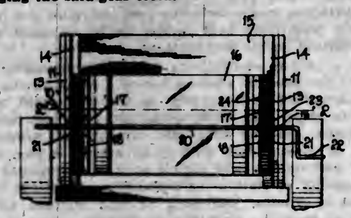


1. An air heater and radiator, consisting of a vertical, rectangular chamber, a heater located in the lower part of the chamber, heat radiating sections fixed in series at each side of the first-named chamber and having connecting passages at the top and alternately with the top and bottom of the following radiator sections, a chamber below the heater of the central chamber, tubular pipes extending from the outer radiator sections to said chamber, and a connected draft-producing flue.

2. In an air heating and radiating apparatus of the character described, a vertically disposed central chamber and radiator sections located at each side having connecting passages alternately at the top and bottom, a heater located in the lower part of the central chamber, compartments below the heater, pipes connecting the exterior radiator sections with one of said compartments, an air inlet through the other compartment to the heater, and a draft flue connecting with the first named compartment.

1,203,732. END-GATE. AUGUST W. HASSELBRING, Barnum, Iowa. Filed Jan. 12, 1916. Serial No. 71,781. (Cl. 21—21.)

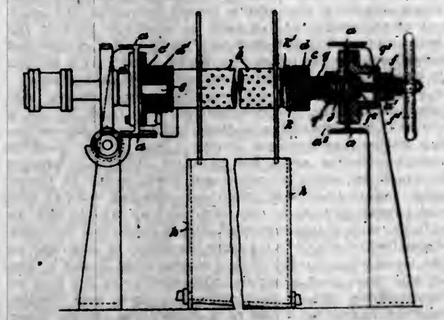
1. The combination with a wagon body including sides and having angle irons attached to the sides, each angle iron having an inwardly extending flange, of an end-gate having angle irons attached to its face and flanges extending over and spaced from the face of the gate and extending over the inwardly projecting flanges of the angle iron guides, the flanges of the angle irons on the gate being formed with gear teeth, a shaft operatively supported upon the sides of the body, and gear wheels on said shaft engaging the said gear teeth.



2. The combination with a wagon body including sides and having angle irons attached to the sides, each angle iron having an inwardly projecting flange, of an end gate having irons attached to its face and formed with flanges extending over the flanges of the first named angle irons and formed with gear teeth upon their outer faces, a shaft operatively supported upon the sides of the body, gear wheels on said shaft engaging the gear teeth on the end gate irons, and a locking detent adapted to engage one of the gear wheels and hold the shaft from rotation.

3. The combination with a wagon body including sides and vertical cleats, of vertical angle irons disposed upon said cleats, an end gate section disposed behind the angle irons, irons mounted upon the face of the section and extending over the first-named angle irons and having sliding engagement therewith, the irons on the end gate section being formed with gear teeth, a shaft mounted upon the side walls of the body and having gear wheels intermeshing with the gear teeth on said irons, and a spring actuated pivoted detent operatively engaging with one of said gear wheels to prevent its rotation.

1,203,733. BEAM-CLAMPING DEVICE. ROBERT SMITH HEAP, Burnley, England. Filed Mar. 17, 1915. Serial No. 14,987. (Cl. 64—25.)

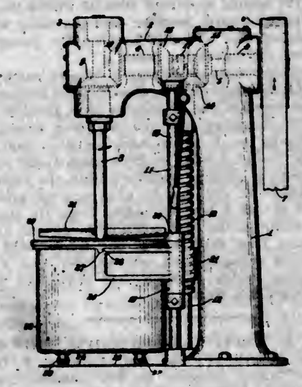


1. In a perforated beam machine for treating yarn, in combination with rotary disks between the faces of which the beam is clamped, a bearing box for one of said disks adapted to have lateral movement, a screw to effect said lateral movement whereby the beam is clamped in place or released, and a resilient device between said screw and bearing box whereby the thrust is transmitted to the beam without danger of injury to the latter.

2. In a perforated beam machine for treating yarn, in combination with rotary disks between the faces of which the beam is clamped, a bearing box for one of said disks adapted to have lateral movement, a screw to effect said lateral movement whereby the beam is clamped in place or released, and a helical spring between said screw and bearing box whereby the thrust is transmitted to the beam without danger of injury to the latter.

3. In a perforated beam machine for treating yarn, in combination with rotary disks between the faces of which the beam is clamped, a frame, a bearing box for one of said disks carried thereby and adapted to have lateral movement, a ball thrust bearing between said disk and bearing box, a screw to effect lateral movement of said bearing box and the disk carried thereby, and a spring between said screw and box, whereby the thrust is yieldingly transmitted to clamp the beam in place without binding of the bearing or injury to the beam.

1,203,734. DOUGH-PUNCHING MACHINE. ERNEST HEIDLAND and HERMAN HEIDLAND, St. Louis, Mo. Filed Nov. 22, 1915. Serial No. 62,904. (Cl. 107—7.)



1. A dough punching mechanism, comprising a dough receiving tub, a dough punching tool constructed and arranged to operate on fermented dough within said tub, and means for operating said punching tool.

2. A dough punching mechanism, comprising a dough receiving tub, a dough punching tool constructed and arranged to operate on fermented dough within said tub, and means for imparting rotary and reciprocatory motions to said tool and tub relatively.

3. A dough punching mechanism, comprising a dough receiving tub, a dough punching tool constructed and arranged to operate on fermented dough within said tub, and means for imparting a combined rotary and reciprocatory motion to said tool and tub relatively.

4. A dough punching mechanism, comprising a dough receiving tub, a driven shaft, a punching tool carried thereby and adapted to operate on fermented dough within said tub, and means for rotating said shaft and causing relative reciprocation of the latter and tub.

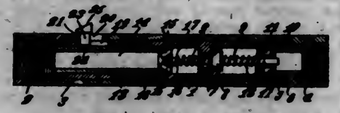
5. A dough punching mechanism, comprising a dough receiving tub, a machine embodying a driven shaft, a punching tool removably mounted on said shaft and adapted to operate within said tub, a cover for said tub movably mounted on said machine, means for holding the tub in operative relation to said machine, and means for operating said shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,203,735. LOCKING THROTTLE-HANDLE FOR PNEUMATIC TOOLS. WILLIAM JAMES HIBBON, Wilkinsburg, Pa. Filed Jan. 17, 1916. Serial No. 72,541. (Cl. 136—11.)

1. A throttle handle embodying a tubular valve casing, a sleeve rotatable thereon, one of said parts having a cam slot with its forward end provided with a shoulder, a pin engaged with the other part and extending through said slot to normally move behind said shoulder, a normally seated valve in said casing, and a plunger slidable

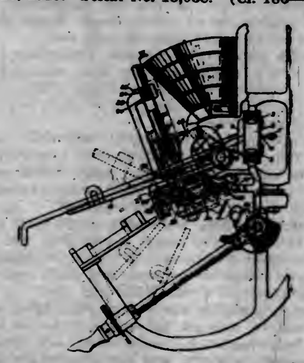
within the casing for unseating the valve, said plunger having a limited movement with respect to the valve before the valve is unseated, and said pin being secured to said plunger.



2. A throttle handle embodying a tubular valve casing, a sleeve rotatable thereon, one of said parts having a cam slot with its forward end provided with a shoulder, a pin engaged with the other part and extending through said slot to normally move behind said shoulder, a valve member within the casing, a plunger slidable within the casing for unseating said valve member, said pin being attached to said plunger, and a spring between the plunger and valve member for separating them.

3. A throttle handle embodying a tubular valve casing, a sleeve rotatable thereon, one of said parts having a cam slot with its forward end provided with a shoulder, a pin engaged with the other part and extending through said slot to normally move behind said shoulder, said casing having a valve seat, a valve seatable against said seat and having a stem, a plunger slidable within the casing and having a finger at one end to abut against said stem, the plunger having a bore extending from its other end to a point adjacent the first mentioned end and an aperture extending from said bore at one side of said finger, said pin being engaged with said plunger, and a coiled wire expansion spring between said valve and plunger upon said finger and stem.

1,203,736. AUTOMATIC DESPATCHING AND SELECTIVE DELIVERY APPARATUS. CHARLES P. HIDDEN, Brookline, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Mar. 17, 1915. Serial No. 15,038. (Cl. 186—16.)



1. In a pick-up and delivery system for messages, parcels and the like, the combination of a track having stations therealong with carriers to travel on said track, means to propel said carriers, and actuating and controlling means, coacting with said carriers and propelling means, to automatically pick-up an article at any given station and unload said article at a predetermined one of a plurality of stations, said plurality of stations being disposed in groups and each of said stations having thereat at least one loading point having means to support an article to be despatched from said loading point, each of said loading points corresponding to one of said unloading stations in at least one of said groups of stations, said pick-up actuating and controlling means comprising elements adjacent said loading points for loading carriers while the latter are passing said points and also means, independent of the load on a carrier, for preventing said elements from disturbing a load already in place upon a given carrier when such loaded carrier is passing said elements until said loaded carrier arrives at the group in which is the predetermined one of said stations at which said loaded carrier is to be unloaded said controlling means including load-controlled provisions for then permitting said carrier to be unloaded at a predetermined one of said stations.

2. In a pick-up and delivery system for messages, parcels and the like, the combination of a track having stations therealong with carriers to travel on said track, means to propel said carriers, and actuating and controlling means, coacting with said carriers and propelling means, to automatically pick-up an article at any given station and unload said article at a predetermined one of a plurality of stations said plurality of stations being disposed in groups, and each of said stations having thereat at least one loading point having means to support an article to be despatched from said loading point, each of said loading points corresponding to one of said unloading stations in at least one of said groups of stations, said pick-up actuating and controlling means comprising elements adjacent said loading points for loading carriers while the latter are passing said points and also means preventing said elements from disturbing a load already in place upon a given carrier when such loaded carrier is passing said elements until said loaded carrier arrives at the group in which is the predetermined one of said stations at which said loaded carrier is to be unloaded and then permitting said carrier to be unloaded at a predetermined one of said stations, said actuating and controlling means further comprising group determining devices on said carriers and means for setting said devices.

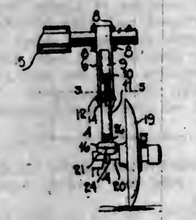
3. In a pick-up and delivery system for messages, parcels and the like, the combination of a track having a plurality of stations therealong, arranged in groups, with carriers to travel on said track, each of said carriers having a pick-up element movably mounted thereon for substantially vertical movement to pick up articles to be conveyed, means to propel said carriers, and actuating and controlling means to control said pick-up elements and only adapted to co-act therewith to automatically load an empty carrier, as the latter passes any given station and to thereafter unload said carrier at a determined point along said track, said system having provisions, independent of the weight of any load, to positively prevent the emplacement of a load upon an already loaded carrier and to prevent the discharge of a loaded carrier at a station in any other than a predetermined one of said groups.

4. In a pick-up and delivery system for messages, parcels and the like, the combination of a track having a plurality of despatching stations and at least one receiving station, carriers each having a pick-up jaw movably mounted thereon and a jaw to co-act with that aforesaid to grasp an article between said jaws, means to propel said carriers along said track, and actuating cams at said despatching stations to cause said pick-up jaws to pick up articles, each of said carriers having a connection normally operatively disposed to transmit the action of said cams as the latter are encountered by a carrier to be loaded by one of said cams, means acting independently of the load to inoperatively dispose said connection upon said carrier, whereby to prevent a cam at a despatching station along the line of travel of an already loaded carrier *en route* to said receiving station, from disturbing the load upon said carrier, and means, including a device to operatively reset said connection and a cam at said receiving station to co-act with said connection when thus reset, to unload its carrier.

5. In a pick-up and delivery system for messages, parcels and the like, the combination of a track having a plurality of despatching stations and at least one receiving station, carriers each having a pick-up element movably mounted thereon, means to propel said carriers along said track, and actuating means to control said pick-up elements and only adapted to co-act therewith to automatically load an empty carrier, as the latter passes any given station and to thereafter unload said carrier at a determined point along said track, said carriers having means, independent of any of the loads to be carried by said carriers, to prevent the emplacement of a load upon an already loaded carrier.

[Claims 6 to 45 not printed in the Gazette.]

1,203,737. CULTIVATOR-DISK MOUNTING. GUY W. HOAR, Bonesteel, S. D. Filed Mar. 20, 1916. Serial No. 85,465. (Cl. 97—37.)



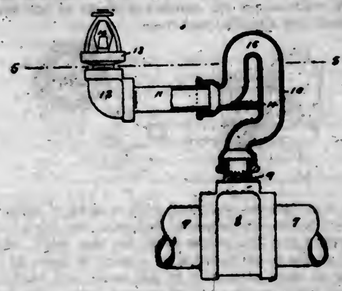
1. A cultivator disk mounting including a relatively stationary upper standard section provided with a longitudinal channel, a lower standard section having a longitudinally split upper end engaged in the channel of said upper section, means mounted in said upper standard section to embrace the lower standard section and contract the split portions thereof, said standard sections being provided with means for interlocking engagement with each other to prevent rotation of the lower standard section with respect to the upper section, and means for mounting a cultivator disk axle upon said lower standard section.

2. A cultivator disk mounting including a relatively stationary upper standard section provided with a longitudinal channel, a lower standard section having a longitudinally split upper end engaged in the channel of said upper section, means mounted in said upper standard section to embrace the lower standard section and contract the split portions thereof, said standard sections being provided with means for interlocking engagement with each other to prevent rotation of the lower standard section with respect to the upper section, said lower standard section being provided upon its lower end with a laterally projecting plate, a cultivator disk axle, a clamping plate seated upon said axle, an eye-bolt to receive the disk axle, the bottom face of said plate being recessed to receive the eye of the bolt, the bolt shank extending upwardly through said plate and in a coinciding opening in the plate on the lower standard section, said plates being provided upon their opposed faces with interlocking teeth, and a clamping nut threaded upon the upper end of the bolt.

3. A disk mounting for cultivators including a relatively stationary upper standard section having a longitudinally extending channel and longitudinal spaced teeth formed on the wall of said channel, a lower shaft section fitted into said channel and also having longitudinal teeth formed thereon for interlocking engagement with the teeth on the wall of said channel, an eye-bolt engaged upon the lower standard section and having its ends disposed through an opening in the upper section and provided with a tightening nut, and means for detachably and adjustably mounting a disk axle upon the lower standard section to angularly position the cultivator disk with respect to the standard.

1,203,738. COMBINED WATER-HEATING AND SPRINKLER SYSTEM. WILLIS K. HODGMAN, Taunton, Mass. Filed Mar. 4, 1916. Serial No. 83,224. (Cl. 169—20.)

1. The combination in a combined circulatory water heating and sprinkler system, of a pipe for the circulation of heating water, a branch pipe in communication with the circulation pipe having an outlet normally closed by a sprinkler head, said branch pipe comprising a fluid conducting passage arranged to conduct fluid successively upwardly and downwardly to said head and a by-pass of realtively small dimension connecting the ends of said passage to shunt fluid flow therefrom and admitting fluid to both ends of the passage to form an air seal therein.



2. The combination in a combined circulatory water heating and sprinkler system, of a pipe for the circulation of heating water, a branch pipe in communication with the circulation pipe, an outlet therefrom normally closed by a sprinkler head, said branch pipe including a trap intermediate the ends thereof providing an air chamber, said trap having an intake from the circulation pipe and an outlet leading to said sprinkler head, and means providing for fluid seepage between the intake to and outlet from said trap.

3. The combination in a combined circulatory water heating and sprinkler system, of a pipe for the circulation of heating water, an offset in communication with the circulation pipe terminating in a dead end and having a sprinkler head attached to said dead end, said offset providing a chamber adjacent said sprinkler head and communications from said pipe to said chamber including a passage of relatively large dimensions leading circuitously to said chamber by a path extending above the level of the same and of said circulation pipe and also including a seepage passage opening to said chamber from the intake end of said large passage.

4. The combination in a combined circulatory water heating and sprinkler system, of a pipe for the circulation of heating water, an offset in communication with the circulation pipe terminating in a dead end and having a sprinkler head attached to said dead end, said offset providing a chamber adjacent said sprinkler head and communications from said pipe to said chamber including a passage of relatively large dimension leading circuitously to said chamber by a path extending above the level of the same and of said circulation pipe and also including a seepage passage opening to said chamber adjacent the bottom thereof and to the intake end of said large passage whereby it will serve to drain the said chamber.

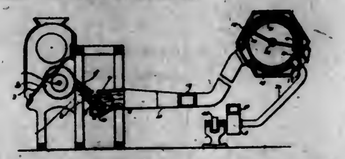
5. The combination in a combined circulatory water heating and sprinkler system, of a pipe for the circulation of heating water, an offset in communication with the circulation pipe terminating in a dead end and having a sprinkler head attached to said dead end, said offset providing a chamber 11 adjacent the sprinkler head and an upwardly looped passage 10 to the chamber from the pipe and means 14 permitting seepage of water from the circulation pipe to said chamber upon gradual escape of air therefrom, the entrance of water to said chamber acting to close the main fluid passage through said offset and preventing transmission of heat to the sprinkler head by convective fluid movement.

[Claims 6 and 7 not printed in the Gazette.]

1,203,739. COTTON GINNING, CLEANING, AND BLEACHING MECHANISM. WESLEY A. J. HOSE, Cleburne, Tex. Filed Apr. 18, 1916. Serial No. 91,962. (Cl. 13—9.)

1. In a cotton gin provided with a gang of saws, means for stripping the lint from the saw teeth, consisting of a

suction nozzle terminating in close proximity to the path of the saw teeth, and having the upper and lower walls parallel to each other, the passage through said nozzle being straight and uniform, a cleaning chamber communicating with said nozzle, a lint flue leading from said chamber, and means for causing a draft of air through said nozzle and chamber and flue.



2. In a cotton gin provided with a gang of saws having unobstructed air passages between the saws, means for stripping the lint cotton from the saw teeth, consisting of a nozzle co-extensive with a gang of saws and terminating in close proximity to the saws, and having the upper and lower walls parallel to each other, the passage through said nozzle being straight and of shallow depth and uniform, and means for causing a suction draft through said nozzle.

3. In a cotton gin provided with a gang of saws having unobstructed air passages between the jaws, means for stripping the lint cotton from the saws, consisting of a nozzle having the receiving end terminating in close proximity to the saw and having its upper and lower walls parallel to each other, and having an off-set at its discharge end, an enlarged chamber commencing at said off-set and being co-extensive in width with said nozzle and means for causing a suction draft through said nozzle.

4. In a cotton gin provided with a gang of saws having unobstructed air passages between the saws, means for stripping the lint cotton from said saws consisting of a nozzle having its receiving end terminating in close proximity to the saws, a relatively large cleaning chamber co-extensive in width with said nozzle, and a baffle in line with said nozzle on the side of said chamber opposite the nozzle, a lint flue in communication with said cleaning and purifying chamber and means for causing an air current through said nozzle and chamber and flue.

5. In a cotton gin provided with a gang of saws, means for stripping lint cotton from the saws consisting of a suction fan provided with an exhaust, a nozzle having its receiving end terminating in close proximity to said teeth, a lint flue in communication with said nozzle and with said fan, and an enlarged closed chamber between said nozzle and said flue and communicating with the nozzle and flue and means in connection with said chamber and flue for causing a revolving motion of the draft and cotton.

[Claims 6 to 14 not printed in the Gazette.]

1,203,740. PROCESS OF GRANULATING NITRATE OF LIME AND SIMILAR SUBSTANCES WITHOUT DEPHLEGMATION AND DUST. ALFRED HOLTER, Rjukan, Norway, assignor to Norsk Hydro-elektrisk Kvælstofaktieselskab, Christiania, Norway. Filed Jan. 6, 1914. Serial No. 810,661. (Cl. 23—13.)

1. The process of granulating nitrate of lime and similar fertilizing substances without the formation of powder, which consists in forming a melt of the substance, and when the substance is in condition for crystallization producing granules or drops thereof of crystalline consistency, and effecting the hardening of such drops by causing them to move freely through an inert gaseous atmosphere.

2. The process of granulating nitrate of lime and the like without the formation of powder, which consists in forming a melt thereof, and when sufficiently concentrated for crystallization producing granules or drops of said molten salt, and causing such drops to move freely in a counter current with a suitable inert gas.

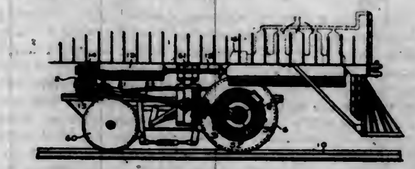
3. The process of granulating nitrate of lime and the like without the formation of powder, which consists in forming a melt thereof, and when sufficiently concentrated for crystallization producing granules or drops of said molten salt and causing such drops to move freely in counter current with air.

4. The process of granulating nitrate of lime and the like without the formation of powder, which consists in forming a melt thereof, and when in condition for crystallization producing granules or drops of said molten salt, and causing such drops to move freely in counter current with a suitable inert gas, said gas being maintained in circulation.

5. The process of granulating nitrate of lime and the like without the formation of powder, which consists in forming a melt thereof, and when in condition for crystallization producing granules or drops of said molten salt, and causing such drops to move freely in counter current with a suitable inert gas, said gas being maintained in circulation while being cooled.

[Claims 9 to 11 not printed in the Gazette.]

1,203,741. MOTOR-DRIVEN CAR. JAMES F. HOWIE, Seattle, Wash. Filed July 8, 1916. Serial No. 107,227. (Cl. 105—227.)



1. The combination with a car body and a supporting truck therefor, of a motor driven main shaft journaled on the car body and extending lengthwise the car, an angularly placed stub shaft also journaled on the car body, bevel gears connecting said stub shaft with the main shaft, a second stub shaft alined with the first and journaled on the truck, bevel gears connecting said second stub shaft with an axle of the truck, an intermediate shaft and universal couplings connecting said intermediate shaft with the stub shafts.

2. The combination with a car body and a supporting truck therefor, of a motor driven main shaft journaled on the car body and extending lengthwise the car, an angularly placed stub shaft also journaled on the car body, bevel gears connecting said stub shaft with the main shaft, a second stub shaft alined with the first, a bearing support for said latter stub shaft containing a universal coupling and having a fore-and-aft swinging support from the car body.

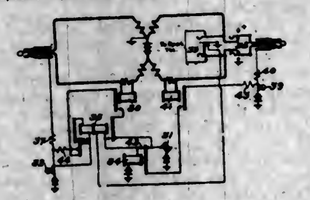
3. A motor car drive comprising a motor mounted on the car body, a shaft driven by said motor and extending lengthwise the car body, a supporting truck under the motor end of the car, said truck having a pivoting connection with the car body, a multiple-part shaft having a driving connection with one axle of the truck and with the shaft carried by the car body, universal couplings connecting the parts of said shaft, and a bearing for the part of said shaft which is connected with the axle containing a universal coupling and a support therefor permitting a limited movement lengthwise the car.

4. A motor car drive comprising a motor mounted on the car body, a shaft driven by said motor and extending lengthwise the car body, a supporting truck under the motor end of the car, said truck having a pivoting connection with the car body, a multiple-part shaft having a driving connection with one axle of the truck and with the shaft carried by the car body, universal couplings connecting the parts of said shaft, one section of said shaft being composed of extensible members.

5. A motor car drive comprising a motor mounted on the car body, a shaft driven by said motor and extending lengthwise the car body, a supporting truck under the motor end of the car, said truck having a pivoting connection with the car body, a multiple-part shaft having a driving connection with one axle of the truck and with the shaft carried by the car body, universal couplings connecting the parts of said shaft, the central section of said shaft being composed of telescoping members.

[Claims 6 to 10 not printed in the Gazette.]

1,208,742. TELEPHONE-EXCHANGE SYSTEM. LEWIS H. JOHNSON, Bloomfield, N. J., assignor to Western Electric Company, Incorporated, of New York, N. Y., a Corporation of New York. Filed Dec. 1, 1915. Serial No. 64,430. (Cl. 179—72.)



1. A telephone exchange system comprising a plurality of telephone lines extending from substations to the central office, a link circuit thereat for interconnecting said lines, a supervisory relay associated with the link circuit and adapted to be controlled from a connected substation, a supervisory signaling device, a listening key associated with the link circuit, a second relay energized by the actuation of the listening key, a locked circuit therefor closed by its energization, the deënergization of the supervisory relay causing the deënergization of the second relay, and an interrupter brought into operative relation with the supervisory signaling device by the subsequent energization of the supervisory relay to cause the signaling device to furnish an intermittent signal.

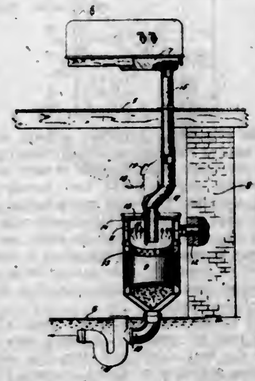
2. A telephone exchange system comprising a plurality of telephone lines extending from substations to the central office, a link circuit thereat for interconnecting said lines, a supervisory signaling device, a supervisory relay associated with the link circuit and controlled from a connected substation, a listening key associated with the link circuit, a second relay energized by the actuation of the listening key, a locking circuit therefor closed by its energization and including a contact of the operated supervisory relay, the deënergization of the supervisory relay causing the deënergization of the second relay, and an interrupter brought into multiple relation with the supervisory signaling device by the subsequent energization of the supervisory relay when the second relay is deënergized to cause the signaling device to furnish an intermittent signal.

3. A telephone exchange system comprising a plurality of telephone lines extending from substations to the central office, a link circuit thereat for interconnecting said lines, a supervisory relay associated with the link circuit and adapted to be controlled from a connected substation, a second relay, an interrupter, a supervisory signaling device, said supervisory relay operating upon connection of the link circuit with a calling telephone line to operatively associate the interrupter with the signaling device thereby causing said signaling device to furnish an intermittent signal, a listening key, actuation thereof causing the energization of the second relay to interrupt the operative association of the signaling device and the interrupter, and a locking circuit for the second relay closed by the energization thereof, the deënergization of the supervisory relay causing the deënergization of the second relay and a subsequent energization of the supervisory relay operatively associating the interrupter and signaling device to cause the signaling device to furnish an intermittent signal.

4. A telephone exchange system comprising a plurality of telephone lines extending from substations to a central office, a link circuit thereat for interconnecting said lines, a supervisory relay associated with the link circuit and adapted to be controlled from a connected substation, a second relay, an interrupter, a supervisory signaling device, said supervisory relay operating upon connection of the link circuit with a calling telephone line to operatively associate the interrupter with the signaling device thereby causing said signaling device to furnish an intermittent signal, a listening key, actuation thereof causing the energization of the second relay to interrupt the operative association of the signaling device and the interrupter, a second locking circuit for the third relay closed by the energization of the supervisory relay associated with calling end of the link circuit, and an interrupter brought into operative relation to the signaling device by the deënergization of the supervisory relays and the subsequent energization of the supervisory relay associated with the calling end of the link circuit.

[Claims 6 to 9 not printed in the Gazette.]

1,203,743. GARBAGE-DISPOSAL APPARATUS. NELS C. JOHNSON, Racine, Wis. Filed Jan. 26, 1916. Serial No. 74,291. (Cl. 193—32.)

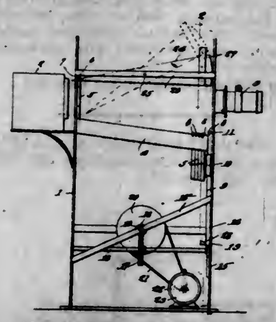


1. A garbage disposal apparatus comprising an outer casing, a drain member for said casing, a receptacle detachably positioned in the casing and spaced from the wall thereof, the lower portion of said receptacle being perforated and the upper portion of the receptacle being provided with a series of openings, an annular partition in the outer casing between said series of openings and the perforated portion of the receptacle, an air duct extending from the outer casing above said partition and a drain pipe extending into the receptacle and terminating below the level of the said series of openings in the upper portion thereof.

2. A garbage disposal apparatus comprising a receptacle, a drain extending from said receptacle and a drain pipe extending substantially vertically above the receptacle, and comprising an upper section and a lower section having its upper portion slidable telescopically engaging the upper section and having its lower portion offset to engage in the receptacle, and a receptacle cover carried by the lower offset portion whereby upon lifting the lower section and rotating it with respect to the upper section, the cover will be disposed laterally of the receptacle.

2. A garbage disposal apparatus comprising an outer casing, a drain at the bottom of the casing, an annular plate disposed in the upper portion of the casing and provided with a series of perforations, outwardly directed flanges at the edge portions of said plate secured to the casing and forming therewith and with the plate, an annular chamber, a receptacle adapted to fit within the annular plate, said receptacle having its lower portion perforated and having provided at its upper portion with a series of openings, adapted to aline with the openings of the plate, an air duct extending from the said annular chamber and a drain pipe extending into the receptacle and terminating below the level of the said series of openings at the upper portion thereof.

1,203,744. SLIDE-PRESENTING MACHINE. WALLACE C. JOHNSON, Nevada, Mo., assignor of one-fourth to Dixie L. Haggard and one-fourth to Joe B. Haggard, Kansas City, Mo., and one-fourth to Wilson J. Cecil, Nevada, Mo. Filed Oct. 18, 1915. Serial No. 56,576. (Cl. 88—28.)



1. In a slide presenting machine, a pair of inclined rails, a second pair of reversely inclined pivotally mounted rails above the aforesaid rails, a series of slide carriers between and slidably engaging the first mentioned rails, and means for elevating the slide carriers one at a time from the lower ends of the first mentioned rails onto the upper ends of the second mentioned rails, said means swinging the second mentioned rails when a slide carrier is being elevated to deposit a slide carrier from the lower ends of the second mentioned rails onto the upper ends of the first mentioned rails.

2. In a slide presenting machine, a pair of inclined rails, a second pair of reversely inclined rails pivotally mounted above the first mentioned rails, the second mentioned rails being pivotally mounted between their ends, a yoke connecting the second mentioned rails, a series of slide carriers suspended between and slidably engaging the first mentioned rails, and means for elevating the carriers one at a time from the lower ends of the first mentioned rails onto the upper ends of the second mentioned rails, said means swinging the upper ends of the second mentioned rails upwardly when a carrier is being elevated, so that a carrier upon the lower ends of the second mentioned rails is released and deposited upon the upper ends of the first mentioned rails.

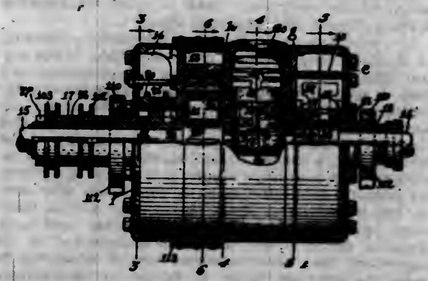
3. In a slide presenting machine, a pair of inclined rails, a second pair of reversely inclined pivotally mounted rails above the first mentioned rails, a series of slide carriers slidably mounted upon the first mentioned rails, means for elevating the carriers one at a time from the lower end of the first mentioned rails so that the carriers engage and swing the second mentioned rails, the second mentioned rails being swung so that the carriers are deposited thereon, and so that a carrier upon the lower ends thereof is deposited upon the upper ends of the first mentioned rails.

4. In a slide presenting machine, a pair of inclined rails, a second pair of reversely inclined rails pivotally mounted between their ends above the first mentioned rails, a yoke connecting the second mentioned rails, a series of slide carriers disposed between the first mentioned rails and having portions to slide upon both pairs of rails, and means for elevating the slide carriers one at a time from the lower ends of the first mentioned rails so that they strike and raise the upper ends of the second mentioned rails, and so that the upper ends of the second mentioned rails swing under said portions of the carriers, the second mentioned rails when swung depositing a carrier from the lower ends thereof onto the upper ends of the first mentioned rails.

5. In a slide presenting machine, a pair of inclined rails, a second pair of reversely inclined rails pivotally mounted between their ends above the first mentioned rails, a series of slide carriers disposed between and slidably engaging the first mentioned rails and adapted to slidably engage the second mentioned rails, a vertically movable elevator adjacent the lower ends of the first mentioned rails, and means for operating the elevator, the elevator when lowered being adapted to receive one carrier from the first mentioned rails, and when raised to carry said carrier past the upper ends of the second mentioned rails so that the carrier is deposited upon the upper ends of the second mentioned rails, the second mentioned rails being swung when the elevator is raised to deposit a carrier from the lower ends of the second mentioned rails onto the upper ends of the first mentioned rails.

[Claims 6 to 10 not printed in the Gazette.]

1,203,745. FLUID TRANSMISSION. FREDERICK O. KILGORE, Somerville, Mass. Filed Oct. 22, 1912. Serial No. 727,156. (Cl. 138—22.)



1. In an apparatus of the character described, in combination, a driving shaft, a driven shaft, a casing for containing fluid, a rotatable driven member within said casing concentric with said driven shaft and connected thereto and provided with a plurality of radially movable devices for the fluid to act on and effect rotation of said driven member and the driven shaft, a rotatable driving member within said casing concentric to and connected with the driving shaft and provided with a plurality of movable devices to effect movement of said fluid, and expansible and contractible means located in said casing and coöperating with the movable devices of said driving member to render them ineffective upon said fluid, and to permit them to become effective thereon.

2. In an apparatus of the character described, in combination, a driving shaft, a driven shaft, a casing for containing fluid, a rotatable driven member within said casing concentric with said driven shaft and connected thereto and provided with a plurality of movable devices for the fluid to act on and effect rotation of said driven member and the driven shaft, a rotatable driving member within said casing concentric with the driving shaft and connected thereto and provided with a plurality of movable devices to effect movement of said fluid, expansible and contractible means coöperating with the movable devices of said driving member to render them ineffective upon said fluid and to permit them to become effective thereon, and means for controlling the direction of movement of the fluid to enable the latter to rotate the driven member in opposite directions.

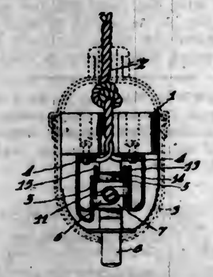
3. In an apparatus of the character described, in combination, a driving shaft, a driven shaft, a casing for containing a fluid, a rotatable driven member within said casing concentric with said driven shaft and connected thereto and actuated by said fluid to effect rotation of said driven shaft, a rotatable driving member within said casing concentric with said driving shaft and connected therewith to be rotated thereby, and expansible and contractible means within said casing and coöperating with said driving member to permit the same to become effective on said fluid to cause the latter to act on the driven member, and to render said driving member ineffective upon said fluid.

4. In an apparatus of the character described, in combination, a driving shaft, a driven shaft, a rotatable driven member concentric with said driven shaft and connected thereto, a rotatable driving member concentric with said driving shaft and connected thereto, a rotatable casing for containing a body of fluid coöperating with said driving and driven members to enable said fluid to be set in motion by said driving member and actuate said driven member to rotate the same, means within said casing for controlling the action of said driving member on said fluid, and means for holding said casing from rotating while the fluid is being circulated by said driving member to effect rotation of said driven member.

5. In an apparatus of the character described, in combination, a rotatable casing for containing a fluid, a driving member located in said casing and capable of being expanded and contracted, means rotatable with said casing for contracting said driving member, and a driven member located within said rotatable casing and actuated by said fluid.

[Claims 6 to 11 not printed in the Gazette.]

1,203,746. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 7, 1911. Serial No. 648,085. (Cl. 175—291.)



1. In combination, two members having yielding engagement with each other and being relatively movable bodily, one of said members being also rotatable, and means for engaging and causing partial rotation of said rotatable member when said members are moved relatively, said rotatable member being so shaped that after partial rotation said other member causes further rotation.

2. In an electric switch in combination, a rotatable actuating member, a yielding member bearing against the periphery thereof, coöperating engaging means on said members whereby relative bodily movement of said members will cause the engagement of said means and thereby rotate said rotatable member and throw it ahead after a predetermined movement.

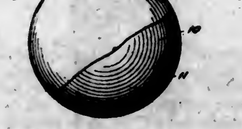
3. In an electric switch, in combination, a rotatable member having peripheral faces meeting at angles whereby corner shoulders are formed, a member having a catch, said members being relatively movable back and forth and one being biased toward the other, and means for causing such relative movement, said catch being arranged to engage one of said shoulders during said movement whereby said engagement causes a partial rotation of said rotatable member, and said biased member snapping against the other to complete said partial rotation.

4. In a snap movement, in combination, a rotatable member having peripheral faces meeting at an angle with each other whereby shoulders are formed, a projecting catch, means for causing a relative movement of translation of said elements, said catch being arranged to engage one of said faces during said relative movement whereby said engagement causes a partial rotation of said member, and a yielding device impelled toward said member which snaps against the aforesaid face after said partial rotation permits said face to be presented thereto.

5. A polygonal rotatable actuating member having substantially flat faces, a relatively reciprocable yielding member pressing against whatever face is adjacent thereto, and means associated with said yielding member adapted to engage said rotatable member and impart thereto a successive step by step rotation in one direction when one of said members is reciprocated relatively to the other, said yielding member being moved away from the axis of rotation of said actuating member at the beginning of each of said steps whereby it may snap inwardly at the end of each step and throw said rotatable member ahead.

[Claims 6 to 34 not printed in the Gazette.]

1,203,747. COMPOSITION BOWLING-BALL. PAUL J. KLOPSCH, Bayonne, N. J. Filed Nov. 26, 1915. Serial No. 63,454. (Cl. 46—4.)



1. A composition bowling ball, comprising a core and a shell tightly inclosing the said core, the latter consisting of a cementitious mass and a filler and the shell consisting of a condensation product of carbolic acid and formaldehyde.

2. A composition bowling ball, comprising a core and a shell tightly inclosing the said core, the core consisting of a mixture of a solution of chlorid of magnesia, oxid of magnesia and a filler, and the shell consisting of a condensation product of carbolic acid and formaldehyde.

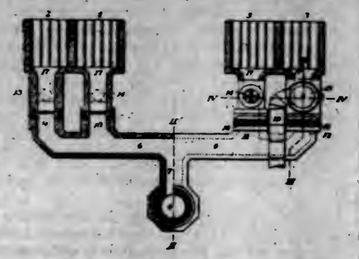
3. A composition bowling ball, comprising a core and a shell tightly inclosing the said core, the latter consisting of equal parts of chlorid of magnesia and oxid of magnesia, and a light filling material, and the said shell consisting of a condensation product of carbolic acid and formaldehyde.

4. A composition bowling ball, comprising a core and a hard baked shell tightly inclosing the said core, said core consisting of equal parts of chlorid of magnesia and oxid of magnesia and approximately twenty per cent. of a comminuted fibrous filling material.

1,203,748. FLUE AND VALVE ARRANGEMENT FOR REVERSING REGENERATOR-FURNACES. LUTHER L. KNOX, Avalon, Pa., assignor to Knox Pressed & Welded Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 6, 1914, Serial No. 849,280. Renewed Feb. 13, 1915. Serial No. 8,075. (Cl. 158—7.5.)

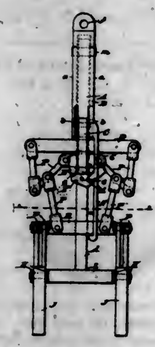
In a flue and valve arrangement for regenerative furnaces, the combination of air and gas regenerators, a stack flue running transversely of the regenerators, a continuous port connecting each of the regenerators with

said stack flue, said ports being at the same level as the stack flue and all opening directly into the same side of said flue, each port having an admission valve in its



upper wall, and each port also having a vertically movable damper between said valve and the stack flue; substantially as described.

1,203,749. AUTOMATIC CATCH AND CARRYING MACHINE. PETER KUSNOR, New Castle, Pa. Filed Apr. 20, 1916. Serial No. 92,547. (Cl. 57—9.)



1. The combination in an automatic catch and carrying machine, of the hoisting hooks C C, the movable bar D, the stationary bar G, located beneath the said bar D, and provided with receiving apertures *a a*, on opposite sides thereof, the casing, or tube B, provided with slots *c c*, therein, the stationary bar I, vertical shaft A, the latter mortised centrally at its base in the bar I, and having its upper end inclosed in the tube B, and equipped with the transverse stop-pin *m*, at its upper end, projecting into said slots in said tube, with the horizontal bars D and H, acting vertically on said shaft, the stationary bars G and I, the rod N, provided with two catches, the shields E, and E¹, manipulated by said rod N, by means of said catches thereon, in contact with the knob, or handle *d*, on the smaller arm of said shield E, the stationary bars K K, centrally attached to the ends of said bar I, and at right angles thereto, the gripping jaws J J J J, pivoted in the ends of said bars K K, the tongues M M, mortised in said bars K K, the systems of levers P P P P, and *p p p p*, the first pivoted to the bars G H and D, the latter to the bar H, and the upper ends of said jaws, all as substantially herein described.

2. The combination in an automatic catch and carrying machine, of the blocks F F, and the shields E, and E¹, the manipulating rod N, provided with upper and lower catches, in juxtaposition to the handle *d*, on the smaller arm of said shield E, for manipulating said shields, E, and E¹, with the hooks C C, the stationary bar G, having the apertures *a a*, for the reception of said hooks, the bar D, tube B, and vertical shaft A, all as herein particularly set forth.

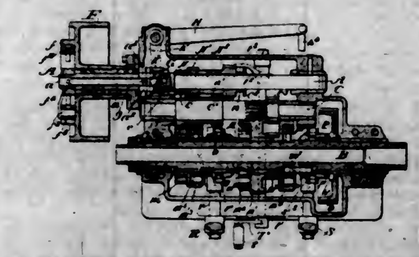
1,203,750. WRENCH. IVER A. LARSON, Gatzke, Minn. Filed Apr. 12, 1916. Serial No. 90,696. (Cl. 81—111.)



1. A wrench comprising an elongated member provided at one end with a stationary jaw and at its opposite end with a lateral extension provided with an opening, a jaw pivotally mounted upon the elongated member and movable relative to the stationary jaw, a lateral arm carried by the pivoted jaw, a rod pivotally engaged with the arm and extending through the lateral extension of the elongated member, and an operating member in threaded engagement with the operating rod and engageable with the outer face of the lateral extension.

2. A wrench comprising an elongated member provided at one end with a stationary jaw and at its opposite end with a lateral extension provided with an opening, a jaw pivotally mounted upon the elongated member and movable relative to the stationary jaw, a lateral arm carried by the pivoted jaw, a rod pivotally engaged with the arm and extending through the lateral extension of the elongated member, and an operating member in threaded engagement with the operating rod and engageable with the outer face of the lateral extension, said stationary jaw and pivoted jaw being of arcuate formation and having their opposed ends concave in cross section.

1,203,751. GEARING. RICHARD K. LE BLOND and WILLIAM F. GROENE, Cincinnati, Ohio, assignors to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 12, 1913. Serial No. 760,670. (Cl. 74—58.)



1. In a machine of the character described, the combination of a drive shaft, driving means for said shaft, a spindle, shiftable gearing connection between the drive shaft and spindle, means for operatively connecting and disconnecting the drive shaft with its driving means, and means acting when the drive shaft is disconnected from its driving means to stop rotation of the gearing connecting the drive shaft and spindle.

2. In a machine of the character described, the combination of a drive shaft and its driving means, a spindle, shiftable gearing connection between the drive shaft and spindle for transmitting motion of the drive shaft in different speeds to the spindle, means for disconnecting the drive shaft from its driving means, and means for stopping the operation of the gearing connection between the said shafts when the driving means is disconnected from the drive shaft to prevent overrunning.

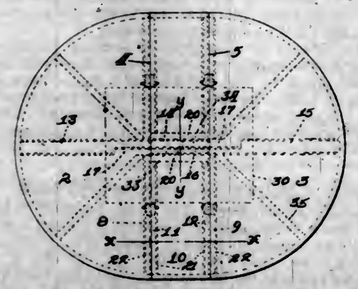
3. In a machine of the character described, the combination of a drive shaft and its driving means, a cluster of shifting gears on the drive shaft, an intermediate shaft having a series of gears selectively engageable with the gears on the drive shaft, a spindle, selectable gearing connection for rotating the spindle from the intermediate shaft, means for detachably connecting the driving means with the drive shaft, and means acting to arrest rotation of the cluster of shiftable gears when the driving means is disconnected from the drive shaft to permit the shiftable gears to be shifted for changing speed as soon as the driving means is operatively disengaged from the drive shaft without loss of time.

4. In a machine of the character described, the combination of a drive shaft, an intermediate shaft, a spindle, and a back shaft, selective gearing connection between the drive shaft and intermediate shaft, a sleeve on the spindle revoluble independently thereof, means for detachably locking the sleeve to the spindle, loose connection between the intermediate shaft and sleeve, means for rendering said gearing connection functionally operative or inoperative, permanent gearing connection between the sleeve and back shaft, and loose gearing connection between the spindle and back shaft, and means for rendering said gearing connection functionally operative.

5. In a machine of the character described, the combination of a driving shaft, a sleeve splined thereon, a cluster of gears fast thereto, an intermediate shaft, a plurality of gears fast thereon, means for moving the cluster of gears on the driving shaft to cause selective engagement between gears on the driving shaft and intermediate shaft, a spindle, a sleeve on the spindle independently revoluble thereof, gears on the sleeve independently revoluble thereof and in continual mesh with gears on the intermediate shaft, locking means between the sleeve and gears that they may be caused to revolve with the sleeve, a gear fast to the sleeve, a gear loose on the spindle, means to cause the sleeve or the loose gear to revolve with the spindle, and a back shaft with gears fast thereon and in continual mesh with the gear fast to the sleeve and the gear normally loose on the spindle respectively, whereby fine changes of speed may be secured from the driving shaft and varying speeds may be imparted to the spindle.

[Claims 6 to 8 not printed in the Gazette.]

1,203,752. SUPPLEMENTAL TABLE-TOP. EUGENE J. LE CLAIRE, St. Paul, Minn. Filed Oct. 22, 1915. Serial No. 57,241. (Cl. 45—31.)



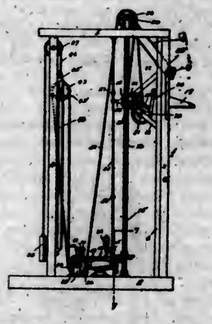
1. A supplemental table top, comprising, in combination, top sections having cleats along their meeting edges mortised together, said cleats having longitudinal grooves

in their opposite sides and clamps having bail hooks engaging said cleats in said grooves and adapted to hold said sections together upon a table.

2. A supplemental table top, comprising, in combination, top sections having cleats secured thereto along their longitudinal meeting edges provided with interlocking faces and additional cleats secured at an angle to said first mentioned cleats having projecting intermeshing tongues slidably disposed with respect to one another and with respect to said first mentioned cleats.

3. A supplemental table top, comprising, in combination, top sections having cleats secured thereto along their longitudinal meeting edges having mortised intermeshing faces, and additional cleats secured at an angle to said first mentioned cleats having projecting intermeshing tongues.

1,203,753. SPLITTING-MACHINE. CHRIS LETIN, San Francisco, Cal. Filed May 5, 1915. Serial No. 25,957. (Cl. 17—30.)



1. A carcass splitting machine comprising a power shaft, a reciprocating knife adapted to be indirectly connected to and driven by said shaft, blocks for carrying the weight of the carcass, said blocks being actuated by said shaft whereby they are moved apart as said knife moves through the carcass.

2. A carcass splitting machine comprising a power shaft, a reciprocating knife adapted to be indirectly connected to and driven by said shaft, blocks for supporting the carcass disposed on each side of the knife, mechanism actuated by said shaft for causing a relative vertical movement between said knife and its supporting blocks and other means driven by said shaft for causing the outward movement of said blocks in opposite direction as said knife moves through the carcass.

3. A carcass splitting machine comprising a power driven shaft, a knife frame, a knife indirectly connected to and actuated by said shaft and adapted to be reciprocated thereby within said frame, guide ways on each side of said knife disposed at right angles to the movement of said knife, mechanism driven by said shaft for causing a relative vertical movement between the knife frame and the guide ways, blocks carried by said guide ways for supporting the carcass to be split, the said blocks being indirectly connected to the shaft in such a manner as to cause the outward movement thereof in opposite direction as the knife moves through the carcass.

4. A carcass splitting machine comprising a power shaft a reciprocating cutting knife actuated by said power shaft and means operated by said shaft for supporting and separating the hide of the carcass as the knife cuts longitudinally through the same.

5. A carcass splitting machine, comprising a framework, a vertical guideway formed in said framework, a knife-frame slidable in said guideway, a knife adapted to reciprocate in said frame, a shaft having a crank pivotally mounted in said knife frame, a rod connecting said crank with said knife to cause the reciprocation, a vertical screw threaded shaft engaging said knife frame,

means for imparting rotation to said crank shaft and said screw threaded shaft, said means being so arranged that when the screw shaft moves said knife frame upwardly said crank shaft is not rotated.

[Claim 6 not printed in the Gazette.]

1,203,754. SAFETY-VALVE FOR TIRE-PUMPS AND THE LIKE. JOHN LIEFBROER and JOHN TENDOLLEN, Oostburg, Wis. Filed May 22, 1916. Serial No. 99,167. (Cl. 137—53.)



A safety valve of the class described comprising a tubular body member provided with an opening in one end, a spring strip secured to the other end of said body member and extended adjacent said opening, a valve head secured to the leaf spring and normally urged to close the opening and a band surrounding the tube and spring and movable longitudinally thereof, said band having a portion thereof outwardly offset to receive said spring strip.

1,203,755. NUT-LOCK. AUGUST LINDELL and ELMER C. LINDELL, Rockford, Ill. Filed June 19, 1916. Serial No. 104,511. (Cl. 151—19.)



1. An improved nut lock comprising a bolt, a nut therefor having a groove in its threaded face extending from one end of the nut crosswise of the threads and terminating short of the opposite end, the inner end of the groove being inclined providing an inclined abutment leading into the bore of the nut, and a pin adapted to slidably fit in said groove, the pin being of greater length than said groove and having an end in abutment with said inclined end of the groove and tapered substantially in conformity to the same, whereby when the nut is drawn tight the pin will be forced lengthwise and the tapered point thereof will be directed laterally by the inclined abutment and jammed into the adjacent threaded face of the bolt to effectively lock the nut thereto.

2. An improved nut lock comprising a bolt, a nut therefor having an axial groove in its threaded face extending from one end partially to the other end of the nut, the inner face of the groove being slightly inclined toward the bore from the open end of the nut toward its closed end, which latter is inclined at a more pronounced angle into the bore of the nut, and a pin fitting in the groove, having substantially parallel sides and a tapered end abutting against said inclined end of the groove, the other end of said pin projecting beyond the adjacent face of the nut, whereby when the nut is drawn tight the pin will be forced lengthwise and its tapered end guided by the inclined faces of the groove so that the major length of the pin is moved away from the bolt and the said tapered end is forcibly jammed into the bolt.

3. An improved nut lock comprising a bolt, a nut therefor having a groove in its threaded face extending from one end of the nut part way the length thereof having sides shaped in cross section to converge toward the bore of the nut and having its inner end inclined into the bore, and a pin fitting in said groove, shaped to conform to the sides and inclined end thereof so that the pin is prevented from moving radially into the bore of the nut, the outer end of the pin being projected beyond the adjacent end of the nut so that when the same is drawn tight the pin will be moved lengthwise in the groove and the pointed end of the pin will be jammed into the adjacent threaded face of the bolt by the action of said inclined end of the groove.

4. An improved nut lock comprising a bolt, a nut therefor, the threaded face of which is grooved throughout a portion of its length, the inner end of the groove being curved into the bore and the inner wall extending from said curved end to the open end of the groove on a slight incline away from the bore so that the depth of the groove is greatest at its open end, and a pin fitting in said groove, having substantially parallel sides and being curved at one end in conformity to the said curved end of the groove and tapered at its opposite end so as to present diagonally opposite pointed ends, the said tapered end projecting beyond the adjacent end of the nut when the pin is in abutment with said curved end of the groove, whereby when the nut is drawn tight the pin will be forcibly pressed lengthwise in a line between the said diagonally opposite ends of the points of the pin so that the pin will be rocked outwardly on said curved end of the groove, thus preventing the major body of the pin from marring the threads of the bolt and causing the inner pointed end of the pin to be jammed into the bore to effectively lock the nut thereto.

1,203,756. PROCESS OF MAKING ACETYL-CELLULOSE PLASTIC COMPOUNDS. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Original application filed May 23, 1912, Serial No. 699,235. Divided and this application filed June 8, 1915. Serial No. 32,862. (Cl. 106—40.)

1. The process of making acetyl cellulose plastic compounds from that variety of acetyl cellulose which is freely soluble in acetone which consists in mixing para-ethyltoluolsulfonamid with the acetyl cellulose; adding a mixture of ethyl acetate and methyl alcohol; allowing the excess of solvent to evaporate; working the mass on rolls or in presses with the application of heat, substantially as set forth.

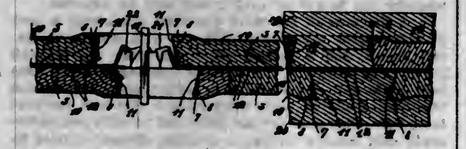
2. The process of making acetyl cellulose plastic compounds from that variety of acetyl cellulose which is freely soluble in acetone that consists in mixing para-ethyltoluolsulfonamid with triphenyl-phosphate and acetyl cellulose; adding a mixture of ethyl acetate and methyl alcohol; allowing the excess of solvent to evaporate; working the mass on rolls or in presses with the application of heat, substantially as set forth.

3. The process of making acetyl cellulose plastic compounds which consists in treating that variety of acetyl cellulose which is freely soluble in acetone with ethyl acetate in admixture with methyl alcohol substantially in the proportions described and with paraethyltoluolsulfonamid; and manipulating the mass.

4. The process of making acetyl cellulose plastic compounds which consists in treating that variety of acetyl cellulose which is freely soluble in acetone with ethyl acetate in admixture with methyl alcohol substantially in the proportions described and with paraethyltoluolsulfonamid and triphenylphosphate; and manipulating the mass.

1,203,757. BASE FOR CONCRETE STRUCTURES. ROBERT LINKLETTER, Jersey City, N. J., assignor, by direct and mesne assignments, of one-third to himself and two-thirds to George W. Muttart, Jersey City, N. J. Filed Oct. 7, 1915. Serial No. 54,486. (Cl. 72—124.)

1. In a device of the character described the combination of a plurality of boards disposed in groups and each provided with anchor holes, the boards of one group being staggered relatively to the boards of another group, a number of fastening members each engaging a board of each of the two groups and extending through the anchor holes thereof, and a quantity of plastic material adhering to said boards and filled into said anchor holes thereof, so as to conceal said fastening members.

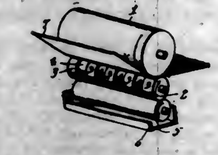


2. A building unit, comprising a flat body member provided with anchor holes and with thickened portions encircling said anchor holes and extending slightly from the face of said body member.

3. A building unit, comprising a flat body member provided with anchor holes of substantially frusto-conical form extending through it and with annular projections each encircling a hole and extending integrally a slight distance outwardly from the face of the board.

4. A base for concrete structures comprising a number of boards disposed edge to edge, each board being provided with anchor holes and with projecting portions encircling said holes and extending integrally from the faces of said boards, and a quantity of plastic material spread over said boards and partially resting upon said projecting portions, said plastic material extending integrally into said anchor holes.

1,203,758. PROCESS FOR TREATING SHADES AND THE LIKE. ARTHUR R. LOWE, Chicago, Ill., assignor to The Western Shade Cloth Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 22, 1915. Serial No. 3,788. (Cl. 91—67.9.)



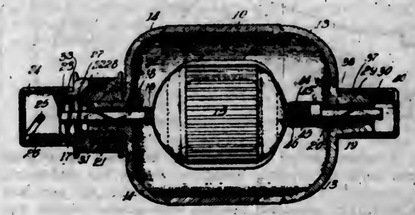
1. The herein described process of manufacturing shades and the like, consisting in applying a suitable filling material to a properly prepared fabric, and then applying pressure thereto, said pressure varying at different parts of the fabric, whereby the body of the filler in the fabric also varies at different parts thereof, and thereafter finishing the shade in the usual manner, to produce a uniform smooth surface.

2. The herein described process of manufacturing shades and the like, consisting in applying a suitable filling material to a properly prepared fabric, and then applying pressure thereto, said pressure varying at different parts of the fabric, whereby the body of the filler also varies at different parts of the fabric, and thereafter applying more filler thereto, and subjecting the same to a substantially uniform pressure, whereby the body of the filler in the fabric is also made substantially uniform.

3. The herein described process of manufacturing shades and the like, consisting of applying a suitable filling to properly prepared fabric, and applying pressure thereto, the pressure varying at different parts thereof, and thereafter applying more filler of a slightly different color to the fabric, and subjecting the same to a uniform pressure, and finishing the shade in the usual manner.

4. The herein described process of manufacturing shades and the like, consisting in applying a suitable filling material to a properly prepared fabric, and then applying pressure thereto, said pressure varying at different parts of the fabric, whereby the body of the filler also varies at different parts of the fabric, and thereafter treating the filled fabric a plurality of times by applying more filler thereto and subjecting the same to a substantially uniform pressure, whereby the body of the filler in the fabric is made substantially uniform.

1,203,759. DYNAMO-ELECTRIC MACHINE. HOWARD MCQUILLIN, Chicago, Ill. Filed Mar. 15, 1915. Serial No. 14,306. (Cl. 64—24.)



1. In a dynamo electric machine, the combination of a rotatable and endwise movable shaft, an armature mounted thereon, a bearing for said shaft, and a spiral oil groove formed on the shaft, the inclination of the groove outwardly from the armature being away from the direction of rotation and its inner end terminating at a point at all times within the axial confines of the bearing.

2. In a dynamo electric machine, the combination of a rotatable and endwise movable shaft, an armature mounted thereon, a bearing for said shaft, an annular groove formed within said bearing adjacent its inner end, means for supplying oil to said groove, and a spiral groove formed on the portion of the shaft adjacent the bearing, the inclination of the groove outwardly from the armature being away from the direction of rotation and its inner end positioned at a point registering with the aforesaid annular groove in the bearing when the shaft is in its operative position.

3. In a dynamo electric machine, the combination of a rotatable, endwise movable shaft, an armature mounted thereon, means for resiliently holding the shaft at one extreme end of its movement, means operable upon the rotation of the shaft for moving the same to the opposite position, a bearing for said shaft, an annular oil groove formed in said bearing near its inner end, an oil reservoir, a duct leading from said reservoir to the annular groove, and a spiral oil groove formed on the shaft, the inclination of the groove outwardly from the armature being away from the direction of rotation, its inner end being positioned on the shaft for registering with the annular oil groove when the shaft is in its last mentioned position and the other end of the oil groove extending beyond the bearing.

4. In a dynamo electric machine, the combination of a rotatable endwise movable armature shaft, a rotatable power transmitting means rotatable thereabout, said means having diametrically opposite inclined surfaces thereon, projections on the shaft in sliding engagement with the surfaces and means within the confines of said power transmitting means for resiliently holding the projections at the outer end of the said surfaces.

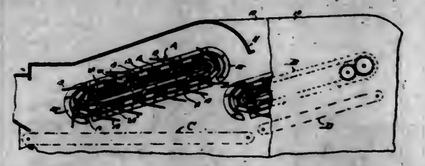
5. In a dynamo electric machine, the combination of a rotatable endwise movable armature shaft, a drive means having a tubular projection rotatable thereabout, said drive means having diametrically opposite slots formed therein, projections on the shaft in sliding engagement with the slots, said drive means having an abutment formed within, and a coil spring positioned within the tubular extension and abutting at one end against the abutment on the drive means and at its other end against said projections on the shaft.

[Claims 6 to 19 not printed in the Gazette.]

1,203,760. VIBRATORY STRAW-CARRIER. JOHN A. MALM, Diamond, S. D. Filed Mar. 22, 1916. Serial No. 86,024. (Cl. 130—22.)

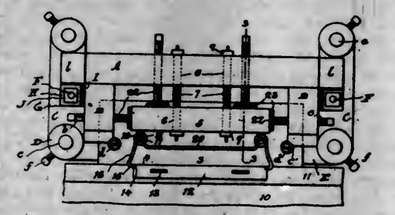
1. A straw carrier for threshing machines comprising spaced endless traveling members, a plurality of rods con-

necting the members and rotatably mounted therein, cam guides within the endless members respectively, arms fixed on said rods, rollers on said arms, the rollers on the arms of adjacent rods cooperating with respective cam guides to oscillate said rods oppositely during travel of the members, and fingers fixed on said rod.



2. A straw carrier for threshing machines comprising spaced endless traveling members, means for tightening said members, a plurality of rods connecting the members and rotatably mounted therein, cam guides within the endless members respectively, means for lengthening and shortening said guides, arms fixed on said rods, rollers on said arms, the rollers on the arms of adjacent rods cooperating with respective cam guides to oscillate said rods oppositely during travel of the members, and fingers fixed on said rods.

1,203,761. SHADING-MACHINE. WILLIAM HENRY MARGETTS, Toronto, Ontario, Canada. Filed Dec. 29, 1915. Serial No. 69,287. (Cl. 101—162.)



1. A machine of the class described comprising a suitable frame; a sliding plate mounted in said frame; means for adjusting the position of said sliding plate longitudinally and transversely in respect of said frame, elastic means associated with the said sliding plate and said frame which operates to hold said sliding plate in its transversely adjusted position, and means carried by said sliding plate whereby a frame provided with a film may be hinged thereto.

2. A machine of the class described comprising a suitable frame; a bottom plate secured to said frame; a sliding plate mounted in said frame, and upon said bottom plate; means for adjusting the position of said sliding plate longitudinally and transversely in respect of said frame, elastic means associated with the said sliding plate and said frame which operates to hold said sliding plate in its transversely adjusted position, and means carried by said sliding plate whereby a frame provided with a film may be hinged thereto.

3. A machine of the class described comprising a suitable frame, a bottom plate secured to said frame; a sliding plate mounted in said frame and upon said bottom plate; means for adjusting the position of the said sliding plate longitudinally and transversely in respect of said frame; means carried by said sliding plate, elastic means associated with the said sliding plate and said frame which operates to hold said sliding plate in its transversely adjusted position, whereby a frame provided with a film may be hinged thereto, and posts adjustably mounted one at each corner of said frame whereby the height of said frame may be adjusted.

4. A machine of the class described comprising a suitable frame; a bottom plate secured to said frame; a sliding plate mounted in said frame and upon said bottom plate; means for adjusting the position of the said sliding plate in said frame; a pair of coiled springs coupling said sliding plate to the back of said frame; means carried by said sliding plate whereby a frame provided with a film may be hinged thereto, and posts adjustably mounted one at each corner of said frame whereby the height of said frame may be adjusted.

5. A machine of the class described comprising a back plate integrally provided at each end with bearing blocks; end plates, and a bottom plate extending for the full length and width of the machine; means whereby said back plate and end plates and bottom plate are secured together; a sliding plate comprising a platform designed to operate upon said bottom plate and at each end underneath said bearing blocks; a coupling element carried by said sliding plate; means for adjusting the position of said sliding plate comprising threaded stems each provided at its inner end with a disk; certain of the threaded stems designed to be held in said bearing blocks at each end of said coupling element to transversely adjust the position of said sliding plate; certain of said threaded stems designed to be held in said back plate to adjust the forward and backward movement of said back plate, and springs whereby said sliding plate is coupled to said back plate, as set forth.

[Claim 6 not printed in the Gazette.]

1,203,762. GASKET. CHARLES I. E. MARTIN, Midland Park, N. J. Filed Aug. 14, 1915. Serial No. 45,461. (Cl. 137—121.)



1. The method of making gaskets consisting in forming a metal ring, wrapping said ring with fabric coated with rubber gum, enveloping said wrapped ring in a sheet of uncured gum and then subjecting the doubly wrapped ring to pressure and heat to vulcanize or cure the gum and to form the outer wrapping into a homogeneous seamless covering.

2. A gasket formed of an inner metallic ring, a wrapping of fabric and rubber around said ring and a seamless envelop of gum around said fabric-wrapped ring and united permanently with the rubber and fabric wrapping.

3. A gasket comprising a reinforcing ring formed of wire gauze, a covering of fabric and rubber for said reinforcing ring and a seamless covering of gum or rubber for said fabric-wrapped ring.

4. A gasket comprising a thin flat reinforcing ring formed of fine flexible wire, a covering of fabric for said reinforcing ring, and a seamless covering of gum or rubber for said fabric-wrapped ring and united permanently with the fabric wrapping.

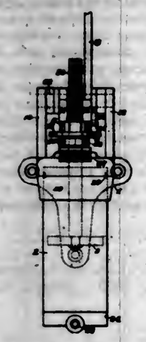
5. A gasket comprising a reinforcing ring formed of flat tubular wire gauze, a covering of fabric for said reinforcing ring, and a seamless covering of gum or rubber for said fabric-wrapped ring.

[Claim 6 not printed in the Gazette.]

1,203,763. DISPENSING DEVICE. DAVID J. MATTHEWS, Seattle, Wash. Filed Apr. 30, 1914. Serial No. 835,546. (Cl. 221—79.)

1. In a machine for dispensing a material by extrusion, a container, a carton of a shape and size to fit snugly within said container and void of heads when inserted therein, a piston fitting closely in said carton, the lower or bottom end of the cylinder being reduced in diameter to form a ledge of a width equaling the thickness of the carton wall, whereby the piston must travel beyond the end of the carton before emptying the cylinder.

2. In a machine for dispensing a material by extrusion, a frame, a piston and means for operating it carried by the frame, a cylinder provided with readily detachable means for securing it to the frame in position to receive the piston, said cylinder having an interior diameter from one end to near its other end which is greater than that of the piston, the remainder of its length having an inner diameter conforming to that of the piston, and a headless carton fitting into said cylinder and having an inner diameter conforming to that of the piston.



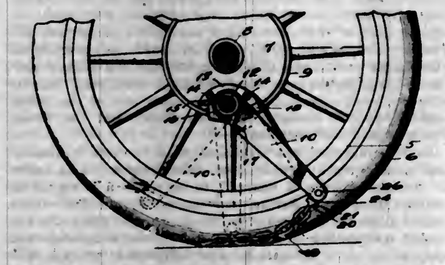
3. In a mechanism for dispensing a material by extrusion, a cylinder serving as a container for the material to be dispensed, a piston fitting within the cylinder and acting as the extruding agent, a threaded piston rod, a nut fitting said rod, means for producing relative rotative movement between nut and rod, and means for reciprocating said nut to advance the piston.

4. In a mechanism for dispensing a material by extrusion, a cylinder serving as a container for the material to be dispensed, a piston fitting within the cylinder and acting as the extruding agent, a threaded piston rod, a nut fitting said rod, said nut being mounted to have limited reciprocative movement lengthwise the rod, means for producing relative rotative movement between nut and rod, and a pivoted lever in position to engage said nut to reciprocate it and thereby advance the piston.

5. In a mechanism for dispensing a material by extrusion, a cylinder serving as a container for the material to be dispensed, a piston fitting within the cylinder and acting as the extruding agent, a threaded piston rod, a nut fitting said rod and mounted to have a limited reciprocative movement in the direction of the length of the rod, means for producing relative rotative movement between nut and rod, a spring acting upon the nut to retract the piston and means for applying power to said nut to advance the piston.

[Claims 6 to 13 not printed in the Gazette.]

1,203,764. AUTOMOBILE-WHEEL TRACTION DEVICE. GEORGE S. MAXWELL, Washington, D. C., assignor of one-half to Maynard A. Bayles, Washington, D. C., and William F. Hale, Nokesville, Va. Filed Dec. 14, 1915. Serial No. 66,763. (Cl. 21—8.)



In apparatus of the character described, an attaching member arranged near and upon one side of a wheel of an automobile and connected with a relatively stationary part of the automobile and having a forward stop element, a stud carried by the attaching member, an arm having its inner end apertured to pivotally receive the stud and its lower end arranged in advance of the point of contact of the tire of the wheel with the road bed when the arm contacts with the stop element, a coil spring carried by the stud and having one end engaging the attaching element and the other end engaging the arm to move it forwardly into contact with the stop element, a flexible traction element normally arranged in a plane parallel to the plane of rotation of the wheel, and a universal-joint connecting the forward end of the flexible traction element with the outer end of the arm.

1,203,765. CURTAIN-ROD BRACKET. CHARLES B. MILLER, Meriden, Conn., assignor to Berbecker & Rowland Manufacturing Company, Waterville, Conn., a Corporation of Connecticut. Filed Feb. 24, 1915. Serial No. 10,211. (Cl. 156—22.)



1. A center support for a curtain rod comprising a supporting arm, an attaching plate carried thereby, a spring clasp slidably mounted upon said arm, said spring clasp comprising spaced sides with registering slots therein receiving the arm therethrough.

2. A center support for curtain rods comprising a supporting arm, an attaching plate carried thereby, a spring clasp comprising spaced resilient arms, said arms provided with registering slots therein, receiving the supporting arm therethrough, said spring arms adapted to be spread by the reception of a curtain rod therebetween and to bind against the upper and lower edges of said supporting arm.

3. A center support for a curtain rod comprising a bracket including a supporting arm, a spring clasp formed with spaced resilient arms connected at their lower extremities by a spring loop, the intermediate portions of said resilient arms provided with registering openings therein, said openings receiving the supporting arm of the bracket therethrough.

1,203,766. VALVE. GEORGE O. MILLER, North Tonawanda, N. Y. Filed Sept. 6, 1913. Serial No. 788,486. (Cl. 137—4.)



1. A valve for bibs comprising a yielding body having a central cylindrical bore extending from end to end thereof and a metallic reinforcing member somewhat shorter than said bore embedded in said yielding body and encircling said central bore.

2. A valve for bibs comprising a yielding body tapered lengthwise and having a longitudinal cylindrical bore therein extending from end to end thereof, and a reinforcing member shorter than said bore embedded therein and similarly tapered.

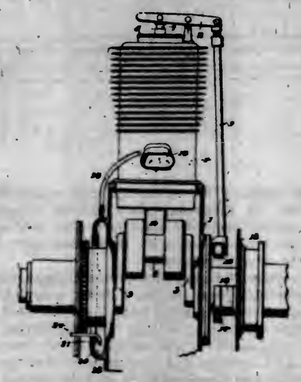
3. A valve for bibs comprising a yielding elongated body having a central cylindrical bore extending from one end thereof to the other, a metallic reinforcement embedded therein and extending from a point near one end of said body to a point near the other end thereof, said reinforcing member having its ends bent at an angle to prevent cutting of the material forming the body when pressure is applied thereto.

4. A valve for bibs comprising a tapered body formed of yielding material having a central cylindrical bore arranged lengthwise therein and extending from end to end thereof, a circular metallic reinforcing member somewhat shorter than said bore embedded in said yielding body and having its wall arranged at a slight angle to said bore.

5. A valve for Fuller bibs comprising an elongated body-portion formed of yielding material having a central cylindrical bore extending from end to end thereof, a circular metallic reinforcing member somewhat shorter than said bore embedded in said body portion and having its opposite ends bent inwardly.

[Claims 6 to 9 not printed in the Gazette.]

1,203,767. GAS-ENGINE. ROBERT S. MOORE, Washington, D. C., assignor to Gyro Motor Company, Washington, D. C., a Corporation of Delaware. Filed Apr. 1, 1912. Serial No. 687,817. (Cl. 123—44.)
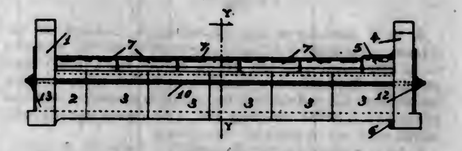


1. A gas engine including in combination a rotating casing, a cylinder carried thereby, a piston in said cylinder, an air intake in said cylinder adjacent the inner extreme position of the piston and on the advance side of the cylinder in the direction of rotation, a collecting funnel connected with said air intake and projecting in the direction of rotation of the cylinder, and a fuel intake for the cylinder through which fuel may be supplied directly to the cylinder, said fuel intake being free from valves and positioned so as to be uncovered by the piston subsequently to the uncovering of the air intake.

2. A gas engine including in combination a rotating casing, a cylinder carried thereby, an annular pocket carried by and rotating with the casing, said pocket having its outer surface closed and having a port leading from the extreem outer portion thereof, said cylinder having a fuel intake port adapted to be uncovered by the piston, and a pipe connecting said port to the intake port in the cylinder, whereby a combustible fluid may be carried by centrifugal force from the pocket through the pipe to the cylinder, an air intake for the cylinder on the advance side thereof in the direction of rotation, and a funnel for collecting and forcing air through said intake into said cylinder, said air intake being disposed so as to be uncovered in advance of the fluid intake.

3. A gas engine including in combination, a rotating casing, a cylinder carried thereby, an exhaust valve in the outer end of the cylinder, an air intake adjacent the inner position of the piston and on the advance side of the cylinder in the direction of rotation, said air intake having a collecting funnel whereby air is forced by the rotation of the cylinder into the cylinder, a fuel intake located adjacent the air intake so as to be uncovered by the piston subsequently to the air intake, and means controlled by centrifugal force for supplying fuel to said fuel intake, said fuel intake being free from valves whereby a free and unobstructed passage is provided for the fuel during the intake period.

4. A gas engine including in combination a rotating casing, a cylinder carried thereby, an exhaust valve in the outer end of the cylinder, an air intake adjacent the inner position of the piston and on the advance side of the cylinder in the direction of rotation, said air intake having a collecting funnel whereby air is forced by the rotation of the cylinder into the cylinder, a fuel intake located adjacent the air intake so as to be uncovered by the piston subsequently to the air intake, a flange carried by the casing and constructed to form a pocket having its outer face closed, a pipe leading from the outer face of the pocket to the fuel intake for the cylinder, and means for supplying said pocket with fuel whereby said fuel is carried by centrifugal force against the bottom of the pocket and through the pipe to said cylinder, said fuel intake being free from valves whereby a free and unobstructed passage is provided for the fuel during the intake perior.

1,203,768. CULVERT. SAMUEL E. MOORE, Williamsville, Ill. Filed Aug. 9, 1915. Serial No. 44,529. (Cl. 72—52.)



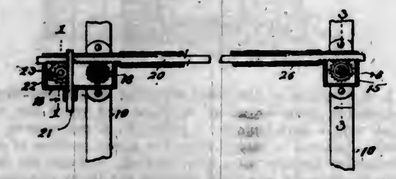
1. In a culvert, the combination of a first abutment having a trough-shaped bottom member integral with and at right angles to the abutment and adapted to serve as a spacer and also adapted to prevent lateral movement or turning of the abutment; a second abutment having a cover member integral with and at right angles to said second abutment and adapted to serve as a spacer and also adapted to prevent lateral movement or turning of said second abutment; bottom sections in line with the bottom member of the first abutment, one end of one terminal section being in close contact with the free end of said first abutment and one end of the other terminal section being in close contact with the inner face of said second abutment; connecting devices rigidly connecting said abutments and said bottom sections; and removable cover sections practically filling the space between the inner face of said first abutment and the inner end of the cover-member of said second abutment.

2. In a culvert, the combination of a first abutment having an inwardly extending bottom member integral with and at right angles to said first abutment and adapted to serve as a spacer and adapted to prevent lateral movement of the abutment; a complemental abutment having an inwardly extending cover-member integral with and at right angles to said complemental abutment and adapted to serve as a spacer and adapted to prevent lateral movement of said complemental abutment; bottom sections in line with said complemental abutment and with the bottom member of said first named abutment; connecting devices outside of and parallel to the alined bottom sections and rigidly connecting the abutments and the bottom sections; and end-to-end cover sections occupying practically the entire space between the inner end of the cover member of said complemental abutment and the inner face of said first abutment.

3. In a culvert, the combination of a first abutment having an integral inwardly extended member at an angle to the abutment and adapted to serve as a spacer and adapted to prevent lateral movement of said first abutment; a second abutment having an integral inwardly extended member at an angle to said second abutment and adapted to serve as a spacer and adapted to prevent lateral movement of said second abutment; bottom sections intermediate of the abutments; and cover sections intermediate of the abutments and breaking joints with the bottom sections.

4. In a culvert, the combination of a first abutment having two holes parallel to each other and adapted to accommodate bolts, also having an integral inwardly extended member at an angle to the abutment and adapted to serve as a spacer and adapted to prevent lateral movement or turning of the abutment; a second abutment having two holes parallel to each other and adapted to accommodate bolts, also having an integral inwardly extended member at an angle to said second abutment and adapted to serve as a spacer and adapted to prevent lateral movement or turning of said second abutment; alined bottom sections intermediate of the abutments; alined separately removable, cover sections intermediate of the abutments and breaking joints with the bottom sections; and two bolts parallel to each other and extending through the holes in the abutments and adjacent to and outside of the sides of the alined bottom sections.

1,203,769. HEADLIGHT-TURNING MECHANISM FOR VEHICLES. JAMES W. MOTT, Cresco, Iowa. Filed Sept. 10, 1915. Serial No. 49,854. (Cl. 240—62.)



In a motor vehicle, a chassis; a pair of casings supported by the side frame members of the chassis; vertical spindles extending upwardly from said casings; headlights mounted thereon; gears secured to said spindles and located within the casings, said casings having alined openings constituting bearings; a rack extending transversely across the front of the vehicle and mounted in said bearing openings, said rack engaging the gears on said spindles, one of said casings having alined bearing openings at right angles to the first-named openings; a second rack adapted to be moved endwise through said second set of bearing openings; and gearing for transmitting movement from the last mentioned rack to the first mentioned rack.

1,203,770. LITHOGRAPHIC PLATE. SAMUEL A. NEMICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 22, 1914. Serial No. 858,012. (Cl. 101—178.)



1. As a new article of manufacture, a metallic plate adapted for lithographic purposes and capable when moist of resisting ink over its entire face sufficient for lithographic printing without subsequent chemical treatment and capable of having an ink-carrying image affixed firmly to it.

2. As a new article of manufacture, a metallic lithographic plate etched over its entire face sufficiently to be workable when moist as an ink-repellent surface without further chemical treatment and adapted to receive a design thereon.

3. As a new article of manufacture, a metallic lithographic plate grained and etched over its entire face, to be ink-resisting sufficiently for lithographic printing when moist without further chemical treatment.

4. As a new article of manufacture, a metallic lithographic plate etched to be ink-resisting sufficient for lithographic printing when moist, and gummed over its entire face.

5. As a new article of manufacture, a metallic lithographic plate grained, etched to be ink-resisting sufficiently for lithographic printing when moist and gummed over its entire face.

[Claims 6 to 10 not printed in the Gazette.]

1,203,771. CLASP. EMORY D. NICHOLS, Chicago, Ill. Filed Feb. 1, 1912. Serial No. 674,836. (Cl. 24—224.)



1. A clasp comprising a member having a headed stud secured thereto, a member formed with an enlarged opening through which the head is adapted to pass, and with an open-ended slot leading from said opening to the outer end of said latter member, through which the shank of the stud may pass to permit the members to be separated by the movement of the shank through the outer end of the slot and away from the enlarged opening, the open end of said slot being normally as wide as the shank, and means rigid with the slotted member for engaging the head of the stud to hold the members against disconnection, said members, when connected, being movable toward each other to release the head from said means and permit the shank to pass through the outer end of the slot.

2. A clasp comprising a member having a headed stud secured thereto, a member formed with an enlarged opening through which the head is adapted to pass, and with an open-ended slot leading from said opening to the outer end of said latter member, through which the shank of the stud may pass to permit the members to be separated by the movement of the shank through the outer end of the slot and away from the enlarged opening, the open end of said slot being normally as wide as the shank, and outwardly projecting lugs at the sides of the slot for engaging the head of the stud to hold the members against disconnection, said members, when connected, being movable toward each other to release the head from said means, and permit the shank to pass through the outer end of the stud.

3. A clasp comprising a member having a headed stud secured thereto, a member formed with an enlarged opening through which the head is adapted to pass, and with an open-ended slot leading from said opening to the outer end of said latter member, through which the shank of the stud may pass to permit the members to be separated by the movement of the shank through the outer end of the slot and away from the enlarged opening, the open end of said slot being normally as wide as the shank, means rigid with the slotted member for engaging the head of the stud to hold the members against disconnection, said members, when connected, being movable toward each other to release the head from said means and permit the shank to pass through the outer end of the slot, and yielding means interposed between the members for pressing them apart.

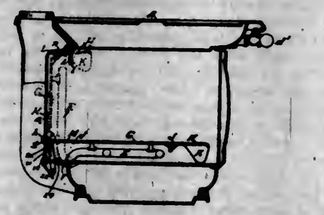
4. A clasp comprising a member having a headed stud secured thereto, a member formed with an enlarged opening through which the head is adapted to pass, and with an open-ended slot leading from said opening to the outer end of said latter member, through which the shank of the stud may pass to permit the members to be separated by the movement of the shank through the outer end of the slot and away from the enlarged opening, the open end of said slot being normally as wide as the shank, means rigid with the slotted member for engaging the head of the stud to hold them against relative longitudinal movement in either direction, said members, when connected, being movable toward each other to release the head from said means and permit the shank to pass through the outer end of the slot.

5. A clasp comprising a member having a headed stud secured thereto, a member formed with an enlarged open-

ing through which the head is adapted to pass, and with an open-ended slot leading from said opening to the outer end of said latter member, through which the shank of the stud may pass to permit the members to be separated by the movement of the shank through the outer end of the slot and away from the enlarged opening, the open end of said slot being normally as wide as the shank, means rigid with the slotted member and at the sides of the slot for engaging the head of the stud to hold the members against relative longitudinal movement in either direction, said members, when connected, being movable toward each other, to release the head from said means and permit the shank to pass through the outer end of the slot, and means between said members for normally pressing them apart to cause the head to be held by said means on the slotted member.

[Claim 6 not printed in the Gazette.]

1,203,772. STOVE. HANS P. G. NORSTRAND, Albany, N. Y., assignor to Rathbone, Sard & Company, Albany, N. Y., a Corporation. Filed Mar. 12, 1915. Serial No. 13,899. (Cl. 126—36.)



1. In a combination gas and coal stove provided with an oven, a gas oven bottom; a gas burner upon which the gas oven bottom is mounted and with which it may be moved; and means outside of the stove for placing said burner and the gas oven bottom out of the way at the back of the oven.

2. In a combination gas and coal stove provided with an oven, a gas oven bottom composed of two pieces hinged together and a plate hinged in the back of the oven adapted to assume a horisontal position forming a prolongation of the rest of the gas oven bottom; a gas burner; and means exterior of the stove for raising said burner and each portion of the gas oven bottom simultaneously, removing them out of the way when the stove is to be heated with coal instead of gas.

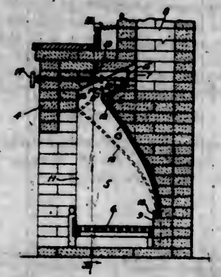
3. In a combination gas and coal stove provided with an oven, a gas oven bottom; a burner attached thereto; dampers for opening and closing air vents leading from the oven; and means exterior of the oven for raising the gas oven bottom and burner and closing said dampers simultaneously.

4. In a combination gas and coal stove provided with an oven, a gas oven plate extending partly across the oven from front to rear; an additional portion hinged to said plate forming a gas oven bottom; an oven plate hinged to the rear of the stove adapted to rest in a horisontal position forming a continuation of the said first mentioned gas oven plate; a gas burner to which said gas oven bottom is attached and by which it is supported; a gas pipe connected with said burner; an arm connected with said gas pipe; a link connected with said arm; a lever outside of the stove connected with said link; a bracket in which said lever is fulcrumed, so arranged that by the movement of the bracket the gas burner and oven plate may be raised to a vertical position, and the hinged portion brought in contact with the back of the oven and beat at an angle to the oven bottom proper when in its vertical position, said oven plate folded back against the rear of the oven by the movement of the said oven plate to its vertical position.

5. In a combination gas and coal stove provided with an oven, a gas oven bottom; a burner attached thereto; means exterior of the stove for raising the gas oven bottom; means for opening and closing air vents in the oven simultaneously with the raising and lowering of the gas oven bottom; with means for preventing the turning on of the gas when the oven bottom is raised, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,203,773. FIREPLACE. WILLIAM S. O'BRIEN, Kirkland, Wash. Filed Jan. 24, 1916. Serial No. 74,028. (Cl. 126—130.)

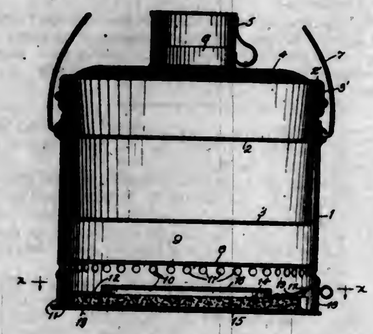


1. A fireplace of the class described which embodies a combustion chamber whose opposite end walls are each lined with a metal plate; a chimney; a passageway for smoke disposed to extend from the upper portion of said combustion chamber into said chimney; a metal bar horisontally disposed to extend between the lower portions of said metal plates to which its opposite ends are respectively fastened, said metal bar being provided with a groove disposed in its top side to extend throughout the length thereof; a stay-bar of metal horisontally disposed to extend between the upper portions of said metal plates to which its opposite ends are respectively fastened; a radiator plate of metal, disposed with its bottom edge freely resting in said groove of said bar and adapted to extend upwardly therefrom in front of and adjacent to the rear wall of said combustion chamber and into said passageway; a rod provided with a screw-threaded portion and rotatably disposed to extend through the front wall of said passageway with its screw-threaded portion in said passageway; and means associated with said screw-threaded portion of said rod and with the upper portion of said radiator plate whereby said radiator plate may be tipped forwardly and backwardly in response to a rotative movement of said rod to control and regulate the draft through said passageway.

2. A fireplace of the class described, which embodies a combustion chamber; a chimney; a passageway for smoke disposed to extend from the upper portion of said combustion chamber into said chimney; a metal bar horisontally disposed in the lower portion of said combustion chamber adjacent to and parallel with the rear wall thereof, said metal bar being provided with a groove in its top side; a radiator plate of metal disposed with its bottom edge freely resting in said groove of said bar and adapted to extend upwardly therefrom in front of the rear wall of said combustion chamber and into said passageway; a rod provided with a screw-threaded portion and rotatably disposed to extend through the front wall of said passageway; and means associated with said screw-threaded portion of said rod and with the upper portion of said radiator plate whereby said radiator plate may be tipped forwardly and backwardly in response to a rotative movement of said rod thereby to control and regulate the draft through said passageway.

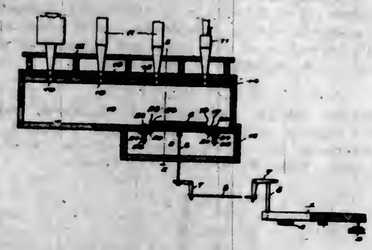
1,203,774. DINNER-PAIL. JAMES L. OGDEN, Jr., Nauvoo, Ill. Filed Mar. 6, 1915. Serial No. 12,551. (Cl. 126—266.)

A dinner pail comprising a vessel open at its upper side; a horisontal imperforate partition in said vessel dividing the interior thereof into a superjacent food compartment and a subjacent heating chamber; there being ventilation openings in the lateral walls of said vessel communicating with said chamber; a heating element removably mounted in said chamber, there being an opening in the lateral wall of said vessel communicating with said



chamber through which said heating element may be inserted and removed; and a resilient detent on said heating element adapted for releasable engagement with the lateral wall of said vessel at said opening, for releasably locking said heating element in position in said chamber, said detent projecting exteriorly to constitute a handle, substantially as described.

1,203,775. PALLET FOR AIR-OPERATED MUSICAL INSTRUMENTS. ARTHUR A. PAGE, Albany, N. Y. Filed Oct. 30, 1915. Serial No. 58,813. (Cl. 84—156.)

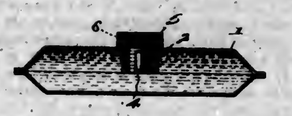


1. In a wind muscical instrument, a wind chest, a chamber connected therewith, a vertically movable pallet controlling communication between the chest and chamber and having converging opposite faces, a seat for the pallet having faces conforming to the faces of the pallet, one set of said faces being downwardly directed, and a pad on the downwardly directed faces aforesaid.

2. In a wind musical instrument, a wind chest, a chamber connected therewith, a vertically movable pallet controlling communication between the chest and chamber and having converging opposite faces, a seat for the pallet having faces conforming to the faces of the pallet, one set of said faces being downwardly directed, a pad on the downwardly directed faces aforesaid, the upwardly directed faces being smooth and polished.

3. In a musical instrument, a wind chest, a chamber communicatively connected with the chest, a valve for closing the communication between the chamber and wind chest, said valve having converging faces, a seat for the valve having faces conforming to the faces of the valve, certain of said faces being downwardly directed, and a pad on the downwardly directed faces aforesaid.

1,203,776. CHEMICAL HEATER AND COMPOSITION OF MATTER THEREFOR. THOMAS M. PASCHAL, San Antonio, Tex. Filed Nov. 22, 1913, Serial No. 802,361. Renewed Apr. 4, 1916. Serial No. 88,957. (Cl. 126—263.)



1. A compound for releasing heat by crystallization from a supersaturated solution, and for storing heat by re-solution, consisting of a main ingredient for the purpose, and a second ingredient which augments the formation of crystals at low temperatures, and also augments under heat their re-solution.

2. A compound for releasing heat by crystallization from a supersaturated solution and for storing heat by re-solution consisting of sodium hyposulfite, and a second ingredient which augments the formation of crystals at low temperatures and also augments their re-solution at high temperatures.

3. A compound for releasing heat by crystallization from a supersaturated solution and for storing heat by re-solution, consisting of an alkali hyposulfite as a main ingredient, and as a second ingredient for augmenting the formation of crystals, and also for augmenting their re-solution, sodium chlorid.

4. A chemical heat storing compound consisting of sodium hyposulfite and rock salt.

5. A chemical heat storing compound, consisting of sodium hyposulfite ninety-eight per cent. or more and two per cent. or less of rock salt.

[Claims 6 to 11 not printed in the Gazette.]

1,203,777. MUFFLER. CARL M. PETERSON, Chester, Mont. Filed June 25, 1914. Serial No. 847,264. (Cl. 121—116.)



A muffler comprising a liquid-tank having air inlets adjacent to the liquid, a U-shaped trough suspended in the upper end thereof, and an exhaust-pipe extending throughout the U-shaped trough with an air-space therearound, and having an outlet in its upper side, whereby the exhaust causes an inflow of cold air over the liquid in the tank, which becomes moistened and passes around the trough for keeping the trough cool and absorbing the gases issuing therefrom.

1,203,778. POLICEMAN'S NIPPERS AND HANDCUFFS COMBINED. GEORGE W. PRATT, Oakland, Cal. Filed Nov. 16, 1915. Serial No. 61,849. (Cl. 70—24.)

1. In police nippers, in combination a tubular stock, a transverse hollow handle, connected therewith, an articulated handcuff, connected to said hollow handle and adapted to be folded therein; a flap, pivoted in said hollow handle, a cam, on one of the connected ends of said articulated hand-cuff, and adapted to actuate said flap; a rod, connected to a retaining pawl, slidably arranged

in the tube of said tubular stock; a pin, connected to said rod, said pin projecting through a slot in the wall of said tubular stock, a spiral spring, surrounding the lower end of said rod, teeth on the under face of said retaining pawl, a bifurcated semi-circular part, connected to the lower end of said tubular stock, a sickle-shaped tongue, the lower end of which is pivoted to, and in the opening, of said bifurcated part, teeth, on the upper side of said tongue, said teeth engaging with the teeth of said retaining pawl, said tongue adapted to swing in a complete circle through said bifurcated part, substantially as described.



2. In police nippers, in combination, a tubular stock, a transverse hollow handle, connected to the upper end of said tubular stock, an articulated hand-cuff, connected to said hollow handle, and adapted to be folded therein; a bifurcated semi-circular part, connected to the lower end of said tubular stock; a sickle-shaped tongue, pivoted to said bifurcated part and adapted to swing through the opening of said bifurcated part, in a complete circle; a retaining pawl, terminating in a rod, slidably arranged in said tubular stock, said retaining pawl having teeth on its under face; teeth, on the upper side of said tongue, said teeth engaging with the teeth of said retaining pawl; a spiral spring, surrounding the lower end of said rod, said spring arranged in a cavity of said tubular stock, and adapted to cause the teeth of said retaining pawl, and teeth of said tongue, to engage and disengage; a cam, on one of the connected ends of said articulated hand-cuff; a flap, pivoted in said hollow handle, said cam adapted to rest firmly against the back of said flap when said articulated handcuff is in use, causing said flap to press firmly against the top of said rod, causing the teeth of said retaining pawl and teeth of said sickle shaped tongue, to be locked in a permanent position; a pin, connected to said rod, said pin projecting through a slot in the wall of said tubular stock, said pin adapted to be raised by the finger causing disengagement of the teeth of said retaining pawl, and teeth of said tongue, substantially as described.

3. In police nippers, in combination, a tubular stock; a transverse hollow handle, connected therewith; an articulated handcuff, connected to said hollow handle and adapted to be folded therein; a housing, on one of the free ends of said articulated handcuff; a pinion, and a spring pawl, pivotably mounted in said housing, teeth, on the back of other free end of said articulated handcuff, said teeth adapted to engage with teeth of said pinion, said spring-pawl adapted to allow said pinion to rotate in one direction only, thereby acting as a lock and adapted to disengage only when said spring-pawl is raised clear of said pinion by a suitable key; a cam, on one of the connected ends of said articulated hand-cuff; a flap, pivotably mounted in said hollow handle; a retaining pawl, slidably arranged in the tube of said tubular stock; teeth, on the under face of said retaining pawl; a bifurcated semi-circular part, connected to the lower end of said tubular stock; a sickle-shaped tongue, pivoted at the lower end of said bifurcated part, and adapted to swing in a complete circle through said bifurcated part; a spiral spring, surrounding the lower end of said rod and arranged in a cavity of said tubular stock; teeth, on the upper side of said sickle-shaped tongue, said teeth adapted to engage with the teeth of said retaining pawl; a pin, connected to said rod and projecting through a slot in the wall of said tubular stock, said pin adapted so, when raised to cause the teeth of said retaining pawl and teeth of said sickle shaped tongue to disengage substantially as described.

4. In a police nippers, in combination, a tubular stock; a transverse hollow handle, connected therewith; an articulated hand-cuff, connected to said hollow handle and adapted to be folded therein, substantially as described.

1,203,779. PRINTING COMPOSITION. FRED A. PUTNAM, Melrose, Mass. Filed Dec. 20, 1912. Serial No. 737,862. (Cl. 134—36.)

1. A printing ink comprising a base formed of gum cut or digested in oil and having a metallic coloring ingredient and a non-metallic coloring ingredient incorporated therein, these constituents being mixed in proper proportions to form an ink suitable for use in making a printed impression.

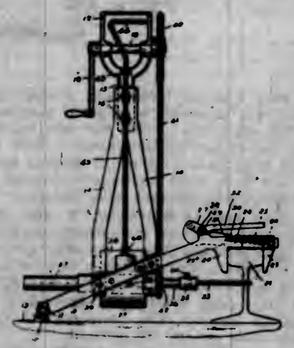
2. A printing ink comprising a base formed of a gummy substance cut or digested in oil and having incorporated therewith a metallic and a non-metallic coloring ingredient having contrasting colors, these constituents being mixed in proper proportions to produce an ink suitable for use in making a printed impression.

3. A printing ink comprising a base formed of a gummy substance cut or digested in oil and having incorporated therewith a metallic and an anilin coloring ingredient having contrasting colors, these constituents being mixed in proper proportions to form an ink suitable for use in making a printed impression.

4. A printing ink comprising a base formed of gum cut or digested in oil and having incorporated therewith two non-blendable coloring ingredients, these constituents being mixed in proper proportions to form an ink suitable for making a printed impression.

5. A printing ink comprising a base formed of a gummy substance cut or digested in oil and having incorporated therewith two coloring ingredients, one of which makes a light impression on dark goods and the other of which makes a dark impression on light goods.

1,203,780. DRILL. FREDERICK L. RAINBOW, Dundee, Ill., assignor to Illinois Iron & Bolt Company, Carpentersville, Ill., a Corporation of Illinois. Filed Feb. 2, 1914. Serial No. 816,068. (Cl. 77—9.)



1. In a machine of the character described, a clamp for engaging the machine to a rail comprising a pair of relatively movable jaws, and mechanism for opening and closing said jaws comprising a shouldered jaw which, at the opening movement of the jaws, operates to push the machine back from the rail.

2. In a machine of the character described, the combination with a base member adapted to rest upon the ground, of a framework having a loose rocking connection with the base member on which the drill spindle is supported, and a clamp on said framework adapted to engage the rail operated upon.

3. In a machine of the character described, the combination with a base member adapted to rest upon the ground, of a framework having a loose rocking connection with the base member on which the drill spindle is supported, a clamp on said framework adapted to engage the rail operated upon, said clamp comprising a pair of relatively movable jaws, and means for adjustably positioning the same so as to vary the span thereof for rails of different widths.

4. In a machine of the character described, the combination with a supporting frame having a rail engaging jaw thereon, of a jaw movably sustained on said frame, and mechanism for moving said movable jaw to and from the other jaw comprising an element which, with the opening of the movable jaw, forces said framework backwardly from the rail, said mechanism being adjustably connected with the movable jaw so as to vary the span of said jaws by movement of a single element.

5. In a machine of the character described, the combination with a supporting frame having a rail engaging jaw thereon, of a jaw movably sustained on said frame, a rocking member on the frame, a rod connected with the rocking member, and means for adjustably connecting the rod with said movable jaw.

[Claims 6 to 10 not printed in the Gazette.]

1,203,781. NOVELTY DEVICE. HARRY RATYCIA, New York, N. Y. Filed July 24, 1915, Serial No. 41,801. Renewed Sept. 19, 1916. Serial No. 121,068. (Cl. 66—6.)



1. A braid-work holder, comprising a head plate adapted to be secured to a support, said head plate being provided in its front edge portion with a longitudinal slot which opens outwardly at one end and backwardly of said slot, with upwardly extending hook members.

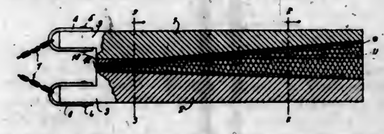
2. A braid-work holder, comprising a head portion adapted to be secured to a support and having a forwardly directed arm provided with an attaching member, said head portion being provided with a longitudinal slot which opens at one end and backwardly thereof with means for adjustably connecting a braid-work piece therewith.

3. A braid-work holder comprising a head piece provided with means for securing it to a support, said head piece being provided at the front thereof with a transverse finger and rearwardly of said finger with upwardly directed attaching members.

4. A braid-work holder comprising a head portion adapted to be secured to a support and provided at its front with a transverse finger and rearwardly of said finger with upwardly directed attaching members, said head portion being also provided with a forwardly directed arm provided at its end with an upwardly directed member having an attaching device at the top thereof.

5. A braid-work holder comprising a head portion adapted to be secured to a support and provided at its front with a transverse finger and rearwardly of said finger with upwardly directed attaching members, said head portion being also provided with a forwardly directed arm provided at its end with an upwardly directed member having a transversely tapered longitudinally disposed dove-tailed rib slidably interlocked with the dove-tailed groove, said groove and rib being also provided with longitudinally disposed tapered cable receiving grooves having gripping faces for engaging the cable.

1,203,782. CABLE-CLAMP. FREDERIC M. RAYMOND, Cleveland, Ohio. Filed July 25, 1914. Serial No. 853,132. (Cl. 24—136.)

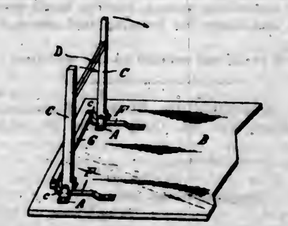


1. A cable clamp comprising coacting clamping plates, one of said plates having a longitudinally extending tapered dove-tail groove formed in one face thereof, a longitudinally extending tapered and dove-tail rib formed on the corresponding face of the other of the clamping plates and arranged to engage in said groove, said rib having a tapered groove in its outer face and said dovetail groove having a tapered groove in its flat face alining with the groove in said rib, said last named groove to receive a cable to be clamped.

2. A cable clamp including elongated clamping plates, one of said plates having a longitudinally extending, integral, dove-tailed and tapered rib extending outwardly from one face thereof, said rib having a cable receiving groove formed in its outer face and an opening through one end thereof communicating with said groove, the other of the plates having a longitudinally extending, tapered and dove-tail rib receiving groove in one face thereof to receive said rib, said last named groove having a cable receiving groove in its flat face for coöperation with the groove and opening in the rib for holding the cable.

3. A cable clamp comprising two coacting clamping members, one of the members having a longitudinally disposed transversely tapered dove-tailed groove, and the other member having a transversely tapered longitudinally disposed dove-tailed rib slidably interlocked with the dove-tailed groove, said groove and rib being also provided with longitudinally disposed tapered cable receiving grooves having gripping faces for engaging the cable.

1,203,783. FOLDING TABLE. HENRY R. REISCHMANN, New York, N. Y. Filed Oct. 6, 1915. Serial No. 54,371. (Cl. 45—74.)



In a folding table, brackets having two side pieces each, at right angles with the table top, mounted in the corners thereof, a leg pivotally mounted in each of said brackets, a flat spring mounted in front of each of said brackets, projecting between the side pieces thereof, between the table top and the upper end of the leg, a hole in said spring, two lugs carried by each of said legs adapted to be engaged by said hole in the spring in the extended and folded positions of the leg, respectively, and means connecting said springs in pairs for simultaneous operation of each pair, substantially as and for the purpose set forth.

1,203,784. SAND-PUMP FOR WELLS. LEROY L. RICHARD, Coalinga, Cal., assignor of one-half to Samuel Allen Guiberson, Jr., San Francisco, Cal. Filed Mar. 15, 1916. Serial No. 84,294. (Cl. 166—19.)



1. A sand pump comprising a barrel; a check valve in the lower end of said barrel for admitting sand thereinto; a movable sleeve surrounding said barrel; means carried by said sleeve for loosening the sand prior to its admission into the barrel; and means positioned between said barrel and said sleeve for rotating said sleeve when said barrel is moved lineally therewithin.

2. A sand pump comprising a barrel; a check valve in the lower end of said barrel for admitting sand thereinto; a sleeve surrounding said barrel; means carried by said sleeve for loosening the sand prior to its admission into said barrel; and means dependent upon a relative lineal movement of the barrel and sleeve for rotating said sleeve about said barrel.

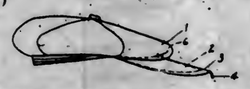
3. A sand pump comprising a barrel; a check valve in the lower end thereof for admitting sand thereinto; a rotatable sleeve surrounding said barrel; means carried by said sleeve for loosening the sand prior to its admission into the barrel; and means for rotating said sleeve about said barrel.

4. A sand pump comprising a barrel; a check valve in the lower end thereof for admitting sand thereinto; a rotatable sleeve surrounding said barrel; an auger carried by the lower end of said sleeve; and means for rotating said sleeve about said barrel.

5. A sand pump comprising a barrel having an admission check valve in its bottom; a sleeve surrounding said barrel; an auger carried by the lower end of said sleeve; and means dependent upon a relative lineal movement of the barrel and sleeve for rotating said sleeve about said barrel.

[Claims 6 to 11 not printed in the Gazette.]

1,203,785. EYE-SHIELD. BURT R. RICKARDS, Melrose, Mass. Filed Nov. 17, 1915. Serial No. 61,891. (Cl. 2—149.)



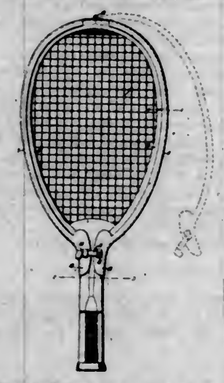
1. A device for use with a cap, comprising a relatively horizontal member having a downwardly extended light absorption area disposed beyond the forward edge of the cap and movable into protecting relation to the range of vision by simple tilting movement of the head.

2. A device for use with a cap having a visor, comprising a member effectively disposed relative to the visor and having a downwardly extended light absorption area disposed beyond the forward edge of the visor, and movable into protecting relation to the range of vision by simple tilting movement of the head, and means for fastening said member to the cap.

3. A device for use with a head covering provided with a forwardly projecting portion, comprising a translucent member extending beyond the forward edge of said portion and having a notch at its rear edge, and a device on the head covering receivable in said notch.

4. In combination with the visor of a cap and the fastening therefor, a member carried by said cap and overlying said visor, said member having a forwardly pointed notch at its rear edge to receive said fastener of the cap, and having a downwardly directed translucent light absorption area disposed beyond the forward edge of the visor.

1,203,786. CASE FOR TENNIS-RACKET FRAMES. FREDERICK RICORDS, Brooklyn, N. Y. Filed Feb. 24, 1916. Serial No. 80,163. (Cl. 46—24.)



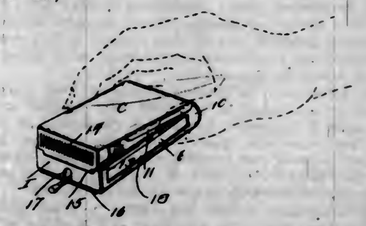
1. In a racket frame case, a case member U-shaped in cross section, the outer face of the case member being curved between its sides to conform with the shape of the racket frame.

2. In a racket frame case, a plurality of case members U-shaped in cross section, the outer faces of the case members being curved between their sides to conform with the shape of the racket frame, and means to secure the case members relatively to each other around the racket frame.

3. In a racket frame case, two case members U-shaped in cross section, the outer faces of the case members being curved between their sides to conform with the shape of the racket frame, the case members being articulated together at one set of ends, and means to secure the case members together at their other ends.

4. In a racket frame case, two case members articulated together at one set of ends, and curved for embracing the frame of a racket, and means to hold the case members relatively to each other at their other ends.

1,203,787. MATCH-BOX. GIDEON RIETVELD, Knoxville, Iowa. Filed Feb. 21, 1916. Serial No. 79,738. (Cl. 206—28.)



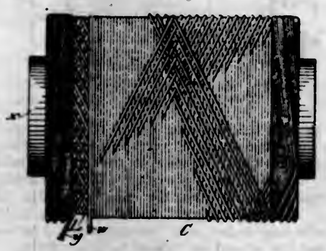
A match box formed upon a metal blank bent to produce a tubular section and a spring cover adapted in closed position to overlie the outer end of the tubular section, and a drawer section removably engaged in the tubular section, said drawer section having a longitudinal slot in its bottom and extending into its outer end wall to form a discharge opening for a single match.

1,203,788. FLEXIBLE ELECTRICAL CONDUIT. WILLIAM C. ROBINSON, Pittsburgh, Pa., assignor to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 3, 1912. Serial No. 701,315. (Cl. 247—4.)



A conduit consisting of a helix formed of a flat strand of twisted paper, in combination with flexible material interwoven therewith.

1,203,789. ELECTRICAL COIL AND METHOD OF WINDING SAME. CLARE BYDEN, Cranston, R. I., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 30, 1915. Serial No. 5,296. (Cl. 175—21.)



1. An improved coil for electrical purposes, composed of a series of layers of conducting-material and windings of insulating-material intermingling therewith, with the windings of insulating-material interwoven over and under the turns of conducting-material in each layer and built up at the ends of the layers in a thicker, denser mass than between the layers forming reinforcing abutments at the ends of the coil.

2. An improved coil for electrical purposes composed of concentric layers of helically-wound wire and windings of textile-material disposed crosswise thereof, with the textile windings extending beyond the ends of the wire layers and built up in a thicker, denser mass outside the ends of said layers than between them forming abutments reinforcing both ends of the coil.

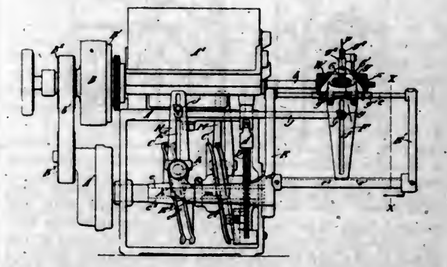
3. An improved electrical coil composed of alternate layers of spirally-wound wire and cross-wound yarn, with the yarn-windings crossing over and under the wire-windings in each layer and extending beyond the ends of the wire layers, at which points the yarn is compacted in a denser mass than between the wire layers forming end abutments of yarn of a diameter in proportion to the diameter of the coil.

4. An improved coil for electrical purposes composed of layers of helically-wound conducting-material and windings of insulating-material disposed diagonally or crosswise thereof, with the windings of insulating-material intersecting the layers of conducting-material and extending beyond their ends, at which points the insulating-material has a greater density and thickness than between the layers thereby providing compact washer-like abutments at the ends of the coil.

5. An improved electrical coil composed of concentric layers of helically-wound wire and overlying layers of yarn-windings, with the yarn-windings disposed crosswise of the wire-windings while intermingling therewith and extending beyond the ends of the wire layers, at which points the yarn layers are of greater thickness than between the wire layers thereby providing dense, compact masses of yarn for supporting and protecting the ends of the wire-windings.

[Claims 6 to 9 not printed in the Gazette.]

1,203,790. WINDING-MACHINE. CLARE BYDEN, Cranston, R. I., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 30, 1915. Serial No. 5,297. (Cl. 242—10.)



1. In a winding machine for winding electrical coils, the combination with a continuously rotating mandrel on which the conducting-material is wound, of a traverse-guide for widing insulating-material diagonally of the windings of conducting-material, and means to reciprocate said guide with a compound traversing-motiotn comprising primary traverses of uniform extent and shorter supplementary traverses occurring at either end of the primary traverses and maintained with a definite relation thereto.

2. In a machine for winding electrical coils, the combination with a continuously rotating mandrel on which the conducting-material is wound, of an oscillating traverse-guide for winding insulating-material diagonally of the windings of conducting-material having a main treverse of constant length extending between fixed limits and a supplemenatry traverse of less extent at both ends of the main traverse whereby the insulating-material is built up at a faster rate at the ends of the coil than between the layers of conducting-material.

3. In a machine for winding electrical coils, the combination with a continuously rotating mandrel for receiving the turns of wire to be wound thereon, of a traverse-guide for winding insulating-material diagonally of the wire-windings, and means to reciprocate the guide with a constant extent of traverse between fixed limits and to also impart to the guide a series of shorter supplementary traversea occurring at the completion of each main traverse and having a definite relation thereto.

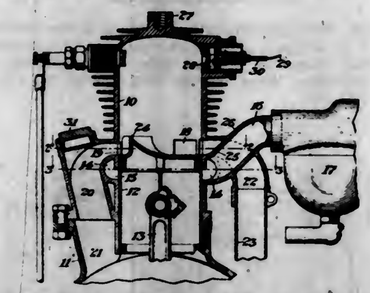
4. In a machine for winding electrical coils, the combination with a continuously rotating mandrel, of means to wind wire on said mandrel in a series of superimposed layers, and means to traverse insulating-material, diagonally with respect to the wire-windings across the full length of the layers thereof and to impart a series of supplementary traverses to the insulating-material at the ends of the wire layers to build the material up in abutments to reinforce the ends of the coil.

5. In a machine for winding electrical coils, the combination with a continuously rotating mandrel for receiving the layers of wire-windings disposed in closely adjacent turns extending between fixed limits, of a traverse-means for winding insulating-material diagonally of the coils of wire-windings and across the full length thereof, and means for operating said traverse-means with a main

traverse equal to the length of the wire layers and supplementary shorter traverses arranged outside the limits of the main traverse and occurring at regular intervals at the completion of each main traverse.

[Claims 6 to 23 not printed in the Gazette.]

1,203,791. CHARGE-TREATING DEVICE FOR INTERNAL-COMBUSTION ENGINES. NORBERT H. SCHICKEL, Stamford, Conn. Filed Dec. 7, 1912. Serial No. 735,464. (Cl. 123—73.)



1. An internal combustion engine of the crank case compression type having a cylinder provided with two annular rows of ports the lower row communicating with the crank case when the piston is at the beginning of the power stroke, and the upper row communicating with the working chamber when the cylinder is at the end of the power stroke, an annular chamber encircling said cylinder at said lower annular row of ports and communicating therewith, two separate chambers directly above said annular chamber and one communicating with a portion of said upper row of ports and the other communicating with the remaining portion of said upper row of ports, a passage connecting one of said second-mentioned chambers with the crank case, an exhaust conduit extending downwardly from the other of said second-mentioned chambers, and a supply conduit leading downwardly to said annular chamber, said conduits being cast integral and one of said conduits extending transversely through the other conduit.

2. A two-cycle engine of the crank case compression type having an exhaust port from the cylinder, an inlet port to the crank case closely adjacent thereto, chambers cast integral with said cylinder and communicating with said ports, a supply conduit leading downwardly to the inlet port chamber, and an exhaust conduit leading downwardly from said exhaust port chamber, said conduits being cast integral with said chambers and said cylinder, and one of said conduits passing transversely through the other.

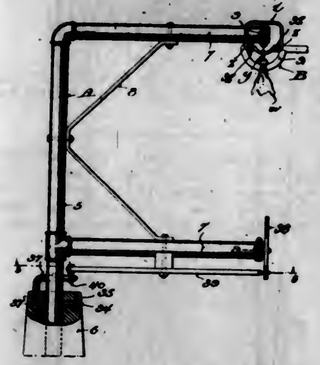
3. A two-cycle engine of the crank case compression type having an exhaust port from the cylinder, an inlet port to the crank case closely adjacent thereto, chambers cast integral with said cylinder and communicating with said ports, a supply conduit leading downwardly to the inlet port chamber, and an exhaust conduit leading downwardly from said exhaust port chamber, said conduits being cast integral with said chambers and said cylinder, and the inlet conduit passing transversely through the exhaust conduit.

4. A two-cycle engine of the crank case compression type having an exhaust port from the cylinder, an inlet port to the crank case closely adjacent thereto, chambers cast integral with said cylinder and communicating with said ports, an inlet conduit leading downwardly to the inlet port chamber, and an exhaust conduit leading downwardly from said exhaust port chamber, said conduits being cast integral with said chambers and said cylinder, the inlet conduit having a horizontally disposed section and a downwardly inclined section, a portion of the latter being disposed above said exhaust conduit and a portion extending transversely through said exhaust conduit.

5. An internal combustion engine having an exhaust port, an inlet port, closely adjacent thereto, chambers cast integral with said cylinder and communicating with said ports, a supply conduit leading downwardly to the inlet port chamber, and an exhaust conduit leading downwardly from said exhaust port chamber, said conduits being integral with said chambers and said cylinder, and one of said conduits passing transversely through the other.

[Claims 6 to 8 not printed in the Gazette.]

1,203,792. MAIL-BAG CATCHING AND DELIVERING APPARATUS. FRED SCHMIDT, South Milwaukee, Wis. Filed Nov. 12, 1915. Serial No. 61,012. (Cl. 258—28.)



1. In a mail bag catching and delivering apparatus, a member including a pair of vertically spaced arms, transverse horizontal bars carried at the ends of said arms, adjacent bar ends being provided with detachable means for holding a bag, the other bar ends being offset inwardly to form receiving fingers, buffer-plates slidably connected with said fingers, and springs disposed between said plates and the shoulders formed by said offsets.

2. In a mail bag catching and delivering apparatus, a member including spaced arms, spaced clip members carried by each arm, each clip member comprising a pair of spring fingers disposed substantially parallel and having adjacent intermediate portions oppositely bowed, bag-carrying loops each having one side engageable in the bowed portions of a clip, and lateral projections on said side of the loop engageable between the fingers.

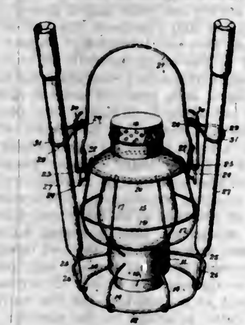
3. A mail catching and delivering apparatus comprising a base, a standard vertically and rotatably movable in the base, gravity controlled means tending to rotate the standard, an arm carried by the standard for manipulating bags, a lateral projection on the standard, a trigger-arm movable under the projection to hold the standard against movement, and a lever intermediately pivoted to the arm and an angular lever pivoted to the end of the arm and adapted to rock the first lever upon engagement by a train-carried member moving in conjunction with the apparatus.

1,203,793. HAND-LANTERN. RICHARD F. SCHNEIDER, Chicago, Ill. Filed Aug. 9, 1915. Serial No. 44,869. (Cl. 240—1.)

1. The combination with a lantern provided with a pivoted handle, of a fusee-holder comprising means on the lower portion of the lantern for receiving the point of a fusee, and means on the handle for holding the body of the fusee.

2. The combination with a lantern comprising a frame and a handle, of an eye on the lower portion of the frame for receiving the pin of a fusee, and a swinging loop on the handle for holding the body of the fusee.

3. The combination with a lantern comprising a handle and a wire frame comprising legs, of an eye on one of the legs for holding the point of a fusee, and means connected to the handle for holding the body of the fusee.



4. The combination with a lantern comprising a handle, of means on the lower portion of the lantern for holding the point of a fusee, and a split loop pivotally connected to the handle for holding the body of the fusee.

5. The combination with a lantern comprising a wire handle, of means on the lower portion of the lantern for holding the point of a fusee, said handle being formed with an eye, and means connected to said eye for holding the body of the fusee.

1,203,794. SUBIRRIGATION DEVICE. PHILIP SCHWARZ and WILLIAM J. BAKER, Oklahoma, Okla. Filed June 23, 1916. Serial No. 105,370. (Cl. 137—65.)

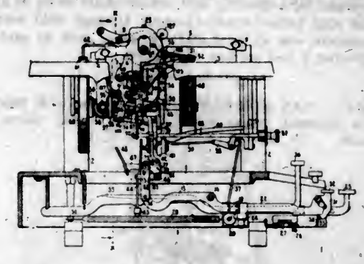


In an irrigating system, an apertured pipe embedded in the ground, and means for preventing the clogging of said aperture and for controlling the flow therethrough comprising a rod accessible from the surface of the ground, and tapered and threaded at its inner end, said threaded, tapered end being received in said aperture and adapted in one position to permit a flow through said aperture, and when moved to a seating position in said aperture to clear the same of foreign matter and to cut off the flow.

1,203,795. TYPE-WRITING MACHINE. GEORGE A. SMITH, Ilion, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 20, 1915. Serial No. 46,444. (Cl. 197—159.)

1. In a typewriting machine, the combination of a platen, types, case shifting devices, a ribbon vibrator, a support for said vibrator, devices for actuating said vibrator at printing operation independently of said support, and means separate from said vibrator and from said devices constantly tending to shift said support.

2. In a typewriting machine, the combination of a platen, types, case shifting devices, a ribbon vibrator, a vibrator support mounted independently of said case shifting devices, and means operating to shift said support when said case shifting devices are operated.



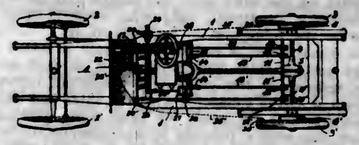
3. In a typewriting machine, the combination of a platen element, a type carrying element, one of said elements being shiftable to change case, case shifting devices, a ribbon vibrator, a vibrator support, and means constantly tending to shift said support, said means being normally restrained by said shiftable element.

4. In a typewriting machine, the combination of a platen element, a type carrying element, one of said elements being shiftable to change case, a ribbon vibrator, a vibrator support movably mounted on the frame of the machine, and a varying connection between said vibrator support and said shiftable element.

5. In a typewriting machine, the combination of a platen element, a type carrying element, one of said elements being shiftable to change case, a ribbon vibrator, a vibrator support movably mounted on the frame of the machine, case shifting devices, and spring means constantly tending to shift said support, said spring means becoming effective when said shiftable element is shifted.

[Claims 6 to 37 not printed in the Gazette.]

1,203,796. AUTOMOBILE. EDWARD D. SELF, Florence, Italy. Filed June 9, 1915. Serial No. 38,155. (Cl. 21—8.)



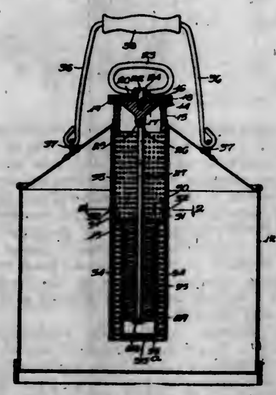
1. In an automobile, the combination of two rear wheels, differential gearing therefor, brakes for said wheels, forwardly extending means for independently actuating said brakes, an indicator visible to the operator of said automobile when applying said brakes, actuating means connecting said wheels to said indicator, said indicator being controlled by said brake actuating means through said wheels, brakes and connections.

2. In an automobile, the combination of two rear wheels, a brake for each of said wheels, respectively, two independently movable rear lever-members for actuating said brakes, tie-rods connected to said lever-members, forward lever-members to which said tie-rods are connected, means for actuating said forward lever-members independently of each other, a lever-carrying countershaft, tie-rods connecting said countershaft to each of said rear lever-members, means for actuating said countershaft so as to apply both of said brakes simultaneously through said rear lever-members, one at least of the ends of each of said countershaft tie-rods having a lost motion connection.

3. In an automobile, the combination of two rear wheels, a brake for each of said wheels respectively, two independently movable rear lever-members for actuating said brakes, tie-rods connected to said lever-members, forward lever-members to which said tie-rods are connected, means for actuating said forward lever-members independently

of each other, a lever-carrying countershaft, tie-rods connecting said countershaft to each of said rear lever-members, means for actuating said countershaft so as to apply both of said brakes simultaneously through said rear lever-members, one at least of the ends of each of said tie-rods having a lost motion connection.

1,203,797. CAN FOR GASOLENE, &c. ISAAC E. SEXTON, West Medford, Mass. Filed Sept. 30, 1915. Serial No. 53,248. (Cl. 220—9.)



1. A can having a neck provided with a valve seat, a valve comprising a body composed of a rigid cap-shaped outer member, a rigid tapering inner member and a compressible annular gasket interposed between said members, a bolt connecting said members and causing them to clamp the gasket, a handle projecting outwardly from said body and adapted to turn on said bolt, the latter preventing the handle from tipping relatively to the body, and a spring connected with the valve and adapted to yieldingly hold the gasket on the valve seat, the handle and valve body constituting a practically rigid lever adapted to be fulcrumed on the valve seat to open the valve.

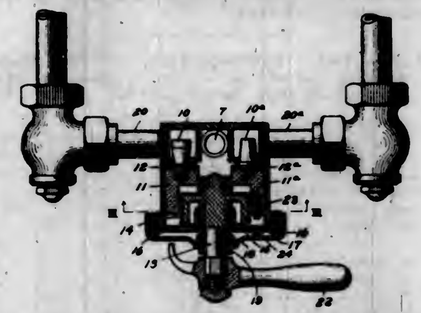
2. In combination, a can having a neck provided with a valve seat, a valve formed to close on said seat, a handle secured to the valve and projecting outwardly therefrom, a spring connected with the valve and adapted to yieldingly seat the same, the valve being provided at its inner side with a tapering member adapted to be fulcrumed on said seat and to slide thereon when the valve is displaced laterally, and a bail hinged to the can and having a handle spaced from the valve handle to permit the manual opening and lateral displacement of the valve by one hand of the operator, the bail constituting a means for holding down the can when the valve is being opened.

3. In combination, a can having a neck provided with a valve seat, a valve formed to close on said seat and composed of a rigid body comprising a cap-shaped rigid outer member, and a tapering rigid inner member adapted to be fulcrumed on said seat and to slide thereon and a compressible gasket clamped between said members, a handle for said valve, means securing the handle to the valve body and having provisions for permitting the handle to turn on an axis perpendicular to the cap member and preventing the handle from tipping relatively thereto, a spring connected with the valve and adapted to yieldingly seat the same, and a bail hinged to the can and having a handle arranged to coöperate with the valve handle in manually opening and laterally displacing the valve, the said valve body and valve handle constituting a practically rigid lever, and the valve handle being adapted to turn independently to a position parallel with the bail handle.

4. A can having a neck provided with a valve seat, a foraminous tube extending downwardly into the can from said neck, a fixed annular spring abutment between the ends of said tube, a valve formed to close on said seat, and provided with a tapering inner member adapted to be fulcrumed on said seat and to slide thereon, a rod jointed to the valve, extending downwardly therefrom through said abutment and provided at its lower end with a spring support located within the tube, and a spring interposed between said support and abutment, the rod being laterally unobstructed between its spring support and the valve, so that it is free to tip laterally in any direction, and the tube being utilized as a container for the spring.

5. A can having a neck provided with a valve seat, a foraminous tube extending downwardly into the can from said neck, a fixed annular spring abutment between the ends of said tube, a valve formed to close on said seat, and provided with a tapering inner member adapted to be fulcrumed on said seat and to slide thereon, a rod jointed to the valve, extending downwardly therefrom through said abutment and provided at its lower end with a spring support located within the tube, a spring interposed between said support and abutment, the rod being laterally unobstructed between its spring support and the valve, so that it is free to tip laterally in any direction, and the tube being utilized as a container for the spring, and a tubular spring guide attached to the annular abutment and preventing lateral deflection of the spring.

1,203,798. MIXING-VALVE. ERNEST J. SIEBEL, Ross township, Allegheny county, Pa., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Nov. 30, 1914. Serial No. 874,739. (Cl. 137—26.)

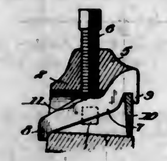


1. In a mixing valve, the combination of a casing comprising a pair of oppositely disposed inlet chambers, a mixing and outlet chamber communicating by ports with the inlet chambers, and guideways for valve members; a pair of valve members unconnected to each other and comprising oppositely graduated plugs adapted to control flow through said ports, and stems secured to said plugs and movable in said guideways, the adjacently disposed faces of said stems being provided with screw threads; and a rotatably mounted operating spindle having a laterally-projecting exteriorly-threaded disk engaging said threaded faces of the stems.

2. In a mixing valve, the combination of a casing comprising a pair of oppositely disposed inlet chambers, a mixing and outlet chamber communicating by valve controlled ports with the inlet chambers, and guideways for valve members; a pair of valve members unconnected to each other and comprising oppositely graduated plugs adapted to control flow to said ports, and stems secured to said plugs and movable in said guideways, the adjacently disposed faces of said stems being provided with screw threads the general planes of which subetantially coincide with the longitudinal axes of said plugs; and a rotatably mounted operating spindle having a laterally projecting exteriorly-threaded disk engaging said threaded faces of the stems.

3. In a mixing valve, the combination of an integrally formed cylindrical casing member comprising inlet chambers, a mixing and outlet chamber communicating by ports with the inlet chambers, oppositely disposed guideways for valve stems and a centrally disposed bearing support for an operating spindle; valve members at opposite sides of the center of the casing and comprising oppositely tapered plugs projecting through said ports, and stems slidably mounted in said guideways and adapted to close said ports, said plugs being rigidly connected to the stems, and the valve guides having concave interiorly facing surfaces provided with screw threads; an operating spindle having its inner end rotatably mounted in said bearing support and having as an integral part thereof a laterally projecting disk provided with screw threads engaging those of said valve stems and a cover secured to said casing, said operating member being held against longitudinal movement by said bearing support and cover.

1,203,799. TOOL-HOLDER. JOHN F. SLAVIK, Poughkeepsie, N. Y. Filed Mar. 9, 1916. Serial No. 83,018. (Cl. 29—99.)



1. A tool holder having a tool-retaining recess, said holder having a second tool-retaining recess, said second tool-retaining recess being enlarged relatively to the first mentioned tool-retaining recess, tool-engaging means for disposition in the second tool-retaining recess, and fastening means common to tools in both of said recesses and said tool-engaging means.

2. A tool holder having a tool-retaining recess, means on the holder intersecting said recess to mount a tool, a dog disposed in said recess to directly engage the tool, and said recess being enlarged to facilitate adjustment of the dog relatively to the tool mounted by the said means.

3. A tool holder having a recess and a recess disposed at an angle to and intersecting said recess, fastening means in the first mentioned recess for a tool therein extending into the second mentioned recess and a clamp means engageable with said fastening means.

4. A tool holder having a recess and a recess disposed at an angle to and intersecting said recess, a dog in the first mentioned recess overlapping the holder to prevent movement of the dog relatively to the holder in one direction and having means to overlap a tool in the second mentioned recess to prevent movement of the dog relatively to the holder in the opposite direction, and a set screw engageable with said dog.

5. A tool holder having a recess and a recess disposed at an angle to said recess and a third recess, a dog within the last mentioned recess, lugs on the dog to overlap the holder and a tool in the third mentioned recess, and a set screw to engage said dog at substantially the point of intersection of the first and second mentioned recesses.

1,203,800. MINE-CAR WHEEL. EDWIN E. SLICK, Westmont borough, Pa. Filed June 9, 1915. Serial No. 32,996. (Cl. 105—172.)

1. The combination with an axle having one or more external journal bearings, of a car wheel provided with a web portion which abuts against and is secured to a projecting flange integral with the end of the axle.

2. The combination with an axle having one or more external journal bearings, of a car wheel provided with a web portion, the side of which abuts, and is secured to, a projecting flange integral with the axle and means for securing the same together.

3. A car wheel provided with a web portion having holes therethrough, in combination with an axle having external journal bearings provided with an integral end collar abutting said web portion, holes through said collar registering with the holes aforesaid and means passing through said holes adapted to secure the wheel to the axle.



4. An integrally formed plate wheel provided with a web portion, in combination with an axle provided with an integral flange on the end thereof abutting said web portion and means passing through the flange and web portion adapted to secure the same together.

5. A pressed steel plate wheel provided with an impressed web portion, a central opening therein, in combination with an axle provided with an integral flange on the end thereof, an annular projection at the end of said axle, the outer walls of said annular projection and the walls of the central opening in the web being formed concentric with the axle and the wheel and adapted to fit together, and means for securing said web to the flange.

[Claims 6 to 8 not printed in the Gazette.]

1,203,801. CAR-BODY. EDWIN E. SLICK, Westmont borough, Pa. Original application filed June 9, 1915, Serial No. 32,998. Divided and this application filed Nov. 18, 1915. Serial No. 62,083. (Cl. 105—15.)



1. A metallic car body formed integrally of one piece of plate, forming an open box with flaring sides and ends, the upper edge of which is turned over into a bead, thereby providing a finish and stiffener for same, the floor portion having a longitudinal trough formed integral therewith.

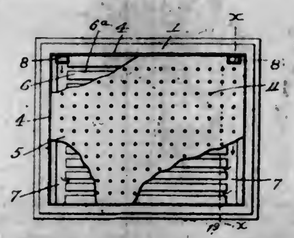
2. A metallic car body formed of a single plate of metal, shaped in the form of an open box with flaring sides and ends, the central portion of the bottom being pressed upwardly into an inverted trough form, extending longitudinally near the center of the car body, thereby providing a combined stiffener and center sill for the same.

3. A car body formed integrally from one plate of metal of open box form, with flaring sides, the center portion of the plate bottom being formed upwardly into an inverted trough shape, extending longitudinally of the car, the upper edges of the sides and ends being turned over into a bead, thereby providing a finish and stiffener for the same.

1,203,802. APPARATUS FOR ETCHING PLATES IN THE PHOTO-ENGRAVING PROCESS. JOHN J. C. SMITH, Passaic, N. J., assignor to Paul M. Hammalian, Hackensack, N. J. Filed Aug. 21, 1912. Serial No. 716,244. (Cl. 41—9.)

1. An apparatus for applying etching fluids to plates, having in combination a tank for the etching fluid, means in said tank for discharging and uniformly distributing air throughout the body of the fluid in said tank, said means comprising a series of air ducts arranged in the bottom of the tank, each of said air ducts having a plu-

rality of discharge openings along its length, said openings being submerged in the fluid in the tank, air chests at the opposite ends of said air ducts into which each of said ducts opens, means for supplying air under pressure to said air chests, means for supporting a plate in a horizontal position in said tank and means for moving said plate and holder into and out of contact with the liquid in said tank.

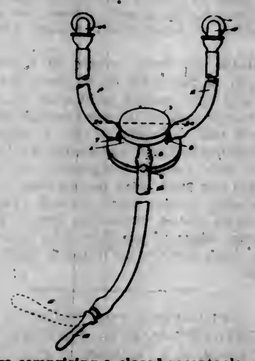


2. An apparatus for applying etching fluids to plates, comprising a tank for holding the fluid, a plurality of spaced-apart strips on the bottom of said tank, a perforated false bottom covering said strips and inclosing the spaces therebetween to form a plurality of air passages, the perforations in said false bottom registering with said spaces, transverse air passages beneath said false bottom at each end of said strips and communicating with each of the air passages between said strips, means for delivering air to said transverse air passages, a plate holder supported in said tank for holding the plate to be etched substantially parallel with the level of fluid in said tank and means for moving said plate holder into and out of the liquid in the tank.

3. An apparatus for applying etching fluid to plates, having an air distributing plate that is provided with uniformly spaced openings, means for supplying equal proportions of air to said openings and means for supporting a plate in proximity to said air distributing plate.

4. An apparatus for applying etching fluid to plates, having an air distributing plate that is provided with uniformly spaced openings, channels communicating with said openings and passages for supplying opposed currents of air to said channels.

1,203,803. VAGINAL SYRINGE. LOUISE T. SPEESE, Rochester, N. Y. Filed Mar. 27, 1916. Serial No. 87,045. (Cl. 128—28.)



1. A syringe comprising a closed receptacle, a removable cover therefor, a pair of admission ducts leading into the side of said receptacle, an outlet leading out of the side of said receptacle and into a nozzle or other interchangeable instrument.

2. A syringe comprising a closed receptacle, a removable cover therefor, a pair of admission ducts leading into the side of said receptacle, an outlet leading out of the side of said receptacle and into a nozzle, means contained in said receptacle to receive a medicated wafer or tablet.

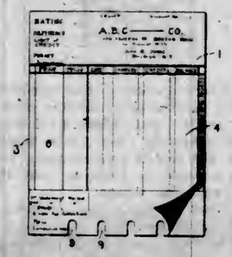
3. A syringe comprising a closed receptacle, a removable cover therefor, a pair of admission ducts leading into the side of said receptacle, an outlet leading out of the side of said receptacle and into a nozzle, a perforated box in said receptacle to receive a medicated wafer or tablet.

4. A syringe comprising a receptacle, a cover removably fastened to said receptacle, a series of ducts leading into and out of the side of said receptacle, said receptacle being adapted to receive a medicated wafer or tablet, means to admit water through some of said ducts into said receptacle and dissolve and absorb the medicated wafer, another of said ducts being adapted to drain the solution from said receptacle.

5. A syringe comprising a cup shaped receptacle having a base at the bottom and a removable cover at the top thereof, a perforated box inside of said receptacle to receive a medicated wafer or tablet, a series of ducts leading into and out of the side of said receptacle.

[Claims 6 to 8 not printed in the Gazette.]

1,203,804. LEDGER-SHEET. GEORGE R. STEELE, Newtonville, Mass. Filed Jan. 20, 1914. Serial No. 813,309. (Cl. 11—11.)

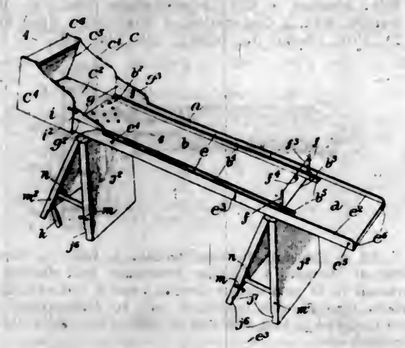


1. A loose leaf ledger sheet and statement adapted for a vertical filing system comprising a single sheet of paper folded transversely of the center of its width to form an original leaf and a duplicate leaf, said leaves being provided with duplicate printed matter and columns for business entries adapted to be superposed in the folded sheet, each sheet having at its end printed matter and columns arranged to present a statement of account and adjacent the fold printed matter and columns for confidential entries, the duplicate sheet being provided with a weakened line along the side of the statement whereby said statement may be detached.

2. A loose leaf ledger sheet and statement adapted for a vertical filing system comprising a pair of leaves formed from a single sheet of paper transversely folded to form an original leaf and a duplicate leaf, the fold extending longitudinally thereof, said leaves being provided with printed matter and columns for business entries adapted to be superposed in the folded sheet, the original leaf being coated on the reverse side with a transfer material, one portion of the printed matter and the columns being arranged to present a statement of account, the other portion thereof being arranged for confidential entries, a perforated line parallel to said fold interposed between the statement of account and the confidential memoranda and a transverse perforated line arranged between the statement portion and the stub portion whereby the statement may be detached and leave the stub for a permanent record.

1,203,805. GAME DEVICE. JACOB F. STEPHAN, New York, N. Y. Filed May 11, 1916. Serial No. 96,747. (Cl. 46—61.)

1. In a collapsible game device of the class described, a main central portion having side walls and said central portion being provided with hinged end portions which are adapted to fold onto said central portion, said side walls having hinged end portions which are adapted to fold onto said walls and are detachably connected therewith, and means in said hinged end walls adapted to enter the corresponding hinged end portion of the main central portion to support said end in its open or operative position.



2. In a collapsible game device of the class described, a main central portion having side walls, said central portion being provided with hinged end portions which are adapted to fold onto said central portion, said side walls having hinged end portions which are adapted to fold onto said walls and are detachably connected therewith, means in said hinged end walls adapted to enter the corresponding hinged end portion of the main central portion to support said end in its open or operative position, and means for locking said hinged side walls in connection with said hinged end portion.

3. In a collapsible game device of the class described, a main central portion provided with hinged end portions which are adapted to fold onto said central portion, one of said hinged end portions being composed of a bottom hinged to the end of the central portion, sides hinged to the bottom member, a back hinged to the rear end portion of the bottom member and inclined forwardly and provided with a hinged top member, said side members being detachably connected with the rear end portion of the central member and the top member being detachably connected with the side members.

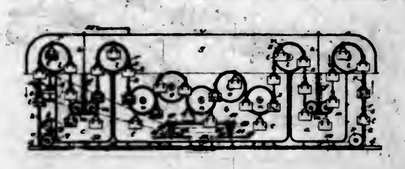
4. In a collapsible game device of the class described, a main central portion having side walls, said central portion being provided with hinged end portions which are adapted to fold onto said central portion, said side walls having hinged end portions which are adapted to fold onto said walls and are detachably connected therewith, means in said hinged end walls adapted to enter the corresponding hinged end portion of the main central portion to support said end in its open or operative position, means for locking said hinged side walls in connection with said hinged end portion, and standards pivoted to the hinged side walls adjacent to the corresponding end of the central portion and provided with a flexible connection on which is mounted an alarm device.

5. A collapsible game device having folding end portions and folding side portions, and a container composed of a casing divided transversely to form two separate similar parts each of which consists of separate similar members hinged together at one end, and means for locking the separate parts of said casing together end to end, and means for locking the separate members of each of said parts together.

[Claims 6 to 11 not printed in the Gazette.]

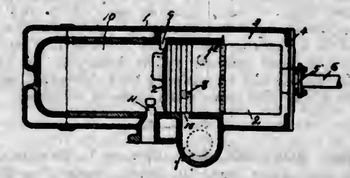
1,203,806. PASTEURIZING-MACHINE. HENRY F. STOCK, Waukesha, Wis. Filed June 21, 1911. Serial No. 634,530. (Cl. 126—272.)

In a pasteurizing machine the combination of warming, pasteurizing and cooling tanks arranged in series in the order named and adapted to contain water respectively, the warming and cooling tanks each being provided with partitions extending down toward the bottoms of said tanks but terminating short of said bottoms to permit the passage of a conveyer and bottles thereunder, a hood extending over said tanks and covering the tops thereof and projecting beyond the warming and cooling tanks and being open on the under side beyond said warming and cooling tanks and provided with partitions in its interior making steam-tight joints with the partitions in the warming and cooling tanks to provide a steam or vapor space over parts of the warming and



cooling tanks and over the pasteurizing tank, and an endless conveyer for bottles passing up into the hood outside of the warming tank down into the warming tank under the partition therein and up through the warming tank into the steam space in the hood thence down into the pasteurizing tank and up out of the pasteurizing tank into the steam space in the hood, then down into the cooling tank under the partition therein and up through the cooling tank into the hood and down from the hood outside of the cooling tank and under the cooling, pasteurizing and warming tanks.

1,203,807. CYLINDER FOR GAS-ENGINES. HARRY C. STOLZ, Franklin, Pa. Filed Apr. 26, 1915. Serial No. 23,889. (Cl. 123—73.)

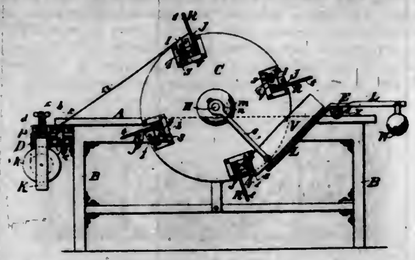


In a gas engine of the valveless two-cycle type, a cylinder comprising a combustion chamber and a pump chamber constituting an extension of the combustion chamber and having a portion arranged coaxial with and being of larger diameter than the combustion chamber, inlet and exhaust ports for the combustion chamber, a passage leading from the enlarged portion of the pump chamber to the inlet port, the walls of the enlarged portion of the pump chamber being otherwise solid and uninterrupted, a piston operable in the chambers, the pump chamber being provided in its wall with separate and circumferentially alined air and gas intake ports over which the piston operates for closing and opening the same, said piston on its compression stroke moving past the last mentioned ports to uncover the same and permit an influx of gas and air into the pump chamber, and a single combined air and gas intake port provided in the pump chamber at a point between the enlargement of the latter and the first ports of said pump chamber and opened and closed by the piston so that when the piston uncovers said combined air and gas intake port a uniform vacuous condition will exist in the pump chamber to permit of a uniform quantity of the combustible mixture being drawn in on the initial strokes, which are imparted by an exterior agency, in effecting a starting of the engine.

1,203,808. INSULATION-FORMING MACHINE. MAURICE SULLIVAN, New York, N. Y. Filed Nov. 16, 1915. Serial No. 61,756. (Cl. 154—1.)

1. The combination in an insulation forming machine of a disk rotating form of mold, fitted with radial chan-

nels extending inwardly from the outer edge of the mold and at right angles to each other, a system of adjustable sliding partitions and their attachments for fastening fitted in said channels, and a tapering slit cut in the center of each partition as fully described and set forth.

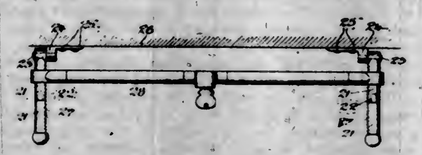


2. The combination in an insulation forming machine, of a projecting and adjustable fulcrum, a balance lever resting on the fulcrum, a forming trowel attached to one end of balance lever, and an adjustable balance weight on the other end, all substantially as set forth.

3. An insulation forming machine comprising a disk form of mold mounted on a mandrel or shaft to rotate, said mold fitted with recesses or channels for the reception of two or more adjustable dividing partitions, each partition provided with a tapering slit in center and projecting inwardly to the face of the mold, a balanced lever trowel engaging the face of the mold and regulated by a balance weight, the balance lever resting and supported on a projecting fulcrum which is adjustable all substantially as set forth.

4. The combination in an insulation forming machine of a disk form of mold mounted on a shaft and fitted with adjustable dividing partitions each partition provided with a tapering slit cut in the center, a balanced lever trowel, and balance weight supported on an adjustable fulcrum and so arranged that the trowel engages the face of the disk form while same is revolving.

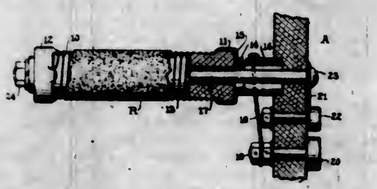
1,203,809. ROBE-HOLDER. EDWARD L. SWIKARD, Chicago, Ill. Filed Mar. 10, 1916. Serial No. 83,268. (Cl. 45—13.)



1. A robe holder comprising a pair of studs enlarged at their outer ends and provided at their inner ends with feet having openings therein to receive fastening screws, whereby said studs may be independently mounted on a supporting structure, rigid teeth on said studs, a hollow bar having means at either end thereof to embrace said studs between said feet and the enlarged outer ends, the openings in said feet being disposed behind said bar, whereby removal of the screws is prevented until said bar is first removed, spring-pressed members within said bar adapted to engage said teeth, and key-controlled means to disengage said members from said teeth.

2. A robe holder comprising a pair of independent studs, each comprising a plurality of threaded connected sections provided with ratchet teeth, means pivotally connected to said studs to support the latter in spaced relation, a hollow bar having means at either end to embrace said studs, spring-pressed members within said bar to engage said teeth, said members and teeth being formed to allow relative movement in one direction only while said members and teeth remain in engagement, and key-controlled means to disengage said members from said teeth.

1,203,810. RHEOSTAT. LEWIS L. TATUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 21, 1916. Serial No. 79,663. (Cl. 219—63.)



1. In a rheostat, in combination, a base, a circuit terminal therein, a tubular resistance unit having a terminal to fit said circuit terminal and a bolt extending axially through said resistance unit to demountably secure the same to said base and in contact with said circuit terminal.

2. In a rheostat, in combination, a base, a circuit terminal therein, a tubular resistance unit having a terminal to fit said circuit terminal and a bolt extending axially through said resistance unit to demountably secure the same to said base and in contact with said circuit terminal, said bolt being connected to the opposite terminal of said unit to serve as an extension therefor.

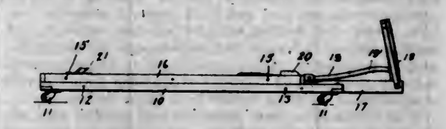
3. In a rheostat, in combination, a base, a bolt fixed to and projecting from said base, a circuit terminal fixed to said base and a tubular resistance unit removably mounted on said bolt and having a terminal to engage said circuit terminal.

4. In a rheostat, in combination, a base, two circuit terminals thereon, one having an extension, and a tubular resistance unit removably mounted on said terminal extension, said unit having a terminal to be connected to said extension and a second terminal to engage the remaining circuit terminal on said base.

5. In a rheostat, in combination, a base, a circuit terminal thereon having an extension, a tubular resistance unit removably mounted on said terminal extension and electrically connected thereto, and means at the outer end of said unit to releasably secure the same on said extension.

[Claims 6 to 9 not printed in the Gazette.]
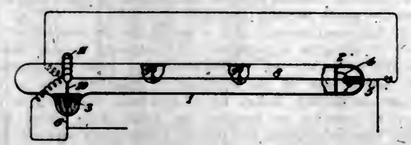
1,203,811. AUTOMOBILE-JACK. ALVA R. TAYLOR, Vernon, Tex. Filed Nov. 2, 1914. Serial No. 869,868. (Cl. 254—91.)



1. An automobile jack comprising a wheeled frame, transverse shafts mounted in the ends of the frame, radially extending arms mounted on the shaft, a supplemental frame pivotally mounted on the upper ends of the said arms, an extension at one end of the wheeled frame, a lever pivotally mounted in the end of the extension, a link pivotally connected at one end to the adjacent end of the supplemental frame, and at its other end to the lever, the lever end of the link being downwardly curved whereby it will pass below the pivot point of the lever when said lever is moved into a horizontal position, blocks arranged on the front end of said supplemental frame for supporting the front axle of a vehicle, and upstanding members disposed on the rear end of said frame for supporting the rear axle of the vehicle, and having their forward ends undercut to provide recesses for the reception of the bracing rods of the rear axle.

2. An automobile jack comprising a main frame, a supplemental frame, means to vary the distance between said frame and connecting the frames, and rear axle supports carried by the supplemental frame and each consisting of an upstanding member having a concave upper surface to receive the body of the axle and provided with undercut portions for the reception of the bracing rods of such axle.

1,203,812. MERCURY-VAPOR APPARATUS. PERCY H. THOMAS, East Orange, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed July 19, 1904, Serial No. 217,170. Divided and this application filed Oct. 19, 1904. Serial No. 229,048. (Cl. 176—47.)



1. In a vapor electric apparatus wherein a filament extends through practically the entire distance between the main electrodes, a positive electrode in the form of a thin plate or disk surrounding the said filament, and connected to the positive lead-wire by a high resistance conductor.

2. In a vapor electric apparatus wherein a filament extends through practically the entire distance between the main electrodes, a positive electrode in the form of a thin plate or disk surrounding the said filament, the filament being connected to the positive lead-wire and the ring electrode being also connected to the said lead-wire by a high resistance conductor.

3. A vapor electric apparatus adapted to operate in a horizontal position, comprising a suitable container and a positive and a negative electrode therein, in combination with a filament extending from the positive lead-wire into proximity to the negative electrode, and a tip on said filament composed of magnetic material, and a magnet in circuit of the apparatus adapted to separate the said tip from the negative electrode when the circuit of the apparatus is closed.

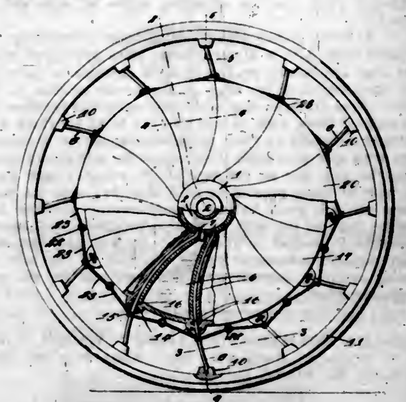
1,203,813. VEHICLE-WHEEL. LEWIS W. THORP, Springfield, Mo. Filed Mar. 6, 1916. Serial No. 82,436. (Cl. 152—28.)

1. A wheel of the class described comprising a hub, a rim, resilient spokes interposed between said hub and rim, said hub provided with an inflating channel, a plurality of inflatable bags communicating with said channel and interposed between said resilient spokes.

2. A wheel of the class described comprising a hub, a rim, resilient spokes interposed between said hub and rim, said hub provided with an inflating channel, a plurality of inflatable bags communicating with said channel and interposed between said resilient spokes, and side strips carried by the sides of said inflatable bags for preventing the same from bulging laterally while being compressed.

3. A wheel of the class described comprising a hub, a rim, resilient spokes interposed between said hub and rim, said hub provided with an inflating channel, a plurality of inflatable bags communicating with said channel and interposed between said resilient spokes, side strips carried by the sides of said inflatable bags for preventing the same from bulging laterally while being compressed, and means for anchoring said bags in engagement with said spring spokes.

4. A resilient wheel of the class described comprising a hub, a rim, spring spokes interposed between said rim and hub, a plurality of pneumatic bags interposed between said spokes, each bag provided with a channel portion upon each edge for constituting a socket for said spokes, means for forming a communication between said pneumatic bags and hub, said hub provided with an air channel, each bag provided with a projecting lug upon the outer end thereof and near each side, means passing through the lugs of the adjoining bags and straddling said resilient spokes for anchoring said bags in engagement with said spokes.



5. A resilient wheel of the class described comprising a hub, a rim, spring spokes interposed between said rim and hub, a plurality of pneumatic bags interposed between said spokes, each bag provided with a channel portion upon each edge for constituting a socket for said spokes, means for forming a communication between said pneumatic bags and hub, said hub provided with an air channel, each bag provided with a projecting lug upon the outer end thereof and near each side, meaps passing through the lugs of the adjoining bags and straddling said resilient spokes for anchoring said bags in engagement with said spokes, and protector means fitting upon the sides of said inflatable bags for preventing the same from bulging outwardly.

[Claims 6 to 8 not printed in the Gazette.]

1,203,814. PLANER-KNIFE-SETTING GAGE. ARTHUR TOMKINSON, Grindrod, British Columbia, Canada. Filed Apr. 30, 1915. Serial No. 24,989. (Cl. 33—185.)

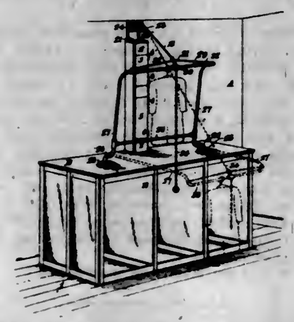


1. A wood planer knife setting gage which comprises a thin flat straight edge plate having a pair of slots extending normal to the straight edge, a gage bar slidable on the face of the straight edge plate, said gage bar being of less length than the length of the straight edge plate and having its edges shaped to form pointers, said straight edge plate having graduated lines normal to the straight edge face at each end of said gage bar to coöperate with the same, bolts passing through said slots and through said gage bar to adjustably secure said gage bar to said straight edge plate, screw adjusting devices connected to said gage bar, and devices on said straight edge plate for engaging said screw adjusting devices, all being arranged substantially as shown and for the purposes described.

2. A wood planer knife setting gage, comprising the combination with a straight edge graduated along its edge and having graduated lines adjacent to each end at right angles to the edge, of a gage bar slidable on the face of the straight edge and extending between the graduated lines each end of said bar being reduced to form an indicating point, means for securing the gage bar on the face of the straight edge said means comprising a bolt through the straight edge and the gage bar adjacent to each end of the bar, said bolt movable in an elongated slot in the straight edge, and an adjusting screw at each end of the bar.

3. A wood planer knife setting gage comprising the combination with a straight edge plate graduated along its edge and having graduated lines adjacent to each end at right angles to the edge, of a gage bar slidable on the face of the straight edge plate and extending between the graduated lines, each end of said bar being provided with pointer members to form an indicating device to coöperate with said graduated lines, means for adjustably securing the gage bar on the face of the straight edge plate, a pair of bolts pivoted to said gage bar near its ends, nuts on said bolts having circumferential grooves, and plates secured to said straight edge plate and having recesses to project into said nut grooves and hold said nuts against movement in the direction of the bolt, all being arranged substantially as shown and for the purpose described.

1,203,815. FORM FOR DISPLAYING CLOTHING. AARON J. TORRISON, Manitowoc, Wis. Filed July 20, 1915. Serial No. 40,989. (Cl. 211—14.)



1. The combination with a show case or counter, of a display frame comprising relatively long spaced bars or uprights and a connecting transverse bar, means on top of the show case or counter spaced a relatively short distance inwardly of the lateral edge thereof for pivotally mounting the ends of the bars or uprights to the show case or counter, means for maintaining the display frame in an upright position above the show case or counter so that garments hung from the transverse bar will be held in an elevated position, said means permitting the display frame to be swung down to a horizontal position, thereby causing the transverse bar to project beyond one side of the counter or show case.

2. The combination with a show case or counter, of a display frame comprising spaced bars, the upper terminals of the bars being curved and extended forwardly, and a transverse bar connecting said curved ends causing the transverse bar to project below the plane of the top of the show case or counter when the display frame is in its lowered position, means for pivotally connecting the lower ends of the bars or uprights to the show case or counter, means for maintaining the display frame in an upright position above the show case or counter, so that garments hung from the transverse bar will be held in an elevated position. said means permitting the display frame to be swung down in a horizontal position.

3. The combination with a show case or counter, of a pair of uprights pivoted on the counter and adapted to project upwardly above the same and being of a length to project laterally therebeyond when swung downwardly into a horizontal position, a transverse bar joining the upper ends of the uprights, and being offset forwardly from the plane thereof whereby upon the downward swinging of the uprights the transverse bar is disposed laterally beyond the edge and below the plane of the top of the show case or counter.

4. The combination with a counter or show case, of spaced apart brackets mounted on the top of the counter or show case, uprights pivoted at their lower ends upon the brackets, and having outwardly curved upper ends, a cross bar joining the outer extremities of said curved ends, and adapted to receive the goods to be displayed, a collar rotatably mounted on the cross bar, a cable secured at one end to the projections, a pulley disposed above and rearwardly of the sleeve, and over which the cable is supported, and a weight on the opposite end of the cable to counter-balance the weight of the cross bar and the goods carried thereby.

5. The combination with a show case or counter, of a pair of uprights pivoted in longitudinally spaced apart relation upon the top of the counter, a cross bar joining the upper ends of the uprights to receive goods to be placed on display, means for maintaining the uprights in vertical position to support the goods high above the show case or counter, the pivotal connections between the uprights and the show case or counter being each spaced inwardly an equal distance from the lateral edge of the counter, and the standards being of a greater length than said distance, whereby upon the downward swinging of the uprights said cross bar is caused to project beyond the lateral edge of the counter or show case and substantially in parallelism therewith.

[Claim 6 not printed in the Gazette.]

1,203,816. ELECTRICAL CONNECTION. WILLIAM C. TREGONING, Cleveland, Ohio, assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 9, 1912. Serial No. 735,870. (Cl. 173—332.)

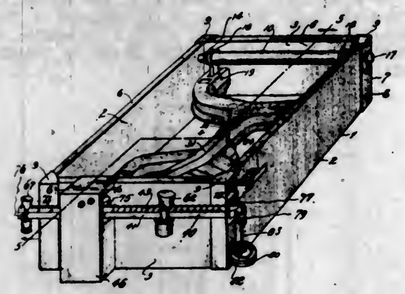


1. An insulating cord gripping device comprising a one-piece member of insulating material having a bore therethrough, said bore having a threaded portion for threaded engagement with the compressible insulating material of a conductor, a smooth portion for guiding said compressible insulating material into the threaded portion, and a rounded off edge to prevent injury to the insulating material due to the bending of the conductor.

2. An insulating cord gripping device comprising a one-piece member of insulating material having a bore therethrough, said bore having a threaded portion for threaded engagement with the compressible insulating material of a conductor, a smooth portion for guiding said compressible insulating material into the threaded portion, a rounded off edge to prevent injury to the insulating material due to the bending of the conductor, and an electrical contact carried by said member.

3. An insulating cord gripping device comprising a one-piece member of insulating material having a bore therethrough, said bore having a threaded portion for threaded engagement with the compressible insulating material of a conductor, a smooth portion for guiding said compressible insulating material into the threaded portion, a rounded off edge to prevent injury to the insulating material due to the bending of the conductor, and a binding post carried by said member.

1,203,817. SCALE. JAMES M. TRINER, Chicago, Ill. Filed Apr. 6, 1914. Serial No. 829,903. (Cl. 73—121.)



1. In a scale the combination of a plurality of scale levers, a scale beam, a sheet metal box inclosing said scale levers, reinforcing angle pieces rigidly secured to the outside of said sheet metal box and foot and top portions for said box integral with said angle pieces.

2. In a scale the combination of a plurality of scale levers, a scale beam, a member supporting the fulcrum for that scale beam, a connecting link between said scale beam and one of said scale levers, a sheet metal box for said scale levers, and a common housing for said connecting link and said supporting member; said scale beam being provided with graduations extending from both of its ends inwardly to a portion adjacent the fulcrum of said scale beam, said common housing inclosing the portion of said scale beam which is free of graduation marks, while the portions of said beam provided with said marks project from said housing at both sides of the same.

3. In a scale the combination of a plurality of scale levers, a scale beam, a connecting link between said scale beam and one of said scale levers, a sheet metal box inclosing said scale levers, said sheet metal box having lateral and end walls and bottom and top closure, and a housing mounted on said sheet metal box for said connecting link, the housing being open at the bottom.

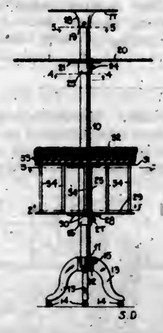
4. In a scale the combination of a plurality of scale levers, a frame surrounding said levers, suspension rods for the levers detachably secured to opposite walls of the frame, and links connecting said levers with said suspension rods, the rods being provided with a bearing portion for engagement with said links.

5. In a scale the combination of a plurality of scale levers, a frame surrounding said levers, suspension rods for the levers secured in opposite walls of the frame, and links connecting said levers with said rods, the rods being provided with means for limiting lateral movement of the links with respect to the rods.

[Claims 6 to 54 not printed in the Gazette.]

1,203,818. COMBINED ROTATABLE TABLE, BOOK-SHELF, AND LAMP-SUPPORT. SAM D. TRINKL, Huntington, Tex. Filed Mar. 4, 1916. Serial No. 82,168. (Cl. 45—26.)

A table comprising a standard, a base to which the standard is detachably connected, a top supporting element detachably mounted upon the upper end of the standard, a sleeve mounted upon the standard, a vertically adjustable collar on the standard upon which the sleeve normally rests and is rotatably mounted, upper and lower article supporting plates mounted upon the sleeve and rotatable therewith, braces connecting said plates, said braces constituting partitions for the space between the plates, the upper plate being provided with an upwardly



extending wall whereby the upper plate may constitute the bottom of a work basket.

1,203,819. METAL WALL FOR RAILWAY-CARS. WILLIAM T. VAN DORN, Chicago, Ill. Filed Feb. 20, 1915. Serial No. 9,516. (Cl. 189—85.)



1. A metal sheet of the character described, provided with a series of parallel corrugations extending nearly across the same, the corrugations being arranged in two groups alternating with each other, the corrugations of one group being longer than those of the other group and projecting somewhat beyond each end of the latter, and the corrugations of one group extending inwardly from the plane of the edges of the sheet and the corrugations of the other group extending outwardly from said plane.

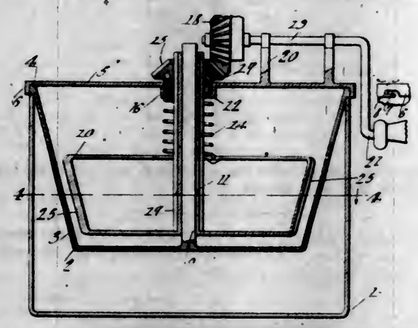
2. A metal sheet of the character described, provided with a series of parallel corrugations extending nearly across the same, the corrugations being arranged in two groups alternating with each other, the corrugations of one group being longer than those of the other group and projecting somewhat beyond each end of the latter, the corrugations of one group extending inwardly from the plane of the edges of the sheet and the corrugations of the other group extending outwardly from said plane, and transverse corrugations extending between and connected to the outermost corrugations and forming with the same a frame inclosing the remaining corrugations.

3. A metal sheet of the character described, provided with a series of parallel corrugations extending nearly across the same, half of the corrugations at each end extending somewhat beyond the others and alternating therewith, and transverse corrugations extending across the sheet in close proximity to the aforesaid corrugations and forming with the two outermost of the aforesaid corrugations a frame inclosing the remaining corrugations.

4. A metal sheet of the character described having a continuous corrugation extending around the same just within the edges thereof, the space within the frame being filled with parallel corrugations, the ends of half of which extend into close proximity to the end members of said frame while the other half of the corrugations alternating with the remainder have their ends terminating at a somewhat greater distance from the said end members of the frame.

5. A metal sheet of the character described, having a continuous corrugation arranged just within the edges thereof and forming a frame-like member, the space within said frame-like member being completely filled with corrugations lying parallel with one of the edges of the sheet and extending at their ends into close proximity to the end of the frame-like corrugation.

1,203,820. COLANDER. MARIE STEWART WALES, Oak Creek, Colo., assignor of one-fourth to Margaret Bailey and one-fourth to Rose May Sievers, Oak Creek, Colo. Filed May 17, 1915. Serial No. 28,685. (Cl. 146—9.)

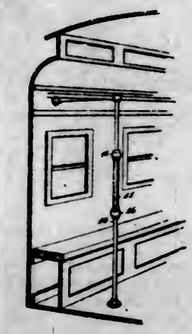


1. In a device of the class described, a vessel; a foraminous container extended within the vessel and supported on the vessel; a lid for the container; a fixed standard secured to the bottom of the container and projecting upwardly through the lid; a compression member in the container; a tubular bearing carried by the compression member and mounted on the standard to rotate and to slide thereon, the bearing projecting upwardly through the lid; a compression spring surrounding a part of the bearing, the upper end of the spring abutting against the lid and the lower end of the spring abutting against the compression member; and a wheel supported on the lid, the standard and the bearing passing through the wheel, the bearing being keyed to the wheel to connect the wheel and the bearing for simultaneous rotation, and to permit the compression member to move upwardly and downwardly.

2. In a device of the class described, a vessel; a foraminous container extended within the vessel and supported on the vessel; a lid for the container; a fixed standard secured to the bottom of the container and projecting upwardly through the lid; a hollow compression member in the container and including a top and a bottom; a tubular bearing connecting the top and the bottom of the compression member to serve as a reinforcement therefor, the bearing being mounted on the standard to rotate on the standard and to slide on the standard, the bearing extended upwardly through the lid; a compression spring surrounding part of the bearing, one end of the compression spring abutting against the top of the compression member, the other end of the compression spring abutting against the lid; a wheel supported on the lid, the bearing and the standard passing through the wheel, the bearing being keyed to the wheel to secure the simultaneous rotation of the wheel and the bearing, and to permit the compression member to rise and fall.

3. In a device of the class described, a vessel; a foraminous container extended within the vessel and supported on the vessel; a lid for the container; a fixed standard secured to the bottom of the container; a compression member in the container; a tubular bearing carried by the compression member and mounted to rotate on the standard and to slide theeron, the bearing projecting upwardly through the lid; a compression spring surrounding a part of the bearing, the lower end of the compression spring abutting against the compression member, and the upper end of the spring abutting against the lid; and a wheel supported on the lid, the bearing passing through the wheel and being keyed thereto, to secure a simultaneous rotation of the wheel and the compression member, and to permit the compression member to rise and fall.

1,203,821. GRAB-HANDLE FOR STANCHIONS. WILLIAM M. WAMPLER, New York, N. Y., and WALTER L. CONWELL, Upper Montclair, N. J., assignors to The Elicon Company, New York, N. Y., a Corporation of New York. Filed July 19, 1916. Serial No. 110,031. (Cl. 105—31.)



1. In combination, a rigid post, a sleeve handle mounted thereon and provided with a smooth exterior surface, handle securing couplings provided with openings of different sizes at the ends thereof, the ends of the couplings with the larger openings therein receiving the ends of the said sleeve handle, said couplings provided with shoulders intermediate their ends, the extremities of said sleeve handle abutting against said shoulders.

2. A hand support for cars, platforms and the like, comprising an upright rigid post, spaced couplings mounted on said post, the remote extremities of said couplings provided with openings receiving the post snugly therein, anchoring means extending through the said post, and the remote extremities of said couplings holding the same against motion, the confronting extremities of said couplings provided with enlarged openings and with shoulders defining the bottom wall of said openings, and a sleeve handle, mounted on said post and extending within the confronting enlarged openings of said couplings and abutting against said shoulders, and means preventing the relative rotation of said couplings and said sleeve handle.

3. A hand support for cars comprising a sleeve handle with a vitreous coating thereon, said sleeve handle adapted to receive a cylindrical support therethrough, handle securing members adapted to rigidly engage said cylindrical support, said handle securing members and said sleeve handle provided with interlocking ends.

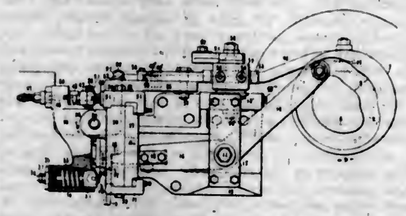
4. An article of the class described comprising a sleeve handle with a vitreous coating thereon and adapted to receive a cylindrical member therethrough, handle securing members adapted to rigidly engage said cylindrical member, said handle securing members receiving the extremities of said sleeve handle therein, and holding the same against movement with respect to said cylindrical member.

5. An article of the class described comprising a sleeve handle with a vitreous coating thereon, said sleeve handle adapted to receive a cylindrical member therethrough, to which said sleeve handle is to be secured, handle securing members provided with enlarged extremities receiving the extremities of said sleeve handle therein, said sleeve handle and handle securing members provided with interlocking extremities holding the two against relative rotation, the ends of said handle securing members projecting above, and spaced away from, the vitreous coating

of said sleeve handle, and means carried by said handle securing members adapted to rigidly lock the same to said first-mentioned cylindrical member.

[Claim 6 not printed in the Gazette.]

1,208,822. NUT-MAKING MACHINE. WILLIAM L. WARD, HERBERT D. REMSEN, and EMILE C. BOERNER, Port Chester, N. Y., assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y., a Corporation of New York. Original application filed June 27, 1910, Serial No. 569,053. Divided and this application filed Apr. 27, 1912. Serial No. 693,604. (Cl. 10—162.)



1. A mechanism of the nature disclosed, comprising an elongated frame member, a jaw-supporting member arranged to slidably reciprocate horizontally on said frame member, a jaw-carrying arm hinged to said jaw-supporting member about an axis in parallelism with the movement of said jaw-supporting member, a lever terminating at one end in a horizontally elongated bearing piece adapted to swing up and down with said lever, a cam in engagement with said bearing piece and said arm whereby the same may be oscillated with the rise and fall of said bearing piece, and means for reciprocating said jaw-supporting member and oscillating said lever at appropriate periods.

2. A mechanism of the nature disclosed, comprising a drive shaft, a face cam arranged on one end thereof, a circumferential cam arranged adjacent said face cam, a lever horizontally oscillated by said circumferential cam, a jaw-carrying member horizontally reciprocated by said lever, a second lever vertically oscillated by said face cam, and means actuated by said second lever to enable a stock bar to be clamped and advanced during a forward reciprocation of said member, said bearing piece engaging said cam throughout the reciprocatory path of said jaw-supporting member.

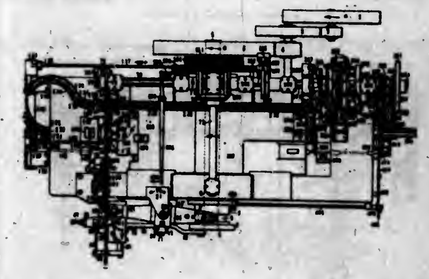
3. A mechanism of the nature disclosed, comprising a member adapted to reciprocate in a horizontal direction, a jaw carried thereby, a second member pivoted to said reciprocating member about an axis parallel with the direction of movement of said reciprocating member, a jaw carried by said second member, a spring-pressed part carried by said second member, a cam mounted to vertically move in said reciprocating member and adapted to actuate said second member through said part to cause said jaws to move into gripping position, a vertically oscillating arm terminating in a horizontally elongated bearing piece having a sliding bearing with said cam, and means for reciprocating said first mentioned member and vertically oscillating said last-mentioned lever.

4. A mechanism of the nature disclosed, comprising a vise mechanism adapted to be reciprocated in a horizontal direction, a power shaft having a circumferential cam, a lever connected at one end to said vise mechanism and at the other end coöperating with said circumferential cam, an intermediate fulcrum bolt, adjustable mountings for said fulcrum bolt, a block having a pivotal relation with said fulcrum bolt, and means for adjustably securing said lever to said block.

5. A mechanism of the nature disclosed, comprising a drive shaft, a circumferential cam thereon, a lever coöperating at one end with said cam, a pivot adjustably secured to said lever at an intermediate point, adjustable bearings for said pivot, an extension piece adjustably secured to the free end of said lever, a vise mechanism adapted to be reciprocated, and an adjustable bearing connecting said vise mechanism with said extension whereby the former may be actuated by the latter.

[Claims 6 to 22 not printed in the Gazette.]

1,203,823. NUT-MAKING MACHINE. WILLIAM L. WARD, HERBERT D. REMSEN, and EMILE C. BOERNER, Port Chester, N. Y., assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y., a Corporation of New York. Original application filed June 27, 1910, Serial No. 569,053. Divided and this application filed Apr. 27, 1912. Serial No. 693,605. (Cl. 10—72.)



1. A mechanism of the nature disclosed, comprising punching mechanism two members adapted to abut opposite sides of a stock-bar to position the same during the punching operation, pivoted arms supporting said members, and automatic means for simultaneously causing each of said members to approach the other at an established predetermined rate of movement.

2. A mechanism of the nature disclosed, comprising punching mechanism two members adapted to be brought into abutment with the sides of a stock-bar to center the same during the punching operation, arms supporting said members and restricting the direction of movement thereof, cam means coacting with said arms adapted to positively move each of said arms at an established predetermined rate, whereby a corresponding movement will be imparted to said members and means to automatically move said cam relative to said arms.

3. A mechanism of the nature disclosed, comprising punching mechanism, a pair of arms each pivotally secured to a common base, a bar-centering finger carried by each of said arms, an actuating finger carried by each of said arms, a cam coöperating with said actuating fingers adapted to oscillate said arms to move said centering fingers toward one another and thereby center the bar during the punching operation, and means to automatically reciprocate said cam relative to said actuating fingers.

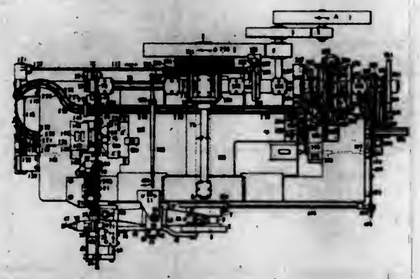
4. A mechanism of the nature disclosed, comprising punching mechanism, a pair of arms, each pivoted at an intermediate point to a common base, a centering finger carried by each arm on the same side of its pivot, said centering fingers terminating opposite to one another, an actuating finger carried by each of said arms on the other side of said pivot and terminating opposite one another, a cam intervening between said actuating finger and movable to simultaneously actuate the same and thereby cause said centering fingers to center the bar during the punching operation, and means to automatically move said cam relative to said actuating fingers.

5. A mechanism of the nature disclosed, comprising punching mechanism, a pair of arms, each pivoted at an intermediate point to a common base, a centering finger carried by each arm on the same side of its pivot, said centering fingers terminating opposite to one another, an actuating finger carried by each of said arms on the other side of said pivot and terminating opposite one an-

other, a cam adapted to reciprocate between said actuating fingers to simultaneously actuate the same and thereby cause said centering fingers to center the bar during the punching operation, and means to automatically reciprocate said cam.

[Claims 6 to 23 not printed in the Gazette.]

1,203,824. NUT-MAKING MACHINE. WILLIAM L. WARD, HERBERT D. REMSEN, and EMILE C. BOERNER, Port Chester, N. Y., assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y., a Corporation of New York. Original application filed June 27, 1910, Serial No. 569,053. Divided and this application filed Apr. 27, 1912. Serial No. 693,607. (Cl. 10—72.)



1. A machine of the nature disclosed comprising, in combination, an intermittently rotatable member, nut blank supporting means rotatable with said member and comprising a plurality of pairs of gripper fingers adapted to engage peripheral portions of nut blanks, the members of said pairs being relatively movable toward and from each other, nut blank reshaping means comprising a plurality of pairs of punches and dies mounted to operate on the faces of nut blanks held by said fingers when said supporting means is at rest, the members of said pairs of punches and dies being adapted to have relative movement in a line intersecting the rotary path of movement of said gripper fingers, a reciprocatory head to which said punches are secured, and means adapted to intermittently rotate said first-mentioned member.

2. A machine of the nature disclosed comprising, in combination, an intermittently rotatable member, nut blank supporting means rotatable with said member and comprising a plurality of pairs of spring fingers adapted to engage peripheral portions of nut blanks, the members of said pairs being relatively movable toward and from each other, nut blank reshaping means comprising a plurality of pairs of punches and dies mounted to operate on the faces of nut blanks held by said fingers when said supporting means is at rest, the members of said pairs of punches and dies being adapted to have relative movement in a line intersecting the rotary path of movement of said gripper fingers, a reciprocatory head to which said punches are secured, and means adapted to intermittently rotate said first-mentioned member.

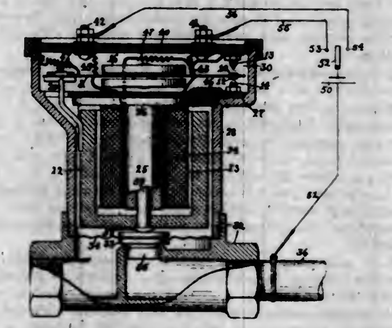
3. A machine of the nature disclosed comprising, in combination, an intermittently rotatable member, nut blank supporting means rotatable with said member and comprising a plurality of pairs of spring fingers adapted to engage peripheral portions of nut blanks, nut blank reshaping means comprising a plurality of pairs of implements mounted to operate on the faces of nut blanks held by said fingers when said supporting means is at rest, the members of said pairs of implements being relatively movable in a line intersecting the rotary path of movement of said fingers, and means adapted to intermittently rotate said first mentioned member.

4. A machine of the nature disclosed comprising, in combination, an intermittently rotatable member mounted to rotate in a vertical plane, nut blank supporting means rotatable with said member and comprising a plurality of pairs of radially extending spring fingers having horizontally extending nicks adapted to engage peripheral portions of nut blanks, nut blank reshaping means comprising a plurality of pairs of implements mounted to operate on the faces of nut blanks held by said fingers when said supporting means is at rest, the members of said pairs of implements being relatively movable in a line intersecting the rotary path of movement of said fingers, and means adapted to intermittently rotate said first mentioned member.

5. A machine of the nature disclosed comprising, in combination, an intermittently rotatable member, nut blank supporting means rotatable with said member and comprising a plurality of pairs of spring gripper fingers adapted to engage peripheral portions of nut blanks, the members of said pairs being relatively movable toward and from each other, nut blank reshaping means comprising a plurality of pairs of implements mounted to operate on the faces of nut blanks held by said fingers when said supporting means is at rest, the members of said pairs of implements being relatively movable in a line intersecting the rotary path of movement of said gripper fingers, means adapted to intermittently rotate said first mentioned member, and means separate from said last-mentioned means adapted to stop each of the intermittent rotary movements of said blank supporting means when in exact blank supporting position relative to said reshaping implements.

[Claims 6 to 19 not printed in the Gazette.]

1,203,825. CIRCUIT-CONTROLLING DEVICE. HENRY E. WARREN, Ashland, Mass. Filed Feb. 12, 1915. Serial No. 7,880. (Cl. 175—21.)



1. In a device of the character described, in combination, an actuator having a movable member, a flexible reed connected at one end with said member and capable of vibrating between contacts at its other end, said reed carrying a mass of considerable inertia tending to hold the contact end of the reed momentarily stationary while the other end is moving.

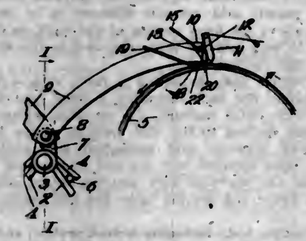
2. A contact changing device provided with means for utilizing inertia to maintain a contact momentarily until after the termination of motion impressed upon said device and means for moving said device.

3. In a device of the character described, a bodily movable contact member, a circuit terminal with which one end of said member coöperates, means coöperating with the opposite end of said member for effecting bodily movement of the latter, and a weight carried by said member between its ends to retard the movement of the free end of said member.

4. In a device of the character described, a bodily movable contact member, a circuit terminal with which one end of said member coöperates, an electro-magnet provided with an armature, a magnetizable member movable by said electromagnet into proximity to said armature to establish a magnetic circuit through said member, means for connecting said movable contact member with the movable magnetizable member, and a weight carried by the movable contact member between its ends.

5. A contact changing device provided with means for utilizing inertia to maintain a contact momentarily between one end of said device and a coöperating contact member until after the termination of motion impressed upon the other end of said contact changing device, and means for moving said contact changing device.

1,203,826. GLASS-CYLINDER-CAPPING APPARATUS. WILLIAM WESTBURY, Okmulgee, Okla. Filed Sept. 20, 1915. Serial No. 51,737. (Cl. 49—50.)



1. In a glass cylinder capping apparatus, a support for a cylinder, an arm for disposition close to the opposite side of the cylinder from said support, a conductor carried by the arm and adapted for holding a wire against said cylinder, a guide pivoted on said arm so that one of its ends may be disposed in proximity to the point where said conductor holds the wire against said cylinder, and a plurality of guide sheaves carried by the pivoted guide and adapted to receive said wire to facilitate the tightening of the wire around the cylinder by applying a pull thereon.

2. In a glass cylinder capping apparatus, a suitable frame, inverted-arch arms secured at corresponding ends to the frame and projecting laterally therefrom to form a horisontal support for a glass cylinder, a pivoted arm projecting laterally from the frame and adapted at its free end to overlie the cylinder, a conductor plate secured to and projecting from said arm and adapted to rest upon the cylinder, and provided with an eye adjacent the latter, an insulation plate on said conductor plate, a guide pivoted to said arm and adapted to abut at its lower end against said insulation plate, a plurality of guide sheaves mounted in said arm, one of said guide sheaves being located at the end of the guide which abuts said plate, electric current feed wires connected respectively to said conductor plate and said guide, and a wire for encompassing the cylinder and extending at one end through the eye of said conductor plate and secured at such end to the latter, and extending at the other end slidingly over said sheaves; said wire extending over the sheave adjacent the conductor plate, at the side of said sheave in proximity to the eye of the conductor plate.

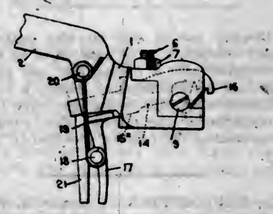
3. In a glass cylinder capping apparatus, a support for a cylinder, comprising standards, a horisontal bar mounted on said standards, laterally projecting inverted-arch arms secured at corresponding ends to said bar, means coöperating with said arms and the standards for preventing downward movement of the former, lugs projecting rigidly upward from said bar, a rod slidingly mounted in said lugs, laterally projecting arms pivoted on said rod and projecting laterally therefrom to move in vertical planes to permit a glass cylinder to be placed on said first-named arms, and to overhang said glass cylinder, and means mounted on and at the outer end of each of said pivoted arms for holding a wire encompassing said cylinder.

1,203,827. ENDLESS CONVEYER-BELT. CARL T. WESTLIN, Arlington, N. J. Filed Mar. 12, 1914. Serial No. 824,188. (Cl. 193—8.)



A conveyer belt having its body formed into a loop, a sheathing embracing said loop and rigidly secured thereto, one edge of said sheathing extending into the direction of lead of the belt, reinforcing the belt and formed into a carrier device.

1,203,828. THREAD-CUTTING TEMPLE FOR LOOMS. WILLIAM R. WIDDUP, Spartanburg, S. C., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Aug. 21, 1915. Serial No. 46,645. (Cl. 139—36.)



1. A temple-head provided with a toothed roll and having a plurality of stationary blades one of which lies closely adjacent to the end of said temple roll, and forms a guide for the edge of the selvage of the cloth, a coöperating movable cutter having a plurality of cutter blades alternating with said stationary blades and means for actuating said movable cutter whereby certain of the movable blades will pass between said stationary blades in coöperation with the adjacent edges of the successive stationary blades.

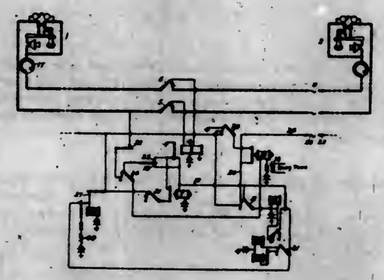
2. A temple-head provided with a toothed roll and having a transverse slot at its outer end, a plurality of stationary cutters fixedly secured in said slot, one of said cutters being closely adjacent to the end of said toothed roll, and forming a guide for the edge of the selvage of the cloth, an oscillating and reciprocating cutter having a plurality of hooked blades disposed in alternating relation to said stationary blades, the edges of said movable blades coöperating with adjacent edges of said stationary blades and means for actuating said movable cutter.

1,203,829. TELEPHONE-EXCHANGE SYSTEM. SAMUEL B. WILLIAMS, Jr., Brooklyn, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Sept. 13, 1915. Serial No. 50,870. (Cl. 179—18.)

1. In a telephone exchange system, incoming lines and groups of outgoing lines, a selector switch for interconnecting the same, an electromagnet for operating said switch to select a group of outgoing lines, automatic means operative thereupon for controlling said switch to select an idle outgoing line in the selected group, electromagnetic means for extending a calling line to said selector switch, a circuit extending over the selected outgoing lines for operating said electromagnetic means, a relay controlling said circuit, and means for actuating said relay if all the lines in the selected group of outgoing lines are busy.

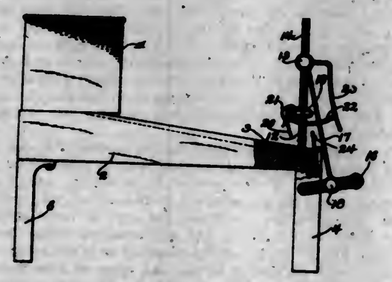
2. In a telephone exchange system, a selector switch having a set of movable and sets of stationary contacts

arranged in rows, outgoing lines terminating in said stationary contacts, an electromagnet controllable over a calling line for actuating said movable contacts to select a row of stationary contacts, automatic means operative thereupon for causing said movable contacts to select an idle set in said row of stationary contacts, electromagnetic means for extending a calling line to said movable contacts, a circuit for said electromagnetic means ex-



tending through one of said movable contacts engaging a stationary contact, a relay adapted to be actuated by a circuit extending over a calling line and controlling the circuit of said electromagnetic means, a contact in the circuit of said relay, and means operative if all the stationary contacts of the selected row have been found busy for actuating the contact provided in the circuit of said relay.

1,203,830. FRUIT-PITTER. CHARLES H. WILSON, Glens Falls, N. Y. Filed Feb. 26, 1916. Serial No. 80,603. (Cl. 146—5.)



1. In a device of the character described, an operating chamber having an opening in the bottom, means for delivering fruit to the chamber, a reciprocating pitter rod mounted centrally thereover, a continuous coil spring forming a flexible self-adjusting seat therein, the end of the rod being hollow, expanded and serrated to cut the fruit and engage the pit upon the downward stroke and retain the fruit upon the rod upon the upward stroke, means to clear the rod of the fruit, and means to reciprocate the rod.

2. In a device of the character described, an operating chamber having an opening in the bottom, means for delivering fruit into the chamber, a reciprocating pitter rod mounted centrally thereover, a self-adjusting seat therein, means to reciprocate the rod therethrough, and a spring-pressed ejector pivoted to the rear of the pitter rod, and an arm extending from the ejector, a guide coacting therewith and operated by the reciprocating means of the pitter rod to hold the ejector out of the path of the rod during the downward stroke and bring the ejector thereunder as the rod approaches the upper end of the stroke.

1,203,831. CONVERTIBLE BOX AND COASTER BODY FOR VEHICLES. JOHN H. WITTMAN, Toledo, Ohio. Filed Jan. 6, 1913. Serial No. 740,440. (Cl. 21—183.)



1. A vehicle body having a floor divided longitudinally to present a fixed section and movable sections arranged at opposite sides of the fixed section, all of said sections being normally disposed in the same plane to provide a floor, and connections between the movable sections and body to permit said movable sections to be swung into position above the fixed section of the body, said movable sections in said position being disposed in the same plane and in edge contact.

2. A vehicle body including a floor, side sections and end sections, the floor including a fixed central section and movable outer sections, the movable sections of the floor being secured to the side sections of the body, and connections between said connected side sections and movable floor sections and the end sections of the body to permit the movable floor sections to be swung to a position above and resting upon the end sections of the body.

3. A vehicle body including a floor section and movable sides, parts of the floor section being fixed to and movable with the sides, and connections to permit the sides and movable parts of the floor section to be swung bodily to position the movable parts of the floor section in a plane above and substantially parallel to their normal positions.

4. A vehicle body including a floor section made up of a fixed part and movable parts, end walls for the body secured to the fixed part of the floor section, and side walls for the body pivotally connected to the end walls and fixedly secured to the movable parts of the floor section, the pivotal connection permitting the side walls and movable parts of the floor section to be swung to position the said movable parts of the floor section above and substantially parallel with the fixed part of the floor section.

1,203,832. COFFEE-CONTAINER. FREDERICK P. WOOD, Detroit, Mich., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 13, 1914. Serial No. 818,488. (Cl. 229—14.)



A paper walled container the walls of which consist of an exterior layer of paper; an interior layer of hydrolysed fiber; and an intermediate layer of fused cement adhering to and uniting said exterior and interior layers; said fused cement and hydrolysed fiber coöperating to prevent the absorption of aromatic oils and thereby to preserve the flavor and prevent the deterioration of the contents of said container.

1,203,833. POWER-GOVERNOR AND CLUTCH. WILLARD A. WOODWARD, Fairbanks, Wash. Filed June 8, 1914. Serial No. 843,668. (Cl. 74—45.)

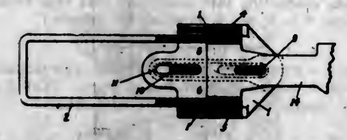
1. The combination of a power shaft, a disk and a drive wheel revolubly mounted on the shaft, automatic means to apply the power from the drive wheel to the disk, and manually controlled means to apply and release the power from the disk to and from the shaft.

2. The combination of a power shaft, a disk provided with a flange revolubly mounted on the shaft by a cylindrical sleeve, a power wheel revolubly mounted upon the sleeve of the disk, centrifugal means to apply the power from the wheel to the disk, and manual means to apply the power from the flange to the shaft.



3. The combination of a power shaft, a drive wheel and a disk provided with a flange revolubly mounted on the shaft, automatic means to apply the power from the wheel to the disk, and means to apply the power from the disk to the shaft, consisting of a gland solidly attached to the shaft, blocks slidably attached to the gland having convex faces adapted to bear upon the inner face of the flange, a sleeve slidably mounted upon the shaft, bars pivoted at each end connecting the sleeve with the blocks, and manual means to slide the sleeve and move the blocks into and out of contact with the flange.

1,203,834. DRAFT-YOKE. IRA ORVILLE WRIGHT, Baltimore, Md. Filed Dec. 19, 1912. Serial No. 737,621. (Cl. 213—42.)



1. In a device of the class described, a draw-bar and a yoke strap, a hollow head embracing both elements and provided with an extending fork, and means penetrating said fork and adapted to unite the parts of the device together.

2. A yoke for draft gears consisting of a jaw member and a loop, the jaw member having a horizontal aperture to receive the front key and a second horizontal aperture to receive a rear or intermediate key.

3. In combination in a draft rigging for cars, a vertical yoke having pivot members at the front ends and a hollow jaw member through which the arms of the yoke extend, the jaw member being adapted to receive the end of the M. C. B. draw bar and having sockets for the pivots of the yoke, slots in alinement with the slot in the draw bar and elongated slots in the rear of said first mentioned slots.

1,203,835. FILTER. EDWARD ZAHM, Buffalo, N. Y., assignor to Zahm Manufacturing Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 31, 1913, Serial No. 757,783. Renewed Apr. 13, 1916. Serial No. 90,980. (Cl. 210—11.)

1. A filter comprising an inlet chamber, an outlet chamber, said chambers having walls provided with openings and separated by a space which is independent of the interior of said chambers, and a filter tube arranged in one of said chambers and secured in said openings and the joints between said filter tube and said walls extending into the space between said walls.

2. A filter comprising an inlet chamber having an inner wall, an outlet chamber having an inner wall, said inner walls being provided with openings and the space between said inner walls communicating only with the space exterior of said chambers, a filter tube arranged in said inlet chamber and having a threaded neck extending through corresponding openings in said inner walls and having a shoulder engaging the inner side of the inner wall of said inlet chamber and the joints between said filter tube neck and said inner walls extending into the space between said inner walls, and a clamping nut arranged on said neck and engaging with the inner side of the inner walls of said outlet chamber.



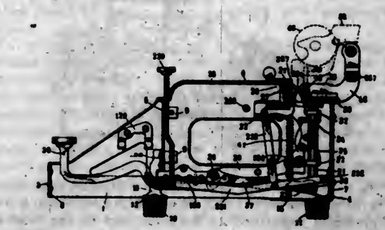
3. A filter comprising an inlet chamber having an inner wall, an outlet chamber having an inner wall, said inner walls being provided with openings, a leak chamber arranged between said inner walls and non-communicating with the exterior of said chambers, and a filter tube arranged in the inlet chamber and having a neck secured in corresponding openings of said inner walls, the joints between said neck and inner walls extending into said leak chamber.

4. A filter comprising an inlet chamber having an inner wall, an outlet chamber having an inner wall, said inner walls being provided with openings, a marginal flange arranged on one of said chambers and engaging with the other of said chambers and forming between them a leak chamber which communicates only with the exterior of said inlet and outlet chambers, and a filter tube arranged in said inlet chamber and having a neck secured in corresponding openings in said inner walls, the joints between said neck and inner walls extending into said leak chamber.

5. A filter comprising an inlet chamber having an inner wall, an outlet chamber having an inner wall, said inner walls being provided with openings, a marginal flange arranged on one of said chambers and engaging with the other of said chambers and forming between them a leak chamber which communicates with the exterior of the filter, stiffening ribs arranged on the other side of one of said inner walls and provided with spacing bosses engaging with the outer side of the other inner wall, and a filter tube arranged in said inlet chamber and having a neck secured in corresponding openings in said inner walls.

[Claim 6 not printed in the Gazette.]

1,203,836. TYPE-WRITING MACHINE. JESSE ALEXANDER, New York, N. Y. Filed May 22, 1912, Serial No. 698,879. Renewed Oct. 22, 1915. Serial No. 57,382. (Cl. 197—73.)



1. In a typewriter, shift key locking mechanism, comprising a pivoted key lever having a finger piece, a lock-

ing lever provided with a rearward extension pivoted to said key lever and having a finger piece adjacent to and overlying the finger piece of the key lever whereby to be operated by the same finger which is used to operate the key lever, a spring normally holding the finger piece of the locking lever in a raised position and a stationary stop adapted to be engaged by the rearward extension of said locking lever when the finger-piece of the locking lever is depressed to carry the rearward extension of the lever forward to a position beneath the stop.

2. In a typewriter, a frame, a vertically movable base plate at the rear thereof, a platen construction carried by said base plate and vertically movable therewith, an escapement rocker carried by said base plate, a universal bar mounted in said frame, said rocker and said universal bar having a sliding connection permitting said rocker to be moved up and down with said base plate and means for vertically moving said base plate, the escapement rocker and platen construction up and down.

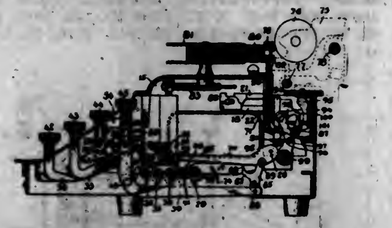
3. In a typewriter, a frame, a movable base plate, guide rods detachably supported by said base plate, a guide slidably engaged on one of said rods, a platen construction detachably secured to said guide and having a roller supported on the other rod and means for raising and lowering said base plate.

4. In a typewriter, carriage shift key locking mechanism, comprising a key lever having a finger piece, a locking lever pivoted at a point intermediate its length to said key lever and having a part extending forwardly and upwardly from the pivotal support terminating in a finger piece adjacent to and overlying the top of the finger piece of the key lever to be thereby operated by the same finger which operates the finger-piece of the key lever, said locking lever having a part extending rearwardly and upwardly from the pivotal support, a spring normally holding the finger piece of the locking lever in a raised position, and a stop adapted to be engaged by the rearwardly extending part of said locking lever.

5. In a typewriter, the combination of a main supporting frame, brackets mounted in the interior of said frame, a base plate, a platen construction carried by said base plate and transversely movable relatively thereto, lifting plungers vertically guided in said brackets for raising and lowering said base plate and platen construction and a platen shifting key pivotally carried by one of said brackets and operatively connected with one of said plungers whereby a constant alinement and relation is maintained between said platen shifting key and said vertically movable plunger within said frame.

[Claims 6 to 12 not printed in the Gazette.]

1,203,837. TYPE-WRITING-MACHINE KEY AND TYPE-BAR ACTION. JESSE ALEXANDER, New York, N. Y. Original application filed May 22, 1912, Serial No. 698,879; renewed Mar. 18, 1915, Serial No. 15,388; again renewed Oct. 22, 1915, Serial No. 57,382. Divided and this application filed Mar. 20, 1915. Serial No. 15,756. (Cl. 197—28.)



1. In a key and type bar action, a pivoted type bar, a key lever pivoted at a point intermediate its ends, a push link pivotally connected at its lower end to the rear end of the key lever, said link having a lost-motion connection at its upper end with the type bar at a point forward of the pivot thereof and a temporary connection with said type bar at a point forward of said lost-motion connection at commencement of the printing stroke.

2. In a key and type bar action, a pivoted type bar, a pivoted key lever, a link pivotally connected with said key lever at its lower end and having a lost-motion connection at its upper end with the type bar at a point forward of the pivot of said type bar and a shoulder on the link in front of said lost-motion connection engaging the type bar at a point forward of the lost-motion connection for starting the type bar on its printing stroke.

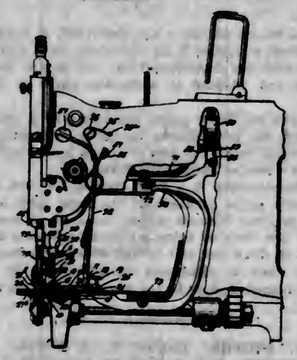
3. A key and type bar action comprising a pivoted lever, a finger key connected to the forward end of said lever, a pivoted type bar, a link pivotally connected to the rear end of said lever and having a pin and slot connection with said type bar below and in front of its pivot, and having a shoulder below and in front of said pin and slot connection for engaging said type bar to start its movement.

4. In a typewriter, a main supporting frame, brackets secured to the inner sides of the side members of said frame having inwardly extending lugs at the upper rearward portions thereof and shaft supporting portions forward thereof, a type bar segment supported on said inwardly extending lugs at the upper portions of said brackets, type bars pivoted in said segment, shafts supported between the forward shaft supporting portions of the brackets, key levers pivotally supported by said shafts and links connecting said key levers and the type bars.

5. Key and type bar mechanism, comprising four parallel shafts, two banks of key levers pivotally supported by two of said shafts, two sets of levers pivotally supported by the other two of said shafts, vertically movable keys pivotally connected to said two sets of levers, guide rods for said vertically movable keys, pivoted type bars and links connecting said levers and said type bars.

[Claims 6 to 9 not printed in the Gazette.]

1,203,838. SHOE-SEWING-MACHINE ATTACHMENT. EDWIN N. ANDREWS, Fort Dodge, Iowa. Filed Dec. 8, 1914. Serial No. 876,073. (Cl. 112—24.)



1. In a device of the class described, eccentrically driven vertically actuated reciprocating means, a horizontally movable folding finger linked to the aforesaid means, means for adjusting same, and horizontally reciprocating means coöperating with the folding finger to fold and feed the material operatively connected and synchronously movable therewith.

2. In combination with stitch-forming mechanism, vertically reciprocating tape-guiding and presser foot means, alternately reciprocating presser foot means, means operatively connected with the aforesaid elements for feeding along material operated on, and means for adjusting said elements, substantially as set forth and for the purposes described in the foregoing specification.

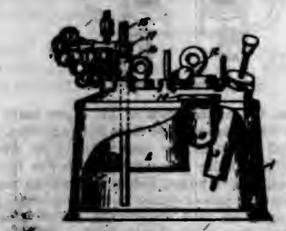
3. In combination with stitch-forming mechanism vertically reciprocating tape folding and guiding means, reciprocating means operating in conjunction therewith to feed along material operated on, reciprocating folding means moving in unison with the feeding means, and means for adjusting same.

4. In combination with stitch-forming mechanism, edge slitting means located in advance of and operatively connected with folding mechanism, vertically reciprocating tape folding and guiding means, means for feeding the material operated on, horizontally reciprocating folding means operating in conjunction with the feeding means, means for guiding the edge of the material and starting the fold, and means operatively connected with the aforesaid mechanism for slitting the edge of the material in advance of the folding operation.

5. In combination with stitch-forming mechanism, slitting means for cutting spaced slits in the edge of the material operated on located in advance and operatively connected with folding means, adjustable tape folding and guiding means, adjustable means for feeding material operated on, said means including alternating presser foot means, edge folding means operating in conjunction with the feeding means, resiliently pressed adjusting means, edge guiding means for guiding the edge of the material operated on and starting the fold, and means operatively connected with the aforesaid mechanism for cutting spaced slits in the edge of the material operated on for the purposes described.

[Claims 6 to 10 not printed in the Gazette.]

1,203,839. PLUMBER'S FURNACE. ARTHUR J. ARCHAMBAULT, Chicago, Ill. Filed Feb. 11, 1915. Serial No. 7,499. (Cl. 158—32.)



1. In a plumber's furnace, a main reservoir, an auxiliary reservoir arranged within the main reservoir, means for introducing air under pressure into one of said reservoirs, and a check valve for permitting air to flow from the latter reservoir to the other and preventing a back flow of air or liquid, said check valve including a spring tending constantly to close the same.

2. In a plumber's furnace, a main reservoir forming the base of the furnace, an auxiliary reservoir arranged in the top of the main reservoir, a small cup-shaped chamber projecting down into the main reservoir from the top thereof, and a plug for closing the top of the said chamber.

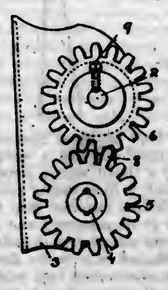
3. In a plumber's furnace, a main reservoir closed at the top, an auxiliary reservoir lying within the main reservoir and having its upper end closed by the top of the latter, there being a passage formed in the top wall of the main reservoir leading from a point within the auxiliary reservoir to a point in the main reservoir exterior to the auxiliary reservoir, and a valve in said passage.

4. In a plumber's furnace, a main reservoir closed at the top, an auxiliary reservoir lying within the main reservoir and having its upper end closed by the top of the latter, there being a passage formed in the top wall of the main reservoir leading from a point within the auxiliary reservoir to a point in the main reservoir exterior to the auxiliary reservoir, a valve in said passage, said passage having a portion opening out to atmosphere, and a detachable plug in said portion.

5. In a plumber's furnace, a main reservoir closed at the top, an auxiliary reservoir lying within the main reservoir and having its upper end closed by the latter, there being a passage formed in the top wall of the main reservoir leading from a point within the auxiliary reservoir to a point in the main reservoir exterior to the auxiliary reservoir, said passage having a branch opening out through atmosphere, a detachable tubular member arranged within said passage and removable through said branch, a valve arranged in said tubular member, and a detachable plug for closing the outer end of said branch.

[Claims 6 and 7 not printed in the Gazette.]

1,203,840. MEANS FOR ARRESTING THE UNWINDING OF AWNINGS AND SHADES. FRANK BAILEY, Muskegon, Mich. Filed Dec. 14, 1915. Serial No. 66,813. (Cl. 74—13.)



1. Means for arresting the unwinding of awnings, and shades having a spring roller, consisting of a gear wheel fast upon the spring roller, a loose gear wheel in mesh therewith, and coöperating means the elements of which are carried by and movable with the respective gear wheels whereby the rotation thereof will be stopped when the awning has been unwound to a predetermined extent.

2. Means for arresting the unwinding of awnings, and shades having a spring roller, consisting of a gear wheel fast upon the spring roller, a loose gear wheel in mesh therewith, one of the gear wheels having a long tooth and more teeth than the other gear wheel, said other gear wheel having a shallow space between two of its teeth, the gear wheels being spaced apart and said long tooth meshing properly with the teeth of the other gear for a certain number of revolutions of the gears, and upon the last revolution of the gears engaging and binding in said shallow space, to stop further movement of the gears and of the roller.

3. Means for arresting the unwinding of awnings, and shades having a spring roller, consisting of a gear wheel rotatably adjustable upon a pivot of the spring roller and having a set screw engaging said pivot for fast connection therewith, a loose gear wheel in mesh with said first-named gear wheel, and coöperating means the elements of which are carried by and movable with the respective gear wheels whereby the rotation thereof will be stopped when the awning has been unwound to a predetermined extent.

4. Means for arresting the unwinding of awnings, and shades having a spring roller, consisting of a gear wheel rotatably adjustable upon a pivot of the spring roller and having a set screw engaging said pivot for fast connection therewith, a loose gear wheel in mesh with said first-named gear wheel, one of the gears having a long tooth and more teeth than the other gear, said other gear having a shallow space between two of its teeth, the gears being spaced apart and said long tooth meshing properly with the teeth of the other gear for a certain number of revolutions of the gears, and upon the last revolution of the gears engaging and binding in said shallow space, to stop further movement of the gears and of the roller.

1,203,841. CENTRIFUGAL AIR-PUMP. PAUL A. BANCEL, New York, N. Y. Filed Sept. 10, 1913. Serial No. 789,020. (Cl. 230—14.)



1. A pump of the kind described comprising in combination a cylindrical liquid impeller, a casing formed with an impeller chamber, a liquid supply connection thereto, a gaseous fluid chamber, a compressing nozzle outlet from the latter and a collecting chamber into which said impeller chamber opens at its periphery and having an outlet to said gaseous fluid chamber, said collecting chamber and its outlet being shaped to pass the liquid leaving the impeller chamber and discharged into said gaseous fluid chamber with but small change in velocity.

2. A pump of the kind described comprising in combination a cylindrical liquid impeller, a casing formed with an impeller chamber, a liquid supply connection thereto, a gaseous fluid chamber, a compressing nozzle outlet from the latter, a collecting chamber into which said impeller chamber opens at its periphery and having an outlet to said gaseous fluid chamber, said collecting chamber and its outlet being shaped to pass the liquid leaving the impeller chamber and discharged into said gaseous fluid chamber with but small change in velocity and means in said outlet for dividing the stream of liquid entering said gaseous fluid chamber to increase the surface area of the liquid.

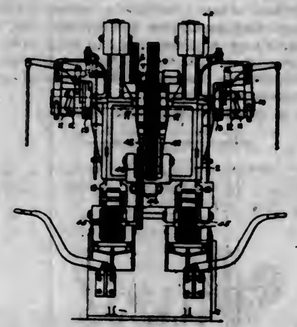
3. A pump of the kind described comprising in combination a cylindrical liquid impeller, a casing formed with an impeller chamber, a liquid supply connection thereto, a gaseous fluid chamber, a compressing nozzle outlet from the latter, a collecting chamber into which said impeller chamber opens at its periphery and having an outlet to said gaseous fluid chamber, said collecting chamber and its outlet being shaped to pass the liquid leaving the impeller chamber and discharged into said gaseous fluid chamber with but small change in velocity and means located in said outlet for dividing the stream of water entering said gaseous fluid chamber into a plurality of parallel jets or streams to increase the surface area of the liquid.

4. A pump of the kind described comprising in combination, a centrifugal liquid impeller, a casing formed with an impeller chamber, a liquid supply connection thereto, a collecting chamber into which said impeller chamber opens at its periphery and shaped to pass the liquid entering it with but small conversion of velocity into pressure, a gaseous fluid chamber into which the liquid is discharged from said collecting chamber, a compressing nozzle outlet from the latter, and means for dividing the stream of water entering said gaseous fluid chamber into a plurality of parallel sheets or streams to increase the surface area of the liquid, said means consisting of spaced apart hollow wedge shaped baffles located in the discharge end of said collecting chamber with the hollow space in each baffle open at its side edges and front edge to said gaseous fluid chamber.

5. A pump of the kind described comprising in combination, a centrifugal liquid impeller, a casing formed with an impeller chamber, a liquid supply connection thereto, a collecting chamber into which said impeller chamber opens at its periphery and shaped to pass the liquid entering it with but small conversion of velocity into pressure, a gaseous fluid chamber into which the liquid is discharged from said collecting chamber and a compressing nozzle outlet from the latter, the axis of said nozzle being inclined to the direction of movement of the liquid entering said gaseous fluid chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,203,842. CLIPPING-SHEARS. FLORENCE C. BIGGERT, Jr., Crafton, Pa., assignor to United Engineering & Foundry Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 30, 1914. Serial No. 874,742. (Cl. 164—49.)



1. In shears, the combination of an upper knife and a lower knife having diagonal and cross-cutting edges, means for raising and lowering the upper knife, an auxiliary lower cross-cutting knife coöperating with the cross-cutting edge of said upper knife, means for raising and lowering said auxiliary cross-cutting knife, and an auxiliary cross-cutting knife on said upper-knife coöperating with the cross-cutting edge of the lower knife.

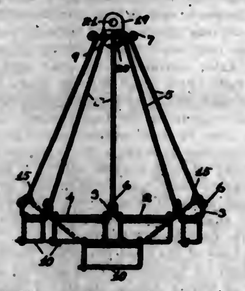
2. In shears, the combination of upper and lower knives having diagonal-cutting edges and cross-cutting edges, means for raising and lowering the upper knife, a lower auxiliary cross-cutting knife, means for raising said auxiliary cross-cutting knife when the upper knife has completed its diagonal cut, whereby the lower auxiliary cross-cutting knife coöperates with the cross-cutting edge of the upper knife, means for lowering said lower auxiliary cross-cutting knife after the completion of the cut, and an upper auxiliary cross-cutting knife with its cutting edge above the cutting edges of said upper knife, and co-operating with the cross-cutting edge of the lower knife to complete the cross-cut.

3. In shears, the combination of an upper and lower knife having diagonal cutting edges and cross-cutting edges, a former on the lower knife, the upper knife having a recess conforming with the shape of said former, and knives coöperating with the cross-cutting edges of said upper and lower knives, whereby the cross-cut is made completely across the skelp or other object.

4. In shears, the combination of upper and lower knives having diagonal cutting edges and straight cross-cutting edges, and auxiliary cross-cutting knives coöperating with said upper and lower knives, whereby the cross cut is made completely across the skelp.

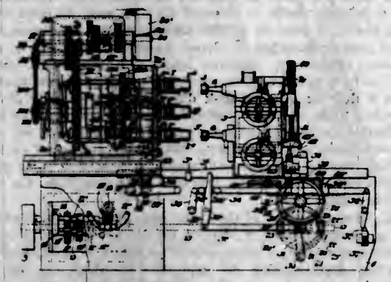
5. In shears, the combination of upper and lower knives, having diagonal and cross-cutting edges, an eccentric, connections between said eccentric and the upper knife, the lower auxiliary knife having a cross-cutting edge co-operating with the cross-cutting edge of the upper knife, an eccentric, connections between said eccentric and said auxiliary knife, and an upper auxiliary knife having a cross-cutting edge coöperating with the cross-cutting edge of the lower knife.

1,203,843. BAG-HOLDER. WALTER R. BOLIN, Brasil, Ind. Filed Apr. 22, 1916. Serial No. 92,922. (Cl. 211—2.)



In a bag holder, a wire ring having upwardly bent loops and substantially straight portions between said loops, upwardly converging wire supports having lower eyes engaging said loops and having upper eyes, an upper ring having perforations engaged by said upper eyes, a suspension device engaging said upper ring, and an auxiliary holder having upwardly diverging arms provided with end eyes engaging the supports at opposite sides of the holder and a lower straight portion, and removable bag-carrying pins engaging the straight portions of said ring and of said auxiliary holder.

1,203,844. GRINDING-MACHINE. CLEMENT BOOTH, Narberth, and ALFRED CHARLES PAGE, Philadelphia, Pa. Filed June 17, 1915. Serial No. 34,602. (Cl. 51—4.)



1. In a grinding machine, a revoluble turret, a plurality of work holding spindles journaled in said turret, mechanisms for revolving said spindles, and means for disengaging mechanism for revolving the respective spindles, whereby they are shown out of action, in combination with a reciprocating device, a plurality of spindles journaled in said device, and tools carried by said spindles second named for operating on work carried by said spindles first named.

2. In a grinding machine, a revoluble turret, a plurality of work holding spindles journaled in said turret, mechanisms for revolving said spindles, and means controlled by said turret for disengaging in succession the mechanisms for revolving the respective spindles, in combination with a reciprocating carriage, spindles journaled in said carriage, and grinding wheels carried by said spindles second named for operating on work carried by said spindles first named.

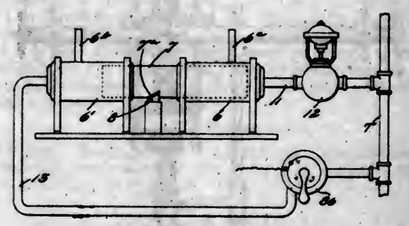
3. In a grinding machine, a revoluble turret, a plurality of work holding spindles journaled in said turret, mechanisms comprising clutches for revolving said spindles and means for disengaging the respective clutches in succession by the intermittent revolution of said turret, in combination with a reciprocating carriage, spindles journaled in said carriage, grinding wheels carried by said spindles second named for acting upon work revolved by said spindles first named, and means for automatically reciprocating said carriage.

4. In a grinding machine, a revoluble turret, mechanism for revolving said turret, mechanism for automatically stopping said turret in predetermined positions, a plurality of work holding spindles journaled in said turret, mechanisms for revolving said spindles, and means for disengaging the mechanisms for revolving the respective spindles in predetermined positions thereof, in combination with a reciprocating carriage, spindles journaled in said carriage, and grinding wheels carried by said spindles second named for operating on work carried by said spindles first named.

5. In a grinding machine, a revoluble turret, mechanism for revolving said turret, mechanism for locking said turret in predetermined positions, a plurality of work holding spindles journaled in said turret, mechanisms for revolving said spindles, and means for disengaging the mechanisms for revolving the respective spindles in succession in predetermined positions thereof, in combination with a reciprocating carriage, spindles journaled in said carriage, means whereby said spindles last named are adapted to be reciprocated transversely to the direction of reciprocation of said carriage, and grinding wheels carried by said spindles last named for operating on work revolved by said spindles first named.

[Claims 6 to 35 not printed in the Gazette.]

1,203,845. AUTOMATIC TRAIN-STOP. CARL H. BUHL, Cleveland, Ohio. Filed Oct. 27, 1913, Serial No. 797,512. Renewed Mar. 13, 1916. Serial No. 83,965. (Cl. 188—4.)



1. In an automatic brake mechanism, the combination of a train pipe, a cylinder connected to the train pipe, said cylinder having a vent to release the train pipe pressure, a piston in said cylinder, adapted to move and uncover said vent in consequence of said pressure, a lock for said piston, adapted when engaged therewith to prevent movement of the piston, and when released therefrom to permit movement thereof, and pressure actuated means connected to the train pipe, and including a valve, to return said piston to normal position.

2. In an automatic brake mechanism, the combination of a train pipe, a cylinder connected to the train pipe, said cylinder having a vent to release the train pipe pressure, a piston in said cylinder, adapted to normally cover said vent, and movable by said pressure to uncover the same, and an electrically controlled lock having a member engageable with said piston to prevent such movement thereof and adapted when released to permit said movement, and pressure actuated means to return said piston to normal position.

3. In an automatic brake mechanism, the combination of a train pipe, cylinders arranged with their axes in line with each other, each of which has a vent and each of which has a connection to the train pipe, a piston working at opposite ends in said cylinders respectively and adapted to cover and uncover the vents therein, a restoring valve in one of said connections adapted to admit train pipe pressure to one of said cylinders to shift the

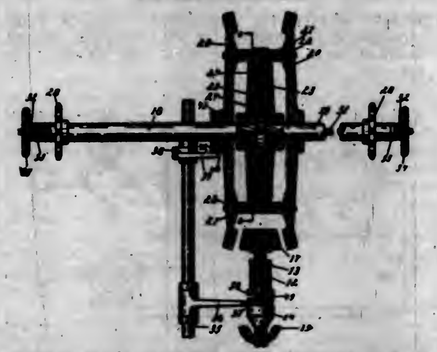
piston in one direction, and an electrically controlled lock having a member engageable with the piston to normally prevent movement thereof in the other direction.

4. In an automatic brake mechanism, the combination of a train pipe, a cylinder provided with a vent and connected to said train pipe to receive pressure therefrom, a reducing valve governing the pressure admitted to said cylinder a piston in said cylinder adapted to cover and uncover the vent, an electrically controlled lock normally holding said piston in position to cover said vent, and train-pipe-pressure actuated means, including a valve, to return said piston to normal position after it is moved to uncover said vent.

5. In an automatic brake mechanism, the combination of a train pipe, a valve for releasing the train pipe pressure and connected to the train pipe, a lock controlling said valve and normally holding the same in closed position, means including an electromagnet to hold said lock engaged when the magnet is energised and to release said lock when the magnet is deënergised, means for energising and deënergising said magnet, and pressure actuated means connected to the train pipe, and including a valve, to restore said releasing valve to closed position after it is opened.

[Claims 6 and 7 not printed in the Gazette.]

1,203,846. DRIVING OR TRANSMISSION GEARING. FRANK BURTT, Kalamazoo, Mich., assignor of one-half to Will Kromdyke, Jr., Portage township, Mich. Filed Feb. 24, 1914. Serial No. 820,437. (Cl. 74—58.)



1. In a structure of the class described, the combination of a driving shaft; a control clutch for said shaft comprising a shifting clutch member splined to said shaft; a beveled driving gear on said driving shaft; a pair of alined driven shafts; a pair of facing beveled gears connected by cross members mounted on said driven shafts for rotative and axial movement thereon; driven friction disks secured to said driven shafts; a driving friction disk disposed between said driven friction disks to coact therewith and having driving lugs radially slotted to engage said cross members of said driven gears and permitting their axial movement so that either may be brought into mesh with said driving gear, said driven disks being provided with bearings for said driving disk; a rod arranged longitudinally through said driven shafts; coiled springs arranged on said rod, thrust bearing members between said springs and the ends of said driven shafts; adjusting members threaded upon said rod to act on said springs; a control shaft supported for longitudinal and rotative movement; an arm on said control shaft engaging said shifting clutch member to actuate the same upon the longitudinal movement of said control shaft; a gear shifting arm on said control shaft connected to said driven gears whereby said gears are shifted by the rotative movement of said control shaft; and means for retaining said control shaft in its adjusted positions.

2. In a structure of the class described, the combination of a driving shaft; a control clutch for said shaft comprising a shifting clutch member splined to said shaft; a beveled driving gear on said driving shaft; a pair of driven shafts; a pair of facing beveled gears connected by cross members mounted on said driven shafts for rotative and axial movement thereon; driven friction disks secured to said driven shafts; a driving friction disk disposed between said driven friction disks to coact therewith and having driving lugs radially slotted to engage said cross members of said driven gears and permitting their axial movement so that either may be brought into mesh with said driving gear, said driven disks being provided with bearings for said driving disk; a control shaft supported for longitudinal and rotative movement; an arm on said control shaft engaging said shifting clutch member to actuate the same upon the longitudinal movement of said control shaft; a gear shifting arm on said control shaft connected to said driven gears whereby said gears are shifted by the rotative movement of said control shaft; and means for retaining said control shaft in its adjusted positions.

3. In a structure of the class described, the combination of a driving shaft; a beveled driving gear on said driving shaft; a pair of alined driven shafts; a pair of facing beveled gears connected by cross members mounted on said driven shafts for rotative and axial movement thereon; driven friction disks secured to said driven shafts; a driving friction disk disposed between said driven friction disks to coact therewith and having driving lugs radially slotted to engage said cross members of said driven gears and permitting their axial movement so that either may be brought into mesh with said driving gear, said driven disks being provided with bearings for said driving disk; a rod arranged longitudinally through said driven shafts; coiled springs arranged on said rod; thrust bearing members between said springs and the ends of said driven shafts; and adjusting members threaded upon said rod to act on said springs.

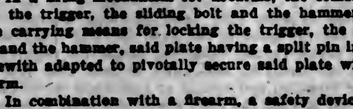
4. In a structure of the class described, the combination of a driving shaft; a beveled driving gear on said driving shaft; a pair of driven shafts; a pair of facing beveled gears connected by cross members mounted on said driven shafts for rotative and axial movement thereon; driven friction disks secured to said driven shafts; and a driving friction disk disposed between said driven friction disks to coact therewith and having driving lugs radially slotted to engage said cross members of said driven gears and permitting their axial movement so that either may be brought into mesh with said driving gear, said driven disks being provided with bearings for said driving disk.

5. In a structure of the class described, the combination of a driving shaft; a control clutch for said shaft comprising a shifting clutch member splined to said shaft; a beveled driving gear on said driving shaft; a pair of driven shafts; a pair of connected facing beveled gears mounted on said driven shafts for rotative and axial movement thereon; driven friction disks secured to said driven shafts; a driving friction disk coacting with said driven friction disks and having driving connection with said driven gears; a rod arranged longitudinally through said driven shafts; an adjusting member on said rod; a spring interposed between said adjusting member and one of said driven shafts; a control shaft supported for longitudinal and rotative movement; an arm on said control shaft engaging said shifting clutch member to actuate the same upon the longitudinal movement of said control shaft; a gear shifting arm on said control shaft connected to said driven gears whereby said gears are shifted by the rotative movement of said control shaft; and means for retaining said control shaft in its adjusted positions.

[Claims 6 to 15 not printed in the Gazette.]

1,203,847. THERMAL-CONTROLLED SHUTTER. EDWARD CAHILL, New York, N. Y. Filed Sept. 8, 1915. Serial No. 49,590. (Cl. 189—58.)

1. The combination, with a hollow shaft adapted to carry a rolling shutter, of a notched wheel having a shank extending into one end of the shaft, a supporting bracket having a hollow stud extending into the shaft for journaling the same and through which the shank of the notched wheel extends, a counterbalancing spring attached at one end to said shank and at the other end to the shaft, a pawl adapted to be secured in locking position engaging a notch in said wheel, and thermal control means for releasing said pawl.



2. The combination, with a hollow shaft adapted to carry a rolling shutter, of a notched wheel having an integral shank extending into one end of the shaft, a supporting bracket having a hollow stud extending into one shaft for journaling the same and through which the shank of the notched wheel extends, said shank terminating at its inner end near said stud, a counterbalancing spring attached at one end to said shank and at the other end to the shaft, a pawl adapted to be secured in locking position engaging a notch in the wheel, and thermal control means for releasing said pawl.

1,203,848. SAFETY ATTACHMENT FOR FIREARMS. JOHN HOWARD CARL, Gilroy, Cal. Filed Feb. 28, 1916. Serial No. 80,900. (Cl. 42—70.)

1. In a firing mechanism for firearms, the combination with the trigger, the sliding bolt and the hammer, of a plate pivotally secured to the firearm and provided with means for locking the trigger, the sliding bolt and the hammer simultaneously.

2. In a firing mechanism for firearms, the combination with the trigger, the sliding bolt and the hammer, of a removable plate pivotally secured to the firearm and provided with means for locking the trigger, the sliding bolt and the hammer simultaneously.

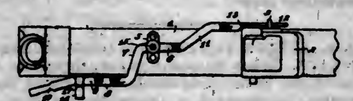
3. In a firing mechanism for firearms, the combination with the trigger, the sliding bolt and the hammer, of a plate carrying means for locking the trigger, the sliding bolt and the hammer, said plate having a split pin integral therewith adapted to pivotally secure said plate with the firearm.

4. In combination with a firearm, a safety device comprising a plate having locking means integral therewith and a pin projecting through the firearm adapted to provide a rear support for the magazine within the firearm and to secure the safety device to the firearm.

5. In combination with a firearm, a safety device secured to the side of the firearm, comprising a plate having locking means integral therewith, said plate being positioned and arranged to cover the sear and hammer pins to secure said pins within the firearm.

[Claims 6 and 7 not printed in the Gazette.]

1,203,849. UNCOUPLING-LEVER. JAMES R. CARMEN, Wilmington, Del. Filed Jan. 28, 1913. Serial No. 743,802. (Cl. 213—59.)

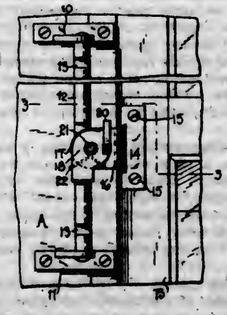


1. In a release rigging for car couplers, a one piece lever fulcrumed on the front face of the end sill of a car and having its outer end portion laterally offset from the remainder thereof and disposed permanently directly beneath the under face of the end sill for operation by the hand or foot of a trainman, means for holding said outer end stationary so far as bodily movement longitudinally of the car is concerned, said means holding the lever from falling to the track in case of breakage at the fulcrum of the lever.

2. In a release rigging for car couplers, a one piece lever fulcrumed on the front face of the end sill of a car and having its outer end portion laterally offset from the remainder thereof and disposed permanently directly beneath the under face of the end sill for operation by the hand or foot of a trainman, a stop secured to the under face of the end sill with which the outer end of the lever has operative connection, the inner end of the lever having a sliding engagement with the lock pin of the coupler, whereby said outer end is held stationary so far as bodily movement longitudinally of the car is concerned, and whereby said lever is maintained in substantially normal position in case of breakage at either the fulcrum or at the point where the lever enters the lock pin of the coupler.

3. In a release rigging for car couplers, a one piece lever pivotally mounted on the front face of the end sill of a car, and having its outer end permanently disposed underneath the under face of the end sill and its inner end connected directly to the coupler locking pin, a vertical stop for the outer end of the lever functioning as a fulcrum for the lever when it slides on its pivot with the coupler in service movements.

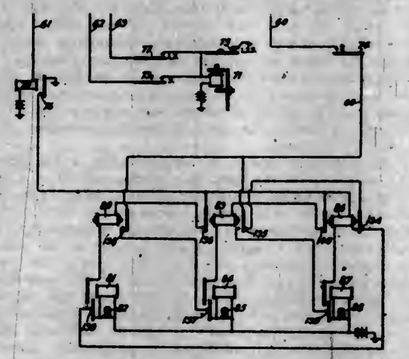
1,203,850. SASH-LOCK. ALBERT C. CHRISTENSON, Bushnell, Nebr. Filed Feb. 11, 1916. Serial No. 77,673. (Cl. 16—118.)



The combination with a window frame and a sash, of brackets mounted upon the window frame, a vertically disposed rod mounted in said brackets and having spaced horizontal notches, a bracket mounted upon the window sash and having a portion extending outward and laterally transversely of the outer face of the rod, an angular latch pivoted upon said bracket for movement in a vertical plane parallel to the face of the window sash and frame and having a detent on its lower end engageable in any one of said notches, and a finger piece on the other end, a spring normally urging the latch in a direction

to carry its detent into engagement with the notch in the rod and a stop limiting the movement of the latch under the action of the spring to a position where the detent is in a horizontal plane.

1,203,851. SYSTEM FOR CONTROLLING ELECTRICAL CIRCUITS. EDGAR HARRISON CLARK, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed July 2, 1915. Serial No. 37,696. (Cl. 179—18.)



1. A controlling apparatus comprising a source of electrical impulses, a train of relays, means for causing the first impulse to effect the operation of the first relay of the train, an energizing circuit for each succeeding relay of the train adapted to be brought into operative relation with said source of impulses by the operation of the preceding relay of the train, a locking circuit for each relay closed in the operation of said relay and opened in the operation of the succeeding relay of the train, and a switch for opening the locking circuit of the last relay of the train.

2. A controlling apparatus comprising a source of electrical impulses, a train of relays, an energizing circuit for the first relay of the train normally adapted for connection with said source of impulses, an energizing circuit for each succeeding relay of the train adapted to be brought into operative relation with said source of impulses by the operation of the preceding relay of the train, a signal device operated in the operation of each relay, a locking circuit for each relay opened by the operation of the succeeding relay of the train, and a switch for opening the locking circuit of whichever relay may remain operated at the termination of the train of impulses.

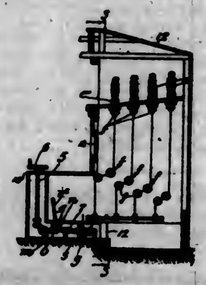
3. A controlling system comprising a source of electrical impulses, a train of relays, means for causing successive impulses to effect the operation of successive relays of said train, a signal associated with each relay and displayed in the operation of the same, and a locking circuit for each relay closed in the operation of said relay and opened in the operation of the succeeding relay of the train.

4. A signaling system comprising a source of electrical impulses, a train of electrically actuated signal devices, means for causing successive impulses to effect the operation of successive devices of said train, means associated with each device and rendered active in the operation thereof for maintaining said device in its operated condition, said maintaining means being rendered inoperative by the operation of the succeeding device in the train.

5. A controlling system comprising a source of impulses, a train of relays, an energizing circuit for the first relay in said train serially including normally closed contacts of the succeeding relays in the train, an energizing circuit for each succeeding relay operatively connected with said source of impulses by the operation of the preceding relay of the train, a locking circuit for each relay made active in the operation thereof, means operated in the operation of each relay for rendering inactive the locking circuit of the preceding relay of the train, means for rendering inactive the locking circuit of the last relay of said train, and a responsive device associated with each relay and actuated in the operation thereof.

[Claims 6 to 14 not printed in the Gazette.]

1,203,852. GAME OF SKILL. AXEL VALDEMAR CLORIUS, Frederiksberg, near Copenhagen, and ODIN THORVALD CLORIUS, Hellerup, near Copenhagen, Denmark, assignors to Kentucky Derby Company, Inc., New York, N. Y., a Corporation of New York. Filed Sept. 30, 1915. Serial No. 53,263. (Cl. 46—56.)



1. In an amusement device, the combination of a unit, a course along which said unit is adapted to travel, a hand operated member for displacing said unit along the course and means for releasing the operative connection between said hand operated member and unit when the speed of the hand operated member exceeds a predetermined value.

2. In an amusement device, the combination of a unit, a course along which said unit is adapted to travel, a hand operated member for displacing said unit along the course, means for releasing the operative connection between said hand operated member and the unit when the speed of the hand operated member exceeds a predetermined value and means for imparting a turning movement to said unit so that it faces the opposite direction and remains at rest when the operative connection between the hand operated member and unit is released.

3. In an amusement device, the combination of a number of units, a course along which said units are adapted to travel, hand operated members for displacing said units along the course, and means for releasing the operative connection between said hand operated members and units when the speed of the hand operated members exceeds a predetermined value.

4. In an amusement device, the combination of a number of units, a course along which said units are adapted to travel, hand operated members for displacing said units along the course, means for releasing the operative connection between said hand operated members and units when the speed of the hand operated members exceeds a predetermined value and means for imparting a turning movement to said units so that they face the opposite direction and remain at rest when the operative connection between the hand wheels and units is released.

5. In an amusement device, the combination of a number of units, a course along which said units are adapted to travel, hand wheels for displacing said units along the course, means for releasing the operative connection between said hand wheels and units when the speed of the hand wheels exceeds a predetermined value, and means for imparting a turning and retrograde movement to said units when the operative connection between the hand wheels and units is released.

[Claims 6 to 44 not printed in the Gazette.]

1,203,853. EXTENSIBLE TOOL. CAMILLE CONTAL, St.-Cloud, France, assignor, by mesne assignments, to Albert T. Otto & Sons, New York, N. Y., a Corporation of New York. Filed Feb. 26, 1914. Serial No. 821,344. (Cl. 81—177.)



1. In combination, a tubular member having a bore polygonal in section, a rod polygonal in section and adapted to move longitudinally within said bore, said rod having a plurality of recesses, a collar carried by said tubular member and having a flange adapted to enter any one of said recesses when in one position, and to permit the free longitudinal movement of said rod when in a second position, a spring normally tending to hold said collar in said first-mentioned position, and stops for limiting the movement of said collar.

2. A tool including a handle comprising two telescoping members held against rotation in respect to each other, a work-engaging part detachably secured to one end of one member, means at the other end of the other member for rotating said handle, the inner member having a series of recesses therein arranged along the length thereof and the outer member having a rotatable collar provided with a projection adapted to enter any one of said recesses to prevent relative longitudinal movement and adapted, when in a second position, to permit free relative longitudinal movement of said members.

3. A tool handle, comprising two telescoping members held against rotation in respect to each other, the inner member having a series of recesses therein arranged along the length thereof, a rotatable collar provided with an inwardly directed flange at one end of the outer member and including a portion adapted to enter any one of said recesses and prevent relative longitudinal movement and adapted, when rotated to a predetermined position, to permit free relative longitudinal movement of said members, and a coil spring between said flange and the extremity of said outer member and having engagement with each to normally hold said collar in locking position.

1,203,854. TRACE. CHARLES J. COOPER, Moline, Ill., assignor of one-half to H. W. Cooper Saddlery Hardware Mfg. Company, Moline, Ill., a Corporation of Illinois. Filed June 30, 1916. Serial No. 106,766. (Cl. 54—52.)



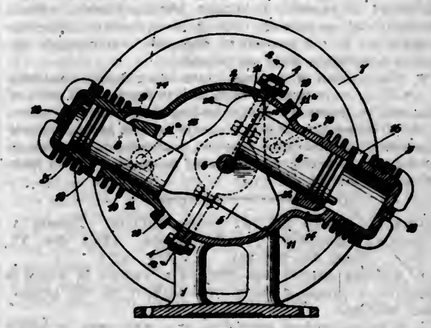
1. In a trace, the combination of a wire cable, a clevis in which said wire cable is secured, a covering for said clevis, and a covering for said cable secured to the clevis covering.

2. In a trace, the combination of a wire cable, a clevis in which said cable is secured, a leather covering for said clevis, a helical leather covering for said cable having its end sewed to the clevis covering with a butt joint, and a metal band covering the joint.

3. In a trace, the combination of a clevis provided with a tapered socket, a cable having its end entering said socket and fanned out within said socket, a metal filling for said socket, a leather covering for the socket having a pair of ends extending beyond the end of the socket, and a helical leather covering for said cable and secured to the end of said clevis covering.

4. In a trace, the combination of a clevis provided with a tapered socket, a cable having its end entering said socket, and fanned out within said socket, a metal filling for said socket, a leather covering for the socket having a pair of ends extending beyond the end of the socket, a helical leather covering for said cable and sewed to the ends of said clevis covering, and a metal band surrounding the sewed joint and spaced apart from the end of the socket.

1,203,855. INTERNAL-COMBUSTION ENGINE. WALTER H. D'ARDENNE, Philadelphia, Pa. Filed Oct. 5, 1915. Serial No. 54,147. (Cl. 123—55.)



1. In an internal combustion engine, the combination with a cam case, of a shaft mounted centrally in the cam case, a cam on the shaft fitting the cam case, a cylinder having fixed relation to the cam case and located tangentially to the axis of the shaft, a piston in the cylinder directly engaging the cam, means for directing explosive mixture into the cam case, and said cam case having passages connecting the same with the cylinders through which passages the mixture is forced by the cam, substantially as described.

2. In an internal combustion engine, the combination with a cam case, of a shaft mounted centrally in the cam case, a cam on the shaft fitting the cam case, a cylinder having fixed relation to the cam case and located tangentially to the axis of the shaft, a piston in the cylinder having a recess in its end in which the cam is positioned, a roller in the recess directly engaging the cam, means for directing explosive mixture into the cam case, and said cam case having passages connecting the same with the cylinders through which passages the mixture is forced by the cam, substantially as described.

3. In an internal combustion engine, the combination with a cam case, and a cylinder communicating with the cam case and located at an angle to the axis of the cam case, of a piston in the cylinder, and a cam in the cam case directly engaging the piston, said cam operating as a compression means in the cam case for forcing gas into the cylinder, substantially as described.

4. In an internal combustion engine, the combination with a cam case, and a plurality of cylinders communicating therewith, said cylinders having exhaust ports in one side and inlet ducts in their other sides communicating with the cam case, of pistons in the cylinders, and a cam in the cam case engaging the pistons, movable by the pistons, and constructed to force gas under compres-

sion through the said ducts into the cylinder, substantially as described.

5. In an internal combustion engine, the combination with a cam case, and a plurality of cylinders communicating therewith, said cylinders having exhaust ports in one side and inlet ducts in their other sides communicating with the cam case, of pistons in the cylinders, a cam in the cam case having a plurality of points, said cam fitting the cam case and compressing gas into the cam points forcing the said gas through the ducts into the cylinders, and said cam constructed to move the pistons and moved thereby, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,203,856. PROCESS OF MAKING AN ADHESIVE FROM WASTE SULFITE LIQUOR. JUDSON A. DE CEW, Montreal, Quebec, Canada. Filed Feb. 17, 1913. Serial No. 748,989. (Cl. 87—17.)

1. The process of making a cementing agent consisting in concentrating waste sulfite liquor in the presence of excess magnesium oxid and adding thereto magnesium chlorid to form magnesium oxychlorid.

2. The process of making a cementing agent consisting in concentrating waste sulfite liquor in the presence of an excess of magnesium oxid and adding thereto certain quantities of magnesium chlorid in equivalent molecular proportions to the amount of magnesia remaining in excess to form magnesium oxychlorid.

3. The process of making a cementing agent consisting in treating concentrated waste sulfite liquir with oxid of magnesia in excess and concentrating the material in vacuo in the presence of this excess magnesia and adding thereto magnesium chlorid in equivalent molecular proportion to the amount of magnesia remaining in excess to form magnesium oxychlorid.

1,203,857. ROSIN SIZING COMPOSITION. JUDSON A. DE CEW, Montreal, Quebec, Canada. Filed Oct. 12. 1914. Serial No. 866,294. (Cl. 134—21.)

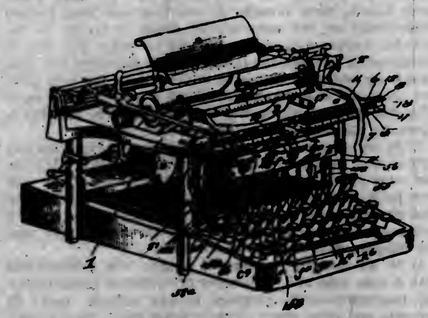
1. A sizing product consisting of a resinate in which is dissolved a rubber product substantially in the proportions specified.

2. A sizing product consisting of a rosin soap in which is dissolved approximately 1% of rubber material.

3. A sizing product comprising a saponified rosin containing rosin and a rubber product dissolved therein substantially in the proportions specified.

4. A paper sizing comprising a resinate of an alkali metal holding in solution a rubber product in the proportions specified.

1,203,858. CALCULATING ATTACHMENT FOR TYPEWRITERS. OSCAR A. DIETSCHE, Gladstone, N. D. Filed Feb. 18, 1913. Serial No. 749,009. (Cl. 235—62.)



1. In a calculating attachment for typewriters, the combination of a typewriter having a carriage and a totaliser mounted on the carriage thereof, of a motor, a mechanism controlled by said motor and geared to the totaliser and having connections with the respective number keys of the typewriter, said mechanism having means for automatically locking the motor, said means comprising a power ratchet under tension of the motor, a spring-tensioned dog having its tail engaging a tooth of the ratchet to hold the motor against operation, and a pivoted spring-tensioned plate engaging under the nose of the dog to hold the tail in engagement with the power ratchet against the action of the spring-tensioned means of the dog.

2. In a calculating attachment for typewriters, the combination of a typewriter having a carriage and a totaliser mounted on the carriage thereof, of a motor, a mechanism controlled by said motor and geared to the totaliser and having connections with the respective number keys of the typewriter, said mechanism having means for automatically locking the motor, said means comprising a power ratchet under tension of the motor, a spring-tensioned dog having its tail engaging a tooth of the ratchet to hold the motor against operation. a pivoted spring-tensioned plate engaging under the nose of the dog to hold the tail in engagement with the power ratchet against the action of the spring-tensioned means of the dog to prevent the motor from operating until a number key of the typewriter is depressed, and means actuated by any one of the number keys and including a reciprocating member to engage said plate to move the same against the action of its spring means out of engagement with the nose of the dog, whereby the spring means of the dog will release the power ratchet, thereby causing the motor to operate the mechanism when a key is depressed to actuate the totaliser.

3. In a calculating attachment for typewriters, the combination of a typewriter having a carriage and a totaliser mounted on the carriage thereof, of a motor, a mechanism controlled by said motor and geared to the totaliser and having connections with the respective number keys of the typewriter, said mechanism having means for automatically locking the motor, said means comprising a power ratchet under tension of the motor, a spring-tensioned dog having its tail engaging a tooth of the ratchet to hold the motor against operation, an oscillatory plate engaging under the nose of the dog, and spring tensioning means for said plate to hold an edge of the plate under the nose of the dog to hold the tail in engagement with the power ratchet against the action of the spring-tensioned means of the dog.

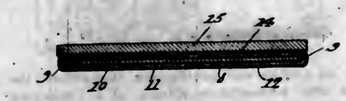
4. In a calculating attachment for typewriters, the combination of a typewriter having a carriage and a totaliser mounted on the carriage thereof, of a motor, a mechanism controlled by said motor and geared to the totaliser and having connections with the respective number keys of the typewriter, said mechanism having means for automatically locking the motor, said means comprising a power ratchet under tension of the motor, a spring-tensioned dog having its tail engaging a tooth of the ratchet to hold the motor against operation, an oscillatory plate engaging under the nose of the dog, spring-tensioning means for said plate to hold an edge of the plate under the nose of the dog to hold the tail in engagement with the power ratchet against the action of the spring-tensioning means of the dog, and means actuated by any one of the number keys and including a reciprocating member engaging said plate to move the same against the action of said spring-tensioning means out of engagement with the nose of the dog, whereby the spring means of the dog will release the power ratchet, thereby causing the motor to operate the mechanism when a key is depressed to actuate the totaliser.

5. In a calculating attachment for typewriters, the combination of a typewriter having a carriage and a totaliser mounted on the carriage thereof, of a motor, a mechanism controlled by said motor and geared to the totaliser and having connections with the respective number keys of the typewriter, said mechanism having means for automatically locking the motor, said means comprising a power ratchet under tension of the motor, a spring-tensioned dog having its tail engaging a tooth of the

ratchet to hold the motor against operation, an oscillatory plate engaging under the nose of the dog, spring-tensioning means for said plate to hold an edge of the plate under the nose of the dog to hold the tail in engagement with the power ratchet against the action of the spring-tensioning means of the dog, means actuated by any one of the number keys and including a reciprocating member engaging said plate to move the same against the action of said spring-tensioning means out of engagement with the nose of the dog, whereby the spring means of the dog will release the power ratchet, thereby causing the motor to operate the mechanism when a key is depressed to actuate the totaliser, means bearing upon said reciprocating member, and a device carried by the totaliser to force said last-named means against said member to cause it to engage said plate when reciprocated.

[Claims 6 to 34 not printed in the Gazette.]

1,203,859. BELT. WILLIAM DUNCKER, Memphis, Tenn. Filed Nov. 19, 1914. Serial No. 876,053. (Cl. 74—63.)



A driving belt comprising a leather body; a textile facing the longitudinal edges of which are folded inwardly toward each other in opposite directions and are located in a common plane, the inwardly folded edges of the facing being secured to the body, and the body being of substantially the same width as the facing; and a core within the facing and substantially filling the same; the ends of the body being beveled and overlapped and the ends of the facing and the core being beveled and overlapped, the bevels of the body on one hand and of the facing and the core upon the other hand being inclined in opposite directions.

1,203,860. DRILLING-MACHINE. HARRIS T. DUNBAR, Buffalo, N. Y. Filed Mar. 20, 1913. Serial No. 755,577. (Cl. 255—38.)



1. A drilling machine comprising a chamber adapted to receive and deliver a pressure medium and having an open lower end, a guide tube communicating at its upper end with the lower end of said chamber so as to receive the pressure medium therefrom and bearing at its upper end against the lower end of said chamber, a drill rod reciprocating in said tube and provided at its lower end with a bit which is compelled to turn with said tube but free to move lengthwise independently thereof, and means for rotating said tube.

2. A drilling machine comprising a chamber adapted to receive and deliver a pressure medium and having an open lower end, a guide tube communicating at its upper end with the lower end of said chamber so as to receive the pressure medium therefrom and provided at its upper end with an upwardly flaring flange which bears against the lower end of said chamber, a drill rod reciprocating in said tube and provided at its lower end with a bit which is compelled to turn with said tube but is free to move lengthwise independently thereof, and means for rotating said tube.

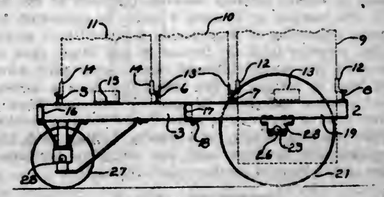
3. A drilling machine comprising a chamber adapted to receive and deliver a pressure medium and having an open lower end, a guide tube communicating at its upper end with the lower end of said chamber so as to receive the pressure medium therefrom and provided at its upper end with an upwardly flaring flange which bears against the lower end of said chamber, a drill rod reciprocating in said tube and provided at its lower end with a bit which is compelled to turn with said tube but is free to move lengthwise independently thereof, and means for rotating said tube comprising a gear rim arranged an said flange and a motor having a pinion meshing with said gear rim.

4. A drilling machine comprising a chamber adapted to receive and deliver a pressure medium and having an open lower end, a guide tube communicating at its upper end with the lower end of said chamber so as to receive the pressure medium therefrom and bearing at its upper end against the lower end of said chamber, a cap inclosing the upper end of said tube and secured at its margin to the lower end of said chamber and provided centrally with a stuffing box in which said tube turns and a drill rod which reciprocates in said tube.

5. A drilling machine comprising a rotatable guide tube, a bit mounted on said tube so as to turn therewith but be capable of lengthwise movement independently thereof, a drill rod reciprocating in said guide tube and operatively related to said bit, a water motor operatively connected with said tube for turning the same and having its water outlet communicating with the upper end of said guide tube, a water supply pipe having a branch communicating with the inlet of said motor and another branch communicating with the upper end of said guide tube, and a water controlling valve for directing the water from said supply pipe into either one or the other of said branch pipes.

[Claims 6 to 20 not printed in the Gazette.]

1,203,861. TRUCK. HENRY P. J. EARNSHAW, Boston, Mass., assignor to Earnshaw Manufacturing Company, Incorporated, Hartford, Conn., a Corporation of Connecticut. Filed Mar. 29, 1916. Serial No. 87,899. (Cl. 21—182.)



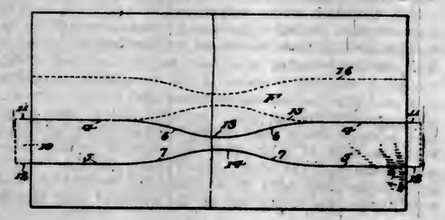
1. A vehicle frame having a body comprising parallel sides, a transverse connecting member connected with the sides between the ends thereof and extending outwardly therefrom, a second transverse connecting member connected with said sides and also extending outwardly therefrom, one of said connecting members being located above and the other beneath said sides, longitudinally extending connecting members overlying and underlying the extended portions respectively of the transverse connecting members, axles supported by the sides and also by the longitudinally extending members, and wheels on the axles, between said sides and respective longitudinally extending members.

2. A vehicle frame having a body comprising parallel sides, struts spaced from each other longitudinally of the

body and connecting the sides, a transverse connecting member connected with the sides between the ends thereof and extending outwardly therefrom and located beneath said sides, a second transverse connecting member located above said sides approximately at the end of the body and extending outwardly from the body at opposite ends thereof, longitudinally extending connecting members overlying and underlying the extended portions respectively of the transverse connecting members, axles supported by the sides and also by the longitudinally extending members, and wheels on the axles, between said sides and respective longitudinally extending members.

3. A vehicle frame having a body comprising sides, transverse members connected with the sides and extending outwardly therefrom, members extending longitudinally of the frame and connecting said extended portions to thereby provide outriggers, wheels within said outriggers, coaxial axles on which said wheels are mounted and carried respectively by the sides and longitudinally extending connecting members, and the rear one of said transverse members being bolted to said sides, the two transverse members being separated longitudinally of the body to receive therebetween a boiler.

1,203,862. METHOD OF CUTTING AND ARRANGING MATERIAL FOR COLLARETS. GEORGE W. EBERLEY, Whitesboro, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 6, 1912. Serial No. 729,835. (Cl. 2—66.)



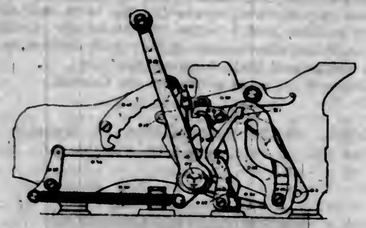
1. The method of forming a series of connected shaped fabric blanks, consisting in piling the fabric in connected layers formed by a fold in the fabric, laid alternately at opposite sides of the pile, and cutting said piled fabric from one folded edge to the other, said lines of cutting being spaced and positioned so as to form connected blanks, each blank containing a fold in the piled fabric, which is located midway between the ends of the blank.

2. The method of forming a series of connected fabric blanks, consisting of superposing a plurality of layers of fabric, whereby folds are formed in said fabric upon opposite sides of a center line, and cutting said fabric whereby said lines of cutting at the center line form a double tapered portion extending in opposite direction from said center line, so that two or more shaped collaret blanks are formed simultaneously, and finally folding said blanks longitudinally between said side edges to position the edges of the tapered portions upon themselves.

1,203,863. MECHANICAL CALCULATOR. HALCOLM ELLIS, East Orange, N. J. Filed Oct. 13, 1914. Serial No. 866,481. (Cl. 235—133.)

1. In an adding and subtracting mechanism, the combination with accumulator wheels, of a reciprocating "carrying" detent adapted to move forward or backward constituting a single means adapted, on movement in one direction, to directly engage and turn an accumulator wheel of a higher order in a forward direction and, on movement in the other direction to turn the accumulator wheel in a backward direction, and means under the control of the accumulator wheels for positively shifting said detent in one direction or the other to effect "carrying" for either addition or subtraction.

2. In an adding and subtracting mechanism, the combination with accumulator wheels, of a reciprocatory "carrying" detent adapted to move forward or backward constituting a single means adapted, on movement in one direction, to directly engage and turn an accumulator wheel of a higher order in a forward direction and, on movement in the other direction to turn the accumulator wheel in a backward direction, and selectively settable means under the control of the accumulator wheels for positively shifting said detent in one direction or the other to effect "carrying" for either addition or subtraction.



3. In an adding and subtracting mechanism, the combination with accumulator wheels, of a "carrying" detent adapted to move forward or backward and, on movement in either direction, to turn an accumulator wheel of a higher order in a forward or backward direction, means for moving said detent comprising two mechanisms both controlled by a wheel of a lower order, one mechanism being adapted to move the detent in one direction and the other mechanism to move said detent in the opposite direction.

4. In an adding and subtracting mechanism, the combination with accumulator wheels, of a "carrying" detent adapted to move forward or backward, and on movement in either direction to turn an accumulator wheel of higher order in a forward or backward direction, means for moving said detent comprising two mechanisms both controlled by a wheel of a lower order, one mechanism being adapted to move the detent in one direction and the other mechanism to move said detent in the opposite direction, and means for selectively locking one of said mechanisms when rendering the other mechanism operative.

5. In an adding and subtracting mechanism, the combination with accumulator wheels, of "carrying" detents adapted to move forward or backward, according to whether addition or subtraction is to be performed, and selectively controlled operating means for said carrying detents, said operating means being adapted to determine the direction of movement of said detents when carrying and to lock said detents when they are not operated for carrying purposes, to thereby adapt said detents to lock the accumulator wheels.

[Claims 6 to 19 not printed in the Gazette.]

1,203,864. COMBINED MUSIC STAND AND CASE. CHRISTIAN M. ENGEBRETSON, Starbuck, Minn. Filed Mar. 8, 1915. Serial No. 13,065. (Cl. 45—121.)

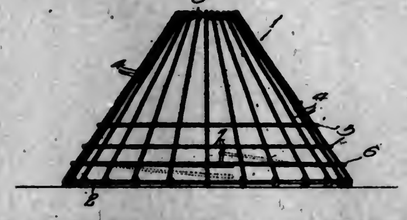
1. In a music stand and case, a standard consisting of a pair of alined tubular members, a desk carried by one of the members, a block slidably mounted in the other member, legs carried by the block and adapted to extend through the lower end of the last mentioned member, a spring for forcing the block toward the lower end of the member, a locking plate rotatably mounted on the lower end of the tubular member adjacent the legs, the said plate having a plurality of radially extending slots through which the legs extend and offset portions in the slots, the said plate being arranged by its rotation on the lower end of the standard to maintain the legs in their extended positions when the legs are located in the offset portions of the slots.

2. In a music stand, the combination with a tubular member, of a socket member slidably mounted therein, an arm carried by the socket member, a strip slidably mounted on the arm, pairs of arms pivotally mounted on the first mentioned arm, bars pivotally connecting the ends of the corresponding members of the pairs, resilient means for normally maintaining the pairs of arms in angular relation to the first mentioned arm, brace bars pivotally



connected to the lowermost pair of arms and to the upper end of the strip, an abutment on one of the brace members and a latch member carried by said socket member for engaging the abutment to maintain the first mentioned arm and the elements carried thereby within the tubular member.

1,203,865. POULTRY-FEEDER. ANDREW A. FAIR, Sioux City, Iowa. Filed Jan. 6, 1916. Serial No. 70,665. (Cl. 119—19.)



1. A poultry feeder comprising a cage in which feed is to be placed, said cage including a plurality of upstanding rods spaced apart distances to allow comparatively large birds to pass therebetween, a horizontally disposed hoop secured to said rods and spaced upwardly from the lower ends thereof a distance to allow such comparatively large birds to pass thereunder, and a movable hoop spaced beneath the other hoop and adapted to be adjusted vertically to only admit birds under a certain size.

2. A poultry feeder comprising a cone-shaped cage including a plurality of upwardly and inwardly inclined rods spaced apart at their lower ends distances to allow comparatively large chicks to pass therebetween, a fixed horizontal hoop secured to said rods and spaced upwardly a sufficient distance to allow said comparatively large chicks to pass thereunder, and a vertically adjustable hoop contacting with the rods and disposed below the aforesaid hoop to permit only fowls under a certain size to enter the cage, said second hoop being split to allow it to contract when adjusted upwardly along the rods and to expand when moved downwardly thereon.

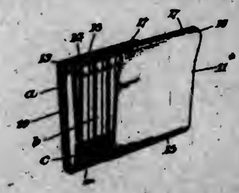
3. A poultry feeder comprising a cone-shaped cage including a plurality of upwardly and inwardly inclined rods forming the wall of said cage, the lower end of said rods being spaced sufficiently to allow comparatively large chicks to pass therebetween, a fixed horizontal hoop secured to said rods and spaced upwardly a distance to allow said comparatively large chicks to pass thereunder, and a vertically adjustable hoop disposed beneath the other hoop to allow only chicks under a certain size to enter the cage, said vertically adjustable hoop being split to allow it to expand and contract when adjusted vertically, and being passed under certain rods and over others whereby it will be held in vertically adjusted position by frictional contact with said rods.

1,203,866. CONTAINER. BEN KING FORD, Detroit, Mich., assignor to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Mar. 20, 1913. Serial No. 755,580. (Cl. 221—61.)



A container having an end of flat-sided form, said end consisting of sheet metal the edges of which are bent to form outstanding flanges which engage and hold the end edges of the body of the container, said end being countersunk within the said flanges to form a space for receiving a removable seal piece and being perforated beneath the seal piece; a sliding cover of sheet metal having opposite straight edges which are bent to embrace the said flanges of the end; and said separate removable seal piece being confined by said cover in the countersunk portion of the end and sealing the perforation in the end.

1,203,867. MATCH-HOLDER. SAMUEL M. FRIEDE, New York, N. Y., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 14, 1914. Serial No. 877,014. (Cl. 206—33.)



1. A match holder comprising a casing open at its ends and provided on one of its inner walls with vertically spaced means for slidingly engaging and holding a match package adjacent the head and basal portions of the matches, whereby said package can be slid into or from either open end of the casing in a path at right angles to the length of the matches.

2. A match holder comprising associated body and cover portions, the body portion having therein top and bottom channels adapted to receive and slidingly hold the upper and lower edges respectively of a match package adjacent the head and basal portions of the matches, whereby said package can be slid into or from either open end of the casing in a path at right angles to the length of the matches.

3. A match holder comprising a body portion having therein top and bottom channels adapted to receive and slidingly hold the upper and lower edges respectively of a match package adjacent the head and basal portions of

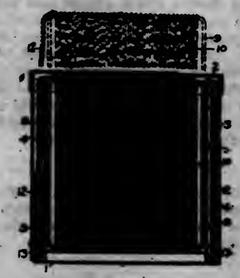
the matches, whereby said package can be slid into or from either open end of the casing in a path at right angles to the length of the matches, and comprising also a cover portion slidingly fitted to the body portion, whereby relative bodily endwise movement of the casing and the cover can be effected in order to expose the matches and the ignition or striking surface therefor at either end of the casing.

4. A match holder comprising body and cover portions, the body portions having spaced flanges providing channels to receive and hold a match package, and having also a forwardly projecting ledge adapted to overhang the match heads of the package, and the cover portion having a top ledge and a bottom flange slidingly fitted respectively to the ledge and bottom flange of the body portion.

5. A match holder comprising a body portion having channels on its inner side spaced to receive and slidingly hold the upper and lower edges of a match package adjacent the head and basal portions of the matches, whereby said package can be slid into or from either open end of the casing in a path at right angles to the length of the matches, a cover slidingly fitted to said body portion, and a limiting stop for the cover, whereby relative bodily endwise movement of the casing and the cover can be effected in order to expose the matches and the ignition or striking surface therefor at either end of the casing.

[Claims 6 and 7 not printed in the Gazette.]

1,203,868. SANITARY SCREEN. FRANCIS GRANGER, Greensburg, Pa. Filed Sept. 25, 1913. Serial No. 791,736. (Cl. 137—154.)



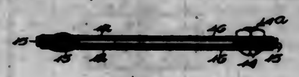
1. In a vaporizer, the combination with a supporting frame having hollow side members forming fluid reservoirs, and having guide-ways, a wick frame having absorbent material stretched thereover, said frame being adapted to be placed in said guide-ways with a portion of said absorbent material extending into one of said reservoirs.

2. In a vaporizer, the combination with a supporting frame comprising side and bottom members, said side members being hollow to form fluid reservoirs and having guide-ways formed thereon, a wick frame adapted to fit within said guide-ways and carrying a wick member adapted to extend into one of said reservoirs and a cap member for said frame adapted to inclose said reservoirs and confine said wick frame within said main frame.

3. A vaporizer, comprising a supporting frame having hollow side members forming separate fluid reservoirs, a plurality of interchangeable separate wick frames carrying wicks the terminals of which are adapted to extend into said reservoirs, means for holding said wick frames in said supporting frame in operative connection with said reservoirs.

1,203,869. CORN AND CALLOUS REMOVER. BARRY E. HALM, Greenfield, Mass. Filed Jan. 15, 1916. Serial No. 72,841. (Cl. 30—23.)

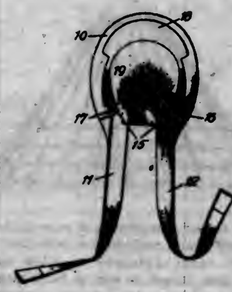
1. A corn-removing implement, comprising two thin saw blades placed side by side with their serrated edges parallel and flush with each other, spacing washers interposed between said blades, and formed to separate the blades by a space substantially equal to the thickness of a blade, and transverse fastening members connecting said blades and washers, the thickness and spacing of the blades being such that their serrated edges are adapted to act simultaneously on a corn and form independent kerfs therein.



2. A corn-removing implement, comprising two thin saw blades placed side by side with their serrated edges parallel and flush with each other, spacing washers interposed between said blades, and two transverse fastening members connecting said blades and washers, and formed to separate the blades by a space substantially equal to the thickness of a blade, one of said fastening members being inseparably connected with the blades to form a permanent hinge, and the other member being removable to permit the blades to swing independently on the said hinge.

3. A corn-removing implement, comprising two thin saw blades placed side by side with their serrated edges parallel and flush with each other, spacing washers interposed between said blades, and formed to separate the blades by a space substantially equal to the thickness of a blade, reinforcing strips bearing on the outer sides of said blades, and transverse fastening members connecting said blades, washers and strips, and provided with means for clamping the strips against the blades, the lower edges of said strips being located above the serrated edges of the blades, and constituting gages limiting the depth of cut of the serrated edges.

1,203,870. COMBINED HOOD AND SCARF. SAMUEL W. HALLAM and AMBROSE T. HOULDSWORTH, New York, N. Y. Filed Jan. 5, 1915. Serial No. 612. (Cl. 2—118.)

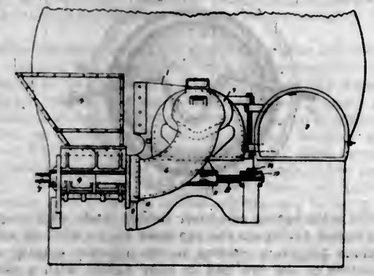


1. In a head covering, a hood member adapted to be applied to the head of a person to cover the back and top thereof, and a U-shaped scarf member secured at its central portion to the rear lower edge of said hood member, the ends of said scarf member being free and adapted to be passed around the neck of the wearer in overlapping engagement; said hood member being provided at its front edge with a visor lying normally flat upon the top thereof and adapted to be turned downwardly to partially cover the face of the wearer and conforming to the shape thereof, together with an independent flap attached to the rear portion of the scarf member and depending loosely therefrom to protect the back of the neck of the wearer.

2. In a head covering, a hood member adapted to be applied to the head of a person to cover the back and top thereof, a U-shaped scarf member secured at its central portion to the rear lower edge of the hood member, the ends of said scarf being free and adapted to be passed around the neck of the wearer in overlapping engagement,

and a welt attached to the front edge of said hood member and adapted to have its ends meet under the chin of the wearer, together with means for detachably attaching said ends substantially as described.

1,203,871. MECHANICAL STOKER. WILLIAM T. HANNA, Cincinnati, Ohio, assignor, by mesne assignments to The Mechanical Construction Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 2, 1912. Serial No. 669,057. (Cl. 110—101.)



In a mechanical stoker, the combination with a furnace having a fuel opening, of a hopper located to one side of said opening, a door for said opening hinged at the opposite side wall, a fuel conduit extending from said hopper beneath said door and carrying a hood adapted to extend up to and to close said fuel opening, said conduit being rotatably supported upon a bearing at the delivery end of the hopper and upon an axle concentric with said delivery end to expose or connect with said fuel opening.

1,203,872. DREDGING-CAN. JERVIS R. HARBECK, Detroit, Mich., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Nov. 22, 1909. Serial No. 529,426. (Cl. 221—64.)



In a dredging can, in combination: a fiber body; a sheet metal top formed with an upwardly bulged and perforated central portion, an outer channel portion, a vertical flange fitting the interior of the body and a seam flange which is crimped into the exterior of the end of the fiber body so as to permanently compress and secure the same against said vertical flange of the top; and a perforated outwardly bulged cover the central portion of which fits on the bulged portion of said top and extends over said channel portion and seam flange of the top, said cover being formed with a marginal flange bent downwardly and inwardly to embrace the exterior of the said seam flange, to rotatably hold the cover to the top.

1,203,873. TIME-CONTROLLED APPARATUS. ARTHUR G. HATCH and FRED WALDORF, Duluth, Minn. Filed Dec. 10, 1915. Serial No. 66,164. (Cl. 161—6.)

1. In an apparatus of the character described, the combination of a clock mechanism, a trip mechanism controlled thereby and including a toothed wheel, a casing for said mechanisms, a rod guided in said casing to slide relatively thereto and having a member arranged to mesh with said wheel, said trip mechanism being constructed and arranged to hold the wheel against rotation in one direction until released by said clock mechanism, but permitting rotation of said wheel in the opposite direction at all times, means connected with said casing constructed and arranged to support it in a suspended position, and a spring independent of said trip mechanism acting on said rod to move it when said wheel is released by said trip mechanism.



2. In an apparatus of the character described, the combination of a clock mechanism, a trip mechanism controlled thereby, a casing inclosing said mechanisms, a casing extension projecting upwardly therefrom and constructed to hang vertically from a suitable support while in use, a member mounted for movement longitudinally in said extension and coöperating with said trip mechanism to enable the trip mechanism to hold it against movement in one direction, and a spring positioned in said extension and acting on said member to move it in said direction when it is released by said trip mechanism.

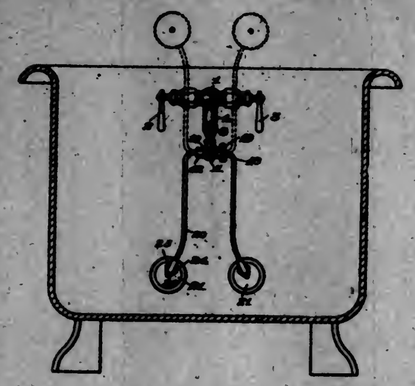
3. In an apparatus of the character described, the combination of a clock mechanism, a casing inclosing said mechanism, a tube projecting upwardly from said casing, a rod mounted for longitudinal movement in said tube, means connected with said tube whereby the casing may be hung in a vertical position while in use, a spring positioned in said tube and connected with said rod to raise it, a toothed part on said rod, and a trip mechanism controlled by said clock mechanism and including a toothed wheel arranged to be engaged and rotated in one direction by said toothed part, said trip mechanism being operative to hold the rod normally against upward movement until released by said clock mechanism.

4. An apparatus of the character described having, in combination, a clock mechanism, a casing therefor, a spring support extending vertically from said casing, said support being constructed and arranged to hang from a suitable support thus sustaining the apparatus in a supended position while in use, a helical tension spring connected at its upper end to said support, a member connected to the lower end of said spring to be lifted thereby, a trip mechanism arranged to be controlled by said clock mechanism and including a part normally prevented from moving in one direction by said trip mechanism but freely movable in the opposite direction, said part coöperating with said member to enable the trip mechanism normally to prevent the spring from moving said member.

5. An apparatus of the character described having, in combination, a clock mechanism, a casing therefor, a casing extension projecting vertically therefrom, a rod mounted to slide longitudinally of said extension, a spring supported by said extension and connected with said rod to raise it, a rack on said rod and a trip mechanism controlled by said clock mechanism and including a toothed wheel with which said rack is arranged to mesh, said wheel being mounted to be rotated by said rack upon its downward movement but being operative normally to prevent the rack from moving upwardly.

[Claim 6 not printed in the Gazette.]

1,202,874. BATH APPLIANCE. FREDERICK O. HILFIKER, Rochester, N. Y. Filed Feb. 7, 1914. Serial No. 817,177. (Cl. 4—26.)



1. In a spray attachment for bath tubs, the combination with a supply head adapted to be connected to the faucet of the tub and having a direct discharge outlet, of a spray member embodying a tubular arm having a spray head at its outer end and arranged to turn about a horizontal axis with its interior in communication with the interior of the supply head and adapted to be rotated to an operative position above or an inoperative position below the supply head and faucet, and a valve portion within the head controlled by the spray member for closing the discharge outlet in the head when the spray member is in operative position.

2. In a spray attachment for bath tubs, the combination with a supply head adapted to be connected to the faucet of the tub and having a discharge outlet, of a spray member embodying a tubular arm having a spray head at its outer end journaled at its inner end in the supply head to turn about a horizontal axis with its interior in communication with the interior of the head and adapted to be rotated to an operative position above or an inoperative position below the supply head and faucet, and a valve portion on the spray member within the head for closing the discharge outlet thereof when the spray member is in operative position.

3. In a bath spray attachment, the combination with a supply head having a nipple at the top adapting it for attachment to a bath faucet, a discharge outlet below and an intervening horizontal transverse valve chamber, of a valve member rotatable in the chamber to open and close the discharge outlet and a vertically swinging spray arm having an elevated operative position and a lowered inoperative position, and communicating with the head through the valve member, said spray arm being connected to the latter to actuate the same when the spray member is moved between the said positions.

4. In a bath spray attachment, the combination with a supply head having a nipple at the top adapting it for attachment to a bath faucet, a discharge outlet below and an intervening horizontal transverse valve chamber, of a tubular yoke shaped member constituting a pair of connecting spray arms communicating with the head and adapted to adjustably assume a raised operative position above the head or a lowered inoperative position below the head, and a valve member constituting the connecting portion of the yoke and rotatable horizontally in the valve chamber of the head to open and close the discharge outlet with the adjusting movements of the spray arms.

5. The combination with a bath tub having a faucet in a wall thereof, and a supply head communicating with the faucet, of a rigid spray arm communicating with and journaled in the head and adapted to swing upon a fixed center between a raised operative position above the faucet and a lowered inoperative position within the tub below the faucet.

[Claim 6 not printed in the Gazette.]

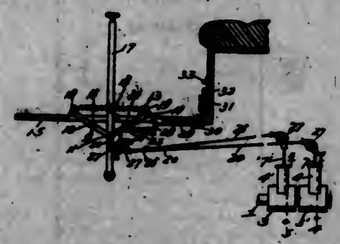
1,203,875. FOOD-PRESERVING CONTAINER. JOHN G. HOPESON, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 18, 1914. Serial No. 819,362. (Cl. 220—61.)



1. The wire spring can-cover holder made with hooked ends adapted to engage the can body on its vertical sides, at various heights according to the pressure applied and irrespective of the can end or body flange, with a biting engagement, and formed with a laterally extended bent portion to engage and press down on the cover.

2. The wire spring can-cover holder made with hooked ends adapted to engage the can body and a laterally extended and downwardly bent spring portion to engage and press down on the cover, in combination with the can, its cover and a packing between the cover and can, the upward pressure of the cover on the downwardly bent portion of the holder acting to force the hooked ends against the sides of the can with a biting engagement and at various heights according to the pressure applied and irrespective of the can end or body flange.

1,203,876. BACK-STOP BRAKE FOR AUTOMOBILES. LEVI HORNOR, Wichita, Kans. Filed June 1, 1916. Serial No. 101,118. (Cl. 21—8.)



1. In a mechanism of the character described, a rotatable member, a dog mounted for movement into and out of engagement with said member, a second member hingedly connected with the dog to bear against the first mentioned member whereby the rotation of the first mentioned member in one direction moves the dog to inoperative position.

2. In a mechanism of the character described, a rotatable toothed collar, a toothed dog mounted for sliding movement into and out of engagement with said collar, a bearing hingedly connected with the dog to swing toward and away from the collar, and a pinion journaled to the bearing and adapted to engage the teeth of the collar, said bearing when swung toward the collar serving as a prop to hold the dog separated from the collar.

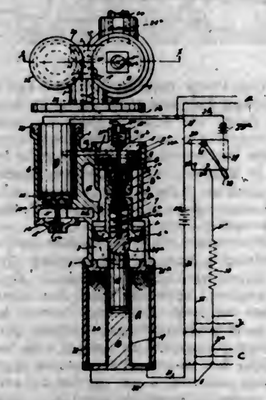
3. In a mechanism of the character described, a rotatable toothed collar, a toothed dog mounted for sliding movement into and out of engagement with said collar, a bearing hingedly connected with the dog to swing toward and away from the collar, a pinion journaled to the bearing and adapted to engage the teeth of the collar, said bearing when swung toward the collar serving as a prop to hold the dog separated from the collar, means tending to swing said bearing toward the collar, means for swinging the bearing away from the collar, and means for moving the dog away from the collar.

4. The combination with movable means of an automobile and a gear shift lever, of means for stopping said means, a device operated by said lever when moved from neutral to its other positions for holding the stopping means in inoperative position, and manually releasably means to hold the holding means when operated by said lever.

5. The combination with a movable member and a gear shift lever of an automobile, of a dog engageable with said member for stopping it, a pair of oppositely disposed U-shaped levers fulcrumed between their bends and terminals and having their terminals engaged with one another, said U-shaped levers surrounding the gear shift lever and being so arranged that the gear shift lever in being moved to different positions will engage the bends of said U-shaped levers to swing them, means operatively connecting said U-shaped levers and the dog to move the dog to inoperative position when said U-shaped levers are swung by the gear shift lever, and a releasable catch for holding said U-shaped levers when moved by the gear shift lever.

[Claims 6 to 8 not printed in the Gazette.]

1,203,877. ELECTROMAGNETIC AIR-BRAKE. EDWARD R. HUMPHREY, Victoria, British Columbia, Canada, assignor to Safety First Air Brake Company (Canada) Limited, Victoria, Canada. Filed Sept. 23, 1914. Serial No. 863,066. (Cl. 188—4.)



1. In a device of the class described, the combination with an air-brake system for trains which includes triple valves which embrace piston valves, of dual means for controlling the triple valves of the system, each of said dual means being operable independently of the other, and including solenoid magnets.

2. In a device of the class described, the combination with an air-brake system for trains which includes triple valves which embrace connected valves, including a piston valve and a secondary piston valve and a piston, of dual means for controlling the triple valves of the system, each of said dual means being operable independently of the other, said means including a pin which is fixed to the said piston valve and slidable with respect to the piston and secondary piston valve, and a spring which holds the secondary piston valve normally seated with respect to the said piston valve, and which also holds the secondary piston valve seated with respect to the said piston.

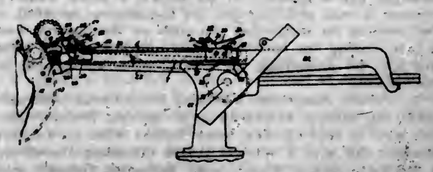
3. In a device of the class described, the combination with an air-brake system for trains which includes triple valves which embrace connected valves, including a piston valve and a secondary piston valve and a piston, of dual means for controlling the triple valves of the system, each of said dual means being operable independently of the other, said means including a pin which is fixed to the said piston valve and slidable with respect to the piston and secondary piston valve, and a spring which holds the secondary piston valve normally closed with respect to the said piston valve, and which also holds the said secondary valve closed with respect to the piston, whereby the simultaneous operation of the piston valve and secondary of the said valves effects a light or service application and a similar operation of all of the said valves effects an emergency application.

4. In a device of the class described, the combination with an air-brake system for trains which includes triple valves, which embrace connected valves, including a piston valve and a secondary piston valve and a piston, of dual means for controlling the triple valves of the system, each of said dual means being operable independently of the other, said means including a pin which is fixed to the said piston valve and slidable with respect to the said secondary piston valve and piston, and a spring which holds the secondary piston valve normally closed with respect to the piston valve, and which also holds the secondary piston valve closed with respect to the piston, a casing secured to the triple valve body, a magnet within the said casing, the plunger of said magnet being integral with the said piston valve, whereby when the said plunger is attracted to its magnet an emergency application is effected.

5. In a device of the class described, the combination with an air-brake system for trains which includes triple valves, which embrace connected valves, including a piston valve and a secondary piston valve and a piston, of dual means for controlling the triple valves of the system, each of said dual means being operable independently of the other, said means including a pin which is fixed to the said piston valve and slidable with respect to the piston and secondary piston valve, and a spring which holds the secondary piston valve normally closed with respect to the said piston valve, a casing secured to the triple valve body, a magnet within the said casing, the plunger of said magnet being integral with the said piston valve, there being a greater force required to cause an emergency than a light application, means for producing such variation of force, including a plurality of interdependent and normally open electrical circuits, a resistance coil in one of the said circuits and a switch for completing either of said circuits.

[Claims 6 and 7 not printed in the Gazette.]

1,203,878. DELIVERY MECHANISM FOR PRINTING-PRESSES. WINFIELD S. HUSON, Derby, and CHRISTEN R. KADDELAND, Shelton, Conn., assignors to The Whitlock Printing Press Mfg. Co., Derby, Conn., a Corporation. Filed Mar. 13, 1916. Serial No. 83,759. (Cl. 101—31.)



1. In a multi-stage delivery mechanism for printing presses, the combination with a reciprocating tape-carriage mounting intermittently actuated extensible tapes, of sheet-justifying means carried by the said carriage and positioned thereupon to co-act with the on-coming sheet preparatory to the advancement of the said sheet to its next position on the said tapes.

2. In a multi-stage delivery mechanism for printing presses, the combination with a reciprocating tape-carriage mounting intermittently actuated extensible tapes, of sheet-justifying means mounted upon the said carriage at the inner end thereof and arranged to co-act with the on-coming sheet to retard and justify the same preparatory to the advancement of the said sheet to its next position on the said tapes.

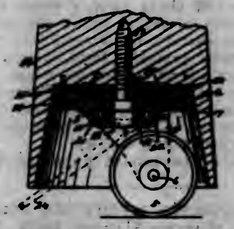
3. In a multi-stage delivery mechanism for printing presses, the combination with a reciprocating tape-carriage, of tapes actuated by the said carriage on the out-stroke thereof, and sheet-justifying means mounted upon the said carriage and movable between the tapes so as to act in the plane of the on-coming sheet to retard and justify the same preparatory to the advancement of the said sheet to its next position on the said tape-carriage.

4. In a multi-stage delivery mechanism for printing presses, the combination with a reciprocating tape-carriage, of extensible tapes therefor intermittently actuated by the movement thereof, and rocking sheet-stop fingers carried by the said carriage and adapted to be moved downward between the said tapes into the path of the on-coming sheet preparatory to the advancement of the said sheet to its next position on the said tapes, and the said fingers being lifted above the said tapes during the return movement of the carriage.

5. In a multi-stage delivery mechanism for printing presses, the combination with a reciprocating tape-carriage, of extensible tapes applied to the said carriage, a rock-shaft mounted upon the carriage, and sheet-stop fingers mounted upon the said shaft and adapted to be rocked downward between the tapes into the path of the on-coming sheet preparatory to the advancement of the said sheet to its next position on the said tapes and the said fingers being rocked upward above the said tapes to clear the sheet on the return movement of the said carriage.

[Claims 6 to 17 not printed in the Gazette.]

1,203,879. CASTER. FRANK JANSEN, Hamilton, Ohio, assignor of one-third to Edward T. Malloy and one-third to George J. Kalberer, Hamilton, Ohio. Filed July 28, 1916. Serial No. 111,818. (Cl. 16—73.)



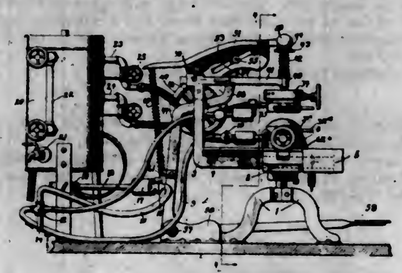
1. A caster comprising a housing formed with a vertical opening therethrough, a plate formed with a stem depending within the opening, said stem and plate being formed with an axial opening having its lower portion enlarged and angular in cross section, a screw movably secured in said axial opening for the purpose specified, a ball bearing for supporting the plate on the housing, and a ball bearing for resisting lateral thrusts on the stem and also for preventing its removal from the opening in the housing.

2. A caster comprising a housing formed with a circular plane top surface having an axial opening therethrough, the wall of said opening being formed with an annular channel and with a vertical groove extending therefrom, a top plate formed with a stem depending through said opening and with a concentric channel in its lower surface, anti friction balls movable within said channel for supporting the top plate above the housing, said stem being formed with an annular channel in registration with the channel in the opening in the housing and also with a vertical groove extending therefrom adapted to register with the former groove and terminating in a circular opening through the top plate, and anti friction balls admitted through said opening and grooves to the registering channels for preventing the removal of the stem and for resisting lateral thrusts thereon.

3. A caster comprising a housing formed with a circular vertical opening, a top plate formed with a stem depending within the opening, a ball bearing for supporting the plate on the housing, a ball bearing encircling the stem within the opening, said stem and plate being formed with an axial opening therethrough having an enlarged and angular lower portion and a lag screw movably secured in said axial opening for securing the caster to an article of furniture.

4. A caster comprising a housing formed with a circular plane top surface with an axial opening therethrough, a plate formed with a stem depending within said opening, a ball bearing for supporting the plate above said plane surface, and a ball bearing encircling the stem within the opening and arranged to prevent its removal therefrom.

1,203,880. STEAM-PRESSING MACHINE. MEYER M. KANE, Chicago, Ill. Filed Dec. 27, 1915. Serial No. 68,888. (Cl. 68—9.)



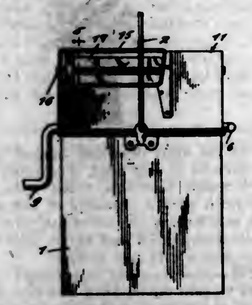
1. A combination steam pressing machine and ironing apparatus comprising a frame, steam pressing boxes, one box positioned above the other, adjustable rack bars, bosses thereon, supports upon the upper box mounted in said boxes, means for moving the rack bars to hold the upper press box in different positions, a pivotal plate having projecting portions adapted to contact with said supports for the upper box, and an angle lever adapted to actuate said depressible plate.

2. A combination steam pressing machine and ironing apparatus comprising a frame, steam pressing boxes, one box positioned above the other, adjustable rack bars, bosses thereon, supports upon the upper box mounted in said bosses, means for moving the rack bars to hold the upper press box in different positions, a pivotal plate having projecting portions adapted to contact with said supports for the upper box, a pivotally mounted angle lever with a tread upon one end, a pin carried by said lever and movable in a slot in the shank portion of said plate, the latter being adapted to contact with the supports for the upper box.

3. A combination steam pressing machine and ironing apparatus comprising a frame, steam pressing boxes, one box positioned above the other, adjustable rack bars, bosses thereon, supports upon the upper box mounted in said bosses, means for moving the rack bars to hold the upper press box in different positions, a pivotal plate having projecting portions adapted to contact with said supports for the upper box, a pivotally mounted angle lever with a tread upon one end, a pin carried by said lever and movable in a slot in the shank portion of said plate, the latter being adapted to contact with the supports for the upper box, and a spring fastened at one end to one end of said plate and its other end to said lever.

4. A combination steam pressing machine and ironing apparatus comprising a frame, steam pressing boxes, means for adjusting the upper box to different positions, rack bars, bosses carried thereby and in which said supports are mounted, gear mechanism for actuating said rack bars, a pivotal plate mounted upon the frame, a pivotal angle lever having a tread thereon, a pin carried by said lever, a slot in the plate in which said pin works, and a spring connected at one end to the plate and the other end to the lever.

1,203,881. ASH-SIFTER. JOHN G. KING, Burlington, N. C. Filed Sept. 13, 1915. Serial No. 50,443. (Cl. 83—60.)



An ash sifter comprising a receptacle, a cover for the receptacle, a sieve rotatably supported by the receptacle, said cover having a throat projecting from one side thereof, a fan shaft rotatably supported by the cover and adjacent the throat, a disk fixed to the fan shaft and engaged with the sieve to rotate the fan shaft, as and for the purpose set forth.

1,203,882. BROOCH. CLIFFORD G. KING, Providence, R. I. Filed Apr. 3, 1912. Serial No. 688,217. (Cl. 24—161.)

1. In a pin, a pin-tongue of spring material bent upon itself and comprising an upper and a lower arm, said lower arm being provided with an enlarged bearing surface for the fabric, a plate, pin-point-retaining means near one end of said plate and a stop near the other end thereof, the lower arm of said pin-tongue being upwardly bowed and constituting a spring-bridge for maintaining said upper arm when released from said retaining-means under tension against said stop.

2. In a pin, a pin-tongue of spring material bent upon itself and comprising an upper and lower arm, the middle portion of said lower arm being bent into a spiral, a plate, pin-point-retaining means near one end of said plate and a stop near the other end thereof, the lower arm of said pin-tongue being upwardly bowed and constituting a spring-bridge for maintaining said upper arm when released from said retaining means under tension against said stop.

3. In a pin, a front-plate having a hood and pin-point-retaining means formed integral with the opposite ends thereof, a pin-tongue of spring material bent upon itself and comprising an upper and lower arm, the lower arm of said pin-tongue being provided with an enlarged bearing surface for the fabric and constituting a spring-bridge for maintaining said upper arm when released from said pin-point-retaining means under tension against said hood.

4. In a pin, a front-plate having a hood and pin-point-retaining means formed integral with the opposite ends thereof, a pin-tongue of spring material bent upon itself and comprising an upper and a lower arm, the middle portion of said lower arm being formed into a spiral and said lower arm constituting a spring-bridge for maintaining said upper arm when released from said pin-point-retaining means under tension against said hood.

5. In a pin, a front-plate having a hood and pin-point-retaining means formed integral with the opposite ends thereof, a pin-tongue of spring material bent upon itself and comprising an upper and a lower arm, the bent portion of said pin-tongue being arranged within said hood, and the end of said lower arm being secured to said front-plate at the end of the latter which forms pin-point-retaining means.

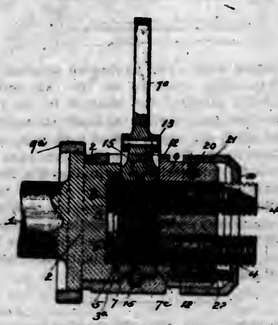
[Claims 6 to 10 not printed in the Gazette.]

1,203,883. GEARING DEVICE FOR WASHING-MACHINES. GEORGE W. LEWIS, Grinnell, Iowa. Filed Dec. 8, 1913. Serial No. 805,461. (Cl. 74—34.)



A device of the class described, comprising a support, a power shaft, two brackets fixed to the support and each having a hollow body portion near its upper end through which the power shaft is extended, a bearing device at one end of the power shaft pivotally mounted within one of the said brackets, a gear casing carried by said bearing, a second bearing within the other bracket pivotally supported therein, a gear casing carried by said second bearing and having an internal gear, a hub fixed to the power shaft within the latter gear casing, pinions carried by said hub in mesh with the internal gear, and a balance wheel loose on the power shaft and having a pinion in mesh with the pinions on the fixed hub, for the purposes stated.

1,203,884. COLLAPSIBLE TAP OR DIE. ROLLIN C. LEWIS, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Nov. 16, 1915. Serial No. 61,809. (Cl. 10—143.)



1. In a tool for forming screw threads, the combination of a body, a plurality of chasers carried by said body and located equidistant from the periphery thereof, each chaser being cylindrical in form and having a cutting edge and a flat face adjacent the cutting edge, a gear wheel fixed against movement parallel to the long axis of the tool and meshing with teeth on the series of chasers for turning them simultaneously in the same direction, a spring normally tending to turn said gear wheel, means for holding the wheel against the tension of the spring, and means for releasing the wheel holding means.

2. In a tool for forming screw threads, the combination of a body, a plurality of chasers carried by said body, a

gear wheel meshing with teeth on the chasers for rotating all of the chasers simultaneously in the same direction, the said gear wheel being fixed against movement parallel to the long axis of the tool, means for holding the gear against rotary movement, and means actuated by contact with the work being screw threaded to release said holding means, thus permitting the gear to turn the several chasers in a direction to disengage them from the work.

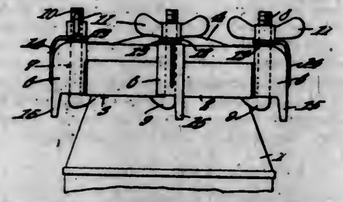
3. In a tool for forming screw threads, the combination of a body, a plurality of chasers carried thereby, each having a peripheral groove at its inner end, holding means engaging the grooves in the chasers for locking them in the body, a gear wheel fixed against movement in the direction of the long axis of the tool and engaging teeth on the several chasers for rotating the latter simultaneously, and means for rotating said gear wheel.

4. In a tool for forming screw threads, the combination of a body, a series of chasers mounted to rotate in said body and projecting at one end from the latter, each chaser having a peripheral groove at its inner end, a sectional disk engaging the peripheral grooves in the chasers for locking them to the body, and means for turning the chasers.

5. In a tool for forming screw threads, the combination of a body, a series of chasers mounted to rotate in said body, each chaser having a peripheral groove at its inner end, a sectional disk engaging the said grooves for locking the chasers to the body of the tool, the said disk sections adapted to be moved toward and away from the periphery of the body for releasing and locking the chasers, and means for rotating the latter.

[Claims 6 to 16 not printed in the Gazette.]

1,203,885. FASTENING DEVICE. CHARLES E. LOMBARD, East Wilton, Me. Filed Nov. 11, 1915. Serial No. 60,930. (Cl. 70—8.)



The combination with a can having an annular shoulder, of a cover detachably mounted on the can, outstanding ears thereon, bolts mounted for rotation in the respective ears, each bolt having a segmental head at its lower end, a nut threaded upon the upper end of each bolt, means for holding each nut against the top of the ear, each nut constituting means for successively swinging the head of its bolt into engagement with the shoulder and for tightening said head against the shoulder, thereby to bind the cover upon the can, and a stop depending from each ear for limiting the rotation of the adjacent head away from the shoulder, said head being movable into engagement with the shoulder at any desired point therealong.

1,203,886. BRUSH AND BROOM HANDLE. ARTHUR D. LONG, Fairfield, Iowa. Filed Jan. 28, 1916. Serial No. 74,804. (Cl. 15—24.)

1. In a device of the class described the combination with a brush head, a handle, of a frame secured to said brush head, said frame provided with spring receiving sockets at its respective ends, a frame secured to said handle, and means carried by said frame secured to said handle and yieldably connected to said spring receiving sockets for yieldably holding said handle in engagement with said frame.

2. In a device of the class described the combination with a brush head, a handle, of a frame secured to said brush head, said frame provided with spring receiving sockets at its respective ends, a frame secured to said handle, means carried by said frame secured to said handle and yieldably connected to said spring receiving sockets for yieldably holding said handle in engagement with said frame, and means for locking said handle at a rigid angle with respect to said head.



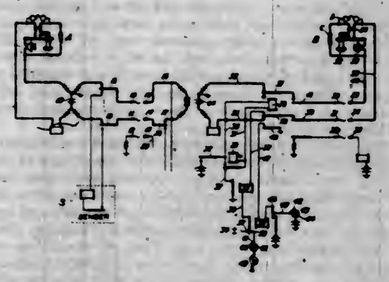
3. A device of the class described comprising a brush head, a handle secured to said head, a plurality of sockets carried by said frame, a handle frame secured to said handle and provided with a plurality of sockets adapted to register with said sockets carried by said first-mentioned frame, and a coil spring positioned within each socket and being secured thereto within said sockets.

4. A device of the class described comprising a broom head, a frame secured to said broom head and provided with a socket near each end thereof, said frame provided with a notch upon the under face thereof adjacent each socket, a coil spring fitting within each socket and provided with a projecting end fitting in said notch, a handle frame provided with a plurality of sockets adapted to register with said first mentioned sockets, said coil springs fitting in said sockets of said handle frame, and a transversely extending pin carried by each socket of said handle frame for fixedly securing said coil springs within said sockets of said handle frame.

5. A device of the class described comprising a broom head, a handle frame, a pair of pivotally connected links secured to said handle frame and broom head respectively, and means carried by said links for limiting the outward swing in one direction and adapted to hold said handle at an angle with respect to said head when said links are forced outwardly.

[Claims 6 to 9 not printed in the Gazette.]

1,203,887. MACHINE-SWITCHING TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Sept. 27, 1915. Serial No. 52,880. (Cl. 179—18.)

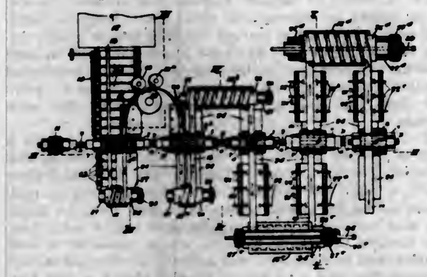


1. In a telephone exchange system, the combination with telephone lines, a connector wherein said lines terminate, and means for setting said connector on said lines, of a relay, a source of current and an interrupter for operating the same, two sources of ringing current controlled by said relay, electromagnetic means adapted to operate when the connector is set on the called line and to connect one or the other source in circuit with the called line dependent upon the condition of said relay, and means for cutting off the ringing current when the called party answers.

2. In a telephone exchange system, the combination with telephone lines, a connector wherein said lines terminate, means for setting said connector on said lines, a relay, a source of current and an interrupter for operating the same, a source of continuous ringing current connected to the back contact of said relay, a source of interrupted ringing current connected to the front contact of said relay, electromagnetic means adapted to operate when said connector is set on the called line to connect one or the other of said ringing current sources to the called line dependent upon the condition of said relay, and means for cutting off the ringing current when the called party answers.

3. In a telephone exchange system, the combination with telephone lines, a connector wherein said lines terminate, and means for setting said connector on said lines, a relay, a source of continuous ringing current connected to the back contact of said relay, a source of interrupted ringing current connected to the front contact of said relay, a source of current and an interrupter adapted to operate said relay, said interrupter being adapted to operate said relay only when said source of ringing current is closed to the front contact of said relay, electromagnetic means adapted to operate when said connector is set on the called line to connect the armature of said relay and the ringing current source at that moment connected thereto to the called line, and means for cutting off the ringing current when the called party answers.

1,203,888. CONTINUOUS ROLLING-MILL. JOHN B. MCKIBBIN, Crafton, Pa., assignor of three-eighths to Edmonds J. Sugden, Pittsburgh, Pa. Filed Mar. 12, 1915. Serial No. 13,854. (Cl. 80—37.)



1. In combination with two stands of rolls of a continuous train, a pair of curved spiral guideways extending beyond each set adapted to guide the blank from a horizontal toward a vertically edgewise position and vice versa, and a set of vertically arranged guiding rolls arranged between the outer terminals of said guideways whereby the blank is taken from one set of rolls, reversed as to its plane of moving position from horizontal to vertically edgewise and then from vertically edgewise to horizontal, and is then curved around and introduced into the adjacent stand.

2. In a rollingmill, the combination of a series of continuously driven axially connected main rolls, of a curved guiding track adapted to receive a blank horizontally from one stand of rolls and turn it on edge, vertically arranged guiding rollers, and a guiding track adapted to introduce the blank horizontally to another stand of rolls.

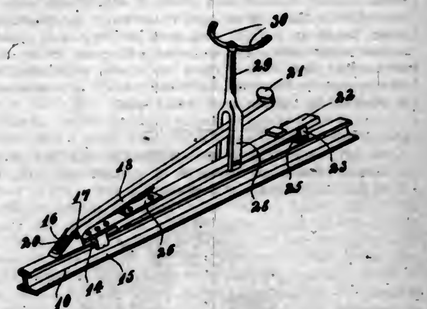
3. In a rolling mill, the combination with a continuous longitudinally connected series of main rolls and co-acting vertically arranged rolls providing a plurality of stands of rolls, of deflecting rollers arranged beyond and between the normal path of blank travel of adjacent stands, a curved spiral guideway adapted to direct the blank from a horizontal to a vertical position and to lead it from the first stand to said deflecting rollers, and a similar guideway adapted to direct the blank from a vertical to a horizontal position and to lead it from said deflecting rollers to the second stand.

4. In a rolling mill, the combination with a continuous longitudinally connected series of main rolls and co-acting companion rolls providing a plurality of stands of rolls, of an inner deflecting roller and outer deflecting rollers arranged beyond and between the normal path of blank travel of adjacent stands, a curved spiral guideway adapted to direct the blank from a horizontal to a vertical position and to lead it from the first stand to said deflecting rollers, and a similar guideway adapted to direct the blank from a vertical to a horizontal position and to lead it from said deflecting rollers to the second stand.

5. In a rolling mill, the combination with a continuous longitudinally connected series of main rolls and co-acting companion rolls providing a plurality of stands of rolls, of vertically arranged slightly tipped deflecting rollers arranged beyond and between the normal path of blank travel of adjacent stands, a curved spiral guideway adapted to direct the blank from a horizontal to a vertical position and to lead it from the first stand to said deflecting rollers, and a similar guideway adapted to direct the blank from a vertical to a horizontal position and to lead it from said deflecting rollers to the second stand.

[Claims 6 to 10 not printed in the Gazette.]

1,203,889. CAR-STARTER. JAN MALINIAK, Perth Amboy, N. J. Filed Aug. 22, 1916. Serial No. 116,220. (Cl. 254—86.)

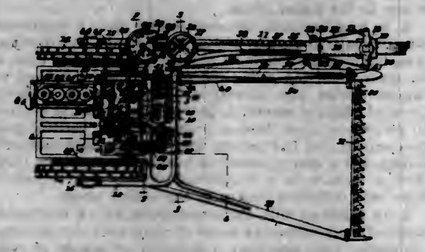


1. In a car mover, the combination with a base-plate suited to rest upon a rail, means for holding said plate in lateral engagement thereon, a lever fulcrumed on said plate, corrugations formed at the front of said lever adapted to engage with a car wheel, a spring interposed between said base-plate and said lever whereby the latter is held normally raised, and means whereby the implement may be propelled along said rail, said means also acting to steady the operator.

2. In a car mover, the combination with a base-plate embracing the head of a rail, vertical lugs formed at the front of said base-plate, a lever pivoted between said lugs, corrugations formed with the front end of said lever, a pad adapted to receive the foot of an operator formed with the rear of said lever, a bifurcated guiding means receptive of the lever, a spring disposed between said base-plate and said lever whereby the latter is held in a normally operative position and a roller mounted at the rear of said base-plate, adapted to rest upon the rail.

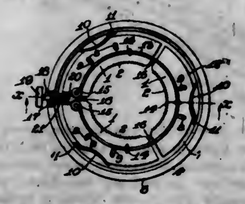
3. In a car mover, the combination with a sectional base-plate, lugs in the front section of the same adapted to engage with the side of a rail, a roller carried by the second element of said sectional base-plate, vertical lugs provided with the first named section, a lever pivoted therein, corrugations formed with said lever, a foot pad formed at the opposite end of said lever, a guide secured to the second section of said base-plate and means formed with said guide whereby said implement can be propelled.

1,203,890. MOWING-MACHINE. FRANCIS S. MANNON, Newport, Oreg. Filed May 19, 1916. Serial No. 98,641. (Cl. 56—78.)



A mowing machine including a frame, supporting wheels for said frame, cutting means carried by said frame, actuating means for said cutting means including a driven shaft, a driving shaft carried by said frame, means for transmitting rotary movement from said driving shaft to said supporting wheels, means for transmitting rotary movement from said driving shaft to said driven shaft, a clutch slidably mounted upon said driving shaft and provided with beveled gears, a second driven shaft provided with a gear extending between the gears of said clutch, means for rotating said second driven shaft, means for shifting said clutch to bring a selected gear into engagement with the gear of said last mentioned driven shaft, a brake drum carried by said driving shaft, a brake band passing around said drum, a tightening lever connected with the ends of said brake band for drawing the brake band into tight engagement with said drum, a rocker shaft rotatably connected with said frame, a link connecting said rocker shaft with said tightening lever, and means for moving said rocker shaft into and out of a position to tighten said brake band.

1,203,891. DEVICE FOR OPENING EGGS. SAMUEL MARKOWITZ, New York, N. Y. Filed Nov. 13, 1915. Serial No. 61,218. (Cl. 65—12.)



1. A device for opening eggs having the combination of an annular frame, a plurality of saws within said frame adapted to be placed over a portion of the egg, and an individual spring for each of said saws pressing its saw toward the center of said frame.

2. A device for opening eggs having the combination of an annular frame, a plurality of saws within said frame adapted to be placed over a portion of the egg, a spring for each of said saws pressing it toward the center of said frame, and means to move all of said saws apart contrary to the pressure of all of said springs.

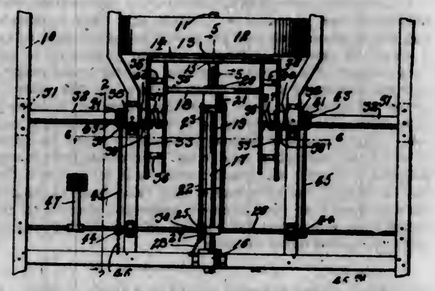
3. A device for opening eggs having the combination of an annular frame, a plurality of saws within said frame adapted to be placed over a portion of the egg, means for guiding each of said saws toward and away from the center of said ring, and a spring for each of said saws pressing it toward the center of said frame.

4. A device for opening eggs having the combination of an annular frame, a plurality of saws within said frame adapted to be placed over a portion of the egg, a spring for each of said saws pressing it toward the center of said frame, a flexible bar connecting said saws, and a stem adapted to press against the ends of said bar to move all of said saws simultaneously contrary to the pressure of their springs.

5. A device for opening eggs having the combination of an annular frame, a plurality of saws within said frame adapted to be placed over a portion of the egg, means for guiding said saws toward and away from the center of said frame, a spring for each of said saws pressing it toward the center of said frame, a bar connecting said saws, and a stem adapted to press against the ends of said bar to move all of said saws contrary to the pressure of all of said springs.

[Claims 6 and 7 not printed in the Gazette.]

1,203,892. TRANSMISSION-GEARING. ARCHIBALD J. MATHESON, Virgelle, Mont. Filed May 8, 1915. Serial No. 26,729. (Cl. 74—26.)



1. In a transmission gearing, the combination with a pair of friction wheels, of a hollow shaft, a friction disk secured thereto, a shaft extending through said hollow shaft, a relatively smaller friction disk secured thereto, a coil spring for moving said disks apart, links for limiting said movement, a bearing for said hollow shaft having threads therein, a threaded sleeve mounted in said bearing and arranged to bear against the first-mentioned friction disk and means for turning said sleeve to move the disks into and out of engagement with the said wheels.

2. In a transmission gearing, the combination with a pair of friction wheels, of a hollow shaft, a friction disk secured thereto, a shaft extending through said hollow shaft, a relatively smaller friction disk secured thereto, a coil spring for moving said disks apart, links for limiting said movement, a bearing for said hollow shaft having threads therein, a threaded sleeve mounted in said bearing and arranged to bear against the first-mentioned friction disk and a rock arm on said sleeve, a link connected at one end to said rock arm and an operating lever fulcrumed in spaced relation to the sleeve and having the remaining end of the link connected thereto.

1,203,893. PICTURE-FRAME. CLAUDE R. MILLICAN, Rome, Ga. Filed July 26, 1915. Serial No. 42,054. (Cl. 40—156.)

1. A frame provided with enlargements forming abutments and having threaded bolts extending therefrom, abutment pins extending from the frame, a glass positioned in said frame and engaging said abutment lugs and pins whereby said glass will be held in the proper position, a backing plate placed against said frame and provided with openings through which said bolts pass, and securing nuts carried by said bolts to hold said backing plate in place.

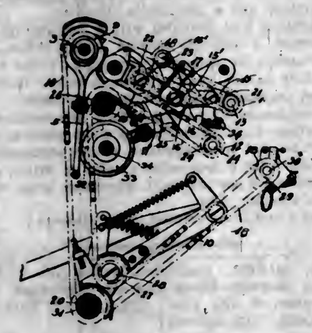
2. A frame having enlargements extending from its inner face to form abutments, securing bolts extending from said enlargements, abutment pins extending from the inner face of said frame, a backing plate provided with openings through which said bolts pass, and securing means carried by said bolts to releasably hold said backing plate in place.

3. A frame, abutments extending from the inner face of said frame, a backing plate fitting against said frame, threaded stems extending from said frame through said backing plate, a hanger formed of wire twisted to form upper and lower eyes, the lower eye being mounted upon one of said threaded stems, and securing nuts screwed upon said stems to hold said backing plate and hanger in position.



4. A frame, a backing plate for said frame, stems extending from said frame through said backing plate, a hanger provided with an eye through which one of said stems passes, and securing means engaging said stems for releasably holding said hanger and backing plate in position.

1,203,894. FEED-ROLL CLUTCH. JOHN F. MILLIGAN, New York, N. Y., assignor to Automatic Coinwrapping Company, a Corporation of New York. Filed Feb. 17, 1915. Serial No. 8,949. (Cl. 93—2.)

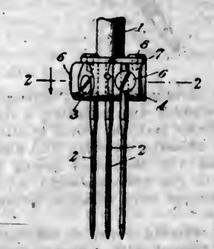


1. In a coin handling machine, the combination with coin stacking mechanism of coin wrapping mechanism comprising a plurality of wrapping rolls, means for positively driving said rolls, a clutch connection between said driving mechanism and said wrapping roll and means controlled from the stacking mechanism to strip said clutch into an outer operating position.

2. In a coin handling machine, the combination with coin counting and stacking mechanism, coin wrapping mechanism including a plurality of wrapping rolls, driving connections for said rolls, a clutch connection between the driving mechanism and said rolls and means controlled by the stacking of the last coin of a stack for tripping said clutch mechanism into operative positions.

3. In a coin handling machine, the combination with a coinstacking mechanism and coin wrapping mechanism including a plurality of wrapping rolls, means for driving said roll, a clutch connection between said driving means and said rolls, a cam controlling said clutch connection, said cam being so constructed as to trip the roll driving mechanism into operation when a stack of coins is presented thereto, but to throw said driving mechanism out of operation upon the completion of the wrapping of the stack.

1,203,895. NEEDLE-CLAMP FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 11, 1911. Serial No. 664,972. (Cl. 112—37.)



1. In combination with the needle bar, a collar clamped thereon having recesses for the needle shanks, recesses extending horizontally into said collar arranged at an angle to a line joining the needles, and clamping screws secured in said recesses and bearing upon said shanks, and a plate on top of said collar and secured thereto against which the upper ends of the shanks abut.

2. In combination with the needle bar, a collar clamped thereon having recesses for the needle shanks, recesses extending horizontally into said collar arranged at an angle to a line joining the needles, clamping screws secured in said recesses and bearing upon said shanks, and a plate on top of said collar and secured thereto, against which the upper ends of the shanks abut, said needle bar having a central vertical recess to receive the shank of a needle, and a screw having its inner end threaded through the needle bar and bearing on said shank.

3. The combination of a needle bar having a vertical recess in its lower end for the reception of a shank of a needle, a needle clamping collar on the lower end of the needle bar, means for clamping the shank of the needle in the recess in the needle bar, means for clamping said collar to said needle bar, said clamping collar being provided with needle holding recesses upon opposite sides of the needle bar, clamping devices for holding the needles in said recesses, said clamping devices being arranged so as to operate at an angle to a line joining the needle recesses and a plate on top of said collar and secured thereto against which the upper ends of the shanks of the needles passing through the clamping collar abut.

4. In combination, a needle bar having a vertical recess in its lower end for the reception of the shank of a needle, a needle clamping collar on the lower end of the needle bar, means for clamping the shank of the needle in the recess of the needle bar, an oppositely disposed screw for holding the needle clamping collar to the needle bar, said clamping collar being provided with needle-holding recesses upon opposite sides of the needle bar, and clamping devices for holding said needle in said recesses, said clamping devices being arranged horizontally and operating at an angle to a line joining the needle recesses.

1,203,896. COVERING MATERIAL FOR FURNITURE, &c., AND METHOD OF MAKING SAME. HAROLD B. MORRIS, Glendale, Cal. Original application filed Oct. 11, 1915, Serial No. 55,309. Divided and this application filed Feb. 11, 1916. Serial No. 77,605. (Cl. 28—5.)

1. A cord for covering frames of different articles, comprising a core of fibrous material treated with adhesive, a covering for the core made of fibrous material which is colored and which is treated with adhesive material, and another cover superposed on that first mentioned having the same color scheme united to the first-mentioned cover

by adhesive and which is treated with adhesive waterproofing material.



2. A cord for covering frames of different articles, comprising a core treated with adhesive, a covering for the core made of fibrous material which is colored and which is treated with adhesive material, and another cover superposed on that first mentioned having the same color scheme united to the first-mentioned cover by adhesive and which is treated with adhesive waterproofing material.

3. A cord for covering frames of different articles, comprising a core treated with adhesive material and colored, a covering for the core made of fibrous material united to the core by the adhesive and which has the same color scheme as the core whereby when the cover wears away and the core is exposed the same color scheme will be preserved.

4. The method herein-described of forming a covering cord consisting in first forming a core of flexible fibrous material, treating said core with adhesive material, applying thereto a covering of colored fibrous material, treating said cover with adhesive water-proofing material, applying to said first cover a second cover of colored fibrous material similar in color scheme to the first cover, and then treating the outer cover with adhesive water-proofing material.

5. The method herein-described of forming a covering cord, which consists in treating a covering cord, which consists in treating a core with adhesive material, allowing said material to dry, softening said material, applying thereto a covering of colored fibrous material, treating said cover with adhesive material, allowing said material to dry, subsequently softening the dried material, applying to said first cover a second cover of colored fibrous material similar in color scheme to the first cover, and then treating the outer cover with finishing adhesive material.

1,203,897. PROCESS OF GRAVITY LIQUID SEPARATION OF IRON ORES. ARTHUR J. MOXHAM, Wilmington, Del. Filed Mar. 25, 1914. Serial No. 827,074. (Cl. 83—85.)

1. The hereinbefore described process of concentrating those iron ores which are adapted to be changed in composition by heat, which consists in calcining the ore without reduction of the oxid therein, and then subjecting the ore to a gravity separating action in a liquid containing one or more ingredients decomposable by reduced ore.

2. The hereinbefore described process of concentrating those iron ores which are adapted to be changed in composition by heat, which consists in heating the ore while avoiding contact therewith of gases capable of deoxidising the ore, and then subjecting the ore to a gravity separating action in a liquid containing one or more ingredients decomposable by reduced ore.

3. The hereinbefore described process of concentrating those iron ores which are adapted to be changed in composition by heat, which consists in subjecting the ore to neutral calcination and then subjecting the calcined ore to a gravity separating action in a liquid containing one or more ingredients decomposable by reduced ore.

4. The hereinbefore described process of concentrating those iron ores which are adapted to be changed in composition by heat, which consists in subjecting the ore to neutral calcination and then subjecting the calcined ore to a gravity separating action in a liquid heavier than water and containing one or more ingredients decomposable by reduced ore.

5. The hereinbefore described process of concentrating those iron ores which are adapted to be changed in composition by heat, which consists in subjecting the ore to neutral calcination and then subjecting the calcined ore to a gravity separating action in a liquid of a specific gravity substantially higher than that of the silicious constituent of the ore and containing one or more ingredients decomposable by reduced ore.

1,203,898. PNEUMATIC-CUSHION HEEL. OSCAR MUSSMAN, New York, N. Y. Filed Feb. 9, 1916. Serial No. 77,231. (Cl. 36—35.)



1. A cushion heel provided with a peripherally located tread portion, a centrally located tread portion extending outside the plane of said first named portion, a recess intermediate said tread portions, and a pneumatic chamber.

2. A cushion heel provided with a peripherally located tread portion, a centrally located tread portion, a recess intermediate said tread portions, and a pneumatic chamber provided with a depression extending within said central portion.

3. A cushion heel provided with a peripherally located tread portion, a centrally located tread portion provided with a plurality of projections, a recess intermediate said tread portions and a pneumatic chamber.

4. A cushion heel provided with a peripherally located tread portion, a centrally located tread portion provided with a plurality of projections extending below the plane of said first named tread portion, a recess intermediate said tread portions, and a pneumatic chamber.

5. A cushion heel provided with a peripherally located tread portion, a centrally located tread portion, a recess intermediate said tread portions, and a pneumatic chamber provided with a depression extending within said second named tread portion, said depression being surrounded by an annular ridge.

[Claims 6 and 7 not printed in the Gazette.]

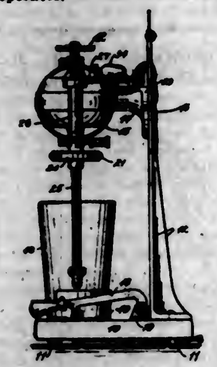
1,203,899. MIXER. FREDERICK MYERS, New York, N. Y., assignor to Fred Myers Mfg. Co., New York, N. Y., a Corporation of New York. Filed Oct. 1, 1915. Serial No. 53,496. (Cl. 31—63.)

1. In a heater, a pair of spindles having beaters at their lower ends, means for frictionally rotating either or both of said spindles, means for adjusting said spindles vertically, means for maintaining said spindles in an adjusted position and means for moving said spindles laterally with respect to the driving means.

2. In a beater, the combination with a base, a stand rising therefrom and a motor vertical on said stand, of a pair of spindles having beaters at their lower ends, wheels on said spindles adapted to be frictionally driven by said motor, means for keeping said wheels normally in engagement with said motor, and levers for disengaging said wheels therefrom.

3. In a beater, the combination with a base, a stand rising therefrom and a motor vertical on said stand, of a pair of spindles having beaters at their lower ends, wheels on said spindles adapted to be frictionally driven by said motor, means combined with said wheels for transmitting rotary motion to said spindles, said means also acting as wipers therefor, and means for raising or lowering said spindles independently of said wheels.

4. In a beater, the combination with a base, a stand rising therefrom and a motor vertical on said stand, of a pair of spindles having beaters at their lower ends, wheels on said spindles adapted to be frictionally driven by said motor, levers for actuating said wheels into and out of engagement with said motor, a removable tension means between said spindles, means for holding said spindles at and desired height when rotating or quiescent, and a manually operated means for raising or lowering said spindles, said means being non-rotatable while in the grasp of the operator.



5. In a beater, a pair of spindles having beaters at their lower ends, means for frictionally rotating either or both of said spindles, levers upon which said spindles are mounted, means for constraining said levers normally toward each other, means whereby said constraining means may be released, means for operating said levers whereby said spindles may be positively moved to or from the driving means, means for raising and lowering said spindles and means for wiping said spindles as they are raised.

1,203,900. STEERING-GEAR ATTACHMENT. THOMAS J. NASH, Lincoln, Nebr., assignor to American Aluminum Ware Company, Lincoln, Nebr. Filed Apr. 5, 1915. Serial No. 19,254. (Cl. 21—200.)



1. In a steering mechanism attachment, a plate, means for securing the same to the axle of a vehicle, an operating lever pivoted to the plate, means for securing said lever to the connecting rod of the steering mechanism of a vehicle, a pair of buffer levers pivoted to said plate, a stud on said operating lever located at a place between the pivot locations of said operating lever and of said buffer levers a spring for holding said buffer levers against said stud, and stops for limiting the movement of said buffer levers.

2. In a steering mechanism attachment, a plate, clamps to secure said plate on a vehicle axle, an operating lever pivot stud secured to the plate, an operating lever pivoted on said stud and projecting beyond said plate, a device for connecting said operating lever to the connecting rod of the steering mechanism of a vehicle, a pair of buffer levers, a buffer lever pivot stud on said plate, a stud on said operating lever to engage said buffer levers and located between the pivotal points of said operating lever and of said buffer levers and stops for limiting the movement of said buffer levers.

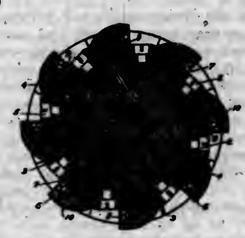
3. In a steering mechanism attachment, a plate, clamps to secure said plate on a vehicle axle, an operating lever pivot stud secured to the plate in alinement with the place of location of the vehicle axle, an operating lever pivoted on said stud and projecting beyond said plate, a device for connecting said operating lever to the connecting rod of the steering mechanism of a vehicle, a pair of buffer levers, a buffer lever pivot stud on said plate, located to one side of the place of axle location, a stud on said operating lever to engage said buffer levers and located between the pivotal points of said operating lever and of said buffer levers, and stops for limiting the movement of said buffer levers.

4. A steering mechanism attachment comprising a plate, elements by means of which said plate may be secured in position, a pair of buffer levers pivoted to said plate and diverging from the point of pivot, a spring connecting the ends of said levers together, stops for limiting the approaching movement of the ends of said levers, an operating lever pivoted to said plate between the ends of said buffer levers, a stud on said operating lever to engage said buffer levers, and a device for connecting the end of said operating lever to the connecting rod of a steering mechanism.

5. A steering mechanism attachment comprising a plate, elements by means of which said plate may be secured in position, a pair of buffer levers pivoted to said plate and diverging from the point of pivot, a spring connecting the ends of said levers together, stops for limiting the approaching movement of the ends of said levers, an operating lever pivoted to said plate between the ends of said buffer levers, a stud on said operating lever to engage said buffer levers, a device for connecting the end of said operating lever to the connecting rod of a steering mechanism, and a device for adjusting the tension of said spring.

[Claim 6 not printed in the Gazette.]

1,203,901. CRUSHING-ROLL. RAY C. NEWHOUSE, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed July 18, 1914. Serial No. 852,116. (Cl. 83—12.)



1. In a crushing roll, a roll core, a plurality of lug plates forming a shell for said core, a plurality of lugs projecting from each of said plates, each of said plates having a longitudinal recess therein adjacent the leading ends of the lugs thereon, and a wearing plate secured to the leading end of each of said lugs and having a portion extending into the adjacent recess.

2. In a crushing roll, a roll core, a plurality of lug plates forming a shell for said core, a plurality of lugs projecting from each of said plates, each of said plates having a longitudinal recess therein adjacent the leading ends of the lugs thereon, and a wearing plate removably secured to the leading end of each of said lugs and having a portion thereof extending into the adjacent recess, said lug plates being imperforate at the portions thereof adjacent said recesses.

3. In a crushing roll, a roll core having a series of projections, a plurality of lug plates each having a recess engaging a projection on said core, said lug plates form-

ing a shell for said core, a plurality of lugs projecting from each of said plates, each of said plates having a second longitudinal recess therein adjacent the ends of said lugs and directly opposite the portion thereof in which said first mentioned recess is formed, and a wearing plate secured to the leading end of each of said lugs, said wearing plates having portions extending into said second mentioned recesses and said lug plates being imperforate at the portions thereof adjacent said recesses.

4. In a crushing roll, a roll core having a series of longitudinal projections, a plurality of lug plates each having a longitudinal recess coacting with a projection on said core, said lug plates forming a shell for said core, a plurality of lugs projecting from each of said plates, each of said plates having a second longitudinal recess therein adjacent the leading ends of said lugs and directly opposite the portion thereof in which said first mentioned recess is formed, and a wearing plate detachably secured to the leading end of each of said lugs, said wearing plates having portions extending into said second mentioned recesses.

1,203,902. SHIPPING-TAG. REBEY M. NICHOLS, San Francisco, Cal. Filed Jan. 17, 1914. Serial No. 812,678. (Cl. 11—28.)



1. A shipping tag comprising a tag portion to be attached to the package being shipped and having a way bill form printed thereon, a superposed shipper's receipt portion attached to said tag and having a form printed thereon similar to and in registration with the form on said tag portion, a carbon transfer surface between said tag and receipt portions, an area on said receipt portion containing printed matter relating to the shipping agreement and an area on said tag under said printed area containing a printed delivery receipt form.

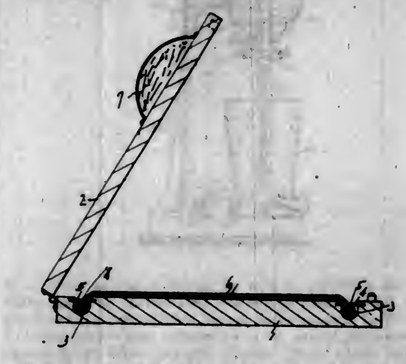
2. A shipping tag comprising a sheet of thin material, a tag of heavier material arranged beneath said sheet and attached thereto by an eyelet whereby both may be attached to a package, transfer means located between said sheet and tag, similar areas in registration included on said sheet and tag to contain the name of the city of shipment, the city of destination, the date and the route number of the first railroad over which the package is to be carried, said tag being provided with a weakened line whereby a portion may be detached.

3. A shipping tag adapted to be attached to a package, comprising in one sheet a portion having line inclosed areas thereon for the receipt of the names and addresses of the consignor and consignee, a detachable portion comprising a delivery receipt having an area thereon for the receipt of the consignee's signature and a detachable portion having on one surface areas to contain the names of the points of shipment and destination and on the other surface areas to contain data indicating the routing of the package.

4. A shipping tag comprising a tag portion to be attached to the package and two superposed detachable sheets, similar line inclosed areas in registration on said tag and sheets and line inclosed areas on said tag corresponding to a printed area on the upper superposed sheet.

5. A shipping tag comprising a tag portion, two superposed sheets, carbon surfaces arranged between said sheets and tag portion, an eye securing said sheets and tag portion together, corresponding line inclosed areas in registration on said sheets and tag portion and noncorresponding line inclosed areas on said upper sheet and tag portion, the last mentioned areas of the tag portion being separated from the body of the tag portion by a weakened line.

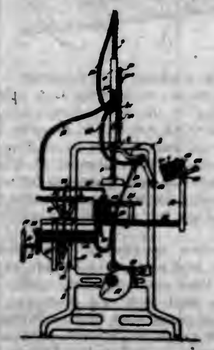
1,203,903. SILVERWARE-POLISH. JULIA NYSTRAND, Seattle, Wash. Filed May 24, 1916. Serial No. 99,508. (Cl. 51—6.)



1. In a device of the class described, the combination of an endless polishing member secured to a base block, and means for compressing the said member against the said block.

2. In a polishing device the combination of a channeled base block, loose rods retained in said channels, an endless and flexible polishing member passing around said rods and over the top of the said block in double ply, a cover hinged to said block and adapted to be closed down upon the top of the polishing member, whereby pressure is applied to an object to be polished which is inserted between the plies of the polishing member.

1,203,904. ENVELOP-MACHINE. GEORGE S. OTEY, Dallas, Tex., assignor to The Hesse Envelope Company, Dallas, Tex., a Corporation of Texas. Filed Feb. 20, 1915. Serial No. 9,484. (Cl. 93—61.)



1. In an envelop machine the combination with a frame, of a trap having suction openings pivoted on the frame, a plunger provided with slots adapted to deliver a patch to the trap and also provided with suction openings, a tubular shaft journaled on the frame, patch carriers provided with suction passages carried by said tubular shaft and adapted to convey a patch to the plunger, the slots of said plunger adapted to receive said patch carriers, and a suction means connected with said trap, plunger and carrier.

2. In an attachment for envelop machines, the combination of a hollow creaser plunger, a tubular rock shaft horizontally journaled adjacent to the path of travel of said creaser plunger, a plurality of suction nozzles carried by said tubular rock shaft and adapted to deliver a patch to said plunger, the free extremities of said suction nozzles formed on an angle, an actuating arm fixed to said rock shaft, a link pivoted to said actuating arm, and a cam adapted to reciprocate the link.

3. In an envelop machine, the combination of a hollow plunger shaft, a hollow plunger provided with apertures carried by said shaft, a trap provided with apertures positioned beneath the plunger and adapted to receive a patch from the plunger, a hollow pivoted patch carrier disposed in operative relation with the plunger and adapted to convey a patch thereto, suction means connected with the apertures of the trap, with said patch carrier, and with the hollow plunger and, means for controlling the suction therein.

4. In an envelop machine, the combination of a hollow plunger shaft, a hollow plunger provided with apertures carried by said shaft, a trap provided with apertures adapted to receive the patch from the plunger, a patch carrier having suction apertures adapted to convey a patch to the plunger, and suction means communicating with the apertures in the trap, patch carrier and hollow plunger and means for controlling the suction therein.

5. In an envelop machine, the combination of a hollow plunger shaft, a hollow plunger provided with apertures carried by said shaft, a suction control valve communicating with the plunger, an air admission valve communicating with the apertures of the plunger, a rotatable tubular shaft journaled on the frame, suction nozzles provided with apertures formed in their extremities carried by the tubular shaft, and a suction means connected with the tubular shaft and with said control valve.

[Claims 6 to 13 not printed in the Gazette.]

1,203,905. SHORTENING COMPOSITION. ROBERT T. PARSELLE, Wilkes-Barre, Pa. Filed Mar. 15, 1916. Serial No. 84,399. (Cl. 99—10.)

1. The herein described shortening consisting of an edible oil held in an emulsified state by a saponified agent.

2. A process of producing shortening consisting in mixing an edible oil with a substance having an alkaline reaction, and water.

3. A process for producing shortening consisting in mixing an edible oil with a substance having an alkaline reaction.

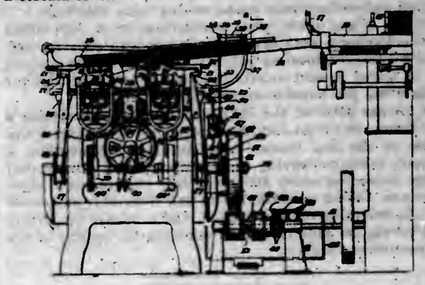
4. The herein described shortening consisting of an edible oil held in an emulsified state by an aqueous mixture of a saponified ingredient having an ammonia base.

5. The herein described shortening consisting of an edible oil and a saponified ingredient having an ammonia base.

[Claims 6 to 11 not printed in the Gazette.]

1,203,906. AUTOMATIC STOPPING AND STARTING MECHANISM FOR MATCH-PACKING MACHINES. MICHAEL PARIDON, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 14, 1916. Serial No. 84,023. (Cl. 144—61.)

1. The combination with a match-packing machine having a tray carrier and a feeder for progressively delivering matches to the trays on the carrier, of mechanism, including a power-driven element, for actuating the carrier, and means, including a member under the influence of the matches in the feeder, for rendering said element inactive when the contents of the feeder fall to or below a certain level.



2. The combination with a match-packing machine having a tray carrier and a feeder for progressively delivering matches to the trays on the carrier, of mechanism, including a power-driven element, for actuating the carrier, and means, including a member under the influence of the matches in the feeder, for rendering said element inactive when the contents of the feeder fall to or below a certain level, and for rendering said element active when the contents of the feeder rise to or above said level.

3. The combination with a match making machine and a match packing machine associated therewith, including means for feeding the matches from the match making machine to the match packing machine, of drive mechanism for the two machines, including an element operative to stop the packing machine independently of the match making machine, and means, including a member under the influence of the matches in the feeder, for determining the operation of said element.

4. The combination with a match making machine and a match packing machine associated therewith, including means for feeding the matches from the match making machine to the match packing machine, of drive mechanism for the two machines, including an element operative to stop and start the packing machine, and means, including a member under the influence of the matches in the feeder for actuating said element to stop the packing machine when the contents of the feeder fall below a certain level and to start the packing machine when the contents of the feeder rise to or above said level.

5. The combination with a match packing machine having a tray carrier and a trough-like hopper for delivering matches to the trays on the carrier, of mechanism, including a power-driven element, for actuating the carrier, and means, including a member under the influence of the matches in the hopper, for rendering said element inactive when the contents of the hopper fall to or below a certain level.

[Claims 6 to 13 not printed in the Gazette.]

1,203,907. GAS-PLATE. GEORGE E. PICKUP, Newark, Ohio, assignor to The Wehrle Company, Newark, Ohio, a Corporation of Ohio. Filed June 26, 1914, Serial No. 847,291. Renewed July 28, 1916. Serial No. 111,959. (Cl. 126—40.)



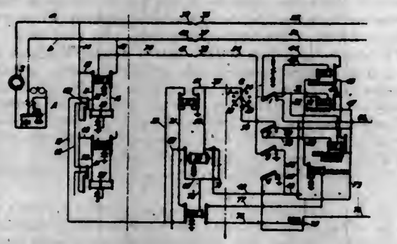
1. In a gas plate, the combination of a rectangular top frame having at its inner edge an offset ledge, a grid mounted on said ledge, a pair of end frames having outwardly projecting bifurcated lugs, said end frames having

ledges that underlie the top frame, and bolts passing through said top frame and through said lugs to rigidly secure the end frames to the top frame the outer edges of the ends of said top frame resting upon said lugs.

2. In a gas plate, the combination of a supporting frame having a pair of sockets at opposite ends thereof, and a burner-supporting rod having angular ends adapted to be seated in said sockets in either of two positions for supporting the burners at different elevations.

3. A gas plate of the character described comprising a top frame, two rigid end frames attached to the respective ends of the top frame, each end frame comprising a unitary structure having supporting feet and a horizontal ledge extending along the inner face thereof, said inner face also having a socket, a drip pan removably supported on the ledges of the said frames, and a burner-supporting rod having its ends removably engaging the sockets of the respective end frames.

1,203,908. MACHINE-SWITCHING TELEPHONE-EXCHANGE SYSTEM. JOHN N. REYNOLDS, Greenwich, Conn., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Sept. 7, 1915. Serial No. 49,220. (Cl. 179—18.)



1. In a telephone exchange system, the combination with a plurality of lines, finders to which said lines are multipled, driving magnets therefor, an extended starter wire for associating an idle finder with said lines, and means actuated upon the initiation of a call for closing a circuit including said starter wire to initiate travel of said finder, a contact operated by the finder brush shaft when it is driven more than a predetermined distance by said magnet for extending said starter wire to the next idle finder.

2. In a telephone exchange system, the combination with a plurality of lines divided into groups, finders to which said lines are multipled, a magnet for driving said finder in a primary direction to select the calling group, a magnet for driving said finder in a secondary direction to select the calling line therein, an extended starter wire for associating an idle finder with said line groups, and means actuated upon the initiation of a call for closing a circuit including said starter wire to initiate travel of said finder, of means operated in case such finder is driven more than a predetermined distance by either magnet for extending said starter wire to the next idle finder.

3. In a telephone exchange system, the combination with a plurality of lines divided into groups, finders in which said lines terminate in multiple contacts, the shaft of said finder having brushes adapted to engage therewith, a magnet for driving said shaft in a primary direction to select the calling group, a magnet for driving said shaft in a secondary direction to select the calling line therein, an extended starter wire for associating an idle finder with said line groups and including the primary magnet of such finder, and means actuated upon the initiation of a call for closing the circuit of said magnet over said starter wire, of a contact closed by said shaft in case it is driven more than a predetermined distance by either magnet for extending said starter wire to the next idle finder.

1,203,909. ELECTRIC BAKER'S OVEN. EDWARD H. RUCKLE, Chicago, Ill., assignor to Hughes Electric Heating Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1914. Serial No. 821,361. (Cl. 219—35.)



In an electric bake oven, the combination of an insulated oven structure, an electrical heating element at the top of said structure, an electrical heating element at the bottom of said structure, intermediate heating elements between said upper and lower heating elements, said heating elements extending horisontally the full distance between the front and rear walls of said oven structure and said oven structure being closed whereby heat circulation is prevented in said structure and heat applied by radiation against the top and bottom of articles placed on said heating elements to be baked, the arrangement as described causing the heat to be uniform throughout the structure and enabling the full capacity of the structure to be used for baking.

1,203,910. VEHICLE-TIRE. ARTHUR JOHN SAVAGE, San Diego, Cal., assignor to The Savage Tire Company, San Diego, Cal., a Corporation of California. Filed May 21, 1915. Serial No. 29,493. ((Cl. 152—13.)



1. An improved built-up tire, comprising a built-up woven fabric carcass with its beads, a layer of woven fabric applied over the carcass, a cushion layer applied over said fabric layer, and a tread applied over said cushion layer; said applied fabric layer being of finer weave than the fabric of said carcass.

2. An improved built-up tire, comprising a built-up woven fabric carcass with its beads, a layer of woven fabric applied over the carcass, a cushion layer applied over said fabric layer, and a tread applied over said cushion layer; said applied fabric layer being of finer weave than the fabric of said carcass; there being a breaker strip between said cushion layer and the tread.

3. An improved built-up tire, comprising a carcass with its beads, a relatively fine layer of woven fabric applied over the carcass, a cushion layer applied over said fabric layer, and a tread applied over said cushion layer; said fabric layer being interrupted to provide two spaced portions extending circumferentially of the tire.

4. An improved built-up tire, comprising a carcass with its beads, a relatively fine layer of woven fabric applied over the carcass, a cushion layer applied over said fabric layer, and a tread applied over said cushion layer; said fabric layer being interrupted to provide two spaced portions extending circumferentially of the tire, the carcass of the tire comprising a plurality of superposed fabric layers, the weave of which is coarser than that of said first named fabric layer.

5. An improved built-up tire, comprising a carcass provided with beads, a bonding strip of fabric of relatively fine weave applied over the carcass and interrupted in its median portion circumferentially of the tire, a cushion layer applied over said fabric layer, a breaker strip applied over said cushion layer, and a tread applied over said breaker strip; said fabric layer providing a bond between the carcass and the cushion layer, and the breaker strip providing a bond between the cushion layer and the tread.

[Claims 6 and 7 not printed in the Gazette.]

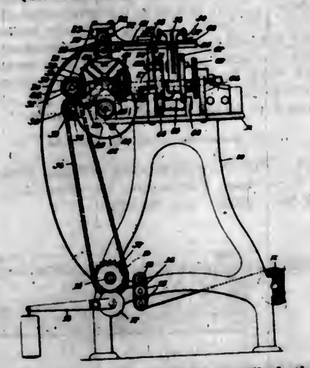
1,203,911. METHOD OF MANUFACTURING LEAD CARBONATES. JOHN A. SCHAEFER, Joplin, Mo., and JOHN R. MACGREGOR, Chicago, Ill., assignors to Picher Lead Company, Joplin, Mo., a Corporation of Missouri. Filed May 2, 1916. Serial No. 94,883. (Cl. 134—75.)

1. The method of manufacturing lead carbonate which consists in mixing fumed litharge with water and treating the mixture with carbon dioxid gas.

2. The method of manufacturing lead carbonate which consists in mixing fumed litharge in water having acetic acid in solution and treating the mixture with carbon dioxid gas.

3. The method of manufacturing basic lead carbonate which consists in mixing fumed litharge in water having acetic acid in solution, treating the mixture with carbon dioxid gas and stopping the gas treatment when the basic lead carbonate formed has the desired composition.

1,203,912. FEED MECHANISM FOR BOX-SHUCK MACHINES. FRANK SCHAFER, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1914. Serial No. 836,108. (Cl. 164—49.)

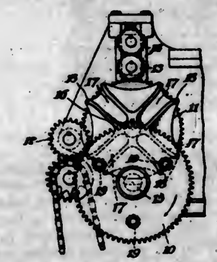


1. In mechanism of the character described, the combination of means for feeding a strip of material, means for severing succeeding lengths or sections from said strip, and means for directly feeding said lengths or sections edgewise in a path at right angles to that of the strip immediately succeeding the severance of the strip, said last-named means including a reciprocating pusher head the forward and backward strokes of which are through different paths.

2. In mechanism of the character described, the combination of rollers for feeding a strip of material, means for intermittently actuating said rollers, cutter mechanism intersecting the path of the material and adapted to sever succeeding lengths therefrom, a reciprocating pusher head, and means for directly moving the same forward to advance each severed length in a horizontal path at right angles to that of the strip immediately succeeding the severance of the strip and then for returning said head in a different path.

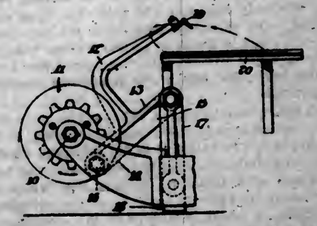
3. In mechanism of the character described, the combination of rollers for feeding a strip of material, means for intermittently actuating said rollers, a guide extending at right angles to and intersecting the path of the strip, said guide having vertical slots extending longitudinally thereof, cutter mechanism adjacent said guide adapted to sever succeeding lengths from the leading end of the strip, a pusher-head for successive lengths movable longitudinally of the guide, said head having depending pins movable relatively to the vertical slots in the guide, and means for actuating said pusher-head.

1,203,913. MECHANICAL MOVEMENT. FRANK SCHAFER, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1914. Serial No. 836,109. (Cl. 74—41.)



Mechanism of the character described comprising two rotatable members mounted in lateral relation to each other, one of said members constituting a driven element having a series of corresponding radial channels with flaring arcuate portions at their outer ends, and the other member constituting a driving element having a series of tappets equally spaced apart at points equidistant from its center and adapted to coact successively with the walls of the said channels and impart to the driven element an intermittent rotary motion, two of the said tappets concurrently contacting with and riding upon the adjacent arcuate portions of the two channels at the end of each impulse of the driven element, the walls of said adjacent arcuate portions comprising corresponding arcs described from the center of the driving element with a radius equal to the radial distance of the inner face of the tappets from said center.

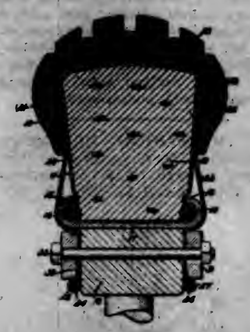
1,203,914. MECHANICAL MOVEMENT. FRANK SCHAFER, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1914. Serial No. 836,110. (Cl. 101—36.)



Mechanism of the character described comprising a rotatable crank element, an angular feed-frame provided

with two oppositely-extending arms, one of which has a pivotal connection with the crank element, and a rocker pivoted to the other arm of said frame, whereby the forward end of said frame is moved forward in a horizontal path and is then returned in a curved path to position for a succeeding forward movement.

1,203,915. VEHICLE-WHEEL TIRE. EUGENE SCHMITT, New York, N. Y. Filed May 5, 1916. Serial No. 96,572. (Cl. 152—5.)



1. A vehicle wheel having a felly and a rim, and a tire comprising a tire body made of a resilient material such as cork, a covering inclosing the said body, retaining rings within the said covering, the said body having inner corners at which the said rings are arranged, the said rim being provided with curved retaining flanges extending inward at their edges and into which fit the said retaining rings and the portions of the covering overlying the rings.

2. A vehicle wheel having a felly, a rim on said felly, and a tire comprising a tire body of cork and approximately rectangular in cross section, the tire body having inner corners, a covering of a flexible material inclosing the said tire body and laced at one side, retaining rings within the said covering at the inner corners of the said tire body, the said rim being provided with curved flanges extending inwardly over the said rings and engaging the said rings and the portions of the covering overlying the rings.

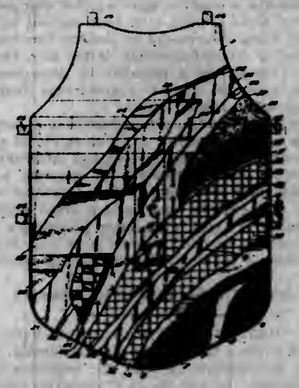
3. A vehicle wheel having a felly, a rim on said felly, and a tire comprising a tire body made of a resilient material such as cork, a covering inclosing the said body, retaining rings within the said covering, the said body having inner corners at which the said rings are arranged, the said rim being provided with fastening flanges into which fit the said retaining rings and the portions of the covering overlying the rings, a tread of rubber having inwardly extending flanges, and an attaching member of a flexible material secured to the inner faces of the tread and its flanges and secured to the said felly.

4. A vehicle wheel, comprising a rim having retaining flanges, a tire body engaging the said rim, rings engaging the tire body, the retaining flanges of the rim extending over the said rings, a tread of rubber having inwardly extending flanges and fitting onto the outer face and sides of said tire body, and means for removably securing the tread in position.

5. A vehicle wheel having a felly, a rim on said felly, and a tire, comprising a tire body, a covering of flexible material inclosing the said tire body, retaining rings within the covering and engaging the tire body, the said rim being provided with fastening flanges into which fit the said retaining rings and the portions of the covering overlying the rings, a tread, fitting onto the covering of the tire body, and means for securing the tread in position.

[Claim 6 not printed in the Gazette.]

1,203,916. BULLET-PROOF SHIELD. ALBERT SCHWARZ, Chicago, Ill., assignor of one-tenth to Francis A. Doyle, Chicago, Ill. Filed July 8, 1916. Serial No. 108,120. (Cl. 89—36.)



1. A bullet-proof shield comprising a plurality of layers of hard sheet metal; layers of metal wire fabric; and layers of cloth fabric between and spacing the layers of sheet metal and layers of wire fabric apart.

2. A bullet-proof shield comprising highly tempered sheet metal plates, and a plurality of thicknesses of silk fabric between said metal plates.

3. A bullet-proof shield comprising a plurality of layers of metallic material, certain of said layers being hard sheet metal plates and other of said layers being metal woven wire; and layers of tough material between said other layers of material.

4. A bullet-proof shield comprising a plurality of metallic material, certain of said layers being hard imperforate plates, other of said layers being woven from strips of hard and still other of said layers being woven wire fabric; and layers of cloth material between the metallic layers.

5. A bullet-proof shield comprising a layer of woven wire fabric; a layer of highly tempered steel sheets above the woven wire fabric; a layer of fabric woven of strips of highly tempered steel above said steel sheets; a layer of highly tempered steel above said last mentioned fabric; and thick layers of cloth material separating said metallic layers.

[Claims 6 to 10 not printed in the Gazette.]

1,203,917. PHOTOGRAPHIC-PRINTING FRAME. ERNEST C. SCUDDER, Farmington, Ill. Filed Jan. 28, 1916. Serial No. 74,838. (Cl. 95—73.)



1. A photographic printing frame comprising a base, a cover hinged thereto, means for securing a sheet of sensitized paper to the base, a negative carrying frame movably mounted on the cover, and means for moving said frame to dispose the latter in different positions with respect to the paper to be printed.

2. A photographic printing frame comprising a base, a cover hinged thereto, said cover including a slidably mounted top member, a negative carrying frame secured to the top member for movement therewith and for movement toward and away from the top member, means for yieldingly holding said frame at the limit of its movement away from the top member, and means for releasably securing the frame in different printing positions with respect to a sheet of sensitized paper carried by the base.

3. A photographic printing frame comprising a base having recesses in its upper side, a cover hinged to the base, said cover including a slidably mounted top member, a negative carrying frame secured to the top member for movement therewith and for movement toward and away from the top member, means for yieldingly holding the frame at the limit of its movement away from the top member, and rollers on the frame engageable in the recesses of the base to secure the frame in different positions with respect to a sheet of sensitized paper carried by the base.

1,203,918. FLESH-FILE. NETTIE E. SIBLEY, Springfield, Mass. Original application filed Nov. 8, 1913, Serial No. 799,912. Divided and this application filed Jan. 7, 1916. Serial No. 70,757. (Cl. 30—23.)



1. The process of making an abrading and antiseptic mixture or compound, for flesh files, consisting in mixing with powdered quarts boric acid and borax, in spraying such mixture with oil of birch dissolved in alcohol and to which thymol has been added, and in mixing all of the said elements together.

2. An abrading and antiseptic coating, for flesh files, consisting of a quantity of powdered quarts having thoroughly worked into it proportionately small quantities of boric acid and borax, a proportionately small quantity of oil of sweet birch dissolved in alcohol and having added thereto a proportionately small quantity of thymol, said oil and thymol also being thoroughly worked into said quarts with said acid and borax, and a binder of paste and glue for the aforesaid elements.

1,203,919. BOTTLE-STOPPER AND PIPETTE. CHARLES ASBURY SIMPSON, Boston, Mass. Filed Nov. 1, 1915. Serial No. 59,068. (Cl. 215—54.)



1. In combination, a bottle, a stopper for said bottle made of rigid material with a conical chamber formed on the longitudinal axis of said stopper, a tubular extension from the lower end of said chamber to the bottom of said bottle and a pipette having a conical tip formed to fit said chamber.

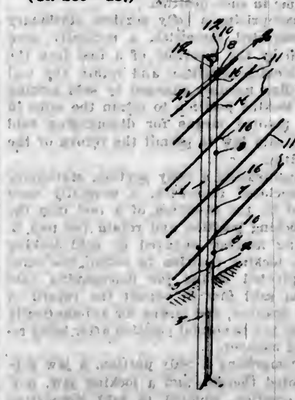
2. In combination, a bottle, a stopper for said bottle made of rigid material having a bore extending therethrough and comprising a conical chamber in its intermediate portion, a tubular lower portion and an enlarged bowl-shaped upper portion and a pipette, having a portion thereof formed to fit into said conical chamber of said stopper and having an enlarged central portion forming a bulb.

3. In combination, a bottle and a tubular pipette extension having its upper part enlarged to form a conical stopper fitting the neck of said bottle, the bore of said tube enlarged within its upper part to form two connected chambers, the uppermost chamber being bowl-shaped and the lower chamber being conical-shaped and a pipette having its lower part formed as a conical tip and its middle portion enlarged to form a bulb, said conical tip being constructed to fit within said lower chamber in said tubular pipette extension, whereby a continuation or extension of the pipette to the bottom of the bottle for the purpose of sucking up into the pipette and removing from the bottle portions of the liquid contents is formed.

4. In combustion, a bottle and a pipette in two parts, one part forming a permanent stopper constructed to fit the neck of said bottle and having a conical bore with a tubular extension projecting from its lower end to the bottom of said bottle, the other part of said pipette constituting an auxiliary stopper and comprising a member having a conical tip constructed to fit said conical bore and an enlarged central portion forming a chamber, the upper end of said member terminating in a tubular extension and a collapsible bulb attached to said tubular extension.

5. In combination, a stopper for a bottle having a conical bore and a tubular extension projecting from its lower end of substantial length and adapted to extend to the bottom of said bottle, and a pipette having a conical tip constructed to fit said conical bore and an enlarged central portion forming a chamber, the upper end of said pipette terminating in a tubular extension and a collapsible bulb attached to said tubular extension.

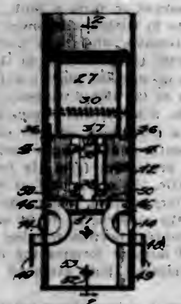
1,203,920. FENCE-POST. CHARLES SLYFIELD, Chaseville, Fla. Filed Aug. 19, 1915. Serial No. 46,267. (Cl. 189—23.)



In improvements in fence posts of the kind set forth, the combination of a fence post body consisting of two flanges extending at right angles to each other in cross section and being constructed of sheet metal and a cavity in said body formed by said flanges, of a wood filler angular in cross section corresponding with and fitting said cavity, and which filler can be fastened in the recess whereby the fence wires may be held a proper distance above the ground, the opposite parallel longitudinal vertical corners of said filler having flanges overlying the edges of the flanges of the angular body and extending beyond the body, thereby preventing the fence wires from contacting with the edges of the flanges of said body, the

outer face of the wood filler being curved in cross section, which curvature extends from one extreme edge of one flange of the filler to the extreme edge of the opposite flange with which the fence wires engage to prevent a decided bend in the wire, said body having openings in the corner where the two flanges of the body come together, and means to pass through any part of the filler and engage said openings to secure the filler in place in the body.

1,203,921. TOOL-HOLDER. ERIC MORRIS SMITH, Okanogan, Wash. Filed Jan. 11, 1916. Serial No. 71,556. (Cl. 24—3.)



1. A tool holder comprising a body portion, stationary supporting jaws associated therewith, and a locking jaw normally in unlocked position and actuated by the insertion of a tool into the holder to move to locking position and retain the tool in said holder.

2. A tool holder comprising a body portion, stationary supporting jaws associated therewith, a locking jaw normally in unlocked position and actuated by the insertion of a tool into the holder to move to locking position and retain the tool in said holder, and a sliding member engaged by said locking jaw when moved to locking position to retain the same in such position.

3. A tool holder comprising a body portion, stationary supporting jaws associated therewith, a normally open locking jaw actuated by the insertion of a tool into the holder to move to locking posititon and retain the tool in said holder, a sliding member engaged by said locking jaw when moved to locking position to retain the same in such position, and pivoted means for disengaging said sliding member from said jaw to permit the return of the latter to normal position.

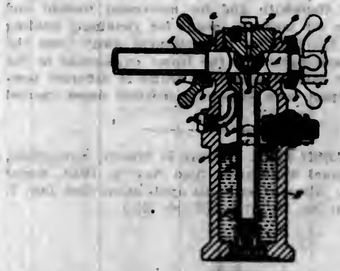
4. A tool holder comprising a body portion, stationary supporting jaws associated therewith, a normally open locking jaw actuated by the insertion of a tool into the holder to move to locking position and retain the tool in said holder, a sliding member engaged by said locking jaw when moved to locking position to retain the same in such position, pivoted means for disengaging said sliding member from said jaw to permit the return of the latter to normal position, and means for automatically returning said locking jaw to normal position after being released by said sliding member.

5. A tool holder comprising a body portion, a jaw supporting member pivoted thereto, and a locking jaw, normally in unlocked position, pivoted to said supporting member and automatically operated by the insertion of a tool into said holder to move said jaw to locking position.

[Claims 6 to 10 not printed in the Gazette.]

1,203,922. CHARGING OR REPLENISHING RECEPTACLES WITH GASES UNDER PRESSURE. FRANKLIN ELIJAH SMITH, Westminster, London, England, assignor to Vickers Limited, Westminster, London, England. Filed Apr. 26, 1916. Serial No. 93,810. (Cl. 60—3.)

1. Apparatus for charging or replenishing a receptacle with gases under pressure, comprising a filter, a chamber adapted to receive a composition or substance which contains its own oxygen for supporting combustion, and a conduit leading from said chamber to near the bottom of said filter so that all the gases generated by the combustion of said composition enter the filter at one point and pass from the open end of the said conduit through the filter, thus obtaining substantially constant filtration of the gases.



2. Apparatus for charging or replenishing a receptacle with gases under pressure, comprising a liquid filter, a chamber adapted to receive a composition or substance which contains its own oxygen for supporting combustion, and a conduit leading from said chamber to near the bottom of said liquid filter so that all the gases generated by the combustion of the said composition enter the liquid filter at one point and pass from the open end of said conduit through the liquid filter, thus obtaining substantially constant filtration of the gases.

3. Apparatus for charging or replenishing a receptacle with gases under pressure, comprising a filtering and cooling device, a chamber adapted to receive a composition or substance which contains its own oxygen for supporting combustion, and a conduit leading from said chamber through said device to near the bottom of said device so that all the gases generated by the combustion of the said composition enter the device at one point and pass from the open end of said conduit through the said device, thus cooling the gases and obtaining substantially constant filtration of said gas.

4. Apparatus for charging or replenishing a receptacle with gases under pressure, comprising a liquid filtering and cooling device, a chamber adapted to receive a composition or substance which contains its own oxygen for supporting combustion, and a conduit leading from said chamber through said device to near the bottom of said device so that all the gases generated by the combustion of the said composition enter the device at one point and pass from the open end of said conduit through the said device, thus cooling the gases and obtaining substantially constant filtration of said gases.

1,203,923. SANITARY MILK-PUMP. KARL D. SMITH, Battle Creek, Mich., assignor to Union Steam Pump Company, Battle Creek, Mich. Filed Oct. 3, 1914. Serial No. 864,932. (Cl. 103—81.)



1. In a structure of the class described, the combination of a pump cylinder provided with inlet and discharge openings, a piston cylinder disposed within said pump cylinder and provided with annular flanges at the ends thereof, having a sliding engagement with the wall of the pump cylinder, webs formed integral with said piston cylinder and extending between said flanges, said webs having a sliding engagement with the wall of the pump cylinder and dividing the space between the flanges of said piston cylinder into an intake chamber and a discharge chamber, a pair of intake ports in said piston cylinder communicating with said intake chamber, a pair of discharge ports in said piston cylinder communicating with said discharge chamber, said discharge ports being staggered relative to said intake ports, a two part piston disposed within said piston cylinder in sliding engagement therewith and having a limited sliding movement relative thereto, the parts of said piston being provided with oppositely extending annular flanges, a port in each of said flanges adapted to be brought into alinement with one of the discharge ports of the piston cylinder, each port being so disposed in its piston flange that, when it is in alinement with the corresponding discharge port, said piton flange closes the corresponding intake port while the other piston flange is disposed to close the corresponding discharge port and to open the corresponding intake port, a slot in each part of said piston, said slots being in alinement when the parts of the piston are assembled, a pin carried by the wall of the piston cylinder and disposed in said slots to limit the movement of said piston relative to the piston cylinder, a piston rod, and means securing the parts of said piston together and to said piston rod, all coacting substantially as described and for the purpose specified.

2. In a structure of the class described, the combination of a pump cylinder provided with inlet and discharge openings, a piston cylinder disposed within said pump cylinder and provided with annular flanges at the ends thereof, having a sliding engagement with the wall of the pump cylinder, webs formed integral with said piston cylinder and extending between said flanges, said webs having a sliding engagement with the wall of the pump cylinder and dividing the space between the flanges of said piston cylinder into an intake chamber and a discharge chamber, a pair of intake ports in said piston cylinder communicating with said intake chamber, a pair of discharge ports in said piston cylinder communicating with said discharge chamber, said discharge ports being staggered relative to said intake ports, a two part piston disposed within said piston cylinder in sliding engagement therewith and having a limited sliding movement relative thereto, the parts of said piston being provided with oppositely extending annular flanges, a port in each of said flanges adapted to be brought into alinement with one of the discharge ports of the piston cylinder, each port being so disposed in its piston flange that, when it is in alinement with the corresponding discharge port, said piston flange closes the corresponding intake port while the other piston flange is disposed to close the corresponding discharge port and to open the corresponding intake port, a slot in each part of said piston, said slots being in alinement when the parts of the piston are assembled, a pin carried by the wall of the piston cylinder and disposed in said slots to limit the movement of said piston relative to the piston cylinder, a piston rod, and means securing the parts of said piston together and to said piston rod, all coacting substantially as described and for the purpose specified.

3. In a structure of the class described, the combination of a pump cylinder provided with inlet and discharge openings, a piston cylinder disposed within said pump cylinder and provided with annular flanges at the ends thereof, having a sliding engagement with the wall of the pump cylinder, webs formed integral with said piston cylinder and extending between said flanges, said webs having a sliding engagement with the wall of the pump cylinder and dividing the space between the flanges of said piston cylinder into an intake chamber and a discharge chamber, a pair of intake ports in said piston cylinder communicating with said intake chamber, a pair of discharge ports in said piston cylinder communicating with said discharge chamber, a two part piston disposed within

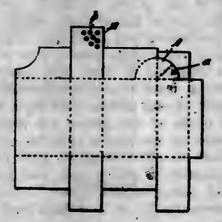
said piston cylinder in sliding engagement therewith and having a limited sliding movement relative thereto, the parts of said piston being provided with oppositely extending annular flanges, a port in each of said flanges adapted to be brought into alinement with one of the discharge ports of the piston cylinder, each port being so disposed in its piston flange that, when it is in alinement with the corresponding discharge port, said piston flange closes the corresponding intake port while the other piston flange is disposed to close the corresponding discharge port and to open the corresponding intake port, a slot in each part of said piston, said slots being in alinement when the parts of the piston are assembled, a pin carried by the wall of the piston cylinder and disposed in said slots to limit the movement of said piston relative to the piston cylinder, a piston rod, and means securing the parts of said piston together and to said piston rod, all coacting substantially as described and for the purpose specified.

4. In a structure of the class described, the combination of a pump cylinder provided with inlet and discharge openings, a piston cylinder disposed within said pump cylidner and provided with anular flanges at the ends thereof, having a sliding engagement with the wall of the pump cylinder, webs formed integral with said piston cylinder and extending between said flanges, said webs having a sliding engagement with the wall of the pump cylinder and dividing the space between the flanges of said piston cylinder into an intake chamber and a discharge chamber, a pair of intake ports in said piston cylinder communicating with said intake chamber, a pair of discharge ports in said piston cylinder communicating with said discharge chamber, a two part piston disposed within said piston cylinder in sliding engagement therewith and having a limited sliding movement relative thereto, the parts of said piston being provided with oppositely extending annular flanges, a port in each of said flanges adapted to be brought into alinement with one of the discharge ports of the piston cylinder, each port being so disposed in its piston flange that, when it is in alinement with the corresponding discharge port, said piston flange closes the corresponding intake port, while the other piston flange is disposed to open the corresponding intake ports, and to close the corresponding discharge port, means connecting said two part piston and said piston cylinder and permitting a limited movement of said two part piston relative to said piston cylinder, a piston rod, and means securing the parts of said piston and to said piston rod, all coacting substantially as described and for the purpose specified.

5. In a structure of the class described, the combination of a pump cylinder provided with inlet and discharge openings, a piston cylinder disposed within said pump cylinder and provided with annular flanges at the ends thereof, having a sliding engagement with the wall of the pump cylinder, means dividing the space between the flanges of said piston cylinder into an intake chamber and a discharge chamber, a pair of intake ports in said piston cylinder communicating with said intake chamber, a pair of discharge ports in said piston cylinder communicating with said discharge chamber, a two part piston disposed within said piston cylinder in sliding engagement therewith, and having a limited sliding movement relative thereto, the parts of said piston being provided with oppositely extending annular flanges, a port in each of said flanges adapted to be brought into alinement with one of the discharge ports of the piston cylinder, each port being so disposed in its piston flange that, when it is in alinement with the corresponding discharge port, said piston flange closes the corresponding intake port, while the other piston flange is disposed to close the corresponding discharge port and to close the corresponding intake port, means for connecting said piston with said piston cylinder, and permitting a limited movement of said piston relative to said piston cylinder, a piston rod, and means securing the parts of said piston together and to said piston rod, all coacting substantially as described and for the purpose specified.

[Claim 6 not printed in the Gazette.]

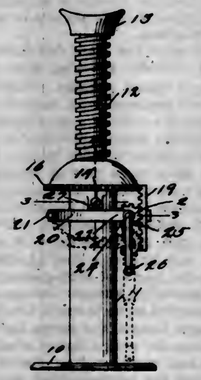
1,203,924. FOLDING CARTON. VERNON C. SNYDER, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 25, 1914. Serial No. 820,994. (Cl. 229—17.)



1. A distributing carton having a body formed with folded end flaps; of the four flaps at one end of the body the innermost flap being formed with distributing perforations; the next and second flap having a cut out portion registering with and exposing a group of perforations at a corner of said flaps; the next and third flap having at its corner which registers with the cut out portion of the second flap a severed spout portion which remains integral with the side of the carton, said severed portion being also integral with the fourth and outermost flap; and said outermost flap having a portion which, when severed on a line substantially coincident with the severed line of said third flap and unfolded at the corner of the carton, forms the other part of such spout.

2. A distributing carton having a body formed with four folded end flaps; the outermost flap being severable to form with the next inner flap a spout at the corner of the carton; said next inner flap being cut and folded to cooperate with the outermost flap to form said spout; and, of the two innermost flaps, one being perforated with a group of distributing holes at the corner under said spout portion, and the other being cut out to expose said group of holes.

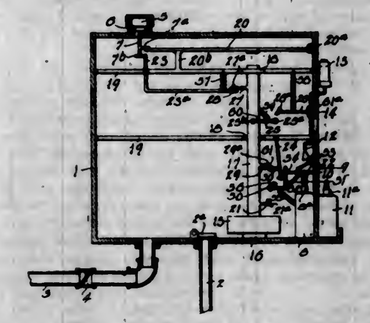
1,203,925. ELEVATING-JACK. LE GRAND SPARKS, Montgomery, N. Y. Filed May 8, 1916. Serial No. 96,203. (Cl. 254—103.)



1. In a jack, a base having a tubular member extending upwardly therefrom and constituting a stand, an elevating screw telescopically mounted in said tubular member, a driven gear having a centrally disposed threaded opening constituting a nut and fitting on said screw, a pair of alined stub shafts projecting from opposite sides of the tubular member, an intermediate gear mounted on one of said shafts, a curved arm mounted on the other shaft and extending around the tubular member into juxtaposition to the intermediate gear, a sleeve on the free end of said arm extending radially to the axis of said shafts, a crank shaft mounted in said sleeve, a driving gear on the inner end of the crank shaft and a crank handle on the outer end of the crank shaft.

2. In a jack, a base having a tubular member extending upwardly therefrom and constituting a stand, an elevating screw telescopically mounted in said tubular member, a driven gear having a centrally disposed threaded opening constituting a nut and fitting on said screw, a pair of alined stub shafts projecting from opposite sides of the tubular member, an intermediate gear mounted on one of said shafts, a curved arm mounted on the other shaft and extending around the tubular member into juxtaposition to the intermediate gear, a sleeve on the free end of said arm extending radially to the axis of said shafts, a crank shaft mounted in said sleeve, a driving gear on the inner end of the crank shaft, a crank handle on the outer end of the crank shaft and a lug on said tubular member and constituting a stop to limit upward movement of said arm.

1,203,926. WATER-ELEVATOR. JAMES M. STAFFORD, Washington, Ind. Filed Nov. 17, 1915. Serial No. 61,900. (Cl. 160—1.)



1. A water elevator, including a closed chamber, a water inlet, a water outlet, check valves controlling the water inlet and water outlet, an air valve, a detent for locking the air valve in an open position, a float within the chamber, means actuated by the rising and falling of the float to alternately open the air valve and release the detent, and means for establishing combustion within the closed chamber when the air valve is closed to produce a partial vacuum therein and cause water to enter the chamber through the inlet.

2. A water elevator, including a closed chamber, a water outlet, a water inlet, check valves controlling the water inlet and water outlet, a float within the chamber, top and side valves for the chamber, means actuated by the rise and fall of the float for simultaneously opening and closing the two valves at intervals of time, and means for establishing combustion within the closed chamber when the valves are closed, thereby producing a partial vacuum therein and causing water to enter the chamber through the inlet.

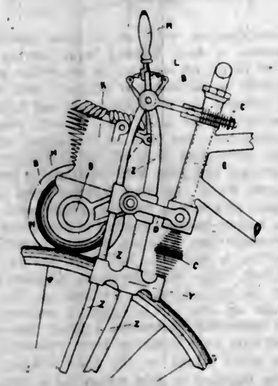
3. A water elevator, including a closed chamber, a water inlet, a water outlet, check valves controlling the water inlet and water outlet, a float within the chamber, means actuated by the rise of the float for simultaneously opening the two valves, detents for locking the valves in an open position, means actuated by the float when it reaches the lower limit of its movement for simultaneously releasing the detents, and means for establishing combustion within the chamber when the valves are closed, thereby producing a partial vacuum therein and causing water to enter the chamber through the inlet.

4. A water elevator, including a closed chamber, a water inlet, a water outlet, check valves controlling the water inlet and water outlet, a float within the chamber, a stem projecting upwardly from the float, guide means for the stem, an air valve at the top of the chamber, a second valve at one side of the chamber, trip actuated means controlled by the float for simultaneously opening the two valves when the float reaches the upper limit of its movement, detents for locking the two valves in an open position, trip means actuated by the float when it reaches the lower limit of its movement for simultaneously releasing the two detents, and means for establishing combustion within the closed chamber when the valves are closed, thereby producing a partial vacuum therein and causing water to enter the chamber through the water inlet.

5. A water elevator, including a closed chamber, a water inlet, a water outlet, check valves controlling the water inlet and water outlet, a float within the chamber, a burner within the chamber, an air valve for the chamber, means actuated by the float for igniting the burner and closing the air valve when it reaches the lower limit of its movement, and means actuated by the float for automatically opening the air valve when it reaches the upper limit of its movement.

[Claims 6 and 7 not printed in the Gazette.]

1,203,927. MOTOR FORE-CARRIAGE FOR BICYCLES AND SIMILAR VEHICLES. GIUSEPPE STAGNI, Turin, Italy. Filed May 1, 1914. Serial No. 835,695. (Cl. 21—90.)



1. A device of the character described, comprising a fore-frame, a steering head, a resilient connection between the two, a wheel in said fore-frame, a motor mounted on said fore-frame on each side of the plane of the wheel, a common drive-shaft connected to said motors and running crosswise of the plane of the wheel, and a driving connection between said drive-shaft and the tire of the wheel.

2. A device of the character described, comprising a fore-frame, a steering head, a resilient connection between the two, a wheel in said fore-frame, a motor mounted on said fore-frame on each side of the plane of the wheel, a common drive-shaft connected to said motors and running crosswise of the plane of the wheel, and a roller on said drive-shaft adapted to frictionally engage the tire of the wheel for driving the latter.

3. A device of the character described, comprising a fore-frame, a steering head, a resilient connection between the two, a wheel in said fore-frame, a motor mounted on said fore-frame, and a driving connection between said wheel and motor, said motor being pivoted on the fore-frame, a means mounted on said fore-frame for moving said motor and driving connection into and out of engagement with the tire of the wheel.

1,203,928. CAGE FOR BALL-BEARINGS. FRANK STARIN, Springfield, Mass. Filed Apr. 27, 1916. Serial No. 93,885. (Cl 64—59.)



1. A one piece cage for ball bearings, consisting of a ring forming at one face a seat for one side of the balls, and spaced retaining tongues approximately V-shape in cross section and extending integrally from one edge of the ring at approximately a right angle to the said ring face, each tongue having a segmental angular terminal slightly tapering and extending opposite the seat face of the ring.

2. A one piece cage for ball bearings, consisting of a ring concave at one face to form a seat for the balls, and spaced retaining tongues extending integrally from the inner edge of the ring approximately at a right angle to the plane of the ring, each tongue having a tapering segmental terminal bent toward the said concave face, each tongue and its terminal being approximately V-shape in cross section, and the terminal extending in a plane lying within the plane of the ring and the outer side of the balls.

3. A one piece cage for ball bearings, consisting of a ring concave at one face to form a seat for the balls, spaced retaining tongues extending integrally from the inner edge of the ring approximately at a right angle to the plane of the ring, each tongue having a segmental terminal bent toward the said concave face, and outer retaining tongues extending integrally from the outer edge of the ring approximately at a right angle to the plane of the ring and parallel to the said first-named tongue and directly opposite the same, the said outer retaining tongues extending toward the terminals of the other tongues and spaced therefrom.

4. A one-piece cage for ball bearings, consisting of a ring concave at one face to form a seat for the balls, spaced retaining tongues extending integrally from the inner edge of the ring approximately at a right angle to the plane of the ring, each tongue having a tapering segmental terminal bent toward the said concave face, and outer retaining tongues extending integrally from the outer edge of the ring approximately at a right angle to the plane of the ring and parallel to the said first-named tongue directly opposite the same, the said outer and inner tongues being approximately V-shape in cross section and the said outer tongues extending toward the terminals of the other tongues and terminating short of the said terminals.

1,203,929. GARMENT GAGE AND MARKER. FREDERICK W. STARKE and AUGUSTA G. STARKE, West Orange, N. J. Filed Nov. 16, 1915. Serial No. 61,789. (Cl. 33—9.)



1. A gage and marker of the character stated, the same consisting of a head having a passage therethrough adapted to receive a measuring stick, wings extending laterally from the walls of said passage, and a holder for a piece of marking-material, the terminals of said wings freely overlapping and interlocking forming a two-part freely engaged resilient pressure device for the head on said stick.

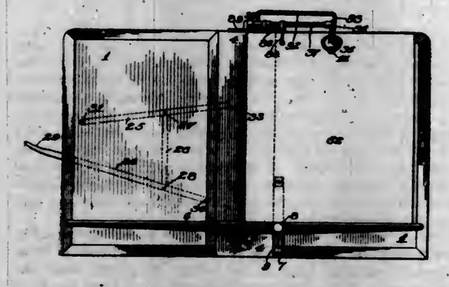
2. In a gage and marker of the character stated, a tubular head adapted to be fitted freely on a measuring stick, and a holder for marking material having its

carrying members on said head, said holder being composed of jaws which are continuous with said members, which members are partly within and partly without said head, and adapted to be clamped to the adjacent wall of said head.

3. A tubular head adapted to be fitted on a measuring stick, a holder for a piece of marking material composed of jaws adapted to receive and hold said piece, and vertically-extending plates continuous with said jaws adapted to be clamped to the adjacent wall of said head.

4. A gage and marker of the character stated composed of a tubular head having on one side outturned jaws adapted to clamp a piece of marking material, and on the opposite side outwardly-extending wings, the terminals of which are adapted to overlap and be connected resiliently forming a two part pressure device, said wings and said jaws being adapted to project from said head in opposite directions forming together means for the engagement of the thumb and fingers of the hand thereon above and below said head in the movement and adjustment of the device.

1,203,930. SHEET-LIFTING MECHANISM. HERMAN STEINMETZ, Rochester, N. Y. Filed Sept. 3, 1915. Serial No. 48,752. (Cl. 84—17.)



1. The combination with a member for engaging one of a series of sheets, of a guard, means for operating said engaging member to lift the sheet engaged thereby, and means for causing the guard to move downwardly and forwardly during the initial operation of the leaf engaging member and thence rearwardly and downwardly to prevent the turning of the adjacent sheet.

2. The combination with a sheet engaging member, of a guard normally positioned above and in front of said sheets, an inclined member movable with the guard, means for operating the sheet engaging member to lift the sheet engaged thereby and to move the guard downwardly, and stationary means coöperating with the inclined member for moving the guard rearwardly during its downward movement, whereby said adjacent sheet is prevented from being turned.

3. The combination with a suction member for engaging a leaf, of a hollow rotary support for the suction member, mechanism in engagement with the rotary support for exhausting air from the suction member and rotating the support, and means for locking said mechanism when the support has reached the limit of its rotating movement.

4. The combination with a suction member for engaging a leaf, of a hollow rotary support for the suction member, operating mechanism in engagement with the rotary support for exhausting air from the suction member and rotating the support, locking mechanism for retaining the operating mechanism in position to hold the rotary support at the limit of its rotating movement, and means controlled by leakage of air for releasing said locking mechanism.

5. The combination with a suction member for engaging a leaf, of a hollow rotary support for the suction member, operating mechanism in engagement with the rotary support for exhausting air from the suction member and rotating the support, locking mechanism for retaining the operating mechanism in position to hold the rotary support at the limit of its rotating movement, means controlled by leaking of air into the suction member for releasing said locking mechanism, and means for returning the operating mechanism and rotary support to their normal positions upon releasing of the locking mechanism.

[Claims 6 to 20 not printed in the Gazette.]

1,203,931. SAFETY-LATCH FOR ELEVATOR-DOORS. JOHN H. STEWART, Jamaica, N. Y., assignor to Stewart Elevator Safety Latch Co. Inc., Queens county, N. Y., a Corporation of New York. Filed Feb. 25, 1916. Serial No. 80,370. (Cl. 187—49.)



1. The combination, with an elevator shaft, of doors leading thereto, a door locking lever having an offset wing near its pivot, an elevator, a controller arm on the elevator, a lever on the elevator having a yoke on one end adapted to embrace the controller arm and lock the same against movement, the other end of said yoke carrying lever extending into the path of the offset wing on the door locking lever and adapted to be engaged by said wing for moving the yoke into position to embrace the controller arm when the door locking lever is released from the door, and means for supporting said door locking lever in locked position when the doors are closed.

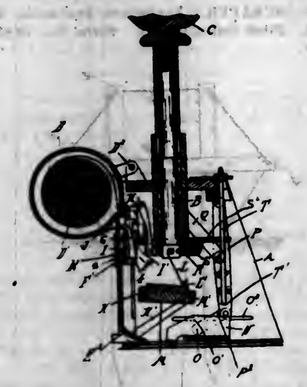
2. The combination, with an elevator shaft, of doors leading thereto, a door locking lever having oppositely extending offset wings near its pivot, an elevator, a controller arm on the elevator, a lever on the elevator, having a yoke on one end adapted to embrace the controller arm and lock the same against movement, the other end of said yoke carrying lever extending into the path of the offset wings on the door locking lever and adapted to be engaged by said wings for moving the yoke into position to embrace the controller arm when the door locking lever is swung either up or down from locking position, and means for supporting said door locking lever in substantially horizontal position when the doors are closed.

3. The combination, with an elevator shaft, of two doors leading thereto and hinged at opposite edges, means for locking one door closed, a combined latch and keeper pivoted to said door, a keeper on the other door arranged to be engaged by the combined latch and keeper on the first door, a lever extending across the second door but terminating short of the keeper thereon, said lever being adapted to be supported in substantially horizontal position by the combined latch and keeper on the first door when the same is in engagement with the keeper on second door, an elevator, a controller arm on the elevator, and means for automatically locking said controller arm when the lever is not supported in horizontal position.

4. The combination, with an elevator shaft, of two oppositely hinged doors leading thereto, means for locking one door closed, a combined latch and keeper pivoted to said door and having a weighted inner end, a keeper on the other door arranged to be engaged by the combined latch and keeper on the first door when the second door is closed, the weighted end of said combined latch and keeper normally holding its outer end above said keeper on the second door, a lever extending across the second door but terminating short of the keeper thereon, said lever being adapted to be supported in substantially horizontal position by the combined latch and keeper when the same is in engagement with the keeper on the second door, an elevator, a controller arm on the elevator and means for automatically locking said controller arm when the lever is not supported in horizontal position.

5. The combination, with an elevator shaft with two oppositely hinged doors leading thereto, means for locking one door closed, a combined latch and keeper pivoted to said door and adapted to swing below as well as above the horizontal plane of its pivot, a keeper on the other door adapted to be engaged by the combined latch and keeper on the first door when both doors are closed, a lever extending across the second door but terminating short of the keeper thereon and of the combined latch and keeper except when the latter is supported by the keeper on the second door, said lever being supported by said combined latch and keeper when the latter is engaged with the keeper on the second door, an elevator, a controller arm on the elevator and means for automatically locking said controller arm when the lever is not supported in horizontal position.

1,203,932. STAMP-AFFIXING MACHINE. BENNETT D. STRAIGHT, Detroit, Mich., assignor to Mail-om-eter Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 27, 1909. Serial No. 535,113. (Cl. 216—33.)



1. In a stamp or label affixing device, the combination of a reciprocatory plunger, a feeder for the strip of stamps or labels actuated by said plunger, a foot carried by said plunger for clamping said strip at the termination of the feeding movement thereof, said foot having a movable section for pressing on said strip subsequent to the clamping thereof, and means for automatically uncoupling said feeder and foot from said plunger to permit the further movement of the latter and the actuation of said independently movable foot section thereby.

2. In a stamp and label affixing device, the combination with a frame, a reciprocatory plunger mounted therein, a member having a latch-coupling engagement with said plunger, a feeder and a clamp actuated from said plunger through the medium of said member thereon, means operating at the completion of the feeding movement for unlatching said coupling, said clamp having a portion subsequently operated directly by said plunger for rupturing the stamp strip and pressing the same against the surface to be stamped.

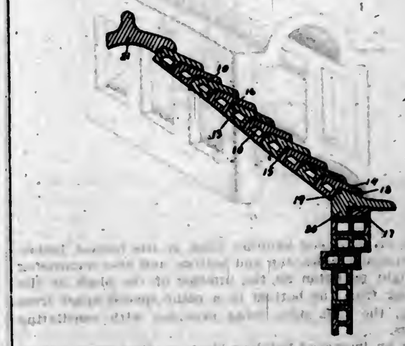
3. In a stamp or label affixing device, a plunger for controlling the stamp affixing, stamp strip feeding and stamp severing means actuated by the forward movement of the plunger, means for disconnecting the stamp feed before the plunger completes its forward movement, and a clamp for the stamp strip applied during the forward movement of the plunger while the stamp feed is disconnected.

4. In a stamp or label affixing device, the combination of a stamp holder, a vertical guide from the holder for the stamp strip, a reciprocatory plunger beside the guide for controlling the stamp affixing, a strip feed carried by the plunger engaging the strip in the vertical guide, and feeding it forward in the downward movement of the plunger, and means for disconnecting the strip feed before the plunger reaches the limit of its motion.

5. In a stamp or label affixing machine, the combination of a strip holder, a vertical guide leading therefrom, a reciprocatory plunger for controlling the stamp affixing arranged beside the guide, and a series of fingers carried by the plunger adapted to engage perforations in the strip in its downward movement to feed the strip forward.

[Claims 6 to 11 not printed in the Gazette.]

1,203,933. SELF-SUPPORTING-TILE ROOF. HALVER R. STRAIGHT, Adel, Iowa. Filed Dec. 5, 1912. Serial No. 735,136. (Cl. 108—1.)



1. A self supporting tile roof comprising a series of blocks laid in layers, each block being provided with a water shed extension of a length capable of extending across and beyond the block in the adjacent layer below, for the purposes stated.

2. A hollow roof tile block, comprising a substantially rectangular body portion, and an extension formed integral with the top of the body portion, said blocks being so shaped and proportioned that when placed in layers to form a roof at an angle of about forty-five degrees, each block when placed in position will be supported by one or more adjacent blocks, and said extension being of such length and shape that it will rest on the top of the adjoining block on the layer below, and project beyond the block on the layer below.

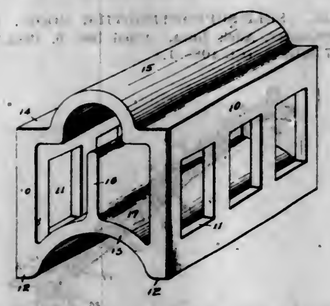
3. A hollow roof tile block, comprising a substantially rectangular body portion, and an extension formed integral with the top of the body portion, said blocks being so shaped and proportioned that when placed in layers to form a roof at an angle of about forty-five degrees, each block when placed in position will be supported by one or more adjacent blocks, and each block being provided at the upper edge of the body portion thereof with a notch designed to receive binding wires or rods, for the purposes stated.

4. An improved self supporting hollow tile roof, comprising a number of layers of roof blocks and arranged in circular form and to form a roof, each block being formed with a substantially rectangular hollow body portion and an extension integral with the top of the hollow body portion and the said extension being designed to rest upon the top of an adjacent row of similar blocks below, a layer of cement or mortar between the adjacent faces

of the body portions of the blocks, said parts being so arranged that when erected in a roof at an angle of about forty-five degrees each block when placed in position will overlap and protect the cement or mortar blocks in the layer below, each block being also provided with a notch in its upper edge portion, and circular binding wires or rods placed in said notches and embedded in the cement or mortar, for the purposes stated.

5. A self supporting tile roof comprising a series of blocks laid in layers, each block being provided with a water shed extension of a length capable of extending across and beyond the block in the adjacent layer below, said blocks and their extensions being so shaped and proportioned that each block as it is being laid in position will be supported by the adjacent blocks.

1,203,934. VENTILATED BUILDING-BLOCK. HALVER RUFUS STRAIGHT, Adel, Iowa. Filed Mar. 31, 1915. Serial No. 18,400. (Cl. 72—41.)



1. In an improved building block or tile formed hollow and comprising sides, top and bottom; and also comprising an upright partition on the interior of the block or tile extending from the bottom to a point spaced apart from the top, the said sides being provided with ventilating openings.

2. In an improved building block or tile formed hollow and comprising sides, top and bottom, the upper surface of the bottom being inclined from its longitudinal center downwardly and toward both sides of the block or tile, an upright partition at the longitudinal center of the bottom extending upwardly to a point spaced apart from the top, there being ventilating openings formed in the sides.

3. In an improved building block or tile formed hollow and comprising sides, top and bottom, the upper surface of the bottom being inclined from its longitudinal center downwardly and toward both sides of the block or tile, an upright partition at the longitudinal center of the bottom extending upwardly to a point spaced apart from the top, there being ventilating openings formed in the sides, the lower portions of said ventilating openings being in a plane as low as the adjacent portions of the top surface of the bottom of the blocks or tiles.

4. In an improved building block or tile formed hollow and comprising upright sides, a top and a bottom, the upright sides being provided with ventilating openings, the top being arched upwardly at its longitudinal central portion, the bottom also being arched upwardly at its longitudinal central portion, the curvature of the arched central portion of the top being somewhat less than the curvature of the arched central portion of the bottom, and an upright partition on the central portion of the bottom extending upwardly to a point spaced apart from the top.

5. In an improved building block formed hollow and comprising sides, top and bottom, the said sides being provided with ventilating openings extending from the top surface of the bottom member to a point slightly below the top of said side, the bottom member being provided with a central longitudinal partition extending upwardly to a point spaced apart from the top member and above the top of said ventilating openings.

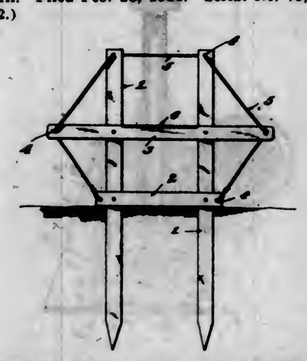
1,203,935. DISTRIBUTER FOR LIQUIDS. THOMAS W. STRINGHAM, Lodi, Cal. Filed Jan. 5, 1916. Serial No. 70,389. (Cl. 137—21.)



1. The combination with a separator, a bracket mounted on the separator and having a projecting plate provided with openings, a receptacle having projecting arms, having hooks engageable with said openings, a plurality of discharge spouts on said receptacle, and another receptacle turnable within the first named receptacle and having an opening arranged to be brought into register with each of said spouts, as described.

2. The combination with a separator, of a receptacle removably supported on the separator and provided with a plurality of discharge outlets, another receptacle turnable within the first named receptacle and having an opening arranged to be brought into register with each of the said discharge outlets, the second named receptacle being removable from the first named receptacle, and a projecting handle on the second named receptacle for the purpose of turning or removing same, as described.

1,203,936. SCRAPER. VALENTINE STRUBHAR, Washington, Ill. Filed Feb. 23, 1916. Serial No. 79,851. (Cl. 15—2.)



1. In a shoe scraper, a pair of spaced uprights, a bar extending at right angles to them and secured to each, its ends projecting beyond both, and a wire extending between the uprights and spaced above the bar and having terminal portions extending outwardly and downwardly at an angle and engaging the projecting ends of the bar and secured at their ends relatively to the uprights below said bar.

2. In a shoe scraper, a support, a cross-member secured relatively to it and extending beyond it at each side, a wire secured relatively to the support below the cross-member and extending upward and engaging the extended end of the latter, thence extending upward to the upper portion of the support, thence extending downward to and engaging the other extended end of the cross-member and secured relatively to the said support, said wire being spaced from the several parts of the structure to afford scraping portions for the shoe.

1,203,937. FLAG-HOLDER FOR AUTOMOBILES. TAYLOR K. SURFACE, Merna, Nebr. Filed May 3, 1916. Serial No. 95,127. (Cl. 248—37.)

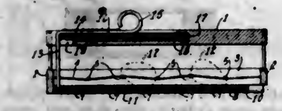
1. A flag staff holder comprising a body plate having attaching means for securing the same to a support, a plurality of staff sockets pivoted to said plate, whereby said sockets may be adjusted in different angular positions, each of said sockets having yieldable clamping means to frictionally engage the staff to hold the same in different adjusted positions longitudinally through the socket.



2. A flag staff holder comprising a body plate, a plurality of tubular sockets, means for pivoting said sockets to the plate, whereby the sockets may be adjusted in different positions, each of said sockets having its upper open end beveled off, to permit the staff to be inserted, a leaf spring secured by said pivoting means and extending into the socket and designed to frictionally engage a staff to support the same in adjusted positions longitudinally through the socket.

3. A flag staff holder comprising a body plate, a plurality of tubular sockets, means for pivoting said sockets to the plate, whereby the sockets may be adjusted in different positions, each of said sockets having its upper open end beveled off, to permit the staff to be inserted, a leaf spring secured by said pivoting means and extending into the socket and designed to frictionally engage a staff to support the same in adjusted positions longitudinally through the socket, the lower end of each leaf spring being provided with a shoulder to be engaged by the lower extremity of the staff to support the same.

1,203,938. EGG-HANDLING DEVICE. JOSEPH ANDREW TERRIO, Ogdensburg, Wis. Filed Dec. 10, 1915. Serial No. 66,153. (Cl. 99—6.)



1. In an egg handling device of the described class, the combination of a rectangular frame, two sets of wires located at slight distances apart between such frame, each set comprising two series of wires, each series located at right angles to the other forming angular spaces for the reception of the eggs, means for normally retaining one set of wires out of vertical alinement with the other set, whereby the lower set of wires is adapted to support eggs in each of the angular spaces in the upper set, and means for manually bringing the wires of one set into vertical alinement with the other set, whereby eggs supported by said wires are free to be discharged therefrom.

2. In an egg handling device of the described class, the combination of a rectangular frame, two sets of wires located at slight distances apart between such frame, each set of wires comprising two series of wires, each series located at right angles to the other forming angular spaces between them for the reception of eggs, a spring, and a frame, for normally retaining one set of wires out of vertical alinement with the other set, whereby the lower set of wires is adapted to support eggs in each of the angular spaces of the upper set, and means for manually bringing the wires of one set into vertical alinement with the other set, whereby eggs supported by said wires may be discharged therefrom.

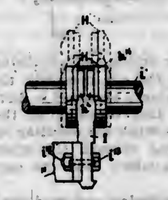
3. In an egg handling device of the described class, the combination of a rectangular frame, two sets of wires located at slight distances apart between such frame, each set of wires comprising two series of wires, each series located at right angles to the other forming angular spaces between them for the reception of eggs, a spring, and a frame for normally retaining one set of wires out of vertical alinement with the other set, whereby the lower set of wires is adapted to support eggs in each of the angular spaces of the upper set, a handle and a metallic frame for manually bringing the wires of one set into vertical alinement with the other set, whereby eggs supported by said wires may be readily discharged therefrom.

1,203,939. RESILIENT WHEEL. GEORGE W. THOMPSON, Springfield, Mo. Filed July 14, 1915. Serial No. 39,833. (Cl. 152—46.)



A resilient wheel comprising a hub having a hub rim provided with a seat for a pneumatic, a pneumatic in said seat, a pair of plates bolted together, one upon each side of the hub rim, the adjacent faces of said plates having annular shoulders to engage the annular edges of the hub rim partially between the pneumatic and the hub rim, the adjacent faces of the plates beyond the shoulders merging or curving into said shoulders partially under the sides of the pneumatic and forming continuations of the seat for the pneumatic, a wheel rim having an integral skeleton extension wheel frame operable between the two plates, said wheel frame comprising a plurality of radial spokes, each being thinner in diameter than the space between the two plates, said spokes at their inner ends terminating in enlargements of widths equal to the space between the plates and engaging said pneumatic and sliding against the adjacent faces of the plate, said spokes adjacent said seat having integral connections spaced at intervals from the pneumatic, said spokes substantially at their central portions having laterally extending parts to slide in contact with the adjacent faces of the plate, and resilient connections between the wheel rim and the outer peripheral edge of said plate.

1,203,940. EDGING-MACHINE FOR LUMBER. WILLIAM HENRY TROUT, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Mar. 5, 1910. Serial No. 547,388. (Cl. 143—164.)



1. The combination with a guide-rod of a guide-carrier having a non-rotatable hub and sliding freely upon said

guide rod and a saw-guide pivoted on the hub of said carrier.

2. The combination with a guide-rod of a guide-carrier sliding freely thereon and a pair of saw-guides pivoted on opposite sides of said carrier laterally separable and adapted to bear on opposite sides of the saw, and means for holding said guides immovable laterally when in normal operative position.

3. The combination of a guide-carrier having a pair of upstanding lugs on the inner side thereof, said lugs converging downwardly and having abrupt upper ends, and a pair of saw-guides pivotally mounted on said carrier and having corresponding oblique recesses, one on each saw-guide, fitting over said lugs and engaging the ends thereof when said carriers are in operative position; whereby a downward movement of either saw-guide is accompanied by an inward movement toward the face of the saw and an upward movement is accompanied by a retiring movement away from the saw.

4. A saw-guide comprising in combination a hub-member, and an arm-member rotatable thereon and having at its free end means adapted to bear against the face of a saw; one of said members having a helicoidal fin extending through a small angle, and the other a corresponding helicoidal recess adapted to interlock with said fin; the angle of obliquity and position of said fin and recess being such that said arm-member in rotating toward said saw is caused to approach it laterally and in rotating away from said saw is caused to depart from it laterally.

5. A saw-guide comprising in combination a hub-member, and an arm-member rotatable thereon and having at its free end means adapted to bear against the face of a saw; one of said members having a helicoidal fin extending through a small angle, and the other a corresponding helicoidal recess adapted to interlock with said fin; the angle of obliquity and position of said fin and recess being such that said arm-member in rotating toward said saw is caused to approach it laterally and in rotating away from said saw is caused to depart from it laterally; said helicoidal fin and recess being disengaged when said arm-member is turned through a certain angle from its bearing position, thereby leaving said arm member free and separable from said hub-member.

[Claims 6 to 8 not printed in the Gazette.]

1,203,941. PROCESS FOR DRYING AND STERILIZING AIR. REINDER PIETERS VAN CALCAR, Oegstgeest, and JAN ELLERMAN and HENDRIKUS JOHANNES MARTIJN, The Hague, Netherlands. Filed Dec. 29, 1911. Serial No. 668,474. (Cl. 34—24.)



1. A process for drying and sterilising air, which consists in directing the air upwardly through a suitable soluble drying substance arranged in distinct substantially horizontal layers, thus commingling the substance with the moist air to be dried, the resulting solution in a finely divided state falling through the layers in a direction opposite to that in which flows the current of air to be dried.

2. A process for drying and sterilising air, which consists in directing the air upwardly through a suitable soluble drying substance and an anti-hardening material in distinct substantially horizontal layers, thus commingling the substance and material with the moist air to be dried, the resulting solution in a finely divided state falling through the layers in a direction opposite to that in which flows the air to be dried, and evaporating the solution and thereby recovering the mixture.

1,203,942. SAP-CUP HOLDER. JAMES OLDHAM WALKER, Pensacola, Fla. Filed June 13, 1916. Serial No. 103,435. (Cl. 248—27.)



A holder as characterized comprising a double-ended single piece of wire, said wire being bent for forming a pendent portion, said portion embodying vertical uprights laterally disposed, and a cross bar connecting the same, and extended outward from the plane thereof, a plurality of retaining hooks formed from said wire adjacent the pointed ends thereof, said hooks being adapted to extend over and in front of the rim of a sap cup, and loops directly connected with said uprights and extending above the wire contiguous to said pointed ends, for preventing the opening of the bends of said wire when supporting the weight of said cup.

1,203,943. SPARK-PLUG PROTECTOR AND CLEANER. ELMER G. WARE, Bisbee, Ariz. Filed Feb. 2, 1916. Serial No. 75,752. (Cl. 206—16.)



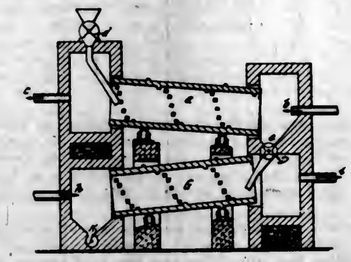
1. A protector and cleaner for spark plugs, including a hollow body open at both ends, each end being interiorly threaded, the threads being of a length and character to take directly onto the threaded portion of a spark plug, the end edges being adapted to make a fluid-tight contact with the shoulder at the threaded portion of the spark plug, said body constituting a chamber for a cleaning liquid between the said threaded portions.

2. A protector and cleaner for spark plugs, including a hollow body open at both ends, each end being interiorly threaded, the threads being of a length and character to take directly onto the threaded portion of a spark plug, the end edges being adapted to make a fluid-tight contact with the shoulder at the threaded portion of the spark plug, said body constituting a chamber for a cleaning liquid between the said threaded portions, the body furthermore having exteriorly thereon a zone forming a wrench-hold intermediate the ends of the body.

1,203,944. MEANS FOR HEATING GASES. JOSEF WEBER, Essen-on-the-Ruhr, Germany. Filed Mar. 13, 1916. Serial No. 83,938. (Cl. 34—26.)

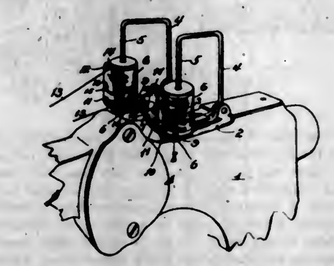
1. In means for heating gases, the combination of a pair of furnace heads each comprising an upper and a lower chamber each chamber having an opening therein; a pair of oppositely inclined ratary drums disposed one above the other converging toward each other, the ends of the upper drum being received by the respective openings of the upper chambers, while the ends of the lower drum are received by the corresponding lower openings; gas conduits entering the respective chambers; a substantially gas-tight seal between the chambers at the converging ends of the drums; and means for feeding solid particles to the upper drum.

2. In means for heating gases, the combination of a pair of furnace heads each comprising an upper and a lower chamber each chamber having an opening therein; a pair of oppositely inclined rotary drums disposed one above the other converging toward each other, the ends of the upper drum being received by the respective openings of the upper chambers, while the ends of the lower drum are received by the corresponding lower openings; gas conduits entering the respective chambers; a valve roller having recesses therein disposed between the chambers at the diverging end of the drums.



3. In means for heating gases, the combination of a pair of furnace heads each comprising an upper and a lower chamber each chamber having an opening therein; a pair of oppositely inclined rotary drums disposed one above the other converging toward each other, the ends of the upper drum being received by the respective openings of the upper chambers, while the ends of the lower drum are received by the corresponding lower openings; gas conduits entering the respective chambers; a substantially gas-tight seal between the chambers at the converging ends of the drums; means for feeding solid particles to the upper drum and projections on the inner face of the drums.

1,203,945. THREAD-GUIDE FOR SEWING-MACHINES. HENRIETTA T. WERDEN, New York, N. Y. Filed Feb. 16, 1915. Serial No. 8,537. (Cl. 242—140.)

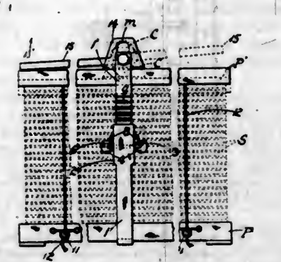


1. A thread guide for sewing machines, comprising a plate forming a spool rest and having a forwardly and inwardly projecting arm, and a flat guide post disposed at right angles to the forward end of said arm and provided with guide holes for thread, whereby said post will be disposed at right angles to a convergent line extending from the spool to the forward portion of a sewing machine head, and means for rigidly securing said plate to the sewing machine head.

2. A thread guide for sewing machines comprising a plate, means for rigidly securing said plate between its ends to the head of a sewing machine, and constituting a plurality of spool rests, an integral horizontal arm projecting from each spool rest, and guide posts integral with said arms and extending upwardly from their free ends.

3. A thread guide for sewing machines, comprising a plate, means for securing said plate to the head of a sewing machine and forming a plurality of spool rests, convergent horizontal arms projecting forwardly from said spool rests, and flat guide posts integral with the free ends of said convergent arms, said guide posts having guide holes for thread and having their flat faces at right angles to convergent lines extending from the respective spools to the forward portion of a sewing machine head.

1,203,946. PRESS. OSCAR F. WESTENHISER, St. Louis, Mo. Filed Oct. 11, 1915. Serial No. 55,212. (Cl. 100—57.)



1. In combination with a pair of members connected telescopically with one another, a rotatable catch operating to grip one of the members and prevent movement between the members in one direction, a spring for normally maintaining the catch in gripping engagement with its member, and means coupled to the spring on the member supporting the catch for maintaining the latter out of engagement with the opposite member.

2. In combination with a pair of members in movable relation to one another, a rotatable catch on one member operating for a certain position to grip the opposite member against movement in a given direction, a contracting spring for rotating the catch to gripping position, and a movable member coupled to the spring for maintaining the catch in releasing position when turned from its gripping position against the tension of the spring.

3. In combination with a pair of members in movable relation to one another, a movable catch on one member operating for a certain position to grip the opposite member against movement in a given direction, a contracting spring for moving the catch to gripping position, and means coupled to said spring for maintaining the catch in releasing position when moved from its gripping position against the tension of the spring.

4. In combination with a pair of press members in slidable relation to one another, a rotatable catch on one member operating for a given position to grip the opposite member against movement tending to separate the members, a contracting spring for rotating the catch to gripping position, and a locking latch or pawl coupled to the spring operating to maintain the catch out of its gripping position upon rotation of the catch through a given arc.

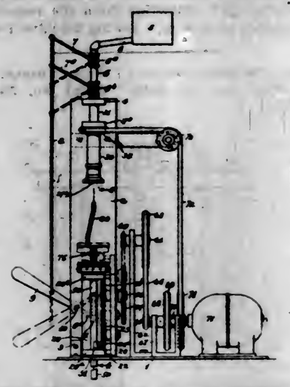
5. In combination with a pair of press members in slidable relation to one another, a rotatable catch on one member, a contracting spring for rotating the catch in a given direction to grip the opposite member against a separating movement of the members, a latch hinged to the member carrying the catch and coupled to the spring aforesaid, a wing carried by the catch and riding freely along the latch, the latter being provided with a recess for automatically engaging the edge of the wing under the resilient action of the spring, the catch being held out of its gripping position while engaged by the recess aforesaid.

[Claims 6 and 7 not printed in the Gazette.]

1,203,947. MACHINE FOR MAKING SEAMLESS CELLULOID ARTICLES. JOHN N. WHITEHOUSE, Newark, N. J. Filed Apr. 25, 1912. Serial No. 693,267. (Cl. 18—5.5.)

1. A machine for making seamless celluloid articles which comprises in combination a mold, a jet which delivers celluloid solution against said mold, means for rela-

tively rotating the mold and the jet and means for automatically reciprocating said mold and jet relatively to each other a number of times to cause the jet to cover the surface of the mold.



2. A machine for making seamless celluloid articles comprising in combination a hollow mold, a jet receivable into said mold for delivering celluloid solution against its interior, said jet and mold being relatively rotatable, and means for automatically reciprocating said mold and jet relatively to each other a number of times to cause the jet to cover the surface of the mold.

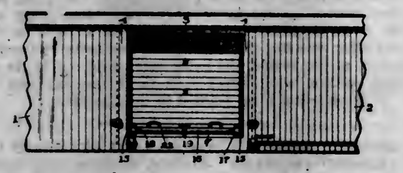
3. A machine for making seamless celluloid articles which comprises in combination a mold, a rotating jet which delivers celluloid solution against said mold, and means for reciprocating said mold and jet relatively to each other to cause the jet to cover the surface of the mold, and means which automatically stops said reciprocations after a determined number thereof has occurred.

4. A machine for making seamless celluloid articles comprising in combination a hollow mold, a rotating jet receivable into said mold for delivering celluloid solution against its interior, means for reciprocating said mold and jet relatively to each other to cause the jet to cover the surface of the mold, and means which automatically stops said reciprocations after a determined number thereof has occurred.

5. A machine for making seamless celluloid articles which comprises in combination a mold, a rotating jet which delivers celluloid solution against said mold, means for reciprocating said mold and jet relatively to each other to cause the jet to cover the surface of the mold, and means for automatically dividing off the supply of celluloid solution so that the jet delivers a quantity thereof proportionate to each article.

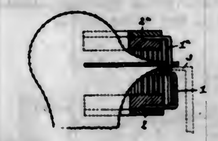
[Claims 6 to 8 not printed in the Gazette.]

1,203,948. GRAIN-CAR DOOR. JOHN WIEMER, San Jose, Ill. Filed Mar. 17, 1915. Serial No. 14,899. (Cl. 20—32.)



A grain car door adapted to rest on the floor of the car, said door comprising slats or sections, means for holding the slats or sections together, runways for the slats or sections extending up against the under side of the roof, a shaft mounted on the outside of the slats or sections, pinions on the shaft, and stationary racks on the outside of the car door posts where the contents of the car will not clog the same and with which the pinions mesh.

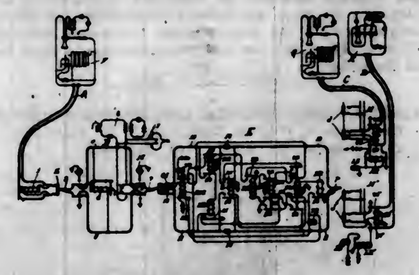
1,203,949. STITCH TRANSFERRING AND DOUBLING DEVICE. LOUIS N. D. WILLIAMS, Ogonts, Pa. Filed Jan. 27, 1916. Serial No. 74,566. (Cl. 66—32.)



1. A stitch transferring device comprising two sets of stitch engaging points, and carriers therefor, one of which can be folded over the other, the points being so disposed in said carriers that when one of the latter is so folded over the other the points will be in different longitudinal planes.

2. A stitch transferring device comprising two semi-annularly disposed sets of stitch engaging points one of longer radius than the other, and two semi-annular carriers for said points one of which can be folded over the other.

1,203,950. TOLL-TRUNK CIRCUIT. CHARLES S. WINSTON, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1913. Serial No. 749,880. (Cl. 179—47.)



1. A telephone system comprising a local battery or magneto and common battery telephone lines, line circuits of different character for said lines, a universal toll trunk for extending connection from a calling line to said lines, as called lines, a bridging battery supply relay, a switching relay adapted when operated to connect said bridging relay in bridge of the trunk circuit, a sleeve relay, means for energizing the switching relay and sleeve relay when connection is made to a common battery line and for energizing the sleeve relay but not the switching relay when connection is made with a local battery line, and a guard signal for said trunk circuit operated responsive to such operations of the sleeve relay.

2. A telephone system comprising local battery or magneto and common battery telephone lines, line circuits of different character for said lines, a universal toll trunk for extending connections from a calling line to said lines as called lines, outgoing jack terminals for said trunk circuit and incoming terminals for said trunk for connecting to said line circuits, a bridging battery supply relay, a switching relay and circuit connections whereby said bridging relay may be connected in bridge of the incoming end of the trunk circuit, and means for energizing the switching relay when connection is made to a common battery line but where said relay is not energized when connection is made with a local battery line.

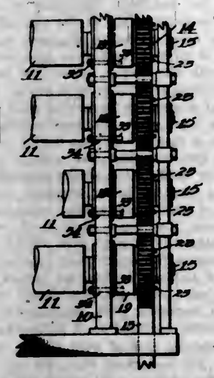
3. A ring-through universal toll trunk comprising an outgoing terminal and an incoming terminal, conductors uniting said terminals, condensers interposed in said conductors, a ringing relay in bridge of said conductors at the outgoing end thereof, said ringing relay being operated by ringing current when applied to the outgoing terminals of the trunk, and a shunting relay responsive to such operations of the ringing relay for short circuiting said condensers when the ringing current is applied.

4. A ring through universal toll trunk comprising outgoing and incoming terminals, conductors uniting said terminals, condensers interposed in said conductors, a ringing relay in bridge of said conductors at the outgoing end thereof, said ringing relay being operated by ringing current when applied to the outgoing terminals of the trunk, a shunting relay responsive to such operations of the ringing relay for short circuiting said condensers when the ringing current is applied so as to provide a more effective ring-through circuit, a bridging relay adapted to be connected in bridge of said conductors at the incoming end of the trunk circuit, means for connecting the bridging relay in such bridged connection, a disconnect relay having contacts included in the operating circuit of the ringing relay, and means for operating the disconnect relay controlled by said bridging relay.

5. A telephone system comprising lines of different characters, a cord circuit for extending a calling line to a universal toll trunk circuit said toll trunk circuit extending the calling line to the called lines of different characters, sleeve and switching relays in said toll trunk energized upon connection of the toll trunk with a common battery line, a source of battery supply, a bridging relay bridged across the toll trunk conductors when said switching relay is energized to connect said battery source with the trunk when said trunk is connected to a common battery line, and when said trunk is connected to a magneto line said switching and bridging relays remain inert whereby said battery source is not connected to the trunk circuit.

[Claims 6 to 11 not printed in the Gazette.]

1,203,951. BRAKING MECHANISM FOR PRESSES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Mar. 6, 1912, Serial No. 681,921. Renewed Apr. 12, 1916. Serial No. 90,775. (Cl. 101—111.)



1. In a multiple deck printing press, the combination with a plurality of impression cylinders for the several decks of the press, a train of gearing for driving one of said cylinders at one end of the series, gears on each of said cylinder shafts, said last named gears meshing directly with each other in series, each of said gears being rotatable independently of the cylinder which it operates, and means for retarding the rotation of each cylinder independently of its gear and independently of the other cylinders.

2. In a multiple deck printing press, the combination with a plurality of impression cylinders, means for driving one of said cylinders, and means for driving the rest of the cylinders in series from the first one, of means arranged between the driving mechanism and each cylinder for retarding the rotation of that cylinder independently of the driving mechanism and of each other.

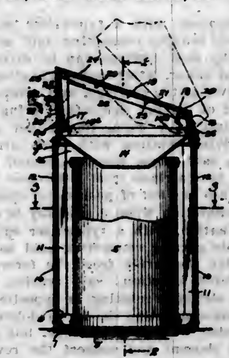
3. In a printing press, the combination with an impression cylinder, of a brake hub rotatable therewith, a brake band for the hub, an operating member for the brake band having an arm thereon, a rod for operating said arm, and yielding connections on both sides of the arm for connecting it with the rod.

4. In a printing press, the combination of a reciprocable operating rod, an oscillatable arm extending toward the rod, a spring on each side of the free end of the arm, each of said springs being connected with the rod, a non-circular brake operating member fixed with respect to the arm and oscillatable on the same axis as the arm, and a brake band in position to be operated by said operating member.

5. In a printing press, the combination with an impression cylinder, of a brake hub rotatable therewith, a brake band for the hub, and means for operating said brake band to grip the hub, said means comprising a cylinder, a piston therein, an oscillatable arm connected with said piston to be operated thereby, and yielding connections between the piston and arm on both sides of the arm.

[Claims 6 to 9 not printed in the Gazette.]

1,203,952. COLUMNAR BILL-BOARD AND REFUSE-CONTAINER. ALBERT H. WOODS, New York, N. Y. Filed Jan. 10, 1916. Serial No. 71,193. (Cl. 220—115.)



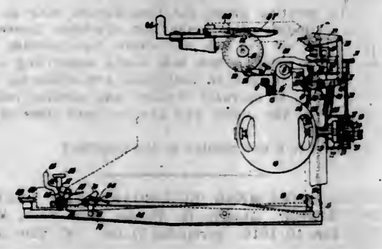
1. In a device of the kind described, in combination, a refuse can; a protecting structure including side walls so disposed that the can may be arranged between and spaced from said side walls; and a hinged cover for said structure including a roof, depending side walls for spacing the roof, above the top of the structure, said roof being sloped, a refuse-injection opening directly below the ridge of the roof-slope, and a dished floor wall for the cover, said floor wall having its concave side uppermost and being provided with a central discharge opening adapted to overlie the top of the refuse can when the cover is closed.

2. In a device of the kind described, in combination, a refuse can; a protecting structure including side walls so disposed that the can may be arranged between and spaced from said side walls; and a hinged cover for said structure including a roof, depending side walls for spacing the roof above the top of the structure, said roof being sloped, a refuse-injection opening directly below the ridge of the roof-slope, and a dished floor-wall for the cover, said floor wall having its concave side uppermost and being provided

with a central discharge opening of smaller diameter than the diameter of the refuse can and adapted to overlie the top of the refuse can when the cover is closed.

3. In a device of the kind described, in combination, an open-topped major container a side wall of which is established by a readily removable panel, a minor container located within and removable from the major container through a doorway established by the removal of said panel, and a second minor container located above and removable from the major container; said second minor container including a vertical opening at one end, a roof wall downwardly sloping away from said opening, a floor wall having a substantially central depression therein, and an opening at the bottom of the depression.

1,203,953. TYPE-WRITING MACHINE. WALTER WRIGHT, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Original application filed June 29, 1910, Serial No. 569,502. Divided and this application filed May 27, 1913. Serial No. 770,110. (Cl. 197—60.)



1. The combination with a typewriter carriage, of a motor, reversible gearing connecting said motor to said carriage, whereby said carriage can be driven in either direction by said motor, letter-feed mechanism controlling the forward travel of the carriage, said reversible gearing including a pair of driving elements rotating in opposite directions, a clutch for connecting either one of said elements in driving relation with said carriage, stops, keys to operate said stops, means operated by the said keys to release the carriage from letter-feed control, and a key movable into and out of position to cause a reversal of the clutch connection when a stop key is operated.

2. The combination, with a typewriter carriage; of a motor; reversible gearing connecting said motor to said carriage, to drive the latter from the former in either forward or reverse direction; said gearing including a pair of driving elements rotating in opposite directions; a clutch normally connecting the forward-driving element in driving relation with said carriage, but shiftable to disconnect that element and connect the reverse-driving element; means for shifting said clutch; a stop on said carriage; a counter-stop to co-act therewith; and a key for simultaneously moving said counter-stop into effective position and operating said clutch-shifting means.

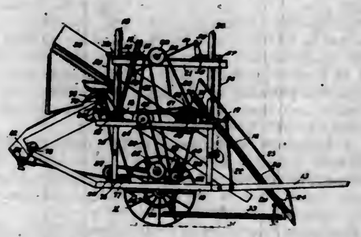
3. The combination with a typewriter carriage, of a motor, reversible gearing connecting said motor to said carriage, whereby said carriage can be driven in either direction by said motor, said reversible gearing including a pair of driving elements rotating in opposite directions, a clutch for connecting either one of said elements in driving relation with said carriage, means for shifting said clutch, and means for rendering said last-mentioned means operative or inoperative to shift said clutch.

4. The combination with a typewriter carriage, of a motor normally connected to drive said carriage in one direction, keys, means operated by said keys for reversing the movement of said carriage, means controlled by said keys for selectively determining the extent of movement of said carriage in either direction, a controlling key, and means operated thereby to prevent the operation of said reversing means by said first-named keys.

5. The combination with a typewriter carriage, of a motor, reversible gearing connecting said motor to said carriage, whereby said carriage can be driven in either direction by said motor, means for restraining said carriage from movement in one direction, and permitting movement of said carriage in the opposite direction, a key operable to release the carriage from said restraining means and operate said reversible gearing to reverse the direction of the carriage travel, a second key, and means operated thereby to prevent operation of the reversible gearing by said first-mentioned key.

[Claims 6 to 87 not printed in the Gazette.]

1,203,954. CORN-HARVESTER. HERBERT B. WICKOFF, Centerville, Iowa. Filed Sept. 19, 1912. Serial No. 721,193. (Cl. 56—112.)



1. In a corn harvester, the combination of a wheeled carrying frame, a supporting frame suspended therefrom, an upwardly inclined stalk gathering device comprising a pair of endless conveyers mounted on said frame, an upwardly inclined guiding device comprising an endless conveyer mounted on said frame below the gathering device, a snapping device for removing the corn from the stalks, means for holding the stalks against upward movement while the ears are being snapped, said means comprising a pair of opposed endless flexible members, mounted in a horizontal plane adjacent to the ground on said supporting frame, adapted to frictionally engage said stalks near the lower end thereof and means for operating said parts.

2. In a corn harvester, the combination of a wheeled carrying frame, a stalk gathering device mounted on said frame, means for snapping the ears of corn from the stalks, means for holding the stalks against upward movement while the ears are being snapped, said means comprising a pair of flexible conveyers mounted in a horizontal position near the lower portion of said frame and adapted to frictionally engage said stalks near the lower end thereof and means for operating said parts.

3. In a corn harvester, the combination of a wheeled carrying frame, a stalk gathering device mounted on said frame, means for snapping the ears of corn from the stalks, means for holding the stalks against upward movement while the ears are being snapped, said means comprising a pair of flexible conveyers mounted in a horizontal position near the lower portion of said frame and adapted to frictionally engage said stalks near the lower end thereof, means for operatively connecting the snapping device and holding device and means carried by the frame whereby said parts may be jointly operated.

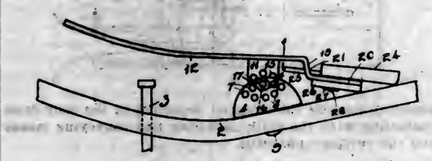
4. In a corn harvester, the combination of a carrying frame, an upwardly inclined stalk gathering device mounted near the forward end of said frame, means mounted on said frame for snapping the ears of corn from the stalks, means for holding said stalks from upward movement while the ears are being snapped, said means comprising a pair of endless conveyers arranged in a horizontal position and adapted to travel over sprocket wheels supported from said frame and gathering device and means for operatively connecting said parts to a suitable power mechanism carried by said frame.

5. In a corn harvester, means for snapping the ears of corn from the stalks and means for holding the stalks

against upward movement while the ears are being snapped said means comprising a pair of engaging members mounted in a horizontal position near the lower portion of the harvester and adapted to frictionally engage the stalks near the lower end thereof.

[Claim 6 not printed in the Gazette.]

1,203,955. AUTOMOBILE-ACCELERATOR PEDAL. BENJAMIN D. ADAMS, Galesburg, Ill. Filed Oct. 18, 1913. Serial No. 794,840. (Cl. 74—81.)



The combination with an engine control element adapted to be moved by pressure, of a foot pedal mounted to be engaged by the foot of the user and operated to apply pressure to said element, said foot pedal including a mounting longitudinally adjustable with respect to the element, a bracket pivotally connected with the mounting, a foot plate having longitudinally adjustable connection with the bracket and having its forward portion normally overlying the element, and a heel plate adjustably connected to the foot plate beyond the pivotal connection with relation to the element, the mounting of the heel plate together with the latter normally maintaining the pedal in position to space its operative end from the element.

1,203,956. BRAKE MECHANISM FOR VEHICLES. GIUSEPPE SACCO ALBANESE, Paris, France, assignor to Ethel L. Noble, Brooklyn, N. Y. Filed May 2, 1913. Serial No. 765,021. (Cl. 188—59.)

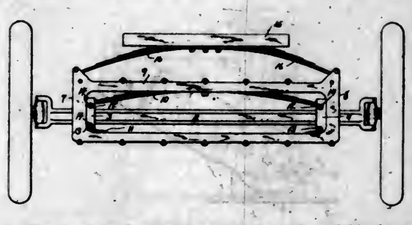


1. In a brake mechanism, a winding drum supported on a seating provided by the base of a body portion and means consisting of a stop on the lower extremity of the drum engaging a stop on said seating and an intermediate loose ring having a lug for limiting the unwinding movement of the winding drum.

2. In a brake mechanism, the combination of a body portion supporting a winding drum mounted on a stud shaft, internal gearing and a pinion provided within the hollow crown of the winding drum for driving the same and means consisting of a stop provided on the lower extremity of the winding drum engaging a loose lug which in turn engages a fixed stop carried by said body portion for limiting the unwinding movement of the winding drum.

3. In a brake mechanism, the combination of a body portion supporting a winding drum mounted on a stud shaft, means for driving said drum which include an internal gearing provided within the hollow crown of the drum and a pinion carried by a plate secured to the body portion and means for limiting the unwinding movement of the drum consisting of a stop provided on the lower extremity of the winding drum which stop engages a lug provided on a ring which is free to rotate on the said stud shaft and which lug engages a stop provided on the body portion of the brake mechanism.

1,203,957. VEHICLE-AXLE. JOHN ANDERSON, Portland, Conn. Filed Feb. 21, 1916. Serial No. 79,566. (Cl. 21—97.)



1. The combination with a vehicle axle, of blocks secured near opposite ends thereof, a housing through which the axle extends and in which it is permitted to have vertical movement, the said blocks bearing against the opposite end walls of the said housing.

2. The combination with a vehicle axle, of blocks secured near opposite ends thereof, the outer faces of said blocks formed with cam surfaces, combined with a housing through which the axle extends and in which it is permitted to have vertical movement the cam edges of the blocks engaging with the end walls of the housing.

3. The combination with a vehicle axle, of blocks secured near opposite ends thereof, a housing through which the axle extends and in which it has vertical movement, anti-friction rollers mounted in the end walls of the housing and against which the outer faces of the blocks engage.

4. The combination with a vehicle axle, of blocks secured near opposite ends thereof, a housing through which the axle extends, the outer faces of the blocks adapted to engage with the end walls of the housing, and a spring interposed between the upper surface of the axle and the top of the housing.

5. The combination with a vehicle axle, of blocks secured near opposite ends thereof, a housing through which the axle extends, the outer faces of the blocks adapted to engage with the end walls of the housing, and a spring interposed between the under surfaces of the axle and the bottom of the housing.

[Claims 6 and 7 not printed in the Gazette.]

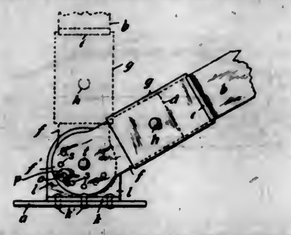
1,203,958. SNAP OR CATCH. SAMUEL ANDERSON, Pawtucket, R. I. Filed Mar. 24, 1916. Serial No. 86,379. (Cl. 24—232.)



1. In a catch, a hook member having a hook on one end and eye on its other end, the bill of the hook and the side edge of the member opposite to the bill being each formed with an outwardly facing cut-out, and a keeper having a part of U-form in cross section pivoted to the eye end of the hook member and having its ends receivable in the cut-outs, said keeper having its inner end formed with U-shaped cut-outs whereby if the chain moves to a position to engage the keeper, the cut-outs of the latter will deflect the chain to a position where the chain will engage the hook.

2. In a catch, a hook member having a hook at one end terminating in a bill directed toward the body portion of said hook member, said body portion and hook bill being formed with outwardly facing cut-outs and the walls of which oppose each other, and a keeper pivoted to the body portion for seating in the cut-outs of the latter and hook bill, said keeper when in operative position abutting the end walls of the cut-outs whereby to reinforce the hook against being sprung transversely of the body portion.

1,203,959. MEANS FOR ATTACHING HANDLES TO IMPLEMENTS. EDWARD M. ATKINSON, Portland, Oreg. Filed June 7, 1915. Serial No. 32,791. (Cl. 145—79.)



In an implement, a handle provided with chamfered edges on one end, a longitudinal slot in the handle intermediate said chamfered edges, an inner-holding strip inserted in said slot, outer parallel holding strips on each side of the handle, a ferrule encompassing the handle around said outer strips, a fastening element connecting the ferrule, holding strips and handle, the upper edges of the outer holding strips being turned over the upper edge of the ferrule, an implement head, and means for rigidly connecting the holding strips and the head.

1,203,960. BURNER AND OVEN. EDWIN D. BAXTER, Mansfield, Ohio, assignor to The Baxter Stove Company, Mansfield, Ohio, a Corporation of Ohio. Filed June 5, 1915. Serial No. 32,421. (Cl. 126—39.)

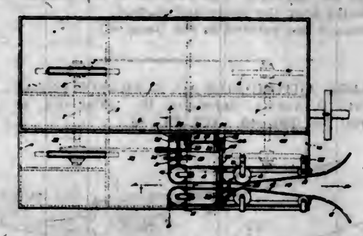


1. An oven including a bottom and side walls, an escape flue having communication with the interior of the oven near the bottom of the latter, a burner arranged exteriorly of the oven and beneath the bottom, said burner extending toward the flue and inclining downward toward the flue from the front end of the oven to the rear, whereby that portion of the burner closest to the communication between the flue and oven is spaced the greatest distance from the oven bottom.

2. An oven including a bottom and side walls, an escape flue having communication with the interior of the over near the bottom of the latter, a burner arranged exteriorly of the oven and beneath the bottom, said burner extending toward the flue and inclining downward toward the flue from the front end of the oven to the rear, the burner being formed with fuel outlets to direct the fuel toward the side walls of the oven, but downwardly with respect to the bottom thereof.

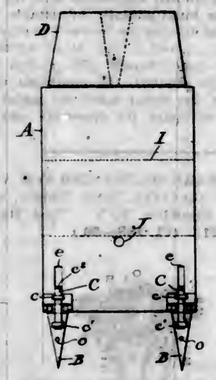
1,203,961. KAFIR-CORN HEADER. LEROY L. BEARDSLEY, Forgan, Okla. Filed June 29, 1915. Serial No. 36,068. (Cl. 56—131.)

A grain header adapted to be applied to the running gear of a wagon comprising a rack body having a platform located beyond one of its sides and at the same level as the bottom of the body, said platform being provided at its end with a runway, a cutting apparatus mounted upon the platform at the runway, stalk gathering and conveying means mounted on the platform and extending behind the cutting apparatus, and means for operating the cutting apparatus and the stalk gathering and conveying means and including a clutch mechanism having a lever disposed above the platform and the edges thereof, there being sufficient area at the rear portion of the platform to permit an operator to stand and transfer the material which is delivered by the stalk conveying means upon the platform from the platform to the rack body, and the adjacent side wall of the rack body serving as a



fender to prevent the material deposited in the body from contacting with the stalk gathering and conveying means and the cutting apparatus.

1,203,962. ARMORED VEHICLE. DAVID H. BELLAMORE, New York, N. Y., assignor to The Standard Ordnance Corporation, New York, N. Y., a Corporation of New York. Filed Oct. 24, 1914. Serial No. 868,378. (Cl. 89—36.)



1. In a structure of the class described, a land vehicle, in combination with a plurality of manually portable, bullet-proof units of substantially the same size, arranged side by side along the side of the vehicle, separate means, coöperating with the units separately, for individually and detachably mounting each of said units on the vehicle independently of the others, whereby any one, or a plurality, of said units may be detached from the vehicle, for use in the field as a bullet-proof shield, without interfering with the remaining units.

2. In a structure of the class described, a land vehicle, in combination with a plurality of manually portable, bullet-proof units, and means, mounted upon each of said units, for separately and detachably mounting them side by side upon the vehicle, said means being also adapted to support the units in upright position, when the same are removed from the vehicle for use in the field as bullet-proof shields.

3. In a structure of the class described, a land vehicle, in combination with a plurality of manually portable, bullet-proof units arranged side by side along the opposite edges of the vehicle, and supporting means mounted on each of said units and coöperating with the vehicle for individually securing each of the units to the vehicle in normally upright position, said means being independent of the means for maintaining the adjacent units in upright position.

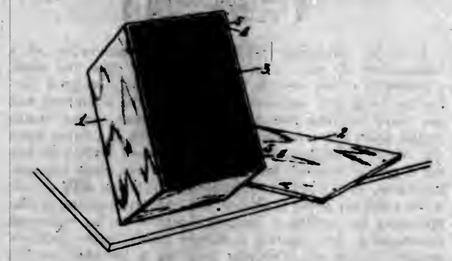
4. In a structure of the class described, a land vehicle, in combination with a plurality of manually portable,

bullet-proof units arranged side by side along the opposite edges of the vehicle, and supporting means mounted on each of said units and coöperating with the vehicle for individually and detachably securing each of the units to the vehicle in normally upright position, said means being independent of the means for maintaining the adjacent units in upright position, and said securing means being capable of supporting the units in upright position when the same are removed from the vehicle and used in the field as bullet-proof shields.

5. In a structure of the class described, a land vehicle, in combination with a plurality of manually portable, bullet-proof units arranged side by side along the opposite edges of the vehicle, supporting means mounted on each of said units and coöperating with the vehicle for individually securing each of the units to the vehicle in normally upright position, said means being independent of the means for maintaining the adjacent units in upright position, and means, independent of the supporting means, for preserving substantial alinement of the units.

[Claims 6 to 20 not printed in the Gazette.]

1,203,963. DISPLAY-PACKAGE. ROBERT I. BENTLEY, JR., San Jose, Cal., assignor to Muirson Label Company, San Jose, Cal., a Corporation of California. Filed Nov. 23, 1915. Serial No. 62,972. (Cl. 217—56.)



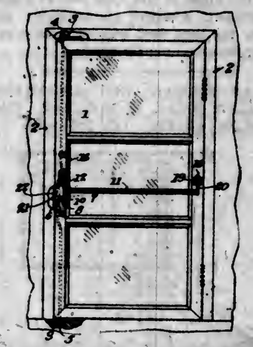
A display-package comprising a container having a cover; an opaque display-cover having on its face a pictorial representation of an orderly arranged layer of the contents of the container; and means for removably supporting said display cover in a fixed plane within the top of said container under its cover and directly above and completely covering its contents.

1,203,964. HAIR-CURLER. EVERARD BLACKSHEAR, Citra, Fla. Filed June 1, 1916. Serial No. 101,085. (Cl. 132—18.)



A new article of manufacture consisting of a curler constructed of a single length of elongated spring sheet metal bent upon itself substantially midway its ends forming arms which are bent laterally from each other and diverging, the terminal portion of one of the arms being bent upon itself to form a loop, the extremity of said bent portion being riveted to the arm, said loop being bent upon itself to overlie the extremity of the other arm, when pressed toward the first arm, the extremity of the arm having a loop being provided with ears bent toward and adjacent the sides of the loop, thereby preventing lateral movement of the arm with its extremity underlying the loop.

1,203,965. FIRE-DOOR. JOHN BOOSMANSOME, Milwaukee, Wis. Filed Mar. 10, 1915. Serial No. 13,843. (Cl. 70—120.)



In a device of the described class, the combination with a door, of a pair of fastening bolts, the upper of said bolts being formed of tubing and the lower of solid metal, the lower of said bolts being heavier than the upper, whereby owing to the greater weight of the solid bolt it is adapted to move downwardly and throw the other bolt upwardly, a pair of rack bars connected with the inner ends of both of said bolts, a pinion revolubly supported in mesh with the teeth of said rack bars, an operating handle, an arm provided with an elongated slot for connecting said door with the upper of said fastening bolts, two additional arms for connecting said operating handle at its respective ends with said door, one of said handle supporting arms being connected with said slotted arm, and the other pivotally connected directly to said door, whereby as said handle is moved downwardly both of said bolts will be simultaneously moved outwardly and brought into their locking position as soon as the door is closed, substantially as and for the purpose specified.

1,203,966. VULCANIZATION. AUGUSTUS O. BOURN, Bristol, R. I. Filed Jan. 7, 1916. Serial No. 70,876. (Cl. 106—23.)

1. The improved process for vulcanising which consists in mixing wood creosote, rubber substitutes, and rubber compound and subjecting the whole to a vulcanising heat.

2. An improved process for vulcanising which consists in mixing wood creosote, partially vulcanized vegetable oils and rubber compound, and subjecting the whole to a vulcanising heat.

3. An improved process for vulcanising which consists in mixing reclaimed rubber, rubber compound and creosote and vulcanising the whole.

1,203,967. ADVERTISING TOY. BENJAMIN S. BOWERS, La Prairie, Minn. Filed May 17, 1916. Serial No. 98,126. (Cl. 46—46.)

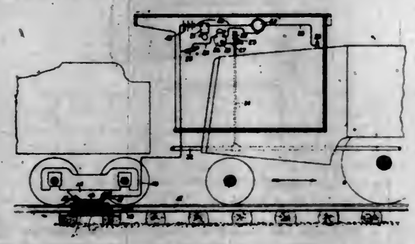


1. In an article of manufacture, the combination of a tubular member having a check valve in one end and a tone reed secured in the opposite end, of a paper bag detachably clamped to the end having the check valve, whereby as air passes through the tubular member, the tone reed creates a noise and the bag is filled with air, which bag may be subsequently bursted.

2. In an article of manufacture, the combination of a tubular member having a conical enlargement at one end

and a tone reed secured in the opposite end, of a check valve in the conical enlargement, a bag, through the open end of which the conical enlargement is inserted, a disk ring to clamp the sides of the open end of the bag on the conical enlargement, whereby air is blown through the tubular member the tone reed creates a noise and fills the bag, which may be subsequently bursted.

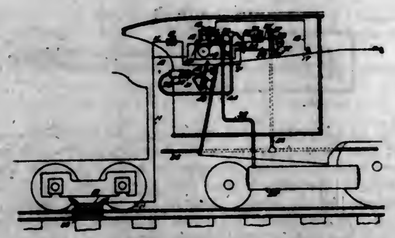
1,203,968. CAB-SIGNAL AND AUTOMATIC STO... MELBERN BERNIE BULLA, El Paso, Tex. Filed Nov. 5, 1914. Serial No. 870,438. (Cl. 246—58.)



1. In a device of the character set forth, the combination of a main electric circuit including a battery, means along the track to close the circuit adjacent the battery, a branch circuit connected with the main circuit on opposite sides of the battery, an audible signal, one connection between the main and branch circuits being an automatic circuit closer, the closing of the main circuit from the track serving to initiate the sounding of the audible signal and the action of the automatic circuit closer to connect the branch circuit to continue such audible signal after it is initiated, clock mechanism in the branch circuit, said clock mechanism including a rotary shaft and a magnet armature normally holding the clock shaft from rotation but releasing the same when the branch circuit is closed and the energy of the battery is continued through the audible signal, a normally closed air line and a flexible connection between said clock shaft and the air line causing the air line to be opened as a result of the operation of the clock shaft.

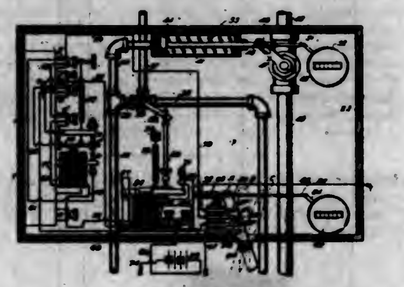
2. In an automatic signal device for locomotive cabs, the combination of a battery, an alarm bell connected with the battery, means to close a circuit at specified times to initiate the ringing of the bell, a branch circuit connecting the main circuit on opposite sides of the battery and bell, a circuit closer causing the current to pass through the branch circuit when the alarm bell ringing is initiated, clock mechanism located in the branch circuit including a rotating stem, a normally closed air cock, and connections between the air cock and the rotating stem whereby the air cock will be opened at a predetermined time after the ringing of the bell is initiated.

1,203,969. AUTOMATIC TRAIN-STOP. MELBERN B. BULLA, El Paso, Tex. Filed Sept. 9, 1915. Serial No. 49,740. (Cl. 246—58.)



In an automatic train stop, the combination with a train line, a valve normally closing the train line and a compressed air motor connected to the valve for opening the same, of a bleeder valve connected to said motor and having an arm constituting a normally closed switch, electric means to initiate the operation of the motor and including said switch, and a register connected for operation from said switch to indicate the number of times the bleeder valve is opened.

1,203,970. AUTOMATIC TRAIN-STOP. MELBERN B. BULLA, El Paso, Tex. Filed Nov. 10, 1915. Serial No. 60,715. (Cl. 246—58.)



1. In an automatic train stop, the combination of a compressed air pipe, a valve to normally close the same, a normally closed electric circuit including a magnet having an armature, connections between the armature and the valve whereby the valve is held closed, power means acting upon the armature tending to open the valve when the circuit is broken, said normally closed circuit including a pair of contact springs and a switch blade connecting them, and means to automatically break said circuit when a danger point is passed, said circuit breaking means including an auxiliary magnet adapted to be energized momentarily by passing a danger point, said auxiliary magnet having an armature carrying a movable contact point serving to establish a new circuit through said auxiliary magnet on the breaking of the normally closed circuit, said new circuit being adapted to be broken subsequently by the movement of said switch blade from between the contact springs.

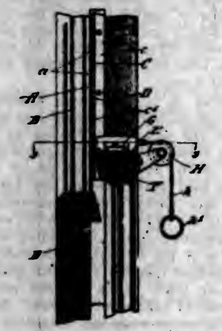
2. In an automatic train stop, the combination of an air line, a valve normally closing the same, power means tending to open said valve, means including a normally closed circuit overcoming the normal tendency of the power means, means to automatically break said circuit when a danger point is passed, permitting the power means to open the valve, means under the control of the engineer for neutralizing the effect of the circuit breaking means, and independent recording devices connected respectively to said valve means and the means under the control of the operator.

3. In an automatic train stop, the combination of a compressed air pipe, a valve to close the same, power means tending to open the valve to set the brakes, means including a normally closed circuit and an electromagnet to overcome the power means and thereby hold the valve closed, a locomotive battery in said normally closed circuit, an auxiliary magnet, means in addition to said locomotive battery to energise and initiate the action of the auxiliary magnet when a danger point is passed and thereby break the normally closed circuit permitting the power devices to be effective to open the air pipe, connections being provided to cause the energy of the auxiliary magnet to be continued through the locomotive battery after the point of initiation is passed, means including a movable switch blade and contact springs coöperating therewith enabling the engineer to break the curcuit through the auxiliary magnet to restore the parts to normal position, and a pair of independent recording devices connected respectively to said valve and said movable switch blade whereby the acts of opening the valve and causing the same to

be restored to closed position will be independently recorded.

4. In an automatic train stop, the combination of an air line, a valve to normally close the same, automatically operated power means tending to open the valve, electric devices including a normally closed circuit acting to overcome the tendency of the power means, thereby holding the valve closed, said normally closed circuit including a pair of contact springs and a movable switch blade cooperating with the same, an auxiliary magnet, means to energize the auxiliary magnet and maintain it energized, the energising being initiated by passing a danger and subsequently continued through the same source of energy as is included in the normally closed circuit, the initiating means including a second pair of contact springs coöperating with the aforesaid switch blade, said switch blade being movable to different distances to separate either one pair of contact springs to prevent the setting of the brakes or both pairs of contact springs to restore the parts to normal position after the brakes have been set, and recording means connected to said switch blade to make a record of the movements thereof by the engineer.

1,203,971. AUTOMATIC WINDOW-LOCKING DEVICE. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Apr. 6, 1912. Serial No. 689,099. (Cl. 16—119.)

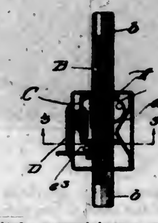


1. A window-sash-lock comprising a movable strip secured to the upper sash, a stationary strip secured to the window-frame, each of said strips having a series of openings therein, a bolt mounted on the lower sash and arranged to extend first through the frame-strip and then through the sash-strip, so that the upper sash can be moved without unlocking the lower sash, and a spring for holding said bolt in locking position, said strips being disposed in parallel vertical planes between the planes of the glass of the two sashes, and said bolt being arranged crosswise of the top of said lower sash.

2. A window-sash-lock comprising a movable strip secured to the upper sash, a stationary strip secured to the window-frame, each of said strips having a series of openings therein, a bolt mounted on the lower sash and arranged to extend first through the frame-strip and then through the sash-strip, so that the upper sash can be moved without unlocking the lower sash, and a spring for holding said bolt in locking position, a connection attached to said bolt and arranged to hang downward, so that the bolt can be held out of engagement with the frame-strip while the lower sash is being raised, and means to support said connection.

3. A window-sash-lock comprising a movable strip secured to the upper sash, a stationary strip secured to the window-frame, each of said strips having a series of openings therein, a bolt mounted on the lower sash and arranged to extend first through the frame-strip and then through the sash-strip, so that the upper sash can be moved without unlocking the lower sash, and a spring for holding said bolt in locking position, said strips being disposed in parallel vertical planes between the planes of the glass of the two sashes, and said bolt being arranged crosswise of the top of said lower sash, said frame-strip being of angle-iron form and having a flange secured to the window-frame between the sides of the two sashes, and the two vertical series of openings registering with each other when the sashes are locked together.

1,203,972. ELECTRICAL SWITCH. MORTON G. BUNNELL, Chicago, Ill., assignor to New Era Mfg. Co., Chicago, Ill. Filed Sept. 6, 1912. Serial No. 718,849. (Cl. 175—284.)



1. A jump-switch comprising a metal frame (A), a push-button (B) having ends (b) and a middle portion (b^1), a U-shaped slide (C) on said push-button, a contact-strip (D) carried by and insulated from said slide, a pair of contacts (E) secured to and insulated from one side of said frame, to engage said contact-strip, a cam (c) on the other side of said frame, and a spring (b^2) in said push-button to engage said cam and thereby operate the switch with a jump-motion in either direction.

2. A jump-switch comprising a metal frame (A), a push-button (B) having ends (b) and a middle portion (b^1), a U-shaped slide (C) on said push-button, a contact-strip (D) carried by and insulated from said slide, a pair of contacts (E) secured to and insulated from one side of said frame, to engage said contact-strip, a cam (c) on the other side of said frame, and a spring (b^2) in said push-button to engage said cam and thereby operate the switch with a jump-motion in either direction, said middle portion (b^1) being shorter than said slide (C) and located between the ends thereof to provide lost motion between said push-button and said contact-strip.

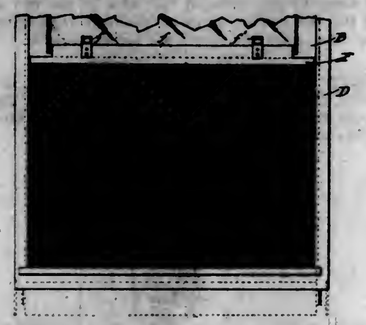
3. A jump-switch comprising a metal frame (A), a push-button (B) having ends (b) and a middle portion (b^1), a U-shaped slide (C) on said push-button, a contact-strip (D) carried by and insulated from said slide, a pair of contacts (E) secured to and insulated from one side of said frame, to engage said contact-strip, a cam (c) on the other side of said frame, and a spring (b^2) in said push-button to engage said cam and thereby operate the switch with a jump-motion in either direction, said spring (b^2) projecting from said middle portion, and said slide (C) engaging the ends of said frame to limit the motion of said push-button and said contact-strip.

1,203,973. ROLLING-WINDOW-SCREEN-ATTACHING DEVICE. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed May 25, 1914. Serial No. 840,683. (Cl. 156—39.)

1. A rolling window screen provided with a roll disposed in the plane of the sash, below the lower edge of the latter, and having a sheet metal strip secured to the upper portion thereof, the edge of said strip being turned over to form a hooking flange, and means for engaging the hook thus provided on the screen, carried on the window sash, said flange and means being separable to permit disconnection of the screen from the sash.

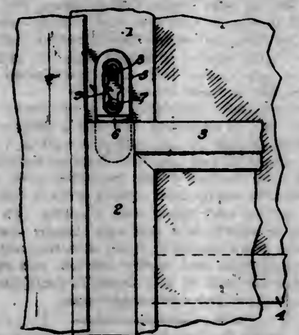
2. A rolling window screen having a sheet metal strip secured to the upper portion thereof, the edge of said strip being turned over to form a hooking flange, and means for engaging the hook thus provided on the screen, carried on the window sash, said flange and means being separable to permit disconnection of the screen from the sash, said means comprising a sheet metal strip with its

upper edge turned over to form a curved portion similar to said flange, the screen being secured to the inner surface of the first mentioned strip and in the plane of the body portion of said other strip.



3. A rolling window screen provided with a roll disposed in the plane of the sash, below the lower edge of the latter, and having a sheet metal strip secured to the upper portion thereof, the edge of said strip being turned over to form a hooking flange, and means for engaging the hook thus provided on the screen, carried on the window sash, said flange and means being separable to permit disconnection of the screen from the sash, said means including a strip of sheet metal secured to the sash, disposed with the lower edge thereof adjacent the upper edge of the screen and in the plane thereof, the sash strip having its upper edge bent toward the window glass to form a rest for said flange in the plane of the sash.

1,203,974. WINDOW-LOCK. JOSEPH E. CALLOW and DIRK KROMS, Milwaukee, Wis. Filed July 22, 1915. Serial No. 41,218. (Cl. 16—18.)



In a device of the described class, a metallic bracket comprising a vertical plate provided with a vertical slot enlarged near its center for the reception of a screw head, and a horizontal lug projecting from the front side of said plate adapted to bear upon the upper rail of the lower sash, in combination with a screw having its front end in said slot, its opposite end being adapted to be inserted in one of the vertical rails of the upper sash, the enlarged center of said slot being such as to permit said bracket to be withdrawn over the head of said screw.

1,203,975. ELECTRICAL HEATER. FREDERICK E. CARLSON, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 28, 1914. Serial No. 879,265. (Cl. 219—41.)

1. In a device of the character described, spaced shells, an electrical heater located between the shells, insulating means for holding it out of contact with said shells and a comminuted packing filling the space between said shells and entirely surrounding and embedding said heater.



2. In a device of the character described, spaced shells, an electrical heater located between the shells, insulating means for holding it out of contact with said shells and a comminuted packing of insulating material filling the space between said shells and entirely surrounding and embedding said heater.

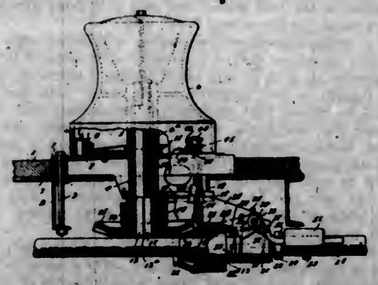
3. In a device of the character described, spaced shells, an electrical heater located between the shells, insulating means for holding it out of contact with said shells and a packing of finely divided granular material filling the space between said shells and entirely surrounding and embedding said heater.

4. In a device of the character described, a pair of spaced cupped shells nested together and secured together at their edges, the outer shell having an opening in its top, a tubular stem with an end secured in said opening to said outer shell, an electrical heater located in the space between said shells, means for holding it out of contact with said shells, and a comminuted packing of insulating material filling the space between said shells and entirely surrounding and embedding said heater.

5. In a device of the character described, a pair of cup-shaped shells nested together and with their walls spaced apart and their lower edges secured together, a comminuted packing of insulating material filling the space between the shells, an electrical heater embedded in said packing, and a tubular sleeve connected between the walls of said shells.

[Claims 6 to 10 not printed in the Gazette.]

1,203,976. CLUTCH DEVICE. FRITIOF CARLSSON, New York, N. Y., assignor to Lidgerwood Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Jan. 3, 1914. Serial No. 810,106. (Cl. 192—9.)



1. In combination, a power shaft, a driven element loosely mounted on said power shaft, a connecting element carried by the power shaft and movable lengthwise thereof to be engaged with and disengaged from the said driven element on the power shaft, oppositely disposed cams on said movable connecting element, and a controller having opposed operative faces adapted to be moved into engagement with said cams to move said connecting element into or out of engagement with said driven element.

2. In combination, a power shaft, a driven element loosely mounted on said power shaft, a connecting element carried by the power shaft and movable lengthwise thereof to be engaged with and disengaged from the said driven element on the power shaft, oppositely disposed cams on said movable connecting element, and a controller adapted to be moved in opposite directions into engagement with said cams to move said connecting element into or out of engagement with said driven element.

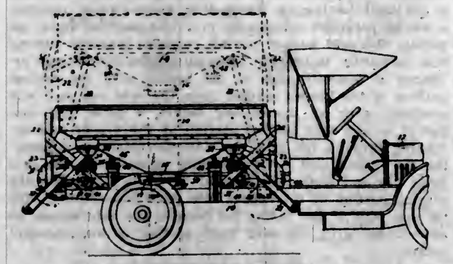
3. In combination, a power shaft, a driven element loosely mounted on said power shaft, a connecting element carried by the power shaft and movable lengthwise thereof to be engaged with and disengaged from the said driven element on the power shaft, oppositely disposed cams on said movable connecting element, and a rocking member having oppositely disposed projections located between said cams, said member being movable to place said projections in the path of one or the other of said cams to move said connecting element into or out of engagement with said driven element.

4. In combination, a power shaft, a driven element loosely mounted on said power shaft, a clutch sleeve carried by the power shaft and movable lengthwise thereof to be engaged with, and disengaged from, the said driven element on the power shaft, oppositely directed cam inclines on the end portions of said sleeve, a rocking member located between said cam inclines and having projections adapted to engage said inclines to move the clutch sleeve into and out of engagement with said driven element.

5. In combination, a power shaft, a driven element loosely mounted on said power shaft, a connecting element carried by the power shaft and movable lengthwise thereof to be engaged with and disengaged from the said driven element on the power shaft, oppositely disposed cams on said movable connecting element, a controller adapted to be moved in opposite directions into engagement with said cams to move said connecting element into or out of engagement with said driven element, a pedal member for moving said controller in one direction, and means for automatically moving said connecting element in the opposite direction when released from the pedal.

[Claims 6 to 8 not printed in the Gazette.]

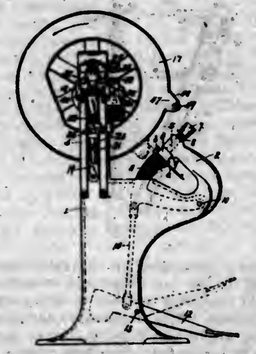
1,203,977. DELIVERY-TRUCK. GEORGE D. CARPENTER, Cleveland, Ohio, assignor, by mesne assignments, to The White Motor Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 21, 1914. Serial No. 878,244. (Cl. 21—86.)



1. In a delivery truck the combination of a vehicle frame, a body, two transversely extended shafts mounted on the vehicle frame, crank arms fixed to the ends of said shaft, and links pivotally connected with said crank arms and with said body, and means for simultaneously turning said shafts in opposite directions at the same rate, and four guides fixed to the chassis frame which engage parts fixed to said body.

2. In a delivery truck, the combination of a vehicle frame, a body, two transversely extended shafts mounted on the vehicle frame, crank arms fixed to the ends of said shaft, and links pivotally connected with said crank arms and with said body, a single power shaft, and two trains of gearing intermediate of said power shaft and the said two transverse shafts adapted to turn said transverse shafts in oposite directions.

1,203,978. HORSESHOE-CALKING MACHINE. ALBERT D. CARTWRIGHT and ALFRED BAER, Toledo, Ohio. Filed May 10, 1915. Serial No. 27,119. (Cl. 59—65.)



1. In a machine of the class described, a frame, a lever carried for rocking movements by said frame, means mounted for complete successive rotary movements and having a cam part for coacting with and imparting oscillatory movements to said lever, and a die block carried by said frame and operable in conjunction with said lever when rocked to act on a horse shoe calk to shape the same.

2. In a machine of the class described, a frame, a head adjustably carried by said frame, a lever fulcrumed in said head, means rotatably carried by the frame and operable to impart rocking movements to said lever, and a die carried by said head and operable in conjunction with said lever when rocked to act on a horse shoe calk to impart shaping movements thereto, said head being adjustable to compensate for wear between said lever and rotatable means.

3. In a machine of the class described, a frame, a lever carried for rocking movements by said frame, a rotatable wheel having a cam part for operating said lever, and a die block carried by said frame and operable in conjunction with said lever when rocked to shape a horse shoe calk.

4. In a machine of the class described, a frame, a lever carried for rocking movements by said frame, rotatable means for operating said lever, and a die block removably carried by said frame and usable in different positions with respect to said lever to coöperate therewith to perform different operations on horse-shoe calks.

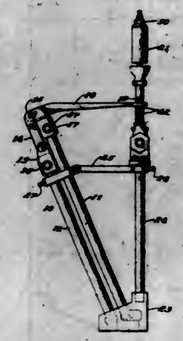
5. In a machine of the class described, a frame part having a forked arm with the inner sides of the fork arms grooved inward from the outer ends thereof, a die block having portions for sliding engagement with said grooves whereby the block can be removably carried by the arm, a lever carried by said frame part and having a jaw which is operable upon a rocking of the lever to coact with said die block in the performance of predetermined work, and rotatable means for imparting rocking movements to said lever.

[Claims 6 to 9 not printed in the Gazette.]

1,203,979. BOILER-ALARM. CHARLES MOTLEY CLARK and ROGER W. ANDREWS, Chicago, Ill., assignors, by mesne assignments, to Erie Pump & Equipment Company, Erie, Pa., a Corporation of Pennsylvania. Filed Feb. 8, 1912. Serial No. 676,296. (Cl. 236—13.)

1. A boiler alarm comprising a contractible tube, a conductor connected to one end of said tube, said conductor being adapted to be connected to a boiler at its maximum

water level, and a bend in said conductor extending above said tube; one end of said tube being rigidly supported, and the other end of said tube being adapted to actuate a device when said tube contracts.



2. A boiler alarm comprising an expansible tube, a conductor connected by one end to one end of said tube, the other end of said conductor adapted to be counected to a boiler at its minimum water level, said conductor having a bend extending above said tube, the other end of said tube adapted to be connected to the boiler below its minimum water level, one end of said tube being rigidly supported, and the unsupported end of said tube adapted to operate a device when the tube expands.

3. A boiler alarm comprising a contractible tube and an expansible tube, a first conductor connected by one end with one end of said contractible tube; said conductor adapted to be connected with a boiler at its maximum water level and having a bend therein above said contractible tube, a second conductor having one end connected to one end of said expansible tube, the other end of said second conductor adapted to be connected with the boiler at its minimum water level and having a bend therein above said expansible tube, the other ends of each of said tubes being rigidly supported and being connected with a third conductor, said third conductor being connected with the boiler below its minimum water level, a water trap in said third conductor, and the free ends of said tubes adapted to operate a device when said contractible tube contracts or said expansible tube expands.

4. A boiler alarm comprising a contractible tube, an expansible tube, and a lever, one end of said contractible tube adapted to be connected with a boiler at its maximum water level, one end of said expansible tube adapted to be connected with the boiler at its minimum water level, one end of each of said tubes being rigidly supported, said tubes being composed of material of different coefficients of thermal expansion, the free ends of said tubes being pivotally connected adjacent to each other near one end of said lever, the other end of said lever being adapted to be operatively connected to an alarm device.

5. A boiler alarm comprising metal tubes of unequal lengths, and a lever, said tubes being adapted to be connected with a boiler respectively at its maximum and its minimum water level, the other ends of said tubes being adapted to be connected to said boiler below its minimum water level, one end of each of said tubes being rigidly supported, the other ends of said tubes being pivotally connected adjacent to each other to one end of said lever, and the other end of said lever being adapted to be operatively connected to an alarm device.

[Claims 6 to 14 not printed in the Gazette.]

1,203,980. SAW-HOLDER. MATTHEW CLARKE, Wilkes-Barre, Pa. Filed May 20, 1916. Serial No. 98,844. (Cl. 24—221.)

1. A saw holder including a casing formed to extend through the opening of a saw handle, a keeper rotatably adjustable to active position upon the casing, means associated with the keeper for normally holding the keeper at adjustment and arranged within the casing, a base plate closing the casing with the said plate providing an attaching member for the holder, and lugs formed on the bottom edges of the casing and extending through the base plate with the outer extremities of said lugs rebent to engage therewith for detachably connecting the said plate with the casing whereby access may be had to the said means.



2. A saw holder including a casing formed to extend through the opening of a saw handle, a keeper rotatably adjustable to active position upon the casing, means associated with the keeper for normally holding the keeper at adjustment and arranged within the casing, a base plate closing the casing and provided with upstanding sockets, and lugs carried by the casing and engaging in said sockets with the said lugs arranged flush with the outer face of the said plate for detachably connecting the plate with the casing whereby access may be had to the said means.

3. A device of the character described including a casing provided with a top wall, a keeper rotatably adjustable to active position upon the casing, a pivot pin supporting the keeper and extending through the said wall, and a bowed spring carried by the inner extremity of said pivot pin and engaging the casing to normally urge the keeper into frictional engagement with said top wall for holding the said keeper at adjustment.

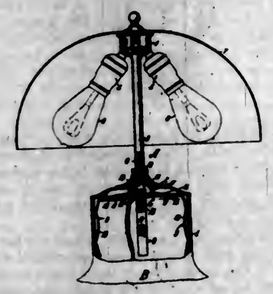
4. A device of the character described including a casing provided with a top wall, a keeper rotatably adjustable to active position upon the said casing and provided with a socket, a knob upstanding from the said top wall of the casing, a pivot pin for the keeper, and yieldable means upon said pin to normally urge the keeper into frictional engagement with said top wall with the said knob engaging within the said socket for holding the keeper at adjustment.

5. A saw holder including a casing formed to extend through the opening of a saw handle and provided with a top wall having an upstanding knob formed thereon, a keeper rotatably adjustable to active position upon the casing, the said keeper having opposite margins thereof bent upwardly to provide upstanding operating wings arranged at opposite ends of the keeper with the central portion of the keeper seating upon the said top wall and provided with an upstanding socket, a pivot pin connected to the said central portion of the keeper and extending through the said top wall for rotatably supporting the keeper, and a bowed spring connected to the said pivot pin and engaging the said top wall for urging the central portion of the keeper into frictional contact with the top wall of the casing for holding the said keeper at adjustment with the said knob seating within the said socket.

1,203,981. TABLE-LAMP ATTACHMENT. JAMES S. CLIFFORD, Weehawken, N. J. Filed Feb. 9, 1916. Serial No. 77,160. (Cl. 240—81.)

1. The combination of a lamp base, a stem fastened thereto, a hickey having threaded connection with the stem, a bracket disposed under the base and clamped between the latter and hickey, attaching members adjustably mounted on the bracket, and a fastener clamping the members to the hickey in different positions of adjustment.

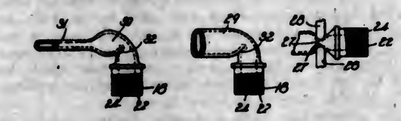
2. The combination of a lamp base, a hickey, a bracket having a hollow boss in which the hickey is disposed, the boss being provided with an internal flange clamped between the hickey and base, L-shaped attaching members guided on the bracket, and a fastener common to all the members and clamping the same to the hickey.



3. The combination of a lamp base, a hickey, a bracket having a hollow boss in which the hickey is disposed, the boss being provided with an internal flange clamped between the hickey and base, L-shaped attaching members guided on the bracket, said members having overlapping slotted portions with their slots intersecting, and a fastener passing through the slots and connected with the hickey for clamping the members in different positions of adjustment.

4. The combination of a table lamp base, an annular bracket disposed in the base and having at its periphery radially disposed guides, a hickey for clamping the bracket to the base, L-shaped attaching members having horizontal slotted portions movable in the guides, the slots of the members intersecting at a point under the said hickey, and a screw extending through the slots in the members and screwing into the said hickey for clamping the members in different positions of adjustment.

1,203,982. METHOD OF FORMING SPRINGS FOR PRESSURE OR THE LIKE GAGES. AUSTIN B. COLLETTE, Everett, Mass., assignor to American Steam Gauge & Valve Manufacturing Co., a Corporation of Massachusetts. Original application filed May 19, 1915, Serial No. 29,203. Divided and this application filed Jan. 28, 1916. Serial No. 74,868. (Cl. 29—148.)



1. The herein described method of forming a gage spring tube which consists in boring a hole in a metal bar longitudinally thereof for a predetermined portion of its length leaving at least one end of said bar open, then in bending the open end of said bar at an abrupt angle to the body of said bar, then in flattening said bar from said bend for a portion of the length thereof, and finally curving said flattened portion.

2. The herein described method of forming a gage spring which consists in boring a hole in a metal bar longitudinally thereof for a predetermined portion of its length, then in removing a portion of the metal from the exterior of said bar intermediate of the ends to form a comparatively thin walled tube terminating at one end in an end portion of greater thickness than said thin tubular portion, then in flattening said thin walled portion for a predetermined portion of its length, and finally in bending said flattened portion.

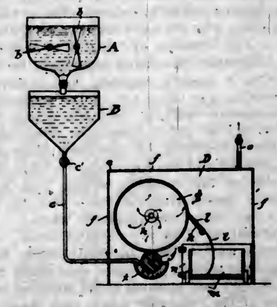
3. The herein described method of forming a gage spring which consists in boring a hole in a metal bar longitudinally thereof for a predetermined portion of its length, then removing a portion of the metal from the exterior of said bar intermediate of the ends to form a comparatively thin walled tube terminating at one end in an end portion of greater thickness than said thin tubular portion, then bending said tube adjacent to said thickened end portion to bring the same at an abrupt angle to said tube, then flattening a predetermined portion of said thin tubular portion, and finally bending it subtantially in the form of a semi-circle.

4. The herein described method of forming a gage spring which consists in boring a hole in a metal bar longitudinally thereof, then in removing a portion of the metal from the exterior of said bar intermediate of the ends to form a comparatively thin walled tube terminating in an end portion one end thereof of larger diameter than said thin tubular portion, then in indenting said thin tubular portion upon opposite sides thereof at points adjacent to the thickened end of said tube, then in bending said tube at said indented portion to bring said thickened portion at an abrupt angle to said tube, then in flattening said tubular portion for a predetermined portion of its length, and finally in bending said flattened portion.

5. The herein described method of forming a gage spring tube which consists in boring a hole in a metal bar longitudinally thereof for a predetermined portion of its length, then in removing a portion of the metal from the exterior of said bar intermediate the ends to form a comparatively thin tube terminating at one end in a portion of greater thickness than said thin tubular portion, then in indenting said thin walled portion at a point adjacent to the thickened end thereof, then in bending said tube at said indented portion to bring said thickened portion of said tube substantially at right angles to the thin walled portion of said tube, then in flattening said thin walled portion for a predetermined distance the major diameter of said flattened portion being substantially parallel with the axis of said end portion, then in bending said tube to form a spring.

[Claim 6 not printed in the Gazette.]

1,203,983. POWDERED-EGG PRODUCT AND PROCESS OF MAKING THE SAME. GEORGE C. CONSTANT, New York, N. Y., assignor of one-half to Josiah Decker, Jr., Montclair, N. J. Filed Jan. 22, 1916. Serial No. 73,587. (Cl. 99—5.)



1. The process of producing a desiccated egg product which consists in separating the yolks from the whites, agitating one of the thus separated parts, without whipping the same, until it is uniform consistency, adding a preservative thereto, and then desiccating the mixture at a temperature below 212 degrees Fahrenheit.

2. The process of producing a desiccated egg product which consists in separating the yolks from the whites, agitating one of the thus separated parts, without whipping the same, until it is of uniform consistency, adding a preservative thereto, desiccating the mixture at a tem-

perature below 212 degrees Fahrenheit, and then reducing it to a powder.

3. The process of producing a desiccated egg product which consists in separating the yolks from the whites, agitating one of the thus separated parts, without whipping the same, until it is free from all stringiness, adding sugar thereto, and then desiccating the mixture at a temperature below 212 degrees Fahrenheit.

4. The process of producing a desiccated egg product which consists in separating the yolks from the whites, agitating one of the thus separated parts, without whipping the same, until it is free from all stringiness, adding sugar thereto, desiccating the mixture at a temperature below 212 degrees Fahrenheit, and then reducing it to a powder.

5. The process of producing a desiccated egg product which consists in separating the yolks from the whites, agitating the whites, without whipping the same, until they are free from all stringiness, adding sugar thereto, and then desiccating the mixture at a temperature below 212 degrees Fahrenheit.

[Claims 6 to 16 not printed in the Gazette.]

1,203,984. FAN ATTACHMENT FOR SEWING-MACHINES. LYLE D. COREY, Minneapolis, Minn. Filed June 3, 1915. Serial No. 31,857. (Cl. 230—9.)



1. The combination with a rotatable wheel, of a fan comprising inner and outer concentric rims, fan-blades located entirely inward of the outer rim and affording braces connecting the rims, said outer rim having a smooth exterior and means for detachably connecting the inner rim to the rotatable wheel.

2. The combination with a rotatable wheel, of a fan comprising inner and outer concentric rims, fan-blades affording oblique braces connecting the rims, said fan-blades being located entirely between the planes of the edges of the rims, the forward edges of the fan-blades, with respect to the direction of rotation of the fan, being made blunt, said outer rim being segmental in cross section and having a smooth exterior, and means for detachably connecting the inner rim to the rotatable wheel.

3. The combination with a rotatable wheel, of a fan comprising inner and outer concentric rims, fan-blades affording braces connecting the rims, said inner rim being transversely divided and channel-shape in cross section to receive the rim of the rotatable wheel, and means for circumferentially contracting the inner rim for clamping the same onto the rim of the rotatable wheel.

4. The combination with a rotatable wheel, of a fan comprising inner and outer concentric rims, fan-blades affording braces connecting the rims, said inner rim being transversely divided and channel-shape in cross section to receive the rim of the rotatable wheel, said inner rim also having a flexible joint, and means for circumferentially contracting the inner rim for clamping the same onto the rim of the rotatable wheel.

5. The combination with a rotatable wheel, of a fan comprising transversely divided inner and outer concentric rims, fan-blades affording braces connecting the rims, said inner rim being channel-shape in cross section to receive the rim of the rotatable wheel, and means for contracting the inner rim for clamping the same onto the rim of the rotatable wheel.

[Claims 6 to 14 not printed in the Gazette.]

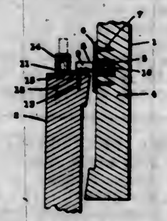
1,203,985. TIRE-ARMOR. SAMUEL THADDEUS CULP, Littleton, Colo. Filed Jan. 24, 1916. Serial No. 73,967. (Cl. 152—33.)



1. The combination with a vehicle wheel; of an annular band surrounding said wheel, a plurality of stops extending inwardly at intervals from said band, and a pair of quickly adjustable split retaining rings, one of said rings being disposed on each side of the tire of the wheel and contacting with said stops.

2. The combination with a vehicle wheel; of an annular band surrounding said wheel, a pair of reinforcing members secured to the inner side of said band at its edges, the inner sides of said members being flat and having their adjacent edge portions beveled from said flat sides toward the center of said band to form a seat to receive the tire of said wheel, a plurality of bolts extending through said band and the members, nuts on the inner ends of said bolts engaging the flat faces of said members, and a pair of rings, one engaging each side of the tire of said wheel, said rings contacting with the beveled portions of said members and said nuts.

1,203,986. WINDOW-LOCK. JOSEPH S. CURNOW, Newark, N. J. Filed Jan. 20, 1916. Serial No. 73,086. (Cl. 16—148.)



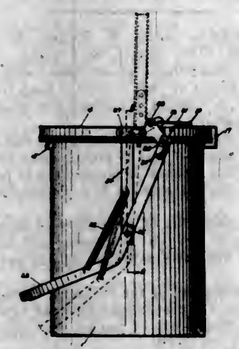
1. In combination with a window having upper and lower sashes, a socket adapted to be secured to the upper sash said socket having interior screw threads, a stud threaded to removably screw into said socket with an end projecting to overlie the top of the lower sash in the path of movement thereof and thereby prevent the window from being opened further, and a pocket fast upon the top of the lower sash for receiving said stud and protecting the threads thereon when not in use.

2. In combination with a window having upper and lower sashes, a socket adapted to be secured to the upper sash said socket having interior screw threads, a stud threaded to removably screw into said socket with an end projecting to overlie the top of the lower sash in the path of movement thereof and thereby prevent the window from being opened further, and a pocket fast upon the top of the lower sash for receiving said stud and protecting the threads thereon when not in use said pocket having a foot upon the top of said lower sash in the path of movement of said stud when screwed in its socket.

1,203,987. RECEPTACLE-COVER. LINFORD J. DAVIS, Battle Creek, Mich., assignor to Keyes-Davis Company, Inc., Battle Creek, Mich. Filed Dec. 18, 1915. Serial No. 66,541. (Cl. 220—115.)

1. In a structure of the class described, the combination with a receptacle, of a cover having a down-turned peripheral flange of a diameter substantially greater than that

of the receptacle, said cover having an opening therein and flanges at the edges of the opening projecting downwardly within the receptacle, a U-shaped cover retaining member secured by one arm to said peripheral cover flange, the other arm being adapted to engage the rim of the receptacle, a cover clamp disposed oppositely to said member and comprising a hook adapted to embrace the cover flange and engage the rim of the receptacle, and a lever to which said hook is pivotally connected, said lever being pivotally mounted on said cover so that the hook pivot swings below the plane of the lever pivot when the lever is actuated to engage the hook, a closure for said cover opening having a downturned flange at its edge embracing said cover flange, and a downwardly projecting flange at its rear edge, a hinge for said closure provided with a pintle projecting at the sides of the cover, arms pivoted on the ends of said pintle and secured to the flange of said closure, hangers mounted on said cover to depend at the sides of said receptacle, a bail-shaped lever pivotally mounted on said hangers and having longitudinal slots therein with transverse portions extending forwardly at their upper ends, pins on said arms engaging said slots, a spring connected to said lever and to one of said hanger members and normally holding said lever with the pins in the transverse portions of said slots, and a coiled spring arranged over said flange at the rear edge of said closure and secured at one end to the under side of said cover and at its other end to the under side of said closure.



2. In a structure of the class described, the combination with a receptacle, of a cover having a down-turned peripheral flange of a diameter substantially greater than that of the receptacle, said cover having an opening therein, a U-shaped cover retaining member secured by one arm to said peripheral cover flange, the other arm being adapted to engage the rim of the receptacle, a cover clamp disposed oppositely to said member and comprising a hook adapted to embrace the cover flange and engage the rim of the receptacle, and a lever to which said hook is pivotally connected, said lever being pivotally mounted on said cover so that the hook pivot swings below the plane of the lever pivot when the lever is actuated to engage the hook, a closure for said cover opening having a downturned flange at its edge embracing said cover flange, a hinge for said closure provided with a pintle projecting at the sides of the cover, arms pivoted on the ends of said pintle and secured to the flange of said closure, hangers mounted on said cover to depend at the sides of said receptacle, a bail-shaped lever pivotally mounted on said hangers and having longitudinal slots therein with transverse portions extending forwardly at their upper ends, pins on said arms engaging said slots, a spring connected to said lever and to one of said hanger members and normally holding said lever with the pins in the transverse portions of said slots, and a coiled spring arranged over said flange at the rear edge of said closure and secured at one end to the under side of said cover and at its other end to the under side of said closure.

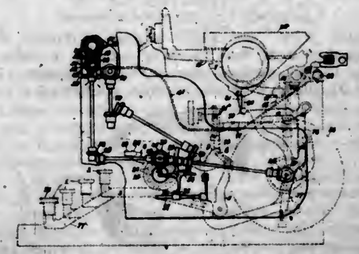
3. In a structure of the class described, the combination with a receptacle, of a cover having a downturned peripheral flange of a diameter substantially greater than that of the receptacle, said cover having an opening therein and flanges at the edges of the opening projecting downwardly within the receptacle, a U-shaped cover retaining member secured by one arm to said peripheral cover flange, the other arm being adapted to engage the rim of the receptacle, a cover clamp disposed oppositely to said member and comprising a hook adapted to embrace the cover flange and engage the rim of the receptacle, and a lever to which said hook is pivotally connected, said lever being pivotally mounted on said cover so that the hook pivot swings below the plane of the lever pivot when the lever is actuated to engage the hook, a closure for said cover opening having a downturned flange at its edge embracing said cover flange, and a downwardly projecting flange at its rear edge, a hinge for said closure, and a coiled spring arranged over said flange at the rear edge of said closure and secured at one end to the under side of said cover and at its other end to the under side of said closure.

4. In a structure of the class described, the combination with a receptacle, of a cover having a downturned peripheral flange of a diameter substantially greater than that of the receptacle, said cover having an opening therein, a U-shaped cover retaining member secured by one arm to said cover flange, the other arm being adapted to engage the rim of the receptacle, a cover clamp disposed oppositely to said member and comprising a hook adapted to embrace the cover flange and engage the rim of the receptacle, and a lever to which said hook is pivotally connected, said lever being pivotally mounted on said cover so that the hook pivot swings below the plane of the lever pivot when the lever is actuated to engage the hook, a closure for said cover opening having a downturned flange at its edge embracing said cover flange, and a hinge for said closure.

5. In a structure of the class described, the combination with a receptacle, of a cover having a downturned peripheral flange of a diameter substantially greater than that of the receptacle, said cover having an opening therein, U-shaped cover retaining members secured by one arm to said cover flange, the other arms of said members being adapted to engage the rim of the receptacle, a cover clamp disposed oppositely to said retaining members and comprising a hook adapted to embrace the cover flange and engage the rim of the receptacle, and a lever to which said hook its pivotally connected, said lever being pivotally mounted on said cover so that the hook pivot swings below the plane of the lever pivot when the lever is actuated to engage the hook, a closure for said cover opening, a hinge for said closure, a pair of hangers mounted on said cover to depend at the sides of said receptacle, a lever pivotally mounted on said hangers and having operating connections with said closure, and a closing spring for said closure.

[Claims 6 to 17 not printed in the Gazette.]

1,203,988. COMBINED TYPE-WRITING AND COMPUTING MACHINE. GUSTAVE O. DEGENER and ELIAS SAUNDERS, New York, N. Y., assignors to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 23, 1911. Serial No. 667,464. (Cl. 235—59.)



1. In a computing machine, the combination with a single set of digit keys, of computing wheels, a common drive engaging said computing wheels to carry into each

a single digit as recorded by said keys, another computing wheel arranged to receive two digits from said common drive, and means controlling said common drive exclusively from said digit.

2. A key for a typewriting and computing machine bearing the numerals "4" and "0," and connections whereby said key selectively prints either, but always computes the same.

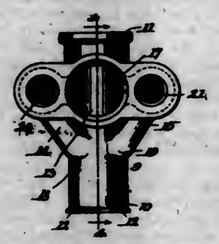
3. A key for a typewriting and computing machine bearing the numerals "5" and "1," and connections whereby said key selectively prints either, but always computes the same.

4. A key for a typewriting and computing machine bearing the numerals "6" and "1," and connections whereby said key selectively prints either, but always computes the same.

5. The combination with a computing mechanism, of a typewriting mechanism having solely a set of nine digit or numeral keys, including both a numeral key arranged to cause an actuation of said computing mechanism according to a predetermined amount, and a second numeral key arranged to cause the actuation of said computing mechanism according to a predetermined amount, and means to enable said numeral keys when actuated in succession to print a two-figured number, the individual digits of which differ from the predetermined amount which the corresponding keys cause said computing mechanism to compute and whose digits taken together represent an amount bearing a definite relation to the aggregate computing effect caused by both said numeral keys.

[Claims 6 to 25 not printed in the Gazette.]

1,203,989. PIPE-FITTING. GEORGE J. DEHN, Chicago, Ill. Filed Dec. 19, 1913. Serial No. 807,648. (Cl. 137—75.)



A one-piece T-fitting for a drainage system, comprising a stack pipe, a large inlet pipe adapted for connection to a closet and leading into the stack and a plurality of smaller inlet pipes adapted for connection to a sink and bath-tub, the inlet terminals of all of said inlet pipes having their axes in the same horizontal plane and having intersecting portions forming common division walls between them and extended in the same direction for connection to parallel drain pipes disposed laterally of one another, to permit them to be disposed between two ordinarily spaced joists without cutting away the joists.

1,203,990. BOX. ALEXANDER H. DREUX, Buffalo, N. Y., assignor to F. N. Burt Company, Limited, Toronto, Ontario, Canada, a Corporation of Ontario, Canada. Filed Mar. 31, 1916. Serial No. 87,934. (Cl. 229—6.)



1. A box comprising a body portion composed of a strip folded both longitudinally and transversely, the plies of said strip measured transversely being of unequal length and lying opposite each other, and a head having a face lying against the shoulder provided by the shorter ply, the end of the longer ply opposite the longitudinal folding line of said strip being folded to provide a shoulder lying against the other face of said head.

2. A box comprising a head and a flange, said flange comprising a strip folded on longtiudinal lines to respectively underlie and overlie said head, and thereby support and retain said head in place.

3. A box comprising a head and a flange, said flange comprising a strip slit on a longitudinal line and folded on said line to provide a ply the free longitudinal edge of which lies opposite one face of said head, the free edge of the other ply being folded to lie opposite the other face of said head.

4. A box comprising a head and a flange, said flange comprising a strip slit on a longitudinal line and folded on said line to provide a ply, the free longitudinal edge of which lies opposite one face of said head, the free edge of the other ply being folded to lie opposite the other face of said head, said plies being adhesively secured together.

5. A body for a box comprising a strip folded both longitudinally and transversely, the plies of said strip lying opposite each other, one ply providing a longitudinally disposed shoulder disposed transversely opposite and spaced from the free end of the other ply.

[Claims 6 and 7 not printed in the Gazette.]

1,203,991. ALLOY. JOHN T. DWYER, St. Louis, Mo. Filed July 26, 1916. Serial No. 111,417. (Cl. 75—1.)

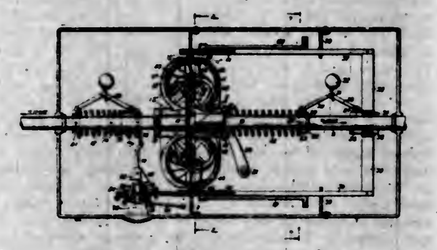
1. An alloy comprising lead, antimony and phosphorus, in which the amount of lead is greater than the amount of antimony, and the amount of antimony is greater than the amount of phosphorus.

2. An alloy comprising lead, antimony and phosphorus, in which the amount of lead is greater than the amount of antimony, and the amount of phosphorus is from one one-thousandth of one per cent. to five one-hundredths of one per cent.

3. An alloy consisting of from sixty to ninety per cent. lead, ten to forty per cent. antimony and from one one-thousandth to five one-hundredths of one per cent. phosphorus.

4. An alloy composed of the following ingredients mixed in approximately the proportions specified twelve per cent. antimony, two hundredths of one per cent. phosphorus and eighty-eight per cent lead.

1,203,992. TRANSMISSION MECHANISM. PHILIP WILLIAMS ENNIS, Factoryville, Pa. Filed Jan. 20, 1916. Serial No. 73,157. (Cl. 74—97.)



1. In a friction drive mechanism of the character described, a pair of friction plates, a driving member for moving one of said plates, a driven member connected to the other of said plates, a wheel arranged between said plates and contacting with both of the plates, means for shifting the position of said wheel so as to vary the ratio of drive, and a controlling member connected with said means for moving said means according to the resistance applied to the driven member, whereby the driven member may operate at different speeds while the driving means will operate continually at the same speed.

2. In a friction drive mechanism of the character described, a pair of friction plates, both of said plates being provided with a concave contacting face, said contacting faces facing each other, a friction wheel arranged between said plates and in engagement with both of said faces, said friction wheel being adapted to be rotated on its axis so as to vary the transmission from one plate to the other, automatic means for shifting the position of said friction wheel, a driven member connected with one of said plates and with the automatic means, and a driving member connected with the other of said plates.

3. In a friction drive mechanism of the character described, a pair of friction plates, each of said plates having a convex annular friction surface, said friction surfaces facing each other, a friction wheel arranged between said surfaces and engaging both surfaces, said friction wheel being adapted to be adjusted so as to contact with the hub portion of the surface of one of the plates and the peripheral portion of the other of said plates, means for adjusting the friction wheel so as to move the same from contact with the peripheral surface of the last mentioned plate to any point between said peripheral point and the hub so as to change the ratio of speed, a driven member connected with one of said plates, a driving member connected with the other of said plates, and means connected with the driven member for automatically shifting said friction wheel.

4. In a friction drive mechanism of the character described, a driving member, a friction plate connected with said driving member, said friction plate having a convex annular surface, a driven member, a friction plate connected with said driven member provided with a convex annular surface, a friction wheel arranged between said plates and engaging both of said surfaces, means connected with said wheel for adjusting the same so that the wheel may engage said surfaces at any point from the hub section to the peripheral section and thereby vary the ratio of drive, an automatic member connected with said means and with the driven member for shifting the wheel according to the ratio of the driven member, and a manually operated member connected with said means whereby the wheel may be shifted manually.

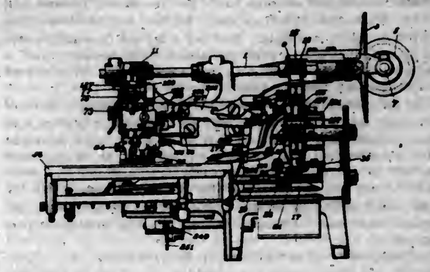
5. In a friction drive mechanism of the character described, a driving member, a friction plate connected with said driving member, said friction plate having a concave annular surface, a driven member, a friction plate connected with said driven member so as to rotate therewith but capable of movement toward and from the first mentioned friction plate, said last mentioned friction plate having a concave annular friction surface, a friction wheel arranged between said plates and adapted to engage said surface, means for shifting the position of said friction wheel so as to vary the speed of transmission between the plates, and a resilient member engaging the slidably mounted plate for pressing the same against said friction wheel.

[Claims 6 to 10 not printed in the Gazette.]

1,203,993. EDGE-FINISHING MACHINE. HERBERT ELLIOT ENSLIN, Malden, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 6, 1915. Serial No. 44,110. (Cl. 69—1.)

1. A machine of the class described, having, in combination, a support for the work, a shrinking tool for operating upon the margin of the work, a turning post for holding said margin against said tool, feeding means for advancing the work, guiding means coöperating with said feeding means to crowd the edge of the work against said post, a spring for forcing said guiding means against one surface of the work, and means for varying the tension of said spring.

2. A machine of the class described, having, in combination, a support for the work, a shrinking tool for operating upon the margin of the work, a turning post for holding said margin against said tool, feeding means including a turn table substantially flush with said work support, and a feed wheel the plane of the path of rotation of which is at an angle to said support, a molding member the axis of which is located at one side of the axis of said turn table, and a foot of small area arranged to exert a drag on the work at a point at one side of said turning post.



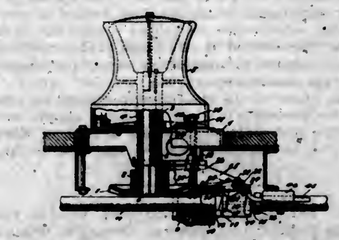
3. A machine of the class described, having, in combination, means engaging both sides of the work to feed it, an edge gage, and a stationary member arranged to contact with one side of the work and thereby exert a drag upon it at a point spaced from said gage.

4. A machine of the class described, having, in combination, means engaging both sides of the work to feed it, an edge gage, and a stationary member arranged to contact with one side of the work and thereby exert a drag upon it at a point spaced from said gage, said member being adjustable.

5. A machine of the class described, having, in combination, means engaging both sides of the work to feed it, an edge gage, and a stationary member arranged to contact with one side of the work and thereby exert a drag upon it at a point spaced from said gage, said member being adjustable in the direction of the feed movement.

[Claims 6 to 40 not printed in the Gazette.]

1,203,994. CLUTCH-OPERATING MEANS. CYRUS EVERS and FRITIOF CARLSSON, New York, N. Y., assignors to Lidgerwood Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1914. Serial No. 879,627. (Cl. 192—9.)



1. In combination, a shaft, clutch members one of which is mounted on said shaft for movement toward and away from the other, a cam incline on said movable clutch-member, a rocking member adapted to engage said incline to move the said movable clutch-member, and means for cushioning said rocking member.

2. In combination, a shaft, clutch members one of which is mounted on said shaft for movement toward and away from the other, a cam incline on said movable clutch-member, a rocking member adapted to engage said incline to move the said movable clutch-member, and a cushioned support for said rocking member.

3. In combination, a shaft, clutch members one of which is mounted on said shaft for movement toward and

away from the other, a cam incline on said movable clutch-member, a rocking member adapted to engage said incline to move the said movable clutch-member, a rock shaft upon which said rocking member is movably mounted, and cushioning means between said rock shaft and rocking member.

4. In combination, a shaft, clutch members one of which is mounted on said shaft for movement toward and away from the other, a cam incline on said movable clutch-member, a rocking member adapted to engage said incline to move the said movable clutch-member, and a rock shaft upon which said rocking member is mounted for movement relative thereto under strain.

5. In combination, a shaft, clutch members one of which is mounted on said shaft for movement toward and away from the other, a cam incline on said movable clutch-member, a rocking member adapted to engage said incline to move the said movable clutch-member, a rock shaft upon which said rocking member is mounted for movement relative thereto under strain, and a spring between said rock shaft and rocking member to cushion the latter.

[Claims 6 to 12 not printed in the Gazette.]

1,203,995. ALARM. FRANK M. FARGO, Chicago, Ill., and GEORGE L. THOM, Brooklyn, N. Y.; said Thom assignor to said Fargo. Filed June 18, 1915. Serial No. 34,939. (Cl. 116—42.)



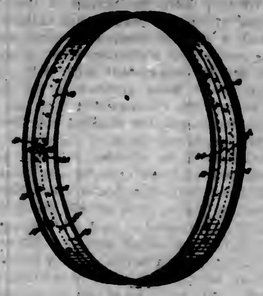
1. In an alarm of the class described, fastening means for attachment to the relatively moving parts of a closure, a removable alarm detachably connected to said fastening means, said alarm comprising a plurality of units of different lengths to explode successively when continued tension is exerted by the fastening means of said alarm.

2. In an alarm of the class described, fastening tags for attachment to the relatively moving parts of a closure, said tabs having the opposite faces thereof gummed, said tabs extending beyond the gummed portions thereof, each of said extensions having an opening therein, detonating alarms detachably carried by said tabs, said alarms having heads for engagement in the openings formed in said extensions and said alarms comprising a plurality of independent sections carried by said heads, said sections being of different lengths to successively sound the alarms as the heads are moved farther apart.

3. In an alarm of the class described, tags for attachment to the separable parts of a closure, alarms carried by said tabs, said alarms comprising sections of different lengths to be successively broken as said tabs are moved apart.

1,203,996. SECTIONAL RIM. GEORGE THOMAS FIELDING, New York, N. Y., assignor or one-half to William T. Hornaday, New York, N. Y. Filed Apr. 17, 1916. Serial No. 91,618. (Cl. 152—21.)

The combination of a two-part rim separated circumferentially, the inner edges of the two rim parts being constructed to form a smooth joint, lugs on the inner face of the rim and located on the rim parts at opposite sides of their joint, the inner peripheral edges of the rim parts having cut-out registering portions for the passage of the tire valve, and a locking ring made in sections separated transversely at approximately diametrically opposite points and fitting onto the inner face of the rim, the locking ring covering the joint and having sets of apertures engaging the said lugs, the adjacent ends of the ring section being spaced apart at the said cut-out portions of the rim parts for the passage of the tire valve and the other adjacent ends thereof being beveled in meeting relation, the engaging lugs and apertures adjacent the ends of the ring



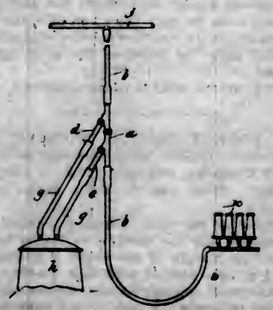
sections being transversely alined, and the remaining lugs and apertures being in staggered relation.

1,203,997. ANIMAL-TRAP. JOHN B. FIORETTA, New York, N. Y. Filed June 2, 1916. Serial No. 101,406. (Cl. 43—26.)



An animal trap comprising in combination, a pound inclosure, passageways giving access to said inclosure, a plurality of treadways pivoted in said passageways to rock longitudinally therein, said treadways having their forward ends weighted to assume normally depressed positions, means for locking the first treadway in the opposite position when an animal has passed thereover, said locking means consisting of a latch element adapted to engage over the first treadway and an angular weighted arm extended into the pathway of the second treadway to be lifted to free the first treadway, and bait holding means above the normally elevated end of each treadway.

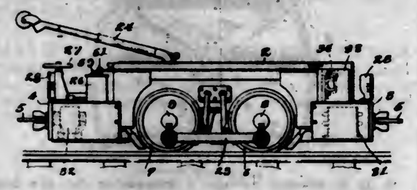
1,203,998. RELEASER INSTALLATION OF MILKING-MACHINES. THOMAS NOTON FLETCHER, Hamilton, New Zealand. Filed July 10, 1915. Serial No. 39,084. (Cl. 31—73.)



1. In milking machine installations, the combination with the teat cup branch from the milk vacuum main, of a device consisting of a main tube interposed in such branch and having a valve controlling the passage through it, and two tubular branches leading from such main tube on respectively opposite sides of the valve and each provided with a control valve, substantially as specified.

2. In milking machine installations, the combination with the teat cup branch from the milk vacuum main of a device interposed therein consisting of a main tube extending longitudinally with such branch and having a valve controlling the passage therethrough, and provided with two tubular branches leading from respectively opposite sides of the control valve and each provided with a control valve, and a receiver with which such branches are connected, substantially as specified.

1,203,999. ELECTRIC LOCOMOTIVE. JOHN H. FLORY, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Dec. 27, 1913. Serial No. 809,087. (Cl. 105—267.)



1. In an electric locomotive, the combination with the main frame and the driving wheels, of a trolley mechanism, a storage battery, a motor connected with the wheels and adapted to utilize high voltage current from the trolley mechanism, a second motor connected with the wheels and adapted to utilize low voltage current from the battery, and a controller comprising a set of contacts adapted to introduce starting resistance and four sets of distributing contacts movable independently of the resistance contacts and adapted respectively to connect the trolley mechanism and the resistance contacts in circuit with the high voltage motor to turn it in either direction and to connect the battery and the resistance contacts in circuit with the low voltage motor to turn it in either direction.

2. In an electric locomotive, the combination with the main frame and the driving wheels, of a trolley mechanism, a storage battery, a motive mechanism connected with the wheels and comprising a single set of field poles and a single rotor having two commutators and two sets of armature windings connected respectively thereto, one winding being adapted to utilize high voltage current from the trolley mechanism and the other being adapted to utilize low voltage current from the battery, and a controller comprising a set of contacts adapted to introduce starting resistance and four sets of distributing contacts movable independently of the resistance contacts and adapted respectively to connect the trolley mechanism and the resistance contacts in circuit with the high voltage winding to turn it in either direction and to connect the battery and the resistance contacts in circuit with the low winding motor to turn it in either direction.

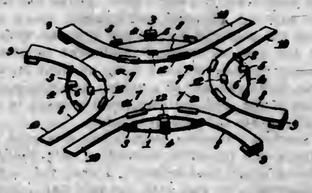
3. In an electric locomotive, the combination with the main frame and the driving wheels, of a trolley mechanism, a storage battery, a motor connected with the wheels and adapted to utilize high voltage current from the trolley mechanism, a second motor connected with the wheels and adapted to utilize low voltage current from the battery, and electrical connections including a controlling switch having four positions adapted as follows: (1st) to connect the first motor with the trolley mechanism to cause rotation in one direction, (2nd) to connect the first motor with the trolley mechanism to cause rotation in the other direction, (3rd) to connect the second motor with the battery to cause rotation in the first said direction, and (4th) to connect the second motor with the battery to cause rotation in the second said direction.

4. In an electric locomotive, the combination with the main frame and the driving wheels, of a trolley mechanism, a storage battery, a motor connected with the wheels and adapted to utilize high voltage current from the trolley mechanism, a second motor connected with the wheels adapted to utilize low voltage current from the battery, and means for changing the electrical connections between the battery and the second motor whereby the latter may be used as a generator to charge the battery, and a controller comprising contacts adapted to introduce starting resistance into the circuit of the first motor and other contacts adapted to complete the battery charging circuit only when the starting resistance is cut out of the motor circuit.

5. In an electric locomotive, the combination with the main frame and the driving wheels, of a trolley mechanism, a storage battery, a motive mechanism connected with the wheels and comprising a single set of field poles and a single rotor having two commutators and two sets of armature windings connected respectively thereto, one winding being adapted to utilize high voltage current from the trolley mechanism and the other being adapted to utilize low voltage current from the battery, means for changing the electrical connections between the battery and the second set of winding and the second commutator whereby they may be used to generate current to charge the battery, and a controller comprising contacts adapted to introduce starting resistance into the circuit of the first motor and other contacts adapted to complete the battery charging circuit only when the starting resistance is cut out of the motor circuit.

[Claims 6 to 12 not printed in the Gazette.]

1,204,000. PEDAL ATTACHMENT. EMIL FRANKE, Long Island City, N. Y. Filed Mar. 28, 1916. Serial No. 87,331. (Cl. 74—81.)



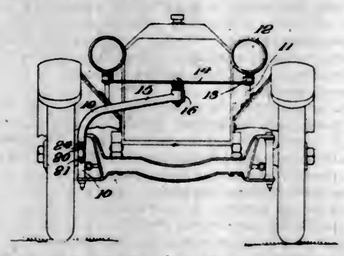
A device as described comprising a plate having guides located within its edge, pliable metal grippers held upon the plate by guides and having end portions extending beyond the edge of the plate, said plate also having lugs located at its edge and adapted to hold a cushion.

1,204,001. ATTACHMENT FOR CONNECTING THE FRAME AND AXLE OF AN AUTOMOBILE. HAROLD C. FRIPP, Walterboro, S. C. Filed Dec. 15, 1915. Serial No. 67,029. (Cl. 267—53.)



An attachment of the character described, comprising an approximately T-shaped member including a transverse head to be arranged beneath and adjacent the lower surface of the front leaf spring of an automobile, and a shank rigidly secured to and depending from the head, U-bolts serving to bind the head to the leaf spring and the leaf spring to the frame of the vehicle, a socket member arranged upon one side of the front axle and having an opening to receive the shank, and means to secure the socket member to the front axle.

1,204,002. HEADLIGHT-STEERING MECHANISM. JOSEPH T. GERMAN, Sloan, Iowa, assignor of one-fourth to John P. Hopper, Sloan, Iowa. Filed Jan. 26, 1916. Serial No. 74,371. (Cl. 240—62.)



1. In headlight steering mechanism, rotatably mounted headlights, a bar operatively connecting the said headlights to extend transversely therebetween, a drag rod freely connected to said bar and provided with a pivot pin, operating means slidably receiving the said pin with the drag rod adapted to shift vertically relative to the said means, and yieldable means interposed between the said operating means and the rod for normally holding the rod against shifting movement, the said operating means being adapted for connection to an element of a vehicle steering gear whereby shifting of the said element to steer the vehicle will rotate the said headlights.

2. In headlight steering mechanism, rotatably mounted headlights, a bar operatively connecting said headlights to extend transversely therebetween, a drag rod freely connected to said bar, an operating element, and a pivot pin connecting the said rod to the said element with the rod disposed for vertical shifting movement relative to the said element, the said element being adapted for operative connection to an element of a vehicle steering gear whereby shifting of the said last mentioned element to steer the vehicle will rotate the said headlights.

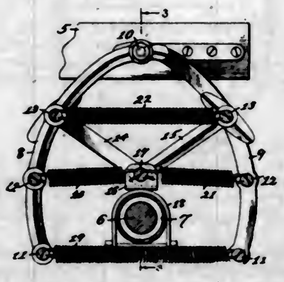
3. In headlight steering mechanism, rotatably mounted headlights, a bar pivotally connecting said headlights to extend transversely therebetween, a drag rod, a pivot pin freely connecting the rod with the said bar, a shank carried by the rod, and an attaching bracket slidably receiving said shank with the rod adapted for vertical movement relative to the said bracket and with the bracket adapted for connecting to a steering knuckle of a vehicle steering gear whereby shifting of the said knuckle to steer the vehicle will rotate the said headlights.

4. In headlight steering mechanism, rotatably mounted headlights, a bar operatively connecting said headlights to extend transversely therebetween, a drag rod provided with a head having an elongated opening therethrough, a bolt extending freely through said opening to pivotally connect the rod with the said bar with the bolt adapted to shift laterally and vertically within the opening for permitting independent vertical and lateral shifting movement of the rod relative to the bar, and a spring surrounding the bolt and interposed between the bar and said head for normally holding the rod against vertical shifting movement, the rod being adapted for operative connection to an element of a vehicle steering gear whereby shifting of the said element to steer the vehicle will rotate the said headlights.

1,204,003. VEHICLE-SPRING. MARK PASSMORE GILLEN, San Diego, Cal. Filed June 21, 1916. Serial No. 104,952. (Cl. 267—8.)

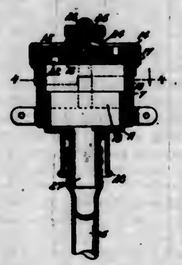
1. In a wheeled vehicle, a suspension for the frame comprising, at each axle end, two arms in pivotal connection, two equalizing levers pivoted to the respective arms and to each other, a plurality of springs joining said arms, and a plurality of springs joining said arms with the pivot of said levers.

2. In a wheeled vehicle, a suspension for the frame comprising, at each axle end, two downwardly divergent arms pivoted together and to said frame, two upwardly diverging levers pivoted together and to the respective arms, a saddle on the axle in pivotal connection with said levers at their common pivot, a coil spring joining the upper portions of said arms, at each side thereof, at the pivotal points with the respective levers, two springs on each side of said arms joining the latter with said saddle, and springs at the lower ends of said arms resisting separation thereof.



3. In a wheeled vehicle, a suspension for the frame comprising, at each axle end, two downwardly divergent arms pivoted together and to said frame, a saddle on said axle, two upwardly divergent levers pivoted together and to said saddle and to the respective arms, a coil spring at each side of said arms joining the latter at their pivotal connections with said levers, two coil springs at each side of said arms joining the latter with said saddle, and two springs at each side of said arms joining the outer ends thereof with said axle.

1,204,004. AUXILIARY AIR-SUPPLY DEVICE FOR INTERNAL-COMBUSTION ENGINES. HUGH C. GILLIAM, Philadelphia, Pa., assignor of one-third to Frank H. Preble and one-third to Florence J. Dentel, Philadelphia, Pa. Filed June 15, 1916. Serial No. 103,835. (Cl. 137—26.)

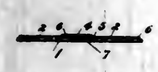


1. In a valve structure for admitting air to the manifold of an explosive engine, a pair of sections removably connected together, the lower section being formed with an extension for receiving a connecting hose and the upper section being formed with an arc-shaped slot, a disk valve arranged on said upper section provided with a plurality of openings and an annular bead forming a valve seat, said openings extending through said valve seat, and means for holding said valve seat against said upper section.

2. In a valve of the character described, an upper section, a lower section threaded to said upper section, means for connecting a hose to said lower section, said upper section being formed with an arc-shaped slot and with a ground upper face, a disk valve member provided with a projecting annular bead formed with a ground seat fitting on said upper section, said seat covering said slot, said disk valve member being provided with an opening extending through said valve seat, said disk valve member being rotatable so that said openings may be brought into registry with said slot and moved out of registry, and means for limiting the rotary movement of said disk valve member.

3. In a valve of the character described, a hollow body provided with an arc-shaped opening in the top, a disk valve member fitting on said body, said disk valve member being formed with a depending flange having a notch extending for approximately one-half of its circumference whereby two shoulders are produced, a series of openings adapted to be brought into registry with said slot, said openings increasing in size from one end of the series to the other, a seat, a combined pointer and stop connected with said body to strike against said shoulders for limiting the rotary movement of said disk valve member, and resilient means for pressing said disk valve member against said body.

1,204,005. PROCESS OF ORNAMENTING METAL. GEORGE J. GLOTZBACH, Austin, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 8, 1914. Serial No. 843,752. (Cl. 41—26.)



1. A process for the ornamentation of metal, to produce the effect of etching, which consists in applying to the metal plate in powdered condition a material capable of being rendered substantially transparent and arranged according to the desired design, and applying to the plate over the said material a varnish to render the said material substantially transparent and produce the effect of being etched.

2. A process for the ornamentation of metal, to produce the effect of etching, which consists in applying to the metal plate a substantially transparent gum in comminuted form and arranged according to the desired design on those parts of the plate which are to appear etched out, leaving exposed parts of the plate which are to appear in relief, drying the gum, and applying over the gum a gloss varnish; substantially as specified.

3. A process for the ornamentation of metal, which consists in printing the desired design upon the plate with varnish or sizing, then applying to the plate comminuted gum and causing it to adhere to the varnish or sizing, and then after the gum is dry applying over the gum a gloss varnish; substantially as specified.

4. A process for the ornamentation of metal, which consists in lithographing a design upon a metal plate, in any desired colors; then lithographing a design on the plate, with an adhesive; then applying gum in comminuted form on the adhesive; and then, after the gum is dry, applying a varnish over the gum to render it substantially transparent; substantially as specified.

5. A metal plate having a design thereon in the semblance of an etching, and composed of an adhesive and comminuted gum held by the adhesive, the gum being rendered substantially transparent by an externally applied varnish; substantially as specified.

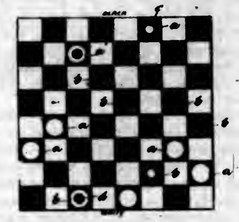
[Claim 6 not printed in the Gazette.]

1,204,006. GAME. LEON GOLDMERSTEIN, New York, N. Y. Filed Jan. 24, 1916. Serial No. 73,995. (Cl. 46—64.)

1. A set of pieces for the game of checkers, in which each piece is provided, at one side thereof, with indications of king value, half the number of said pieces representing white kings by said indications, and the other half black kings.

2. A set of reversible play pieces for the game of checkers, wherein each piece has indications representing different play values upon its opposite sides, the indications on one side of some of said pieces representing "white" king value, and on the others "black" king value.

3. A set of reversible play pieces for the game of checkers, wherein each piece has on one side a representation of ordinary checker value, and on the other side a representation of king value, the white pieces including some with "white" king value and some with "black" king value, and the black pieces including some with "black" king value and some with "white" king value.



1,204,007. PACKING FOR PUMP-RODS. BYRON W. GOODSELL, Chicago, Ill. Filed Mar. 27, 1913. Serial No. 757,158. (Cl. 154—45.5.)



1. A packing consisting of a number of strips or rings of braided cotton fiber, and a resilient material spacing and thereby separating the wearing surfaces of said strips or rings from each other.

2. A packing consisting of a number of strips or rings of braided cotton fiber, and separate strips or rings of a resilient material alternately spacing said first named strips or rings from each other.

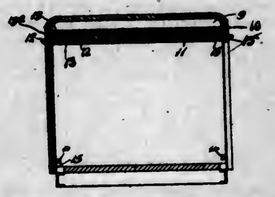
3. A packing, the wearing surface of which consists of strips or rings of braided cotton fiber and pure rubber, arranged alternately one with the other.

4. A packing, the body of which is composed of rubber, and strips or rings of braided cotton fiber embedded and spaced apart in said rubber.

5. A packing, the wearing surface of which consists of separate strips or rings of braided cotton fiber and rubber, alternately separating said strips or rings, and a surrounding external cover consisting of resilient vulcanized rubber.

[Claim 6 not printed in the Gazette.]

1,204,008. VEHICLE-TOP. WILLIAM B. GOODWIN, Columbus, Ohio. Filed May 11, 1914. Serial No. 837,657. (Cl. 21—14.)

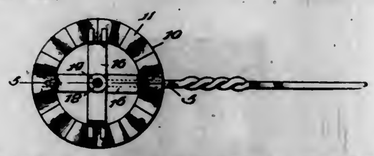


1. In a vehicle top the combination of a double roof, partitions extending transversely of the roof and dividing it into a series of panel holding compartments, rigid

panels extending the full height of the vehicle body and adapted either to close the sides of the vehicle or to occupy the compartments, ways provided on the partitions for slidingly mounting the panels in the compartments so that the panels of one side of the vehicle will occupy a position above the panels of the other side of the vehicle, rigid doors adapted to close the compartments, and flanged roof support members the panels being adapted to be secured to the flanges of the support members when in operative position.

2. In combination in a vehicle body, a double roof having compartments formed therein and open at opposite sides, supports adapted to support the roof, rigid panels extending the full height of the vehicle body and removably mounted on the supports, ways provided in the roof adapted to slidingly mount the panels, said ways having downturned ends adapted to hold the upper ends of the panels in position against the supports, rigid doors adapted to close the open sides of the compartments, and flanged roof support members, the panels being adapted to be secured to the flanges of the support members when in operative position.

1,204,009. CAKE-CUTTER. OSCAR J. GOODWIN, Rainier, Wash. Filed May 10, 1916. Serial No. 96,665. (Cl. 107—49.)



1. An implement of the class described comprising an annular cutter member, a plurality of arms crossing each other intermediate the ends and perforated to receive an axle and each with a plurality of clefts to form tongues, said tongues bearing upon opposite sides of the annular cutting member to couple the arms thereto, and a handle in which said axle is disposed.

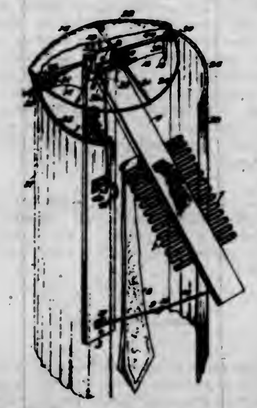
2. An implement of the class described comprising an annular cutter member, a plurality of arms crossing each other intermediate the ends and perforated to receive an axle and each with a plurality of clefts to form tongues, said tongues bearing upon opposite sides of the annular cutting member and one of said tongues bent laterally and extended through an aperture in the cutting member, and a handle in which said axle is disposed.

1,204,010. SUPPORTING AND EXHIBITING APPARATUS. JAMES H. GORE, Washington, D. C. Filed Oct. 5, 1915. Serial No. 54,196. (Cl. 211—17.)

1. In an exhibiting apparatus or display rack, the combination of a carrier movable approximately vertically from a non-display to a display position, means on said carrier for detachably supporting individually and separately in a suspended position a plurality of articles to be displayed such as neckties, a cover movable from a closed protecting position to an open display position, and means automatically moving one of said parts upon movement of the other.

2. In an exhibiting apparatus or display rack, the combination of an article carrier movable approximately vertically from an upright non-display to an outstanding display position, means on said carrier for detachably supporting individually and separately in a suspended position a plurality of articles such as neckties, a cover movable approximately horizontally from a closed protecting position about the carrier when in its upright non-display position to an open display position, and means automatically moving one of said parts upon movement of the other.

3. In an exhibiting apparatus or display rack, the combination of a main frame, an article carrier pivoted at its upper end to said main frame and adapted to be swung upward from its depending non-display position to an outstanding display position, a plurality of supporting members on said carrier adapted to detachably support individually and separately a plurality of articles such as neckties, a cover movable approximately horizontally from a closed protecting position about the carrier in its depending position to an open display position, and means automatically moving one of said parts upon movement of the other.

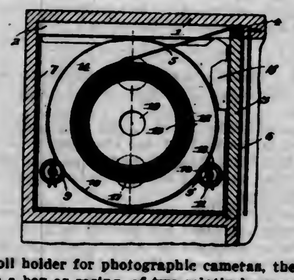


4. In an exhibiting apparatus or display rack, the combination of an article carrier movable approximately vertically from an upright non-display position to an outstanding display position, a plurality of supporting members on said carrier adapted to detachably support individually and separately a plurality of articles such as neckties, a plurality of cover sections movable from a closed protecting position about the carrier in its upright non-display position away from each other to an open display position, and means associated with the carrier and cover sections automatically moving one upon movement of the other.

5. In an exhibiting apparatus or display rack, the combination of an article carrier movable from a display to a non-display position, means on said carrier for detachably supporting individually and separately in a suspended position a plurality of articles to be displayed such as neckties, a cover movable from a closed protecting position about the carrier and articles thereon to an open display position, and means automatically moving the cover during a part only of the movement of the carrier to and from its display position.

[Claims 6 to 10 not printed in the Gazette.]

1,204,011. PHOTOGRAPHIC-ROLL HOLDER. JOHN S. GREENE, Rochester, N. Y., assignor to Commercial Camera Company, Providence, R. I., a Corporation of Rhode Island. Filed June 25, 1914. Serial No. 847,329. (Cl. 242—70.)



In a roll holder for photographic cameras, the combination with a box or casing, of two relatively spaced flanged

rollers arranged therein at each end near the bottom thereof, a film spool arranged in the casing and having the rims or edges of its end flanges resting upon the rollers to revolubly sustain a roll of film wound on the spool by revolving against the rollers as the film is drawn off, said rollers being so arranged as to position the spool with its flanges out of contact with the bottom wall and the two side walls of the casing and protuberances on the end walls of the casing engaging the end faces of the flanges of the spools to hold them in position on the rollers.

1,204,012. SNAP-SWITCH. MONROE GUETT, Hartford, Conn., assignor to Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Dec. 27, 1915. Serial No. 68,916. (Cl. 175—293.)



1. In a snap switch, the combination of a stamped sheet metal bracket having hook bearings formed therein, a crank shaft introduced laterally into said bearings, a tensioned spring connected by one end to said crank shaft, and actuating means connected to the other end of said spring and adapted to carry the same across the plane of said crank shaft in either direction.

2. In a snap switch, a bracket member, a crank shaft member journaled therein, a rocker member fulcrumed on the base, each of said members being formed of sheet metal stampings, in combination with a spring secured by one end to the crank shaft and by the other end to said rocker member and adapted to be carried thereby across the plane of the crank shaft.

3. In a snap switch, a bracket provided with bearings, a flat crank shaft member formed of stamped sheet metal engaging said bearings by its edge, means including a spring for imparting a snap movement to said crank shaft upon its said bearings, and a contact blade carried by the crank shaft.

4. In a snap switch, the combination with a bracket having open bearings therein, of a crank shaft engaging said bearings and integral shoulders on said crank shaft for preventing endwise displacement thereof.

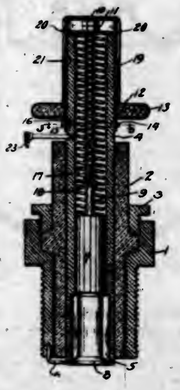
5. In a snap switch, the combination with a bracket member and a crank shaft fulcrumed thereon, of a two-part rocker member also fulcrumed thereon, and a spring connecting said shaft to the rocker and serving to lock the parts of the latter in their normal position.

[Claims 6 to 11 not printed in the Gazette.]

1,204,013. SPARK-PLUG. PRESSURE-INDICATOR. ERNEST HANNI, San Francisco, Cal. Filed Nov. 6, 1915. Serial No. 60,163. (Cl. 123—169.)

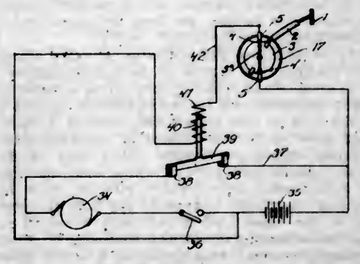
1. In a device of the class described, a spark plug having an insulating bushing, an electrode and a threaded bushing adapted to be screwed into an opening in the explosion engine cylinder, a piston therein having a flange on its lower end, said flange forming with that portion of the plug in which it is slidable a valve to prevent the egress of exploded gas, a spring bearing upon said piston, and means to raise or lower the piston and spring whereby the piston may be used to determine the pressure within the explosion cylinder or may have its flange seated upon that portion of the plug within which it is movable.

2. In a device of the class described, a spark plug having an insulating bushing, an electrode and a threaded bushing adapted to be screwed into an opening in the explosion engine cylinder, a piston having a flange at its lower end, which flange forms with the plug a valve to prevent the egress of gas, a light spring bearing on said piston and permitting a given movement thereof, a second heavier spring adapted to bear upon the piston when it has moved through that portion of its total possible movement, and a cap frictionally held in contact with the plug for determining the pressures within the engine cylinder.



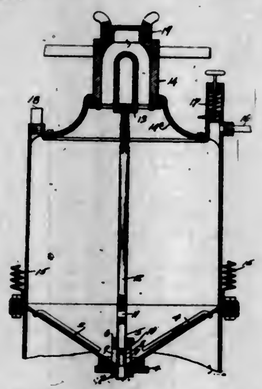
3. In a device of the class described, a spark plug having an insulating bushing, a hollow electrode and a threaded bushing adapted to be screwed into an opening in an explosion engine cylinder, a piston movable in the hollow electrode and having a flange forming a valve at the lower end thereof, a spring bearing upon the piston, and a movable cap adapted to be raised by the piston to show the amount of pressure and compression in the cylinder.

1,204,014. CONTROLLING DEVICE FOR AUTOMOBILES. JULIUS L. HECHT, Evanston, Ill., assignor of one-half to Edmund O. Schweitzer, Chicago, Ill. Filed Oct. 31, 1913. Serial No. 798,432. (Cl. 175—355.)



An electric vehicle having an electric motor, a storage battery for supplying current to said motor, a solenoid operable from said storage battery for controlling the circuit from said storage battery to said motor, said solenoid having a plunger, a speedometer having a pointer movable in accordance with the change of speed of said vehicle, contact elements to control the circuit through said solenoid, and a movable contact element electrically independent of said pointer, but movable conjointly therewith and normally without frictional engagement save when it moves into position to control the circuit through said first aforesaid contact elements.

1,204,015. ACETYLENE-GAS GENERATOR AND DEVICE FOR FEEDING CARBID. HORACE E. HENWOOD, New York, N. Y. Filed Feb. 1, 1912, Serial No. 674,650. Renewed Mar. 7, 1914. Serial No. 823,246. (Cl. 48—55.)



1. In an acetylene gas generator, a water chamber, a carbid chamber, a valve between the two, said valve being a valve operated by rotary motion, a filling head and diaphragm between the head and the chamber, said head engaging a spindle with a helical thread and capable of a motion vertically along said spindle, whereby the valve may be rotated on a vertical movement of the head.

2. In an acetylene gas generator, a water chamber, a carbid chamber, the bottom of the carbid chamber being the top of the water chamber, and having a conical shape, its apex depending into the water chamber, a bushing fitting the apex of said bottom and carrying a valve cage having ports in the side thereof in communication with the carbid chamber, a tubular valve, open at the end thereof, passing through said valve cage and provided with a port adapted to register with the ports in said valve cage, a spindle secured to the tubular valve provided at the upper end thereof with a helical thread, means for preventing the vertical movement of the spindle and attached valve, a bushing having a helical thread engaging the threads on the upper end of said spindle, a head carrying said bushing, a flexible diaphragm, carried by said carbid chamber having secured thereto said head, means for holding said head depressed, and means for admitting gas to the carbid chamber.

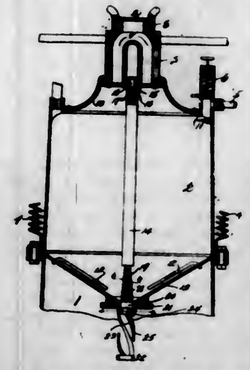
3. In an acetylene gas generator, a water chamber, a carbid chamber, the bottom of the carbid chamber being the top of the water chamber, and having a conical shape, its apex depending into the water chamber, a bushing fitting the apex of said bottom and carrying a valve cage having ports in the side thereof in communication with the carbid chamber, a tubular valve, open at the end thereof, passing through said valve cage and provided with a port adapted to register with the ports in said valve cage, a spindle secured to the tubular valve provided at the upper end thereof with a helical thread, means for preventing the vertical movement of the spindle and attached valve, a bushing having a helical thread engaging the threads on the upper end of said spindle, a head carrying said bushing, a flexible diaphragm, carried by said carbid chamber having secured thereto said head, means for holding said head depressed, and means for admitting gas to the carbid chamber, said means for admitting gas consisting of tubes from the water chamber having their ends adjacent the ports.

4. In an acetylene generator, a water reservoir, a carbid receptacle, a central aperture in the bottom of the carbid receptacle, a rotary feed valve controlling said central aperture, a shaft formed with a helical thread at its upper end, and connected at its lower end to the said rotary feed valve, and a vertically reciprocating head carrying a bushing having a helical thread engaging said shaft, whereby the vertical motion of the said head imparts a rotary motion to said shaft and said feed valve, a means for preventing a vertical movement to the shaft, and a means for filling the carbid receptacle with carbid.

5. In an automatic acetylene generator, the combination of a carbid receptacle having a feed aperture in its bottom, a water reservoir, a hollow rotary feed valve mounted to rotate about its axis concentric with the feed aperture, a vertical rotary shaft secured to said valve, a diaphragm and head movable under the action of the generated gas, and a connection between said head and shaft whereby the vertical movement of the former is converted into rotary movement in the latter.

[Claims 6 to 8 not printed in the Gazette.]

1,204,016. ACETYLENE-GAS-GENERATOR-FEEDING MECHANISM. HORACE E. HENWOOD, New York, N. Y. Filed Feb. 1, 1912, Serial No. 674,651. Renewed Mar. 7, 1914. Serial No. 823,247. (Cl. 48—53.3.)



1. In an acetylene generator, a water chamber, a carbid receptacle having a feed aperture in its bottom, a flexible diaphragm, a feed plug, a shaft connecting the feed plug with the diaphragm, whereby the feed plug is caused to move up and down in the aperture, and means for imparting a rotary movement to the feed plug in conjunction with its vertical movement.

2. In an acetylene gas generator, a water chamber, a superposed carbid receptacle having a conical bottom provided with a feed aperture, a vertically movable head and a diaphragm connected with the head, a laterally open sleeve with helical guides communicating with the feed aperture, a feed plug in engagement with said helical guides, and a connection between the feed plug and head whereby the plug moves vertically with the head and rotates independently thereof.

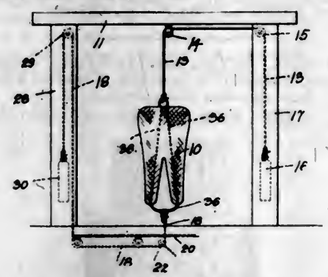
3. In an acetylene gas generator, a water chamber, a superposed carbid receptacle having a conical bottom, a vertically movable head and a diaphragm connecting it with the carbid receptacle, a bushing in the conical bottom of the carbid receptacle and having a feed aperture and a laterally open sleeve with helical guides communicating with said aperture, a feed plug in engagement with said helical guides, and a connection between the feed plug and head whereby the plug moves vertically with the head and rotates independently thereof.

4. In an acetylene generator having a water reservoir and a carbid receptacle provided with a feed aperture, a feed plug, and means for moving said plug vertically and rotatably in the feed aperture, the feed plug having an upwardly tapering portion broken by irregularities.

5. In an acetylene generator, a water reservoir, a carbid receptacle having a central aperture in its bottom, a reciprocating filling head, a means for controlling said head, a flexible diaphragm connecting the reciprocating filling head to the carbid receptacle, a shaft connected to and vertically movable with the reciprocating filling head, said shaft being rotatable independently of said head, a feed plug secured to the lower end of said shaft, said feed plug operating in and controlling the central aperture in the bottom of the carbid receptacle, and a means for imparting a rotary motion to said shaft upon its vertical movement.

[Claims 6 to 10 not printed in the Gazette.]

1,204,017. TACKLING-DUMMY. FRANK A. HINKEY, New Haven, Conn. Filed Feb. 29, 1916. Serial No. 81,156. (Cl. 46—69.)



1. A suspended tackling dummy, and means for restraining the same from the bottom; substantially as described.

2. The combination of a tackling dummy, means for supporting the same above the ground level, and means connected with the lower part of the dummy for restraining the same; substantially as described.

3. The combination with a suspended tackling dummy, of a counterweight connected with the dummy for restraining the lifting movement thereof; substantially as described.

4. The combination with a suspended dummy, of a counterweight, and means of connection between the counterweight and the lower portion of the dummy whereby lifting movement of such lower portion of the dummy is resisted; substantially as described.

5. The combination with a suspended dummy, of a rope connected with the lower end of the dummy, and means connected with said rope for restraining the movement of the lower part of the dummy; substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,204,018. COMBINED COIN AND TICKET HOLDER. FRANK G. HOLLAND, Cleveland, Ohio, assignor to Mutual Specialty Manufacturing Company, a Copartnership consisting of Frank G. Holland, John J. Cassidy, and John Green, Cleveland, Ohio. Filed Oct. 2, 1915. Serial No. 53,757. (Cl. 133—6.)



1. A combined coin and ticket holder comprising a box having a partition therein forming coin and ticket compartments at opposite ends thereof, each compartment having a delivery opening directed toward the same end of the box, the delivery of one of said compartments being above the top of the other compartment, whereby either a coin or a ticket may be delivered without changing the position of the box in the hand.

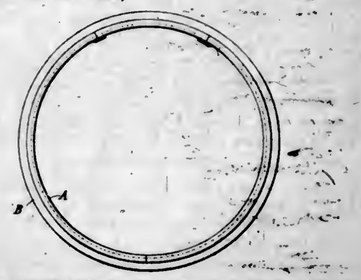
2. A combined coin and ticket holder, comprising a box having coin and ticket compartments therein and a finger opening to each compartment in the top of the box, and a delivery opening from each compartment, both of said delivery openings being directed toward the same end of the box, and the delivery opening from said ticket compartment being above and turned toward said coin compartment.

3. A combined coin and ticket holder, comprising a box with top and bottom plates, the top plate having a depending tongue secured to the bottom plate to fasten the plates together and forming a partition dividing the box into coin and ticket compartments.

4. A holder of the kind described, comprising a box with top and bottom plates, the top plate having a delivery slit and finger opening therein, and a tongue projecting inwardly from the edge of the slit and attached to the bottom plate to fasten the plates together.

5. A combined coin and ticket holder, comprising a box with top and bottom plates, and a partition extending between said plates and dividing the box into coin and ticket compartments, the front end of the box having a coin delivery slot and the rear end of the box having a ticket filling opening, the top plate having a finger opening into the coin compartment, and also having a finger opening into the ticket compartment, and a delivery slot at the front end thereof, and an inclined guide depending from the top plate, under said delivery slot.

1,204,019. TIRE-CARRYING RIM. ERNEST HOPKINSON, East Orange, N. J. Filed Aug. 2, 1911. Serial No. 641,910. (Cl. 152—21.)



1. A tire carrying rim for a pneumatic tire whose casing has inextensible edges, said rim comprising separate endless external tire rings, a plurality of separable disconnected arc sections, each consisting of a base portion and side flanges, each of said sections having radially abutting ends, adapted to be held in contact solely by the pressure of inflation of the tire acting on said base and flanges.

2. A rim for pneumatic tires having inextensible edges, comprising more than two independent arc sections, separable endless tire flanges located exteriorly of said arc sections, and a key piece between two of said arc sections for holding the sections in the form of a circle immediately within said tire flanges.

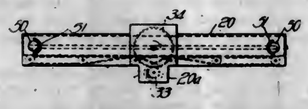
3. A rim for pneumatic tires having inextensible edges, comprising more than two independent arc sections, separable endless tire flanges located exteriorly of said arc sections, and a laterally insertible key piece between two of said arc sections for holding the sections in the form of a circle immediately within said tire flanges.

4. A rim for pneumatic tires having inextensible edges, comprising more than two independent arc sections, separable endless tire flanges located exteriorly of said arc sections, one of said sections being wedge shaped and forming a laterally movable key piece for holding the sections in the form of a circle immediately within said tire flanges.

5. A rim for pneumatic tires having inextensible edges, comprising more than two independent arc sections, and a separable endless ring located exteriorly of said arc sections, one of said arc sections constituting a laterally movable key piece for holding the sections in the form of a circle immediately within said endless ring and when displaced permitting radial removal or insertion of the remaining arc sections.

[Claims 6 to 9 not printed in the Gazette.]

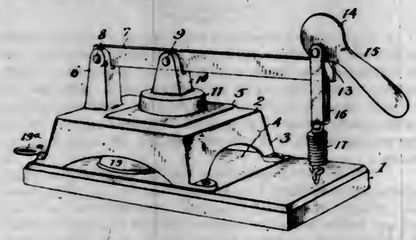
1,204,020. AUTOMOBILE-SIGNAL. TATSUO HORI, Inglewood, Cal. Filed Dec. 3, 1915. Serial No. 64,882. (Cl. 116—81.)



1. An automobile signal, embodying an elongate casing open at opposite ends, an elongate slider movable longitudinally in either direction in the casing, rollers on said casing to support said slider and allow it to move freely, and means to move the slider so that either of its opposite ends may be projected into view beyond the ends of the casing, said means embodying an operating shaft, an arm mounted on said shaft adapted for manual actuation, a pulley, a cord wound around said pulley and attached to the slider, and gear connection between the operating shaft and the pulley, the slider and casing being of such relative length that the slider is hidden within the casing when in its normal medial position.

2. An automobile signal, embodying an elongate casing open at opposite ends, an elongate slider movable longitudinally in either direction in the casing, rollers in said casing to support said slider and allow it to move freely, a pulley mounted in said casing below the slider, a cord wound around the pulley extending outwardly to the ends of the casing over said rollers and back to the center of the slider and there secured, an operating shaft mounted in bearings in said casing, and gear connection between the operating shaft and the pulley, the slider and casing being of such relative length that the slider is hidden within the casing when in its normal medial position.

1,204,021. PORTABLE VULCANIZER. EDGAR T. HORSEY, Cleveland, Ohio. Filed Mar. 5, 1915, Serial No. 12,249. Renewed May 11, 1916. Serial No. 96,943. (Cl. 18—18.)



1. In a portable vulcanizer, the combination with a hot plate, a presser head coöperating with the hot plate, a lever upon which the presser head is carried, and means beneath the hot plate for accommodating a heating means, a spring for holding the outer end of the lever which carries the presser head, and means engaging the lever for extending the spring.

2. In a portable vulcanizer, the combination with a hot plate, a presser head coöperating with the hot plate, a lever for supporting the presser head, a spring secured at one end, a cam member connected with the free end of the spring said cam member engaging the outer end of the said lever to place the spring under tension.

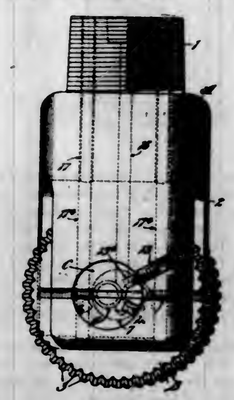
3. In a portable vulcanizer, the combination with a hot plate, a presser head coöperating with the hot plate, a pivoted lever upon which the presser head is carried, a spring secured at one end, a yoke engaging the free end of the spring, a cam lever engaging the outer end of the spring said cam lever being pivotally connected with the yoke whereby when the cam lever is operated the presser head is placed under spring pressure.

4. In a portable vulcanizer, the combination with a hollow base adapted to receive a heating device, a hot plate carried by said base, a presser head, a lever pivoted upon the base to which lever the presser head is pivoted, a spring secured at one end, a cam lever engaging the outer end of the lever which carries the presser head, operative connections between the cam lever and the free end of the spring whereby when the cam lever is operated the presser head is placed under pressure.

5. In a portable vulcanizer, the combination with a plate member, of a head member coöperating with the plate member, a pivoted lever upon which the head member is carried, a resilient means for holding the lever and means connected with the resilient means and engaging the lever for placing the resilient means under tension.

[Claims 6 to 10 not printed in the Gazette.]

1,204,022. ROTARY BORING-DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Mar. 18, 1915. Serial No. 15,194. (Cl. 255—71.)



1. In a rotary boring drill, a head, a rotatable cutter arranged on said head in such a manner that it scrapes off the material from the side wall of the hole when the drill is in operation, and a rotatably adjustable bearing for said cutter having its opposite ends supported in the head and provided with an eccentrically-disposed portion on which said cutter turns, said bearing being adapted to be adjusted without removing it from the head so as to vary the distance between the center axis of the head and the portion of the cutter that acts on the side wall of the hole.

2. In a rotary boring drill, a head, a rotatable cutter arranged on said head in such a manner that it scrapes off the material from the side wall of the hole when the drill is in operation, a substantially horizontally-disposed adjustable shaft having its end portions rotatably mounted in said head, said shaft being provided with an eccentric bearing portion on which said cutter turns, and means for locking said shaft in the head so as to hold said eccentric bearing portion in adjusted position.

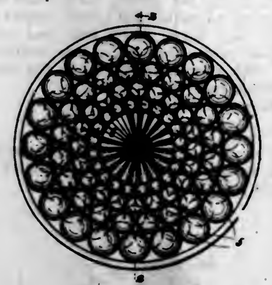
3. In a rotary boring drill, a head provided with an opening, an upright cutter arranged in said opening and projecting laterally from one side of said head, an adjustable shaft extending across said opening and having its end portions supported in the head, and an eccentrically-disposed cylindrical bearing on said shaft, on which said cutter turns, said shaft being adapted to be turned in the head so as to vary the position of said eccentrically-disposed bearing, and thus adjust the edge portion of the cutter inwardly and outwardly with relation to the side of the head.

4. A rotary boring drill, comprising a head provided with a center bearing and two side bearings, rotatable cutters arranged in a substantially upright position between said bearings, and substantially horizontally-disposed shafts adjustably mounted in the head in said center bearing and side bearings and provided with eccentrically-disposed portions on which said cutters revolve, said shafts being adapted to be turned in the head so as to vary the position of said eccentrically-disposed bearing portions, and thus change the distance between the edge portions of the cutters and the vertical axis of the head.

5. A rotary boring drill, comprising a head provided with transversely-disposed slots, rotatable cutters arranged in said slots and projecting laterally slightly beyond the head, adjustable supporting members for said cutters having their ends rotatably mounted in the side wall portions of said slots and adapted to be turned in the head into various positions, without removing them from the head, and means carried by said members for causing the distance between the center axis of the head and the portions of the cutters that act on the side wall of the hole to be varied when said members are turned.

[Claims 6 to 10 not printed in the Gazette.]

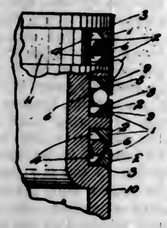
1,204,023. LIGHT-RAYS REFRACTOR. EMIL G. JOHANSON, Chicago, Ill. Filed June 24, 1916. Serial No. 105,672. (Cl. 240—106.)



1. A light rays refractor comprising a glass unit formed with protuberant lenses on both sides, said lenses being arranged in concentric circles, the circles and the lenses of the respective circles on one side being staggered with respect to the circles and the lenses of the respective circles on the other side, and the lenses in the circles on both sides of the unit increasing in size outward from the center of the unit.

2. A light rays refractor comprising a concavo-convex glass unit formed with protuberant lenses on both sides, said lenses being arranged in concentric circles, the circles and the lenses of the respective circles on one side being staggered with respect to the circles and the lenses of the respective circles on the other side, the lenses in the circles on both sides of the unit increasing in size outward from the center of the unit.

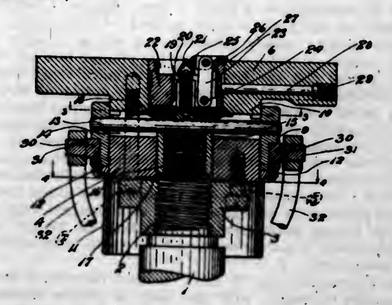
1,204,024. PISTON-RING. CHARLES E. JOHNSON, Muskegon, Mich. Filed Oct. 25, 1915. Serial No. 57,752. (Cl. 121—108.)



1. A piston ring comprising upper and lower ring parts located one above the other and having inner sides positioned at an angle to each other, each of said ring parts being parted at one point in its circumference, a circular spring member formed of a length of wire into substantially a circle and also parted at one point located between and bearing against the inner angularly positioned sides of said ring parts, said spring member being one coil of a helically wound spring whereby its ends tend to separate both laterally and circumferentially and means on said spring member engaging with the ring parts to hold them against movement with respect to each other.

2. A piston ring comprising upper and lower ring parts located one above the other and having inner sides positioned at an angle to each other, and a circular spring member formed as one coil of a spring helically wound from a rod substantially circular in cross-section located between and bearing against the inner angularly positioned sides of said ring parts and tending to force the ring parts outward and against the upper and lower sides of a groove in a piston in which the ring is located, substantially as described.

1,204,025. CHUCK. CHARLES E. JOHNSON, Muskegon, Mich. Filed Jan. 22, 1916. Serial No. 73,604. (Cl. 29—138.)



1. In combination, a shaft, a head detachably secured thereto, a cylindrical member fixed to the head, a table secured to the member, a ring passing around said cylindrical member, a rod supported at its ends in the ring and passing through a slot in said member, a ring having projecting lugs loosely mounted in an annular groove in the first ring, a yoke attached to the lugs, an interiorly bored plug set in the table at its center, a plurality of links each pivotally mounted at one end on the plug and having the other end extending outwardly toward the face of the table, heads pivotally connected to the free ends of said links, a spring secured to the plug back of each link, a clutch element carried by the free end of each spring immediately outside the face of the table, means to hold the plug rigidly in position in the table, a hollow plunger loosely located within the cylindrical member centrally thereof, said rod passing through one end of the plunger, a coiled spring inside the plunger positioned between the rod and said head, an interiorly threaded sleeve on the plunger extending into the bore of the plug, and a second plug threaded into said sleeve and having a conical head adapted to engage with the heads attached to the free ends of the links.

2. In combination, a shaft, a head detachably secured thereto, a member detachably secured to the head, a table secured to said member, a ring surrounding the member, means for effecting a longitudinal movement of the ring over the member, a rod seated at its ends in the ring and passing through a slot cut in the member, a hollow plunger loosely seated in a central opening in said member, said rod passing through one end of the plunger, a coiled spring housed by the plunger and located between the rod and said head, a centrally bored plug seated centrally in an opening in the table, a sleeve on the plunger extending into said plug, a second plug having a conical head adjustably mounted in the sleeve, a plurality of links mounted at one end in the first plug and extending

substantially parallel to the axis of the table toward the face thereof, a head secured to the free end of each link bearing against the conical head of the second plug, a spring attached to the first plug back of each link, and a clutch element attached to the free end of each spring, said element being located so as to pass over the faces of the first plug and table.

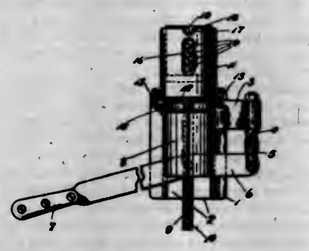
3. In combination, a shaft, a head thereon, a member secured to the head, a table secured to said member, a hollow plunger loosely seated in an opening formed centrally in said member, a rod passing through one end of the plunger and through a slot cut in the member, a spring housed in the plunger between the rod and the head, means connected to the ends of the rod for moving the plunger against the force of the spring, a plug having a central opening seated centrally in the table, an extension to the plunger passing into the plug, a member having a conical head adjustably mounted on said extension, heads loosely mounted on the plug around the conical head, leaf springs connected at one end to the plug, one for each head and normally tending to press the heads against said conical head, and a clutch element connected to the free end of each leaf spring and disposed over the face of the plug and table about the center thereof.

4. In combination, a shaft, a head thereon, a member secured to the head, a table secured to the member, a hollow plunger loosely mounted in a central opening in said member, a spring housed by the plunger between the end thereof and the head, means to move the plunger toward the head against the force of the spring, an extension to the plunger, a member having a conical head on the extension, said extension and member passing into a central opening in the table, clutch elements mounted to pass over the face of the table and around the center thereof, means normally tending to move said elements inwardly toward the center of the table, and means interposed between the conical head and said elements whereby in the normal position of the head they are forced outwardly away from the center of the table, substantially as described.

5. In combination, a shaft, a head thereon, a table connected to rotate with the head, a plunger movably mounted between the table and head and carrying a second head having diverging sides located centrally in an opening through the table, means to operate the plunger toward the table, means connected with the plunger to operate it in opposite direction, clutch elements mounted on the table around said second head and movable over the face of the table, means normally operating said elements inwardly toward said second head, and means engaging against the diverging side of said head and interposed between said head and said elements for forcing them outwardly when the head occupies its normal position, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,204,026. RING-SLOT-TESTING DEVICE. CHARLES E. JOHNSON, Muskegon, Mich. Filed Jan. 22, 1916. Serial No. 73,605. (Cl. 73—51.)



1. In a device of the character described, a support, a cylindrical testing barrel having a longitudinal slot therein, carried by the support, and means to force a plurality of piston rings through said barrel whereby the partings in said rings may pass by and be visible through the slot.

2. In a device of the character described, a body including a base having guides longitudinally disposed thereon, a cylindrical testing barrel having a slot in its upper side secured at one end of the body, and means to force a plurality of piston rings through said barrel.

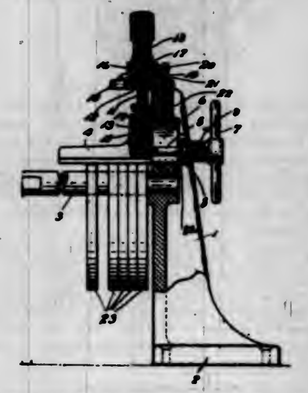
3. In a device of the character described, a body, a cylindrical testing barrel attached to the body, said barrel having a slot cut in its upper side, means to force piston rings through the barrel, and means to locate all of the rings with the partings thereon in position to pass under the slot in the barrel.

4. In a device of the character described, a body comprised of a base having upwardly and outwardly diverging longitudinally disposed guides thereon, a plunger located to move over the guides, a testing barrel secured to the end of said body in front of the plunger, said barrel being provided with a longitudinal slot in its upper side, means for reciprocating the plunger over the guides, and means on the plunger for positioning piston rings with the slots therein in upper position.

5. In a device of the character described, a support, a plunger, guides on the support for guiding the movements of the plunger, means for moving the plunger back and forth and a testing barrel secured to the support in front of the plunger, said barrel at its front end having an interior diameter larger than at its rear testing section and provided with a longitudinal slot in the upper part of the rear testing section.

[Claims 6 to 8 not printed in the Gazette.]

1,204,027. ROUGH-RING-TESTING APPLIANCE. CHARLES E. JOHNSON, Muskegon, Mich. Filed Jan. 22, 1916. Serial No. 73,606. (Cl. 33—165.)



1. In combination, a support having a vertical slot therein, a rod projecting from the support, a jaw located adjacent the rod with the adjacent surfaces of the rod and jaw positioned parallel to each other, means to move the jaw on the support a measured distance, a pin attached to the jaw and extending through said slot in the support, and a member having an interiorly threaded hub threaded onto the end of the pin to effect the clamping of the jaw to the support, substantially as described.

2. In combination, an upright support, a rod having a curved upper surface projecting therefrom a distance above the base of the support, a jaw located above the rod with its underside parallel to the upper surface of the rod, a vertical extension to the jaw positioned adjacent and parallel to the support, a plate attached to the upper end of the support and extending over said extension, a screw threaded member mounted on the plate and connecting with said extension whereby rotation of the member will raise or lower the jaw, and means for clamping the jaw at any desired position of adjustment thereof.

3. In combination, an upright support, a rod extending in substantially horizontal position from the support, a jaw having its under surface parallel with the upper surface of the rod mounted above said rod, means to clamp the jaw to the support in any of a plurality of positions, a plate attached at the upper end of the support and extending over the jaw, a vertical extension to the jaw provided with an opening extending inwardly from the upper end of the extension, a member passing through the plate and threaded at its lower end, an interiorly threaded sleeve seated in said opening in said extension into which said lower end of the member projects, a collar attached to the member above the plate, a sleeve adjustably mounted on the collar, a disk provided with radial gradations on the sleeve, and an operating head attached to the member above said collar and sleeve.

1,204,028. MACHINE FOR ASSEMBLING PISTON-RINGS AND PISTONS. CHARLES E. JOHNSON, Muskegon, Mich. Filed Mar. 20, 1916. Serial No. 85,349. (Cl. 29—84.)



1. In combination, means to hold a piston, means to expand a piston ring laid on the upper end of the piston, separate means to move the ring over the piston after it is expanded, and means to operate said expanding means and moving means, substantially as described.

2. In combination, a support, a piston holder on the support, a ring expander and a plunger movably mounted above the piston holder, and means for operating said ring expander and plunger to a lower position to expand a piston ring on and carry it over a piston held by the piston holder.

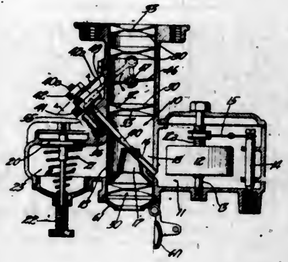
3. In combination, a support, a bracket on the support carrying a guide, a vertical tube slidably mounted for vertical movements in the guide, means for reciprocating the tube in the guide, an inverted cup-like plunger connected to the lower end of the tube, a rod movably mounted in the tube and a piston ring spreader secured at the lower end of the rod.

4. In combination, a support, a bracket adjustable on the support to different positions, a guide on the bracket, a tube positioned vertically and slidable in the guide, means for reciprocating the tube in the guide, an inverted cup-like plunger detachably connected to the lower end of the tube, a rod movably mounted within the tube and extending into the plunger, and a piston ring spreader detachably secured at the lower end of the rod.

5. In combination, an upright support, a bracket adjustable on the support to different positions, a guide on the free end of the bracket, a tube loosely mounted in the guide, a handle pivotally connected to an end of the tube, link connections between one end of the handle and the bracket, an inverted cup-like plunger attached to the opposite end of the tube, a spring between the handle and bracket normally elevating the handle and tube, a rod loosely mounted lengthwise of and extending through the tube, a spring operating the rod toward the plunger end of the tube, a head having a plurality of radial slots secured to the end of the rod which extends into the plunger, a plurality of fingers pivotally mounted on the head and positioned in the slots, and a piston holding member positioned directly below the plunger and fingers.

[Claims 6 and 7 not printed in the Gazette.]

1,204,029. CARBURETER. JOHN R. JOHNSON, Los Angeles, Cal. Filed Oct. 12, 1914. Serial No. 866,248. (Cl. 261—51.)



1. A carbureter of the class described, comprising a vertical carbureting tube, a primary air inlet embodying a nozzle of less diameter than the tube projecting upwardly into its lower end so that there is an annular space around the nozzle in the lower end of the carbureting tube, fuel inlet means embodying a fuel inlet tube extending diagonally upwardly and across the carbureting tube to a point at the center of the upper end of the nozzle, a needle valve to control discharge of fuel from said tube, auxiliary air inlet means for admitting air to the space around the nozzle, a throttle across the carbureting tube above the nozzle, and means whereby movement of the throttle causes coöperative movement of the needle valve to vary the discharge of fuel from the fuel inlet tube.

2. A carbureter of the class described, comprising a vertical carbureting tube, a primary air inlet embodying a nozzle of less diameter than the tube projecting upwardly into its lower end so that there is an annular space around the nozzle in the lower end of the carbureting tube, fuel inlet means embodying a fuel inlet tube extending diagonally upwardly and across the carbureting tube to a point at the center of the upper end of the nozzle, a needle valve to control discharge of fuel from said tube, auxiliary air inlet means for admitting air to the space around the nozzle, a throttle across the carbureting tube above the nozzle, and means whereby movement of the throttle causes coöperative movement of the needle valve to vary the discharge of fuel from the fuel inlet tube, and manually operable means for moving said needle valve to open the discharge of the fuel inlet tube.

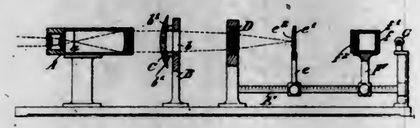
3. A carbureter of the class described, comprising a carbureting chamber, a primary air inlet thereto embodying a nozzle projecting into the chamber with an annular space in the chamber around the nozzle, a fuel inlet discharging at the inner end of said nozzle, an auxiliary air inlet admitting air to the space around the nozzle, and means for causing agitation of the stream of air drawn through the carbureting chamber.

4. A carbureter of the class described, comprising a vertical carbureting tube, a primary air inlet at the bottom of the tube embodying a nozzle concentric with and projecting up into the lower end of the tube, the nozzle being smaller than the tube so that there is an annular space in the lower part of the tube around the nozzle, fuel inlet means discharging centrally at the upper end of the nozzle, said means embodying a fuel nozzle projecting diagonally upwardly and across the nozzle to the center of its upper end, an auxiliary air inlet means admitting air to the space around the nozzle.

5. In carbureters, a carbureting and mixing tube, a primary air inlet at the bottom of the tube embodying a convergent nozzle projecting up into the tube being of

smaller diameter than the tube so as to leave an annular space around the nozzle within the tube, an auxiliary air inlet means for admitting air to the annular space surrounding the nozzle, and a fuel inlet means embodying a fuel nozzle projecting diagonally across and upwardly through the upper part of the air nozzle to the center of its upper end, and a valve stem coöperating with the fuel nozzle projecting diagonally downwardly and across above the upper end of the air nozzle in line with the fuel nozzle.

1,204,030. LENS CENTERING AND MEASURING INSTRUMENT. GUSTAV A. H. KELLNER, Rochester, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed July 14, 1916. Serial No. 109,253. (Cl. 88—56.)



1. A lens centering instrument comprising an observing telescope, a support for a lens to be marked and a target focusing lens coöperating therewith, of a real target member and means for producing an image target, said real target and image target means being adjustable relatively toward and from each other and the support for the lens to be marked.

2. A lens centering instrument comprising a locating member for a lens to be marked, an observing telescope at one side of the member, a support having a fiducial line located at the other side of the member and intersecting the optical axis of the telescope, means for producing an image of a second line intersecting the axial plane of the fiducial line and a lens located to focus in the respective foci of the lens to be marked images of the fiducial line and the image of the intersecting line.

3. A lens centering instrument comprising a locating member for a lens to be marked, an support at the other side thereof carrying a fiducial line and adjustable to move said line longitudinally in the optical axis of the instrument, a second adjustable support, means carried thereon for forming in said axis an image of a line intersecting the fiducial line and a lens positioned to focus into the respective foci of the lens to be marked images of the fiducial line and the image of the intersecting line.

4. A target for use in measuring or centering lenses, or the like, comprising a fiducial line forming one of a pair of cross-hairs and means for producing an image of the line forming the second cross-hair, said means being adjustable to vary the position of the line image relatively to the fiducial line.

5. A target for use in measuring or centering lenses, or the like, comprising one line of a pair of cross-hairs supported, to give a real observation line, and means for producing an image of a line at an angle to the real observation line, the latter and the image being disposed for view one behind the other.

[Claim 6 not printed in the Gazette.]

1,204,031. SURPRISE AND ALARM DEVICE. JAMES L. KELLOGG, New York, N. Y. Filed Aug. 9, 1916. Serial No. 113,889. (Cl. 46—46.)

1. In a device of the character described, an exterior casing composed of separable sections held together with yielding firmness by a substantially air-tight joint and forming therein a chamber, a cap-mechanism within said chamber comprising a base, a spring actuated hammer-arm to explode a cap and an outer arm to restrain the hammer-arm in its set position for operation, and means within said chamber serving to hold the cap mechanism in set condition and to release the same to act when the exterior casing is jarred, the connection of said sections and the confinement of said chamber being such that upon the explosion of the cap said sections will fly apart, and said chamber being of sufficient size to permit the cap-mechanism when jarred from its confining means to operate therein.



2. In a device of the character described, an exterior casing composed of separable sections held together with yielding firmness by a substantially air-tight joint and forming therein a chamber, a cap-mechanism within said chamber comprising a base, a spring actuated hammer arm to explode a cap and an outer arm to restrain the hammer arm in its set position for operation, means within said chamber serving to hold the cap-mechanism in set condition and to release the same to act when the exterior casing is jarred, and a loose cord connecting said sections so as to limit their extent of separation when the explosion of the cap takes place.

3. In a device of the character described, an exterior casing composed of separable sections held together with yielding firmness by a substantially air-tight joint and forming therein a chamber, a cap-mechanism within said chamber comprising a base, a spring actuated hammer arm to explode a cap and outer arm to restrain the hammer arm in its set position for operation, means within said chamber serving to hold the cap-mechanism in set condition and to release the same to act when the exterior casing is jarred, and a loose cord connecting said sections and cap-mechanism so as to limit their extent of separation when the explosion of the cap taken place.

4. In a device of the character described, an exterior casing composed of separable sections held together with yielding firmness by a substantially air-tight joint and forming therein a chamber, a cap-mechanism within said chamber comprising a base, a spring actuated hammer arm to explode a cap and an outer arm to restrain the hammer arm in its set position for operation, and a recess within said casing affording opposing walls serving to hold the cap-mechanism in set condition and to release the same to act when the exterior casing is jarred, the connection of said sections and the confinement of said chamber being such that upon the explosion of the cap said sections will fly apart, and said chamber being of sufficient size to permit the cap-mechanism when jarred from its confining means to operate therein.

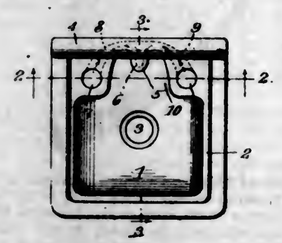
5. In a device of the character described, an exterior casing of ball-outline composed of matching sections held together in a substantially air-tight manner by a tongue-and-groove joint and forming therein a chamber, a spring-actuated cap-mechanism within said chamber for exploding a cap therein while said sections are together for driving the sections apart, and means within said chamber serving to hold the cap-mechanism in set position and to release the same to act when the exterior casing is jarred.

[Claim 6 not printed in the Gazette.]

1,204,032. MANUFACTURE OF BEVERAGE EXTRACTS. JOHN LEONARD KELLOGG, Battle Creek, Mich., assignor to Kellogg Toasted Corn Flake Company, Battle Creek, Mich., a Corporation of Michigan. Filed Dec. 18, 1915. Serial No. 67,510. (Cl. 99—11.)

A soluble beverage extract comprising in its composition the extractive matter of roasted algarroba beans, soy beans, and caramelised saccharine material.

1,204,033. LAVATORY. JOHN F. KELLY, Trenton, N. J., assignor to Thomas Maddock's Sons Company, Trenton, N. J., a Corporation of New Jersey. Filed Aug. 19, 1916. Serial No. 115,785. (Cl. 4—1.)



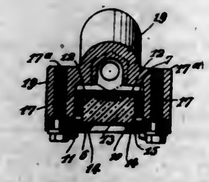
1. In a porcelain lavatory, a bowl, an integral back rising from the top thereof and an integral supply nozzle for said bowl projecting forward from said back at a point above the level of the bowl.

2. In a porcelain lavatory, a bowl, a slab integral therewith, an integral back rising above said slab, an integral supply nozzle for said bowl projecting forward from said back above said slab and supply passages leading from the slab through the back to said nozzle.

3. In a porcelain lavatory, a bowl, a back rising above the top thereof and integral therewith and a supply nozzle projecting forwardly from said back above the top of the bowl, said bowl being provided with a recess in the rear wall beneath said nozzle.

4. In a porcelain lavatory, a bowl, a slab integral therewith, an integral back rising above said slab and an integral supply nozzle projecting forward from said back at a point above said slab, said bowl being provided with a recess in the rear wall thereof symmetrically arranged beneath said nozzle.

1,204,034. WATER-GAGE FOR STEAM-BOILERS AND SIMILAR APPARATUS. EDGAR A. KELSEY, Mount Vernon, N. Y. Filed Apr. 14, 1916. Serial No. 91,132. (Cl. 73—54.)



1. A device for securing the glass in a water gage, comprising a frame plate provided with means for securing it to the gage casing, and having an opening corresponding in shape and size to the shape and size of the glass; a flange around, and partly reducing, the opening in the frame plate; a packing, conforming to the flange, and laid thereon; a frame adapted to partially inclose the glass, and means for securing the frame to the frame plate, to hold the glass inclosed thereby against the packing; substantially as herein shown and described.

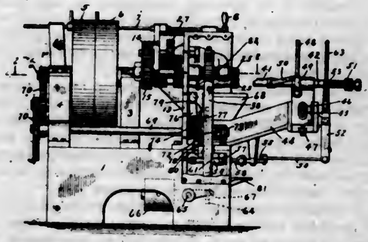
2. A device for securing the glass in a water gage, comprising a frame plate provided with means for securing it to the gage casing and having an opening corresponding in shape and size to the shape and size of the glass; a flange around, and partly reducing, the opening in the frame plate; a ridge on the inner side of the flange, a packing conforming to the flange, laid thereon; a frame adapted to partially inclose the glass, and means for securing the frame to the frame plate, to hold the glass against the packing; substantially as herein shown and described.

3. A water gage for steam boilers and for similar apparatus, comprising an open casing, provided with means for connecting it to the boiler; a plate fitted thereon, and having an opening therein, a flange surrounding the opening; an open frame, flanges on the sides in the rear of the frame; a glass fitted into the frame, and into the opening of the plate; a packing set in, between the glass and the flange surrounding the opening in the plate; means for securing the frame to the plate, and means for securing the plate upon the casing; substantially as herein shown and described.

4. A water gage for steam boilers and for similar apparatus, comprising an open casing, provided with means for connecting it to the boiler, a plate fitted thereon, and having an opening therein, a flange surrounding the opening; a ridge on the inner side of the flange; a packing laid on the flange; an open frame, flanges on the sides in the rear of the frame; a glass fitted into the frame, and into the opening of the plate; means for securing the frame to the plate, and means for securing the plate upon the casing; substantially as herein shown and described.

5. A water gage for steam boilers and for similar apparatus, comprising an open casing provided with means for connecting it to the boiler, an outlet at one end of the casing, a plug removably set therein, a plate fitted upon the casing and having an opening therein, a flange surrounding the opening; a ridge on the inner side of the flange, a packing laid on the flange; an open frame, flanges on the sides in the rear of the frame; a glass, fitted into the frame, and into the opening of the plate; means for securing the frame to the plate, and means for securing the plate upon the casing; substantially as herein shown and described.

1,204,035. SCREW-THREAD-ROLLING MACHINE. WILLIAM L. KERLIN, New York, N. Y., assignor to Edward R. Welles, New York, N. Y. Filed Oct. 15, 1913. Serial No. 795,181. (Cl. 80—6.)



1. In a screw thread rolling machine, the combination of a plurality of parallel shafts, roller dies on the ends of said shafts and a lever one arm of which forms a support for one of said shafts.

2. In a screw thread rolling machine, the combination of a plurality of parallel roller die shafts and an adjustable lever forming a support for one of said shafts.

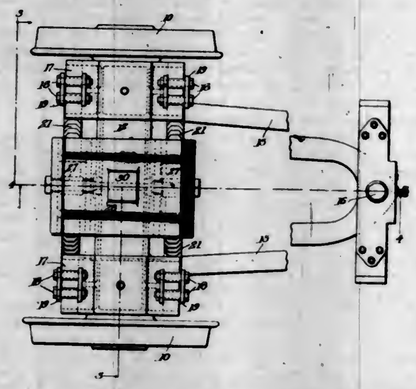
3. In a screw thread rolling machine, the combination of a plurality of parallel roller die shafts having driving pinions at one end, levers having arms adapted to bodily carry two of said shafts and means acting on said levers for adjusting the position of said shafts.

4. In a screw thread rolling machine, the combination of a plurality of parallel roller die shafts, driving pinions at one end of said shafts, a lever in one arm of which one of said shafts is rotatively mounted and means acting on the other arm of said lever to adjust the position of said shaft.

5. In a screw thread rolling machine, the combination of a plurality of parallel roller die shafts having driving pinions thereon, means for bodily adjusting one of said shafts and means for bodily moving another of said shafts to automatically discharge the bolt from between the roller dies.

[Claims 6 to 26 not printed in the Gazette.]

1,204,036. LOCOMOTIVE. WILLIAM F. KIESEL, JR., Altoona, Pa. Filed Mar. 20, 1916. Serial No. 85,428. (Cl. 105—226.)



1. In a railway vehicle, the combination of a truck including a truck bolster, a body frame, a frame supporting member rigidly secured to the frame, and a rocker having means at its lower end whereby it is pivoted on said truck bolster, and also having a bearing surface on the top end thereof upon which said supporting member is mounted, said rocker and frame supporting member having interfitting parts.

2. In a locomotive, the combination of a truck including a truck bolster, a body frame, a frame supporting member rigidly secured to the frame above said bolster, and a rocker having openings at its lower end to receive pins whereby it is pivotally connected to said bolster, said rocker having a flat supporting surface at the outer end thereof upon which said frame supporting member is mounted, said rocker being pivoted so as to swing transversely of the locomotive.

3. In a locomotive, the combination of a truck including a bolster and springs for supporting said bolster, a body frame, a frame supporting casting rigidly secured to the body frame centrally above the bolster, and a rocker pivoted on the bolster so as to swing transversely of the locomotive and having a bearing surface upon which said body supporting casting is mounted.

4. A rocker support for the purpose set forth having a head provided with a bearing surface on the upper side thereof, and having parts on the lower side thereof provided with openings whereby the rocker may be pivotally mounted on a truck.

5. A rocker support of the class described having a head provided on its top with a flat bearing surface, and having jaws at the lower end thereof provided with openings to receive pins whereby the rocker may be pivotally connected to and mounted on a truck.

[Claims 6 to 15 not printed in the Gazette.]

1,204,037. LAMINATED SPRING. FRANK J. LAHER, Portland, Oreg. Filed July 25, 1916. Serial No. 111,250. (Cl. 267—35.)

1. An improved laminated spring comprising a plurality of leaves, and a tie-strap welded to the edges of the leaves at the middle portion of the spring.

2. An improved laminated spring comprising a plurality of leaves, and a tie-strap welded to the edges of both sides of the leaves, the tie-straps being oppositely spaced from the middle of the spring.

3. An improved laminated spring comprising a plurality of leaves, and a tie-strap welded to the edges of both sides of the leaves at the middle portion of the spring.

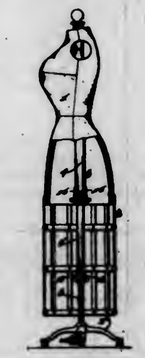
4. An improved laminated spring comprising a plurality of leaves, a tie-strap welded to the edges of the leaves at the middle portion of the spring, and supplemental tie-straps, or keepers, encompassing the leaves at the ends of the springs.



5. An improved laminated spring comprising a plurality of leaves, a tie-strap welded to the edges of the leaves at the middle portion of the spring, supplemental tie-straps, or keepers, encompassing the leaves at the ends of the springs, and one of the outermost leaves having an outwardly projecting stud-pin inserted therein.

[Claims 6 to 8 not printed in the Gazette.]

1,204,038. COLLAPSIBLE GARMENT-FORM STAND. ISAAC LEVIN, Brooklyn, N. Y. Filed Nov. 8, 1915. Serial No. 60,222. (Cl. 223—18.)



1. An adjustable standard for garment-forms, comprising a base, a fixed post carried thereby, a tubular post slidably supported by said fixed post and adapted for rotation thereupon, a clutch carried by said fixed post, consisting of a vertically movable pin, a plate carried by said pin and contacting with the inner surface of the tubular post, said plate being angularly disposed relative to the axis of said post, the length of said plate being greater than the diameter of the tubular post, and means to actuate said pin.

2. An adjustable standard for garment-forms, comprising a base, a fixed post carried thereby, a tubular post slidably supported by said fixed post and adapted for rotation thereupon, a clutch carried by said fixed post, consisting of a vertically movable pin, a plate carried by said pin and contacting with the inner surface of the tubular post, said plate being angularly disposed relative to the axis of said post, the length of said plate being greater than the diameter of the tubular post, and means to actuate said pin, said means normally contacting with but not secured to said pin.

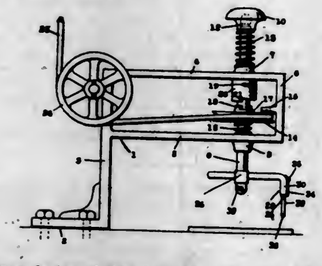
3. An adjustable standard for garment-forms, comprising a plurality of telescoping posts, a plurality of clutches to lock the posts in adjusted positions, each of said clutches consisting of a fixed member, a movable member, and a plate actuated by the movable member arranged to contact with the inner surface of its coöperating post, each plate being angularly disposed relative to the axis of the standard, means to actuate the movable member of the lower clutch, the movable member of the upper clutch being arranged to release its plate when its movable member comes in contact with the lower clutch.

4. In an adjustable standard for garment-forms, a plurality of slidably connected tubular posts, a clutch carried by one of said posts consisting of a block secured to one of said posts, and a movable block adjacent said fixed block, together with a plate passing loosely through said blocks and contacting at each end with the inner surface of the other of said posts, said plate being angularly disposed relative to the axis of the standard, and means to actuate said movable block.

5. An adjustable standard for garment-forms comprising a plurality of slidably connected tubular posts, a clutch, consisting of a plate contacting with the inner surface of one of said posts and angularly disposed relative to the axis thereof, means carried by the other of said posts arranged to loosely support said plate, said supporting means consisting of a fixed member and a movable member, and means to actuate said movable member.

[Claims 6 to 13 not printed in the Gazette.]

1,204,039. GLASS-CUTTING MACHINE. CHARLES F. LINDEBURG, Newark, N. J. Filed Nov. 10, 1915. Serial No. 60,637. (Cl. 33—27.)



1. In a device of the character described, the combination with a frame, of a spindle rotatably and slidably mounted in said frame, a cutting tool in said spindle, clutch members one fast on the spindle and the other loose, means for driving said loose clutch member, and means normally holding the spindle slid away from the work and the clutch thrown out, said parts being arranged and adapted so that pressure upon the spindle to engage the tool with the work throws in the clutch before said tool engages the work and holds it in engagement until the tool is withdrawn from the work.

2. In a device of the character described, the combination with a frame, of a spindle rotatably and slidably mounted in said frame, a tool in said spindle, a clutch member rotatably mounted upon the spindle, means for rotating said clutch member, and a co-acting clutch member fast upon the spindle and adapted to engage or be released from the first-mentioned clutch member as the spindle is slid in one direction or the other.

3. In a device of the character described, the combination with a frame, of a spindle rotatably and slidably mounted in said frame, a tool in said spindle, a clutch member rotatably mounted upon the spindle, means for rotating said clutch member, a co-acting clutch member fast upon the spindle and adapted to engage or be released from the first-mentioned clutch member as the spindle is slid in one direction or the other, and means for retaining the clutch members separated when the spindle is slid in one direction.

4. In a device of the character described, the combination with a frame, of a spindle rotatably and slidably mounted in said frame, a tool in said spindle, a clutch member rotatably mounted upon the spindle, means for rotating said clutch member, a co-acting clutch member fast upon the spindle and adapted to engage or be released from the first-mentioned clutch member as the spindle is slid in one direction or the other, and means for sliding said spindle in the direction for normally releasing the clutch members.

5. In a device of the character described, the combination with a frame, of a spindle rotatably and slidably mounted in said frame, a tool in said spindle, a clutch member rotatably mounted upon the spindle, means for rotating said clutch member, a co-acting clutch member fast upon the spindle and adapted to engage or be released from the first-mentioned clutch member as the spindle is slid in one direction or the other, means for sliding said spindle in the direction for normally releasing the clutch members, and means for separating the clutch members as the spindle is slid by said sliding means.

[Claims 6 to 12 not printed in the Gazette.]

1,204,040. FIRE-EXTINGUISHER. HARRY M. MCCASLIN, Elmira, N. Y., assignor to American La France Fire Engine Company, Inc., Elmira, N. Y., a Corporation of New York. Filed Mar. 13, 1916. Serial No. 83,875. (Cl. 169—17.)



1. In an extinguisher, the combination of a fluid container having a discharge nozzle, and means communicating between said nozzle and the low part of the container in all of its positions, with a diaphragm pump mounted upon and communicating with said container.

2. In an extinguisher, the combination of a fluid container, a discharge nozzle therefor, a pump formed of two connected diaphragms supported in said container, a fixed support centrally engaging one diaphragm, a ring connecting the diaphragms at their edges and forming a contracting and expanding pump chamber, a rod engaging the other diaphragm at its center, a hand lever pivotally mounted upon the container and connected with the outer end of said rod, and valved inlet and outlet ports to the chamber between said diaphragms.

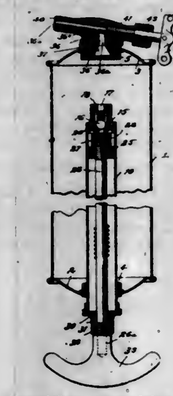
3. In an extinguisher, the combination of a fluid container, a discharge nozzle therefor, a pump supported in said container, a hand lever pivotally mounted upon the container and operatively connected with said pump, and a turn cock controlling the nozzle passage way and adapted to engage the hand lever and lock it against movement.

4. In an extinguisher, the combination of a fluid container, a discharge nozzle therefor, a pump supported in said container, a pump rod passing through a bearing opening in a wall of said container, a hand lever pivotally mounted upon the container and connected with said rod and formed with a slot, a turn cock in the nozzle, and a handle on the stem of said cock adapted to enter said slot and engage said hand lever.

1,204,041. HAND FIRE-EXTINGUISHER. HARRY M. MCCASLIN, Elmira, N. Y., assignor to American La France Fire Engine Company, Inc., Elmira, N. Y., a Corporation of New York. Filed May 24, 1916. Serial No. 99,551. (Cl. 169—12.)

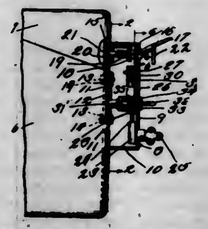
1. A fire extinguisher comprising a liquid container having a hand operated fluid expelling pump in communi-

cation with the container and a discharge nozzle communicating with the normal low point of the container and extending at an angle to the major axis thereof.



2. A fire extinguisher comprising a liquid container having a hand operated reciprocating fluid expelling pump projecting into the container from one end in line with its longitudinal axis and a nozzle mounted upon the opposite end of the container in communication with the normal low point of the container and extending at an angle to the longitudinal axis of said pump.

1,204,042. COMBINED SWITCH AND BOX LOCK. JOHN H. MCCLURE, Detroit, Mich., assignor of one-half to Fred C. McClure, Detroit, Mich. Filed Feb. 28, 1916. Serial No. 80,994. (Cl. 70—27.)



1. In a device of the class described, the combination with a box and a lid therefor, of a casing secured to said box, a plunger mounted within said casing and adapted for engagement with said top, the said plunger being provided with an annular groove, a lock in said casing having a bolt adapted for movement toward and away from said plunger, a plate mounted for sliding movement within said casing and normally engaged at one end with said bolt, the opposite end of said plate being bifurcated and adapted to fit within said groove, and means for retracting said plunger, substantially as described.

2. In a device of the class described, the combination with a box and a lid therefor, of a casing secured to said box, a plunger normally engaged with said lid, a lock within said casing, the said lock being provided with a bolt adapted for movement toward and away from said plunger, a plate normally engaged at one end with said bolt, means at the opposite end of said plate for engaging said plunger when said bolt is extended, a head on said plate, a switch stem, a nut on said stem, the said nut being provided with a flat face to be engaged by said head, and means for retracting said plate, substantially as described.

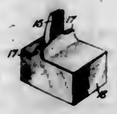
3. In a device of the class described, the combination with a switch operating knob, of a casing inclosing said knob, a lock within said casing having a bolt adapted for movement toward and away from said knob, a plate mounted for sliding movement within said casing, a head on said plate, means for yieldably holding said plate in engagement with said bolt, the said plate being provided with a longitudinally disposed slot, a stem extending through said casing and slot and supporting said knob, a nut on said stem connecting said knob, and the said nut being provided with a flat face for engagement with said head, substantially as described.

4. In a device of the class described, a casing, a plunger mounted to extend transversely of said casing, the said plunger being provided with an annular groove, a lock adjacent the opposite end of said casing and having a bolt adapted for movement toward and away from said plunger, a plate slidably mounted within said casing with one end engaged with said bolt, the opposite end of said plate being bifurcated and adapted to engage said annular groove, the said plate being provided with a longitudinally disposed slot, a stem projecting through said slot, a nut on said stem, the said nut having a flat face adapted for engagement with said plate when the latter is extended, and means for retracting said plate, substantially as described.

5. In a device of the class described, a box having a cover, a casing secured to said box, a plunger in said casing, means tending normally to hold said plunger in engagement with said cover, a shoulder on said plunger, a lock in said casing having its bolt adapted to be moved toward and away from said plunger, a plate mounted for sliding movement within said casing and having its ends lying adjacent said shoulder and bolt respectively, and means for holding said plate engaged with said bolt, substantially as described.

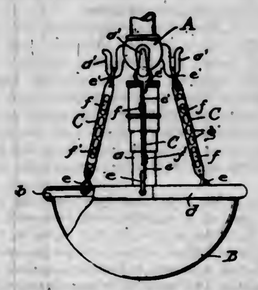
[Claims 6 and 7 not printed in the Gazette.]

1,204,043. HORSESHOE-CALK. JAMES MCDONOUGH, Montclair, N. J. Filed July 17, 1916. Serial No. 109,666. (Cl. 168—29.)



The combination with a horseshoe having a longitudinal side groove in its face, and nail holes therein, of a calk having its inner side or face provided with a tapered tang for insertion in one of said holes and lateral wedge-shaped fins formed at the base of the tang and on opposite sides of the same, the fins being adapted to seat in the groove in the manner described.

1,204,044. LIGHTING-FIXTURE. HARRISON D. MCFADDIN, East Orange, N. J. Filed July 7, 1915. Serial No. 38,403. (Cl. 240—78.)



1. A connection for supporting a lamp shade upon a fixture, embodying, in combination, a pair of elongated strips each of which is provided with a plurality of alined slots positioned at spaced distances longitudinally of the strips, and a hook at the one end of each of said strips, the hook of the one strip being adapted to engage with any one of the slots of the other strip, whereby the length of the connection may be regulated.

2. A connection for supporting a lamp shade upon a fixture, embodying, in combination, a pair of elongated strips, each of which is provided with a plurality of alined slots positioned at spaced distances longitudinally of the strips, the hook of the one strip being adapted to engage with any one of the slots of the other strip, whereby the length of the connection may be regulated, and means for locking said hooks against inadvertent disengagement from the slots.

3. A connection for supporting a lamp shade upon a fixture, embodying, in combination, a pair of elongated strips, each of which is provided with a plurality of slots positioned at distances longitudinally of the strips, and a hook at the one end of each of said strips, the hook of the one strip being adapted to engage with any ope of the slots of the other strip, whereby the length of the connection may be regulated, and a projection on the inner side and near the free end of each of said hooks which projection is adapted to engage with a portion of the cooperating strip intermediate the slots thereof for the purpose of locking the hook in predetermined position.

4. A connection for supporting a lamp shade or reflector upon a fixture, embodying, in combination, a pair of elongated members each of which is provided with a plurality of openings positioned longitudinally of said members, and an attaching member at one end of each of said members, the attaching member on the one member being adapted to engage with any one of the openings of the other member, whereby the length of the connection may be regulated.

5. A connection for supporting a lamp shade or reflector upon a fixture, embodying, in combination, a pair of elongated members each of which is provided with a plurality of openings positioned longitudinally of said members, an attaching member at one end of each of said members, the attaching member on the one member being adapted to engage with any one of the openings of the other member, whereby the length of the connection may be regulated, and means for locking said attaching members against inadvertent disengagement from the openings of the respective members.

[Claim 6 not printed in the Gazette.]

1,204,045. HOG-RINGER. WILLIAM L. MCGOWAN, Galt, Mo. Filed Apr. 5, 1916. Serial No. 89,101. (Cl. 128—27.)



1. In a hog ringer as set forth, a pair of members crossing each other, a pivot pin pivotally uniting said members at their crossing point, said members having clenching jaws provided with clenching pockets forward of their pivot and terminating rearwardly in operating handles, a pair of plates pivoted flatwise one upon the other upon the pivot pin and terminating at their forward ends in curved channeled magazine jaws, said plates having means to limit the jaws so that the pockets will register with the magazine jaws when the clenching jaws are open, a screw on the pivot pin, and a member on the screw having connections with said plates for adjusting the same, whereby the magazine jaws may accommodate hog rings of different sizes, a spring device having spring arms mounted upon the pivot pin and designed to bear upon a plurality of hog rings mounted in the magazine jaws.

2. In a hog ringer as set forth, a pair of members crossing each other, a pivot pin pivotally uniting said members at their crossing point, said members having clenching jaws provided with clenching pockets forward of their pivot and terminating rearwardly in operating handles, a pair of plates pivoted flatwise one upon the other upon the pivot pin and terminating at their forward ends in curved channeled magazine jaws, said plates having means to limit the jaws so that the pockets will register with the magazine jaws when the clenching jawse are opened, a screw on the pivot pin, and a member on the screw having connections with said plates for adjusting the same, whereby the magazine jaws may accommodate hog rings of different sizes, and a spring device having spring arms mounted upon the pivot pin and designed to bear upon a plurality of hog rings mounted in the magazine jaws.

3. In a hog ringer as set forth, a pair of members crossing each other, a pivot pin pivotally uniting said members at their crossing point, said members having clenching jaws provided with clenching pockets forward of their pivot and terminating rearwardly in operating handles, a pair of plates pivoted flatwise one upon the other upon the pivot pin and terminating at their forward ends in curved channeled magazine jaws, said plates having means to limit the jaws so that the pockets will register with the magazine jaws when the clenching jaws are opened, a screw on the pivot pin, and a member on the screw having connections with said plates for adjusting the same, whereby the magazine jaws may accommodate hog rings of different sizes, and a spring device having spring arms mounted upon the pivot pin and designed to bear upon a plurality of hog rings mounted in the magazine jaws, the lateral extremities of the magazine jaws having lugs to be engaged by the spring arms of the spring device to hold the spring arms out of the way while inserting a plurality of hog rings in magazine jaws.

4. In a hog ringer as set forth, a pair of members crossing each other, a pivot pin pivotally uniting said members at their crossing point, said members having clenching jaws provided with clenching pockets forward of their pivot and terminating rearwardly in operating handles, a pair of plates pivoted flatwise one upon the other upon the pivot pin and terminating at their forward ends in curved channeled magazine jaws, said plates having means to limit the jaws so that the pockets will register with the magazine jaws when the clenching jaws are opened, a screw on the pivot pin, a sleeve threaded on the screw and provided with an annular groove, and a plate arching in said groove and connected to said first named plates for adjusting the same, whereby the magazine jaws may accommodate hog rings of different sizes.

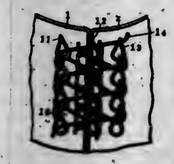
5. In a hog ringer as set forth, a pair of members crossing each other, a pivot pin pivotally uniting said members at their crossing point, said members having clenching jaws provided with clenching pockets forward of their pivot and terminating rearwardly in operating handles, a pair of plates pivoted flatwise one upon the other upon the pivot pin and terminating at their forward ends in curved channeled magazine jaws, a screw on the pivot pin, a sleeve threaded on the screw and provided with an annular groove, a plate arching in said groove and connected to said first named plates for adjusting the same, whereby the magazine jaws may accommodate hog rings of different sizes, said plates having laterally depending angular arms for limiting the clenching jaws correspondingly to the adjustment of the magazine jaws, whereby the pockets, when the clenching jaws are open, will register with the channels of the magazine jaws.

[Claim 6 not printed in the Gazette.]

1,204,046. SEAM. JOHN EDWARD MCLOUGHLIN, Utica, N. Y. Filed Aug. 22, 1914. Serial No. 858,116. (Cl. 112—34.)

1. In a seam, the combination with a jointed fabric, of three longitudinal lines of stitches connected together transversely on one side of the plane of the fabric by a thread which passes through a loop in each of said lines of stitches and around the next succeeding loop in each

of said lines, and by a thread on the other side of the plane of the fabric which passes through a loop in each of said lines of stitches and through the next succeeding loop in each of said lines, one of said longitudinal lines of stitches being on the opposite side of the joint in the fabric from one of the other said lines.

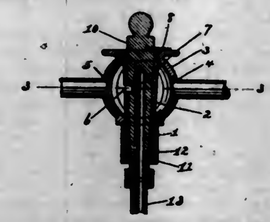


2. In a seam, the combination with a jointed fabric, of three longitudinal lines of stitches connected together transversely on one side of the plane of the fabric by a thread which passes through a loop in each of said lines of stitches and around the next succeeding loop in each of said lines, and by two threads on the other side of the plane of the fabric which pass respectively in opposite directions through a loop in each of said lines and through the next succeeding loop in each of said lines, one of said longitudinal lines of stitches being on the opposite side of the joint in the fabric from one of the other of said lines.

3. In a seam, the combination with a jointed fabric, of three longitudinal lines of stitches connected together transversely by a thread which passes over the joint and through a loop in each of said lines of stitches and around the next succeeding loop in each of said lines.

4. A fabric comprising lapped portions presenting a raw edge, a line of stitches along said edge, stitches transversely over said raw edge, the threads of the fabric included in said raw edge being compressed toward the line of union formed by said first-mentioned stitches to form a matted portion, and three additional lines of stitches generally parallel to said line of union, said transverse stitches comprising a thread which passes through the loops in each of said three additional lines of stitches and around the next succeeding loops in each of said three lines of stitches.

1,204,047. MIXING-VALVE. EDWARD MADDEN, Amsterdam, N. Y. Filed Apr. 21, 1913. Serial No. 762,449. (Cl. 137—26.)



1. A mixing device comprising a mixing chamber having an inlet and an outlet opening, a valve-case within the mixing chamber, a hollow valve plug within the valve-case having portions projecting from opposite sides thereof, one of said portions comprising operating means, and the other of said portions having an opening therethrough communicating with the hollow of said valve plug, and said valve plug having an aperture through its wall communicating with the hollow thereof and adapted to register with an aperture in the valve-case within the mixing chamber.

2. A mixing device comprising a mixing chamber having an inlet and an outlet opening, a valve-case within the mixing chamber, a hollow valve plug within the valve-case having portions projecting from opposite sides thereof, one of said portions comprising operating means, and the other of said portions having an opening therethrough communicating with the hollow of said valve plug, and said valve plug having an aperture through its wall communicating with the hollow thereof and adapted to register with an aperture in the valve-case within the mixing chamber, and an indicator for indicating the relative positions of the apertures in the valve plug and valve-case.

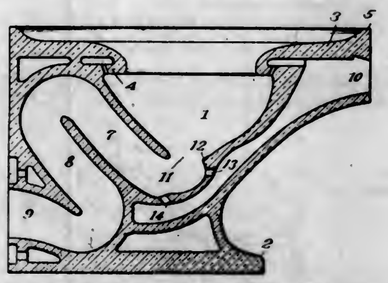
3. A mixing device comprising a mixing chamber having inlet and outlet openings, a valve-case within the mixing chamber, a hollow valve plug within the valve-case having portions projecting from opposite sides thereof, one of said portions having a supply opening therethrough communicating with the hollow of the valve plug, the valve plug having an aperture through its wall communicating with the hollow thereof and adapted to register with an aperture in the valve-case, and the other projecting portion of said valve plug having an indicator thereon for indicating the relative positions of the aperture through said valve plug and through said valve-case.

4. A mixing device comprising a mixing chamber having inlet and outlet openings; a valve-case within said mixing chamber, a rotatable valve plug within said valve-case, the valve-case having an aperture therethrough relatively longer than wide, the valve plug having an opening for registering with said aperture in the casing and having means for supplying material to be mixed to said opening and said mixing chamber being spherical.

5. A mixing device comprising a mixing chamber having inlet and outlet openings, a member projecting into said mixing chamber for supplying material to be mixed with material in said mixing chamber, said member having a substantially cylindrical part formed with a slot-like opening through the wall thereof extending for a considerable portion of its circumference through which the material to be mixed is directed toward a portion of the walls of the mixing chamber, and said portion of said walls being rounded.

[Claim 6 not printed in the Gazette.]

1,204,048. WATER-CLOSET. HAROLD S. MADDOCK, Trenton, N. J., assignor to Thomas Maddock's Sons Company, Trenton, N. J., a Corporation of New Jersey. Filed July 17, 1915. Serial No. 40,347. Cl. 4—22.)



1. In a siphon jet water closet, a bowl, a slab integral with the bowl and having an extended flat surface, raised edges on two sides and the back of the slab and a projecting part on the front edge concentric with the opening in the bowl.

2. In a siphon jet water closet, the combination of a bowl, siphon discharge passages, an inwardly projecting lug in the wall of said bowl adapted to form a contracted throat at the bottom of the bowl communicating between the bowl and said passages and of smaller size than said passages and two jet passages one of which is located immediately beneath said lug and arranged to direct the water horizontally across the contracted throat orifice in immediate proximity thereto whereby solid matter lodged in said throat will be directly engaged by the jet of water, the other jet being directed in line with the siphon leg substantially as and for the purpose described.

1,204,049. AUTOMOBILE-TRUCK. RALPH S. MAXWELL, Portland, Oreg., assignor of one-half to Julia M. Parker, Portland, Oreg. Filed Aug. 2, 1915. Serial No. 43,328. (Cl. 21—90.)



1. The combination with an auto truck having a longitudinal drive-shaft, of a plurality of carrying rollers transversely journaled on the body of the truck, a transverse jack-shaft, supported beneath the truck, a beveled gear fixed thereon, reversing pinions loosely mounted on said drive shaft and in mesh with said gear, said pinions made with clutch collars, and a clutch sleeve longitudinally movable on said drive shaft between said pinions, a driving connection from said transverse shaft to one of said rollers, driving connections from such roller to the other rollers, and means for throwing said longitudinally movable clutch sleeve into engagement with the clutch collar of either of said pinions.

2. In an automobile truck provided with transverse rolls journaled in the floor of the truck, connections between adjacent rolls for causing them to rotate in the same direction, driving gear connecting said rolls to the propeller shaft of the truck, means for controlling said driving gear, and means operated by the forward movement of the load on the truck for placing the driving gear in neutral position when said load reaches a predetermined position.

3. In an automobile truck provided with transverse rolls journaled in the floor of the truck, connections between adjacent rolls for causing them to rotate in the same direction, reversible driving gear connecting said rolls to the propeller shaft of the truck, a clutch lever for controlling said reversible driving gear, said clutch lever being provided with a locking bar, and means operated by the forward movement of the load on the truck for unlocking the clutch lever when said load reaches a predetermined position.

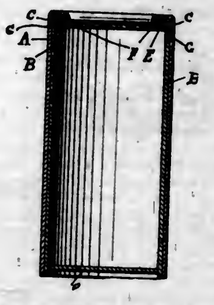
4. In an automobile truck provided with transverse rolls journaled in the floor of the truck, connections between adjacent rolls for causing them to rotate in the same direction, reversible driving gear connecting said rolls to the propeller shaft of the truck, a clutch lever for controlling said reversible driving gear, said clutch lever being provided with a locking bar, and means operated by the forward movement of the load on the truck for unlocking the clutch lever when said load reaches a predetermined position, said means comprising a trip lever, a rod underlying the locking bar of the clutch lever, and connections between the trip lever and the rod, so arranged that the rocking of the trip lever will elevate the rod and thereby unlock the clutch lever.

5. In an automobile truck provided with transverse rolls journaled in the floor of the truck, connections between adjacent rolls for causing them to rotate in the same direction, reversible driving gear connecting said rolls to the propeller shaft of the truck, a clutch lever for controlling said reversible driving gear, said clutch lever being provided with a locking bar, and means operated by the forward movement of the load on the truck for unlocking the clutch lever when the said load reaches a predetermined position, said means comprising a trip lever, a rod underlying the locking bar of the clutch lever, and connections between the trip lever and the rod, so arranged that the rocking of the trip lever will elevate the rod and thereby unlock the clutch lever, and means for returning said clutch lever to neutral position.

[Claims 6 to 11 not printed in the Gazette.]

1,204,050. CONTAINER. HOY A. MEYERS, Edon, Ohio. Filed June 9, 1915. Serial No. 33,117. (Cl. 229—12.)

1. A container containing a relatively long outer wall, a relatively short inner wall, and a cover resting on the inner wall and provided with a peripheral edge portion interlocking with the top edge portion of the outer wall to form a moisture proof, air-tight joint.



2. A container comprising a short inner wall and a long outer wall projecting above the inner wall, a cover adapted to rest on the top edge of the inner wall, and a flange carried by the cover and adapted to be interlocked with the portion of the outer wall projecting above the inner wall, said interlocking sections being then folded inward to produce a top flange for the closed container.

3. A container having a relatively short inner wall and a relatively long outer wall projecting above the inner wall, a cover adapted to seat on the inner wall and provided with an upstanding flange above which the upper portion of the outer wall projects, said outer wall being adapted to be folded inward over the flange, said flange and folded section of the outer wall being then bent laterally inward to form a top flange for the complete container.

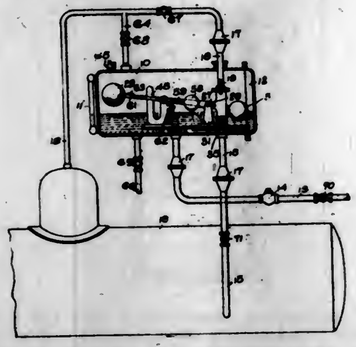
4. A container comprising a pair of tubular members one nested within the other, the outer surface of the inner member and the inner surface of the outer member being engaged throughout their extent, the ends of the outer member projecting beyond the ends of the inner member and the edges of the latter mentioned ends forming shoulders, a cover adapted to seat on said shoulders, an upstanding flange on said cover lying against the inner face of said outer member, the projecting end of said outer member being adapted to be folded inwardly from said flange, and said flange and folded end being then bent laterally and inwardly to form a top flange for the complete container.

1,204,051. HYDROCARBON-BURNER. JAMES MILLBOURN, New York, N. Y., assignor to Gas Engine & Power Co. and Charles L. Seabury & Co., Consolidated, New York, N. Y., a Corporation of New York. Filed Dec. 31, 1914. Serial No. 879,909. (Cl. 158—61.)



In a hydrocarbon burner, a tubular vaporizing chamber, a branched-out conduit from said vaporizing chamber, a needle valve controlling the outlet from said conduit, a mixing conduit adapted to receive the fuel controlled by the needle valve and separated from said branching-out conduit by an air gap, a tubular mixing chamber associated with the mixing conduit, said mixing chamber having perforations on the lateral surface thereof, means connecting said vaporizing chamber to said mixing chamber adjacent the perforations, a metallic gauze fabric roll in said vaporizing chamber between the fuel supply and the branching-out conduit, and a heating pan below the mixing chamber and extending beyond the air gap to receive fuel from the branching-out conduit, said pan having an overflow leading to a closed receptacle substantially as and for the purpose set forth.

1,204,052. FEED-WATER APPARATUS. GEORGE WILLIAM MOHR, Jersey City, N. J. Filed Nov. 12, 1915. Serial No. 61,083. (Cl. 137—101.)



1. A feed water apparatus, comprising a tank, a steam supply pipe connected with the steam compartment in the boiler or generator which is to be fed with heated water, a water supply pipe connected with a source of water supply and opening into the said tank, a water delivery pipe connected with the said boiler or generator, a valve mechanism having a valve casing connected at one end with the said steam supply pipe and at the other end with the water delivery pipe, the valve casing having connections at the upper and lower portions with the tank, and connected balanced twin valves mounted in the said casing and automatically and simultaneously controlling the said steam supply pipe and the said water delivery pipe, and a float contfolled mechanism within the said tank for controlling the said twin valves.

2. A feed water apparatus, comprising a tank connected with a source of water supply for charging the tank with water, a steam supply pipe connected with the steam compartment in the boiler or generator which is to be fed with heated water for supplying the tank with steam, a water delivery pipe connected with the said boiler or generator, a valve mechanism having a valve casing connected at one end with the said steam supply pipe and at the other end with the water delivery pipe, the valve casing having connections at the upper and lower portions with the tank, and connected balanced twin valves mounted in the said casing and of which one controls the said steam supply pipe and the other controls the said water delivery pipe, and a float-controlled mechanism connected with the said twin valves for automatically and simultaneously opening and closing the said twin valves.

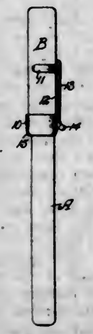
3. A feed water apparatus, comprising a tank connected with a source of water supply for charging the tank with water, a steam supply pipe connected with the steam compartment in the boiler or generator which is to be fed with heated water for supplying the tank with steam, a water delivery pipe leading from the said tank for drawing the water therefrom into said boiler or generator, a valve casing within the said tank and having a steam inlet and a water outlet intermediate the ends of the casing, the latter being connected at one end with the said steam supply pipe and at its other end with the said water delivery pipe, valve seats at the ends of the said casing and opening in the same direction, one of the valve seats opening into the said steam supply pipe and the other valve seat opening into the said water delivery pipe, twin valves controlling the said valve seats, and a float-controlled mechanism connected with the said twin valves for automatically and simultaneously moving the said valves into open or closed position on the said valve seats.

4. A feed water apparatus, comprising a tank connected with a source of water supply for charging the tank with water, a steam supply pipe connected with the steam compartment in the boiler or generator which is to be fed with heated water for supplying the tank with steam, a water delivery pipe leading from the said tank for draining the water therefrom into said boiler or generator, a valve casing within the said tank and having a steam inlet and a water outlet intermediate the ends of the valve casing, the latter being connected at one end with the said steam supply pipe and at its other end with the said water delivery pipe, valve seats at the ends of the said casing and opening in the same direction, one of the valve seats opening into the said steam supply pipe and the other valve seat opening into the said water delivery pipe, twin valves controlling the said valve seats, a strainer on the said valve body and extending over the said water outlet, and a float-controlled mechanism connected with the said twin valves for automatically and simultaneously moving the said valves into open or closed position on the said valve seats.

5. A feed water apparatus, comprising a tank connected with a source of water supply for charging the tank with water, a steam supply pipe connected with the steam compartment in the boiler or generator which is to be fed with heated water for supplying the tank with steam, a water delivery pipe connected with the said boiler or generator, a valve mechanism having a valve casing connected at one end with the said steam supply pipe and at the other end with the water delivery pipe, the valve casing having connections at the upper and lower portions with the tank, and connected balanced twin valves mounted in the said casing and of which one controls the said steam supply pipe and the other controls the said water delivery pipe, a float controlled mechanism connected with the said twin valves for automatically and simultaneously opening and closing the said twin valves, retaining means for retaining the said float controlled mechanism at the extremes of its operating positions, and releasing means controlled by the water in the tank for releasing the said float-controlled mechanism.

[Claims 6 to 8 not printed in the Gazette.]

1,204,053. CLIP FOR FOUNTAIN-PENS. WILLIAM EDGAR MOORE, Janesville, Wis. Filed July 14, 1916. Serial No. 109,267. (Cl. 120—42.)

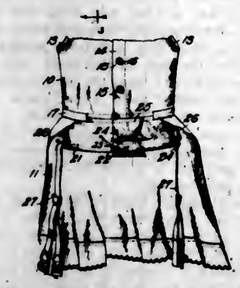


1. A clip for fountain pens, having means to clamp the same to a pen cap and prevent splitting of said cap, the same including a shank, a split band at the lower end of the shank, the ends of the band overlapping, a clip proper in fixed relation at its upper end to the shank and having the lower end terminating adjacent to the said band, and a clamp presenting resilient arms near the upper end of the said shank adapted to partially embrace the pen cap, the said split band constituting a reinforce and protector for the lower end of the cap, the lower end of the band being inturned to conform to the lower end of the cap.

2. A clip for fountain pens, including a downwardly disposed clip proper adapted to engage a pen pocket, a clamp on the clip near the upper end adapted to engage a pen cap, and a protective band at the lower end of the clip adapted to embrace the pen cap at the lower edge thereof and constitute a reinforce to prevent splitting of said cap.

3. A clip for fountain pens, including a body, clamping means on the body to engage a pen cap, and a reinforcing protective band in fixed relation to the clip at the lower end thereof, the lower edge of said band being inturned to conform to the lower end of the cap, the band being split and having its ends overlapped, and constituting with its inturned edge a reinforce to prevent the cap from splitting.

1,204,054. COMBINED VEST AND PETTICOAT. LUCY NAHABEDIAN, New York, N. Y. Filed Jan. 27, 1916. Serial No. 74,624. (Cl. 2—145.)

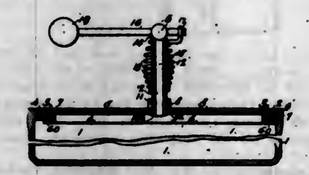


1. A garment, comprising a vest, a petticoat having a waistband permanently attached to the interior of the said vest at the waistline thereof, the material forming the said vest being extended below the waist line and doubled up to form an integral band extending within the upper portion of the said petticoat, and fastening devices attached to the said extension band beneath the said petticoat.

2. A garment, comprising a vest, a petticoat having a waistband permanently attached to the exterior of the said vest at the waistline thereof, the said vest having an integral band extending below the waistline, the said vest and its band being open along the back median line and the said petticoat having a slit at the back median line, fastening devices for closing the said back of the vest, a fastening device for closing the petticoat at the said slit, a fastening device for closing the band, and fastening devices attached to the said extension band beneath the said petticoat.

3. A garment, comprising a vest, a petticoat having a waistband permanently attached to the exterior of the said vest at the waistline thereof, the said vest having an integral band extending below the waistline, spaced buttons and pairs of tabs secured to the outer face of the said band, one pair of tabs being located at the front and rear and the other pair of tabs being located at the sides of the band, and fastening devices attached to the said extension band beneath the said petticoat.

1,204,055. HIGH-PRESSURE STEAM-COOKER. THOMAS J. NASH, Lincoln, Nebr., assignor to Nash Manufacturing Company, Lincoln, Nebr. Filed Nov. 9, 1915. Serial No. 60,591. (Cl. 53—1.)



1. In combination with the utensil having an elliptical opening, and an elliptical cover adapted to be inserted through said opening, said cover and said utensil having opposing flanges, a packing between said flanges, said flanges being adapted for seating under pressure within the utensil; of a stem mounted on the cover, a hand grip on the stem, cover holding latch bars mounted on the cover to engage the top of the utensil, said stem having a steam escape passage through the same terminating in a valve seat at the top, and a safety valve engaging said seat, substantially as shown and for the purposes described.

2. In combination with the utensil and the cover, said utensil having an opening into which the cover is adapted to be inserted, said cover and said utensil having opposing sealing flanges; of a tubular stem mounted on the cover and adapted to form a handle by which the cover may be manipulated, cover sustaining latch bars carried on the cover and adapted to be projected over the utensil, said latch bars including toggle elements having provision for engagement by the operator while holding the stem of the cover, substantially as shown and described.

3. In combination with the utensil and the cover, said utensil having an opening into which the cover is adapted to be inserted, said cover and said utensil having opposing sealing flanges, of a tubular stem mounted on the cover and adapted to form a handle, by which the cover may be manipulated, cover sustaining latch bars carried on the cover and adapted to be projected over the utensil, said latch bars including toggle elements having provision for engagement by the operator while holding the stem of the cover, said stem having a steam escape passage through the stem opening to atmosphere above the position on the stem at which the operator's hand is adapted to grasp the stem whereby the escaping steam will occur above the operator's hand, and an escape valve for controlling the outlet end of said stem.

4. In a high pressure cooker, the combination with the body having a cover opening, and a cover adapted to seat in said opening by pressure from within; of a stem projecting from said cover and having a steam escape passage through the same, said passage terminating in a valve seat at the upper end of the stem, a spiral wire handle sustained around the stem by which the operator is adapted to grip the stem to manipulate the cover, said wire handle having a loop, a valve rod fulcrumed in said loop and having a valve element to engage said seat and a weight to hold said element seated against the steam pressure, all being arranged whereby the blow-off steam will escape above the hand-hold.

5. In a high pressure cooker, the combination with a body having a cover opening, and a cover adapted to seat in said opening by pressure from within; of a stem projecting from said cover and having a steam escape passage through the same, said passage terminating in a valve seat at the upper end of the stem, a spiral wire handle sustained around the stem by which the operator is adapted to grip the stem to manipulate the cover, said wire handle having a loop, a valve rod fulcrumed in said loop and having a valve element to engage said seat and a weight to hold said element seated against the steam pressure, all being arranged whereby the blow-off steam will escape above the hand-hold, and cover supporting toggle levers mounted on the cover and stem and designed to be operated by one hand while the operator grasps the hand-hold of the stem by the other hand.

[Claims 6 to 8 not printed in the Gazette.]

1,204,056. NON-INFLAMMABLE WATERPROOFING COMPOSITION. JAMES O. PERSONS, Norfolk, Va. Filed Apr. 26, 1915. Serial No. 24,144. (Cl. 134—17.)

1. A water-proofing composition, comprising a mixture of dissolved rubber and tetrachlorid of carbon, the proportion of tetrachlorid of carbon being at least equal to that of the solvent in the dissolved rubber, to render the composition and fabric coated therewith noninflammable, substantially as described.

2. A noninflammable water-proofing composition, comprising a mixture of rubber cement, spirits of turpentine, paraffin wax, gasolene, and tetrachlorid of carbon, the proportion of tetrachlorid of carbon being at least equal

to that of the solvent, to render the composition and fabric coated therewith noninflammable, substantially as described.

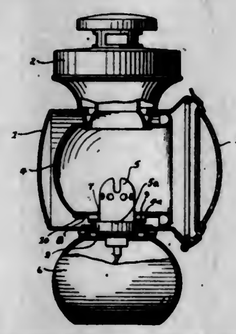
3. A composition of matter, comprising a mixture of rubber cement, spirits of turpentine, gasolene and tetrachlorid of carbon, in substantially the following proportions: 10 to 15 parts of rubber cement, 4½ to 7 parts of spirits of turpentine, 20 to 40 parts gasolene, and 40 to 75 parts tetrachlorid of carbon, substantially as described.

4. The hereindescribed composition, comprising a mixture of 10 to 15 parts of rubber cement, 4½ to 7 parts of spirits of turpentine, 20 to 40 parts gasolene, and 40 to 75 parts tetrachlorid of carbon, the physical characteristics of which are that it is noninflammable and waterproof, substantially as described.

5. A composition of matter, comprising a mixture of rubber cement, spirits of turpentine, paraffin wax, gasolene and tetrachlorid of carbon, in substantially the following proportions: 10 to 15 parts of rubber cement, 4½ to 7 parts of spirits of turpentine, 2 to 4 parts paraffin wax, 20 to 40 parts of gasolene, and 40 to 75 parts tetrachlorid of carbon, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,204,057. LAMP CONSTRUCTION. LEO L. PFEIFER, Columbus, Ohio, assignor to The John W. Brown Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed July 20, 1916. Serial No. 110,270. (Cl. 240—50.)

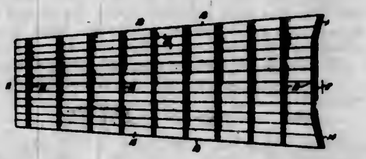


1. In a lamp construction, the combination with a lamp body comprising a main flame chamber, a lining for said flame chamber having a substantially horizontal base portion provided with a central opening, and an oil pot and burner head extending upwardly therefrom through said lining opening, of a cushioning ring having rivet openings at intervals therein, said ring being interposed between the flame chamber lining base and a lateral shoulder of said burner head, the base of the flame chamber lining having formed integral therewith outwardly extending rivet projections adapted to enter the rivet holes of said cushion ring and to have their heads flattened against the underside of the latter.

2. In a lamp construction the combination with a flame chamber lining member having a flat base portion formed with an opening therethrough, said base portion having formed at intervals therein and integral therewith about said opening, hollow rivet projections, of a burner head cushioning ring formed with rivet holes adapted to register with the rivets of said lining base, and to receive the rivet projections of said base, said rivet projections being closed at their outer ends.

1,204,058. BOAT-HULL. CARL A. PFEIFFER, New York, N. Y. Filed Mar. 22, 1916. Serial No. 85,884. (Cl. 9—6.)

1. A boat hull formed from a flat blank of approximately trapezoidal shape and bent to provide a doubled-up sharp bow, a bottom gradually increasing in width from the bow to the stern, and sides gradually decreasing in height from the bow to the stern.



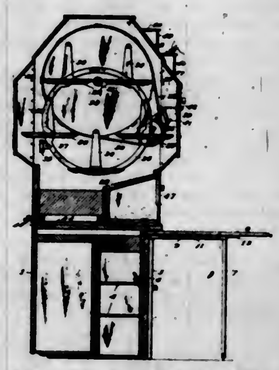
2. A boat hull formed from a flat blank of approximately trapezoidal shape and formed of longitudinally extending planks arranged side by side, and cross ribs attached to the upper faces of the planks, the blank being bent to provide a doubled-up sharp bow, a bottom gradually increasing in width from the bow to the stern, and sides gradually decreasing in height from the bow to the stern.

3. A boat hull formed from a flat blank of approximately trapezoidal shape bent to provide a doubled-up sharp vertical bow, a bottom gradually increasing in width from the bow to the stern, and sides rounded off at their lower portions to gradually merge with the side portions of the said bottom.

4. A boat hull formed from a flat blank of approximately trapezoidal shape bent to provide a doubled-up sharp vertical bow, a bottom gradually increasing in width from the bow to the stern, and sides rounded off at their lower portions to gradually merge with the side portions of the said bottom, the said sides gradually decreasing in height from the bow to the stern.

5. A boat hull formed from a flat blank of approximately trapezoidal shape and having the side portions of its stern end flaring rearwardly, the said blank being bent to provide a doubled-up bow, a bottom gradually increasing in width from the bow to the stern, and sides gradually decreasing in height from the bow to the stern, the stern ends of the said sides being inclined upwardly and rearwardly.

1,204,059. KITCHEN-CABINET. WILLIAM H. PHENICE, deceased, by Esther A. Phenice, executrix, White Hall, Ill. Filed Nov. 16, 1915. Serial No. 61,861. (Cl. 45—16.)

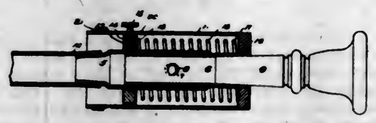


1. In a cabinet of the character described, the combination of a casing, a shaft journaled within the casing, heads carried by the shaft, revolving shelves provided at their ends with hangers engaging the heads, a ring loosely engaging the shelves to retain the same in a horizontal position, guides for the ring, and means for rotating the shaft.

2. In a cabinet of the character described, the combination of a casing, a shaft journaled within the casing, heads carried by the shaft, revolving shelves provided with hangers loosely connected to the heads, a ring loosely connected to the shelves for holding the same in a horizontal position, a wheel mounted upon the casing, a belt for transmitting motion from the wheel to one of the heads, and means for turning the wheel.

3. In a cabinet of the character described, the combination of a casing, a shaft journaled within the casing, a head mounted upon each end of the shaft, revolving shelves mounted between the heads and provided at their ends with hangers pivotally connected to the heads, a ring having various points in the periphery thereof pivotally connected to the shelves, guide members mounted upon the casing and engaging the ring to cause the latter to hold the shelves in a horizontal position, a wheel journaled upon the casing, a belt for transmitting motion from the wheel to the shaft, and means for turning the wheel.

1,204,060. ATTACHMENT FOR WIND INSTRUMENTS. WALTER MOORE PHILLIPS, Portsmouth, Ohio. Filed May 19, 1915. Serial No. 29,107. (Cl. 84—79.)



1. In an attachment for wind instruments, a mouthpiece, two telescopic parts to one of which the mouthpiece is secured, there being an opening in each part through which the interior of the inner part may communicate with the exterior of the outer part, and resilient means for holding the parts yieldingly in normal position, and with the openings spaced from each other.

2. In an attachment for wind instruments, two telescopic tubes having passages therethrough, one of the tubes having an open end adapted to receive a mouthpiece, the other tube having an open end adapted to be attached to a wind instrument, there being openings in the sides of the tubes through which the interior of the inner tube may communicate with the exterior of the outer tube when one of the tubes is pressed to a predetermined position relatively to the other, and resilient means for holding one of the tubes relatively to the other out of the said position.

3. In a mouthpiece for wind instruments, two telescoping tubes, a casing secured to one of the tubes, the body of the casing being disposed around and spaced from the tubes, a disk secured to the other tube, and a spring disposed around the tubes and engaging the casing at one end and the disk at the other end.

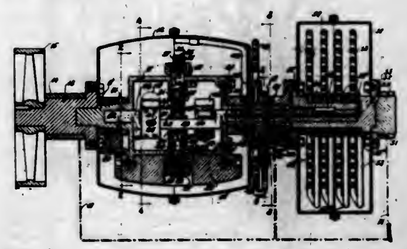
4. In a mouthpiece for wind instruments, two telescoping tubes, there being an opening in a side of each of the tubes, a casing secured to one of the tubes, the body of the casing being spaced from the tubes, a disk secured to the other tube, and a spring disposed around the tubes and engaging the casing at one end and the disk at the other end, to hold the tubes extended with the openings out of communication with each other.

5. In an attachment for wind instruments, two telescopic tubes, a casing secured to one of the tubes, the body of the casing having a longitudinal slot and being spaced from the tubes, a disk rotatably mounted on the other tube, and means disposed in the slot for securing the disk to the last-mentioned tube in adjusted position, there being an opening through the side of each of the tubes through which the interior of the inner tube may communicate with the exterior of the outer tube when one of the tubes is moved to a predetermined position relatively to the other tube.

[Claims 6 and 7 not printed in the Gazette.]

1,204,061. REFRIGERATING APPARATUS. BERNARD PLEKENPOL and JOHN B. PLEKENPOL, Cleveland, Ohio. Filed Oct. 7, 1915. Serial No. 54,630. (Cl. 62—115.)

1. In a device of the kind described, the combination with a suction chamber, of a condensing chamber surrounding the same, compression cylinders carried by the suction chamber and communicating with the suction and condensing chambers, pistons working in said cylinders, a shaft arranged within the suction chamber and operatively connected with said pistons and means for carrying the condensed refrigerating fluid from the condensing chamber as set forth.



2. In a device of the kind described, the combination with a suction chamber, of a condensing chamber surrounding the same, said suction chamber carrying a compression pump, said pump communicating with both the suction and condensing chambers, a piston working therein, a shaft arranged in the suction chamber and operatively connected with the piston and vaporizer, and means for conveying the condensed refrigerating fluid from the condenser to the vaporizer.

3. In a device of the kind described, the combination with a suction chamber, of a condensing chamber surrounding the same, a compression cylinder carried by the suction chamber and communicating with the suction chamber and the condensing chamber, a piston working therein, a shaft arranged in the suction chamber and operatively connected with the piston, a vaporizer, means for conveying the condensed fluid to the vaporizer together with means for conveying the vapor to the suction chamber.

4. In a device of the kind described, the combination with a suction chamber having a plurality of compression cylinders, each cylinder having a valved outlet, a piston working in each cylinder, a shaft arranged within the suction chamber and operatively connected with the pistons, a rotary condensing chamber surrounding said suction chamber, a rotary vaporizer and means connecting said condenser and vaporizer together with means for conveying the condensed fluid from the condenser to said vaporizer.

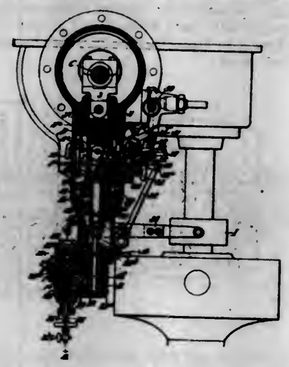
5. In a device of the kind described, the combination with a suction chamber having a plurality of compression cylinders, each cylinder having a valved outlet, a piston working in each cylinder, a shaft arranged within the suction chamber and operatively connected with said pistons, a rotary condenser surrounding the suction chamber, a rotary vaporizer and means connecting said condenser and vaporizer, means for conveying the condensed fluid from the condenser to the vaporizer, and a weight for maintaining an operative relation between the shaft and pistons as set forth.

[Claims 6 to 17 not printed in the Gazette.]

1,204,062. VARIABLE-FEED PUMP. GEORGE D. POGUE, St. Louis, Mo. Filed July 19, 1915. Serial No. 40,678. (Cl. 123—140.)

1. A variable-stroke pump provided with a plunger-operating mechanism that comprises a fixed-stroke actuating member, a variable-stroke member, a connecting means for imparting movement to said variable-stroke member when said actuating member moves in one direction, a tripping means for rendering said connecting means inoperative, an automatic controlling means that normally governs said tripping means, and an independent means for moving said tripping means relatively to said automatic controlling means so as to enable said

tripping means and said connecting means to be rendered inoperative without affecting the operation of said actuating member and said automatic controlling means.



2. A variable feed pump provided with a plunger-operating mechanism that comprises a fixed-stroke actuating member, a variable-stroke member and an interposed connecting device, a tripping device for rendering said connecting device inoperative sooner or later on one stroke of said plunger-operating mechanism, an automatic controlling means that normally governs the position of said tripping device, and a manually-operated means for enabling said tripping device to be retained in such a position that said connecting device will be held in an inoperative condition while said actuating member continues in operation.

3. A variable feed pump, comprising a plurality of cylinders, a plunger-operating mechanism coöperating with each cylinder, each of said mechanisms comprising a variable-stroke member, an automatic controlling means comprising tripping devices that govern the degree of movement of said variable-stroke members, and means whereby any one of said tripping devices may be held at rest so as to cause the particular cylinder with which it coöperates to be cut out of service while the remaining cylinders continue in operation.

4. A variable-stroke pump provided with a plurality of cylinders, a plunger-operating mechanism coöperating with each cylinder and each consisting of a fixed-stroke actuating member, a variable-stroke member and an interposed connecting device, tripping devices that coöperate with said connecting devices for controlling the degree of movement imparted to said variable-stroke members, an automatic governing means that controls the operation of all of said tripping devices, and means for enabling any one of said tripping devices to be adjusted so as to vary the supply from the particular cylinder with which it coöperates without affecting the operation or position of the other tripping devices.

5. A variable feed pump, comprising a plurality of cylinders, a controlling device for each cylinder that governs the supply from the cylinder and which forms part of the plunger-operating mechanism, an automatically-operating governing means that is common to all of said controlling devices and which determines the position of same, and means for enabling any of said controlling devices to be adjusted independently of the others and relatively to said automatic governing means.

[Claims 6 to 30 not printed in the Gazette.]

1,204,063. BEARING FOR SHAFTS, SPINDLES, AND THE LIKE. GEORGE L. PRATT, Atlanta, Ga. Filed Jan. 30, 1912. Serial No. 674,391. (Cl. 64—22.)

1. A bearing including in combination, a shaft provided with a circumferential shoulder, a friction collar encircling the shaft, a gland member also encircling the shaft and coaxial with said collar and against which the collar is held, and a resilient collar embracing the shaft at the shouldered portion thereof and normally approximating the diameter of the friction collar and gland member for effecting the longitudinal movement of the friction collar into contact with the gland member.



2. A bearing including in combination, a shaft provided with a circumferential shoulder, a relatively non-rotatable friction collar encircling the shaft, a gland member also encircling the shaft and coaxial with said collar and against which the collar is held, and a resilient collar embracing the shaft at the shouldered portion thereof and also embracing a portion of the friction collar and adapted to press the friction collar against the gland member.

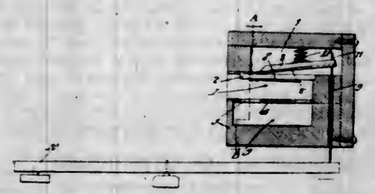
3. A bearing including a combination, a shaft provided with a circumferential shoulder, a relatively non-rotatable friction collar encircling the shaft, a gland member also encircling the shaft and coaxial with said collar and against which the collar is held, and a resilient collar embracing the shaft at the shouldered portion thereof and relatively non-rotatable, whereby it holds the friction collar against rotative movement and in intimate engagement with the gland member.

4. A bearing including in combination, a shaft provided with a circumferential shoulder, a gland member encircling the shaft and rotatable about the same, a resilient collar embracing the shaft at the shouldered portion thereof and relatively non-rotatable, and a friction collar interposed between said resilient collar and the gland member and partly embraced by the resilient collar.

5. A bearing including in combination, a shaft provided with a shouldered portion, a core member rotatable about the shaft, a gland member secured to the core member and encircling the shaft, a resilient collar provided with a flange embracing the shaft at the shouldered portion thereof, a friction collar interposed between the resilient collar and the gland member and held by the resilient collar against rotative movement while the gland and core members are rotating about the shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,204,064. REED-ORGAN. PERCY PRESTON, Denison, Tex. Filed Sept. 29, 1914. Serial No. 864,104. (Cl. 84—34.)

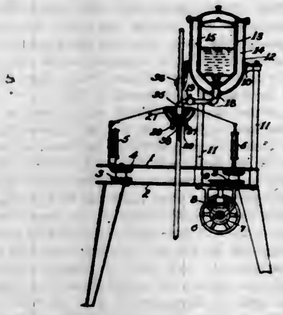


1. In a reed board, resonance cells, reed cells arranged thereabove and separated therefrom by partitions, there being openings within said partitions for maintaining communication between the reed cells and the resonance cells, and reeds attached to the tops of the reed cells, said resonance cells being grouped, the cells of each group communicating through openings adjacent the bottoms of the resonance cells.

2. In a reed organ, a reed board having resonance cells, reed cells arranged thereabove and separated therefrom by partitions, there being openings within said partitions for maintaining communication between the reed cells and the resonance cells, reeds attached to the tops of the reed cells, said resonance cells being grouped, the cells of each group communicating through openings adjacent the bottoms of the resonance cells, a valve above each reed, a key lever, a tracker interposed between the key lever and its valve, and a spring bearing upon the valve for directing it to its seat.

3. In a reed board, resonance cells, reed cells arranged thereabove and separated therefrom by partitions, there being circular openings within said partitions for maintaining communication between the reed cells and the resonance cells, said openings gradually diminishing in diameter from the bass to the treble end of the board, and reeds attached to the tops of the reed cells, said resonance cells being grouped, the cells of each group communicating through openings in the side walls thereof adjacent the bottoms of the resonance cells.

1,204,065. BRAIDING AND COATING MECHANISM. ROBERT C. RAHM and THOMAS V. WILSON, Wyomissing borough, Pa., assignors to Textile Machine Works, Wyomissing, Pa., a Corporation of Pennsylvania. Filed Sept. 21, 1912. Serial No. 721,642. (Cl. 154—6.)

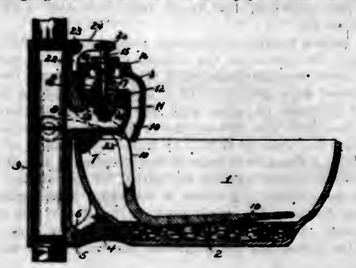


1. The combination with mechanism for making tubular fabric comprising revolving thread carriers and a take-off, of a centrally located composition cup having a cylindrical bottom opening, and fixed braiding mandrel having a reduced end portion located in said bottom opening and forming a braiding-point and an annular fabric-and-composition passage way; the braiding threads being passed through the composition cup to the braiding point and the annular passage way being adapted to permit the passage of the tubularly braided fabric in connection with a determined coating portion of the composition.

2. The combination with mechanism for making tubular fabric comprising revolving thread carriers and a take-off, of a centrally located composition cup having a cylindrical bottom opening, and an adjustably fixed braiding mandrel having a reduced end portion located in said bottom opening and forming a braiding-point and an annular fabric-and-composition passage way; the braiding threads being passed through the composition cup to the braiding point and the annular passage way being adapted to permit the passage of the tubularly braided fabric in connection with a determined coating portion of the composition.

1,204,066. WATERING DEVICE FOR CATTLE. HUGO C. RASSMANN, Beaver Dam, Wis. Filed May 8, 1916. Serial No. 96,207. (Cl. 119—75.)

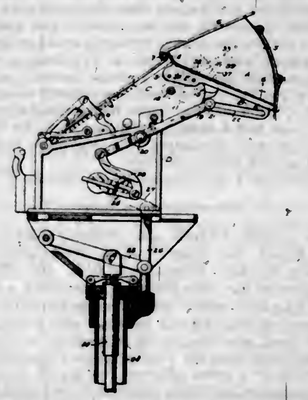
1. In a watering device for animals, the combination of a stand pipe, a bowl hinged near its bottom thereto, a latch mounted on the stand pipe and engaging the upper portion of the bowl, and animal-controlled means for discharging water from said stand-pipe to the bowl.



2. In an animal watering device, the combination of a water pipe, a bowl supported thereby, a valve casing rigid with said water pipe and projecting over the bowl, said casing having a lateral duct communicating with the water pipe and a duct discharging into the bowl, said last-mentioned duct being deflected in a direction toward the rear end of the bowl, a spring-actuated valve disposed between said ducts, and an animal-operated lever operatively associated with said valve.

3. In an animal water device, the combination with a water pipe, a bowl, a casing rigid with the water pipe and having two ducts, one of said ducts communicating with the water pipe and the other discharging into the bowl, a spring actuated valve between said ducts and provided with a stem projecting above the casing, of an animal-operated lever having a member disposed over the bottom of the bowl, said lever having an upwardly projecting part at one end, said upwardly projecting part being bifurcated forming two arms pivotally mounted near their upper ends on said pipe, said arms terminating in forwardly projecting members, and a cross bar connecting said forwardly projecting lever members and disposed over the stem of the valve.

1,204,067. BUTTON-FEEDING MECHANISM. CHARLES F. RICHARDSON, Woonsocket, R. I., assignor to Rapid Button Attaching Machine Co., New York, N. Y., a Corporation of New York. Filed July 7, 1915. Serial No. 38,587. (Cl. 218—12.)



1. A button feeding mechanism comprising a chute having a slot for receiving the shanks of buttons, a pick-up device having a channel adapted to aline with the slot of the chute, a hopper in which the pick-up device is mounted, means for actuating the pick-up device to cause the shanks of buttons in the hopper to engage in the channel of the pick-up device, said hopper having an out-

let for permitting buttons to flow down the chute, a swinging finger movable back and forth in the slot of the chute to prevent clogging at the outlet of the hopper, and means for operating the finger simultaneously with the pick-up device.

2. A button feeding mechanism comprising a chute having a slot for receiving the shanks of buttons, a pick-up device movable curvilinearly in a vertical plane from a point below to a point above a horizontal and having a channel adapted to aline with the slot of the chute, a hopper in which the pick-up device is mounted, means for actuating the pick-up device to cause the shanks of buttons in the hopper to engage in the channel of the pick-up device, said hopper having an outlet for permitting buttons to flow down the chute, a swinging finger movable back and forth in the upper part of the slot of the chute to prevent clogging of the outlet of the hopper, and means for actuating the finger as the pick-up device operates.

3. A button feeding mechanism comprising a chute having a slot for receiving the shanks of buttons, a pick-up device having a channel adapted to aline with the slot of the chute, a hopper in which the pick-up device is mounted, means for actuating the pick-up device to cause the shanks of buttons in the hopper to engage in the channel of the pick-up device, said hopper having an outlet for permitting buttons to flow down the chute, a swinging finger movable back and forth in the upper part of the slot of the chute to prevent clogging of the outlet of the hopper, a spring means operating on the finger to move the same in one direction, and connecting means between the pick-up device and finger for moving the latter in the other direction.

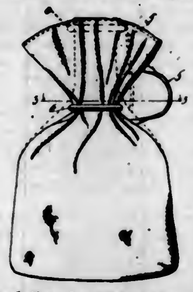
4. A button feeding mechanism comprising a chute having a slot for receiving the shanks of buttons, a pick-up device having a channel adapted to aline with the slot of the chute, a hopper in which the pick-up device is mounted, means for actuating the pick-up device to cause the shanks of buttons in the hopper to engage in the channel of the pick-up device, said hopper having an outlet for permitting buttons to flow down the chute, a swinging finger movable back and forth in the upper part of the slot of the chute to prevent clogging of the outlet of the hopper, a spring actuated arm for moving the finger in one direction, and an arm connected with the pick-up device and having a wiping engagement with the first-mentioned arm for moving the finger in the opposite direction.

5. A button feeding mechanism comprising a hopper, a chute leading therefrom and having a slot, a plate movable vertically in the hopper from the bottom to the top thereof, and vice versa, the top edge of the plate being grooved to receive the shanks of buttons and carrying the latter upwardly toward the top of the hopper, whereby buttons slide into the chute, a device movable upwardly into the path of the buttons and downwardly therefrom at the upper portion of the chute for preventing clogging of the buttons, and a deflector disposed over the chute for preventing buttons discharged from the plate from being supported one on top of another.

[Claims 6 and 7 not printed in the Gazette.]

1,204,068. CASH-PURSE OR TOBACCO-BAG. BENJAMIN ROBIN AND JOHN CAPLIN, Washington, D. C. Filed Jan. 8, 1916. Serial No. 71,018. (Cl. 150—3.)

1. A device of the class described comprising a purse or bag having an open upper end, a loop permanently secured to said purse or bag adjacent its upper end, a ring carried upon said loop, said ring being adapted to be moved upwardly upon said loop for urging the loop upwardly at its upper portion to a point adjacent the top of the purse or bag, said purse or bag being adapted to be folded upon itself at its upper end to assume a compact position, at which time the ring may be swung over the upper end and then slid downwardly upon the folded upper end for a considerable distance therebelow to a point adjacent the lower portion of said loop whereby the folded upper end of the purse or bag will spring slightly toward an open position above said ring so as to positively anchor the ring in a set position, whereby the entrance to the bag will be positively held in a closed position.



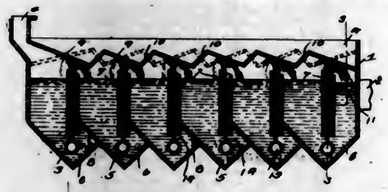
2. A device of the class described comprising a purse or bag having an open upper end, a yieldable loop having its ends inserted into and being secured to said purse or bag, whereby said loop will be positively retained in a set position upon the side portion of said purse or bag, a ring slidably mounted along said loop, the upper entrance portion of said bag being adapted to be folded upon itself to assume a compact position, at which time said ring may slide along said loop to the upper portion thereof and then urge the yieldable loop upwardly for a distance, whereby the loop will extend to a point adjacent the extreme upper end of said purse or bag, at which time said ring may be swung over the extreme top of the folded entrance and then slid downwardly over the folded entrance at which time the folded entrance will spring slightly open above said ring, whereby said ring will be anchored in a set position at a distance below the upper end of the purse or bag so as to positively close the entrance into the interior of the purse or bag.

3. A device of the class described comprising a purse or bag having an open upper end, a loop secured to said purse or bag, a yieldable ring slidably mounted upon said loop, said purse or bag being adapted to be folded upon itself at its upper end to assume a compact position, at which time said yieldable ring may be slid along said loop so as to urge the loop upwardly at its upper portion to a point adjacent the extreme upper end of said purse or bag, at which time the ring may be swung over the folded upper end of the purse or bag, said ring being capable of yielding slightly to conform in contour to the shape of the folded upper end of the purse or bag, at which time the ring may slide downwardly over the folds of the purse or bag for a distance below the upper end thereof, at which time the folds will spring slightly open, whereby the ring will be held in a set position upon the purse or bag for holding the entrance thereof in a closed position.

4. A device of the class described comprising a purse or bag having an open upper end, a yieldable loop carried by said purse or bag, an elastic ring carried upon said loop, said purse or bag being adapted to be folded upon itself at its upper portion so as to assume a very compact position, at which time the elastic ring may be moved or slid along the loop so as to urge the loop upwardly at its upper portions to a point adjacent the extreme top of said purse or bag, at which time the ring may be stretched slightly and swung toward the top of the folded end of said purse or bag, after which the ring may be slid downwardly over the folds which in turn will spring slightly so as to cause the elastic ring to bind upon said purse or bag at a distance from the upper end thereof, whereby the entrance to the purse or bag may be positively closed.

1,204,069. AGITATOR FOR ORE TREATMENT. CYRUS ROBINSON, Mount Vernon, N. Y., assignor to Metallurgical Engineering & Process Corporation, a Corporation of New York. Filed Oct. 1, 1910, Serial No. 584,868. Renewed Mar. 30, 1916. Serial No. 87,850. (Cl. 23—31.)

1. In a device of the class described, the combination of a receptacle, a baffle plate, means for projecting separated minute sub-masses of a mixture of ore and solvent solution from the receptacle violently against the said plate, and a second receptacle for receiving the mixture deflected from the said plate, substantially as set forth.



2. In a device of the character described, the combination of a series of receptacles for a mixture of ore and solvent solution, a series of baffle plates and means for forcing a part of the mixture from one receptacle against the baffle plate, from which a portion of it is deflected into the next adjacent receptacle, substantially as set forth.

3. In a device of the class described, the combination of a series of adjacent receptacles for a mixture of ore and solvent solution, a series of baffle plates, means for introducing fluid under pressure into each of the receptacles to force a portion of the mixture against one of the baffle plates in a direction such that a part of it is deflected into the next adjacent receptacle, substantially as described.

4. In a device of the class set forth, the combination of a series of receptacles, for a mixture of ore and solvent solution, a series of tubes each communicating at its lower end with one of the receptacles, a series of baffle plates each in alinement with the upper end of one of the tubes, and means for forcing the mixture through the tubes against the baffle plates, whereby a portion of the mixture from each receptacle is deflected into the next adjacent receptacle, substantially as set forth.

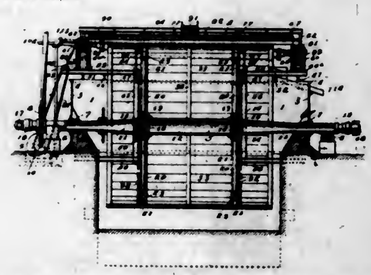
5. In a device of the class described, the combination of a series of receptacles for a mixture of ore and solvent solution, a series of transversely elongated vertically extending tubes each communicating at its lower end with the mixture in one of the receptacles, a series of inclined baffle plates each in alinement with the upper end of one of the tubes, a series of transverse pipes one in each receptacle in alinement with the lower end of the corresponding tube, each of the said pipes being provided with a series of holes extending toward the corresponding tube, and means for supplying gas under pressure to the said pipes, whereby jets of gas issue through the said holes and carry portions of the mixture upward through the said tubes against the baffle plates from which parts of it are deflected into the next adjacent receptacles, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,204,070. DEHYDRATER. CYRUS ROBINSON, Mount Vernon, N. Y., assignor to Metallurgical Engineering & Process Corporation, a Corporation of New York. Filed Aug. 16, 1912. Serial No. 715,516. (Cl. 210—14.)

1. In a dehydrating and washing mechanism for treating ore, the combination of a tank for wash liquid, an endless filtering medium moving through a path a portion of which is in the tank and a portion of which is outside of the tank and substantially horizontal, a pulp holder for sustaining a supply of ore pulp immediately over the horizontal part of said path, means positively engaging with the pulp in said holder for moving it transversely across and distributing it uniformly over said part of said path and means for removing the pulp adhering to the filtering medium after it emerges from the tank.

2. In a dehydrating and washing mechanism, the combination of a tank for a wash liquid, a rotatable filtering drum mounted to rotate while partially submerged in said tank, means above the upper part of said drum for supplying pulp fluid thereto, means engaging with the pulp immediately before it is delivered to the drum and positively moving it transversely thereof to uniformly distribute it, and means adjacent to and relatively behind the ore supplying devices for removing from the surface of the drum the material adhering thereto after it emerges from the tank.



3. In a dehydrating and washing mechanism for treating ores, the combination of a tank for wash liquid, a filtering drum arranged to rotate while partially submerged in the tank, a receptacle for holding ore pulp immediately above the drum and having devices for feeding the pulp across the surface of the filter, means for adjusting the feeding devices to change the rate of feeding, means positively engaging with the pulp to distribute it uniformly across the drum, and a cleaning device for removing material from the surface of the filter after it has emerged from the wash tank.

4. In a dehydrating and washing mechanism for treating ore, the combination of a tank for wash liquid, a filtering drum arranged to rotate while partially submerged in the tank, a horizontal feed trough above the filtering drum and extending across its upper surface, means for supplying ore pulp to said trough, means engaging with the said pulp while in said trough and reciprocating transversely to the path of the drum for positively feeding the pulp to the drum, manually controllable means for adjusting the feeding device to change the rate of feeding, and a device for removing material from the surface of the drum after it emerges from the tank.

5. In a dehydrating and washing mechanism for treating ore, the combination of a tank for wash liquid, a filtering drum arranged to rotate while partially submerged in the tank, a horizontal feed trough above and extending across the drum and having a narrow longitudinal slot in its bottom, means for supplying ore pulp to the trough, a toothed saw-like feeding device movably mounted in the said slot, and power devices for moving the feeding device vertically and horizontally to force material outward from the trough to the filtering medium.

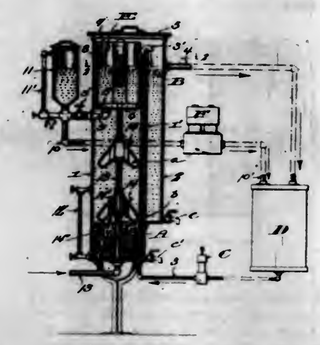
[Claims 6 to 23 not printed in the Gazette.]

1,204,071. FILTER. AUGUST ROSENTHAL, West Allis, Wis. Filed July 17, 1915. Serial No. 40,482. (Cl. 210—10.)

1. A liquid filter of the character described comprising a tank having a filling compartment in communication with the lower portion of said tank, the filling compartment being provided with an overflow to maintain a predetermined level of liquid within the tank, a feed pipe in communication with the upper portion of said filling compartment, filter means mounted within the upper portion of the tank, a delivery pipe in communication with the filter means, and a heating element extending into the tank comprising a radiator pipe having a series of hollow baffle plates connected therewith.

2. A liquid filter of the character described comprising a tank having a filling compartment in communication with the lower portion of said tank, the filling compartment being provided with an overflow to maintain a predetermined level of liquid within the tank, a feed pipe in communication with the upper portion of said filling compartment, filter means mounted within the upper portion

of the tank, a delivery pipe in communication with the filter means, and a heating element for the tank comprising a pipe and one of more baffle-plates mounted in the tank between the lower portion thereof and the filter means.



3. A liquid filter of the character described comprising a tank having a filling compartment in communication with the lower portion of said tank, the filling compartment being provided with an overflow to maintain a predetermined level of liquid within the tank, a feed pipe in communication with the upper portion of said filling compartment, filter means mounted within the upper portion of the tank, a delivery pipe in communication with the filter means, a heating element for the tank, and baffle plates mounted in the tank between the filter means and lower portion thereof.

4. A liquid filter comprising a tank, a filling compartment in communication with the lower portion of the tank, the filling compartment being provided with an overflow to maintain a predetermined level of liquid within the tank, a feed pipe extending through the body of the tank and in communication with the upper portion of the filling compartment, a heating element mounted within the tank, a hollow filter positioned in the upper portion of the tank, and means for drawing liquid from the interior of said filter.

5. A liquid filter comprising a tank, a filling compartment in communication with the lower portion of the tank, a filter chamber in the upper portion of the tank, a priming cup disposed in horizontal alinement with the filter chamber, a pipe connecting the priming cup and the filter chamber and a delivery pipe extending from the cup.

[Claims 6 to 9 not printed in the Gazette.]

1,204,072. DOOR-OPENING DEVICE. NATHAN ROYACK, Brooklyn, N. Y. Filed Oct. 10, 1914. Serial No. 866,123. Cl. 70—120.)

1. In combination, a door-frame, a door mounted in said frame, a spring-projected latch mounted on the door and arranged for locking engagement with the frame, a rod vertically movable on the door and connected at its upper end to said latch for the release thereof, a roller mounted at the lower end of said vertically-movable rod, a foot plate yieldingly supported for vertical movement in the floor adjacent said door and normally held in upper position and adapted to be depressed by the action of the foot, and a pin fixed to said foot plate and adapted when the door is closed to engage said roller and downwardly urge said rod for the release of said latch.

2. In combination, a door frame, a door mounted in said frame, a spring-projected latch mounted on the door and arranged for locking engagement with the frame, means normally acting to automatically open said door when the latter is unlatched, a rod vertically movable on the door and connected at its upper end to said latch for the release thereof, a roller mounted at the lower end of said vertically-movable rod, a foot plate yieldingly supported for vertical movement in the floor adjacent said door and normally held in upper position and adapted to be depressed by the action of the foot, and a pin fixed to



said foot plate and adapted when the door is closed to engage said roller and downwardly urge said rod for the release of said latch.

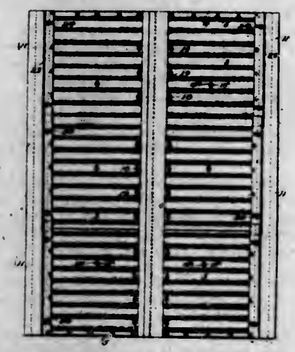
1,204,073. NON-REFILLABLE BOTTLE. THEODORE SANDGEROTH, Anoka, Nebr. Filed Oct. 26, 1914. Serial No. 868,750. (Cl. 215—103.)



A non-refillable bottle comprising a bottle body, an exteriorly threaded collar integral with the body, the upper surface of the collar serving as a valve seat, a valve disposed on the seat and provided with a central recess, a neck having an enlarged end integrally threaded for engagement with the collar and arranged so that the inner surface of the neck is in alinement with the upper edge of the collar, a valve guard integral with the neck including cross arms extending downwardly from the point of intersection, and an elongated pin depending from the intersection of the arms and engageable with the recess in the valve to guide and limit the movement of the valve to prevent the valve from striking and breaking the arms.

1,204,074. FIRE DOOR OR SHUTTER. FELIX L. SAINO, Memphis, Tenn. Filed June 8, 1915. Serial No. 32,948. (Cl. 189—46.)

1. In a fire door or shutter, the combination of a supporting structure, a wall constructed of corrugated sheet metal sections provided with slots, said sections constructed each with a folded edge providing a groove and a straight edge forming a tongue, said tongues of the sections fitting within the grooves of their respective adjacent sections and forming slip joints therewith, members passing through said slots and the supporting structure and securing the sections to said structure, and fusible washers on said members operable to release the same and allow the separate sections of said wall to expand independently, substantially as set forth.



2. In a fire door or shutter, the combination of a front and a rear wall constructed of corrugated sheet metal sections having registering slots, said sections constructed each with a folded edge providing a groove and a straight edge forming a tongue, said tongues of the sections fitting within the grooves of their respective adjacent sections and forming joints therewith having clearances for relative movement of the joint members, members passing through said registering slots and securing said walls together, and fusible washers on said members operable to release the same and allow the separate sections of said walls to expand independently, substantially as set forth.

3. In a fire door or shutter, the combination of hingedly mounted parts each constructed of a front and a rear wall comprising sheet metal sections having registering slots and formed each with a folded edge providing a groove and a straight edge providing a tongue, said tongues of the sections fitting within the grooves of their respective adjacent sections and forming joints therewith having clearances for relative movement of the joint members, said sections constructed with boxings at the respective adjacent edges of the door parts and said boxings forming opposed flanges to provide a lapped joint between said parts, members passing through the registering slots of the sections and securing the walls together, and fusible washers on said members operable to release the same and allow said walls to expand, substantially as set forth.

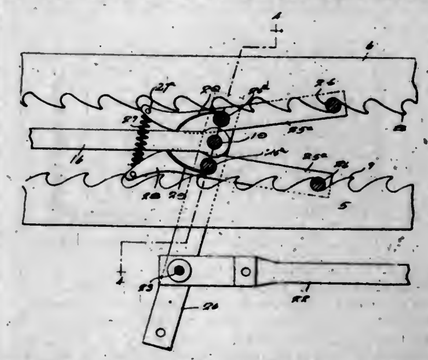
1,204,075. TIE-CLASP. JOSEPH E. SARPHIE, Hattiesburg, Miss. Filed June 4, 1913. Serial No. 771,704. (Cl. 24—243.)



A clasp comprising a substantially U-shaped frame having limbs of different lengths, a jaw formed from a rectangular strip having one end hingedly connected to the curved portion of said frame and its other end formed with a row of teeth each extending toward the inner surface of the long limb of the frame, a nut rotatably mounted in and held against movement away from said short limb, and a headed screw mounted in said nut with its head portion abutting said jaw intermediate its ends, said nut operating said screw which in turn acts upon said jaw.

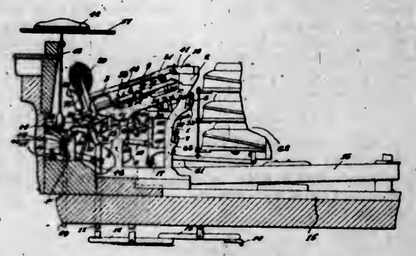
1,204,076. WIRE-STRETCHER. WILLIAM SCHMOEGER, Russellville, Mo. Filed Dec. 31, 1915. Serial No. 69,585. (Cl. 254—72.)

A wire stretcher including a pair of ratchet bars having ratchet teeth formed upon the adjacent longitudinal edges thereof, a pair of lever sections arranged upon opposite sides of said ratchet bars, pins connecting the said lever sections and arranged between said rack bars, pawls



pivotally secured to said pins, and curved guard members pivotally secured to said pins adapted to prevent engagement of said pins with the teeth of said ratchet bars.

1,204,077. PIANISSIMO DEVICE FOR GRAND-PIANO ACTIONS. WILLIAM A. SCHROEDER, Everett, Wash. Filed Apr. 15, 1914. Serial No. 831,975. (Cl. 84—61.)



1. A grand piano action comprising a frame, arms pivoted upon said frame, a hammer rest rail carried by the swinging ends of said arms, a lost motion device, a bar engaging said lost motion device, links suspended from said arms and secured at their lower ends to said bar, and means for raising said hammer rest rail to thereby raise said lost motion device.

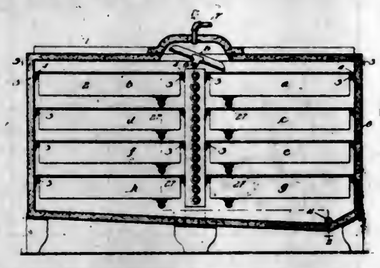
2. A grand piano action comprising a frame, arms pivoted upon said frame, a hammer rest rail carried by the swinging ends of said arms, a lost-motion device, a bar engaging said lost-motion device, links secured upon and adjustable axially of said arms, and supporting said bar at their lower ends, and means for raising said hammer rest rail to thereby raise said lost motion device.

1,204,078. HOLDING APPARATUS. CHARLES SKIDD, Kenosha, Wis. Filed Mar. 11, 1916. Serial No. 83,481. (Cl. 137—21.)

1. A holding apparatus having, in combination, a tier of containers each having an outlet, a separate valve for each outlet, a series of devices each for opening one of said valves, a device for supplying liquid to the uppermost container, a vertical rotary shaft, a cam on said shaft arranged to operate the supplying device, and other cams on said shaft arranged to operate the valve-opening devices.

2. A holding apparatus having, in combination, a series of containers each having an outlet, a separate valve for each outlet, a series of plungers each for opening one of

said valves, a rotary shaft, cams on said shaft, and levers pivoted at their free ends to said plungers and arranged to be swung by said cams.



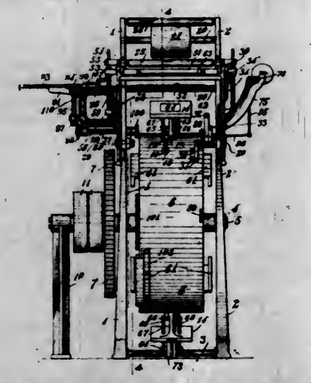
3. A holding apparatus having, in combination, a tier of containers each having an outlet, each container but one successively discharging into an adjacent container, a separate valve for each outlet, a series of members each for opening one of said valves, a vertical rotary shaft, cams mounted on said shaft, and connections between the cams and said devices for actuating the latter.

4. A holding apparatus having, in combination, two tiers of containers, each container having an outlet arranged to discharge liquid to the next lower container, a separate valve for each outlet, a device arranged to distribute liquid to the uppermost containers of the two tiers alternately, and means for operating the distributing device and the valves in proper sequence.

5. A holding apparatus having, in combination, a casing, a plurality of pans, means within the casing for removably supporting said pans in a tier, each pan having an outlet in its bottom wall, a valve for each outlet, means for automatically operating each valve, and means for supplying liquid to the upper pan.

[Claim 6 not printed in the Gazette.]

1,204,079. BOX TOPPING AND TAPING MACHINE. FORREST C. SIMON and JOHN F. O'BRIEN, Piqua, Ohio, assignors to The Piqua Machine and Boiler Co., Piqua, Ohio. Filed Nov. 1, 1915. Serial No. 58,979. (Cl. 93—54.)



1. In a machine of the character specified, a rotatable member carrying a series of pivotally supported box forms, means for applying tape to the boxes supported on said forms, and means for applying paper to said boxes over the tape and comprising paper feeding devices, and means for applying an adhesive to the surface of said paper in advance of its application to the boxes.

2. In a machine of the character specified, a rotary member, a series of frames pivoted thereto and supporting a series of box forms, paper unwinding devices, an adhesive-supplying roller over which said paper is conducted by said unwinding devices, and means for cutting said paper into definite lengths during its application to the boxes.

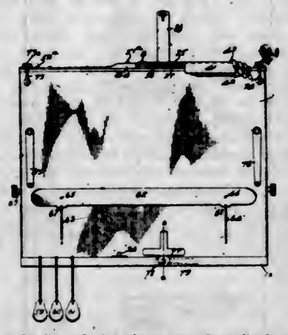
3. In a machine of the type specified, a rotatable member carrying pivotal box forms, gripping means comprising angular levers adapted to engage a web of paper and apply it to said boxes as the same are advanced, means carried on said rotatable member adapted to open and close said gripping means, a pressure roller adapted to engage said paper as the boxes are carried forward and to apply the same to said boxes, and means for dislodging said boxes from said forms at the completion of each application of paper.

4. In a machine of the character specified, a rotatable member carrying box forms which are pivotally supported thereon, paper feeding devices adapted to apply paper to said boxes, means for operating said paper feeding devices including cams mounted upon said form-carrying member, means for cutting said paper in required lengths for each box, means for dislodging each box from said forms at the completion of each application of paper thereto, said box-dislodging means including spring-controlled members, and means for holding said box dislodging means and for releasing the same to permit of the dislodgment of the boxes.

5. In a machine of the character specified, a rotatable member carrying a series of box forms, tape-applying means including grippers to fit the tape and means for cutting each length of tape, means for applying paper to the boxes over said tape and including arms and grippers supported on said arms, means carried by said rotatable member for actuating said arms and said grippers to grip the paper and to feed it forward, and kickers adapted to remove each box from its supporting form at the completion of each paper-applying operation.

[Claims 6 to 16 not printed in the Gazette.]

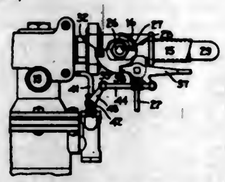
1,204,080. MUSIC-LEAF TURNER. STEPHEN SLATER, Middletown, N. Y. Filed July 7, 1915. Serial No. 38,437. (Cl. 84—135.)



1. In a device of the character described, a supporting frame, a vertical shaft mounted thereon, shafts telescoping said vertical shaft, radially extending arms fixedly attached to said vertical shaft and said telescoping shafts at their upper ends, pinions attached to the lower end of said vertical shaft and telescoping shafts, racks transverse of said pinions and meshing with said pinions, actuating springs mounted on said frame and engaging said racks, said springs being adapted to rotate said vertical shaft and telescoping shafts clockwise, means for manually rotating said vertical shaft and telescoping shafts counter clockwise, means for holding said vertical shaft and telescoping shafts from clockwise movement against the tension of said actuating springs, levers for alternately and collectively releasing the means for holding said vertical and telescoping shafts against rotary clockwise movement, substantially as described.

2. In a music leaf turner, a supporting frame, concentric shafts mounted on said frame, rotatable arms mounted on the upper ends of said shafts, pinions mounted on the lower ends of said shafts, racks mounted on said frame transversely of said pinions and meshing with said pinions, actuating springs engaging said racks, a vertical lever pivotally mounted on said frame near its center, the upper end of said vertical lever engaging one of said racks, and a horizontal lever pivoted to said frame near its center, one end of said horizontal lever engaging the lower end of said vertical lever, the horizontal movement of the free end of said horizontal lever, by connecting mechanism, designed to rotate said shafts in one direction against the tension of said actuating springs, substantially as described.

1,204,081. SAFETY APPLIANCE FOR GAS APPARATUS. JOSEPH M. STABEL, Rochester, N. Y., assignor to Domestic Appliances Company, Rochester, N. Y., a Corporation of New York. Original application filed May 19, 1913, Serial No. 768,683. Divided and this application filed July 27, 1914. Serial No. 853,448. (Cl. 126—42.)



1. The combination with a gas-burner and a casing inclosing the burner, the latter being provided with an opening and with a closure therefor, of a manually-operable valve for controlling the flow of gas to the burner adapted to be operated independently of said closure, and locking means for locking said valve in closed position adapted to be held out of engagement with said valve by said closure when the latter is in its closed position and to lock said valve in closed position when released by the opening of the closure.

2. In combination with a gas-burner, a manually-operable valve for controlling the flow of gas to the burner, and a casing inclosing the burner and provided with an opening and with a closure therefor; a locking-member connected with the valve; and a detent tending to move into engagement with said locking-member to lock the valve in closed position; the detent having a part which is engaged by said closure when the latter is in closed position, whereby the detent is normally held in inoperative position.

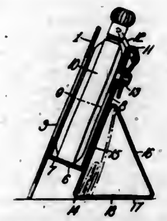
3. The combination with a gas-burner and a casing inclosing the burner, the latter being provided with an opening and with a closure therefor, of a manually-operable valve for controlling the flow of gas to the burner adapted to be operated independently of said closure and provided with means adapted when said valve is open to engage said closure in its closed position and to lock it in that position.

4. The combination with a gas-burner and a casing inclosing the burner, the latter being provided with an opening and with a closure therefor, of a manually-operable valve for controlling the flow of gas to the burner adapted to be operated independently of said closure and provided with means adapted when said valve is open to engage said closure in its closed position and to lock it in that position, and means for locking said valve in its closed position adapted to be held out of engagement with said valve by said closure when the latter is in its closed position and to lock said valve in closed position when released by the opening of said closure.

5. In combination with a gas-burner, a manually-operable valve for controlling the flow of gas to the burner, a pilot-light associated with the burner, a manually-operable valve for controlling the flow of gas to the pilot-light, and a casing inclosing the burner and the pilot-light and provided with an opening affording access to the pilot-light and with a closure for said opening; means cooperating with and controlled by said closure for locking closed the valve controlling the supply of gas to the burner while the closure is open; and means cooperating with both of said valves for locking in open position the valve for controlling the supply of gas to the pilot-light, while the valve for controlling the supply of gas to the burner is in open position.

[Claims 6 to 8 not printed in the Gazette.]

1,204,082. WATCHCASE. ABRAHAM S. STARK, New York, N. Y. Filed Mar. 3, 1916. Serial No. 81,859. (Cl. 224—4.)



1. In a watch case of the character described, a front member having an opening therein, a socket member arranged in back of said front member so as to hold a watch in such position that the face may be seen through said opening, and a strap adapted to engage the watch and said back member for holding the watch against accidental movement.

2. In a watch case of the character described, a front having an opening therein, a socket member arranged at the back of said front member for supporting a watch so that the face may be seen through said opening, a strap secured to said back and adapted to extend through the ring of said watch, and means for securing the free end of said strap to said socket member whereby the watch is locked in position.

3. In a watch case of the character described, a front member having an opening therein, a socket arranged at the rear of said front member for supporting a watch in such position that the face may be seen through said opening, and means connected with said socket member and adapted to engage the ring of the watch for preventing accidental movement of the watch.

4. In a watch case of the character described, a front member having an opening, a socket member arranged in back of said opening for holding a watch in position opposite the opening, means for holding the watch against rotation when in the socket, and an easel structure connected with the socket member for supporting the socket member and the front member, said easel structure comprising a bracing member and a foldable connecting link structure for holding the bracing member in position when the device is in use.

5. In a watch case of the character described, a front formed with an opening, a socket member arranged in back of said opening for holding a watch opposite said opening, a strap connected with said front provided with an aperture therein whereby the strap may be folded over the stem of the watch, said stem extending through said aperture, and means for locking the strap to the socket member.

1,204,083. APPARATUS FOR MANUFACTURING CEMENT BOARDS. ALDEN B. STARR, New York, N. Y. Filed Jan. 25, 1915. Serial No. 4,118. (Cl. 25—1.)

1. In a machine for manufacturing boards of cementitious material, an endless carrier constituting a mold, means for supporting said carrier with its face sloping transversely, means for feeding a liquid mass of the material to said mold, and means for displacing the liquid from said mass while in said mold.

2. In a machine for manufacturing boards of cementitious material, an endless carrier constituting a mold, means

for supporting said carrier with its face sloping transversely, means for feeding a liquid mass of the material to said mold, and means for applying suction to said layer to withdraw the liquid from the mass.



3. In a machine for manufacturing boards of cementitious material, a perforated endless belt having side flanges constituting a mold, a supporting table for the upper half of said belt and an adjustable support for said table and belt for tilting said parts transversely of their length, means for feeding a constant stream of liquid material to said belt to form a layer thereon, and means for displacing the liquid content from said layer while said layer is in motion.

1,204,084. SHUTTLE FOR WEFT-REPLENISHING LOOMS. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Oct. 12, 1915. Serial No. 55,383. (Cl. 139—27.)



1. A shuttle for weft replenishing looms having, in combination, a bent weft carrier holding spring; a spreader fitting between the legs of said spring; and a weft carrier directing guide, said guide having upper and lower plates united by the directing incline, said top and bottom plates extending respectively above and below the spring and spreader, the upper plate being bent at its sides downwardly along the sides of the spring shank and thence extending laterally to form flanges adapted to fit within grooves in the shuttle, and the end of the top plate being bent downwardly back of the curved inner end of the spring, whereby said spring, spreader and guide are united together prior to insertion in the shuttle, and said spreader having a bolt receiving hole adapted to register with the bolt receiving holes in the shank of the spring and said spreader further having an inclined end adapted to fit the inner face of the directing incline of the guide.

2. A shuttle for weft replenishing looms having, in combination, a bent weft carrier holding spring; a spreader fitting between the legs of said spring; and a weft carrier directing guide, said guide having upper and lower plates united by the directing incline, said top and bottom plates extending respectively above and below the spring and spreader, the upper plate being bent at its sides downwardly along the sides of the spring shank and thence outwardly to constitute flanges fitting grooves in the shuttle, and the end of the top plate being bent downwardly back of the inner end of the spring, whereby said spring, spreader and guide are united together prior to insertion in the shuttle, and said spreader having a bolt receiving hole adapted to register with the bolt receiving holes in the shank of the spring and said spreader fitting within the spring and guide so as to be maintained in position with its bolt receiving hole registering with the bolt holes of the spring.

3. A shuttle for weft replenishing looms having, in combination, a bent weft carrier holding spring; a spreader fitting between the legs of said spring; and a bent metal retainer folded around said spring and spreader so as to lock the same together, the top plate of said retainer being bent downwardly outside of the shank of the spring, and outwardly to constitute flanges to fit grooves in the shuttle.

4. A shuttle for weft replenishing looms having, in combination, weft carrier holding spring jaws; and a bent metal retainer having top and bottom plates above and below the shanks of said jaws, one of said plates being bent so as to embrace the sides of the shanks of the jaws and thence outwardly to constitute side flanges to fit grooves in the shuttle, and the edges of the other plate likewise fitting grooves in the shuttle.

1,204,085. MANUFACTURE OF TILES, ROOF-SHEETS, AND THE LIKE. EDGAR ROUSE SUTCLIFFE, Leigh, England. Filed Oct. 2, 1914. Serial No. 864,688. (Cl. 18—47.5.)

1. A method of manufacture of tiles, roof sheets and the like from fine sand and lime, consisting in mixing the fine sand and lime together and producing a liquid slip, incorporating asbestos fiber with the said liquid slip, compressing the liquid mixture within a mold for removing the main part of the water it contains, said mold being provided with filter cloths, removing the sheets or slabs thus produced, compressing the sheets or slabs between the filter cloths for further reducing their content of water, and then indurating the slabs or sheets by their subjection to the action of steam and compression mechanically applied.

2. A method of manufacture of tiles, roof sheets and the like from fine sand and lime, consisting in mixing the fine sand and lime together and producing a liquid slip, incorporating asbestos fiber with the said liquid slip, compressing the liquid mixture within a mold for removing the main part of the water it contains, said mold being provided with filter cloths, removing the sheets or slabs thus produced, compressing the sheets or slabs between the filter cloths for further reducing their content of water, removing the filter cloths, and then indurating the slabs or sheets by their subjection to the action of steam and compression mechanically applied.

3. A method of manufacture of tiles, roof sheets and the like from fine sand and lime, consisting in mixing the fine sand and lime together and producing a liquid slip, incorporating asbestos fiber with the said liquid slip, compressing the liquid mixture within a mold for removing the main part of the water it contains, said mold being provided with filter cloths, removing the sheets or slabs thus produced, compressing the sheets or slabs between the filter cloths for further reducing their content of water, removing the filter cloths, interposing metal sheets between the respective slabs, and indurating the said slabs by subjecting them to the action of steam and to compression mechanically applied.

4. A method of manufacture of tiles, roof sheets and the like from fine sand and lime, consisting in mixing the fine sand and lime together and producing a liquid slip, incorporating asbestos fiber with the said liquid slip, compressing the liquid mixture within a mold upon filter cloths for removing the main part of the water it contains, said mold being provided with filter cloths, removing the sheets or slabs thus produced, compressing the sheets or slabs between the filter cloths for further reducing their content of water, and then indurating the slabs or sheets by their subjection to the action of steam and compression mechanically applied.

5. A method of manufacture of tiles, roof sheets and the like from fine sand and lime, consisting in mixing the fine sand and lime together and producing a liquid slip, incorporating asbestos fiber with said liquid slip, compressing the liquid mixture within a mold for removing the main part of the water it contains, said mold being provided with filter cloths, removing the sheets or slabs thus produced, compressing the sheets or slabs between the filter cloths for further reducing their content of water, removing the filter cloths and piling the said slabs one upon the other with sheets of iron or other suitable hard material interposed, and then indurating the said slabs by subjecting them to the action of steam and to compression mechanically applied.

[Claim 6 not printed in the Gazette.]

1,204,086. TILES, ROOF-SHEETS, AND THE LIKE. EDGAR ROUSE SUTCLIFFE, Leigh, England. Filed Apr. 4, 1916. Serial No. 88,920. (Cl. 106—24.)

A new article of manufacture being a tile made of lime, fine sand and asbestos deprived of superfluous moisture, indurated and rendered tough.

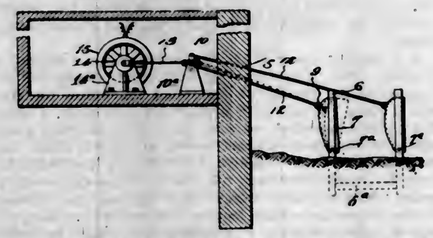
1,204,087. VALVE. ROBERT H. THORNE, Williamsport, Pa., assignor of one-half to J. Lewis Hough, Williamsport, Pa. Filed Dec. 17, 1909, Serial No. 533,526. Renewed Apr. 4, 1916. Serial No. 88,958. (Cl. 103—63.)



1. A valve seat comprising a body having its outer side cylindrical with the surface thereof parallel with the axis of the body and having on said body mid-way between its ends an outwardly projecting annular flange and provided on opposite sides of said flange with continuous annular grooves formed partly in the face of the flange at the junction of the latter and the body and partly in the body, the said grooves extending below the outer cylindrical surface of the body, substantially as set forth.

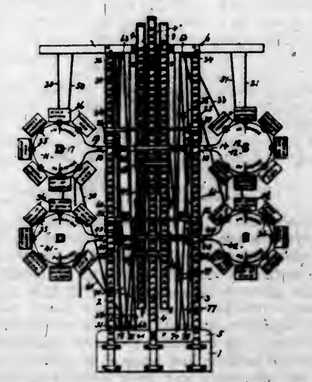
2. A valve seat comprising a body having its outer side cylindrical with the surface thereof parallel with the axis of the body, and having on said body mid-way between its ends an outwardly projecting annular flange and provided on opposite sides of the said flange with continuous annular grooves, said grooves being formed partly in the faces of the flange substantially as set forth.

1,204,088. WAVE-MOTOR. CHARLES H. TOLLEY, Ilion, N. Y. Filed Jan. 11, 1915. Serial No. 1,636. (Cl. 253—11.)



A wave motor including a wall, a base formed integrally with the rear face of the wall, a driven shaft supported on the base, brackets supported upon the base, and located between the wall and the motor, a second shaft journaled in the upper ends of the brackets, said second shaft provided with a plurality of cranks arranged at various angles, a plurality of piles arranged in pairs and located in the front of said wall, bucket members pivotally mounted between said piles, connecting rods extending through said wall and having one end connected to the buckets and their opposite ends connected to the various angled cranks of the second named shaft, means connecting the second named shaft with the motor shaft, said various angles of the cranks holding the buckets at various inclinations so that a rotary movement of the second named shaft is assured.

1,204,089. EDUCATIONAL APPLIANCE. EDSON NEWTON TUCKEY, Syracuse, N. Y. Filed Oct. 1, 1913. Serial No. 792,891. (Cl. 35—12.)



1. In an educational appliance for teaching economics, an upright scale representing quantitative variations, and a holder movable along the scale bar and bearing indicia representing forces which cause such variations.

2. An educational appliance having an upright scale-bar graduated to represent quantitative variations, a transversely extending bar movable along the scale bar, a disk pivoted to said bar and provided with a pointer movable along the scale-bar, and force cards mounted on the disk and bearing indicia representing forces which influence quantitative values.

3. An educational appliance comprising an upright scale-bar having a scale of marginal costs, a separate scale-bar having a scale of prices, said bars being movable relatively to each other, and a pointer movable along the scales of both bars.

4. An educational appliance comprising an upright scale-bar having a scale of quantitative values, a separate upright bar having a scale of marginal costs, and separate pointers movable along their respective scales.

5. An educational appliance having a scale of quantitative values, a pointer movable along said scale, a separate scale of prices, a pointer movable along the price scale, and connections between said pointers for transmitting motion from one to the other.

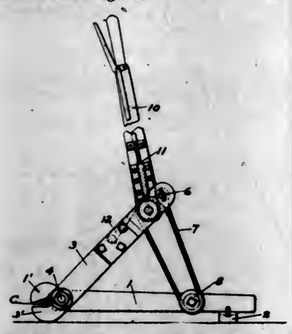
[Claims 6 to 23 not printed in the Gazette.]

1,204,090. POWER-CUTTER. JOHN VOLBSKE, Portland, Oreg. Filed Feb. 25, 1915. Serial No. 10,517. (Cl. 164—41.)

1. A power cutter of the character described, comprising a lower cutter member having a cutting jaw and a supporting base piece, an upper cutter member pivotally connected thereto and having a cutter jaw to coöperate with the jaw of the first member, a cable connection between the cutter members for drawing them together, a ratchet-operated winding member on one of said cutter members adapted to wind said cable, and means for operating said ratchet-operated winding member.

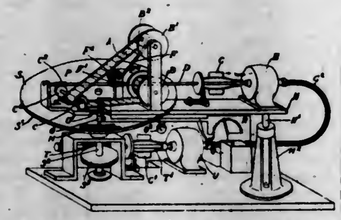
2. A power tool of the character referred to, comprising two members pivoted together intermediate their ends scissor fashion, and provided with cutting jaws at one end, one of said members being provided with a pulley, or sheave, and the other of said members being provided

with a cable drum, an operating cable connecting said members around said sheave, or pulley, and said cable drum, and a ratchet and hand lever mechanism for operating said cable drum, whereby to wind up said cable and to draw said members together.



3. A power cutter of the character described comprising in combination, a cutter member having a cutting jaw, a supporting base and a pulley, a second cutter member having a cutting jaw and a ratchet-operated drum, and pivotally connected to said first cutter member, a cable attached to said second cutter member and passed around the pulley on said first cutter member, and to said drum, and a handle pivotally connected to said second cutter member and adapted to operate said drum, to wind up said cable and draw said cutter members together, substantially as described.

1,204,091. APPARATUS FOR PREPARING COMBINED CINEMATOGRAPHIC AND PHONOGRAPHIC RECORDS. KATHARINA VON MADALER, West Drayton, England, assignor to Projectophone Company Inc., a Corporation of New York. Filed Oct. 14, 1911. Serial No. 654,774. (Cl. 274—3.)



1. Apparatus for copying upon a ribbon a phonographic record from a master record, comprising in combination a wire suitably mounted with relation to said master record, means for heating said wire and means for causing said ribbon to move past said wire with its edge in contact therewith.

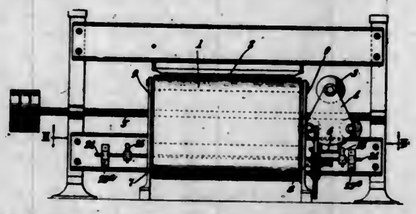
2. Apparatus for copying upon a ribbon, a phonographic record from a master record comprising in combination means for causing appropriate longitudinal travel of said ribbon, a support therefor adapted to permit proper movement of said means to follow the line of undulations in said record, a stylus suitably mounted, a wire so connected with said stylus as to vibrate with it, and means for electrically heating said wire.

3. The combination of means for supporting a ribbon, a sound record, a stylus in contact with the sound grooves in said record, a pivotally mounted wire attached to said stylus, means for heating said wire, means for rotating said record and means for moving said ribbon past said wire with an edge in contact therewith.

4. The combination of a flat phonograph record, a support adapted to swing over and parallel with it, ribbon carrying means mounted on said support, a vibratory wire also on said support and adapted to be vibrated by said phonograph record, means for driving said phonograph record, and means for moving the ribbon past said wire and in contact therewith.

5. The combination of means for supporting a cinematograph film, a sound record, a needle in contact with the sound grooves on said record, a holder for said needle said holder being pivotally mounted, a wire supported by said holder, means for heating said wire, means for rotating said record and means for moving said film past the wire with an edge of the film in contact with said wire.

1,204,092. LEATHER ROLLING AND EMBOSSING MACHINE. CARL VOSS, Newark, N. J., assignor of one-half to Melchior J. C. Walter, Newark, N. J. Filed Jan. 11, 1915. Serial No. 1,560. (Cl. 14—23.)



1. A leather pressing machine comprising an endless transfer belt, a pressing roller, a carriage for said roller, means for moving said roller carriage back and forth across the transfer belt, means for moving the transfer belt, means for intermittently connecting the transfer belt moving means to said belt and disconnecting it therefrom, and means operated by the pressing roller carriage at the end of its movement in either direction to intermittently connect the transfer belt moving means to said belt and to disconnect it therefrom, the time interval between the connection and disconnection of said mechanism permitting the movement of the transfer belt a predetermined distance.

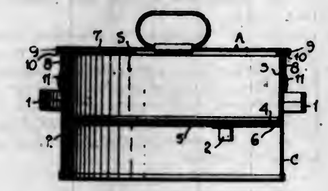
2. A leather pressing machine comprising a frame, a pressing roller, a carriage for said roller, means for reciprocating the carriage in the frame, an endless transfer belt, driving means for said transfer belt, a clutch to connect the transfer belt to the driving mechanism, and means operated by the pressing roller carriage when it approaches the end of its movement in either direction for automatically releasing and then locking the clutch.

3. A leather pressing machine comprising a frame, a pressing roller, a carriage for said roller, means for reciprocating the carriage in the frame, an endless transfer belt, a driving pulley for said belt, means for operatively connecting and disconnecting said driving pulley to the belt and means operated by the pressing roller carriage as it approaches the end of its movement in either direction for operating said connecting and disconnecting means.

4. A leather pressing machine comprising a frame, a pressing roller, a carriage for said roller, means for reciprocating the carriage in the frame, an endless transfer belt, a drum for said belt, a shaft for said drum, a stop-disk rigidly mounted on said shaft and carrying stop-lugs, a driving pulley loosely mounted on said shaft and bearing against the stop-disk, a clutch-disk longitudinally movable on said shaft and adapted to rotate therewith, a spring pressing said clutch disk against the driving pulley, a spring-pressed locking bolt normally engaging one of said stop-lugs, a controller-bar, means whereby the carriage will move the controller-bar as said carriage approaches the end of its movement in either direction, means carried by the controller-bar to withdraw the locking bolt to disengage it from the stop-lug and to then release it and permit it to engage the next stop-lug on the stop-disk.

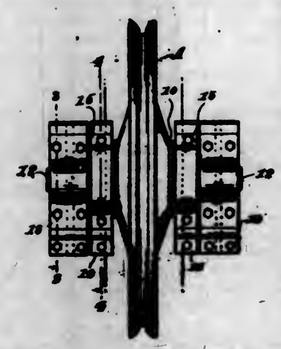
5. A leather pressing machine comprising a frame, a pressing roller, a carriage for said roller, means for reciprocating the carriage in the frame, an endless transfer belt, a friction driving means for said belt, means for normally holding said friction driving means out of operation, and means operated by the carriage as it approaches the limit of its movement in either direction to release said friction driving means to feed the transfer belt a predetermined distance and to then lock the said driving means before the reversal of movement of the carriage.

1,204,093. CLOSURE FOR RECEPTACLES. JOHN WAGNER, Long Island City, N. Y. Filed Mar. 2, 1916. Serial No. 81,698. (Cl. 220—76.)



The combination with a container, of a closure therefor having a body wall and an annular wall fixed to the outer edge of said body wall and normally inclined inwardly toward the center thereof, the major portion of said annular wall having frictional bearing engagement upon the outer face of the container wall, the free edge of the annular wall being formed with annular portions obtusely inclined with respect to each other and projecting outwardly in converging relation, said annular inclined portions being spaced from the container wall when the closure is applied and resiliently acting to cause an inward bearing pressure of the lower edge of said annular wall upon the wall of the container.

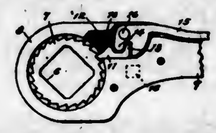
1,204,094. PULLEY OR SHEAVE JOURNAL AND MOUNT. JOHN MADISON WAITS, Eldorado, Ill. Filed Feb. 18, 1916. Serial No. 79,170. (Cl. 64—66.)



1. The combination with a pulley wheel having a hub, of an axle passed through the hub and having different cross sectional diameters, the larger diameter being extended beyond opposite sides of the hub, bearings receiving the smaller diameter of the axle, and auxiliary bearings receiving the larger diameter of the axle beyond opposite ends of the hub.

2. The combination of a pulley wheel having a hub, of an axle passed through the hub and having different cross sectional diameters, the larger diameter being extended beyond opposite sides of the hub, bearings receiving the smaller diameter of the axle, auxiliary bearings receiving the larger diameter of the axle beyond opposite ends of the hub, each of the said bearings being formed in a plurality of separable sections.

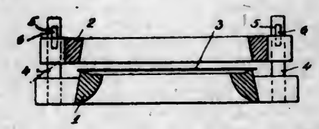
1,204,095. RATCHET-WRENCH. CHARLES J. WALLEM, Cleveland, Ohio. Filed July 10, 1916. Serial No. 108,413. (Cl. 81—60.)



1. The combination with a ratchet wheel, handle, and a sliding pawl carried by the handle and engageable with the wheel, of a lever pivoted on the handle, said pawl having a projection engaged by the lever to advance or retract the pawl.

2. The combination with a ratchet wheel and handle, of a sliding pawl carried by the handle and engageable with the wheel, said pawl having lugs, and an operating lever for the pawl, pivoted to the handle, and having a projection engaging between said lugs to advance or retract the pawl.

1,204,096. METAL SHEET FOR ACOUSTIC PURPOSES AND METHOD OF MAKING SAME. PER ARON WALLER, Stockholm, Sweden, assignor to Carl Richard Waller, Trenton, N. J. Filed Oct. 26, 1912. Serial No. 727,972. (Cl. 148—21.)



1. The herein described method of treating sheet steel to be used for sounding boards and the like, which comprises heating the steel sheet to a temperature such that, when cooled while held against contraction, it is stretched beyond its elastic limit, and then holding along its edges the steel sheet so heated and permitting it to cool, and thereby stretching the steel beyond its elastic limit.

2. The herein described method of treating sheet metal to be used for sounding boards and the like, which comprises heating the metal sheet to a temperature above its critical point of transformation, and then holding along its edges the metal sheet against contraction and permitting it to cool.

3. The herein described method of treating metal to be used for sounding boards and the like, which comprises heating the metal to a temperature above its critical point of transformation, and then clamping the metal between the surfaces of metal bodies having high heat absorption capacity, and permitting the heated metal to cool while so held.

4. The process of treating flat sheets of metal to remove unevennesses therefrom which comprises stretching said sheets longitudinally to beyond the elastic limit of the metal while in a heated condition.

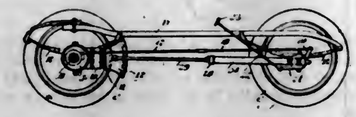
5. The process of treating flat sheets of metal to remove unevennesses therefrom which comprises stretching said sheets both laterally and longitudinally to beyond the elastic limit of the metal while in a heated condition.

[Claims 6 to 21 not printed in the Gazette.]

1,204,097. VEHICLE-BRAKE. RICHARD F. WALTER, New York, N. Y. Filed Sept. 27, 1915. Serial No. 52,933. (Cl. 21—8.)

1. A vehicle brake comprising a brake shoe normally disposed adjacent the periphery of the wheel and comprising a plurality of spaced sections, means for moving the shoe into engagement with the wheel, a serpentine spring interposed between said sections and providing a yieldable connection therebetween to allow the shoe to accommodate itself to the wheel upon its application thereto.

2. A vehicle brake comprising in combination an eccentric loosely mounted upon the rear axle of the vehicle, a brake shoe associated with said eccentric and adapted to be moved thereby into frictional engagement with the wheel, said shoe being thereby adapted to be carried by said wheel into contact with the ground to active position independently of said eccentric, and means for checking the movement of said shoe to active position, and adapted to return said shoe to normal position.

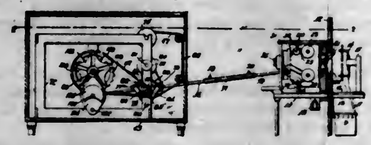


3. A vehicle brake comprising a brake shoe normally disposed adjacent the periphery of the wheel, means for moving said shoe into engagement therewith, including a bell crank lever mounted upon the front axle of the vehicle for rocking movement, an operating rod connected with said shoe and one branch of the bell crank lever, a foot operated rod connected with the other branch of said lever for operating the latter, and means for returning said shoe to normal position.

4. A vehicle brake comprising a brake shoe normally disposed adjacent the periphery of the wheel, means for moving said shoe into engagement therewith, means for checking the movement of said shoe to active position including a casing normally disposed in horizontal position and having one end journaled upon the front axle of the machine, a rod connected with the shoe and slidably fitted within said casing and adapted to move said casing to an inclined position upon movement of the shoe to active position, a spring encircling said rod and arranged within the casing, said spring normally extending throughout the major portion of the length of the casing and adapted to automatically return the shoe and casing to normal position.

5. A vehicle brake comprising a brake shoe normally disposed adjacent the periphery of the wheel and consisting of a plurality of spaced sections, flanges formed on the adjacent ends of said sections and disposed in confronting relation, and a yieldable connection between said flanges to allow the shoe to accommodate itself to the wheel upon its application thereto.

1,204,098. PHOTOGRAPHIC DUPLICATING AND ENLARGING APPARATUS. GEORGE R. WATSON, Portland, Oreg. Filed Nov. 14, 1913. Serial No. 801,088. (Cl. 88—24.)



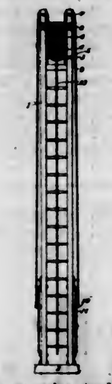
1. In a reproducing apparatus, the combination of a case having an exposure opening, a removable slide covering the latter and having a supplemental exposure opening controlling the area exposed, means for moving a ribbon having a sensitized surface across said exposure opening of the case, and a removable roller over which said ribbon is drawn by said moving means, such roller being provided with means for marking on said ribbon the dividing line between the adjacent exposed areas.

2. In a reproducing apparatus, the combination of a case having an exposure opening, a removable slide covering the latter and having a supplemental exposure opening controlling the area exposed, reels adapted for winding and unwinding a ribbon having a sensitized surface across said exposure opening of the case, a removable spacing roller disposed relatively to said reels, and means between the reels for guiding said ribbon over said spacing roller, the latter being provided with means for marking on said ribbon the dividing line between the adjacent exposed areas.

3. In a reproducing apparatus, the combination of a case having an exposure opening, a removable slide covering the latter and having a supplemental exposure opening controlling the area exposed, reels adapted for winding and unwinding a ribbon having a sensitized surface across said exposure opening of the case, a removable spacing roller disposed relatively to said reels, means between the reels for guiding said ribbon over said spacing roller, the latter being provided with means for marking on said ribbon the dividing line between the adjacent exposed areas, and means for holding said ribbon tautly on said spacing roller.

4. In an apparatus of the character described, the combination of a projecting camera having means for feeding a ribbon of negative film, a reproducing camera having means for feeding a ribbon of sensitised surface across the exposure opening of said camera in position to receive the image projected from the negative film, and disconnectible means for operating the projecting camera from the reproducing camera.

1,204,099. WELL-DRILLING DEVICE. GEORGE R. WATSON, Waterloo, Iowa. Filed Apr. 8, 1916. Serial No. 89,776. (Cl. 255—16.)



1. In combination, a wire tool-carrying cable, and a body over which it is dependingly movable, a support upon which said body is movable, and yieldable cables connected to said support, passed theerover, and linked together, with the said body supported movably at their linked ends.

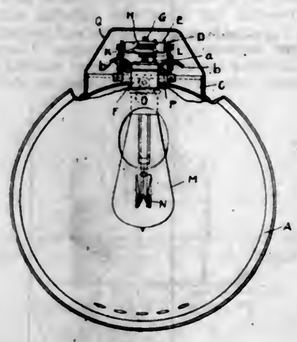
2. In combination, a wire tool-carrying cable, and a yieldable cable supporting same while permitting unlimited longitudinal movements to and fro of the wire cable.

3. In combination, a wire tool-carrying cable, yieldable cable sections, and an unyielding linking connection between adjacent ends of the yieldable cables, the other ends of the latter being anchored, with the linking-connection thereof supporting the wire cable while permitting unlimited longitudinal movements of the wire cable.

4. In combination, an unyielding cable, a yieldable cable, and supporting-means on which both are mounted and to which the yieldable cable is secured, the unyielding cable being freely movable longitudinally, and the yielding cable sustaining stresses of impacts imparted theerto by the unyielding cable.

5. In combination, a derrick, a block slidingly mounted in the upper end thereof, a sheave in said block, an unyielding cable reeved over said block, a boring-tool suspended from a depending end of said cable, means for longitudinally shifting said cable to and fro, an inelastic flexible linking means passed about said block and about the derrick to be supported thereon and depend therefrom, sheaves on said derrick over which said linking means is passed, and a relatively short length of yieldable cable connected to each end of said linking means and adjustably secured at their lower ends to the lower part of the derrick.

1,204,100. PROJECTOR. CLARENCE W. WHITE and LOUIS RAY WHITE, North Bennington, Vt. Filed Feb. 17, 1915. Serial No. 8,728. (Cl. 240—44.)



1. A projector comprising in combination a reflector, a pivot block, means for pivotally supporting said pivot block on the projector, an incandescent lamp socket, and means for adjustably securing said lamp socket to said pivot block.

2. A projector comprising in combination a reflector, a pivot block, means for pivotally supporting said pivot block, means for supporting said pivot block supporting means on the projector, an incandescent lamp socket and means for adjustably securing said lamp socket to said pivot block.

3. A projector comprising in combination a reflector, a pivot block, means for pivotally supporting said pivot block, means for supporting said pivot block supporting means on the projector, an incandescent lamp socket, means for adjustably securing said lamp socket to said pivot block, and means for adjusting said lamp socket about said pivot block.

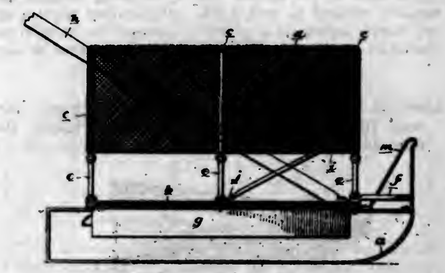
4. A projector comprising in combination a reflector, a pivot block, means for pivotally supporting said pivot block at right angles to the optical axis of said reflector, means for supporting said pivot block supporting means on the projector, an incandescent lamp socket, and means for adjustably securing said lamp socket to said pivot block.

5. A projector comprising in combination a reflector, a pivot block, means for pivotally supporting said pivot block at right angles to the optical axis of said reflector, means for supporting said pivot block supporting means on the projector, an incandescent lamp socket, means for adjustably securing said lamp socket to said pivot block, and means for adjusting said lamp socket about said pivot block.

1,204,101. COTTON-BOLL-WEEVIL DESTROYER. WILLIAM E. WHITE, Troy, Ala. Filed Aug. 9, 1916. Serial No. 113,937. (Cl. 43—1.)

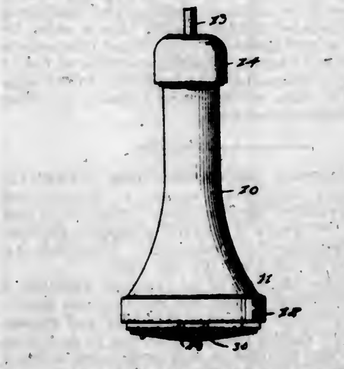
1. In an apparatus of the class set forth, transporting devices, a pair of frames carried thereby and projecting inwardly therefrom, a removable tray or pan supported by each of these frames, a series of bowed rods connecting the frames and provided with a covering to form a hood, and means within the hood for agitating the plants as the stalks thereof pass between the adjacent edges of said frames, said means consisting of a bow extending upwardly and forwardly from the frames.

2. In an apparatus of the class set forth, transporting devices, a pair of frames carried thereby and projecting inwardly therefrom, a removable tray or pan supported by each of these frames, a series of bowed rods connecting the frames and provided with a covering to form a hood, and means within the hood for agitating the plants as the stalks thereof pass between the adjacent edges of said frames, said means consisting of a bow extending upwardly and forwardly from the frames, said bow being adjustable upwardly and downwardly.



3. In an apparatus of the class set forth, transporting devices, a pair of frames carried thereby and projecting inwardly therefrom, a removable tray or pan supported by each of these frames, a series of bowed rods connecting the frames and provided with a covering to form a hood, and means within the hood for agitating the plants as the stalks thereof pass between the adjacent edges of said frames, said means consisting of a bow extending upwardly and forwardly from the frames, said bow being bendable upwardly and downwardly.

1,204,102. ROTARY GRINDING AND POLISHING TOOL. WILLIS WHITFORD, Vawn, Saskatchewan, Canada. Filed June 23, 1916. Serial No. 105,426. (Cl. 51—1.)



1. A polishing and grinding tool comprising a hollow handle, a shaft rotatably supported in said handle having one end slotted, a head removably secured to the slotted end of said shaft, and a sleeve fitted in said slot and non-rotatably engaged with said head.

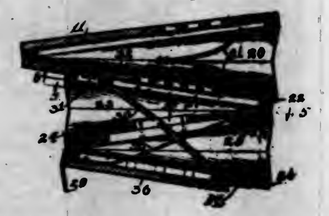
2. A rotary tool comprising a hollow handle, a shaft rotatably supported in said handle having one end slotted, a head detachably secured to the slotted end of said shaft and having a diametrical slot therein, and a substantially triangular key fitted in the slots in said shaft and said head for non-rotatably securing the latter against rotary movement upon said shaft.

3. A tool comprising a handle, a shaft rotatably supported within said handle, a head detachably secured to said shaft having a laterally projecting flange, a surfacing element supported in said flange, and spring actuated

pins carried by said flange and adapted to engage said surfacing element to secure the latter against removal.

4. A tool comprising a handle, having one end enlarged and provided with depending flanges forming an annular recess, a shaft rotatably supported in said handle, an apertured cap fitted over one end of said handle, a head detachably secured to said shaft and partially fitted within the annular recess, and the depending flanges of the enlarged ends of the handle, and a surfacing element detachably secured to said head, said enlarged portion of the handle acting as a guide to prevent the hand from coming in contact with the surfacing element when in use.

1,204,103. ORGAN-BELLOWS. GEORGE C. WICK, Chicago, Ill., assignor to Peter P. Bilhorn, Chicago, Ill. Filed Jan. 30, 1915. Serial No. 5,224. Cl. 230—36.)



1. In a bellows construction of the class described, the combination with a vacuum box of an organ, of a main vacuum bellows connected therewith, an auxiliary vacuum bellows connected to said main bellows and comprising two chambers collapsible from opposite ends, a pedal for operating one of said chambers, and connections between said chambers whereby said operation is imparted to the other chamber.

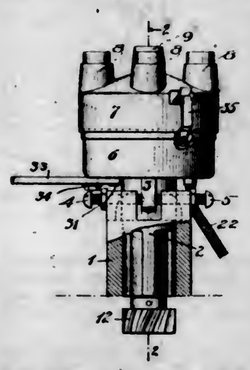
2. In a bellows construction of the class described, the combination with the vacuum box of an organ, of a main vacuum bellows connected therewith, an auxiliary vacuum bellows connected to said main bellows and comprising two chambers collapsible from opposite ends, a pedal for operating one of said chambers, a rod hinged intermediate said chambers and adapted upon the operation of one of said chambers to communicate said operation to the other chamber, and a single spring acting normally to retain both of said chambers expanded.

1,204,104. IGNITION MECHANISM FOR INTERNAL-COMBUSTION ENGINES. ERNEST C. WILCOX and JOHN F. CAVANAGH, Meriden, Conn., assignors to The Connecticut Telephone & Electric Company, Meriden, Conn., a Corporation of Connecticut. Filed Jan. 14, 1916. Serial No. 72,028. (Cl. 123—167.)

1. In an igniter apparatus of the character described, a timer housing, a unitary timer stationary element mounted therein and bodily removable therefrom and thereon and comprising a carrier movable relatively to said housing, a contact arm mounted on said carrier and having a contact point, a second stationary coöperating contact point mounted on said carrier and rotatable means for intermittently operating said arm to separate said contact points, with means mounted independently of said timer element for moving said carrier to vary the moment of operation of said cam on said arm.

2. In an igniter mechanism, a stationary timer housing, a cam shaft projecting thereinto and having a cam arranged therein, a timer element removably mounted in and on said housing and angularly adjustable therein relatively thereto and to said cam shaft, and means arranged externally of said timer housing and mounted independently of said timer element for shifting said timer element.

3. In an igniter mechanism, a relatively stationary timer housing, a relatively stationary distributer housing carried thereby and having distributer terminals, a cam shaft having a cam projecting into the timer housing, a radial distributer arm carried by said cam shaft and projecting into said distributer housing, a timer element mounted within and on said timer housing and including a carrier having a passage of sufficient size to permit said cam to pass therethrough, a movable contact arm mounted thereon having a contact point, a relatively stationary contact point also mounted on said carrier, said interrupter element being adjustable relatively to said stationary timer housing and distributer housing, and means mounted on the outside of said housing and projecting into the same for adjusting said interrupter element, and means for adjusting the stationary timer housing and distributer housing relatively to and around the axis of said cam shaft.



4. In an igniter mechanism, a relatively stationary distributer part including at least two terminals, a rotatable distributer arm including a contact adapted to intermittently close the circuit between said terminals and including a rotatable shaft, a timer housing surrounding said shaft and a timer element inclosed in said housing and mounted thereon, said timer element being rotatably adjustable relatively to said housing, said housing being relatively stationary, with means mounted independently of said timer element and outside said housing for rotatably shifting said timer element, said timer element including two make and break contacts, one of which at least is insulated from said timer element and said housing.

5. In an igniter mechanism, a relatively stationary timer and distributer housing with means for rotatably adjusting the same relatively to a fixed part, a shaft projecting into said housing, a radial distributer arm carried by said shaft within said housing, a cam carried by said shaft within said housing, said two housings being separable, a partially rotatable timer element removably mounted within and on said housing and including a carrier, a contact point carried thereby and stationary relatively thereto and another coöperating contact point carried thereby and movable relatively thereto, and means for moving said last mentioned contact point through the medium of said cam and means mounted independently of said timer element and external of said housing for moving said contact element in said housing to vary the moment of operation of said cam on said movable point.

[Claims 6 to 12 not printed in the Gazette.]

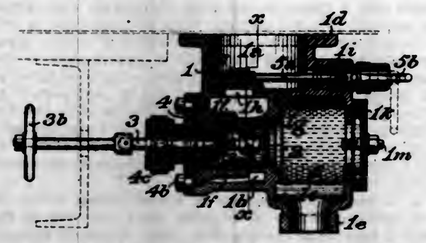
1,204,105. SAND-TRAP FOR OIL-WELLS. CLARENCE A. WILBY, Tulsa, Okla. Filed Oct. 17, 1914. Serial No. 867,197. (Cl. 103—64.)

In a sand trap for oil well pumps, a working barrel, and an alined and perforated intake pipe spaced from said barrel, an enlarged settling chamber formed of a plurality of annular sections, threaded collars connecting the opposing ends of said sections, a valve on the upper end of said intake pipe extending within said setting chamber to a point near the connected ends of two of said annular sections to permit easy access to said valve by separating



said sections, and reduced ends on the settling chamber connected to the working valve and to the intake valve.

1,204,106. TENDER-TANK VALVE. JOHN J. WING, Yonkers, N. Y. Filed Apr. 26, 1916. Serial No. 93,588. (Cl. 137—21.)



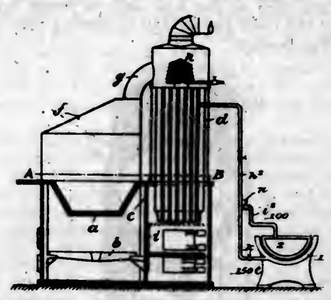
1. A valve casing provided at the top with flanges for attaching it to the underside of a tank floor, the upper part of the casing forming an inlet chamber, a horisontally sliding valve in said chamber to control the egress therefrom, a valve chamber located below one side of and normally communicating with said inlet chamber, a horisontally sliding valve in said valve chamber to control the egress therefrom, a strainer chamber located below the other side of said inlet chamber normally communicating with said valve chamber and provided with an outlook in its bottom, and manually operable means for actuating said valves, projecting horisontally from opposite sides of the casing.

2. A valve casing provided with means for attaching it to the underside of a tank floor, partitions in said casing dividing it into a vertical cylindrical inlet chamber at the top, and horisontal cylindrical valve and strainer chambers below, the partitions between the inlet and valve chambers and between the valve and strainer chambers having openings surrounded by valve seats, and the strainer chamber having a discharge opening in its bottom, horisontally movable valves in said inlet and valve chambers, respectively, to close said openings, and means for actuating said valves projecting through opposite sides of the casing.

1,204,107. PRODUCTION OF STEREOTYPIC PRINTING-PLATES. CARL WINKLER, Bern, Switzerland. Filed Feb. 25, 1915. Serial No. 10,598. (Cl. 22—192.)

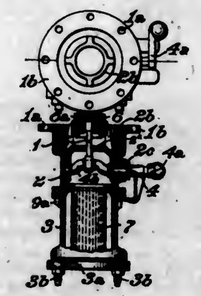
1. The process for casting stereotype plates which consists in keeping the parts of the mold at approximately constant but different temperatures during the time immediately preceding the flowing in of the molten metal, during the flowing in of the molten metal and during the cooling of the plate, by conducting a thermic agent of

higher constant temperature through the jacket of the part carrying the matrix and a thermic agent of lower constant temperature through the other part of the mold, substantially as and for the purpose set forth.



2. The process of casting stereotype plates, consisting in subjecting the parts of the mold, prior to the introduction of the metal thereto, to the action of a heating medium to raise the part carrying the matrix to a temperature greater than the other part, and maintaining the parts of the mold at constant but different temperatures throughout the casting operation.

1,204,108. TENDER-TANK VALVE. WILLIAM E. WOODARD, Schenectady, N. Y., assignor to American Locomotive Company, New York, N. Y., a Corporation of New York. Filed Feb. 17, 1916. Serial No. 78,901. (Cl. 137—21.)



A valve casing of the class described, comprising a cup-shaped receiving section, having means for attaching it to the underside of a tank and an opening in its bottom, a cylindrical intermediate section, open at both ends, having a valve seat formed in its top, which projects into the opening in said cup-shaped member, and having valve guides projecting upwardly from around said valve seat, and a cylindrical strainer or delivery section, fitted against the lower end of said intermediate section and having a lateral outlet, bolts clamping said three sections together, a cap closing the lower end of said strainer or delivery section, a valve mounted in said guides, a crank-shaft journaled in the walls of said intermediate section and connected to said valve, and manually operable means on the end of said crank shaft.

1,204,109. REPLACEABLE-TREAD VEHICLE-TIRE. OTTO ZARTH, Aurora, Ill., assignor of one-half to William H. McCullouch, Aurora, Ill. Filed May 26, 1913. Serial No. 770,398. (Cl. 152—19.)

1. A pneumatic tire casing comprising side sections and a tread section, the tread section being provided at opposite sides of its tread portion with spaced flaps forming pockets and the side sections having spaced flaps forming pockets, the flaps of the side section fitting into the pockets of the tread section.

2. A pneumatic tire casing comprising side sections and a tread section, the tread section being provided at opposite sides of its tread portion with spaced flaps forming pockets and the side sections having spaced flaps forming pockets, the flaps of the side sections fitting into the pockets of the tread section, the interfitting flaps having interlocking elements.



3. A pneumatic tire casing comprising side sections and a tread section, the tread section being provided at opposite sides of its tread portion with spaced flaps forming pockets and the side sections having spaced flaps forming pockets, the flaps of the side sections fitting into the pockets of the tread section, the interfitting flaps having interlocking ribs and grooves in their contacting faces.

1,204,110. AIR-VALVE FOR INTERNAL-COMBUSTION ENGINES. WILLIAM AIRD, Barrie, Ontario, Canada. Filed Nov. 15, 1915. Serial No. 61,586. (Cl. 137—26.)

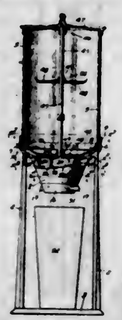


1. In an air valve for internal combustion engines and the like, an inlet manifold, an exteriorly threaded tube secured in said manifold and projecting therefrom, a substantially T-shaped pipe having one arm screw threaded to said tube and having another of its arms closed, a tubular valve screw threaded into the opening in the other arm of said pipe, air openings in said valve oppositely disposed in relation to one another and in relation to the ends of said valve, an operating rod rigidly secured to the outer end of said valve, a shoulder on the inner end of said rod adapted to abut the end of said pipe when the said valve is screwed tightly thereinto and a disk on the outer end of said rod for operating said valve.

2. The combination with a manifold pipe of a T pipe having one arm thereof closed, engaging said manifold pipe, two of the arms of said T pipe being internally threaded, a nipple threaded in one arm of the T pipe and threaded into said manifold pipe for connecting the same, a valve having a hollow externally threaded end engaging the threads of another arm of the T pipe for adjustment therein, said hollow arm of said valve having an elongated slot therein for movement into the end of the T pipe when the valve is rotated in one direction and for movement out of the T pipe when the valve is rotated in the opposite direction, a stem upon said valve, a handle attached to the stem, and retaining means upon the handle for showing the position of the valve.

1,204,111. MALTED-MILK DISPENSER. ARTHUR L. ANDERSON, Los Angeles, Cal. Filed May 22, 1915. Serial No. 29,908. (Cl. 221—109.)

1. A malted milk dispenser comprising a hopper having a downward passage, a guard-plate extending over said passage, a chamber formed between said passage and the guard-plate, a charge delivering device rotatable in said chamber and provided with pockets open at the top and bottom to receive a charge from the hopper in one position and to deliver it through the passage in another position, and oscillating means to rotate the charge-delivering device from pocket filling to pocket discharging position.



2. A dispenser comprising a hopper having a rim; a downwardly sloping wall extending from said rim; a seat at the lower end of said wall; a chamber below the level of the seat, a floor below the chamber, and a downward passage through the floor; a container seated in the rim; a guard-plate seated in the seat; a charge-delivering device mounted in the chamber; said guard-plate being provided with a closed portion over the passage and having an opening to allow material from the container to fall into said chamber, said charge-delivering device being provided with pockets open from the guard-plate to the floor and said charge-delivering device being adapted to be moved from a position where one of said pockets is closed by the floor and open to the container to another position where said pocket is open to the downward passage and closed to the container by the closed portion of the guard-plate; and means to move said charge-delivering device.

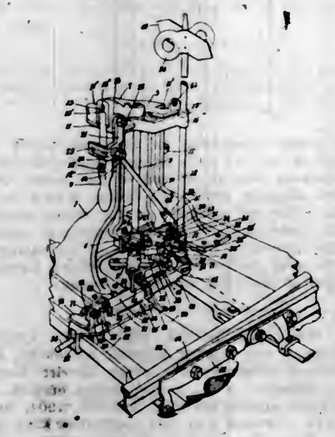
3. A dispenser comprising a hopper having a rim; a seat within said rim; a chamber below the level of the seat, a floor below the chamber, and a downward passage through the floor; a container seated in the rim; a guard-plate seated in the seat; a charge-delivering device mounted in the chamber; said guard-plate being provided with a closed portion over the passage and having an opening to allow material from the container to fall into said chamber, said charge-delivering device being provided with pockets open from the guard-plate to the floor and said charge-delivering device being adapted to be moved from a position where one of said pockets is closed by the floor and open to the container to another position where said pocket is open to the downward passage and closed to the container by the closed portion of the guard-plate; and means to move said charge-delivering device.

4. A malted milk dispenser comprising a hopper having a downward passage, a guard-plate extending over said passage, an annular chamber formed between said passage and guard-plate, a charge-delivering device rotatable in said chamber and having radial arms, pockets formed between said arms to receive a charge from the hopper in one position and to deliver it through the passage in another position, said pockets comprising parallel side walls and a movable transverse wall, the transverse wall having a top overhanging member and being adapted to be moved back and forth between said parallel side walls to contract or expand the pocket, said overhanging member being adjustably secured upon the top of the charge-delivering device to adjustably position the transverse wall and thereby regulate the amount of the charge, and means connected to rotate the charge-delivering device from pocket-filling to pocket-discharging position.

5. A malted milk dispenser comprising a hopper having a downward passage, a guard-plate extending over said passage, an annular chamber formed between said passage and guard-plate, a charge-delivering device rotatable in said chamber and having radial arms, pockets formed between said arms to receive a charge from the hopper in one position and to deliver it through the passage in another position, said pockets comprising parallel side walls having ways at the tops thereof, a transverse wall having a top overhanging member and being adapted to be moved back and forth between said parallel side walls to contract or expand the pocket, said overhanging member running in said ways and being adjustably secured upon the top of the charge-delivering device to adjustably position the transverse wall and thereby regulate the amount of the charge, and means connected to rotate the charge-delivering device from pocket-filling to pocket-discharging position.

[Claims 6 to 10 not printed in the Gazette.]

1,204,112. INTERLOCKING AND TARGET-OPERATING SWITCH-STAND. FRANK C. ANDERSON, Cincinnati, Ohio, assignor to The American Valve & Meter Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 18, 1914. Serial No. 872,744. (Cl. 104—25.)



1. In combination with a switch stand and interlocking mechanism for said switch stand, an interlock-operating lever mounted on said switch stand and swinging in substantially a single plane, a switch-operating element requiring initial movement in one plane before being movable in another plane to operate the switch, and disengageable operative connection between this element and said lever, whereby said lever is swung during said initial movement of said element, and operative connection between said lever and said interlocking mechanism, comprising two arms and a shaft fixed together, a bearing for the shaft whereby said arms swing in a plane substantially parallel with that of said interlock-operating lever, connecting rod from said lever to one of the arms, and connection from the other arm to the interlocking mechanism.

2. An operative connection for a switch-stand interlock-operating lever and an interlocking mechanism, comprising an arm, a shaft and a head fixed together, a bearing for said shaft, and an arm adjustably secured in said head, a connecting rod from said lever to the first mentioned arm, and operative connection from the adjustably secured arm to the interlocking mechanism.

3. An operative connection for a switch-stand interlock-operating lever and an interlocking mechanism, comprising an arm, a shaft and a head fixed together, a bearing for said shaft, an arm removably fixed in said head, said head having means whereby the arm may be fixed therein at a substantially different angle, a connecting rod from said lever to said first mentioned arm, and operative connection from the removably fixed arm to the interlocking mechanism.

4. An operative connection for a switch-stand interlock-operating lever and an interlocking mechanism, comprising an arm, a shaft and a head fixed together, a bearing for said shaft, an arm removably fixed in said head, said head having means whereby the arm may be fixed therein at a substantially different angle, a connecting rod from said lever to said first mentioned arm, operative connection from the removably fixed arm to the interlocking mechanism, and a stop on said bearing for one of said arms.

5. An operative connection for a switch-stand interlock-operating lever and an interlocking mechanism, comprising an arm, a shaft and a head fixed together, a bearing for said shaft, an arm removably fixed in said head, said head having means whereby the arm may be fixed therein at a substantially different angle, a connecting rod from said lever to said first mentioned arm, operative connection from the removably fixed arm to the interlocking mechanism, said bearing comprising a cap which is reversible thereon, and stops on said cap for one of said arms, either one or the other of said stops coming into use accordingly as the cap is reversed or not.

[Claims 6 and 7 not printed in the Gazette.]

1,204,113. ORTHODONTIC APPLIANCE. EDWARD H. ANGLE, New London, Conn. Filed May 19, 1914. Serial No. 839,541. (Cl. 32—19.)



1. An orthodontic appliance, comprising tooth-engaging means having a slot provided with a grooved wall, an arch-bar arranged to be snugly fitted in said slot and having a groove extending longitudinally thereof and in registry with the groove in the wall of said slot, and complementary therewith to form a keyway, and means extended through said keyway for rigidly connecting said arch-bar with said tooth-engaging means in detachable relation.

2. An orthodontic appliance, comprising tooth-engaging means provided with a projection having a grooved free member extending toward one edge thereof, between which and said tooth-engaging means is a recess in which an arch-bar may be retained.

3. An orthodontic appliance, comprising tooth-engaging means provided with a projection having a grooved free member extending toward one edge thereof and forming a recess, and an arch-bar detachably fitted in said recess and having a groove arranged to register with the groove in said free member.

4. An orthodontic appliance, comprising an arch forming bar arranged to be engaged with a tooth engaging member, and having a groove extending substantially from end to end in the side thereof, arranged to register with a groove in said member and adapted to receive a securing device.

5. An orthodontic appliance, comprising tooth-engaging means having a slot provided with a grooved wall, an arch-bar arranged to be snugly fitted in said slot and having a groove extending longitudinally thereof and in registry with the groove in the wall of said slot and complementary therewith to form a keyway, and abutments on said arch-bar arranged to engage said tooth-engaging means to prevent its longitudinal movement with respect thereto, and means extended through said keyway for rigidly connecting said arch-bar with said tooth-engaging means in detachable relation.

[Claims 6 to 10 not printed in the Gazette.]

1,204,114. ORTHODONTIC APPLIANCE. EDWARD H. ANGLE, New London, Conn. Filed Aug. 2, 1915. Serial No. 43,134. (Cl. 32—12.)



1. An orthodontic appliance comprising a tooth-band tapering from its medial region.

2. An orthodontic appliance comprising a tooth-band having means to engage an arch-bar, and having the portion adjacent to said means relatively thicker than the remainder of said band.

1,204,115. OILLESS SPINDLE. LEIGH S. BACHE, Middlesex borough, N. J., assignor of one-half to Bound Brook Oil-Less Bearing Company, Boundbrook, N. J., a Corporation of New Jersey. Filed Oct. 19, 1915. Serial No. 56,803. (Cl. 64—56.)



1. A spindle bearing embodying a bolster bearing and step bearing formed of fibrous material impregnated with a lubricant, and having a metallic anti-friction step bearing comprising a ball race and balls, said race embedded in the fibrous material and serving as a bearing for the end of the spindle whereby said spindle and metallic step-member generate sufficient heat to withdraw the lubricant from the fibrous bearing members and whereby said lubricant is distributed about the end of the spindle, and an adjusting device for moving the anti-friction member.

2. A spindle bearing embodying a bolster bearing and step bearing formed of fibrous material impregnated with a lubricant, and having a metallic anti-friction step member embedded in the fibrous material and serving as a bearing for the end of the spindle whereby said spindle and metallic member generates sufficient heat to withdraw the lubricant from the fibrous bearing members and whereby said lubricant is distributed about the end of the spindle, and an adjusting device for moving the anti-friction member, and heat insulating means between the adjusting device and anti-friction member for preventing dissipation of heat between the spindle, the bearing and the containing casing of the spindle.

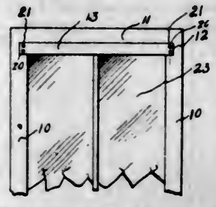
3. A spindle bearing embodying a bolster and a step formed of fibrous material impregnated with a lubricant and having an anti-friction heat generating member embedded in the fibrous material and serving as a thrust for the end of the spindle whereby said spindle and anti-friction member generate sufficient heat to withdraw the lubricant from the fibrous bearing, and a ventilating duct extending into said parts.

4. A spindle bearing embodying a bolster and a step formed of fibrous material impregnated with a lubricant and having an anti-friction heat generating member embedded in the fibrous material and serving as a thrust for the end of the spindle whereby said spindle and anti-friction member generate sufficient heat to withdraw the lubricant from the fibrous bearing, a heat insulating adjusting device for adjusting said anti-friction member, and a ventilating duct extending through said adjusting device.

5. A spindle bearing embodying a bolster formed of fibrous material impregnated with a lubricant, and forming a self-lubricating bolster for the spindle, and an anti-friction step bearing consisting of a ball race and balls, said race adjustably supported with reference to the end of the spindle whereby said spindle may be held in fixed relation of adjustment with reference to the self-lubricating bolster, said spindle and anti-friction bearing adapted to generate sufficient heat to withdraw a film of lubricant from the fibrous bearing.

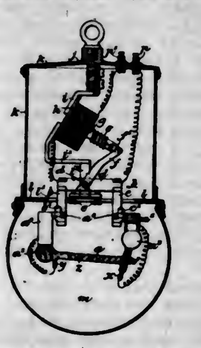
[Claim 6 not printed in the Gazette.]

1,204,116. WINDOW-SCREEN. GEORGE W. BAILEY, Rochester, N. Y. Filed June 25, 1915. Serial No. 36,296. (Cl. 156—38.)



A roller screen comprising an elongated casing having openings in the end walls thereof, longitudinally extending attaching tabs at the end of the casing, and a spring roller mounted within the casing, pintles on the ends of the roller for reception in the casing openings and inwardly extending and centrally apertured concavo-convex disks secured to the end walls of the casing for receiving the said pintles and for preventing longitudinal movement of the roller within the casing.

1,204,117. MERCURY-VAPOR-ARC LAMP. CHARLES ORME BASTIAN and ALBERT EDWARD SALISBURY, London, England, assignors to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Aug. 25, 1904, Serial No. 222,148. Divided and this application filed Nov. 12, 1915. Serial No. 61,160. (Cl. 176—42.)

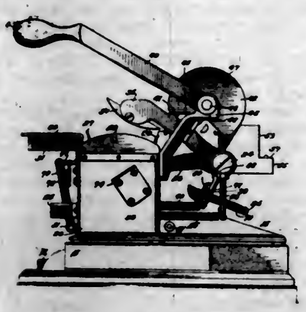


1. A gas or vapor electric apparatus comprising a tube, a receptacle at one end of said tube and electrode material therein, another receptacle at the other end of said tube and electrode material therein, and a leading-in conductor for each receptacle, the bore of the tube being reduced in the neighborhood of one of the electrodes, and the receptacle at one end of the tube having an internal capacity such that it will not quite receive all the mercury out of the tube.

2. A gas or vapor electric apparatus comprising an approximately horizontal tube, a receptacle at one end of said tube and electrode material therein, a considerable portion of the receptacle being above the level of the tube, another receptacle at the other end of said tube and electrode material therein, and a leading-in conductor for each receptacle, the electrode material of one of the receptacles extending into a portion of the tube and the bore of the tube being reduced in the neighborhood of said receptacle, whereby the electrode material at that end of the tube extends into the receptacle and also into the reduced portion of the tube in the other direction, so as to form a butt end on which the pressure caused by the passage of electric current in the tube during operation may be exerted.

3. In a gas or vapor electric apparatus, the combination with a tube having a receptacle at one end and electrode material therein and another receptacle at the other end thereof and electrode material therein, a leading-in conductor for each receptacle, the bore of the tube being reduced in the neighborhood of one of the receptacles and means for causing the electrode material in the tube to fill the bore of the tube at the reduced portion, whereby the said electrode material shall produce a butt end or ends for the pressure of the vapor path to act upon.

1,204,118. MACHINE FOR BANDING BILLS AND THE LIKE. CHARLES S. BATDORF, Brooklyn, N. Y. Filed Oct. 20, 1915. Serial No. 56,848. (Cl. 93—93.)



1. A banding machine of the character described comprising a bed having a concave face transversely across which a banding strip may be extended and against which strip and bed a bundle of bills to be banded may be placed, a presser or platen having a convex face to engage said bundle and an outer face upon which the end portions of said strip may be folded in over-lapping relation and secured together, means for moving said presser or platen forcibly against said bundle of bills to concave the same preparatory to the ends of the strip being secured together on the outer face of said presser or platen, and in combination and coöperating therewith means for rendering one end of said strip adhesive, means for folding one end of said strip over upon said presser or platen and means for then folding the other end of said strip over upon said first folded end of the strip and pressing said ends together upon the presser or platen so as to effect their firm adherence to each other.

2. A banding machine of the character described comprising a bed having a concave face transversely across which a banding strip may be extended and against which strip and bed a bundle of bills to be banded may be placed, a presser or platen having a convex face to engage said bundle and an outer face upon which the end portions of said strip may be folded in over-lapping relation and secured together, means for moving said presser or platen forcibly against said bundle of bills to concave the same preparatory to the ends of the strip being secured together on the outer face of said presser or platen, and in combination and coöperating therewith means for rendering one end of said strip adhesive, means for folding one end of said strip over upon said presser or platen and means for then folding the other end of said strip over upon said first folded end of the strip and pressing said ends together upon the presser or platen so as to effect their firm adherence to each other.

3. A banding machine of the character described comprising a bed having a concave face transversely across which a banding strip may be extended and against which strip and bed a bundle of bills to be banded may be placed, a presser or platen having a convex face to engage said bundle and an outer face upon which the end portions of said strip may be folded in overlapping relation and secured together, means for moving said presser or platen forcibly against said bundle of bills to concave the same preparatory to the ends of the strip being secured together on the outer face of said presser or platen, and in combination and coöperating therewith means for rendering one end of said strip adhesive, means for folding the non-adhesive end of said strip over upon said presser or platen and means for folding the adhesive end of said strip over upon the non-adhesive end thereof and ironing the same down thereon.

4. A banding machine of the character described comprising a bed having a concave face transversely across which a banding strip may be extended and against which strip and bed a bundle of bills to be banded may be placed, a presser or platen having a convex face to engage said bundle and an outer face upon which the end portions of said strip may be folded in overlapping relation and secured together, means for moving said presser or platen forcibly against said bundle of bills to concave the same preparatory to the ends of the strip being secured together on the outer face of said presser or platen, and in combination and coöperating therewith means for rendering one end of said strip adhesive, means for folding the non-adhesive end of said strip over upon said presser or platen and means comprising a roller and connections for driving the same in a horizontal direction for folding the adhesive end of said strip over upon the non-adhesive end thereof and ironing the same down thereon.

5. A banding machine of the character described comprising a bed across which a banding strip may be extended and against which strip and over which bed a bundle of bills to be banded may be placed, a presser or platen to engage said bundle and having an outer surface upon which the end portions of said strip may be folded in overlapping relation and secured together, means for moving said presser or platen forcibly against said bundle of bills preparatory to the ends of the strip being secured together on the outer face of said presser or platen, and in combination and coöperating therewith means for rendering one end of said strip adhesive, means for folding one end of said strip over upon said presser or platen, and means for then folding the other end of said strip over upon said first folded end of the strip and pressing said ends together upon the presser or platen so as to effect their firm adherence to each other.

[Claims 6 to 10 not printed in the Gazette.]

1,204,119. CAR-COUPLING. ARTHUR J. BAZELEY, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 27, 1915. Serial No. 68,668. (Cl. 213—14.)

1. In a car coupler, a lock and a lock-lifter, the lifter being capable of engagement with the lock in two positions only one of which is an operative position, and a coupler head having a wedge shaped lifter opening, the shank of the lifter being also wedge shaped to conform to the lifter opening and permitting the application of the lifter to the lock in operative position only.

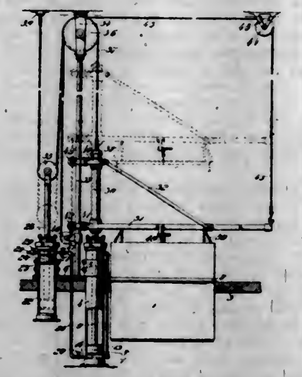
2. In a car coupler, a coupler head, a lock, and a lock-lifter, said lifter having trunnions at its lower end and faces at the rear side of said lower end adapted to co-operate with the coupler head when the lifter is in normal relation with the lock and the lock is in lowermost

position to act as a down hold for the lock, a slot in the lock adapted to receive said lifter trunnions, said lifter being capable of engagement with said lock in two diametrically opposite positions, only one of which is an operative position, the coupler head having an aperture



of non-symmetrical cross section corresponding to the cross sectional shape of the lifter at its upper end, and being thereby adapted to permit the engagement of the lifter and the lock in operative position only.

1,204,120. LIQUID-COATING MACHINE. REMM ALBERT BRAUSNJOUR, Brooklyn, N. Y., assignor to Standard Varnish Works, New York, N. Y., a Corporation of New York. Filed July 21, 1909. Serial No. 508,734. (Cl. 91—46.)



1. In a machine of the character described, a tank, an article supporting bracket, a steadying device engaging both ends of the bracket, and a plurality of raising and lowering devices for said bracket.

2. In a machine of the character described, a tank, an article supporting bracket, a flexible steadying device engaging both ends of the bracket, and a plurality of raising and lowering devices for said bracket.

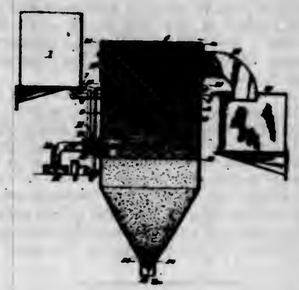
3. In a machine of the character described, a tank, an article supporting bracket, a flexible steadying device engaging both ends of the bracket, and a plurality of fluid operated raising and lowering devices for said bracket.

4. In a machine of the character described, a tank, an article supporting bracket, a plurality of interconnected devices for raising and lowering the bracket, and flexible means connected to one of said devices for steadying the bracket in its vertical movement.

5. In a machine of the character described, a tank, an article supporting bracket, a plurality of fluid operated interconnected devices for raising and lowering the bracket, and flexible means connected to one of said devices for steadying the bracket in its vertical movement.

[Claims 6 to 12 not printed in the Gazette.]

1,204,121. APPARATUS FOR THE EVAPORATION OF FLUIDS. FREDERICK PENTZ BERGH, HUGO J. LOBBINGER, and HENRY CHARLES NEURBERGER, New York, N. Y., assignors, by mesne assignments, to General Reduction Company, New York, N. Y., a Corporation of New York. Filed Apr. 14, 1911, Serial No. 621,142. Renewed Apr. 10, 1916. Serial No. 90,284. (Cl. 99—5.)



1. An apparatus for evaporating fluids containing in solution, suspension or emulsion a solid, viscid or oily content consisting of a polygonal vaporizing chamber, atomizing means placed adjacent one wall of the chamber and operable to project spray in a layer from said wall across the chamber, means to admit in a substantially horizontal sheet a vaporizing body of gas to said chamber below the atomizer and exit means for the vapor, substantially as described.

2. An apparatus for the evaporation of fluids consisting of a vaporizing chamber, a source of fluid supply, atomizing means communicating with said source and mounted adjacent the wall of the chamber and having means to project spray across the chamber, means below the atomizing means to admit a body of moving vaporizing gas in a sheet substantially parallel to the spray but at an angle to the projected movement of the spray, and an effluent opening above the atomizer, substantially as described.

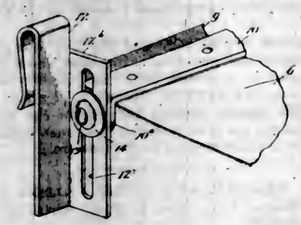
3. An apparatus for the evaporation of fluids consisting of a chamber in which the evaporation is conducted, atomizing means in said chamber operable to direct the spray in a layer across the chamber, means of fluid supply communicating with said atomizer, and an elongated gas admitting opening below the atomizer and extending longitudinally at an angle to the length of the atomizer, and an effluent opening above the atomizer, substantially as described.

4. An apparatus for evaporation of fluids, consisting of a chamber in which the evaporation is conducted, an atomizer in said chamber extending across the same and having means to direct the spray in a horizontal layer across the area of the chamber, said chamber having a gas admitting opening below the atomizer and extending at an angle to the atomizer, means to impel a body of gas through said opening at an angle to the projected movement of the spray and said chamber having an elongated opening above the atomizer and on the same side of the chamber as the atomizer to permit the escape of the effluent, substantially as described.

5. An apparatus for the evaporation of fluids, consisting of a polygonal vessel, a source of fluid supply, an atomizer located within said vessel against one side wall thereof and extending the entire width of said wall, said atomizer having means to project the spray from the wall across the interior of the vessel in a horizontal layer, said vessel having below the level of the atomizer an elongated, rectangular opening in a side of the wall adjacent to and at an angle to the atomizer-supporting wall, said opening extending substantially the entire width of its wall and a rectangular opening above the atomizer and through the side or wall of the chamber on which the atomizer is mounted, said opening extending substantially the entire width of the wall, means to impel a body of gas through said first opening and an exit pipe leading from the upper opening, substantially as described.

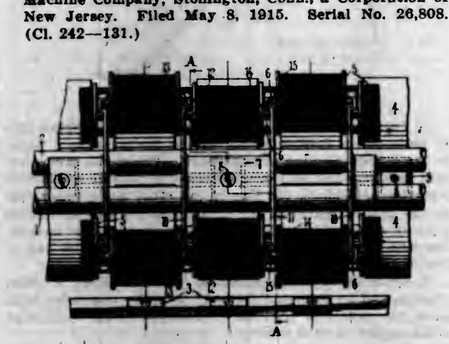
[Claims 6 to 10 not printed in the Gazette.]

1,204,122. WIND-SHIELD PROTECTOR. IRWIN C. BOWMAN, Chicago, Ill. Filed Mar. 20, 1916. Serial No. 85,338. (Cl. 20—40.5.)



A protector comprising a hook for readily detachably supporting the same from the upper edge of a wind shield, a body or hood connected thereto so as to be vertically adjustable for the height of the user and pivotally adjustable near its rear edge for weather conditions and a flexible strip closing the space between such rear edge and the wind shield and permitting such pivotal and sliding movement while maintaining the space closed.

1,204,123. TAKE-UP MECHANISM FOR SPINNING, WINDING, OR DOUBLING MACHINES. EDWARD E. BRADLEY, Stonington, Conn., assignor to The Atwood Machine Company, Stonington, Conn., a Corporation of New Jersey. Filed May 8, 1915. Serial No. 26,808. (Cl. 242—131.)

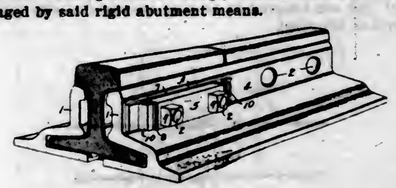


In a machine of the character described, a bank of brackets provided with arms arranged in pairs, each arm having, in one side thereof, a bearing guide in one plane for the gudgeon of one bobbin and in the other side thereof in another plane a bearing guide for the gudgeon of an adjacent bobbin, the two guides of each arm being thus offset and the guides for the row of bobbins being arranged in pairs in staggered order so that alternate bobbins will be arranged in alinement.

1,204,124. INSULATED RAIL-JOINT. BANCROFT G. BRAINE, New York, N. Y., assignor to The Rail Joint Company, a Corporation of New York. Filed July 10, 1916. Serial No. 108,432. (Cl. 239—5.)

1. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having bolt holes and abutments adjacent thereto, and an insulated pressure-transferring element engaging the bolts and said abutments.

2. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having bolt holes, and rigid abutments adjacent thereto, and an insulated pressure transferring element snugly fitting said bolts and engaged by said rigid abutment means.



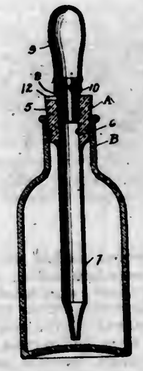
3. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having bolt holes, and abutment means adjacent thereto, and insulated means carried by said bolts for engaging with said abutment means to center the bolts in the bolt holes in the splice bar.

4. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having holes for loosely receiving the bolts, and rigid abutment means adjacent said holes, and insulated means carried by said bolts for transferring end-wise pressure of the rails to said abutment means.

5. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having bolt holes and also having abutment elements disposed on opposite sides of said bolt holes, and insulated means carried by said bolts for transferring end-wise pressure of the rails to said abutment means.

[Claims 6 to 10 not printed in the Gazette.]

1,204,125. BOTTLE-STOPPER AND DROPPER. EDWARD J. BROSNAN, Troy, N. Y. Filed July 5, 1916. Serial No. 107,598. (Cl. 215—16.)

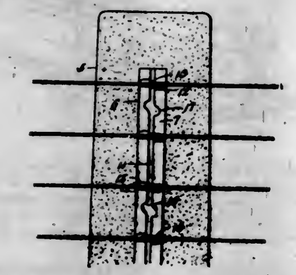


The combination with a bottle-stopper having a passage therethrough, and a dropping tube forming a continuation of the stopper and communicating with one end of the passage, of an apertured plug inserted in the other end of the passage, and a collapsible bulb carried by the plug, said plug and bulb being removable from the passage for the substitution of a closure therefor.

1,204,126. WIRE-FASTENER FOR POSTS. PHILIP F. BUTZER, Boonville, Mo. Filed Feb. 8, 1916. Serial No. 76,986. (Cl. 256—49.)

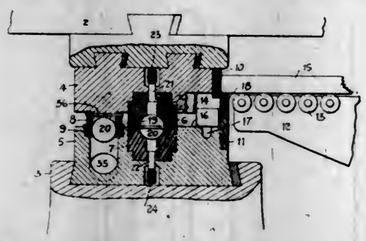
1. A wire fastener for posts comprising a hollow member adapted to be fastened upon the post, and having a longitudinal slot in one wall thereof, said wall being provided with outwardly bulged portions arranged at the opposite sides of the slot and slightly out of alinement with each other, a staple including spaced limbs and right angularly disposed offset portions, the latter being adapted

to be fitted within the pockets defined by said bulged portions, whereby the limbs project outwardly through said slot and are adapted to be bent around the wire for the purpose described.



2. A wire fastener for posts comprising a hollow member adapted to be fastened upon the post and having a longitudinal slot in one wall thereof, said wall being provided with outwardly bulged portions arranged at the opposite sides of the slot, the opposite edges of said slot being cut away, said cut away portions unitedly defining an enlarged oblong opening, and a staple including spaced limbs and right angularly disposed offset portions, the latter being adapted to be fitted within the pockets defined by said bulged portions whereby the limbs project outwardly through the slot and are adapted to be bent around the wire for the purpose described.

1,204,127. PROCESS OF AND APPARATUS FOR FORGING BALLS. FERDINAND MORA CANDA, Plainfield, N. J. Filed Feb. 23, 1915. Serial No. 9,844. (Cl. 29—148.)



1. The herein described method of forging balls and like objects, which comprises cutting heated billets into blanks, pressing each blank as produced, to form, between suitable dies, and then cutting off the fin produced by such dies, the several operations of producing the blanks, pressing such blanks into form, and cutting off the fins, being performed each as a single operation and all at one heat.

2. Means for forging balls and the like, comprising in combination cutting off means for cutting successive blanks from a body of metal, pressure forming means for pressing such blanks to form, and fin cutting means, and a single operating device for all of said three means, whereby the several operations of cutting off, pressing to form, and removing the fin, may be performed in one heat and by successive transfer of blanks from the cutting off means to the pressure means, and thence to the fin cutting means.

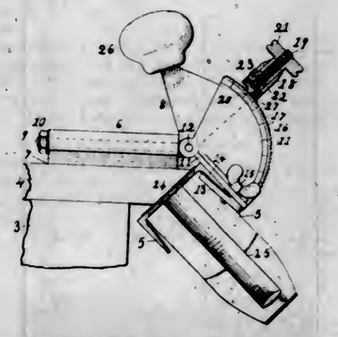
3. Means for forging balls and the like, comprising in combination cutting off means for cutting successive blanks from a body of metal, pressure forming means for pressing such blanks to form, and fin cutting means, and a single operating device for all of said three means, whereby the several operations of cutting off, pressing to form, and removing the fin, may be performed in one heat and by successive transfer of blanks from the cutting off means to the pressure means, and thence to the fin cutting means, and means for freeing the formed article from the pressing means.

4. Means for forging balls and the like, comprising in combination cutting off means for cutting successive blanks from a body of metal, pressure forming means for pressing such blanks to form, and fin cutting means, and a single operating device for all of said three means, whereby the several operations of cutting off, pressing to form, and removing the fin, may be performed in one heat and by successive transfer of blanks from the cutting off means to the pressure means, and thence to the fin cutting means, and a gravity delivery passage through which the formed articles may escape upon removal of the fins therefrom.

5. Means for forging balls and the like, comprising in combination cup dies and fin-shearing dies, and a single operating means for operating said dies, one of the fin cutting dies having an aperture through it of a size adapted to permit the passage through that die of the formed object after the fin has been removed from such object.

[Claims 6 to 9 not printed in the Gazette.]

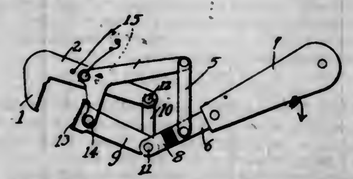
1,204,128. BENCH-PLANE GUIDE. ALBERT CARLSON, Seattle, Wash. Filed Sept. 2, 1915. Serial No. 48,712. (Cl. 145—20.)



1. In a bench plane guide, a block having a plane face to slide on; a carrier having means for securing a plane to it; a body member intermediate between the said block and carrier, this body member having pivotal connection with the said block, the line of the pivot being transverse to the line of travel of the plane, and the carrier having pivotal connection with the intermediate body member the line of the pivot being in the direction of the line of travel of the plane.

2. In a bench plane guide, a block to slide; a plane carrier, and an intermediate body pivotally connected with each, the pivots of the two connections being in lines at right angles to each other.

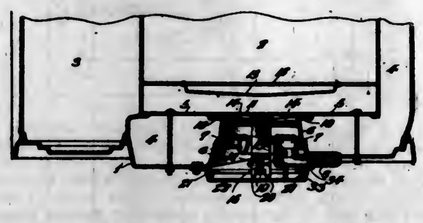
1,204,129. WRENCH. LEONARD A. CARNER, Mountain View, Ark., assignor of one-half to Lewis E. Johnson, Mountain View, Ark. Filed Aug. 17, 1916. Serial No. 115,472. (Cl. 81—91.)



1. A wrench including a shank, a fixed jaw extending at an angle therefrom, a bell crank lever pivotally connected at its angle to said shank, a second shank pivotally connected to one of the arms of the bell crank lever and having a jaw at one end, a link pivotally connecting the other end of said shank to the corresponding end of the first named shank, a handle, a stem extending therefrom and pivotally connected to the second shank at its point of connection with the link, and a link connection between the stem and the other arm of the bell crank lever.

2. A wrench including a shank, a jaw extending at an angle therefrom, a bell crank lever pivotally connected at its angle portion upon said shank, a link extending from the other end of said shank, a second shank pivotally connected at one end to said link and at its other end to one of the arms of the bell crank lever, said second shank having a jaw at that end thereof adjacent the bell crank lever, a handle pivotally connected to the second shank at its point of connection with the link, and a link connection between said handle and the other arm of the bell crank lever, said bell crank lever being adjustably connected to the first named shank.

1,204,130. COMBINED COAL AND GAS STOVE. CHARLES D. CARTER, New York, and GEORGE F. BIBB, Troy, N. Y., assignors to The Floyd-Wells Company, Royersford, Pa., a Corporation of Pennsylvania. Filed May 6, 1916. Serial No. 95,778. (Cl. 126—36.)



1. A stove of the order of a coal stove having an oven, an auxiliary compartment having communication therewith, a gas burner in said compartment, a vertically movable valve, the bottom of said oven being adapted to form a seat for said valve, an axially-disposed hanger forming a support for said valve, and horisontally-movable means acting on said hanger to give vertical movement to said valve.

2. A stove of the order of a coal stove having an oven, an auxiliary compartment having communication therewith, a gas burner in said compartment, the bottom of said oven being adapted to form a seat for said valve, a vertically movable valve adapted to said seat, an axially-disposed hanger forming a support for said valve, and a horisontally-movable inclined plane acting on said hanger to give vertical movement to said valve.

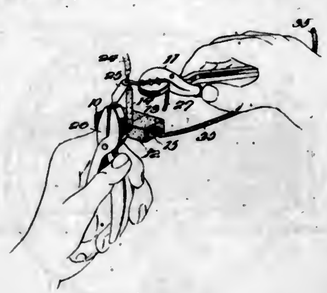
3. A stove of the order of a coal stove having an oven, an auxiliary compartment having communication therewith, a gas burner in said compartment, the bottom of said oven being adapted to form a valve seat, a vertically movable valve adapted to said seat, an axially-disposed hanger forming a support for said valve, horizontally-movable means acting on said hanger to give vertical movement to said valve, and an air-inlet controlling valve movable with said horizontally-movable means.

4. An oven, an auxiliary compartment, a passage forming a direct communication for said compartment and oven, a gas burner in said compartment, a valve for said passage adapted to open and close the same, a supporting hanger for said valve, an inclined member in said compartment adapted to engage said hanger, a slide valve, said hanger being bifurcated and receiving the said inclined member, and means for operating said member and said valve to open said communication.

5. A compartment, a gas burner therein, means for supplying said burner with gas, a valve and valve controlling mechanism, an air chamber for said burner, the wall of said chamber having therein an air inlet, a horizontally slidable valve in said chamber movable with said valve controlling mechanism and adapted to open and close said inlet, means movable with said horizontally-slidable valve for operating said valve, and a slidable connection between said valve and the first-named valve controlling mechanism.

[Claims 6 to 15 not printed in the Gazette.]

1,204,131. SOLDERING APPARATUS. JOHN G. CLEMENS, Buffalo, N. Y. Filed Feb. 25, 1916. Serial No. 80,451. (Cl. 219—12.)



1. A soldering apparatus including a block of carbon, means for supplying current to the carbon, the carbon being formed with a socket in one face, a carbon contact member seating in the socket and adapted to be engaged by work being soldered, and a return conductor for the current in the form of a piece of solder also adapted to be brought into engagement with the work.

2. A soldering apparatus including a pair of pliers having grooved jaws and handles, means for connecting a current supply wire to such handle, a piece of string solder adapted to be held in the pliers, a carbon contact member adapted to engage work being soldered, and means for connecting the current return wire to the carbon contact member.

3. In a soldering apparatus, a block of carbon formed with a socket in one face, a contact member of high resistance material having one end seated in the socket and its opposite end formed with a point, and means for connecting a current conducting wire to the block.

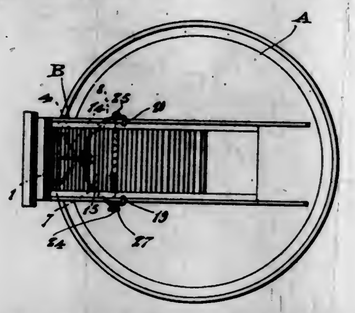
4. A soldering apparatus including a contact member of high resistance material adapted to be connected in one arm of a circuit and to be engaged by work being soldered, and a piece of string solder adapted to be connected in the other arm of the circuit and to operate to open and close the circuit by being moved into and out of engagement with the work being soldered.

1,204,132. TOY. JOHN G. CLEMENS, Buffalo, N. Y. Filed Mar. 22, 1916. Serial No. 86,026. (Cl. 46—37.)



A submergible image comprising a hollow body having an inlet opening in its under side, the body being provided interiorly with a wall surrounding the said opening adapted to retain a predetermined volume of liquid within the said body.

1,204,133. WASHBOARD-CLAMP. ALOYSIUS COLL, Clarksburg, W. Va. Filed Oct. 22, 1915. Serial No. 57,329. (Cl. 68—29.)

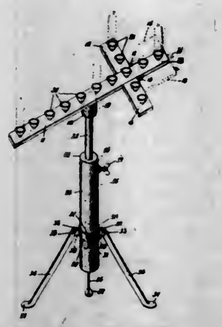


1. A washboard holder comprising a pair of relatively adjustable arms adapted to underlie the washboard when the latter is in operative position within a wash tub, means carried by the arms for engaging the washboard, one of the said arms having a threaded opening therein, a rod having one end connected to the other arm and having its opposite end threaded and received by the threaded opening in the first-mentioned arm, and means adjustably mounted on the last-mentioned end of the rod and operable against the adjacent arm and adapted when operated to effect adjustment of the arms, and means for attaching the arm to the wash tub.

2. A washboard holder comprising a board-engaging member having a threaded sleeve, a tub-engaging member located in spaced relation with the board-engaging member, a threaded sleeve carried by the tub-engaging member and alining with the sleeve on the board-engaging member, a screw adjustably mounted within the threaded sleeves, and a tub-engaging head carried by the screw.

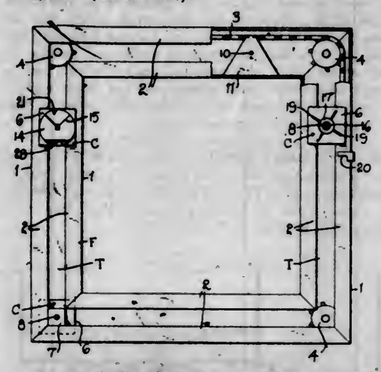
3. A washboard holder comprising a board-engaging member, a tub-engaging member, and means for connecting the board-engaging member to the tub-engaging member and adapted to engage the tub for holding the tub-engaging member on the tub.

1,204,134. CANDELABRUM. WILLIAM L. CONNOLLY, New York, N. Y. Filed Apr. 21, 1914, Serial No. 833,512. Renewed Sept. 29, 1916. Serial No. 122,930. (Cl. 67—25.)



A candelabrum comprising, in combination, a member in the form of a cross with its transverse arms hinged to opposite parts of the longitudinal arm so as to be relatively swung to and from right-angular positions, a boss on the underside of the member having a recess, a standard with a recessed member having therein an extensibly movable second member with a threaded end screwed in the recess of the boss, and a supporting bracket removably mounted on the recessed member of the standard.

1,204,135. CHANGEABLE EXHIBITOR. GEORGE W. COOK, Menomonie, Wis. Filed Jan. 26, 1916. Serial No. 74,407. (Cl. 40—30.)



1. A device of the character described comprising a frame provided with an endless track-way, a carrier coacting with said track-way, means for imparting movement to the carrier, a shaft projecting outwardly from the carrier, a disk rotatably mounted on the carrier, a second disk fixed to the shaft in advance of the first named disk, said second named disk having a portion cut out to afford a visual opening and means coacting with the movable disk for intermittently rotating the same.

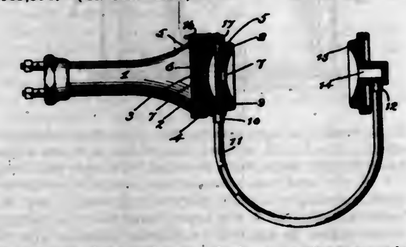
2. A device of the character described comprising a frame provided with an endless track-way, a carrier coacting with said track-way, means for imparting movement to the carrier, a shaft projecting outwardly from the carrier, a disk rotatably mounted on the carrier, a second disk fixed to the shaft in advance of the first named disk, said second named disk having a portion cut out to afford a visual opening and means coacting with the movable disk for intermittently rotating the same, and means for normally maintaining the rotatable disk against rotation about the shaft.

3. A device of the character described comprising a frame provided with a track-way, a carrier coacting with the track-way, means for imparting movement to the carrier, a shaft carried by the carrier and extending in advance thereof, a sleeve rotatably mounted upon the carrier, means for normally holding the sleeve against rotation, fingers radiating from the sleeve, a trip carried by the frame adapted to engage the fingers of the sleeve for partially rotating the sleeve, a disk carried by the outer end of the sleeve, and a second disk fixed to the shaft in advance of the sleeve and having a portion thereof cut out to afford a visual opening.

4. A device of the character described comprising a frame including angularly related members, each of said members being substantially U-shape in cross section and having their side walls provided with inturned flanges to afford a track-way, a carrier coacting with the track-way, a shaft supported by the carrier, a plate pivotally engaged with the inner end of the shaft and having a straight edge coacting with the inner wall of each of the members, an endless chain adapted to travel within the members, guide sprockets carried by the members at the corners of the track-way, said plate being operatively connected with the chain, the connection between the shaft and the plate being at a point on the plate spaced from the operative connection between the plate and the chain a distance equal to the radius of the sprockets.

5. A device of the character described comprising a frame including angularly related members, each of said members being substantially U-shape in cross section and having their side walls provided with inturned flanges to afford a track-way, a carrier coacting with the track-way, a shaft supported by the carrier, a plate pivotally engaged with the inner end of the shaft and having a straight edge coacting with the inner wall of each of the members, an endless chain adapted to travel within the members, guide sprockets carried by the members at the corners of the track-way, said plate being operatively connected with the chain, the connection between the shaft and the plate being at a point on the plate spaced from the operative connection between the plate and the chain a distance equal to the radius of the sprockets, the carrier including plates overlying the opposite faces of the inturned flanges.

1,204,136. TELEPHONE APPLIANCE. JOHN L. CREVELING, New York, N. Y. Filed July 27, 1908. Serial No. 445,594. (Cl. 179—182.)



1. An attachment for a telephone receiver ear piece adapted to operatively engage the same, comprehending an attachment ear piece having a spring ring encircling and gripping the same provided with members adapted to engage the telephone receiver ear piece to detachably hold the attachment ear piece in operative relation to said receiver ear piece.

2. An attachment for telephone receivers comprising an ear piece, a spring ring encircling and gripping said ear piece, said ring being provided with members for operatively engaging a telephone receiver to hold said attachment ear piece in operative relation thereto.

3. The combination with a telephone receiver having an ear piece, of an attachment ear piece provided with engaging means whereby it is retained in operative relation with said receiver ear piece, said engaging means comprehending a spring ring encircling and gripping said attachment ear piece and having projecting members for engaging the telephone receiver ear piece to hold said ear pieces in operative relation with each other.

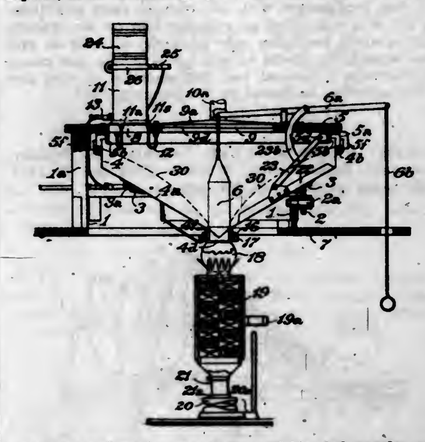
4. An attachment for a telephone receiver ear piece adapted to operatively engage the same, comprehending an attachment ear piece having a spring ring encircling and gripping the same, said ring being provided with members engaging said attachment ear piece to prevent lateral movement thereon, and also provided with members adapted to engage the telephone receiver ear piece to detachably hold the attachment ear piece in operative relation to said receiver ear piece.

5. An attachment for telephone receivers comprising an ear piece, a spring ring encircling and gripping said ear piece, said ring being provided with members for preventing lateral movement of said ear piece within said ring, and also provided with members for operatively engaging a telephone receiver to hold said attachment ear piece in operative relation thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,204,137. MANUFACTURE OF BLENDED POWDER COMPOUNDS. WILLIAM DALTON, Schenectady, N. Y. Filed July 18, 1916. Serial No. 109,888. (Cl. 53—78.)

1. The process of manufacture of blended powder compounds which consists in separately sifting a plurality of properly proportioned dry powdered ingredients upon a moving supporting surface, so as to deposit the powdered particles of the ingredients thereon, in successive pluralities of thin and intimately mixed layers of each of the several ingredients; thereafter breaking up the multiple layered deposit; and finally repeatedly relayering said deposit, so as to thoroughly blend the entire mixture.



2. The process of manufacture of blended powder compounds which consists in separately sifting and depositing a plurality of dry powdered ingredients upon a moving surface, and simultaneously spraying the ingredients with a liquid as they are being layered upon the moving surface, for the purpose of intimately and safely combining the ingredients without dangerous mechanical manipulation, and thoroughly saturating them with liquid, thereby forming a non-explosive mixture which can be safely molded into any desired form.

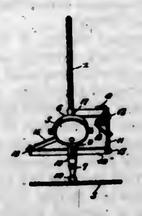
3. The combination, in a powder blending machine, of a frame; a rotary hopper supported thereon, and having a discharge outlet; a hopper cover; means for sifting powder into the hopper; and a liquid seal formed between the cover and the hopper to prevent undesired escape of powder therefrom.

4. The combination, in a powder blending machine, of a frame; a rotary hopper supported thereon, and having a discharge outlet; a hopper cover; means for sifting powder into the hopper; a stationary member formed around the discharge outlet; and a liquid seal formed on said member and around the outlet to prevent undesired escape of powder from said outlet.

5. The combination, in a powder blending machine, of a frame; a rotary hopper supported thereon, and having a discharge outlet; a hopper cover; means for sifting powder into the hopper; an annular trough formed around the hopper and adapted to contain a sealing liquid; and a downwardly projecting circular flange fastened to the cover and extending into the trough for the purpose of forming a seal with the liquid therein.

[Claims 6 and 7 not printed in the Gazette.]

1,204,138. STEERING-GEAR. WILLIAM F. DUBERT, Fulton, Iowa. Filed Jan. 17, 1916. Serial No. 72,581. (Cl. 74—79.)

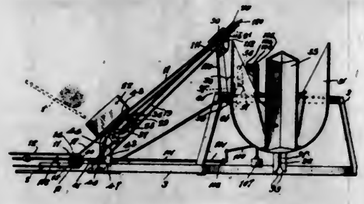


1. The combination with the steering shaft and steering rod of a vehicle, of an eccentric fast on the steering

shaft, a strap encircling said eccentric, and an arm on said strap terminally jointed to said steering rod and pivotally and slidably mounted between the ends thereof.

2. The combination with the steering shaft and steering rod of a vehicle, of an eccentric fast on the steering shaft, a strap encircling said eccentric, an arm on said strap terminally jointed to said steering rod, and means for producing a pivoted and sliding action of said arm as the eccentric is turned by the steering shaft.

1,204,139. GRAIN-SHOCKER. GEORGE A. DURANT, Swanson, Saskatchewan, Canada. Filed Dec. 6, 1915. Serial No. 65,394. (Cl. 56—121.)



1. In a shock forming device, a sheave carrying structure embodying a car structure, a hopper pivotally and hingedly carried by said car structure, and means for tipping said hopper into a delivering position at predetermined times.

2. In a shock forming device, a sheave receiving and shock forming pan, a car structure for carrying sheaves from a binder deck to said pan, said car structure embodying a truck structure, a hopper pivotally and hingedly connected to said truck structure, means controllable by the depositing of a sheave on said car structure for automatically moving the same into a delivering position adjacent to said pan.

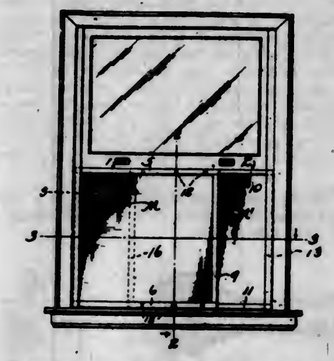
3. In a shock forming device, a sheave receiving and shock forming pan, a car structure for carrying sheaves from a binder deck to said pan, said car structure embodying a truck structure, a hopper pivotally and hingedly connected to said truck structure, means controllable by the depositing of a sheave on said car structure for automatically moving the same into a delivering position adjacent to said pan, and means for tipping said hopper for dumping a sheave therefrom when it is positioned adjacent to said pan.

4. In a shock forming device, a sheave receiving and shock forming pan, a car structure for carrying sheaves from a binder deck to said pan, said car structure embodying a truck structure, a hopper pivotally and hingedly connected to said truck structure, means controllable by the depositing of a sheave on said car structure for automatically moving the same into a delivering position adjacent to said pan, means for tipping said hopper for dumping a sheave therefrom when it is positioned adjacent to said pan, said pan being provided with a partition formed therein, and means for regulating the tipping of said hopper for alternately depositing sheaves upon the opposite sides of said divider.

5. In a shock forming device, a supporting frame, a sheave receiving and shock forming pan pivotally carried by said frame, means for holding said pan in a horizontal position while receiving the sheaves, means for releasing said last named means for permitting said pan to move into a vertical position for removal of a shock therefrom, and a plurality of tumbler rods carried by said pan, tines carried by said tumbler rods for insertion through said pan into the sheaves carried thereby for preventing accidental movement of the sheaves during movement of the pan from a horizontal to a vertical position.

[Claims 6 to 15 not printed in the Gazette.]

1,204,140. WINDOW-SCREEN. HAROLD A. ELDREDGE, Newburyport, Mass. Filed Jan. 5, 1916. Serial No. 70,486. (Cl. 156—38.)



1. A window screen construction including telescoping sections, one of said sections comprising a frame having top and bottom casing bars provided with slots and carrying a screen, and the other of said sections comprising a frame having reversely disposed channeled top and bottom bars slidable in the casing bars and also carrying a screen which is adapted to slidably overlap with the screen of the other section by working in the slots of the casing bars, and friction reducing balls between the channeled bars and casing bars.

2. An extensible window screen construction including slidable frame sections, one of said sections having hollow top and bottom casing bars provided with slots opening toward each other, and a screen carried by said section at one side of said slots, the other of said sections having reversely disposed channeled top and bottom bars, and also carrying a screen, and friction reducing means interposed between the channeled bars and the casing bars.

3. An extensible window screen construction including slidable frame sections, one of said sections having hollow top and bottom casing bars provided with slots opening toward each other, and a screen carried by said section at one side of said slots, the other of said sections having reversely disposed channeled top and bottom bars telescoping within said casing bars and also carrying a screen adapted to slide in the slots of the casing bars and slidably overlap with the screen carried thereby, and friction reducing balls interposed between the channeled bars and the casing bars.

1,204,141. PROCESS OF MAKING SULFURIC ANHYDRID AND CATALYZER THEREFOR. CARLETON ELLIS, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Jan. 29, 1916. Serial No. 75,028. (Cl. 23—28.)

1. A catalyser adapted for making sulfur trioxid from sulfur dioxid and air comprising active chromium material of a basic character weighted by an oxy-compound of an easily fusible heavy metal capable of absorbing sulfur dioxid.

2. A catalyser adapted for making sulfur trioxid from sulfur dioxid and air comprising active chromium material weighted and stiffened by a compatible compound of an easily fusible heavy metal.

3. A catalyser adapted for making sulfur trioxid from sulfur dioxid and air comprising voluminous chromium oxid and a compatible compound of an easily fusible heavy metal capable of absorbing sulfur dioxid.

4. A contact material comprising active voluminous chromium oxid material bonded by a compatible binding agent into a substantially permanent form, capable of yielding 80 to 95% conversion of sulfur dioxid to the trioxid.

5. A contact material comprising voluminous chromium oxid uncombined with, but bonded by an oxy-compound of a heavy metal.

[Claims 6 to 17 not printed in the Gazette.]

1,204,142. PROCESS OF MAKING SULFURIC ANHYDRID. CARLETON ELLIS, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Dec. 6, 1915. Serial No. 65,285. (Cl. 23—1.)

1. The process of producing sulfuric anhydrid which comprises passing a mixture of sulfur dioxid and air into contact with catalytic material comprising an active basic compound of tin and voluminous free chromium oxid.

2. The process of producing sulfuric anhydrid which comprises passing a mixture of sulfur dioxid and air into contact with porous masses of catalytic material comprising an active basic compound of tin and voluminous free chromium oxid material.

3. The process of producing sulfuric anhydrid which comprises passing a mixture of sulfur dioxid and air into contact with catalytic material comprising tin oxid and voluminous active basic chromium material, the proportion of tin oxid being less than its combining equivalent with chromium to form tin chromate.

4. The process of producing sulfuric anhydrid which comprises passing a mixture of sulfur dioxid and air into contact with catalytic material comprising tin oxid and chromium oxid in non-equivalent proportions.

5. The process of producing sulfuric acid material which comprises subjecting sulfur dioxid in the presence of an oxidising gas to the action of an oxidising catalyst comprising tin oxid and chromium oxid of an active character; some portion at least of said stanniferous material being uncombined with said chromium material.

[Claims 6 to 8 not printed in the Gazette.]

1,204,143. CONTACT MATERIAL. CARLETON ELLIS, Montclair, and HARRY M. WEBER, East Orange, N. J., assignors to Ellis-Foster Company, a Corporation of New Jersey. Filed Dec. 17, 1915. Serial No. 67,357. (Cl. 23—28.)

1. A catalyzer adapted for use in the manufacture of sulfuric acid by the contact process which comprises an intimate mixture of a chromium compound and an activating agent, in the form of a porous body.

2. The process of making catalytic material adapted for use in the manufacture of sulfuric acid by the contact process which comprises incorporating ammonium bichromate with tin chlorid, in exposing the moist product of the reaction to heat to intumesce the material, removing ammonium chlorid by further heating and in baking the product to form granular porous masses of good crushing strength.

3. A process of making a catalyst which comprises subjecting a material containing tin and chromium, in the presence of an organic material, to sufficient heat to produce a rigid intumesced solid material, and comminuting the same to a granular mass.

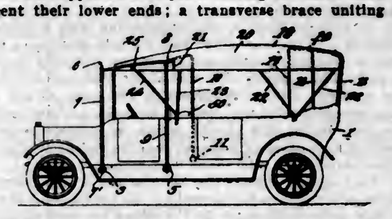
4. A process of making a catalyst, which comprises intumescing a mixture comprising an oxy-compound of chromium and a tin-bearing substance, and granulating the product.

5. A contact material comprising a porous structure in the form of granules comprising voluminous chromium oxid uncombined with but bonded by an oxy compound of a heavy metal.

[Claims 6 to 11 not printed in the Gazette.]

1,204,144. SAFETY APPLIANCE. JAMES WILLIAM ELLIS, Bassett, Nebr. Filed Nov. 24, 1915. Serial No. 63,248. (Cl. 21—90.)

In a device of the class described, a vehicle body including a chassis; forward and rear bars assembled with the chassis; a forward arch having its ends connected with the forward bar; a pair of rear arches including outer arms connected with the rear bar, and inner arms; a vehicle supported foot piece uniting the inner arms adjacent their lower ends; a transverse brace uniting the



inner arms intermediate their upper and lower ends; and longitudinal braces uniting the forward and rear arches in their upper portions.

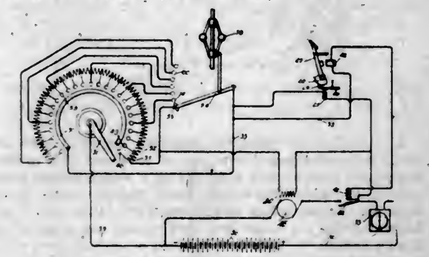
1,204,145. LUBRICATOR. JOHN W. EVISTON, Milwaukee, Wis., assignor to The United States Graphite Company, Saginaw, Mich., a Corporation of Michigan. Filed Oct. 19, 1915. Serial No. 56,767. (Cl. 184—59.)



1. In a graphite-feeding lubricator, the combination of a chamber, an apertured filling plug, a vertically movable ball valve beneath the chamber, an inverted apertured valve seat above said ball valve and communicating with the interior of said chamber, and an apertured bushing, said bushing received in a recess formed in the bottom of said chamber, and adapted to retain said ball.

2. In a graphite-feeding lubricator, the combination of a chamber formed with a threaded boss at its bottom, an apertured filling plug, a vertically movable ball valve within said boss, an inverted apertured valve seat in said boss and located above said ball valve, said seat communicating with the interior of said chamber, an apertured bushing received in a recess formed in said boss, said bushing supporting said ball to hold it away from the aperture of said bushing, for the purposes set forth.

1,204,146. AUTOMOBILE. ROLAND S. FEND, Chicago, Ill., assignor to Woods Motor Vehicle Company, Chicago, Ill., a Corporation of Illinois. Filed June 26, 1915. Serial No. 36,592. (Cl. 171—315.)



1. In a motor vehicle, the combination with a storage battery of a shunt wound electric dynamo for propelling the vehicle, a hand operated rheostat for including and excluding resistance in series with the shunt field of the dynamo, and means for preventing the inclusion of resistance in circuit with the field of said dynamo comprising an

automatically operating contact device responsive to the speed of the dynamo.

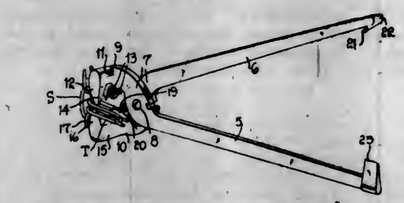
2. In a motor vehicle, the combination with a storage battery of a dynamo, a shunt field for said dynamo, a plurality of resistance units and means for manually including said units in series with said shunt field, and centrifugally operated means responsive to the speed of the dynamo for preventing the manual inclusion of said resistance units in the field circuit unless the dynamo is being propelled at a speed satisfactory for the inclusion of such resistance units in said shunt field circuit.

3. In a motor vehicle, the combination with a storage battery of a dynamo for propelling the vehicle and charging said battery, a shunt field winding for said dynamo, a governor mechanically driven from the dynamo shaft and an external resistance comprising a plurality of sections, and means under the control of said governor for including said sections, one at a time, in series with the dynamo shunt field as the speed of the dynamo increases.

4. In a motor driven vehicle, the combination with a storage battery of a dynamo driven thereby for propelling the vehicle, an engine for propelling the dynamo for charging said storage battery, a hand operated rheostat for controlling the field magnetization of said dynamo, a mechanically operated device for preventing a too rapid decrease in the field magnetization of said dynamo, said mechanically operated device being so adjusted that under the normal operation of the motor vehicle it will not interfere with a further gradual decrease in the field magnetization of the dynamo through the operation of the manual device.

5. In a motor vehicle the combination with a storage battery of a dynamo driven thereby for propelling a vehicle, an internal combustion engine for propelling the dynamo for charging the storage battery and for assisting in driving the vehicle, a ratio changing mechanism between the dynamo and the driven axle of the vehicle whereby different speed ratios may be established between the dynamo and the driven axle, a hand operated rheostat for controlling the field magnetization of said dynamo, a governor depending upon the speed of the dynamo shaft and arranged to prevent the too rapid inclusion of resistance in the field circuit of the dynamo, said governor being so adjusted that under all of the different speed relations between the dynamo and the driven axle of the motor vehicle the governor will be effective only during acceleration of the vehicle.

1,204,147. TOOL. JAMES W. FERGUSON, Jacobs Creek, Pa. Filed Apr. 12, 1916. Serial No. 90,709. (Cl. 81—15.)



1. A tool of the character described including jaws pivotally connected together at one of their ends for relative movement, each of said jaws having a wedge-shaped finger integrally formed therewith, said fingers being spaced from the corresponding side faces of the jaws, one of said fingers having its outer face beveled and the other of the fingers having its inner face opposed to the side face of the jaw and beveled in parallel relation to the beveled face of the first finger.

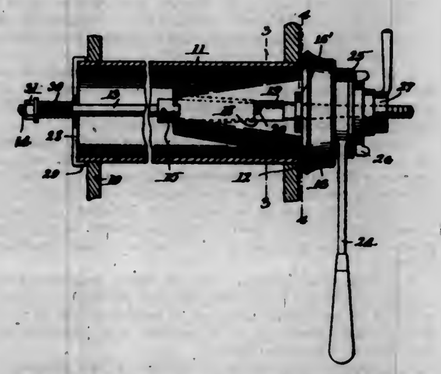
2. A tool of the character described including jaws pivotally connected together at one of their ends, one of said jaws being provided in its other end with concave gripping edges for engagement upon the parallel portions of a double-hook link, said gripping edges being disposed in parallel relation to the pivot and the other of the jaws having channels formed therein to provide seats to receive the hook bills of the link.

3. A tool of the character described including intersecting pivotally connected handle members having opposed jaws on one of their ends, one of said jaws being provided upon its inner face and at its outer end with notches having transverse gripping edges to engage the parallel portions of a chain link and the other of said jaws having channels formed therein to receive hooked terminals on the link, and a laterally offset finger formed upon one side of one jaw and projecting toward the other jaw and adapted for engagement through the link.

4. A tool of the character described including intersecting pivotally connected handle members having opposed jaws on one of their ends, one of said jaws being provided upon its inner face and at its outer end with notches to receive the parallel portions of a chain link and the other of said jaws having channels formed therein to receive hooked terminals on the link, and a laterally offset finger formed upon one side of one jaw and projecting toward the other jaw and adapted for engagement through the link, said jaws being provided on their inner faces and intermediate of their ends with opposed flanges to engage the hooked terminals of the chain link.

5. A repairing tool for anti-skidding tire chains including pivotally connected, relatively movable jaws, one of said jaws being formed with an inwardly projecting end portion having gripping edges for engagement upon the parallel portions of the hooked ends of a link, the opposed face of the other jaw having channels formed therein to receive the hook bills, the inner opposed faces of the jaws being provided with stop abutments for engagement by the hooks to prevent longitudinal movement of the same between the jaws when the latter are closed.

1,204,148. FLUE OR TUBE CUTTER. WILLIAM FLANAGAN, Leland, Miss. Filed Feb. 27, 1915. Serial No. 11,023. (Cl. 81—195.)



1. In combination with a bolt, of a wedging member securely mounted upon the bolt, a hub surrounding the wedge member and having a tapering bore receiving the wedge and also provided with a transverse opening intersecting said bore, a cross pin loosely supported on the bolt and adapted to engage one end of a tube while the hub engages the other end thereof, a spring surrounding the bolt and acting against the cross piece, a nut adjustably engaged on the bolt and working against the spring, a nut engaged on the end of the wedging member and working against the hub, means for rotating the hub, and cutters within the transverse opening and acted upon by the wedge.

2. The combination with a bolt, of a wedging member securely mounted upon the bolt, a hub surrounding the wedge member and having a tapering bore receiving the wedge and also provided with a transverse opening intersecting said bore, a cross piece loosely supported on the bolt and adapted to engage one end of a tube while the hub engages the other end thereof, a spring surrounding the bolt and acting against the cross piece, a nut adjustably engaged on the bolt and working against the spring, a nut engaged on the end of the wedging member and working against the hub, cutters within the transverse opening and acted upon by the wedge, and a lever connected with the hub for rotating the same.

1,204,149. WATERPROOFING COMPOSITION. OTTO EINAR GELERTSEN, Westfield, N. J., assignor to Greenfield Paper Bottle Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 28, 1915. Serial No. 58,370. (Cl. 134—15.)

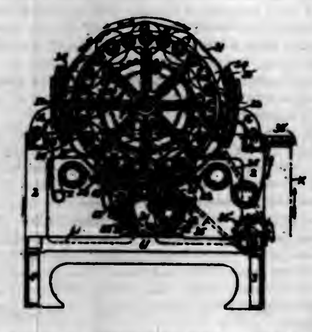
1. A waterproofing composition comprising in combination resin and hydrocarbon wax, the latter up to but not exceeding 25%, said composition also comprising carnauba wax from ½ to 1%.

2. A waterproofing composition comprising approximately 75% of resin and 25% of paraffin.

3. A waterproofing composition comprising 75% or over of resin, substantially the remainder of the composition being hydrocarbon wax.

4. A waterproofing composition comprising 75% or over of resin, substantially the remainder of the composition being a hydrocarbon wax, the composition also comprising a small percentage of carnauba wax.

1,204,150. PLANETARY CLOTH-NAPPING MACHINE. DAVID GESSNER, Worcester, Mass. Filed Dec. 7, 1912. Serial No. 735,367. (Cl. 26—19.)



1. A napping-roll comprising metallic tubular sections, and a rigid tubular coupling and stiffening member having its ends housed within said sections and extending longitudinally thereof a sufficient distance to provide rigidity to the roll and resist ballooning of the same, the portions of the said member within said roll sections being rigidly united thereto by a brazed joint forming an integral structure.

2. A napping-roll comprising metallic tubular sections and a rigid tubular coupling and stiffening member having its opposite ends housed within said sections and extending longitudinally thereof a sufficient distance to resist ballooning of the roll, said member having a radial flange projecting laterally beyond the ends of the roll sections.

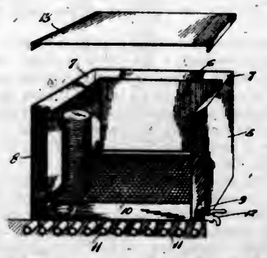
3. In combination, drum heads having circumferentially arranged bearing seats, napping-rolls having journals seated in said seats, retaining rings surrounding the heads and closing said seats, and external bearings upon which said rings travel.

4. In combination, a drum head having circumferentially arranged bearing seats, napping-rolls having journals seated in said seats, a retaining ring surrounding the head and overlying the portion of the journals in said bearing seats, and means external of said ring for supporting the same.

5. In combination, drum heads having circumferentially arranged bearing-seats, napping-rolls having journals seated in said seats, retaining-rings surrounding the heads and closing said seats, and external roller-bearings upon which said rings travel.

[Claims 6 to 18 not printed in the Gazette.]

1,204,151. METHOD OF TREATING COATED MATERIAL. GEORGE A. GILBERT and MATTHEW L. DAUGHERTY, Norwood, Ohio. Filed Apr. 3, 1916. Serial No. 88,466. (Cl. 34—24.)



1. The method of treating material coated with solids dissolved in benzol or the like, which consists in heating said material, then transferring it to a closed receptacle and utilizing the heat of the heated material to cause a circulation in said receptacle for warm drying and condensation.

2. The method of treating material coated with solids dissolved in benzol or the like, which consists in rapidly heating said material, then transferring it to a closed receptacle, applying a cooling medium to the receptacle, and utilizing the heat of the heated material to cause a circulation in said receptacle for warm drying and condensation.

3. The method of treating material coated with solids dissolved in benzol or the like, which consists in heating the material to a temperature between one hundred and fifty and one hundred and seventy degrees Fahrenheit, transferring said material to a closed receptacle, applying a cooling medium of temperatures between fifty and seventy degrees Fahrenheit to said receptacle and utilizing the heat of the heated material to cause a circulation in said receptacle for warm drying of the parts and condensation of the benzols.

4. The method of treating tin parts coated with sealing fluid dissolved in benzol, which consists in quickly heating said parts so as to bring them to a temperature between one hundred and fifty and one hundred and seventy degrees Fahrenheit without driving off the solvent, placing said tin parts in a closed receptacle, applying a mild cooling medium to said receptacle, and utilizing the heat of the heated parts to cause a circulation in said receptacle for warm drying and condensation.

1,204,152. BILLIARD-CUE. JOHN H. GOODELL, Marseilles, Ill. Filed Jan. 7, 1916. Serial No. 70,722. (Cl. 46—9.)



1. A billiard cue comprising a body having a reduced end portion provided with flat faces at diametrically opposite sides thereof, a ferrule surrounding said reduced end portion, a tip at the extreme end of said portion, a metallic strap passing through an opening in said tip and having its end portions projecting in parallel relation from

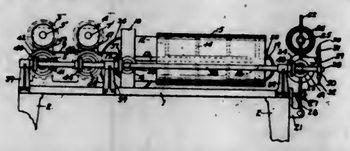
the inner face of said tip and lying within the ferrule and along the said flat faces of said reduced portion of the body, the extreme free ends of said strap being bent outwardly, and said ferrule having notches in its ends to receive said outwardly bent ends.

2. A billiard cue comprising a body having a reduced end portion, a ferrule surrounding said end portion, a non-metallic tip at the extreme end of said portion, and a metallic strap passed through a hole in the tip with the mid-portion of the strap occupying said hole, the end portions of the strap extending in parallel relation along opposite sides of the reduced end portion of the body within said ferrule.

3. A billiard cue comprising a body, a ferrule adapted to fit over one end thereof, a cue tip, a metallic strap formed of a straight strip of metal separate from said tip and secured at its mid-portion to said tip, said strap having its end portions positioned within said ferrule at opposite sides of the cue body, the ferrule acting to clamp the end portions of said strap to the end of the cue body and thereby secure the cue tip to the body.

4. A billiard cue comprising a body, a ferrule adapted to fit upon one end of said body, said ferrule having diametrically opposite notches in one end, a cue tip, a metallic strap passed through an opening in said tip and having its end portions projecting in parallel relation from the inner face of said tip and lying within said ferrule, the extreme ends of the strap being bent outwardly to engage in the notches in the ferrule, the ferrule acting to bind the strap to the cue body for securing the cue tip thereto, and the ferrule, tip and strap being removable as a unit from the body to permit the substitution of another tip by disengagement of the end portions of the strap from the ferrule.

1,204,153. MACHINE FOR MANUFACTURING SANITARY NAPKINS. GEORGE H. HARDMAN, Fall River, Mass., assignor of one-half to Frank S. Brundage, Fall River, Mass. Filed Oct. 19, 1912. Serial No. 726,683. (Cl. 223—15.)



1. In a machine of the character described, the combination with a suitable frame, of a support for a tubular fabric casing and a conveyer extending within said tubular fabric casing.

2. In a machine of the character described, the combination with a suitable frame, of a support for a tubular fabric casing and a conveyer mounted to rotate within said support and casing.

3. In a machine of the character described, the combination with a suitable frame, of a pair of intermittent feed rolls, a pair of constant feed rolls, a tube, an endless belt rotating within said tube, and a pair of feed rolls adjacent the outer end of said tube.

4. In a machine of the character described, the combination with a suitable frame, of a pair of intermittently rotating feed rolls, a pair of constantly rotating feed rolls, a tube supported upon its interior, an endless belt adapted to rotate within said tube, a pair of feed rolls adjacent the outer end of said tube, and a knife adjacent said feed rolls.

5. In a machine of the character described, the combination with a suitable frame, of a pair of intermittently rotating feed rolls, a pair of constantly rotating feed rolls adjacent thereto, a tube supported upon its interior, an endless belt mounted to rotate within said tube, a feed roll and coöperating feed brush adjacent the outer end of said tube, and a fixed and movable knife member adjacent said last mentioned feed roll.

[Claims 6 to 8 not printed in the Gazette.]

1,204,154. FOCAL-PLANE SHUTTER AND ROLLER-BLIND SHUTTER. EDITH HORA, Wandsworth, England. Filed Oct. 7, 1915. Serial No. 54,647. (Cl. 95—57.)



1. In a shutter of the kind referred to, the combination of two blinds having slits therein normally out of register, a plain roller and a spring roller for each blind, a geared connection between the two plain rollers, a spring controlled lever adapted to move one of said plain rollers out of gear with the other plain roller, a second spring controlled lever adapted to prevent motion of the firstly mentioned plain roller when moved out of gear with the other plain roller, a graduated setting disk geared to the secondly mentioned plain roller, a stop carried by said graduated setting disk, a spring controlled pivoted member movable into the path of said stop, shutter releasing means adapted to operate said second spring controlled lever, a movable member adapted to connect said pivoted member to said shutter releasing means, and means adapted to move such movable member to make or break said connection.

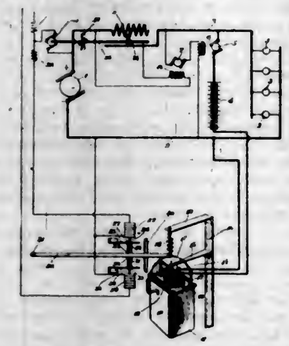
2. In a shutter of the kind referred to, the combination of two blinds, having slits therein normally out of register, a plain roller and a spring roller for each blind, a geared connection between the two plain rollers, a spring controlled lever adapted to move one of said plain rollers out of gear with the other plain roller, a second spring controlled lever adapted to prevent motion of the firstly mentioned plain roller when moved out of gear with the other plain roller, a graduated setting disk geared to the secondly mentioned plain roller, and shutter releasing means adapted to operate said second spring controlled lever.

1,204,155. ELECTRICAL SYSTEM OF DISTRIBUTION. ALBERT S. HUBBARD, Belleville, N. J., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Jan. 25, 1910. Serial No. 539,920. (Cl. 171—310.)

1. In an electrical system of distribution, a distribution circuit, a compensatory storage battery in operative relation thereto, means for regulating the charge and discharge of the battery responsive to variations in the electrical condition of the system, and means responsive to variations in the weight of the liquid of the cells of said battery for further regulating the battery action.

2. In an electrical system of distribution, a distribution circuit, a compensatory storage battery in operative relation thereto, means for regulating the charge and discharge of the battery responsive to variations in the electrical condition of the system, and means responsive to variations in the weight of the liquid of one of the cells of said battery, said means being arranged to restore the battery to a predetermined condition of charge.

3. In an electrical system of distribution, a source of electrical energy, a distribution circuit and its load fed thereby, a compensatory storage battery operatively related thereto, means for controlling the division of load between the source and the battery responsive to certain variations in the electrical condition of the system, and means for regulating the action of said controlling means responsive to variations in the weight of the liquid of one of the cells of said battery.

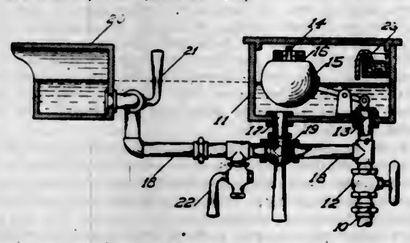


4. In an electrical system of distribution, a source of electrical energy, a distribution circuit and its load fed thereby, a compensatory storage battery operatively related thereto, means for controlling the division of load between the source and the battery responsive to certain variations in the electrical condition of the system, and means acting to cause the battery to return substantially to a predetermined condition of state of charge, responsive to variations in the weight of the liquid in one of the cells of said battery.

5. In an electrical system of distribution, a source of electrical energy, a distribution circuit and its load fed thereby, a compensatory storage battery operatively related thereto, means for controlling the division of load between the source and the battery responsive to certain variations in the electrical condition of the system, and slower acting means for cutting down the action of said controlling means responsive to variations in the weight of the liquid in one of the cells of said battery.

[Claims 6 to 15 not printed in the Gazette.]

1,204,156. WATER-DISTRIBUTING SYSTEM. GEORGE M. HUBBELL, Los Gatos, Cal. Filed July 6, 1915. Serial No. 38,320. (Cl. 137—68.)



A water distributing system comprising a main supply tank, a main supply pipe communicating with said tank, an automatic valve for said pipe, means for controlling the operation of said valve when more or less water is being used, an outlet pipe also communicating with the main supply tank, a pipe connecting said main supply and outlet pipes, a three way valve located at the juncture of the connecting and outlet pipes, a cut-off valve and a drain cock located in said connecting pipe and an open trough swiveled to said connecting pipe.

1,204,157. DISK DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Feb. 4, 1915. Serial No. 6,124. (Cl. 255—71.)

1. A disk drill, comprising a head, approximately disk-shaped cutters arranged in an upright position on the outer surface of said head and provided with cutting edges that act on the material on the side wall of the hole, and cutting surfaces on the inner sides of said cutters that act on the side of the core at the center of the hole and thus progressively destroy said core and assist said cutters to turn on their axes.



2. A disk drill, comprising a head, substantially disk-shaped cutters arranged in an upright position on the outer side of said head and provided with cutting edges that scrape off the material from the side wall of the hole when the head is rotated, said cutters being offset with relation to each other or arranged with their axes of rotation staggered slightly so that the rear edge portions of said cutters will not drag against the side wall of the hole, a stationary cutting device in the lower end face of the head arranged between said cutters and extending substantially parallel to same, and radially-disposed cutting edges on the inner sides of the cutters that disintegrate the material at the bottom of the hole and also assist the cutters to turn on their axes.

3. A disk drill, comprising a head, substantially disk-shaped cutters arranged in an upright position on the outer side of said head and provided on their edge portions with teeth, radially disposed cutting teeth on the inner sides of said cutters, and a stationary cutting device in the lower end face of the head arranged between said cutters and extending substantially parallel to same.

4. A disk drill, comprising a head provided adjacent its lower end with integral, laterally projecting spindles that are offset or staggered slightly with relation to each other, substantially disk-shaped cutters rotatably mounted on said spindles and provided with cutting edges that shear off the material from the side wall of the hole when the head is rotated, radially-disposed cutting edges on the inner sides of said cutters that disintegrate the material at the bottom of the hole, and a recess formed at the lower end face of the head and extending parallel to said cutters for disintegrating the material at the center of the bottom of the hole.

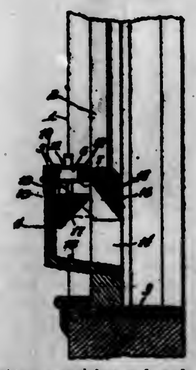
5. A disk drill, comprising a head, approximately disk-shaped cutters arranged in an upright position on the outside of said head, and means for discharging jets of flushing water downwardly from the lower end face of the head between said cutters, at points below the axes of said cutters and also downwardly against the inner sides of said cutters at points above the axes on which they revolve.

[Claims 6 to 16 not printed in the Gazette.]

1,204,158. WINDOW-VENTILATOR. ISAAC B. INGLE, Bloomington, Ill. Filed June 30, 1915. Serial No. 37,213. (Cl. 98—31.)

1. A window ventilator comprising a board or rail having an air inlet opening extending therethrough, a casing upon the inner side of said rail in communication with said opening having inlets above the plane of the opening, and means associated with the upper ends of the inlets for controlling the same, and an angular bar journaled in said casing and removable through the upper end thereof for regulating the passage of air to said openings.

2. A ventilator comprising a board or rail having an air inlet opening, a casing upon one side of said rail having an open top above the level of the air inlet opening in the rail, a lid or cover for closing said top, said lid or cover being provided with a ventilation opening, a guideway, a damper movable in said guideway and governing said opening, and an angular bar journaled in said casing and removable through the upper end thereof for regulating the passage of air to said openings.



3. A ventilator comprising a board or rail having an air inlet opening, a casing upon one side of said board or rail and having an air passage in its top above the level of the said inlet opening, the top wall of said opening being arranged to slope upwardly and inwardly toward said passage, and a triangular-shaped block journaled in said casing to control the passage of air to said openings.

4. A ventilator including a board or rail having an air inlet opening, a casing on one side of said rail having an inlet at its top above the level of the top of said opening, the bottom walls of the rail opening and casing being outwardly and downwardly sloped and the top wall of the opening being upwardly and inwardly sloped, means for controlling the admission of air through the inlet at the top of the casing, the end wall of said casing having slots open at one end thereof, and an angular bar journaled in said slots for regulating the passage of air through the casing to the openings.

5. A ventilator including a bar or rail having an opening extending therethrough, a casing upon one side of said rail and communicating with said opening, said casing having an open top above the level of the opening and provided in its end walls with grooves, a lid for closing the open top of the casing and provided with a ventilation passage, a damper for closing said passage, and a triangular bar having reduced projections adapted to engage said grooves, said bar being removably and pivotally supported in the passage, whereby the bar may be removed or adjusted to different positions to vary the size of the passage.

1,204,159. RELEASABLE SELF-FASTENING BUTTON. EDWARD I. JAFFE and ELIAS JAFFE, New York, N. Y. Filed Mar. 1, 1916. Serial No. 81,348. (Cl. 24—108.)



1. In a device of the kind described, a back-plate having a centrally disposed opening therein, a spring-plate supported upon said back-plate having an opening registered with said opening of said back-plate, opposite ends of said spring-plate being doubled upon themselves to provide upwardly inclined spring-arms the free ends of which are opposed to each other and slightly separated, a fastening shank having an anchor head at one end and a piercing point at its opposite end, said fastening shank having a plurality of annular transverse grooves formed in its body, said shank being adapted to be passed between said opposed ends of said spring-arms so as to be engaged thereby, upwardly extending lips connected with the free ends of said spring-arms so as to be opposed one to the other and between which a releasing tool may be thrust to separate the opposed ends of said spring-arms to disengage the same from said fastening shank, said back-plate and said spring-plate being provided with registered openings located beneath said lips through which a releasing tool may be passed.

2. In a releasable self-fastening button, a back-plate having a centrally disposed entrance opening, a spring-plate supported upon said back-plate having an opening therethrough registered with said entrance opening, opposite ends of said spring-plate being doubled upon themselves to provide upwardly inclined spring-arms the free ends of which are opposed to each other and slightly separated, a fastening shank having annular grooves in its body adapted to be engaged and held against withdrawal by said spring-arms when passed upwardly between said opposed free ends of the latter, and said back-plate and said spring-plate having additional registered openings located beneath and in line with said opposed ends of said spring-arms through which a releasing tool may be passed upwardly between said opposed ends of said spring-arms to separate the same and thereby release the same from holding engagement with said fastening shank to permit the withdrawal of the latter.

3. In a releasable self-fastening button, a back-plate having a centrally disposed offset shoulder provided with an entrance opening, a spring-plate supported upon said back-plate having an opening therethrough registered with said entrance opening, opposite ends of said spring-plate being doubled upon themselves to provide upwardly inclined spring-arms the free ends of which are opposed to each other and slightly separated, upwardly extending vertical lips connected with the opposed free ends of said spring-arms, opposed gripping-jaws formed in said lips, a fastening-shank having an anchor head at one end and a piercing point at its opposite end, said fastening shank having a roughened surface, said gripping surfaces of said gripping-jaws having a correspondingly roughened surface, said shank being adapted to be passed between said gripping-jaws, said back-plate and said spring-plate being provided with registered openings located beneath and in line with said opposed lips for the purposes set forth, and an arched cover-shell having a centrally disposed opening extending over said spring-arms and secured to said back-plate.

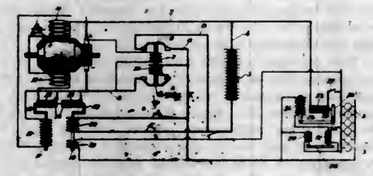
4. In a releasable self-fastening button, a back-plate having a centrally disposed offset shoulder provided with an entrance opening, a spring-plate supported upon said back-plate having an opening therethrough registered with said entrance opening opposite ends of said spring-plate being doubled upon themselves to provide upwardly inclined spring-arms the free ends of which are opposed to each other and slightly separated, upwardly extending vertical lips connected with the opposed free ends of said spring-arms, opposed gripping-jaws formed in said lips, a fastening-shank having an anchor head at one end and a piercing point at its opposite end, said fastening shank having a roughened surface, said gripping surfaces of said gripping-jaws having a correspondingly roughened surface, said shank being adapted to be passed between said gripping-jaws, said back-plate and said spring-plate being provided with registered openings located beneath and in line with said opposed lips for the purposes set forth, an arched cover-shell having a centrally disposed opening extending over said spring-arms and secured to said back-plate, and a button-face member secured to said back-plate.

5. In a releasable self-fastening button, a back-plate having a centrally disposed offset shoulder provided with

an entrance opening, a spring-plate supported upon said back-plate having an opening therethrough registered with said entrance opening, opposite ends of said spring-plate being doubled upon themselves to provide upwardly inclined spring-arms the free ends of which are opposed to each other and slightly separated, upwardly extending vertical lips connected with the opposed free ends of said spring-arms, opposed gripping-jaws formed in said lips, a fastening-shank having an anchor head at one end and a piercing point at its opposite end, said fastening shank having a plurality of annular transverse grooves formed in its body, said gripping-jaws being provided on their gripping surfaces with a plurality of corresponding transverse annular teeth, said shank being adapted to be passed between said gripping jaws, and said back-plate and said spring-plate being provided with registered openings located beneath and in line with said opposed lips for the purposes set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,204,160. ELECTRICAL SYSTEM OF DISTRIBUTION. JOHN W. JEPSON, Depew, N. Y., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Jan. 25, 1910. Serial No. 539,917. (Cl. 171—313.)



1. In an electrical system of distribution, a main generator, a work circuit and storage battery arranged to be supplied thereby, regulating apparatus for regulating the voltage of the generator, a coil for controlling said regulating apparatus, said coil being serially connected between the generator and battery, and a coil arranged to be brought into action upon the connecting up of the work circuit to the generator to aid said first mentioned coil.

2. In an electrical system of distribution, a main generator, a work circuit and storage battery arranged to be supplied thereby, regulating apparatus for regulating the voltage of the generator, a coil for controlling said apparatus responsive to current changes, and a coil arranged to be brought into action upon the connecting up of the work circuit to the generator, to aid said first mentioned coil and prevent the generator from becoming overloaded.

3. In an electrical system of distribution, a main generator, a work circuit and storage battery arranged to be supplied thereby, rheostatic apparatus for regulating the voltage of the generator, a coil responsive to battery current variations for regulating said apparatus to maintain a substantially constant charging current, and a coil arranged to be brought into operation to aid said first mentioned coil upon the connecting up of the work circuit to the generator, to cut down the charging current and prevent the generator from becoming overloaded.

4. In an electrical system of distribution, the combination of a main generator, a work circuit and battery connected to be supplied thereby, rheostatic apparatus for regulating the field of the generator to regulate its voltage, a coil serially connected between the generator and battery for regulating said apparatus, and a coil arranged to be brought into operation to aid said current coil upon the connecting up of the work circuit to the generator and battery, said second mentioned coil being connected across the work circuit.

5. In an electrical system of distribution, the combination of a main generator, a work circuit and battery connected to be supplied thereby, rheostatic apparatus in the field of the main generator for regulating the voltage thereof, two electro-magnets for independently regulating said apparatus, one of said electro-magnets operating responsive to changes in battery current to maintain a substantially constant charging current, and the other of said electro-magnets being connected responsive to voltage changes of the generator and arranged to be brought into operation to regulate the voltage of the generator when the battery has reached a predetermined condition of charge, and a coil arranged to be brought into action to aid said current electro-magnet to decrease the battery charging current upon the connecting up of the work circuit with the battery and generator.

[Claims 6 to 17 not printed in the Gazette.]

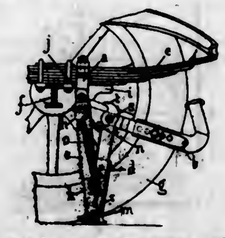
1,204,161. SPECTACLES. FREDERICK W. KING, Cleveland, Ohio. Filed June 30, 1914. Serial No. 848,303. (Cl. 2—149.)



1. In a spectacle construction, a pair of eye-wires, a flexible bridge rigidly secured at its ends to the eye-wires and spacing the same, and a flexible shield extending across the space between the eye-wires and having its end joined to the respective eye-wires.

2. In a spectacle construction, a pair of spaced lenses and metallic rims therefor, a flexible bridge member connecting the rims and rigidly secured thereto, whereby the distance between the lenses may be adjusted by flexing the bridge member, a nose piece disposed below the bridge member, and a flexible post directly connecting the nose piece to the bridge member and including a loop extending above the bridge member, the lenses being so spaced as to permit the nose piece to be located between them.

1,204,162. LIFTING-JACK. XAVIER KIRSTAETTER, Basel, Switzerland. Filed July 30, 1915. Serial No. 42,823. (Cl. 254—86.)



1. A lifting jack for suspension from a vehicle comprising a guide bar and a pedal member pivotally supported from the vehicle so that they can be turned up out of the way, a strut pivoted to the pedal member, a foot piece, means connecting the strut to the foot piece and means for guiding said foot piece from the guide bar, said connecting and guiding means being such that when the guide bar is dropped to its operative position and the pedal is operated, the vehicle is lifted.

2. A lifting jack for suspension from a vehicle, comprising a guide bar and pedal member pivotally supported from the vehicle, a stop at the upper end of the guide bar, a fixed support on the vehicle, said support cooperating with the stop to limit the movement of the guide bar, a strut pivoted to the pedal member, a foot piece, means con-

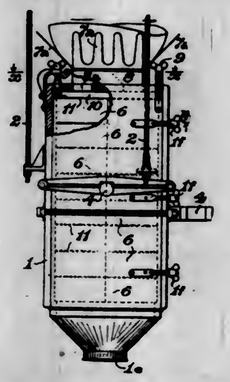
necting the strut to the foot piece, means for guiding said foot piece from the guide bar, a nose on the strut, and a projection on the pedal member, said nose and projection being adapted to limit the movement of the pedal member and strut beyond the straight line position on the operation of the pedal member.

3. A lifting jack for suspension from a vehicle, comprising a guide bar and pedal member pivotally supported from the vehicle, a stop at the upper end of the guide bar, a fixed support on the vehicle, said support coöperating with the stop to limit the movement of the guide bar, a strut pivotally connected to the pedal member, a foot piece, means connecting the strut to the foot piece, means for guiding said foot piece from the guide bar, a nose on the strut, a projection on the pedal member, said nose and projection being adapted to limit the movement of the pedal member and strut beyond the straight line position on the operation of the pedal member, a fixed guide surface on the support, said guide surface being adapted to guide the nose on the strut when the pedal member is pulled upward so that the pedal member, the strut and the guide are all brought into an approximately horizontal position.

4. A lifting jack for suspension from a vehicle comprising a guide bar and a pedal member pivotally supported from the vehicle so that they can be turned up out of the way, a strut pivoted to the pedal member, a foot piece, means connecting the strut to the foot piece, and means for guiding said foot piece from the guide bar, said connecting and guiding means being such that when the guide bar is dropped to its operative position and the pedal is operated, the vehicle is lifted, and means for holding the pedal member, the strut, and the guide bar in the raised position when out of use.

5. A lifting jack for suspension from a vehicle comprising a guide bar formed in two parts, one adapted to slide upon the other, one part of said guide bar being pivotally supported on the vehicle, a foot piece attached to the sliding member of the guide bar, a pedal member pivotally supported from said vehicle, a strut pivoted to the pedal member, and means connecting the strut to the sliding member of the guide bar, said means being such that on the depression of the pedal member the sliding member will be moved outwardly from the pivoted member of the guide bar.

1,204,163. POWDER-BLENDING MACHINE. ANTON K. KUSSBAUCH, Pittsburgh, Pa. Filed July 10, 1916. Serial No. 108,375. (Cl. 83—73.)



1. The combination, in a powder-blending machine, of a pair of upper and lower inclined chutes, the discharge end of the lower extremity of the upper chute being disposed a short distance above the lower chute, at a predetermined distance from the lower extremity thereof and the discharge end formed of the lower chute being tapered from a minimum width at its lower extremity to the full width of the chute at or before reaching a point approximately beneath the discharge end of the upper chute; and means for vibrating the chutes for the purpose of flowing the powder.

2. The combination, in a powder blending machine, of a labyrinth blending unit comprising a plurality of adjacently disposed pairs of upper and lower inclined chutes which are interlaced to stand in approximately X form, with the lower extremity of alternate lower chutes pointing in opposite downward directions, the discharge ends of the upper chutes being disposed a short distance above the lower chutes and at a predetermined distance, from the discharge ends thereof, so as to cause powder flowing down the upper chute to be layered upon the powder flowing down the lower chute; and means for vibrating the chutes for the purpose of flowing the powder.

3. The combination, in a blending machine, of a plurality of superimposed labyrinth blending units, each unit comprising a plurality of interlaced and inclined upper and lower chutes, the upper chutes being disposed to deposit powder layerwise upon powder flowing down in the lower chutes; said lower chutes having tapered discharge ends adapted to form curtained powder discharges, said chutes with tapered ends being disposed above and crosswise of a plurality of chutes forming a lower labyrinth unit, for the purpose of distributing the curtained powdered discharges falling from the tapered discharge ends into a plurality of chutes forming the lower unit; and means for vibrating said units.

4. The combination, in a blending machine, of a plurality of superimposed labyrinth blending units, each unit comprising a plurality of interlaced and inclined upper and lower chutes, the upper chutes being disposed to deposit powder layerwise upon powder flowing down in the lower chutes; said lower chutes having tapered discharge ends adapted to form curtained powder discharges, said chutes with tapered ends being disposed above and crosswise of a plurality of chutes forming a lower labyrinth unit, for the purpose of distributing the curtained powdered discharges falling from the tapered discharge ends into a plurality of chutes forming the lower unit; means for vibrating said units, and means for feeding powder into the upper labyrinth unit.

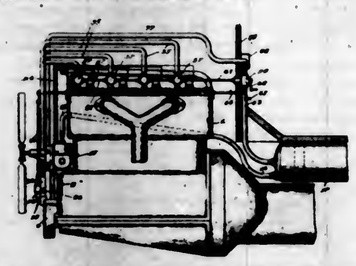
5. The combination, in a blending machine, of adjacently disposed tiers of labyrinth units; each tier being formed of a plurality of superimposed labyrinth blending units, comprising a plurality of interlaced and inclined upper and lower chutes, the upper chutes being disposed to deposit powder layerwise upon powder flowing down in the lower chutes; said lower chutes having tapered discharge ends adapted to form curtained powder discharges, said chutes with tapered ends being disposed above and crosswise of a plurality of chutes forming a lower labyrinth unit, for the purpose of distributing the curtained powdered discharges from falling from the tapered discharge ends into a plurality of chutes forming the lower unit; means for feeding powder into the upper labyrinth unit; and means for vibrating said units.

[Claims 6 to 11 not printed in the Gazette.]

1,204,164. GAS-ENGINE STARTER. GEORGE Y. LAUCHIN, Crystal Falls, Mich., assignor of one-third to Edward H. Sensiba, Crystal Falls, Mich. Filed Apr. 8, 1915. Serial No. 19,918. (Cl. 123—181.)

1. The combination with an internal combustion engine, of an electrical spark timer operated thereby, a fluid pressure starter for the engine comprising tubes leading to the separate cylinders, and distributer valve mechanism axially fixed with respect to and operable simultaneously with the electrical timing mechanism and having a longitudinally shiftable element for opening all the distributer valves when desired.

2. The combination with an electrical timer with a gas engine comprising a rotatable contact maker, of a fluid pressure starter comprising distributer valve mechanism having a plurality of separate valves, a common operating member for the electrical timer and for the said valve mechanism, and a cam element longitudinally shiftable on the member having a portion to open and close all of the valves at the same time.



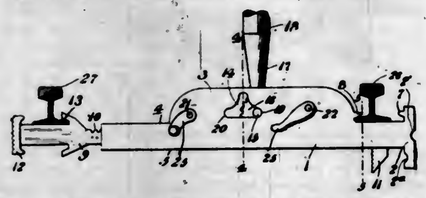
3. In a fluid pressure gas engine starter, the combination with an annular pressure chamber, means forming passages leading therefrom, radially movable valves to control the admission of fluid under pressure from the said passages normally held closed by fluid in the pressure chamber, and a rotatable cam for raising the valves from their seats in succession and with an extension for raising them all simultaneously.

4. In a fluid pressure starter for gas engines, the combination with distributer valve mechanism comprising radially movable valves, of rotatable longitudinally shiftable means in connection with the engine for opening the valves in succession and for opening all the valves simultaneously when shifted axially or longitudinally.

5. In a fluid pressure starter for gas engines with a plurality of cylinders, the combination with a separate fluid pressure admission stem for each cylinder, a valve connected thereto, a fluid pressure distributing valve connected to each of the other valves for admitting fluid under pressure to the several cylinders in succession, and means shiftable longitudinally and operable to open all of the distributing valves for the several cylinders simultaneously when desired.

[Claims 6 to 11 not printed in the Gazette.]

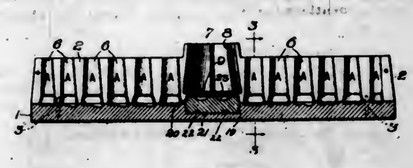
1,204,165. TOOL. SAMUEL F. LEGG, Sylvia, W. Va. Filed Feb. 9, 1916. Serial No. 77,217. (Cl. 254—66.)



1. In a device for the purpose set forth, a casing having a laterally extending plate closing one end thereof, the sides of the casing having their central portion widened and projecting over one of the faces of the said casing, and the said face between the said extending sides being opened, the opposite face of the casing being provided with a centrally arranged elongated opening, a draw bar in the casing and projecting therethrough, a lateral finger on the draw bar projecting through the elongated opening in the casing, and the opposite face of the draw bar being toothed, the projecting sides of the casing having alining T-shaped openings, an operating member having a toothed head which coöperates with the teeth of the draw bar, the head of said operating member being disposed between the projecting sides and having lateral trunnions received in the T-shaped openings, and pawls pivotally secured between the projections of the sides and spaced approximately an equal distance from the T-shaped openings and the said pawls adapted to co-act with the teeth of the draw bar.

2. In a device for the purpose set forth, a substantially rectangular casing, a laterally extending plate closing one of the ends of the casing, said casing having its sides centrally widened and extending over one of the faces of the casing, said face between the widened portions of the sides being opened, the said face, adjacent the end plate having a laterally disposed angularly arranged lip, the opposite face being provided with a centrally arranged longitudinally extending opening, a toothed bar received in the bore of the casing and projecting through the open end thereof, a finger upon the bar passing through the elongated opening in the casing, the side extensions of the casing having each a centrally arranged alining substantially T-shaped opening, an operating member including a toothed head for coöperating with the teeth of the bar disposed between the sides, the toothed end of the said operating member having laterally extending trunnions received in the T-shaped openings, pivoted pawl members between the side extensions and to the opposite sides of the operating member, handles for the pawl members, the outer end of the bar having a laterally extended head, and a laterally disposed angularly arranged lip upon one of the faces of the bar adjacent the said head.

1,204,166. APPARATUS FOR MAKING ARTIFICIAL TOOTH-CROWNS. SAMUEL A. LEVIN, Chicago, Ill. Filed Feb. 15, 1915. Serial No. 8,150. (Cl. 11—115.)



1. In combination, two elongated mold sections, each provided intermediate its ends with a cup section, said cup sections forming a cup having diametrically opposite grooves in its internal walls, and a division plate adapted to be positioned in said cup with its edges lying in said grooves, said plate stopping short of one end of the cup, and said plate having an enlargement.

2. The combination of a tri-sectional dental mold comprising a bottom section and two side sections releasably secured together, said bottom section having a recess in its upper side, and the side sections forming between them a similarly shaped recess registering with the first mentioned recess, and a member removably positioned in said recesses, said member having a counterdie recess in its upper side.

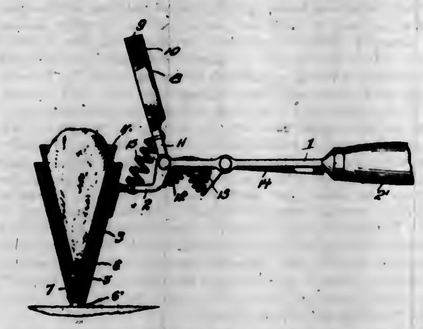
3. The combination of a cup and a division plate adapted to be positioned in said cup, said plate stopping short of one end of the cup, said plate having a central enlargement.

1,204,167. ICE-CREAM-CONE FILLER. WAYNE LIKE, Plainwell, Mich. Filed Nov. 13, 1915. Serial No. 61,342. (Cl. 107—48.)

1. An ice cream cone filler comprising a conical holder adapted to receive the cone, means for locking said cone within the holder, a plunger rod slidably mounted in the lower end of said holder and projecting beyond the said lower end, a cup formed on one end of said rod and lying within said holder, and a contractile spring mounted on said plunger rod within said holder and having one end thereof secured to said cup, the remaining end being secured to said holder, whereby the rod will be projected from the holder.

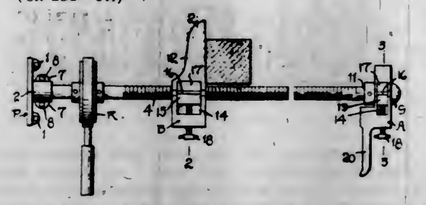
2. An ice cream cone filler comprising a rod having one end thereof bent at right angles to provide an off set portion, a cone holder secured to the free extremity of said off set portion, a lever pivotally mounted upon said rod at its juncture with off set portion, a locking cap formed on the outer end of said lever and adapted to engage said holder, a contractile spring having one extremity thereof secured to said off set portion, the oppo-

site extremity being secured to said lever, a sector gear formed on the opposite end of said lever, a second sector



gear pivotally mounted on said rod and meshing with the first mentioned gear, and a handle formed on the last mentioned gear.

1,204,168. WIRE-STRETCHER. EDDIE B. LINDSEY, Buffalo, Ala. Filed Aug. 5, 1916. Serial No. 113,299. (Cl. 254—67.)



1. A device of the character described comprising an elongated bar, a jaw rotatably engaged with the bar and held against movement longitudinally thereof, a second jaw capable of movement longitudinally of the bar, each of said jaws being provided in a side face with a groove, a pair of blocks positioned within said groove, and means for imparting movement to one of the blocks relative to the other.

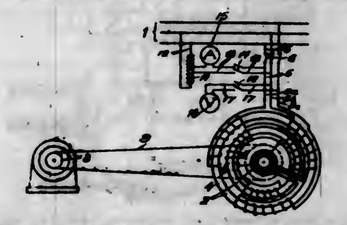
2. A device of the character described comprising an elongated bar, a jaw rotatably engaged with the bar and held against movement longitudinally thereof, a second jaw capable of movement longitudinally of the bar, each of said jaws being provided in a side face with a groove, a pair of blocks positioned within said groove, and means for imparting movement to one of the blocks relative to the other, said movable block being provided with a flange extending in a direction toward the second block and adapted to overlie the same when said blocks are in close proximity one to one another.

1,204,169. METHOD OF SYNCHRONIZING. CARL A. LOHR, New York, N. Y. Filed May 27, 1907. Serial No. 376,021. (Cl. 172—245.)

1. The new art of synchronizing, which consists in impressing a part of the voltage of a current source on a dynamo when near synchronism, and applying the full voltage of said source at an instant of a critical inductive reaction of said dynamo.

2. The new art of synchronizing a dynamo with a current source, which consists in preliminarily connecting both members of said dynamo with a part of the voltage of the source, and supplying normal operating current to said dynamo at an instant which is characterized by a critical inductive behavior of said dynamo when preliminarily connected.

3. The method of synchronizing a dynamo with a current source, which consists in exciting both members of said dynamo similarly to normal synchronous operation from a part of the voltage of the source for producing a relatively weak field in either member, and normally connecting said dynamo to the source for synchronous operation in a moment where said fields are adding each other.

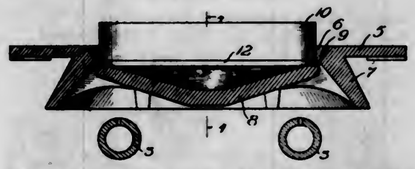


4. The method of synchronizing a synchronous dynamo with respect to a given current source, which consists in rotating said dynamo near synchronism, supplying both members of said dynamo when so rotating with current of a value considerably less than that of the normal operating current for the purpose of determining an instant which is favorable for proper synchronous operation, and supplying the normal operating current to said dynamo at or approximately at said instant.

5. The method of synchronizing a dynamo with a given alternating-current source, which consists in impressing a comparatively small part of the voltage upon said dynamo when rotating in proximity to synchronism, and establishing the normal connections for synchronous operation at an instant which is characterized by a critical value of self-induction of said dynamo.

[Claims 6 to 11 not printed in the Gazette.)

1,204,170. APPARATUS FOR SOLDERING CANS. FRANCIS P. MCCOLL, St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill., a Corporation of New Jersey. Filed Apr. 9, 1913. Serial No. 760,079. (Cl. 113—73.)



1. In a soldering machine, one or more elongated burners, a carrier for a can to be soldered having an imperforate bottom portion surrounded by a seat for supporting the can, and a narrow annular passage extending through the same around the seat, said passage being of substantially the same size and shape as the end of a can to be soldered, means for moving said carrier along the burner or burners above and in proximity to the same, and means on the under side of the carrier for deflecting the flame in a continuous annular sheet through said passage.

2. A soldering machine comprising a burner, a can carrier having a concave imperforate seat for a can and having a narrow annular passage surrounding said seat, said passage extending through the carrier and being substantially the same shape as and a little larger than the end of a can to be soldered, deflecting means on the under side of the carrier for deflecting a flame beneath the carrier in a continuous sheet throughout the entire length of said passage, and means for uninterruptedly moving said carrier over the burner and in proximity thereto.

3. In a soldering machine, an elongated burner, a can carrier having a concave seat for supporting a can to be soldered, said carrier having a narrow annular passage extending through the same around said seat, said passage being of substantially the same shape as and a little larger than the end of the can to be soldered, deflecting means on the under side of the carrier for deflecting flame and hot gases into said passage in the form of a continuous sheet extending throughout the length of said passage, and means for moving said carrier lengthwise of the burner and above and in proximity thereto.

4. In a soldering machine, one or more elongated burners, a carrier for a can to be soldered having a concave seat for supporting the can and a narrow annular passage extending through the same around the seat, said passage being of substantially the same shape as and a little larger than the end of a can to be soldered, means for moving said carrier along the burner or burners above and in proximity to the same, and means on the under side of the carrier for deflecting the flame in a continuous annular sheet throughout the length of said passage.

1,204,171. SANITARY DRINKING-TUBE. NELSON L. MCKAY, Walden, N. Y. Filed May 5, 1915, Serial No. 26,015. Renewed Apr. 25, 1916. Serial No. 93,537. (Cl. 210—16.)

1. A device of the class described comprising coacting tubular members telescopically united at their confronting ends, one of said members having an annular seat at its inner end and the other member having an inwardly directed stop rib, and a foraminous member having a flange engaging in the seat and held in position by the stop rib.

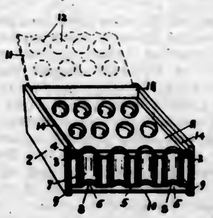
2. A device of the class described comprising coacting tubular members, one of said members reduced at one end to telescopically engage the other member and with an annular seat in the reduced portion and the other member having an inwardly directed stop rib, and a filter member having a flange engaging in said seat and held in position by the stop rib.

3. A device of the class described comprising coacting tubular members telescopically united at their confronting ends, one of said members curving laterally and converging at one end and having an annular seat at its inner end, and the other member having an inwardly directed stop rib, and a foraminous member having a flange engaging in said seat and held in position by the stop rib.

4. A device of the class described comprising coacting tubular members, one of said members reduced at one end to telescopically engage the other member and with an annular seat in the reduced portion and the other member having an inwardly directed stop rib, a foraminous member having a flange engaging said seat, and a receptacle for a disinfectant having a foraminous wall and bearing against said flanged foraminous member and engaged by said stop rib.

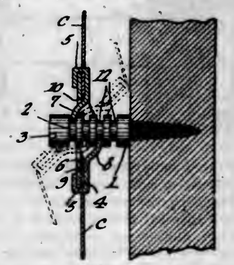
1,204,172. EGG TESTER AND DELIVERY BOX. THOMAS MCLAUGHLIN, Saginaw, Mich., assignor of one-half to The Hartley Steel Crated Box Company, Saginaw, Mich., a Corporation of Michigan. Filed June 25, 1914, Serial No. 847,308. Renewed Sept. 19, 1916. Serial No. 121,089. (Cl. 217—26.)

1. A receptacle comprising a frame having side walls, and end walls of less height than the side walls, a container in the frames having cells provided with seats at their lower ends for the eggs, a removable plate slidable between the side walls to protect the ends of eggs on said seats, and a cover hinged to one of the end walls and arranged to swing to closed position between the projecting edges of the side walls, said cover having openings in line with and smaller in diameter than the cells.



2. A receptacle comprising a case, a container therein and disposed above the lower edge and below the upper edge of the case, said container being provided with individual cells having seats at their lower ends, the case below the container being provided with oppositely disposed slideways, a protecting plate engaging the slideways, and a cover hinged to the case and provided with openings complemental to but of smaller diameter than the diameter of the cells.

1,204,173. CURTAIN-FASTENER. THOMAS J. MCMEEKIN, Jacksonville, Fla. Filed Feb. 18, 1916. Serial No. 79,154. (Cl. 24—214.)



1. A fastener including a stud, an eye having a stud receiving opening, the opposed upper and lower portions of the wall of said opening being pressed in opposite directions to form oppositely inclined lips, the distance on a straight line between the edges of the lips being greater than the greatest diameter of the stud but the vertical distance between the planes occupied by the middle portions of the edges of the lips being less than the greatest diameter of the stud.

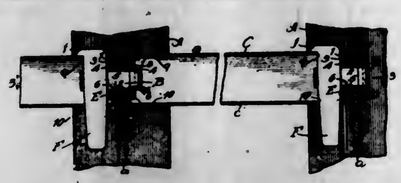
2. A fastener of the character described including a stud having annular grooves, a curtain engaging eye having a stud receiving opening, the horizontal diameter of the opening being greater than the greatest diameter of the stud, the upper portion of the wall of the opening being pressed outwardly to form a downwardly and outwardly inclined lip, the lower portion of the wall of the opening being pressed inwardly to form an upwardly and inwardly inclined lip, the straight line distance between the middle portions of the lips being greater than the greatest diameter of the stud but the vertical distance between the horizontal planes occupied by the middle portions of the lips being less than the greatest diameter of the stud.

3. A fastener of the character described including a stud having portions of different diameters, and an eye having a stud receiving opening, the horizontal diameter of the opening being greater than the greatest diameter of the stud, the upper portion of the wall of the opening being pressed outwardly to form a downwardly and outwardly inclined lip, the lower portion of the wall of the

opening being pressed inwardly to form an upwardly and inwardly inclined lip, the straight line distance between the middle portions of the lips being greater than the greatest diameter of the stud but the vertical distance between the horizontal planes occupied by the middle portions of the lips being less than the greatest diameter of the stud.

4. A fastener of the character described including a stud having annular grooves, and a curtain engaging eye including a disk having a stud receiving opening the horizontal diameter of which is greater than the greatest diameter of the stud, the upper portion of the wall of the opening being pressed outwardly to form a downwardly and outwardly inclined lip and the lower portion of the wall of the opening being pressed inwardly to form an inwardly and upwardly inclined lip, the straight line distance between the middle portions of the lips being greater than the greatest diameter of the stud but the vertical distance between the horizontal planes occupied by the middle portions of the edges of the lips being less than the greatest diameter of the stud, a second disk having an opening surrounding the opening in the first mentioned disk, and means carried by one of the disks for holding the two disks together, said disks constituting curtain clamping means.

1,204,174. METAL SHELVING. CHAUNCEY L. C. MAGEE, Chicago, Ill., assignor to Federal Steel Fixture Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1915. Serial No. 19,099. (Cl. 211—27.)



1. Metal shelving comprising risers, sheet metal shelves having interiorly reinforced integral corner portions, each said portion including the end section of a vertical flange and one or more integral layers applied to the inner surface of said flange, and means for detachably securing said corner portions to said risers, said shelves having lower horizontal flanges which are integral with certain of said layers.

2. Metal shelving comprising risers, sheet metal shelves having reinforced corner portions, and means for detachably securing said corner portions to said risers, said portions being each composed of three vertical thicknesses of sheet metal, and said means including a pin inserted through said three-ply thickness, said pin having provisions to prevent its displacement from the shelf and riser.

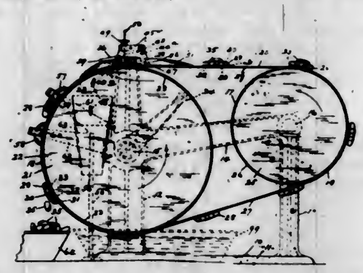
3. Metal shelving comprising risers, sheet metal shelves having reinforced corner portions, and means for detachably securing said corner portions to said risers, said portions being each composed of three thicknesses of sheet metal, and the shelf being provided with a vertical wall depending therefrom, the lower portion of said wall being turned inward to form a horizontal flange, one said thickness being integral with the top of the shelf, another said thickness being integral with said vertical wall, and the third layer of metal being integral with said flange.

4. Metal shelving comprising risers, sheet metal shelves having reinforced corner portions, and means for detachably securing said corner portions to said risers, said portions being each composed of a plurality of flaps which are folded one upon the other in vertical planes, and one said flap being integral with and upturned from one end of a horizontal stiffening flange extending along one edge of the shelf.

5. A riser, a sheet-metal shelf having a horizontal flange below the top thereof, a horizontal element for removably supporting said shelf on said riser, and means inserted downward through the top of said shelf and through said flange to hold said element in place, the ends of said flange being turned up to form reinforcing and supporting portions for the corners of the shelf.

[Claim 6 not printed in the Gazette.]

1,204,175. MACHINE FOR PITTING FRUIT. WILLIAM W. MAMEL, Sr., New York, N. Y., assignor to Garrett E. Haring, New York, N. Y. Filed Mar. 1, 1915. Serial No. 11,188. (Cl. 146—6.)



1. In a machine for pitting fruit, a frame, a cutter mounted on the frame, having a knife-edge for slitting the fruit, an extracting member on the cutter for engaging the pit to remove it from the fruit, a carrier adapted to removably hold the fruit and having a plurality of spaced openings therethrough, a movable conveyer supporting the carrier so as to be transmitted for the cutter to engage the fruit in the carrier, said conveyer having openings alining with the openings of the carrier during the operation thereof, means on the frame adapted to be operated for transmitting the conveyer whereby the fruit in the carrier will first be slitted by the cutter and its pit will then be engaged by the extracting member so as to be removed from the fruit and discharged through the openings, and means for contacting with the cutter to permit any meat of the fruit collected on the cutter to be removed therefrom.

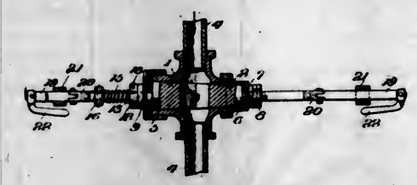
2. In a machine for pitting fruit, a frame, a cutter mounted on the frame, having a knife-edge for slitting the fruit, an extracting member on the cutter for engaging the pit to remove it from the fruit, a plurality of carriers adapted to removably hold the fruit and having a rim provided with a plurality of spaced openings therethrough, a movable conveyer supporting all the carriers so as to be transmitted for the fruit in each carrier to be successively engaged by the cutter, said conveyer having openings alining with the openings of the carrier during the operation thereof, means on the frame adapted to be operated for transmitting the conveyer whereby the fruit in each carrier will first be slitted by the cutter and its pit will be engaged by the extracting member so as to be removed from the fruit, and means beneath the carriers and conveyer for dipping the carriers during their movement for removing the matter collected thereon.

3. In a machine for pitting fruit, a frame, a cutter mounted on the frame, having a knife-edge for slitting the fruit, an extracting member on the cutter for engaging the pit to remove it from the fruit, a spring carrier adapted to removably hold the fruit and means for moving the same into gripping position, means on the frame, supporting the carrier, said means being operable for transmitting the carrier whereby the fruit will be first slitted by the cutter and its pit will then be engaged by the extracting member so as to be removed from the fruit, and means on the frame, connected to the cutter to permit the cutter to be adjusted vertically relative to the carrier so that the fruit may be properly slitted and pitted, substantially as described.

4. In a machine for pitting fruit, a frame, a cutter mounted on the frame, having a knife-edge for slitting the fruit, an extracting member on the cutter for engaging the pit to remove it from the fruit, a plurality of carriers adapted to removably hold the fruit, means on the frame, supporting the carriers, and including a conveyer having a plurality of openings therein, said means being operable for transmitting the carriers in succession whereby the fruit in each carrier will first be slitted by the cutter and the pit of each fruit will then be engaged by the extracting member so as to be removed from the fruit, and discharged through the openings, a receptacle supported at one side of the machine in receiving position relative to the openings for the discharge of the pits therein, and means on the frame, connected to the cutter to permit the cutter to be adjusted relatively to the carrier so that the fruit may be properly slitted and pitted, substantially as set forth.

5. In a machine for pitting fruit, a frame, a cutting blade mounted on the frame and having a straight knife-edge for slitting the fruit, means for pivotally supporting the blade, said blade having a projecting shoulder forming an extracting member for the pits, to remove the latter, a plurality of carriers adapted to removably hold the fruit and comprising hinged members, a circumferentially movable conveyer supporting all the carriers so as to be transmitted for the fruit of each carrier to be successively engaged by the cutters, means for supporting the conveyer, said means being operable for transmitting the conveyer whereby the fruit of each carrier will first be slitted by the knife edge of the cutter and the pit of the fruit will then be engaged by the extracting member to remove the pit from the fruit, means for normally spreading the hinged members of the carriers, means for moving the same into clamping position during the cutting operation and means to move said hinged members into clamping engagement at spaced intervals after the cutting operation and to release the same for permitting the discharge of the pitted fruit.

1,204,176. TRAIN-PIPE VALVE. DAVID C. MITCHELL, Pittsburgh, Pa. Filed June 2, 1915. Serial No. 31,759. (Cl. 137—7.)



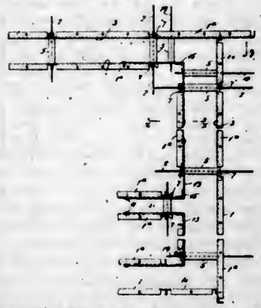
1. A train pipe valve having a stem extending in opposite directions in axial alinement therewith, such stem having its end portions jointed, supporting means for the outermost sections of the valve stem, thereby admitting of the valve having a limited movement to compensate for stress, and handles jointed to the outer ends of the stem beyond the supporting means.

2. In a valve embodying a casing and a turn plug, a collar fixed with reference to the casing and having notches and a cut away portion, a second collar slidable on and rotatable with the valve stem and having two projections, the one arranged to coöperate with the notches and adapted to ride into and out of engagement therewith and the other projection arranged to operate in the cut away portion and engage the end walls thereof to limit the turning of the plug, and means yieldingly pressing the second collar in contact with the first-mentioned collar.

3. In a valve of the type embodying a casing and turn plug, a cap fitted to the casing and provided with a collar having notches set quartering and an opposed cut away portion, a second collar slidable on and rotatable with the valve stem and provided with two projections, one adapted to coöperate with the notches and the other to operate in the cut away portion of the first-mentioned collar, and a spring mounted upon the valve stem and normally pressing the second collar into engagement with the first-mentioned collar.

4. A train pipe valve comprising a casing, caps threaded to opposite ends of the casing, a turn plug mounted in the casing and having a stem projecting in opposite directions from its ends, other stems jointed to the ends of the valve stem, handles jointed to the outer ends of the last-mentioned stems, a collar formed with one of the caps, and having opposed notches and a cut away portion, a second collar slidable on and rotatable with the valve stem and having two projections, one arranged to coöperate with the notches and the other to operate in the cut away portion of the first-mentioned collar, and a spring mounted upon the valve stem and exerting a pressure upon the second collar to yieldingly hold the same in engagement with the first-mentioned collar.

1,204,177. SECTIONAL MOLD FOR CONCRETE WALLS, FLOORS, CEILINGS, &c. MILTON DANA MORRILL, Washington, D. C., assignor to Read & Morrill, Inc., a Corporation of New York. Filed Dec. 13, 1911. Serial No. 665,425. (Cl. 25—131.)



1. A mold-section for molds, for concrete walls and the like, having two rows of means whereby another section may be secured to the face of said first section, the said two rows of fastening means being equi-distant from two opposite edges of said section, corresponding ends of said rows being less distant from one edge of the section than are the other ends of said rows from the opposite edge of the section; whereby by inverting the section such fastening means are caused to occupy positions intermediate the positions of such fastening means before inversion of the section.

2. A mold-section for molds for concrete walls and the like, consisting of a substantially rectangular wall-member having two rows of means whereby another section may be secured to the face of said first section, the said two rows of fastening means arranged parallel to and equi-distant from two opposite edges of said section, corresponding ends of said rows being distant from the proximate edge of said section by approximately half the distance of the other ends of said rows from the opposite edge of the section; whereby by inverting the section such fastening means are caused to occupy positions intermediate the positions of such fastening means before inversion of the section.

3. In a mold for concrete walls and the like, the combination of outer and inner mold walls each formed of sections arranged edge to edge, said mold walls spaced apart one from another, one of said mold walls having at the meeting corners of a plurality of its mold plates, an opening for the passage of a transverse tie bar, the other mold wall formed in part of mold plates having in their edges a plurality of suitably spaced slots adapted to receive such tie bars, such slotted plates overlapping more or less the adjacent wall plates and provided with means for securing such overlapping plates together; whereby the length of one of said mold walls may be adjusted with respect to the other mold wall, and whereby tie bars may be passed from the tie bar opening at meeting corners of the plates of one wall, directly across either into similar tie bar openings, or into slots, as the case may be, of the other mold wall.

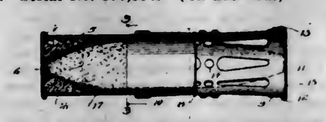
4. In a mold for concrete walls and the like, the combination of outer and inner mold walls each formed of sec-

tions arranged edge to edge, said mold walls spaced apart from one another, the outer mold wall having a corner formed by abutting edges of plates on one side of the corner against the faces of plates on the other side of the corner, certain of the plates so abutting provided with means whereby the point of abutment may be adjusted, said outer mold wall having also at the meeting corners of its mold plates, openings for the passage of transverse tie bars, the inner mold wall formed in part of mold plates having in their edges a plurality of suitably spaced slots adapted to receive such tie bars, such slotted plates overlapping more or less the adjacent wall plates and provided with means for securing such overlapping plates together, other of the mold plates of the inner wall formed to provide openings, for the passage of transverse tie bars, at the meeting corners of such plate; whereby by varying the overlap of the slotted plates with reference to the adjacent plates, the length of the inner mold wall may be adjusted to bring the tie bar openings at the meeting corners of the plates of the inner mold walls, opposite the corresponding openings of the outer mold wall.

5. A mold for concrete walls and the like comprising a mold wall formed of a plurality of similar ordinary wall sections flanged on one face and of corner sections and adjusting sections, the latter likewise flanged on one face, said adjusting sections located at the ends of tiers of ordinary wall sections and located in the planes of adjacent ordinary wall sections, and overlapped at the back more or less according to conditions by said corner sections, said adjusting sections and corner sections provided with coacting means whereby the corner sections may project more or less beyond the adjacent adjusting sections as conditions may require said sections secured together.

[Claims 6 and 7 not printed in the Gazette.]

1,204,178. RECEPTACLE FOR LIGHTED CIGARS. LAURA MANGER MYERS, Chicago, Ill. Filed Dec. 18, 1914. Serial No. 877,990. (Cl. 206—41.)



1. A receptacle for lighted cigars, comprising a tube having a non-combustible lining in one end thereof for receiving the lighted end of a cigar and open at the other end, a second tube telescoping with said first-named tube, said second tube being perforated and having a cover at the outer end thereof.

2. A receptacle for lighted cigars, comprising telescoping members, with a perforated cover at one end and closed at the opposite end, and having a lining of non-combustible material in the closed end, said lining being formed with a tapered recess for receiving the lighted end of a cigar.

3. In a receptacle for cigars, the combination of a tube closed at one end and open at the opposite end, a lining of non-combustible material in the closed end of the tube, having a substantially conical recess therein for receiving the lighted end of a cigar, a second tube telescoping with said first-named tube, and a cover for said second tube, said second tube and cover having ventilating openings therein.

1,204,179. FRUIT-PEELER. LAURA MANGER MYERS, Chicago, Ill. Filed July 17, 1915. Serial No. 40,500. (Cl. 30—9.)

1. A fruit peeler comprising a body portion, having an integrally formed strap for engagement with the outer part of the hand, and an integrally formed guard for engagement with the forefinger, such body portion also having a projection at one end of the guard with a knife blade formed integrally therewith, said blade lying substantially parallel to the guard and in a plane at substantially right-angles to the plane of the body portion and in spaced relation to the guard.

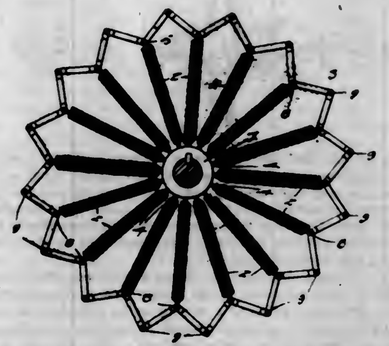
2. A fruit peeler formed of a single piece of sheet metal, having a body portion adapted to fit the hand, said body portion being continued at one end to form a loop for engagement with the outer part of the hand, and having an upwardly turned guard at the other end, a cutting blade arranged adajacent to said guard, and in spaced relation thereto to form a passageway between the blade and guard, to permit the passage of the fruit peeling as it is removed from the fruit, and a support for a blade comprising an extension at one end of the guard.



3. In a device of the character set forth, the combination of a handle for engagement with a hand, said handle having a loop at one end, and a guard at the other end, a knife arranged substantially parallel to the guard and in spaced relation thereto, and in a plane approximately at right-angles to the plane of the main portion of the handle, said blade being supported by an extension at one end of the guard.

4. A fruit peeler comprising a plate shaped to form a body portion for engagement with the hand, said body portion having a strap-like extension forming a loop for engagement with the outer portion of the hand, the other end of said plate being cut, and one portion bent up to form a guard, and another portion bent down to form a knife blade substantially parallel to the guard and at a distance therefrom, said blade being supported by an extension at one end of the guard.

1,204,180. ADJUSTABLE FLY-WHEEL. HENRY A. NAYLOR, Valparaiso, Chile. Filed June 22, 1916. Serial No. 105,186. (Cl. 74—6.)



1. An adjustable fly wheel including an adjustable extensible rim, a hub and extensible springs connecting the rim with the hub, said springs and rim being adapted to move outwardly under the influence of centrifugal force when the speed of the fly wheel increases and to move inwardly when the speed decreases.

2. An adjustable fly wheel of the class described including radially arranged spokes consisting of extensible coiled springs and an adjustable rim connected with the spokes, said rim being extensible and adapted to move outwardly with the coiled springs as the speed of the fly wheel increases.

3. An adjustable fly wheel of the class described including a rim composed of zigzag arranged pivotally connected links alternately extended inwardly and outwardly and forming an extensible rim and springs connected with the inner angles of the links and adapted to move outwardly with the rim

4. An adjustable fly wheel of the class described including a hub, a rim consisting of zigzag arranged pivotally connected links alternately extending inwardly and outwardly, and forming an extensible rim, a hub and radially arranged coiled springs secured at their inner ends to the hub and at their outer ends to the links of the rim at the inner angles of the said links.

1,204,181. EXTENSIBLE TABLET. THOMAS J. NORTON, New York, N. Y., assignor, by mesne assignments, to Samuel J. Sloan, New York, N. Y. Filed Sept. 1, 1909, Serial No. 515,695. Renewed Sept. 19, 1916. Serial No. 121,087. (Cl. 40—63.)

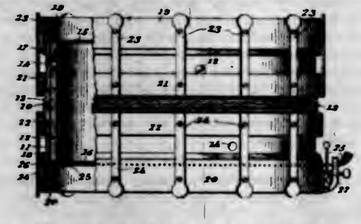


1. In an extensible tablet, a plurality of horizontal bars, each being substantially H-shaped in cross-section, screws connecting such bars—each screw having an elongated shank-portion extending between adjacent H-bars and traversing the joint between the side members thereof to oppose all strains at such joint.

2. In an extensible tablet, a plurality of unit-bars, screws for securing such bars together, and means for changing such screws into non-rotatable connections whereby to more securely lock said bars together.

3. In a tablet, a plurality of unit-bars constituting the component parts thereof, each bar having apertures for the passage of screws and the walls of each screw aperture having interior corrugations, screws each having a reduced screw-portion and an enlarged and elongated shank-portion provided with peripheral grooves or corrugations—the said reduced screw-portion being adapted to enter a screw aperture in a preceding part of said tablet and the corrugations on the shank of the screw and in the wall of the aperture being adapted to register, and a pin inserted into the hole thus formed to lock said bars together.

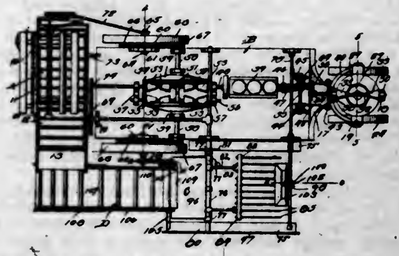
1,204,182. DRUM. FRED L. O'CONNER, Dorchester, Mass. Filed Dec. 3, 1915. Serial No. 64,929. (Cl. 84—10.)



1. A drum comprising a body portion having a threaded collar extending about the same, rings extending about the upper and lower ends of said body portion, heads of flexible material for said body portion connected with said rings, hoops engaging said rings, adjusting bands extending about said body portion and internally threaded to engage the threads of said collar, and strips connecting said bands with said hoops and serving as hand holds to turn the hoops and bands.

2. A drum comprising a body portion having a threaded collar extending about the same, adjusting bands threaded upon said collar, heads of flexible material for said body portion, hoops having operative engagement with said flexible heads, and turning strips connecting said adjusting bands with said hoops.

1,204,183. GRAIN-SHOCKER. GEORGE HENRY OMEALEY, Lake Providence, La. Filed Mar. 24, 1913. Serial No. 756,625. (Cl. 56—123.)

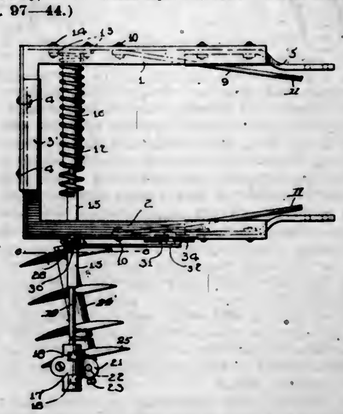


1. In a shocker, the combination with a drop table; of a shock cap, and a yieldable mounting for said shock cap.

2. In a shocker, a shock holder including a frame, a wheel journaled in said frame, a cable wound around said wheel; a spring arranged to rewind the cable when the latter is unwound, and a shock cap connected to the cable and adapted to fit the top of a shock.

3. In a shocker, a shock holder including a frame, a wheel journaled in said frame, a cable wound around said wheel; a spring arranged to rewind the cable when the latter is unwound, and a shock cap connected to the cable and adapted to fit the top of a shock; in combination with a tilting table having its upper end below said cap when the latter is wound up.

1,204,184. PLOW ATTACHMENT. FRANK M. ORNER, Chaseley, N. D. Filed Apr. 14, 1915. Serial No. 21,390. (Cl. 97—44.)



1. A harrow of the class described, comprising a frame provided with a plurality of adjustable sections, a harrow supporting sleeve carried by said frame, a rod carried by said sleeve, spring means connecting said rod to said sleeve, harrow disks carried by said rod, and means carried by said frame for vertically adjusting said harrow disks.

2. A harrow of the class described, comprising a frame provided with a plurality of laterally adjustable sections, a harrow supporting sleeve carried by said frame, an adjustably mounted rod carried by said harrow supporting sleeve, spring means connecting said rod to said sleeve, a harrow disk supporting shaft carried by said rod, disks carried by said shaft, and means carried by said frame for raising and lowering said disks.

3. A harrow of the class described comprising a frame provided with a plurality of adjustable sections, a harrow supporting sleeve carried by said frame, a rotatable rod carried by said sleeve, yieldable means carried by said sleeve and engaging said rod for urging said rod in one direction, a depending harrow disk supporting shaft carried by said rod, disks carried by said shaft, and lever means associated with said rod for rotating the same, whereby said harrow disks may be raised and lowered.

4. A harrow of the class described comprising a frame, an adjustable rod carried by said frame, a depending harrow disk supporting shaft carried by said adjustable rod, disks carried by said shaft, an upwardly extending link carried by said adjustable rod, and lever means carried by said upwardly extending link for causing said harrow disks to be raised and lowered, relative to said frame as said lever is actuated.

5. In a harrow of the class described, the combination of a frame, a sleeve positioned upon said frame and being provided with a pair of laterally extending feet, means passing through said feet and engaging said frame for securing said sleeve to said frame, a rod rotatably carried by said sleeve, harrow disks carried by said rod, and means for swinging said harrow disks into and out of engagement with the ground.

[Claims 6 to 9 not printed in the Gazette.]

1,204,185. ELECTRIC PACK. HENRY PERLMAN, Philadelphia, Pa. Filed Mar. 17, 1914. Serial No. 825,360. (Cl. 219—45.)



1. In a device of the character stated an arcuate body comprising a pair of arcuate flanges, cross pieces for spacing said flanges and holding them in their relative positions, an inclosing wall, the opposite edges of which are secured to the cross pieces, sockets mounted on the inner faces of the flanges, electric lamps mounted in said sockets, a pair of side members, each comprising a pair of flanges, cross pieces secured to said flanges adjacent their ends and an inclosing wall, the edges of which are secured to said cross pieces, sockets mounted on the inner faces of said flanges, electric lamps mounted in said sockets, means for hingedly connecting the side pieces with the ends of the body, wires connecting the different sockets, a conductor cord connected with said wires and a switch interposed between said wires and the conductor cord.

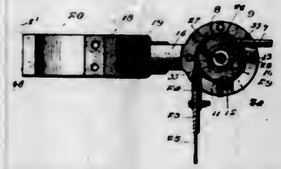
2. An electric pack comprising an arched body or crown, side members hingedly connected to the ends of said body and means carried by the body and side members for heating the interior thereof.

3. An electric pack comprising an arcuate or arched body or crown, a pair of oppositely disposed arcuate side members hingedly secured to said body or crown, means for hinging said side members to the body or crown and means for heating the interior thereof.

4. An electric pack comprising an arcuate or arched body or crown, an arcuate side member hinged to each end of said body, said side members being adjustable toward or away from each other to vary the distance therebetween, means for holding said side members in their adjusted positions and means carried by the body and side members for heating the interior thereof.

5. An electric pack comprising three arcuate members hinged together, whereby the central member becomes the crown of the arch formed by said members, said crown member being so arranged with relation to the other members as to form a solid wall between said members, and electric light bulbs carried by said members for heating the interior thereof.

1,204,186. VEHICLE-SIGNAL. ARTHUR ST. CLAIR PERRY, Los Angeles, Cal. Filed Apr. 28, 1913. Serial No. 764,267. (Cl. 116—31.)



1. In an automobile signal a support, a disk revoluble upon the support, a semaphone carried by the disk, a revoluble element, means for supporting the revoluble element near the center of the disk and being adjustably secured to the disk, and a flexible element passing through the disk and being connected at one end with the revoluble element.

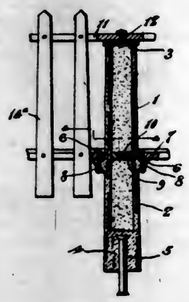
2. In an automobile signal a support, means to connect the support with an automobile, a disk having an apertured center revolubly mounted upon the support, a semaphore secured rigidly with the disk and extending outwardly therefrom, a revoluble element mounted within the aperture within the disk, means to adjustably secure the revoluble element to the disk, said disk having an opening extending from its inner periphery to its outer periphery, and a flexible element extending through said opening and being connected with the revoluble element.

3. An automobile signal comprising a turret consisting of a disk, a head in which said disk revolves, spring pressed balls projecting laterally from said disk to hold the same against rattling in said head, a rod screwed tangentially into said disk, said head having a segmental peripheral recess to receive said rod and permit the same to be swung through an arc, a semaphore carried by said rod, means for securing said head to the automobile, and means for turning said turret.

4. An automobile signal comprising a turret consisting of a disk, a head in which said disk revolves, spring pressed balls projecting laterally from said disk to hold the same against rattling in said head, a rod screwed tangentially into said disk, said head having a segmental peripheral recess to receive said rod and permit the same to be swung through an arc, a semaphone carried by said rod, means for securing said head to the automobile, a revoluble disk in the first disk, said first disk having a radial hole, a flexible connection extending through said head and through said radial hole, the end of said flexible connection being secured to said revoluble disk, and means for holding said revoluble disk adjustably secured to the first disk whereby the slack in the flexible connection may be taken up without altering the angular position of the first disk.

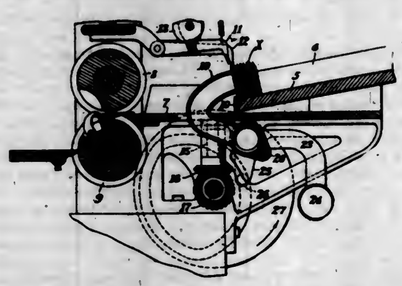
1,204,187. FENCE-POST. JOHN PICKRELL, Louisville, Ky. Filed May 7, 1915. Serial No. 26,555. (Cl. 256—49.)

1. The combination of a hollow concrete fence post consisting of a channeled body having a solid lower portion and provided with a relatively wide channel extending from the solid lower portion to the top of the post, said post being provided above the solid portion with integral exterior projecting lugs having flat upper faces, a wooden member extending across the channel between the lugs, a lower stringer supported upon the upper faces of the lugs, a cap having a flat upper face and fitted on the upper end of the fence post and an upper stringer arranged upon the flat top face of the cap.



2. The combination of a hollow concrete fence post consisting of a channeled body having a solid lower portion and provided with a relatively wide channel extending from the solid lower portion to the top of the post, said post being provided above the solid portion with integral exterior projecting lugs having flat upper faces, a wooden member extending across the channel between the lugs, a cap fitted on the top of the post and fencing having fastening means piercing the post and the wooden member.

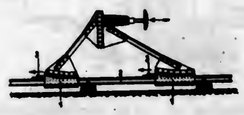
1,204,188. FEED MECHANISM. ALFRED L. PYE, Rochester, N. Y., assignor to Rochester Folding Box Company, Rochester, N. Y., a Corporation of New York. Filed May 5, 1915. Serial No. 25,931. (Cl. 101—41.)



1. In combination with a work support having an opening therein, a disk operating in said opening with its upper face flush with the work support, a stud on the disk, a feed table in which the blanks are stacked on an edge, the feeding end of the table being in rear of the turning axis of the disk, and a carrier for removing articles one at a time from the stack and presenting them in flat positions on the table in advance of the stud as the latter moves forwardly.

2. In combination with a work support having an opening therein, a disk operating in said opening with its upper face flush with the work support, a stud on the disk, the work support having an opening in advance of the axis of the latter, a sucker tube pivotally mounted beneath the work support in rear of the turning axis of the disk and having a portion concentric with the axis of turning of said sucker tube to operate above the work support in rear of the opening through which the tube moves, and a feed table in which the blanks are stacked on an edge, the feeding end of the table being in rear of the turning axis of the disk so that the end of the concentric portion of the sucker tube may grasp an article on the feed table in rear of the turning axis of the disk and present it flatwise in advance of the stud on the disk for feeding by the latter.

1,204,189. RAILROAD-BUFFER CONSTRUCTION. FRANZ RAWIE, Osnabruck-Schinkel, Germany. Filed Mar. 23, 1915. Serial No. 16,446. (Cl. 104—229.)



1. A slidable railroad-buffer construction comprising a buffer proper, a guide member connected thereto, a guide member coöperating with said buffer guide member in firm connection with the ground, said coöperating guide members so arranged as to allow displacement of the buffer in the direction of the rails and a jamming member held by pressure against said guide member fixed to the ground and adapted to be shifted in contact therewith, said jamming member further adapted to automatically jam a buffer element when sliding in one direction and to automatically give it free movement when sliding in the opposite direction.

2. A slidable railroad-buffer construction comprising a buffer proper provided with a guide way having an expanded section, a guide member within said guide way allowing a sliding movement of the buffer in the direction of the rails and a jamming body arranged loosely within said expanded section of the buffer.

3. A slidable railroad-buffer construction comprising a buffer proper, a plurality of guide members, a plurality of ways secured to said buffer and slidably mounted on said guide members, and jamming devices arranged to automatically jam said buffer when sliding in one direction and to automatically give it free movement when sliding in the opposite direction.

4. A slidable railroad-buffer construction comprising a buffer proper, a plurality of guide members, a plurality of guide ways each having an expanded section secured to said buffer and slidably mounted on said guide members, and jamming devices arranged within the expanded sections of said guide ways and adapted to automatically jam said buffer when sliding in one direction and to automatically give it free movement when sliding in the opposite direction.

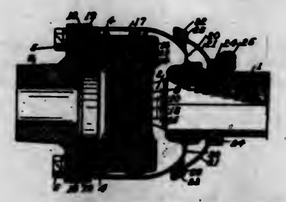
5. A slidable railroad-buffer construction comprising a buffer proper, track rails, a plurality of guide ways each having an expanded section secured to said buffer and slidably mounted on said track rails, and jamming devices arranged within the expanded sections of said guide ways and adapted to automatically jam said buffer when sliding in one direction and to automatically give it free movement when sliding in the opposite direction.

[Claim 6 not printed in the Gazette.]

1,204,190. UNIVERSAL JOINT. BERT O. RHODES, Kalamazoo, Mich., assignor to Acme Universal Joint Company, Kalamazoo, Mich. Filed Feb. 17, 1916. Serial No. 78,920. (Cl. 74—10.)

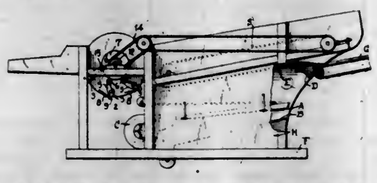
1. The combination of shaft members provided with journal pin bearing openings, a journal member provided with journal pin openings disposed at right angles to each other, the diameter of one opening exceeding that of the other, journal pins disposed in said journal pin openings, the larger pin being provided with a transverse hole registering with the smaller pin opening of said journal member, said smaller pin being disposed therethrough, said larger pin having a stepped longitudinal bore extending from one end through its said transverse journal pin hole, the smaller pin being provided with a transverse hole registering with said bore, a locking pin threaded into said

bore to project through the hole in said smaller pin, and a locking plug threaded into said bore to engage the end of said locking pin and constituting a locking means therefor.



2. The combination of shaft members provided with journal pin bearing openings, a journal member provided with journal pin openings disposed at right angles to each other, the diameter of one opening exceeding that of the other, journal pins disposed in said journal pin openings, the larger pin being provided with a transverse hole registering with the smaller pin opening of said journal member, said smaller pin being disposed therethrough, said larger pin having a longitudinal bore, the smaller pin being provided with a transverse locking pin hole registering with said bore, a locking pin threaded into said bore to engage said locking pin hole in said smaller pin, and a locking plug threaded into said bore to lock said locking-pin.

1,204,191. THRESHING-MACHINE. GEORGE W. RIVERS, Aberdeen, N. C., assignor to Charles N. Brasington, Bennettsville, S. C. Filed July 5, 1916. Serial No. 107,561. (Cl. 130—27.)



1. In a threshing machine, a concave including a rock shaft, teeth extending therefrom, and means for intermittently rocking the shaft.

2. In a threshing machine, a concave including a rock shaft, teeth extending therefrom, means for intermittently rocking the shaft, and means for normally maintaining the teeth in substantially a vertical position.

3. In a threshing machine, a concave including a plurality of teeth mounted for rocking movement, and automatic means for intermittently rocking the teeth.

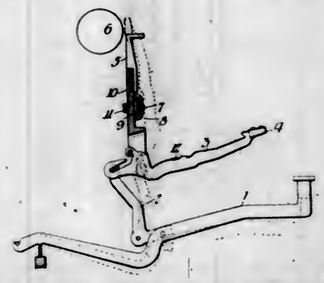
4. In a threshing machine, a concave including a rock shaft, teeth extending therefrom, a rock arm fixed to the shaft, a driven cam, means for maintaining the arm in engagement with the cam, said cam and last named means serving to intermittently rock the shaft.

5. In a threshing machine, a concave including a rock shaft, teeth extending therefrom, a rock arm fixed to the shaft, a driven disk provided in its periphery with a recess, and means for constantly maintaining the rock arm in contact with the periphery of the disk, said recess and last named means serving to intermittently rock the shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,204,192. TYPE-WRITING MACHINE. LYMAN R. ROBERTS, Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 2, 1914. Serial No. 835,791. (Cl. 197—183.)

1. In a typewriting machine, the combination with a platen, of a type-bar, an operating key therefor, and a noise-deadening stop of slightly compressible material arranged in the path of the type-bar and in position to arrest the stop-engaging portion of the type-bar before the type thereon reaches the platen, and permitting the type to be carried by momentum to the platen after the stop-engaging portion is arrested, the type-bar formed with broad soles projecting at opposite sides of the type-bar and presenting a large stop-engaging surface to prevent the type-bar from wearing or cutting into said stop.



2. In a typewriting machine, the combination of a platen, a series of type-bars formed of resilient material and arranged to swing to the platen, keys for individually operating the type-bars, and a stop consisting of sound-deadening material positioned to arrest the type-bars before the types carried thereon reach the platen, said type-bars having broad soles arranged to impact with relatively large areas of the stop when engaging the latter, said soles arranged on each side of the type-bars in staggered positions, the resistance of the stop being sufficient to bring the impacting portions of the type-bars to a full stop before the types reach the platen, the resiliency of the type-bars permitting the types to be carried by momentum to the platen.

3. In a typewriting machine, the combination with a platen, of a type-bar arranged to be swung against the platen, a compressed felt stop in the path of the type-bar and positioned to arrest the type-bar as it nears the printing position, the type-bar being formed with a broad sole arranged to strike the stop and thereby present the type-bar from cutting into the stop, the latter operative to arrest the swinging movement of the type-bar, bringing the stop-engaging portion thereof to a full stop before the type strikes the platen, and a retainer provided with claws to hold the material of said stop in position.

4. In a typewriting machine having a platen, a series of type-bars arranged to swing toward said platen, and a cushioning stop in the path of movement of said type-bars, to be struck by them just before the types thereon make impact with said platen, adjacent type-bars having staggered enlarged surface-contacting portions for engagement with said stop, the area of said contacting portions being sufficient to limit the compression of the stop due to the impact of the type-bars and bring said contacting portions to a stop before the types make impact with the platen.

5. In a typewriting machine having a platen, the combination of a pivoted type-bar carrying a type to swing to printing position at the platen, said type-bar formed of springy material, and a stop of sound-deadening material in the path of the type-bar and positioned to be engaged by the type-bar as the type nears the printing position, the stop-engaging portion of the type-bar being nearer to the pivot than to the type, said stop being formed of nearly solid material and having a solid backing, whereby said stop-engaging portion of the type-bar is brought to a stop before the type reaches the printing position, the type stroke being completed by momentum; the type-bar having enlarged stop-engaging surfaces projecting beyond the opposite sides of the body of the type-bar.

[Claims 6 to 11 not printed in the Gazette.]

1,204,193. STEERING-GEAR FOR MOTOR-VEHICLES. GEORGE R. ROSEBERRY, White Cloud, Mich. Filed Mar. 18, 1916. Serial No. 83,912. (Cl. 74—79.)



1. The combination with the steering post of a motor vehicle, of a circular disk rigidly secured to the lower end of the post and perpendicular thereto, a crank pin projecting from the lower face of the disk intermediate its axis and its circumference, said disk having an annular peripheral groove, a stationary annulus or cage surrounding said disk and perpendicular to the steering post and having an annular groove in its inner face complementary to the peripheral groove of the disk, a circular series of anti-friction bodies running partly in each of said grooves and rotatably supporting the disk within the annulus, a steering rod having a flexible connection at one end with the crank pin and flexibly connected at its opposite end with the drag link of the steering gear of the vehicle.

2. The combination with the steering post of a motor vehicle comprising a drag link, a circular disk rigidly mounted at the lower end of the steering post and perpendicular thereto, an annulus or cage surrounding the disk in a coincident plane, said disk rotatably held within the annulus, a stop projecting from the face of the disk and means connecting steering post and drag link and controlled by said stop whereby the oscillation of the steering post will change the angularity of the steering wheels of the vehicle through the disk and surrounding annulus and such oscillation be limited by the aforesaid stop.

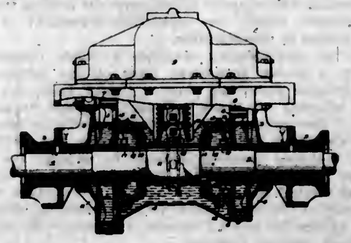
3. The combination with the steering post of a motor vehicle including a drag link, of a circular disk rigidly secured to the lower end of the post and perpendicular thereto, a crank pin secured to said disk and projecting from the lower face thereof intermediate its axis and circumference, a stationary annulus or cage having a circular opening and surrounding said disk, the periphery of the disk and the annulus having grooved coöperation whereby the annulus supports and permits rotation of the disk, a steering rod having flexible connection at one end, with said crank pin and at its opposite end having flexible connection with the drag link of the steering gear of the vehicle.

4. The combination with the steering post of a motor vehicle comprising a drag link, of a circular disk rigidly secured to the lower end of the post and perpendicular thereto, a crank pin projecting from the lower face of the disk intermediate its axis and circumference, a projection on the upper face of the disk, a stationary annulus surrounding said disk and rotatably supporting the same, a stop on said annulus adapted to coöperate with the projection on the upper face of the disk to limit rotation of the disk, a steering rod having flexible connection at one end with said crank pin and at its opposite end having flexible connection with the drag link of the steering gear of the vehicle.

5. The combination with the steering post of a motor vehicle including a drag link, of a circular disk rigidly secured to the lower end of the post and perpendicular thereto, a crank pin projecting from the lower face of the disk intermediate its axis and circumference, a stationary annulus having a circular opening surrounding said disk and within which said disk is rotatably supported, said annulus consisting of coöperating separable members, means carried by said members and coöperating to prevent relative movement of the same, a steering rod having flexible connection at one end with the crank pin and at its opposite end having flexible connection with the drag link of the steering gear of the vehicle.

[Claim 6 not printed in the Gazette.]

1,204,194. MEANS FOR LUBRICATING CLUTCHES. KENNETH RUSHTON, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 18, 1916. Serial No. 85,089. (Cl. 192—1.)

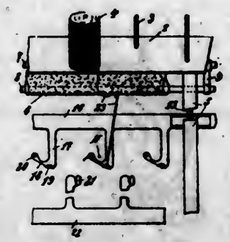


1. The combination in a clutch, of a shaft; a wheel loosely mounted on the shaft and having a cavity in one end of the hub; a clutch sleeve mounted on the shaft and arranged to be moved into contact with the wheel, said sleeve having a plunger adapted to enter the cavity and to force the entrapped lubricant into the bearing between the wheel and the shaft.

2. The combination in clutch mechanism, of a shaft; two hubs loosely mounted on the shaft and spaced apart; a clutch sleeve located on the shaft and arranged to move longitudinally thereon; a plunger on each end of the clutch sleeve; and a cavity in each hub into which the plunger is arranged to enter when the sleeve is moved toward the hub.

3. The combination in clutch mechanism, of a shaft; bearings for the shaft; a casing containing lubricant; two wheels loosely mounted on the shaft and spaced apart and located in the casing; a sleeve mounted to turn on the shaft and located between the two wheels; clutch teeth on each wheel and clutch teeth on the ends of the sleeve arranged to engage the teeth of the wheels; and an annular cavity in the inner end of the hub of each wheel and an annular plunger secured to each end of the sleeve and arranged to enter the cavities in the hubs of the wheels when the clutch sleeve is moved longitudinally on the shaft.

1,204,195. DEVICE FOR EMBELLISHING EMBROIDERY. ISIDOR SCHEFFKNECHT, Lustenau, Austria-Hungary, assignor to Karl Fenkart, Rorschach, Switzerland. Filed Feb. 27, 1913. Serial No. 751,184. (Cl. 112—7.)



1. In an embroidering machine, a bobbin supporting plate, a brake cylinder supported below the bobbin supporting plate, a thread guide rod associated with the brake cylinder, a bar supported below the bobbin supporting plate, thread guides comprising depending hook members integral with the bar, a guide lug on each hook mem-

ber, a movable bar operating under the first mentioned bar, festoon hooks carried by the second mentioned bar, said feston hooks adapted to coöperate with the thread guides for looping the thread and carrying the same before a needle, said thread adapted to be fed over the brake cylinder.

2. In an embroidering machine, a bobbin supporting plate, a brake cylinder under the bobbin supporting plate, a thread guide rod pivotally supported adjacent the brake cylinder, thread guides under the thread guide rod, a movable arm carrying festoon hooks, said festoon hooks and thread guides adapted to coöperate for looping thread, and resilient means for permitting movement of the thread guides in one direction.

3. In an embroidering machine, a frame comprising uprights, a bobbin supporting plate on the uprights, a brake cylinder under the plate, a thread guide rod supported adjacent the brake cylinder, a bracket supported by one of the uprights, a pin extending above the bracket, a bar supported under the thread guide rod, said bar having U-shaped members adapted to embrace the pin, resilient means engaging the U-shaped members for restricting vertical movement of the bar, thread guides forming a part of the bar, festoon hooks coöperating with the thread guides for looping threads, and means for sewing the looped portions together.

1,204,196. ADJUSTABLE SUPPORT FOR INSULATORS. RUDOLPH W. SCHULZ, Waterloo, Iowa. Filed Aug. 24, 1914. Serial No. 858,210. (Cl. 189—33.)



A device of the character described, comprising a support, a cross-bar, downwardly-inclined brackets on said cross-bar, a split-ring mounted on the lower ends of said brackets and adapted to encircle said support, ring-parts mounted on said cross-bar above said split-ring and adapted to embrace the support thereabove, rigid connections between the ring-part ends on each side and the split-ring ends on the same sides, and means for adjustably securing said rigid connections together to clamp the split-ring and ring-parts adjustably upon said support.

1,204,197. SOUND-BOX. LOUIS K. SCOTFORD, Chicago, Ill. Filed Apr. 30, 1915. Serial No. 24,991. (Cl. 274—35.)



1. The combination, in a sound box, of a box proper having a flange at the rear thereof, a back within the box with its rear surface facing the inner surface of said flange, said flange and said back having a pin and an opening, the pin on one part projecting into the opening in the other, and sound absorbing material between the inner surface of the flange of said box and the outer surface of said back and surrounding said pin.

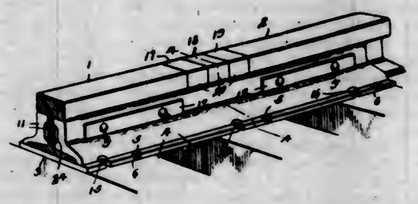
2. The combination, in a sound box, of a box proper having a flange at the rear thereof, a back within the box having its rear surface facing the inner surface of said flange, said flange and said back having a pin and opening the pin fitting within the opening, sound absorbing material between the edge of the back and the inner wall of the box proper, and sound absorbing material between the inner surface of the flange of said box and the outer surface of said back, said material surrounding the aforesaid pin.

3. In a sound box, a cross bar, and a stylus bar formed of one piece of material having one end bent to be secured to the diaphragm and the other end formed of triangular shape adapted to receive a needle, said triangular part extending on both sides of said cross bar.

4. In a sound box, a cross bar, and a stylus bar formed of one piece of material having one end bent to be secured to the diaphragm and the other end formed of triangular shape adapted to receive a needle, said triangular part extending on both sides of said cross bar and having an opening at each end whereby it may be loaded at the rear end.

5. The combination, in a sound box, of a cross bar having securing members thereon, projecting parts on said cross bar, collars secured between said projecting parts and said securing members, one of said last named parts being adjustable.

1,204,198. RAILROAD-TRACK CONSTRUCTION. HARVEY E. SCOTT and ABNER L. SCOTT, Alleene, Ark. Filed Mar. 18, 1916. Serial No. 85,190. (Cl. 230—3.)



1. The combination with two connected rails, of members arranged between the rail ends, links connected with said members and rails and actuated by the contracting of the rails to move said members an equal distance away from each other and from the ends of the rails.

2. The combination with two rails having opposing ends, of members arranged between the rail ends and alining with the heads of the rails, and means connected with the rails and the members and actuated by the contracting of the rails for moving said members an equal distance away from each other and from the ends of the rails, and angle plates connected with the rails and contacting with said members to support the same.

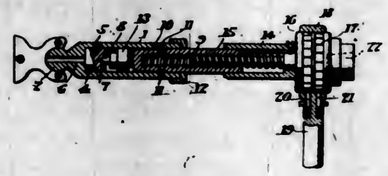
3. The combination with two rails having opposing ends in spaced relation, of a plurality of members interposed between the ends of the rails and provided with heads alining with the heads of the rails, angle plates connected with the rails and contacting with the heads on the said members and providing a guideway in which said members may slide, and means connected with said members and the ends of the rails for imparting a sliding movement thereto when said rails contract or expand.

4. The combination with two rails having opposing ends in spaced relation, of a plurality of members interposed between the opposing ends of the rails, pins carried by said members, angle bars connected with the rails and having their inner faces contacting with the pins to hold said members in alinement and slotted links connected with said members and rails whereby said rails upon expanding or contracting may move independently of said members.

5. The combination with two rails having opposing ends in spaced relation, of a plurality of members interposed between the opposing ends of the rails, and each comprising a head, a base and a web connecting said base, pins extending laterally from the web on each member, slotted links connected with the members and rails adapted to communicate sliding movement to the members when the rails expand or contract, and grooved angle plates connecting the rails and contacting with the pins on the members and coacting with the webs on the rails and members to provide a housing for said links.

[Claims 6 and 7 not printed in the Gazette.]

1,204,199. RATCHET-DRILL. JAMES M. SHERMAN, Houston, Tex. Filed Dec. 14, 1915. Serial No. 66,877. (Cl. 77—45.)

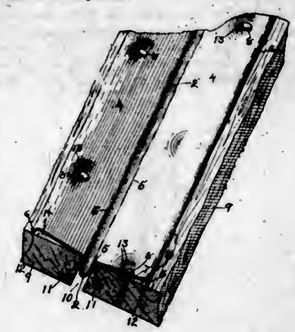


1. In a ratchet drill, the combination, a head including a tubular body having a screw extending centrally therethrough, a screw barrel receiving the screw and having its outer end provided with a center, a cylindrical member receiving the screw barrel and the center, a center support within the screw barrel having a socket to receive the point of the center, means for removably securing the center support within the said cylindrical member and said member being provided with a central slot whereby an instrument may be inserted to remove the center through the open end of the cylindrical member when the securing means for the center have been removed.

2. In a ratchet drill, the combination, a head having a longitudinally extending tubular body and a feed screw extending centrally through and projecting beyond the said body, a screw barrel receiving the screw, said screw barrel having its outer end provided with a center having a cone-shaped point, a cylindrical member having an open end to receive the screw barrel and the center point thereof, means for securing the screw barrel to the cylindrical member to permit of a slight reciprocatory movement and a complete rotary movement of the screw barrel with relation to the cylindrical member, an anti-frictional sleeve in the cylindrical member and engaging with the center, a center support removably secured in the cylindrical member and engaging with the inner wall of the bore thereof and having a cone-shaped socket to receive the cone-shaped end of the center, and said cylindrical member having its outer end closed and formed with a longitudinal slot which communicates with the bore thereof, as and for the purpose set forth.

1,204,200. SHEET-METAL BOARD-ROOF BATTEN. DARIUS E. SHRAUGER, Atlantic, Iowa. Filed July 3, 1916. Serial No. 107,307. (Cl. 108—12.)

1. In a roof construction, fixed roof boards spaced apart, in combination with a sheet-metal batten having a portion bent downwardly to form a longitudinal central open gutter on its face and a corresponding rigid wedge-shaped rib on its back forced into the space between said boards to crush the adjacent angles thereof and form water-tight joints at each side of said rib, opposite plain longitudinal side portions of the batten inclined inwardly and downwardly to the intervening gutter and each having a longitudinal central row of perforations, flanges standing downwardly along the outer edges of the plain side portions to support their elevated outer edges and to form a narrow seat and crush joint at the outer edges of the batten on the face of said roof boards, and attaching nails driven through said perforations into said boards to spring the plain side portions flatwise to elastically retain the batten seated on said crush joints.



2. In a roof construction, fixedly attached roof boards spaced apart, in combination with a sheet-metal batten having a portion bent to form a central longitudinal open gutter on its face and a corresponding curved-sided wedge-shaped rigid rib on its back, said rib forced into the space between the fixed boards to crush the adjacent sharp angles thereof and form water-tight joints at both sides, plain side portions of the batten disposed at both sides of the gutter, and attaching nails driven through said side portions into the fixed boards.

3. A roof batten, comprising a sheet-metal strip having a portion bent to form a central longitudinal open gutter on its face and a corresponding rigid wedge-shaped rib on its back, said rib adapted to be forced into a space between two fixed roof boards to crush the adjacent sharp angles thereof and form water-tight joints, plain portions at each side inclined downwardly to the intervening gutter and having perforations centrally of their width, downwardly-bent flanges on the outer edges to support the elevated outer edges of the plain portions and the thin flange edges adapted to seat on the face of the roof boards to form crush water-tight joints thereon, the perforations of the inclined plain portions adapted to receive attaching nails driven through into the subjacent roof boards to spring said plain portions flatwise to elastically retain the batten seated against said crush joints.

4. A sheet-metal roof batten, comprising a single strip having a portion bent to form a curved open gutter along the longitudinal center of the face of the batten and to form a corresponding rigid wedge-shaped rib on the back of the batten adapted to be driven into a space between two roof boards to crush the inner upper angles thereof and form crush-joint seats on both boards, and plain longitudinal side portions at the sides of said gutter adapted to be nailed to the face of the subjacent boards.

5. A roofing batten, comprising a sheet-metal strip having a portion bent to form a longitudinal central open gutter in the face of the batten and a corresponding rigid rib of wedge-shaped cross-section with outward curves at the base of the wedge on the back of the batten adapted to be forced into the space between two roof boards to crush the adjacent sharp angles thereof and form water-tight joints with both boards.

1,204,201. MEANS FOR RAISING AND LOWERING VEHICLE AND OTHER WINDOWS. ALFRED SPEIGHT, Wimbledon Park, England, assignor of one-half to John Hall & Sons (Bristol & London) Limited, Bristol, England. Filed Jan. 29, 1916. Serial No. 75,005. (Cl. 16—53.)

1. In window operating apparatus, a spring controlled window gripping device, a winding spindle adapted to raise the said device against the action of its spring, window raising and lowering mechanism operated by the winding spindle, and a lost motion device between the said mechanism and the winding spindle.

2. In window operating apparatus, a spring-controlled window gripping device, raising and lowering mechanism, a winding spindle operating the said mechanism, means for giving the said spindle a limited axial movement at the beginning and end of its rotation, and a connection from the spindle to the said window gripping device, adapted to release the latter by the axial movement of the spindle.



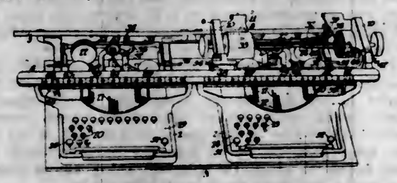
3. In window operating apparatus, a vertical screw supporting the window, a sleeve geared to the said screw, a winding spindle adapted to slide and to turn to a limited extent in the said sleeve under the control of V-shaped surfaces, and a window retaining device released by the spindle on its sliding movement.

4. In window operating apparatus, a vertical screw a window support mounted on the screw, a winding spindle actuating the said screw on turning through a lost motion connection, a window gripping fillet adapted to press against the window surface under spring control and a connection from the winding spindle to the fillet, adapted to raise the latter from the window during the lost motion of the spindle.

5. In window operating apparatus, a vertical screw, a window support carried by the screw, a winding spindle actuating the said screw, means for giving the said spindle an axial movement at the beginning and end of its rotation, a window gripping fillet and a lever connection between the fillet and winding spindle operated only by the axial movement of the latter to release the fillet.

[Claim 6 not printed in the Gazette.]

1,204,202. TYPE-WRITING MACHINE. BURNHAM C. STICKNEY, Elizabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 16, 1914. Serial No. 812,433. (Cl. 197—5.)



1. In a typewriting machine, the combination, with a carriage; of mechanism for effecting a letter-feeding movement of the carriage in one direction; a bank of keys for actuating said mechanism; mechanism separate from the first named mechanism for effecting a letter-feed movement of the carriage in the opposite direction; and a bank of keys separate from the first-named bank for actuating the second-named mechanism.

2. In a typewriting machine, the combination, with a carriage arranged to travel in either direction; of means to drive the carriage; letter-feed mechanism to control the movement of the carriage in one direction; and letter-feed mechanism independent of and remote from the first-named mechanism to control the movement of the carriage in the opposite direction.

3. In a typewriting machine, the combination with a traveling carriage arranged to travel in opposite directions, of two sets of types, means for driving the carriage, means actuated by the types of one set of controlling the letter-feed movement of the carriage in one direction, and means actuated by the types of the other set for controlling the letter-feed movement of the carriage in the reverse direction.

4. In a typewriting machine, the combination with a traveling paper carriage arranged to travel in opposite directions, of means to drive the carriage, two sets of types comprising the characters of two languages in which the lines are written in opposite directions, a set of type keys for each set of types, letter-feeding mechanism actuated by one set of type keys for controlling the travel of the carriage in one direction, and letter-feeding mechanism actuated by the type keys of the other set for controlling the movement of the carriage in the opposite direction.

5. In a typewriting mechanism, the combination with a plurality of type systems, of means for letter-spacing a work-sheet in one direction when the types of one system are actuated, and means for letter-spacing a work-sheet in the reverse direction when the types of the other system are actuated.

[Claims 6 to 31 not printed in the Gazette.]

1,204,203. CONVEYING AND LOADING APPARATUS. FRANCIS LEE STUART, Baltimore, Md. Filed May 12, 1916. Serial No. 96,988. (Cl. 193—25.)



1. The combination with a main conveyer-belt of a delivery apparatus comprising a truck movable to the point of delivery, a turntable thereon, an oscillating frame supported on the turntable, a delivery conveyer carried by the oscillating frame and mounted to be projected or extended therefrom in either direction, and a hopper receiving material from the main conveyer-belt and discharging upon said extensible delivery conveyer.

2. The combination with a main conveyer-belt, of a truck movable to the point of delivery and connected at each end with an inclined frame supporting a loop of the main conveyer-belt, a horizontally arranged delivery conveyer receiving material from either of said loops, and means for adjusting the delivery conveyer about both a horizontal and a vertical axis.

3. The combination with a main conveyer-belt, of a truck movable to the point of delivery and connected at each end with an inclined frame supporting a loop of the main conveyer-belt, a horizontally arranged delivery conveyer receiving material from either of said loops, means for adjusting the delivery conveyer about both a horizontal and a vertical axis, and motor mechanism carried by the truck and operatively connected with the looped portions of the main conveyer-belt for driving it.

4. The combination with a main conveyer-belt, of a delivery apparatus comprising a truck movable to the point of delivery, a turntable thereon, an oscillating frame supported on the turntable, a delivery conveyer carried by the oscillating frame and mounted to be projected or extended therefrom in either direction, means for moving said delivery conveyer in either direction relatively to the feed and a hopper receiving material from the main conveyer-belt and discharging upon said extensible delivery conveyer in whichever direction it is moved.

5. The combination with a main conveyer-belt, of a truck movable to the point of delivery and connected at each end with an inclined frame supporting a loop of the main conveyer-belt, a horizontally arranged delivery conveyer receiving material from either of said loops, means for driving said delivery conveyer in either direction, and means for adjusting the delivery conveyer about a horizontal and a vertical axis.

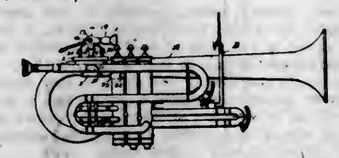
1,204,204. ARTIFICIAL BAIT. GEORGE F. STRUBE, Chicago, Ill. Filed Feb. 16, 1916. Serial No. 78,646. (Cl. 43—30.)



1. In an artificial bait, a substantially ellipsoidal body having a tail end pointed, a forwardly extending substantially semi-ellipsoidal projection formed upon the forward end of said body, the upper surface of said projection being flattened and extending downwardly from the point of connection with the body at an incline with respect to a horizontal plane, said body being provided with a concaved portion in its supper surface extending rearwardly from the line of connection between the body and said projection.

2. In an artificial bait structure, the combination, of a substantially ellipsoidal body, a plurality of eye screws attached to said body, a plurality of grappling fish hooks loosely connected to the eyes of said eye screws, wires connected to said body and extending outwardly therefrom, said wires having transversely extending rings formed upon their outer end which encompass the eyes of said eye screws and hooks for limiting the movement of the hooks toward the body.

1,204,205. ILLUMINATING DEVICE FOR MUSICAL INSTRUMENTS. ROBERT L. TATE, Atlanta, Ga., assignor of one-half to Wm. J. Hartley, Atlanta, Ga. Substitute for application Serial No. 873,190, filed Nov. 19, 1914. This application filed Feb. 15, 1916. Serial No. 78,470. (Cl. 240—2.)



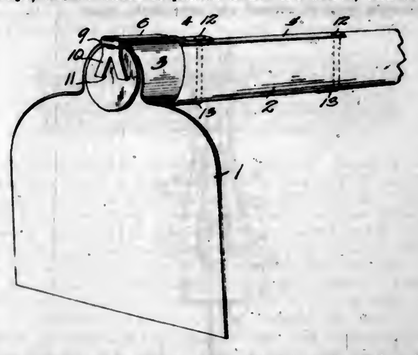
1. A device of the character described comprising a base, a hollow support mounted on the base and formed of a lower stationary section and an upper rotatable section, a hollow member extending through the sections for connecting the sections to each other, a lamp supporting arm carried by the rotatable section, a conducting wire extending through the hollow connecting member, and means for normally holding the rotatable section against rotation.

2. A device of the class described comprising a base, a support mounted on the base, attaching means carried by the base, an arm carried by the support, an incandescent light carried by the arm, socket members carried by the base, conducting wires having connection with the socket members, a switch located in spaced relation with the base, attaching means carried by the switch, an electrical connection between the switch and one of the socket members, and a second electrical connection between the switch and the incandescent light.

1,204,206. HOE. WILLIAM P. THOMASON, Ellersile, Ga. Filed Mar. 6, 1916. Serial No. 82,435. (Cl. 55—5.)

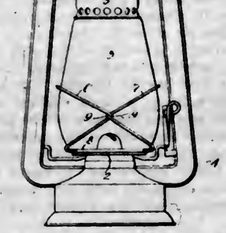
1. The combination with a hoe handle, a blade, and the sleeve on the handle, of a retaining device comprising parallel perforated straps one of which is passed between the sleeve and handle, and the other one over the sleeve, and fastening means in the perforated straps for holding said straps to the hoe handle.

2. The combination with a hoe blade, its sleeve, and a handle, of an attachment having a head with bent prongs driven into the end of the handle and a pair of perforated straps, one of which is passed under the sleeve, and the



other one over the sleeve, and nails driven through said straps and handle and clenched at the underside of the handle.

1,204,207. GUARD FOR LANTERNS. ROBERT P. THRONE, Syracuse, N. Y., assignor to R. E. Dietz Company, New York, N. Y. Filed July 1, 1915. Serial No. 37,470. (Cl. 240—32.)



1. The combination with a globe support, of a wire guard secured to the same and comprising opposite side portions rising from said support and adapted to embrace opposite sides of a globe, the said side portions having integral parts theerof interlocked with each other between their upper portions and said support.

2. The combination with a globe support, of a wire guard comprising opposite bowed portions, the lower extremities of which are secured to the globe support, said bowed portions being bent toward each other to cross and interlock intermediate of the upper and lower portions thereof.

3. The combination with a globe support, of a wire guard having lower portions secured to the globe plate and upwardly extending portions encircling the lantern globe, the intermediate portions of said guard having substantially V-shaped bends located between the upper and lower portions thereof which interlock with each other.

1,204,208. ADJUSTABLE SET-WRENCH. JOSEPH J. THULL, Boyd, Wis. Filed Apr. 28, 1916. Serial No. 94,120. (Cl. 81—113.)

1. An adjustable set wrench comprising a rod, a squared ring secured to one end of said rod, two pairs of pivot pins formed on the ring, and each pair of pivot pins arranged in different planes, gripping jaws provided with openings to receive the pivot pins, and a split ring surrounding the gripping jaws and interlaced with the pairs of pivot pins, a block slidably mounted on the rod and in

engagement with the gripping jaws, and means for moving the block toward and from the pivot point of the gripping jaws to retract and spread the jaws.



2. An adjustable set wrench comprising a rod, a plurality of gripping jaws pivotally secured to one end of the rod, a block slidably mounted on said rod, said block provided with inclined jaw spreading faces, metallic strips secured to the inclined jaw spreading faces of the block and provided with edges bent upwardly and inwardly to form guides, lugs formed on the ends of the gripping jaws and disposed within the guides of the metallic strips to slidably secure the gripping jaws to the block, and means for moving the block toward and from the pivot point of the gripping jaws to retract and spread the jaws.

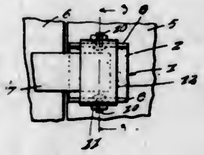
3. An adjustable set wrench comprising a rod, means for pivotally securing a plurality of gripping jaws to one end of said rod, a screwthreaded extension formed on the other end of the rod having its free end reduced and squared to receive a brace, a block slidable on said rod, means for slidably securing the ends of the gripping jaws to the block, a sleeve threaded to the screwthreaded extension of the rod, means for connecting said sleeve to the block, and a handle secured to the sleeve for rotating said sleeve to move the block from and toward the pivot point of the gripping jaws to retract and spread the jaws.

4. An adjustable set wrench comprising a rod, a plurality of gripping jaws pivotally secured to one end of the rod, a screw-threaded extension formed on the other end of the rod, a block slidably mounted on the rod, means for slidably securing the ends of the gripping jaws to the block, a sleeve threaded to the screw-threaded extension of the rod, a handle mounted on said sleeve, said sleeve having one of its ends bifurcated to form attaching arms secured to the handle, and means for securing the sleeve to the block.

5. An adjustable set wrench comprising a rod, a plurality of gripping jaws pivotally secured to one end of the rod, a screw-threaded extension formed on the other end of the rod, a block slidably mounted on said rod, means for slidably securing the ends of the gripping jaws to the block, a sleeve threaded to the screw-threaded extension of the rod, a handle secured to said sleeve, an enlarged portion formed on the sleeve and provided with an annular groove, a collar rotatably mounted in said groove, ears formed on said collar, and rods secured to the block and adjustably secured to the ears for connecting the sleeve to the block.

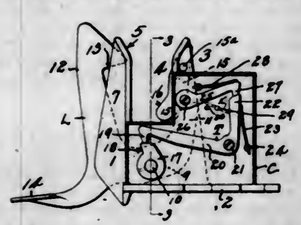
1,204,209. BOLT-KEEPER. JOSEPH J. THULL, Boyd, Wis. Filed June 17, 1916. Serial No. 104,222. (Cl. 70—15.)

1. A bolt keeper comprising a substantially U-shaped base secured to a door jamb, the leg portions thereof having elongated slots therein, bolts mounted in said elongated slots, and a substantially U-shaped member adjustably carried by the bolts for retaining a door in a closed position.



2. A bolt keeper comprising a substantially U-shaped base secured to a door jamb, the leg portions thereof provided with elongated slots, bolts mounted in said elongated slots, nuts on said bolts, a substantially U-shaped member having its legs provided with elongated slots to receive the bolts for adjusting the U-shaped member upon the U-shaped base to receive sliding bolts of varying lengths.

1,204,210. LEVER-LOCKING DEVICE. ELMER W. TIMS and JOSEPH T. MOHR, Youngstown, Ohio. Filed Apr. 7, 1916. Serial No. 89,675. (Cl. 104—25.)



1. A lever locking device including a lock frame, a latch member operatively related to said frame, a locking member carried by the pivot of said latch member, and a lock device adapted to engage said locking member.

2. A lever locking device including a lock frame, a latch member operatively related to said frame, a locking member carried by the pivot of said member, a lock device adapted to engage said locking member, and means for manually controlling said locking device.

3. A lever locking device including a lock frame, a latch member operatively related to said frame, a locking member carried by the pivot of said latch member, a locking device adapted to engage said locking member, and key operated means for controlling said locking device.

4. A lever locking device including a lock frame having a recess, a foot lever having an element adapted to form a closure for one end of said recess, a locking member carried by the pivot of said foot member, and a key controlled lever device adapted to engage said locking member.

5. A lever locking device including a lock frame having a lever clearance recess, a latch member pivoted in said frame and in operative relation to said recess, and means for locking said latch lever at its pivot.

[Claims 6 to 17 not printed in the Gazette.]

1,204,211. SILICON-CARBID REFRACTORY ARTICLE. FRANK J. TONE, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed May 6, 1913. Serial No. 765,961. (Cl. 106—9.)

1. A silicon carbid refractory article, composed of silicon carbid and a vitrified binder which is inert toward silicon carbid, the silicon carbid consisting of a variety of sizes of grains of such proportion as to give an apparent density of not less than 2.3 when pressed, said binder constituting less than ten per cent. of the article and having a vitrifying temperature of at least 1500 degrees centigrade, and said article having an apparent density of not less than 2.3.

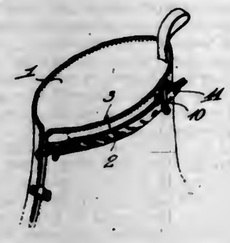
2. The herein described process of making a refractory article of silicon carbid, which consists in mixing a variety of sizes of grains of the silicon carbid in such proportion as to give an apparent density of not less than 2.3 when pressed, with a vitrifiable binder which is inert toward silicon carbid, and in a quantity which will constitute less than ten per cent. of the article, then subjecting the article to pressure, and firing it at a temperature of not less than 1500 degrees centigrade.

3. A silicon carbid refractory article, composed of a variety of different sizes of grains of silicon carbid ranging from a relatively coarse grit to a relatively fine powder, and a vitrified binder which is inert toward silicon carbid, and which has a vitrifying temperature of at least 1500 degrees C., and said article having an apparent density of not less than 2.3.

4. A silicon carbid refractory article, composed of a variety of selected sizes of grains of silicon carbid ranging in size from a relatively fine powder to relative coarse grits, and a clay binder which is inert toward the silicon carbid and which has a vitrifying temperature of at least 1500 degrees C., said article having an apparent density of not less than 2.3.

5. The herein described process of making a refractory article of silicon carbid, which consists in mixing a variety of sizes of grains of the silicon carbid ranging between 14 and 150 mesh with a clay binder which is inert toward the silicon carbid and in a quantity which will constitute less than ten per cent. of the article, then subjecting the article to pressure and firing it at a temperature of not less than 1500 degrees C., the mixture of the sizes of silicon carbid being in such proportion as to give the article an apparent density of not less than 2.3.

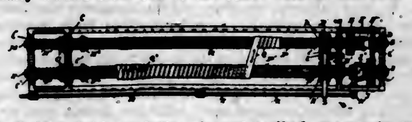
1,204,212. SHOE-LACE FASTENER. ALEXANDER F. URQUHART, Sacramento, Cal. Filed July 26, 1915. Serial No. 41,982. (Cl. 24—121.)



A lace fastener for wearing apparel comprising a piece of heavy spring metal bent in U-shape to form a body and a tongue, said body having a channel extending throughout its length in the face thereof, said tongue being of a width corresponding substantially to the width of said channel and extending from one end of the body member forming a continuation of the bottom of said channel, and having a substantially circular loop at its base beyond the end of the body with which it is connected, said tongue being offset laterally inward opposite its point of connection with the body, and being rectilinear from said offset portion throughout the greater portion of its length and normally lying in a plane parallel with the bottom of the channel in the body with the edges of the tongues normally lying in the plane of the straight body portion adjacent the edges of the channel to provide reliable clamping means between the edges of the channel and those of the tongue, and affording space between the tongue and body to receive the article to be clamped.

1,204,213. TUBE-WRAPPING MACHINE. JOHN A. VEY, Erie, Pa., assignor to Continental Rubber Works, Erie, Pa., a Corporation of Pennsylvania. Filed Apr. 1, 1916. Serial No. 88,325. (Cl. 242—7.)

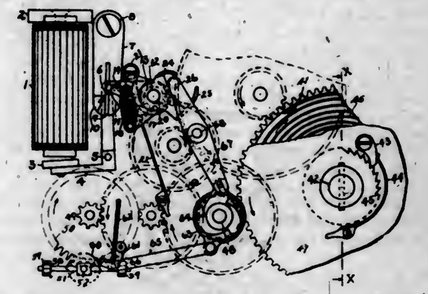
1. In a machine of the class described, a pair of poles, means to rotatably support the same in parallelism, said poles being adapted to receive a tape spirally wound thereon, and means to independently rotate said poles in opposite directions, whereby the tape is alternately and spirally wound from one to the other without traverse.



2. In a machine of the class described, means to rotatably support a tape bearing pole, means to rotatably support a tube bearing pole parallel with said tape bearing pole, said poles adapted to receive a tape spirally wound thereon, and means to independently rotate said poles in opposite directions whereby the tape is alternately wound from one to the other without traverse.

3. In a machine of the class described, a frame, a head-stock and tail-stock thereon, a pair of live spindles in said head-stock, a pair of dead spindles in said tail-stock, a spirally wound tape-bearing pole supported between a live and dead spindle, a brake mechanism associated with said live spindle, a tube-bearing pole supported between the other live and dead spindles, a pulley and associated clutch mechanism on each of said live spindles, whereby said poles may be rotated to spirally wind said tape from one to the other without traverse.

1,204,214. SIGNAL-RECORDER. LEE J. VOORHEES, Binghamton, N. Y., assignor, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company, a Corporation of New York. Filed June 8, 1914. Serial No. 842,690. (Cl. 164—113.)



1. In a signal recorder having an electro-magnetically controlled punching train, and a normally wound propelling train for material to be punched;—detent mechanism adapted to engage said propelling train, means frictionally moved by the propelling train to cause engagement of the detent with said train, and a connection whereby the running of the punching train will actuate the frictionally moved means to alternately cause engagement and disengagement of said detent.

2. In a signal recorder, electro-magnetic escapement mechanism, a normally wound punching train controlled thereby, a suitable propelling train for material to be perforated, detent mechanism for said propelling train, means whereby said detent mechanism may be operated by the propelling train, a cam carried by the punching train and adapted to render the detent effective at certain times independent of the action of the propelling train, and a second cam carried by the punching train and adapted to render the detent ineffective at certain other times in spite of the action of the propelling train.

3. In a signal recorder having a punching train comprising electromagnetic escapement mechanism for releasing it for a predetermined cycle of operation, and a normally wound propelling train for material to be punched;—controlling means adapted to be frictionally moved by the propelling train, and operating means moved by the punching train and normally permitting the

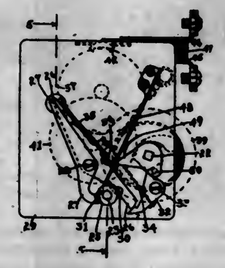
controlling means to be moved by the propelling train and adapted to cause said controlling means to move the detent to engaging position during each cycle of the punching train.

4. In a signal recorder, electro-magnetic escapement mechanism, a normally wound punching train controlled thereby, a suitable propelling train for material to be perforated, a disk moving with a shaft of said propelling train, a detent arm rotatably mounted in suitable relation to said disk and adapted to be moved to engage therewith, a spring so connected with the detent arm as to tend to move said arm into engagement with said disk at certain times and so that when said detent arm is moved a predetermined distance away from the disk said spring will cease to tend to move said detent arm toward said disk, suitable actuating mechanism for said detent arm controlled by both the punching and propelling trains, and a connection between said actuating mechanism and the detent arm arranged to permit relative movement between them.

5. In a signal recorder having a punching train comprising electro-magnetic escapement mechanism for releasing it for a predetermined cycle, and a normally wound propelling train for material to be punched;—controlling means adapted to be frictionally moved by the propelling train, and operating means moved by the punching train and adapted to actuate said controlling means during each cycle of the punching train, first to move the detent to engaging position and then to impart a predetermined disengaging movement to said controlling means with relation to the propelling train.

[Claim 6 to 9 not printed in the Gazette.]

1,204,215. SIGNAL-BOX. LEE J. VOORHEES, Binghamton, N. Y., assignor, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company, a Corporation of New York. Filed Feb. 23, 1915. Serial No. 9,963. (Cl. 177—372.)



1. A windable signaling train, an operating lever associated therewith, a flexible detent rod for said train carried by said operating lever, a holding lever adapted to prevent movement of said detent rod with the operating lever in one direction, a latch adapted to hold the operating lever in position to carry the detent out of engagement with the signaling train, a spring so connecting said latch and said operating lever as to tend to move them to their respective engaging positions, a plunger adapted to successively operate said levers when moved in one direction, a spring for moving said plunger in the opposite direction, and a frangible plate for holding said plunger against the tendency of said spring.

2. In a signal box having a frangible plate for controlling the starting thereof; a spring pressed plunger adapted to be held in compression by said frangible plate; a signaling train; two separately movable levers each adapted to independently cause said signaling train to be held against operation, said levers being adapted to such coöperation with the plunger that when said plunger is in compressed position one of said levers will be held in holding position and the other of said levers will be held in released position, and so that when said plunger has moved away from its compressed position both of said levers will be free to move either to release or to stop said train; and means controlled by the running of the train for shifting the position of both of said levers when said plunger moves away from its compressed position.

3. A windable signaling train; a detent for said train comprising a flexible resilient member having a tendency to release said train; an operating lever and a holding lever associated with said detent; means released by the running down of said train for moving the operating lever to condition said detent to stop the train; a starting member adapted to be manually moved to set the operating lever to permit the detent to disengage said train and to condition the holding lever to influence said detent to hold the train, said starting member having a tendency constantly imparted thereto when in manually set position to move said starting member to a position where it will permit the holding lever to move to allow the detent to release the train; and a lock for holding said member against manual operation so connected with said train as to be rendered ineffective only when said train is fully wound.

4. A windable signaling train, a detent for said train, an operating lever constantly tending to act to condition said detent to hold said train, a starting member adapted to be manually moved to set said operating lever to cause or permit the release of the train from said detent, a latch for holding said operating lever in set condition, a connection between said latch and the train whereby said latch will disengage said operating lever when the train is unwound, a holding lever adapted to be so operated by the starting member as to retain the detent in holding position during the movement of said starting member to set the operating lever to permit the release of the train from the detent, and a lock for the starting member constantly tending to act to hold the starting member against manual movement and so connected with said train as to release said starting member only when said train is fully wound.

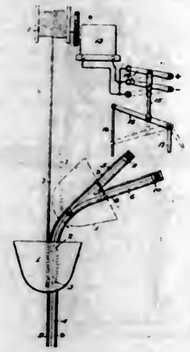
5. In a signal box having a frangible plate for controlling the starting thereof; a spring pressed plunger constantly tending to move through the plane occupied by said frangible plate; a windable signaling train; a lock for said plunger controlled by said train; a detent for said train; an operating lever movable in one direction by said plunger, carrying said detent and arranged to positively move said detent to holding position and to yieldingly move said detent to released position; a holding lever adapted to be engaged by said plunger to retain the detent in holding position, and upon the breaking of the frangible plate to be permitted to move to released position in response to the resiliency of the yielding connection between the operating lever and the detent; a latch adapted to hold the operating lever in released position and to be disengaged therefrom by the movement of a part moved by the train; and a spring so applied to said latch and said operating lever as to tend to move said latch to engaging position and to move said operating lever to holding position.

[Claims 6 to 16 not printed in the Gazette.]

1,204,216. SELF-DUMPING HOIST. JAMES R. WALKER, Niagara Falls, N. Y., assignor to Niagara Alkali Company, Niagara Falls, N. Y., a Corporation of New York. Filed July 18, 1913. Serial No. 779,797. (Cl. 214—12.)

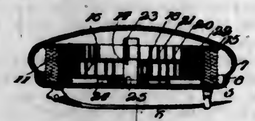
The combination, in a dumping hoist, of a bucket having guiding projections one above the other, a flanged guideway receiving both of said projections and curved forwardly at its upper end, the forward end of said curve being forked and presenting upper and lower limbs at different angles, and a hoisting rope connected to the bucket so as to move the lower portion of the same in a direction transverse to the line of the projections after the latter enter the forward curve at the top of the guide-

way, whereby the upper projection will be directed into the lower limb of the fork at the forward end of said



curve and the lower projection into the upper limb of said fork.

1,204,217. REEL-HOLDER. JOHN P. WEAVER, Terre Haute, Ind. Filed May 19, 1916. Serial No. 98,692. (Cl. 242—98.)



1. In a device of the character described, in combination, a base plate having a fixed central stud, a flanged drum loosely mounted upon said stud, a flexible member adapted to be wound thereon, a flanged holder mounted within said drum and substantially half the width thereof, and coil springs connected in tandem between the drum and the central stud about which it rotates.

2. In a device of the character described, in combination, a base plate having a fixed central stud, a flanged drum loosely mounted upon said stud upon which a flexible member is adapted to be wound, a holder of substantially half the width of said flange mounted within said flanged drum, coil springs connected in tandem on opposite sides of the holder within the drum and acting between the drum and the central stud about which it rotates, and holding means acting between the drum and the base plate adapted to hold the reel in desired position.

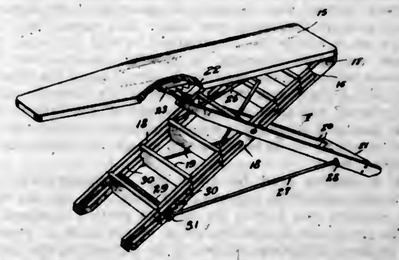
3. In a device of the character described, in combination, a base plate having a fixed central stud, a drum loosely mounted upon said stud upon which a flexible member is adapted to be wound, a flanged holder mounted within said drum, coil springs connected in tandem between the drum and the central stud about which it rotates, and holding means acting between the drum and the base plate adapted to hold the reel in desired position, said holding means comprising a pawl pivotally mounted upon the drum adapted to coact with a stud mounted upon the base plate.

4. In a device of the character described, in combination, a base plate provided with fastening means, a central stud mounted upon said base plate, a flanged drum adapted to rotate about said stud, a coil spring within said flanged drum adapted to rotate bodily about said stud, a holder resting upon said spring, a coiled spring mounted within said holder, said springs being arranged in tandem with the outer end of said first spring secured to the drum and its inner end secured to the holder, the outer end of said second spring being secured to said holder and its inner end secured to said central stud.

5. In a device of the character described, in combination, a base plate provided with fastening means, a central stud mounted upon said base plate, a flanged drum adapted to rotate about said stud, a coil spring within said flanged drum adapted to rotate bodily about said stud, a flanged holder resting upon said spring, a coiled spring mounted within said holder, said spring being arranged in tandem with the outer end of said first spring secured to the drum and its inner end secured to the holder, the outer end of said second spring being secured to said holder and its inner end secured to said central stud, and locking means operating between the base plate and the holder adapted to hold the reel in any desired position of winding.

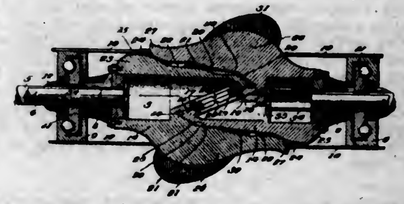
[Claim 6 not printed in the Gazette.]

1,204,218. COMBINED IRONING-BOARD AND STEP-LADDER. HARRY P. WHITE, Albany, Oreg. Filed Feb. 9, 1915. Serial No. 7,185. (Cl. 228—32.)



An ironing board, a step ladder having side rails pivotally connected with said board, said guide rails having slots and ratchet members secured on the faces thereof adjacent the said slots, a supporting frame having side members pivoted on the side rails, a cross bar secured on the edges of the side members at one end thereof, and a cross bar extending between the side members at the other end thereof, said last mentioned cross bar lying beyond the end of the ironing board when folded, ratchet bars on the under face of the ironing board adapted to be engaged by the first mentioned cross bar, and a locking yoke having limbs pivoted on the side members of the supporting frame and a bridge piece extending through the slots in the side rails of the ladder and adapted for engagement with the ratchet members adjacent to said slots simultaneously with the engagement of the cross bar of the supporting frame with the ratchet bars on the under face of the ironing board.

1,204,219. TRAIN-PIPE COUPLING. WALTER C. WHITE, Los Angeles, Cal., assignor to International Couplers Company, Los Angeles, Cal., a Corporation of California. Filed Mar. 20, 1913. Serial No. 755,697. Renewed Feb. 7, 1916. Serial No. 76,775. (Cl. 188—13.)



1. A coupler body having a rigid guide arm extending forwardly from one side and having a front vertical edge extending the entire height of the body and spaced from said arm, a vertical face extending from said edge to the base of said guide arm, a second vertical face extending from said edge in divergent relation to the first-mentioned face, said second vertical face terminating in a vertical side disposed at a slight angle to the longitudinal axis of the body, a lateral offset on the body at the rear of said

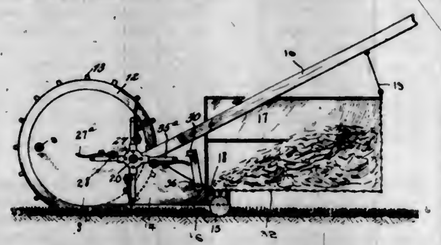
vertical side, and rearwardly converging lateral ribs at the upper and lower edges of said offset, said offset and ribs being adapted to be engaged by the guide arm of an opposed head.

2. A coupler head for train-pipe couplings having a body and a guide arm rigid with and extending forwardly from one side thereof, the outer side of the body and the inner side of the guide arm being each provided with a plurality of vertical deflecting surfaces and a vertical groove being formed at the junction of the body and the arm, the engaging deflecting surfaces on the arm and the body being arranged at slightly different angles of inclination whereby both ends of the guide arm may bind against the outer side of an opposed head with the intervening portions of the opposed surfaces out of contact.

3. A coupler head for train-pipe couplings having vertical faces of unequal length diverging rearwardly from a front vertical edge disposed at one side of the longitudinal axis of the head, the longer face extending in a single plane across the longitudinal axis of the head, flat wings extending laterally in parallel planes from the top and bottom of the head at the side having the shorter face, and a guide arm extending forwardly from the opposite side of the head at the rear end of the longer vertical face and having flat upper and lower surfaces at its rear extremity to fit between and engage the wings on an opposed head.

4. A coupler head for train pipe couplings having a forwardly extending tapered rigid guide arm on one side, the opposite side having its forward portion arranged at an angle to the longitudinal axis of the head to present an inclined deflecting surface to be engaged by the guide arm of an opposed head, a lateral offset provided on said side at the rear of said deflecting surface and having a horizontally convex outer surface, and rearwardly diverging ribs at the upper and lower edges of said offset.

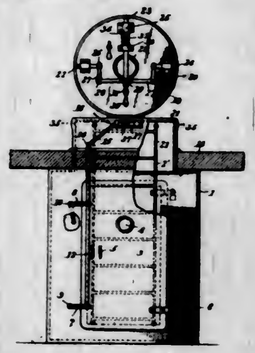
1,204,220. REVOLVING LAWN-RAKE. ARTHUR E. WHITING, Louisville, Ky. Filed Dec. 30, 1913. Serial No. 809,529. Renewed Apr. 7, 1916. Serial No. 89,727. (Cl. 55—145.)



In combination with a wheel mounted frame, a rotatively mounted shaft having fixedly mounted rake heads bearing a plurality of tooth supporting arms and tooth securing bars on said arms; a ratchet gear connecting said shaft with the master-wheel; a plurality of resilient rake teeth having coils in their medial portions, said teeth being removably secured to said securing bars and bearing against the supporting arms, a vertically positioned cleaner-bar attached to said frame in the path of said teeth and a receptacle to receive the refuse swept up by the rakes.

1,204,221. SAFETY LOCKING DEVICE FOR HATCH-DOORS. HENRY DUKE WILLIAMS, New York, N. Y. Filed May 23, 1916. Serial No. 99,462. (Cl. 114—201.)

1. A safety device for doors upon hatch chambers upon torpedo boats, etc., comprising, in combination with a hatch chamber with a lower door and a door in the top thereof, movable locking pawls mounted upon the wall of the chamber and adapted to lock said lower door closed, locking bolts upon the upper door, means for releasing said bolts, and mechanism actuated by said locking pawls for preventing the bolts from being released when the pawls are in unlocked positions.



2. A safety device for doors upon hatch chambers upon torpedo boats, etc., comprising, in combination with a hatch chamber with a lower door and a door in the top thereof, movable locking pawls mounted upon the wall of the chamber and adapted to lock said lower door closed, locking bolts upon the upper door, means for releasing said bolts, a bar pivoted to the locking pawls, and means actuated thereby for preventing the bolt releasing mechanism from being operated when the pawls are in unlocked positions.

3. A safety device for doors upon hatch chambers upon torpedo boats, etc., comprising, in combination with a hatch chamber with a lower door and a door in the top thereof, movable locking pawls mounted upon the wall of the chamber and adapted to lock said lower door closed, spring-pressed locking bolts upon the cover having pivotal connection with one another and adapted to engage notches in the wall of the hatch chamber, means upon the latter for releasing the bolts, and means actuated by the pawls for preventing said releasing mechanism being actuated when the pawls are in unlocked position.

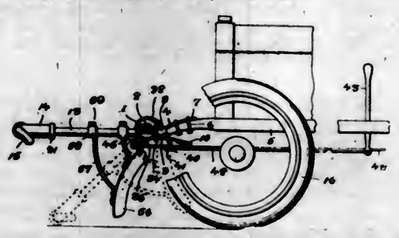
4. A safety device for doors upon hatch chambers upon torpedo boats, etc., comprising, in combination with a hatch chamber with a lower door and a door in the top thereof, movable locking pawls mounted upon the wall of the chamber and adapted to lock said lower door closed, spring-pressed locking bolts upon the cover having pivotal connection with one another and adapted to engage notches in the wall of the hatch chamber, means upon the latter for releasing the bolts, a movable member mounted upon the wall of the chamber and having pivotal connections with said locking pawls and designed, when the latter are in unlocked positions, to be positioned in the path of said releasing member to prevent the same being operated to release the bolts.

5. A safety device for doors upon hatch chambers upon torpedo boats, etc., comprising, in combination with a hatch chamber with a lower door and a door in the top thereof, movable locking pawls mounted upon the wall of the chamber and adapted to lock said lower door closed, spring-pressed locking bolts upon the cover having pivotal connection with one another and adapted to engage notches in the wall of the hatch chamber, means upon the latter for releasing the bolts, a member having an L-shaped end which is slotted to receive said member, and pivotal connections between said member and locking pawls.

[Claims 6 and 7 not printed in the Gazette.]

1,204,222. CAR-FENDER. ROBERT H. WILSON, Tacoma, Wash. Filed Feb. 16, 1916. Serial No. 78,720. (Cl. 105—130.)

1. In a car fender, the combination of a non-rotary shaft, means for supporting the same in fixed relation to a vehicle frame, a cam mounted to oscillate on said shaft, a tubular housing inclosing said cam and mounted for oscillatory movement on said shaft, arms extending from said housing and having a fixed relation thereto, a pilot bar supported by said arms and adapted to move rearwardly when subjected to impact, an operating connection between said pilot bar and cam actuated by the pilot bar and acting to oscillate said cam, and a fender upholding latch displaceable by said cam.



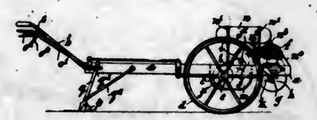
2. In a car fender, the combination of a non-rotary shaft, means for supporting the same in fixed relation to a vehicle frame, a cam mounted to oscillate on said shaft, a tubular housing inclosing said cam and mounted for oscillatory movement on said shaft, arms extending from said housing and having a fixed relation thereto, a pilot bar supported by said arms and adapted to move rearwardly when subjected to impact, an operating connection between said pilot bar and cam actuated by the pilot bar and acting to oscillate said cam, a fender upholding latch displaceable by said cam, and a spring connecting said shaft and housing and acting to depress the fender.

3. In a car fender, the combination of a non-rotary shaft, means for supporting the same in fixed relation to a vehicle frame, a cam mounted to oscillate on said shaft, a tubular housing inclosing said cam and mounted for oscillatory movement on said shaft, arms extending from said housing and having a fixed relation thereto, a pilot bar supported by said arms and adapted to move rearwardly when subjected to impact, an operating connection between said pilot bar and cam actuated by the pilot bar and acting to oscillate said cam, a fender upholding latch displaceable by said cam, a spring connecting said shaft and housing and acting to depress the fender, and means for limiting the downward movement of the fender.

4. In a car fender, the combination of a non-rotary shaft, means for supporting the same in fixed relation to a vehicle frame, a cam mounted to oscillate on said shaft, a tubular housing inclosing said cam and mounted for oscillatory movement on said shaft, arms extending from said housing and having a fixed relation thereto, a pilot bar supported by said arms and adapted to move rearwardly when subjected to impact, an operating connection between said pilot bar and cam actuated by the pilot bar and acting to oscillate said cam, and manually operable means for displacing said latch.

5. In a car fender, the combination of a non-rotary shaft, means for supporting the same in fixed relation to a vehicle frame, a cam mounted to oscillate on said shaft, a tubular housing inclosing said cam and mounted for oscillatory movement on said shaft, arms extending from said housing and having a fixed relation thereto, a pilot bar supported by said arms and adapted to move rearwardly when subjected to impact, an operating connection between said pilot bar and cam actuated by the pilot bar and acting to oscillate said cam, a fender upholding latch displaceable by said cam, a manually operable lever for tripping said latch, a stop arm on said lever, and an adjustable stop coöperating with said stop arm and embodying a collar encircling said housing and adapted to be turned thereon, a set screw for said collar, and a shoulder on said collar adapted to contact with said stop arm.

1,204,223. SELF-CONTAINED MOTOR-DRIVEN AGRICULTURAL IMPLEMENT. ALBERT WYLES, Jr., Evesham, England. Filed Mar. 8, 1912, Serial No. 682,481. Renewed Apr. 6, 1916. Serial No. 89,473. (Cl. 97—30.)



1. A self-contained motor driven agricultural implement comprising a frame, a pair of side by side wheels supporting said frame, a tool carried by said frame in rear of the wheels, and a motor carried by said frame in front of the wheels, said motor and tool being so disposed as to substantially balance the frame in a longitudinal direction on the wheels, substantially as described.

2. A self-contained motor driven agricultural implement comprising a frame having steering handles at its rear operable by a person walking on the ground; a pair of wheels mounted side by side supporting said frame, a tool carried by said frame in rear of the wheels, and a motor carried by said frame in front of the wheels, said motor and tool being so disposed as to substantially counterbalance each other and equipoise the frame upon the wheels in a longitudinal direction, substantially as described.

3. A self-contained motor driven agricultural implement comprising an axle, a pair of wheels mounted on said axle, a frame mounted on the axle, a tool carried by said frame in rear of the axle, and a motor carried by said frame in front of the axle, said motor and tool being substantially counterbalanced and balancing the frame upon the wheeled axle.

4. A self-contained motor driven agricultural implement comprising an axle, a pair of wheels supporting said axle, a frame mounted on the axle and having a handle on its rear end operable by a person walking on the ground to guide the implement, a tool carried by said frame in rear of the axle, and a motor carried by said frame in front of the axle, said motor and tool being so disposed as to substantially counterbalance each other and balance the frame longitudinally on the wheels, substantially as described.

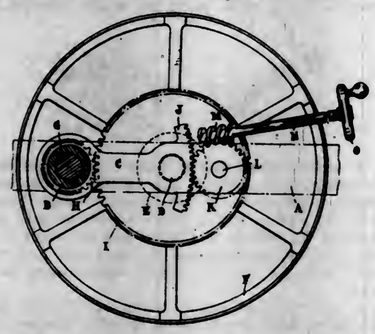
5. A self-contained motor driven agricultural implement comprising a frame having steering handles at its rear operable by a person walking on the ground, an axle supporting said frame, a pair of wheels mounted side by side on said axle, a plurality of tools carried by said frame in rear of the wheels, and a motor carried by said frame in front of the wheels, said motor and tools being so disposed as to substantially counterbalance each other and also equipoise the frame longitudinally upon the axle, substantially as described.

1,204,224. AGRICULTURAL IMPLEMENT. ALBERT WYLES, Jr., Leeds, England. Filed Feb. 25, 1913. Serial No. 750,587. (Cl. 21—114.)

1. In an agricultural implement, the combination of a frame having a projecting boss, a power shaft journaled in said frame and extending axially through the boss, a wheel support pivoted at one end on said boss and having a gear segment on its other end, a gudgeon mounted on said support, means mounted on the frame engaging said segment to adjust the support, a wheel on said gudgeon having its axis parallel with the axis of the power shaft, a gear fast on the wheel, and a pinion on the power shaft adjacent the boss meshing with the said wheel gear, substantially as described.

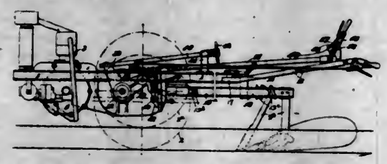
2. In an agricultural implement, the combination of a frame having a projecting boss, a power shaft journaled in said frame and extending axially through the boss, a wheel support pivoted at one end on said boss and having a gear segment on its other end, a pinion rotatably mounted on the frame and meshing with said

segment, a worm mounted on the frame and engaging said pinion; a gudgeon attached to said support, a wheel on said gudgeon having its axis parallel with the axis



of the power shaft, a gear fast on the wheel, and a pinion on the power shaft adjacent the boss meshing with the said wheel gear, substantially as described.

1,204,225. SELF-PROPELLED AGRICULTURAL IMPLEMENT. ALBERT WYLES, Jr., Leeds, England. Filed Sept. 4, 1914, Serial No. 860,247. Renewed Oct. 5, 1916. Serial No. 124,007. (Cl. 21—114.)



1. In a self-propelled agricultural implement the combination of a frame, a motor carried thereby, a road wheel driven by said motor and mounted for vertical adjustment in relation to the frame, and means whereby the force of the motor driving said wheel may at will be caused to automatically raise said frame relatively to said wheel by the reaction of the driving mechanism thereon.

2. In a self-propelled agricultural implement, the combination of a frame, a motor carried thereby, a road wheel driven by said motor and mounted for vertical adjustment in relation to the frame, transmission mechanism from the motor to said wheel so disposed as to exert a reactionary force on said wheel to raise the frame relatively thereto, and means to hold the frame in its raised or lowered positions of adjustment.

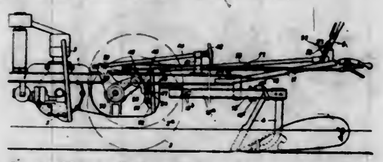
3. In a self-propelled agricultural implement, the combination of a frame, a motor carried thereby, a road wheel driven by said motor and mounted for vertical adjustment in relation to the frame, means whereby the force of the motor driving said wheel may at will be caused to automatically raise said frame relatively to said wheel by the reaction of the driving mechanism thereon, and adjustable means for determining the degree of relative movement between the frame and said road wheel.

4. In a self-propelled agricultural implement, the combination of a frame, a motor carried thereby, a road wheel driven by said motor and mounted for vertical adjustment in relation to the frame, transmission mechanism from the motor to said wheel so disposed as to exert a reactionary force on said wheel to raise the frame relatively thereto, means to hold the frame in its raised or lowered positions of adjustment, and adjustable means for determining the degree of relative movement between the frame and said road wheel.

5. A self-propelled agricultural implement comprising a frame, a motor carried thereby, a road wheel mounted for movement relatively to said frame in a vertical direction, transmission mechanism from said motor to said wheel including intermeshing gearing adapted to exert a lifting effort on the frame, an adjustable stop for limiting the degree of movement of the wheel in relation to the frame, and means to hold the frame in its raised or lowered position.

[Claims 6 to 8 not printed in the Gazette.]

1,204,226. SELF-PROPELLED AGRICULTURAL IMPLEMENT. ALBERT WYLES, Jr., Manchester, England. Original application filed Sept. 4, 1914, Serial No. 860,247. Divided and this application filed Jan. 22, 1916. Serial No. 73,553. (Cl. 97—30.)



1. In a self-propelled agricultural machine, the combination of a frame, a pair of side by side wheels supporting the frame, a motor mounted on the frame and connected to drive said wheels, an earth working implement carried by the frame, means for changing the plane of elevation of the frame, and means for varying the angle of the implement with respect to the frame, the whole constituting a unitary structure supported and balanced solely on the axis of the tractor wheels.

2. In a self-propelled agricultural machine the combination of a frame, a pair of side by side wheels supporting the frame, a motor mounted on the frame and connected to drive said wheels, an earth working implement carried by the frame and providing a rudder for the machine while traveling, means for changing the plane of elevation of the frame, and means for varying the terrain angle of the implement with respect to the frame, the whole constituting a unitary structure supported and balanced solely on the axis of the tractor wheels.

3. A self-contained motor driven agricultural implement comprising a frame, a pair of side by side wheels supporting said frame and adjustable relatively thereto, an earth working implement carried by said frame in rear of the wheels, and a motor carried by said frame in front of the wheels, the whole constituting a unitary structure supported and balanced solely on the axis of the tractor wheels.

4. A self-contained motor driven agricultural implement comprising a frame, a pair of side by side wheels supporting said frame and adjustable relatively thereto, an implement carrying member connected with the frame and capable of lateral adjustment relatively thereto, a tool carried by said member in rear of the wheels, and a motor carried by said frame in front of the wheels, the whole constituting a unitary structure supported and balanced solely on the axis of the tractor wheels.

5. A self-contained motor driven agricultural implement comprising a frame, a pair of side by side wheels supporting said frame, means for vertically adjusting a wheel, a tool carried by said frame in rear of the wheels, and a motor carried by said frame in front of the wheels, the whole constituting a unitary structure supported and balanced solely on the axis of the tractor wheels, substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,204,227. FASTENING DEVICE. MAY E. YOUNG, New Milford, Conn. Filed May 25, 1915. Serial No. 30,425. (Cl. 24—214.)

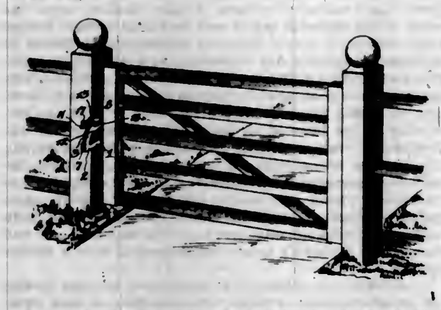
A fastening for securing the overlapping portions of an article together, comprising a socket member having a base adapted to be secured to one portion of the article, an internal circumferential rib formed on said member adjacent its base, a separable member including a base adapted to be secured to the other portion of the article,

a substantially inverted V-shaped shank carried by said base and including a relatively fixed branch and a resilient relatively movable branch, the latter being terminally spaced from its base, said movable branch having spaced depressions formed in its length, one for the reception of the lower edge of the socket member in which the latter is fulcrumed during the operative association of



the parts, and the other for the reception of said rib when the parts are associated and a manipulating portion forming a continuation of said movable branch, said manipulating portion projecting upwardly from beneath said socket and arranged exteriorly thereof and above the material to which said member is attached for the purpose set forth.

1,204,228. GATE-LATCH. LOUIS H. ZANDERS, Malvern, Iowa. Filed Mar. 26, 1915. Serial No. 17,208. (Cl. 70—28.)

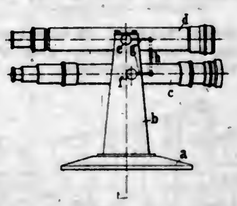


A gate latch comprising a semicircular frame having a straight lower member and a curved member connecting the ends of the straight member, said straight member being secured midway its ends to a post, the curved member having an opening in vertical alinement with said secured portion, and having an annular bearing formed about said opening, perforated lugs formed on opposite sides of the curved member adjacent its juncture with the straight member, a rocker arm pivotally mounted on said bearing, and having a double stop member adapted to engage the inner edge of the curved member, common means for securing the curved member to the post, and the rocker arm in position, said means passing through the last mentioned opening, a spring adapted to connect one end of the rocker arm to either of said lugs, the opposite end of the rocker arm being bifurcated and having a recess at the inner end of the bifurcation, said recess registering with the upper edge of the curved arm when the rocker arm is in normal position, and a striker carried by a gate and adapted when in locking position to rest on the upper edge of the curved member and in said recess.

1,204,229. TELESCOPE-TELEMETER. JAKOB ZWICKY, Langgass, St. Gall, Switzerland. Filed Oct. 30, 1911. Serial No. 657,530. (Cl. 33—46.)

1. The combination with a stand, and parallel standards thereon, of two horizontal pivots journaled in said standards one above the other and at an acute angle to each other, and a telescope mounted intermediate its ends on each of said pivots.

2. The combination with a stand, and parallel standards thereon, of two horizontal pivots journaled in said standards one above the other and at an acute angle to each other, a telescope mounted, intermediate its ends on each of said pivots, and means for connecting the telescopes to cause them to oscillate simultaneously.

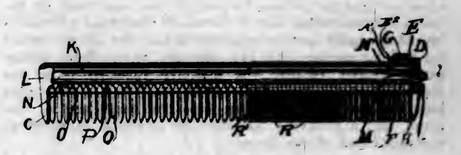


3. The combination with a stand, and parallel standards thereon, of two horizontal pivots journaled in said standards one above the other at an acute angle to each other, and a telescope mounted intermediate its ends on each of said pivots, a crank arm projecting from each pivot, and a link connecting the crank arm to cause the telescopes to oscillate simultaneously.

4. An instrument of the character described comprising a support, two telescopes mounted on the support to oscillate in vertical planes, and connections whereby they are caused to oscillate simultaneously, said connections consisting of a pin secured to oscillate with each telescope, and a link connecting said pins.

5. A measuring instrument comprising a base, standards supported by the base, independent pivot members held between the standards, a telescope supported on each pivot and adapted to move therewith, and means connecting the pivots whereby the telescopes are moved simultaneously.

1,204,230. COMB. NICHOLAS G. ABBATE, Baltimore, Md. Filed Apr. 6, 1914. Serial No. 829,846. (Cl. 132—3.)

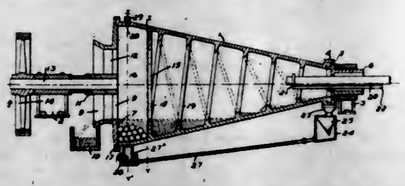


1. The comb herein described, consisting of a hollow back portion having an integral tooth at one end and a threaded filling opening at its other end, a series of teeth mounted in said back portion, a cap formed with a tooth and fitting upon said back portion and having a threaded opening in line with the filling opening of the back portion, a threaded plug for closing the said openings of the cap and back, and for securing the parts together, a reservoir mounted in the back having a filling opening, and a series of discharge openings and having means extending through said cap for turning the reservoir, said filling opening of the reservoir being adapted to register with the filling openings of the back and cap for supplying said reservoir.

2. The comb herein described, consisting of a hollow back portion having an integral tooth at one end and a threaded filling opening at its other end, a series of teeth mounted in said back portion, a cap formed with a tooth and fitting upon said back portion and having a threaded opening in line with the filling opening of the back portion, a threaded plug for closing the said openings of the cap and back and for securing the parts together, a reservoir mounted in the back having a filling opening, and a series of discharge openings and having means extending through said cap for turning the reservoir, and a screw mounted in the cap and bearing against

the teeth at one end for holding the teeth in proper position in the back portion, said filling opening of the reservoir being adapted to register with the filling openings of the back and cap for supplying said reservoir.

1,204,231. AMALGAMATOR. WILLON PERCIVAL ALDERSON, Timmins, Ontario, Canada. Filed Feb. 19, 1916. Serial No. 79,329. (Cl. 83—67.)



1. An amalgamator comprising a horizontally disposed conical drum rotatably mounted on suitable bearings and having a pulp inlet orifice at one end and a pulp discharge orifice at the opposite end, of means for feeding the mercury into the large end of the drum and carrying it gradually forward toward the small end, and means for discharging the amalgam from the small end of the drum.

2. An amalgamator comprising a horizontally disposed conical drum rotatably mounted on suitable bearings and having a pulp inlet at the small end and a pulp discharge at the large or opposite end, an internal spiral flange formed in the drum and extending longitudinally thereof, means for feeding mercury into the large end of the drum into engagement with the spiral flange, and means for continuously discharging the mercury and metal values as they are carried into the small end of the drum.

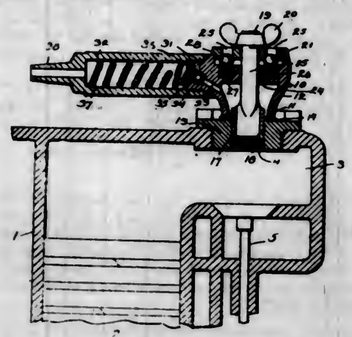
3. An amalgamator comprising a horizontally disposed conical drum rotatably mounted on suitable bearings, an annular internal groove formed at the small end of the drum and provided with a series of discharge orifices, a discharge spout at the opposite end of the drum, means for feeding mercury into the large end of the drum, means for gradually feeding the mercury forward from the large end of the drum toward the small end, a feed inlet pipe for the pulp extending into the small end of the drum, and a receiving trap for the amalgum collected at the small end of the drum.

4. An amalgamator comprising a horizontally disposed conical drum rotatably mounted on suitable bearings, an annular internal groove formed at the small end of the drum and provided with a series of discharge orifices, a discharge spout at the opposite end of the drum, means for feeding mercury into the large end of the drum, means for gradually feeding the mercury forward from the large end of the drum toward the small end, a feed inlet pipe for the pulp extending into the small end of the drum, a receiving trap for the amalgam collected at the small end of the drum, means in the trap for separating the metal values from the mercury, and means for automatically returning the mercury from the trap into the large end of the drum.

5. An amalgamator comprising a horizontally disposed conical drum rotatably mounted on suitable bearings, an annular internal groove formed at the small end of the drum and provided with a series of discharge orifices, a discharge spout at the opposite end of the drum, means for feeding mercury into the large end of the drum, means for gradually feeding the mercury forward from the large end of the drum toward the small end, a feed pipe for the pulp extending into the small end of the drum, a receiving trap for the amalgam collected at the small end of the drum, a strainer bag located in the trap and into which the amalgam is fed, and means for automatically returning the mercury from the trap into the large end of the drum.

[Claims 6 and 7 not printed in the Gazette.]

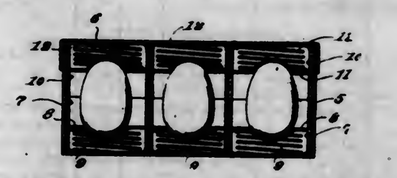
1,204,232. PNEUMATIC-TIRE-INFLATING DEVICE. ANDREW ANDERSSON, West Brighton, N. Y. Filed Apr. 28, 1915. Serial No. 24,506. (Cl. 137—28.)



1. A valve comprising a housing, said housing having its upper end open, a cover for connection to said housing, a bolt extending through said cover and having its lower end flattened, arcuate flanges formed upon the edges of the flattened end of said bolt, said arcuate flanges being externally screw threaded for detachably fitting in a threaded opening for connecting said housing in position and binding said cover to said housing, a horizontally disposed web positioned within said housing, said cover and web being provided with a plurality of openings permitting of the inlet of air into said housing, spring controlled ball valves carried by said web for controlling the passage of air through said openings, a sleeve detachably connected to said housing, and an absorbent coil positioned within said sleeve for filtering the air upon passage therethrough, said sleeve communicating with said outlet opening, said sleeve also having its outer end reduced for forming a nozzle for connection with a flexible conduit.

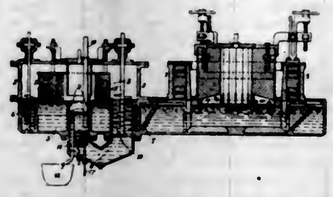
2. A valve comprising a housing, said housing having its upper end open, a cover for connection to said housing, a bolt extending through said cover and having its lower end flat, arcuate flanges formed upon the edges of the flattened end of said bolt, said arcuate flanges being externally screw threaded for detachably fitting in a threaded opening and connecting said housing in position and binding the cover upon said housing, a horizontally disposed web positioned in said housing, said cover being provided with a plurality of openings for permitting of the inlet of air into said housing, and spring control ball valves carried by said web for controlling the passage of air through said openings, a sleeve detachably connected to said housing and an absorbent coil positioned within said sleeve for filtering the air upon passage therethrough, said sleeve communicating with said outlet openings and having its outer end reduced for forming a nozzle for connection with a flexible conduit.

1,204,233. EGG-CARRIER. GEORGE R. ANDREWS, East Saginaw, Mich. Filed Mar. 17, 1916. Serial No. 84,966. (Cl. 217—28.)



An egg carrier comprising a receptacle having a plurality of cells therein, a cover having a similar number of cells projecting from one side thereof and adapted to be positioned within the receptacle in alinement with the first mentioned cells to partially receive the eggs supported within the first mentioned cells, and yieldably supported disks arranged within the cells and each having a centrally depressed portion.

1,204,234. APPARATUS FOR THE ELECTROLYTIC MANUFACTURE OF LIGHT METALS AND REACTION PRODUCTS THEREOF. EDGAR ARTHUR ASHCROFT, London, England. Filed Mar. 12, 1912. Serial No. 683,377. (Cl. 204—21.)



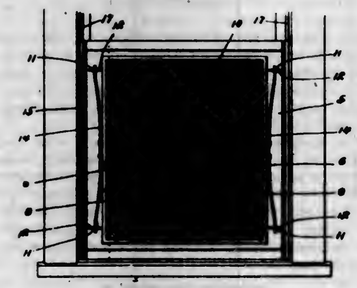
1. An electrolytic apparatus of the character described having only an extremely small cathode area exposed in the electrolyte and in close proximity to the anode, and means for circulating the electrolyte in a thin layer over the surface of the anode.

2. An electrolytic apparatus of the character described having only an extremely small cathode area exposed in the electrolyte and in close proximity to the anode, an overflow chamber for the electrolyte and a pump for returning the latter to the electrolytic cell.

3. An electrolytic apparatus of the character described having only an extremely small cathode area exposed in the electrolyte and in close proximity to the anode, a collecting chamber inside the cell for the electrolytic product and means for gathering the latter in said collecting chamber, together with means for cooling the liquids therein, for the purpose specified.

4. An electrolytic apparatus of the character described having only an extremely small cathode area exposed in the electrolyte and in close proximity to the anode, an overflow chamber for the electrolyte arranged to maintain the latter in a thin layer over the surface of the anode, and means for circulating the electrolyte from the overflow chamber to the electrolytic cell.

1,204,235. WINDOW-SCREEN. CHAUNCEY A. BATES and WALTER W. HOBBY, White Plains, N. Y. Filed Oct. 29, 1915. Serial No. 58,683. (Cl. 156—38.)

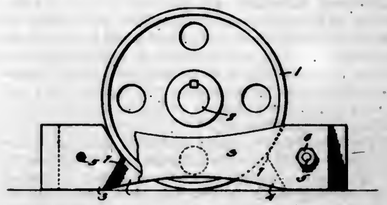


1. A window screen mounted for sliding adjustment and comprising a main frame and laterally adjustable side sections, means for normally extending said sections, means for limiting the outward movement thereof, and the inner edge section forming a flange adapted to be grasped for moving the sections toward each other.

2. A window screen mounted for sliding adjustment and comprising a main frame and laterally adjustable side sections, spaced upper and lower horizontal flanges on said main frame, said sections being formed with grooves for the reception of said flanges, means for normally extending said sections, and means for limiting the outward movement thereof.

3. A window screen mounted for sliding adjustment, comprising a main frame and laterally adjustable side sections, lugs projecting from each of said sections through elongated slots in the main frame and slidably mounted therein, and a bowed spring secured to the opposite sides of the main frame engaging said lugs to normally maintain said sections in extended position.

1,204,236. TRACK-CLEANER. GEORGE B. BEGG, New Orleans, La. Filed May 2, 1916. Serial No. 94,972. (Cl. 104—100.)



A track cleaner and wheel guard for use in conjunction with a track wheel, having upper and lower sides identical in form and construction and also having an opening extending throughout its height to receive the wheel and further having in said opening means to engage the perimeter of the wheel; said means being arranged to occupy the same position relative to the wheel irrespective of which horizontal side of the cleaner and guard is opposed to the track or rail.

1,204,237. CAP FOR FOUNTAIN OR OTHER SYRINGES. EVERETT H. BICKLEY, Pittsburgh, Pa. Filed June 19, 1916. Serial No. 104,546. (Cl. 128—39.)



1. In a syringe cap, the combination of a threaded shell; a washer carrying thumb wings; a locking disk crimped on the shell embracing the winged washer; a tube having a flange on one end, and a means for hose connection on the other end, passing through the shell; and a packing washer surrounding the tube between the flanged portion and inner end of the shell, substantially as described.

2. In a syringe cap, the combination of a threaded hollow plug; a hose connection tube passing through said plug; and means for rotating the plug independent of the said tube.

3. In a syringe cap, the combination of a threaded apertured plug; a hose connection tube passing through said plug, the inner end of said tube being flanged; a washer intermediate of the inner end of said plug and flanged portion of the tube; and means for rotating the plug independent of the said tube.

4. In a syringe cap, the combination of a threaded hollow plug; a flanged hose connection tube passing through said plug; a packing washer intermediate of the plug and flanged end of said tube; a relatively hard washer backing up the first mentioned washer; and means for rotating the plug independent of the said tube, substantially as described.

1,204,238. TREATMENT OF PHOSPHATE-ROCK. EARL S. BISHOP, Pittsburgh, Pa., assignor to Armour Fertilizer Works, Chicago, Ill., a Corporation of Illinois. Filed Aug. 10, 1914, Serial No. 855,984. Renewed Feb. 1, 1916. Serial No. 75,624. (Cl. 71—7.)

1. The method of making phosphate rock available for plant food, which comprises subjecting to a sufficiently high temperature, in the presence of steam, a mixture of the rock with a suitable metal chlorid and an excess of silica sufficient to combine with the metal of the chlorid and with part of the calcium of the phosphate rock; substantially as described.

2. The method of making phosphate rock available for plant food, which comprises subjecting to a sufficiently high temperature, in the presence of steam, a mixture of the rock with a chlorid of a strong base and an excess of silica sufficient to combine with the metal of the chlorid and with part of the calcium of the phosphate rock; substantially as described.

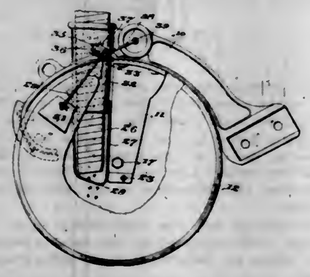
3. The method of making phosphate rock available for plant food, which comprises subjecting to a sufficiently high temperature, in the presence of steam, a mixture of the rock with an alkali metal chlorid and an excess of silica sufficient to combine with the metal of the chlorid and with part of the calcium of the phosphate rock; substantially as described.

4. The method of making phosphate rock available for plant food, which comprises subjecting to a sufficiently high temperature, in the presence of steam, a mixture of the rock with a metal chlorid and an excess of silica sufficient to combine with the metal of the chlorid and with part of the calcium of the phosphate rock, the temperature being maintained below that which would sinter the product; substantially as described.

5. The method of making phosphate rock available for plant food, which comprises subjecting to a sufficiently high temperature, in the presence of steam, a mixture of the rock with a metal chlorid and an excess of silica sufficient to combine with the metal of the chlorid and with part of the calcium of the phosphate rock, and recovering the hydrochloric acid given off during the operation in a fresh batch of the mixture; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,204,239. SEEDING-MACHINE. HARRISON B. BOZARD, La Crosse, Wis. Filed May 27, 1915. Serial No. 30,810. (Cl. 111—11.)



1. The combination of a boot frame, a pair of disks, stems reaching from the frame between the disks, a bearing connection between each disk and a stem, and an adjustable connection between the stems to adjust the disk edges with reference to each other and consisting of a bolt threaded at each end.

2. The combination of a boot frame, a pair of disks, stems reaching from the frame between the disks, a bearing connection between each disk and a stem, and an adjustable connection between the stems to adjust the disk edges with reference to each other, said adjustable connection consisting of a bolt with right and left thread that enter correspondingly threaded holes in their respective stems.

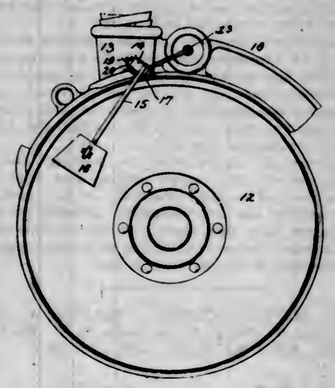
3. The combination of a pair of disks, a boot frame, a conductor tube, and a support for the lower end of the conductor tube consisting of a frame having vertically extending front and rear walls, and a bottom on which the lower end of the conductor tube is supported, said bottom having a hole for the passage of seed from the conductor tube.

4. The combination of a pair of disks, a boot frame, a conductor tube, and a support for the lower end of the conductor tube consisting of a frame having front and rear walls, and a bottom on which the lower end of the conductor tube is supported, said bottom having a hole for the passage of seed from the conductor tube, the rear wall of the frame being inclined upwardly and rearwardly and the bottom being inclined upwardly and rearwardly.

5. The combination of a pair of disks, a boot frame, a conductor tube, and a support for the lower end of the conductor tube consisting of a frame having front and rear walls, and a bottom on which the lower end of the conductor tube is supported, said bottom having a hole for the passage of seed from the conductor tube, the rear wall of the frame being inclined upwardly and rearwardly and the bottom being inclined upwardly and rearwardly, said rear wall having a hook connection with the boot frame.

[Claims 6 to 8 not printed in the Gazette.]

1,204,240. SCRAPER FOR SEEDING-MACHINES. HARRISON B. BOZARD, La Crosse, Wis. Original application filed May 27, 1915, Serial No. 30,810. Divided and this application filed Dec. 28, 1915. Serial No. 69,031. (Cl. 97—79.)

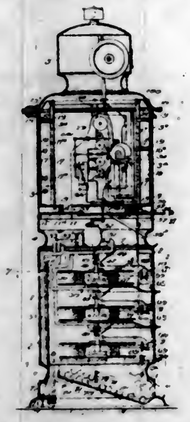


1. The combination of a boot frame, a disk mounted thereon, a scraper blade, an arm carrying said blade and formed of wire that is wound into a coil at a point between the ends of the arm, a sleeve passing through said coil on which it may rock and means connecting said sleeve with the boot frame.

2. The combination of a boot frame, a disk mounted thereon, a scraper blade, an arm carrying said blade and formed of wire wound into a coil at a point between its ends, a sleeve passing through said coil, a boss projecting from the side of the boot frame through which said sleeve passes and a fastening bolt passing through the sleeve and confining the coil on the sleeve while allowing it to rock thereon.

1,204,241. DISPENSING APPARATUS. RICHARD C. BRADLEY, Shreveport, La., assignor of one-fourth to Lee Kinnebrew and one-fourth to J. Maley Eastham, Shreveport, La., and one-fourth to C. Frank Ireland, Houston, Tex. Filed Jan. 19, 1914. Serial No. 813,036. (Cl. 221—95.)

1. In a liquid dispensing device, the combination of a supply pipe, a casing, a door therefor, a normally closed control valve for said supply pipe, a spring for placing said control valve under tension, means for locking the door, means disposed between the door and the control valve for holding the latter in its normally closed position against the tension of the control valve spring.



2. In a liquid dispensing device, the combination of a supply pipe, a casing, a door therefor, a normally closed control valve for said supply pipe, a spring for placing said control valve under tension, means for locking the door, means disposed between the door and the control valve for holding the latter in its normally closed position against the tension of the control valve spring, and means for unlocking the door, thereby permitting the opening of the control valve and the forcing open of the door by the control valve spring.

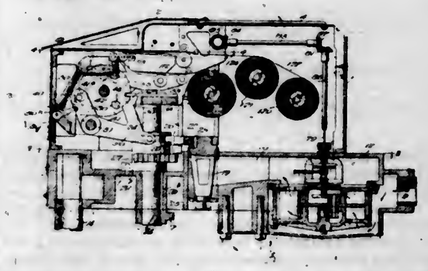
3. In a liquid dispensing device, the combination of a supply pipe, a casing, a door therefor, a normally closed control valve for said supply pipe, a spring for placing said control valve under tension, means for locking the door, means disposed between the door and the control valve for holding the latter in its normally closed position against the tension of the control valve spring, means for unlocking the door, thereby permitting the opening of the control valve and the forcing open of the door by the control valve spring, a casing having a compartment, a door therefor, means for locking the door, means for placing the door under tension, a key for unlocking the door, and means for preventing the withdrawal of the key until the door is closed.

4. In a liquid dispensing device, the combination of a supply pipe, a casing, a door therefor, a normally closed control valve for said supply pipe, a spring for placing said control valve under tension, means for locking the door, means disposed between the door and the control valve for holding the latter in its normally closed position against the tension of the control valve spring, means for unlocking the door, thereby permitting the opening of the control valve and the forcing open of the door by the control valve spring, a casing having a compartment, a door therefor, means for locking the door, means for placing the door under tension, a key for unlocking the door, means for preventing the withdrawal of the key until the door is closed, a casing, a hinged door therefor, a lock for said door comprising a slidable member carried by the door and arranged to normally engage the interior of the casing, a push rod for moving said slidable member to free the door from the casing, means for retaining said push rod in its shifted position, and means carried by the casing and arranged to be engaged by the door when the latter is closed for releasing said push rod and permitting its return to normal position.

5. In a liquid dispensing device, the combination of a supply pipe, a casing, a door therefor, a normally closed control valve for said supply pipe, a spring placing said control valve under tension, means for locking the door, means disposed between the door and the control valve for holding the latter in its normally closed position against the tension of the control valve spring, means for unlocking the door, thereby permitting the opening of the control valve and the forcing open of the door by the control valve spring, a casing having a compartment, a door therefor, means for locking the door, means for placing the door under tension, a key for unlocking the door, means for preventing the withdrawal of the key until the door is closed, a casing, a hinged door therefor, a lock for said door comprising a slidable member carried by the door and arranged to normally engage the interior of the casing, a push rod for moving said slidable member to free the door from the casing, means for retaining said push rod in its shifted position, means carried by the casing and arranged to be engaged by the door when the latter is closed for releasing said push rod and permitting its return to normal position, said last named means comprising a spring-pressed pin extending through the casing, one end of said pin being arranged to be engaged by the door, and the other end of said pin being in operative relation with said push rod.

[Claims 6 to 12 not printed in the Gazette.]

1,204,242. LIQUID-DISPENSING APPARATUS. RICHARD C. BRADLEY, Shreveport, La., assignor of one-fourth to Lee Kinnebrew and one-fourth to J. Maley Eastham, Shreveport, La., and one-fourth to C. Frank Ireland, Houston, Tex. Filed Oct. 20, 1915. Serial No. 56,958. (Cl. 221—95.)



1. In a liquid dispensing device, a casing, a plurality of liquid meters carried thereby, a supply pipe for each meter, a common discharge pipe, a conduit connecting each of said meters with said common discharge pipe, a valve or cock for controlling each of said conduits, an individual gear connected with each of said valves, and means for selectively engaging any one of said gears and for rotating the gear thereby operating the valve associated with the gear.

2. In a liquid dispensing device, a casing, a plurality of meters carried by the casing, a supply pipe for each meter, a common discharge pipe, an individual conduit connecting each of said meters with said common discharge pipe, an individual valve in each of said conduits, a segmental gear associated with each valve, a rotatable sleeve provided with a plurality of sets of teeth, each set being arranged to engage one of the gears associated with said valves for operating the latter, and means for shifting the said sleeve to effect a selective operation of said gears.

3. In a liquid dispensing device, a casing, a plurality of meters carried thereby, a supply pipe for each meter, a common discharge pipe, an individual conduit for connecting each meter with said common discharge pipe, a rotary valve disposed in each of said conduits, a segmental gear associated with each of said rotary valves, a slidable sleeve, a plurality of sets of segmental gears carried by said sleeve, said segmental gears being disposed in parallel planes, and one set of said segmental gears being arranged to engage with a set of gears connected with said valves.

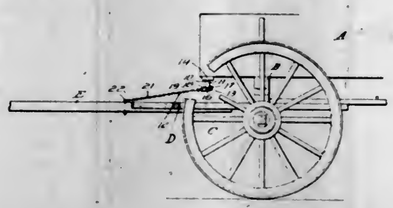
4. In a liquid dispensing device, a casing, a plurality of meters carried by said casing, a supply pipe for each

meter, a common discharge pipe, an individual conduit connecting each meter with said common discharge pipe, a rotary valve disposed in each conduit, a segmental gear connected with each of said rotary valves, each of said segmental gears being in the same common plane, a slidable sleeve, a plurality of segmental gears carried by said slidable sleeve, said sleeve gears being in different parallel planes, and means for moving said sleeve to bring one of said sleeve gears into mesh with one of said valve gears.

5. In a liquid dispensing device, a casing, a plurality of meters carried by said casing, a supply pipe for each meter, a common discharge pipe, an individual conduit for connecting each meter with said common discharge pipe, a rotary valve in each of said conduits, an individual gear for operating each of said valves, said gears being in a common plane, a sleeve having a movement at right angles to said common plane and being provided with a circumferential groove, said sleeve having a plurality of gears, each of said gears being arranged to mesh with one of said individual valve gears, and means for moving said sleeve to selectively operate any of said valve gears.

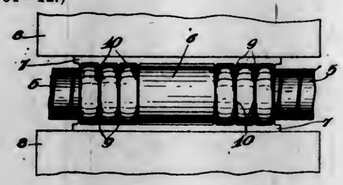
[Claims 6 to 22 not printed in the Gazette.]

1,204,243. TONGUE-SUPPORT FOR VEHICLES. EDWARD BREITENSTEIN, Newton, Kans. Filed Nov. 29, 1915. Serial No. 64,089. (Cl. 21—63.)



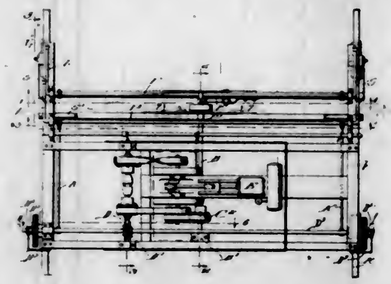
A tongue support comprising a pair of brackets adapted to be fastened in spaced relation to the bottom of a wagon box at the front thereof, each including a base plate and a depending tubular portion, bolts passed through the tubular portion and base plate, nuts threaded on the bolts and working against the base plate, hooks formed on the bolts and arranged adjacent the free end of the tubular portion, a track rod engaged in the hooks and having curved terminals coöperating with said hooks to prevent displacement of the rod therein, a pulley sheave having a pulley movable over the track rod, a hook swiveled in the sheave, a chain adapted to have one end connected with a tongue, and a coiled retractile spring having one end connected to the chain and its opposite end connected to the last named hook.

1,204,244. REPAIR FOR TUBING. WILLIAM X. BRUNS, Chicago, Ill. Filed Feb. 17, 1916. Serial No. 78,889. (Cl. 64—12.)



A repair for spirally formed tubing comprising a sleeve of stiff material mounted on the tubing, the sleeve having a series of peripheral indentations forming ribs on its inner wall, the plane of each indentation being perpendicular to the axis of the tubing, and the ribs seating in the spaces between the spiral coils of the tubing at the intersection of said ribs with said spaces.

1,204,245. CONCRETE-TAMPER. EDWARD GEORGE CARR, Oceanside, Cal. Filed June 22, 1915. Serial No. 35,576. (Cl. 94—4.)



1. The herein described method of tamping concrete beds consisting in suspending a pair of spaced apart independent templets or blades slightly above said bed, and imparting the horizontal vibrations of an unbalanced revolving shaft to one of said templets and the vertical vibrations of the said shaft to the other of said templets.

2. The herein described method of tamping concrete roads or beds consisting in suspending a pair of independent tamping blades slightly above the bed and simultaneously imparting a horizontal vibratory motion to one blade and a vertical vibratory motion to the other blade.

3. The herein described method of tamping concrete beds consisting in suspending across said bed a pair of independent tamping blades, mounted to travel forwardly and backwardly along the bed, and imparting a horizontal vibratory motion only, to one of said blades and a vertical vibratory motion only, to the other of said blades, said vibratory motions being imparted only during the forward travel of said blades.

4. The herein described method of tamping concrete beds consisting in yieldingly suspending a pair of spaced apart tamping blades slightly above said concrete bed and simultaneously translating the horizontal vibrations of a rapidly revolving weighted shaft to one of said blades and the vertical vibrations of said shaft to the other blade.

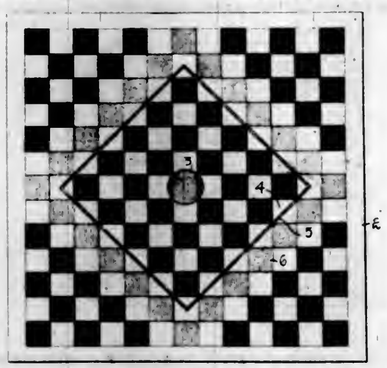
5. The herein described method of tamping concrete beds consisting in translating the vibrations of an unbalanced revolving shaft to a pair of spaced apart tamping templets suspended in parallel planes, the vibrations imparted to one templet being directed in a horizontal direction and the vibrations imparted to the other templet being directed in a vertical direction, the vibrations being imparted only during a forward travel of said templets along the concrete bed.

[Claims 6 to 14 not printed in the Gazette.]

1,204,246. GAME-BOARD. WALTER C. CARTER, Pittsburgh, Pa. Filed Apr. 15, 1916. Serial No. 91,400. (Cl. 46—64.)

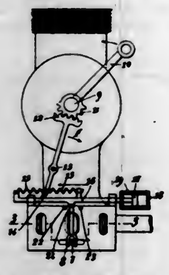
1. A game board having a square field laid off in alternate different colored checks and having a centrally disposed king's check of one color surrounded by a king's space having checks of a different color from the central check, said king's space being square and defined by a line of contrasting color to the checks, the sides of the king's space extending diagonally with relation to the sides of the field.

2. A game board having a square field laid off in alternate different colored checks and having a centrally disposed king's check of one color surrounded by a king's space having checks of a different color from the central check, said king's space being square and defined by a line of contrasting color to the checks inclosed therein, the sides of the king's space extending diagonally to the sides of the field, the alternate sections exterior to the line and touching the line at the corners being of the same color



as the line and as the king's check but differing in color from the other checks.

1,204,247. CARBURETER. CHARLES HENRI CLAUDEL, Levallois-Perret, France. Filed Nov. 10, 1913. Serial No. 800,191. (Cl. 261—44.)



1. In a carbureter, the combination of a casing, a tubular mixture valve, a hydrocarbon nozzle arranged to discharge into the chamber within said valve, an air valve controlling the admission of air to the chamber within the mixture valve, means connecting the valves whereby movement of the mixture valve will be communicated to the air valve, and means for retarding movement of the air valve without impeding movement of the mixture valve, for the purpose described.

2. In a carbureter, the combination of a casing having a plurality of air inlets in its side wall, a conduit for heated air communicating with one of said air inlets, a fuel jet extending into the casing, a main valve for controlling the output of combustible mixture, rotatable about an axis extending transversely of the casing, a valve within the casing and rotatable about an axis extending longitudinally thereof to control the admission of air, and connections for effecting simultaneous actuation of said valves and permitting the air inlet valve to move in one direction at a lower speed than the main valve.

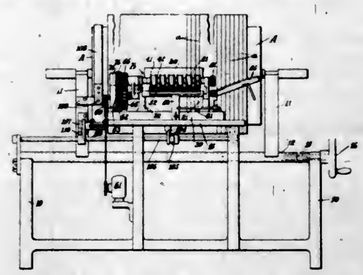
3. In a carbureter, the combination of a casing having suitable air and fuel inlets and a mixture outlet, a valve controlling the passage of combustible mixture from the casing, means providing a by-pass for combustible mixture about the mixture valve, and a nozzle extending into the casing from the outlet of said by-pass and provided with a plurality of discharge openings.

4. In a carbureter, the combination of a casing, provided with suitable air and fuel inlets, a valve controlling the passage of combustible mixture to the outlet passage of the casing, the casing having formed therein a conduit constituting a by-pass for combustible mixture about the valve, and a nozzle extending from said by-pass into the outlet passage of the casing to deliver the mixture at points relatively distant from the walls of said passage.

5. In a carbureter, the combination of a casing having suitable air inlet and mixture outlet openings, a rotary tubular valve controlling the passage of combustible mixture to the mixture outlet, a fuel nozzle extending into the carbureting chamber or passage in said valve, and a mixture nozzle extending into the casing beyond said valve and communicating with the carbureting chamber or passage in said valve when the latter is in its closed position.

[Claims 6 to 12 not printed in the Gazette.]

1,204,248. METHOD OF AND APPARATUS FOR PRODUCING ROLLS OF ADHESIVE MATERIAL. WILLIAM F. CODRINGTON, New York, N. Y. Filed Apr. 24, 1914. Serial No. 834,050. (Cl. 242—55.)



1. The method of producing rolls of adhesive tape, which consists in producing a relatively wide web of the adhesive material wound on a supply drum, cutting the web wound on the supply drum circumferentially into a plurality of tapes of equal width, unwinding a plurality of alternate tapes from the supply drum simultaneously and winding the same on a winding spindle, and thereafter unwinding other alternate tapes from the supply drum and winding the same on the winding spindle.

2. The method of producing rolls of adhesive tape, which consists in drawing the tape from a supply roll and applying it as it is withdrawn from the supply roll to a rotating cylinder to the surface of which the adhesive side of the tape adheres, and leading the tape from said cylinder to a winding spindle by the rotation of which the tape is stripped from the cylinder and wound on the spindle, whereby the tape is wound on the spindle under a tension which is independent of the tension under which the tape is drawn from the supply roll.

3. The method of producing rolls of adhesive tape, which consists in drawing the tape from a supply roll by means of a feeding cylinder to the surface of which the adhesive side of the tape adheres, and leading the tape from the feeding cylinder to a winding spindle by the rotation of which the tape is stripped from the cylinder and wound on the spindle, whereby the tape is wound on the spindle under a tension which is independent of the tension under which the tape is drawn from the supply roll.

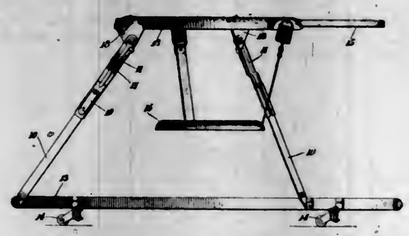
4. The method of producing rolls of adhesive tape, which consists in simultaneously drawing a plurality of tapes from a supply roll and applying them as they are withdrawn from the supply roll to a rotating cylinder to the surface of which the adhesive side of the tapes adheres, and leading the tapes from said cylinder to a winding spindle by the rotation of which the tapes are stripped from the cylinder and wound on the spindle, whereby each tape is wound on the spindle under a tension which is independent of the tension under which the tapes are drawn from the supply roll and independent of the tension under which the other tape or tapes are wound on the spindle.

5. The method of producing rolls of adhesive tape, which consists in simultaneously drawing a plurality of tapes from a supply roll by means of a feed cylinder to

which the adhesive side of the tape adheres, and leading the tapes from said cylinder to a winding spindle by the rotation of which the tapes are stripped from the cylinder and wound on the spindle, whereby each tape is wound on the spindle under a tension which is independent of the tension under which the tapes are drawn from the supply roll and independent of the tension under which the other tape or tapes are wound on the spindle.

[Claims 6 to 34 not printed in the Gazette.]

1,204,249. COLLAPSIBLE BABY-WALKER. EDWARD T. CONDON, Jr., Morristown, N. J. Filed Jan. 31, 1914. Serial No. 815,579. (Cl. 155—45.)



1. A baby walker, comprising: a rim, and an arm rest; a plurality of struts each pivotally attached only to the rim and arm rest and divided between their points of attachment into two parts slidable relative to each other to collapse the walker and lower the arm rest to the rim; stops to limit the inward motion of the struts; and means to lock the slidable parts of a strut to each other.

2. A baby walker, comprising: a rim, and an arm rest; plates fixed to the arm rest and having an edge turned over to provide a stop; a plurality of struts each pivotally attached only to the rim and to the said respective plates fixed to the arm rest and the stops of which plates are adapted to limit the inward movement of said struts, the struts themselves being divided between their points of attachment into two parts slidable relatively to each other to collapse the walker and lower the arm rest to the rim; and means to lock the slidable parts of a strut to each other.

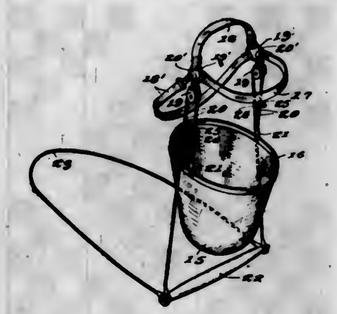
3. A baby walker, comprising: a rim, and an arm rest; plates fixed to the arm rest; a plurality of struts each pivotally attached only to the rim and to the said respective plates fixed to the arm rest, the struts being divided between their points of attachment into two parts slidable relatively to each other to collapse the walker and lower the arm rest to the rim; and a flat spring member for each strut and secured to one of the parts thereof and carrying a pin adapted to pass through a suitable opening therein and into an opening of the other part which is adapted to register therewith to lock the two parts of a strut member together.

4. A baby walker, comprising: a rim, and an arm rest; a plurality of struts each pivotally attached only to the rim and arm rest and divided between their points of attachment into two parts slidable relative to each other to collapse the walker and lower the arm rest to the rim; and means to lock the slidable parts of a strut to each other.

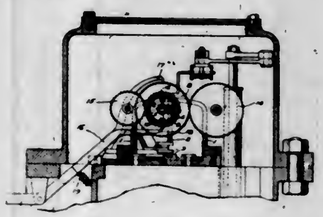
1,204,250. NOSE-BAG FOR HORSES. WILLIAM H. COOPER, East St. Louis, Ill. Filed Nov. 19, 1915. Serial No. 62,364. (Cl. 119—66.)

1. The combination with a head stall having guide members at opposite sides thereof, of a nose bag having a spreading hoop at its upper edge, supporting elements guided over the guide members and equipped with snaps connected with the hoop at diametrically opposite sides thereof, and an elongated weight with which the other ends of the supporting elements are connected.

2. The combination with a head stall having guide members at opposite sides thereof, of a nose bag having a spreading hoop at its upper edge, supporting elements guided over the guide members and equipped with snaps connected with the hoop at diametrically opposite sides thereof, and an elongated weight with which the other ends of the supporting elements are connected; and a neck encircling strap having its ends connected with the ends of the elongated weight.



1,204,251. GEARING. HORACE CHRISMAN, Edgewood, Pa., assignor to Pittsburgh Meter Company, a Corporation of Pennsylvania. Original application filed Dec. 7, 1910, Serial No. 596,018. Divided and this application filed Feb. 4, 1913. Serial No. 746,109. (Cl. 74—34.)



1. A differential mechanism, comprising a shaft, two actuating gears loosely mounted on said shaft, an arm carried by the shaft, a pinion meshing with each of said gears and journaled on said arm, and actuated means for engaging one gear and holding it against rotation and for simultaneously releasing the other.

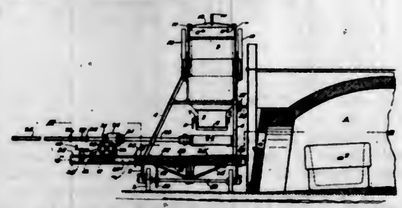
2. A differential mechanism, comprising a driven shaft, actuating wheels loosely mounted on the shaft, a differential pinion carried by the shaft and engaging both of said wheels, and a lever provided with two pawls each for engaging one of said wheels for holding it against rotation, said pawls being so arranged on said lever that one wheel is released simultaneously with the engagement of the other.

3. A differential registering mechanism, comprising a shaft, a sleeve on said shaft, pinions carried by the sleeve at approximately right angles to the shaft, gear wheels loose on the shaft and meshing with the pinions, and a lever carrying pawl teeth for alternately engaging said gear wheels.

4. In combination with a driven shaft, two gears loosely mounted on the shaft, each forming a part of a separate driving mechanism, a sleeve rigidly mounted on said shaft and having radially extending arms formed thereon, a differential gear journaled on each of said arms and meshing with teeth formed on each of said loosely mounted gears, and holding means movable to hold one of said loosely mounted gears stationary and for simultaneously releasing the other.

5. A differential mechanism, comprising a driven shaft, two gears loosely mounted on said shaft, a differential pinion carried by said shaft and meshing with both said gears, and means for alternately engaging the gears and for thereby holding one against rotation and releasing the other.

1,204,252. POT-FILLING APPARATUS. JAMES W. CRUIKSHANK, Pittsburgh, Pa. Filed May 25, 1914. Serial No. 840,671. (Cl. 214—23.)



1. Pot filling mechanism consisting of a movable truck adapted to be moved along in front of a furnace and provided with a transverse trackway having a level and an inclined portion, a carriage mounted on said trackway provided with a vertically arranged swivel bearing, a horizontal bearing having a vertical stud swiveled in said bearing and adapted to be deflected therein, and a rotatably and longitudinally movable spindle mounted in said horizontal bearing provided with a charging ladle.

2. Pot filling mechanism consisting of a movable truck adapted to be moved along in front of a furnace and provided with a transverse trackway having its inner portion inclined upwardly toward the furnace, a carriage mounted on said trackway provided with a swivelly mounted bearing, and a spindle rotatably and longitudinally mounted in said bearing provided with a charging ladle at one end and a laterally swinging pivoted handle at its other end.

3. Pot filling mechanism consisting of a movable truck adapted to be moved along in front of a furnace and provided with a transverse trackway, a carriage mounted on said trackway provided with a swivelly mounted bearing, a rotatably and longitudinally movable spindle mounted in said bearing provided at its inner end with a charging ladle, and means for automatically deflecting the swivelly mounted bearing during travel of said carriage consisting of an arm secured to the spindle having a projecting stud and a controlling trackway for said stud.

4. In combination, a traveling truck having a transverse trackway, a supporting carriage thereon having a swivelly mounted bearing, means for automatically deflecting said bearing laterally on its swivel, and a spindle rotatably mounted in said bearing provided at one end with a ladle and at the other end with a handle.

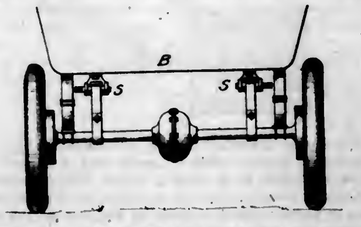
5. In combination, a traveling truck having a transverse trackway, a supporting carriage thereon having a swivelly mounted bearing, means for deflecting said bearing laterally on its swivel, and a spindle rotatably mounted in said bearing provided at one end with a ladle and at the other end with a laterally adjustable pivoted handle.

[Claims 6 to 10 not printed in the Gazette.]

1,204,253. RECOIL SHOCK-ABSORBER. HENRY F. DIRECKS, Algonquin, Ill. Filed Jan. 15, 1916. Serial No. 72,312. (Cl. 267—24.)

1. In a shock absorbing device of the character described, the combination with a tubular casing open at one end and having a closed air cushion chamber at the other end, of a spring pressed plunger device arranged within the casing, said plunger device comprising a hollow head having a valve seat at one end and a loop element at the other, a valve cage member detachably fitted to said plunger head and surrounding the valve seat thereof, a washer member clamped between said valve cage and plunger head, and a valve yieldably held between the valve cage and said valve seat.

2. In a shock absorbing device of the character described, the combination with a tubular casing open at one end and having a closed air cushion chamber at the other end, of a spring pressed plunger device arranged within the casing and including a flexible axle connector passing out of said open end, and a hollow plunger head having an annular abutment flange and a threaded nipple portion providing a valve seat, a valve cage member having an interiorly threaded clamping ring portion for engaging with said threaded nipple, a flexible washer cup having a portion thereof clamped between said annular abutment flange and the ring of the valve cage, and a valve member yieldably held on said valve seat and having a guiding engagement in the valve cage.



1,204,254. RESILIENT BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 9, 1913, Serial No. 759,916. Renewed Apr. 10, 1916. Serial No. 90,282. (Cl. 85—1.)



1. A bolt having an integral plain head at one end, the body of the bolt having at the other end a threaded portion of a diameter not larger than that of the body, the said body having between the threaded portion and the head connecting members with substantially flat faces contacting with each other and twisted through an angle of less than 180 degrees, substantially as described.

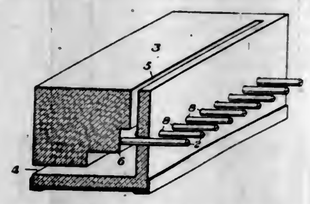
2. A track bolt having an integral plain head with a shouldered portion at one end, the body of the bolt having at the other end a threaded portion of a diameter not larger than that of the body, the said body having between the threaded portion and the head connecting members with substantially flat faces contacting with each other and twisted through an angle of less than 180 degrees, substantially as described.

3. A bolt having an integral plain head at one end, the body of the bolt having at the other end a threaded portion of a diameter not larger than that of the body, the said body having between the threaded portion and the head connecting members, said members being divided transversely through the entire thickness of the body and having substantially flat faces contacting with each other and twisted through an angle of less than 180°; substantially as described.

1,204,255. METHOD OF MANUFACTURING BOLTS. ETHAN I. DODDS, Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 17, 1913. Serial No. 768,308. (Cl. 10—27.)

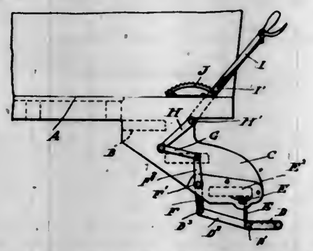
1. The herein described method of manufacturing bolts and the like having integral heads and separate body portions extending from head to head, which consists in assembling a plurality of bar members to form a blank, heating a predetermined portion of the end of the blank and protecting the remainder of the blank from being heated, simultaneously upsetting and welding the heated

end portion to form a head, and then twisting the two separate members upon each other, substantially as described.



2. The herein described method of manufacturing bolts and the like having integral heads and separate body portions extending from head to head, which consists in assembling a plurality of bar members to form a blank, heating a predetermined portion of the end of the blank and protecting the remainder of the blank from being heated, simultaneously upsetting and welding the end portion to form a head, then heating a predetermined portion of the other end of the blank and protecting the body portion from being heated, and then simultaneously upsetting and welding said end portion to form the second head and twisting the body members about each other, substantially as described.

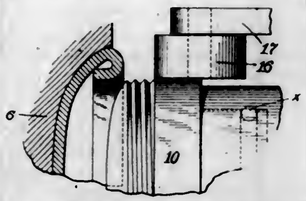
1,204,256. FOLDING CAR-STEP. JOSEPH R. DUGGER, JOSEPH L. DUGGER, and EDWARD E. DUGGER, Norman, Okla. Filed May 10, 1916. Serial No. 96,720. (Cl. 105—86.)



Folding steps comprising, in combination with the fixed steps of a car having side walls, a crank shaft journaled in said walls and having two integral parallel arms projecting therefrom and terminating in apertured ends, a pin mounted in the apertured ends of said arms, angle levers having pivotal connection with the pin outside of said arms, a folding step, a rod carried thereby and to which said levers are pivoted at the angled portions of the levers, a rod carried by one of the fixed steps, a plate having portions of the edge thereof turned to form rolls and which are journaled upon the rod upon the fixed step, said plate having a roll upon its opposite end extending its full width and pivotally mounted upon the rod carried by the folding step, and lever and link connections with said crank shaft for rocking the same.

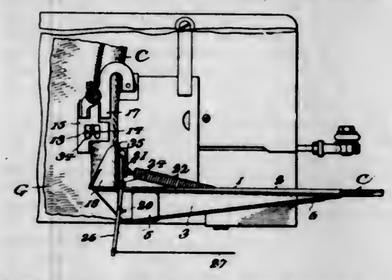
1,204,257. METHOD OF MAKING WATCH BACKS AND BEZELS. GEORGE F. EBERHARD, Trenton, N. J., assignor to Robt. H. Ingersoll & Bro., a Joint-Stock Association organized under the laws of New York. Filed Dec. 30, 1913. Serial No. 809,556. (Cl. 29—179.)

1. The herein described process consisting in turning inwardly the edge portion of a cup-shaped member, holding said member in a cup-shaped die, operating a punch having a screw thread on its lateral face within the cup-shaped member and die and by pressure exerted progressively along the said turned edge and in a direction parallel with the axis of the punch and die and across the holding surface of the die progressively upsetting the metal of the turned edge in a direction transverse to the punching action and into said screw threads on the lateral face of the punch substantially as described.



2. The herein described process of screw threading a member having a rim consisting in holding the member between a female die and a punch having screw threads, and then exerting pressure progressively along the rim of the member so held and in a direction parallel with the axis of the punch and die and thereby upsetting the metal of the rim in a direction transverse to the punch axis and into said screw threads on the lateral face of the punch, substantially as described.

1,204,258. SEWING-MACHINE AND FOLDING ATTACHMENT THEREFOR. GEORGE W. EBBALEY, Whitesboro, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 20, 1912. Serial No. 732,508. (Cl. 112—1.)



1. The combination with a folding device for guiding and inverting a strip, of a guiding device for directing the inverted strip to the stitch forming mechanism and means whereby the angle of said guiding device relative to the longitudinal axis of the folder may be adjusted for varying the position of the strip fed to the stitch forming mechanism.

2. The combination with a folding device for guiding and inverting a strip, of a guiding device for directing the inverted strip to the stitch forming mechanism, and manually controlled means for adjusting the angle of said guiding device relative to the longitudinal axis of the folder for varying the position of the strip fed to the stitch forming mechanism.

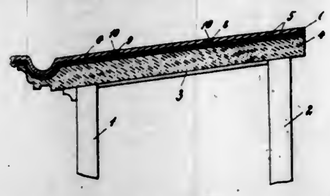
3. The combination with a main folding device for folding and inverting a strip, of a guiding device for directing the inverted strip to the stitch-forming mechanism, said guiding device being pivoted to said main folding device, and means for adjusting the angle of said guiding device relative to the longitudinal axis of the folder.

4. The combination with a folding device for folding and inverting a strip, of a guiding device for directing the inverted strip to the stitch-forming mechanism, said guiding device being normally positioned with its longitudinal axis at right angles to the longitudinal axis of the folder, and means for adjusting said guiding device about its receiving end as an axis, whereby the angle of said guiding device may be adjusted relative to the longitudinal axis of the folder.

5. The combination with a folding device for folding and inverting a strip, of a guiding device for directing the inverted strip to the stitch-forming mechanism, said guiding device having the receiving end thereof cut at an angle of forty-five degrees to the longitudinal axis of the guiding device, said edges of the receiving end being positioned so that the strip is inverted over the same, and means for varying the angle of said guiding device relative to the longitudinal axis of said folder.

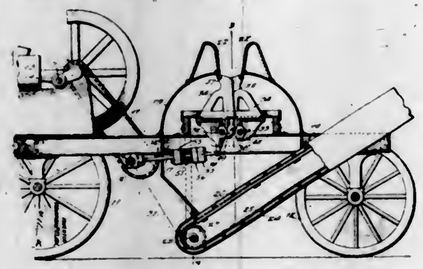
[Claims 6 to 27 not printed in the Gazette.]

1,204,259. PROCESS AND MEANS FOR THE MANUFACTURE OF WATERPROOF AND EXPANSIVE ROOFING AND FLOORING. IGNAZ EGGER and CARL GARTENMANN, Gossau, Switzerland. Filed Oct. 31, 1912. Serial No. 728,830. (Cl. 108—28.)



In a roof construction, a base having a concaved extension, a layer of reinforced plastic material having a concaved extension conforming to the base, said layer having a shoulder adjacent one end thereof, blocks of insulating material positioned over the reinforced plastic material, the blocks of insulating material adjacent one end of the roof engaging the shoulder and having a concaved extension positioned in the concaved extension of the reinforced plastic material and forming a gutter, expansible material positioned between the blocks of insulating material to allow contraction and expansion thereof.

1,204,260. HEMP-BREAKING MACHINE. WARREN PRICE ELKIN, Winchester, Ky. Filed June 21, 1916. Serial No. 104,981. (Cl. 13—6.)



1. In a hemp breaking machine, opposing series of spaced alternating knives, movable toward and away from one another, each knife having a bearing adjacent its upper end, and a connecting member extending through said bearings of each series of knives and rigidly connecting the knives thereof.

2. In a hemp breaking machine, a pair of spaced parallel oscillatory shafts, knife brackets secured in rigid series on each shaft and having apertured lugs extending toward one another in parallel planes, links connecting said lugs, knives detachably secured upon said brackets, and means for oscillating one of said shafts.

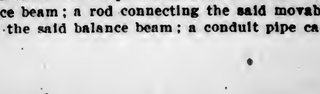
3. In a hemp breaking machine, a pair of spaced parallel oscillatory shafts, knife brackets secured in rigid series on each shaft and having apertured lugs at their upper forward and rear portions, knives having lugs at their lower forward and rear portions bolted to the lugs of the brackets, and means for oscillating the said shafts.

4. In a hemp breaking machine, a pair of spaced parallel oscillatory shafts, knife brackets secured thereon in rigid series, knives detachably connected at their lower ends to the brackets and arranged in spaced relation along each shaft, the knives of the two shafts alternating with one another, and means for connecting the upper portions of the knives of each series in rigid spaced relation.

5. In a hemp breaking machine, a pair of spaced parallel oscillatory shafts, knife brackets secured thereon in rigid series, knives detachably connected at their lower ends to the brackets and arranged in spaced relation along each shaft, the knives of the two shafts alternating with one another, and means for connecting the upper portions of the knives of each series in rigid spaced relation, said means consisting of bolts extending through the upper portions of the knives of each series, and thimbles encircling the bolts and disposed between the knives.

[Claims 6 and 7 not printed in the Gazette.]

1,204,261. CLAY-PURIFIER. OTTOMAR OSKAR ERFURTH, Teuchern, Germany. Filed Oct. 16, 1915. Serial No. 56,253. (Cl. 83—56.)



1. A clay purifier comprising in combination two cylindrical sieves, screw conveyers with equally directed pitch arranged co-axially within the cylindrical sieves, stone receiving boxes at one end, a charge box at the other end of each of the cylindrical sieves and driving gear by means of which the direction of rotation of the screw conveyers may be reversed, substantially as set forth.

2. A clay purifier comprising in combination two cylindrical sieves in co-axial arrangement, a charge box intermediate of and connecting the inner ends of the two cylindrical sieves, a stone receiving box at the outer end of each cylindrical sieve and two screw conveyers with equally directed pitch arranged co-axially within the cylindrical sieves and meeting within the said charging box, substantially as set forth.

3. A clay purifier comprising in combination two cylindrical sieves in co-axial arrangement, a charge box intermediate of and connecting the inner ends of the two cylindrical sieeves, a stone receiving box at the outer end of each cylindrical sieve, two screw conveyers with equally directed pitch arranged co-axially within the cylindrical sieves and meeting within the said charge box, and a common shaft for the two screw conveyers with a driving gear enabling the rotation of the said conveyers to be reversed, all substantially as described and for the purpose specified.

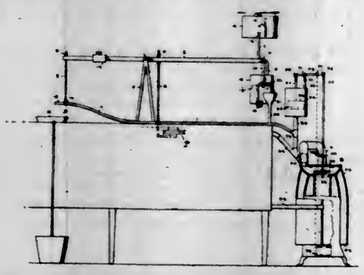
4. In a clay purifier, in combination, a screw conveyer, a sieve associated with each end thereof for alternate use, means for admitting a charge to said conveyer at a point between said sieves, and a reversible drive for operating said conveyer in either direction whereby the charge is selectively delivered to the sieve toward which the conveyer is operated.

5. In a clay purifier, in combination a plurality of sieves for alternate use, conveyer means associated therewith, and means for reversibly operating said conveyer means to feed the material toward and away from said sieves respectively.

1,204,262. TEMPERATURE-CONTROL DEVICE. HENRY H. FEHRENSCHILD, Rivervale, N. J. Filed Feb. 18, 1916. Serial No. 79,064. (Cl. 236—6.)

1. The combination in a temperature control device, of a thermostatic device provided with a movable member; a balance beam; a rod connecting the said movable member and the said balance beam; a conduit pipe carried by

the said balance beam and connected with a supply tank containing water and adapted to supply such water by the movement of the balance beam and conduit to an expansion tank; an expansion tank, provided with a movable member operated by the water supplied by the conduit pipe; and means of temperature variation, adapted to be controlled by the action of said movable member.

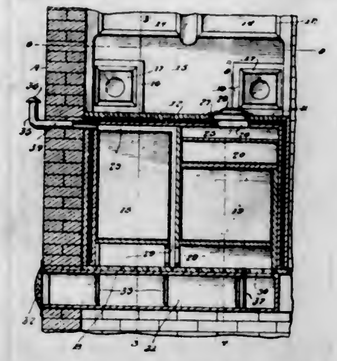


2. The combination in a temperature control device, of a thermostatic device provided with a movable member: a balance beam; a rod connecting the said movable member and the said balance beam; a conduit pipe carried by the said balance beam and connected with a supply tank containing water and adapted to supply such water by the movement of the balance beam and conduit pipe to an expansion tank; an expansion tank provided with a float operated by the water supplied by the conduit pipe; rods adapted to be operated by the action of the float: and a heater provided with draft dampers operated by said rods.

3. The combination, in a temperature control device, of a thermostatic device provided with a movable member actuated by variations in temperature; a balance beam operated by such member and provided at one end with a crossing arm carrying two water conduits the ends of which are equidistant from the end of the balance beam; an air-tight water tank connected with one conduit, the open end of which conduit is disposed in a supply tank from the bottom of which supply tank extends the other conduit carried by the arm of the balance beam; a drip cup adapted to catch the water issuing from the open end of the second conduit and provided with a conduit connected with an expansion tank which is connected with a hot water circulating system and provided with a waste pipe, the end of which is connected with the end of the balance beam opposite to the end provided with the arm; a float in the expansion tank actuated by the expansion and contraction of the water in the system, and connecting means for affecting by the action of such float the heating means used in connection with the hot water circulating system.

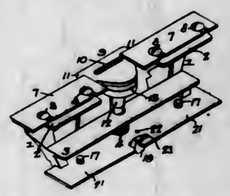
4. The combination, in a temperature control device, of a thermostatic device provided with a movable member actuated by variations in temperature; a balance beam operated by such member and provided at one end with a crossing arm carrying two water conduits, the ends of which conduits are equi-distant from the end of the balance beam; an air-tight water tank connected with one conduit, the open end of which conduit is disposed in a supply tank from the bottom of which supply tank extends the other conduit carried by the arm of the balance beam; a drip cup adapted to catch the water issuing from the open end of the second conduit and provided with a conduit connected with an expansion tank which is connected with a hot water circulating system and provided with a waste pipe, the end of which is connected with the end of the balance beam opposite to the end provided with the arm; a float in the expansion tank actuated by the expansion and contraction of the water in the system; and a heater provided with a damper and a lower draft door having connections with the float in the expansion tank adapted to operate the damper and lower draft door to open and close the draft through the heater, and provided further with a cooling jacket surrounding the circulating water system of the heater and having a draft flue provided with a damper having a connection with the float in the expansion tank adapted to open and close the draft through the cooling jacket.

1,204,263. CABINET. HARRY C. FRATT, Norristown, Pa. Filed Apr. 3, 1914. Serial No. 829,359. (Cl. 45—71.)



In combination with a supporting element having an opening, an ice box comprising a rectangular hollow body having an opening in its top wall and resting upon said element, a rectangular food container mounted within said body and having a top wall spaced from said body and a bottom wall spaced from said element, an ice receptacle mounted in said body and having one wall spaced from said food container and a bottom wall spaced from said element, a water tank supported in said body in position upon said ice receptacle and spaced from said food container, a storage receptacle mounted on said water tank and spaced from said food container, said storage receptacle being mounted directly below the opening in the top wall of said body, a pipe establishing communication between the atmosphere and the space between the top wall of said container and the interior surface of said body, an air conduit establishing communication between the space under said bottom wall of said ice receptacle and the atmosphere through said opening in the element and a damper for closing the passage in said conduit.

1,204,264. CROSSCUT-SAW TOOL. SAMUEL T. FREAS, Trenton, N. J., assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 20, 1914. Serial No. 846,348. (Cl. 33—202.)

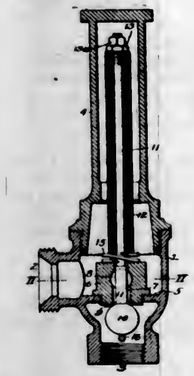


1. The combination in a cross cut saw tool, of a frame; two gage plates spaced apart and mounted on the frame; a raker gage having a slot therein for the raker teeth and having a round spindle mounted in the frame; nuts on the spindle for longitudinally adjusting and locking the raker gage in position, said raker gage having projections at each end extending under the gage plates and

bearing against the rear of the frame so as to hold the gage in proper alinement and to prevent it from turning.

2. The combination in a cross cut saw tool, of a frame having a flange and having a bearing in the flange; a plate resting above the flange and slotted; a gage pin mounted in the bearing and arranged to be clamped by the plate, said gage pin having an eccentric head which projects through the slot in the plate so that, on turning the pin the head can project to a greater or less extent in order to act as a height gage for the raker teeth.

1,204,265. VALVE. HARRY G. FREEMAN, Atlantic City, N. J., assignor of one-half to William H. Bartlett, Atlantic City, N. J. Filed Jan. 27, 1916. Serial No. 74,666. (Cl. 236—9.)



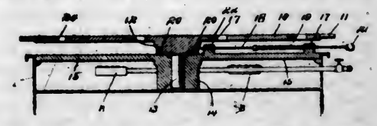
1. A thermostatic valve comprising a body having a closed heating chamber and a wall or diaphragm with a valve seat, a valve adapted to engage said seat from below, a stem carried by said valve and extending through said seat and to a point above the same, an expansion member on the stem above said seat, said member being contained within said heating chamber, means providing a loose connection between said stem and member whereby the latter is free to expand and contract under changes in temperature and seat the valve when moving in one direction and to permit the valve to unseat when moving in the opposite direction, and means contained within said heating chamber between the valve seat and the lower end of the expansion member adapted to compensate for any excess movement of said expansion member.

2. A thermostatic valve comprising a body having a closed heating chamber and a wall or diaphragm provided with a valve seat on its under side, a stem extending through said seat beyond the opposite side thereof and having a valve to engage the seat from below, an expansion member surrounding said stem and contained within said heating chamber so as to be subject to changes of temperature therein, and a spring member between the lower end of the expansion member and the valve seat and contained within said heating chamber, said spring adapted to compensate for any excess movement of the expansion member.

3. A thermostatic valve comprising a body, and a closed body extension thereof said body having a wall or diaphragm with a plug mounted thereon having a valve seat on its underside, said plug being apertured in two directions, a stem within the bonnet of said body and extending through one of the apertures of the plug and having a valve adapted to engage the seat of said plug from below, an expansion member surrounding the valve stem above said plug and contained within the closed bonnet of said body, and means providing a loose connection between said stem and expansion member whereby the latter is free to expand and contract under changes in temperature and to seat the valve when moving in one direction and to permit the valve to unseat when moving in the opposite direction.

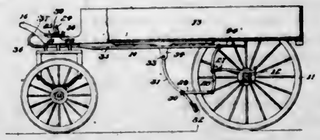
4. A thermostatic valve comprising a body, and a closed bonnet extension thereof said body having a wall or diaphragm with a plug mounted thereon having a valve seat on its underside, said plug being apertured in two directions, a stem within the bonnet of said body and extending through one of the apertures of the plug and having a valve adapted to engage the seat of said plug from below, an expansion member surrounding the valve stem above said plug and contained within the closed bonnet of said body, means providing a loose connection between said stem and expansion member whereby the latter is free to expand and contract under changes in temperature and to seat the valve when moving in one direction and to permit the valve to unseat when moving in the opposite direction, and a coiled spring interposed between the end of the expansion member and the adjacent surface of the plug adapted to compensate for any excess movement of the expansion member.

1,204,266. GAS-RANGE TOP. LEROY GARRISON, Chester, Pa. Filed Feb. 25, 1916. Serial No. 80,513. (Cl. 126—214.)



A gas range top comprising a spider adapted to be detachably mounted upon the range and having a centrally apertured boss, a disk like section forming an adjustable top and having a stud rotatably fitted within the boss, extensions at the periphery of the section and diametrically opposite each other to provide handles, guide lugs formed on the spider, a socketed enlargement formed centrally on the under face of the disk, and a spring held latch rod slidable in the bearing and engageable in any one of the sockets in the enlargement, to hold the section locked against movement.

1,204,267. VEHICLE-BRAKE. PIOTR GIBA, Chicago, Ill. Filed Aug. 9, 1916. Serial No. 113,945. (Cl. 21—8.)



1. A wagon brake construction comprising oppositely-positioned resiliently connected toothed jaws, brake setting means shiftably arranged between the said jaws longitudinally thereof in contact therewith, and retracting means for both of said jaws operable at points adjacent the opposite ends of the casing.

2. A brake device comprising in combination with a wagon, a casing arranged within the floor thereof adjacent the driver's seat, brake setting means slidably arranged transversely of the said casing having an operating lever centrally arranged thereabove, oppositely positioned jaws pivoted within said casing having toothed inner faces engaging the said setting means, resilient connections between the said jaws, oppositely-extending retracting arms for the said jaws having their inner ends pivoted to the latter, and lever members positioned adjacent the opposite ends of the casing operatively attached to the said arms whereby the said jaws are simultaneously retracted during the forward swinging movement of either of the said levers.

3. A brake device comprising in combination with a wagon, a casing arranged within the floor thereof adjacent the driver's seat, brake setting means slidably arranged transversely of the said casing having an operating lever centrally arranged thereabove, oppositely positioned jaws pivoted within said casing having toothed inner faces engaging the said setting means, resilient connections between the said jaws, oppositely-extending retracting arms for the said jaws having their inner ends pivoted to the latter, outwardly-positioned gears within the said casing, arms carried by the said gears pivotally attached to the outer ends of the said jaw arms, inwardly-positioned gears arranged between the said outer gears and jaws in constant mesh with the said outer gears, a crank arm carried by one of the said inner gears, pivotal connections between the said crank arm of the inner gear and the crank arm of the outwardly-positioned gear at the opposite end of the casing, and means for revolving one of the said gears whereby the said jaws are separated simultaneously.

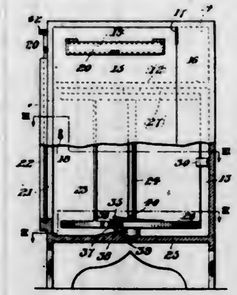
4. A brake device comprising in combination with a wagon, a casing arranged within the floor thereof adjacent the driver's seat, brake setting means slidably arranged transversely of the said casing having an operating lever centrally arranged thereabove, oppositely positioned jaws pivoted within said casing having toothed inner faces engaging the said setting means, resilient connections between the said jaws, oppositely-extending retracting arms for the said jaws having their inner ends pivoted to the latter, outwardly-positioned gears within the said casing, arms carried by the said gears pivotally attached to the outer ends of the said jaw arms, inwardly-positioned gears arranged between the said outer gears and jaws in constant mesh with the said outer gears, a crank arm carried by one of the said inner gears, pivotal connections between the said crank arm of the inner gear and the crank arm of the outwardly-positioned gear at the opposite end of the casing, actuating levers operatively attached to the axles of the said inner gears and arranged above the said casing, foot plates upon the said actuating levers adjacent the opposite sides of the driver's seat, and guide levers for the said foot levers.

5. A device of the class described comprising in combination with a wagon, a brake operating rod longitudinally shiftably arranged beneath the wagon having its forward end slidably positioned through the forward dashboard thereof, a mechanism casing adjacent the driver's seat, a foot lever slidably carried by the said casing attached to the said rod, wheel engaging brake blocks suspended adjacent the rear wheels of the wagon, link fulcrum connections between the said blocks and the rear axle of the wagon pivotally attached to the rear end of the said rod, and a releasing spring for the brakes attached to the rear end of the said rod.

1,204,268. COMBINED MAIL-BOX AND MILK-BOTTLE HOLDER. JOZEPH GONSIOR, WILLIAM FRANK, and CHRISTIAN SCHNEIDER, Medina, N. D. Filed May 27, 1916. Serial No. 100,302. (Cl. 232—41.)

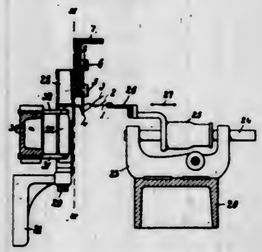
1. A receiving device comprising a casing having an entrance and an exit door, a supporting drum within the said casing comprising a vertical shaft centrally journaled therein, upper and lower disks carried by the said shaft, radially arranged partition plates between the said disks and attached to the said shaft, a lug having an inclined face provided with a recess carried by the bottom of the casing beneath the lower disk of the drum, a normally elevated latch carried by said lower disk, a bolt upon the said latch having a path of movement in the plane of said lug and recess during the operation of the drum, and a releasable detent for the said latch and bolt carried by the said lower disk.

2. A receiving device comprising a casing having an entrance and an exit door, a supporting drum within the said casing comprising a vertical shaft centrally journaled therein, upper and lower disks carried by the said shaft, radially arranged partition plates between the said disks and attached to the said shaft, a lug having an inclined face provided with a recess carried by the bottom of the casing beneath the lower disk of the drum, a normally elevated latch carried by said lower disk, a bolt upon the said latch having a path of movement in the plane of said lug and recess during the operation of the drum, a releasable detent for the said latch and bolt carried by the



said lower disk, the said lower disk having a peripheral notch, a spring stop in resilient engagement with the periphery of the said lower disk and secured to the side of the casing and an inwardly extending stop carried by the rear of the casing within the path of movement of the edge portions of the said plates.

1,204,269. EMBROIDERING-MACHINE. JOSEF GRANZ, Plauen, Germany. Filed Nov. 4, 1914. Serial No. 870,228. (Cl. 112—7.)

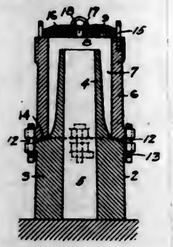


1. In an embroidering machine, needles, a carrier for said needles, means for reciprocating the carrier, levers, each lever having an ornamental-thread guide at one end thereof adapted to describe a substantially circular movement of over three hundred and sixty degrees around a needle and means movable in semi-circular path on which said levers are pivotally mounted.

2. In an embroidering machine for working in an ornamental cord, a carrier provided with needles, a thread guide having an eye adapted to describe a circular movement of over 360 degrees around one only of said needles, a lever, said thread guide being located at the end of said lever, the center of oscillation of which can be moved along a semi-circular path so that the thread guide can travel around the needle and a rail, on which the lever is mounted and adapted to be moved along said semi-circular path.

3. In an embroidering machine for working in an ornamental cord, thread guides each having an eye, said thread guides being mounted to describe a circular movement of over 360° each around a single needle only, a lever for each guide, the eye of each of said thread guides being located at the end of its lever, a rail movable in a semi-circular path and on which said levers are pivotally mounted, and a second rail to which the outer ends of said levers are connected.

1,204,270. INGOT-MOLD. CHARLES W. GREENE, Pittsburgh, Pa.; Helen Greene administratrix of said Charles W. Greene, deceased. Filed Jan. 5, 1914. Serial No. 810,367. (Cl. 22—144.)



1. An ingot mold having a main body portion and having a casing around the upper part thereof, and extending above the mold proper and providing a dead-air chamber around the same, an inclosing cap or cover supported on said outer casing and having a sealed joint therewith.

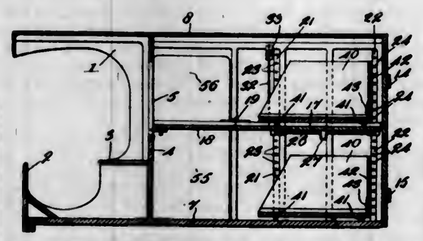
2. An ingot mold having a main body portion to retain the ingot, a casing around the same providing a dead air chamber and a cap or cover seated and sealed on top of the casing and having a relief opening therein.

3. An ingot mold having a main body portion, a separate casing extending around and above the upper part of the body portion and forming a dead-air space around and above the same, a cap or cover fitting on the casing, the joints between the casing and the mold body and cap being sealed.

4. An ingot mold having a main body portion to retain the ingot and having a separate casing fitting around the upper part of the main body portion forming a dead air space around the top of the mold and having carrying lugs, and connecting means between said casing and body portion providing for the carrying of the mold by means of the casing.

5. An ingot mold having a main body portion to retain the ingot and having a separate casing fitting around the upper part of the main body portion forming a dead air space around the top of the mold and having carrying lugs, said casing and body portion each having lugs and bolts passing through the same and keyed to connect them so providing for carrying of the mold by means of the casing.

1,204,271. DELIVERY VEHICLE-BODY. ROBERT E. GREENE, Memphis, Tenn. Filed Apr. 24, 1916. Serial No. 93,269. (Cl. 21—7.)

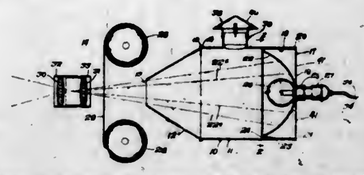


1. In a delivery body for wheeled vehicles, the combination of a driver's seat; a horizontally disposed readily adjustable false bottom located in rear of said seat; said bottom having a hinged section near said seat; means for securing said bottom in various adjusted positions; and a receptacle of a less length than said bottom adapted to be readily moved backward and forward thereon, and a receptacle of less length than the unhinged portion of said bottom located beneath the same and adapted to be moved backward and forward in the vehicle body, substantially as described.

2. In a delivery body for wheeled vehicles the combination of a driver's seat; a door in the side of said vehicle; a horizontally disposed readily adjustable false bottom located in rear of said seat and adapted to be loaded from said door; said bottom having a hinged section near said seat; means for securing said bottom in various adjusted positions; and a receptacle of a less length than said bottom adapted to be readily moved backward and forward thereon, substantially as described.

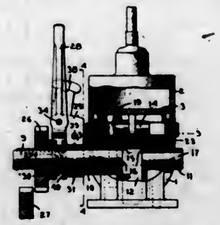
3. In a delivery body for wheeled vehicles, provided with a side and a rear door, the combination of a driver's seat; a horizontally disposed readily adjustable falst bottom located in rear of said seat and adapted to be loaded from said doors; said bottom having a hinged section near said seat; means for securing said bottom in various adjusted positions; and a receptacle of a less length than said bottom adapted to be readily moved backward and forward thereon, substantially as described.

1,204,272. LIGHT-PROJECTING APPARATUS. FRANK A. HARDYMAN, Quincy, Ill., assignor to Automatic Gas Power Company, Quincy, Ill., a Corporation of South Dakota. Filed Sept. 7, 1915. Serial No. 49,380. (Cl. 240—41.)



A light projecting apparatus adapted for use with a cinematograph or other picture projecting device, comprising a lamp house having a tubular body portion, a conical hood secured to one end of said body portion and having at its outer end an uncovered, light-emitting opening, a concave reflector completely closing the outer end of said body portion, and an incandescent electric lamp located in said lamp house and attached to said reflector.

1,204,273. AIR-PUMP. ROLAND C. HILTON, Boston, Mass., assignor to West Side Foundry Company, Colonie, N. Y., a Corporation of New York. Filed Jan. 27, 1916. Serial No. 74,703. (Cl. 230—27.)

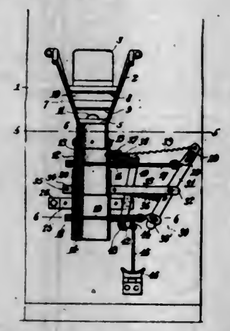


1. In a pump, the combination with a pump casing having a shaft bearing provided with a hub, of a driving shaft in said bearing, a piston operated by said shaft, a gear slidably mounted on the shaft, a bracket adjustably mounted on said hub and presenting a portion which surrounds the hub and also presenting two arms, a gear-shifting lever situated between said arms and pivotally connected thereto, and means for clamping the bracket to the hub in any adjusted position, one of said arms being longer than the other and being resilient, said arm carrying a projection adapted to engage the lever in different positions thereof and yieldingly hold it in adjusted position.

2. In a pump, the combination with a pump casing having a shaft bearing provided with a hub, of a driving shaft in said bearing, a piston operated by said shaft, a

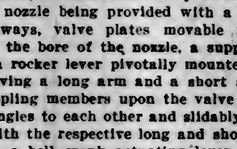
gear slidably mounted on the shaft, a bracket adjustably mounted on the hub, and a gear-shifting lever pivoted to said bracket and by which said gear can be shifted longitudinally of said shaft, said bracket having a resilient extension provided with a locking projection which is adapted to engage the lever and yieldingly hold it in different adjusted positions.

1,204,274. BAG-FILLING MACHINE. JOHN W. HOWARD, Valley Falls, R. I. Filed Aug. 7, 1915. Serial No. 44,181. (Cl. 221—113.)



A bag filling apparatus including a hopper having a discharge outlet, a nozzle detachably connected with the outlet, said nozzle being provided with a pair of superposed guideways, valve plates movable in said guideways across the bore of the nozzle, a support carried by the nozzle, a rocker lever pivotally mounted on said support and having a long arm and a short arm, angularly disposed coupling members upon the valve plate disposed at reverse angles to each other and slidably and pivotally connected with the respective long and short arms of the rocker lever, a bell crank actuating lever having a long arm and a short arm, a flexible connection between the long arm of said lever and the long arm of the rocker lever, said connection being at an intermediate point in guided connection with the nozzle, a contractile spring connecting the nozzle with the short arm of the rocker lever adjacent to the pivot point thereof, and operating means connected with the short arm of the bell-crank actuating lever for moving the parts in opposition to the spring.

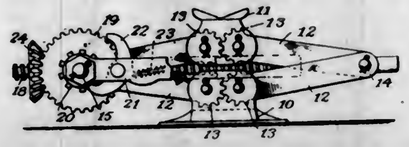
1,204,275. LOCK-NUT. GEORGE HUETTNER, New York, N. Y. Filed June 20, 1914, Serial No. 846,349. Renewed Mar. 30, 1916. Serial No. 87,855. (Cl. 151—6.)



1. The combination with a nut having a chamber formed radially therein, of a ratchet locking device pivoted at its outer end in said chamber, the nut having a lateral wall projecting beyond said chamber, and an operating piece carried by said locking device and normally engaging said projecting lateral wall of the nut, whereby said operating piece must be moved outwardly in a radial line for releasing the locking device.

2. The combination with a nut having a chamber formed radially therein, of a ratchet locking device pivoted at its outer end in said chamber, the nut having a lateral wall projecting beyond said chamber, and an operating piece carried by said locking device and normally engaging said projecting lateral wall of the nut, whereby said operating piece must be moved outwardly in a radial line for releasing the locking device, the end of said operating piece being inclined on the side facing said projecting lateral wall of the nut, for the purpose specified.

1,204,276. JACK. ALVIN L. JOHNSON, Worcester, Mass., assignor, by mesne assignments, to Hi-Lo Jack Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 18, 1915. Serial No. 46,185. (Cl. 254—126.)



1. In a jack, the combination of a supporting base, a pair of links pivotally supported thereon, integral means on said links for causing them to partake of each other's movement and to rise or fall together about their pivots, a second pair of links pivoted to the free ends of the first pair and pivotally connected at their other ends, a rest carried by the second pair of links, means integral with the second pair of links for causing them to move simultaneously in opposite directions, and means for moving the pivotal connections between the two pairs of links toward or from each other to raise or lower the rest.

2. In a jack, the combination of a supporting base, a pair of links pivotally supported thereon, a second pair of links pivoted to the free ends of the first pair and pivotally connected at their other ends, a rest carried by the second pair of links, means integral with the second pair of links for causing them to move simultaneously in opposite directions, and means for moving the pivotal connections between the two pairs of links toward or from each other to raise or lower the rest.

3. In a jack, the combination of a supporting base, two pairs of links pivoted together to form a parallelogram, means integral with certain of said links for causing the two on one side to move with those on the other side of the base, but to move oppositely, a rest at the top connected with the links, and means for directly forcing said links toward or from each other at the center to raise or lower the rest.

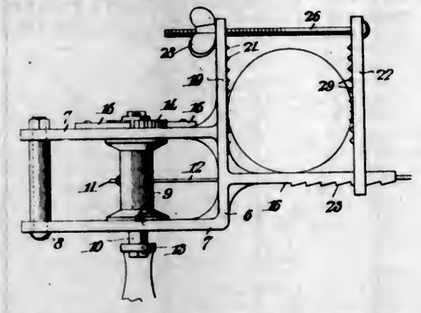
4. In a jack, the combination of a supporting base, two pairs of links pivoted together to form a parallelogram, means integral with certain of said links for causing the two on one side to move with those on the other side of the base, but to move oppositely, a rest at the top connected with the links, a non-rotatable horizontal screw having a uniform thread from end to end, pivotally connected with the point at which the links on one side are pivoted together and slidably connected with the opposite pivotal point, a nut fitting the screw-threads and entirely free from the slidable connection, and means for turning the nut.

5. In a jack, the combination of a base, a pair of links pivoted thereto, a second pair of links each pivotally connected with one of the other links and pivotally connected together, a work rest carried thereby opposite the base, a screw for forcing the connected ends of the two pairs of links toward or from each other, and means independent of said screw and located on the second pair of links for causing the links of the pairs, to move simultaneously and equally.

[Claims 6 to 8 not printed in the Gazette.]

1,204,277. WIRE-STRETCHER. LEON KASPRZYK, Kosciusko, Tex. Filed Mar. 9, 1916. Serial No. 83,106. (Cl. 254—162.)

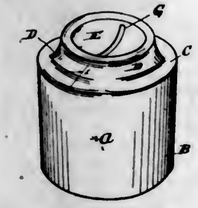
1. In a device of the class described, a frame having a pair of spaced parallel bars, a drum mounted for rotation between said bars, a pair of forwardly projecting parallel arms secured to said frame intermediate said bars, a guide roller mounted on each of said arms remote from said drum with their peripheries in alinement with said drum at diametrically opposite points, means for rotating said drum, and means for securing said frame to a post, substantially as described.



2. In a device of the class described, a frame having a pair of spaced forwardly and laterally projecting arms, ratchet teeth on said forwardly projecting arms, a member connecting the extremities of said laterally projecting arms, grip member, a pair of projections arranged in spaced relation upon said grip member at one end for engagement with the ratchet teeth on said forwardly projecting arms, a screw bolt connected to the opposite end of said grip member and extending at its free end adjacent said member, the said member being provided with a slot open at one end for the reception of said bolt end, and a nut for engagement over said bolt end, substantially as described.

3. In a device of the class described, a frame, a pair of spaced parallel bars projecting rearwardly from said frame, a drum mounted for rotation between said bars and at a point midway between the lateral edges thereof, a pair of spaced arms secured to project forwardly from said frame at a point midway between said bars, a roller secured to the extreme end of each of said arms, the said rollers having their peripheries in the same plane with that of diametrically opposite points on said drum, a ratchet connection between said drum and said frame, means for rotating said drum, and means for securing said frame upon a post, substantially as described.

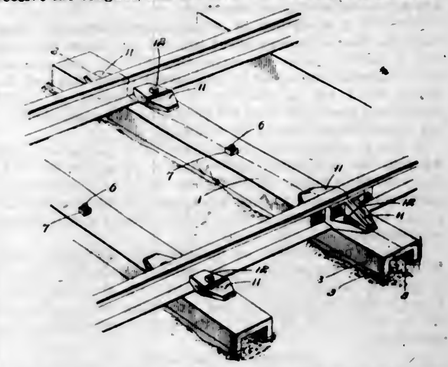
1,204,278. TIP FOR GAS-BURNERS. PETER KELLER, Chicago, Ill. Filed Aug. 5, 1916. Serial No. 113,326. (Cl. 67—112.)



A gas burner tip consisting of a hollow body or shell, provided with a raised ring or neck completely encircling the top of said tip, the top surface of said ring or neck having an elongated slot and being concaved and forming a reservoir or circular chamber.

1,204,279. METAL TIE. PETER KERZE, Ely, Minn. Filed Mar. 14, 1916. Serial No. 84,147. (Cl. 238—5.)

1. A metal tie comprising two similar trough-shaped members adapted to have their edges rest one on the other, each of the members having transverse partitions, the partitions in one of the members having extending tongues and the partitions of the other member having pockets to receive the tongues, and means for connecting the members.



2. In a metal tie, two trough-like members having their edges resting one upon the other, each of the members adjacent its ends having transhverse partitions, the partitions upon one of the members having projecting tongues, the partitions of the other member having pockets to receive the tongues, and a single element passing through sections centrally thereof for connecting the said sections.

3. In a metal tie, two similar sections, each including a straight member having its sides formed with right angular flanges, and the edges of the flanges resting one upon the other, each of the members having integral transverse partitions, the partitions of one of the members being formed with extending tongues, the partitions of the other member being recessed to provide pockets to receive the tongues, a single element passing centrally through the members for connecting the same, the upper member having its top provided with threaded openings and with depressions disposed outward of the openings, whereby bolt members passing through rail engaging elements may connect the elements to the ties and retain lugs provided in the said elements in the depressions in the tie.

1,204,280. MANUFACTURE OF BREAD. HENRY A. KOHMAN, TRUMAN M. GODFREY, and LAUREN ASHE, Pittsburgh, Pa., assignors to Ward Baking Company, New York, N. Y., a Corporation of New York. Filed Oct. 19, 1915. Serial No. 56,710. (Cl. 99—10.)

1. The method of making leavened bread, which comprises bringing a hard fat into homogeneous admixture with the flour, yeast, and other ingredients of the dough batch, and fermenting the batch; substantially as described.

2. The method of making leavened bread, which comprises bringing a hard fat into homogeneous admixture with the flour, yeast, and other ingredients of the dough batch, said homogeneous admixture being induced by first melting the fat and bringing it into a pulverulent condition, and fermenting the batch; substantially as described.

3. The method of making leavened bread, which comprises bringing a hard fat into homogeneous admixture with the flour, yeast, and other ingredients of the dough batch, said homogeneous admixture being effected by melting the fat, and bringing it into a pulverulent condition by absorption in a pulverulent carrier, and fermenting the batch; substantially as described.

1,204,281. LEAVENED BREAD. HENRY A. KOHMAN, TRUMAN M. GODFREY, and LAUREN H. ASHE, Pittsburgh, Pa. Filed Aug. 16, 1916. Serial No. 115,152. (Cl. 99—10.)

1. As a new article of manufacture, leavened bread wherein the shortening agent present comprises fat hav-

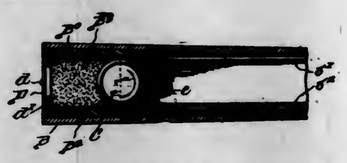
ing a melting point not less than 35° C., the amount of said shortening agent in proportion to the flour of the bread being but a fraction of the amount of liquid shortening agent required for producing the same shortening effect; substantially as described.

2. As a new article of manufacture, leavened bread wherein the shortening agent present comprises fat having a melting point approximating 57° C., the amount of said shortening agent in proportion to the flour of the bread being but a fraction of the amount of liquid shortening agent required for producing the same shortening effect; substantially as described.

3. As a new article of manufacture, leavened bread wherein the shortening agent present comprises fat having a melting point not less than 35° C. the shortening agent being present in proportion not exceedig five pounds of fat to 880 pounds of flour of the bread; substantially as described.

4. As a new article of manufacture, leavened bread wherein the shortening agent present comprises fat of a melting point approximating 57° C., the shortening agent being in proportion not exceeding two pounds of fat to 880 pounds of flour of the bread; substantially as described.

1,204,282. DISK-THROWING GUN. ROBERT H. LAKE, U. S. Navy. Filed Jan. 22, 1916. Serial No. 73,667. (Cl. 89—14.)



1. A gun of the character described provided with a bore elongated in cross section and provided with a plane surface along one side thereof, and with a series of teeth in the opposite side thereof, said plane surface permitting the sliding of the edge of a disk-shaped projectile thereon, and the said teeth imparting to said projectile a rotary motion during its passage through the bore, substantially as and for the purposes described.

2. A gun of the character described provided with a bore elongated in cross section and having flat top and bottom walls, and side walls, the side wall at one side of the bore being plane, and the opposite side wall being provided with teeth whereby one edge of a disk-shaped projectile is free to slide freely along one side of said bore, while there is imparted to it a rapid spinning motion by the teeth at the other side of said bore, substantially as and for the purposes described.

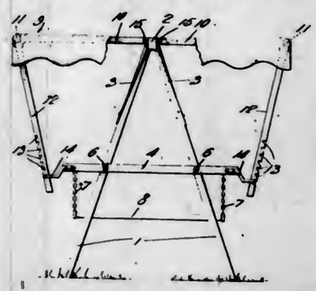
3. A gun of the character described provided with a bore elongated in cross section and having flat top and bottom walls, and inclined side walls, the side wall at one side of the bore being plane, and the opposite side wall being provided with teeth whereby one edge of a disk-shaped projectile is free to slide freely along one side of said bore, while there is imparted to it a rapid spinning motion by the teeth at the other side of said bore, substantially as and for the purposes described.

4. A gun of the character described provided with a bore elongated in cross section and having flat top and bottom walls, and inclined side walls flaring outward from the bottom upward, the side wall at one side of the bore being plane, and the opposite side wall being provided with teeth whereby one edge of a disk-shaped projectile is free to slide freely along one side of said bore, while there is imparted to it a rapid spinning motion by the teeth at the other side of said bore, substantially as and for the purposes described.

5. In a gun of the charatcer described, the combination with a barrel provided with a bore elongated in cross section and provided with a plane surface along one side thereof, and with a series of teeth in the opposite side thereof, of a disk-shaped projectile having edges adapted to slide freely along said plane surface, and to engage and be rotated by said teeth, substantially as and for the purposes described.

[Claims 6 to 15 not printed in the Gazette.]

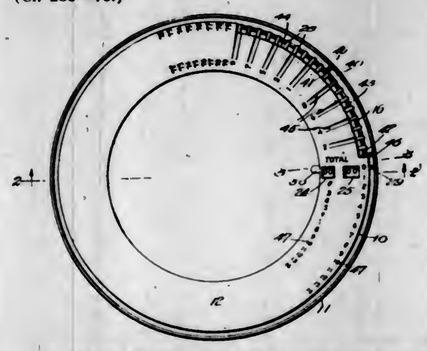
1,204,283. HAMMOCK AND CANOPY THEREFOR. THOMAS M. LANCASTER, Pasadena, Cal. Filed Feb. 16, 1915. Serial No. 8,513. (Cl. 5—32.)



1. The combination of a supporting frame comprising two A-shaped members connected at their upper ends by a longitudinal bar, a two-part canopy frame pivoted on each side of said bar and having parallel side and end members, a transverse supporting bar carried by each of said A-shaped members intermediate of their ends and projecting beyond the sides thereof, and means carried by the said frame and the outer ends of the last-named bars whereby the angle of each part of said frame may be varied independently and in respect to each other.

2. The combination of a supporting frame comprising two A-shaped members connected at their upper ends by a longitudinal bar, a two-part canopy frame pivoted on each side of said bar and having parallel side and end members, a transverse supporting bar carried by each of said A-shaped members intermediate of their ends and projecting beyond the sides thereof, brackets carried on the outer ends of each of said last-named bars, and links pivotally carried by the sides of said cover frame having their lower ends adapted to engage the brackets upon said bar.

1,204,284. ADDING-MACHINE. ARTHUR W. LAWRENCE, New York, N. Y. Filed May 1, 1916. Serial No. 94,677. (Cl. 235—78.)

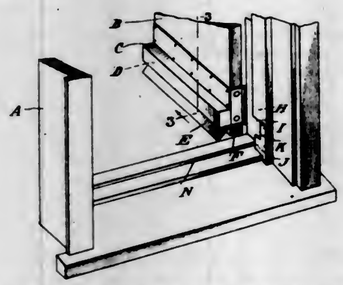


1. An adding device comprising a casing including a base plate and a cover plate, a counting ring rotatably held between said base and cover plates and covered and protected thereby, means consisting of teeth on the counting ring which may be engaged by a pencil to rotate the ring, said teeth extending to the peripheral edge only of the cover plate, the said cover plate being cut away partly along its outer peripheral edge to form a keyboard and expose certain of the said pencil-engaging teeth, and the said base plate having its outer peripheral edge extended beyond the outer peripheral edge of the cover plate and provided with an upstanding annular rib opposing the said edge of the cover plate in spaced relation and forming an annular groove therebetween, one of the teeth of the said ring being extended beyond the peripheral edge of the cover plate and into the said groove to form a zero-setting member.

2. An adding device of the type described comprising a base plate, a cover plate disposed thereon in spaced relation, a counting ring rotatable between the said plates, and provided with stylus engaging means whereby it may be manually rotated, said ring being provided with a radially outstanding zero-setting finger and the outer peripheral edge of the base plate having an upstanding annular rib beyond the end of said zero setting finger and in spaced relation to the outer edge of the cover plate to form an annular upwardly opening groove in which the said finger is protected and movable whereby to protect the said zero-setting finger and prevent accidental displacement of the said counting ring.

3. An adding device of the type described comprising a base plate, a cover plate disposed thereon and provided with an annular rib upon its lower surface provided with a cut-out portion, inner and outer counting rings rotatable between the cover and base plates upon relatively opposite sides of said rib, the inner ring of which is provided with a peripheral series of teeth upon its outer edge, and a locking ball disposed in the cut-out portion of the rib and confined therein and normally shifted into engagement with the teeth of the inner ring to lock the latter against rotation, by the inner peripheral edge of the outer ring, the said outer ring having a portion of its inner edge cut away at one point to receive the said locking ball and free the inner ring for movement.

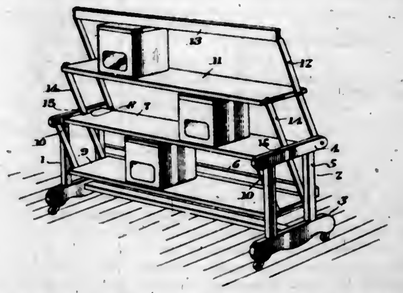
1,204,285. WEATHER-STRIP. WILLIAM LAYTON, Seagirt, N. J. Filed Dec. 15, 1915. Serial No. 66,977. (Cl. 20—65.)



In combination with a sill having the side over which the door travels inclined, and having a shoulder on its opposite side, a door having a transverse groove adjacent its lower end, a casing having an inturned end terminating directly over the transverse groove, a weather strip having a laterally extending cylindrical portion supported within the casing and capable of pivoting in the groove so that the weather strip may swing up as the door opens or may move vertically over the inclined surface of the sill as the door closes and fall behind the shoulder, causing a binding action between the inturned edge of the casing and upper edge of the transverse groove when the door is moved to a closed position.

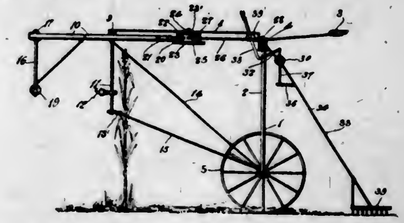
1,204,286. DISPLAY-RACK. FREDERICK LENGQUIST and JAMES P. WILES, Joplin, Mo. Filed Jan. 12, 1915. Serial No. 1,833. (Cl. 211—24.)

In a device of the kind described in combination, a pair of spaced apart standards, a horizontally-disposed top piece secured upon each standard, a pin projecting from the inner side of each top piece, a link rod centrally fulcrumed upon each pin, a pair of flat longitudinal platforms arranged respectively above and below said top pieces, one of said platforms being pivotally secured to the upper ends of said link rods and the other platforms being pivotally connected to the lower ends thereof, a pair of pivotally suspended supporting bars secured to said top pieces



and pivotally connected to the platform below said top pieces, supporting bars pivotally connected to said top pieces and to the platform thereabove, and a fixed shelf secured with end edges against the inner sides of said top pieces, said shelf being formed upon its opposite end edges with alining rectangular recesses against either of the parallel edges of which said link rods may incline and be supported.

1,204,287. CULTIVATOR. GEORGE C. LEWIS, Cedar, Kans. Filed Aug. 7, 1914. Serial No. 855,661. (Cl. 97—44.)



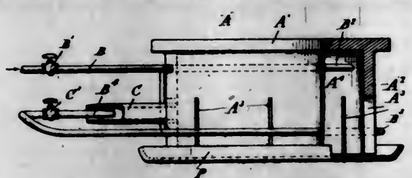
1. In a cultivator, a U-shaped supporting axle having an arch of exaggerated height so as to pass over tall corn, a cross bar connected to said arch, a plurality of cultivating element supporting bars supported by said cross bar and positioned rearwardly and downwardly therefrom, a plurality of cultivating elements supported by said cross bar, and means for raising and lowering said cultivating element supporting bars for moving said cultivating elements into or out of an operative position.

2. In a cultivator, the combination, of a U-shaped axle having an arch of exaggerated height, a cross bar connected to said arch, a plurality of rods pivotally connected to said cross bar, a plurality of cultivating element supporting rods carried by said bar, cultivating element supporting frames connected to said rods, springs connected to said frames and said rods, cultivating elements connected to the lower rear ends of said frame, and a hand lever connected to said rods for moving said cultivating elements into or out of a cultivating position.

1,204,288. LIQUID-FUEL BURNER. JOSEPH C. LOCKHART, Attica, Kans. Filed Apr. 4, 1916. Serial No. 88,862. (Cl. 158—53.)

1. A hydro-carbon burner comprising a plate having a depending flange with openings leading from the lower edge of the flange and terminating short of the lower side of the plate, a nipple mounted upon the flange and

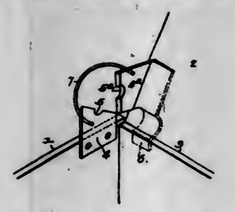
communicating with the space surrounded by the flange at a point between the ends of the openings, and a pipe passing through the flange at a point above the openings and coiled within the flange and passing out of the same and surrounding the flange between the ends of the openings and having its discharge end alined with the nipple.



2. A hydro-carbon burner comprising a plate having a flange depending therefrom and provided with openings leading in from its lower edge and terminating short of the plate, a pipe passing through the flange and coiled within the same and extending out through the flange and down along the outer surface thereof and passing around the flange in a plane between the ends of the openings and having a discharge end disposed toward the flange and spaced from the same, and a nipple mounted upon the flange and communicating with the interior thereof and alined with the discharge end of the pipe.

3. A hydro-carbon burner comprising a plate having a depending flange, a nipple mounted upon the flange and communicating with the interior thereof, and a pipe passing through the flange and coiled therein, then passing through the flange and coiled about the same below the nipple and having a discharge end alined with the nipple.

1,204,289. COMBINED CIGAR-CUTTER AND LID-HOLDER. WILLIAM S. LUCKETT, Philadelphia, Pa. Filed Oct. 10, 1914. Serial No. 866,093. (Cl. 131—38.)



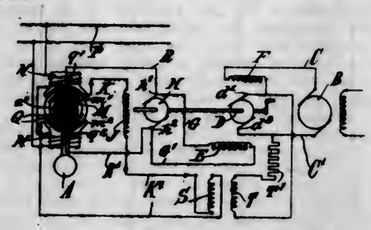
1. In a combined cigar tip cutter and box lid support, the combination of clips carried by said box and lid, and coöperative cutting members pivotally connected to said clips, said cutting members being movable with respect to each other to effect the cutting action by operating the lid.

2. In a combined cigar tip cutter and box lid support, the combination of clips carried by said box and lid, cooperative cutting members pivotally connected to said clips, said cutting members being movable with respect to each other to effect the cutting action, and means for restoring said cutters to a receptive position, said members in their inactive position serving to hold the box lid open.

3. In a combined cigar tip cutter and box lid support, the combination of clips carried by said box and lid, cooperative members pivotally connected to said clips, and complemental cutting edges carried by said members, the latter being movable with respect to each other to effect the cutting action by operating the lid.

1,204,290. ELECTRIC MOTOR. WILHELM LUYKEN, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp, Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Dec. 13, 1913. Serial No. 806,548. (Cl. 172—237.)

1. Device for transforming a periodically variable motion of small energy to a motion of great energy both following similar laws; comprising an electric generator and means for driving the armature of said generator in accordance with said first motion, a circuit conducting the current generated in said armature, a separately excited electric motor for producing said second motion, a controlling generator of low magnetic saturation, the armature winding of said controlling generator being connected to the armature winding of said motor; said controlling generator being provided with a field winding excited by current dependent on the electromotive force of the armature of the first-named generator; and means for so displacing the phase of the current in said winding, that the phase of this current is in advance of the electromotive force generated in the armature of said first-named generator.



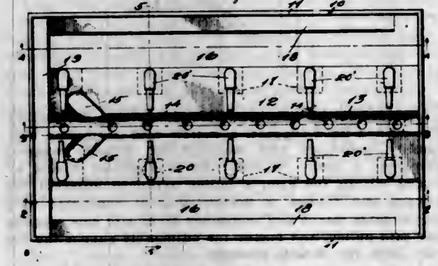
2. Device for transforming a periodically variable motion of small energy to a motion of great energy both following similar laws; comprising an electric generator and means for driving the armature of said generator in accordance with said first motion, a circuit conducting the current generated in said armature, a separately excited electric motor for producing said second motion, a controlling generator of low magnetic saturation, the armature winding of said controlling generator being connected to the armature winding of said motor; said controlling generator being provided with a field winding excited by current dependent on the electromotive force of the armature of the first-named generator, means for so displacing the phase of the current in said winding that the phase of this current is in advance of the electromotive force generated in the armature of said first-named generator, said first-named generator being provided with a field winding separately excited from a direct current network, and with an open armature winding and slip rings, the ends of said armature winding being connected to said slip rings.

3. Device for transforming a periodically variable motion of small energy to a motion of great energy both following similar laws; comprising an electric generator and means for driving the armature of said generator in accordance with said first motion, a circuit conducting the current generated in said armature, a separately excited electric motor for producing said second motion, a controlling generator of low magnetic saturation, the armature winding of said controlling generator being connected to the armature winding of said motor; said controlling generator being provided with a field winding excited by current dependent on the electromotive force of the armature of the first-named generator, means for so displacing the phase of the current in said winding, that the phase of this current is in advance of the electromotive force generated in the armature of said first-named generator, said first-named generator being provided with a field winding separately excited from a direct current network, and with an open armature winding and slip rings, the ends of said armature winding being connected to said slip rings and the armature of said first-named generator being provided with a second winding connected to the armature of said controlling generator for compensating the torque absorbed by said first armature winding.

4. Device for transforming a periodically variable motion of small energy to a motion of great energy both following similar laws; comprising an electric generator and means for driving the armature of said generator in accordance with said first motion, a circuit conducting the current generated in said armature, a separately excited electric motor for producing said second motion, a controlling generator of low magnetic saturation, the armature winding of said controlling generator being connected to the armature winding of said motor; said controlling generator being provided with a field winding excited by current dependent on the electromotive force of the armature of the first-named generator; and a transformer having a primary and a secondary winding and a non-inductive resistance, said primary winding and said resistance being connected in series to each other and to the armature of said controlling generator, and said secondary winding being inserted in said circuit containing said excited winding.

5. Device for transforming a periodically variable motion of small energy to a motion of great energy both following similar laws; comprising an electric generator and means for driving the armature of said generator in accordance with said first motion, a circuit conducting the current generated in said armature, a separately excited electric motor for producing said second motion, a controlling generator of low magnetic saturation, the armature winding of said generator being connected to the armature winding of said motor, an exciting winding for said controlling generator, an exciting generator of low magnetic saturation having an armature and a field winding, the armature of said exciting generator being connected to said exciting winding, and the field winding of said exciting generator being inserted in said circuit; means for so displacing the phase of the current in said field winding, that the phase of this current is in advance of the electromotive force generated in the armature of said first-named generator; and means for destroying the residual magnetism in said exciting generator.

1,204,291. GAME APPARATUS. JOHN LYNN MCCASKEY, Pittsburgh, Pa., assignor to Pittsburgh Game & Novelty Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 10, 1916. Serial No. 77,473. (Cl. 46—41.)



1. In a game apparatus of the character described, a tiltable tray, a member arranged upon the tray and extending longitudinally thereof and forming with the sides of the tray trenches and having its top surface provided with a longitudinal groove, and inclined tracks arranged within the trenches and adapted to conduct a rolling member to the intake end of the groove.

2. In a game apparatus of the character described, a tiltable tray, a longitudinal member having a surface groove upon its top and arranged within the tray to form trenches with the sides thereof, an elevated transverse track arranged adjacent the intake end of the groove, and inclined tracks disposed within the trenches and leading to the transverse elevated track.

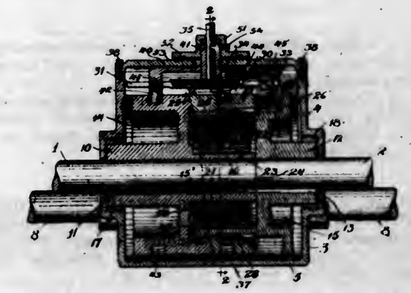
3. In a game apparatus of the character described; a tiltable tray; a longitudinal member mounted within the tray and forming therewith longitudinal trenches, said member being provided upon its top surface with a groove and upon its vertical edges with chambers; inclined tracks arranged within the trenches and adapted to conduct rolling members to the intake end of the groove; and a rolling member to travel upon the tracks.

4. In game apparatus of the character described; a tiltable tray; a longitudinal member mounted within the tray and forming therewith longitudinal trenches, said member being provided upon its top surface with a longitudinal groove having oppositely extending lateral groove extensions, and upon its upstanding edges with chambers; a transverse elevated track arranged at one end of the longitudinal groove; and inclined tracks extending within the trenches and leading to the ends of the transverse track.

5. In game apparatus of the character described, a table adapted to be held in the hand and longitudinally and laterally tilted and provided upon its upper surface with a longitudinal groove to receive balls and having lateral groove extensions to receive the balls upon the longitudinal groove so that the balls may be arranged in the proper order therein, and means for conducting a rolling element into the longitudinal groove upon the proper tilting of the table.

[Claims 6 to 10 not printed in the Gazette.]

1,204,292. TORSION-DYNAMOMETER. EDMUND B. MCCORMICK, Manhattan, Kans. Filed Dec. 18, 1915. Serial No. 67,633. (Dedicated to the public.) (Cl. 73—15.)



1. A torsion dynamometer comprising a divided shaft, a hub attached to one portion of said shaft, and a drum attached to the other portion of said shaft, a spring connecting said hub and drum, a cam surface provided upon the edge of said hub, a cam sleeve overlying said drum coacting with the cam upon said hub and means for indicating the longitudinal motion of said cam sleeve caused by the relative rotation of said hub and drum upon the yielding of said spring.

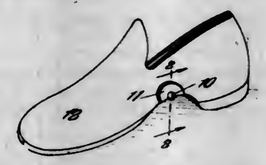
2. In a device of the class described, a casing, a cover for said casing provided with ways, a torsion dynamometer revolving in bearings in said casing, a rack and pinion indicating mechanism for indicating the power transmitted by said dynamometer, a bushing within which the shaft of said pinion is adapted to revolve, a sliding plate mounted in ways in the cover of said casing, studs upon said plate within which the rack is adapted to slide, means coacting with the said dynamometer to cause said sliding plate to follow endwise motion of said dynamometer in said casing whereby such endwise motion is prevented from giving false indications of said indicator.

3. In a torsion dynamometer adapted to be applied to a divided shaft, a hub to be applied to the driving portion of said shaft having a projecting portion and a projecting cam surface, a drum to be applied to the driven portion of the shaft overlying said projecting portion and lying within said cam projection, a spring connecting said hub and drum, a sliding cam sleeve carried upon the exterior of said drum and keyed thereto to revolve therewith, said cam sleeve coacting with said surface, springs pressing said cam sleeve against said cam surface, a peripheral channel in said cam sleeve, a longitudinally slidable rack carrying a roller projecting within said peripheral channel, and an indicator pinion coacting with said rack whereby longitudinal motion of the cam sleeve caused by relative

rotation of the hub and drum will be indicated by revolution of the indicator pinion.

4. In a torsion dynamometer the combination of a divided shaft, a hub member fixed to one portion of said shaft having a projecting portion, a hub fixed to the other portion of said shaft having a drum member overlying said projecting portion, a cam upon one of said members, means actuated by said cam upon relative motion between said members for indicating torque, a spring lying within said drum and attached to the projecting portion and to the interior of said drum so as to transmit the torque of said shaft, coacting stops upon said hub and drum to prevent excessive stress of said spring.

1,204,293. OVERSHOE. CHARLES WALTER MACWILLIAMS, Geneva, Nebr. Filed Mar. 28, 1916. Serial No. 87,261. (Cl. 36—5.)



1. A flexible overshoe having a protuberance extending laterally from its inner side adjacent the lower instep portion thereof, for the purpose described.

2. A flexible overshoe having its sole provided with an extending lip projecting laterally thereof at the inside of the overshoe adjacent the instep portion thereof, for the purpose described.

1,204,294. THREAD-GUIDE FOR TEXTILE-MACHINES. WILLIAM MARCROFT, Cranston, R. I., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 23, 1915. Serial No. 16,417. (Cl. 19—26.)



1. An improved yarn- or thread-guide for use on spinning, twisting or like machines comprising a plate-like member bent longitudinally into arcuate shape and formed with a contracted groove extending the length of its face and adapted to receive a plurality of associated strands drawing therethrough to confine them in closely-adjacent parallel relation.

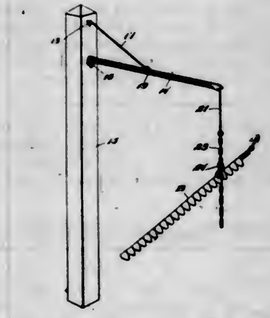
2. An improved yarn- or thread-guide for use on spinning, twisting or like machines comprising a longitudinally curved plate having a substantially flat face formed with a relatively narrow, shallow groove adapted to receive and confine a plurality of associated strands in parallel relation and means to secure said plate in position on the theard-board of the machine.

3. An improved yarn- or thread-guide comprising a foot-piece and a curved plate extending upwardly therefrom, with the convex face of said plate scored with a relatively narrow, shallow groove adapted to receive a plurality of associated strands drawing therethrough to straighten them out in close, parallel relation preparatory to twisting them into the finished yarn.

4. An improved yarn- or thread-guide comprising a slotted foot and a curved plate extending upwardly therefrom, with the convex surface of the plate scored with a contracted groove adapted to receive a plurality of untwisted strands drawing therethrough and one end of said groove provided with a funnel-like mouth for directing the strands into the groove.

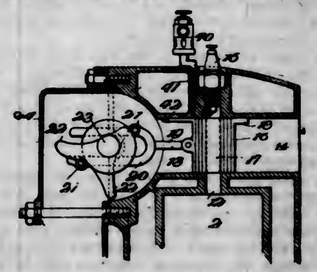
5. An improved yarn- or thread-guide comprising a base member formed with an upwardly-extending arcuate plate bent at its top to provide a right-angled bridge-piece, said bridge-piece formed with an open thread-eye and a relatively narrow, shallow groove extending from the eye longitudinally of the convex face of the plate to adapt it to receive a plurality of associated fibers drawing through the eye and across the plate.

1,204,295. SICKLE-BAR HOLDER. ALFRED MARTINSON, Rock Island, Ill. Filed Mar. 15, 1916. Serial No. 84,400. (Cl. 51—8.)



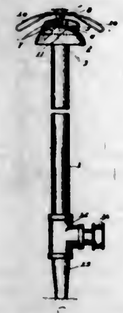
A holder of the class described comprising in combination with a fixed support, a hollow arm projecting horizontally therefrom and mounted for lateral swinging movement, a brace for said arm, a yieldable means arranged within the arm, a pulley arranged adjacent the forward end thereof, a flexible element connected with the yieldable means and suspended from said arm, passing over said pulley, and means for adjustably supporting the work from the flexible element.

1,204,296. INTERNAL-COMBUSTION ENGINE. WILLIAM H. MAUPIN and DICE R. LOSDELL, Lemmon, S. D. Filed Feb. 11, 1915. Serial No. 7,514. (Cl. 123—75.)



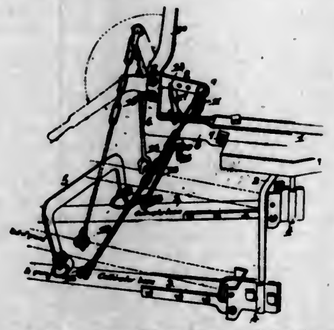
In an internal combustion engine, the combination with a cylinder having a central port at its top, a sparker in vertical alinement with said port, a chamber above said cylinder and intermediate the latter and said sparker, a reciprocating piston movable in said chamber for controlling said port, said piston having a port designed to aline with said sparker and said cylinder-port, and a projection carried by said piston for covering said sparker when said cylinder is exhausting.

1,204,297. LAWN-SPRINKLER. JOSEPH JOHANSON MILLER, Duluth, Minn. Filed Oct. 12, 1914. Serial No. 866,405. (Cl. 137—57.)



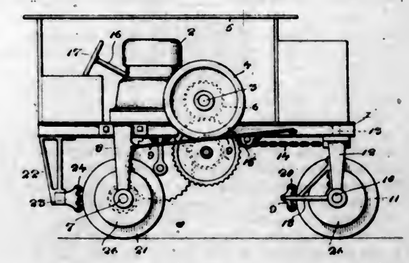
In a device of the class described, in combination, a tube, a hemi-spherical head formed thereupon and having a circumferentially disposed series of openings and between said openings and its center being formed with a series of obliquely disposed ports, an integral pin formed upon the periphery of said head, a collar surrounding said pin and resting upon said head and having an integral disk at right angles to said collar and revolving therewith, a turbine consisting of a plurality of blades each of which has a shank portion secured to said collar and another portion extending at an angle to said shank portion and curving around the surface of said head, the angular portion of each blade being provided with flanges forming a channel for guiding water therethrough over said head, said oblique opening adapted to discharge water directly against the angular part of each blade and between its flanges, a plurality of radially disposed arms carried by said disk and adapted to break the water issuing through said first named openings, and means for holding said disk against displacement from said pin, the blades of said turbine having their outer edges spaced inwardly from said first named series of openings.

1,204,298. ATTACHMENT FOR CULTIVATORS. JOSEPH C. MIRE, Dreyfus, La. Filed July 19, 1916. Serial No. 110,123. (Cl. 97—35.)



An attachment for cultivators comprising in combination with the frame and the beams hinged thereto to swing on vertical axes and connected intermediate their ends to constrain them to swing together, of an angle frame connected to the frame of the cultivator between and above the beams and having one of its portions vertical, an elbow lever pivoted to the said vertical portion, a flexible connection between one arm of the elbow lever and each beam for raising and lowering the beams when the lever is swung, and means on the angle frame for engagement by the connected arm of the lever to limit the downward movement thereof and adjustable with respect to the angle frame for varying the position of the beams, said elbow lever being mounted to swing the free end of the connected arm to opposite sides of the vertical portion of the angle frame to cause the weight of the beams to hold the lever in either position.

1,204,299. TRACTOR. JAMES N. MOODY, Waynesboro, Va. Filed Oct. 29, 1915. Serial No. 58,650. (Cl. 55—47.)



1. In a tractor or the like, a shaft, a roller for the shaft, said roller being hollow and centrally provided with a ring member, a member upon the shaft engaging with the ring member to cause the roller to rotate with the shaft and to permit of the roller tilting upon the shaft, and connecting means between said shaft and said ring member.

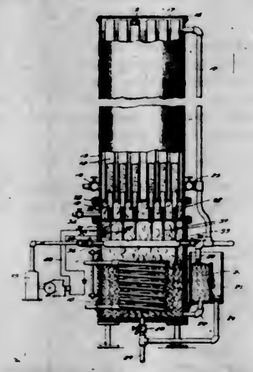
2. In a tractor or the like, a hollow roller having flanged ends, a shaft passing centrally through the roller, spring pressed members on the shaft closing the open ends of the roller, said roller having a central ring member, the inner periphery of which being concaved, said ring having angularly arranged slots which enter the inner periphery thereof, a member secured to the shaft, said member including a central portion having its periphery convexed to receive the concaved periphery of the ring, said member having fingers received in the slots of the ring, and spring means for retaining said member upon the ring.

3. In a tractor or the like, a hollow roller, a shaft passing centrally through the roller, a peripheral rounded member secured to the shaft disposed centrally in the roller, an element secured in the roller and receiving said member, and spring means for retaining said member in said element.

4. In a tractor or the like, a hollow roller, a shaft passing centrally through the roller, a peripherally rounded member secured to the shaft and disposed centrally in the roller, an element secured in the roller and receiving said member, spring means for retaining said member in said element, fabric partitions in the roller, and spring pressed means for closing the open ends of the roller.

5. In a tractor or the like, a hollow roller, a shaft passing through the roller, a member provided with laterally extending arms upon the shaft, a member having angular slots upon the roller and receiving the shaft member and arms thereof, spring means for retaining the members associated, fabric partitions in the roller, to the opposite sides of said member, spring pressed means for closing the ends of the roller, and revoluble members contacting with the rear face of the roller, as and for the purpose set forth.

1,204,300. TRIPLE PURIFICATION-STILL. DAVID PELTON MOORE, Washington, D. C., assignor, by direct and mesne assignments, of one-half to Jesse Spaulding Merrill, Washington, D. C., and one-half to George H. Draper, District of Columbia. Filed Feb. 17, 1916. Serial No. 78,927. (Cl. 203—5.)



1. A water still, including an evaporating chamber having vapor outlets, an air heater disposed within the evaporating chamber and having an air inlet and heated air outlets extending into the vapor outlets, a condenser having condenser tubes, and into which the vapor outlets extend, the air outlets being so arranged that the air and vapor are commingled in the vapor outlets and in the condenser tubes.

2. A water still, including an evaporator, a distilled water reservoir located thereabove, a condenser having a plurality of tubes located above the reservoir, said evaporator having vapor outlets extending through the reservoir projected into the lower ends of the condenser tubes, and an air heater located within the evaporator and having an outside air inlet and a plurality of air outlets, said outlets being of lesser diameter and projecting into and in communication with the vapor outlets, the upper ends of said air outlets terminating below the upper ends of the vapor outlets.

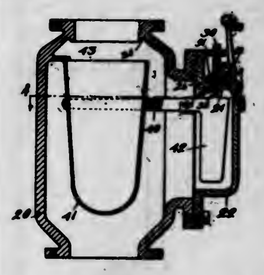
3. A water still, including an evaporator, a distilled water reservoir located thereabove, a condenser having a plurality of condenser tubes located above the reservoir, a plurality of vapor conduits of lesser diameter than said condenser tubes leading from the evaporator into the lower ends of the condenser tubes, an air heater located within the evaporator and having an air inlet, and a plurality of air outlet pipes of lesser diameter than the vapor conduits and leading from the heater and into the vapor conduits, the upper ends of said pipes terminating within the conduits.

4. A water still, including an evaporator, a distilled water reservoir located thereabove, a condenser having a plurality of condenser tubes open at their lower ends, and in communication with the reservoir, a plurality of vapor conduits one to each tube leading from the evaporator and projected into the lower ends of the tubes, and an air heater mounted within the evaporator and having an air inlet and plurality of air outlets one to, and projecting into, each vapor conduit, said air outlets terminating bodily with the vapor conduits whereby a successive commingling of the air with the vapor is attained within the vapor conduits and finally in the condenser tubes.

5. A water still, including an evaporator, a distilled water reservoir located thereabove, a condenser having a plurality of condenser tubes open at their lower ends and in communication with the reservoir, a plurality of vapor conduits of lesser diameter than and one to each tube leading from the evaporator and projected into the lower ends of the tubes, an air heater located within the evaporator, an air inlet leading from the atmosphere to the heater, and a plurality of air outlet pipes of lesser diameter than the vapor conduits and leading from the heater and projected in the vapor conduits.

[Claims 6 to 14 not printed in the Gazette.]

1,204,301. VACUUM-BREAKER. HARRY E. MORTON, Boston, Mass. Filed Mar. 6, 1913. Serial No. 752,288. (Cl. 261—2.)



1. A vacuum-breaker consisting of an enlarged pipe-section adapted to be arranged in upright position in the main exhaust steampipe between a jet-condenser and engine, a movable receptacle normally arranged in a predetermined elevated position therein, to permit free passage of the exhaust steam by it and to receive condensing-water which flows back from the jet-condenser, means associated with said receptacle for holding it in its elevated position and against vibration, which permits downward movement thereof when overcome by the weight of the condensing-water, a non-return air inlet valve arranged for operation by the downwardly moving receptacle, said receptacle having a leak-opening permitting escape of the condensing-water and the return of the receptacle to normal position independently of the valve, whereby the valve remains open.

2. A vacuum-breaker consisting of an enlarged pipe-section adapted to be arranged in upright position in the main exhaust steam-pipe between a jet-condenser and engine, a movable receptacle normally arranged in a predetermined elevated position therein, to receive condensing-water which flows back from the jet-condenser through said pipe, said pipe-section being of much larger diameter than the receptacle to permit free passage of the exhaust steam by it, means associated with said receptacle for holding it in its elevated position and against vibration, which permits downward movement thereof when overcome by the weight of the condensing-water, a non-return air inlet-valve arranged for operation by the downwardly moving receptacle, said receptacle having a leak-opening permitting escape of the condensing-water and the return of the receptacle to normal position independently of the valve, whereby the valve remains open, and hand-engaging means associated with said valve for returning it to closed position.

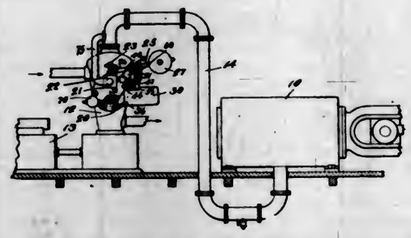
3. A vacuum-breaker consisting of an enlarged pipe-section adapted to be arranged in upright position in the exhaust steam pipe between a jet-condenser and engine, a movable receptacle normally arranged in a predetermined elevated position therein to provide a free passage for the exhaust steam by it and to receive condensing-water which flows back from the jet-condenser through said pipe, means associated with said receptacle and arranged in said section for holding it in its elevated position and against vibration, which permits downward movement thereof when overcome by the weight of the condensing-water, a non-return air inlet-valve independent of said receptacle and its holding-means, which is arranged for engagement with said holding-means for operation upon downward movement of the receptacle and for independent return of said receptacle to normal position and hand-engaging means associated with said valve for returning it to closed position independently of the receptacle.

4. A vacuum-breaker consisting of an enlarged pipe-section adapted to be arranged in upright position in the exhaust steam pipe between a jet-condenser and engine, having an opening in its side, and a removable recessed wall arranged over said opening, a pivoted counter-balanced receptacle arranged in said section to permit a free passage of the exhaust steam by it and to receive condensing-water which flows back from the jet-condenser, the counterweight being extended into the recess of said wall, and an air inlet-valve arranged on said wall above said counterweight, to be engaged thereby upon a downward movement of the receptacle.

5. A vacuum-breaker consisting of an enlarged pipe-section adapted to be arranged in upright position in the exhaust steam pipe between a jet-condenser and engine, having an opening in its side and a removable recessed wall arranged over said opening, a pivoted counter-balanced receptacle arranged in said section to permit a free passage of the exhaust steam by it and to receive condensing-water which flows back from the jet-condenser, the counterweight being extended into a recess of said wall, the side opening being of sufficient area to admit of the passage through it of the receptacle, an air inlet-valve arranged on said wall above said counterweight, to be engaged thereby upon a downward movement of the receptacle.

[Claim 6 not printed in the Gazette.]

1,204,302. VACUUM-BREAKER. HARRY E. MORTON, Boston, Mass. Filed Oct. 22, 1913, Serial No. 796,721. Renewed Jan. 21, 1916. Serial No. 73,500. (Cl. 261—2.)



1. The combination with a jet-condenser, of a vacuum-breaker having an air inlet-valve arranged to open the vacuum-space to the atmosphere thereby to destroy the vacuum, a movable receptacle arranged at the outside of the condenser which is closed to the atmosphere and is in open communication with the vacuum-space, to receive condensing-water which rises in the condenser, and by its weight causes the receptacle to move downward, and means controlled by said receptacle, upon a downward movement thereof, to operate said air inlet-valve to open the vacuum-space, substantially as described.

2. The combination with a jet-condenser, of a vacuum-breaker having an air inlet-valve arranged to open the vacuum-space to the atmosphere thereby to destroy the vacuum, a hollow, pivotally supported receptacle arranged at the outside of the condenser which is closed to the atmosphere and is in open communication with the vacuum-space, to receive condensing-water which rises in the condenser, the weight of which moves said receptacle downward, and means controlled by said receptacle upon a downward movement thereof to operate said air inlet-valve to open the vacuum-space, substantially as described.

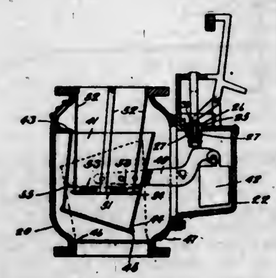
3. The combination with a jet-condenser, of a vacuum-breaker having an air inlet-valve arranged to open the vacuum-space to the atmosphere and thereby destroy the vacuum, a weighted actuating-lever for said valve, tripping-mechanism controlling the movement of said actuating-lever, and a receptacle with which said tripping-mechanism is associated, which is arranged at the outside of the condenser and is closed to the atmosphere and is in open communication with the vacuum-space, to receive condensing-water which rises in the condenser and by its weight causes the receptacle to move downward to control the operation of said tripping-mechanism, substantially as described.

4. The combination with a jet-condenser, of a vacuum-breaker having an air inlet-valve arranged to open the vacuum-space to the atmosphere thereby to destroy the vacuum, a hollow receptacle rotatably connected with the condenser opposite the vacuum-space thereof which is in open communication with the interior of the condenser and is closed to the atmosphere and is adapted to receive condensing-water which rises in the condenser, means to hold said receptacle in elevated position, arranged for operation by the weight of the condensing-water which enters the receptacle, permitting said receptacle to swing downward, and means controlled by and upon a downward swinging motion of the receptacle to operate the air inlet-valve to open the vacuum-space, substantially as described.

5. The combination with a jet-condenser, of a vacuum-breaker having an air inlet-valve arranged to open the vacuum-space to the atmosphere thereby to destroy the vacuum, actuating-means for said valve, tripping-mechanism for said actuating-means, a hollow receptacle rotatably connected with the condenser opposite the vacuum-space thereof, which is in open communication with the interior of the condenser and is closed to the atmosphere and is adapted to receive condensing-water which rises in the condenser, means to hold said receptacle in elevated position arranged for operation by the weight of the condensing-water which enters the receptacle, permitting said receptacle to swing downward, and means controlled by and upon a downward swinging movement of the receptacle to disengage the tripping-mechanism and permit operation of the actuating-means for the air inlet-valve, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,204,303. COMBINED VACUUM-BREAKER AND NON-RETURN VALVE. HARRY E. MORTON, Boston, Mass. Filed May 3, 1915. Serial No. 25,424. (Cl. 261—2.)



1. A combined vacuum-breaker and non-return valve consisting of an inlet-valve arranged to open the exhaust steam passage to the atmosphere between an engine and jet-condenser, a closing-valve for said passage, and means controlled by the condensing-water which flows back from the jet-condenser for operating both valves to destroy the vacuum, and to check the progress of the condensing-water through the exhaust steam passage.

2. A combined vacuum-breaker and non-return valve consisting of an inlet-valve arranged to open the exhaust steam passage to the atmosphere between an engine and a jet-condenser, a closing-valve for said passage, and means operated by the weight of the condensing-water which flows back from the jet-condenser for controlling said valves respectively, to open the passage to destroy the vacuum and to close said passage to check the progress of condensing-water therethrough.

3. A combined vacuum-breaker and non-return valve consisting of an inlet-valve arranged to open the exhaust steam passage to the atmosphere between an engine and

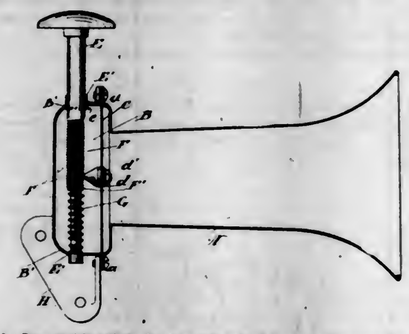
a jet-condenser, a valve to close said passage between said inlet-valve and the engine, and means operated by the weight of the condensing-water which flows back from the jet-condenser for controlling said valves, thereby to open the passage to break the vacuum and to close the passage beyond the opening thus made.

4. A combined vacuum-breaker and non-return valve consisting of an inlet-valve arranged to open the exhaust passage to the atmosphere between an engine and a jet-condenser, a valve to close said passage and an actuating-device for said valves comprising a receptacle to receive the condensing-water which flows back from the jet-condenser, thereby to operate said valves, respectively, to open the passage to destroy the vacuum and to close the passage beyond said opening to check the progress of the condensing-water therethrough.

5. A combined vacuum-breaker and non-return valve consisting of an inlet-valve arranged to open the exhaust steam passage to the atmosphere between an engine and a jet-condenser, a valve to close said passage and a pivoted counter-balanced device for said valves including a receptacle to receive the condensing-water which flows back from the jet-condenser, thereby to operate said valves to open the passage to destroy the vacuum and to close the passage beyond said opening and check the progress of the condensing-water therethrough.

[Claims 6 to 18 not printed in the Gazette.]

1,204,304. MECHANICAL HORN. FREDELLIA H. MOYER, Euclid Heights village, Ohio. Filed Feb. 5, 1915. Serial No. 6,231. (Cl. 116—1.)

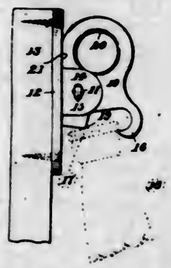


1. In combination, in a mechanical horn, a trumpet having a flanged base, a resonant sound chamber having a front opening to the walls of which said trumpet base is secured, a diaphragm separating said chamber and trumpet, an anvil centrally attached to said diaphragm and having a central point, and a movable stem reciprocable and rotatable in said chamber, said stem having a continuous screw thread upon its periphery in constant engagement with said central point on said anvil.

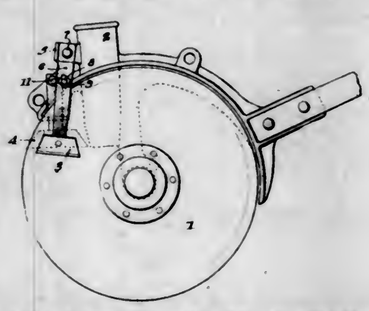
2. In a device of the character described, a horn, a chamber secured to one end of the horn, a diaphragm located between the chamber and the horn, a detent carried by and projecting through the diaphragm, a manually operable rod circular in cross-section formed with a screw-thread adapted to impinge upon the detent, whereby the diaphragm may be vibrated, a spring to return the rod to its initial position following the manual operation, and means for limiting the return movement of the rod.

1,204,305. BOTTLE-OPENING DEVICE. MICHAEL NAGY, Cincinnati, Ohio. Filed Feb. 24, 1916. Serial No. 80,215. (Cl. 65—46.)

A bottle cap remover comprising a plate provided at one end with a cap engaging claw and a heel against which a bottle cap is fulcrumed, the said claw extending slightly beyond the heel, the plate having a finger opening enabling the use of the plate when held in the hand, and having an opening to receive a pivot pin for mounting the plate on a support, the plate having a straight edge spaced rearwardly of the finger opening to engage the support and hold the plate in rigid relation thereto, the relative position of the claw and heel causing a bottle to assume an upright position during the operation of removing a cap.



1,204,306. SUPPORTING MECHANISM FOR SCRAPING-BLADES. JOSEPH P. OFFERMAN, Beaver Dam, Wis., assignor to Beaver Dam Manufacturing Co., Beaver Dam, Wis., a Corporation of Wisconsin. Filed Feb. 3, 1916. Serial No. 75,943. (Cl. 97—79.)



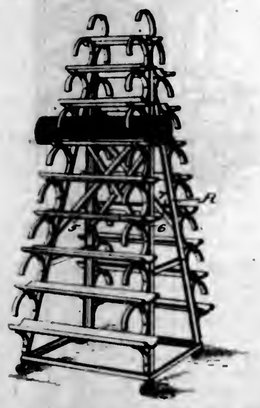
In a device of the described class, the combination of two converging disks, a support located between said disks, lugs projecting laterally from the side of said support a resilient member connected with each side of each of said lugs, a scraping blade connected with the free end of each of said resilient members, and a bolt adjustably connecting each pair of said resilient members, whereby as the nuts on said bolts are turned forwardly or backwardly said scraping blades are caused to bear with greater or less pressure against said disks.

1,204,307. SANITARY ATTACHMENT FOR MOUTH-PIECES. HENRY BIGHAM PARK, Lagrange, Ga. Filed Nov. 6, 1915. Serial No. 60,064. (Cl. 179—185.)



A sanitary guard for mouth pieces comprising a single length of wire bent upon itself between its ends to encircle the mouth piece and having the end portions thereof projecting outwardly and then bent backwardly contiguous to the outer edge of the mouth piece, a sanitary pad disposed between the outer end of the mouth piece and said backwardly bent portion and resting upon said outwardly projecting portion, and a clamp carried by the outwardly projecting portion of said holder and interconnecting the same to secure the circular bent portion of the guard to the mouth piece.

1,204,308. WIRE-HOLDING STAND. JOHN W. PETER, Fostoria, Ohio. Filed Nov. 19, 1915. Serial No. 62,307. (Cl. 211—18.)



1. The combination with a wire stand including a plurality of pairs of spaced split rings, of a plurality of transversely curved pans arranged one upon each pair of rings and having its forward and rear edges overturned, the forward overturned edge of the pan engaging upon the lower free ring ends, and bolts arranged in spaced openings in the rear overturned edge and adapted to be extended through openings provided in the rings, said bolts having their heads housed between the body of the pan and the rear overturned edge thereof.

2. In a wire holding stand, the combination with a plurality of split spaced rings, of a wire roll receiving device mounted on the rings including a surface having a forward portion curving over and housing the lower free ends of the rings, said wire roll receiving device having an underturned rear portion, and means carried by the under-turned rear portion and projected from the wire roll receiving surface for connecting the wire roll receiving device to the rings.

3. The combination in a wire stand with a pair of split spaced rings, of a pan having its forward edge overturned whereby to house the lower free ends of the rings, said pan having its rear edge overturned downwardly and provided with means for attaching the pan to the rings.

1,204,309. IRRIGATING DEVICE. JOHN PETERSON, Saratoga Springs, N. Y. Filed Feb. 20, 1915. Serial No. 9,672. (Cl. 137—65.)



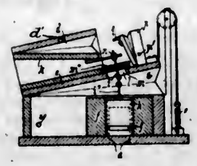
1. A combined sprinkler nozzle and strainer consisting of a cylindrical body having a longitudinal bore and provided at its intake end with a terminal slit producing spaced lugs, said lugs being bent toward each other to produce an intake opening of less width than the diameter of the bore from which obstructions will thus be excluded.

2. The combination with an irrigating pipe having an aperture in the wall thereof, of a sprinkler nozzle consisting of a cylindrical body having a longitudinal bore and provided at its intake end with a terminal slit producing spaced lugs which are bent toward each other producing an external beveled portion which may be frictionally engaged in the aperture and producing also an intake opening of a width less than that of the longitudinal bore from which obstructions will thus be excluded.

3. A combined strainer and sprinkler nozzle consisting of a cylindrical body having a longitudinal bore and provided at each end with a terminal slit producing spaced lugs which are bent toward each other to form intake and exit openings of less width than the diameter of the bore.

4. The combination with an irrigating pipe, the wall of which is provided with a cylindrical aperture, of a strainer nozzle consisting of a cylindrical body having a longitudinal bore and provided at its intake end with a terminal slit producing spaced lugs which are bent toward each other to produce an external beveled portion for frictional engagement in the aperture.

1,204,310. PNEUMATICALLY VARIABLE TENSION-REGULATORS FOR MUSICAL INSTRUMENTS. AUGUST PHILIPPS and OSWALD PHILIPPS, Frankfort-on-the-Main, Germany. Filed July 26, 1909, Serial No. 509,744. Renewed Apr. 19, 1916. Serial No. 92,315. (Cl. 230—36.)



1. A valve-controlled air-way and a governing bellows mounted thereon, in combination with an adjusting bellows mounted on said governing bellows, an auxiliary bellows which has pneumatic connection with said governing bellows and is carried by the movable member of the latter, and mechanical connections between the auxiliary bellows and the valve of said air-way, also between the auxiliary bellows and the movable member of said adjusting bellows, the inflation of said auxiliary bellows being governed by the position of said valve and the consequent greater or less closure of said air-way.

2. A valve-controlled air-way and a governing bellows mounted thereon, in combination with an adjusting bellows mounted on said governing bellows, a stop limiting the movement of the latter, an auxiliary bellows which has pneumatic connection with said governing bellows and is carried by the movable member of the latter, and mechanical connections between the auxiliary bellows and the valve of said air-way, also between the auxiliary bellows and the movable member of said adjusting bellows, the inflation of said auxiliary bellows being governed by the position of said valve and the consequent greater or less closure of said air-way.

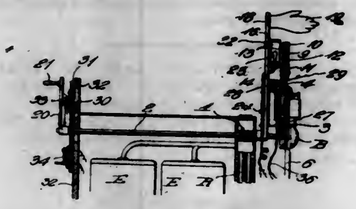
3. A valve-controlled air-way and a governing bellows pneumatically connected therewith, in combination with an adjusting bellows, an auxiliary bellows which has pneumatic connection with said governing bellows and is arranged to move therewith, and means connecting said auxiliary bellows to said valve and to said adjusting bellows whereby either the governing bellows or adjusting bellows may actuate the valve of said air-way or both of them may actuate it in coöperation.

4. A valve controlled air-way and a governing bellows pneumatically connected therewith, in combination with an adjusting bellows mounted on said governing bellows and connections between the valve of said air-way and the said adjusting bellows comprising means of extending and contracting such connections, the said means being governed by the movement of said valve, the said devices being arranged and adapted to permit the actuation of said valve by either of said bellows or by both of them acting in coöperation.

5. A valve-controlled air-way and a governing bellows mounted thereon, in combination with an adjusting bellows mounted on said governing bellows, a bellows carrying a stop for limiting the movement of said governing bellows, this stop-carrying bellows having pneumatic connection with said adjusting bellows, and extensible and contractible means connecting the valve of said air-way with said adjusting bellows, the extension and contraction of said means being controlled by the movement of the governing bellows.

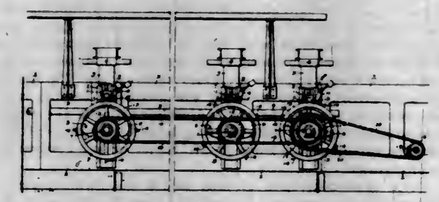
[Claim 6 not printed in the Gazette.]

1,204,311. SIGNAL DEVICE. ANTHONY L. W. PLUGGE, Grand Rapids, Mich. Filed Sept. 23, 1915. Serial No. 52,239. (Cl. 116—31.)



In a device of the class described, a plate to be secured on a vehicle, an operating shaft extending therefrom, an arcuate bar, laterally extending attaching feet formed on the opposite ends of said bar and secured to said plate, said bar being spaced from said plate, an arm fixed to said shaft, a finger carried by the arm for engagement with said bar, an outwardly extending end on said finger disposed between said bar and the face of said plate, said end being adapted to engage said attaching feet to limit the movement of the arm in either direction, and an indicator carried by said arm.

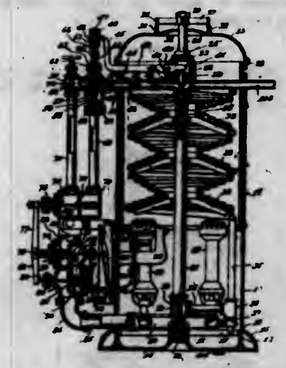
1,204,312. BLOCK-PRINTING MACHINE. GEORGE PRIFOLD, Linwood, Pa., assignor, by mesne assignments, to United Roofing & Manufacturing Company (Department of Barrett Manufacturing Company), Wilmington, Del., a Corporation of Delaware. Filed Nov. 17, 1915. Serial No. 62,007. (Cl. 101—88.)



1. The combination in a block printing machine, of a frame; a series of block carriers thereon; means for reciprocating the block carriers; a latch for each carrier to hold it out of action; a wheel mounted at each carrier for actuating the latch, said wheel having a pin arranged to engage the latch and to move it out of engagement with the carrier; and means for driving the several wheels.

2. The combination in a block printing machine, of a frame; a series of printing block carriers; a cam shaft and cams for each carrier; a sprocket wheel and connected pin wheel loose on each shaft, one or more pins on the wheels; a latch for holding each carrier out of action, said latch being in the path of one of the pin wheels which is arranged to move the latch away from the carrier; and chains for driving the several sprocket wheels and pin wheels in unison.

1,204,313. AUTOMATIC WATER-HEATER. THEODORE J. RADEK, Oak Park, Ill. Filed June 19, 1915. Serial No. 35,057. (Cl. 126—351.)



1. In a heater of the character described, a water receptacle, a cold water inlet, two branch supply pipes leading from said inlet to supply water to said receptacle, a motor connected in one of said branch supply pipes for operating a gas valve to open position, means for alternately opening said branch supply pipes to said inlet to cause the water to flow solely through one branch pipe at one time to operate said motor to open said gas valve and at another time solely through the other branch pipe free from said motor to allow the gas valve to close.

2. In a heater of the character described, a water receptacle, a cold water inlet embodying a casing provided with two outlets, a branch supply pipe leading from each outlet to supply water to said receptacle, a motor connected in one of said branch supply pipes for operating a gas valve to open position, and a thermostatically operated means for alternately opening said branch supply pipes to said inlet to cause the water to flow solely through one branch pipe at one time to operate said motor to open said gas valve and at another time solely through the other branch pipe free from said motor to allow the gas valve to close.

3. In a heater of the character described, a water receptacle, a cold water inlet embodying a casing provided with two outlets located in alinement with each other, a branch supply pipe leading from each outlet of the casing to supply water to said receptacle, a motor connected in one of said branch supply pipes for operating a gas valve to open position, and a thermostatically operated means for alternately opening said branch supply pipes to said inlet to cause the water to flow solely through one branch pipe at one time to operate said motor to open said gas valve and at another time solely through the other branch pipe free from said motor to allow the gas valve to close.

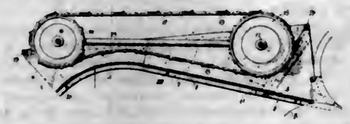
4. In a heater of the character described, a water receptacle, a cold water inlet, a valve-casing provided with two outlets located in alinement with each other, said inlet being connected to said casing between the two outlets, a branch supply pipe leading from each outlet to supply water to said receptacle, a motor connected in one of said branch supply pipes for operating a gas valve to open position, and a thermostatically operated means for alternately opening said branch supply pipes to said inlet to cause the water to flow solely through one branch pipe at one time to operate said motor to open said gas valve and at another time solely through the other branch pipe free from said motor to allow the gas valve to close.

5. In a heater of the character described, a water receptacle, a cold water inlet embodying a casing provided with two outlets in alinement with each other, a branch supply pipe leading from each outlet to supply water to said receptacle, a motor connected in one of said branch

supply pipes for operating a gas valve to open position, a double valve in said casing, and a thermostatically operated means for operating said double valve to alternately open said branch supply pipes to said inlet to cause the water to flow solely through one branch pipe at one time to operate said motor to open said gas valve and at another time solely through the other branch pipe free from said motor to allow the gas valve to close.

[Claims 6 to 10 not printed in the Gazette.]

1,204,314. MEANS FOR CONVEYING MACERATED BAGASSE BETWEEN SUGAR-MILLS. WILLIAM ARTHUR RAMSAY, Honolulu, Hawaii. Filed Feb. 25, 1915. Serial No. 10,623. (Cl. 100—47.)



1. The combination of a chute to extend between successive sugar mills and along which the bagasse is fed and a macerating scraper adjacent the inlet end of the chute, the chute being removable from between the scraper and the next succeeding mill by a lifting movement.

2. The combination of a chute to extend between successive sugar mills and along which the bagasse is fed, a macerating scraper adjacent the inlet end of the chute provided with side plates, and brackets adjacent the discharge end of the chute, said plates and brackets engaging the side walls of the chute to support the latter and being formed to permit of the removal of the chute by a lifting movement thereof.

3. The combination of a chute to extend between successive sugar mills and along which the bagasse is fed, a macerating scraper adjacent the inlet end of the chute provided with side plates, and brackets adjacent the discharge end of the chute, said plates and brackets engaging the side walls of the chute to support the latter, the meeting edges of the side walls of the chute and of said plates and brackets, respectively, being formed along converging lines of inclination whereby the chute may be removed from position by a lifting movement.

4. The combination of a chute to extend between successive sugar mills and along which the bagasse is fed, a macerating scraper adjacent the inlet end of the chute provided with side plates, and brackets adjacent the discharge end of the chute, said plates and brackets engaging the side walls of the chute to support the latter and being formed to permit of the removal of the chute by a lifting movement thereof, the brackets being co-planar with the side walls of the chute and forming continuations thereof and being connected by a transverse plate which forms a continuation of the bottom of the chute.

5. The combination of a chute to extend between successive sugar mills and along which the bagasse is fed, a macerating scraper adjacent the inlet end of the chute provided with side plates, and brackets adjacent the discharge end of the chute, said plates and brackets engaging the side walls of the chute to support the latter and being formed to permit of the removal of the chute by a lifting movement thereof, the brackets being co-planar with the side walls of the chute and forming continuations thereof and being connected by a transverse plate which forms a continuation of the bottom of the chute, the meeting edges of the side walls of the chute and of said brackets and of the bottom of the chute and said transverse plate being formed to provide lap joints.

[Claims 6 to 14 not printed in the Gazette.]

1,204,315. PROCESS OF MAKING PRACTICALLY ALCOHOL-FREE BEERS. CASPAR REITER, Bayrischzell-Hochkreut, Germany. Filed Apr. 6, 1914. Serial No. 830,037. (Cl. 99—11.)

1. A process of making beer containing but small quantities of alcohol, which consists in acidulating the wort, hopping the acidulated wort, then adding yeast to produce alcoholic fermentation, and checking the fermentation at such a stage as to leave but a small quantity of alcohol in the beer.

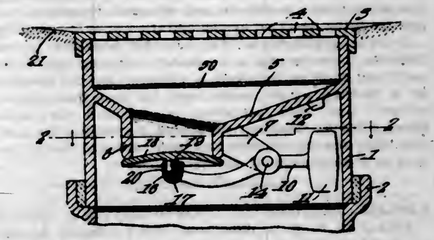
2. A process of making beer containing but small quantities of alcohol, which consists in acidulating the wort by treatment with acid-forming bacteria, hopping the acidulated wort, then adding yeast to produce alcoholic fermentation, and checking the fermentation at such a stage as to leave but a small quantity of alcohol in the beer.

3. A process of making beer containing but small quantities of alcohol, which consists in introducing acid-forming bacteria into the wort, permitting the bacterial action to continue until the wort is acidulated, then hopping the wort to stop the basterial action, adding yeast to produce alcoholic fermentation, and checking the fermentation at such a stage as to leave but a small quantity of alcohol in the beer.

4. A process of making beer containing but small quantities of alcohol, which consists in introducing acid-forming bacteria and substances adapted to facilitate their action into the wort, permitting the bacterial action to continue until the wort is acidulated, then hopping the wort to stop the bacterial action, adding yeast to produce alcoholic fermentation, and checking the fermentation at such a stage as to leave but a small quantity of alcohol in the beer.

5. A process of making beer containing but small quantities of alcohol, which consists in acidulating the wort, hopping the acidulated wort, then adding yeast to produce alcoholic fermentation, and checking the fermentation at such a stage as to leave but a small quantity of alcohol in the beer by pasteurizing the beer, filtering and bottling the beer and again pasteurizing.

1,204,316. STOP-VALVE. WILLIAM RENNER, Columbus, Ohio, assignor of one-half to John H. Davis, Columbus, Ohio. Filed Apr. 5, 1916. Serial No. 89,167. (Cl. 182—14.)

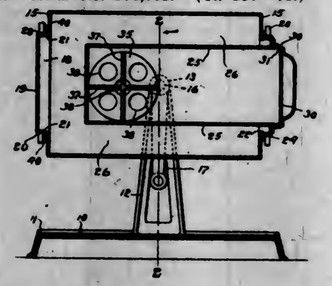


1. In a device of the class described, a casing including a hopper having an opening; an arm projecting from the hopper and provided with a journaling aperture having a lateral extension; a lever counter-weighted at its other end and provided intermediate its ends with a shaft mounted to rock in the aperture of the arm, the shaft having a lug adapted to pass through the extension of the aperture, the lug bearing against one side of the arm, out of alinement with the extension; and a valve carried by the inner end of the lever and controlling the opening, the valve bearing against the hopper to prevent the lug from coming into alinement with the extension when the shaft is rocked, the valve being detachable from the lever to permit a sufficient tilting of the lever to aline the lug with the extension.

2. In a device of the class described, a casing including a hopper having an opening; an arm projecting from the hopper; a lever fulcrumed intermediate its ends on the arm and provided at its outer end with a counter-weight, the lever being provided upon its inner end with a socket; and a valve controlling the opening, the valve including a stem loosely received in the socket to rock therein, whereby the valve may be permitted to coöperate with the opening.

3. In a device of the class described, a casing including a hopper having an opening; a lever located within the casing; a fulcrum for the lever; a weight on the outer end of the lever; a socket on the inner end of the lever and provided in its bottom with an upstanding boss; and a valve controlling the opening, the valve including a stem received in the socket, the lower end of the stem being provided with a recess in which the boss is loosely received, the stem being mounted to swing upon the boss, within the contour of the socket.

1,204,317. APPARATUS FOR FREEZING LIQUIDS. HENRY P. ROBERTS, Roxbury, Mass. Filed Dec. 8, 1914. Serial No. 876,082. (Cl. 257—75.)

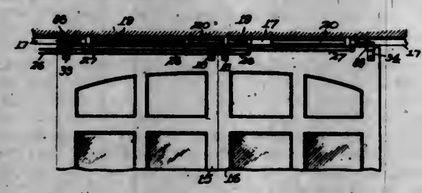


1. In an apparatus of the character described, in combination, a closed receptacle, means to move said receptacle, and a plunger comprising a plurality of rib members within a spherical boundary in said receptacle operated by the movement of the receptacle and detached therefrom.

2. In an apparatus of the character described, in combination, a receptacle, mechanism for agitating said receptacle, a plunger comprising a plurality of intersecting ribs within said receptacle and detached therefrom, said plunger being operated by the agitation of said receptacle.

3. In an apparatus of the character described, in combination, a receptacle, a container inclosing said receptacle and forming therewith a chamber for the reception of a freezing agent, mechanism for agitating said receptacle and said container, a detached foraminous plunger having scraping ribs within a spherical boundary and rotatable within said receptacle adapted to be operated by the agitation of said receptacle.

1,204,318. AUTOMATIC DOOR-OPERATING DEVICE. SYLVANUS B. ROY, Worcester, Mass.; Serena L. Roy, administratrix of said Sylvanus B. Roy, deceased, assignor to B. S. Roy & Son Company, a Corporation of Massachusetts. Filed July 19, 1915. Serial No. 40,562. (Cl. 268—8.)



1. The combination with a pair of sliding doors, of a pair of parallel hydraulic cylinders, each having a piston connected with one of the doors, means for simultaneously causing said pistons to move in opposite directions to close or open both doors, and means whereby if one door opens or closes before the other said first-mentioned means cannot be operated to change the direction of motion of either piston until the second door comes to its fully open or closed position.

2. The combination with a door and a cylinder and piston for operating it, of electrical connections for controlling the operation of the piston comprising a switch, yielding means for normally holding the switch closed, a lever independent of the door connected with the switch for opening it, and means on the door for operating said lever to tend to open the switch when the door comes to its open position.

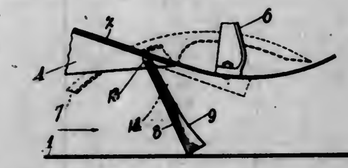
3. The combination with a door and a cylinder and piston for operating it, of electrical connections for controlling the operation of the piston comprising a switch, yielding means for normally holding the switch closed, a lever independent of the door connected with the switch for opening it, and means on the door for operating said lever to tend to open the switch when the door comes to its closed position.

4. The combination with a pair of doors, of a piston and cylinder for each door for operating the same, a door switch, means operated by the two doors for positively opening said door switch only when the two doors are both in one of their extreme positions, and means connected with said door switch whereby when it is closed the cylinders can be connected with a source of fluid pressure for operating the doors from said extreme position.

5. The combination with two doors and means for operating them, of a switch for controlling the opening of the doors, a switch for controlling the closing of the doors, and means whereby the opening switch is operated to be opened only when both doors are fully open, and the closing switch is operated to be opened only when both doors are fully closed.

[Claims 6 to 14 not printed in the Gazette.]

1,204,319. ATTACHMENT FOR GRAIN-BINDERS. EARL E. SAYLOR, Campbell, Nebr. Filed Jan. 2, 1915. Serial No. 162. (Cl. 56—126.)

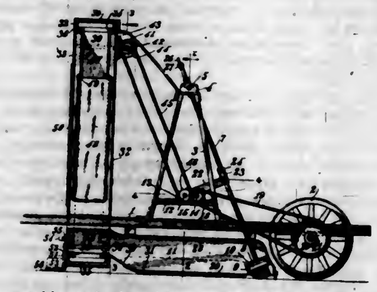


1. The combination in a grain binder, of a deck, a breast plate opposite the same provided with a slot and an opening at one end of the slot, of a plate pivotally attached to the breast plate and adapted to extend downwardly therefrom across the space between the breast plate and the deck and to be swung upwardly and forwardly until it covers the said opening in the breast plate, and means for arresting the upward swinging movement of said pivoted plate to prevent it from closing the said opening to the passage down through the same of an object from a point above the breast plate.

2. The combination in a grain binder provided with a deck, a breast plate above the deck provided with a slot and an opening at one end of the slot, and a guard plate pivotally attached to the breast plate at the rear end of the said opening and provided with upwardly projecting side walls; said side walls being adapted to strike against the under side of the breast plate at opposite sides of said opening to cover said opening from below without interfering with the passage through said opening of an object from a point above the breast plate.

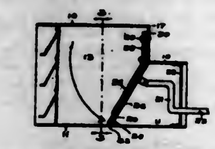
3. The combination in a grain binder of a deck, a breast plate above the deck provided with a slot, an opening forward of the slot and walls depending at opposite sides of the slot, and a guard plate pivotally attached to the breast plate and adapted to swing from a position underlying said opening to a position rearward of said opening and provided with upwardly projecting side walls to arrest the upward movement of said pivoted plate by contact with the breast plate and with a slot to receive the walls depending from the breast plate.

1,204,320. STREET-SWEEPING MACHINE. JACOB A. SCHROEDER, Piqua, Ohio, assignor to Mary Schroeder, Piqua, Ohio. Filed Jan. 31, 1916. Serial No. 75,221. (Cl. 15—17.)



A machine of the character specified, comprising a frame supported on wheels, an upright casing mounted upon and extending below said frame, a horizontal casing mounted on said frame and therebelow said horizontal casing having its lower side open and a portion of said lower side extended upwardly and joining the lower portion of said upright casing below the frame, a brush in said horizontal casing, means for imparting a lower forward or sweeping movement to said brush and an upper rearward or non-sweeping movement thereto within said horizontal casing, said means comprising the rods 7 connected to said brush and driven from shaft 15 provided with cranks 22 and sleeves 23 connected with said cranks 22 and movable on said rods 7.

1,204,321. WALL-VENTILATING DUCT. CLARENCE C. SHIPP, Indianapolis, Ind. Filed Mar. 1, 1916. Serial No. 81,421. (Cl. 98—27.)



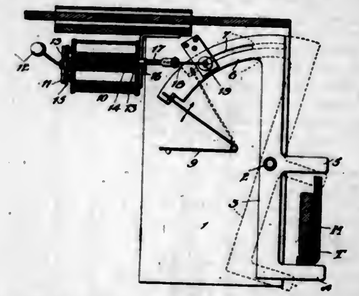
1. A wall ventilating duct, square in cross section, having an inturned valve-seat formed by bending the metal of the duct inwardly and thence outwardly, and a damper valve hinged in said duct, said damper valve being composed of pliable material adapted to rest upon said valve-seat and close the opening through said duct.

2. A wall ventilating duct, square in cross section, having an inturned valve-seat formed by bending the metal of the duct inwardly and thence outwardly, a damper valve hinged to said duct, said damper valve being composed of pliable material adapted to rest upon said valve-seat and having a loose portion extending past the damper hinge at all positions of the damper.

3. A wall ventilating duct, square in cross section, having an inturned valve-seat formed by bending the metal of the duct inwardly and thence outwardly, the bottom member of which is transversely oblique to the bottom of the duct, and the continuing side members of which are longitudinally oblique to all members of the duct, and all members arranged in a single plane.

4. A wall ventilating duct, square in cross section, having an inturned valve-seat formed by bending the metal of the duct inwardly and thence outwardly, the bottom member of which is transversely oblique to the bottom of the duct, and the continuing side members of which are longitudinally oblique to all members of the duct and all members arranged in a single plane, and a pliable damper valve hinged to said duct and adapted to contact said valve-seat and effectually close the opening through said duct.

1,204,322. LOCK FOR ELEVATOR HOISTING-ENGINES. THEODORE W. SHOTTO, Scranton, Pa. Filed July 31, 1916. Serial No. 112,359. (Cl. 187—29.)



1. A main lever lock comprising a swinging lever having lateral fingers adapted to pass astride said main lever and an arcuate arm provided with an opening, yielding means normally swinging this lever to unlock the main lever, a bolt normally engaging said opening when the parts are locked, and means for retracting the bolt from a distant point.

2. A main lever lock comprising a swinging lever having lateral fingers adapted to pass astride said main lever and an arm provided with an opening, yielding means normally swinging this lever to unlock the main lever, a bolt normally engaging said opening when the parts are locked, a rock lever pivoted between its ends, a link connecting one extremity thereof with said bolt, an audible signal sounded from a distant point, and a push rod having one end moved when said signal is sounded and the other end engaging the second extremity of said rock lever, for the purpose set forth.

3. A main lever lock comprising a swinging lever having fingers adapted to pass astride said main lever and provided with an opening, yielding means normally swinging this lever to unlock the main lever, a bolt normally engaging said opening when the parts are locked, a rock lever pivoted between its ends and connected at one extremity with said bolt, and a movable visible signal engaging the other extremity of the rock lever and actuated from a distant point.

4. A main lever lock comprising a pivoted swinging lever one arm having lateral fingers adapted to pass astride said main lever and the other arm provided with an opening, yielding means normally swinging this lever to unlock the main lever, a bolt normally engaging said opening when the parts are locked, a rock lever pivoted between its ends and connected at one extremity with said bolt, an audible signal including a movable member, means for moving the latter from a distant point to sound the signal, and a visible signal including a movable element one end of which engages said member and the other end of which engages the other extremity of said rock lever, for the purpose set forth.

5. A main lever, a swinging lever having fingers adapted to lock said main lever when the swinging lever is in one position, a spring tending to throw it out of said position, and a bolt for holding it locked against the tension of said spring; combined with mechanism for retracting said bolt, an audible signal including a swinging member, a guide and a visible signal consisting of a push rod sliding in the guide and having one end engaged by said member and a disk at its other end engaging said bolt-actuating mechanism, the whole operating substantially as described.

[Claim 6 not printed in the Gazette.]

1,204,323. FARM IMPLEMENT. JEROME V. SOHN, Saybrook, Ill. Filed July 12, 1915. Serial No. 39,275. Renewed Oct. 5, 1916. Serial No. 123,942. (Cl. 55—41.)

1. A farm implement comprising a blade having a plurality of members arranged to form a substantially salient and reëntering angle, the inner converging edges of said

blade members being sharpened, and the outer edges of said members being sharpened while the rear portion of the blade is unsharpened to provide an abutting edge.



2. A farm implement comprising a blade having a plurality of flared members, the inner and outer edges of which are curved and sharpened and a central rear non-sharpened member.

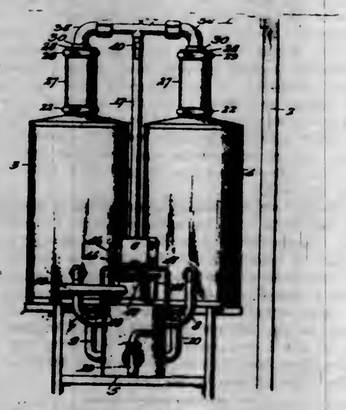
3. A farm implement having a bifurcated blade, the inner and outer edges of which are sharpened except at a part adjacent the outer ends thereof.

4. A farm implement comprising a blade, the supporting element for said blade having a plurality of radiating arms adapted to engage the upper surface of the blade, and means to secure the blade to the supporting element.

5. A farm implement comprising a blade, a supporting element having a shoulder adapted to abut against the blade and a plurality of arms to rest upon the surface of the blade, the arms extending outwardly toward the ends of the blade.

[Claims 6 and 7 not printed in the Gazette.]

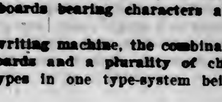
1,204,324. LIQUID-MEASURING DEVICE. PARKER B. SPRAGUE, Denver, Colo. Filed Apr. 4, 1914. Serial No. 829,517. (Cl. 221—116.)



1. Dispensing apparatus, comprising a supply-tank; a pair of receptacles; a valve-casing and a valve therein having independent ports on opposite sides thereof, but in different horizontal planes; a pipe leading from said supply-tank to and in continuous communication with one of said ports; filling pipes extending from the opposite sides of the valve-casing to said receptacles and adapted to be alternately connected through said port with the supply-pipe; a discharge pipe in continuous communication with the other port; and emptying pipes between the valve and said receptacles, adapted to be alternately connected by the latter port with the said discharge pipe; whereby the material to be dispensed is admitted to one receptacle simultaneously with its discharge from the other receptacle.

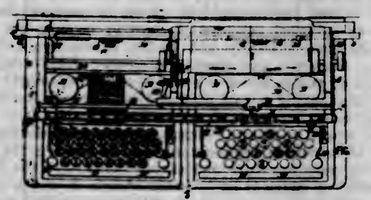
2. The combination with measuring cans of a controlling valve, filling pipes and emptying pipes extending from the valve to the cans, a supply pipe entering the valve on the plane of the filling pipes, a discharge pipe entering the valve on the plane of the emptying pipes, said valve having independent ports, one of which alternately connects the filling pipes and the supply pipe, while the other alternately connects the emptying pipes and the discharge pipe, of a pipe connecting said cans at their upper ends, and float valves in connection with said pipe for permitting air to pass from the filling can to the emptying can, and for automatically closing the egress when the can is filled to the limit of its capacity.

1,204,325. LID-RAISING DEVICE. THOMAS EDWARD SPRING, Pittsburgh, Pa. Filed Feb. 13, 1915. Serial No. 8,005. (Cl. 220—6.)



The combination with a box and a cover fitting over the open end of the box, of a disk pivoted against the outer side of the box and having a roughened peripheral surface for engagement by the fingers to turn the disk in either direction, said disk having an integral radial rib projecting from its inner face and extending from the central portion to substantially the circumference of the disk, said rib being relatively narrow to provide a single contacting nose at one side of the disk and being adapted to lie against the outer side of the box beneath the edge of said cover and to space the disk therefrom, said nose being adapted to engage the edge of the cover upon rotation of the disk in either direction to raise the cover from the box.

1,204,326. TYPE-WRITING MACHINE. BURNHAM C. STICKNEY, Elizabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 8, 1914, Serial No. 849,672. Renewed Feb. 8, 1915. Serial No. 6,922. (Cl. 197—5.)



1. In a typewriting machine, the combination of a plurality of keyboards and a plurality of character type-systems, the types in one type-system being supported for creating impressions in normal, reading position, and the types of another type-system being supported for creating impressions whose vertical axes are perpendicular to the vertical axes of the first-named impressions, the keys of the plural keyboards bearing characters all in reading positions.

2. In a typewriting machine, the combination of a plurality of keyboards and a plurality of character type-systems, the types in one type-system being supported for creating impressions in normal, reading position, and the types of another type-system being relatively larger and supported for creating impressions whose vertical axes are perpendicular to the vertical axes of the first-named impressions, the keys of the plural keyboards bearing characters all in reading positions.

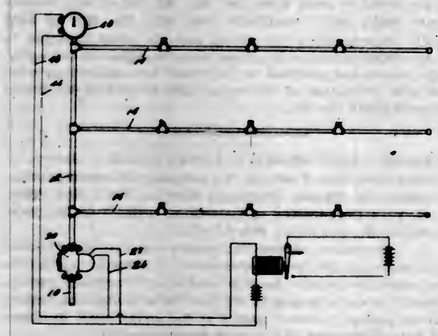
3. The combination, in a twin typewriting machine, of a carriage and a platen operable for two sets of types, and keys therefor, the types of one set representing English characters arranged to create impressions in normal, reading position, and the types of the other set representing agglutinate characters arranged to create impressions whose vertical axes are perpendicular to the vertical axes of the first-named impressions, the keys for both sets of types bearing the characters they represent all in reading positions.

4. The combination, in a twin typewriting machine, of a carriage and a platen operable for two sets of types, and keys therefor, the types of one set representing English characters arranged to create impressions in normal, reading position, and the types of the other set being relatively larger than those of the first-named set and representing agglutinate characters arranged to create impressions whose vertical axes are perpendicular to the vertical axes of the first-named impressions, the keys for both sets of types bearing the characters they represent all in reading positions.

5. The combination, in a twin typewriting machine, of a carriage and a platen operable for two sets of types, and keys therefor, the types of both sets having character representations for impression in two positions of the platen, the type characters for one position in one set of types representing English characters arranged to create impressions in normal, reading position, and the type characters of said set for the other position, together with the type characters for both positions in the other set of types, representing agglutinate characters all arranged to create impressions whose vertical axes are perpendicular to the vertical axes of the English character impressions, the keys for both sets of types in both positions bearing the characters they represent in reading positions.

[Claims 6 to 29 not printed in the Gazette.]

1,204,327. ALARM-CONTROLLING MEANS FOR SPRINKLER SYSTEMS. NATHAN H. SUREN, Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed Jan. 28, 1915. Serial No. 4,925. (Cl. 177—382.)



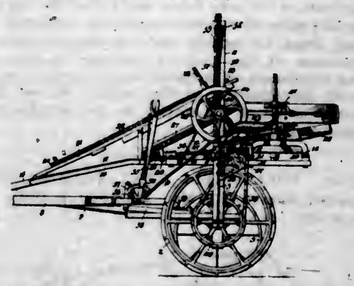
1. In an alarm-controlling means for sprinkler-systems, the combination with the supply-pipe and service-pipe of a sprinkler-system, of a check-valve arranged to open and close communication between said supply-pipe and service-pipe, and a pressure-controlled element connected with the service-pipe, circuit-controllers associated, respectively, with said check-valve and said pressure-controlled element, and a circuit in which said circuit-controllers are arranged in parallel relation, whereby the alarm-circuit will be controlled only upon operation of both circuit-controllers, substantially as described.

2. In an alarm-controlling means for sprinkler-systems, the combination with the supply-pipe and service-pipe of a sprinkler-system, of a check-valve arranged to open and close communication between the supply-pipe and service-pipe, a pressure-gage connected with the service-pipe, circuit-controllers associated, respectively, with said check-valve and pressure-gage, a circuit in which said circuit-controllers are arranged in parallel relation, whereby the circuit will be controlled only upon operation of both circuit-controllers, substantially as described.

3. In an alarm-controlling means for sprinkler-systems, the combination with the supply-pipe and service-pipe of a sprinkler-system of means controlling the flow of water from the supply-pipe to the service-pipe and a circuit-controller associated with said means and responsive to the operation thereof, a pressure-controlled element connected with the service-pipe, and responsive to variations in the pressure therein, a circuit-controller associated with said element, and a circuit arranged to be controlled by and only upon coincident operation of both said circuit-controllers, substantially as described.

4. In an alarm-controlling means for sprinkler-systems, the combination with the supply-pipe and service-pipe of a sprinkler-system, of means responsive to a reduction in the pressure in the service-pipe and also to a rise in pressure in the supply-pipe, and a circuit-controller associated with said means and responsive to the operation thereof, a pressure-controlled element connected with the service-pipe and responsive to variations in the pressure therein, and a circuit-controller associated with said element, and a circuit arranged to be controlled by and only upon coincident operation of both said circuit-controllers substantially as described.

1,204,328. KAFIR-CORN HARVESTER AND BINDER. WILLIAM T. WENTZ, Leon, Kans. Filed Apr. 30, 1915. Serial No. 25,029. (Cl. 56—119.)



1. A Kafir corn header and binder, comprising a vehicle provided with a main frame and wheels carrying the frame, another frame rising from the main frame in fixed relation thereto, a carrier within the second frame and movable up and down therein, means for raising and lowering the carrier with respect to the second frame and to the vehicle, and a header, a gatherer, and a binder in coactive relation one to the other and all mounted on the carrier for up and down movement as a unit therewith.

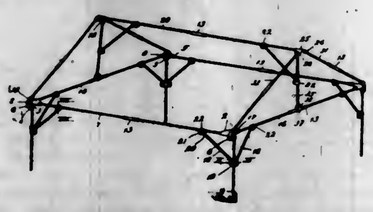
2. A Kafir corn header and binder, comprising a vehicle having a main frame and wheels, an arch frame on and rising from the main frame, another frame mounted on the arch frame and movable up and down therein and extending forwardly and rearwardly of the arch frame, elevating and lowering means for the third-named frame connected to opposite sides thereof and extending over the arch frame to a common point of manipulation at one side of the arch frame, and gathering, heading and binding devices on the third-named frame in cooperative relation to each other and movable up and down as a unit with the third-named frame.

3. A Kafir corn header and binder, comprising a vehicle, an upright arch frame mounted thereon, a carrier mounted on the arch frame and slidable up and down therein and provided with forward divergent continuations, gathering means carried by the forward divergent continuations, heading mechanism mounted on the carrier at the rear of and in coöperative relation to the gathering means, binding mechanism mounted on the carrier to the rear of the gathering and heading mechanism and in coöperative relation thereto, the gathering, heading and binding mechanisms all being supported by and movable simultaneously with the carrier as a unit, and means on the arch frame for supporting, elevating and lowering the carrier.

4. A Kafir corn header and binder, comprising a vehicle, an upright arch frame mounted thereon, a carrier mounted on the arch frame and slidable up and down therein and provided with forward divergent continuations, gathering means carried by the forward divergent continuations, heading mechanism mounted on the carrier at the rear of and in coöperative relation to the gathering means, binding mechanism mounted on the carrier to the rear of the gathering and heading mechanism and in coöperative relation thereto, the gathering, heading and binding mechanisms all being supported by and movable simultaneously with the carrier as a unit, and means on the arch frame for supporting, elevating and lowering the carrier, said last-named means comprising a winding drum at one side of the arch frame, and flexible strands leading to opposite sides of the carrier and having supporting and directing devices for the strands for guiding the latter over the arch of the arch frame.

5. A Kafir corn header and binder, comprising a vehicle, an arch frame on and rising from the vehicle at one side of the latter, another frame constituting a carrier and extending forwardly and rearwardly from the arch frame and connected to the latter at an intermediate point of the length of the carrier for sliding movements up and down on the arch frame, a winding drum on one side of the arch frame, flexible strands extending along the uprights of the arch frame and across the top thereof to opposite sides of the carrier and also connected to the winding drum for raising and lowering the carrier by manipulation of the drum, a gatherer, a header, and binding mechanism all mounted on the carrier and simultaneously participating to like extents in the up and down movements of the carrier on the manipulation of the winding drum.

1,204,329. COLLAPSIBLE TENT-FRAME. JOHN E. WILKINS, Kansas City, Mo. Filed May 1, 1916. Serial No. 94,593. (Cl. 135—4.)



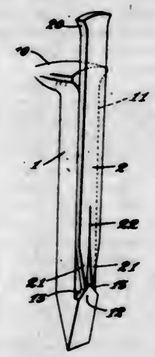
1. In a tent frame, a rectangular frame having corner fittings each of which latter has a pair of downwardly extending flanges, one of the flanges of each pair of flanges having a vertical abutment, legs having their upper ends extending between said flanges, a ridge pole having gable parts, members secured to the gable parts and engaged with the vertical abutments so as to be held by the latter against turning, and pins passed through the flanges and members.

2. In a tent frame, a rectangular frame having corner fittings each formed of a single blank having a socket and two pairs of flanges, one of the flanges of each fitting being bent at right angles at its free edge to form a vertical abutment, a ridge pole having gable parts, members secured to the gable parts and engaged with the abutments, legs having their upper ends extending between one of the pairs of flanges of the respective fittings, and pins passed through the members of the gable parts and through the legs and the flanges of the fittings which receive the legs.

3. In a tent frame, a corner fitting formed of a single sheet metal blank one end of which is folded inwardly and bent at right angles across the line of fold to provide two pairs of flanges and one side of which is rolled over to form a tubular member.

4. In a tent frame, a ridge fitting formed of a single sheet metal blank folded to form a pair of oppositely inclined flanges, a tubular horizontal portion extending outwardly from the point of juncture of said flanges, and a pair of flanges depending from the horizontal tubular portion.

1,204,330. RAIL-SPIKE. ADOLPHUS G. ADAIR, Seattle, Wash. Filed Mar. 4, 1915. Serial No. 12,172. (Cl. 85—23.)

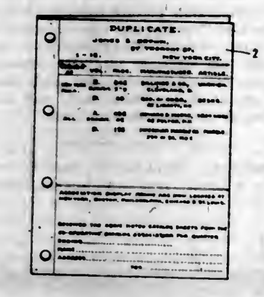


A rail spike having a head projecting laterally to overlap the edge of the rail base, and at the opposite side being flush with the side of the stem, the latter side of the stem having a side projection near its point, and a locking member consisting of a thin, flat spike adapted to fit against and to be driven along the side of the main spike which is away from the rail, the end of said locking spike being split lengthwise and with the tips of said splits tapered from the center and the outer margins to form points well inside of the outer margins of the spike, said tips being adapted to be spread by engagement with the side projection of the main spike to be thereby driven laterally into the tie.

1,204,331. COÖPERATIVE ADVERTISING. GEORGE A. ANNABLE, New York, N. Y., assignor, by mesne assignments, to Sweets Catalogue Service, Inc., New York, N. Y., a Corporation of Delaware. Filed Dec. 20, 1900. Serial No. 534,021. (Cl. 11—7.)

1. Coöperative advertising means comprising individual catalogues of different advertisers of different specialties or products uniform in size and bound together and an index thereto arranged in four columns containing respectively page references, names of the advertisers, locations of the advertisers and classifications thereof.

2. Coöperative advertising means comprising individual catalogues of different advertisers of different specialties or products uniform in size and bound together, three separate indices thereto, one index being arranged according to the names of the advertisers, the second index being arranged according to the business or trade of the advertisers and the third index being arranged according to the locality of the advertisers and each index having four columns containing respectively page references, names of the advertisers, locations of the advertisers and classifications thereof.



3. Means for coöperative advertising comprising, a loose leaf set of uniform advertisements of different advertisers in different localities, an index therefor arranged according to names, an index arranged according to classification, an index arranged according to different localities, and a lock binder for securing the same together.

4. Means for coöperative advertising comprising, a loose leaf set of advertisements of different advertisers of different classes in different localities, one or more indices therefor giving the names, classes and locations and containing references to the location of displays of the advertised classes and a binder securing the same together.

5. Means for coöperative advertising comprising, a loose leaf set of advertisements of different advertisers of different classes in different localities, one or more indices therefor and a supplementary index of new matter containing references to the location of displays of the advertised classes and means binding the same together.

[Claims 6 to 8 not printed in the Gazette.]

1,204,332. ENTRENCHING-TOOL. FLOYD P. ARCHER, Wilkes-Barre, Pa. Filed Feb. 15, 1916. Serial No. 78,494. (Cl. 55—14.)



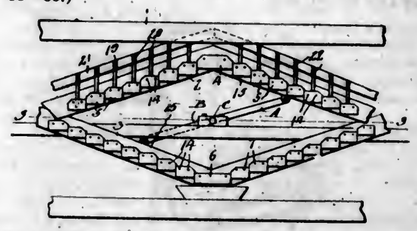
1. An entrenching tool including a digging member, converging flanged strips secured to said digging member, a bifurcated handle having one portion engaging the digging member and the other portion received by said flanged strips, and spring-held means for locking said digging member with said handle portions.

2. An entrenching tool, including a digging member, converging channeled ways arranged upon said digging member, a bifurcated handle having one portion thereof engaging the digging member, and the other portion thereof received by the channeled ways, and means for locking the said digging member to said handle portion.

3. An entrenching tool including a digging member, converging channeled ways arranged upon said digging member, a bifurcated handle having one portion thereof engaging the digging member, and the remaining portion received by said channeled ways, and means for locking the digging member to the handle.

4. An entrenching tool including a digging member, converging channeled ways arranged upon said digging member, a bifurcated handle having one portion engaging the digging member, and the other portion received by said channeled ways, a movable pin engaging the digging member and the bifurcated portion of the handle, and spring means engageable with said pin for holding the same in engaged position.

1,204,333. CONCENTRATOR. LYNN W. BARBER, Hetland, S. D. Filed Feb. 10, 1915. Serial No. 7,327. (Cl. 83—88.)



1. A separator of the character described comprising an upper series of separating pans consisting of a central receiving pan having outlets at its opposite sides and gradient rows of pans arranged on opposite sides thereof and extending at an outward and downward angle in stepped relationship, a lower series of pans having a central discharge pan provided with outlets at its opposite sides and gradient rows of pans on opposite sides thereof and extending outwardly and upwardly in stepped relation, the pans of the lower series being arranged to receive the material flowing from the terminal pans of the upper series, and means for establishing relative motion between the pans of the respective series to effect movement of the material being separated.

2. A separator of the character described comprising upper and lower sets of separating devices, each consisting of a central pan and separating pans on opposite sides thereof, the separating pans of the upper series inclined outwardly and downwardly from the center pan and the separating pans of the lower series inclined outwardly and upwardly from the central pan thereof, the separating pans of each set being arranged in stepped relation and the central pan of the lower series being provided with an outlet for the tailings, and means for reciprocating said pans.

3. A separator of the character described comprising upper and lower series of separating pans, each including a central pan and separating pans on opposite sides thereof, the separating pans of the upper series being inclined downwardly and outwardly from the central pan thereof, and the separating pans of the lower series being inclined outwardly and upwardly from the central pan thereof, said central pans respectively serving as an inlet and outlet, and means for imparting relative motion to the upper and lower sets or series of pans.

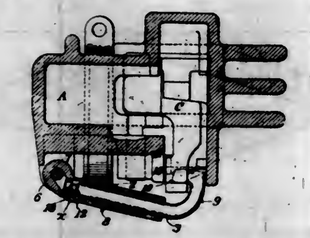
4. A separator of the character described including an upper series of pans, consisting of a central receiving pan and stepped sets of separating pans inclining downwardly and outwardly at opposite sides thereof, a lower series of pans including a central discharge pan and separating pans arranged in stepped order and inclining upwardly and outwardly on opposite sides thereof, the pans of the lower series being greater in number than the pans of the upper series and adapted to receive the material therefrom, and agitators within the pans, supporting means for holding said agitators stationary, and means for imparting relative motion to the sets of pans.

1,204,334. CAR-COUPLING. ARTHUR J. BAZELEY, Cleveland, Ohio, assignor to The National Malleable Castings Company. Filed July 12, 1913. Serial No. 778,670. (Cl. 213—10.)

1. In coupler operating mechanism, a lever pivotally mounted on the coupler head and arranged to swing transversely thereof, a rod secured to the lever having an actuating connection with the lock, said rod being adapted to swing transversely with the lever and having a rotative movement independent thereof about its own longitudinal axis.

2. In coupler operating mechanism, a lever pivotally mounted on the coupler head and a rod forming an actuating connection between the lock and the lever, said rod

being adapted to be rotated with the lever about the pivot of the lever and being arranged also for rotation about the long axis of the lever.



3. In a coupler operating mechanism, a lever pivotally mounted on the coupler head and arranged to swing transversely thereof, and a rod journaled in said lever and arranged longitudinally thereof, said rod having an actuating connection with the lock and being adapted to swing transversely with the lever and having a rotative movement independent thereof.

4. In coupler operating mechanism, a lever pivoted to a coupler-head, and a rod secured to said lever and having an actuating connection with the lock and being adapted to be rotated about the axis of said lever, said rod being adapted to engage the under side of the coupler-head to prevent the lock from creeping.

5. In coupler operating mechanism a lever mounted on an axis arranged longitudinally of the coupler-head, and an actuating connection between the lever and the lock, the said actuating connection being arranged to rotate about the axis of the lever and also to rotate about an axis arranged at right angles to the axis of the lever.

[Claim 6 not printed in the Gazette.]

1,204,335. WASHBOARD-PROTECTOR. FRIEDERICH WILLIAM BECKER, New Athens, Ill. Filed Jan. 27, 1916. Serial No. 74,638. (Cl. 68—29.)

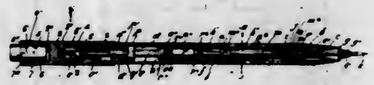


1. The combination with a washboard having bearings in its side bars adjacent the top; of a protector plate with pintles disposed in said bearings, cranks on said pintles adapted to be swung from beneath said pintles to above the same adjacent the top upon movement of the plate from an angle to the board to flush with the same, studs at the ends of the side bars and said top past opposite sides of the center of the bearings, and coiled springs on the ends of said cranks adapted for alternate engagement with the studs on said side bars or top to hold the plate either at an angle or flush with respect to the board.

2. The combination with a washboard having alined transversely extending notches in its side bars, of a rod extending across said board and removably positioned in the notches, laterally bent extremities on the projecting ends of said rod to form cranks for the same, a protector plate having one side rigidly secured to said rod between the pintles, studs on said side bars, and coil springs adapted to connect said cranks and studs.

3. The combination with a washboard having alined transversely extending notches in its side bars, of a rod extending transversely across said bar and positioned in said notches, means for removably securing said rod therein, the opposite ends of said rod projecting from the side bars with their extremities bent laterally and lying parallel to form cranks, a substantially rectangular shaped protector plate having one side surrounding the said rod between the portions of the same positioned in the notches, studs on said side bars, and coil springs adapted to connect said cranks and studs.

1,204,336. PENCIL. WILLIAM H. BLAKE, Jersey City, N. J. Filed Nov. 11, 1913. Serial No. 800,255. (Cl. 120—18.)



1. A pencil including a casing; lead-gripping jaws; a lead-holder; lead-holder-feeding mechanism; and means for releasing the grip of said jaws upon the lead, when said lead-holder is out of engagement with said jaws; said means being arranged to actuate said lead-holder-feeding mechanism.

2. A pencil including a casing formed with a nose-piece; yielding lead-gripping jaws normally held in gripping position by said nose-piece; lead-holder feeding mechanism; and means by which said jaws are moved relatively to said nose-piece and are disengaged from the casing and permitted to spring apart, when said lead-holder is out of engagement with said jaws; said means being arranged to actuate said lead-holder-feeding mechanism.

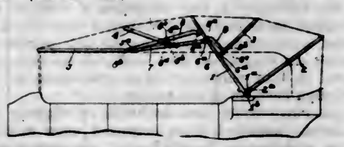
3. A pencil including a slidable guide-tube formed with lead-gripping jaws; a casing the pencil end of which presses said jaws into gripping position; a lead-holder which is carried by and slidable relatively to said guide-tube and is in engagement with said casing; and means by which said guide-tube is moved lengthwise relatively to said casing to disengage said jaws from said casing and thereby to permit said jaws to spring apart, when said lead-holder is out of engagement with said jaws; said means being arranged to turn said lead-holder relatively to the casing and thereby to feed the lead-holder.

4. A pencil including a casing; lead-gripping jaws; a lead-holder; lead-holder-feeding mechanism; means for maintaining said mechanism inoperative; and mechanism for releasing the grip of said jaws upon the lead and actuating said lead-holder-feeding mechanism.

5. A pencil including a casing; lead-gripping jaws; a lead-holder; lead-holder-feeding mechanism; means by which said mechanism is interlocked with said casing to maintain said mechanism normally inoperative; and mechanism for releasing the grip of said jaws upon the lead and actuating said lead-holder-feeding mechanism.

[Claims 6 to 10 not printed in the Gazette.]

1,204,337. TOP FOR VEHICLES AND THE LIKE. MAX BIRCH, Detroit, Mich., assignor to Henry E. Edwards, Jackson, Mich. Filed Nov. 13, 1915. Serial No. 61,611. (Cl. 21—62.)



1. A vehicle top comprising a pivoted arm or standard, a front bow arm, a member pivoted to the front bow arm and to the standard, a link 8 pivoted to the standard above said member and to the front bow arm in front of the pivot of said member, an intermediate bow arm having its

extremity pivoted to said member, and a sliding connection between said intermediate bow arm and said link, said sliding connection operating longitudinally of the intermediate bow arm.

2. A vehicle top comprising a pivoted arm or standard, a front bow arm, a member pivoted to each side of the front bow arm, and to the standard, a link pivoted to each side of the standard above said member and to the front bow in front of the pivot of said member, an intermediate bow arm having its extremity pivoted to said member, said intermediate bow arm having a longitudinal slot and a pin on said link engaging said slot.

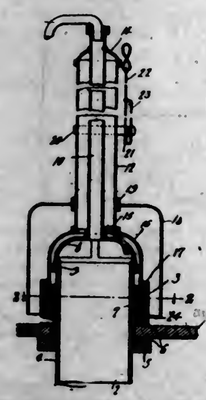
3. A vehicle top comprising a standard, a front bow arm, a lever member pivoted to the front bow arm and to the standard and having a part extended beyond its pivoted connection, a link pivoted to the standard above said lever member and to the front bow arm in front of the pivoted connection to said lever member, a front intermediate bow arm having its extremity pivoted to said lever member and having a lengthwise sliding connection with said link, a rear auxiliary bow arm pivoted to said standard, and a link connecting the extension of said lever member with the said auxiliary bow arm.

4. A vehicle top comprising a pivoted arm or standard, a front bow arm, a member pivoted to the front bow arm and to the standard, a link having a curved end pivoted to the standard above said member and to the front bow arm in front of the pivot of said member, an intermediate bow arm having its extremity pivoted to said member, and lugs or brackets extending laterally from said links and having sliding connections with said intermediate bow lengthwise thereof.

5. A vehicle top comprising a pivoted arm or standard having a pair of forwardly extending lugs one located above the other, a front bow arm, a lever member pivoted to the front bow arm and to the lower lug, and having a part extended beyond its pivoted connection, a link pivoted to the upper lug and to the front bow arm in front of the pivoted connection to said lever member, a front intermediate bow arm having its extremity pivoted to said lever member and having a sliding connection with said link operating in the plane of the intermediate bow arm, a rear auxiliary bow arm pivoted to a lug projecting rearwardly from said standard, and a link connecting the extension of said lever member with the said auxiliary bow arm.

[Claims 6 to 9 not printed in the Gazette.]

1,204,338. FLUSH-VALVE. THOMAS J. CAHILL, Corpus Christi, Tex. Filed May 13, 1916. Serial No. 97,347. (Cl. 4—5.)



1. In a device of the class described, a flush tank including a bottom; a sleeve assembled with the bottom; a trough carried by the sleeve; a spider assembled with the sleeve; a guiding means carried by the spider; inner and outer connected caps slidable on the guiding means, the inner cap embodying an extension adapted to dip into the trough, the outer cap being of greater diameter than the trough; and means for lifting both caps.

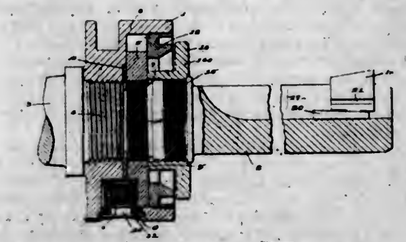
2. In a device of the class described, a sleeve; a circumscribing trough carried by the sleeve; a second trough in the first specified trough and fashioned from inamalgamative material; a cup adapted to dip into the inamalgamative trough; a float; and means for connecting the float with the cup.

3. In a device of the class described, a flush tank bottom; a sleeve therein; a trough carried by the sleeve; clamping means on the sleeve, the clamping means and the trough coöperating with opposite faces of the bottom to hold the sleeve on the bottom; a cup adapted to dip into the trough; a float; and means for connecting the float with the cup.

4. In a device of the class described, a sleeve, a trough assembled with the sleeve; a cup dipping into the trough and provided with a circumscribing shoulder adapted to rest on the top of the trough; means for raising and lowering the cup; and a float operatively connected with the cup.

5. In a device of the class described, a flush tank bottom; a sleeve extended through the bottom; an outer trough carried by the sleeve and coacting with the inner face of the bottom to support the sleeve; an inner trough within the outer trough and fashioned from inamalgamative material; a cup fashioned from inamalgamative material and dipping into the inner trough, the cup being provided with an outstanding circumscribing shoulder resting on the upper edge of one trough; an outer tube connected with the cup; an inner tube located within the outer tube and constituting a guide for the outer tube; a spider connecting the inner tube with the sleeve; and a bell-shaped float carried by the outer tube and surrounding the outer trough.

1,204,339. BORING-TOOL. HERMAN CASLER, Canastota, N. Y. Filed Feb. 9, 1914. Serial No. 817,461. (Cl. 77—58.)



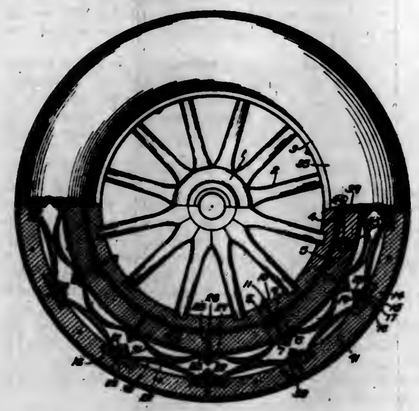
1. A boring tool comprising a head having a member adjustable crosswise thereof, means for holding said member in its adjusted position, a boring bar having one end supported by said member and provided with threads thereon, and a nut turning on said threads against said member, substantially as and for the purpose set forth.

2. A boring tool comprising a head having a member adjustable crosswise of the axis thereof, means for holding said member in its adjusted position, the adjustable member being formed with a threaded opening, a boring bar having one end threaded and turning in the threaded opening of the member, the bar being also formed with additional threads near said end, and a nut turning on the last mentioned threads against the member, substantially as and for the purpose specified.

3. A boring tool comprising a head having a member adjustable crosswise of the axis of the head, means for holding said member in its adjusted position, a boring bar connected to the head and having threads thereon, and a nut turning on the boring bar against said means, substantially as and for the purpose set forth.

4. A boring tool comprising a head for attachment to a spindle, the head being formed with a recess, a slide located at the bottom of the recess and adjustable crosswise of the axis of the head, means for adjusting the slide, an internal nut threading into the recess against the slide, a boring bar threading in the slide, and a nut threading on the boring bar and bearing against the slide, substantially as and for the purpose described.

1,204,340. SPRING-WHEEL. SAMUEL D. CHAPMAN, Kansas City, Mo. Filed June 3, 1914, Serial No. 842,644. Renewed Sept. 5, 1916. Serial No. 118,551. (Cl. 152—38.)



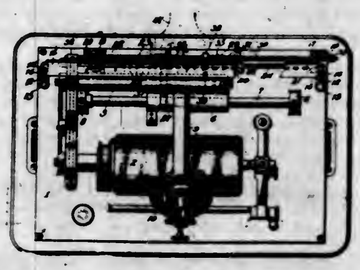
1. In a vehicle wheel, the combination with a body portion, of spaced inner and outer rings; one of said rings being provided with laterally opening sockets, guards fixed to the other ring, bosses on the guards projected into said sockets; the said bosses being of less diameter than the sockets to provide for limited universal movement of the rings relative to each other, stops fixed to the inner and outer rings at intervals throughout the circumference thereof, and paired springs arranged between adjacent stops and comprising independent members adapted for limited play between the stops and for wiping contact with each other.

2. In a vehicle wheel, the combination with a body portion, of spaced inner and outer rings; one of said rings being provided with laterally opening sockets, guards fixed to the other ring, bosses on the guards projected into said sockets; the said bosses being of less diameter than the sockets to provide for limited universal movement of the rings relative to each other, stops fixed to the inner and outer rings at intervals throughout the circumference thereof, and paired springs arranged between adjacent stops and comprising independent members adapted for limited play between the stops and, for wiping contact and longitudinal movement relative to each other.

1,204,341. PHONOGRAPH ATTACHMENT. CHARLES L. CHISHOLM, Marysville, New Brunswick, Canada, assignor of one-fourth to Edward G. Siggers, Washington, D. C. Filed July 17, 1911. Serial No. 638,977. (Cl. 274—17.)

1. An attachment for sound reproducing machines comprising an index finger or pointer, and means responsive to the progressive movement of the sound reproducing elements of the sound reproducing machine for causing a greater linear movement of the index or pointer than the linear movement of the sound reproducing elements with relation to the sound record.

2. In a sound reproducing machine, sound reproducing elements movable progressively with relation to a sound record, and indicating means for the progress of the sound reproducing elements with relation to the sound record, said indicating means including an index or pointer, and speed magnifying connections between those parts of the sound reproducing mechanism movable with relation to the record and the index or pointer.



3. In a sound reproducing machine having sound reproducing devices, movable progressively with relation to a sound record tablet on the machine, an index member of greater length than the extent of travel of the sound reproducing devices with reference to the record, an index or pointer movable along the index member, and speed multiplying connections between the sound reproducing devices and said index or pointer.

4. In a talking machine provided with a sound box and carrier therefor, and also with a support for a sound record, an index member having indicia thereon, an index or pointer movable with relation to said index member, and connections between said index or pointer and the sound box carrier movable progressively with relation to a sound record mounted on the machine, said connections including means for imparting to the index or pointer a greater range of movement than the movement of the sound box carrier.

5. In a talking machine provided with a sound box and carrier therefor, and also with a support for a sound record, an elongated index member, an index or pointer mounted for linear movement along and with respect to said index member, and attachments for connecting the index member to the sound box carrier of the machine, said attachments being movable progressively with relation to a sound record when mounted on the machine for impelling the index or pointer, and including coactive rotating members of different diameters and linearly movable members individual to the different coactive rotating members, one of said linearly movable members being connected to the index or pointer and the other to the sound box carrier.

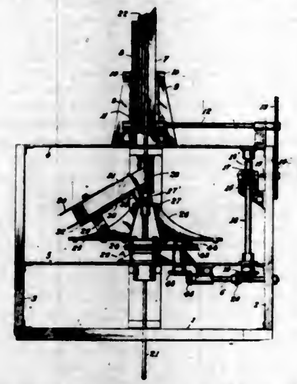
[Claims 6 to 15 not printed in the Gazette.]

1,204,342. MACHINE FOR WRAPPING HOSE AND SIMILAR ARTICLES. HENRY Z. COBB, Winchester, Mass., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed Feb. 4, 1915. Serial No. 6,022. (Cl. 28—6.)

1. In a machine for wrapping ribbons of sheet material, in combination with means for feeding the article to be wrapped at a fixed rate, a support rotatable about said article, a spool for carrying a supply of said sheet material mounted eccentrically on said support, and a winding head connected with said support, said winding head comprising a circular series of parallel elongated pressure rolls and a fixed tension bar on said winding head adjacent one of the rolls of said series.

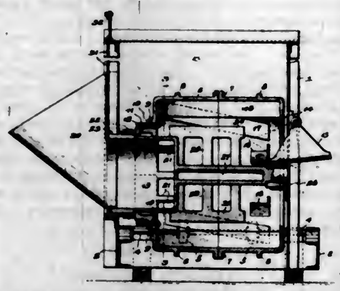
2. A winding head for wrapping ribbons of adhesive sheet material about a coreless elastic flexible article comprising a rotatable frame, a series of parallel elongated anti-friction rolls carried thereby and adapted to hold

said article from bending and to force said material into intimate contact with said article, and a tension and



guiding bar located between two of said rolls over which said material is adapted to pass and be immediately set under pressure by said rolls.

1,204,343. MIXING-MACHINE. FRANK A. CONNOLLY, Pompton Lakes, N. J. Filed July 25, 1916. Serial No. 111,237. (Cl. 83—73.)

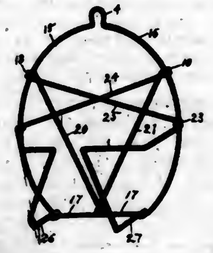


1. A mixer of the class described comprising a main drum having in one end an opening, an auxiliary drum projecting into said opening and having its outer end open for the reception of the material to be mixed, the inner end of said auxiliary drum being closed and having one or more openings for discharging the material into the main drum, means for driving the two drums in opposite directions, separate agitating means rotatable with said drums and operating adjacent each other, and means for permitting the discharge of the mixed material from the main drum.

2. A mixer of the class described comprising a main drum having at one end an opening, an auxiliary drum projecting into said opening and having an open outer end to receive the material to be mixed, the inner end of said auxiliary drum having one or more openings for discharging the material into the main drum, means for rotating the two drums in opposite directions, an agitator carried by the inner end of the auxiliary drum and disposed in the main drum, agitating means on the interior of said main drum, and means for permitting the discharge of the mixed material from said main drum.

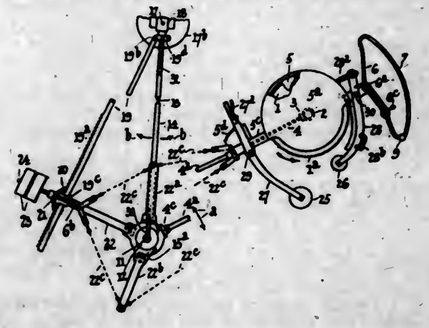
3. A mixer of the class described comprising a main drum having in one end an opening, an auxiliary drum extending into said main drum through said opening, said auxiliary drum having an open outer end to receive the material to be mixed and having a closed inner end formed with one or more openings for discharging the material into the main drum, means for rotating the two drums in opposite directions, a shaft extending axially from the inner end of the auxiliary drum through the main drum and having its free end rotatably supported, arms radiating from said shaft, paddles on the outer ends of said arms, agitating means on the interior of the main drum, and means for permitting the discharge of the mixed material from said main drum.

1,204,344. RECEPTACLE FOR POT-LIDS. JOHN J. DALTON, Seattle, Wash. Filed Apr. 22, 1913, Serial No. 762,891. Renewed Apr. 1, 1916. Serial No. 88,404. (Cl. 65—65.)



A pot lid holder, comprising a wire frame bent to form a central loop, and oppositely curved sides, the ends of which are projected inward and interlocked, then diverged and bent around the upper portions of the sides, then crossed, and again bent around the sides, then angularly bent to form horizontally-alined members having diverging portions at their inner ends spaced apart at their upper ends to provide a passage for the lid handle, and having right angular lid supports at their lower ends connected to the frame.

1,204,345. SAWING-MACHINE FOR HALVING CARCASSES. DANIEL DAVEY, Maribyrnong, and HARRY MAISON, Flemington, Victoria, Australia. Filed Mar. 13, 1916. Serial No. 83,929. (Cl. 17—30.)



1. In a carcass sawing machine, a circular saw having a casing from which part of the saw projects, means to rotate the saw, jointed supporting means to allow the casing and saw to be moved into any position required for halving a suspended carcass, a member pivoted on opposite sides of the center of the saw, each member having a roller at its end, to contact with the inside and outside of the carcass to guide the saw.

2. In a carcass sawing machine, a circular saw, and, near its cutting edge, one or more members such as rollers to be guided by the carcass surface, and framing carrying the saw and having weighted means to cause the saw to rise when its handles are uncontrolled, and a device on the framing and connected to the handles, to enable the said rise to be stopped.

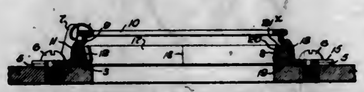
3. In a carcass sawing machine, a circular saw, near which are pivoted two arms each carrying a grooved member to be located during sawing with its groove engaging and guided by a separate spinal ridge of the carcass part of said carcass being gripped between the said grooved members.

4. In a carcass sawing machine, a circular saw, and supported near its cutting edge, sections forming a groove and having means to yieldingly press them toward one another, and adapted during sawing to rest on and be guided by a spiral ridge of the carcass.

5. In a carcass sawing machine, a circular saw, and supported near its cutting edge, grooved rollers in sections, with means to yieldingly press the sections toward one another, the sections being adapted, when required during sawing, to rest on and be guided by respective internal and external spinal ridges of a suspended carcass.

[Claims 6 to 15 not printed in the Gazette.]

1,204,346. ROTARY SPINNING-RING. SAMUEL S. DEARBORN, Boston, Mass. Filed Dec. 19, 1910. Serial No. 598,195. (Cl. 118—60.)



1. A rotary spinning ring comprising in combination a traveler ring rotatable by yarn tension, a traveler, a base or support whereon said ring is rotatable and having ring guiding means extending within the traveler ring, and shielding means distinct from said guiding means to exclude lint, etc., from the latter, said shielding means being exposed to the clearing action of said traveler.

2. A rotary spinning ring comprising in combination, a traveler ring rotatable by yarn tension, a treveler, a base or support whereon it is rotatable and having ring guiding means extending within the traveler ring, and stationary shielding means within said guiding means to exclude lint, etc., from said guiding means and exposed to the clearing action of said traveler.

3. A rotary spinning ring comprising in combination, a traveler ring rotatable by yarn tension, a traveler therefor, a base or support whereon it is rotatable and having ring guiding means extending within the traveler ring, and stationary shielding means distinct from and within the traveler ring and non-contacting with the latter, to exclude lint, etc., from said guiding means and from the inner face of the ring below the path of the traveler, said shielding means being exposed to the clearing action of the traveler.

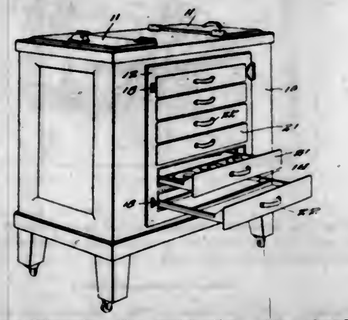
4. A rotary spinning ring comprising in combination a traveler ring, a base or support whereon it is rotatable, and having ring guiding means extending within the traveler ring, and stationary shielding means distinct from said ring guiding means and positioned both interiorly of and exteriorly to said traveler ring to exclude lint, etc., from the surfaces of the ring below the traveler and from said ring guiding means.

5. A rotatable spinning ring comprising in combination a traveler ring rotatable by yarn tension, a base or support whereon said ring is rotatable and having ring guiding means extending within the traveler ring and stationary shielding means distinct from and within the guiding means and non-contacting with the bearing surface of the latter to exclude lint, etc., from said guiding means and from the inner face of the ring below the path of the traveler.

[Claims 6 to 10 not printed in the Gazette.]

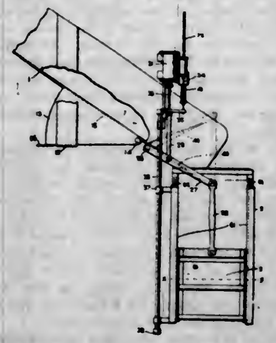
1,204,347. REFRIGERATOR. VICTOR A. DE CANIO, Union Hill, N. J., assignor to Lorillard Refrigerator Co., New York, N. Y., a Corporation of New York. Filed Apr. 14, 1914. Serial No. 831,820. (Cl. 45—71.)

1. In a refrigerator, the combination with a box-like body having an opening in its front, and two upright partitions in the body defining cooling compartments and a food compartment between them, each partition being composed of a series of spaced horizontal guides alined with the edges of the front opening; of a door hinged at one edge to said front and adapted to close the opening therein and itself having a series of transverse openings, means for fastening the door when closed, and a series of drawers each having a shallow body adapted to pass through one of the door-openings and engage a pair of said guides, each drawer also having a wide front panel adapted to fit into and close its door-opening when the drawer is closed.



2. In a refrigerator, the combination with a box-like body having openings in its top near the ends thereof and a large opening in its front between the other openings, two upright partitions in the body defining cooling compartments beneath said endmost openings and a food compartment between the cooling compartments, each partition being composed of a series of spaced horizontal guides alined with the edges of the front opening, and covers for closing said endmost openings; of a door movably carried by the refrigerator front and adapted to close the large opening therein and itself having a series of transverse openings, and a series of drawers slidable through said transverse openings and each having a shallow body whose edges engage a pair of said guides and a wide front panel adapted to close its respective opening in the door when the drawer is closed.

1,204,348. COAL-LOADING APPARATUS. HARRY B. DOHERTY, Everett, Mass., assignor of one-half to James M. McClellon, Everett, Mass. Filed Sept. 19, 1914. Serial No. 862,502. (Cl. 214—1.)



1. In a loading apparatus, the combination with a receiving member, of means to deliver material thereto, means actuated by a car passing adjacent said member to effect a transfer of the contents of said member to the car, means to prevent the delivery of material to the member while such transfer is being effected, and other means

independent from the last-named means to prevent the delivery of material to said member when the latter has received a predetermined amount.

2. The combination with a receiving member having a discharge opening and a gate therefor, of a chute to deliver material to the receiving member, means set in operation by a car passing adjacent said member to open the gate thereby to effect transfer of its contents to the car, means operative when the gate is open to stop delivery of material through the chute into said receiving member, and other means independent from the last-named means to prevent the delivery of material to said member when the latter has received a predetermined amount.

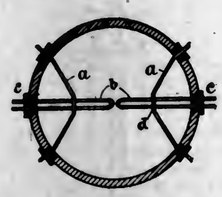
3. In a loading apparatus, the combination with a receiving member having a discharge opening and a gate therefor, of a chute to deliver material to said member, a gate by which the chute may be closed, connections between said gates whereby they operate simultaneously and in such manner that the gate for the chute is closed when the gate for the receiving member is open and vice versa, means set in operation by a car passing beneath said member to open the gate thereof whereby the contents of said member will be discharged into the car and to close the gate of the chute, and means structurally independent from said latter gate to prevent the delivery of material to said member when the member has received a predetermined amount.

4. In a loading apparatus, the combination with a receiving member having a discharge opening and a gate therefor, of a chute to deliver material to the receiving member, a normally open gate to close the chute, connections between said gates whereby they operate in unison but oppositely so that when one is open the other is closed and vice versa, car-actuated means to operate the gates and other means to stop the flow of material to the receiving member when the latter has received a predetermined amount.

5. In a loading apparatus, the combination with a receiving member having a discharge opening and a gate therefor, of a chute to deliver material to the receiving member, a normally-open gate to close the chute, connections between said gates whereby when one is open the other is closed, an actuating cylinder having a power piston therein connected to said gates, means actuated by a car passing beneath the receiving member to control the operation of said piston and other means to prevent the delivery of material to the receiving member when it has received a predetermined amount.

[Claims 6 to 15 not printed in the Gazette.]

1,204,349. ELECTRIC-ARC FURNACE. CARL OLAF ANDERSEN DOVLE, Notodden, Norway, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed Jan. 10, 1914. Serial No. 811,420. (Cl. 204—81.)



1. In an electric arc furnace, the combination with electrodes thereof in which the arc moves along the electrodes and said electrodes are subjected to the vibratory action of the arc; of means inside the furnace to prevent vibrations of the electrodes.

2. In an electric arc furnace, the combination with an electrode thereof in which the arc moves along the electrode and has a vibratory action thereon; of steadying means for the electrode, supported by the furnace walls at a distance from the point where the electrode enters the furnace.

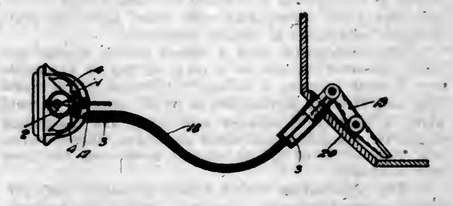
3. In an electric arc furnace, the combination with an electrode thereof in which the arc moves along the electrode and has a vibrating action thereon; of adjustable steadying means for the electrode, supported by the furnace walls at a distance from the point where the electrode enters the furnace.

4. In an electric arc furnace, the combination with an electrode thereof in which the arc moves along the electrode and has a vibrating action thereon; of adjustable water-cooled steadying means for the electrode, supported by the furnace walls at a distance from the point where the electrode enters the furnace.

5. The combination with a U-shaped electric furnace electrode along which the arc moves and has vibratory action thereon; of a metallic brace extending from the furnace wall to the electrode intermediate its end and the point where the electrode enters the furnace, the ends of said brace extending through the furnace wall to the outside thereof.

[Claims 6 to 11 not printed in the Gazette.]

1,204,350. AUTO-LIGHT DIMMER. ANDREW A. FLORY, Grand Rapids, Mich., assignor to Grand Rapids Dimmer Company. Filed Dec. 9, 1915. Serial No. 66,005. (Cl. 240—45.)



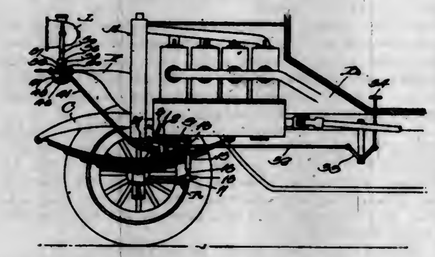
1. In combination, a light bulb, a dimmer construction including a sector pivotally mounted adjacent the bulb and adapted in one position to partially cover said bulb, a push rod mounted adjacent the bulb, means to move the rod back and forth and operative engagement between said rod and sector for turning the sector to operative position on forward movement of the rod.

2. In combination, a light bulb, a dimmer construction including a plurality of sectors pivotally mounted adjacent the bulb and adapted in one position to partially cover the bulb, a push rod movably mounted back of the bulb, a ring secured thereto, said ring having operative engagement with the sectors to close them on forward movement of the push rod, and means for moving the rod back and forth.

3. In combination, a light bulb, a dimmer construction movably mounted adjacent the bulb, a push rod mounted back of the bulb operating the dimmer construction to partially cover the bulb on forward movement of the rod, a cylinder, a piston on the rod located in the cylinder, a tubular connection to the cylinder, and means to alternately raise and lower the pressure in said tube above and below normal atmospheric pressure, substantially as described.

4. In combination, a light bulb, a dimmer construction, movably mounted adjacent the bulb, a push rod mounted back of the bulb operating the dimmer construction on forward movement of the rod to partially cover the bulb, a cylinder, a piston on the rear end of the rod located in the cylinder, a tubular connection to the cylinder, a cylinder connected to the opposite end of the tubular connection, a piston thereon, an operating rod secured thereto having a notch in one side thereof, a cap to the cylinder through which the rod passes, and having a part adapted to seat in said notch when the operating rod is moved to one position, and a coiled spring interposed between the piston and end of the cylinder tending to return the piston to normal position.

1,204,351. DIRIGIBLE HEADLIGHT. JOHN THORNTON GILMER, Fulton, Ala., assignor of one-half to Samuel Earle Airesman, Fulton, Ala. Filed Mar. 2, 1916. Serial No. 81,750. (Cl. 240—62.)



1. The combination with a vehicle having a lamp pivotally mounted thereon, of a plate having an arm extending therefrom, said arm being connected with the steering mechanism, a drum movable on said plate, a connection between said drum and lamp, means for connecting said drum and plate, whereby when said plate is moved by the steering mechanism the lamp will be turned, and means for disengaging said drum from the plate to allow said lamp to remain stationary.

2. The combination with a vehicle having a lamp pivotally mounted thereon, of a plate having an extensible arm formed thereon, a sliding connection between said arm and steering mechanism, a drum movable on said plate, a connection between said drum and lamp, and means for connecting said drum and plate, whereby when said plate is moved by the steering mechanism the lamp will be turned.

3. The combination with a vehicle having a lamp pivotally mounted thereon, of a plate having an extensible arm formed thereon, a cylinder secured thereto, a rod slidable therein, a finger on the vehicle steering rod and having said first mentioned rod connected thereto, a drum movable on said plate, a connection between said drum and lamp, and means for connecting said drum and plate, whereby when said plate is moved by the steering mechanism the lamp will be turned.

4. The combination with a vehicle having a lamp pivotally mounted thereon, of a plate having an arm extending therefrom, said arm being connected with the steering mechanism, a drum movable on said plate, a cylinder in said drum and connected thereto, means for connecting said cylinder to the plate, a connection between said drum and lamp, whereby when said plate is moved by the steering mechanism, the lamp will be turned, and means for disengaging said plate and cylinder to allow said lamp to remain stationary.

5. In a device of the class described, a drum connected with a lamp, a plate attached to the steering mechanism of a vehicle and movable therewith, means for engaging said plate and drum to rotate the lamp when the steering mechanism is operated, and means for disengaging said plate and drum to prevent the lamp from being rotated.

[Claims 6 to 16 not printed in the Gazette.]

1,204,352. HOSE-COUPLING. FREDERICK HACHMANN, St. Louis, Mo., assignor of one-fourth to Fred C. Schoenthaler, St. Louis, Mo. Filed Mar. 13, 1915. Serial No. 14,278. (Cl. 137—28.)

1. A hose coupling comprising a nipple having an enlarged annular shoulder tapering toward the end of the nipple to the internal diameter of the hose and adapted, when inserted into the hose, to expand the latter to form a distinct annular enlargement at a restricted point wholly remote from the coupled end of the hose and permit the hose to contract into engagement with the nipple and shoulder behind the latter, a pressed metal sleeve adapted to be applied over the hose and loosely over the enlargement thereon and having an annular flange formed to present an abrupt shoulder disposed to engage beyond and coact with the outer face of said annular enlargement to clamp the hose against the shoulder on the nipple, and a second pressed metal sleeve arranged for cooperation with the first named sleeve and with the nipple, said sleeves being free from contact with the hose except at said clamping point and having pressed threads forming a yieldable adjusting connection between them and adapting said first named sleeve and nipple to yieldingly clamp the hose and allow slight transverse movement or play of the sleeves relatively.



2. A hose mender comprising a nipple provided adjacent its ends with enlarged annular shoulders tapering toward the ends of the nipple to the internal diameter of the hose and adapted, when inserted into the hose sections, to expand the latter to form distinct annular enlargements at restricted points wholly remote from the meeting ends of said hose sections and permit the hose to contract into engagement with the nipple and shoulders behind the latter, a pair of pressed metal sleeves adapted to be applied over the hose and loosely over the enlargements thereon and having annular flanges formed to present abrupt shoulders disposed to engage beyond and coact with the outer faces of said annular enlargements to clamp the hose against the shoulders on the nipple, said sleeves being free from contact with the hose except at said clamping points and having pressed threads forming a yieldable connection between them and adapting said sleeves and nipple to yieldingly clamp the hose and allow slight transverse movement or play of the sleeves relatively.

3. A hose coupling comprising a nipple having an annular shoulder and adapted to be inserted into a hose, a sleeve adapted to be applied over the hose and having a flange formed and arranged to coöperate with said shoulder to clamp the hose on said nipple, and a split liner conforming to and applied against said flange, adapting the same to hose of different thicknesses.

1,204,353. TORPEDO-TUBE FOR SUBMARINES OR THE LIKE. MARLEY FOTHERINGHAM HAY and GERRIT EKAMA, The Hague, Netherlands. Filed Sept. 23, 1916. Serial No. 121,864. (Cl. 114—17.)

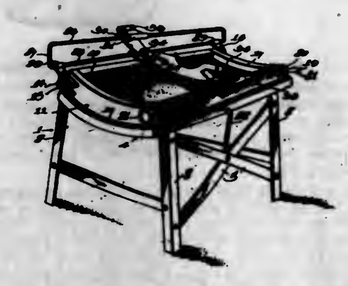


1. In connection with torpedo tubes for submarines and the like, a torpedo tube the outer end of which is contoured so that it approximately follows the line of the vessel, a hinged cover for same, and mechanism controlling the movement of this cover such that with the cover in either the open or closed position toggle action takes place so that no force can be transmitted from the cover, as described.

2. In connection with torpedo tubes for submarines and the like, a torpedo tube the outer end of which is contoured so that it approximately follows the line of the vessel, a hinged cover for same, and mechanism controlling the movement of this cover such that with the cover in either the open or closed position any reaction from the cover goes through the center of one of the axes on which the mechanism turns and thus no movement can be transmitted from the cover, as described.

3. In connection with torpedo tubes for submarines and the like, a torpedo tube the outer end of which is contoured so that it approximately follows the line of the vessel, a hinged cover for same, operating gear within the vessel, a vertical shaft turning in bearings on the tube, levers on the upper and lower ends of the shaft one connected to the operating gear and both connected each to a rod connected in turn to a lever one end of which is pivoted on a fixed pin at the mouth of the torpedo tube, a bent lever to one end of which the last mentioned lever is secured, and a pin on the cover to which the opposite end of the bent lever is secured, the levers and rods of this mechanism both above and beneath the torpedo tube being all in one plane, as described.

1,204,354. BLOCK-MOLD. WILBUR M. HICKMAN and ISAAC CANNIFF, Battle Creek, Mich. Filed July 13, 1916. Serial No. 109,121. (Cl. 25—43.)



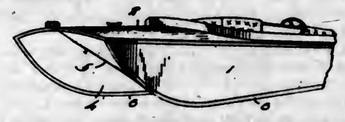
1. The combination with a block molding frame, of a track extending along one side of said frame, a slide rockably mounted on said track, and a trowel hingedly connected with said slide and adapted to be moved over the frame to trowel the plastic material therein.

2. The combination with a block molding frame, a track extending along one side thereof, and pivotally connected therewith, a slide member rockably and slidably mounted on said track, an attaching plate hinged to said slide member, and a trowel pivoted to said attaching plate and adapted to be moved over the aforesaid frame to trowel the plastic material therein.

3. The combination with a block molding frame, of a pair of bearings carried by one side thereof, a horizontal rod received rockably in said bearings, arms rising from said rod, a track rod carried by the upper ends of said arms, a slide member rockably and slidably mounted on said track rod, an attaching plate hinged to said slide member and a trowel pivoted to said attaching plate, said trowel being adapted to be moved over the aforesaid frame to trowel the plastic material therein.

4. The combination with a supporting frame including a horizontal bar and means for supporting a pallet in advance of said bar, of a block frame including a rear bar having brackets adjustably secured to the aforesaid horizontal bar to vary the angular relation of said rear bar in respect to the pallet, a pair of hinge plates contacting rockably with the rear side of said rear bar, bolts serving to lock said plates and secure them in adjusted position, a pair of end bars for the molding frame loosely hinged to said plates, and a detachable front bar for said molding frame.

1,204,355. MOTOR-BOAT. WILLIAM ALBERT HICKMAN, Boston, Mass. Filed Mar. 12, 1914. Serial No. 824,195. (Cl. 114—66.5.)



1. A motor boat comprising a hull formed of substantially parallel sides and a bottom divided into halves longitudinally of precisely similar dimensions, said halves having lateral upward inclinations from the chines and joined centrally forming two longitudinal continuous guiding surfaces in turning and twin surface propellers, each of said propellers coöperating with one of said guiding surfaces in steering the boat.

2. A hull in sled form having a stem extending athwartships and the chines curved upwardly at the bow end in the form of runners and its bottom divided into halves longitudinally of similar dimensions forming right and left sections and extending from the said stem to the stern and joined centrally above said chines throughout the length of the boat at a constantly changing angle most acute forward of midship.

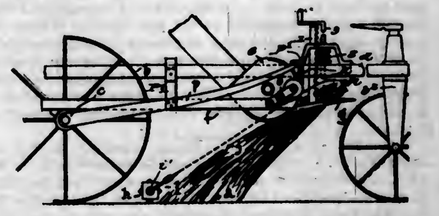
3. A hull of the hydroplane type having a stem extending athwartships at the top of the bow extremities of the sides and the latter curving downwardly and continuing to the stern, the bottom edges of said sides being joined from stem to stern by corresponding bottom boards or plates inclined upwardly from said sides and joined centrally thereby forming lateral and longitudinal inclines of said bottom from bow to stern.

4. A hull of the hydroplane type and square bow having its sides substantially parallel and its bottom formed in similar halves meeting centrally at varying angles and joined, said sides and said bottom at their joining forming acute angles of varying measurements from bow to stern.

5. A boat comprising a hull having planing surfaces along the bottom thereof and rudder plates hinged obliquely, one on each side of the boat and extending slightly to the rear of the stern transom, and means for operating said rudder plates.

[Claims 6 to 21 not printed in the Gazette.]

1,204,356. HARVESTING-MACHINE. CHARLES HOULDEN, Creek View, Victoria, Australia. Filed Dec. 15, 1915. Serial No. 67,026. (Cl. 56—33.)



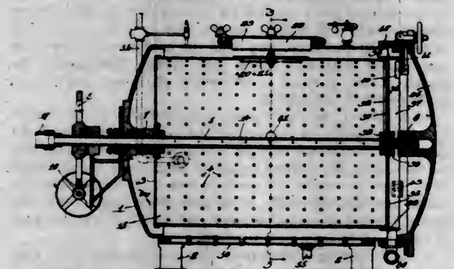
1. In a harvesting machine, the combination of a vertically adjustable comb mounted on the forward end of the harvester, fixed supports adjacent the comb, flexible connections suspended from the fixed supports, guides adjacent the comb over which the flexible connections pass, and a rotary ground roller mounted at the lower ends of the flexible supports, the flexible connections being longer than the vertical height of the comb above the ground,

whereby the butt ends of the stalks of the crop are held down.

2. In a harvesting machine, the combination of a frame, a comb carried by the frame, means for vertically adjusting the frame and comb, guide rollers supported on the frame, fixed supports on the machine, a ground roller in rear of the comb, chains connected at their upper ends to the fixed supports and passing over the guide rollers, bearings at the lower ends of the chains, said ground roller being mounted in said bearings, and means for adjusting the length of the chains.

3. In a harvesting machine, the combination of a comb, supports extending from the comb, guide rollers mounted on said supports, means for adjusting the supports, fixed supports on the machine, chains connected to the fixed supports and extending over the front of the guide rollers and to the rear thereof, means carried by the chains for adjusting the length thereof, and a ground roller mounted at the lower ends of the chains, said roller holding down the stalks of the crop when the comb is acting on said crop.

1,204,357. APPARATUS FOR TREATING FIBROUS MATERIALS. EUGENE D. JEFFERSON, Boston, Mass. Filed Jan. 13, 1915. Serial No. 1,960. (Cl. 92—18.)



1. Apparatus for treating fibrous materials, having in combination, a tank having an end closure, a cage rotatably mounted in the tank and having a removable end closure so that the materials in the cage may be emptied by opening the end closures of the tank and cage and rotating the cage.

2. Apparatus for treating fibrous materials having, in combination, a tank having a removable end closure, a cage rotatably mounted in the tank, a bearing mounted on the removable end closure for rotatably supporting one end of the cage, a removable end closure for the cage, a supplemental support for rotatably supporting the end of the cage when the removable end closure of the tank is removed.

3. Apparatus for treating fibrous materials having, in combination, a tank, a removable end closure for the tank, a bearing supported by the end closure, a cage rotatably mounted in the tank and having a trunnion journaled in the bearing to support one end of the cage, a roller mounted in the tank for engaging and rotatably supporting the free end of the cage when the end closure is removed, and a removable closure for the free end of the cage.

4. Apparatus for treating fibrous materials having, in combination, a horizontally disposed closed tank, a removable end closure for the tank having a bearing supported by the end closure, a cage rotatably mounted in the tank and having a trunnion journaled in the said bearing to support the end of the cage, one or more rollers engaging the free end of the cage at its periphery for rotatably supporting it when the end closure is removed, and a removable closure for the end of the cage.

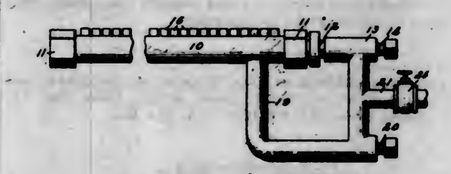
5. Apparatus for treating fibrous materials having, in combination, a cylindrical horizontally disposed closed tank, a removable head at one end of the tank, a bearing mounted in the center of the head, a cylindrical cage mounted in the tank and having a trunnion journaled in the bearing to support the end of the cage, an annular flange projecting from the free end of the cage, one or more rollers supported at the top of the tank and engaging the inner periphery of the flange for rotatably supporting the free end of the cage when the head of the tank is removed, and a removable end closure for the free end of the cage.

[Claims 6 to 8 not printed in the Gazette.]

1,204,358. MANUFACTURE OF BEVERAGE EXTRACTS. JOHN L. KELLOGG, Battle Creek, Mich., assignor to Kellogg Toasted Corn Flake Co., Battle Creek, Mich., a Corporation of Michigan. Filed Aug. 17, 1916. Serial No. 115,505. (Cl. 99—11.)

A beverage extract, consisting of the extract of a mixture of a starch-bearing material, which has been first cooked until the starches are well dextrinized and then roasted, and caramelized saccharine material.

1,204,359. MULTIPLE BLAST-BURNER. WILLIAM W. KEMP and WILLIAM H. VAN HORN, Baltimore, Md. Filed Mar. 27, 1915. Serial No. 17,383. (Cl. 158—109.)



1. In a multiple blast burner, a plurality of tips, each having a blast and a pilot opening, a valve controlling the blast openings of all of said tips, a second valve controlling the pilot openings of all of said tips, a single main supply pipe supplying a gas to both of said valves, and a main valve controlling the flow of gas through the main supply pipe.

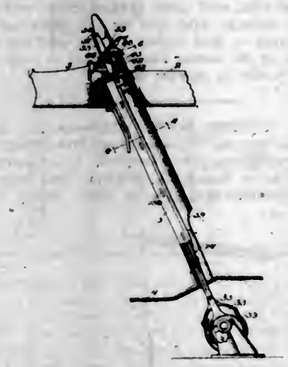
2. In a multiple blast burner, a manifold, a supply pipe within the manifold, a plurality of burner tips or casings mounted on the manifold and communicating therewith, a burner tube within each of said tips and communicating with the supply pipe, a burner plug in each of said tips at a distance below the upper end thereof and having a small central aperture communicating with said tubes and through which the blast supply issues, said plugs also having openings communicating through said tips with the manifold to provide pilot openings, a valve for said supply pipe for controlling the blast openings of all of said tips, and a second independent valve for said manifold for controlling the pilot openings of all of said tips.

1,204,360. AMMUNITION-HOIST. JOSEPH A. KILLINGER and ANDREW W. BEAN, Washington, D. C. Filed Jan. 21, 1915. Serial No. 3,538. (Cl. 193—11.)

1. The combination with a shell guide including shell elevating means, of a tiltable cradle embodying reversely disposed shell rests, automatic operating means for locking the cradle at the limit of its throw, and means for releasing the locking mechanism.

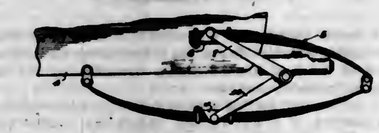
2. In combination, a shell guide, brackets extending upwardly therefrom, a tilting shell cradle pivoted between the brackets, said cradle comprising oppositely extending shell rests disposed on opposite sides of the pivotal connection, means at the ends of the shell rests for engaging a shell to hold same in the cradle, and means for locking the cradle in alinement with the shell guide or in its tilted position.

3. In combination, a shell guide, brackets extending upwardly therefrom, a tilting shell cradle pivoted between the brackets, said cradle comprising oppositely extending shell rests disposed on opposite sides of the pivotal connection, means at the ends of the shell rests for engaging a shell to hold same in the cradle, a notched disk on



the cradle, and a spring actuated lock to engage the notches in the disk to hold the cradle in alinement with the shell guide or in tilted position.

1,204,361. SHOCK-ABSORBER. HERBERT L. KIMMELL, Los Angeles, Cal. Filed Jan. 25, 1916. Serial No. 74,120. (Cl. 21—105.)



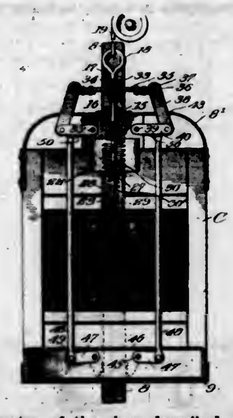
1. A shock absorber, comprising in combination an arm adapted to be secured to one of two relatively movable members, a casing fixedly secured to said arm, a cylinder open at its ends mounted in said casing, a head for one end of said cylinder provided with a valve seat, an inwardly opening valve disk mounted on said seat provided with a hollow stem open to a port through said disk, a valve check for said last mentioned port, an arm adapted to be secured to the other of said members geared to said piston to reciprocate the latter.

2. A shock absorber, comprising in combination, a cylinder, a conduit connecting the ends of said cylinder, a valve controlling said conduit having a reciprocating valve disk provided with a port, a check controlling said port, an arm fixedly secured to said cylinder, a piston having a rack mounted in said cylinder, a second arm secured to said cylinder for movement with respect thereto, and provided with a pinion meshing with said rack.

3. A shock absorber, comprising in combination a cylinder, a conduit connecting the ends of said cylinder, a valve controlling said conduit having a greater opening for flow of fluid in one direction than in the opposite direction, an arm fixedly secured to said cylinder, a piston having a rack mounted in said cylinder, a second arm secured to said cylinder for movement with respect thereto, and provided with a pinion meshing with said rack.

4. A shock absorber, comprising in combination, a cylinder, a conduit connecting the ends of said cylinder, a valve controlling said conduit having a greater opening for flow of fluid in one direction than in the opposite direction, an arm fixedly secured to said cylinder, a piston in said cylinder, a second arm secured to said cylinder for movement with respect thereto and geared to said piston to move the latter.

1,204,362. SAFETY LOCKING MECHANISM FOR ELEVATORS. JOSEPH KNEZIK, Madison, Ill. Filed Sept. 19, 1914. Serial No. 862,499. (Cl. 187—87.)



1. An apparatus of the class described comprising an elevator car, vertical guides therefor, a beam arranged between the sides of the car adjacent the top thereof, a receptacle formed by the beam, a casing arranged below the receptacle and secured to the beam and having an upper wall provided with an opening, a suspension bar slidably extending through the roof of the car and through the receptacle and into the casing, hoisting means connected with the suspension bar, a compression spring associated with the suspension bar within the casing and bearing at one end against the upper wall of the latter, a bracket rigidly supported adjacent the lower end of the receptacle, a block rigidly carried by the suspension bar above the bracket, a tension spring disposed within the receptacle and arranged between and connected to the bracket and block, a cross head adjustably carried by the suspension bar, and a plurality of gripping arms pivotally secured to the sides of the car and linkedly connected to the cross head and adapted to be rocked thereby into engagement with the said vertical guides, said gripping arms being arranged in pairs and bracing the vertical guides therebetween and adapted to engage the same at opposite sides.

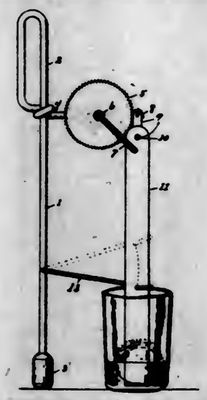
2. A device of the class described including an elevator car and guides relatively to which the car moves, a beam mounted on the car and providing a receptacle, a casing secured to the beam in axial alinement with the receptacle, a suspension bar slidably extending through the receptacle and casing, a compression spring associated with the suspension bar within the casing connected at one end with the bar and at its other end bearing against one end of the casing, a bracket carried by the receptacle, a tension spring arranged in the receptacle connected at one end with the bracket and at its other end with the bar, and gripping means carried by the car for engagement with the guides and actuated by the suspension bar.

1,204,363. EGG-BEATER, CREAM-WHIP, AND MIXER. ABRAHAM KNOBEL, San Diego, Cal. Filed June 1, 1914. Serial No. 842,183. (Cl. 259—144.)

1. A beater of the character described, comprising a beating mechanism including a beater blade and a standard therefor, said standard being spaced from said beater blade and provided with a single contacting point on its lower end which is adapted for free and tiltable engagement with a horizontal surface on the exterior of the receptacle in which the beater blade operates.

2. A beater of the character described, comprising a beating mechanism including a beater blade, and a standard therefor, said standard being spaced from said beater

blade and provided with a single contacting point on its lower end which is adapted for free, tiltable and rotatable engagement with a horizontal surface on the exterior of the receptacle in which the beater blade operates.



3. A beater of the character described, comprising a beating mechanism including a beater blade, and a standard therefor, said standard being spaced from said beater blade and provided with a single rounded contacting point on its lower end which is adapted for free, tiltable and rotatable engagement with a horizontal surface on the exterior of the receptacle in which the beater blade operates.

4. A beater of the character described, comprising a beating mechanism including a beater blade, and a standard therefor, said standard being spaced from said beater blade, formed of a single rod having its upper end bent into a loop to serve as a handle, and provided with a single contacting point at its lower end which is adapted for free and tiltable engagement with a horizontal surface on the exterior of the receptacle in which the beater blade operates.

5. A beater of the character described, comprising a beating mechanism including a beater blade, and a standard therefor, said standard being spaced from said beater blade and provided with an enlarged foot forming a single contacting point on its lower end, said foot being adapted for free and tiltable engagement with a horizontal surface on the exterior of the receptacle in which the beater blade operates.

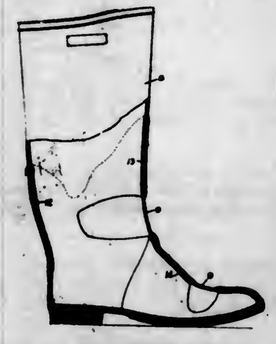
[Claims 6 to 9 not printed in the Gazette.]

1,204,364. SANITARY TOOTHPICK-HOLDER. OVIDE LAMOTHE and GEORGE LAMOTHE, Montreal, Quebec, Canada. Filed June 11, 1915. Serial No. 33,607. (Cl. 206—22.)



In a sanitary tooth-pick holder, in combination, a casing having a cover, a transverse slot in one side of said casing in the lower part thereof, a perpendicular slot intermediate of the length and downwardly extending from said transverse slot, a deflecting plate within said casing projecting outwardly through the said transverse slot and upturned so as to form a receiving plate, a portion of said plate being cut out, means to support said deflecting plate, a slot in said plate, a rocker pivotally mounted at one end in suitable bearings in the casing and a dent in its upper part, said upper portion of the rocker slightly projecting through said slot in the deflecting plate, a spring secured to said rocker at one end, the other end being rigid to the casing and a handle or arm projecting from said rocker to operate same.

1,204,365. RUBBER BOOT. CLIFFORD LEE, Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Co., a Corporation of Connecticut. Continuation in part of application Serial No. 849,871, filed July 9, 1914. This application filed Dec. 23, 1915. Serial No. 68,434. (Cl. 36—4.)



1. A rubber boot having a portion reinforced or stiffened, and a readily wrinkleable portion interrupting the stiffened portion of the boot and localizing wrinkling of the boot in said wrinkleable portion.

2. A rubber boot having a portion reinforced or stiffened, and a portion of predetermined undulating configuration interrupting the stiffened portion, and readily yieldable upon itself and adapted to localize and control wrinkling of the boot to occur longitudinally of the undulations of said portion.

3. A rubber boot having readily yieldable portions of predetermined configuration readily collapsible under stress to produce resultant wrinkles extending in predetermined directions, the boot being stiffened save at those points where said portions occur whereby wrinkling of the boot is localized in said portions.

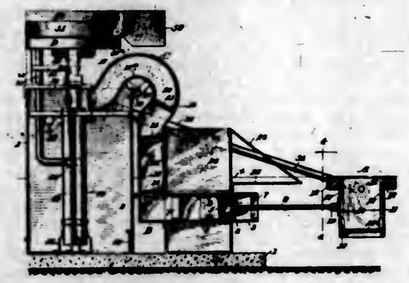
4. A rubber boot having a readily wrinkleable portion, the boot being stiffened adjacent to said portion to localize wrinkling in said portion, said portion having a predetermined configuration adapted to control wrinkling of said portion to occur in predetermined directions.

5. A rubber boot having a portion reinforced or stiffened, and permanent wrinkles interrupting the stiffened portion, said wrinkles readily collapsing upon themselves under stress while maintaining substantially their normal length and direction.

1,204,366. WAVE AND WIND POWER GENERATOR. ADOLPH LEPPERT, Brooklyn, N. Y. Filed June 14, 1915. Serial No. 33,887. (Cl. 253—4.)

1. Apparatus of the class described, comprising a reservoir, a pump having a stationary horizontally disposed cylinder, a vertically extending conduit through which water from said pump may be discharged into said reservoir, a float, and a pivoted link connection between said pump and float whereby the back and forth movement thereof, due to the ebb and flow of the water, serves to operate said pump, and whereby said float is free to rise and fall with the varying level of the water.

2. Apparatus of the class described, comprising a reservoir, a stationary pump, a conduit extending from the pump and discharging into the reservoir, a float, means whereby the said pump is operated by movements of the float, and a catch tank arranged to discharge its contents into said conduit, between said pump and said reservoir.



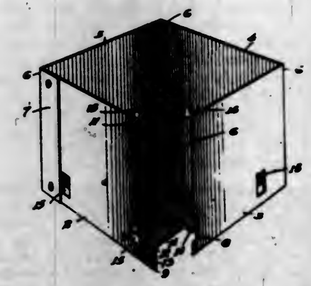
3. Apparatus of the class described, comprising a fixed reservoir, a stationary horizontally disposed pump, a float operatively connected therewith, a conduit for discharging water from said pump into said reservoir, a second pump carried by said float and operated by the vertical movement of the water thereunder, and a discharge pipe extending from said second pump to said reservoir.

4. In a device of the class described, the combination with a reservoir of a float, said float comprising a hollow boxlike body provided with check valves and having a vertically movable bottom, and a pipe connecting said body with said reservoir whereby vertical movements of said bottom coöperate with the said valves to force water through said pipe into said reservoir.

5. In a device of the class described, the combination with a reservoir of a pump arranged to deliver water into the same, a float, an operative connection between said float and pump whereby horizontal movements of the former operate the latter, said float being also capable of vertical movements and a pump carried by said float and operated by the vertical movements thereof, said second pump also delivering water into said reservoir.

[Claim 6 not printed in the Gazette.]

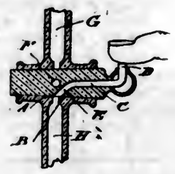
1,204,367. BERRY-BOX. LEWIS P. LORD, Minneapolis, Minn., assignor of one-third to F. G. Acomb, Minneapolis, Minn., and one-third to W. H. Killen, Appleton, Wis. Filed Nov. 13, 1915. Serial No. 61,298. (Cl. 229—16.)



1. A folding box comprising a blank of flexible material having parallel transverse score lines thereon at intervals to form a series of panels constituting the side walls of the box, and the panel at one end of the box having a lateral extension to form the bottom thereof, said panel also having longitudinal parallel score lines intersecting said transverse score lines forming a group of comparatively narrow flaps which are folded upwardly and inwardly when the box is set up and forming a support for the bottom panel, said flaps and said wall panels having openings therein which, when the box is folded, are partially above and partially below the bottom panel, for the purpose specified.

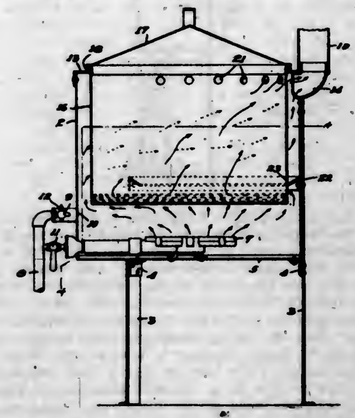
2. A berry box composed of a blank of flexible material having wall and bottom panels, said wall panels having flanges depending below said bottom panel and adapted to rest upon the top of the box next beneath, said flanges having openings therein to allow a circulation of air through the space between the bottom panel of one box and the berries in the box next beneath.

1,204,368. ANALYTICAL PIPETTE. ALEXANDER LOWY, New York, N. Y. Filed Mar. 27, 1916. Serial No. 87,114. (Cl. 23—3.)



In a pipette, in combination a chamber adapted to contain liquid, conduits communicating with opposite sides of said chamber; a stop-cock interposed in one of said conduits whereby a portion of said conduit connects said liquid chamber and said stop-cock, and a duct within said stop-cock adapted to establish communication between said connecting conduit and the atmosphere when said stop-cock is closed.

1,204,369. WASHBOILER. JOHN T. LUCAS, Minneapolis, Minn., assignor of one-third to L. F. Blyler and one-third to A. H. Rand, Minneapolis, Minn. Filed Dec. 28, 1915. Serial No. 69,039. (Cl. 126—350.)



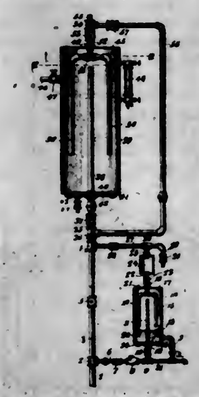
1. The combination, with a sheet metal jacket having an open top and closed bottom, of a gas burner mounted on said bottom, said jacket having a flange encircling its open top and provided near said flange with an exhaust opening, a pipe connection therefor, a boiler fitting within said jacket and seated on said flange and forming a substantially steam-tight joint therewith, the wall of said boiler having openings therein contiguous to said exhaust opening, for the purpose specified.

2. The combination, with a jacket having an open top and a gas burner mounted in the lower portion thereof, of a wash boiler fitting within said jacket, the walls of said boiler being spaced from the walls of said jacket, the upper walls of said jacket having an exhaust opening and pipe connection therefor and said boiler having a cover and a passage through which the steam may escape into the space between said boiler and jacket for delivery to said exhaust passage.

3. The combination, with a jacket and a burner mounted therein, of a boiler suspended within said jacket and spaced from said burner and the walls of the jacket, a deflector device interposed between said boiler and the walls of said jacket and extending partially around the boiler, compelling the flames and products of combustion from the burner to follow a tortuous path around said boiler, a vent pipe leading from said jacket, said boiler having discharge openings for the passage of steam to said vent pipe.

4. The combination, with a jacket and a burner mounted therein, of a boiler fitting within the open top of said jacket and depending to a point adjacent said burner, the upper walls of said jacket having an exhaust opening and a pipe connection therefor, the walls of said boiler having openings therein to allow the escape of steam into the space between said boiler and jacket, said jacket having means above said burner between it and said exhaust opening for deflecting the flames from said burner and compelling them to follow a tortuous path around said boiler.

1,204,370. FEED-WATER PURIFIER. WILLIAM E. MCCOMB, Cameron, Mo. Filed Nov. 5, 1915. Serial No. 59,795. (Cl. 210—19.)



1. A feed water purifier comprising a main pipe for receiving the water to be purified, a casing into which the water pipe enters to and discharges at a high point, an outlet for the casing communicating with the interior thereof at a low point and having multiple branches to slow up the flow of water from the high point of inlet to the low point of outlet within the casing, another pipe branched about the casing from the inlet to the outlet pipes thereof, another casing, a branch pipe from the main pipe entering the second casing and discharging thereinto at a high point, multiple pipe outlets leading from low points of the second casing and connected together and to the main pipe, and valves in the pipes for cutting the casings into and out of connection with the main pipe and for utilizing the casings singly or in series at the will of an operator.

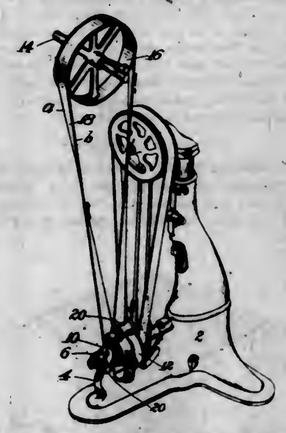
2. In a feed water purifying means, a supply pipe and an oil separator included therein and comprising a chamber with the main pipe entering the chamber and discharging thereinto at a high point, and a plurality of outlet pipes in the chamber for connection to the boiler, said outlet pipes communicating with the chamber at a low point therein and representing a cross-sectional area a plurality of times that of the main pipe.

3. In a means for purifying feed water, a casing, a pipe entering the casing and discharging thereinto at a high point of the casing, and a series of pipes in surrounding relation to the first-named pipe and communicating with the interior of the casing at a low point therein, said series of pipes having a common outlet, whereby water entering the casing through the inlet pipe is discharged thereinto at a high point and flows in a plurality of directions away from the inlet pipe to the entering ends of the surrounding series of pipes.

4. In a means for purifying feed water, a casing, a pipe entering the casing and discharging thereinto at a high point of the casing, and a series of pipes in surrounding relation to the first-named pipe and communicating with the interior of the casing at a low point therein, said series of pipes having a common outlet, whereby water entering the casing through the inlet pipe is discharged thereinto at a high point and flows in a plurality of directions away from the inlet pipe to the entering ends of the surrounding series of pipes, said casing being provided with a by-pass pipe extending from the inlet and outlet pipes around the casing and the inlet, outlet and by-pass pipes each having a valve therein for the control of the flow of water through the pipes.

5. In a feed water purifier, an oil separator comprising a casing, a feed water pipe entering the casing and opening therein at a high point of the casing, another feed water pipe leading from the casing with a series of branch pipes within the casing in surrounding relation to the first-named pipe and opening into the casing at a low point thereof, a branch pipe connecting the inlet and outlet pipes around the casing, a valve in the inlet pipe between the branch pipe and the casing, another valve in the outlet valve between the branch pipe and the casing, and a valve in the branch pipe.

1,204,371. BELT-CONTROLLING DEVICE. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 9, 1913. Serial No. 805,625. (Cl. 64—5.)



1. In power transmission mechanism, the combination with a pulley stand and bearing, a pulley mounted for turning movement in said bearing, a second pulley, and a belt connecting said pulleys, of a bracket having a three point contact with said bearing, one of said points being spaced longitudinally of the bearing from the other two points, clamping means for securing the bracket with its three points in firm contact with the bearing, and an idle pulley supported by the bracket and arranged to contact with the belt.

2. In power transmission mechanism, the combination with a pulley stand and bearing, a pulley mounted for turning movement in said bearing, a second pulley, and a belt connecting said pulleys, of a bracket having contact with said bearing at a plurality of points and also having a contact point on the stand, clamping means having provision for adjustment of the bracket to bring the several points into firm contact with the bearing and stand, and an idle pulley supported by the bracket and arranged to contact with the belt.

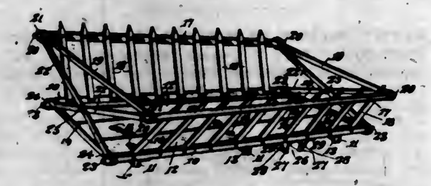
3. In power transmission mechanism, the combination with pulleys and a connecting belt, of a belt adjusting device comprising a supporting bracket, an arm mounted to turn upon said bracket to different positions of adjustment, and a belt tightening pulley carried by said arm, said bracket and arm being formed to present opposed contact members one of which is provided with a plurality of teeth or corrugations arranged in a continuous circular series, said other member having a plurality of separated groups of teeth arranged for engaging said teeth on the first named member in different positions of adjustment of said arm.

4. In power transmission mechanism, the combination with pulleys and a connecting belt, of a belt adjusting device comprising a supporting bracket, an arm mounted to turn upon said bracket to different positions of adjustment, a belt tightening pulley carried by said arm, said bracket and arm being formed to present opposed contact members one of which is provided with a plurality of teeth or corrugations arranged in circular series about the axis of turning movement of said arm, said other member having means for engaging said teeth at three or more locations symmetrically spaced apart about said axis at relatively wide intervals, and means for clamping said members together in adjusted position.

5. In power transmission mechanism, the combination with pulleys and a connecting belt of which one edge portion is of greater length than the other edge portion, of means arranged to bear upon said longer portion of the belt to tighten said portion without affecting materially the tension of the opposite edge of the belt, so as to correct the tendency of the belt to run unevenly upon the pulleys.

[Claims 6 to 15 not printed in the Gazette.]

1,204,372. HAY-RACK. JOHN A. MALCIK, Cistern, Tex. Filed Nov. 6, 1915. Serial No. 60,004. (Cl. 21—74.)



1. A hay rack comprising upper and lower angle side bars, angle cross-bars joining the lower side bars, said lower side bars and said cross bars having their horizontal flanges abutting and having their opposite flanges extending respectively upward and downward, bracing clamps securing the overlapping portions of said horizontal flanges together and engaging the vertical flanges of the cross bars for supporting the same, a plurality of slats placed between said lower side bars and resting upon the cross bars, and an open body rising from said lower side bars.

2. A hay rack comprising side bars of angle iron having their horizontal flanges extending inwardly, cross bars of angle iron having their horizontal flanges resting against the lower faces of said side bars, means for securing said horizontal flanges together at their abutting portions, pales rising from the vertical flanges of said side bars and diverging outwardly, upper side bars of angle iron construction secured at their depending flanges across the outer sides of said pales near the upper ends thereof and having their horizontal flanges extending outwardly, and studs extending from the extremities of said upper and lower side bars, end bars joining the opposite ends of said upper side bars, and cross-braces joining the opposite ends of the upper and lower side bars.

3. In a hay rack, longitudinal angle bars having horizontal flanges, cross bars of angle form having their horizontal flanges abutting the horizontal flanges of said longitudinal bars, the vertical flanges of said cross bars extending downwardly and having notches in their lower edges immediately beneath the horizontal flanges of said longitudinal bars, hook-bolts passing through the abutting horizontal flanges of said longitudinal and cross bars and having the hooks thereof engaging in the notches of said vertical flanges, said bolts passing upwardly against the inner faces of said vertical flanges to reinforce the same, and binding nuts upon the upper ends of said hook-bolts adapted to draw said horizontal flanges together and bind the hooks in said notches.

1,204,373. CLIP. ADAM MIELDEN, Reno, Nev. Filed June 5, 1915. Serial No. 32,484. (Cl. 24—261.)



1. A clip comprising a front member, a rear member, and a bridge joining the upper ends of the members, said members and bridge comprising a single length of wire returned upon itself to provide the front member having a pair of strands, said strands being rolled laterally and oppositely from the lower end of the front member to provide lateral loops thereat which are joined across the inner face of the front member, the strands being turned inwardly at right angles from the top of the front member to provide the bridge, and being diverged laterally and oppositely from the rear end of the bridge to provide a transverse shoulder across the top of the rear member, the strands of the rear member extending downwardly from the opposite ends of said shoulder.

2. A clip comprising a front member, a rear member, a bridge joining the upper ends of said members, said members and bridge comprising a single length of wire returned upon itself to provide the front member having a pair of strands, the strands of the front member extending in contact throughout substantially the length of the front member and being rolled laterally and oppositely from the lower end of the front member to provide loops at the opposite sides thereof which are joined across the inner face of the front member, the strands at the upper end of the front member being turned inwardly at right angles to provide the bridge, and being diverged laterally and oppositely from the rear end of the bridge to provide a transverse shoulder across the top of the rear member, the strands of the rear member converging downwardly from the opposite ends of said shoulder to a point below the lower end of the front member and then being bent laterally and oppositely from said point, said rear member being bowed toward the front member, and means engaging the lower ends of said converging strands to secure the same from spreading and to hold the rear member in place.

1,204,374. VULCANIZING PROCESS. HAROLD R. MUNDOCK, Naugatuck, Conn., assignor to Rubber Regenerating Company, a Corporation of Indiana. Filed May 4, 1916. Serial No. 95,859. (Cl. 18—58.)

1. The process of treating rubber for vulcanization, which comprises adding vulcanizing material thereto containing lead and sulfur, and a reactive material adapted to produce a light-colored water-insoluble compound with said lead upon vulcanization, and vulcanizing the mixture.

2. The process of treating rubber for vulcanization, which comprises adding vulcanizing material thereto con-

taining lead and sulfur, and a reactive material adapted to produce light-colored water-insoluble compounds with the lead and sulfur upon vulcanization, and vulcanizing the mixture.

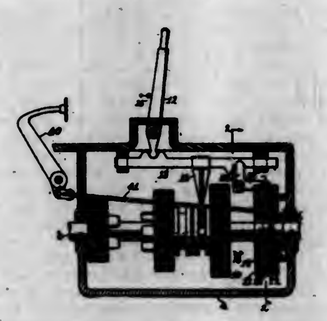
3. The process of treating rubber for vulcanization, which comprises adding vulcanizing material thereto containing lead and sulfur, and a substance having an acid radical adapted to form a light-colored water-insoluble salt with lead upon vulcanization, and vulcanizing the mixture.

4. The process of treating rubber for vulcanization, which comprises adding vulcanizing material thereto containing lead and sulfur, and a reactive substance comprising a metal and an acid radical adapted to form with the sulfur and lead respectively a light-colored water-insoluble sulfid and a light-colored water-insoluble lead salt, and vulcanizing the mixture.

5. The process of treating rubber for vulcanization, which comprises adding vulcanizing material thereto containing lead and sulfur and zinc sulfate, said zinc sulfate being adapted to convert the lead sulfid formed upon vulcanization into lead sulfate and zinc sulfid, and vulcanizing the mixture.

[Claims 6 to 10 not printed in the Gazette.]

1,204,375. **SAFETY DEVICE FOR AUTOMOBILES.** JAMES H. NEAL, Cambridge, Mass. Filed May 20, 1916. Serial No. 98,999. (Cl. 21—8.)



1. The combination with a motor vehicle provided with wheels and with means for reversing the movement of said vehicle, of a safety device rendered effective by reverse movement of the vehicle to prevent continued movement in the reverse direction, means actuated by said reversing means for rendering said safety device inoperative to permit reversal of the vehicle at the will of the operator, and means for restoring said safety device to its operative condition with the said reversing means in its reversing position.

2. The combination with a motor vehicle provided with wheels and with a device for controlling the speed of the vehicle, and with a device for controlling the application of the motive power to the rear wheels of the vehicle, of a safety device rendered effective by the reverse movement of the vehicle to prevent continued movement in the reverse direction, means for operatively connecting said safety device with said speed controlling device to enable said safety device to be rendered inoperative when the speed controlling device is actuated to effect reversal of the vehicle at the will of the operator, and means operatively connected with the power applying device for restoring said safety device to its operative condition with the speed controlling device in its reversing position.

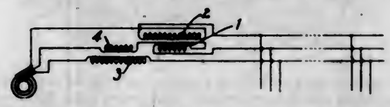
3. The combination with a motor vehicle provided with wheels, and with means for reversing the movement of said vehicle, of a safety device rendered effective by reverse movement of the vehicle to prevent continued movement in the reverse direction, means actuated by said reversing means for rendering said safety device inoperative to permit reversal of the vehicle at the will of the operator, and means separate from said reversing means for restoring said safety device to its operative condition.

1,204,376. **HOSE-SUPPORTER.** NETTIE ANNE NEWKIRK, Roberts, Mont. Filed Mar. 3, 1916. Serial No. 81,931. (Cl. 241—4.)



A hose supporter comprising straps adapted to lie over the shoulders of the wearer, guides carried by the straps and adapted to lie at the side of the hips, cross straps connecting the shoulder straps together, cords connected with the shoulder straps and having intermediate portions trained through the guides, and hose engaging elements loosely mounted on the cords beyond the ends of the guides and adapted to lie adjacent the anterior and posterior sides of the legs.

1,204,377. **POLYPHASE-CURRENT-LIMITING REACTANCE-COIL.** JOHN F. PETERS, Edgewood, Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 3, 1914. Serial No. 848,794. (Cl. 171—242.)



1. The combination with a plurality of conductors comprising a polyphase system, of reactance coils therefor which are so positioned with respect to one another as to be mutually inductively related, one of said conductors being connected in circuit with a plurality of said coils, and each of the other conductors being connected in circuit with a single coil, a coil associated with said first conductor being disposed immediately adjacent to one of the other of said coils.

2. The combination with a plurality of conductors for polyphase currents, of power-limiting reactance coils therefor which are so disposed with respect to one another as to be mutually inductively related, one of said conductors being connected in circuit with a plurality of said coils, each of which is mutually inductively related to one of the coils singly connected in circuit with the other of said conductors.

3. The combination with a plurality of conductors for polyphase currents, of power-limiting reactance coils therefor which are so disposed with respect to one another as to be mutually inductively related, one of said conductors being connected in series circuit with a plurality of said coils, and each of the other conductors being connected in series circuit with a single coil which is inductively related to a single coil in circuit with one of said other conductors, and to one of the coils inserted in said first conductor.

4. The combination with a plurality of conductors for polyphase currents, of power-limiting reactance coils therefor which are superposed upon, and spaced from, one another in order to be mutually inductively related, one of said conductors being connected in series circuit with the upper and lower coils, and each of the other of said conductors being connected to an intermediate coil.

5. The combination with a plurality of conductors for polyphase currents, of power-limiting reactance coils therefor which are so superposed upon one another as to be mutually inductively related, one of said conductors being connected in series circuit with a plurality of said coils and each of the other conductors being connected in series circuit with a single coil which is interposed between one of the single coils inserted in one of said other conductors and one of the coils inserted in said first conductor.

[Claims 6 to 14 not printed in the Gazette.]

1,204,378. **PROCESS OF MARBLEIZING CEMENT.** FRANK SPENCER, Louisville, Ky. Filed Mar. 31, 1916. Serial No. 88,097. (Cl. 18—48.8.)

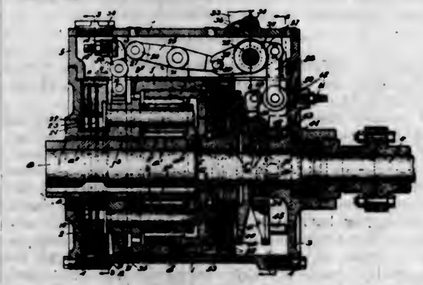


1. The process of producing an article having a polished and hard-surfaced finish closely simulating marble from plastic material having Portland cement as its base, which consists in molding the article in face contact with a polished surface coated with a solution containing oxalic acid.

2. The process of producing an article having a polished and hard-surfaced finish closely simulating marble from plastic material having Portland cement as its base, which consists in molding the article in face contact with a polished surface coated with a solution containing oxalic acid, and vibrating the material during a predetermined portion of its period of formation.

3. The herein described process of manufacturing articles from plastic material having Portland cement as its base, which consists in providing a mold having a face forming surface, coating said surface with a solution containing oxalic acid, shaping the plastic material in said mold to the desired form and against said surface, allowing the plastic material to stand and settle, then covering the same with a backing, and then removing the article thus formed.

1,204,379. **REVERSING-GEARING.** HENRY A. TUTTLE, Taunton, Mass., assignor to Evans Stamping & Plating Company, Taunton, Mass., a Corporation of Massachusetts. Filed Oct. 19, 1914. Serial No. 867,332. (Cl. 74—34.)



1. In a reversing-gearing, the combination of a drive-shaft, a driven-shaft, a clutch-mechanism for forward drive, gearing including brake-mechanism and a pinion-carrier connecting said shafts for reverse drive, actuating-means for said mechanisms, a casing inclosing said mechanisms and their actuating-means, said brake-mechanism comprising a plurality of axially movable plates, one set of said plates being held against rotation by said casing, and means extending laterally from said pinion-carrier and connecting the other set of plates, substantially as described.

2. In a reversing-gearing, the combination of a drive-shaft, a driven-shaft, a spur-gear, a pinion-carrier mounted upon the driving-shaft, pinions carried thereby meshing with said spur-gear, an internal-gear carried by the driven-shaft and in mesh with said pinions, a brake-mechanism for stopping the pinion-carrier from rotation, said brake-mechanism comprising a plurality of axially movable clutch-plates, one set of clutch-plates being held against rotation, pins extending laterally from the pinion-carrier and projecting within openings formed with the other set of clutch-plates, a clutch-mechanism for connecting the pinion-carrier with the internal-gear and means for operating the brake-mechanism and clutch-mechanism, substantially as described.

3. A reversing-gearing having clutch-mechanism for forward drive, and brake-mechanism for reverse drive, separate actuating-means for said mechanisms, a casing inclosing said mechanisms, and their actuating-means, and an operating-lever arranged outside of the casing with which both actuating-means are connected, substantially as described.

4. In a reversing-gearing, the combination of a drive-shaft, a driven-shaft, gearing connecting said shafts including brake-mechanism for reverse drive, and clutch-mechanism for forward drive, a casing inclosing said gearing, an operating-lever arranged outside the casing, and means arranged within the casing, for operating the brake-mechanism and the clutch-mechanism, said means being connected with said operating-lever and adapted to be operated by it, substantially as described.

5. A reversing-gearing having clutch-mechanism for forward drive and brake-mechanism for reverse drive, separate actuating-means for said mechanisms, a casing inclosing said mechanisms and their actuating-means, a rock-shaft having its bearings in the casing, means operatively connecting both actuating-means with said rock-shaft, and an operating lever, arranged outside of the casing which is connected with said rock-shaft, substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,204,380. **FLYING-MACHINE.** GLENN H. CURTISS, Hammondsport, N. Y., assignor to Curtiss Aeroplane & Motor Corporation, a Corporation of New York. Filed June 23, 1910. Serial No. 568,425. (Cl. 244—29.)



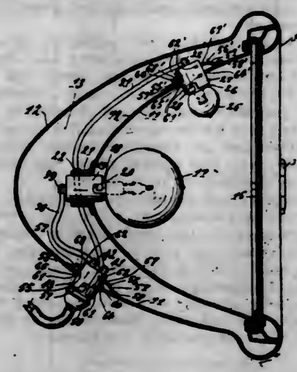
1. A flying machine comprising a balancing surface at each side thereof the angle of incidence of which may be varied, a two-part connection for operating said surfaces, an equalising member interpolated in the connection for moving one of said surfaces up and the other down, a second equalising member interpolated in the connection for moving said first mentioned surface down and the other up, said members being capable of their equalising motion in response to varied air pressure on said surfaces so that said surfaces may move in the same direction, and means for bodily moving said members in the same direction to move said surfaces in opposite directions.

2. A flying machine comprising a balancing surface at each side thereof the angle of incidence of which may be varied and which is pivoted forward of its center of pressure, a two-part flexible connection for operating said surfaces, an equalising member interpolated in the con-

nection for moving one of said surfaces up and the other down, a second equalizing member interpolated in the connection for moving said first mentioned surface down and the other up, said members being free for equalizing motion in response to varied air pressure on said surfaces, and common means for moving said members bodily in a predetermined direction to move said surfaces in opposite directions.

3. A flying machine comprising a balancing surface at each side thereof, the angle of incidence of which may be varied, a flexible two-part connection for operating said surfaces, a pivoted equalizing member interpolated in said connection for moving one of said surfaces up and the other down, a second pivoted equalizing member interpolated in said connection for moving said first mentioned surface down and the other up, said members being capable of their equalizing motion in response to varied air pressure on said surfaces so that said surfaces may move in the same direction and said members oppositely, and common means for bodily moving said members in the same direction to move said surfaces in opposite directions.

1,204,381. SECURING MEANS FOR ELECTRIC SOCKETS. EUGENE A. KUEN, Cincinnati, Ohio, assignor, by mesne assignments, to The Corcoran-Victor Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 26, 1915. Serial No. 42,092. (Cl. 240—41.)



1. Means for securing electric terminal sockets in place, comprising a lamp-member, a securing-member, a socket-member, and resiliently acting means about said socket-member, said socket-member and said lamp-member and securing-member provided with retaining connections held in locking relation by the resilient action of said resiliently acting means, said resiliently acting means located between the retaining connections between said socket-member and said lamp-member and securing-member respectively, and said retaining connections limiting relative rotary movements between said socket-member, lamp-member and securing-member.

2. In means for securing an electric terminal socket to a lamp-member, the combination with a lamp-member, of a securing-member having spread contact-parts arranged to coact with a convex surface and with a concave surface, a socket-member, means between said socket-member and said lamp-member and securing-member for limiting relative movement between said lamp-member and securing-member lengthwise of said socket-member, and continually acting resilient means for exerting force in the direction of said movement.

3. In means for securing an electric socket to a lamp, the combination of a lamp-member, a spring-plate, and a socket-member received in said lamp-member and spring-plate, said socket-member and said lamp-member and spring-plate provided with coacting shoulders, and said spring-plate acting to press said coacting shoulders together.

4. In means for securing an electric terminal socket to a lamp, the combination of a lamp-member, a plate provided with diverging spring-feet projected toward said lamp-member, and a socket-member extending through said lamp-member and said plate, said socket-member provided with a pair of sets of shoulders, said sets of shoulders spaced apart lengthwise of said socket-member, said lamp-member and said plate provided with shoulders coacting with said respective sets of shoulders, and said spring-feet acting to separate said plate and lamp-member for causing coaction between the shoulders thereon and the shoulders on said socket-member.

5. In means for securing an electric socket to a lamp, the combination of a lamp-member formed of a curved sheet of metal having a concave side and a convex side, an aperture therethrough, a plate provided with an aperture and with diverging spring-feet extending divergingly from the apertured portion of said plate toward said lamp-member, and a socket-member in said apertures provided with spaced-apart shoulders, said lamp-member and plate provided with coacting shoulders, and said spring-feet arranged to press said apertured portion of said plate and said lamp-member in separated relation from either side of said lamp-member.

[Claim 6 not printed in the Gazette.]

1,204,382. PUZZLE. ALEXANDER I. MITCHELL, Boston, Mass., assignor to National Toy Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 21, 1916. Serial No. 85,715. (Cl. 46—41.)

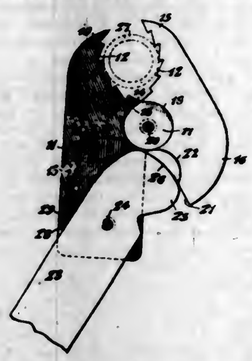


1. The puzzle herein described comprising a container, a stationary apertured plate having a design thereon, a plurality of movable-members arranged beneath said plate bearing fragments of the design which is arranged on the stationary plate, said movable-members being adapted to move in various ways upon tilting movements of the container, and to be brought into position to present their design fragments beneath the apertures of the stationary plate to complete the design, upon a rotative movement of the container.

2. The puzzle herein described comprising a container, a stationary apertured member having a design thereon, a plurality of pivoted members arranged beneath said stationary member, each pivoted member having a design-carrying arm and a weighted-arm, said pivoted members being adapted to move in various ways upon tilting movements of the container, and to be brought into position to present the design fragments on the design-carrying arms beneath the apertures of the stationary member upon a rotative movement of the container.

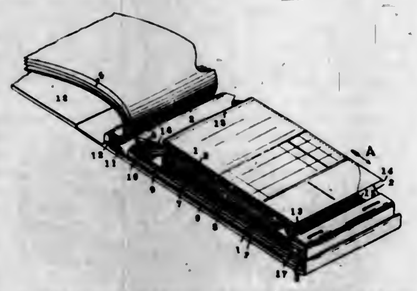
1,204,383. WRENCH. WALDEMAR HUGO SPANIER, Grand Harbor, N. D. Filed Mar. 31, 1916. Serial No. 88,055. (Cl. 81—91.)

A wrench comprising an inner jaw provided with an inwardly extending hollow shank open at its inner end and at its inner edge, and having spaced apart edgewise extending ears in its inner edge, a handle lever pivoted in said hollow shank and having an edgewise extending lobe projecting through said open inner edge of the shank, an outer jaw having an inwardly extending shank provided with a projecting lug at its inner edge for engagement between said ears, and a pivot passing through the ears and the lug to pivotally connect the jaws, the shank of the outer jaw having a flat abutting face at its inner edge for engagement against the inner edge of the inner shank, and having a concavity in its abutting face to receive the lobe and to provide a cam surface in the concavity for the lobe to work against, said handle lever being adapted to be swung in said hollow shank to move the lobe outwardly against the said cam surface of the concavity to force the shanks apart and close the jaws, said lobe being adapted to work out of the concavity and



inwardly onto said abutting face to accelerate the advancement of the outer jaw, the lower edge of the outer edge wall of the inner shank comprising a stop for engagement with the hand lever to limit the outward swinging of the same.

1,204,384. MANIFOLDING SALES-BOOK. GEORGE E. DOUGHTY, New York, N. Y., assignor to American Sales Book Company, Limited, Toronto, Ontario, Canada, a Corporation of Ontario, Canada. Filed Mar. 8, 1916. Serial No. 82,791. (Cl. 11—23.)



1. A manifolding salesbook comprising, in combination, a binder, three pads including a pad of folded leaves, said pads being connected at one end of each to the binder so that the leaves of the folded-leaf pad extend from their point of connection toward the point of connection of the leaves of the other pads, the length of the leaves of said pad being such as to permit their superposition, whereby a folded leaf may be superposed with a leaf of each of said other pads, and means whereby an impression made on the uppermost of said four superposed leaves will be copied on the three underlying leaves thereof.

2. A manifolding salesbook comprising, in combination, a binder, three pads including a pad of folded leaves, said pads being connected at one end of each to the binder so that the leaves of the folded-leaf pad extend from their point of connection toward the point of connection of the leaves of the other pads, the length of the leaves of said pads being such as to permit their superposition, whereby a folded leaf may be superposed with a leaf of each of said other pads, a transfer sheet adapted to lie between the plies of said folded leaves, and a double faced transfer sheet adapted to lie between the said superposed leaves of said other pads.

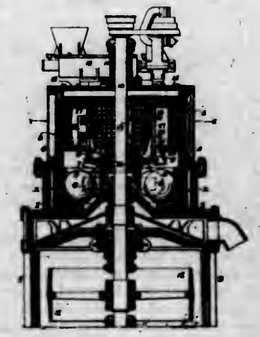
3. A manifolding salesbook comprising, in combination, a binder, three pads including a pad of folded leaves, said pads being connected at one end of each to the binder so that the leaves of the folded-leaf pad extend from their point of connection toward the point of connection of the leaves of the other pads, the points of connection between said respective other pads and said binder being different distances from the point of connection of the folded-leaf pad, the length of the leaves of said pads being such as to permit their superposition, whereby a folded leaf may be superposed with a leaf of each of said other pads, and means whereby an impression made on the uppermost of said four superposed leaves will be copied on the three underlying leaves thereof.

4. A manifolding salesbook comprising, in combination, a binder, three pads including a pad of folded leaves and a pad of tissue leaves, said pads being connected at one end of each to the binder so that the leaves of the folded-leaf pad extend from their point of connection toward the point of connection of the leaves of the other pads, the points of connection between said respective other pads and said binder being different distances from the point of connection of the folded-leaf pad, the point of connection of the tissue leaf pad being more remote, the length of the leaves of said pads being such as to permit their superposition, whereby a folded leaf may be superposed with a leaf of each of said other pads, and means whereby an impression made on the uppermost of said four superposed leaves will be copied on the three underlying leaves thereof.

5. A manifolding salesbook comprising, in combination, a binder, three pads including a pad of folded leaves and a pad of tissue leaves, said pads being connected at one end of each to the binder so that the leaves of the folded-leaf pad extend from their point of connection toward the points of connection of the leaves of the other pads, the points of connection between said respective other pads and said binder being different distances from the point of connection of the folded-leaf pad, the point of connection of the tissue leaf pad being more remote, and both of said points of connection being beyond the folded ends of the folded-leaf pad, the length of the leaves of said pads being such as to permit their superposition, whereby a folded leaf may be superposed with a leaf of each of said other pads, and means whereby an impression made on the uppermost of said four superposed leaves will be copied on the three underlying leaves thereof.

[Claims 6 to 13 not printed in the Gazette.]

1,204,385. PULVERIZER. FREDERICK B. FRANKS, Bath, Pa. Filed July 20, 1916. Serial No. 110,344. (Cl. 83—45.)



1. The combination in a pulverizer, of a frame; a screen; a fixed grinding ring; a driven shaft; a yoke carried by the shaft; grinding balls arranged to be driven by the yoke and to travel in contact with the ring; vertically extending arms projecting upwardly from the yoke; and fans secured to the said arms, the space

between the arms being open for the free passage of the material to the screen.

2. The combination in a pulverizer, of a frame; an annular screen; a fixed grinding ring below the screen; a driven shaft; a yoke carried by the said shaft; balls propelled over the grinding ring by the yoke; upwardly projecting arms; fan blades secured to the arms, the space between the arms being entirely open and the upper portion of the pulverizer inclosed by the screen being free of obstructions with the exception of the arms of the yoke so that as the material enters the pulverizer the fine particles will be carried immediately to the screen by the centrifugal action of the blades.

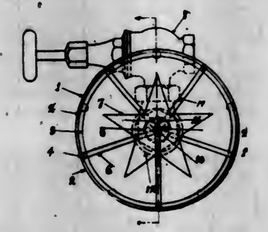
3. The combination in a pulverizer, of a frame; an annular screen; a fixed grinding ring; a driven shaft; a yoke carried by the said shaft, said yoke havig integral arms; pushers mounted on the arms; balls propelled over the grinding ring by the pushers and arranged to travel in contact with the ring; integral brackets projecting from the yoke; and fans secured to the brackets.

4. The combination in a pulverizer, of a frame; an annular screen; a grinding ring mounted on the frame; a vertical shaft; a yoke carried by the shaft having integral arms; pushers secured to the arms; balls mounted in advance of the pushers and arranged to travel against the grinding ring, said yoke having a series of integral vertical arms provided with brackets; a series of integral inclined brackets; and fan blades secured to both sets of brackets.

5. A yoke for a pulverizer made as an integral structure and having integral vertical arms and inclined brackets to which the fan blades are secured, the space between the vertical arms being open for the free passage of the material.

[Claim 6 not printed in the Gazette.]

1,204,386. INDIVIDUAL THERMOSTATIC CONTROLLER FOR RADIATORS. EDWARD S. HALSEY, Philadelphia, Pa. Filed July 21, 1914. Serial No. 852,160. (Cl. 236—6.)



1. In combination with a heating radiator and the regulating valve thereof, a thermostat mounted on said valve and connected thereto to open and close the same in accordance with the temperature changes, said thermostat being located at one side of the valve out of the path of heated air currents rising from the valve, and a shield repellant to radiant heat arranged between the thermostat and valve, whereby the thermostat is acted upon only by air having substantially the average room temperature and influence of the heated valve is substantially excluded.

2. An individual radiator control comprising in combination a valve body and valve therein, a thermostatic cell, an outrigger or support of ventilated skeleton structure mounting said cell and mounted on the valve body, arranged to hold the cell at one side of the valve out of the path of the heated air currents rising therefrom, operating connections between the cell and valve for opening and closing the latter in response to movements of the former caused by temperature changes, and a shield resistant to radiant heat interposed between the cell and valve body.

3. An individual radiator control comprising in combination a valve body and valve therein, a thermostatic cell, an outrigger or support of ventilated skeleton structure mounting said cell and mounted on the valve body, arranged to hold the cell at one side of the valve out of the path of heated air currents rising therefrom, operating connections including a motion transmitting member of heat-insulating material between the cell and valve for opening and closing the latter in response to movements of the former caused by temperature changes, and a shield resistant to radiant heat interposed between the cell and valve body.

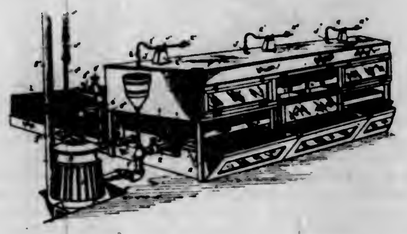
4. In an integral, composite, temperature regulating radiator supply valve, an internally ported valve body; a bonnet closing one side of said valve; a non-heat-conducting out-rigger fixed to said bonnet supporting a sensitive, atmospheric thermic cell out to one side from said valve and its rising heat currents; an efficient radiant heat shield for said thermic cell carried by said outrigger between the cell and the valve; a throttling disk within said body; and a packless friction eliminating device communicating the closing pressure from said cell to said disk through and by means of a flexible diaphragm 18, hermetically sealed inside of said bonnet.

5. In an integral, composite temperature regulating radiator valve, an internally ported valve body; a detachable valve bonnet closing one side of said body; a non-heat-transferring holder carried by said bonnet, a thermostat mounted on said holder out to one side from said valve and its rising heat currents; a throttling valve stem from said bonnet in connection with said thermostat by non-heat-transferring means; and a suitable, efficient radiant-heat-shielding means interposed between said thermostat and the adjacent heat-radiating surfaces.

[Claims 6 to 17 not printed in the Gazette.]

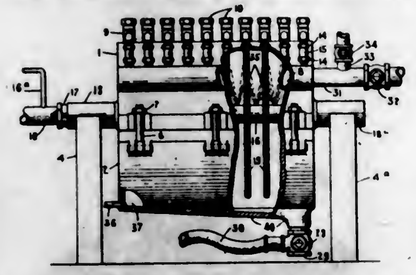
REISSUES.

14,212. COMBINED INCUBATOR AND BROODER. ALBA A. SKINNER, deceased, and FRED B. SKINNER, Greene, N. Y., assignors, by mesne assignments, to Willis A. Schleit, Syracuse, N. Y. Filed July 6, 1915. Serial No. 39,272. Original No. 944,383, dated Dec. 28, 1909. Serial No. 474,366, filed Jan. 27, 1909. Division B. (Cl. 119—30.)



The combination of a brooder provided with a vertically adjustable platform, a hover above it, hot water circulating pipes for heating the hover, a removable cover above one end of the platform, an incubator above the brooder having a hinged floor whereby the young fowls may readily descend from the incubator to the brooder, hot water circulating pipes in the incubator which are supplied from the hot water circulating pipes in the brooder, valve mechanism controlling the passage of hot water from the pipes in the brooder to those in the incubator, thermostatic devices for regulating the temperature of the hot water circulating in the pipes of the brooder, and thermostatic devices in the incubator for operating the valve mechanism to control the passage of hot water from the pipes of the brooder to the pipes of the incubator, and to thus regulate the temperature in the incubator without affecting the temperature in the brooder.

14,213. PRESSURE-FILTER. ERNEST J. SWEETLAND, Montclair, N. J. Filed Jan. 28, 1914. Serial No. 815,087. Original No. 1,032,091, dated July 9, 1912, Serial No. 684,873, filed Mar. 19, 1912. (Cl. 210—13.)



1. In a filter device comprising a peripheral frame with an outlet passage, filter cloth surrounding the frame and secured at the edges, a separator within the frame covered by the cloth, said filter device provided with a central aperture forming an open passageway therethrough, and the cloth secured together around the aperture, radial rows of stitching uniting the filter cloth at intervals.

2. A filter comprising a cylindrical filter casing with a plurality of filter plates detachably secured within the casing, each plate having a delivery tube extending through the casing and secured thereto by means of a device on the outside of the casing, a conduit on the outside of the casing for the drainage of filtered liquid, a tube leading from each filter plate to the conduit, a valve on each of said tubes, a hinged door on the lower side of the casing, an auxiliary passageway through the door.

3. A filter comprising a cylindrical filter casing with a plurality of filter plates detachably secured within the casing, each plate having a delivery tube extending through the casing and secured thereto by means of a device on the outside of the casing, a conduit on the outside of the casing for the drainage of filtered liquid, a tube leading from each filter plate to the conduit, a valve on each of said tubes, a portion of each tube made of transparent material.

4. A filter comprising a cylindrical filter casing, a plurality of filter plates attached within and removable from said casing, a hinged door attached to the filter casing and extending the full length thereof, said door provided with an auxiliary aperture for the entrance or exit of liquid, the filter plates extending below the joint between the filter casing and the door, a conduit on the filter casing and a tube and valve connecting each filter plate with the conduit.

5. A filter comprising a plurality of filter bags, a supporting structure within each bag, each bag provided with an aperture, the cloth on opposite sides of each bag joined together around the aperture and joined together at the outer edges to completely inclose the supporting structure, the cloth on both sides of the bags supported at intervals to resist internal pressure, the said apertures registering to form an unobstructed passageway through the series of bags, a rotatable pipe passing through the apertures, outlets in said pipe adapted to project streams of a cleansing fluid on the surfaces of the bags.

6. A filter comprising a plurality of filter bags, a supporting structure within each bag, each bag provided with a central aperture, the cloth on the opposite sides of each bag joined together around the aperture, the outer edges of each bag sewn together to completely inclose the supporting structure within the bag, the cloth on both sides of the bag supported at intervals to resist internal pressure, an outlet pipe leading from the interior of each bag, the central apertures alining to form a continuous passageway through the series of bags, a rotatable pipe extending through said passageway, nozzles on the pipe adapted to project a cleansing fluid on the surfaces of the bags.

7. A filter comprising a plurality of flat circular filter bags, a supporting structure inclosed in each bag, each bag provided with a central aperture, the cloth on opposite sides of each bag joined together around the central aperture, peripheral stitching uniting the outer edges of each bag to completely inclose the supporting structure within the bag, means of supporting the sides of the bag to prevent bulging when subjected to internal pressure, an outlet pipe communicating with the interior of each bag, the central apertures alining to form a continuous passageway through the series of bags, a rotatable pipe extending through said passageway and adapted to project a cleansing fluid on the surfaces of the bags.

8. A filter comprising a plurality of flat circular filter bags, a supporting structure inclosed in each bag, each bag provided with a central aperture, the cloth on opposite sides of each bag joined together around the central aperture, peripheral stitching uniting the outer edges of each bag to completely inclose the supporting structure within the bag, means of supporting the sides of the bag to prevent bulging when subjected to internal pressure, an outlet pipe communicating with the interior of each bag, the central apertures alining to form a continuous passageway through the series of bags, a rotatable pipe extending through said passageway and adapted to project a cleansing fluid on the surfaces of the bags, a casing surrounding the entire series of bags with the outlet pipes passing through said casing.

9. A filter comprising a plurality of flat circular filter bags, a supporting structure inclosed in each bag, each bag provided with a central aperture, the cloth on opposite sides of each bag joined together around the central aperture, peripheral stitching uniting the outer edges of each bag to completely inclose the supporting structure within the bag, means of supporting the sides of the bag to prevent bulging when subjected to internal pressure, an outlet pipe communicating with the interior of each bag, the central apertures alining to form a continuous passageway through the series of bags, a rotatable pipe extending through said passageway and adapted to project a cleansing fluid on the surfaces of the bags, a casing surrounding the entire series of bags with the outlet pipes passing through said casing, a drainage channel in the bottom of the casing for drainage of material washed from the bags.

10. In a pressure filter, a filter element and a two-part casing therefor divided longitudinally substantially at its middle along a horizontal plane, hinge connection between said sections, the axis of said hinge being situated to one side of the casing to permit one section to swing about the hinge from under the entire width of the other section, and bolts disposed at each side of said casing adapted to span the line of division and to clamp the sections together independently of said hinge.

11. A filter comprising a filter casing with a plurality of filter plates detachably secured within the casing, each plate having a delivery tube extending through the casing and secured thereto by means of a device on the outside of the casing, a conduit on the outside of the casing for the drainage of filtered liquid and a tube leading from each delivery tube to the conduit.

12. A filter comprising a filter casing with a plurality of filter plates detachably secured within the casing, each plate having a delivery tube extending through the casing and secured thereto by means of a device on the outside of the casing, a conduit on the outside of the casing for the drainage of filtered liquid, a tube leading from each delivery tube to the conduit, a valve on each of said second named tubes, a portion of each of said second-named tubes being made of transparent material.

13. In a filter device comprising a peripheral frame with an outlet passage, filter cloth surrounding the frame, a separator within the frame covered by the cloth, and radial rows of stitching uniting the filter cloth at intervals.

14. A filter comprising a horizontally-disposed cylindrical filter casing divided along a substantially horizontal plane and a plurality of detachable filter plates within the casing, each plate having a delivery tube extending vertically from substantially its uppermost portion and mounted in the top of the upper section of the filter casing.

15. A filter comprising a filter casing and a plurality of filter plates detachably mounted therein, each plate having

a delivery tube secured thereto and received within a portion of the casing, and means for clamping it to said casing.

16. A filter comprising a filter casing and a plurality of filter plates detachably mounted therein, each plate having a delivery tube secured thereto and received within a portion of the casing, and means for clamping it to said casing, said leaf being otherwise disconnected from the casing.

17. A filter comprising a filter casing and a plurality of filter plates detachably mounted therein, each of said plates having a delivery tube fixed with reference to said plate and received within a recess in the casing and means engaging said tube for securing the tube and the leaf supported by it to the casing.

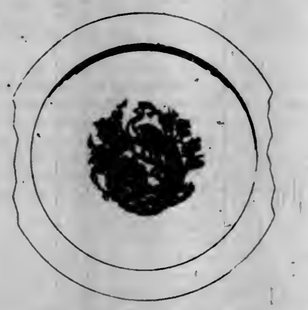
18. A filter comprising a filter casing and a plurality of filter plates detachably secured in said casing, each plate having a delivery tube extending through said casing and secured thereto by means of a device on the outside of the casing.

19. A filter comprising a filter casing and a plurality of filter plates detachably secured in said casing, each plate having a delivery tube extending through the casing and secured thereto by means of a device on the outside of the casing, said leaf being otherwise spaced from the casing.

20. A filter comprising a filter casing and a plurality of filter plates detachably secured in said casing, each plate having a delivery tube extending through the casing and secured thereto by means of a device on the outside of the casing, said leaf being otherwise unsupported in said casing.

DESIGNS.

49,841. PLATE OR SIMILAR ARTICLE. WILLIAM ABRAMS, Chicago, Ill., assignor to The Meyercord Company, Chicago, Ill. Filed Sept. 7, 1916. Serial No. 118,941. Term of patent 3½ years.



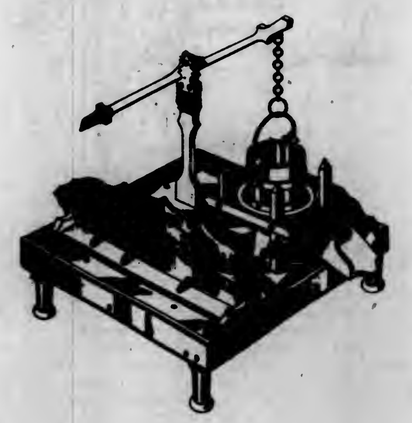
The ornamental design for a plate or similar article.

49,842. NETTED FABRIC. WILLIAM WALL CHACE, New York, N. Y. Filed May 25, 1916. Serial No. 99,907. Term of patent 3½ years.



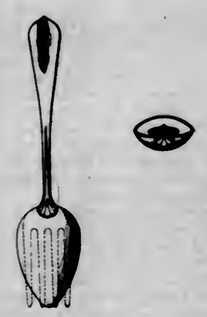
The design for netted fabric as shown.

49,843. GAME APPARATUS. AMBROSE P. CHASE, West Somerville, Mass. Filed Aug. 9, 1916. Serial No. 114,059. Term of patent 7 years.



The ornamental design for a game apparatus, as shown.

49,844. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. BARTON P. JENKS, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Aug. 2, 1916. Serial No. 112,862. Term of patent 14 years.



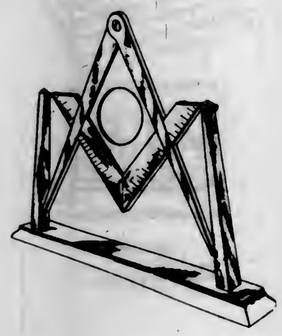
The ornamental design for a handle for spoons, forks, or similar articles, as shown.

49,845. LIQUID-SERVER OR SIMILAR ARTICLE. BARTON P. JENKS, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Aug. 2, 1916. Serial No. 112,863. Term of patent 14 years.



The ornamental design for a liquid server or similar article, as shown.

49,846. PICTURE-FRAME. LOUIS KLEIN, Des Moines, Iowa. Filed Mar. 13, 1916. Serial No. 83,979. Term of patent 3½ years.



The ornamental design for a picture frame, as shown.

49,847. PUZZLE-BOX. WILLIAM J. MCKOY, San Antonio, Tex. Filed Sept. 2, 1915. Serial No. 48,723. Term of patent 3½ years.



The ornamental design of a puzzle box as shown.

49,848. BUTTON. JOHN S. MONAGHAN, Rochester, N. Y., assignor to German-American Button Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 30, 1916. Serial No. 117,809. Term of patent 3½ years.



The ornamental design for a button substantially as shown and described.

49,849. BUTTON. JOHN S. MONAGHAN, Rochester, N. Y., assignor to German-American Button Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 30, 1916. Serial No. 117,810. Term of patent 3½ years.



The ornamental design for a button substantially as shown and described.

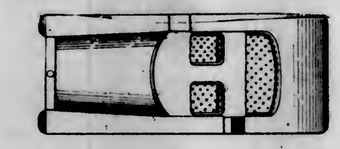
49,850. BUTTON. JOHN S. MONAGHAN, Rochester, N. Y., assignor to German-American Button Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 30, 1916. Serial No. 117,811. Term of patent 3½ years.





The ornamental design for a button substantially as shown and described.

49,851. AUTOMOBILE-BODY. CURT B. MUELLER, Lakewood, Ohio. Filed July 26, 1915. Serial No. 42,095. Term of patent 7 years.







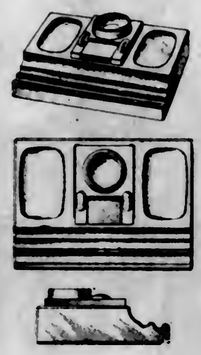
The ornamental design for an automobile body as shown.

49,852. TUBE-RECEIVING PEDESTAL FOR FLOWER-STANDS. HARRY NORTHWOOD, Wheeling, W. Va. Filed Mar. 17, 1916. Serial No. 84,981. Term of patent 7 years.



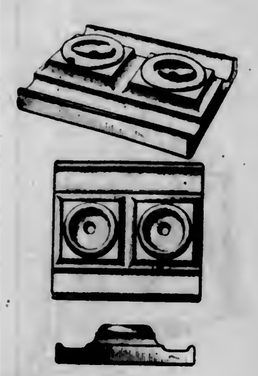
The ornamental design for a tube-receiving pedestal for flower stands, as shown.

49,853. INKSTAND. JAMES T. RILEY, Brooklyn, N. Y., assignor to Kimpton, Haupt & Co., New York, N. Y., a firm composed of Charles E. Kimpton, Brooklyn, N. Y., Harry Haupt, Elmsford, N. Y., and Elizabeth H. Harbottle, Garden City, N. Y. Filed Aug. 12, 1916. Serial No. 114,653. Term of patent 14 years.



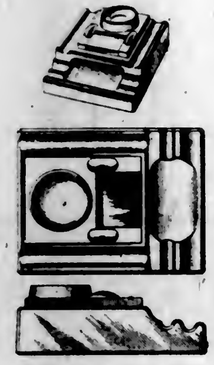
The ornamental design for an inkstand, as shown.

49,854. INKSTAND. JAMES T. RILEY, Brooklyn, N. Y., assignor to Kimpton, Haupt & Co., New York, N. Y., a firm composed of Charles E. Kimpton, Brooklyn, N. Y., Harry Haupt, Elmsford, N. Y., and Elizabeth H. Harbottle, Garden City, N. Y. Filed Aug. 12, 1916. Serial No. 114,654. Ter mof patent 14 years.



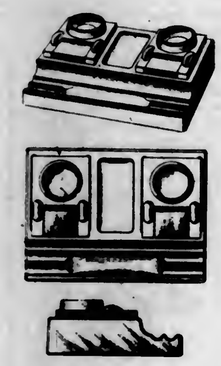
The ornamental design for an inkstand, as shown.

49,855. INKSTAND. JAMES T. RILEY, Brooklyn, N. Y., assignor to Kimpton, Haupt & Co., New York, N. Y., a firm composed of Charles E. Kimpton, Brooklyn, N. Y., Harry Haupt, Elmsford, N. Y., and Elizabeth H. Harbottle, Garden City, N. Y. Filed Aug. 12, 1916. Serial No. 114,655. Term of patent 14 years.



The ornamental design for an inkstand, as shown.

49,856. INKSTAND. JAMES T. RILEY, Brooklyn, N. Y., assignor to Kimpton, Haupt & Co., New York, N. Y., a firm composed of Charles E. Kimpton, Brooklyn, N. Y., Harry Haupt, Elmsford, N. Y., and Elizabeth H. Harbottle, Garden City, N. Y. Filed Aug. 12, 1916. Serial No. 114,656. Term of patent 14 years.



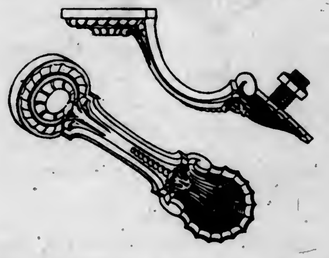
The ornamental design for an inkstand, as shown.

49,857. INKSTAND. JAMES T. RILEY, Brooklyn, N. Y., assignor to Kimpton, Haupt & Co., of New York, N. Y., a firm composed of Charles E. Kimpton, Brooklyn, N. Y., Harry Haupt, Elmsford, N. Y., and Elizabeth H. Harbottle, Garden City, N. Y. Filed Aug. 12, 1916. Serial No. 114,657. Term of patent 14 years.



The ornamental deisgn for an inkstand, as shown.

49,858. ARM FOR LIGHTING-FIXTURES. BENJAMIN SCHWARTZMAN, New York, N. Y., assignor to New York Gas & Electric Appliance Company, New York, N. Y., a Corporation of New York. Filed Sept. 2, 1916. Serial No. 118,268. Term of patent 3½ years.



The ornamental design for an arm for lighting fixtures as shown.

49,859. BOWL-HANGER AND OUTSIDE-LIGHT SUPPORT. BENJAMIN SCHWARTZMAN, New York, N. Y., assignor to New York Gas & Electric Appliance Company, New York, N. Y., a Corporation of New York. Filed Sept. 2, 1916. Serial No. 118,269. Term of patent 3½ years.



The ornamental design for a bowl hanger and outside light support as shown.

49,860. ORNAMENT FOR LIGHTING-FIXTURES. BENJAMIN SCHWARTZMAN, New York, N. Y., assignor to New York Gas & Electric Appliance Company, New York, N. Y., a Corporation of New York. Filed Sept. 2, 1916. Serial No. 118,270. Term of patent 3½ years.



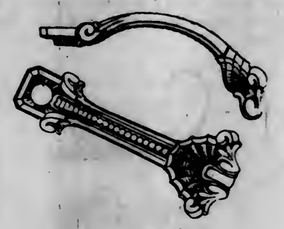
The ornamental design for an ornament for lighting fixtures as shown.

49,861. BOWL-HANGER FOR LIGHTING-FIXTURES. BENJAMIN SCHWARTZMAN, New York, N. Y., assignor to New York Gas & Electric Appliance Company, New York, N. Y., a Corporation of New York. Filed Sept. 2, 1916. Serial No. 118,271. Term of patent 3½ years.



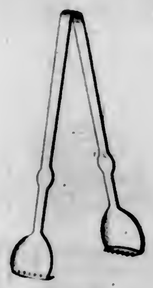
The ornamental design for a bowl hanger for lighting fixtures as shown.

49,862. ARM FOR LIGHTING-FIXTURES. BENJAMIN SCHWARTZMAN, New York, N. Y., assignor to New York Gas & Electric Appliance Company, New York, N. Y., a Corporation of New York. Filed Sept. 2, 1916. Serial No. 118,272. Term of patent 3½ years.



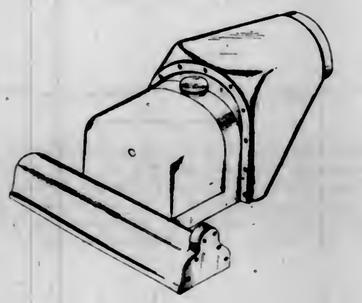
The ornamental design for an arm for lighting fixtures as shown.

49,863. TONGS. CHARLES W. SEAMAN, Newburgh, N. Y. Filed Sept. 3, 1915. Serial No. 48,884. Term of patent 3½ years.



The ornamental design for tongs, as shown.

49,864. VACUUM-CLEANER CASE. IRA L. SHEFFLER, Detroit, Mich. Filed July 17, 1916. Serial No. 109,837. Term of patent 14 years.



The ornamental design for a vacuum-cleaner case, substantially as shown.

49,865. BADGE OR INSIGNIA. WILLIAM HERBERT SICKELS, Newtown Square, Pa., assignor to J. E. Caldwell & Co., Philadelphia, Pa., a Firm composed of J. Ernott Caldwell, William R. Eisenhower, and Edward T. Chase, general partners, and estate of J. Albert Caldwell, special partners. Filed Sept. 22, 1916. Serial No. 121,684. Term of patent 14 years.



The ornamental design for a badge or insignia, as shown.

49,866. BUTTON. RUDOLPH SIEBERT, Rochester, N. Y., assignor to German-American Button Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 30, 1916. Serial No. 117,812. Term of patent 3½ years.



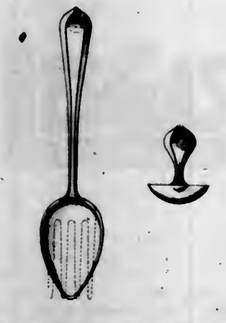
The ornamental design for a button substantially as shown and described.

49,867. BUTTON. RUDOLPH SIEBERT, Rochester, N. Y., assignor to German-American Button Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 30, 1916. Serial No. 117,814. Term of patent 3½ years.



The ornamental design for a button substantially as shown and described.

49,868. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. AXEL HERMAN STAF, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Aug. 2, 1916. Serial No. 112,859. Term of patent 14 years.



The ornamental design for a handle for spoons, forks, or similar articles, as shown.

49,869. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Sept. 7, 1916. Serial No. 118,929. Term of patent 7 years.



The ornamental design for a printed fabric, as shown.

49,870. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Sept. 7, 1916. Serial No. 118,930. Term of patent 7 years.



The ornamental design for a printed fabric, as shown.

49,871. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Sept. 7, 1916. Serial No. 118,932. Term of patent 7 years.



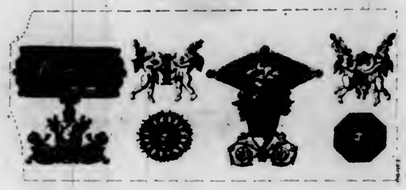
The ornamental design for a printed fabric, as shown.

49,872. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Sept. 7, 1916. Serial No. 118,933. Term of patent 7 years.



The ornamental design for a printed fabric, as shown.

49,873. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Sept. 7, 1916. Serial No. 118,934. Term of patent 7 years.



The ornamental design for a printed fabric, as shown.

49,874. [WITHDRAWN.]

TRADE-MARKS

PUBLISHED NOVEMBER 7, 1916.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 80,781. (CLASS 5. ADHESIVES.) COREGA CHEMICAL COMPANY, Augusta, Me., and Cleveland, Ohio. Filed Aug. 25, 1914.



Particular description of goods.—A Dental Powder for Assisting in Holding Dental Plates in the Mouth.
Claims use since June 15, 1914.

Ser. No. 86,087. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JEROME R. LANDAUER, Chicago, Ill. Filed Apr. 21, 1915.

LESGAS
SAVES GASOLINE

It being understood that the words "Saves Gasoline" shown in the drawing form no part in this trade-mark and is not claimed by me as such.
Particular description of goods.—Gasolene-Improvers or Preparations for Augmenting the Energy of Motor-Fuels.
Claims use since Sept. 1, 1914.

Ser. No. 88,742. (CLASS 39. CLOTHING.) GEO. E. KEITH COMPANY, Brockton, Mass. Filed Aug. 21, 1915.

Walk-Over

The picture of a man being fanciful and no claim being made to the representation of the shoe apart from the mark shown in the drawing.
Particular description of goods.—Boots and Shoes of Leather, Rubber, Felt, or other Fabric Construction.
Claims use since on or about Nov. 1, 1907.

Ser. No. 88,797. (CLASS 2. RECEPTACLES.) AMERICAN CAN CO., New York, N. Y. Filed Aug. 25, 1915.

ARCTIC

Particular description of goods.—Oyster-Display Cases.
Claims use since the fall of 1911.

Ser. No. 89,461. (CLASS 39. CLOTHING.) HESS BROTHERS, Allentown, Pa. Filed Sept. 25, 1915.

HESBRO

Particular description of goods.—Leather Shoes, Canvas Shoes, Rubber Shoes, Hosiery, Knitted and Woven Underwear, Aprons, Bath-Robes, Blouses, Caps, Chemises, Cloaks, Coats, Corsets, Corset-Covers, Dresses, Gloves, Mittens, Jumpers, Kimonos, Mufflers, Negligée Shirts, Nightgowns, Outer Skirts, Outer Suits, Pajamas, Pantaloons, Petticoats, Shirt-Waists, Overalls, Slippers, Suits, Sweaters, Undershirts, Underskirts, Undersuits, Underwaists, Vests, Waistcoats.
Claims use since about Sept. 1, 1915.

Ser. No. 89,497. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE TRAVELER REMEDY CO., Hot Springs, Ark. Filed Sept. 27, 1915.

LITTLE ARKANSAS TRAVELERS

Particular description of goods.—Liver-Tonic.
Claims use since Mar. 12, 1914.

Ser. No. 89,548. (CLASS 32. FURNITURE AND UPHOLSTERY.) MORRIS LIPPS, New York, N. Y. Filed Sept. 30, 1915.

LIPSPRING

Particular description of goods.—Beds, Mattresses, Bed-Springs.
Claims use since about Oct. 15, 1914.

Ser. No. 90,514. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) BENJAMIN F. KLEIN, Cleveland, Ohio. Filed Nov. 8, 1915.

KAYUNE

Particular description of goods.—Gas and Combination Lighting-Fixtures and Parts for Such Lighting-Fixtures.
Claims use since Oct. 25, 1915.

Ser. No. 91,081. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM E. PRATT, Chicago, Ill. Filed Dec. 1, 1915.

MAJOR

Particular description of goods.—Hog-Rings and Pig-Rings.
Claims use since about the year 1880.

Ser. No. 91,285. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHEPARD C. BASS, Fort Myers, Fla. Filed Dec. 8, 1915.



No claim being made to the exclusive use of the word "Brand" except in association with the mark as shown.
Particular description of goods.—Citrus Fruits.
Claims use since Oct. 1, 1912.

Ser. No. 91,333. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCHNULL & CO., Indianapolis, Ind. Filed Dec. 8, 1915.



So far as this registration is concerned we disclaim the name "Roger Bean" except in connection with the other feature of the trade-mark; but we do not disclaim the name of "Roger Bean" as against persons, firms, and corporations who may use the name by way of unfair competition against us.
Particular description of goods.—Coffee.
Claims use since Sept. 15, 1915.

Ser. No. 91,402. (CLASS 39. CLOTHING.) RICE-STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Dec. 11, 1915.

Liberty Bell



Particular description of goods.—Hosiery.
Claims use since Nov. 1, 1915.

Ser. No. 92,431. (CLASS 39. CLOTHING.) BERNSTEIN, BAUM, CRAVIS & COMPANY, Philadelphia, Pa. Filed Jan. 27, 1916.

"F. F. Models"

No claim is made to the word "Models" apart from the mark shown in the drawing.
Particular description of goods.—Ladies' Skirts, Ladies' Suits, Ladies' Coats.
Claims use since on or about the 15th day of September, 1915.

Ser. No. 92,465. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DARLING & COMPANY, Chicago, Ill. Filed Jan. 28, 1916.
"Meatein."

MEATEIN

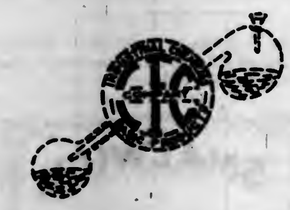
Particular description of goods.—Foods—Namely, Prepared Stock and Poultry Foods.
Claims use since July 15, 1915.

Ser. No. 92,798. (CLASS 37. PAPER AND STATIONERY.) GEO. BORGFELDT & CO., New York, N. Y. Filed Feb. 12, 1916.

MERITAS

Particular description of goods.—Pencil-Sharpeners of the Knife or Rotary-Cutter Types; Writing-Paper and Envelops, Drawing-Paper, Fancy Wrapping and Tissue Papers, Hand-Blotters and Blotting-Paper, Writing-Pads, Drawing Pads and Tablets, Paper-Cutters, Paper-Weights, Ink-Wells, Ink-Erasers, Lead and Crayon Pencils, and Penholders.
Claims use since Jan. 15, 1916.

Ser. No. 92,975. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES F. GLEDHILL, New York, N. Y. Filed Feb. 19, 1916.



No claim being made for the words "Industrial Chemicals Company Basic Products" apart from the mark shown in the drawing.
Particular description of goods.—Chemicals and Pigments for General Use—Namely, Fused Resinate Lead, Fused Resinate Zinc, Fused Resinate Cobalt, Fused Resinate Copper, Fused Resinate Alumina, Fused Resinate Calcium, Fused Resinate Chromium, Fused Resinate Magnesium, Fused Resinate Manganese, Fused Resinate Manganese and Lead, Linoleate Lead, Linoleate Cobalt, Linoleate Copper, Linoleate Manganese, Linoleate Manganese and Lead, Pale Ester Gum, Special Ester Gum, Extra-Pale Ester Gum, Prepared Wood Oil, Red Oxid Iron, Colors, Precipitated Resinate Lead, Precipitated Resinate Zinc, Precipitated Resinate Cobalt, Precipitated Resinate Copper, Precipitated Resinate Manganese, Borate Lead, Chlorid Cobalt, Borate Manganese, Chlorid Manganese, Acetate Cobalt, Nitrate Cobalt, Carbonate Cobalt, Sulfate Manganese, Resoleate Lead and Manganese, Tungate or Lignoleate Lead, Tungate or Lignoleate Cobalt, Tungate or Lignoleate Manganese, Zinc Oxid, Degras.
Claims use since Dec. 1, 1915.

Ser. No. 93,290. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AIR UTILITIES COMPANY, INC., New York, N. Y. Filed Mar. 4, 1916.



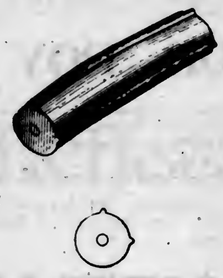
Particular description of goods.—Food Products—Namely, Vegetables, Fruits, Malts, Spices, Coffees, Teas, Cocoas, Chocolates, Cassava, Copra, Sugar-Beets.
Claims use since May 25, 1913.

Ser. No. 93,469. (CLASS 15. OILS AND GREASES.) PETROLEUM PRODUCTS CO. OF CALIFORNIA, San Francisco, Cal. Filed Mar. 11, 1916.



Particular description of goods.—Gasolene, Benzin, Naphtha-Kerosene, Motor-Spirit, Fuel-Oils, and Lubricating Oils and Greases.
Claims use since Feb. 10, 1916.

Ser. No. 93,733. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ATLANTIC INSULATED WIRE & CABLE COMPANY, Jersey City, N. J., and Stamford, Conn. Filed Mar. 21, 1916.



Consisting of two longitudinal ridges substantially ninety degrees apart molded in or upon the insulation, (no claim being made to the representation of the wire.)
Particular description of goods.—Insulated Wire.
Claims use since February, 1916.

Ser. No. 93,792. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GREENFIELD TAP AND DIE CORPORATION, Greenfield, Mass. Filed Mar. 23, 1916.



The words "Reg. U. S. Pat. Off." apart from the mark shown in the drawing being hereby disclaimed.

Particular description of goods.—Gages and Micrometers.

Claims use since Oct. 1, 1915.

Ser. No. 93,801. (CLASS 39. CLOTHING.) PHILIP A. LUCKETT, Salisbury, Md. Filed Mar. 23, 1916.

PAL

Particular description of goods.—Union Suits, Undershirts, Drawers, and Pajamas Made of Textile Material.

Claims use since January, 1913.

Ser. No. 94,270. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH C. ALLEN, Plainfield, N. J. Filed Apr. 10, 1916.

ROYAL

Comprising the word "Royal."

Particular description of goods.—Toilet Preparations—viz., Toilet Creams—viz., Cold-Creams, Peroxid Cream, and Dental Creams; Toilet Powders—viz., Talcum Powders, Borated Talcum Powders, Face-Powders, Rice Powders, Tooth-Powders, and Dental Powders.

Claims use since about May, 1891.

Ser. No. 94,504. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES S. MCCLANAHAN, Justin, Tex. Filed Apr. 18, 1916.

ROB ROY

Particular description of goods.—A Salve for External Treatment of Catarrh, Sore Throat, Tonsilitis, and Croup.

Claims use since about the month of January, 1902.

Ser. No. 94,581. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE POMPEIAN CO., Baltimore, Md. Filed Apr. 20, 1916.

POMPEIAN

Particular description of goods.—Macaroni, Cheese, and Olive-Oil Emulsion.

Claims use since the 29th day of March, 1916.

Ser. No. 94,582. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE POMPEIAN CO., Baltimore, Md. Filed Apr. 20, 1916.

POMPEIAN

Particular description of goods.—Olive-Oil Emulsion.

Claims use since the 29th day of March, 1916.

Ser. No. 94,706. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLARISSA J. HALLER, New York, N. Y. Filed Apr. 25, 1916.

PHOSOLITE

Particular description of goods.—A Preparation or Dressing for the Human Hair.

Claims use since October, 1905.

Ser. No. 94,741. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GENERAL TIRE AND RUBBER COMPANY, Akron, Ohio. Filed Apr. 27, 1916.

GENERAL

Particular description of goods.—Rubber Tires or Tire-Casings of Rubber with Suitable Strengthening Material and Inner Tubes for Pneumatic Tires.

Claims use since February, 1916.

Ser. No. 95,180. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MEYER SMOLOWITZ, New York, N. Y. Filed May 16, 1916.



Particular description of goods.—Laces and Cotton Goods in the Piece.

Claims use since Apr. 5, 1916.

Ser. No. 95,426. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RÖHM & HAAS, Philadelphia, Pa. Filed May 25, 1916.

GLYCEROSAL

Particular description of goods.—A Medicinal Chemical for the Treatment of Rheumatism.

Claims use since on or about May 1, 1916.

Ser. No. 95,548. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) F. A. HARDY & COMPANY, Chicago, Ill. Filed May 31, 1916.

HARCO

Particular description of goods.—Eyeglasses, Lenses for Optical and Scientific Uses, Goggles, Eye-Protectors, Optometers, Reading-Glasses, Trial-Frames, and Ophthalmoscopes.

Claims use since May 20, 1916.

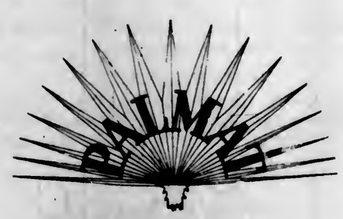
Ser. No. 95,683. (CLASS 7. CORDAGE.) PALMETTO PRODUCTS COMPANY, INC., New York, N. Y. Filed June 7, 1916.

PALMAT

Particular description of goods.—Twines and Ropes Made from Shredded Fibers of Palmetto or Palm Leaves.

Claims use since Nov. 1, 1915.

Ser. No. 95,684. (CLASS 7. CORDAGE.) PALMETTO PRODUCTS COMPANY, INC., New York, N. Y. Filed June 7, 1916.



Particular description of goods.—Twines and Ropes Made from Shredded Palmetto or Palm Leaves.

Claims use since Nov. 1, 1915.

Ser. No. 95,743. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JOHN P. BARRON, Butte, Mont. Filed June 9, 1916.

BARRON
PIAN-AUTO
CREAM

The word "Cream" being hereby disclaimed. I do hereby disclaim the right to the use of said word and name upon the designs heretofore submitted to and filed with you and make no claim to the designation of "Barron" apart from the mark shown in the drawings as constituting any part of the proposed trade-mark, leaving the same merely with the representation of a bear immediately upon and forming part of the trade-mark word "Pian-Auto."

Particular description of goods.—A Furniture, Piano, and Automobile Polish and Varnish Renewer.

Claims use since Apr. 10, 1916.

Ser. No. 95,840. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) AMERICAN MANUFACTURING COMPANY, Boston, Mass., and New York, N. Y. Filed June 13, 1916.

CLIPPER

Particular description of goods.—Oakum for Packing and Calking.

Claims use since Mar. 28, 1916.

Ser. No. 95,964. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FOLEY BROS. & QUINLAN, INCORPORATED, St. Paul, Minn. Filed June 19, 1916.



Particular description of goods.—Coffee.

Claims use since on or about Sept. 15, 1914.

Ser. No. 95,979. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ORVILLE L. PRATHER, Claremore, Okla. Filed June 19, 1916.

TRADE MARK
La Floral

No claim being made for the term "Trade Mark" apart from the mark shown in the drawing.

Particular description of goods.—Hair-Tonic, Shampoo Preparations, Cold-Cream, Liquid Face-Powder, and Lip-Rouge.

Claims use since the 20th day of May, 1916.

Ser. No. 96,416. (CLASS 12. CONSTRUCTION MATERIALS.) SHRAUGER & JOHNSON, Atlantic, Iowa. Filed July 7, 1916.



CHIEF

Particular description of goods.—Metal Cupolas, Metal Ventilators, Metal Outside Grain-Elevator Doors, Metal Ridge-Roll, Sheet-Metal Building-Corners, Metal Window Frames and Sashes, Sheet-Metal Battens for Board Roofs or Walls, Vertically-Sliding-Barn-Door Hoists, Metal Silo-Roofs, Metal Silo-Ladders, Metal Silo-Chutes, Metal Roof-Window Frames and Sashes.
Claims use since June 15, 1911.

Ser. No. 96,575. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WAILES DOVE BITUMASTIC LIMITED, Newcastle-upon-Tyne, England. Filed July 14, 1916.

BITUMASTIC

Particular description of goods.—Ready-Mixed and Solid-Block Paints.
Claims use since the year 1888.

Ser. No. 96,716. (CLASS 39. CLOTHING.) LAX & BURGHEIMER, IN'C., New York, N. Y. Filed July 21, 1916.

EL-BEE

Particular description of goods.—Knitted Underwear in One and Two Piece Garments.
Claims use since June 17, 1916.

Ser. No. 96,738. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SMITH-DORSEY COMPANY, Lincoln, Nebr. Filed July 21, 1916.

Rheumatone

Particular description of goods.—A Remedy for Neuralgia and Rheumatism in All Forms.
Claims use since May 18, 1908.

Ser. No. 96,776. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE A. BURDSAL CO., Indianapolis, Ind. Filed July 24, 1916. Under ten-year proviso.

STEAMBOAT



Particular description of goods.—Paste Paint, Liquid Paint, Wood-Stains, Varnishes, Enamels, Putty, Flat Finishes, Fillers, and Varnish-Stains.
Claims use since the year 1880.

Ser. No. 96,877. (CLASS 38. PRINTS AND PUBLICATIONS.) NEWSPAPER FEATURE SERVICE, INC., New York, N. Y. Filed July 26, 1916.

FULLER BULL

Particular description of goods.—A Newspaper-Section.
Claims use since July 17, 1916.

Ser. No. 96,885. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) J. S. BENDER CO., New York, N. Y. Filed July 27, 1916.



The representation of the female head being entirely fanciful, no claim being made to the representation of the hair-net apart from the mark as shown in the drawing.
Particular description of goods.—Hair-Nets.
Claims use since Oct. 25, 1915.

Ser. No. 96,905. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DELFO PERRUCCI, New York, N. Y. Filed July 27, 1916. Under ten-year proviso.



CHINA CALISAIA

Particular description of goods.—A Stomach-Tonic.
Claims use since about 1888.

Ser. No. 96,906. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) STONEGA COKE & COAL CO., Big Stone Gap and Wise and Lee counties, Va. Filed July 27, 1916.

RODA

Particular description of goods.—Coal and Coke.
Claims use since about 1902.

Ser. No. 96,933. (CLASS 39. CLOTHING.) OPPENHEIM, COLLINS & COMPANY, NEW YORK, New York, N. Y. Filed July 28, 1916.

Roselle

Particular description of goods.—Outer Garments—Namely, Waists; Undergarments—Namely, Shirts, Drawers, Union Suits, Combinations, Bloomers, Tights, Knickerbockers, Camisoles, Undervests, Corset-Covers, Brassières, Envelop-Chemises, Straight Chemises, and Petticoats, Made Wholly or in Part of Textile or Knitted Material or of a Combination of These Two Materials, and Hosiery.
Claims use since July 14, 1916.

Ser. No. 96,944. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARMOUR AND COMPANY, Chicago, Ill. Filed July 29, 1916.

NUGGET

Particular description of goods.—Bacon and Hams.
Claims use since July 1, 1912.

Ser. No. 96,954. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LEON A. FLINKER, Detroit, Mich. Filed July 29, 1916.

PRESTO

Particular description of goods.—Razor-Strops.
Claims use since 1911.

Ser. No. 97,002. (CLASS 39. CLOTHING.) SAMUELS SHOE COMPANY, St. Louis, Mo. Filed July 31, 1916.

HUMPTY DUMPTY

Particular description of goods.—Leather Shoes.
Claims use since about Jan. 1, 1914.

Ser. No. 97,096. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN B. ROBBINS, Malden, Mass. Filed Aug. 4, 1916.



The trade-mark is printed with the background surrounding the wording in red, the words "Chewing Gum" not being a part of the trade-mark.
Particular description of goods.—Chewing-Gum.
Claims use since June 1, 1902.

Ser. No. 97,101. (CLASS 2. RECEPTACLES.) VACUUM CAN CO., Chicago, Ill. Filed Aug. 4, 1916.

AERVOID

Particular description of goods.—Food-Containers.
Claims use since Nov. 30, 1915.

Ser. No. 97,207. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CANADIAN MILL & ELEVATOR CO., El Reno, Okla. Filed Aug. 9, 1916.

LITTLE BROWN HEN

Particular description of goods.—Poultry Feed.
Claims use since November, 1914.

Ser. No. 97,218. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) LEE BROOM & DUSTER COMPANY, Lincoln, Nebr. Filed Aug. 9, 1916.

ZEDA

Particular description of goods.—Brooms.
Claims use since about Apr. 10, 1916.

Ser. No. 97,219. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) LEE BROOM & DUSTER COMPANY, Lincoln, Nebr. Filed Aug. 9, 1916.

JOLLY

Particular description of goods.—Brooms.
Claims use since about Feb. 4, 1916.

Ser. No. 97,220. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) LEE BROOM & DUSTER COMPANY, Lincoln, Nebr. Filed Aug. 9, 1916.

BEX

Particular description of goods.—Brooms.
Claims use since about Feb. 4, 1916.

Ser. No. 97,244. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) TATE ELECTROLYTIC WATERPROOFING COMPANY INCORPORATED, New York, N. Y. Filed Aug. 10, 1916.

TATELEC

Particular description of goods.—Waterproofed Fabric.
Claims use since the 17th day of April, 1916.

Ser. No. 97,245. (CLASS 43. THREAD AND YARN.) TATE ELECTROLYTIC WATERPROOFING COMPANY INCORPORATED, New York, N. Y. Filed Aug. 10, 1916.

TATELEC

Particular description of goods.—Waterproofed Threads and Yarns.
Claims use since the 17th day of April, 1916.

Ser. No. 97,284. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) D. & L. SLADE CO., Boston, Mass. Filed Aug. 11, 1916.

REVERE

The word "Revere."
Particular description of goods.—Flavoring Extracts for Foods, and Spices.
Claims use since Jan. 1, 1914.

Ser. No. 97,302. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) S. B. GOFF & SONS CO., Camden, N. J. Filed Aug. 12, 1916.

HERBITOL

Particular description of goods.—A Remedy for Indigestion, Constipation, Heartburn, Coated Tongue, Loss of Appetite, Inactive Bowels, Sour Stomach, Gas-Belching, Flatulence, and Bad Taste in the Mouth.
Claims use since about June 10, 1916.

Ser. No. 97,386. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BARTLETT SPRINGS CO., San Francisco, Cal. Filed Aug. 17, 1916. Under ten-year proviso.



Particular description of goods.—Natural and Carbonated Mineral Water and Non-Alcoholic Carbonated Tonic Beverages to be Sold as Soft Drinks.
Claims use since the year 1888.

Ser. No. 97,407. (CLASS 39. CLOTHING.) EDSON MOORE & COMPANY, Detroit, Mich. Filed Aug. 17, 1916.

BULLGINE

Particular description of goods.—Work-Shirts, Negligée Shirts, and Undershirts, Overalls, Jumpers, and Rompers.
Claims use since July 20, 1916.

Ser. No. 97,431. (CLASS 10. FERTILIZERS.) THE BERG COMPANY, Philadelphia, Pa. Filed Aug. 18, 1916. Under ten-year proviso.



Particular description of goods.—Fertilizers.
Claims use since 1873.

Ser. No. 97,484. (CLASS 17. TOBACCO PRODUCTS.) UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y. Filed Aug. 21, 1916.



The trade-mark consists of the word "Tennyson," a portrait of Tennyson, and the words "Poet Laureate" thereunder, the portrait being in a frame flanked on the left by a picture of some knights in battle array and a priest and on the right by a picture of a woman sitting near a castle by the sea.
Particular description of goods.—Cigars.
Claims use since prior to the year 1899.

Ser. No. 97,488. (CLASS 17. TOBACCO PRODUCTS.) UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y. Filed Aug. 21, 1916.



The trade-mark consists of the words "Tom Keene," a portrait of Thomas W. Keene in a knight's armor, and the words "Truly Yours," followed by a facsimile of Thomas W. Keene's signature.
Particular description of goods.—Cigars.
Claims use since the year 1885.

Ser. No. 97,492. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRODSKY PALMAN GELBER CO., Chicago, Ill. Filed Aug. 21, 1916.

SINCERITY

Particular description of goods.—Canned Pineapples, Canned Peas, Canned Corn, Canned Tomatoes, Canned Pork and Beans with Tomato Sauce, Canned Spinach, Canned Prunes, Canned Pears, Canned Cherries, Canned Peaches, Canned Plums, Canned Salmon, Canned Red Kidney-Beans, Canned String-Beans, Black-Raspberry Preserves, Red-Raspberry Preserves, Strawberry Preserves, Pineapple Preserves, Plum Preserves, Peach Preserves, Blackberry Preserves, Tomato Catsup, Food-Flavoring Extracts, (Lemon and Vanilla.)
Claims use since August, 1913.

Ser. No. 97,570. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ARMAND COMPANY, Des Moines, Iowa. Filed Aug. 23, 1916.

[redacted]

Consisting of a blue strip showing facsimile signature "Armand" in white on each side, the color and arrangement thereof, substantially as described and shown on the accompanying drawing, being claimed as features of the mark.
Particular description of goods.—Face-Powder, Cold-Cream, Hair-Wash, Tooth-Paste, Rouge, Shampoo Preparations, Perfume.
Claims use since May 29, 1916, on face-powder; since July 27, 1916, on the other items enumerated above.

Ser. No. 97,578. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE KIRKLAND DISTRIBUTING COMPANY, Columbia, S. C. Filed Aug. 23, 1916.



The portrait being that of B. B. Kirkland, Jr.
Particular description of goods.—Wheat-Flour.
Claims use since Apr. 30, 1915.

Ser. No. 97,622. (CLASS 39. CLOTHING.) ELDER MANUFACTURING COMPANY, St. Louis, Mo. Filed Aug. 25, 1916.

BLACKJACK

Particular description of goods.—Negligée, Work, and Under Shirts.
Claims use since June 1, 1916.

Ser. No. 97,623. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) J. A. FINN & COMPANY, New York, N. Y. Filed Aug. 25, 1916.

Wistaria

Comprising the word "Wistaria," the lines therein merely representing shading.
Particular description of goods.—Cotton Piece Goods.
Claims use since June, 1916.

Ser. No. 97,624. (CLASS 39. CLOTHING.) FIBERITE HEEL AND LEATHER CO. INC., Whitman, Mass. Filed Aug. 25, 1916.

Fiberoke

Particular description of goods.—Composition Heels, Heel-Lifts, and Soles.
Claims use since Apr. 22, 1916.

Ser. No. 97,639. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GENERAL ALUMINUM & BRASS MANUFACTURING COMPANY, Detroit, Mich. Filed Aug. 26, 1916.

RING TRUE

Particular description of goods.—Bearings and Bushings.
Claims use since July 21, 1916.

Ser. No. 97,683. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANCIS H. GLAZEBROOK, Morristown, N. J. Filed Aug. 29, 1916.

NoTox

Particular description of goods.—A Remedy for Intestinal Stasis and Constipation.
Claims use since about Aug. 1, 1916.

Ser. No. 97,733. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MANHATTAN ELECTRICAL SUPPLY COMPANY, Jersey City, N. J., and New York, N. Y. Filed Aug. 31, 1916.

MESCO

Particular description of goods.—Telegraph-Keys, Telegraph-Sounders, Electric Relays, Electric Resonators, Lightning-Arresters, Electric Cut-Outs, Electric Switches and Parts Thereof, Electric Condensers, Induction-Coils, Electric-Spark-Gap Appliances, Leyden Jars, Wireless-Telegraph Apparatus and Appliances, Tuning-Coils, Head-Receivers, Insulators, Electric Detectors, Potentiometers, Telephone Receivers and Transmitters, Electrically-Operated Bells, Buzzers, and Sounders, Telephone-Brackets, Telephones, Electric Motors and Generators, Electric Switches of All Sorts and Their Parts, Face-Plates for Electrical Devices, Push-Buttons for Electric Switches, Electric-Burglar-Alarm Attachments, Electric Annunciators, Wet and Dry Batteries and Attachments Therefor, Electric Lamp-Sockets and Search-Lights, Electric-Battery Cases, Storage Batteries, Battery Zincs and Coppers, Electric Door-Openers, Electric Conduit and Tubing and Attachments, Electric Gas-Lighting Attachments, Electric Ignition Apparatus, Including Spark-Coils and Attachments, Spark-Plugs, Electrically-Operated Signal-Horns; Electric-Lamp Receptacles, Brackets Therefor, and Attachments of All Sorts; Electric Resistances and Coils and Apparatus Embodying the Same, Including Cooking Appliances, Percolators, Stoves, Boilers, Heaters, Chafing-Dishes, Laundry-Irons, Curling-Irons, Heating-Pads, and Parts and Attachments Therefor; Electrically-Operated Fans and Motors, Electric Cut-Outs, Fuses, Rosettes, Cleats, Attachment-Plugs, Current-Taps, Electric Connectors, Wire and Cord Terminals, Electric Receptacles, Outlet-Boxes, Electric-Fire-Alarm Boxes, Battery-Connectors and Wire-Connectors, and Binding-Posts.
Claims use since November, 1905.

Ser. No. 97,778. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. M. ATKINSON, Minneapolis, Minn. Filed Sept. 5, 1916.

FREEDOM

Particular description of goods.—Wheat-Flour.
Claims use since Aug. 18, 1916.

Ser. No. 97,799. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LOS ANGELES FOUNDRY COMPANY, Los Angeles, Cal. Filed Sept. 5, 1916.

DUROLOID

Particular description of goods.—Balls for Ball and Tube Mills.
Claims use since June 20, 1916.

Ser. No. 97,831. (CLASS 39. CLOTHING.) EFFA B. AMSDEN, Minneapolis, Minn. Filed Sept. 7, 1916.

Effa Blanche

The name being shown in the handwriting of the applicant.
Particular description of goods.—Petticoats, Union Suits, Corset-Covers, Drawers, Camisoles, Nightgowns, Combination-Suits, and Negligée Garments.
Claims use since Dec. 1, 1914.

Ser. No. 97,839. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FERDINAND F. JELKE, Boston, Mass. Filed Sept. 7, 1916.

DOMESTIC

Particular description of goods.—Margarin.
Claims use since Sept. 1, 1916.

Ser. No. 97,888. (CLASS 10. FERTILIZERS.) THE AMERICAN AGRICULTURAL CHEMICAL COMPANY, New York, N. Y. Filed Sept. 11, 1916. Under ten-year proviso.



Particular description of goods.—Fertilizers.
Claims use since Jan. 5, 1868.

Ser. No. 97,894. (CLASS 2. RECEPTACLES.) CHASE BAG CO., St. Louis, Mo. Filed Sept. 11, 1916. Under ten-year proviso.

CHASE

Particular description of goods.—Bags.
Claims use since about the year 1866.

Ser. No. 97,900. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) B. A. ECKHART MILLING CO., Chicago, Ill. Filed Sept. 11, 1916.

DADDY DOLLAR

Particular description of goods.—Wheat-Flour.
Claims use since 1878.

Ser. No. 97,907. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) INFANTS SPECIALTY COMPANY INC., Buffalo, N. Y. Filed Sept. 11, 1916.

The Bunny Nursing Bottle




No claim being made for the words "The" and "Nursing Bottle."
Particular description of goods.—Nursing-Bottles.
Claims use since about Aug. 18, 1916.

Ser. No. 97,924. (CLASS 37. PAPER AND STATIONERY.) NEENAH PAPER COMPANY, Neenah, Wis. Filed Sept. 11, 1916.

SYMBOL

Particular description of goods.—Bond and Ledger Paper.
Claims use since Mar. 25, 1916.

Ser. No. 97,929. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ROMANN & BUSH PIG IRON & COKE CO., St. Louis, Mo. Filed Sept. 11, 1916.

AJAX

Particular description of goods.—Coal.
Claims use since about July 1, 1910.

Ser. No. 97,953. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LLOYDS OF AMERICA, Bradley Beach, N. J. Filed Sept. 12, 1916.

KOALINE

Particular description of goods.—A Preparation to be Added or Applied to Coal to Render the Combustion of the Coal More Complete.
Claimd use since the 1st day of January, 1916.

Ser. No. 97,956. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RUDOLPH MERTIN, Boston, Mass. Filed Sept. 12, 1916.



LAXATIVE

No claim being made to the word "Laxative" apart from the mark shown in the drawing.
Particular description of goods.—Laxatives.
Claims use since May 1, 1916.

Ser. No. 97,964. (CLASS 17. TOBACCO PRODUCTS.) OTTO EISENLOHR & BROS. INCORPORATED, Philadelphia, Pa. Filed Sept. 11, 1916.

Henrietta

Consisting of the word "Henrietta."
Particular description of goods.—Cigars.
Claims use since in or about the month of June, 1901.

Ser. No. 97,967. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN CANDY CO., Milwaukee, Wis. Filed Sept. 13, 1916.

Milady

Particular description of goods.—Chocolates and Candy Goods of Various Kinds.
Claims use since about Oct. 15, 1907.

Ser. No. 97,972. (CLASS 15. OILS AND GREASES.) GALENA-SIGNAL OIL COMPANY, Franklin, Pa. Filed Sept. 13, 1916.

GALSIG

Particular description of goods.—Illuminating and Lubricating Oils and Greases.
Claims use since Feb. 9, 1916.

Ser. No. 97,975. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JOHNSON BROS., Greenspring, Ohio. Filed Sept. 13, 1916.

OAK RIDGE



Our trade-mark consists of a rectangular panel having thereon the representation of a spring inclosed in a small frame building and surrounded by water and foliage, a hotel being shown in the background and an inclined board walk leading from said building to the hotel, above which appear the words "Oak Ridge."
Particular description of goods.—Mineral Water.
Claims use since Jan. 1, 1908.

Ser. No. 97,978. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) PENINSULAR CHEMICAL COMPANY, Detroit, Mich. Filed Sept. 13, 1916.

Penslar

Particular description of goods.—Hot-Water Bottles and Fountain-Syringes.
Claims use since Aug. 15, 1916.

Ser. No. 97,997. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SARAH LEVY, New York, N. Y. Filed Sept. 15, 1916.

YVEL

Particular description of goods.—Dandruff Remedy and Hair-Restorer.
Claims use since about Jan. 15, 1916.

Ser. No. 98,005. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEPHEN BRITTON, New York, N. Y. Filed Sept. 15, 1916.

Sensapersa



The trade-mark consists of the word "Sensapersa" and a fez or oriental cap.
Particular description of goods.—A Medicinal Preparation Used as a Tonic and Nerve-Sedative.
Claims use since May 1, 1913.

Ser. No. 98,006. (CLASS 37. PAPER AND STATIONERY.) EATON, CRANE & PIKE COMPANY, Pittsfield, Mass. Filed Sept. 15, 1916.

Ryta-line

Particular description of goods.—Writing-Paper, Printing-Paper, Envelops, Tablets, Writing-Cards, and Cardboard.
Claims use since Sept. 5, 1916.

Ser. No. 98,022. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLUMBIA RIVER PACKERS ASSOCIATION, Astoria, Oreg. Filed Sept. 16, 1916.

GILT EDGE

Particular description of goods.—Canned Salmon.
Claims use since 1880.

Ser. No. 98,023. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLUMBIA RIVER PACKERS ASSOCIATION, Astoria, Oreg. Filed Sept. 16, 1916.



Particular description of goods.—Canned Salmon.
Claims use since 1891.

Ser. No. 98,024. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLUMBIA RIVER PACKERS ASSOCIATION, Astoria, Oreg. Filed Sept. 16, 1916.

WESTCOAST

Particular description of goods.—Canned Salmon.
Claims use since 1882.

Ser. No. 98,036. (CLASS 17. TOBACCO PRODUCTS.) THE TEXAS TOBACCO CO., San Antonio, Tex. Filed Sept. 16, 1916.

OSO
NEGRO

Particular description of goods.—Smoking-Tobacco.
Claims use since about May 1, 1916.

Ser. No. 98,061. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) RENNOUS, KLEINLE & COMPANY, Baltimore, Md. Filed Sept. 18, 1916.

STRANGLEHOLD

Particular description of goods.—Paint, Varnish, Whitewash, Calcimine, Plasterers', Paper-Hangers', Dusting, Sweeping, Artists', Stencil, Glue, Scrubbing, Washing, and Rubbing Brushes.
Claims use since Jan. 1, 1915.

Ser. No. 98,063. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) RENNOUS, KLEINLE & COMPANY, Baltimore, Md. Filed Sept. 18, 1916.

RED DEVIL

Particular description of goods.—Paint, Varnish, Whitewash, Calcimine, Plasterers', Paper-Hangers', Dusting, Sweeping, Artists', Stencil, Glue, Scrubbing, Washing, and Rubbing Brushes.
Claims use since Jan. 1, 1915.

Ser. No. 98,070. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) AUSTIN NICHOLS & CO., INC., Brooklyn and New York, N. Y. Filed Sept. 19, 1916.



Particular description of goods.—Grape-Juice and Apple Nectar.
Claims use on grape-juice since July 2, 1909, and on apple nectar since Dec. 1, 1915.

Ser. No. 98,099. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LOUIS ROSSBEL & Co., New York, N. Y. Filed Sept. 19, 1916.

Jeanette

Particular description of goods.—Crape Silk.
Claims use since July 1, 1916.

Ser. No. 98,106. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TIOGA MILL & ELEVATOR CO., Waverly, N. Y. Filed Sept. 19, 1916.

COLONEL'S RATION

No claim being made to the exclusive use of the word "Ration" except in association with the mark shown.
Particular description of goods.—Dairy Feed.
Claims use since Jan. 1, 1916.

Ser. No. 98,110. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) BALTIMORE BARGAIN HOUSE, Baltimore, Md. Filed Sept. 20, 1916.



No claim being made to the words "Talking Machine" apart from the matter shown.
Particular description of goods.—Talking-Machines.
Claims use since Aug. 19, 1916.

Ser. No. 98,116. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) R. H. MACY & Co., New York, N. Y. Filed Sept. 20, 1916.

Sheertex

Particular description of goods.—Cotton Piece Goods, Nainsooks, and Long-Cloths.
Claims use since Aug. 15, 1916.

Ser. No. 98,129. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & COMPANY, New York, N. Y. Filed Sept. 21, 1916.

VELFUR

Particular description of goods.—Plushes in the Piece.
Claims use since the 18th day of January, 1916.

Ser. No. 98,132. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BARGAR MFG. CO., Columbus, Ohio. Filed Sept. 21, 1916.

NU-EX FIRE-KILLER

No exclusive right to the words "Fire-Killer" apart from the mark as shown is claimed.

Particular description of goods.—Chemical Fire-Extinguishers.

Claims use since Sept. 1, 1916.

Ser. No. 98,152. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) AUTO-KAMP EQUIPMENT CO., INC., Saginaw, Mich. Filed Sept. 22, 1916.

"AUTO-KAMP"

Particular description of goods.—Automobile-Trailers.

Claims use since March, 1916.

Ser. No. 98,162. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) EDWIN S. EBY, Lewistown, Pa. Filed Sept. 22, 1916.

Wisto

Particular description of goods.—A Non-Alcoholic Beverage to be Sold as a Soft Drink.

Claims use since November, 1915.

Ser. No. 98,166. (CLASS 39. CLOTHING.) F. M. HOYT SHOE COMPANY, Manchester, N. H. Filed Sept. 22, 1916



No claim being made to the word "Shoe" apart from the mark shown in the drawing.

Particular description of goods.—Leather Boots and Shoes.

Claims use since 1903.

Ser. No. 98,199. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNITED DRUG COMPANY, Boston, Mass. Filed Sept. 23, 1916.

Billie Bar

Particular description of goods.—Candy.

Claims use since prior to January, 1910.

Ser. No. 98,200. (CLASS 15. OILS AND GREASES.) THE AMERICAN COTTON OIL COMPANY, Guttenberg, N. J., and New York, N. Y. Filed Sept. 25, 1916.

TECHNO

Particular description of goods.—Cotton-Seed Oil for Screw-Cutting and All other Lubricating Purposes.

Claims use since Apr. 1, 1916.

Ser. No. 98,206. (CLASS 39. CLOTHING.) FAUNCE AND SPINNEY INC., Lynn, Mass. Filed Sept. 25, 1916.

PATRICIAN

Particular description of goods.—Women's, Misses', and Children's Boots, Shoes, and Slippers Made of Leather and Leather and Cloth.

Claims use since about May 1, 1900.

Ser. No. 98,212. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CLAUS F. P. KORSELL, Chicago, Ill. Filed Sept. 25, 1916.



Particular description of goods.—Non-Alcoholic Beverages Put Up in Bottles, Kegs, and Barrels for Dispensing at Soda-Fountains and as Soft Drinks by Bottling Establishments.

Claims use since Mar. 1, 1914.

Ser. No. 98,241. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) FREDRICK & NELSON, Seattle, Wash. Filed Sept. 26, 1916.

GLOBE KNITTER

Particular description of goods.—Trunks.

Claims use since about Sept. 16, 1916.

Ser. No. 98,251. (CLASS 37. PAPER AND STATIONERY.) THE SAMUEL C. TATUM CO., Cincinnati, Ohio. Filed Sept. 26, 1916.

Rex

Particular description of goods.—Punching-Machines as Office Appliances for Perforating Sheets.

Claims use since May, 1915.

Ser. No. 98,271. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE QUAKER-KOLA COMPANY, Wilmington, Del., and Philadelphia, Pa. Filed Sept. 27, 1916.

QUAKOLA

No claim being made to the word "Kola" apart from the mark shown in the drawing.

Particular description of goods.—A Soft Drink.

Claims use since the 15th day of July, 1916.

Ser. No. 98,294. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) KALO-KAIN CHEMICAL CO., Detroit, Mich. Filed Sept. 28, 1916.

KALO-KAIN

Particular description of goods.—Ampuls.

Claims use since Sept. 13, 1916.

Ser. No. 98,322. (CLASS 12. CONSTRUCTION MATERIALS.) THE EUCLID STONE & BRICK CO., Cleveland, Ohio. Filed Sept. 29, 1916.

GLAS-ROX

Particular description of goods.—Enamel-Coated Natural Stone.

Claims use since the middle of September, 1916.

Ser. No. 98,387. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) LYON, CONKLIN & CO. INC., Baltimore, Md. Filed Oct. 3, 1916. Under ten-year proviso.

EDGAR

Particular description of goods.—Terne Plates.

Claims use since the year 1890.

Ser. No. 98,393. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL K. SALEEBY, New York, N. Y. Filed Oct. 3, 1916.



No claim being made to the words "Brooklyn, N. Y."

Particular description of goods.—A Medical and Pharmaceutical Preparation for the Curing of Corns.

Claims use since November, 1914.

Ser. No. 98,443. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NORTH STAR WOOLEN MILL CO., Minneapolis, Minn. Filed Oct. 5, 1916.



Particular description of goods.—Woven Woolen Fabrics.

Claims use since about the 1st day of January, 1870.

Ser. No. 98,503. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) STAR CORUNDUM WHEEL CO., Detroit, Mich. Filed Oct. 7, 1916.

STARALOX

Particular description of goods.—Grinding-Wheels.

Claims use since Sept. 1, 1916.

Ser. No. 98,518. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ITALIAN BED SPREAD CO., New York, N. Y. Filed Oct. 9, 1916.

Aurelia

Comprising the word "Aurelia."

Particular description of goods.—Cotton Bedspreads.

Claims use since Oct. 3, 1916.

TRADE-MARK REGISTRATIONS GRANTED

NOVEMBER 7, 1916.

113,851. BODY-BRACE. THE AEFORMATOR SUPPORT CO., INC., Watertown, N. Y.
Filed August 2, 1915. Serial No. 88,349. PUBLISHED SEPTEMBER 5, 1916.

113,852. HOMOGENEOUS WATERPROOF AND FIRE-RESISTING WOOD SUBSTITUTES MADE FROM PULP. THE AGASOTE MILLBOARD CO., Trenton, N. J., and New York, N. Y.
Filed June 19, 1916. Serial No. 95,775. PUBLISHED SEPTEMBER 5, 1916.

113,853. OINTMENT FOR THE RELIEF OF SKIN ERUPTIONS. ALEXANDER DRUG CO., Oklahoma, Okla.
Filed January 28, 1916. Serial No. 92,462. PUBLISHED SEPTEMBER 5, 1916.

113,854. EDIBLE CONTAINERS FOR CREAMS, ICE-CREAMS, LIQUID AND SEMILIQUID FOODS AND CONFECTIONS. AMERICAN INGENUITIES CORPORATION, Brooklyn, N. Y.
Filed May 5, 1916. Serial No. 94,912. PUBLISHED AUGUST 29, 1916.

113,855. [WITHDRAWN.]

113,856. CARBURETERS AND PARTS THEREOF FOR INTERNAL-COMBUSTION ENGINES. THE ASTON MOTOR ACCESSORIES CO. LD., Birmingham, England.
Filed April 17, 1916. Serial No. 94,469. PUBLISHED SEPTEMBER 5, 1916.

113,857. LINIMENT. JAMES SIDNEY BISHOP, Glenmora, La.
Filed July 21, 1916. Serial No. 96,708. PUBLISHED SEPTEMBER 5, 1916.

113,858. TOILET POWDER. A. BOURJOIS & CO., INC., New York, N. Y.
Filed September 1, 1915. Serial No. 88,943. PUBLISHED SEPTEMBER 5, 1916.

113,859. SHEET-METAL ROOFING. BRADEN MANUFACTURING COMPANY, Terre Haute, Ind.
Filed May 22, 1916. Serial No. 95,818. PUBLISHED SEPTEMBER 5, 1916.

113,860. FACE-CREAM. LEMUEL BURD, New York, N. Y.
Filed June 28, 1916. Serial No. 96,190. PUBLISHED SEPTEMBER 5, 1916.

113,861. BUTTER, CHEESE, SWEET CREAM, DRY WHOLE MILK, DRY SKIM-MILK, DRY BUTTERMILK, AND EGGS. CALIFORNIA CENTRAL CREAMERIES, San Francisco, Cal.
Filed June 28, 1916. Serial No. 96,193. PUBLISHED AUGUST 29, 1916.

113,862. FANCY MATERIALS FOR HAND-EMBROIDERY WORK COMPRISING SKEINS AND BALLS OF EMBROIDERY-COTTON, COTTON EMBROIDERY-CORD, COTTON EMBROIDERY-ROPE, COTTON EMBROIDERY-FLOSS, AND EMBROIDERY-TINSEL. CAMPBELL, METZGER & JACOBSON, New York, N. Y.
Filed December 31, 1915. Serial No. 91,847. PUBLISHED MAY 23, 1916.

113,863. PORTLAND CEMENT FOR STRUCTURAL PURPOSES. CAPE GIRARDEAU PORTLAND CEMENT CO., Cape Girardeau, Mo.
Filed July 3, 1916. Serial No. 96,289. PUBLISHED SEPTEMBER 5, 1916.

113,864. SYRUP FOR SODA-WATER. CELRO-KOLA COMPANY, Portland, Oreg.
Filed August 7, 1916. Serial No. 97,134. PUBLISHED SEPTEMBER 5, 1916.

113,865. FURNITURE-POLISH. CITY MUSIC COMPANY, Detroit, Mich.
Filed July 12, 1916. Serial No. 96,522. PUBLISHED SEPTEMBER 5, 1916.

113,866. CATALOGUES, PRICE-LISTS, AND OTHER PUBLICATIONS. JAMES B. CLOW & SONS, Chicago, Ill.
Filed February 14, 1916. Serial No. 92,830. PUBLISHED AUGUST 29, 1916.

113,867. LEATHER BOOTS AND SHOES. THE COMMONWEALTH SHOE AND LEATHER COMPANY, Portland, Me., and Boston, Mass.
Filed June 30, 1916. Serial No. 96,247. PUBLISHED AUGUST 29, 1916.

113,868. MEAT, FRUIT, AND VEGETABLE SLICERS. CRYSTAL PERCOLATOR CO. INC., New York, N. Y.
Filed July 31, 1916. Serial No. 96,978. PUBLISHED SEPTEMBER 5, 1916.

113,869. CERTAIN NAMED CUTLERY AND TOOLS. DARWIN & MILNER INC., New York, N. Y.
Filed July 6, 1916. Serial No. 96,351. PUBLISHED SEPTEMBER 5, 1916.

113,870. OARS. DE GRAUW, AYMAR & COMPANY, New York, N. Y.
Filed July 29, 1916. Serial No. 96,952. PUBLISHED SEPTEMBER 5, 1916.

113,871. GRAPE-FLAVORED BEVERAGES AND SYRUPS FOR MAKING THE SAME. CHARLES J. DONNELLY, Chicago, Ill.
Filed July 27, 1916. Serial No. 96,887. PUBLISHED SEPTEMBER 5, 1916.

113,872. PHARMACEUTICAL PREPARATIONS FOR RHEUMATISM, LUMBAGO, AND SCIATICA. FRED F. DOW, Los Angeles, Cal.
Filed November 8, 1915. Serial No. 90,499. PUBLISHED SEPTEMBER 5, 1916.

113,873. MEDICINAL PREPARATION IN TABLET FORM FOR STOMACH AILMENTS. EATONIC REMEDY CO., Chicago, Ill.
Filed July 20, 1916. Serial No. 96,688. PUBLISHED SEPTEMBER 5, 1916.

113,874. MEDICINAL PREPARATION IN TABLET FORM FOR STOMACH AILMENTS. EATONIC REMEDY CO., Chicago, Ill.
Filed July 20, 1916. Serial No. 96,689. PUBLISHED SEPTEMBER 5, 1916.

113,875. MEDICINAL PREPARATION FOR THE RELIEF OF RHEUMATIC PAINS, HEADACHES, AND COLDS. THE EDWARDS LABORATORIES COMPANY, Cleveland, Ohio.
Filed June 8, 1916. Serial No. 95,702. PUBLISHED SEPTEMBER 5, 1916.

113,876. MEDICINE FOR STOMACH, LIVER, KIDNEYS, BOWELS, AND PURIFICATION OF THE BLOOD. E. M. CO., Cincinnati, Ohio.
Filed July 13, 1916. Serial No. 96,540. PUBLISHED SEPTEMBER 5, 1916.

113,877. MEDICINAL WATER USED WHERE ANTISEPTIC OR DISINFECTING AGENT IS REQUIRED. THE EMAN MANUFACTURING COMPANY, Denver, Colo.
Filed July 8, 1915. Serial No. 87,825. PUBLISHED SEPTEMBER 5, 1916.

113,878. MULSIFIED AND SAPONIFIED COCOANUT-OIL. EMPIRE CHEMICAL COMPANY, Dallas, Tex.
Filed June 30, 1916. Serial No. 96,248. PUBLISHED SEPTEMBER 5, 1916.

113,879. EYE LOTION OR WASH. ALBERT W. FUHRMANN, Chicago, Ill.
Filed July 31, 1916. Serial No. 96,988. PUBLISHED SEPTEMBER 5, 1916.

113,880. CHEESE. GEBRÜDER & Co., Thoune, Switzerland.
Filed November 5, 1915. Serial No. 90,484. PUBLISHED AUGUST 22, 1916.

113,881. GUM HEADINGS FOR BARRELS AND CASKS. HIMMELBERGER-HARRISON LUMBER Co., Cape Girardeau, Mo.
Filed May 26, 1916. Serial No. 95,445. PUBLISHED SEPTEMBER 5, 1916.

113,882. MEDICINE FOR TREATMENT OF THE EFFECTS OF INEBRIETY. HENRY J. GLICK, Cumberland, Md.
Filed June 22, 1916. Serial No. 96,054. PUBLISHED SEPTEMBER 5, 1916.

113,883. MEDICAL PREPARATION IN THE NATURE OF A TONIC FOR TREATING THE TOBACCO HABIT. J. H. HOLTHAN, Bismarck, N. D.
Filed July 19, 1916. Serial No. 96,668. PUBLISHED SEPTEMBER 5, 1916.

113,884. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS FOR TOILET PURPOSES. FRED T. HOPKINS & SON, New York, N. Y.
Filed December 11, 1915. Serial No. 91,398. PUBLISHED SEPTEMBER 5, 1916.

113,885. MEDICINAL PREPARATION, A TONIC AND BLOOD-PURIFIER. DENNIS HILLS HUNT, Johnson City, Tenn.
Filed July 27, 1916. Serial No. 96,889. PUBLISHED SEPTEMBER 5, 1916.

113,886. CERTAIN NAMED BELTING, HOSE, AND MACHINERY PACKING. IMPERIAL RUBBER Co., New York, N. Y.
Filed June 24, 1912. Serial No. 64,841. PUBLISHED SEPTEMBER 5, 1916.

113,887. PREPARATION FOR THE TREATMENT OF HOG-CHOLERA. IDA E. JOHNSON, Peru, Ind.
Filed June 26, 1916. Serial No. 96,146. PUBLISHED SEPTEMBER 5, 1916.

113,888. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. GEORGE A. KERROS, Chicago, Ill.
Filed July 7, 1916. Serial No. 96,410. PUBLISHED SEPTEMBER 5, 1916.

113,889. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. LANDERS, FRARY & CLARK, New Britain, Conn.
Filed July 29, 1916. Serial No. 96,959. PUBLISHED SEPTEMBER 5, 1916.

113,890. STRENGTHENING APPLICATION FOR EGGS DURING INCUBATION. GEO. H. LEE COMPANY, Omaha, Nebr.
Filed July 28, 1916. Serial No. 96,926. PUBLISHED SEPTEMBER 5, 1916.

113,891. DIAPERS. LEHIGH PAPER MILLS, INC., New York, N. Y.
Filed January 11, 1916. Serial No. 92,064. PUBLISHED SEPTEMBER 5, 1916.

113,892. POWDER-PUFFS. MAURICE LEVY, New York, N. Y.
Filed July 15, 1916. Serial No. 96,589. PUBLISHED SEPTEMBER 5, 1916.

113,893. POWDER-PUFFS. MAURICE LEVY, New York, N. Y.
Filed July 15, 1916. Serial No. 96,590. PUBLISHED SEPTEMBER 5, 1916.

113,894. MASSAGE-CREAM TO SOFTEN AND WHITEN THE SKIN. MATTHEWS & LIVELY Co., Atlanta, Ga.
Filed July 21, 1916. Serial No. 96,719. PUBLISHED SEPTEMBER 5, 1916.

113,895. BROAD SILKS IN THE PIECE. JULIUS A. MIGEL, New York, N. Y.
Filed November 2, 1915. Serial No. 90,846. PUBLISHED SEPTEMBER 5, 1916.

113,896. TOY BALLOONS. THE MILLER RUBBER COMPANY, Akron, Ohio.
Filed July 20, 1916. Serial No. 96,693. PUBLISHED SEPTEMBER 5, 1916.

113,897. CERTAIN NAMED ELECTRIC ILLUMINATING APPARATUS. NATIONAL X-RAY REFLECTOR COMPANY, Chicago, Ill.
Filed June 12, 1916. Serial No. 95,826. PUBLISHED SEPTEMBER 5, 1916.

113,898. PORCELAIN REFLECTORS FOR LIGHTING-FIXTURES. NATIONAL X-RAY REFLECTOR COMPANY, Chicago, Ill.
Filed July 27, 1916. Serial No. 96,898. PUBLISHED SEPTEMBER 5, 1916.

113,899. CERTAIN NAMED DINING-ROOM FURNITURE. THE NEWARK OHIO FURNITURE Co., Newark, Ohio.
Filed June 13, 1916. Serial No. 95,849. PUBLISHED SEPTEMBER 5, 1916.

113,900. BEER. NORTH AMERICAN BREWING COMPANY, New York and Brooklyn, N. Y.
Filed August 8, 1916. Serial No. 97,169. PUBLISHED SEPTEMBER 5, 1916.

113,901. CERTAIN FORMULA OF SOLDER KNOWN AS BRAZING-SOLDER, SPELTER-SOLDER, AND BRAZING-SPELTER. NORTH AMERICAN SMELTING Co. INC., Philadelphia, Pa.
Filed October 11, 1915. Serial No. 89,805. PUBLISHED SEPTEMBER 5, 1916.

113,902. CARBONATED NON-ALCOHOLIC BEVERAGE SOLD AS A SOFT DRINK, AND SYRUPS FOR MAKING SAME. ORANGE CRUSH Co., Chicago, Ill.
Filed August 10, 1916. Serial No. 97,252. PUBLISHED SEPTEMBER 5, 1916.

113,903. DITCHERS AND GRADERS. OWENSBORO DITCHER & GRADER Co., Owensboro, Ky.
Filed July 25, 1916. Serial No. 96,848. PUBLISHED SEPTEMBER 5, 1916.

113,904. OINTMENTS, TONIC AND ANTISEPTIC SOLUTIONS USED EXTERNALLY IN TREATING DISEASES AND INJURIES TO THE SKIN. JAMES D. PARK, Duluth, Minn.
Filed June 9, 1916. Serial No. 95,758. PUBLISHED SEPTEMBER 5, 1916.

113,905. WRITING AND PRINTING PAPERS KNOWN AS BOND, LINEN, AND LEDGER. PARSONS PAPER COMPANY, Holyoke, Mass.
Filed February 1, 1915. Serial No. 84,248. PUBLISHED JUNE 1, 1915.

113,906. LIQUID CHEMICAL PREPARATION FOR USE AS A HARDENER OF CEMENT SURFACES. PATTON PAINT COMPANY, Milwaukee, Wis.
Filed July 21, 1916. Serial No. 96,723. PUBLISHED SEPTEMBER 5, 1916.

113,907. MEDICINAL PREPARATION FOR RELIEF OF DISEASES AND DISORDERS OF CERTAIN ORGANS AND ANALOGOUS AILMENTS. S. PFEIFFER MANUFACTURING COMPANY, St. Louis, Mo.
Filed June 22, 1916. Serial No. 96,063. PUBLISHED SEPTEMBER 5, 1916.

113,908. BEVERAGES MADE OF MALT, HOPS, AND OTHER INGREDIENTS. THE PILSENER BREWING COMPANY, Cleveland, Ohio.
Filed August 10, 1916. Serial No. 97,255. PUBLISHED SEPTEMBER 5, 1916.

113,909. BASE-BALL GLOVES. A. J. REACH COMPANY, Philadelphia, Pa.
Filed May 15, 1916. Serial No. 95,155. PUBLISHED SEPTEMBER 5, 1916.

113,910. CERTAIN NAMED WEARING-APPAREL AND FURNISHINGS FOR MEN, WOMEN, AND CHILDREN. ROBERT REIS & Co., New York, N. Y.
Filed June 12, 1916. Serial No. 95,820. PUBLISHED JULY 25, 1916.

113,911. FACIAL LOTION. MARY A. ROBINSON, Detroit, Mich.
Filed July 22, 1916. Serial No. 96,767. PUBLISHED SEPTEMBER 5, 1916.

113,912. RHEUMATISM REMEDY. ANTHONY ROMANO, Troy and Buffalo, N. Y.
Filed August 7, 1916. Serial No. 97,149. PUBLISHED SEPTEMBER 5, 1916.

113,913. PHARMACEUTICAL PREPARATION FOR USE IN ECZEMATOUS AND ALLIED AFFLICTIONS OF THE SKIN. ROYAL REMEDIES COMPANY, Waukegan, Ill.
Filed July 22, 1916. Serial No. 96,764. PUBLISHED SEPTEMBER 5, 1916.

113,914. SEAMLESS FOUNTAIN-SYRINGES AND NO-SEAM WATER-BOTTLES. THE RUBBER PRODUCTS COMPANY, Barberton, Ohio.
Filed July 24, 1916. Serial No. 96,803. PUBLISHED SEPTEMBER 5, 1916.

113,915. PILLS, WHICH ARE ADMINISTERED FOR BILIOUSNESS, TORPID LIVER, CONSTIPATION, HEADACHE, AND ALL LIVER TROUBLES. JOHN A. SALTER, Vicksburg, Miss.
Filed July 26, 1916. Serial No. 96,881. PUBLISHED SEPTEMBER 5, 1916.

113,916. HORSE-COLLARS, HARNESS, AND RIDING-SADDLES. SCHEFFER & ROSSUM COMPANY, St. Paul, Minn.
Filed March 29, 1915. Serial No. 85,526. PUBLISHED MAY 18, 1915.

113,917. PEN AND POCKET KNIVES. SCHMACHTENBERG BROS., INC., New York, N. Y.
Filed May 8, 1916. Serial No. 94,995. PUBLISHED SEPTEMBER 5, 1916.

113,918. POCKET-KNIVES AND SCISSORS. SCHMACHTENBERG BROS., INC., New York, N. Y.
Filed May 8, 1916. Serial No. 94,996. PUBLISHED SEPTEMBER 5, 1916.

113,919. PHARMACEUTICAL PRODUCT USED INTERNALLY AND EXTERNALLY FOR CERTAIN DISEASES. SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland.
Filed July 15, 1916. Serial No. 96,603. PUBLISHED SEPTEMBER 5, 1916.

113,920. MATTRESSES. SOUTHERN BEDDING MANUFACTURING Co., Austin, Tex.
Filed January 14, 1916. Serial No. 92,142. PUBLISHED SEPTEMBER 5, 1916.

113,921. READY-MIXED PAINT. STAR PRODUCTS Co., Chicago, Ill.
Filed June 17, 1916. Serial No. 95,952. PUBLISHED SEPTEMBER 5, 1916.

113,922. ECZEMA REMEDIES. HARRY M. SWARTLEY, Charleston, S. C.
Filed April 5, 1916. Serial No. 94,176. PUBLISHED SEPTEMBER 5, 1916.

113,923. TOILET CREAMS. RALPH A. SWEET, Binghamton, N. Y.
Filed July 12, 1916. Serial No. 96,533. PUBLISHED SEPTEMBER 5, 1916.

113,924. ROASTED COFFEE. TILLMANN & BENDEL, San Francisco, Cal.
Filed November 18, 1915. Serial No. 90,741. PUBLISHED FEBRUARY 1, 1916.

113,925. LOAD-INDICATING MECHANISMS FOR VEHICLES. FREDERICK J. TROLL, Baltimore, Md.
Filed July 17, 1915. Serial No. 87,997. PUBLISHED SEPTEMBER 5, 1916.

113,926. NURSING-NIPPLES. THE VANT WOUD RUBBER Co., Brooklyn, N. Y.
Filed December 1, 1915. Serial No. 91,088. PUBLISHED SEPTEMBER 5, 1916.

113,927. MINERAL FLUID TONIC. VITAL REMEDIES COMPANY, Houston, Tex.
Filed July 1, 1916. Serial No. 96,282. PUBLISHED SEPTEMBER 5, 1916.

113,928. CERTAIN NAMED FURNITURE. CHESTER J. WADSWORTH, Painesville, Ohio.
Filed May 20, 1916. Serial No. 95,315. PUBLISHED SEPTEMBER 5, 1916.

113,929. CERTAIN NAMED FURNITURE. THE WILLOWCRAFT SHOPS, Cambridge, Mass.
Filed July 3, 1916. Serial No. 96,308. PUBLISHED SEPTEMBER 5, 1916.

113,930. WHISKY. WOMACK BROS., Fort Worth, Tex.
Filed August 11, 1916. Serial No. 97,287. PUBLISHED SEPTEMBER 5, 1916.

LABELS

REGISTERED NOVEMBER 7, 1916.

19,718.—*Title:* "UNCLE SAM." (For Union-Suits.) THE ARGYLE CO., New York, N. Y. Filed Oct. 4, 1916.

19,719.—*Title:* "ANNETTE KELLERMANN CHILL-OFF BEACH CAPE." (For Bathing-Capes.) LEONARD C. ASCH, New York, N. Y. Filed October 12, 1916.

19,720.—*Title:* "BEECH-NUT BRAND MINTS." (For Candies and Confections.) BEECH-NUT PACKING COMPANY, Canajoharie, N. Y. Filed August 10, 1916.

19,721.—*Title:* "BEECH-NUT BRAND WINTERGREENS." (For Wintergreen-Flavored Candies and Confections.) BEECH-NUT PACKING COMPANY, Canajoharie, N. Y. Filed August 16, 1916.

19,722.—*Title:* "BEECH-NUT BRAND CHEWING GUM." (For Chewing-Gum.) BEECH-NUT PACKING COMPANY, Canajoharie, N. Y. Filed August 19, 1916.

19,723.—*Title:* "BEECH-NUT BRAND CHEWING GUM." (For Chewing-Gum.) BEECH-NUT PACKING COMPANY, Canajoharie, N. Y. Filed August 22, 1916.

19,724.—*Title:* "A G." (For Goldwasser.) ADOLF GRUNBAUM, New York, N. Y. Filed September 27, 1916.

19,725.—*Title:* "COFFEE." (For Coffee.) B. FISCHER & Co., New York, N. Y. Filed September 27, 1916.

19,726.—*Title:* "EXCELLENT HAIR GROWER." (For a Hair-Grower.) BERTHA GREENE, Sheepshead Bay, N. Y. Filed April 20, 1916.

19,727.—*Title:* "TAFIMALTS." (For Candy.) GEO. HAAS & SONS, San Francisco, Cal. Filed October 23, 1916.

19,728.—*Title:* "TURKEY RED." (For Hard-Wheat Flour.) HANNAH & LAY COMPANY, Traverse City, Mich. Filed October 4, 1916.

19,729.—*Title:* "DOLORA." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed August 18, 1916.

19,730.—*Title:* "88 SPECIAL." (For Whisky.) JOSSELSON BROS., Catlettsburg, Ky. Filed October 2, 1916.

19,731.—*Title:* "GREAT BIG BAKED POTATO." (For Packages of Candy.) KOENIG CANDY COMPANY, Seattle, Wash. Filed August 10, 1916.

19,732.—*Title:* "McQUAY-NORRIS LEAK-PROOF PISTON RINGS." (For Piston-Rings.) McQUAY-NORRIS MFG. CO., St. Louis, Mo. Filed October 4, 1916.

19,733.—*Title:* "GASAID." (For a Substance to be Mixed with Gasolene.) THE PITCHFORD CHEMICAL LABORATORIES, Tacoma, Wash. Filed October 2, 1916.

19,734.—*Title:* "THE WONDER CORN SHIELD." (For Corn-Shields.) PAUL WETZEL, New Rochelle, N. Y. Filed September 2, 1916.

PRINTS

REGISTERED NOVEMBER 7, 1916.

4,546.—*Title:* "MAKE DELICIOUS ICE CREAM AND FROZEN DAINTIES WITH CARNATION MILK." (For Milk.) CARNATION MILK PRODUCTS COMPANY, Seattle, Wash. Filed September 14, 1916.

4,547.—*Title:* "AH'VE ALWAYS SAID, AND NOW REPEAT—MA HEALTH AM DUE TO CREAM O'WHEAT." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed October 20, 1916.

4,548.—*Title:* "GORDON CONVERTIBLE WINTER AND SUMMER TOP, GORDON SEAT COVERINGS, GORDON TIRE COVERS, GORDON RADIATOR AND ENGINE ROBE." (For Gordon Convertible Winter and Summer Tops, Gordon Seat-Coverings, Gordon Tire-Covers, and Gordon Radiator and Engine Robes.) THE J. P. GORDON COMPANY, Columbus, Ohio. Filed October 20, 1916.

4,549.—*Title:* "IT MAKES A DIFFERENCE." (For Oil.) INDIAN REFINING COMPANY, Augusta, Me., and New York, N. Y. Filed September 13, 1916.

4,550.—*Title:* "HAVE YOU HAD YOUR MORNING SIP?" (For Coffee.) ALEXANDER SHEPPARD & SONS, INC., Philadelphia, Pa. Filed October 6, 1916.

4,551.—*Title:* "GOLD NUGGETS." (For Popcorn Confections.) JOE H. SMITH, Upper Sandusky, Ohio. Filed October 18, 1916.

DECISIONS
OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE UNITED DRUG COMPANY.

Decided October 13, 1916.

1. TRADE-MARKS—REGISTRABILITY—NAME OF CORPORATION ASSOCIATED WITH OTHER FEATURES.

A mark consisting of a double circle and a ring of seven infants' heads, inclosing the word "Stork," in heavy script, *Held* registrable, notwithstanding that the word "Stork" alone had previously been refused on the ground that it was the name of a corporation other than the applicant.

2. SAME—SAME—SAME.

A distinction should be drawn between names of corporations, which are also common English words, and names coined for the purposes of the corporation and which are therefore merely the name of the corporation.

ON APPEAL.

TRADE-MARK FOR RUBBER NIPPLES.

Mr. Alexander W. Murray for the applicant.

CLAY, *Assistant Commissioner:*

The applicant appeals from the ruling of the Examiner of Trade-Marks, refusing registry of a trade-mark for infants' rubber nipples, consisting of a double circle and ring of seven infants' heads, inclosing the word "Stork," written in heavy script.

The rejection is on the ground that the Commissioner and the Court of Appeals of the District of Columbia had previously refused registry of the word "Stork" on the ground that the word was the principal part of the name of a corporation existing prior to July, 1912, when the applicant alleges it began the use of its mark.

It appears in the file of this application that the applicant originally applied for registry of the word "Stork" alone. A search in the class failing to show that the mark was anticipated, it was passed to registry January 19, 1915, published February 2, 1915, and the thirty days thereafter allowed for filing opposition passed without any opposition developing. On March 15, 1915, the case was reconsidered by the Examiner, whose attention had meantime been directed to the fact that there was a corporation in the State of Maine called "The Stork Company," and registration was refused on the ground that the mark was the name of that company, under the ruling of the court in the case of *The Asbestone Company* v. *The Philip Carey Manufacturing Company*, (200 O. G., 857; 41 App. D. C., 507.) Appeals were taken to the Commissioner and then to the court, with the result of affirmance of the Examiner's position by both tribunals. A perusal of the briefs and the decisions of the First Assistant Commissioner and of the court (222 O. G., 729) makes it plain that the applicant's mark offered for registry was considered to be the mere name of The Stork Company, the court saying:

> The corporate name of The Stork Company is protected by the express provisions of the Trade-Mark Act.

Afterward the applicant amended its drawing and virtually applied anew to register the trade-mark in the form as now presented and above described. The question, then, is whether the ruling now must follow the ruling in the previous proceedings and whether there is any legal ground for refusing registration. For the solution of both questions it is necessary to carefully note the language of the statute.

An officer charged with the administration of the law is bound to construe it according to his conscience and according to the evident intent of the legislature. Obviously the intent of the lawmaker may be deduced from a history of the law and the reasons for its enactment. Both the congressional committees which favorably reported the bill which became the trade-mark law of February 20, 1905, reported after an exhaustive inquiry by themselves and by a special expert committee appointed for the purpose, (Senate Report 3278, January 24, 1905,) giving reasons.

The immediate occasion for the law was the obligation to carry out the provisions of certain treaties; but the committee refers to past complaints about the difficulty of registering trade-marks and says it was also the intention to give a wide latitude to registry.

> "Section 5 of the proposed bill we believe will permit the registration of all marks which could, under the common law as expounded by the courts, be the subject of a trade-mark and become the exclusive property of the party using the same as his trade-mark."

Section 5 of this bill, being in essence as it was drawn by Mr. Greeley, was, according to Mr. Greeley's report, drawn for the purpose of registering—

> all marks which would or could, under the law as construed by the Supreme Court, be held to be capable of being appropriated as the exclusive property of the person using them as trade-marks. * * * The second proviso is in recognition of the statement made by the Supreme Court in *Canal Company* v. *Clark*, (13 Wall., 311,) quoting from the opinion of Judge Duer in the case of *Amoskeag Manufacturing Company* v. *Spear*, that "[one] has no right to appropriate a sign or symbol, which, from the nature of the fact it is used to signify, others may employ with equal truth, and therefore have an equal right to employ for the same purpose," * * * etc.

Mr. Greeley's draft differed from the section as adopted on the point of interest only by change of

forms of expression and by adding to the prohibition against the registry of a mark which consists merely in a name not distinctively displayed the further exception—

or in association with a portrait of the individual.

Now it will be noted that the section is a law restricting the Commissioner's power of refusal to register. So far as we are now concerned with it, and omitting surplusage, it says that no distinctive trade-mark shall be refused registry unless it consists merely in the name of an individual not distinctively displayed.

The subsequent amendments of the law make this meaning more clear. For example, it was afterward found necessary to add to the exception of marks scandalous by reason of being immoral or being public insignia, also previously-used signs of fraternal societies, institutions, etc. The importance of comparative rights by user was originally emphasized by the provision that a then ten-year-old mark might be registered, notwithstanding it came within the previous prohibitions. On February 5, 1911, there was added to the statute these words:

Provided further, That nothing herein shall prevent the registration of a trade-mark otherwise registrable because of its being the name of the applicant or a portion thereof.

This extra proviso was occasioned by the ruling of the court in such cases as *in re Success Co.*, (34 App. D. C., 448; 152 O. G., 958, February 1, 1910,) that—

the word "merely" as used in the statute was clearly intended to prevent the registration by a corporation of its own name.

If it were proposed to register a word which was the property of another as being that other's peculiar name, that and nothing more, there would be no difficulty in deciding against registry; but here we have a different case, because the word in question was not the property of any particular other person, but was a word in wide and various use not only as a surname and not only as the name of a famous bird, but as an actual trade-mark. The name "Stork" generally is not the property of the corporation Stork Company, simply because it is equally the property of others. The directories of the large cities of the country show the name to be a very common family name, occurring, for example, scores of times in the cities of Philadelphia, Baltimore, St. Louis, Chicago, New York, and Cleveland. It is of course a well-known name of a bird and of a bird having such mythical associations as to be virtually a term indicative of the occasion of birth, as Santa Claus is associated with the Christmas festival.

The name "Stork" is the name of the corporation not in the sense of being its property generally, but only in the sense of its particular use of it, just as the applicant here has as its name the word "United" and the word "Drug" without any property rights in either word.

Obviously there could be no just claim that the Stork Company had the exclusive right to use of its name. The particular question is not the right to exclusive use of the name, but the right of another to use and register the name. Under the statute The Stork Company can register its name as a trade-mark indefinitely. If others cannot, this amounts in effect to giving it a monopoly of the name. A natural person whose name was Stork could not claim this extraordinary right, and it is difficult to understand how an artificial person could have such superhuman privilege. It is thus necessary to draw a sharp distinction between a name coined or created, or preëmpted by first and sole use, and a name which is merely withdrawn from the public domain for specific use. The word "Asbestone" was the property of the Asbestone Company, and was the mere name of that company, for that company had created the name. But there is no such or similar condition in this case.

There is on file in this Office a copy, certified by the Secretary of State of Maine on January 5, 1905, of the certificate of incorporation on December 2, 1904, of a company known as The Stork Company, organized to manufacture "waterproof cloths, fabrics," etc. There is also on file Trade-Mark Certificate No. 90,254, of February 11, 1913, showing that this company used a mark consisting of the word "Stork" and the picture of a stork, for baby-shoes, in 1906, and claims to own the previously-registered mark, No. 65,946, of June 23, 1908, showing the same mark in different form; also, Certificate No. 88,534, of September 24, 1912, showing the word "Stork" and a different picture of the bird, as used for soap. This evidence that there was a corporation of this name twelve years ago and that as late as three years ago such a company was dealing in baby-shoes and soap does not seem sufficient to raise any question of any rivalry in goods, and the only question that remains is whether registry can be refused because the mark proposed for registry *contains*, among other things, a word which also is the name of a person and of a previously-existing corporation.

It also appears from the records of this Office that the word "Stork" or the picture of a stork has been registered as a trade-mark some sixty times, and, among others, it had been used prior to the incorporation of The Stork Company for vermifuge, (1884,) for flannels, (1898,) for condensed milk, (1898,) for morning-sickness tablets, (1901,) and for medicines (1902.) All of these things pertain in some way to infants. And since the incorporation of The Stork Company there have been registrations for toilet powder, (No. 50,800,) for infants' hats and caps, (No. 49,886,) for baby chicks, (No. 109,524,) and for baby-carriages, (No. 95,968.) That The Stork Company not only has no right, but cannot have the exclusive use of the word "Stork" even as a trade-mark, is obvious from the fact that others have used it as a trade-mark for goods pertaining to childhood, and that this practice, beginning long before The Stork Company existed, has continued since The Stork Company's use of the same word without objection from The Stork Company. Under these circumstances I am unable to believe that the court by any previous decision has intended to hold that by indirection The Stork Company may monopolize the name, which seems to be the inevitable effect of refusing registry to any mark which contains the word "Stork."

What the Examiner had held virtually amounts to ruling that a ring of infants' heads is the name of a corporation. Either this, or else he has not only read entirely out of the statute the word "*merely*," but has gone a step further and read into the statute a substitution of the word "includes" for the word "*consists*." This Office can take no such liberties with the law. Whether or not it is true, as alleged in the brief, that the court has read out of the law the word "merely," makes no difference with this case, for what is here held is that the trade-mark now proffered for registry is not the name of a corporation at all, for the double reason that it consists quite as much in the circle of infants' heads as it consists in the word "Stork" and that the word "Stork" has been so long public property that it is not in any way peculiar to the corporation in the State of Maine.

The Examiner's ruling is reversed, and the mark is admitted for registry.

ADJUDICATED PATENTS.

(U. S. D. C.) The Casgrain patent, No. 864,951, for a machine for nailing shoe soles and heels, *Held* not anticipated, valid, and infringed. *United Shoe Machinery Co.* v. *Farmington Shoe Mfg. Co.*, 235 Fed. Rep., 139.

(U. S. D. C.) The Day patent, No. 727,597, for an automatic watering device for chicks, *Held* not anticipated, valid, and infringed. *Day* v. *Aabling-Ebright Seed Co.*, 235 Fed. Rep., 171.

(U. S. D. C.) The Dean patent, No. 1,105,824, for an electric horn, *Held* void for lack of invention. *Lovell-McConnell Mfg. Co.* v. *General Automobile Supply Co.*, 235 Fed. Rep., 169.

(U. S. C. C. A.) The Joy patent, No. 780,664, for a printing-telegraph receiver, claim 12 *Held* not infringed. *Page Mach. Co.* v. *Dow, Jones & Co.*, 235 Fed. Rep., 121.

(U. S. D. C.) The Myers patent, No. 1,099,715, for an automobile-headlight, *Held* not infringed. *Quinn* v. *J. H. Faw, Inc.*, 235 Fed. Rep., 166.

(U. S. D. C.) The Russell reissue patent, No. 11,282, (original No. 445,235,) for a pulp-digester, *Held* infringed. *American Sulphite Pulp Co.* v. *Hinckley Fibre Co.*, 235 Fed. Rep., 173.

(U. S. C. C. A.) The Spahr and Stichler patent, No. 948,773, for a gas sad-iron, construed in view of the limitations imposed by the Patent Office, *Held* not infringed. *Strause Gas Iron Co.* v. *William M. Crane Co.*, 235 Fed. Rep., 126.

(U. S. C. C. A.) The Spahr and Stichler design patent, No. 42,443, for a design for a sad-iron, *Held* void for lack of invention. *Strause Gas Iron Co.* v. *William M. Crane Co.*, 235 Fed. Rep., 126.

(U. S. D. C.) The Thacher patent, No. 617,615, for a concrete arch, *Held* void because the alleged invention was previously described in a printed publication. *Thacher* v. *Inhabitants of Town of Falmouth*, 235 Fed. Rep., 151.

(U. S. C. C. A.) The Van Kannel patent, No. 656,062, for a revolving door, *Held* valid and infringed. *Van Kannel Revolving Door Co.* v. *Straus*, 235 Fed. Rep., 135.

(U. S. D. C.) The Ward patent, No. 737,179, for improvement in screw-drivers, *Held* limited, in view of proceedings in Patent Office and prior state of art, and as limited not infringed. *H. D. Smith & Co.* v. *Southington Mfg. Co.*, 235 Fed. Rep., 160.

(U. S. C. C. A.) The Williams patent, No. 873,399, for a heating and ventilating system for automobiles, *Held* not infringed. *Pelton* v. *Williams*, 235 Fed. Rep., 131.

ISSUE OF NOVEMBER 7, 1916.

Patents	836—No.	1,203,561 to No.	1,204,396, inclusive.
Designs	34—No.	49,841 to No.	49,874, inclusive.
Trade-Marks	80—No.	113,851 to No.	113,930, inclusive.
Labels	17—No.	19,718 to No.	19,734, inclusive.
Prints	6—No.	4,546 to No.	4,551, inclusive.
Reissues	2—No.	14,212 to No.	14,213, inclusive.
Total	965		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	.....	North Carolina	2	.....
Arizona	2	.....	North Dakota	5	1
Arkansas	3	.....	Ohio	48	9
California	26	4	Oklahoma	6	1
Colorado	5	1	Oregon	6	1
Connecticut	21	1	Pennsylvania	62	3
Delaware	2	.....	Rhode Island	12	.....
Florida	4	.....	South Carolina	2	1
Georgia	6	1	South Dakota	5	.....
Idaho	1	.....	Tennessee	6	1
Illinois	75	11	Texas	20	4
Indiana	7	2	Utah	.....	.....
Iowa	19	.....	Vermont	7	.....
Kansas	8	.....	Virginia	2	.....
Kentucky	5	2	Washington	16	3
Louisiana	5	1	West Virginia	2	.....
Maine	2	2	Wisconsin	27	2
Maryland	6	2	Wyoming	1	.....
Massachusetts	46	2			
Michigan	26	3	Alaska, District of	.....	.....
Minnesota	11	3	Canal Zone	.....	.....
Mississippi	2	1	District of Columbia	8	.....
Missouri	18	4	Hawaii Territory	1	.....
Montana	4	.....	Philippine Islands	.....	.....
Nebraska	10	1	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	1	.....	U. S. Navy	1	.....
New Jersey	48	1			
New Mexico	.....	.....	Total to residents of the United States	701	99
New York	179	31			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	2	.....	Netherlands	2	.....
Belgium	.....	.....	New South Wales	.....	.....
British India	.....	.....	New Zealand	1	.....
British West Indies	.....	.....	Norway	2	.....
Canada	13	.....	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	1	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	.....	.....
Denmark	1	.....	South Australia	.....	.....
England	24	1	Spain	.....	.....
Finland	.....	.....	Sweden	1	.....
France	3	.....	Switzerland	4	2
Germany	9	.....	Tunis	.....	.....
Greece	.....	.....	Victoria	2	.....
India	.....	.....	Western Australia	.....	.....
Ireland	.....	.....			
Italy	4	.....	Total to residents of foreign countries	69	3
Japan	.....	.....			
Mexico	.....	.....			

Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1916.

The Hughes Anti-Friction Company, its assigns or legal representatives, take notice:

A cancelation proceeding having been instituted by this Office upon the application of The Ironsides Company, of Columbus, Ohio, to effect the cancelation of the trade-mark registration of The Hughes Anti-Friction Company, of Boston, Mass., No. 44,340, dated March 21, 1905, and the notice of such proceeding sent by registered mail to the said The Hughes Anti-Friction Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said The Hughes Anti-Friction Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 21, 1916.

Advanced Beet Sugar Construction Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Sherer-Gillett Company, 1705 South Clark street, Chicago, Ill., for registration of a trade-mark and trade-mark registered January 9, 1900, No. 34,024, to the Advanced Beet Sugar Construction Company, of No. 1133 Broadway, New York, N. Y., and a notice of such declaration sent by registered mail to the said Advanced Beet Sugar Construction Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Advanced Beet Sugar Construction Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 20, 1916.

J. J. Turner & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Hampton Guano Company, Dickinson Building, Norfolk, Va., for registration of a trade-mark and trade-mark registered March 23, 1897, No. 29,734, to J. J. Turner & Co., of 602 East Pratt street, Baltimore, Md., and a notice of such declaration sent by registered mail to said J. J. Turner & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. J. Turner & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 18, 1916.

The T. W. Armstrong Co., its assigns or legal representatives, take notice:

An interference has been declared by this Office between the application of Wilson Bros., of Edgerton, Wis., for registration of a trade-mark and trade-mark registered January 14, 1908, No. 67,008, to The T. W. Armstrong Co., of 120 Liberty street, New York, N. Y. A notice of such declaration sent by registered mail to said The T. W. Armstrong Co. at the said address has been returned by the post-office undeliverable.

The assignment records of the Office show a transfer of this registration to The Consolidated Chemical Co., of Detroit, Mich. The Office has been unable to secure satisfactory service upon this party.

Notice is hereby given that unless The T. W. Armstrong Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF NOVEMBER 14, 1916	323
ADVERSE DECISIONS IN INTERFERENCE	323
AMENDMENTS	323
APPLICATIONS UNDER EXAMINATION	324
PATENTS GRANTED	325
REISSUES	584
DESIGNS	587
TRADE-MARKS—REGISTRATION APPLIED FOR	597
TRADE-MARK REGISTRATION GRANTED	613
LABELS AND PRINTS	617
COMMISSIONER'S DECISIONS—	
Ex parte Cady	619
Ex parte Cady	621
ADJUDICATED PATENTS	622
REPORT OF THE CONSUL-GENERAL AT HANKOW, CHINA, RELATING TO THE REGISTRATION OF PATENTS	622
INDEX FOREIGN PATENTS, TRADE-MARKS, ETC.—TAXES, FEES, ETC.	622
NOTICE—ATTORNEYS	623
INTERFERENCE NOTICE	624
NOTICE OF CANCELATION	624

ISSUE OF NOVEMBER 14, 1916.

Patents	782—No.	1,204,387 to No.	1,205,138, inclusive.
Designs	40—No.	49,875 to No.	49,914, inclusive.
Trade-Marks	121—No.	113,931 to No.	114,051, inclusive.
Labels	12—No.	19,735 to No.	19,746, inclusive.
Prints	15—No.	4,552 to No.	4,566, inclusive.
Reissues	2—No.	14,214 to No.	14,215, inclusive.
Total	942		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	4	.....	North Carolina	3	1
Arizona	1	.....	North Dakota	5	.....
Arkansas	1	.....	Ohio	54	19
California	44	7	Oklahoma	8	3
Colorado	8	.....	Oregon	5	1
Connecticut	20	2	Pennsylvania	84	10
Delaware	.....	.....	Rhode Island	5	.....
Florida	5	2	South Carolina	3	.....
Georgia	4	2	South Dakota	1	.....
Idaho	1	.....	Tennessee	6	1
Illinois	85	17	Texas	13	.....
Indiana	13	4	Utah	2	1
Iowa	15	1	Vermont	2	1
Kansas	6	1	Virginia	4	4
Kentucky	9	.....	Washington	12	5
Louisiana	2	.....	West Virginia	4	.....
Maine	2	2	Wisconsin	20	.....
Maryland	6	3	Wyoming	3	.....
Massachusetts	31	8			
Michigan	35	5	Alaska, District of	.....	.....
Minnesota	10	3	Canal Zone	.....	.....
Mississippi	4	.....	District of Columbia	6	1
Missouri	16	12	Hawaii Territory	.....	.....
Montana	1	.....	Philippine Islands	.....	.....
Nebraska	13	.....	Porto Rico	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	2	.....	U. S. Navy	.....	.....
New Jersey	44	4			
New Mexico	.....	.....	Total to residents of the United States	731	144
New York	104	28			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	1	.....
Austria-Hungary	1	.....	New South Wales	.....	.....
Belgium	.....	.....	New Zealand	.....	.....
Brazil	.....	.....	Norway	.....	.....
Bulgaria	1	.....	Portugal	.....	.....
Canada	12	.....	Queensland	.....	.....
China	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	.....	.....
Denmark	5	.....	South Australia	.....	.....
England	8	1	Spain	1	.....
Finland	.....	.....	Sweden	4	.....
France	2	1	Switzerland	1	.....
Germany	20	.....	Transvaal, South Africa	.....	.....
Greece	.....	.....	Uruguay	.....	.....
India	.....	.....	Victoria	1	.....
Ireland	.....	.....	Wales	.....	.....
Isle of Jersey	.....	2	Western Australia	.....	.....
Italy	.....	.....			
Japan	.....	.....	Total to residents of foreign countries	57	4
Luxemburg	.....	.....			
Mexico	.....	.....			

Adverse Decisions in Interference.

PATENT No. 1,131,652.

On October 14, 1916, a decision was rendered that William F. Anklam was not the first inventor of the subject-matter covered by claims 1, 2, 5, and 6 of his patent No. 1,131,652, subject, "Lamps," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,158,364.

On October 14, 1916, a decision was rendered that Dandridge H. Bibb was not the first inventor of the subject-matter covered by claims 4 and 5 of his Patent No. 1,158,364, subject, "Process of making cohering masses," and no appeal having been taken within the time allowed such decision has become final.

Amendments.

In order to insure the prompt delivery of amendments to the proper examining division, applicants are requested in their actions on applications to give the division number and the room number appearing on the last Office letter, as well as the date of such letter.

RULE 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 6, 107.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 11, 1916.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications waiting action.
		New.	Amended	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Seeders and Planters; Trees, Plants, and Flowers.	Aug. 29	Sept. 12	410
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 13	Sept. 14	769
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Oct. 26	Oct. 25	75
232	4. Conveyors; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Devices; Railway Mail Delivery; Store-Service; Traversing Hoists.	Sept. 25	Oct. 21	215
167	5. Bookbinding; Harvesters; Jewelry; Music	June 16	Sept. 25	340
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	July 20	Oct. 25	204
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	July 15	Aug. 18	577
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 12	Aug. 4	1337
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps	Apr. 19	July 27	544
295	10. Carriages and Wagons; Spring Devices	May 12	Sept. 6	329
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 18	Oct. 30	108
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements	July 11	Oct. 14	503
220	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	July 14	Sept. 7	503
207	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 11	Oct. 2	285
208	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Oct. 6	Oct. 13	249
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	June 5	July 27	570
203	17. Matrix-Making; Ornamentation; Paper Manufactures; Printing; Type-Bar Making	July 15	Oct. 19	205
327	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Sept. 27	Oct. 6	182
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	May 18	Aug. 15	449
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Oct. 23	Oct. 21	167
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	July 7	Oct. 2	266
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 26	July 20	481
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	May 20	July 14	469
144	24. Apparel; Apparel Apparatus; Sewing-Machines	May 24	July 20	404
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers. Gas Separation.	Sept. 14	Oct. 5	238
166	26. Electricity, Generation; Motive Power	Mar. 7	July 17	699
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Oct. 3	Oct. 16	223
65	28. Internal-Combustion Engines	June 21	Sept. 13	541
147	29. Cooperage; Fire-Escapes; Ladders; Roots; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	May 15	Sept. 5	382
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 5	Oct. 19	256
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Ghee; Sugar and Salt.	May 10	Sept. 1	386
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	May 1	Oct. 2	526
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 7	Sept. 8	343
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fastenings.	May 4	July 26	373
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet	May 11	Oct. 26	423
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography	June 28	Oct. 5	370
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Apr. 8	Sept. 5	301
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Oct. 4	Oct. 6	181
221	39. Water Distribution	May 6	Oct. 4	371
220	40. Bottles, Bottle and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 6	Sept. 22	678
126	41. Railway Draft Appliances; Resilient Tires and Wheels	July 8	Sept. 27	516
244	42. Electricity, Conductors; Railway Signaling; Signals; Electricity-Transmission to Vehicles	Apr. 11	Aug. 18	561
262	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Sept. 6	Sept. 27	129

Oldest new case, Mar. 7: oldest amended, July 14.
Total number of applications awaiting action..... 19,118

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:	Oct. 5	Oct. 26	616
	Trade-Marks	Sept. 23	Sept. 29	210
	Designs	Oct. 23	Oct. 28	68
	Labels and Prints			

PATENTS

GRANTED NOVEMBER 14, 1916.

1,204,387. FIRE AND DUST PROOF RECORD-BOOK. WALTER CARL AKANS, Birmingham, Ala., assignor of one-half to James A. Ryan, Birmingham, Ala. Filed Mar. 4, 1915. Serial No. 12,053. (Cl. 129—24.)



1. A metal binding for books comprising a backbone, front and back cover plates, a rim around one of said plates on one side adjacent to the exposed edges, and leaf binding means hinged to the front and back cover plates.

2. A metal binding for books comprising cover plates, a rim forming with one cover plate, a receiving pocket for the bound leaves, and a leaf binding means loosely connected to the other cover plate and adapted to be lifted thereby from the pocket, substantially as described.

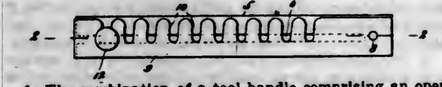
3. A book comprising front and back covers, means to hingedly connect said covers, a rim protector for the exposed marginal edges of the leaves, tables to which the leaves are connected and which in turn are loosely connected to the front and back covers, and a loose leaf binding means connected to said tables, substantially as described.

4. In a metallic book cover, front and back cover plates and a rim about one of said plates, said parts being adapted to be separately leather covered before they are assembled, metal joints to suitably connect said parts, and leaf binding means loosely connected to one or both of said plates.

5. In a metal bound book, front and back cover plates, a backbone, means to rigidly connect the backbone to one plate and means to hinge the other plate to the backbone, a leaf binding means free of fixed connection to the backbone, and means to hingedly connect said binding means to the front and back cover plates, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,204,388. KNIFE. VICTOR ALVER, Chicago, Ill. Filed Sept. 28, 1915. Serial No. 53,077. (Cl. 30—10.)

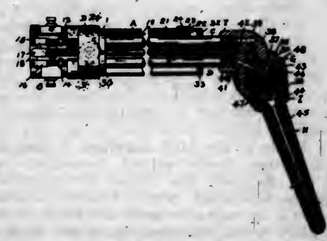


1. The combination of a tool handle comprising an open ended sheath having a longitudinal side slot, a tool slidably mounted in the sheath and adapted to be projected from the open end thereof, said tool having a side stud passing through the slot of the sheath and projecting therefrom, and a swinging member carried by the slotted side of the sheath and having edge notches intersecting the slot of the sheath to receive the projecting end of the stud.

2. The combination of a tool handle comprising a sheath open at both ends and having a longitudinal slot opening through its butt end, a tool slidably mounted in the sheath, said tool having a side stud passing through the slot of the sheath and projecting therefrom, and a swinging member carried by the slotted side of the sheath and having edge notches to receive the projecting end of the stud.

3. The combination of a tool handle comprising a sheath open at both ends and having a longitudinal slot opening through its butt end, a tool slidably mounted in the sheath, said tool having a side stud passing through the slot of the sheath and projecting therefrom, and a swinging member carried by the slotted side of the sheath and having edge notches to receive the projecting end of the stud, said member having a lateral flange at its free end extending across the butt end of the sheath when the member is in locking position.

1,204,389. TORCH. JAMES B. ANDERSON, Shaler township, Allegheny county, Pa. Filed Oct. 27, 1915. Serial No. 58,123. (Cl. 158—27.4.)



1. In a torch of the character described, a head provided with a tapered nozzle, having an axial oxygen bore, and an annular threaded flange concentric with and spaced from said nozzle, forming an annular gas chamber therewith, said head being provided with a combustible gas passage connecting with said chamber, a tapered bushing screwed into said flange and surrounding said nozzle, a tip having its inner bore flared to receive said bushing, and a clamping nut engaging said tip and screwed onto the exterior of said flange, whereby said tip is held in gas-tight union with said head.

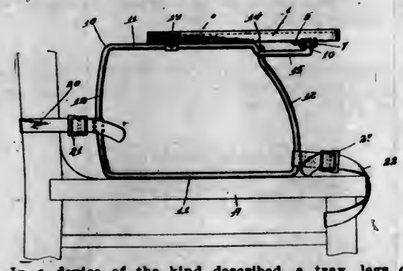
2. In a torch of the character described, a head provided with a tapered nozzle, having an axial oxygen bore, and an annular threaded flange concentric with and spaced from said nozzle forming an annular gas chamber therewith, said head being provided with a combustible gas passage connecting with said chamber, a tapered bushing screwed into said flange and surrounding said nozzle and provided with an annular seat surrounding its base, a tip having its inner bore flared to receive said bushing and having its butt end engaging said seat, and a clamping nut engaging said tip and screwed onto the exterior of said flange, whereby said tip is held in gas-tight union with said head.

3. In a torch of the character described, a head provided with gas passages, an annular projection carried by said head and exteriorly provided with a fursto-cone shape bearing surface and an anhular seat of cup shape cross section concentrically surrounding said bearing surface, a tip into which said gas passages discharge having its inner end flared to engage said bearing surface and having an annular butt edge engaging said seat, and

clamping means engaging said tip and screwed onto said head whereby the butt of said tip is wedged into a gas-tight union with the walls of said seat.

4. In a torch of the character described, a head provided with an annular converging chamber into which a combustible gas is admitted, a nozzle carried by said head and extending axially through said annular chamber and beyond the same, said nozzle being provided with an axial bore into which oxygen gas is admitted, and a tip provided with an axial bore whose major and outer portion is of constant diameter and whose inner portion is flared to form a frusto-cone shaped mixing chamber into which said annular chamber discharges and into which said nozzle projects to a point adjacent to the outer contracted end of said mixing chamber, whereby the combustible gas is fed into the inner end of said mixing chamber in the form of a converging annular sheet and is mixed with the oxygen at the contracted outer end of said mixing chamber and then siphoned out through the outer bore of the tip by the pressure of the oxygen, substantially as and for the purpose set forth.

1,204,390. SAFETY-GUARD AND TRAY FOR CHILDREN. LUCIUS A. ARMSTEAD, Chicago, Ill. Filed Jan. 13, 1914. Serial No. 811,918. (Cl. 155—26.)



1. In a device of the kind described, a tray, legs of angular formation, double pivotal connections between said legs and the tray, said double pivotal connections permitting the legs to be swung to stand vertically beneath the tray, in transverse relation thereto, to support the same when in use, and when not in use, to be swung together into longitudinal alinement with respect to said tray and then folded over to lie flat against the same, said legs being formed greater in length but slightly less in height than the distance between said double pivotal connections and the rear edge of the tray, whereby, when the same are in position for use they will project beyond the rear edge of the tray, but when folded, will lie within its borders.

2. In a device of the kind described, a tray, bearings secured to the under side thereof, hinge members having eyes formed in their ends and rotatably mounted in said bearings, legs pivotally connected to said hinge members through their eyes, whereby said legs can be swung to stand vertically beneath the tray, in transverse relation thereto, to support the same when in use, and when not in use, to be swung together into longitudinal alinement with respect to said tray and then folded over to lie flat against the same, said legs being formed greater in length but slightly less in height than the distance between said hinge members and the rear edge of the tray, whereby, when the same are in position for use they will project beyond the rear edge of the tray, but when folded, will lie within its borders, and spring clips secured to said tray to engage and hold the legs in open position.

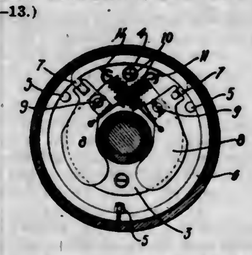
1,204,391. WINDOW-VENTILATOR. CHESTER ARTHUR BAAR, Portland, Oreg., assignor, by direct and mesne assignments, to The Dufur Ventilator Company, a Corporation of Oregon. Filed May 28, 1915. Serial No. 31,059. (Cl. 98—31.)

1. In combination with a base having an opening, a ventilating device on the inner side of the base, and comprising a substantially semi-tubular body, covering said opening, closed at the ends, and having openings in its wall, a shutter mounted for movement on the wall to cover and uncover said openings, a hinged outer shutter mounted on the outer side of the body and a connection between said shutters to cause the outer shutter to be opearted with and by the first named shutter.



2. In combination with a base having an opening, a ventilating device on the inner side of the base, and comprising a substantially semi-tubular body, covering said opening, closed at the ends, and having openings in its wall, a shutter mounted for movement on the wall to cover and uncover said openings, a hinged outer shutter mounted on the outer side of the body and a connection between said shutters to cause the outer shutter to be operated with and by the first-named shutter, and an outer hood on the outer side of the base covering said opening, and to which the upper side of the outer shutter is hingedly connected.

1,204,392. CENTRIFUGAL CLUTCH. MEIGS W. BARTMESS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 3, 1914. Serial No. 822,174. (Cl. 192—13.)



1. In a centrifugal clutch, the combination with a rotatable driving member, and a rotatable driven member, of a coil spring on said driving member, and means pivotally connected to said driving member for causing said spring to engage said driven member at a predetermined speed.

2. The combination with rotatable driving and driven members, of a helical spring connected to said driving member, and a lever mechanism actuated by centrifugal force for expanding said spring to engage said driven member.

3. The combination with concentric rotatable driving and driven members, of a helical spring attached to said driving member and adjacent said driven member, and means pivotally connected to said driving member for expanding said spring at a predetermined speed.

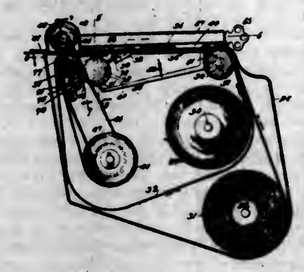
4. The combination with a rotatable driving member and a rotatable driven member having an engaging surface, of a helical spring on said driving member having a coacting engaging surface, and levers actuated by centrifugal force for effecting the engagement of said surfaces.

5. The combination with a rotatable driving member and a rotatable driven member, of an expansible spring adjacent said driven member and attached, at a point intermediate its ends, to said driving member, and means actuated by centrifugal force for causing relative movement of the ends of said spring.

[Claim 6 not printed in the Gazette.]

1,204,393. DISPENSING AND RECORDING APPARATUS. CHARLES S. BATDORF, Brooklyn, N. Y. Filed Nov. 20, 1915. Serial No. 62,482. (Cl. 234—34.)

1. Liquid dispensing apparatus having a handle and an operating shaft for effecting the discharge, and recording mechanism operable from said handle for recording the quantity of liquid discharged at each operation comprising a strip to receive the record, means for imparting from said handle and during the reverse movement thereof after each discharge of the liquid, a longitudinal intermittent motion to said strip, a stylus for forming a transverse line on said strip denoting the quantity of liquid delivered at each discharge action of said handle, and means for effecting, from said handle, the traveling movement of said stylus transversely across said strip to make said record line while said strip is stationary and then relieving the stylus from said strip and reversing the travel of said stylus while in its inoperative position on and during the reverse action of said handle.



2. Liquid dispensing apparatus having a handle and an operating shaft for effecting the discharge, and recording mechanism operable from said handle for recording the quantity of liquid discharged at each operation comprising a strip to receive the record, means for imparting from said handle and during the reverse movement thereof after each discharge of the liquid, a longitudinal intermittent motion to said strip, a stylus for forming a transverse line on said strip denoting the quantity of liquid delivered at each discharge action of said handle, and means for effecting, from said handle, the traveling movement of said stylus transversely across said strip to make said record line while said strip is stationary and then relieving the stylus from said strip and reversing the travel of said stylus while in its inoperative position on and during the reverse action of said handle, combined with concealed means for locking the recording mechanism against operative action, and means for the use of an authorized person for freeing the said locking means, to render the said recording means operable from said handle.

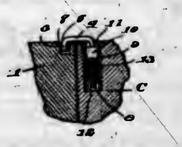
3. Liquid dispensing apparatus having a handle and an operating shaft for effecting the discharge, and recording mechanism operable from said handle for recording the quantity of liquid discharged at each operation comprising a strip to receive the record, means for imparting intermittent motions to said strip, a stylus for forming a line on the strip and means for effecting the traveling movement of said stylus from said handle and in accordance with the action thereof, said line denoting the quantity of liquid delivered, combined with concealed means for locking the apparatus against discharging action, means for the use of an authorized person for freeing the locking means to render the apparatus operative and means coöperating with the recording mechanism for impressing on the strip a character identifying said person.

4. Liquid dispensing apparatus having a handle and an operating shaft for effecting the discharge, and recording mechanism operable from said handle for recording the quantity of liquid discharged at each operation, comprising a strip to receive the record, means for placing an identifying character on said strip denoting the operator, means for imparting intermittent motions to said strip, a stylus for forming a line on the strip, and means for effecting the traveling movement of said stylus from said handle and in accordance with the action thereof, said line denoting the quantity of gasolene or other liquid delivered.

5. Liquid dispensing apparatus having a handle and an operating shaft for effecting the discharge, and recording mechanism operable from said handle for recording the quantity of liquid discharged at each operation, comprising a strip to receive the record, means for imparting intermittent motions to said strip, means for impressing parallel longitudinal lines on said strip during its said motions, a stylus for forming a line on the strip crossing said longitudinal lines when the strip is stationary, and means for effecting the traveling movement of said stylus from the handle and in accordance with the action thereof, said line denoting the quantity of liquid delivered, and said longitudinal lines denoting by the spaces between them predetermined quantities of the liquid.

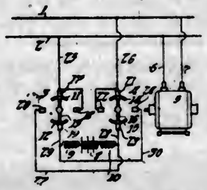
[Claims 6 to 20 not printed in the Gazette.]

1,204,394. RECLINING-SEAT FOR AUTOMOBILES. WILLIAM JEFFERSON BAXTER, Nicholasville, Ky. Filed Sept. 11, 1915. Serial No. 50,256. (Cl. 21—43.)



The combination with a support embodying a fixed section and a hinged section, of fastening means for holding said hinged section flush with the fixed section embodying a pair of vertically slidable locking members each comprising a hook-shaped upper end portion terminating in a downwardly extending point, a shank slidable in a guide way in one section of the support, a spring surrounding said shank and acting to hold the locking device in locking position, a squared enlargement on said shank for preventing said shank and hook-shaped upper portion thereof from turning, and keepers on the other section of the support with which said hook shaped portions engage substantially as described.

1,204,395. ALTERNATING-CURRENT RECTIFIER. DONALD M. BLISS, West Orange, N. J., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 21, 1911. Serial No. 645,164. (Cl. 175—364.)



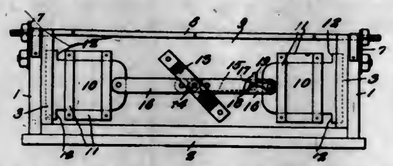
1. In an alternating current rectifying system, a plurality of switch members, a separate set of brushes for each switch member, means for producing relative movement of each switch member and its sets of brushes, and means for connecting through all of said switch members half of the brushes of each set in series during one portion of said relative movement and the other half of the brushes of each set in series during another portion of said relative movement, substantially as described.

2. In an alternating current rectifying system, alternating current mains, a direct current translating device, a plurality of sets of brushes, and means including connections and a switch member for each set of brushes for connecting through all of said switch members half the brushes of each set in series with the said mains and direct current translating device during one half wave of alternating current and the other half of the brushes of each set in series with the said mains and direct current

translating device during the other half wave of alternating current, substantially as described.

3. In alternating current rectifying apparatus, a plurality of rotatably mounted and spaced apart switch members, each comprising a pair of oppositely disposed conducting segments electrically connected together, a separate set of brushes for each of said switch members, each of said sets comprising four brushes symmetrically disposed around the axis of its switch member and in cooperative relation to said switch member, and means for rotating each of said switch members relatively to its set of brushes in synchronism with the current to be rectified, substantially as described.

1,204,396. END-GATE FASTENER. LOUIS BOON, Van Horn, Iowa. Filed Apr. 4, 1916. Serial No. 88,839. (Cl. 21—21.)



1. The combination with a wagon body having a pair of spaced cleats on each side thereof, of a pivoted end gate hinged between the sides of the body and locking slides mounted on the end gate and arranged to extend between the cleats to maintain the gate in a vertical position and to engage the rear faces of the cleats to maintain the gate in a horizontal position.

2. The combination with a wagon body having a pair of spaced cleats on each side thereof, of a pivoted end gate hinged between the sides of the body, locking slides mounted on the end gate and arranged to extend between the cleats to maintain the gate in a vertical position and to engage the rear faces of the cleats to maintain the gate in a horizontal position and means for locking said slides in both of said positions.

3. The combination with a wagon body, of end gate cleats secured to the sides thereof, a pivoted end gate, a pair of slides on the end gate having stops thereon, guides for the slides against which the stops are arranged to abut to limit the movement of the slides in one direction, the stops being arranged to abut against the rear faces of the cleats to maintain the gate in a horizontal position and means for moving the slides.

1,204,397. STOCKING-KNITTING MACHINE. GEORGE P. BOSWORTH, Central Falls, R. I., assignor to Hemphill Manufacturing Co., Pawtucket, R. I. Filed Apr. 11, 1914. Serial No. 831,296. (Cl. 66—24.)



1. In combination in a stocking knitting machine, narrowing and widening pick mechanism, heel and toe and instep needles, having substantially the same length of butts, means including a lifting cam for making instep needles inoperative as a group in beginning the formation of the heel, said widening pick mechanism continuing its operation upon the group of instep needles as raised by said cam after widening for the heel pocket has been completed to make additional widening courses, substantially as described.

2. In combination in a circular stocking knitting machine, short butt needles for making the heel and toe pockets, and short butt instep needles, and narrowing and widening pick mechanism, said widening pick mechanism operating upon the heel needles to widen for the heel pocket and continuing its operation upon the short butt instep needles after the widening for the heel pocket has been performed to thereby throw in additional widening courses previous to resuming round knitting, substantially as described.
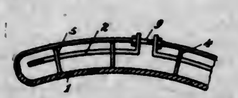
3. In combination in a circular knitting machine for making stockings, heel and toe needles, instep needles, jacks for elevating the desired number of instep needles as a group to render them inoperative, a cam for operating the jacks, means for operating the jack cam, narrowing pick mechanism and widening pick mechanism operating upon the heel and toe needles, and continuing the picking operation upon the instep needles which were initially elevated as a group by the jacks after the widening for the heel pocket has been completed.

4. In combination in a stocking knitting machine, a needle cylinder, heel and toe and instep needles, knitting cams, a vertically movable needle restoring cam to engage the instep needle butts for lowering them to operative position, automatically operating connections for moving said needle restoring cam vertically to different positions, an automatically operated vertically movable needle raising cam for raising instep needles, and narrowing and widening pick mechanism, said last mentioned cam being pivotally mounted to swing in a vertical plane, said widening pick mechanism continuing the widenings beyond the point where narrowing began and connections automatically operating independently of the first mentioned connections for operating the needle raising cam and lowering it before the continued widening of the fabric takes place, substantially as described.

5. In combination in a stocking knitting machine, a needle cylinder, heel and toe and instep needles, knitting cams, a vertically movable needle restoring cam to engage the instep needle butts for lowering them to operative position, automatically operating connections for moving said needle lowering cam vertically to different positions, an automatically operated vertically movable cam for raising instep needles, narrowing and widening pick mechanism, and jacks under the instep needles and operated by said last mentioned cam, said widening pick mechanism continuing the widenings beyond the point where narrowing began and connections automatically operating independently of the first mentioned connections for operating the needle raising cam and lowering it before the continued widening of the fabric takes place, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,204,398. ELECTRODEPOSITION OF METAL ON ROTATION-BODIES. HEINRICH WILHELM BÖTZ, Ludwigshafen-on-the-Rhine, Germany. Filed July 14, 1913. Serial No. 778,911. (Cl. 204—11.)



1. The process of electrolytically depositing metal on the surface of wheel fellies which come in contact with the tire which consists in first electro-plating the surface over approximately half of its width and then electro-plating the remaining portion of the surface, for the purpose described.

2. Process for electrolytically depositing metal on wheel fellies having inwardly curved flanges, which process consists in first subjecting the groove formed by one curved flange to the electro-depositing process and then subjecting the groove formed by the other curved flange to the electro-depositing process.

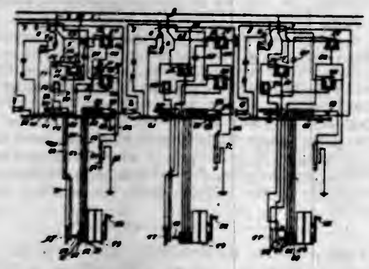
3. The process of electrolytically depositing metal on wheel fellies having curved flanges which consists in first electro-plating the inner surface of one curved flange and the portion of the outer surface of such flange which comes in contact with the tire of the wheel and then electro-plating the inner surface of the other curved flange and the portion of the outer surface of such flange which comes in contact with the tire of the wheel.

4. An anode for use in electrolytically depositing metal on wheel fellies having inwardly curved flanges or like hollow bodies, comprising an annular metal strip adapted to lie in the channel formed by the inwardly curved flanges and insulating plates carried by the said strip and adapted to act as distance pieces between the said strip and the inner surface of the said channel.

5. An anode for electrolytically depositing metal on wheel fellies having inwardly curved flanges or other like hollow bodies, comprising an annular strip of metal, having laterally extended portions associated therewith of such form that their surfaces are substantially parallel with those on which metal is to be deposited, and distance pieces of insulating material carried by the said strip.

[Claims 6 to 17 not printed in the Gazette.]

1,204,399. LOCK OUT SYSTEM FOR PARTY-LINE TELEPHONES. JOSEPH WILLIAM BOWLEY, Simpson, Saskatchewan, Canada. Filed Oct. 9, 1914. Serial No. 865,904. (Cl. 179—30.)



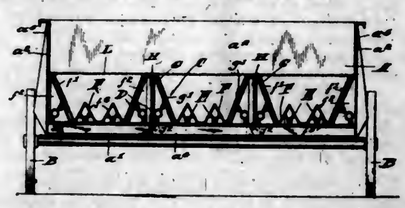
1. In a lock out system for party line telephones, the combination with the line wires and sets of telephone instruments, of an electroresponsive device for breaking the connection between each set of instruments and the line wires, a local circuit including said device, a second electroresponsive device associated with each set of instruments and controlling a break in said local circuit, means associated with each set of instruments and operable to energize all of said second-named electroresponsive devices, and means operable from the receiver hook of each set of instruments succeeding the establishment of talking communication between two sets to close a second break in said local circuit whereby said first-named electroresponsive devices will be energized to disconnect the particular set of instruments from the line.

2. In a lock out system for party line telephones, the combination with the line wires and sets of telephone instruments, of means for breaking the connection between each set of instruments and the line wires, a local circuit including said means, means operable from another set of instruments for closing said local circuit, and a signal in said local circuit in shunt with said means and operable upon the closing of the local circuit to advise the subscriber of the condition of said first means.

3. In a lock out system for party line telephones, the combination with the line wires and sets of telephone instruments, of means for breaking the connection between each set of instruments and the line wires, a local circuit including said means, means operable from another set of instruments for closing said local circuit, a signal in said local circuit in shunt with said means and operable upon the closing of the local circuit to advise the subscriber of the condition of said first means, and means operable from another telephone set to break said local circuit whereby said first means may be restored to normal position.

1,204,400. SNOW-MELTING MACHINE. EMIL BRAUNINGER, Chicago, Ill. Filed Feb. 26, 1915. Serial No. 10,864. (Cl. 126—343.5.)

1. In a snow melting machine an open-topped box adapted to receive snow to be melted, means for draining the melted snow from the box, a false bottom therein, fluid burners extending below the false bottom, said bottom being provided with upwardly inclined portions having openings therein to permit the passage of the gases of combustion from the burners, deflecting plates arranged above said inclined portions provided with gas passage openings horizontally offset from the openings in the inclined portions and through which the heated gases are adapted to rise to the body of snow upon the false bottom.



2. In a snow melting machine an open-topped box adapted to receive the snow to be melted, means for draining the melted snow from the box, a false bottom therein, fluid burners extending beneath the false bottom, said bottom being provided with upwardly extending inclined portions having openings therein to permit the passage of the gases of combustion from the burners, deflecting plates arranged adjacent to said upwardly extending portions provided with gas passage openings horizontally offset from the opening in the upwardly extending portions and through which the heated gases may rise into contact with the body of snow upon the false bottom.

3. In a snow melting machine having a box to receive the snow, a sectional false bottom having V-shaped longitudinally extending ridges therein providing openings beneath the false bottom, fluid burners extending in said openings adapted to produce large volumes of heated gases and to heat the said false bottom, the inclined sides of said ridges being provided with gas passage openings, deflector plates arranged above said openings to prevent the descending water from entering thereinto, said plates being provided with gas passage openings horizontally offset from the openings in the false bottom to permit the rise of the heated gases into contact with the body of snow resting upon the false bottom and means for draining the water from said false bottom.

4. In a snow melting machine having a box to receive the snow, a false bottom consisting of trough-like members of sheet metal having upwardly inclined side edges, V-shaped protecting plates spanning the adjacent edges of two of the said trough-like members and spaced therefrom to provide gas passages, burners arranged beneath said inclined edges, and said protecting plates being provided with horizontally offset gas passage openings permitting the rise of the gases of combustion from the burners through said plates and preventing the downward passage of the snow water.

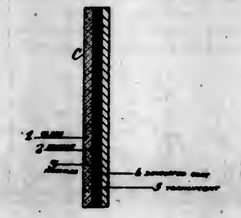
5. In a snow melting machine a false bottom having V-shaped longitudinally extending ridges therein providing longitudinally extending spaces beneath the false bottom, fluid burners arranged in said spaces, said ridges being provided with groups of gas passage openings the several openings in each group being provided with vertically extending guards at their outer sides, deflecting plates arranged above said ridges having gas passage openings arranged between said groups, said openings having horizontally disposed guards at their upper sides, said guards being adapted to prevent the downward passage of water through said plates to said burners.

[Claim 6 not printed in the Gazette.]

1,204,401. MEANS FOR PRODUCING PICTURES BY PROJECTED LIGHT. AUSTIN D. BRIXEY, New York, N. Y. Filed Sept. 30, 1913. Serial No. 792,570. (Cl. 88—24.)

1. The combination with a projector for projecting light from a picture to be reproduced, of a translucent light

diffusing screen for receiving the projected rays, and a reflection-reducing screen or coating of intermixed particles of different colors for transmitting the projected light from the translucent screen to the observer's eye.



2. The combination with a projector for projecting light from a picture to be reproduced, of means for visualizing the picture projected comprising a translucent light diffusing screen, a coating or screen of intermixed transparent particles of different colors, and a developed sensitized coating, developed after exposure to a white surface through the particle screen, the negative being then reversed.

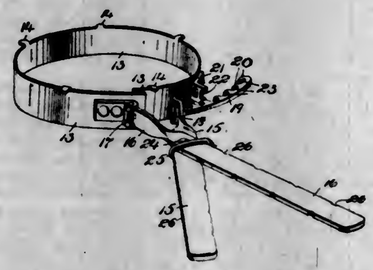
3. The combination with a projector for projecting light from a picture to be reproduced, means for visualizing the picture projected, comprising a translucent light diffusing screen and a reflection-reducing light transmitting screen having minute areas of different colors intermixed.

4. A means for producing a picture from projected light comprising a translucent light diffusing screen, a coating or screen of intermixed transparent particles of different colors, and a developed sensitized coating, developed after exposure to a white surface through the particle screen, the negative being then reversed.

5. The combination with a source of light, of means for receiving and transmitting light from said source to the eye of the observer, said means comprising a translucent light diffusing screen, a coating or screen of intermixed transparent particles of different colors and a developed sensitized coating, developed after exposure to a white surface through the particle screen, the negative being then reversed.

[Claims 6 and 7 not printed in the Gazette.]

1,204,402. DEVICE FOR FACILITATING THE INSERTION OF RINGED PISTONS INTO CYLINDERS. DAVID H. BURD, Verona, N. J. Filed Dec. 27, 1915. Serial No. 68,628. (Cl. 29—84.)



1. A device for forcing piston rings into the grooves of pistons comprising a band with free ends, a pair of handles pivoted together near one end, one of the handles adjacent to the pivot thereof being secured to the band adjacent to one end thereof, and means for adjustably securing the other of said handles at its point of attachment to the band.

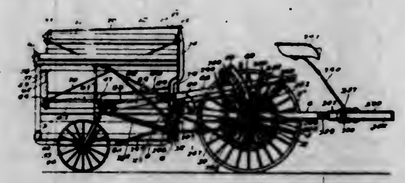
2. A device for forcing piston rings into the grooves of pistons comprising a band with free ends, a pair of handles pivoted together near one end, one of the handles adjacent to the pivot thereof being secured to the band adjacent to one end thereof, means for adjustably securing the other of said handles at its point of attachment to the band, and means for holding the handles in various positions relative to each other.

3. A device for forcing piston rings into the grooves of pistons comprising a band having ends adapted to overlap, abutments on the top edge of the band, a pair of handles pivoted together near one end, the end of one handle being pivotally secured to the band near one end thereof, a toothed arm pivotally secured to one end of the other handle, and a bracket on the band with which the teeth of said arm are adapted to be brought in engagement.

4. A device for forcing piston rings into the grooves of pistons comprising a band having ends adapted to overlap, abutments on the top edge of the band, a pair of handles pivoted together near one end, the end of one handle being pivotally secured to the band near one end thereof, a toothed arm pivotally secured to one end of the other handle, a bracket on the band with which the teeth of said arm are adapted to be brought in engagement, and means for holding the handles in various positions relative to each other.

5. A device for forcing piston rings into the grooves of pistons comprising a band having ends adapted to overlap, abutments on the top edge of the band, a pair of handles pivoted together near one end, the end of one handle being pivotally secured to the band near one end thereof, a toothed arm pivotally secured to one end of the other handle, a bracket on the band with which the teeth of said arm are adapted to be brought in engagement, and a loop encircling both handles, the handles being constructed to be engaged by the loop to hold the handles against spreading.

1,204,403. GRAIN HARVESTER AND BINDER. EDWARD W. BURGESS, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Dec. 26, 1914. Serial No. 879,075. (Cl. 56—32.)



1. A harvester including, in combination, a wheel frame, a traction wheel journaled therein, a grain platform and a grain elevator frame transversely disposed in rear of said traction wheel and pivotally connected with the rear end of said wheel frame, a rearwardly extending arm movable about the rear end of said wheel frame, a caster wheel connected with the rear end of said arm, and means for adjusting said arm to raise or lower said grain platform and elevator bodily.

2. A harvester including, in combination, a wheel frame, a traction wheel journaled therein, a grain platform and elevator transversely disposed in rear of said traction wheel and pivotally connected with the rear end of said wheel frame, a longitudinally disposed adjusting lever vibratable about the rear end of said wheel frame, a trailing wheel frame carried by the rear end of said lever, and means for controlling the position of said lever in a manner to raise or lower said grain platform and elevator bodily relative to said traction wheel.

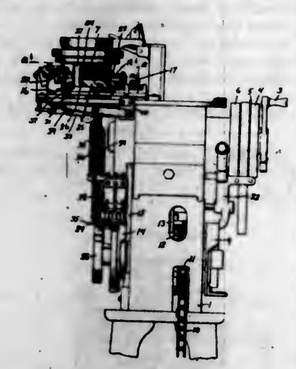
3. A harvester including, in combination, a wheel frame, a traction wheel journaled therein, a grain platform and elevator transversely disposed in rear of said traction wheel and pivotally connected with the rear end of said wheel frame, a longitudinally disposed adjusting lever vibratable vertically upon the rear end of said wheel frame, a caster wheel carried by the rear end of said lever, means for controlling the position of said lever, in a manner to raise or lower said grain platform and elevator bodily relative to said traction wheel, and independent means for tilting said platform and elevator about said pivotal connection.

4. A harvester including, in combination, a wheel frame, a traction wheel journaled therein, a grain platform and elevator transversely disposed in rear of said traction wheel and pivotally connected with the rear end of said wheel frame, a trailing wheel frame vibratable about the rear end of said wheel frame and operative to control the adjustment of said grain platform and elevator to a higher or lower plane, and independent means for controlling a tilting movement of said platform and elevator relative to said wheel frame.

5. A harvester including, in combination, a wheel frame, a traction wheel journaled therein, a grain platform and elevator transversely disposed and pivotally connecting with the rear end of said wheel, a trailing wheel frame vibratable about the rear end of said wheel frame and operative to control the adjustment of said grain platform and elevator to a higher or lower plane, a toggle link connection between said wheel frame and said platform below the axis of said pivotal connection, and a link connection between said toggle connection and said trailing wheel frame.

[Claims 6 to 14 not printed in the Gazette.]

1,204,404. KNITTING-MACHINE. EDWARD E. BUSBK, Milwaukee, Wis., assignor, by mesne assignments, to Hemphill Manufacturing Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Dec. 15, 1913. Serial No. 806,733. (Cl. 66—24.)



1. In a circular knitting machine, the combination of a needle cylinder, needles having long butts and needles having short butts carried thereby, a knitting cam member, narrowing pick mechanism, widening pick mechanism, a lifting cam adapted to contact only with the needles having long butts, a lowering cam for said needles, means for lifting said lifting and lowering cams to elevate the needles having long butts and means for lowering the lifting cam before the lowering cam is lowered to permit the widening pick mechanism to pick down needles having long butts into knitting position without said needles being interfered with by either of said cams.

2. In a circular knitting machine, the combination with a needle cylinder and needles having long butts and needles having short butts carried thereby, a knitting cam member, narrowing pick mechanism, widening pick mechanism, a guide, a lifting cam and a lowering cam supported by said guide, said lifting cam being adapted to contact only with the needles having long butts and cam mechanism for lifting the lifting and lowering cams and retaining the said cams in elevated position, the cam mechanism being adapted to retain the lowering cam in an elevated position after the lifting cam has been lowered to permit the widening pick mechanism to pick down needles having long butts into knitting position without said needles being interfered with by either the lifting cam or the lowering cam.

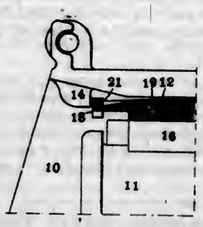
3. In combination in a stocking knitting machine, a needle cylinder, needles arranged in two series, one having longer butts than the other, stitch cams, a cam for elevating the longer butt needles in making heel and toe pockets on the shorter butt needles, narrowing pick mechanism, and widening pick mechanism operating upon both the short and the long butt needles to widen the fabric beyond the point where narrowing began.

4. In combination in a stocking knitting machine, a needle cylinder, needles arranged in two series, one having longer butts than the other, a cam for lowering the longer butt instep needles to normal plane, a cam operating automatically and independently of the said lowering cam to raise the longer butt instep needles to inoperative position, and narrowing and widening pick mechanism, said widening pick mechanism being operative upon both the short and the long butt needles to widen the fabric beyond the point where narrowing began, substantially as described.

5. In combination in a stocking knitting machine, a needle cylinder having rotary and reciprocating movements, needles in two series, one having longer butts than the other, an instep cam for raising the longer butt needles to inoperative position, narrowing and widening pick mechanisms, said widening pick mechanism being operative upon both the short and long butt needles to continue widening beyond the point where narrowing began, means for operating the instep cam to position for raising the instep needles, and to retract it before widening begins on the longer butt needles, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,204,405. WEDGE FOR JOURNAL-BEARINGS. STERLING H. CAMPBELL, St. Louis, Mo. Filed Feb. 16, 1916. Serial No. 78,753. (Cl. 64—20.)

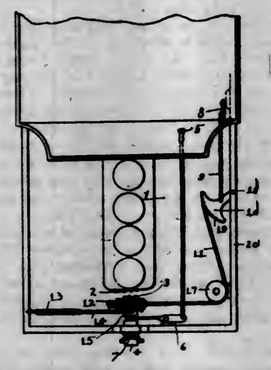


1. In a device of the class described, the combination of a wedge and a journal box bearing thereon, said wedge having a tool-receiving recess formed in the outer edge of its upper surface, and tool-engaging means adjacent to said recess whereby the wedge may be withdrawn longitudinally from the box.

2. In a device of the class described, the combination of a journal bearing member, a wedge, and a journal box bearing on said wedge, said box being provided with a flange for retaining the wedge against outward movement, and the wedge being provided with means on the outer edge of its upper surface situated back of the line of the flange for moving the wedge to a position to pass said flange.

3. In a device of the class described, the combination of a journal bearing member, a wedge, and a journal box bearing on said wedge, said box being provided with a flange for retaining said wedge against outward movement, and the wedge being provided with a tool-receiving recess in the outer edge of its upper surface and back of the line of the flange.

1,204,406. STARTING MECHANISM FOR MOTORS. JOHN F. CARTER, Grand Rapids, Mich., assignor to Wolverine Starter Company, a Corporation of Michigan. Filed Nov. 15, 1915. Serial No. 61,468. (Cl. 74—54.)



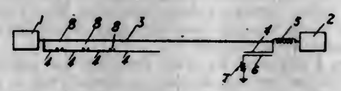
1. In a device of the character described, an engine shaft; a shaft-revolving member; a cord attached to said member and adapted to rotate the same; a swinging arm to which the cord is fastened; a lever; and connection between the lever and the arm to swing the arm by the lever.

2. In a device of the character described; an engine shaft; a shaft revolving member; a cord attached to said member and adapted to rotate the same; a swinging arm to which the cord is fastened; a lever; and connection between the lever and the arm to swing the arm by the lever, the plane in which the arm swings intersecting that in which the lever turns.

3. In a device of the character described; an engine shaft; a shaft-revolving member; a cord attached to said member and adapted to rotate the same; a swinging arm to which the cord is fastened; a lever; and connection between the lever and the arm to swing the arm by the lever, said connection engaging the arm between the arm's swinging axis and the point of the cord's attachment to the arm.

4. In a device of the character described; an engine shaft; a shaft-revolving member; a cord attached to said member and adapted to rotate the same; a swinging arm to which the cord is fastened and having an arcuate surface over which the cord is drawn; a lever; and connection between the lever and the arm to swing the arm by the lever.

1,204,407. PROTECTIVE MEANS FOR TRANSMISSION-LINES. GEORGE J. D. CENTERWALL, Stockholm, Sweden. Filed Apr. 19, 1912. Serial No. 691,846. (Cl. 175—30.)



1. In an electrical power-transmission system, the combination with a line-conductor that is not conducive to the formation of corona thereupon under operating voltages and which is subject to abnormal high-potential disturbances, of means influenced by the potentials obtaining on said line-conductor for dissipating, through the formation of corona, the excess energy only that results from the abnormal disturbances.

2. In an electrical power-transmission system, the combination with a line-conductor which is so formed as to be non-conducive to the formation of corona under operating conditions and is subject to abnormal high-potential disturbances, of means influenced by the potentials impressed on said line-conductor for dissipating energy, through the formation of corona, only during the time that the abnormal disturbances maintain the potential of said line-conductor substantially above its working potential.

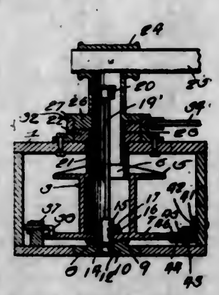
3. In an electrical power-transmission system, the combination with a line-conductor that is not conducive to the formation of corona discharges under operating conditions and that is subject to transient high-voltage disturbances, of means associated with said line conductor and comprising a protecting conductor that is under the influence of the abnormal potentials obtaining on the line-conductor and is effectively insulated from ground for damping said disturbances by generating corona discharges.

4. In an electrical power-transmission system, the combination with a line-conductor of relatively large cross-sectional area which is non-conducive to the formation of corona discharges thereupon under operating conditions, of a protective conductor from which discharges to ground are precluded and which is conducive to the formation of corona discharges when subjected to potentials above a predetermined value and which is influenced by the potentials obtaining upon the line conductor for dissipating through corona discharges the energy of high-potential disturbances only that may be impressed on said line-conductor.

5. In an electrical power-transmission system, the combination with a line conductor which is not conducive to the formation of corona discharges under operating conditions and is subject to electrical disturbances, of a second conductor which is conducive to the formation of corona discharges when subjected to potentials above a predetermined value that is below the value at which corona discharges will emanate from said line conductor, said second conductor being influenced by the potentials obtaining on said line conductor, whereby the line conductor may be relieved, through the corona discharges emanating from said second conductor, of only the excess energy resulting from the high-potential disturbances.

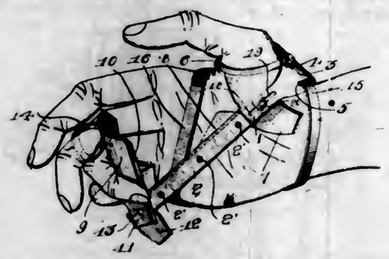
[Claims 6 to 9 not printed in the Gazette.]

1,204,408. CAPSTAN. ROY E. CHOATE, Cedar Rapids, Iowa. Filed Apr. 29, 1914. Serial No. 835,304. (Cl. 254—182.)



In a device of the class described, a casing, a spool revolubly mounted in said casing, a flange formed on the lower end of said spool, a projection on the lower face of said flange, a cup shaped bearing in which said projection is mounted, said cup shaped member having a hole extending longitudinally therethrough, a hollow cylindrical member secured in said hole and projecting upwardly through the said flange, means for holding said spool on said cylindrical member, a hole formed longitudinally in said member and a transverse hole in communication therewith and in communication with the said cup shaped member to supply grease thereto, an upwardly extending pipe secured to the upper end of said cylindrical member and a grease cup attached to said pipe.

1,204,409. MAIZE CUTTER OR GATHERER. FRANK F. CHRISTIAN, Kirkland, Tex. Filed Oct. 11, 1913, Serial No. 794,676. Renewed Apr. 10, 1916. Serial No. 90,283. (Cl. 30—24.)



1. A maize cutter of the class described, comprising a primary section and an auxiliary section, means for retaining said sections upon the hand of the user, said auxiliary section being substantially semi-circular in cross section so as to conform in contour to the hand when the auxiliary section is being swung toward said primary section, said sections being provided with cutting edges for allowing an article to be cut as the auxiliary section is swung toward said primary section.

2. A maize cutter of the class described, comprising a primary section and an auxiliary section, said primary section provided with a knife, angular lips formed integral upon said primary section and adapted to rest evenly upon the hand of the user so as to allow said knife to extend at an angle thereto, said auxiliary section being pivotally secured to said primary section and being provided with a cutting edge, means for retaining said primary section and said auxiliary section upon the hand of the user, said auxiliary section being adapted to be gripped so as to be swung for allowing the cutting edges of said knife to pass each other for cutting an article, said lips being adapted to present an even bearing surface and prevent injury to the hands of the user when the device is being operated.

1,204,410. LOCK. EMIL A. CHRISTOPH, Chicago, Ill., assignor, by direct and mesne assignments, to the King Lock Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 17, 1913. Serial No. 795,662. (Cl. 70—46.)



1. In a lock of the kind described and in combination, a suitable casing formed with a cylindrical bore with grooves on each side thereof, a cylindrical barrel rotatably mounted in said casing, and provided with an opening through the same from end to end, a key constructed with a plurality of pairs of irregular faces, the faces of each pair parallel and all substantially terminating in a point at the end of the key, said key longitudinally movable through the opening in said barrel, means at each end of the barrel for centering the key when inserted therein, and means co-acting with said key faces for locking said barrel against rotation within the casing, comprising a plurality of series of sheet metal plates extending through the barrel and transversely movable relative thereto in the same straight line to engage one or the other of the grooves in said casing, each plate being provided with a suitable keyway therethrough relatively larger than the cross sectional area of the key and contained within the periphery of the plate, the apertures of the plates in each series similarly formed, and each series having relatively different apertures than the other series, all of said plates of each series constructed to co-act with one of the pairs of said irregular faces substantially corresponding in contour with the aperture.

2. In a lock of the kind described and in combination, a casing member formed with a cylindrical bore extending lengthwise therethrough, with a groove on opposite sides thereof, a cylindrical barrel closely fitting the bore of said casing, and rotatably arranged therein, said barrel having an opening therethrough from end to end, and provided with a slot for a portion of its length, means carried by said member for engaging the casing at said grooves, comprising a plurality of plates arranged in the slots through said barrel and slidable therein in the same plane, the plates being provided with apertures therethrough, a key movable in said cylindrical member and constructed on one side for engagement with a portion of said plates at the sides of the aperture therethrough, a portion of said plates being constructed at the sides of the apertures, for coöperation with said key, all of said plates having their ends formed to conform to the cylindrical face of the rotatable barrel when the key is in the lock, whereby the key and barrel may be rotated in the casing.

3. In a lock of the kind described and in combination, the combination of a casing formed by longitudinal grooves extending lengthwise thereof, a cylindrical barrel rotatable in said casing and closely fitting the same, and provided with an opening extending lengthwise thereof, said barrel provided with a slot entirely therethrough, of a width corresponding with the width of the grooves in said casing, for a portion of its length, a plurality of metal plates of suitable length to be entirely confined within the barrel arranged face to face in the slot in the barrel, and all movable in said slot to engage one or the other of the grooves in said casing, or to be entirely retracted within the barrel, each plate having a suitable keyway therethrough, a key arranged to co-operate with the plates at their keyways, whereby the plates will be independently and irregularly moved in the slot, means for centering said key in said barrel, a lock bar arranged adjacent said casing and movable transversely the cylindrical axes of said barrel, and an arm carried by said barrel adjacent the front end thereof, said arm projecting through the casing and engaging said lock bar.

4. In a lock of the kind described and in combination, a suitable casing, a cylindrical barrel rotatably arranged therein, a plurality of sheet metal plates arranged in said barrel and transversely movable therethrough, in the same plane to engage with the casing, each of said plates provided with a suitably formed keyway therethrough relatively larger than the cross section of the key, and varying in contour from each other, and a key constructed to engage a portion of said plates at the ends of the apertures therein, and engage a portion of the plates at one side of the aperture therein, whereby upon insertion or withdrawal of the key, a portion of the plates will be moved in one direction and another portion will be independently moved in a parallel direction.

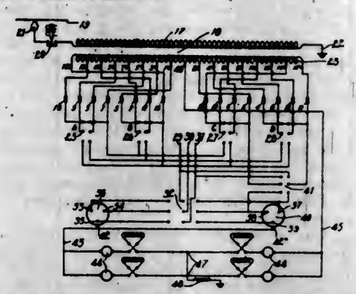
5. In a lock, the combination of a suitable casing, a cylindrical barrel rotatably mounted therein, a plurality of plates transversely movable through said barrel, each of said plates provided with a suitably formed aperture therethrough, and a key provided with means for engaging a portion of said plates at the ends of the apertures therein, and engaging another portion of the plates at one side of the key, and other plates at the other side of the key.

[Claims 6 to 9 not printed in the Gazette.]

1,204,411. VAPOR-RECTIFIER. FRANK CONRAD, Swissvale, and KARL A. SIMMON, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 11, 1914. Serial No. 850,346. (Cl. 175—363.)

1. The combination with a source of alternating current, of two, three-anode rectifier units, a plurality of

voltage taps on the source, means whereby either of the rectifier units may be connected to the source and operated with two active anodes, means whereby the voltage applied to the active rectifier may be varied by applying the desired voltage to the inactive anode and thereby causing one of the previously active anodes to become inactive, means whereby both rectifiers may be connected to the source and operated as single-anode units, and means whereby the voltage applied to the rectifiers may be varied by applying the desired voltage to an inactive anode in each rectifier and thereby causing the previously active anode to become inactive.



2. The combination with a source of alternating current, of a transformer winding arranged to be energised therefrom, a mid-tap connection and a plurality of voltage taps on each side thereof on said transformer winding, a plurality of multi-anode vapor-converter units, means whereby anyone of said units may be operated as a multi-anode converter deriving current for a portion of its anode from taps on one side of said mid tap, deriving current for the remainder of its anodes from taps on the other side of said mid tap and returning current through said mid-tap, and means whereby two of said units may be operated jointly as ingle-anode converters, deriving their energy from opposite sides of said mid-tap and returning current therethrough.

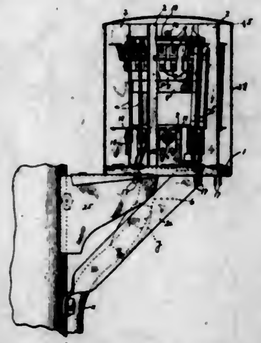
3. The combination with a source of alternating current, of a transformer winding arranged to be energised therefrom, a mid-tap connected and a plurality of voltage taps on each side thereof on said transforming winding, a plurality of multi-anode vapor converter units, means whereby anyone of said units may be operated as a multi-anode converter deriving current for a portion of its anodes from taps on one side of said mid-tap, deriving current for the remainder of its anodes from taps on the other side of said mid-tap and returning current through said mid-tap, means whereby two of said units may be operated jointly as single-anode converters, deriving their energy from opposite sides of said mid-tap and returning current therethrough, and means whereby the voltage of the current to be rectified may be adjusted under either system of operation.

4. The combination with a source of alternating current, of a direct-current load subject to variations, a plurality of multi-anode vapor converting units, and means whereby a portion of said units may be connected to supply said load from said source by multi-anode operation during light-load conditions, and means whereby a greater number of said units may be connected to supply said load from said source by single-anode operation during heavy-load conditions.

5. The combination with a source of alternating current, of a direct-current load subject to variations, a plurality of multi-anode vapor converting units, and means whereby a portion of said units may be connected to supply said load from said source by multi-anode operation during light-load conditions, means whereby a greater number of said units may be connected to supply said load from said source by single-anode operation during heavy-load conditions, and means whereby the voltage supplied by said source to said load may be adjusted under either conditions of operation.

[Claim 6 not printed in the Gazette.]

1,204,412. CABLE-TERMINAL. FRANK B. COOK, Chicago, Ill., assignor to Frank B. Cook, Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 11, 1913. Serial No. 784,020. (Cl. 247—13.)



1. A cable terminal comprising a base, a plurality of upright members rising from said base, means at the lower portion of said members supporting a circular series of terminals, a cup-shaped element removably mounted on said upright members above said terminals, and a second series of terminals mounted on said cup element around its outer side and coöperatively positioned with respect to the first series of terminals.

2. A cable terminal comprising a base, a plurality of upright members rising therefrom, a ring mounted on the lower portions of said members, a series of terminals mounted on said ring, a second ring mounted on said members above the first ring, a distributing cup removably seated on the second ring between the upper ends of said members, and a series of terminals mounted upon said cup.

3. A cable terminal comprising a base, a plurality of upright members rising therefrom, means at the lower portion of said members supporting a series of terminals, a cup-shaped element removably supported upon and between said members above said series of terminals, a second series of terminals mounted on said cup, and a nozzle fixed to said cup and extending down through said base and adapted to receive conductors running to the terminals carried by the cup.

4. A cable terminal comprising a base, a plurality of upright members rising therefrom, a ring supported at the lower ends of and between said members, a circular series of terminals mounted on the outer side of said ring, said base having a plurality of openings corresponding to said terminals and adapted to receive jumper wires running to the latter, a cup removably supported upon and between said members above said ring, a circular series of terminals mounted on the outer side of said cup, and a nozzle attached to the bottom of the cup and extending downwardly through said base and adapted to receive conductors running to the terminals on the cup.

5. A cable terminal comprising a plurality of upright frame-members, a distributing cup positioned between said members and supported thereby, said cup having a cover, and means engaging said frame-members and overlying said cover to hold the latter in place.

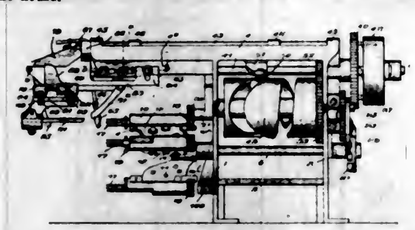
[Claims 6 to 15 not printed in the Gazette.]

1,204,413. PARING-MACHINE. BURTON C. COONS, Rochester, N. Y. Filed Apr. 26, 1913. Serial No. 763,739. (Cl. 146—8.)

1. In a paring machine, a fork reel comprising a reel body, and sectional fork bearings separate from the reel body and bolted thereto.

2. In a paring machine, a fork reel comprising a reel body having arms formed with flat side faces, and fork bearings separate from the reel body and having extensions formed with flat side faces bolted in engagement with the flat side faces of the arms of the body.

3. In a paring machine, a fork reel comprising a reel body having arms formed with flat side faces arranged on the radii of the reel, and fork bearings, each formed of two sections, one of which is provided with an extension having a flat face bolted to the flat face of one of the arms.

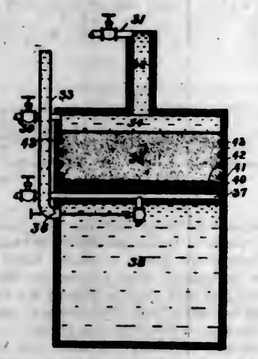


4. In a paring machine, the combination with a two-part fork bearing one of which is removably bolted to the other, a fork shaft turning therein, a fork having screw threaded engagement with the shaft beyond the end of the bearing, and a fruit stop rigid with one removable part of the bearing and projecting therefrom to overlap a portion of the fork.

5. In a paring machine, the combination with a knife turn-table embodying a bifurcated arm having the upper face of its bifurcated portion provided with alined grooves, of a pivot pin bridging the bifurcated portion and resting in said grooves, and a knife stock carrying a knife, having a lateral extension at its upper end and bearing on the pivot pin at the juncture of the extension and the main portion of the stock.

[Claims 6 to 19 not printed in the Gazette.]

1,204,414. FILTER. HENRY WARRINGTON COWAN, Toronto, Ontario, Canada. Filed Mar. 26, 1914. Serial No. 827,378. (Cl. 210—8.)

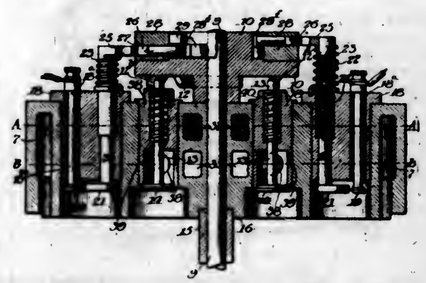


1. In a filter, an unfiltered water chamber, a filtered water chamber and a filter bed therebetween, an overflow pipe communicating with said unfiltered water chamber, said chamber having a plan area substantially equal to that of said filter bed below said overflow pipe, and said chamber having a plan area considerably less than said filter bed above said overflow pipe.

2. In a atmospheric filter, an unfiltered water chamber, a filtered water chamber and a filter bed therebetween, an outlet pipe communicating with said unfiltered water chamber below the water level therein, said unfiltered water chamber having a plan area substantially equal to that of said filter bed below said outlet pipe, and said chamber having a plan area considerably less than said filter bed above said outlet pipe.

3. In an atmospheric filter, an unfiltered water chamber, a filtered water chamber, and a filter bed therebetween, an outlet pipe communicating with said unfiltered water chamber at substantially the level that wash water rises in said chamber during the washing out process, said chamber having a plan area substantially equal to that of said filter bed below said outlet pipe, and said chamber having a plan area considerably less than said filter bed above said outlet pipe.

1,204,415. MECHANISM FOR CONTROLLING AND OPERATING THE VALVES OF HYDROCARBON-ENGINES. GEORGE EDWARD DAVIS, Pittsburgh, Pa., assignor of fifty-five one-hundredths to George W. Richardson, Chicago, Ill., and forty-five one-hundredths to Henry A. Geisert, Jefferson City, Mo. Filed July 6, 1912. Serial No. 707,995. (Cl. 123—59.)



1. In a hydro-carbon engine comprising a pair of fixed cylinders, pistons therein and a common crank shaft, said cylinders being arranged at spaced intervals along said crank shaft, with the cylinder axes perpendicular to the axis of the crank shaft, inlet and exhaust valves for said cylinders arranged on concentric lines of cam travel, a rotatable cam plate and a plurality of cams on said plate, some of said cams being adapted to operate a valve of one cylinder and the rest of the cams being adapted to operate the remaining valves of both cylinders, when said cam plate is rotated.

2. In a hydro-carbon engine, comprising a pair of fixed cylinders, pistons therein and a common crank shaft, said cylinders being arranged at spaced intervals along said crank shaft, with the cylinder axes perpendicular to the axis of the crank shaft, inlet and exhaust valves for said cylinders arranged on concentric lines of cam travel, a rotatable cam plate and four cams on said plate, two of said cams being adapted to operate two valves of one cylinder and one valve of the other cylinder and the other two cams being adapted to operate the other valve, when said cam plate is rotated.

3. In an explosive engine, a crank shaft, a pair of pistons and a pair of fixed cylinders, the axes of said cylinders being perpendicular to the crank shaft axis, inlet and exhaust valves for said cylinders, the valves of one cylinder and one valve of the other cylinder being arranged on a circular line of cam travel, a rotatable cam plate and a plurality of cams on said plate, said cams being adapted to operate all the said valves when the plate is rotated.

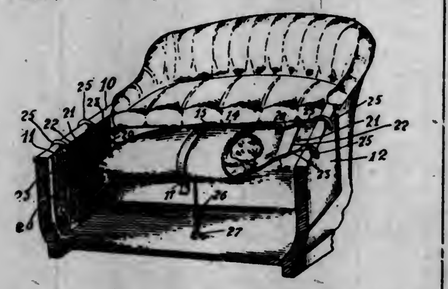
4. In an explosive engine, a pair of fixed cylinders, longitudinally disposed and a crank shaft, the axes of the said cylinders being perpendicular to the crank shaft axis, inlet and exhaust valves for said cylinders, the valves of one cylinder and one valve of the other cylinder being arranged on one circular line of cam travel and the other valve of the latter cylinder arranged on a second circular line of cam travel concentric with the first, a rotatable cam plate and a plurality of cams on said cam plate, said cams being adapted to operate all the valves of said pair of cylinders, when the cam plate is rotated.

5. In a hydro-carbon engine comprising a pair of fixed cylinders, pistons therein and a common crank shaft, said cylinders being arranged at spaced intervals along the said crank shaft, with the cylinder axes perpendicular to the crank shaft axis, inlet and exhaust valves for said

cylinders, the valves of one cylinder and one valve of the other cylinder being arranged on one circular line of cam travel and the other valve of the latter cylinder arranged on a second circular line of cam travel concentric with the first, a rotatable cam plate and a plurality of cams on said cam plate, some of said cams being adapted to operate the valves arranged on one line of cam travel and some of them adapted to operate the remaining valve, when the cam plate is rotated.

[Claims 6 to 9 not printed in the Gazette.]

1,204,416. BABY-HAMMOCK. JOHN DOSER, Los Angeles, Cal. Filed Dec. 6, 1915. Serial No. 65,408. (Cl. 5—59.)



1. In a hammock, a body, a stretcher rod secured to one end of said body, a hanger formed of a single length of material and of U-shaped formation, the free terminals of the arms of said hanger being curved to provide hooks and the central portion of the hanger being bent back upon itself in a plurality of faces to form eyes, said eyes being located adjacent the inner ends of the arms, and resilient members connected at their outer ends to said eyes and at their inner ends to the stretcher rod.

2. In a hammock, a hanger, comprising, a body member, a pair of springs secured thereto and in spaced relation to each other, parallel hooked arms formed at the opposite ends of the body member, and a frame member adapted to be engaged by the ends of the springs whereby a fabric hammock body may be suspended therefrom.

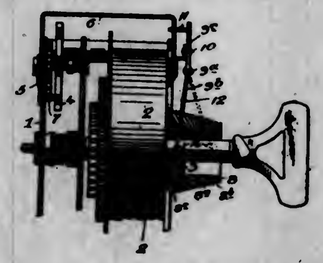
3. In a hammock, a hanger, comprising a central body portion, spring engaging eyes formed adjacent the outer ends of said body portion, hooked arms extending parallel from each other from the ends of said body portion, springs adapted to be hooked at one end within the engaging eyes, a hammock stretcher secured by its opposite ends to the free ends of the spring and a fabric hammock body adapted to be supported upon said stretcher.

1,204,417. TIMEPIECE. CLARENCE V. DOYLE, New York, N. Y., assignor, by direct and mesne assignments, of seven thirty-seconds to Charles W. Moffitt, Islip, N. Y., seven thirty-seconds to Harry A. Hanigan, New York, N. Y., and four thirty-seconds to J. Byron Creamer, Islip, N. Y. Filed Mar. 11, 1915. Serial No. 13,585. (Cl. 58—109.)

1. A time piece having a prime mover, a member connected therewith to be rotated at will and to be rotated by said prime mover, a regulator, and means coacting with said member and regulator to move the latter in one direction or another according to the direction of rotation of said member.

2. A time piece having a prime mover, a member connected therewith to be rotated at will and to be rotated by said prime mover, a regulator, an arm coactive with said regulator, said member having an actuator for said arm provided with different transverse diameters and having a helical thread to coact with said arm to cause the latter to traverse said actuator according to the direction of rotation of said member.

3. A time piece having a prime mover, a member connected therewith to be rotated at will and to be rotated by said prime mover, a regulator, an arm coactive with said regulator, said member being provided with a helical thread of varying diameter, whereby said arm may be rocked and moved relatively to the axis of said member for moving said regulator in one direction or another according to the direction of rotation of said member.

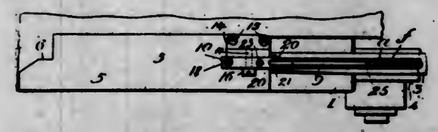


4. A time piece having a prime mover, a winding arbor therefor provided with an actuator having a cone-like surface provided with a helical thread thereon, an arm coactive with said actuator and having a part operative with said thread, and a regulator coactive with said arm.

5. A time piece having a main spring, a winding arbor therefor, a balance wheel, a hair spring therefor, a regulator for the hair spring, an arm coactive with the regulator, said arm having a joint, and a threaded actuator operative with said arbor and coactive with said arm for moving the regulator as said arbor rotates, said joint permitting the arm to move laterally along the actuator.

[Claims 6 to 10 not printed in the Gazette.]

1,204,418. MACHINE FOR SEAMING CIGARETTES. PAUL A. DRUCKLIEB, Stapleton, N. Y., and DANIEL HEMMING, New Haven, Conn., assignors to New York Cigarette Machine Company, New York, N. Y., a Corporation of New York. Filed May 31, 1912. Serial No. 700,609. (Cl. 131—43.)



1. In a cigarette finishing machine, the combination of a supporting plate, a block pivotally mounted thereon, jaws at one end of the block, a presser blade secured to said jaws, an adjustable stop secured to the block between the pivot and said jaws, a bore at the other end of the block, and an adjustable plug therein, and a spring in said bore bearing on the plug and plate.

2. In a cigarette finishing machine, the combination with a support, a presser blade pivoted thereto and having an extension, a spring secured to said extension beyond the pivot, and means for adjusting the tension of the spring.

3. In a cigarette finishing machine, the combination with a support, a presser blade pivoted thereto and having an extension, a spring secured to said extension beyond the pivot, means for adjusting the tension of the spring, and a stop secured to said extension and located between the blade and said pivotal support.

4. In a cigarette finishing machine, the combination with a supporting plate, a block pivotally mounted on said plate, a presser blade secured to the block on one side of the pivot for said block, a spring exerting an upward pressure on the block on the other side of said pivot whereby the presser blade is caused to bear downwardly upon the cigarette rod with greater pressure at its toe than at its heel.

5. In a cigarette finishing machine, the combination with a support, a presser blade having greater longitudinal dimension than width, and a width coextensive with the lap of the seam, pivoted thereto, a spring bearing against the blade support for causing a pressure of the blade adjacent its outer end upon the cigarette seam, and a stop for regulating the inclination of the presser blade relative to the cigarette seam.

[Claim 6 not printed in the Gazette.]

1,204,419. CURTAIN-ROD SUPPORT. NAPOLÉON DUMAS, Southbridge, Mass. Filed Apr. 11, 1916. Serial No. 90,448. (Cl. 156—22.)

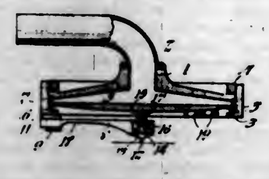


1. In combination with a rod having a notch near one end, a support having an opening to receive said end, a locking device on the support and movable into and out of engagement with the notch and a spring to normally hold the locking device in closed position and also forming means to move the locking device to release position.

2. In combination with a rod having a notch near one end, a support having an opening to receive said end, a locking device on the support movable into and out of engagement with the notch, and having a portion provided with a slot, and a spring having an arm extended through said slot and also provided with a grip exerting camming action on the locking device and normally holding the latter in engaged position.

3. In combination with a rod having a notch near one end, a support having an opening to receive said end, a locking device on the support movable into and out of engagement with the notch, and having a portion provided with a slot, and a spring having an arm extended through said slot and also provided with a grip exerting camming action on the locking device and normally holding the latter in engaged position, the grip being also provided with a camming arm to move the locking device to released position when the spring is moved by the grip.

1,204,420. SOUND-BOX. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Mar. 24, 1911. Serial No. 616,755. (Cl. 274—29.)



1. The combination of a stylus, a diaphragm, means maintaining said stylus in operative relation to said diaphragm and means for weighting said diaphragm, said weighting means being located entirely to one side of the center of the diaphragm and substantially at a single position on the diaphragm.

2. In a sound reproducer, the combination of a support, a diaphragm supported thereby, said diaphragm having weighting means located eccentrically thereof and substantially at a single concentrated position thereon, and a reproducer stylus connected with the center of said diaphragm, substantially as described.

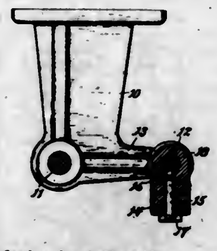
3. In a sound reproducer, the combination of a support, a diaphragm supported thereby, said diaphragm having weighting means located eccentrically thereof and substantially at a single concentrated position entirely to one side of the center of the diaphragm, and a reproducer stylus connected with the center of said diaphragm, substantially as described.

4. An acoustic diaphragm having means for weighting while permitting substantially free flexure of the same, said means being applied to the diaphragm at a single concentrated position to one side of the center of the diaphragm, substantially as described.

5. In a sound reproducer, the combination of a diaphragm, a reproducer stylus connected to the center thereof, and means for weighting while permitting substantially free flexure of the diaphragm, said means being applied to the diaphragm at a single concentrated position to one side of the center of the diaphragm, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

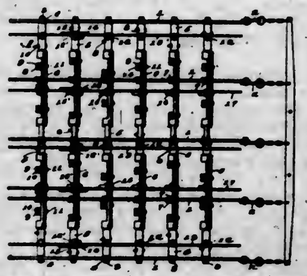
1,204,421. LOCKING DEVICE FOR BELT-SHIFTERS. RUDOLPH H. ENGELBERT, Milwaukee, Wis., assignor of one-fourth to Hans E. Birkholz, Milwaukee, Wis., and one-half to International Harvester Corporation, a Corporation of New Jersey. Filed Apr. 25, 1913. Serial No. 763,490. (Cl. 64—4.)



1. A locking device for belt shifters, comprising a U-shaped frame having its arms spaced apart to fit on opposite sides of a hanger bracket and provided with openings through which the sliding rod of the belt shifter passes, there being a longitudinal opening through one of the arms of the frame, a ball contained within the opening, a pin fitting in the opening and bearing on the ball, and a spring secured to the frame and bearing against the end of the pin for forcing the ball into a notch of the sliding rod.

2. A locking device for belt shifters, comprising a U-shaped frame having its arms spaced apart to fit on opposite sides of a hanger bracket and provided with openings through which the sliding rod of a belt shifter passes, there being another opening in one of the arms of the frame, a member in said other opening, and a flat spring secured to said frame and acting to force said member into a notch of the sliding rod.

1,204,422. CULTIVATOR OR HARROW. ISAAC THOMAS FERGUSON, Tiptonville, Tenn. Filed Mar. 10, 1916. Serial No. 83,400. (Cl. 55—103.)

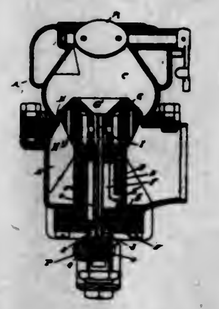


1. A harrow or cultivator comprising parallel spaced bars, shafts journaled in the bars, said shafts being composed of sections turnably mounted with relation to each other and in axial alinement, there being means for pre-

venting longitudinal movement of the sections with relation to each other, soil engaging elements mounted upon the sections and means for turning the corresponding sections of the several shafts simultaneously.

2. A harrow or cultivator comprising spaced parallel bars, shafts journaled in the bars and including sections in axial alinement with each other, means for preventing the sections of each shaft from becoming longitudinally displaced with relation to each other, means carried by the sections for holding the bars in proper position upon those sections which they receive, soil engaging elements carried by the harrow sections, arms mounted upon the sections of the shafts, rods pivotally connected with the arms which are mounted upon the corresponding sections of the different shafts, means for moving the rods longitudinally and means for holding the said rods at adjusted positions.

1,204,423. CARBURETER. OTIS C. FUNDERBURK, Detroit, Mich., assignor to Detroit Lubricator Company, Detroit, Mich., a Corporation of Michigan. Filed May 11, 1914. Serial No. 837,902. (Cl. 261—69.)



1. In a carbureter, the combination with a casing containing a mixing chamber, of a valve controlling the air inlet into said chamber, a nozzle for discharging oil into said chamber, a well normally supplying oil to the nozzle, an auxiliary cup for an auxiliary supply of oil communicating with said nozzle, and means operated by a movement of said valve for filling said cup with oil.

2. In a carbureter, the combination with a casing containing a mixing chamber, of a nozzle for discharging oil into said chamber, a well normally supplying oil to the nozzle, an auxiliary cup for supplying oil to said nozzle, and means other than gravity operating upon a change in the velocity of air passing through said chamber for filling said cup with oil.

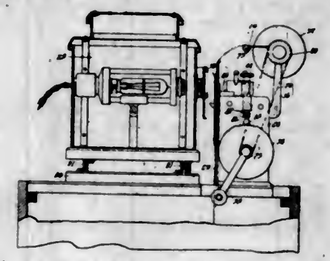
3. In a carbureter, the combination with a casing containing a mixing chamber, of a nozzle for discharging oil into said chamber, means for normally supplying oil to said nozzle, a cup for an auxiliary oil supply to said nozzle, and automatic mechanism operating upon a change of velocity of air passing through said chamber for filling said cup.

4. In a carbureter, the combination with a casing containing a mixing chamber, of a nozzle for discharging oil into said chamber, a valve in the air inlet for said chamber, a well normally supplying oil to the nozzle, an auxiliary cup for supplying oil to said nozzle, and means operating upon a sudden movement of said valve for filling said cup.

5. In a carbureter, the combination with a casing containing a mixing chamber, of a nozzle for discharging oil into said chamber, a valve controlling the air inlet into said chamber, means normally operated by the movement of said valve for varying the supply of oil to said nozzle, a cup for an additional supply of oil to said nozzle, and means operating upon a sudden movement of said valve for filling said cup.

[Claims 6 to 21 not printed in the Gazette.]

1,204,424. KINETOSCOPE. ADOLPH F. GALL, West Orange, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Oct. 12, 1911. Serial No. 654,223. (Cl. 88—18.)



1. In a kinetoscope, a main frame, a lens mounted thereon, a plate movably mounted on said main frame and having a plurality of exposure openings therein and means for moving said plate at will and without operating the film feeding mechanism to bring any desired one of said openings opposite the axis of said lens, substantially as described.

2. In a kinetoscope, a main frame, a lens mounted thereon, a plate movably mounted on said main frame and having a plurality of exposure openings therein, means for moving said plate at will and without operating the film feeding mechanism to bring any desired one of said openings opposite the axis of said lens, and a detent adapted to hold said plate with the center of any such openings in the axis of said lens, substantially as described.

3. In a kinetoscope, a driving shaft adapted to be continuously rotated, a driven shaft parallel to said driving shaft, a disk fastened to said driven shaft and having radial slots therein, a member mounted on and rotating with said driving shaft, and having a projecting pin adapted to engage said slots to intermittently rotate said driven shaft, and means separate from said disk and member comprising a pair of coacting elements respectively mounted on said shafts, adapted to hold said driven shaft stationary whenever said pin is out of engagement with said slots, substantially as described.

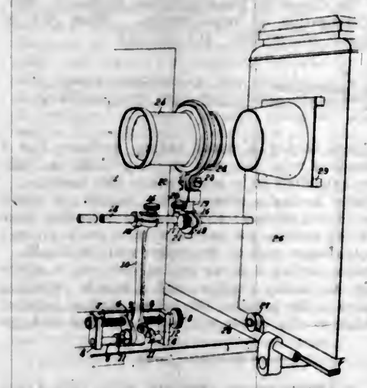
4. In a kinetoscope, a driving shaft adapted to be continuously rotated, a driven shaft parallel to said driving shaft, a disk fastened to said driven shaft and having radial slots therein, a member mounted on and rotating with said driving shaft, and having a projecting pin adapted to engage said slots to intermittently rotate said driven shaft, a plate having a plurality of concave sides on said driven shaft and means fixed to said driving shaft and adapted to engage said concave sides to hold said driven shaft stationary whenever said pin is out of engagement with said slots, substantially as described.

5. In a kinetoscope, a driving shaft, a driven shaft parallel thereto, mutilated gears connecting said shafts, and adapted to give an intermittent rotation to said driven shaft when the said driving shaft is continuously rotated, and means, independent of and separate from said mutilated gears comprising a pair of coacting elements respectively mounted on said shafts, adapted and arranged to hold said driven shaft stationary whenever said mutilated gears are out of engagement, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,204,425. LENS-SUPPORTING DEVICE. ADOLPH F. GALL, West Orange, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed June 21, 1913. Serial No. 774,963. (Cl. 88—24.)

1. A lens supporting device, comprising a support, an arm mounted on said support, a lens carrying element, means for supporting said lens carrying element from said arm comprising a member adjustably secured to said arm for sliding movement in one direction with respect thereto, and means for adjusting said arm on said support in a direction parallel to the direction of the sliding movement of said member, substantially as described.



2. A lens supporting device, comprising a support, an arm mounted on said support, a lens carrying element, means for supporting said lens carrying element from said arm comprising a member adjustably secured to said arm for sliding movement in one direction with respect thereto, and mechanism adjustably supporting the lens carrying element from said member for universal pivotal movement with respect thereto, and means for adjusting said arm on said support in a direction parallel to the direction of the sliding movement of said member, substantially as described.

3. A lens supporting device, comprising a support, an arm pivotally secured to said support and slidable on its pivot, a lens carrying element, means for supporting said lens carrying element from said arm comprising a member adjustably secured to said arm for movement in a direction substantially parallel with the pivotal axis of the arm, and means comprising a member having a screw threaded connection with said arm for effecting the sliding movement of the latter on its pivot, substantially as described.

4. A lens supporting device, comprising a support, an arm pivotally secured to said support and slidable on its pivot, a lens carrying element, means for supporting said lens carrying element from said arm comprising a member adjustably secured to said arm for movement in a direction substantially parallel with the pivotal axis of the arm, means comprising a member having a screw threaded connection with said arm for effecting the sliding movement of the latter on its pivot, and means for adjustably limiting the pivotal movement of said arm in one direction, substantially as described.

5. A lens supporting device, comprising a support, a lens carrying element, an arm mounted on said support for sliding movement in one direction, means comprising a member having a screw-threaded connection with said arm for effecting such movement thereof, a member adjustably secured to said arm for movement in a direction substantially parallel to the sliding movement of said arm on said support, and means for adjustably securing said lens carrying element to said last named member for universal pivotal movement with respect thereto, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,204,426. SAFETY DEVICE FOR FIREARMS. ARTHUR H. GLADWIN and JOHN A. WILSON, Alma, Mich. Filed Mar. 16, 1916. Serial No. 84,656. (Cl. 42—70.)

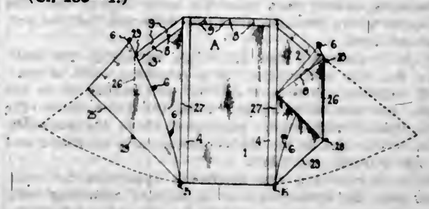
1. In a safety device for fire arms, the combination with a gunstock, of a movable shoulder plate, a rod connected with the said movable plate and passing movably through the said gunstock, means for guiding the inner end of the rod, a return spring acting upon the rod, the said rod and the said guiding means having longitudinal slots arranged to register with each other, a locking bolt movable in the said slots and having a recess constructed to receive the rod when the rod is moved forwardly, a grip lever pivotally connected with the said gunstock and arranged externally thereupon, means for transmitting the movements of the lever to the said bolt, a trigger, and means actuated by the movements of the rod for securing and releasing the trigger.



2. In a safety device for firearms, the combination with a gunstock, of a movable shoulder plate, an inclined rod passing movably through the said gunstock and connected with the said shoulder plate, inclined means for guiding the inner end of the rod, a return spring acting upon the rod, the said rod and the said guiding means having longitudinal slots arranged to register with each other forming a vertical opening through the said guide and rod, a locking bolt movable vertically in the said slots and having a recess constructed to receive the rod when the rod is moved forwardly, a grip lever pivotally connected with the said gunstock and arranged externally thereupon, means for transmitting the movements of the said lever to the said bolt, a trigger, and means pivotally connected with the said rod and movable horizontally for securing and releasing the trigger.

3. In a safety device for fire arms, the combination with a gunstock, of a movable shoulder plate, a rod connected with the said movable plate and passing movably through the said gunstock, a return spring arranged to move the rod and plate, a locking device arranged to act upon the rod, a grip lever pivotally connected with the rod-locking device and with the said gunstock and arranged externally upon the gunstock, a trigger, a guard having an upwardly extending slot, the free end of the said lever being movably arranged in the said slot in the trigger guard, and means actuated by the movements of the said rod for securing and releasing the trigger.

1,204,427. CONVERTIBLE TENT. JAMES E. GRACE, Detroit, Mich. Filed July 19, 1915. Serial No. 40,575. (Cl. 135—1.)



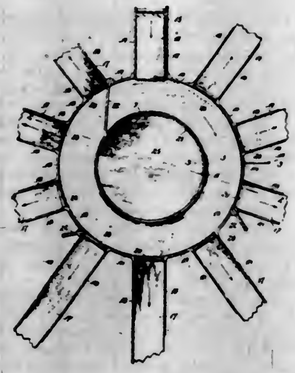
1. A convertible tent consisting of members adapted to be connected together, each member having a side section and end sections with cases at the juncture of said sections, said end sections being foldable twice on said side sections to present confronting portions centrally of said side sections, and means adapted for connecting the front portions of the folded end sections to maintain said end sections in parallelism with said side sections.

2. A convertible tent consisting of members adapted to be connected together when said tent is set up, flies adapted for attachment to the confronting edges of said members at the ends thereof, each member having a side section and end sections with cases at the juncture of

said sections, said end sections being foldable twice on said side sections to present confronting portions centrally of said side sections, and means adapted for connecting the confronting portions of the folded end sections to maintain said end sections in parallelism with said side sections.

3. A convertible tent consisting of members adapted to be connected together, each member having a side section and end sections with cases at the juncture of said sections whereby said end sections can be folded upon said side sections and said side sections utilized as a stretcher, and means adapted for connecting the folded end sections when folded against said side sections.

1,204,428. MAIL RECEIVING AND DELIVERING APPARATUS. CHARLES P. GRANDFIELD, Washington, D. C. Filed Nov. 2, 1914. Serial No. 869,924. (Cl. 193—1.)



1. In a receiving and delivering apparatus for mail-bags, &c., the combination, of a revolving table, a stationary platform adjacent thereto, a delivery-belt leading on the table, and conveyer-belts leading from below the table to places where the bags are to be delivered, for the purpose set forth.

2. In a receiving and delivering apparatus for mail-bags, &c., the combination, of a revolving table having an opening at the center thereof, a platform below the opening, a delivery-belt leading onto the table, and conveyer-belts leading from below the outer edge of the table to places where the bags are to be delivered, for the purpose set forth.

3. In a receiving and delivering apparatus for mail-bags, &c., the combination, of a revolving table, a platform adjacent thereto, a delivery-belt leading on to the table, conveyer-belts leading from the table below the edge thereof, and rollers supported above the conveyer-belts at the edge of the table, substantially as shown and for the purpose set forth.

4. In a receiving and delivering apparatus for mail-bags, &c., the combination of a circular revolving table having an opening at the center thereof and a rail at the edge around the opening, a delivery-belt leading on to the table, conveyer-belts extending from below the outer edge of the table, stationary rails at the outer edge of the table between the conveyer-belts, and rollers beyond the edge of the table between the said rails, substantially as shown and for the purpose set forth.

5. In a receiving and delivering apparatus for mail-bags, &c., the combination, of a circular revolving table having an opening at the center thereof and a rail surrounding the opening, a platform below the opening in the table, and a stationary rail supported adjacent the inner edge of the table; together with a delivery-belt depositing on to the table, and conveyer-belts leading from below the outer edge of the table, substantially as shown and described.

[Claims 6 and 7 not printed in the Gazette.]

1,204,429. GRIDDLE. ROGER W. GRISWOLD, Erie, Pa., assignor to Griswold Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed Nov. 8, 1915. Serial No. 60,250. (Cl. 53—7.)

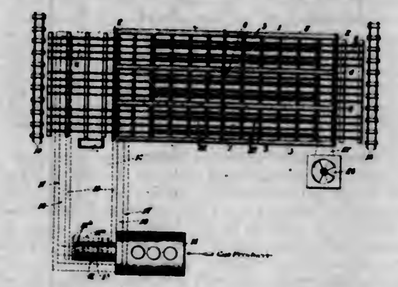


1. A griddle having a plane baking surface; and a handle extending from the edge of the griddle, the baking surface extending in a plane above the handle.

2. A griddle having a plane baking surface; a gutter at the edge of the surface; and a handle extending from the edge of the griddle, the baking surface being at least as high as the outer wall of the gutter and the handle.

3. A griddle having a plane baking surface; a gutter surrounding the baking surface; and a handle extending from the edge of the griddle; the baking surface being at least as high as the outer wall of the gutter and the handle.

1,204,430. DRYING OF CLAYWARE AND THE LIKE. CHRISTOPHER G. GUIGNARD, Columbia, S. C. Filed Feb. 16, 1914. Serial No. 819,011. (Cl. 34—46.)



1. A drying apparatus comprising in combination a source of heat; a drying chamber; a mixing chamber connected with said source of heat; a combustion chamber associated with said mixing chamber; a heat distributing flue communicating with said combustion chamber; an air chamber associated with said heat distributing flue and communicating at one end with said mixing chamber; an air inlet entering said air chamber at the other end thereof; and a flue connecting said drying chamber with said heat distributing chamber.

2. A drying apparatus comprising in combination a source of heat; a drying chamber; a mixing chamber connected with said source of heat; a combustion chamber associated with said mixing chamber; a heat distributing flue communicating with said combustion chamber; an air chamber associated with said heat distributing flue and communicating at one end with said mixing chamber; an air inlet entering said air chamber at the other end thereof; a radiation chamber associated with said drying chamber; and a flue connecting said radiation chamber with said heat distributing chamber.

3. A drying apparatus comprising in combination a source of heat; a drying chamber; a mixing chamber connected with said source of heat; a combustion chamber associated with said mixing chamber; a heat distributing flue communicating with said combustion chamber; an air chamber associated with said heat distributing flue and communicating at one end with said mixing chamber; an air inlet entering said air chamber at the other end thereof; a radiation chamber associated with said drying chamber; a flue connecting said radiation chamber with said heat distributing chamber; and a radiator disposed in said radiation chamber.

4. A drying apparatus comprising in combination a source of heat; a drying chamber; a mixing chamber connected with said source of heat; a combustion chamber associated with said mixing chamber; a heat distributing flue communicating with said combustion chamber; an air chamber associated with said heat distributing flue and communicating at one end with said mixing chamber; an air inlet entering said air chamber at the other end thereof; a radiation chamber disposed under said drying chamber; a flue connecting said radiation chamber and said heat distributing chamber; a plurality of radiators disposed in said radiation chamber; and damper instrumentality associated with said radiators.

5. A drying apparatus including in combination a drying chamber; a source of gas supply; a mixing chamber connected with said source of gas; a combustion chamber associated with said mixing chamber; a heat distributing flue connected with said combustion chamber; an air chamber disposed upon said heat distributing flue and connected at one end with said mixing chamber; an air intake at the other end of said air chamber; a radiator chamber communicating with said drying chamber; heat radiating instrumentality disposed therein; and a radiator feeding flue connecting said heat distributing chamber and the heat radiating instrumentality.

[Claims 6 to 12 not printed in the Gazette.]

1,204,431. COMBINED CHAIR-SEAT AND COMMODE. WALTER M. HADDOCK, Brooklyn, N. Y., assignor of one-half to Howard Flanary, Brooklyn, N. Y. Filed Apr. 7, 1915. Serial No. 19,709. (Cl. 4—32.)

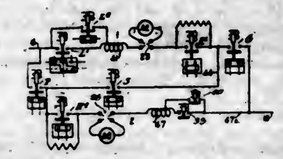


1. A combined chair seat and commode comprising a rectangular frame provided on its upper face with a recess terminating in a central opening, an auxiliary frame mounted in said recess upon the upper face of said first named frame, a perforated plate hingedly secured to the last named frame and covering said opening, guides secured to the under face of the frame and on opposite sides of said opening, and a pan adapted to coöperate with said guides and being removably positioned under said opening of the seat frame, means for limiting the inward movement of said pan, and means for preventing outward movement of said pan substantially as set forth.

2. A combined chair seat and commode comprising a rectangular frame having a recess on its upper face terminating in an opening, a metal frame seated in said recess provided with an opening alining with the opening in the first named frame, a rectangular perforated plate hingedly secured to the last named frame and covering said opening, guide plates secured to the under side of the first named frame on opposite sides of the opening, stop blocks secured to the under side of said frame, a pan coöperating with said guides for being removably replaced under said opening, said stop block limiting the inward movement of said pan, and means on the front end of said pan for limiting the outward movement of the same, substantially as set forth.

1,204,432. CONTROL SYSTEM FOR ELECTRIC MOTORS. ARTHUR J. HALL and LYNN G. RILEY, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 23, 1913. Serial No. 796,868. (Cl. 172—179.)

1. In a control system, the combination with a supply circuit and an electric motor having an armature and a field-magnet winding connected directly to one terminal thereof, of switching means for reversing the connections of the armature circuit, an electrically-controlled switch for normally connecting one side of said supply circuit to one end of said field winding, and a second electrically-controlled switch for connecting the said side of the supply circuit to an intermediate point of said field winding under predetermined conditions.



2. A control system comprising a direct-current supply circuit, an electric motor having an armature and a field-magnet winding connected directly to the positive terminal thereof, a reversing-switch for said armature, an electrically-controlled switch for connecting the positive side of said supply circuit to one end of said field winding during the greater portion of acceleration, and a second electrically-controlled switch for connecting the said side of the supply circuit to an intermediate point of said field winding to effect further acceleration of the motor.

3. A control system comprising a direct-current supply circuit, an electric motor having an armature and a field-magnet winding connected directly to the positive terminal thereof, an accelerating resistance initially connected in circuit with said motor, a reversing-switch for said armature, an electrically-controlled switch for initially, and during the greater portion of acceleration, connecting the positive side of said supply circuit to one end of said field winding, means for short-circuiting said resistance to effect predetermined motor acceleration, and a second electrically-controlled switch for subsequently connecting the said side of the supply circuit to an intermediate point of said field winding to effect further motor acceleration.

4. A control system comprising a supply circuit, a pair of electric motors adapted for series-parallel operation and severally having armatures and field windings that are respectively connected directly to non-corresponding terminals of the armatures, a pair of reversing-switches for the respective armatures, a pair of electrically-controlled switches for normally respectively connecting non-corresponding ends of the field windings to the respective sides of said supply circuit, and a second pair of electrically-controlled switches for connecting the respective sides of the supply circuit to intermediate points of the corresponding field windings, under predetermined conditions.

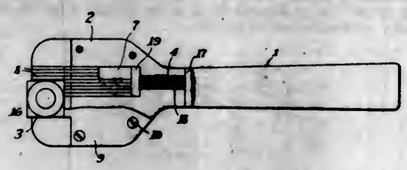
5. A control system comprising a direct-current supply circuit, a pair of electric motors adapted for series-parallel operation and severally having armatures and field-magnet windings that are respectively connected directly to the positive and to the negative terminal of the corresponding armatures, a plurality of accelerating resistances connected in circuit with the respective motors during initial series and initial parallel relation, a pair of reversing-switches for the respective armatures, a pair of electrically-controlled switches for initially, and during the greater portion of motor acceleration, respectively connecting the positive side of said supply circuit to one end of one field winding and connecting the negative side of the supply circuit to one end of the other field winding, means for short-circuiting said resistances to effect predetermined acceleration during both series and parallel motor operation, and a second pair of electrically-controlled switches for, subsequently to said short-circuiting, connecting the respective sides of the supply circuit to intermediate points of the corresponding field windings to effect further motor acceleration.

[Claims 6 to 9 not printed in the Gazette.]

1,204,433. WRENCH WILLIAM J. HANNA, Geneseo, N. Y., assignor of one-half to Millard F. Boas, Rochester, N. Y. Filed Mar. 31, 1916. Serial No. 87,965. (Cl. 81—185.)

1. A wrench comprising a handle and body portion, the latter having a recess, a series of plates within said recess,

separately movable in one and the same direction, and an actuating member within said recess, adapted to reset all of said plates at once to their outermost positions.



2. A wrench comprising a handle and body portion, the latter having a recess, a series of plates within said recess, separately movable in one and the same direction, and a resetting bar also within said recess and behind said plates and also movable in the direction of movement of said plates for resetting said plates.

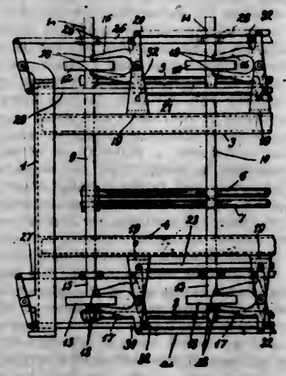
3. A wrench comprising a handle and body portion, the latter having two jaws and a series of plates between said jaws that are separately movable away from said jaws, and a member adapted to move all of said plates simultaneously into position between said jaws and to be moved into its retracted position by any of said plates.

4. A wrench comprising a handle and body portion, the latter having two jaws and a series of plates between said jaws that are separately movable away from said jaws, and a sliding actuating part adapted to engage all of said plates to move them simultaneously into position between said jaws and to permit said plates to be moved separately away from said jaws.

5. A wrench comprising a handle and body portion, the latter having two jaws and a series of plates between said jaws that are separately movable away from said jaws, a member adapted to move all of said plates simultaneously into position between said jaws and to be moved into its retracted position by any of said plates, and means for exerting a drag on said plates severally.

[Claims 6 and 7 not printed in the Gazette.]

1,204,434. EMBROIDERY-FRAME FOR EMBROIDERY-MACHINES. HANS HARDEGGER, Arbon, Switzerland, assignor to Wilhelm Stellmacher, Arbon, Switzerland. Filed Jan. 23, 1913. Serial No. 743,793. (Cl. 112—7.)



1. In an embroidery machine, a plurality of fabric rolls, independent end uprights supporting said rolls, independent intermediate uprights supporting the latter, and mechanism connected to each upright to guide and to impart simultaneously to said uprights, simultaneous and independent longitudinal and transverse movements.

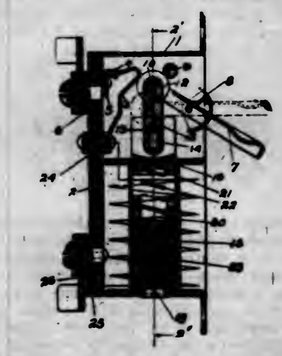
2. In an embroidery machine, a plurality of fabric rolls, independent end uprights supporting said rolls, independent intermediate uprights supporting the latter, a lever for each support relatively movable thereto, means to actuate said levers simultaneously to raise and lower the supports and means to move the supports laterally.

3. In an embroidery machine, a plurality of fabric rolls, independent end uprights supporting said rolls, independent intermediate uprights supporting the latter, a plurality of pivotally connected levers each movably connected to a support, means to actuate said levers simultaneously to raise or lower the supports, and means to move the latter transversely independently of the actuation of the levers.

4. In an embroidery machine, a plurality of fabric rolls, independent end uprights supporting said rolls, independent intermediate uprights supporting the latter, a plurality of pivotally connected levers each movably connected to a support, means to actuate said levers simultaneously to raise or lower the supports, and means to move the latter transversely, simultaneously with the raising and lowering of the levers.

5. In an embroidery machine, a plurality of fabric rolls, independent uprights supporting the end portions of said rolls, independent uprights supporting the rolls between the end supports, flanges on the supports near both ends thereof, a plurality of pivoted forked members in movable engagement with the flange of the supports, means to simultaneously oscillate the forked members, and means to move the supports relatively to the forked members.

1,204,435. COMBINED CIRCUIT-BREAKER AND SWITCH. FRANK O. HARTMAN, Mansfield, Ohio. Filed Mar. 4, 1915. Serial No. 12,190. (Cl. 175—268.)



1. In a switch, a solenoid including a reciprocating core having a pin, a link slotted at its lower end and receiving the pin in its said slot, a pivoted hand lever connected to the link, rollers on the upper end of the lever, means to limit the upward movement of the link, a spring contact having a beveled face that is engageable with the rollers; said spring contact normally holding the rollers in engagement with the stop pin whereby upon occurrence of an overload the solenoid will attract the core against the tension of the spring contact, thereby moving the lever from engagement with the stop pin.

2. In a switch, a solenoid including a reciprocating core having an upwardly extending projection, spring means to urge the core upwardly, a lever, rollers carried by the lever, a spring contact to be engaged by the rollers and yieldingly exerting a pressure against the rollers to hold the lever in its upper position, means connecting the lever and core, said means permitting a limited free movement of the lever and core.

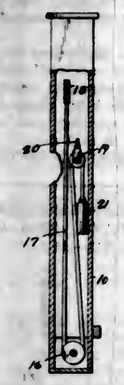
3. In a switch, a yielding spring contact, a lever having rollers engaged with the contact, a link connected to the lever, a spring pressed core, means to connect the link to the core, and a coil for attracting the core.

4. In a switch, a spring contact, a lever having rollers engaged with the contact, a link connected to the lever, a core pivotally connected to the link, a solenoid for attracting the core, the spring contact normally exerting a pressure against the rollers.

5. In an electrical switch, a spring contact having an inclined face, a pivoted lever for manually operating the switch, insulating rollers attached to the end of said lever and engaging said inclined face, a link attached to said lever, a solenoid, a core for the solenoid controlling said link and operating to open the switch when the current flowing through the solenoid exceeds a predetermined value.

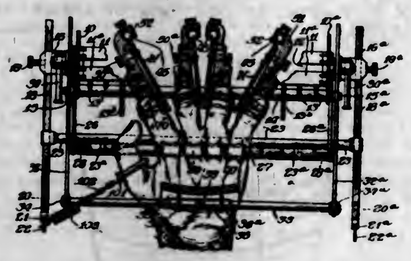
[Claim 6 not printed in the Gazette.]

1,204,436. WINDOW-SCREEN. FRANK L. HAWLEY, Blanchard, Wash. Filed Sept. 22, 1915. Serial No. 52,023. (Cl. 156—39.)



In combination with a window frame, a sliding sash therein, a roller journaled in the sill of the frame, a flexible screen wound upon said roller and connected to the sash and movable through a slot in the sill, a sash cord connected to the sash, a pulley mounted in the frame and over which said cord passes to the interior of the frame, a pulley on said roller over which said cord passes, a bracket on the frame, a pulley on said bracket over which the cord passes, and a weight secured to said cord.

1,204,437. MEANS FOR CORRECTING THE HUMAN HAND FOR MUSICAL PURPOSES. VICTOR HEINSE, Chicago, Ill. Filed Apr. 17, 1915. Serial No. 22,135. (Cl. 46—69.)



1. An apparatus of the class described, comprising individual supports for each finger of a hand, means for separating said supports to spread the fingers, and means for maintaining said supports in separated position.

2. In an apparatus of the class described, a frame, wings in said frame, there being finger supporting bars in connection with said wings, finger stop pins on said supporting bars, and a rest for the palmar joint of the hand, whereby the fingers thereof are maintained in a properly curved position.

3. In an apparatus of the class described, a frame, wings in said frame, there being movably mounted finger supporting bars in connection with said wings, finger stop pins on said supporting bars, and a rest for the palmar joint of a hand, whereby the fingers thereof are maintained in a properly curved position.

4. In an apparatus of the class described, a frame having side members and connecting bars between said side members, finger spreading wings in connection with said bars, finger supporting bars in connection with said wings, and means maintaining the fingers in a curved position.

5. In an apparatus of the class described, a frame having side members and connecting bars between said side members, finger spreading wings in connection with said bars, finger supporting bars in connection with said wings, and means maintaining the fingers in a curved position, and independent tensioning means for the fingers, supported from the frame.

[Claims 6 to 11 not printed in the Gazette.]

1,204,438. CLUTCH. FRANK J. HEMM, Piqua, Ohio. Filed June 30, 1915. Serial No. 37,132. (Cl. 192—8.)



1. In a clutch, the combination with a male member and a facing therefor, of a flat curved spring adapted to be mounted on said member below said facing, said spring having four spaced arms adapted to contact said member and support said spring.

2. In a clutch, the combination with a male member and a facing therefor of a flat curved spring adapted to be mounted on said member below said facing and transversely of the same, a hinge on one end of said spring, adapted to be removably attached to said member to position said spring thereon.

3. In a clutch, the combination with a male member having an aperture extending through the face thereof, and a facing for said member, of a flat curved spring adapted to be mounted on said member transversely of and below said facing and adapted to raise the same, a wire pivotally attached to one end of said spring and having a curved arm adapted to be received in such aperture in said member and maintain said spring in its transverse position.

4. In a clutch the combination with a male member having an aperture through the face thereof adjacent the rear edge, a flat curved spring mounted on said member transversely of and below said facing and adapted to raise the same, and a wire pivotally attached to said spring and provided with two curved downwardly extending portions adapted to be received in such apertures in said spring to maintain the same in its transverse position.

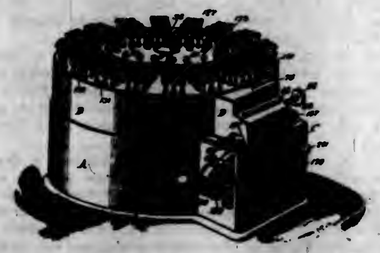
5. In a clutch the combination with a male member and a facing therefor, of a flat curved spring having oppositely extending curved arms, said spring being pivotally attached to said member, said spring being positioned transversely of and below said facing.

[Claims 6 to 9 not printed in the Gazette.]

1,204,439. CALCULATING-MACHINE. HUBERT A. HENSLEY, New Rochelle, N. Y. Filed Feb. 20, 1909. Serial No. 479,157. (Cl. 235—62.)

1. In a calculating machine, the combination, with fixed counting devices, of groups of digit keys arranged in a cir-

cle and mounted for rotation to bring any group into cooperative relation with said counting devices.



2. In a calculating machine, the combination, with a rotary series of circularly arranged key groups, of counting mechanism located adjacent the outer edge of the circle of key groups and into coöperative relation with which any of said groups may be moved.

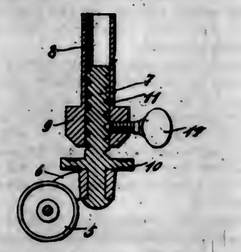
3. In a calculating machine, the combination of a plurality of keys arranged in a circle and divided into radially disposed groups, and fixed counting mechanism into coöperation with which any of said groups may be swung.

4. In a calculating machine, the combination of a plurality of keys arranged in a circle and divided into radially disposed groups, and fixed counting mechanism into coöperation with which any of said groups may be swung, said counting mechanism being located adjacent the outer edge of the circle of keys.

5. In a calculating machine, the combination of a circle of operating devices divided into groups and rotatable about a central vertical axis, and counting mechanism located at the circumference of the circle of devices and into coöperation with which the various groups can be swung by a lateral movement on such axis.

[Claims 6 to 42 not printed in the Gazette.]

1,204,440. CASTER. ALBERT HILDEBRANDT and WILLIAM EDWIN MOFFETT, Baltimore, Md. Filed June 5, 1915. Serial No. 32,362. (Cl. 16—164.)



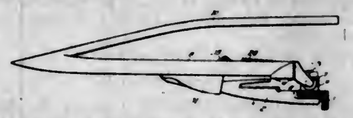
A caster having a spindle provided with an external, helical groove, an unthreaded socket piece in which the spindle slidably and rotatably seats, and a set screw threaded transversely through the socket piece and having its inner end pointed and adapted to seat in the groove of the spindle.

1,204,441. GRAIN-LIFTER FOR HARVESTERS. LUD HOLLAND-LETZ, Oak Park, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Oct. 27, 1913. Serial No. 797,437. (Cl. 56—129.)

1. In a grain lifter, a slotted supporting bar, and a guard-engaging member movable in said slot and having a shoulder resting on one of the edges thereof.

2. In a grain lifter, a slotted supporting bar, and a guard-engaging member movable in said slot and having oppositely disposed shoulders resting on the opposite edges thereof.

3. In a grain lifter, a supporting member having a slot therein provided with an enlarged opening communicating therewith, and a guard-engaging member carried in said slot having a projection thereon removable bodily through said enlarged opening.

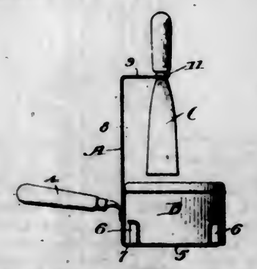


4. In a grain lifter, a supporting member having a slot therein provided with an enlarged opening communicating therewith, and a guard-engaging member carried in said slot having a cross head thereon removable bodily through said enlarged opening.

5. In a grain lifter, a supporting member having a slot therein provided with an enlarged opening communicating therewith, and a guard-engaging member carried in said slot and having a cross head thereon removable bodily through said enlarged opening, said member being movable in a vertical plane in said slot.

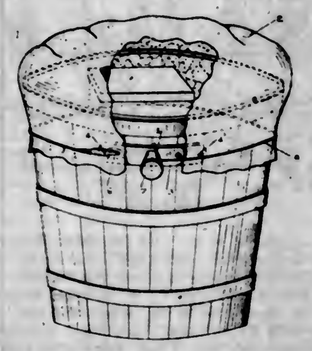
[Claims 6 to 16 not printed in the Gazette.]

1,204,442. CAN AND KNIFE HOLDER. EARL WILLIAM HOOD, Charleston, W. Va. Filed Apr. 24, 1916. Serial No. 93,348. (Cl. 211—14.)



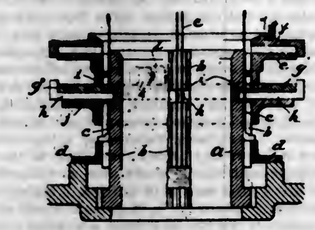
A device of the class described, having an arm provided with an article-retaining slot, said slot being of substantially V-shape and closed at its narrower end, and said arm having a lug integral therewith and upturned adjacent the wider end of the slot to serve as an abutment for the article.

1,204,443. BINDER. ELLSWORTH A. HORTON, New York, N. Y. Filed Oct. 31, 1914. Serial No. 869,529. (Cl. 24—136.)



A device of the class described, comprising a plate with a hole therethrough, adapted to be secured upon a tub having a bung hole so that the hole of said device and the bung hole of said tub are in alinement, means for holding one end of a flexible element to said plate, the other end of said flexible element being adapted to be secured between the sides of said holes and the bung when said bung is driven into the said holes.

1,204,444. CIRCULAR-KNITTING MACHINE. HAROLD E. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 16, 1916. Serial No. 103,913. (Cl. 66—21.)



1. In a circular knitting machine, in combination, a needle cylinder provided with grooves in which the needles are adapted to slide vertically, and devices adapted to extend between the needles between the upper and lower ends of their supporting grooves and by sidewise engagement with the needles hold them from dropping in their grooves.

2. In a circular knitting machine, in combination, a needle cylinder provided with grooves in which the needles are adapted to slide vertically, devices adapted to engage the respective needles between the upper and lower ends of their supporting grooves, and means common to all of said devices to simultaneously vary the degree of frictional pressure imposed upon the needles.

3. In a circular knitting machine, in combination, a needle cylinder provided with grooves in which needles are adapted to slide vertically, fingers adapted to project between adjacent needles and engage the respective needles between the upper and lower ends of their supporting groove and normally maintain them in frictional contact with the walls of their grooves, and means common to all the fingers to manipulate them to regulate the degree of said frictional contact.

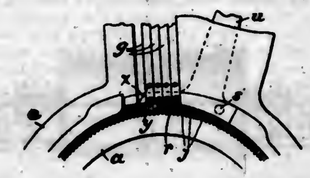
4. In a circular knitting machine, in combination, a needle cylinder provided with grooves in which the needles are adapted to slide vertically, means carried by the needle cylinder adapted to engage the respective needles and frictionally hold them from dropping in their grooves, and manually adjustable mechanism to hold said means with a regulatable degree of pressure against the needles in fixed relation to the needle cylinder during the operation of the machine.

5. In a circular knitting machine, in combination, a needle cylinder provided with grooves in which the needles are adapted to slide vertically, an integral ring surrounding the needle cylinder, devices carried thereby adapted to engage the respective needles throughout the entire circumference of the needle cylinder, and manually adjustable means to hold said devices with a regulatable degree of pressure against the needles in fixed relation to the needle cylinder during the operation of the machine.

[Claims 6 to 10 not printed in the Gazette.]

1,204,445. CIRCULAR-KNITTING-MACHINE MECHANISM FOR CONTROLLING YARN IN PLATING. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 13, 1916. Serial No. 90,809. (Cl. 66—12.)

1. In a circular knitting machine, the combination with the needles, of a yarn carrier, a pivotally mounted deflector extending in the direction of the circumference of the needle bank along and outside and in close proximity to the needles, and adapted to engage the yarn in its passage to the needles; said deflector being movable on its pivot to cause its free end to move inward toward the needles and thereby move the yarn into such an angle to said circumference as to insure its proper engagement with a series of needles, and means independent of the yarn carrier to swing the free end of the deflector outward away from the needles.



2. In a circular knitting machine, the combination with the needles, of a yarn carrier, a pivotally mounted deflector extending in the direction of the circumference of the needle bank and along and outside and in close proximity to the needles, said deflector having a shouldered portion adapted, when the yarn carrier is in operative position, to engage a yarn in its passage to the needles, said deflector being movable on its pivot to cause its shouldered portion to deflect the yarn into such an angle to said circumference as to insure its proper engagement with a series of needles, and means independent of the yarn carrier to actuate the deflector.

3. In a circular knitting machine, the combination with the needles, of a yarn carrier movable into and out of feeding position, a deflector extending outside a part of the periphery of the needle bank and pivoted at one side of the yarn carrier on a vertical axis, said deflector having on the other side of the yarn carrier an upwardly turned portion adapted to engage the yarn between the carrier and the needles, and means to swing the deflector on its pivot to cause its upturned end to move toward the needles and thereby deflect the yarn into position to insure its engagement with a series of needles.

4. In a circular knitting machine, the combination with the needles, of a yarn carrier movable into and out of operative position, and a deflector interposed between the yarn carrier and the needles and so positioned as to continuously engage and deflect a yarn fed by the carrier while the latter is in operative position, and means to move the deflector independently of the yarn carrier to vary the angle at which the yarn is fed to the hooks of a series of needles.

5. In a circular knitting machine, the combination with the needles, of a yarn carrier movable into and out of operative position, a latch guarding member adapted to engage the yarn between the carrier and the needles, and means to move said member to deflect the yarn in its passage from the carrier to the needles and thereby insure its proper engagement therewith.

[Claims 6 to 15 not printed in the Gazette.]

1,204,446. ANTIFALLING DEVICE FOR HORSES. MORRIS ISAACSON, Brooklyn, N. Y. Filed Mar. 24, 1916. Serial No. 86,333. (Cl. 21—63.)



A vehicle having shafts, a plurality of tubular members upon said shaft, a vertically adjustable supporting member

supported by each said tubular member; a body supporting member adjacent to said tubular member and a sector secured adjacent to said shafts and means coöperating with said sector to prevent a sidewise movement of said shafts as and for the purpose set forth.

1,204,447. INTERNAL-COMBUSTION ENGINE. CHRISTIAN J. JAHNKE, Bancroft, Nebr. Filed July 13, 1915. Serial No. 39,714. (Cl. 123—65.)



In an internal combustion engine, the combination with a cylinder having a piston operable therein, of a rod secured to said piston and extending outwardly through the head of the cylinder, a pipe connected to and communicating with the cylinder, a gas inlet for said pipe, a plunger mounted in the pipe and having an upwardly extending rod, an arm pivotally mounted on the upper end of the plunger and extending over the piston rod, a cam secured to the piston rod and adapted to engage the said arm to raise the plunger rod, and resilient means for forcing the plunger in the opposite direction.

1,204,448. CLEANER FOR CARPETS AND THE LIKE. BURRELL D. JONES, Chicago, Ill. Filed Feb. 11, 1916. Serial No. 77,553. (Cl. 15—60.)



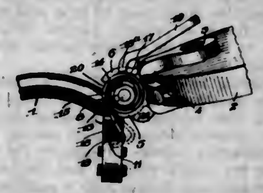
1. The combination of a substantially flat and horisontal main support, a pair of wheels at the rear end of said support, said support being close to the horisontal plane of the tops of said wheels, a shaft having crank arms between said wheels and rotated thereby as the device travels upon the floor, a plurality of bellows beneath said main support each having a relatively fixed wall with respect to said support and a relatively movable wall, said fixed and movable walls being hinged together at the forward ends of the bellows respectively whereby a greater space occurs between the forward end portion of the bellows respectively and the floor than between the rear end portions of the bellows respectively and the floor, the rear ends of said bellows respectively being forward of the forward throw of said crank arms, means for connecting said crank arms with said movable bellows walls respectively to move the same bellows-fashion when the device travels upon the floor, walls forming a suction chamber at the forward end of the device and forward of said bellows, the lowermost wall of said suction chamber being materially spaced from the floor, the arrangement being such that there is space beneath the forward end portions of said bellows and beneath said suction chamber for the accommodation of an auxiliary carpet cleaner, a suction nozzle at the forward end of the device, and means forming a valve controlled communication from said suction nozzle through said dust chamber and into said bellows respectively.

2. In a cleaner of the character described, the combination of a substantially horisontal main support, a pair of wheels at the rear end portion of said support, and adapted to travel upon the floor, said main support being close to the peripheries of said wheels, a plurality of bellows having one wall of each thereof secured so as to lie close to the underside of said main support, each of said bellows having a movable wall hinged at the forward end of the relatively fixed wall of the bellows respectively, the rear ends of said bellows respectively being forward of the forward throw of said crank arms, a plurality of cranks, one for each bellows, under the control of said wheels, means connecting said cranks to the movable walls of said bellows respectively whereby said movable walls are moved to create suction by said bellows as the device travels upon the floor, and a suction nozzle in valve controlled communication with said bellows respectively.

3. A low cleaner of the character described comprising in combination a substantially flat main support constituting the top wall of the device, walls forming a suction chamber immediately beneath said top wall and at the forward end thereof, suction creating means immediately beneath said top wall and in valve controlled communication with said suction chamber, a pair of wheels also immediately beneath and relatively close to said top wall, a crank arm in driven relation to one of said wheels, said suction creating means being forward of said crank arm whereby said top wall may be relatively close to the circular path of movement of said crank arm, a connection between said crank arm and said suction creating means whereby suction is created in said suction chamber when the device travels upon the floor, and a suction nozzle in communication with said suction chamber.

4. In a low cleaner of the character described, the combination of a casing including a main support constituting the top of the device and two side walls and an end wall secured to said top wall, said casing being substantially rectangular in outline, walls forming a suction chamber immediately beneath said main support, suction creating means also immediately beneath said main support and in valve controlled communication with said suction chamber, a pair of wheels adapted to travel upon the floor at the rear end of the device and also immediately beneath said main support, a crank arm in driven relation to one of said wheels, said suction creating means being forward of said crank arm whereby said top wall may be relatively close to the path of movement of said crank arm, a connection between said crank arm and said suction creating means whereby suction is created in said chamber when the device travels upon the floor, said wheels, suction creating means and chamber being between the side walls of said casing, and means providing a suction conduit from the interior of said suction chamber to the floor.

1,204,449. EYEGLASS-MOUNTING. PERCIVAL W. JONES, Lakewood, R. I., assignor to B. Kirstein Sons Co., Rochester, N. Y., a Corporation of New York. Filed June 14, 1916. Serial No. 103,640. (Cl. 88—50.)



1. In an eyeglass mounting, the combination with a support and a finger-piece guard lever pivoted to turn thereon and detachable therefrom in an axial direction, of an interlocking connection between the lever and support for preventing such detaching movement, the interlock being effective during the greater part of the travel of the lever during its turning movement and ineffective at a point in its travel, and an actuating spring for the lever.

2. In an eyeglass mounting, the combination with a support, of a finger-piece guard lever pivoted to turn thereon and detachable therefrom in an axial direction when the lever is turned to open position, and means preventing such detachment of the lever while in other positions.

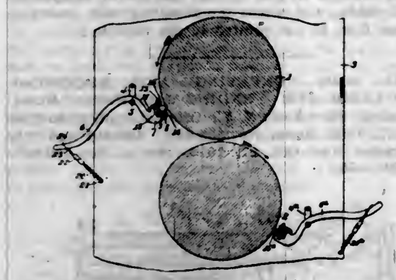
3. In an eyeglass mounting, the combination with a support and a finger-piece guard lever mounted to turn thereon, and detachable therefrom in an axial direction, one of said parts being provided with a bearing aperture and the other with a coöperating pivot member disengaged from the aperture when the lever is detached, of a finger on the lever normally interlocking with the support to prevent detaching movement of the lever but movable to an inoperative position permitting such detachment.

4. In an eyeglass mounting, the combination with a support embodying a table and a finger-piece guard lever having a pivotal bearing on the table from which it is detachable in an axial direction, of a laterally projecting ledge on the table and an interlocking part on the lever normally coöperating with the ledge to prevent detaching movement of the lever but movable with the latter to a position beyond the end of the ledge in which it permits such detachment.

5. In an eyeglass mounting, the combination with a support and a finger-piece guard lever having a pivotal bearing thereon from which it is detachable in an axial direction, of an interlocking connection between the lever and support for preventing detaching movement of the former throughout part of its arc of travel and a spring for actuating the lever also acting to interlock it with the support during the remainder of its arc of travel.

[Claims 6 to 9 not printed in the Gazette.]

1,204,450. ROLL-POLISHING APPARATUS. DAVID G. JOSEPH, Martins Ferry, Ohio, DAVID DUMMER, Wheeling, W. Va., and EVAN J. HOLLEY, Martins Ferry, Ohio. Filed July 1, 1916. Serial No. 107,184. (Cl. 51—4.)



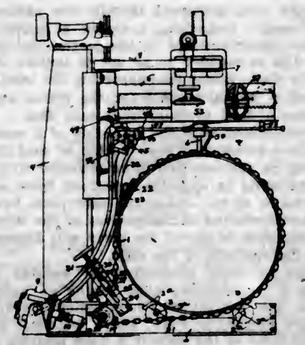
1. A roll-polishing device comprising oscillatory hangers carried by the roll housings, a pair of levers fulcrumed on said hangers, said levers being unconnected and having head portions, a bar having its end removably mounted upon and interlocked with said head portions, a plurality of alined roll-polishing blocks carried by said bar, and resilient means connected to the outer end of each of said levers whereby the latter are caused to yieldingly present said blocks to the surface of a roll.

2. A roll-polishing device comprising a hanger pivotally mounted upon each of the roll housings and adapted for oscillatory movement toward and away from a roll, a lever pivotally mounted upon each of said hangers, a bar having its ends removably mounted upon and interlocked with the head portions, a plurality of alined roll-polishing blocks carried by said bar, resilient means connected to the outer ends of said levers whereby the latter are caused to yieldingly thrust said bar forward for presenting said blocks to the surface of the roll, and means carried by said bar whereby said blocks are rendered separately yieldable.

3. A roll-polishing device comprising a pair of levers located adjacent to the opposite roll housings, oscillatory hangers carried by said housings and constituting fulcrums upon which said levers are pivotally supported, said hangers permitting said levers to swing forward and back with respect to a roll, said levers having head portions at the inner ends thereof embodying a lip and a recess, a bar having its ends adapted for removably interlocking with said head portions, each of said ends having portions for interengaging the lips and recesses of said head portions, a plurality of alined roll-polishing blocks carried by said bar, and resilient means connected to the outer ends of said levers whereby the latter are caused to yieldingly present said blocks to the surface of said roll.

4. In a roll-polishing apparatus, a lever pivotally supported by each roll housing, said lever having a head portion embodying an upwardly and rearwardly directed lip and provided with a recess below and in front of said lip, a bar having ends adapted for removably interlocking with said head portions, each of said ends having a lug for seating in the recess of such head portion and having a hook-like flange for engaging the lip of such head portion, roll-polishing blocks carried by said bar, and means associated with said levers whereby the latter are actuated to yieldingly press said blocks to the surface of the rolls.

1,204,451. TURNING DEVICE FOR BOILER-SHELLS AND THE LIKE. JAMES C. KAVENEY, Erie, Pa., assignor to Erie City Iron Works, Erie, Pa., a Corporation of Pennsylvania. Filed July 6, 1915. Serial No. 38,374. (Cl. 77—63.)



1. In a turning device for boiler shells and the like, the combination of a base having points adapted to contact the periphery of a shell at each side of the axis thereof; a flexible driver adapted to be secured to the shell; and a motor for actuating the driver.

2. In a turning device for boiler shells and the like, the combination of a base having rollers adapted to contact the periphery of a shell at each side of the axis thereof; a flexible driver adapted to be secured to the shell; and a motor for actuating the driver.

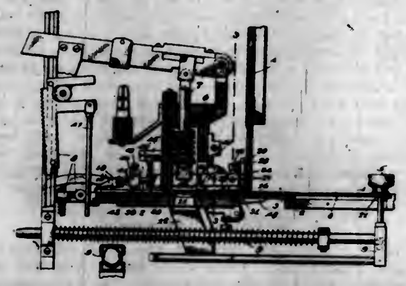
3. In a turning device for boiler shells and the like, the combination of a base having points adapted to contact the periphery of a shell at each side of the axis thereof; a flexible driver adapted to be wrapped around the shell; and a motor for actuating the driver.

4. In a turning device for boiler shells and the like, the combination of a base having points adapted to contact the periphery of a shell at each side of the axis thereof; a chain adapted to be wrapped around the shell, said chain having means for varying the length thereof; a sprocket over which the chain runs; and a motor for actuating the sprocket.

5. In a turning device for boiler shells and the like, the combination of a base having points adapted to contact the periphery of a shell at each side of the axis thereof; a chain adapted to be wrapped around the shell, said chain having means for varying the length thereof; a sprocket over which the chain runs; a motor for actuating the sprocket; and a worm and gear between the sprocket and motor adapted to communicate the movement of the motor to the sprocket and to lock the sprocket in adjusted position.

[Claims 6 to 13 not printed in the Gazette.]

1,204,452. FRAUD-PREVENTIVE DEVICE FOR VENDING-MACHINES. ELIAS H. KELLEY, New York, N. Y. Original application filed Dec. 17, 1909, Serial No. 533,638. Divided and this application filed Oct. 27, 1910. Serial No. 589,301. (Cl. 194—102.)



1. A coin-controlled apparatus for vending machines having, in combination, a reciprocatory slide; means cooperating with the slide, disposed in the path of movement of the coin contained therein, for engaging said coin, said means comprising a frame, a carrier and an anti-friction disk journaled in the carrier, the periphery of which disk is rounded so as not to impede the movement of the slide; means for supporting the carrier in the frame; and a journal-support for the frame and means for imposing a light pressure upon said disk.

2. In combination with the coin-slide of a vending machine, a plate arranged across the top of said slide, said slide having an aperture and being provided with parallel grooves extending in opposite directions from said aperture lengthwise of the slide; and said plate having ribs entering and operating in the grooves of the slide, whereby when the slide is moved the plate will depress a coin placed in the aperture of the slide.

3. A coin-controlled mechanism for vending machines comprising a reciprocatory slide having an aperture for receiving a coin and provided longitudinally thereof with one or more grooves or slots; and a test-plate supported on opposite sides of the slide in a fixed position and having one or more ribs coöperating with the slots or grooves of the slide, and arranged normally to enter said slots or grooves.

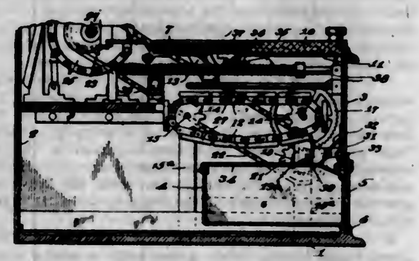
4. A coin-controlled mechanism for vending machines comprising a reciprocatory slide having an aperture for receiving a coin; a rectangular frame mounted above the slide and having testing means for coöperating with the slide, or a coin carried thereby; a test-plate arranged between the testing means and the slide, and having an aperture through which the testing means operates; the slide and test-plate being provided with one or more interacting ribs and slots extending longitudinally of the slide.

1,204,453. CHECK-EXHIBITING DEVICE FOR VENDING-MACHINES. ELIAS H. KELLEY, New York, N. Y. Original application filed Dec. 17, 1909, Serial No. 533,638. Divided and this application filed Oct. 27, 1910. Serial No. 589,302. (Cl. 194—98.)

1. A vending machine having, in combination, a horizontal cover-plate; means by which a coin may be passed through said plate; a conveyer located and traveling directly beneath said plate in position to receive said coin; means for actuating said conveyer; a transparency in said plate above said conveyer; and means for illuminating the conveyer so that observation can be made thereof through the transparency.

2. A vending machine having, in combination, a coin conveyer, a reciprocable coin-slide and connections for controlling the operation of said conveyer, a chute communicating with said slide and conveyer, and lighting means arranged adjacent the conveyer so as to illuminate the latter.

3. In combination, a coin-conveyer, an electric circuit, a coin-slide, a chute between the conveyer and slide, and means by which to cause the current in the circuit to drive the conveyer upon actuating the slide.

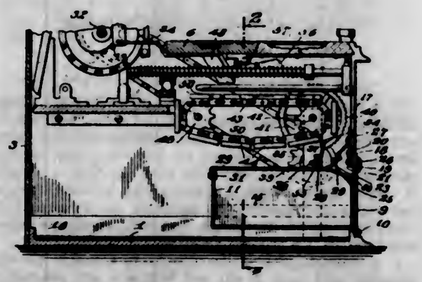


4. In combination, a coin-conveyer; an electric circuit; means for actuating the conveyer including means for opening and closing said circuit, and thereby intermittently actuating said conveyer; and an electric lamp for illuminating said conveyer, connected in said circuit so as to be kept constantly burning regardless of the opening and closing of the circuit.

5. A vending machine having a plurality of coin-receiving slides; a plurality of chutes coöperating with said slides and directed so as to deliver the coins at substantially a common point; a conveyer comprising a plurality of sets of coin-receptacles arranged to travel in cooperative relation to said chutes, one set of receptacles for each chute; and means for actuating said conveyer.

[Claims 6 to 15 not printed in the Gazette.]

1,204,454. COIN CONVEYING AND RECEIVING MECHANISM FOR VENDING-MACHINES. ELIAS H. KELLEY, New York, N. Y. Original application filed Dec. 17, 1909, Serial No. 533,638. Divided and this application filed Oct. 27, 1910. Serial No. 589,303. (Cl. 232—56.)

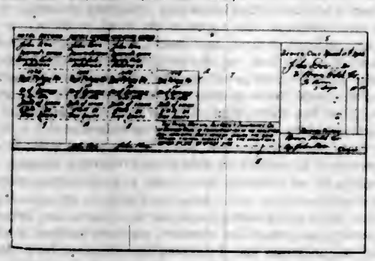


1. In combination, a plurality of conveyers for vending machines; a coin-receiving box having a plurality of compartments and an opening into each compartment; the said conveyers being arranged, respectively, in cooperative relation to the compartments of the box; and means for operating the conveyers whereby the coins carried by the conveyers will be dropped into the respective compartment of the box.

2. In combination in a vending machine, a coin-box provided with a lid; means for normally holding said lid open when the box is in the machine; said lid and means also aiding in directing the coins into the box; a conveyer for depositing the coin in the box; and means between the box and the conveyer coöperating with the lid and first-named means for directing the coins in the box.

3. In combination in a vending machine, a plurality of coin-chutes; a plurality of conveyers coöperating with said chutes, one of which is double and coöperates with two of said chutes; and a coin-box located under the conveyers and having an opening therein for receiving the coins from the conveyers.

1,204,455. COMBINED INSURANCE-CONTRACT AND HOTEL-GUEST RECEIPT. HARRY C. KEPHART and JAMES P. MILLER, Denver, Colo. Filed Apr. 6, 1916. Serial No. 89,332. (Cl. 11—19.)



1. An instrument of the class described, including a form for an insurance policy on one side, the reverse side including a form for a receipt, a statement referring to the receipt as a consideration for the policy, and a coupon form in triplicate, each part containing indicia to indicate its ultimate use or destination after removal, and blanks to receive other data.

2. An instrument of the class described, including a form for an insurance policy, a form for a receipt, a statement referring to the receipt as a consideration for the policy, a form adapted to contain a brief record of the policy giving its number, its date, the hour of issue and its term, and a coupon form in triplicate, each part containing indicia to indicate its ultimate use or destination after removal, and other characteristic indicia adapted to be employed as a guide for the introduction of data, including the name of the insured, the location where the policy is issued, the number of the policy, the number of the local agency, the date of issue, the hour of issue, and the duration of the policy.

1,204,456. INCANDESCENT LAMP. ARTHUR S. KNIGHT, Newark, N. J., assignor to Westinghouse Lamp Company, a Corporation of Pennsylvania. Filed May 13, 1909. Serial No. 495,789. (Cl. 176—39.)



1. An incandescent lamp comprising a stem, conducting leads extending therethrough into the lamp, a reversely bent filament having its ends secured to the conducting leads, and a resilient member projecting from substantially the same portion of the stem as the conducting leads, the said member supporting the filament at the bight thereof and subjecting its legs to tension.

2. An incandescent lamp comprising a stem, conducting leads extending therethrough into the lamp, a reversely bent filament having its ends secured to the conducting leads, and alternately long and short members mounted upon the stem between the conducting leads and supporting the filament at the bights thereof.

3. An incandescent lamp comprising a stem, conducting leads extending therethrough into the lamp, a reversedly bent filament having its ends secured to the conducting leads, and alternately long and short members mounted upon the stem between the conducting leads and supporting the filament at the bights thereof, the long members being resilient.

4. An incandescent lamp comprising a stem, conducting leads extending therethrough into the lamp, a reversely bent filament having its ends secured to the conducting leads, and alternately long and short members projecting from the stem adjacent the conducting leads and supporting the filament at the bights thereof.

5. An incandescent lamp comprising a stem, conducting leads extending therethrough into the lamp, a reversely bent filament having its ends secured to the conducting leads, and alternately long and short members projecting from the stem adjacent to the conducting leads and supporting the filament at each of its bights.

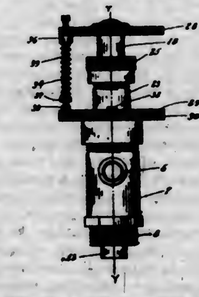
[Claims 6 to 11 not printed in the Gazette.]

1,204,457. ELECTRIC BINDING-POST. ARCHIBALD LEWIS KREEFT, West Orange, N. J. Filed May 4, 1914. Serial No. 836,090. (Cl. 173—259.)



An electric binding post composed of three elements which are held together after assembling as described, comprising a hollow shell, a spiral spring contained therein which rests upon the interior bottom thereof, a plunger resting on the spring and terminating in an exterior end of reduced diameter, said casing being peened around the reduced diameter of the plunger after introduction of the other two elements to confine them therein, said plunger and casing being pierced with registering holes which form an open passage way through both, when the plunger is pressed down which passage is closed when pressure is removed, substantially as and for the purposes shown and described.

1,204,458. VACUUM-CONTROL VALVE FOR MILKING APPARATUS. HERMAN A. KRICKE, Crows Landing, Cal. Filed May 7, 1914, Serial No. 836,963. Renewed Apr. 10, 1916. Serial No. 90,281. (Cl. 31—73.)



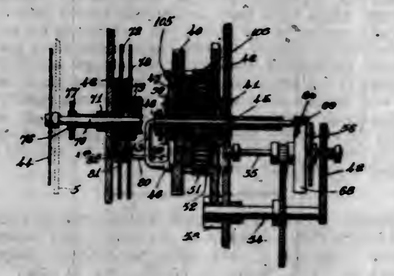
1. The combination with a milking apparatus having a milk-receiving receptacle and suction pipes leading to and from such receptacle, of a control valve interposed between said receptacle and the suction pipe leading

thereinto, said control valve comprising a casing having an inlet and an outlet, such inlet being provided with a valve seat, a spring pressed valve normally mounted on said seat and a projecting portion on said valve extending into said inlet whereby said valve must make an extended movement before said inlet is open as and for the purpose described.

2. A device of the character described comprising the combination with a milking apparatus having a milk receiving receptacle and suction pipes leading to and from such receptacle, of a control valve interposed between said receptacle and the suction pipe leading thereinto, said control valve comprising a casing having an inlet and an outlet, a spring pressed valve forming a normal closure for said inlet, an adjustment pin for controlling the tension of said spring pressed valve, and means for gaging the movement of said adjustment pin, such means comprising a dial adjustably mounted on said casing, a stop member on said dial at a predetermined point, said dial being provided with indicating points, and an indicating member on said adjustment pin movable over said dial, as described.

3. The combination with a milking apparatus having a milk receiving receptacle and suction pipes leading to and from such receptacle, of a control valve interposed between said receptacle and the suction pipe leading thereinto, said control valve comprising a casing having an inlet and an outlet, a spring pressed valve forming a normal closure for said inlet, an adjustment pin for controlling the tension on said spring pressed valve, and means for gaging the movement of said adjustment pin, such means comprising a plate on said casing, a dial provided with annular slots, set screws adapted to project through said slots and into said plate, a lug on said dial, said dial being provided with indicating points, and an indicating member on said adjustment pin movable over said dial, as described.

1,204,459. SPEED-INDICATOR. GEORGE H. LANG, Boston, Mass. Filed Feb. 10, 1913. Serial No. 747,314. (Cl. 235—104.)



1. In a speed indicator, the combination with a rotatable driving member, of means to rotate said member continuously in a forward direction, a positioning member, means to clutch the positioning member periodically to the driving member, an indicating member, and an intermediate member between the indicating member and positioning member and by which motion is transferred from the positioning member to the indicating member.

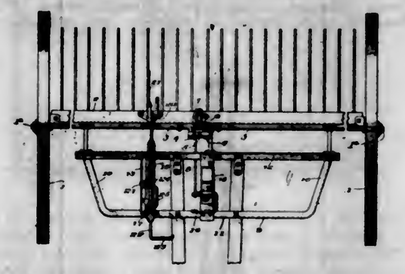
2. In a speed indicator, the combination with a rotatable driving member, of means to rotate said member continuously in a forward direction, a positioning member, means to clutch the positioning member periodically to the driving member, an indicating member, a spring tending normally to return the indicating member to zero position, a lock to prevent backward rotation of the indicating member, an intermediate member between the positioning member and the indicating member, means to cause the intermediate member to be positioned periodically by the positioning member and subsequently to release the lock to permit the indicating member to be positioned by the intermediate member.

3. In a speed indicator, the combination with a rotatable driving member, of means to rotate the latter continuously in a forward direction, a positioning member, means to clutch the positioning member periodically to the driving member, means to return the positioning member to zero position when unclutched, an indicating member, a spring tending to return said indicating member to zero position, a lock to restrain such return movement, an intermediate member between the positioning member and indicating member, a spring tending to return the intermediate member to zero position, a lock to restrain such return movement, and means to release momentarily the lock of the intermediate member to permit the latter to be positioned by the positioning member, and after said lock becomea operative again to release the lock of the indicating member so that the latter will be positioned by the intermediate member.

4. In a speed indicator, the combination with a driving member, of means to rotate said driving member continuously in a forward direction, a positioning member, means operative in any relative position of the driving member and positioning member to clutch the latter to the former, an indicating member, an intermediate member, means to position the intermediate member periodically by the positioning member, and immediately thereafter to position the indicating member by the positioned intermediate member.

5. In a speed indicator, the combination with a driving member, of means to rotate said member forward continuously, a positioning member, means operative in any relative position of the driving member and positioning member to clutch the latter to the former, an indicating member, an intermediate member, springs tending normally to return the positioning member, intermediate member and indicating member to their zero positions, locks restraining the return movement of the indicating member and intermediate member, means operated periodically to cause the intermediate member to be positioned by the positioning member and then to disengage the positioning member from the driving member and to release the lock for the indicating member to permit it to be positioned by the positioned intermediate member.

1,204,460. HAY-RAKE. JOHN W. LATIMER, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Apr. 1, 1914. Serial No. 828,778. (Cl. 56—65.)



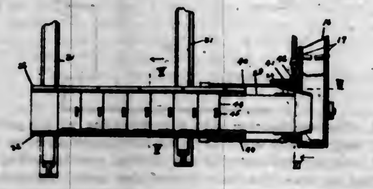
1. In a hay rake, a draft frame, a rocking tooth-carrying head pivoted thereto, a locking member associated with said frame operatively connected to and for locking said head, and means also associated with said frame for releasing said head, said means forming a pivot for said locking member.

2. In a hay rake, a draft frame, a rocking tooth-carrying head pivoted thereto, and associated commonly pivoted locking and lock-breaking members operatively connected to said head and frame.

3. In a hay rake, a draft frame, a rocking tooth carrying head pivotally connected with said draft frame, means for rocking said head in a direction to dump a load, means for securing said head in a raking position comprising toggle mechanism, said mechanism including a toggle bar having its front end pivotally connected with said draft frame, a toggle member having its rear end pivotally connected with said head and its front end pivotally connected with the rear end of said toggle bar, a foot lever pivotally mounted upon said draft frame and having a rearwardly extending arm engaging with the lower side of said toggle member in a manner to move said mechanism to a self-locking position when pressure is applied to said foot lever, a lock breaking member having one end pivotally connected with said draft frame, said member engaging with the upper side of said arm, and a spring carried by said draft frame and operative to move said lock breaking member and said arm in a direction to unlock said toggle mechanism when said foot lever is released from pressure.

4. In a hay rake, a draft frame, a rocking tooth carrying head pivotally connected with said draft frame, means for rocking said head in a direction to dump a load, means for securing said head in a raking position comprising toggle mechanism, said mechanism including a toggle bar having its front end pivotally connected with said draft frame, a toggle member having its rear end pivotally connected with said head and its front end pivotally connected with the rear end of said toggle bar, a foot lever pivotally mounted upon said draft frame and having a rearwardly extending arm engaging with the lower side of said toggle bar when the toggle mechanism is in a self-locking position, a lock breaking member having one end pivotally connected with said draft frame coaxially with said foot lever, having its body extending rearward and turned laterally above and engaging with said arm and then downward and having an ear upon its opposite end, and a compression spring carried by said draft frame and engaging with the ear in a manner to move said lock breaking member and said arm in a direction to unlock said toggle mechanism when said foot lever is released from pressure.

1,204,461. UNLOADING DEVICE. SHERIDAN E. LAW, Toledo, Ohio. Filed Sept. 4, 1914. Serial No. 860,131. (Cl. 193—4.)



1. A conveyer frame having a pair of parallel side members provided with downwardly projecting seats rigid therewith and disposed in opposing relation for resisting shifting of the frame by the conveyer in the line of the parallel side members, and removable load carrying strips extending between the side members for receiving material to be handled by the conveyer, said loading of the strips holding the frame and its seats in anchored position against shifting in conveyer operation.

2. A portable conveyer embodying a frame, supporting wheels for the frame, opposing downwardly projecting seats independent of the wheels and rigid with the frame, and independently removable strips on the frame for receiving material to be handled by the conveyer, said loading of the strips holding the frame and its seats in anchoring position against shifting in conveyer operation.

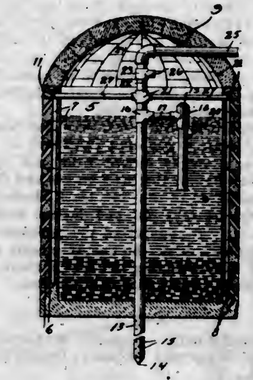
3. A portable conveyer embodying a horizontally disposed parallel side member frame, a conveyer in the frame, carrying rollers for the frame, rigidly mounted axles in the frame for said rollers, said axles being fixedly parallel, said frame being provided with opposing seats rigid with the frame and independent of the rollers for resisting shifting of the frame by the conveyer.

4. A portable conveyer embodying a horizontally disposed frame, supporting wheels for the frame, and rail engaging seats rigid with the frame for locking the frame against travel and shifting when the conveyer is in operation in position transversely of a pair of rails and the frame seated to coact with the rails.

5. A material handling device including an upwardly inclined conveyer, a first frame for the conveyer, a second horizontally disposed frame, a second conveyer, said second conveyer carried by the second frame and embodying elements rigidly mounted on each of said frames, and adjustable connecting means movable out of the horizontal plane of the second frame for connecting the frames, said connecting means being in addition to the mounting of the second conveyer to the first frame.

[Claim 6 not printed in the Gazette.]

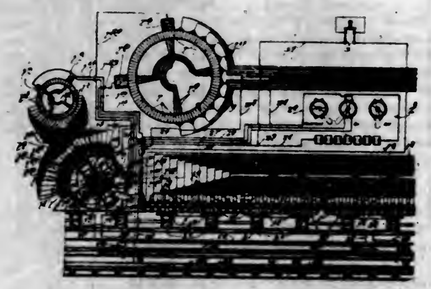
1,204,462. CESSPOOL. EDWIN O. LAWRENCE, Port Jefferson, N. Y., assignor to International Sanitary Cesspool Company, Port Jefferson, N. Y., a Corporation of New York. Filed Mar. 30, 1915, Serial No. 18,104. Renewed Apr. 27, 1916. Serial No. 94,046. (Cl. 210—18.)



1. In combination with a waste pipe and a vent pipe, a cess-pool comprising a closed receptacle provided with vertical passages in its wall communicating with the outside of the receptacle at intervals, said passages communicating at their upper ends with an annual passage, a pipe disposed within said receptacle and extending through the bottom thereof and into a layer of sand, said pipe being provided with outlet perforations, a pipe connected with said pipe and extending downward adjacent the center of the receptacle, and a pair of overflow pipes connected with said first named pipe and extending into said annular passage, said first named pipe being further conected at its upper end with said vent pipe.

2. A cess-pool comprising a receptacle having its peripheral wall provided with a plurality of vertically extending passages having inclined passages communicating therewith and extending to the outside of said receptacle, an inlet pipe connected with said receptacle and discharging thereinto, said inlet pipe being connected with a waste pipe, a pipe within said receptacle, passing through the bottom thereof and extending into a layer of sand, an outlet pipe connected with said second named pipe and terminating at substantially the middle of the receptacle, a pair of overflow pipes connected with said second named pipe above the point of connection of said third named pipe and extending into an annular passage in the wall of said receptacle communicating with said vertical passages, said second named pipe being provided with an air inlet above said last named pipe, and a pipe connected with said second named pipe and communicating with the atmosphere.

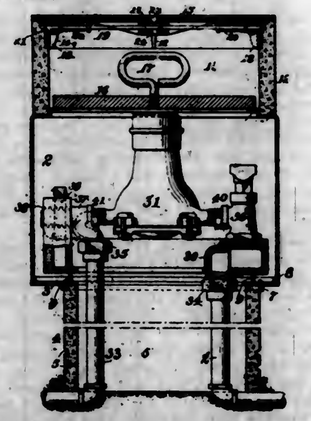
1,204,463. ELECTRIC-RAILWAY SYSTEM. PAUL W. LEFFLER, Chicago, Ill.; Anna A. Leffler administratrix of said Paul W. Leffler, deceased. Original application filed Aug. 13, 1908, Serial No. 448,269. Divided and this application filed Oct. 23, 1912. Serial No. 727,276. (Cl. 172—290.)



1. The combination with a car, of a car track divided into insulated blocks, a sectional third rail or conductor, a supply circuit extending along the line of the car's travel and divided into sections corresponding to said car track blocks, and a current consuming device on the car, and which car and sectional rail operate to connect said current consuming devices into the supply circuit section in the track block occupied by the car.

2. The combination with a car, of a car track divided into insulated blocks, a sectional third rail or conductor, a local dynamo, a supply circuit from said dynamo extending along the line of the car's travel and divided into sections corresponding to said car track blocks, a current consuming device on said car, and devices subject to the control of the car, for connecting the sectional third rail for each track block, with the supply circuit section for said block, and for connecting the said current consuming device of the car in circuit with said dynamo.

1,204,464. METER-BOX. HERBERT M. LOFTON, Chattanooga, Tenn. Filed May 25, 1914. Serial No. 840,689. (Cl. 137—13.)



1. In a meter box structure, a tubular concrete case having a metallic cap bushing rigidly attached thereto at its upper end and extending over the top and down upon the interior and providing an annular beveled upper recess, in combination with a removable cover plate having a beveled perimeter fitting the annular bevel of the cap bushing having deep flanges extending downward within the bushing and fitting the side walls thereof.

2. In a meter box, a tubular case made of three separable sections superimposed one upon the other and the middle section having a bottom flange portion, combined with a cover plate for the top of the upper section, a device through which the water flows wholly supported upon the flange portion of the middle section, and downwardly extending pipes extending from below the bottom section up to and detachably connected with the device through which the water flows.

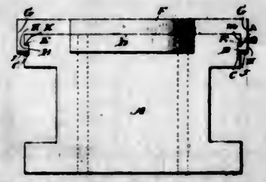
3. In a meter box, a tubular case made of three separable sections superimposed one upon the other and the middle section having a top inwardly directed annular flange and also a bottom flange portion, combined with a cover plate for the top of the upper section, a cover of heat non-conducting material loosely resting upon the annular top flange of the middle section, a device through which the water flows wholly supported upon the flange portion of the middle section, and downwardly extending pipes extending from below the bottom section up to and detachably connected with the device through which the water flows.

4. A meter box, consisting of a vertical tubular casing structure having its top and bottom portions formed of refractory material reinforced at the top by a metallic rim part and having at the lower part a plurality of circumferential weakening grooves, combined with a removable cover plate resting upon the reinforced upper rim part.

5. A meter box, consisting of a vertical tubular box structure formed of a plurality of interlocking sections arranged one upon the other and having the lowermost section formed of refractory material and provided with a plurality of circumferential weakening grooves, combined with a removable cover plate resting upon the upper part.

[Claims 6 to 16 not printed in the Gazette.]

1,204,465. LINING FOR JOURNAL-BOXES. WILLIAM K. LYNN and WALTER T. WEAVER, Gulfport, Miss. Filed Apr. 28, 1916. Serial No. 94,222. (Cl. 64—35.)



1. The combination with a journal box, of a liner therefor, said journal box and lining having coöperating means for securing the liner to the journal box including parts acting to draw the liner toward and into impinging relation to the adjacent face of the end of the journal box.

2. The combination with a journal box, of a liner therefor, said journal box and lining having coöperating means for securing the liner to the journal box including parts acting to draw the liner toward and into impinging relation to the adjacent face of the end of the journal box, the contacting surfaces of the liner and journal box being of an area substantially co-extensive with the size of the liner.

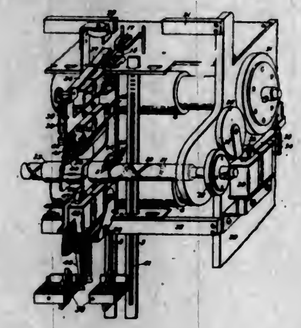
3. The combination with a journal box, of a liner having its inner face formed to contact with the adjacent end of the journal box, said journal box and lining having coöperating means for securing the liner against the face of said end including wedging parts at the sides of the journal box receding outwardly toward the bottom of the box to incline away from said face, and coöperating edges on the liner.

4. The combination with a journal box, of a liner therefor, said journal box and lining having coöperating means for securing the liner to the journal box including parts acting to draw the liner into impinging relation to the adjacent end of the journal box, the contacting surfaces of the liner and journal box being of an area substantially co-extensive with the size of the liner, those portions of the sides of the journal box and edges of the liner opposite the wedging surfaces being removed with reference to each other to prevent engagement therebetween, substantially as described.

5. The combination with a journal box, of a liner for one end of the same, said journal box and liner having coöperating wedge parts for securing the liner to the journal box, said wedge parts being located at the sides of the journal box and adjacent side edges of the liner and acting to draw the liner toward the face of the end of the box.

[Claim 6 not printed in the Gazette.]

1,204,466. SWITCH-ACTUATING MECHANISM. JAMES L. MCQUARRIE, Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Mar. 10, 1915. Serial No. 13,453. (Cl. 179—27.5.)



1. In a telephone exchange, a group of switches, a power device for moving any one of said switches, and clutch means common to said switches for operatively engaging a selector switch with said power device.

2. In a telephone exchange, a group of longitudinally movable switch shafts, a rotatable power device adjacent said shafts for moving any one of them, and a clutch magnet common to said shafts for operatively engaging a selected shaft with said power device.

3. In a telephone exchange, a group of longitudinally movable switch shafts, a rotatable power device adjacent said shafts for moving any one of them, a clutch magnet common to said shafts for operatively engaging a selected shaft with said power device, and means for associating said clutch magnet with said selected switch.

4. In a telephone exchange, a group of switches, an operating magnet common to said switches, and means for moving said magnet into position to operate any one of said switches when taken for use.

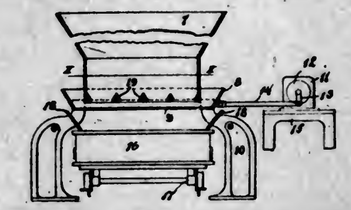
5. In a telephone exchange, a group of longitudinally movable brush shafts, a rotatable power device common to said shafts for moving them, a clutch magnet for associating said shafts with said power device, and means for placing said magnet in association with any one of said switches.

[Claims 6 to 24 not printed in the Gazette.]

1,204,467. SAND-HANDLING APPARATUS. HARRY P. MACDONALD, Montclair, N. J., assignor to The Snead & Co. Iron Works, Jersey City, N. J., a Corporation of New Jersey. Filed June 1, 1914. Serial No. 842,052. (Cl. 83—56.)

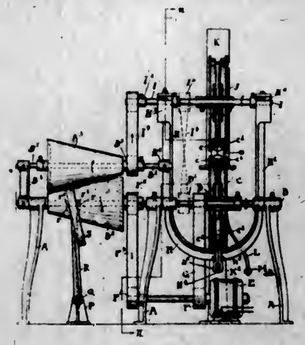
1. An apparatus of the character described comprising in combination a sand containing receptacle having a discharge opening, a horizontally reciprocatory riddling member adapted to act as a gate controlling the discharge of sand from said opening, a plurality of spaced bars located above the riddle for preventing the entire mass of sand from coming into direct contact with the riddling member and means for reciprocating the riddle.

2. An apparatus of the character described comprising in combination a sand containing receptacle having a discharge opening, a riddling member adapted to act as a gate controlling the discharge of sand from said opening, and a plurality of spaced triangular bars located above the riddle for preventing the entire mass of sand from coming into direct contact with the riddling member.



3. An apparatus of the class described, comprising in combination, a sand containing receptacle having a discharge opening, a trough-like member surrounding the said discharge opening and having in its bottom a screen through which the sand is riddled, and a plurality of spaced bars located above the screen for preventing the entire weight of the sand thereabove from bearing on the screen.

1,204,468. AUTOMATIC BASE-BALL-PITCHING MACHINE. BARTLEY N. MARTY, Lakewood, Ohio. Filed Apr. 29, 1916. Serial No. 94,489. (Cl. 89—10.)



1. In a baseball pitching machine, the combination of a pair of wheels, a suitable frame in which said wheels are rotatably mounted in alinement with each other, said wheels being separated such distance that a baseball placed between them will come in contact with the adjacent peripheries of the wheels, and means for revolving said wheels simultaneously in opposite directions, whereby a ball placed between said wheels will be thrown in the direction in which the adjacent peripheries of the wheels are rotated.

2. In a baseball pitching machine, the combination of a pair of wheels, a suitable frame in which said wheels are rotatably mounted in alinement with each other, said wheels being separated such distance that a baseball placed between them will come in contact with the adjacent peripheries of the wheels, and means for revolving said wheels simultaneously in opposite directions, but at different speeds, whereby a ball placed between said wheels will be thrown in the direction in which the adjacent peripheries of the wheels are rotated and will be given top spin or under-spin according to the relative speeds of the upper and the lower wheels.

3. In a baseball pitching machine, the combination of a pair of grooved wheels, a suitable frame in which said wheels are rotatably mounted in alinement with each

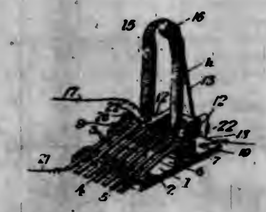
other, said wheels being separated such distance that a baseball placed between them will come in contact with the surface of the groove in each, and means for revolving said wheels simultaneously in opposite directions, whereby a ball placed between said wheels will be thrown in the direction in which the adjacent peripheries of the wheel are rotated.

4. In a baseball pitching machine the combination of a pair of grooved wheels, a suitable frame in which said wheels are rotatably mounted in alinement with each other, said wheels being separated such distance that a baseball placed between them will come in contact with the surface of the groove in each, and means for revolving said wheels simultaneously in opposite directions, but at different speeds, whereby a ball placed between said wheels will be thrown in the direction in which the adjacent peripheries of the wheels are rotated and will be given top spin or under spin according to the relative speeds of the upper and lower wheel.

5. In a baseball pitching machine the combination of a pair of wheels, an adjustable frame in which said wheels are rotatably mounted in alinement with each other, said wheels being separated such distance that a baseball placed between them will come in contact with the adjacent peripheries of the wheels, means for revolving said wheels simultaneously in opposite directions and means for adjusting the position of said frame and the upper wheel, to elevate and lower the trajectory of the ball.

[Claims 6 to 8 not printed in the Gazette.]

1,204,469. ELECTROMAGNETIC RELAY. VICTOR E. MIDDLEKAUFF, Hagerstown, Md., assignor to W. H. Reisner Manufacturing Company, Hagerstown, Md., a Corporation of Maryland. Filed Jan. 23, 1915. Serial No. 3,889. (Cl. 175—330.)



1. An electric relay comprising an electromagnet, a cylindrical armature adapted to be actuated by said magnet, and a plurality of electric contacts so positioned as to be engaged by the armature when the same is actuated whereby a plurality of electric circuits may be completed through the armature and said contacts, and means to effect a turning movement of the armature upon each actuation thereof.

2. An electric relay comprising an electromagnet, a cylindrical armature adapted to be actuated by said magnet, and a plurality of spring contact fingers so positioned as to be engaged by the armature when the same is actuated whereby a plurality of electric circuits may be completed through the armature and said contacts, and means to effect a turning movement of the armature upon each actuation thereof.

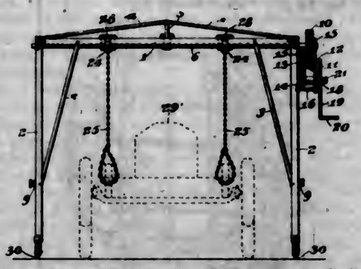
3. An electric relay comprising a base, an electro-magnet supported thereby, a cylindrical armature mounted in the base adjacent the poles of the magnet to be attracted thereby, a surface on which the cylindrical armature rolls to its attracted position when the magnet is energized, and a plurality of spring contact fingers with which the armature engages when attracted by the magnet.

4. An electric relay comprising a base, an electro-magnet supported thereby, a cylindrical armature mounted in the base adjacent the poles of the magnet to be attracted thereby, a surface on which the cylindrical armature rolls to its attracted position when the magnet is energized, and a plurality of electric contacts with which the armature engages when the same is attracted by the magnet.

5. An electric relay comprising a base, an electro-magnet supported thereby, a cylindrical armature mounted in the base and adapted to be attracted by the magnet, said base having a substantially vertical wall adjacent the armature up which the armature rolls when attracted by the magnet, and a plurality of electric contacts with which the armature engages when the same is attracted by the magnet.

[Claims 6 to 12 not printed in the Gazette.]

1,204,470. HOIST. DANIEL L. MILLER, Monroeton, Pa. Filed Nov. 11, 1915. Serial No. 60,818. (Cl. 254—144.)

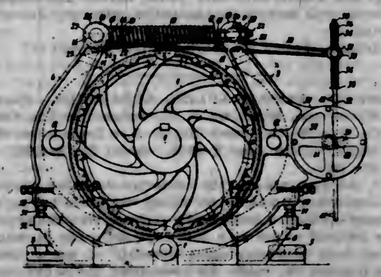


1. A hoist comprising a pair of frames respectively consisting of upright members connected at their upper ends by substantially horizontal members, a yoke slidably supported by said last-named members, and a shaft pivotally connecting said frames and supported intermediate its ends by said yoke.

2. A hoist comprising a pair of frames respectively consisting of upright members connected at their upper ends by substantially horizontal members, a yoke slidably supported by said last-named members, a pulley revolubly carried by said yoke and provided with an aperture, and a shaft pivotally connecting said frames and partially supported by said pulley and yoke.

3. A hoist comprising a pair of frames respectively consisting of upright members connected at their upper ends by substantially horizontal members, a yoke slidably supported by said last-named members, a pulley revolubly carried by said yoke and provided with a polygonal aperture, a shaft pivotally connecting said frames and provided with a polygonal section coöperating with the walls of said aperture, and means carried by said frames for revolving said shaft.

1,204,471. WHEEL-BRAKE. CHESTER B. MILLS, East McKeesport, and JOHN P. NIKONOW, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 7, 1913. Serial No. 752,635. (Cl. 74—70.)



1. In combination, a wheel, brake shoes adapted for frictional engagement with said wheel, a motor mechanically connected to one of said brake shoes, and means for operatively connecting said motor to said brake shoes, said means comprising a rack and pinion and a plurality of levers.

2. In a wheel brake, a plurality of brake shoes, a wheel adapted for frictional engagement by said brake shoes, pivotally mounted levers for supporting said brake shoes, an eletcric motor, a pinion on the shaft of said motor, a slip clutch for connecting the pinion to the motor shaft, and a rack operatively connecting said pinion to said levers.

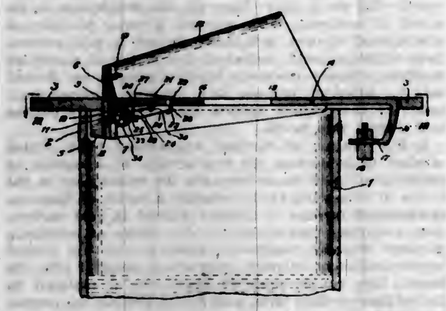
3. In combination, a brake wheel, a lever adjacent said wheel having means for engaging said wheel, and a motor on said lever having a rotatable element yieldingly operatively connected thereto.

4. In combination, a brake wheel, a lever adjacent said wheel having means for engaging said wheel, a motor carried by said lever and having a frame integral with said lever, and means comprising a rack and pinion mechanism for operatively connecting said motor to said lever.

5. In combination, a brake wheel, levers on opposite sides of said wheel, brake shoes on said levers, and a motor mounted on one of said levers and having a rotatable element yieldingly operatively connected to both of said levers.

[Claims 6 and 7 not printed in the Gazette.]

1,204,472. RODENT-TRAP. SAMUEL MILLS, Cleveland, Ohio. Filed Jan. 22, 1916. Serial No. 73,516. (Cl. 43—24.)

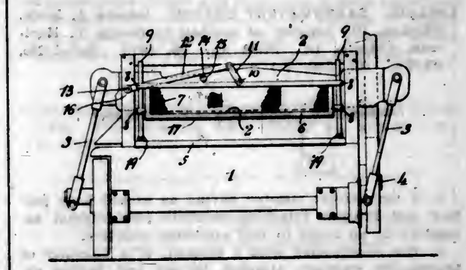


1. A rodent trap comprising an open receptacle, a swinging frame mounted over the opening thereof, a rack, a ratchet wheel carried by said frame and adapted to roll on said rack, a trip, means yieldingly connected therewith and normally engaging said wheel on the side opposite said rack whereby to lock the frame against movement, said trip being adapted and arranged to be operated by the weight of a rodent, to suddenly release the engagement with one side of said wheel.

2. A device of the character described comprising a support, a member adapted to swing thereon, a yielding detent, a ratchet wheel carried by said member and adapted to come into engagement with said detent, a trip carried by said member, means yieldingly connected therewith and normally engaging said wheel on the side opposite said detent whereby to lock said wheel against rotation in coaction with said detent, the arrangement being such that a delicate actuation of said trip releases one side of said wheel to enable it to roll upon said detent in response to a gravitational fall of said member.

1,204,473. SAFETY-GUARD FOR CUTTING-MACHINES. JAMES ARTHUR MOORE, New York, N. Y. Filed Apr. 14, 1916. Serial No. 91,011. (Cl. 164—107.)

The combination with a cutting machine, the vertically movable knife thereof and its operating means, of a guard, vertical guide rods for said guard mounted upon the machine, guiding lugs on the guard adapted to slide upon said guide rods, supporting means for said guard arranged to permit the same to descend in advance of the said knife and comprising a lever pivoted at its one end to the said machine, a link pivotally connected to the other free end of said lever and to the said guard, and a roller



on said knife adapted to engage the said lever to lift the guard, springs on said guide rods for breaking the fall of the guard and a soft rubber edge member secured to the lower edge of the said guard.

1,204,474. RAILROAD-TRACK CONSTRUCTION. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed Mar. 17, 1916. Serial No. 84,926. (Cl. 238—5.)



1. In railroad track construction, the combination of a wrought metal tie having a flat upper face and depending edge flanges, and a chair secured to said tie, the said chair comprising a single flat base member approximately the width of the tie and two side members extending throughout the width of the base member, and integral with the latter, the upper edges of the side members forming supporting shoulders.

2. In railroad track construction, the combination of a wrought metal tie and a chair secured to said tie the said chair comprising a single flat base member to rest on the tie and approximately the width of the latter, and two upwardly projecting side members integral with the base member, the upper edges of the side members forming rail supports.

3. In railroad track construction, the combination of a metal tie consisting of a straight flat section and depending edge flanges, a chair on said tie, the said chair comprising a flat base member having depending ears adapted to overhang the edge flanges of the tie, and upwardly projecting side members integral with the base member and extending throughout the width of the latter the upper edges of the side members forming rail supports, and bolts passing through said ears and edge flanges and locking the chair to the tie.
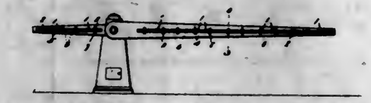
4. In railroad track construction, the combination of a metal tie having an opening in its top surface, and a rail supporting chair secured to said tie, the said chair comprising a flat base member having a depending boss to rest within the opening in the tie, and ears to overhang the sides of the tie, and two upwardly projecting rail carrying members integral with the base member, and means passing through the ears and into the tie for locking the chair to the latter.

5. In railroad track construction, the combination of metal ties, chairs thereon, girders suspended within the chairs, rails resting on the girders, gage bars interposed

between the base flanges of the rail and the side of the chair and means for preventing vertical displacement of the rails.

[Claims 6 to 9 not printed in the Gazette.]

1,204,475. SAFETY-FIRST DEVICE. GEORGE A. MOSS, Chicago, Ill., assignor of one-half to George E. Hartman, Chicago, Ill. Filed Apr. 19, 1916. Serial No. 92,214. (Cl. 240—2.)

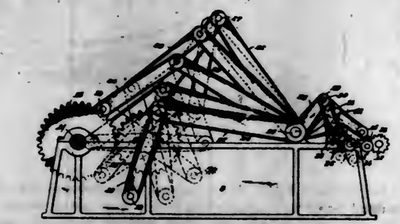


1. A transparent member having an arched body portion and integral attaching members and integral extensions at an angle to said attaching members.

2. The combination with a support, of a plurality of transparent members attached thereto and having extensions engaged in recesses in said support.

3. A support having kerfs, and a transparent member having lateral integral attaching lugs secured to said support, and substantially parallel extensions secured in said kerfs.

1,204,476. MECHANICAL MOVEMENT. CHARLES R. NELSON, Los Angeles, Cal. Filed Sept. 7, 1915. Serial No. 49,138. (Cl. 74—5.)

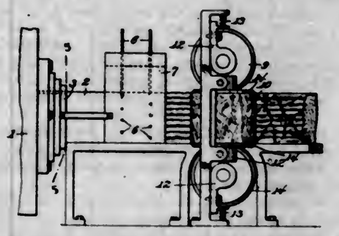


1. In a mechanical movement the combination of a rotary stud shaft, a crank arm mounted thereon, a link pivotally connected to said arm, a bent lever having unequal arms with the long arm thereof pivotally connected to the link, a second link pivotally connected to the short arm of the lever, a crank arm connected to the last named link, and a rotary stud shaft on which said arm is mounted, said cranks being arranged at an angle to each other to avoid coming on a dead center with relation to each other.

2. In a mechanical movement the combination of a bent lever, having a long arm and a short arm, links connected to the outer ends of the lever, the link on the long arm of the lever being of greater length than the other link, a pair of spaced rotary stud shafts, a crank arm on one of said stud shafts connecting with the long link and a second crank arm on the other stud shaft connecting with the short link, said second arm being shorter than the first-named arm, said cranks being arranged at an angle to each other to avoid coming on a dead center with relation to each other.

3. In a mechanical movement, a combination of a driving stud shaft, a driven shaft in horisontal alinement therewith, a long crank arm secured upon the driving shaft, a short crank arm secured upon the driven shaft, a pivot shaft positioned between the two shafts adjacent the driven shaft and at a point above the horisontal axis of said shafts, a bent lever pivotally mounted upon said pivot shaft and formed with a short upwardly extending arm disposed adjacent the driven shaft and a long upwardly extending arm disposed adjacent the driving shaft, and suitable link members connecting the short lever arm with the short crank arm and the long lever arm with the long crank arm thereby insuring simultaneous rotation of the driven shaft and the driving shaft.

1,204,477. PROCESS FOR MANUFACTURING ROUGH-FACED BRICK. JOHN U. NICHOLSON, Steubenville, Ohio. Filed Dec. 1, 1915. Serial No. 64,890. (Cl. 25—1.)



1. The process of forming rough-faced brick, which consists in subjecting the top surface of a column of plastic clay as it issues from the die mouthpiece to the action of furrowing teeth, whereby a series of clean-cut symmetrical furrows is initially formed in said surface, then scarifying said surface to produce relatively shallow grooves between adjacent furrows to break up the symmetry of said surface, then subjecting said surface to the pressure of a roll for depressing elevated fragments to the original surface level, and finally dividing said column into bricks.

2. The process of forming rough-faced brick, which consists in subjecting the top surface of a column of plastic clay as it issues from the die mouthpiece to the action of furrowing teeth, whereby a series of clean-cut symmetrical furrows is initially formed in said surface, then subjecting said surface to the action of scarifying members whereby relatively shallow grooves are formed between adjacent furrows, then pressing upraised fragments to the original surface level, and finally cutting said column into bricks.

3. The process of forming rough-faced brick, which consists in subjecting the top surface of a column of plastic clay as it issues from the die mouthpiece to the action of furrowing teeth, whereby a series of clean-cut symmetrical furrows is initially formed in said surface, then subjecting said surface to the action of scarifying members whereby relatively shallow grooves are plowed between adjacent furrows overturning material into the latter, then rolling upraised fragments of material to the original surface level, and finally cutting the column into bricks.

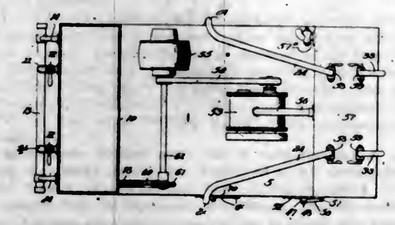
4. The process of forming rough-faced brick, which consists in subjecting the top surface of a column of plastic clay as it issues from the die mouthpiece to the action of furrowing teeth, whereby a series of clean-cut symmetrical furrows is initially formed in said surface, then subjecting said column to the action of scarifying members whereby relatively shallow grooves are plowed in said surface between adjacent furrows overturning material into the latter, then rolling upraised fragments of material to the original surface level and simultaneously forming groove and furrow intersecting designs in said surface, and finally cutting the column into bricks.

5. The process of forming rough-faced brick, which consists in initially forming a series of clean-cut symmetrical regular furrows in the top surface of the moving plastic clay column from which the bricks are to be cut, then scarifying said surface between adjacent furrows to displace material, then rolling upraised fragments to the original surface level, and finally dividing said column into bricks.

[Claims 6 to 12 not printed in the Gazette.]

1,204,478. FLOOR-SCRUBBING MACHINE. EDWARD W. NOAKES and EDWARD W. NOAKES, Jr., Riverside, Ill. Filed Dec. 16, 1914. Serial No. 877,491. (Cl. 15—14.)

1. In a floor-washing machine, the combination of suction means including a head through which the water on the floor is sucked, a source of compressed air supply, and means for directing air from said supply against the floor in the rear of said head in a direction for forcing water remaining on the floor in the rear of said head, into position to be acted on by said head.



2. In a floor-washing machine, the combination of a suction head for lifting the water from the floor, a tank, a suction-producing device connected with said head and discharging into said tank, and means for directing the air discharged into said tank by said device, against the floor in the rear of said head in a direction for forcing water remaining on the floor in the rear of said head, into position to be acted on by said head.

3. In a floor-washing machine, the combination of brushing means, suction means for lifting the water from the floor, a source of compressed air supply, and means for directing air from said supply against the floor in the rear of said brushing means and in advance of said suction means and toward the median line of the machine, for limiting the spread of the water laterally on the floor.

4. In a floor-washing machine, the combination of brushing means, suction means for lifting the water from the floor, a source of compressed air supply, and means for directing air from said supply against the floor in the rear of said brushing means and in advance of said suction means, from the opposite sides of the machine and toward the median line thereof, for limiting the spreading of water laterally on the floor.

5. In a floor-washing machine, the combination of means for applying water to the floor, brushing means, suction means for lifting the water from the floor, a source of compressed air supply, and means for directing air from said supply against the floor in the rear of said brushing means and in advance of said suction means and toward the median line of the machine for limiting the spreading of the water laterally on the floor.

[Claims 6 to 8 not printed in the Gazette.]

1,204,479. THERAPEUTICALLY-ACTIVE SUBSTANCE. RICHARD CHRISTIAN WILHELM NÖHRING, Koswig, Germany. Filed May 22, 1914. Serial No. 840,868. (Cl. 167—7.)

1. A process for the manufacture of therapeutically active substances, which process consists in treating bile with an acid, filtering from the precipitated matter and separating in solid form from the filtrate the active substances by addition of alkali, substantially as described.

2. A process for the manufacture of therapeutically active substances, which process consists in treating bile with hydrochloric acid, filtering from the precipitated matter and separating in solid form from the filtrate the active substances by addition of alkali substantially as described.

3. A process for the manufacture of therapeutically active substances, which process consists in treating bile with hydrochloric acid, filtering from the precipitated matter and separating in solid form from the filtrate the active substances by addition of caustic soda lye substantially as described.

4. A process for the manufacture of therapeutically active substances, which process consists in treating bile diluted with water with hydrochloric acid, filtering from the precipitated matter and separating in solid form from the filtrate the active substances by addition of caustic soda lye.

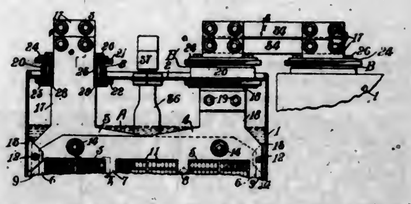
5. As a new article of manufacture the product which is obtained by treating bile with an acid, filtering from the precipitated matter and separating in solid form from the filtrate the active substances by addition of alkali, which product consists of a light brown powder having therapeutical properties substantially as described.

1,204,480. WRENCH. MARION G. NORRIS, Pond Creek, Okla. Filed May 16, 1916. Serial No. 97,825. (Cl. 81—185.)



In a wrench structure, a handle section, a fixed jaw carried by the handle section, a sliding jaw coöperating with the fixed jaw, a shank integral with the movable jaw, said shank having notches formed therein, a lever having a head pivotally mounted in the handle section, teeth formed on said lever adapted to engage the notches of the shank, said lever head being provided with recesses, and a spring detent fixed to the handle section and adapted to selectively engage the said recesses, said detent when engaged in one of said recesses serving to hold the lever in locked engagement with the movable jaw to prevent movement of the movable jaw with respect to the fixed jaw.

1,204,481. SECONDARY OR STORAGE BATTERY. CHARLES W. NORTON, West Orange, N. J., assignor to Edison Storage Battery Company, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 13, 1914. Serial No. 856,527. (Cl. 204—29.)



1. In a storage battery cell, the combination of a container, and a plurality of plates therein, one of said plates being electrically connected within the container and above the surface of the electrolyte to another plate of like polarity, and others of said plates having projections extending through the top of the container, substantially as described.

2. In a storage battery cell, the combination of a container, and a group of positive and negative plates therein, the two outside plates of the group each being connected at its upper end portion with the next adjacent plate of like polarity, all the remaining plates having extensions projecting through the top of the container, substantially as described.

3. In a storage battery cell, the combination of a container, and a plurality of substantially parallel plates or elements therein, the two outside plates each being electrically connected within the container and above the surface of the electrolyte to the next adjacent plate of like polarity, all the remaining plates having extensions projecting through the top of the container and consti-

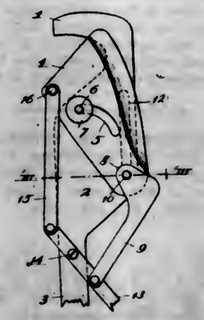
tuting the poles or terminals of the cell, substantially as described.

4. In a storage battery cell, the combination of a container, and a plurality of substantially parallel plates therein, the upper end portion of each outside plate being deflected inwardly and directly connected within the container and above the surface of the electrolyte to the next adjacent plate of like polarity, all the remaining plates having extensions projecting through the top of the container and constituting the poles or terminals of the cell, substantially as described.

5. In a storage battery cell, the combination of a container, a group of alternately arranged positive and negative plates therein, and a pair of stuffing boxes secured to the top of the container, all the plates except the two outside plates of the group having projections extending through said stuffing boxes, the projections of the positive plates extending through one of said stuffing boxes and the projections of the negative plates extending through the other of said stuffing boxes, the two outside plates being each electrically connected at its upper end portion with the next adjacent plate of like polarity, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,204,482. CUTTING DEVICE. WALTER WINFRED PARKER, Wichita, Kans. Filed Apr. 11, 1916. Serial No. 90,308. (Cl. 30—11.)



In a cutting device of the character described, a hook-shaped stationary blade having a shank provided with a longitudinal slot and terminating in a handle, a fulcrum projecting from said shank, a movable blade having a curved slot through which said fulcrum extends and whereby said blade is permitted a compound movement, an antifriction roller mounted on the movable blade and adapted to traverse the longitudinal slot in the shank, and actuating means connected to the movable blade at opposite sides of the fulcrum.

1,204,483. PRESSURE-GAGE. CHARLES J. PILLING, Philadelphia, Pa. Filed Apr. 25, 1912. Serial No. 693,014. (Cl. 73—110.)

1. A pressure gage of the class recited comprising in combination an open topped cylindrical containing case, an annular closing cap thereon, said casing and said cap having interposed engaging means coacting to permit rotatable adjustment of the cap relatively to the casing without withdrawal therefrom, a centrally apertured dial plate, a glass disk carried by said cap outwardly of and spaced from said dial plate, means to secure said dial plate and glass disk fixedly in said rotatable cap, a spindle rotatably mounted in said casing and projecting through said aperture in the dial plate, a dial pointer on said spindle between the dial plate and glass disk, and mechanism in said casing to impart rotatable motion to said spindle.



2. A pressure-gage of the class recited, comprising in combination an open-topped containing casing, a rotatably mounted spindle and mechanism to impart such motion thereto, operatively mounted in said casing, a closing cap for said casing consisting of an annular body having a depending flange of lesser diameter, said casing and cap flange including a coinciding annular bead and an annular groove adapted to register in such manner as to enable said casing and flanged cap to be rotatably adjustable, a scale-marked dial-plate centrally-apertured and supported on said flange of the cap, means to fixedly hold said dial-plate immovably thereon, and a dial-pointer mounted on the projecting end of said spindle and adapted to be rotatably moved thereby.

3. A pressure-gage of the class recited, comprising in combination an open-topped cylindrical casing which is annularly grooved interiorly, a rotatably mounted spindle and mechanism to impart such motion thereto, operatively mounted in said casing, a closing cap consisting of an annular body portion interiorly grooved and having a depending flange of lesser diameter provided with an exterior annular bead adapted to register rotatably with said interior annular groove in the casing, a scale-marked dial-plate centrally apertured and supported on said flange of the cap, a glass disk over said dial-plate fixedly held by its rim in said interior annular groove in the cap, and a dial-pointer mounted on the projecting end of said spindle and adapted to be rotatably moved thereby.

4. In a pressure-gage, the combination of a casing, a dial-plate, a rotatable spindle, a dial pointer carried by the spindle adjacent to the dial-plate, a gear wheel, means whereby the gear wheel is caused to turn said spindle, a post on said gear wheel and having a guide opening therein, a member adjustable in said guide opening toward and from the center of said wheel, means to secure said member to said post in different positions of adjustment, pressure mechanism having a pressure operated movable part, and a link connecting said member and said part.

5. In a pressure gage, the combination of a casing, a dial-plate, a rotatable spindle, a dial pointer carried by the spindle adjacent to the dial-plate, a gear wheel, means whereby the gear wheel is caused to turn said spindle, a post on said gear wheel and having a guide opening therein, a member adjustable in said guide opening toward and from the center of said wheel, means operative to adjust said member relatively to said post, pressure mechanism having a pressure operated movable part, and a link connecting said member and said part.

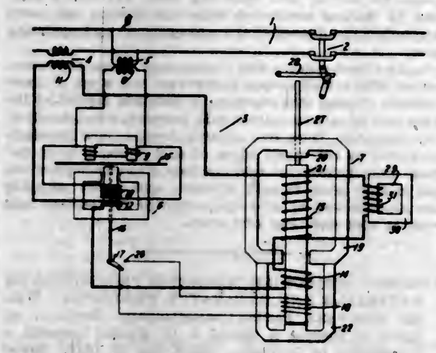
[Claims 6 and 7 not printed in the Gazette.]

1,204,484. [WITHDRAWN.]

1,204,485. ELECTRICAL PROTECTIVE DEVICE. KARL C. RANDALL, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 6, 1915. Serial No. 60,006. (Cl. 175—268.)

1. An electromagneic device comprising a stationary core member, a movable core member, to series-connected windings for the movable core member, a reactor connected in shunt relation to one of the series-connected windings, a third winding, and means for closing the circuit of the said third winding under predetermined conditions to neutralize the effect of one of the series-connected windings.

2. In a relay system, the combination with an electromagnet comprising a stationary core member, a movable core member, two windings, for governing the operation of the movable core member, and means for neutralising the magnetising effect of one of the windings under predetermined conditions, of means for neutralising the effect of the other winding under other predetermined conditions.



3. In a relay system, the combination with an electromagnet comprising a stationary core member, a movable core member, two windings for governing the operation of the movable core member, and means for neutralising the magnetising effect of one of the windings under predetermined conditions, of means for shunting a relatively large part of the current from the other winding under other predetermined conditions.

4. In a relay system, the combination with an electromagnet comprising a stationary core member, a movable core member, two windings for governing the operation of the movable core member, and means for neutralising the magnetising effect of one of the windings, under predetermined conditions, of a reactor for shunting a relatively large part of the current from the other winding under other predetermined conditions.

5. In a relay system, the combination with an electromagnet comprising a stationary core member, a movable core member, two windings for governing the operation of the movable core member, and means for neutralising the magnetising effect of one of the windings, under predetermined conditions, of a reactor for shunting a relatively large part of the current from the other winding when a relatively large overload traverses the windings.

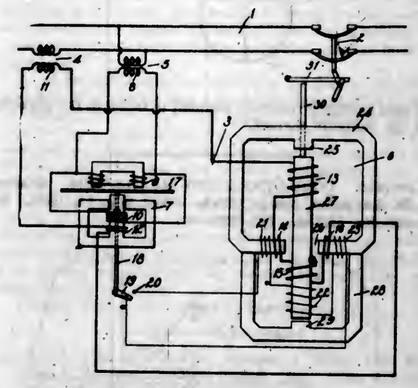
[Claims 6 to 10 not printed in the Gazette.]

1,204,486. ELECTRICAL PROTECTIVE DEVICE. KARL C. RANDALL, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 2, 1915. Serial No. 64,607. (Cl. 175—21.)

1. An electromagnet comprising an armature, a stationary core member having lateral projections that extend inwardly adjacent to an intermediate portion of the armature, an actuating winding disposed around the armature, a holding winding disposed around the armature, two holding windings disposed around the lateral projections, said actuating and holding windings being series connected and the holding windings being adapted to normally oppose the operation of the armature, and neutralizing windings for the said holding windings.

2. An electromagnet comprising a movable core member a stationary core member having lateral projections that extend inwardly adjacent to the said movable core member, an actuating winding disposed around the movable core member, holding windings connected in series with the actuating winding and surrounding the movable core member and the lateral projections, and series-connected neutralizing windings surrounding the protections and the movable core member on one side of the projections.

3. An electromagnet comprising an armature, a yoke surrounding the armature and having a lateral projections that extend inwardly adjacent to an intermediate portion of the armature, normally energised windings surrounding the projections and the armature upon both sides of the projections, and normally open-circuited windings that surround the projections and the armature upon only one side of the projections.



4. An electromagnet comprising a main magnetizable core member of substantially the form of a hollow rectangle having an opening in one of the sides thereof, an armature extending through the said opening, an auxiliary core member having legs terminating adjacent to the aforesaid core member upon opposite sides of the opening therein, normally energised windings for opposite ends of the armature and for the side of the main core member having the opening therein and normally open-circuited windings for one portion of the armature and for the side of the main core member having the opening therein.

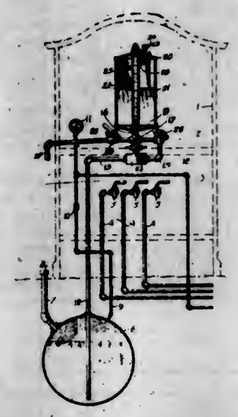
5. An electromagnet comprising a stationary magnetisable core member having lateral inwardly-extending projections thereon, a movable core member, an actuating winding disposed around the movable core member, holding windings disposed around the projections and in series with the actuating windings and series-connected secondary windings disposed around the movable core member and the said projections.

[Claims 6 to 11 not printed in the Gazette.]

1,204,487. SERVICE-STATION EQUIPMENT. SAMUEL W. RAYMOND, Adrian, Mich. Filed Feb. 14, 1916. Serial No. 78,151. (Cl. 221—99.)

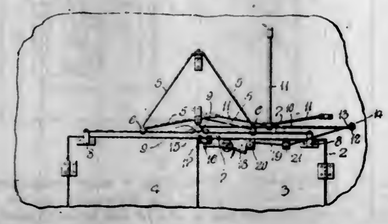
In an automobile service station equipment, a connection, a transparent auxiliary reservoir supported by said connection and communicating therewith, an atmospheric valve on said auxiliary reservoir, inlet and outlet connec-

tions for said connection, valves forming part of said inlet and outlet connections, and means throughout the length



of said auxiliary reservoir adapted to indicate the quantity of the contents thereof.

1,204,488. DOOR-OPERATING MECHANISM. SAMUEL W. RAYMOND, Adrian, Mich. Filed Feb. 14, 1916. Serial No. 78,152. (Cl. 268—9.)



1. In a door opening and closing mechanism, the combination with a wall having a doorway, and a set of hinged doors normally closing said doorway, of brackets carried by the inner side of said wall above said doorway, members pivoted on two of said brackets and pivotally connected to the upper edges of said doors adjacent the hinged edges thereof, a lever fulcrumed on the other of said brackets, links connecting one end of said lever to said members, and an operating rod connected to the opposite end of said lever.

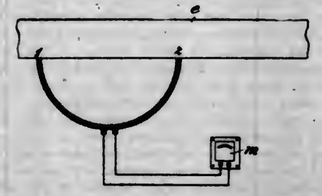
2. In a door opening and closing mechanism, the combination with a wall having a doorway and a set of hinged doors normally closing said doorway, of brackets carried by the inner side of said wall above said doorway, members pivoted on two of said brackets and pivotally connected to the upper edges of said doors adjacent the hinged edges thereof, a lever fulcrumed on the other of said brackets, and having one end thereof connected to said members, an operating rod having a slotted end connected to the opposite end of said lever, and a latch adapted to hold said doors closed and connected to the slotted end of said operating rod to be operated in advance of the mechanism when opening said doors.

3. In a door opening and closing mechanism, the combination with a wall having a doorway and a set of hinged doors normally closing said doorway, of brackets carried by the inner side of said wall above said doorway, bearings carried by two of said brackets, a member pivoted on each bearing and pivotally connected to the upper edge of a door adjacent the hinged edge thereof, a lever fulcrumed on the other of said brackets and having an end thereof connected to said members, and means to facilitate operating said lever at a remote point relative to said doors.

4. In a door opening and closing mechanism, the combination with a wall having a doorway, and a set of doors normally closing said doorway, of bearings supported from said wall above said doorway, members supported by said bearings and connected to the upper edges of said doors, a fulcrumed operating lever supported from said wall and connected to said members whereby said bell cranks can be simultaneously moved for opening and closing said doors, a latch mechanism adapted to hold said doors closed, means for moving said operating lever, and means actuated by the last mentioned means for moving said latch mechanism in advance of the movement of said operating lever.

5. In a door opening and closing mechanism, the combination with a wall having a doorway, and a set of doors normally closing said doorway, of brackets carried at the inner side of said wall above said doorway, members pivotally supported from two of said brackets and pivotally connected to the upper edges of said doors, a lever fulcrumed on the other of said brackets, links connecting one end of said lever to said members, and means engaging the opposite end of said lever adapted for moving said lever to open and close said doors.

1,204,489. MEASURING MAGNETIC PROPERTIES OF MATERIALS AND APPARATUS THEREFOR. WALTER ROGOWSKI, Berlin-Charlottenburg, Germany, assignor to Siemens & Halske A. G., Berlin, Germany, a Corporation of Germany. Filed Aug. 5, 1913. Serial No. 783,181. (Cl. 175—183.)



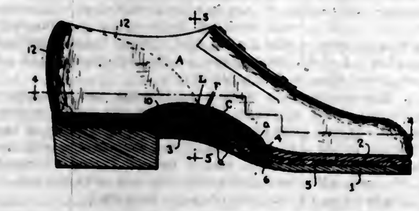
1. The method of measuring the magnetic tension between two points of a magnetic circuit, which consists in variably exciting said magnetic circuit, branching said circuit at said points, and measuring the electromotive force which is induced in a coil arranged in said branched circuit.

2. An instrument for measuring magnetic quantities consisting of a coil connected to an electrical measuring instrument and a core for said coil, the windings of said coil being evenly distributed over the entire length of said core, said core and said coil having their ends adapted to make close contact with the magnetic circuit to be tested.

3. An instrument for measuring magnetic quantities, consisting of a coil of even cross-section and evenly spaced turns throughout its length, said coil being adapted to make close contact at both ends with the material to be tested and means for measuring the magnetic flow in said coil.

4. An instrument for measuring magnetic quantities, consisting of a flexible core of non-magnetic material, and having even cross-section, a winding thereon distributed uniformly over the entire length of said core, the end turns of said winding being shaped for making close contact with the material to be tested and an electrical measuring instrument connected to the ends of said winding.

1,204,490. ARCH AND INSTEP SUPPORT FOR BOOTS AND SHOES. CHARLES ROKAHR, El Paso, Tex. Filed Apr. 10, 1915. Serial No. 20,398. (Cl. 36—71.)



1. The combination with the sole of a shoe, of superposed flat springs embedded within the shank portion of the sole, a base cushion secured to the inner face of the sole above said springs, a pliable member covering said base cushion having its opposite edges secured to said sole and ending in two flaps of a width equal to the width of said sole, and an upper cushion removably held upon said pliable member, said flaps overlapping said removable cushion to hold the same in place.

2. An arch and instep support comprising a base cushion adapted to be secured to the inner face of the sole of a shoe; a pliable member covering said base cushion having its opposite edges secured to the shoe sole and ending in two flap forming portions of a width equal to the width of the shoe sole, and an upper cushion removably held upon said pliable member said flaps overlapping said removable cushion to hold the same in place.

1,204,491. METHOD OF MANUFACTURING GRIP-NUTS. CHARLES B. ROOF, Los Angeles, Cal. Filed June 1, 1915, Serial No. 31,869. Renewed Sept. 25, 1916. Serial No. 122,132. (Cl. 10—86.)



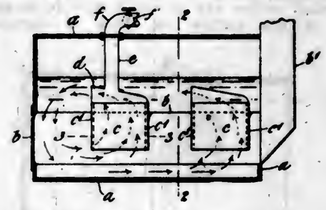
1. A method of making grip nuts comprising cutting a nut from a bar provided with a longitudinal groove, simultaneously expanding said groove and spreading the top of the nut transversely to said groove to a predetermined amount, piercing and tapping said nut and then pressing the sides of the groove toward each other whereby the diameter of the bore through the nut is smaller on one end than on the other.

2. A method of making grip nuts comprising cutting a nut from a bar provided with a longitudinal groove, pressing the bottom of the nut in the shape of an arc transversely to said groove, expanding said groove and spreading the top of the nut transversely to said groove to a predetermined amount, piercing and tapping said nut and then pressing the sides of the groove toward each other, whereby the diameter of the bore through the nut is smaller on one end than on the other.

3. A method of making grip nuts comprising pressing a recess into the upper side of the nut and forming filleted corners on said recess, spreading the upper end of the nut transversely to said recess to a predetermined amount, and pressing the sides of the recess toward each other, whereby the diameter of the bore through the nut is smaller on one end than on the other.

1,204,492. APPARATUS FOR THE DISTILLATION OF OILS. SIDNEY JOHN ROSS and HARRY SCHOFIELD, London, England. Filed Dec. 22, 1915. Serial No. 68,185. (Cl. 196—9.)

1. In an oil-heating or distilling apparatus, the combination of a furnace flue, a heat insulating saddle mounted on same, and a nozzle on said saddle for directing the circulation, substantially as described.



2. In an oil-heating or distilling apparatus, the combination of a furnace flue, a heat-insulating saddle mounted thereon, and a tapered or wedge-like hood at the top of said saddle extending lengthwise thereof parallel with the flue, substantially as described.

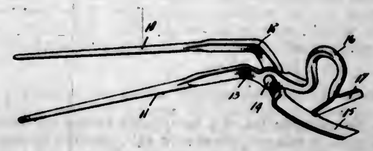
3. In an oil-heating or distilling apparatus, the combination of a furnace flue, heat-insulating saddles mounted thereon, and nozzles on said saddles for directing the circulation in a longitudinal direction, substantially as described.

4. In an oil-heating or distilling apparatus, the combination of a furnace flue, a heat-insulating saddle mounted thereon, a nozzle on said saddle for directing the circulation in a longitudinal direction, and a draw-off pipe mounted on the top of said nozzle for removing the distillates directly from said nozzle, substantially as described.

5. In an oil-heating or distilling apparatus, the combination of a furnace flue, a saddle thereon formed of metal sheets with heat-insulating material between them, and a wedge-shaped nozzle extending along the top of said saddle and serving to discharge the liquid longitudinally, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,204,493. PLOW-TONGS. ROBERT J. ROTT and WILLIAM E. HANNA, Webster Groves, Mo. Filed June 17, 1915. Serial No. 34,702. (Cl. 81—43.)



A tongs for holding a plowshare comprising a pair of handle shanks each having one end extending at an obtuse angle to the body of the shank, the extended ends being pivotally connected between their extremities, one of said ends being continued beyond the pivot to form a jaw member elongated substantially at an obtuse angle to the body of the end and shaped to form a concave nose adapted to lie along the side of a plowshare, the remaining extended end being formed with a U-shaped portion opening toward said nose intermediate of the length of the nose, said U-shaped portion being adapted to embrace the flange of a plowshare and being provided with a transversely disposed elongated nose adapted to fit in the angle between the body and flange of a plowshare.

1,204,494. MAIL-BOX. IRA H. HARN, Sentinel, Okla. Filed Nov. 13, 1913. Serial No. 800,828. (Cl. 232—45.)

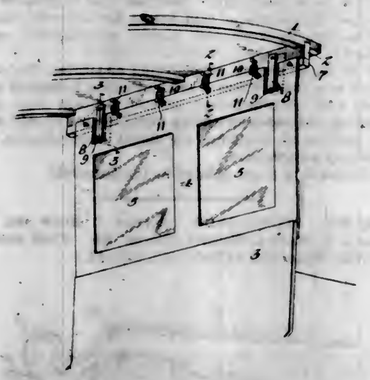
A mail box comprising a body having its base formed with an outwardly and downwardly flaring flange, a cover having straight walls and an outwardly and downwardly

flaring base flange, said body portion having an opening in its base and flange, a wire member comprising a straight portion extending in line with one of the straight walls of the cover, an upper and lower leg section integral with said straight portion and extending upwardly at an angle to said straight portion, the upper leg engaging the



straight wall of the cover and the lower leg engaging the flange of the cover and extending at right angles thereto, the apex of said wire member extending through said opening in the base member and flange, and a lock detachably secured to the apex portion of said wire member and positioned below the box base and flange.

1,204,495. STORM-CURTAIN FOR VEHICLES. JOHN W. SCHMEH, Buffalo, N. Y. Filed Mar. 2, 1916. Serial No. 81,642. (Cl. 21—62.)



1. The combination of a vehicle top having a transverse front rail, a support below said rail, vertical guides carried by said rail and extending below the same, a storm-curtain adapted to be attached at its lower edge to said support and having its upper portion engaged with said guides to play vertically thereon, said guides being constructed to hold the curtain from forward and backward displacement relatively to said rail, and springs for drawing the upper portion of said curtain toward said rail.

2. The combination with a vehicle top and a support below the same, of guides mounted on the top, a storm-curtain adapted to be attached to said support, a cross bar attached to the upper portion of the curtain and slidable vertically in said guides, and tension-springs connecting said bar with the top for holding the curtain in its normal stretched condition.

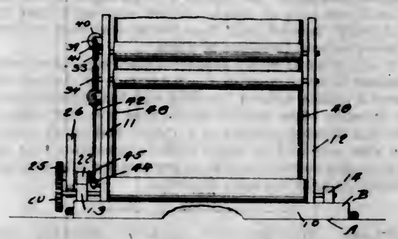
3. The combination with a vehicle top and a support below the same, of U-shaped guides depending from the vehicle top, a cross bar slidable vertically in said guides but confined against movement fore and aft of the vehicle top, a storm-curtain adapted to be attached at its lower edge to said support and secured at its upper edge to said cross bar, and tension-springs connecting said cross bar with the vehicle-top.

4. The combination with a vehicle-top and a support below the same, of fixed guides depending from the top, a cross bar slidable vertically in said guides, a storm-curtain adapted to be attached at its lower edge to said support and having its upper edge attached to said cross bar, the curtain being provided in its upper portion with notches to receive said guides, and upright tension-springs attached at their upper ends to the vehicle-top and at their lower ends to said cross bar.

5. The combination with a vehicle-top and a support below the same, of guides mounted on the top, a storm-curtain adapted to be attached to said support, a cross bar attached to the upper portion of the curtain and slidable vertically in said guides, and a tension spring arranged within each guide and connecting said bar with the top.

[Claims 6 and 7 not printed in the Gazette.]

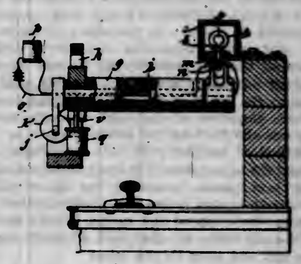
1,204,496. APPARATUS FOR AND METHOD OF DRAWING CONTINUOUS SHEETS OF GLASS. MARION SCOTT, Okmulgee, Okla. Filed Nov. 24, 1915. Serial No. 63,291. (Cl. 49—17.)



1. The combination with a glass tank having a drawing mouth, of a frame supported on the tank around the mouth, a plurality of pairs of drawing rollers mounted in the frame above the mouth, means for rotating said rollers, and means for blowing a tubular edge at each side of the sheet of glass as same is drawn.

2. The herein described method of drawing sheet glass consisting of drawing the sheet vertically and simultaneously blowing a tubular portion at each edge of the sheet of glass to prevent warping thereof.

1,204,497. AUTOMATIC TRAIN-STOP. HIRAM GEE SEDGWICK, Mill Valley, Cal., assignor to The National Safety Appliance Company, a Corporation of California. Filed May 26, 1909, Serial No. 498,458. Renewed Nov. 17, 1915. Serial No. 62,077. (Cl. 246—58.)



1. In a train stopping apparatus, a circuit disrupting device on the road bed, a brake appliance circuit on the locomotive normally closed, a disruptable portion of this circuit lying in the path of the circuit disrupter on the road bed.

2. In combination with a normally closed brake appliance circuit on the locomotive, a portion of this circuit being disruptable and and being extended to a point near the road bed, of an electromagnetically controlled circuit disrupter on the road bed, the circuit whereof is normally closed to hold the disrupter normally out of operative position, whereby but two circuits are employed and both may be normally closed.

3. In a train stopping apparatus, a circuit disrupter on the road bed and means for setting it in operative position, a normally closed brake appliance circuit on the locomotive, a portion of this circuit being disruptable and lying in the path of the circuit disrupter on the road bed, and means for shifting this portion of the circuit into and out of the path of said circuit disrupter.

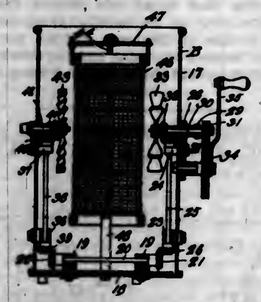
4. In a train stopping apparatus, a circuit disrupter on the road bed and means for setting it in operative position, a normally closed brake appliance circuit on the locomotive, a portion of this circuit being disruptable and lying in the path of the circuit disrupter on the road bed, and means for shifting this portion of the circuit into and out of the path of said circuit disrupter, and means for rendering inoperative the brake apparatus simultaneously with the shifting of the circuit disrupter to inoperative position.

5. In a train stopping apparatus, a circuit disrupter on the road bed and means for setting it in operative position, a normally closed brake appliance circuit on the locomotive, a portion of this circuit being disruptable and lying in the path of the circuit disrupter on the road bed, and means for shifting this portion of the circuit into and out of the path of said circuit disrupter and means for sounding an alarm continuously while said disruptable part of the circuit is out of operative position.

[Claims 6 to 10 not printed in the Gazette.]

1,204,498. DISH-WASHING MACHINE. JOHN W. SNGRAVE, Plattsmouth, Nebr. Filed May 5, 1916. Serial No. 95,640. (Cl. 141—9.)

In a washing machine, the combination of a receptacle, oppositely disposed transverse shafts rotatably mounted in the wall of the receptacle, means for rotating one of said shafts, connections between said shafts whereby the rotation of one will effect rotation of the other, and agitating wheels fixed on the inner ends of said shafts respectively, the blades of one wheel being arranged to force a cleaning

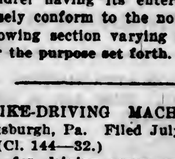


liquid transversely of the receptacle and of the other wheel to force the cleaning liquid longitudinally.

1,204,499. ATTACHMENT FOR AUTOMOBILE-PEDALS. JAMES P. SMITH, Walla Walla, Wash. Filed Nov. 20, 1915. Serial No. 62,516. (Cl. 74—81.)

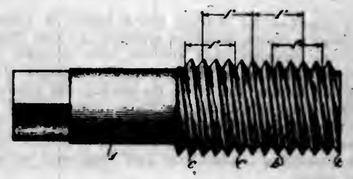
1. The combination with a lever and a pedal pivoted thereto, of a spring member comprising a tongue adapted to direct pressure against said pedal, depending ears at one end of the tongue, and means to attach the ears to parts of said lever.

2. The combination with a lever and a pedal attached thereto, of a spring member comprising an elongated flat tongue adapted to direct pressure against said pedal, and means to attach the opposite end of the tongue to parts of said lever.



3. The combination with a lever and a pedal attached thereto, of a spring member comprising an elongated flat tongue curved from end to end, one end of the tongue being adapted to direct pressure against the inner face of said pedal, and means to attach the opposite end of the spring to said lever.

1,204,500. SWAGING-MANDREL FOR FORMING GRIP-NUTS. WILLIAM E. SHARP, Chicago, Ill., assignor to Grip Nut Company, Chicago, Ill., a Corporation of Illinois. Original application filed Nov. 8, 1913, Serial No. 799,868. Divided and this application filed Mar. 5, 1914. Serial No. 822,591. (Cl. 10—72.)



1. A mandrel for use in forming bolt nuts, comprising a swaging mandrel provided with an entering section screw-threaded to substantially conform to the normal, thread of the nut, and a following section slightly varying therefrom substantially as and for the purpose set forth.

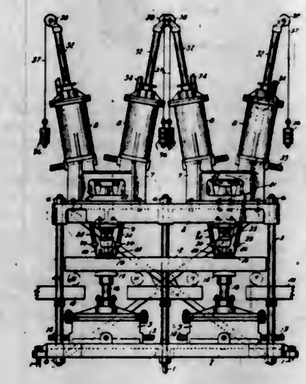
2. A mandrel for use in forming bolt nuts, comprising a swaging mandrel having its entering section screw-threaded to loosely conform to the normal thread of the nut, and a following section varying therefrom substantially as and for the purpose set forth.

1,204,501. SPIKE-DRIVING MACHINE. GRANT B. SHIPLEY, Pittsburgh, Pa. Filed July 23, 1915. Serial No. 41,576. (Cl. 144—32.)

1. A machine for driving screw spikes comprising a frame, a pair of pressure cylinders thereon, timber engaging means depending from said frame, a pressure cylinder arranged to force a timber thereagainst, and spike driving means arranged to be actuated by said pair of pressure cylinders for driving screw spikes in said timber.

2. A machine for driving screw spikes in cross ties comprising a frame, members arranged on the under side of said frame adjacent the opposite ends thereof, each member having on its lower end means for holding a metal tie plate, means for forcing a cross tie upwardly against the tie plates on the lower ends of the said members, and means adjacent each of said members for simultaneously driving a screw spike through each of the tie plates into the cross tie.

3. A machine for driving screw spikes in cross ties comprising a frame, members arranged on the under side of said frame adjacent the opposite ends thereof, each member having on its lower end means for holding a metal tie plate, means for forcing a cross tie upwardly against the tie plate on the lower ends of the said members, and means adjacent each of said members for simultaneously driving a screw spike through each of the tie plates into the cross tie by imparting longitudinal and rotational movements to the spikes.

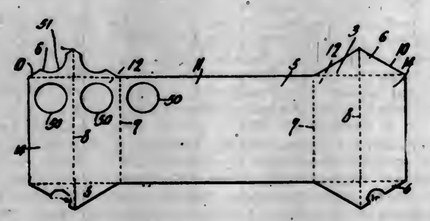


4. A machine for driving screw spikes in cross ties, comprising a frame, members arranged on said frame adjacent the opposite ends thereof, each member having means for holding a metal tie plate against its end, means for forcing the cross tie toward the ends of the members and against the tie plates thereon, and means adjacent each of said members for simultaneously driving a screw spike through each of the tie plates into the cross tie by imparting longitudinal and rotational movements to the spikes.

5. A machine for driving screw spikes in railway cross ties comprising a frame, members on said frame and provided each at its lower extremity with a magnet arranged to contact metal tie plates upon a cross tie, a plurality of pressure cylinders arranged to force the tie contact with said magnet and secure it in position thereagainst, a plurality of pressure cylinders on said frame, and spike driving means arranged to be actuated by said cylinders to operate simultaneously on both ends of said tie.

[Claims 6 and 7 not printed in the Gazette.]

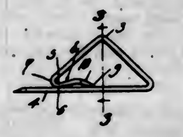
1,204,502. ENVELOP ATTACHMENT. FRANK G. SHUMAN, Chicago, Ill. Filed Apr. 6, 1916. Serial No. 89,434. (Cl. 229—71.)



1. An envelop attachment fashioned from a blank having a gummed side and an ungummed side, the blank being provided along its longitudinal edges and at its ends with outwardly projecting tabs, the blank being folded transversely along four lines to form a body, approaching spaced holding strips at the ends of the body and overlapping the body, and oppositely projecting reinforcing strips at the inner edges of the holding strips and overlying the outer faces of the holding strips, the tabs being overlapped upon the rear, gummed face of the body and being secured thereto.

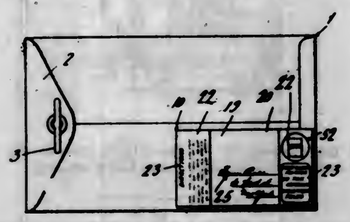
2. An envelop attachment fashioned from a blank having a gummed side and an ungummed side, the blank being provided along its longitudinal edges and at its ends with outwardly projecting tabs, the blank being folded transversely along four lines to form a body, approaching spaced holding strips at the ends of the body and overlapping the body, and oppositely projecting reinforcing strips at the inner edges of the holding strips and overlapping the outer faces of the holding strips, the above mentioned folding serving to bring the gummed faces of the holding strips and the reinforcing strips together, and serving also to bring the gummed faces of each tab together, the tabs being overlapped on the rear gummed face of the body.

1,204,503. TAG-HOOK. FRANK G. SHUMAN, Chicago, Ill. Filed Apr. 6, 1916. Serial No. 89,435. (Cl. 40—24.)



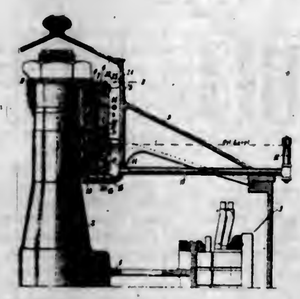
A tag fastener fashioned from a single piece of resilient material, the intermediate portion of which is bent to form a loop-shaped head, the ends of the piece of material forming, respectively, an entering prong and a holding prong projecting in opposite directions, the entering prong being an extension of one side of the head and being prolonged beyond the area of the head, the holding prong extending back along said side of the head, the shank and the point of the holding prong being in contact with said side of the head, and the portion of the holding prong between the point and the shank thereof being bent away from said side to define a hump in the holding prong.

1,204,504. TWO-PART ENVELOP. FRANK G. SHUMAN, Chicago, Ill. Filed Apr. 6, 1916. Serial No. 89,436. (Cl. 229—71.)



In a device of the class described, a main envelop; and a holder fashioned from a blank folded transversely upon itself to form a body, spaced transverse wings at the ends of the body and overlying the outer face of the body, and to form reinforcing strips along the inner edges of the wings, the strips lying between the wings and the body; the blank being folded along longitudinal lines, extended across the wings and the strips, to form longitudinal wings overlying the inner face of the body, the inner face of the holder being secured to the main envelop, one reinforcing strip, one transverse wing, and the body, being provided with registering openings defining a stamp-disclosing aperture.

1,204,505. BEARING. ROBERT SIEGFRIED, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 20, 1912. Serial No. 685,060. (Cl. 64—56.)



1. In a shaft bearing, the combination with a vertical shaft and an annular oil well surrounding the shaft, of a pair of concentric cylindrical bearing members extending downwardly into the annular oil well, one of said members being secured to the shaft, radially perforated to feed oil from the well to the bearing surface and provided with longitudinal grooves communicating with the radial perforations.

2. In a shaft bearing, the combination with a vertical shaft and an annular oil well surrounding the shaft, of a pair of concentric cylindrical bearing members extending downwardly into the annular oil well, one of said members being secured to the shaft, radially perforated to feed oil from the well to the bearing surface and provided with longitudinal grooves communicating with the radial perforations and the other of said members being radially perforated to provide passages communicating with the said longitudinal grooves above the oil well.

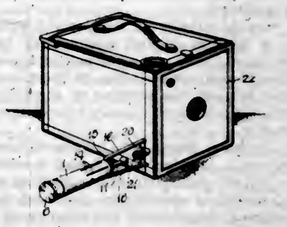
3. In a shaft bearing, the combination with a vertical shaft, a stationary annular oil well surrounding the shaft, a stationary hollow cylindrical bearing member surrounding the shaft and extending into the oil well, a longitudinally grooved bearing member fitted into the stationary bearing member secured to the shaft and having an annular projection which extends into the oil well.

4. In a shaft bearing, the combination with a vertical shaft, a stationary annular oil well surrounding the shaft, a stationary hollow cylindrical bearing member surrounding the shaft and extending into the oil well, a longitudinally grooved bearing member secured to the shaft within the stationary bearing member and having an annular projection which extends into the oil well and is provided with radial passages to conduct oil from the well outward through the passages to the longitudinal grooves in the bearing member.

5. In a shaft bearing, the combination with a vertical shaft and an oil-containing receptacle provided with ribs on its inner surface, of a stationary bearing member supported by part of said ribs, a bearing member secured to said shaft, and a baffle member supported by another part of said ribs and inclosing a portion of said bearing members.

[Claims 6 to 18 not printed in the Gazette.]

1,204,506. AUTOMATIC CAMERA-TRIP. FREDERICK W. SMISING, Detroit, Mich. Filed June 24, 1915. Serial No. 35,988. (Cl. 95—53.)



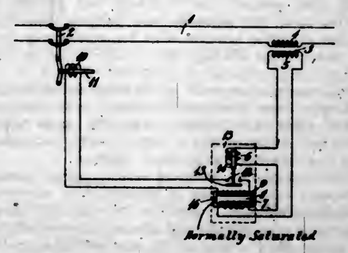
1. In an automatic tripping device for cameras, an attachment for said device comprising clamping arms adapted for attachment to said device, and jaws carried by said arms and adapted to embrace a portion of the camera button to hold said device in longitudinal alinement with said camera button.

2. In an automatic tripping device for cameras, an attachment for said device comprising resilient clamping arms, members carried by said arms adapted for abutting a camera and supporting said arms substantially at right angles to the camera, and jaws forming part of said members adapted to embrace a portion of a camera button to maintain said device in longitudinal alinement with the camera button.

3. A support for a camera operating device, comprising resilient arms adapted to be held at a wall of a camera, and jaws carried by said arms adapted to embrace an operating instrumentality of said camera to maintain the operating device at substantially a right angle to the walls of the camera.

4. A device adapted for actuating the operating instrumentality of a camera, comprising clamping arms adapted to have the ends thereof embrace a portion of the operating instrumentality of a camera to retain the actuating device in longitudinal alinement with the operating instrumentality.

1,204,507. ELECTRICAL PROTECTIVE DEVICE. BENJAMIN H. SMITH, Turtle Creek, and PAUL MACGAHAN, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 28, 1913. Serial No. 803,408. (Cl. 175—294.)



1. An electrical protective device comprising an electromagnet winding, a transformer having a normally saturated core and a primary winding connected in circuit with said electromagnet winding, a secondary circuit comprising a secondary winding of the said transformer and an auxiliary actuating device and means actuated by said electromagnet winding to close said secondary circuit.

2. In a relay, the combination with an electromagnet, of a transformer having a normally saturated core and

primary and secondary windings, the said primary winding and the winding of the said electromagnet being series-connected, and means operated by said electromagnet to close the circuit of the secondary winding of the said transformer.

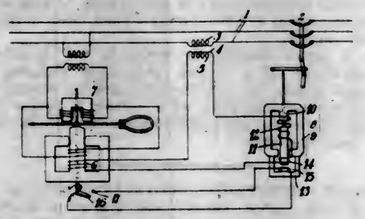
3. In an electric circuit, the combination with a circuit interrupter, a tripping magnet, and a relay for controlling the circuit of the tripping magnet, of a magnetically saturated transformer one winding of which is connected to the circuit through the winding of the relay and the other winding of which is connected in circuit with the tripping magnet.

4. In an electrical circuit, the combination with a circuit interrupter, a tripping magnet, and a relay for controlling the circuit of the tripping magnet, of a normally saturated transformer electrically connected to the circuit, the tripping magnet and the winding of the relay for supplying the tripping magnet with a predetermined value of current irrespective of the current traversing the circuit above a predetermined value.

5. An electrical protective device comprising an electromagnet, a transformer having a normally saturated core, a primary winding connected to the winding of said electromagnet and a secondary winding, and means operated by the said electromaget to control the flow of current through said secondary winding.

[Claims 6 to 14 not printed in the Gazette.]

1,204,508. ELECTRICAL PROTECTIVE DEVICE. BENJAMIN H. SMITH, Turtle Creek, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 11, 1914. Serial No. 850,331. (Cl. 175—21.)



1. The combination with a relay having a winding, of an electromagnet comprising a stationary core member, a movable core member, two windings that produce opposing pulls upon the movable core member and that are connected in series relation with the winding of the said relay, and a third winding that is controlled by the said relay.

2. The combination with an electromagnet comprising a stationary core member, a movable core member, two windings adapted to produce opposing pulls upon the movable core member, and a third winding, of means for closing the circuit of said third winding.

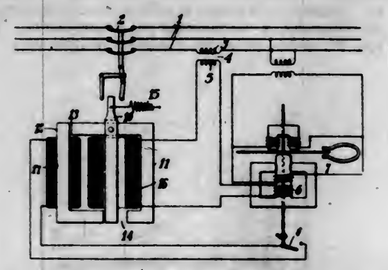
3. The combination with an electromagnet comprising a stationary core member, a movable core member, and two windings adapted to produce opposing pulls upon the said movable core member, of means for neutralising the magnetizing effect of one of the said windings under predetermined conditions.

4. The combination with an electromagnet comprising a stationary core member, a movable core member, two windings adapted to produce opposing pulls upon the said movable member, of means for decreasing the effectiveness of one of the said windings under predetermined conditions.

5. The combination with a relay, of an electromagnetic device comprising a stationary core member, a movable core member, two windings adapted to move the movable core member in opposite directions, and a third winding controlled by the said relay to neutralise the effect of one of the said oppositely acting windings.

[Claims 6 to 28 not printed in the Gazette.]

1,204,509. ELECTRICAL RELAY. BENJAMIN H. SMITH, Turtle Creek, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 11, 1914. Serial No. 850,332. (Cl. 175—21.)



1. The combination with an electrical circuit and a relay, of an electromagnet comprising a magnetisable core having a movable armature and two magnetic paths for the flux traversing the armature, one of which includes an air gap, a winding for the armature, and an auxiliary winding for the magnetic path that does not include the air gap, the circuit of which winding is controlled by the said relay.

2. The combination with an electrical circuit and a relay, of an electromagnet comprising a magnetisable core having a movable armature and two magnetic paths for the flux traversing the armature, one of which includes a substantially constant air gap and the other of which includes a variable air gap, a main winding surrounding the armature, and an auxiliary winding for the magnetic path that includes the constant air gap, the circuit of the auxiliary winding being controlled by the said relay.

3. An electromagnet comprising a magnetisable core having a movable armature and a divided magnetic circuit presenting poles upon opposite sides of the armature, one of said divisions including an air gap, a main winding for the armature, and an auxiliary winding for the core division that does not include the air gap.

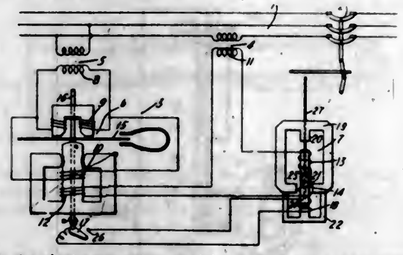
4. An electromagnet comprising a magnetisable core having a movable armature and a divided magnetic circuit presenting poles upon opposite sides of the armature, one of said divisions including an air gap, a normally energised winding for the armature, and a normally deënergised winding for the core division that does not include the air gap.

5. An electromagnet comprising a magnetisable core having two air gaps of unequal width, an armature extending into the wider air gap and dividing the core into two magnetic circuits one of which includes the narrower air gap, a main winding for the armature, and an auxiliary winding for the core division that includes the narrower air gap.

[Claims 6 to 15 not printed in the Gazette.]

1,204,510. ELECTRICAL PROTECTIVE DEVICE. BENJAMIN H. SMITH, Turtle Creek, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 29, 1914. Serial No. 879,497. (Cl. 175—21.)

1. An electromagnetic device comprising a stationary core member, a movable core member having two magnetisable portions, means for resiliently connecting the two portions together, two main windings for the movable core member adapted to move the two portions of the core member in opposite directions and an auxiliary winding for neutralising the effect of one of the main windings under predetermined conditions.



2. An electromagnet comprising a stationary core member, a movable core member having two relatively movable magnetisable parts, a resilient member for operatively connecting the two parts together, two windings adapted to move the two parts of the core member in opposite directions, and means for neutralising the effect of one of the said windings under predetermined conditions.

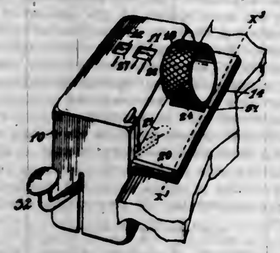
3. In a relay system, the combination with a relay, of an electromagnet comprising a stationary core member, a two-part movable core member, a spring for operatively connecting the two parts together, two windings adapted to produce opposing pulls upon the two parts of the movable core member and a third winding that is controlled by the said relay for neutralising the effect of one of the said windings under predetermined conditions.

4. An electromagnetic device comprising a stationary core member, a two-part movable core member, means for resiliently connecting the two parts of the movable core member together, means tending to move the two parts of the core member in opposite directions and means for so neutralising the said means that the two parts are permitted to move in the same direction under predetermined conditions.

5. An electromagnetic device comprising a stationary magnetizable core member having two magnetic paths, a two-part movable core member, a spring for connecting the two parts of the core member together, a winding for each of the magnetic paths tending to move the two parts of the core member in opposite directions, and a third winding for decreasing the flux in one of the said magnetic paths to permit both parts of the movable core member to move in one direction.

[Claims 6 to 14 not printed in the Gazette.]

1,204,511. MEASURING-MACHINE. CHESTER J. SMITH and CHARLES ERNEST BALDWIN, Jamestown, N. Y. Filed Oct. 13, 1915. Serial No. 55,622. (Cl. 33—134.)



1. A measuring machine comprising a frame, rollers revolubly mounted on said frame to be actuated by drawing the material to be measured therebetween, registering disks rotatively mounted on said frame, a lever pivotally mounted on said frame and extending between said registering disks, geared connection between one of said rollers and one of said disks to rotatively move the same, mechanism on said lever to rotatively move the other registering disk one step when said lever is in normal position by each complete rotation of the first registering disk, said registering disks being released from said mechanism when said lever is moved from normal position.

2. A measuring machine comprising a frame, operating rollers revolubly mounted on said frame to be actuated by drawing the material to be measured therebetween, registering mechanism connected to said operating rollers to register the measurement, one of said rollers mounted on a spring arm to normally press said roller against the other roller, and a lever to simultaneously move said spring pressed roller away from the other roller to permit the insertion of the material to be measured between said rollers, and turn said registering mechanism back to zero.

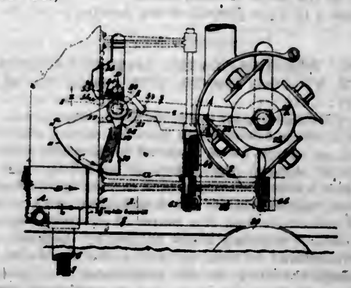
3. A measuring machine comprising a frame, operating rollers revolubly mounted on said frame to be actuated by drawing the material to be measured therebetween, registering mechanism actuated by said operating rollers to register the measurement, a lever and mechanism thereon to return said registering mechanism to the zero position, one of said operating rollers being operatively connected to said lever so that said roller will be moved away from the other roller when said lever returns said registering mechanism to the zero position.

4. A measuring machine comprising a frame, operating rollers rotatively mounted on said frame to be actuated by drawing the material to be measured therebetween, a registering disk having measuring indications thereon, connective gearing between the shaft of one of said rollers and said registering disk to rotatively move the same, a second registering disk facing the first registering disk having an internal gear therein, a lever extending between said registering disks, a gear revolubly mounted on an arbor on said lever and meshing in said internal gear, a star wheel on the opposite end of said arbor to turn the same, and a pin on said first registering disk to engage said star wheel and turn said second registering disk one step at a time.

5. A measuring machine comprising operating rollers to be actuated by drawing the material to be measured therebetween, a registering disk having measuring indications thereon, connective gearing between the shaft of one of said rollers and said registering disk to operate the same, a second registering disk facing the first registering disk having an internal gear therein, a lever extending between said disks, a gear revolubly mounted on said lever and meshing in said internal gear, a star wheel mounted on the same shaft as said gear on said lever to turn therewith, a pin on said first registering disk to engage said starwheel and turn said second registering disk one step, and mechanism operably connected to said lever to separate said operating rollers for the insertion of the material to be measured.

[Claim 6 not printed in the Gazette.]

1,204,512. BOX-STUFF-TRIMMING MECHANISM FOR PLANING-MACHINES. GEORGE ANDREWS SMITH, South Hill, Va. Filed Feb. 16, 1915, Serial No. 8,594. Renewed Sept. 15, 1916. Serial No. 120,420. (Cl. 144—90.)



1. The combination with suitable guiding devices and a shiftable cutter, of automatic means for shifting said cut-

ter into alinement with one edge of the work, automatic means for fixing the cutter at any one of a series of positions according to a predetermined scale, there being provision for relative movement between the cutter and parts of said automatic shifting means permitting said cutter to shift back toward the line of work from any position between the scale determined position irrespective of the said parts of the shifting means whereby if the pieces of work supplied accord to the measures of said scale, the cutter will be adjusted out of operative engagement, but if they do not so accord, said cutter will be adjusted to trim to the next smaller dimension of the said scale.

2. In a board dressing machine; a rotary cutter head, a bodily shiftable frame on which said cutter head is mounted, board controlled means for shifting said frame to a primary position with the cutter head beyond its trimming position, means for producing a reactionary shifting movement of said frame to bring the cutter head to the final trimming position, means for arresting the reactionary movement of said frame and cutter head at a predetermined place, and other means for retaining said frame in its finally set position until the board operated upon has passed the cutter head.

3. In a board dressing machine; a rotary cutter head, a bodily shiftable frame on which said cutter head is mounted, board controlled means for shifting said frame to a primary position with the cutter head beyond its trimming position, means for producing a reactionary shifting movement of said frame to bring the cutter head to the final trimming position, means for arresting the reactionary movement of said frame and cutter head at a predetermined place, other means for retaining said frame in its finally set position until the board operated upon has passed the cutter head, said frame arresting means including a latching device having a limited free movement to allow for the reactionary movement of the frame and cutter head.

4. In a board dressing machine; a fixed guide or fence, a frame bodily adjustable toward or from the fence, a cutter mounted on the frame, means controlled by the passing board to be dressed that moves the frame to first shift the cutter head into alinement with that edge of the passing board to be dressed, automatic means for shifting the cutter back a predetermined distance in back of the edge of the board to be dressed and automatic means controlled by the passing board for holding the cutter to its board dressing position so long as the board is in engagement with the cutter.

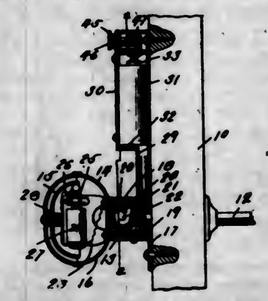
5. In a board dressing machine, a fixed guide or fence, a frame, means for setting the frame at different predetermined distances from the fence or guide, a cutter mounted on and movable with the frame, means controlled by the passing board to be dressed that moves the said frame after it has been set to a predetermined position to shift the cutter into alinement with that edge of the board to be dressed, automatic means for shifting the said frame backward to move the cutter in the direction of the fence or gage to a predetermined position to effect the cut and automatic means controlled by the passing board for holding the frame and the cutter to the last mentioned position as the board is being dressed.

[Claims 6 to 8 not printed in the Gazette.]

1,204,513. BURGLAR-ALARM. JAMES W. SMITH, Brooklyn, N. Y. Filed Aug. 20, 1915. Serial No. 46,569. (Cl. 177—314.)

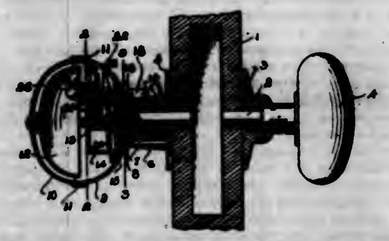
1. In a burglar alarm, the combination with a door and knob, of a source of electricity mounted on the door above the knob, an audible alarm mounted in the knob, electrical connections between the source of electricity and the alarm, and a circuit closing means carried by the knob.

2. In a burglar alarm, the combination with a door, its knob and escutcheon, of a source of electricity mounted on the door, a sounding alarm carried by the knob, electrical connections between the source and the alarm, contact members carried by the escutcheon and insulated therefrom and from the knob, and an operating member carried by the knob for engagement with the contact members for closing the circuit and ringing the alarm when the knob is turned in either direction.



3. In a burglar alarm, the combination with a door, the frame thereof and the knob, of an alarm carried by the knob, a source of electricity carried by the door and connected with the alarm, means operable by the knob for completing the circuit to ring the alarm, and an auxiliary circuit closing means carried by the door and normally held in inoperative position by engagement with the door frame.

1,204,514. BURGLAR-ALARM. JAMES W. SMITH, Brooklyn, N. Y. Filed Dec. 14, 1915. Serial No. 66,823. (Cl. 116—44.)

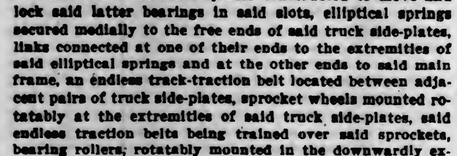


1. In a device of the class described, the combination with a knob spindle, of an escutcheon, a collar rigidly mounted on the spindle and having a segmental slot therein, a knob secured to the collar, a bell within the knob, a knocker for said bell, means for operating the knocker including a toothed wheel, a plate connected to the knocker and adapted to be actuated by the toothed wheel, a gear rigid with the toothed wheel, a spindle mounted in the knob, a gear rigid therewith and meshing with the first mentioned gear, the end of said spindle extending into the knob spindle, a pin secured to the said end and extending through the segmental slot in the collar and means for locking the pin to the escutcheon.

2. In a device of the class described, the combination with a knob spindle, of a gear spindle extending in alinement with the axis thereof and mounted rotatably therein, a knob mounted on said knob spindle, a bell within the knob, the said gear spindle having a pin rigidly connected therewith and extending upwardly through a slot in the knob spindle, the said slot extending to each side of the pin when the latter is in its normal or vertical position and means for maintaining the gear spindle stationary.

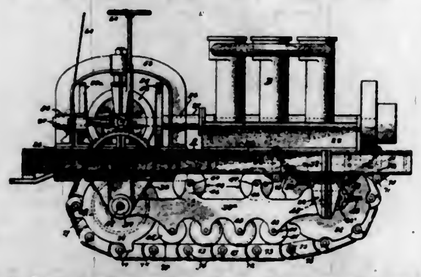
1,204,515. WRENCH. LOUIS W. SMITH, Des Moines, Iowa. Filed Mar. 22, 1916. Serial No. 85,918. (Cl. 81—168.)

A wrench including a shank, a sleeve slidable on said shank, a jaw member mounted at one end of the shank, a jaw member on the sleeve adapted to coöperate with the jaw member on the shank, a plurality of teeth on the shank, a latch adapted to engage the teeth to hold the jaw member in various adjusted positions on the shank, a handle rotatable on the shank, means to hold the handle



against longitudinal movement with relation to the shank, and means connecting the handle with the sleeve whereby when the sleeve is rotated the jaw member will be adjusted.

1,204,516. TRACTOR OF THE ENDLESS-TRACK TYPE. WILLIAM O. STARK, Chicago, Ill., assignor to Bullock Tractor Company, Chicago, Ill., a Corporation. Filed Aug. 20, 1913. Serial No. 785,675. (Cl. 21—150.)



1. In a traction engine, the combination, of a main frame, a motor mounted on said main frame, and two trucks supporting said main frame, each of said trucks comprising two side plates in parallel spaced relation said side-plates having tubular pivots at one of their extremities and slotted apertures at their opposite extremities, there being pending from the lower edges of said plates a series of bearings, and extending upwardly from the upper edge of said plates further bearings, the lower and the upper bearings being in parallel spaced alinement, brackets secured to the lower flanges of the main frame structure near the rear end thereof, journal bearings at the lower ends of these brackets constructed to engage the tubular pivots at the rear ends of the side-plates, further pendant plates near the front end of the main frame between which the forward ends of the trucks are free to move vertically but prevented from lateral movement, bearings in the slots at the forward end of said truck side-plates, means at the forward end of said side plates constructed to move and lock said latter bearings in said slots, elliptical springs secured medially to the free ends of said truck side-plates, links connected at one of their ends to the extremities of said elliptical springs and at the other ends to said main frame, an endless track-traction belt located between adjacent pairs of truck side-plates, sprocket wheels mounted rotatably at the extremities of said truck side-plates, said endless traction belts being trained over said sprockets, bearing rollers, rotatably mounted in the downwardly extending bearings, rotatably mounted carrying rollers in the upwardly projecting bearings of said truck side plates.

2. In a traction engine, the combination, of a main frame, a pair of truck-frames located one on each side of and underneath said main frame, said truck frames comprising each a pair of plates in parallel spaced relation, said main frame including four longitudinal beams in parallel spaced relation, a downwardly extending bracket at each rear end of said beams, a pair of said truck plates being pivotally connected to each adjacent co-acting pair of said rear brackets, a further bracket projecting downwardly from the forward end of each of said beams, said brackets being constructed to permit of vertical movement of said truck frames but prevent lateral movement thereof, a series of superposed elliptical springs medially secured to the forward ends of said truck frames, links connecting at one of their ends to the extremities of said elliptical springs, and brackets under said beams to which the other ends of said links are connected.

3. In a tractor of the type specified, an endless track-band, said track-band including a series of articulate members, a number of said articulate members having each two, oppositely extending bosses, and a driving sprocket, said driving sprocket comprising a drum constructed to run on said articulate members, said drum having on its two margins radially projecting teeth constructed to engage the said oppositely-extending bosses, said teeth being outwardly flared to afford approximately sharp edges.

4. In a traction engine of the type described, a truck, said truck comprising two plates in parallel spaced relation, said plates being approximately medially connected by a cross-bar, each plate having at one of its terminals a tubular trunnion, and at its other terminal a slotted aperture, bearings in said slotted apertures, the center of said bearings being above the center of the tubular trunnions, each of said plates having a multiplicity or downwardly extending bearings, and a series of upwardly projecting bearings, a fixed, non-rotatable, axle constructed to receive the tubular trunnions aforesaid, a shaft constructed to rotate in the bearings in said slotted apertures, said latter shaft carrying two sprocket wheels in spaced relation fixed to said shaft, there being a single sprocket wheel mounted on the fixed axle and constructed to rotate thereon, carrying wheels, rotatably mounted in the downwardly extending bearings, carrying wheels, rotatably mounted in the upwardly projecting bearings, and an endless track-band trained over said sprocket wheels.

1,204,517. BOBBIN FOR SPINNING-MACHINES. FRANK W. STEINACKER, Cleveland, Ohio. Filed Mar. 8, 1915. Serial No. 12,723. (Cl. 242—121.)



1. A bobbin for spinning machines made of relatively light metal having a multiplicity of minute air pockets over extensive surface areas thereof to effect holding of the yarn thereon during unwinding operations and to further reduce the weight of the bobbin.

2. A bobbin for spinning machines comprising a tubular body made of relatively light metal and pitted over its thread-winding surface.

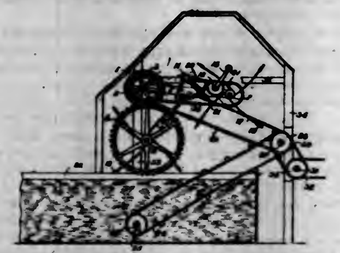
3. A bobbin for spinning machines, comprising a relatively thin tubular metal body having innumerable pits within its surface portions.

4. A bobbin for spinning machines, comprising a metal tube having an enlarged head at one end and reduced in its surfaces by an indefinitely large number of minute pockets of various sizes and form.

5. A bobbin for spinning machines comprising a round metal tube having an enlarged end and an indefinitely large number of minute surface depressions over its entire inside and outside surface area.

[Claims 6 and 7 not printed in the Gazette.]

1,204,518. BRISTLE-REMOVING MACHINE. JOHN H. STEWART, Waterloo, Iowa, assignor to The Albright Nell Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 24, 1911. Serial No. 656,508. (Cl. 17—11.)



1. In combination a linearly movable member and flexible scrapers rotatably mounted thereabove and rotatable oppositely toward each other, one of said scrapers pivotally mounted to be swung out of the field of operation.

2. In a device of the class described a longitudinally movable conveyer, oppositely rotatable shafts mounted thereabove, one of said shafts pivotally mounted to move relatively the other, and flexible scrapers mounted on each shaft and adapted to move toward each other over a carcass brought between them and said conveyer.

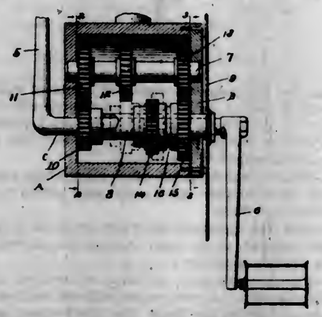
3. In a hog scraping machine a support for the carcasses, oppositely rotatable beater shafts in parallel relation rotated transversely across said support and spaced apart therefrom, one of said shafts being mounted in a fixed bearing and the other shaft being mounted in bearings pivoted adjacent to said first shaft and movable to and from said support and said first shaft.

4. The combination with a movable supporting and scraping mechanism for the carcass, oppositely rotatable shafts rotated thereabove, one shaft mounted in fixed bearings, a pivoted arm supporting the other shaft, means for moving said arm to and from said scraping mechanism, and a plurality of flexible scrapers movably mounted upon said shafts.

5. In a device of the class described a conveyer, a pair of shafts, one pivoted to move eccentrically of the other, flexible scraper arms mounted on each shaft and scraper blades secured on the extremity of each scraper arm.

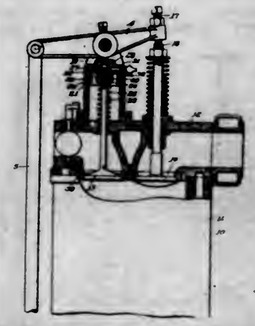
[Claims 6 to 24 not printed in the Gazette.]

1,204,519. TRANSMISSION-GEARING FOR BICYCLES. PERCY WALLACE THOMPSON, Tuscaloosa, Ala. Filed Feb. 12, 1916. Serial No. 77,908. (Cl. 74—58.)



A transmission gearing for a bicycle or the like comprising a crank casing, a crank shaft journaled therein, a counter-shaft journaled in said casing above and parallel with said crank shaft, a plurality of gears fixed to the countershaft and being of different sizes with respect to each other, a driving gear fixed to the crank shaft and meshing with one of the gears on the counter-shaft, a double slidable gear of different sizes with respect to each other and rotatably supported about the crank shaft and alternately engageable with either of the remaining gears on the counter-shaft, a rocking arm mounted within the casing and having a portion thereof engageable with the double slidable gear for moving the same upon the crank shaft, a sleeve surrounding the crank shaft and having one end projecting through the casing and slidably supporting the double slidable gear, and a sprocket wheel fixed to the projecting end of the sleeve outside the casing.

1,204,520. INTERNAL-COMBUSTION ENGINE. CHARLES S. TUTTLE, Milwaukee, Wis., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed July 31, 1914. Serial No. 854,289. (Cl. 137—32.)



1. In combination, a valve having a stem, relatively movable members for guiding said valve in its general line of movement, and a sleeve mounted on the stem of said valve, there being a loose connection between said sleeve and one of said relatively movable members for permitting said valve to seat properly.

2. In combination, a valve, and a cushioning device therefor including a cylinder and a piston for operating therein, said piston being loosely connected to a portion of said valve to insure proper seating of said valve.

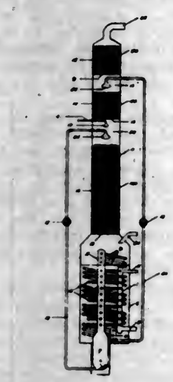
3. In combination, a valve, and a cushioning device therefor including coöperating relatively movable members, one of said members being loosely connected to a portion of said valve to insure proper seating thereof.

4. In combination, a valve having a stem, coöperating relatively movable members for guiding the general line of movement of said valve, and a sleeve mounted on the stem of said valve and extending within one of said relatively movable members, there being a clearance space between said sleeve and one of said relatively movable members to insure proper seating of said valve.

5. In combination, a valve having a stem, a cushioning device for said valve including a cylinder and piston, a sleeve mounted on the stem of said valve and being loosely connected to said piston, a resilient member engaging said sleeve for closing said valve, and means for controlling the degree of cushioning of said valve.

1,204,521. APPARATUS FOR THE SEPARATION OF GASEOUS MIXTURES. HERMAN VAN FLEET, Ardmore, Pa., assignor to American Air-Liquefying Company, New York, N. Y., a Corporation of New York. Filed Apr. 18, 1914. Serial No. 832,776. (Cl. 62—122.)

1. In an apparatus for the separation of gases, the combination of a receptacle, a header therein for the reception of a gaseous mixture, a second header therein, horizontally arranged pipes connected with the said headers, and means for separating the gases of said mixture, the said headers and pipes being adapted to be submerged wholly or partially in a liquid formed by the liquefaction of one of the constituents of the mixture.



2. The combination of a receptacle, a header therein for the reception of a gaseous mixture, a second header in said receptacle in operative relation to the said first-named header, horizontally arranged coiled pipes springing from the first-named header and terminating in the second-named header, the second-named header having connection with a receiver for reception of liquefied gas from such second header, the said headers, coiled pipes and receiver being adapted to be submerged wholly or partially in a liquefied gas.

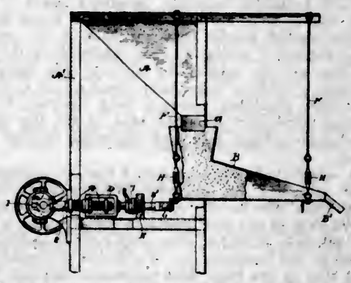
3. The combination of a header for the reception of a gaseous mixture to be separated into its constituent parts, a second header in operative relation to the first-named header, horizontally arranged coiled pipes having connection at their opposite ends with said headers, the second header communicating with a receptacle which receives liquefied gas from such second header, a third header, and helical coils leading from the upper portion of the said second header and terminating in the third header, the several beforementioned parts being adapted to be wholly or partially submerged in a liquefied gas.

4. The combination of a header, connections for supplying a gaseous mixture to said header, one of the said connections being joined to such header near one end and the other of such connections being joined thereto near its other end, a second header, a series of parallel and horizontally arranged coiled pipes connecting the said headers whereby the gas is distributed from the first-named header to the second-named header, such gas being either wholly or partially liquefied in such horizontal pipes, a receptacle having connection with the second-named header for the reception of the liquefied gas, a third header, helical coils having connection with the top portion of the second-named header and extending downwardly and coiling around the two first-named headers and the said horizontally arranged coiled pipes and terminating in the third header, and separate means for conveying the liquids from the said receptacle and from the said third header.

5. The combination of a header, connections for supplying a gaseous mixture to said header, one of the said connections being joined to such header near one end and the other of such connections being joined thereto near its other end, a second header, a series of parallel and horizontally arranged coiled pipes connecting the said headers whereby the gas is distributed from the first-named header to the second-named header, such gas being either wholly or partially liquefied in such horizontal pipes, a receptacle having connection with the second-named header for the reception of the liquefied gas, a third header, helical coils having connection with the top portion of the second-named header and terminating in the third header, and separate means for conveying the liquids from the said receptacle and from the said third header.

[Claims 6 to 16 not printed in the Gazette.]

1,204,522. MECHANICAL STOKER. ENOS A. WALL, Salt Lake City, Utah. Filed June 9, 1916. Serial No. 102,739. (Cl. 193—11.)

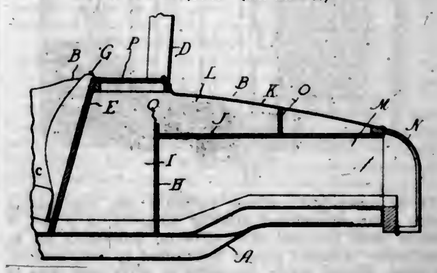


1. A mechanical stoker comprising a horizontally disposed angular tubular chute having an inlet at the upper end of its upright portion and an outlet at the forward end of its horizontal portion; said horizontal portion being tapered toward its outlet for the purpose described, and means for imparting a reciprocatory bumping action to the chute.

2. A mechanical stoker comprising a horizontally disposed angular tubular chute open at its upper end and having a discharge at its forward end; the top wall of the horizontal member of the chute being tapered from the upright member or leg of the chute down to the said discharge, means for constantly supplying the chute, and means for imparting a reciprocatory bumping motion to the chute.

3. A mechanical stoker comprising a horizontally suspended angular chute having a flat bottom and a top wall tapering forwardly to the point of discharge B', a fixed hopper having a lower contracted end dip sealing in the open upper end of the upright member or leg of the chute, and means for imparting a reciprocal bumping action to the chute.

1,204,523. VEHICLE-BODY. FRANK E. WATTS and ADRIAN J. NEERKEN, Detroit, Mich., assignors, by mesne assignments, to Hupp Motor Car Corporation, Richmond, Va., a Corporation of Virginia. Filed Dec. 4, 1914. Serial No. 875,546. (Cl. 21—7.)



1. A vehicle body provided with a seat and having a portion of the body in rear of the seat inclosed, a reinforcing partition extending transversely of said portion of the body and spaced from the back of the seat forming a compartment therewith, means for closing the compartment at the top, including a door, and a shelf in rear of said compartment and accessible from the seat through said door.

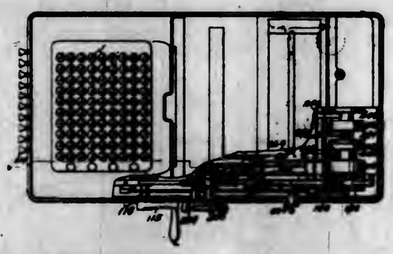
2. A vehicle body provided with a seat and having an inclosure in rear of the seat, an upwardly-extending reinforcing partition extending transversely of the inclosure and spaced from the back of the seat, forming therewith a compartment, and a horizontal reinforcing partition arranged in rear of the first-mentioned partition adjacent the top thereof, forming a shelf, the first-mentioned partition extending for a portion only of the height of said inclosure and having a part extending above said horizontal partition, forming a guard.

3. A vehicle body provided with a seat, a top having the back thereof spaced from the back of the seat, a member extending across the body intermediate the back of the seat and the back of the top, said body being provided with a chamber below said member, and a door in said member providing access to said chamber, a deck extending rearwardly from the back of the top, and a compartment beneath said deck accessible through said chamber.

4. A vehicle body provided with a seat, an inclosure in rear of said seat, an upwardly-extending partition extending from side to side of said inclosure and spaced from the back of the seat forming a compartment, a horizontal partition extending from said vertical partition to the rear of the inclosure and of a width to extend from side to side of the body, said horizontal partition being arranged adjacent but spaced below the top of said inclosure forming a comparatively large compartment, a third partition arranged above the horizontal partition extending from side to side of the body and positioned in rear of the first-mentioned partition, a door at the rear of said inclosure providing access to the second compartment, and a door in the first-mentioned compartment providing access thereto and to the space above the horizontal partition.

5. A vehicle body provided with a seat, a top having the lower edge of its back spaced rearwardly a comparatively wide distance from the upper edge of the seat back, and a member extending across the body substantially from side to side thereof and extending from the back of the seat to the back of the top, a deck extending rearwardly from the back of the top, and a compartment beneath said deck.

1,204,524. COMPUTING-MACHINE. CHARLES P. WETMORE, Milwaukee, Wis., assignor, by mesne assignments, to Wetmore Adding Machine Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 15, 1909. Serial No. 472,499. (Cl. 235—62.)



1. A computing machine including the combination with accumulating and printing members, of a set of rotary cams provided with eccentric grooves, a set of oscillatory members loosely interlocked in said grooves, a power storing motor, connected to drive said cams in synchronism connections driven by said motor for automatically locking the motor upon completion of a single revolution of said cams, locking devices for the accumulating members actuated from said cams for both locking and unlocking operations and transferring members, for communicating movements from one accumulating wheel to the next, also actuated from said cams, some of said cams being connected to actuate the accumulator members and some of them also controlling the printing operations of the printing members.

2. In a computing machine, the combination with accumulating and printing members and manually actuated value setting keys, of a differential lever, a set of movable fulcrum members controlled as to position by the keys, means for actuating said differential lever over one of the fulcrum members, and motion transmitting connections between said levers and the accumulating and printing members.

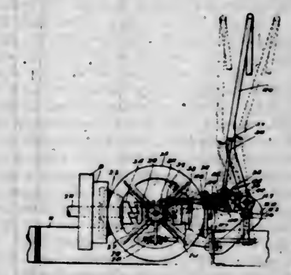
3. A computing machine, including the combination with accumulating and printing members, of a power storing motor, a differential member, and a set of continuously interlocked motion transmitting connections controlled as to operation in part by the differential member and in part by the motor, and adapted to utilize the power of the motor to actuate the accumulating members in both individual and transferring movements and to also adjust the printing members in correspondence with the added values.

4. A computing machine including the combination with accumulating and printing members and keys for setting values, of a power storing motor, motor locking devices, a power storing lever for unlocking the motor, continuously engaged motion transmitting connections for actuating the accumulating and printing members in accordance with the set values, said connections including means for transferring values from one accumulating member to the next, and also including means for mechanically moving the motor locking devices to relocking position after the completion of the other movements.

5. A computing machine including accumulating transferring and printing members, and a power storing motor, the combination of a set of manually actuated value setting keys, of means for manually unlocking the motor, and a motor actuated shaft, provided with a series of members provided with connections adapted to actuate the accumulating and transferring members and control the operation of the printing members, and means whereby the character of the transmitting movements are determined by the set keys; said motor being provided with automatic relocking gears adapted to positively stop the motor after a predetermined cycle of movements which, with said motion transmitting connections are wholly independent of manual control.

[Claims 6 to 104 not printed in the Gazette.]

1,204,525. CLUTCH-CONTROLLER. NELS A. WIDGREN, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed July 9, 1913. Serial No. 778,052. (Cl. 192—1.)



1. In a clutch controller, a support, a plurality of clutch members thereon, a controlling member carried on said support and operatively connected to said clutch members, a latch member on said support, and a cooperating latch member angularly movable with respect to said latch member and yieldingly mounted on said support operatively connected to said controlling member.

2. In a clutch controller, a support, forward and reverse clutch mechanisms mounted thereon, an adjustable clutch adjusting member mounted on said support and operatively connected to said clutch mechanisms to selectively connect the same, a latch member fixed to said support, and an adjustable spring pressed coöperating latch member engaging therewith and movable with respect thereto by said adjusting member.

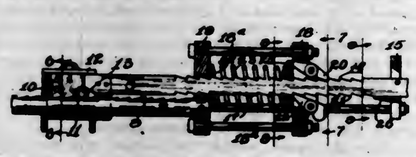
3. In a clutch controller, a support, a plurality of clutches mounted thereon, an adjustable clutch adjusting member for selectively connecting said clutches mounted on said support and operatively connected to said clutches, a latch member fixed to said support, and an angularly adjustable spring pressed latch member cooperating therewith and operatively connected to said clutch adjusting member.

4. In a clutch controller, a support, positive and frictional clutches mounted thereon, an adjustable clutch adjusting member for selectively connecting said clutches mounted on said support and operatively connected to said clutches, a notched latch member carried by said support, and an adjustable spring pressed toothed latch member coöperating with said notched latch member and normally engaging therewith operatively connected to said adjusting member.

5. In a clutch controller, a support, a plurality of clutch mechanisms mounted thereon, a lever mounted on said support controlling the connection of said clutch mechanisms and operatively connected thereto, a serrated latch member carried on said support, a coöperating latch member adjustably mounted on said support having teeth engaging the serrated face of said first mentioned latch member, and means transmitting the movement of said lever to said coöperating latch member.

[Claims 6 to 17 not printed in the Gazette.]

1,204,526. SLACK-ADJUSTER. OLIVER P. WILHELM, Michigan City, Ind., assignor of twenty-five one-hundredths to Santford S. Wilhelm and seventeen and one-half one-hundredths to Lane Wilhelm, Michigan City, Ind., and twenty-five one-hundredths to Ben Loewenthal, Chicago, Ill. Filed Sept. 24, 1914. Serial No. 863,287. (Cl. 188—50.)



1. In a device of the class described a plurality of push bars, ratchet teeth formed thereon, yieldable connections between said push bars, ratchet mechanism for locking said push bars in various extended positions to automatically take up slack in a brake gear, and a safety pawl engaging one of said push bars to prevent accidental movement thereof due to jarring or vibration.

2. In a device of the class described slidably connected parallel push bars, a plate secured on one of said push bars and slidable on the other thereof, another plate slidable on said latter push bar, a pawl mounted in said latter plate adapted to engage in recesses in said latter push bar to lock said block and bar together, another pawl mounted in said plate engaging other recesses in said latter push bar to prevent accidental movement thereof, a compression spring mounted between said respective plates, and mechanism connected to the latter of said push bars and engaging the other thereof adapted to lock said push bars one to another.

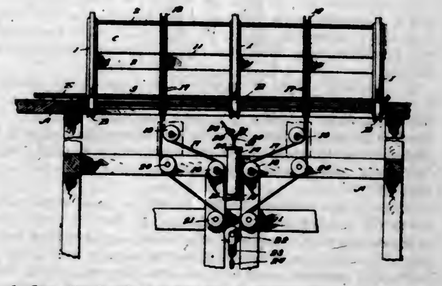
3. In a device of the class described a pair of push bars, ratchet mechanism mounted on one thereof to lock the same to the other push bar, other ratchet mechanisms slidably mounted on said first mentioned push bar and yieldably connected to said latter push bar also acting to lock said push bars one to another, and a pawl connected to one of said push bars and engaging the other push bar to prevent accidental relative movement between said push bars.

4. In a device of the class described a plurality of push bars, a series of ratchet teeth on each thereof, said series directed in opposite directions, a plurality of ratchet mechanisms adapted to lock said push bars one to another to automatically take up slack in a brake gear, and mechanism connected to one of said push bars adapted to engage the other to prevent accidental relative movement between said push bars.

5. In a device of the class described a plurality of push bars adapted to be extended relative one another, ratchet teeth in each thereof, a plurality of ratchet mechanisms acting to lock said push bars one to another in various adjustments after the same have been extended to take up slack in a brake gear, other ratchet mechanisms preventing accidental relative movement between said push bars, and means throwing said latter ratchet mechanism out of operation when relative movement between said push bars in taking up slack is begun.

[Claims 6 to 9 not printed in the Gazette.]

1,204,527. RAILWAY-TIPPLE. ALEXANDER H. WOOD, Petros, Tenn. Filed Jan. 8, 1915. Serial No. 1,163. (Cl. 214—11.)



1. In a tipple, the combination of a rotary frame, means external to the perimeter of said frame for supporting said frame rotatably, a rope extending around said frame in two planes which are transverse to the tipple axis, said rope extending away from said frame at opposite sides of the engagement with the frame, a counter-weight hung shiftably on said rope at one side of said frame, and means applied to said rope at the opposite side of said frame for drawing said rope toward said side in opposition to the action of said counterweight, substantially as described.

2. In a tipple, the combination of a cylindrical frame, means external to the perimeter of said frame for supporting the latter rotatably, a counter-weight, a pulley connected with said counter-weight, an expansion member, a rope in operative relation with said expansion member and extending to and around said cylindrical frame in two planes which are transverse to the tipple axis, and thence beneath said pulley, substantially as described.

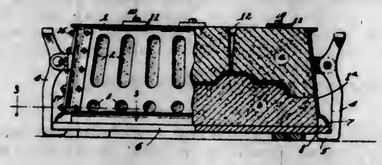
3. In a tipple, the combination of a cylindrical frame, means external to the perimeter of said frame for supporting the latter rotatably, a counter-weight, an expansion member, and tension means leading from said counter-weight and said expansion member to said frame at a plurality of planes transverse to said frame and there engaging said frame, substantially as described.

4. In a tipple, the combination of a cylindrical frame, means external to the perimeter of said frame for supporting the latter rotatably, a counter-weight, tension means leading from said counter-weight to said frame in a plurality of planes transverse to said frame and there engaging said frame, and means under control of an operator for turning said frame in opposition to the action of said counter-weight, substantially as described.

5. In a rotary tipple, the combination of a stationary structure, wheels supported by said structure on two lines parallel to the tipple axis, ring-form ribs resting on said wheels, longitudinal beams extending through said series

of ring-form ribs and secured thereto, two exteriorly-channeled rings surrounding said group of beams and secured thereto, tension means applied to said channel rings, a counter-weight shiftably supported by said tension means and means for drawing said tension means, substantially as described.

1,204,528. MOLD-SHELL. JOHN R. WOOD, Newark, N. J., and DANIEL CURTIS EPRIGHT, Spring City, Pa., assignors, by mesne assignments, to Abram Cox Stove Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 30, 1913. Serial No. 798,352. (Cl. 22—112.)



1. As a new article of manufacture, a mold shell having a substantially open top, bars extending across said top, and connecting means between said bars and said top permitting the said bars to be adjustably secured to the top.

2. As a new article of manufacture, a mold shell having latches pivoted to opposed walls thereof, said latches having projections adapted to engage and project beneath a bottom board, said shell having an outwardly projecting chamber at the bottom of the wall thereof, and bars extending across and adjustably connected to the top thereof.

3. As a new article of manufacture, a mold shell comprising a plurality of sections, means for securing the sections together, latches pivoted to opposed sections, said latches having projections adapted to engage and project beneath a bottom board, the said board forming with the bottom of each section an outwardly extending chamber, and bars extending across and adjustably connected to the tops of opposed sections.

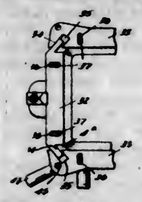
4. A pouring frame for molds having continuous tapered side walls arranged to surround the mold, said frame being open at the top and bottom and having flanges at both the top and bottom and having vertical slots in the side walls; and latches pivotally mounted at opposite sides of the frame and arranged to engage the bottom board when the frame is placed over the mold.

5. As a new article of manufacture, a mold shell having the bottom of its wall projected outwardly, a bottom board for said shell, and means for securing the board to the shell in engagement with the outwardly projecting portion of said wall whereby the bottom board forms a chamber with such portion of the wall.

[Claim 6 not printed in the Gazette.]

1,204,529. MOLDING-MACHINE. JOHN R. WOOD, Newark, N. J., and DANIEL CURTIS EPRIGHT, Spring City, Pa., assignors to The Peerless Flask and Molding Machine Company, Newark, N. J., a Corporation of New Jersey. Original application filed Apr. 14, 1913, Serial No. 760,955. Divided and this application filed November 25, 1913. Serial No. 802,868. (Cl. 22—111.)

1. The combination, with a flask section, of a plate slidably supported at the bottom of such section, means connected with said plate for moving the same inwardly and outwardly, a second plate slidably supported at the bottom of said flask section, connections between said plate and the first mentioned plate whereby the second plate will be moved inwardly and outwardly by corresponding movements of the first mentioned plate, one or more additional plates slidably supported at the bottom of the flask section, and interengaging connections between the last mentioned plate or plates and the two first mentioned plates whereby such other plate or plates will be moved inwardly and outwardly by corresponding movements of the two first mentioned plates.



2. The combination, with a flask section, of a plate slidably supported at the bottom of said section, means connected with said plate for moving the same inwardly and outwardly, a second plate slidably supported at the bottom of the flask section, means connecting the last mentioned plate with the first mentioned plate whereby the last mentioned plate will be moved inwardly and outwardly with the first mentioned plate, additional plates slidably supported at the bottom of the flask section, and interengaging connections, including inclined slots and projections, between the said other plates and the first and second plates whereby all of said plates will be moved inwardly and outwardly by movements imparted to the first mentioned plate.

3. The combination, with a cope having a bottom flange, of plates slidably mounted on opposite sides of said flange, levers connected to one of said plates and adapted to move the same inwardly and outwardly, links connected with said levers and with the opposite plate for moving the same inwardly and outwardly simultaneously with the first-mentioned plate, plates mounted on the intermediate sides of the cope bottom flange, and means including inclined slots and projections for connecting the last-mentioned plates with the first-mentioned plates.

4. The combination, with a cope, of plates slidably mounted on opposite sides of the bottom of the cope, levers connected to one of said plates and adapted to move the same inwardly and outwardly, links connected with said levers and with the opposite plate for moving the same inwardly and outwardly by the movement of the first-mentioned plate, plates mounted on the intermediate sides of the cope bottom, and means connecting the last-mentioned plates with the first-mentioned plates.

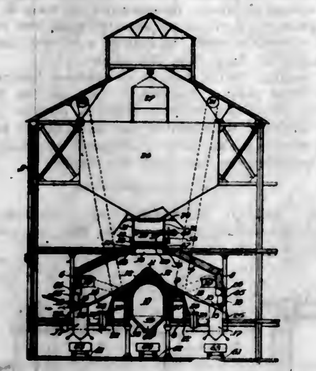
5. The combination, with a flask section, of a plurality of segmental plates slidably mounted on the bottom of the said flask section and adapted to be moved within the inner periphery of said bottom, means connected with one of said plates for moving the same, connections between said plate and an opposed plate whereby the last mentioned plate may also be moved inwardly and outwardly as the first mentioned plate is so moved, and connections whereby the movements of the said plates will be transmitted to the remaining plates.

[Claims 6 to 11 not printed in the Gazette.]

1,204,530. INCINERATING-FURNACE. WALTER B. WRIGHT, Chicago, Ill. Original application filed Sept. 6, 1912, Serial No. 718,846. Divided and this application filed May 7, 1914. Serial No. 836,888. (Cl. 110—12.)

1. In an incinerating furnace, the combination with the furnace chamber having a feed opening in its roof, of a closure for said feed opening, a drying hearth beneath said opening formed with a sloping side on which the material introduced is adapted to lodge, a stationary fire grate section opposite the lower end of said sloping side, a clinker door opposite and substantially in the horizontal plane of the outer end of said stationary fire grate section and within the furnace chamber adapted to catch unconsumed matter overflowing said fire grate section and hold it until consumed, a clinker pocket beneath said clinker door, and means for opening said clinker door.

2. In an incinerating furnace, the combination with the furnace chamber having a feed opening in its roof, of a closure for said opening, a drying hearth beneath said opening formed with a sloping side on which the material introduced is adapted to lodge, a stationary inclined fire grate section opposite the lower end of said sloping side, a horizontally hinged clinker door opposite and substantially in the horizontal plane of the lower end of said inclined fire grate section and within the furnace chamber adapted to catch unconsumed matter overflowing said fire grate section and hold it until consumed, a door in the furnace wall opposite said clinker door serving to permit poking of the fire from outside the furnace chamber, a clinker pocket beneath said clinker door, and means extending through the wall of the furnace for opening said clinker door.

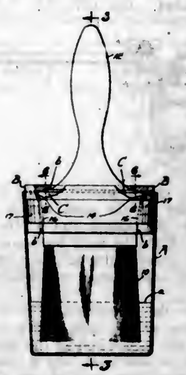


3. In an incinerating furnace, the combination with the containing walls of the furnace, and a basement chamber beneath the furnace floor, of an inclined fire grate within the furnace chamber, a clinker pocket located opposite and beneath the lower end of said fire grate and extending through the furnace floor and into said basement chamber, a normally closed door on the upper end of said clinker pocket, door-operating means extending to a point outside the furnace, automatically closing valves on the lower end of said clinker pocket adapted to be opened by the weight of the clinker, and a delivery car adapted to travel in said basement chamber beneath the lower end of said clinker pocket.

4. In a double-end incinerating furnace of the character specified, the combination with the containing walls of the furnace, and a basement chamber beneath the furnace floor, of fire-grates located at opposite ends of the furnace chamber, a central discharge flue extending crosswise of said furnace chamber, branch flues connecting the opposite ends of said furnace chamber with said central flue, a dust pocket formed with sloping walls beneath and in open communication with said central discharge flue and extending through the furnace floor and into said basement chamber and provided with a valve-controlled discharge-opening in its lower end, and a delivery car adapted to travel beneath the lower end of said dust pocket.

5. In a double-end incinerating furnace of the character specified, the combination with the containing walls of the furnace, and a basement chamber beneath the furnace floor, of inclined fire-grates located at opposite ends of the furnace chamber, clinker pockets beneath the lower ends of said fire-grates and extending through the furnace floor and into said basement chamber, said clinker pockets having openable bottoms, a central discharge flue extending crosswise of said furnace chamber between said fire-grates, branch flues connecting the opposite ends of said furnace chamber with said central flue, a dust pocket formed with sloping walls beneath and in open communication with said central discharge flue and extending through the furnace floor and into said basement chamber and provided with a valve-controlled discharge-opening in its lower end, and delivery cars adapted to travel beneath the lower ends of said clinker pockets and said dust pocket.

1,204,531. BRUSH-HOLDER. WALTER E. WRIGHT, Cleveland, Ohio. Filed Dec. 30, 1915. Serial No. 69,322. (Cl. 91—67.2.)



1. In a brush-holder for a cup, a head adapted to enter the upper end-portion of and be removably supported from the cup and provided with an aperture which extends from the outer end to the inner end of the head and divided at said aperture into two separable sections adapted to embrace the stock of a brush, said sections being provided at the outer end of the head with shoulders facing in the direction of the inner end of the head.

2. In a brush-holder for a cup, a head adapted to enter the upper end-portion of and be removably supported from the cup and provided with an aperture which extends from the outer end to the inner end of the head and divided at said aperture into two separable sections adapted to embrace the stock of a brush, said head being provided at its outer end with shoulders which face in the direction of the inner end of the head and having internal sloping surfaces which face in the direction of the outer end of the head.

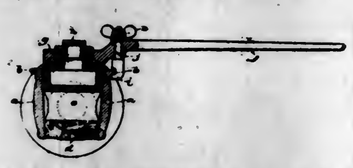
3. In a brush-holder for a cup, a head adapted to be removably inserted into the upper end-portion of the cup and having an aperture which extends endwise of and through the head, said head being divided at said aperture and from end to end of the head into two laterally separable sections and provided at its outer end with a shoulder which faces in the direction of the inner end of the head.

4. In a brush-holder for a cup, a head adapted to be removably inserted into the upper end-portion of the cup and having an aperture which extends from the outer end to the inner end of the head, said head being divided at said aperture into two separable sections and provided at its outer end with a shoulder which faces in the direction of the inner end of the head and having means for preventing endwise displacement of the head-sections independently of each other.

5. In a brush-holder for a cup, a head adapted to fit internally of the upper end-portion of the cup and having an aperture extending from the outer end to the inner end of the head, which head has an external layer of packing extending around the head and an internal layer of packing extending around the aforesaid aperture, said head being divided at said aperture into two separable sections adapted to embrace the stock of a brush, one of said sections being provided at its inner face at one side of said aperture with a layer of packing connecting the aforesaid internal and external layers

of packing together, and the other of said sections being provided at its inner face at the opposite side of said aperture with a layer of packing connecting said external and internal layers together.

1,204,532. COCK. JOSEPH A. ZWIEBEL, Burlington, Wis., assignor to Burlington Brass Works, Burlington, Wis., a Corporation of Wisconsin. Filed Apr. 20, 1916. Serial No. 92,347. (Cl. 137—7.)



1. In a cock the combination of a case having a tapered bore open at the ends and a peripheral flange notched adjacent the larger end of the bore, a tapered plug removably fitted in said bore, and a hook detachably adjustably connected with the plug and adapted by engagement with said flange to confine the plug in the case.

2. In a cock the combination of a case having a tapered bore open at the ends and a peripheral notched flange adjacent the larger end of the bore, a tapered plug removably fitted in said bore, and a hook connected with the plug and adapted by engagement with the flange to hold the plug in place in the case within the range of movement normal for opening and closing the cock, but when turned into normal position opposite the notch in the flange to permit instant removal of the plug from the case in its normal open and closed positions and by its adjustment to take up wear and play between the plug and case.

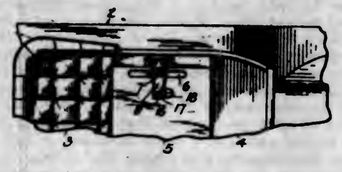
3. In a cock the combination of a case having a tapered bore open at the ends and a peripheral flange adjacent the larger end of the bore, a tapered plug removably fitted in said bore, and a hook connected with said plug and adapted by engagement with said flange to hold the plug in place in the case, the hook being adjustable axially relative to the plug and adapted to take up play between the plug and case and to lock the plug in different angular positions.

4. In a cock the combination of a case having a tapered bore open at the ends and a notched peripheral flange adjacent the larger end of the bore, a tapered plug removably fitted in the case, and a hook adjustably connected with the plug and adapted by engagement with said flange to hold the plug in place in the case within the range of movement for opening and closing the cock, but when turned into abnormal position opposite the notch in the flange to permit instant removal of the plug from the case, the adjustment of the hook relative to the plug serving to tighten or loosen the plug in the case.

5. In a cock the combination of a case having a tapered bore open at the ends and a peripheral flange adjacent the larger end of the bore, a tapered plug removably fitted in said bore and provided at the larger end with a handle arm, a hook adapted to engage with said flange to hold the plug in place in the case and having a threaded shank fitted in a hole in the handle arm parallel with the axis of the plug and provided with a nut for taking up play between the plug and case.

1,204,533. LOCK FOR MOTOR-VEHICLES. CHARLES M. ANDRASEN, Denver, Colo., assignor to Auto Power Generator & Appliance Co., a Corporation of Colorado. Filed Oct. 13, 1915. Serial No. 55,642. (Cl. 70—90.)

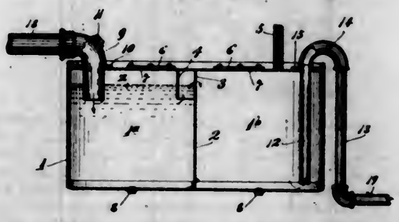
1. The combination with a motor-vehicle, of a pivoted hasp, a foot on said hasp for supporting it in its normal upright position, a spring yieldingly maintaining the hasp in its said normal position, a staple fixed for co-operation with the hasp, and a lock to secure the hasp upon the staple.



2. A locking device for motor-vehicles comprising a plate adapted to be secured upon the floor of a vehicle, a hasp pivoted on said plate, a foot on said hasp for supporting it in its normal position at right angles to the plate, a spring yieldingly maintaining the hasp in its said normal position, a staple coöperative with the hasp and adapted to be fixed upon the floor of a vehicle, and a lock for securing the hasp upon the staple.

3. A locking device for motor-vehicles comprising a plate, a hasp pivoted thereon, a foot on the hasp for supporting it in its normal position on the plate, a spring yieldingly maintaining the hasp in its said normal position, a staple coöperative with the hasp, and a lock for securing the hasp upon the staple.

1,204,534. SEPTIC SEWAGE-TANK. GEORGE C. ANDREWS, Minneapolis, Minn. Filed Mar. 20, 1912. Serial No. 685,120. (Cl. 210—18.)



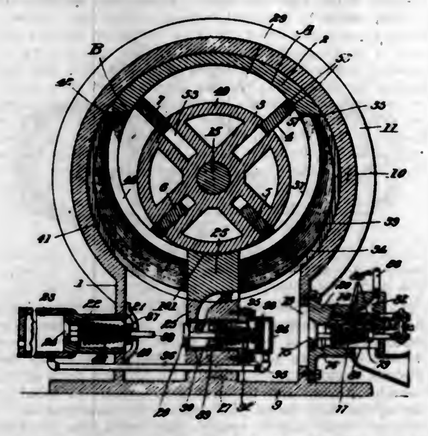
1. A septic tank having a settling chamber and a siphon chamber connected at their upper portions by an overflow passage, and provided with rigid substantially closed tops, said settling chamber having an inlet conduit, and said siphon chamber having a discharge siphon arranged to intermittently discharge therefrom, the diameter of the inlet conduit being materially larger than the diameter of the siphon.

2. In a sewage system, a settling chamber and a siphon chamber connected at their upper portions by an overflow passage, and provided with substantially closed tops approximately on the same level, said settling chamber having an inlet conduit, and said siphon chamber having a discharge siphon, the crown of which extends above the tops of the said two chambers, substantially as described, the diameter of said inlet conduit being materially larger than the diameter of said siphon.

3. A septic tank having a partition with an overflow passage, said partition dividing said tank into a settling chamber and into a siphon chamber, a sewage pipe delivering into said settling chamber, a siphon leading from said siphon chamber, and a barrier plate extending downward from the top of said tank into said settling chamber and having its ends extending loose against said partition, substantially as described.

1,204,535. COMPRESSOR, PUMP, OR THE LIKE. BENJAMIN F. AUGUSTINE, Buffalo, N. Y. Filed Sept. 21, 1911. Serial No. 650,616. (Cl. 230—30.)

1. A rotary compressor including in combination a casing having a cylindrical chamber therein, a rotatable member mounted in said chamber and having contact with the wall of the chamber, a radial piston mounted on said rotatable member, a compression-chamber located adjacent the under side of the cylindrical chamber, the latter having a port connecting it with the compression chamber, and an inlet port located on the opposite side of the point of contact between the rotatable member and the cylindrical chamber, said point of contact between the rotatable member and the cylindrical chamber being arranged between said inlet and outlet ports, one of said ports extending from the point of contact between the rotatable member and the cylindrical chamber to a point above the axis of the rotatable member.



2. A rotary compressor including in combination, a casing, an abutment located within said casing and having a cylindrical chamber therein, a rotary carrier within said abutment, said carrier having contact with the wall of the abutment, radial pistons mounted on said carrier, a compression chamber, said abutment having an outlet port connecting the chamber therein with said compression chamber, and an inlet port located on the opposite side of the point of contact between the carrier and the abutment, said inlet port extending from said point of contact to a point above the axis of said carrier, said point of contact between the carrier and the abutment being located between said inlet and outlet ports.

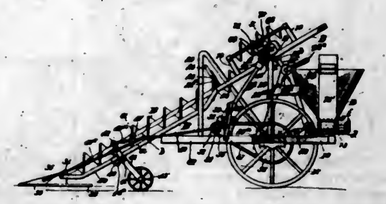
3. A rotary compressor including, in combination, a casing having a cylindrical chamber therein, a rotatable member mounted in said chamber, said rotatable member having contact with the wall of the chamber, a radial piston mounted on said rotatable member, a compression chamber, said cylindrical chamber having an outlet port connecting said chamber with said compression chamber, and an inlet port located on the opposite side of the point of contact between the rotatable member and the cylindrical chamber, said inlet port extending from said point of contact to a point above the axis of said rotatable member, said point of contact being arranged between said inlet and outlet ports, and means to automatically control the supply of fluid to the compression chamber.

4. A rotary compressor including, in combination, a casing having a cylindrical chamber therein, a rotatable member mounted in said chamber, said rotatable member having contact with the wall of the chamber, radial pistons mounted on said rotatable member, a compression chamber, said cylindrical chamber having an outlet port connecting said chamber with the compression chamber, and an inlet port located on the opposite side of the point of contact between the rotatable member and the cylindrical chamber, said inlet and outlet ports extending from said point of contact to a point above the axis of said rotatable member.

5. A rotary compressor including, in combination, a casing having a cylindrical chamber therein, a rotatable member mounted in said chamber, said rotatable member having contact with the wall of the chamber, radial pistons mounted on said rotatable member, a compression chamber, said cylindrical chamber having an outlet port connecting said chamber with the compression chamber, and an inlet port located on the opposite side of the point of contact between the rotatable member and the cylindrical chamber, said inlet and outlet ports extending from said point of contact to a point above the axis of said rotatable member, said point of contact being arranged between said inlet and outlet ports.

[Claims 6 to 12 not printed in the Gazette.]

1,204,536. HARVESTER. J SIDNEY BACHTEL, Higgins, Tex. Filed May 13, 1914. Serial No. 838,357. (Cl. 56—131.)



1. In a harvester, a body frame, a hopper on the body frame, a vertically swinging elevator frame, screw conveyers carried by the elevator frame, means for raising and lowering the elevator frame, runners carried by the forward end of the elevator frame and means for spreading the sides of the elevator frame.

2. In a harvester, a body frame, a hopper on said frame provided with an opening in its bottom, a swingingly mounted elevator frame, screw conveyers journaled in the elevator frame, means for operating the screw conveyers, means for raising and lowering the elevator frame, runners carried by the elevator frame, a conveyer leading from the opening in the bottom of the hopper and means for spreading the sides of the elevator frame.

3. In a harvester, a body frame, a hopper on the body frame, an elevator frame, screw conveyers in the elevator frame, means for operating the screw conveyers, means for raising and lowering the elevator frame, runners carried by the forward end of the elevator frame, an auxiliary conveyer coöperating with said screw conveyers, and means for spreading the sides of the elevator frame.

4. In a harvester, a body frame, a hopper on said frame provided with an opening in its bottom, an elevator frame, screw conveyers journaled in the elevator frame, means for operating the screw conveyers, means for raising and lowering the elevator frame, runners carried by the elevator frame, a conveyer leading from the opening in the bottom of the hopper, an auxiliary conveyer coöperating with said screw conveyers and means for spreading the sides of the elevator frame.

5. In a harvester, a body frame, a hopper on the body frame, an elevator frame, elevating means mounted in the elevator frame, runners carried by the elevator frame, means for operating said elevating means and means for spreading the sides of the elevator frame.

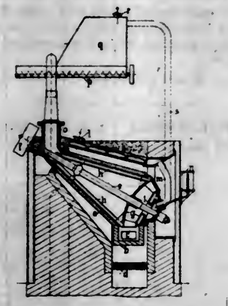
[Claims 6 to 13 not printed in the Gazette.]

1,204,537. METHOD OF AND APPARATUS FOR PRODUCING LEAD OXID. EMIL BARTHELMESS, Neuss, Germany. Filed Apr. 25, 1914. Serial No. 834,426. (Cl. 75—19.)

1. The method of producing lead oxid consisting in atomising molten lead in a uniformly heated chamber, passing a stream of gas containing oxygen through said chamber, adding water drop by drop in measured quantities to said gas, and drawing off the gas with lead oxid dust in suspension; substantially as described.

2. The method of producing lead oxid consisting in atomizing molten lead in a uniformly heated chamber,

passing a stream of gas containing oxygen through said chamber, adding water drop by drop in measured quantities to said gas, drawing off the gas with lead oxid dust in suspension, and separating the lead oxid dust from the gas, substantially as described.



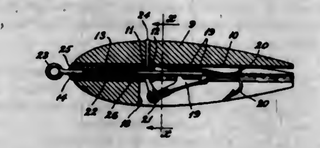
3. The method of producing lead oxid consisting in atomizing molten lead in a uniformly heated chamber, passing a stream of gas containing oxygen through said chamber, adding water drop by drop in measured quantities to said gas, drawing off the gas with the lead oxid dust in suspension, separating the lead oxid dust from the gas and repassing the gas through the chamber, substantially as described.

4. The method of producing lead oxid consisting in admitting heating gases to direct contact with all the outer surfaces of an oxidation chamber, passing a heated stream of gas containing oxygen through said chamber, adding water drop by drop in measured quantities to said stream, drawing off the gas with the lead oxid dust in suspension, separating the dust from the gas, and regulating the velocity of the gas for expelling the oxid, substantially as described.

5. The method of producing lead oxid consisting in atomizing molten lead in a uniformly heated chamber, passing a stream of gas containing oxygen through said chamber, adding water drop by drop in measured quantities to said gas, drawing off the gas with lead oxid dust in suspension, and returning the unoxidized lead from the chamber back to the path; substantially as described.

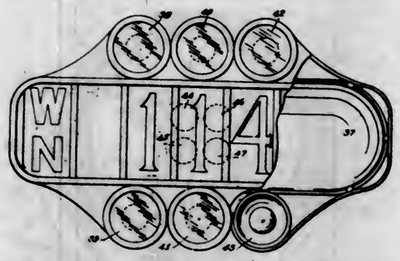
[Claims 6 to 16 not printed in the Gazette.]

1,204,538. ARTIFICIAL BAIT. WARREN S. BELDING, Seattle, Wash., assignor of one-half to Frank Warren, Seattle, Wash. Filed Dec. 13, 1915. Serial No. 66,635. (Cl. 43—30.)



An artificial bait of the class described, which embodies a cigar shaped body portion having a hole that extends through it in a lengthwise direction and having radially disposed slots which extend between said hole and the outer surface of said body portion throughout a portion of its length; a shaft disposed to be movable in an endwise direction in said hole; hook supporting arms made of sheet metal, all parts of each of which are integral with each other and each of which is formed to have two members united by a connecting strip and each of which is disposed on said shaft with said connecting strip bent to make a semi-circular engagement with said shaft whereby said two members are disposed side by side and spaced from each other and whereby said two members may project into one of said radially disposed slots; and a fish hook pivotally secured between the outer end portions of said two members.

1,204,539. AUTOMOBILE SPEED-SIGNAL. ALBERT O. BENSON, ART A. BENSON, GUY MIRL BENSON, and HALDOR K. SOLBERG, Seattle, and CHARLES H. FLICK, Ellensburg, Wash., assignors to Benson, Flick & Solberg, Inc., Seattle, Wash., a Corporation of Washington. Filed Mar. 10, 1915. Serial No. 13,539. (Cl. 175—355.)



1. A signaling device for motor vehicles, consisting in a signal box inclosing a plurality of colored lamps arranged in pairs of respective colors, electric circuits connected with said lamps, mechanism interposed in said electric circuits and connected with rotative parts of said vehicle to close and to break said circuits to light and extinguish said lamps in response to variations in the rate of travel of said vehicle, said mechanism providing for the illumination of said colored lamps singly or in pairs, said pairs consisting in lamps of a similar color only.

2. A signaling device for motor vehicles, consisting in a signal box inclosing a plurality of colored lamps arranged in pairs of respective colors, said lamps of similar colors being separated by a space whereby their identity can be distinguished, electric circuits connected with said lamps, mechanism interposed in said electric circuits and connected with rotative parts of said vehicle to close and to break said circuits to light and extinguish said lamps in response to variations in the rate of travel of said vehicle, said mechanism providing for the illumination of said colored lamps singly or in pairs, said pairs consisting in lamps of a similar color only.

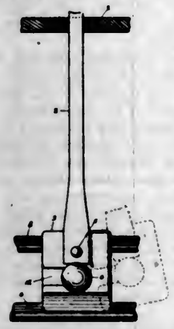
3. A signaling device for motor vehicles, comprising speedometer mechanism connected with a wheel of a vehicle, a cross-arm connected with said speedometer mechanism and adapted to be moved about a central pivot point thereby, contact rollers provided on the ends of said cross arm, a dial, contact members provided in said dial in the path of said rollers, a signal box embodying a plurality of colored lamps, arranged in pairs with respect to color, associated with the front portion of said vehicle, a similar signal box associated with the rear portion of said car, another signal box associated with said car adjacent a driver's seat in said car, and electric circuit wires connected with said lamps in said signal boxes and with said contact members to electrify corresponding lights in all of said three signal boxes in response to a movement of said contact rollers over said contact members.

4. A signaling device for motor vehicles, comprising speedometer mechanism connected with a vehicle wheel, an arm connected with said speedometer mechanism having contact devices at its opposite ends, a dial, contact members arranged upon opposite sides of said dial over which said arm-contacts are adapted to move to close and break electrical circuits, colored signal lamps associated with the front and rear portion of a vehicle, an electric circuit wire connected with said lamps and with said arm-contacts, and other electric circuit wires connected with certain of said lamps and with certain of said contact members to cause different ones of said lamps to be lighted in response to the presence of said contact arm on different ones of said contact members, the position of said contact arm having a definite relation to the speed of travel of said vehicle.

5. A signaling device for motor vehicles, comprising speedometer mechanism connected with rotatable parts of a vehicle, a contact arm associated with said speedometer mechanism and adapted to be moved thereby in response to a change in the speed of travel of said vehicle, contact members over which said contact arm is adapted to move, said contact members being of different lengths, signal boxes connected with the front and rear portions of the car, said signal boxes each consisting in a compartment with which a registration number may be associated, said compartment having a plurality of colored lamps disposed therein, colored signal lamps disposed on each side of said compartment, and electric circuit wires connecting said lamps with said contact arm and said contact members whereby when lamps of one color outside of said compartment are lighted, lamps of the same color within said compartment may be lighted.

[Claims 6 to 9 not printed in the Gazette.]

1,204,540. TROLLEY-WIRE HANGER. GLENN HENRY BOLUS, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed May 12, 1916. Serial No. 97,124. (Cl. 191—43.)



1. A suspension device for wires consisting of an inverted U-shaped suspension member, a gripping jaw attached to each end of the suspension member and having parallel wire grooves and arranged to register with each other and means passing between the wire grooves for clamping the gripping jaws in place on the wires.

2. A suspension device for wires consisting of a suspension member, gripping jaws attached thereto and having parallel wire grooves and arranged to register with each other and means passing between the wire grooves for clamping the gripping jaws in position on the wires.

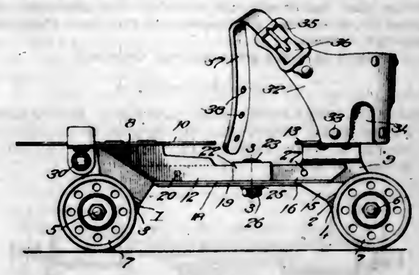
3. A suspension device for wires consisting of a suspension member, gripping jaws attached thereto and normally registering with each other, means for clamping the gripping jaws in normal registering position by an endwise movement of the jaws with respect to each other, means on one gripping jaw permitting the gripping jaws to be thrown out of normally registering position.

4. A suspension device for wires consisting of a suspension member, gripping jaws attached thereto and normally registering with each other, means for clamping the gripping jaws in normal registering position and means on one gripping jaw permitting the gripping jaws to be thrown out of their normally registering position without disengaging the clamping means from more than one jaw.

5. A suspension device for wires consisting of a suspension member, gripping jaws attached thereto and normally registering with each other and a clamping member passing through a hole in one jaw and an open end slot in the other jaw.

[Claims 6 to 13 not printed in the Gazette.]

1,204,541. ROLLER-SKATE. FRANK E. BROWN, Webster City, Iowa. Filed Jan. 28, 1915. Serial No. 4,918. (Cl. 46—51.)



1. A skate comprising heel and toe portions, a pair of spaced-apart extension plates having outwardly extending flanges carried at the lower edges thereof arranged to project from the heel portion in a forward direction, a pair of like flanged plates carried by the toe portion in a spaced-apart relation to be interfitted with the extension plates of the heel portion, and means to bear against said extension plates and the flanges thereof to secure the same in a rigid adjusted relation and to prevent longitudinal shifting of the one pair with respect to the remaining plates.

2. A skate comprising heel and toe portions, a pair of spaced-apart extension plates having outwardly extending flanges provided at the lower edges thereof, which plates are arranged to project from the heel portion in a forward direction, a pair of like flanged plates carried by the toe portion in a spaced-apart relation to be interfitted with the extension plates of the heel portion, a clip to be fitted over the interfitted extension plates, and a clamp bolt coöperating with said clip to bring the plates of the one pair to a frictional bearing against the plates of the second pair and to maintain the heel and toe portions rigidly in their spaced relation.

3. A skate comprising heel and toe portions, a pair of spaced-apart extension plates having outwardly extending flanges carried at one edge thereof formed to project from the heel portion in a forward direction, a pair of like flanged plates carried by the toe portion in a spaced-apart relation to be interfitted with the extension plates of the heel portion, a U-shaped clip to be fitted over the interfitted extension plates, and a clamp bolt coöperating with said clip to bring the plates of the one pair to a frictional bearing against the plates of the second pair and to maintain the heel and toe portions rigidly in their spaced relation.

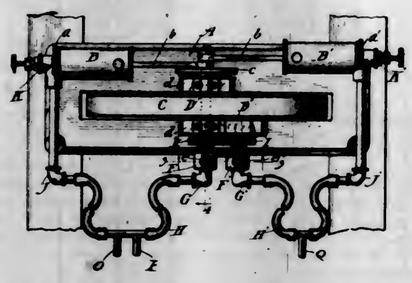
4. A skate comprising heel and toe portions, a pair of spaced-apart extension plates having outwardly extending flanges carried at one edge thereof formed to project from the heel portion in a forward direction, a pair of like flanged plates carried by the toe portion in a spaced-apart relation to be interfitted with the extension plates of the heel portion with the flanges of the one set of plates overlying the flanges of the remaining set, a clip to be fitted over the interfitted extension plates to bear against the flanges of one set of plates, and a clamp bolt coöperating with said clip to bring the flanges of the plates of one pair to a frictional bearing against the flanges of the plates of the second pair and to maintain the heel and toe portions rigidly in their spaced relation.

5. A skate comprising heel and toe portions, a pair of spaced apart extension plates projecting forwardly from

the heel portion and provided with outwardly extending flanges at the lower edges, a pair of like flanged plates extending rearwardly from the toe portion in a spaced apart relation to be interfitted with the extension plates of the heel portion in a relation that the flanges are fitted in an overlying arrangement, a U-shaped clip to be fitted over said extension plates to come to a bearing at its ends against the flanges of one set of plates, a washer to bear against the lower sides of the flanges of the remaining set of plates, and a clamp bolt received through the clip and through the washer to clamp the parts in a relation that the flanges are brought to a frictional engagement to prevent displacement of the parts from the adjusted relation.

[Claims 6 to 9 not printed in the Gazette.]

1,204,542. PULSATOR FOR MILKING-MACHINES. LIONEL BULL, Libertyville, Ill., assignor of one-half to George R. Linn, Chicago, Ill. Filed Dec. 19, 1914. Serial No. 878,011. (Cl. 31—101.)



1. In a pulsator, in combination, a suction pipe, a pair of service pipes, valves for connecting the service pipes alternately with the suction pipe and a source of air, the valves being oppositely set and means actuated by suction in the service pipes for operating the valves.

2. In a pulsator, in combination, a suction pipe, a service pipe, a valve for alternately connecting the service pipe with the suction pipe and with a source of air, a reciprocating motor for operating the valve, a momentum wheel for regulating the motor, and connection between the service pipe and the motor for actuating the motor.

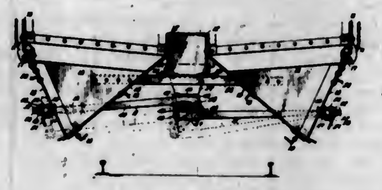
3. In a pulsator, in combination, a suction pipe, a service pipe, a valve for alternately connecting the service pipe with the suction pipe and with a source of air, a reciprocating motor for actuating the valve and having an end of its cylinder open to atmosphere and the other end thereof in communication with the service pipe such communication being controlled by the named valve.

4. In a pulsator, in combination, a suction pipe, a service pipe, a valve for alternately connecting the service pipe with the suction pipe and with a source of air, a reciprocating motor for actuating the valve and having an end of its cylinder open to atmosphere, the other end thereof being in communication with the service pipe, such communication being controlled by the named valve, and a regulating valve in connection with the service pipe.

5. In a pulsator for a milking machine, in combination, two independent service pipes, teat-cup pipes leading from such service pipe, exhaust pipes, rotating valves connecting each service pipe with one of the exhaust pipes, each valve being adapted to open communication between the service pipe with which it is associated alternately with the exhaust pipe and with a source of air, such two valves being oppositely set, intermeshing gears connecting the two valves, and a suction motor controlled by and actuating the valves.

[Claims 6 and 7 not printed in the Gazette.]

1,204,543. DUMP-CAR-DOOR-OPERATING MECHANISM. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 11, 1916. Serial No. 83,471. (Cl. 105—186.)



1. In a car of the character described, the combination with hinged doors, of operating mechanism therefor including, an operating shaft, flexible connections from said doors to said shaft and arranged to relieve the shaft from tendency to rotate when the doors are in closed position, some of said connections including an elongated hook shaped member having a flexible joint therein near its outer end to thereby permit full release movement of the operating shaft with the doors in closed position.

2. In a hopper car having hoppers on each side of the center sill thereof, the combination with hinged doors for said hoppers, of an operating shaft extending longitudinally of the car, and connections between said shaft and said doors on one side of the car, said connections winding over the top of said shaft and including an elongated link connected to the door, said link being provided with a pivoted joint therein.

3. In a car of the character described, the combination with hoppers on each side of the center sill thereof and doors for each of said hoppers, of an operating shaft extending longitudinally of the car beneath said center sill, and connections between said shaft and the doors on each side, the connections from one side winding under and the connections from the opposite side winding over the shaft, said shaft and said connections having coöperating means to prevent unwinding movement of the shaft when the doors are closed, said connections which wind over the shaft having included therein means located adjacent the doors permitting flexing thereof when the shaft is rotated to release the doors and thereby prevent said connections from becoming jammed with the center sill in event the corresponding doors do not open.

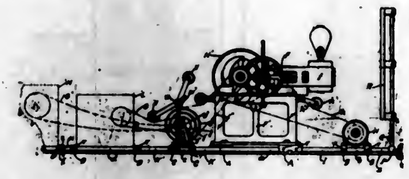
4. In a car of the character described, the combination with a plurality of hinged doors, of a shaft and connections from said doors to said shaft, said connections including an elongated hook shaped link extending over the shaft when the doors are in closed position, said hook shaped link comprising two members pivotally connected adjacent the door, one of said members being in turn pivotally connected with its corresponding door.

5. In a car of the character described, the combination with a plurality of hinged doors, of an operating shaft, flexible connections from said doors to said shaft and means for pivotally attaching the ends of said connections to the doors, said means including a block located between the edges of a pair of doors and provided with trunnions at each end pivotally mounted on the doors, said block having a perforation therein through which extends the end member of the flexible connection.

[Claims 6 and 7 not printed in the Gazette.]

1,204,544. MOUNTING FOR PRIVATE UTILITIES. XENOPHON CAVERNO, Kewanee, Ill. Filed June 26, 1914. Serial No. 847,407. (Cl. 64—52.)

1. A mounting for private utilities, comprising a series of rigid base castings, each adapted to be connected with the other castings to form a lineally alined set of units, each of said units being adapted to receive and support a single driving or driven mechanism, and spacing members connecting said bed units in said series, adapted to hold the units and the mechanism supported thereby, in a substantially fixed power transmitting relation to each other, said spacing means being sufficiently flexible to allow each of said units to accommodate itself to the surface upon which it rests.



2. A mounting for private utilities, comprising a series of base castings having flexible spacing connection with each other.

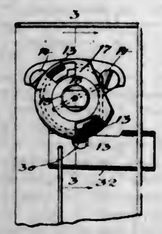
3. A mounting for private utilities, comprising the combination of a lineally alined series of metal units, adapted respectively to support driving and driven mechanisms, and each of said units being adapted to support one of such mechanisms, and a set of spacing rods connecting said units with sufficient flexibility to allow each unit to adjust itself to the surface upon which it rests.

4. A mounting for private utilities including a base member unit having rod receiving sockets therein adapted to facilitate connecting up said member in spaced relation to other similar units, whereby the mounting may be assembled from said unit members.

5. A mounting for private utilities, including a base member, having rod receiving sockets therein adapted to facilitate connecting up said casting in spaced relation to other similar castings, said rod receiving sockets being arranged in sets adapted to provide for connecting up similar castings either in lineal series, or in offset relation, or in parallel series, one lineal and another offset.

[Claim 6 not printed in the Gazette.]

1,204,545. LOCK. EMIL A. CHRISTOPH, Chicago, Ill., assignor by mesne assignments to The King Lock Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 27, 1913. Serial No. 757,086. (Cl. 70—46.)



1. A lock comprising a spindle having a key way therein, a series of rotatable tumbler plates provided with a pair of oppositely disposed abutments adapted respectively to normally engage the spindle and be engaged by a key to shift the tumblers in the opposite directions and locking means on the tumblers.

2. A lock comprising a spindle having a key way therein, a series of rotatable tumbler plates provided with a pair of oppositely disposed abutments adapted respectively to normally engage the spindle and to be engaged by a key to shift the tumblers in opposite directions and locking abutments on the tumblers varying in length in accordance with the contour of the key, so that when the key has been inserted in the spindle, the ends of the locking abutments will be alined whereby the spindle and plates may be rotated.

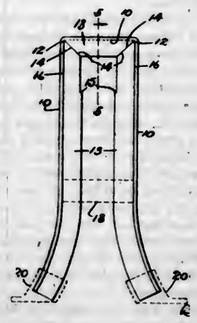
3. A lock comprising a spindle having a key way therein, a series of rotatable tumbler plates provided with a pair of oppositely disposed abutments adapted respectively to normally engage the spindle and to be engaged by a key to shift the tumblers in opposite directions, means for holding the plates in face to face engagement, and locking-means on the tumblers.

4. A lock comprising a spindle having a key way therein, a series of rotatable tumbler plates provided with a pair of oppositely disposed abutments adapted respectively to normally engage the spindle and to be engaged by a key to shift the tumblers in opposite directions, means for holding the plates in face to face engagement and locking-abutments on the tumblers varying in length in accordance with the contour of the key so that when the key has been inserted in the spindle, the ends of the locking abutments will be alined, whereby the spindle and plates may be rotated.

5. A lock comprising a spindle having a key way therein, a series of tumbler plates provided with a pair of oppositely disposed abutments engaging the spindle and adapted respectively to be engaged by a key to shift the tumblers in opposite directions, said plates being cut away to pass around the spindle and being held against rotation relatively to the spindle, and locking means on the tumblers.

[Claims 6 to 15 not printed in the Gazette.]

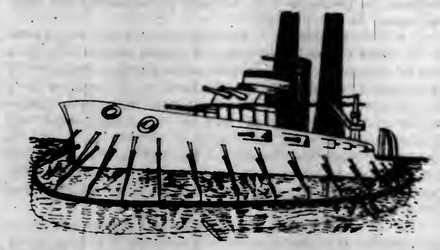
1,204,546. BLANK FOR FORMING STANDARDS. WILLIAM B. COGGER, Cleveland, Ohio, assignor to Theodor Kundtz, Lakewood, Ohio. Filed Feb. 20, 1915. Serial No. 9,713. (Cl. 29—150.)



1. A blank for forming the body of a standard, said blank consisting of a T-bar which has its flange provided centrally between the ends of the bar with a recess extending longitudinally of the flange, said bar having three webs extending longitudinally of the bar and arranged in line endwise, the aforesaid recess being arranged at one side of the central web, said central web being shorter than the outer webs and arranged between the ends of said recess, and adjacent webs being spaced at the opposite edges of their adjacent ends.

2. A blank for forming the body of a standard, said blank consisting of a T-bar which has its flange provided centrally between the ends of the bar with a recess and has three webs extending and spaced longitudinally of the bar and arranged in line endwise, said recess extending longitudinally of said flange and being arranged at one side of the central web, said central web being somewhat shorter than and arranged between the ends of said recess, adjacent end-portions of adjacent webs being gradually reduced in width toward each other and having sloping edges formed by the gradual reduction in width of said end-portions, each outer web being provided at its longitudinal edge with a shoulder which faces in the direction of the inner end of said web and is spaced from the sloping edge of the inner end-portion of said web.

1,204,547. TORPEDO-GUARD. FRANK CORRADO and WILLIAM J. DOYLE, Evanston, Ill. Filed Mar. 15, 1916. Serial No. 84,472. (Cl. 114—241.)



1. The combination with the hull of a vessel, a boom extending outwardly therefrom, an arm pivotally mounted upon the outer end of the boom, a net suspended from the free end of the arm and a spring resisting the pivotal movement of the arm.

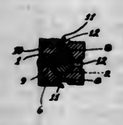
2. The combination with the hull of a vessel, a boom extending outwardly therefrom, said boom comprising inner and outer slidingly connected members, means yieldingly resisting the inward sliding movement of the outer member of the boom on the said inner member, an arm pivotally mounted intermediate its ends on the outer end of the outer boom member to swing in a vertical plane, a net suspended from the lower end of the said arm, a spring extending between the other end of the arm and the inner boom member and means limiting the extension of the spring.

3. In a torpedo guard, in combination, flexible top and bottom cables and three layers of flexible net all connected to the said cables at top and bottom, the intermediate layer of net being of small mesh and of greater depth than the two outer layers of net to extend loosely between the cables when separated to the greatest distance permitted by the said outer layers.

4. In a torpedo guard in combination flexible top and bottom cables formed in sections, means detachably connecting the sections of each cable end to end, a plurality of layers of flexible net of different mesh all connected to the said cables at top and bottom, each layer of net being formed in sections of like length with the cable sections and means detachably connecting the sections of the corresponding layers of net end to end, the lines of connection of the sections of the several layers of net being longitudinally offset.

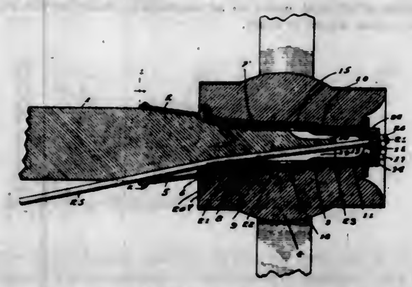
5. The combination with the hull of a vessel, of a horizontal series of independent longitudinally yielding supports extending outwardly therefrom adjacent the water line and a net suspended from the outer ends of the said supports.

1,204,548. NUT-LOCK STRUCTURE. HARRY DIXON, Chillicothe, Ohio. Filed Mar. 6, 1916. Serial No. 82,309. (Cl. 151—5.)



The combination with a bolt shank having a longitudinally arranged groove, a centrally threaded nut body having a plurality of laterally arranged openings therethrough, the side faces of said nut body being also grooved longitudinally, a spring clip embracing said nut body, the ends of said clip being crimped to seat themselves in certain of said nut body grooves, and a pin carried by said clip, said pin being of a length to pass through one of said openings and seat itself in said shank groove.

1,204,549. VEHICLE STRUCTURE. ADOREN JAY DOTY, Harbor Springs, Mich. Filed July 8, 1914. Serial No. 849,697. (Cl. 64—27.)



1. A skein having a series of sections of varying diameters having shoulders merging them together, the skein having an interior lubricant chamber, and a port leading therefrom through one of the sections spaced at an intermediate point between the shoulders, and the skein being formed with a distributing groove leading from one of the shoulders of the last named section in a general axial direction along the surface of the adjacent section.

2. A skein comprising a sleeve, a relatively short incurved tapered section fixed to the sleeve and outstanding therefrom, a reduced cylindrical section extending outwardly from the first mentioned section and connected therewith by a shoulder and a further section of less diameter than the said cylindrical section connected with the outer end of the cylindrical section with a shoulder, said further section being formed with an interior oil chamber and an exit being provided from said chamber to the exterior of the second mentioned section.

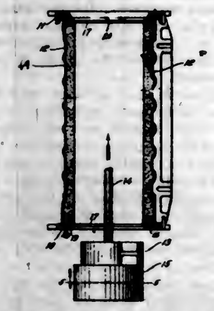
3. A skein comprising a sleeve, a relatively short incurved tapered section fixed to the sleeve and outstanding therefrom, a reduced cylindrical section extending outwardly from the first mentioned section and connected therewith by a shoulder and a further section of less diameter than the said cylindrical section connected with the outer end of the cylindrical section with a shoulder, said further section being formed with an interior oil chamber and an exit being provided from said chamber to the exterior of the second mentioned section, and means of distribution of lubricant from said section.

4. The combination, with an axle, of a skein surrounding the end portion thereof and comprising a series of sections, each terminating in an annular shoulder which merges into the next succeeding section, the sections being formed with lubricant-distributing grooves communicating past the shoulders, and the axle terminating short of the outermost section for leaving a lubricant container in said section, said outermost section having a filler closing its outer end, the filler being formed with an opening enabling access to the container from the exterior, the skein and hub being formed with apertures and passageways for the exit of lubricant from the container to the exterior surface of the skein.

1,204,550. PALLET FOR CEMENT-PIPE MACHINES. FRANK L. DREW, Manhattan Beach, Cal. Filed Jan. 4, 1916. Serial No. 70,203. (Cl. 25—126.)

1. In an apparatus for making cement pipe, the combination of a pallet having a horizontal groove on its inner face, said groove being rectangular in cross section, a split wearing metal ring detachably mounted in said groove, said ring forming an annular shoulder projecting inwardly from said pallet and a key member inserted in said groove and between the ends of said split ring.

2. In an apparatus for making cement pipe, the combination of a pallet having a horizontal groove on its inner face, said groove being rectangular in cross section and a split metal ring detachably mounted in said groove, said ring forming an annular shoulder projecting inwardly from said pallet.



3. In an apparatus for making cement pipe, the combination of a pallet having a horizontal groove on its inner face and a split wearing metal ring detachably mounted in said groove, said ring forming an annular shoulder projecting inwardly from said pallet.

4. In an apparatus for making cement pipe, the combination of a pallet having an inwardly projecting annular shoulder formed integral therewith, and a detachable split wearing metal ring mounted thereon.

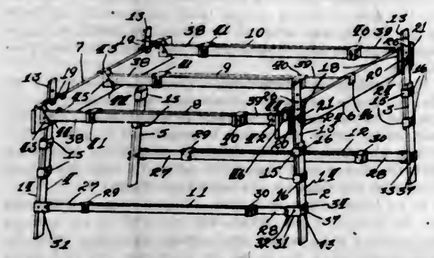
1,204,551. MEDICATED SALT BRICK. GEORGE L. EDGERTON, Goldsboro, N. C. Filed Mar. 19, 1915. Serial No. 15,551. (Cl. 167—10.)

1. A salt brick for stock, comprising salt in predominate quantities, and slaked lime as a binder, the ingredients being intimately mixed and formed into a homogeneous mass of substantially brick shape.

2. A salt brick comprising salt in predominate quantities, slaked lime, and paster of Paris, the lime and plaster of Paris serving as binding materials for the salt, and the ingredients being intimately mixed and formed into a homogeneous mass of substantially brick shape.

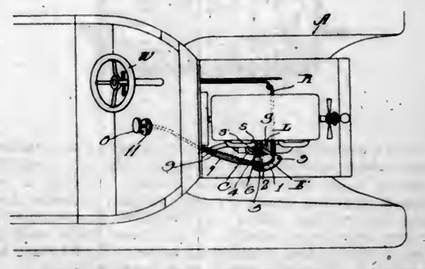
3. A salt brick comprising salt in predominate quantities, and slaked lime as a binder, the ingredients being intimately mixed and formed into a homogeneous mass of substantially brick shape, and the salt comprising approximately eighty-five per cent. of the entire brick.

1,204,552. SCAFFOLD. CARL A. EKHOLM, St. Paul, Minn. Filed Feb. 5, 1915. Serial No. 6,220. (Cl. 20—83.)



In combination with a scaffold comprising a platform consisting of transverse end supports and a series of longitudinal supports detachably secured together, said platform being supported in elevated position by uprights having a plurality of vertically spaced holes adjacent the upper ends thereof, of brackets securing said platform upon said uprights, each of said brackets comprising an elongated body terminating at its upper end in a horizontal hook portion adapted for attachment to the upper edge of one of the transverse end pieces, said body being provided with a longitudinal channel in its outer face within which a vertical upright is adapted to seat and with an aperture and a bolt extending therethrough designed to enter one of the holes formed in the upright to retain the same in selected position, and a wedge inserted between the transverse end support and the adjacent face of the body whereby the upright is given a downward outward inclination.

1,204,553. FOOT-ACCELERATOR. ARNO A. EWALD, Oakfield, Wis. Filed Feb. 10, 1916. Serial No. 77,462. (Cl. 74—81.)



1. The combination with the upright throttle valve stem of a carbureter, a horizontal L-shaped operating crank secured at its angle to said stem and having in the free end of its longer arm an eye, and a horizontally extending hand-actuated operating rod having a downturned end; of a sheet metal plate overlying the crank and having an arcuate slot concentric with the valve stem and receiving therein the downturned end of the operating rod, a fastener passing through the plate and the eye, a second fastener passing through said plate and through another part of the crank, a supplemental foot-actuated operating rod pivoted to the plate, and a spring for yieldably holding said plate in one position.

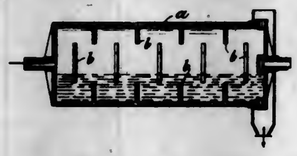
2. The combination with the upright throttle valve stem of a carbureter, a horizontal L-shaped operating crank secured at its angle to said stem and having in the free end of its longer arm an eye, and a horizontally extending hand-actuated operating rod having a downturned end; of a sheet metal plate overlying the crank and having an arcuate slot concentric with the valve stem and receiving therein the downturned end of the operating rod, said plate also having a circular opening adjacent one end of the slot, a fastener passing through the plate and the eye, a second fastener passing through said plate and through another part of the crank, a supplemental foot actuated operating rod having an apertured downturned end received in the aforesaid circular opening, and a coiled spring having one of its ends hooked in the aperture, the other end of said spring being anchored.

3. A foot accelerator attachment for use in connection with the throttle valve operating crank of a carbureter and the manual control rod for said crank, said attachment comprising a plate to be secured to said crank, said plate having an arcuate slot to be positioned concentric with the pivot of the crank, said slot being provided for the purpose of slidably connecting the aforesaid manual control rod with the plate, a foot actuated operating rod pivoted to said plate, and a spring for holding said plate in a single normal position.

4. A foot accelerator attachment for use in connection with the throttle valve operating crank of a carbureter and the manual control rod for said crank, said attachment comprising a plate to be secured to said crank, said plate having an arcuate slot and an aperture both of which extend therethrough, said slot being adapted to be positioned concentric with the pivot of the crank and being provided for the purpose of establishing a sliding connection between the aforesaid control rod and the plate, a foot actuated control rod having one end bent laterally through the aforesaid aperture, the terminal of said lat-

erally bent end having an opening formed therethrough, and a spring having one end secured in said opening, said spring serving to retain the plate in a single normal position and also to prevent removal of said foot actuated rod.

1,204,554. TUBE-MILL. JOHAN S. FASTING, Frederiksberg, near Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a Corporation of New Jersey. Filed Apr. 28, 1915. Serial No. 24,437. (Cl. 83—9.)



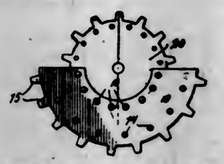
1. An improvement in the art of grinding in grinding mills which consists in producing in said mill a slowly rotating mass of grinding bodies and a material to be ground, applying closely related annularly arranged and extended frictional lifting ribs having surfaces extending in the direction of rotation to said mass while rotating and causing a free longitudinal feeding of said mass at points below the inner surface of said rotating mass.

2. A grinding mill for grinding with free grinding bodies provided with closely related series of parallel, circumferential annularly arranged and extended ribs along its inner wall, spaced from one another circumferentially to provide openings below the inner periphery of said ribs which ribs serve to separate the charge into parallel, transverse streams, provide communicating channels between such ribs for free longitudinal feeding of the material and afford lateral support for the charge at the sides of such streams.

3. A grinding mill for grinding with free grinding bodies provided with closely related series of parallel, circumferential annularly arranged and extended ribs along its inner wall, which serve to separtae the charge into parallel, transverse streams, said ribs being spaced from one another to provide substantially radially extended openings therebetween below the inner edge of said ribs to increase the frictional drag of the lateral faces at the sides of said streams and permit free longitudinal feeding movement of the material in the mill.

4. A grinding mill for grinding with free grinding bodies provided with closely related series of parallel, circumferential, annularly arranged and extended ribs along its inner wall, spaced from one another circumferentially to provide openings below the inner periphery of said ribs which ribs serve to separate the charge into parallel, transverse streams, provide communicating channels between such ribs for free longitudinal feeding of the material and afford lateral support for the charge at the sides of such streams, and an annular closing member united with said ribs at their inner ends and providing a free and unobstructed axial passageway.

1,204,555. SPROCKET ATTACHMENT. JOHN A. FERON, Coatesville, Pa. Filed Nov. 25, 1912. Serial No. 733,353. (Cl. 74—61.)



1. An attachment for sprocket wheels including a sprocket wheel of uniform thickness having flat sides, a pair of disks of uniform thickness having teeth formed on their outer peripheries, means for removably securing the disks to the flat sides of the sprocket wheel adjacent the outer edges thereof, and means for removably securing the disks together adjacent their outer edges so that the teeth of one disk register with the teeth of the other disk to consequently provide a large sprocket wheel in a continuation of the plane of said first mentioned sprocket wheel.

2. In an attachment for sprocket wheels, a sprocket wheel, a pair of disks each including two semicircular sections having teeth formed on their outer peripheries, means for removably securing the sections to the sides of said wheel so that the meeting edges of one set of sections are arranged in a plane substantially at right angles to the plane of the meeting edges of the other set of sections, the disks extending slightly beyond the periphery of said wheel, and common means for drawing the sections of said disks together so that the meeting line of the two disks will be directly over the center of said sprocket wheel and for removably securing the disks so that the teeth of one disk register with the teeth of the other disk to consequently provide a large sprocket wheel.

1,204,556. SASH-PULLEY. CHARLES B. FOOTE, Jr., Cincinnati, Ohio, assignor of one-half to Walter Macleod, Cincinnati, Ohio. Filed Nov. 17, 1915. Serial No. 62,034. (Cl. 16—17.)



1. A sash pulley comprising a sheave, a housing for the sheave, and means permanently mounted in the housing and having reciprocal movement therein adapted to move into locking engagement with the sash frame when the pulley is positioned therein, whereby the housing will be instantly locked within the sash frame upon coming to position therein.

2. In combination in a sash pulley, a sheave, a housing for the sheave, and a spring latch permanently mounted on the casing and adapted to move into locking engagement with the sash frame when the pulley is positioned therein.

3. A sash pulley comprising a sheave, a housing for the sheave, means reciprocally mounted in the housing and adapted to be moved into locking engagement with the sash frame when the pulley is positioned therein, and a spring mounted on the housing, operatively connected with the means, and adapted to normally urge the means to lock the housing in its mounting frame.

4. In combination in a sash pulley, a sheave, a housing for the sheave, a pin reciprocally mounted in the housing and adapted to be moved into locking engagement with the sash frame when the pulley is positioned therein, and a spring mounted on the casing, operatively connected with the pin, and adapted to normally urge the pin to lock the housing in its mounting frame.

1,204,557. HARVESTING MACHINERY. FRED S. FRANK, Chelsea, Okla. Filed Mar. 22, 1915. Serial No. 16,235. (Cl. 21—114.)

1. In a device of the class described, a tractor, a shaft rotatably mounted on the tractor between the ends thereof and having a worm gear thereon, means connecting the shaft and the front axle of the tractor to turn the latter upon the rotation of the shaft, a steering rod having a worm thereon engaging the worm gear, extending to the rear of the tractor, a second steering rod extending to the front of the tractor and having its end terminating adjacent the worm gear and the end of the first mentioned rod and a universal joint connecting the adjacent ends of the rods together.



2. In combination with a vehicle having a guiding axle pivoted intermediate its ends, of a shaft mounted on said vehicle adjacent said axle, drums on said shaft, a worm gear on said shaft, a steering rod mounted for rotation on said vehicle and terminating at one end adjacent said gear and at its opposite end adjacent one end of said vehicle, a worm gear on said rod engaged with said gear, a second steering rod, a universal joint connecting the adjacent ends of said rod and the second rod terminating at its opposite end adjacent the opposite end of said vehicle, and chains connected to said drums and to said steering axle on opposite sides of its pivotal connection.

1,204,558. RECORDING INSTRUMENT. WILLIAM L. FRIEDMAN, Oakland, Cal. Filed Oct. 6, 1913. Serial No. 793,783. (Cl. 234—11.)



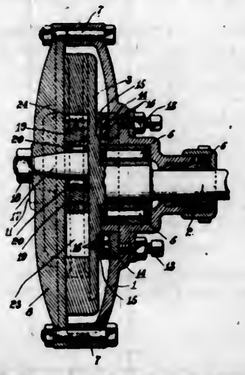
1. In a recording instrument, an elongated casing, a platen therein, a shallow trough in the front of said casing, a registering instrument in the bottom of said trough adjacent the platen having a narrow band through which light may variably pass with changed conditions of the instrument, a secondary casing connected to the first casing, shafts carried by said secondary casing, spools frictionally carried by said shafts for supporting a sensitized paper strip, means to rotate one of said spools at a predetermined rate, and means to secure the two casings together.

2. In a recording instrument, an elongated casing, a platen secured to the bottom thereof, a slitted trough adjacent the platen, a thermometer with its sides non-actinic and with a clear strip over its bead tube in the trough, and projecting below the casing supporting it, a second casing connected to the first casing, spools carried by the second casing and capable of drawing a paper under the trough and strip over the platen, mechanical means to operate one of said spools to move the paper strip at a determinate rate, and spring hooks to hold the two casings together.

1,204,559. TRANSMISSION DEVICE. JULIAN A. GILES, Derby, Conn. Filed May 6, 1915. Serial No. 26,384. (Cl. 138—22.)

1. In an apparatus of the character described, the combination with a casing having ports therein; of a member rotatably mounted within said casing; a second member eccentric to said rotary member; and an independent non-piston member having an operative connection with said rotary and eccentric members.

2. In an apparatus of the character described, the combination with a casing having ports therein; of a rotary member; an angular member connected with said case eccentric to said rotary member; and an independent member having an operative engagement with said rotary and eccentric members and during its movement covering and uncovering said ports.



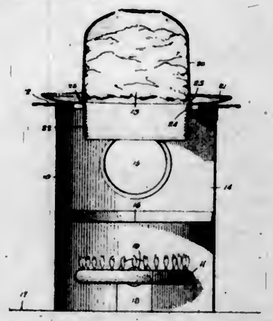
3. In an apparatus of the character described, the combination with a casing having ports therein; of a rotary member mounted within said casing; a non-piston member connected with said rotary member so as to rotate therewith; and means for imparting a sliding movement to said non-piston member in relation to said rotary member during the rotation thereof.

4. In an apparatus of the character described, the combination with a casing having ports therein; of a rotary member mounted within said casing; a non-piston member connected with said rotary member so as to rotate therewith; and means for imparting a sliding movement to said non-piston member in relation to said rotary member during the rotation thereof, said means comprising a member fixed eccentric to the said rotary member.

5. In an apparatus of the character described, the combination with a casing having ports therein; of a rotary member within said casing; a plate connected with said member so as to slide in relation thereto and be rotated therewith and during said movement covering and uncovering said ports; and a member connected with said casing eccentric to said rotary member and having an operative connection with said plate.

[Claims 6 to 17 not printed in the Gazette.]

1,204,560. METHOD AND APPARATUS FOR SHRINKING SWEAT-BANDS OF HATS. LUKE GILLERAN, Woonsocket, R. I. Filed May 11, 1916. Serial No. 96,811. (Cl. 223—23.)



1. The hereindescribed method of shrinking the sweat-band of a hat, which consists in supporting the sweat-band by the hat, and heating such sweat-band while it is

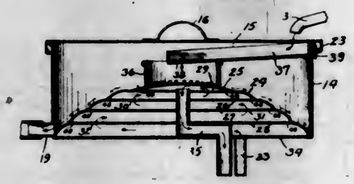
attached to and supported by the hat, without appreciably heating the hat.

2. The hereindescribed method of shrinking the sweat-band of a hat, which consists in turning out the sweat-band, and heating such sweat-band while it is turned out but attached to the hat, without appreciably heating the hat.

3. The hereindescribed method of shrinking the sweat-band of a hat, which consists in supporting the hat, and sweat-band attached thereto, over a source of heat, and deflecting the heat away from the hat, but not from the sweat-band.

4. An apparatus for shrinking the sweat-band of a hat, comprising a casing forming a heating chamber, one wall of said casing having an opening adapted to receive the out-turned sweat-band, and a heating device arranged to heat the sweat-band while the latter extends through said opening into said chamber, said wall being formed to insulate the brim of the hat from the heat in said chamber.

1,204,561. COOLER FOR LIQUIDS. JAMES N. GILMAN, Berkeley, Cal. Filed Apr. 26, 1915. Serial No. 23,973. (Cl. 257—181.)



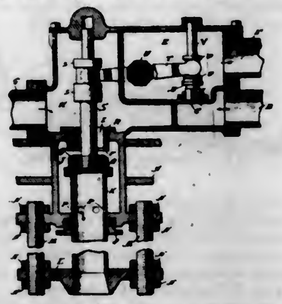
1. A heat transfer apparatus for liquids comprising a receptacle having a corrugated raised bottom, a distributer at the top of said raised bottom, a discharge pipe for the receptacle, a plurality of horizontal partitions under the raised bottom and having openings therethrough to cause the circuitous travel of the liquid used for heating or cooling, a supply pipe and a discharge pipe connected with the chambers formed by said partitions, and a trough for delivering the liquid to be treated from the edge of the receptacle to the distributer.

2. A heat transfer apparatus for liquids comprising a flat bottomed receptacle having a discharge pipe on one side thereof, a corrugated false bottom within said receptacle, a distributer at the top of the false bottom adapted to deliver a liquid to all sides of said false bottom, a plurality of substantially horizontal partitions under said false bottom, said partitions having openings therethrough to cause the circuitous travel of the liquid used for heating or cooling, a water supply pipe and a water discharge pipe extending through the bottom of the receptacle and connecting with the chambers formed by said horizontal partitions, a supply trough adapted to deliver liquid from the edge of the receptacle to the distributer at the center of the coned bottom, and a suitable cover for the receptacle.

1,204,562. HEATING SYSTEM. EGBERT H. GOLD, Chicago, Ill. Filed Dec. 16, 1909. Serial No. 533,379. (Cl. 236—19.)

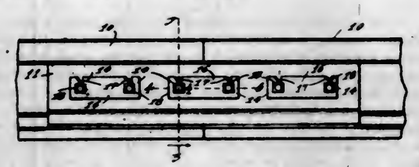
1. The combination with a heating system comprising a radiator and an inlet valve therefor, of a thermostat constituting a discharge conduit for said radiator, of operative connections between said thermostat and said inlet valve, said thermostat being provided with ports so located as to provide free passage for water of condensation from the system when the thermostat is contracted but so as to temporarily arrest the discharge of water of condensation when the thermostat is expanded.

2. The combination of a heating system comprising a radiator, an inlet valve therefor, a condensation chamber and a thermostat in operative connection with the inlet valve and consisting of an expansible tubing, serving as a discharge conduit from said condensation chamber and extending into the atmosphere, the outer end of said tubing being rigidly secured and the inner end thereof extending into said condensation chamber and provided with discharge ports so arranged as to drain said condensation chamber when the thermostat is contracted but to be wholly above the lowest point of said condensation chamber when said thermostat is expanded.



3. In a heating system, the combination with a radiator, an inlet valve therefor and a thermostat exposed to the discharge from said system and arranged to actuate said inlet valve, of means providing a condensation chamber interposed in said system and forming a part of the discharge conduit for water of condensation from said system, the part providing said condensation chamber having a portion thereof extending into the external atmosphere and means for so controlling the flow of water of condensation from said chamber that such flow will be intermittently arrested whenever the thermostat has been expanded by the medium discharged from said system.

1,204,563. FASTENING FOR RAIL-JOINTS. THOMAS J. GORMAN, Jr., of Newark, N. J. Filed June 7, 1915. Serial No. 32,687. (Cl. 239—9.)



The combination with the meeting ends of a pair of rails; fish plates disposed on opposite sides thereof, said fish plates and rails having registering pairs of openings, the openings of one pair being formed one in one rail end and the other in the other rail end, U-bolts having their legs passed through the openings and having their bights in spaced relation to one of the fish plates, means for independently adjusting the position of the legs of independent U-bolts, and springs each having notched ends engaging the legs of a bolt and being bowed to rest against the fish plate adjacent the bight of such bolt.

1,204,564. FLUID-PRESSURE RELAY-GOVERNOR. WILLIBALD GRUN, Frankfort-on-the-Main, Germany. Filed Mar. 4, 1914, Serial No. 822,473. Renewed Sept. 7, 1916. Serial No. 118,950. (Cl. 137—144.)

1. In regulators for fluids supplied to engines the combination of a plurality of regulating valves for the fluids, a plurality of auxiliary machines comprising valve-actuating elements and resisting elements for opposing the valve opening motion of the former elements, a governor influenced by the engine, means comprising a pilot valve operatively connected to said governor for controlling said valve-actuating elements, and means for returning said pilot valve to substantially the same position for all operative positions of said regulating valves and resisting elements.

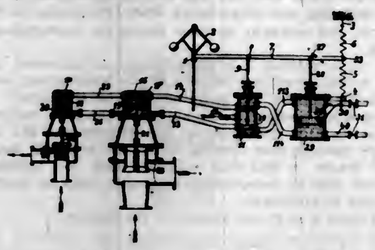
2. In regulators for fluids supplied to engines, the combination of a plurality of regulating valves for the fluids, a plurality of auxiliary machines having corresponding parts hydraulically connected in series and comprising valve-actuating elements and resisting elements of various strengths for opposing the valve-opening motion of the former elements, a governor influenced by the engine, means comprising a pilot valve operatively connected to said governor for controlling said valve-actuating elements, and means comprising said auxiliary machines for returning said pilot valve to substantially the same position for all operative positions of said regulating valves and resisting elements.

3. In regulators for fluids supplied to engines, the combination of a plurality of regulating valves for the fluid, a plurality of auxiliary machines comprising valve actuating elements and resisting elements for opposing the valve-opening motion of the former elements, a governor influenced by the engine, means for controlling said valve-actuating elements, said means comprising a pilot valve operatively connected to said governor and hydraulically connected to said auxiliary machines, and means hydraulically connected to said auxiliary machines for returning said pilot valve to substantially the same position for all operative positions of said regulating valves and resisting elements.

4. In regulators for high pressure and exhaust fluids supplied to engines the combination of a plurality of regulating valves for the fluids, said valves comprising an exhaust fluid inlet valve, a plurality of auxiliary machines comprising valve actuating elements and resisting elements for opposing the valve opening motion of the former elements, a governor influenced by the engine, an exhaust fluid pressure regulator adapted to influence said inlet valve, means comprising a pilot valve operatively connected to said governor for controlling said valve-actuating elements and means for returning said pilot valve to substantially the same position for all operative positions of said regulating valves and resisting elements.

5. In regulators for high pressure and exhaust fluids supplied to engines the combination of a plurality of regulating valves for the fluids, said valves comprising an exhaust fluid inlet valve, a plurality of auxiliary machines comprising valve actuating elements and resisting elements for opposing the valve opening motion of the former elements, a governor influenced by the engine, an exhaust fluid pressure regulator adapted to influence said inlet valve, means comprising a pilot valve operatively connected to said governor for controlling said valve-actuating elements and means for returning said pilot valve to substantially the same position for all operative positions of said regulating valves and resisting elements; a stop valve operatively connected to said pressure regulator and adapted to stop the opening actuation of said inlet valve, and means influenced by said inlet valve for retracting said stop-valve after the latter's displacement by said pressure regulator.

[Claims 6 and 7 not printed in the Gazette.]

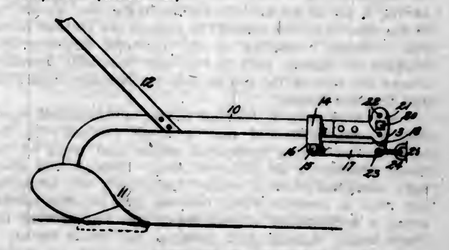


1,204,565. FOLDING UMBRELLA. MICHAEL HABINSKI, Fenwood, Saskatchewan, Canada. Filed Feb. 21, 1916. Serial No. 79,615. (Cl. 135—46.)



A foldable umbrella stick comprising a telescoping main rod formed of a tubular handle section of relatively large diameter and having a keeper opening in the side thereof, tubular telescoping rod sections of less diameter than the said handle section positionable within the latter, said tubular and handle sections being provided with longitudinal slots upon their alternate opposite sides, an outwardly projecting pin carried by each of the said tubular sections slidably positioned within the adjacent longitudinal slot of the receiving rod section, a solid tip section longitudinally slidably positioned within the outer tubular section and having a pointed engaging free end, a normally inwardly projected resilient latch carried by the said handle section, the said tubular sections and tip section each being provided with keeper portions positioned in alinement with the keeper opening of the said handle section when the rod sections are retracted within the said handle section and with the latch positioned therein, a projection opening spring for the said rod sections positioned within the latter and tensioned between the adjacent faces of the said tip section and closed end of the handle section, and a canopy supporting frame upon said stick.

1,204,566. PLOW ATTACHMENT. LEMON W. HAMILTON, Ross, Tex. Filed Aug. 21, 1916. Serial No. 116,166. (Cl. 97—4.)

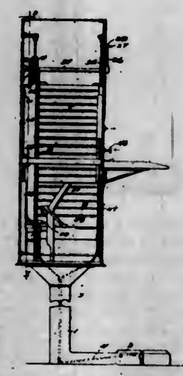


1. A plow attachment for adjusting the draft applied thereto comprising a clip secured to the beam of the plow, an L-shaped arm pivoted to said clip below the beam, means for securing draft devices to said arm, and means for securing said arm to the plow clevis at different vertical angles.

2. A plow attachment comprising a downwardly opening clip secured to the plow beam in rear of the clevis, an L-shaped arm pivoted at one end in the open end of said clip and adapted to swing in a vertical plane, means for securing draft devices to said arm, and fastening means adapted to engage the plow clevis and the opposite end of said arm, said means being adjustable.

8. An attachment for plows comprising a U-shaped clip adapted to be secured to the plow beam, an L-shaped arm pivoted at one end within the open end of said clip and having a perforation extending transversely through the extremity, and means at the angle of said arm for the attachment of draft devices.

1,204,567. FILE-CABINET. JABEZ D. HARNESBERGER, Atlanta, Ga. Filed Nov. 30, 1915. Serial No. 64,321. (Cl. 45—2.)



1. In a cabinet, a housing having an opening, a rack movable in the housing past the opening and having guides, and trays on the latter; combined with setting mechanism for adjusting the rack, a toothed wheel forming part of this mechanism, a frame for withdrawing a tray through said opening, a rod having a bolt projecting in one direction and adapted to engage the toothed wheel and a finger projecting in the opposite direction and adapted to engage said rack, and manually operable means for moving the rod to lock the setting mechanism and free the frame.

2. In a cabinet, a housing having a horizontal opening, a counterbalanced rack movable vertically in the housing and having horizontal guides, and trays on the latter adapted to be projected singly through said opening; combined with setting mechanism for adjusting the rack, a toothed wheel forming part of this mechanism, a frame for withdrawing a tray through said opening, the frame having a notch, an upright rod having a bolt projecting in one direction and adapted to engage the toothed wheel and a finger projecting in the opposite direction and adapted to engage said notch, and manually operable means for moving the rod to lock the setting mechanism and free the frame.

3. In a cabinet, a housing having a horizontal opening, a counterbalanced rack movable vertically in the housing and having horizontal guides, and trays on the latter adapted to be projected singly through said opening; combined with a rotary mechanism for adjusting the rack, a toothed wheel forming part of this mechanism, a horizontally sliding frame for withdrawing the trays singly through said opening, the frame having a notch opening upward, a vertically movable rod within said housing having an upwardly projecting bolt beneath said toothed wheel and normally free from it and a downwardly projecting finger normally resting in said notch, and manually operable means for raising said rod, for the purpose set forth.

4. In a cabinet, a housing having a horizontal opening, a counterbalanced rack movable vertically in the housing and having horizontal guides, and trays on the latter adapted to be projected singly through said opening; combined with a rotary mechanism for adjusting the rack, a toothed wheel forming part of this mechanism, a horizontally sliding frame for withdrawing the trays singly through said opening, the frame having notches opening upward and downward, a lock normally engaging the upper notch and adjacent but disengaged from said toothed wheel, manually operable means for lifting the lock to free the frame and lock the setting mechanism, a latch for engaging the lower notch when the frame is withdrawn, and manually operable means for disengaging the latch.

5. In a cabinet, a housing having a horizontal opening, a rack movable vertically in the housing and having horizontal guides, and trays movable on the latter; combined with mechanism for adjusting the rack vertically, a horizontally sliding frame for withdrawing the trays singly through said opening, means for normally housing said frame, a manually operable lock for holding it housed, and an independent manually operable latch for holding it withdrawn.

[Claims 6 to 15 not printed in the Gazette.]

1,204,568. DRAWER. JABEZ D. HARNESBERGER, Atlanta, Ga. Filed Jan. 20, 1916. Serial No. 73,232. (Cl. 45—7.)



1. The herein described drawer comprising a series of superimposed trays, means for manipulating the lowermost, and projections on and depressions in the front rails of said trays normally engaging each other by gravity so that the upper trays are moved out and in by the movements of the lowermost.

2. The herein described drawer comprising a series of superimposed trays, means for manipulating the lowermost, and a rib rising from the front rail of each tray, the upper trays being grooved so as to normally engage the ribs of those beneath them, for the purpose set forth.

3. The herein described drawer comprising a series of superimposed trays, means for manipulating the lowermost, and a rib rising from the front rail of every tray to a point higher than the upper edges of its side rails and beveled on its inner face, the lower edges of the front rails of all trays but the lowermost being grooved to automatically engage the ribs of those beneath by gravity, as described.

4. The herein described drawer comprising a series of superimposed trays adapted to move on guides interposed between their said rails, means for moving the lowermost tray, means whereby the forward portions of said trays interengage by gravity so that the upper trays are moved out and in by the movements of the lowermost but may be manually disengaged, and means whereby any tray when moved to the rear will positively engage and carry with it the one above.

5. The herein described drawer comprising a series of superimposed trays adapted to move on guides interposed between their side rails, means for manually moving the lowermost tray, means whereby the forward portions of said trays interengage each other by gravity, and fingers secured to the rear rail of each tray and overhanging the rear rail of the tray next beneath, for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,204,569. STOPPER FOR NON-REFILLABLE BOTTLES. GEORGE E. HITCHCOCK, Flint, Mich. Filed Apr. 16, 1915. Serial No. 21,764. (Cl. 215—68.)

1. A stopper for non-refillable bottles comprising a ferrule adapted to fit a bottle neck and having a valve seat at the inner end, a tap having a knurled outer end adapted to close the outer end of the ferrule and having a spirally slotted sleeve with a notched seat at the inner end, a ball, and a pin extending through the spiral slots into the wall of the ferrule for holding the tap in the ferrule, for limiting the extent of its turns to right or left and for causing it to move in or out as it is turned.



2. A stopper for non-refillable bottles comprising a ferrule adapted to fit the bottle neck and having a valve-seat formed therein, a valve fitted to the seat, a ball weight, a tap comprising a milled head adapted to fit and close the outer end of the ferrule and said tap fitted to the inside of the ferrule and having spiral slots or guides and discharge openings, a pin extending through the spiral slots or guides and into holes in the ferrule, the tap notched at the inner end and milled to form a ball weight seat whereby to hold the ball upon the valve to keep the latter closed when the tap is turned in one direction and releasing the valve and opening the discharge openings when turned in the opposite direction.

1,204,570. CURTAIN-ROD. JOHN A. HOLMEN and LILIAN O. HOLMEN, St. Paul, Minn. Filed June 28, 1915. Serial No. 36,670. (Cl. 156—22.)

1. A curtain support, comprising, a main horizontal rod, a bearing engaging one end of said rod allowing said rod to swing in a horizontal plane, spring means for detachably engaging the other end of said rod and means for supporting over drape curtains detachably carried by said main rod.

2. A curtain support, comprising, a main horizontal rod, a bearing engaging one end of said rod allowing said rod to swing in a horizontal plane, spring means for detachably engaging the other end of said rod and a detachable rod for supporting over drape curtains carried by said main rod.

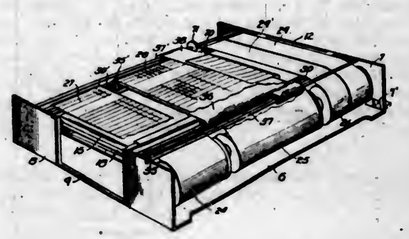
3. A curtain support, comprising, a main horizontal rod, a bearing engaging one end of said rod allowing said rod to swing in a horizontal plane, spring means for detachably engaging the other end of said rod and a detachable rod for supporting over drape curtains adapted to be slipped on said main rod having a spring catch to hold said detachable rod in place on said main rod.

4. A curtain support, comprising, a main horizontal rod, a journal bracket engaging one end of said rod allowing said rod to swing in a horizonal plane, a second journal bracket secured to the window casing and a spring catch mounted upon a shank, said shank being adapted to fit in said second journal and hold said spring catch in position to engage the free end of said main rod.

5. A curtain support, comprising, a main horizontal rod, a journal bracket engaging one end of said rod allowing said rod to swing in a horizontal plane, means for supporting over drape curtains carried by said main rod and a notch in said supporting means for preventing the rotation of the same on said main rod.

[Claim 6 not printed in the Gazette.]

1,204,571. AUTOGRAPHIC REGISTER. EDGAR A. HOLMES, Kansas City, Kans. Filed Oct. 11, 1915. Serial No. 55,194. (Cl. 11—36.)



1. The combination with a record web, of means for advancing the record web to successively locate separate sections thereof in functional position, a separate web having portions located beneath and over the record web, transfer media located between each portion of the separate web and the record web, whereby an impression on the upper portion of the separate web may be transferred to the record web and to the under portion of the separate web, and a cover for the webs, having openings therein through which records may be made on the webs.

2. The combination with a record web, of means for advancing the web to successively locate separate sections thereof in functional position, means at opposite sides of the record web for holding carbon paper, means for guiding a separate web beneath and over the record web and a cover having openings therein through which access may be had to such web, and having a slot through which a separate web may be withdrawn.

3. The combination with a record web, of means for advancing the record web to successively locate separate sections thereof in functional position, a separate web having portions located beneath and over the record web, and means at opposite sides of the record web for holding transfer media between the record web and the upper and lower portions of the separate web.

4. The combination with a record web comprising primary and secondary sections, of means for guiding a separate web over the secondary section of the record web, means for actuating the record web, and means for holding a carbon sheet between a separate web and the secondary section of the record web.

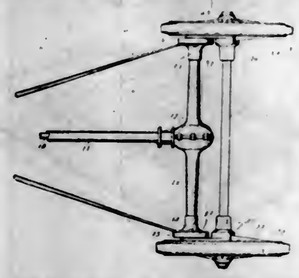
5. The combination with a housing, of a record web, a separate web extending transversely of and beneath the record web throughout the entire width of the latter and above a fractional part thereof, means for shifting the record web, and means for holding carbon sheets between opposite faces of the record web and the upper and lower portions of the separate web.

[Claims 6 to 20 not printed in the Gazette.]

1,204,572. TRUCK ATTACHMENT FOR MOTOR-VEHICLES. GEORGE H. IRWIN and DANIEL D. SWEM, Chicago, Ill., assignors to Make-A-Motor Truck Company, Wilmington, Del., a Corporation of Delaware. Filed Mar. 21, 1916. Serial No. 85,687. (Cl. 21—90.)

1. In a motor vehicle, the combination of a rear axle casing having brake members thereon, a driving axle in the casing, brake drums mounted on said axle and rotating therewith, an auxiliary axle, wheels rotatable thereon, casings secured to the fixed axle, bearings between the brake drums and said casings and supporting said drums and driving axle, and gearing between the driving axle and the wheels.

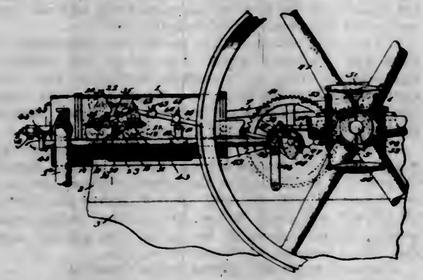
2. In a motor vehicle, the combination of a rear axle casing having brake members thereon, a driving axle in the casing, brake drums secured to said axle, and having projecting hubs, a carrying axle, wheels rotatable thereon, casings mounted on the carrying axle and having openings through which the said hubs project, bearings between said hubs and the casing, and gearing between the driving axle and the wheels.



3. In a motor vehicle, the combination with a rear driving axle structure, of an auxiliary axle, wheels rotatable thereon, a gear on each wheel, a gear on each end of the driving axle, in mesh with said gear, and a recessed casing on each end of the auxiliary axle, said casing having an annular flange, and bearings between said flange and the end of the driving axle.

4. In a motor vehicle, the combination with a rear driving axle and its casing, the ends of the axle projecting beyond the casing, of an auxiliary axle, wheels rotatable thereon, each having a body with an annular channel into which an end of the driving axle projects, a gear on each wheel, a gear on each end of the driving axle, in mesh with said gear, and face plates on the auxiliary axle, inclosing said gears and having openings through which the ends of the driving axle extends.

1,204,573. ELECTRIC IGNITER FOR EXPLOSIVE-ENGINES. EDMUND JOSEPH KANE, Chicago, Ill., assignor to Webster Electric Company, Racine, Wis., a Corporation of West Virginia. Filed Feb. 2, 1910. Serial No. 541,428. (Cl. 123—152.)



1. In an explosive engine, the combination with a magneto, of means for operating the magneto by the running of the engine, a speed governor operated by the engine, and means under the control of the speed governor for rendering the magneto operating means inoperative when the engine passes or exceeds a predetermined speed.

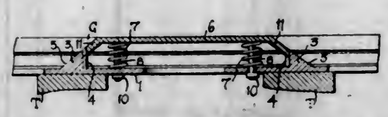
2. The combination in an explosive engine having a speed governor, and an exhaust valve operating rod operatively connected with the speed governor, of a magneto, means for operating the magneto by the running of the engine, and means adapted to be operated by the movement of the exhaust valve operating rod for rendering the magneto operating means inoperative.

3. In combination with an internal combustion engine, a speed governor associated with the engine and operatively connected therewith, ignition mechanism for said engine comprising make and break spark electrodes and a magneto, means operated by the engine for effecting the operation of both the magneto and spark electrodes in timed relation one to the other, and mechanism controlled by said speed governor for rendering said engine operated means incapable of effecting the operation of the magneto and spark electrodes whenever the engine passes or exceeds a certain predetermined speed.

4. An internal combustion engine of the hit and miss type having an exhaust valve, an exhaust valve operating rod and a speed governor in operative relation to said exhaust valve operating rod arranged to shift the latter to hold the exhaust valve in open position whenever the engine exceeds a certain predetermined speed, in combination with an igniter comprising make and break electrodes, a magneto for supplying ignition current to said igniter, a reciprocating push rod driven by the engine by the engine for effecting actuation of the magneto and igniter electrodes together with means operated by the exhaust valve operating rod for rendering the reciprocating push rod incapable of actuating the magneto and igniter electrodes whenever, when the engine exceeds a certain predetermined speed, the exhaust valve operating rod and the governor coöperate to hold the exhaust valve in open position, as aforesaid.

5. In combination with an internal combustion engine, a speed governor driven from the engine, ignition mechanism for said engine comprising an igniter and a magneto for supplying ignition current to said igniter, actuating mechanism driven by the engine for effecting the operation of the magneto, and devices controlled by the speed governor for rendering said actuating mechanism incapable of effecting the operation of the magneto whenever the engine passes or exceeds a certain predetermined speed.

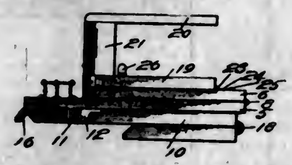
1,204,574. RAILWAY FOOT-GUARD. WILLIAM R. KILNER, Greenville, Pa. Filed May 1, 1916. Serial No. 94,733. (Cl. 104—50.)



1. In combination with adjacent rails, a foot guard adapted to be interposed therebetween and consisting of a plate provided with securing means, the opposite end portion of the plate being provided with upstanding lugs having their inner faces vertical and their top faces inclined downwardly and outwardly, the vertical faces of the lugs being provided with guiding grooves, an adjustable plate provided at its ends with lips extending within the guiding grooves of the lugs, stems depending from the adjustable plate and loosely directed through the first named plate, stops carried by the lower ends of the stems and contacting with the under face of the first named plate for limiting the upward movement of the adjustable plate, and expansible members interposed between the first named plate and the second named plate for normally holding the same at the limit of its upward movement.

2. In combination with adjacent rails, a foot guard adapted to be interposed therebetween and consisting of a plate provided with securing means, the opposite end portion of the plate being provided with upstanding lugs having their inner faces vertical and their top faces inclined downwardly and outwardly, the vertical faces of the lugs being provided with guiding grooves, an adjustable plate provided at its ends with lips extending within the guiding grooves of the lugs, stems depending from the adjustable plate and loosely directed through the first named plate, stops carried by the lower ends of the stems and contacting with the under face of the first named plate for limiting the upward movement of the adjustable plate, and expansible members interposed between the first named plate and the second named plate for normally holding the same at the limit of its upward movement, the central portion of the first named plate being provided with an opening.

1,204,575. IRONING-TABLE. HERMENEGILDE J. H. LAFLECHE, Casselman, Ontario, Canada. Filed June 29, 1915. Serial No. 37,084. (Cl. 68—1.)

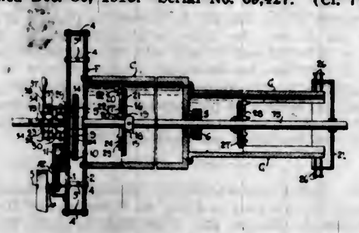


1. A pressing-board comprising a standard, a pair of parallel arm portions projecting from the ends of said standard, means for pivoting one of said arm portions to a supporting member, and means for preventing movement of the pressing-board upon said supporting member.

2. A pressing board comprising a standard, a pair of parallel arm portions projecting from the ends of said standard, a hinge adapted to hinge the pressing board to the folding leaf of a horizontal support, and means for retaining one of said arm portions in engagement with said folding leaf.

3. The combination with a leaf hinged to a horizontal support forming an extension thereof, with a pressing board hinged to one side of said leaf by means of a hinge having one leaf hingedly fixed to the pressing board and the other leaf pivotally mounted on the supporting leaf, and means for preventing pivotal movement of said pressing board upon said supporting leaf.

1,204,576. BORING-MACHINE. MOSES G. LAMB, Sikeston, Mo., assignor to John W. Adams, Sikeston, Mo. Filed Dec. 30, 1915. Serial No. 69,427. (Cl. 77—2.)



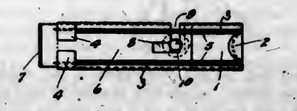
1. A boring machine for cylinders and the like comprising a frame adapted to be secured to the cylinder, a boring bar disposed through the frame and mounted for axial rotation and for endwise movement, cutting means carried by the bar, means for rotating the bar, rollers mounted for contact with the bar, and means for inclining the axes of the rollers relative to the bar whereby the longitudinal movement of the bar may be controlled.

2. A boring machine including a boring bar arranged for axial rotation and endwise movement, a cylinder surrounding the boring bar and concentric thereto, heads for the opposite ends of the cylinders, one of said heads being capable of rotative movement, each of said heads being provided with slots, shafts mounted in said slots, rollers carried by the shafts engageable with the bar, and means for imparting movement to the rotative head for inclining the axes of the rollers relative to the bar whereby the longitudinal movement of the bar may be controlled.

3. A boring machine including a boring bar arranged for axial rotation and endwise movement, a cylinder surrounding the boring bar and concentric thereto, heads for the opposite ends of the cylinders, one of said heads being capable of rotative movement, each of said heads being provided with slots, shafts mounted in said slots, rollers carried by the shafts engageable with the bar, means for imparting movement to the rotative head for inclining the axes of the rollers relative to the bar whereby the longitudinal movement of the bar may be controlled, and means for locking the rotative head against movement.

4. A boring machine including a boring bar arranged for axial rotation and endwise movement, a cylinder surrounding the boring bar and concentric thereto, heads for the opposite ends of the cylinders, one of said heads being capable of rotative movement, each of said heads being provided with slots, shafts mounted in said slots, rollers carried by the shafts engageable with the bar, means for imparting movement to the rotative head for inclining the axes of the rollers relative to the bar whereby the longitudinal movement of the bar may be controlled, and means for imposing tension on the shafts to urge the same toward the boring bar.

1,204,577. CUFF-HOLDER. LOUIS JOSEPH LEVASSEUR, Bay City, Mich. Filed Mar. 4, 1916. Serial No. 82,216. (Cl. 24—47.)



1. In combination, a base provided with edges turned at right angles to and then partially over the base and having a slot cut in one side thereof, a pair of pins formed from a single piece of wire located above the base and parallel to each other, a section integral with the base bent back over the bend of said wire to secure the pins to the base at one end thereof, lips integral with the base bent upwardly and then inwardly to provide keepers for the free ends of the pins, a slide provided with a bayonet slot adjacent one end located between the guides on the base, a lug struck up from the base entering the bayonet slot on the slide, and a guard bent from the opposite end of the slide.

2. In combination, a base provided with guides at the side edges and having a slot cut in one side, a pair of pins secured to one end of the base and extending thereover in parallel relation to each other, keepers to detachably engage the free ends of the pins, a slide provided adjacent one end with a bayonet slot located between the guides on the base, a lug struck from the base entering the bayonet slot on the slide, and a section bent from the slide at its other end and at right angles thereto.

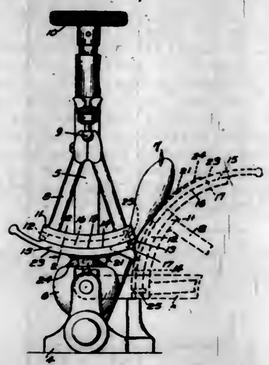
3. In combination, a base, having guides formed at each side edge thereof, and with a slot cut in one side thereof, means secured to the base for detachably attaching it to a fabric or the like, a slide provided with a bayonet slot adjacent one end and with a section turned at right angles to the body of the slide at the other end, slidably mounted between the guides on the base, and means to limit the sliding movement of the slide.

4. In combination, a base having a slot at one edge, means secured thereto for detachably connecting it to a fabric or the like, a slide slidably mounted on the base and provided with a bayonet slot adjacent one end, a part of which is adapted to lie directly above the slot in the base in one position of the slide, and means to control the sliding movements of the slide, substantially as described.

1,204,578. GOLF-BALL MARKER. JESSE D. LYON, Cincinnati, Ohio, assignor to The Fulname Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 2, 1915. Serial No. 64,619. (Cl. 101—83.)

1. In combination in a marking machine, a die holder, and a die adapted to occupy the die holder, said holder having a centrally located recess, a shallow flange forming one side of the recess and a deep flange forming the opposite side of the recess, said die having a projection

adapted to occupy the recess, a thick flange adapted to engage the shallow flange of the holder, and a thin flange adapted to engage the deep flange of the holder, the outer surface of the die having type formed thereon for marking the ball.



2. A golf ball marker comprising, a ball holder, and a rocking die holder coöperating therewith and adapted to rock a die over the surface of a ball located in the holder, said holder having a centrally located recess, flanges of unequal height at the sides of the recess, and a die adapted to occupy the holder, said die having a projection adapted to occupy the recess and flanges of unequal thickness for engaging the flanges of the holder, whereby the die may be placed in the holder in but one position to properly present it to the surface of a ball located in the holder.

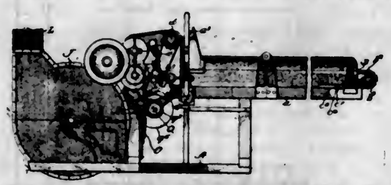
3. In a golf ball marking machine, a ball clamp, a die holder coöperating with the clamp, and a die located in the holder, said holder being adapted to rock the die over a ball located in the clamp and having a recess centrally located therein, with a narrow flange forming one side of the recess and a deeper flange forming the opposite side of the recess, said die having a tongue adapted to occupy the recess, a thick flange adapted to engage the top of the narrow flange, and a thin flange adapted to engage the top of the deep flange, the outer surfaces of the flanges being part of the same cylindrical surface and forming the ball engaging surface of the die, upon which the marking type is located.

4. In combination in a golf ball marked, a ball clamp, and a curved rocking die holder coöperating therewith and adapted to rock a die over the surface of a ball located in the clamp, said holder having a centrally located curved recess, curved flanges of unequal height at the sides of the recess, and a curved die adapted to occupy the holder, said die having a curved tongue adapted to occupy the curved recess, and curved flanges of unequal thickness for engaging the curved flanges of the holder, whereby the curved die may be placed in the curved holder in but one position to properly present it to the surface of a ball located in the clamp.

1,204,579. ENSILAGE-CUTTER. HARRY G. MCCULLOCH, Freeport, Ill., assignor to Stover Manufacturing Company, Freeport, Ill., a Corporation of Illinois. Filed Feb. 26, 1914. Serial No. 821,323. (Cl. 146—29.)

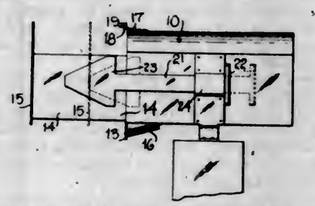
1. In a machine of the class described the combination with a suitable frame and driving gear of a pair of floating feed rolls, a lever connected near its respective ends with the respective rolls and, midway, with a yielding support and a connection between said feed rolls and the frame actuated by one of said rolls to give a limited movement to the other.

2. In a machine of the class described the combination with a suitable frame and driving gear of a traveling feed apron, a stationary lower feed roll in line with said apron, a cutter beyond said feed roll, a stationary upper feed roll opposed to said apron at a suitable distance therefrom, a floating upper feed roll opposed to said lower feed roll, a floating upper feed roll opposed to said apron between



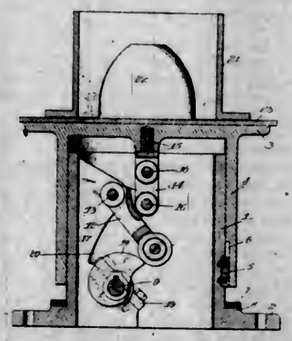
the stationary upper feed roll and the lower feed roll and yielding supporting devices connecting said two floating feed rolls, permitting independent vertical movement thereof and giving a slight preliminary movement to the floating roll nearest the cutter when actuated by the other floating roll.

1,204,580. MAIL-BOX. NEIL MCDONALD, Jr., Coleman, Mich. Filed Mar. 2, 1916. Serial No. 81,705. (Cl. 232—35.)



The combination with a mail box including a casing and a drawer slidable therein, the end of the drawer projecting beyond a side wall of the casing, of an indicator slidably mounted upon the side wall of the box and normally disposed inward of the edge of the projecting portion of the wall of the drawer, the indicator being resilient so that it may be deflected beyond said wall and pulled outward, and stops limiting the movement of the indicator to an extent permitting the drawer to be drawn out with its front wall in advance of the forward end of the indicator whereby the indicator will spring inward behind said front wall and will be shifted rearward with the drawer.

1,204,581. MOLDING-MACHINE. ALFRED V. MAGNUSON, Chicago, Ill., assignor to Emily M. Pridmore and Henry A. Pridmore, Chicago, Ill. Filed Feb. 3, 1911. Serial No. 606,318. (Cl. 22—45.)



1. A molding machine comprising a hollow stand, a platform associated therewith, and platform actuating mechanism located within said hollow stand and comprising a cam, a pivoted lever above said cam, and engaging said cam so that when the cam is rotated the portion of said lever engaging said cam is moved in the arc of a circle, said lever being movably connected with said platform so as to apply pressure thereto, when moved, the point where the pressure from said lever is applied to said platform, and the portion of said lever engaging said cam being on the same side of a vertical plane through the pivotal point of said lever and parallel to the axis of said cam, so that the arc movement of said lever produces a rectilinear movement of said platform.

2. A molding machine comprising a hollow stand, a shaft extending into said stand, a cam within the stand connected with said shaft, a bell crank lever within said stand movably supported in position and having one end adapted to engage said cam, a platform with which the other end of said lever is pivotal so that the platform is moved up and down as the lever is moved.

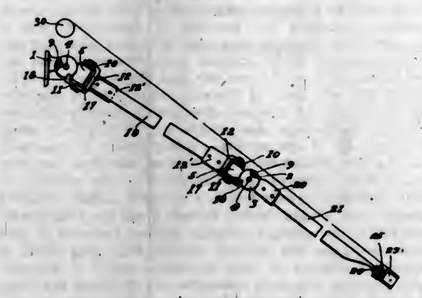
3. A molding machine comprising a hollow stand, two separated inwardly projecting parts within said stand, a shaft projecting into the stand and mounted on bearings connected with said parts, a lever within said stand and movably supported upon said parts, a platform associated with the stand and connected with said lever, and means for moving said lever so as to give the stand a jarring motion.

4. A molding machine comprising a hollow stand, an exterior reciprocating device guided on the outside of said stand, a platform carried by said reciprocating device, a cam mounted within the stand, a lever pivotally connected with said stand above said cam one end of said lever engaging the cam, a connection between the lever and the platform for compensating for the lateral movement of said lever and preventing said lateral movement from producing lateral strains between said stand and said reciprocating device.

5. A molding machine comprising a hollow stand, a projecting part integral with said stand and projecting inwardly, a bearing attached to said projecting part, a shaft in said bearing, a cam on said shaft, a pivoted lever pivoted to said inwardly projecting part and engaging said cam, a link connected with said lever, a platform movably connected with said stand and a connection between said platform and said link.

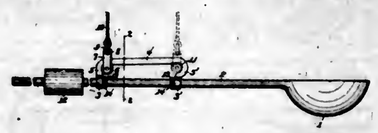
[Claims 6 to 9 not printed in the Gazette.]

1,204,582. AWNING-ARM. FREDERICK A. MANNING and FRANK D. FRAZEE, Springfield, Ill. Filed Aug. 20, 1914. Serial No. 857,751. (Cl. 156—42.)



A spring hinge for connecting the adjacent ends of a pair of bars, one of the bars having associated therewith a cylindrical casing, removable caps for the ends of the casing, a pin extending through the casing and supported by the caps, a spring connecting the pin with the casing, a yoke associated with the end of the other bar and having a rigid and a hingedly connected arm both of which being pivotally engaged with the ends of the pin, and serving to retain the caps on the casing and to permit relative swinging movement of the bars.

1,204,583. FULCRUM-SHIFTING DEVICE FOR GLASS-LADLES. HENRY MILLER, Washington, Pa. Filed Apr. 12, 1916. Serial No. 90,603. (Cl. 49—62.)



1. A fulcrum shifting device for glass ladles, consisting of a stirrup flexibly suspended, a trolley journaled in the stirrup, and a yoke for mounting upon a ladle handle, said yoke embodying a longitudinally disposed body portion inclinedly related to the ladle handle and having the trolley disposed in supporting relation thereto.

2. In a fulcrum shifting device for glass ladles, a yoke having its opposite terminals mounted on the ladle handle and of uneven lengths whereby the body portion of the yoke is disposed at an inclination to said handle, and a trolley disposed in underlying supporting relation to said body.

3. The combination with a glass ladle and a suspended supporting cable therefor, of shiftable means interposed between said ladle and said cable whereby the fulcrum point is advanced and retracted with respect to the bowl of the ladle, said means comprising a yoke adjustably fixed on the handle of the ladle and having a body disposed substantially in parallel alinement with said handle, and a trolley suspended by said cable, said trolley being disposed in underlying supporting relation to said body and being adapted to travel forward or back with respect to the latter according as the bowl occupies a position above or below its horizontal position.

4. The combination with a glass ladle and a suspended supporting cable therefor, of shiftable means interposed between said ladle and said cable whereby the fulcum point is advanced and retracted with respect to the bowl of the ladle, said means comprising a substantially U-shaped element having the ends of its lateral members loosely mounted upon the handle of the ladle, said element being disposed in upright position and having its body portion substantially parallel to said handle, and a trolley suspended by said cable disposed in freely movable supporting relation to said body, that lateral member closets to the ladle bowl being curved forwardly to form an internal pocket adapted for receiving said trolley.

5. The combination with a glass ladle and a suspended supporting cable therefor, of shiftable means interposed between said ladle and said cable whereby the fulcrum point is advanced and retracted with respect to the bowl of the ladle, said means comprising a substantially U-shaped element formed with lateral members of unoven lengths and having the ends of its lateral members mounted upon the handle of the ladle, said element being disposed in upright position and having its body portion extending lengthwise of said handle, a trolley located in underlying traveling relation to said body, a stirrup in which said trolley is mounted, and means connecting said stirrup to said cable.

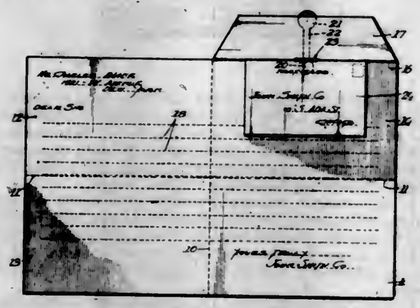
[Claim 6 not printed in the Gazette.]

1,204,584. ADVERTISING DEVICE. BERTRAM E. MORELAND, Chicago, Ill. Filed July 10, 1916. Serial No. 108,362. (Cl. 120—74.)

1. In a device of the class described comprising a rectangular sheet of paper scored transversely whereby it may be folded to form a rectangular inclosure, a flap at the upper edge of said sheet to be folded down against the folded sheet, there being a slit through the paper, and a gummed sealing member applied to the outside of the flap and extending through said slit with its gummed side up to receive a card.

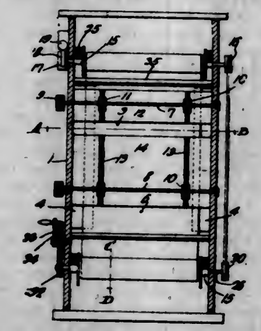
2. A device of the class described comprising a rectangular sheet of paper scored transversely to form folding lines, a flap extension at the upper end of said sheet,

there being a slit in the folding line of the flap, a gummed sealing member pasted to the outside of the flap with its outer end projecting beyond the flap end for securing the flap against the folded sheet, the inner end of said sealing member extending through said slit with its gummed side up, and a card pasted to said end.



3. A device of the class described comprising a rectangular sheet of paper scored transversely to form folding lines, a flap extension at the upper end of said sheet, there being a slit in the folding line of the flap, a gummed sealing member pasted to the outside of the flap with its outer end projecting beyond the flap end for securing the flap against the folded sheet, the inner end of said sealing member extending through said slit with its gummed side up, and a card pasted to said end with its upper edge coincident with the folding line of the flap.

1,204,585. PROJECTION APPARATUS. FRANCISCO NORTE, H., El Paso, Tex. Filed Apr. 19, 1916. Serial No. 92,244. (Cl. 88—24.)



1. Projection apparatus including an objective, shutter elements back of the objective, means coöperating with the shutter elements for holding a film in position between the shutter elements and objective, and means for shifting the film.

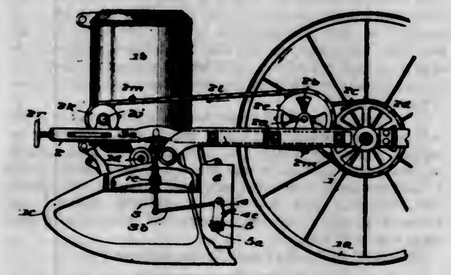
2. Projection apparatus including an objective, separately adjustable superposed shutter elements back of the objective, means coöperating with the shutter elements for holding a film in position between the shutter elements and objective, and means for moving the film to bring a desired portion thereof across the opening between the shutter elements.

3. Projection apparatus including an objective, opposed slidable shutter elements, separate means for shifting the respective shutter elements toward or from each other, means coöperating with the shutter elements for guiding a film, film carrying spools, said shutter elements being interposed between the spools, means for detachably connecting the end portions of a film to the respective spools, and means for rotating one of the spools to wind the film thereon.

4. Projection apparatus including an objective, opposed slidable shutter elements, separate means for shifting the respective shutter elements toward or from each other, means coöperating with the shutter elements for guiding a film, film carrying spools, said shutter elements being interposed between the spools, means for detachably connecting the end portions of a film to the respective spools, means for rotating one of the spools to wind the film thereon, and means for retarding the rotation of the other spool.

5. In a projecting apparatus, the combination with an objective, separately adjustable shutter elements in rear thereof, and means coöperating with the shutter elements for guiding a film across the objective, of spaced spools mounted for rotation, each spool having a longitudinal channel, there being radial slots in the spool and communicating with the channel, each channel constituting means for receiving one end portion of a film, and a bar extending longitudinally within each channel for clamping a film upon the spool, and detachable and adjustable connections between the ends of the bar and the spool, said connections being located beyond the ends of the spool.

1,204,586. CHECK-ROW AND FERTILIZING ATTACHMENT FOR CORN-PLANTING MACHINES. MORRIS EDSON NORTHWAY, Hartsburg, Mo. Filed Feb. 11, 1916. Serial No. 77,597. (Cl. 111—5.)

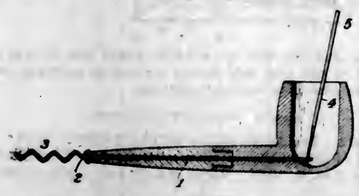


1. An attachment for seed planting machines comprising a frame adapted to be attached to the main frame of the machine, a shaft journaled in one end of said frame, a sprocket loosely mounted on said shaft, a sprocket wheel journaled in the other end of the frame, clutch devices for locking the sprocket to said shaft; and a sprocket chain running over said sprockets and provided with tappets; a lever adapted to be mounted upon the seed valve shaft of the machine and projecting in one direction into the path of the said tappets to be operated thereby and in the opposite direction to operate fertiliser dropping mechanism, and means for driving said shaft from the axle of the machine, substantially as described.

2. An attachment for seed planting machines, comprising a frame adapted to be attached to the machine, a shaft journaled in said frame, a sprocket loosely mounted on said shaft, clutch devices on said shaft for locking said sprocket to the shaft, a slidable support mounted in said frame near the end thereof remote from said shaft, a sprocket journaled in said slidable support, a sprocket chain running over said sprockets and provided with tappets, and means for adjusting said sliding frame to tension said sprocket chain; fertiliser boxes attachable to the furrow openers of the machine and provided with valves, a valve operating shaft mounted between said fertiliser boxes, an oscillating lever adapted to be mounted on the seed shaft of the machine and have its upper end projected into the path of the said tappets on the chain to be operated thereby, operative connections between said lever and said valve operating shaft, and means for driving the shaft in said frame from the main axle of the machine, substantially as described.

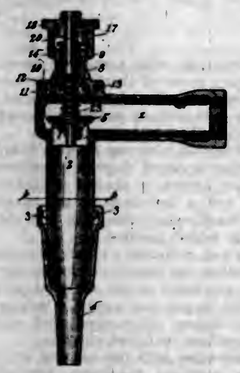
3. An attachment for seed planting machines comprising a frame adapted to be attached to the main frame of the machine, a shaft journaled in one end of said frame, a sprocket loosely mounted on said shaft, a sprocket wheel journaled in the other end of the attachment frame, clutch devices for locking the sprocket to said shaft, a sprocket chain running over said sprockets and provided with tappets; fertiliser boxes attachable to the furrow openers of the machine and provided with valves, a shaft for operating the fertiliser valves supported by said fertiliser boxes, an oscillating lever adapted to be mounted upon the seed valve shaft of the machine and have its upper end projected into the path of the tappets to be operated thereby, operative means on the fertiliser valve shaft, connections between the said means and the said oscillating lever, and means for driving the shaft in said frame from the axle of the machine.

1,204,587. PIPE-CLEANER. JACOB PFISTER, Rochelle Park, N. J. Filed Oct. 2, 1914. Serial No. 864,609. (Cl. 131—13.)



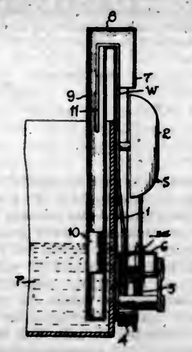
A tool adapted for use with pipe cleaners comprising a handle, a shank, said shank having a slot or end opening and adapted to be thrust into the bowl of a pipe to engage the end of the cleaner that projects into the bowl and bite the same when the tool is pulled from the bowl of the pipe, substantially as described.

1,204,588. NOZZLE-VALVE. AUGUSTINE J. POCOCK, Dayton, Ohio. Filed Dec. 4, 1915. Serial No. 64,977. (Cl. 137—4.)



In a valve of the character specified, a member forming a liquid discharge passage, a valve controlling said passage, a stem extending from said valve, a screw-cap mounted upon said member and having an upwardly extended portion forming a stuffing gland for the valve stem, said screw-cap having lugs extending laterally from opposite sides of the stuffing gland portion of said cap, the upper ends of said lugs having cam and straight surfaces, an upper cap mounted above said screw-cap to which the valve stem is connected, said upper cap having oppositely disposed cam surfaces which terminate in straight surfaces and downwardly extending stop surfaces at the terminals of said straight surfaces, the said oppositely disposed cam surfaces coöperating with the cam surfaces of the lugs of the screw-cap in opening the valve and the straight surfaces coöperating with the straight surfaces of the lugs of the screw-cap in maintaining said valve at its greatest opening and the stop surfaces coöperating with the vertical sides of said lugs in limiting the opening movement of the valve, substatnially as specified.

1,204,589. SIGNALING DEVICE. JOHN A. PURCELL and JOSEPH FEIBELMANN, Scranton, Pa. Filed June 24, 1916. Serial No. 105,759. (Cl. 116—15.)



1. In combination with a container, a plate, a motor-operated signal carried by the plate and including a toothed wheel, a trip normally engaged with said wheel for rendering the signal inoperative, a guide carried by the plate and extending within the container, a buoyant body loosely mounted within the guide, and a member engaged with the trip and terminating above the buoyant body, said member being moved in one direction by the buoyant body to release the trip from the toothed wheel.

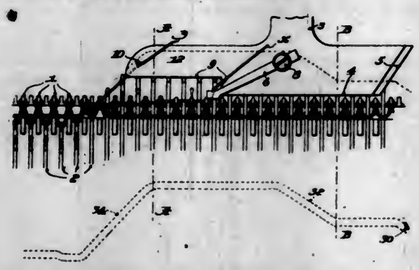
2. In combination with a container, a plate, a motor-operated signal carried by the plate and including a toothed wheel, a trip coacting with the toothed wheel for rendering the signal inoperative, a guide carried by the plate and disposed within the container, a buoyant body positioned within the guide, a member operatively engaged with the trip and terminating above the buoyant body and adapted to be engaged thereby to move the member in one direction to disengage the trip from the toothed wheel, and means coacting with the trip for normally maintaining the same in operative engagement with the toothed wheel, said means also serving to hold the member at the limit of its movement in a direction opposite to that imparted thereto by the buoyant body.

1,204,590. KNITTING-MACHINE. LORAINE J. QUINN, Brantford, Ontario, Canada, assignor to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Continuation in part of application Serial No. 811,269, filed Jan. 9, 1914. This application filed Apr. 7, 1915. Serial No. 19,840. (Cl. 66—22.)

1. A knitting machine having a primary and a secondary set of needles, cams and a latch guard for maintaining said secondary needles in a state of advance with their latches open coincident with cams for advancing said primary needles, and having cams for retracting said primary needles to knit at a place defined by secondary needles remaining so advanced, and cams for retracting the secondary needles to knit immediately following said primary knitting cams, in combination with means for supplying separate yarns to the needles of the respective sets.

2. A knitting machine having in combination a primary and a secondary set of latch needles, means for advance-

ing said needles, a latch-guard device for holding open the latches of the needles of each set, means for feeding a yarn into hooks of said primary needles held open by said latch guard device, means for retracting said primary needles to knit during maintenance of the advance of said secondary needles, means for feeding another yarn to the open books of said secondary needles, and means for retracting said secondary needles to knit.



3. A knitting machine having in combination a primary and a secondary set of intermeshing latch needles, means for advancing and maintaining said primary and secondary needles in a state of advance, a latch guard surface for said advanced primary needles, means for retracting said primary needles to knit at the end of said latch guard surface, a latch guard surface for holding open the advance secondary needles, and means for retracting said secondary needles to knit operating after said primary needles have been retracted to knit, and means for supplying separate yarns to the retracting needles of the respective sets.

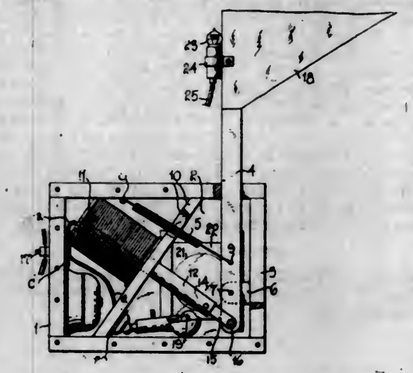
4. A knitting machine for knitting connected plain fabrics having two sets of latch needles arranged to intermesh, a latch-guard device having surfaces for holding the latches of each set open, said surfaces terminating at separated points, in combination with guides for feeding independent yarns to the needles of each set respectively at or near the termination of said surfaces, cams for advancing the needles into relation with said surfaces and said yarn guides, and cams for retracting the needles of each set separately, each upon receiving its yarn.

5. A knitting machine having a cylinder and dial and sets of latch needles respectively therein in combination with a latch-guard device having a member providing surfaces above the dial needles to guard the latches of each of said sets of needles when projected coincidently, means to project the needles and spaced yarn feed guides for delivering independent yarns one after the other at said latch-guard device, one of said latch-guarding surfaces being cut away at and beyond the yarn guide first to deliver its yarn, to permit closure of latches of the needles of one set, said machine having means for retracting the needles of said set prior to actuation of the needles of the other set.

[Claim 6 not printed in the Gazette.]

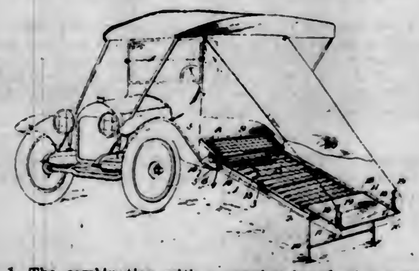
1,204,591. SIGNALING DEVICE. LEADORE I. RANDALL, Lincoln, Nebr. Filed Jan. 17, 1916. Serial No. 72,553. (Cl. 177—329.)

A signaling device comprising a casing having a slot in its side and top wall thereof, an arm disposed through said slot and pivotally mounted intermediate its length within the housing, inclined spaced bars interposed between the top and bottom walls of the housing and disposed on an upward incline toward the slots, an electro-magnet in communication with a suitable source of energy and supported by said bars and disposed on a downward incline in a direction toward the end of the housing provided with the slot, said magnet being substantially entirely positioned above the pivotal mounting of the arm, a movable core coacting with the electro-magnet and extending between the inclined bars, a link pivotally engaged with the lower end of the core and the lower end of the arm whereby upward movement of the core serves to adjust the arm into a horisontal position, and a retractile member interposed between the top wall of the



housing and the arm at a point above the pivotal connection of the arm, said spring serving to normally maintain the arm in a vertical position.

1,204,592. FOLDING-BED ATTACHMENT FOR MOTOR-VEHICLES. WILLIAM REDDELL, Denver, Colo. Filed Nov. 9, 1915. Serial No. 60,515. (Cl. 5—52.)



1. The combination with a running board of a motor vehicle, of hinges mounted thereon, a sectional bed frame connected to said hinges, and lever operated locking bars mounted upon said running board embracing said hinges for holding said bed in folded position.

2. The combination with the running board of a motor vehicle, of hinges mounted thereon, a sectional bed-frame carried by said hinges, a pivoted leg-frame carried by said sectional bed, a foot-member, and means carried by said running board coöperating with said hinges for locking said bed in folded position.

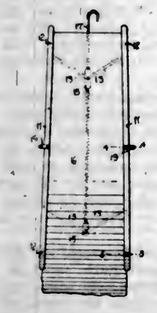
3. A folding-bed, comprising a pair of sections pivotally connected together, leg-frames carried by one of said sections, hinges connected to the other of said sections, a support for said hinges, and a pair of locking bars mounted upon said support coöperating with said hinges for holding said sections in folded position.

4. The combination with the running board of a motor vehicle, of a sectional bed-frame pivotally connected thereto, and capable of being extended into horisontal position or folded into vertical position upon said running board, a head-rest pivotally mounted upon one of the sections of said bed, a foot-member pivotally mounted upon the other section of said bed, means carried by the free section of said bed for supporting the bed when in horizontal position, and means mounted upon the running board of the vehicle for locking said bed in folded position.

5. A folding-bed for motor vehicles, comprising a pair of pivotally connected sections capable of being folded one within the other, one of said sections being pivotally connected to said vehicle, a pivoted leg-frame carried by the free section of said bed for supporting the bed in horisontal position, a foot member mounted upon said free section and capable of being extended outwardly therefrom, and means carried by said motor vehicle for locking said sections in folded position, said foot member forming a closure for said section when in folded position.

[Claims 6 to 8 not printed in the Gazette.]

1,204,593. TROUSERS PRESSER AND HANGER. ARLO E. RICE, Sheffield, Iowa. Filed Jan. 3, 1916. Serial No. 69,905. (Cl. 223—19.)



1. A trouser stretcher and hanger including laterally disposed trouser clamps, links pivotally connected to the clamps, a connection between said links whereby they may have simultaneous movement, and a hanger operatively connected to the upper end of said connection.

2. In a trouser hanger, oppositely disposed longitudinally extending parallel clamping members each comprising parallel strips, the members of each pair of strips being hingedly connected to each other by means of a plurality of rings passing through perforations in the strips and disposed in planes at right angles to the plane of the strips, a resilient clamping member pivotally mounted upon one of each pair of strips and adapted to be turned into or out of engagement with the corresponding strip of the pair and a hanger operatively engaging said pairs of strips.

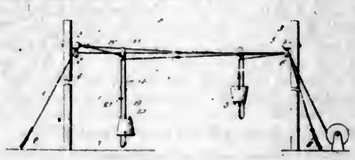
3. A trouser hanger and stretcher of the character described comprising oppositely disposed parallel pairs of clamping strips hingedly connected to each other, upper and lower pairs of links pivotally connected to one of said strips and to each other, and a hanger operatively connected to the adjacent pivotal ends of both pairs of links.

4. A trouser stretcher and hanger of the character described including oppositely disposed pairs of trouser-engaging strips, the members of each pair of strips being hingedly connected to each other by means of rings passing through perforations in the strips, a plurality of pairs of links pivotally connected to one of the strips of each pair and to each other, and a hanger operatively connected to all of said links, and spring clamps adapted to force the clamping strips toward each other.

5. A device of the character described including oppositely disposed pairs of clamping strips, the strips of each pair being hingedly connected to each other, means for detachably holding the strips of each pair in clamping relation upon a pair of trousers, upper and lower pairs of links each pivotally connected to one of the strips of each pair and pivotally connected to each other, a coiled spring operatively connecting the conjoined ends of the upper links with the conjoined ends of the lower links, and a hanger operatively connected to the conjoined ends of the upper pair of links.

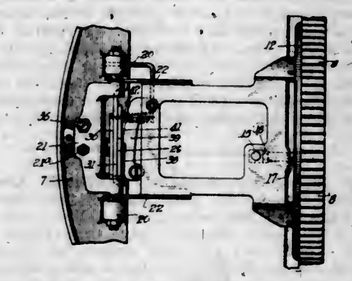
[Claim 6 not printed in the Gazette.]

1,204,594. COAL-TRANSFERRING APPARATUS. KEM E. ROCHEL, Galveston, Tex. Filed July 19, 1915. Serial No. 40,677. (Cl. 212—72.)



A coal transferring apparatus including masts erected upon the delivering and receiving vessels, yard arms for said masts, the yard arm of the removed vessel having a pair of spaced pulleys, parallel supporting cables extended between the yard arms and supported thereby, a traveling pulley mounted on each cable, a connecting cable secured at either end to one of the traveling pulleys and passing over the yard arm pulleys whereby said traveling pulleys may move in opposite directions and in unison upon their supporting cables, an eye forming a part of each traveling pulley, a pair of drums mounted upon the delivering vessel, a cable for each drum passing through the eye of their respective traveling pulleys, buckets secured to the lower ends of each of said cables, a tripping cable for each bucket secured thereto, and to their corresponding pulleys, enlargements upon each of said drum cables whereby upon rotation of one drum to raise the buckets said enlargement is adapted to engage the traveling pulley, and said traveling pulley is thereby moved along the supporting cable in either direction as the case may be, thereby resulting in a movement of the other pulleys in the opposite direction, said buckets when lowered being adapted to be inverted, and their contents ejected by tightening of the trip cable.

1,204,595. TYPE-WRITER. ALVAH C. ROEBUCK, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed Feb. 9, 1914. Serial No. 817,443. (Cl. 197—88.)



1. In escapement mechanism for type-writers, the combination with a universal bar, of an escapement dog rocker, and a member in connection with the universal bar having a surface to engage and to move the dog rocker at a varying speed.

2. In escapement mechanism for type-writers, the combination with a universal bar, of an escapement dog rocker, and a device pivoted to the universal bar to contact with the dog rocker at different distances from the pivot point as the universal bar is moved.

3. In escapement mechanism for typewriters, the combination with a universal bar, of an escapement dog rocker, and a lever pivoted on the universal bar and adapted to engage the dog rocker at different distances from its fulcrum point when the universal bar is moved.

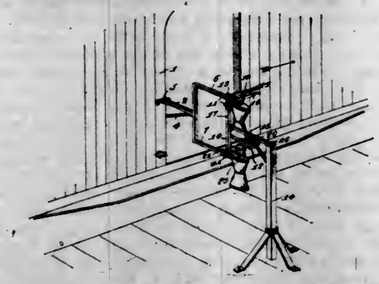
4. In escapement mechanism for typewriters, the combination with a universal bar, of an escapement dog rocker, and a lever connected to the universal bar and to type-

writer frame and adapted to engage the dog rocker and cause an accelerating movement thereof.

5. In escapement mechanism for typewriters, the combination with a universal bar, of an escapement dog rocker, and a lever pivoted to the universal bar and to the frame of the typewriter adapted to engage the dog rocker and to produce an accelerating movement of the dog rocker through a part of the movement of the universal bar and a substantially uniform movement throughout the remainder of the travel of the universal bar in one direction.

[Claims 6 to 13 not printed in the Gazette.]

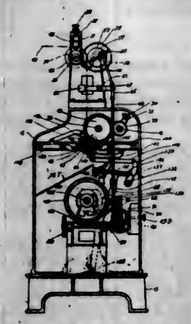
1,204,596. MAIL-TRANSFERRING APPARATUS. JAMES B. SHEFFIELD, Carthage, N. C. Filed Aug. 3, 1914. Serial No. 854,764. (Cl. 258—17.)



1. A mail receiving device including a vertical support bifurcated at one end to receive between the extensions thus formed an arm, said arm being movable to extend laterally of the support from either side thereof, and a detachable supporting element mounted between said extensions to engage with the under side of the arm whereby to support said arm in a substantially horizontal plane and against movement subsequent to adjustment.

2. A mail receiving device including a support bifurcated at one end, an arm pivoted between the extensions formed by said bifurcation, said arm being movable in a substantially vertical plane to extend laterally of the support from either side thereof, and a detachable supporting element of a size to extend beyond the opposite longitudinal edges of the support, said supporting element being mounted between said extension to engage with the under side of the arm whereby to support said arm in a substantially horizontal plane and against movement subsequent to adjustment.

1,204,597. REEL OR WINDING-MACHINE. ANTON SKOPSAUD, Chicago, Ill. Filed July 29, 1912. Serial No. 712,026. (Cl. 242—56.)



1. In a machine for winding rolls of paper or the like from a continuous strip of material, the combination of a winding mechanism, stopping mechanism for stopping the winding mechanism, severing mechanism, a member actuated by the material to be wound for controlling the stopping mechanism, and means for automatically starting the winding of a new roll, the arrangement being such that the device will continuously and automatically wind and sever complete rolls from the material.

2. In a machine for winding rolls of paper or the like from a continuous strip of material, the combination of winding means, automatic starting and stopping means for said winding means, severing means for severing the material, and means actuated by the material for measuring the amount of material to be wound in a roll, and for controlling said stopping mechanism, whereby the machine will continuously and automatically roll and sever complete rolls from the strip of material.

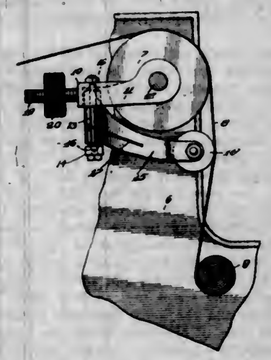
3. In a reel or winding machine, the combination of winding spindles, means for turing said spindles for winding the fabric, means for stopping said spindles and withdrawing them from the completed roll, means for cutting the fabric after the roll is completed, and means actuated by the fabric for controlling said stopping means and cutting off means.

4. In a reel or winding machine, the combination with mechanism for automatically winding a series of rolls from a continuous strip of material and cutting off each of said rolls when completed, of a roller over which the material is drawn, means actuated by said roller for controlling the winding and cutting off devices, and means for automatically starting and completing the winding of a new roll after one has been completed, and severed from the supply strip.

5. In a reel or winding machine, the combination of spindles for engagement with paper or the like to be wound, means for turning said spindles, means for withdrawing said spindles from the completed roll and again returning them for engagement with the paper, means for cutting off the paper after the roll is completed, a roller driven by the paper as it is wound on the spindles, a clutch for starting and stopping the spindles, withdrawing and cutting-off mechanism, and connections between said roller and said clutch for throwing the clutch into engagement when the roller has made a predetermined number of turns.

[Claims 6 to 13 not printed in the Gazette.]

1,204,598. GOVERNOR FOR REELS OR WINDING-MACHINES. ANTON SKOPSAUD, Chicago, Ill. Filed Feb. 5, 1915. Serial No. 6,313. (Cl. 242—75.)



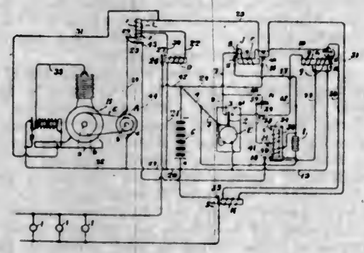
1. The combination with a reel or winding machine having a guide roller and having a winding spindle, of a yoke pivotally mounted concentric with the guide roller, a second yoke pivotally mounted to the first-named yoke and swinging in a plane at right angles to the first-named yoke, a roller mounted in said second-named yoke and adapted to engage with the fabric to be reeled, at a point between the guide roller and the winding spindle, and to exert pressure thereon.

2. The combination with a winding machine having a guide roller and having a winding spindle arranged below the roller, of a cross bar having arms pivotally mounted on the guide roller shaft, a yoke having a central vertical pivotal connection with said bar, and a guide roller mounted in said yoke and adapted to guide the paper or fabric being wound as it passes from the guide roller to the spindle.

3. The combination with a winding machine or the like, having a guide roller and a winding device arranged below the same, of a bar having arms pivoted concentrically with said guide roller, a yoke pivoted to the center of said bar and adapted to swing in a substantially horizontal plane, a roller mounted in said yoke, said roller projecting forwardly to engage with the paper or fabric passing from the guide roller to the winding device, the arrangement being such that the roller may swing in both horizontal and vertical directions in order to equalize the tension on the fabric, and means for adjusting the pressure of the roller against the fabric.

4. The combination with a winding machine having a guide roller and having a winding reel, of a cross bar pivoted to swing in a plane at right angles to the reel, a yoke pivotally mounted on said bar, springs tending to hold said yoke in normally centralized position, and a guide roller mounted in said yoke and projecting within the path of the material passing from the first-named guide roller to the winding reel, for the purposes described.

1,204,599. ELECTRIC SYSTEM. FRANK M. SLOUGH, Elyria, Ohio, assignor to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed June 19, 1912. Serial No. 704,505. (Cl. 171—314.)



1. In an electric system, an accumulator, a dynamo electric machine for charging said accumulator, a prime mover for actuating said dynamo electric machine to charge said accumulator, means acting automatically for connecting said accumulator to said dynamo electric machine when the voltage in said accumulator reaches a predetermined value, electro-magnetic means for disconnecting said accumulator from said dynamo electric machine, disabling means for said electromagnetic means and means to disable said disabling means when said prime mover is in inoperative condition.

2. In an electric system, an accumulator, a dynamo electric machine for supplying energy to said accumulator, a prime mover for actuating said dynamo electric machine, means acting automatically for connecting said dynamo electric machine to said accumulator when the condition of said accumulator reaches a predetermined state, means for disconnecting said accumulator and said dynamo electric machine, a slow acting relay controlling said disconnecting means, said disconnecting means being inoperative if the dynamo-electric machine is operative to supply energy to said accumulator.

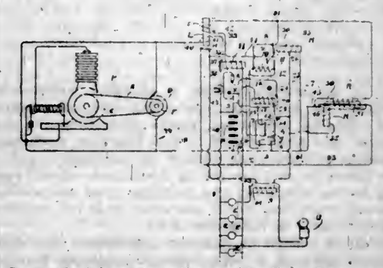
3. In an electric system, an accumulator, means for supplying energy to said accumulator, means for disconnecting said accumulator and said energy supplying means should said energy supplying means be inoperative to supply energy to said accumulator, a slow acting relay to operate said disconnecting means, and electromagnetic disabling means for said slow acting relay.

4. In an electric system, an accumulator, means for supplying energy to said accumulator to charge the same, a device responsive to the condition of said accumulator, time limited mechanism, means controlled by said device and said mechanism for automatically disconnecting said accumulator from said energy supplying means, and electromagnetic disabling means responsive to the flow of current from said energy supplying means to said accumulator to disable said automatic disconnecting means.

5. In an electric system, the combination of an accumulator, means for supplying energy to said accumulator to charge the same, a time limited element, means controlled by said time limited element for automatically disconnecting said energy supplying means from said accumulator, and strength of current operated means for disabling said time limited element.

[Claims 6 to 24 not printed in the Gazette.]

1,204,600. ELECTRIC SYSTEM. FRANK M. SLOUGH, Elyria, Ohio, assignor to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed July 13, 1912. Serial No. 709,137. (Cl. 171—314.)



1. In an electric system, the combination of an accumulator, means for charging said accumulator, circuit conductors for connecting said accumulator and said charging means, a relay controlling said circuit conductors, a circuit for said relay, an electro-responsive device responsive to the condition of the charge of said accumulator controlling the circuit of said relay, a current modifying device in the circuit of said responsive device, means for effectively removing said current modifying device from said circuit, mechanism controlling said means and means responsive to the operative or inoperative condition of the charging means controlling said last named means.

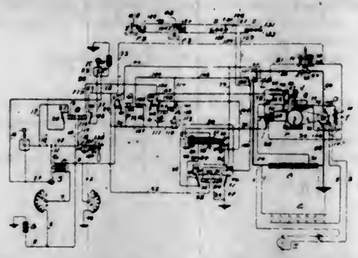
2. In an electric system, the combination of an accumulator, a dynamo electric machine for charging said accumulator, a prime mover adapted to drive said dynamo electric machine, said prime mover adapted to be started by said dynamo electric machine when said machine is operated by current from said accumulator, means for connecting said accumulator to said dynamo electric machine when the charge of said accumulator reaches a predetermined condition, a relay controlling said means and a differential winding upon said relay controlling the disconnection of said accumulator from said machine, said differential winding being energized when said prime mover is inoperative.

3. In an electric system, the combination of an accumulator, means for charging said accumulator, mechanism responsive to the condition of the charge of said accumulator controlling the connection of said accumulator to said means, a relay controlling said mechanism, a differential winding upon said relay controlling the disconnection of said accumulator from said charging means and means automatically actuating after a predetermined length of time, means controlling the energization of said differential winding.

4. In combination, a dynamo-electric machine, an accumulator, a circuit for connecting said accumulator to said dynamo-electric machine, an electric switch controlling said circuit, a voltmeter relay controlling said

switch and including electromagnetic means and an electric switch, a spring normally tending to close said switch and restrained therefrom by said electromagnetic means, said electromagnetic means being responsive to the condition of the charge of said accumulator and means for diminishing the control of said last named switch by said electromagnetic means, operable when said switch is closed.

1,204,601. ELECTRIC SYSTEM. FRANK M. SLOUGH, Elyria, Ohio, assignor to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Nov. 27, 1912. Serial No. 733,920. (Cl. 171—314.)



1. In an electric system, a charging mechanism, an accumulator, means for connecting said accumulator to said charging mechanism, means controlling the connection of said accumulator to said charging mechanism, a plurality of controlling devices for said means and selective means for said controlling devices, one of said controlling devices consisting of a marginal relay and another of a device depending for its operation upon the condition of the electrolyte in the accumulator.

2. In an electric system, the combination of a dynamo-electric machine, a prime mover connected thereto, an accumulator, a circuit for connecting said accumulator to said dynamo-electric machine, electrically controlled mechanism controlling the circuit of said accumulator, a plurality of controlling means governing said mechanism and a selecting device for said controlling means, one of said controlling means consisting of a voltmeter relay and the other of a hydrometer in the electrolyte of the accumulator, and an electric switch controlled thereby.

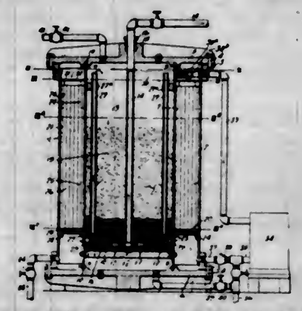
3. In an electric system, a dynamo-electric machine, an accumulator adapted to be charged thereby, a circuit for connecting said dynamo-electric machine to said accumulator, said circuit being normally open, means to close said circuit, a voltmeter relay controlling said means, and adapted to be operated to condition the same to close said circuit, a hydrometer in the electrolyte of the accumulator, and means governed by said hydrometer controlling said circuit controlling means and adapted to condition same to open said circuit when the electrolyte in the accumulator reaches a predetermined condition.

4. In combination, a time element device, a storage battery, a dynamo-electric machine adapted to charge said storage battery, means for controlling the operation of said dynamo-electric machine and said time element device, mechanism controlling said controlling means and conditioning it for simultaneously causing the operation of said dynamo-electric machine and said time element device, protecting means controlled by said dynamo-electric machine and said time element device for automatically releasing said mechanism if said dynamo-electric machine fails to start to charge said storage battery within a predetermined length of time, an alarm, a circuit therefor, means for automatically closing the circuit of the alarm device when said protecting means is released, said time element device limiting the period of operation of the alarm device, as above described.

5. In an electric system, a charging mechanism, an accumulator, means for connecting said accumulator to said charging mechanism and disconnecting said accumulator from said charging mechanism, means controlling the connection of said accumulator to said charging mechanism, a plurality of controlling devices for said means and selective means for said controlling devices, one of said controlling devices consisting of a marginal relay and another of a device dependent for its operation upon the condition of the electrolyte in the accumulator.

[Claim 6 not printed in the Gazette.]

1,204,602. APPARATUS FOR DEOXIDIZING AND FILTERING HEATED WATER. FRANK N. SPELLER, Pittsburgh, Pa., assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Feb. 17, 1916. Serial No. 78,916. (Cl. 210—1.)



1. Apparatus for deoxidizing and filtering heated water comprising a heater having an inlet, a filtering chamber having an outlet, a deoxidizing chamber, piping connecting the deoxidizing chamber with the heater and the filtering chamber, and a plurality of thin rolled steel or iron plates within the deoxidizing chamber.

2. Apparatus for deoxidizing and filtering heated water comprising a heater having a water inlet, a filtering chamber having an outlet, a deoxidizing chamber, piping connecting the deoxidizing chamber with the heater and the filtering chamber, and a plurality of thin corrugated rolled steel or iron plates relatively arranged to form a multiplicity of passages within the deoxidizing chamber and to present a large area of metal surface to contact with water passed through said deoxidizing chamber.

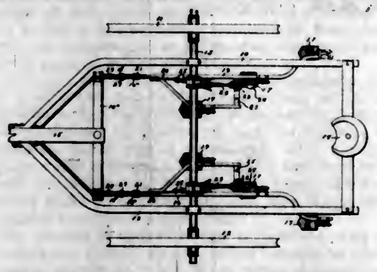
3. Apparatus for deoxidizing and filtering heated water comprising a heater having an inlet, a filtering chamber having an outlet, a deoxidizing chamber, piping connecting the deoxidizing chamber with the heater and the filtering chamber, piping connecting the deoxidizing chamber and heater to thereby maintain a circulation of water through the filtering chamber, deoxidizing chamber and heater, and a plurality of thin rolled steel or iron plates within the deoxidizing chamber.

4. Apparatus for deoxidizing and filtering heated water comprising a heater, a deoxidizing chamber, and a filtering chamber, inlet and outlet openings therein, means connecting the outlet of said heater to the deoxidizing chamber inlet, means connecting the outlet of said deoxidizing chamber with the inlet to said filter, and means connecting the deoxidizing chamber and heater whereby a circulation of water is maintained through the filtering chamber, deoxidizing chamber, and heater.

5. Apparatus for deoxidizing and filtering heated water comprising a heater having a water inlet, a cylindrical filtering chamber, an annular deoxidizing chamber surrounding said filtering chamber, a plurality of radially extending corrugated rolled steel or iron plates within the deoxidizing chamber forming a multiplicity of passages and presenting a large area of metal surface to contact with water passed through the deoxidizing chamber, means connecting the heater outlet with the top of said deoxidizing chamber, means connecting the bottom of said deoxidizing chamber with the top of said filter chamber and a water outlet connected to the lower end of said filtering chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,204,603. DEPTH-EQUALIZING SHOVEL-BEAM ATTACHMENT FOR CULTIVATORS. RAY L. SPENCER, Peoples township, Boone county, Iowa. Filed July 17, 1916. Serial No. 109,672. (Cl. 97—35.)



1. A depth-equalizing shovel-beam attachment for cultivators, comprising a U-shaped hanger pivoted by one arm to the cultivator frame, a shovel beam pivoted at its forward end to the other arm of said hanger, a suspension rod pivoted to said beam at the rear of said hanger, a rock lever pivotally connecting the upper end of said suspension rod to the cultivator frame, and a link pivotally connecting the lower portion of said suspension rod to said hanger.

2. A depth-equalizing shovel-beam attachment for cultivators, comprising a U-shaped hanger having one arm pivoted to the cultivator frame, a shovel beam pivoted at its forward end to the other arm of said hanger, a suspension rod pivoted at its lower end to said beam at the rear of said hanger, a rock lever pivotally connecting the upper end of said suspension rod to the cultivator frame, and a link pivotally connecting the lower portion of said suspension rod to said hanger, said latter link being adjustable as to length.

3. A depth-equalizing shovel-beam attachment for cultivators, comprising a hanger pivoted at its forward side to the cultivator frame, a shovel beam having an upturned forward end pivotally connected to and at the rear of the transverse median line of said hanger, a suspension rod connected to said beam at the rear of said hanger, a rock lever pivotally connecting the upper end of said suspension rod to the frame, and a link pivotally connecting the lower end of said suspension rod to said hanger above the pivot of said shovel beam.

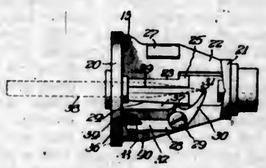
4. A depth-equalizing shovel-beam attachment for cultivators, comprising a hanger pivoted at its forward side to the cultivator frame, said hanger being formed with a rearwardly projecting lug on its rear side, a shovel beam having an upturned forward end pivoted to the rearwardly extending lug of said hanger, a suspension rod connected to said beam and spaced rearwardly from the upturned end thereof, a rock lever pivotally connecting the upper end of said suspension rod to the frame, and a link pivotally connecting the lower end of said suspension rod to the rear side of said hanger above said lug.

5. A depth-equalizing shovel-beam attachment for cultivators, comprising a hanger pivoted at its forward side to the cultivator frame, a shovel beam formed with an upturned forward end having pivotal connections to the rear side of said hanger, a suspension rod connected to said beam at the rear of said hanger and materially spaced from said upturned end, a rock lever pivotally connecting the upper end of said suspension rod to said frame, a link pivotally connecting the lower end of said suspension rod to said hanger, and spaced guides on the lower portion of said hanger slidingly embracing the upturned end of said beam.

[Claims 6 and 7 not printed in the Gazette.]

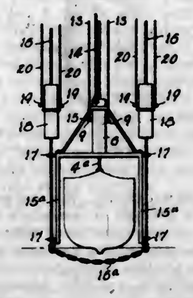
1,204,604. PENCIL-SHARPENER. CHARLES C. SPENGLER, Rockford, Ill., assignor to Spengler Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 14, 1913. Serial No. 784,670. (Cl. 120—96.)

1. In a pencil sharpener, the combination of a rotary cutter frame having a stop surface thereon, a rotary cutter carried by said cutter frame, and a point adjuster pivotally mounted on said frame, said point adjuster comprising a lever having one arm thereof adjacent to said cutter and adapted to limit the feeding of a pencil to be sharpened and the other arm of said lever having a slot in the end thereof, with a readily bendable integrally formed abutment member adjacent to said slot, said abutment member adapted to be brought into engagement with said stop surface, whereby the limit of movement of said lever is adjustably controlled.



2. In a pencil sharpener, the combination of a rotary cutter frame having a stop surface thereon, a pair of rotary cutters carried by said cutter frame, and a point adjuster pivotally mounted on said frame, said point adjuster comprising a bell-crank lever having one arm thereof projecting between said cutters and adapted to limit the feeding of a pencil to be sharpened and the other arm of said lever having a slot in its end, with a readily bendable integrally formed abutment member adjacent to said slot, said abutment member adapted to be brought into engagement with said stop surface, whereby the limit of movement of said point adjuster may be adjustably controlled.

1,204,605. DEVICE FOR LOCATING AND RAISING SUNKEN VESSELS. JAMES M. STAFFORD, Washington, Ind. Filed Feb. 26, 1916. Serial No. 80,604. (Cl. 114—51.)



1. A device of the character described including a pair of looped hoisting cables, means for lowering them at the ends of a sunken ship, grapples adapted to be lowered upon the looped hoisting cables, and tie ropes connecting the grapples for drawing the hoisting cables toward each other and bringing them into engagement with the sunken vessel.

2. A device of the character described including a pair of looped hoisting cables, means for lowering them at opposite ends of a sunken vessel, grapples adapted to be lowered upon the looped hoisting cables, means for locking the grapples in position upon the looped hoisting cables, and a tie rope connecting the grapples for drawing the looped hoisting cables toward each other and bringing them into engagement with the sunken vessel.

3. A device of the character described including float cords extending upwardly from a sunken vessel, looped hoisting cables, frames supporting the lower ends of the looped hoisting cables, means for lowering the frames upon the float cords as guide members, and means for subsequently drawing the looped hoisting cables toward each

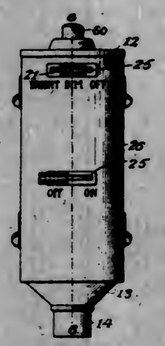
other to bring them into engagement with the sunken vessel.

4. A device of the character described including float cords extending upwardly from opposite ends of a sunken vessel, a pair of looped hoisting cables, frames adapted to be lowered upon the float cords as guides and provided with means for engaging the looped hoisting cables to bring the same into position at opposite ends of the vessel, and means for subsequently drawing the looped hoisting cables toward each other to disengage them from the frames and bring them into engagement with the vessel.

5. A device of the character described including float cords extending upwardly from opposite ends of a sunken vessel, a pair of looped hoisting cables, frames engaging the hoisting cables, means for lowering the frames upon the float cords as guide members to bring the looped hoisting cables opposite the ends of the vessel, grapples adapted to be lowered upon the hoisting cables, and connecting means between the grapples for drawing the hoisting cables toward each other so that they will become disengaged from the frames and drawn into engagement with the ends of the vessel when an upward pull is exerted thereon.

[Claims 6 to 9 not printed in the Gazette.]

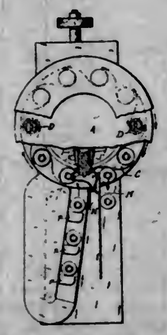
1,204,606. STEERING-COLUMN SWITCH. JASON C. STEARNS, Worcester, Mass. Filed July 22, 1915. Serial No. 41,416. (Cl. 175—282.)



1. In an electrical switch, the combination of conducting springs, a cylinder of insulating material, means for turning said cylinder into three different positions, a conducting bar mounted within and flush with the surface of said cylinder in position to engage said springs in certain positions of the cylinder, a plunger extending through the center of said cylinder, an electrical contact adapted to be completed by the depression of said plunger in all positions of the cylinder, an operating circuit connected with one terminal at said electrical contact, and connections to the other terminal whereby said operating circuit will be completed by the depression of said plunger irrespective of the position of the cylinder.

2. In an electrical switch, the combination of a supporting insulating block having conducting springs projecting therefrom, a cylinder of insulating material arranged with its axis parallel to the surface of said block from which the springs project, means for turning said cylinder into three different positions, a conducting bar mounted within and flush with the surface of said cylinder in position to engage said springs in certain positions of the cylinder, a plunger extending through the center of said cylinder, an electrical contact adapted to be completed by the depression of said plunger, a circuit connected with one terminal of said electrical contact, and connections to the other whereby the circuit will be completed by the depression of said plunger.

1,204,607. BOTTLE-FILLING MACHINE. GUSTAV STRANDT, Milwaukee, Wis., assignor to Milwaukee Dairy Supply Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 29, 1915. Serial No. 63,935. (Cl. 226—9.)



1. The combination with a rotary bottle filling machine, of a pan supporting fork loosely supported therefrom and adapted to swing thereon, and a pan adapted for sliding engagement with the fork arms.

2. A bottle filling machine, including the combination with a vertically disposed rotary shaft, of an annular fork support encircling said shaft, a fork having a collar loosely engaging the fork support, and a pan detachably engaging said fork.

3. A bottle filling machine including the combination with a rotary shaft, a tank carried thereby and provided with filling nozzles, and bottle receiving and discharging ways, of a drip tank removably supported in a position to receive drippings from nozzles passing from registry with the discharging way into registry with the receiving way.

4. A bottle filling machine including the combination with a rotary shaft, a tank carried thereby and provided with filling nozzles, and bottle receiving and discharging ways, of a drip tank removably supported in a position to receive drippings from nozzles passing from registry with the discharging way into registry with the receiving way, and means for swinging said drip pan laterally from such position preparatory to removing it from its support.

5. A bottle filling machine including the combination with a rotary shaft, a tank carried thereby and provided with filling nozzles, a collar loosely encircling said shaft and supported therefrom, a pan supporting member connected with said collar and a pan detachably connected with the supporting member in a position to receive drippings from the nozzles.

[Claims 6 and 7 not printed in the Gazette.]

1,204,608. PROCESS OF MAKING CARBON TETRACHLORID. CHARLES J. STRosACKER, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed Feb. 18, 1915. Serial No. 8,117. (Cl. 23—24.)

1. The process of making carbon tetrachlorid which consists in the addition of carbon disulfid to a charge of sulfur dichlorid and the removal and condensation of the evolved carbon tetrachlorid until the sulfur dichlorid has been reduced substantially to sulfur monochlorid, and thereafter increasing the temperature and continuing the addition of carbon disulfid and the removal and condensation of carbon tetrachlorid until the said sulfur monochlorid has largely been reduced to sulfur.

2. In the process of making carbon tetrachlorid from sulfur dichlorid and carbon disulfid, the step which consists in continuing the addition of carbon disulfid to the reaction vessel after the reduction of the first charge of sulfur dichlorid to sulfur monochlorid, whereby the still-residue may be reduced approximately to sulfur dissolved in a comparatively small quantity of sulfur chlorids.

3. In a process of making carbon tetrachlorid from sulfur chlorid and carbon disulfid, the step which consists in eliminating the sulfur by continuing the addition of carbon disulfid to the charge and the removal and condensation of the carbon tetrachlorid until a residue of molten sulfur is obtained substantially free from sulfur chlorids, the temperature of the residue being maintained above the point of solidification.

4. In a process of making carbon tetrachlorid from sulfur chlorid and carbon disulfid, the steps which consist in eliminating the sulfur by continuing the addition of carbon disulfid to the charge and the removal and condensation of the carbon tetrachlorid until a residue of molten sulfur is obtained substantially free from sulfur chlorids, the temperature of the residue being maintained above the point of solidification, and then withdrawing said residue from the reaction vessel.

5. The process of making carbon tetrachlorid from sulfur chlorid and carbon disulfid which consists in adding the carbon disulfid to a charge of sulfur dichlorid contained in a suitable vessel until the still-residue consists principally of a hot solution of sulfur in sulfur monochlorid, adding a further quantity of sulfur dichlorid and continuing the addition of carbon disulfid until the reaction again reaches the same point, and finally raising the temperature and continuing the addition of carbon disulfid until such sulfur monochlorid is largely reduced.

1,204,609. DENTAL RUBBER COMPOSITION AND ART OF MANUFACTURE. SAMUEL G. SUPPLEE, East Orange, N. J., and CHARLES J. R. ENGSTROM, Los Angeles, Cal. Filed Feb. 19, 1916. Serial No. 79,267. (Cl. 106—23.)

1. The plastic composition herein set forth suitable for making dental plates and the like and consisting of unvulcanized gum rubber and finely divided previously vulcanized rubber intimately mixed therewith to provide properties of counterbalancing expansion and shrinkage during ultimate vulcanization.

2. The process of forming a dental plate which comprises first vulcanizing gum rubber, second finely dividing the said vulcanized rubber, third mixing the finely divided vulcanized rubber with unvulcanized rubber and fourth vulcanizing the mixture to produce the finished plate whereby the expansion of the one ingredient is off-set by the shrinkage of the other ingredient during the final vulcanization.

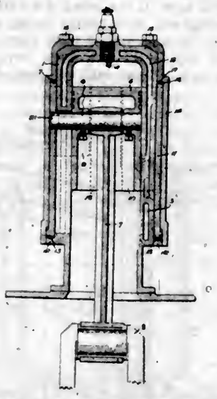
3. The process of forming a dental plate which comprises mixing a finely divided vulcanized rubber with unvulcanized gum rubber, shaping the composition and vulcanizing the same so that the expansion of the one ingredient is counteracted by the shrinkage of the other ingredient.

4. A vulcanized rubber dental plate formed of a composition of finely divided previously vulcanized rubber and unvulcanized gum rubber formed substantially as herein described.

1,204,610. INTERNAL-COMBUSTION ENGINE. BENJAMIN THAW, Jr., Pittsburgh, Pa. Filed Jan. 16, 1914. Serial No. 812,427. (Cl. 123—80.)

1. An internal combustion engine comprising, in combination, a cylinder having intake and exhaust ports, a piston reciprocable in said cylinder, a sleeve valve mounted to turn with respect to said cylinder and having a port therein provided with a tapered lower end, and coacting means upon said valve and piston to turn the former.

2. An internal combustion engine comprising, in combination, a cylinder having intake and exhaust ports, a piston reciprocable in said cylinder and provided with a wrist pin and a piston rod connected thereto, a sleeve valve mounted concentrically with respect to said cylinder and having a port therein and a cam track, said wrist pin having an extension positioned in said cam track.



3. An internal combustion engine comprising, in combination, a cylinder having a single intake and a single exhaust port of substantially equal width, a piston reciprocable in said cylinder, a sleeve valve mounted concentrically and arranged to turn with respect to said cylinder and having a port therein of a width substantially one-half either the intake or the exhaust port, and means to rotate said sleeve valve.

4. An internal combustion engine comprising, in combination, a cylinder, a piston reciprocable therein, said cylinder having an intake port of a length substantially equalizing two-thirds the piston stroke and an exhaust port substantially equaling the full piston stroke, a sleeve valve mounted concentrically and adapted to turn with respect to said cylinder and having a port therein of substantially the length of the full piston stroke, and means to rotate said sleeve valve.

5. An internal combustion engine comprising, in combination, a cylinder, a piston reciprocable therein, said cylinder having intake and exhaust ports of substantially equal width, the intake port being of a length substantially equaling two-thirds the piston stroke and the exhaust port being of a length substantially equaling the full piston stroke, a sleeve valve mounted concentrically and adapted to turn with respect to said cylinder and having a port therein of a width substantially one-half the width of the intake or the exhaust ports and of a length substantially equaling the full piston stroke, and means to rotate said sleeve valve.

[Claims 6 to 10 not printed in the Gazette.]

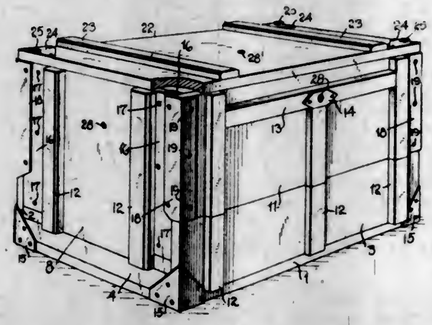
1,204,611. FOLDING BOX OR CRATE. JAMES THERIO, Summit Lake, Wis., assignor of one-half to Daniel Robert Hale, Antigo, Wis. Filed Apr. 24, 1916. Serial No. 93,211. (Cl. 217—15.)

1. A folding box or crate comprising a bottom, sides and ends hinged thereto for inward swinging movement, a top, lugs carried by the sides, elements carried by the ends, said elements having slots formed therein to receive the lugs, and bolts adapted to be passed through the top and through the lugs after the same have been arranged within the slots for the purpose set forth.

2. A folding box or crate comprising a bottom, sides and ends hinged thereto, an element carried by each of the ends, angular plates carried by each side, lugs carried by said plates, said elements having slots formed therein to receive the lugs, a top, and bolts adapted to be passed through said top and loosely through certain of said lugs after the same have been arranged within the slots and threaded into the remainder of the lugs for the purpose set forth.

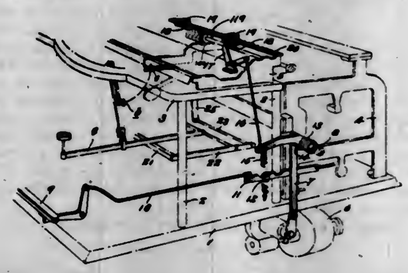
3. A folding box or crate comprising a bottom having a transverse threaded opening, sides and ends hinged to

said bottom for inward swinging movement, elements secured to the vertical edges of the ends, angular strips secured adjacent the ends of the sides and extending beyond the inner faces thereof, said plates being provided with lugs, the elements being provided with slots to receive the lugs, a top, said top, sides and ends having transverse openings therein to be alined with the threaded opening of



the bottom when the said sides, ends and top are arranged in a folded position, and a bolt adapted to be passed through said alined openings of the sides, top and ends and threaded into the opening of the bottom, said bolt being also adapted for engagement with certain of the lugs to retain the ends in a set-up position, substantially as described.

1,204,612. BACK-SPACING MECHANISM. OTTO THIEME, St. Louis, Mo., assignor to Moon Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed May 3, 1915. Serial No. 25,457. (Cl. 197—91.)

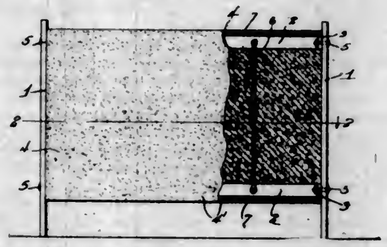


1. In a machine of the character described, the combination of a frame, a movable paper carriage on said frame, a stop adjustably mounted on said carriage, a lever mounted on said frame to engage said stop in its sweep and back-space said carriage, and means for rocking said lever.

2. In a machine of the character described, the combination of a frame, a movable paper carriage, a stop adjustably mounted on said carriage, a member mounted on said frame and normally positioned to permit the free movement of said stop past said member, means for letter-spacing said paper carriage, and means for moving said member a predetermined distance to back-space the carriage to a predetermined position when said stop is in position to be engaged by said member when the latter is actuated.

3. In a machine of the character described, the combination of a frame, a movable paper carriage, a stop mounted on said carriage, a member mounted on said frame, means for moving said member into engagement with the stop to back-space the carriage, and means for adjusting the position of said stop relative to said member.

1,204,613. PLASTIC SIGN. SAMUEL F. THOMAS, Philadelphia, Pa. Filed Aug. 11, 1915. Serial No. 44,957. (Cl. 40—125.)



1. In a sign, a frame comprising upright supporting posts and strips connecting the posts, and a plastic body within the frame and inclosing the strips.

2. In a sign, a frame comprising upright supporting posts, horizontal strips connecting the posts, rods connecting the strips and a plastic body within the frame and inclosing the strips and rods.

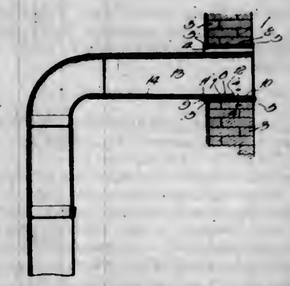
3. In a sign, a frame comprising upright supporting posts, strips for connecting the upper and lower ends of the posts, said strips having right angular terminals affording the connection, rods connecting the strips and a plastic body within the frame and inclosing the strips and rods.

4. In a sign, a frame including uprights, horizontal strips forming a connection between the uprights, means for releasably fastening said strips to the uprights, rods connecting the strips and a plastic body within the frame and inclosing the strips and rods.

5. In a sign, a frame including uprights, horizontal strips having right angular apertured terminals engaging said uprights to form a connection therebetween, releasable fastening means extending through the uprights and engaging the terminals, reinforcing rods connecting the strips, and a plastic body forming the sign board within the frame and inclosing the strips and rods, the said uprights being removable from the plastic body by loosening the aforesaid fastenings.

[Claim 6 not printed in the Gazette.]

1,204,614. COMBINED FLUE-THIMBLE AND STOVE-PIPE-FASTENER. ALLEN LEE THOMPSON, Salt Lake City, Utah. Filed Feb. 17, 1916. Serial No. 78,945. (Cl. 126—318.)



1. A device of the class described comprising a flue thimble having overlapping edges, a flange extending laterally from one of said edges, stops arranged at the opposite ends of said thimble, and a U-shaped key engaging the inner and outer sides of said thimble, said key also engaging said flange and said stops.

2. A device of the class described comprising a flue thimble having overlapping edges, flanges extending laterally from the ends of said thimble and having alined notches therein, a shoulder arranged on one of the edges of said thimble, and a U-shaped key engaging the inner and outer sides of said thimble, said key also engaging said shoulder and being received in said notches.

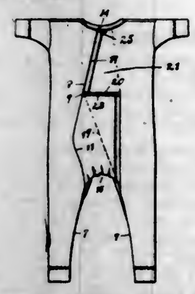
3. A device of the class described comprising a flue thimble having overlapping edges, a flange extending laterally from one of said edges, additional flanges extending laterally from the opposite ends of said thimble and having sets of alined notches therein, and a U-shaped key engaging the inner and outer sides of said thimble, one of the arms of said key engaging the first mentioned flange and being received in one of said sets of notches.

4. A device of the class described comprising a flue thimble having overlapping edges, one of the latter being provided with a reduced portion having a flange at the free edge thereof, additional flanges extending laterally from the opposite ends of said thimble and having sets of alined notches therein, and a U-shaped key engaging the inner and outer sides of said thimble, one of the arms of said key being engaged with said flange and having its ends received in one of said sets of notches.

5. A device of the class described comprising a flue thimble having overlapping edges, one of the latter being provided with a reduced portion having a flange at the free edge thereof, additional flanges extending laterally from the opposite ends of said thimble and having sets of alined notches therein, a U-shaped key engaging the inner and outer sides of said thimble, one of the arms of said key being engaged with the first mentioned flange and having its ends received in one of said sets of notches, and means arranged on said thimble opposite said notches for retaining said key in position.

[Claims 6 and 7 not printed in the Gazette.]

1,204,615. ONE-BUTTON UNION-SUIT. CHARLES A. TURNER, Utica, N. Y. Filed Nov. 8, 1915. Serial No. 60,215. (Cl. 2—144.)



1. In a union suit, a rear portion cut from the neck at an angle to about the waist line terminating in a curve, whereby an enlarged piece is formed in the lower part of the garment, a gusset seamed to the edge of said cut to form a closed crotch, and a single member for securing said garment upon the wearer.

2. In a one button union suit, an unbroken front portion, a gusset disposed in the rear part, said gusset extending from the neck to the crotch, a transverse slip located at the middle portion of the garment for permitting the gusset to pass from underlying to overlying position, and a single member for fastening said garment upon the wearer.

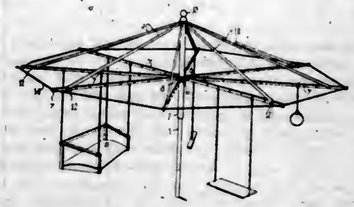
3. In a one button union suit, an unbroken front portion, a gusset disposed in the rear part, said gusset being arranged to underlie the body of the garment for a portion of its length and to overlie the body of the garment for another portion, whereby to prevent undue exposure of the body, when the garment is worn.

4. In a one button union suit, an unbroken front portion, a gusset disposed in the rear part of said garment, extending from the neck to the crotch, said gusset being so arranged as to underlie the body of the garment for a portion of its length and to overlie the body of the garment for another portion of its length, whereby to prevent the undue exposure of the body, when the garment is worn.

5. In a one button union suit, an unbroken front portion, a gusset disposed in the rear part of said garment, extending from the neck to the crotch thereof, and being so arranged as to underlie the body of the garment for a portion of its length and to overlie the body of the garment for another portion of its length, and a seam for securing the body portions of the garment to the gusset, whereby to prevent undue bagging of the garment at the crotch.

[Claims 6 and 7 not printed in the Gazette.]

1,204,616. PORTABLE FRAME FOR TENTS. ALBERT B. UPTON, Highland Park, Mich. Filed Sept. 13, 1915. Serial No. 50,321. (Cl. 135—4.)



1. A frame comprising a cylindrical hollow center post with longitudinal slots extending downwardly from the upper end thereof, holding bolts extending radially from the post below and in alinement each with a slot and having slotted heads, arms each pivoted at the inner end in the slotted head of a holding bolt, and flanged braces embracing the arms near the outer ends thereof and interlocking near their inner ends each with a slot of the post.

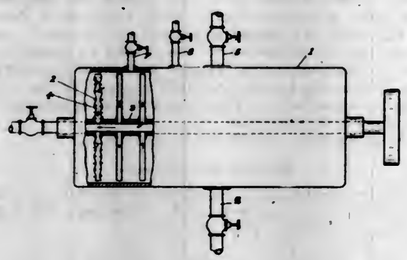
2. A frame comprising a cylindrical center post the upper section of which has longitudinal slots extending downwardly from the upper end, brace bolts extending radially from the post each in line with a slot, and having a slotted head, arms pivotally secured at the inner ends in the slotted heads of the bolts, flanged brace members having compressed portions near their upper ends that are adapted to drop into and interlock with the slots of the post, the outer end portions of the braces being bifurcated to embrace the arms near the outer ends of the latter, pivot bolts connecting the arms and bifurcated ends of the braces, and means connecting the outer end portions of the arms to each other and coöperating with the braces to hold the same in extended position.

3. A frame comprising a tubular center post, the upper section of which has a longitudinally slotted upper end portion and a lower portion in telescopic engagement over the lower section of the post, a flanged bearing head seated in and on the lower section, a bearing block in the upper section resting on the bearing head, laterally extending brace bolts in the upper section against the inner portions of which the block bears upwardly, arms extending radially from the brace bolts, and braces pivoted to the arms and interlocking each with a slot of the upper section of the post.

1,204,617. METHOD OF RECOVERING SUGAR FROM MASSE-CUITE. HENRY A. VALLES, Bay City, Mich. Filed Jan. 11, 1916. Serial No. 71,461. (Cl. 127—17.)

1. The herein-described method of recovering sugar from masse-cuite comprising first, placing the masse-cuite in a container having a screen therein and applying air pressure to the masse-cuite on one side of the screen; second, alternately immersing and withdrawing the screen

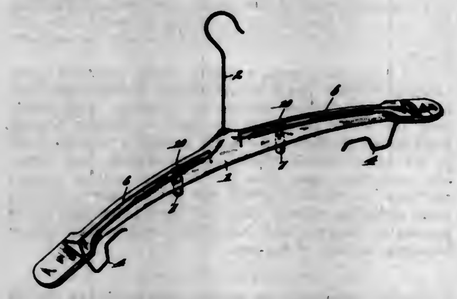
while still under pressure, to deposit on the screen a layer of sugar crystals of practically uniform thickness; third, washing the crystals while on the screen; fourth, converting the washed crystals into sugar solution by introducing into the container a liquid solvent and dissolving the crystals while agitating the screen surfaces in the liquid solvent.



2. The herein-described method of recovering sugar from masse-cuite comprising first, placing the masse-cuite in a container having a screen therein and applying air pressure to the masse-cuite on one side of the screen; second, alternately immersing and withdrawing the screen while still under pressure, to deposit on the screen a layer of sugar crystals of practically uniform thickness, third, forcing water vapor under pressure through the crystals on the screen; fourth, converting the washed crystals into sugar solution by introducing into the container a liquid solvent and dissolving the crystals while agitating the screen surfaces in the liquid solvent.

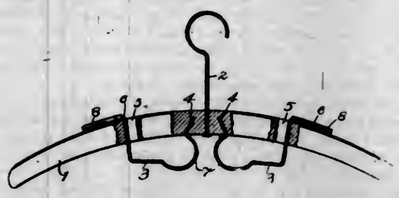
3. The herein-described method of recovering sugar from masse-cuite comprising first, placing the masse-cuite in a container having a screen therein and applying air pressure to the masse-cuite on one side of the screen; second, alternately immersing and withdrawing the screen while still under pressure, to deposit on the screen a layer of sugar crystals of practically uniform thickness; third, removing the remaining masse-cuite; fourth, forcing water vapor under pressure through the crystals on the screen; fifth, removing the pressure; sixth, converting the washed crystals into sugar solution by introducing into the container a liquid solvent and dissolving the crystals while agitating the screen surfaces in the liquid solvent.

1,204,618. GARMENT-HANGER. ENOS C. VREELER, Chicago, Ill. Filed May 29, 1914. Serial No. 841,688. (Cl. 211—13.)



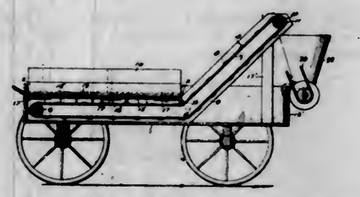
A garment hanger comprising an elongated body; spring clamping arms arranged at the upper side of said body having their inner ends secured to said body and their outer ends normally engaging against the upper surface of said body, said body having vertically extending openings registering with said arms intermediate the ends thereof; stems pivotally connected with said arms and depending therefrom into said openings; and end pieces provided upon the lower ends of said stems and normally projecting below the under surface of said body for manual engagement, substantially as described.

1,204,619. GARMENT-HANGER. ENOS C. VREELER, Chicago, Ill. Filed Apr. 23, 1915. Serial No. 23,380. (Cl. 211—13.)



A garment hanger comprising an elongated body; and clamping means provided at each end of said body, said means comprising an elongated resilient member having one end secured to said body at the under side thereof and having its opposite end yieldingly engaging against the upper side of said body, the central portion of said member projecting below the under side of said body for manual engagement in pressing the same upwardly to move the last mentioned end of said member from engagement with the upper surface of said hanger body, substantially as described.

1,204,620. CONVEYER. JAMES T. VULGAMOTT, Woolstock, Iowa. Filed Mar. 10, 1915. Serial No. 13,522. (Cl. 111—40.)

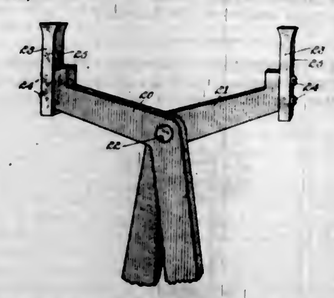


1. The combination with a vehicle body, of side members hinged to said body and normally supported in vertical position upon the bottom of said body, rollers supported by said side members, extension members for said side members, a roller carried by said extension members, a conveyer belt engaged around said rollers, a receptacle resting upon said vehicle body and said side members, means carried by said vehicle for retaining said side members in vertical position, means for controlling the discharge of material from said receptacle to said conveyer belt, a hopper supported beneath one end of said conveyer belt, and means for operating said conveyer belt to deliver the material to said hopper.

2. The combination with a vehicle body, of parallel side members hinged upon the bottom of said body, inclined extension members for said side members, means for connecting said extension members with said side members, an endless conveyer mounted between said side members and between said extension members, a hopper mounted upon one end of said vehicle body and beneath the upper end of said conveyer, a receptacle mounted upon said side members and said vehicle body to deliver material to said endless conveyer, a slide for controlling the amount of material delivered to said endless conveyer, means for operating the feed mechanism of said hopper from a wheel of the vehicle, a shaft adapted to be operated upon operation of the feed mechanism of said hopper, a lever mounted upon one of said extension members, and oppositely directed connecting members leading from said lever to said slide and to one end of said endless conveyer to operate said slide and form connections between said endless conveyer and said shaft upon movement of said lever in one direction.

3. The combination with a vehicle body, of parallel side members hinged upon the bottom of said body and adapted at times to be folded downwardly upon the same, a receptacle having a flat bottom and inclined sides, means carried by said inclined sides for engagement with the outer faces of said side members to support the latter in an upright position, the bottom of said receptacle being perforated, a perforated guide member adapted to register with the perforations of said receptacle bottom, guide means for said slide member, extension members for said side members, an endless conveyer mounted between said side members and said extension members, one end of said endless conveyer being inclined, a hopper mounted upon the upper extremities of said inclined end, the feeding mechanism of said hopper being adapted to be operated upon movement of the vehicle body, said endless conveyer being adapted to be operated upon the feeding mechanism of said hopper, and single controlling means for said slide and said endless conveyer.

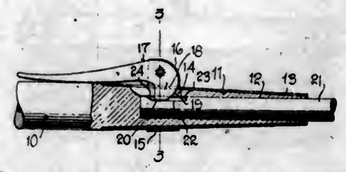
1,204,621. TOOL FOR EXPANDING AND CONTRACTING TIRE-RIMS. JACOB WALDSCHMIDT, Fond du Lac, Wis. Filed May 8, 1915. Serial No. 26,714. (Cl. 157—1.)



A tool for expanding and contracting the type of divided demountable rims which have oppositely facing tool engageable abutments on each side of the division of the rim, the abutment faces engaged for expanding the rim being closer together than the faces engaged for contracting the rim, said tool comprising a pair of angle members pivoted together to form handles and rim engaging parts, the arms forming handles for said tool being adapted to pass each other to assume positions such that movement of the handle portions toward each other will cause the separation of the tire engaging portions of the tool when the tool is engaged for expanding the rim and also such that the movement of the handle portions of the tool toward each other will cause the contraction of the rim engaging portions of the tool when the tool engages the faces of the abutments of the rim for contracting the rim, whereby the rim may be either expanded or contracted by the movement of the handle members toward one another.

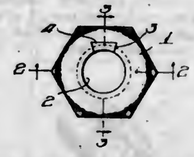
1,204,622. TOOL-HANDLE. HARRY E. WALLACE, Redwood City, Cal. Filed Jan. 10, 1916. Serial No. 71,320. (Cl. 55—43.)

1. The combination with a handle having a reduced portion at one end formed with a longitudinal circular bore and having a longitudinal slot intersecting the bore, a ferrule surrounding the reduced portion of the handle and correspondingly slotted, a band surrounding the reduced portion of the handle and a clamping member eccentrically mounted upon the band and having an angularly extending heel, the clamping member being rotatable to a position where its heel projects into the slot, of a circular tool shank fitting said bore and adapted to be inserted therein and formed at its extremity with a longitudinally extending recess within which the heel on the clamping member is adapted to engage, the recess terminating at its lower end in a wall extending to the periphery of the shank whereby to prevent the withdrawal of the tool shank from its engagement with the heel.



2. The combination with a handle having a reduced portion and a longitudinally extending bore therein and formed with a longitudinal slot intersecting the bore, and a tool shank insertible into the bore, the shank adjacent its extremity being formed with a longitudinally extending recess, the recess being transversely flat and at its outer end formed with a shoulder and curved outward at its inner end, of a ferrule surrounding the reduced portion of the handle and correspondingly slotted, a band surrounding the ferrule and having outwardly turned spaced ears disposed at the slot and an angular clamping member eccentrically pivoted in said ears and having a heel adapted to be inserted in said slot and into engagement with the recess in the shank, said heel having a transversely flat end and a rounded side edge.

1,204,623. LOCKING-NUT. CHARLES V. WALLER, Chicago, Ill. Filed June 12, 1916. Serial No. 103,067. (Cl. 151—23.)



1. A nut having a dovetail keyway uniform in cross section extending entirely through the same from top to bottom beside and opening into the nut-opening, and a key of the same cross section as the keyway and slightly longer than the thickness of the nut located in said keyway, the threads in the nut being formed partly in the key and partly in the body of the nut.

2. A nut having a dovetail keyway uniform in cross section extending entirely through the same parallel with the axis of the nut and opening into the nut-opening, and a key in the form of a simple bar of uniform cross section and slightly longer than the thickness of the nut held frictionally in said keyway, the threads in the nut being formed partly in the key and partly in the body of the nut.

3. A nut having a dovetail keyway uniform in cross section punched entirely through the same parallel with the axis of the nut and opening into the nut-opening, and a key comprising a short piece of an unfinished rolled bar of the same cross section as the keyway and slightly longer than the thickness of the nut held frictionally in said keyway, the threads in the nut being formed partly in the key and partly in the body of the nut.

1,204,624. BROOM. EARL A. WHEELER and WALLACE M. MORGAN, Bakersfield, Cal. Filed May 1, 1916. Serial No. 94,681. (Cl. 15—21.)

1. A broom comprising a head having a plurality of channels on the lower side thereof, L-shaped members having one of their arms secured to the upper side of said head, the other arms of said members being disposed adjacent the ends of said head and provided with openings in alinement with said channels, bars extending through

said openings and being disposed in said channels, and bristles doubled midway of their length and passing around said bars.



2. A broom comprising a rectangular head having a plurality of transversely spaced longitudinally extending channels on the lower side thereof, a pair of L-shaped members having one of their arms secured to the upper side of said head, the other arms of said members extending downwardly and disposed adjacent the ends of said head, the last mentioned arms of said members being provided with openings arranged in alinement with said channels, bars disposed in said channels, and having their ends received in said openings, bristles extending downwardly from said head, said bristles being doubled midway of their length and passing around said bars, U-shaped guards having their arms secured to the side edges of said head and having their intermediate portions disposed over the ends of said bars, and a handle secured to the upper side of said head.

1,204,625. BUSHING FOR ELECTRIC TUBULAR INSULATION. CARL M. WHEELOCK, Milwaukee, Wis., assignor to New Process Specialty Company, a Corporation of Wisconsin. Continuation of application Serial No. 758,746, filed Apr. 4, 1913. This application filed Apr. 30, 1915. Serial No. 24,840. (Cl. 247—1.)



1. A self-sustaining device of the class and for the purpose described, comprising a normally-expanded tubular member slotted along one side throughout its length and having intermediate its ends two opposite facing abrupt abutment-faces to prevent longitudinal movement of the member when engaged in an opening, there being also inclined surfaces leading from the ends of said member to the top of the respective abutment-faces thereby causing the member to be circumferentially compressed by endwise movement of said member by engagement with the walls of an opening which latter has a diameter smaller than the greater diameter of said tubular member, said tubular member being frictionally retained with the said abutment faces embracing the said walls by the outward expansion of said member, substantially as described.

2. A device of the class and for the purpose described, comprising a tubular member slotted along one side throughout its length and having intermediate its ends two oppositely facing abrupt abutment faces to prevent longitudinal movement of the member when engaged in an opening, said member having at one end an inwardly projecting circumferential edge to bite into a tube held in said member, substantially as described.

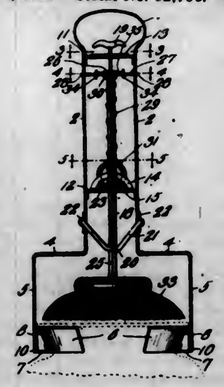
3. A device of the class and for the purpose described, comprising a barrel-shaped tubular member slit along one side and having some compressive resiliency, said member having intermediate between its ends two oppositely facing abrupt abutment faces separated from each other by the thickness of a plate into a circular hole in which said member is adapted to fit, and said faces being adapted to engage opposite sides of the plate, thereby preventing the bushing from longitudinal motion in said hole when it is placed therein with said abutment faces on opposite sides thereof; there being also inclined surfaces leading from the ends of said member to the top of the respective abutment faces, thereby causing said member to be circularly compressed when it is pushed longitudinally into said hole; and an inturned biting flange adapted to be depressed into and immovably engage the material of an insulating conduit, substantially as described.

4. A device of the class and purpose described, comprising a resilient tubular member slotted along one side throughout its length and having two oppositely facing abrupt abutment faced spaced apart a relatively short distance compared with the length of the member and adapted to prevent longitudinal movement of the member when engaged in an opening, said member having an inwardly projecting portion adapted to bite into a tube held in said member substantially perpendicularly to the surface of said tube.

5. A device of the class and purpose described, comprising a resilient tubular member slotted along one side throughout its length and having intermediate its ends two oppositely facing abrupt abutment faces to prevent longitudinal movement of the member when engaged in an opening, said member having an inwardly projecting portion adapted to bite into a tube held in said member, substantially perpendicularly to the surface of said tube.

[Claim 6 not printed in the Gazette.]

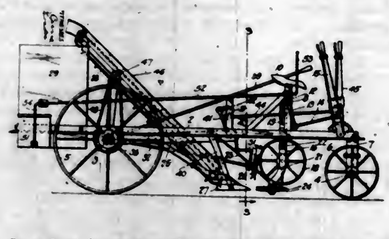
1,204,626. COMBINED CUSPIDOR CLEANER AND CARRIER. ROBERT C. WHINYATES, Camden, N. J. Filed Mar. 7, 1916. Serial No. 82,706. (Cl. 141—7.)



A device of the class described, comprising an inverted U-shaped frame, the arms of said frame having longitudinal slots formed therein, a plate having extensions on its ends for slidably engaging said slots, a second plate rigidly connected to the arms, a bracket carried by the last named plate, a beveled gear supported by the bracket, a second beveled gear rotatably engaged on the second named plate, a shaft slidable in the second named gear and having a cleaner element on its lower end, a coil spring encircling the shaft and having its lower end connected to the second named gear, said shaft having its upper end journaled in the first named plate, a collar carried by the upper end of the shaft and to which it fixed the upper end of said spring, a handle yoke carried by the first named plate for sliding the same downwardly to move said shaft downwardly, as and for the purpose set forth.

1,204,627. BEET TOPPER AND DIGGER. WILLIAM H. WILLIAMS, Mitchell, Nebr. Filed Nov. 3, 1915. Serial No. 59,339. (Cl. 55—9.)

1. In a beet harvester, the combination with a carrier, of an appliance for topping beets in the ground along which the carrier is propelled, comprising a frame mounted on the carrier for up and downward movement, a roller on the frame to engage the beet tops, a bar beneath the roller adjustably attached to the frame, and a pair of lapping, circular cutting-members rotatably mounted on the bar to sever the tops of beets the roller engages.



2. In a beet harvester, the combination with a carrier, of an appliance for topping beets in the ground along which the carried is propelled, comprising a crank-shaft on the carrier, means for varying the position of the crank by rotation of the shaft, a frame suspended from the shaft-crank, a roller on the frame to engage the beet-tops, and a cutting element mounted on the frame beneath the roller to sever the tops of beets the latter engages.

3. In a beet harvester, the combination with a carrier, of an appliance for topping beets in the ground along which the carrier is propelled, comprising a crank-shaft on the carrier, means for varying the position of the crank by rotation of the shaft, a frame suspended from the shaft-crank, free for up and downward motion, a roller on the frame to engage the beet-tops, and a cutting element mounted on the frame beneath the roller to sever the tops of beets the latter engages.

4. In a beet harvester, the combination with a carrier, of a beet topping appliance, a top-coveyer, a beet-digging device, a beet-conveyer, and means for the simultaneous operation of the two conveyers by movement of the carrier, comprising a beveled gear loose on an axle of the carrier, means for transmitting the rotary movement of said gear to the beet-conveyer, a beleved pinion meshing with said gear in operative connection with the top-conveyer, and a gear mounted to rotate in conjunction with the axle and slidable to engage said pinion.

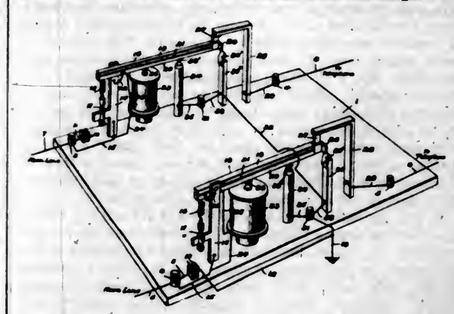
5. In a beet harvester, the combination with a carrier, of an appliance for topping beets in the ground along which the carrier is propelled, comprising a frame vertically adjustably mounted on the carrier, free for up and downward motion, a beet-engaging element on said frame, a cutting element mounted on the frame beneath the first-mentioned element to sever the tops of beets engaged thereby, a pivoted frame vertically adjustably mounted on the carrier, and a conveyer on the said pivoted frame, to engage the beet-tops severed by the cutting element.

1,204,628. LIGHTNING-ARRESTER. WILBER MEADE WILSON and WILLIE REID MCCRACKEN, Bryson City, N. C. Filed Mar. 24, 1916. Serial No. 86,416. (Cl. 175—214.)

1. An arrester of the character described comprising a base, a pivoted connecting bar on said base and having one end connected to the line wire and the opposite end connected to the telephone wire, a magnet operating said bar, and means carried by the bar for breaking the telephone connection and grounding the line connection.

2. An arrester of the character described comprising a base, a movable connecting bar on said base, means carried by the bar for breaking the telephone connection, and means whereby the telephone connection gives the initial movement to the said bar for breaking the circuit.

3. An arrester of the character described comprising a base, a movable connecting bar on said base, an electric magnet for moving said bar and breaking the telephone circuit, and means for grounding the circuit in advance of the breaking of the telephone circuit and shunting the greater portion of the excess current from the magnet.

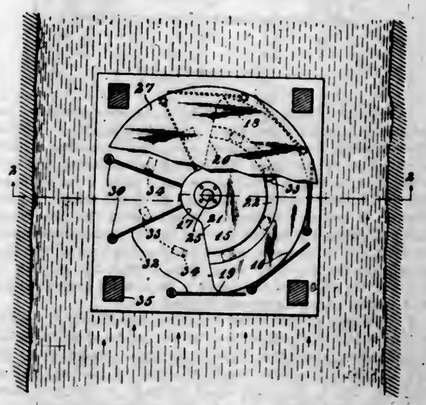


4. An arrester of the character described comprising a base, a movable connecting bar extending across the base, an electric magnet through which the telephone circuit passes and connected to said bar, means operated by an overcharge through the magnet for operating the connecting bar and breaking the telephone circuit and simultaneously grounding the bar and shunting the greater portion of the circuit from the magnet directly through the bar.

5. An arrester of the character described comprising a base, a pivoted connecting bar on said base, a magnet adapted to move said bar, a contact carried by the opposite end of the bar and completing the circuit to the telephone wire, a spring normally holding the bar with the circuit closed, a grounding contact below the bar, and means whereby on overcharge through the magnet moves the bar downwardly breaking the teelphone circuit and simultaneously engaging the grounding contact.

[Claims 6 to 9 not printed in the Gazette.]

1,204,629. CURRENT-MOTOR. MILTON E. WINANS, Long Island City, N. Y. Filed Mar. 15, 1916. Serial No. 84,331. (Cl. 170—120.)

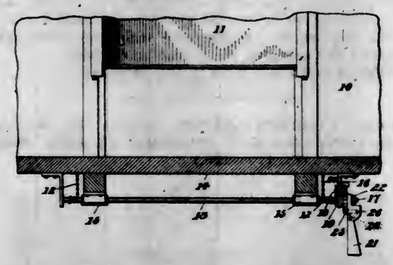


1. In a current motor, the combination with a foundation fixed in the bed of a stream, of a submerged, rigid abutment formed with said foundation, said abutment having a cam profile, a shaft mounted concentric to the curved portions of said abutment, a plate carried by said shaft adapted to rotate thereover, a plurality of vanes pivotes pendant to said plate, and means combined with said plate whereby said vanes are held radial when opposed to the flow of the current, whereby said plate and shaft are caused to rotate.

2. In a current motor, the combination with a foundation fixed in the bed of a stream, of an abutment formed with said foundation, said abutment extending vertically above the foundation and having an arcuate profile joined by straight lateral surfaces to an arcuate hub portion of lesser radius than its main portion, a shaft mounted central of the hub, a circular plate attached to said shaft, said plate extending beyond the confines of said abutment, a plurality of pendant vanes hingedly engaged at the periphery of said plate, means on said plate adapted to engage with said vanes whereby they are held radial during a portion of their movement and means formed with said abutment whereby said vanes are caused to move tangentially during the remainder of their movement.

3. In a current motor, a circular plate mounted to rotate on a vertical axis, a plurality of rectangular vanes pivoted vertically at one of their shorter edges at uniform intervals near the periphery of said plate, a level horizontal surface over which said vanes operate, a fixed abutment having oppositely disposed arcuate lateral surfaces extending upward to a height equivalent to the width of said vanes, one of the arcuate surfaces having a radius complementary to the length of said vanes between the axis of the plate and vanes respectively, the other arcuate surface having a radius slightly within the pivotal point of said vanes, means on said plate adapted to maintain said vanes radial when opposed to the current, and means for utilizing the rotary motion imparted to said plate by said vanes.

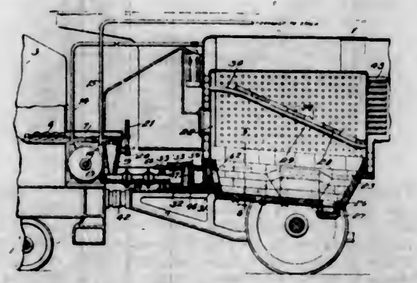
1,204,630. CAR-DOOR OPERATOR. JOSEPH WOLNY, Carneyville, Wyo. Filed June 5, 1916. Serial No. 101,740. (Cl. 268—6.)



1. A shaft actuating device for a car door elevator comprising in combination with a winding shaft, a toothed ratchet wheel secured thereon, a normal depending weighted lever journaled upon the said shaft adjacent the said wheel and having a housing provided with a recess opening at the face thereof adjacent the said wheel, a pawl pivoted at one end adjacent the bottom of the said recess and projecting outwardly thereof in the path of movement of the teeth of the said wheel and having one curved face in wiping contact with such teeth during the shifting of the lever in one direction, and a tensioning spring within said recess engaging the said pawl.

2. A device of the class described comprising in combination with a grain door of a car having an elevating shaft horizontally journaled beneath in close proximity to the car bottom, an angular bracket carried by the said bottom through which the said shaft extends, a toothed wheel upon the said shaft at one side of the said bracket, a pivoted dog upon said bracket normally engaging the said wheel, a toothed ratchet wheel upon the said shaft at the opposite side of the said bracket from the said dog, an operating lever of substantially truncated pyramidal form journaled upon the said shaft outwardly of the said ratchet wheel, a retaining nut upon the said shaft outwardly of the said lever, said lever having a housing portion provided with a recess opening adjacent the said ratchet wheel, a spring-pressed pawl pivoted at one end adjacent the bottom of the said recess at the upper end thereof and resiliently positioned with its free end projecting outwardly of the said recess within the path of movement of the teeth of the said ratchet wheel.

1,204,631. FEEDING AND BURNING FINE FUEL. WALTER D. WOOD, New York, N. Y., assignor to Fuel Saving Company, Allentown, Pa., a Corporation of Pennsylvania. Filed Mar. 23, 1914. Serial No. 826,641. (Cl. 110—104.)



1. In an apparatus for feeding and burning powdered fuel, the combination with a firing chamber, of a nozzle device for introducing fuel and air into the furnace, said nozzle delivering fuel-carrying air and also combustion air, and consisting essentially of a pipe having a flaring mouth, together with another pipe surrounding said flaring mouth and of greater diameter and into which the flaring mouth discharges, said second pipe communicating with the furnace, means for creating and supplying the dust-laden current to said nozzle, and automatically controlled valve means for separately supplying combustion air thereto and controlling the amount of said combustion air.

2. In an apparatus for feeding and burning powdered fuel, the combination with a furnace of a nozzle device for introducing fuel and air into the furnace, said nozzle delivering fuel-carrying air and also combustion air and consisting essentially of a pipe having a flaring mouth, together with another pipe surrounding said flaring mouth and of greater diameter and into which the flaring mouth discharges, said second pipe communicating with the furnace, means for creating and supplying the dust-laden current to said nozzle, separate means for supplying and controlling the amount of combustion air thereto, and means for delivering and controlling the amount of additional combustion air directly to the furnace.

3. In an apparatus for feeding and burning powdered fuel, the combination with a steam boiler and its furnace, in which the pressure is at all times less than atmospheric, of a nozzle for delivering the fuel into said furnace and consisting essentially of a flaring discharge member and a member of larger diameter into which said flaring discharge member delivers, said member of larger diameter communicating with the furnace, and said nozzle introducing dust-laden air and also an additional supply of auxiliary air to promote combustion, a fan for creating the dust-laden current and supplying it to the nozzle, separate means for supplying and controlling the amount of combustion air to said nozzle, and means for admitting and controlling the atmospheric air to serve as additional combustion air directly into the furnace.

4. In an apparatus for feeding and burning powdered fuel, the combination with a steam boiler furnace having a depressed auxiliary chamber to enlarge the space within the furnace, of means for introducing into said chamber a properly measured supply of fuel-laden air, said means including a nozzle consisting essentially of a pipe having a flaring mouth, together with a chamber of larger diameter surrounding said flaring mouth and communicating with the furnace, the current of air which is delivered being of proper strength to deliver the fuel to the furnace without the function of completing the combustion,

means for introducing correspondingly measured amounts of combustion air directly from the atmosphere to commingle with the fuel-laden air before the latter enters the furnace, and means for admitting atmospheric air as combustion air directly into the furnace so that a proper supply of air may be had to meet the combustion requirements.

5. In an apparatus for feeding and burning powdered fuel, the combination with a firing chamber, of means for introducing a current of fuel-laden air, said means including a nozzle consisting of a flaring discharge mouth and a larger chamber surrounding the same and communicating with the firing chamber, a fan for creating the fuel-laden current, separate means for mixing combustion air with the fuel-laden air before the latter reaches the firing chamber, means for admitting combustion air directly to the firing chamber, and a mixing chamber receiving air and fuel wherein a thorough intermixing of air and fuel dust takes place to form the dust-laden air current.

[Claims 6 to 24 not printed in the Gazette.]

1,204,632. MANUFACTURE OF COMPOSITION ROOFING-SHEETS. JAMES C. WOODLEY, Evanston, Ill., and Ray P. Perry, Montclair, N. J.; said Perry assignor to Barrett Manufacturing Company, a Corporation of West Virginia. Filed Dec. 8, 1915. Serial No. 65,667. (Cl. 18—48.)

1. In the manufacture of sheets for roofing or the like of plastic material the method which consists in forming the material into a sheet by compression in the direction of its thickness and compressing the sheet in the direction of its width while confining it in the direction of its thickness.

2. In the manufacture of sheets for roofing or the like of plastic material the method which consists in forming the material into a sheet by compression in the direction of its thickness, and increasing its density without substantial distortion by compression in the direction of its width.

3. In the manufacture of sheets for roofing or the like of a composition including a bituminous mass with fibers separately coated and distributed throughout the same, the method which consists in forming said composition into a sheet by compression in the direction of its thickness and compressing said sheet in the direction of its width while confining it in the direction of its thickness.

4. In the manufacture of sheets for roofing or the like of a composition including a bituminous mass with fibers separately coated and distributed through the same, the method which consists in forming said composition into a sheet by compression in the direction of its thickness, rolling the sheet into a roll and compressing the roll in line with its axis.

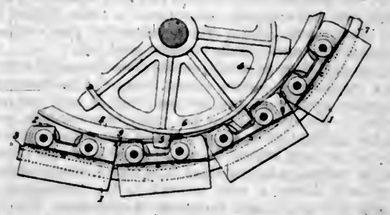
5. In the manufacture of sheets for roofing or the like of plastic material the method which consists in forming the material into a sheet by compression in the direction of its thickness and compressing the sheet in the direction of its width to a width less than that to which it would naturally contract, and removing the pressure to permit partial re-expansion.

[Claims 6 to 8 not printed in the Gazette.]

1,204,633. SINTERING-MACHINE. FREDERICK W. YOST, New York, N. Y., assignor to American Ore Reclamation Company, New York, N. Y., a Corporation of New York. Filed July 24, 1916. Serial No. 110,882. (Cl. 266—21.)

1. In a sintering machine of the kind described, the combination with a train of grate bearing pallets provided with track wheels, of track rails for supporting and guiding the pallet wheels, and a sprocket drive for imparting movement to the pallets, engaging with teeth attached to the pallets themselves.

2. In a sintering machine of the kind described, the combination of grate-carrying pallets having teeth formed integral with the pallet frames, and driving sprocket wheels with teeth engaging those on the pallet frames, curved track rails for guiding the pallets around the sprocket wheel driving path, and track wheels on the pallets adapted to roll on the curved track rails unrestrained by the sprockets.

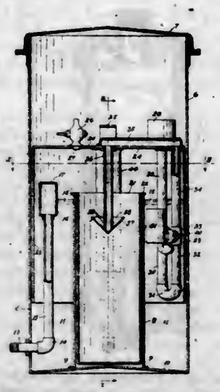


3. In a continuous sintering machine of the kind described, the combination with a train of grate-carrying pallets fitted with track wheels, sprocket wheels for driving the train of pallets, upper, lower and curved end track rails for guiding the pallets over and from the wind box and around the path of the sprocket wheel drive, and teeth formed in the pallet frames and with which the sprocket wheels engage.

4. In a sintering machine of the kind described, the combination with grate-carrying pallets fitted with track wheels, rails for guiding the same through the path of action, separate engaging members carried by the pallets, and a sprocket wheel drive for coöperating therewith.

5. The combination in a continuous sintering machine, of the kind described, of grate bearing pallets with teeth formed integral with the pallet frames, and a sprocket drive meshing with the pallet teeth.

1,204,634. ACETYLENE-GAS GENERATOR. JOSEPH ZIMMERER, Seattle, Wash., assignor to Fred M. Poore, Seattle, Wash. Filed Oct. 18, 1915. Serial No. 56,847. (Cl. 48—17.)



1. An acetylene gas generator of the class described comprising a container, a socket having the lower end fastened to the inner surface of the bottom wall of said container to extend upwardly therefrom with its vertical walls concentric with the vertical walls of said container, thereby to provide an annular space between said socket and the vertical walls of said container, a cup removably disposed in said socket, a bell disposed to be slidably movable in vertical directions with said container, the vertical walls of said bell being of a diameter to adapt it to encircle said socket, a horizontal conduit disposed on the top of said horizontal wall of said bell, a U-shaped conduit depending from the top of the bell and having one leg communicating with the horizontal conduit, a tube

concentrically disposed within said bell to extend its upper end through the center of said horizontal wall to connect with said horizontal conduit, the lower end portion being provided with a passageway through its wall and said lower end portion being closed and surrounded by a cup whose side walls extend upwardly to a plane higher than said passageway, and a valve controlled cup connected with said U-shaped conduit within said bell.

2. An acetylene generator of the class described embodying a container, a socket whose lower end is fastened to the inner surface of the bottom wall of said container thereby to provide a space for water between said socket and the vertical walls of said container, a cup removably disposed in said socket, a bell disposed to be vertically slidable within said container while its vertical walls encircle said socket, a tube secured to the horizontal wall of said bell to extend vertically downwardly therefrom into the interior of the cup disposed in said socket, a water trap carried by the lower end thereof, a U-shaped conduit attached to the under side of said horizontal wall and having one of its upper ends communicating with the upper end of said tube, a valve controlled water trap carried thereby, a funnel connected with the other one of the upper ends of said U-shaped conduit, and gas vent and outlet pipes associated with said container.

3. An acetylene gas generator comprising a container, a bell vertically movable therein, a carbid receptacle within said container, a pipe depending from said bell and extending downwardly into the container, a water trap at the lower end of the pipe, a U-shaped pipe depending from the bell adjacent the edge thereof and extending therethrough, a funnel on one end thereof, a conduit forming communication between the other end and the first-named pipe, a water trap associated with one of the legs of the U-shaped pipe, and gas vent and outlet pipes associated with said container.

1,204,635. VALVE. ALBERT L. ALEXANDER, Boston, Mass. Filed Aug. 27, 1914. Serial No. 858,916. (Cl. 137—103.)



1. A device of the character described comprising a conical hollow body portion; a boss on said body portion forming a valve seat, the end surface of said boss being parallel with the adjacent wall of said body portion, said boss having a port leading within said body portion, and a valve to engage said boss and having a skirt surrounding, parallel to, but spaced from, said body portion.

2. A device of the character described comprising a hollow member; a boss on said member having an engaging surface at an angle to the vertical, said boss having a port leading to the interior of said member; a valve having a portion parallel to said engaging surface and having also another portion surrounding, but spaced from, said hollow member to permit the presence of water between said other portion and said member; and a float movable vertically and moving said valve vertically so as to move the first-mentioned portion thereof into and out of engagement with the engaging surface of said boss.

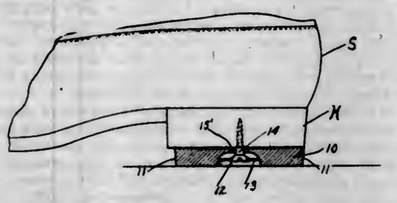
3. A device of the character described comprising a hollow member; a boss on said member having an engaging surface at an angle to the vertical, said boss having a port leading to the interior of said member; a valve having a portion to engage said engaging surface and having also another portion surrounding, but spaced from, said hollow member to permit the presence of fluid between said other portion and said member; and a float moving substantially vertically and moving said valve substantially vertically so as to move the first-mentioned portion into and out of engagement with the engaging surface of said boss.

4. A device of the character described comprising a hollow member; a boss on said member having an engaging surface at an angle to the vertical, said boss having a port leading to the interior of said member; a valve having a portion parallel to said engaging surface and having also another portion outside of, and spaced from, said hollow member to permit the presence of fluid between said other portion and said member when the valve is closed; and a movable float moving the first-mentioned portion into and out of engagement with the engaging surface of said boss and moving said other portion toward said hollow member as the valve is closing.

5. A device of the character described comprising a hollow member having a port; a boss on said member having an engaging surface at an angle to the vertical; a valve to close said port and having a portion parallel to said engaging surface and having another portion spaced from said hollow member to permit the presence of fluid between said other portion and said member; and a float moving said valve so as to move the first-mentioned portion into and out of engagement with the engaging surface of said boss and moving said other portion toward said hollow member as the valve is closing.

[Claims 6 to 8 not printed in the Gazette.]

1,204,636. ROTATING HEEL. WILLIAM G. ANDERSON, Boston, Mass. Filed Jan. 3, 1916. Serial No. 69,727. (Cl. 36—39.)

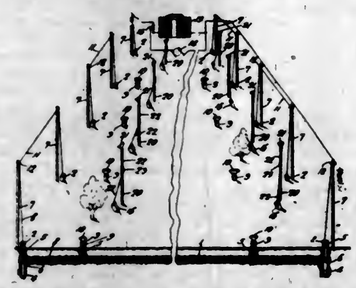


1. A heel piece for boots or shoes, comprising a disk shaped resilient wear member having a central recess or countersink, a metallic washer larger than the normal diameter of said recess and arranged to be pressed thereinto to distort said wear member to a dished form, and a pivot and securing member engaged with said washer and passed through said wear member to hold the same to a heel.

2. A heel piece for boots or shoes, comprising a disk shaped wear member of flexible rubber having its central portion formed with a relatively deep countersink leaving a relatively thin central diaphragm portion, a washer larger than the normal dimension of said countersink and arranged to be pressed thereinto to distort said wear member to a dished shape, and a combined pivot and securing member passed centrally through said wear member and engaged with said washer to hold said wear member to the heel with a capability of angular shifting.

1,204,637. MEANS FOR PROMOTING VEGETATION. WARREN J. ANSON, San Gabriel, Cal., assignor of one-half to George B. Nichols, Los Angeles, Cal. Filed July 19, 1915. Serial No. 40,739. (Cl. 47—36.)

1. Means for promoting vegetation comprising an air circulating porous conduit embedded in the soil and having open risers projecting above the surface thereof near the vegetation for the circulation of air, and an electrical conductor extending through the conduit and having legs projecting upwardly and connected by resistance coils above and immediately adjacent the upper ends of said risers, said coils being exposed to the atmosphere for heating the same contiguous to the upper ends of said risers, and electrically charging the air.



2. Means for promoting vegetation comprising parallel air circulating porous conduits embedded in the soil, said conduits having open risers at their ends and other open risers between their ends near the vegetation, and an electrical conductor extending back and forth through said conduits and passing through the first mentioned risers, the conductor having legs projecting upwardly through the second mentioned risers and connected by resistance coils disposed above and immediately adjacent the upper ends of the second mentioned risers, said coils being exposed to the atmosphere for heating the same contiguous to the upper ends of the second mentioned risers and to electrically charge the air.

3. Means for promoting vegetation comprising a conduit embedded in the soil and having risers projecting above the surface thereof, hollow open ended members embedded in the soil and projecting thereabove at the side of said conduit and its risers, magnetic plates embedded in the soil below said members, and collectors of atmospheric electricity connected to said plates.

4. Means for promoting vegetation comprising a hollow open ended member embedded in the soil and projecting thereabove, a magnetic plate embedded in the soil below said member, and a series of secondary plates embedded in the soil at scattered points adjacent the first mentioned plate and connected thereto.

5. Means for promoting vegetation comprising a porous conduit embedded in the soil and having risers projecting above the surface thereof, an electrical conductor extending through the conduit and having resistance coils interposed therein above said risers, hollow open ended members embedded in the soil and projecting thereabove, said members being located at one side of said conduit and its risers, magnetic plates embedded in the soil below said members, posts planted in the soil adjacent said members, collectors of atmospheric electricity carried by said posts, and conductors connecting the respective collectors and plates and extending through said members.

[Claim 6 not printed in the Gazette.]

1,204,638. LIQUID FUEL. FRANK C. AXTELL, New York, N. Y. Filed Sept. 5, 1916. Serial No. 118,384. (Cl. 44—8.)

1. A liquid fuel comprising hydrocarbon oil, a light hydrocarbon distillate, an alcohol normally insoluble in the aforesaid ingredients, and a mixing or combining agent for causing the intimate mixture of said ingredients, the several components of the mixture being in such proportions as to flash in the cylinder of an internal combustion engine at normal temperatures.

2. A liquid fuel comprising about two volumes of kerosene, about one volume of a light hydrocarbon distillate, about one volume of alcohol (about 95 volume per cent.), and about four-tenths (0.4) volume of anhydrous fusel oil.

1,204,639. PRODUCING VAT DYES. OSCAR BALLY and RICHARD METZGER, Mannheim, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Baden. Filed Dec. 4, 1913. Serial No. 804,714. (Cl. 8—1.)

1. The process of producing vat dyes of the anthraquinone series by reacting with an aldehyde on a leuco compound of an amino derivative of a dibenzanthrone.

2. The process of producing a vat dye of the anthraquinone series by reacting with an aldehyde on an amino derivative of a dibenzanthrone in the presence of a reducing agent.

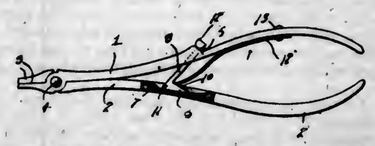
3. The process of producing a vat dye of the anthraquinone series by reacting with an aldehyde on a nitro derivative of a dibenzanthrone in the presence of a reducing agent.

4. The process of producing a vat dye of the anthraquinone series by reacting with a compound capable of splitting off an aldehyde on a leuco compound of an amino derivative of dibenzanthrone.

5. The process of producing a vat dye of the anthraquinone series by reacting on an amino derivative of a dibenzanthrone with a compound capable of splitting off an aldehyde and acting as a reducing agent.

[Claims 6 to 9 not printed in the Gazette.]

1,204,640. SURGICAL-NEEDLE HOLDER. WILLIAM HENRY BARNARD, Anguilla, Miss. Filed Jan. 3, 1916. Serial No. 70,014. (Cl. 128—44.)



1. A surgical needle holder including a pair of pivotally connected handles, complementary jaws formed on the ends thereof, means for removably locking the jaws in close relation with each other, and resilient means for holding the jaws in an extended position and for coöperating with the locking means for placing the jaws in locked relation with each other when a slight hand pressure is exerted on the handles.

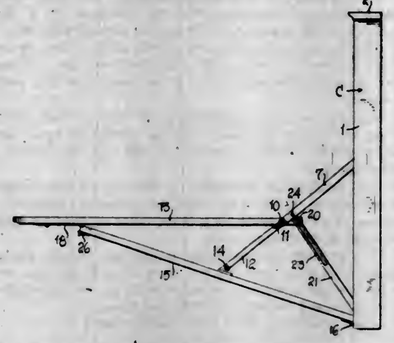
2. A surgical needle holder including a pair of pivoted handles, complementary jaws formed on the ends thereof, a locking element pivotally connected to one handle and slidably and adjustably associated with the other handle for holding the handles and jaws in close relation with each other, and resilient means associated with one handle and the locking element for holding the jaws in an extended position and for placing the jaws in close relation with each other when pressure is exerted on the handles.

3. A surgical needle holder including a pair of pivotally connected handles, complementary jaws formed on the ends thereof, a shoulder provided on one handle, said shoulder provided with a longitudinal slot, the other handle being provided on its inner surface with a groove, a hook shaped locking element pivotally mounted in the groove and slidably associated with the slot in the other handle and adapted for movable engagement with the shoulder to removably hold the handles in close relation with each other and an arcuate spring rigidly connected to one handle and having the free end bearing against the hook shaped locking element for normally holding the jaws and handles in an extended position and for causing the locking element to engage the shoulder when pressure is exerted on the handle.

1,204,641. IRONING-BOARD. FLORENCE E. BEAGLE, Arlington, Ohio. Filed Apr. 20, 1916. Serial No. 92,503. (Cl. 68—10.)

1. A device of the character described including a cabinet provided with vertically disposed sides, a strut hingedly engaged with the cabinet and movable vertically, pivoted brace rods interposed between the cabinet and the

strut, a board, a double hinge connection between the board and the outer end of the strut, and a member pivotally engaged with the cabinet and detachably engaged with the rear portion of the board for supporting the rear portion of the board in operative position.



2. A device of the character described including a cabinet provided with vertically disposed sides, a strut hingedly engaged with the cabinet and movable vertically, pivoted brace rods interposed between the cabinet and the strut, a board, a double hinge connection between the board and the outer end of the strut, and a member pivotally engaged with the cabinet and operatively connected in a detachable manner with the rear portion of the board for supporting the rear portion of the board in operative position.

3. A device of the character described including a cabinet provide with vertically disposed sides, a strut hingedly engaged with the cabinet and movable vertically, pivoted brace rods interposed between the cabinet and the strut, a board, a double hinge connection between the board and the outer end of the strut, and movable means carried by the cabinet coacting with the rear end of the board for supporting the rear end of the board.

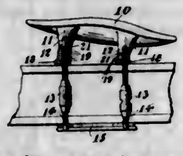
4. A device of the character described embodying a cabinet provided with vertical sides, a strut hingedly connected with the cabinet, a bar pivotally engaged with the cabinet and provided with a lateral extension adjacent its outer end, a second bar pivotally engaged with the strut and provided with a slot through which the extension of the first named bar is directed, a board operatively engaged with the other end of the strut, and movable means carried by the cabinet coacting with the rear end of the board for supporting the rear end of the board.

5. A device of the character described embodying a cabinet provided with vertical sides, a strut hingedly connected with the cabinet, a bar pivotally engaged with the cabinet and provided with a lateral extension adjacent its outer end, a second bar pivotally engaged with the strut and provided with a slot through which the extension of the first named bar is directed, a board operatively engaged with the outer end of the strut, an elongated member pivotally supported by the cabinet at a point below the first named bar, the outer end of said member being provided with an elongated slot, a lateral extension carried by the first named bar disposed through the slot of the member, and means carried by the rear end of the board coacting with the member for maintaining the rear end of the board in operative position.

[Claim 6 not printed in the Gazette.]

1,204,642. CHIN-REST FOR VIOLINS. FREDERICK W. BECKER, New York, N. Y. Filed May 20, 1913, Serial No. 768,726. Renewed Apr. 8, 1916. Serial No. 90,000. (Cl. 84—74.)

1. A chin rest for musical instruments, comprising a chin plate of substantially uniform thickness, and a pair of spaced feet projecting from the bottom thereof, each provided with a longitudinal socket, pins each having a padded head held in said sockets, rods attached to said feet, and means engaging said rods for clamping said feet against the sound box of the instrument.



2. A chin rest for musical instruments, comprising a chin plate of substantially uniform thickness, and a pair of spaced conical feet projecting from the bottom thereof, each provided with a longitudinal socket, pins each having a padded head held in said sockets, rods pivotally engaging said feet, and means engaging said rods for clamping said feet against the sound box of the instrument.

3. A chin rest for musical instruments, comprising a chin plate of substantially uniform thickness, and a pair of spaced feet projecting from the bottom thereof, said feet having countersunk recesses in the base thereof, pads secured in said recesses, rods attached to said feet, means engaging said rods for clamping said feet against the sound box of the instrument, and for raising the chin plate vertically and tilting the same obliquely, washers for insertion between the pads and sound box to increase the height of the feet, and means to render the built-up feet rigid and proof against lateral stress.

4. A chin rest for musical instruments, comprising a chin plate of substantially uniform thickness provided with spaced feet projecting from the bottom thereof, there being a socket in each foot, a pin having a padded head adjustably mounted within the socket, the head thereof being adapted to contact the top of the sound box, rods secured to the feet, and means engaging the rods for clamping the plate to the sound box.

5. A chin rest for musical instruments, comprising a chin plate of substantially uniform thickness provided with spaced feet projecting from the bottom thereof, there being a socket in each foot, a pin having a padded head adjustably mounted within the socket, the head thereof being adapted to contact the top of the sound box, a plurality of washers mounted on the pin, rods secured to the feet, and means engaging the rods for clamping the plate to the sound box.

[Claim 6 not printed in the Gazette.]

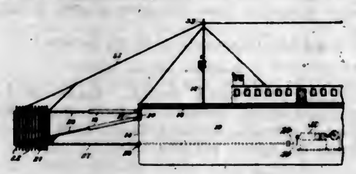
1,204,643. STOCKING-KNITTING MACHINE. EMILE BEDARD, Pawtucket, R. I., assignor to Hemphill Manufacturing Co., Pawtucket, R. I. Filed Apr. 11, 1914. Serial No. 831,295. (Cl. 66—24.)



1. In combination in a stocking machine, a needle cylinder having rotary and reciprocating movements, needles arranged in two series one having longer butts than the other, a fixed cam ring surrounding the cylinder having a recess in its outer side, the long butt needles extending substantially to the edge of the cam ring and over the recess and the short butts part way across the cam ring, a vertically movable cam located in said recess and engaging, when raised, the longer butt needles to elevate them for making them in operative, narrowing pick mechanism and widening pick mechanism operative upon both the short and the long butt needles to widen the fabric, and automatic means for operating the pivoted cam, substantially as described.

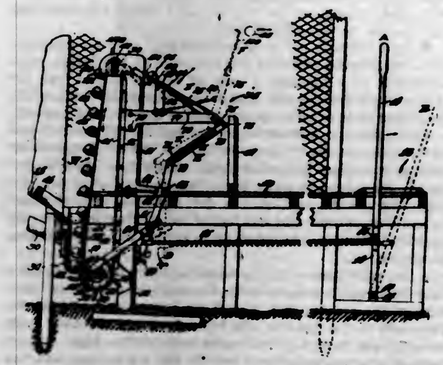
2. In combination, a rotary needle cylinder, short butt heel and toe needles, longer butt instep needles, a fixed cam ring, a stationary post, a needle lowering cam slidably mounted in said post and movable vertically, a vertically movable instep cam for engaging only the long butt needles, said cam engaging said butts directly, narrowing pick mechanism, widening pick mechanism, the latter picking both the short butt and the long butt needles and continuing the picking for widening after the widening has been performed on the short butt needles to the point where narrowing began, and automatic means for operating the instep cam to raise the long butt needles and for retracting said cam before widening begins on the long butt needles, said instep cam having pivotal movement, and a rock shaft mounted on the fixed part of the machine and carrying said cam with means for operating the rock shaft, substantially as described.

1,204,644. COLLISION-PREVENTER. JAN BJELIS, East Akron, Ohio. Filed May 27, 1916. Serial No. 100,268. (Cl. 114—219.)



In an automatic reversing device for ships, the combination with a ship's engine's reversing lever, of operating means for said reversing lever comprising a bracket attached to a ship's bow, a pair of forwardly-extending cylinders pivoted at their rear ends to said bracket and disposed one above the other, shock-absorbing springs in said cylinders, pistons in the cylinders bearing against said springs, piston rods pivoted to said pistons and extending forwardly of the cylinders, a fender carried by the forward ends of said piston rods, an operating rod connected at its outer end to said fender and extending through the bow of the ship with its rear end disposed adjacent said reversing lever, and means for supporting said fender.

1,204,645. BASE-BALL APPARATUS. HARRY G. BOARDMAN, Los Angeles, Cal., assignor to Automatic Baseball Co. of Illinois, Chicago, Ill., a Corporation of Illinois. Filed Feb. 10, 1915. Serial No. 7,423. (Cl. 124—1.)



1. In a baseball apparatus, a pitcher, means for restraining said pitcher in the set position, spring means for exerting an actuating force on said pitcher, and means whereby an operator can simultaneously place a tension on said spring means and feed a baseball to said pitcher in such a manner as to release said restraining means.

2. In a baseball apparatus, a pitcher comprising a support, a pitching arm pivoted on said support, a spring secured to said pitching arm, means by which an operator can put tension on said spring for throwing said arm from the set position, restraining mechanism for securing said arm to said support, releasing mechanism whereby a ball passing to said pitching arm releases said restraining mechanism, and means whereby an operator can pass a ball to said pitching arm whenever he desires to do so, the passing of said ball and tensioning of said spring being accomplished by a single motion of the operator.

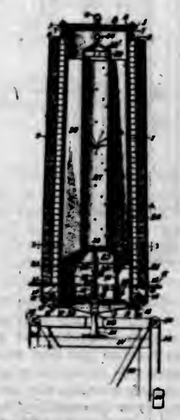
3. In a baseball apparatus, a pitcher comprising a support, a pitching arm pivoted on said support, a spring secured to said pitching arm, means by which an operator can put tension on said spring for throwing said arm from the set position, restraining mechanism for securing said arm to said support, releasing mechanism whereby a ball passing to said pitching arm releases said restraining mechanism, storage means for holding a baseball, and means whereby an operator can pass a baseball from said storage means to said pitching arm whenever he desires to do so, the passing of said ball and tensioning of said spring being accomplished by a single motion of the operator.

4. In a baseball apparatus, a pitcher comprising a support, a pitching arm pivoted on said support, a throwing finger detachably secured to said pitching arm, a spring secured to said pitching arm, means by which an operator can put tension on said spring for throwing said arm from the set position, restraining mechanism for securing said arm to said support, releasing mechanism whereby a ball passing to said pitching arm releases said restraining mechanism, and means whereby an operator can pass a ball to said throwing finger whenever he desires to do so, the passing of said ball and tensioning of said spring being accomplished by a single motion of the operator.

5. In a device of the character described, the combination with means for mechanically pitching a ball including a spring normally at low tension, means for accumulating batted balls below the pitching means, and means for simultaneously increasing the tension on said spring and mechanically raising and feeding the accumulated balls one at a time to the pitching means.

[Claims 6 to 11 not printed in the Gazette.]

1,204,646. RETORT. HARVEY P. BOSTAPH, Detroit, Mich. Filed Jan. 19, 1916. Serial No. 73,011. Renewed Sept. 16, 1916. Serial No. 120,582. (Cl. 48—123.)



1. A retort for the destructive distillation of coal having a central duct and a surrounding series of relatively

thin chambers with side walls of a material of greater heat conductivity than the coal, each chamber communicating along the inner long edge with the central duct, the retort being arranged for the application of heat thereto at the edges of the coal chambers remote from the central duct and the withdrawal of gases of distillation from the chambers by way of the central duct.

2. A retort for the destructive distillation of coal having a columnar form outer shell, a central duct, and division walls extending from the central duct to the outer shell in spaced relation defining coal chambers of narrow widths as compared with their depth, each coal chamber being in constant communication with the central duct along its inner long edge.

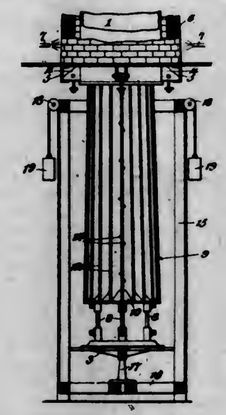
3. A retort for the destructive distillation of coal, having a central duct and a surrounding series of longitudinally extended segmental coal receiving chambers, defined by radial webs extending from the central duct to the shell of the retort, each chamber communicating along its long inner edge with the central duct and having its greatest circumferential extent not more than about four inches.

4. A retort for the destructive distillation of coal having a central gas duct and a series of coal receiving chambers surrounding the central duct and communicating therewith along one long side, each chamber being of a size to contain a body of coal not more than about four inches in thickness circumferentially of the central duct.

5. A retort for the destructive distillation of coal comprising an elongated body portion or shell provided with a central longitudinal duct and a surrounding series of chambers exterior to the central duct and extending to the shell of the retort, with the said chambers communicating with the central duct along their inner edges and defining elongated receptacles for coal, each receptacle being of a circumferential width to limit the charge of coal therein to a thin elongated and radially extended layer.

[Claims 6 to 10 not printed in the Gazette.]

1,204,647. PROCESS OF OBTAINING COKE AND BY-PRODUCTS FROM COAL. HARVEY P. BOSTAPH, Detroit, Mich. Filed Jan. 19, 1916. Serial No. 73,012. (Cl. 202—8.)



1. The process of producing coke from coal which consists in subjecting a relatively thin body or mass of coal to the action of heat applied initially at one edge of the mass, maintaining the heat at that edge and applying heat progressively along each side of the mass from one edge to the other, whereby the entire heat for the distillation of the mass does not have to be transmitted through the mass which is adjacent to the edge at which the heat is initially applied.

2. The process of producing coke from coal, which consists in subjecting a relatively thin body or mass of coal to the action of heat applied initially at one edge of the body of coal and progressively along each side thereof, and causing the gases of distillation to escape from the other thin edge of said body of coal

3. The process of producing coke from coal, which consists in subjecting a relatively thin body of coal to distilling heat applied to one thin edge of the coal and withdrawing the gases of distillation by suction from the other thin edge of the body of coal.

4. The process of producing coke from coal, which consists in subjecting a relatively thin body of coal to distilling heat applied to one thin edge of the coal, causing the heating to progress along the sides of the body of coal, and withdrawing the gases of distillation by suction from the other thin edge of the body of coal.

5. The process of producing coke from coal, which consists in subjecting the coal in relatively thin masses having the greatest thickness not exceeding about four inches to the action of distilling heat directed against one edge of the mass of coal and withdrawing the products of combustion by suction from the opposite edge of the mass of coal.

[Claims 6 to 10 not printed in the Gazette.]

1,204,648. FOLDABLE TABLE. CARRIE M. CAVALINE, Portland, Oreg., assignor of forty one-hundredths to Fred B. Morgan, Portland, Oreg. Filed Jan. 13, 1915. Serial No. 2,080. (Cl. 45—117.)



1. In a foldable table, the combination of a foldable trestle comprising a top-rail and a pair of scissor-jointed legs at each end of the top-rail, a channel bar adapted to be removably placed on said top-rail, the sides of said channel bar being provided with recesses adapted to receive the upper ends of said scissor-jointed legs, and means for fastening said channel bar on the top-rail.

2. In a foldable table, the combination of a foldable trestle comprising a top-rail and a pair of scissor-jointed legs at each end of the top-rail, said top-rail being provided with recesses for receiving the upper ends of said legs, a channel-bar adapted to be removably placed on said top-rail, having its sides cut away in correspondence with said recesses of the top-rail, and means for fastening the channel bar on the top-rail.

3. In a foldable table, in combination with a removable table top, trestle supports for the ends of the latter, each consisting of a top-rail, a pair of scissor-jointed legs for each end of the top-rail, means for removably connecting the upper ends of said scissor-jointed legs to said top-rail, a strut jointedly connected at one end to the top-rail and at the other to one of said pair of legs, means for securing said pair of legs in spread-apart position, a channel bar having its sides cut away in correspondence with said recesses of the top-rail, means for fastening the channel-bar on the top-rail, and means for restraining the table-top against lateral movement on the channel bar when resting on the latter.

4. In a foldable table, in combination with a removable table-top, trestle supports for the ends of the latter, each consisting of a top-rail, a pair of scissor-jointed legs for each end of the top-rail, the top-rails being provided with recesses for receiving the upper ends of the legs, a strut jointedly connected at one end to the top-rail and at the other to one of said pair of legs, means for securing said pair of legs in spread-apart position, a channel-bar having its sides cut away in correspondence with said recesses of the top-rail, means for fastening the channel-bar on the top-rail, and means for restraining the table top against lateral movement on the channel-bar when resting on the latter.

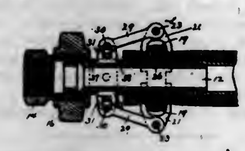
1,204,649. BRAKE-SHOE. JAKOB V. C. T. CHRISTENSEN, Wichita Falls, Tex. Filed June 2, 1915. Serial No. 31,694. (Cl. 188—82.)



1. A brake shoe comprising a body portion of cast metal having a rim bearing surface and a flange bearing surface, a plurality of chills or hardened portions at regular intervals in the body portion and flush with the said bearing surfaces, a pair of stiffening members wholly embedded in the said body portion near the back of the shoe, a lug for the shoe, and a wrought iron anchor for the lug extending into said body member and outwardly along the stiffening members in opposite directions transversely of the shoe body to form a transverse reinforcing rib wholly within the center of the brake shoe and separated from said stiffening members by the material of the body portion.

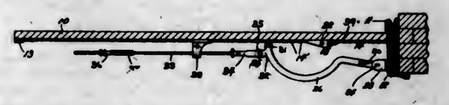
2. A brake shoe comprising a body member of cast metal having rim and flange bearing surfaces, chills or inserts in said body member arranged at intervals along said surfaces flush therewith and longitudinally of the brake shoe, a pair of back stiffeners of wrought metal extending longitudinally of the shoe and spaced apart, and a lug for said shoe comprising a strip of wrought metal looped at its central portion to form an eye projecting outwardly from the back of the shoe and having its ends bent away from each other and embedded in the said body portion to form an anchorage for the loop, and transverse reinforcing members for the central portion of the shoe, one of said ends extending between the back stiffener on the flange side of the shoe and the flange bearing surface, and the other end extending between the back stiffener on the outer side of the shoe and the rim bearing surface, whereby the reinforcing members formed by the said ends lie substantially in the center of mass of the shoe.

1,204,650. HOSE-COUPLING. CHARLES A. CLAFLIN, Medford, Mass. Filed Oct. 19, 1912. Serial No. 726,763. (Cl. 137—28.)



1. A hose coupling comprising a nipple adapted to enter one end of a flexible hose, four segmental clamp sections formed to collectively surround the nipple and a hose thereon, each section including a rigid body portion with an eccentric inner surface and a flexible curved extension at one end thereof adapted to be forced inwardly by the eccentric surface of the adjacent section, said flexible portions being relatively arranged to collectively constitute a practically continuous contractible clamp which assumes a circular, non-elliptical form when fully contracted and is adapted to embrace a substantially continuous zone of the hose, each section having an end ear located at one end of its body portion and an intermediate ear at the opposite end of the body portion and located between said end ear and the flexible extension, and four clamp-adjusting bolts connecting the end and intermediate ears of the sections in pairs and adapted to draw the ears of each pair toward each other and contract the clamp, by radial inward movement of the said rigid body portions and of the top-rail, means for fastening the channel-bar on the top-rail, and means for restraining the table top against lateral movement on the channel-bar when resting on the latter.

1,204,651. DOOR OPENER AND CHECK. GEORGE B. CLAY, Jenkintown, Pa. Filed Apr. 7, 1916. Serial No. 89,716. (Cl. 268—9.)



1. A device of the character stated embracing in combination a door, a stop fixed thereto, a pivot, and a jointed arm, one section of which is operatively mounted to swing around said pivot and the other section of which is slidingly mounted upon said door, one of said sections being provided with means for freely riding over said stop to coöperatively engage therewith upon opening of the door a predetermined distance to arrest return movement thereof.

2. A device of the character stated embracing in combination a door, a stop adjustably fixed thereto, a pivot, and a jointed arm, one section of which is operatively mounted to swing around said pivot and the other section of which is slidingly mounted upon said door, one of said sections being provided with means for freely riding over said stop to coöperatively engage therewith

flexure of said flexible extensions, means being provided for loosely connecting the clamp with the nipple to prevent edgewise displacement of the clamp.

2. A hose coupling comprising a nipple adapted to enter one end of a flexible hose, four segmental clamp sections formed to collectively surround the nipple and a hose thereon, each section including a rigid body portion with an eccentric inner surface and a flexible curved extension at one end thereof adapted to be forced inwardly by the eccentric surface of the adjacent section, said flexible portions collectively constituting a contractible clamp embracing a substantially continuous zone of the hose, each section having an end ear located at one end of its body portion and an intermediate ear at the opposite end of the body portion and located between said end ear and the flexible extension, four clamp-adjusting bolts connecting the end and intermediate ears of the sections in pairs, and adapted to draw the ears of each pair toward each other and contract the clamp, by radial inward movement of the said rigid body portions and flexure of said flexible extensions, and stop members between said end and intermediate ears adapted to uniformly limit the approach of the ears toward each other and prevent the clamp from assuming an elliptical form when fully contracted, means being provided for loosely connecting the clamp with the nipple to prevent edgewise displacement of the clamp.

3. A hose coupling comprising a nipple adapted to enter one end of a flexible hose, segmental clamp sections formed to collectively surround the nipple and a hose thereon, each section including a rigid body portion with an eccentric inner surface and a flexible curved extension at one end thereof adapted to be forced inwardly by the eccentric surface of the adjacent section, said flexible portions collectively constituting a contractible clamp embracing a substantially continuous zone of the hose, each section having an end ear located at one end of its body portion and an intermediate ear at the opposite end of the body portion and located between said end ear and the flexible extension, clamp-adjusting bolts connecting the end and intermediate ears of the sections in pairs, and adapted to draw the ears of each pair toward each other and thereby contact the clamp, the nipple being provided with oppositely projecting ears, links pivoted to said nipple ears and to two of said bolts, said links loosely connecting the clamp with the nipple, and being formed to limit the approach of the clamp ears connected by the last mentioned bolts toward each other, and stop members limiting the approach of the clamp ears connected by the other bolts toward each other, said links and stop members preventing the clamp from assuming an elliptical form when fully contracted.

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upon opening of the door a predetermined distance to arrest return movement thereof.

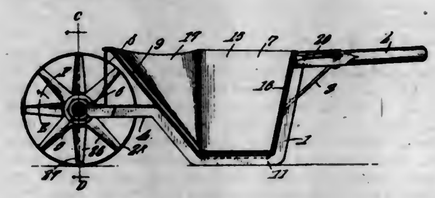
3. A device of the character stated embracing in combination a door, a stop fixed thereto, a pivot, and a jointed arm, one section of which is operatively mounted to swing around said pivot and the other section of which is slidingly mounted upon said door, a portion of the first mentioned section being curved and extended laterally an appreciable distance beyond its juncture point with the last mentioned section for coöperatively engaging with said stop upon opening of said door to arrest return movement thereof.

4. A device of the character stated embracing in combination a door, a stop adjustably fixed thereto, a pivot, and a jointed arm, one section of which is operatively mounted to swing around said pivot and the other section of which is slidingly mounted upon said door, a portion of the first mentioned section being curved and extended laterally an appreciable distance beyond its juncture point with the last mentioned section for coöperatively engaging with said stop upon opening of said door to arrest return movement thereof.

5. A device of the character stated embracing in combination a door, a guide-way fixed thereto, a stop adjustably mounted with respect to the guide-way, a pivot and a jointed arm, one section of which is operatively mounted to swing around said pivot and the other section of which is slidingly mounted upon said door one of said sections being provided with a roller for tracking upon said guide-way and for coöperatively engaging with said stop upon opening of the door to arrest return movement thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,204,652. WHEELBARROW. BERT A. CRAFT, Harpersfield township, Ohio. Filed Jan. 18, 1916. Serial No. 72,748. (Cl. 21—68.)



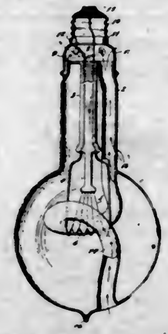
1. A wheelbarrow including a hopper-like body, frame members extending along the front and back walls thereof and along the bottom of the body, those portions of the frame members along the bottom of the body being adapted to rest upon the ground throughout the length of said portions, tongues extending forwardly from said members, a wheel journaled between the tongues, and handles extending rearwardly from the members.

2. A wheelbarrow including a hopper-like body, a supporting wheel in front thereof and connected thereto, handles extending rearwardly from and connected to the body, said body having relatively fixed front and back walls, and side panels detachably connected to the walls, one of said panels including a spout.

3. In a wheelbarrow, a hopper-like body formed of sheet metal and including relatively fixed front and back walls having inturned flanges at the side edges thereof, and side panels detachably secured to the flanged portions of the front and back walls, one of said panels including a spout.

1,204,653. INCANDESCENT LAMP. JOHN H. DALE, New York, N. Y., assignor to Dale Lighting Fixture Co., Inc., a Corporation of New York. Filed Jan. 20, 1915. Serial No. 3,197. (Cl. 176—16.)

1. The combination, with an incandescent lamp comprising a lamp bulb having a body portion, a neck and a socket plug attached to said neck, of a tubular member passing through the body and neck of said bulb and opening into a space between the socket plug and neck of the bulb.



2. The combination, with an incandescent lamp comprising a bulb consisting of a body portion and a neck, a filament in said body portion and a hollow socket plug attached to said neck, of a tubular member passing through said body portion and neck of said bulb and leading into a chamber formed between the hollow socket plug and neck, and means for permitting the escape of air from said chamber.

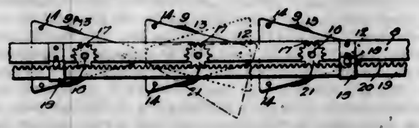
3. The combination, with an incandescent lamp comprising a lamp bulb consisting of a body portion and neck, a filament in said body portion and a hollow shell and socket plug attached to said neck, of a tubular member passing through the body of said lamp through the neck of the bulb and leading into the hollow chamber formed between the hollow shell and socket plug and neck of said bulb, said shell having vent openings therein.

4. The combination, with an incandescent lamp comprising a lamp bulb consisting of a body portion and neck, a filament in said body portion and a hollow shell and socket plug attached to said neck, of a tubular member passing through the body of said lamp and having a portion thereof adjacent said filament, the remainder of said tubular member passing through the neck of the bulb and leading into the hollow chamber formed between the hollow shell and socket plug and neck of said bulb, said shell having vent openings therein.

5 The combination, with an incandescent lamp comprising a lamp bulb having a body portion and containing a filament, a neck and a socket plug attached to said neck, of a ventilating air conduit passing through the body and neck of said bulb and opening into a space between the socket plug and neck, and an auxiliary conduit leading from the atmosphere into said main conduit at a point above said filament.

[Claims 6 and 7 not printed in the Gazette.]

1,204,654. EGG-SUPPORT. PLINY W. DEUEL, Melrose Park, Ill., assignor of one-half to Frederick C. Whitmore, Chicago, Ill. Filed Apr. 15, 1916. Serial No. 91,351. (Cl. 119—44.)



1. In an egg support, spaced supporting bars, egg pockets mounted for turning movement between the said bars, a member movable to turn the said pockets, and means for limiting the movement of the said member, the said means being arranged to be rendered inactive whereby the pockets may have turning movement beyond initial limits.

2. In an egg support, supporting members provided with open bearings, open brackets carried by one of said members, a rack bar removably and slidably mounted in the said brackets, egg pockets having trunnions received within the said bearings, pinions carried by the trunnions at one side of the egg pockets and meshing with the said rack bar, and means carried by one of the brackets for preventing displacement of the rack bar therefrom.

3. In an egg support, spaced supporting members, egg pockets supported for turning movement between the said members, a reciprocating member having operative connection with the egg pockets for turning the same when the said member is reciprocated, and means for restraining reciprocation of the said member within predetermined limits, the said means being adapted to be rendered inactive to permit of further movement of the said member.

1,204,655. CONVERTIBLE GARMENT. JACOB H. DEUTSCHMAN, Boston, Mass. Filed Jan. 30, 1915. Serial No. 5,594. (Cl. 2—60.)

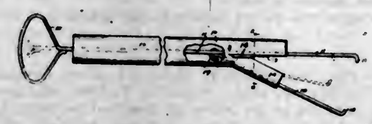


1. In a garment of the class described, a skirt open its entire length at the front; gathering cords located near the top of said skirt, the drawing ends of said cords being fastened to opposite edges of said garment and threaded through slits provided in and adjacent the edges of said garment; enlargements on said cords adapted to coact with said slits to enable said cords to be fastened in predetermined drawn position.

2. In a convertible garment, a skirt open its entire length at the front thereof; gathering cords located near the top of said skirt; slits provided in said garment coacting with enlargements on said cords to form temporary fastening means for said cords; and a strip of flexible material permanently fastened to said skirt and adapted to form a collar when said skirt is to be transformed into a cape.

3. In a convertible garment, a skirt open its entire length at the front thereof; gathering cords at the top thereof; permanent and temporary fastening means for said cords and a strip of flexible material permanently fastened between its ends to the skirt; retaining means for the free ends of said strip when said garment is to be used as a skirt; and means to refasten the free ends of said strip relative to said skirt when said garment is to be used as a cape.

1,204,656. CLINKER-REMOVER. EDWIN W. DOOLITTLE, Des Moines, Iowa. Filed Mar. 7, 1916. Serial No. 82,624. (Cl. 126—321.)



1. In a device of the class described, a tube having its walls slit longitudinally at one end and having a portion inclined away from the main body of the tube adapted to form a guide, and support, and a limiting member, a bar extended through said tube having a handle at one end and a locking member at the other end, a shorter bar pivoted to said first bar at a point between said inclined portion of the tube and the handle to permit proper play of the shorter bar, and a shorter member extending transversely across the tube between said bars.

2. In a device of the class described, a tubular member, having its walls slit longitudinally at one end and having a portion at said end inclined away from the body of the tube and designed to form a guide, and support and limiting member, a bar extended longitudinally through said tube having a handle at one end and a hook member at the other, a shorter member extended transversely across said tube at the point where the inclined portion leaves the body of the tube, a shorter bar pivoted to said first bar between said shorter member and said handle to permit some play of the shorter bar, said shorter bar having at its outer end a hook member adapted to coact with said first hook member, the parts being so arranged that when said tube is slid in one direction, said hook members are spread apart, and when it is slid in another direction, the hook members are drawn together for grasping a clinker between them.

1,204,657. WOMAN'S UNDERVEST. EDWARD EMMERS, Royersford, Pa. Filed May 11, 1915. Serial No. 27,291. (Cl. 2—41.)



1. As an article of manufacture, an undervest for women made of knitted fabric in tubular form having its upper or bust end cut transversely across the length of the fabric and having said end also cut longitudinally on diametrically opposite sides to provide arm hole portions and four corner portions constituting the junctures of the arm portions with the bust and back portions, and having two of the corner portions which are diagonally arranged each provided with integral shoulder straps extending therefrom and each having a free end said shoulder straps being of sufficient length to respectively extend completely over the shoulders in opposite directions and respectively connect directly with either of the remaining two diagonally arranged corners of the garment, said straps arranged to be coupled with either of the corner portions to provide high bust and back portions or low bust and back portions as desired.

2. As an article of manufacture, an undervest for women made of knitted fabric in tubular form having its upper or bust end cut transversely across the length of the fabric and having said end also cut longitudinally on diametrically opposite sides to provide arm hole portions and four corner portions constituting the junctures of the arm portions with the bust and back portions, and having two of the corner portions which are diagonally arranged provided with independent shoulder straps extending therefrom having free ends, said shoulder straps being of sufficient length to respectively extend continuously over the shoulders in opposite directions and respectively connect with either of the remaining two diagonally arranged corners of the garment, and said straps arranged to be coupled with the corner portions to provide high bust and back portions or low bust and back portions as desired, and detachable fastening devices one portion of each of which is arranged on the end of each of the shoulder straps and the other coacting portion on the corners of the garment which have no shoulder straps.

3. As an article of manufacture, an undervest for women made of knitted fabric in tubular form having its upper or bust end cut transversely across the length of the fabric and having said end also cut longitudinally on diametrically opposite sides to provide arm hole portions and four corner portions constituting the junctures of the arm portions with the bust and back portions, and having two of the corner portions which are diagonally arranged provided with independent shoulder straps extending therefrom having free ends said shoulder straps being of sufficient length to respectively extend continuously over the shoulders in opposite directions and respectively connect with either of the remaining two diagonally arranged corners of the garment, and said straps arranged to be coupled with the corner portions to provide high bust and back portions or low bust and back portions as desired, and two pairs of drawing tapes one pair for the bust portion and the other pair for the back portion one end of one of said tapes of each pair being connected to a corner having no shoulder strap and the other tape of each pair extending to the corner provided with a shoulder strap, and said pairs of drawing tapes having free ends at the bust and back respectively for adjusting the width of the garment.

1,204,658. WHEEL. HUGO C. GIBSON, New York, N. Y. Filed Mar. 16, 1907, Serial No. 362,727. Renewed Mar. 17, 1916. Serial No. 84,954. (Cl. 152—21.)



1. A wheel comprising a removable rim carrying a tire and having a cylindrical seat, a felly band having a seat, a fixed positioning ridge at one side of said seat, and means for securing said removable rim to said felly band including an independent band having a conical shaped surface, said band being located between the cylindrical portion of the rim seat, and the felly band seat, and means on the side of said seat opposite to the fixed ridge for locking in engagement and positively moving said independent band in both directions laterally, relative to said cylindrical seat.

2. A wheel comprising a removable rim carrying a tire and having a cylindrical seat, a felly band having a seat, an integral ridge on one side of said seat, and means for securing said removable rim to the felly band, including coöperating securing bands located between said cylindrical seat and said seat on the felly band, and means for locking and positively moving one band laterally relative to the other in coöperation with said fixed ridge, whereby a positive clamping action is secured and whereby a positive releasing movement may be had.

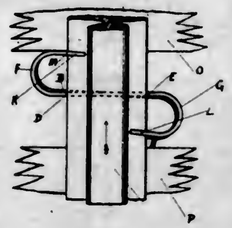
3. A wheel comprising a removable rim carrying a tire and having a cylindrical seat, a felly band having a seat, a ridge on one side of said felly band, coöperating securing bands each of which is provided with a conical surface located between the rim and felly band seat, one of said bands adapted to engage the ridge on the seat and a series of clamps on the other side of the felly band from the ridge, adapted to laterally move the other of said securing bands to lock said rim in position.

4. A wheel comprising a removable rim, carrying a tire and having a cylindrical seat, a felly band having a seat, a fixed positioning ridge on one side of said felly band, coöperating securing bands located between said removable rim and said felly band, means on the opposite side of said felly band from the positioning ridge for locking and unlocking said removable rim, and means for positively moving one of said coöperating bands relative to the other and clamping the removable rim on said felly band.

5. A wheel comprising a removable rim carrying a tire and having a cylindrical seat, a felly band having a seat, coöperating securing bands having conical opposing faces in contact located between said rim and said felly band, the upper surface of said band being in contact with the rim seat, and the lower surface of the other band being in contact with the felly band seat, and means for forcing the lower of said bands into locking position, the upper band having a lip engaging a groove in the felly band for preventing lateral movement thereof.

[Claims 6 to 13 not printed in the Gazette.]

1,204,659. ANTICREEPER. HORATIO G. GILLMOR, Washington, D. C. Filed Apr. 14, 1915. Serial No. 21,434. (Cl. 238—4.)



1. A rail stay, comprising a cross bar recessed to receive the rail base flange and engage the opposite vertical edges thereof, held in engagement with said rail base by the upward components of opposing torsional forces.

2. A rail anchor, comprising a cross bar having two shoulders adapted to engage edges of a rail base flange at opposite sides of the rail, said bar engaging and exerting upward pressure upon the bottom of the rail base flange at opposite sides of the rail in tending to assume a position from which it was sprung and means whereby one end of said bar is given a fixed position in the roadbed as against the tendency of the rail to creep.

3. An anticreeper comprising a transversely disposed bar having a recess arranged to engage the bottom and opposite edges of the base flange of a rail and arms at opposite sides of said bar adapted to engage the upper surface of the rail base at opposite sides of the rail and means engaging a tie for holding one end of said bar in spaced relation to said tie.

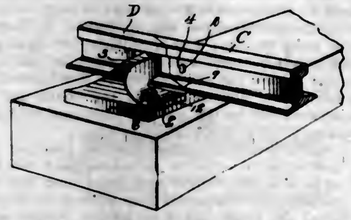
4. A device for preventing the creeping of rails comprising a flat transverse bar having a recess at one edge engaging the bottom and opposite edges of the rail base and the ends thereof turned back at opposite sides of said bar and provided with jaws adapted to engage the rail base at opposite sides of the rail.

5. A rail stay comprising a flat bar, transverse to the rail, having one edge thereof cut out to engage the bottom and the opposite edges of the rail base and the ends thereof turned back to form arms adapted to engage the rail base at opposite sides of the rail and maintain torsional stresses in said bar.

[Claims 6 to 17 not printed in the Gazette.]

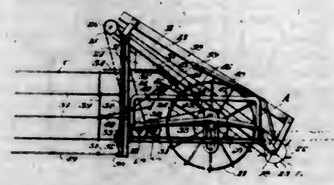
1,204,660. RAIL-CHAIR. HAROLD L. HART, Chicago, Ill. Filed Jan. 28, 1916. Serial No. 74,846. (Cl. 239—6.)

1. A device of the character described including a base plate of rectangular form comprising duplicate members adapted to interlock, a buffer formed on each of said duplicate members and integrally formed with the top surface of the members, the said buffers extending from the end edges of the base plate and terminating approximately at the center of the said base plate, the said terminals of the buffers extending in opposite directions and disposed on opposite sides of the longitudinal center line of the said base plate, serrations formed on the upper side of one member and on the lower face of the other member.



2. A device of the character described including a base plate comprising duplicate interlocking members, the said members being substantially L-shaped and adapted to be assembled to form a rectangular base plate, a pair of buffers, each formed with a cylindrical extension on the upper surface of the enlarged end of each L-shaped plate, the said buffer being wide where it merges into the surfaces of the plate and restricted in size at its opposite end for strengthening said buffer, projections formed on each of said buffers at the terminals thereof and fastening elements for holding said interlocking members in locked position.

1,204,661. HAY-COCKER. JOHN TAYLOR HENINGER, Welling, Alberta, Canada. Filed Jan. 29, 1916. Serial No. 75,007. (Cl. 56—68.)



1. A machine of the class described including a dumping basket, a guard for the basket, comprising a sliding grid operative only when the basket is in dumping position, and means for operating the guard comprising guideways, projections from the guard sliding in the guides, a driven shaft, and links connecting the shaft to the guard.

2. A machine of the class described including an elevator, a pickup co-acting with the elevator, means for simultaneously operating the pick up and the elevator, a basket located below the rear of the elevator provided with a pair of side members, a bottom for the basket, a normally withdrawn sliding grid for guarding the basket, plates depending from the elevator having a slot therein, projections from the grid sliding in the slots, a driven shaft, and links connecting the shaft to the grid.

1,204,662. CURTAIN-ROD. SIDNEY C. HILLS, Torrington, Conn., assignor to The Turner & Seymour Manufacturing Co., Torrington, Conn., a Corporation of Connecticut. Filed Jan. 13, 1915. Serial No. 1,900. (Cl. 156—19.)



1. In a curtain rod, continuous rolls extending lengthwise of said rod and terminating at the free ends thereof and wire inserts rigidly secured within said rolls for stiffening same and projecting therefrom beyond said free ends to form rod supporting means.

2. A curtain rod comprising a main portion, opposite end portions extending therefrom, continuous rolls formed at opposite edges of said main and end portions and wire inserts rigidly secured within said rolls and extending from said end portions to said main portion for substantially preventing any relative bending movement between the same, said inserts projecting beyond the free ends of said end portions to form rod supporting means.

3. A curtain rod comprising a main portion, continuing opposite end portions curved rearwardly and inwardly, continuous rolls formed at opposite edges of said main and end portions, and wire inserts rigidly secured within said rolls and extending along said end portions and beyond the same to said main portion for substantially preventing any relative bending movement between said portions, said wires being externally connected in pairs.

4. A curtain rod comprising two rod sections, end sections forming continuations of said rod sections and curved rearwardly and inwardly, rolls formed at opposite edges of said sections and arranged to slidably fit within each other whereby said rod may be adjusted lengthwise and U-shaped inserts extending into the free ends of said rolls and beyond said curved end sections to said rod sections for substantially preventing any relative bending movement between said end and rod sections.

5. A curtain rod comprising two rod sections, end sections forming continuations of said rod sections and curved rearwardly and inwardly, rolls formed at opposite edges of said sections and arranged to slidably fit within each other, ribs extending substantially along the longitudinal median line of said sections and arranged to slidably fit within each other whereby said rod may be adjusted lengthwise and U-shaped inserts extending into the free ends of said rolls and beyond said curved end sections to said rod sections for substantially preventing any relative bending movement between said end and rod sections.

1,204,663. CORN-HUSKING IMPLEMENT. RALPH HOCKENHULL, Currie, Minn. Filed Apr. 7, 1916. Serial No. 89,656. (Cl. 130—4.)



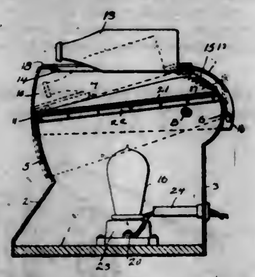
1. In a corn husking implement, the combination with a hand covering, a plurality of hook members including single, double, and triple hooks, the triple hook and one double hook member being mounted in assembled position and secured to the forward edge of the hand covering whereby they will be disposed over the fingers of the hand, and the single and another double hook element assembled together and secured to said hand covering for disposing the same at the center of the palm of the hand, the said hooks of the members at the edge of the hand covering having their points directed toward the spaces between the points of the hook members disposed near the palm of the hand whereby the points of the hooks disposed at the palm of the hand will enter the spaces between the hooks at the forward edge of the hand covering.

2. In a corn husking implement, the combination with a hand covering of pliable material, a plurality of hook elements mounted adjacent the end of the palm covering, said hook element comprising a triple and double hook member having their points directed toward the center of said hand covering, the hooks on said double hook member being disposed in longitudinal alinement with the

spaces between the hooks of the triple hook member, single and double hook members secured to the center of the hand covering, the single hook member being in longitudinal alinement with the central hook of the triple hook member and the hooks of the double hook member being in alinement with the hooks of the first mentioned double hook member whereby the point of the hook of the single hook member will enter the spaces between the hooks of the double hook member at the forward edge of the hand covering and the hooks of the double hook member at the center of the hand covering will enter the spaces between the point of the hooks between the triple hook members at the forward end of the hand covering when the hand is bent.

3. In a corn husking implement, the combination with a hand covering, a plate having triple hooks integrally formed therewith, said plate being secured to one end of the said hand covering, a pair of double hook members, one fixed adjacent to the said triple hook member and the other secured to the center of the said hand covering, a single hook member mounted adjacent the double hook member and the center of said hand covering, and a reinforcing plate secured to the back of said hand covering and receiving the fastening element of said triple hook members, the points of the said single hook member and the double hook member at the palm of the hand being adapted to coöperate with the spaces between the points of the double hook member and the triple hook member at the forward edge of the hand covering when the hand is bent.

1,204,664. BOTTLE-TESTER. LYNWOOD B. JACKSON, Asheville, N. C. Filed Mar. 9, 1916. Serial No. 83,140. (Cl. 88—14.)



1. A bottle tester including a casing provided with an interiorly arranged lighting device, a pivotally mounted top having openings and adapted to receive a plurality of bottles to enable the same to be exposed to the light, said top being adapted to swing downwardly to an inclined position under the weight of the bottles, agitate the contents of the same and means for automatically lifting the top when the bottles are removed.

2. A bottle tester including a casing provided with an interiorly arranged lighting device, a pivotally mounted top having openings and adapted to receive a plurality of bottles to enable the same to be exposed to the light, said top being adapted to swing downwardly to an inclined position under the weight of the bottles to agitate the contents of the same, a spring connected with the top for automatically lifting the same, and means for locking the top in an inclined position against the action of the spring.

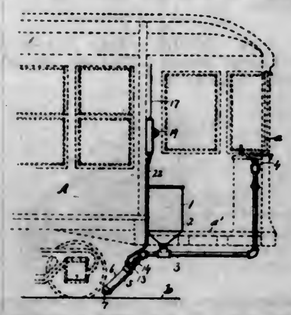
3. A bottle tester including a casing provided with an interiorly arranged lighting device, a pivotally mounted top having openings and adapted to receive a plurality of bottles to enable the same to be exposed to the light, said top being adapted to swing downwardly to an inclined position under the weight of the bottle, a spring connected with the top for automatically lifting the same, and a catch pivotally mounted on the casing at the back thereof and arranged to engage the top for locking the same in an inclined position.

4. A bottle tester including a casing having an interiorly arranged lighting device, a top extending over the casing and pivoted at its rear portion to the same and arranged to swing upwardly and downwardly to arrange it in an inclined position and to elevate it therefrom, said top being provided with a plurality of openings and adapted to expose bottles to the action of the lighting device and agitate the contents of the said bottles and a transparent plate arranged within the casing and interposed between the bottles and the light and arranged to shed water.

5. A bottle tester including a casing provided at the upper portion with opposite curved walls, a top having front, rear and end flanges and fitted over the casing, said top being pivoted at its rear portion to the casing and having its front and rear flanges curved and arranged in spaced relation with the curved walls of the casing, said top being provided with a plurality of bottle receiving openings to enable bottles to be exposed to the light contained within the casing and to cause the bottles to swing downwardly and agitate their contents.

[Claims 6 and 7 not printed in the Gazette.]

1,204,665. TRACK-SANDING DEVICE. BENJIMAN L. JONES and BERTRAM S. Green, Syracuse, N. Y. Filed Feb. 14, 1916. Serial No. 78,156. (Cl. 105—263.)



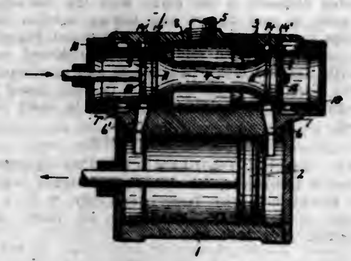
1. A discharge nossle for track-sanding devices comprising outer and inner tubular sections in spaced relation to form an intervening heating chamber, a cap on one end of the outer section supporting the inner section, a separate cap slidably fitted on the opposite ends of both sections, and a heater within said chamber between the end caps.

2. A discharge nossle for track-sanding devices comprising an outer case-section and an inner sand-pipe section in spaced relation to form a heating chamber, a cap secured to the delivery end of the sand-pipe section and to the adjacent end of the case-section, a separate cap slidably fitted upon the opposite ends of both sections, movable means on the inner section for clamping the second-named cap in place, and a heater in said chamber between the end caps.

3. A discharge nossle for track-sanding devices comprising a sand-pipe section, a cap secured to the delivery end of said section, an electric heater surrounding a portion of the sand-pipe section, a tubular case-section surrounding the heater and secured at one end to said cap, a separate cap having a slip-joint connection with the opposite ends of the case section and sand-pipe section, and means on the receiving end of the sand-pipe section for holding the last-named cap in place.

1,204,666. PISTON-VALVE. JOSEPH M. KERN, Oswego, N. Y. Filed Oct. 8, 1915. Serial No. 54,724. (Cl. 136—5.)

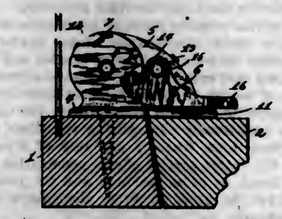
1. The combination with a steam-engine cylinder having ports in one side, and a piston movable in said cylinder between said ports, of a valve case having ports registering with those in the cylinder, and a piston valve having opposite end heads controlling said ports, each valve-head having an imperforate division ring provided with reduced ends forming annular grooves, imperforate "steam-rings" seated in the inner end grooves, and exhaust rings seated in the outer end grooves and provided with radial apertures therethrough close to the inner sides of their respective grooves.



2. A piston valve for steam engines comprising a main body, separate division rings mounted on opposite ends of the main body, each division ring having its opposite ends reduced in diameter to form annular grooves, imperforate "steam-rings" seated in the inner end grooves, and separate "exhaust-rings" seated in the outer end grooves and provided with openings therethrough in close juxtaposition to the inner ends of their respective grooves and their remaining portions imperforate.

3. The combination with a steam-engine cylinder having ports in one side, and a piston movable in said cylinder between said ports, of a valve case having ports registering with those in the cylinder, and a piston valve having opposite end heads controlling said ports, each valve-head having an imperforate division ring provided with reduced ends forming annular grooves, imperforate "steam-rings" seated in the inner end grooves, and exhaust rings seated in the outer end grooves and provided with radial apertures therethrough close to the inner sides of their respective grooves, the distance between the apertured portions of the exhaust rings being about equal to the distance between the outer ends of the ports with which they are adapted to register so that the apertures of each exhaust ring will begin to register with its port at about the same time that the apertures in the other exhaust ring have moved out of registration with the corresponding port.

1,204,667. SASH-FASTENER. LEACH KING, Newark, N. J. Filed Jan. 26, 1916. Serial No. 74,286. (Cl. 16—146.)

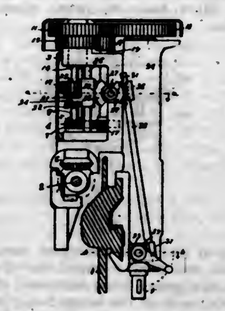


1. In a sash fastener, a suitable base provided with pivot lugs extending upwardly therefrom secured to the upper sash, a fastening bar pivotally secured to said base, said fastening bar being provided with an elongated bearing surface adapted to engage with the lower sash, a latch pivotally secured to said fastening bar adjacent to said bearing surface and adapted to have locking engagement with said base.

2. In a sash fastener, a suitable base secured to the upper sash provided with pivot lugs extending upwardly therefrom, said pivot lugs being provided with recesses extending inwardly from the edges of said lugs, a fastening bar, one end of which is received between said pivot lugs and pivotally secured thereto, said fastening bar being provided with an elongated bearing surface adapted to engage with the lower sash, a latch pivotally secured to said fastening bar adjacent to said bearing surface, said latch being provided with holding lugs formed on the forward end thereof, designed to have locking engagement therewith, and stops located on said fastening bar, one of which is designed to engage with the supporting bracket to limit the rearward movement of the fastening bar and the other of which is designed to be engaged with the pivoted latch to limit the upward movement thereof.

3. In a sash fastener, a suitable base provided with recesses secured to the upper sash, a fastening bar pivotally secured to said base, said fastening bar being provided with an elongated bearing surface adapted to engage with the lower sash, a pivotally mounted latch provided with means designed to have locking engagement with the recesses in said base and stops located on said fastening bar designed to limit the upward movement of said bar and said pivoted latch.

1,204,668. MACHINE-TOOL GEARING. DAVID C. KLAUSMETER, Oakley, Ohio, assignor to The Cincinnati-Bickford Tool Company, Oakley, Ohio, a Corporation of Ohio. Filed Sept. 8, 1914. Serial No. 860,547. (Cl. 74—59.)



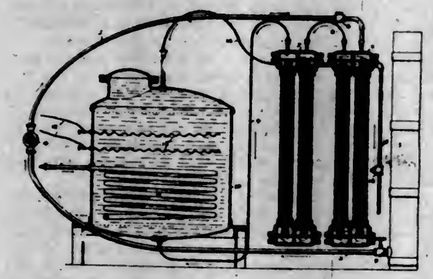
1. A radial drill comprising a vertically disposed change speed gear set, a longitudinally movable change speed element therein, said gear set being inaccessible to the operator, and rack and pinion mechanism and associated elements for moving the change speed element.

2. The combination of a spindle, a vertical driven shaft, inaccessible change speed gear connections therefrom with the spindle, an inaccessible change speed element movable longitudinally on the shaft, a hand lever fulcrumed at an accessible point, and rack and pinion and associated elements adapted to be actuated thereby for moving the change speed element.

3. In a radial drill the combination with a radial arm, and a gear box supported thereon, of a vertically disposed change speed gear set within the gear box and at an inaccessible elevation, a vertically movable change speed element, and rack and pinion shifting connections therewith conveniently accessible to the operator.

4. In a radial drill the combination of a spindle, a vertical shaft, gear connections therefrom with the spindle, driven loose gears on the shaft and formed with clutch members, a driven gear, an inaccessible gear splined on the shaft and formed with clutch members, an accessible hand lever, and rack and pinion and associated elements adapted to be actuated by the lever for moving the splined gear on the shaft into or out of engagement with the driven gear and also with the clutch members thereon into or out of engagement with the corresponding clutch members on the respective loose gears.

1,204,669. PROCESS FOR AGING WINE. ARTHUR LACHMAN, Berkeley, Cal. Filed July 28, 1913. Serial No. 781,547. (Cl. 204—26.)



The regenerative process of treating a moving current of wine, which consists in causing it to flow continuously, under pressure, through an enlarged chamber where its velocity is reduced, and, while so reduced, heating it and passing a current of electricity through it, and thereafter cooling it by returning it upon itself and using its surplus heat to initiate the warming of the oncoming current.

1,204,670. SAFETY-RAZOR. WILLIAM E. LANE, Kansas City, Mo. Filed June 29, 1916. Serial No. 106,676. (Cl. 30—12.)



1. A device of the class described comprising a blade receiving head including a guard for the cutting edge of said blade, said guard being composed of two relatively separable parts, each of the latter being provided with a plurality of spaced fingers, the fingers of one part being positioned between those of the other part when said parts are assembled.

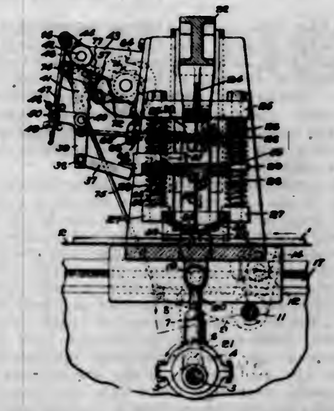
2. A device of the class described comprising a blade receiving head including a guard for the cutting edge of said blade, said guard being composed of two parts movably connected together, and means for retaining said parts in their relative operative positions, each of said parts being provided with a plurality of spaced fingers, the fingers of one part being positioned between those of the other part when said parts are in their relative operative positions.

3. A device of the class described comprising a blade receiving head including a guard for the cutting edge of said blade, said guard consisting of a relatively fixed part, a relatively movable part, and means for retaining said parts in their relative operative positions, each of said parts being provided with a plurality of spaced fingers, the fingers of one part being positioned between those of the other part when said parts are in their relative operative positions.

4. A device of the class described comprising a blade receiving head including a guard for the cutting edge of said blade, said guard being composed of two parts, one of the latter being relatively fixed with respect to said head, the other part being pivotally mounted to the latter, means for retaining said parts in their relative operative positions, and a plurality of fingers on each of said parts, the fingers of one part being positioned between those of the other part when said parts are in their relative operative positions.

5. A device of the class described comprising a blade receiving head including a guard for the cutting edge of said blade, said guard being composed of two parts, one of the latter being formed integral with said head and having a plurality of spaced fingers extending forwardly of the same, the free ends of said fingers being struck downwardly, the other part of said guard consisting of a plate pivotally mounted to the first mentioned part, said plate being disposed in the plane with the downwardly struck ends of said fingers and having notches in its upper edge for receiving the same, additional fingers extending rearwardly from said plate and disposed in the plane with the first mentioned fingers and positioned between the latter when said parts are in their closed positions, and means for holding said parts in their closed positions.

1,204,671. DOUGH-PRODUCT-CUTTING MACHINE. EDWARD E. LAWRENCE, Jamaica, N. Y., assignor to Loose-Wiles Biscuit Company, Long Island City, N. Y., a Corporation of New York. Filed Mar. 25, 1916. Serial No. 86,792. (Cl. 107—21.)



1. A dough or like product treating mechanism provided with means to feed the product, a cutter carrier, a cutter operatively related thereto, means to move the cutter carrier periodically with the product, lost motion connections between said cutter carrier and cutter, means for moving said cutter carrier toward and from said product feeding means, and means for periodically neutralizing the effect of said lost motion connections, whereby one only of a series of movements of the cutter carrier effects penetration by the cutter of the dough or other products.

2. A dough or like product treating mechanism having a cutter carrier, a cutter operatively related thereto, lost motion connections between said cutter carried and cutter, means for moving said cutter carrier toward and from said product, said lost motion connections being such that upon false strokes the cutter does not contact with the material, and means for periodically neutralizing the effect of said lost motion connections, whereby one only of a series of movements of the cutter carrier effects penetration by the cutter of the dough or other product, and the product is not disturbed by the other or false movements of said series of movements.

3. A dough or like product treating mechanism comprising means to feed longitudinally of the mechanism a series of substantially parallel bars of dough-like material, and means movable longitudinally of said mechanism and also movable automatically to sever said bars into predetermined lengths, said means including a cutter carrier comprising a movable member, a severing blade carried thereby, a second member spaced from and having movement relative to the first, and means periodically to effect conjoint movement of said members.

4. A dough or like product treating mechanism comprising means to feed longitudinally of the mechanism a series of substantially parallel bars of dough-like material, means movable longitudinally of said mechanism and also movable automatically to sever said bars into predetermined lengths, said means including a cutter carrier, a cutter operatively related thereto, and lost motion connections between said carrier and cutter, and means to vary said lengths.

5. A dough or like product treating mechanism comprising means to feed longitudinally a series of substantially parallel bars of dough-like material, and means traveling in a right line with said feeding means to sever said bars in predetermined lengths, said means including a cutter carrier, a cutter operatively related thereto, means for periodically effecting relative movement between said carrier and cutter, and means for periodically effecting unison movement thereof.

[Claims 6 to 19 not printed in the Gazette.]

1,204,672. RECEIVING-BOARD FOR BURIAL-CASKETS. GEORGE H. LEIGH and VERNIE R. LEIGH, Drewryville, Va. Original application filed Apr. 1, 1915, Serial No. 18,529. Divided and this application filed Apr. 10, 1916. Serial No. 90,226. (Cl. 27—8.)



1. A foldable receiving-board for burial caskets consisting of a plurality of flat strips or plates hinged together along their meeting edges, to adapt it to be easily inserted and withdrawn through an opening in the end of the casket of lesser width than the normal width of the board.

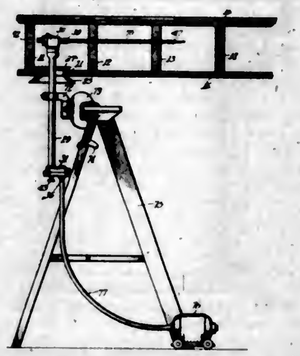
2. A receiving-board for burial caskets consisting of a plurality of plates hinged together along their meeting edges to adapt the outer plates to be raised to permit insertion through an opening of less width than the receiving-board; said board being mounted on anti-friction devices to adapt it to be easily slid in and out of the casket.

3. A foldable receiving-board for burial caskets consisting of a plurality of flat strips or plates hinged together along their meeting edges, the outer plates being provided with suitable handles for carrying purposes; said receiving-board being mounted upon anti-friction devices to adapt it to be easily inserted and withdrawn through an opening in the end of the casket of lesser width than the normal width of the board.

4. In combination with a burial casket having a circular opening at one end, a receiving-board comprising a plurality of strips hinged together along their meeting edges, to provide a false bottom for the casket; the outer strips being adapted to be turned up to decrease the width of the board for inserting or removing it from the casket; said receiving-board being provided with flexible handles, and mounted upon anti-friction devices adapting it to be easily inserted and withdrawn.

1,204,673. BORING APPARATUS. ALBERT R. LOCKE, Chicago, Ill. Original application filed Jan. 15, 1913, Serial No. 742,090. Patented Sept. 21, 1915, No. 1,154,035. Divided and this application filed Sept. 18, 1915. Serial No. 51,344. (Cl. 144—105.)

1. A drilling mechanism comprising a tube; a rotatable shaft therein; means at one end of said tube to rotate said shaft; a head having an axial opening at right angles to the tube secured to the other end of the tube; a screw-threaded splined bit-stock passing through said opening; a beveled gear wheel, carrying a feather for insertion within said spline; a beveled gear wheel on said shaft in mesh with the first mentioned gear wheel to rotate said bit stock by rotation of the shaft and a feed nut for said bit stock positioned within said head, and overlying the end of the shaft.



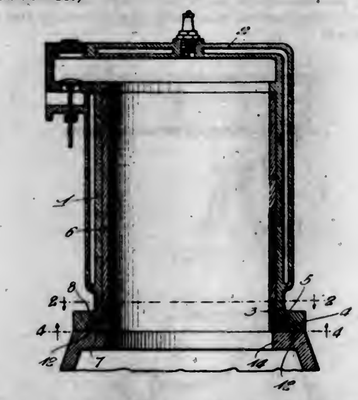
2. A drilling mechanism comprising a tube; a rotatable shaft therein; means at one end of the tube to rotate said shaft; a head secured to the other end of the tube having an axial opening at right angles to the tube; a screw threaded, splined, bit-stock passing through said opening; a beveled gear wheel carrying a feather for insertion within said spline to drive said bit-stock; a beveled gear wheel on said shaft in mesh with the first mentioned gear wheel to rotate said bit-stock by rotation of said shaft; a feed nut for said bit stock positioned within said head, and overlying the end of the shaft, and means for varying the forward speed of said bit stock by resisting rotation of said feed nut.

3. A drilling mechanism comprising a tube; a rotatable shaft therein, means at one end of the tube to rotate said shaft; a head secured to the other end of the tube having an axial opening at right angles to the tube; a screw threaded, splined bit-stock passing through said opening; a beveled gear wheel carrying a feather for insertion within said spline to drive said stock; a beveled gear wheel on said shaft in mesh with the first mentioned beveled gear wheel to rotate said bit-stock by rotation of said shaft; a feed nut for said bit stock positioned within said head and overlying the shaft at the front of the first mentioned bevel gear, means to frictionally resist the rotation of said nut to vary the forward movement of said bit-stock and a thrust bearing between the feed nut and first mentioned bevel gear.

4. A drilling mechanism comprising; a rotatable hollow shaft; means at one end thereof to rotate said shaft; a screw threaded splined bit stock; a gear wheel carrying a feather for insertion within said spline to drive said stock; a driving connection between said gear and shaft; a feed nut on said bit stock adjacent the end of the shaft to feed the stock forward as it is rotated; and a rod passing through said hollow shaft, operable from the driven end thereof to cause frictional resistance to the rotation of said feed nut and thus vary the forward movement of the bit stock.

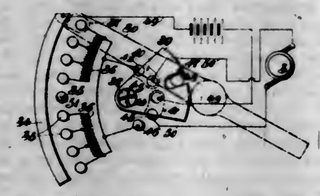
5. A drilling mechanism comprising a tube; a rotatable hollow shaft therein; means at one end of the tube to rotate said shaft; a head secured to the other end of the tube, having an axial opening at right angles to the tube; a screw threaded splined bit stock passing through said opening; means within said head to rotate said bit stock by rotation of said shaft; a feed nut on said bit stock within said head; and a rod passing through said hollow shaft operable from the driven end thereof to control the rotation of said feed nut and thus vary the forward movement of the bit stock.

1,204,674. CYLINDER-BUSHING. THOMAS LOHNER, Warren, Minn. Filed May 29, 1916. Serial No. 100,587. (Cl. 74—85.)



A device of the class described comprising a cylinder having an enlarged bore at its inner end and adapted to form a shoulder therein, a bushing in said cylinder extending from a point adjacent the outer end of the same to its inner end, an outwardly projecting flange on the inner end of the bushing positioned in the enlarged bore of said cylinder, a gasket interposed between said flange and shoulder in the cylinder, removable fastening members through the inner end of said cylinder to secure the same to its support, and notches in the lower edge of the enlarged bore of said cylinder to facilitate the removal of the bushing therefrom when the fastening members have been withdrawn.

1,204,675. RHEOSTAT. WILLIAM T. LYON, Portland, Oreg., assignor to The International Dental Appliance Co., Portland, Oreg. Filed Sept. 24, 1914. Serial No. 863,332. (Cl. 200—14.)



1. In a motor controller, a base, a set of resistance contacts, a set of pole changing contacts, a lever cooperating with said resistance contacts, a pivoted segment coöperative with said pole changing contacts, a pin and slot connection between said pivoted segment and said lever to coöperatively connect the same, means for applying balanced pressures to said lever to continuously tend to hold it in a neutral position, and a foot operable clamping device for securing said lever in any of its positions.

2. In a motor controller, a base, a set of resistance contacts, a set of pole changing contacts, a lever cooperating with said resistance contacts, a pivoted segment coöperating with said pole changing contacts, cooperative connections between said lever and said segment whereby the movement of the lever from a neutral position will effect a similar movement of said segment, a pivot pin upon which said lever is fulcrumed, and a device on said pin for clamping said lever in any of its positions.

3. In a motor controller, a base, a set of resistance contacts, a set of pole changing contacts, a lever coöperative with said resistance contacts, a pivoted member cooperative with said pole changing contacts, a pin and slot connection between said pivoted member and said lever to coöperatively connect the same, a pivot pin upon which said lever is fulcrumed, and a device on said pin for clamping said lever in any of its positions.

4. In a motor controller, a base, a set of resistance contacts, a set of pole changing contacts, a lever coöperating with said resistance contacts, a pivoted segment coöperating with said pole changing contacts, cooperative connections between said lever and said segment whereby the movement of the lever from a neutral point will effect a similar movement of said segment, means continuously acting to hold said lever in a neutral position, a pivot pin upon which said lever is fulcrumed, and a device on said pin for clamping said lever in any of its positions.

5. In a motor controller, a base, a set of resistance contacts, a set of pole changing contacts, a lever coöperating with said resistance contacts, a pivoted member cooperative with said pole changing contacts, a pin and slot connection between said pivoted member and said lever to coöperatively connect the same, means continuously acting to hold said lever in a neutral position a pivot pin upon which said lever is fulcrumed, and a device on said pin for clamping said lever in any of its positions.

1,204,676. COMBINATION POCKET ARTICLE. STEFAN MACHUGA, Denver, Colo. Filed June 17, 1916. Serial No. 104,277. (Cl. 7—11.)



1. A knife comprising a handle, a blade member hinged to the end thereof and having keeper openings in the base portion thereof, the said handle having one of its sides provided with a recess adjacent the said base portion, a flexible locking latch within the said recess, a projecting bolt upon the said latch adapted for seating within the said keeper openings when the blade is in either its open or closed position, a releasing plate carried by the said handle having an oblique slot therein, a releasing pin for the said latch arranged within the said recess slidably extending through the said slot, a knurled operating head upon the outer end of the said pin flatly arranged slidably upon the said plate, and normal positioning means for the said pin.

2. A pocket article comprising a handle having side members provided with inwardly opening recesses adjacent the opposite ends of the handle, implements pivoted to the said handle having base portions arranged adjacent the open sides of the said recesses and provided with keeper openings communicating therewith, flexible locking latches within the said recesses, bolts upon the said latches adapted for seating within the said keeper openings when the implements are arranged in their opened and closed positions, releasing plates carried by the said side members, the said releasing plates and side members having alining slots therein communicating with the said recesses, the said slots being obliquely arranged with respect to the handle, releasing pins for the said latches arranged within the said recesses projecting through the said slots, knurled operating heads upon the outer ends of the said pins slidably positioned upon the said releasing plates, and normally positioning retracting means for the said pins.

1,204,677. COMBINATION-WEAPON. STEFAN MACHUGA, Denver, Colo. Filed June 30, 1916. Serial No. 106,848. (Cl. 42—53.)

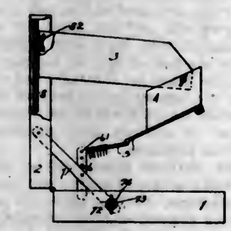
1. A weapon comprising a sword having a body formed with a perforation therethrough and a hilt extending from the rear end of the said body, a revolver fixedly secured to the side of the said body with the cartridge cylinder thereof freely extending within the perforation and with the grip and trigger of the revolver projecting beneath the said body, and a combined hilt reinforce and grip extension hingedly carried by the said hilt.



2. A weapon comprising a sword having a body formed with a perforation therethrough and a hilt extending from the rear end of the said body, a revolver fixedly secured to the side of the said body with the cartridge cylinder thereof freely extending within the perforation and with the grip and trigger of the revolver projecting beneath the said body, an elongated extension grip U-shaped in cross section, spaced angularly projecting lugs at one end of the said extension spanning the inner portion of the said hilt hingedly mounted thereon and adapted for positioning said extension grip at one side of the revolver grip and projecting from the free end of the latter when the device is arranged for use as a fire-arm.

3. A device of the class described comprising a sword having a body formed with a longitudinally extending blade and with a handle at the opposite ends thereof, a revolver secured to the side of said body with its barrel arranged longitudinally of the sword, with the sword blade in advance of the barrel, the trigger and handle of the revolver projecting beneath the sword, an extension grip for the revolver of channel bar formation hingedly carried by the hilt in spanning relations thereto arranged in grasping relations with respect to the handle and spaced from the said hilt when the device is operatively positioned.

1,204,678. NAIL-STRIPPER. GEORGE MARSHALL, Fresno, Cal. Filed Oct. 6, 1915. Serial No. 54,409. (Cl. 1—6.)



1. In a nail stripper, a hopper having a V shaped bottom and a slot lengthwise in said bottom along the apex of said V, and means for adjusting the slant of said hopper, in combination with runners consisting of an upper and lower section, said upper section being attached to the bottom of said hopper and having a slot therein which registers with the slot in the bottom of the hopper, said upper section extending the entire length of the bottom of said hopper, and slightly beyond such bottom, said upper section having a bent down portion, said lower section having a slot therein on a common vertical plane with the slot in said upper section, and having a bent up portion at one end thereof, the slot in the bent down portion of the upper section being enlarged sufficiently to contain the bent up portion of the said lower section, pivotal hinges connecting said upper section with said lower section at the ends having such bent down portion and bent up portion, means for clamping said upper section and lower section together at any angle at which they may be placed, means for supporting said lower section, and means for adjusting said runners in a slanting position, all substantially as described.

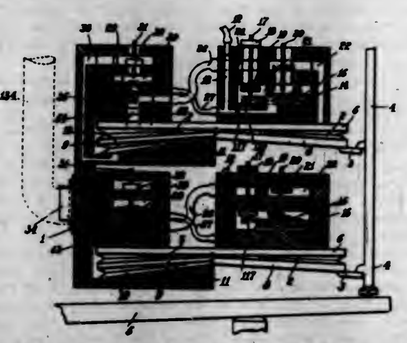
2. In a nail stripper, a hopper having a V shaped bottom and a slot lengthwise in said bottom at the apex of the V therein, a runner constructed with an upper and lower section, said upper section being attached to said bottom, and having a slot therein which registers with the slot in the bottom of said hopper, said slot in the upper section being wider on the under side than on the upper side, said lower section being hinged to the upper section, clamp means to make such lower section rigid with the upper section, said lower section having a slot of the same relative width as the slot in the upper section and having an enlargement of the slot at the hinge portion of said lower section, said lower section being on a plane beneath the upper section and slightly overlapping it, and said slot in the upper and lower sections being on the same vertical plane, a support for the runner at the end thereof opposite said hopper, and means for adjusting the runner at an angle to said bottom, all substantially as described.

3. In a nail stripper, a hopper having a V shaped bottom and a slot lengthwise in said bottom at the apex of said V, a runner consisting of an upper section and a lower section hinged together so that the lower section is on a plane slightly below the plane of the upper section and slightly underlapping it, said upper runner being attached to the bottom of said hopper and having a slot therein which registers with the slot in the bottom of said hopper, and the lower section being constructed of rectangular bars having a bent up portion at the end where they are hinged to said upper section, and placed parallel to form a slot on the same vertical plane as that of the slot in the upper section, and having an enlargement of the slot at the bent up portion of said bars, a support for said runner at the end of the lower section opposite the hopper, means for adjusting the slant of said runner, and means for clamping said runner and hopper in adjusted position, all substantially as described.

4. In a nail stripper, a hopper having a V shaped bottom and a slot lengthwise in said bottom at the apex of the V therein, a runner consisting of an upper section and a lower section hinged together so the lower section is on a plane slightly below and underlapping the plane of the upper section, said upper section being attached to the hopper bottom, and having a slot therein which registers with the slot in the bottom of the hopper, and the lower section extending beyond said bottom, and having a slot therein on a vertical plane with the slot in the upper section, said slot in the upper and lower sections being approximately of uniform width and having an enlargement of the slot where the upper section and the lower section are hinged together, a support for said lower section at the end thereof opposite the hopper, means for adjusting slant of the runner and for clamping the runner to such support, in combination with a stop block at the lower end of the slot in such runner consisting of a beveled member attached to the runner at the lower end thereof, in such relation that the plane of the beveled face of said beveled member is at an obtuse angle to the plane of the lower section from the beveled member to the bent up portion at the hinge.

5. In a nail stripper, a box, a lid hinged to said box and adjustable at right angles to the bottom of such box, braces connecting such lid with such box and constructed to be clamped thereto, an upper hopper attached to such lid in such position that it is directly over said box, an under hopper pivoted to such upper hopper, and directly under it, the plane of the bottom of such under hopper being at an angle to the plane of the bottom of the upper hopper, the under hopper having slots in the bottom, runners approximately double the length of the bottom of the under hopper attached to such under hopper, such runners having slots therein which register with the slots in the bottom of the under hopper, such runners having a bent portion so arranged that the slot is the same width at each end of the runner and enlarged at said bent portion, the part of said runner attached to the under hopper being on a higher plane than the part of such runner on the side of the bent portion opposite the hopper, a support for the said runners, means for adjusting the slant of said runners combined, consisting of a bar attached to the lower ends of the runners, a support on each side of the box pivoted to the brace connecting the box and the lid, and means for clamping the support to the brace, said supports containing a row of holes, and said supporting bar having reduced ends to fit within such holes and being of such length that it reaches from the support on the one side to the support on the other side of said box, all substantially as described.

1,204,679. AUTOMATIC PLAYER-PIANO. PHILIP JACOB MEAHL, Bayonne, N. J. Filed Dec. 1, 1911. Serial No. 663,234. (Cl. 84—160.)



1. In a pneumatic piano player, the combination of two fixed boards and a movable board between the two fixed boards and three sets of flexible folding walls uniting the movable board to the two fixed boards to constitute three bellows, substantially as set forth.

2. In a pneumatic piano player, the combination of a fixed board and a movable board which has an angle between two edges and three sets of flexible folding walls connecting the angular movable board with the fixed board to constitute three bellows, substantially as set forth.

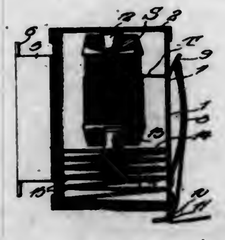
3. In a pneumatic piano player, the combination with two fixed boards and a movable board between the fixed boards and three sets of flexible folding walls uniting the movable board with the two fixed boards, thus forming three bellows, of means for exhausting the air from two of the three bellows and at the same time admitting air into the third bellows, substantially as set forth.

4. In a pneumatic player piano, the combination with two fixed boards and a movable board between the two fixed boards and three sets of flexible folding walls uniting the movable board with the two fixed boards, thus forming three bellows, of means for exhausting air from the two bellows on opposite faces of the said movable board and at the same time admitting air into the third bellows, substantially as set forth.

5. In a pneumatic player piano, the combination of a fixed board and a movable board hinged to each other, between the ends of said boards, two sets of flexible folding walls uniting the movable and fixed boards at opposite sides of the hinged connection between the boards, means for exhausting air from one bellows thus formed, and for admitting air into the other bellows thus formed at the same time, and means for adjusting the size of the opening for admitting air into one of said bellows of said pair, formed between the fixed and movable boards, independent of the other bellows, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,204,680. SPOOL-HOLDER. JOHN HENRY MEYERS, Grand Island, Nebr. Filed Jan. 14, 1915, Serial No. 2,192. Renewed May 22, 1916. Serial No. 99,213. (Cl. 242—138.)



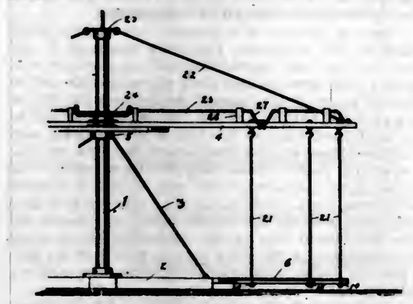
1. A spool holder comprising a cylinder having one end closed and the other end open, a closure for said open end, means for detachably locking said closure in closed position, spool supports mounted in said container, means in said container for bindingly holding said spool against turning, said container having an opening therein for the passage of the thread contained on the spool, a spring arm secured at one end to the outer face of said container and provided at its outer end with an eye positioned adjacent the opening in the container.

2. A spool holder comprising a cylinder closed at one end and open at the other, a closure for said open end, means for detachably locking said closure in closed position, an attaching bracket carried by said cylinder, said cylinder having a thread opening therein, a spring arm secured at one end in alinement with said opening and having its free end bent outwardly and provided with an eye, the eye in said end being positioned out of alinement with the opening in the cylinder to provide for a binding engagement of the thread to hold it against unraveling permitting the free withdrawal of the thread when the arm is extended.

1,204,681. SECTIONAL PLATFORM FOR CAROUSELS. HARVEY L. MILLER, Leavenworth, Kans., assignor to C. W. Parker, Leavenworth, Kans. Filed June 17, 1915. Serial No. 34,610. (Cl. 46—27.)

1. A ring-shaped platform constituted of two sets of sections, one set being arranged end to end along the inner edge of the platform, and the other set end to end along the outer edge thereof, devices for rigidly connecting the ends of the sections of one set together, the ends of the sections of the other set together, and the corners of the sections of the one set to the corners of adjacent sections of the other set and means for suspending the platform, either set of sections being removable to decrease the size of the platform.

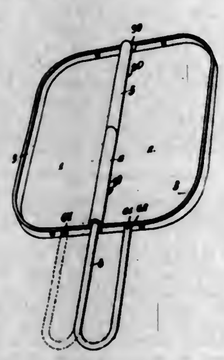
2. A ring-shaped platform constituted of two sets of sections, one set being arranged end to end along the inner edge of the platform, and the other set end to end along the outer edge thereof, devices for rigidly connecting the ends of the sections of the one set together, the ends of the sections of the other set together, and the corners of adjacent sections of the one set to the corners of adjacent sections of the other set, and means connected to said devices for suspending the platform, either set of sections being removable to decrease the size of the platform.



3. A ring-shaped platform constituted of two sets of sections, each of said sections comprising radiating beams, floor boards, thereon, and beams connecting the ends of said radiating beams together, one set of sections being arranged end to end along the inner side of the platform and the other set end to end along the outer edge thereof, the other sections being located side by side with the first named sections, clamping devices for joining the ends of the first named sections, additional clamping devices for joining the ends of the other sections, clamping devices for connecting the corners of two adjacent first named sections to the corners of two adjacent sections of the other set and detachable rods for supporting each of said sections, either set of sections being removable to decrease the size of the platform.

4. A ring-shaped platform consisting of two sets of sections, one set of sections being arranged end to end along the inner side and the other set of sections along the outer side of the platform, the other set of sections being located side by side with the first named sections; clamping devices for joining the ends of the first named sections, additional clamping devices for joining the ends of the other sections; clamping devices for connecting the corners of two adjacent first named sections to the corners of two adjacent sections of the other set and detachable rods for supporting said sections, either set of sections being removable to decrease the size of the platform.

1,204,682. GRIDDLE. THOMAS J. NASH, Lincoln, Nebr., assignor to American Aluminum Ware Company, Lincoln, Nebr. Filed July 28, 1914, Serial No. 853,620. Renewed Sept. 27, 1916. Serial No. 122,557. (Cl. 53—10.)

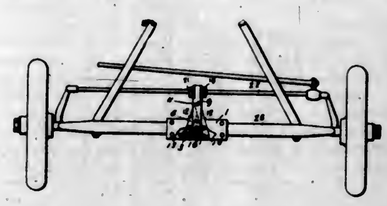


1. In a griddle, a pair of like griddle sections, each of which includes a tubular hinge section at the inner edge thereof, the said tubular sections being in longitudinal alinement, a handle which includes a rod that extends through the tubular hinge sections, means for fixedly connecting the handle with one of the said sections to turn the section as the handle turns in the tubular hinge member of the other section, and means for holding the two sections from endwise separation, said means comprising a member on the handle turned section that snaps over the outer end of the other tubular section as the two sections are moved into operative connection.

2. In a griddle, a pair of similar griddle sections, each of which includes a tubular hinge member, the hinge members of the two sections alining when the parts are assembled, each of the said sections including a rim flange, a handle which includes a rod member adapted to extend through the two tubular hinge members and which is held to turn freely within the outer end of one of the hinge members, means coöperating with the other of the said tubular members and the handle for locking the handle and the said other tubular member to turn together as the rod turns in the first mentioned tubular hinge member, and means for holding the two tubular hinge members from endwise separation, the said means including an extension of the rim flange of that section which turns with the handle for snapping over the outer end of the outermost tubular hinge member.

3. In a griddle, a pair of like sections each having a rim flange and a tubular hinge member, the said hinge members being in longitudinal alinement when the sections are operatively assembled, a handle that includes a rod slidable through the tubular hinge members, means coöperating with the handle and one of the said sections for locking the said one of the sections and the handle to turn together, and further means on the section that moves with the handle for interlocking with the outer end of the tubular hinge member of the other section to hold the said other section from endwise movement on the rod, the said further means including a resilient portion on the flange of the section that turns with the rod and which is adapted to snap over the end of the tubular hinge section when the sections are closed upon each other.

1,204,683. STEERING-GEAR ATTACHMENT. THOMAS J. NASH, Lincoln, Nebr., assignor to Nash Manufacturing Company, Lincoln, Nebr. Filed Nov. 16, 1915, Serial No. 61,784. Renewed Sept. 26, 1916. Serial No. 122,319. (Cl. 21—200.)



1. In a steering mechanism attachment, a plate, means for securing the same to the axle of the vehicle, an operating lever pivoted to the plate, means for securing said lever to the connecting rod of the steering mechanism of a vehicle, a pair of buffer levers pivoted to said operating lever, a stop on said plate and lying between two pivotal points of the operating lever and the buffer levers, means for holding said buffer levers against said stop and stops on said buffer levers to engage said operating lever.

2. In a steering mechanism attachment, a plate, means for securing the same to the axle of a vehicle, an operating lever pivoted at one end to said plate, a connection between said operating lever and the connecting rod of the steering mechanism of a vehicle, a pair of buffer levers pivoted at one end to said operating lever and extending beyond the pivotal end of the same, stops on said buffer levers to engage said operating lever, a coil spring connecting the ends of said buffer levers together and a

fixed stop on said support for engagement by said buffer levers under the spring action.

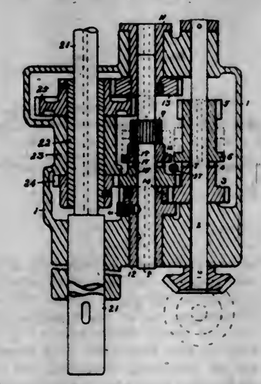
3. In a steering attachment for automobiles, a pivoted arm constructed for connection to a movable part of the steering mechanism, other spring controlled pivot arms movable in opposite directions into opposing engagement with the first mentioned arm, said spring controlled arms being pivoted to said first mentioned arm, a support for fixed attachment to a relatively fixed portion of the vehicle and to which said first mentioned pivoted arm is pivoted, and a stop on said support for engagement by said second mentioned arms under the action of the spring controlling them.

4. In a steering mechanism attachment, a plate, attaching elements for securing said plate to a fixed part of the vehicle, an arm pivoted to said plate and designed to be secured to a movable part of the steering mechanism of the vehicle, a pair of buffer levers pivoted to said arm and extending to either side of the pivot of the same, a fixed stop on said plate with which said buffer levers are designed to engage, means continuously tending to engage said levers with said stop and other means designed to hold one lever inactive while the other lever is engaging said stop when said arm is moved out of the normal position.

5. In a steering mechanism attachment, a plate, attaching elements for securing said plate to a fixed part of the vehicle, an arm pivoted to said plate and designed to be secured to a movable part of the steering mechanism of the vehicle, a pair of buffer levers pivoted to said arm and extending to either side of the same, a fixed stop on said plate with which said buffer levers are designed to engage, means continuously tending to engage said levers with said stop, other means designed to hold one lever inactive while the other lever is engaging said stop when said arm is moved out of the normal position, said last mentioned means comprising stops on said buffer levers for engaging said arm.

[Claims 6 to 8 not printed in the Gazette.]

1,204,684. GEARING. HENRY M. NORRIS, Cincinnati, Ohio, assignor to The Cincinnati-Bickford Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 1, 1915. Serial No. 48,385. (Cl. 74—58.)



1. A gearing comprising a support, a driving shaft, a driven shaft provided with a pinion, change speed gear connections between said shafts, a sleeve journaled in the support and provided with gears of different size, a spindle splined in the sleeve, a loose gear on the driven shaft engaging with one of the spindle gears, clutch connections between said loose gear and driven shaft, means for moving the driven shaft longitudinally for alternately engaging said clutch connections, and the pinion on said shaft with the other spindle gear, and means for maintaining the driven shaft under a yielding pressure in different positions of longitudinal adjustment.

2. A gearing comprising a support, two spindle gears arranged to turn in unison, two gears journaled in the support, a driven shaft splined therein and provided with a pinion, a loose gear on said shaft engaging with one of the spindle gears, clutch connections between the driven shaft and the loose gear thereon, means for moving the driven shaft longitudinally for alternately engaging said clutch connections, and the pinion with the other spindle gear, a driving shaft, a loose gear thereon engaging with one of the gears journaled in the support, a gear splined on the driving shaft, clutch connections between said gear and the loose gear on the driving shaft, and means for shifting the splined gear on the driving shaft for alternately engaging with the other gear journaled in the support, and the clutch connections with the loose gear on the driving shaft.

3. A gearing comprising spindle gears of different sizes, a spindle splined therein, a shaft provided with a pinion, a loose gear thereon engaging with one of the spindle gears, clutch connections from the loose gear with the shaft, means for moving the shaft longitudinally for alternately engaging said connections and the pinion with the other spindle gear, and driven change speed gear connections with the shaft.

1,204,685. FRUIT GRADER AND PACKING BENCH. HARRY J. PHILLIPS, Grand Junction, Colo. Filed June 30, 1913. Serial No. 776,664. (Cl. 130—32.)

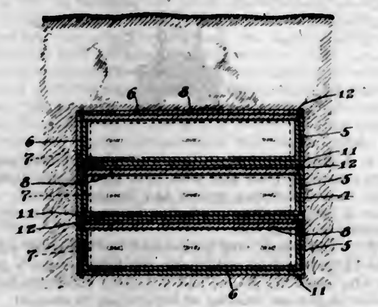


1. In a fruit grader, a frame, shafts each journaled at a respective end of said frame, a series of spaced wheels provided with peripheries V-shaped in cross section with the apices of the V's outward, a second series of similarly shaped wheels mounted on the other shaft, said second set of wheels being alternately of relatively large and small diameters and being spaced farther apart than the wheels of the first set, V-shaped belts running over said wheels and means to rotate one of said wheels and thereby actuate the belts.

2. In a fruit grader, a frame, shafts each journaled at a respective end of said frame, a series of spaced wheels provided with peripheries V-shaped in cross section with the apices of the V's outward, a second series of similarly shaped wheels mounted on the other shaft, said second set of wheels being alternately of relatively large and small diameters and being spaced farther apart than the wheels of the first set, V-shaped belts running over said wheels, means to rotate one of said wheels and thereby actuate the belts, and inverted V-shaped supports between said wheels for the upper flights of said belts.

1,204,686. BURIAL-VAULTING SYSTEM. CHARLES F. RAYDURE, Philadelphia, Pa. Filed Jan. 18, 1916. Serial No. 72,686. (Cl. 72—7.)

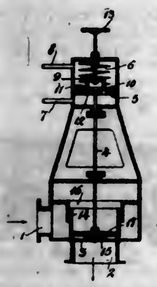
A burial vault system, consisting of a series of crypts arranged one above the other and each having a lid with an offset under peripheral surface to fit complementally the offset surface of its crypt and each of said lids having adjacent to the respective ends the provision of grooves to engage tongues formed integral with the bottom of the next in series of said crypts to provide thereby a vault structure with a series of readily removable crypts which are uniformly symmetrical exteriorly throughout and the said lids by interlocking with the respective crypts and the said crypts with each other,



thereby preventing their displacement in said alining relationships, substantially as described.

1,204,687. QUICK-CLOSING THROTTLE-VALVE FOR TURBINES. KARL RÖDER, Mülheim-on-the-Ruhr, Germany. Filed May 13, 1915. Serial No. 27,959. (Cl. 137—4.)

1. A quick closing throttle valve for turbines comprising, in combination, a main valve for controlling the admission of steam to the turbine, a piston having openings therethrough and connected with said main valve, a cylinder for said piston having an oil pressure source upon one side and an oil outflow pipe upon the other side of the piston, and means for closing said piston openings preparatory to opening said valve when it is desired to start the turbine.



2. A quick closing throttle valve for turbines comprising, in combination, a main valve for controlling the admission of steam to the turbine, a piston having openings therethrough and connected with said main valve, a cylinder for said piston having an oil pressure source upon one side and an oil outflow pipe upon the other side of the piston, a spring adapted to press the piston toward the oil pressure source, and means for closing said piston openings preparatory to opening said valve when it is desired to start the turbine.

3. A quick closing throttle valve for turbines comprising, in combination, a main valve for controlling the admission of steam to the turbine, a piston having openings therethrough and connected with said main valve, a cylinder for said piston having an oil pressure source upon one side and an oil outflow pipe upon the other side of the piston, a spring adapted to press the piston toward the oil pressure source, means movable between the cylinder head and the piston for closing the piston openings preparatory to opening said valve when it is desired to start the turbine.

4. A quick closing throttle valve for turbines comprising, in combination, a main valve for controlling the admission of steam to the turbine, a piston having openings therethrough and connected with said main valve, a cylinder for said piston having an oil pressure source upon one side and an oil outflow pipe upon the other side of the piston, a spring adapted to press the piston toward the oil pressure source, a member between the cylinder head and the piston for closing the piston openings, and an axially disposed spindle having threaded engagement with and through the cylinder head and carrying said closing member.

5. A quick closing throttle valve for turbines comprising, in combination, a main valve for controlling the admission of steam to the turbine, an auxiliary valve also controlling the admission of steam to the turbine the effective area of the main valve being greater than that of the auxiliary valve, a piston having openings therethrough and operatively connected with both valves, the main valve being arranged to both open and close after the auxiliary valve, a cylinder for said piston having an oil pressure source upon one side and an oil outflow pipe upon the other side of the piston, and means for closing said piston openings preparatory to opening said auxiliary and main valves when it is desired to start the turbine.

[Claim 6 not printed in the Gazette.]

1,204,688. WATER-JACKET. HENRY RUDE, West Allis, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed May 14, 1915. Serial No. 28,793. (Cl. 85—1.)

1. In combination, an inside sheet, an outside sheet, a boss secured to one of said sheets at an imperforate portion thereof, a stay-bolt detachably secured at one end to said boss only, and means for securing said stay-bolt to the other of said sheets.



2. In combination, an inside sheet, an outside sheet, a boss welded to said inside sheet at an imperforate portion thereof, a stay-bolt detachably secured at one end to said boss only, and means for securing said stay-bolt to said outside sheet.

3. In combination, an inside sheet, an outside sheet, a boss secured to said inside sheet, a stay-bolt detachably secured at one end to said boss only, and means for securing said stay-bolt to said outside sheet.

4. In combination, an inside sheet, an outside sheet, a boss secured to one of said sheets at a portion of said sheet which is imperforate and of uniform thickness, a stay-bolt detachably secured to said boss, and means for securing said stay-bolt to the other of said sheets.

5. In combination, an inside sheet, an outside sheet, a boss welded to said inside sheet, said inside sheet adjacent said boss being imperforate and of uniform thickness, a stay-bolt detachably secured to said boss, and means for securing said stay-bolt to said outside sheet.

1,204,689. AUTOMATIC RAILWAY SIGNAL DEVICE. ROBERT A. RUTHERFURD, Lyme, Conn. Filed Dec. 26, 1913. Serial No. 808,637. (Cl. 246—16.)

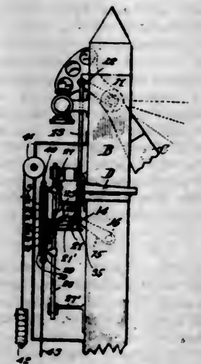
1. In a rail-road signal, a repeating gun, a firing mechanism therefor, a semaphore, an adjustable controller for the firing mechanism, and connections between the semaphore and the controller to set the same in selective firing position.

2. In a rail-road signal device, a repeating gun, a semaphore, a selecting means for controlling the number of times the gun is to fire, means between the semaphore and the controlling means to set the same in operative position, means adjacent the track to be operated by the train, and connections between the latter and the controlling means to operate the firing mechanism a given number of times.

3. In a rail-road signal, a semaphore, a repeating gun, a track-trip, a selective controller, means between the sem-

aphore and the controller to regulate its position, operating means between the trip and the controller to fire the gun.

4. In a rail-road signal device, a repeating gun provided with firing mechanism, a controller, moved into one position, to control the number of gun fires and moved in another direction to operate the firing mechanism for the purpose described.



5. In a rail-road signal device, a semaphore, a gun, controlling means for the gun to control the number of gun fires, and a track-trip, connection between the semaphore and track-trip to place the track-trip in and out of operative position, connections between the semaphore and gun controlling means, to control the gun fires, and connections between the track-trip and the gun for firing the gun.

1,204,690. EYE-TESTING DEVICE. ELMER LE ROY RYER, Hawthorne, N. Y. Filed July 8, 1916. Serial No. 108,085. (Cl. 88—22.)



1. An eye-testing device of the character described, comprising a body-portion carrying a lens and embracing means for blanketing one eye while the lens is applied before the other eye.

2. An eye-testing device of the character described, comprising a body portion carrying plus and minus lenses and embracing means for blanketing one eye while either of said lenses is applied before the other eye.

3. An eye-testing device of the character described, comprising a non-transparent body portion carrying a lens, said body portion being of sufficient length to blanket either eye when said lens is applied before the other eye.

4. An eye-testing device of the character described, comprising a non-transparent body-portion carrying plus and minus lenses, said body portion being of sufficient length to blanket either eye when either of said lenses is placed before the other eye.

5. An eye-testing device of the character described, comprising a non-transparent body portion carrying plus and minus lenses and a plane glass slab, said body-portion being of sufficient length to blanket either eye when either of said lenses or said slab is placed before the other eye.

[Claims 6 to 10 not printed in the Gazette.]

1,204,691. CLIP. JOSEPH SACHS, Hartford, Conn. Filed Sept. 20, 1915. Serial No. 51,670. (Cl. 175—273.)



1. A clip comprising a base and resilient fuse engaging lips extending from said base, said base having inside the clip a wire receiving groove and having exteriorly of the base a corresponding projection to prevent the clip from turning on a support.

2. A clip comprising a base and resilient fuse engaging lips extending from said base, the base having a pressed in wire receiving groove and a pressed out projection, the latter to prevent turning of the clip on its support.

3. A clip comprising a base and resilient fuse engaging lips extending from said base, holding-down means for the clip, engaging the base, a clamping member between the lips and means for setting the clamping member having an operating connection with said holding down means, said base and said clamping member having complemental grooves to receive a wire.

4. A clip comprising a base and resilient fuse engaging lips extending from the base, said base having an aperture and also having a longitudinally extending wire receiving groove at one side of the aperture, holding-down means for the clip, extending through said aperture, a clamping member between said lips and having a wire receiving groove complemental to said other groove and means for setting said clamping member, having an operating connection with said holding-down means.

1,204,692. CAR-DOOR. RALPH V. SAGE, Philadelphia, and RALPH E. WILDER, Johnstown, Pa. Filed Feb. 4, 1916. Serial No. 76,106. (Cl. 105—185.)



1. A dumping car door comprising a plate provided with a flange on each of the sides thereof, portions of said flange on two sides being formed upwardly in line with the door plate, a door spreader resting against the door plate and said upwardly formed flanges and secured thereto.

2. A dumping car door comprising a plate provided with flanges on the hinged and side portions thereof, portions of the side flanges being formed upwardly in line with the door plate, and a door spreader resting against the door plate and said upwardly formed flange portions and secured thereto.

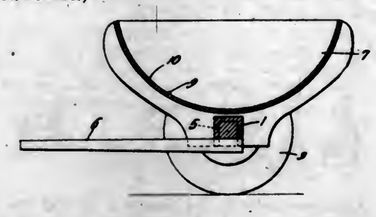
3. In a dumping car, a pair of doors each hinged at one of their sides, each of said doors being formed of a plate with integral flanges on the edges thereof, portions of the side flanges being formed upwardly and approximately in line with the door plate, a door spreader resting against each door plate and the upwardly formed flanges thereof and secured thereto, and means secured to said door spreader for raising and lowering said doors as desired.

4. A pair of dumping car doors each composed of a plate provided with flanges on the hinged and side edges thereof, portions of the side flanges being bent upwardly, a door spreader secured within the offset portion so formed, and means secured to said spreaders for raising and lowering the doors.

5. A pair of dumping car doors spaced apart, provided with a door spreader of inverted U-section, with outstanding flanges, the central portion of the section being secured to the body portions of said doors, a clevis secured to the spreader between the doors and adapted to receive a pivoted bolt provided with a projecting threaded shank, a link member provided with an integral internally threaded end adapted to be secured to the threaded shank aforesaid, and means for operating said link members to open and close the doors.

[Claims 6 to 11 not printed in the Gazette.]

1,204,693. TOY CART. ROBERT A. SALE, Washington, D. C., assignor of one-half to Joseph W. Peed, Washington, D. C. Filed Feb. 26, 1916. Serial No. 80,730. (Cl. 46—48.)



1. A toy cart including grooved sides, a bottom having its side edges projecting into the grooves in the sides, and a wheel supported axle detachably engaging the sides for holding said sides in engagement with the bottom.

2. A toy cart including sides having grooves in their inner faces, a bottom having its side edges detachably seated within the respective grooves, an axle having opposed mortises, there being recesses within the lower edges of the sides for engaging the mortised portions of the axle, the walls of the mortises and recesses coöperating to hold the sides against lateral movement relative to the bottom, and supporting wheels detachably mounted on the axle.

3. A toy cart including an axle having mortises extending upwardly within the front and back faces thereof and across the top, sides having recessed lower portions insertible into the mortises, said sides having grooves in their inner faces, and a bottom having its side edges seated within the grooves, said axle constituting means for tying the sides together and holding them against lateral displacement relative to the bottom.

4. A toy cart including an axle, supporting wheels detachably engaging the end portions thereof, said axle having mortises extending upwardly within the front and back faces thereof and across the top, sides having recessed lower ends insertible into engagement with the mortised portions of the axle, the walls of the recesses and mortises coöperating to hold the sides against movement laterally relative to each other, there being grooves in the inner faces of the sides, a bottom extending continuously between the sides and having its side edges detachably seated within the respective grooves, and a tongue secured to and extending from the axle.

5. A toy cart including an axle, supporting wheels detachably engaging the end portions thereof, said axle having mortises extending upwardly within the front and back faces thereof and across the top, sides having recessed lower ends insertible into engagement with the mortised portions of the axle, the walls of the recesses and mortises coöperating to hold the sides against movement laterally relatively to each other, there being grooves in the inner faces of the sides, a bottom extending continuously between the sides and having its side edges detachably seated within the respective grooves, dowels upstanding from the mortised portion of the axle and projecting into the sides, and a tongue secured to and extending from the axle.

1,204,694. TRANSIT ATTACHMENT. SCHUYLER R. SCHAFF, Louisville, Ky. Filed Mar. 7, 1916. Serial No. 82,629. (Cl. 88—2.2.)



1. A surveying instrument having a sighting device and a reflecting surface facing in a direction at right angles to the line of sight through said sighting device.

2. A surveying instrument including a sighting device and a mirror facing in a direction at right angles to the line of sight through said device, and an indicating mark in a vertical plane with the center of the instrument and at right angles to the line of sight.

3. A surveying instrument including a compass, a sighting device movable about a vertical axis and a mirror carried by parts which move with said sighting device about said axis and presenting a reflecting surface facing in a direction at right angles to the line of sight through said sighting device.

4. A surveying instrument including a compass, a sighting device movable about a vertical axis and a mirror carried by parts which move with said sighting device about said axis and presenting a reflecting surface facing in a direction at right angles to the line of sight through said sighting device, said mirror being curved about a horizontal axis.

5. A surveying instrument including a compass, a sighting device movable about a vertical axis and a mirror carried by parts which move with said sighting device about said axis and presenting a reflecting surface facing in a direction at right angles to the line of sight through said sighting device, said mirror having terminal portions curved inwardly.

[Claims 6 to 9 not printed in the Gazette.]

1,204,695. NUT-LOCK. HENRY C. J. SCHARMANN, St. Louis, Mo. Filed May 15, 1916. Serial No. 97,626. (Cl. 151—24.)



1. In a nut-lock, a nut provided with an opening in the wall thereof transverse to the axis of the nut, a slot leading from said opening through the nut and opening at one of the ends of the nut, and a locking plug passed through said opening.

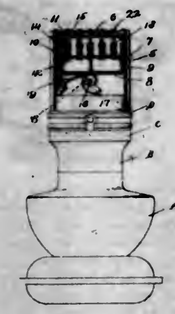
2. In a nut-lock, a nut provided with a slot leading from one of the ends thereof to a suitable point on the wall of the nut, and an enlarged opening at the base of the slot, disposed transversely to the axis of the nut.

1,204,696. ENGRAVER'S BLOCK. JOHN SCHEER, Atlanta, Ga., and GEORGE F. SCHEER, Richmond, Va. Filed Mar. 29, 1916. Serial No. 87,560. (Cl. 81—4.)

1. An attachment for engravers' blocks having jaws movable toward and away from each other, shells mounted upon the jaws, a plurality of vertically yieldable pins movably mounted in the shells to be protruded beyond the tops thereof, and means for vertically moving all of the pins in a single operation.

2. An attachment for engravers' blocks having jaws movable toward and away from each other, shells mounted upon the jaws, a plurality of vertically yieldable pins movably mounted in the shells to be protruded beyond

the tops thereof, cams for action upon the supports for the pins to raise the same, and means for locking the cams against movement in one direction to sustain the supports in vertically adjusted position.



3. An attachment for engravers' blocks having jaws movable toward and away from each other, shells mounted upon the jaws, a plurality of vertically yieldable pins movably mounted in the shells to be protruded beyond the tops thereof, cams for action upon the supports for the pins to raise the same, means for locking the cams against movement in one direction to sustain the supports in vertically adjusted position, and means for rotating the cams.

1,204,697. PROTECTIVE COATING COMPOSITION. WALTER SCHERMERHORN, Omaha, Nebr. Filed Dec. 26, 1914. Serial No. 879,223. (Cl. 134—54.)

1. A protective coating composition consisting of liquid gutta-percha, benzene, ether, rye flour, and plumbago, substantially as described.

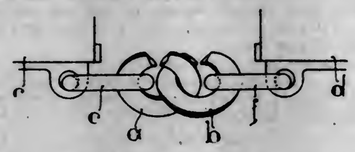
2. A protective coating composition consisting of liquid gutta-percha 20%, benzene 15%, ether 25%, rye flour 20%, and plumbago 20%.

3. A protective coating composition consisting of liquid gutta-percha, a volatile hydrocarbon, an ether, a cereal flour, and a mineral coloring and thickening ingredient.

4. A protective coating composition consisting of gutta-percha, volatile solvents therefor, a cereal flour containing gluten and an unctuous mineral.

5. The herein-described composition of matter for protective coating, containing gutta-percha, volatile solvents therefor, and a cereal flour containing gluten.

1,204,698. COUPLING FOR WAGONS. WERNER SCHILLING, Duisburg, Germany. Filed Mar. 31, 1914. Serial No. 828,440. (Cl. 213—61.)

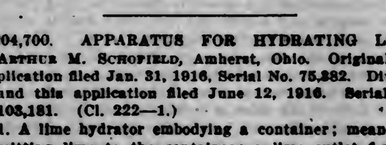


1. In a wagon coupling, a coupling ring having one portion thereof cut through, the cut ends of said ring being pointed, the surface of said points extending in oppositely inclined directions toward each other, said cut through portion being relatively narrow at the inner periphery of said ring and relatively wide at the outer periphery thereof.

2. In a wagon coupling, an oval coupling ring having one of the long sides thereof cut through, the cut ends of said ring being pointed, the surface of said points extending in oppositely inclined directions toward each other, and being leveled in more than two planes, said cut through portion being relatively narrow at the inner periphery of said ring and relatively wide at the outer periphery thereof.

3. In a wagon coupling, the combination with two freely hanging links, supported in stationary eyelets, and two matched coupling rings freely suspended in said links, said rings being of oval shape and having one of their long sides cut through, the cut ends of said rings being pointed, the surfaces of said points extending in oppositely inclined directions toward each other, said cut through portion being relatively narrow at the inner periphery of said ring and relatively wide at the outer periphery thereof, said cut through portions permitting coupling of said rings, at any position between right angular position with respect to each other and substantially 45° at either side thereof.

1,204,699. PROCESS FOR HYDRATING LIME. ARTHUR M. SCHOFIELD, Amherst, Ohio. Filed Jan. 31, 1916. Serial No. 75,382. (Cl. 222—1.)



1. An improvement in the process of slaking lime commercially, which consists in mingling the lime and water, raising the temperature of an independent body of water by the steam produced by the slaking of the lime, and retaining the steam under pressure apart from said independent body of water.

2. An improvement in the process of slaking lime commercially, which consists in mingling lime and water, raising the temperature of an independent body of water by steam produced by the slaking of the lime, retaining the steam under pressure apart from said independent body of water, and delivering said independent body of water independently of the steam onto the lime to effect a slaking of the lime.

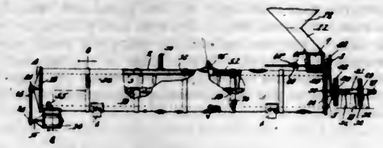
3. An improvement in the process of slaking lime, which consists in mingling water and lime in a container; retaining adjacent the intake end of the container, the heat generated by the slaking of the lime; and abstracting adjacent the outlet end of the container, the heat generated by the slaking of the lime.

4. An improvement in the process of slaking lime, which consists in mingling water and lime in a container to form a mixture; retaining adjacent the intake end of the container, the heat generated by the slaking of the lime; abstracting adjacent the outlet end of the container, the heat generated by the slaking of the lime; and regulating the passage of the mixture through the container to approximate a uniform speed.

5. An improvement in the process of slaking lime, which consists in mingling water and lime in a container; absorbing adjacent the outlet end of the container, by means of an independent body of water, the heat generated by the slaking of the lime, discharging the said independent body of water in a heated condition onto the lime adjacent the inlet end of the container, to slake the lime, and retaining the heat in the container adjacent the inlet end of the container.

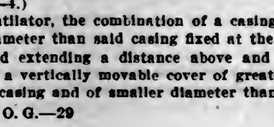
1,204,700. APPARATUS FOR HYDRATING LIME. ARTHUR M. SCHOFIELD, Amherst, Ohio. Original application filed Jan. 31, 1916, Serial No. 75,382. Divided and this application filed June 12, 1916. Serial No. 103,181. (Cl. 222—1.)

1. A lime hydrator embodying a container; means for admitting lime to the container; a lime outlet for the container; means for admitting water to the container; a heat retaining jacket located on the container adjacent the means for admitting lime; a water jacket located on the container adjacent the outlet; an inlet for the jacket; and an outlet for the jacket.



2. In a lime hydrator, a container; a lime inlet for the container; a lime outlet for the container; means for admitting water to the container; means for retaining adjacent the inlet, the heat created by the slaking of the lime; and means for salvaging, adjacent the outlet, the heat created by the slaking of the lime.

1,204,701. FOOT-PEDAL. ALBERT C. SCHULZ, Bridgeport, Conn., assignor to The Locomobile Company of America, Bridgeport, Conn., a Corporation of West Virginia. Filed Apr. 21, 1916. Serial No. 92,735. (Cl. 74—81.)



1. A foot pedal comprising, in combination, a foot-pad provided with an internal chamber and with a recess in substantially parallel planes, a plate disposed in said chamber, a second plate disposed in said recess, and provided with a part projecting therefrom in a direction transverse to said planes, a plurality of screw-threaded elements secured to the first plate and extending therefrom through an intervening portion of said foot-pad to and through the second plate, and other screw-threaded elements disposed on the outer face of the second plate and coöperating with the first screw-threaded elements to secure the second plate to the first plate and to said foot-pad.

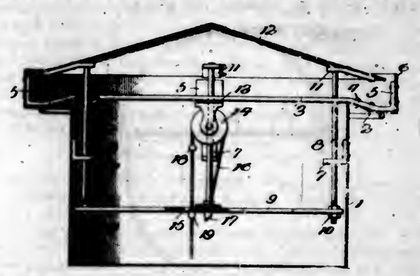
2. A foot pedal comprising, in combination, a foot-pad provided with an internal chamber and with a recess in substantially parallel planes, a plate disposed in said chamber, a second plate disposed in said recess and provided with fastening means, and other fastening means extending from one of said plates to the other and securing said plates to each other as well as to said foot-pad.

3. A foot pedal comprising, in combination, a foot-pad, an element embedded therein, a plate located externally of said foot-pad and having one face thereagainst, a projection extending from the opposite face of said plate, and fastening means securing said plate to said element and fastening said plate to said foot-pad.

4. A foot pedal comprising, in combination, a foot-pad, an element embedded therein, a plate located externally of said foot-pad and interengaging therewith, said plate being provided with an arm extending in a direction transverse to the plane of said plate, and fastening means extending from said plate to said element and serving to fasten said plate to said pad.

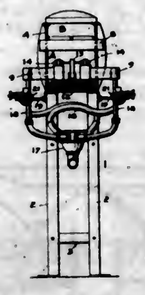
1,204,702. VENTILATOR. FERDINAND F. SCHUPP, Louisville, Ky. Filed Oct. 11, 1915. Serial No. 55,266. (Cl. 98—4.)

In a ventilator, the combination of a casing, a band of greater diameter than said casing fixed at the upper edge thereof and extending a distance above and below said edge, with a vertically movable cover of greater diameter than said casing and of smaller diameter than said band, and adapted to lie in normal elevated position with its effective peripheral edge a distance above the upper edge



of said band and means for raising and lowering said cover and maintaining the same in normal elevated position.

1,204,703. GAS HEATING-FURNACE. FRANK BARLOW SCHUYLER, Berkeley, Cal. Filed May 10, 1913. Serial No. 766,836. (Cl. 263—9.)



1. In a device for heating a vehicle spring, removable pins for holding said spring in an adjusted position, a burner for heating said spring, bolts adjustably mounted on said burner engaging said spring and adapted to regulate the space therebetween.

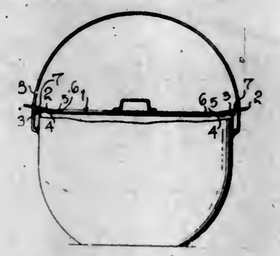
2. In a heating device of the character described, removable pins for holding material to be heated, a vertically and horizontally adjustable burner provided with bolts adjustably secured thereon and projecting therefrom engaging said material and adapted to regulate uniformly the space between said material and the burner.

3. In a device for heating vehicle springs, a base, a chamber mounted on said base, means in said chamber for holding said springs in an adjusted position, a burner for heating said springs and adjustable means on said burner engaging said springs adapted to regulate the space between said springs and burner.

4. In a device of the character described, a furnace comprising a frame, a two vertically disposed compartment chamber supported thereby, one of said compartments provided with removable bars adapted to support springs for preliminary warming and the other adapted for heating the springs, said latter compartment provided with adjustable burners arranged to project heat on both sides of said springs, adjustable means for supporting said springs on their side edges, and means for introducing mixed air and gas to said burners.

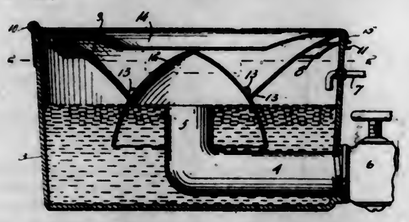
5. A gas heating device comprising a frame, a chamber supported thereby having a lower and an upper vertically disposed compartment, removable means in said upper compartment for supporting springs to be warmed, and adjustable burners in the lower compartment for heating said springs, and means for introducing mixed air and gas into said burners.

1,204,704. KETTLE-COVER. CHARLES D. SCOFIELD and GEORGE F. KEARNEY, Gorham, N. Y. Filed Sept. 20, 1915. Serial No. 51,640. (Cl. 53—8.)



A cover for kettles and the like, provided at diametrically opposite points with bail holding members, each of which consists of a single piece of wire bent intermediate of its ends to form substantially parallel arms and crimped inwardly at one end of said arms to form bail receiving sockets, the other ends of said arms being pivotally connected to the cover at a point contiguous to the adjacent portion of the edge thereof and the arms being of a length greater than the distance between the point of connection and said edge, and the sockets being elongated and arranged to permit of a sliding movement of a bail therein longitudinally of the socket.

1,204,705. CUSPIDOR. FREDERICK H. SCOTT, Leeds, England. Filed Feb. 17, 1916. Serial No. 78,949. (Cl. 4—40.)

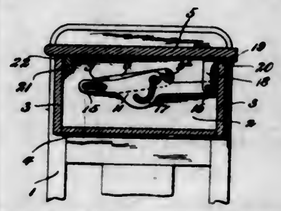


In a device of the class described, a vessel open at its upper end, a drain pipe projecting into said vessel having its ends turned upwardly adjacent the central portion thereof and terminating below the upper edges of said vessel, a lid hingedly connected to said vessel and adapted to swing thereover, a dome arranged on said lid to inclose the open end of said drain pipe when said lid is swung to closed position, the said lid being provided with apertures adjacent said dome, a flange arranged upon the interior of said vessel adjacent the upper edges thereof, and means for supplying fluid to said vessel, substantially as described.

1,204,706. COMBINED PIANO AND PLAYER-PIANO BENCH. WENDELIN P. SENG, Chicago, Ill., assignor to The Seng Company, Chicago, Ill., a Corporation of Illinois. Filed Mar 24, 1916. Serial No. 86,352. (Cl. 155—22.)

1. In a piano-bench, the combination with opposite standards, means for connecting the standards, seat-supports projecting from the standards, and a seat movably mounted on the supports, of a slidable hinge-member connected to each standard, and a fixed hinge-member pivoted to the rear end of each of the slidable members and secured to the rear edge of the seat, whereby the seat may be moved rearwardly and upwardly at its rear end and hence inclined with relation to its supports.

2. In a piano-bench, the combination with opposite standards, a receptacle embodying a rear bar connecting the standards, and a seat movably mounted on the receptacle between the standards and supported at its rear edge by said rear bar, of a vibratory reciprocating hinge-member connected to each of the standards, and fixed hinge-members connected to the seat and pivoted at their lower ends to the rear ends of the vibratory reciprocating hinge-members, whereby the rear edge of the seat may be moved rearward and upward so as to incline the same and the rear ends of the hinge-members caused to rest upon said rear bar.



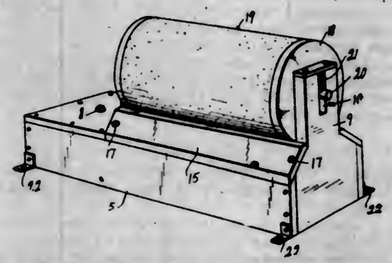
3. In a piano-bench, the combination with opposite standards, and means for connecting the same, of a pair of headed studs projecting from each of said standards and arranged one in advance of the other, hinge-plates carried by the studs and each provided with a straight and a curved slot for receiving the studs, a seat between the standards, supports for the seat, and bracket-arms depending from the seat near its rear edge and pivoted to the rear ends of the hinge-plates, whereby the seat is capable of being vertically and rearwardly moved and the rear ends of the hinge-plates caused to rest upon the seat-supports.

4. In a piano-bench, the combination with opposite standards, the box-like receptacle connecting the same and embodying front and rear bars, of guide-plates secured to the standards and having headed studs, cam-plates having front and rear straight and curved slots, respectively, mounted on the studs, a seat adapted to serve as a lid mounted on the receptacle, and bracket-arms depending from the seat and connected pivotally with the rear ends of the cam-plates, whereby said seat may be elevated at its rear end and moved rearward to bring said bracket-arms over the said rear bar.

5. In a piano-bench, the combination with opposite standards, and a box-like receptacle connecting the same and embodying a front bar, of a seat movably supported between the standards and at its front edge on said front bar, means for vertically adjusting the rear edge of the seat so as to incline the same, and a strip hinged at the upper edge of the front bar and adapted to be folded out of position at the rear side of the same or forwardly upon the bar so as to form an elevated support for the front edge of the seat.

[Claims 6 to 8 not printed in the Gazette.]

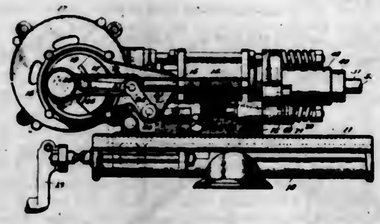
1,204,707. HOG-OILER. ARCH G. SMITH, Mapleton, Iowa. Filed Feb. 2, 1916. Serial No. 75,806. (Cl. 119—157.)



1. A hog oiler including a reservoir, a roller rotatably mounted in said reservoir and provided with an absorbent peripheral sheet, transversely inclined bars secured upon the upper edges of the side walls of the reservoir and projecting inwardly and upwardly over said roller, and a second roller rotatably mounted above said first named roller and projecting downwardly below the inner edges of said bars, said second roller also having an absorbeat sheet contacting with the absorbent sheet of the first named roller and adapted to be engaged by the hide of the animal, surplus oil expressed from the covering of the second named roller being directed by the inclined bars upon the hide of the animal.

2. A hog oiler including a reservoir having a supply chamber at one end in communication with the reservoir proper, a roller rotatably mounted in said reservoir having an absorbent peripheral sheet, longitudinally extending transversely inclined bars secured to the upper edges of the side walls of the reservoir and projecting inwardly over said roller in spaced relation thereto, a second roller rotatably mounted above said first named roller and also having an absorbent peripheral sheet, said second roller projecting over the upper edges of said inclined bars and springs normally acting to force said latter roller downwardly in contact with the periphery of the first named roller.

1,204,708. ROCK-DRILL. WILLIAM A. SMITH, Denver, Colo., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo., a Corporation of Delaware. Filed Sept. 26, 1914. Serial No. 863,664. (Cl. 125—20.)



1. In drilling apparatus, the combination with a motor, comprising a cylinder member and a piston operating therein, of a compressor comprising a cylinder member and a piston operating therein, means for driving the compressor piston, including a pitman, a tool-holding chuck, and means actuated by said pitman for rotating the chuck.

2. In drilling apparatus, the combination with a motor, comprising a cylinder member and a piston operating therein, of a compressor comprising a cylinder member and a piston operating therein, means for driving the compressor piston, including a pitman, a tool-holding chuck, and means operated by said pitman for effecting a step-by-step rotation of the chuck.

3. In drilling apparatus, the combination with a motor, comprising a cylinder member and a piston operating therein, of a compressor comprising a cylinder member and a piston operating therein, means for driving the compressor piston, including a pitman, a rotatable tool-holding chuck, a shaft geared thereto, ratchet mechanism for rotating the shaft, and means actuated by the pitman for operating the ratchet mechanism.

4. In drilling apparatus, the combination with a motor, comprising a cylinder member and a piston operating therein, of a compressor comprising a cylinder member and a piston operating therein, means for driving the compressor piston, including a pitman, a rotatable tool-holding chuck, a shaft geared thereto, a ratchet element on the shaft, a rock shaft having a coacting ratchet element, and means operated by the pitman for rocking said shaft.

5. In drilling apparatus, the combination with a motor, comprising a cylinder member and a piston operating therein, of a compressor comprising a cylinder member and a piston operating therein, means for driving the compressor piston, including a pitman, a rotatable tool-holding chuck having gear teeth thereon, a shaft geared to said gear teeth, a rock shaft in line with the first-mentioned shaft, a ratchet connection between the two shafts for imparting a step-by-step rotation to the former upon the rocking movement of the latter, a crank shaft geared to the rock shaft, and a pitman connection between the compressor pitman and the crank shaft.

[Claims 6 to 12 not printed in the Gazette.]

1,204,709. COATING PROCESS. WALTER O. SNELLING, Pittsburgh, Pa. Filed Aug. 2, 1915. Serial No. 43,124. (Cl. 91—70.)

1. The process of coating finely-divided material that comprises treating the material with a liquid coating substance containing a vaporizable vehicle, placing the treated material in a closed container, heating the contents of the said container above the boiling point of the said vehicle, and suddenly opening the container.

2. The process of coating finely-divided material that comprises treating metallic particles with a liquid coating substance containing a vaporizable vehicle, placing the treated material in a closed container, heating the contents of the said container above the boiling point of the said vehicle, and suddenly opening the container.

3. The process of treating finely-divided material that comprises applying to the material a liquid coating substance containing a vaporizable vehicle and a combustible residue, placing the treated material in a closed container, heating the contents of the said container above the boiling point of the said vehicle, and suddenly opening the container.

4. The process of coating finely-divided material that comprises applying to the material a liquid coating substance containing a vaporizable vehicle and a combustible cellulose ester, placing the treated material in a closed container, heating the contents of the container above the boiling point of the said vehicle, and suddenly opening the container.

5. The process of preparing metallic particles for pyrotechnic use that comprises treating such particles with a liquid coating substance containing a vaporizable vehicle and a combustible cellulose ester, placing the treated material in a closed container, heating the contents of the container above the boiling point of the said vehicle, and suddenly opening the container.

[Claim 6 not printed in the Gazette.]

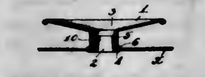
1,204,710. LIFTING DEVICE. EUGENE E. SNYDER and EDWARD W. HARRIS, Raymond, Alberta, Canada. Filed Dec. 7, 1915. Serial No. 65,632. (Cl. 254—112.)



A lifting device comprising a support, a pair of lifting bars carried by the support, one of said bars being telescopically mounted within the other and having a rack on its front face, and said other bar comprising two members connected in laterally spaced relation and having racks on their front edges, the rack teeth of the respective edges being in pairs and opposite each other, a lever having a toe to engage the first mentioned rack, and provided with toes on opposite sides of said toe to

engage the second mentioned racks, a swinging fulcrum for the lever for successively engaging the respective toes with the racks of the respective bars, and means for fastening the lifting bars together.

1,204,711. FASTENING DEVICE. GEORGE C. SNYDER, New York, N. Y. Filed Oct. 4, 1913, Serial No. 793,492. Renewed Apr. 6, 1916. Serial No. 89,474. (Cl. 24—94.)



1. A fastening device comprising inner and outer telescopic tubular members, one of said members having a portion of reduced diameter extending throughout a part of its length to constitute with the other member an annular clamping space for the fabric to which the device is secured.

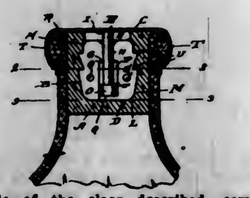
2. A fastening device comprising inner and outer telescopic tubular members having central openings extending completely therethrough, one of said members having a portion of reduced diameter extending throughout a part of its length to constitute with the other member an annular clamping space for the fabric to which the device is secured.

3. A fastening device involving inner and outer members, one of said members comprising a button head having an integral tubular stem and the other member comprising a coaxial thimble telescoping with said stem, one of said members having a portion of reduced diameter extending throughout a part of its length to constitute with the other member an annular clamping space for the fabric to which the device is secured.

4. A button involving inner and outer members, one of the same comprising a head and an integral tubular stem and the other comprising a coaxial thimble attached to said stem, one of said members having a portion of reduced diameter extending throughout a part of its length to constitute with the other member an annular fabric clamping space, the end of the thimble extending beyond the stem and adapted to be turned outwardly to form a clamping flange coöperating with the lower edge of the stem.

5. A button involving inner and outer members, one of the same comprising a head and an integral tubular stem having a flange on the lower end thereof and the other comprising a coaxial thimble attached to said stem, one of said members having a portion of reduced diameter extending throughout a part of its length to constitute with the other member an annular fabric clamping space, the end of the thimble extending beyond the stem and adapted to be turned outwardly to form a clamping flange cooperating with the flange on the stem.

1,204,712. STOPPER. THOMAS C. SPELLING, New York, N. Y. Filed July 18, 1916. Serial No. 109,922. (Cl. 215—53.)



1. An article of the class described, comprising, a stopper having a well formed therein, a core formed of complemental sections insertible in said well, and a pulling means carried by said core.

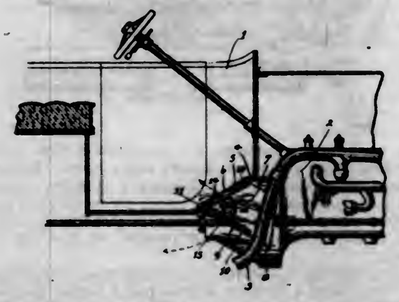
2. An article of the class described, comprising a stopper having a well formed therein, a core formed of complemental sections insertible in said well, a pulling means carried by said core, said core sections having roughened exterior surfaces, and said core having an increased cross sectional dimension over that of said well.

3. An article of the class described, comprising a stopper having a well formed therein, said well having oppositely recessed portions, a core formed of complemental sections insertible in said well, said core sections having extensions thereon to engage in the recessed portions of said well, said core having a volume to expand said stopper when inserted therein, and a pulling means carried by said core sections.

4. An article of the class described, comprising, a stopper having a well, formed therein, a core insertible in said well, said core being formed of complemental sections, said core sections having exterior roughened surfaces, said core sections having recessed inner faces, a shoulder formed by the inner recessed portions, a stem insertible between said core sections in said recesses, a cap carried by said stem, and an enlarged head formed on said stem to coact with the shoulder in pulling said stopper.

5. An article of the class described, comprising, a stopper having a well formed therein, a core formed of complemental sections insertible in said well, said core sections being of similar configuration, said sections having recesses formed therein of different proportions to form a shoulder, extensions from each section to coact with those of the other in forming a bottom for said recess, interlocking means carried by each section for coaction with those of the other, and said core sections having roughened exterior surfaces to impinge against the inner wall of said well.

1,204,713. AUTO-HEATER. KENNETH E. STRAIN and HOMER E. DAWSON, Reynoldsburg, Ohio. Filed Mar. 8, 1916. Serial No. 82,989. (Cl. 237—21.)



1. The combination with the foot board of an automobile having an opening therein, of a grid covering said opening, a cowl coöperatively mounted with respect to the engine exhaust pipe, said cowl having an opening in its rear wall, and a movably supported deflector plate movable to assume position covering either the opening in said cowl or said grid.

2. The combination with the foot board of an automobile having an opening therein, of a grid covering said opening, a cowl coöperatively mounted with respect to the engine exhaust pipe, said cowl having an opening in its rear wall, a pivotally supported deflector plate movable to assume position covering either the opening in said cowl or said grid, means for locking said plate in one of said positions, and spring means for urging said plate to assume the other position.

1,204,714. TIME-STAMP. WILLIAM F. STRAUB, Chicago, Ill., assignor to Electric Time Recorder Company, Chicago, Ill. Filed Jan. 19, 1914. Serial No. 818,132. (Cl. 197—151.)

1. In a device of the character described the combination with a plurality of take up rolls, a ratchet for each roll, a reciprocating plate, a pair of pawls one for each ratchet mounted upon said plate, and means for associating one or the other of said pawls with its associated ratchet wheel, said means including a rocking bar adapted to control both pawls and a second rocking bar having its position controlled by the thickness of the ribbon on one or the other of the take up rolls, said first aforesaid rocking bar having a cam and said second aforesaid rocking bar having a spring pressed plunger for engaging said cam.

2. In a device of the character described the combination with a plurality of take up rolls, a ratchet for each roll, a reciprocating plate, a pair of pawls one for each ratchet mounted upon said plate, and means for associating one or the other of said pawls with its associated ratchet wheel, said means including a rocking bar adapted to control both pawls and a second rocking bar having its position controlled by the thickness of the ribbon on one or the other of the take up rolls, said first aforesaid rocking bar having a cam and said second aforesaid rocking bar having a spring pressed plunger for engaging said cam.

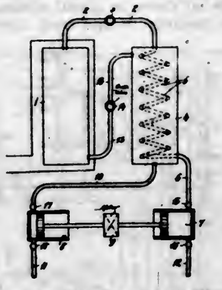
3. In a device of the character described the combination with a plurality of take up rolls, a ratchet for each roll, a reciprocating plate, a pair of pawls one for each ratchet mounted upon said plate, and means for associating one or the other of said pawls with its associated ratchet wheel, said means including a rocking bar adapted to control both pawls and a second rocking bar having its position controlled by the thickness of the ribbon on one or the other of the take up rolls, said first aforesaid rocking bar having a cam and said second aforesaid rocking bar having a spring pressed plunger for engaging said cam, said pawls being pivotally mounted upon said reciprocating plate through the agency of pivotally mounted arms controlled by said first aforesaid rocking bar.

1,204,715. CLOSING MEANS FOR JARS AND OTHER VESSELS. JOHN SCOTT TAYLOR, London, England. Filed Apr. 11, 1912. Serial No. 690,061. (Cl. 215—92.)



In combination with an open ended container formed with annular recess so as to leave a flange near its mouth, the flange being provided with recesses in its under surface, packing disposed on the upper end of the container, a cover disposed on the packing and provided with a central depression and a diametrical slot, and a resilient securing member disposed in the slot and provided with depending ends, one of which ends is formed with an inwardly projecting lateral extension to engage under the flange of the container and the other of which ends is provided with a lateral extension terminating in an upwardly projecting toe arranged to engage in the adjacent recess in the flange of the container.

1,204,716. METHOD OF EVAPORATION AND DISTILLATION OF LIQUIDS. CARL THEODOR THORSELL, Gottenborg, Sweden. Filed Sept. 8, 1914. Serial No. 860,707. (Cl. 203—5.)



1. A method of evaporation and distillation of liquids characterized by carrying out the evaporation or distillation at the pressure and temperature corresponding to or near the critical point of the liquid, as and for the purpose specified.

2. A method of evaporation and distillation of liquids consisting in generating the vapor at or near the critical point of the liquid and exposing the vapor, when leaving the distillation vessel, to a small fall of pressure and temperature in such manner that the vapor is condensed, *i. e.*, so that its pressure becomes higher than the pressure corresponding to the pressure of saturated vapor at the prevailing temperature.

3. A method of evaporation and distillation of liquids, consisting in generating the vapor at or near the critical point of the liquid and conducting the liquid to be distilled in such a path to the distillation vessel that it may receive heat from the liquid already distilled, in order that this heat or a part thereof may be used to bring more liquid to the critical point.

4. A method of evaporation and distillation of liquids, consisting in generating the vapor at or near the critical point of the liquid and using the distilled liquid, still under high pressure, or a part thereof as motive fluid for forcing more liquid into the vessel in which the distillation takes place.

5. A method of evaporation and distillation of liquids, consisting in generating the vapor at or near the critical point of the liquid and causing the liquid to be distilled to pass the liquid already distilled by means of the pressure of the latter liquid in such a path that it becomes heated before it is forced into the vessel (1), in order that both the pressure and the heat of the liquid distilled may be utilized.

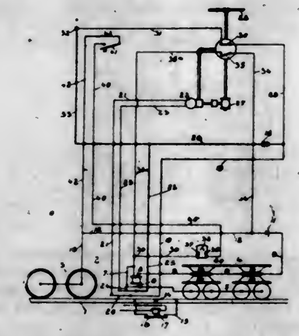
1,204,717. TRAIN-CONTROL SYSTEM. GUY P. THURBER, Pittsburgh, Pa. Filed Mar. 12, 1913. Serial No. 753,705. (Cl. 246—58.)

1. A system of train control comprising: a traffic track, a train, train controlling means, a normally closed circuit normally holding said train controlling means against operation, means including a circuit normally completed through said traffic track for holding said train controlling circuit closed, and manually operable means for maintaining said circuit closing means in circuit closing condition regardless of the condition of said track circuit.

2. A system of train control comprising: a traffic track, a train, train controlling means, a normally closed circuit normally holding said train controlling means against operation, means including a circuit normally completed through said traffic track for holding said train controlling circuit closed, and means under the control of the engineer for maintaining said circuit closing means in circuit closing conditon regardless of the condition of said track circuit.

3. A system of train control comprising: a traffic track, a train, train controlling means, a normally closed circuit normally holding said train controlling means against

operation, means including a circuit normally completed through said traffic track for holding said train controlling circuit closed, and means controlled by the speed of the train including a manually operable means for maintaining said circuit closer in circuit closing condition regardless of the condition of said track circuit.



4. A system of train control comprising: a traffic track, a train, train controlling means, a normally closed circuit normally holding said train controlling means against operation, means including a circuit normally completed through said traffic track for holding said train controlling circuit closed, means controlled by the speed of the train including a manually operable means for maintaining said circuit closer in circuit closing condition regardless of the condition of the track circuit, and means for maintaining said circuit closer in circuit closing condition regardless of the speed of the train and of the condition of said track circuit.

5. A system of train control comprising: a traffic track, a train, train controlling devices, a normally closed train controlling circuit, normally completed through the track, normally holding said train controlling means inoperative, track means for rupturing said train controlling circuit, means controlled by the speed of the train for automatically permitting said train circuit to be completed without passing through the track when the speed of the train falls below a certain rate, and means for completing said train circuit without passing through the track and regardless of the speed of the train.

[Claims 6 and 7 not printed in the Gazette.]

1,204,718. SUCTION CARPET-SWEEPER. JOHN R. VANDER PUTTEN, New Philadelphia, Ohio. Filed Sept. 18, 1916. Serial No. 120,594. (Cl. 15—60.)



1. In a suction carpet sweeper of the character described, a hollow casing arranged to be moved upon a floor, the lower extremity of said casing being open and arranged to be located in juxta-position to the floor, a suction creating device located within said casing, driving wheels rotatably mounted upon said casing, a plurality of partitions dividing the lower portion of said casing into a plurality of compartments, rotary brushes mounted in the end compartments, and means operatively connecting said driving wheels and said brushes, the central compartment being unobstructed.

2. In a suction carpet sweeper of the character described, a hollow casing arranged to be moved upon a floor, the lower extremity of said casing being open and arranged to be located in juxta-position to the floor, a suction creating device located within said casing, driving wheels rotatably mounted upon said casing, a plurality of partitions dividing the lower portion of said casing into a plurality of compartments, rotary brushes mounted in the end compartments, means operatively connecting said driving wheels and said brushes, the central compartment being unobstructed, and a cut away portion in the lower forward edge of the front wall of said central compartment.

3. In a suction carpet sweeper of the character described, a hollow casing, a suction creating device located within said casing, an oblong frame detachably connected to the under open side of said casing, driving wheels rotatably mounted within said frame, transversely disposed partitions dividing said frame into a plurality of rectangular compartments, rotary brushes mounted in the end compartments, and means operatively connecting said driving wheels and said brushes, the central compartment being unobstructed.

4. In a suction carpet sweeper of the character described, a hollow casing, a suction creating device located within said casing, an oblong frame detachably connected to the under open side of said casing, driving wheels rotatably mounted within said frame, transversely disposed partitions dividing said frame into a plurality of rectangular compartments, and a cut away portion in the lower forward edge of the front wall of said central compartment.

5. In a suction carpet sweeper of the character described, a hollow casing, a suction creating device located within said casing, an oblong frame detachably connected to the under open side of said casing, driving wheels rotatably mounted within said frame, transversely disposed partitions dividing said frame into a plurality of rectangular compartments, and a cut away portion in the lower forward edge of the front wall of said central compartment, bearings mounted upon said partitions, rotary brushes journaled in said bearings and located within the end compartments, and means operatively connecting said driving wheels and said brushes, the central compartment being unobstructed.

[Claim 6 not printed in the Gazette.]

1,204,719. TWO-PART SUIT. JOHN M. VAN HEUSEN, Jamaica Plain, Mass. Filed Jan. 19, 1915. Serial No. 3,010. (Cl. 2—143.)



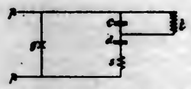
1. In a two-part suit, an upper garment and a lower garment, the upper garment overhanging the lower garment outside thereof and a supporting girdle interlacing in the two garments, to prevent objectionable separation thereof when worn, the interlacing of the girdle with the upper garment being confined to the side portions thereof at the waist line immediately above the hips.

2. In a two-part suit, an upper garment and a lower garment, the upper garment overhanging the lower garment outside thereof and a sash interlacing in the two garments, to prevent objectionable separation thereof when worn, the sash being long enough to permit partial removal of the lower garment without disengaging the sash from the upper garment.

3. In a two-part suit, an upper garment and a lower garment, the upper garment overhanging the lower garment outside thereof and a supporting girdle interlacing in the two garments, to prevent objectionable separation thereof when worn, the interlacing of the girdle with the upper garment being confined to the side portions thereof at the waist line immediately above the hips, the said portions of the upper garment being in the form of tabs detachably connected to the jacket at one end.

4. In a two-part suit, an upper garment and a lower garment, the upper garment overhanging the lower garment outside thereof, and a supporting girdle attached to the back portion of the lower garment and adapted to interlace with the upper garment to prevent objectionable separation of the garments when worn, the interlacing of the girdle with the upper garment being confined to the side portions thereof at the waist line immediately above the hips.

1,204,720. CIRCUIT ARRANGEMENT FOR WIRELESS TRANSMITTERS. EGBERT VON LEPEL, Berlin-Wilmersdorf, Germany. Filed Feb. 11, 1914. Serial No. 818,125. (Cl. 250—17.)



1. In a wireless transmitter, a main oscillation circuit of high frequency including a condenser and a coil in series, and an auxiliary oscillation circuit arranged in a shunt which bridges a portion of the condenser capacity of said main circuit, said auxiliary circuit having a low-frequency period of oscillation such as corresponds to sounds audible to the human ear.

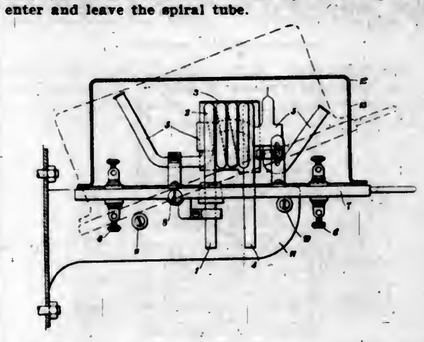
2. In a wireless transmitter, a main oscillation circuit of high frequency including a condenser and a coil in series, and an auxiliary oscillation circuit arranged in a shunt which bridges a portion of the condenser capacity of said main circuit, on the side farthest away from the said coil, said auxiliary circuit having a low-frequency period of oscillation such as corresponds to sounds audible to the human ear.

3. In a wireless transmitter, a main oscillation circuit of high frequency including a condenser and a coil in series, and an auxiliary oscillation circuit arranged in a shunt which bridges a portion of the condenser capacity of said main circuit, and includes a coil, said auxiliary circuit having a low-frequency period of oscillation such as corresponds to sound audible to the human ear.

1,204,721. APPARATUS FOR STERILIZING LIQUIDS BY MEANS OF ULTRA-VIOLET RAYS. MAX VON RECKLINGHAUSEN, Paris, France, assignor, by mesne assignments, to The R. U. V. Company, Inc., a Corporation of New York. Filed Mar. 9, 1912. Serial No. 682,719. (Cl. 210—1.)

1. The combination with a source of ultra-violet rays of a complete or closed spiral tube formed of material permeable to said rays, surrounding said source, and inlet and outlet tubes by which liquid may enter and leave the spiral tube.

2. The combination of a mercury vapor lamp having an inverted U-shaped container forming a source of ultra-violet rays, a complete or closed spiral tube formed of material permeable to said rays surrounding said container, and inlet and outlet tubes by which liquid may enter and leave the spiral tube.

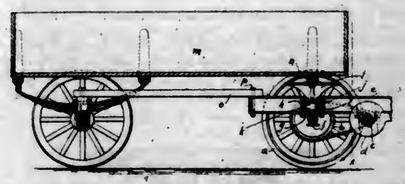


3. The combination of a mercury vapor lamp having a container of quartz, a complete or closed spiral tube of quartz surrounding said container, and inlet and outlet tubes by which liquid may enter and leave the spiral tube.

4. The combination of a source of ultra-violet rays, a complete or closed spiral tube formed of material permeable to said rays surrounding said source, and a water jacket surrounding said spiral tube for the purpose of cooling the same.

5. The combination of a source of ultra-violet rays, a complete or closed spiral capillary tube formed of material permeable to said rays surrounding said source, and means for forcing a liquid through the spiral tube.

1,204,722. VEHICLE-AXLE. GEORGE A. WARNER, Springwells, Mich. Filed Mar. 11, 1916. Serial No. 83,450. (Cl. 21—90.)



1. In a vehicle, the combination of an axle, a bolster provided with trunnions, pillow blocks and pillow caps located on the ends of the axle and provided with cylindrical recesses to receive the trunnions, and offset recesses, and projections on the trunnions for engaging in said offset recesses to limit the relative movement of the truunions in the pillow blocks and caps.

2. In a vehicle, the combination of an axle, a bolster provided with trunnions, and pillow blocks and pillow caps mounted on the axle and each provided with a cylindrical socket and an offset recess connecting therewith and each trunnion provided with a projection adapted to engage in the offset recess, substantially as described.

3. The combination with a propelled vehicle, having a rear axle provided with pillow blocks and caps, of a trailer-supporting bolster, comprising a platform upon which the trailer body may rest, and a pair of depending arms having trunnions on their ends journaled in the pillow blocks and caps.

4. The combination with a propelled vehicle having a rear axle provided with pillow blocks, of a trailer supporting bolster comprising a platform upon which the trailer body may rest, a pair of depending arms having trunnions on their ends journaled in the pillow blocks, and means on the pillow blocks engaging portions of the trunnions for limiting the rocking movement of the platform, substantially as described.

1,204,723. DISPLAY-MOUNT FOR BOTANICAL OR OTHER SPECIMENS. PERCY E. WHITE, Mansfield, Mass. Filed June 22, 1916. Serial No. 105,262. (Cl. 35—12.)



A display holder and mount for botanical and other specimens comprising a holder having a back, a transparent front, side and bottom spacing strips between said front and back, binding strips at the sides and bottom of said holder which lap over onto the front and back, a sealing lap secured at one edge to one face of the said holder and having a gummed flap extension thereof, in combination with a slide to which the specimen is to be attached, the spacing strips and the back being constructed to form grooves to receive said slide, said slide having a filler strip crosswise thereof at its upper end which closes the upper end of the space between the slide and the transparent front when the slide is inserted in the holder, the said sealing flap being adapted to be folded over the upper end of the slide and filler and adhesively secured to the other face of the holder.

1,204,724. STEERING-WHEEL. SAMUEL O. WHITE and WILLIAM W. PECK, Muncie, Ind., assignors to Warner Gear Company, Muncie, Ind., a Corporation of Indiana. Filed May 1, 1916. Serial No. 94,544. (Cl. 74—33.)



1. A steering wheel for automobiles comprising a cross head designed for attachment to a steering shaft, a pair of brackets pivotally supported upon the outer ends of said cross head, one of said pivotal supports being axially bored, a rim carrying said brackets, and a locking pin mounted in said axial bore and forming a retractable lock between the cross head and one of said brackets.

2. A steering wheel for automobiles comprising a cross head designed for attachment to a steering shaft and provided at its ends with diametrically opposed sockets, a pair of brackets having bores in alinement with said sockets, a rim carrying said brackets, a pair of pivot pins projected through said brackets into the cross head sockets, one of said pins being hollow, and a locking pin mounted in said hollow pivot pin for engaging and holding the adjacent bracket in operative position.

3. A steering wheel for automobiles comprising a cross head designed for attachment to a steering shaft, a rim, pivotal connections between said rim and the opposite ends of the cross head, one of said pivotal connections being axially bored, and a locking member arranged within said bore.

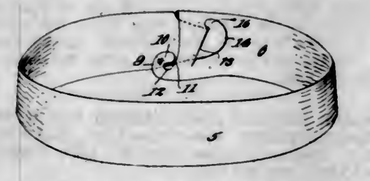
1,204,725. PROPELLER FOR THE PERCUSSION MECHANISM OF VARIOUS PROJECTILES. NIELS WALTERSEN AASEN, Copenhagen, Denmark. Filed Nov. 18, 1915. Serial No. 62,164. (Cl. 102—39.)



1. A propeller for percussion mechanisms for projectiles of the character specified, having a central part of a conical shape, provided with wings bent back at right angles to the axis of the propeller and slightly turned downward.

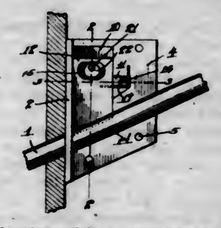
2. A propeller for percussion mechanisms of projectiles of the character specified, having a central part of a conical shape with wings bent away from the axis of the propeller, and slightly turned downward.

1,204,726. COLLAR. ISAAC ADELBERG, and MAX J. SINDLER, Baltimore, Md. Filed July 31, 1914. Serial No. 854,425. (Cl. 2—69.)



A collar comprising an inner and outer fold, said inner fold being provided with an integral hook-like attaching means at each end thereof and which are formed by shaping the extremities of the fold so that they will lie in alinement with said fold, and a slit formed in one end of the fold for engaging with the hook-like means on the other end, the other hook-like means being formed and located to engage a collar button in the shirt for attaching the front of the collar to the shirt.

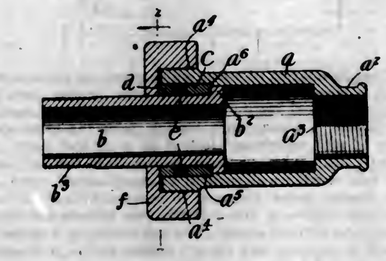
1,204,727. LOCK. ELMER ADRIAN, St. Louis, Mo. Filed Nov. 28, 1914. Serial No. 874,568. (Cl. 70—90.)



1. The combination with a steering rod of a vehicle, having a plurality of slots therein, and a dash-board, of a base plate disposed about the steering rod and secured to the dash-board, a sectional lock body clamped about the rod and having one section integral with the base plate, a locking plate slidably mounted between the sections of the lock body for removable engagement with the slots in the rod, resilient means for holding the locking plate in engagement with one of the slots in the rod, a spindle rotatably mounted in the body and associated with the locking plate so as to impart a sliding movement to the plate against the tension, of the resilient means, locking means mounted in the spindle for engagement with the lock body for preventing rotation of the spindle, other resilient means for normally holding the locking means and the spindle in engagement with the body, and a key engageable with the body for releasing the locking means and for rotating the spindle to consequently slide the locking plate and release the rod.

2. The combination with the steering rod of a vehicle having a plurality of slots therein and a dashboard, of a base plate disposed about the steering rod and secured to the dashboard, a lock body including two sections disposed about the rod and one of which is formed integral with the plate, said sections being provided with complementary registering recesses on their inner faces, a plate slidably mounted in said recesses for engagement with one of the slots in the rod for preventing the rotation of the rod, said plate being provided with a substantially oval-shaped opening, a spring member mounted between the sections and in engagement with the plate for normally holding the plate in engagement with one of the recesses, an actuating spindle rotatably mounted in one of said sections and having the inner end reduced and extended through the opening into the other of the sections, a cam mounted on the reduced end and disposed in the opening for raising the plate when the spindle is rotated, means for preventing rotation of the spindle and means for rotating the spindle.

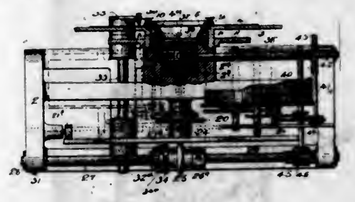
1,204,728. PIPE-COUPLING. ERNEST M. ARENA, Brooklyn, N. Y. Filed Aug. 25, 1914. Serial No. 858,422. (Cl. 137—28.)



1. A slip pipe coupling device comprising a main tubular member provided near one end with external screw threads, the inner surface of said member being recessed for a portion of its length to form an annular shoulder, a supplemental tubular member inserted in the externally threaded end of the main tubular member and provided at its inner end with an annular projecting flange which slidably engages a portion of the inner surface of the main member, the recessed portion of the main member and the inserted portion of the supplemental member forming an annular packing chamber, a metallic packing ring provided in said chamber and engaging said annular shoulder, a fiber packing ring provided in said chamber and engaging said metallic ring, a second metallic ring arranged in the chamber and abutting against the fiber ring, and a screw threaded cap screwed onto the threaded end of the main tubular member and through which the supplemental member is freely movable, said cap being also adapted to compress said packings.

2. A slip pipe coupling device comprising a main tubular member provided near one end with external screw threads, the inner surface of said member being recessed for a portion of its length to form an annular shoulder, a supplemental tubular member inserted in the externally threaded end of the main tubular member and provided at its inner end with an annular projecting flange which slidably engages a portion of the inner surface of the main member, the recessed portion of the main member and the inserted portion of the supplemental member forming an annular packing chamber, a metallic packing ring provided in said chamber having a surface co-extensive with the shoulder and the flange and engaging said annular shoulder, a fiber packing ring provided in said chamber and engaging said metallic ring, a second metallic ring arranged in the chamber and abutting against the fiber ring, and a screw threaded cap screwed onto the threaded end of the main tubular member and through which the supplemental member is freely movable, said cap being also adapted to compress said packings.

1,204,729. RECORDING AND INTEGRATING INSTRUMENT. ROBERT F. ARNOTT, Montclair, N. J., assignor to Gamaliel C. St. John, Greenwich, Conn. Filed June 2, 1915. Serial No. 31,660. (Cl. 234—6.)



1. An instrument of the kind described comprising an integrator, a motor to operate the integrator, a second motor, and means interposed between said motors for controlling the operation of the first named motor by the second named motor.

2. An instrument of the kind described comprising a disk, means to support the disk, means to operate the disk, an integrator, means to operate the integrator, and means interposed between the disk and the integrator operating means for controlling the operation of the latter by and in accordance with the operation of the disk.

3. An instrument of the kind described comprising a disk, means to support the disk, means to operate the disk, an integrator, means to operate the integrator, and gearing interposed between the disk and the integrator-operating means for controlling the operation of the latter by and in accordance with the operation of the disk.

4. An instrument of the kind described comprising an integrator, a motor to operate the integrator, a second motor, and means interposed between said motors to variably control the first named motor.

5. An instrument of the kind described comprising an integrator, a motor to operate the integrator, a second motor, a disk, means to operate the disk by the second motor, a friction wheel to coact with the disk, a shaft slidably supporting the friction wheel for variable rotation of the disk and wheel, gearing interposed between said shaft and the first named motor, and means separate from either motor to adjust the friction wheel against said disk.

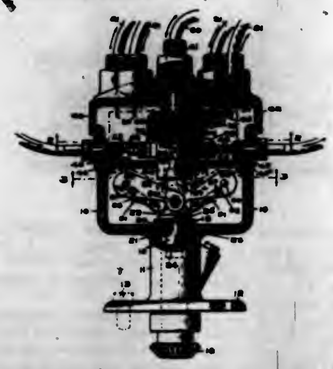
[Claims 6 to 15 not printed in the Gazette.]

1,204,730. AUTOMATIC SPARK CONTROL FOR INTERNAL-COMBUSTION ENGINES. FREDERICK BAIER, Anderson, Ind. Filed Oct. 7, 1915. Serial No. 54,658. (Cl. 123—117.)

1. A device of the hereindescribed clas comprising a revoluble cam supporting member, a cam loosely mounted on said cam supporting member and provided with teeth, a centrifugally acting governor comprising a pair of independent movable blades provided with segmental toothed racks supported by said cam supporting member, said segmental toothed racks adapted to engage the teeth in the cam, and means for rotating said cam supporting member.

2. A device of the herein described class comprising a revoluble cam supporting member, a cam loosely mounted on said cam supporting member and provided with teeth, a centrifugally acting governor comprising a pair of independent movable blades provided with segmental toothed racks supported by said cam supporting member, said segmental toothed racks adapted to engage the teeth in the cam, yieldable means for holding said governor in an assumed normal position when the parts are at rest, and means for rotating said cam supporting member.

3. A device of the herein described class comprising a revoluble cam supporting member, a cam loosely mounted on said cam supporting member and provided with teeth, a centrifugally acting governor supported by said cam supporting member and having teeth for engaging the teeth in the cam, yieldable means for holding said governor in an assumed normal position when the parts are at rest, means comprising cams for increasing and decreasing the tension on said governor, and means for rotating said cam supporting member.



4. A device of the herein described class comprising a revoluble cam supporting member, a driving member telescopically engaging said cam supporting member, means for connecting the cam supporting member and driving member for insuring uniform movement of rotation, a cam loosely mounted on said cam supporting member, said cam being provided with teeth, a centrifugally acting governor comprising a pair of independent movable blades provided with segmental toothed racks supported by and rotating with said cam supporting member, said segmental toothed racks adapted to engage the teeth in said cam, said governor actuating said cam about its axis independently of its general direction of travel.

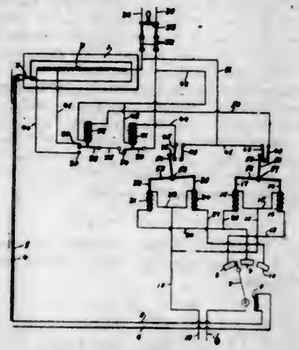
5. A device of the herein described class comprising a revoluble cam supporting member, a cam loosely mounted on said cam supporting member and provided with teeth, a weighted toothed segment comprising a plurality of plates engaging the teeth in the cam to actuate the latter through centrifugal action, and means for rotating the governor and its supporting member.

[Claims 6 to 15 not printed in the Gazette.]

1,204,731. CONTROL-WIRING FOR ELECTRIC HEATING DEVICES. THADDEUS F. BAILY and FRANK T. COPE, Alliance, Ohio. Filed Feb. 21, 1916. Serial No. 79,502. (Cl. 219—20.)

1. The combination of a heating chamber, an electric resistance element located therein, a wire leading from a source of electrical supply to one extremity of said resistance element, a second wire leading from the other extremity of said resistance element to a contact point, a third wire leading from a point intermediate the extremities of said resistance element to a second contact point, a circuit closing device arranged to contact with either of said contact points, a wire leading from said circuit closing device back to the source of electrical supply, a temperature measuring device connected to said heating chamber and means controlled by said temperature measuring device for moving said circuit closing device into contact with either of said contact points.

2. The combination of a heating chamber, an electric resistance element located therein, a wire leading from a source of electrical supply to one extremity of said resistance element, a second wire leading from the other extremity of said resistance element to a contact point, a third wire leading from a point intermediate the extremities of said resistance element to a second contact point, a circuit closing device arranged to contact with either of said contact points, a wire leading from said circuit closing device back to the source of electrical supply, a magnet arranged to operate said circuit closing device, a second circuit adapted to energize said magnet, a temperature measuring device connected to said heating chamber and means controlled by said temperature measuring device for opening and closing said second circuit.



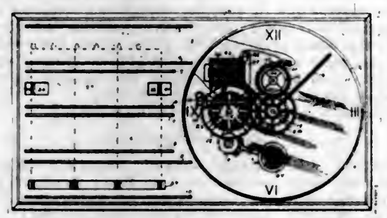
3. The combination of a heating chamber, an electric resistance element located therein, a wire leading from a source of electrical supply to one extremity of said resistance element, a second wire leading from the other extremity of said resistance element to a contact point, a third wire leading from a point intermediate the extremities of said resistance element to a second contact point, a circuit closing device arranged to contact with either of said contact points, a wire leading from said circuit closing device back to the source of electrical supply, a magnet arranged to operate said circuit closing device, a second circuit adapted to energize said magnet, a temperature measuring device connected to said heating chamber and means controlled by said temperature measuring device for opening and closing said second circuit.

4. The combination of a heating chamber, an electric resistance element located in said heating chamber, a wire leading from a source of electrical supply to one extremity of said resistance element, a second wire leading from the other extremity of said resistance element to a contact point, a third wire leading from a point intermediate the extremities of said resistance element to a second contact point, a circuit closing device arranged to contact with either of said contact points, a wire leading from said circuit closing device back to the source of electrical supply, a switch connected to said last named wire, a wire leading from said switch back to the source of electrical supply, a magnet arranged to operate said circuit closing device, a second magnet arranged to operate said switch, a second circuit adapted to energize said first magnet, a third circuit adapted to energize said second magnet, a temperature measuring device connected to said heating chamber and means controlled by said temperature measuring device for opening and closing said second and third circuits.

5. The combination of a heating chamber, an electric resistance element located in said heating chamber, a wire leading from a source of electrical supply to one extremity of said resistance element, a second wire leading from the other extremity of said resistance element to a contact point, a third wire leading from a point intermediate the extremities of said resistance element to a second contact point, a circuit closing device arranged to contact with either of said contact points, a wire leading from said circuit closing device, a switch connected to said last named wire, a wire leading from said switch back to the source of electrical supply, a magnet arranged to operate said circuit closing device, a second magnet arranged to operate said switch, a second circuit adapted to energise said first magnet, a third circuit adapted to energise said second magnet, normally open switches in said second and third circuits, a temperature masuring device connected to said heating chamber and means controlled by said temperature measuring device for closing said normally open switches.

[Claim 6 not printed in the Gazette.]

1,204,732. ADVERTISING-CLOCK. EUGENE BANTA, WILLIAM JOHN MERRITT, and HENRY JOSEPH LIPPE, Jr., New York, N. Y. Filed July 8, 1914. Serial No. 849,649. (Cl. 58—41.)



1. A clock having a spring arbor, a spring thereon a casing surrounding said spring and a gear upon said casing, a second arbor having a thimble rotatable thereon and supporting a clock hand and a plurality of gears one of which is in mesh with said first mentioned gear, a second thimble upon said spring arbor a plurality of gears secured thereto and rotatable therewith, one of which is in mesh with one of the gears on the first mentioned thimble, and a sixth gear secured to the second said arbor and in mesh with a gear upon the second said thimble and another clock hand upon the arbor of, and adapted to be operated by the said sixth gear.

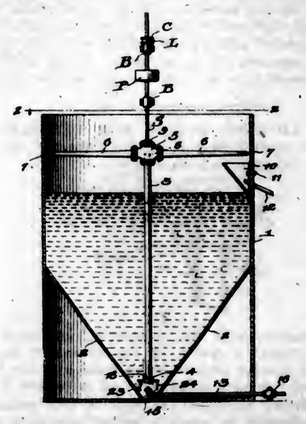
2. A clock having a spring arbor, a spring thereon a casing surrounding said spring and a gear upon said casing a second arbor having a thimble rotatable thereon and supporting a plurality of gears one of which is in mesh with said first mentioned gear, a second thimble upon said spring arbor, a plurality of gears secured thereto and rotatable therewith, one of which is in mesh with one of the gears on the first mentioned thimble, and a sixth gear secured to the second said arbor and in mesh with the larger gear upon the second said thimble, in combination with an escapement operated from this larger gear as herein specified.

1,204,733. AGITATING-MACHINE. WILLETT H. BARTON, San Diego, Cal. Filed Aug. 23, 1915. Serial No. 46,997. (Cl. 259—96.)

1. A pulp agitator comprising a cylindrical pulp containing tank, a vertical suction pipe with a radially projecting arm at its top adapted to discharge the pulp in a predetermined path disposed in said tank, a receptacle secured to the side of said tank and extending a distance in the path of the discharge from said arm, and an outlet for said receptacle.

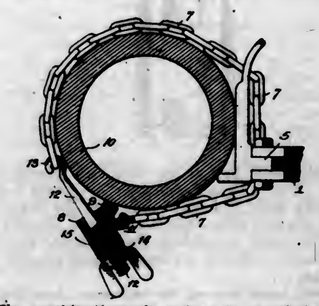
2. A pulp agitator comprising a cylindrical pulp containing tank having a revoluble vertical suction pipe with a plurality of radially projecting arms on its upper end disposed therein, a hopper having an oval shaped top disposed beneath the path of the extremities of said arms, one side of said hopper conforming to the curvature of the inner wall of said tank and disposed adjacent thereto, fastening means to secure said side to the wall of the tank, the opposite side of said hopper converging inwardly to the first-mentioned side, and an outlet for said hopper extending through the portion of the wall of the tank to which the same is secured.

3. A pulp containing tank having an inverted cone-shaped lower end, a vertically disposed rotatable pipe positioned therein, a pair of semi-circular metal strips engaging the opposite sides of the lower end of said pipe with laterally projecting contacting ends secured together, said ends being given a quarter turn adjacent their extremities, and short length chains secured to the extremities of the ends.



4. A pulp agitator comprising a cylindrical pulp containing tank having an inverted cone-shaped lower end, a vertical suction pipe with a radially projecting arm at its top adapted to discharge the pulp in a predetermined path, a receptacle secured to said tank and extending a distance in the path of said pulp discharge, an outlet for said receptacle, radially projecting arms secured to the lower end of said pipe disposed in the cone-shaped end of the tank, and chains loosely depending from said arms to agitate the pulp adjacent the inlet of the pipe.

1,204,734. POST PIPE-VISE. JOHN E. BENSON, Chicago, Ill., assignor to Nye Tool and Machine Works, Chicago, Ill., a Corporation of Illinois. Filed July 5, 1916. Serial No. 107,568. (Cl. 81—41.)

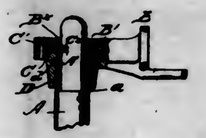


1. The combination of a pipe vise, a chain cable, an orificed fulcrum block having an integrally formed rocker knee at one side and in adjacent relation to said knee, a hook having engagement with one end of the chain cable, a screw shaft having movement in the guide orifice of the hub aforesaid, and provided at one end with a hook adapted for engagement with an end portion of the chain cable, and a hand-nut engaging the screw-shaft and adapted to effect an adjustment of the same.

2. The combination of a pipe vise, a chain cable, an orificed fulcrum block having a hook at one side for engagement with one end of the chain cable, a screw shaft having movement in the guide orifice of the fulcrum-block and provided at one end with a hook adapted for engagement with an end portion of the chain cable, a hand-nut engaging the screw shaft, and an unthreaded sleeve interposed between said nut and the fulcrum block.

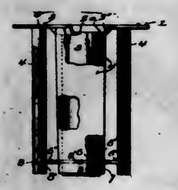
3. The combination of a pipe vise, a chain cable, an orificed fulcrum block having an integrally formed rocker knee at one side and in adjacent relation to said knee a hook having engagement with one end of the chain cable, a screw shaft having movement in the guide orifice of the hub aforesaid, and provided at one end with a hook adapted for engagement with an end portion of the chain cable, a hand-nut engaging the screw shaft, and an unthreaded sleeve interposed between said nut and the fulcrum-block.

1,204,735. LOCKING DEVICE FOR VEHICLE-TOPS. ALBERT E. BINDRA, Detroit, Mich. Filed Feb. 26, 1916. Serial No. 80,587. (Cl. 21—62.)



In combination with the supporting standards of a windshield frame, a device of the character described comprising a bracket adapted to be secured to the bow of a vehicle top, having a socket portion to receive a windshield supporting standard, the wall of said socket portion being recessed to house a helical spring, a helical spring adapted to extend slightly below the bracket to bear against an abutment of the windshield supporting standard whereby play between the bracket and the standard is prevented, one of the convolutions of said spring being relatively larger in diameter and projecting into a recess formed in the socket portion of the bracket to secure the spring against accidental dislodgment, and means adapted to lock the bracket to the standard.

1,204,736. CHAIR-BASE HUB. HARRY W. BOLENS, Port Washington, Wis. Filed Jan. 14, 1915. Serial No. 2,196. (Cl. 155—40.)



1. A sheet metal hub of the character described comprising a tubular barrel, centrally apertured top and bottom plates fitted over and secured to the barrel ends, a series of channel strips spaced apart and grouped about the barrel to form leg sockets therebetween, and means for permanently securing the ends of said channel strips to the plates.

2. A sheet metal hub of the character described comprising a tubular barrel, centrally apertured top and bottom plates secured to the ends of the barrel, a series of channel strips spaced apart and grouped about the barrel to form leg sockets therebetween, and means for permanently securing the ends of said channel strips to the plates.

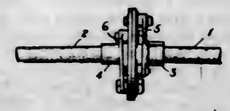
3. A sheet metal hub of the character described comprising a tubular barrel, centrally apertured top and bottom plates fitted over the ends of the barrel, means for securing the plates to the exterior walls of said barrel, a series of regularly spaced channel strips grouped about and spaced from the barrel to form leg sockets, and an interlocking tongue and socket joint union between the plates and each channel strip.

4. A sheet metal hub of the character described comprising a tubular barrel, centrally apertured top and bottom plates fitted over the ends of the barrel, the top-plate being provided with a series of sockets, means for securing the plates to the exterior walls of said barrel, tongues extending from the outer edges of the bottom plate, a series of channel strips spaced apart about the barrel, each having a socket engageable with a tongue of the bottom plate, end tongues extending from the upper edge of the channel strips for engagement with the top-plate sockets, and means for effecting a permanent union between the series of sets of tongues and sockets.

5. A sheet metal hub of the character described comprising a tubular barrel, centrally apertured top and bottom plates fitted over the ends of the barrel, means for securing the plates to the exterior wall of said barrel, a series of channel strips spaced about the barrel having their upper edges in abutting engagement with the top-plate and their lower inner faces in abutting engagement with the edges of the bottom plate, means for securing the top plate and abutting edges of said channel strips together, and means for securing the engaging surfaces between the lower plate and channel irons.

[Claims 6 to 10 not printed in the Gazette.]

1,204,737. UNIVERSAL JOINT. BENJAMIN BRISCOE, Jackson, Mich., assignor to Argo Motor Company, Inc., Jackson, Mich., a Corporation of Delaware. Filed Aug. 24, 1915. Serial No. 47,210. (Cl. 64—13.)



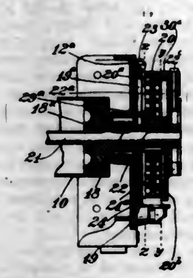
1. In a universal joint, the combination of a driving and a driven shaft, having adjacent ends, a metallic spider secured to the end of each of said shafts, each having a plurality of radial arms thereon, said spiders being angularly spaced so that the arms of one extend in planes intermediate the arms of the other, a flexible disk interposed between the said spiders, bolts extending through the ends of said arms and said disk and flexible thin metal links connecting the ends of the arms of one spider with points on the adjacent face of the disk in line with the ends of the arms of the other spider, the bolts extending through the arms of said other spider also extending through the said links, substantially as set forth.

2. In a universal joint, the combination of a driving and a driven shaft, having adjacent ends, a metallic spider secured to the end of each of said shafts, each having a plurality of radial arms thereon, said spiders being angularly spaced so that the arms of one extend in planes intermediate the arms of the other, a flexible disk interposed between the said spiders, and connections between the spiders, comprising thin flexible metal links, each extending along a face of the disk and connected at its opposite ends to the ends of an arm of the adjacent spider and of the adjacent arm of the other spider, said disk being secured to said spiders, substantially as set forth.

3. In a universal joint, the combination of a driving shaft, a driven shaft, a flexible disk interposed between the adjacent ends of the same, rigid members secured to the said ends of the said shafts, respectively, extending radially therefrom at a plurality of points, resilient connections extending upon a face of said disk from points on one of said rigid members to points on said disk, and connections through said disk from said other rigid member to said resilient connections at said last named points.

4. In a universal joint, the combination of a driving and a driven shaft, having adjacent ends, a metallic spider secured to the end of each of said shafts, each having a plurality of radial arms thereon, said spiders being angularly spaced so that the arms of one extend in planes intermediate the arms of the other, a flexible disk interposed between the said spiders, securing devices attaching the ends of the arms of said spiders to said disk, and spring metal connections between each of the arms of the driving spider and the following arms of the driven spider, secured to the securing devices of the said arms, substantially as set forth.

1,204,738. FIRE-RESISTING SHUTTER OR DOOR. WILLIAM M. BRUNST and EDWARD H. MCCLOUD, Columbus, Ohio, assignors to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Jan. 9, 1914. Serial No. 811,174. (Cl. 189—58.)



1. In a fire resisting shutter or door, the combination of a curtain, a winding barrel or drum for the curtain, a tension member for the barrel or drum, a volute member and a guiding member, one of said members adapted to be actuated by and upon the release of the tension member, a lug engaging both the volute and guiding members, said lug adapted to limit the movement of one of said members with reference to the other, and thermally controlled means for restraining the release of the tension member.

2. In a fire resisting shutter or door, the combination of a curtain, a winding barrel or drum for the curtain, and locking means to limit the unwinding movement of the barrel consisting of a lug, a fixed guiding member therefor and a volute member operated by the barrel or drum to actuate the lug to move it into position to lock the volute member and lug-guiding member together.

3. In a fire resisting shutter or door, the combination of a curtain, a winding barrel or drum therefor, and locking means to limit the unwinding movement of the barrel or drum and curtain consisting of a lug, an adjustable guiding member therefor and means for fixing the same in adjusted position, and a volute member operated by the barrel or drum to actuate the lug to move it into position to lock the volute member and lug-guiding member together.

4. In a fire resisting shutter or door, the combination of a curtain, a winding barrel or drum therefor, and locking means to limit the unwinding movement of the barrel or drum and curtain consisting of a lug, a slotted member for guiding the same and a volute member operated by the barrel or drum to actuate the lug to move it into position to lock the volute member and the slotted guiding member together.

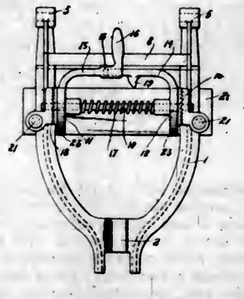
5. In a fire resisting shutter or door, the combination of a curtain, a winding barrel or drum therefor, a tension member, a volute member actuated by the barrel or drum, a lug, a guiding member therefor, said lug being actuated by the volute member to lock the guiding member and volute member together, and thermally controlled means for latching the guiding member.

[Claims 6 to 11 not printed in the Gazette.]

1,204,739. CLAMP FOR ROWBOAT-MOTORS. WILLIAM F. A. BUEHNER, Newark, N. J. Filed Feb. 15, 1916. Serial No. 78,347. (Cl. 115—17.)

1. A clamp for rowboat motors or the like, comprising opposing clamp members, cam means for operating upon one of said clamp members at spaced points in the length thereof, and a single operating handle for said cam means.

2. A clamp for rowboat motors or the like, comprising opposing clamp members, a pair of cam members spaced apart and operatively engaging one of said cam members at spaced points in the length of said mentioned clamp member, operating handles formed upon said cam members projecting toward each other, and a single handle grip by means of which both said operating handles may be controlled.



3. A clamp for rowboat motors or the like, comprising opposing clamp members, a pair of cam members spaced apart and operatively engaging one of said clamp members at spaced points in the length of said mentioned clamp member, operating handles formed upon said cam members projecting toward each other, toothed means for retaining the cam members against accidental movement, and because of which the cam members move relatively to each other when said cam members are operated by said operating handles, and said operating handles being telescopically connected together to permit said cam members to move relatively to each other and a single handle grip for both said operating handles.

4. A clamp for rowboat motors or the like, comprising opposing clamp members, a plurality of operating members engaging one of said clamp members at spaced points upon said mentioned clamp member operable to move said mentioned clamp member into clamping position, and means for moving said operating members in unison.

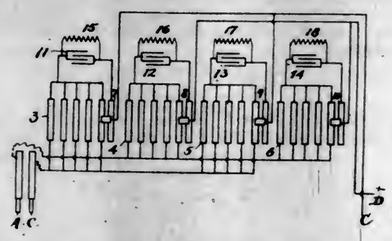
5. A clamp for rowboat motors or the like, comprising opposing clamp members, resilient means for resiliently urging one of said clamp members away from clamping position, a shaft, a pair of opening members pivotally supported upon said shaft having cam surface portions engaging said mentioned clamp member at spaced points thereon, control means for rotating said operating members whereby to cause the cam faces thereof to force the mentioned clamp member into clamping position, toothed means for retaining at least one of said operating members in a desired position of rotation about the shaft, said operating member being slidable upon the shaft, and resilient means adapted to permit sliding movement of the operating member along the shaft to render the toothed means operative.

1,204,740. CURRENT-CONVERTING DEVICE. ARTHUR R. BULLOCK, Cleveland, Ohio., assignor to Henry C. Lee, trustee, Los Angeles, Cal. Filed Aug. 18, 1913. Serial No. 785,242. (Cl. 175—364.)

1. The combination with an alternating current circuit and a direct current circuit, of a device for connecting each side of one of said circuits alternately with the sides of the other circuit, in combination with a circuit containing capacity adapted to dissipate its charge, which circuits is introduced by the aforesaid device between co-operating sides of the A C and D C circuits at the time the connections between the circuits are broken.

2. In combination with an alternating current circuit and a direct current circuit, of a device for connecting each side of one of said circuits alternately with the sides of the other circuit, in combination with a circuit con-

taining a condenser adapted to dissipate its charge, which circuit is introduced by the aforesaid device between coöperating sides of the A C and D C circuits at the time connection between the circuits is broken.



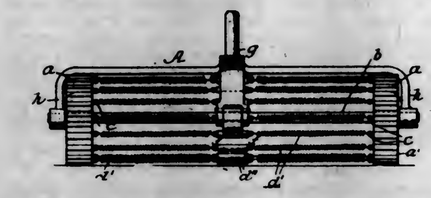
3. The combination with an alternating current circuit and a direct current circuit, of a device for connecting each side of one of said circuits alternately with the sides of the other circuit, in combination with a circuit containing capacity, which circuit is introduced by the aforesaid device between coöperating sides of the A C and D C circuits at the time connection between the circuits is broken, and means for causing the circuit containing capacity to continually discharge itself.

4. The combination with an alternating current circuit and a direct current circuit, of a device for connecting each side of one of said circuits alternately with the sides of the other circuit, in combination with a circuit containing a condenser, which circuit is introduced by the aforesaid device between coöperating sides of the A C and D C circuits at the time connection between the circuits is broken, and means for causing the condenser to discharge.

5. The combination with an alternating current circuit and a direct current circuit, of a device for connecting each side of one of said circuits alternately with the sides of the other circuit, in combination with a circuit containing a condenser, which circuit is introduced by the aforesaid device between coöperating sides of the A C and D C circuits at the time when the circuit is broken, and means for discharging the condenser as soon as it becomes charged.

[Claims 6 to 9 not printed in the Gazete.]

1,204,741. ROTARY CARPET-BEATER. WILLIAM I. BUNKER, La Grange, Ill. Filed July 31, 1916. Serial No. 112,322. (Cl. 15—8.)



1. A rotary carpet beater comprising traction wheels one at each end of a central connecting rod secured in the axis of the wheels the inner rims of the wheels having suitable attaching points to receive the ends of a series of beating members, a series of beating members stretched under tension having their ends secured at said attaching points on the rims, means for propelling the wheels and means for tripping the beating members.

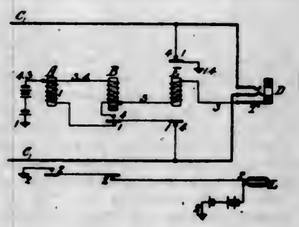
2. A rotary carpet beater comprising two traction wheels one at each end of a central connecting rod secured in the axis of the wheels the inner rims of the wheels having suitable attaching points to receive the ends of a series of beating members, a series of coiled wire spring beating members, each provided with a central friction roller, stretched under tension between said wheels having their ends secured at said attaching points on the rims, means for propelling the wheels and means for tripping the beating members.

3. A rotary carpet beater comprising two traction wheels one at each end of a central connecting rod secured in the axis of the wheels the inner rims of the wheels having suitable attaching points to receive the ends of a series of beating members, a series of beating members stretched under tension between said wheels having their ends secured at said attaching points on the rims, a handle bar suitably pivoted to the wheels and having a tripping bar at the front thereof arranged to have a tripping contact with said beating members.

4. A rotary carpet beater comprising two traction wheels one at each end of a central connecting rod secured in the axis of the wheels, the inner rims of the wheels having suitable attaching points to receive the ends of a series of beating members, a series of beating members stretched under tension having their ends secured at said attaching points on the rims, a handle bar suitably pivoted to the wheels and having a reversible tripping bar at the front and rear thereof and each arranged to have a tripping contact with said beating members and reverse out of such tripping contact by the rotation of the wheels forward and back.

5. In a rotary carpet beater the combination of two wheels suitably mounted on a connecting rod, beating members secured to the rims thereof, and means for tripping the beating members when the wheels are rotated.

1,204,742. TELEPHONE SYSTEM. LEONARD CHARLES BYGRAVE, London, England, assignor to The Relay Automatic Telephone Company, Limited, of London, England. Filed Feb. 12, 1916. Serial No. 77,968. (Cl. 179—73.)



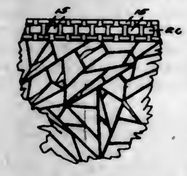
1. In a telephone system, a subscriber's line, a call relay associated therewith, a calling circuit, a cut-off relay controlling the calling circuit and switching means associated with the subscriber's line and adapted to connect said cut-off relay with the line circuit upon the disconnection of the talking circuit.

2. In a telephone system, a subscriber's line, a call relay associated therewith, a calling circuit, a cut-off relay controlling the calling circuit and an auxiliary relay associated with the subscriber's line and adapted to connect said cut-off relay with the line circuit upon the disconnection of the talking circuit.

3. In a telephone system, a subscriber's line, a call relay associated therewith, a calling circuit, a slow-acting cut-off relay controlling the calling circuit and an auxiliary relay associated with the subscriber's line and adapted to connect said cut-off relay with the line circuit upon the disconnection of the talking circuit.

4. In a telephone system, a subscriber's line, a call relay associated therewith, a calling circuit, two relays associated with the subscriber's line, one of which is slower to release its armature than the other, a circuit for said two relays, means for opening said circuit upon the disconnection of the talking circuit and means for connecting one of said two relays with the line circuit by the de-energization of the other.

1,204,743. METHOD AND ARTICLE OF DECORATION FOR WALLS AND OTHER SURFACES. JOHN J. CAROW and JULIUS CAROW, Washington, D. C. Filed Mar. 6, 1914. Serial No. 822,922. (Cl. 72—26.)

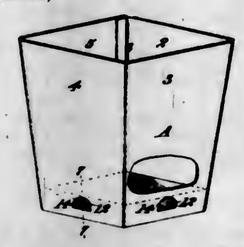


1. The method of applying segments to walls, consisting in applying a plastic adhesive material individually to the segments, on limited areas thereof stopping short of the edges a distance presenting the segments to the surface to be decorated with the adhesive interposed, adjusting the segments in positions desired, leaving a space between each segment and the supporting surface, and applying a filling material such as hydraulic cement, to close the spaces between the segments, and engage the supporting surface.

2. The method of applying segments to surfaces consisting in applying a material of the consistency of putty locally to small areas of the backs of the segments, presenting the segments to a surface to be decorated, with said material interposed, adjusting the segments in the final positions desired and applying a filling such as hydraulic cement so as to close the spaces between the segments and contacting with said surface, and spreading under the segments.

3. The method of applying decorative segments to a wall or the like consisting in applying to the under sides of the segments small portions of a putty-like material, pressing the segments toward the supporting surface for engagement of the said material therewith so as to leave a space between the segments and supporting surface, and pressing a plastic of the nature of hydraulic cement between the segments and against the supporting surface.

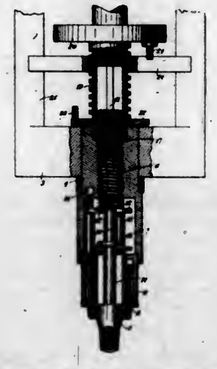
1,204,744. PAPER WASTE-BASKET. MAX M. COHN, Piedmont, Cal. Filed Feb. 19, 1916. Serial No. 79,355. (Cl. 229—23.)



1. An upwardly flaring, polysided, collapsible receptacle scored to be folded into a flat body substantially the width of a side, and a bottom having edge flanges, one of said flanges being permanently secured to the body to permit of the bottom folding within the flared portion of the body and the adjacent edge flanges of the bottom being foldable onto the latter so as to lie within the lines of fold of the side to which the bottom is secured to permit of the receptacle being folded into a flat body the width substantially of a side.

2. A foldable waste basket comprising a polygonal, upwardly flaring body section having an incision adjacent the lower end of each side to form a plurality of tangs, each tang being offset from the respective side in parallel relation thereto, a bottom section arranged to fit in the lower end of the body section and provided with depending flanges, the latter having cut-outs and a rounded projection within each cut-out, said flange cut-outs guiding the flanges between the tangs and the respective sides and said projections serving to retain the flanges from endwise movement therebetween, and means securing one tang to the adjacent rounded projection whereby the flange of the latter will constitute a hinged connection between the bottom and body.

1,204,745. PRESSURE-DIE, FOR INSULATOR-PRESSING MOLDS. JENS PETER DAHL-JENSEN, Copenhagen, Denmark. Filed Oct. 18, 1915. Serial No. 56,579. (Cl. 25—3.)



1. An insulator die having a movable intermediate die, a movable screw die, said screw-die being independently movable with respect to said intermediate die, and connecting means between said intermediate die and said screw-die, said connecting means automatically causing the movement of said intermediate die, at a given point of the movement of said screw-die.

2. An insulator die having a screw-die, an intermediate die, said screw die being independently movable with respect to said intermediate die, means intermediate said intermediate die and said screw die, said intermediate means automatically causing the movement of said intermediate die when said screw-die has been sufficiently removed from the molded insulator, so as to exert substantially no pressure upon the inner wall of said insulator.

3. An insulator die having a screw die, an intermediate die, said screw-die being independently movable with respect to said intermediate die, and connecting means between said screw die and said intermediate die, said connecting means automatically causing the movement of said intermediate die at a given point in the movement of said screw-die.

4. An insulator die having a screw-die, an intermediate die, said screw-die being independently movable with respect to said intermediate die, said screw-die being provided with a rod extending away therefrom, projecting means on said rod, a movable intermediate die relatively movable with respect to said screw-die, and auxiliary rods connected with said intermediate die, said auxiliary rods having projections capable of being engaged by the projecting means of said first mentioned rod, when said screw-die and its rod are moved, whereby the movement of said screw die causes the movement of said intermediate die.

5. An insulator die having a screw-die, an intermediate die, said screw-die being independently movable with respect to said intermediate die, said screw-die being provided with a rod extending away therefrom, projecting means on said rod, a movable intermediate die relatively movable with respect to said screw-die, and auxiliary rods connected with said intermediate die, said auxiliary rods having projections capable of being engaged by the projecting means of said first mentioned rod, when said screw-die and its rod are moved, whereby the movement of said

screw-die causes the movement of said intermediate die, said auxiliary rods with their projections being rotatable, whereby said projections can be brought into and out of the path of the projecting means on said first mentioned rod.

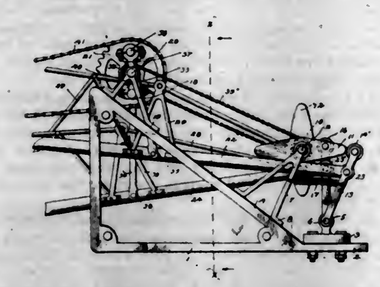
[Claims 6 to 9 not printed in the Gazette.]

1,204,746. SEAT-SPRING. DAVID M. DEARING, Jackson, Mich., assignor of one-half to William H. Turney, Jackson, Mich. Filed Dec. 4, 1914. Serial No. 875,479. (Cl. 267—27.)



A spring of the character specified, made in a single or continuous flat piece of resilient metal, and comprising upper and lower spaced horizontal oppositely extending portions and an intermediate diagonal equalizing bar disposed at an acute angle with a vertical plane intersecting said horizontal portions and connected at opposite ends therewith by reversely curved loops extending laterally in opposite directions of the horizontal portion, said loops working in unison with the intermediate equalizing bar, under pressure, and the horizontal and diagonal portions of the spring adapted to lie flatwise against each other when the spring is fully compressed, the upper horizontal limb reciprocating horizontally and bodily in a vertical plane in absorbing shocks.

1,204,747. MECHANICAL MOVEMENT. UMBERTO DE CRESCENZO, Boston, Mass. Filed Oct. 16, 1911, Serial No. 654,913. Renewed July 25, 1916. Serial No. 111,277. (Cl. 74—20.)



1. A device of the character described comprising a frame, a shaft mounted above said frame, a transmission wheel on said shaft, two cranks mounted upon said shaft having wrist pins disposed at diametrically opposite points, two longitudinally extending treadles normally disposed in a separated relation, pivots carried by said treadles and disposed at points substantially less than one-half the length of said treadles, pitmen movably connected at one end upon said pivots and connected at their opposite ends upon said wrist pins, a counter-shaft mounted on said frame in advance of said first-named shaft, a pair of two-lobed cams mounted upon said counter-shaft and being disposed in intersecting planes substantially at right angles to each other, a stud mounted upon said frame, two radial levers fulcrumed upon said stud at their inner ends, rollers journaled in the free ends of said levers, oppositely arranged brackets carried by said frame adjacent to said links, pivots carried by said radial levers intermediate their ends, said treadles being fulcrumed upon said last-named pivots at their inner ends, one lobe of one of said cams normally engaging the roller of one of said radial levers, the other cam being out of engagement with the roller of the other radial lever, and extensible springs carried by said brackets and secured to said radial levers to hold them normally in upright position, said cam-engaged lever having its spring put under tension and being obliquely disposed relatively to its mate link.

2. The described device consisting of a frame, a pair of treadles, rocking levers upon which said treadles are pivoted, said treadles being spring controlled, said levers being independently movable, and a pair of two lobed cams for actuating said levers.

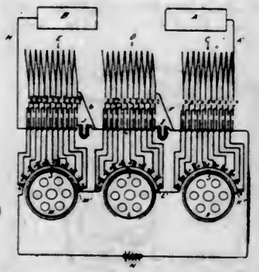
3. The described device consisting of a frame, a pair of treadles, rocking levers upon which said treadles are pivoted, said treadles being spring controlled, said levers being independently movable, and a pair of two lobed cams for actuating said levers, the lobes of one of said cams being at right angles to the lobes of the other cam.

4. The described device consisting of a frame, a pair of treadles, rocking levers upon which said treadles are pivoted, said treadles being spring controlled, said levers being independently movable, a pair of two lobed cams for actuating said levers, the lobes of one of said cams being at right angles to the lobes of the other cam, and a shaft upon which said cams are fixedly mounted.

5. The described device consisting of a frame, a pair of treadles, rocking levers upon which said treadles are pivoted, said treadles being spring controlled, said levers being independently movable, a pair of two lobed cams for actuating said levers, the lobes of one of said cams being at right angles to the lobes of the other cam, a shaft upon which said cams are fixedly mounted, a counter shaft, means for driving said counter shaft, and means whereby said counter shaft drives said first shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,204,748. WAVE-METER. BURR V. DEITZ, Slingerlands, N. Y. Filed Nov. 19, 1914. Serial No. 873,076. (Cl. 250—39.)



1. A wave measuring device comprising a plurality of grouped, high potential circuits each having inductance and capacity, the inductances being so proportioned that the natural period of each circuit of one group is a unit, of a second group ten units, and of a third group one hundred units, a series of low potential circuits, one for each of the above mentioned circuits and containing a source of low potential, a spark gap and an indicating device in each low potential circuit, the high potential circuits being operatively associated with the spark gaps to cause one or more of them to break down when a high potential current flows.

2. A wave measuring device comprising a plurality of grouped high potential circuits each having inductance and capacity, low potential circuits one for each of the above mentioned circuits and a source of low potential, electromagnets, one for each such low potential circuit, a plurality of disks, the electromagnets being circumferentially arranged around said disks operative therewith to cause

rotation of the disks relative to said electromagnets as means of indication of the flow of high frequency current in one or more of the grouped high frequency circuits.

3. A wave measuring device comprising a plurality of grouped high frequency circuits having inductance and capacity, low potential circuits one for each high frequency circuit and source of low potential, spark gaps arranged as specific high resistance, one for each low potential circuit and disks arranged operative with said electromagnets as means of indicating action in one or more of the high frequency circuits.

4. A wave measuring device comprising a plurality of grouped high potential circuits each having inductance and capacity, a series of low potential circuits, one for each of the above mentioned circuits and containing a source of low potential, a specific high resistance and an indicating device in each low potential circuit, the high potential circuits being operatively associated with the specific high resistances to cause one or more of them to break down when a high potential current flows.

1,204,749. ELECTRICAL COIL AND METHOD OF WINDING SAME. ERNEST A. DE WOLF, Mansfield, Mass., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass., a Corporation of Massachusetts. Filed May 28, 1915. Serial No. 31,032. (Cl. 175—21.)



1. An improved coil for electrical purposes composed of a plurality of overlying layers of convolutions disposed in frusto-conical planes, with all of the layers having a uniform diameter at the base and vertex.

2. An improved coil for electrical purposes composed of a plurality of superimposed layers having the turns therein disposed in conical planes advancing progressively along a common axis, with all of the layers of uniform length.

3. An improved coil for electrical purposes composed of overlapping layers of uniform length stepped progressively in advance of each other along a common axis with the turns therein disposed in conical planes.

4. An improved electrical coil composed of a plurality of superimposed layers of convolutions disposed in conical planes about a common axis with the turns in each layer wound from a uniform length of wire.

5. An improved electrical coil composed of a plurality of overlying layers of convolutions disposed in conical planes with all layers comprising a uniform number of turns wound from equal lengths of wire.

[Claims 6 to 18 not printed in the Gazette.]

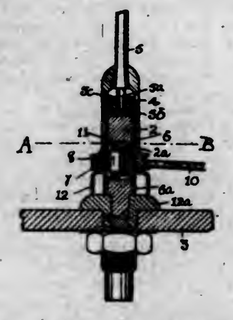
1,204,750. [WITHDRAWN.]

1,204,751. SPINNING-MACHINE SPINDLE. CHRISTO D. DUDEFF, Gabrovo, Bulgaria. Filed Dec. 15, 1914. Serial No. 877,425. (Cl. 64—80.)

1. In combination, a spinning-machine spindle, an anti-friction roller arranged to coact with said spindle, and yielding bearings for said roller, said bearings being mounted within a recess of a relatively stationary part supporting said spindle.

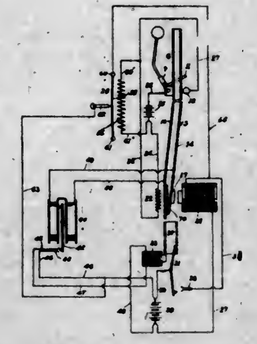
2. In combination, a spinning-machine spindle, an anti-friction roller arranged to coact with said spindle, and a resilient member forming a bearing for said roller, said resilient member being disposed within a recess formed in a relatively stationary part supporting said spindle.

3. In combination with a spinning-machine spindle, a stationary part about which the spindle rotates, a pivotal spindle-support, upon said stationary part, for said spindle, an anti-friction roller, and yielding bearings for said roller, said bearings being arranged within a recess in said stationary part so that said roller will engage said spindle.



4. In combination with a spinning-machine spindle, a stationary part about which the spindle rotates, a pivotal support, upon said stationary part, for said spindle, an anti-friction roller, and yielding bearings for said roller, said bearings being positioned within a recess in said stationary part so that said roller will coact with an internal surface of said spindle to withstand lateral pressure on the spindle by the spindle-driving means.

1,204,752. COIN-SEPARATING DEVICE. JOHN ELDRIDGE, Oakland, and CHARLES MICHELSEN, Piedmont, Cal. Filed Sept. 21, 1915. Serial No. 51,827. (Cl. 73—11.)



1. A device for separating coins from other disks comprising means for making the coin one element of the thermo-electric couple, and means initiated by the thermo-electric current thus generated for separating the coins from the disks.

2. A device for separating coins from disks of other metal comprising means for holding the coins or disks in contact with a heated metal having relatively large thermo-electric properties with respect to the coins only, means for releasing the coin or disk to allow the same to fall by gravity and other means initiated by the thermo-electric current set up whereby the coins are deflected from the normal downward path.

3. A device for separating coins from other disks comprising a metal having relatively large thermo-electromotive force with respect to the coins only, means for heating said metal, means for holding the coins or disks in contact with said metal, means for releasing the holding means for said coins after a predetermined interval and other means initiated by the thermo-electric current

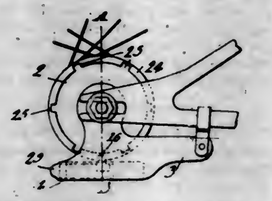
set up whereby the coins are deflected from their normal downward path.

4. A device for separating coins from other disks comprising a metal having relatively large thermo-electromotive force with respect to the coins only, means for heating said metal, means for holding the coins or disks in contact with said metal, an electromagnet for releasing the holding means for said coins or disks, a thermostat, an electric circuit closed by said thermostat adapted to energize said electromagnet and other means initiated by the thermo-electric current set up whereby the coins are deflected from their normal downward path.

5. A device for separating coins from other disks comprising a metal having relatively large thermo-electromotive force with respect to the coins only, means for heating said metal, means for holding the coins or disks in contact with said metal, means for releasing the holding means for the coin or disk to allow the same to fall by gravity and other means initiated by the thermo-electric current set up whereby the coins and disks are caused to travel different downward paths.

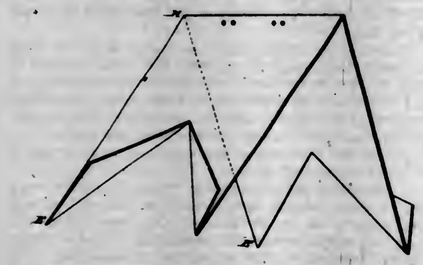
[Claims 6 to 10 not printed in the Gazette.]

1,204,753. BICYCLE-LOCK. HARRY E. FOUSCHEE, Augusta, Ga. Filed June 3, 1915. Serial No. 31,925. (Cl. 70—30.)



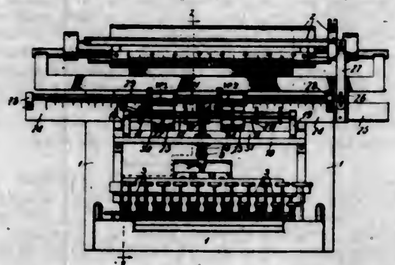
The combination with a notched revoluble member, of a fixed lock casing having a slot provided with a side recess, alining fixed and movable barrels within the casing, resilient means extending into both barrels and thrusting the movable barrel away from the fixed barrel, a locking element carried by the movable barrel and normally held by said resilient means, pressed against one end of the slot and out of the recess in the side of the slot, tumblers movably mounted in the barrels for holding the locking element in the recess and in one of the notches in the movable member, said tumblers being yieldingly pressed, and key actuated means for forcing the tumblers out of the movable barrel thereby to release the barrel, the resilient means within the barrel and which normally thrusts the barrels apart, operating to simultaneously rotate the movable barrel when released to remove the locking element from the recess and to thrust said movable barrel longitudinally to position the locking element against the end of the slot in the casing.

1,204,754. MEANS FOR THE PROTECTION AGAINST RIFLE-FIRE. GEORGE E. FROBISH, Pontiac, Ill. Filed Nov. 20, 1915. Serial No. 62,559. (Cl. 89—36.)



A shield formed of two sections foldably hinged together at one end and disposed at an angle to each other when in use, each section having at its other end an angular port and bullet deflecting flanges at the edges of the port, said port and flanges being formed by bending portions of the section outward from a slot or incision made in the end of the section.

1,204,755. CALCULATING-MACHINE. HYMAN ELI GOLDBERG, Chicago, Ill., assignor to Goldberg Calculating Machine Company, a Corporation of Illinois. Filed Aug. 25, 1905. Serial No. 275,780. (Cl. 235—59.)



1. In combination, a totalizing mechanism, operating means therefor, controlling means for positively determining in two directions whether at a given operating point said operating means shall operate the totalizing mechanism or not, said controlling means including two coöperating parts one of which travels relatively to the other for bringing said parts into coöperation, the action of the operating mechanism on the totalizer taking place simultaneously with the co-action of said parts of the controlling means, and means for adjusting the location of the operating point.

2. A calculating machine capable of addition and subtraction having a totalizing mechanism, means for operating the same, and controlling means including a traveling member for determining whether the operating means shall operate the totalizing mechanism for addition or shall operate it for subtraction at a given point in the travel of the traveling member.

3. A calculating machine capable of addition and subtraction, having a totalizing mechanism, means for operating the same and means including a traveling member for positively determining whether at a given point the operating mechanism shall or shall not operate upon the totalizing mechanism and if to operate, whether to add or subtract.

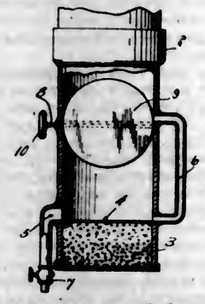
4. A calculating machine having a totalizing mechanism, a valuating member adapted to be connected thereto and disconnected therefrom, and a controlling mechanism having a traveling member, the connection between the valuating member and totalizing mechanism being at any given point positively established or prevented by the traveling member of the controlling mechanism.

5. A calculating machine having a totalizing mechanism, a valuating member adapted to be connected thereto to add or to subtract, at a given point, and also adapted to be disconnected therefrom to permit the totalizing mechanism to not operate at said given point; and controlling mechanism having a traveling member, the connection between the valuating member and totalizing mechanism being positively established for the predetermined one of the two operations, or the connection being positively prevented by the traveling member of the controlling mechanism.

[Claims 6 to 110 not printed in the Gazette.]

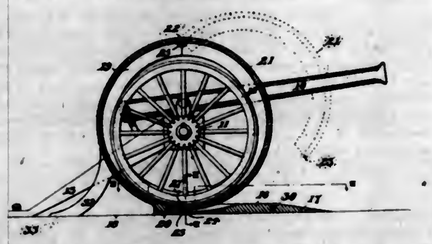
1,204,756. SELF-CLEANING FILTER. CHARLES I. GOLDBLATT, New York, N. Y. Filed Mar. 7, 1916. Serial No. 82,696. (Cl. 210—6.)

1. A filter of the class described comprising a casing, filtering material located in the lower end of the casing, an outlet pipe leading from the casing above the filtering material, a valve disk rotatably mounted in the casing, a by-pass leading from a point above the valve disk when in a horizontal position to a point above the filtering material, whereby water will be directed by the disk into the by-pass and across the filtering material, as and for the purpose set forth.



2. A filter of the class described comprising a casing, means for attaching the casing to a source of water supply, a shaft journaled transversely of the casing and having a valve disk fixed thereto, means for rotating the disk from a normally vertical position to a horizontal position, filtering material mounted in the lower end of the casing, a screen engaged with the upper surface of the material, an outlet pipe having communication with the interior of the casing on a plane with the screen, a by-pass having its lower end communicating with the casing in a plane with the screen, and having its upper end communicating with the casing at a point above the disk when said disk is in a horizontal position, as and for the purpose set forth.

1,204,757. RECOIL-MOUNT FOR ORDNANCE. JOSEPH GONSIOR and FRIEDRICH OPP, Medina, N. D. Filed Mar. 20, 1916. Serial No. 85,466. (Cl. 89—42.)

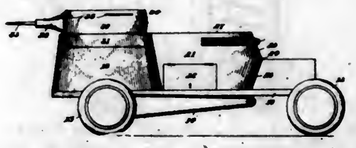


1. A gun carriage support comprising inclosing members for the wheels of said carriage, spacing rods for the said members, rearwardly extending legs upon the said members and ground engaging calks upon the said legs.

2. A support for gun carriage wheels comprising an inclined mounting base support for the said wheels, a semi-circular rim section secured to each of said bases and being U-shaped in cross section, a semi-circular rim section hingedly carried by the stationary rim section and being of similar cross section, a combined closure retaining means for the said hinged rim section and spacing means for the said bases removably carried by the said bases, and ground engaging rearwardly extending bracing legs upon the said fixed rim sections.

3. A device of the class described comprising oppositely arranged wheel supporting bases having inclined forward faces and transverse keeper sockets, a fixed wheel receiving rim section carried by the rear end of each of said bases, a wheel inclosing shiftable rim section hinged adjacent the top of the said fixed section, a journal projecting from the free end of the said hinged section adapted for seating within the said keeper recess when the rim sections are in their closed circular arrangement, spacing rods forming the pintles for the said hinge connection and lower spacing rods secured through the said bases and the said journals mounted thereon.

1,204,758. ARMORED WAR-AUTOMOBILE. JOSEPH GONSIOR, FRIEDRICH OPP, and WILLIAM FRANK, Medina, N. D. Filed Mar. 23, 1916. Serial No. 86,141. (Cl. 89—40.)



1. An army appliance comprising an automobile having a rearwardly arranged frusto-conical casing having an inclosure therein, a forward casing providing a room communicating with said inclosure and having a curved forward end, the upper and lower portions of which are inclined in opposite directions, the upper rearwardly inclined portion being provided with a substantially semi-circular slotted port having opposite protecting outwardly projecting flanges, and a closable entrance door for the said forward casing.

2. An army appliance comprising an automobile having a rearwardly arranged frusto-conical casing having an inclosure therein, a forward casing providing a room communicating with said inclosure and having a curved forward end, the upper and lower portions of which are inclined in opposite directions, the upper rearwardly inclined portion being provided with a substantially semi-circular slotted port having opposite protecting outwardly projecting flanges, an annular support positioned upon the said rear casing, elevating means for the said support within the said inclosure, an inverted bowl-shaped turret anti-frictionally journaled within the said support and provided with firing ports through the sides thereof.

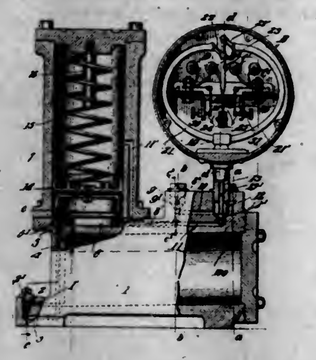
3. A device of the class described comprising an automobile having a forwardly arranged driver's casing, a rearwardly positioned frusto-conical casing attached to the said forward casing, an annular turret support vertically adjustably mounted upon the said rear casing, an inverted bowl-shaped turret revolubly mounted within the said base, an annular outwardly projecting flange upon said turret positioned beneath said base, an inwardly extending ring carried by the said base beneath the said flange, a closure top upon said turret, an outwardly tapering gun receiving neck projecting from the said turret, a swivelly mounted gun within the said turret projecting through the said neck, the said turret and neck having arcuate slotted firing ports therethrough.

1,204,759. TIME-VALVE AND CIRCUIT-BREAKER. GARDNER B. GRAY, Pittsburgh, Pa., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Nov. 1, 1911. Serial No. 658,053. (Cl. 175—308.)

1. In a device of this character, the combination of a spring returned and pressure fluid operated valve, of a double terminaled Bourdon tube adapted to be expanded and contracted through the action of the valve, and a plurality of circuits adapted to be alternately closed and opened by such action of the terminals of the Bourdon tube.

2. In a device of this character, the combination of a spring returned valve, means for conducting pressure fluid to operate the valve against the spring, a double terminal Bourdon tube adapted to be operated upon as the valve is reciprocated by the alternate operation of the pressure fluid and spring, two electrical circuit connections, and a circuit maker actuated by said terminals

of the Bourdon tube to alternately make a circuit with each set of connections.



3. In a device of this character, the combination of a spring returned valve, means for conducting pressure fluid to operate the valve against the spring, a double terminal Bourdon tube in communication with the valve and adapted to be expanded and contracted by the action of pressure fluid through the valve, two electrical circuits, a lever connected to the terminals of the Bourdon tube and adapted to be oscillated thereby, two bridging contacts carried by said lever and insulated from each other, and two sets of contact plates in the path of the bridging contacts of the lever to be alternately engaged as the terminals of the tube expand and contract to make and break the two electrical circuits.

4. In a device of this character, the combination of a valve casing and a pressure and spring operated valve, a double terminal Bourdon tube having its terminals in communication with the valve casing to be expanded and contracted due to the pressure fluid conveyed from the casing, and two electrical circuit making and breaking means operably connected with the terminals of the Bourdon tube, to be alternately opened and closed.

5. A pressure responsive circuit controller comprising a casing forming a pressure chamber, a cylinder mounted on said casing, a spring pressed piston slidably mounted in said cylinder, a passage connecting said main chamber and an end of said cylinder whereby pressure fluid will flow from said main chamber to move said piston and compress said spring, a second casing mounted on said first-named casing, a Bourdon tube controlled circuit controller mounted in said casing, a supply passage for said Bourdon tube leading from said cylinder and having an end arranged to be uncovered when said piston is moved to compress said spring, a check valve in said supply passage, an exhaust passage leading from said Bourdon tube to the end of said cylinder which is supplied with pressure fluid from said main chamber, and a check valve in said exhaust passage.

[Claim 6 not printed in the Gazette.]

1,204,760. LOADING APPARATUS. ROBERT P. GREENLEAF, Cleveland, Ohio, assignor to Frank Billings, Cleveland, Ohio. Filed Dec. 29, 1911. Serial No. 668,891. (Cl. 198—4.)



1. In a loading and conveying apparatus for use in mines, a conveyer having means for conveying material rearwardly along the same, a truck supporting the forward end of the conveyer and adapted to run along a mine track, said conveyer and truck having pivotal connections which permit the conveyer to turn about a horizontal axis and about a vertical axis, devices for supporting the rear end of the conveyer at a suitable height above the mine track so that a plurality of cars may be run along the track beneath the conveyer, said devices permitting the conveyer as a whole to be moved along the track while the conveyer is supported by the truck and by said devices.

2. In a loading and conveying apparatus for use in mines, a conveyer including a rigid frame and means for conveying material rearwardly along the said frame, a truck supporting the forward end of the conveyer and adapted to run along a mine track, said frame having pivotal connections with the truck by which the conveyer may be turned about a horizontal axis and about a vertical axis, and means for supporting the rear end of the conveyer independently of the truck and independently of and above the track so that a plurality of cars may be run along the mine track beneath the conveyer.

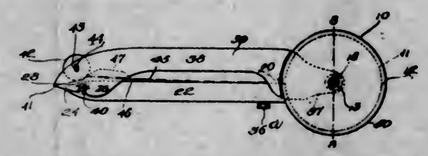
3. In a loading and conveying apparatus, a conveyer having means for moving material rearwardly along the same, a truck supporting the forward end of the conveyer and adapted to run along a track, said conveyer and truck having pivotal connections which permit the conveyer to turn about a horizontal axis and about a vertical axis, and means for supporting the rear end of the conveyer independently of the track and from above the same, said means comprising rails carried by the conveyer and supporting devices having rollers which are engaged by said rails.

4. In a loading and conveying apparatus for use in mines, a conveyer having means for conveying material rearwardly along the same, a truck supporting the forward end of the conveyer and adapted to be run along a mine track, and means for supporting the rear end of the conveyer from the overhead mine timbering comprising hangers connected to the overhead timbering and to the conveyer, the connection between the hangers and the conveyer comprising rails and rollers by which the conveyer may have a limited movement relative to the hangers.

5. In a loading and conveying apparatus for use in mines, a conveyer having means for conveying material rearwardly along the same, a truck supporting the forward end of the conveyer and adapted to run along the mine track, and means for supporting the rear end of the conveyer from overhead mine timbering comprising rails along the sides of the conveyer and hangers adapted to be connected to the overhead timbering and having rollers which are engaged by said rails.

[Claims 6 to 8 not printed in the Gazette.]

1,204,761. GUMMED-STRIP-AFFIXING DEVICE. ALFRED HALL, Winthrop, Mass., assignor to Hazel C. Kendall, Boston, Mass. Filed Oct. 18, 1912. Serial No. 726,440. (Cl. 216—21.)



1. In an article of the character described the combination of a strip container, a tank fixed to said strip container, a casing pivoted on said strip container, said tank and casing of suitable shape to serve as a handle, with means adapted to convey moisture from said tank to a strip fed from said strip container.

2. In an article of the character described a strip container comprising a casing provided with a centrally located roll support bearing, a socket in said bearing, a cover adapted to close said casing, a split pin fixed at one end to the center of said cover and adapted to be forced into said socket, in combination with a finger operated strip feeding and moistening means.

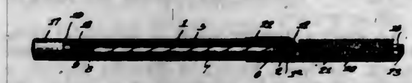
3. An article of the character described comprising a strip roll container, a tank fixed at one end to said container, a moistening roll journaled on a pin which passes through the sides of said tank, a casing pivoted at one end to the center of a side of said container and so shaped that together with said tank the casing forms a handle, a strip severer on the other end of said casing, a finger operated feed roll mounted on a pin which passes through and is guided by slots in said casing, said feed roll being in such a position and so constructed as to be adapted to coöperate with said moistening roll to feed a strip between said rolls.

4. In an article of the character described a cylindrical container, a strip roll bearing fixed at one end to the center of the vertical side of said container by a screw, a socket in the other end of said bearing, a split pin engaging said socket which is fixed to a cover adapted to close said container, a longitudinal slot in said casing, a tank fixed to said container, a moistening roll journaled on a pin which passes through two sides of said tank, a pad adjacent to said moistening roll, a spring actuated plunger pressing said pad against said roll, a casing pivoted on a shoulder on said screw, a finger operated feed roll mounted on a pin which extends through and is guided by slots in the side of said casing, said casing and tank of suitable shape and size to serve as a handle.

5. In an article of the character described, the combination, of means for supporting a strip, a tank beneath said supporting means adapted to receive a liquid, a moistening roller at one end of said tank and projecting slightly above the top thereof, means above said tank for supporting a feed roller, said latter means and said tank of suitable form and said feed roller so positioned that said means and said tank may be conveniently grasped by a hand of the operator, and said feed roller rotated by movement of the thumb thereof to feed the said strip over said moistening roller.

[Claim 6 not printed in the Gazette.]

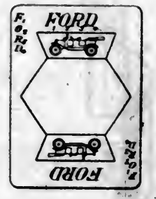
1,204,762. ROTARY TOOTH-BRUSH. OLIVER CLAUDE HANEY, Los Angeles, Cal. Filed Nov. 16, 1915. Serial No. 61,853. (Cl. 15—37.)



In a rotary tooth brush, a cylindrical outer casing having a reduced opening at its front end with a shoulder at the inner end of said opening, an annular member arranged inside said casing and spaced inward from said shoulder, an inner sleeve mounted to reciprocate in said outer casing and having an angular opening at its front end, a worm rod extending through said sleeve and carrying a radial flange disposed between the shoulder and annular member in said casing, whereby said rod is held against longitudinal movement and yet permitted to rotate, said rod having a threaded extension in advance of said flange, a disk-shaped guide member adjustably mounted on the rear end of said rod, and having a sliding engagement with said inner sleeve, a brush having a threaded extension at its inner end, a sleeve connecting the extensions of said brush and rod, a cap engaged with the rear end of said first mentioned sleeve to provide an operating handle therefor, and a mouth protecting hood engaged with said outer casing and extending over said brush.

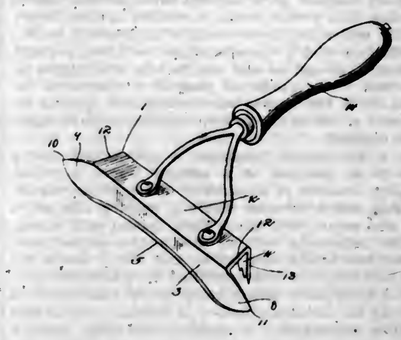
1,204,763. PLAYING-CARDS. BERT HARPSTER, Burchard, Nebr. Filed Aug. 2, 1915. Serial No. 43,249. (Cl. 46—25.)

1. Playing cards comprising a pack of cards made up of suits, the cards of each suit corresponding in number to the number of letters in the name of an automobile, each card of each suit corresponding in lettering to every other card of this suit, and having a distinctive playing value from every other card of the suit by reason of a distinctively colored letter of the name.



2. Playing cards comprising a pack of cards made up of suits, the cards of each suit corresponding in number to the number of letters in the name of an automobile, each card of the suit representing in its playing value a particular and different letter of that name, and a series of cards in addition to the suit cards, the cards of said series being capable of use to represent any letter of the particular name.

1,204,764. CULINARY UTENSIL. DANIEL A. HELMICH, Birmingham, Ala., Filed Mar. 23, 1916. Serial No. 86,056. (Cl. 17—10.)



1. A fish scaler consisting of a pair of parallel integrally connected blades, one of which projects at both ends beyond the other.

2. A fish scaler consisting of a pair of parallel integrally connected blades, one of which projects at both ends beyond the other, the cutting edges of said blades being arcuate.

3. A fish scaler consisting of a pair of parallel integrally connected blades, one of which projects at both ends beyond the other, the cutting edges of said blades being arcuate and one of said blades having its cutting edge toothed.

4. A fish scaler consisting of a pair of parallel integrally connected blades, one of which projects at both ends beyond the other, the cutting edges of said blades being arcuate, one of said blades having its cutting edge toothed, said projecting ends having cutting edges continuous with the edge of the plate of which they form a part.

5. A fish scaler consisting of a pair of parallel integrally connected blades, one of which projects at both ends beyond the other, the cutting edges of said blades being arcuate, one of said blades having its cutting edge toothed, said projecting ends having cutting edges continuous with the edge of the plate of which they form a part and a handle mounted between said blades and being offset therefrom.

[Claims 6 to 8 not printed in the Gazette.]

1,204,765. HAND-MICRO TELEPHONE. WILLIAM WEIR HENRY, Wollaston, Mass., assignor to S. H. Couch Company, Inc., Atlantic, Mass., a Corporation of Massachusetts. Filed June 19, 1914. Serial No. 846,153. (Cl. 179—103.)



1. In a hand-micro telephone, a transmitter casing adapted to be mounted on a suitable frame, a curved mouth-piece adapted to be screwed into position against said casing, said casing having a notched opening adapted for the projection therethrough of a threaded nipple; in combination with a threaded nipple or bushing adapted to receive the end of said mouth-piece, said nipple being provided with a projection adapted to alternately engage anyone of the notches surrounding said opening for the purpose of preventing relative rotation of said nipple when so engaged.

2. In a hand-micro telephone, a transmitter casing adapted to be mounted on a suitable frame, a curved mouth-piece adapted to be screwed into position against said casing, and a threaded nipple or bushing adapted to receive and secure said mouth-piece against said casing, means for adjustably securing said nipple against rotation upon and within said casing, and elastic means for holding said nipple in locked position upon said casing.

3. In a hand-micro telephone, a frame whose face is adapted for the mounting thereon of suitable receiver and transmitter mechanism; a metallic base-plate adapted for the mounting thereon of all the necessary buttons and switches; means for removably securing said base-plate to the back of said frame; and a cover adapted to be secured over said base-plate.

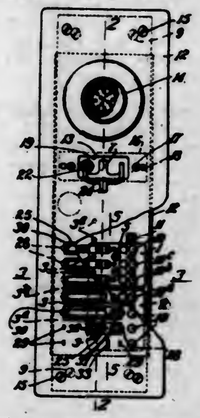
4. In a hand-micro telephone, a frame adapted for the mounting thereon of suitable receiver and transmitter mechanism; a metallic base-plate adapted for the mounting thereon of all the necessary buttons and switches; means for removably securing said base-plate to said frame; and a cover adapted to be secured to said means.

5. In a hand-micro telephone, a frame whose front is adapted for the mounting thereon of suitable receiver and transmitter mechanisms; a metallic base-plate adapted for the mounting thereon of all the necessary switches and buttons; means for removably securing said base-plate to the back of said frame; means whereby said buttons may be manipulated from the front of said frame; and means for inclosing said switches.

[Claim 6 not printed in the Gazette.]

1,204,766. SELECTIVE SIGNALING DEVICE. WILLIAM WEIR HENRY, Wollaston, and ALTON E. STEVENS, Atlantic, Mass., assignors to S. H. Couch Company, Inc., Atlantic, Mass., a Corporation of Massachusetts. Filed Jan. 12, 1915. Serial No. 1,739. (Cl. 179—99.)

1. A base adapted for the mounting thereon of a telephone transmitter mechanism, an insulating button block adapted to be mounted on said base, a telephone receiver mechanism adapted for mounting in connection with said base, a receiver hook pivotally mounted in connection with said receiver mechanism and adapted to pendantly support a suitable receiver-cap, and a cover-plate adapted to be secured over said base and provided with an opening for the projection therethrough of said hook; in combination with means formed integral with said hook to prevent said receiver-cap from striking said cover-plate when properly supported by said hook.



2. A telephone receiver-cap; a supporting hook therefor; a wall plate with an opening adapted for the projection therethrough of said hook; a button-block mounted behind said wall-plate and provided with suitable button devices; means whereby said button devices may be manipulated from the front of said wall-plate; and means, integral with said hook and adapted to prevent said receiver-cap from striking said wall-plate when properly suspended from said hook.

3. In a selective signaling system, a plurality of blocks, each adapted for the mounting thereon of a different number of individual connectors; a cover-plate adapted to be secured so as to conceal said blocks; and means adapted to interchangeably position said blocks behind said cover-plate.

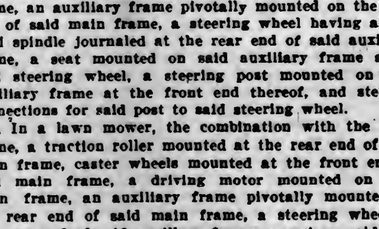
4. In a selective signaling system, a plurality of blocks of insulating material, each adapted for the mounting thereon of a different number of signaling buttons; a cover-plate adapted to be secured so as to conceal said blocks and provided with openings for the projection therethrough of said buttons; and means for interchangeably securing said blocks behind said cover-plate.

5. In a selective signaling system, a plurality of blocks of insulating material adapted for the mounting thereon of suitable signaling buttons; a cover-plate adapted to be secured so as to conceal said blocks and provided with a row of openings each adapted for the projection therethrough of one of said buttons; independent means for simultaneously securing said blocks behind said cover-plate; and means for alternately positioning said blocks behind said cover-plate so that said buttons may project through a different series of said openings.

[Claim 6 not printed in the Gazette.]

1,204,767. POWER-MOWER. GEORGE R. HOLMES, Lansing, Mich., assignor to The Lansing Mower Company, Lansing, Mich. Filed Jan. 15, 1916. Serial No. 72,340. (Cl. 21—114.)

1. In a lawn mower, the combination with a main frame, a traction roller mounted at the rear end of the said main frame, caster wheels mounted at the front end of said main frame, a driving motor carried by said main frame, an auxiliary frame comprising a pair of rearwardly converging side members, the rear ends of said side members being upwardly offset, a pivot rod for said side members mounted on said main frame at the rear of said traction roller, a cross bar extending between said side members at the front ends thereof, a steering post mounted on said cross bar, a spindle bearing mounted at the rear ends of said side members, a seat mounted above said spindle bearing, a steering wheel having a spindle journaled in said spindle bearing, and operating connections from said steering post to said steering wheel.



2. In a lawn mower, the combination with a main frame, a traction roller mounted at the rear end of said main frame, caster wheels mounted at the front end of said main frame, a driving motor carried by said main frame, an auxiliary frame comprising a pair of side members, a pivot rod for said side members mounted on said main frame at the rear of said traction roller, a steering post mounted on said auxiliary frame, a steering wheel at the rear end of said auxiliary frame, and operating connections from said steering post to said steering wheel.

3. In a lawn mower, the combination with a main frame, a traction roller mounted at the rear end of said main frame, caster wheels mounted at the front end of said main frame, a driving motor carried by said main frame, an auxiliary frame pivotally mounted on the rear end of said main frame, a steering post mounted on said auxiliary frame, a steering wheel, a steering wheel spindle provided with a yoke embracing said wheel, a steering wheel frame comprising side members disposed at the sides of the wheel and secured to the arms of said yoke, said side members being connected by cross bars at the front and rear of the wheel, a steering chain connected at its ends to the rear end of said steering frame side members, a spindle bearing mounted on the rear ends of said side members, a steering sprocket, connections from said post to said steering sprocket, and a seat mounted above said spindle bearing.

4. In a lawn mower, the combination with a main frame, a traction roller mounted at the rear end of said main frame, caster wheels mounted at the front end of said main frame, a driving motor mounted on said main frame, an auxiliary frame pivotally mounted on the rear end of said main frame, a steering wheel having a vertical spindle journaled at the rear end of said auxiliary frame, a seat mounted on said auxiliary frame above said steering wheel, a steering post mounted on said auxiliary frame at the front end thereof, and steering connections for said post to said steering wheel.

5. In a lawn mower, the combination with the main frame, a traction roller mounted at the rear end of said main frame, caster wheels mounted at the front end of said main frame, a driving motor mounted on said main frame, an auxiliary frame pivotally mounted on the rear end of said main frame, a steering wheel at the rear end of said auxiliary frame, a seat on said auxiliary frame, a steering post, and connections from said post to said steering wheel.

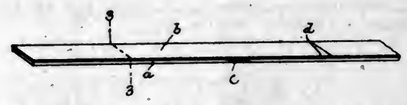
1,204,768. TWO-IN-ONE LEVEL. RICHARD F. HOMMEL, San Francisco, Cal. Filed May 23, 1914, Serial No. 840,577. Renewed Aug. 30, 1916. Serial No. 117,963. (Cl. 33—212.)

A spirit level composed of a horizontal tube and a vertical tube formed integral therewith, a glass rod having one end rigidly secured to the outer end of the vertical tube and having its opposite end free and spaced from the outer portion of the horizontal tube at the center



of the length of the latter, and fluid within the tubes, partially filling same so as to leave a bubble of air therein.

1,204,769. WELTING. EDWARD OAKMAN HOOD, Wellesley Hills, Mass. Filed Jan. 3, 1916. Serial No. 69,805. (Cl. 36—78.)



1. A two ply welt strip consisting of a body ply of split leather in which the strength of the welt is mainly contained, and a face ply of grain leather united to the body ply on one surface only thereof.

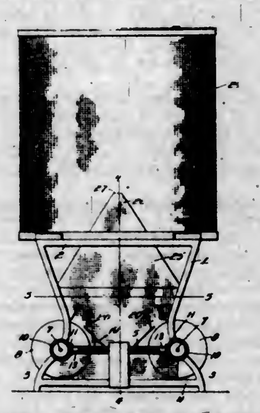
2. A welt strip comprising a body ply and a face ply, the body ply being of material having great strength but lacking the grain surface of leather, and the face ply being of grain leather on its outer surface and being attached to the body ply on one surface only thereof.

3. A welt strip comprising a body ply and a face ply, the body ply being of material having great strength but lacking the grain surface of leather, and the face ply being of grain leather on its outer surface, each of said plies being composed of sections having their adjoining ends scarfed and lapped one over the other, such scarfed joints of the two plies being relatively oppositely inclined.

4. A welting comprising a body ply of a relatively strong split leather lacking grain surface, and a face ply of relatively soft and flexible leather having its grain surface, and being attached to one face only of the body ply with its grain surface outward.

5. A welting comprising a body ply of a relatively strong split leather lacking grain surface, and a face ply of sheepskin having its grain surface intact, and being attached to one face only of the body ply with its grain surface outward.

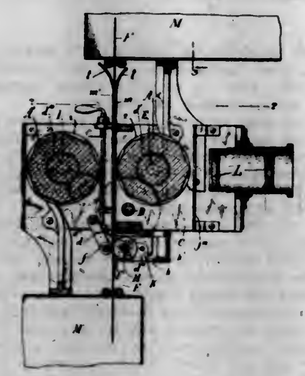
1,204,770. INSECT-TRAP. JOHN A. HOPKINS, Jr., Burns, Kans. Filed Mar. 9, 1915. Serial No. 13,262. (Cl. 43—22.)



An insect trap comprising a suitable supporting frame, an angular reticulated member disposed within the frame

and having a pyramidal upper portion formed with an opening in the apex thereof, a cage disposed on the frame and provided with an opening receiving the upper end of the pyramidal portion, the lower portions of the two opposite sides of the angular member being directed upwardly and inwardly at acute angles, the upper ends of said portions being directed downwardly and outwardly to form guard or baffle flanges, motor driven rollers mounted below the said sides of the angular member, and a downwardly directed V-shaped trough disposed between the rollers and having its upper marginal edges directed upwardly in spaced relation to the first named upwardly directed portions and thence downwardly at acute angles to form guard or baffle flanges.

1,204,771. MOVING-PICTURE APPARATUS. MARCUS C. HOPKINS, Jersey City, N. J. Filed July 15, 1912. Serial No. 709,546. (Cl. 88—16.8.)



1. In moving picture apparatus, the combination with a film feed of two oppositely rotating transparent polygonal refracting bodies each having an even number of faces and disposed upon opposite sides of the film; substantially as described.

2. In moving picture apparatus, the combination with a film feed of two oppositely rotating transparent polygonal refracting bodies each having an even number of faces and disposed upon opposite sides of the film and means for passing a uniform field of substantially parallel light through one of said bodies, then through the moving film and then through the other of said bodies; substantially as described.

3. In moving picture apparatus, the combination with a uniform field of parallel light, a moving picture film fed through said field, and a polygonal refracting body rotating in the path of said field of light through which body said light passes before reaching said film; substantially as described.

4. In moving picture apparatus the combination with a stationary source of light, a moving film, means for moving the field of light emanating from the source and falling upon the film in correspondence with the movement of the film to maintain a fixed relation between the film and the light rays illuminating it during movement of the film.

5. In moving picture apparatus, the combination with a film feed, of two oppositely rotating transparent polygonal refracting bodies, each having an even number of faces and disposed upon opposite sides of the film, and means for passing light through one of said bodies, then through the moving film, and then through the other of said bodies, substantially as, and for the purpose set forth.

[Claims 6 to 11 not printed in the Gazette.]

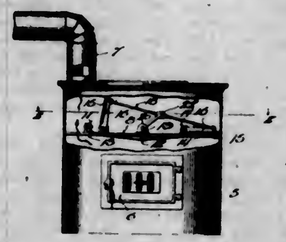
1,204,772. WEED CUTTER AND SPRAYER. THOMAS HORNECKER, La Fayette, Cal. Filed May 15, 1916. Serial No. 97,563. (Cl. 97—10.)



1. An attachment for cultivators, comprising a transversely extending surfacer blade, V-shaped in cross section, closed at its ends and open at its rear side, a pipe extending longitudinally through said blade and supported in said ends, said pipe being provided with apertures to direct a spray of liquid to the rear of the blade, and supply means for said pipe detachably carried upon the cultivator.

2. An attachment for cultivators, comprising a transversely extending surfacer blade, V-shaped in cross section, closed at its ends and open at its rear side, a pipe extending longitudinally through said blade and supported in the ends of said blade at the rear thereof, said pipe being provided with apertures in its lower and rear walls, the rear edge of the lower wall of said blade resting in front of the apertures in the lower wall of said pipe, and supply means for said pipe.

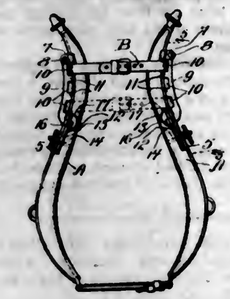
1,204,773. DEFLECTING-DAMPER ARRANGEMENT FOR STOVES. RICHARD C. HUGHES, Calamus, and JOHN C. ZEMLO, Beaver Dam, Wis. Filed Mar. 17, 1916. Serial No. 84,792. (Cl. 126—58.)



A deflecting damper attachment for a stove having a pipe opening in one side of its top portion, said attachment comprising a transverse partition in the upper portion of the stove provided with an opening at a point adjacent the pipe opening and with an opening remote from the pipe opening, ears on the partition adjacent the openings, a bearing ear disposed centrally on the partition, closure plates for said openings pivoted to the first named ears, apertured projections on the closure plates, a centrally apertured link having laterally turned ends engaged in said apertured projections and an operating shaft passed through the stove and journaled in the bearing ear with its inner portion laterally offset to provide a crank arm engageable in the aperture of the link.

1,204,774. HAMES-FASTENER. LEWIS J. INGRAM, Angus, Tex. Filed May 9, 1916. Serial No. 96,376. (Cl. 54—29.)

The combination with a hame and a hame strap adapted to be engaged with said hame, of a bearing strap on the hame, a reinforcing strip secured to the hame and having notches in opposite edges for receiving the bearing strap, a keeper pivotally supported in the bearing strap and adapted to adjustably receive the hame strap, and a spring-held latch pivoted in the hame and engageable with the keeper to lock the same closed.



1,204,775. MOTION-PICTURE SCREEN AND PROCESS FOR MAKING THE SAME. AXEL T. JACOBSSON, Milwaukee, Wis. Filed Apr. 20, 1916. Serial No. 92,534. (Cl. 88—24.)



1. A screen for exhibiting motion pictures consisting of a piece of fabric coated with pyrolin and a filler to form a flexible fireproof backing, said backing having an adhesive dressing applied thereto, and a layer of small glass pearls partially embedded in said dressing.

2. A screen for exhibiting motion pictures and the like consisting of a suitable back having an adhesive dressing applied thereto, and a layer of minute fluorized glass globules applied to said dressing.

3. A screen for exhibiting motion pictures and the like consisting of a pliable fire-proof body portion having an opaque back and an adhesive dressing applied to the front surface of said body portion, and a layer of small fluorized glass globules applied to said dressing.

4. A screen for exhibiting motion pictures and the like consisting of a canvas back coated with a filler and having an adhesive dressing applied thereto, and a layer of small fluorized glass globules applied to said dressing.

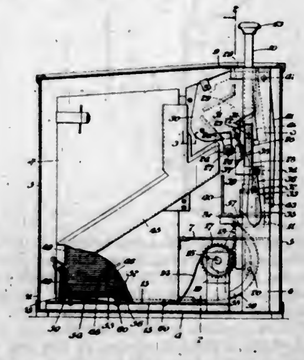
5. A screen for exhibiting motion pictures and the like consisting of a suitable back having an adhesive dressing consisting of a composition of a ground white solid base mixed with poppy oil and a solvent applied thereto, and a layer of small glass globules applied to said dressing.

[Claims 6 to 13 not printed in the Gazette.]

1,204,776. COIN-CONTROLLED APPARATUS. OTTO JAEGER, Elkins-Park, Pa., assignor, by mesne assignments, to Industrial Service Company, Philadelphia, Pa., a Corporation of Delaware. Application filed June 16, 1915, Serial No. 34,355. Renewed Oct. 5, 1916. Serial No. 124,006. (Cl. 194—73.)

1. In a coin-controlled apparatus, the combination of a supporting frame, a movable operating member, a movable operated member, a movable arm carried by said operating member and adapted to be moved by a coin to operatively connect said members, a movable part carried by said operating member and provided with means adapted to receive and direct a coin to said arm, and means causing said part to be moved to discharge a coin therefrom during the movement of said operating member.

2. In a coin-controlled apparatus, the combination of a supporting frame, a movable operating member, a movable operated member, an arm pivoted to said operating member and adapted to be moved by a coin to operatively connect said members, a movable part carried by said operating member and provided with means adapted to receive and direct a coin to said arm, and means causing said part to be moved to discharge a coin therefrom during the movement of said operating member.



3. In a coin-controlled apparatus, the combination of a supporting frame, a movable operating member, a movable operated member, a movable arm carried by said operating member and adapted to be moved by a coin to operatively connect said members, a part pivoted to said operating member and provided with means adapted to receive and direct a coin to said arm, and means causing said part to be moved to discharge a coin therefrom during the movement of said operating member.

4. In a coin-controlled apparatus, the combination of a supporting frame, a movable operating member, a movable operated member, an arm pivoted to said operating member and adapted to be moved by a coin to operatively connect said members, a part pivoted to said operating member and provided with means adapted to receive and direct a coin to said arm, and means causing said part to be moved to discharge a coin therefrom during the movement of said operating member

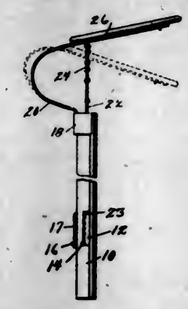
5. In a coin-controlled apparatus, the combination of a supporting frame, a movable operating member, a movable operated member, a movable arm carried by said operating member and adapted to be moved by a coin to operatively connect said members, a part pivoted to said operating member and provided with means adapted to receive and direct a coin to said arm, a spring holding said part in a normal position relatively to said operating member, and a stop adapted to engage said part and move it against the action of said spring to discharge a coin therefrom during the movement of said operating member.

[Claims 6 to 15 not printed in the Gazette.]

1,204,777. INSECT-DESTROYER. HENRY JAHR, Ardmore, Pa. Filed May 8, 1916. Serial No. 96,218. (Cl. 43—1.)

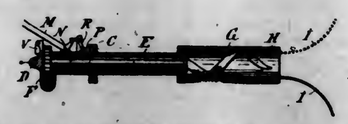
1. A fly swatter including an elongated handle having an opening extending longitudinally from one end and terminating in spaced relation to the other end, a spring fixed to the handle and bowed laterally to extend across the open end of the handle, a rod slidable in the opening and having connection with the opening, a striking member carried by the free end of the spring, and a latch and trigger mechanism at the inner end of the opening to releasably hold the rod inward and the spring under stress.

2. A fly swatter including an elongated handle having an opening extending longitudinally thereof and terminating in spaced relation to the other end of the handle, the handle being provided with a transverse slot wherewith the terminal end of the opening communicates, one wall of the slot being provided with a notch and having an opening leading outward therefrom through the handle, a pin movable in the last-mentioned opening, a spring yield-



ably holding the pin outward, a rod slidable in the longitudinal opening and projecting from the end thereof, a cross bar on the rod movable in the slot and engageable in the notches, a leaf spring fixed to the handle and bowed laterally to extend across the end of the handle in spaced relation thereto, a link connecting the rod and spring, and a striking member carried by the free end of the spring.

1,204,778. SELF-CATCHING SCREW-COUPLING FOR RAILWAY-CARS. JENS THOMAS JENSEN, Hjörring, Denmark. Filed Feb. 15, 1916. Serial No. 78,436. (Cl. 213—53.)



1. A self catching screw coupling for railway cars comprising a rotatable screw formed element, a shaft carrying the said element and a tooth wheel, a lever adapted to engage with the said tooth wheel, means operable from both sides of the railway car for lifting the said lever up from its locking position, means for suspension of the said coupling in substantially horizontal position and means for leading another device of the same kind into engagement with the said coupling substantially as set forth.

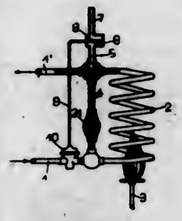
2. A self-catching screw coupling for railway cars comprising a rotatable screw formed element a shaft carrying the said element and a tooth wheel, a lever adapted to engage with the said tooth wheel means operable from both sides of the railway car for disengaging the said lever from the said tooth wheel, a casing surrounding the said screw formed element and carrying spring actuated rods provided with pawls, said pawls being adapted to release the said lever from its lifted position substantially as set forth.

3. A self-catching screw coupling for railway cars comprising a rotatable screw formed element, a shaft carrying the said element and a tooth wheel, a lever, a bearing for said shaft, a casing slidable on said bearing inclosing said rotatable screw, said casing having means adapted to actuate said lever to cause said lever to engage said tooth wheel thereby locking or releasing the same and means for lifting the said lever up from its locking position substantially as set forth.

4. A self-catching screw coupling for railway cars comprising a rotatable screw formed element, a shaft carrying the said element and a tooth wheel, a lever pivoted adjacent the said tooth wheel, a member relatively slidable with respect to the rotatable screw adapted to cause the lever to engage with said toothed wheel, means for lifting the said lever up from its locking position, and means for suspension of the said coupling in substantially horizontal position.

5. A self catching screw coupling for railway cars comprising a rotatable screw formed element, a shaft carrying the said element and a tooth wheel, a lever adapted to engage with the said tooth wheel, means for disengaging the said lever from the said tooth wheel, a displaceable member adapted for relative longitudinal movement with respect to said screw formed element and adapted to release the said lever from its lifted position substantially as set forth.

1,204,779. WATER-HEATING APPARATUS. HUGO JUNKERS, Aix-la-Chapelle, Germany. Filed Jan. 28, 1914, Serial No. 815,011. Renewed Sept. 28, 1916. Serial No. 122,737. (Cl. 236—6.)



1. Water heating apparatus comprising the combination of a heater, pipes carrying water to and from the heater, a steam chamber connected to the heater and adapted to receive steam therefrom independently of the level of the water in the heater, a thermostatic device entering said chamber and actuated by the steam therein, and a valve in one of said pipes controlled by said thermostatic device, substantially as described.

2. Water heating apparatus comprising the combination of a heater, pipes carrying water to and from the same, a steam chamber connected to the heater to receive steam but not water therefrom, a thermostatic device entering said chamber and actuated by steam therein and a valve in one of said pipes controlled by said thermostatic device, substantially as described.

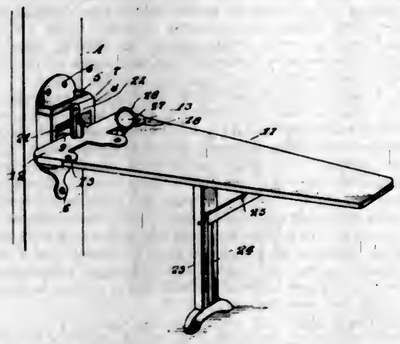
3. Water heating apparatus comprising the combination of a heater, pipes carrying water to and from the same, a chamber located outside the heater and arranged to dissipate heat, a connection from the upper portion of the heater to said chamber for conveying steam to the chamber, a thermostatic device entering the chamber and actuated by the steam therein and a valve in one of said pipes controlled by said thermostatic device, substantially as described.

4. Water heating apparatus comprising the combination of a heater, pipes carrying water to and from the same, a valve in one of said pipes constituting a means for controlling the flow of water through the heater, a steam chamber connected to the heater and adapted to receive steam therefrom, a thermostatic device entering said chamber and actuated by the steam therein, and a connection from the thermostatic device to said valve, substantially as described.

5. Water heating apparatus comprising the combination of a heater, an admission pipe carrying water to the same, an outlet pipe leading from the heater, a steam chamber connected to the heater to receive steam therefrom, a thermostatic device entering said chamber and actuated by the steam therein, a valve in said admission pipe controlled by said thermostatic device and a bypass around said valve, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

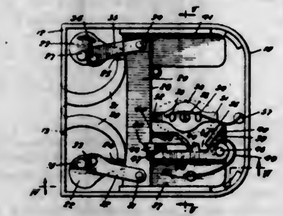
1,204,780. IRONING-BOARD. JOSEPH M. KARL, Roslyn Heights, N. Y., assignor to Roslyn Specialty Co., Inc., Roslyn Heights, N. Y., a Corporation of New York. Filed Jan. 29, 1916. Serial No. 75,141. (Cl. 68—10.)



1. In combination with a support, a bracket fixedly secured thereto and provided with a casing formed with a T-shaped slot and a ledge, of an ironing board having a T-shaped head adapted to removably engage in the slot of the casing and repose upon the ledge thereof, and means for locking the ironing board to said bracket and upon the ledge of said bracket.

2. In combination with a support, a bracket fixedly secured thereto and provided with a casing having a front wall formed with a T-shaped slot and a ledge, of an ironing board having a T-shaped head adapted to movably engage in the slot of the casing and repose upon the ledge thereof, and means pivotally connected to the front wall of the casing at a point above its slot for locking the ironing board to said bracket and upon the ledge thereof.

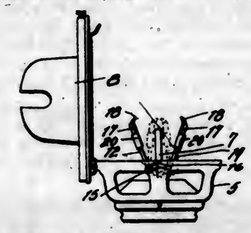
1,204,781. LOCK. JOSEPH KAUFMAN, New York, N. Y., assignor of one-half to Jacob Wolfson. Filed Dec. 2, 1915. Serial No. 64,703. (Cl. 70—74.)



1. In a lock, a housing, a pair of bolts mounted in said housing, a bar slidably mounted in said housing and secured to said bolts, a slotted plate attached to said bar and having a cut-away portion adjacent said slot, a lug on said housing and projecting through said slotted plate, a retainer on said plate engaging said lug and having an abutment thereon adapted to pass over said cut-away portion of said slotted plate, and means mounted in said housing adapted to be rotated into engagement with said abutment and move same laterally to release said retainer from said lug, said releasing means also being adapted to engage said plate and move same laterally, thereby causing said bolts to move into locking position, substantially as described.

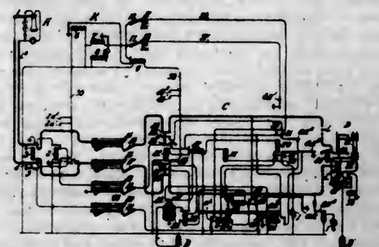
2. In a lock, a housing, a pair of bolts mounted in said housing, a bar slidably secured in said housing, links connecting said bar and said bolts, a slotted plate attached to said bar and having a cut-away portion adjacent said slot, a lug on said housing and projecting through said slotted plate, a retainer pivotally secured to said plate and having one end resiliently engaging said lug and having an abutment thereon adapted to pass over said cut-away portion of said slotted plate, and releasing means mounted in said housing adapted to engage said abutment and disengage said retainer from said lug and also engage said plate and move same laterally, thereby moving said bolts into locking position, substantially as described.

1,204,782. ATTACHMENT FOR BURNERS. ELLSWORTH D. KELLERMAN, Montesano, Wash. Filed Mar. 21, 1916. Serial No. 85,659. (Cl. 67—79.)



An attachment of the character described, comprising a main rock-shaft having an upstanding inverted approximately U-shaped member, a co-acting rock-shaft having an upstanding inverted approximately U-shaped member, plates longitudinally adjustably mounted upon the approximately U-shaped members, operative connections between the ends of the rock-shafts, and means to turn one rock-shaft.

1,204,783. TELEPHONE-EXCHANGE SYSTEM. LEROY D. KELLOGG, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Nov. 27, 1906. Serial No. 345,290. (Cl. 179—27.)



1. A telephone system including telephone circuits, link-circuits for interconnecting said telephone circuits, electrically actuated step by step selective switches therefor and for common use of said telephone circuits, and means for employing said switches interchangeably to connect with calling or called telephone circuits.

2. A telephone system including a telephone circuit, an electrically actuated step by step selective switch, a second telephone circuit, stations for said circuits, mechanism controlled at the station of the first circuit to automatically connect said switch with said first circuit when a calling circuit, and mechanism at the station of the second circuit for automatically controlling said switch to connect it with said first circuit as a called circuit.

3. A telephone system including a telephone line, an electrically actuated step by step selective switch adapted on initiation of a call at the station of said line to automatically select and connect with said line, a second telephone line and circuits controlled thereover for changing the mechanism of said switch to render it operable, responsive to currents over said second line, to select and connect with said first line as a called line.

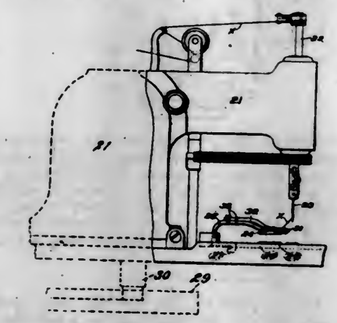
4. A telephone system including a telephone line, multiple contacts for said line, electrically actuated step by

step selective switches, and means for operating said switches for connecting to said contacts to extend the circuit of said line as either a calling or a called line.

5. A telephone system including telephone lines, link circuits for use in connecting said lines, and electrically actuated step by step switching mechanisms for said circuits for interchangeably connecting said circuits directly to said lines whether as calling or called lines.

[Claims 6 to 66 not printed in the Gazette.]

1,204,784. THREAD HOLDING AND CUTTING MEANS FOR SEWING-MACHINES. JOHN KIEWICZ, Hyde Park, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Dec. 7, 1914. Serial No. 875,805. (Cl. 112—33.)



1. A buttonhole or analogous stitching machine including in combination a stitch-frame and a work-clamp constituting relatively movable elements, a needle and needle-actuating mechanism supported by said stitch-frame, means for shifting one of said relatively movable elements, and a device operated by said shifting for cutting the thread between the work and needle, said device consisting of an elongated holder having two opposite side pieces with converging entrance between them for the thread, and a cutter blade having its cutting edge arranged transversely across the opposed edges of the side pieces of said holder to act upon the entering thread.

2. A buttonhole or analogous stitching machine including in combination a stitch-frame and a work-clamp constituting relatively movable elements, a needle and needle-actuating mechanism supported by said stitch-frame, automatic means for shifting one of said relatively movable elements at the completion of a seam, and a device operated by said shifting for cutting the thread between the work and needle, said device consisting of an elongated holder having two opposite side pieces with converging entrance between them for the thread, and a cutter blade having its cutting edge arranged transversely across the opposed edges of the side pieces of said holder to act upon the entering thread.

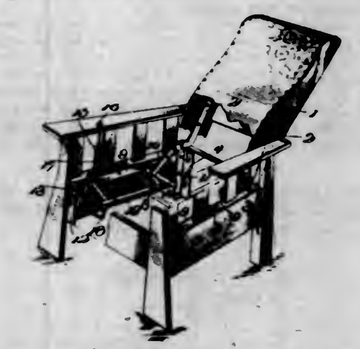
3. A buttonhole or analogous stitching machine including in combination a stitch-frame and a work-clamp constituting relatively movable elements, a needle and needle-actuating mechanism supported by said stitch-frame, automatic means for shifting one of said relatively movable elements at the completion of a seam, and a cutter mounted stationarily on one of said elements in position to cut the thread between the work and needle upon such shifting at the completion of a seam, and means for holding the thread between the needle and cutting point after such cutting, said cutting and holding means consisting of an elongated holder having two opposite side pieces with converging entrance between them for the thread, and a cutter blade having its cutting edge arranged transversely across the opposed edges of the side pieces of said holder to act upon the entering thread.

4. A buttonhole or analogous stitching machine including in combination a stitch-frame and a work-clamp constituting relatively movable elements, a needle and needle-actuating mechanism supported by said stitch-frame, means for shifting one of said relatively movable elements, and a device operated by said shifting for cutting and holding the thread between the work and needle, said device consisting of an elongated holder having two opposite side pieces with converging entrance between them for the thread, and a cutter blade having its cutting edge arranged transversely across the opposed edges of the side pieces of said holder to act upon the entering thread.

5. A buttonhole or analogous stitching machine including in combination a stitch-frame and a work-clamp constituting relatively movable elements, a needle and needle-actuating mechanism supported by said stitch-frame, automatic means for shifting one of said relatively movable elements at the completion of a seam, and a device operated by said shifting for cutting and holding the thread between the work and needle, said device consisting of an elongated holder having two opposite side pieces with converging entrance between them for the thread, and a cutter blade having its cutting edge arranged transversely across the opposed edges of the side pieces of said holder to act upon the entering thread.

[Claims 6 and 7 not printed in the Gazette.]

1,204,785. RECLINING-CHAIR. CHARLES J. KINDEL, Grand Rapids, Mich., assignor to Grand Rapids Trust Company, Grand Rapids, Mich., a Corporation of Michigan. Filed May 29, 1915. Serial No. 31,113. (Cl. 155—28.)



1. In a reclining chair, the combination with a tilting back, of an oscillating seat, a connection between the back and seat whereby the seat moves backward when the back is tilted backward and vice versa, and means for locking the parts in their relatively adjusted positions.

2. In a reclining chair, the combination with a tilting back, of an oscillating seat, and a connection between the back and seat whereby the seat moves backward when the back is tilted backward and vice versa.

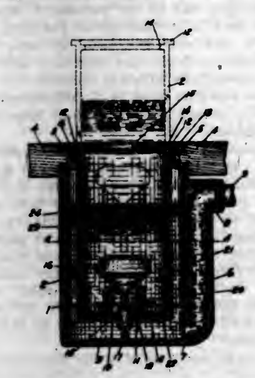
3. In a reclining chair, the combination with a tilting back, of an oscillating seat, a connection between the back and seat whereby the seat moves backward when the back is tilted backward and vice versa, means for locking the back and seat in their relatively adjusted positions, and springs for counteracting the backward movements of the back and seat.

4. In a reclining chair, the combination with a tilting back, of an oscillating seat, a connection between the back and seat whereby the seat moves backward when the back is tilted backward and vice versa, and springs counteracting the backward movement of said parts.

5. In a reclining chair, the combination with a tilting back, of a seat, parallel links attached to the chair-frame for supporting the seat, and connections between the said links and the chair back whereby a rearward tilting of the back causes the seat to move backward.

[Claims 6 and 7 not printed in the Gazette.]

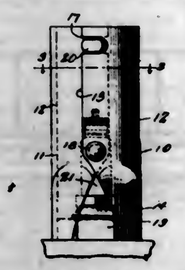
1,204,786. DRAIN-TRAP. JOHN KIRKWOOD, Lenox, Mass. Filed Dec. 2, 1915. Serial No. 64,762. (Cl. 210—5.)



1. In a device of the class described, a chamber having an inlet and an outlet; a separate removable chamber arranged within the outer chamber and having an inlet, and an outlet opening into the outer chamber; and a valve and a valve-seat for controlling the outlet of the inner chamber, said valve having a stem extending through the bottom of the inner chamber of a proper length for engagement with the outer chamber when said chambers are fitted together, to raise the valve off the valve-seat.

2. In a device of the class described, the combination with a fixed chamber having a bottom and side walls and an open receiving end and a lateral outlet below the receiving end, of a separate removable chamber having a bottom and side walls and an open receiving end, and an outlet through its bottom, said removable chamber being of smaller dimensions than the fixed chamber and adapted to be projected into and withdrawn from the fixed chamber, means for supporting the removable chamber within the fixed chamber above the bottom of the fixed chamber, and means for opening and closing the outlet in the removable chamber and including a valve having a depending stem projecting through said outlet in the bottom of the removable chamber, and an annular upright valve-seat disposed around the outlet in said bottom and adapted to seat the valve, said valve stem being of a proper length to engage the bottom of the fixed chamber when said chambers are fitted together, to raise the valve off its seat.

1,204,787. ADJUSTABLE SOCKET-WRENCH. ELMER E. KLANKE, Muskogee, Okla. Filed Mar. 17, 1916. Serial No. 84,837. (Cl. 81—177.)

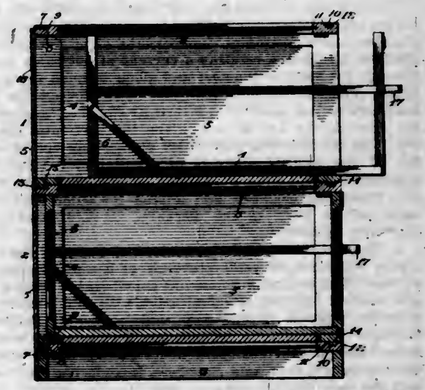


1. A wrench comprising pivoted jaws, and a tapered lever element the jaws having nut engaging portions at one end and being constructed for engagement of the lever slidably and transversely therebetween.

2. A wrench comprising two jaws centrally and pivotally connected, said jaws having ends constructed for engagement with the sides of a nut, and being notched on edges adjacent their other ends, and a tapered lever constructed for slidable engagement transversely between the jaws in said notches.

3. A wrench comprising two jaw elements each stamped integrally from flat sheet metal having parts cut away at each side and shaped for engagement with adjacent faces of a nut on one end, the remaining end portion there adjacent being formed with pivot openings at each side adjacent the cut away parts, said jaws being bent into partly cylindrical form and positioned in opposed relation with their edges overlapped, pivot means engaged through said openings, the ends of the jaws opposite those shaped to engage a nut being constructed for insertion of a lever therebetween.

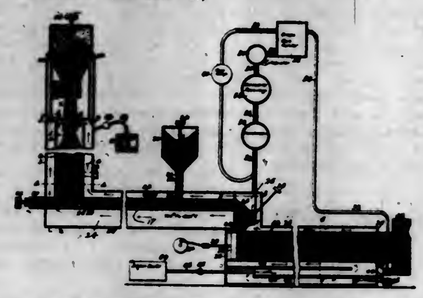
1,204,788. SECTIONAL CABINET. JULIUS J. KUHNEN, Rochester, N. Y., assignor to Yawman & Erbe Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 31, 1908. Serial No. 460,428. (Cl. 45—2.)



1. An interchangeable unit for the formation of sectional cabinets comprising a casing having a drawer operating therein and adapted to be extended from one end thereof, the upper and lower portions of the casing at the opposite end being provided, respectively, with fixed members each adapted to automatically interlock with a member formed in accordance with the other on an adjacent unit of the cabinet to prevent vertical disengagement of the units by a lateral or horizontal movement of the upper casing relatively to the lower one in the direction in which the drawer is extended, the member on the underside being formed by a rearwardly opening transverse undercut recess or rabbet along one edge of the face of the section and that on the upper side by a correspondingly arranged vertically extending and forwardly opening projection on the abutting face of the other.

2. An interchangeable unit for the formation of sectional cabinets comprising a casing having a drawer operating therein and adapted to be extended from one end thereof, the upper and lower faces of said end being provided, one with a transversely extending groove and the other with a correspondingly arranged projecting rib adapted to fit within a similar groove in an adjacent unit and prevent a relative sliding movement of the units and the upper and lower faces of the opposite end of the casing being provided, respectively, with a rearwardly opening undercut and transversely extending recess and with a forwardly opening undercut projecting portion, each of said undercut walls being adapted to interlock against vertical disengagement with a portion formed in accordance with the other on an adjacent unit by a movement of the upper casing on the lower one in the direction from which the drawer is withdrawn from the upper one to prevent relative tilting of the units when the upper drawer is extended from the casing.

1,204,789. METHOD AND APPARATUS FOR LOW-TEMPERATURE DISTILLATION OF COAL. HARRY A. KUHN, Pittsburgh, Pa. Filed Feb. 29, 1916. Serial No. 81,154. (Cl. 202—8.)



1. A method of distilling coal which includes the following steps namely,—providing a retort having a vertical chamber and a horizontal chamber into which the vertical chamber discharges, creating a current of hot gases down through the vertical chamber and along through the horizontal chamber, dropping coal dust down through the atmosphere of hot gases in the vertical chamber, conveying the accumulated heated mass along the horizontal chamber from its receiving end to its discharging end, drawing off the volatile products of distillation for further treatment, introducing a quantity of raw coal dust into said horizontal chamber, and mixing the same with the mass therein prior to the discharge of said mass substantially as specified.

2. The method of distilling coal which includes the following steps namely,—the provision of a retort having a vertical chamber and a horizontal chamber, the bottom of said vertical chamber communicating with said horizontal chamber adjacent to one end, said horizontal chamber having a discharge end, establishing a circulation of hot gases through said chambers while excluding the external atmosphere from said chambers, introducing coal dust into the said vertical chamber near its top, whereby the coal dust falling through the heated atmosphere within the vertical chamber will become fused, conveying the deposited mass through said horizontal chamber and introducing raw coal dust into the mass while in said horizontal chamber, mixing the mass together and discharging it from the horizontal chamber, and then separately collecting the mass and volatile products for further treatment.

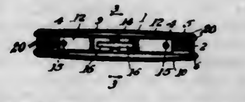
3. A method of distilling coal which consists in providing a retort having a vertical chamber and a horizontal chamber into which the vertical chamber discharges, said method consisting further in creating a current of hot gases at approximately a temperature from nine hundred to twelve hundred degrees Fahrenheit down through said vertical chamber and along through said horizontal chamber, dropping coal dust down through the atmosphere of gases in the vertical chamber, agitating the mass received in the horizontal chamber and conveying the same from the receiving to the discharging end of the horizontal chamber, applying external heat to the horizontal chamber, introducing a quantity of raw coal dust into the mass prior to its discharge from the horizontal chamber, mixing the raw coal dust so introduced with the remainder of the mass in the horizontal chamber prior to the discharge of the same, and separately collecting the resultant mass and gaseous distilled products for further treatment.

4. A method of distilling coal which consists in providing a retort having a vertical chamber and a horizontal chamber into which the vertical chamber discharges, said method consisting further in creating a current of hot gases of previous distillation at approximately a temperature from nine hundred to twelve hundred degrees Fahrenheit down through said vertical chamber and along through said horizontal chamber, dropping coal dust through the atmosphere of gases in the vertical chamber, agitating the mass received in the horizontal chamber and conveying the same from the receiving to the discharging end of the horizontal chamber, applying external heat to the horizontal chamber, introducing a quantity of raw coal dust into the mass prior to its discharge from the horizontal chamber, mixing the raw coal dust so introduced with the remainder of the mass in the horizontal chamber prior to the discharge of the same, and separately collecting the resultant mass and gaseous distilled products.

5. The method of distilling coal which includes the following steps: establishing a circulation of hot gases out of contact with the atmosphere through a retort having two distinct zones, dropping coal dust into and through the first zone to effect a primary distillation of the coal dust, collecting the deposited mass as it forms and conveying the same through the second zone while maintaining the temperature of the mass at the required degree to complete the driving off of the gases and volatile products from the mass, and separately collecting the resultant mass and the discharged gases as they pass from the second zone.

[Claims 6 to 43 not printed in the Gazette.]

1,204,790. POCKET SAVINGS-BANK. ISIDOR J. KUSEL, Chicago, Ill., assignor to Stronghart Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 25, 1914. Serial No. 873,847. (Cl. 232—4.)

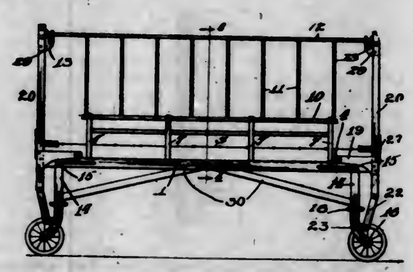


1. A device of the class specified having a top provided with a flange, an edge band having a flange which engages the flange on said top and a body portion which when the top is in place thereon projects into the top and engages the flanges of the top and edge member.

2. A device of the class specified having a coin opening and also having a spring provided with an open ended slot located adjacent said coin opening, and means for securing said spring to said device, said means forming a key hole.

3. A device of the class specified, provided with an elongated coin opening, and a pair of springs, one each side of said opening, said springs being provided with recesses located at the free ends of said springs adjacent said coin opening, the ends of said springs being secured by ring members forming apertures in said device.

1,204,791. CHILD'S FOLDING CRIB. JOSEPH W. KYLE, Chicago, Ill. Filed Sept. 30, 1912. Serial No. 723,065. (Cl. 5—58.)



1. A mattress frame, legs swingingly secured thereto, foot and head members fulcrumed on the mattress frame and operatively connected with the legs to project the same to supporting position when said head and foot members are erected on the mattress frame, and a side member adapted to engage said foot and head member to hold the same in operative position, and adapted when the device is closed to slide into the mattress frame.

2. A bed embracing a mattress frame, head and foot members fulcrumed thereon to fold inwardly into parallel relation with the mattress frame and upon the bedding, a side member slidably engaged in the mattress frame below the mattress and adapted to be extended and to engage the head and foot members to lock the same in upright position, resilient means acting to hold said side members firmly in such engagement, and legs engaged to the frame and operatively connected with the foot and end members, to maintain a substantially parallel relation therewith at all times and to extend in alinement with the mattress frame when the device is closed.

3. A device of the class described comprising a mattress frame, foot and head members, a bracket rigidly secured on each foot and head member at each side thereof, and pivotally engaging the mattress frame at a distance from the ends thereof approximating the thickness of the mattress and bedding, legs slidably secured to the mattress frame, means constraining the upper ends of said legs to slide inwardly of the mattress frame when folded, and links connecting the lower ends of the head and foot member with the respective legs, and of a length to support the legs within the mattress frame and in alinement therewith when closed.

4. In a folding bed, a frame, legs connected thereon, means constraining said legs to fold outwardly and move inwardly relative said frame as the bed is folded, and end members pivoted to the bed frame and toggled to said legs to actuate the same in folding and unfolding of the device.

5. In a folding bed a frame, end members, legs adapted to fold away from one another in pairs, a sliding connection between said legs and frame, a pivoted member affording a fulcrum point and brace for said legs, and connections between said end members and said legs whereby the legs are actuated thereby.

[Claim 6 not printed in the Gazette.]

1,204,792. FOLDING OR COLLAPSIBLE BED. JOSEPH W. KYLE, Chicago, Ill. Filed Nov. 14, 1912. Serial No. 731,319. (Cl. 5—9.)



1. A device of the class described comprising a mattress frame, head and foot members pivotally engaged directly thereto, legs pivotally connected on said members, and links pivotally connected together and to said respective members and legs and having a sliding engagement with said mattress frame whereby said legs are actuated when the device is folded or unfolded.

2. A device of the class described embracing a rigid bed frame, head and foot members pivotally engaged directly to each end thereof to act as levers in raising and supporting the bed frame, locking members engaged on the mattress frame and engaging the head and foot members respectively at the inner side thereof and acting to lock the same from closing, and legs pivotally connected on said end members and acting to support the device both when opened and when closed.

3. In a device of the class described a rigid bed frame, a head and foot board comprising brackets affording a pivotal engagement with the respective ends of the bed frame, legs pivotally engaged on said head and foot boards respectively, brace bars pivotally connected with the lower end of each of said legs, and slidably connected with the bed frame, a connecting rod engaged with the upper end of the brace bar and with the head and foot boards respectively whereby the movement of the head and foot boards as levers acts to raise and lower the bed frame thereon, and locks for rigidly engaging the head and foot boards in supporting position.

4. A device of the class described embracing a bed frame, head and foot boards pivotally engaged at each end of the bed frame, legs connected on and extending below the head and foot boards respectively when unfolded, operative connections whereby said head and foot boards operate as levers in raising the respective ends of the bed frame in opening the bed, and also operate as levers in closing or collapsing the device, and inwardly releasable locks on the bed frame acting to engage the head and foot boards respectively and adapted to rigidly hold the device extended when in use.

5. A device of the class described embracing a bed frame, a head and foot board pivotally engaged thereto, folding leg sections at their ends connected to said head and foot boards respectively, said head and foot boards acting as levers in opening and extending the bed, and also in closing the same, and casters swiveled on the leg sections, the arrangement of the parts permitting the casters to support the device when closed at all positions of adjustment in opening and closing and when fully open.

[Claims 6 to 14 not printed in the Gazette.]

1,204,793. TABLET. LOUIS SPENCER LEVY, New York, N. Y. Filed Feb. 16, 1916. Serial No. 78,562. (Cl. 167—3.)

1. As a new article of manufacture, an elongated tablet containing bichlorid of mercury, compressed or molded into a rod-like shape, having a diameter of approximately one-quarter inch and a longest dimension of approximately one and one-quarter inches, to practically prevent the swallowing thereof on account of the causation of pharyngeal spasm.

2. As a new article of manufacture, an elongated tablet containing bichlorid of mercury, compressed or molded into an angular rod-like shape, having a diameter of approximately one-quarter inch and a longest dimension of approximately one and one-quarter inches, to practically prevent the swallowing thereof on account of the causation of pharyngeal spasm.

1,204,794. POISON-DETERRENT. LOUIS SPENCER LEVY, New York, N. Y. Filed July 19, 1916. Serial No. 110,071. (Cl. 167—3.)

1. A tablet comprising a poisonous material combined with a volatile guard irritant acting so quickly upon the sense of taste or smell as to prevent ingestion of the tablet without warning.

2. A tablet comprising bichlorid of mercury combined with a volatile guard irritant acting so quickly upon the sense of taste or smell as to prevent ingestion of the tablet without warning.

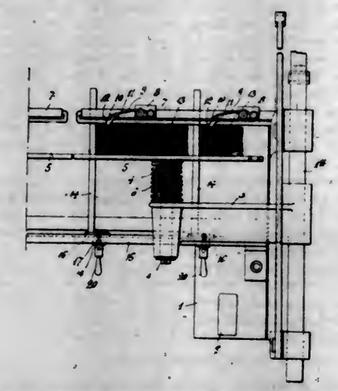
3. A tablet comprising bichlorid of mercury combined with capsicum extractives and artificial essential oil of mustard in such proportions as to prevent ingestion of the tablet without warning.

1,204,795. PRINTING-PRESS WITH AUTOMATIC FEEDING OF THE PILE OF SHEETS. GUSTAF HJALMAR LINDSTRÖM, Gottenborg, Sweden, assignor to Aktiebolaget Princeps, Gottenborg, Sweden, a Corporation of Sweden. Filed May 5, 1915. Serial No. 26,021. (Cl. 101—36.)

1. In a feeding device for printing presses, the combination of means moving the pile of sheets upward and downward to and from the level, from which the uppermost sheet is fed, stationary rules and means moving the uppermost sheet of the pile laterally and forcing it against the said rules, substantially as described and for the purpose set forth.

2. In a feeding device for printing presses, the combination of means moving the pile of sheets upward and downward to and from the level, from which the uppermost sheet is fed, stationary rules and yielding fingers,

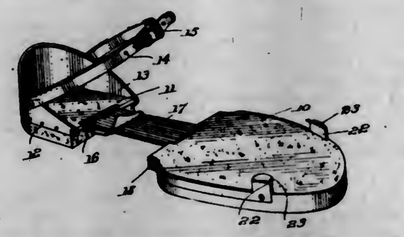
against which the pile is forced, when moved upward, and which force the uppermost sheet of the pile against the said rules, substantially as described and for the purpose set forth.



3. In a feeding device for printing presses, the combination of a carrier for the pile of sheets, means moving the carrier upward and downward to and from the level, from which the uppermost sheet is fed, a rule stationary with relation to the said carrier, and means moving the uppermost sheet of the pile laterally and forcing it against the said rule, substantially as described and for the purpose set forth.

4. In a feeding device for printing presses, the combination of a carrier for the pile of sheets, means moving the carrier upward and downward to and from the level, from which the uppermost sheet is fed, a rule stationary with relation to the said carrier, and a yielding finger, against which the pile is forced, when moved upward, and which forces the uppermost sheet of the pile against the said rule, substantially as described and for the purpose set forth.

1,204,796. CORK SHOE ATTACHMENT. ADELBERT LOCKWOOD, Philadelphia, Pa., assignor to A. H. Elliott & Co., Philadelphia, Pa. Filed July 24, 1915, Serial No. 41,716. Renewed Aug. 30, 1916. Serial No. 117,801. (Cl. 36—73.)



1. An article of manufacture comprising cork sole and heel sections, a casing connected to the heel section, a rod passing through said casing, a second rod passing through said sole section, yieldable means trained over both of said rods for connecting said sections, means connected with said yieldable means for regulating the combined length of said sections, and fastening means carried by the sole section for attaching purposes.

2. An article of manufacture comprising cork sole and heel sections, a casing connected to the heel section, a rod passing through said casing, a second rod passing through said sole section, yieldable means trained over both of said rods for connecting said sections, means connected with said yieldable means for regulating the combined length of said sections, and fastening means carried by the rod passing through the sole section for attaching purposes.

3. An article of manufacture comprising cork sole and heel sections, a casing connected to the heel section, a rod passing through said casing, a second rod passing through said sole section and disposed in parallelism with the first mentioned rod, yieldable means trained over both of said rods and connecting said sections, and means connected with said yieldable means at a point beneath the same for regulating the combined length of said sections, and fastening means carried by said sections for attaching purposes.

1,204,797. SEAT-POST. EDWARD JULIUS LONN, Laporte, Ind., assignor to Great Western Manufacturing Co., Laporte, Ind., a Corporation of Illinois. Filed July 26, 1916. Serial No. 111,440. (Cl. 208—62.)



1. A seat-post of tubular form with its end-portions extending at an angle to each other and a reinforcing member confined in the interior of the post at the angular portion of the post.

2. A seat-post of tubular form having its end-portions extending at an angle to each other and integral with each other, and a reinforcing member confined in the interior of the post at the angular portion of the post.

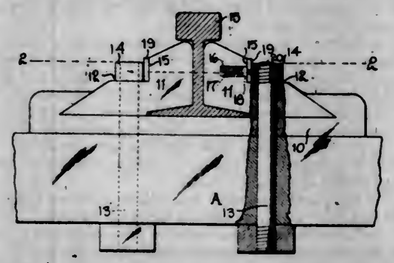
3. A seat-post formed from a piece of metal bent to provide tubular end-portions extending at an angle to each other and united at the opposing edges of the post, and a reinforcing member confined in the angle of the post.

4. A seat post formed from a piece of metal bent to provide tubular end-portions extending at an angle to each other.

5. A seat post formed from a piece of metal bent to provide tubular end-portions extending at an angle to each other, with the opposite edges of the metal united.

[Claims 6 and 7 not printed in the Gazette.]

1,204,798. NUT-LOCK. EUGENE F. LOWE, Delevan, N. Y. Original application filed Nov. 17, 1915, Serial No. 61,963. Divided and this application filed Dec. 21, 1915. Serial No. 68,023. (Cl. 151—54.)



1. The combination with a body having a bolt perforation, said body having a face extending parallel to the bolt perforation and spaced therefrom, a bolt passing through said perforation, a nut mounted on the bolt, a member disposed between a side of the nut and the adjacent face of the body and preventing rotation of the nut, and a resiliently actuated member operatively engaging the nut-locking member and holding it in place, the body having a recess within which said resiliently actuated member is positively housed.

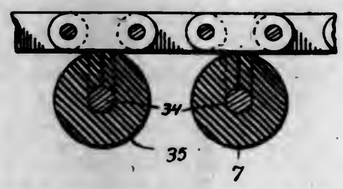
2. The combination with a body having a bolt perforation, said body having a face extending parallel to the bolt perforation and spaced therefrom, a bolt passing through said perforation, a nut mounted on the bolt, a member disposed between the side of the nut and the adjacent face of the body and preventing rotation of the nut, and means for holding said member in place, said means including a resiliently actuated locking stud mounted upon the body and engaging with the perforations in the plate.

3. The combination with a body having a bolt perforation and formed with a face extending parallel to the perforation and with bores extending inward from said face, of a bolt passing through the perforation and having a nut, a member disposed between the nut and the said face of the body and preventing the rotation of the nut when in place, said member having a recess upon its inner face, a spring disposed in each bore, and a locking stud outwardly urged by the spring and adapted to engage in the corresponding perforation of said member.

4. The combination with a nut and bolt, of a body having a face disposed parallel to a side of the nut, a perforated member disposed between the nut and said face and preventing the rotation of the nut, and an outwardly urged locking stud mounted upon said body and adapted to be projected into the perforation in said member to lock it in place.

5. The combination with a body having a bolt perforation formed with a wall having a face extending parallel to the axis of the perforation, of a bolt passing through the perforation, and a nut therein having its side face disposed opposite said wall, a member removably disposed between the face of the nut and the face of the wall and preventing the rotation of the nut, said member being perforated at a plurality of points, the wall being formed with a plurality of bores, coiled springs disposed in the bores and heads mounted upon said coiled springs and having studs smaller than the heads and adapted to be received in said perforations and lock the member in place.

1,204,799. PROPELLING MECHANISM FOR VEHICLES. MOSES LUCE, Ellington, N. Y., assignor of one-tenth to Jay E. Noble, Sinclairville, N. Y. Filed Sept. 30, 1912. Serial No. 723,191. (Cl. 21—149.)

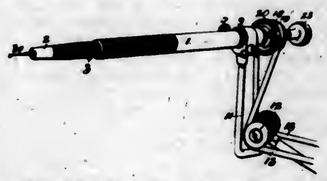


An endless propelling chain adapted to move around a bob shoe comprising a plurality of pivotally connected links, certain of said links being formed with transverse offset bars, and ground rollers fixed on said bars.

1,204,800. HANDPIECE FOR DENTAL MACHINES. WILLIAM T. LYON, Portland, Oreg., assignor to The International Dental Appliance Co., Portland, Oreg. Filed Sept. 15, 1914, Serial No. 861,861. Renewed Aug. 7, 1916. Serial No. 113,616. (Cl. 32—15.)

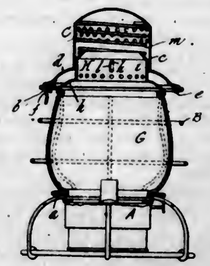
1. In a dental hand piece, a bearing member, an outer shell or casing secured thereto and having a tool opening in its front end, a hollow shaft rotatable in said shell and projecting through said bearing member, said hollow shaft having its outer end internally coned and apertured

to receive the tool, a chuck in said hollow shaft adjacent to said coned end, a thrust rod in said hollow shaft, and means for effecting a thrust action of said rod to force said chuck into its gripping position.



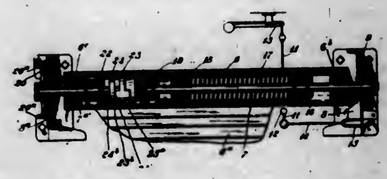
2. In a dental hand piece, a bearing member, an outer shell or casing secured thereto and having a tool opening in its front end, a hollow shaft rotatable in said shell and projecting through said bearing member, said hollow shaft having its outer end internally coned and apertured to receive the tool, a chuck in said hollow shaft adjacent to said coned end, a thrust rod in said hollow shaft, said hollow shaft having an internal thread and said thrust rod having an external thread to engage said internal thread, said rod projecting to the outside of said shaft and having a member by which it may be turned.

1,204,801. LANTERN. WARREN MCARTHUR, Chicago, Ill. Filed Sept. 8, 1913. Serial No. 788,503. (Cl. 240—51.)



In a lantern, the combination with a guard which is open at its upper end, and a lantern top which is hinged to the guard and comprises a marginal flange connected with the guard, of a globe having its upper end arranged underneath the marginal flange of the top, an annular globe holder having its lower extremity flaring outwardly so as to form a holding flange which is arranged underneath the marginal flange of the top and is adapted to engage the upper end of the globe, and yielding means connecting the globe holder with the lantern top in such a way that the globe holder can adjust itself to the length of the globe.

1,204,802. FIRE-SHUTTER. EDWARD H. MCCLOUD, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Jan. 19, 1912. Serial No. 672,058. (Cl. 189—58.)



1. In a fire shutter, the combination with a rotary shutter receiving member, two shafts axially arranged in

said shutter receiving member to support the same, means for fixing said shafts, a tension member between one of said shafts and the shutter receiving member for counterbalancing the shutter in normal operation, thermally controlled means for releasing said last named shaft, and a clutching member on each of said shafts, the clutching member on one shaft adapted to engage the clutch member on the other by rotation only upon the release of the shaft containing the tension member.

2. In a fire shutter, the combination with a rotary shutter receiving member, two shafts axially arranged in said shutter receiving member to support the same, means for fixing said shafts, a tension member between one of said shafts and the shutter receiving member for counterbalancing the shutter in normal operation, thermally controlled means for releasing said last named shaft, a clutching member on each of said shafts and a freely rotative clutch member between said clutch members to interengage them by rotation upon the release of the tension member.

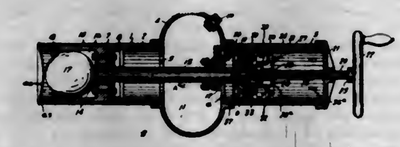
3. In a fire shutter, the combination of a shutter and a shutter receiving member, a tension member for the normal operation of the shutter, means for releasing the tension member and shutter, and means including a freely rotative impact member within the shutter receiving member rendering said tension member reoperable to restrain the shutter after its release.

4. In a fire shutter, the combination of a shutter and a drum therefor, a two-part shaft for the drum, a spring connected with one of said shaft parts and with the drum, means releasably holding said shaft part, a clutch member on said shaft part, a clutch member fixed on the other shaft part operably related to the first named clutch member and means whereby said second mentioned shaft part can be adjusted and held.

5. In a fire shutter, the combination of a shutter and a drum therefor, a two-part shaft for the drum, a spring connected with one of said shaft parts and with the drum, means releasably holding said shaft-part, a clutch member on said shaft-part, a clutch member fixed on the other shaft-part and movable means intermediate said clutch members permitting one clutch member to be operated by the other.

[Claims 6 to 12 not printed in the Gazette.]

1,204,803. FLUID-PRESSURE GUN. PETER A. MCCULLOUGH, Pittsburgh, Pa. Filed Dec. 16, 1915. Serial No. 67,268. (Cl. 89—6.)



1. A fluid pressure gun, comprising a casing having a pressure chamber therein, and a projectile impelling member movable in said casing and adapted when retracted therein to increase the pressure in said chamber.

2. A fluid pressure gun, comprising a casing having a pressure chamber therein, a projectile impelling member movable in said casing and adapted when retracted therein to increase the pressure in said chamber, and means for retracting said member.

3. A fluid pressure gun, comprising a casing having a pressure chamber therein, a projectile impelling member movable in said casing and adapted when retracted therein to increase the pressure in said chamber, means for retracting said member, and means for releasing said member from said retracting means.

4. A fluid pressure gun, comprising a casing having a pressure chamber therein, a projectile impelling member movable in said casing and adapted when retracted therein to increase the pressure in said chamber, and means for cushioning said member on its forward stroke.

5. A fluid pressure gun, comprising a casing having a pressure chamber therein, and a projectile impelling member movable in said casing and having a portion forming one wall of said chamber, said member being adapted when retracted in said casing to increase the pressure in said chamber.

[Claims 6 to 24 not printed in the Gazette.]

1,204,804. UMBRELLA. JOHN WESLEY MCGOWAN, Cincinnati, Ohio. Filed May 4, 1914. Serial No. 836,253. (Cl. 135—20.)

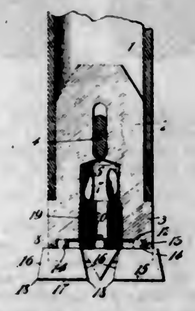


1. An umbrella having ribs and a shield slidably mounted upon said ribs, said shield being adapted to extend below the edge of said umbrella, said shield being flexible, means whereby said shield may be held taut, and means whereby said upper edge of said shield may be gathered when in a raised position, said first means consisting of a frame, said frame being foldable, said second means consisting of an elastic support for the upper edge of said shield.

2. In combination with an umbrella having ribs, a shield slidably mounted upon said ribs, means for gathering the upper edge of said shield as it is raised within said umbrella, means whereby said shield is rigidly supported upon said ribs, and said means consisting of rods upon which said shield is mounted.

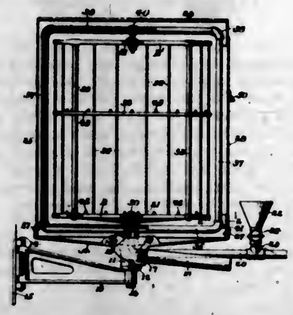
3. In combination with an umbrella having ribs, a shield slidably mounted upon said ribs, means for gathering the upper edge of said shield as it is raised within said umbrella, means whereby said shield is rigidly supported upon said ribs, said means consisting of rods upon which said shield is mounted, and each of said rods having two spaced apart eyes engaging said ribs.

1,204,805. DRILL. JOSEPH D. MACDONALD, Seattle, Wash.; Frank C. MacDonald, administrator of said Joseph D. MacDonald, deceased, assignor of one-half to Cathrine MacDonald and one-half to Frank C. MacDonald, San Francisco, Cal. Filed Sept. 11, 1912. Serial No. 719,781. (Cl. 255—63.)



A drill comprising a head having formed in its outer end a series of dovetail grooves forming seats, said head likewise having a centrally-disposed threaded opening; a bit for each seat, said bits being triangular in cross section and having their ends inclined outwardly toward the cutting edge of the bit; a pin carried by each bit upon its outer face, said pin, when the bit is seated, entering a groove formed in the base of the bit-seat, and adapted when the bit is moved outwardly to its full extent to contact with the end wall of the groove; and a threaded locking plug mounted in the central opening aforesaid, the outer end of the plug being tapered, and when screwed outwardly, making a close fit with the adjacent inclined ends of the bits and locking them in place.

1,204,806. DISH-WASHING APPARATUS. ARCHIBALD J. MACLEAN, Stamford, Conn. Filed Nov. 21, 1914. Serial No. 873,846. (Cl. 141—9.)



1. A dish washing machine comprising a casing mounted on a suitable support and formed with a bottom having a central waste discharge and a central water inlet, a cage for containing the dishes mounted in said casing, and a rotary spraying apparatus consisting of a pipe surrounding said cage and pivotally supported around the water inlet at the bottom of said casting, the ends of the horisontal arm of said spraying apparatus being provided with a contracted discharge nozzle positioned at an angle thereto, substantially as set forth.

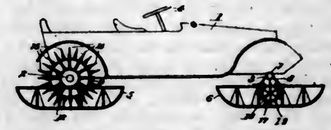
2. A dish washing apparatus comprising an inclosed casing having a bottom tapered to a central discharge outlet and formed with a central hollow post projecting upwardly therefrom, a dish containing cage mounted on the top of said post, and a rectangular hollow frame also mounted to turn on said post and formed with perforations in its several sides adjacent to said dish containing cage, said central post being formed hollow and having at one end orifices leading into the spraying apparatus and at its other end a connection leading to the water supply, substantially as set forth.

3. A dish washing apparatus comprising a casing having a bottom tapered to a central waste outlet and formed with an upwardly extending central post, a dish containing cage mounted on the upper end of said post, and a spraying device mounted to rotate on said post and consisting of a cast bottom member with a central hub mounted on said post and having vertical pipes extending upwardly on each side of the dish containing cage from its outer ends, and a cross pipe at the top connecting said side pipes, said bottom member and said side and top pipes being perforated on their sides adjacent to the dish containing cage, said hollow post being formed with orifices leading into said lower member of the spraying device at one end and with a connection with the water supply at its other end, a pivoted support between said spraying device and the top of the cage, and a discharge nozzle angularly positioned on said bottom member of said spraying apparatus, substantially as set forth.

4. A dish washing apparatus comprising a casing having a bottom formed as an integral member wherein the central portion forms an upright member on which the rotary structure may be mounted and formed with two independent channels, one constituting a central outlet for the waste water and the other a central water inlet, a supply pipe connected with said water inlet, a spraying apparatus mounted for rotation upon said central upright member also connecting with said water inlet at its inner end, and a dish containing basket within said spraying apparatus, said dish containing basket being supported on the central upright member, all substantially as set forth.

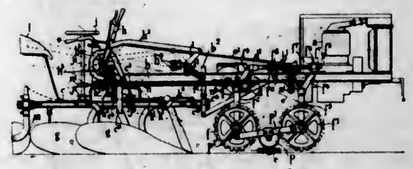
5. A dish washing apparatus comprising a casing consisting of a cast bottom with sheet metal sides and top, having a door in one side thereof for providing access to the interior, a stationary dish containing cage, a rotary spraying apparatus surrounding said cage vertically and horizontally, said casing being formed with means for supporting the same on a swinging bracket and with a central waste outlet and a central water inlet, all substantially as set forth.

1,204,807. AUTOMOBILE SLED. FRED MACY, Montpelier, Vt. Filed July 5, 1916. Serial No. 107,603. (Cl. 21—47.)



An automobile sled comprising a body and front and rear axles, supporting sleds on the front and rear axles, driving wheels carried by the rear axles provided with driving points having chisel shaped ends, and spiked guide wheels carried by the front sled.

1,204,808. MEANS FOR DRIVING AGRICULTURAL IMPLEMENTS. WILLIAM EDWARD MARTIN, Stamford, England. Filed Jan. 18, 1916. Serial No. 72,799. (Cl. 21—114.)



1. In means for driving agricultural implements, the combination of a pair of chain wheels on each side of the machine, an endless chain on each pair of chain wheels, presenting an approximately horisontal driving stretch of the chain between each pair of chain wheels, and means for simultaneously raising both chain wheels of one pair independently of the other pair of chain wheels whereby the lower stretches of both chains always remain horisontal, substantially as set forth.

2. In means for driving agricultural implements, the combination of a pair of bell-crank levers on each side of the machine, a chain wheel carried by the lower end of each bell-crank lever, a chain running on a pair of chain wheels on each side of the machine and having a lower horizontal driving stretch, means for connecting the upper members of each pair of bell-crank levers, and means for simultaneously imparting rotary motion to a pair of bell-crank levers on one side of the machine independently of the pair of bell-crank levers on the other side of the machine, substantially as set forth.

3. In means for driving agricultural implements, the combination of a driving mechanism on each side of the machine, each driving mechanism consisting of two chain wheels, a chain on said wheels, two bell-crank levers on the lower member of each of which one of the chain wheels is mounted, a screw-threaded link connecting the upper members of the bell-crank levers, a main frame, a block anchored to the main frame and through which the screw-threaded link passes, and nuts on the screw-thread-

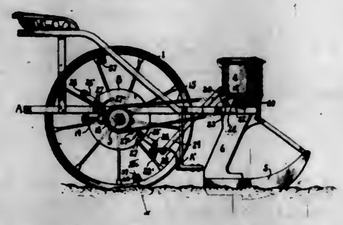
ed link acting in conjunction with the block to adjust the position of the screw-threaded link, substantially as set forth.

4. In means for driving agricultural implements, the combination of a driving mechanism on each side of the machine, each driving mechanism consisting of two chain wheels, a chain on said wheels, two bell-crank levers on the lower member of each of which one of the chain wheels is mounted, a screw-threaded link connecting the upper members of the bell-crank levers, means for simultaneously rotating the bell-crank levers, a block sliding on the link to which the upper member of one of the bell-crank levers is pivoted, and nuts on the link located on each side of said sliding block by means of which the said block and consequently the tension of the chain is adjusted, substantially as set forth.

5. In means for driving agricultural implements, the combination of a driving mechanism on each side of the machine, each driving mechanism consisting of two chain wheels, a chain on said wheels, two bell-crank levers on the lower member of each of which one of the chain wheels is mounted, a screw-threaded link connecting the upper members of the bell-crank levers, means for simultaneously rotating the bell-crank levers, a block sliding on the link to which the upper member of one of the bell-crank levers is pivoted, nuts on the link located on each side of said sliding block by means of which the said block and consequently the tension of the chain is adjusted, a bar connected at one end to one of the axles of the chain wheels, a short link connecting the other end of the bar to the axle of the other chain wheel, and a pulley carried by said bar retaining the chain intermediate of the chain wheels in contact with the land, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,204,809. CHECK-ROW PLANTER. JOHN F. MATHENY, Valley Park, Mo. Filed Oct. 30, 1915. Serial No. 58,760. (Cl. 111—5.)



In a planter, a seed dropping device, power mechanism including a ground wheel for operating said seed dropping device, a marking finger, a pivot member securing said marking finger to the ground wheel, said marking finger being movable from an operative position wherein it will strike the ground to an inoperative position wherein it cannot strike the ground, and a rigid locking device adapted to coöperate with said pivot member to rigidly secure said marking finger in its operative position and also adapted to coöperate with said pivot member to rigidly secure said marking finger in its inoperative position.

1,204,810. TOILET-PAPER HOLDER. JOSEPH E. MERCER, Indianapolis, Ind. Filed Aug. 5, 1916. Serial No. 113,379. (Cl. 211—31.)

1. A roll-paper holder comprising a base having a central screw-hole and also two guide bars on opposite sides respectively of the screw-hole, the base having also a stop and a guide below the guide bars, an anchor-piece removably seated upon the stop and having a flange engaging the guide bars, a main part secured at one end to the anchor-piece, and a cap-plate secured to the opposite end of the main part.

2. A roll-paper holder comprising a base having two vertical guide bars and a stop device at the bottom of the bars, and a cylindrical arbor comprising a main part, an anchor-piece secured to one end of the main part and having a flange to engage the guide bars, the anchor-piece being adapted to be supported upon the stop device, and a cap-plate secured to the opposite end of the main part and extending outward beyond the surface of the main part.



3. A roll-paper holder comprising a base having a projecting front portion provided with two guide bars that extend each toward the other, the front portion having also a stop portion at the lower ends of the guide bars and a guide projection extending downward from the stop portion and forward to the plane of the face of the projecting front portion; and an arbor having a neck to rest upon the stop portion, the neck having a flange thereon to engage the backs of the guide bars.

1,204,811. LOCK FOR PAPER-CONTAINERS. ELLIS D. MILLER, Berkeley, Cal., assignor to National Paper Products Company, San Francisco, Cal., a Corporation of California. Filed Mar. 7, 1916. Serial No. 82,647. (Cl. 70—2.)



The combination with a container, a cover section pivotally mounted thereon having a small circular pencil-receiving opening, and a keeper on the container, of a lock carried by the cover section and adapted to be operated by the pointed end of a pencil and the like, said lock consisting of a pair of centrally pivoted arms carried by the cover and recessed at their forward ends in alinement with the cover opening, latch members formed on the opposite ends of the arms for engaging with the keeper, spring means normally tending to hold the forward ends together, and a stop pin disposed between the recessed end portions of the arms to hold the recesses in alinement with the cover opening and in slightly spaced relation, said stop pin further retaining the arms from swinging bodily about their pivotal mounting and thereby hold the latch ends properly disposed for reception by the keeper.

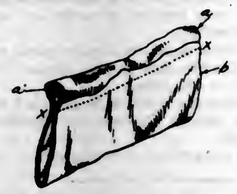
1,204,812. SAUSAGE-CASING AND METHOD OF PRODUCING SAME. BERNARD J. MUMM, St. Paul, Minn. Filed July 3, 1915. Serial No. 37,939. (Cl. 99—8.)

1. An edible sausage tubular casing of small diameter, composed of lateral sections of membrane, split from the wall of an animal intestine of larger diameter, substantially as described.

2. An edible sausage tubular casing of small diameter, composed of lateral and longitudinal sections of the splits or separated constituent membranes of a natural animal intestine of larger diameter.

3. An edible tubular sausage casing of small diameter, composed of lateral sections of membrane, split from the wall of a natural animal intestine, and having their opposite longitudinal edges joined together, substantially as described.

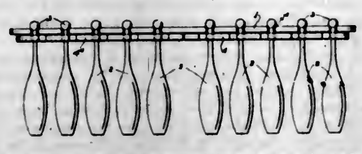
4. An edible tubular sausage casing of small diameter, composed of lateral sections of membrane, split from the wall of a natural animal intestine of larger diameter, and having their opposite longitudinal edges lapped and joined together, substantially as described.



5. An edible tubular sausage casing of small diameter, composed of lateral and longitudinal sections of membrane, split from the wall of a natural animal intestine of larger size, and having the adjacent ends of the longitudinal sections lapped and joined together, and the opposite longitudinal edges of the lateral sections joined together, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,204,813. LOCKING-RACK FOR INDIAN CLUBS AND THE LIKE. ROLAND JAMES MURRAY, Fredericton, New Brunswick, Canada. Filed Sept. 24, 1915. Serial No. 52,347. (Cl. 211—14.)



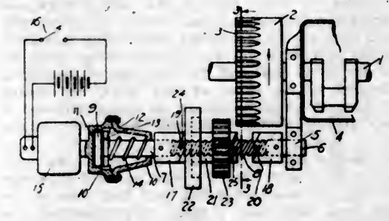
1. An Indian club rack comprising, a bar adapted to be secured to a wall and provided with a plurality of U shaped slots in its outer edge; blocks slidably mounted on the under face thereof and provided with L shaped slots in their outer edges adapted to coöperate with the U shaped slots, the said blocks being further provided with longitudinal slots near their ends; pins secured through the said bar and passed through the said slots and headed; washers secured on said pins beneath the said blocks; a lock carried by the inner end of one of the said blocks; and a locking plate carried in the inner end of the other of said blocks.

2. An Indian club rack comprising, a bar adapted to be secured to the wall of a building and provided with U shaped transverse slots in its outer edge, blocks provided with L shaped slots in their outer edges adapted to coöperate with the U shaped slots of the bar, means for slidably supporting said blocks on the under face of said bar to move longitudinally toward and from each other, and coöperating locking members carried in the abutting ends of said blocks whereby a single lock secures both blocks of each pair in operative position.

1,204,814. SELF-STARTER FOR AUTOMOBILES. PERRY OKEY, Columbus, Ohio. Filed Mar. 20, 1914. Serial No. 825,967. (Cl. 74—7.)

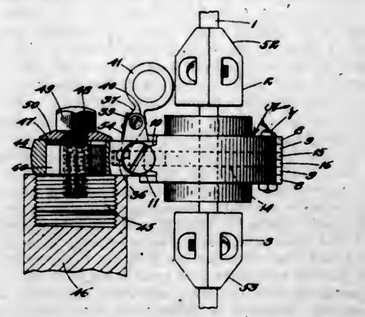
1. A self-starter for gas engines and the like comprising a feed shaft, a motor, a driven element, a driving element movable by said feed shaft between operative and inoperative positions due to its inertia and rotation of said feed shaft, and a fly-wheel for accentuating the inertia of said driving element.

2. A self-starter for gas engines and the like comprising a feed shaft, a motor, a driven element, a floating driving element movable by said feed shaft between operative and inoperative positions due to its inertia and rotation of said feed shaft, a fly-wheel to increase such inertia, an interposed friction clutch, and elements checking said driving element at either end of its movement, said checking elements being free from checking surfaces of a frictional nature.



3. A self-starter for gas engines and the like comprising a feed shaft, a motor, a driven gear, and a fly-wheel inertia element movable along and by said feed shaft and carrying a driving gear, and checking elements for said traveling fly-wheel.

1,204,815. ELEVATOR-LOCK. CHARLES PARENT, Medford, Mass. Filed Mar. 28, 1916. Serial No. 87,342. (Cl. 187—33.)



1. An elevator lock comprising a body having an aperture for the passage of a shipper cable and stop buttons mounted thereon, two jaws mounted within said body movable toward and from each other, a lever and connections for moving said jaws to form an opening between them for the passage of the stop buttons and for moving said jaws toward each other to contract the opening sufficiently to prevent passing of the buttons therethrough, a mount having two bearing portions between and to which said lever is pivoted, and a movable bar which is manually operable to prevent the lever from being moved to open the jaws.

2. An elevator lock comprising a body having an aperture for the passage of a shipper cable and stop buttons mounted on said cable, two jaws mounted within said body movable toward and from each other, means for moving said jaws apart from each other to form an opening between them for the passage of a shipper cable and stop buttons, a spring for normally moving said jaws toward each other to contract the opening sufficiently to prevent passing of the buttons therethrough and which normally yields to spreading pressure to permit passage of one of the buttons and which normally snaps the jaws together again after the passage of one button, a lever and connections by which said lever may open said jaws, a mount within which said lever is pivoted, latch mechanism which when said lever is moved to open the jaws beyond a predetermined point, will automatically engage said lever to retain it in a position to hold the jaws fully open, and means connected with the mount for the lever which, when the jaws are closed, may be manually operated at will to bar said lever against being moved in a direction to open the jaws.

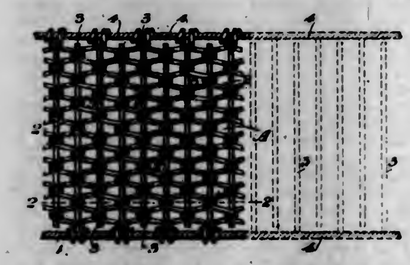
3. An elevator lock comprising a body having an aperture there-through for the passage of a shipper cable, two jaws mounted on said body and pivotally connected together at one end, said jaws being movable on said pivot to move the other ends of said jaws toward and from each other, a pivot passing through the pivot ends of both of said jaws, a coil spring surrounding said pivot between the said jaws, one end of said spring being secured to one of the jaws and the other end of the spring being secured to the other of said jaws, and means whereby the point of connection of the spring with one of said jaws may be varied to change the tension of the spring.

4. An elevator lock comprising a body having an aperture for the passage of a shipper cable provided with stop buttons, two jaws mounted within said body movable toward and from each other, a lever, and connections for spreading said jaws to form a passage between them of sufficient diameter for the passage of a shipper cable and buttons thereon and for moving said jaws toward each other to contract the opening between them sufficiently to prevent the movement of the buttons through the jaws, a mount having upright portions between which said lever is pivoted and a movable bar controlled by the operator and adapted to be moved crosswise of the path in which the lever moves to bar said lever against movement to open the jaws.

5. An elevator lock comprising a body having an aperture there-through of sufficient diameter to permit the passage of a shipper cable and stop buttons mounted thereon, a pair of arc shaped jaws pivotally connected together at one end within said body, said jaws being movable on said pivot in opposite directions so as to vary the size of the opening between them, said jaws when closed most nearly together forming an aperture of sufficient diameter to permit the passage of the cable but too small to permit the passage of the buttons on the cable, two links having one end of each pivotally connected respectively with the swinging ends of said jaws, a slidable block pivotally connected with the other ends of said links, means for moving said block in a direction toward and away from the aperture between said jaws in such manner that when the block moves toward the aperture it spreads said links at a greater angle to each other and thereby spreads the jaws, and when said block moves in a reverse direction it draws said links more nearly parallel to each other, contracting the opening between them, said block being formed with a slot, the means for moving said block consisting of a lever pivotally mounted and having a toe which extends down into said slot, said lever being movable on its pivot in such manner that when it is moved in one direction it spreads open the jaws and when it is moved in the other direction it closes the jaws, and being formed with a latch which, when the lever has moved sufficiently to spread the jaws fully open, engages with the edge of said slot in the block and locks the jaws in the open position.

[Claims 6 to 10 not printed in the Gazette.]

1,204,816. BELT. EDGAR PATTER, Santa Cruz, Cal. Filed Nov. 1, 1915. Serial No. 59,007. (Cl. 74—62.)



1. A belt composed of a series of interconnected wire coils, non-metallic pins passed through the coil connections, and a rubber filler inclosing the coils and pins.

2. A belt composed of a series of interconnected wire coils, and non-metallic pins passed through the coil connections to space the coils and prevent adjacent metal parts thereof from contacting thereby to reduce wear and heat generated by rubbing of the parts against each other.

3. A belt comprising a series of interwound wire coils, and non-metallic pins passing through the interwound connections of the coils.

4. A belt comprising a series of interwound wire coils, and non-metallic flexible pins passing through the interwound connections of the coils.

5. A belt comprising a series of interwound wire coils, and rawhide pins passing through the interwound connections of the coils.

[Claims 6 and 7 not printed in the Gazette.]

1,204,817. POLYPHASE REACTANCE-COIL. JOHN F. PETERS, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 3, 1914. Serial No. 864,728. (Cl. 171—242.)



1. The combination with a plurality of conductors comprising a polyphase system, of a set of reactance-coil units therefor which are mutually inductively related, each of said conductors being connected in circuit with a single coil unit, one of said units being reversely connected in circuit with respect to the remaining units of the set.

2. The combination with a plurality of conductors comprising a polyphase system, of a set of reactance-coil units therefor which are superposed upon, and spaced from, one another, each of said conductors being connected in circuit with a single-coil unit, an intermediate unit being reversely connected in circuit with respect to the outer units and inductively related thereto.

3. The combination with a plurality of conductors for polyphase currents, of a set of reactance-coil units therefor which are superposed upon, and spaced from, one another, each of said conductors being connected in circuit with a single-coil unit, one of said units being reversely connected in circuit with respect to the other units and inductively related thereto.

4. The combination with a plurality of conductors for polyphase currents, of a set of coil units which are superposed upon, and spaced from, one another, each of said conductors being connected in circuit with a single-coil unit, one of said units being disposed adjacent to the other units and inductively related thereto.

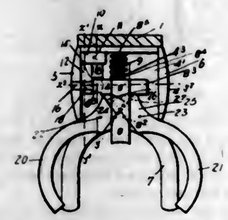
5. The combination with a plurality of conductors for polyphase currents, of a set of coil units which are superposed upon, and spaced from, one another, the outer and intermediate units having unequal numbers of turns, each of said conductors being connected in circuit with a single unit, the unit having the smaller number of turns being disposed adjacent to the units having the larger number of turns so as to be inductively related thereto.

[Claims 6 to 13 not printed in the Gazette.]

1,204,818. MILK-BOTTLE RETAINER. JOSEPH PETROVITCH, Toronto, Ontario, Canada. Filed July 28, 1916. Serial No. 111,904. (Cl. 232—41.)

1. A milk bottle retainer comprising a main supporting bracket, a pair of pivoted arms designed to surround the neck of the milk bottle, a longitudinally movable bar slidably held in the bracket between the arms, a compression spring normally holding the bar in its outward position, an engaging member carried by the longitudinally movable bar and a co-acting spring pressed engaging member swingably mounted on the bracket and designed to engage with the engaging member of the bar when the bar is moved rearwardly.

2. A milk bottle retainer comprising a bracket, a casing carried by the bracket having an open mouth, a pair of arms adapted to surround the neck of the milk bottle and extending at their inner ends into the mouth of the casing and pivoted therein, a slide bar extending between the pivoted ends of the arms and slidably held in grooves formed in the upper and lower walls of the casing, a cross head carried by the inner ends of the slide bar having a projection extending outwardly from one end having an upwardly rearwardly inclined lower face, a spring pressed pivoted member carried within the casing and having a correspondingly inclined face engaging the inclined face of the cross head and having a recess formed at the rear of such inclined face, a compression spring inserted between the cross head and the back of the casing, and means for drawing the arms together by the inward movement of the slide bar and forcing them apart by the outward movement of the slide bar, and key means for depressing the pivoted member against the spring pressure.



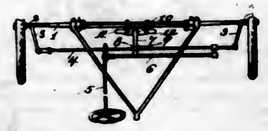
3. A milk bottle retainer comprising a main supporting bracket, a casing having upper and lower walls having longitudinal grooves therein, a spring pressed slide bar slidably held in such longitudinal grooves, a cross head carried by the slide bar, means for automatically locking the slide bar in its inward position against the pressure of the spring, a pair of arms pivoted to the casing, inward extensions to the pivoted arms a V-shaped portion forming part of the slide bar and extending between the inward extensions of the arms, and means with which the cross head engages when released for forcing the inner ends of the extensions inwardly to open the pivoted arms.

4. A milk bottle retainer comprising a main supporting bracket, a casing having upper and lower walls having longitudinal grooves therein, a spring pressed slide bar slidably held in such longitudinal grooves, a cross head carried by the slide bar, means for automatically locking the slide bar in its inward position against the pressure of the spring, a pair of arms pivoted to the casing, inward extensions to the pivoted arms having oppositely recessed upper and lower faces designed to overlap when the arms are in the open position, a V-shaped portion forming part of the slide bar extending between such overlapping ends when the slide bar is in the forward position to force such overlapping ends apart by its inward movement, and means at the ends of the inward extensions of the arms with which the cross head engages for forcing the extensions together into the overlapping position when the cross head is released.

5. A milk bottle retainer comprising a bracket, a casing carried by the bracket having longitudinally grooved upper and lower walls, a spring pressed slide bar held within the longitudinal grooves, a cross head carried by the slide bar, means for automatically locking the slide bar in the inward position, swingable jaw arms pivoted at each side of the slide bar, means for forcing the jaw arms together during the inward movement of the slide bar, and inward extensions to each of the arms having arc-shaped ends eccentric to the center of swing of the arms and with which the cross head of the slide bar engages during its outward movement to force the arms apart.

1,204,819. AUTOMATIC CONTROLLER FOR STEERING-GEAR. CHARLES B. POST, New London, Ohio. Filed Nov. 5, 1915. Serial No. 59,720. (Cl. 21—200.)

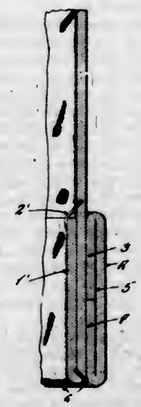
1. In combination with an automobile axle, the pivoted hubs and levers and connecting rod therefor, a narrow casing secured to said axle, a lever pivoted transversely therein, a link connecting the outer end of said lever with said connecting rod, a flattened member in said casing upon the pivotal point of said lever, and curved springs engaged by said flattened member on both sides, the extremities of said springs lying back to back, and rollers mounted in the walls of said casing engaging the outer sides of said springs.



2. In a device for controlling the steering gear of an automobile, the combination with the axle, hub levers and connecting rod, of an elongated narrow casing upon said axle, said casing having a cover, a lever pivoted on said cover and having an extension entering the casing and flat on both sides, springs placed back to back longitudinally of said casing between which said flat extension is positioned, the extremities of said springs slidingly movable on each other, and a link connecting the outer end of said lever with said connecting rod.

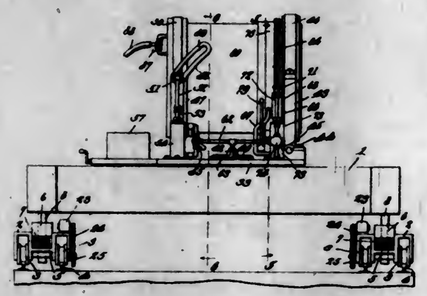
3. In a device for controlling the steering gear of an automobile, the combination with the axle, the hub levers and connecting rod, of a narrow casing secured to said axle, a pair of springs loosely positioned therein back to back and slidable on each other, a lever pivoted in the casing and having a flat member extended from the pivotal point and entering between said springs, and means for connecting said lever and connecting rod permitting free action of the parts relatively to each other.

1,204,820. CUFF FOR TROUSERS. SAMUEL ROSENTHAL, New York, N. Y. Filed Aug. 10, 1916. Serial No. 114,144. (Cl. 2—122.)



A pair of trousers having the lower portion of each of its leg members folded inwardly and upwardly, a pair of cuffs adapted to be attached to the folded lower portions of said leg members, each of said cuffs being independent of said trousers and comprising a continuous strip of material having its upper and lower marginal portions folded toward each other, said upper and lower marginal portions being surrounded by and cemented to the inner face of the intermediate portion of said material, and stitches securing the folded lower edges of the cuffs to the folded lower edges of the leg members.

1,204,821. WORK-HOLDER. GEORGE ARTHUR ROSNER, Buffalo, N. Y. Filed Feb. 14, 1916. Serial No. 78,208. (Cl. 78—98.)



1. In a device for manipulating forgings, a truck; a main frame mounted on the truck to move vertically; means for moving the main frame vertically with respect to the truck; a carriage mounted to move along the frame; means for moving the carriage along the frame; a turntable rotatable on the carriage; means for rotating the turntable; a counterpoise movable on the turntable; means for moving the counterpoise; a bearing structure vertically tiltable on the turntable; means for tilting the bearing structure; a forging support rotatable in the bearing structure; means for rotating the forging support; and a brake engaging the forging support to limit the rotation thereof.

2. In a device for manipulating forgings, a truck; a main frame mounted on the truck to move vertically; means for moving the main frame vertically with respect to the truck; a carriage mounted to move along the frame; means for moving the carriage along the frame; a turntable rotatable on the carriage; means for rotating the turntable; a bearing structure vertically tiltable on the turntable; means for tilting the bearing structure; a forging support rotatable in the bearing structure; and means for rotating the forging support.

3. In a device for manipulating forgings, a movable main frame; means for advancing and retracting the main frame horizontally; a carriage mounted to move along the main frame; means for moving the carriage along the frame; a turntable rotatable on the carriage; means for rotating the turntable; a bearing structure vertically tiltable on the turntable; means for tilting the bearing structure; a forging support rotatable in the bearing structure, and means for rotating the forging support.

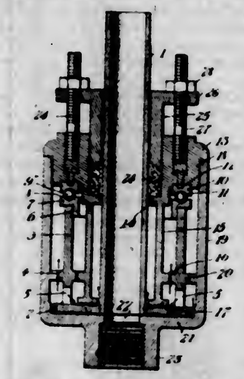
4. In a device for manipulating forgings, a vertically movable main frame; means for moving the main frame vertically; a carriage mounted to move along the frame; means for moving the carriage along the frame; a turntable rotatable on the carriage; means for rotating the turntable; a bearing structure vertically tiltable on the turntable; means for tilting the bearing structure; a forging support rotatable in the bearing structure; and means for rotating the forging support.

5. In a device of the class described, a truck; a main frame mounted on the truck to move vertically; means for moving the main frame vertically with respect to the truck; a turntable rotatably supported on the frame; means for rotating the turntable; a bearing structure vertically tiltable on the turntable; means for tilting the bearing structure; a forging support rotatable in the bearing structure; and means for rotating the forging support.

[Claims 6 to 15 not printed in the Gazette.]

1,204,822. BALL-BEARING GLAND. LEON ST. D. ROYLANCE, San Francisco, Cal. Filed Dec. 18, 1913. Serial No. 807,439. (Cl. 137—34.)

1. In a device of the character described, a pipe, a shell revolubly mounted on said pipe, anti-friction means interposed between said shell and said pipe, and mechanism carried by said shell and said pipe for the entrapment of air about said anti-friction means.



2. In a device of the character described, a pipe, a shell revolubly mounted on said pipe, anti-friction means interposed between said pipe and shell, and an air compression chamber formed between said pipe and said shell to entrap air about said anti-friction means.

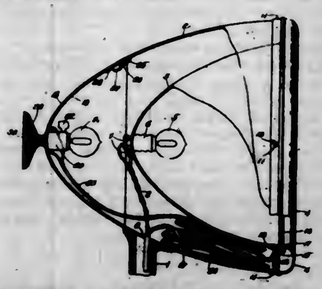
3. In a device of the character described, a pipe, a cylinder, a head for said cylinder said head being secured to said pipe, a ball race mounted on the open end of said cylinder, balls in said race, a shell revolubly mounted on said balls and encircling said pipe, and an air compression chamber surrounding said ball race.

4. In a device of the character described, a pipe, a cylindrical member, a head for said cylindrical member, said head being provided with a suitable opening for securing the same to said pipe, a flanged collar mounted on said cylindrical member, the flanged portion of said collar being provided with a groove, balls in said groove, a collar revolubly mounted on said balls, a cylindrical portion integral with said collar and adapted to enter the aforesaid cylindrical member, a shell secured to the aforesaid collar adapted to inclose the aforesaid cylindrical members, and means for entrapping air about the aforesaid balls.

5. In a ball bearing gland, a stationary liquid conveying member, a member revolubly mounted thereon, anti-friction means interposed between said members, and mechanism carried by said members for the entrapment of air about said anti-friction means.

[Claim 6 not printed in the Gazette.]

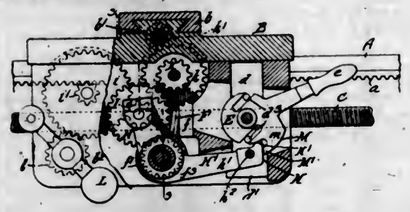
1,204,823. COMBINED SEARCH AND FINDER LIGHT FOR AUTOMOBILES. HENRY A. RUETER, Jamaica Plain, Mass. Filed Mar. 23, 1915. Serial No. 16,488. (Cl. 240—41.)



1. A combined searchlight and a removable finder-light for automobiles, comprising a searchlight reflector, an inclosing casing for said reflector of sufficient size to hold and receive an electric light between said outer casing and said reflector, said light holding portion consisting in a part of the casing and being detachable.

2. A combined searchlight and finder-light for automobiles, comprising a searchlight reflector, an inclosing casing for said reflector of sufficient size to hold and receive an electric light between said outer casing and said reflector, said light holding portion being detachable, and having a surrounding reflecting surface independent of the searchlight reflector.

1,204,824. SAFETY DEVICE FOR CARRIAGE-FEED MECHANISMS FOR LATHES OR THE LIKE. WILLIAM H. RUNGE, Seneca Falls, N. Y., assignor to The Seneca Falls Manufacturing Company, Seneca Falls, N. Y. Filed Feb. 4, 1915. Serial No. 6,061. (Cl. 82—22.)

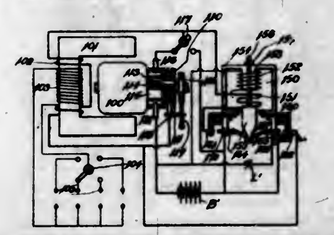


1. In a lathe or the like, the combination of a tool carriage, a driven lead screw, a feed nut adapted to be connected with said lead screw, a cam lever for actuating said nut to place the same into operative relation to said screw, a train of gears for moving the carriage, a pivoted gear carrier adapted to be swung about its pivot to place said gear train into operative position to move the carriage and having an arm extending into proximity to said cam lever for swinging said gear carrier about its pivot, said cam lever having a guard face which extends into proximity to a stop on said arm when said cam lever is in a position in which the feed nut engages the feed screw to prevent the movement of said arm to place said gear train in operative position, and said arm having a guard face which is moved into proximity to a stop on said cam lever to prevent the feed nut from being placed into operative relation to said feed screw when said gear train is in operative position.

2. In a lathe or the like, the combination of a tool carriage, a driven lead screw, a feed nut adapted to be connected with said lead screw, a cam lever for actuating said nut to place the same into operative relation to said screw, a train of gears for moving the carriage, a pivoted gear carrier having an arm on which one of the gears of said train is mounted and a second arm which extends into proximity to said cam lever and by means of which said gear carrier is swung about its pivot to place the gear mounted thereon into and out of mesh with said train, said cam lever having a guard face which extends into proximity to said second arm when the cam lever is in a position in which the feed nut engages the feed screw, to prevent the movement of said second arm to place said gear into operative relation to said arm, and said second arm having a guard face which is moved into proximity to a stop on said cam lever to prevent the feed nut from being placed into operative relation to said feed screw when said gear is in mesh with said gear train.

3. In a lathe or the like, the combination of a tool carriage, a driven lead screw, a feed nut adapted to be connected with said lead screw, a cam lever having a disk provided with cam portions for actuating said nut to place the same into operative relations to said screw and having a guard face and a stop, a train of gears for moving the carriage, a pivoted gear carrier adapted to be swung about its pivot to place said gear train into operative position to move the carriage and having an arm extending into proximity to the guard face of said disk for swinging said gear carrier about its pivot, said arm having a stop and a guard face, the guard face of said cam disk being engaged by a stop on said arm to prevent the placing of the gear train into operative relation when said cam lever is in the position in which said nut is in operative relation to said screw, and said guard face of the arm being in a position to be engaged by the stop on the cam disk to prevent actuation of the cam lever when said arm is in a position to place said gear train into operative position.

1,204,825. DOUBLE-SERVICE ELECTRIC GENERATOR AND SUPPLY SYSTEM. JOSEPH SACHS, Hartford, Conn., assignor, by mesne assignments, to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed May 23, 1911. Serial No. 628,983. (Cl. 171—318.)



1. An electromagnetic generator, a plurality of windings therefor, a separate external circuit connected to each of said windings, and means for causing electrical inductive effects to be produced in one of said windings and its connected circuit and preventing said effects from affecting the external circuit of the other winding.

2. A generator, primary and secondary windings thereon, external circuits connected thereto, and means for periodically causing a high potential effect to be produced in said secondary winding and its connected circuit and for preventing said high potential effect from affecting the circuit connected with the primary winding.

3. In a double service system of electrical supply an electromagnetic generator, primary and secondary windings thereon arranged in inductive relation to one another, a high tension circuit connected with said secondary, a low tension circuit connected with said primary, means for periodically establishing operative relation between said windings, and means for disconnecting said low tension circuit from said primary winding.

4. In a double service system of electrical supply an electromagnetic generator, primary and secondary windings therefor, a circuit containing current receiving devices connected to said primary winding, a circuit connected with the secondary winding, means for periodically establishing operative relation between said windings to supply said high tension circuit, and means operating automatically to disconnect said low tension circuit from its primary winding.

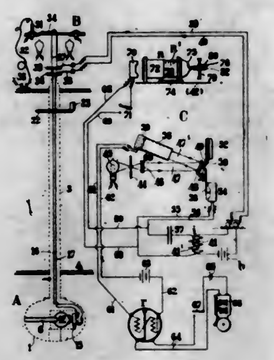
5. An electromagnetic generator, a plurality of windings therefor in inductive relation to one another, an independent external circuit for each of said windings, and means for causing electrical inductive effects to be produced in one of said windings without disturbing the external circuit of the other.

[Claims 6 to 22 not printed in the Gazette.]

1,204,826. SUBMARINE SIGNALING APPARATUS. JOSEF SCHIESSLER, Baden, near Vienna, Austria-Hungary. Filed Feb. 8, 1908. Serial No. 414,998. (Cl. 181—.5.)

1. A receiver for submarine signaling apparatus, comprising a sub-aqueous casing, a sound detecting element therein set into vibration by transmitted sound waves, a resonator coöperating therewith and producing air vibrations corresponding thereto, a microphone producing fluc-

tuations of current corresponding to said air vibrations, means to annunciate the incoming of sound waves, a telephonic arrangement capable of reproducing the sound waves picked up by the detecting element, means to rotate the casing in the direction of the incoming sound waves, an indicating device indicating the direction in which the casing has been rotated and means to determine the number of vibrations of the transmitted sound waves.



2. A receiver for submarine signaling apparatus, comprising a sub-aqueous casing, a sound detecting tube closed at its inner end and insulated from the casing, a chamber contained in the casing into which the closed end of said tube projects, said chamber being sound insulated from the casing, a resonator mounted on the closed end of the tube coöperating therewith and producing air vibrations corresponding to the sound waves, a microphone producing fluctuations of current corresponding to said air vibrations, an annunciator device for indicating the incoming sound waves, a telephonic arrangement to reproduce the sound waves picked up by the detecting device, means to rotate the casing in the direction of the incoming sound waves, an indicator device indicating the direction in which the casing has been rotated, and means to determine the number of vibrations of the reproduced sound waves.

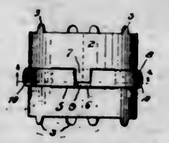
3. A receiver for submarine signaling apparatus, comprising a sub-aqueous casing, a sound detecting tube closed at its inner end and insulated from the casing, a chamber contained in said casing into which the closed end of said tube projects, said chamber filled with a gas under a pressure greater than that of the surrounding medium and sound insulated from the casing, a resonator mounted on the closed end of the tube, coöperating therewith and producing air vibrations corresponding to the sound waves, a microphone structure producing fluctuations of current corresponding to said air vibrations, an annunciator device indicating the incoming sound waves, telephonic means to reproduce the sound waves picked up by the detecting device, means to determine the number of vibrations of said sound waves, means to rotate the casing in the direction of the incoming sound waves, and an indicator to indicate the direction in which the casing has been rotated.

4. A receiver for submarine signaling apparatus, comprising a sub-aqueous casing, a sound detecting element therein set into vibration by transmitted sound waves, a resonator coöperating therewith and producing air vibrations corresponding thereto, a microphone producing fluctuations of current corresponding to said air vibrations, an annunciator for indicating the incoming sound waves picked up by the detecting element, means to indicate when said sound waves are of maximum intensity and the number of their vibrations, a tubular support for the casing, a gear mechanism to rotate the tubular support and the casing with a constant speed, and a hand connected with said rotating support indicating the position of the sound detecting element.

5. A receiver for submarine signaling apparatus, comprising a sub-aqueous casing, a sound detecting element therein set into vibration by transmitted sound waves, a resonator coöperating therewith and producing air vibrations corresponding thereto, a microphone producing fluctuations of current corresponding to said air vibrations, an annunciator indicating the incoming of sound waves, means to rotate the casing, an indicator to determine the direction in which the casing is rotated, telephonic means connected to said microphone and reproducing acoustical waves corresponding to the current fluctuations, an adjustable resonator in proximity to the telephone capable of being adjusted and tuned to resonance therewith, and means adjacent said resonator and acted upon by the vibrations therefrom to indicate the number of vibrations of the tone received and thereby determine the speed of the source of sound.

[Claims 6 to 13 not printed in the Gazette.]

1,204,827. CLAMPING APPLIANCE. ALBERT F. SCHROEDER, Cleveland, Ohio. Continuation of application Serial No. 8,469, filed Feb. 16, 1915. This application filed June 14, 1916. Serial No. 103,687. (Cl. 242—74.)



1. A clamping appliance comprising a member composed of flexible material and provided with a slot having a projection extending within the same to form a lug, and a clamping finger inserted in said slot, said lug holding said finger in place whereby the two extremities of the said finger bear against said member on opposite sides of said slot.

2. A clamping appliance comprising a bent member having a given measure of flexibility and provided with an aperture having a projection extending within the same whereby to form a lug capable of being flexed relative to the plane of such aperture, and a resilient clamping finger having an interjacent portion inserted underneath said lug and its ends engaging said member, said finger also being bent so that one of its ends yieldingly engages said member.

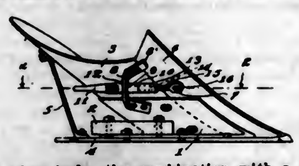
3. A clamping appliance comprising the combination with a metal hub having an irregular slot, a projection extending within the same to form an integral lug of given flexibility, and a spring finger fashioned between its ends with a depression adapted to be occupied by said lug or released therefrom whereby said finger is detachably held in place as and for the purpose specified.

4. A clamping appliance comprising the combination with a cylindrical metal hub having a slot provided with a projection extending within the same to form an integral lug of given flexibility and projected in a direction substantially parallel to the axis of said hub, and an arcuate spring finger fashioned between its ends with a depression inserted in said slot, the ends of said finger extending beyond opposite edges of said slot respectively, said depression being occupied by said lug whereby said finger is held in place as and for the purpose specified.

5. A film reel clamping appliance comprising a pair of heads, a hub secured therebetween and provided in its outer surface with a pair of apertural portions and an intercommunicating narrow slot to form a lug, a resilient member extending through both of said portions, said lug adapted to hold said member in place, the arrangement being such that one extremity of such member yieldingly engages said hub surface.

[Claims 6 to 10 not printed in the Gazette.]

1,204,828. PLOW. WILLIAM N. SPRINGER, South Bend, Ind., assignor to Avery Company, a Corporation of Illinois. Filed Dec. 26, 1912, Serial No. 738,704. Renewed Mar. 30, 1916. Serial No. 87,848. (Cl. 97—18.)



1. In plow body, the combination with a frog and a moldboard secured thereto, of a detachable share adapted to engage the frog and the moldboard, a longitudinal link comprising two parts relatively movably connected to permit adjustment in total length, means for connecting the forward end of the link to the share, and means for tensioning the link to draw the share into place and secure it, the said means comprising two engaging elements one of which is movable relatively to the other, one of the said elements being carried by the link and having a fixed point of connection thereto.

2. In a plow body, the combination with a frog and a moldboard secured thereto, of a detachable share adapted to engage the frog and the moldboard, a longitudinal link comprising two parts threaded together to permit adjustment in total length, means for manually detachably connecting the forward end of the link to the share, and means for tensioning the link to draw the share into place and secure it, the said means comprising two engaging elements one of which is movable relatively to the other, one of the said elements being carried by the link and having a fixed point of connection thereto.

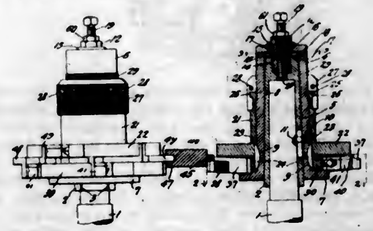
3. In a plow body, the combination with a frog and a moldboard secured thereto, of a detachable share adapted to engage the frog and the moldboard, a bracket connected to the frog and moldboard and having an aperture, a link extending through the aperture and comprising two parts threaded together to permit adjustment in total length, means for manually detachably connecting the forward end of the link to the share, and a lever pivoted to the rear end of the link and provided with a cam surface adapted, when the lever is moved, to engage the bracket and tension the link, whereby the share is drawn into place and secured.

4. In a plow body, the combination with a frog and a moldboard secured thereto, of a detachable share adapted to engage the frog and the moldboard, a bracket connected to the frog and moldboard and having a noncircular aperture, a link extending through the aperture and approximately fitting it, the said link comprising two parts threaded together to permit adjustment in total length, means for detachably connecting the forward end of the link to the share, and means for tensioning the link to draw the share into place and secure it.

5. In a plow body, the combination with a frog and a moldboard secured thereto, of a detachable share adapted to engage the frog and the moldboard, a bracket connected to the frog and moldboard and having an aperture, a link extending through the aperture, means for connecting the forward end of the link to the share, and a lever pivoted to the rear end of the link and provided with a cam surface adapted, when the lever is moved, to engage the bracket and tension the link, whereby the share is drawn into place and secured, the said cam having a flat part engaging a corresponding flat part of the bracket when the share is in place.

1,204,829. WOODWORKING-MACHINE. HARRY T. TAYLOR, Hattiesburg, Miss. Filed May 7, 1915. Serial No. 26,563. (Cl. 144—230.)

1. In a wood working machine, an intermediate sleeve provided at one end with a top and equipped at its other end with a flange, the sleeve having a tapered bore; a cutter disk supported on the flange: an outer cutter sleeve threaded onto the intermediate sleeve for adjustment therealong; a split nut threaded onto the intermediate sleeve and rotatably assembled with the outer sleeve; means for connecting the parts of the nut; a key connecting the disk and the outer sleeve with the intermediate sleeve; a clamping sleeve in the bore of the intermediate sleeve; a tubular screw rotatable in the top of the intermediate sleeve and threaded into the clamping sleeve; a split ring coacting with the top of the intermediate sleeve and with the screw to hold the screw against endwise movement; retaining devices carried by the intermediate sleeve and engaging the parts of the ring; and a second screw threaded into the tubular screw and adapted to project within the clamping sleeve.



2. In a wood working machine, a disk provided in its edge with an opening having an extension; a cutter adjusted longitudinally in the extension, the cutter and the disk having transverse interengaging teeth which prevent the cutter from moving longitudinally after adjustment; a clamping block slidable in the opening and coacting with the cutter to hold the teeth in engagement, the block and the cutter having matching longitudinal tongue and groove elements which prevent the cutter from moving transversely; and movable means coacting with the block and with the disk at one end of the opening to hold the block engaged with the cutter; the inner edge of the block having a dove-tailed slot, and the base of the opening having a rib shaped to conform to the slot and constituting a slidable mounting for the block.

1,204,830. HEAT-NEUTRALIZING COMPOUND. ELIZABETH S. TUTLEMAN, Cincinnati, Ohio, assignor of one-half to Charles L. Hopping, Cincinnati, Ohio. Filed July 30, 1915. Serial No. 42,815. (Cl. 87—9.)

1. A homogeneous compound of lard-like consistency for the purpose described which consists of oil, lime and water and in which the lime proportionately exceeds the oil, while the water exceeds both, the ingredients being emulsified to form a mass of substantial body by saponification by means of soda-ash added to them, the mass being rendered smooth and homogeneous by stirring and by agitation.

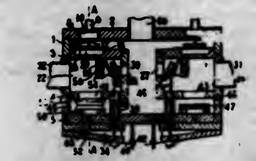
2. A homogeneous compound of lard-like consistency for the purpose described which consists of oil, lime, ocher and water and in which the mineral matter proportionately exceeds the oil, to provide body, the ingredients being emulsified to form a mass of substantial body by saponification by means of soda-ash added to them, all being rendered smooth and homogeneous by stirring and by agitation.

3. A compound consisting of a homogeneous mass of substantial body of lard-like consistency and produced by combining in the manner described, the ingredients hereinafter named in the following proportions: lime 13 pounds, water 3½ gallons, black mineral oil 7½ pounds, red oil 2½ pounds, soda-ash 2½ pounds and yellow ocher 1 ponnd.

1,204,831. PNEUMATIC SOUND-REGULATING MECHANISM FOR MECHANICAL PIANOS AND THE LIKE. LUIS JOVELL VILAR, Barcelona, Spain. Filed June 1, 1914. Serial No. 842,167. (Cl. 84—168.)

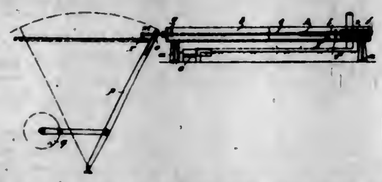
1. In pneumatic sound regulating mechanism for mechanical pianos and the like the combination of a throttle

valve, pneumatic means for actuating said valve, said actuating means including an air conduit, a manually controlled valve for closing said air conduit, a second valve adapted to close said air conduit while said manually controlled valve is open, pneumatic means for actuating said second valve, and a tracker board having a passage connected to said last mentioned pneumatic means.



2. In a pneumatic sound regulating mechanism for mechanical pianos and the like the combination of a suction conduit, a chamber having two wall apertures for communication with said conduit and an orifice for connection to motor pneumatics, a throttle valve controlling one of said wall apertures, pneumatic means for actuating said valve, said actuating means including an air conduit, a manually controlled valve for closing said air conduit, a second valve adapted to close said air conduit while said manually controlled valve is open, pneumatic means for actuating said second valve, a tracker board having a passage connected to the last mentioned pneumatic means, a regulating valve controlling the second wall aperture, and a pneumatic control device for said regulating valve comprising a bellows, an air conduit connected to said bellows and manually controlled means for opening and closing the last mentioned air conduit.

1,204,832. MACHINE FOR DRAWING THIN-WALLED METAL TUBES. HERMANN VON FORSTER, Frankfort-on-the-Main, Germany. Filed Aug. 18, 1915. Serial No. 46,178. (Cl. 205—7.)



1. In a machine for drawing thin-walled tubes from a blank in a cold state, the combination of a mandrel, a plurality of dies, and means for passing the dies separately in close succession over the mandrel.

2. In a machine for drawing thin-walled tubes from a blank in a cold state, the combination of a mandrel, a series of dies arranged side by side at one end of the mandrel and adapted collectively to effect the desired reduction of a blank supported by the mandrel, and means adapted to move said dies one by one in close succession over the mandrel.

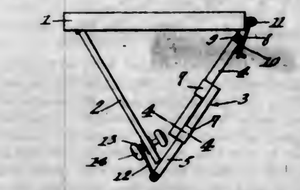
3. In a machine for drawing thin-walled tubes from a blank in a cold state, the combination of a mandrel, a plurality of dies and grippers arranged to reciprocate longitudinally of the mandrel and adapted to successively engage the several dies, whereby the dies will be separately moved, in close succession, over the mandrel.

4. In a machine for drawing thin-walled tubes from a blank in a cold state, the combination of a mandrel, a plurality of dies, means for separately engaging the dies and passing them in close succession over the mandrel, and means for maintaining a blank on the mandrel at substantially uniform temperature throughout the drawing operation.

5. In a machine for drawing thin-walled tubes from a blank in a cold state, the combination of a mandrel, a plurality of dies, means for passing the dies separately in close succession over the mandrel, and means for maintaining the mandrel, a blank thereon, and the operative die at the temperature at which the metal of the blank may be most readily drawn.

[Claim 6 not printed in the Gazette.]

1,204,833. DOOR-SCREEN. HENRY C. WARVEL, Philipsburg, Pa. Filed Feb. 6, 1915. Serial No. 6,527. (Cl. 20—16.)



1. In a device of the character described, the combination with a door casing and door hinged thereto, of a screen comprising slidably connected sections, one section being hinged to the door casing adjacent the free edge of the door so that the screen can be swung toward and away from the door, the other section being adapted to swing against the free edge of the door at different positions thereof when the door is opened, and means for securing the last mentioned section to the door to prevent the unwarranted detachment of the screen from the outside.

2. In a device of the character described, the combination with a door casing and door hinged thereto, of a screen comprising slidably connected sections, bearings attached to the casing at the free edge of the door, one of said sections having hooks engaging said bearings to hinge the screen to the casing so that the screen can be swung toward and away from the door, the other section being adapted to swing against the free edge of the door when the door at different positions thereof is opened, means for securing the first mentioned section and door casing together to prevent the detachment of the screen from the casing by an unwarranted person on the outside, and means for securing the second mentioned section to the door to prevent the detachment of the screen from the door by an unwarranted person on the outside.

1,204,834. PLAYING-CARDS. FRANK EDWIN WILLIAMS, South Pasadena, Cal. Filed Mar. 17, 1915. Serial No. 14,925. (Cl. 46—25.)



1. A set or pack of playing cards divided into a plurality of independent suits, the cards of each of such suits having suit designation marks and a plurality of designating marks indicating the series or sequential order or value of the cards of the suit, and a suit common to each of said first named suits, said common suit consisting of a plurality of cards having designating marks thereon indicating the sequential order or value of the cards in such suit.

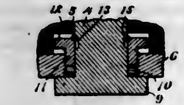
2. A set or pack of playing cards comprising six independent series of suits of substantially equal number of cards having suit indication marks thereon and designating marks indicating the series or sequential value or relation of each of the cards of a suit to the other, and a seventh suit of cards common to each of the first named suits and having marks thereon designating the sequential order or value of the cards in such suit.

3. A set or pack of playing cards comprising fifty-two cards divided into six independent suits of eight cards each containing suit indications and indications of the relative sequence of the cards in the suit, and a seventh series of cards having indications of relative sequence to each other and indications corresponding to each of said six suits.

4. A set or pack of playing cards comprising fifty-two cards divided into six independent suits of substantially equal number of cards and having indication marks distinguishing the suit and indicating the sequence of the cards of the suit, and a seventh series of cards having marks indicating sequential relation to each other and common to all said six suits.

5. A set or pack of playing cards comprising a plurality of cards divided into a plurality of suits, the cards of each suit having a common suit designating mark and sequential designating marks, and a plurality of cards having sequential designating marks and common to all said suits, one of the cards of each suit having designating marks indicating sequential relation at either end of such suit.

1,204,835. RELAY. ALFRED A. ZIEGLER, Boston, Mass. Filed May 22, 1915. Serial No. 29,903. (Cl. 175—281.)



1. In a relay, a carrying-plate, an electro-magnet core extended through said plate, and having at its inner end an enlarged pole-piece, a ring-nut adjustably secured to said plate, and arranged on said core, and removable means arranged on said core, above said nut, against which said nut reacts to adjust said core longitudinally to draw the pole-piece into engagement with the plate, and thereby clamp the core stationarily to the plate.

2. In a relay, a carrying-plate, an electro-magnet core extended through said plate and having at its inner end an enlarged pole-piece, removable means arranged on the core above the plate and adapted to project therefrom to form a shoulder, and an annular element arranged on the core between the shoulder and the plate, said annular element and said plate being provided with interengaging means for moving them relative to each other so as to move the core longitudinally to draw the pole-piece into engagement with the plate, and thereby clamp the core stationarily to the plate.

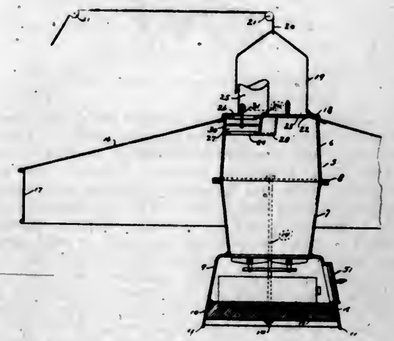
3. In a relay, a carrying-plate, an electro-magnet core extended through said plate and having at its inner end an enlarged pole-piece, a ring-nut threaded in said plate and arranged on said core, and an insertible backing-member adapted to be applied to said core to permit said nut to react thereagainst for clamping said core to said plate.

4. In a relay, a carrying-plate, an electro-magnet core extended through said plate and having at its inner end an enlarged pole-piece, a ring-nut threaded in said plate and arranged on said core, said core and said nut having cooperative grooves to form an annular recess, and an element arranged in said recess to serve as a backing against which said nut may react for clamping said core to said plate.

5. In a relay, a carrying-plate, an electro-magnet core extended through said plate and having at its inner end an enlarged pole-piece, a ring-nut threaded in said plate and arranged on said core, said nut having an enlarged head, and said core being formed with an annular groove substantially opposite the top of said nut, and a ring-member arranged in said groove to serve as a backing against which said nut may react.

1,204,836. HOVER. CHARLES E. ADAIR, Buffalo, N. Y. Filed Jan. 6, 1916. Serial No. 70,600. (Cl. 236—6.)

1. In a hover, the combination of a base portion, a two-part combustion chamber having its greatest diameter near the center, each part thereof being frusto-conical in form, the top of the same being flat and formed with draft and fuel openings eccentrically arranged, a damper in the draft openings, a thermostatic device projecting from the base portion, a vertical damper rod connected thereto, means connecting said damper and said rod, and a canopy supported at the upper part of the combustion chamber and centrally apertured so that the draft and fuel openings are located outside of the canopy.



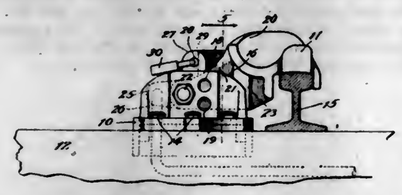
2. In a hover, the combination of a base portion, a two-part combustion chamber, each part being substantially frusto-conical in form, the two sections being superimposed so that the larger portions of the chamber are connected together, the flat top of the chamber being formed with draft and fuel openings, a damper in the draft opening, a thermostat arm secured to the base, a movable thermostat lever mounted below the arm, means connecting the thermostat lever with the damper, and a canopy supported at the upper part of the chamber and centrally apertured so that the draft and fuel openings are located outside of the canopy.

3. In a hover, the combination of a base portion, an upper stove section above the base having its widest part near the center of the stove and having its sides converging upwardly and downwardly from the center, the flat top of the upper stove section being formed with draft and fuel openings eccentrically arranged, a damper in the draft opening, a thermostatic device projecting from the base portion and a vertical damper rod connected thereto, means connecting said damper and said rod and a vertically-movable canopy supported on the upper part of the upper stove section and centrally apertured so that the draft and fuel openings are located outside of the canopy.

4. In a hover, the combination of a base portion, a two-part combustion chamber, each part being substantially frusto-conical in form and the chamber having its greatest diameter near the center thereof, the flat top of the same being formed with draft and fuel openings eccentrically arranged, a damper in the draft opening, a thermostatic device projecting from the base portion, a vertical damper rod connected thereto, means connecting said damper and said rod, and a canopy supported at the upper part of the chamber and centrally apertured so that the draft and fuel openings are located outside of the canopy.

5. In a hover, the combination of a base portion, a combustion chamber having its greatest diameter near the center thereof, the sides of the same converging upwardly and downwardly from the center, the top of the chamber being formed with check draft and fuel openings eccentrically arranged, a damper in the draft opening, a canopy supported at the upper part of the combustion chamber and centrally apertured so that the draft and fuel openings are located outside of the canopy, a thermostatic device projecting from the base portion, a vertical damper rod extending upwardly therefrom and means connecting the damper and rod.

1,204,837, DERAILER. EDWIN H. ALLPRESS, Wilmette, and WILLIAM H. ENGLAND, Chicago, Ill. Filed Nov. 8, 1915. Serial No. 60,898. (Cl. 104—127.)



1. A derailer formed of a derailer-block, a supporting structure, means for pivotally supporting said block on said supporting structure adjustable to position the pivot of said block in different positions vertically, and means coöperating with said supporting structure and block for locking said block both in and out of derailing position.

2. A derailer formed of a derailer-block, a supporting structure, means for pivoting said block on said supporting structure adjustable horizontally and vertically to different positions, and means engaging said supporting structure in a vertical plane between the different positions of said adjustments of the block on the supporting structure and engaging said block both when in and out of derailing position for locking the latter in said positions.

3. A derailer formed of a derailer-block, a supporting structure containing a plurality of openings spaced apart horizontally and one disposed in a plane above the other, a pivoting device for pivoting said block on said supporting structure and adjustable in said openings to adjust said block vertically, and means engaging said supporting structure in a plane between said openings for locking said block in and out of derailing position.

4. A derailer formed of a derailer-block, a supporting structure containing sets of openings disposed in different horizontal and vertical planes, pivot devices adapted to be inserted into any of said sets of openings pivoting said block on said supporting structure, a lug on said supporting structure in a plane between said sets of openings, and a lock engaging said lug and coöperating with said block locking the latter both in and out of derailing position.

5. A derailer formed of a derailer-block, and a supporting structure therefor reversible end for end to position it with either side adjacent a rail and supporting said block in proper position relative to the rail and at different heights in the different positions of adjustment of said supporting structure.

[Claims 6 to 16 not printed in the Gazette.]

1,204,838. VACUUM-JAR. FREDERICK W. BARTLETT, Caldwell, N. J. Filed Dec. 24, 1915. Serial No. 68,500. (Cl. 215—118.)



1. A vacuum jar comprising inner and outer walls joined together at their upper portion but otherwise free from each other, one wall being provided with indentations providing free projections or protuberances whose tips extend toward, but are normally slightly spaced from and out of contact with, the opposite wall.

2. A vacuum jar comprising inner and outer walls joined together at their mouths by an annular hollow pouring lip or bead, the outer wall being otherwise free from the inner wall and provided with inwardly extending indentations providing free internal projections or protuberances whose tips extend toward, but are normally slightly spaced from and out of contact with, the inner wall.

3. A vacuum jar comprising inner and outer walls of substantially the same diameter throughout and joined only at their outer ends by a hollow annular pouring lip or bear, said outer wall being otherwise free from the inner wall provided with inwardly extending indentations providing free internal projections or protuberances whose tips extend toward, but are normally slightly spaced from, and out of contact with, the inner wall.

1,204,839. COMBINED FLY AND STARTING WHEEL FOR INTERNAL-COMBUSTION ENGINES. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, Peoria, Ill., a Corporation of Illinois. Filed July 30, 1912. Serial No. 712,288. (Cl. 74—6.)



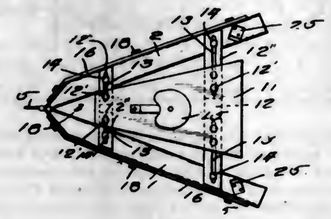
1. A combined fly and starting wheel for internal combustion engines, the same being formed with a heavy rim, a hub, spokes connecting the hub and rim, and a concentric hand grip of less diameter than the rim whereby the wheel may be manually turned, said hand grip being circumferentially continuous and smooth, and the part by which it is united with the rim being also circumferentially continuous and smooth, and said hand grip extending from the inner part of the rim laterally and away from the axis of the wheel to points remote from the spokes; whereby said grip may be grasped at its upper part or sides, with the fingers between the grip and the rim and with the palms of the hands at the inner side of the said grip.

2. A combined fly and starting wheel for internal combustion engines, the same being formed with a heavy rim, a hub, spokes connecting the hub and rim, and a concentric hand grip whereby the wheel may be manually turned, said hand grip being circumferentially continuous and smooth, and the part by which it is united with the rim being also circumferentially continuous and smooth, and said hand grip extending from the rim laterally to points remote from the spokes; whereby said grip may be grasped at its upper part or sides, with the palms of the hands at the inner side of the said grip.

3. A combined fly and starting wheel for internal combustion engines, the same being formed with a heavy rim, a hub connected with the rim, and a concentric hand grip whereby the wheel may be manually turned, said hand grip being circumferentially continuous and smooth.

and the part by which it is united with the rim being also circumferentially continuous and smooth; whereby said grip may be grasped at its upper part or sides, with the palms of the hands at the inner side of said grip.

1,204,840. CORN-CULTIVATOR. EDWARD S. BASTON, Georgetown, Ky. Filed Apr. 5, 1915. Serial No. 19,302. (Cl. 55—125.)



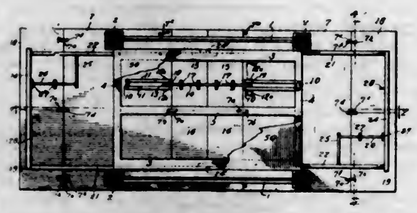
1. In a cultivator, the combination with diverging runners hingedly secured together at their forward ends and having broad, flat, unobstructed lower faces, of plates adjustably and detachably mounted on the outer faces of said runners and having soil cultivating implements thereon.

2. In a cultivator, the combination with a pair of diverging runners hinged at their forward ends and having broad, flat, unobstructed lower faces, of plates mounted on the outer faces of said runners and having ground cultivating implements thereon, the said plates being adjustable, vertically, and means for maintaining the runners in predetermined positions.

3. In a cultivator, the combination with diverging runners hinged together at their forward ends and having broad, flat, unobstructed lower faces, of ground working implements secured to the outer faces of said runners, the said implements being adapted to loosen the soil upon the forward movement of the cultivator and the lower faces of the runners being constructed and arranged to pack the soil subsequent to the loosening thereof.

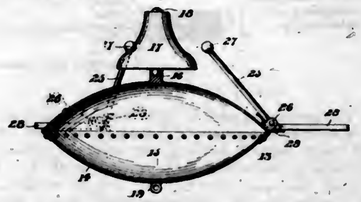
4. In a cultivator, the combination with a pair of diverging runners, of a hinge for securing the forward ends thereof together, one portion of the hinge being projected forwardly to form a clevis and means for maintaining the runners in predetermined positions.

1,204,841. EXTENSIBLE TABLE. GIUSEPPE BELLUSCI, New Haven, Conn. Filed Feb. 19, 1916. Serial No. 79,418. (Cl. 45—9.)



In an extension table, two slidable main table-leaves, horizontally-slidable, supplemental table-leaves foldable and movable from a position between and in the same horizontal plane as the main leaves to a position beneath each of the same, two sliding carriages disposed beneath said main leaves, two supplemental, foldable end leaves supportable, in unfolded position, upon the tops of said carriages, two rods carried, at one end thereof, by said carriages, upon which said supplemental leaves are pivotally and horizontally-slidably mounted, and brackets carried by said carriages and secured, at their free ends, to the other ends of said rods.

1,204,842. SUNKEN-VESSEL-LOCATING DEVICE. JAHN BRANECKY, Eldred, Pa. Filed Feb. 2, 1916. Serial No. 75,692. (Cl. 116—13.)



1. A device of the class described comprising a hollow float of spheroidal shape, a bell-supporting post carried by said float, a bell carried by said post, line attaching means carried by the float, a plurality of clappers pivotally mounted on the float around the equator thereof, paddles projecting from said clappers normally positioned in a plane parallel to the equator of the shell, and springs for holding said paddles in their normal positions and the clappers out of contact with the bell.

2. A vessel locating device comprising a metallic hollow float of spheroidal shape, an attaching ring axially positioned upon the lower side of the said float, a post axially projecting from the opposite side of the said float, a bell secured to the said post, clappers for the said bell pivoted equal distances apart adjacent the outer edge of the said float, paddles projecting angularly from the said clappers normally horizontally positioned when the float is at rest with the clappers out of engagement with the said bell, and U-shaped positioning springs for the said clappers and paddles carried by the upper side of the said float adjacent the points of pivotal connection of the said clappers therewith.

3. A device of the class described comprising a hollow metallic spheroidal shell, a ring and a post projecting from opposite axial points upon the said shell, a bell encircling the said post and secured to the outer free end thereof, pairs of lugs upon the post carrying side of the said shell adjacent its equator, clappers pivoted to the said lugs and having engaging hammers for the said bell at their free ends, paddles angularly projecting from the said clappers outwardly of the said lugs and normally positioned in a plane parallel to that of the said equator of the shell and with the hammers out of engagement with the said bell, and normally positioning U-shaped springs carried by the shell between the said lugs in resilient contact with the adjacent clapper and paddle.

1,204,843. PROCESS OF EXTRACTING METALS FROM THEIR ORES. SIDNEY E. BRETHERTON and FRANK L. WILSON, Berkeley, Cal. Filed Dec. 23, 1912. Serial No. 738,126. (Cl. 75—18.)

1. The process of removing zinc from zinc sulfid ores, which consists in pulverizing the ore, roasting it to convert the zinc content into basic sulfates, then subjecting the roasted ore to the action under pressure of a solution containing ammonia and carbon dioxid which dissolves the zinc content, then heating the solution to precipitate the zinc as a basic carbonate and removing the precipitate from the solution.

2. The process of removing zinc from zinc ores, which consists in pulverizing the ore, subjecting the pulverized ore to the action under pressure of a solution containing ammonia and carbon dioxid which dissolves the zinc content, then separating the solution from the remaining ore, then heating the solution to precipitate the zinc as a basic carbonate and separating the precipitate from the solution.

1,204,844. INNERSOLE MATERIAL AND PROCESS OF MAKING THE SAME. HOWARD BRUMMETT and WILLIAM H. COLBATH, Natick, Mass., assignors of one-third to George A. Spear, Medford, Mass. Filed July 11, 1916. Serial No. 108,725. (Cl. 154—2.)



1. The process of making sheet material for inner soles for shoes which consists in commingling fiber and hot liquid crude asphalt forming the resultant mixture into sheet form by subjecting it to pressure while hot, drying the sheet material, coacting the exterior surfaces with paint, and coating the painted surfaces with a waxy substance.

2. The process of making sheet material for inner soles for shoes which consists in commingling fiber and hot liquid crude asphalt, forming the resultant mixture into sheet form by subjecting it to pressure while warm, drying the sheet material, coating both surfaces of said material with paint, coating the surfaces to be juxtaposed of a plurality of sheets of said material with a cement containing asphalt, drying the coated sheets, heating the cement coated surfaces until the cement is rendered tacky, bringing into juxtaposition the tacky cement coated surfaces of a sufficient plurality of said sheets to give the required total thickness of material presenting painted surfaces at the exterior, subjecting the juxtaposed sheets to pressure and finishing the painted exterior surfaces of the resultant built up sheet with a coating of waxy substance.

3. The process of making sheet material for inner soles for shoes which consists in commingling fiber and hot liquid crude asphalt, forming the resultant mixture into sheet form by subjecting it to pressure while warm, drying the sheet material, coating the surfaces to be juxtaposed of a plurality of sheets of said material with a cement containing asphalt, drying the coated sheets, heating the cement coated surfaces until the cement is rendered tacky, bringing into juxtaposition the tacky cement coated surfaces of a sufficient plurality of said sheets to give the required total thickness of the material, and subjecting the juxtaposed sheets to pressure.

4. A sheet material for inner soles for shoes composed of fiber and crude asphalt commingled and pressed into sheet form coated with paint and finished with a waxy coating.

5. A sheet material for inner soles for shoes composed of a plurality of juxtaposed compressed sheets of commingled fiber and crude asphalt having their juxtaposed surfaces secured together by a cement containing asphalt, and having the exterior surfaces coated with paint and with an outer dressing of waxy substance.

[Claim 6 not printed in the Gazette.]

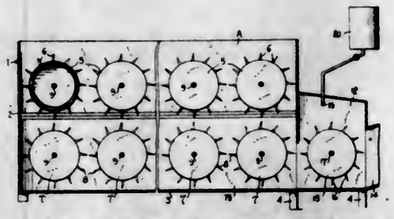
1,204,845. DRYING VEGETABLE MATERIALS. HEINRICH BRÜNE, Neustadt-on-the-Hardt, Germany. Filed Feb. 13, 1913. Serial No. 748,108. (Cl. 99—5.)

1. The process of drying vegetable materials, which consists in mixing with the material to be dried, like material which has been previously dried, and then pressing the mixture to extrude the moisture from the mixture.

2. The process of drying turnips, which consists in mixing the turnips to be dried with previously dried turnips, and then pressing the mixture to extrude the moisture from the mixture.

3. The process of drying wet vegetable materials by pressing, which consists in mixing with the wet material to be pressed, dry material taken from the previously pressed finished product, and then pressing the mixture to extrude the moisture from the mixture.

1,204,846. MIXING APPARATUS. JOHN JAMES CONNOLLEY, Poquonock, Conn. Filed July 15, 1916. Serial No. 109,557. (Cl. 19—9.)



1. A device of the character described comprising a container, having its top face open, substantially horizontally disposed bars dividing said container into vertically related compartments, cylinders rotatably mounted within each of said compartments and provided with tearing means, and means for rotating the cylinders.

2. A device of the character described comprising a container, having its top face open, substantially horizontally disposed bars dividing said container into vertically related compartments, cylinders rotatably mounted within each of said compartments, and means for rotating the cylinders, each of said cylinders being provided with teeth extending therefrom.

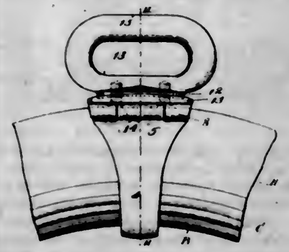
3. A device of the character described comprising a container, having its top face open, substantially horizontally disposed bars dividing said container into vertically related compartments, cylinders rotatably mounted within each of said compartments, and means for rotating the cylinders, each of said cylinders being provided with teeth extending therefrom, the teeth of the upper cylinders passing between the bars and into the lower compartment.

4. A device of the character described comprising a container, having its top face open, substantially horizontally disposed bars dividing said container into vertically related compartments, cylinders rotatably mounted within each of said compartments and provided with tearing means, and means for rotating the cylinders, the bottom of the container being perforate to afford a screening element.

5. A device of the character described comprising a container having its top face open, substantially horizontally disposed bars dividing said container into vertically related compartments, cylinders rotatably mounted within each of said compartments and provided with tearing means, means for rotating the cylinders, a chamber in communication with the lower compartment at the discharge end thereof, and a throwing member mounted within the chamber.

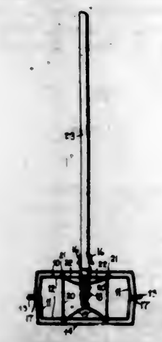
[Claims 6 to 11 not printed in the Gazette.]

1,204,847. AUTOMOBILE-WHEEL CUFF. JOHN H. COOK and FRANK T. REID, Kansas City, Mo. Filed Nov. 29, 1915. Serial No. 63,994. (Cl. 70—90.)



A device of the character described, consisting of two members having wide portions and tapered portions and one of which is bent to abut the other member, a pintle operably connecting said members so that they may be placed around the tire and the felly of a wheel, a socket in one member, a loop provided with a base adapted to fit into said socket, means accessible only from the side of the member adapted to be placed next to the tire for removably-securing said base in the socket, lugs on the pintle-connected members to prevent the device from being rotated on the tire and the felly, and a lock to secure the abutting portions of said pintle-connected members.

1,204,848. MOP-HOLDER. JOHN C. CROUT, Pelion, S. C. Filed Aug. 14, 1916. Serial No. 114,860. (Cl. 15—56.)



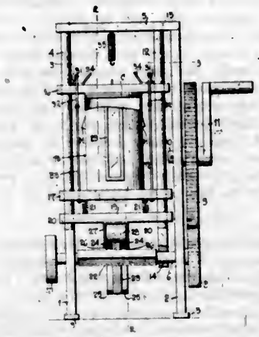
1. A mop holder of the character described including an inner approximately rectangular frame with means for connecting it rigidly to a handle, said means being disposed to support the handle at an angle to the plane of the frame, and an outer approximately rectangular frame having pivotal connections at its ends and disposed along the middle line of the frame and operatively engaging the ends of the outer frame, there being means for holding the outer frame in the same plane as the inner frame.

2. A mop holder of the character described comprising an inner rectangular frame formed of a single piece of wire, an outer rectangular frame having approximately the same length as the inner frame but wider than the inner frame, the inner frame and outer frame being formed, one with trunnions and the other with eyes in which said trunnions engage, a handle socket operatively connected to the inner frame, and an arm extending upward from the rear end of the outer frame and having a resilient fork at its extremity engageable with the handle.

3. A mop holder of the character described comprising an inner rectangular frame having longitudinally projecting trunnions, an outer rectangular frame having approximately the same length as the inner frame and formed with eyes at its ends for the reception of the trunnions, said outer frame at its rear having an upwardly and an inwardly projecting arm resiliently forked at its ends, a socket formed of one piece of twisted wire having integral braces extending to and rigidly engaged with the inner frame, and a handle detachably inserted in said socket and adapted to be engaged with the fork of said arm.

4. A mop holder of the character described comprising an inner frame formed of one piece of wire bent to form a rectangle and provide oppositely disposed trunnions at the ends of the frame, a rectangular outer frame formed of a single piece of wire bent to form eyes at the ends of the frame, the ends of the wire at the rear of the frame being twisted upon each other to form an upwardly and rearwardly projecting arm, the extremities of the wire being deflected to form a resilient fork, a handle socket formed of a single piece of wire bent to form a tapered spiral, the wire being bent to form forwardly diverged braces engaged with the forward member of the inner frame, then extended rearward to the rear member of the inner frame and engaged therewith and then extended upward to the coil.

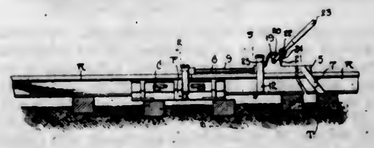
1,204,849. CHURN. DAVID C. DANIEL, Raeford, N. C. Filed Apr. 24, 1916. Serial No. 93,225. (Cl. 259—91.)



1. A churn comprising two vertical members, a shaft engaged with said vertical members, means for rotating the shaft, two cross heads slidably engaged with the vertical members, means carried by said vertical members for clamping a churn body therebetween, a third cross head slidably engaged with the vertical members and positioned intermediate the first named cross heads and the shaft, an expansible member interposed between the third cross head and the lower of the first named cross heads, and coacting means carried by the shaft and the third cross head for reciprocating the cross heads upon rotation of the shaft.

2. A device of the character described comprising two uprights, a shaft rotatably supported by the uprights, a beam connecting the upper portion of the uprights, a post disposed in close proximity to one of the uprights and having its upper end secured to the beam, the lower end of the post being provided with an opening through which the shaft is loosely directed, means carried by the last named upright and coacting with the shaft for rotating the same, two cross heads slidably engaged with the post and the second upright and adapted to clamp a churn body therebetween, a second cross head slidably engaged with the second named upright and the post intermediate the shaft and the lower of the first named cross heads, a vibratory member interposed between the third cross head and the lower of the first two cross heads, and coacting means carried by the shaft and the third cross head for imparting reciprocatory movement to the cross head upon rotation of the shaft.

1,204,850. RAIL-JOINT JACK. MIKE DEAK, Cuddy, Pa. Filed Feb. 16, 1916. Serial No. 78,707. (Cl. 254—43.)



1. A device of the character described including a body member means carried by said member for anchoring the same in position upon a rail tread, said member having a longitudinal bore, a rack bar longitudinally movable

through said bore, means on said bar adapted for engagement against abutments on joint fish plates, and manually operable means carried by the body member and cooperatively engaged with the rack bar to move the same and cause the means thereon to exert a pressure against the abutments and shift the fish plates longitudinally of the rail.

2. A device of the character described including an elongated body member having a longitudinal bore and provided on one end with obliquely disposed anchoring braces, means on the other end of the body member to clamp the same in position upon a rail tread, a rack bar longitudinally movable in the bore of said body member, a gear mounted upon the body member and coöperatively engaged with the teeth of the rack bar, opposed jaws mounted upon one end of said rack bar and adapted for engagement against abutments on joint fish plates, and means mounted upon the body member to manually rotate said gear and actuate said rack bar to cause the jaws thereon to exert a pressure against the fish plate abutments and shift the fish plates longitudinally of the rail.

1,204,851. BAKED-ENAMEL-PAINT REMOVER. CLARENCE T. DENEGRE, New Orleans, La., assignor of one-half to Charles Denegre, Birmingham, Ala. Filed Apr. 19, 1915. Serial No. 22,313. (Cl. 87—5.)

1. The hereindescribed composition for removing baked enamel paint, which consists of substantially equal proportions of alcohol, benzol and ammonia.

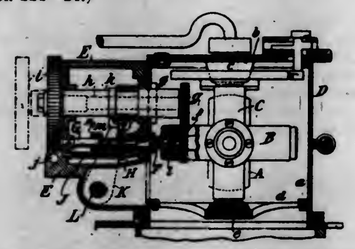
2. The hereindescribed composition for removing baked enamel paint, which consists of substantially equal proportions of alcohol, benzol and ammonia of 26 degrees.

3. The hereindescribed composition for removing baked enamel paint, which consists of substantially equal proportions of wood alcohol, benzol and aqua ammonia of 26 degrees.

4. The hereindescribed compound for removing baked enamel paint, which consists of substantially equal parts of alcohol, benzol and ammonia, in combination with a waxy body miscible in the benzol.

5. The hereindescribed compound for removing baked enamel paint, which consists in substantially the following proportions of the following elements, to the gallon of resultant mixture, namely, 40 oz. of ammonia, 40 oz. of benzol, 40 oz. of wood alcohol, and 8 oz. of paraffin wax.

1,204,852. GYROSCOPIC STEERING MECHANISM. WILLIAM DIETER, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Nov. 16, 1915. Serial No. 61,735. (Cl. 114—24.)

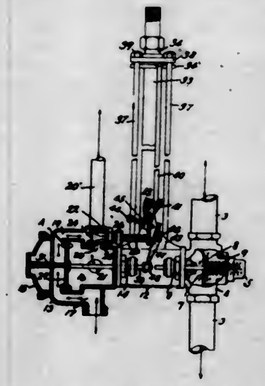


1. In a gyroscopic steering mechanism, the combination with a gyroscope of unlocking means comprising a bolt engaging the inner ring of the gyroscope, a spring pressing said bolt to the locked position, and unlocking means comprising a reciprocating slide moving parallel to the bolt and having an arm adapted to engage said bolt toward the end of its unlocking movement, and thereupon to withdraw it against the stress of its spring.

2. In a gyroscopic steering mechanism, the combination with the gyroscope and spinning-up mechanism therefor, of locking means comprising a bolt engaging the gyroscope, said bolt having a tubular body and cut away to form opposite shoulders, a guiding pin within the tubular bolt, and unlocking means comprising a slide movable parallel with the bolt and having an arm moving between said shoulders and engaging and guided by said pin.

3. In gyroscopic steering mechanism, the combination with a gyroscope and spinning-up mechanism, the latter comprising a slide adapted to execute an unlocking movement, and an arm projecting from said slide, locking means comprising a bolt engaging the gyroscope, a spring pressing said bolt to the locked position, a fixed pin guiding the movements of the bolt, the bolt having a notch exposing said pin, and said arm entering said notch and engaging said pin to be guided thereby.

1,204,853. WATER-HEATER. JOHN ELLIS, Pittsburgh, Pa., assignor, by direct and mesne assignments, to The Hoffman Heater Company, Lorain, Ohio, a Corporation of Ohio. Filed Oct. 18, 1915. Serial No. 56,357. (Cl. 126—351.)



1. In a water heater, the combination of a water motor, a water valve for governing the flow of water, positively operated by said motor, and a thermostat for moving the water valve independent of the water motor.

2. In a water heater, the combination of a water motor, a gas valve operated thereby, a water valve for governing the flow of water, positively operated by said motor, and a thermostat for moving the water valve independent of the water motor.

3. In a water heater, the combination of a water motor, a gas valve controlled thereby, a water valve for governing the flow of water, positively operated by said motor, and a thermostat for moving the water valve independent of the water motor and in accordance to the variations in the temperature of the water.

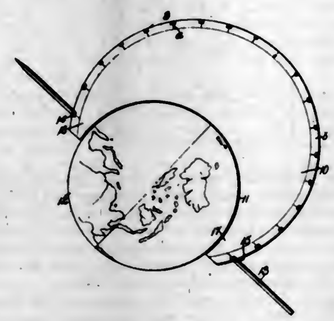
4. In an automatic water heater the combination of a water actuated motor, a gas supply valve and a water supply valve operated thereby, and a temperature actuated device, the water supply valve being controlled both from the water motor and from the thermostatic device.

5. In an automatic water heater, the combination of a water actuated motor, a gas supply valve and a water supply valve both positively operated by said motor, and means for increasing the volume of water through said valve to the heater proportioned to the increase in temperature of the water therein above a predetermined degree.

[Claims 6 to 10 not printed in the Gazette.]

1,204,854. EDUCATIONAL APPLIANCE. CLEMENT ENGEL, New York, N. Y., assignor of one-half to Theo Otte, New York, N. Y. Filed Aug. 2, 1916. Serial No. 112,654. (Cl. 35—3.)

1. In an educational appliance, the combination of a frame, a magnetic axis rod projecting through the frame, a globe journaled for free rotation in the frame around the axis of said rod, and means to support the frame according to any desired latitude to cause the axis of the rod to point toward the North Star.



2. The herein described educational appliance comprising a frame, a magnetic axis rod projecting through the frame, a globe journaled in the frame for free rotation around said rod, the polar axis of the earth coinciding with the axis of the rod, and means to variably support the frame in any latitude to cause the polar axis aforesaid to automatically assume a position parallel to the true axis of the earth at such place.

3. The herein described educational device comprising a crescent shaped frame bearing along its periphery two series of graduations from zero to 90 degrees at each pole, a magnetic axis rod extending through the polar portions of the frame at right angles to a line passing through the zero point of the scales midway between the polar portions, a terrestrial globe journaled within the concavity of the frame for free rotation around the axis of said rod, the polar axis of the globe coinciding with the axis of the rod and said zero point of the scales lying opposite the equator of the globe, and suspending means for the frame adjustably connected to the periphery thereof opposite any desired degree of latitude as represented by the scales, whereby the magnetic axis rod will occupy a position parallel to the axis of the earth at the selected latitude.

4. In an educational appliance, the combination of a frame bearing a representation of the Big Dipper and the North Star, a magnetic axis rod extending through the frame parallel to the line of the pointers, a terrestrial globe journaled in the frame for free rotation around its polar axis around said rod, and means to support the frame in any latitude to automatically cause the axis rod to point toward the North Star.

1,204,855. PRIER. THOMAS MILTON FORINGER, Cliffside Park, N. J. Filed Feb. 18, 1916. Serial No. 79,044. (Cl. 152—27.)



1. A prier of the type described, comprising spring-actuated side arms normally diverging and terminating in converging portions at an angle to the plane of the side arms, the said converging portions terminating in diverging prongs standing at an angle to the plane of the converging portions, and an operating member engaging the side arms to close the same, the said prongs being arranged to overlap when the operating member is in outermost position and the parts are completely closed.

2. A prier of the type described, comprising spring-actuated side arms normally diverging and terminating in converging portions at an angle to the plane of the side arms, the said converging portions terminating in diverging prongs standing at an angle to the plane of the converging portions, and a manually controlled member mounted to slide on the said side arms for closing the same for entering purposes, for releasing the side arms to a desired degree, and for holding the side arms locked in the adjusted position, the said member abutting against the converging portions of said side arms when in its outermost or closing position.

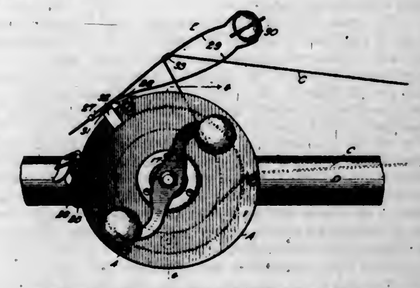
3. A prier of the type described, comprising a spring coil and side arms extending from the ends of the coil and normally held diverging from each other by the tension of the spring coil, the side arms terminating in converging portions at an angle to the plane of the side arms, the said converging portions terminating in diverging prongs standing at an angle to the plane of the converging portions, the said side arms being each provided with notches arranged one alongside the other in the direction of the length of the side arms, and a curved closing, releasing and locking member slidable on the said side arms and adapted to engage corresponding notches on the side arms to hold the side arms positively locked in the adjusted position, the said curved member when in rearmost position overlying the coil to permit the side arms to spread out to the full extent and when in its outermost or closing position abutting against the converging portions of said side arms.

4. A prier of the type described, comprising spring-actuated side arms normally diverging and terminating in converging portions at an angle to the plane of the side arms, the said converging portions terminating in diverging prongs standing at an angle to the plane of the converging portions, the angle of one prong being slightly more than that of the other prong to allow the prongs to overlap on closing the side arms.

5. A prier of the type described comprising spring-actuated side arms normally diverging and terminating in converging portions at an angle to the plane of the side arms, the said converging portions terminating in diverging prongs standing at an angle to the plane of the converging portions, the angle of one prong being slightly greater than the angle of the other prong and the prongs overlapping when the side arms are completely closed, the outer ends of the prongs being provided at their outer sides with barbs.

[Claim 6 not printed in the Gazette.]

1,204,856. FISHING-REEL. HARRIS FROM, New York, N. Y. Filed July 29, 1915. Serial No. 42,488. (Cl. 242—84.2.)



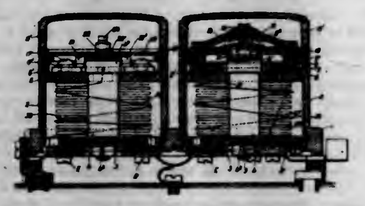
1. A fishing reel comprising a frame, a fish line carrying wheel mounted in the frame, spaced clips secured to the periphery of the frame and lying outwardly from the periphery of the wheel, and a signal device held on the frame by the clips and having springs jaws for receiving a fish line for indicating when a fish bites.

2. A fishing reel comprising a frame consisting of spaced disks rigidly connected together, a fish line carrying wheel rotatably mounted between the disks, clips

fastened to the peripheries of the disks and extending in the same direction, a signal for indicating when a fish bites, said signal including an arm having a cross bar detachably engageable in the clips, and the ends of the bar being bent downwardly to engage the outer faces of the disks, and spring jaws on the arm for holding the fish line.

3. A fishing reel comprising a supporting structure, a wheel rotatably mounted therein, and a push-button mounted on the supporting structure and movable substantially parallel with the axis of the wheel and adapted to be held in engagement with the wheel only by the finger being pressed against the button, said button being provided with spring means for holding it disengaged from the wheel.

1,204,857. APPARATUS FOR CONTROLLING THE VOLTAGE IN VARIABLE-SPEED ILLUMINATING-DYNAMOS. ERNEST FUCHS, Billancourt, France, assignor to Louis Renault, Billancourt, France. Filed Jan. 16, 1915. Serial No. 2,752. (Cl. 175—349.)



1. In apparatus of the kind described, the combination with a coil and a central magnetic core, of a magnetic element, spaced magnetic plates connecting the core to said element, one of said plates having an opening therein, and means including an armature for breaking the circuit through the device, which armature is located within said opening.

2. In apparatus of the kind described, the combination with a coil and a central magnetic core, of a magnetic element, spaced magnetic plates connecting the core to said element, one of said plates having an opening therein, and detachable means including an armature for breaking the circuit through the device, which armature is located within said opening.

3. In apparatus of the kind described, a combination with a coil and a central magnetic core, of a magnetic element, spaced magnetic plates connecting said core to said element, means including an armature for breaking the circuit through said device, and an aluminum cap for said magnetic element.

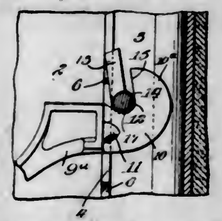
4. In apparatus of the kind described, a combination with a coil and a central magnetic core, of a magnetic element, spaced magnetic plates connecting said core to said element, means including an armature for breaking the circuit through said device, and an aluminum cap for said magnetic element, one of said plates being held in position by said cap.

5. In an apparatus of the class described adapted to be included in a battery charging circuit, a magnetic core, a pair of spaced terminals, an armature for said core, means carried by the armature for bridging between said terminals, and means for releasing said bridging means from one of the terminals when the voltage between the terminals drops to a predetermined point.

[Claim 6 not printed in the Gazette.]

1,204,858. CABLE-BRACKET. GUY MOORE GEST, Norton, Conn. Filed Oct. 27, 1913. Serial No. 797,485. (Cl. 248—19.)

1. In a device for supporting cables and the like, the combination with a bracket support presenting a slot and a notch at the side of the slot and in the front surface of the support, of a member extending from the bracket into said slot, a second member extending from the bracket into and bearing within said notch and means for retaining such members in place.



2. In a device for supporting cables and the like, the combination with a bracket support presenting a slot and notches extending from the sides of the slot, of a bracket, lugs carried by the bracket and located in said notches, an extension upon the bracket and passed through said slot and a pin located between the extension and the slotted support for holding the bracket in position.

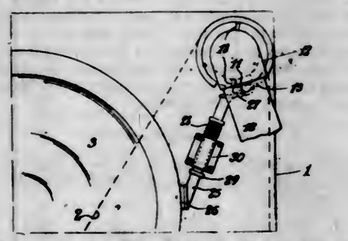
3. In a device for supporting cables and the like, the combination with a bracket support presenting a longitudinally disposed slot, of a bracket having an extension passed through said slot, such extension including an upwardly extending portion spaced from the slotted support and a pin located between the upwardly extending portion and the slotted support and disposed transversely of the latter.

4. In a device for supporting cables and the like, the combination with a bracket support presenting a vertical slot and notches extending from the sides of the slot, of a bracket, lugs carried by the bracket and located in said notches, an extension upon the bracket and passed through said slot, such extension including an upwardly extending portion spaced from the slotted support and a pin located between the upwardly extending portion and the slotted support.

5. A bracket consisting of a curved portion, a contact face, a brace extending from the curved portion to the rear of the contact face, a hook-like member extending from the contact face and webs extending between the sides of the hook-like member and the contact face.

[Claims 6 to 9 not printed in the Gazette.]

1,204,859. BRAKE FOR TALKING-MACHINES. WILLIAM F. GRUPE, Jersey City, N. J., assignor to Vanophone Company, Inc. Filed Aug. 15, 1914. Serial No. 856,914. (Cl. 74—46.)



1. The combination with a base, a rotatable table carried thereby, a swinging arm, a movable brake member adapted when in braking position to engage said table, resilient means for normally drawing said braking member from engagement with said table, an eccentric element carried by said braking member, a projection controlled by said swinging arm and adapted when said arm is in a predetermined position to engage said eccentric element to move said braking element into braking position and means cooperating with said projection to support said arm when said arm is in said predetermined position.

2. The combination with a base, of a rotatable table carried thereby, a swinging arm mounted on said base, a movable braking member mounted on said base, resilient means normally moving said braking member in a direction to effect disengagement with said table, a stop limiting the movement of said braking member in said direction, a hook carried by said braking member, a projection carried by said swinging arm and adapted to engage said hook when said arm is in off position and thereby move said braking element into engagement with said table, and means fixed to said base for supporting said projection and thereby support said arm when said arm is in off position.

3. The combination with a base, of a rotatable table carried thereby, a swinging arm mounted on said base, a reciprocating braking member, means for mounting said braking member on said base, resilient means tending to move said braking member in a certain direction out of engagement with said table, a stop limiting the movement of said braking member in said certain direction, a projection carried by said arm and adapted to engage said braking member when said arm is in a predetermined position and move said braking member in opposition to said resilient means into engagement with said table and means in fixed relation to said base for supporting said projection and thereby supporting said arm when said arm is in said predetermined position.

4. The combination with a base, of a rotatable table carried thereby, a swinging arm, means for mounting said swinging arm onto said base, a movable braking member adapted to reciprocate in the direction of its length, a sleeve mounted on said base and controlling the movement of said braking member, a pad at one end of said braking member adapted to arrest said table when said braking member is in braking position, resilient means tending to move said braking member in a certain direction out of braking position, a stop limiting the movement of said braking member in said certain direction, a hook carried by said braking member, a projection extending downwardly from said swinging arm and adapted when said arm is in off position to engage said hook and move said braking member into braking position and means coöperating with said projection to support said arm when said tone arm is in off position.

5. The combination with a base, of a rotatable table carried thereby, a swinging arm, means for mounting said swinging arm onto said base, a braking member formed of a straight arm, a friction pad carried at one end of said arm, a hook positioned at the opposite end of said arm, a sleeve enveloping said arm, resilient means tending to move said arm out of braking position, a stop carried by said arm, a projection extending from said swinging arm and adapted to engage said hook to move said braking member into braking position when said arm is in off position and means coöperating with said projection to support said arm when in off position.

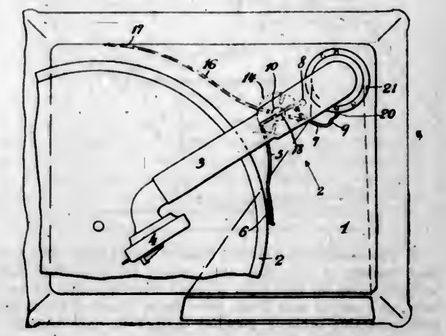
[Claims 6 to 14 not printed in the Gazette.]

1,204,860. UNIVERSALLY-FLEXIBLE BRAKE. WILLIAM F. GRUPE, Jersey City, N. J., assignor, by mesne assignments, to Van-O-Phone Company, New York, N. Y., a Corporation of New York. Filed Feb. 20, 1915. Serial No. 9,611. (Cl. 74—46.)

1. The combination with a rotating element, of a swinging element coöperating therewith, a fixed base for said rotating element and said swinging element, a brake controlling said rotating element when said swinging element is in a predetermined position, a stud passing through an opening in said fixed base supporting said brake, the dimension of said opening in a certain direction being greater than the corresponding dimension of said supporting stud, a resilient element extending from a portion of said supporting part to said fixed base, and a spring extending from a fixed point controlling the rotational movement of said supporting part.

2. The combination with a rotating element, of a swinging element, a fixed base for said rotating element and said swinging element, a brake controlling said rotating element when said swinging element is in a predetermined position, a stud passing through an opening in said fixed base supporting said brake, the dimension of said opening in a certain direction being greater than the corresponding dimension of said stud, said stud being provided with a recess, and a resilient element extending from said fixed base through said recess.

3. The combination with a rotating element, of a swinging element, a base carrying said rotating element and said swinging element, a brake controlling said rotating element, a stud carrying said brake and provided with a recess, said base being provided with an opening through which said stud extends and having a dimension greater than the corresponding dimension of said stud, a flexible washer connecting said stud with said base, and a flexible arm extending from said base and through said recess and tending normally to move said brake in a direction away from said rotating element.



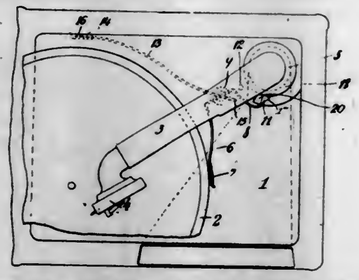
4. The combination with a rotatable table, of a swinging tone arm, a base supporting said table, a pivoted reciprocating braking member mounted on said base, resilient means having one end in fixed relation to said base and its other end engaging said braking member to thereby tend to move said braking member in a certain direction to effect non-braking, a stop positioned on said base limiting the movement of said braking member in said certain direction, a hook controlling said braking member and a projection in fixed relation to said swinging tone arm arranged to engage said hook when said swinging tone arm is in non-playing position to thereby move said braking member into braking position.

5. The combination with a rotatable table, of a swinging tone arm, a base supporting said table, a braking member pivoted onto said base, said braking member having a part extending angularly with respect to another part of said braking member, a friction pad carried by said first named part of the braking member, resilient means having one end abutting said base and its other end engaging said braking member thereby tending to move said braking member in a certain direction to effect non-braking, a stop positioned on said base limiting the movement of said braking member in said certain direction, a hook carried by said other part of the braking member and a projection carried by said swinging tone arm arranged to engage said hook when said swinging tone arm is in non-playing position to thereby move said said braking member into braking position.

1,204,861. BRAKE FOR TALKING-MACHINES AND THE LIKE. WILLIAM F. GRUPE, North Bergen, N. J. Filed Jan. 25, 1916. Serial No. 74,086. (Cl. 74—46.)

1. The combination with a rotatable table and a swinging arm, of mounting means for said swinging arm, a brake lever having one end adapted to engage said rotatable table, an extension carried by said swinging arm and adapted to engage said brake lever when the said swinging arm is in a predetermined position to thereby effect engagement of said one end of the lever with said rotatable table and means for supporting said extension and said swinging arm when said swinging arm is in said predetermined position.

2. The combination with a base, of a rotatable table carried thereby, a swinging arm, means for mounting said swinging arm on said base, a brake lever mounted on said base, one end of said brake lever being adapted to engage said rotatable table, means carried by said swinging arm for engaging said brake lever when said swinging arm is in a predetermined position to thereby effect engagement of said one end of the lever with said rotatable table, said means comprising a member extending from said swinging arm toward said base and a support positioned on said base to support said extension and therewith said swinging arm when said swinging arm is moved to said predetermined position.



3. The combination with a base, of a rotatable table carried thereby, a swinging arm, means for mounting said swinging arm on said base, a brake lever mounted on said base, one end of said brake lever being adapted to engage said rotatable table, a member carried by said swinging arm and adapted to engage said brake lever when said swinging arm is in a predetermined position to thereby effect engagement of the said one end of the lever with said rotatable table, and a support positioned on said base to support said extension and therewith said swinging arm when the said swinging arm is moved to said predetermined position.

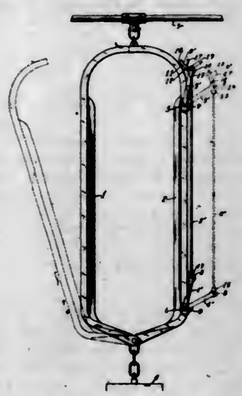
4. The combination with a base, of a rotatable table carried thereby, a swinging arm, means for mounting said swinging arm onto said base, a braking member having a bent portion, a friction pad carried by said bent portion and adapted to arrest said table when said braking member is in braking position, oscillating mounting means for said braking member, a hook carried by said braking member, a projection extending from said swinging tone arm and adapted to engage said hook to move said braking member into braking position when said tone arm is in off position and means coöperating with said projection to support said arm when in off position.

1,204,862. DIVISION MEMBER FOR STANCHIONS. WILLIAM GUTENKUNST, Milwaukee, Wis. Filed Mar. 15, 1916. Serial No. 84,278. (Cl. 119—149.)

1. In a device of the described class, the combination with the stationary member of a pair of stanchions, of a vertical swinging bar, a pair of swinging links, one located at each end of said bar, a pair of pivotal bolts for connecting the free or outer end of said links with said swinging bar, a pair of bolts connecting the inner end of said links with said stanchion, a dog pivotally connected with the upper end of the upper link of said stationary member, and means for connecting the free end of said dog with one side of said stationary member.

2. In a device of the described class, the combination of the stationary member of a pair of stanchions, a vertical bar, means for pivotally connecting said bar with one side of said stationary member, means for supporting said bar at a distance from the side of said stanchions, a dog pivotally connected with the upper end of said bar, a catch formed on the free end of said dog, a lug formed upon one side of said stationary member, a spring for retaining said catch in engagement with said lug, whereby said bar is retained in close proximity to one side of said stanchions.

3. In a device of the described class, the combination of a pair of stanchions, a vertical swinging bar, a pair of links, one located at each end of said bar, a pivotal bolt connecting one end of each of said links with said bar, a pivotal bolt connecting the opposite end of each of said links with said stanchions, a dog pivotally connected with the free end of one of said links and the upper end of said



bar, a catch formed on the free end of said dog, a lug formed upon one side of said stanchions, a spring connected with the upper end of said bar and the upper link of said pair, a handle formed integral with said dog, whereby said dog is brought into and out of engagement with said lug, and a stop for supporting said bar and links, all substantially as and for the purpose specified.

1,204,863. ANTISKID DEVICE. EDWARD P. HAFNER and JOHN T. ROBERTS, St. Louis, Mo. Filed Feb. 9, 1916. Serial No. 77,261. (Cl. 152—2.)

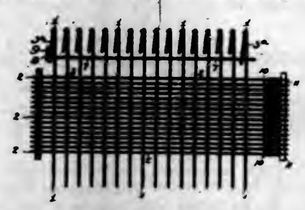


In combination with a vehicle-wheel felly, a plate secured across the inner face of the felly, a chain having an elongated link at one end and a circular ring at the opposite end, the plate terminating at one end in an open eye with a clearance between the plate and terminal of the loop forming the eye, just sufficient to receive the elongated link aforesaid, the opposite end of the plate terminating in a hook disposed in the line of the axis of the plate and parallel to the plate, the hook being elongated to form a deep pocket for the reception of the terminal ring of the chain and shaped so as to prevent said ring from being removed without first removing the elongated link, as set forth.

1,204,864. JACQUARD-MACHINE. THOMAS H. HALTON, Philadelphia, Pa., assignor to Thomas Halton's Sons, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 16, 1913. Serial No. 768,020. (Cl. 139—16.)

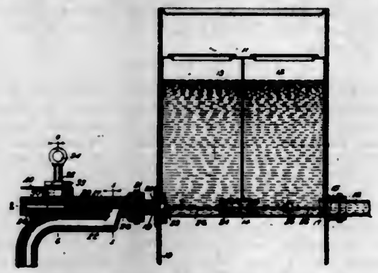
The combination, in a jacquard machine, of longitudinal rows of hooked lifters, a set of griff bars, the end bars of the set being deeper than the others, separator rods interposed between the longitudinal rows of lifters and

adapted to openings in the depending portions of the end griff bars, each of said separator rods being hooked at



one end to bear against the face of its corresponding griff bar and being held in place longitudinally by an outer retaining plate secured to said end griff bar.

1,204,865. MEASURING APPARATUS. WILLIAM HANEL, Jersey City, N. J. Filed Sept. 25, 1915. Serial No. 52,543. (Cl. 221—115.)



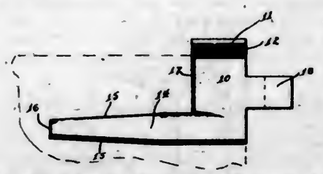
1. A measuring apparatus comprising an inlet compartment having an inlet connected with a source of liquid supply, an outlet compartment in communication with the inlet compartment and having an outlet, a valve stem carrying valves for controlling the said inlet and outlet and the communication between said compartments, a faucet body secured to the said outlet and into which the valve stem projects, a manually operated shaft mounted in the faucet body, and means for operating the valve stem from the said shaft.

2. A measuring apparatus comprising an inlet compartment having an inlet connected with a source of liquid supply, an outlet compartment in communication with the inlet compartment and having an outlet, a valve stem carrying valves for controlling the said inlet and outlet and the communication between said compartments, the valve stem projecting through the outlet and formed with a rack on its projecting end, a faucet body secured to the outlet and into which the valve stem projects, a manually operated shaft mounted in the faucet body, and a gear wheel mounted on the shaft and meshing with the rack of the valve stem.

3. A measuring apparatus, comprising an inlet compartment having an inlet connected with a source of liquid supply, an outlet compartment in communication with the inlet compartment and having an outlet, a valve stem carrying valves for controlling the said inlet and outlet and the communication between the said compartments, the valve projecting through the outlet, a faucet body secured to the outlet and into which the valve stem projects, a manually operated shaft mounted in the faucet body means for operating the valve stem from the shaft, a dial secured to the faucet body, and a pointer secured to the said shaft and indicating on the dial.

4. A measuring apparatus, comprising a reservoir, vertically disposed inlet and outlet compartments arranged above the bottom of the reservoir and having a valve seat in the vertical partition between them, the inlet compartment having an inlet connected with a source of liquid supply and provided with a valve seat at the inlet within the compartment and the outlet compartment having an outlet and provided with a valve seat at the outlet within the compartment, a valve stem having a valve for each of the said valve seats and projecting through said outlet, a faucet body secured to the outlet and into which the valve stem projects, a manually operated vertical shaft mounted in the faucet body, and means for operating the valve stem from the said shaft.

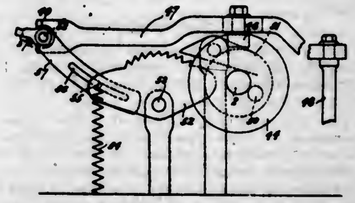
1,204,866. RETAINING DEVICE. DAVID M. HANEY, Sykesville, Pa. Filed Sept. 30, 1915. Serial No. 53,315. (Cl. 85—10.)



1. In a rail retaining device, a body portion, an off-set portion on said body portion forming a rail retaining means, said body portion being tapered transversely to form a longitudinal cutting edge, an elongated extension carried by said body portion and extending at a substantially right angle with respect thereto, said extension provided with upper and lower cutting edges, and said extension being tapered toward its free end to provide a cutting edge at that point.

2. In a rail retaining device, a body portion having an off-set portion formed at its upper end to overlie the base flange of a rail, said body portion being tapered transversely to provide a longitudinal cutting edge, an extension formed at the lower end of said body portion and projecting at a substantially right angle to the longitudinal extent thereof, the upper and lower edges of said extension being tapered to form cutting edges, said extension being tapered toward its free end to provide a cutting surface at that point, an ear formed on said body portion, and said ear being enlarged adjacent its free end.

1,204,867. SHOE-STITCHING MACHINE. CARL CHRISTIAN HANSEN, Frederiksberg, Denmark. Filed Aug. 27, 1914. Serial No. 858,861. (Cl. 112—20.)

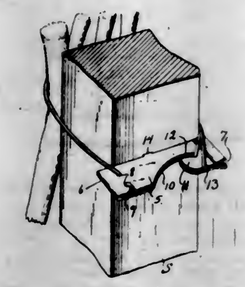


In a shoe stitching machine, the combination with a curved needle and a curved awl pivoted on a common axle, and mechanism for advancing and retracting said needle and awl; of a fixed presser foot coöperating with the awl, a sole rest comprising a two armed lever fulcrumed on the axle one of said arms being provided with a longitudinal slot and projecting beneath the presser foot, a sector pivotally mounted on the machine frame, a rack on said sector, a pin on one end of the sector engaging said slot in the other arm of the lever, a pawl arranged to depress the other end of the sector and to engage said rack to lock the sector in position, and means to actuate the pawl.

1,204,868. VINE-TYING DEVICE. JAMES C. HARRAH, Bowles, Cal. Filed Jan. 15, 1916. Serial No. 72,268. (Cl. 47—12.)

1. A tying device of the character described including in combination with a flexible tying member, a plate pro-

vided with means for the connection of one end of the tying member thereto, said plate being provided with a longitudinally extending, curved slot having a relatively wide flaring entrance opening upon one longitudinal edge of the plate and thereby forming a comparatively short lug on the plate at the closed end of the slot, the said longitudinal edge of the plate being provided with a notch at the inner end of said lug and in line with the inner end of said slot transversely of the plate, said flexible tying member being adapted for engagement in the slot in said plate and then turned around the inner end of said lug and seated in said notch.



2. A vine tying device consisting of a metal body plate bent intermediate of its ends to provide parallel resilient arms, said arms being provided in their corresponding longitudinal edges with a longitudinally curved recess and inwardly projecting lugs formed on the arms at the outer end of said recess, said arms being provided with notches in their longitudinal edges at the inner ends of the lugs, a spur formed upon the other longitudinal edge of each arm for engagement in a supporting stake, in combination with a tie wire, said arms being provided with spaced coinciding openings adjacent the bend in the body plate in which one end of the tie wire is adapted to be engaged, whereby the arms are connected together, said wire being adapted to be passed around the vines and the supporting stake and engaged in the recesses in said arms and finally turned around the lugs on said arms and seated in said notches to connect the wire to the free ends of the arm and hold the arms against spreading movement.

1,204,869. PROCESS OF MANUFACTURING UNFERMENTED BEVERAGES. HERMAN HEUSER, Chicago, Ill. Filed June 12, 1916. Serial No. 103,104. (Cl. 99—11.)

1. The process of liquefaction of protein into soluble modifications to form constituents of beverages which consists in proteolyzing protein by lactic-acid bacteria at a temperature between 20° and 40° Celsius.

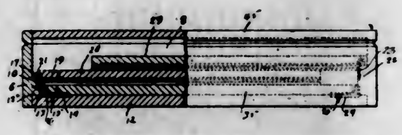
2. The process which consists in mixing to thick-fluidity water and grain material containing protein, and liquefying the protein by lactic-acid bacteria at a temperature between 20° and 40° Celsius in the presence of air.

3. The process of manufacturing unfermented beverages which consists in providing a thick-fluid grain mixture containing protein, liquefying the protein by lactic-acid bacteria at a temperature between 20° and 40° Celsius, partly reducing the lactic acid acidity, and separating the liquid.

4. The process of manufacturing unfermented beverages which consists in providing a thick-fluid grain mixture containing protein, liquefying the protein by lactic-acid bacteria at a temperature between 20° and 40° Celsius, partly reducing the lactic acid acidity, and separating and hopping the liquid.

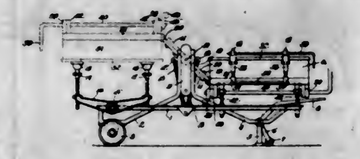
5. The process which consists in mixing to thick-fluidity water and grain material containing protein, liquefying the protein by lactic-acid bacteria at a temperature between 20° and 40° Celsius in the presence of air, and adding hot water to destroy the lactic-acid bacteria.

1,204,870. FOLDING BOX. JULIUS HEZLER, Poughkeepsie, N. Y. Filed Mar. 14, 1914. Serial No. 824,737. (Cl. 217—15.)



A folding box comprising lower, front, rear and end wall sections, each of which has its inner face provided with a rib, the rib of the lower section of the front wall being of less height than the rib of the lower section of the rear wall, a bottom positioned against the lower faces of said ribs, lower, end, front and rear wall sections, hinge connections secured to said upper sections and to said ribs and further extended and secured to said bottom, said upper sections when extended abutting against the inner faces of said lower sections, hooks secured to the upper end of each end wall and having tongues adapted to interlock with the adjoining wall, and a cover engaging said upper sections when the walls are extended.

1,204,871. MOLDING-MACHINE. CORNELIUS CALVIN HODGES, Watertown, Mass., assignor of one-fourth to George H. Whitney, one-fourth to Augustus Raymond, and one-fourth to Eugene Aubrey, Watertown, Mass. Filed May 14, 1914. Serial No. 838,601. (Cl. 22—33.)



1. A machine of the class described, having in combination, means to carry a match-plate, means permitting reversal of said match-plate in its carrier, mechanism to rock said carrier over in reverse position, and means to vertically withdraw said carrier from the mold.

2. A machine of the class described, having in combination, means to carry a match-plate, means permitting reversal of said match-plate in its carrier, a frame for said carrier, and mechanism to effect a sliding movement between said frame and carrier.

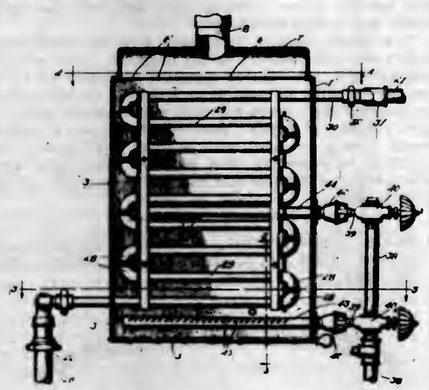
3. A machine of the class described, having in combination, means to carry a match-plate, means permitting reversal of said match-plate in its carrier, a frame for said carrier, and mechanism to effect a sliding movement between said frame and carrier, comprising a plurality of eccentric cam wheels arranged adjacent the four corners of said frame, and means to impart rotative movement to each of said cam wheels simultaneously, whereby a vertical sliding movement is effected between the match-plate and the frame.

4. A machine of the class described, having in combination, means to carry a match-plate, means permitting reversal of said match-plate in its carrier, a framework to hold said carrier with provision for relative sliding movement between the frame and the carrier, adjustable means to connect said framework with a pivotal hinge support, whereby said frame and carrier may be rocked over on the support to reverse position.

5. A machine of the class described, having in combination, a reversible frame to carry a match-plate, means constructed and arranged to hold a molding flask on said match-plate, clamps on said frame to hold the molding flask and match-plate together, in combination with mechanism to effect a vertical sliding movement between the flask and match-plate when said clamps have been removed.

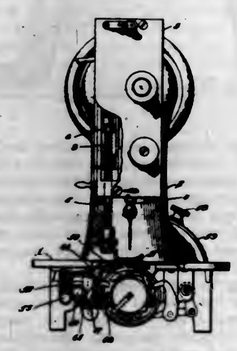
[Claims 6 to 8 not printed in the Gazette.]

1,204,872. WATER-HEATER. WILLIAM HOFFMAN, Chicago, Ill., assignor of one-half to William C. Hartray, Chicago, Ill. Filed June 20, 1914. Serial No. 846,329. (Cl. 122—25.)



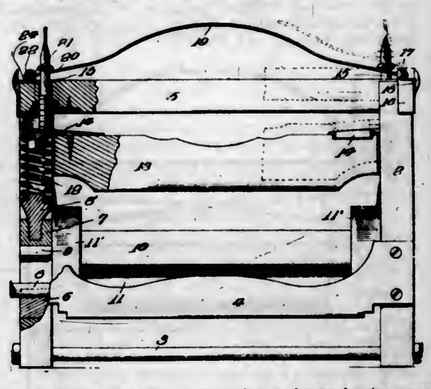
In a water heater of the kind described and in combination, a suitable casing provided with detachable walls at each end, and with coils extending continuously therein, provided with intake and discharge pipes projecting through the side walls adjacent the bottom and top thereof respectively at the ends of said detachable walls, a gas burner disposed below the lower coil and a gas burner disposed near the center of the casing below and adjacent the coil, means for independently controlling said burners, an independent gas pipe projecting into the casing through the front side thereof near the bottom above the lower burner, and provided with independent controlling means, and means for attracting the greasy soot set free by the combustion of the gas, the pipes in said coils being constructed so that the part of the periphery facing the said burners is reduced in thickness, whereby the length of time to heat the fluid in the coils is curtailed, said casing having a plurality of openings in the underside thereof for the admission of air, and a movable slide for controlling the size of said openings.

1,204,873. FEED MECHANISM FOR SEWING-MACHINES. RICHARD K. HOHMANN, San Diego, Cal. Filed Mar. 22, 1913. Serial No. 756,258. (Cl. 112—8.)



The combination with the work plate of a sewing machine, a hollow vertical standard thereon, a rotatable shaft carried at the upper end of said standard, a cloth feeding member adapted to project through said plate, a rock shaft below said plate for reciprocating said cloth feeding member, a link arm for rocking said rock shaft, a second link arm pivoted to the end of the first mentioned link arm and forming a toggle lever therewith, an adjustable pivotal support for one end of said second link arm, said adjustable support extending out through said standard and above said plate, a vertically reciprocating rod in said standard operated by said rotatable shaft and pivotally connected at its lower end to the toggle lever at the point where the link arms thereof are connected together, a second rock shaft below said plate, a rock arm mounted on said second rock shaft, means for connecting said rock arm to the cloth feeding member, and a second vertically reciprocating rod in said standard operated by said rotatable shaft and having means at its lower end for connecting it to said second rock shaft to rock the latter whereby the cloth feeding member is raised and lowered as it is reciprocated.

1,204,874. PRESSURE-ROLL RELEASE FOR WRINGERS. ALBERT E. HOLADAY, Naugatuck, Conn., assignor to The American Wringer Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed Mar. 31, 1916. Serial No. 88,010. (Cl. 68—32.)



1. A clothes wringer, comprising a frame having pressure rolls mounted therein, pressure means for said rolls, a removably mounted top bar mounted in the frame of said wringer, pressure screws mounted in said top bar coöperating with said pressure means, hooks carried by the side bars of said frame, a bowed spring slidably mounted on the pressure screws of said top bar, and pins carried by the free ends of said spring engaging said hooks for holding said top bar in position within said frame.

2. A clothes wringer, comprising a frame having slotted side bars, pressure rolls mounted in said frame, pressure means for said rolls, hooks carried by the side bars of said frame, pressure screws carried by said top bar cooperating with said pressure means, a bowed spring slidably mounted on the pressure screws of said top bar, transversely arranged pins carried by the free ends of said spring coöperating with said hooks, and stops carried by the side bars arranged in the path of travel of the free ends of said spring.

3. A clothes wringer, comprising a frame having slotted side bars, pressure rolls mounted in said frame, pressure springs for said pressure rolls, a pressure bar mounted upon said springs, a top bar movably mounted in said frame, pressure screws carried by said top bar engaging said pressure bar, cap members carried by the side bars of said frame provided with oppositely disposed hooks, a bowed spring-mounted upon said top bar carrying transversely arranged pins at its ends coöperating with said hooks, and stops extending upwardly from said cap members for limiting the movement of the ends of said spring.

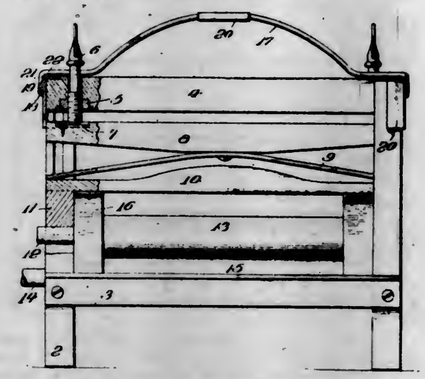
4. A clothes wringer, comprising a frame having slotted side bars, cap members secured to the upper ends of said

side bars provided with oppositely disposed sockets, pressure rolls mounted in said frame, a top bar mounted within the side bars of said frame, pressure screws carried by said top bar, a bowed spring carried by the top bar having slotted ends to receive the pressure screws and provided with transversely arranged pins coöperating with said sockets for holding said bar in position within said frame, and stops formed on the ends of said cap members for limiting the movement of the ends of said spring.

5. A clothes wringer having pressure rolls and a removable top bar carrying pressure screws, cap members carried by the frame of said wringer provided with sockets, a bowed spring carried by the top bar, pins carried by the ends of said spring coöperating with said sockets for normally holding said top bar in position within said frame, and stops arranged in the path of travel of the free ends of said spring.

[Claim 6 not printed in the Gazette.]

1,204,875. PRESSURE-ROLL RELEASE FOR WRINGERS. ALBERT E. HOLADAY, Naugatuck, Conn., assignor to The American Wringer Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed Mar. 31, 1916. Serial No. 88,011. (Cl. 68—32.)



1. A clothes wringer, comprising a frame having pressure rolls and pressure means therefor, a top bar carrying pressure screws coöperating with said pressure means, hooks carried by the side bars of said frame, and a bowed spring having depending end portions coöperating with said hooks for normally holding said top bar within said frame.

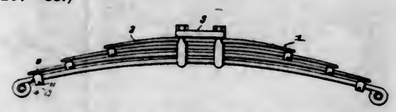
2. A clothes wringer, comprising a frame having pressure rolls mounted therein, pressure means for said rolls, a removable top bar mounted in said frame, pressure screws mounted in said top bar coöperating with said pressure means, bearing plates mounted upon said top bar, a bowed spring having depending end portions carried by said top bar, and hooks extending outwardly from the ends of said side bars adapted to be engaged by the depending ends of said spring for normally holding said top bar in position within said frame.

3. A clothes wringer, comprising a frame having pressure rolls and pressure means therefor, a removably mounted top bar carrying pressure screws coöperating with said pressure means, members secured to the upper ends of the side bars of said frame, laterally projecting hooks formed on said members, a bowed spring having horizontal portions bearing upon said top bar and terminating in depending portions coöperating with said hooks for detachably securing said top bar within said frame.

4. A clothes wringer, comprising a frame having pressure rolls and pressure means therefor, a removable top bar mounted in said frame, pressure screws carried by said top bar coöperating with said pressure means, a bowed spring formed of a single piece of wire bent to form a loop at each end, a hook carried by each side bar adapted to be engaged by the loop of said spring, the ends of said wire being connected by a connecting member, and bearing plates mounted upon said top bar upon which said spring is mounted.

5. A clothes wringer, comprising a frame having pressure rolls and pressure means therefor, members carried by said frame having laterally projecting hooks, a top bar mounted in said frame, pressure screws carried by said top bar coöperating with said pressure means, a spring formed of a single piece of wire having a central bowed portion provided with a plate, said spring terminating in depending loop portions coöperating with said hooks for holding said top bar in position within said frame.

1,204,876. LEAF-SPRING. WINFIELD S. HOPKINS, Selma, Cal. Filed Nov. 6, 1915. Serial No. 60,098. (Cl. 267—33.)



1. A ball retainer of the class described, comprising a strip formed with a longitudinal slot opening on to one end thereof, the opposite side walls of said slot being formed with grooves, balls within said slot and grooves and held within the slot by means of the grooves and a plug closing the open end of said slot.

2. A ball retainer of the class described, comprising a strip formed with a longitudinal slot opening on to one end thereof, the opposite side walls of said slot being formed with grooves, balls within said slot and grooves and held within the slot by means of the grooves, a plug closing the open end of said slot, and retaining means on the ends of said strip.

1,204,877. HANDLE-CAP FOR DRESS-SUIT CASES, TRAVELING-BAGS, AND THE LIKE. JOSEPH S. ISIDOR, Newark, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed July 3, 1915. Serial No. 37,944. (Cl. 190—58.)



1. A handle-cap for suit-cases, traveling bags, and the like, comprising a dome-shaped body formed with an open end, and an inwardly projecting handle-engaging and retaining means extending within said body and forming an integral part of said body, said means being located at a point back of and removed from the marginal edge which bounds the open end of said dome-shaped body and having a rounded impinging surface.

2. A handle-cap for suit-cases, traveling bags, and the like, comprising a dome-shaped body formed with an open end, said open end being bounded by a marginal outwardly flaring element, and an inwardly projecting handle-engaging and retaining means extending within said body and forming an integral part of said body, said means being located at a point back of and removed from said marginal outwardly flaring element and having a rounded impinging surface.

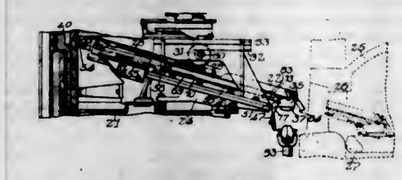
3. A handle-cap for suit-cases, traveling bags, and the like, comprising a dome-shaped body formed with an open end, and a retaining rib pressed out of said body, said rib projecting inwardly into said body and being located at a point back of and removed from the marginal edge which bounds the open end of said dome-shaped body and having a rounded impinging surface.

4. A handle-cap for suit-cases, traveling bags, and the like, comprising a dome-shaped body formed with an open end, said open end being bounded by a marginal outwardly flaring element, and a retaining rib pressed out of said body, said rib projecting inwardly into said body and being located at a point back of and removed from the marginal outwardly flaring element and having a rounded impinging surface.

5. For suit-cases, traveling bags, and the like, in combination with a handle comprising a stiffener, filling and a yielding covering and having outwardly bent ends, handle-caps for said ends, each handle-cap comprising a dome-shaped body formed with an open end, and an inwardly projecting handle-engaging and retaining means within said body, said means being located at a point back of and removed from the marginal edge which bounds the open end of said body and the said means having a rounded impinging surface closely binding against the yielding covering of the handle end and impinging upon the same.

[Claims 6 to 8 not printed in the Gazette.]

1,204,878. GATHERING MECHANISM FOR GLASS-WORKING APPARATUS. AUGUST KADOW, Toledo, Ohio, assignor to The Westlake Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Sept. 7, 1912. Serial No. 719,178. (Cl. 49—62.)



1. In apparatus for making glass articles, the combination with a movable ram, of a gathering mold consisting of a fixed upper mold element and a pivoted lower mold element, and mechanism for moving said pivoted mold element on its pivot comprising an operating rod, an abutment against which the rod is thrust by the movement of the ram to move the pivoted element to its open position, and a spring for moving said rod in the opposite direction, said rod comprising telescoping members and a spring connecting said members together.

2. In apparatus for making glass articles, the combination with supporting means, of an upper mold element open at the bottom and having a loose or floating relation with said supporting means, a lower mold element having a central inlet port and pivotally mounted on said support and means for moving the same into and out of contact with said upper mold element.

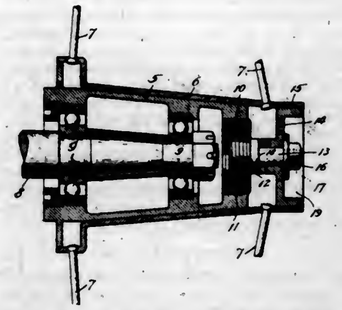
3. In apparatus for making glass articles, the combination with supporting means, of an upper mold element having a flaring opening at the bottom, and provided with vacuum conduits, a ring like lower mold element the opening in which is smaller in diameter than the opening in the bottom of the upper mold element and means for moving the same into and out of contact with said upper mold element.

4. In apparatus for making glass articles, the combination with supporting means, of an upper mold element having a flaring opening at the bottom, and provided with vacuum conduits, a ringlike lower mold element, the opening in which is smaller in diameter than the opening in the bottom of the upper mold element and which is pivotally mounted on said supporting means and means for moving the same into and out of contact with said upper mold element.

5. In apparatus for making glass articles, the combination with supporting means, of an upper mold element open at the bottom, and provided with vacuum conduits, a ringlike lower mold element pivotally mounted on said supporting means and means for moving the same into and out of contact with said upper mold element.

[Claims 6 to 18 not printed in the Gazette.]

1,204,879. DEMOUNTABLE WHEEL. JOHN KELLY, Chicago, Ill. Filed Feb. 15, 1916. Serial No. 78,374. (Cl. 21—31.)



1. A demountable hub formed of an inner hub-member of tapering form, an outer hub-member of tapering form and telescoping said inner hub-member, said inner hub-member reaching short of the outer end of said outer hub-member and internally threaded at its outer end, a cap screwed on the outer end of said outer hub-member, a threaded member having journal fit in said cap, said threaded member screwing into the threads in said inner hub-member and provided with shoulders located at opposite sides of said cap to respectively engage said opposite sides and force said outer hub-member at its tapering surface into and out of tight engagement, respectively, with the tapering surface of said inner hub-member, when said threaded member is rotated in opposite directions.

2. A demountable hub formed of an inner hub-member of tapering form, an outer hub-member of tapering form and telescoping said inner hub-member, said inner hub-member being internally threaded at its outer end, a cap screwed on said outer member and provided substantially centrally with a boss, a threaded member having journal fit in the boss on said cap, said threaded member screwing into the threads in said inner hub and provided with shoulders located at opposite sides of said cap to respectively engage said opposite sides and force said outer hub-member at its tapering surface into and out of tight engagement, respectively, with the tapering surface of said inner hub-member, when said threaded member is rotated in opposite directions.

3. A demountable hub formed of an inner hub-member of tapering form, an outer hub-member of tapering form and telescoping said inner hub-member, said inner hub-member being internally threaded at its outer end, a cap screwed on said outer member and having its outer face recessed, a threaded member having journal fit in said cap, said threaded member screwing into the threads in said inner hub and provided with shoulders located at opposite sides of said cap to respectively engage said opposite sides and force said outer hub-member at its tapering surface into and out of tight engagement, respectively, with the tapering surface of said inner hub-member, when said threaded member is rotated in opposite directions, the outer end of said threaded member being located within the confines of said recess and so formed as to adapt the said threaded member to be operated by a suitable tool applied to said outer portion, whereby said cap forms a journal for said threaded member and protects the latter against accidental rotation.

4. A demountable hub formed of an inner hub-member of tapering form, an outer hub-member of tapering form and telescoping said inner hub-member, said inner hub-member being internally threaded at its outer end, a cap screwing into the outer end of said outer hub-member, a threaded member having journal fit in said cap, said threaded member screwing into the threads in said inner hub and provided with shoulders located at opposite sides of said cap to respectively engage said opposite sides and force said outer hub-member at its tapering surface into and out of tight engagement, respectively, with the tapering surface of said inner hub-member, when said threaded member is rotated in opposite directions.

5. A demountable hub formed of an inner hub-member of tapering form, an outer nub-member of tapering form and telescoping said inner hub-member, said inner hub-member being internally threaded at its outer end, a cap screwed on said outer member and provided with a boss, a threaded member having journal fit in said boss, said threaded member screwing into the threads in said inner hub and provided with shoulders located at opposite sides of said cap, to respectively engage said opposite sides and force said outer hub-member at its tapering surface into and out of tight engagement, respectively, with the tapering surface of said inner hub-member, when said threaded member is rotated in opposite directions.

1,204,880. PROCESS OF PRESERVING FRUIT-JUICES. CARL ALBERT KERN, Mill Valley, Cal. Filed June 28, 1915. Serial No. 36,635. (Cl. 99—5.)

1. The process of preserving fruit juice, which consists in evaporating the juice to the consistency of syrup, adding cellulose material thereto and evaporating the mixture to dryness.

2. The process of preserving fruit juice so that it may be recovered in its original state, which consists in adding cellulose material to the juice and evaporating to dryness.

3. The method of preserving fruit juice, which consists in evaporating the juice to the consistency of syrup, adding thereto a sterile material which is not decomposed by the evaporated juice, and slowly drying the mixture.

4. The process of preserving fruit juice, which consists in adding to the juice a material which is not acted on by the juice to produce water soluble compounds and evaporating the mixture to dryness.

1,204,881. FRUIT-JUICE PRODUCT. CARL ALBERT KERN, Mill Valley, Cal. Filed Sept. 23, 1916. Serial No. 121,767. (Cl. 99—5.)

1. As a new article of manufacture, a mixture of dry fruit juice and cellulose material.

2. As a new article of manufacture, a mixture of dry fruit juice and a material which is not acted on by the juice to form water soluble compounds.

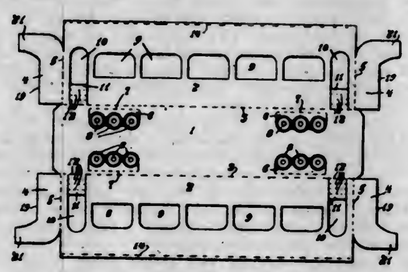
3. As a new article of manufacture, a mixture of dry fruit juice and a water insoluble material.

4. As a new article of manufacture, a product from which fruit juice may be recovered in its natural state by the addition of water thereto, comprising a mixture of dry fruit juice and cellulose material.

1,204,882. TOY CAR. ARTHUR B. KIDDER, Canton, Ohio. Filed Mar. 9, 1916. Serial No. 83,040. (Cl. 46—48.)

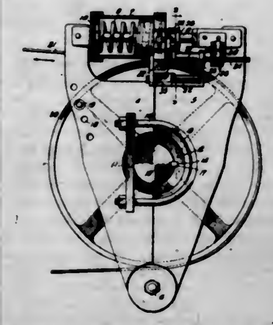
1. A toy vehicle of the character described comprising a single sheet of metal forming the floor of the vehicle portions bent up therefrom to form the side walls and a portion of the roof, portions bent back from said side walls to form the end walls, portions bent down from said side walls to form the steps, portions turned down from said floor to form the trucks and a ventilator top composed of a single sheet of metal connected to the roof of said vehicle.

2. A toy vehicle of the character described comprising a single sheet of metal forming the floor and platforms of the vehicle, portions bent up therefrom to form the sides and a portion of the roof, portions bent back from said side portions to form the ends of the vehicle, said side portions being provided with door openings, portions bent down from the door openings to form steps, portions cut out of said floor and bent down to form trucks and a ventilator top composed of a single sheet of metal connected to the roof of said vehicle.



3. A toy vehicle of the character described, comprising a single sheet of metal forming the floor, portions bent up therefrom to form the sides and roof of the vehicle, portions bent back from said sides to form the ends of the vehicle, extensions upon the end portions adapted to overlap, portions cut out from said floor and bent down to form trucks, back turned flanges formed upon the edges of the roof portion, a ventilator top formed of a single sheet, inturned flanges upon said ventilator top adapted to be received beneath the back turned flanges upon the roof, downwardly disposed projections provided upon the extremities of said ventilator top and means for connecting said downwardly disposed projections and the overlapped extensions upon said end portions.

1,204,883. DYNAMOMETER. WILLIAM R. KLECKNER, Cowell, Cal. Filed Oct. 21, 1915. Serial No. 57,078. (Cl. 234—16.)



1. A dynamometer comprising a pair of frame members pivotally connected to each other at one end, yielding means connecting said frame members at the other ends, means whereby one of said frame members may be secured to a shaft, means for securing the other frame member to a member revoluble on said shaft, tape-supporting means associated with said yielding means, means for marking the tape on the supporting means associated with said yielding means, means for causing the said tape-supporting means to revolve when said frame members are moving toward each other under the action of said yielding means, and means for preventing the rotation of said tape-supporting means when said frame members are caused to part.

2. A dynamometer comprising a pair of relatively movable frame members, yielding means normally resisting the movement of said members, a revoluble tape support associated with said yielding means, means for marking

the tape on the support, means for revolving the tape support operable by the movement of said frame members under the action of said yielding means, and means for preventing the rotation of said tape support when said frame members are moving away from each other.

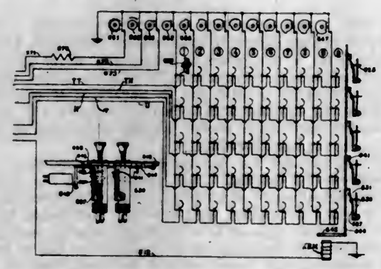
3. A dynamometer comprising a pair of relatively movable frame members, yielding means resisting the movement of said members from each other, a rotatable tape support mounted to participate in the movement of one of said members, a tracing device for marking the tape on the support mounted to participate in the movement of the other frame member, means preventing the rotation of the rotatable support in a predetermined direction, and means for causing the rotation of said support in the opposite direction.

4. A dynamometer comprising a pair of relatively movable frame members, yielding means resisting the parting movement of said members, a revoluble tape support mounted to participate in the movement of one of said members, a tracing member mounted to coöperate with said support and adapted to participate in the movement of the other frame member, a pawl and ratchet associated with the support for preventing the rotation of said support when said frame members are parting, a threaded extension from said tape support, a ratchet threaded on said extension, means preventing said ratchet from moving laterally when the extension moves longitudinally, and a pawl for the ratchet preventing the rotation thereof when said frame members are moved under the action of the yielding means and whereby said tape support is caused to rotate.

5. The combination of a shaft, a member revoluble thereon and a flexible drive for said member, with a dynamometer for measuring the tension of the flexible drive comprising a pair of frame members pivotally connected at one end, means for connecting one frame member to the shaft, means for securing the other frame member to the revoluble member, a barrel carried pivotally at the other end of one frame member, a rod pivotally carried by the other end of the other frame member and engaging the barrel, a coil spring within the barrel on said rod, a disk on the rod within the barrel engaged by one end of the spring, the other end of the spring engaging the opposite end of the barrel and whereby the two frame members are drawn together by said spring, a revoluble tape support carried by said barrel, means for preventing the rotation of the tape support when the frame members are caused to part, means for rotating said support operable by the expansion of the spring, and a tracing member carried by the rod in coöperative relation with the tape support.

[Claim 6 not printed in the Gazette.]

1,204,884. SEMI-AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. ARTHUR KNEISEL, Chicago, Ill., assignor, by mesne assignments, to James R. Garfield, trustee, Cleveland, Ohio. Filed Sept. 21, 1914. Serial No. 862,702. (Cl. 179—27.)



1. In a semi-automatic telephone exchange system, the combination of a plurality of subscribers' lines, automatic switching mechanism for interconnecting said lines, an operator's position for receiving originated calls over said lines, said position equipped with a key-board comprising a plurality of rows of keys for controlling said switching mechanism, restoring means for said rows of keys, means for automatically operating said restoring means upon the origination of a call at said position.

2. In a semi-automatic telephone exchange system, the combination with subscribers' lines, operators' key-sets, selectors, connectors and switching means for connecting calling lines to said operators' key-sets and calling to called subscribers' lines, of operators' key-boards comprising rows of locking keys for directively controlling selectors and connectors, and restoring means for unlocking all keys locked for a previous call upon the connection of the next call from a calling line to said key-set, substantially as set forth.

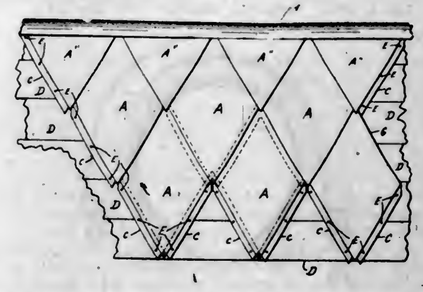
3. In a semi-automatic telephone exchange system, the combination with subscribers' lines and interconnecting switching means for said lines, operators' key-sets and automatic switching mechanism for connecting calling subscribers thereto, and operators' key-boards comprising a plurality of rows of individually locking keys for directively controlling said interconnecting means, of resetting means for placing said keys to definite predetermined positions upon the connection of calling lines to said key-sets, substantially as set forth.

4. In a semi-automatic telephone exchange system, the combination of subscribers' lines and interconnecting switching means for said lines, operators' key-sets and automatic switching mechanism for connecting calling subscribers thereto, and operators' key-boards comprising a plurality of rows of individually locking keys for directively controlling said interconnecting means, of a common, magnetically actuated releasing bar for automatically releasing all keys of a key-board from a previously locked position upon the connection of calling lines to said operators' key-sets, substantially as set forth.

5. In a semi-automatic telephone exchange system the combination with subscribers' lines and interconnecting switching means for said lines, automatic switching mechanism for connecting calling subscribers' lines with operators' keysets, of keysets comprising signals, and keys each having a connecting position for directively controlling a portion of said interconnecting switching means, and means for restoring said keys from the connecting position when calling lines are connected with said operators' keysets by said automatic switching mechanism, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,204,885. METALLIC SHINGLE. HERMAN W. KOERNER, Wauwatosa, Wis. Filed Apr. 20, 1914. Serial No. 833,017. (Cl. 108—17.)

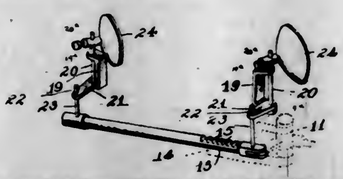


1. A sheet metal shingle having a diamond shaped body portion adapted to be disposed upon the roof with two of its corners in a line substantially parallel with the ridge and with the portion adjacent to the upper corner substantially flat, said body portion having flanges along its downwardly converging side margins which are reversely folded to form channels along said margins underneath the exposed surface of the body of the shingle, said flanges

terminating at points sufficiently above the lower corner of the body portion to permit the insertion of meeting lateral corners on adjacent shingles under the lower corner of said body portion with one side margin of each adjacent shingle engaged in one of said channels, substantially as described.

2. A sheet metal shingle having a diamond shaped body portion adapted to be disposed upon the roof with two of its corners in a line substantially parallel with the ridge and with the portion adjacent to the upper corner substantially flat, said body portion having flanges along its downwardly converging side margins which are reversely folded to form channels along said margins underneath the exposed surface of the body of the shingle, said flanges terminating at points sufficiently above the lower corner of the body portion to permit the insertion of meeting lateral corners on adjacent shingles under the lower corner of said body portion with one side margin of each adjacent shingle engaged in one of said channels, the lower half of said body portion being pressed outwardly and forming a cavity between the body portion of the shingle and the roof, substantially as described.

1,204,886. DIRIGIBLE HEADLIGHT FOR VEHICLES. ANDREW KURUNCZI, Detroit, Mich., assignor of one-half to John Molnar, Detroit, Mich. Filed Mar. 23, 1914, Serial No. 826,735. Renewed Oct. 9, 1916. Serial No. 124,685. (Cl. 240—62.)



The combination with the steering knuckle connecting rod of an automobile, of a pair of brackets each having a plurality of horizontal perforated lugs, vertical posts revolubly supported in the perforations of said lugs, lamps having centrally projecting arms each having a vertical opening to receive the upper ends of said posts, means for securing said arms to the posts, a steering post and connections between said steering post and said connecting rod, vertical rods projecting from said connecting rod, and arms connecting said vertical rods to said revoluble posts.

1,204,887. TRACTION DEVICE FOR PNEUMATIC TIRES. CHARLES E. LA FLEUR, Philadelphia, Pa. Filed Jan. 3, 1912. Serial No. 669,179. (Cl. 152—14.)

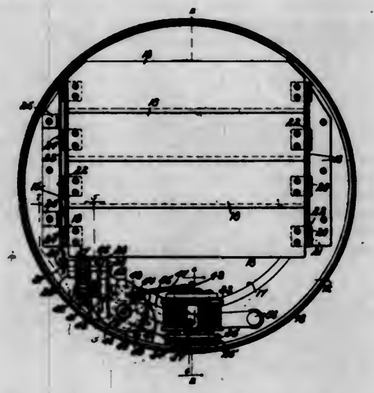


1. A transverse bar for non-skidding traction devices, consisting of a cylindrical strand of rubber having a reinforcing fabric core and normally held straight under its elasticity, combined with caps upon each end rigidly secured thereon by having annular portions circumferentially pressed into the strand whereby it is clamped thereto, said caps each provided with a solid integral head and a deep annular groove between the head and cap forming a bearing upon which the strand is journaled and whereby it may freely rotate.

2. In a non-skidding traction device for automobile wheels, transverse members of continuous rubber and fabric material adapted to normally assume a straight condition under their own elasticity, combined with circular retaining members, and means for connecting the ends of the transverse members with the circular retaining members at the sides of the wheel, consisting of caps frictionally clamped upon the ends of the transverse members and each having an integral head and a circumferential groove between the head and the cap to provide a journal, and metallic parts received in the grooves of the caps and in which the latter are journaled for free rotation, said metallic parts forming integral portions of the circular retaining members and each in direct alinement with the adjacent parts of said retaining members.

3. In a non-skidding traction device for automobiles, a plurality of transverse strands composed of rubber and fabric circular in cross section and normally straight under their elasticity, said strands adapted to be bent over the tire with constant tendency for the free ends to spring away from the tire, combined with separate flexible means for connecting the adjacent ends of the plurality of strands for drawing them down upon opposite sides of the tire, and connections between the ends of the strands and the separate flexible means providing freely rotatable unions axially arranged with respect to the strands whereby the strands may freely rotate and their elasticity acting upon the separate flexible means tending to prevent abnormal looseness and binding at the rotatable connections.

1,204,888. HEADLIGHT-SHUTTER. WILLIAM L. LARGE, New York, N. Y. Filed June 21, 1916. Serial No. 104,946. (Cl. 240—45.2.)



1. The herein described headlight comprising a plurality of shutter elements mounted for oscillation around parallel axes, a bar pivotally connecting all of said elements and serving to hold them in parallel planes, rotary means connected to said bar to impart to it positively reciprocating movements in opposite directions, and means to actuate said rotary means intermittently step by step always in the same direction.

2. In a dimmer for headlights, the combination of a pivoted shutter element, a bar connected to the shutter element eccentrically of its pivot, a rotary member having pin and slot connection with the bar, and means to rotate the rotary element in a continual step by step manner in the same direction to reciprocate the bar in opposite directions and cause to and fro oscillation of the shutter elements, each oscillation comprising a plurality of steps in the same direction.

3. In a headlight dimmer, the combination of a frame, a pair of brackets secured to opposite sides of the frame,

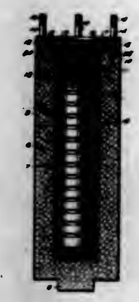
a series of shutter elements having pivotal connection with said brackets, a bar connecting all of said elements and serving to hold them in parallel planes in either open, closed or intermediate positions, a rotary member connected to said bar, means to give the rotary element a step by step continual movement of rotation in the same direction for changing the position of the shutter elements from one step to another in either direction, and locking means serving automatically to hold the bar and shutter elements positively after each movement thereof.

4. In a headlight shutter, the combination with a series of shutter elements mounted for oscillation around parallel axes and a rigid bar connected to all of said elements to control their position, said bar having a slot perpendicular to the line of pivot connections with said elements, of a rotary member having a crank connection in said slot with the bar, and means to rotate the rotary member continually step by step in the same direction whereby the crank connection with the bar will positively cause the bar to reciprocate in opposite directions to both open and close the shutter elements.

5. The combination with a series of shutter elements mounted to oscillate around parallel axes and a rigid bar having similar pivotal connection with all of said elements, said bar having a slot perpendicular to the line of pivotal connections, of means to positively reciprocate the bar in opposite directions and oscillate the shutter elements comprising a rotary member having a crank connection with said slot, each of said oscillations comprising a plurality of steps, electromagnet means to actuate the rotary member step by step in a continual direction, and an automatic lock coöperating with the rotary member to hold it in fixed position after each step of its movement.

[Claims 6 and 7 not printed in the Gazette.]

1,204,889. PUMP-PLUNGER. WILLIAM JAMES LILLY, Butte, Mont. Filed Aug. 5, 1915. Serial No. 43,798. (Cl. 103—63.)



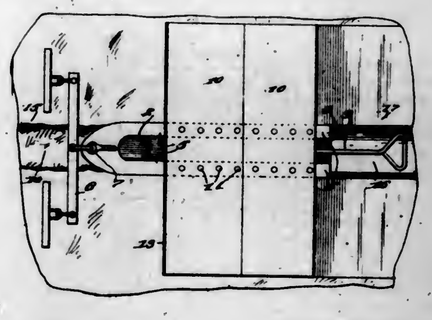
1. A pump plunger comprising a body member made of acid proof material, a core extending into the said body member and spaced therefrom, and a plastic material capable of hardening and located in the space between the core, and the body member, the said core having a flange at its top and openings leading to the said space, for the admission of the plastic material.

2. A pump plunger comprising a body member having the form of a cylinder and made of acid proof material, a core extending into the said cylinder and spaced from the inner surface thereof, the core having an integral flange at its upper end extending over the top of the body member, the top of the core and flange having a circular recess formed therein, and openings leading from the bottom of the recess to the space between the core and body member, and binding material filling the said space and engaging the body member and the core, the said binding material being admitted through the said openings.

3. A pump plunger, comprising a body member having the general form of a cylinder and provided externally and at the upper end with a ground surface and internally with a roughened surface, said body member being made of porcelain, a metallic core extending into said body member and provided with anchorages, and a binding material located within said body member and engaging the inner surface thereof and also engaging said core, said core being further provided at its upper end with an annular flange and with a recess, the core having holes leading from the recess for admitting said binding material.

4. A pump plunger comprising a body member having the form of a cylinder and made of vitreous acid-proof material, the outer surface of said member being ground and the inner surface being roughened, a metallic core extending into the said cylinder and spaced from the inner surface thereof, the said core having an integral flange extending over the top of the body member, means secured to the flange for connecting the plunger to the cross head of a pump, the said core having grooves formed therein, a binding material within said body member and engaging the roughened inner surface thereof and the grooves of said core to hold the core rigid relatively to the body member, the said core having a recess in its top and holes leading from said recess to admit the binding material to the space between the body member and the core.

1,204,890. DITCH-PACKER. JOSEPH G. LOGSDON, Post Falls, Idaho. Filed July 13, 1916. Serial No. 109,199. (Cl. 97—12.)



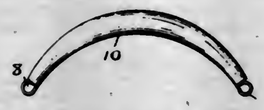
1. As a means for packing and shaping plow formed ditches, an elongated packing and shaping body having a cross-section substantially equal to the plowed ditch and adapted to be advanced therealong to pack and shape the same along the bottom and side walls thereof, and a top packer mounted on said body and extending laterally of the latter for sliding and packing engagement along top portions of the ground laterally of the ditch whereby the top portions of the ditch will be packed simultaneously with the vertical walls thereof, substantially as described.

2. As a means for packing and shaping plow formed ditches, an elongated ditch packer shaped to conform to the form of the finished ditch, and a gage packer mounted on said ditch packer for packing the soil adjacent the ditch and limiting the depth of action of said ditch packer, substantially as described.

3. As a means for packing and shaping plow formed ditches, a hollow elongated body having a sloping curved prow and adapted to be advanced along the ditch to be packed and shaped, said hollow body having inwardly projecting flanges, and a top packer secured to said flange

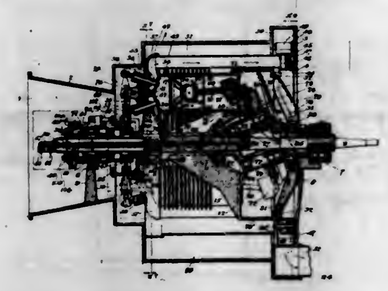
and extending laterally of said body to pack the top portions of the soil adjacent the ditch, substantially as described.

1,204,891. SHEET-METAL HANDLE FOR BAG-FRAMES AND THE LIKE. WILLIAM A. LOTZ, Newark, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed June 25, 1914. Serial No. 847,177. (Cl. 190—57.)



A hollow metal handle for bag-frames and the like made from a single piece of sheet-metal consisting of a strip having tapering marginal edges extending in opposite directions from the central portion of the strip to the ends thereof and formed with upwardly projecting and longitudinally extending edge-portions, and a narrow strap at each end of said strip, said straps forming integral parts of the ends of the strip, said straps extending into and between said longitudinally extending edge-portions at the ends of the said strip, and said straps forming receiving eyes and having their free end-portions bent down upon the inner surface-portions of the ends of the said strip, substantially as and for the purposes set forth.

1,204,892. ROTARY ENGINE. WALTER G. MACOMBER, Los Angeles, Cal., assignor to Macomber Motors Company, Los Angeles, Cal., a Corporation of California. Filed Apr. 27, 1915. Serial No. 24,196. (Cl. 121—62.)



1. A rotary engine comprising a shaft, a cylinder carrier to turn said shaft, cylinders on the cylinder carrier, a stationarily mounted member adjacent one end of the cylinder carrier, a portion of said member extending at an angle relative to the axis of the shaft, a stroke member having bearings at the forward and rear ends of said angular portion of the stationarily mounted member, pistons in the cylinders, pitmen having universal connections with the pistons respectively and having other universal connections with the stroke member, said other universal connections being in a plane extending between the forward and rear bearings of the stroke member, a gear on the cylinder carrier, and a gear on the stroke member meshing with the gear on the cylinder carrier.

2. A rotary engine comprising a shaft, a cylinder carrier fixed to the shaft, cylinders secured to the carrier with their axes parallel to the shaft, a standard provided with a tubular extension through which said shaft extends, a stroke member journaled on the extension, pistons working in the cylinders, pitmen having universal connections with the stroke member and pistons, a bevel gear on the cylinder carrier, and a bevel gear on the stroke member engaging the bevel gear on the cylinder carrier.

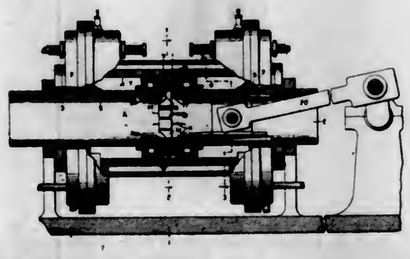
3. A rotary engine comprising a shaft, a cylinder carrier fixed to the shaft, cylinders secured to the carrier with their axes parallel to the shaft, a standard provided with a tubular extension through which said shaft extends, a stroke member having a sleeve, bearings at both ends of the sleeve to journal the sleeve on the tubular extension, pistons working in the cylinders, pitmen having universal connections with the stroke member and pistons, a bevel gear on the cylinder carrier, and a bevel gear on the stroke member engaging the bevel gear on the cylinder carrier.

4. A rotary engine comprising a shaft, a cylinder carrier fixed to the shaft, cylinders secured to the carrier with their axes parallel to the shaft, a standard provided with a tubular extension through which said shaft extends at an angle to the axis thereof, a stroke member journaled on the extension with its axis of rotation corresponding in angle to the axis of the tubular extension, pistons working in the cylinders, pitmen having universal connections with the stroke member and pistons, a head fastened to the cylinder carrier and journaled on the standard, a bevel gear on the cylinder carrier, and a bevel gear on the stroke member engaging the bevel gear on the cylinder carrier.

5. A rotary engine comprising a shaft having a longitudinal bore and a vent extending from said bore to the periphery of the shaft, a support having a tubular extension to receive lubricant from the vent and having a vent to drain the lubricant from the interior of said extension, a stroke member having a sleeve surrounding and journaled on the extension and provided with sockets, there being ducts extending from the interior of the sleeve to said sockets, cylinders mounted to rotate with the shaft, pistons in the cylinders provided with sockets, and pitmen having hollow balls engaging the piston sockets and having ducts extending from the interior of said balls to the interior of the sockets of the stroke member and said balls having vents extending from their interior to the interior of said sockets.

[Claims 6 to 21 not printed in the Gazette.]

1,204,893. COOLING MEANS FOR INTERNAL-COMBUSTION ENGINES. HENRY C. MAGNE, Garces, Ariz. Original application filed Sept. 17, 1914, Serial No. 862,165. Divided and this application filed Feb. 1, 1916. Serial No. 75,521. (Cl. 123—171.)



1. An explosive engine comprising a cylinder, and a tubular piston mounted therein and open at both ends for air to circulate therethrough and formed with an external annular head whereby annular explosion chambers are provided between the piston and cylinder, said head having circumferential ports whereby air in the piston can impinge on the internal surface of the cylinder and cool the same.

2. An explosive engine comprising a cylinder, a tubular piston mounted therein and open at both ends for air to circulate therethrough and formed with an external annular head whereby annular explosion chambers are provided between the piston and cylinder, said head having circumferential ports whereby air in the piston can impinge on the internal surface of the cylinder and cool the

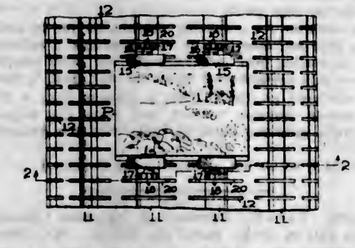
same, and a deflector arranged within the piston for deflecting air passing through the piston outwardly into contact with the cylinder.

3. An explosive engine comprising a cylinder, a tubular piston mounted therein and open at both ends for air to circulate therethrough and formed with an external annular head whereby annular explosion chambers are provided between the piston and cylinder, said head having circumferential ports whereby air in the piston can impinge on the internal surface of the cylinder and cool the same, and a deflector arranged within the piston for deflecting air passing through the piston outwardly into contact with the cylinder, said deflector consisting of a plurality of segmental plates arranged to provide a central opening whereby part of the air flows through the piston without being deflected by the said plates into contact with the cylinder.

4. An explosive engine comprising a cylinder, a piston made in two sections each having a tubular body open at both ends and formed at one end with an external circumferential head and lugs joining the heads of the two sections together and providing between the lugs ports through which air in the piston can impinge on the cylinder to cool the same, and a plurality of air deflecting elements set between and carried by the lugs and serving to direct part of the air flowing through the piston outwardly through the ports and against the cylinder.

5. An explosive engine comprising a cylinder having open heads at its ends, a tubular piston having an annular head provided with circumferential ports, and the ends of the piston being open, whereby air currents can flow therethrough, and means for directing air within the piston against the internal surface of the cylinder through the ports in the piston.

1,204,894. PLATE-HOLDING DEVICE. FRANCIS MEISEL, Boston, Mass., assignor to Meisel Press & Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 15, 1915. Serial No. 61,531. (Cl. 101—169.)

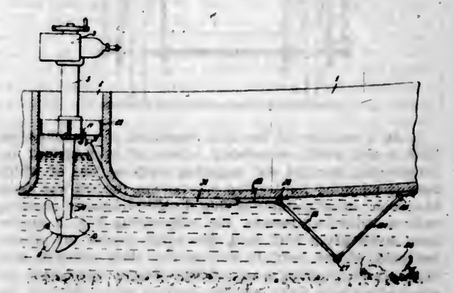


A plate holding device comprising a supporting member having an undercut groove of substantial width formed therein, and having a plurality of narrow segmental slots intersecting said groove transversely, a clamping block corresponding in cross section to the section of said undercut groove, slidable in said groove, and having a lip to engage an edge of the printing plate, a thrust plate adapted to be inserted in any one of said transverse slots, an adjusting screw having a pinion formed thereon adjacent one end thereof, said screw fitting a threaded recess in said clamping block and at one end engaging said thrust plate, whereby said plate sustains the pressure exerted on said block and screw, and the diameter of said pinion being less than the width of the block and of the undercut groove, whereby said block, screw and pinion are freely slidable longitudinally in said groove when the thrust plate is removed.

1,204,895. PROPELLER-LIFTER. WALTER H. MICHEL, Passaic, N. J. Filed Mar. 23, 1916. Serial No. 86,116. (Cl. 115—41.)

1. In a device of the character described, the combination with a propeller and a rotating shaft for operating the propeller, of means for automatically raising the shaft and propeller, said means including a pivotally mounted toggle member arranged in front of the propeller and adapted to be collapsed by an obstacle.

2. In a device of the character described, the combination with a boat provided with a well, a propeller and an engine for driving the propeller, of a shaft extending through said well and connecting the propeller with the engine, said shaft being provided with a threaded portion merging into an annular groove at the bottom, a sleeve surrounding said threaded portion and supporting said shaft, a bracket connected with said well supporting said sleeve, a pin mounted on said bracket and adapted to be inserted into said threaded portion whereby when said shaft is rotated the same will automatically move upwardly and carry with it said sleeve and said propeller until said pin moves into said groove, and means mounted on the bottom of the boat for moving said pin so that the same will engage said threaded portion, said means being adapted to be actuated by an obstacle.



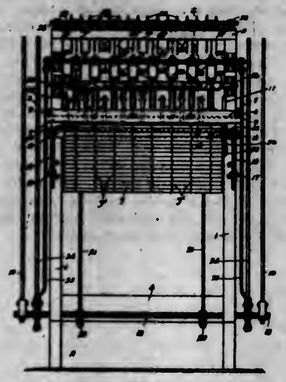
3. In a propeller lifter of the character described, an obstacle engaging member formed with a folding section and a movable section, a driving shaft for said propeller, said shaft being formed with a threaded section, a pin adapted to be moved by said movable section into engagement with the threads of said threaded section whereby upon the rotation of said driving shaft said shaft and propeller will be raised.

4. In a device of the character described, the combination with a propeller and an engine for operating the propeller, of a driving member for connecting the engine and teh propeller, said driving member comprising a shaft connected with the engine and a sleeve splined to the driving shaft, said sleeve being threaded exteriorly, a pin adapted to be inserted into said threads, and means on the bottom of the boat for causing the pin to enter said threads whereby the continued rotation of the sleeve will cause the same to climb the pin and thereby lift the propeller out of the water.

5. In a device of the character described, the combination with a boat having a well, of a propelling mechanism therefor, said propelling mechanism comprising an engine, a casing supporting said engine and connected with the walls of said well, a driving shaft connected with said engine and rotated thereby, said driving shaft extending longitudinally of said casing, an auxiliary casing normally supported by the first mentioned casing arranged to normally support a propeller, said auxiliary casing telescopically fitting said first mentioned casing, means for preventing the rotation of said auxiliary casing when telescoping into the first mentioned casing, a sleeve splined to said driving shaft, said sleeve being threaded exteriorly, a propeller, means for connecting said sleeve with said propeller so as to transmit rotary motion to the propeller, a pin, and means for operating said pin so as to cause the same to enter the threads on said sleeve, whereby as the sleeve continues to rotate the same will climb the pin and raise said auxiliary casing and propeller upwardly.

[Claim 6 not printed in the Gazette.]

1,204,896. PORCH-CURTAIN-WEAVING MACHINE. EDWARD L. MOONEY, Minneapolis, and ZACHARY E. RUSSELL, Sauk Rapids, Minn., assignors to Clyde W. Warren, Sauk Rapids, Minn. Filed Feb. 15, 1915. Serial No. 8,297. (Cl. 139—32.)



1. In a machine of the kind described, the combination with a slat guide comprising a pair of bars having approximately parallel slat engaging surfaces, one of which bars is mounted for limited movements toward and from the other, an adjustable spring device yieldingly pressing said movable bar toward the coöperating bar, a packer head coöperating with said slat guide, means for operating said packer head to deliver the slats between said bars, reversely-acting warp guiding devices, and means for alternating said warp guiding devices while the last deposited slat is frictionally held between said guide bars.

2. In a machine of the kind described, the combination with a slat guide, reversely acting warp guiding devices, means for alternating the said warp guiding devices, a tension device and slack take-up devices for the warp, on either side of the said tension device.

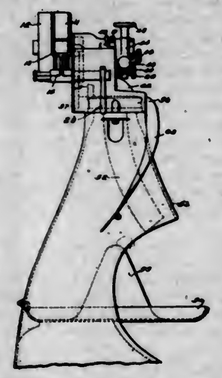
3. In a machine of the kind described, the combination with a pair of presser bars, one of which is yieldingly mounted in respect to the other, and slat guides secured in respect to said presser bars, of a packer head coöperating with said slat guides, means for operating said packer head, reversely acting warp guiding arms, means for simultaneously alternating said warp guiding arms, including a rock shaft and connections to said arms, a slack take-up device, and a tension device operative on the warp, substantially as described.

4. In a machine of the kind described, the combination with a slat guide comprising a pair of bars having parallel slat engaging surfaces, one of which bars is yieldingly mounted for straight line approaching and receding movements in respect to the other, of a packer head coöperating with said slat guide, means for operating said packer head, reversely acting warp guiding devices, and means for alternating said warp guiding devices while the last deposited slat is frictionally held between the said guide bars.

1,204,897. MACHINE FOR PREPARING WELTING. ALFRED R. MORRILL, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 25, 1915. Serial No. 4,264. (Cl. 12—67.)

1. A machine for preparing welting, having in combination, a feed roll mounted in fixed bearings, a coöperating work supporting roll, a carrier for the work supporting roll movable toward and from the feed roll, and a beveling knife mounted on the carrier.

2. A machine for preparing welting, having in combination, a feed roll mounted in fixed bearings, a coöperating work supporting roll, a carrier for the work supporting roll movable toward and from the feed roll, a beveling knife mounted on the carrier, manually operated means for moving the carrier to separate the rolls.



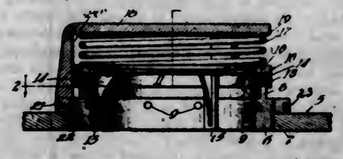
3. A machine for preparing welting, having in combination, a feed roll mounted in fixed bearings, a coöperating work supporting roll, a carrier for the work supporting roll movable toward and from the feed roll, a beveling knife mounted on the carrier, manually operated means for moving the carrier to separate the rolls, a yielding edge guide for the welt strip, and means operated by the movement of the carrier for retracting the edge guide.

4. A machine for preparing welting, having in combination, a feed roll mounted in fixed bearings, a coöperating work supporting roll, a carrier for the work supporting roll movable toward and from the feed roll, a beveling knife mounted on the carrier, manually operated means for moving the carrier to separate the rolls, an edge guide for the welt strip yieldingly mounted on the carrier, and means operated by the movement of the carrier for retracting the edge guide.

5. A machine for preparing welting, having in combination, a feed roll mounted in fixed bearings, a coöperating work supporting roll, a carrier for the work supporting roll movable toward and from the feed roll, a beveling knife mounted on the carrier, a presser foot, a presser foot carrier movable toward and from the supporting roll, and a grooving knife movable with the presser foot carrier.

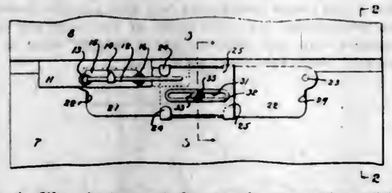
[Claims 6 to 20 not printed in the Gazette.]

1,204,898. VALVE. FREDRICK Y. NICHOLS, Chicago, Ill. Filed July 6, 1915. Serial No. 38,122. (Cl. 103—66.)



A valve for insertion in a pump deck comprising an exteriorly screw threaded shoulderless open ring, having a valve seat on one edge thereof; a valve body carrying a packing ring and having a spring seat immediately thereabove; a plurality of guiding brackets projecting therefrom into said open ring; a spider comprising a screw threaded ring for engagement with the threads of the said valve seat ring and adapted to clamp into engagement with the deck and having a plurality of arms affording guides for said valve body, and carrying a concentric spring seat at their upper ends, and a compression spring, between said valve body and said abutment, located in said spring seats immediately above said packing ring.

1,204,899. FILING INSTRUMENT. JOSEPH NIEBLING, Woodcliff Lake, N. J. Filed Aug. 16, 1915. Serial No. 45,715. (Cl. 129—7.)



1. A filing instrument for use in connection with a binder, including a member, means for attaching the latter to the file retainers in said binder, and piercers on said member located opposite the points of reception of said retainers.

2. A filing instrument for use in connection with a binder, including a plurality of members slidable relatively one to the other, means permitting attachment of the members to the retainers of the binder, and piercers on said members arranged to be positioned opposite said retainers.

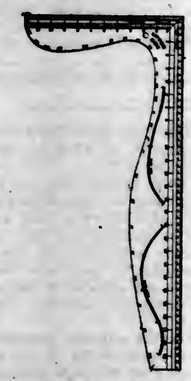
3. A filing instrument for use in connection with a binder having flat file retainers, including relatively slidable members, means permitting attachment of said members to the file retainers, and piercers on the members standing opposite said retainers in their respective planes.

4. A filing instrument for use in connection with a binder, including a pair of members slidable relatively to each other, means permitting attachment of said members to the file retainers of the binder, piercers carried by the members so as to be brought opposite said retainers, and means for maintaining the members in alinement together with their said piercers.

5. A filing instrument for use in connection with a binder, including a plurality of members slidable endwise relatively one to the other, piercers carried by said members, means permitting attachment of the members to the file retainers of the binder opposite said piercers, and guiding means operating to maintain the members and piercers in parallelism with said retainers.

[Claims 6 to 18 not printed in the Gazette.]

1,204,900. GARMENT-MAKER'S SQUARE. MARY B. PICKEN, Scranton, Pa. Filed Sept. 7, 1915. Serial No. 49,389. (Cl. 33—11.)



1. A garment maker's square having a long arm and a short arm, the length of the latter being included twice within the length of the former, the square having a compound curve extending continuously from the extremity of the long arm to the extremity of the short arm and continued to meet the straight edge of the short arm, the portions of said curve adjacent and throughout nearly the whole length of the long and short arms being convex, with the highest point of the long arm curve slightly beyond the center and nearer the outer end thereof and the highest point of the short arm curve distant from the outer end of the short arm by approximately one-fourth of the length of the short arm, and the intermediate portion of said compound curve which extends between and connects the long and short arm portions thereof being concave, a portion of the convex curve extending from the otuer end of the short arm and a contiguous portion of the concave intermediate curve serving for the drafting of complemental arm-hole pattern curves and being used in participation with adjoining portions of the compound curve for the drafting of other pattern curves, the concave curve having every point thereof closer to the straight edges of the square than datum lines parallel to said straight edges and tangent to the highest points of the convex portions of the compound curve.

2. A garment maker's square having a long arm and a short arm, the length of the latter being included twice within the length of the former, the square having a compound curve extending continuously from the extremity of the long arm to the extremity of the short arm and continued to meet the straight edge of the short arm, the portions of said curve adjacent and throughout nearly the whole length of the long and short arms being convex, with the highest point of the long arm curve slightly beyond the center and nearer the outer end thereof and the highest point of the short arm curve distant from the outer end of the short arm by approximately one-fourth of the length of the short arm, and the intermediate portion of said compound curve which extends between and connects the long and short arm portions thereof being concave, a portion of the convex curve extending from the outer end of the short arm, and a contiguous portion of the concave intermediate curve serving for the drafting of complemental armhole pattern curves and being used in participation with adjoining portions of the compound curve for the drafting of other pattern curves, the concave curve having every point thereof closer to the straight edges of the square than datum lines parallel to said straight edges and tangent to the highest points of the convex portions of the compound curve, the square having on both of its faces and throughout its length definitely located and identified points on the compound curve from which pattern curves may be started.

3. A garment maker's square having a long arm and a short arm, the length of the latter being included twice within the length of the former, the square having a compound curve extending continuously from the extremity of the long arm to the extremity of the short arm and continued to meet the straight edge of the short arm, the portions of said curve adjacent and throughout nearly the whole length of the long and short arms being convex, with the highest point of the long arm curve slightly beyond the center and nearer the outer end thereof and the highest point of the short arm curve distant from the outer end of the short arm by approximately one-fourth the length of the short arm, and the intermediate portion of said compound curve which extends between and connects the long and short arm portions thereof being concave, the portion of the curve at the outer end of the short arm serving for the back arm-hole curve of a waist pattern and being used in participation with adjoining portions of the curve for the drafting of other pattern curves and the concave portion of said compound curve serving for the front arm-hole curve of a waist pattern and being similarly used in participation with adjoining portions of the compound curve for the drafting of other pattern curves, the concave curve having every point thereof closer to the straight edges than datum lines parallel to said straight edges of the square and tangent to the highest points of the convex portions of the compound curve.

4. A garment maker's square having a long arm and a short arm and having a compound curve extending continuously from the extremity of the long arm to the

extremity of the short arm and continued to meet the straight edge of the short arm, the portions of said curve adjacent and throughout nearly the whole length of the long and short arms being convex, with the highest point of the long arm curve slightly beyond the center and nearer the outer end thereof and the highest point of the short arm curve distant from the outer end of the short arm by approximately one-fourth the length of the short arm, and the intermediate portion of said compound curve which extends between and connects the long and short arm portions thereof being concave, the portion of the curve at the outer end of the short arm serving for the back arm-hole curve of a waist pattern and being used in participation with adjoining portions of the curve for the drafting of other pattern curves and the concave portion of said curve serving for the front arm-hole curve of a waist pattern and being similarly used in participation with adjoining portions of the curve for the drafting of other pattern curves, the concave curve having every point thereof closer to the straight edges of the square than datum lines parallel to said straight edges and tangent to the highest points of the convex portions of the compound curve, the long arm having an extent of twenty-seven inches to provide for the requisite extent and outline of the curve portion adjacent said long arm, as and for the purpose set forth.

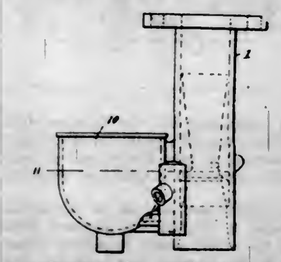
5. A garment maker's square having a long arm and a short arm and having a compound curve extending continuously from the extremity of the long arm to the extremity of the short arm and continued to meet the straight edge of the short arm, the portions of said curve adjacent and throughout nearly the whole length of the long and short arms being convex, with the highest point of the long arm curve slightly beyond the center and nearer the outer end thereof and the highest point of the short arm curve distant from the outer end of the short arm by approximately one-fourth the length of the short arm, and the intermediate portion of said compound curve which extends between and connects the long and short arm portions thereof being concave, the portion of the curve at the outer end of the short arm serving for the back arm-hole curve of a waist pattern and being used in participation with adjoining portions of the curve for the drafting of other pattern curves, and the concave portion of said curve serving for the front arm-hole curve of a waist pattern and being similarly used in participation with adjoining portions of the curve for the drafting of other pattern curves, the concave curve having every point thereof closer to the straight edge of the square than datum lines parallel to said straight edges and tangent to the highest points of the convex portions of the compound curve, the long arm having an extent of twenty-seven inches to provide for the requisite extent and outline of the curve portion adjacent said long arm, as and for the purpose set forth, the square having on both of its faces and throughout its length definitely located and identified points on the compound curve from which pattern curves may be started.

[Claims 6 to 8 not printed in the Gazette.]

1,204,901. CARBURETER. ANTOINE PROSPER PLAUT, Cleveland Ohio, assignor of one-half to Richard B. Sheridan, Cleveland, Ohio. Filed Nov. 4, 1914. Serial No. 870,280. (Cl. 48—150.2.)

1. In a carbureter, the combination of a tube which, except for the throttle valve hereinafter mentioned, is normally unobstructed and is adapted for connection at its upper end with an internal combustion engine and contains an annular chamber which is always in communication with the interior of said tube through one or more unclosable passageways, a fuel nozzle discharging into said annular chamber, a valve controlled air tube discharging into said annular chamber, and a throttle valve in the first mentioned tube located well above the plane in which said passageways communicate with the interior of said tube.

2. In a carbureter, the combination of a body tube adapted for connection at its upper end with an internal combustion engine, an unobstructed inner tube fitted in said body tube,—there being between said tubes an annular chamber which communicates with the interior of said inner tube through an annular row of always open holes, a fuel nozzle discharging into said annular chamber, a valve-controlled air tube which at its inner end communicates with said chamber, and a throttle valve in the body tube above said inner tube.



3. In a carbureter, the combination of a body tube adapted for connection at its upper end with an internal combustion engine, an unobstructed ajutage fitted within said body tube, there being between said ajutage and body tube an annular chamber which communicates with the interior of said ajutage through a plurality of always open holes whose discharge ends are closely adjacent to the throat of said ajutage, a fuel nozzle discharging into said annular chamber, a valve controlled air tube which discharges into said annular chamber, and a throttle valve in the body tube above the ajutage.

4. In a carbureter, the combination of a body tube adapted for connection at its upper end with an internal combustion engine, an unobstructed Venturi tube immovably fitted within said body tube and having in its outer periphery an annular groove which with a body tube forms an annular chamber, there being a plurality of always open holes leading from said chamber to the interior of said Venturi tube, and discharging into the same in a plane closely adjacent to the throat of said Venturi tube, a fuel nozzle discharging into said annular chamber, and an air tube which communicates at its inner end with said annular chamber.

5. In a carbureter, the combination with a constant level fuel reservoir, of a substantially vertical tube which is normally open at its lower end and is adapted for connection at its upper end with an internal combustion engine and which contains in its wall a chamber which is in open communication with the interior of said tube above the level of the fuel in said reservoir,—there being an open fuel duct connecting said chamber with said fuel reservoir, and an air tube which communicates at its inner end with said chamber and has its outer end above said fuel level.

[Claims 6 to 11 not printed in the Gazette.]

1,204,902. HOLDER FOR WRIST-WATCHES. JOHN A. POLTOCK, Woodridge, N. J. Filed Apr. 20, 1916. Serial No. 92,452. (Cl. 224—4.)

1. A holder for wrist watches made of a single piece of material and comprising an approximately circular seat for the closed back of a watch to rest on, the said seat having at one end an integral loop open at the back and extending at an angle to the seat, the loop being adapted to engage the pendant, the said seat having a locking member at the other end adapted to extend through said loop to close the latter and lock the loop to the watch pendant.

2. A holder for wrist watches, comprising a seat for the closed back of a watch to rest on, the said seat having an integral loop open at the back and extending at an angle to the seat, the loop being adapted to engage the watch pendant, the said seat having a locking member adapted to engage the open end of the loop to close the latter and lock the loop to the pendant, and half ring shaped members of which one extends from the loop and the other from the locking member, the said half ring shaped members terminating in eyes adapted to register with each other, and a wrist band attached at one end to the said eyes and at the other end to the said seat.



3. A holder for wrist watches, comprising a seat for the closed back of a watch to rest on, the said seat having an integral loop open at the back and extending at an angle to the seat, the loop being adapted to engage the pendant, the said seat having a locking member adapted to engage the open end of the loop to close the latter and lock the loop to the pendant, the said locking member being formed of a doubled-up spring wire formed into wedge shape, one of the arms of the wedge bearing against the back of the loop and the other arm bearing against the back of the watch pendant.

4. A holder for wrist watches made from a single piece of wire bent to form a circular seat for the closed back of a watch to rest on, the ends of the seat terminating one in a loop and the other in a locking key of which the loop is open at the back and its end has a return bend, the loop being adapted to engage the watch pendant, the said key being formed by doubling up the wire into wedge shape to engage the bight of the said return bend and the pendant of the watch.

5. A holder for wrist watches made from a single piece of wire bent to form a circular seat for the closed back of a watch to rest on, the ends of the seat terminating one in a loop and the other in a locking key, of which the loop is open at the back and its end has a return bend, the loop being adapted to engage the watch pendant, the said key being formed by doubling up the wire into wedge shape to engage the bight of the said return bend and the watch pendant, the holder having half ring shaped members, of which one extends from the end of the said return bend and the other extends from the key, the ends of the half ring shaped members terminating in eyes adapted to register with each other, and a wrist band having one end attached to the said registering eyes and having the other end attached to the said seat at the bottom thereof.

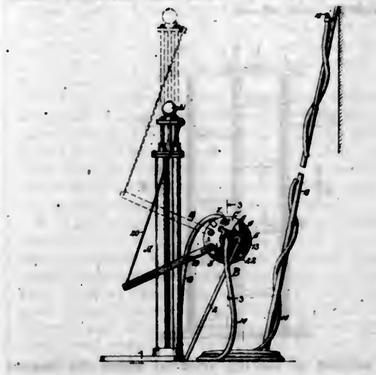
[Claim 6 not printed in the Gazette.]

1,204,903. DUST-GERMICIDE-SPRAYING APPARATUS. HUBERT A. RICHTER, JOSEPH E. RICHTER, LOUIS RICHTER, and OTTO L. RICHTER, Utica, N. Y. Filed July 21, 1916. Serial No. 110,467. (Cl. 43—14.)

1. The combination of a pump including a piston and cylinder, with a germicide spraying attachment comprising a container, means located at one side of the pump for mounting the container to rotate on an axis transverse to the axis of the cylinder and to one side of the latter, means connected with the container and piston, whereby the reciprocation of the latter rotates the container, a hose between the cylinder and container for conducting air into the latter, a hose connected with the container for receiving germicide therefrom, and a spraying device connected with the hose.

2. The combination of a piston and cylinder pump, brackets carried thereby, an oscillatory container mounted on the brackets with its axis transverse to the axis of the cylinder, a crank on the container, a link connecting the crank with the moving part of the pump cylinder, a hose connecting the pump with the container, and a discharge nozzle-carrying hose connected with the container.

3. The combination of a pump, brackets fastened to the base thereof and having journal bearings, a container having journals disposed in the bearings, keepers on the bearings to removably retain the journals therein, means for oscillating the container from a moving part of the pump, a hose connected with the pump, a coupling between the hose and a container, a nozzle-carrying hose, and a coupling between the last-mentioned hose and container.

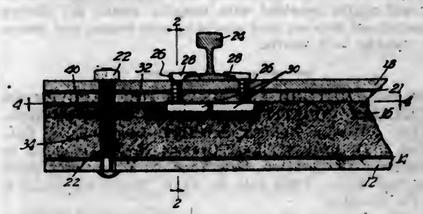


4. In a germicide spraying device, an oscillatory container for powdered germicide having an air inlet at one end and an air outlet at the opposite end, a deflector in the container and disposed in line with the inlet opening for deflecting air into the germicide, and a screen over the outlet.

5. In a germicide spraying device, a rotary container having journals provided with apertures for the admission of air at one end and the outlet of air and germicide at the opposite end, and a deflector disposed in the container and in line with the inlet.

[Claim 6 not printed in the Gazette.]

1,204,904. CONCRETE-WOOD COMBINATION RAILROAD-TIE. EDWIN ROGERS, Aurora, Ill. Filed Sept. 27, 1915. Serial No. 52,949. (Cl. 238—3.)



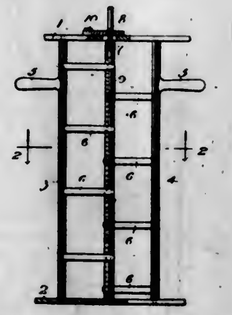
1. A railroad tie comprising a body of concrete, a wooden member secured along the lower surface of the concrete tie; another wooden member secured along the upper surface of the tie, bolts passing through the members heretofore enumerated to hold them together, and means for securing a railroad rail to the upper wooden member on the tie without securing it directly to the tie body.

2. In a device of the class described, a railroad tie made of concrete having on its bottom a wooden plate, a layer of asphaltum between said wooden plate and the bottom of the tie, a wooden member on the top of the tie, a layer of tar on top of said last mentioned wooden member, another wooden member on top of the last mentioned layer of tar, means for securing all of the parts

heretofore enumerated together, and means for securing a railroad rail to the tie.

8. In a device of the class described, a tie having a concrete body member, wooden members above and below the same, bolts securing the parts enumerated together, the bolts being wrapped with tarred thread or cord and means for securing a railroad rail to the top wooden member.

1,204,905. ARTIFICIAL FLOWER-STEM. DOMINICK ROSSI, New York, N. Y. Filed Aug. 26, 1916. Serial No. 116,999. (Cl. 41—3.)



1. The method of making artificial stems for flowers comprising coating a rod with a heated plastic solution containing coloring matter, tapping the same to form thorns, and finally allowing the coating to cool.

2. In a device for making artificial stems for flowers, the combination with a frame, of shafts journaled therein, said shafts provided with tappers, and means for rocking said shafts.

3. In a device for making artificial stems for flowers, the combination with a frame, of shafts journaled therein, said shafts provided with tappers, staggered relative to each other, and means for rocking said shafts.

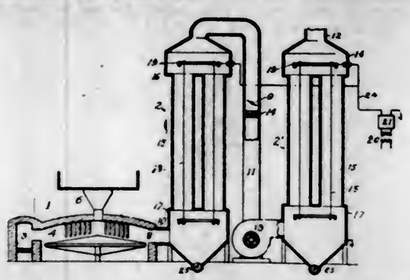
4. In a device for making artificial stems for flowers, the combination with a frame, of shafts journaled therein, said shafts provided with tappers, means for placing a coated rod between said shafts, and means for rocking said shafts.

5. In a device for making artificial stems for flowers, the combination with a frame, of shafts journaled therein, said shafts provided with tappers, means for placing a coated rod between said shafts in said frame, and means for rocking said shafts.

1,204,906. METHOD AND MEANS FOR RECOVERING CERTAIN CONSTITUENTS FROM GASEOUS BODIES. WALTER AUGUST SCHMIDT, Los Angeles, Cal., and LINN BRADLEY, East Orange, N. J., assignors to Research Corporation, New York, N. Y., a Corporation of New York. Filed July 23, 1914. Serial No. 852,584. (Cl. 75—30.)

1. The method of separating substances of different condensability from gases containing the same, and from one another, which consists in subjecting the gases to a plurality of electrical precipitating actions, and controlling the temperature so as to reduce the temperature between the precipitating actions sufficiently to condense into the form of cloud, one of the constituents of the gas, for precipitation in the next succeeding precipitating action.

2. The method of recovering a condensable constituent from a gas containing the same and also containing suspended particles, which consists in subjecting the gas to the action of an electric discharge in an electric field, to cause precipitation of the suspended particles, then cooling the gas to condense said condensable constituent, in the form of cloud, and then again subjecting the gas to the action of an electric discharge in an electric field, to precipitate the said cloud.



3. The method of recovering certain constituents of gaseous bodies, which consists in the formation of clouds, of the individual materials to be recovered, by cooling the gases below the condensation point of the most condensable constituent but maintaining the temperature above the condensing point of the next most condensable constituent, so as to condense only the most condensable constituent, in the form of cloud, subjecting the gases while maintained at the stated range of temperature, to precipitating action to separate the said cloud therefrom, then reducing the temperature sufficiently to condense only the next most condensable constituent, and precipitating the same while the gas is maintained at such temperature, the operation of cooling, condensation and precipitation being repeated until the required material of lowest condensability has been separated from the gases.

4. The method for separation of dust and fume from certain condensable constituents in gases, which consists in first subjecting the gases to electrical discharge in an electric field to precipitate the dust and fume therefrom, then cooling the gases to such a temperature as to cause condensation only of the most condensable constituent, then subjecting the gas to the action of an electric discharge in an electric field, to precipitate the cloud formed by condensation of such constituent, and repeating the operations of cooling to definite temperatures to form clouds of definite constitution and of precipitation of such clouds, until all the required constituents have been removed from the gases.

5. The method of separating a condensable constituent from a gas, which consists in mixing a cooler gas with the gas to be treated, so as to reduce the temperature of the mixture below the temperature of condensation of such constituent, and thereby cause condensation of such constituent in the form of a cloud, and then passing the gas containing the cloud through an electric field, in which an electric discharge is maintained, to precipitate the cloud from the gas.

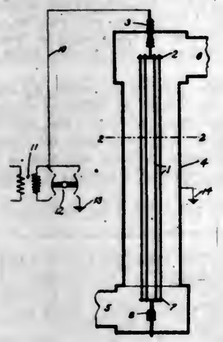
[Claims 6 to 9 not printed in the Gazette.]

1,204,907. MEANS FOR PRODUCING DISCHARGE OF ELECTRICITY INTO GASES. WALTER AUGUST SCHMIDT, Los Angeles, Cal., assignor to International Precipitation Company, Los Angeles, Cal., a Corporation of California. Filed June 17, 1915. Serial No. 34,583. (Cl. 75—30.)

1. In an apparatus for electrical precipitation of suspended particles from gases, a discharge electrode comprising a plurality of conductor members in such spaced relation that the electric field intensity adjacent to each conductor member is reduced by the influence of adjacent conductor members.

2. In an apparatus for electrical precipitation of suspended particles from gases, a discharge electrode comprising a plurality of conductor members arranged in polygonal order.

3. In an apparatus for electrical precipitation of suspended particles from gases, a discharge electrode comprising a plurality of conductor members extending parallel to one another and electrically connected together, said conductor members being in such spaced relation that the electric field intensity adjacent to each of said members is reduced by the influence of the adjacent conductor members.

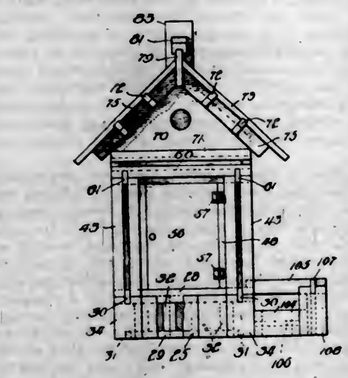


4. An apparatus for electrical precipitation of suspended particles from gases, comprising a collecting electrode exposed to the gas to be treated and a discharge electrode also exposed to the gas to be treated and arranged opposite said collecting electrode and comprising a plurality of parallel conductor members connected together and arranged in such spaced relation that the electrical field intensity adjacent to each conductor member is controlled by the influence of each adjacent conductor member.

5. In an apparatus for electrical precipitation of suspended particles from gases, the combination with an electrode formed as a pipe and adapted to receive the gas to be treated, in contact with the electrode surface, of a discharge electrode comprising a plurality of elongated smooth conductor members extending longitudinally in said pipe and arranged in such spaced relation relatively to one another and to the wall of the pipe, that the electric field intensity adjacent to each conductor member is controlled by the influence of adjacent conductor members.

[Claims 6 to 8 not printed in the Gazette.]

1,204,908. TOY BUILDING. OTTO C. SCHWARS, New Chicago, Ind. Filed Aug. 2, 1915. Serial No. 43,061. (Cl. 46—35.)



1. A toy building structure comprising foundation walls composed of interchangeably assemblable main and corner blocks provided with registering grooves and binding strips seated in said grooves and intersecting and interlocked to each other at their ends to and within the corner blocks.

2. A toy building structure comprising foundation walls composed of interchangeably assemblable main and corner blocks provided with registering grooves with the grooves of the corner blocks intersecting, and binding strips seated in said grooves and notched at their ends to interlock with each other in said intersecting grooves.

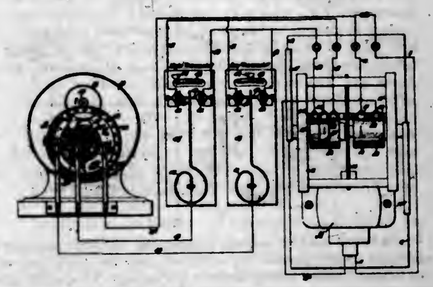
3. A toy building structure comprising foundation walls composed of interchangeably assemblable main and corner blocks provided at their upper and lower sides with registering grooves, with the grooves in the upper faces of the corner blocks intersecting, binding strips in the lower grooves extending into the corner blocks and other binding strips in the upper grooves and notched at their ends to interlock with each other in said intersecting grooves of the corner blocks.

4. A toy building structure comprising foundation walls composed of interchangeably assemblable main and corner blocks provided with registering grooves, binding strips seated in said grooves and intersecting and interlocked to each other at their ends and to the corner blocks, said blocks being grooved in their meeting side faces, and binding members seated in said latter grooves.

5. A toy building structure comprising foundation walls composed of interchangeably assemblable main and corner blocks provided with registering grooves, binding strips seated in said grooves and intersecting and interlocked to each other at their ends and to the corner block, corner posts rising from said foundation, side and end walls fitted between said posts, said corner posts being interlocked at their lower ends to the intersecting binding strips.

[Claims 6 to 26 not printed in the Gazette.]

1,204,909. THERMOSTATIC HEAT-REGULATOR. HOWELL W. SOUDER and ROBERT H. SOUDER, Tamaqua, Pa. Filed May 4, 1916. Serial No. 95,502. (Cl. 236—4.)



1. In a heat regulator, the combination of a motor, regulating connections controlled by the operation of the motor, a source of energy for the motor, a pair of independently adjustable thermostats between the source of energy and the same motor, and means to bring the thermostats into operation in altenation automatically and each to the exclusion of the other.

2. In a heat regulator, the combination of an electric motor adapted for use with either direct or alternating current, mechanical connections between the motor and the parts to be controlled, a pair of independently adjustable thermostats connected to the motor, and time controlled devices for automatically bringing the thermostats into operative relation with the motor in alternation according to any desired temperatures and at any desired predetermined hours of the day or night.

3. In a heat controller, the combination of an electric motor adapted for use with either direct or alternating current, mechanical connections between the motor and the parts to be controlled, means to supply energy to the motor, the last mentioned means including a pair of thermostats variably adjustable to different standard tempera-

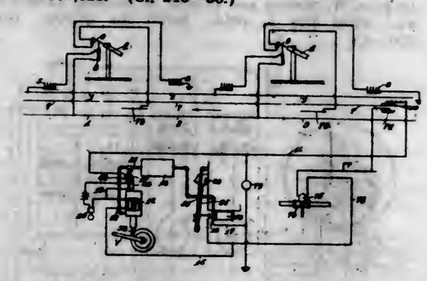
tures, time controlled means to automatically bring the thermostats into operation successively and repeatedly one after the other according to predetermined hours of the day or night and each to the exclusion of the other, and automatic means to stop the motor after a predetermined extent of movement.

4. In a heat controller, the combination of an electric motor adapted for use with either direct or alternating current, means to supply energy to the motor, the course of the supply being through main and auxiliary lines, a pair of thermostats independently adjustable to provide for the control of the motor at different predetermined standard temperatures arranged in the auxiliary line, time controlled means to bring the thermostats into operative relation with the line in repeated succession one after the other according to any desired hours of the day or night and each to the exclusion of the other, either thermostat being in operative connection serving to start the motor, means to cut out the auxiliary line and connect the main line with the motor immediately after the starting of the motor, and means to automatically stop the motor at a predetermined time after it has been started.

5. In an automatic heat regulator, the combination of power means to move the parts to be regulated, a pair of thermostats connected to the power means, said thermostats being independently adjustable at the will of the operator to an indefinite number of adjustments, and automatic means to bring the thermostats into operation in continual succession each to the exclusion of the other.

[Claims 6 to 9 not printed in the Gazette.]

1,204,910. AUTOMATIC TRAIN-CONTROL SYSTEM. ADOLPH A. STARKE, New York, N. Y., assignor of four-tenths to John Alfred Cabot and one-tenth to Ralph Dikeman, New York, N. Y. Filed Aug. 20, 1914. Serial No. 857,628. (Cl. 246—58.)



1. A train control system comprising movable means responsive to the position of a train along the track, current conveying means along the track controlled by said movable means, electro-responsive means for actuating the engineer's brake handle to bring the same to service stop position when the car runs into a block controlled by said movable means, an emergency brake valve, and means operating in conjunction with said current conveying means for actuating the emergency brake valve after the service brake has been operated.

2. An automatic train control system comprising movable means responsive to the position of a train on a track, a third rail, means for energising the same controlled by said movable means, a fourth rail section spaced along the track adapted to be energized together with the third rail, electro-responsive means energized by said third rail to shift the engineer's brake handle to service stop position when the car runs into a block for which said movable means is set to danger, and a second electro-responsive means energized by a fourth rail for setting the emergency brake when the car fails to stop before arriving at a safe distance from the danger block.

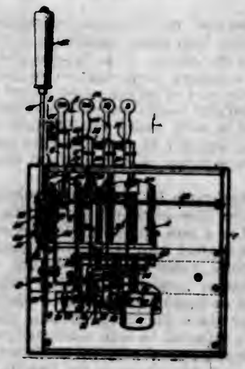
3. A train control system including in combination with the brakes, of continuous means along the track for automatically controlling the service application of the brakes at any point along the track when the train runs into a danger block, and separate means at spaced intervals along the track for controlling the emergency application of the brakes in case of failure or insufficient operation of the service brake.

4. A train control system comprising in combination with the brakes, of a continuous third rail running along the track for controlling the service application of the brakes, and spaced fourth rail sections for controlling the emergency application of the brakes in case of failure or insufficient operation of the service application of the brakes.

5. A train control system including two separate electro-responsive devices located at different points on the car, respectively controlling the service and emergency application of the brakes, and independent electrical circuits for said electro-responsive devices, and means in connection with said electro-responsive devices for shutting off the power.

[Claims 6 to 8 not printed in the Gazette.]

1,204,911. CHANGE-MAKING APPARATUS. LESTER H. THOMPSON, Brooklyn, N. Y., assignor of one-third to J. P. Benjamin, Chicago, Ill., and one-third to A. P Williams, West Upton, Mass. Filed Oct. 2, 1911. Serial No. 652,288. (Cl. 194—75.)



1. A machine of the character described, comprising a plurality of coin chambers, normally inoperative ejecting devices for said chambers, each adapted when made operative to remove a coin from its respective chamber, actuating means connected to all of said devices for moving them all in unison, a plurality of coin receptacles adapted to receive coins of different denominations, pushing means associated with each receptacle for propelling the coin therein, mechanism operated by each coin of higher denomination for automatically putting such of said ejecting devices into operative condition that the latter may deliver coins amounting in value to that of the propelled coin less a predetermined fixed amount, and means for rendering inoperative selected ones of said ejecting devices.

2. A machine of the character described, comprising chambers containing change-making coins of different denominations, coin receptacles adapted to receive coins of different denominations, a pusher for propelling the coin in each receptacle, an ejector for the coins in each of said chambers, means for moving all of said ejectors at the same time at each operation, and mechanism operated by each propelled coin of a value higher than a predetermined amount, for automatically and invariably putting certain of said ejectors into condition to deliver change representing the difference in value between that of the operating coin and a fixed amount, and means for making certain of said ejectors again inoperative, whereby to reduce the value of the change delivered.

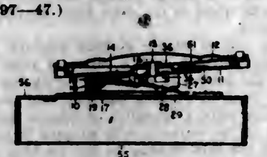
3. A machine for the purpose indicated comprising a plurality of receptacles each proportioned to receive a coin of different denomination, pushing means adjacent to each of said receptacles adapted to propel the coin therein, a series of change compartments containing coins of different denominations, ejectors for removing coins from said compartments, there being one ejector for each compartment and said ejectors being normally inoperative, actuating mechanism for each of said coin receptacles operable by propulsion of the coin in the receptacle, connections controlled by said mechanisms for automatically making operative the ejectors of those chambers containing coins of which the unit values amount to a sum equal to the difference between the value of the coin and the thing purchased, and an operating member movable in one direction to actuate said pushing means, and in the opposite direction to actuate said ejectors.

4. A cash-receiving and change-making machine comprising chambers or compartments containing coins of various denominations, pushers mounted adjacent to said chambers, a pusher carrier movable as a unit and carrying all the said pushers, said pushers being normally placed so as not to engage coins in their respective chambers, pusher lifters adjacent to the several pushers each independently operable to put the adjacent pusher into position for removing a coin from the adjacent chamber, a plurality of coin receptacles each adapted to receive a coin of different value, means for propelling coins in the several receptacles and a plurality of mechanisms each operated by one of such coins including connections arranged to operate a sufficient number of said pushers to enable the latter to eject coins from the compartments representing the difference in value between the actuating coin and a fixed sum, regardless of what the value of the actuating coin may be.

5. A coin-receiving and change-making machine comprising a manual actuator operable in opposite directions, coin receptacles, mechanisms operated by movement of said manual actuator in one direction for propelling the coin contained in any of the receptacles, change compartments and ejectors adjacent thereto, said ejectors being normally in an inoperative condition, mechanism operable by the movement of the manual actuator in the opposite direction for moving said ejectors in the direction for delivering change, and means operable by a coin propelled in one of said receptacles for rendering sufficient of such ejectors operative to deliver change representing the difference between the value of the actuating coin and the value of the thing purchased.

[Claims 6 to 23 not printed in the Gazette.]

1,204,912. TYPE-WRITER. SAMUEL A. THOMPSON, New York, N. Y. Filed Apr. 8, 1916. Serial No. 89,810. (Cl. 197—47.)



1. A typewriter including a rack, a type carriage, a feed pawl on the carriage at the under side engageable with said rack, a track S-shaped in cross section and presenting an overhanging laterally disposed free edge portion at the top, and means on the carriage rockably and slidably engaging the said track, the said means comprising a track-engaging element on the carriage return bent in the reverse direction to the said free edge portion of the track and engaging beneath the same, a second track-engaging element disposed on the carriage at the under side and having a flange angular in cross section, said flange bearing against the track at the front thereof and extending beneath the intermediate bend of said track, and spring means engaging said second element and engaging a relatively fixed portion of the carriage and yieldingly pressing the said track-engaging elements against the track.

2. A typewriter including a rack, a type carriage, feed means on the carriage adapted to engage said rack, a track S-shaped in cross section and presenting an overhanging laterally disposed free edge portion at the top, a track-engaging element on the carriage return bent in curved form in reverse direction to the said edge portion and engaging beneath the latter, a second track-engaging element disposed on the carriage at the under side, and presenting a member bearing against the track at the front thereof, said second track-engaging element having an opening therein, and a relatively fixed part of the carriage having a lug projecting through said opening, there being an oppositely disposed lug on said second element, and a U-shaped spring, the arms of which engage respectively, with the said lugs.

3. A typewriter including a type carriage, a rack, feed means on the carriage adapted to engage said rack to propel the carriage, a track S-shaped in cross section and presenting an overhanging laterally disposed free edge portion at the top, and means on the carriage rockably and slidably engaging the latter with the track, said means comprising a track-engaging element return bent beneath the said free edge portion of the track, a second track-engaging element disposed on the carriage at the under side and having a member frictionally engaging the track at the front, U-shaped springs having loops at the bends thereof, the said second element having tongues engaging the said loops of the springs and securing the latter to said second element, members on the said second element adjacent to one arm of each spring and against which said arms exert their pressure, and tongues on a relatively fixed portion of the carriage against which the opposite arms of the said springs bear, the second track-engaging element having openings through which the said tongues extend.

4. A typewriter including a type carriage, a track on which the carriage is rockably and slidably mounted, a rack, a pawl on the carriage adapted to engage said rack, and a retractile spring connected respectively with the said pawl and with a relatively fixed part of the carriage, the carriage having depending lugs at the under side, and the pawl having trunnions angular in cross section and having bearings in said lugs, one of the trunnions being disposed at an angle to the general plane of the pawl, the rear edge of said angularly disposed trunnion being adapted to contact with the upper wall of its bearing upon depression of the carriage, the adjacent front wall of said bearing forming a contact surface for the rear edge of the pawl along which front edge the said rear edge of the pawl is adapted to shift upon the mentioned contact of the front edge.

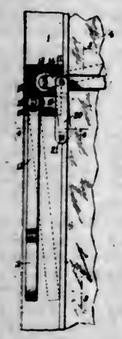
5. A typewriter including a type carriage, a track on which the carriage is rockably and slidably mounted, a rack, a pawl rockably mounted on the carriage at the under side, a retractile spring having a longitudinal arm at one end, the end of the arm being fastened to said pawl, and the pawl presenting a transverse edge portion adjacent to the said arm of the spring, the opposite end of the said spring being secured to a relatively fixed part of the carriage.

[Claims 6 and 7 not printed in the Gazette.]

1,204,913. CONTROLLING MEANS FOR SLIDING CLOSURES. HENRY G. VOIGHT, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 28, 1913, Serial No. 787,069. Renewed Aug. 12, 1915. Serial No. 45,257. (Cl. 70—102.)

1. Controlling means for sliding doors comprising a pair of connected toggle levers, a stationary abutment for the free end of one of said levers, a movable abutment for the other lever comprising a pivot upon which the free end of the last mentioned toggle lever is mounted, another pivot on said abutment below the first mentioned pivot, an operating handle mounted thereon, a laterally extending arm on the operating handle, an upwardly projecting coupling link pivotally mounted upon said extension and operatively connected with the last mentioned toggle link

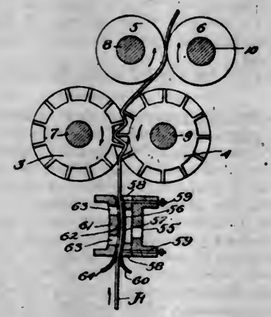
between its ends to buckle said toggles by the upward movement of said coupling link.



2. Controlling means for sliding doors comprising a pair of connected toggle levers, a stationary abutment for the free end of one of said levers, a movable abutment for the other lever comprising a pivot upon which the free end of the last mentioned toggle lever is mounted, another pivot on said abutment below the first mentioned pivot, an operating handle mounted thereon, a laterally extending arm on the operating handle, an upwardly projecting coupling link pivotally mounted upon said extension and operatively connected with the last mentioned toggle link between its ends to buckle said toggles by the upward movement of said coupling link, said handle extension projecting outwardly and downwardly, said coupling link being connected to the lower part of said extension.

3. Controlling means for sliding doors comprising a pair of connected toggle levers, a stationary abutment for the free end of one of said levers, a movable abutment for the other lever comprising a pivot upon which the free end of the last mentioned toggle lever is mounted, another pivot on said abutment below the first mentioned pivot, an operating handle pivotally mounted thereon, a laterally extending arm on the operating handle, an upwardly projecting coupling link pivotally mounted upon said extension and operatively connected with the last mentioned toggle link between its ends to buckle said toggles by the upward movement of said coupling link, the pivotal connection between said coupling link and said handle being below the pivotal mounting of said handle on said movable abutment.

1,204,914. SKIN, HIDE, AND LEATHER WORKING MACHINE. FRANK WAYLAND, Salem, Mass. Filed May 23, 1914. Serial No. 840,621. (Cl. 149—16.)



1. In a skin, hide or leather working machine, a pair of work rolls, each provided with a series of right and left hand helices, the helices of one roll overlapping those of the other roll when in working position, whereby the material being operated upon will be bent sharply over the edges of the opposed helices, feed rolls at one side of the work rolls, and a plurality of tension members on the other side of the work rolls adapted to engage opposite sides of the skin passing to the work rolls, and to cooperate with the feed rolls to hold the skin stretched taut between the feed rolls and the tension members while the skin is being acted upon by said helices.

2. In a skin, hide or leather working machine, a pair of work rolls, each provided with a series of right and left handle helices, the helices of one roll overlapping those of the other roll when in working position, whereby the material being operated upon will be bent sharply over the edges of the opposed helices, one of said work rolls being mounted on a stationary frame, and the other roll being mounted on a frame movable with relation thereto, to open and close said rolls, feed rolls at one side of the work rolls, one mounted on the stationary frame, the other on the movable frame, and tension members adapted to engage opposite sides of the skin passing to the work rolls and to coöperate with the feed rolls to hold the skin stretched taut between the feed rolls and the tension members while the skin is being acted upon by said helices, one of said tension members being mounted on the stationary frame, and the other on the movable frame.

3. In a skin, hide or leather working machine, a pair of work rolls, each provided with a series of right and left hand helices, the helices of one roll overlapping those of the other roll when in working position, one of said work rolls being mounted on a stationary frame, and the other roll being mounted on a frame movable with relation thereto, to open and close said rolls, feed rolls at one side of the work rolls, one mounted on the stationary frame and the other on the movable frame, and tension members adapted to engage opposite sides of the skin passing to the work rolls and to coöperate with the feed rolls to exert tension thereon while the skin is being acted upon by said helices, and one at least of said tension members being yieldingly supported.

4. In a skin, hide or leather working machine, a pair of work rolls each provided with a series of right and left hand helices, the helices of one roll overlapping those of the other roll when in working position, whereby the material being operated upon will be bent sharply over the edges of the opposed helices, feed rolls at one side of the work rolls, a plurality of tension members at the other side of the work rolls adapted to engage opposite sides of the skin passing to the work rolls and to coöperate with the feed rolls to hold the skin stretched taut between the feed rolls and the tension members while it is being acted upon by said helices, one at least of said tension members having a working surface adapted to stretch the skin laterally while at the same time exerting the longitudinal tension.

5. In a skin, hide or leather working machine, a pair of work rolls each provided with a series of right and left hand helices, the helices of one roll overlapping those of the other roll when in working position, feed rolls at one side of the work rolls, a plurality of tension members at the other side of the working rolls adapted to engage opposite sides of the skin passing to the working rolls and to coöperate with the feed rolls to exert tension on the skin while it is being acted upon by said helices, one at least of said tension members consisting of a smooth faced bar having a series of perforations therethrough.

[Claims 6 to 20 not printed in the Gazette.]

1,204,915. SETTING FOR PRECIOUS STONES. JOSEPH C. WHITEHOUSE, Covington, Ky. Filed Feb. 1, 1915. Serial No. 5,481. (Cl. 63—28.)

1. A setting of the character described, comprising a cluster-plate and a group of small stones, said cluster-plate provided with upwardly extending fastening means for receiving said group of small stones to resemble the crown portion of a precious stone and with downwardly opening clamping means, and a lower body portion having light properties similar to the light properties of said small stones and provided with facets to resemble the lower portion of said precious stone, said clamping means rigid with said cluster-plate and bent under the upper edge of said lower body portion.



2. A setting for precious stones to resemble a brilliant cutting of a single stone comprising a cluster-plate provided with setting recesses for a group of small precious stones, small precious stones secured in said recesses to resemble the crown of the brilliant cutting, and a lower less precious body provided with facets which forms the pavilion portion of the brilliant cutting, said lower less precious body having light properties similar to the light properties of said small precious stones, said cluster-plate provided with downwardly extending clamping means clampingly received about the upper edge of said lower less precious body.

3. A setting for small stones to resemble a single stone comprising a cluster-plate provided with setting bores for a group of small stones, said bores opening upwardly for receiving said stones and opening downwardly for permitting the lower ends of said stones to project therethrough, small stones secured in said bores, and a lower body having light properties similar to the light properties of said small stones and provided with facets to resemble the lower portion of said single stone, said cluster-plate provided with downwardly extending clamping means clampingly received about the upper edge of said lower body for clamping said lower body to said cluster-plate, and said lower body provided with an inner depression extending downwardly thereinto from its top in which the lower ends of said small stones of said group of small stones projecting through said bores are received.

4. A setting to resemble a brilliant cutting comprising a cluster-plate provided with setting recesses for a group of small precious stones, small precious stones secured in said recesses to resemble the crown portion of the brilliant cutting, and a lower less precious body having light properties similar to the light properties of said small precious stones and provided with facets to resemble the pavilion portion of the brilliant cutting, the upper end of said last-named part being of a diameter substantially the same as the diameter of said group of small precious stones, said cluster-plate provided with downwardly extending clamping means clampingly received about the upper edge of said lower less precious body, and said lower less precious body provided with an inner cavity the inner wall whereof is provided with a light reflecting substance.

5. In combination, a setting of the character described comprising a cluster-plate provided with setting bores for a group of small stones, said setting bores opening upwardly for receiving said stones, and small stones secured in said bores to resemble the crown portion of a precious stone, a lower body having light properties similar to the light properties of said small stones and of substantially the diameter of said cluster-plate and provided with facets to resemble the lower portion of said precious stone, the peripheral edge of said cluster-plate provided with downwardly extending claws clampingly received about the upper edge of said lower body for clamping said lower body to said cluster-plate, and an inclosing setting comprising upwardly extending setting-prongs in line with and received over said claws, the upper ends of said setting-prongs being clamped over said peripheral edge of said cluster-plate.

1,204,916. SETTING FOR PRECIOUS STONES. JOSEPH C. WHITEHOUSE, Covington, Ky. Filed Feb. 1, 1915. Serial No. 5,482. (Cl. 63—38.)

1. A setting of the character described, comprising a series of diverging setting-prongs having a central space within said series, the neighboring prongs of said series having open spaces between them contracting downwardly, and a framework of wires located in said central space surrounded by said series of setting-prongs, the wires of said framework slanting downwardly and laterally from both sides of each of said setting-prongs and toward the axis of the setting and meeting and forming an angle between the prongs of each pair of neighboring setting-prongs to resemble the boundary lines of the under facets of a single cut stone.



2. In a setting of the character described, the combination of a series of diverging setting-prongs having a central space within said series, a framework of wires located in said central space, the wires of said framework conforming in location with the boundary lines of the facets of the pavilion portion of a brilliant, said framework of wires fixed to said setting-prongs, and a cluster setting of small stones releasably received over said wires and clamped in said setting by said setting-prongs.

3. In a setting of the character described, the combination of a series of diverging setting-prongs having a central space within said series, the prongs of said series having open spaces between them, and a framework of wires located in said central space and comprising diverging wires registering with said open spaces and a wire extending slantingly downward and inward from each side of each of said setting-prongs, said last-named wires fixed to the setting-prongs from which they respectively extend, said last-named wires forming angles between neighboring setting-prongs, and said first-named wires intersecting said last-named wires at the apices of said angles where said second-named wires are fixed to said first-named wires, forming lateral supporting means for said first-named wires.

4. In a setting of the character described, the combination of a series of diverging setting-prongs having a central space within said series, a framework of wires located in said central space including wires slanting downwardly and inwardly to resemble the boundary lines of the lower facets of a single cut precious stone, said framework of wires secured to said setting-prongs, and a cluster-setting of smaller stones releasably received over said framework of wires and clamped in said setting by said setting-prongs.

1,204,917. SETTING FOR PRECIOUS STONES. JOSEPH C. WHITEHOUSE, Covington, Ky. Filed May 24, 1915. Serial No. 30,011. (Cl. 63—28.)



1. In a setting of the character described, the combination of a series of diverging setting-prongs having a space within said series, a framework of wires located in said space surrounded by said series of setting-prongs, said framework including wires slanting downwardly and laterally from both sides of said respective setting-prongs and toward the axis of the setting and meeting and forming an angle between the prongs of each pair of neighboring setting-prongs to resemble the boundary lines of the under facets of the pavilion portion of a single cut stone, the inner faces of said diverging setting-prongs provided with shelves located farther from the base of the setting than the upper ends of said framework of wires, and a cluster-plate for small stones resting upon said shelves above and spaced from said framework of wires.

2. In a setting of the character described, the combination of a series of diverging setting-prongs having a central space within said series, said setting-prongs provided with shelves, a framework of wires located in said central space, the planes perpendicular to the axis of the setting

in which the upper ends of said wires and said shelves are respectively located having a space between them, the wires of said framework extending inwardly and downwardly to resemble the boundary lines of the facets of the under portion of a cut precious stone, said framework of wires fixed to said setting-prongs, and a cluster setting of small stones releasably received over and spaced from said wires and clamped in said setting on said shelves by said setting-prongs.

3. In a setting of the character described, the combination of a series of diverging setting-prongs the inner faces of which are provided with shelves adjacent to their upper ends, said series of diverging setting-prongs having a space within said series, the prongs of said series having open spaces between them, a framework of wires comprising a wire extending slantingly downward and inward from each side of each of said setting-prongs from points spaced from said shelves, said wires fixed to the setting-prongs from which they respectively extend, said wires meeting and forming angles between neighboring setting-prongs, diverging wires registering with said open spaces between the prongs and extending upwardly and outwardly and intersecting the apices of said angles and extending above the plane at right angles to the setting in which said upper ends of said first-named wires are located, said first-named wires diverging from said axis at a greater angle than the angle at which said second-named wires diverge from said axis.

4. In a setting of the character described, the combination of a series of diverging setting-prongs having a space within said series, the prongs of said series having open spaces between them contracting toward their lower ends, the inner faces of said setting-prongs provided with shelves adjacent to their upper ends, a cluster-plate secured to said shelves, a framework of wires whose upper ends are spaced in a direction parallel to the axis of the setting from said shelves and cluster-plate, said framework including wires extending downwardly and laterally divergingly from both sides of said respective setting-prongs into said first-named space so as to meet and form angles between said setting-prongs, and diverging wires intersecting the apices of said angles and registering with said open spaces and extending upwardly higher than said upper ends of said first-named wires to points proximate to the peripheral edge of said cluster-plate but free of attachment thereto to resemble the boundary lines of the under facets of a single stone.

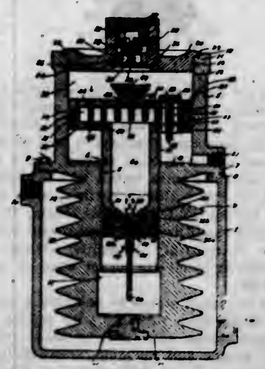
5. In a setting of the character described, the combination of a series of diverging setting-prongs having a central space within said series, the prongs of said series having open spaces between them, and a framework of wires received in said central space within said series of setting-prongs, said framework of wires comprising diverging wires and a wire extending upwardly and outwardly from each side of each of said diverging wires to less height than the upper ends of said diverging wires, said second-named wires connected between each pair of diverging wires, said second-named wires extending outwardly at a greater angle to the axis of the setting than the angle to said axis at which said first-named wires extend, and a cluster-plate for small stones releasably received over said framework of wires within said series of setting-prongs.

1,204,918. REFRIGERATING-MACHINE. WILLIAM P. WIEMANN, Pittsburgh, Pa. Filed Mar. 3, 1916. Serial No. 81,860. (Cl. 62—115.)

1. In a refrigerating machine, a machine body providing differential communicating cylinders, an da differential hollow piston, operating within said cylinders for condensing a refrigerant gas.

2. In a refrigerating machine, differential cylinders, one opening into the other, and a hydraulic operated differential piston operating in said cylinders for compressing a refrigerant gas, the smaller of said cylinders having its periphery corrugated or ribbed to increase the radiating surface thereof.

3. In a refrigerating machine, differential cylinders, a differential piston operating therein, and means to provide for the supply of water against and the passage of water through a portion of the piston to operate the latter.



4. In a refrigerating machine a body portion inclosing a water operating machine, refrigerant compartments, receiver-condenser, compressor and expansion chamber.

5. In a refrigerating machine, differential cylinders, a differential hollow piston operating in said cylinder for condensing a refrigerant gas, and means for intermittently circulating water through one of said cylinders to operate the piston.

[Claims 6 to 33 not printed in the Gazette.]

1,204,919. TIRE-CHAIN TIGHTENER. GEORGE ERNEST WIGHTMAN, Portland, Oreg. Filed Aug. 6, 1915. Serial No. 43,960. (Cl. 254—65.)

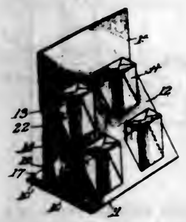


1. In a tire chain tightener, a tackle having a block with a member around which a strap is normally disposed, a hook pivoted to the block, the fulcrum of the hook and the said member of the block being disposed one in the rear of the other, and a shoulder extending from the hook for pressing against the said member of the block for the purpose specified.

2. In a tire chain tightener, a tackle having a block with a roller and a strap passing around the roller and a hook pivoted to the block in front of the roller and having a shoulder which normally rests on the strap at the roller.

3. In a tire chain tightener, a tackle having two blocks, one of the blocks having a member around which a strap is normally disposed, a strap with an orifice disposed around the said member, a hook pivoted to the last mentioned block, the fulcrum of the hook and the said member being disposed one in the rear of the other, a shoulder on the hook for pressing the strap against the said member, and a pin on the other block adapted to be inserted in the orifice in the strap.

1,204,920. FOLDING DISPLAY-EASEL. JOSEPH H. WILLIAMSON, Chicago, Ill. Filed Sept. 18, 1915. Serial No. 51,308. (Cl. 211—24.)



1. A collapsible display easel comprising a base member, a front member and a back member disposed to form a triangular structure hinge connected at its corners, there being a hinge formed in one of said members intermediate its ends to permit collapse of the structure, and means to lock the last mentioned hinge from movement in either direction when the easel is erected and rigidly hold the hinge connected parts of the last mentioned member in the same plane.

2. A collapsible display easel comprising a base member, a front member and a back member disposed to form a triangular structure hinge connected at its corners, there being a hinge formed in one of said members intermediate its ends to permit collapse of the structure, and a locking tongue formed from one of the other members and adapted to lock the last mentioned hinge from movement in either direction when the easel is erected and rigidly hold the hinge connected parts of the last mentioned member in the same plane.

3. A collapsible display easel comprising base, front, and back members disposed to form a triangular structure hinge-connected at its corners, there being a hinge formed in one of said members intermediate its ends to permit collapse of the structure, a brace secured to the last mentioned member at one side of the aforesaid hinge and extending across the hinge, and means adapted to lock the free end of the brace to its connected member at the opposite side of said hinge when the easel is erected.

4. A collapsible display easel comprising base, front, and back members arranged to form a triangular structure hinge connected at its corners, there being a hinge formed in the back member intermediate its ends to permit collapse of the structure, and a locking tongue formed from the base member adapted when erected to positively lock the easel in extended position.

5. A collapsible display easel comprising base, front, and back members arranged to form a triangular structure hinge connected at its corners, there being a hinge formed in the back member intermediate its ends to permit collapse of the structure, a brace secured to the inner face of the back member at one side of the aforesaid hinge and extending across the hinge to a point adjacent the base, and a locking tongue formed from the base member adapted when erected to hold the free end of the brace against the inner face of the back member and lock the easel in extended position.

[Claims 6 to 9 not printed in the Gazette.]

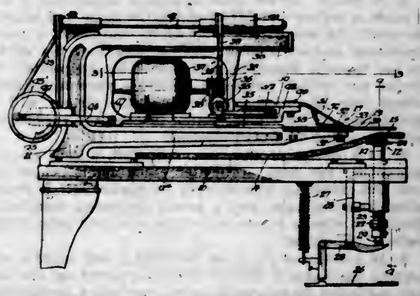
1,204,921. LIFE-PRESERVING SUIT. SILAS D. WILLS, Fort Payne, Ala. Filed May 14, 1915. Serial No. 28,143. (Cl. 9—20.)

In a life preserving suit, the combination of trousers, foot coverings detachably fastened to the bottom thereof by water tight joints, an inwardly offset coupling ring of concavo-convex shape in cross section fastened to the trousers below the waist line and above the crotch, shoulder straps terminally attached to said trousers, loops secured to the trousers in line with the hips, a coat section embodying a head covering and a skirt portion adapted to overlap the waist portion of the trousers, a flexible tie surrounding the skirt portion of the coat and adapted to press the same tightly into the inset ring of the trousers, and a split annular air pouch flexible throughout and adapted to be inflated, said pouch embodying air-tight heads at the extremities thereof, an



annular flap extending beyond one of said heads, a filler block fitted to one of the heads and lying within said flap and formed with an annular groove to receive a portion of the flap, a flexible tie confining said flap in the groove of the filler block, catches projecting through said filler block and having shoulders, a projecting flange at the opposite extremity of the pouch, and spring catches working through said flange and engaging the first named catches, said pouch as a whole being insertible through and removable from the aforesaid loops on the trousers.

1,204,922. FELT-SKIVING MACHINE. LEE W. V. WILMS, Chicago, Ill., assignor to The Scholl Manufacturing Company, Chicago, Ill., a Corporation of New York. Filed Feb. 17, 1916. Serial No. 78,903. (Cl. 164—34.)



1. In a machine of the character described, the combination of means for presenting a node of elastic material, means for scalping said node comprising a knife mounted for reciprocation and vibration, means to reciprocate said knife, and means to vibrate it during its reciprocation.

2. In a machine of the character described, the combination of means for presenting a tense node of elastic stock, and means for scalping the node comprising a knife mounted for reciprocation and vibration, a motor movable with said knife and connected thereto to vibrate the same, and means for reciprocating said knife and motor.

3. In a machine of the character described, the combination of means for presenting a tense node of elastic stock, and means for scalping the node comprising a knife mounted for reciprocation and vibration, a motor movable with said knife and connected thereto to vibrate the same, and means driven by the motor for reciprocating said knife and motor.

4. In a machine of the character described, the combination of means for presenting a node of elastic fibrous material, and means for scalping said node comprising a knife, motor means for vibrating said knife, and means for reciprocating said knife.

5. In a machine of the character described, the combination of means for presenting a node of elastic fibrous material, and means for scalping said node comprising a knife, a lever carrying said knife, motor means for vibrating said lever, and means for reciprocating said lever.

[Claims 6 to 12 not printed in the Gazette.]

1,204,923. SPEED-INDICATOR. HENRY O. WOOD, Mainesburg, Pa., assignor of one-half to Elmer N. Rose, Mainesburg, Pa. Filed June 24, 1915. Serial No. 36,118. (Cl. 116—65.)



1. A device of the class described comprising a bell, a guide extending diametrically across the bell, a striker slidably engaging the guide, the guide being provided with means independent of the bell for limiting the movement of the striker in one direction, and means for supporting the device for orbital movement whereby when a predetermined rate of speed is exceeded the striker will be maintained by centrifugal action out of engagement with the bell.

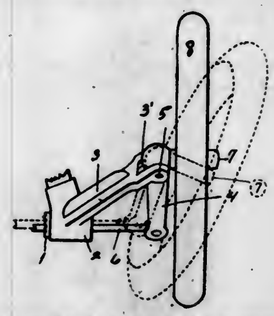
2. A device of the class described comprising a bell, a guide, a striker slidably engaging the guide and adapted to sound the bell at one limit of its movement, a sound deadening element limiting the movement of the striker in the opposite direction, and means for supporting the device for orbital movement whereby when a predetermined rate of rotation is exceeded the striker will be maintained by centrifugal action in constant engagement with the sound deadening element.

3. In a device of the class described, a bell, an arm supporting the same, a tubular guide supported on the arm and extending diametrically across the bell, a striker slidable in the tube, and a sound deadening obstruction forming a closure at one end of the tube and lying in the path of the striker.

4. In a device of the class described, a bell, an arm supporting the same, a tubular guide supported on the arm and extending diametrically across the bell, a striker slidable in the tube, a sound deadening obstruction forming a closure at one end of the tube lying in the path of the striker, and a bolt whereby said obstruction and the tube are secured on the arm.

5. A driven shaft having a crank provided with a handle, an arm extending radially with respect to the handle and capable of being secured at various angular adjustments with respect thereto, a bell carried by the arm, a guide extending across the bell in alinement with the arm, a striker slidable with respect to the guide, and means independent of the bell for limiting the movement of the striker in one direction.

1,204,924. SIDE-CAR WHEEL FOR MOTOR-CYCLES. HUGO H. YOUNG, Mansfield, Ohio. Filed Dec. 26, 1913. Serial No. 808,678. (Cl. 208—45.)



1. In combination with the frame of a vehicle, a bracket attached to a part of said frame and having an arm which inclines with respect to said frame part and at an incline to the surface or roadbed on which the vehicle travels, a rocker arm pivoted to the inclined arm upon a pivot that is inclined with respect to said surface, and an axle on the rocker arm disposed at right angles to the pivot of the rocker arm and having a wheel mounted thereon.

2. In a vehicle side car or the like having a wheel, means for tilting the side car wheel and simultaneously imparting an oblique movement to the wheel in the same direction as that in which the wheel of the motorcycle is turned.

3. In combination with the frame of a vehicle and a motorcycle, a wheel, means attached to the frame to incline forwardly with reference to the frame, a pivot carried by said means in angular relation with respect to the road bed, a bearing journaled upon the pivot for carrying the wheel, and means connected to the bearing and motorcycle to pivotally move the bearing thereby moving the wheel wich is mounted thereon vertically and laterally simultaneously.

4. In combination with the side car wheel of a motorcycle or other vehicle, means to support said wheel so that the axis of rotation of the wheel may be moved to cause the wheel to cant and also simultaneously follow the direction of movement of the vehicle in turning.

5. In combination with the frame of a vehicle, a bracket attached to a part of said frame and having an arm which inclines with respect to said frame part and with respect to the surface or road-bed on which the vehicle travels, a rocker arm pivoted to the inclined arm upon a pivot that is inclined with respect to said surface, and an axle on the rocker arm disposed at right angles to the pivot of the rocker arm and having a wheel mounted thereon.

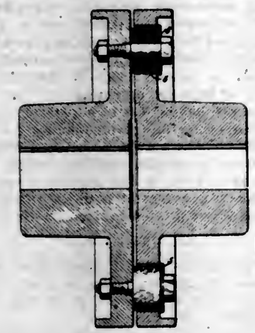
[Claims 6 to 8 not printed in the Gazette.]

1,204,925. BUFFER FOR COUPLINGS. ROSCOE HILTON ALDRICH, Allentown, Pa., assignor to The Aldrich Pump Company, Allentown, Pa. Filed Mar. 1, 1916. Serial No. 81,387. (Cl. 64—13.)

1. In a buffer for flexible couplings, a body of compressible material, and an axial, unyielding, tubular core, having scooplike blades embedded in the material and forming an integral part of said core.

2. In a buffer for flexible couplings, a body of compressible material, and an axial, unyielding, tubular core, having means anchoring the material to the core, forming an integral part of the core and adapted to yield when pressure is applied to the compressible material.

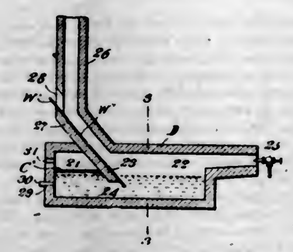
3. In a buffer for flexible couplings, a body of compressible material, and an axial, unyielding, tubular core, having scooplike blades embedded in the material and forming an integral part of the core, said blades being adapted to yield when pressure is applied to the compressible material.



4. In a buffer for flexible couplings, a body of compressible material, and a tubular, unyielding core in the central part of the body, having scooplike, yielding blades embedded in the body and forming an integral part of the core, the major part of said blades being parallel to the lateral surface of the core and substantially concentric therewith.

5. In a buffer for flexible couplings, a body of compressible material, and an unyielding, tubular core, having yielding, curved blades extending from the core into the body for anchoring said body to the core, said blades being curved to yield largely in the radial direction of the tubular core.

1,204,926. PROCESS FOR TREATING COPPER. FRANK L. ANTISELL, Perth Amboy, N. J. Filed Feb. 16, 1911. Serial No. 608,935. (Cl. 75—62.)



1. The process of refining copper, which consists in melting the copper and then subjecting the molten copper to the action of a purifying agent and then conducting it under a blanket.

2. The process of refining copper, which consists in melting the copper and then subjecting the molten copper to the purifying action of a blanket or cover of a non-metallic salt.

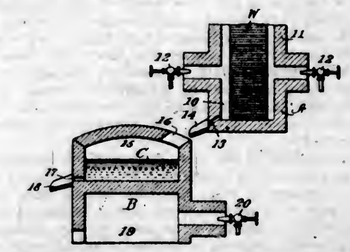
3. The process of refining copper, which consists in melting the copper and conducting the molten copper under a blanket or cover of boron trioxid.

4. The process of refining copper, which consists in preheating the copper, heating the preheated copper until it becomes molten, and then conducting the molten copper under a blanket containing a purifying agent to cover the surface of the molten copper.

5. The process of refining copper, which consists in preheating the copper, heating the preheated copper until it becomes molten, and conducting the molten copper under a blanket of a non-metallic salt to purify said copper.

[Claims 6 to 42 not printed in the Gazette.]

1,204,927. PROCESS FOR TREATING COPPER. FRANK L. ANTISELL, Perth Amboy, N. J. Filed Nov. 1, 1912. Serial No. 728,984. (Cl. 75—62.)



1. The process of refining copper which consists in simultaneously melting and oxidizing copper and then passing the oxidized melted copper through a material containing carbon.

2. The process of refining copper which consists in simultaneously melting and oxidizing copper and then passing the oxidized molten copper through carbon.

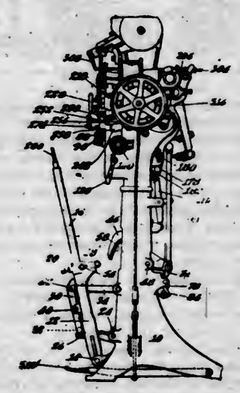
3. The process of refining copper which consists in simultaneously melting and oxidizing copper and then passing the oxidized molten copper under a material containing carbon.

4. The process of refining copper which consists in simultaneously melting and oxidizing copper and then passing the oxidized molten copper under a reducing agent.

5. The process of refining copper which consists in simultaneously melting and oxidizing copper and conducting the oxidized molten copper under a blanket of a material containing carbon.

[Claims 6 to 33 not printed in the Gazette.]

1,204,928. ASSEMBLING-MACHINE. ORRELL ASHTON, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 11, 1912. Serial No. 708,848. (Cl. 12—4.)



1. In a machine of the class described, the combination of a last supporting jack, a stationary, V-shaped block arranged to receive and locate the rear end of a shoe which is upon its last, a forwardly movable wiper constructed and arranged to wipe the edge of the shoe upper over the edge of the last, means for securing the wiped-over upper to an insole mounted upon the last, a V-shaped tack block mounted for vertical movement in engagement with the rear end of the shoe, means for moving the tack block away from said wiper simultaneously with the forward movement of the wiper, whereby the upper is drawn simultaneously in opposite directions, and means acting

through said tack block for securing the upper to the rear end of the last at the end of the movement of the tack block.

2. In a machine of the class described, the combination of a stationary, V-shaped gage arranged to receive and locate the end of a shoe upon a last, wiping and tacking means for wiping the edge of the shoe upper over the edge of a sole upon the last and securing the upper to the sole, and wiping and tacking mechanism operable simultaneously with the said means for tensioning the upper toward the cone of the last and securing the tensioned upper to the last.

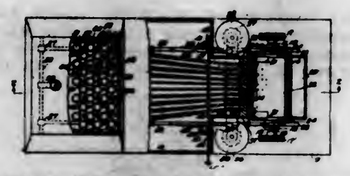
3. In a machine of the class described, the combination of a gage arranged to be engaged by a shoe upon a last, a wiper arranged to wipe the edge of the shoe upper over the edge of a sole upon the last, a fastening device for securing the upper to the sole, wiping mechanism operating toward the cone of the last simultaneously with the action of the said wiper, and a fastening device for securing the upper to the last.

4. In a machine of the class described, the combination of means for supporting a last, means for laying the edge of a shoe upper over the edge of a sole upon the last and securing the upper to the sole, and means for wiping the upper toward the cone of the last and securing it to the last in the condition produced by the wiping operation.

5. In a machine of the class described, the combination of means for locating a last, means for drawing the edge of a shoe upper over the edge of a sole upon the last and securing the upper to the sole, and means for drawing the upper toward the cone of the last and securing it to the last to hold the drawn upper from retraction.

[Claims 6 to 58 not printed in the Gazette.]

1,204,929. PRINTING-MACHINE FOR CODE COMMUNICATION. HENRY M. BALL, Sr., Daviess county, Ky Filed Oct. 22, 1915. Serial No. 57,339. (Cl. 197—9.)



1. In a printing machine for code communication, a platen roller, ratchet wheels on the shaft of the roller, a pair of ribbon carrying rollers adjacent the platen roller, ratchet wheels on the shafts of the ribbon carrying rollers, a pair of sliding and spring pressed bars, pawls carried by the said bars and engaging the ratchet wheels of the platen roller, pivoted and spring pressed pawls on the said bars and engaging the ratchet wheels of the ribbon carrying rollers, a key, and means for operating the said bars from the key.

2. In a printing machine for code communication, a platen roller, ratchet wheels on the shaft of the said roller, a pair of ribbon carrying rollers adjacent the platen roller, ratchet wheels on the shafts of the said rollers, a pair of sliding and spring pressed bars, pawls carried by the bars for operating the ratchet wheels of the platen roller and the ribbon carrying rollers, a shaft having three arms with two of which the sliding bars are connected, and a sliding and spring pressed key engaging the third arm of the said shaft.

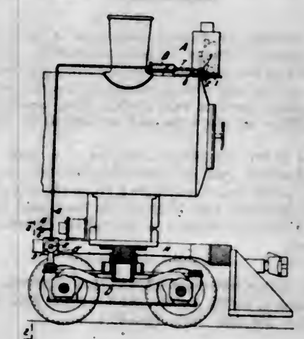
3. In a printing machine for code communication, a platen, a plurality of sliding and spring pressed type bars, a plurality of keys arranged approximately at right angles to the type bars, a flat and curved spring connecting said key with a type bar, and guide rods below the springs and with which the springs engage when pressure is applied to the keys.

4. In a printing machine for code communication, a platen roller having ratchet teeth at its ends, a plurality of type bars, a plurality of keys for operating the type bars, ribbon carrying rollers having ratchet wheels thereon, a pair of sliding and spring pressed bars carrying pawls engaging the ratchet wheels of the platen roller and the ratchet wheels of the ribbon rollers, and a key operatively connected with the said sliding bars.

5. In a printing machine for code communication, a platen roller having ratchet teeth, a plurality of type bars, a plurality of keys for operating the type bars, ribbon carrying rollers having teeth, a pair of sliding and spring pressed bars carrying pivoted pawls for engaging the ratchet wheels of the platen roller and ribbon rollers, a key for operating the sliding bars, and means for alternately moving the pawls of the ratchet wheels of the ribbon rollers out of engagement with the ratchet wheels.

[Claims 6 and 7 not printed in the Gazette.]

1,204,930. DIRIGIBLE HEADLIGHT FOR LOCOMOTIVES. HARRY E. BRADLEY and WALTER BYRD, Victoria, British Columbia, Canada. Filed Feb. 23, 1916. Serial No. 79,937. (Cl. 240—62.)



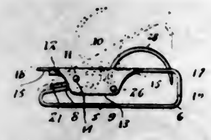
1. The combination of a vehicle body, a truck pivotally connected therewith, with a dirigible headlight, a motor device for shifting the headlight, and a controller having a single movable element yieldingly held in a central position and movable to either side of such position, abutments to engage and move the element in one direction or the other, according to the relative changing of the body and truck, and means for supplying power to the motor device by the element when moved to either side of its central position.

2. The combination of a locomotive body and a truck pivotally connected therewith, with a dirigible headlight, a motor device for shifting the headlight, and a controller mounted on the truck at a point spaced from the pivotal connection of the latter with the body and having a movable element extending transversely to the body for engagement thereby as the body shifts to the right or left with respect to the truck, whereby the said element controls the motor device.

3. The combination of a locomotive body and a truck, with a dirigible headlight carried by the body, motors connected with the headlight for shifting the position thereof, and a controller for controlling the motors, said controller including a cylinder, a piston valve in the cylinder, spring means for holding the valve in normal position, means depending on the relative shifting of the truck and body for shifting the valve, a fluid supply pipe connected with the cylinder, and a device connecting the cylinder with the motors for supplying fluid thereto according to the position of the valve.

4. The combination of a locomotive body and a truck, with a dirigible headlight carried by the body, and means for controlling the headlight, said means consisting of a cylinder extending transversely to the body, a piston in the cylinder, buffer rods connected with the piston and extending out of the ends of the cylinder, yielding buffer plates normally spaced from the rods and adapted to engage the same for shifting the valve, yielding means for holding the valve in central position, a fluid supply pipe connected with the cylinder, fluid pipes connected with the cylinder and adapted to communicate with the first-mentioned pipe through the shifting of the valve, and means receiving fluid from the last-mentioned pipes for shifting the headlight.

1,204,931. NECKTIE-CLASP. CHARLES W. BITNER, Terre Haute, Ind. Filed Oct. 13, 1915. Serial No. 55,723. (Cl. 24—84.)



1. A clasp comprising a base, a spring pressed lever pivoted on said base, a hook pivotally mounted on the base and projecting through said lever and normally closed thereby, and said hook being connected to said lever, whereby when the latter is moved, the hook is correspondingly moved to either open or close the same.

2. A clasp comprising a base, a spring pressed lever pivotally mounted thereon, a hook having a fixed pivotal connection with the base, said hook projecting through the lever and normally closed thereby, and pivotally connected thereto, said last mentioned connection being movable in an arc about said fixed pivot to operate said hook simultaneously on adjustment of said lever.

3. A clasp comprising a base having a forwardly projecting extension disposed above the base, a spring pressed lever pivotally mounted on the extension, a hook pivotally connected with said extension and projecting through the lever and normally closed thereby, and a pivotal connection between said hook and lever for opening and closing said hook with relation to the lever simultaneously upon movement of the latter.

4. A clasp comprising a base having a forwardly projecting extension disposed above the base, a lever pivoted thereon, a wire yoke pivotally mounted on the free end of said extension, said yoke terminating to provide a hook projecting through the lever and normally closed thereby, and a pivotal connection between said hook and lever for operating said lever simultaneously on movement of the latter to either opened or closed position.

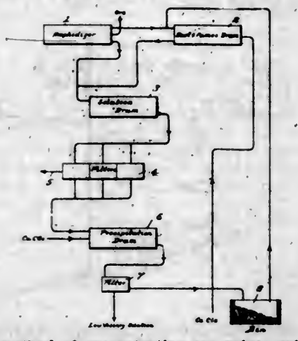
5. A clasp comprising a base, a spring pressed lever pivoted on the base, a hook pivoted on the base and normally closed by said lever, said hook being pivotally connected with said lever, whereby said hook is moved to full open position upon depression of the lever, and said spring operating to automatically return the parts to normal position upon release of the lever.

1,204,932. CHEMICAL CONCENTRATION OF ORE VALUES. CHARLES S. BRADLEY, New York, N. Y. Filed Mar. 10, 1913. Serial No. 753,287. (Cl. 75—18.)

1. The method of concentrating ore values, which comprises obtaining values in solution as variable valency compounds in the ous and ic condition, precipitating and returning to the extraction apparatus high valency compounds, and recovering the values in the form of low valency compounds.

2. The method of concentrating ore values, which comprises obtaining values in solution as variable valency compounds in the ous and ic condition, selectively precipitating high valency compounds and returning them to the operation of obtaining values in solution, and recovering from the remaining solution the low valency compounds.

3. The method of concentrating ore values, which comprises subjecting the ore to an extraction operation for dissolving the soluble constituents, selectively precipitating and returning to the extraction operation a part of the dissolved constituents, and subjecting the remaining solution to a recovering operation for the recovery of values contained therein.



4. The method of concentrating ore values, which comprises dissolving substances of different avidity for the acid radical employed, continuously precipitating and throwing back to the extraction apparatus part of the substance for rejecting from solution substances of less avidity for the acid radical, and recovering substance of greater avidity from the remaining solution.

5. The method of concentrating ore values, which comprises dissolving values, continuously precipitating and throwing back to the extraction apparatus part of the values to reject from solution substances of less avidity for the acid radical employed, and recovering values from the remaining solution.

[Claims 6 to 30 not printed in the Gazette.]

1,204,933. PROCESS OF MAKING FORMATES. GEORG BREDIG, Karlsruhe, Germany, assignor to Firm of Rudolph Koepp & Co., Oestrich-on-the-Rhine, Germany, (a German Society.) Filed Dec. 4, 1914. Serial No. 875,466. (Cl. 23—24.)

1. The process of making formates which comprises treating a CO_2-containing substance with ordinary hydrogen gas under a pressure substantially greater than atmospheric pressure in the presence of a catalyst.

2. The process of making formates which comprises treating carbon dioxid and a substance capable of binding formic acid with ordinary hydrogen gas under a pressure substantially greater than atmospheric pressure in the presence of water and a catalyst.

3. The process of making formates which comprises treating carbon dioxid and a salt of an acid which is weaker than formic acid with ordinary hydrogen gas under a pressure substantially greater than atmospheric pressure in the presence of water and a catalyst.

4. The process of making formates which comprises treating carbon dioxid and a carbonate with ordinary hydrogen gas under a pressure substantially greater than atmospheric pressure in the presence of water and a catalyst.

5. The process of making formates which comprises treating a substance capable during the reaction of yielding both carbon dioxid and a compound capable of binding formic acid, with ordinary hydrogen gas under a pressure substantially greater than atmospheric pressure in the presence of water and a catalyst.

[Claims 6 to 17 not printed in the Gazette.]

1,204,934. ADVERTISING MEDIUM. WILLIAM LARKE BURFORD and ALONZO E. ALBIN, New York, N. Y. Filed Dec. 2, 1915. Serial No. 64,712. (Cl. 40—125.)

1. An advertising medium, comprising an advertisement carrier, provided on its face with an advertisement and having apertures leading to the rear of the carrier; a holder on the rear of the carrier adapted to hold a volatile

chemical, the odor of which corresponds to the subject matter of the advertisement on the carrier, and means for diffusing the said odor in the immediate neighborhood of the carrier by way of the said apertures.



2. An advertising medium, comprising an advertisement carrier having an aperture, a holder on the back of the carrier and carrying a volatile chemical, the odor of which corresponds to the subject matter of the advertisement on the carrier, and means for directing a current of air over the said holder to carry the odor thereof along and through the said aperture into the atmosphere at the front of the advertising medium.

3. An advertising medium, comprising a bill board provided on its face with an advertisement and having a series of apertures, a housing on the back of the bill board and encompassing the said apertures, a holder in the said casing and adapted to contain a volatile chemical, the odor of which corresponds to the subject matter of the advertisement on the bill board, and means for producing a current of air in the said housing and directing the said current over the chemical to take up the odor thereof and passing through the said apertures to diffuse it in the atmosphere in front of the bill board.

4. An advertising medium, comprising a bill board provided on its face with an advertisement and having a series of apertures, a housing on the back of the bill board and encompassing the said apertures, the said housing being closed at the top and open at the bottom, and a perforate holding plate in the said housing a distance below the said apertures for supporting a volatile chemical.

5. An advertising medium, comprising a bill board provided on its face with an advertisement and having a series of apertures, a housing on the back of the bill board and encompassing the said apertures, the said housing being closed on the top and open at the bottom, a perforate holding plate in the said housing a distance below the said apertures for supporting a volatile chemical, and a perforate guard plate in the lower portion of the said housing.

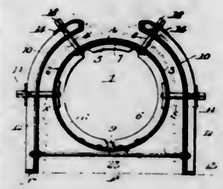
[Claim 6 not printed in the Gazette.]

1,204,935. TERMINAL OR CONNECTOR FOR ELECTRICAL CONDUCTORS. DANIEL BUSBY, San Diego, Cal. Filed July 19, 1915. Serial No. 40,770. (Cl. 173—269.)



In a device of the character described, a connector comprising two annular channel-shaped sheet metal members, one having a central neck upon which the central portion of the other member is fitted, the inner surface of the first mentioned member and outer surface of the second mentioned member being curved transversely on the same radius whereby the two members jointly are of circular cross section, the outer edge portion of the first mentioned member snugly overlapping and surrounding the outer edge portion of the second mentioned member, the end of said neck being expanded to snugly overlap the central portion of the second mentioned member, the inner edge of the second mentioned member terminating short of the plane of the outer edge of said member, the outer portion of the first mentioned member having a notch, and a conductor extending through said notch adjacent the outer edge of the second mentioned member and wrapped around said neck.

1,204,936. COLLAPSIBLE HOLLOW FORM FOR CONCRETE CONSTRUCTION WORK. ERVIN M. CAMP, Denver, Colo. Filed Feb. 29, 1916. Serial No. 81,157. (Cl. 25—127.)



1. A concrete molding form, comprising an inner tubular member composed of three segment portions of the tubular member, two of which are hinged together and the third is arranged to fit between the other two in such a manner as to form a substantially true circular tube, and two casing members arranged to partially surround the inner tube at a predetermined concrete mortar receiving space from said inner tubular member, and screws arranged to secure said casings rigidly to said inner tube and at the same time secure the unhinged segment of said inner tube to the said hinged segments.

2. In a concrete molding form, the combination of a knock-down multiple section collapsible inner tubular member arranged to be set up into operative concrete molding form and to be knocked down after the concrete casting has been made, and a pair of similarly arranged casings to partially surround the opposite sides of the said inner tube at a predetermined distance from it and having an open concrete receiving space between their entrance ends, the opposite ends of said casings being arranged to rest on the ground on a suitable form, and means including screws extending loosely through said casings and threaded to said multiple section collapsible inner tube, in such a manner as to releasably secure said sections together in tubular form, and means including a set screw and a groove in said screw for securing said screws against accidental movement from said inner tube or from said castings, whereby said casings are rigidly held at a predetermined distance from the said casings.

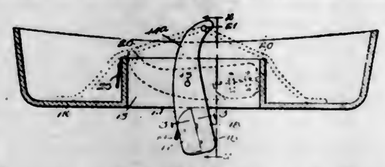
3. The combination of outer independent casings and their attaching screws provided with a head at one end and a shouldered threaded portion at their opposite ends, grooves in said screws, set screws arranged to be moved into and out of said grooves, a bracket supporting said screws below said heads, with the inner collapsible tube comprising two segment members hinged together at their lower ends, said hinge members comprising an operative eye and pin hinge arranged on the inside of said segments in such a manner that said segments will fold inwardly from a true circle to a collapsible circle, a separate segment of a size to make a true circle when inserted between the hinged segments, projecting ends of the side ends of said separate segment overlapping against the under sides of said hinged segments, and threaded apertures through said hinged segments and the overlapping ends of said separate segment adapted to receive the threaded ends of said screws, whereby said casings and also said inner tube are coöperatively secured at a predetermined distance apart to receive a supply of concrete mortar between them.

4. In a concrete molding form, the combination of an inner collapsible tube comprising three segments arranged to form a true circle when connected together, means for swingingly connecting two of the segments together so that they will swing from a true circle inwardly, said two segments being enough shorter than a full half circle to leave a gap between them of predetermined width, a separate segment fitting in and filling said gap, and a surrounding housing for said inner tube positioned at a predetermined distance from said inner tube and provided with a concrete mortar entrance space between them above the said inner tube, said housing comprising independent side members comprising sheets of metal reinforced with angle bars secured to the sides of said sheets, and means including screws of a predetermined length arranged to secure said housings at a predetermined distance from said inner tube, and means including registering end members at the ends of said housings whereby two or more of said housing members may be detachably secured in end to end alinement.

5. The combination of an inner collapsible tube and partically surrounding casings, said casings comprising sheets of metal having straight lower portions adapted to rest on the ground or on a form, said straight portions extending below said tube a predetermined distance and extending from the ground up to the central portion of said inner tube, said sheet metal casings then curving up partially over the top of said inner tube and separated far enough apart above said tube to leave a concrete mortar pouring entrance to said inner tube between their upper ends, trussing members secured to the outside of said sheet metal casing members, said trussing members comprising angled bars, one flange of which projects from said sheet metal casings, said angled bars being extended around the sides and ends of said sheet metal casings, thereby forming a broad marginal edge entirely around them, and means including bolt or pin receiving apertures in the opposite end flanges of said sheet metal casing for securing two or more of said casings together in end to end alinement, and means including screws of predetermined length supported in said casings against lateral movement and extending to and threadedly secured to the hinged and separate segments of said inner tube for supporting said casings at a predetermined concrete molding distance from said inner tube.

[Claims 6 to 10 not printed in the Gazette.]

1,204,937. MECHANISM FOR PROPELLING AND STEADYING BOATS. JOHANNE M. CARLEY, Boston, Mass., assignor to George G. Frost, Newton, Mass. Filed Dec. 2, 1915. Serial No. 64,769. (Cl. 115—28.)



1. A boat comprising a hull having a longitudinal well, an elongated blade pivoted to the sides of the well, and adapted to be stowed horisontally in the well, and to be moved to an upright position to cause its outer portion to project below the well and form a steadying fin, said blade being provided with means whereby it may be oscillated, and propelling means carried by the fin portion of the blade and movable with said portion into the well, said propelling means being operative during a movement of the blade in one direction and inoperative during a movement in the opposite direction.

2. A boat comprising a hull having a longitudinal center well extending through its bottom, an elongated blade pivoted to the sides of said well and adapted to be stowed horisontally in the well when the craft is not in use, and to be moved to an upright position to cause its outer portion to project below the well and form a steadying fin or center board, said blade being provided with an operating lever adapted to project above the well, and with a flap hinged to the fin portion, and adapted to alternately lie against said portion and project outwardly therefrom when the blade is oscillated, the flap being movable with the fin portion into the well.

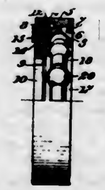
3. A boat comprising a hull having a longitudinal well, a pair of elongated blades pivoted side by side to the sides of the well and adapted to be stowed horisontally therein and to be moved to upright positions to cause their outer portions to project below the well and form a two-part steadying fin, each blade being provided with means whereby it may be oscillated either independently or in unison with the other, and propelling means carried by the fin portions of the blades, movable therewith into the well and operative during movements of the blades in one direction only, said blades being adapted to coöperate as described in steering the boat.

4. A boat comprising a hull having a longitudinal well, two elongated blades pivoted to the sides of the well and arranged in tandem order, each blade being adapted to be stowed horizontally in the well and to be moved to upright positions to cause their outer portions to project below the well and act as steadying fins, said blades being provided with means whereby they may be oscillated, and propelling means carried by the fin portions of said blades and movable with said portions into the well, said propelling means being operative during a movement of the blades in one direction only.

5. A boat comprising a hull having a longitudinal well, two elongated blades pivoted to the sides of the well and arranged in tandem order, each blade being adapted to be stowed horizontally in the well and to be moved to upright positions to cause their outer portions to project below the well and act as steadying fins, an operating bar connecting the upper ends of the blades, and propelling means carried by the fin portions of said blades and movable with said portions into the well, said propelling means being operative during a movement of the blades in one direction only.

[Claims 6 and 7 not printed in the Gazette.]

1,204,938. BALL-BEARING. CHARLES H. CHAPMAN, Winchester, Mass. Original application filed Sept. 15, 1914, Serial No. 861,814. Divided and this application filed Nov. 26, 1915. Serial No. 63,466. (Cl. 64—57.)



1. In a ball-bearing, a ball-retainer comprising a continuous unbroken ring adapted to receive load-carrying balls and idler balls, said retainer adapted to limit only the outward and lateral movements of the idler balls.

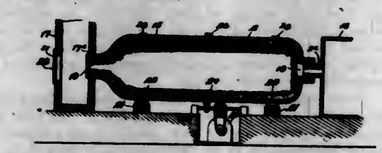
2. In a ball-bearing, having an uninterrupted ball-race, and load-carrying balls and idler balls within said ball-race, and a continuous unbroken ball-retainer adapted to limit only the outward and lateral movements of the idler balls to maintain the idler balls between the load-carrying balls to prevent cross-friction of the load-carrying balls.

3. In a ball-bearing, having load-carrying balls and idler balls, and a grooved cone, a ball-retainer adapted when in combination with said grooved cone to maintain the axis of the idler balls at or near a line passing through the center of the adjacent load-carrying balls, said retainer adapted to arrest the outward movement of said idler balls when acted upon by centrifugal force, and to allow them to rest on said cone when the bearing is at rest.

4. In a ball-bearing, having load-carrying balls and idler balls, and a grooved cone, a ball-retainer, said retainer adapted in combination with said grooved cone to form a cage to limit the radial movement of said idler balls and to receive and maintain the said load-carrying balls and idler balls, as described, with their axes in alinement with each other.

5. In a ball-bearing, having a ball-race composed of cups, a grooved cone, load-carying balls and alternating idler balls, and a ball-retainer adapted to receive and maintain the load-carrying balls and idler balls in axial alinement with each other, as described, and the said ball-retainer maintained in axial alinement with the ball-race by means of the idler balls.

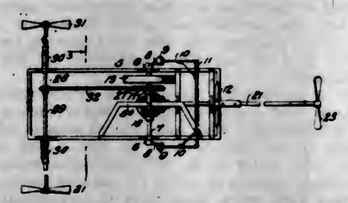
1,204,939. MAKING WROUGHT-IRON. PATRICK F. CHARLES and JOHN J. BRODERICK, Girard, Ohio, ELIZABETH F. BRODERICK, administratrix of said John J. Broderick, deceased, assignors of one-tenth to Edward A. Kirby, Girard, Ohio, nine-twentieths to said Patrick F. Charles, and nine-twentieths to said Elizabeth F. Broderick, individually. Filed Jan. 23, 1914. Serial No. 813,970. (Cl. 263—22.)



1. In a device of the kind described, in combination a stationary heating chamber, a stationary flue spaced therefrom, a horizontally-disposed cylindrical boiling furnace, roller supports for said boiling furnace arranged therebeneath, said boiling furnace being provided at opposite ends with integral necks, said flue having an opening larger than one of said necks to allow the latter to project centrally therein, an integral neck projecting from the heating chamber around which the opposite neck fits, said boiling furnace being of such a length that when said first neck is advanced in said opening the opposite neck is disengaged from the neck of said heating chamber, a cylindrical rack bar carried by said boiling furnace, and gear mechanism beneath said furnace adapted to rotate said rack and permitting the latter to slide beyond the former.

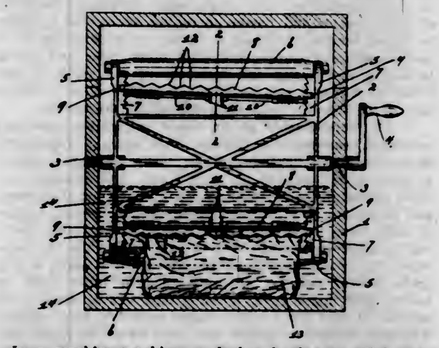
2. In a device of the kind described, in combination a stationary heating chamber, a stationary flue, a cylindrical boiling furnace disposed between said chamber and said flue, said furnace being removably rotatably supported, and said furnace adapted to be longitudinally shifted to be positioned for removal from the support, a longitudinal bar extending over said furnace, a pair of chains at the end of said furnace, secured to said bar and also to said furnace whereby said bar may swing longitudinally in either direction and cause one of said chains to push said furnace.

1,204,940. BOAT-PROPELLER. CHARLES E. CHAVEZ and FEDERICO GARCIA SANCHEZ, Key West, Fla. Filed Dec. 22, 1915. Serial No. 68,249. (Cl. 115—21.)



In a boat propeller, a frame with transverse bearings, a transverse shaft journaled in the bearings, a crank at each end of the shaft, an operating handle having two arms, one articulated to each crank, a vertical shaft journaled in bearings in the frame, gearing connecting the two shafts, a stern propeller shaft, gearing connecting the vertical shaft with the stern propeller shaft, a transverse propeller shaft for a side propeller, and means connecting the first transverse shaft with the last mentioned transverse shaft for operating the latter.

1,204,941. WASHING-MACHINE. PAOLO CHILLEMI and ANTONIO RANERI, Schenectady, N. Y. Filed Sept. 23, 1915. Serial No. 52,153. (Cl. 68—37.)



In a washing-machine, a dasher having parallel arms and toothed racks extending along said arms; a clothes-clamping roller rotatively mounted between the arms of the dasher; a clamp-bar having forked ends loosely embracing the respective toothed racks and slidable thereon along toward and from said roller, said clamp-bar being capable of a slight rocking-movement and of a tilting-movement relatively to said roller; and spring-actuated dogs mounted upon said clamp-bar engageable with the respective toothed racks.

1,204,942. WIRE-CLAMP. WILLIAM AUSTIN CLANTON and ROBERT KILGORE COX, Wood, Va. Filed Oct. 18, 1915. Serial No. 56,541. (Cl. 254—83.)



1. A wire clamp embodying a pair of clamping bars, each divided into a long and a short section, means for clamping the sections of the two bars together, the long sections of the two bars being in overlapped relation, the short sections of the two bars being at opposite ends of the clamp, the sections of the bars being separable and the short and long sections of the two bars being adapted to be assembled for providing smaller sized clamps.

2. A wire clamp embodying a pair of clamping bars, and interengageable means carried thereby for clamping them together, each bar being divided to provide a relatively long and a relatively short section, and the joints between the sections of the two bars being spaced.

3. A wire clamp comprising a pair of clamping bars, and means for clamping them together, each bar being divided into sections, and the sections of each bar being detachably connected.

4. A wire clamp embodying a pair of clamping bars, interengageable means carried by the bars for clamping them together, each bar being divided between its ends into a relatively long and a relatively short section, the joints of the two bars being spaced apart, and means for detachably connecting each pair of sections.

5. A wire clamp comprising a pair of clamping bars, a plurality of interengageable means carried thereby for clamping the bars together, each bar being divided into sections, the sections being adapted to be assembled independently when they are detached, and means for detachably connecting each pair of sections embodying a hinge having detachable leaves secured to the sections, and a catch for holding the sections in alinement, the hinge leaves being detachable when the sections are swung relative to one another.

[Claim 6 not printed in the Gazette.]

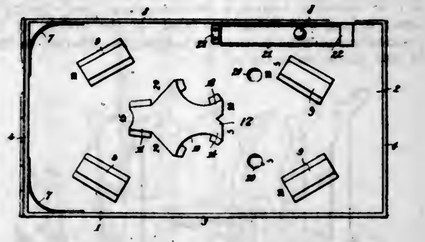
1,204,943. OPHTHALMOSCOPE. HANS CLEMENT, New York, N. Y., assignor to General Optical Company, Inc., a Corporation of New York. Filed Jan. 3, 1916. Serial No. 69,755. (Cl. 88—22.)



1. In an ophthalmoscope, a suporting plate and a handle therefor, a main lens carrier and a supplementary lens carrier mounted concentrically on said plate, each carrier having a plurality of lenses therein adjacent its periphery adapted to be successively brought into alinement upon rotation of the carriers, a plate covering said supplementary lens carrier, said cover and supporting plates entirely concealing the lenses in the main and suplementary carriers, alining sight openings in the cover and supporting plates disposed at a point diametrically opposed to the point of attachment of the handle to the supporting plate, a knurled edge upon said main lens carrier projecting beyond the supporting and cover plates for rotating the main lens carrier, and a finger carried by the supplementary lens carrier projecting through a slot in the casing adjacent the handle.

2. In an ophthalmoscope, a suporting plate and a handle therefor, a main lens carrier and a supplementary lens carrier mounted concentrically on said plate, each carrier having a plurality of lenses therein adjacent its periphery adapted to be successively brought into alinement upon rotation of the carriers, a plate covering said supplementary lens carrier, said cover and supporting plates entirely concealing the lenses in the main and supplementary carriers, alining sight openings in the cover and supporter plates disposed at a point diametrically opposed to the point of attachment of the handle to the supoprting plate, said supplementary carrier having its lenses only occupying a portion of a circumference and disposed adjacent the sight opening, a knurled edge upon said main lens carrier projecting beyond the supporting and cover plates for rotating the main lens carrier, and a finger carried by the supplementary lens carrier projecting through a slot in the casing adjacent the handle.

1,204,944. GAME APPARATUS. HERBERT W. COLLINS, Grand Forks, British Columbia, Canada. Filed July 24, 1915. Serial No. 41,802. (Cl. 46—61.)



1. A game apparatus comprising a shallow tray-like receptacle of oblong rectangular form and providing a playing field with a surrounding marginal wall, a tunnel at the center of the playing field having a forward entrance, a rear entrance divided into separate passages, and inclined side entrances opening toward the forward end of the playing field, deflectors projecting upward from the playing surface and separating the first-named entrance of the tunnel into passages adjacent to the respective side entrances, front and rear pairs of tunnels or tubes arranged upon the playing surface in divergent relation between the central tunnel and opposite ends of the board, and means upon the board for projecting a ball across the surface thereof.

2. A game apparatus comprising a shallow tray-like receptacle of oblong rectangular form and providing a playing field with a surrounding marginal wall, a tunnel at the center of the playing field having a forward entrance, a rear entrance divided into separate passages, and inclined side entrances opening toward the forward end of the playing field, front and rear pairs of tunnels or tubes arranged upon the playing surface in divergent relation between the central tunnel and opposite ends of the board, and means upon the board for projecting a ball across the surface thereof.

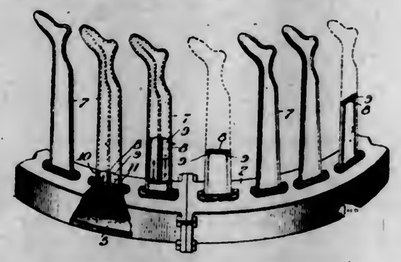
3. A game apparatus comprising a shallow tray-like receptacle of oblong rectangular form and providing a playing field with a surrounding marginal wall, deflectors at the forward corners of the playing field, a tunnel at the center of the playing field having a forward entrance, a rear entrance divided into separate passages, and inclined side entrances opening toward the forward end of the playing field, deflectors projecting upward from the playing surface and separating the first-named entrance of the tunnel into passages adjacent to the respective side entrances, front and rear pairs of tunnels or tubes arranged upon the playing surface in divergent relation between the central tunnel and opposite ends of the board, and means upon the board for projecting a ball across the surface thereof.

1,204,945. ART OF FINISHING AND SHAPING HOSIERY. GEORGE COLLIS, Clinton, Iowa, assignor, by mesne assignments, to Paramount Hosiery Form Drying Company, Chicago, Ill., a Corporation of Illinois. Original application filed June 27, 1911, Serial No. 635,686. Divided and this application filed Oct. 24, 1914. Serial No. 868,439. (Cl. 223—17.)

1. The herein described method of producing a flattened and creased hosiery-article which consists in subjecting the same on its internal surface to the action of heat and simultaneously forming a single crease only on each of its front and rear edges.

2. The herein described method of producing a marketable hosiery-article which consists in passing heat through the article from within the same, subjecting its sides on the internal surface only to a flattening action, and simultaneously therewith subjecting its front and rear portions to a creasing action whereby a single crease only is formed on each of said portions.

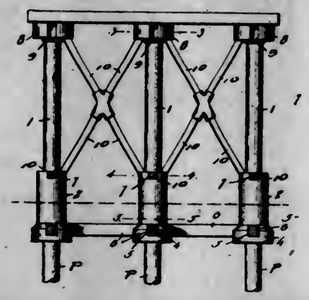
3. The method of treating a moistened hosiery-article which consists in subjecting the internal surface of its sides to a flattening action and effecting a single crease-like formation at each of its edges whereby the articles will be caused to assume a flattened shape, and simultaneously drying and fixing the fabric of the article by the application of heat to the internal surface thereof so that it will retain its flattened shape.



4. The art of finishing hosiery which consists in applying heat to the internal surface of a moistened hosiery-article to evaporate its moisture and at the same time subjecting the same to a flattening and smoothing action on its internal surface whereby the finished article will be substantially flattened into one plane at and between its edges.

5. The method of shaping hosiery which consists in stretching the fabric thereof in one direction to the dimensions of the ultimate flattened product, applying heat to the internal surface thereof to evaporate the moisture therefrom and to set the fabric as stretched, and simultaneously ironing the same internally into a form which is flattened at and between its extreme front and rear edges.

1,204,946. CONCRETE WHARF-SUPPORT. CHARLES F. COLLOM, New Orleans, La., assignor to The National Wharf and Bridge Company, New Orleans, La. Filed Jan. 20, 1916. Serial No. 73,199. (Cl. 61—31.)

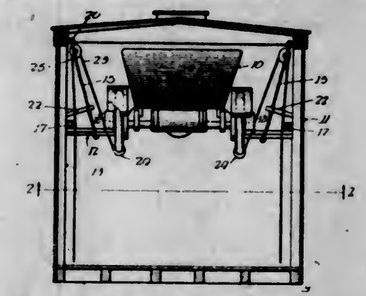


1. Concrete means for supporting wharves and other structures, comprising spaced columns each including a base portion, a head, and an intermediate portion smaller in cross-section than the base portion and head, and the base portion being provided in its upper side and edge with a seat larger at its inner end than at its outer end and open at its upper end, and the head being provided in its edge with an opening which extends throughout its length and is larger at its inner end than at its outer end, and a brace interposed between the columns and having lower key portions corresponding in horizontal configuration to and occupying the seats of the base portions and also having upper key portions corresponding in horizontal configuration to and occupying the openings of the heads.

2. A concrete column having a base portion, a head, and an intermediate portion smaller in cross-section than the head and base portion; the base portion being provided in its upper side and edge with a seat that is larger at its inner end than at its outer end, and is open at its upper end, and the head being provided in its edge with an opening which extends throughout its height and is larger at its inner end than at its outer end, whereby a brace with key portions can be placed downwardly in the head opening and base seat and held of itself against lateral disconnection from the column.

3. Concrete means for supporting wharves and other structures, comprising spaced columns each including a base portion, a flange at the lower end thereof, a head, and an intermediate portion smaller in cross-section than the base portion and head, and the base portion being provided in its upper side and edge with a dove-tail seat, and the base flange being provided in its upper side and edge with a similar seat, and the head being provided in its edge with a dove-tail opening that extends throughout its height, a brace interposed between the columns and having upper and lower dove-tail key portions disposed in the openings of the heads and the seats of the base portions, respectively, and beams interposed between the base flanges of the columns and having dove-tail end portions arranged in said flanges.

1,204,947. MEANS FOR SUPPORTING AUTOMOBILES IN FREIGHT-CARS. ALFRED COPONY, Chicago, Ill. Filed July 15, 1916. Serial No. 109,542. (Cl. 105—15.)



1. The combination with a freight car, of means for supporting an automobile therein comprising two elongated members crossing each other, each having an end secured to the car, the other ends being constructed and positioned to support the spokes of the wheels of the automobile.

2. The combination with a freight car, of means for supporting an automobile therein comprising two elongated members crossing each other, each having an end secured to the side construction of the car, the other ends being constructed and positioned to support the spokes of the wheels of the automobile.

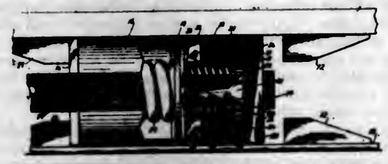
3. The combination with a freight car, of means for supporting an automobile therein comprising two elongated members crossing each other, each having an end secured to the side construction of the car, the other ends being constructed and positioned to support the spokes of the wheels of the automobile, and a tension member having one end secured to the car and the other end secured to said elongated members.

4. The combination with a freight car, of means for supporting an automobile therein comprising two elongated members crossing each other, each having an end secured to the side construction of the car, the other ends being constructed and positioned to support the spokes of the wheels of the automobile, and means for raising the spoke supporting ends of said elongated members.

5. The combination with a freight car, of means for supporting an automobile therein comprising two elongated members crossing each other, each having an end secured to the side construction of the car, the other ends being constructed and positioned to support the spokes of the wheels of the automobile, and a member extending between the spoke supporting ends of said elongated members provided with means for positioning the hub of the wheel.

[Claim 6 not printed in the Gazette.]

1,204,948. DRAFT-GEAR. WALTER H. COTTON, Chicago, Ill., assignor to Union Draft Gear Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 23, 1915. Serial No. 46,951. (Cl. 213—64.)



1. In a draft gear, in combination, a casing, a spring within the casing seated against a suitable shoulder thereon, a follower engaging the opposite end of the spring, a follower beyond the end of the casing, a set of wedging elements bearing, respectively, on the two followers, two groups of segmental friction plates, each group being arranged in arch form, the arch springing at each end from a wedging element, alternate plates being anchored against longitudinal movement with reference to the casing and alternate plates being longitudinally movable with reference thereto.

2. In a draft gear, in combination, a casing, a spring within the casing seated against a suitable shoulder thereon, a follower engaging the opposite end of the spring, a follower beyond the end of the casing, a set of wedging elements bearing, respectively, on the two followers, two groups of segmental friction plates, each group being arranged in arch form, the arch springing at each end from a wedging element, alternate plates being anchored against longitudinal movement with reference to the casing and alternate plates being longitudinally movable with reference thereto, and a spring reacting longitudinally between the two wedging elements.

3. In a draft gear, in combination, a casing, a spring within the casing seated against a suitable shoulder thereon, a follower engaging the opposite end of the spring, a follower beyond the end of the casing, a central U-shaped wedging element having wedging faces on its legs and flanges projecting laterally from its cross member, a pair of U-shaped wedging elements coöperating therewith and each having a flange projecting laterally from its cross-members, such coöperating wedging elements being respectively seated against the two named followers, two groups of segmental friction plates, each group being arranged in arch form, the arch springing at each end from a wedging element, alternate plates being anchored against longitudinal movement with reference to the casing and alternate plates being longitudinally movable with reference thereto, and springs reacting upon the lateral flanges of the coöperating wedging elements.

4. In a draft gear, in combination, two groups of segmental friction plates, each group arranged in arch form and alternate plates being relatively longitudinally movable, and wedging means acting on the ends of the arches, the spreading action of the wedge elements being due to their relative movement in the line of draft.

5. In a draft gear, in combination, two sets of intercalated relatively movable friction plates arranged in arch form, and means acting compressively on the ends of the arches, such action being due to the movement of said means parallel to the line of draft.

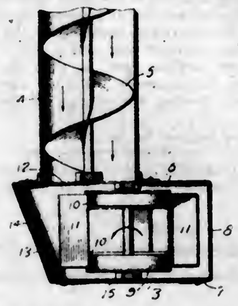
[Claims 6 and 7 not printed in the Gazette.]

1,204,949. GRAIN-THRESHER ELEVATOR-BOOT. DANFORTH D. COTTRELL, Newkirk, Okla. Filed Mar. 9, 1916. Serial No. 83,122. (Cl. 193—5.)

1. An elevator boot provided in its receiving portion with an enlarged space which is gradually constricted laterally and circumferentially so as to equalize delivery of the grain and prevent choking of the elevator.

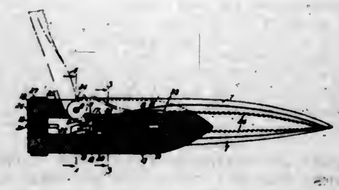
2. An elevator boot comprising front and rear walls and an outer connecting wall, the latter having its forward portion gradually departing from the axis of the boot and laterally inclined from the rear wall toward the front.

3. In an elevator a boot comprising front and rear walls and an outer connecting wall having its lower and rear portions conforming to a circle whose center coincides with the axis of the boot and the outer wall having its



forward portion gradually departing from the axis of the boot and transversely inclined from rear to front, the rear wall having a receiving opening with which connects a delivery spout by means of which the grain or other material is supplied to the boot of the elevator.

1,204,950. PROJECTILE. WILLIAM S. CRANE, Randolph, Vt. Filed Jan. 12, 1916. Serial No. 71,701. (Cl. 102—26.)



1. A projectile having a chamber and longitudinally extending grooves in its outer sides, arms normally disposed in the grooves and pivoted at their rear ends to the projectile, there being an axial guideway extending forwardly in the projectile from the chamber, a plunger movably disposed in the chamber and normally disposed in its rear position where it engages the arms adjacent their pivots, thereby holding the arms in closed position, resilient means in the axial guideway for holding the plunger in normal position, and means for moving the plunger forwardly.

2. A projectile having a chamber and longitudinally extending grooves in its outer sides, arms normally disposed in the grooves and pivoted at their rear ends to the projectile, there being an axial guideway extending forwardly in the projectile from the chamber, a plunger movably disposed in the chamber and having a stem disposed in the guideway, the plunger being normally disposed rearwardly where it engages the arms adjacent their pivots for holding the arms in closed position, a spring disposed in the guideway around the stem for holding the plunger in its rear position, and means for moving the plunger forwardly.

3. A projectile, a plunger movably disposed in the projectile, an arm articulated to the projectile and normally held in a predetermined position relatively to the projectile for engagement by the plunger, the arm being free to move relatively to the projectile upon the movement of the plunger to a predetermined position relatively to the projectile, and means for locking the plunger out of engagement with the arm.

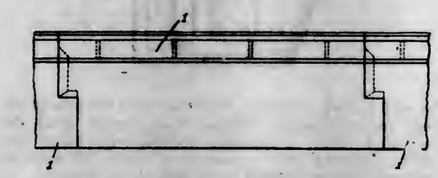
4. A projectile having a chamber, an arm articulated to the projectile, a plunger normally engaging the arm to hold the arm in position relatively to the projectile and movable under an increase of pressure to free the arm for movement relatively to the projectile, and means on

the projectile against which the plunger may be moved for holding the plunger out of contact with the arm.

5. A projectile having a chamber, an arm articulated to the projectile, a plunger normally engaging the arm to hold the arm in position relatively to the projectile and movable under an increase of pressure in the chamber to free the arm for movement relatively to the projectile, the plunger having a bayonet slot, and a pin on the projectile disposed in the bayonet slot, so that the plunger may be moved out of engagement with the arm, and may be turned, thereby locking the plunger in inoperative position.

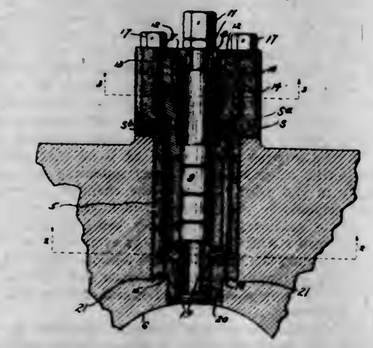
[Claim 6 not printed in the Gazette.]

1,204,951. CURBING-BLOCK. LOUIS DARGENTO, Rochester, N. Y. Filed Dec. 16, 1915. Serial No. 67,200. (Cl. 94—2.)



A curbing block formed of plastic material and having two facing strips extending longitudinally thereof and flush with the faces of the block, one of said strips being located at the upper, outer corner of the curbing, and the other of said strips being exposed at the other face of the curbing below the said corner, and above the portion of the block to be embedded in the ground, so that a wheel of a vehicle will simultaneously rub against both strips, and substantially U-shaped connecting members arranged in spaced relation and having their ends integrally connected to both strips, said members being embedded in the plastic material and projecting in rear of the rear faces of the strips.

1,204,952. AIR-STARTING VALVE FOR DIESEL ENGINES. GREGORY C. DAVISON, New London, Conn., assignor to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 3, 1916. Serial No. 88,557. (Cl. 137—32.)



1. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them, a passage through the outer member near the outer end of the valve cage and leading to said chamber, a valve-stem adapted to reciprocate within the inner member, a spring actuating the stem, and a valve member on the stem controlling the outlet at the inner end of the valve-cage for air flowing through said passage and chamber; substantially as described.

2. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them, a passage through the outer member near the outer end of the valve-cage and leading to said chamber, a passage through the inner member near the inner end of the valve-cage and leading from said chamber to the interior of the inner member, a valve-stem adapted to reciprocate within the inner member, a spring actuating the stem, and a valve member on the stem movable therewith to and from a seat on the inner end of the inner tubular member to control the flow of air through the valve; substantially as described.

3. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them, a passage through the outer member near the outer end of the valve-cage and leading to said chamber, a valve member, a spring housed within the inner tubular member and adapted to actuate the valve-stem, and a valve member on the valve-stem controlling the outlet at the inner end of the valve-cage for air flowing through said chamber and passage; substantially as described.

4. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them, a passage through the outer member near the outer end of the valve-cage and leading to said chamber, a passage through the inner member near the inner end of the valve-cage and leading from said chamber to the interior of the inner tubular member, a valve-stem adapted to reciprocate within the inner member, a spring coiled about the valve-stem and located within the inner tubular member, and a valve member on the valve-stem movable therewith to and from a seat upon the inner end of the inner tubular member; substantially as described.

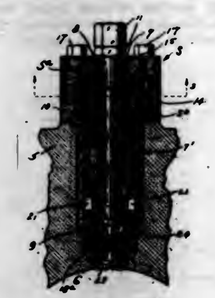
5. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them, a passage through the outer member near the outer end of the valve-cage and leading to said chamber, a piston adapted to reciprocate within the inner tubular member and having its inner end exposed to the air pressure existing within the valve-cage near the inner end thereof, a spring for moving the piston in the direction of its axis and a valve member movable with the piston and controlling the outlet at the inner end of the valve-cage for air flowing through said passage and chamber; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,204,953. AIR-STARTING VALVE FOR DIESEL ENGINES. GREGORY C. DAVISON, New London, Conn., assignor to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 3, 1916. Serial No. 88,558. (Cl. 137—32.)

1. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them which extends beyond the inner end of the inner tubular member to an outlet opening at the inner end of the outer tubular member, a passage through the outer member near the outer end of the valve-cage and leading to said chamber, a valve stem adapted to reciprocate within the inner tubular member, a spring actuating the stem, and a valve member on the inner end of the stem coacting with the inner end of the outer tubular member to control the passage of air through the valve; substantially as described.

2. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them which extends beyond the inner end of the inner tubular member to an outlet opening at the inner end of the outer tubular member, a plurality of projections upon the inner tubular member near the inner end thereof engaging the interior wall of the outer tubular member and spaced apart to permit the flow of air between them, a passage through the outer member near the outer end of the valve-cage and leading to said chamber, a valve stem adapted to reciprocate within the inner tubular member, a spring actuating the stem and a valve member on the inner end of the stem coacting with the inner end of the outer tubular member to control the passage of air through the valve; substantially as described.



3. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them which extends beyond the inner end of the inner tubular member to an outlet opening at the inner end of the outer tubular member, a passage through the outer member near the outer end of the valve-cage and leading to said chamber, a valve stem adapted to reciprocate within the inner tubular member, a spring coiled about the valve stem and housed within the inner tubular member, and a valve member on the inner end of the stem adapted to be moved into and out of engagement with a valve seat upon the inner end of the outer tubular member; substantially as described.

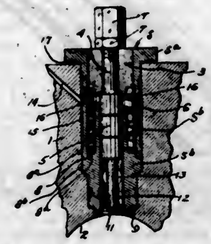
4. An air-starting valve comprising the combination of a valve-cage consisting of inner and outer tubular members fitting one within the other and forming a chamber between them which extends beyond the inner end of the inner tubular member to an outlet opening at the inner end of the outer tubular member, a passage through the outer member near the outer end of the valve-cage and leading to said chamber, a valve stem adapted to reciprocate within the inner tubular member, a cap secured to the valve stem and adapted to move within the valve stem within the inner tubular member, a spring coiled about the valve stem and housed within the inner tubular member, said spring bearing at one end upon the inner tubular member and at the other upon the cap, and a valve member on the inner end of the stem movable with the stem into and out of engagement with a valve seat formed upon the inner end of the outer tubular member; substantially as described.

5. An air-starting valve comprising the combination of a valve-cage consisting of two tubular members fitting one within the other and provided with coacting threads near their outer ends for securing them together, said members having an air-chamber between them, the outer member having a transverse aperture near its outer end leading to the chamber and a valve seat at its inner end, and the inner member having its inner end located within the outer member and above the valve seat, a valve stem adapted to reciprocate within the inner member, a spring adapted to actuate the stem, and a valve member on the stem movable therewith into and out of engagement with said seat; substantially as described.

[Claim 6 not printed in the Gazette.]

1,204,954. AIR-STARTING VALVE FOR DIESEL ENGINES. GREGORY C. DAVISON, New London, Conn., assignor to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 13, 1916. Serial No. 90,962. (Cl. 137—32.)

1. In an air-starting valve, the combination of two partially overlapping annular members forming a valve-cage, and means for forcing the members together, one of the members having a beveled shoulder upon which is mounted one end of the other member, and said end of the last-mentioned member being formed to include a flat annulus and a bevel, so that when the two members are forced together the annulus of the one member will bite into the beveled shoulder of the other member.



2. In an air-starting valve, the combination of two slightly overlapping annular members forming a valve-cage, and means for forcing the members together, one of the members having an exterior beveled shoulder upon which is mounted one end of the other member at a point substantially at the middle of the valve-cage, and said end of the member last-mentioned being formed to include a flat annulus and a bevel, so that when the two members are forced together the annulus of the one member will bite into the beveled shoulder of the other member.

3. In an air-starting valve, the combination of two partially overlapping annular members forming a valve-cage, and an annular gasket of soft metal, as lead, of triangular cross-section, located between the two members, the first member having a beveled exterior shoulder at a point substantially at the middle of the valve-cage, and one end of the other member being beveled and resting upon the beveled exterior shoulder of the first member, so that the two members may be forced together into contact with the gasket and also into contact with each other along a circular line adjacent to the gasket.

4. In an air-starting valve, the combination of overlapping annular members forming a valve-cage, and an annular gasket of soft metal, as lead, of triangular cross-section, located between the two members, one of said members having an exterior beveled shoulder upon which the gasket is mounted and one end of the other member being beveled and mounted on the gasket so that the two members may be forced together to compress the gasket and directly contact with each other along a circular line which is adjacent to the thinnest portion of the gasket.

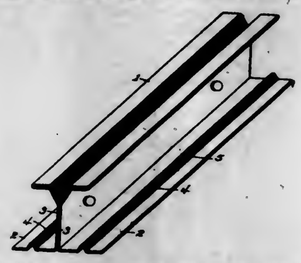
5. In an air-starting valve, in combination, a valve-cage consisting of inner and outer and partially overlapping annular members, the inner member having an intermediate exterior shoulder upon which one end of the outer member is mounted and also having a valve-seat, a valve-stem carrying a valve-member for the valve-seat, a piston on the valve-stem working in the inner member, a piston-follower on the valve-stem working in the outer member, and a spring arranged between the inner member, the outer member and the piston-follower for urging the valve-member to its seat.

[Claims 6 to 8 not printed in the Gazette.]

1,204,955. STRUCTURAL MEMBER. EDGAR K. DAY, Wheeling, W. Va., assignor to Wheeling Corrugating Company, Wheeling, W. Va., a Corporation of West Virginia. Filed Oct. 27, 1915. Serial No. 58,145. (Cl. 189—34.)

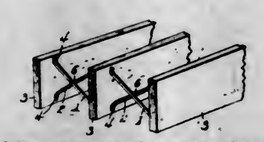
1. A sheet metal structural member comprising a head, oppositely disposed base portions and an intervening web, each of said base portions having a longitudinal upwardly projecting abutment formed therein parallel to and at a spaced distance form said web whereby is constituted a seat for the reception of the points of attaching nails.

2. A sheet-metal structural member comprising a head, oppositely disposed base portions, and an intervening web,



each of said base portions having formed therein a longitudinally extending raised portion against which the points of attaching nails initially seat.

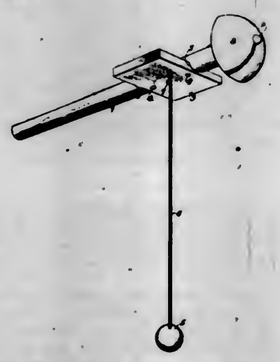
1,204,956. BRIDGING FOR JOISTS. EDGAR K. DAY, Wheeling, W. Va., assignor to Wheeling Corrugating Company, Wheeling, W. Va., a Corporation of West Virginia. Filed July 8, 1916. Serial No. 108,104. (Cl. 20—9.)



1. A bridging composed of a single sheet-metal blank and consisting of a pair of similarly shaped brace members formed by two longitudinally disposed incisions produced at opposite sides of the median line of the blank and extending from opposite ends to points slightly past the middle of said blank, to leave a slender unsevered portion whereby said members are permanently connected, said members being adapted for turning into relatively crossed relation.

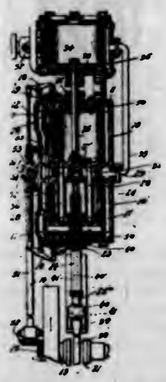
2. A bridging for joists consisting of a pair of similarly shaped brace members cut from a single sheet-metal blank, said members being disposed edge to edge in parallel alinement, and a slender unsevered integral connecting tie disposed intermediate said members substantially midway between their ends, said members being adapted to be disposed in relatively crossed position with said tie maintaining their closely associated relation.

1,204,957. TOY REBOUNDER. IRVINE R. DEAN, Memphis, Tenn. Filed July 24, 1916. Serial No. 111,000. (Cl. 46—59.)



1. A toy of the class described, including a handle portion, provided with a recess, a board arranged transversely of said handle in said recess, a ball suspended from said board by an elastic means, and a bell or other sounding device carried by the free end of said handle.

2. A toy of the class described, including a handle having a recess adjacent one end thereof, a transversely mounted board in said recess, an elastic strip extending from the central portion of said board and carrying a ball or similar rebounder on the free end thereof, and a bell carried by the free end of said handle.



3. A toy of the class described, including a handle having a recess therein adjacent one end thereof, a board arranged transversely of said handle in said recess, a bell carried by the free end of said handle, a ball, elastic means connecting said ball with said board, and means for maintaining said board on said handle.

1,204,958. INTERNAL-COMBUSTION ENGINE. VINCENT DE LALLA, Jersey City, N. J. Filed May 15, 1915. Serial No. 28,380. (Cl. 123—61.)

1. In an engine of the class described, a cylinder having a head, being laterally enlarged adjacent said head and having an inlet port at its inner part, a floating piston in the cylinder having a space therein opening on its periphery for communication with the space in said enlargement when the floating piston is at the outer limit of its movement, a piston head reciprocable in the floating piston, driven connections therewith, a reciprocating pump having a stroke proportioned to that of the floating piston, operative connections between the pump and floating piston, and duct connections between pump and said inlet passage.

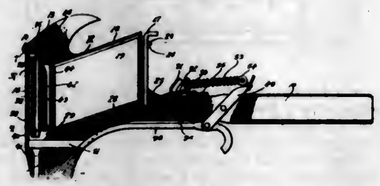
2. In an engine of the class described, a cylinder having a head, a piston, a floating piston interposed between the head and piston and having lost motion connection with the piston, a reciprocating piston pump having the same axial direction as said cylinder, and having a stroke length corresponding to that of the floating piston, rigid connections between the floating piston and pump piston, and duct connections between the pump and cylinder opening into the latter at a point intermediately of the pistons when spaced apart and at the limit of their movement away from the head.

1,204,959. PENCIL-SHARPENER. SYLENA A. DUNCAN, Neshanic Station, N. J. Filed July 26, 1915. Serial No. 42,042. (Cl. 120—7.)



In an article of the class described, a shell, a reduced sleeve extending from one end of said shell to direct the course of a pencil in said shell, a fluted portion of said shell, a plug non-rotatably carried in the fluted portion of said shell, a sleeve extending from said plug, an elastic cushion and eraser carried by said sleeve on said plug, slotted ribs formed on said plug, said ribs being grooved circumferentially, said shell being clenched in the grooved portions of said ribs, said fluted portion of said shell conforming with the ribbed portion of said plug, cutters disposed in said slotted ribs, said cutters having saw tooth and tapering cutting edges and said elastic cushion serving to protect the protruding end of a pencil from said cutters.

1,204,960. MAGAZINE-HAMMER. FRANK DVORAK, Dickinson, N. D. Filed Apr. 15, 1916. Serial No. 91,423. (Cl. 1—45.)



1. A magazine hammer comprising a handle, a driving head carried by said handle and provided with a passageway, a housing carried by said handle, a wall extending adjacent said housing, nail holding means in said housing, a supporting bracket carried by said wall, nail feeding means rotatably connected with said bracket for conveying nails from said holding means and depositing the same in the passage way of said driving head, an abutment bar slidably mounted in said driving head and extending across the passage formed therein beneath said feeding means when in a normal position, an operating handle for said abutment bar, and actuating means for said feeding means connected with said operating handle for imparting movement to the conveying means when the abutment bar is moved.

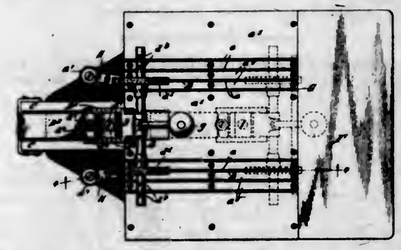
2. A magazine hammer comprising a handle, a driving head carried by said handle and provided with a passageway, a housing carried by said handle above said driving head, feeding means rotatably mounted above the passageway for conveying nails from said housing and depositing the same in the passageway of said driving head, an abutment bar slidably mounted in said driving head for extending across the passageway formed therein beneath said feeding means, operating means for said abutment bar, and actuating means for said feeding means connected with the operating means of said abutment bar for operating the feeding means in timed relation to the movement of said abutment bar.

3. A magazine hammer comprising a handle, a driving head carried by said handle and provided with a passageway, a housing carried by said handle above said driving head, a supporting bracket positioned in front of said housing, a sleeve carried by said bracket and providing a conduit positioned above the passageway in said driving head and having an open lower end, a feeding cylinder rotatably mounted in said sleeve and provided with a pocket communicating with said housing when the cylinder is in a normal position and communicating with said conduit when the cylinder is rotated for depositing a nail in the conduit, an abutment bar slidably mounted to extend across the passageway of said driving head, operating means for said abutment bar for drawing the same from across the passageway, and actuating means for rotating said cylinder connected with the operating means of said abutment bar for moving the cylinder in timed relation to the movement of said abutment bar.

4. A magazine hammer comprising a handle, a driving head carried by said handle and provided with a passageway, an abutment bar slidably mounted to extend across the passageway and having an operating stem forming a trigger, a housing carried by said handle above said driving head, rotatable feeding means mounted in front of said housing and above the passageway of said driving head, and actuating means for said feeding means including a rocker arm pivotally mounted in said handle and pivotally connected with the trigger of said abutment bar, a rack bar slidably extending through said housing, a link pivotally connected with said rack bar and pivotally connected with said rocker arm, and means yieldably holding the rocker arm in a normal position with the abutment bar extending across the passageway of said driving head and the feeding means in a position to receive a nail from said housing.

5. A magazine hammer comprising a handle, a driving head carried by said handle and provided with a passageway, a housing carried by said handle, a nail supporting frame in said housing formed of a plurality of U-shaped strips positioned one within the other to provide nail supporting arms, tongues extending from one of said strips, a pin extending through said tongues to pivotally mount the nail holder, abutments extending from said strips, an adjusting rod extending between said abutments and pivotally mounted by said pin, the outer end of said adjusting rod being provided with a handle and with a tooth, a latch plate carried by the hammer handle and provided with notches to receive selectively the tooth of said adjusting rod to releasably hold the rod in position and thus to retain the nail holder in a set position, feeding means positioned in front of said housing and above the passageway in said driving head, and actuating means for said feeding means.

1,204,961. TOBACCO-BINDER-LEAF CUTTER. ISAAC N. EABY and PAUL M. EABY, Lancaster, Pa., assignors of one-half to Lestre R. Moss, Lancaster, Pa. Filed Jan. 6, 1916. Serial No. 70,639. (Cl. 131—49.)



1. In a tobacco binder leaf cutter, a table having a series of parallel slots formed therein and cutting dies detachably secured in said slots adapting them to be set at different distances apart, in combination with pressure exerting means movable in the line of said slots on said dies to effect the desired cutting operation.

2. In a tobacco binder leaf cutter, a table having a series of parallel slots formed in the surface thereof, straight cutting dies detachably secured in said slots adapting them to be set at different distances apart, and pressure exerting rollers mounted above said dies and movable in the line thereof back and forth thereon.

3. In a tobacco binder leaf cutter, a table having a series of parallel slots formed in the surface thereof, cutting dies detachably secured in said slots, a pair of rollers mounted above said dies and movable back and forth thereon, and means for varying the tension or pressure exerted by said rollers.

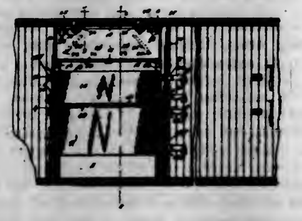
4. In a tobacco binder leaf cutter, a frame having a flat top provided with a series of slots extending longitudinally thereof, straight cutting dies secured in said slots with their cutting edges extending slightly above the upper surface of said top, and pressure rollers movable back and forth on said dies in the line thereof.

5. In a tobacco binder leaf cutter, a flat top frame having at each side of its longitudinal center a series of parallel longitudinal slots, a pair of blade-like cutting dies each having a dull edge protruding through one of

the slots of each of said series slightly above the surface of said top, a carriage mounted on said frame carrying a shaft on which are revolubly fitted a pair of rollers each arranged to travel forward and back on one of said dies; said rollers and dies being adjustable laterally to vary the distance therebetween, and means for adjusting the tension or pressure of said rollers on said dies.

[Claims 6 to 15 not printed in the Gazette.]

1,204,962. GRAIN-CAR DOOR. CLARK S. EATON, Park River, N. D. Filed May 11, 1914. Serial No. 837,822. (Cl. 20—34.)



The combination with a door frame including a lintel; of horizontal pivot arms supported beneath said lintel parallel thereto, a pair of tongs mounted on each of said arms and provided at their lower ends with upwardly converging jaws, springs normally holding said jaws together, a door mounted for vertical sliding movement beneath said tongs, and wedge members on the upper edge of said door, said member being arranged to separate said jaws as the door is raised whereby to permit engagement of said wedge members by said tongs.

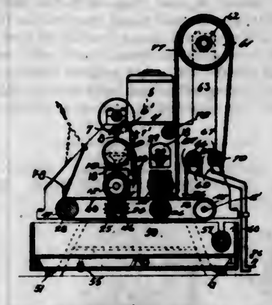
1,204,963. STORM-WINDOW HOLDER. EAIK P. EKMAN, Wausa, Nebr. Filed Apr. 8, 1916. Serial No. 89,806. (Cl. 16—18.)



In a device of the class described, a handle, a supporting arm on the handle, a spring loop at the lower end of the supporting arm, an attaching arm formed on the spring loop and projecting upwardly therefrom, a hook at the upper end of the attaching arm and means at the upper end of the hook for facilitating the manipulation of the attaching arm and hook.

1,204,964. MACHINE FOR CLEANING RUGS, &c. SAMUEL FARBER and GEORGE G. CROUCH, Atlanta, Ga. Filed Apr. 21, 1916. Serial No. 92,786. (Cl. 15—8.)

1. In a machine for treating rugs and the like, the combination with a feed mechanism including a plurality of rollers, an apron passing over them, and means for moving the apron to and fro: of a washing mechanism including a brush rotating in conjunction with one of said rollers, an upper roller overlying the apron above another of said rollers and means for adjusting the upper roller vertically at will.



2. In a machine for treating rugs and the like, the combination with a feed mechanism including a plurality of rollers, an apron passing over them, and means for moving the apron to and fro; of a washing mechanism including a brush rotating in conjunction with one of said rollers, an upper roller coacting with another of those first mentioned, and means for lifting the ring off the apron after it has passed said upper roller.

3. In a machine for treating rugs and the like, the combination with a feed mechanism including an apron, and means for moving the apron to and fro; of a cylinder mounted in bearings in rear of and above the apron, and chains passing over said cylinder and having clamping means at one end for engaging the rug and lifting it off of said apron, and means for imparting draft to the other ends of said chains.

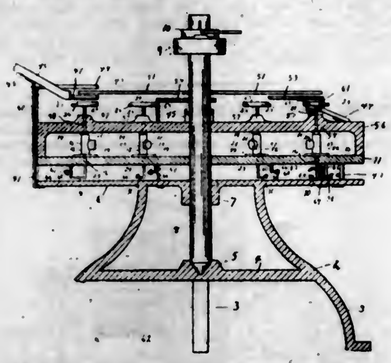
4. In a machine for treating rugs and the like, a framework including a pair of side plates, a shelf connecting them, tanks thereon, a perforated sprinkler between said plates, individual connections between the tank and sprinkler, and a rotary brush below the latter; combined with an apron for receiving the rug, means for supporting the apron and reciprocating it beneath said brush, spatter-guards in front and rear of said brush, and means for holding the front guard elevated at will.

5. In a machine for handling rugs and the like, the combination with a framework having upright extensions at its rear end, and a feed mechanism for carrying the rug to the rear; of a drying cylinder rotatably mounted in said extensions, means for supplying a heating fluid to its interior, two rollers journaled in the framework beneath said cylinder, a brake for application to each roller, and chains extending from the rollers and one of them adapted to lead over said cylinder.

[Claim 6 not printed in the Gazette.]

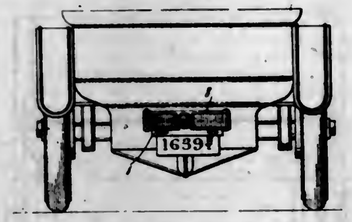
1,204,965. WEIGHING-MACHINE. MICHAEL H. FARLEY, Seattle, Wash. Filed Aug. 11, 1915. Serial No. 44,900. (Cl. 83—92.)

1. In a device of the character stated a frame, a shaft journaled therein, a revolving disk carried by said shaft, a plurality of scales mounted on said disk, a loading chute, a plurality of discharge chutes situated at different points around the circumference of the revolving disk, a stationary gage adjacent one of the discharge chutes for removing packages of a predetermined weight from the scales, a second movable gage for removing packages of a different weight from the scales, said movable gage comprising a gage arm, an upright provided with a keeper notch, a housing in which the upright is slidably mounted, an extension projecting from the lower end of the upright beyond the housing, a finger carried by said extension, a contact member, a swinging contact member adapted to coact with the first named contact member, a catch spring actuated in one direction, whereby the same is caused to register with the keeper notch, an electro-magnet for operating said catch in the opposite direction, an electric circuit including said magnet and contacts, a cam block carried by a movable part of the scales for actuating the swinging contact to lower said movable gage, and a double faced cam block depending from the revolving disk adapted to engage the movable gage extensions for raising the gage, and also adapted to engage the swinging contact for breaking the electrical circuit.



2. In a device of the character stated a frame, a shaft journaled therein, a revolving disk carried by said shaft, a plurality of scales mounted on said disk, a loading chute, a plurality of discharge chutes situated at different points around the circumference of the revolving disk, a stationary gage adjacent one of the discharge chutes for removing packages of a predetermined weight from the scales, a movable gage for removing packages of a different weight from the scales, electrically operated means for holding said movable gage in a normal position, means carried by the scales to cause the electrically operated means to release the movable gage if the means carried by the scales are properly positioned because of the weight of the packages upon the scales, and means carried by the revolving disk for resetting the movable gage and electrically operated holding means.

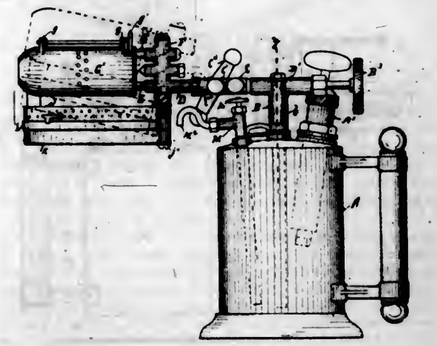
1,204,966. DIRECTION-INDICATOR. JAMES W. FARRAR, Buffalo, N. Y. Filed Nov. 10, 1915. Serial No. 62,359. (Cl. 40—132.)



1. A direction indicator comprising a reflector plate, reflectors formed in said plate, lamp bulbs mounted in the reflectors, screw receiving barrels formed at opposite ends of the plate, frames attached to the barrels, screws extending into said barrels to support the frames, direction indicating panels carried by the frame, a central frame and a lens mounted directly over the central lamp and within the central frame to form the rear signal lamp of the vehicle on which the device is used.

2. A direction indicator comprising a reflector plate, reflectors formed in said plate, lamp bulbs mounted in the reflector, barrels formed at opposite ends of the plate, frames attached to the barrels, screws attaching the frames to the barrels, direction indicating panels carried by the frame, a central frame connecting the first mentioned frame and a lens mounted directly over the central lamp and within the central frame, a flange extending below the body of the reflector plates and having slots, said flange being adapted to form an attaching means for the license plates of the vehicle.

1,204,967. HYDROCARBON-TORCH. CHRISTIAN G. FILZER, Erie, Pa. Filed Sept. 20, 1915. Serial No. 51,635. (Cl. 158—33.)



1. In an apparatus of the class described, a generator shell, a helically coiled tube in the front end thereof having the ends thereof extending rearwardly out of the rear end of said shell, means to supply fluid to one end of said tube, a gas-jet concentric with the rear end of said shell, a tubular connection between the opposite end of said helically coiled tube and said gas-jet, and a gas and air mixing tube within the rear end of said shell between the ends of said helically coiled tube, said mixing tube extending from the rear end of said shell to a point adjacent to the rear coil of said helically coiled tube, substantially as set forth.

2. In an apparatus of the class described, a helically coiled tube, a shell inclosing said tube, helical ribs on the interior surface of said shell which enter the spaces between the several coils of said tube, a gas and air mixing tube concentrically arranged in the rear portion of said shell, a jet tube supported adjacent to the rear end of said gas and air mixing tube, a tubular connection between one end of said helically coiled tube and said jet tube, and means to supply fluid to the other end of said coiled tube, substantially as and for the purpose set forth.

3. In an apparatus of the class described, a helically coiled tube, a longitudinally divided cylindrical shell inclosing said tube, latch mechanism adapted to retain said shell closed or open as may be desired, a longitudinally adjustable gas and air mixing tube concentrically arranged between the rear portion of said shell and said helically coiled tube, a jet tube arranged to discharge gas into the rear end of said mixing tube, a tubular connection between said jet tube and one end of said helically coiled tube, means to supply fluid to the other end of said helically coiled tube, and means adjacent to said helically coiled tube to initially heat the same, substantially as set forth.

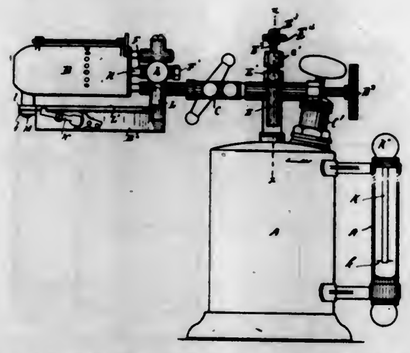
4. In an apparatus of the class described, a helically coiled tube, a stationary semi-cylindrical shell inclosing one side of said tube, a movable semi-cylindrical shell hinged upon the upper edge of said stationary shell, a latch lever pivoted on one of said shells, a projection on the other of said shells, said lever having means adapted to engage either side of said projection, substantially as and for the purpose set forth.

5. In an apparatus of the class described, an initial heating apparatus consisting substantially of a frame having longitudinal walls therein forming an air slot therebetween, and a cup-member having an air-slot in the

bottom thereof and adapted to contain combustion material therein, pivotally arranged under said frame, substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,204,968. HYDROCARBON-TORCH. CHRISTIAN G. FILZER, Erie, Pa. Filed Jan. 19, 1916. Serial No. 72,976. (Cl. 158—33.)



1. In a device of the class described, a gas-jet tube having a jet opening in the point thereof, and a lateral valve-controlled opening, and a strainer member in said jet tube between the jet opening and the lateral valve-controlled opening.

2. In a device of the class described, a torch nozzle shell, a helically coiled fuel conveying tube therein, a tubular nipple secured in said nozzle shell and a tubular valve-controlled passage leading from one of the coils of said coiled tube to said nipple, whereby fuel may be discharged into said shell from said coiled tube when desired.

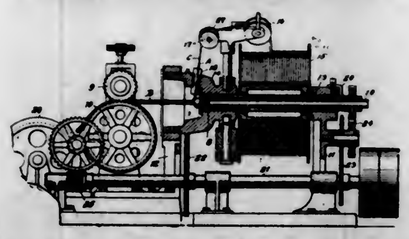
3. In a device of the class described, a torch nozzle, a starting-cup thereunder, an extinguishing plate to cover said cup, a common pivot supporting the rear ends of said cup and plate, a supporting post secured under the front end of said nozzle, a head thereon, a laterally slotted ear on said starting-cup counter-sunk on the under surface thereof to receive the head of said supporting post, a laterally slotted ear on said extinguishing plate adapted to engage said supporting post and prevent the ear on the starting-cup from being disengaged from said supporting post, and a weighted latch lever on said starting-cup to maintain said extinguishing plate from being accidentally opened.

1,204,969. HEEL-PLATE. FRANK FORAMA, Washington, D. C. Filed Oct. 19, 1915. Serial No. 56,756. (Cl. 36—75.)



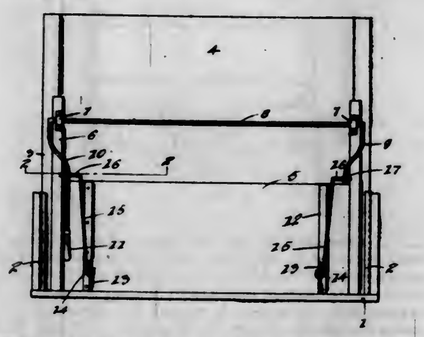
A heel plate comprising a substantially oblong body portion of approximately uniform width throughout its entire length curved longitudinally to present a concave inner side edge and a convex outer side edge and provided at the said inner concave side edge with thin flat imperforate flanges projecting inwardly from the ends of the body portion of the heel plate to interlock the same with the heel at such points, and spaced apart throughout their entire length to form an intervening recess to enable the heel to be nailed between the flanges, the recess being entirely open at the ends of the flanges to permit them to engage with a relatively large solid intervening portion of the heel, said flanges being provided with outer narrow extensions forming end flanges, which extend entirely across the end edges of the body portion of the heel plate from the outer side edge of the inner side edge to interlock the ends of the body portion with the solid contiguous portions of the heel to prevent the heel plate from rocking or dropping out of flush relation with the heel.

1,204,970. METAL-SHAPING TOOL. HENRY R. GILSON, Baden, Pa., assignor to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 22, 1914. Serial No. 840,366. (Cl. 113—35.)



In a machine for forming flexible interlocking metallic armor from a single reversely curved strip of metal, the combination of a mandrel, a collar surrounding said mandrel and rotatable with respect thereto, said collar having on its inner face a groove whose bottom is a cylindrical surface, whose wall at one side is a helical surface, and which is open at its opposite side, said groove being accessible by an opening extending through the collar, and the width of said groove measured from its helical to its open side being substantially less than the width of the strip of which the armor is formed, whereby said collar engages and elongates the rear edge of said strip to bring it to armor-forming shape.

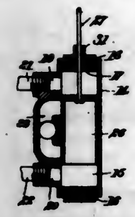
1,204,971. WAGON END-GATE. JAMES A. GORDON, Barnum, Iowa. Filed May 2, 1914. Serial No. 835,857. (Cl. 21—21.)



The combination with a vertically sliding wagon end gate, of standards located at the opposite ends of the gate, plates mounted on the standards and having their inner longitudinal edges extending laterally beyond the longitudinal edges of the standards, bearings secured to said plates, a horizontally disposed shaft located above the end gate and journaled in said bearings, the opposite ends of the shaft extending downwardly and inwardly in converging relation and each having an aperture therein, vertically disposed angle bars carried by the end gate and

located adjacent the opposite ends thereof and each having one of its flanges extending outwardly and provided with an opening, vertically disposed rods located adjacent the opposite ends of the gate and each having its upper end extended angularly and loosely received by the opening in the adjacent end of the shaft, the said vertically disposed rods having their lower ends provided with hooks adapted to engage in the openings in the outwardly extending flanges of the angle bars, and a manipulating handle formed on one end of the shaft.

1,204,972. VALVE. PETER GRABLER and FRED H. KELSEY, Cleveland, Ohio, assignors to The Simplex Specialty Company, a Corporation of Ohio. Filed Aug. 4, 1914. Serial No. 854,928. (Cl. 137—26.)



1. A valve of the character described comprising a valve casing having independent, spaced-apart inlet passages and spaced-apart outlet passages, the outlet passages leading from the casing at a point between the inlet passages, and a slidable valve mounted to reciprocate longitudinally within said casing to selectively close all of said passages.

2. A valve of the character described comprising an elongated valve casing having independent, spaced-apart inlet passages and spaced-apart outlet passages, the inlet and outlet passages being arranged in alinement, a delivery pipe for connecting the out let passages with the engine manifold, and a slidable valve mounted to reciprocate longitudinally within the casing to selectively close the inlet and outlet passages.

3. A valve of the character described comprising a valve casing provided with removable end caps, one of which is provided with an opening, said casing being provided with spaced-apart inlet passages and spaced-apart outlet passages, the outlet passages leading from the casing at a point between the inlet passages, a slidable valve mounted to reciprocate longitudinally within said casing to selectively control said inlet and outlet passages, and an operating rod attached to one end of said valve and extended through the opening in said end cap.

4. A valve of the character described comprising a valve casing having independent spaced-apart inlet passages and spaced-apart outlet passages, the outlet passages leading from the casing at a point between the air inlet passages, a slidable valve mounted to reciprocate within said casing to selectively close all of said passages, and means for locking the valve in position to cover all of the outlet passages.

5. A valve of the character described comprising a casing having a valve chamber and an outlet chamber, passages being provided between said valve chamber and said outlet chamber, said valve chamber having inlet openings spaced from each other with the outlet openings between them, said casing being also provided with a supplemental passage extending transversely thereof and leading to the outlet chamber, and a slidable valve mounted to reciprocate within the valve chamber to selectively control the inlet and outlet passages.

[Claims 6 to 9 not printed in the Gazette.]

1,204,973. VEHICLE-RAISER. WILLIAM H. GRAVER, Dillsboro, Ind. Filed Mar. 7, 1916. Serial No. 82,672. (Cl. 254—88.)

1. A vehicle raiser including a frame embodying a pair of spaced longitudinal members having V-shaped medial portions, a socket adapted for connection with a suitable support, vehicle operated blocks slidably mounted on said longitudinal members, and a screw swivelly mounted in said socket and extending through one end of said frame for adjusting the latter.



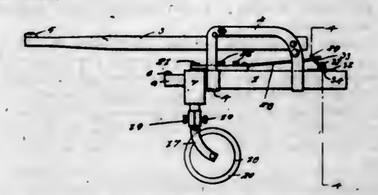
2. A vehicle raiser comprising a frame including a pair of spaced longitudinal members having V-shaped medial portions, means for limiting longitudinal movement of said frome upon a support, vehicle operated blocks slidably mounted adjacent one end of the pair of longitudinal members, a socket adapted for connection with a suitable support, and a screw swivelly mounted in said socket and connected with the end of said frame supporting said blocks for tilting the frame.

3. A vehicle raiser comprising a frame including a pair of spaced longitudinal members having V-shaped medial portions and a plurality of members connecting said longitudinal members, means for securing said frame against longitudinal movement upon a support, a series of rollers mounted in the forward end of each of said longitudinal members, stops at the opposite ends of each series of rollers, blocks movable over said rollers, stops carried by said blocks, and a screw connected with the forward extremity of said frame for tilting the latter.

4. A vehicle raiser comprising a frame including spaced parallel longitudinal members constructed of channel iron, and a plurality of transverse connecting members, a series of rollers rotatably mounted between the side members of the forward end of each of said longitudinal members, blocks movably supported upon said rollers, stops arranged at the opposite ends of each series of rollers, and a screw connected with the forward extremity of said frame for adjusting the latter.

1,204,974. [WITHDRAWN.]

1,204,975. MOWER-TRUCK. HOWARD B. HALE, Alliance, Nebr. Filed Mar. 18, 1916. Serial No. 85,086. (Cl. 21—205.)



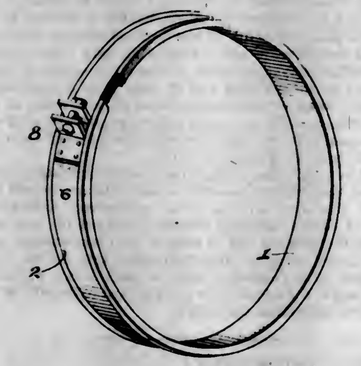
1. A mower truck including an auxiliary tongue, a caster wheel supporting the outer portion of the auxiliary tongue and having a pivot, a slidable member mounted on the auxiliary tongue and arranged to lock the pivot against rotary movement, means for urging the slidable member toward the pivot and an operating device connected with the slidable member for withdrawing the same from engagement with the pivot, and a main tongue carried by the auxiliary tongue and extending in advance of the same.

2. A mower truck including an auxiliary tongue, a caster wheel having a pivot and supporting the front end of the auxiliary tongue, said pivot having a reduced portion, a slide mounted on the auxiliary tongue and having a bifurcated front end to engage with the reduced portion of the pivot, a spring for urging the slide forwardly, a rock shaft having a pedal and provided with an arm, means for connecting the arm with the slide, and a main tongue carried by the auxiliary tongue.

3. A mower truck including an auxiliary tongue, a bracket composed of spaced approximately U-shaped sides fitted against the sides of the auxiliary tongue and extending upwardly therefrom and having transverse connecting portions, a main tongue mounted between the sides of the bracket and extending in advance of the auxiliary tongue, a caster wheel having a pivot mounted on the auxiliary tongue and means for holding the pivot against rotary movement.

4. A mower truck including an auxiliary tongue, a sleeve mounted on the auxiliary tongue and having a vertical opening, a vertical pivot extending through the sleeve and through the auxiliary tongue and provided at its lower end with a socket, a caster wheel provided with a stem fitted in the said socket, means for clamping the stem in the socket, means for holding the pivot against rotary movement, and a main tongue carried by the auxiliary tongue.

1,204,976. PROCESS FOR CONSTRUCTING ENDLESS BELTS AND MOLD THEREFOR. FRED HALL, Newark, Ohio. Filed Dec. 15, 1915. Serial No. 66,922. (Cl. 154—42.)



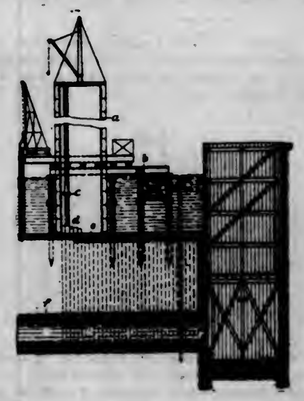
1. A process for constructing endless belts consisting in treating a belt with Ceylon rubber, Emerex whiting, litharge, crude turpentine and aluminum flake, and bringing the ends thereof so treated together and exerting pressure with heat making the end portions join integrally with one another.

2. A mold for splicing belting comprising in combination, an annular member having a recess therein arranged to receive belting ends, said recess having indenting or corrugating grooves therein, an annular pressure plate having indenting or corrugating grooves on its inner surface for pressing the belting ends in the recess, and a means for adjusting the pressure of said plate on the belting.

1,204,977. METHOD AND MEANS FOR DRAINING THE GROUND FOR SUBAQUEOUS EXCAVATIONS. FRANZ XAVER HALLINGER, Hamburg, Germany. Filed Mar. 29, 1916. Serial No. 87,544. (Cl. 61—16.)

1. Improved method for draining the ground for subaqueous excavations, consisting in erecting a tower at the bottom of the river or the like above the place destined for the structure to be permanently constructed, said tower being open at its lower end and corresponding to the ditch to be excavated, consisting further in driving the water completely out of the tower by compressed air, in driving pile planking at both sides of the ditch to be excavated, in constraing a water tight cover above the pile planking at the bottom of the river in running a tunnel into the space between the pile planking, said tunnel having a pervious wall, and in finally pumping the water collecting inside the tunnel or adit above ground.

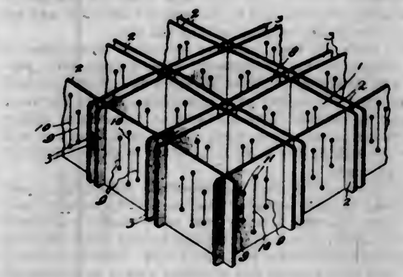
2. A method for draining ground for subaqueous excavations consisting in erecting a caisson extending to the bottom of a body of water, in removing the water from within the caisson, in separating the earth within the caisson and to be excavated by partitions extended into the ground, in covering the earth between said partitions with a substantially water-proof covering, and in providing a tunnel having a pervious wall for draining the earth between said partitions.



3. A method for draining ground for subaqueous excavations consisting in separating, by partitions extended into the ground, the earth to be excavated, in covering the earth between said partitions with a substantially water-proof covering, and in providing a draining adit for draining the earth between said partitions.

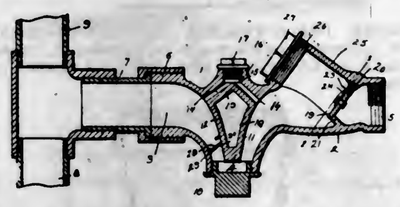
4. A method for draining ground for subaqueous excavations, consisting in erecting a caisson at the bottom of a body of water, in removing the water within the caisson, in driving piles for partitioning the portions of the earth to be excavated, in covering the portions of earth between said partitions with a substantially water-proof covering, and in providing an adit for draining the earth between said partitions.

1,204,978. SHIPPING-CRATE. FREDERICK P. HANCEY, Kemmerer, Wyo. Filed Feb. 23, 1915. Serial No. 10,054. (Cl. 217—31.)



A series of egg separating compartments including a series of strips, each strip having slits extending inwardly from its upper edge, and also having slits extending inwardly from its lower edge, said slits being alternatingly arranged, a second series of strips each being provided with slits extending inwardly from one of its edges and some of the slits being arranged in pairs, said second series of strips being arranged at right angles to the first series and interlocking with the slits in the upper and lower edge of the first series.

1,204,979. AUTOMATIC-SEAL CHECK SAFETY-VALVE FOR RADIATORS. MATHEW HARDWIG, St. Joseph, Minn. Filed Mar. 31, 1916. Serial No. 88,022. (Cl. 182—15.)



1. A device of the class described including a body having inlet and outlet portions and provided with an intermediate depending portion, said body being also provided at its intermediate portion with a transverse partition extending downwardly into the depending portion and having an air passage through its upper portion, the said depending portion of the body being adapted to form a water seal and an automatically closable check valve located in the inlet portion of the body and provided with an air passage.

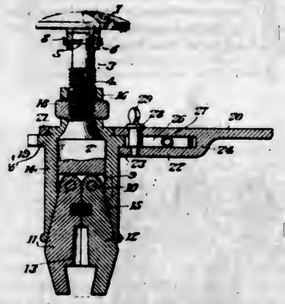
2. A device of the class described including a body having inlet and outlet portions and provided with an intermediate depending portion adapted to form a water seal, said body being provided at its intermediate portion with a transverse partition extending across the body and downwardly from the top thereof into the depending portion, said partition being also provided in its upper portion with oppositely inclined air passages and having an opening communicating with the upper end thereof, removable screw plugs for the said opening and for the depending tubular portion and an automatically closable check valve arranged in the inlet portion.

3. A device of the class described including a body having inlet and outlet portions and provided with an intermediate portion having a depending portion adapted to trap the water of condensation, said body being also provided at the intermediate portion with a transverse partition extending downwardly into the depending portion of the body, said body being provided at the inlet portions with inclined valve seats and having an inclined tubular enlargement extending upwardly from the valve seats and provided with a removable closure and a hinged automatically closing check valve mounted within the inlet portion of the body and coacting with the said valve seats.

4. A device of the class described including a tubular body having horizontal inlet and outlet portions and provided with an intermediate depending tubular portion adapted to trap water of condensation, said body being also provided with a transverse partition extending into the depending tubular portion and provided at the upper portion with an air passage, an automatically closable check valve located within the inlet portion of the body and provided with an air passage, a valve carried by the check valve and adapted to close under back pressure and an automatically closable water check valve mounted in the depending portion of the tubular body and located in rear of the transverse partition.

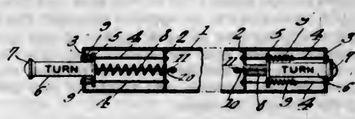
1,204,980. WRENCH. CLARENCE I. HAWKINS and ROBERT W. CAMPBELL, Baileyton, Tenn. Filed Mar. 11, 1916. Serial No. 83,566. (Cl. 81—62.)

1. In a device for the purpose set forth, a stock having oppositely arranged jaws pivoted therein and extending through the sides of the stock, the stock having a reduced spindle extension provided with threads, a head upon the spindle, a sleeve surrounding the stock and frictionally engaging therewith, said sleeve having a hollow reduced extension which is substantially elliptical in plan and which is provided with an opening which communicates with the reduced sides thereof, a nut upon the threads of the spindle and projecting through the opening, a round peripherally notched flange between the socket and the sleeve, a handle member having an opening to receive the sleeve and resting upon the said flange, a pair of spring pressed dogs carried by the handle to engage with the notches of the flange, and a key member for bringing one of the dogs out of such engagement.



2. In a device for the purpose set forth, a stock which is substantially square in cross section and which is provided with an opening entering from its end, two jaws pivoted within the opening, said jaws having their outer faces angular and projected through the opening, the ends of the jaws being notched, the meeting faces of the said jaws being grooved to provide a socket which communicates with the said notch, a threaded spindle projecting from the stock, a revoluble head upon the spindle, a sleeve having a square bore surrounding the stock and contacting with the projecting edges of the jaws, said sleeve having a collar extension which surrounds the spindle, a nut upon the spindle received in an opening in the collar and projecting through the said opening, the sleeve at the juncture with the collar being formed with an annular flange having peripheral notches, a handle having an opening to receive the collar and resting upon the flange, a forked plate secured to the handle and engaging with the opposite face of the flange, spring pressed dogs pivoted between the plate and handle and adapted to engage with the notches of the flange, and a key member having its bit disposed between the dogs, as and for the purpose set forth.

1,204,981. VEHICLE-SIGNAL. EDWARD FRANCIS HEAD, Winnipeg, Canada. Filed Dec. 10, 1914. Serial No. 876,513. (Cl. 116—31.)

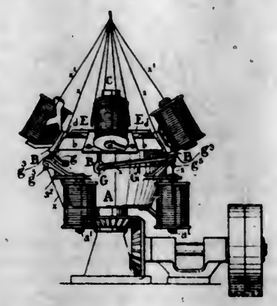


A signal device including a sheath open at both ends, two pairs of parallel rods disposed within said sheath, one pair to each end thereof, a plate mounted upon each pair of rods for sliding movement, a signal member carried by each plate for projection beyond the corresponding end of the sheath; springs mounted within the sheath and engaging the inner faces of the plates for propelling the signal members outwardly, and a buffer spring mounted on each rod and engaging the outer face of each plate to reduce the shock of the signal members when the same are propelled outwardly.

1,204,982. BRAIDING-MACHINE. ALFRED HOPKINSON, Chester, England. Filed Jan. 20, 1914. Serial No. 813,239. (Cl. 28—4.)

1. In a braiding machine, the combination of a cup-shaped carrier for a lower set of bobbins having an annular race thereon and provided with vertical slits, a set of

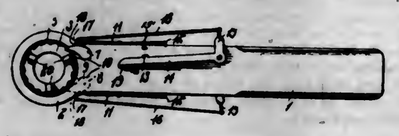
upper carriers for an upper set of bobbins mounted to slide on said race, a cam, gearing for rotating said cam and said cup-shaped carrier in opposite directions, a plurality of driving pins for each carrier of said set slidably mounted on said cam, a stationary cam for controlling the projection and retraction of said pins, and vibratory thread guides operated by said rotatable cam for moving the threads of the lower bobbins in the slits of the cup-shaped carrier, said cup-shaped carrier inclosing both cams and the driving gearing for the rotatable cam.



2. In a braiding machine, the combination of a cup-shaped carrier for a lower set of bobbins, said carrier having an annular race thereon and being provided with vertical slits, a set of carriers for an upper set of bobbins mounted to slide on said race, a cam, gearing for rotating said cam and said cup-shaped carrier in opposite directions, a plurality of driving pins for each carrier of said set slidably mounted on said cam, a stationary post extending through said cup-shaped carrier and said cam, a stationary cam fixed on said post for projecting and retracting said pins and vibratory thread guides operated by said rotatable cam for moving the threads of the lower bobbins in the slits of the carrier, said cup-shaped carrier inclosing both cams and the gearing for driving the rotatable cam.

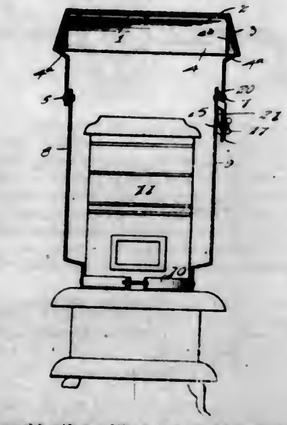
3. In a braiding machine, in combination, a central vertical post, a cup-shaped carrier for a lower set of bobbins rotatably mounted on said post, driving means for said carrier, a set of carriers for an upper set of bobbins, vibratory thread guides mounted on said cup-shaped carrier for directing the threads of the lower bobbins relatively to the threads from the upper bobbins, a cam for operating said thread guides, gearing for driving said cam from said cup-shaped carrier but in an opposite direction thereof, a plurality of driving pins for each carrier of said set slidably mounted on said arm, and a stationary cam for controlling the projection and retraction of said pins, the said cup-shaped carrier inclosing said rotatable cam and the gearing for driving the same.

1,204,983. WRENCH. JOHN R. HUNT, Moulton, Iowa. Filed Dec. 3, 1912. Serial No. 734,748. (Cl. 81—62.)



In a ratchet wrench, the combination with a handle and a nut engaging member rotatably mounted therein and having a ratchet wheel, of a pawl disposed to engage the ratchet wheel at times, means for holding the pawl yieldably engaged and an angular lever pivoted to the handle and operatively connected with the pawl to move it into disengaged position, the lever having a projection extending in the direction of the handle and the handle having a socket disposed to receive the projection when the lever is in position to hold the pawl disengaged.

1,204,984. DEFLECTOR FOR OIL-HEATERS. ARTHUR W. INABINETT and THOMAS P. DE GAFFERELLY, Charleston, S. C. Filed Feb. 29, 1916. Serial No. 81,198. (Cl. 126—96.)



1. The combination with a heater, of a deflector of the class described including a clamp embracing the heater, spaced standards mounted on and extending upwardly from the clamp, a hood and supporting means having sides pivoted to the said standards and adapted to swing to and from a vertical position to permit the hood to be arranged either horizontally or in an inclined position and means for retaining the hood in its adjustment.

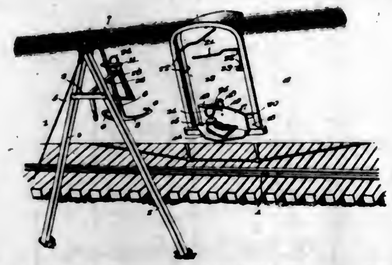
2. The combination with a heater, of a deflector of the class described including a clamp embracing the heater, standards mounted on and rising from the clamp, a hood, an inverted U-shaped support secured to the hood and having its sides extending downwardly from the hood and pivoted to the standards to permit the hood to be arranged either in a horizontal or inclined position, and means for securing the support in its adjustment.

3. The combination with a heater, of a deflector including spaced standards, means for mounting the same on the heater, a hood provided with arms pivoted to the standards at the upper ends thereof, one of the arms being provided with an extension projecting below the pivot and an approximately triangular bracket rigidly secured to one of the standards adjacent to the said extension and having an inclined bottom portion provided with an arcuate slot and an adjusting device carried by the said extension and operating in the arcuate slot for securing the hood in its adjustment.

1,204,985. MAIL-BAG-TRANSFERRING APPARATUS. SUMNER L. INGALLS, Oldtown, Me. Filed Feb. 16, 1916. Serial No. 78,702. (Cl. 258—26.)

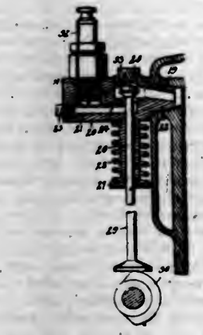
1. In mail bag transferring apparatus of the class described, a car-carried platform and a bracket on said platform having an arm overhanging and arranged longitudinally on the platform, and a mail bag securing-ring having a slotted arm for sliding engagement with the arm of said bracket.

2. In mail bag transferring apparatus of the class described, a car-carried platform and a bracket on said platform having an arm overhanging and arranged longitudinally on the platform, and a mail bag securing ring having a slotted arm for sliding engagement with the arm of said bracket, said platform being mounted for movement on the car so that it may be extended outwardly or drawn inwardly therefrom.



3. In mail bag transferring apparatus of the class described, a car-carried platform and a bracket on said platform having an arm overhanging and arranged longitudinally on the platform, a mail bag securing-ring having a slotted arm for sliding engagement with the arm of said bracket, and a brace to incline the swinging bar in one direction and release said bar when its hook arm engages said ring.

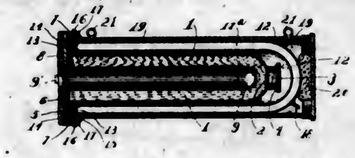
1,204,986. INTERNAL-COMBUSTION ENGINE. EDGAR D. IRWIN, Johnstown, Pa. Filed Mar. 27, 1915. Serial No. 17,404. (Cl. 123—49.)



A device of the class described comprising a plug formed with a longitudinally extending passage and provided at one end with an exteriorly screwthreaded nipple adapted to engage in the spark plug opening of an engine cylinder and in communication with said passage, a valve seat formed between the ends thereof, a closure plug closing the other end of said passage, a sleeve depending from said plug in alinement with the valve seat, a valve stem slidably mounted in said sleeve, a valve disk on said stem adapted to engage said seat, and a plug threaded into the first-named plug immediately above the valve seat and removable from the plug so that access may be had to the valve disk and its seat.

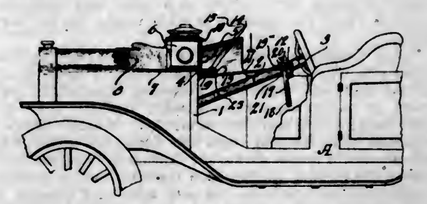
1,204,987. HAIR WAVING AND CURLING APPARATUS. HANNAH JACOBS and HARRY JACOBS, New York, N. Y. Filed Apr. 13, 1916. Serial No. 90,888. (Cl. 132—19.)

1. In a hair waving and curling apparatus, a double walled liquid containing metallic heating member adapted to engage a winding stem having hair curled or wound thereon, a threaded neck or opening formed upon one end of said heating member and adapted for filling said heating member, a threaded cap adapted to engage within the said neck to close same, a double walled cylindrically formed outer casing, open at one end and adapted to detachably engage with the said heating member, and a heat-insulating member interposed between the said heating member and said outer casing and held within the walls of the said outer casing.



2. In a hair waving and curling apparatus, a double walled liquid containing metallic heating member adapted to engage a winding stem having hair curled or wound thereon, a threaded neck or opening formed upon one end of said heating member and adapted for filling said heating member, a threaded cap adapted to engage within the said neck to close same, a double walled cylindrically formed casing, open at one end and adapted to detachably engage with the said heating member, a heat-insulating member interposed between the said heating member and said outer casing, and held within the walls of the said outer casing and a heat insulating ring secured to one end of the said heating member and adapted to protect the user against the heat from the said heating member.

1,204,988. AUTOMOBILE-SIGNAL. DANIEL V. JAMES, Texarkana, Tex. Filed June 11, 1915. Serial No. 33,532. (Cl. 116—31.)



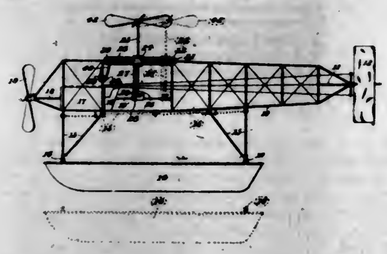
In combination with a motor vehicle embodying steering means including a steering column and a dash-board, signaling means comprising a sector detachably secured to the steering column, operating shafts adjacent to said steering column, crank handles at corresponding ends of said shafts adapted to interlock with the sector to hold the shafts in predetermined positions, bearings in the dash-board receiving the other ends of the shafts, cranks projecting laterally from the shafts intermediate their ends, indicators at opposite sides of the machine, means pivotally supporting said indicators, connecting rods intermediate the indicators and the said cranks whereby movement of the shafts will shift the indicators to normal or signaling positions as desired, each indicator comprising a lamp and an indicating element projecting therefrom, and stops carried by each indicator and adapted to engage the adjacent connecting rod whereby to limit the movement of the indicator in opposite directions.

1,204,989. AEROPLANE CONSTRUCTION. ANTHONY JANOWSKI, Hazleton, Pa. Filed Apr. 13, 1916. Serial No. 90,892. (Cl. 244—15.)

1. An aeroplane comprising a frame having side rails, a beam slidably positioned upon the said rails transversely of the frame, manually operated shifting means for the said beam, a stabilizing propeller carried by the said beam, and power means for the said propeller operable simultaneously with the adjusting of the said beam.

2. An aeroplane provided with a motor having a power shaft extending in opposite directions, a main propeller upon the forward end of the said shaft, a housing slidably mounted upon the rear portion of the said shaft, a pinion

within said housing splined upon the said shaft portion, a stabilizing propeller having its shaft journaled through the said housing, a gear upon the free end of the said stabilizing propeller shaft in constant mesh with the said pinion, and shifting means for the said housing and stabilizing propeller.



3. An aeroplane provided with a motor having a power shaft extending in opposite directions, a main propeller upon the forward end of the said shaft, a housing slidably mounted upon the rear portion of the said shaft, a pinion within said housing splined upon the said shaft portion, a stabilizing propeller having its shaft journaled through the said housing, a gear upon the free end of the said stabilizing propeller shaft in constant mesh with the said pinion, a beam arranged transversely of the aeroplane and through which the said stabilizing propeller shaft is journaled, a connecting brace between the said housing and beam, mounting rails for the said beam, and manually operable chain and sprocket shifting means for the said beam.

4. An aeroplane comprising a frame having parallel upper side rails, a motor within said frame, a power shaft for the said motor rearwardly extending substantially centrally of the frame, a beam slidably arranged upon the said rails, a substantially rectangular housing slidably arranged upon the said shaft and having an interrupted side portion, a pinion within the said interrupted side portion of the housing splined upon the said shaft, a vertical connecting brace between the said beam and housing, a stabilizing propeller member having its shaft vertically arranged, journaled through the said beam and housing and operatively connected to the said pinion and means adapted for shifting the said beam longitudinally of the said frame during the operation of the said motor and stabilizing propeller member.

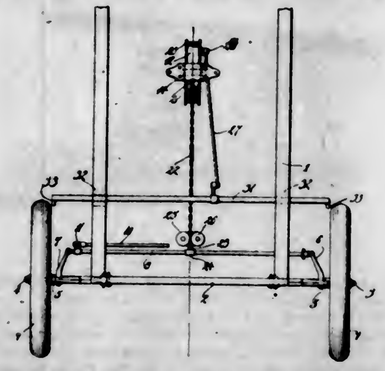
1,204,990. CIGAR-HOLDER. CHARLES E. JOHNSON, New York, N. Y. Filed Mar. 21, 1916. Serial No. 85,699. (Cl. 131—10.)



1. A smoker's article comprising a body having a bit section, an intermediate section and a socket section, jaws pivotally mounted upon the intermediate section and having gripping portions extending transversely across the socket section, said jaws being provided with spaced outstanding shoulders and outstanding shanks and a ring mounted upon the intermediate portion and movable thereon to engage the shoulders or the shanks.

2. A smoker's article comprising a body having a bit section, an intermediate section and a socket section, jaws pivotally mounted upon the intermediate section and having gripping portions disposed transversely across the socket section, said jaws being provided with spaced shoulders and shanks and a ring screwthreaded upon the intermediate portion and engageable with the shoulders and shanks of the jaws to swing the same.

1,204,991. WHEEL-CONTROLLING DEVICE FOR VEHICLES. BESSIE Q. JORDAN, Camden, N. J. Filed June 20, 1916. Serial No. 104,811. (Cl. 21—197.)



1. The combination in a vehicle, of a pair of wheels, movable means supporting the wheels, flexible means attached to the wheel-supporting means and normally slack so as to permit the free movement thereof, and means for pulling said flexible means taut to move said wheel-supporting means into such position as to bring said wheels into straight alinement with the body of the vehicle, substantially as described.

2. The combination in a vehicle, of a pair of wheels, movable means supporting the wheels, flexible means attached to the wheel-supporting means and normally slack so as to permit the free movement thereof, a drum having said flexible means connected thereto, and means for rotating said drum to pull said flexible means taut and thereby move said wheel-supporting means into such position as to bring said wheels into straight alinement with the body of the vehicle, substantially as described.

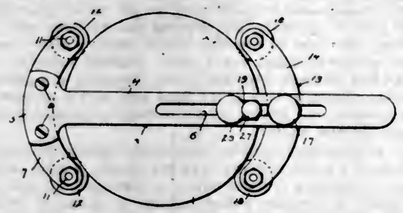
3. The combination in a vehicle, of a pair of wheels, movable means supporting the wheels, flexible means attached to the wheel-supporting means and normally permitting the free movement thereof, a drum having said flexible means connected thereto, means for rotating said drum to pull said flexible means taut and thereby move said wheel-supporting means into such position as to bring said wheels into straight alinement with the body of the vehicle, and automatically operative means for returning said flexible means to its inoperative position, substantially as described.

4. The combination in a vehicle, of a pair of wheels, movable means supporting the wheels, flexible means attached to the wheel-supporting means and normally permitting the free movement thereof, a drum having said flexible means connected thereto, means for rotating said drum to pull said flexible means taut and thereby move said wheel-supporting means into such position as to bring said wheels into straight alinement with the body of the vehicle, and arms operative in conjunction with said drum movable adjacent said wheels, said arms being operative as auxiliary means to prevent turning of said wheels from a straight path, substantially as described.

5. The combination in a vehicle, of a pair of wheels, movable means supporting the wheels, flexible means attached to the wheel-supporting means and normally permitting the free movement thereof, a drum having said flexible means connected thereto, means for rotating said drum to pull said flexible means taut and thereby move said wheel-supporting means into such position as to bring said wheels into straight alinement with the body of the vehicle, a rocker shaft, a crank arm on said rocker shaft, a link connecting said drum with said crank arm, and arms on said rocker shaft, said arms being operative as auxiliary means to prevent turning of said wheels from a straight path, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,204,992. CAN-OPENER. ERNEST G. KELLER, Beacon, N. Y., assignor of one-half to Rudolph Riedmann, Beacon, N. Y. Filed Feb. 5, 1916. Serial No. 76,461. (Cl. 30—3.)



1. In a can opener, a body, a stationary guide at one end of the body, an adjustable guide at the opposite end of the body and an independently adjustable knife intermediate the guides.

2. In a can opener, a body having a longitudinal slot formed intermediate its ends, a stationary guide at one end of the body, a longitudinally adjustable guide, a block on said adjustable guide slidable in the slot, means to hold said adjustable guide in various adjusted positions on said body, a carrier block mounted to slide within said slot independently of the guides, means to hold said block in various adjusted positions on said body and a knife adjustably mounted on said block.

3. In a can opener, a body, a guide at one end of the body, guide rollers at opposite ends of the guide, an adjustable guide on the body, guide rollers on opposite ends of the adjustable guide and a knife adjustable longitudinally on the body independently of either guide.

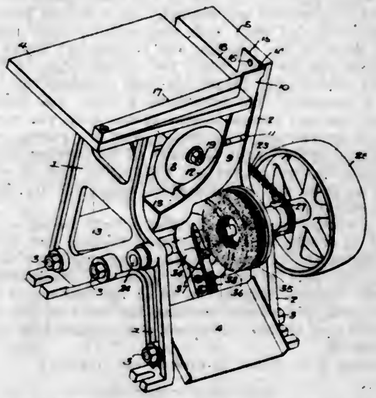
4. A can opener comprising an elongated body having a substantially T-shaped head at one end, said body being provided with a longitudinal slot, a curved guide secured to the T-shaped head, guide rollers mounted at the ends of the guide, a guide block slidable in the slot, a curved guide secured to said block, a set screw extending into the block and through the slot for holding the adjustable guide in various adjusted positions on the body, guide rollers at the ends of the adjustable guide, a carrier block slidable in the slot intermediate the adjustable guide and the stationary guide, a set screw for holding the carrier block in various adjusted positions on the body, an upward extension at one end of the carrier block the outer face of said extension being provided with a dove-tailed groove, a blade slidably mounted in the said groove, a set screw threaded into the upper end of the extension and provided with a reduced neck intermediate the threaded portion and its head, and a bifurcated angular extension at the upper end of the blade surrounding the neck for adjusting said blade upon movement of the adjusting screw.

1,204,993. FISH-CLEANING MACHINE. JOHN F. KELLER, Philadelphia, Pa. Filed July 11, 1916. Serial No. 108,621. (Cl. 17—10.)

1. The combination in a fish cleaning machine of a supporting structure having a relatively narrow chute for the reception of fish; a beheading cutter extending across said chute; a pair of rotary scaling members placed to form sides for the chute below and to one side of said cutter; and means for removing the entrails of each fish while it is engaged by said scaling members.

2. The combination in a fish cleaning machine of a supporting structure having a narrow substantially vertical chute for the reception of a succession of fish; a beheading cutter extending across said chute; an inclined bottom for the chute placed to receive and direct downwardly fish after they have been acted on by the cutter; and scaling members placed to receive fish from said inclined bottom; with means for removing the entrails from the fish.

3. The combination in a fish cleaning machine of a supporting structure having a substantially vertical, narrow chute for the reception of a succession of fish; a beheading cutter extending across said chute; an inclined bottom placed to direct fish under the cutter after they have been acted on by the same; an entrail removing device placed to receive fish from said inclined bottom; and rotary scaling members placed to move the fish over the entrail removing device while they are being scaled.



4. The combination in a fish cleaning machine of a supporting structure having a narrow chute, including an inclined bottom, for the reception of a succession of fish; means for beheading the fish as they pass through said chute; a belly opening cutter placed to receive fish from the inclined bottom; entrail removing means; and scaling members placed to forcibly move the fish past said entrail removing means.

5. The combination in a fish cleaning machine of a supporting structure forming a relatively narrow chute for the reception of a succession of fish and including an inclined bottom; a rotary cutter operative in a plane substantially parallel to the plane of said inclined bottom for cutting the bellies of the fish; and an entrail removing device placed to act on the fish after they have been engaged by said cutter.

[Claims 6 to 18 not printed in the Gazette.]

1,204,994. COMPOUND TOOL. HARRY B. KENDALL, Chicago, Ill. Filed Jan. 27, 1915. Serial No. 4,729. (Cl. 77—73.)



1. A compound tool comprising a cylindrical head with an integral nose projecting from its front end, there being peripheral longitudinal slots in the head and a set of deeper slots extending longitudinally of the head and the nose, reamers mounted in the last-named slots with their cutting edges adjacent the end of the nose, means for adjusting the position of said reamers, and other cutters mounted in the remaining slots with their cutting edges projecting beyond the end of the head.

2. A compound tool comprising a cylindrical head with a nose projecting from its front end, there being peripheral longitudinal slots in the head and a set of deeper slots extending longitudinally of the head and the nose, reamers mounted in the last-named slots with their cutting edges adjacent the end of the nose, cutters mounted in the remaining slots with their cutting edges projecting

beyond the end of the body, and means for adjusting the last-named set of cutters longitudinally.

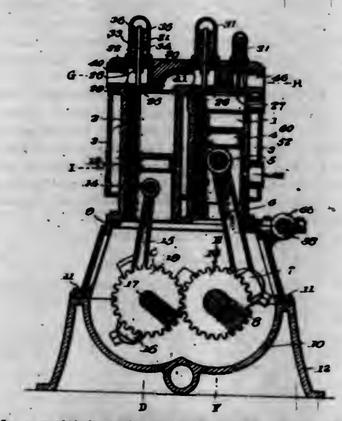
3. A compound tool comprising a cylindrical head with a nose projecting from its front end, there being peripheral longitudinal slots in the head and a set of deeper slots extending longitudinally of the head and the nose, reamers mounted in the last-named slots with their cutting edges adjacent the end of the nose, means for adjusting said reamers longitudinally, other cutters mounted in the remaining slots with their cutting edges remote from those of the reamers, and independent means for adjusting the distance which the cutting edges of these cutters shall project beyond the head alongside the nose.

4. A compound tool comprising a body, and reaming cutters and end cutters carried by the body, the cutting edge of the reamers being remote from the cutting edges of the end cutters while the parts of the reaming cutters adjacent the end cutters are non-cutting and of slight pitch so as to act as a steadying means for the object being operated upon.

5. A compound tool comprising a body having a plurality of longitudinal slots formed therein, end cutters and chamfering cutters extending to the periphery of the body, the body having other slots cut longitudinally therein, reaming cutters located in the bottoms of said other slots, and screws engaging the sides of the body opposite each of said other slots and engaging the reaming cutters.

[Claims 6 to 16 not printed in the Gazette.]

1,204,995. HYDROCARBON-MOTOR. ULYSSES S. KING, Tulsa, Okla. Filed Dec. 13, 1915. Serial No. 66,585. (Cl. 123—59.)



1. In a multiple cylinder hydrocarbon motor, the combination of a power cylinder, a piston therein, a main crank shaft, a charging cylinder having a mixture inlet valve in its head, a charging piston therein, a secondary crank shaft for operating the charging piston, the cylinder heads being formed with a charging passage leading from the head of the charging cylinder into the head of the power cylinder, the power cylinder being also formed with a compressed air inlet port, an air valve controlling said port, a cam shaft for actuating said air inlet valve, a driving gear fast on the main crank shaft, a driven gear loose on the secondary crank shaft, abutting shoulders on said loose gear and secondary crank admitting of a partial turning movement only of the loose gear on the secondary crank shaft, and driving means between said main crank shaft and cam shaft.

2. In a multiple cylinder hydrocarbon motor, the combination of a power cylinder, a piston therein, a main crank shaft, a charging cylinder having a mixture inlet valve in its head, a charging piston therein, a secondary crank shaft for operating the charging piston, the cylinder heads being formed with a charging passage leading from the head of the charging cylinder into the head of the power cylinder, the power cylinder being also formed with a compressed air inlet port, an air valve controlling said port, a cam shaft for actuating said air inlet valve, a driving gear fast on the main crank shaft, a driven gear loose on the secondary crank shaft, abutting shoulders on said loose gear and secondary crank admitting of a partial turning movement only of the loose gear on the secondary crank shaft, and driving means between said main crank shaft and cam shaft.

3. In a multiple cylinder hydrocarbon motor, the combination of a power cylinder, a piston therein, a main crank shaft, a charging cylinder having a mixture inlet valve in its head, a charging piston therein, a secondary crank shaft for operating the charging piston, the cylinder heads being formed with a charging passage leading from the head of the charging cylinder into the head of the power cylinder, the power cylinder being also formed with a compressed air inlet port, an air valve controlling said port, a cam shaft for actuating said air inlet valve, a driving gear fast on the main crank shaft, a driven gear loose on the secondary crank shaft, abutting shoulders on said loose gear and secondary crank admitting of a partial turning movement only of the loose gear on the secondary crank shaft, through an arc of approximately one hundred and eighty degrees, and driving means between said main crank shaft and cam shaft.

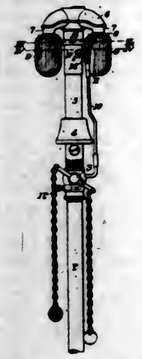
4. In a multiple cylinder hydrocarbon motor, the combination of a power cylinder, a piston therein, a main crank shaft, a charging cylinder having a mixture inlet valve in its head, a charging piston therein, a secondary crank shaft for operating the charging piston, said secondary crank shaft having its crank set approximately ninety degrees in advance of the crank of the main crank shaft, the cylinder heads being formed with a charging passage leading from the head of the charging cylinder into the head of the power cylinder, the power cylinder being also formed with a compressed air inlet port, an air valve controlling said port, a cam shaft for actuating said air inlet valve, a driving gear fast on the main crank shaft, a driven gear loose on the secondary crank shaft, abutting shoulders on said loose gear and secondary crank admitting of a partial turning movement only of the loose gear on the secondary crank shaft, and driving means between said main crank shaft and cam shaft.

5. In a multiple cylinder hydrocarbon motor, the combination of a power cylinder, a piston therein, a main crank shaft, a charging cylinder having a mixture inlet valve in its head, a charging piston therein, a secondary crank shaft for operating the charging piston, the cylinder heads being formed with a charging passage leading from the head of the charging cylinder into the head of the power cylinder, the power cylinder being also formed with a compressed air inlet port, an air valve controlling said port, a cam shaft for actuating said air inlet valve, a driving gear fast on the main crank shaft, a driven gear loose on the secondary crank shaft, abutting shoulders on said loose gear and secondary crank shaft admitting of a partial turning movement only of the loose gear on the secondary crank shaft, through an arc of approximately one hundred and eighty degrees whereby the crank of the secondary shaft is adapted to operate aproximately ninety degrees in advance of the crank of the main crank shaft in either direction of rotation of the latter.

[Claims 6 and 7 not printed in the Gazette.]

1,204,996. PILOT-LIGHTING DEVICE. THOMAS J. LITLE, Jr., Woodbury, N. J., assignor to Welsbach Light Company, Gloucester City, N. J., a Corporation of New Jersey. Filed Jan. 26, 1916. Serial No. 74,361. (Cl. 67—16.)

1. A pilot light tip having a fuel outlet, and a loose irregular mass of non-combustible fibrous material at said fuel outlet to enmesh the flame, said fibrous material being of low heat radiating qualities so that the temperature of the mass will be maintained above the kindling point of the gas, substantially as described.



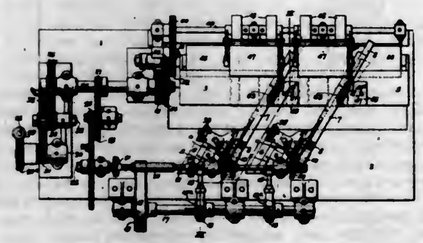
2. The combination with a pilot light tip, of a loose irregular mass of fibrous material composed at least in part of rare earths, said mass being in substantially close contact with the open end of the tip, substantially as described.

3. The combination with a pilot light tip, of a loose irregular mass of fibrous material composed at least in part of thorium compounds, said mass being in substantially close contact with the open end of the tip, substantially as described.

4. The combination with a pilot light tip, of a loose irregular mass of fibrous material composed at least in part of thorium and cerium compounds, said mass being in substantially close contact with the open end of the tip, substantially as described.

5. The combination with a gas burner of a pilot light arranged to burn constantly and ignite the burner, said pilot light having a loose irregular mass of non-combustible fibrous material which enmeshes the flame, said fibrous material being of sufficiently low heat radiating properties so that the temperature of the mass will be maintained above the kindling point of the gas, substantially as described.

1,204,997. EMBROIDERY-TRIMMING MACHINE. RUDOLF LOEB, Camden, N. J. Filed Dec. 18, 1909. Serial No. 533,780. (Cl. 164—49.)



1. A yielding shear plate for engagement by and cooperation with a horizontally disposed knife reciprocated adjacent to and in line with said shear plate, in combination with said knife and means for reciprocating the same.

2. A shear plate having a yielding edge for engagement by and coöperation with a horizontally disposed knife reciprocated adjacent to and in line with said shear plate, in combination with said knife and means for reciprocating the same.

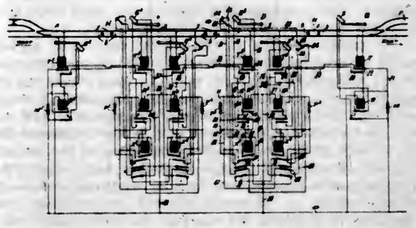
3. A shear plate having a beveled yielding edge for engagement by and coöperation with a horizontally disposed knife reciprocated adjacent to and in line with said shear plate, in combination with said knife and means for reciprocating the same.

4. A shear plate having a yielding edge for engagement by and coöperation with a horizontally disposed knife reciprocated adjacent to and in line with said shear plate, and means for pivotally mounting said yielding edge to the shear plate, in combination with said knife and means for reciprocating the same.

5. A shear plate comprising a body relatively fixed, and an edge hinged to said body for engagement by and cooperation with a horizontally disposed knife reciprocated adjacent to and in line with said shear plate, in combination with said knife and means for reciprocating the same.

[Claims 6 to 22 not printed in the Gazette.]

1,204,998. RAILWAY SIGNALING. RONALD A. MCCANN, New Brunswick, N. J., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Feb. 7, 1914. Serial No. 817,105. (Cl. 246—30.)



1. In combination, a stretch of railway track, signals located at intervals through said stretch for governing traffic in one direction, and other signals located at intervals for governing traffic in the other direction, a signal relay for each signal for the control thereof, a signal relay circuit extending through the stretch and including in multiple the relays for the signals governing traffic in one direction, and another signal relay circuit extending through the stretch and including in multiple the relays for the signals governing traffic in the other direction, main sources of current one included in each of said circuits and located adjacent the end at which traffic governed by the corresponding signals leaves the stretch, track circuits for the stretch including track relays for controlling said signal relay circuits, auxiliary sources of current located at intervals through the stretch, and means for each signal for opening at that point the corresponding signal relay circuit and connecting an adjacent auxiliary source with the portion of such circuit extending to the rear from said point.

2. In combination, a stretch of railway track divided into a plurality of successive sections, a pair of opposing signals located adjacent each junction of two sections, a signal relay for each signal for the control thereof, a signal relay circuit extending through the stretch and including in multiple the relays for the signals governing traffic in one direction, and another signal relay circuit extending through the stretch and including in multiple the relays for the signals governing traffic in the other direction, main sources of current one included in each of said circuits, and located adjacent the end at which traffic governed by the corresponding signals leaves the stretch, track circuits for the stretch including track relays for controlling said signal relay circuits, auxiliary sources of current located adjacent the signals, an auxiliary relay for each signal for opening at that point the signal relay circuit which includes the signal relay for such signal and connecting an adjacent auxiliary source with the portion of the circuit extending to the rear from such point, and means controlled by the signals and by the signal relays for governing said auxiliary relays.

3. In combination, a stretch of railway track divided into a plurality of successive sections, a pair of opposing

signals located adjacent each junction of two sections, a signal relay for each signal for the control thereof, a signal relay circuit extending through the stretch and including in multiple the relays for the signals governing traffic in one direction, and another signal relay circuit extending through the stretch and including in multiple the relays for the signals governing traffic in the other direction, main sources of current one included in each of said circuits, and located adjacent the end at which traffic governed by the corresponding signals leaves the stretch, track circuits for the stretch including track relays for controlling said signal relay circuits, auxiliary sources of current located adjacent the signals, an auxiliary relay for each signal for opening at that point the corresponding signal relay circuit and connecting an adjacent auxiliary source with the portion of the circuit extending to the rear from such point, contacts operated by each signal, a pick-up circuit for each auxiliary relay including a contact operated by the corresponding signal and closed when the signal indicates clear and a contact operated by the adjacent opposing signal and closed when the signal indicates danger, and a holding circuit for each auxiliary relay including a contact of the auxiliary relay itself and a back contact of the signal relay for the corresponding signal.

4. In combination, a stretch of railway track, signals located at intervals for governing traffic in one direction through said stretch, a signal relay for each signal for the control thereof, a signal relay circuit extending through the stretch and including said relays in multiple, said circuit also including a main source of current adjacent the end at which traffic in the said direction leaves the stretch, track circuits for the stretch including track relays for controlling said signal relay circuit, auxiliary sources of current located at intervals through the stretch, and means for each signal for opening the said signal relay circuit at that point and connecting an auxiliary source with the portion of the circuit extending to the rear from said point.

5. In combination, a stretch of railway track, signals located at intervals for governing traffic through the stretch in one direction, a signal relay for each signal for the control thereof, two line wires extending through said stretch, the said signal relays being connected in multiple across said wires, a source of current connected across said wires adjacent the end of the stretch at which a train moving in the said direction leaves the stretch, track circuits for the stretch including track relays for controlling one of said line wires, auxiliary sources of current located at intervals in said stretch, and means for each signal for opening one of the said line wires at that point and connecting an auxiliary source with the portion of the line wire extending to the rear from said point and with the other line wire.

[Claims 6 to 9 not printed in the Gazette.]

1,204,999. RAPID-ADJUSTABLE WRENCH. ARTHUR W. MCCORD, Washington, D. C. Filed Apr. 11, 1916. Serial No. 90,404. (Cl. 81—156.)

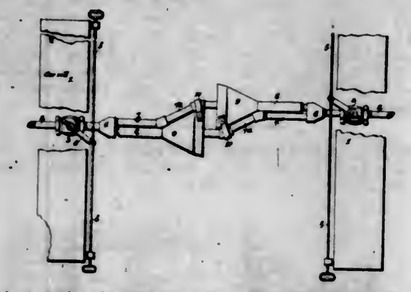
1. In a rapid adjustable wrench, a fixed jaw, a shank thereon, a movable jaw slidable upon the shank, a handle, a spring-pressed screw-threaded adjustment element slidably mounted in the handle and rotatably engaging the movable jaw, threaded means upon the upper end of the handle for detachably engaging the threads of the adjustment element for performing a rapid adjustment, and means for rotating the adjustment element for manually performing a fine adjustment of the movable jaw.

2. In a rapid adjustable wrench, a fixed jaw, a shank thereon, a movable jaw slidable upon the shank, a handle, said movable jaw and handle provided with coaxial bores and having cut-out portions entering into said respective bores, a screw-threaded adjustment element mounted in said bores having a rotatable engagement with a movable jaw and a rotatable and slidable engagement with the handle, a spring in the handle bore between the ends of the said element and handle, a manually operable ring secured to the adjustment element in the cut-out portion of the movable jaw, and a spring-pressed releasable half-nut normally in engagement with the threads of the adjustment element slidably mounted in the recess in the handle.



3. In a rapid adjustable wrench, a fixed jaw, a shank thereon, a movable jaw slidably mounted upon the shank, a handle having a bore parallel with the shank and having a cut-out portion entering into said bore, a spring-pressed screw-threaded adjustment element mounted in the bore in engagement with the movable jaw, a spring-pressed releasable threaded half-nut engaging the threads of the adjustment element mounted in the cut-out portion of the handle, and means providing an angular movement of said half-nut whereby the threads of the nut will angularly adjust themselves to completely engage the threads of the adjustment element.

1,205,000. AUTOMATIC AIR-COUPLING. ROY A. MCCURRY, Pensacola, N. C. Filed Mar. 18, 1916. Serial No. 85,165. (Cl. 188—13.)



1. A train pipe coupling for railway cars, comprising similar members, each of said members embodying two of the pipes having connection with the train pipe and projecting outwardly therefrom to unequal distances, a funnel at the outer end of the shorter air pipe, a tip at the outer end of the long air pipe, and provided in its sides with openings and a flexible lip at the base of the tip projecting outwardly therefrom to insure close contact with the inner wall of the coöperating funnel.

2. A coupling for the train pipe of railway cars, the same comprising two air pipes connected with the train pipe and projecting therefrom to unequal distances, a funnel at the outer end of the shorter air pipe, a tip at the outer end of the longer air pipe formed with a rounded end having openings in its sides, and a gasket confined between a portion of the tip and air pipe and projecting beyond the sides of such tip to insure the formation of a close joint between the tip and coöperating funnel when the members of the coupling are connected.

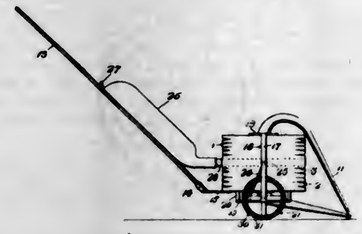
3. A coupling for the train pipe of railway cars, the same comprising two pipes having connection with the train pipe and projecting therefrom to unequal distances, a funnel at the outer end of the shorter air pipe, the projecting portion of the longer air pipe being flexible and a tip at the outer end of the flexible portion of the longer air pipe, such tip being rounded and having openings in its sides and constructed to insure the formation of a tight joint with the funnel of the coacting member.

4. An air coupling for the train pipe of railway cars, the same comprising similar or like complimental members, each consisting of a Y-connection attached to the train pipe, two air pipes fitted to the Y-connection and projecting therefrom to unequal distances, the projecting portion of the longer pipe being flexible, a funnel at the outer end of the shorter air pipe, a tip fitted to the outer end of the longer air pipe and comprising a rounded end in the sides of which are formed openings, and a gasket secured to the projecting part of the longer air pipe by means of the tip and adapted to coöperate with the funnel to insure the formation of a tight joint.

5. A train pipe coupling for railroad cars, comprising similar members each having a connection with the train pipe and consisting of two air pipes projecting from the train pipe to unequal distances, a funnel at the outer end of the shorter pipe and a tip at the outer end of the longer pipe, said tip having a flexible lip extending outwardly therefrom to insure close contact with the inner wall of the coöperative funnel.

[Claim 6 not printed in the Gazette.]

1,205,001. PUMP FOR PNEUMATIC CARPET-CLEANERS. JOHN J. MARKO, Detroit, Mich. Filed Dec. 4, 1915. Serial No. 65,107. (Cl. 230—2.)

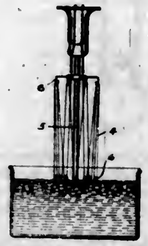


In a carpet cleaner of the class described the combination of bellows provided with fixed top and bottom walls, carrier and holder elements at their sides and having inwardly extending arms secured to the top and bottom walls, supporting and operating wheels mounted on the inner sides of the carrier and holder elements, and having cranks, a movable bellows element and connecting rods pivotally connected to the cranks of the wheels and to the said movable bellows element.

1,205,002. PROCESS OF EXHAUSTING LAMPS. JOHN T. MARSHALL, deceased, Metuchen, N. J., by Eliza T. Marshall, executrix, Metuchen, N. J., assignor to General Electric Co., a Corporation of New York. Filed Oct. 23, 1911. Serial No. 656,173. (Cl. 176—2.)

1. In the manufacture of an incandescent lamp having metal parts comprising a tungsten filament and metal anchors for the filament, the process which consists in applying to metal parts of the mount in position to be vaporized by the heat of the incandescent filament a substance solid at room temperature but reacting with the residual atmosphere to improve the lamp when vaporized in the presence of the incandescent filament, exhausting the lamp without heating the filament, sealing off the lamp, and then for the first time passing current through said filament to vaporize said substance and produce an atmosphere containing the vapor of said substance conjunctively with intensive incandescence of said filament while all glass of the lamp is below the temperature at which occluded gases are driven out of it.

2. In the manufacture of an incandescent lamp having metal parts comprising a tungsten filament and metal supports for the filament, the process which consists in applying phosphorus to metal parts of the mount in position to be vaporized by the heat of the incandescent filament, exhausting the lamp to a predetermined degree without heating the filament, sealing off said lamp, and subsequently raising said filament to intensive incandescence to vaporize the phosphorus while all the glass of the lamp is below the temperature at which occluded gases are driven out of it.



3. In the manufacture of an incandescent lamp having a mount comprising a metal filament and metal anchors, the process which consists in wetting the metal of the mount to a predetermined extent with a liquid having uniformly distributed through it a definite percentage of a substance solid at room temperature and vaporisable by incandescence of the filament, drying the metal to leave on it a coating of the solid substance, exhausting the lamp containing the coated metal without heating said filament, sealing off the lamp and then for the first time passing current through said filament to vaporise said substance and raise said filament to intensive incandescence conjunctively with the generation of said vapor while the glass of the lamp is below the temperature at which occluded gases are evolved.

4. In exhausting incandescent lamps, having mounts comprising metal filaments and metal anchors, the steps of introducing the same amount of phosphorus into each lamp by dipping the corresponding metal parts of all the mounts to the same extent into a liquid having phosphorus uniformly distributed through it, drying the metal parts to leave a coating of phosphorus on them, pumping out the lamp without heating the filament, sealing off the lamp, and then for the first time passing current through the filament and raising it to intensive incandescence.

5. The steps in the manufacture of a tungsten filament incandescent lamp which consist in coating at least a part of the tungsten filament with a substance solid at room temperature and reacting with the atmosphere in the lamp when vaporized in the presence of the incandescent filament to improve the lamp, exhausting and sealing off the lamp without vaporizing said solid substance, and then for the first time passing current through the filament to vaporize said substance and render said filament intensively incandescent in the vapor of said substance while the glass of the lamp is below the temperature at which occluded gases and water vapor are driven out of it.

1,205,003. AWL. ALEXANDER MASZCZYK, Milwaukee, Wis. Filed Oct. 23, 1915. Serial No. 57,527. (Cl. 223—37.)

1. A tool of the class described comprising a handle formed from a single length of material bent into substantially loop form to provide a frame, a bolt member passed through the ends of the frame and having a hole, a needle detachably engaged in the hole, and a nut carried by the bolt member for action upon the ends of the frame to hold the needle in the bolt member and also to lock it in adjusted position.

2. A tool of the class described comprising a handle formed from a single length of material bent into substantially loop form to provide a frame, a bolt member

passed through the ends of the frame and having a hole, a needle detachably engaged in the hole, a nut carried by the bolt member for action upon the ends of the frame



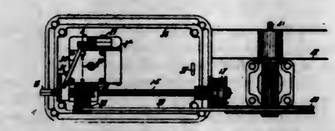
to hold the needle in the bolt member and also to lock it in adjusted position, and a spool journaled in the frame and adapted to support the thread for the needle.

1,205,004. FOUNTAIN-PEN. TASHIRO MATSUI, Wenatchee, Wash. Filed July 6, 1915. Serial No. 38,343. (Cl. 120—49.)



A fountain pen comprising a barrel section, a wall within the section and formed with a central opening, a rod slidable through the opening and carrying a head on the outer end thereof, said head being formed with a groove in one side, said head being adapted to snugly fit the outer end of the section, a conical pen nib secured in the head and formed with a spiral groove one end of which is disposed in alinement with one end of the said slot.

1,205,005. APPARATUS FOR BENDING WIRE. JUNIUS EMMETT MAYO, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Sept. 10, 1914. Serial No. 861,108. (Cl. 140—91.)



1. Apparatus for bending wire alternately in opposite directions, comprising an abutment, means for forcing the wire endwise against said abutment to thereby cause it to bend laterally first to one side and then to the other, and means for limiting lateral bending of the wire.

2. Apparatus for bending wire alternately in opposite directions, comprising an abutment, friction devices for forcing the wire endwise against said abutment to thereby cause it to bend laterally first to one side and then to the other, and means for limiting lateral bending of the wire.

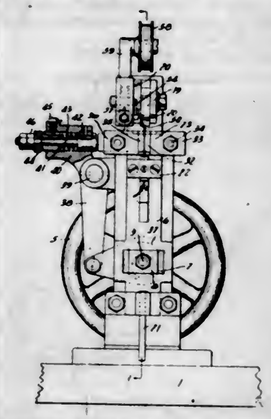
3. Apparatus for bending wire alternately in opposite directions, comprising an abutment, means for forcing the wire against said abutment, and side plates for limiting lateral bending of the wire in both directions.

4. Apparatus for bending wire alternately in opposite directions, comprising an abutment, friction devices for forcing the wire endwise against said abutment, and side plates for limiting lateral bending of the wire.

5. Apparatus for bending wire alternately in opposite directions, comprising an abutment, coöperating wire feeding rollers for forcing the wire against said abutment, and side plates for limiting lateral bending of the wire.

[Claims 6 to 34 not printed in the Gazette.]

1,205,006. WIRE-BENDING MACHINE. JUNIUS EMMETT MAYO and THOMAS F. CHARLTON, Meadville, Pa., assignors to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Oct. 10, 1914. Serial No. 866,090. (Cl. 140—91.)



1. Apparatus for bending a wire alternately in opposite directions, comprising an abutment, wire holding means, and means for relatively moving the abutment and wire holding means in a straight path.

2. Apparatus for bending a wire alternately in opposite directions, comprising an abutment, wire holding means, and means for relatively moving the abutment and wire holding means in the direction of the length of the wire.

3. Apparatus for bending a wire alternately in opposite directions, comprising an abutment, wire holding means, means for relatively moving the abutment and wire holding means in a straight path, and means for limiting lateral bending of the wire.

4. Apparatus for bending a wire alternately in opposite directions, comprising an abutment, wire holding means, means for relatively moving the abutment and wire holding means in the direction of the length of the wire, and means for limiting lateral bending of the wire.

5. Apparatus for bending a wire alternately in opposite directions, comprising an abutment, wire holding means, and means for moving said abutment toward the wire holding means to bend the wire.

[Claims 6 to 21 not printed in the Gazette.]

1,205,007. PROCESS OF TREATING LIGNITE. CAMILLO MELHARDT, Starnberg-Munich, Germany. Filed Jan. 20, 1915. Serial No. 3,414. (Cl. 44—3.)

1. The herein described method of treating lignites, peat, and the like for the purpose of increasing their calorific effect and their permanent dephlegmation, which consists in heating the material in a closed vessel with outlet to drive off certain of the gases and all of the water, and maintaining the temperature sufficiently low and in such a duration to prevent the decomposition of the remaining heat giving elements capable of decomposition, and separating out the ashy portions of the treated material.

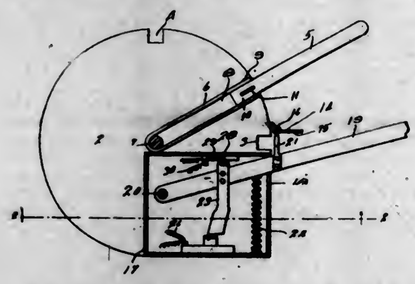
2. The herein described method of treating lignites, peat, and the like for the purpose of increasing their calorific effect and their permanent dephlegmation, which consists in heating the material in a closed vessel with outlet to drive off certain of the gases and all of the water, maintaining the temperature sufficiently low and in such a duration to prevent the decomposition of the remaining heat giving elements capable of decomposition and separating out the ashy portions of the treated material by subjecting the material to a sifting action in water or a salt solution.

3. The herein described method of treating lignites and the like, which consists in drying the same, heating the material in a closed vessel until all the water and certain of the gases have been driven off and the bitumen has been set free, and subsequently separating the material thus treated from the heavier foreign matter.

4. The herein described method of treating lignites and the like, which consists in drying the same, heating the material in a closed vessel until all the water and certain of the gases have been driven off and the bitumen set free, and subsequently separating the lighter treated material from the heavier material accompanying it by floating the same on a liquid medium of greater specific gravity than the treated material and of less specific gravity than the foreign matter.

5. The herein described method of treating lignites and the like, which consists in drying the same, heating the material in a closed vessel until all of the water and certain of the gases have been driven off and the bitumen has been set free, and subsequently separating the lighter treated material from the heavier material accompanying it by floating the same on a salt solution.

1,205,008. SIGNALING MECHANISM FOR RAILWAY-SWITCHES. SAMUEL L. NEELY, Longton, Kans. Filed Apr. 21, 1915. Serial No. 22,817. (Cl. 246—41.)



1. The combination with a railway switch having an operating lever provided with a lock receiving member and an electrical switch having an operating arm automatically movable in the direction of the opening movement of the operating lever to open a circuit and provided with means arranged in the path of the operating lever and adapted to extend through the lock receiving member when the operating lever is in its closed position, whereby it will be necessary to insert a lock in the said member in order to maintain the electric switch closed.

2. The combination with a railway switch including a switch stand having a notch and an operating lever having a pivoted handle adapted to swing into the said notch when the switch is closed, said handle being provided with a lock receiving member, of an electric switch having an operating arm automatically movable in the direction of the opening movement of the operating lever to a position to open a circuit and provided with a finger located in front of the said notch, when the operating arm is in its open position and adapted also to extend through the lock receiving member of the handle of the said lever whereby when the operating lever is moved to its closed position and locked it will maintain the operating arm of the switch in position for closing the said circuit.

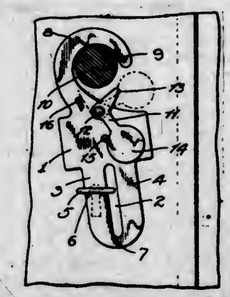
3. The combination with a switch stand, including a table having a notch and a switch operating lever provided with a pivoted handle arranged to swing into the said notch when the switch is closed, a lock receiving member carried by the said handle, an electric switch having an operating arm automatically movable in the direction of the opening movement of the operating lever to a position to open a circuit and provided with a finger located in front of the said notch when the switch operating arm is in its open position and being of a size to extend through the lock receiving member, said finger being adapted to be engaged by a lock to maintain the said operating arm in position for closing the circuit.

4. The combination with a railway switch including a stand having a notch, and an operating lever having a pivoted handle adapted to swing into the said notch, of a pivoted spring actuated switch operating arm provided with a finger adapted to be moved to a position in front of the said notch when the switch operating lever is actuated to open the switch, a blade carried by the pivoted arm and spaced contacts arranged to receive the blade between them for closing a circuit.

5. The combination with a switch stand having a notch and including an operating lever provided with a pivoted handle arranged to swing into the notch, said handle having a lock receiving member, of a pivoted switch arm provided with a finger adapted on the forward movement of the switch arm to be moved to a position in front of the said notch, a spring for automatically actuating the arm to move the finger to such position when the railway switch is open, a blade carried by the said arm and projecting in opposite directions therefrom, main contacts arranged in the path of and engaged by the said blade when the switch arm is at the limit of its backward movement to close a normally closed circuit and auxiliary contacts arranged in the path of the said blade and adapted to be engaged by the same when the pivoted switch arm is at the limit of its forward movement to close a normally open circuit.

[Claim 6 not printed in the Gazette.]

1,205,009. KEY-FASTENER. MOSES G. NORTON, Los Angeles, Cal. Filed Jan. 17, 1916. Serial No. 72,403. (Cl. 70—65.)



1. A device of the class described comprising a plate having parallel bar extensions connected at their outer ends and adapted to engage the head of a key, to prevent it from turning, the said bar extension also covering the keyhole for shielding the same and affording means for holding the device in proper relation to the key and keyhole.

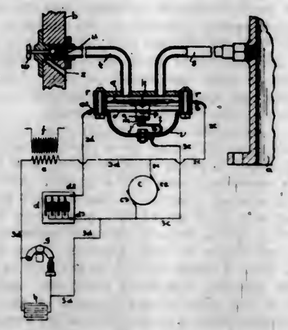
2. A device of the class described comprising a plate, a hook extension adapted to hold the plate suspended, a

gravity latch to lock said plate to a support, and a key engaging portion on said device adapted to prevent the unauthorized turning of a key.

3. A device of the class described comprising a body portion having a slotted projection forming a plurality of key head engaging bars, the said body portion of the device having identification marks thereon, a suspension hook also projecting from said body portion and an automatically operated latch for holding the said hook on a support.

4. A device of the class described comprising a plate having an elongated opening therein adapted to engage the head of a key, said plate having separable portions for admitting a key to the slotted portion, the plate on each side of the elongated opening being adapted to prevent the turning of a key in a lock, a suspension hook formed upon said plate and adapted to engage the shank of a door knob for holding the plate in key locking position.

1,205,010. IGNITION APPARATUS. CARL E. PEARSON, Lansing, Mich. Filed Apr. 27, 1914. Serial No. 834,567. (Cl. 123—165.)



1. In combination with an internal combustion engine, an apparatus adapted to be operated by an electrical current, a storage battery, a dynamo for charging said battery, and means for throwing said storage battery and dynamo into charging circuit with each other and into circuit with said apparatus, said means for completing said circuit being adapted to short-circuit the dynamo when it is not in position to complete the first mentioned circuit.

2. The combination with an internal combustion engine provided with an igniting apparatus having an electric circuit, a casing, a resilient diaphragm closing said casing, a contact piece carried by said diaphragm, a passage connecting the interior of said casing with the intake passage of said engine, and a second contact piece adapted to be contacted by the first named contact piece on the inward movement of said diaphragm whereby the inward movement of said diaphragm shall complete said electric circuit.

3. The combination with an internal combustion engine, a casing, a resilient diaphragm closing said casing, a passage connecting the interior of said casing with the intake of said engine, and means whereby the inward movement of said diaphragm shall complete an electric circuit, and means adapted to open said casing to the atmosphere at will.

4. The combination with an internal combustion engine provided with an igniting apparatus having an electric circuit, a casing, a resilient diaphragm closing said casing, a contact piece carried by said diaphragm, a passage connecting the interior of said casing with the intake passage of said engine, a second contact piece adapted to be contacted by the first named contact piece on the inward movement of said diaphragm whereby the inward movement of said diaphragm shall complete said electric circuit, a second electric circuit and a third contact piece arranged so that the outward movement of said diaphragm shall complete said second circuit through said third contact piece.

5. The combination with an internal combustion engine provided with an igniting apparatus having an electric circuit, a casing, a resilient diaphragm closing said casing, a contact piece carried by said diaphragm, a passage connecting the interior of said casing with the intake passage of said engine, a second contact piece adapted to be contacted by the first named contact piece on the inward movement of said diaphragm whereby the inward movement of said diaphragm shall complete said electric circuit, and an apparatus adapted to put the interior of said casing into communication with the outer air at will.

[Claim 6 not printed in the Gazette.]

1,205,011. LAMP-GUARD. PAUL D. PHILLIPS and ERNST G. K. ANDERSON, Chicago, Ill., assignors to Benjamin Electric Mfg. Company, Chicago, Ill., a Corporation of Illinois. Filed May 12, 1913. Serial No. 767,034. (Cl. 240—102.)



1. In a lamp guard, the combination with a clamping ring shaped and constructed to be clamped on the outer rim of the lamp shade, of a cage hinged thereto, and means for detachably connecting said cage with said ring.

2. In a lamp guard, the combination with a clamping ring shaped and constructed to be clamped on the outer rim of the lamp shade, of a cage hinged thereto and a releasable latch between said cage and said support.

3. The combination with a shade, of a lamp guard comprising a ring lying adjacent the outer rim of said shade, means for detachably connecting said ring to the outer rim of said shade, a cage hinged to said ring, and means for detachably connecting said cage with said ring.

4. The combination with a shade, of a lamp guard comprising a ring lying adjacent the outer rim of said shade, means for detachably connecting said ring to the outer rim of said shade, a cage hinged to said ring, and a releasable latch between said cage and said ring.

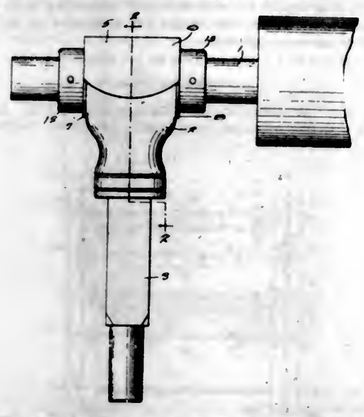
5. The combination with a shade, of an open ring surrounding said shade, a bolt for clamping said ring on said shade, a cage hinged to said ring, and a releasable latch, carried by said bolt, between said cage and said ring.

[Claims 6 to 9 not printed in the Gazette.]

1,205,012. BEARING PROTECTOR AND LUBRICATOR. ARTHUR F. POTHIER, Lewiston, Me., assignor of one-half to Harry Manser, Auburn, Me. Filed Jan. 11, 1916. Series No. 71,536. (Cl. 64—24.)

1. The combination with a shaft, and an open bearing for the shaft, of a protecting housing for said bearing, said housing including a cover plate and depending side and end plates, said end plates being provided with openings for receiving said shaft for connecting said housing to the shaft.

2. The combination with a shaft and an open bearing for the shaft, of a protecting housing for said bearing, said housing including a cover plate and depending side and end plates, said end plates being provided with openings for receiving said shaft for connecting the housing to the shaft, and lubricant retaining means positioned within said housing for lubricating said bearing.

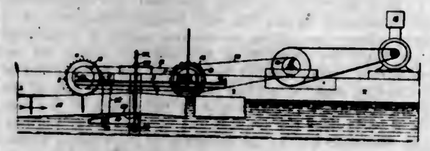


3. The combination with a shaft, and an open bearing for the shaft, of a protecting housing for said bearing, said housing including a cover plate and depending side and end plates, said end plates being provided with openings for receiving said shaft for connecting the housing to the shaft, and means for varying the size of said shaft-receiving openings.

4. The combination with a shaft, and an open bearing for the shaft, of a protecting housing removably carried by said shaft, said housing including a cover plate and depending side and end plates, said end plates provided with semicircular openings, substantially U-shaped members pivotally connected to said end plates for coaction with the semicircular openings for forming shaft-receiving openings, and means for attaching the free ends of said pivoted U-shaped members to the end plates.

5. The combination with a shaft, and an open bearing for the shaft, of a protecting housing removably carried by said shaft, said housing including a cover plate and depending side and end plates, said end plates provided with semicircular openings, substantially U-shaped members pivotally connected to said end plates for coaction with the semicircular openings for forming shaft receiving openings, means for attaching the free end of said pivoted U-shaped members to the end plate, and an absorbent lubricant retaining pad positioned within said housing.

1,205,013. MEANS FOR BREAKING FLOATING ICE INTO BLOCKS. HOWELL D. PRATT, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 31, 1916. Serial No. 117,891. (Cl. 125—14.)



1. The combination of a channel in which the partly severed ice is floated; a feed wheel above the channel for engaging the surface of the ice and feeding it forward; a breaker wheel at the rear of the feed wheel; and a breaker located in the channel between the two wheels and over which the ice must pass, so that as the ice is fed it will travel on the breaker and will be depressed, after it passes over the breaker, by the breaker wheel.

2. The combination of a channel in which the ice is allowed to float; means for feeding the ice forward in the channel; a breaker located in the channel below the surface of the ice therein and of such depth that it will raise the ice above the floating level; and a rotating breaking wheel at the rear of the breaker arranged to depress the ice and to cause it to positively break the ice into blocks.

3. The combination of a channel in which the ice to be broken is floated; a frame located above the channel; a shaft at each end of the frame; feed wheels mounted on the forward shaft and having teeth adapted to engage and feed the ice positively forward; a breaker wheel on the other shaft having slats arranged to engage the ice; and a breaker adjustably mounted in the channel at such a depth that it will bear upon the under side of the ice, causing it to lift the ice as it is moved forward, the breaker wheel depressing the ice and causing it to be severed into blocks as it passes over the breaker.

4. The combination of a channel in which ice is floated; a frame supported above the channel; a feed wheel mounted at the forward end of the frame and having teeth arranged to engage the ice and to feed it forward; a breaker having an inclined surface ending in a hump and located below the water level in the channel so as to lift the partially severed blocks of ice as they are passed thereover; means for pivoting the breaker and for vertically adjusting the same; and a breaker wheel located at the rear of the breaker and arranged to depress the ice, insuring the ice being separated into blocks.

5. The combination of a channel through which the partially cut ice is passed; a frame located above the channel; a feed wheel for engaging the upper surface of the ice to feed it forward; a breaker wheel at the rear of the feed wheel; slats on the breaker wheel and means for rotating the two wheels in unison; a breaker located between the two wheels and below the surface of the water in the channel, said breaker being pivoted; and means for vertically adjusting one end of the breaker so as to form a hump over which the ice is passed in order to cause the partly severed ice to be separated, the breaker wheel depressing the ice after it passes the breaker so as to insure the positive separation of the severed blocks.

1,205,014. PISTONLESS PUMP. JOE M. PRESSLER, Jacksonville, Tex. Filed Mar. 22, 1916. Serial No. 85,830. (Cl. 103—8.)



1. A pump of the type described comprising a casing having a water intake valve, a pump barrel within the casing having valved communication therewith, air inlet and exhaust pipes, valves controlling communication between said inlet and exhaust pipes and said casing, air actuated means controlling the inlet valve and including a piston connected to the said valve, a cylinder in which said piston is movable, a valved air pipe connecting one end of

said cylinder with the said exhaust pipe, a second valved air pipe leading from the said inlet pipe, a pair of cylinder pipes leading from adjacent relatively opposite ends of said piston cylinder, a three-way valve controlling communication between said cylinder pipes and the said second valved air pipe, a valve rod having connections for controlling said three-way valve and also connected to and controlling said exhaust pipe valve, and means for automatically actuating said valve rod including floats having limited movement thereon and with respect thereto, and arranged within the casing for actuation by the rise and fall of water therein.

2. A pump of the type described comprising a casing having a fluid intake valve at its lower end, a pump barrel within the casing and having valved communication at its lower end with the casing, air inlet and exhaust pipes, valves controlling communication between said inlet and exhaust pipes and said casing, air actuated means for controlling the said inlet valve, a valve actuating rod controlling the said air actuated means and also connected to and controlling the said exhaust pipe valve, and means for automatically actuating said valve rod including stops carried thereby adjacent its upper and lower ends, floats mounted in pairs and movable upon the valve actuating rod adjacent the upper and lower ends thereof and adjacent said stops, each of said pairs of floats having a guide, a latch carried by the guide and engaging one of the floats of the pair to permit of relative movement of the other floats, the said other floats being provided with means for releasing the latch, all substantially as described.

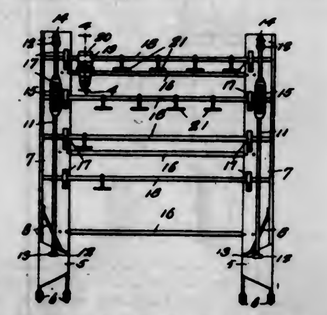
3. A pump of the type described comprising a casing having a fluid intake valve, a pump barrel within the casing having valved communication therewith, air inlet and exhaust pipes, valves controlling communication between the inlet and exhaust pipes and said casing, a piston controlling the said inlet valve, a cylinder in which said piston is movable, a valved air pipe connecting one end of said cylinder with said exhaust pipe, a second valved air pipe leading from the said inlet pipe, a pair of cylinder pipes leading from adjacent relatively opposite ends of said piston cylinder, a three-way valve controlling communication between said cylinder pipes and the said second valved air pipe, a valve rod having connections for controlling said three-way valve and also controlling said exhaust pipe valve, and means for automatically actuating said valve rod including floats having limited movement thereon and with respect thereto, and arranged within the casing for actuation by the rise and fall of water therein.

4. A pump of the type described comprising a casing having a fluid intake valve, a pump barrel within the casing having valved communication therewith, air inlet and exhaust pipes, valves controlling communication between the inlet and exhaust pipes and said casing, a piston controlling the said inlet valve, a cylinder in which said piston is movable, a valved air pipe connecting one end of said cylinder with said exhaust pipe, a second valved air pipe leading from the said inlet pipe, a pair of cylinder pipes leading from adjacent relatively opposite ends of said piston cylinder, a three-way valve controlling communication between said cylinder pipes and the said second valved air pipe, a valve rod having connections for controlling said three-way valve and also controlling said exhaust pipe valve, and means for automatically actuating said valve rod including floats having limited movement thereon and with respect thereto, and arranged within the casing for actuation by the rise and fall of water therein, said floats being arranged in pairs adjacent the upper and lower ends of the valve actuating rod and of which each pair has a latch engaging one of the floats of the pair and the other float of the other pair is provided with means for releasing said latch.

5. A pump of the type described comprising a casing having a water intake valve, a pump barrel within the casing having valved communication therewith, air inlet and exhaust pipes, valves controlling communication between said inlet and exhaust pipes and said casing, air operated means for controlling the said inlet valve, a valve actuating rod carrying the said exhaust pipe valve and having connections for controlling the said air operated means, and means for automatically actuating said valve rod arranged within the casing for actuation by the rise and fall of water therein.

[Claims 6 and 7 not printed in the Gazette.]

1,205,015. MOUSE-PROOF SEED-CORN RACK. HARRY PRUMM, Peabody, Ind. Filed May 10, 1916. Serial No. 96,622. (Cl. 34—42.)



1. In a device of the class described, base members, uprights detachably secured to said bases, a brace connecting each upright with its base, a turn buckle in each brace, and means for supporting corn ears between said uprights, substantially as described.

2. In a device of the class described, base members, uprights on said bases, the said uprights and bases being provided with slots, braces having heads at their ends for engagement within said slots, turn buckles in said braces, and means for supporting corn ears between said uprights, substantially as described.

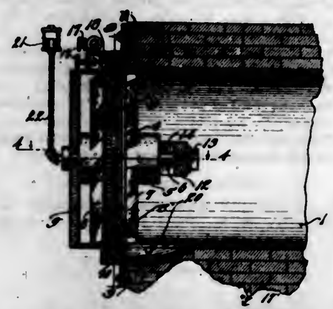
3. In a device of the class described, base members, rollers supporting said bases, a strap member on each base, an upright for each base adapted to be secured thereto by said strap members, front and rear braces connecting said uprights with said bases, turn buckles in certain of said braces, and bars connecting the uprights of each base, substantially as described.

4. In a device of the class described, the combination with a drying rack comprising horizontally disposed bars, of hollow conical foraminated members each adapted to contain a corn ear, metallic caps for inclosing the open ends of said members, a ring for supporting each cone, and a hook on each ring for engagement over said bars, substantially as described.

1,205,016. TURBINE-BLOWER. JOSEPH ROY RAMSEY, Lykens, Pa. Filed July 22, 1915. Serial No. 41,289. (Cl. 230—11.)

1. In a device of the class described, the combination with a conduit having its end flanged outwardly, of a turbine blower comprising an annular casing of a diameter larger than the diameter of the conduit, means for attaching the casing against the face of the flanged end of the conduit, said flanged end thereby forming a side of the annular casing, a fan arranged at the mouth of the conduit, a peripheral rim on said fan of a diameter substantially corresponding to the diameter of the conduit whereby to coöperate with the sides of the casing to form a closure therefor, spaced rows of impact blades on the rim of the fan, a series of stationary impact blades on the casing projecting into the space between the impact blades of the fan, and a nozzle arranged laterally of the casing for directing impelling fluid against the blades aforesaid.

2. In a turbine blower of the class described, the combination of a rotary fan, a conduit at the mouth of which said fan is disposed, an outer bracket member in which the fan is supported at one side, an annular casing formed on said bracket, means connecting said bracket and casing to the conduit, a nozzle casing located at one side of said annular casing, impulse members arranged on the periphery of said fan against which a pressure medium



from the nozzle impinges, and an inner supporting member for said fan having slidable interlocking connection with the conduit, said conduit being formed with an exhaust passage leading from the annular casing aforesaid and with lateral recesses to receive the inner supporting member aforesaid.

1,205,017. BOTTLE-STOPPER. LOUIS H. RATHKE, Milwaukee, Wis. Filed Apr. 18, 1914. Serial No. 832,735. (Cl. 215—54.)



1. A receptacle stopper, consisting of a cylindrical piece of material provided with a groove extending longitudinally of its length and having a plug portion formed in cutting said groove removably filling said groove.

2. A receptacle stopper, comprising a cylindrical piece of material, and a plug of triangular shape in cross section cut from one longitudinal side portion of the piece of material to form a triangular shaped groove which is removably filled by the plug cut therefrom.

3. A receptacle stopper, consisting of a cylindrical piece of material divided longitudinally into two sections, one of said sections having a longitudinally extending groove provided in its inner face to form a discharge orifice.

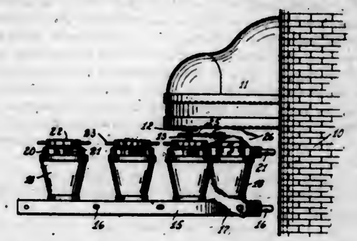
4. A receptacle stopper, comprising a cylindrical piece of material divided longitudinally into two sections, and a longitudinally extending plug cut from the inner face of one of the sections to form a groove which is removably filled by the plug.

5. A receptacle stopper, comprising a cylindrical piece of material divided medially, longitudinally into two sections, the inner face of one of the sections being provided with a longitudinallly extending V-shaped groove to form a discharge orifice, and a plug of triangular shape in cross section removably filling said orifice.

[Claim 6 not printed in the Gazette.]

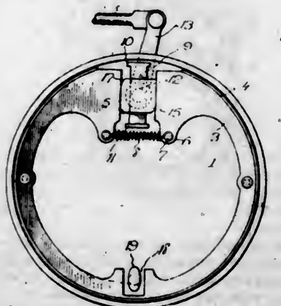
1,205,018. PROCESS OF CHARGING MOLDS WITH GLASS. JOHN RAU, Indianapolis, Ind. Filed Apr. 16, 1914. Serial No. 832,311. (Cl. 49—77.)

The process of charging molds with glass, which process consists in maintaining a constant stream of glass from a discharge spout to the molds, opening the upper portion of the mold before it reaches the mold charging position, severing the stream of glass near the discharge spout, and moving a mold into charging position so that the severed end of the stream of glass will pass between the separated



upper portion of the mold and not strike the side or top of the unopened portion of the mold.

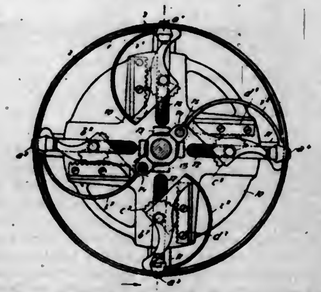
1,205,019. BRAKE-CLUTCH. ROBERT B. REED, Benton Harbor, Mich. Filed Dec. 26, 1913. Serial No. 808,705. (Cl. 74—13.)



1. In a brake clutch, a drum, brake shoes adapted for engagement with said drum, and means between ends of said shoes adapted for automatic adjustment by a movement of said drum to a point where the torque required to produce a constant retardation or braking force is decreased.

2. In a brake clutch, a drum, brake shoes adapted for engagement with said drum, and means between ends of said shoes adapted for automatic adjustment by a movement of said drum through the medium of said shoes to a point where the torque required to produce a braking force is decreased.

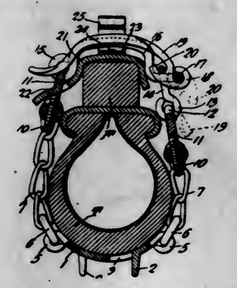
1,205,020. EXPANSIBLE PULLEY. WILHELM REIMERS, Kiel, Germany. Original application filed Feb. 18, 1914, Serial No. 819,429. Divided and this application filed May 26, 1915. Serial No. 30,569. (Cl. 64—8.)



In an expansible pulley of the character described, in combination, an expansible rim consisting of spring strips,

a cross-shaped central member having hollow arms, socket members guided in the hollow arms of said cross shaped member, bridge members to which the outer ends of said strips are secured, said members being secured to the outer ends of said socket members, screw spindles on said socket members for sliding the bridge members in a radial direction, pivots upon said socket members, segments on said pivots, racks secured to said arms, gears on said segments adapted to mesh with said racks, said spring strips being secured with their inner ends to said segments and with their outer ends to said bridge members, and means for turning the screw spindles simultaneously in one or the other direction for moving one set of ends of the spring strips inwardly and winding up the other set, substantially as described.

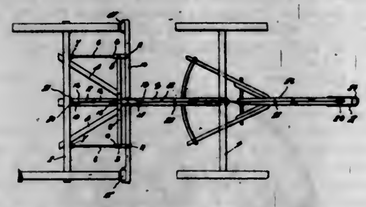
1,205,021. ANTISKID DEVICE. SAMUEL RENNER and GEORGE P. ADAMS, Western, Nebr. Filed Nov. 22, 1915. Serial No. 62,819. (Cl. 152—14.)



1. An anti-skid device embodying a shoe, opposite pairs of flexible elements attached thereto, a pair of nuts each having opposite hooks to which one pair of said flexible elements are attached, bolts threaded through said nuts and having heads, and means for detachably coupling said heads together around a felly.

2. An anti-skid device embodying a pair of nuts to be disposed at opposite sides of a tire, a flexible structure connected to said nuts and adapted to pass around the tread of the tire, bolts threaded through said nuts, and means for detachably coupling the bolts together around a felly, to prevent the rotation of the bolts unless they are uncoupled, said structure preventing the rotation of the nuts.

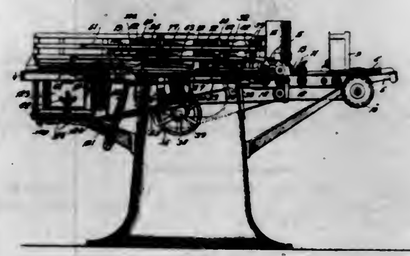
1,205,022. AUTOMATIC WAGON-BRAKE. BURTON W. ROBBINS, St. Petersburg, Fla. Filed Jan. 14, 1916. Serial No. 72,088. (Cl. 21—9.)



1. The combination with the rear axle and the reach pole of a wagon, of a bar extending transversely of the reach pole adjacent the rear end thereof and secured thereto and arranged in spaced relation with the rear axle, a pair of rods arranged on opposite sides of the reach pole and parallel therewith, and having their rear ends connected to the axles and their forward ends extended beneath the transverse bar and secured thereto and terminally extending beyond the transverse bar, brake bars pivoted to the extended terminals of the rods, means for operating the brake bars, and means connected to the brake bars and the rear axles for returning the brake bars to normal inoperative position.

2. In brake operating mechanism for a wagon, the combination with a wagon tongue and a brake operating cable, and an operating lever carried by the tongue and having connection with the cable, of a U-shaped tip associated with the tongue and having the bight portion thereof located in advance of the lever and the tongue and having the sides thereof extending along the sides of the tongue, downwardly and forwardly converging arms extending from the sides of the tip, means for connecting the arms to each other, the said arms being arranged in spaced relation with the bight portion of the tip and located in advance of the tongue, for the purpose specified.

1,205,023. PAMPHLET-COVERER. HORACE L. ROBERTS, Brooklyn, N. Y. Filed Jan. 7, 1916. Serial No. 70,747. (Cl. 11—38.)



1. A pamphlet coverer comprising a table, a runway on the table, means for feeding a cover into the end of the runway, and means for feeding a pamphlet-body into the side of the runway.

2. A pamphlet coverer comprising a table, a runway on the table, a pamphlet-body receiving platform communicating with the side of said runway, and elevated a distance above the table and means for feeding a pamphlet cover into the end of the runway beneath the platform.

3. A pamphlet coverer comprising a table, a pair of side pieces on the table that form a runway therebetween, a platform, and pamphlet-body feeding means on said platform that extend entirely across the runway and are adapted to carry the pamphlet-body sidewise into the same.

4. A pamphlet coverer, comprising a table, a pair of side pieces on the table that form a runway therebetween, a transverse platform that clears one of said side pieces and extends across the runway, and endless conveyer chains carried by the platform, extending likewise across the runway.

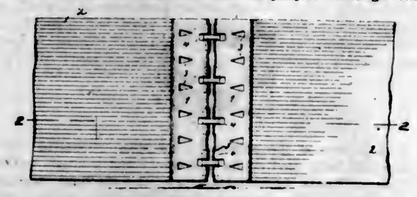
5. A pamphlet coverer comprising a table, a pair of side pieces on the table that form a runway therebetween, a transverse platform that clears one of the side pieces and extends across the runway, pamphlet conveying means carried by the platform and extending likewise across the runway, said platform being elevated a distance above the table, to form a cover receiving space between the table and platform.

[Claims 6 to 18 not printed in the Gazette.]

1,205,024. TAPE-FASTENER. HORACE L. ROBERTS, Brooklyn, N. Y. Filed Feb. 11, 1916. Serial No. 77,570. (Cl. 24—33.)

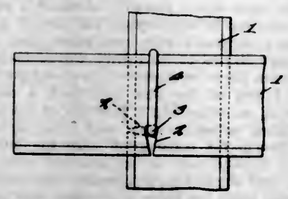
A tape fastener comprising a pair of oblong bendable plates having slots extending transversely of the same, said plates being provided with grooves arranged axially thereto and intercepted by said slots, an H shaped coupling member composed of a pair of parallel pins and

of a web connecting said pins, said pins being adapted to lie in said grooves and the webs to project through said



slots, whereby said plates are locked together, said plates provided with means for securing them to a tape.

1,205,025. COLLAPSIBLE CRATE. BYRD C. ROCKWELL, Camden, Ark. Filed Oct. 16, 1915. Serial No. 56,267. (Cl. 217—48.)



1. A crate including superposed crossed slats having dovetail recesses extending thereinto from the outer faces thereof, the inner or broad portions of the recesses being in line, and a pivot element extending through said alined portions of the recesses, the narrow portions of the recesses being of less width than the pivot element.

2. A crate including superposed crossed slats having dovetail recesses extending thereinto from the outer faces thereof, the inner or broad portions of the recesses being in line, and a pivot element extending through said alined portions of the recesses, the narrow portions of the recesses being of less width than the pivot element, the end portions of the pivot element being hooked to engage the adjacent slats, thereby to hold said element against longitudinal removal from the recesses.

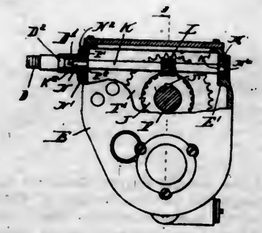
1,205,026. FRYING UTENSIL. MARY E. RODGERS, Chicago, Ill. Filed Sept. 28, 1915. Serial No. 53,062. (Cl. 53—7.)



A frying utensil comprising an imperforated lower receptacle, an upper perforated receptacle adapted to fit in said lower receptacle, a pair of vertical spaced stand

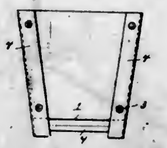
ards secured to each side of said lower receptacle, one standard of each pair having a recess formed therein adjacent the upper end thereof, a leaf spring secured to said standards adjacent said recess, said springs having a right angular bent portion on its free end, a pair of lugs secured to said perforated receptacle on the opposite sides thereof, said lugs being adapted to slide between said vertical standards and engage the upper portion of said lower receptacle when the perforated receptacle is in its lowermost position and engage the angular bent portions of the springs when in its elevated position.

1,205,027. TRANSMISSION-DRIVE FOR SPEEDOMETERS. FRANK A. ROSS, Evanston, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed May 1, 1914. Serial No. 835,599. (Cl. 74—7.)



In an automobile, in combination with a transmission comprising a housing and a shaft inclosed thereby having a fixed speed ratio with respect to the road wheels of the vehicle, a gear on said shaft within the housing, a small shaft and a gear fixed thereon in position to mesh with the first-mentioned gear, a journal bearing for one end of said small shaft carried by one wall of the housing, the opposite wall having an aperture large enough to admit the gear on the small shaft, a fitting formed to close said aperture and carrying a second bearing for said shaft, said fitting terminating in a sleeve, a jointed shaft operatively connected with said small shaft outside the casing, and a tubular casing for said jointed shaft dimensioned at the end to fit said sleeve for connection therewith.

1,205,028. KNOCKDOWN PLANT-TUB. JEAN HENRY RUDOLPH, Essex Fells, N. J. Filed Aug. 3, 1916. Serial No. 112,931. (Cl. 47—19.)



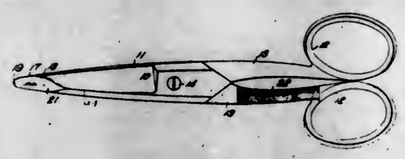
1. A knock-down plant tub comprising a plurality of removable side walls, a plurality of corner angles extending along the entire edges of said side walls and inclosing the edges thereof, upper and lower means passing through the corner angles and some of the side walls for adjustably securing said side walls and corner angles together, and a removable bottom located within said plant tub and supported by the said lower means.

2. A knock-down plant tub comprising a plurality of removable side walls, some of which are provided with apertures, a plurality of corner angles, one side thereof being provided with apertures, said corner angles extending along the entire edges of the side walls and inclosing said edges, upper and lower tie rods passing through the apertures in the corner angles and the apertures in the apertured side walls for adjustably securing the side walls and corner angles together, and a removable bottom

loosely located within said plant tub and supported upon the lower tie rods.

3. A knock-down plant tub comprising a plurality of removable side walls, a plurality of corner angles extending along the entire edges of said side walls and inclosing the edges thereof, upper and lower means passing through the corner angles and some of the side walls for adjustably securing said side walls and corner angles together, a removable bottom located within said plant tub and supported by the said lower means and a tray removably secured below the bottom of the plant tub and frictionally held in position by the corner angles.

1,205,029. TOILET-SCISSORS. EMMA FARRELL RUGGLES, New York, N. Y. Filed Dec. 18, 1915. Serial No. 67,555. (Cl. 30—23.)



A pair of toilet scissors having one of its blades formed with a broadened end portion, the end of which is curved radially outwardly and downwardly from a common point and terminates in a transversely curved under edge, the remaining portion of said broadened end portion being transversely curved outwardly and downwardly and terminates in a substantially straight under side forming a cutting edge, the front portion of the remaining portion merging with the curved end portion and receding rearwardly therefrom and having its rear portion inclined gradually upwardly and merging with the adjacent body portion of said blade to provide a wedge shaped side edge at the rear of said under side edge, whereby to provide means at the end of said blade for manicuring the cuticle around a nail and means at the side of said blade to coöperate with the end means for elevating a nail when positioned therebeneath and moved longitudinally thereunder.

1,205,030. SLING. JOHN H. SANDMEYER, Jr., Chenoa, Ill. Filed Mar. 23, 1916. Serial No. 86,287. (Cl. 57—11.)



The combination with a sling, a hoisting line, a pulley over which said line passes and to which one end of the sling is connected, and a loop attachment to which the other end of the sling is attached, and through which the pulley is adapted to pass; of a pair of laterally spaced hooks carried by the pulley and adapted to engage the loop when the pulley has passed therethrough and cleared the same, said hooks being spaced vertically from the pulley, and another hook carried by the pulley for attachment of the first-mentioned end of the sling, all of the aforesaid hooks being integrally connected, and the shank of the second-mentioned hook being located between the shanks of the first-mentioned hooks, said second-mentioned hook extending in the opposite direction from the first-mentioned hooks.

1,205,031. FAUCET. CHARLES SCHMITT, Oakley, Ohio. Filed Sept. 10, 1915. Serial No. 50,028. (Cl. 137—26.)

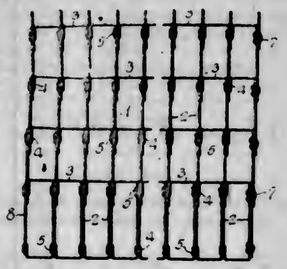


1. A faucet of the character described consisting of a cylindrical body portion having inlets and a single outlet, a channel flange formed interiorly of said body portion, a cylindrical valve drum adapted to rotate within said channel flange, said drum being provided with openings adapted to register with said inlets, spring actuated auxiliary valves mounted within the walls of said drum adapted to seat over said inlets when said valve drum is closed, and means mounted upon said valve for opening and closing the same.

2. In a faucet of the character described, a casing having a single outlet and a plurality of inlets, a valve drum rotatably mounted in said casing and having a plurality of openings registerable with said inlets, and automatic sealing means carried by said drum for engagement with said inlet when the valve member is in closed position.

3. In a faucet of the class described, a casing, said casing having an outlet and a plurality of inlets, a valve drum mounted in said casing, said valve drum having openings therein for registration with the inlet in said casing, and supplemental spring actuated valve members carried by said drum for engagement with said inlet to seal the same when the valve is in closed position.

1,205,032. FLOOR-MAT. HENRY F. SCHWIER, Detroit, Mich. Filed Mar. 17, 1916. Serial No. 84,803. (Cl. 15—63.)

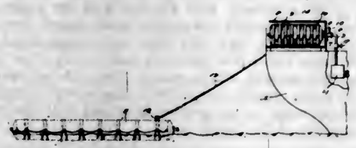


1. A mat comprising connected angle members, reverse angle members at an end of said mat, and side plates at the side of said mat, said angle members and said side plates coöperating in providing oblong interstices, and a tongue forming a part of each member and extending through an adjoining member and engaging the wall thereof.

2. A mat composed of angle members, each having a longitudinal portion, a transverse portion, and a return portion provided with a tongue, said angle members being assembled with the tongues thereof extending through overlapped longitudinal portions of adjacent members and engaging walls thereof, all of said members being disposed on edge to form oblong interstices, reverse angle members at one end of said mat closing otherwise open interstices, and plates at a side of said mat closing otherwise open interstices.

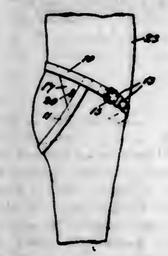
1,205,033. LIFE-RAFT. BENJAMIN W. SEELY, Pensacola, Fla. Filed June 26, 1915. Serial No. 36,441. (Cl. 9—11.)

In a device of the character described comprising a cylindrical housing secured to a vessel and provided with one of its ends closed, an inflatable life raft positioned within the housing, a check valve secured to one end of the life raft, an externally screw-threaded collar formed on the free end of the check valve, an air supply pipe extending through the closed end of the housing and connected to an air supply tank, an internally screw-threaded collar rotatably mounted on said pipe within the housing and



threaded to first mentioned collar, a shank formed on the second mentioned collar and extending through the closed end of the housing, and a handle secured to said shank for rotating the second mentioned collar to detach the life raft from the housing.

1,205,034. SUPPORTING-BELT. HYMAN SELTZER, New York, N. Y. Filed Nov. 3, 1914. Serial No. 870,070. (Cl. 224—5.)



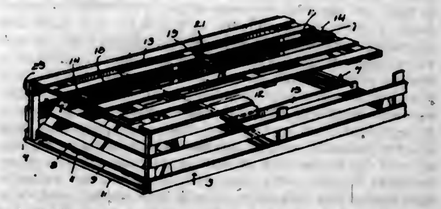
1. A supporting belt for supporting a swimming device on the body, comprising a flexible supporting member adapted to be guided around the waist of a person, two flexible strap members toward the back depending from spaced parts of the central portion of the supporting member, the said strap members being adapted to be guided under the legs and to the front of the person in crossed relation, and a fastening device on each of the strap members, adapted to engage one of the ends of the supporting member for detachably connecting the members together, at the front of the body, and means on said strap members for connecting said belt to a swimming device, substantially as set forth and for the purpose specified.

2. A belt of the character described, comprising a flexible supporting member adapted to be guided around the waist of a person, two flexible strap members arranged in approximately an X-shape depending from the central portion of the supporting member at the back, the said strap members being adapted to be guided under the legs and to the front of the person, a fastening device on the free end of each of the strap members, adapted to engage one of the ends of the supporting member for detachably connecting the members together at the front of the hips, and means on said strap members for connecting said belt to a swimming device, substantially as set forth and for the purpose specified.

3. A belt of the character described comprising a flexible supporting member adapted to be guided around the waist of a person, two flexible strap members depending from spaced parts of the central portion of the supporting member and disposed in convergent and crossed relation and connected where crossed, the said strap members being adapted to be guided under the legs and to the front of the person, a fastening device on each of the strap members adapted to engage one of the ends of the supporting member for detachably connecting the members together, two back plates located between the straps and the portion of the supporting member therebetween, and means on said plates for connecting said belt to a swimming device.

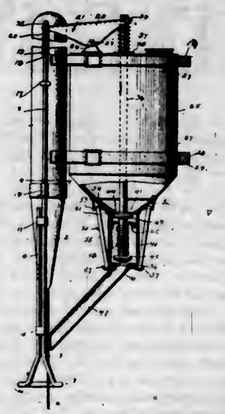
4. A belt of the character described, comprising a flexible supporting member adapted to be guided around the waist of a person, two flexible strap members arranged in approximately an X-shape depending from the central portion of the supporting member, the said strap members being adapted to be guided under the legs and to the front of the person, a fastening device on each of the strap members, adapted to engage one of the ends of the supporting member for detachably connecting the members together, two flexible back plates and a flexible front plate on the members, and an eye on each of the plates, substantially as set forth and for the purpose specified.

1,205,035. FOLDING CRATE. LEO V. F. SENDELBECK, Waterloo, Ill. Filed Apr. 7, 1915. Serial No. 19,797. (Cl. 217—47.)



A folding crate comprising a bottom wall, front and rear walls hinged to said bottom wall, a top wall hinged to said front and rear walls, brackets secured to each end of the bottom wall, rods hingedly and slidably mounted in said brackets, end walls secured to said rods and adapted to slide and swing with said rods, springs secured to said front and rear walls and each provided with an aperture, pins secured by said end walls for engagement with the aperture of the spring to support said end walls, brackets secured to said top, a slat slidable into second mentioned brackets and provided with a longitudinal groove, a catch carried by the top and engaging the groove and a plate carried by the slat intermediate its ends and provided with an opening to receive the catch to hold the slat in a closed position.

1,205,036. PLANT-ERADICATOR. NELS A. SETTEVIG, Kloten, N. D. Filed Nov. 3, 1915. Serial No. 59,428. (Cl. 47—37.)

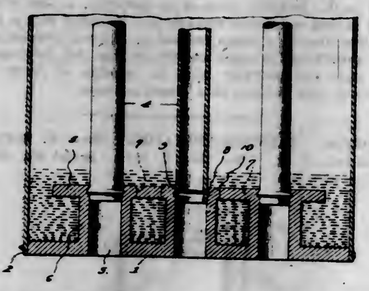


1. In a plant eradicator, the combination of a handle, a plant root splitting blade carried by said handle, a sup-

porting base for engagement with the surface of the ground and arranged around said blade, upwardly extending angular extensions formed on said supporting base and slidably mounted on said handle, an eradicating liquid retaining tank carried by said handle, a valve mechanism carried by said tank and a lever pivotally secured intermediate its ends to the top of said tank, one end of the lever engaging said valve mechanism and the other end engaging said upstanding extension on said base whereby said valve mechanism is operated when said blade is forced into the ground and said supporting base engages the ground.

2. In a plant eradicator, the combination of a handle, a plant root splitting blade carried by said handle, a supporting base for engagement with the surface of the ground and arranged around said blade, upwardly extending angular extensions formed on said supporting base and slidably mounted on said handle, an eradicating liquid containing tank carried by said handle, a compartment secured to the lower portion of said tank, said tank having an opening communicating with said compartment, a valve stem slidably mounted in said tank and extending into said compartment, a valve carried by said valve stem adapted to seat in said opening in said tank, a similar valve secured to the lower portion of said valve stem and adapted to close the outlet in said compartment, means to normally hold said valve seated in said opening in said tank, and to hold the other valve unseated, and a lever pivotally secured intermediate its ends to the top of said tank, one end of said lever engaging the upper terminal of said valve stem and the other end engaging said upstanding extension on said base so that said valve seated in the opening in said tank is unseated and the valve in said outlet of the compartment is seated when said blade is forced into the ground and said supporting bar engages the ground.

1,205,037. BOILER-HEAD. NOAH B. SHEPARD, Cypress Inn, Tenn. Filed Feb. 24, 1915. Serial No. 10,230. (Cl. 122—44.)



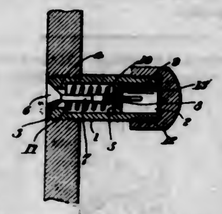
1. A device of the class described including an outside boiler head designed to be united at its periphery with the walls of the boiler and provided with openings, and inside boiler head or wall spaced from the outside boiler head and also from the walls of the boiler and located within the same, said inside boiler head or wall being provided with openings for the reception of boiler tubes and short tubular portions connecting the inside and outside boiler heads coinciding with the said openings.

2. The combination with the walls of a boiler of an outside head connected at its periphery to the said walls and provided with openings, an inside head or wall located within the boiler and spaced from the walls thereof and also from the outside head, said inside head or wall being provided with openings for the reception of the ends of boiler tubes, and short tubular portions formed integral with the inside and outside heads and coinciding with the said openings.

3. The combination with the walls of a boiler, of an outside boiler head united at its periphery with the said walls and provided with openings, an inside boiler head provided with openings for the reception of the ends of boiler tubes and having interiorly arranged grooves into which the tubes are expanded, and tubular extensions or members connecting the inside and outside heads and coinciding with the said openings.

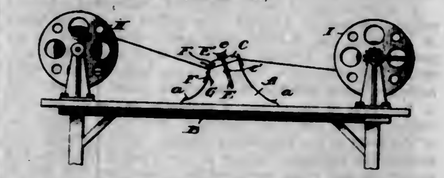
4. The combination with a boiler, of an outside head united at its periphery with the walls of the boiler and provided with openings, an inside head spaced from the walls of the boiler and also from the outside head and provided with boiler tube openings and having other openings for the passage of the water, and tubular portions connecting the inside and outside heads and coinciding with the openings of the outside head and with the boiler tube openings of the inside head.

1,205,038. CHECK-VALVE. ALFRED BERTRAM SINGER, Philadelphia, Pa. Filed Feb. 25, 1913. Serial No. 750,623. (Cl. 137—32.)



In combination, a wall having a threaded opening, a hollow valve body having one end threaded into said opening, said valve body being formed within its threaded end with a transverse shoulder having an opening flaring outwardly to form a valve seat, a conical valve fitting said seat flush with the periphery of the threaded end of said valve body, a rod carried by said valve and having an outer threaded portion, a head slidably engaging said valve body and having a central threaded sleeve in which is adjustably threaded the valve rod, said head forming the sole guide for said rod when said valve is unseated and having a plurality of air ports around said sleeve, a spring coiled around said rod, bearing at one end against said shoulder and against said head at its opposite end, said head being adapted to retain said spring against the shoulder, and a removable cap connected to the other end of said valve body.

1,205,039. FILM-CLEANER. JAMES E. SINGLETON and SAMUEL T. WHITE, Greenville, N. C. Filed July 7, 1916. Serial No. 108,029. (Cl. 15—8.)



1. A film cleaner comprising a pad holder having upper and lower members between which the film is drawn; said members having inclined confronting surfaces which are farther apart at their edges than at their intermediate portions; whereby they are adapted to grip the intermediate part only of the film and permit the edges of the film to pass freely therebetween, and means for securing a flexible strip or pad upon each of said surfaces.

2. A film cleaner comprising a pad holder having upper and lower members with inclined confronting surfaces between which the film is drawn; the intermediate portions of said confronting surfaces being closer together than the margins thereof, so as to prevent gripping the margins of the film, and means carried by said members adapted to grip and hold the ends of flexible strips or pads lying upon said inclined surfaces.

3. A film cleaner comprising a pad holder having upper and lower members with inclined confronting surfaces the space between which is of greater depth along the margins thereof than at an intermediate point, means for securing a flexible strip or pad upon each of said surfaces, and means for adjusting said members to adapt them to press the film more or less tightly between the pads.

4. A film cleaner comprising a pad holder having upper and lower members with inclined confronting surfaces, means for securing a flexible strip or pad upon each of said surfaces, and means for adjusting said members to adapt them to press the film more or less tightly between the pads; said surfaces being slightly rounded so as to gradually increase the space between the pads toward opposite sides, whereby the edges of the film may be drawn freely therebetween.

5. A film cleaner comprising a pad holder in two parts mounted one upon the other, one of said parts having an upwardly inclined longitudinal groove therein with marginal flanges and the confronting surface of the other part overlying said groove between said flanges, together with means for securing flexible strips or pads to said confronting surfaces; the intermediate portions of said surfaces being closer together than the margins thereof, so as to prevent gripping the edges of the film.

[Claims 6 to 8 not printed in the Gazette.]

1,205,040. DISPLAY-CABINET. MAX A. SKALL, New York, N. Y. Filed Feb. 7, 1916. Serial No. 76,560 (Cl. 211—25.)

1. A display cabinet of the kind described, comprising a chamber for the reception of a box and its open lid, the slanted front side of the cabinet forming a plane covering the lid and opening of said box, and consisting of two transparent doors, the lower door being pivotally attached to the upper door and the upper door to one of the side plates of the cabinet.

2. A display cabinet of the kind described comprising a chamber quadrangular in cross-section, means in said chamber to support a box and its open lid in slanted position, the lid resting in the plane of the front opening of said box, a slanted bottom plate to support the front side of the box and a door consisting of two transparent plates, covering the front of the cabinet, one of said plates being adapted to swing around a horizontal axis and both plates around a second axis.

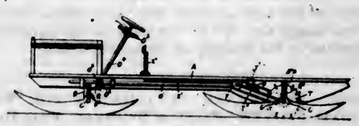
3. In a display cabinet for cigars, a casing whose quadrangular cross-section is formed by a rear side, a slanted front side and two bottom plates, one of said bottom plates being slanted to support the displayed box, the other bottom plate being extended beyond the casing to act as a stabilizer for the same, the front side consisting of two hinged panels forming doors, the hinges of one panel being arranged perpendicularly to the hinges of the other panel.

4. A display cabinet for cigars or the like, consisting of a single chamber of quadrangular cross-section accommodating the displayed box and its lid in slanted position, the front of the lid forming a plane with the front opening of the displayed box; a door of two transparent plates arranged in the same plane and forming the front side of the casing, means to move one of said plates independent of the other and means to move both plates simultaneously.

5. A display cabinet of the kind described forming in transverse section an irregular quadrangle of two short and two long sides; each short side being perpendicular to one of the longer sides, the slanted front side of the cabinet consisting of two transparent doors, one of said doors being adapted to swing on an axis parallel to one of the side plates and the other door on an axis perpendicular to the first one.

[Claim 6 not printed in the Gazette.]

1,205,041. MOTOR-SLEIGH. CLARENCE C. SMITH, Carthage, N. Y. Filed May 8, 1916. Serial No. 96,184. (Cl. 21—47.)



1. A motor sleigh comprising a frame with forward and rear axles and runners thereon, a driving shaft, swinging hanger arms, spur driving wheels carried thereby, gear connections between the driving shaft and spur wheel, a rock shaft, spring-actuated housings engaging said hanger arms, and means for rocking the housings to cause the spur wheels to be raised and lowered.

2. A motor sleigh comprising a frame with forward and rear axles and runners thereon, a driving shaft, swinging hanger arms, spur driving wheels carried thereby, gear connections between the driving shaft and spur wheel, a rock shaft, spring-actuated housings engaging said hanger arms, a control shaft and gear connections between the same and one of said housings for causing the latter to swing to raise or lower the spur driving wheel.

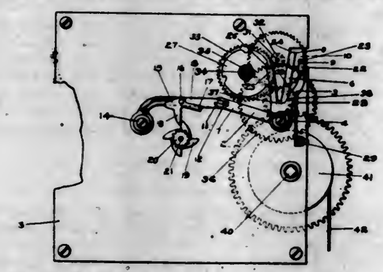
3. A motor sleigh comprising a frame with forward and rear axles and runners thereon, a driving shaft, swinging hanger arms, spur driving wheels carried thereby, gear connections between the driving shaft and spur wheels, a rock shaft, collars fixed thereto, housings upon the rock shaft and having ends engaging said hangers, springs fastened to the housings and collars, and control mechanism for rocking one of said collars.

4. A motor sleigh comprising a frame with forward and rear axles and runners thereon, a driving shaft, swinging hanger arms, spur driving wheels carried thereby, gear connections between the driving shaft and spur wheels, a rock shaft, collars fixed thereto, one of said collars having sprocket teeth about its circumference, a pin projecting from the collar having said sprocket teeth, housings upon the shaft, a pin projecting from one of said housings and in the path of the pin on said collar, springs, each having one end fastened to a collar and its other end to an arm of the housing, said spring fastened to said hangers, a control lever, and connections between the same and the sprocket teeth upon said collar.

1,205,042. WARNING-ACTION FOR CLOCK-MOVEMENTS. WILLIAM J. SMITH, Waterbury, Conn., assignor to Waterbury Clock Co., Waterbury, Conn., a Corporation. Filed July 15, 1916. Serial No. 109,517. (Cl. 58—8.)

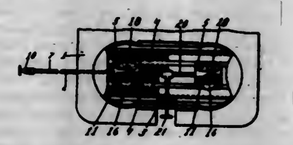
In a clock-movement, the combination with the front movement-plate thereof, of a locking-wheel located to the rear of the said plate and carrying a locking-pin, a two-armed locking-lever and a two-armed warning-lever located in front of the said plate and mounted upon the same center upon which they have independent oscillation, the locking and warning arms of the said levers coacting with each other and extending inward through the said plate in position to alternately engage with the said

locking-pin, a lifting-lever periodically operated by the time-train of the movement and connected with the lift-



ing arm of the said warning-lever, and means co-acting with the timing-arm of the locking-lever for determining the duration of the running of the locking-wheel.

1,205,043. OIL-BURNER ATTACHMENT FOR WOOD OR COAL STOVES. FRANK A. SNIDEMAN, South Haven, Mich. Filed Mar. 1, 1916. Serial No. 81,473. (Cl. 158—63.)



1. In a structure of the class described, the combination of a block-like burner body member having a fuel passage therein, a burner tube comprising a plurality of coils disposed vertically side by side and terminating in a tip disposed laterally within and at the bottom of the coils and provided with a jet orifice in its top, said tube being provided with a downwardly projecting nipple portion secured to said body member and communicating with said passage thereof, and a section of wire cable disposed at the inlet end of said tube and constituting a filter.

2. In a structure of the class described, the combination of a block-like burner body member having a fuel passage therein, a burner tube comprising a plurality of coils disposed vertically side by side and terminating in a tip disposed laterally within and at the bottom of the coils and provided with a jet orifice in its top, said tube being provided with a downwardly projecting nipple portion secured to said body member and communicating with said passage thereof.

3. The combination with a stove comprising a fire pot and grate, of a block-like burner body member disposed on said grate and having a fuel passage therein and a starting cup recess on its upper side, a burner tube comprising a vertically disposed coil terminating in a tip disposed at the bottom of the coil, said tube being provided with a downwardly projecting nipple portion secured to said body member and communicating with the passage thereof, and a deflector plate having a perforated ear on its upper side engaging said coil whereby said plate is adjustably supported above the tip.

4. The combination with a stove comprising a fire pot and grate, of a block-like burner body member disposed on said grate and having a fuel passage therein and a starting cup recess on its upper side, a burner tube comprising a vertically disposed coil terminating in a tip disposed at the bottom of the coil, said tube being provided with a downwardly projecting nipple portion secured to said body member and communicating with the passage thereof, and a section of wire cable disposed at the inlet end of said tube and constituting a filter.

5. The combination with a stove comprising a fire pot and grate, of a block-like burner body disposed on said grate and having a fuel passage therein and a starting cup recess on its upper side, a burner tube comprising a vertically disposed coil terminating in a tip disposed at the bottom of the coil, said tube being provided with a downwardly projecting nipple portion threaded into said body member so as to be removable therefrom and communicating with the passage thereof, and a nozzle adapted to be threaded into said body member in lieu of said burner tube.

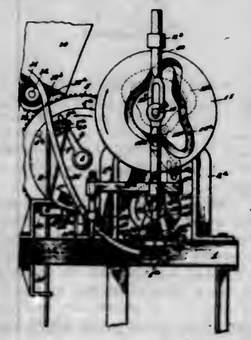
1,205,044. FASTENING DEVICE. GEORGE C. SNYDER, New York, N. Y. Filed Sept. 17, 1913. Serial No. 790,236. (Cl. 24—90.)



1. A fastening device for fabrics comprising a hollow stud or eyelet formed of a single piece and involving an outer tubular shell and an inner co-axial tubular shell, said shells being substantially parallel and defining an annular space between them, a portion of the fabric being inserted between said shells and the inner shell being expanded to clamp the fabric in said annular space between the shells, substantially as described.

2. A fastening device for fabrics comprising an outer shell, a co-axial tubular inner shell spaced from the outer shell to form an annular space in which a portion of the fabric is inserted, and coöperating flanges on the outer and inner shells to grip the fabric inserted between the shells, the walls of the inner shell being spread into close proximity with the walls of the outer shell to clamp the fabric in said annular space.

1,205,045. APPARATUS FOR SECURING BUTTONS AND LIKE FASTENINGS TO FABRICS. GEORGE C. SNYDER, New York, N. Y. Filed Oct. 4, 1913, Serial No. 793,493. Renewed May 8, 1916. Serial No. 96,252. (Cl. 218—6.)



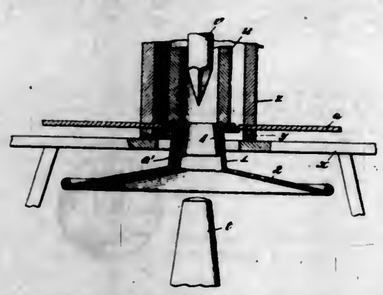
1. In a machine for attaching buttons and the like, having hollow shanks with co-axial spaced walls forming an annular clamping space, the combination of means for feeding and holding the buttons, means for puncturing the fabric and forcing the edges thereof about the puncture into the space between the co-axial walls of the button shank, and means for expanding the inner wall of the shank to grip the fabric.

2. In a machine for attaching buttons and the like, having hollow shanks with co-axial spaced walls forming an annular clamping space, the combination of means for feeding and holding the buttons, means for puncturing the fabric and forcing the edges thereof about the puncture into the space between the co-axial walls of the button shank, and means for forming the edge of the inner wall of the shank into a flange to overlie and grip the fabric.

3. In a machine for attaching buttons and the like, having hollow shanks with co-axial spaced walls forming an annular clamping space, the combination of means for feeding and holding the buttons, a plunger having an oscillating head, means to reciprocate said plunger, means to oscillate said head between reciprocations of the plunger, a tool on said head to puncture the fabric and force the material thereof into the space between the co-axial walls of the button shank in one position of the head, and a second tool on said head to deform the inner wall of the button shank and thereby clamp the fabric between said walls in the second position of the head.

4. In a machine for attaching buttons and the like, having hollow shanks with co-axial spaced walls forming an annular clamping space, the combination of means for feeding and holding the buttons, a plunger having an oscillating head, means to reciprocate said plunger, means to oscillate said head between reciprocations of the plunger, a tool on said head to puncture the fabric and force the material thereof into the space between the co-axial walls of the button shank in one position of the head, and a second tool on said head to form a flange on the end of the inner wall of the button shank to overlie and grip the fabric.

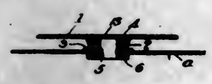
1,205,046. FASTENING DEVICE. GEORGE C. SNYDER, New York, N. Y. Filed Feb. 10, 1914. Serial No. 817,814. (Cl. 24—94.)



1. A fastening device comprising a main body portion having an opening extending completely therethrough with tapering walls, an inner tubular thimble adapted to be placed in coaxial relation with said opening and to carry with it a portion of the fabric to which the fastening device is to be secured, the walls of said thimble being adapted to be spread radially to clamp the fabric against the tapered walls of said opening.

2. A fastening device comprising inner and outer telescopic members, said outer member having an opening extending completely therethrough with tapering walls and said inner member comprising a tubular thimble adapted to be placed in coaxial relation with said opening and to carry with it a portion of the fabric to which the device is to be secured, said thimble having walls adapted to be spread into parallelism with the tapered walls of said opening to clamp the fabric in an annular clamping space between the tapered walls of said opening and the walls of the thimble.

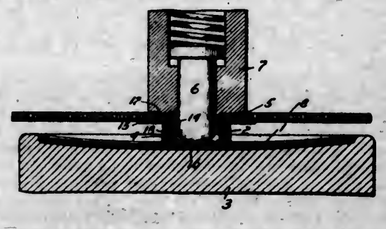
1,205,047. FASTENING DEVICE. GEORGE C. SNYDER, New York, N. Y. Filed Apr. 4, 1914. Serial No. 829,555. (Cl. 24—94.)



1. A fastening device comprising an outer member having an opening therein with its inner walls tapering toward the base of said member, and an eyelet adapted to be placed in co-axial relation with the opening in said outer member and having at its base a flange adapted to clamp the fabric to which the device is secured to the base of said outer member, said eyelet provided with a central opening passing completely therethrough of greater diameter at the base of the eyelet than at the top thereof, the walls of said eyelet opening adapted to be spread into substantial parallelism to increase the external diameter of the top of the eyelet and thereby clamp the fabric in an annular space between the eyelet and the walls of the opening of the outer member.

2. A fastening device comprising a button having an opening therein with its inner walls tapering toward the base of said button, and an eyelet adapted to be placed in co-axial relation with the opening in said button and having at its base a flange adapted to clamp the fabric to which the device is secured to the base of said button, said eyelet provided with a central opening passing completely therethrough of greater diameter at the base of the eyelet than at the top thereof, the walls of said eyelet opening adapted to be spread into substantial parallelism to increase the external diameter of the top of the eyelet and thereby clamp the fabric in an annular space between the eyelet and the walls of the opening of the button.

1,205,048. SNAP-FASTENER. GEORGE C. SNYDER, New York, N. Y., assignor to The Threadless Button Company, a Corporation of Connecticut. Filed Feb. 2, 1915. Serial No. 5,611. (Cl. 24—217.)



1. A separable snap fastener for fabrics and the like, comprising stud and socket members, each having a tubular portion with substantially straight walls, and a thimble adapted to be expanded within the same to attach the member to the fabric, and means whereby the stud and socket members may be separably connected.

2. A separable snap fastener for fabrics and the like, comprising stud and socket members each having a tubular part with substantially straight walls, means for mechanically attaching said tubular part to different portions of the fabric, and means whereby the stud and socket members may be separably connected.

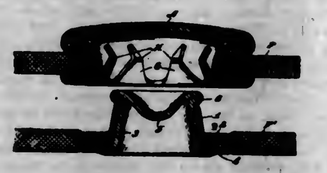
3. In a snap fastener, a socket member, one element of which has a tubular shank, a thimble having its head portion only expanded within said shank to attach the socket member to a portion of the fabric, and a plurality of spring fingers associated with said thimble and extending a considerable distance into the interior of the expanded portion of the thimble, said spring fingers being rigidly backed at the entrance to the socket member by the unexpanded annular portion of the thimble.

4. In a snap fastener, a socket member, one element of which has a thimble-receiving chamber, a thimble having a basal flange-like portion and a head portion expanded within said thimble-receiving chamber of the socket member, and a disk-shaped spring member associated with the flange-like portion of said thimble and having a plurality of spring fingers projecting a considerable distance into the interior of the expanded portion of the thimble, said fingers being rigidly backed at the entrance to the socket member by the unexpanded annular portion of the thimble.

5. In a snap fastener, a socket member, one element of which has a tubular shank with a basal inturned flange, a thimble having a basal flange-like portion and a head portion expanded in said shank behind said inturned

flange, and a plurality of spring fingers associated with said thimble and projecting a considerable distance into the interior of the expanded portion of the thimble, said fingers being rigidly backed by the unexpanded annular portion of the thimble adjacent said inturned flange of the shank and at the entrance to the socket member.

1,205,049. STUD MEMBER FOR SNAP-FASTENERS. GEORGE C. SNYDER, New York, N. Y. Filed Apr. 21, 1915. Serial No. 22,742. (Cl. 24—219.)



1. A stud member for use with a socket member or snap fasteners, comprising an outer sleeve having a basal flange, an inner tubular thimble also having a basal flange to coöperate with the first-named flange in gripping the fabric to which the stud member is secured, that portion of the thimble extending above the upper edge of said sleeve being upset and folded upon itself to form a relatively flat bead-like projection extending radially beyond the outer upper edge of said sleeve a sufficient distance to coöperate with a stud-retaining part of the socket member.

2. A stud member for snap fasteners, comprising an outer sleeve having a basal flange, an inner tubular thimble also having a basal flange to coöperate with the first-named flange in gripping the fabric to which the stud member is secured, that portion of the thimble extending above the upper edge of said sleeve being upset and folded upon itself to form a relatively flat bead-like projection extending radially beyond the outer upper edge of said sleeve, the walls of said sleeve being substantially straight throughout their length and substantially parallel to the force required to upset the thimble, for the purpose described.

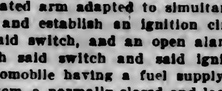
3. A stud member for snap fasteners, comprising an outer sleeve having walls which are substantially straight throughout their length and also having a basal flange, an inner tubular thimble also having a basal flange to coöperate with the first-named flange in gripping the fabric to which the stud member is secured, the thimble having a relatively flat radially-projecting portion extending beyond the upper outer edge of said sleeve.

4. A stud member for snap fasteners, comprising an outer sleeve having a basal flange, an inner tubular thimble also having a basal flange to coöperate with the first-named flange in gripping the fabric to which the stud member is secured, that portion of the thimble extending above the upper edge of said sleeve being upset and folded upon itself to form a relatively flat bead-like projection extending radially beyond the outer upper edge of said sleeve, the head of the thimble being concaved toward the base of the stud member, and the walls of said sleeve being substantially straight throughout their length, for the purpose described.

1,205,050. DECORATIVE BUTTON FOR GARMENTS AND THE LIKE. GEORGE C. SNYDER, New York, N. Y. Filed June 12, 1915. Serial No. 33,748. (Cl. 24—96.)

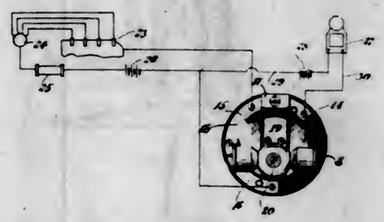
1. A button for garments and the like, comprising a pair of interlocking members having means for mechanically locking the same with a portion of the garment fabric intervening and gripped by the members, each of said members having a fabric-covered surface adapted to be presented to the intervening garment fabric whereby the garment fabric may be clamped between two fabric-covered surfaces.

2. Abutton for garments and the like, comprising a pair of interlocking members having means for mechanically locking the same with a portion of the garment fabric intervening and gripped by the members, a fabric covering for each of said members so applied that the intervening garment fabric may be clamped between two fabric-covered surfaces.



3. A button for garments and the like, comprising a pair of interlocking members having means associated therewith for mechanically interlocking the same when the members are positioned on either side of an intervening portion of perforated fabric, said members and the interlocking means being designed to permit portions of the under surfaces of the members to closely approach each other when the button is applied to the garment fabric, and a fabric covering for each of said members so applied as to cover said portions of the under surfaces of the members whereby when the button is applied to the garment fabric, the latter will be firmly gripped between the two fabric-covered under surface portions of the button members.

1,205,051. AUTOMOBILE-LOCK. LEON SOULLIERE, Detroit, Mich. Filed Aug. 7, 1916. Serial No. 113,558. (Cl. 177—314.)



1. An automobile lock comprising a switch having contact pieces adapted to be included in the circuit of an ignition system and an electric alarm, a valve controlling the fuel supply system of the automobile, and a key actuated arm connected to said valve to open and close the valve and engage said contact pieces and complete an ignition circuit and establish an open alarm circuit.

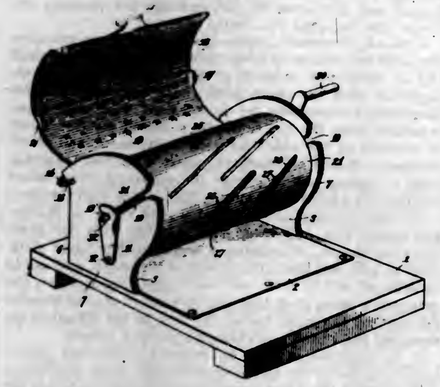
2. In an automobile, a fuel supply system, a valve in connection therewith, an ignition system, a switch therefor, a key actuated arm adapted to simultaneously operate said valve and establish an ignition circuit in connection with said switch, and an open alarm circuit in connection with said switch and said ignition system.

3. In an automobile having a fuel supply system and an ignition system, a normally closed and locked box having for one of its walls the heel board of the automobile, a key operated lock extending through the heel board of the automobile into said box, a switch forming part of said lock to control the ignition system of the automobile, a valve in said box to control the fuel supply system of the automobile, an arm actuated by said lock to operate said valve and establish an ignition circuit in connection with said switch, and an electrically operated audible signal in said box having a normally open circuit with said switch and the circuit of said ignition system.

4. The combination with the fuel supply system and electric ignition system of an automobile, of a normally closed and locked box, a lock carried thereby, contact pieces carried by said lock in the circuit of the ignition system of the automobile, an electrically operated signal in said box having one leg of the circuit thereof connected to be included in a portion of the ignition system circuit, a contact piece carried by said lock and connected by said

signal, a valve in said box controlling the fuel supply system, and an arm between said lock and said valve and actuated by the former to operate the latter and also control the ignition system circuit.

1,205,052. SLICER, GRATER, AND SHREDDER. JOHN ROBERT SPENCER and JAMES LESLIE ROSS, Bartow, Fla. Filed Apr. 6, 1915. Serial No. 19,508. (Cl. 146—9.)



A machine of the class described comprising a pair of spaced standards, a toothed cylinder journaled in the standards, an arcuate shaped resilient follower swingingly mounted between the standards, and stops formed upon the medial portion of the follower and engageable with the cylinder to limit the inward movement of the follower.

1,205,053. FASTENER. BERNHARD STEINER, Brooklyn, N. Y. Filed Dec. 31, 1915. Serial No. 69,639. (Cl. 24—224.)

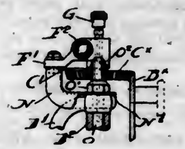


1. In a garment fastener, an eyelet of malleable metal and of irregular outline, said eyelet having an enlarged opening therein, a constricted neck and a tapering extension from the neck, a spring connecting the opposite ends of the opening in said eyelet, said spring being depressed near its opposite ends, and said spring having a convexed portion underlying the constricted neck portion of said opening.

2. In a garment fastener of the class described, a plate having a key-hole slot formed therein, said slot comprising an enlarged end for the admission of the head of a stud, a reduced neck and a tapering extension therefrom, and a spring formed on said plate by depressing a portion of the metal thereof, outlined in the formation of the opening, said spring being depressed below the plane of said plate and said spring having reduced ends by which said spring is connected to said plate to permit the desired flexibility of said spring upon the admission or removal of a stud from the opening in said plate.

3. In a garment fastener of the class described comprising a plate having a slot formed therein, said slot having an enlarged end for the reception of a stud and a constricted extension, a spring formed on said plate by depressing a portion of the metal within the outline of the slot, said spring being detachable from said plate except on the extreme ends thereof, said spring having connection with said plate by having reduced portions, and said spring having a raised portion therein, underlying a constricted neck portion of said slot between the enlarged end and the tapering extension.

1,205,054. STEERING-WHEEL DRIVE FOR AUTOMOBILE-CARRIED INSTRUMENTS. JOHN K. STEWART, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed June 1, 1914. Serial No. 842,055. (Cl. 235—96.)



1. In combination with a road wheel and an axle therefor having a steering knuckle comprising an axle member, a spindle member and a pivot bolt connecting them; a gear co-axially positioned on the road wheel outside the knuckle; a housing; a member to which the housing is made fast, made rigid with the axle member by means of a knuckle pivot bolt, said housing overhanging the upper end of the knuckle and spaced away therefrom; a shaft journaled within the housing in alinement with the knuckle pivot bolt; a gear on said shaft positioned in the space between the housing and the upper end of the knuckle for meshing with the gear on the road wheel, and a power transmitting shaft operatively connected with the gear which is positioned in said space.

2. In combination with a road wheel and an axle therefor, having a steering knuckle comprising an axle member, a spindle member and a pivot bolt connecting them; a driving gear coaxially positioned on the road wheel outside the knuckle; a gear housing rigid with the axle member of the knuckle, positioned above said member and spaced away therefrom; a hollow-shafted driven gear journaled in said housing with axial cavity alined with the axis of the knuckle, said gear meshing with the driving gear on the road wheel; power-transmitting means operatively connected with said hollow-shafted gear; the knuckle pivot bolt being axially apertured in alinement with the axial aperture of said hollow-shafted gear to form an oil duct accessible through said hollow shaft of the gear.

3. In combination with a road wheel and an axle therefor having a steering knuckle comprising an axle member, a spindle member and a pivot bolt connecting them; a driving gear coaxially positioned on the road wheel outside the knuckle; a gear housing rigid with the axle member of the knuckle, positioned above said member and spaced away therefrom; a hollow-shafted gear journaled in said housing with its axial cavity alined with the axis of the knuckle pivot bolt and meshing with driving gear on the road wheel; power-transmitting means operatively connected with said hollow-shafted gear; the knuckle pivot bolt being axially apertured in alinement with the axial aperture of said hollow-shafted gear to form an oil duct, and an axially-apertured or tubular member inserted through the hollow shaft and into the upper end of the knuckle pivot bolt with its axial aperture registering with the said axial aperture of the pivot bolt.

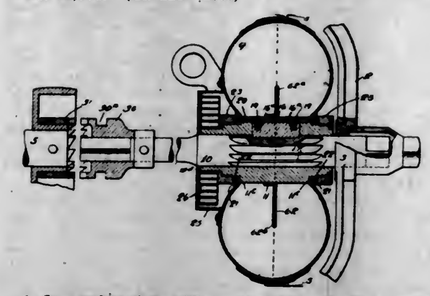
4. In combination with a road wheel and an axle therefor having a steering knuckle comprising an axle member, a spindle member and a pivot bolt connecting them; a driving gear coaxially positioned on the road wheel outside the knuckle; a member rigid with and extending axially from the knuckle pivot bolt; a gear housing rigidly secured upon said member; a driven gear journaled in the housing encompassing said member, the housing overhanging the upper end of the knuckle and spaced away

therefrom, said gear being positioned in the space between the housing and the upper end of the knuckle for meshing with the driving gear on the road wheel, and a power-transmitting shaft operatively connected with said driven gear.

5. In combination with a road wheel and an axle therefor having a steering knuckle comprising an axle member, a spindle member and a pivot bolt connecting them; a driving gear coaxially positioned on the road wheel outside the knuckle; a member rigid with the knuckle pivot bolt and extending in alinement therewith above the upper end of the knuckle; a housing rigidly secured to said member overhanging the upper end of the knuckle and spaced away therefrom; a driven gear journaled in the housing and on said member, said gear being positioned in the space between the housing and the upper end of the knuckle for meshing with the driving gear on the road wheel, and a power-transmitting shaft operatively connected with said driven gear.

[Claim 6 not printed in the Gazette.]

1,205,055. AIR-STARTER FOR AUTOMOBILE-ENGINES. JOHN K. STEWART, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Aug. 11, 1915. Serial No. 45,076. (Cl. 123—179.)



1. In combination with a revoluble shaft, a casing forming an annular chamber about the shaft; a sleeve on the shaft rotatable relatively to both the shaft and the casing; a ratchet dog carried by the sleeve, the shaft having coöperating ratchet formation for engagement by the dog; a second shaft axially alined with the first mentioned shaft, and coöperating clutch members on the two shafts adapted for engagement and disengagement by longitudinal movement of one shaft relatively to the other; the first mentioned shaft being longitudinally movable through the sleeve, the dog and ratchet being adapted to permit such longitudinal movement without disengagement of the dog from the ratchet.

2. A starting mechanism for an automobile engine, in combination with a support rigid with the engine supports; a revoluble shaft journaled in said support; a casing forming an annular chamber about the shaft, and also rigid with the support; the shaft being protruded from the support and adapted for crank engagement; a sleeve on the shaft rotatable relatively to both the shaft and the casing; a ratchet dog carried by the sleeve, the shaft having ratchet formations for engagement of the dog; a vane fast on the sleeve for oscillation around the shaft in the annular chamber, the chamber having a partition which stops the vane at the opposite limits of its oscillatory movement, and means tending to turn the vane to and hold it at the limit from which it moves for driving engagement of the dog with the ratchet; whereby the vane has that position at rest and reverse rotation of the shaft from that position is prevented by the engagement of the dog with the ratchet.

3. In combination with a revoluble shaft, a casing forming an annular chamber about the shaft; a sleeve on the shaft rotatable relatively to both the shaft and the casing; a dog carried by the sleeve, the shaft having ratchet formation for engagement of the dog, said dog consisting of a substantially rectangular oblong block mounted for sliding in the sleeve in the direction of its width, the slide path of the dog in the sleeve being inclined from radial direction so that the dog leans slightly forward in the direction of rotation, the ratchet teeth having their driving faces substantially radial to the shaft, and the dog having its ratchet-tooth-engaging face also radial to the shaft, the dog being recessed at the driving side to form thereon a terminal tooth, and the ratchet teeth being shaped and protruded in the direction for entering the recess and engaging the tooth.

4. In an automobile engine starting device, in combination with an oscillatory motor comprising a rotatable shaft and an oscillatory member having a one-way-driving engagement with the shaft, such shaft being mounted for longitudinal movement for engagement with and disengagement from the engine shaft; a clutch member which is mounted on the shaft for such engagement and disengagement; means by which the shaft is shifted longitudinally to engage and disengage the clutch; a valve which controls the admission of motive fluid to the motor device; a movable member which operates said valve; a changeable-length link connecting said member with the shaft operating means, comprising a spring which tends yieldingly to hold said link at one limit of its length, and means operable at will to move said valve-operating member, the connection being such that the movement of said member for opening the valve moves the link in the direction for engaging the clutch and changing the link length.

5. In combination with an internal combustion motor, a starting device for the same consisting of an oscillatory motor having its casing mounted fixedly with respect to the motor to be started, and comprising a shaft rotatably mounted, and a member adapted to be actuated by an expansive fluid for rotating the shaft; a clutch member on the shaft for engagement of the latter with the engine shaft; a valve which controls the admission of motive fluid to the motor; means for shifting the clutch for engagement with and disengagement from the engine shaft; a lever device for operating the valve; an extensible and reducible link connecting said lever device with the clutch-operating means; said link comprising a spring tending yieldingly to hold it at one limit of its range of extensibility, and means operable at will for moving said valve lever device.

[Claims 6 and 7 not printed in the Gazette.]

1,205,056. PROCESS FOR MAKING REFRACTORY MATERIALS. CHARLES B. STOWE, Lakewood, Ohio. Filed Oct. 6, 1916. Serial No. 124,034. (Cl. 106—9.)

1. The process of making a basic refractory which consists of mixing magnesium carbonate with iron oxid and heating the mixture to cause the magnesium carbonate to be reduced to magnesium oxid and absorb iron oxid of the mixture.

2. The process of making magnesioferrite which consists of mixing magnesium carbonate with iron oxid and heating the mixture to cause the chemical combination of magnesium oxid, MgO, with iron oxid Fe_2O_3 in the form of magnesioferrite $MgOFe_2O_3$.

3. The process of making a basic refractory which consists of making a brick mud by grinding magnesium carbonate, iron oxid and water together, forming the mud into bricks and burning the bricks to cause the water and carbon dioxid to be driven off and to cause magnesium oxid to unite with iron oxid of the mixture.

4. The process of making basic refractory bricks and other molded shapes which consists of making a brick mud by grinding magnesium carbonate, iron oxid and water together, forming the mud into bricks, burning the bricks to cause the water and carbon dioxid to be driven off and to cause magnesium oxid to unite with iron oxid of the mixture, then crushing the bricks, grinding the crushed brick with water to form a brick mud, forming the mud into bricks or other molded shapes and burning the molded shapes substantially as described.

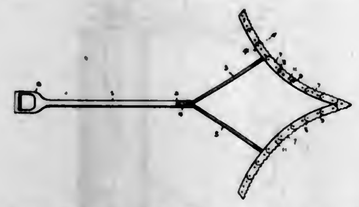
1,205,057. STOOL. FRANK SULENSKI, Brooklyn, N. Y. Filed Apr. 2, 1915. Serial No. 18,707. (Cl. 155—32.)



1. In a stool of the class described, a head and a detachable seat connected therewith, said seat being composed of a central part and side portions hinged thereto, and the central part being provided with a projecting pin by which it is connected with the head and on which is mounted a lock plate which is movable longitudinally of said pin and rotatable thereon.

2. In a stool of the class described, a head, a detachable seat connected therewith, legs pivoted to said head, said seat being provided with a projecting pin by which it is connected with said head, a lock device hinged to one of said legs and adapted to hold said legs in their operative position, and spring-controlled means connected with one of the other of said legs for supporting said lock device in its operative position.

1,205,058. CUTTING-TOOL. ARTHUR H. TALLYN, Benson, Ill. Filed Apr. 24, 1916. Serial No. 93,233. (Cl. 30—8.)

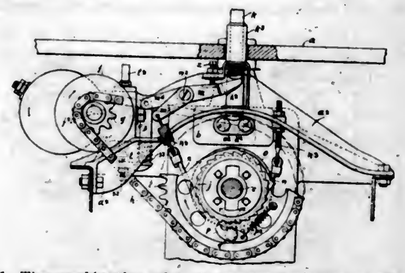


1. A cutting tool of the class described, comprising a substantially V-shaped bar, the arms of which are arcuately curved rearwardly and outwardly, a plurality of cutting blades attached to said V-shaped bar and arranged in adjoining relation throughout the length of the arcuate arms, each cutting blade having a cutting edge projecting forwardly of the arm to which it is attached, a handle, and diverging brace arms extending from the handle and attached to the arcuate arms intermediate their ends.

2. A cutting tool of the class described, comprising a substantially V-shaped bar, the arms of which are arcuately curved rearwardly and outwardly, a plurality of arcuate cutting blades attached to said V-shaped bar, each cutting blade having a cutting edge projecting forwardly of the arm to which it is attached, a handle, and diverging brace arms extending from the handle and attached to the arcuate arms intermediate their ends.

3. A cutting tool of the class described, comprising a substantially V-shaped bar, the arms of which are arcuately curved rearwardly and outwardly, a plurality of arcuate cutting blades attached to said V-shaped bar and arranged in adjoining relation throughout the length of the arcuate arms, each cutting blade having a cutting edge projecting forwardly of the arms to which it is attached, a handle, and diverging brace arms extending from the handle and attached to the arcuate arms intermediate their ends.

1,205,059. ENGINE-STARTER. HORACE T. THOMAS, Lansing, Mich. Filed Dec. 8, 1915. Serial No. 65,649. (Cl. 74—58.)



1. The combination of a change-speed-gearing, a starting mechanism, means for successively locking said change-speed-gearing in its neutral position and then setting said mechanism in operation, and means for fastening said locking means in position after it has locked the change-speed-gearing in its neutral position and before it has set the motor in motion.

2. The combination of a change-speed-gearing, having two moving parts for adjusting said gearing, slots in the adjacent sides of said adjusting parts, a reciprocating bolt adapted to engage said slots when the change-speed-gearing is in neutral position, a starting mechanism, and means for setting said mechanism in operation adapted to be actuated with the movement of said bolt.

3. The combination of a change-speed-gearing having two moving parts for adjusting said gearing, slots in the adjacent sides of said adjusting parts, a reciprocating bolt adapted to engage said slots when the change-speed-gearing is in neutral position, a starting mechanism, and means for setting said mechanism in operation adapted to be actuated with the movement of said bolt, and means for locking said bolt in position after it is engaged in said slots and before it has caused the mechanism to be set in operation.

4. The combination of a change-speed-gearing having two parts provided with slots, a reciprocating part adapted to engage in said slots, to hold the change-speed-gearing in neutral position, a starting mechanism, and means for setting said starting mechanism in operation adapted to be engaged by said reciprocating part.

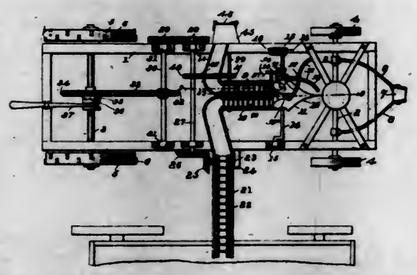
5. The combination of a change-speed-gearing having two parts provided with slots, a reciprocating part adapted to engage in said slots to hold the change-speed-gearing in neutral position, a starting mechanism, means for setting said starting mechanism in operation adapted to be engaged by said reciprocating part, said reciprocating part being adapted to slide in a socket, said socket being provided with an aperture, said reciprocating part being provided with a groove adapted to register with said aperture, and an engaging part extending into said slot and said aperture for the purpose described.

1,205,060. BEET-HARVESTER. JOHN L. THOMAS, Scandia, Kans. Filed Mar. 26, 1915. Serial No. 17,204. (Cl. 55—9.)

1. In a beet harvester, a supporting frame, an uprooting mechanism, a pair of chutes carried by said supporting structure and having their forward ends positioned side by side, one of said chutes being provided for receiving the beet bodies, and the other of said chutes provided for receiving the beet tops, and a transversely extending chute communicating with the beet body receiving chutes, conveyers positioned in said chute for elevating the beet bodies and the beet tops, and means for operating said conveyers by the travel of the beet harvester.

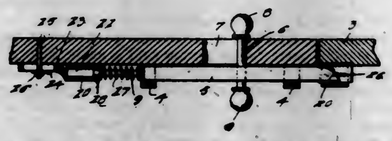
2. In a beet harvester, a supporting structure, a beet uprooting mechanism carried by said supporting structure, a pair of chutes carried by said supporting structure and positioned side by side, one of said chutes being provided

for receiving the beet bodies after uprooting, a beet topping mechanism comprising a plurality of radiating arcuate knives rotatable in a horizontal plane for cutting the tops from the beet bodies immediately after the uprooting



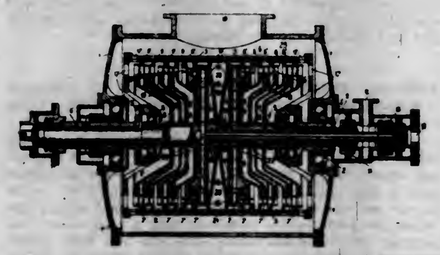
of the beets, plates carried by said knives for carrying the beet tops a short distance and depositing them in one of said chutes, and a conveyer positioned in said chute for elevating the beet tops therein.

1,205,061. DOOR-LATCH. JOSEPH J. THULL, Boyd, Wis. Filed Apr. 12, 1916. Serial No. 90,614. (Cl. 70—42.)



A door latch comprising a bolt slidably secured to a door, means connected to the bolt for operating said bolt from either side of the door, an extension formed on said bolt, an adjustable bracket provided with a recess in one end thereof to receive the extension, an extension formed on the adjustable bracket and provided with an elongated slot therein, a bolt extending through the slot and door for adjustably securing the adjustable bracket to the door, and a coil spring interposed between the adjustable bracket and the bolt upon the extension of the bolt to urge said bolt into a keeper.

1,205,062. AXIAL-FLOW TURBINE. ADRIANUS ANTHONIE WILTON VAN REEDE, Can., Schiedam, Netherlands. Filed Jan. 17, 1916. Serial No. 72,564. (Cl. 253—63.)



1. An axial flow turbine comprising two symmetrical halves and two oppositely running rotors, partition disks in each of the symmetrical halves adapted to divide each half into a plurality of balancing compartments, and connected to one rotor and making a steamtight joint with the other rotor.

2. An axial flow turbine comprising two symmetrical halves and two oppositely running rotors, partition disks in each of the symmetrical halves adapted to divide each half into a plurality of balancing compartments, and connected to the inner surface of the outer rotor-drum, and a packing comprising flat rings of soft metal extending across the joints between the inner edges of the partition disks and the hub of the inner rotor.

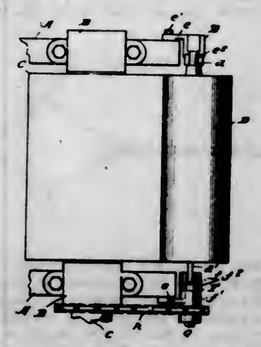
3. An axial flow turbine comprising two symmetrical halves and two oppositely running rotors, partition disks dished inwardly toward the plane of symmetry connected to one rotor and making a steamtight joint with the other rotor, and blade wheels disposed between the said disks and similarly dished.

4. An axial flow turbine comprising two symmetrical halves and two oppositely running rotors, partition disks dished inwardly toward the plane of symmetry, connected to one rotor and making a steamtight joint with the other rotor, blade wheels disposed between the said disks and similarly dished and a packing comprising flat rings of soft metal extending across the joints between the inner edges of the partition disks and the hub of the inner rotor.

5. An axial flow turbine comprising two symmetrical halves and two oppositely running rotors, partition disks dished inwardly toward the plane of symmetry, connected to one rotor and making a steamtight joint with the other rotor, blade wheels disposed between the said disks and similarly dished, and ball bearings in the central spaces provided by the dishing of said disks and blade-wheels.

[Claims 6 and 7 not printed in the Gazette.]

1,205,063. ROLLER AND BEARINGS THEREFOR. FRANK H. VAN HOUTEN, Beacon, N. Y., assignor to Dutchess Tool Company, Beacon, N. Y., a Corporation of New York. Filed Feb. 1, 1916. Serial No. 75,533. (Cl. 64—10.)



1. The combination with a support, of a roller such as described having a spindle projecting from each end thereof, a pair of spaced bearings mounted on said support and adapted respectively to receive the projecting spindles of the roller, a drive shaft journaled in one of said bearings and having its end formed for detachable driving engagement with the corresponding spindle of the roller, and a slot in the upper side of each of the bearings, whereby the roller may be mounted and dismounted by passing its spindles through the slots in the upper sides of the bearings.

2. The combination with a support, of a roller such as described having a spindle projecting from each end thereof, a pair of spaced bearings mounted on said support and adapted respectively to receive the projecting spindles of the roller, a drive shaft journaled in one of said bearings and having a bifurcated end, one of said spindles being formed to interlock with the bifurcated end of the drive shaft, and a slot in the upper side of each of the bearings, whereby the roller may be mounted and dismounted by passing its spindles through the slots in the upper sides of the bearings.

3. The combination with a support, of a roller such as described having a spindle projecting from each end thereof, a pair of spaced bearings mounted on said support and adapted respectively to receive the projecting spindles of the roller, a drive shaft journaled in one of said bearings and having a bifurcated end, one of said spindles being formed with a flattened end adapted to fit between the bifurcations at the end of the drive shaft, and a slot in the upper side of each of the bearings through which the spindles of the roller may be passed, the slot in the bearing at the driving end being of greater width than the lesser transverse dimension of the flattened end of the spindle but of lesser width than the greater transverse dimension of said flattened end.

4. The combination with a support, of a roller, such as described, having a spindle projecting from each end thereof, a pair of spaced bearings mounted on said support and adapted respectively to receive the projecting spindles of the roller, a drive shaft having a head formed with a bifurcated end, one of said bearings having two bearing sockets, one socket being a continuation of and greater in diameter than the other to receive the shaft and its head, one of said spindles being formed with a flattened end adapted to fit between the bifurcations at the end of the drive shaft, and a slot in the upper side of each of the bearings through which the spindles of the roller may be passed, the slot in the bearings at the driving end being of greater width than the lesser transverse dimension of the flattened end of the spindle but of lesser width than the greater transverse dimension of said flattened end.

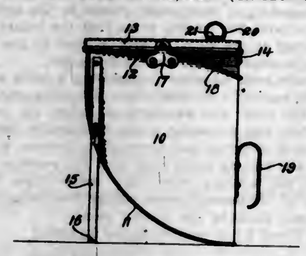
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mounted by passing its spindles through the slots in the upper sides of the bearings.

3. The combination with a support, of a roller such as described having a spindle projecting from each end thereof, a pair of spaced bearings mounted on said support and adapted respectively to receive the projecting spindles of the roller, a drive shaft journaled in one of said bearings and having a bifurcated end, one of said spindles being formed with a flattened end adapted to fit between the bifurcations at the end of the drive shaft, and a slot in the upper side of each of the bearings through which the spindles of the roller may be passed, the slot in the bearing at the driving end being of greater width than the lesser transverse dimension of the flattened end of the spindle but of lesser width than the greater transverse dimension of said flattened end.

4. The combination with a support, of a roller, such as described, having a spindle projecting from each end thereof, a pair of spaced bearings mounted on said support and adapted respectively to receive the projecting spindles of the roller, a drive shaft having a head formed with a bifurcated end, one of said bearings having two bearing sockets, one socket being a continuation of and greater in diameter than the other to receive the shaft and its head, one of said spindles being formed with a flattened end adapted to fit between the bifurcations at the end of the drive shaft, and a slot in the upper side of each of the bearings through which the spindles of the roller may be passed, the slot in the bearings at the driving end being of greater width than the lesser transverse dimension of the flattened end of the spindle but of lesser width than the greater transverse dimension of said flattened end.

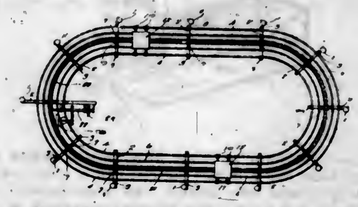
1,205,064. HOUSEHOLD GARBAGE-RECEPTACLE. HORACE L. VARIAN, Baltimore, Md., assignor to Ammidon & Company, a Partnership composed of Daniel C. Ammidon and Horace L. Varian, Baltimore, Md. Filed May 3, 1916. Serial No. 95,083. (Cl. 220—115.)



1. An improved household receptacle comprising a body provided with a front wall curved downwardly and rearwardly to form an inclined bottom, a straight rear wall having its lower edge joined with the rear edge of the front wall, said walls being united by side walls shaped to conform thereto, the corner formed by the juncture of the front and rear walls comprising a rear rest or base, legs attached to the side walls near the front of the receptacle, the lower ends of said legs terminating in the same plane as the rear cover or base and coöperating therewith to rest upon a surface to support the receptacle in an upright position, a cover movably attached to said rear wall, and a bail pivotally attached to the receptacle.

2. An improved household receptacle comprising a body provided with a front wall curved downwardly and rearwardly to form an inclined bottom, a straight rear wall having its lower edge joined with the rear edge of the front wall, said walls being united by side walls shaped to conform thereto, the corner formed by the juncture of the front and rear walls comprising a base, legs attached to the side walls near the front of the receptacle and cooperating with said base to support the receptacle in an upright position, a cover movably attached to said rear wall, a bail pivotally attached to the receptacle near the top thereof, a handle rigidly attached to the rear wall near said base, and an operating member attached to the top of the cover near the rear edge thereof.

1,205,065. RURAL-MAIL CARRIER. JOHN D. WEATHERS, Shelby, N. C. Filed Mar. 3, 1916. Serial No. 81,924. (Cl. 104—18.)

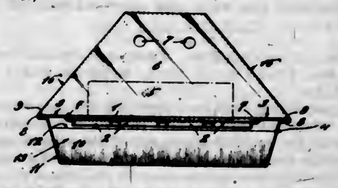


1. In a rural mail carrier structure, a sprocket chain extending about an entire mail route, mail boxes rigidly connected to said sprocket chain at spaced intervals equal to the distance between the stations about the route, supporting means for said sprocket chain, means for propelling said sprocket chain for moving said boxes about a mail route, and means for guiding the travel of said boxes.

2. In a rural mail carrier structure, a sprocket chain extending about an entire mail route, mail boxes rigidly connected to said sprocket chain at spaced intervals equal to the distance between the stations about the route, supporting means for said sprocket chain, means for propelling said sprocket chain for moving said boxes about a mail route, means for guiding the travel of said boxes, and means for disconnecting said propelling means and said sprocket chain for permitting all of said boxes to drop at their station at the same time.

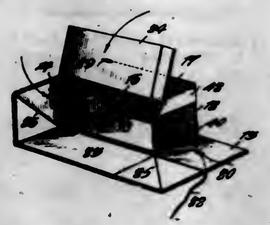
3. In a rural mail carrier structure, the combination of a plurality of supporting posts, a sprocket chain supported by said supporting posts, mail boxes connected to said sprocket chain at spaced intervals corresponding to the spaces between the stations of the route, guide wires carried by said supporting posts, means connecting said boxes and said wires for guiding the movement of the boxes and means for propelling said sprocket chain, said sprocket chain and guide wires dipping at the stations for permitting ready access to the boxes, a prime mover operatively connected to said propelling means and means for disconnecting said prime mover and said sprocket chain for permitting said prime mover to run without moving said sprocket chain.

1,205,066. SOAP-DISH. HENRY P. WEAVER, Belleville, Ill. Filed Oct. 4, 1915. Serial No. 53,864. (Cl. 45—28.)



A soap-dish member having a horizontally disposed soap receiving portion and a vertically disposed attaching portion, said horizontally disposed portion having a perforated depressed portion bounded by retaining walls and the forwardly extending side edges thereof bent downwardly and inwardly to form guideways, in combination with a drip pan having side, end and bottom walls, the side walls of said pan being formed with flanges adapted to slide in said guideways, the upper edge of the rear wall of said pan terminating below the plane of said horizontal portion.

1,205,067. COLLAPSIBLE BOX. HERMAN EVERT WENDELL, Gulfport, Fla. Filed Mar. 17, 1916. Serial No. 84,866. (Cl. 229—14.)



1. A box including an inner body portion having side and end walls and a double bottom, and a cover portion integral with said body portion, said cover portion having side end and walls folded around and outside of said side and end walls of the body portion and having a double top wall, fastening members carried by said cover portion, and a flexible securing member engageable with said fastening members to secure the box before and after the top walls of the cover portion are closed.

2. A box including an inner body portion having side and end walls and a double bottom, and a cover portion integral with said body portion, said cover portion having side and end walls folded around and outside of said side and end walls of the body portion and having a double top wall, the double top of the cover portion including oppositely closing walls lapping one another in closed position, the inner top wall and said end walls of the cover portion having triangularly and inwardly folding corner pieces joining the same and foldable beneath the inner top wall.

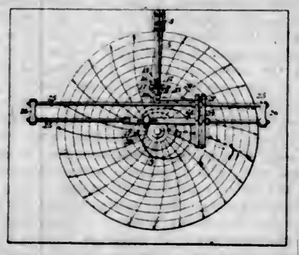
3. A box including an inner body portion having side and end walls and a double bottom, and a cover portion integral with said body portion, said cover portion having side and end walls folded around and outside of said side and end walls of the body portion, and having a double top wall, said inner body portion having its double bottom including inner and outer bottom walls of which the outer bottom wall and the end walls have triangularly and inwardly folding corner pieces uniting the same foldable between the said inner and outer bottom walls.

4. A box blank rectangular in shape cut along an intermediate line from its opposite ends partly therethrough and parallel with the sides thereof, dividing the same into sections integrally joined between the inner ends of the cuts and foldable upon one another along a line co-extensive with and joining the inner ends of said cuts, one of said sections having relatively foldable panels constituting the inner and outer bottom walls, inner side walls, and inner end walls, and the other section having relatively foldable panels constituting the inner and outer top walls, outer side walls, and outer end walls of a box.

1,205,068. CALCULATOR. THOMAS R. WEYMOUTH, Oil City, Pa. Filed Feb. 15, 1916. Serial No. 78,418. (Cl. 33—122.)

1. A calculating machine comprising two rotatable members so connected that the first member is constrained to have twice the angular movement of the second member, a measuring device so connected with the first member as to have its operation proportional to one minus the cosine of the angular displacement of the first rotatable member, and a second measuring device so connected with the second member as to have its operation proportional to the sine of the angular displacement of the second member, whereby a square root factor of proportionality exists between the operation of the second and the first measuring devices.

2. A calculating machine comprising two rotatable members so connected that the first member is constrained to have twice the angular movement of the second member, a measuring device connected with the first member to have its position so dependent on the position of the first member that its readings are proportional to one minus the cosine of the angular displacement of the first member, and a second measuring device connected with the second member as to have its position so dependent on the position of the second member that its readings are proportional to the sine of the angular displacement of the second member, and thereby proportional to the square root of the readings of the first measuring device.



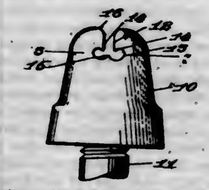
3. A calculating machine comprising two rotatable members so connected that the first member is constrained to have twice the angular movement of the second member, a measuring device and its connections with the first rotatable member including a reciprocating slide, and an indicator carried thereby, and an arm on the first member having a head engaged by the slide and free to move transversely thereof, whereby the displacement of the indicator is proportional to one minus the cosine of the angular displacement of the first rotary member, and a second measuring device controlled by the second rotary member.

4. A square root integrator comprising a table for holding a chart, a tracing point arranged to follow the curve of the chart which is to be integrated, and a tracing wheel arranged to be frictionally driven by the chart and so connected with the tracing point that the rotary movement imparted to the wheel is proportional to the square root of the measurement of the tracing point.

5. A square root integrator comprising a table adapted to rotatably support a circular chart, a tracing point movable over the chart and arranged to follow the curve to be integrated, and a tracing wheel frictionally driven by the chart as it is moved and connections between the tracing wheel and tracing point such that the readings as recorded by the tracing wheel are proportional to the summation of the instantaneous square root values of the measurements made by the tracing point.

[Claims 6 and 7 not printed in the Gazette.]

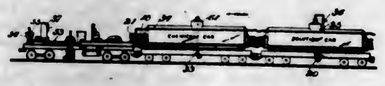
1,205,069. INSULATOR. ROGER A. WILLIAMS, San Marcos, Tex. Filed May 18, 1915. Serial No. 28,881. (Cl. 173—316.)



1. An insulator comprising a body having a slot formed therein, the said slot being spread at its greatest depth to form a pair of grooves each adapted to receive and retain wire independently of the other, a dividing rib between said grooves for guiding wires into the respective grooves, overhanging lips for engaging wires positioned in said grooves and for retaining the same therein.

2. An insulator comprising a body having a slot formed therein the same being, at its greatest depth spread to form a pair of slots having overhanging lips and means for guiding wires into said slots and when said wires are taut to position them in engagement with said overhanging lips.

1,205,070. WEED-KILLING TRAIN. WYLIE GEMMEL WILSON and RALPH NELSON CHIPMAN, New York, N. Y. Filed Aug. 7, 1916. Serial No. 113,633. (Cl. 104—58.)



1. In a weed killing train, in combination, a controlling car, a solution car, a plurality of flexible connections between said cars through which the solution is adapted to pass under all conditions and a pump on said controlling car for forcing out the solution from the solution car under pressure.

2. In a weed killing train, in combination, a controlling car, a solution car connected therewith, a pump on said controlling car and piping connected with said pump and the solution car whereby a liquid may be forced in either direction through said connection.

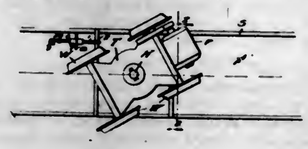
3. In a weed killing train, in combination, a controlling car having a spraying device, a solution car, a connection between said cars through which liquid is adapted to pass, a pump mounted on said controlling car, and branch pipes leading from the discharge end of said pump having valves associated therewith adapted to direct the discharge from the pump to either the solution car or to the spraying device carried by said controlling car.

4. In a weed killing train, in combination, a controlling car, a solution car connected therewith, a spraying device located on said car, a pump adapted to draw solution from the car and force the same to said spraying device, and an intervening air chamber adapted to take up the shock caused by the pump and permit a uniform discharge from the spraying device.

5. In a weed killing train, in combination, a controlling car, a pump, a spraying device comprising a plurality of spraying nozzles to which a solution is adapted to be pumped, a valve for each of said nozzles, and a single point of control for operating said valves.

[Claims 6 to 12 not printed in the Gazette.]

1,205,071. CAR-TRUCK SUPPORT. SOLOMON E. AARON, Boston, Mass. Filed Mar. 11, 1916. Serial No. 83,627. (Cl. 105—114.)

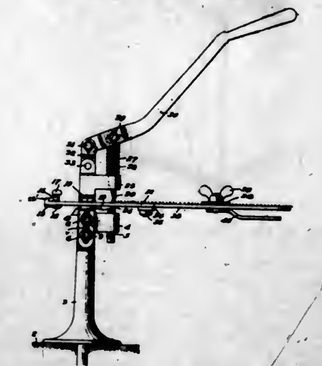


1. In a car truck support, the combination with a coupling consisting of two hooked members and adjustable means connecting their shanks for drawing them toward each other; of a series of supports carried by and beneath the car body, some extending transversely and others longitudinally thereof and all located in proximity to its truck, whereby the hook of the upper member of a coupling may be adjustably engaged with a support and that of the lower member with the truck frame, for the purpose set forth.

2. In a car truck support, the combination with a coupling consisting of two hooked members and adjustable means connecting their shanks for drawing them toward each other; of rods extending across beneath the car body above and in proximity to each truck and having depressions at certain points along their length, means for supporting said rods from the car-sills, and other means for supporting them at other points.

3. In a car truck support, the combination with an I-beam forming the sill; of a clamp in two members having hooked upper ends embracing the lower flanges of said beam and bolts connecting their lower ends, and a coupling consisting of two hooked members and adjustable means for connecting their shanks, one hook adapted for engagement with said bolt and the other with the car truck.

1,205,072. SAW-SET. ANDREW B. ANDERSON and JOHN L. PETERSEN, Lake Mills, Iowa. Filed Mar. 16, 1916. Serial No. 84,573. (Cl. 76—68.)



1. The combination, with a standard, of circular and band saw supports carried thereby, saw setting jaws mounted on one side of said standard, said saw supports being capable of reversal to position either a circular or band saw between said jaws.

2. The combination, with an upright standard, of plates mounted to slide transversely thereof and having means on one side of said standard for clamping a circular saw and on the opposite side a band saw clamping means, tooth setting jaws carried by said standard, said plates being reversible on said standard to position either said circular saw clamping means or said band saw clamping means opposite said tooth setting jaws.

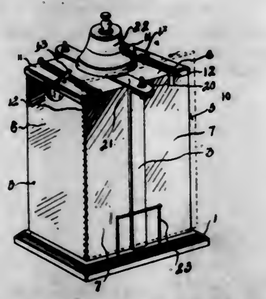
3. The combination, with an upright standard having brackets projecting outwardly therefrom, an adjusting screw mounted in the lower bracket and vertically adjustable therein, a jaw mounted to slide in the upper bracket and in alinement substantially with said screw and having a beveled lower end, a second jaw pivoted at one end on said standard between said brackets and projecting outwardly between said screw and jaw and having an upwardly turned outer portion, the upwardly inclined lower face of said pivoted jaw resting on said screw and the correspondingly inclined upper face of said pivoted jaw forming a seat for a saw tooth inserted between said face and said sliding jaw, and a saw support mounted to position the teeth of the saw between said jaws.

4. The combination, with a standard, of plates longitudinally slotted and spaced apart to straddle said standard, and slidable horizontally thereon, a clamp for a band saw provided at one end of said plates on one side of said standard, a clamp for a circular saw carried by said plates on the other side of said standard, and tooth setting jaws carried by said standard between said clamps.

5. The combination, with an upright standard, of a bracket mounted thereon and having a vertical socket therein and a set screw fitting within said socket and vertically movable therein, a jaw pivoted above said bracket in said standard and projecting outwardly therefrom and overhanging said set screw to contact therewith,

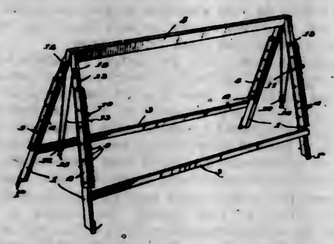
a reciprocating jaw mounted in said standard above said set screw, a lever for operating said reciprocating jaw, and a suitable support for positioning the teeth of a saw between said reciprocating jaw and said pivoted jaw.

1,205,078. HOLDER FOR PAPER NAPKINS. THOMAS ANDERSON, Wheeling, W. Va. Filed June 28, 1915. Serial No. 36,850. (Cl. 65—29.)



A holder of the class described comprising a base, uprights carried by the base, channels formed in the uprights, compartments having their side edges provided with flanges for slidably engaging the channels to hold said compartments in confronting relation, said compartments having slots formed in their tops, covers for normally closing the slots, a bar engaging the tops of the compartments and having its ends detachably engaged with the uprights to prevent accidental upward movement of the compartments, vertically spaced loops pivotally supported in each compartment, means for holding the loops in yielding engagement with the articles contained in the compartments, as and for the purpose set forth.

1,205,074. LIFTING APPARATUS. HENRY ARNOLD, Chewelah, Wash. Filed Mar. 10, 1916. Serial No. 83,403. (Cl. 254—144.)

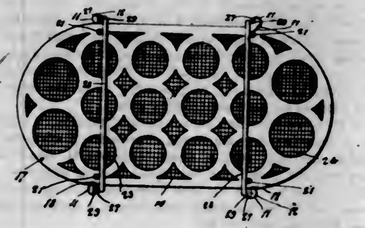


1. Hoisting apparatus comprising A-shaped frames, means connecting said frames to hold the same spaced apart, guide blocks slidably mounted upon the outer edges of the legs respectively of each frame, sheaves secured to the respective legs of each frame adjacent to the apex thereof, a cable trained over said sheaves and having the ends thereof connected to said guide blocks and the central portion depending between the legs of the frame, a pulley block on the central portion of said cable adapted to be connected to the load, and means for moving said guide blocks downwardly along the legs to lift the load on the pulley blocks.

2. Hoisting apparatus comprising A-shaped frames, means connecting said frames to hold the same spaced apart, guide blocks slidably mounted upon the outer edges of the legs respectively of each frame, sheaves secured to the respective legs of each frame adjacent to the apex thereof, a cable trained over said sheaves and having the ends thereof connected to said guide blocks and the central portion depending between the legs of the frame, a pulley block on the central portion of said cable adapted to be connected to the load, and manually operable means for moving said guide, blocks downwardly along said legs to elevate said pulley blocks and the load thereon.

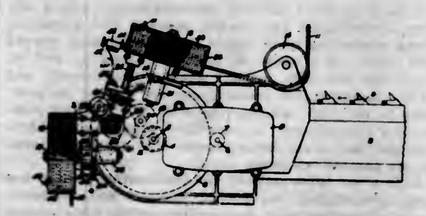
3. Hoisting apparatus comprising a frame embodying legs, toothed plates secured to the opposite sides of each leg and having the toothed edges thereof projecting outwardly beyond the adjacent edge of the leg, guide blocks slidable between the toothed edges of said plates, sheaves mounted upon said legs respectively above said plates, a cable having the extremities thereof trained over said sheaves, and connected to said guide blocks, a pulley block carried by the central portion of said cable and adapted to receive the load, a casting pivotally connected to each guide block and formed with dogs engageable with the teeth of the respective toothed plates, and means for rocking said casting to engage the dogs with the next lowest teeth of the respective plates alternately whereby said guide blocks may be moved downwardly to elevate the pulley block carried by said cable.

1,205,075. STERILIZER. HERMINE BAEHR, Baltimore, Md. Filed Aug. 13, 1913. Serial No. 784,599. (Cl. 53—1.)



A sterilizer comprising pairs of angle iron standards, each of said standards being slitted longitudinally adjacent each end thereof and having the end portions of the side walls bent at an angle to the main portion to form supporting ears, a metallic band secured to the standards and spaced therefrom, a woven wire screen positioned on the band and having its edges bent upwardly upon the sides of the band between the standards and the band to permit the standards to clamp the screen upon the band, curved rods secured to the sides of the standards adjacent the ends to reinforce the sides of the standards and form handle receiving ears, and handles having their ends bent to form hooks to engage the curved rods.

1,205,076. MINING-MACHINE. ALBERT BALL, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 24, 1908. Serial No. 464,320. (Cl. 125—15.)



1. A mining machine comprising, in combination, a main body portion having a cutter bar projecting from one end thereof, a power driven winding drum having an axis extending transversely relative to the longitudinal axis

of said machine, a guiding member adjacent the wall end of said body portion, and a flexible feeding and guiding element passing from a fixed support in advance of the machine around said guiding member to said winding drum.

2. A mining machine comprising a body portion, cutting mechanism projecting therefrom, a power driven winding drum on the advance side of said body portion and having an axis extending transversely relative to the longitudinal axis of said machine, a guiding member adjacent the wall end of said body portion and on the advance side thereof, and a flexible feeding and guiding element passing from a fixed support in advance of the machine around said guiding member to said winding drum.

3. A mining machine comprising, in combination, a body portion, cutting mechanism projecting therefrom, a power driven winding drum having an axis extending transversely relative to the longitudinal axis of said machine, a guiding sheave disposed in a plane substantially tangential to said drum and adjacent the wall end of said body portion, and a flexible feeding and guiding element passing from a fixed support in advance of the machine around said guiding sheave to said winding drum.

4. A mining machine comprising, in combination, a main body portion having a cutter bar projecting from one end thereof, a power driven winding drum having an axis extending in a generally horizontal direction transverse to the longitudinal axis of said machine, a guiding sheave disposed in a plane tangential to said drum adjacent the wall end of said body portion and on the advancing side thereof, and a flexible feeding and guiding element passing from a fixed support in advance of the machine around said sheave to said winding drum.

5. A mining machine comprising, in combination, a main body portion having a cutter bar projecting from one end thereof, a power driven winding drum overhanging the advance side of said body portion and disposed in a generally longitudinal direction, a guiding member adjacent the wall end of said body portion and on the advance side thereof, and a flexible guiding element passing from a fixed support in advance of the machine around said guiding member to said winding drum.

[Claims 6 to 15 not printed in the Gazette.]

1,205,077. HEAT-CONDUCTING DEVICE FOR KETTLES, BOILERS, OR OTHER VESSELS. FRANCIS EDWARD BARON, Hitchin, England. Filed Aug. 1, 1916. Serial No. 112,501. (Cl. 257—263.)



1. A vessel of the character described provided with highly conductive metallic heat distributers which extend through the wall of said vessel and form interior and exterior projections, the joints between said wall and said distributers being closed by material of less conductivity than said distributers.

2. A vessel of the character described provided with heat distributers which extend through the wall of said vessel and form interior and exterior projections, said heat distributers being composed of strips of highly conductive metal, the external parts thereof being splayed and bent into loops, the ends of said splayed parts being returned through said wall and secured thereto in contact therewith.

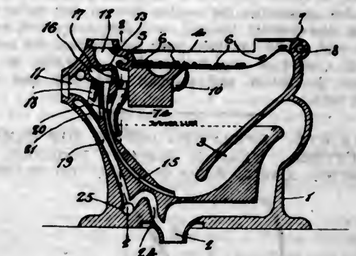
3. A vessel of the character described provided with highly conductive metallic heat distributers which extend through the walls of said vessel and form interior and exterior projections, said vessel being provided with rests which extend below the plane of the exterior projections of said distributers.

4. A vessel of the character described provided with a concave bottom and with highly conductive metallic heat distributers extending therethrough and forming interior and exterior projections, said exterior projections terminating within the concavity of said bottom.

5. A vessel of the character described having a concave bottom, a dependent boss connected therewith and highly conductive metallic heat distributers which extend through the wall of said boss and form interior and exterior projections.

[Claims 6 to 12 not printed in the Gazette.]

1,205,078. CLOSET-BOWL. ANDREW F. BARRON, Watervliet, N. Y. Filed June 2, 1916. Serial No. 101,308. (Cl. 4—18.)



1. In a closet bowl structure, the bowl body having an ordinary outlet trap structure, said bowl being provided with an overflow passage, separated from the receiving receptacle of the bowl, said bowl further provided with openings communicating with the receiving receptacle of the bowl and with said overflow passage, a tube for guiding a part of the flushing water of the bowl into said overflow passage, and a shield for preventing the scaling flow of water from passing through said tubes into said overflow passage.

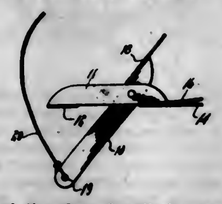
2. In a closet bowl structure, the bowl body having an ordinary outlet trap structure, said bowl being provided with an overflow passage separated from the receiving receptacle of the bowl, said bowl further provided with openings communicating with the receiving receptacle of the bowl and with said overflow passage, a tube for guiding a part of the flushing water of the bowl into said overflow passage, and a shield for preventing the sealing flow of water from passing through said tubes into said overflow passage, a trap formed in the lower portion of said overflow passage and communicating with the outlet of the bowl.

3. In a closet bowl structure, a closet bowl having a seat section, said closet bowl being provided with a water inlet opening, a trap structure in said bowl, arcuate tubes carried by the rear portion of said bowl and having its lower end resting upon the upper surface of the bottom of the recess formed within the bowl a relatively short distance outwardly from the mouth of said trap structure for ejecting a stream of water over the bottom of the recess of the bowl and into the mouth of the trap, a second tube extending downwardly within said bowl along the rear wall of the recess thereof, and having its discharge end positioned for conveying a stream of water for discharge along the rear wall of the recess of the bowl, said second tube having its discharge end positioned below the normal water line of the bowl, an overflow passage formed within said bowl, said bowl being provided with openings communicating with the recess of the bowl and with said overflow passage, a third tube carried by said bowl and provided for conveying a part of the flushing water of the bowl into said overflow passage.

4. In a closet bowl structure, a closet bowl having a seat section, said closet bowl being provided with a water inlet opening, a trap structure in said bowl, arcuate tubes carried by the rear portion of said bowl and having its lower end resting upon the upper surface of the bottom of the recess formed within the bowl a relatively short distance outwardly from the mouth of said trap structure for ejecting a stream of water over the bot-

tom of the recess of the bowl and into the mouth of the trap, a second tube extending downwardly within said bowl along the rear wall of the recess thereof, and having its discharge end positioned for conveying a stream of water for discharge along the rear wall of the recess of the bowl, said second tube having its discharge end positioned below the normal water line of the bowl, an overflow passage formed within said bowl, said bowl being provided with openings communicating with the recess of the bowl and with said overflow passage, a third tube carried by said bowl and provided for conveying a part of the flushing water of the bowl into said overflow passage, a shield positioned within said bowl and provided for preventing the sealing flow of the water from passing downwardly through said first and third named tubes, said shield provided with an opening for permitting of a part of the flushing flow of water to pass through the shield and through said first and third named tube.

1,205,079. OPERATING DEVICE FOR CAMERA-SHUTTERS. WILLIS N. BARTLETT, Porterville, Tex. Filed Nov. 2, 1915. Serial No. 59,291. (Cl. 95—53.)



A device of the class described comprising pivotally connected arms provided at corresponding ends with enlarged portions bent to lie in planes at right angles to the planes of respective arms and forming coöperating jaws, a spring arm mounted upon the inner side of one jaw and provided with a recess in its free end registering with a recess in the corresponding end of the related jaw, a lateral prong on the other end of one arm, and means for attaching an operating cord to the other end of the other arm.

1,205,080. PROCESS OF MANUFACTURING FILAMENTS FOR INCANDESCENT ELECTRIC LAMPS. FRITZ BAUMANN, Augsburg, Germany, assignor to the firm of Wolframlampen Aktiengesellschaft, Augsburg, Germany. Filed Mar. 8, 1913. Serial No. 753,135. (Cl. 176—132.)

1. The process of manufacturing a ductile rod or bar containing a large percentage of metallic tungsten and alloyed therewith a small admixture of an auxiliary, preferably highly refractory metal, which consists in intimately mixing finely-divided tungsten or a compound thereof with a small proportion, from 0.1 per cent. to ten per cent., of such finely-divided auxiliary metal or a compound thereof, in pressing the mixture thus obtained into the form of a bar, then heating the bar in a non-oxidising atmosphere for a considerable time to a temperature between 1000° and 1500° C. to shrink and solidify the bar, and then heating the bar now consisting of tungsten alloyed with the auxiliary metal almost to the melting point in a reducing atmosphere, whereby the bar is sintered and on cooling can be stretched, rolled or drawn.

2. The process of manufacturing a ductile rod or bar containing a large percentage of metallic tungsten and a small admixture of metallic thorium, which consists in intimately mixing finely-divided tungsten or a compound thereof with a small proportion, from 0.1 per cent. to ten per cent., of thorium or a compound thereof, in pressing the mixture thus obtained into the form of a bar, then heating the bar in a non-oxidising atmosphere for a considerable time to a temperature between 1000° and 1500° C. to shrink and solidify the bar, and then heating the bar now consisting of tungsten alloyed with thorium almost to the melting point in a reducing atmosphere, whereby the bar is sintered and on cooling can be stretched, rolled or drawn.

3. The process of manufacturing a ductile rod or bar containing a large percentage of metallic tungsten and a small admixture of metallic thorium, which consists in intimately mixing finely-divided amorphous tungsten with a small proportion, from 0.1 per cent. to ten per cent., of thorium or a compound thereof, in pressing the mixture thus obtained into the form of a bar, then heating the bar in a non-oxidising atmosphere for a considerable time to a temperature between 1000° and 1500° C. to shrink and solidify the bar, and then heating the bar almost to the melting point in a reducing atmosphere, whereby the bar is sintered and on cooling can be stretched, rolled or drawn.

1,205,081. METHOD OF MANUFACTURING PHENOL-ALDEHYDE RESINS SOLUBLE IN OIL, AND VARNISHES THEREFROM. LUDWIG BEREND, Amöneburg-on-the-Rhine, Germany. Filed June 1, 1915. Serial No. 31,555. (Cl. 134—26.)

1. A process for the manufacture of phenol-aldehyde resins soluble in fatty oil consisting in heating the resins obtained from phenols and aldehydes with substances soluble both in said resins and in turpentine until a resinous mass is obtained which remains clear when in a cold state, is soluble in fatty oils and is no longer precipitated from the solution in fatty oils when benzin or turpentine is added.

2. A process for the manufacture of phenol-aldehyde resins soluble in fatty oil consisting in heating the resins obtained from phenols and aldehydes with resins until a resinous mass is obtained remaining clear when in a cold state, soluble in fatty oils and no longer precipitated from the solution in fatty oils when benzin or turpentine is added.

3. A process for the manufacture of phenol-aldehyde resins soluble in fatty oil consisting in heating the resins obtained from phenols and aldehydes with fatty oils until a resinous mass is obtained remaining clear when in a cold state, soluble in fatty oils and no longer precipitated from the solution in fatty oils when benzin or turpentine is added.

4. A process for the manufacture of phenol-aldehyde resins soluble in fatty oil consisting in heating the resins obtained from phenols and aldehydes with a mixture of resins and fatty oils until a resinous mass is obtained remaining clear when in a cold state, soluble in fatty oils and no longer precipitated from the solution in fatty oils when benzin or turpentine is added.

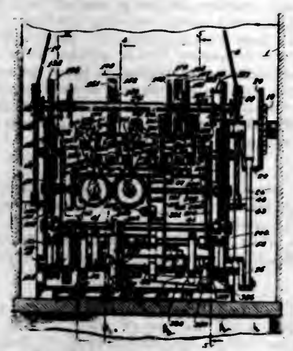
5. A process for the manufacture of phenol-aldehyde resins soluble in fatty oils consisting in heating practically unmeltable phenol-aldehyde resins with substances soluble both in said resins and in oil of turpentine until a meltable resin is produced soluble in fatty oils and remaining clear when cold.

[Claims 6 to 12 not printed in the Gazette.]

1,205,082. RECORDER. JAMES W. BRYCE, Brooklyn, N. Y., assignor, by mesne assignments, to The International Time Recording Company of New York, a Corporation of New York. Filed Jan. 18, 1907. Serial No. 352,859. (Cl. 234—43.)

1. The combination of a clock movement, elapsed time indicating mechanism normally connected to and driven by the clock movement, means for disconnecting it therefrom and reversing its motion, and a time device representing a prior time adapted to control the stoppage of such reverse motion whereby the elapsed time between two operations will be indicated by the elapsed time indicating mchanism.

2. The combination of a clock movement, elapsed time indicating mechanism normally connected to and driven by the clock movement, means for disconnecting it therefrom and moving it, and a device representing a prior time adapted to limit such movement, whereby the elapsed time between two operations will be indicated by the elapsed time indicating mechanism.



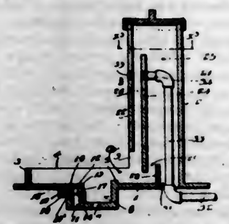
3. The combination of indicating mechanism, means for operating it in one direction, means controlled by the operator for disconnecting the indicating mechanism from the operating means and moving the indicating mechanism in the other direction, and a device adapted to be set by a prior operation of the machine to stop such reverse movement of the indicating mechanism, whereby the indicating mechanism will be caused to indicate the difference between two operations of the machine.

4. The combination of elapsed time indicating mechanism, means for moving it one way in accordance with true time, and means for moving it the reverse way in accordance with the time of a prior operation to give the elapsed time between the two operations.

5. The combination of a clock movement, elapsed time indicating mechanism controlled by the clock movement to indicate the time of an operation, and means for subtracting upon such mechanism a prior time from the time of such operation.

[Claims 6 to 95 not printed in the Gazette.]

1,205,083. OIL-BURNER. ROLAND C. CASAD, Sawtelle, Cal. Filed July 5, 1913, Serial No. 777,877. Renewed Apr. 8, 1916. Serial No. 89,998. (Cl. 158—91.)



1. An oil burner comprising a casing formed with an air heating chamber and a vaporizing and mixing chamber extending side by side, so as to cause the oil, vapor and air to be heated to substantially the same temperature on contact with the walls of said air chamber and oil vaporizing chamber, said casing having a mixture outlet orifice at its lower end, the cross sectional area of said orifice being at least as large as the cross sectional area of said vaporizing and mixing chamber.

2. An oil burner comprising a base, a casing extending upwardly from said base, a vertically extending partition in said casing and dividing said casing into an air heating chamber and a vaporizing and mixing chamber, an oil supply pipe having an outlet for delivering oil to one face of said partition, said casing being provided with an air inlet communicating with said air heating chamber and with an outlet orifice for mixture communicating with said vaporizing and mixing chamber, said mixture outlet orifice being at least as large in cross sectional area as the mixing chamber.

3. An oil burner comprising a base, a casing extending upwardly from said base, a partition dividing said casing into an air heating chamber and a vaporizing and mixing chamber, said chambers communicating with each other at their upper ends and said vaporizing and mixing chamber having an outlet orifice at its lower end opening into the space above the base, said casing having an air inlet at the bottom of said air heating chamber, said mixture-outlet orifice being at least as large in cross sectional area as the mixing chamber.

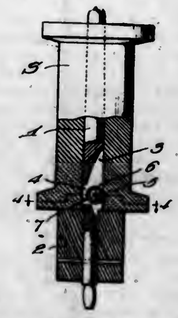
4. An oil burner comprising a base, a casing extending upwardly from said base, a partition dividing said casing into an air heating chamber and a vaporizing and mixing chamber, said chambers communicating with each other at their upper ends and said vaporizing and mixing chamber having an outlet at its lower end opening into the space above the base, said base having an air inlet at the bottom of said air heating chamber, and said base being provided with a flange extending upwardly between said air inlet and said partition forming an air passage between the air heating chamber and the aforesaid outlet for the oil vaporizing and mixing chamber.

5. An oil burner comprising a base, a casing extending upwardly from said base, a partition dividing said casing into an air heating chamber and a vaporizing and mixing chamber, said partition terminating at a point below the upper wall of the casing to provide communication between said chambers at their upper ends and said vaporizing and mixing chamber having an outlet at its lower end opening into the space above the base, said base having an air inlet at the bottom of said air heating chamber, said base being provided with a flange extending upwardly between said air inlet and said partition forming an air passage between the air heating chamber and the aforesaid outlet for the oil vaporizing and mixing chamber, said base being provided with an air inlet opening located in front of said outlet, and a deflector extending rearwardly above said last named inlet to deflect the air therefrom rearwardly against the flame from said outlet.

[Claim 6 not printed in the Gazette.]

1,205,084. [WITHDRAWN.]

1,205,085. SPOOL OR BOBBIN HOLDER. MICHAEL T. DE VINE, Oakville, Conn. Filed Mar. 27, 1916. Serial No. 87,034. (Cl. 242—46.2.)



1. In a device of the class described, a spindle longitudinally grooved adjacent its inner end, a pintle extending transversely across said groove, and a rotatable roller positioned longitudinally with respect to the spindle in said groove and carried by the pintle, a portion of said roller projecting beyond the circumference of the spindle and adapted to frictionally and rotatably engage the bore of the spool or bobbin placed on the spindle whereby the same may be held in locked position.

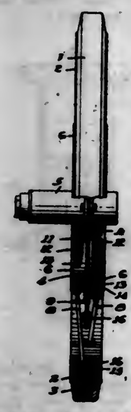
2. In a device of the class described, a spindle having a longitudinally extending groove of increasing depth terminating in the aperture adjacent its inner end, a transversely extending shaft with its opposite ends fixedly mounted in the sides of said groove adjacent the top of the same and above the aperture, a roller rotatably mounted on said shaft and positioned longitudinally with respect to the spindle within the groove, and said roller having a rounded periphery with a portion thereof projecting from the circumference of the spindle and adapted to frictionally and rotatably engage the bore of a spool or bobbin placed on the spindle whereby the same may be held locked in position.

1,205,086. PRESSURE-RELIEF APPARATUS FOR USE IN FERMENTATION PROCESSES. MICHAEL FERTL, Schwabach, near Nuremberg, Germany. Filed May 7, 1914. Serial No. 837,018. (Cl. 217—101.)



In a pressure relief apparatus of the character described, in combination, a casing, an outlet branch in said casing, bubble breakers and ribs in said branch, said ribs forming with the wall of the casing a rising conduit passing through said breakers and communicating therewith by slots, and auxiliary breakers in said conduit, substantially as described and for the purpose set forth.

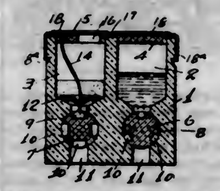
1,205,087. SPRING-WHEEL. GEORGE N. FIDDLER, Pollock, S. D. Filed Oct. 29, 1915. Serial No. 58,633. (Cl. 152—44.)



1. A wheel comprising a rim, a pair of rings composed of angle bar arranged concentric with said rim, a series of spokes rigidly connecting the outwardly projecting flanges of said rings with said rim, a flat disk interposed between the other flanges of said rings and having freedom of movement in the plane of the wheel, a hub centrally mounted in said disk, and helical springs connecting said disk adjacent to said hub with said rings.

2. A wheel comprising a rim, a pair of rings arranged concentric with said rim in opposing relation to one another, said rings having outwardly projecting flanges and lugs formed thereon, spokes secured at their outer ends to said rim and passing through said lugs and seated at their inner ends in said flanges, a disk interposed between said rings and slidable in the plane of the wheel, a hub mounted in said disk, and yielding means connecting said disk and hub with said rings.

1,205,088. DEVICE FOR MEASURING MATERIALS FOR TOOTH-FILLINGS. JOHN F. FISTACK, Forest Park, Ill. Filed June 23, 1913. Serial No. 775,234. Renewed June 19, 1916. Serial No. 104,573. (Cl. 221—106.)



1. A device for measuring powdered material for tooth fillings, comprising a body portion provided with a receptacle for containing said powdered material, said receptacle provided with an inclined bottom, said bottom provided near its center with an opening, a rotatable part mounted in an opening in said body portion and provided with a pocket adapted to be moved opposite the opening in the bottom of said receptacle, a laterally movable perforated plate located in said receptacle, said plate provided with downwardly projecting parts which engage the inclined portion of said bottom, and means for moving said plate back and forth across said bottom to agitate said material so as to insure the proper filling of the pocket in said rotatable part.

2. A device for measuring materials for tooth fillings comprising a unitary body portion provided with two separate receptacles, one for the mercury and the other for the powdered material, a part between them integral with said body portion for preventing material from passing from one receptacle to the other, a rotatable part associated with each receptacle, said rotatable part having pockets communicating with said receptacle when in a predetermined position, said body portion having a discharge opening below each of said rotatable parts through which the materials in said pockets are discharged when the pockets are brought opposite thereto, and a movable perforated piece associated with the receptacle containing the powdered material and means for moving said perforated piece laterally when the rotating part is rotated to agitate said material so as to insure its passing into the pocket in the rotatable part.

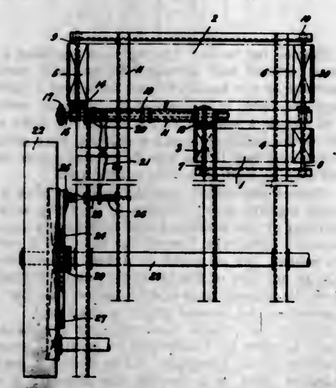
3. A device for measuring powdered material for tooth fillings, comprising a body portion provided with a receptacle into which the powdered material is received, the bottom of said receptacle provided with an opening through which the material is discharged, the portion of the bottom between said opening and the side walls of the receptacle being inclined, a perforated piece resting on this inclined portion so as to be located over said opening, the width of said perforated piece being smaller than the distance across said receptacle, a controlling device for controlling the discharge of material through said opening, and means actuated by said controlling device for moving said perforated piece laterally when the controlling device is operated so as to agitate said powdered material.

4. A device for measuring materials for tooth fillings comprising a body portion provided with a receptacle for containing the powdered material, a rotatable part associated with said receptacle, said rotatable part provided with a pocket adapted to communicate with said receptacle when in a predetermined position, a laterally movable piece near the bottom of said receptacle, said laterally movable piece provided with a projecting part which holds it away from the bottom of said receptacle, and means for moving said laterally movable part back and forth across the bottom of said receptacle.

5. A device for measuring materials for tooth fillings comprising a body portion provided with a receptacle for containing the powdered material, a rotatable part associated with said receptacle, and provided with a pocket adapted to communicate with said receptacle when in a predetermined position, an agitating device near the bottom of said receptacle, a spring piece separate from said agitating device but movably connected therewith said spring piece connected with a stationary part, said spring piece adapted to be engaged by said rotatable part to move the agitating device.

[Claims 6 to 10 not printed in the Gazette.]

1,205,089. CONVEYER FOR BEET-HARVESTERS AND THE LIKE. OLOF FRANKMAN, Marieberg, Sweden. Filed Mar. 27, 1916. Serial No. 87,084. (Cl. 193—4.)



1. In a beet harvester, the combination of a frame, a constantly rotating drive shaft mounted in the frame, a ground wheel on said shaft, an endless conveyer supported on the frame, a clutch for connecting the drive shaft to the conveyer, and a cam on the ground wheel for controlling the clutch.

2. In a beet harvester, the combination of a frame, a constantly rotating drive shaft mounted in the frame, a ground wheel on said shaft, a pair of endless conveyers supported on the frame, means for connecting the drive shaft to the conveyers, and means operated by the ground wheel for alternately operating the shaft connecting means with the respective conveyers.
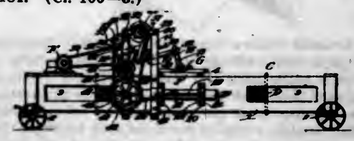
3. In a beet harvester, the combination of a frame, a constantly rotating shaft supported on the frame, a ground wheel mounted on the shaft, an endless conveyer supported on the frame, and means between the ground wheel and the conveyer for periodically operating the conveyer.

4. In a beet harvester, the combination of a frame, a constantly rotating shaft supported on the frame, an endless conveyer supported on the frame, a clutch shaft adjacent the endless conveyer, a clutch member loosely mounted between the clutch shaft and the endless conveyer, a clutch member slidable on and rotatable with the clutch shaft, a pivoted lever on the frame for sliding the clutch member on the clutch shaft, a cam operated by the ground wheel for periodically operating the lever to cause movement of the endless conveyer.

5. In a beet harvester, the combination of a frame, a constantly rotating shaft mounted on the frame, a ground wheel on said shaft, two endless conveyers supported on the frame, a clutch shaft, two oppositely disposed clutch members located between the clutch shaft and the two endless conveyers, a clutch member slidable on and rotatable with the clutch shaft and adapted to engage at different times the two first mentioned clutch members, a cam operated by the ground wheel, and a connection between the slidable clutch member and the cam to move the respective endless conveyers as the ground wheel rotates.

[Claims 6 and 7 not printed in the Gazette.]

1,205,090. HAY PRESS AND BALER. JAMES GERNIGAN, Copperas Cove, Tex. Filed Apr. 27, 1915. Serial No. 24,184. (Cl. 100—3.)



1. In a press, a compression chamber, a removable abutment plate therein for compressed material, said chamber having a wall provided with a plurality of openings therein, a removable abutment frame for said plate having abutment arms extending through said openings and said arms being joined by a handle portion disposed exteriorly of the chamber.

2. In a press, a chamber, a main plunger movable therein, means to reciprocate said plunger, a lever, a tamping plunger carried by said lever, a link pivoted to said lever, a disk to which said link is pivoted and means to operate said disk through movement of said means.

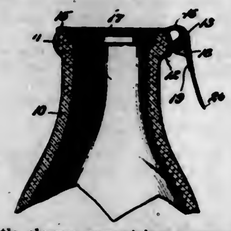
3. In a press, a trunk having a chamber, a main plunger movable therein, bearing bars on said trunk, a shaft mounted on one of said bars, a gear wheel mounted on said shaft, a pitman connected to said gear wheel and to said plunger, a second shaft, said second shaft being mounted by said bars, a gear wheel on said shaft in mesh with said gear wheel, a third shaft, said third shaft being mounted by said bars, means to drive said third shaft, a gear wheel on said third shaft in mesh with the gear wheel on the second mentioned shaft, a third bar, a lever pivoted on said latter bar, a plunger carried by said lever, a link connected to said lever, a disk to which said link is pivoted, a shaft for said disk, and gearing means to drive said shaft through movement of the first mentioned gear wheel.

4. In a press, a main plunger, first, second, third, and fourth upstanding bars, one of said bars having a shaft fixed thereon, a gear wheel journaled on said shaft, a pitman pivoted to said gear wheel and to said plunger, a second shaft, said second shaft being journaled on said first and second bars, a gear wheel on said shaft in mesh with said gear wheel, means to drive said second shaft, transversely extending rods, one connected to the first and second bars and the other connected to the third and fourth bars, a fifth bar, said fifth bar bridging said first and third bars and fastened by said rods, a sixth bar, said sixth bar being parallel to the fifth bar and spaced therefrom, means on one of said rods to prevent displacement of the sixth bar, a shaft journaled in said fifth and sixth bars, means to drive said latter shaft from the first mentioned gear wheel.

1,205,091. BOTTLE-CLOSURE. FREDERICK HACHMANN, St. Louis, Mo., assignor of one-fourth to Fred C. Schoenthaler, St. Louis, Mo. Filed Dec. 7, 1914. Serial No. 875,939. (Cl. 215—34.)

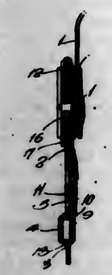
1. A bottle closure comprising a support consisting of a one piece split resilient ring adapted to conform to the bead on a bottle neck and circumferentially embrace and clamp said bead, said ring having radially projecting lugs struck directly from the body portion of said ring and forming pintles, and a cap constructed and arranged to seat directly upon and to be self-centering on the mouth of said bottle and having a downwardly directed handle

provided with integral inwardly directed ears formed for engagement with said pintles to pivotally sustain the cap on said support.



2. A bottle closure comprising a support consisting of a one piece split resilient ring adapted to conform to the bead on a bottle neck and circumferentially embrace and clamp said bead, said ring having radially projecting lugs struck directly from the body portion of said ring and forming pintles, a cap constructed and arranged to seat directly upon and to be self-centering on the mouth of said bottle and having a downwardly directed handle provided with integral inwardly directed ears formed for engagement with said pintles to pivotally sustain the cap on said support, and a spring retained by said pintles between said handle and support and operating to hold the cap in closed position.

1,205,092. GARTER. JAMES F. HARRISON, St. Louis, Mo. Filed Jan. 10, 1916. Serial No. 71,264. (Cl. 24—245.)

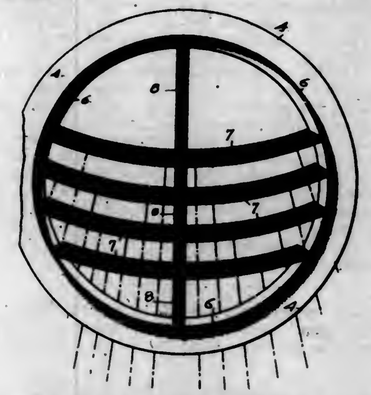


In a device of the class described, a garment attaching member, a coöperating button carrying member comprising a plate having a slot, one wall of the slot being notched and having its end walls inclined, and a tongue extending from said plate and provided with an enlarged portion intermediate its ends, said portion forming the head of a button, said tongue being bent outwardly at right angles to the plate at the point of its connection therewith, the enlarged portion being then bent over the plate, the free end of the tongue beyond said enlarged portion being bent inwardly into contact with said plate, the extreme end of said tongue being slightly enlarged and engaged with said notched wall, and a tab extending through said slot and connected to the garment attaching member.

1,205,093. HEADLIGHT-DIMMER. THOMAS C. HARVEY, San Francisco, Cal. Filed Feb. 29, 1916. Serial No. 81,267. (Cl. 240—48.4.)

1. A dimmer for vehicle headlights comprising a series of arcuate inclined bars arranged to deflect the magnified light rays toward the ground; and means for deflecting a portion of the magnified rays to one side.

2. A dimmer for vehicle headlights comprising a series of arcuate inclined bars arranged to partially screen the lower portion of the headlight and to deflect a portion of the magnified light rays toward the ground; means arranged to deflect a portion of the rays to one side of the headlight; and means secured to the arcuate bars and side deflecting means and arranged to secure the same to a headlight.



3. A dimmer for vehicle headlights comprising a series of arcuate inclined bars arranged to partially screen the lower portion of the headlight and to deflect a portion of the magnified light rays toward the ground; means arranged to deflect a portion of the magnified light rays to one side of the headlight; and a suitable ring secured to the arcuate bars and to the side deflecting means whereby the same may be secured within a headlight.

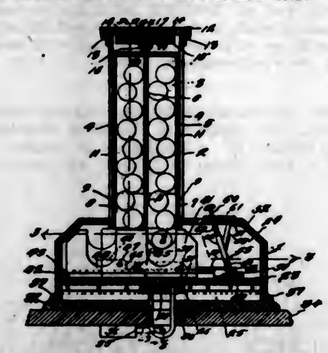
4. A dimmer for vehicle headlights comprising a series of inclined arcuate bars arranged to partially screen the lower portion of the headlight and to deflect a portion of the magnified light rays toward the ground; a vertically disposed central bar arranged to deflect a portion of the light rays to one side of the headlight; and a suitable ring secured to the arcuate bars and to the vertical bar whereby the same may be secured within a headlight.

5. A dimmer for vehicle headlights comprising a series of inclined arcuate bars arranged to partially screen the lower portion of the headlight and to deflect a portion of the magnified light rays toward the ground; a central vertically disposed bar secured to the arcuate bars and inclined in a vertical plane so as to deflect a portion of the magnified light rays to one side of the headlight; and a suitable ring secured to the arcuate and central bars whereby the same may be secured within a headlight.

1,205,094. CIGAR-VENDING MACHINE. ROBERT O. HOFFMAN, Jackson, Miss., assignor, by direct and mesne assignments, of one-twelfth to Thos. E. Bird, Pensacola, Fla., two-sixths to Moses Iraison, Chicago, Ill., one-twelfth to The Delta Cigar & Vending Machine Company, Delta, Ohio, a Corporation of Ohio, and one-half to The Cigar Vender Sales Company, Pensacola, Fla., a Corporation. Filed Mar. 22, 1916. Serial No. 85,859. (Cl. 194—58.)

1. In a cigar vending machine, the combination of a casing having a plurality of compartments and a plurality of outlet openings, of a reciprocatory delivery member having a plurality of cigar receiving pockets to alternately receive cigars from said compartments for delivery through said openings, and detent means for said member to be operated for releasing said member, whereby said member may alternately deliver cigars from said compartments, said detent means comprising an engageable abutment on said member, a detent lever to engage said abutment to hold the delivery member in one position or another, whereby first one and then another of said pockets alternately register with one of the compartments, means adapted to be actuated to push a coin against and partially operate said lever to move one end of the lever from the path of said abutment, whereby said member may deliver a cigar through one of said openings.

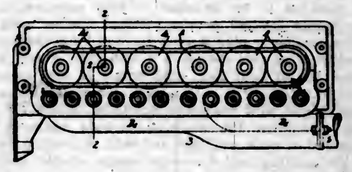
2. In a cigar vending machine, the combination of a casing having a plurality of compartments and a plurality of outlet openings, of a reciprocatory delivery member having a plurality of cigar receiving pockets to alternately receive cigars from said compartments for delivery through said openings, and detent means for said member to be operated for releasing said member, whereby said member may alternately deliver cigars from said compartments, said detent means comprising an engageable abutment on said member, a detent lever to engage said abutment to hold the delivery member in one position or another, whereby first one and then another of said pockets alternately register with one of the compartments, means adapted to be actuated to push a coin against and partially operate said lever to move one end of the lever from the path of said abutment, whereby said member may deliver a cigar through one of said openings, said abutment having a cam to be engaged by the lever to further oscillate the lever to release said coin.



3. In a cigar vending machine, the combination of a casing having a plurality of compartments and a plurality of outlet openings, of a reciprocatory delivery member having a plurality of cigar receiving pockets to alternately receive cigars from said compartments for delivery through said openings, and detent means for said member to be operated for releasing said member, whereby said member may alternately deliver cigars from said compartments, and means to support each successive cigar, while the preceding cigar is being delivered, said detent means comprising an engageable abutment on said member, a detent lever to engage said abutment to hold the delivery member in one position or another, whereby first one and then another of said pockets alternately register with one of the compartments, means adapted to be actuated to push a coin against and partially operate said lever to move one end of the lever from the path of said abutment, whereby said member may deliver a cigar through one of said openings, said abutment having a cam to be engaged by the lever to further oscillate the lever to release said coin.

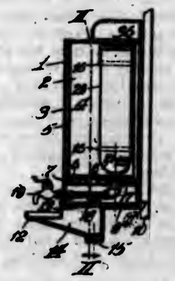
1,205,095. INTERNAL-COMBUSTION ENGINE. WILLIAM KELLY, Detroit, Mich., assignor to Maxwell Motor Company, Incorporated, Detroit, Mich. Filed May 11, 1912. Serial No. 696,567. (Cl. 123—59.)

1. In a multiple cylinder internal combustion engine in which the exhaust takes place in one cylinder while the exhaust port to another cylinder is still open, an exhaust manifold to all of said cylinders comprising a passage communicating with the exhaust ports of a part of said cylinders, and a passage communicating with the exhaust ports of the rest of said cylinders, said cylinders being arranged to exhaust into said passages so that of the cylinders whose exhaust ports are open at the same time one shall exhaust into a different one of said passages from that into which the other exhausts, said passages being arranged with their discharge ends opening in the same direction adjacent to each other and in the same inclosure, the construction and arrangement being such that the gas issuing from one of said passages shall be carried by its *vis viva* away from the opening to the other of said passages.



2. In a multiple cylinder internal combustion engine in which the exhaust takes place in one cylinder while the exhaust port to another cylinder is still open, an exhaust manifold to all of said cylinders comprising a passage communicating with the exhaust ports of a part of said cylinders, and a passage communicating with the exhaust ports of the rest of said cylinders, said cylinders being arranged to exhaust into said passages so that of the cylinders whose exhaust ports are open at the same time one shall exhaust into a different one of said passages from that into which the other exhausts, said passages being arranged with their discharge ends opening in the same direction adjacent to each other and in the same inclosure, the construction and arrangement being such that the gas issuing from one of said passages shall be carried by its *vis viva* away from the opening to the other of said passages, and shall produce a lowering of pressure at the said opening to the other passage.

1,205,096. COOLER. OLIVER L. LINK, St. Charles, Mo. Filed Nov. 5, 1913. Serial No. 799,318. (Cl. 62—142.)



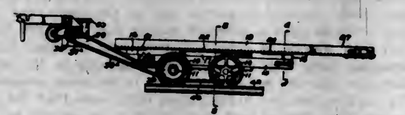
1. A cooler comprising a casing, a support located in said casing, a draw-off pipe leading from said casing having a seat formed at one end, a liquid container adapted to be mounted in said support having a seat engaging portion formed at one end, said container when mounted in said support adapted to have its seat engaging portion engage said seat in said pipe, said support forming means for alining said seat engaging portion of said container with said seat of said pipe, a wedging element carried by said container adapted to engage said support, said wedging element adapted to prevent said container from floating when a liquid is contained in said casing.

2. In a cooler, a casing, a series of horizontally arranged supports mounted in vertical alinement in said casing, a liquid container having a rounded lower end adapted to be supported by said supports, said rounded end of said container providing means for guiding said container into said supports while said container is being introduced in said supports, and a wedging member carried by said container adapted to be engaged between said container and one of said supports, said wedging member providing means for preventing said container from float-

ing out of position when a liquid is contained in said casing.

3. In a cooler, a casing, a series of horisontally arranged supports mounted in vertical alinement in said casing, a liquid container having a rounded lower end, said container adapted to be mounted in said supports, a discharge nozzle secured to the rounded end of said container, a discharge pipe having its receiving end in communication with said casing, a nozzle seat formed in the receiving end of said pipe, said nozzle of said container adapted to be seated in said nozzle seat of said pipe, said rounded end of said container providing means for guiding said container into position in said supports, said rounded end of said container and said supports providing means for guiding said discharge nozzle of said container into said nozzle seat of said pipe.

1,205,097. MINING-MACHINE AND TRUCK. JACOB LONDON, Tunnelton, Pa., assignor to Sullivan Machinery Company, Claremont, N. H., a Corporation of Massachusetts. Filed Oct. 1, 1914. Serial No. 864,379. (Cl. 105—32.)



1. In a mining machine truck, the combination with truck wheels, a lower frame, an upper frame swiveled on the lower frame, and guiding means carried by the upper frame for guiding a mining machine in its discharge from the truck in the direction in which the upper frame is angled.

2. In a mining machine truck, the combination with truck wheels, a lower frame, a machine guiding frame swiveled on said lower frame, and guide rails carried at the sides of said guiding frame for guiding a mining machine during its discharge from the truck in the direction in which the guiding frame is angled.

3. In a mining machine truck, the combination with truck wheels, a lower frame, a machine guiding frame swiveled on said lower frame, and means carried by said guiding frame for directing a mining machine longitudinally thereof and subsequently enabling an angular movement of said machine.

4. The combination with a mining machine of the continuous cutting type and having means on which the machine is adapted to be propelled along the mine bottom, of a mining machine truck and a swiveled starting frame on said truck from which said machine is adapted to be discharged.

5. In a mining machine, truck wheels, a lower frame supported thereon, a machine guiding frame normally disposed longitudinally of said lower frame and swiveled thereon for angular movement, and a mining machine movable longitudinally of said guiding frame and supported thereby during the unloading operation.

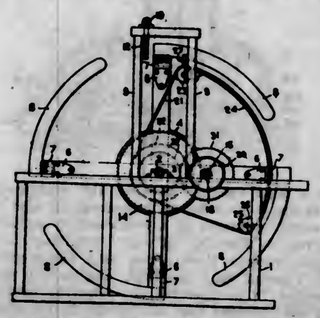
[Claims 6 to 14 not printed in the Gazette.]

1,205,098. SIGNAL FOR AUTOMOBILES. HAROLD B. MCGUIRE, Fort Wayne, Ind. Filed Apr. 2, 1915. Serial No. 18,680. (Cl. 177—337.)

In apparatus of the class described, a supporting plate, a housing fixed upon the back thereof, a transparent casing fixed upon the front of the plate; an oscillating hollow shaft mounted centrally in the plate and having a pinion fixed upon its rear end; a hollow arrow having a translucent front face and being mounted fixedly upon the shaft within the casing; a pivoted segment within the housing engaging the pinion and having a flat face; a flat spring bearing against the face and adapted to hold the segment normally in central position; two connecting rods in connection with the segment, one upon each side of its pivotal point, and each having an armature fixed upon its upper end; a corresponding pair of electromagnets positioned respectively above the armatures; a series of electric lamps mounted within the arrow and distinguished from each other in color; conductors extending through the shaft for conveying current to the lamps within the arrow; a switch within the arrow in connection with the conductors and lamps for completing the various circuits leading to the several lamps accordingly as the arrow is turned; and means for selectively exciting the electro-magnets.



1,205,099. SINGEING-MACHINE. GEORGE MARSHALL, Waupun, Wis., assignor to Paramount Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 22, 1913. Serial No. 790,996. (Cl. 26—14.)



1. In a singeing machine, a traveling support for the article to be singed having its broader face in vertical planes normal to its axis of rotation, means for advancing the same in the direction of its length, singeing means comprising substantially equal hydro-carbon burners located on opposite sides of the path of said traveling support and adapted to project jets of flame thereon at substantially equal angles to the vertical whereby the articles will be singed uniformly throughout their length.

2. In a singeing machine, a traveling support for the article to be singed having its broader face in vertical planes normal to its axis of rotation, means for advancing the same in the direction of its length, singeing means comprising substantially equal hydro-carbon burners located on opposite sides of the path of said traveling support and adapted to project graduated jets of flame thereon at substantially equal angles to the vertical, whereby the articles will be singed uniformly through their length.

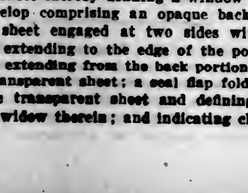
3. In a singeing machine comprising a traveling support for the articles to be singed having its broader face in vertical planes normal to its axis of rotation and means for actuating the same, singeing mechanism comprising a plurality of extended hydro-carbon-burners, having graduated orifices arranged in substantially vertical planes parallel to the planes through which the respective sides of the support travel and spaced equally therefrom, whereby the articles will be singed uniformly throughout their width and length.

4. In a singeing machine comprising a traveling support for the articles to be singed having its broader face in vertical planes normal to its axis of rotation and means for advancing the same in the direction of its length, singeing mechanism comprising a plurality of extended hydro-carbon burners having graduated flame jets arranged in substantially vertical planes parallel to the planes through which the respective sides of the support travel and spaced equally therefrom, whereby the articles will be singed uniformly throughout their length and width.

5. In a singeing machine having singeing means, an arcuate support for the articles to be singed having its broader faces in substantially vertical planes mounted for rotation in a circular path in the direction of its length, and means for rotating the same, a resilient stripping device adapted to embrace said support during a portion of its travel and engage the articles carried thereby, and means for driving the stripper at a relatively greater speed than that of said support.

[Claims 6 to 8 not printed in the Gazette.]

1,205,100. WINDOW-ENVELOP. HOWARD F. MARSTON and JOHN J. O'CONNELL, Dayton, Ohio. Filed July 15, 1915. Serial No. 39,958. (Cl. 229—71.)



1. An envelop, comprising in combination; an opaque back portion; a transparent sheet attached thereto and adapted when folded to terminate at the edge of the pocket and thereby form a transparent front for the envelop; an opaque seal flap engaging the transparent sheet and defining the top of the window therein; a flap bent under the transparent sheet but not engaged thereto, whereby the envelop can be opened for inspecting the inclosure without the breaking of a seal.

2. An envelop comprising an opaque back portion; a transparent front portion extending to the edge of the pocket; a plurality of side flaps, one flap being engaged by the transparent front portion and the other being folded thereunder, but not engaged thereto, whereby the contents of the envelop may be inspected; and an opaque seal flap which is adapted to define the upper margin of a transparent window when sealed down on the transparent front of the envelop.

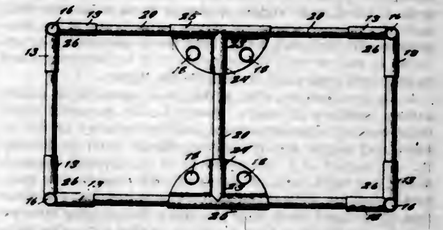
3. An envelop comprising an opaque back portion; a plurality of side flaps; a bottom flap; a transparent front portion extending to the edge of the pocket and engaging the bottom flap, and one of the side flaps; the other side flap being folded under the transparent portion whereby the contents of the envelop may be inspected, and a seal flap extending over and sealing down on the transparent front of the envelop thereby defining the upper margin of a window in the front of the envelop.

4. An envelop comprising an opaque back portion; a plurality of flaps extending therefrom; a transparent sheet engaging two of said flaps and extending to the edge of the pocket thus forming a transparent front for the envelop, the other of said flaps being folded under the said sheet but not being engaged thereby whereby the contents of the envelop may be inspected, and an opaque seal flap extending from the back portion and sealing down on the transparent sheet thereby defining a window therein.

5. An envelop comprising an opaque back portion; a transparent sheet engaged at two sides with the back portion, and extending to the edge of the pocket; an inspection flap extending from the back portion and folding under the transparent sheet; a seal flap folded over and engaging the transparent sheet and defining the upper margin of a widow therein; and indicating characters on the inspection flap and visible through the transparent sheet to show that the said envelop is not entirely sealed when the seal flap is secured to the transparent sheet.

[Claims 6 and 7 not printed in the Gazette.]

1,205,101. METAL TOY. JOHN W. MEYER, Wilmette, Ill. Filed July 3, 1915. Serial No. 37,921. (Cl. 46—35.)



1. A toy comprising a plurality of metal shapes fitted together and having a plurality of resilient sockets, a plurality of gromets positioned between said sockets and a plurality of rods formed to fit within said sockets and gromets.

2. A toy comprising metal shapes formed from a pair of plates substantially circular in form and having a central opening, said plates being shaped to form a plurality of substantially radially extending sockets opening into the outer periphery of said shape and having a plurality of gromets positioned between said sockets thus forming a plurality of openings at right angles to the open ends of said sockets, and a plurality of rods formed to fit within said sockets and gromets and connecting said shapes into any desired form.

1,205,102. VEHICLE-LIGHT-CONTROLLING MECHANISM. FRANK L. MICHAELS, Covington, Ky. Filed Nov. 29, 1915. Serial No. 64,113. (Cl. 240—62.)



1. In a light controlling mechanism a plurality of illuminating members normally held in a predetermined position, and mechanism selectively operable to deflect the light beam of either of said illuminating members out of its normal position without altering the direction of the light beam from the other illuminating member, comprising a rock-shaft to shift said lights, a hand lever within reach of the operator at the steering wheel, mounted rigidly on said rock-shaft, a lever loosely journaled on said rock-shaft and adapted to be clutched to said hand lever, and a cam carried with the steering wheel to rock said rock-shaft in unison with the movements of the steering wheel through said loosely journaled lever when clutched to said hand lever, and by hand through said hand lever when released from said loosely journaled lever.

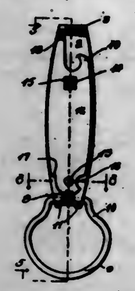
2. In combination with a vehicle, a plurality of illuminating members normally held in a predetermined position relative to the vehicle, and mechanism connected to said respective illuminating members and in position to be manually or automatically operated by the operator at the steering wheel, comprising a pivotally supported member having a position of rest and movable to the right and to the left thereof, and oppositely arranged pull rods each engaged by said pivotally supported member in moving to one side of its position of rest, to independently deflect said respective illuminating members from their normal position.

3. In combination with a vehicle having a steering member, a plurality of illuminating members normally held in a predetermined position relative to the vehicle, and means operatively connected with the steering member of said vehicle to automatically selectively deflect the light beam of one of said illuminating members out of its normal position without altering the direction of the light beam from the other illuminating member, comprising a rock-shaft journaled in brackets carried by the steering post, a hand lever rigidly mounted upon said rock-shaft near the stering wheel to permit said lights to be manually controlled, and means selectively automatically operable in unison with the movements of the steering wheel to rock said rock-shaft to actuate the lights.

4. In combination with a vehicle a plurality of illuminating members pivotally mounted and normally yieldingly held in a predetermined position relative to the vehicle, and means selectively operable by hand or through the movements of a cam actuated by the steering wheel to deflect the light beam of either of said illuminating members out of its normal position without altering the direction of the light beam from the other illuminating member.

5. In combination with a vehicle having a steering member, a plurality of illuminating members normally held in a predetermined position relative to the vehicle, a cam automatically actuated in unison with the movements of said steering member, and mechanism actuated by the movements of said cam to automatically selectively deflect the light beam of either one of said illuminating members out of its normal position without altering the direction of the light beam from the other illuminating member.

1,205,103. IDENTIFICATION-TAG. CHAUNCEY ANIAS MURRAY, Superior, Wyo. Filed Feb. 10, 1916. Serial No. 77,474. (Cl. 40—13.)



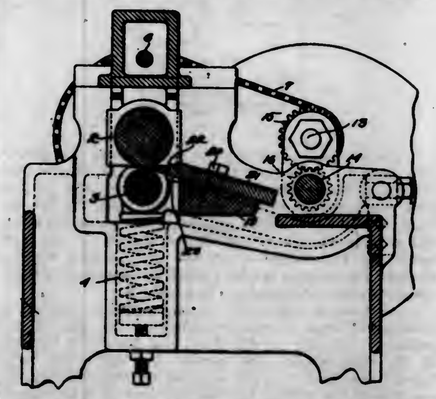
In an identification tag composed of two elongated sections in the form of plates hinged together at one end, longitudinal flanges projecting from the side edges of one plate toward the other plate and adapted to receive a name plate therebetween, the end of said flanges at the free end of the first-named plate being formed with transversely alined notches to receive a ring, an overhanging claw formed on said free end of said first-named plate to pass in one direction around said ring, a pair of claws formed on the free end of the second-named plate and straddling the first-named claw to pass in the opposite direction around the ring, said first-named claw extending beyond said pair of claws, and a flat latch plate lying against the outer side of said second-named plate and pivoted thereto near the free end thereof, said latch plate having one end received between said second-named plate and the first-named claw, said end of the latch plate having a notch to clear this claw when said plate is turned upon its pivot.

1,205,104. SKIVING-MACHINE. ELMER P. NICHOLS, Manchester, N. H., assignor to Lacene Manufacturing Company, Manchester, N. H., a Corporation of Maine. Filed May 4, 1915. Serial No. 25,829. (Cl. 69—13.)

1. In a machine of the kind described, the combination with stock feeding mechanism constructed and arranged to maintain the stock substantially flat and plane, of a single-bevel knife having its bevel-side mounted to engage with the body of the stock being skived, and so set with relation to the direction of feed of the stock at the cutting edge of the knife that the back side of the knife has a wedging action on the stock, said feeding mechanism including unyielding means for holding the side of the stock adjacent thereto at a fixed distance from said bevel-side of the knife.

2. In a machine of the kind described, the combination with stock feeding means constructed and arranged to maintain the stock substantially flat and plane, of a single-bevel knife so set with relation to the direction of the feed of the stock at the cutting point that each face of the knife has a wedging action on the stock, said feeding mechanism including means located on that side of the knife which receives the body of the stock, constructed and arranged to coöperate with said knife, so set, to maintain the side of the stock adjacent said means at a fixed distance from the cutting edge of the knife.

3. In a machine of the kind described, stock feeding mechanism, including a yielding feed roll, and a single-bevel knife, having its cutting edge close to the bight of said roll and its adjacent side extending thence rearwardly and divergently from said roll and yet obliquely to the direction of feed of the stock at the cutting edge of said knife, said feeding mechanism including means opposite said yielding roll and knife edge constructed and arranged

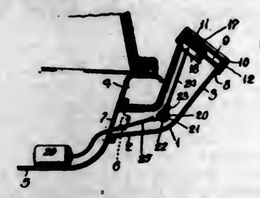


to coöperate with said knife, so set, and with said roll to maintain the side of the body of the stock adjacent said means at a fixed distance from the cutting edge of the knife.

4. In a machine of the kind described, feed rolls for receiving between them successive pieces of stock and positively feeding said stock to be skived, and a single-bevel skiving knife mounted rigidly behind said rolls with its cutting edge extending between the rolls close to the bight thereof and having its opposite sides adjacent said edge mutually divergent from the respective adjacent rolls at all points back of the cutting edge, one of said rolls being yielding and close to the adjacent side of the knife and the other roll being unyielding and at a greater distance from the adjacent side of the knife to permit the passage of the body of the stock, said latter roll being so positioned with relation to the other roll and to the knife, mounted as stated, as to maintain the side of the body of the stock contacting therewith at a fixed distance from the cutting edge of the knife throughout the skiving or splitting operation.

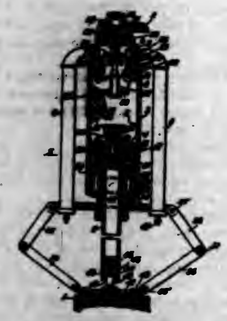
1,205,105. INDICATOR. WALTER I. OESCHGER, Detroit, Mich., assignor to Retlaw Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 7, 1915. Serial No. 44,347. (Cl. 73—82.)

1. An indicator of the type described comprising an angle connection adapted for attachment to an engine crank case, a detachable dial carried by said angle connection, a spindle disposed eccentrically of said dial, a pointer on the outer end of said spindle adapted to swing in an arc over said dial, a slotted crank on the inner end of said spindle and in parallelism with said dial, and a float actuated arm in said angle connection and pivoted in the angle of said connection with the outer end of said arm extending into the slotted portion of said crank whereby a movement of said float actuated arm imparts a rocking movement to said spindle.



2. An indicator comprising an angle connection adapted for attachment to an engine crank case, a detachable dial carried by the outer end of said angle connection, a cap on said connection having a transparent plate protecting said dial, a pointer movable in front of said dial, a slotted crank back of said dial in parallelism with said pointer, means connecting said pointer and said slotted crank whereby said pointer and crank can only move in synchronism an arm in said angle connection engaging in the slot of said crank, and a float on said arm.

1,205,106. EXPANSIBLE CHAMBER. HENRY E. OXNARD, New Bedford, Mass. Original application filed May 18, 1910, Serial No. 562,012. Divided and this application filed Dec. 4, 1914. Serial No. 875,547. (Cl. 267—50.)



1. A highly flexible septum for an expansible chamber comprising a layer of expansible, flexible material impervious to fluid, and a layer of expansible flexible material comprising a multiplicity of interlaced threads; the two layers being closely united in the form of a tube, adapted to be everted endwise in an expansible chamber between a round casing and a plunger.

2. A highly flexible everted sleeve septum for an expansible chamber comprising a layer of expansible flexible material, impervious to fluid; and a layer of expansible flexible supporting material closely united thereto and comprising a multiplicity of threads running obliquely with respect to the axis of the sleeve and interlaced together, whereby the extent of separation of individual threads and the expansion of the fabric as a whole are limited and the sharpness of bend of threads at the fold when everted is modified: the whole being in the form of a tube adapted to be everted endwise and adapted to fit simultaneously both a round casing and a plunger within it and enough smaller than it to have more space than the double thickness of septum between the plunger and casing.

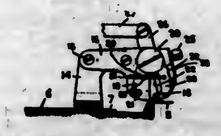
3. A highly flexible sleeve septum for an expansible chamber comprising a layer of expansible flexible material, impervious to fluid; and a layer of expansible flexible supporting material closely united thereto and comprising a multiplicity of threads running helically around the sleeve in opposite directions, those going in the same direction being in contact side by side and interlaced with those in the opposite direction, the whole being of open ended tubular form, adapted to be everted endwise and to make impervious contact at the open end with the chamber wall.

4. An everted sleeve septum combined with a round casing and a plunger, joining said casing and plunger and supported at each end by one of them; a ring about which an end of the septum is everted, and means clamping to its said support the septum thus brought together on both sides of the ring.

5. An everted sleeve septum composed of a layer of rubber and one of supporting material, the end of the rubber being everted around the end of the supporting layer, a round casing and a plunger, joined by said septum and therewith constituting an expansible chamber, and means to clamp the said triple layer at the end of the septum between two parts on the chamber wall.

[Claim 6 not printed in the Gazette.]

1,205,107. MACHINE FOR SEWING LOOPED FABRICS. EDISON E. RANDALL, Kankakee, Ill., assignor to Paramount Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 19, 1915. Serial No. 62,406. (Cl. 112—33.)



1. A machine for sewing looped fabrics comprising a movable impaling pin support, impaling pins arranged thereon, stitch forming mechanism for securing together the impaled looped fabrics by forming a line of stitching therein above the impaling pins, and continuously operated mechanism acting to raise the thread extending from the stitched portion above the line where the stitching is formed and then to sever the said thread.

2. A machine for sewing looped fabrics comprising a movable impaling pin support, impaling pins arranged thereon, stitch forming mechanism for securing together the impaled looped fabrics by forming a line of stitching therein above the impaling pins, continuously operated cutting mechanism having its field of action located immediately above the line of stitching, and means to raise the thread extending from the stitched portion into the field of action of the cutting mechanism.

3. A machine for sewing looped fabrics comprising a movable impaling pin support, impaling pins arranged thereon, stitch forming mechanism for securing together the impaled looped fabrics by forming a line of stitching therein above the impaling pins, continuously operated cutting mechanism having its field of action located immediately above the line of stitching, and a continuously operated yielding thread lifter yielding upon engagement with the stitched portion but otherwise acting to raise the thread extending from the stitched portion into the field of action of the cutting mechanism.

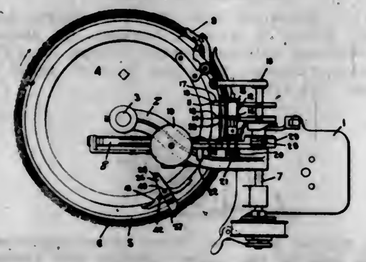
4. A machine for sewing looped fabrics comprising a frame, an impaling pin support movably mounted thereon, impaling pins arranged on said support, stitch forming mechanism for securing together the impaled looped fabrics by forming a line of stitching therein above the impaling pins, a fixed shearing blade mounted vertically on the frame and extending down to a point in the rear of the path of the stitched portion, a continuously operated coöperating shearing blade movable above the path

of said stitched portion, and an outwardly yielding lifter movable with said movable shearing blade extending down into the path of said stitched portion whereby it is restrained from movement by contact with said stitched portion but otherwise acts to raise the thread extending from the stitched portion into the field of action of the shearing blades.

5. A machine for sewing looped fabrics comprising a movable impaling pin support, impaling pins arranged thereon, stitch forming mechanism for securing together the impaled looped fabrics and forming a welt therein above the impaling pins, a fixed shearing blade having its edge located in the rear of and extending above the said welt, a coöperating shearing blade mounted to move above the welt toward and from and thus coöperate with said first shearing blade, and a thread lifter mounted to move toward and from the first shearing blade and, when not restrained by contact with the welt, to lift the thread above the welt into the field of action of the shearing blades.

[Claims 6 to 14 not printed in the Gazette.]

1,205,108. MACHINE FOR SEWING LOOPED FABRICS. EDISON E. RANDALL, Kankakee, Ill., assignor to Paramount Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 19, 1915. Serial No. 62,407. (Cl. 112—19.)



1. A machine for sewing looped fabrics comprising a movable support with impaling pins thereon, trimming mechanism for trimming the edges of the impaled fabrics above the impaling pins, stitch forming mechanism for uniting said edges, means for automatically removing the fabrics from the impaling pins after they have been carried thereby past the stitch forming mechanism, and means for indicating the failure of thread in the stitch forming mechanism whereby the operative is enabled to prevent the removal of trimmed but unstitched fabrics from the impaling pins.

2. A machine for sewing looped fabrics comprising a movable support with impaling pins thereon, trimming mechanism for trimming the edges of the impaled fabrics above the impaling pins, a two thread stitch forming mechanism for uniting said edges, means for automatically removing the fabrics from the impaling pins after they have been carried thereby past the stitch forming mechanism, a signal, and means for causing the operation of the signal upon the failure of a thread, whereby the operative is enabled to prevent the removal of trimmed but unstitched fabrics from the impaling pins.

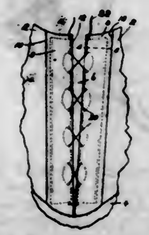
3. A sewing machine comprising a two thread stitch forming mechanism, a bell, a striker, means for operating the striker, a latch for restraining the operation of the said means, and means for releasing the latch upon the failure of either thread whereby the bell is sounded to indicate the failure of either thread to the operative.

4. A sewing machine comprising a two thread stitch forming mechanism, a pair of spring take ups one for each of said threads, a signal, a latch for preventing the operation of the signal, a controller member for said latch operated by either take up upon the failure of its thread to release the latch and cause the operation of the signal.

5. A sewing machine comprising a two thread stitch forming mechanism, a pair of spring take ups one for each of said threads, a signal, a latch for preventing the operation of the signal, a controller member for said latch extending transversely of said take ups and struck by either upon the failure of its thread to release the latch and cause the operation of the signal.

[Claim 6 not printed in the Gazette.]

1,205,109. LACING STRUCTURE. CHESTER A. RATSKIN, Kansas City, Mo. Filed Nov. 9, 1914. Serial No. 871,101. (Cl. 24—140.)



1. A lacing structure comprising members each having an edge portion provided with spaced lacing openings, and a lacing element secured to each of said members between the lacing openings thereof, said lacing elements being shaped to form lacing passages having their axes arranged in a line extending parallel with the edges of said members respectively, and the ends of said lacing passages registering with the corresponding lacing openings.

2. A lacing structure comprising members having portions providing a closure slit, and a series of lacing elements secured to said members beneath the same and concealed thereby, said elements being shaped to form lacing passages having their axes arranged in a line extending longitudinally of said slit, and said members having lacing openings registering with the ends of each of said lacing passages.

3. A lacing structure comprising members having portions providing a closure slit, said members each having a series of spaced lacing openings, and a series of lacing elements secured to said members between said openings, said elements being shaped to form lacing passages having their axes arranged in a line extending longitudinally of said slit and the ends of each of said lacing passages registering with said lacing openings.

4. A lacing structure comprising members having edges forming a closure slit, said members having marginal strip portions reinforcing the edges of said slit and forming shoulders extending longitudinally of the slit, and a series of lacing elements secured to said members and provided with lacing passages, said lacing elements abutting against said shoulders and thereby reinforcing said lacing passages, said members being provided with lacing openings registering with the ends of said lacing passages.

5. A lacing structure comprising members having portions providing a closure slit, said members being doubled back along said slit and secured to reinforce the margins of the slit and form longitudinal shoulders adjacent said slit, and a series of elements secured to said members and provided with lacing passages, said elements abutting against said shoulders and thereby reinforcing said lacing passages, and said members having lacing openings registering with the ends of said passages.

1,205,110. PROCESS FOR PEELING FRUIT. WILLIAM J. SCHAEFER, Ontario, Cal. Filed Feb. 8, 1915. Serial No. 6,880. (Cl. 146—14.)

1. The process of peeling fruit which consists in first treating the fruit to loosen the skin, and then causing the fruit to drop repeatedly into separate bodies of liquid and to move rapidly through the liquid, said dropping operation and the movement of the fruit through the liquid being consecutively repeated a sufficient number of times to completely detach the skin from the fruit.



2. The process of peeling fruit which consists in first treating the fruit to loosen the skin, then causing the fruit to drop consecutively into and pass through separate bodies of liquid to detach the skin from the fruit and renewing the liquid in each body.

3. The process of peeling fruit which consists in first treating the fruit to loosen the skin, and then causing the fruit to drop consecutively into currents of liquid to detach the skin from the fruit and cause the detached skin to be washed away by such currents of liquid.

4. The process of peeling fruit which consists in first treating the fruit to loosen the skin, and then causing the fruit to drop into and move rapidly through moving liquid which is continually renewed, said dropping operation and the movement of the fruit through the liquid being consecutively repeated a sufficient number of times to completely detach the skin from the fruit and to wash away the detached skin by the movement of the liquid.

1,205,111. CAN. CHARLES F. SCHNEBELIN, Peoria, Ill., assignor to Stuber & Kuck Co., Peoria, Ill., a Corporation of Illinois. Filed Jan. 8, 1914. Serial No. 811,064. (Cl. 220—5.)



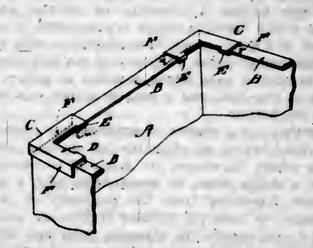
1. The combination with a can having one or more angles or corners, of a brace lying in one of the angles thereof comprising a part having two limbs lying substantially at right angles to one another to conform to and lie against two sides of the can and including a limb bent substantially perpendicularly to the planes of the two said limbs and having the metal of the sides bent over upon and inclosing the same, said brace having a depression in its top surface, a portion of each of the sides of the can, where it incloses the brace, lying in said depression.

2. The combination in a rectangular can including its sides and an inner overhanging flange terminating the top of two of its sides, an angular brace lying in the angle formed by the two said sides and including a limb to receive the said inner overhanging flange, said limb having a depression in its top surface, a portion of one of the said overhanging flanges lying in and terminating in said depression, the end of the adjacent flange lying upon said portion within the depression and having its top flush with that part of the top surface of the first flange that lies outside the depression.

3. The combination with a rectangular receptacle, of a brace lying in the angle formed by two of its walls and having a limb lying parallel to each of the latter and including a flange overhanging the inner portion of the receptacle, the angle of the said brace lying in the corner of the receptacle, each wall having a part overlying the said flange, said flange having a depression lying opposite the angle of the walls of the receptacle, the parts of the walls being mitered at the corners or angles of said receptacle, the mitered ends lying upon one another in said depression, the top surface of the uppermost one being flush with the top surface of the portion of the other that lies outside the depression.

4. The combination with a receptacle having wall portions lying at an angle to one another, including overturned terminal edges forming a flange at the open side of said receptacle, of a brace conforming substantially to and lying in the angle, the plane of said brace lying perpendicular to the plane of said wall portions and inclosed in the said terminal edges of the latter at the said open side of the can, said brace having a depression in its upper surface at the said angle of the wall portions of the said terminal edges to receive the meeting ends of the latter.

1,205,112. CAN. CHARLES F. SCHNEBELIN, Peoria, Ill., assignor to Stuber & Kuck Co., Peoria, Ill., a Corporation of Illinois. Original application filed Jan. 8, 1914, Serial No. 811,064. Divided and this application filed Jan. 28, 1916. Serial No. 74,728. (Cl. 220—5.)



1. The combination with a can two of whose walls lie at an angle to one another, of a stiffening member at said angle of the walls comprising a portion overhanging a portion of the top edge of each wall at said angle, and a flange overlying part of the outer surface of each wall, each said portion of said member including a part folded upon and engaging the interior surface of the can and secured in place by the same.

2. The combination with a can, two of whose walls lie at an angle to one another forming an angle, one of the walls including a flange extending inward from its top edge at the open side of the can, of a stiffening member at the said angle including in its construction an extension overlying a portion of the flange measured lengthwise, said extension being folded upon and around the flange inside the can, and also including a part to engage the outer surface of the wall having the flange, said member being secured to the other wall of the can.

3. The combination with a receptacle whose walls lie at an angle to one another terminating in an angle, each wall including an inwardly extending overhanging flange, of a stiffening member substantially conforming to the angle of said walls and lying upon the upper edges of the wall at said angle and upon each said flange, each extremity of the member including a part adapted to take around the flange, said member also including a flange on each of its extensions adapted to engage the outer surfaces of the walls at said corners.

4. The combination with a receptacle having an open side and having a corner formed by two of its meeting walls and including a flange at the top of each of the walls at said open side, of a stiffening member adapted for attachment to the receptacle at said corners comprising two extensions each adapted to overlie one of the said flanges at the top of the walls and including a flange adapted to overlie the outer surface of each wall, each said extension including a part at its inner edge adapted to be bent downwardly beneath and to clamp upon its respective flange of said walls.

5. An article of manufacture consisting of a sheet metal member having two extensions disposed in the same plane and lying at an angle to one another and each having a flange portion arranged perpendicularly thereto, each extension having an extending portion at its free extremity

substantially at right angles to the length of said extension, the measurement of each said extremity across the extended portion being greater than the width of the extremity at other points in its length.

1,205,113. SETTING FOR PRECIOUS STONES. JOHN F. SELMEIER, Norwood, Ohio, assignor to Peck, Selmeier & Peck, Cincinnati, Ohio, a firm composed of Gustav Peck and John F. Selmeier. Filed Apr. 12, 1916. Serial No. 90,537. (Cl. 63—28.)

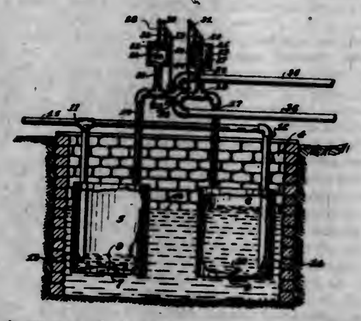


1. A setting for a cluster of small stones comprising a circular disk having a plurality of circular apertures therein in which precious stones are mounted to resemble the surface of a single stone, in combination with a framework depending from the periphery of the disk comprising a series of curved bars joined together at points on the periphery of the disk, and a ring to which said bars are joined at the bottom.

2. A setting for a cluster of small stones comprising a circular disk having a plurality of circular apertures therein in which the stones are mounted to resemble the surface of a single stone, in combination with a series of curved bars depending from the periphery of said disk and arranged to form an annular framework below said disk, and a ring smaller in diameter than said disk, said curved bars joined together at points around said ring and diverging therefrom to their points of connection on said disk.

3. A setting for a cluster of small stones comprising a disk having a plurality of apertures therein, in which precious stones are mounted to resemble the surface of a single stone, in combination with a depending framework comprising a ring smaller in diameter than the disk and suspended therefrom, curved bars connected to said ring and arranged in pairs, the bars of each pair diverging from their points of connection on said ring and connected at their upper ends to the bar of the succeeding pair, said bars being connected to the periphery of the said disk whereby said framework is suspended.

1,205,114. COMPRESSED-AIR WATER-ELEVATOR. FRANK T. SHAW, Lordsburg, Cal. Filed Aug. 2, 1915. Serial No. 43,267. (Cl. 103—8.)



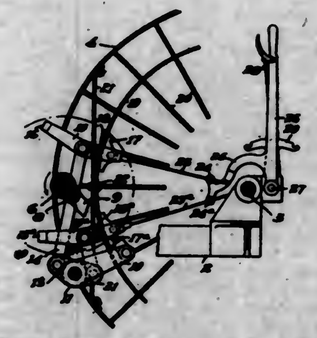
1. A compressed air water elevator, comprising in combination a pair of air pressure pumping tanks, an air conduit for each of said air pressure pumping tanks, an oscillating valve connected to each of said air conduits for controlling connection of the conduits to a source of air pressure and suction, independent air motors connected to each of said air conduits, linkage connected by lost motion means to said valve and to the movable members of said air motors, and a snap-over device connected to said valve for completing movement thereof.

2. A compressed air water elevator, comprising in combination a pair of air pressure pumping tanks, an air conduit for each of said air pressure pumping tanks, a two-way four port oscillating valve connected to each of said air conduits to a source of air pressure, and to an air suction device, an arm on said valve, independent pneumatic motors connected to each of said air conduits, linkage connecting the movable members of said pneumatic motors and the valve arm including a link provided with an elongated slot through which said arm passes, and a snap-over device connected to said valve for completing movement thereof.

3. A compressed air water elevator, comprising in combination a pair of air pressure pumping tanks, an air conduit for each of said air pressure pumping tanks, a two-way four port oscillating valve connected to each of said air conduits to a source of air pressure and to an air suction device, an arm on said valve, independent single acting pneumatic motors connected to each of said air conduits comprising vertically disposed cylinders, linkage connecting the movable members of said pneumatic motors to the valve arm including a link provided with an elongated slot through which said arm passes, and a snap-over device secured to said valve for completing movement thereof.

4. A compressed air water elevator, comprising in combination a pair of air pressure pumping tanks, an air conduit for each of said air pressure pumping tanks, a two-way four port oscillating valve connected to each of said air conduits to a source of air pressure, and to an air suction device, an arm on said valve, independent pneumatic motors connected to each of said air conduits, linkage connecting the movable members of said pneumatic motors to the valve arm including a link provided with an elongated slot through which said arm passes, and a spring secured to said arm to the valve case eccentric of said valve.

1,205,115. GEARLESS DRIVING MECHANISM. WILLIAM E. SIDNEY, Minneapolis, Minn., assignor of one-half to Union Iron Works, Minneapolis, Minn., a Corporation. Filed Jan. 22, 1915. Serial No. 3,752. (Cl. 74—63.)



1. The combination, with a frame and a source of motive power thereon, of a wheel, friction members having gripping surfaces to engage and clamp said wheel at opposing points on inner and outer faces of the wheel, operative connections between said members and said source of motive power for alternate operation of said members to grip and release said wheel to rotate it, and mechanically operated yielding means for positively shifting said members for forward or reverse movement of said wheel and holding them to their changed positions.

2. The combination, with a revolving member having a friction surface, of gripping members having jaws for engaging said friction surface, pitmen pivotally connected with said gripping members for forward and backward movement on said friction surface, and mechanically operated yielding means for positively tilting said gripping members to a position at a tangent to said friction surface, whereby the movement of said pitmen will be imparted through said gripping members to operate said revolving means.

3. In combination, with a revolving member having a friction surface, gripping members having jaws disposed to engage said friction surface at opposing points on inner and outer faces of the revolving member, means for tilting said gripping members to operatively engage their jaws with said friction surface, pitmen connected with said gripping members for forward and backward movement thereof in alternation on said friction surface.

4. The combination, with a frame and a source of motive power mounted thereon, of a loosely mounted traction wheel provided with a friction surface, tilting grippers for engaging said friction surface at opposing points on inner and outer faces thereof, means operatively connecting said grippers with said source of motive power for alternate movement of said grippers, and mechanically actuated spring arms for swinging said grippers to engage their forward or rear edges with said friction surface forward or reverse movement of said wheel.

5. The combination, with a frame and a source of motive power mounted thereon, of a loosely mounted traction wheel having a frictional surface, tilting grippers for engaging said surface, means operatively connecting said grippers with said source of motive power for alternately sliding and clamping said grippers on said surface, and a control lever and spring arms connecting it with said grippers, said arms being put under tension by the movement of said lever to hold said grippers in their clamping position.

[Claims 6 to 8 not printed in the Gazette.]

1,205,116. PROCESS AND METHOD OF UNITING AND REINFORCING JOINTS. FRANK LEGH SLAZENGER, New York, N. Y. Filed Mar. 3, 1916. Serial No. 81,856. (Cl. 144—309.)

1. The process of uniting and reinforcing joints consisting in treating the wooden bodies of a joint to render the same porous and rough, coating the surfaces thus treated with an adhesive agency, applying a body of vellum treated to render the same soft upon the wooden bodies thus treated, and subjecting the parts to pressure between heated metallic bodies.

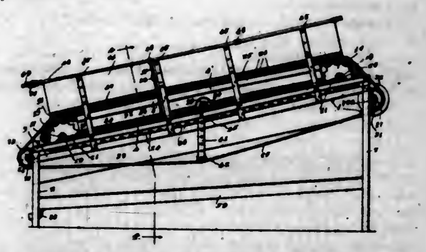
2. The process of uniting and reinforcing joints consisting in treating the wooden bodies of a joint with steam, hot water, or other agencies to expand the pores thereof to render the same spongy and soft, sand papering and coating with an adhesive agency the surfaces of the bodies thus treated, applying to the wooden bodies thus prepared a body of vellum which has been treated by boiling to soften the same, subsequently subjecting the parts of the joint thus prepared to pressure between heated metallic bodies, and allowing the parts to slowly cool for causing the fibers of the wooden bodies and the fibers of the vellum to become efficiently fused and interlocked with each other to form a unitary structure.

1,205,117. MACHINE FOR WASHING FRUIT. GEORGE THEODORE STAMM, Upland, Cal. Filed Nov. 8, 1915. Serial No. 60,241. (Cl. 146—14.)

1. A fruit washing machine comprising a frame, a plurality of rotary washing and fruit supporting brushes mounted on said frame, means to rotate the said brushes, and means to move the brushes along the frame to convey the fruit.

2. A fruit washing machine comprising a frame, a plurality of rotary washing fruit supporting brushes mounted on said frame, means to rotate the brushes, and means to move the brushes bodily along the frame, said brushes having irregular fruit engaging surfaces.

3. A fruit washing machine comprising a frame, a plurality of rotary fruit supporting washing brushes mounted on the frame, means to move the brushes bodily along the frame to convey the fruit, and means to rotate the brushes in a direction corresponding to that of the bodily movement thereof

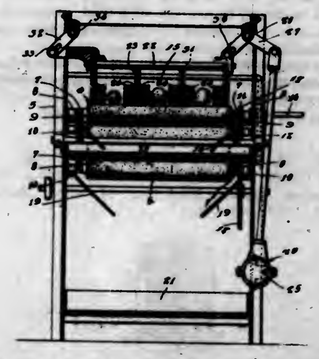


4. A fruit washing machine comprising a frame, a plurality of rotary fruit washing and supporting brushes mounted on said frame, means to rotate the brushes to turn over and wash the fruit thereon, means to move the brushes along the frame to convey the fruit, and means to spray a fluid on the fruit while it is upon the brushes.

5. A fruit washing machine comprising a frame, an inclined conveyer mounted on the frame, said conveyer comprising a plurality of rotary fruit supporting brushes, means to rotate the brushes, and means to rotate the conveyer.

[Claims 6 to 29 not printed in the Gazette.]

1,205,118. FRUIT-WASHING MACHINE. FRED STEBBINS, Riverside, Cal. Filed Mar. 20, 1916. Serial No. 85,508. (Cl. 146—14.)



1. In a fruit washing machine means to support and move fruit in a given direction including rotary washing members and laterally moving means to move the fruit back and forth at substantially right angles to its movement in a given direction.

2. In a fruit washing machine means to support and move the fruit in a given direction including rotary washing members and laterally reciprocating fruit engaging means to move the fruit back and forth while it is being moved in the given direction.

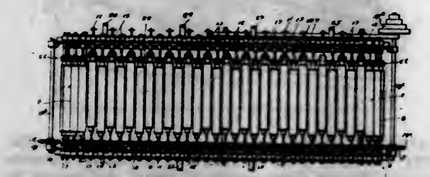
3. In a fruit washing machine means to support and move the fruit in a given direction including rotary washing members and laterally reciprocating fruit engaging means to move the fruit back and forth while it is being moved in a given direction including fruit engaging brushes.

4. In a fruit washing machine means to convey fruit, including rotary fruit engaging brushes and means to move the fruit laterally back and forth while it is being conveyed including brushes extending at right angles to the rotary brushes.

5. A fruit washing machine comprising a plurality of bodily moving rotating fruit supporting and washing members and a laterally reciprocating fruit engaging means to move the fruit back and forth while upon said members.

[Claims 6 to 18 not printed in the Gazette.]

1,205,119. FRUIT-WASHING MACHINE. FRED STEBLER, Riverside, Cal. Filed Mar. 20, 1916. Serial No. 85,509. (Cl. 146—14.)



1. A fruit washing machine comprising a plurality of laterally reciprocating bodily advancing rotating fruit supporting and washing members.

2. A fruit washing machine comprising a plurality of fruit supporting and washing members, means to bodily move said members in a given direction, means to rotate said members, and means to laterally reciprocate said members.

3. A fruit washing machine comprising a plurality of fruit supporting and washing members, means to bodily move said members in a given direction, means to rotate said members, and means to reciprocate the members in opposite directions alternatively.

4. A fruit washing machine comprising a plurality of fruit supporting and washing members, means to bodily move said members in a given direction, means to rotate said members, and means to reciprocate said members in opposite directions.

5. In a fruit washing machine, rotary, fruit supporting and washing members, means to rotate said members, and means to reciprocate said members.

[Claims 6 to 24 not printed in the Gazette.]

1,205,120. MACHINE FOR TRIMMING THE OVERFLOW FROM MOLDED ARTICLES. FRED L. VALPEY, Swampscott, Mass. Filed Feb. 24, 1914. Serial No. 820,461. (Cl. 164—29.)



1. In a machine for trimming the overflow from molded articles, the combination with an article-holding member presenting side walls to encircle the sides of the article to be trimmed, the edges of said walls against which the portion of the article to be trimmed rests when the article is in said holding member constituting cutting edges, a cutting bed, and means to move the holding member and bed relative to each other.

2. In a machine for trimming the overflow from articles molded of rubber, the combination with a frame having a cutting bed, of a movable member movable toward and from the bed, a holding member carried by the movable member and provided with a recess to receive the article to be trimmed and having a projecting cutting edge surrounding said recess whereby when the article to be trimmed is placed in the recess the overflow will overlie the cutting edge and will be trimmed by the movement of said movable member toward the cutting bed.

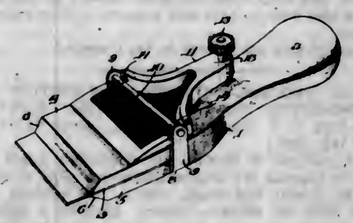
3. In a machine for trimming the overflow from molded articles, the combination with an article-holding member presenting a wall adapted to encircle the sides of the article to be trimmed, the edge of the wall against which the portion of the article to be trimmed rests when the article is in said holding member constituting a cutting edge, said wall being made in sections movable relative to each other thereby to permit said member to be expanded or contracted, a cutting bed, and means to move the holder and bed relative to each other.

4. In a machine for trimming the overflow from articles molded of rubber, the combination with a frame having a cutting bed, of a movable member capable of movement toward and from said bed, means to give said member its movement, a holding member removably secured to the movable member and provided with a plurality of openings to receive articles to be trimmed, and a cutting knife situated in each opening and projecting beyond the body of the holding member.

5. In a machine for trimming the overflow from molded articles, the combination with a holding member provided with an open recess of a shape to receive the article to be molded, the wall of said recess presenting a cutting edge at the open side of the recess whereby when the article to be trimmed is placed in the recess the overflow portion thereof will overlie the cutting edge, of a cutting bed, and means to move said holding member and cutting bed relative to each other.

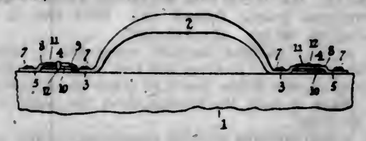
[Claim 6 not printed in the Gazette.]

1,205,121. HAND-SCRAPER. JOHN L. WILCOX, Seattle, Wash. Filed Apr. 8, 1916. Serial No. 89,892. (Cl. 145—47.)



A hand scraper comprising a straight wooden body portion shaped at one end to provide a handle and having a horizontal slit at its opposite end to provide a pair of jaws, the upper surface of the body portion adjacent the rear end of the slit having a transverse slit, a blade tilted in the horisontal slit and abutting against the rear wall of the latter, and blade holding means including a clamp, one end of which engages the surface of the upper jaw in front of the transverse slit, and a screw at the opposite end of the clamp and engaging the upper surface of the handle to cause the front end to bend the upper jaw and clamp the blade in position in the horisontal slit.

1,205,122. PARCEL AND BAG CARRIER AND HANDLE. HENRY PLANE WILLIAMS, Malvern East, Victoria, Australia. Filed Apr. 22, 1916. Serial No. 92,924. (Cl. 224—55.)



A bag or parcel carrying handle having integral therewith at each end, an extension containing a buckle having an inner cross bar or bars located lower than the outer cross bars of the buckle, but with all the cross bars so raised that they will not contact with the bag or parcel to be carried.

1,205,123. SOAP-BUBBLE BLOWER. CHATTIN BRADWAY, Brooklyn, N. Y., assignor to Judson H. Bradway, New York, N. Y. Filed June 2, 1915. Serial No. 31,705. (Cl. 46—81.)



1. A soap bubble pipe comprising a body having separate bubble-forming means in its bottom and a passage extending outwardly from each means and all the passages terminating in the side of the body, and a stem device extending laterally from the body and through which air can be supplied to any one or more of the passages.

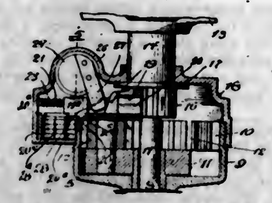
2. A soap bubble pipe comprising a body having separate bubble-forming means, a stem connected with and supplying air to each means, and a mouthpiece having passages into which the stems engage and having a surface against which the lips are adapted to be placed and in which the passages open to permit any one or more of the passages to be covered by the lips while air is blown into any of the other passages.

3. A soap bubble pipe comprising a plurality of bubble forming chambers, a stem leading to each chamber, and a mouth piece having separate openings communicating respectively with the stems.

4. A soap bubble pipe comprising a plurality of bubble forming chambers, and means for supplying air from the mouth to the chamber singly, successively or collectively, said means including a plurality of openings so arranged that one or more can be closed by the lips while air is blown into one or more openings.

5. A soap bubble pipe comprising a plurality of bubble forming chambers, and air conduits leading to the chambers, each conduit including a valve device for controlling the air.

1,205,124. LOCKING DEVICE FOR AUTOMOBILES. EDWARD E. DAVIS, Chicago, Ill. Filed Sept. 28, 1916. Serial No. 122,640. (Cl. 70—90.)



1. A locking device for motor vehicles, comprising a steering column having an externally screw-threaded housing secured thereon, a cover for said housing, threaded thereon, a pawl pivotally supported by said cover and having a sharp edge adapted to impinge against the threads on the housing, a reciprocal element supported in said cover and having a lug adapted to engage said pawl and capable of moving it into and out of engagement with the threads on the housing, and key controlled mechanism for reciprocating said reciprocatory element.

2. In a locking device for motor vehicles, a steering column having an externally screw-threaded housing secured upon its upper end, a cover threaded on said housing, a locking pawl consisting of a plurality of case hardened sections secured together and having an edge adapted to impinge upon the screw threads on the housing, a reciprocal element, slidably mounted in said cover, and having a lug adapted to engage said pawl and capable of moving it into and out of engagement with said screw threads on the housing, and key controlled locking mechanism for reciprocating said reciprocatory element.

3. In a steering head for an automobile the combination with a steering post, fixed against lengthwise movement, a housing mounted relatively to said post, a planetary gearing in said housing, of a stud shaft, a steering wheel on said stud shaft, a pinion fixed to said stud shaft, said stud shaft being mounted for lengthwise movement relatively to the steering post, whereby the said pinion may be meshed and demeshed with said planetary gearing, and a cap for said housing, the top of which is spaced from the gearing to permit of the lengthwise movement of the stud shaft and its pinion.

4. In a steering head for an automobile, the combination with a steering post fixed against lengthwise movement, a housing mounted concentric with said post, a planetary gearing in said housing, of a stud shaft mounted to move lengthwise, and means operated by the endwise movement of the stud shaft whereby the planetary gearing may be operative or inoperative according to the position of said stud shaft, and a cap for said housing the top of which is spaced from the gearing to permit the lengthwise movement of said stud shaft, a flange carried by the shaft and positioned above the pinion to limit the endwise movement of the stud shaft.

5. In a steering head for an automobile, the combination with a steering post fixed against lengthwise movement, a housing mounted concentric with said post, a planetary gearing in said housing, of a stud shaft mounted to move lengthwise, and means operated by the endwise movement of the stud shaft whereby the planetary gearing may be operative or inoperative according to the position of said stud shaft, and a cap for said housing the top of which is spaced from the gearing to permit the lengthwise movement of said stud shaft, means carried by the shaft to limit the endwise movement of the shaft in both directions.

[Claims 6 to 8 not printed in the Gazette.]

1,205,125. MECHANISM FOR PIPE-CUTTING. CHARLES ALBERT DIES, Chicago, Ill., assignor to Mark Manufacturing Company, Chicago, Ill., a Copartnership comprised of Clayton Mark, Anson Mark, and Cyrus Mark. Filed Dec. 16, 1912. Serial No. 736,898. (Cl. 164—52.)

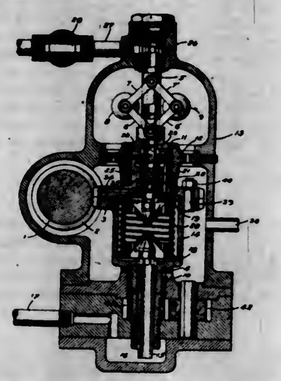


1. A pipe cutting mechanism having ripping means for the pipe, a saw blade having differentially arranged groups of teeth thereon, one of said groups being adapted to shear through the metal of the pipe in its greatest dimension in cross section, another of said groups being adapted to shear through the metal of the pipe in its least dimension in cross section and a third of said groups being adapted to shear through the remaining metal in a dimension which is at least as great as that of the metal sheared by the first group of teeth, the said saw blade comprising means for cutting the pipe in one continuous stroke.

2. In a pipe cutting mechanism means for supporting the pipe externally and a saw having differentially arranged sets of teeth, the coarser teeth being adapted to cut through the metal of the pipe at its greatest section, and the teeth of the smaller sets being adapted to cut through the metal in its least sections, said teeth being of a size directly proportioned to the amount of work to be done by the teeth in cutting through the pipe.

3. In a pipe cutting mechanism, a base, a saw mounted on said base and adapted for cutting through a pipe, said saw being adapted to cut through a pipe at a single stroke by a plurality of series of teeth, each series being adapted to remove a predetermined amount of metal, and means for externally supporting an internally unsupported pipe on said base, comprising pipe-gripping jaws, one of said jaws being fixed to said base and the other of said jaws being adapted to be moved toward and away from said pipe for releasing and gripping the same.

1,205,126. SPEED-GOVERNOR. HERBERT T. HEAR, Pittsburgh, Pa., assignor, by mesne assignments, to The Westinghouse Machine Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 27, 1913. Serial No. 757,126. (Cl. 264—7.)



1. In a governor, a spindle comprising telescopic parts, one of which is adapted to have rotatable and longitudinal movement imparted to it, and the other of which is adapted to have rotative movement only imparted to it, one of said parts having ports adapted to register with the ports of the other part, and governor weights for causing said ports to register.

2. An organized apparatus comprising a liquid circulatory system, a rotatable and longitudinally shiftable hollow spindle included in said system and controlling the delivery of fluid to and the discharge of fluid from a pressure chamber included in said system, a speed responsive means for controlling the operation of said spindle.

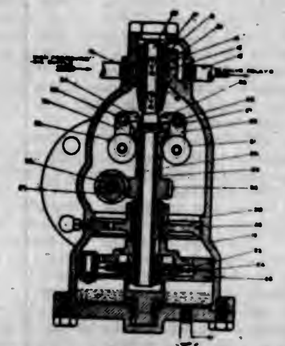
3. A governing device comprising an organized apparatus including a liquid circulatory system having a pressure chamber to which liquid is delivered from a source of supply and from which it is delivered through a delivery port, a spindle for controlling the delivery of liquid to said chamber and the discharge of liquid through a relief port communicating with said chamber, means driven by the apparatus to be governed for rotating said spindle and centrifugally controlled device driven by said spindle for acutating the spindle to control the liquid delivered to the chamber.

4. A governing device comprising an organized apparatus including a liquid circulatory system having a pressure chamber to which liquid is delivered from a source of supply and from which liquid is discharged through a continually open delivery port and means responsive to the speed of the device to be governed for controlling the delivery of liquid to said chamber and the discharge of liquid through a relief port with which said chamber is provided.

5. A governing device comprising an organized apparatus including a liquid circulatory system having a pressure chamber to which liquid is delivered from a source of supply and from which it is delivered through a delivery port, and speed responsive means subjected to the pressure within said chamber for controlling the delivery of liquid to said chamber and the discharge of liquid through a relief port with which said chamber is provided.

[Claims 6 to 10 not printed in the Gazette.]

1,205,127. SPEED-GOVERNOR. HERBERT T. HEAR, Pittsburgh, Pa., assignor, by mesne assignments, to The Westinghouse Machine Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 6, 1913. Serial No. 783,368. Renewed Mar. 15, 1915. Serial No. 14,506. (Cl. 264—7.)



1. A governor comprising a casing having an inlet and an outlet, a valve for the inlet, a valve stem, a diaphragm connected to the valve stem, a governor spindle, weights carried by the governor spindle, and means for imparting movement to the valve stem in response to variations of movement of the weights.

2. A governor comprising a casing having an inlet and an outlet, a valve for the inlet, a valve stem, a diaphragm connected to the valve stem, a pressure chamber for the diaphragm, a governor spindle, weights carried by the governor spindle, and means for imparting movement to the valve stem in response to variations of movement of the weights.

3. A governor comprising a governor spindle, weighted arms carried by the spindle, a chamber normally closed at its inlet end for admitting fluid to a valve actuating device, a valve for opening and closing said chamber, a valve stem, a diaphragm connected to said valve stem, and means on the valve stem for engagement with the weighted arms.

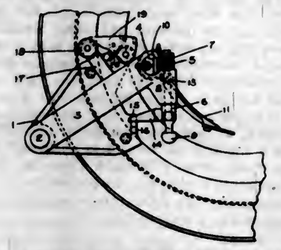
4. A governor comprising a spindle, weighted arms on said spindle, a valved chamber, a stem connected to the valve for said chamber, a diaphragm connected to said stem, and means on the stem for engagement by the arms.

5. In a governor, a ported valve, a reciprocatory stem connected to said valve and provided with a collar, a pressure chamber, a diaphragm within said pressure chamber and connected to said stem, and weighted arms carried by the spindle for engagement with the collar.

[Claims 6 to 15 not printed in the Gazette.]

1,205,128. CENTRIFUGAL-MACHINE UNLOADER. EDWARD D. MACKINTOSH, Brooklyn, N. Y., assignor of one-half to S. S. Hepworth Company, New York, N. Y., a Corporation of New York. Filed Sept. 4, 1914. Serial No. 860,150. (Cl. 210—81.)

1. In an unloader for centrifugal machines, a fixed vertical bearing, a horizontal arm swingably supported by the bearing, a vertical bar guided by the arm and movable only vertically in relation thereto, and a plow fixed to the vertical bar.



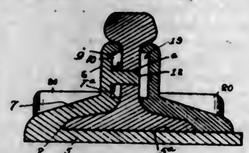
2. In an unloader for centrifugal machines, a fixed vertical bearing, a horizontal arm swingably supported by the bearing, a toothed vertical bar guided by the arm and movable only vertically in relation thereto, a pinion with teeth that mesh with the teeth on the bar, a shaft carried by the arm and secured to the pinion, a winch secured to the shaft and with its handle traveling in an orbit located wholly to one side of the vertical bearing and substantially in a plane therewith, and a plow fixed to the vertical bar.

3. In an unloader for centrifugal machines, a fixed vertical bearing, a horizontal arm swingably supported by the bearing, a toothed vertical bar guided by the arm and movable only vertically in relation thereto, a pinion with teeth that mesh with the teeth on the bar, a shaft carried by the arm and secured to the pinion, a winch secured to the shaft and with its handle traveling in an orbit located wholly to one side of the vertical bearing and substantially in a plane therewith, a plow fixed to the vertical bar, and a stop against which the winch bears when the plow is in its position of rest.

4. In an unloader for centrifugal machines, a fixed vertical bearing, a horizontal arm swingably supported by the bearing, a vertical bar guided by the arm and movable only vertically in relation thereto, a plow fixed to the vertical bar, a horizontal roller carried by the arm, a cam swingable about a fixed vertical axis and bearing on the roller, and a spring acting to press the cam against the roller.

5. In an unloader for centrifugal machines, a fixed vertical bearing, a horizontal arm swingably supported by the bearing, a toothed vertical bar guided by the arm and movable only vertically in relation thereto, a pinion with teeth that mesh with the teeth on the bar, a shaft carried by the arm and secured to the pinion, a winch secured to the shaft and with its handle traveling in an orbit located wholly to one side of the vertical bearing and substantially in a plane therewith, a plow fixed to the vertical bar, a horizontal roller carried by the arm, a cam swingable about a fixed vertical axis and bearing on the roller, and a spring acting to press the cam against the roller.

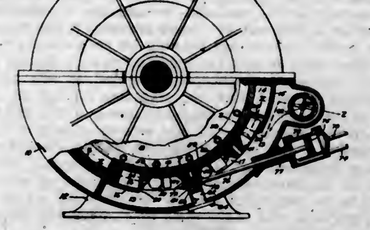
1,205,129. BOLTLESS RAIL-JOINT CONNECTION. JOHN B. MAYZEL, Passaic, N. J. Filed Oct. 24, 1914. Serial No. 868,528. (Cl. 239—6.)



1. A rail joint construction consisting of a base plate formed with an integral fish plate, said fish plate having lateral pins rigidly connected thereto, said base plate having a longitudinal recess, the inner edge portion of said recess being in parallelism with the fish plate and the width of said recess being reduced from the inner edge portion thereof, said lateral pins being capable of entering the transverse bolt openings in the rails, and a detachable fish plate formed with an integral locking lug adapted to enter said recess and hold said detachable fish plate against the rails and the rails against the integral fish plate, said locking lug being covered by the detachable fish plate and the base plate.

2. A rail joint connection consisting of a base plate adapted to lie under the meeting ends of a pair of rails and extend laterally thereof and formed with an integral fish plate having integral lateral pins capable of entering the transverse bolt openings of the rail ends, said base plate having longitudinally extending locking recesses spaced from each other, each recess extending partly through the base plate and being substantially L-shaped in plan, the integral fish plate being adapted to seat on the base flanges of the rail ends, and a detachable fish plate positionable on the base plate and against the sides and on the base flanges of the rails, said detachable fish plate being formed with integral locking lugs rectangular in form and adapted to enter said locking recesses and confine the rail ends between said detachable fish plate and said integral fish plate, the locking lugs being of less length than the locking recesses and being movable lengthwise therein, said lugs being insertible in the wider portions of the L-shaped recesses and being then movable into the narrower portions thereof, said lugs and said recesses being protected from above by the base of the detachable fish plate and from below by the base plate.

1,205,130. TURBINE-VALVE MECHANISM. GEORGE WESTINGHOUSE, Pittsburgh, Pa., assignor to The Westinghouse Machine Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 19, 1912. Serial No. 684,738. (Cl. 121—118.)



1. In combination in a turbine, a plurality of fluid inlets for delivering motive fluid to the working passage of the turbine, a valve for progressively opening said inlets, means for controlling the operation of said valve, a main admission valve, a piston for actuating the main admission valve, a cylinder inclosing said piston and provided with means for delivering actuating fluid to each end thereof whereby said admission valve is either fully opened or closed and never occupies an intermediate position.

2. In combination in a turbine, a plurality of fluid delivery nozzles, a slide valve for controlling the delivery of fluid to said nozzles, means for moving said valve to progressively open or close said nozzles, a main admission valve for controlling the delivery of motive fluid to said slide valve and arranged in series with said slide valve, a pressure actuated piston for actuating said main admission valve, a cylinder inclosing said piston and provided with pressure delivery means for delivering actuating pressure to either side of said piston whereby said admission valve is either fully opened or closed.

3. In combination in a turbine, a plurality of fluid delivery nozzles, an arc-shaped slide valve, moving in an arc-shaped path, for controlling the delivery of motive fluid to said nozzles, means for actuating said valve to progressively open or close said nozzles, a main admission

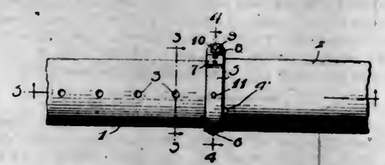
valve for controlling the operation of said slide valve, and actuating means, for said main admission valve for either fully opening or fully closing said main admission valve, and comprising an actuating piston connected to the valve, a cylinder inclosing said piston and means for delivering actuating pressure to either side of the piston.

4. In combination in a turbine, a series of fluid inlets, a plurality of nozzles associated with each inlet, a hollow arc-shaped ported slide valve arranged to progressively control the effective area of said inlets and having the inlet and outlet ports located in adjacent faces of the valve, and means for actuating the valve.

5. In combination in an elastic fluid turbine a series of groups of fluid inlets, a collecting chamber associated with each group, a plurality of nozzles associated with each chamber, a main admission valve, and a ported hollow slide valve arranged to progressively control the effective area of said inlets.

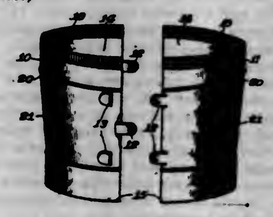
[Claims 6 to 18 not printed in the Gazette.]

1,205,131. STOVEPIPE-JOINT. WILLIAM P. BECK, Saginaw, Mich. Filed Aug. 5, 1915. Serial No. 43,841. (Cl. 126—308.)



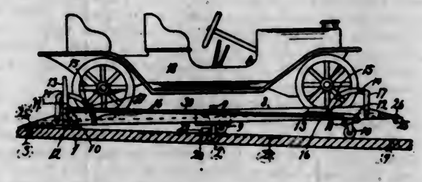
In a pipe joint, the combination of an inner and an outer pipe section telescoping at one end, the inner section having a longitudinal row of shallow rounded external sockets while the aforesaid end of the outer section is formed with an opening for successive registration with the sockets as the two pipe sections are adjusted longitudinally, a resilient split band passing around the outer pipe section and secured between its ends thereto whereby either half of said band may serve as a spring, a radially positioned locking stud secured to one of said halves of the band, said stud extending through the opening in the outer pipe section and having a rounded inner end to be yieldably forced into successive sockets by the resiliency of the band as the two pipe sections are adjusted longitudinally, and means for drawing the two ends of the band together after adjustment of said pipe sections to retain the stud in the socket in which it is then disposed, and at the same time to contract the outer pipe section around the inner.

1,205,132. STOVEPIPE-SECTION. ALONZO C. BLACK and CHARLES HERBERT BLACK, Des Moines, Iowa; said Alonzo C. Black assignor of his one-half to Walker M. Black. Filed July 15, 1914. Serial No. 851,088. (Cl. 126—309.)



A stove pipe section, one end of which is round and the other end oval in shape, the portions of the section adjacent the ends thereof being straight, and the body of the section between said portions being tapered, the free extremity of the round end being corrugated, said section comprising complementary sections, each section having ears adjacent one of its longitudinal edges, there being slots adjacent the other longitudinal edge, the slots of one section receiving the ears of the other section, for detachably securing the sections together, said ears and slots being disposed intermediate the said straight portions and spaced a considerable distance from the ends of the section so that the ends of the sections will have a lateral movement with respect to each other, and the said straight portions being of uniform diameter throughout their length, and a grooved rib formed in each end of the section at the base of said straight portions, portions of the rib of one section entering the groove in the rib of the other section when the parts are assembled to form a continuous stop for a pipe section.

1,205,133. PORTABLE TURN-TABLE. OLE R. EIDE, St. Paul, Minn. Filed May 29, 1916. Serial No. 100,557. (Cl. 104—212.)



1. A portable turntable comprising a platform beveled at one end and having tracks for the wheels of a vehicle to move and stand on, a pair of casters supporting the platform near its middle and means for tilting the platform with the beveled end to and from the floor.

2. A portable turn table comprising a platform beveled at both ends and having a pair of grooved tracks, arranged to receive the wheels of a vehicle, casters supporting the platform at the middle so that either end of it may be tilted to the floor, other casters near each end of the platform, and means for raising said casters at either end of the platform and for lowering those at the other end so as to thereby tilt the platform and means for holding said end casters raised and lowered.

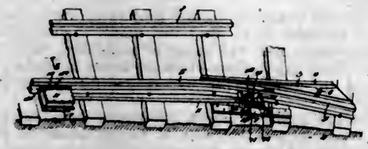
3. A portable turn table comprising a pair of main casters, a platform mounted on said casters so as to tilt with either end to the floor, a rock shaft journaled across each end of the platform, and casters carried by the rock shafts, so as to be swung to and from the floor when the shafts are partly rotated, means for rotating said shafts and means for holding them in any desired position.

4. A portable turn table comprising a pair of main casters, a platform mounted on said casters so as to tilt with either end to the floor, a rock shaft journaled across each end of the platform, and casters carried by the rock shaft, so as to be swung to and from the floor when the shafts are partly rotated, means for rotating said shafts and means for holding them in any desired position, and operative connection between the rocking means, whereby the casters at one end of the platform are automatically raised when those at the other end are lowered.

5. A portable turn table comprising a pair of main casters, a platform mounted on said casters so as to tilt with either end to the floor, a rock shaft journaled across each end of the platform, and casters carried by the rock shaft, so as to be swung to and from the floor when the shafts are partly rotated, means for rotating said shafts and means for holding them in any desired position, a circular track adapted to be secured in the floor of a garage or like place for the main casters to run on in rotating the turntable, a socket arranged in the center of the circular track, and a vertically slidable bolt carried by the middle portion of the platform and adapted to be lowered into the socket.

[Claims 6 and 7 not printed in the Gazette.]

1,205,134. SWITCH. CHARLES S. EPPLEY, York, Pa., assignor to Self-Acting Switch Co., a Corporation of Delaware. Filed Nov. 24, 1915. Serial No. 63,246. (Cl. 104—24.)



1. In combination with a switch including a switch point, an operating mechanism including an intermittently revoluble shaft having an eccentric and rod connection with the switch point, means including a rocking shaft in gear with said first shaft, a device adapted to be actuated by a member on the car and being connected to the rock shaft for rocking the same one third of a revolution to substantially one half of a revolution of the first shaft, means connecting the two shafts and means whereby as the rocking shaft completes its one third revolution, the rocking shaft is thrown out of gear with the revoluble shaft, and means for returning the rocking shaft to its initial position.

2. In combination with a switch including a switch point, an operating mechanism including an intermittently revoluble shaft having an eccentric and rod connection with the switch point, means including a rocking shaft in gear with said first shaft, a device adapted to be actuated by a member on the car and being connected to the rocking shaft for rocking the same one third of a revolution to substantially one half of a revolution of the first shaft, means connecting the two shafts and means whereby as the rocking shaft completes its one third revolution, the rocking shaft is thrown out of gear with the revoluble shaft, and means for returning the rocking shaft to its initial position, and means for withdrawing the device from the path of the member on the car to permit the rocking shaft to return to its initial position.

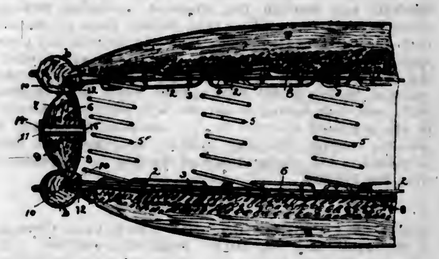
3. In combination, a switch having a switch point, an intermittently revoluble shaft having connections with the point, a rocking shaft, a gear loosely mounted thereon and having gear connections with the first shaft, a clutching member keyed to the rocking shaft and having clutch connections with the loose gear, a device adapted to be actuated by a member on a car and being connected to the rocking shaft, connections between the intermittent revoluble shaft and the clutch member, whereby upon the completion of a half revolution of the intermittent shaft, the clutch member is oscillated to throw the rocking shaft out of clutch with its gear, to permit the rocking shaft to turn to its initial position.

4. In combination, a switch having a switch point, a dust and water proof casing, an intermittently revoluble shaft mounted in the casing and having connections with the point, a rocking shaft mounted in the casing, a gear loose upon the rocking shaft and having gear connections with the first shaft, a clutch member keyed to the rocking shaft and having clutch connections with the loose gear, a device adapted to be actuated by a member on a car and being connected to the rocking shaft, connections between the intermittent revoluble shaft and the clutch member to throw the rocking shaft out of clutch with its gear upon the completion of a half revolution of the intermittently revoluble shaft, and means to return the rocking shaft and said device to their initial positions.

5. In combination, a switch having a switch point, a casing, an intermittently revoluble shaft mounted in the casing and having connections with the point, a rocking shaft mounted in the casing, a gear loose upon the rocking shaft and having gear connections with the first shaft, a clutch member keyed to the rocking shaft and having clutch connections with the loose gear, a device adapted to be actuated by a member on a car and being connected to the rocking shaft, connections between the intermittently revoluble shaft and the clutch member to throw the rocking shaft out of clutch with its gear upon the completion of a half revolution of the intermittently revoluble shaft, and means to return the rocking shaft and said device to their initial positions, and means to prevent retrogression of the intermittently revoluble shaft.

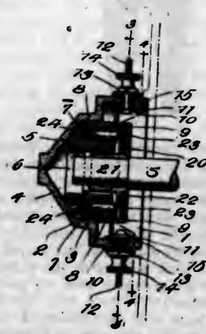
[Claims 6 to 24 not printed in the Gazette.]

1,205,135. SPRING-MATTRESS. ERNEST L. FARROW and HARRY GOODMAN, Cleveland, Ohio. Filed Mar. 11, 1912. Serial No. 683,050. (Cl. 5—13.)



A spring mattress comprising spiral wire springs arranged in series and a plurality of cross wires top and bottom threaded at right angles through the same and extending beyond the edges of said springs, in combination with a woven fabric cover stretched tightly about said springs and wire structure and restraining the top and bottom cross wires in converging relations at the edges of the mattress to normally retain the edge springs under greater compression than the interior springs.

1,205,136. TIMER FOR INTERNAL-COMBUSTION ENGINES. CLIFTON R. HOLMES, California, Mich. Filed Feb. 17, 1916. Serial No. 78,939. (Cl. 123—167.)



1. A timer comprising a cylindrical metal casing, a block of insulating material positioned centrally therein and having a series of sockets opening toward one end of the casing and disposed parallel to the axis of the latter, a plurality of L-shaped metal brackets having on one end metal sleeves received snugly in said sockets, the other ends of said brackets being disposed contiguous to the curved side of said casing, binding posts passing through said side and securing said last named ends of the brackets thereto, said posts and brackets being insulated from said casing, a plurality of spring pressed brushes slidable in and extending beyond said sleeves, a rotary disk of insulating material against one side of which the brushes bear, and a metal contact embedded in said side of the disk for coöperation with said brushes.

2. A timer comprising a cylindrical metal casing having a closed end provided with a central internal circular

socket, a circular block of insulating material forced into said socket and having a central circular aperture, said block also having a plurality of circumferentially spaced sockets opening through its outer end and lying parallel to its axis, a plurality of one-piece L-shaped metal brackets having metal sleeves formed integrally with one of their ends, said sleeves being received in the aforesaid sockets, insulating washers interposed between the other ends of the brackets and the curved side of the casing, the latter being formed with openings adjacent said brackets, insulating sleeves passing through said openings, binding posts passing through the last named ends of the brackets and through the aforesaid insulating sleeves, clamping nuts threaded on said binding posts in contact with the outer ends of said insulating sleeves, one-piece spring pressed brushes slidably mounted in and projecting beyond the first named sleeves, a disk of insulating material having a flat face against which said brushes bear, said disk having a metallic hub received rotatably in the aforesaid aperture in the insulating block, and a metallic contact extending radially from said hub and embedded in the aforesaid face of the disk for coöperation with the brushes.

1,205,137. COMBINATION-SUIT. LEE RUBENS, Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,705. (Cl. 2—144.)



A combination suit comprising a body portion provided at the front thereof with overlapping flaps each terminating in a strap adapted to be secured at the back of the garment, one of said straps passing through a slot in the side of the garment, each of said flaps constituting an integral continuation of the front portion of the leg of the garment and overlapping from the crotch to the neck portion thereof, the back portion of the garment integral with said flaps and leg portions, said leg portions having slits extending downwardly from the crotch along the inner sides of the legs, said back having a slit extending from the crotch to the middle portion thereof, and a flap secured to the inner edges of the leg portions of the garment adjacent to the crotch and normally covering the said slit whereby a closed crotch garment is formed.

1,205,138. PHOSPHORUS AND OXYGEN CONTAINING ORGANIC COMPOUNDS. RICHARD WILLSTÄTTER, Berlin, Germany. Filed Apr. 16, 1915. Serial No. 21,859. (Cl. 23—24.)

1. As new products phosphorus and oxygen containing compounds which can be obtained from unsaturated organic substances, phosphorus and oxygen, which products are generally insoluble in ether, soluble in water with decomposition, being oxidized by nitric acid to phosphoric acid and phosphoric acids substituted by organic radicals and possessing valuable therapeutic properties.

2. As new products, organic substances, the molecules of which contain at least two atoms of incompletely oxidized phosphorus attached to oxygen, which substances are insoluble in ether and soluble in water with decomposition.

3. As new products, organic substances which contain oxygen attached to at least two atoms of incompletely oxidized phosphorus, two atoms of phosphorus being connected to the same organic radical, which substances are insoluble in ether and possess valuable therapeutic properties.

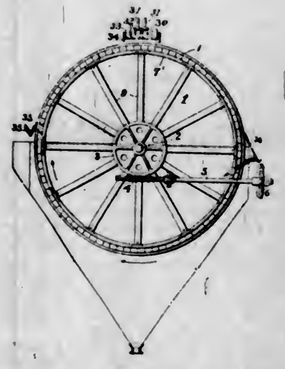
4. As new products, organic substances containing phosphorus and oxygen, the ratio of oxygen atoms to phosphorus atoms being at the most two to one, said substances being insoluble in ether and being oxidized by nitric acid to phosphoric acid and phosphoric acids substituted by organic radicals.

5. As a new product, an aliphatic compound containing mutually attached carbon atoms and having one phosphorus atom and at least one oxygen atom connected without intervening carbon atoms to each of two adjacent carbon atoms, the ratio of said oxygen atoms to said phosphorus atoms being at the most two to one.

[Claims 6 to 9 not printed in the Gazette.]

REISSUES.

14,214. ROTARY FILTER. RANDALL P. AKINS, Denver, Colo., assignor to Colorado Iron Works Co., Denver, Colo. Filed July 28, 1916. Serial No. 111,027. Original No. 1,050,327, dated Apr. 15, 1913, Serial No. 603,734, filed Jan. 20, 1911. (Cl. 210—14.)



1. A machine for separating liquids from materials and washing said materials, comprising an endless carrier with filter sections, means for moving said carrier, stationary means for applying the material to said filter sections, means located at a fixed point spaced from said applying means for applying a washing medium to the material, which will flow in opposite directions from said fixed point, and means for separating the filtrates derived from said washing medium before reaching the point of location of the washing means and after passing said point of location.

2. A machine for separating liquids from materials and for washing said materials comprising a cylindrical filtering surface, means for rotating said surface, a stationary means for applying the material to said surface, stationary means located over the highest point of said cylindrical filtering surface for applying a washing medium to the material which will flow down over both sides of said cylindrical surface, and means for separating the filtrates which respectively pass through the ascending and descending sides of said rotating filtering surface.

3. A machine of the character described comprising a cylindrical filtering surface with means for rotating the same, stationary means for applying material to a lower portion of said filtering surface, means for supplying liquid to the highest point of said surface during its rotation to cause two separate streams or films of liquid to flow down the ascending and descending sides of said cylindrical filtering surface, and means for separating the filtrates which respectively pass through the ascending and descending sides of said surface.

4. A machine of the character described comprising a cylindrical filtering surface with means for rotating the same, stationary means for applying material to a lower portion of said filtering surface, means for supplying a weak solution to the upper portion of said filter surface to flow down over the ascending side thereof, means for supplying a clear liquid to said upper portion to flow down over the descending side thereof, and means for separately collecting the filtrates which respectively pass through said ascending and descending sides.

5. In combination a bath, a carrier having filter compartments or pans with filtering material and wire extending circumferentially of the carrier and over the pans, said wire being secured at different points about the periphery of the carrier, substantially as described.

6. In combination a bath, a carrier having filter compartments or pans with filtering material, a metallic member or members extending across the surface of the carrier, and wire extending circumferentially of the carrier and over the pans, said wire being soldered to the metallic member or members, substantially as described.

7. In combination a bath, a carrier having filter compartments or pans with filtering material, a metallic member or members extending across the surface of the carrier and a continuous wire extending circumferentially about the carrier over the filtering material and soldered to the cross metallic member, substantially as described.

8. In combination a bath, a carrier having filter compartments with filtering material, metal bands extending across the carrier from side to side, and wire extending circumferentially about the carrier and broken at and soldered to the metallic bands, substantially as described.

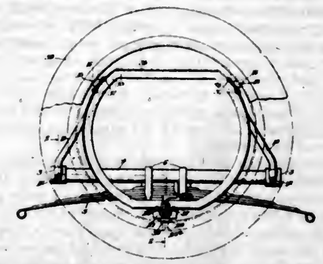
9. In combination the carrier having projecting division strips thereon with recesses in their outer faces, filter material extending over the division strips and battens fitted to the said recesses for holding the filter material therein, substantially as described.

10. A machine for separating liquids from materials and for washing and saturating materials with liquids comprising a cylindrical filtering surface, means for rotating said surface, stationary means for applying the material to said surface, stationary means spaced from said applying means, for applying a washing medium to the material, and means for separating the filtrates which respectively pass through the filtering means before reaching the point of application of the washing medium and after passing said point.

11. A machine for separating liquids from materials and for washing and saturating materials with liquids comprising a cylindrical filtering surface, means for exerting a suction within said surface, means for rotating said surface, stationary means for applying the material to said surface, stationary means, spaced from said applying means, for applying a washing medium to the material, and means for separating the filtrates which respectively pass through the filtering means before reaching the point of application of the washing medium and after passing said point.

12. A machine for separating liquids from materials and for washing and saturating materials with liquids comprising a cylindrical filtering surface, means for exerting a suction within said surface, means for rotating said surface, stationary means for applying the material to said surface, stationary means spaced from said applying means, for applying a washing medium to the material, means for separating the filtrates which respectively pass through the filtering means before reaching the point of application of the washing medium and after passing said point, and means for withdrawing the separated filtrates from the interior of the cylindrical surface during the operation of the machine.

14,215. SUPPORT FOR EXTRA TIRES. LYLE K. SNELL, Detroit, Mich., assignor to Cadillac Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 24, 1916. Serial No. 74,042. Original No. 1,147,452, dated July 20, 1915, Serial No. 19,433, filed Feb. 25, 1915. (Cl. 224—29.)



1. In combination with the side bars of the chassis of a motor vehicle and a cross bar connecting the rear ends thereof, tire supporting members, one of which extends rearwardly from substantially the midpoint of the cross bar and others of which extend rearwardly from the vicinity of the ends of the cross bar, the rear end of one of the supporting members being located at a different level from that at which the rear ends of others are located, each of the rear ends of the supporting members being provided with outwardly extending contact points, said contact points being spaced angularly about the interior of the rim of a tire carried thereon, and threaded means for adjusting one of the contact points radially in respect to the axis of the tire, the whole arrangement being such that the rim and tire may be conveniently secured to or detached from the members by which they are supported.

2. In combination with the side bars of the chassis of a motor vehicle and a cross bar connecting the rear ends thereof, tire supporting members, one of which extends rearwardly from substantially the midpoint of the cross bar and others of which extend rearwardly from the vicinity of the ends of the cross bar, the rear end of the first meationed supporting member being located at a lower level than the rear ends of the other supporting members, each of the rear ends of the supporting members being provided with an outwardly extending contact point, said contact points being spaced angularly about the interior of the rim of a tire carried thereon, means for adjusting one of the tire supporting members radially in respect to the axis of the tire, and threaded means for adjusting one of the contact points radially in respect to the axis of the tire, the whole arrangement being such that the rim and tire may be supported and wear of the supporting members on the tire may be avoided.

3. In combination with the side bars of the chassis of a motor vehicle and a cross bar connecting the rear ends thereof, tire supporting members, one of which extends rearwardly from substantially the midpoint of the cross bar and others of which extend rearwardly from the vicinity of the ends of the cross bar, the rear end of one of the supporting members being located at a different level from that at which the rear ends of others are located, each of the rear ends of the supporting members being provided with an outwardly extending contact point, said contact points being spaced angularly about the interior of the rim of a tire carried thereon, threaded means for adjusting one of the contact points radially in respect to the axis of the tire, means for bracing the outer ends of the supporting members and holding them in fixed angular relation to each other, the whole arrangement being such that the rim and tire may be conveniently secured to or detached from the tire supporting members.

4. In combination with the side bars of the chassis of a motor vehicle, a cross bar connecting the rear ends thereof, and a cross-spring upon which the cross bar rests at substantially its midpoint, a block in engagement with the lower side of the spring at substantially its midpoint, means for clamping the block, the spring and the cross bar securely together, a tire supporting member extending rearwardly from the block, tire supporting members extending rearwardly from the vicinity of the ends of the cross bar and having their rear ends located at a higher level than that of the rear end of the first mentioned supporting member, each of the rear ends of the supporting members being provided with an outwardly extending contact point, said contact points being spaced angularly about the interior of the rim of a tire carried thereon, and threaded means for adjusting one of the contact points radially in respect to the axis of the tire, the whole arrangement being such that the rim and tire may be supported and wear of the supporting members on the tire may be avoided.

5. In combination with the side bars of the chassis of a motor vehicle, a cross bar connecting the rear ends thereof, and a cross-spring upon which the cross bar rests at substantially its mid-point, a block in engagement with the lower side of the spring at substantially its mid-point, means for clamping the block, the spring and the cross bar securely together, a tire supporting member extending rearwardly from the block, means for adjusting the tire supporting member vertically on the block, tire supporting members extending rearwardly from the vicinity of the ends of the cross bar and having their rear ends located at a higher level than that of the rear end of the first mentioned supporting member, each of the rear ends of the supporting members being provided with an outwardly extending contact point, said contact points being spaced angularly about the interior of the rim of a tire carried thereon, and means for adjusting one of the contact points radially in respect to the axis of the tire, the whole arrangement being such that the rim and tire may be conveniently secured to or detached from the tire supporting members.

6. In combination with the side bars of the chassis of a motor vehicle and a cross bar connecting the rear ends thereof, tire supporting members, one of which extends rearwardly from substantially the mid-point of the cross bar and others of which extend rearwardly from the vicinity of the ends of the cross bar, the rear end of one of the supporting members being located at a different level from that at which the rear ends of others are located, each of the rear ends of the supporting members being provided with a plurality of outwardly extending contact points arranged in sets, said rear ends serving as rigid connections between the corresponding contact points carried thereby, said contact points being spaced angularly about the interior of the rims of tires carried thereon, means for adjusting one of the contact points of each set radially in respect to the axis of the corresponding tire, and means for locking the adjusting means in adjusted position, the whole arrangement being such that a tire may be supported on each set of contact points and wearing of the supporting elements on the rubber of the tires is avoided.

7. In combination with the side bars of the chassis of a motor vehicle and a cross bar connecting the rear ends thereof, tire supporting members, one of which extends rearwardly from substantially the mid-point of the cross bar and others of which extend rearwardly from the vicinity of the ends of the cross bar, the rear end of one of the supporting members being located at a different level from that at which the rear ends of others are located, each of the rear ends of the supporting members being provided with a plurality of outwardly extending contact points arranged in sets, said rear ends serving as rigid connections between the corresponding contact points carried thereby, said contact points being spaced angularly about the interior of the rims of tires carried thereon, means for bracing the rear portion of said supporting members and holding them in fixed relation to each other, said bracing means being located in a plane between the planes in which the members of the different sets of contact points are located, means for adjusting one of the contact points of each set radially in respect to the axis of the corresponding tire, and means for locking the adjusting means in adjusted position, the whole arrangement being such that a tire may be supported on each set of contact points and wearing of the supporting elements on the rubber of the tires is avoided.

8. In combination with a motor vehicle, a tire supporting means carried thereby, said tire supporting means including a plurality of sets of elements arranged to contact with the interior of the rims of tires supported thereon at points angularly removed from one another about the axis of the tires, separate means for adjusting one element of each set toward and from the interior of the corresponding tire, and means for locking the adjusting means together whereby they are held in adjusted position.

9. In combination with a motor vehicle, a tire supporting means carried thereby, said tire supporting means including a plurality of sets of elements arranged to contact with the interior of the rims of tires supported thereon at points angularly removed from one another about the axis of the tires, separate screw-threaded means for adjusting one element of each set toward and from the interior of the corresponding tire, each of the screw-threaded means including an operating handle, and means for locking the handles together whereby the adjusting means may be retained in a desired position.

10. In combination with a motor vehicle, including a frame, a tire support comprising a ring, supporting members connecting said frame with said ring at points angularly removed from one another about the axis thereof, a plurality of contact elements disposed about said ring, and means for adjusting one of the contact elements radially with respect to the axis of the ring.

11. In combination with a motor vehicle, including a vehicle frame, a tire carrier having three supporting members independently and detachably connected with the frame, one of said members being also adjustably connected with the frame, a brace rigidly connecting said members, and adjustable means for supporting and securing various sizes of tires on said carrier.

12. In combination with a motor vehicle, including a vehicle frame, a tire carrier having three supporting members detachably connected with the vehicle frame, a brace rigidly connecting said members, and means adjustable radially of a rim for supporting and securing a tire rim on said carrier.

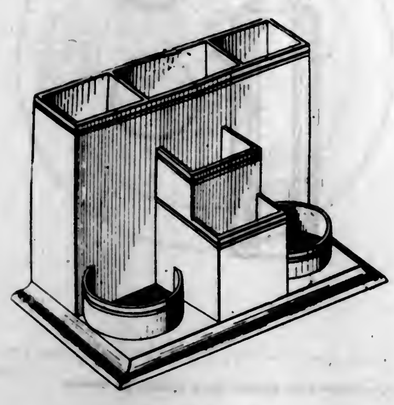
13. In combination with a motor vehicle including a vehicle frame, a tire carrier having a plurality of sets of elements arranged to contact with the interior of the rims of tires supported thereon at points angularly removed from one another about the axis of the tires, a brace connecting said elements and means for independently adjusting one element of each set radially of the tire rim supported thereon.

14. In combination with a motor vehicle, including a vehicle frame, a tire carrier having a plurality of members constructed to be connected with the vehicle frame, a ring connecting and bracing said members, a plurality of contact elements disposed about said ring and adapted to engage the interior of the rim of a tire, and means for adjusting one of the contact elements radially with respect to the axis of the tire to secure a rim on said elements.

15. In combination with a motor vehicle frame having two sockets at its rear end, a tire carrier comprising two supporting rod members, removably secured in said sockets, a ring connecting and bracing the free ends of said rod members, a third supporting member secured to said ring and adjustably secured to the vehicle frame, and means for detachably securing a tire rim on said tire carrier.

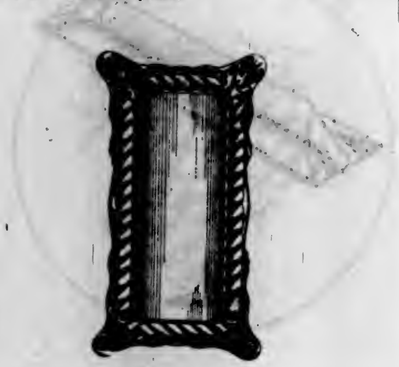
DESIGNS.

49,875. TABLE-RECEPTACLE FOR HOLDING A SALT-CELLAR, PEPPER-SHAKER, KNIVES, FORKS, SPOONS, AND TOOTHPICKS. EUGENE AULICINO and JAMES P. FRAGETTA, Utica, N. Y. Filed Aug. 12, 1916. Serial No. 114,648. Term of patent 14 years.



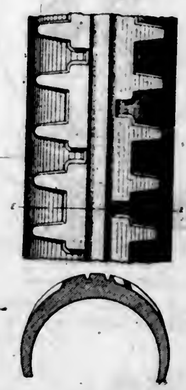
The ornamental design for a table receptacle for holding a salt-cellar, pepper shaker, knives, forks, spoons and toothpicks, as shown.

49,876. NAME-PLATE FOR CASKETS. GEORGE R. BAILEY, Brooklyn, N. Y., assignor to Sterling Casket Hardware Company, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 6, 1916. Serial No. 124,197. Term of patent 7 years.



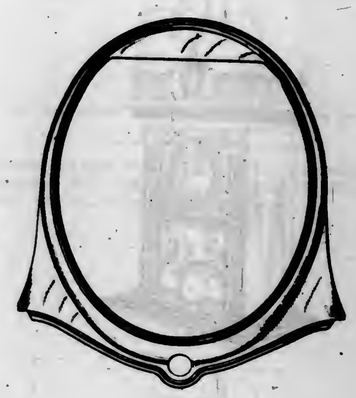
The ornamental design for a name plate for caskets as shown.

49,877. PNEUMATIC-TIRE TREAD. PERCY B. BOSWORTH, Springfield, Ohio, assignor to The Victor Rubber Company, Springfield, Ohio, a Corporation of Ohio. Filed Sept. 9, 1916. Serial No. 119,308. Term of patent 14 years.



The ornamental design for a pneumatic tire tread, as shown.

49,878. RADIATOR-CASING FOR MOTOR-CARS. WILLIAM BREWSTER, New York, N. Y., assignor to Brewster & Co., a Corporation of New York. Filed Aug. 22, 1916. Serial No. 116,396. Term of patent 14 years.



The ornamental design for a radiator-casing for motor cars, substantially as shown.

49,879. TOY WINDMILL AND SEESAW. GEORGE H. COVE, Whitestone, N. Y., assignor to Henry Bohne and Henry Steiner, Whitestone, N. Y., Copartners doing business as Steiner Novelty Works. Filed May 17, 1916. Serial No. 98,236. Term of patent 7 years.



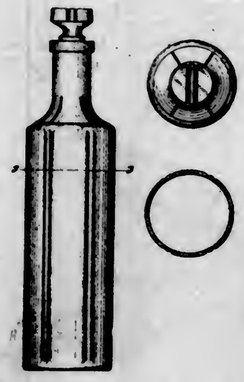
The ornamental design for a toy windmill and see-saw, as shown.

49,880. CLOCK-CASING. WLADYSLAW DUDEK, Windsor Locks, Conn. Filed Aug. 26, 1916. Serial No. 117,117. Term of patent 3½ years.



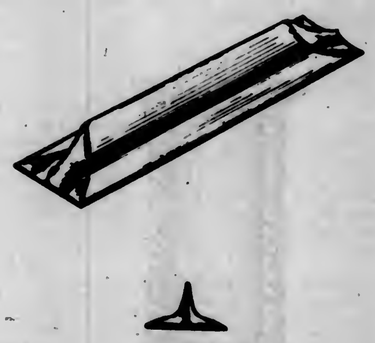
The ornamental design for a clock casing as shown.

49,881. BOTTLE. JOHN L. DUNNOCK, Baltimore, Md., assignor to Alberto Crusellas y Alvarez, Habana, Cuba. Filed Oct. 9, 1916. Serial No. 124,739. Term of patent 14 years.



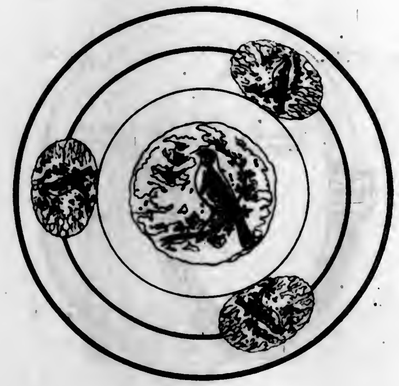
The ornamental design for a bottle, as shown.

49,882. CINDER-GUARD FOR RAILWAY-CAR WINDOWS. ROBERT M. EASLEY and FRANK L. EASLEY, Kenton, Ohio. Filed Oct. 30, 1915. Serial No. 58,918. Term of patent 14 years.



The ornamental design for a cinder guard for railway car windows, as shown.

49,883. PLATE OR SIMILAR ARTICLE. ROBERT EHLBACH, Brooklyn, N. Y., assignor to The Palm Brothers Company, New York, N. Y. Filed Oct. 5, 1916. Serial No. 123,985. Term of patent 3½ years.



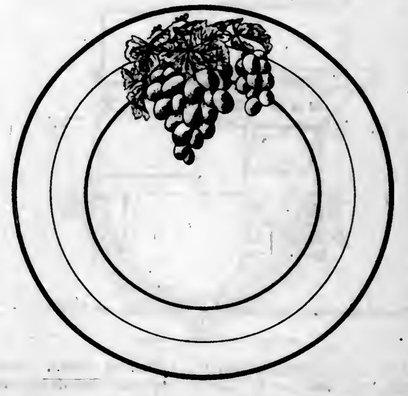
The ornamental design for a plate or similar article, as shown.

49,884. PLATE OR SIMILAR ARTICLE. ROBERT EHLBACH, Brooklyn, N. Y., assignor to The Palm Brothers Company, New York, N. Y. Filed Oct. 5, 1916. Serial No. 123,986. Term of patent 3½ years.



The ornamental design for a plate or similar article, as shown.

49,885. PLATE OR SIMILAR ARTICLE. ROBERT EHLBACH, Brooklyn, N. Y., assignor to The Palm Brothers Company, New York, N. Y. Filed Oct. 5, 1916. Serial No. 123,987. Term of patent 3½ years.



The ornamental design for a plate or similar article, as shown.

49,886. TOMBSTONE. AUSTIN J. HARMAN, Custer, Okla. Filed July 17, 1916. Serial No. 109,853. Term of patent 7 years.



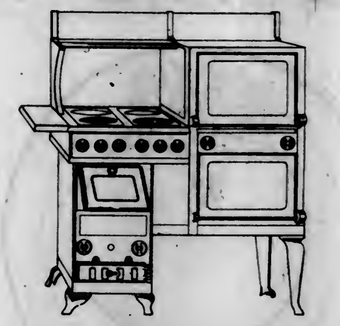
The ornamental design for a tombstone as shown.

49,887. SHANK FOR CUFF-LINKS. IRVING HEIDELSHEIMER, New York, N. Y. Filed June 16, 1916. Serial No. 104,125. Term of patent 3½ years.



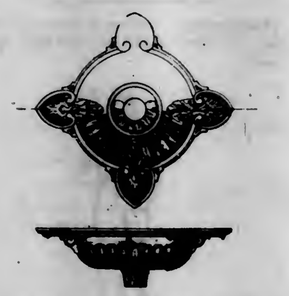
The ornamental design for a shank for cuff links, as shown.

49,888. GAS-RANGE. HARRY J. HOOVER, Norwood, Ohio. Filed Aug. 31, 1916. Serial No. 117,944. Term of patent 14 years.



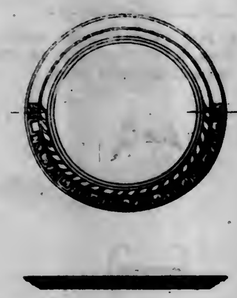
The ornamental design for a gas range, as shown.

49,889. CHANDELIER-BODY. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,178. Term of patent 3½ years.



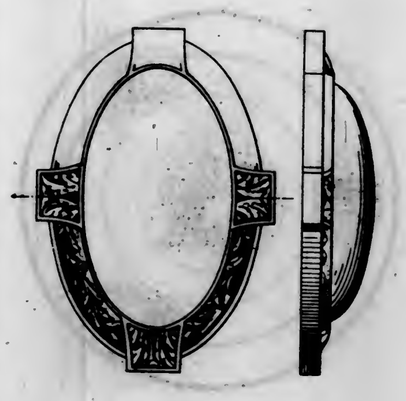
The ornamental design for a chandelier body, as shown.

49,890. CHANDELIER-BODY RING. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,180. Term of patent 3½ years.



The ornamental design for a chandelier body ring, as shown.

49,891. BRACKET WALL-PLATE. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,181. Term of patent 3½ years.



The ornamental design for a bracket wall plate, as shown.

49,892. WALL-BRACKET ARM FOR LIGHTING-FIXTURES. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,182. Term of patent 3½ years.



The ornamental design for a wall bracket arm for lighting fixtures, as shown.

49,893. CHANDELIER-CHAIN SUPPORT. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,183. Term of patent 3½ years.



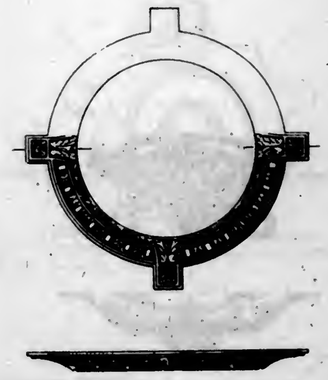
The ornamental design for a chandelier chain support, as shown.

49,894. CHANDELIER-CANOPY RING. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,184. Term of patent 3½ years.



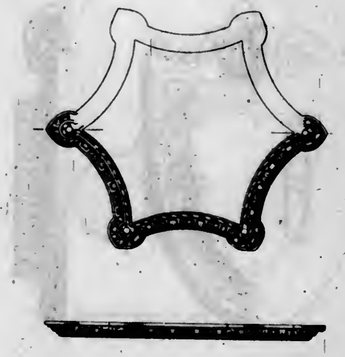
The ornamental design for a chandelier canopy ring, as shown.

49,895. CHANDELIER-BODY RING. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,186. Term of patent 3½ years.



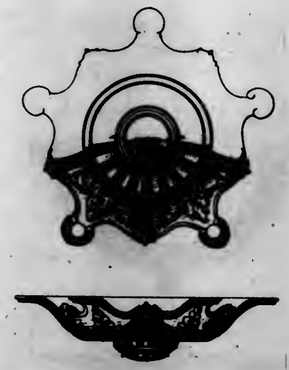
The ornamental design for a chandelier body ring, as shown.

49,896. CHANDELIER-BODY RING. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,187. Term of patent 3½ years.



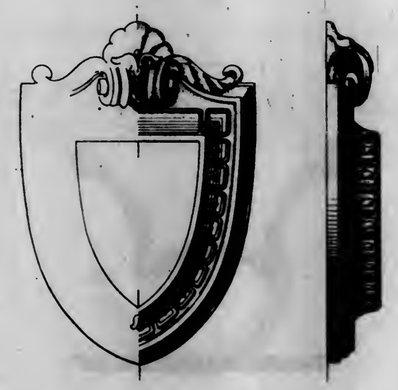
The ornamental design for a chandelier body ring, as shown.

49,897. CHANDELIER-BODY. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,188. Term of patent 3½ years.



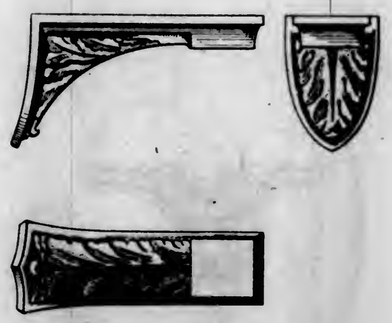
The ornamental design for a chandelier body, as shown.

49,898. BRACKET WALL-PLATE FOR LIGHTING-FIXTURES. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,189. Term of patent 3½ years.



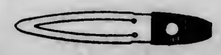
The ornamental design for a bracket wall-plate for lighting fixtures, as shown.

49,899. WALL-BRACKET ARM FOR LIGHTING-FIXTURES. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,190. Term of patent 3½ years.



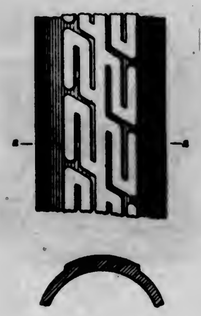
The ornamental design for a wall bracket arm for lighting fixtures, as shown.

49,900. COMBINATION PAPER-CUTTER AND BOOK-MARK. RICHARD D. KNIGHT, Providence, R. I. Filed July 12, 1916. Serial No. 108,963. Term of patent 3½ years.



The ornamental design for a combination paper cutter and book-mark as shown.

49,901. ELASTIC VEHICLE-TIRE. OTTO J. KUHLKE, Akron, Ohio, assignor to The Amazon Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed July 10, 1916. Serial No. 108,476. Term of patent 14 years.



The ornamental design for an elastic vehicle tire, as shown.

49,902. EGG-BEATING BOWL. ALLISON E. LABERBE and ARTHUR B. HAWKS, Olympia, Wash. Filed July 14, 1916. Serial No. 109,393. Term of patent 14 years.



The ornamental design for an egg beating bowl, as shown.

49,903. CURTAIN-ROD. FRANK LA OTIS LATHROP, Wallingford, Conn., assignor to H. L. Judd Company, New York, N. Y., a Corporation of New York. Filed July 31, 1916. Serial No. 112,471. Term of patent 7 years.



The ornamental design for a curtain rod as shown.

49,904. COOKY. KENNETH D. LOOSE, New York, N. Y., assignor to Loose-Wiles Biscuit Company, New York, N. Y., a Corporation of New York. Filed Sept. 20, 1916. Serial No. 121,321. Term of patent 14 years.



The design for a cooky, as shown.

49,905. GOLF-BALL. PATRICK ALPHONSUS MARTIN, Birmingham, England. Filed June 27, 1916. Serial No. 106,269. Term of patent 7 years.



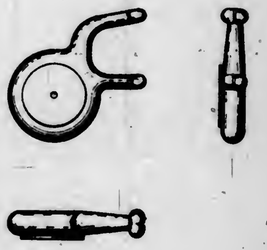
The ornamental design for a golf ball, as shown.

49,906. CLINKER-TONGS. MARTIN MEYER, Omaha, Nebr. Filed July 25, 1916. Serial No. 111,253. Term of patent 14 years.



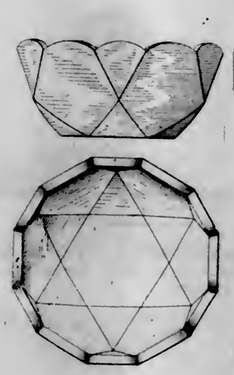
The original design for a clinker tongs, as shown.

49,907. TOOTH-CLEANER. WILLIAM MARK MUCHOW, Evanston, Ill. Filed Sept. 18, 1916. Serial No. 120,905. Term of patent 7 years.



The ornamental design for a tooth cleaner, as shown.

49,908. GLASS DISH. SOLON L. PARSONS, Rochester, Pa., assignor to H. C. Fry Glass Company, Rochester, Pa., a Corporation of Pennsylvania. Filed Aug. 24, 1916. Serial No. 116,732. Term of patent 7 years.



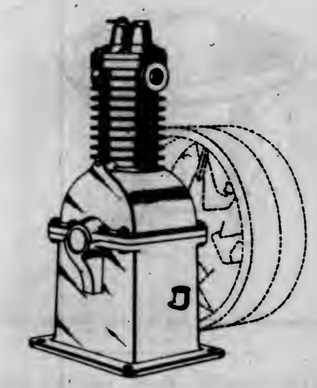
The ornamental design for a glass dish, substantially as shown.

49,909. CANE. EDWIN C. RIEGEL, New York, N. Y. Filed Jan. 20, 1916. Serial No. 73,259. Term of patent 3½ years.



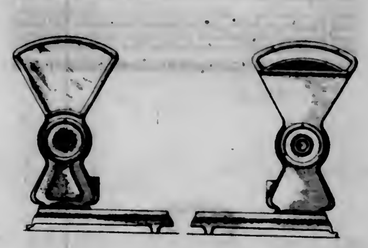
The ornamental design for a cane, as shown and described.

49,910. AIR-COMPRESSOR CASING. GEORGE F. STEEDMAN, St. Louis, Mo., assignor to Curtis & Co. Mfg. Co., Wellston, Mo., a Corporation of Missouri. Filed June 19, 1916. Serial No. 104,617. Term of patent 14 years.



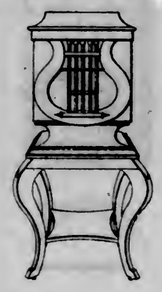
The design for an air compressor casing, as shown.

49,911. SCALE-STANDARD. CHARLES G. STRUBLER, Naperville, Ill. Filed Oct. 2, 1916. Serial No. 123,455. Term of patent 7 years.



The ornamental design for a scale standard, as shown.

49,912. CABINET. JOHN VIRZI, New York, N. Y. Filed Aug. 1, 1916. Serial No. 112,618. Term of patent 7 years.



The ornamental design for a cabinet as shown.

49,913. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Sept. 7, 1916. Serial No. 118,981. Term of patent 7 years.



The ornamental design for a printed fabric, as shown.

49,914. HAND-BAG. LUDWIG WERTHEIM, New York, N. Y. Filed Sept. 16, 1916. Serial No. 120,577. Term of patent 3½ years.



The ornamental design for a hand-bag as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 14, 1916.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provisior in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 82,307. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERTS DROPSY CURE CO., St. Louis, Mo. Filed Oct. 31, 1914.

Wm Roberts

Consisting of the facsimile signature of a member of the firm.

Particular description of goods.—A Preparation for the Treatment of Dropsy.

Claims use since Oct. 21, 1914.

Ser. No. 82,721. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) UNITED DRUG COMPANY, Boston, Mass. Filed Nov. 20, 1914.



The words "Trade Mark" are disclaimed.

Particular description of goods.—Rubber Nipples.

Claims use since prior to July, 1912.

Ser. No. 85,354. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WALDES & COMPANY, New York, N. Y. Filed Mar. 23, 1915.

KOH-I-NOOR

Particular description of goods.—Safety-Pins.

Claims use since the 20th day of February, 1915.

Ser. No. 85,888. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) F. S. CARR COMPANY, Boston, Mass. Filed Apr. 10, 1915.

NEVERLEEK

The trade-mark which consists of the word "Neverleek" surrounded by an oval-shaped figure, the letters conforming to the shape of oval, no claim being made to the exclusive use of the word "Neverleek" except in association with the mark as shown.

Particular description of goods.—Waterproof Automobile and Carriage Fabrics.

Claims use since Dec. 1, 1911.

Ser. No. 86,860. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GERHARD LANG, Buffalo, N. Y. Filed May 24, 1915.



The applicant herein disclaims all and any right to have the words "Gerhard Lang," "Home of Pure Foods," and "Brand" as contained in the drawing, referred to above, and the facsimiles heretofore filed.

Particular description of goods.—Fresh Meats, Consisting of Beef, Lamb, Veal, and Pork; Smoked Meats, Consisting of Ham, Bacon, Tongue, and Dried Beef; Salted Meats, Consisting of Corned Beef, Salted Pork, and Salted Tongue; and Lard.

Claims use since May 1, 1915.

Ser. No. 88,705. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM STIMSON BARNES, Chicago, Ill. Filed Aug. 20, 1915.



Particular description of goods.—Power-Driven Tractors for Farm, Industrial, and Commercial Uses.
Claims use since June 26, 1915.

Ser. No. 88,706. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM STIMSON BARNES, Chicago, Ill. Filed Aug. 20, 1915.

NUHORSE

Particular description of goods.—Power-Driven Tractors for Farm, Industrial, and Commercial Uses.
Claims use since June 26, 1915.

Ser. No. 89,556. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) UNITED STATES METAL CAP & SEAL COMPANY, New York, N. Y. Filed Sept. 30, 1915.



Particular description of goods.—Closure-Tops for Bottles, Jars, and the Like.
Claims use since about May 15, 1915.

Ser. No. 90,918. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) APEX ELECTRIC MANUFACTURING COMPANY, Chicago, Ill. Filed Nov. 26, 1915.

Fillometer

Particular description of goods.—Automobile Gasolene-Tank Filling and Measuring Devices, a Device for Use in Filling the Tank and to Indicate the Amount of Gasolene Therein.
Claims use since on or about Sept. 10, 1915.

Ser. No. 90,969. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARBO HYDROGEN CO. OF AMERICA, Pittsburgh, Pa. Filed Nov. 27, 1915.

CARBO-HYDROGEN

No claim is made to the word "Hydrogen" except as combined or associated with the word "Carbo."
Particular description of goods.—A Gaseous Fuel Compound Suitable for Cutting and Welding Purposes, said Gases Containing a Relatively High Proportion of Hydrogen and a Relatively Low Proportion of One or More Gases of the Hydrocarbon Series.
Claims use since Sept. 15, 1914.

Ser. No. 91,905. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) T. R. BRAWLEY, Brooklyn, N. Y. Filed Jan. 4, 1916.



No claim being made to the representation of the felt washer apart from the mark as shown.
Particular description of goods.—Felt Washers.
Claims use since Feb. 19, 1915.

Ser. No. 91,928. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FARQUHAR-MOON MANUFACTURING COMPANY, Chicago, Ill. Filed Jan. 5, 1916.



No claim is made to the words "Labor Saver" apart from the mark shown in the drawing.
Particular description of goods.—Washing Compounds in the Form of Tablets to be Used with Saponaceous Compounds for Washing Textile Fabrics, Scrubbing Floors, and Cleaning Woodwork, Pots, Pans, Metal Work, Enamel-Ware, Bath-Tubs, &c., and for Other Purposes for Which Laundry Soap is Commonly Used.
Claims use since on or about Nov. 24, 1915.

Ser. No. 92,422. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) EUGENIO C. NOE & CO., Buenos Ayres, Argentina. Filed Jan. 26, 1916.



The trade-mark consists of a fancy shield in the upper part of which is a crenated wheel placed upon two crossed hammers, and beneath the wheel and hammers is the word "Invencible." No claim is made to the other matter apart from the mark described and shown in the drawing.
Particular description of goods.—Wire.
Claims use since October, 1906.

Ser. No. 92,695. (CLASS 37. PAPER AND STATIONERY.) PAPYRUS ARTIFICIAL PAPER MANUFACTURING CO., Kenilworth borough, N. J. Filed Feb. 7, 1916.



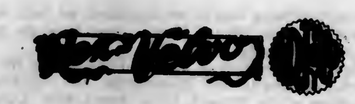
No claim being made to the exclusive use of the word "Papyrus" except in connection with the design shown.
Particular description of goods.—Water-Crape Paper, Tissue-Crape Paper, Paper Flower-Pot Covers.
Claims use since Jan. 22, 1916.

Ser. No. 93,888. (CLASS 39. CLOTHING.) GEORGE A. JOHNSON, Jr., Seattle, Wash. Filed Mar. 8, 1916.



No claim being made to the words "Johnson's Best Seattle, Wash."
Particular description of goods.—Waterproof Garments—Namely, Slickers, Oil-Cloth Coats, and Hats.
Claims use since Dec. 1, 1905.

Ser. No. 94,040. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NEW YORK MILLS CORPORATION, New York Mills, N. Y. Filed Apr. 1, 1916.



Particular description of goods.—Velvets and Velveteens.
Claims use since Mar. 1, 1916.

Ser. No. 94,892. (CLASS 20. LINOLEUM AND OILED CLOTH.) THE COTT-A-LAP COMPANY, Somerville, N. J. Filed May 4, 1916.

CAL-CO-FLOR

Particular description of goods.—Oil-Cloth.
Claims use since on or about Feb. 8, 1915.

Ser. No. 95,010. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LIBBIE R. FENN, Los Angeles, Cal. Filed May 9, 1916.



Particular description of goods.—Candies, Chocolates, Chocolate-Creams, Bonbons, Chews, Stick-Candy, Taffies, Gum-Drops.
Claims use since Oct. 30, 1910.

Ser. No. 95,042½. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) J. P. COCHRANE, Edinburgh, Scotland. Filed May 10, 1916.

CHALLENGER

Particular description of goods.—Golf Accessories—Namely, Golf-Balls, Golf-Clubs, Iron Heads, Golf-Bags, Golf-Gloves, Golf-Grips, and Tee-Plates.
Claims use since July, 1908.

Ser. No. 95,212. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE TOWER VARNISH & DRYER COMPANY, Dayton, Ohio. Filed May 17, 1916.

TOWER

Particular description of goods.—Paint Oils, Varnishes, Driers, and Fillers.
Claims use since 1868.

Ser. No. 95,267. (CLASS 39. CLOTHING.) GOODALL WORSTED CO., Sanford, Me., and New York, N. Y. Filed May 19, 1916.



No claim being made to the word "Cloth" apart from the mark shown in the drawing.
Particular description of goods.—Men's, Women's, and Children's Outer Garments—Namely, Pants, Skirts and Dresses, Made from Mohair Goods, Woolen Goods, and Goods of Combinations of Cotton, Woolen, Mohair, Alpaca, Camel-Hair, Silk, and Artificial Silk.
Claims use since Mar. 23, 1916.

Ser. No. 95,409. (CLASS 39. CLOTHING.) WROCK & SCHUELER, Detroit, Mich. Filed May 24, 1916.



No claim being made to the exclusive right to the use of the word "Shoe" apart from the mark shown in the drawing.
Particular description of goods.—Men's and Boys' Leather Boots and Shoes.
Claims use since Sept. 19, 1914.

Ser. No. 95,596. (CLASS 37. PAPER AND STATIONERY.) THE JOHN HOBERG CO., Green Bay, Wis. Filed June 2, 1916. Under ten-year proviso.

HERE-IT-IS!

Particular description of goods.—Toilet-Paper, Paper Toweling, and Paper Napkins.
Claims use since Dec. 7, 1894.

Ser. No. 95,714. (CLASS 37. PAPER AND STATIONERY.) MUNISING PAPER COMPANY, Munising, Mich. Filed June 8, 1916.



The letter "M," the circle which immediately surrounds the square which incloses said letter and the outermost circle being produced in red, and no claim being made to the exclusive right to the use of the word "Munising" apart from the mark shown in the drawing.
Particular description of goods.—Bond-Paper and Waxing-Paper.
Claims use since May 12, 1916.

Ser. No. 95,782. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOHN FALLON, New York, N. Y. Filed June 10, 1916.



No claim is made to the words "Diamond Seal Lustre Polish" apart from the mark shown in the drawing.
Particular description of goods.—Cleaner for Enamel Surfaces.
Claims use since Apr. 1, 1915.

Ser. No. 95,931. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES S. CARLISLE, Oklahoma, Okla. Filed June 17, 1916.


TRADE MARK

The portrait being that of the applicant, no claim being made for the term "Trade Mark" apart from the mark shown in the drawing.
Particular description of goods.—Preparations for the Treatment of Constipation, Rheumatism, and Gall-Stones, and Diseases of the Stomach, Liver, Blood, Skin, Kidneys, Bladder, Eyes, Lungs, and Bronchial Tubes.
Claims use since May 1, 1916.

Ser. No. 95,960. (CLASS 39. CLOTHING.) DEVINE & YUNGEL SHOE MFG. CO., Harrisburg, Pa. Filed June 19, 1916.



Applicant makes no claim to the exclusive right to the use of the word "Line" apart from the mark shown in the drawing.
Particular description of goods.—Ladies', Misses', and Children's Leather Shoes.
Claims use since June, 1914.

Ser. No. 95,989. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AUGUSTA NELSON, Seattle, Wash. Filed June 19, 1916.



The portrait shown being that of Miss Olga Loring.
Particular description of goods.—Hair-Tonics.
Claims use since June 1, 1916.

Ser. No. 96,512. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SAMUEL J. ARONSOHN, INC., Paterson, N. J., and New York, N. Y. Filed July 12, 1916.



No claim being made to the word "Crepes" apart from the mark shown in the drawing.
Particular description of goods.—Crapes and Silks in the Piece.
Claims use since Jan. 1, 1916.

Ser. No. 96,611. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALFALFA PRODUCTS COMPANY, Waukegan, Ill. Filed July 17, 1916.

ALFA

Particular description of goods.—Table-Syrup, a Blended Flour Having as Its Principal Ingredient a Flour Made from the Alfalfa Plant, Tea and Coffee.
Claims use since July 1, 1915.

Ser. No. 96,683. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) AMERICAN ASPHALT PAINT CO., New York, N. Y. Filed July 20, 1916.

VALDURA

Particular description of goods.—Asphalt Paint.
Claims use since Jan. 1, 1914.

Ser. No. 96,799. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NUSBAUM & BRENNERMAN, Seattle, Wash. Filed July 24, 1916.



No claim being made to the words "The Dandruff Remover."
Particular description of goods.—Dandruff-Remover.
Claims use since June 1, 1916.

Ser. No. 96,801. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) RICHARDSON CORPORATION, Rochester, N. Y. Filed July 24, 1916.

MAID OF HONOR

Particular description of goods.—Syrups, Beverages, Cocoa, Crushed Fruits, Fruit Syrups, Fruit Products, Nut Products, Used as Soft Drinks or in the Making Thereof, and Soda-Fountain Products, Used as Soft-Drinks or in the Making Thereof.
Claims use since June 9, 1916.

Ser. No. 96,820. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MASON REGULATOR COMPANY, Boston, Mass. Filed July 25, 1916. Under ten-year proviso.



Particular description of goods.—Pump-Speed Governors, Pump-Governors, Blowing-Engine Regulators, Fan-Engine Regulators, Power-Pump Controllers, Pump-Pressure Regulators, Reducing-Valves, By-Pass Valves, Vacuum Regulating-Valves, Ammonia Float-Regulators, Excess-Pressure Boiler-Feed Line-Regulators, Strainers, and Pressure-Regulators.
Claims use since January, 1893.

Ser. No. 96,832. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE MANHATTAN RUBBER MFG. CO., New York, N. Y. Filed July 25, 1916.

FARRAGUT

Particular description of goods.—Hose Made Partly of Rubber and Partly of Cotton.
Claims use since July, 1896.

Ser. No. 97,015. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THEO. H. GARY CO., New York, N. Y. Filed Aug. 1, 1916.



Particular description of goods.—Hair-Nets.
Claims use since July 17, 1916.

Ser. No. 97,108. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BALSTONE, COOKE & CO. LD., Manchester, England. Filed Aug. 5, 1916.

CORDE DE LA

REINE

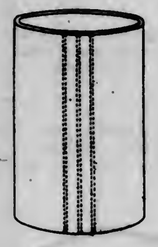
Particular description of goods.—Velvets, Velveteens, Sateens, Cords, Moleskins, and Fustian Cloth.
Claims use since prior to Aug. 3, 1885.

Ser. No. 97,141. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ISRAEL MILLER, New York, N. Y. Filed Aug. 7, 1916.

Millerwite

Particular description of goods.—A Fluid Preparation for Cleaning White Shoes, White Slippers, White Boots, White Belts, and White Gloves, and Other Articles Made of White Leather or White Fabrics.
Claims use since June 20, 1916.

Ser. No. 97,282. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) EMIL J. F. QUIRIN, Olean, N. Y. Filed Aug. 11, 1916.



The said trade-mark consists of three parallel longitudinal blue stripes running lengthwise of the tubing, the spaces between being substantially equal to four times the width of each stripe. Applicant disclaims exclusive right to the representation of the fabric roll.
Particular description of goods.—Fabric-Rolls for Leather-Pressing Machines.
Claims use since February, 1916.

Ser. No. 97,317. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARMOUR GRAIN COMPANY, Jersey City, N. J., and Chicago, Ill. Filed Aug. 14, 1916.

WASHINGTON'S CHOICE BARLEY MIXTURES 38* C.W.O.

No claim is made to the words "Choice Barley Mixtures," nor to the name "Washington's" apart from the mark shown in the drawing.
Particular description of goods.—A Mixture of Clipped White Oats and Barley.
Claims use since July 15, 1903.

Ser. No. 97,326. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CHARLIE J. BOUSFIELD, Bay City, Mich. Filed Aug. 14, 1916.

Delphreon

Particular description of goods.—Talking-Machines.
Claims use since July 7, 1916.

Ser. No. 97,394. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES. JOHN A. DAVIS, Boston, Mass. Filed Aug. 17, 1916.

VITRALOID

Particular description of goods.—Turn-Tables for Talking-Machines.
Claims use since July 17, 1916.

Ser. No. 97,415. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) VICTOR ELECTRICAL EQUIPMENT CO., Boston, Mass. Filed Aug. 17, 1916.



Particular description of goods.—Motors and Drives for Talking-Machines.
Claims use since May 4, 1916.

Ser. No. 97,429. (CLASS 39. CLOTHING.) CHARLES L. LEVI, Philadelphia, Pa. Filed Aug. 18, 1916.

Delphic

Particular description of goods.—Men's Dress and Negligée Shirts.
Claims use since the 27th day of July, 1916.

Ser. No. 97,467. (CLASS 37. PAPER AND STATIONERY.) STENOGRAPHY & REPORTING COMPANY, LTD., Trenton, N. J. Filed Aug. 21, 1916.



No claim being made to the exclusive use of the words "Always Accurate," except in connection with the other features shown.
Particular description of goods.—Letter-Paper, Type-Writer Paper, Envelops, Sheets of Paper for Use as Manuscript-Covers, Blank Cards Adapted for Use as Index-Cards, Rubber Erasers, Paper-Clips, Paper-Fasteners, and Note-Books.
Claims use since July 24, 1916.

Ser. No. 97,515. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILLIAM M. LAWYER, Syracuse, N. Y. Filed Aug. 21, 1916.



Particular description of goods.—Belt-Dressing.
Claims use since July 1, 1916.

Ser. No. 97,573. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FERMIN L. BACA, Bexar county, Tex. Filed Aug. 23, 1916.

ANTIFIMOSA

Particular description of goods.—A Medicinal Preparation for Treatment of the Kidneys and Liver.
Claims use since about 1909.

Ser. No. 97,602. (CLASS 12. CONSTRUCTION MATERIALS.) H. H. HOPKINS COMPANY, Chicago, Ill. Filed Aug. 24, 1916.

TROPEX

Particular description of goods.—Lining-Paper for Building Purposes and in Packing-Cases.
Claims use since on or about Nov. 1, 1915.

Ser. No. 97,617. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARLETON DRY GOODS CO., St. Louis, Mo. Filed Aug. 25, 1916.



The quadrangular figure in the drawing is printed in blue, no claim being made to the right to the exclusive use of the name "Pullman" apart from the mark shown in the drawing.

Particular description of goods.—Sheetings, Sheets, and Pillow-Cases.

Claims use since Feb. 1, 1916.

Ser. No. 97,620. (CLASS 39. CLOTHING.) ELDER MANUFACTURING COMPANY, St. Louis, Mo. Filed Aug. 25, 1916.

TOM SAWYER

Particular description of goods.—Blouses, Waists, Rompers, and Play-Suits, and Dress, Negligée, Work, and Under Shirts.

Claims use since June 1, 1916.

Ser. No. 97,634. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) SCHUYLER C. BOROM, Minneapolis, Minn. Filed Aug. 26, 1916.

SANIPOL

Particular description of goods.—A Polish for Wood Surfaces.

Claims use since on or about Aug. 10, 1916.

Ser. No. 97,660. (CLASS 38. PRINTS AND PUBLICATIONS.) EDWIN T. EARL, Los Angeles, Cal. Filed Aug. 28, 1916.



No claim being made to the words "Independent Progressive Los Angeles Pioneer Penny Morning Daily" apart from the mark.

Particular description of goods.—A Newspaper.

Claims use since May 5, 1916.

Ser. No. 97,686. (CLASS 12. CONSTRUCTION MATERIALS.) H. W. JOHNS-MANVILLE CO., New York, N. Y. Filed Aug. 29, 1916.

J-M AKOUSTOLITH

Particular description of goods.—An Artificial Stone which Possesses the Property of Absorbing Sound.

Claims use since Apr. 4, 1916.

Ser. No. 97,687. (CLASS 12. CONSTRUCTION MATERIALS.) H. W. JOHNS-MANVILLE CO., New York, N. Y. Filed Aug. 29, 1916.

ECONOMY

Particular description of goods.—A Covering Made of Hair and Canvas and Placed Over Hot-Water Boilers to Hold the Heat in and Keep the Water Hot.

Claims use since Jan. 2, 1916.

Ser. No. 97,727. (CLASS 29. CLOTHING.) DAVID G. CARMICHAEL, New York, N. Y. Filed Aug. 31, 1916.



Particular description of goods.—Gowns, Outer Suits, Wraps, and Garments Made of Fur.

Claims use since Aug. 19, 1916.

Ser. No. 97,801. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MERRILL METALLURGICAL COMPANY, San Francisco, Cal. Filed Sept. 5, 1916.



Particular description of goods.—Materials for Precipitating Valuable Metals from Hydrometallurgical Solutions Containing the Same.

Claims use since Aug. 18, 1916.

Ser. No. 97,812. (CLASS 38. PRINTS AND PUBLICATIONS.) CLARENCE D. TUSKA, Hartford, Conn. Filed Sept. 5, 1916.



The words "A Magazine Devoted Exclusively to The Wireless Amateur" are disclaimed.

Particular description of goods.—A Monthly Magazine Publication.

Claims use since Nov. 1, 1915.

Ser. No. 97,829. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) GEORGE L. THOMPSON, New York, N. Y. Filed Sept. 6, 1916.

BANKER'S

EXPRESS

Comprising the words "Banker's Express."

Particular description of goods.—Automobiles.

Claims use since Aug. 10, 1916.

Ser. No. 97,830. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WHEELER & MOTTER MERCANTILE COMPANY, St. Joseph, Mo. Filed Sept. 6, 1916.

Worthmore

Particular description of goods.—Woolen, Cotton, Silk, Satin, Velvet, Velveteen, and Corduroy Piece Goods.

Claims use since Sept. 1, 1909.

Ser. No. 97,842. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAC MILLAN CHEMICAL CO., Falls City, Nebr. Filed Sept. 7, 1916.

ULYPTO

Particular description of goods.—A Salve for External Use for the Treatment of Catarrh, Cold in Head, Cold in Chest, Swollen Muscles, Stiff Joints, Rheumatic Swellings, Neuralgia, Earache, Headache, Toothache, Piles, Bruises, Sunburn, Burns, Cuts, Hay-Fever, Sore Throat, Croup, Lumbago, Frosted and Sore Feet, Pleurisy, Insect-Bites, Sore Eyes, Sores, Chapped Hands, and for Use After Shaving.

Claims use since Aug. 1, 1916.

Ser. No. 97,847. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEPHEN F. WHITMAN & SON, INCORPORATED, Philadelphia, Pa. Filed Sept. 7, 1916.

Jiffy

Particular description of goods.—Drinking-Chocolate.

Claims use since about May 31, 1914.

Ser. No. 97,852. (CLASS 38. PRINTS AND PUBLICATIONS.) BARRINGTON GRAPHOPRINT COMPANY INCORPORATED, New York, N. Y. Filed Sept. 8, 1916.



Particular description of goods.—Skeleton Drawings for Use as Aids or Helps in Child Instruction.

Claims use since Aug. 1, 1916.

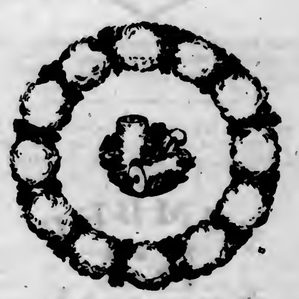
Ser. No. 97,853. (CLASS 38. PRINTS AND PUBLICATIONS.) BARRINGTON GRAPHOPRINT COMPANY INCORPORATED, New York, N. Y. Filed Sept. 8, 1916.

GRAPHOPRINTS

Particular description of goods.—Skeleton Drawings for Use as Aids or Helps in Child Instruction.

Claims use since Aug. 1, 1916.

Ser. No. 97,950. (CLASS 43. THREAD AND YARN.) CITY MANUFACTURING CORPORATION, New Bedford, Mass. Filed Sept. 12, 1916.

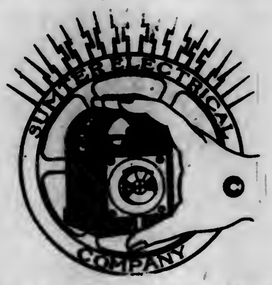


No right is claimed to the exclusive use of the cops and bolls apart from the mark shown in the drawing.

Particular description of goods.—Yarn.

Claims use since February, 1916.

Ser. No. 97,959. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SUMTER ELECTRICAL CO., Chicago, Ill. Filed Sept. 12, 1916.



The words "Sumter" and "Sumter Electrical Company" and the representation of a magneto, however, forming no part of said mark.

Particular description of goods.—Magnetos and Magneto Parts.

Claims use since Aug. 17, 1916.

Ser. No. 97,990. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE ROWE CALK COMPANY, Hartford, Conn. Filed Sept. 14, 1916.

PREST-O-GRIP

Particular description of goods.—Traction, Draft, and Antiskidding Chains.

Claims use since June 26, 1916.

Ser. No. 97,998. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) W. D. BYRON & SONS, INC., Williamsport, Md. Filed Sept. 15, 1916.

NUOK

Particular description of goods.—Leather, and Particularly Japanned or "Patent" Leather.

Claims use since about June 1, 1916.

Ser. No. 98,009. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HUDSON MFG. CO., INCORPORATED, Chicago, Ill. Filed Sept. 15, 1916.

NUMBER 52 SPECIAL

No claim being made to the word "Special" apart from the mark as shown.

Particular description of goods.—Flavoring Extracts for Foods.

Claims use since September, 1915.

Ser. No. 98,064. (CLASS 12. CONSTRUCTION MATERIALS.) FIREPROOF FIBRE BUILDING BOARDS LIMITED, Bloomsbury, London, England. Filed Sept. 19, 1916.

Calno

Particular description of goods.—Building-Boards Made of Fiber Which in the Process of Manufacture Have Been Impregnated with a Chemical Solution Which Renders Them Fire-Resisting.

Claims use since November, 1912.

Ser. No. 98,096. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RADIUM LUMINOUS MATERIAL CORPORATION, New York, N. Y. Filed Sept. 19, 1916.



Particular description of goods.—Luminous Materials Containing Radium for General Use.

Claims use since July 12, 1915.

Ser. No. 98,127. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WORUMBO MANUFACTURING COMPANY, Lisbon Falls, Me. Filed Sept. 20, 1916.

LAMKIN

Particular description of goods.—Woolen Goods in the Piece.

Claims use since July 19, 1916.

Ser. No. 98,149. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) H. H. WEIL & SON, INC., Waverly and New York, N. Y. Filed Sept. 21, 1916.

PHOEBE SNOW

Particular description of goods.—Ribbons.

Claims use since August, 1916.

Ser. No. 98,163. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) WILLIAM B. FINK, New York, N. Y. Filed Sept. 22, 1916.

Vigoro

Particular description of goods.—A Soft Drink Containing No Alcohol or Narcotics, Purely a Temperance Beverage.

Claims use since Sept. 1, 1916.

Ser. No. 98,167. (CLASS 39. CLOTHING.) KAPLAN BROS., New York, N. Y. Filed Sept. 22, 1916.

O.K. Knee Pants

No claim being made to the exclusive use of the words "Knee Pants" except as associate with the other features of the mark.

Particular description of goods.—Men's Trousers and Boys' Suits and Trousers.

Claims use since July, 1908.

Ser. No. 98,180. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRED DOLLE, Chicago, Ill. Filed Sept. 23, 1916.

REFORM

Particular description of goods.—Razors and Shears.

Claims use since April, 1906.

Ser. No. 98,182. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DIETZ MANUFACTURING COMPANY, Cincinnati, Ohio. Filed Sept. 23, 1916.

Nu-way

Particular description of goods.—Dish-Washing Machines.

Claims use since Aug. 31, 1916.

Ser. No. 98,188. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE LEBANON MACHINE COMPANY, Lebanon, N. H. Filed Sept. 23, 1916.

Z

Particular description of goods.—Bits.

Claims use since Feb. 1, 1916.

Ser. No. 98,197. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STROHMEYER & ARPE COMPANY, New York, N. Y. Filed Sept. 23, 1916.

PRUNES CARMEN

No claim of right to the exclusive use of the word "Prunes" being made.

Particular description of goods.—Prunes.

Claims use since June 1, 1916.

Ser. No. 98,225. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) A. S. ROSENTHAL COMPANY, New York, N. Y. Filed Sept. 26, 1916.



Particular description of goods.—Silk Piece Goods, Silk and Cotton Fabrics, also Cotton Piece Goods.

Claims use since 1914.

Ser. No. 98,238. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CROWN CORK AND SEAL CO., OF BALTIMORE CITY, Baltimore, Md. Filed Sept. 26, 1916.

ORIOLE

Particular description of goods.—Bottle-Openers.

Claims use since May, 1915.

Ser. No. 98,247. (CLASS 5. ADHESIVES.) REGINA CEMENT COMPANY, Washington, D. C. Filed Sept. 26, 1916.

REGINA

Particular description of goods.—Adhesive Cement.

Claims use since January, 1911.

Ser. No. 98,295. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE H. LIEBER COMPANY, Indianapolis, Ind. Filed Sept. 28, 1916.



Particular description of goods.—Picture-Frame Moldings, Picture-Frames, and Parts of Frames.

Claims use since Apr. 1, 1916.

Ser. No. 98,299. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) OSTBY AND BARTON COMPANY, Providence, R. I. Filed Sept. 28, 1916.



The trade-mark consists of a conventional target having a black bull's-eye, an inner ring of white, and an outer ring of black placed equidistant from and between two horizontal black bars which if joined would strike the bull's-eye.

Particular description of goods.—Finger-Rings and Card Jewelry, Consisting of Pins, Cuff-Links, Brooches, Lapel-Buttons, Ear-Rings, Studs, Pendants, Bar-Pins, Dress-Pins, Hat-Pins, Chains, Lockets, Scarf-Pins, Rings, Bracelets, and Necklaces.

Claims use since Jan. 1, 1914.

Ser. No. 98,315. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ROB'T MOLE & SONS, Birmingham, England. Filed Sept. 29, 1916. Under ten-year proviso.



Particular description of goods.—Sword-Blades, Matchets, and Matchet-Knives.
Claims use since about March, 1880.

Ser. No. 98,316. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUECKHEIM BROS. & ECKSTEIN, Chicago, Ill. Filed Sept. 29, 1916.



No claim is made to the descriptive word "Gum."
Particular description of goods.—Chewing-Gum or Candied Chewing-Gum.
Claims use since Sept. 11, 1916.

Ser. No. 98,347. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BATON ROUGE-NORWOOD PEPPER MANUFACTURING CO. INC., Baton Rouge, La. Filed Oct. 2, 1916.



No claim being made to the words "Pepper, Pepper" apart from the trade-mark as shown.
Particular description of goods.—Pepper, Pepper Ground, Pepper in Pods, Pepper in Brine, and Pepper Condiments.
Claims use since about Aug. 15, 1916.

Ser. No. 98,404. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 6

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1893.

Ser. No. 98,405. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 7

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1892.

Ser. No. 98,406. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 8

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1894.

Ser. No. 98,407. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 9

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1893.

Ser. No. 98,408. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 10

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1894.

Ser. No. 98,409. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 11

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1894.

Ser. No. 98,410. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 12

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1908.

Ser. No. 98,411. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 14

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1905.

Ser. No. 98,412. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 15

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1908.

Ser. No. 98,413. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 16

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1909.

Ser. No. 98,414. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. D. KNOWLTON COMPANY, Rochester, N. Y. Filed Oct. 4, 1916.

No. 17

Particular description of goods.—Staying-Machines.
Claims use since as early as the year 1908.

Ser. No. 98,418. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PEG LOCK BLOCK COMPANY, INC., New York, N. Y. Filed Oct. 4, 1916.

LONG TOM

Particular description of goods.—Toy Cannons.
Claims use since July, 1916.

Ser. No. 98,426. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) THE AMERICAN WRINGER COMPANY, New York, N. Y. Filed Oct. 5, 1916.

SECURITY

Particular description of goods.—Clothes-Wringers and Parts Thereof.
Claims use since Sept. 9, 1916.

Ser. No. 98,453. (CLASS 39. CLOTHING.) WALLACH & MAYER, INC., New York, N. Y. Filed Oct. 5, 1916.

AAA

Particular description of goods.—Hosiery.
Claims use since September, 1910.

Ser. No. 98,455. (CLASS 39. CLOTHING.) ACHUFF KNITTING MILL, INC., Philadelphia, Pa. Filed Oct. 6, 1916.

ROSEMARY

Particular description of goods.—Ladies', Misses', and Children's Knit Underwear.
Claims use since July 12, 1916.

Ser. No. 98,472. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE H. D. LEE MERCANTILE CO., Salina, Kans., and Kansas City, Mo. Filed Oct. 6, 1916.

HARMONY

Particular description of goods.—Canned Tomatoes, Canned Asparagus, Canned Beets, Canned Corn, Canned Pumpkin, Canned Spinach, Canned Sweet Potatoes, Canned Syrup, Canned Milk, Canned Pork and Beans, Canned Sauer-Kraut, Canned Hominy, Jam, Jelly, Canned Cherries, Canned Apricots, Canned Gooseberries, Canned Grapes, Canned Pineapple, Canned Raspberries, Canned Loganberries, Canned Strawberries, Canned Blackberries, Canned Peaches, Canned Pears, Canned Oysters, Canned Salmon, Canned Sardines, Celery-Salt, Coffee, Tea, Pepper, Catsup, Vanilla Extract, Ginger, Cinnamon, Pepper Sauce, and Potted Meat.
Claims use since June 23, 1916.

Ser. No. 98,507. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN HEALTH SOUP CO., St. Louis, Mo. Filed Oct. 9, 1916.

Supina

Particular description of goods.—Soups, and More Particularly for Soups in Dry and Concentrated Form.
Claims use since July 5, 1916.

Ser. No. 98,521. (CLASS 39. CLOTHING.) LILY OF FRANCE CORSET CO., New York, N. Y. Filed Oct. 9, 1916.

BONHEUR

Particular description of goods.—Corsets.
Claims use since the year 1903.

Ser. No. 98,523. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PRATT-LOW PRESERVING CO., Santa Clara, Cal. Filed Oct. 9, 1916.

PATSY

Particular description of goods.—Canned Apricots, Pears, Peaches, Cherries, Plums, Blackberries, Grapes, Tomatoes, and Asparagus.
Claims use since Aug. 19, 1916.

Ser. No. 98,526. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Oct. 9, 1916.

Slim Jim



Particular description of goods.—Work-Shirts.
Claims use since Jan. 1, 1912.

Ser. No. 98,542. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NEWBERRY-EDMONDSON CO., Grand Island, Nebr. Filed Oct. 10, 1916.

RHEUMO NE EXPELLO

Particular description of goods.—Rheumatism and Neuritis Medicine.
Claims use since Sept. 15, 1915.

Ser. No. 98,557. (CLASS 39. CLOTHING.) COHEN, GOLDMAN & CO., INC., New York, N. Y. Filed Oct. 11, 1916.

The Shedder

Particular description of goods.—Men's Outer Suits, Overcoats, Rain-Coats, Trousers, Sport-Coats, Sport-Jackets, and Mackinaw Coats; Boys' Outer Suits, Overcoats, Rain-Coats, Trousers, Sport-Coats, Sport-Jackets, and Mackinaw Coats; Ladies' Outer Suits, Cloaks, Rain-Coats, Sport-Coats, Sport-Jackets, Mackinaw Coats, and Dresses.
Claims use since Aug. 15, 1916.

Ser. No. 98,583. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) C. H. WHEELER MANUFACTURING COMPANY, Philadelphia, Pa. Filed Oct. 11, 1916.

RADOJET

Particular description of goods.—Ejectors and Air-Pumps.
Claims use since Oct. 4, 1916.

Ser. No. 98,585. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) KATE A. BRADLEY, Atlantic City, N. J. Filed Oct. 12, 1916.



SNAPDRAGON

Particular description of goods.—Games.
Claims use since September, 1916.

Ser. No. 98,586. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BROOKSVILLE CITRUS GROWERS ASSN., Brooksville, Fla. Filed Oct. 12, 1916.

FLORIKIST

Particular description of goods.—Citrus Fruit.
Claims use since Oct. 24, 1915.

Ser. No. 98,593. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE GRAIN CHEMICAL CO., INC., New York, N. Y. Filed Oct. 12, 1916.

NEOPHOS

Particular description of goods.—Organic Phosphorus Compounds.
Claims use since Sept. 12, 1916.

Ser. No. 98,605. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARFUMERIE MARCEAU, INC., New York, N. Y. Filed Oct. 12, 1916.



Particular description of goods.—Perfumes and Toilet Waters.
Claims use since Jan. 2, 1916.

Ser. No. 98,620. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BAUER & BLACK, Chicago, Ill. Filed Oct. 13, 1916.

Healal

Particular description of goods.—Liquid Court-Plaster.
Claims use since November, 1906.

Ser. No. 98,625. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOWERS BROS., INC., Richmond, Va. Filed Oct. 13, 1916.

RINGLEADER

Particular description of goods.—Coffee.
Claims use since June 1, 1916.

Ser. No. 98,634. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. H. KRONEBERGER & CO., Baltimore, Md. Filed Oct. 13, 1916.

BLACK AND WHITE

Particular description of goods.—Ground Coffee and Whole-Bean Coffee.
Claims use since Sept. 1, 1916.

Ser. No. 98,649. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. A. CASSEBEER, New York, N. Y. Filed Oct. 14, 1916.

THYRIOTIN

Particular description of goods.—Hair-Tonics.
Claims use since September, 1911.

Ser. No. 98,658. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GROWERS SERVICE COMPANY, North Yakima, Wash. Filed Oct. 14, 1916.

POM-POM

Particular description of goods.—Fresh Boxed Apples.
Claims use since Sept. 12, 1916.

Ser. No. 98,673. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE VANOLA COMPANY, Winston-Salem, N. C. Filed Oct. 14, 1916.



Particular description of goods.—Candy, Chewing-Gum, and Cough-Drops.
Claims use since July 1, 1915.

Ser. No. 98,682. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CRUSELLAS Y CA., Habana, Cuba. Filed Oct. 16, 1916.



RHUM QUINQUINA

Particular description of goods.—Hair-Tonic.
Claims use since Sept. 1, 1915.

Ser. No. 98,690. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FALLS MOTORS CORPORATION, Sheboygan Falls, Wis. Filed Oct. 16, 1916.

Falls

Particular description of goods.—Engine Stop Mechanism.
Claims use since Nov. 4, 1913.

Ser. No. 98,692. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ANNA K. GILSON, Quechee, Vt. Filed Oct. 16, 1916.

20TH CENTURY

Particular description of goods.—Hand-Rakes.
Claims use since Oct. 5, 1916.

Ser. No. 98,754. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MUNYON'S HOMŒOPATHIC HOME REMEDY CO., Philadelphia, Pa. Filed Oct. 18, 1916.

MARROWBONE

Particular description of goods.—A Nerve-Tonic.
Claims use since about May 1, 1916.

[Vol. 232. No. 2.]

TRADE-MARK REGISTRATIONS GRANTED

NOVEMBER 14, 1916.

113,931. FIRE-EXTINGUISHER. AETNA EXTINGUISHER Co., New York, N. Y.
Filed August 5, 1916. Serial No. 97,105. PUBLISHED SEPTEMBER 12, 1916.

113,932. COATS, TROUSERS, VESTS, LEGGINGS, HATS, AND CAPS. ALWARD-ANDERSON-SOUTHARD Co., Chicago, Ill.
Filed July 1, 1916. Serial No. 96,263. PUBLISHED SEPTEMBER 12, 1916.

113,933. PROPRIETARY MEDICINE, A PREPARATION USED AS A BLOOD-BUILDER, GENERAL TONIC, AND RECONSTRUCTIVE. VOSGAN A. AVAKIAN, Rossville, Ga.
Filed March 1, 1916. Serial No. 93,198. PUBLISHED SEPTEMBER 12, 1916.

113,934. DRESSES AND WAISTS. SAMUEL E. BADANES, New York, N. Y.
Filed February 23, 1916. Serial No. 93,038. PUBLISHED SEPTEMBER 12, 1916.

113,935. STAINS. BASS-HUETER PAINT CO., San Francisco, Cal.
Filed August 9, 1916. Serial No. 97,205. PUBLISHED SEPTEMBER 12, 1916.

113,936. CORN-HUSKING IMPLEMENTS. THE BOSS MANUFACTURING COMPANY, Kewanee, Ill.
Filed July 10, 1916. Serial No. 96,456. PUBLISHED SEPTEMBER 12, 1916.

113,937. REMEDY FOR THE TREATMENT OF CERTAIN NAMED DISEASES. BEHYMER & ALLEN, Indianapolis, Ind.
Filed August 7, 1916. Serial No. 97,133. PUBLISHED SEPTEMBER 12, 1916.

113,938. LADIES' OUTER GARMENTS. BLOCH & LITTAUER, New York, N. Y.
Filed June 24, 1916. Serial No. 96,103. PUBLISHED SEPTEMBER 12, 1916.

113,939. HATS. BLUM & KOCH, INC., New York, N. Y.
Filed April 12, 1916. Serial No. 94,346. PUBLISHED SEPTEMBER 12, 1916.

113,940. LAWN-MOWERS. JOHN BRAUN & SONS, Philadelphia, Pa.
Filed July 29, 1916. Serial No. 97,198. PUBLISHED SEPTEMBER 12, 1916.

113,941. LAWN-MOWERS. JOHN BRAUN & SONS, Philadelphia, Pa.
Filed July 29, 1916. Serial No. 97,199. PUBLISHED SEPTEMBER 12, 1916.

113,942. MONTHLY PERIODICAL. BRODERICK & BASCOM ROPE COMPANY, St. Louis, Mo.
Filed July 24, 1916. Serial No. 96,777. PUBLISHED SEPTEMBER 12, 1916.

113,943. CERTAIN NAMED CLOTHING FOR CHILDREN, BOYS, YOUTHS, AND MEN. BROWNING, KING & Co., Norfolk, Va.; New York, N. Y.; Chicago, Ill.; St. Louis, Mo.; Milwaukee, Wis.; Cincinnati, Ohio; Philadelphia, Pa.; Kansas City, Mo.; St. Paul, Minn.; Omaha, Nebr.; Minneapolis, Minn.; Brooklyn, N. Y.; Boston, Mass.; Providence, R. I.; Cleveland, Ohio, and Buffalo, N. Y.
Filed April 1, 1916. Serial No. 94,029. PUBLISHED SEPTEMBER 12, 1916.

113,944. HOG-CHOLERA SERUM. CLINTON H. BUGBEE, Kansas City, Mo.
Filed July 31, 1916. Serial No. 96,976. PUBLISHED SEPTEMBER 12, 1916.

113,945. WHEAT-FLOUR. THE CAPITAL CITY MILLING & GRAIN COMPANY, St. Paul, Minn.
Filed June 22, 1916. Serial No. 96,046. PUBLISHED SEPTEMBER 12, 1916.

113,946. CANNED SALMON. COLUMBIA SALMON Co., Seattle, Wash.
Filed July 12, 1916. Serial No. 96,513. PUBLISHED SEPTEMBER 5, 1916.

113,947. BREAD, MUFFINS, WHEAT-FLOUR, WHOLE-WHEAT BREAKFAST FOODS, BISCUITS, AND ZWIEBACK. H. A. C. DAHL & SON, New York, N. Y.
Filed July 12, 1916. Serial No. 96,523. PUBLISHED SEPTEMBER 12, 1916.

113,948. IRON AND STEEL CASTINGS. P. DAVID COMPANY, San Francisco, Cal.
Filed May 1, 1916. Serial No. 94,820. PUBLISHED SEPTEMBER 12, 1916.

113,949. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. THE DEBEVOISE COMPANY, New York, N. Y.
Filed June 22, 1916. Serial No. 96,050. PUBLISHED SEPTEMBER 12, 1916.

113,950. APPLIANCES FOR CLEANING BOILERS. DIAMOND POWER SPECIALTY COMPANY, Detroit, Mich.
Filed July 15, 1916. Serial No. 96,578. PUBLISHED SEPTEMBER 12, 1916.

113,951. OVERALLS, PANTS OR TROUSERS, COATS, JACKETS, AND JUMPERS. ELDER MANUFACTURING COMPANY, St. Louis, Mo.
Filed June 21, 1916. Serial No. 96,016. PUBLISHED SEPTEMBER 12, 1916.

113,952. OVERALLS, PANTS OR TROUSERS, COATS, JACKETS, AND JUMPERS. ELDER MANUFACTURING COMPANY, St. Louis, Mo.
Filed June 21, 1916. Serial No. 96,017. PUBLISHED SEPTEMBER 12, 1916.

113,953. BEAUTY SPOTS OR MARKS COMPRISING ADHESIVE PATCHES OR PLASTERS, AND SACHETS, PERFUME, AND FACE-POWDERS. LESTER C. ESSIG, Kansas City, Mo.
Filed June 9, 1916. Serial No. 95,747. PUBLISHED SEPTEMBER 12, 1916.

113,954. SOFT DRINKS. THE EXCELL COMPANY, Baltimore, Md.
Filed August 22, 1916. Serial No. 97,548. PUBLISHED SEPTEMBER 12, 1916.

113,955. GASOLENE-ENGINES. THE FERRO MACHINE & FOUNDRY Co., Cleveland, Ohio.
Filed April 4, 1916. Serial No. 94,145. PUBLISHED JULY 18, 1916.

113,956. CONTINUOUS-WEB-OPERATING ADVERTISING APPARATUSES. FORD TRUBE Co., Chicago, Ill.
Filed January 31, 1916. Serial No. 92,519. PUBLISHED SEPTEMBER 12, 1916.

113,957. WATCHES, WATCHCASES, WATCH-MOVEMENTS, AND PARTS THEREOF. HENRY FREUND & BROTHER, New York, N. Y.
Filed February 11, 1916. Serial No. 92,775. PUBLISHED SEPTEMBER 12, 1916.

113,958. FINGER-RINGS, BRACELETS, SCARF-PINS, BROOCHES, AND PRECIOUS-METAL KEY-RINGS, JUMP-RINGS. HENRY FREUND & BROTHER, New York, N. Y.
Filed February 24, 1916. Serial No. 93,066. PUBLISHED SEPTEMBER 12, 1916.

113,959. NON-ALCOHOLIC BOTTLED BEVERAGES—NAMELY, GINGER-ALE AND SARSAPARILLA. FULFORD-HICKMAN CO., Bel Air, Md.
Filed May 10, 1916. Serial No. 95,034. PUBLISHED SEPTEMBER 12, 1916.

113,960. CHEESE. ABRAHAM L. GALINSKY, Sioux City, Iowa.
Filed July 24, 1916. Serial No. 96,783. PUBLISHED SEPTEMBER 12, 1916.

113,961. COATS, VESTS, AND TROUSERS. GOLDENBERGS, Washington, D. C.
Filed March 23, 1916. Serial No. 93,794. PUBLISHED SEPTEMBER 12, 1916.

113,962. BOOTS AND SHOES MADE OF CERTAIN MATERIALS AND COMBINATIONS. THE GOODYEAR'S METALLIC RUBBER SHOE CO., Naugatuck, Conn.
Filed June 17, 1916. Serial No. 95,942. PUBLISHED SEPTEMBER 12, 1916.

113,963. PRINTING-INK. W. R. GRACE & CO., New York, N. Y.
Filed July 6, 1916. Serial No. 96,355. PUBLISHED SEPTEMBER 12, 1916.

113,964. RUST, DIRT, AND GREASE DISSOLVING AND REMOVING LIQUID PRODUCT. GRAHAMOLINE PRODUCTS COMPANY, Wilkes-Barre, Pa.
Filed June 5, 1916. Serial No. 95,621. PUBLISHED SEPTEMBER 12, 1916.

113,965. COFFEE. GRAND UNION TEA COMPANY, New York, N. Y.
Filed June 4, 1915. Serial No. 87,098. PUBLISHED APRIL 4, 1916.

113,966. GUM TOOTH-WASH. JOSEPH L. GREENBAUM, New York, N. Y.
Filed August 12, 1916. Serial No. 97,304. PUBLISHED SEPTEMBER 12, 1916.

113,967. SALVE PREPARATION FOR THE TREATMENT OF TUBERCULOSIS. MARY GRIMES, Hutchinson, Kans.
Filed August 17, 1916. Serial No. 97,399. PUBLISHED SEPTEMBER 12, 1916.

113,968. BEER. THE GUND BREWING CO., Cleveland, Ohio.
Filed May 22, 1916. Serial No. 95,331. PUBLISHED SEPTEMBER 12, 1916.

113,969. WHISKY. WILLIAM F. HAMMEL, Pittsburgh, Pa.
Filed March 16, 1916. Serial No. 93,574. PUBLISHED AUGUST 29, 1916.

113,970. PAINT-OIL. CHR. A. HANSEN, New York, N. Y.
Filed August 22, 1916. Serial No. 97,556. PUBLISHED SEPTEMBER 12, 1916.

113,971. WATCHCASES AND WATCH-MOVEMENTS. THE HAMPDEN WATCH COMPANY, Canton, Ohio.
Filed June 5, 1916. Serial No. 95,623. PUBLISHED SEPTEMBER 12, 1916.

113,972. DRESS, NEGLIGÉE, OR WORK SHIRTS. NATHAN N. HARRIS, Buffalo, N. Y.
Filed June 24, 1916. Serial No. 96,109. PUBLISHED SEPTEMBER 12, 1916.

113,973. CERTAIN NAMED FOODS. HAAS-LIEBER GROCERY COMPANY, St. Louis, Mo.
Filed April 14, 1916. Serial No. 94,417. PUBLISHED SEPTEMBER 5, 1916.

113,974. CERTAIN NAMED CLOTHING. HEILMANN M'F'G CO. INC., New York, N. Y.
Filed April 4, 1916. Serial No. 94,148. PUBLISHED SEPTEMBER 12, 1916.

113,975. BREAD. CHARLES HERENDEEN MILLING COMPANY, Chicago, Ill.
Filed May 25, 1916. Serial No. 95,420. PUBLISHED SEPTEMBER 12, 1916.

113,976. CERTAIN NAMED NON-ALCOHOLIC BEVERAGE. WILLIAM H. HOMMEL, Sandusky, Ohio.
Filed August 17, 1916. Serial No. 97,403. PUBLISHED SEPTEMBER 12, 1916.

113,977. CERTAIN NAMED NON-ALCOHOLIC BEVERAGES. HOOD RIVER APPLE VINEGAR CO., Hood River, Oreg.
Filed August 14, 1916. Serial No. 97,338. PUBLISHED SEPTEMBER 12, 1916.

113,978. FLAVORING EXTRACTS FOR FOODS. THE HUDSON MF'G. CO., Chicago, Ill.
Filed July 11, 1916. Serial No. 96,495. PUBLISHED SEPTEMBER 5, 1916.

113,979. EPSOM SALTS AND COMPOUNDS THEREOF. GEORGE J. HUSSMAN, St. Louis, Mo.
Filed August 4, 1916. Serial No. 97,082. PUBLISHED SEPTEMBER 12, 1916.

113,980. CANNED VEGETABLES. INDERRIEDEN CANNING CO., Chicago, Ill.
Filed May 11, 1916. Serial No. 95,076. PUBLISHED SEPTEMBER 5, 1916.

113,981. CRACKERS AND BISCUITS. JOHNSON EDUCATOR FOOD CO., Boston, Mass.
Filed August 11, 1916. Serial No. 97,293. PUBLISHED SEPTEMBER 12, 1916.

113,982. CORNMEAL. JULIETTE MILLING CO., Macon, Ga.
Filed August 11, 1916. Serial No. 97,274. PUBLISHED SEPTEMBER 12, 1916.

113,983. NUTS AND FRUITS, CANNED, DRIED, PREPARED, AND GREENED, PARTICULARLY ALMONDS. FRATELLI JUNG, Palermo, Italy.
Filed March 4, 1915. Serial No. 84,933. PUBLISHED SEPTEMBER 5, 1916.

113,984. ESSENTIAL OILS OF CITRUS FRUITS FOR USE IN FOODS. FRATELLI JUNG, Palermo, Italy.
Filed March 4, 1915. Serial No. 84,934. PUBLISHED SEPTEMBER 5, 1916.

113,985. CERTAIN NAMED BELTING, HOSE, AND MACHINERY PACKING. RICHARD KELLY, New York, N. Y.
Filed May 10, 1916. Serial No. 95,043. PUBLISHED SEPTEMBER 12, 1916.

113,986. LINIMENT FOR TREATING CERTAIN NAMED DISEASES OF MAN AND HORSES. DR. B. J. KENDALL COMPANY, Enosburg Falls, Vt.
Filed August 7, 1916. Serial No. 97,138. PUBLISHED SEPTEMBER 12, 1916.

113,987. REMEDY FOR PILES. JOHN KRESS, Fort Wayne, Ind.
Filed July 17, 1916. Serial No. 96,628. PUBLISHED SEPTEMBER 12, 1916.

113,988. CALCIUM SALTS. P. MAX KUEHNRICH, Los Angeles, Cal.
Filed August 7, 1916. Serial No. 97,139. PUBLISHED SEPTEMBER 12, 1916.

113,989. CALCIUM SALTS. P. MAX KUEHNRICH, Los Angeles, Cal.
Filed August 21, 1916. Serial No. 97,512. PUBLISHED SEPTEMBER 12, 1916.

113,990. HAMS, BACON, LARD, AND LARD COMPOUND. KUEBLE PACKING COMPANY, Baltimore, Md.
Filed March 22, 1915. Serial No. 85,312. PUBLISHED AUGUST 15, 1916.

113,991. POCKET-KNIVES. LANDERS, FRARY & CLARK, New Britain, Conn.
Filed April 24, 1916. Serial No. 94,675. PUBLISHED SEPTEMBER 12, 1916.

113,992. CAPS. FLORENCE L. LATTIMORE, Forest Hills, N. Y.
Filed June 19, 1916. Serial No. 95,967. PUBLISHED SEPTEMBER 12, 1916.

113,993. CERTAIN NAMED SPICES, CANNED GOODS, AND DRIED FRUITS. SIMON LEVI COMPANY, Los Angeles, Cal.
Filed February 29, 1916. Serial No. 93,184. PUBLISHED SEPTEMBER 5, 1916.

113,994. WOOLEN AND COTTON PIECE GOODS. PAUL LINCK, New York, N. Y.
Filed June 16, 1916. Serial No. 95,918. PUBLISHED SEPTEMBER 12, 1916.

113,995. TABLETS AND MEDICINES FOR CONSTIPATION, BILIOUSNESS, DROWSINESS, SICK HEADACHE, AND DYSPEPSIA. CARL E. LOBETZ, Seymour, Ind.
Filed August 2, 1916. Serial No. 97,085. PUBLISHED SEPTEMBER 12, 1916.

113,996. MEDICINE FOR USE IN TREATING CERTAIN NAMED DISEASES. JAMES A. MCCAMPBELL, Knoxville, Tenn.
Filed August 21, 1916. Serial No. 97,516. PUBLISHED SEPTEMBER 12, 1916.

113,997. WHEAT-FLOUR. THE MCMANNESS MILLING & GRAIN CO., Findlay, Ohio.
Filed July 22, 1916. Serial No. 96,753. PUBLISHED SEPTEMBER 12, 1916.

113,998. KNITTED UNION SUITS, VESTS, PANTS, CORSET-COVERS, AND BODICES. THE MENTOR KNITTING MILLS CO., Erie, Pa.
Filed January 29, 1916. Serial No. 92,511½. PUBLISHED SEPTEMBER 12, 1916.

113,999. CARBON-PAPERS AND TYPE-WRITER RIBBONS. THE MERCURY MFG. CO., Rochester, N. Y.
Filed July 21, 1916. Serial No. 96,720. PUBLISHED SEPTEMBER 12, 1916.

114,000. LUBRICATING OILS, GREASES, AND LUBRICATING CUTTING COMPOUNDS. THE MIDDLE STATES OIL COMPANY, Cleveland, Ohio.
Filed January 31, 1916. Serial No. 92,562. PUBLISHED SEPTEMBER 12, 1916.

114,001. ENGINE-GOVERNORS. MONARCH GOVERNOR CO., Detroit, Mich.
Filed August 14, 1916. Serial No. 97,340. PUBLISHED SEPTEMBER 12, 1916.

114,002. CANNED VEGETABLES. B. F. MOOMAW CO., INC., Cloverdale, Va.
Filed July 10, 1916. Serial No. 96,468. PUBLISHED SEPTEMBER 5, 1916.

114,003. WATER. MUTUAL ICE CO., Alexandria, Va.
Filed August 22, 1916. Serial No. 97,559. PUBLISHED SEPTEMBER 12, 1916.

114,004. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed August 3, 1916. Serial No. 97,055. PUBLISHED SEPTEMBER 12, 1916.

114,005. SAPONACEOUS LIQUID FOR CLEANING FABRICS. NEW-KNAPP POWDER CO., Pittsburgh, Pa.
Filed July 3, 1916. Serial No. 96,302. PUBLISHED SEPTEMBER 12, 1916.

114,006. MONTHLY MAGAZINE PUBLICATION. THE NEWSPAPER ENTERPRISE ASSOCIATION, Cleveland, Ohio.
Filed July 17, 1916. Serial No. 96,631. PUBLISHED SEPTEMBER 12, 1916.

114,007. WHEAT-FLOUR. OKLAHOMA CITY MILL & ELEVATOR CO., Oklahoma, Okla.
Filed July 31, 1916. Serial No. 96,996. PUBLISHED SEPTEMBER 12, 1916.

114,008. WHEAT-FLOUR. OKLAHOMA CITY MILL & ELEVATOR CO., Oklahoma, Okla.
Filed July 31, 1916. Serial No. 96,997. PUBLISHED SEPTEMBER 12, 1916.

114,009. CANDIES. OLD DOMINION PEANUT CORPORATION, Norfolk, Va.
Filed July 27, 1916. Serial No. 96,902. PUBLISHED SEPTEMBER 5, 1916.

114,010. CALCIMINE. THE OSBO CHEMICAL CO., Chicago, Ill.
Filed August 17, 1916. Serial No. 97,411. PUBLISHED SEPTEMBER 12, 1916.

114,011. ELEVATOR-GATES. PATERSON-LEITCH COMPANY, Cleveland, Ohio.
Filed January 28, 1916. Serial No. 92,481. PUBLISHED SEPTEMBER 12, 1916.

114,012. OLIVE-OIL AND OLIVES. JOHN S. PERIDES, New York, N. Y.
Filed June 30, 1916. Serial No. 96,262. PUBLISHED SEPTEMBER 12, 1916.

114,013. PHYSIOLOGIC THERAPEUTIC AGENT FOR TREATING ERRORS OF METABOLISM IN WOMEN, OVARIAN DISORDERS, NEURASTHENIA. THE PERRON LABORATORY, INC., Newark, N. J.
Filed August 7, 1916. Serial No. 97,147. PUBLISHED SEPTEMBER 12, 1916.

114,014. PHYSIOLOGIC THERAPEUTIC AGENT FOR TREATING CERTAIN NAMED CONDITIONS. THE PERRON LABORATORY, INC., Newark, N. J.
Filed August 7, 1916. Serial No. 97,148. PUBLISHED SEPTEMBER 12, 1916.

114,015. DISINFECTANT AND ANTISEPTIC. WILLIAM PETERMAN INC., Passaic, N. J., and New York, N. Y.
Filed August 4, 1916. Serial No. 97,094. PUBLISHED SEPTEMBER 12, 1916.

114,016. DYSPEPSIA AND STOMACH TROUBLES. NILO C. PINTADO, Key West, Fla.
Filed August 15, 1916. Serial No. 97,353. PUBLISHED SEPTEMBER 12, 1916.

114,017. BISCUITS AND CRACKERS. THE PURITY BISCUIT COMPANY, Salt Lake City, Utah.
Filed April 19, 1916. Serial No. 94,547. PUBLISHED SEPTEMBER 12, 1916.

114,018. GASOLENE-VAPORIZER ATTACHMENTS FOR INTERNAL-COMBUSTION ENGINES. THE RED STAR GASOLINE VAPORIZER CO., Columbus, Ohio.
Filed July 17, 1916. Serial No. 96,633. PUBLISHED SEPTEMBER 12, 1916.

114,019. PUTTY-POWDER. JAMES H. RHODES & COMPANY, Chicago, Ill.
Filed July 17, 1916. Serial No. 96,634. PUBLISHED SEPTEMBER 12, 1916.

114,020. CERTAIN NAMED CLOTHING. THE ROSE KNIT GOODS COMPANY, Cleveland, Ohio.
Filed February 12, 1916. Serial No. 92,816. PUBLISHED SEPTEMBER 12, 1916.

114,021. PHARMACEUTICAL PREPARATION CONSTITUTING HYGIENIC DENTIFRICE, PREVENTIVE OF DISEASES AND INFECTION OF GUMS AND TEETH. ROYAL REMEDIES COMPANY, Waukegan, Ill.
Filed July 22, 1916. Serial No. 96,765. PUBLISHED SEPTEMBER 5, 1916.

114,022. HEADACHE REMEDY. MATHIAS H. RUDY, York, Pa.
Filed July 31, 1916. Serial No. 97,000. PUBLISHED SEPTEMBER 12, 1916.

114,023. CERTAIN NAMED SOFT DRINKS. THE S. & S. WATER COMPANY, Philadelphia, Pa.
Filed August 21, 1916. Serial No. 97,528. PUBLISHED SEPTEMBER 12, 1916.

114,024. CITRUS FRUITS. SARASOTA CITRUS GROWERS ASSN., Sarasota, Fla.
Filed July 12, 1916. Serial No. 96,532. PUBLISHED SEPTEMBER 5, 1916.

114,025. INNER TUBES OR AIR-TUBES FOR VEHICLE-TIRES. THE SAVAGE TIRE COMPANY, San Diego, Cal.
Filed November 1, 1915. Serial No. 90,288. PUBLISHED SEPTEMBER 12, 1916.

114,026. CREAM-SEPARATORS. SCANDINAVIAN-AMERICAN TRADING CO., New York, N. Y.
Filed July 22, 1916. Serial No. 96,768. PUBLISHED SEPTEMBER 12, 1916.

114,027. CERTAIN NAMED FOOD. THE SEARS & NICHOLS CO., Chillicothe, Ohio.
Filed June 8, 1916. Serial No. 95,733. PUBLISHED SEPTEMBER 5, 1916.

114,028. CERTAIN NAMED FOODS. ROGER I. SHERMAN, Boston, Mass.
Filed October 29, 1915. Serial No. 90,215. PUBLISHED SEPTEMBER 5, 1916.

114,029. OLIVE-OIL. WILLIAM SIMI, San Francisco, Cal.
Filed June 27, 1916. Serial No. 96,185. PUBLISHED SEPTEMBER 5, 1916.

114,030. CERTAIN NAMED CUTLERY, MACHINERY, TOOLS, AND PARTS THEREOF. SIMMONS HARDWARE COMPANY, St. Louis, Mo.
Filed September 15, 1915. Serial No. 89,225. PUBLISHED AUGUST 1, 1916.

114,031. CARBURETERS. SOCIETE ANONYME DU CARBURATEUR ABIS, Lyon, France.
Filed October 20, 1914. Serial No. 82,034. PUBLISHED SEPTEMBER 12, 1916.

114,032. WHEAT-FLOUR. THE SOUTHWESTERN MILLING COMPANY, INC., New York, N. Y., and Kansas City, Mo.
Filed May 5, 1916. Serial No. 94,938. PUBLISHED SEPTEMBER 5, 1916.

114,033. REMEDY FOR THE RELIEF OF CERTAIN NAMED DISEASES OR DISORDERS. RICHARD HAYTON SPEIGHT, Blackpool, England.
Filed August 1, 1916. Serial No. 97,025. PUBLISHED SEPTEMBER 12, 1916.

114,034. WHEAT-FLOUR. SPRAGUE ROLLER MILLS, Sprague, Wash.
Filed August 5, 1916. Serial No. 97,123. PUBLISHED SEPTEMBER 12, 1916.

114,035. SALAD-DRESSING. STACHNIK & GREENFIELD, New York, N. Y.
Filed June 26, 1916. Serial No. 96,165. PUBLISHED SEPTEMBER 5, 1916.

114,036. REMEDY FOR CONSTIPATION. FREDERICK STEARNS & Co., Detroit, Mich.
Filed August 21, 1916. Serial No. 97,527. PUBLISHED SEPTEMBER 12, 1916.

114,037. CERTAIN NAMED FOODS. VAN VECHTEN MILLING CO. INC., Rochester, N. Y.
Filed July 22, 1915. Serial No. 88,129. PUBLISHED SEPTEMBER 5, 1916.

114,038. DESSERT-POWDER. THE WABASH CHEMICAL & BAKING POWDER COMPANY, Wabash, Ind.
Filed June 8, 1916. Serial No. 95,740. PUBLISHED SEPTEMBER 5, 1916.

114,039. BREAD AND CAKE. WARD BAKING COMPANY, New York, N. Y.
Filed November 27, 1915. Serial No. 90,977. PUBLISHED SEPTEMBER 12, 1916.

114,040. SELF-RISING FLOUR. WASHINGTON GRAIN AND MILLING CO., Reardan, Wash.
Filed August 5, 1916. Serial No. 97,127. PUBLISHED SEPTEMBER 12, 1916.

114,041. SELF-RISING FLOUR. WASHINGTON GRAIN AND MILLING CO., Reardan, Wash.
Filed August 5, 1916. Serial No. 97,128. PUBLISHED SEPTEMBER 12, 1916.

114,042. SELF-RISING WHEAT-FLOUR. WENATCHEE MILLING CO., Wenatchee, Wash.
Filed August 5, 1916. Serial No. 97,129. PUBLISHED SEPTEMBER 12, 1916.

114,043. CHOCOLATES AND CANDY. STEPHEN F. WHITMAN & SON, INCORPORATED, Philadelphia, Pa.
Filed June 9, 1916. Serial No. 95,768. PUBLISHED SEPTEMBER 5, 1916.

114,044. CERTAIN NAMED CLOTHING FOR MEN, WOMEN, AND CHILDREN. WILLCOX & GIBBS SEWING MACHINE CO., New York, N. Y.
Filed April 14, 1916. Serial No. 94,440. PUBLISHED SEPTEMBER 12, 1916.

114,045. PREPARATIONS TO EXTERMINATE VERMIN AND INSECTS. WILLIAMS-DAVIS-BROOKS & HINCHMAN SONS, Detroit, Mich.
Filed August 21, 1916. Serial No. 97,530. PUBLISHED SEPTEMBER 12, 1916.

114,046. WITCH-HAZEL VANISHING CREAMS, CLEANSING-CREAMS, RICE POWDERS. WOLFF-WILSON DRUG CO., St. Louis, Mo.
Filed July 1, 1916. Serial No. 96,284. PUBLISHED SEPTEMBER 12, 1916.

114,047. EGGS. YESTERLAID EGG FARMS COMPANY, Pacific, Mo.
Filed August 10, 1916. Serial No. 97,264. PUBLISHED SEPTEMBER 12, 1916.

114,048. EGGS. YESTERLAID EGG FARMS COMPANY, Pacific, Mo.
Filed August 10, 1916. Serial No. 97,265. PUBLISHED SEPTEMBER 12, 1916.

114,049. COTTON-SEED FEED. THE BUCKEYE COTTON OIL COMPANY, Cincinnati, Ohio.
Filed August 5, 1916. Serial No. 97,107. PUBLISHED SEPTEMBER 12, 1916.

114,050. WOOD, COAL, GAS, VAPOR, AND OIL STOVES AND RANGES. THE BUCK'S STOVE & RANGE COMPANY, St. Louis, Mo.
Filed November 17, 1915. Serial No. 90,690. PUBLISHED SEPTEMBER 12, 1916.

114,051. SELF-RISING WHEAT-FLOUR. CANADIAN MILL & ELEVATOR CO., El Reno, Okla.
Filed August 9, 1916. Serial No. 97,208. PUBLISHED SEPTEMBER 12, 1916.

LABELS

REGISTERED NOVEMBER 14, 1916.

19,735.—*Title:* "PETER'S PEP." (For Chilli-Con-Carne.) THE AMERICAN PURE FOOD PRODUCTS CO., Chicago, Ill. Filed August 30, 1916.

19,736.—*Title:* "SCARAB." (For Corn-Starch.) BAUER & BAUER, Bridgeport, Conn. Filed October 6, 1916.

19,737.—*Title:* "CAMPBELL'S VIRGIN WHITE." (For Campbell's Virgin White.) CARPENTER-MORTON CO., Boston, Mass. Filed October 25, 1916.

19,738.—*Title:* "FISHER (2 UNIT) STARTER FOR FORD CARS." (For Starters.) FRANK E. FISHER, Detroit, Mich. Filed October 7, 1916.

19,739.—*Title:* "PRISCUS." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed September 21, 1916.

19,740.—*Title:* "SALADA." (For Tea.) THE SALADA TEA COMPANY INCORPORATED, Portland, Me., and Boston, Mass. Filed October 12, 1916.

19,741.—*Title:* "SALADA." (For Tea.) THE SALADA TEA COMPANY INCORPORATED, Portland, Me., and Boston, Mass. Filed October 12, 1916.

19,742.—*Title:* "TRENTS EUCALYPTOL COMP." (For a Cough Remedy.) JOHN J. SAMUELS, Chicago, Ill. Filed September 21, 1916.

19,743.—*Title:* "YUM YUM." (For Fresh Apples.) SKOOKUM PACKERS ASSOCIATION, Cashmere, Wash. Filed October 30, 1916.

19,744.—*Title:* "PINE OIL." (For a Medicine.) THE SPRING HOPE PINE OIL WORKS, Spring Hope, N. C. Filed October 27, 1916.

19,745.—*Title:* "CREME TOKALON." (For Cold-Cream.) TOKALON, INC., New York, N. Y. Filed October 30, 1916.

19,746.—*Title:* "BLAX SHINE." (For Enamel.) TWIN CITY-VARNISH CO., St. Paul, Minn. Filed October 28, 1916.

PRINTS

REGISTERED NOVEMBER 14, 1916.

4,552.—*Title:* "O-CEDAR POLISH—CLEANS AS IT POLISHES." (For O-Cedar Polish.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed March 14, 1916.

4,553.—*Title:* "CLEANS AS IT POLISHES—O-CEDAR POLISH." (For O-Cedar Polish.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed March 14, 1916.

4,554.—*Title:* "O-CEDAR POLISH—CLEANS AS IT POLISHES." (For O-Cedar Polish.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed March 14, 1916.

4,555.—*Title:* "CLEANS AS IT POLISHES—O-CEDAR POLISH." (For O-Cedar Polish.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed March 14, 1916.

4,556.—*Title:* "O-CEDAR POLISH—CLEANS AS IT POLISHES." (For O-Cedar Polish.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed March 14, 1916.

4,557.—*Title:* "O-CEDAR POLISH—CLEANS AS IT POLISHES." (For O-Cedar Polish.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed March 14, 1916.

4,558.—*Title:* "ALLSTEEL DOCUMENT FILES." (For Filing-Cabinets.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed September 28, 1916.

4,559.—*Title:* ALLSTEEL WYDESTEELS." (For Filing-Cabinets.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed September 28, 1916.

4,560.—*Title:* "ALLSTEEL UPRIGHTS." (For Filing-Cabinets.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed September 28, 1916.

4,561.—*Title:* "ALLSTEEL SAFE." (For Safes.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed September 28, 1916.

4,562.—*Title:* "ALLSTEEL U-NETTES." (For Filing-Cabinets.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed September 28, 1916.

4,563.—*Title:* "ALLSTEEL COUNTER HEIGHT SECTIONS." (For Counters.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed September 28, 1916.

4,564.—*Title:* "ALLSTEEL SECTIONAL TRANSFER CASES." (For Filing-Cabinets.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed October 11, 1916.

4,565.—*Title:* "AUTOMATIC KNEE CONTROL." (For Artificial Legs.) RAY TRAUTMAN, Minneapolis, Minn. Filed June 5, 1916.

4,566.—*Title:* "MAID OF HONOR CRUSH FRUIT & SYRUPS." (For Crushed Fruit and Syrup.) RICHARDSON CORPORATION, Rochester, N. Y. Filed October 11, 1916.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE CADY.

Decided August 28, 1916.

1. DESIGN PATENTS—SUBJECT-MATTER.

A design patent may be granted only for a design embodied in a material article, and since the purpose is the promotion of the "useful arts" the thing must have both the attributes of attractive appearance and of utility in commerce, the appearance having the function of enhancing the commercial value of a useful article.

2. SAME—DESCRIPTION OF THE DESIGN UNNECESSARY.

The specification should not describe the appearance of the design, since the illustration of the design is its own best description.

3. SAME—EXPLANATION OF USE OF THE DESIGN.

It is proper and necessary to explain the use or application of the design in the arts.

4. SAME—LIMITS OF THE PROTECTION GRANTED.

While the statute requires the applicant to specify some one particular article of manufacture to which he *has* applied the design, it seemingly cannot be required that his patent be limited to any one article.

5. SAME—SAME—CLAIM.

A design claim should be simply for the design shown. The court must decide whether a patented design as a whole is or is not imitated by another design as a whole.

6. SAME—PROPER STATEMENT OF THE SCOPE OF THE DESIGN.

Where the applicant stated that his design "was adapted to be embodied in various articles of manufacture, such as toys, composition figures, etc., or as an ornamentation for any article of manufacture" and claimed it "for articles of manufacture as shown and described," *Held* that the words "or as an ornamentation for any article of manufacture" must be eliminated as either surplusage or misleading and that the claim be amended to read *an article*, etc., or *a manufactured figure*, etc., to remove the indefiniteness.

ON PETITION.

DESIGN FOR AN ARTICLE OF MANUFACTURE.

Mr. Lewis J. Doolittle for the applicant.

CLAY, *Assistant Commissioner:*

This case comes up by petition for a ruling on questions of proper form of design patents. It was first, improperly, appealed to the Board; but no issue except a question of law is raised.

The Examiner in terms "rejected the claim," which is worded:

The ornamental design for articles of manufacture as shown and described.

His statement, however, shows that the basis of objection was the applicant's specification elsewhere that the design—

was adapted to be embodied in various articles of manufacture, such as toys, composition figures, etc., or as an ornamentation for any article of manufacture,

which language, taken in connection with the indefinite wording of the claim itself, was held to constitute in effect an alternate claim for either a design embodied in any (indefinite) article or a mere surface ornamentation applied on any article. The case raises the difficult question how to set forth and claim an artistic design which is itself a self-contained character figure and has various obvious applications to useful purposes.

There must be a line drawn between embodied designs and mere picture designs, which are the result of authorship, notwithstanding there are court decisions apparently intimating that no such line can be drawn. (*De Jonge* v. *Breuker et al.*, 182 Fed. Rep., 150.) It is at least clear that a design patent may only be granted for a design embodied in a material article, since the act of invention is only completed by reduction to practice—that is, the making of a substantial physical *thing*, either actual or constructive. The application must therefore set forth at least one particular substantive article of manufacture. The design patent is not to protect the artist as such.

The design must be shown not only embodied, but with a complete embodiment, and show nothing but the applied design, without suggested modifications. (*Ex parte Adams*, 83 O. G., 1994; 1898, C. D., 109.) As to the appearance of the design, it is improper to describe that, because no amount of language can explain how a thing looks as well as the thing itself explains how it looks; but as to its use it would seem to be not only proper, but necessary, to explain the use, because without use the design is not in the useful arts and is not patentable. The claim should be simply for the design shown, because this is at the same time the broadest possible claim and the narrowest possible claim. There are no degrees of claim for a design. A design is of necessity unitary. The court must decide whether a patented design as a whole is or is not imitated by another design as a whole.

Some court opinions, as in *Ashley* v. *Tatum*, (186 Fed. Rep., 339,) seem to intimate that the patentee

ought to explain the limitations of his invention, while others—such as in *Graff et al.* v. *Webster et al.* (189 Fed. Rep., 902, and 195 Fed. Rep., 522)—show that the court will even consider the drawing as setting forth alternate constructions not described, as that the design in the Graff patent, No. 40,009, of May 25, 1909, for a "border section," is the same whether certain spaces therein are open work or not, and although the border is a mere part of an article not shown or described. The applicant objects to limiting himself to any particular use of his design and cites the case of *ex parte Fulda*, (194 O. G., 549; 1913, C. D., 206,) wherein Mr. Commissioner Moore held in effect that a surface ornamentation applicable to some indefinite article of manufacture was patentable, apparently considering that its application to various articles of manufacture was obvious. He explained his reasons for believing that the present law does not preclude patents for ornamentations, to be applied to any article of manufacture, without specifying what. This decision ought not to be construed to mean that a patent may be granted for a mere picture design *per se*, because a further consideration of the history of the law will show that Congress did not intend patents to be granted on mere artistic productions not being applied and having a useful function in the commercial arts in some way. It may well be doubted, notwithstanding the reasoning in this case, whether any design patent would be valid which set forth merely an ornate figure not adapted to some article of manufacture in such a way as to increase the utility of that article by giving it a pleasing appearance. Section 4929 of the statute, even as worded prior to May 9, 1902, undoubtedly limits design patents to designs actually embodied or applied to specific articles of manufacture. Probably it contemplates that the invention resides at least partly in the very act of adaptation to the article.

Since the reasoning in *ex parte Fulda* cannot be followed to the point urged by the applicant, it is appropriate to examine briefly the development of the statute. Unless the word "device" found in the original act of 1790 was intended to apply to designs there was no provision for patenting design inventions until the sixth substantive law, of 1842. Here we have the requirement that designs be "new and original" as to all classes—manufactured article, print on fabric, impression or ornament on a manufactured article, or configuration itself—except a—

pattern or print or picture, to be either worked into or worked on, or printed or painted or cast or otherwise *fixed on*, any article of manufacture,

which must be "new and *useful*," not "original." Apparently there was a distinction between a design for printing fabrics and a pattern, print, or picture to be fixed on an article, which latter was to be "useful," but not necessarily "original." In this connection we must note the language "invented *or produced*" and that a "design" is made the equivalent of an ornament and of a picture, but provided the picture is "useful" when fixed on an article. In the consolidated act of 1870 the requirement of *usefulness* was shifted from the pattern, print, or picture to be fixed on an article to the configuration, and all classes, designs, ornaments, pictures, and configurations were to be *original*. (Sec. 71.)

As the statute was amended June 22, 1874, (sec. 4929,) the expression "invented *or* produced" is changed to "invented *and* produced." Designs, ornaments, pictures, and configurations are all required to be original, as well as new; but the configuration alone is required to be "useful."

The act of February 4, 1887, seems, however, not only to include all these classes as designs, since it does not mention ornaments, pictures, or configurations, but it provides that infringement consists alone in the application of the design to an article of manufacture.

This section, 4929, of the law was radically altered by the act of May 9, 1902, by which the design was to be "invented" simply, all classes were simply "designs for an article," and the designs were to be new, original, *and ornamental* and not "useful" in any case. This law was enacted at the request of the Commissioner of Patents, and mainly to settle the controversies in the courts about the meaning of "useful" as applied to configurations or shapes and making it clear that the utility of a design, while necessary in order to bring it within the "useful arts," did in fact reside in its being ornamental. The Commissioner had used the word "artistic," but the Senate substituted "ornamental." A secondary object was to omit the abortive attempt to enumerate the kinds of applied designs. Congress thus avoids a construction of the law, as in *Lehnbeuter* v. *Holthaus*, (105 U. S., 94,) where it was held sufficient that certain classes of design were new and useful and makes clear the propriety of Judge Brown's distinction (148 U. S., 679) between a mechanical invention, which must involve novelty and utility, and the design invention, which must disclose originality and beauty. This distinction must be always regarded, (*Rowe* v. *Blodgett*, 112 Fed. Rep., 61;) but it must be also remembered that Congress has all along regarded ornament as itself necessarily useful when applied to articles of manufacture and always contemplated patenting only the applied or embodied design.

It is clear, therefore, that design patents may be granted only for embodied designs—*i. e.*, things having both the attributes of attractive appearance and of utility in commerce, the appearance having the function of enhancing the value of a useful article.

The design invention thus occupies a position intermediate between the mechanical invention, having a purely utilitarian function, and the art product of authorship, having a purely esthetic function. Like the former, the applied design must have a purpose and utility in commerce; but, like the latter, it must have esthetic qualities, its very utility resulting from the fact that its appearance adds attractiveness, and hence commercial value, to the article embodying it.

The applicant is to patent an invention—but what invention? In the case before us what the author

or authors "invented," in the broad sense which obviously includes authorship, is the whimsical character "Peter Rabbit," just as Dickens invented *Mr. Micawber*. This is an inchoate thing. Described in words or drawn as a picture, the idea is reduced to concrete form and is to be protected by copyright only. Further reduced to physical shape, it becomes in the narrower sense of the patent law an invention—that is, the physical thing a figure of Peter Rabbit, being a dressed-up figure of a fat young rabbit in upright posture and having what the children would call a "cute" expression and attitude; but it must further be reduced to practice. It may obviously be embodied in a doll or a cut-out dinner-card, or a bean-bag, or a paper-weight, etc. The drawing, in fact, shows any one of these, as well as any other. While the statute requires the applicant to specify some one particular article of manufacture to which he *has* applied the design, it seemingly cannot be required that his patent be limited to any one article. It is for the court to decide what other articles, having this figure embodied in them, infringe the patent. The applicant may, if he chooses, claim the design for an ornamental figure.

It would seem from the act of February 4, 1887, read literally, that if the applicant patents the figure as a design for a dinner-card, no other person could lawfully "apply" the figure to a doll. No decided case has been found to guide us on this point, and until some court has definitely spoken it will be safer and, I think, more proper for the applicant to state in his specification that his design is to be used as the figure of an enumerated number of articles of commerce. He may not of course say anything to intimate that he has patented the picture of Peter Rabbit *per se*, as for a tailpiece to adorn a book, for that is purely the work of an artist author and is not patentable.

The applicant will be required to revise his specification by leaving out the words "or as an ornamentation for any article of manufacture," because this is either surplusage or else it intimates that the picture may be used as a mere artistic production for illustrating. The claim as it stands is rejected because indefinite; it should be amended to read—

The ornamental design for an article of manufacture as shown and described.

or—

The ornamental design for a manufactured figure as shown and described.

To this extent the petition is granted and the Examiner so instructed.

EX PARTE CADY.

Decided October 24, 1916.

1. DESIGN PATENTS—SCOPE OF THE INVENTION.
   When the applicant has shown the design applied to one article, he has fulfilled the requirements of reducing the invention to practice, and he may state other articles to which the design is to be applied, if, and only if, the mode and effect of such application have been rendered obvious by the example given.
2. SAME—SAME—EX PARTE FULDA OVERRULED.
   In so far as it was held in *ex parte Fulda* (194 O. G., 549) that an applicant need not specify any particular article to which the design has been applied, that decision overruled.

ON PETITION.

DESIGN FOR AN ARTICLE OF MANUFACTURE.

Mr. Lewis J. Doolittle for the applicant.

CLAY, *Assistant Commissioner:*

The applicant has made an amendment since the decision herein rendered August 28, 1916, and being unable to agree with the Examiner now petitions for directions on the proper form of the specification, supplementing said previous decision.

The applicant insists upon setting forth in his specification that his rabbit design may be applied to a bedquilt, a handkerchief, etc. In an extended oral argument the applicant's point appears to be a desire to show by the specification that the design is not intended to be limited to a figure in three dimensions. I think he has the right to so say; but the brief appears to be still contending that the design patent may cover any possible embodiment of the picture of the design. If it could do so, there would be no difference between patenting the design and patenting a mere picture. A disembodied design or mere picture is not the subject of patent, and it follows that the specification must not so indicate.

It appears to be very difficult to steer a middle course between the extreme views of those who consider that a disembodied design is patentable and the Examiner's sometimes too strict interpretation that the design patent is for the article itself to which the design is applied. Both views are erroneous. The invention is not the article and is not the design *per se*, but is the design *applied*. When the applicant has shown the design applied to one article, he has fulfilled the requirement of reducing the invention to practice, and he may state other articles to which the design is to be applied, if, and only if, the mode and effect of such application have been rendered obvious by the example given.

In my former decision herein I followed the ruling in *ex parte Fulda* (194 O. G., 549) to the extent of holding that an applicant for a design patent may not be limited to any one specific article if his design is obviously applicable to other articles; but in so far as the Fulda case held that the applicant need not specify any particular article to which the design had been applied that decision was overruled. In the reading of the design statute we must guard against reading the words "design *for*" therein as if they meant the same as "design *of*," since frequently in the older laws we find the expressions "design *to be* applied" or "design *to be* placed on" an article. In *ex parte Andrews*, decided of even date herewith, I have explained also why the word *an* in the expression "design for an article" cannot necessarily mean a singular and particular article, but must in many cases refer to a generic article—as, for example, a design for a dish would cover not only the particular dish shown, but all dishes to which the design is obviously applicable with the same effect as in the specific case shown, and by obviously applicable is meant that it is clear without further explanation

or illustration just how the article will look with the design applied to it.

The Examiner is right in his ruling that it is not obvious how the design presented is the design for a bedquilt or handkerchief. It does not present to the reader's mind the appearance of the bedquilt or the handkerchief. Applicant's object of showing that the design is not confined to articles in three dimensions would be attained by specifying that it is applicable to a child's dinner-card, as heretofore suggested. I do not regard it as appropriate to suggest the form of the specification any further than above stated and to further recommend the Examiner to permit a statement that the design is applicable to other articles, naming different articles the applicant can name to which the design is obviously applicable in the sense above stated.

The petition is granted to this extent.

ADJUDICATED PATENTS.

(U. S. D. C.) The Gregory patent, No. 848,301, for imitation gold-leaf, claim 2 *Held* not anticipated and valid, but not infringed. *Oriental Tissue Co.* v. *Louis De Jonge & Co.*, 235 Fed. Rep., 294.

(U. S. C. C. A.) The Porter patent, No. 719,865, for a seal for money-bags, &c., *Held* void for lack of patentable novelty. *Porter Safety Seal Co.* v. *E. J. Brooks & Co.*, 235 Fed. Rep., 289.

(U. S. C. C. A.) The Thropp patent, No. 822,561, for apparatus for manufacturing wheel tires, *Held* void for anticipation. *De Laski & Thropp Circular Woven Tire Co.* v. *United States Tire Co.*, 235 Fed. Rep., 290.

(U. S. D. C.) The Wirtalla patent, No. 729,477, for a loom heddle-frame, *Held* void for lack of invention, and also not infringed. *Wirtalla* v. *Hall*, 235 Fed. Rep., 306.

Report of the Consul-General at Hankow, China, Relating to the Registration of Patents.

DEPARTMENT OF STATE,
Washington, D. C., November 1, 1916.

The Secretary of State presents his compliments to the Honorable The Secretary of the Interior, and has the honor to inclose as of interest a copy of a despatch from the American Consul-General at Hankow, China, reporting on the subject of the registration of patents in his office.

1 inclosure: From Hankow, No. 194, September 21, 1916.
893.54/337.

No. 194.

AMERICAN CONSULATE-GENERAL,
Hankow, China, September 21, 1916.

SUBJECT: REGISTRATION OF PATENTS.

The Honorable The Secretary of State, Washington.

SIR: I have the honor to call your attention to the question of the registration of patents in this office.

Recently various requests for registration of patents and the securing from the Chinese authorities of proper protection against imitation of inventions in this district have been received from American citizens and concerns, who stated that they were advised by the Department to adopt this procedure. Article X of the treaty of 1904 between China and America is the only treaty provision dealing with patents, and reads as follows:

"The United States Government allows subjects of China to patent their inventions in the United States and protects them in the use and ownership of such patents. The Government of China now agrees that it will establish a Patent Office. After this office has been established and special laws with regard to inventions have been adopted it will thereupon, after the payment of the prescribed fees, issue certificates of protection, valid for a fixed term of years, to citizens of the United States on all their patents issued by the United States, in respect of articles the sale of which is lawful in China, which do not infringe on previous inventions of Chinese subjects, in the same manner as patents are to be issued to subjects of China."

It will be noted that no specific provision is made for issuance of proclamations protecting patent rights pending the establishment of a Patent Office, and the Chinese authorities have constantly refused to go further than the letter of the treaty in the cases which have arisen. Attempts have been made to induce them to construe this article in what must have been the spirit of the treaty, which obviously intended that the Patent Office should be established soon after its ratification, and inasmuch as twelve years have elapsed without appropriate action it might justly be expected that the Government authorities should give temporary protection by proclamation. Such attempts have not been successful, and only recently a despatch has been received from the Commissioner of Foreign Affairs which contains the following passage:

"In regard to the payment of fees on registration of patents and issuance of license for protection therefor, the company must wait until the Chinese Patent Office is established and patent laws drawn up, in accordance with the treaties. Recently, directions, in response to this office's report, were received from boards ordering that in accordance with precedents only trade-marks are possibly to be protected."

In view of all the circumstances, I am of the opinion that it is not advisable that Americans should be directed to register their patents in this office. Insurance against imitation on the part of the Chinese cannot be secured at present, and any other protection that might be afforded would be too insignificant and uncertain to make it worth the expense to the party concerned and the extra labor entailed on the staff of the office.

It should be emphasized that this question of patents is distinct from that of trade-marks. This office has, on several occasions, induced the local authorities to issue proclamations protecting trade-marks, as American rights in this matter are covered by Article IX of the treaty mentioned above, and indications are that there will be no difficulty in future cases of this nature.

I have the honor to be, sir, your obedient servant,
(Signed) EDWIN S. CUNNINGHAM,
Consul-General.

854. WSH—Y.
(A copy has been sent to the Legation at Peking.)

In re Foreign Patents, Trade-Marks, Etc.—Taxes, Fees, Etc.

[Translation.]

BUREAU INTERNATIONAL, ETC. CIRCULAR NO. 175/1190. SUBJECT: GERMANY, AUSTRIA, GREAT BRITAIN, HUNGARY, AND PORTUGAL. MEASURES RELATING TO THE PRESENT STATE OF WAR.

BERNE, *December 12, 1915.*

To the Offices of Industrial Property of the Countries of the Union.

GENTLEMEN: We have the honor to bring to your knowledge the following measures which relate to the present state of war:

* * * * *

AUSTRIA.

I. Ordinance of the Minister of Public Works establishing exceptional provisions, by reason of the state of war, with regard to the terms of priority fixed by the Convention of the Union of Paris for the Protection of Industrial Property.

(No. 349 of December 1, 1915.)

By virtue of the Imperial ordinance of August 29, 1914, (*Reichsgesetz-Blatt*, No. 227,) concerning the effects of the state of war on the time limits, forfeitures, and procedures, it is hereby ordered as follows:

SECTION 1. (1) The terms of priority provided with regard to filing in the matter of patents, designs, and trade-marks by article 4 of the Convention of the Union of Paris of March 20, 1883, revised at Brussels December 14, 1900, and at Washington June 2, 1911, are hereby extended, in so far as they had not expired prior to July 26, 1914, until the expiration of three months after a date to be fixed by a future ordinance.

(2) This provision shall be applicable in favor of subjects of other countries belonging to the International Union for the Protection of Industrial Property only if such countries grant to Austrian subjects an extension of the terms of priority. If, however, one of said countries accords this privilege to Austrian citizens to a less wide extent than provided for in paragraph 1, the same restriction shall apply to the subjects of such country.

(3) A notice published in the *Reichsgesetz-Blatt* shall specify to what extent the terms of priority are prolonged in Austria in favor of subjects of other countries in conformity with paragraph 2.

SEC. 2. (1) When an applicant shall have been prevented by the state of war from observing the terms of priority provided with regard to filing in the matter of patents, designs, and trade-marks by article 4 of the Convention of the Union of Paris of March 20, 1883, revised at Brussels December 14, 1900, and at Washington June 2, 1911, he shall, upon his request, be restored to the former status. This shall apply also to the time limits which had expired before the present ordinance goes into force.

(2) The effect of the restoration to the former status shall be that the filing is to be considered as having been effected during the term of priority.

(3) The petition for restoration shall be presented within the three months following the disappearance of the obstacle, or, if the obstacle disappears prior to the date of the notice provided for in paragraph 6, then within the three months following such date. The petition for restoration shall, however, in all cases, be formulated not later than within three months after the date to be fixed by a future ordinance. The filing shall be effected at the same time that the petition for restoration is presented.

(4) The petition for restoration pertains to the section of applications of the Patent Office in the case of an application for patent; and in case of the filing of a design or trade-mark, it pertains to the Minister of Public Works, to whom the Chamber of Commerce and Industry shall submit the petition which must be filed with the latter.

(5) These provisions shall apply in favor of subjects of other countries belonging to the International Union for the Protection of Industrial Property in so far as acts of filing are concerned for which, according to a notice published in the *Reichsgesetz-Blatt*, like advantages are accorded in such countries to Austrian subjects.

SEC. 3. Unless an applicant establishes the fact that he is of another nationality insuring him more favorable treatment, he shall be considered to be a subject of the country in the territory of which his domicile or place of business is located.

SEC. 4. This ordinance shall go into force on the day on which it shall be published, (published in the *Reichsgesetz-Blatt*, No. 879, of December 3, 1915.)

TRNKA. (M. P.)

* * * * *

V. Ordinance of the Minister of Public Works supplementing the ordinance of September 2, 1914, No. 233, which extends the time limits for the production of documents establishing the right of priority in the matter of patents, designs, and trade-marks.

(No. 353 of December 1, 1915.)

By virtue of the Imperial ordinance of August 29, 1914, (*Reichsgesetz-Blatt*, No. 227,) concerning the effects of the state of war on time limits, forfeitures, and procedures, it is hereby decreed, until further notice, as follows:

SEC. 1. The ordinance of September 2, 1914, (*Reichsgesetz-Blatt*, No. 233, see *Prop. Ind.*, 1914, p. 140,) is supplemented by the following provisions:

"When an applicant shall have been prevented by the state of war from producing within the time specified the documents establishing his right of priority for an application for patent, he shall, upon his petition, be restored to the former status. This applies also to time limits which had expired before this ordinance goes into force.

"The effect of the restoration to the former status shall be that the documents establishing the right of priority shall be considered as having been produced in time.

"The petition for restoration, which shall be accompanied by the documents establishing the right of priority, shall be presented before the final conclusion of the proceedings for issue.

"The petition for restoration pertains to the section of the Patent Office in which the proceedings for issue are pending."

SEC. 2. This ordinance shall go into force on the day of the publication of the same.

TRNKA. (M. P.)

[Translation from La Propriété Industrielle, April 30, 1916, p. 41.]

MEASURES ADOPTED BY REASON OF THE PRESENT STATE OF WAR.

GERMANY.

I. Ordinance concerning the extension of the terms of priority.

(Of April 8, 1916.)

By virtue of section 3 of the law of August 4, 1914, authorizing the Federal Council to adopt measures of an economic order, etc., (*Reichsgesetzblatt*, p. 327,) the Federal Council has ordained as follows:

In the first paragraph of section 1 of the ordinance of May 7, 1915,* (*Reichsgesetzblatt*, p. 272—see *Prop. Ind.*, 1915, p. 53,) concerning the extension of the terms of priority provided in article 4 of the Convention of Paris, revised June 2, 1911, for the Protection of Industrial Property, the words "but at the latest to June 30, 1916," are canceled.

This ordinance shall go into force from the date of its publication (published April 11, 1916.)

Berlin, April 8, 1916. DE JONQUIÈRES,
By order of the Imperial Chancelor.

II. Notice according facilities in the matter of patents, utility models, and trade-marks.

(Of April 13, 1916.)

By virtue of section 3 of the law of August 4, 1914, authorizing the Federal Council to adopt measures of an economic order, etc., (*Reichsgesetzblatt*, p. 327,) the Federal Council has ordained as follows:

SECTION 1. In section 2 of the ordinance concerning temporary facilities accorded in the matter of patents, utility models and trade-marks, of September 10, 1914, (*Reichsgesetzblatt*, p. 403—see *Prop. Ind.*, 1914, p. 138,) the second sentence is canceled, and to said section is added a second paragraph of the following tenor:

"Reinstatement must be applied for within two months after the removal of the obstacle. The Imperial Chancelor shall fix the date from and after which the application for reinstatement shall no longer be accepted. In other respects the provisions of section 236 *et seq.* of the code of civil procedure shall be applicable by analogy."

SEC. 2. The publication of the application for patent may, upon the expiration of the time limit fixed by the first paragraph of section 4 of the ordinance concerning additional facilities accorded in the matter of patents and utility models, of March 31, 1915, (*Reichsgesetzblatt*, p. 212—see *Prop. Ind.*, 1915, p. 37,) be deferred for a further period. The Imperial Chancelor shall fix the date to which such deferment may extend.

SEC. 3. This ordinance shall go into force on the day of its publication, (published April 14, 1916.) The Imperial Chancelor shall fix the date when it shall cease to be effective.

Berlin, April 13, 1916. DELBRÜCK,
Acting for the Imperial Chancelor.

Notice—Attorneys.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 2, 1916.

This Office has been advised by the Secretary of the Interior of the disbarment of the following attorneys from practice before the Department or any Bureau thereof: John McDowell, Gold Butte, Montana, March 7, 1916; David N. Kennedy, Quincy, Illinois, May 6, 1916; John W. Peebles, Marion, Illinois, May 6, 1916; Charles H. Hesse, Baltimore, Maryland, May 17, 1916; Armstrong Purdee, Marianna, Florida, June 28, 1916; Samuel R. Williams, Eugene, Oregon, October 13, 1916.

THOMAS EWING,
Commissioner of Patents.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 2, 1916.

This Office has been advised by the Secretary of the Interior that the names of the following persons have been stricken from the rolls of attorneys admitted to practice before this Department and the Bureaus thereof: William Maloney, Williston, North Dakota, June 16, 1916; William E. Ambrose, Washington, D. C., October 28, 1916; David Rothschild, Washington, D. C., October 28, 1916.

THOMAS EWING,
Commissioner of Patents.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 2, 1916.

This Office has been advised by the Secretary of the Interior that on January 11, 1916, Herbert A. David, of Carlinville, Illinois, was suspended from practice before the Department and its Bureaus and Offices until further orders.

THOMAS EWING,
Commissioner of Patents.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 2, 1916.

This Office has been advised by the Secretary of the Interior of the restoration to practice before the Depart-

* Published in OFFICIAL GAZETTE June 15, 1915; 215 O. G., 979.

ment and its Bureaus of the following attorneys: Vernon A. Williams, Lemmon, South Dakota, April 8, 1916; Thaddeus W. Wheeler, Dayton, Ohio, May 17, 1916; Hugo F. Bungardt, Kansas City, Missouri, August 14, 1916.

THOMAS EWING,
Commissioner of Patents.

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 21, 1916.

Advanced Beet Sugar Construction Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Sherer-Gillett Company, 1705 South Clark street, Chicago, Ill., for registration of a trade-mark and trade-mark registered January 9, 1900, No. 34,024, to the Advanced Beet Sugar Construction Company, of No. 1133 Broadway, New York, N. Y., and a notice of such declaration sent by registered mail to the said Advanced Beet Sugar Construction Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Advanced Beet Sugar Construction Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1916.

The Hughes Anti-Friction Company, its assigns or legal representatives, take notice:

A cancelation proceeding having been instituted by this Office upon the application of The Ironsides Company, of Columbus, Ohio, to effect the cancelation of the trade-mark registration of The Hughes Anti-Friction Company, of Boston, Mass., No. 44,340, dated March 21, 1905, and the notice of such proceeding sent by registered mail to the said The Hughes Anti-Friction Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said The Hughes Anti-Friction Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 232—No. 3. TUESDAY, NOVEMBER 21, 1916. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF NOVEMBER 21, 1916	625
IMPORTANT INFORMATION	625
APPLICATIONS UNDER EXAMINATION	626
PATENTS GRANTED	627
REISSUES	906
DESIGNS	907
TRADE-MARKS—REGISTRATION APPLIED FOR	913
TRADE-MARK REGISTRATIONS GRANTED	931
TRADE-MARK REGISTRATIONS RENEWED	932
LABELS AND PRINTS	933
COMMISSIONER'S DECISIONS—	
Litle, Jr., v. Armstrong	935
Litle, Jr., v. Armstrong	938
DECISION OF THE EXAMINERS-IN-CHIEF—	
Ex parte Cutler	939
ADJUDICATED PATENTS	939
DISCLAIMER	939
NOTICE OF CANCELATION	940

ISSUE OF NOVEMBER 21, 1916.

Patents	816—	No.	1,205,139 to No.	1,205,954, inclusive.
Designs	28—	No.	49,915 to No.	49,942, inclusive.
Trade-Marks	32—	No.	114,052 to No.	114,083, inclusive.
Labels	3—	No.	19,747 to No.	19,749, inclusive.
Prints	3—	No.	4,567 to No.	4,569, inclusive.
Reissues	2—	No.	14,216 to No.	14,217, inclusive.
Total	884			

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	4	.....	North Carolina	3	.....
Arizona	4	.....	North Dakota	4	.....
Arkansas	1	1	Ohio	56	2
California	40	.....	Oklahoma	5	.....
Colorado	6	.....	Oregon	14	.....
Connecticut	13	.....	Pennsylvania	64	2
Delaware	2	.....	Rhode Island	5	1
Florida	1	.....	South Carolina	4	.....
Georgia	3	1	South Dakota	2	.....
Idaho	2	.....	Tennessee	4	.....
Illinois	89	2	Texas	12	.....
Indiana	13	.....	Utah	2	.....
Iowa	16	1	Vermont	1	.....
Kansas	9	.....	Virginia	14	1
Kentucky	7	.....	Washington	16	1
Louisiana	2	.....	West Virginia	5	.....
Maine	2	.....	Wisconsin	14	2
Maryland	3	2	Wyoming	.....	.....
Massachusetts	51	3			
Michigan	26	1	Alaska, District of	1	.....
Minnesota	11	.....	Canal Zone	.....	.....
Mississippi	1	.....	District of Columbia	9	.....
Missouri	18	2	Hawaii Territory	2	.....
Montana	4	.....	Philippine Islands	.....	.....
Nebraska	13	.....	Porto Rico	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	2	.....	U. S. Navy	1	.....
New Jersey	36	1			
New Mexico	1	.....	Total to residents of the United States	761	38
New York	143	15			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	7	.....	Netherlands	1	.....
Belgium	1	.....	New South Wales	.....	.....
British India	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	1	.....
Canada	11	.....	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	1	.....
Denmark	.....	.....	South Australia	.....	.....
England	11	.....	Spain	.....	.....
Finland	.....	.....	Sweden	6	.....
France	6	.....	Switzerland	3	.....
Germany	27	.....	Tunis	.....	.....
Greece	.....	.....	Victoria	2	.....
India	.....	.....	Western Australia	.....	.....
Ireland	2	.....			
Italy	.....	.....	Total to residents of foreign countries	79	.....
Japan	.....	.....			
Mexico	.....	.....			

Important Information.

In ordering manuscript copies much time will be saved if the order states specifically what is desired, viz:

Application as originally filed. (Petition, specification, oath, and drawings as received.) Application as amended. (Petition, specification, oath, and drawings with amendments entered.)

Application as allowed. (Petition, specification, oath, and drawings as passed by the Examiner for issue.)

Original application. (Facsimile petition, specification, oath, and drawings at present time.)

Specification as originally filed. (As received in Office.)

Specification as amended. (With amendments entered.)

Specification as allowed. (As passed by the Examiner for issue.)

Original specification. (Facsimile at present time.)

File-wrapper. (File-wrapper only.)

File-wrapper and contents. (File-wrapper, contents of record, including photoprints of any tracings or of prints within file-wrapper. In patented cases, printed copy of the specification and drawings of the patent is furnished.

File-wrapper, contents, and drawings. (File-wrapper and all of the contents of record, including photoprints of any tracings, exhibits, or prints within the file-wrapper. In pending cases, photoprints of the pending drawings only, omitting any canceled. If patented, copy of the specification and drawings of the patent being furnished, photoprints are not made of the original drawings unless specially ordered. If canceled drawings are wanted, they must also be specially ordered.)

Assignment. (Give the liber and page of the record as well as the name of the inventor.)

Printed publications in possession of the Office. (Give title and date of publication; also page and exact portion to be copied.)

Orders for copies of any other records not mentioned above must state specifically the exact paper to be copied.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 17, 1916.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications waiting action.
		New.	Amended	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 8	Sept. 12	403
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 1	Sept. 23	752
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Oct. 30	Nov. 3	55
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Devices; Railway Mail Delivery; Store-Service; Traversing Hoists.	Oct. 10	Oct. 26	206
167	5. Bookbinding; Harvesters; Jewelry; Music	June 16	Oct. 6	335
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Aug. 3	Oct. 31	203
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	July 24	Sept. 6	572
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 20	Aug. 3	1312
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps	May 20	July 27	552
235	10. Carriages and Wagons; Spring Devices	May 24	Sept. 20	858
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 25	Nov. 4	94
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements	July 27	Oct. 16	.....
329	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 2	Sept. 20	600
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 17	Oct. 5	286
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics	Oct. 18	Oct. 24	243
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	June 5	Aug. 4	565
303	17. Matrix-Making; Ornamentation; Paper Manufactures; Printing; Type-Bar Making	July 15	Oct. 23	197
327	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 9	Oct. 4	170
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	May 25	Aug. 15	448
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 1	Nov. 1	165
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Aug. 1	Oct. 11	366
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	June 8	Aug. 1	480
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	May 20	July 14	464
144	24. Apparel; Apparel Apparatus; Sewing-Machines	May 25	Sept. 8	394
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers. Gas Separation.	Sept. 14	Oct. 17	222
106	26. Electricity, Generation; Motive Power	Mar. 16	July 17	681
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Oct. 5	Oct. 19	222
65	28. Internal-Combustion Engines	June 21	Sept. 13	535
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 2	Sept. 12	382
182	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 5	Oct. 24	250
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	June 2	Sept. 1	354
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	May 1	Oct. 2	820
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 7	Sept. 21	388
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	May 4	July 20	354
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet	May 22	Nov. 9	470
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography	July 3	Oct. 16	267
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Apr. 12	Sept. 21	792
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Oct. 19	Oct. 20	172
221	39. Water Distribution	May 6	Oct. 4	361
220	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 26	Nov. 1	661
126	41. Railway Draft Appliances; Resilient Tires and Wheels	July 13	Oct. 5	815
244	42. Electricity, Conductors; Railway Signaling; Signals; Electricity-Transmission to Vehicles	Apr. 21	Sept. 1	549
362	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 2	Sept. 27	119

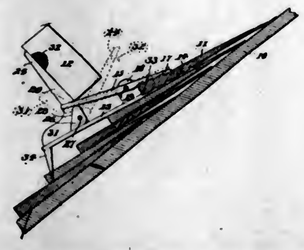
Oldest new case, Mar. 16: oldest amended, July 17.
Total number of applications awaiting action 13,797

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Oct. 14	Nov. 3	603
	Designs	Oct. 3	Oct. 16	207
	Labels and Prints	Nov. 7	Nov. 4	57

PATENTS

GRANTED NOVEMBER 21, 1916.

1,205,130. SHINGLING-BRACKET. FRANK A. ADAMS, Ilion, N. Y. Filed Apr. 20, 1916. Serial No. 92,367. (Cl. 20—86.)



1. A shingling bracket comprising a base plate having a forwardly arranged toothed portion, a post centrally carried by the said plate adjacent the toothed portion thereof, a lug upon the said plate centrally of the latter and rearwardly of the said post, an angular operating lever pivoted upon the said lug and having opposite triangular wedge projections, a movable jaw pivoted to the said post and having a bifurcated rear end, the bifurcations of which span the said lever and are arranged in abutting engagement with the said projections when the device is in its operative position.

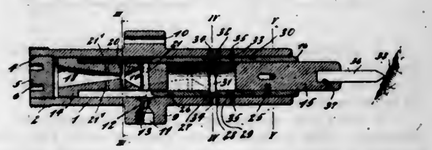
2. A shingling bracket comprising a base plate having a forwardly arranged toothed portion, a post centrally carried by the said plate adjacent the toothed portion thereof, a lug upon the said plate centrally of the latter and rearwardly of the said post, an angular operating lever pivoted upon the said lug and having opposite triangular wedge projections, a movable jaw pivoted to the said post and having a bifurcated rear end, the bifurcations of which span the said lever and are arranged in abutting engagement with the said projections when the device is in its operative position, the said lever having a heel at one end thereof in abutting engagement with the said plate when the device is operatively positioned and being further provided with an operating arm at its opposite end, a projecting spur carried by the said arm, the said movable jaw having teeth upon its inner face opposed to the forward end of the said plate.

3. A device of the class described comprising oppositely arranged brackets each consisting of a plate having a forwardly toothed shingle engaging portion, a movable jaw pivoted upon the said plate and having a toothed shingle engaging portion opposed to the toothed portion of the said plate and having a slotted rear end, an angular operating lever pivoted to the said plate with an operating arm shiftably arranged within the slot of the said jaw, oppositely positioned substantially triangular-shaped cam members carried by the said levers arranged in resilient contact beneath the free end of the said movable jaw when the device is operatively positioned, projecting spurs carried at an inclination upon the inner faces of the arms of the said brackets, and a scaffolding member arranged with the said prongs embedded therein and flatly engaging the said arms and lockingly engaging the said movable jaw opposite the points of engagement with the said cam members.

4. A scaffolding bracket comprising a plate having shingle engaging teeth at its forward end and a transverse shoulder spaced from the inner one of the said teeth, an upright post centrally carried by the said plate merging with the said shoulder, the said post and shoulder being positioned in abutting engagement with the free edge of a shingle when the device is operatively positioned, a shiftable jaw pivoted to the said post and having a rear notch, an operating lever upon the said plate shiftably arranged within the said notch and having opposite substantially triangular-shaped bearing projections beneath the said shiftable jaw at opposite sides of the notch thereof.

5. A scaffolding bracket comprising a plate having shingle engaging teeth at its forward end and a transverse shoulder spaced from the inner one of the said teeth, an upright post centrally carried by the said plate merging with the said shoulder, the said post and shoulder being positioned in abutting engagement with the free edge of a shingle when the device is operatively positioned, a shiftable jaw pivoted to the said post and having a rear notch, an operating lever upon the said plate shiftably arranged within the said notch and having opposite substantially triangular-shaped bearing projections beneath the said shiftable jaw at opposite sides f the notch thereof, the said lever having a plate engaging abutment foot at one end and an arm at its opposite end, a forwardly projecting prong upon the said arm, and a scaffolding beam overlying the said prong in flat engagement with the said arm having its lower portion seated upon the said jaw whereby the operating lever is restrained from being released during the operative position of the beam thereon.

1,205,140. FLUID-PRESSURE-OPERATED TOOL. OLIVER O. APP, New York, N. Y. Filed Oct. 8, 1910, Serial No. 585,925. Renewed Jan. 5, 1912. Serial No. 669,718. (Cl. 121—21.)



1. A fluid-pressure operated tool actuating implement, comprising a casing having an inlet and at least one exhaust port, a hammer adapted to be reciprocated by pressure-fluid passing through said inlet port, and a movable port-controlling member which co-acts with said exhaust port to close the same when the tool is removed from the work, said inlet port being normally open when said parts are so disposed and the pressure-fluid thereby admitted through said inlet port tending to hold said member in its port closing position.

2. A fluid-pressure operated implement comprising a casing having an inlet and at least one exhaust port, a hammer adapted to be reciprocated by pressure-fluid passing through said inlet port, a tool adapted to be operated by said hammer, a movable port controlling member which co-acts with said exhaust port to close the same when the tool is removed from the work, said inlet port being normally open when said parts are so disposed and the pressure fluid thereby admitted through said inlet port tending to hold said member in its port closing position, said tool being connected to said member, pressure upon the working portion of the tool in excess of that exerted by the pressure fluid upon the said member moving the latter to open the said port covered thereby.

3. A fluid-pressure operated tool actuating implement comprising a cylinder having an inlet and at least one exhaust port, a hammer adapted to be operated by pressure-fluid passing through said inlet port, a shell adapted

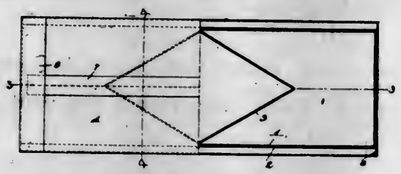
to co-act with said cylinder to close said exhaust port when the tool is removed from the work, said inlet port being normally open when said parts are so disposed and the pressure fluid thereby admitted through said inlet port tending to hold said shell in its port closing position.

4. A fluid-pressure operated mechanism comprising a casing, a hammer relatively movable to said casing by fluid-pressure, a tool operable by one of said parts, and a port-closing member for shutting off the flow of pressure-fluid through the mechanism, said member being adapted to close the exhaust from the mechanism while leaving the inlet or admission open, said member further being normally held by said fluid-pressure in exhaust-port closing position when the tool is removed from the work.

5. A fluid-pressure operated mechanism comprising a casing, a hammer relatively movable to said casing by fluid-pressure, a tool operable by one of said parts, one of said parts having means for successively reducing the flow of the pressure-fluid through said mechanism at intervals during the operation of the same, and a port-closing member for shutting off the flow of pressure-fluid through the mechanism, said member being adapted to close the exhaust from the mechanism while leaving the inlet or admission open, said member further being normally held by said fluid-pressure in exhaust-port closing position when the tool is removed from the work.

[Claims 6 to 14 not printed in the Gazette.]

1,205,141. CLOTH-REEL. ROBERT M. BAIRD, New York, N. Y., assignor of one-half to Frank H. Otis, New York, N. Y. Filed Nov. 8, 1915. Serial No. 60,255. (Cl. 206—50.)



1. A cloth reel comprising a rectangular paper box, a reinforcing strip within the box, said strip inclosing a portion of the interior of the box and engaging the box by its edges, and a surrounding flattened paper tube.

2. A cloth reel comprising a rectangular paper box, a reinforcing strip adjacent to the center thereof, said strip forming a lozenge outline with its edges engaging the box, and a surrounding flattened paper tube.

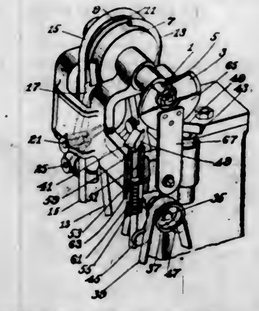
3. A cloth reel comprising a rectangular paper box, a surrounding flattened paper tube, said tube having curved edges, and flat end pieces located within the tube beyond the ends of the box, said end pieces also having curved extremities.

4. A cloth reel comprising a rectangular paper box and a flattened paper tube, said tube having a joint, a joining strip inside the joint, and a joint cover outside of the joint, said tube surrounding the box.

5. A cloth reel comprising a center member formed of a box body and a box top, each of rectangular shape, a reinforcing strip within the body, said strip forming a lozenge outline with its edges engaging the top and body, a flattened paper tube inclosing the center member and forming curved edges beyond the edges of the box member, end pieces having curved ends also located within the tube, and end covers inclosing the end pieces and connected to the tube.

1,205,142. MACHINE FOR OPERATING UPON THE HEELS OF BOOTS AND SHOES. WILLIAM RODERICK BARCLAY, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 5, 1914. Serial No. 860,392. (Cl. 51—17.)

1. A machine for operating upon the corner of a heel having, in combination, an operating tool, means for rotating said tool, a work rest movable to present the corner of a heel to said tool, and a single treadle operated member for throwing said rotating means into operation and for moving said rest to work presenting position.



2. A machine for operating upon the corners of a heel having, in combination, a tool, mechanism for rotating said tool, a work rest movable to present a corner of a heel to said tool, a manually operated member, and connections between said member, said rotating mechanism and said rest whereby movement of said member moves the work rest to present a corner to the tool and throws the rotating mechanism into operation.

3. A machine for operating upon the corners of a heel having, in combination, a tool, mechanism for rotating said tool, two work rests adapted to facilitate respectively presentation of the two corners of a heel to the tool, and a single treadle controlled member movement of which in one direction moves one work support into operative position and causes the rotation of the tool in one direction and movement of which in the other direction moves the other work support similarly and causes rotation of the tool in the opposite direction.

4. A machine for operating upon the corners of a heel having, in combination, an operating tool, means for rotating said tool in either direction at will, work rests located one on each side of said tool and movable selectively to present one corner or the other of a heel to one side or the other of said tool, and means dependent upon the work rest selected for movement for controlling the direction of rotation of said tool.

5. A machine of the class described having, in combination, a tool for operating upon the corners of a heel, two work rests each movable to present one corner of the heel to the tool, means for rotating said tool, and means for selectively moving said work rests.

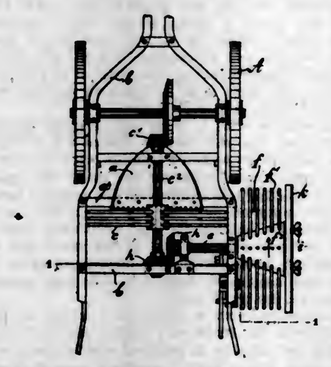
[Claims 6 to 8 not printed in the Gazette.]

1,205,143. POTATO-HARVESTING MACHINE. MARTIN DIEDRICH JAKOB GOTTLIEB BARDOWICK, Deinste, near Stade, Germany. Filed Sept. 30, 1916. Serial No. 123,010. (Cl. 55—56.)

1. In a potato harvesting machine, a rotatable digger arranged to rotate in a plane at right angles to the forward movement of the machine, and a delivery wheel journaled laterally to the digger and provided with rows of arms, and being so journaled that the arms move in a vertical plane at right angles to the plane of rotation of the digger.

2. In a potato harvesting machine, a rotatable digger arranged to rotate in a plane at right angles to the forward movement of the machine, and a delivery wheel journaled laterally to the digger and provided with rows of arms, and being so journaled that the arms move in a vertical plane at right angles to the plane of rotation of the digger, the rows of arms of the delivery wheel being of such length that the delivery wheel has the shape of a drum.

3. In a potato harvesting machine, a rotatable digger arranged to rotate in a plane at right angles to the forward movement of the machine, and a delivery wheel journaled laterally to the digger and provided with rows of arms, and being so journaled that the arms move in a vertical plane at right angles to the plane of rotation of the digger and a dash device attached to the delivery wheel.



4. In a potato harvesting machine, a rotatable digger arranged to rotate in a plane at right angles to the forward movement of the machine, and a delivery wheel journaled laterally to the digger and provided with rows of arms, and being so journaled that the arms move in a vertical plane at right angles to the plane of rotation of the digger and a dash screen attached to the delivery wheel.

5. In a potato harvesting machine, a rotatable digger arranged to rotate in a plane at right angles to the forward movement of the machine, and a delivery wheel journaled laterally to the digger and provided with rows of arms, and being so journaled that the arms move in a vertical plane at right angles to the plane of rotation of the digger, a dash screen and a dash plate attached to the delivery wheel.

1,205,144. METHOD FOR PRODUCING COMPOSITE TITANIC-OXID PRODUCTS. LOUIS E. BARTON, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Apr. 23, 1915. Serial No. 23,520. (Cl. 134—68.)

1. The method of treating a titanic sulfate solution, which comprises adding thereto a base which, by reaction with the sulfate in solution, produces a precipitate of sulfate particles, and heating the solution so as to produce a composite precipitate containing said particles and basic titanic sulfate.

2. The method of producing composite titanic oxid pigments from a titanic sulfate solution which comprises adding thereto sulfuric acid, adding also thereto a base capable of therein precipitating sulfate particles by reaction with the sulfate in solution, and heating the charge.

3. The method of treating a titanic sulfate solution which comprises adding thereto an alkali earth metal base, and then treating the solution so as to precipitate therein basic titanic sulfate.

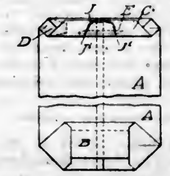
4. The method of producing composite titanic oxid pigments containing titanic oxid from a titanic sulfate solution which comprises adding thereto sulfuric acid, adding also thereto an alkali earth metal base and heating the charge.

5. The method of producing composite titanic oxid pigments from a titanic sulfate solution which comprises adding thereto calcium hydrate and heating the charge.

[Claims 6 to 15 not printed in the Gazette.]

1,205,145. BAG. ADELMER M. BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed Feb. 1, 1915. Serial No. 5,600. (Cl. 150—9.)

1. A valve bag provided with a handle at its valve end, said handle consisting of an inner portion, in line with the valve and pointed at one end, an outer portion and a connecting part which passes through the fabric of the bag.

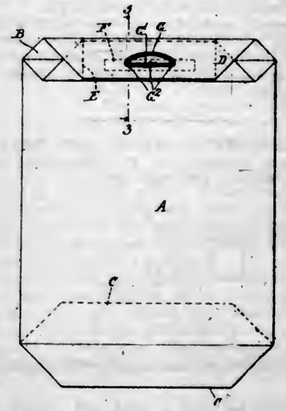


2. A valve bag having a handle at its valve end, said handle being made up of a hand engaging member and an inner anchoring member therefor located within the bag in line with the valve, said member being pointed at one end, said point being adjacent the one side of the member and adjacent the side wall of the bag to guide a filling tube as it enters through the valve gradually along one side of the member.

3. A valve bag having a handle at its valve end, said handle being made up of a hand engaging member and an inner anchoring member therefor located within the bag in line with the valve, said member being pointed at both ends, said points being adjacent the one side of the member and adjacent the side wall of the bag to guide a filling tube as it enters through the valve gradually along one side of the member.

4. A valve bag having a handle at its valve end, said handle consisting of an inner portion in line with the valve, a rigid handle piece outside of the bag, and a pivoted connection between them passing through the fabric of the bag.

1,205,146. VALVE-BAG. ADELMER M. BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed May 17, 1915. Serial No. 28,544. (Cl. 150—9.)



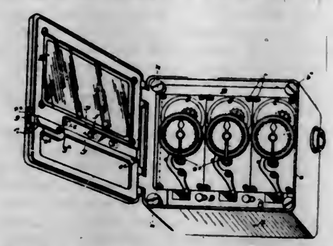
1. A handled bag consisting of a bag closed at both ends, but provided with a valve opening at one corner of one end, and a handle comprising a longitudinally extended inner portion in line with but at one side of the axis of the valve opening, a flexible exterior portion, and staples whereby the two portions are secured together through the fabric of the bag.

2. A handled bag consisting of a bag closed at both ends but provided with a valve opening at one corner of one end, and a handle comprising a longitudinally extended inner portion in line with but at one side of the axis of the valve opening, a flexible exterior portion in the form of a loop whose ends lie parallel with the inner por-

tion, and staples which pass through the fabric of the bag and secure the inner and outer handle portions together.

3. A bag provided with a valve opening, a handle substantially in line with said opening and parallel with the valve, a rigid interior portion located within the valve in line with said opening and parallel with the handle and extending through the entire length of the handle and means passing through the wall of the bag adjacent with the end of such rigid portion and the handle to hold them together.

1,205,147. TIME-LOCK. EDGAR M. BENHAM, Norwood, Ohio, assignor to The Nydia Bank Lock Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 15, 1916. Serial No. 97,569. (Cl. 70—26.)

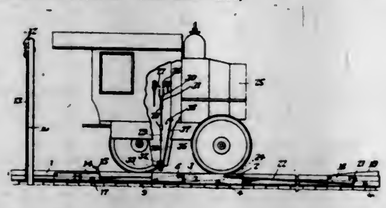


1. In time-lock mechanism, in combination with an inclosing general casing for the bolt controlling mechanism; a table or support telescopically arranged and spring-mounted; and an independent receptacle for a clock movement, telescopically arranged and spring-mounted within and upon the table or support, said table or support and independent receptacle being contained within said casing.

2. In time-lock mechanism, in combination with a containing casing, a table or support spring-mounted in and in relation to said casing; and a plurality of auxiliary tables or receptacles each independently spring-mounted upon and in relation to said first mentioned table or support and adapted to carry clock-movements.

3. In time-lock mechanism, in combination with a containing casing a removable spring-mounted table or support and a plurality of removable clock-movement-receptacles each spring-mounted upon and in relation to said table or support.

1,205,148. AUTOMATIC SIGNAL AND TRAIN-STOP. ADAM BLAIR, Brooklyn, N. Y. Filed Sept. 11, 1915. Serial No. 50,194. (Cl. 246—59.)



1. In combination with a track rail a ramp movably mounted adjacent the track rail, means for normally holding the ramp in an elevated position with relation to the track rail, a spring pressed hook movably mounted adjacent the track rail, means operatively connecting the hook with the ramp, a spring pressed valve operating mechanism carried by the stock which travels on the track rail and a breakable member attached to said valve operating mechanism and adapted to be engaged by the said hook when in an elevated position with relation to the track rail.

2. In combination with a track rail a ramp movably mounted adjacent the track rail, a spring for normally holding the ramp in an elevated position with relation to the track rail, a signal mounted adjacent the track rail, means operatively connecting the signal with the ramp, a hook movably mounted adjacent the track rail and operatively connected with the said means which connects the ramp with the signal, a spring pressed valve operating mechanism mounted upon the rolling stock which moves along the track rail, and a breakable element attached to said valve operating mechanism and adapted to encounter the hook when the same is in an elevated position with relation to the track rail.

3. In combination with a track rail a ramp movably mounted adjacent the rail, spring means for normally holding the ramp in an elevated position with relation to the rail, a signal located adjacent the track rail, means operatively connecting the signal with the ramp, a second ramp movably mounted adjacent the track rail, spring means for normally holding the last mentioned ramp in an elevated position with relation to the track rail and means connected with the second mentioned ramp for locking the first mentioned ramp in a depressed position with relation to the track rail.

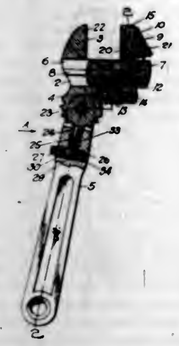
4. In combination with a track rail a ramp movably mounted adjacent the track rail, spring means for normally holding the ramp in an elevated position with relation to the track rail, a hook operatively connected with said ramp, a signal operatively connected with the ramp, a second ramp movably mounted adjacent the track rail, spring means for normally holding the second mentioned ramp at an elevated position with relation to the track rail, means operatively connected with the second mentioned ramp for holding the first mentioned ramp at a depressed position with relation to the track rail, a spring pressed valve operating mechanism carried by the rolling stock which moves along the track rail, and a breakable member attached to said valve operating mechanism and adapted to encounter the hook when the same is in an elevated position.

5. In combination with a track rail a ramp movably mounted adjacent the track rail, means for normally holding the ramp in an elevated position with relation to the track rail, a hook movably mounted adjacent the track rail, means operatively connecting the hook with said ramp, rolling stock mounted for movement along the track, a block pivotally mounted upon the rolling stock and having a recess, a spring pressed rod movably mounted upon the rolling stock and carrying a member adapted to engage controlling valves, and a breakable member connected with the rod and disposed transversely across the recess of the block and adapted to engage the hook when the said hook is in an elevated position with relation to the track rail.

1,205,149. WRENCH. RANSOM Y. BOYER, Chicago, Ill., assignor, by mesne assignments, to Imperial Tool Company, Bloomington, Ill. Filed June 19, 1913. Serial No. 774,575. (Cl. 81—59.)

1. In a wrench, a jaw-stock having a toothed disk, a handle pivotally connected with said stock and having a longitudinal recess and a transverse recess which are connected by a passage of reduced diameter, a pawl movable in the first-mentioned recess to engage the teeth on said disk and having a bevel-ended stem extending through said passage, a spring in the same recess to yieldingly hold the pawl in engagement with said teeth, a lock pin movable in the transverse recess and having a beveled face for the abutment of the beveled end of the pawl to hold the latter against longitudinal displacement, and a socket adapted to receive the said end of the pawl to permit the latter to move longitudinally in and out of engagement with the teeth of the disk during movement of the handle about its pivot, and a spring within the transverse recess to normally hold the lock pin in the position in which its beveled face engages the end of the pawl, the outer end of the said pin extending without the recess in which it is disposed to permit of its being pressed inwardly against the pressure of the respective spring to bring its socket in register with the end of the pawl.

2. In a wrench, a jaw stock having a disk provided with equidistant V-shaped teeth, a handle pivotally connected with the stock and having a longitudinal recess, a pawl in said recess, formed to fit the interdental spaces of the disk, a spring in the recess to yieldingly hold the pawl in engagement with the teeth on the disk, the said pawl being longitudinally movable for a ratchet movement of the handle in either direction, and a locking-device which normally holds said pawl against longitudinal displacement for the rigid connection of the handle and the stock and which is capable of releasing the same, when manually operated, to permit of a longitudinal movement of the pawl.

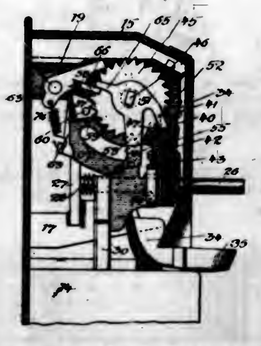


3. In a wrench, a jaw-stock having a disk provided with equidistant V-shaped teeth, a handle pivotally connected with the stock and having a longitudinal recess and a transverse recess, a pawl longitudinally movable in the first mentioned recess, formed to fit the interdental spaces of said disk, a lock pin movably disposed in the transverse recess, normally engaging said pawl to hold it against longitudinal displacement for the rigid connection of the handle and the stock, and capable of releasing the pawl by manual operation, and a spring holding said lock pin in its said normal position, the said lock-pin extending partially without the recess in which it is disposed, to permit of its being pressed inwardly against the action of the respective spring, to release the pawl.

4. In a wrench, a jaw stock having a toothed disk, a handle pivotally connected with said stock and having a longitudinal recess and a transverse recess which are connected by a passage of reduced diameter, a pawl movable in the first-mentioned recess to engage the teeth on said disk, and having a bevel-ended stem extending through said passage, a spring in the same recess to yieldingly hold the pawl in engagement with said teeth, a lock pin movable in the transverse recess and having a beveled face for the abutment of the beveled end of the pawl to hold the latter against longitudinal displacement, and a socket adapted to receive the said end of the pawl to permit the latter to move longitudinally in and out of engagement with the teeth of the disk during movement of the handle about its pivot, and a spring to normally hold the lock pin in the position in which its beveled face engages the end of the pawl, the outer end of the said pin extending without the recess in which it is disposed to permit of its being pressed inwardly against the pressure of the respective spring to bring its socket in register with the end of the pawl.

5. In a wrench, a jaw-stock having a toothed disk, a handle pivotally connected with said stock and having a longitudinal recess and a transverse recess, a pawl in the first-mentioned recess to engage the teeth on said disk and lock together the jaw-stock and handle, a spring engaging with the said pawl that normally tends to hold it in locking engagement with the jaw-stock, and a spring-controlled lock pin in the transverse recess, adapted to automatically lock said pawl in engagement with the teeth for the rigid connection of the stock and the handle and to release the same for adjustment of the handle with relation to the stock when pressed into the recess in which it is disposed.

1,205,150. COIN-COLLECTOR FOR TELEPHONE SYSTEMS. JOHN J. BROWNRIGG, HARRY HENDERSON, and ARTHUR E. CASE, Marion, Ind., assignors to Delta Electric Company, Marion, Ind., a Corporation of Indiana. Filed Jan. 26, 1914. Serial No. 814,588. (Cl. 194—74.)



1. In toll collecting apparatus for telephones, the combination of signaling means, a toothed wheel adapted to operate the signaling device by consecutive shifts in the same direction, coin-controlled means for rotating the wheel in one direction only, and means for constantly preventing rotation of the wheel in the opposite direction.

2. In a toll-collecting apparatus for telephones, the combination of a switch for controlling a signaling circuit, a toothed wheel for mechanically vibrating a member of said switch, said wheel being adapted to operate said member by consecutive shifts in the same direction, and means for constantly preventing rotation of the wheel in the opposite direction.

3. In toll collecting apparatus for telephones, the combination of a switch for controlling a signaling circuit, a toothed wheel for mechanically vibrating a member of said switch and having means to operate said member by consecutive shifts in the same direction, coin-controlled means for operating the wheel in one direction and means for constantly preventing rotation of the wheel in the opposite direction.

4. In a toll collecting apparatus for telephones, the combination of signaling means, coin-controlled mechanism for operating said signaling means, an escapement device for controlling the operation of the signaling means, comprising a dog and a shaft, and a fly-wheel connected to said shaft.

5. In toll collecting apparatus for telephones, the combination of signaling means, a wheel having teeth thereon to operate the signaling means by consecutive movements in one direction, a coin-shifter, mechanism operable by a coin in the shifter for operating said wheel in one direction, means for constantly locking the wheel against rotation in the reverse direction, and means for normally locking the wheel against rotation in the first mentioned direction, operable by the shifter.

[Claims 6 to 12 not printed in the Gazette.]

1,205,151. TOY. ROBERT BRUCE, Tacoma, Wash. Filed Feb. 29, 1916. Serial No. 81,232. (Cl. 46—40.)

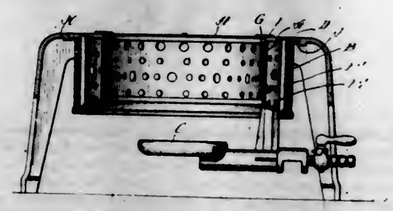
1. In a device of the class described, a vibratory support having a flattened end, a jointed figure having a body provided with sides, and a spacing member interposed between said sides and provided with a plurality of angularly arranged slots adapted to frictionally engage with the flattened end of said vibratory support.

2. In a device of the class described, the combination with a figure having a head and jointed legs in spaced relation, of side members, a spacing member provided with openings arranged between the side members to



provide recesses at the top and bottom thereof in which the head and legs may be pivoted, and a vibratory support removably engaged with the openings in the spacing member.

1,205,152. GAS-STOVE. AUGUST BAUBACH, Chicago, Ill. Filed Nov. 27, 1915. Serial No. 63,721. (Cl. 126—214.)



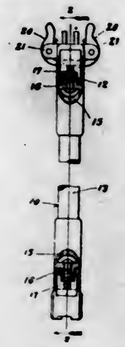
1. In a gas stove having a burner suitably supported, a cylindrical member disposed substantially concentric with and above said burner and constituting a flue, said member having concentric perforated walls and having its inner wall of greater diameter than the normal diameter of the flame delivered from said burner and an annular perforated support for a cooking utensil mounted directly upon the upper edges of said walls and closing the upper end of the space between the latter and a removable perforated cover for the central opening in said support.

2. In a gas stove having a burner suitably supported a cylindrical member disposed substantially concentric with and above said burner and constituting a flue, said member having concentric perforated walls and having its inner wall of greater diameter than the normal diameter of the flame delivered from said burner and a perforate annular support for a cooking utensil mounted upon the upper edges of said walls and substantially closing the upper end of the space between said walls, and a perforate removable cover for the central opening in said support.

3. In a gas stove having a burner suitably supported a cylindrical member disposed substantially concentric with and above said burner and constituting a flue, said member having concentric perforated walls and having its inner wall of greater diameter than the normal diameter of the flame delivered from said burner and an annular perforate support for a cooking utensil fixed upon the upper edges of said walls and substantially closing the space between same, and a bottom for said member consisting of an imperforate truncated upwardly and inwardly inclined cone.

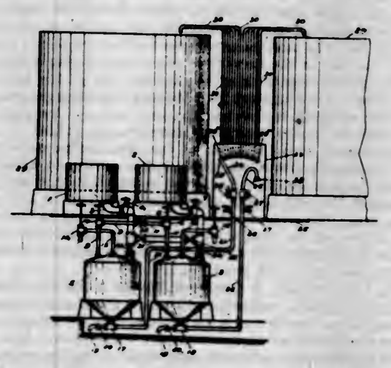
4. In a gas stove, a burner suitably supported, a heat distributing element above the burner comprising a cylindrical member having perforated side walls, open at its lower end, and arranged centrally above the burner and of larger diameter and constituting a flue, a concentric perforated wall spaced from the cylinder and providing an annular flue surrounding the cylindrical member, said annular flue closed at its lower end by an upward and inwardly coned plate joined to the outer wall and the lower end of the cylinder, said annular space closed at its upper end by a flat perforated plate removably closing the upper end of said cylinder.

1,205,153. LOCK FOR CATTLE-STANCHIONS. ROSWELL H. BUCKINGHAM, Moline, Ill., assignor to J. E. Porter Company, Ottawa, Ill., a Corporation of Illinois. Original application filed June 8, 1914. Serial No. 843,791. Divided and this application filed Apr. 5, 1915. Serial No. 19,144. (Cl. 119—149.)



A cattle-stanchion having two side members pivoted together at one end, one of said side members being provided at the opposite end with a locking member having laterally spaced walls, each of which is provided with an aperture, the other side member being provided with a locking tongue having locking notches and adapted to enter between said walls when said side members are closed together, a locking arm arranged exterior to and pivotally mounted on each of said walls, each arm being provided with a locking lug adapted to project into the space between said walls through said aperture and engage the locking notch in said tongue, and spring means acting against said arms for normally holding the same in locking position.

1,205,154. WATER-PURIFYING APPARATUS. OTTO BUNDINGSS, Birmingham, Ala. Filed Feb. 12, 1913. Serial No. 747,916. (Cl. 210—19.)



1. In a water distributing apparatus, two overhead tanks for the preparation of different chemicals, two pressure tanks, a valve controlled discharge pipe leading from each overhead tank to a pressure tank, a by-pass between said pipes, valves interposed in said pipes below said by-pass, means to admit fluid pressure to said pressure tanks which have conical bottoms having discharge openings, a valve controlled blow-off pipe leading from each pressure tank, valve controlled chemical discharge pipes leading from said discharge openings, a series of separate disconnected distributing pipes leading to separate points of use for the chemical, and means to directly connect each of said discharge pipes with any one of said distributing pipes and disconnect it from all the others, substantially as described.

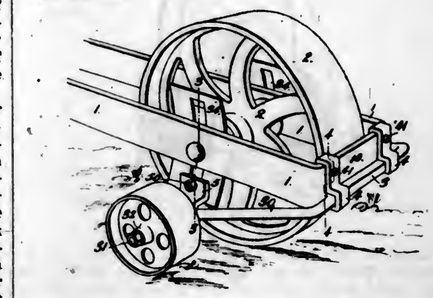
2. In a chemical distribution mechanism for water purifying apparatus, a plurality of separate water treatment tanks, an independent pipe line leading from a common point into each tank, said pipes being of uniform diameter and having their inlet ends juxtaposed, a plurality of chemical solution tanks, means to apply pressure to the chemical solution in said tanks, a separate valve controlled discharge pipe leading from each tank to a point adjacent to the inlet ends of said first mentioned pipes, and an adjustable pipe connection forming a direct continuation of substantially uniform diameter with each solution pipe and being adapted to connect with any one of said first mentioned pipes at a time, the connected pipe line or lines thus established being continuous and free of dead air spaces.

3. In a chemical distribution mechanism for water purifying apparatus, a plurality of separate water treatment tanks, an independent pipe line leading from a common point into each tank, said pipes being of uniform diameter and having their inlet ends juxtaposed, a plurality of chemical solution tanks, means to apply pressure to the chemical solution in said tanks, a separate valve controlled discharge pipe leading from each tank to a point adjacent to the inlet ends of said first mentioned pipes, and an adjustable pipe connection forming a direct continuation of substantially uniform diameter with each solution pipe and being adapted to connect with any one of said first mentioned pipes at a time, the connected pipe line or lines thus established being continuous and of uniform diameter and free of dead air spaces.

4. In a chemical distribution mechanism for water purifying apparatus, a plurality of water treatment tanks, a separate pipe line to each tank, a chemical solution tank, means to admit air pressure to said tank, a chemical discharge pipe leading from the bottom of the tank to a point adjacent to the inlet ends of said pipes leading to the treatment tanks, said chemical distribution pipe having a flexible portion of uniform diameter therewith and with the pipes leading to the water treatment tanks, said flexible portion being adapted to connect the chemical delivery pipe with any one of the pipes leading to the water treatment tanks to form a continuous uniform pipe line free of dead air spaces.

1,205,155. TRUCK ATTACHMENT FOR GRAIN-BINDERS. RICHARD W. BURNS, Perth, Kans., assignor of one-half to Sarah A. Garrity, Sumner county, Kans. Filed Aug. 31, 1915. Serial No. 48,303. (Cl. 21—213.)

1. The combination with a grain binder frame, the said frame including a front cross beam and side beams, a ground wheel mounted on said frame; of a yoke frame that comprises a cross bar adapted for fitting upon and to extend over the ends of the said front cross beam, and side members integral with the said cross bar, each of the said side members including a stub axle, a truck wheel on each of the said stub axles, the said stub axles being in transverse alinement with the ground wheel when the attachment is operatively connected to the binder frame, and means for removably securing the said cross bar of the yoke and the side arms of said yoke to the binder frame, said means including clips pendently supported from the cross bar of the frame, said clips having portions for embracing the cross bar of the yoke frame whereby to hold the said frame from vertival motion, clamp devices for securing the clips to the binder frame, and other means for securing the axle end portion of the side end members of the yoke frame against vertical motion, the said means including brackets having forked lower ends that straddle the stub axles and upper members for joining the frame.



2. In an attachment for grain binders, the combination with the ground wheel and the supporting frame therefor, the said frame including a cross beam located in front of the grounded wheel; of a yoke-like frame that includes a flat cross bar removably mounted on the front cross beam of the binder frame and whose ends extend beyond the ends of the said cross beam, side arms integral with the said cross bar that terminate in stub axles the said axles being in transverse alinement with the ground wheel axle, means for fixedly holding the cross bar and the stub axle ends of the yoke frame in a relatively rigid connection with the ground wheel frame and truck wheels on the said stub axles.

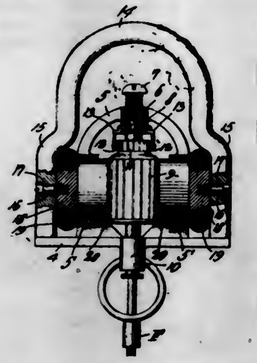
3. In an attachment for grain binders, the combination with a ground wheel and the frame therefor, the said frame including a cross beam located in front of the ground wheel; of a yoke-like frame that includes a flat cross bar removably mounted on the front cross beam of the binder frame and whose ends extend beyond the ends of the said cross beam, side arms integral with the said cross bar that terminate in stub axles, the said axles being in transerse alinement with the ground wheel axle, clips for engaging the front cross beam of the ground wheel frame, said clips having seats for receiving the flat cross bar of the yoke frame, and a member that extends under and engages the front cross beam of the ground wheel frame and brackets secured to the side members of the ground wheel frame having portions for engaging and holding down the stub axle of the yoke frame.

4. In an attachment for grain binders, the combination with the ground wheel and the supporting frame therefor, the said frame including a cross beam located in front of the ground wheel; of a yoke-like frame that includes a cross bar removably mounted on the front cross beam of the binder frame, side arms integral with the said cross bar that terminate in stub axles, the said axles being in transverse alinement with the ground wheel axle, means for fixedly holding the cross bar and the stub axle ends of the yoke frame in a relatively rigid connection with the ground wheel frame, and truck wheels on the said stub axles.

1,205,156. ELECTRICAL DENTAL ENGINE. WILLIAM E. BUTLER, Perry, Iowa. Filed May 22, 1912. Serial No. 699,055. (Cl. 172—36.)

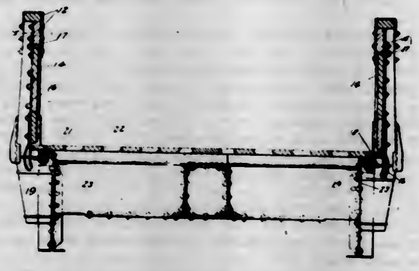
The combination in an electric motor, of a base, a yoke carried thereby and having opposite rings, a magnetic yoke larger than the first mentioned yoke supported by said base, pole pieces fitting in said rings, cores detachably secured to the magnetic yoke and in contact with the pole pieces to complete the magnetic circuit between the pole

pieces and the magnetic yoke, removable field coils upon said cores between the pole pieces and magnetic yoke,



and an armature rotatable between the pole pieces and having a shaft journaled through said base and the intermediate portion of the first mentioned yoke.

1,205,157. DOOR-LOCKING MECHANISM FOR DUMP OR PLOW CARS. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Original application filed Sept. 8, 1913, Serial No. 788,524. Divided and this application filed Oct. 30, 1914. Serial No. 869,356. (Cl. 105—15.)

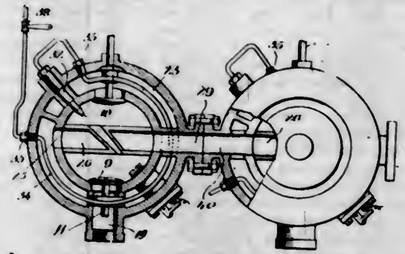


1. A plow car having side doors pivoted at their upper edges extending from end to end of the car, and mechanism for closing and locking said doors, said mechanism including loops on the lower edges of said doors, a longitudinally extending shaft and members on said shaft adapted to engage said loops and cam the doors to close position, substantially as specified.

2. A plow car having pivoted side doors extending from end to end of the car, and mechanism for locking said doors in closed position, said mechanism including depending loops fixed to the lower ends of the doors, each loop having an exterior cam surface, a longitudinally extending shaft and U-shaped members secured to said shaft, the number of said U-shaped members corresponding to the number of said loops and adapted to engage the latter and thereby cam the doors to closed position, substantially as specified.

3. A car of the character described having swinging side doors suspended by hinge members along their upper edges, side girders offset inwardly from the car sides forming angles with the floor of the car, and mechanism for closing and locking said side doors, said mechanism including longitudinally extending shafts located within said angles and loops formed integrally with the hinge members on the side doors by which the latter are pivoted.

1,205,158. INTERNAL-COMBUSTION ENGINE. MARIO CARBONE, New York, N. Y. Filed Nov. 11, 1913. Serial No. 800,276. (Cl. 123—34.)



1. An internal combustion engine formed with a combustion chamber having a passage-way in the wall thereof encircling the combustion chamber, means for introducing heated products of combustion into said passage-way, and a fuel supply extending through said passage-way for the purpose set forth.

2. An internal combustion engine comprising a combustion chamber having a passage-way in the wall thereof encircling the combustion chamber, the wall of said combustion chamber being formed with an aperture through which the products of combustion from said combustion chamber may enter said passage-way, and being formed with a second aperture spaced from said first aperture through which said products of combustion may leave the space between said walls.

3. An internal combustion engine formed with a combustion chamber, a tubular member extending transversely through said combustion chamber, an ignition tube extending transversely through said tubular member, and means for introducing heated products of combustion into said tubular member and around said ignition tube to heat said ignition tube.

4. An internal combustion engine comprising a combustion chamber formed with an exhaust opening through the wall thereof, an ignition member within said combustion chamber, and means forming a passage-way from said exhaust opening through a passage-way formed in the wall of the combustion chamber encircling said combustion chamber to said ignition means for conducting the heated products of combustion to heat said ignition means.

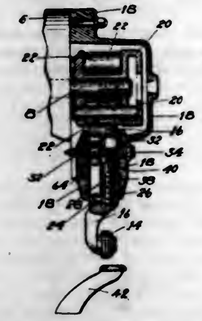
5. An internal combustion engine comprising a combustion chamber having an exhaust opening through the wall thereof, a tubular member extending transversely through said combustion chamber, an ignition member carried by said tubular member, and means forming a passage-way for conducting the heated products of combustion from said exhaust opening into said tubular member for heating said ignition member.

[Claims 6 to 14 not printed in the Gazette.]

1,205,159. INDENTING-MACHINE. LOUIS A. CASGRAIN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 3, 1915. Serial No. 64,017. (Cl. 12—32.)

1. A machine of the class described having, in combination, a rotary hammer having a plurality of striking members, a leather working tool, a reciprocatory carrier for the tool arranged to be moved to project into the path of movement of said members by the pressure of the work against the tool, means normally tending to move said carrier from the path of movement of said striking members and to position its tool normally to engage with the work surface, and a stationary stop member positioned to engage with said carrier to limit the degree to which the carrier may be projected into the path of movement of said hammer striking members.

2. A machine of the class described having in combination, a rotary hammer with a plurality of striking members, a leather working tool, a reciprocatory carrier for the tool arranged to be moved to project into the path of rotation of said striking members by the pressure of the work against the tool and to receive successive percussive impulses from said members, a stationary stop member positioned in the path of hammer engaging movement of said carrier to engage the carrier and limit the extent of such movement, and means for adjusting said stop member relatively to the carrier to vary the degree to which the carrier may be projected into the path of rotation of said hammer.



3. A machine of the class described having in combination, a rotary hammer with a plurality of striking members, a leather working tool, a reciprocatory carrier for the tool arranged to be moved to project into the path of rotation of said striking members by the pressure of the work against the tool and to receive successive percussive impulses from said members, said carrier having an elongated slot therein extending in the direction of its reciprocating movement, a stop member positioned within the slot in said carrier and arranged to engage the carrier at one end of said slot when the carrier is projected into the path of rotation of said hammer and means for varying the position of the contact face of said stop relatively to the end of the carrier slot to vary the degree of projection of said carrier into the path of hammer rotation.

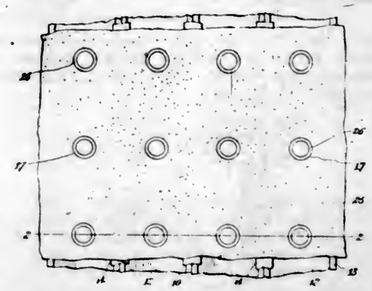
4. In a machine of the class described, a rotatable hammer, a leather working tool, a carrier for the tool reciprocable into the path of rotation of the hammer when the tool is acting upon stock, a stock support, means normally tending to move the carrier from the path of rotation of the hammer and toward the support to engage its tool with the stock, and a stop member coöperating with the carrier to limit the movement of the carrier both toward and from the hammer, with means for adjusting the position of the stop member relatively to the carrier.

5. In a nurling machine, a rotatable hammer, a nurling tool, a carrier for the tool reciprocable into the path of rotation of the hammer when the tool is acting upon the stock, means yieldingly supporting the stock in engagement with the tool, means normally tending to hold the tool against said stock, the tool carrier having a slot therein elongated in the direction of movement of the carrier toward the hammer, a stop member mounted within the slot of said carrier having one end positioned in the line of reciprocation of the carrier to limit the degree of projection of the carrier into the path of hammer rotation, and means for adjusting the said end of the stop relatively to the engaged portion of the carrier to vary said degree of projection.

[Claim 6 not printed in the Gazette.]

1,205,160. VAULT-LIGHT CONSTRUCTION. ALEXANDER CHAMBLEY, Philadelphia, Pa. Filed Feb. 9, 1915. Serial No. 7,087. (Cl. 94—7.)

1. In vault light constructions, a plurality of I-beams associated together with head and foot flanges substantially abutting with the webs lying in a horizontal plane, means for connecting the head and foot flanges of the joining I-beams, lens receiving tubes mounted in the webs, said I-beams forming concrete receiving pockets and concrete in said pockets surrounding the lens receiving tubes.

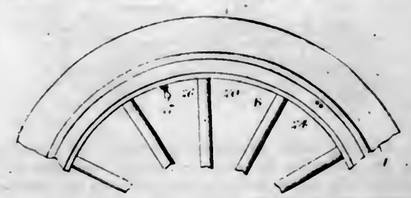


2. In vault light constructions, a plurality of I-beams arranged side by side with head and foot flanges abutting and with webs lying in a horizontal common plane, longitudinal clips connecting the head and foot flanges of the joining I-beams, said I-beams forming concrete receiving pockets above and below the webs, lens receiving tubes secured within the webs and projecting above the upper edges of the flanges, lenses therein, and concrete surrounding said tubes and embedded in the pockets.

3. In combination with a horizontal webbing having an opening, of a lens tube having a reduced lower end inserted through the opening of said web, said tube having exterior and interior shoulders, a gasket embracing the reduced end of the tube, means threadedly connected with the reduced end of the tube for compressing the gasket between the web and tube, a second gasket arranged on the interior shoulder of said tube, and a lens supported in between said tube and reposing upon the second mentioned gasket.

4. In a vault light construction, a frame embodying a horizontal connecting portion having an opening, lens supporting sleeves having a reduced end adapted to extend through the opening of the horizontal portion, the forming of the reduced end of the sleeve providing the latter with a horizontal ledge, a gasket carried by the reduced end of the lens supporting sleeves and defined between the horizontal ledge of the sleeve and the confronting face of the horizontal portion of the frame, and means threadedly connected on the reduced end of the lens supporting sleeves for compressing the gasket and establishing a liquid tight joint.

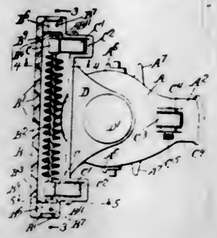
1,205,161. TIRE-RIM. HERBERT M. CHANEY, Sardinia, Ohio. Filed Oct. 11, 1915, Serial No. 55,263. Renewed Sept. 21, 1916. Serial No. 121,521. (Cl. 152—21.)



In a wheel, a felly having curvilinear slots in its outer periphery and opening through one side thereof, of a pair of annuli arranged concentrically with respect to each other and also with respect to the felly, all of the annuli with the exception of the outermost one being formed with curvilinear slots correspondingly shaped to and registering with the slots in the felly, and lugs formed on the outermost annulus and detachably engageable in said slots, the innermost annulus being formed with notches at the

innermost ends of said slots therein to receive the lugs for the locking of the same in the slots, and clencher tire-engaging flanges on two of the outermost annuli for the securing of the tire in place.

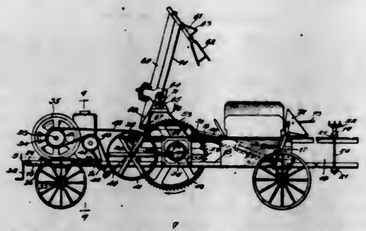
1,205,162. VACUUM-CLEANER. GEORGE CLEMENTS, Chicago, Ill., assignor to Clements Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 2, 1915. Serial No. 43,186. (Cl. 15—60.)



1. In a vacuum cleaner, a nozzle having a plurality of rearwardly extending pockets in open communication with the interior thereof, nozzle supporting rollers rotatably mounted within said pockets projecting downwardly below the bottom of the nozzle and extending forwardly into the main portion thereof, a brush mounted for rotation in the nozzle adjacent its front wall and friction driving means on the brush in direct contact with the surface of the supporting rollers.

2. A vacuum cleaner having a suction nozzle provided with a relatively wide suction slot, the body of the nozzle being rearwardly recessed adjacent the ends to substantially increase the width of the slot at such points, the ends of the slot between such widened points and the extreme end being narrower than the central portion of the slot, bearing sleeves contained within such narrow slot portions, supporting rollers contained within such widened recess portions, a brush supported by the bearing sleeves, and driving wheels mounted on the brush in frictional engagement with the supporting rollers the axis of the brush being located in front of the central axis of the nozzle.

1,205,163. HAY-PRESS. JOSEPH DAIN, Ottumwa, Iowa, assignor to Dain Manufacturing Company of Iowa, Ottumwa, Iowa, a Corporation of Iowa. Filed Sept. 20, 1912. Serial No. 721,354. (Cl. 100—3.)



1. A baling press, comprising a plunger, an eccentric gear for operating the same, a circular concentrically-mounted drive pinion meshing with said gear for rotating the same, and means for driving said pinion.

2. A baling press, comprising a plunger, an eccentric gear for operating the same, a drive pinion meshing with said gear for rotating the same, a traveling support for said pinion, and means for driving said pinion.

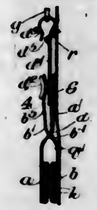
3. A baling press, comprising a plunger, an eccentric gear for operating the same, a drive pinion meshing with said gear for rotating the same, a swinging support for said pinion, and means for driving said pinion.

4. A baling press, comprising a plunger, an eccentric gear for operating said plunger, a drive-shaft, a pinion mounted on said shaft and engaging said gear for driving the same, said shaft being movable to compensate for the eccentricity of said gear, and means for driving said drive-shaft.

5. A baling press comprising a plunger, an eccentric gear for operating said plunger, a drive-shaft, a pinion mounted on said shaft and engaging said gear for driving the same, a movable support for said drive-shaft, and means for driving said drive-shaft.

[Claims 6 to 46 not printed in the Gazette.]

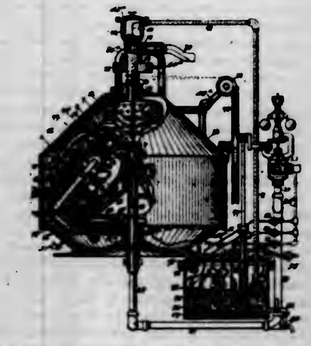
1,205,164. CLASP. JOHN F. DANIELS, Providence, R. I., assignor of one-half to Ralph M. Whitman, Providence, R. I. Filed Nov. 13, 1914. Serial No. 872,012. (Cl. 24—251.)



1. A clasp comprising a pair of jaw members one of which has a centrally located tongue, a shank on which said jaw members are supported having a tongue, and a protective shield attached to said two tongues.

2. A clasp comprising a pair of jaw members, a supporting shank on which said jaw members are mounted to slide lengthwise, and a protective shield attached at one place to the upper end of said shank and at another place to the rear jaw member, said shield being adapted to permit the lengthwise extension and shortening of said jaw members and shank.

1,205,165. ROTARY ENGINE. ROBERT J. DAVIDSON, Milwaukee, Wis. Filed Mar. 24, 1913. Serial No. 756,514. (Cl. 253—80.)



1. In an engine or the like, a rotating member, consisting of a spiral-way inclosed between an inner casing and a middle casing, said inner casing being closed at its upper end, and said middle casing extending beyond the lower end of said spiral-way; said spiral-way leading from the interior of said inner casing to the exterior of said middle casing; suitable bearings secured to said rotating member so as to permit of the rotation of same in an inclined position; an outer non-rotating member consisting of a casing larger than the rotating member and inclosing same; a liquid contained in said non-rotating outer casing and partly submerging the rotating member; means for conducting a fluid to the interior of said inner casing and from the space between the rotating and non-rotating members; means whereby the rotation of the rotatable member on its axis causes the revolution of the rotatable and non-rotatable members around another axis to which the axis of the rotatable member is inclined.

2. In an engine or the like, a rotating member, consisting of a spiral-way inclosed between an inner casing and a middle casing, said inner casing being closed at its upper end, and said middle casing extending beyond the lower end of said spiral-way; said spiral-way leading from the interior of said inner casing to the exterior of said middle casing; suitable bearings secured to said rotating member so as to permit of the rotation of same in an inclined position; an outer non-rotating member consisting of a casing larger than the rotating member and inclosing same; a liquid contained in said non-rotating outer casing and partly submerging the rotating member; means for conducting a fluid to the interior of said inner casing and from the space between the rotating and non-rotating members; means whereby the rotation of the rotatable member on its axis causes the revolution of the rotatable and non-rotatable members around another axis to which the axis of the rotatable member is inclined.

3. In an engine or the like, a rotating member, consisting of a spiral-way inclosed between an inner casing and a middle casing, said inner casing being closed at its upper end, and said middle casing extending beyond the lower end of said spiral-way in a portion of decreasing diameter; said spiral-way leading from the interior of said inner casing to the exterior of said middle casing; suitable bearings secured to said rotating member so as to permit of the rotation of same in an inclined position; an outer non-rotating member consisting of a casing larger than the rotating member and inclosing same; a liquid contained in said non-rotating outer casing and partly submerging the rotating member; means for conducting a fluid to the interior of said inner casing and from the space between the rotating and non-rotating members.

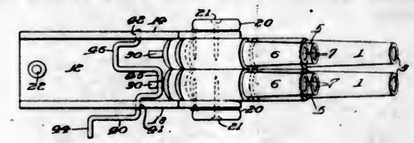
4. In an engine or the like, a rotating member, consisting of a spiral-way inclosed between an inner casing and a middle casing, said inner casing being closed at its upper end, and said middle casing extending beyond the lower end of said spiral-way in a portion of decreasing diameter; said spiral-way leading from the interior of said inner casing to the exterior of said middle casing; suitable bearings secured to said rotating member so as to permit of the rotation of same in an inclined position; an outer non-rotating member consisting of a casing larger than the rotating member and inclosing same; a liquid contained in said non-rotating outer casing and partly submerging the rotating member; means for conducting a fluid to the interior of said inner casing and from the space between the rotating and non-rotating members; means whereby the rotation of the rotatable member on its axis causes the revolution of the rotatable and non rotatable members around another axis to which the axis of the rotatable member is inclined.

5. In an engine or the like, two or more liquid containers which revolve around a central shaft, and means whereby the liquid contents of said containers communicate with each other; and a liquid circulating apparatus consisting of a duct leading from inside the inner end of the liquid containers to near the outer end thereof, a puppet valve in the outer end of said duct, a housing surmounting a base pan, a spout joining the base pan with a vessel, a pump in said vessel, a delivery pipe joining said pump with another vessel placed above the engine, a second delivery pipe leading from the vessel above the engine through the hollow in the upper central shaft to the gear box, passages leading from the gear box to the revolving liquid containers.

[Claims 6 to 15 not printed in the Gazette.]

1,205,166. TOY OR THE LIKE. JOHN C. DETTRA, Oaks, Pa., assignor to John C. Dettra & Company, Inc., Oaks, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1915. Serial No. 54,311. (Cl. 124—13.)

1. A toy or the like, comprising a pair of barrels, a separate magazine superimposed on each barrel and communicating with the interior thereof, a spring actuated plunger in each barrel, and means comprising a crank having a double throw operative to alternately actuate said plungers in said barrels to discharge projectiles therefrom as supplied from said magazines.



2. A toy or the like, comprising a pair of laterally disposed barrels, a separate magazine superimposed on each barrel, a passage from each magazine to its respective barrel, a coil spring in each barrel normally closing said passage, a plunger in each barrel extending rearwardly therefrom, a carriage, a crank having a double throw mounted on said carriage and operative to alternately engage the rear ends of said plungers, and means to release said plungers when retracted by the operation of said crank.

3. A toy or the like, comprising a plurality of barrels, a magazine superimposed on each barrel, a carriage, means to secure said barrels and magazines in fixed relation therewith, a spring actuated plunger in each barrel having a hook-shaped end exterior of said barrel, a crank operative to alternately engage the ends of said plungers, and a bar secured to said carriage and operative to engage the hooked ends of said plungers when retracted by the operation of said crank.

4. A toy or the like, comprising a plurality of laterally disposed barrels, a separate magazine superimposed on each barrel, a carriage, means to maintain said barrels and magazines in fixed angular relation with said carriage, means operative to permit the transfer of a projectile from the magazines to their respective barrels, a spring actuated plunger in each barrel, manually operative means operative to retract said plungers, and a transversely extending bar operative to release said plungers from said first mentioned means at the extremity of their retractive movement.

5. A toy or the like, comprising a pair of laterally disposed barrels, a carriage, a magazine superimposed on each barrel, a passage extending from the interior of each magazine to the interior of its respective barrel, a coil spring disposed entirely within each barrel and normally closing said passage, a plunger in each barrel extending through said spring and having a head within the barrel and a hooked-shaped end without the barrel, a crank journaled in said carriage and having a plurality of crank pins operative to alternately retract said plungers, and a transversely extending bar fixed with respect to said carriage operative to release said plungers when drawn by said crank to the limit of their rearward movement.

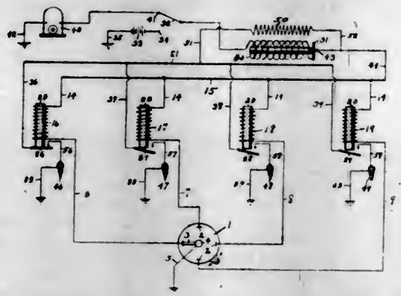
[Claims 6 and 7 not printed in the Gazette.]

1,205,167. IGNITION SYSTEM. SIMON DEUTSCH, Detroit, Mich. Filed Mar. 29, 1916. Serial No. 87,391. (Cl. 123—148.)

1. In an ignition system for internal combustion engines, the combination of an induction coil, of a series of spark plugs, a separate circuit between each spark plug and the secondary winding of the induction coil, an electro-magnetic switch in each said circuit, one end of the winding of each switch connecting to one end of the primary winding of the induction coil, a current distributer comprising a series of contacts, one for each magnet winding, and a revolving arm adapted to ground each contact in turn, a separate wire to connect each contact to its magnet winding, and a current source connected to the opposite end of the primary winding.

2. In an ignition system for internal combustion engines, the combination of an induction coil and bus-bars

connected to the primary and secondary windings thereof, a series of spark plugs, a separate circuit to connect each spark plug to the secondary current bus-bar, a normally open magnetic switch in each said circuit, a current distributer, and circuits to the windings of said magnetic switches adapted to be closed by said distributer.



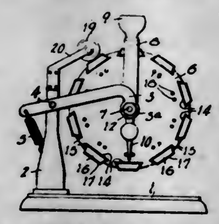
3. In an ignition system for internal combustion engines, the combination of an induction coil, a series of spark plugs, a separate circuit connecting each spark plug to the secondary current winding of the induction coil, a normally open electro-magnetic switch in each said circuit, a normally open circuit connecting to the pole winding of each magnetic switch and to the primary winding of said induction coil, and means operated by the engine for intermittently closing said last named circuits in sequence and thereby causing the closing of the switches and the passage of current to the spark plugs.

4. In an ignition system for internal combustion engines, the combination of a primary winding of an induction coil, means to energize the same, a secondary winding, for said coil, a series of electro-magnetic winding, for said coil, a series of electro-magnetic switches, ignition devices for said engine, circuits leading from the secondary winding to said ignition devices and respectively controlled by said switches, and means for controlling the passage of current over each of said circuits in turn.

5. In an ignition system for internal combustion engines, the combination of a current distributer operatively connected to the engine and contacting in a predetermined sequence, spark-plugs for the cylinders of the engine, an induction coil, electro-magnetic switch windings in series with the primary winding of the induction coil and with the contacts of said distributer and in parallel with each other, and switch contacts operated by said magnetic switch windings when energized for conducting the induced high tension current to the spark-plugs.

[Claims 6 to 17 not printed in the Gazette.]

1,205,168. ROTARY STAMPING DEVICE. CHARLES DIMECH, West Point, N. Y. Filed May 9, 1916. Serial No. 96,308. (Cl. 101—161.)



1. A rotary stamping device, including a base plate, a standard, a pair of levers pivotally mounted upon the standard, a printing drum journaled between the levers, a series of independent printing surfaces mounted on the periphery of the drum, a fork straddling the drum and adapted to grip the ends thereof at adjusted positions, a handle on the fork for swinging the printing drum toward the base plate, and inking means.

2. A rotary stamping device, including a base plate, a standard, an inking roller carried by the standard, a pair of levers pivotally mounted upon the standard, a printing drum journaled between the levers, a series of independent printing surfaces mounted on the periphery of the drum, yielding means acting upon the levers for moving the printing drum away from the base plate and toward the inking roller, a fork straddling the printing drum and adapted to grip the ends thereof at adjusted positions, and a handle upon the fork for rotating the drum to ink a selected printing surface and then bring it into printing position over the base plate.

3. A rotary stamping device, including a base plate, a standard, a pair of levers pivotally mounted upon the standard, a shaft connecting the levers, a printing drum upon the shaft, a series of independent printing surfaces mounted on the periphery of the drum, a fork mounted upon the shaft and straddling the drum, a spring for forcing the fork into a frictional engagement with the ends of the drum, inking means, and a handle on the fork for swinging the printing drum toward the base plate.

4. A rotary stamping device, including a base plate, a standard, a pair of levers pivotally mounted upon the standard, a shaft connecting the levers, said shaft having a finger piece at one end thereof and a head at the opposite end thereof, a printing drum rigid with the shaft, a series of independent printing surfaces mounted upon the periphery of the drum, a fork straddling the drum and pivoted upon the shaft, the arms of the fork terminating in pointers which indicate which one of the printing surfaces is in operative position, a spring interposed between the head of the shaft and the fork for causing the fork to frictionally grip the drum, inking means, and a handle on the arched end of the fork for swinging the printing drum toward the base plate.

5. A rotary stamping device, including a base plate, a standard, a pair of levers pivotally mounted upon the standard, a shaft connecting the levers, a printing drum mounted upon the shaft and provided at one end thereof with an annular series of rounded projections, a series of independent printing surfaces mounted upon the periphery of the drum, a fork straddling the drum and pivotally mounted upon the shaft, one of the arms of the fork terminating in a resilient pointer adapted to cooperate with the rounded projections on the end of the drum to hold the drum and fork in an adjusted position, the drum being adapted to be rotated within the fork to bring any selected one of the printing surfaces opposite the pointer, inking means, and a handle on the arched end of the fork for swinging the printing drum toward the base plate.

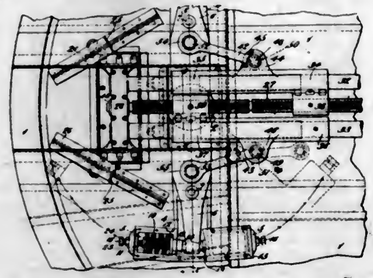
[Claims 6 and 7 not printed in the Gazette.]

1,205,169. STEERING APPARATUS FOR SHIPS. WILLIAM A. DOBSON, Philadelphia, Pa. Filed May 12, 1916. Serial No. 97,016. (Cl. 114—157.)

1. A steering apparatus for ships, which comprises in combination:—a hull, a rudder,—a rudder-stock,—a cross-head fixed upon said rudder-stock,—a floating cross-head rotative upon said rudder stock,—shock-absorbing mechanism interposed between and connective of both cross-heads at their outer extremities,—and steering means for imparting rotative movement to the floating cross-head.

2. A steering apparatus for ships, which comprises in combination:—a hull,—a rudder,—a rudder-stock,—a cross-head fixed upon said rudder-stock,—a floating cross-head rotative upon said rudder stock,—shock-absorbing spring-mechanism interposed between and connective of both cross-heads at their outer extremities,—and steering means for imparting rotative movement to the floating cross-head.

3. A steering apparatus for ships, which comprises in combination,—a hull,—a rudder,—a rudder stock,—a cross-head fixed upon said rudder stock,—a floating cross-head rotative upon said rudder stock, shock absorbing mechanism interposed between and connective of both cross-heads at their outer extremities,—a right and left-handed screw connective transmission mechanism for imparting rotative movement to the floating cross-head,—and steering means for operating said transmission mechanism.



4. A steering apparatus for ships, which comprises in combination:—a hull,—a rudder,—a rudder-stock,—a cross-head fixed upon said rudder-stock,—a floating cross-head rotative upon said rudder stock,—shock-absorbing spring-mechanism interposed between and connective of both cross-heads at their outer extremities, a right and left-handed screw connective transmission mechanism for imparting rotative movement to the floating cross-head,—and steering means for operating said transmission mechanism.

5. A steering apparatus for ships, which comprises in combination:—a hull; a rudder;—a rudder stock;—a cross-head fixed upon said rudder stock;—a floating cross-head mounted upon the rudder stock;—shock-absorbing mechanism interposed between and connective of both cross-heads;—a transmission mechanism comprising a right-and-left-handed driving screw shaft, right-and-left-handed driving nuts upon said screw shaft, and link-connections between said nuts and the floating cross-head;—and steering means for operating said transmission mechanism.

[Claims 6 to 11 not printed in the Gazette.]

1,205,170. BOLT. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Mar. 12, 1915, Serial No. 13,884. Divided and this application filed May 22, 1915. Serial No. 29,849. (Cl. 85—1.)

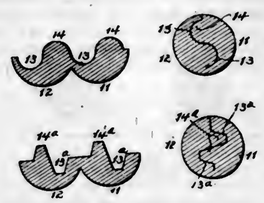


1. A bolt having a plurality of slots extending through the shank lengthwise the latter, the slots being closed at their outer ends and separated at their adjacent ends by a partition.

2. A bolt having a plurality of slots extending through the shank lengthwise the latter, the said slots being closed at their outer ends and separated at their adjacent ends by a partition, the said shank being twisted and threaded.

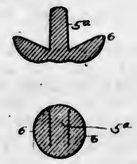
1,205,171. METHOD OF MAKING BLANKS FOR FLEXIBLE BOLTS. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed June 15, 1915. Serial No. 34,264. (Cl. 29—148.)

1. The herein described method of making bars for bolt blanks consisting in rolling a bar or slab to form two connected members one having a longitudinal rib and the other a longitudinal groove, and the said rib and groove being so located that when the two members of the bar are closed onto each other the rib will rest in the groove, and rolling said connected members into cylindrical shape.



2. The herein described method of making bars for bolt blanks consisting in rolling a bar or slab to form two connected members each having a longitudinal rib and a longitudinal groove, the rib of each member being so located as to enter the groove of the other member when the bar is rolled in cylindrical shape, and rolling the bar into cylindrical shape without welding the contacting faces of the two members thereof.

1,205,172. METHOD OF MANUFACTURING BARS FROM WHICH BOLT-BLANKS ARE MADE. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed June 15, 1915. Serial No. 34,265. (Cl. 10—27.)



1. The method herein described of making bolt blanks consisting in forming a bar with a central and two side members both the latter being integral with one end of the central member, and then bending the side members against the central member to form a cylindrical bar with two longitudinal slits therein.

2. The method herein described of making bolt blanks consisting in forming a substantially T-shaped bar, bending the side members onto the central member and upsetting the free end of the central member so that it will slightly overhang the free ends of the side members.

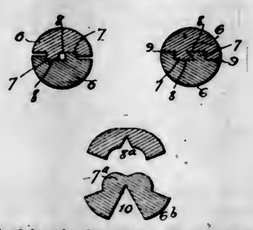
1,205,173. METHOD OF MAKING BLANKS FOR BOLTS. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed June 15, 1915. Serial No. 34,266. (Cl. 10—27.)



1. The method herein described of making bars for bolt blanks consisting in rolling a slab having a series of substantially V-shaped longitudinal grooves in one face, into cylindrical form so as to produce a bar having an open slit and a plurality of closed slits the latter communicating with the open slit.

2. The method herein described of making bars for bolt blanks consisting in rolling a slab having a series of substantially V-shaped longitudinal grooves in one face, and reverse curves on its opposite face, into cylindrical form so as to produce a bar having an open longitudinal slit and a plurality of concealed slots all the slits extending lengthwise the bar.

1,205,174. METHOD OF MANUFACTURING BARS FOR BOLT-BLANKS. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed June 15, 1915. Serial No. 34,267. (Cl. 10—27.)



1. The method herein described of making bars for bolt blanks consisting in grooving one bar longitudinally and providing another bar with a rib to rest in said groove and then rolling the compound bar thus formed whereby the rib becomes locked in the groove in the other bar, thus forming a compound bar with a plurality of slits extending throughout the length of the latter.

2. The method herein described of making bars for bolt blanks from two bars, consisting in providing each bar with a rib and a groove, assembling the bars so that the rib or each rests in the groove of the other and then rolling the bars to crush the ribs within the grooves whereby the two bars become permanently locked and form a cylindrical bar with a plurality of slits extending lengthwise the same.

3. The method herein described of makingf bars for bolt blanks consisting in forming two semi-cylindrical bars each with a groove and a rib on its flat side, assembling the bars so that the rib of each rests within the groove in the other and rolling the compound bar whereby the ribs will be deformed and interlock.

1,205,175. BLANK FOR BOILER STAY-BOLTS. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Original application filed June 15, 1915, Serial No. 34,266. Divided and this application filed Sept. 14, 1915. Serial No. 50,660. (Cl. 29—148.)



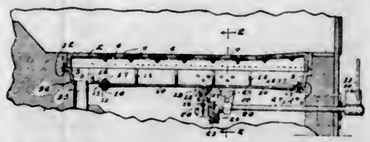
A bar for bolt blanks having an open slot extending lengthwise the bar and a plurality of concealed slots communicating with the open slot.

1,205,176. BAR FROM WHICH BOLT-BLANKS ARE MADE. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Original application filed June 15, 1915. Serial No. 34,265. Divided and this application filed Sept. 14, 1915. Serial No. 50,662. (Cl. 29—148.)



A bar for bolt blanks composed of a central member and two side members integral with the central members at one edge of the latter, the said side members being bent against the central member and the whole rolled into cylindrical shape.

1,205,177. FORCED-DRAFT HOLLOW GRATE-BAR OR BURNER. HARRY O. DORSEY, Charlotte, N. C., assignor to William C. Gunn, Fort Scott, Kans. Filed Nov. 27, 1915. Serial No. 63,793. (Cl. 100—74.)



1. A grate of the character described including a series of hollow grate sections, each having a drop bottom, an actuating element extending transversely beneath the series of grate sections, connecting members equal in number to the grate sections and each mounted for independent adjustments upon said actuating element, and members pivotally coupling the different drop bottoms to the different connecting members, whereby the drop bottoms may be separately opened and closed, and whereby the throw of the connecting members may be independently varied.

2. A grate of the charcater described including a series of parallel grate sections, each provided with a gravity opening drop bottom, a reciprocating actuating device extending transversely beneath said drop bottoms, connecting members, each adjustably mounted upon said actuating device, and links pivotally coupling the drop bottoms to different connecting members in vertical planes out of alinement with each other so as to normally lie at an oblique angle to the drop bottoms and actuating device in the closed position of said drop bottoms.

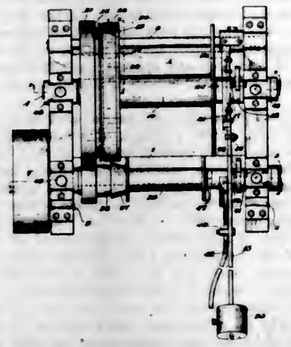
3. A grate of the character described comprising a series of parallel grate sections, each provided with a hinged or pivoted gravity-opening drop bottom, an actuating device extending transversely beneath said grate sections, and a pivotal connection between each of said drop bottoms and said actuating device, each connection including adjusting means for independently varying the throw of the pivotal connections.

4. A grate of the character described including a series of parallel grate sections, each provided with a hinged or gravity-opening pivoted drop bottom, a reciprocating actuating rod disposed beneath the grate sections, blocks adjustably mounted upon the rod, and links pivotally coupling the respective drop bottoms separately to the different adjustable blocks, whereby the drop bottoms may be opened and closed in the reciprocating motions of the rod and the throw of the links independently varied.

1,205,178. HAY-HOIST. HENRY DRUSCHEL, Columbia, Pa. Filed Nov. 13, 1915. Serial No. 61,213. (Cl. 254—185.)

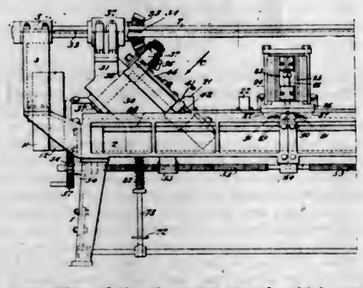
1. A device of the character described, comprising a support, shafts mounted in the support, intermeshing gears on the shafts, drums loosely mounted on the shafts, clutches between the gears and drums, levers on the shafts constructed to move the drums longitudinally into clutched engagement with the gears, a brake engaging one of the drums, said brake operated by one of said levers, means for moving and normally holding said last-mentioned lever in position to apply the brake, and a stop on said last-mentioned lever extending into the path of movement of the other lever, whereby the brake must be released before the latter lever can be operated, substantially as described.

2. A device of the character described, comprising a support, parallel shafts mounted in the support, intermeshing gears on the shafts, drums loosely mounted on the shafts, clutches between the gears and drums, levers on the shafts constructed to move the drums longitudinally into clutched engagement with the gears, a brake engaging one of the drums, said brake operated by one of said levers, a weight on the last-mentioned lever normally holding the lever in position to apply the brake, and a stop on said last-mentioned lever in the path of movement of the other lever, whereby the brake must be released before the other lever can be operated, substantially as described.



3. A device of the character described, comprising a support, shafts mounted in the support, intermeshing gears on the shafts, drums loosely mounted on the shafts, clutches between the gears and drums, levers on the shafts constructed to move the drums longitudinally into clutched engagement with the gears, a brake engaging one of the drums, said brake being operated by one of said levers, means for moving and normally holding said last-mentioned lever in position to apply the brake, and means for engagement with both of said levers whereby said brake lever must be moved to release the brake before the other lever can be operated, substantially as described.

1,205,179. COMBINED TRIMMING AND PUNCHING MACHINE. WILLIAM EVANS, Oak Lane, Pa., assignor to John Evans' Sons, Philadelphia, Pa., a Firm composed of William Evans, Robert Evans, and John H. Evans, Philadelphia, Pa. Filed Sept. 13, 1915. Serial No. 50,414. (Cl. 29—34.)



1. A machine of the character stated, which comprises in combination, cutting and trimming mechanism to simultaneously cut off and obliquely trim both ends of a bar, mechanism for punching or nibbling said bar between its ends, and prime moving and connective mechanism for operating said mechanisms.

2. A machine of the character stated, which comprises in combination, cutting and trimming mechanism to simultaneously cut off and obliquely trim both ends of a bar, mechanism for punching or nibbling said bar between its ends, mechanism for straightening the bar in the direction of its length, and prime moving and connective mechanism for operating said several mechanisms.

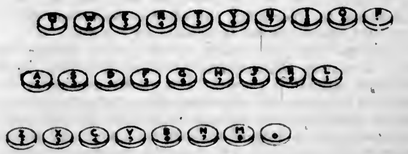
3. A machine of the character stated, which comprises in combination, duplicate and oppositely-counterpart cutting and trimming mechanisms to simultaneously cut off and trim both ends of a bar, mechanism for punching or nibbling said bar intermediate of its length, and prime moving and connective mechanism for operating both the cutting and trimming and the punching or nibbling mechanisms.

4. A machine of the character stated, which comprises in combination, duplicate and oppositely-counterpart cutting and trimming mechanisms to simultaneously cut off and trim both ends of a bar, mechanism for punching or nibbling said bar intermediate of its length, mechanism for straightening the bar in the direction of its length, and prime moving and connective mechanism for operating the cutting and trimming mechanism, the punching and nibbling mechanism, and the straightening mechanism.

5. A machine of the character stated, which comprises in combination, duplicate and oppositely-counterpart cutting and trimming mechanisms to simultaneously cut off and trim both ends of a bar, means for adjusting said duplicate mechanisms to different distances apart, mechanism for punching or nibbling said bar intermediate of its length, and means for operating both said duplicate mechanisms when adjusted and said punching and nibbling mechanisms.

[Claims 6 to 28 not printed in the Gazette.]

1,205,180. INDEXING-MACHINE. ALAN ROSS FERGUSSON, Chicago, Ill. Filed Nov. 29, 1915. Serial No. 63,995. (Cl. 197—1.)



1. A typewriting machine having the key levers provided with the letters of the alphabet and numerals the numerals being arranged in series running up to 9, whereby a plurality of key levers will be provided with the same numerals, and type bars being provided with letters and numerals corresponding to those on the key-board.

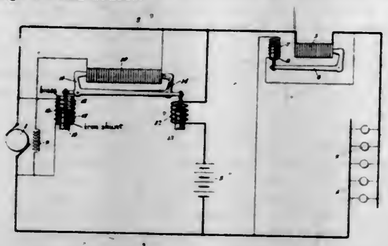
2. A typewriting machine having key levers provided with the letters of the alphabet, type bars operated by said key levers, series of numerals on the type bars to correspond individually to all the letters on the key levers, all of said numerals being less than 10 whereby the operation of any alphabetic key lever will result in the printing of a numeral less than 10.

1,205,181. REGULATING ELECTRICAL SYSTEMS. GEORGE R. FESSENDEN, Jr., Lancaster, N. Y. assignor to Gould Coupler Company, a Corporation of New York. Filed Dec. 21, 1911. Serial No. 667,235. (Cl. 171—313.)

1. In an electrical system, a source of electromotive force, a storage battery connected to be charged thereby, electromagnetic means for controlling the voltage of the source responsive to voltage variations of the system, and means whereby a materially lower potential is required for said electromagnetic means to control the voltage of said source after said electromagnetic means has commenced to control the voltage of said source.

2. In an electrical system, a source of electromotive force, a storage battery connected to be charged thereby, electromagnetic means for controlling the voltage of the source, and means whereby a materially lower potential is required for said electromagnetic means to control the voltage of said source after said electromagnetic means has commenced to control the voltage of said source.

3. In an electrical system, a source of electromotive force, a storage battery connected to be supplied thereby, electromagnetic means for controlling the voltage of the source responsive to voltage variations of the system and arranged to remain inoperative to control the voltage of said source until the voltage of the source has reached a predetermined value, and means whereby a materially lower potential difference is required for said electromagnetic means to control the voltage of said source after said electromagnetic means has commenced to control the voltage of said source.

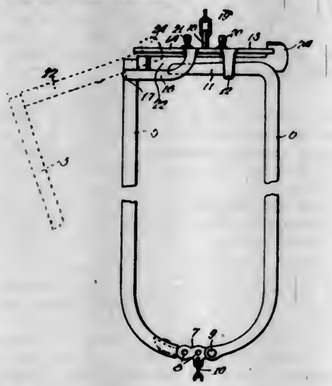


4. In an electrical system, a source of electromotive force, a storage battery connected to be supplied thereby, electromagnetic means for controlling the voltage of the source responsive to voltage variations of the system and arranged to remain inoperative to control the voltage of said source until the voltage of the source has reached a predetermined value, said electromagnetic means embracing a carbon pile, an electromagnet operating on the pile and means for increasing the effect of said electromagnet after it has commenced to operate on the pile.

5. In an electrical system, a source of electromotive force, a battery connected to be charged thereby, a compressible resistance rheostat and an electromagnet operating on the rheostat for controlling the voltage of said source responsive to voltage variations of the battery and arranged to remain inoperative upon said rheostat until the voltage of the battery has reached a predetermined value and means whereby a materially lower potential is required for said electromagnet to operate on said rheostat after it has commenced to operate.

[Claims 6 to 21 not printed in the Gazette.]

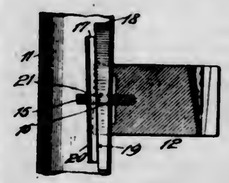
1,205,182. CATTLE-STANCHION. JEREMIAH C. FITZGERALD, Kilbourn, Wis. Filed Mar. 15, 1916. Serial No. 84,279. (Cl. 119—149.)



1. A stanchion consisting of a pair of neck-bars, made of channeled material hingedly connected at their lower portions and opening and closing at their upper portions, the upper portion of one of said bars being extended substantially horizontally toward the upper end of the other bar, a horizontally located support adjustably mounted on said extension and having a longitudinal slot provided at one of its ends with recesses and closed at its other end, a hair-pin shaped member connected to the upper end of the last named bar and adapted to operate in said slot when the last named bar is moved from and toward the other bar, and coöperating means on the support and said member, whereby the neck-bars will be automatically locked in their closed positions by reason of the recesses at one end of said slot and against unlimited separation in their open positions, by reason of the closed end of said slot.

2. A stanchion consisting of a pair of neck-bars hingedly connected at their lower portions, of a lateral channeled extension on the upper portion of one of said bars projecting toward the other bar, the said channel having its upper portion open, a longitudinally slotted member having at its upper middle portion a transversely disposed loop for engagement with a chain or other suspending device, the slot of said member being closed at one end and open at its other end, said member having transversely extended loops one of which is provided at its outer end with a recess for one of said neck-bars, a locking member connected to the upper end of the neck-bar adapted to fit in the said recess, and having at its free end upturned projections, said projections adapted to pass through the upper loop of said support, a set-screw located in the upper portion of said support on each side of the slot therein, and adapted to engage the upturned edges of the extension on the other neck-bar.

1,205,183. CORNER-FASTENING FOR METAL BEDS AND THE LIKE. LOUIS FRANK, Brooklyn, N. Y., assignor to Greenpoint Metallic Bed Company, Brooklyn, N. Y., a Firm composed of David Frank and William Lies, Brooklyn, N. Y., and John Trounstine, New York, N. Y. Filed June 4, 1914. Serial No. 842,841. (Cl. 5—55.)

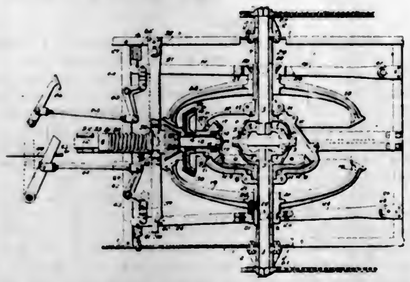


1. In a metal bedstead or the like having tubular corner posts, chills, and means for securing the same to said posts, said chills each having a loop or eye projected through the side of the post and said securing means comprising a locking bar interlocked intermediate its ends with the inner edge of the outer end of said loop or eye and extending above and below the same, and a wedge positioned between said locking bar and the adjacent wall of the corner post and extending through said loop or eye.

2. In a metal bedstead or the like having tubular corner posts, chills, and means for securing the same to said posts, said chills each having a loop or eye projected through the side of the post and said securing means comprising a locking bar extending vertically through said loop or eye and having a transverse groove to interlock with the inner edge of the outer end of said loop or eye and a wedge positioned between said locking bar and the facing wall of said corner post and extending through said loop or eye, said locking bar and wedge having extended bearing surfaces engaging each other and extending above and below said loop or eye.

3. In a metal bedstead or the like having tubular corner posts, chills each having a loop or eye projected through the side of the post, and means for securing said chills to said posts comprising a vertically elongated locking bar transversely grooved and at said groove tiltably interlocked with said loop or eye and a wedge engaging said locking bar and the wall of the corner post and extending through said loop or eye.

1,205,184. POWER-TRANSMITTING MECHANISM. CLAYTON E. FREDERICKSON, Chicago, Ill., assignor of one-half to Grace C. Stenger, Chicago, Ill. Filed Mar. 20, 1915. Serial No. 15,855. (Cl. 74—58.)



1. In a power transmission mechanism, a driving shaft, a driven shaft, a pinion rotatably mounted on said driving shaft, a gear fixed on said driven shaft, a clutch element carried by said pinion, a shifting clutch element keyed on said driving shaft, a driving element carried by said driving shaft, a second gear shiftably keyed on said driven shaft, a clutch shifter, and mechanism for shifting said second gear into and out of engagement with said driving element.

2. In a power transmission mechanism, a driving shaft, a driven shaft element, continuously meshing gear connections between said driving shaft and said driven shaft element, said connections including a clutch element, a shiftable clutch element on the driving shaft to engage said first mentioned clutch element, a driving element, a second gear shiftable on the driven shaft element and adapted to be moved into and out of engagement with said driving element, and means for first disengaging said clutching elements and then engaging said second gear and drive element.

3. In a power transmission mechanism, a driving shaft a driven shaft element, direct continuously meshing gear connections between said driving shaft and said driven shaft element, said connections including a clutch element, a shiftable clutch element on the driving shaft to engage said first mentioned clutch element, a driving element, a second gear shiftable on the driven shaft element and adapted to be moved into and out of engagement with said driving element, a device for shifting said shiftable clutch element out of engagement, another device for shifting said second gear into and out of engagement with said driving element.

4. In a power transmission mechanism, a driving shaft, a driven shaft element, direct continuously meshing gear connections between said driving shaft and said driven shaft element, said connections including a clutch element, a shiftable clutch element on the driving shaft to engage said first mentioned clutch element, a driving element, a second gear shiftable on the driven shaft element and adapted to be moved into and out of engagement with said driving element, a device for shifting said shiftable clutch element out of engagement, another device for shifting said second gear into and out of engagement with said driving element, and a connection between said devices whereby the action of the gear shifting device will operate the clutch shifting device.

5. In a power transmission mechanism, a driving shaft, a driven shaft element, direct continuously meshing gear connections between said driving shaft and said driven shaft element, said connections including a clutch element, a shiftable clutch element on the driving shaft to engage said first mentioned clutch element, a driving element, a second gear shiftable on the driven shaft element and adapted to be moved into and out of engagement with said driving element, a device for shifting said shiftable clutch element out of engagement, another device for shifting said second gear into and out of engagement with said driving element, and a connection between said devices whereby the initial part of the movement of the gear shifting device will actuate the clutch shifting device to release the clutch in advance of the engagement of the shiftable gear with the driving element.

[Claims 6 to 11 not printed in the Gazette.]

1,205,185. IRONING-PLATE. LADBROOK H. FREEMAN, Cleveland, Ohio, assignor to The Guggenheim Laundry Machinery Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 2, 1912. Serial No. 668,882. (Cl. 68—1.)



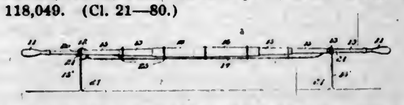
1. A pressing plate having an ironing face provided with irregular projections and recesses for producing an unglossed or flat finish upon the work.

2. An ironing plate for laundry machines having a sand blasted metal ironing surface for producing an unglossed or flat dead finish upon the work.

3. An ironing plate having a substantially U shaped recess for receiving the neckband, the edges of the material at the crotch of the U being curved and forming separate arcs so that the edges may form a shoulder whereby the edges of the plate will follow the contour of a lapped neckband.

4. An ironing plate having an ironing face provided with minute metallic projections with intervening spaces for producing an unglossed or flat finish upon the work.

1,205,186. COLLAPSIBLE STRETCHER. NIKOLAUS FUCHS, Akron, Ohio. Filed Sept. 1, 1916. Serial No. 118,049. (Cl. 21—80.)



1. A stretcher comprising opposite telescoping side rails formed in sections, locking means between the said sections, end bars detachably arranged between the said rails and having cruciform sockets therein, supporting legs pivoted to the said bars provided with feet portions arranged within the said sockets when folded and a flexible supporting member attached to the said rails and bars.

2. A stretcher comprising side rails formed of interengaging telescoping sections, end bars connecting the terminal ones of said sections together and having longitudinal slots terminating in cruciform sockets in their under faces, supporting legs hinged adjacent the opposite ends of the said bars within the said slots and having terminal feet seated within the said sockets when the device is folded, guide plates carried by the said bars at opposite sides of the said slot adjacent the points of pivotal connections for the said legs and a flexible supporting member attached to the said rails and bars.

3. A stretcher comprising side rails formed of telescoping tapered tubular sections, the central one of said sections being double ended tapering in opposite directions adapted for the reception of the other sections when

the device is folded, pin and bayonet slot connections between the said sections adapted for interengagement when the sections are projected, end bars carried by the said sections and a flexible support carried by the said rails and bars.

4. A stretcher comprising telescoping side rails, end bars connecting the said rails, folding legs carried by the said bars, a canvas having one end thereof permanently clamped longitudinally of one of the said bars, and mounting rings carried by the remaining three edges of the canvas freely arranged over the said rails and other bars.

5. A stretcher having side bars composed of tapered tubular sections, the overlying ends of the said sections being provided with bayonet slots, pins carried by the underlying ends of the said sections of less height than the thickness of the metal of the sections arranged within the transverse portions of the said slots when the rails are extended, the taper of the said sections being sufficient to permit the withdrawal of said pins within the overlying sections upon the relative longitudinal movement of the sections during the folding operation of the rails.

1,205,187. SAFETY-RAZOR. FRANZ A. FULLER, Newark, N. J. Filed Mar. 19, 1915. Serial No. 15,461. (Cl. 30—12.)



1. A safety razor comprising a frame adapted to slide longitudinally of a strop, a roller at each end of said frame, a blade holder support pivotally connected to said frame intermediate of said rollers, a roller in said blade holder support, a blade holder pivotally connected to said blade holder support, means carried by said blade holder support for transmitting rotary movement to said blade holder from said roller and means located on the frame for adjusting the blade relative to the frame.

2. A safety razor comprising a frame having guard teeth at one edge and a handle extending from the frame, a blade holder support pivotally connected to said frame, a blade holder pivotally connected to said blade holder support, a blade located in said blade holder and means to limit the forward and rearward movement of the pivotally connected blade holder support.

3. A safety razor comprising a frame having guard teeth at one edge and a handle extending from the frame, a blade holder support pivotally connected to said frame, a blade holder pivotally connected to said blade holder support, a blade located in said blade holder and means to limit the movement of the blade holder in one direction so that stropping of but one side of blade is possible.

4. A safety razor comprising a frame adapted to slide longitudinally of a strop, a roller at each end of said frame, a blade holder support pivotally connected to said frame intermediate of said rollers, a roller in said blade holder support, a blade holder pivotally connected to said blade holder support, means carried by said blade holder support for transmitting rotary movement to said blade holder from said roller and means to limit the movement of the blade holder in one direction so that stropping of but one side of blade is possible.

5. A safety razor comprising a frame adapted to slide longitudinally of a strop, a handle extending from the frame, a blade holder pivotally connected to said frame, means for transmitting rotary motion to said blade holder, a blade located in said blade holder and means to limit the movement of the blade holder in one direction, thereby permitting only that surface of the cutting edge of the blade which lies adjacent the guard to be stropped.

[Claim 6 not printed in the Gazette.]

1,205,188. COMBINED CHURN AND BUTTER-WORKER. JOSEPH ERNEST GAGNON, Victoriaville, Quebec, Canada. Filed Dec. 12, 1914. Serial No. 876,813. (Cl. 31—25.)



1. In a combined churn and butter worker, a rotary churn body, in combination with a shaft arranged centrally with respect to said body rotatable within said body and adapted to engage and drive butter-working means with its inner end, gearing for driving said shaft and a trough provided with butter-working means and gearing to actuate the same, said trough, butter-working means and gearing being movable into said body, for said gearing to engage said shaft and be driven thereby.

2. In a combined churn and butter-worker, a rotary churn body, in combination with a centrally arranged shaft rotatable within said body and actuating gearing for the latter, and a butter-working trough and roller readily insertible into said body, for said gearing to engage said shaft and be driven thereby to rotate said roller, as said trough and roller receive the butter from the churn.

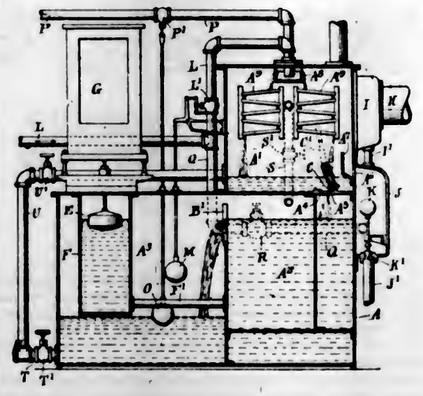
3. In a combined churn and butter-worker, a rotary churn body provided with an opening, a door for the same and a circular gear-rack, in combination with a centrally arranged shaft adapted to drive a butter-working roller on its inner end within said body and provided externally thereto with a gear-wheel, a frame readily insertible into said body through said opening and carrying a butter-working trough and roller to receive the butter and actuating gearing for said roller, said gearing being adapted and arranged to be engaged and rotated by said shaft when said trough, roller and gearing are thus inserted, and gearing external to the churn body provided with clutches and shifting devices whereby at will either the churn body may be driven for churning without driving said shaft or the latter may be driven for butter working and the churn also driven at a reduced rate of speed.

4. In a combined churn and butter-worker, a rotary churn body, in combination with a shaft rotatable within said body and a trough and butter-working means adapted to be moved into said body and into proximity to said shaft, said butter-working means being adapted to be engaged and driven by said shaft when thus inserted.

1,205,189. METERING-HEATER. JOSEPH W. GAMBLE, Philadelphia, Pa., assignor to Joseph S. Lovering Wharton, William S. Hallowell, and John C. Jones, Philadelphia, Pa., trading under the firm-name of Harrison Safety Boiler Works of Philadelphia, Pa. Filed May 15, 1915. Serial No. 28,436. (Cl. 137—68.)

1. Weir measuring apparatus comprising in combination a weir chamber, an outlet compartment receiving the overflow from said weir chamber, supply piping for conveying liquid to be measured to said weir chamber, a valve in said piping, means responsive to the height of water level in said outlet compartment for closing and opening said valve as said water level rises to and falls below a predetermined level, and a waste connection to said pipe at the inlet side of said valve, said waste connection comprising a loaded valve normally closed, but opening to permit a discharge to waste on a predetermined increase in pressure in said pipe at the inlet side of said weir.

2. A metering heater comprising a weir chamber, a heating chamber freely discharging liquid heated therein into said weir chamber, and an outlet compartment receiving the overflow from the weir chamber, a waste connection leading from said heater, water supply piping leading to said heating chamber, a valve in said pipe controlling the flow therethrough to said heating chamber, and means for closing and opening said valve as the water level in said outlet compartment rises to and falls below a predetermined value, and a loaded valve controlling communication between said piping at the inlet side of said valve and said waste connection, said valve being normally closed but automatically opening when the pressure in said piping rises to a value at which it overcomes the loading force.



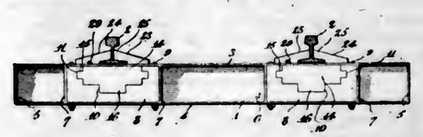
3. A metering heater comprising a weir chamber, a heating chamber freely discharging liquid heated therein into said weir chamber, and an outlet compartment receiving the overflow from the weir chamber, a waste connection to said heater including a float trap, water supply piping leading to said heating chamber, a valve in said pipe controlling the flow therethrough to said heating chamber, and means for closing and opening said valve as the water level in said outlet compartment rises to and falls below a predetermined value, a pipe connection extending between said piping at the inlet side of said valve and said float trap, and a loaded valve located in said pipe connection, said valve being normally closed but automatically opening when the pressure in said piping rises to a value at which it overcomes the loading force.

4. A metering heater comprising a weir chamber, a heating chamber freely discharging liquid heated therein into said weir chamber, and an outlet compartment receiving the overflow from the weir chamber, an oil separator, means for passing steam therethrough to said heating chamber, a waste connection leading from said heating chamber including a float trap receiving the drip from said oil separator and overflow from said heating chamber, water supply piping leading to said heating chamber, a valve in said piping and means for closing and opening the valve as the water level in said outlet compartment rises to and falls below a predetermined value, a pipe connection leading from said pipe at the inlet side of said valve to said float trap, and a loaded valve located in said pipe connection, said valve being normally closed but automatically opening when the pressure in said piping rises to a value as to overcome the loading force.

5. A metering heater comprising a casing divided into a weir chamber, an outlet chamber receiving the overflow from the weir chamber, and a heating chamber discharging into said weir chamber through a valve seated port located within said casing, a valve controlling said port, a delivery pipe leading from said outlet chamber and including a valve, and a valved bypass external to said casing and connecting the heating chamber thereof to said delivery pipe at the outlet side of the valve in the latter.

1,205,190. RAIL-FASTENER. JOHN BEAUREGARD GLENN, Shelby, N. C. Filed Mar. 31, 1916. Serial No. 88,148. (Cl. 238—5.)

1. The herein described construction of metal ties and rail securing means therefor, including a tie having a top, a bottom, ends connecting the top and bottom, a central longitudinally extending web connecting the top and bottom and the ends, said web, adjacent the ends of the tie having openings, a metal block within each of the openings, means for securing the block to the tie, a cushion block removably connected with the first mentioned block and underlying the top of the tie, and rail securing means passing through registering slots in the top of the tie and the cushion block, means for securing the rail securing means to the top of the tie and to the cushion block, and said means retaining the cushion block upon the first mentioned block.



2. In a device for the purpose set forth, a metal tie including a flat top metallic plate, a flat bottom plate parallel with the top, ends connecting the top and bottom plates, and a central vertically disposed longitudinally extending web connecting the top, bottom and ends, said web having openings adjacent its ends, laterally extending flanges upon the end walls provided by the openings, a block within each of the openings and contacting the walls thereof, means for securing the block in the said opening, said block having its upper side provided with a transverse opening, a cushion block filling the opening, means passing through openings in the top of the tie and the cushion block for engaging with the rail to secure the rail to the tie, means for locking the rail securing means, and such means holding the cushion block in its seat.

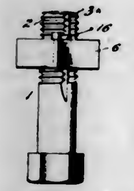
3. In a device for the purpose set forth, a metal tie including parallel top and bottom plates and a web connecting the top and bottom, said web adjacent the ends of the tie being provided with openings, a block arranged in and filling each of the openings, each of said blocks having its upper face centrally provided with a transverse opening, the end walls of said opening having longitudinally extending grooves, a cushion block for each of these openings, each of said cushion blocks having its ends provided with tongues to be received in the referred to grooves in the end walls of the openings, means passing through the top of the tie and entering the cushion block and engaging with rails upon the ties for securing the said rails to the tie, and said means also securing the cushion block upon the tie.

4. In a device for the purpose set forth, a metal tie including a straight top and bottom and a central web connecting the top and bottom, said web adjacent the ends of the tie having substantially rectangular openings and the end walls provided by each of the openings having laterally extending flanges, a block received in each of the openings and filling the said openings, vertically disposed means for securing the blocks to the tie.

5. In a device for the purpose set forth, a tie for supporting rails having a parallel top and bottom, end plates connecting the top and bottom, a central web connecting the top, bottom and ends, said web adjacent the ends of the tie having elongated openings and the end walls of the openings being flanged laterally and said flanges engaging with the top and bottom of the tie, a block filling each of the openings, said block having its upper portion provided with a recess having transverse walls, the end walls and the bottom wall of the said opening being formed with grooves, a cushion block having its ends and its bottom formed with tongues, one of such cushion blocks adapted to be arranged in each of the referred to openings to have its tongues received in the referred to grooves thereof and to fill the said openings, each of said blocks having a vertically disposed L-shaped opening, and a longitudinal depression upon the underface communicating with the said L-shaped openings, the top of the tie having L-shaped openings registering with the L-shaped openings in the cushion blocks, rail engaging members disposed in pairs each including a head and a

depending shank, the shank of one of the members being of a width to be received within the longer passage of the L-shaped openings, the shank of the other said member being of a width to be received in the shorter passage of the said opening, the shank of the latter member having its end formed with a lateral flange to engage with the walls of the recess in the cushion blocks which communicates with the L-shaped openings, and the shank of this last mentioned member adapted to be engaged by the shank of the first mentioned member to hold the same in the said passage of the opening, and a member passing angularly through the top of the tie, the cushion block and entering the longer passage of the L-shaped openings therein and being received in the shank of one of the rail securing members to lock the rail securing members upon the tie and to lock the cushion block upon the tie.

1,205,191. NUT-LOCK. HARRY GOLDSTONE, New York, N. Y. Filed Oct. 8, 1915. Serial No. 54,811. (Cl. 151—12.)



1. A bolt having a groove, a nut having a radial passage opening onto the groove, and a recess disposed parallel to the bolt opening in the nut, in combination with a key mounted to rock in the recess and provided with a lug engaging in the groove and movable through said passage, on rotation in one direction of the key, and means removably mounted in the recess and directly bearing against the key to hold the same against rocking movements.

2. A bolt having a groove, a nut having a radial passage opening onto the groove, and a recess disposed parallel to the bolt opening in the nut, in combination with a key mounted to rock in the recess and provided with a lug engaging in the groove and movable through said passage, on rotation in one direction of the key, and means removably mounted in the recess and directly bearing against the key to hold the same against rocking movements, and provided with means for locking engagement with the walls of the recess.

3. A bolt having a groove, a nut having a radial passage opening onto the groove, and a recess disposed parallel to the bolt opening in the nut, in combination with a key mounted to rock in the recess and provided with a lug engaging in the groove and movable through said passage, on rotation in one direction of the key, and means removably mounted in the recess and directly bearing against the key to hold the same against rocking movements, and provided with yieldable means for locking engagement with the walls of said recess.

4. A nut lock for bolts, comprising in combination with a bolt having a groove, and a nut having a recess provided with two communicating branches and a passage opening thereinto between the ends thereof and extending to the bolt opening in the nut, of a key removably mounted in the recess and free to rock therein and provided with a lug adapted to extend into the said groove of the bolt, said lug being freely movable in said passage, and a retainer freely insertible in the other branch of said recess and serving to hold the key against rotation.

5. A nut lock for bolts, comprising in combination with a bolt having a groove, and a nut having a recess provided with two communicating branches and a passage opening thereinto between the ends thereof and extending to the bolt opening in the nut, of a key removably mounted in the recess and free to rock therein and provided with a lug adapted to extend into the said groove of the bolt, said lug being freely movable in said passage, and a retainer freely insertible in the other branch of said recess and serving to hold the key against rotation, the said key having an angular surface, the retainer having a similar angular surface mating with the first surface on operative application of the retainer and key in said communicating branches of the recess.

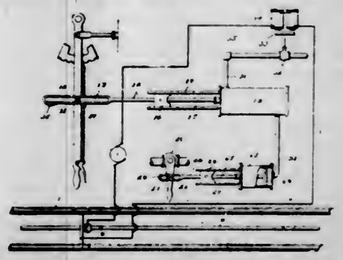
1,205,192. METAL TIE. WILLIAM GOTTLIEB, Port Jervis, N. Y. Original application filed Apr. 14, 1916, Serial No. 71,167. Divided and this application filed June 9, 1916. Serial No. 102,742. (Cl. 238—5.)



1. A metal tie comprising two similar hollow sections, each having its inner portion reduced from one of its sides and the longitudinal edges of the said reduced portions formed with teeth that are adapted to interengage, and transverse means passing through the sections for connecting the same.

2. In a metal tie, two similar hollow sections each having its central portion reduced from one of its sides and formed with teeth that interengage, the sides of said sections having openings, certain of which are adapted to aline, and securing elements passing through the alining openings for adjustably connecting the sections.

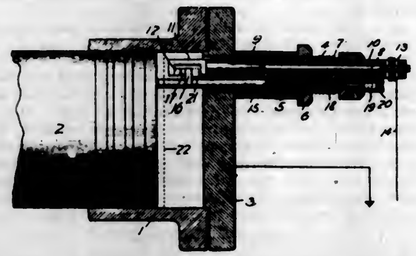
1,205,193. TRAIN-STOPPING APPARATUS. ABEL X. W. GRONDIN, Thetford Mines, Quebec, Canada. Filed Nov. 26, 1915. Serial No. 63,511. (Cl. 246—58.)



1. In train stopping apparatus, the combination with the throttle valve lever, of a roller on said lever, an arm formed with an elongated slot designed to receive said roller, a roller on the latching dog rod of said lever, a cam shoe on the adjacent edge of said arm adapted to engage said last mentioned roller in the initial movement of the arm to move the latching dog out of engagement with the quadrant, and a motor for actuating said arm.

2. In train stopping apparatus, the combination with the throttle valve lever, of a roller on said lever, an arm formed with an elongated slot designed to receive said roller, a roller on the latching dog rod of said lever, a cam shoe on the adjacent edge of said arm adapted to engage said last-mentioned roller in the initial movement of the arm to move the latching dog out of engagement with the quadrant, a fluid motor for actuating said arm, a source of supply for said motor, a valve controlling communication between said motor and source, an electro responsive device controlling said valve, a second motor connected to the first motor and controlled thereby, and a connection between the last-mentioned motor and the brake valve.

1,205,194. IGNITING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. WILLIAM GRUNOW, Jr., New York, N. Y., assignor to John F. Alvord, Torrington, Conn., and William B. Thompson, New York, N. Y. Filed Oct. 28, 1915. Serial No. 58,379. (Cl. 123—162.)



1. An igniter comprising a single stem electrode having a freely projecting contact point, insulation about said electrode, second electrode carrying a freely projecting contact and having an extended portion adapted to directly engage an engine piston, tension means for holding the contacts of said electrode normally in contact, and a body member upon which all of the foregoing parts are mounted to form a removable unit, said body member inclosing said tension means and adapted to be rigidly secured to an engine whereby said contact points project freely into the combustion chamber thereof, substantially as described.

2. An igniter comprising a fixed body adapted to be secured to an engine cylinder, a single stem stationary electrode carried by said body insulated therefrom, and having a contact point, a movable electrode stem carried by said body in electrical contact therewith and adapted to directly engage an engine piston, and tension means for holding said electrodes in contact, said tension means surrounding said movable electrode where it passes through said body, substantially as described.

3. An igniter comprising an externally threaded one-piece body, a longitudinal aperture therein, an insulated solid electrode immovably supported in said aperture, a second longitudinal aperture in said body, a movable electrode supported in said last aperture, and in contact with said body, a spring surrounding a portion of said movable electrode, said spring being inclosed by said body, a cylinder wall adapted to receive a portion of said threaded body, and means surrounding a portion of said igniter body and coöperating with said cylinder wall, whereby said body may be locked in position.

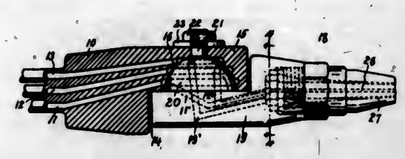
4. An igniter comprising a body, an electrode in said body, insulated therefrom and having a contact point adapted to project beyond said body and freely into an engine cylinder, a second electrode having an extension adapted to engage an engine piston, and means for moving one of said electrodes in relation to the piston operated electrode, substantially as described.

5. In combination with an internal combustion engine, an igniter comprising a body rigidly secured to said engine, a movable electrode having a contact point carried in said body and adapted to be operated by the piston of said engine, a second electrode coöperating with the contact point on said first electrode, means for adjusting said electrodes in relation to said piston, and means for preventing axial rotation of said electrodes.

[Claims 6 to 23 not printed in the Gazette.]

1,205,195. ADJUSTABLE COMBINED WELDING AND CUTTING TORCH. HERMAN H. GUMS, Newark, N. J. Filed July 24, 1916. Serial No. 110,897. (Cl. 158—27.4.)

1. In a gas burning torch, the combination of a body member having its end cut away at one side and having a hemispherical recess on the inner side of the remaining part, said recess being provided with annular grooves extending therearound, the body member being supplied with gas passages communicating with said grooves, a gas burning nozzle having a hemispherical projecting part received within the said recess and having gas passages terminating in said hemispherical part in communication with said grooves.

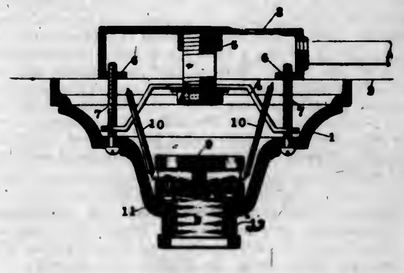


2. In a gas burning torch, a body member provided with a substantially hemispherical recess and with an aperture at the base of said recess, a nozzle having a hemispherical projection adapted to be received within said recess and having a fastening shank extending through said aperture, and means for supplying a plurality of gases from said body member to said nozzle.

3. In a gas burning torch, a body member and a nozzle member halved together, means including a lateral projection on one of said members and a recess in the other of said members for swiveling the nozzle on the body member, and means within the swivel means for supplying gas from the body member to the nozzle in all the swiveling positions of the nozzle.

4. In a gas burning torch, a body member having a recess therein of decreasing size toward its bottom, a nozzle member provided with a lateral extension fitting in said recess and mounted to turn thereon, and means for supplying a plurality of gases from said body member through said projection to said nozzle member.

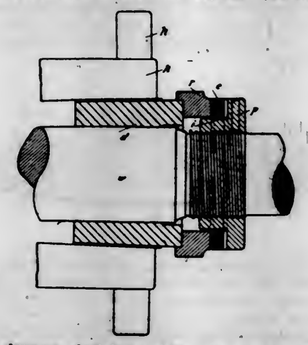
1,205,196. LIGHTING-FIXTURE. EDWIN F. GUTH, St. Louis, Mo. Filed Aug. 18, 1915. Serial No. 46,097. (Cl. 240—78.)



1. In a lighting fixture, the combination of a canopy provided with a threaded opening, a socket member comprising a base of insulating material and an exteriorly and interiorly threaded lamp receiving shell permanently attached to the base and adapted to be screwed into the threaded opening in the canopy from the inside, and means for preventing the shell from turning when a lamp is inserted.

2. In a lighting fixture, the combination of a canopy provided with a threaded opening, and a socket member comprising a base of insulating material and an exteriorly and interiorly threaded lamp receiving shell permanently attached to the base and adapted to be screwed into the threaded opening in the canopy from the inside, a portion of the lower edge of the shell being bendable outwardly to engage the canopy and prevent the shell from turning when a lamp is inserted.

1,205,197. COMMUTATOR. HUGO HAAGE, Bernau, near Berlin, Germany, assignor to Siemens-Schuckert-Werke G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed July 13, 1915. Serial No. 39,722. (Cl. 200—12.)

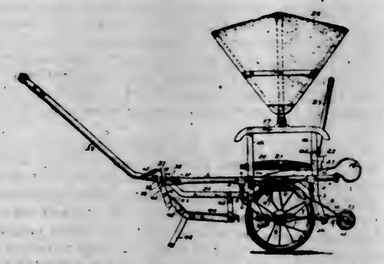


1. In a dynamo electric machine, the combination of a shaft, a commutator carried thereby, means carried by said shaft for exerting pressure against said commutator, a ring-like member interposed between said commutator and said pressure means, a pair of radial ribs interposed between the lateral faces of said commutator and said ring-like member, and a second pair of radial ribs interposed between the lateral faces of said ring-like member and said pressure means, the ribs of each of said pairs being arranged substantially opposite each other.

2. In a dynamo electric machine, the combination of a shaft, a commutator carried thereby, means carried by said shaft for exerting pressure against said commutator, a ring-like member interposed between said commutator and said pressure means, and a pair of radial ribs on each lateral face of said interposed member, the ribs of each of said pairs being arranged diametrically opposite one another and the axes of said pairs crossing one another at an angle of 90°.

3. In a dynamo electric machine, the combination of a shaft, a commutator carried thereby, means carried by said shaft for exerting pressure against said commutator, a ring-like member interposed between said commutator and said pressure means, a plurality of radial ribs interposed between the lateral faces of said commutator and said ring-like member, and a plurality of radial ribs interposed between the lateral faces of the said ring-like member and said pressure means, the ribs adjacent one lateral face of the said ring-like member being in staggered relation to the ribs adjacent the opposite lateral faces of said ring-like member.

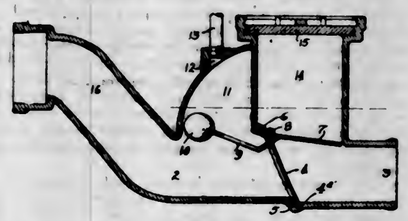
1,205,198. CHILD'S SULKY. AXEL W. HAWKINSON, Washington, Pa., assignor to Topliff-Ely Company, Washington, Pa., a Corporation of Pennsylvania. Filed Dec. 24, 1915. Serial No. 68,504. (Cl. 21—83.)



1. A child's folding sulky comprising a main frame, wheel frames hinged thereto, a single wheel mounted on each wheel frame, two upright bails pivotally attached to the main frame, arm rests pivotally connecting the upper ends of one bail with the upper ends of the other bail, a handle, means connecting said handle with one of said pivoted bails, means for locking the parts, and cam-arms rigidly secured to the wheel frame in position to engage one of said bails to fold said wheel frames and the wheels carried thereby.

2. A child's folding sulky, comprising a main frame, wheel frames, each wheel frame comprising a base bar, a bracket secured thereto and pivotally connected with the main frame, a stub axle secured between said bar and bracket, wheels in which the stub axles are mounted, an arch bracket secured to the first-mentioned bracket of each wheel frame, cam-arms secured to said arch brackets, upright bails pivoted to the main frame, one of said bails being coöperable with said cam arms to fold the wheel frames, arm rests connecting said bails, a handle, and means connecting said handle with one of the pivoted bails for folding the structure.

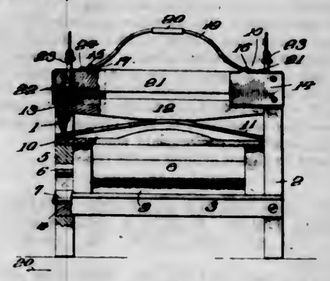
1,205,199. BACKWATER-VALVE. EDMUND T. HEALY, St. Paul, Minn. Filed Dec. 4, 1915. Serial No. 65,072. (Cl. 182—14.)



1. A back-flow valve comprising a suitable housing having a water channel therethrough, and a valve seat intersecting said water channel, and a valve and float mounted in said housing and both normally above the normal water flow through said channel; said housing being constructed with a vented float chamber, and a second and independent hand passage extending upwardly over the valve.

2. A back-flow valve comprising a suitable housing having a water channel therethrough, and a valve seat intersecting said water channel, and a valve and float mounted in said housing and both normally above the normal water flow through said channel; said housing being constructed with a float chamber and a hand passage extending upwardly over the float and valve, respectively; said float chamber and hand passage having a common dividing wall which terminates at their intersection with the water passage, and said wall receiving the anchoring screw for the valve seat.

1,205,200. CLOTHES-WRINGER. JOHN F. HEMENWAY, New York, N. Y. Filed Apr. 1, 1916. Serial No. 88,246. (Cl. 68—32.)



1. A clothes wringer comprising a frame having a movably mounted top bar carrying pressure screws, U-shaped members embracing the side bars of said frame at their upper ends, said U-shaped members being provided with oppositely disposed hooks, and a bowed spring formed of a piece of wire having enlarged loop portions at its ends adapted to be arranged under said hooks for holding said top bar in position within said wringer frame.

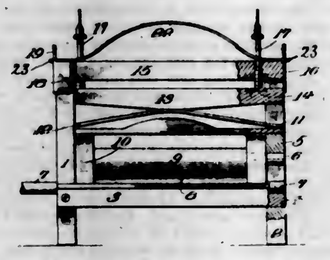
2. A clothes wringer comprising a frame having slotted side bars, a top bar slidably mounted within the slots of said side bars, pressure screws carried by said top bar, U-shaped members embracing the side bars of said wringer frame at their upper ends, the upper edges of said U-shaped members being provided with oppositely disposed hooks, bearings secured on the top bar to one side of said hooks, and a bowed spring formed of a piece of wire having cross bars at its ends arranged under said hooks on said bearing plates for normally holding said cross bar in position within said wringer frame.

3. In a wringer, the combination with a pressure roll and pressure means therefor, of a top bar slidably mounted within said wringer frame having pressure screws for adjusting said pressure means, a bowed spring formed of a piece of wire having enlarged portions to form cross bars at its ends carried by said top bar, and hooks carried by the side bars of said frame adapted to receive the cross bars of said bowed spring for preventing upward movement of the top bar thereof.

4. In a clothes wringer, the combination with a frame having pressure rolls and pressure means mounted therein, of a top bar slidably mounted within said frame having pressure screws for adjusting said pressure means, U-shaped members embracing the side bars of said frame at their upper ends, the upper edges of said U-shaped members being provided with oppositely disposed hooks, bearing plates secured on the upper face of said top bar to one side of the said hooks, a bowed spring formed of a single piece of wire having cross bars at its ends arranged under said hooks, and resting upon the bearing plates of said top bar for normally holding said top bar in position with said frame.

5. A clothes wringer comprising a frame having pressure rolls and pressure means mounted therein, a top bar movably mounted within said frame having pressure screws, oppositely disposed hooks carried by the side bars of said frame and extending upwardly in a plane above the top bar and a bowed spring formed of a single piece of wire bent into loop form to provide cross bars at its ends arranged under said hooked portions over said top bar for preventing upward movement of said top bar, said cross bar being adapted to be forced out from under said hooks by exerting a downward pressure upon said spring.

1,205,201. CLOTHES-WRINGER. JOHN F. HEMENWAY, New York, N. Y. Filed Apr. 1, 1916. Serial No. 88,248. (Cl. 68—32.)



1. A wringer comprising a frame, having pressure rolls and pressure means mounted therein, a movably mounted top bar mounted within said frame, U-shaped members carried by the said side bars of said wringer frame having vertically disposed portions provided with substantially inverted T-shaped slots, pressure screws carried by the top bar, a bowed spring provided with slots to receive said pressure screws, said bowed spring having horizontally disposed T-shaped ends mounted within the slots of said vertically disposed portion and normally holding said top bar in position within said frame.

2. A clothes wringer comprising a frame having a movably mounted top bar carrying pressure screws, members carried by the side bars of said frame provided with vertically disposed portions having inverted T-shaped slots, and a bowed spring carried by said top bar and having substantially T-shaped ends coöperating with said slots for holding said top bar in position in said frame and for allowing said top bar to move vertically by the lateral movement of the ends of said spring.

3. A clothes wringer comprising a frame having pressure rolls and pressure means mounted therein, a top bar carrying pressure screws, members carried by the side bars of said frame provided with vertically disposed portions having substantially inverted T-shaped slots, a bowed spring having slots to receive pressure screws of said top bar and provided with substantially horizontally disposed T-shaped ends, the heads of said T-shaped portion being adapted to normally rest within the horizontally disposed slots of said vertically disposed portions for holding said top bar within said frame.

4. A clothes wringer comprising a frame having pressure rolls and pressure means mounted therein, a top bar for said frame having pressure screws for adjusting said pressure means, members secured to the side bars of said frame having vertically disposed portions provided with substantially inverted T-shaped slots, and a bowed spring carried by the top bar having T-shaped ends coöperating with said T-shaped slots for holding and releasing said top bar.

5. A clothes wringer comprising a frame having pressure rolls and pressure means mounted therein, U-shaped members embracing the side bars of said frame having vertically disposed portions provided with horizontal and vertical slots, a top bar mounted in said frame and capable of moving vertically therein, a bowed spring carried by said top bar provided with slots, pressure screws carried by the top bar extending through said slots, said spring having reduced ends provided with oppositely disposed notches forming heads, the heads of said spring being seated within the horizontally diaposed slots of said vertically disposed portions, the ends of said spring being capable of being moved laterally by exerting a downward pressure thereon to throw the reduced portions thereof in alinement with the vertical slots of the vertically disposed portions to allow said top bar to move vertically within said frame.

[Claims 6 and 7 not printed in the Gazette.]

1,205,202. CHIME-STRIKING HAMMER. WALTER J. HERSCHEDE, Cincinnati, Ohio, assignor to The Herschede Hall Clock Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 31, 1915. Serial No. 42,874. (Cl. 116—33.)



1. In a chime striking hammer the combination of a collar, a metal plug mounted in the collar, a leather cushion mounted on the plug and held in position by the collar, a handle, a heavy metal washer, and a screw mounted in the plug adapted to secure the handle between the plug, collar, and the washer.

2. In combination in a chime striking hammer, a hammer head, a handle, a heavy washer, and means adapted to secure the handle between the washer and the head, said head comprising a collar having an inwardly tapered inner surface, a plug located in the collar and having an externally tapered surface adapted to coöperate with the tapered surface of the collar, a leather cushion mounted on the plug and held in position by the coöperating tapered surfaces of the plug and collar, and means formed ex-

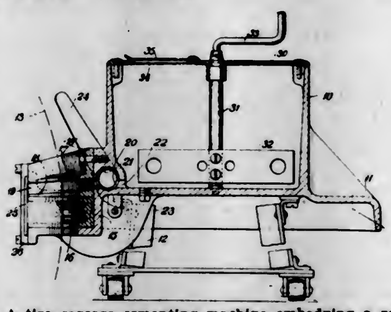
ternally of the plug and internally of the collar adapted to secure the plug and collar together.

3. A chime striking hammer comprising a hammer head, a handle, a heavy washer, a means adapted to secure the handle between the washer and head, said head consisting of a collar having an inner surface tapering inwardly to its outer end, a plug having an inwardly tapering outer surface, a cushion located between the tapered surfaces of the plug and the collar, and means for securing the plug and collar together to clamp the cushion in position.

4. In a chime striking hammer, a hammer head consisting of a headed plug having an inwardly tapering outer surface, a collar having an inner surface tapering inwardly at its outer end, a cushion located between the tapered surfaces of the plug and collar, and means for securing the plug and collar together to clamp the cushion in position over the head of the plug.

5. In a chime striking hammer, a hammer head consisting of a collar having an inner surface tapering inwardly at its outer end, a headed plug having an inwardly tapered outer surface, a cushion located between the tapered surface of the plug and collar, and screw threads formed on the collar and plug for securing them together to clamp the cushion in position over the headed end of the plug.

1,205,203. TIRE-CEMENTING MACHINE. JOHN M. HISNER, Detroit, Mich., assignor to Morgan & Wright, a Corporation of Michigan. Filed Nov. 28, 1914. Serial No. 874,376. (Cl. 91—25.)



1. A tire carcass cementing machine embodying a reservoir for cement, a brush adapted to transversely embrace the crown of a tire carcass, means adapted to coact with the surface of the carcass in forming a cement hopper for the brush, and means for supplying cement from the reservoir to the hopper.

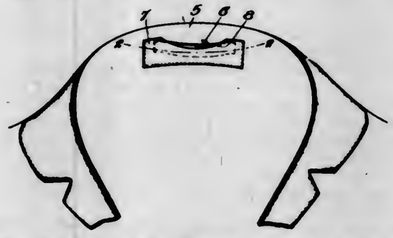
2. A tire carcass cementing machine embodying a reservoir for cement, a trough adapted to straddle a tire carcass, a brush adapted to snugly embrace the carcass, means adapted to coact with the trough and with the surface of the carcass in forming a hopper for the brush, and means for supplying cement from the reservoir to the hopper.

3. A tire carcass cementing machine embodying a reservoir for cement, a trough adapted to straddle a revoluble carcass, a brush below the trough adapted to snugly embrace the carcass, stops on the trough at the ends of the brush adapted to contact with the sides of the carcass and coact with the trough and with the surface of the carcass in forming a hopper for the brush, and means for supplying cement from the reservoir to the hopper.

4. A tire carcass cementing machine embodying a reservoir for cement, a trough adapted to straddle a revoluble carcass, a brush below the trough adapted to snugly embrace the carcass, movable stops on the trough in advance of the brush adapted to abut the sides of the carcass and coact with the trough and with the surface of the carcass in forming a hopper for the brush, means for moving said stops to abut and withdraw from the carcass, and means for supplying cement from the reservoir to the hopper.

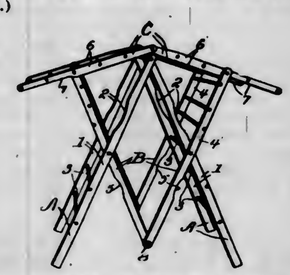
5. A tire carcass cementing machine embodying a reservoir for cement, a brush for embracing the crown of a carcass, a trough above the brush having an open front communicating with the brush, a valve for controlling the passage of cement from the reservoir to the trough, and stops on the trough at the ends of the brush adapted to abut the sides of the tire and coact with the trough in forming a hopper for the brush.

1,205,204. COAT-HANGER. WILLIAM H. HIGGINS, Chicago, Ill. Filed Sept. 16, 1915. Serial No. 51,023. (Cl. 2—53.)



The combination with a garment hanger, of a protecting fabric strip secured to the garment over the hanger to cover the same and extending throughout the entire length of the hanger, the top edge of the strip being free and detached from the garment, and said edge having a recess across which the upper edge of the hanger extends and through which it is exposed.

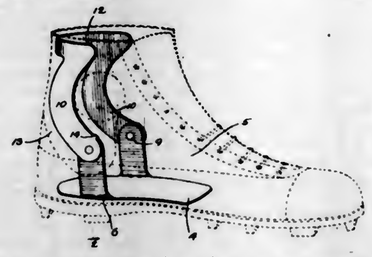
1,205,205. CLOTHES-BAR. FRANK J. HOAG, Cortland, N. Y. Filed May 10, 1916. Serial No. 96,676. (Cl. 68—34.)



A rack comprising leg sections pivotally connected together and having side bars provided at their outer edges and in the vicinity of their upper ends with recesses, intermediate sections pivotally connected together and pivotally connected with the leg sections, said intermediate sections having side bars provided with recesses located at their outer edges and in the vicinity of their lower ends, top sections pivotally connected together and pivotally connected with the upper ends of the intermediate sections and having side bars provided at their lower ends and inner edges with recesses, rounds connecting the side bars of the several sections together, the side bars of the sections adapted to be folded with their edges in close contact with each other, the recesses in the side bars of one section adapted to receive the rounds of the next adjacent section when the sections are folded.

1,205,206. FOOT-PROTECTOR. CHARLES HOFMEISTER, Chicago, Ill. Filed Feb. 5, 1916. Serial No. 76,246. (Cl. 36—71.)

1. The combination of a shoe, an arch support, and an ankle support; the arch and ankle supports being pivotally connected; the arch support comprising a plate extending forwardly from the heel of the shoe to the central portion of the sole thereof; and the ankle support comprising risers pivotally connected to said plate and extending upwardly and rearwardly back of and above the ankle of the wearer.



2. The combination of a shoe and a foot protector, said protector comprising a plate positioned inside of said shoe and extending from the heel to the central portion of the sole thereof, said plate having risers extending upwardly and said protector having ankle supporters pivoted to said risers and extending upwardly therefrom and rearwardly and then upwardly to the upper portion of said shoe.

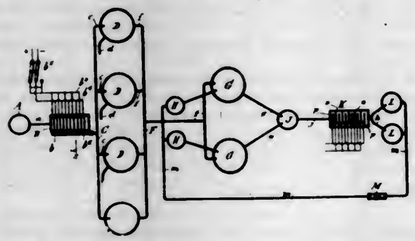
3. The combination of a shoe and a foot protector, said protector comprising a plate positioned inside of said shoe and extending from the heel to the central portion of the sole thereof, said plate having risers extending upwardly, and said protector having ankle supporters pivoted to said risers and extending rearwardly and upwardly to the upper portion of said shoe, said protector having a stop limiting the pivotal movement of said risers with reference to said plate.

4. A foot protector comprising a plate adapted to be positioned inside a shoe and extend from the heel to the central portion of the foot and curved to the shape of the sole of the foot, risers on each side of said plate, and ankle supporters pivotally connected to said risers and extending upwardly and rearwardly therefrom, and a member connecting the upper ends of said supports extending rearwardly therefrom.

5. A foot protector comprising a plate adapted to extend from the heel to the central portion of the foot, risers on each side of said plate, and ankle supporters flexibly connected to said risers, and extending upwardly and rearwardly therefrom, a member connecting the upper ends of said supports extending rearwardly therefrom, and a stop limiting the relative movement of said supporters with reference to said plate.

[Claims 6 to 8 not printed in the Gazette.]

1,205,207. PROCESS AND APPARATUS FOR RECOVERING METALS FROM LIQUIDS. CHARLES E. HOLLAND, New York, N. Y., assignor to Metals Electro-Recovery Company, a Corporation of Arizona. Filed Dec. 10, 1913. Serial No. 805,716. (Cl. 204—15.)



1. The process of recovering or reclaiming metal from water or other liquid which consists in collecting the liquid into an open top receptacle, passing an electric current through the liquid so collected, intermittently reversing the electric current while passing through the liquid causing the liquid to overflow from the receptacle, separating the excess water from the products or settlings treating the products or settlings with a cyanid solution, then subjecting the same to electrolytic action, and then separating the liquid from the electrolytic deposit.

2. The process of recovering or reclaiming metal from water or other liquid which consists in passing an electric current through the liquid, intermittently reversing the electric current while passing through the liquid then causing the liquid to flow from its surface then separating the excess liquid from the products or settlings, treating the settlings with a cyanid solution, separating the metal by electrolytic action from the liquid by electrolytic deposits, and removing the liquid from the electrolytic deposits.

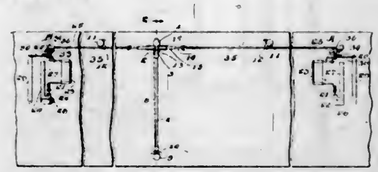
3. The process of recovering or reclaiming metal from water or other liquid, which consists in passing the liquid into and out of a chamber containing a series of electric conductors, passing an electric current through said conductors, intermittently reversing the electric current, thereby forming hydrogen gas which assists the minute particles of metal to rise to the top of the liquid, the flow of liquid also carrying particles of metal to the top while they are in suspension after their release from the electric conductors on reversal of the current, then separating the liquid from the metal so collected, as and for the purpose set forth.

4. The process of recovering or reclaiming metal from water or other liquid, continually collecting the products or settlings, treating the settlings with a cyanid solution, subjecting the same to electrolytic action, separating the liquid slime from the electrolytic deposit returning the liquid portion to the cyanid solution and re-generating the same.

5. In an apparatus of the class described, a tank to hold water or other liquid containing metal, a tank having a series of plates extending into the same near the bottom thereof, a pipe leading from the first tank to the second tank, a series of electric wires connected to said plates, a pole changer connected to said wires, a trough connected to the side of the tank, a settling tank connected to said trough, a leaching tank, pipes connected to the settling tank and the leaching tank, a tank containing a cyanid solution, pipes connecting the leaching tank with the cyanid tank, a recovering tank, pipes connecting the recovering tank and the leaching tank, a series of anode plates and a series of cathode plates arranged in said recovering tank in baffle formation, electric connections to each series of plates, and an outlet leading from said recovering tank.

[Claims 6 to 12 not printed in the Gazette.]

1,205,208. FARM-GATE. WILLIAM STEPHEN HOLLAND, Bedford, Va. Filed June 13, 1916. Serial No. 103,525. (Cl. 39—33.)



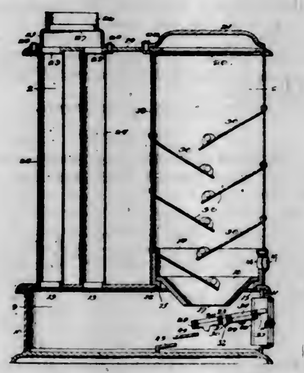
1. A gate structure comprising a post, a shaft journaled thereon, a resilient arm mounted upon the shaft and having a curved shoe, a panel pivoted upon the shaft, a latch carried by the panel and means operatively connecting the latch with the shoe, a gear wheel carried by the panel and concentrically positioned with relation to the shaft, a bar movably mounted transversely of the post, a lug carried by said bar for engaging said shoe, a second bar resiliently supported upon the first mentioned bar and engaging the said gear wheel.

2. A gate panel operating mechanism comprising a shaft journaled in supports, a spring connected with the shaft and one of the supports, said shaft having an intermediate crank portion and an end crank, a lug carried by the end crank, a second shaft journaled in one of the supports and having a crank provided with an extremity adapted to be encountered by the intermediate portion of the crank of the first mentioned shaft, a rod pivotally connected with the crank of the last mentioned shaft, a lug carried by said rod and adapted to be encountered by the lug upon the crank of the first mentioned shaft.

3. A gate panel operating mechanism comprising a crank shaft journaled for turning movement, a spring engaging said shaft and adapted to hold the same in a normal position, a crank provided at the end of the shaft and having a lug, a second shaft journaled for rotation and having a crank provided with an extremity adapted to be engaged by the first mentioned shaft, the second mentioned shaft also having a crank, a rod pivoted to the last mentioned crank and having a lug adapted to be encountered by the first mentioned lug and a resilient ramp having a lug adapted to encounter the first mentioned shaft.

4. A gate panel operating mechanism comprising a shaft journaled in supports, and having intermediate and end cranks, a spring engaging said shaft for holding the same at a normal position, a lug carried by the end crank of said shaft, a second shaft journaled adjacent the first mentioned shaft and having cranks provided at its ends, one of the said cranks being provided with an extremity adapted to be encountered by the intermediate crank of the first mentioned shaft, a rod pivotally connected with the other crank of the second mentioned shaft and having a lug adapted to be encountered by the lug carried by the first mentioned shaft, a resilient ramp mounted adjacent the first mentioned shaft and having a lug adapted to encounter the said shaft and move the same longitudinally, a second ramp mounted adjacent the first mentioned ramp, a lever pivotally connected with the second mentioned ramp and having an end portion located under the intermediate crank of the first mentioned shaft.

1,205,209. HEATING-STOVE. GEORGE A. HOLLENBECK, Levering, Mich. Filed Mar. 22, 1916. Serial No. 85,930. (Cl. 126—58.)



1. In a stove, a hollow base, a fuel magazine rising from the base, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, and a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate.

2. In a stove, a hollow base, a fuel magazine rising from the base, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate, and a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate.

3. In a stove, a hollow base, a fuel magazine rising from the base, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate, and means for supplying air over and beneath the grate.

4. In a stove, a hollow base, a fuel magazine rising from the base, means within the magazine for controlling the flow of the fuel therethrough, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, and a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate.

5. In a stove, a hollow base, a fuel magazine rising from the base, a conveyer element within the magazine and operating to force the fuel therethrough, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, and a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate.

1,205,210. FLEXIBLE SHEET-METAL BELTING. HENRY A. HOUSE, Bridgeport, Conn. Filed Jan. 21, 1916. Serial No. 73,270. (Cl. 74—64.)



1. A belt unit comprising a link member having at one end a retaining member and at the other end a bearing member, the retaining and bearing members projecting in a direction away from the same side of the link member, and said retaining member being shaped to be engaged by a bearing member like that at the other end of the link member, and said bearing member being shaped to engage a retaining member like that on the other end of said link member.

2. A belt unit having on one end a retaining member projecting from the side of the unit, and at the other end a bearing member projecting from the same side of the unit and having a knife edge, the knife edge of the bearing member being adapted to engage the retaining member of a like adjacent unit.

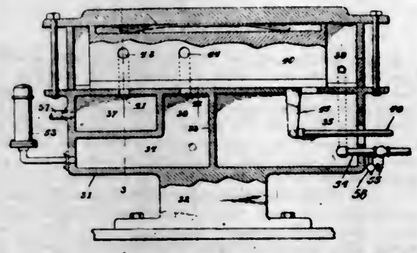
3. A belt unit curved to form a pulley surface and having at one end a retaining member projecting above the side of the unit, and at the other end a bearing member projecting above the same side of the unit and having a knife edge, the knife edge of the bearing member being adapted to engage the retaining member of a like adjacent unit.

4. A belt unit formed of a single piece of thin metal having a curved pulley surface, and a lip bent back at one edge to an acute angle to said curved surface, and a bearing hook bent back at the opposite end of said unit to an obtuse angle to the same side of said curved surface, and having a knife edge extending in a direction toward the surface, and in an opposite direction to the direction of the lip, but substantially parallel with the lip.

5. A sheet metal belt unit adapted to form a pulley surface, having on one end a retaining member, a latch on the unit at the retaining member end, and a bearing member on the other end of said unit and having an opening therein, the bearing member being adapted to engage the retaining member of a like adjacent unit, and the latch being adapted to engage with the opening of said like adjacent unit.

[Claims 6 to 12 not printed in the Gazette.]

1,205,211. TRAIN-STOPPING APPARATUS. HOWARD JACKSON, Omaha, Nebr., assignor of one-fourth to Victor Bjormberg, Omaha, Nebr. Filed Nov. 23, 1915. Serial No. 63,034. (Cl. 246—58.)



1. In automatic train stopping apparatus, the combination with the controlling element of the motor car, the brake valve and the brake pipe, of a motor for actuating said controlling element to cut off the propelling power of the car, a valve in the brake pipe for cutting off communication between the engineer's brake valve and the brake pipe, a motor for operating the last-mentioned valve to cut off position, and a master valve controlling the operation of both of said motors and connected with the brake pipe to bleed the latter.

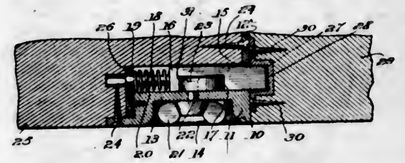
2. In automatic train stopping apparatus, the combination with the controlling element of the motor car, the brake valve and the brake pipe, of a motor for actuating said controlling element to cut off the propelling power of the car, a valve in the brake pipe for cutting off communication between the engineer's brake valve and the brakepipe, a motor for operating the last-mentioned valve to cut off position, a master valve controlling the operation of both of said motors and connected with the brake pipe to bleed the latter, and an adjustable pressure reducing valve associated with said master valve and controlling the bleeding of the brake pipe.

3. In automatic train stopping apparatus, the combination with the controlling element of the motor car, the brake valve and the brake pipe, of a motor for actuating said controlling element to cut off the propelling power of the car, a valve in the brake pipe for cutting off communication between the engineer's brake valve and the brake pipe, a motor for operating the last-mentioned valve to cut off position, a master valve controlling the operation of both of said motors and connected to the brake pipe to bleed the latter, and automatic eccentric mechanism for operating said master valve.

4. In automatic train stopping apparatus, the combination with the controlling element of the motor car, the brake valve and the brake pipe, of a motor for actuating said controlling element to cut off the propelling power of the car, a valve in the brake pipe for cutting off communication between the engineer's brake valve and the brake pipe, a motor for operating the last-mentioned valve to cut off position, a master valve controlling the operation of both of said motors and connected to the brake pipe to bleed the latter, automatic eccentric mechanism for operating said master valve, and automatic mechanism for operating said master valve.

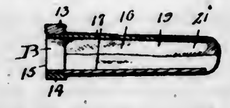
1,205,212. SASH-LOCK. CHARLES L. JOHNSON, Morrisville, Pa. Filed Mar. 7, 1916. Serial No. 82,740. (Cl. 16—110.)

A lock comprising an L shaped body providing a plurality of plates, one of which has an opening and the other a raised portion, a grooved latch element slidable on the raised portion and having an end passing through the opening, a stem on the latch element, a bearing on the raised portion and having the stem journaled therein, a thumb nut in the raised portion, a stem on the nut



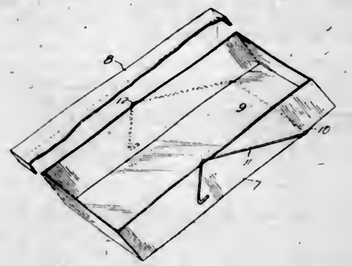
and journaled in the raised portion, a cam on the stem and operable in the groove of the latch and a spring encircling the stem to hold the latch element at all times in contact with the cam.

1,205,213. MAIL ASSORTING RACK AND CARRIER. JOHN J. JOHNSON, Carrollton, Wash. Filed Mar. 19, 1915. Serial No. 15,523. (Cl. 211—36.)



A mail bag supporting frame comprising a pair of rails, strips spacing said rails apart and a set of horizontally disposed substantially rectangular resilient fingers for each rail, each having one end secured to the rail between a pair of strips and the other spaced from said strips and rails and beveled.

1,205,214. DISPLAY-BOX. ELMER H. JOSSELYN, Baltimore, Md. Filed Dec. 21, 1915. Serial No. 68,039. (Cl. 211—28.)



1. A box, a support therefor comprising a strip of resilient material having a straight portion intermediate its length extending beyond the sides of the box, means for rotatably securing the said straight portion to the bottom of the box, arms extending at right angles to the said straight portion, and angular extremities on said arms, the distance between the arms at their ends being less than the distance between the said arms at their junction with the straight portion and adapted to be sprung apart to pass the outer sides of the said box.

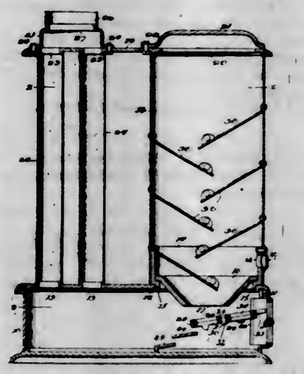
2. A box, a support therefor comprising a length of resilient material having a straight central portion, means for securing the said central portion to the box, arms extending at an angle to the central portion, the distance between the arms at their outer ends being less than the distance between the sides of the box to which the arms are secured and being adapted to be sprung to lie against the outer surfaces of the sides of the box when nested with relation to the said box.

2. A gate panel operating mechanism comprising a shaft journaled in supports, a spring connected with the shaft and one of the supports, said shaft having an intermediate crank portion and an end crank, a lug carried by the end crank, a second shaft journaled in one of the supports and having a crank provided with an extremity adapted to be encountered by the intermediate portion of the crank of the first mentioned shaft, a rod pivotally connected with the crank of the last mentioned shaft, a lug carried by said rod and adapted to be encountered by the lug upon the crank of the first mentioned shaft.

3. A gate panel operating mechanism comprising a crank shaft journaled for turning movement, a spring engaging said shaft and adapted to hold the same in a normal position, a crank provided at the end of the shaft and having a lug, a second shaft journaled for rotation and having a crank provided with an extremity adapted to be engaged by the first mentioned shaft, the second mentioned shaft also having a crank, a rod pivoted to the last mentioned crank and having a lug adapted to be encountered by the first mentioned lug and a resilient ramp having a lug adapted to encounter the first meationed shaft.

4. A gate panel operating mechanism comprising a shaft journaled in supports, and having intermediate and end cranks, a spring engaging said shaft for holding the same at a normal position, a lug carried by the end crank of said shaft, a second shaft journaled adjacent the first mentioned shaft and having cranks provided at its ends, one of the said cranks being provided with an extremity adapted to be encountered by the intermediate crank of the first mentioned shaft, a rod pivotally connected with the other crank of the second meationed shaft and having a lug adapted to be encountered by the lug carried by the first mentioned shaft, a resilient ramp mounted adjacent the first mentioned shaft and having a lug adapted to encounter the said shaft and move the same longitudinally, a second ramp mounted adjacent the first mentioned ramp, a lever pivotally connected with the second mentioned ramp and having an end portion located under the intermediate crank of the first mentioned shaft.

1,205,209. HEATING-STOVE. GEORGE A. HOLLENBECK, Levering, Mich. Filed Mar. 22, 1916. Serial No. 85,930. (Cl. 126—58.)



1. In a stove, a hollow base, a fuel magazine rising from the base, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, and a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate.

2. In a stove, a hollow base, a fuel magazine rising from the base, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element movably engaging the grate, and a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate.

3. In a stove, a hollow base, a fuel magazine rising from the base, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate, and means for supplying air over and beneath the grate.

4. In a stove, a hollow base, a fuel magazine rising from the base, means within the magazine for controlling the flow of the fuel therethrough, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, and a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate.

5. In a stove, a hollow base, a fuel magazine rising from the base, a conveyer element within the magazine and operating to force the fuel therethrough, a smoke conveying element communicating with the base, a fire pot at the juncture of the fuel magazine and the base, a grate below the fire pot, a draft controlling element coacting with the grate, and a plurality of feed elements spaced apart and arranged in inclined steps and adapted to receive the fuel passing from the grate.

1,205,210. FLEXIBLE SHEET-METAL BELTING. HENRY A. HOUSE, Bridgeport, Conn. Filed Jan. 21, 1916. Serial No. 73,270. (Cl. 74—64.)



1. A belt unit comprising a link member having at one end a retaining member and at the other end a bearing member, the retaining and bearing members projecting in a direction away from the same side of the link member, and said retaining member being shaped to be engaged by a bearing member like that at the other end of the link member, and said bearing member being shaped to engage a retaining member like that on the other end of said link member.

2. A belt unit having on one end a retaining member projecting from the side of the unit, and at the other end a bearing member projecting from the same side of the unit and having a knife edge, the knife edge of the bearing member being adapted to engage the retaining member of a like adjacent unit.

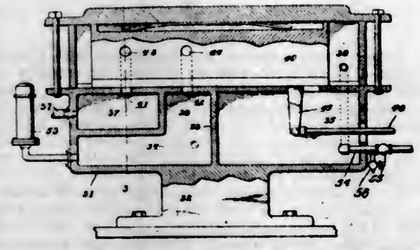
3. A belt unit curved to form a pulley surface and having at one end a retaining member projecting above the side of the unit, and at the other end a bearing member projecting above the same side of the unit and having a knife edge, the knife edge of the bearing member being adapted to engage the retaining member of a like adjacent unit.

4. A belt unit formed of a single piece of thin metal having a curved pulley surface, and a lip bent back at one edge to an acute angle to said curved surface, and a bearing hook bent back at the opposite end of said unit to an obtuse angle to the same side of said curved surface, and having a knife edge extending in a direction toward the surface, and in an opposite direction to the direction of the lip, but substantially parallel with the lip.

5. A sheet metal belt unit adapted to form a pulley surface, having on one end a retaining member, a latch on the unit at the retaining member end, and a bearing member on the other end of said unit and having an opening therein, the bearing member being adapted to engage the retaining member of a like adjacent unit, and the latch being adapted to engage with the opening of said like adjacent unit.

[Claims 6 to 12 not printed in the Gazette.]

1,205,211. TRAIN-STOPPING APPARATUS. HOWARD JACKSON, Omaha, Nebr., assignor of one-fourth to Victor Bjormberg, Omaha, Nebr. Filed Nov. 23, 1915. Serial No. 63,034. (Cl. 246—58.)



1. In automatic train stopping apparatus, the combination with the controlling element of the motor car, the brake valve and the brake pipe, of a motor for actuating said controlling element to cut off the propelling power of the car, a valve in the brake pipe for cutting off communication between the engineer's brake valve and the brake pipe, a motor for operating the last-mentioned valve to cut off position, and a master valve controlling the operation of both of said motors and connected with the brake pipe to bleed the latter.

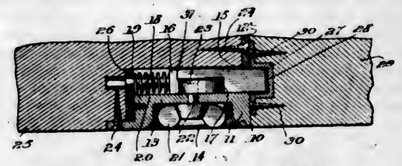
2. In automatic train stopping apparatus, the combination with the controlling element of the motor car, the brake valve and the brake pipe, of a motor for actuating said controlling element to cut off the propelling power of the car, a valve in the brake pipe for cutting off communication between the engineer's brake valve and the brakepipe, a motor for operating the last-mentioned valve to cut off position, a master valve controlling the operation of both of said motors and connected with the brake pipe to bleed the latter, and an adjustable pressure reducing valve associated with said master valve and controlling the bleeding of the brake pipe.

3. In automatic train stopping apparatus, the combination with the controlling element of the motor car, the brake valve and the brake pipe, of a motor for actuating said controlling element to cut off the propelling power of the car, a valve in the brake pipe for cutting off communication between the engineer's brake valve and the brake pipe, a motor for operating the last-mentioned valve to cut off position, a master valve controlling the operation of both of said motors and connected to the brake pipe to bleed the latter, and automatic eccentric mechanism for operating said master valve.

4. In automatic train stopping apparatus, the combination with the controlling element of the motor car, the brake valve and the brake pipe, of a motor for actuating said controlling element to cut off the propelling power of the car, a valve in the brake pipe for cutting off communication between the engineer's brake valve and the brake pipe, a motor for operating the last-mentioned valve to cut off position, a master valve controlling the operation of both of said motors and connected to the brake pipe to bleed the latter, automatic eccentric mechanism for operating said master valve, and automatic mechanism for operating said master valve.
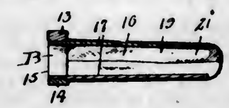
1,205,212. SASH-LOCK. CHARLES L. JOHNSON, Morrisville, Pa. Filed Mar. 7, 1916. Serial No. 82,740. (Cl. 16—119.)

A lock comprising an L shaped body providing a plurality of plates, one of which has an opening and the other a raised portion, a grooved latch element slidable on the raised portion and having an end passing through the opening, a stem on the latch element, a bearing on the raised portion and having the stem journaled therein, a thumb nut in the raised portion, a stem on the nut



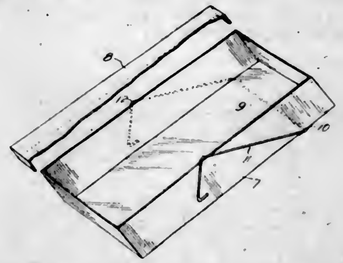
and journaled in the raised portion, a cam on the stem and operable in the groove of the latch and a spring encircling the stem to hold the latch element at all times in contact with the cam.

1,205,213. MAIL ASSORTING RACK AND CARRIER. JOHN J. JOHNSON, Carrollton, Wash. Filed Mar. 19, 1915. Serial No. 15,523. (Cl. 211—36.)



A mail bag supporting frame comprising a pair of rails, strips spacing said rails apart and a set of horizontally disposed substantially rectangular resilient fingers for each rail, each having one end secured to the rail between a pair of strips and the other spaced from said strips and rails and beveled.

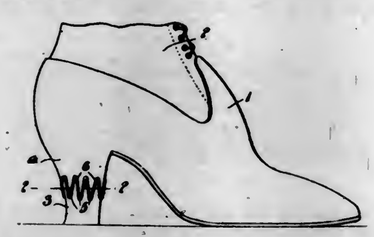
1,205,214. DISPLAY-BOX. ELMER H. JOSSELYN, Baltimore, Md. Filed Dec. 21, 1915. Serial No. 68,039. (Cl. 211—28.)



1. A box, a support therefor comprising a strip of resilient material having a straight portion intermediate its length extending beyond the sides of the box, means for rotatably securing the said straight portion to the bottom of the box, arms extending at right angles to the said straight portion, and angular extremities on said arms, the distance between the arms at their ends being less than the distance between the said arms at their junction with the straight portion and adapted to be sprung apart to pass the outer sides of the said box.

2. A box, a support therefor comprising a length of resilient material having a straight central portion, means for securing the said central portion to the box, arms extending at an angle to the central portion, the distance between the arms at their outer ends being less than the distance between the sides of the box to which the arms are secured and being adapted to be sprung to lie against the outer surfaces of the sides of the box when nested with relation to the said box.

1,205,215. OVERSHOE. FRANCES E. JOUSSET, New York, N. Y. Filed Apr. 15, 1916. Serial No. 91,886. (Cl. 36—6.)



1. An overshoe having an opening at the heel portion thereof and an elastic sleeve surrounding the opening and depending from the overshoe and gripping elements associated with said sleeve.

2. An overshoe having a heel opening, and an elastic sleeve surrounding the opening and depending from the overshoe, said sleeve including a plurality of spaced fingers.

3. An overshoe having an opening at the heel portion thereof, and an elastic sleeve surrounding the opening and depending from the overshoe, said sleeve having its lower portion formed with spaced elastic fingers.

4. An overshoe having an opening at the heel portion thereof, and a sleeve surrounding the opening and depending from the overshoe, said sleeve having its lower portion provided with spaced elastic fingers.

5. An overshoe having an opening in the heel portion thereof, a sleeve surrounding the opening and depending from the overshoe, said sleeve having its lower portion provided with fingers which are substantially V-shaped in plan, and reinforcing ribs for the edges of the fingers.

[Claims 6 and 7 not printed in the Gazette.]

1,205,216. COT. BERNHARD JUNGER, New York, N. Y., assignor, by mesne assignments, to U. S. O. Bed Co. Inc., a Corporation of New York. Filed Nov. 18, 1915. Serial No. 62,103. (Cl. 5—5.)



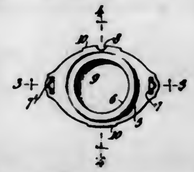
1. A cot having a pair of side rails, a pair of pivoted front legs, a pair of bipartite diagonal braces connecting the legs to the side rails, a pivoted head rest, and arms pivoted to the head rest and arranged to abut against the braces.

2. A cot having a pair of side rails, a pair of pivoted front legs, slots in said legs, a pair of interlocking bipartite braces connecting the legs to the side rails, a pivoted head rest, arms pivoted to the head rest, and noses on said arms, the arms being arranged to be projected through the leg-slots into engagement with the braces.

3. A cot having side-rails, pivoted front and rear legs, foldable toggle-braces connecting the legs to the side-rails, a pivoted head-rest, and brace-arms pivoted at one end to said head-rest, the free end of each brace-arm contacting with but disconnected from the foldable toggle-braces adjacent thereto, and means to lock the brace-arms against movement when in extended or open position.

4. A cot comprising a pair of side-rails, a head-rest foldably connected thereto, front and rear legs, toggle-braces foldably connecting the said side-rails and said legs, and means connected to the head-rest to keep the toggle-braces adjacent thereto in locked position by the weight imposed on the head-rest.

1,205,217. WRIST-WATCH CONTAINER. SOLOMON KAUFMAN, New York, N. Y. Filed Apr. 29, 1916. Serial No. 94,335. (Cl. 224—4.)



1. In a watch container, the combination with a casing provided at its front with an opening for exposing the dial of the watch contained therein, the rear wall of said casing being curved inwardly from the ends toward the center, the sides of the casing being provided with inturned flanges, and a curved plate adapted to close the rear of said casing and be engaged by said flanges, and means for locking the closure plate in position.

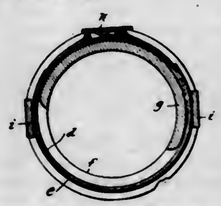
2. In a watch container, the combination with a casing provided at its front with an opening for exposing the dial of the watch contained therein, the rear wall of said casing being curved inwardly from the ends toward the center, the sides of the casing being provided with inturned flanges, and a curved plate adapted to close the rear of said casing and be engaged by said flanges, the respective ends of the casing and closure plate being provided with registering openings for receiving a strap or the like.

3. In a watch container, the combination with a casing provided at its front with an opening for exposing the dial of the watch contained therein, the rear wall of said casing being curved inwardly from the ends toward the center, the sides of the casing being provided with inturned flanges, and a curved plate adapted to close the rear of said casing and be engaged by said flanges, the respective ends of the casing and closure plate being provided with registering openings, and a wrist strap located in said registering openings.

4. In a wrist watch container, the combination with a casing provided at its front with an opening for exposing the dial of the watch contained therein, the rear wall of said casing being curved inwardly from the ends toward the center, the sides of the casing adjacent the said center portion being provided with inturned flanges, and a plate adapted to close the rear of said casing and be engaged and flexed by the said flanges.

5. In a wrist watch container, the combination with a casing provided at its front with an opening for exposing the dial of the watch contained therein, the rear wall of said casing being curved inwardly from the ends toward the center, the sides of the casing adjacent the said center portion being provided with inturned flanges, a plate adapted to close the rear of said casing and be engaged and flexed by the said flanges, and means for locking the closure plate in position.

1,205,218. ARTIFICIAL LEG. BARTHOLOMEW M. KENNEDY, Springfield, Mass. Filed Jan. 22, 1916. Serial No. 73,570. (Cl. 3—3.)



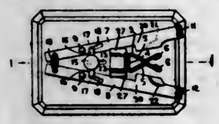
1. The combination in an artificial leg, of a thigh-band *a*, having means to adjust the same as to diameter, and having a plurality of parallel lines of openings *b*, metal pieces *h* secured to the band by bolts passing through one of said lines of openings, a lower band or socket *d*, a metal piece *i* secured thereto in like manner, said metal pieces *h* and *i* being hinged together in the space of separation between the two bands substantially as shown.

2. In an artificial leg, the combination of a band as *d* with a wide metal reinforcing piece *e* attached thereto and extending part way only around the band.

3. The combination in an artificial leg of a member *f* having an upwardly projecting flange-like member *g* extending part way only around member *f*, and a band *d* adapted to rest with its lower edge upon the top of member *f* outside of the flange *g* and bearing against the outer surface of the flange, substantially as shown.

4. The combination in an artificial leg of a thigh-band *a*, hinged straps *h* and *i*, a calf member *f* and a strap *k* attached to the top portion of the band *a* and extending downwardly inside the band *a* to and attached to the outside of member *f*.

1,205,219. CLIP-AFFIXING DEVICE. FREDERICK A. KENNEDY, Danielson, Conn. Filed July 29, 1915. Serial No. 42,575. (Cl. 120—8.)



1. A clip affixing device comprising a base, a clip magazine and movable gripping means on said base acting when moved first to grip and to part the clamping members of a clip presented by the magazine whereby objects to be affixed together may be inserted between the parted members and acting thereafter to release said members whereby the clip will clamp together said objects.

2. A clip affixing device comprising a base, a movable clip magazine, means on said base adapted first to part the clamping members of a clip presented by the magazine whereby objects to be affixed together may be inserted therebetween and thereafter to release said members whereby said objects may be affixed together by the clip and removed from said device, and means for movably mounting said magazine whereby upon its movement said clamping members may be more widely parted to receive said objects.

3. A clip affixing device comprising a base, a movable clip magazine, means on said base adapted first to distend the clamping members of a clip presented by the magazine whereby objects may be inserted therebetween and thereafter to release said members whereby such objects may be clamped together by said clip, means to raise said magazine upon insertion of said objects whereby said clamping members may be more widely distended to receive said objects, and means automatically to return said magazine to normal position upon removal of said clipped objects.

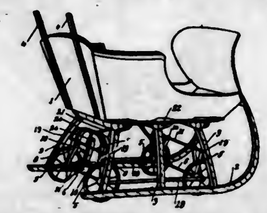
4. A clip affixing device comprising a base, a clip magazine, pivoted means on said base operable first to engage and part the clamping members of a clip whereby objects to be clipped together may be inserted between said members and operable thereafter to release said members whereby said objects may be withdrawn clipped together.

5. A clip affixing device comprising a base, a clip magazine, jaws on the base reciprocatory first to part the clamping members of a clip whereby objects may be inserted therebetween and thereafter to release said members whereby said objects may be withdrawn clipped together.

[Claims 6 to 9 not printed in the Gazette.]

1,205,220. WHEEL ATTACHMENT FOR SLEIGHS OR SLEDS. WILLIAM E. KIDDER, Kalamazoo, Mich. Filed Jan. 14, 1914, Serial No. 811,935. Renewed Sept. 22, 1916. Serial No. 121,604. (Cl. 21—96.)

1. The combination with the sleigh, of wheels, axles therefor, axle hangers, the rear hangers being connected by a yoke, hanger rods on which said hangers are pivotally mounted, links connecting said axles, a rearwardly projecting spring latch having a hook engaging said yoke of the rear wheel hangers for retaining the wheels in their erected position, the end of the hook being extended downwardly at the rear of said yoke, a releasing lever pivoted on the rear hanger rod, and adapted to engage the downwardly projecting end of said latch hook to disengage the hook when the lower end of the lever is pushed forward, and a coiled spring connected to the front axle, whereby the wheels are raised to and supported in an elevated position when said latch is disengaged.



2. The combination with a sleigh, of wheels, axles therefor, axle hangers having eyes therein through which said axles are arranged, said hangers constituting thrust members for the inner ends of the wheel hubs, hanger rods on which said hangers are pivotally mounted, carried by said sleigh, said rods being provided with collars supporting said hangers against lateral movement on said rods, links having eyes therein engaging the axles on the outer sides of the wheels, said links constituting thrust members for the outer ends of the wheel hubs, a latch for retaining said wheels in erected position, and a spring for supporting said wheels in an elevated position when said latch is disengaged.

3. The combination with a sleigh, of wheels, axles therefor, axle hangers having eyes therein through which said axles are arranged, hanger rods on which said hangers are pivotally mounted, carried by said sleigh, said rods being provided with collars supporting said hangers against lateral movement on said rods, links having eyes therein engaging the axles, and means for retaining said wheels in erected position.

4. The combination with the sleigh, of wheels, axles therefor, axle hangers pivotally mounted on said sleigh, the rear hangers being connected by a yoke, connecting links for said axles, a rearwardly projecting spring latch having a hook engaging said yoke of the rear wheel hangers for retaining the wheels in their erected position, the end of the hook being extended downwardly at the rear of said yoke and constituting a stop therefor, and a releasing lever adapted to engage the downwardly projecting end of said latch hook to disengage the hook when the lower end of the lever is pushed forward.

5. The combination with the sleigh, of wheels, axles therefor, axle hangers pivotally mounted on said sleigh, the rear hangers being connected by a yoke, connecting links for said axles, a spring latch engaging said yoke of the rear wheel hangers for retaining the wheels in their erected position, and a releasing lever for said latch.

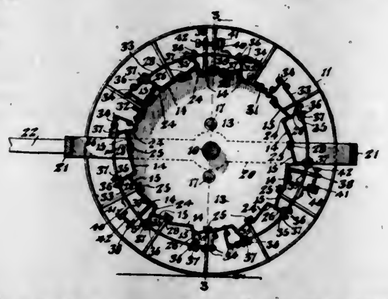
[Claims 6 to 9 not printed in the Gazette.]

1,205,221. SPREADER FOR DRY MATERIALS. JOSHUA R. KING, New Haven, and WILLIAM O. KING, Sidney, N. Y. Filed Apr. 5, 1916. Serial No. 89,194. (Cl. 111—14.)

1. A spreader for dry material including a revoluble body having a series of transversely extending slots in its peripheral wall, a series of shutters extending transversely across the body for closing the slots, a connecting device attached to the shutters, and adjusting means engaging the connecting device to move the shutters substantially circumferentially of the body and open the slots throughout their lengths.

2. A spreader for dry material including a revoluble body having peripheral slots therein, a plurality of ad-

justable shutters carried by the body for opening and closing the slots, an exteriorly arranged band connected to the shutters, and screw actuated means for moving the band.



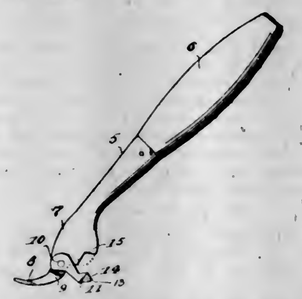
3. A spreader for dry material including a revoluble body having distributing slots therein spaced apart about the entire periphery of the body, a controlling device for each slot, and a number of independent adjusting devices spaced peripherally around the body and connected to independent groups of the controlling devices to adjust each group thereof separately.

4. A spreader for dry material including a cylindrical body adapted to be rotated and to contain the material, a plurality of adjustable shutters spaced peripherally about the body for controlling the distribution of the material from the body, a band arranged peripherally against the body and having connection with said shutters, and means connected to the band to move the same and adjust the shutters into the desired position, and to hold the band when adjusted.

5. A spreader for dry material including a cylindrical body adapted to be rotated and to contain the material, a plurality of adjustable shutters spaced peripherally about the body for controlling the distribution of the material from the body, a plurality of bands arranged peripherally about the body and having connection with independent groups of said shutters, and independent means for each band to move the band and adjust the shutters connected thereto into the desired position, and to hold the band when adjusted.

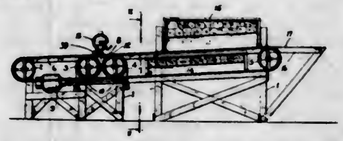
[Claims 6 to 14 not printed in the Gazette.]

1,205,222. STOVE-LIFTER. IRA J. KNISLEY, Cosmopolis, Wash. Filed Nov. 20, 1915. Serial No. 62,589. (Cl. 126—323.)



A stove lid lifter comprising a single handle, a fixed claw projecting from one end thereof, a shoulder above and rearwardly of the claw, and a gravity heel pivoted to the claw forwardly of the shoulder for movement with relation to said claw and adapted to engage the shoulder when in one position and also adapted to be inserted in an opening in a stove lid, with the claw in its other position.

1,205,223. COATING APPARATUS. HENRY E. KOCK, Cincinnati, Ohio. Filed Jan. 2, 1914. Serial No. 809,842. (Cl. 91—39.)



1. An apparatus for applying sensitive photographic emulsions and the like having a closed emulsion container and means for equalizing the distribution of the emulsion from the container comprising a long outlet slot and a capillary conveyer for conveying the emulsion from the slot to the material to which the emulsion is to be applied, and means for moving the material relatively to the container and at an incline whereby the emulsion tends to collect on the material at the capillary conveyer.

2. An apparatus for applying sensitive photographic emulsions and the like having a closed emulsion container and means for regulating the flow of emulsion therefrom in a plurality of ways comprising an adjustable air inlet valve for the container and a long crosswise slot for the outflow of the emulsion from the container, said slot having opposed faces of a width many times the distance between the faces so as to materially retard the flow of emulsion therebetween, means for adjusting the distance between said faces to vary the retarding of flow of emulsion between the faces from the container, and a capillary conveyer for conveying the emulsion from the slot to the material to which the emulsion is to be applied.

3. An apparatus for applying sensitive photographic emulsions and the like having a closed emulsion container and means for regulating the flow of emulsion therefrom in a plurality of ways comprising an adjustable air inlet valve for the container and a long crosswise slot for the outflow of the emulsion from the container, said slot having its opposed faces so wide as to materially retard the flow of emulsion therebetween, means for adjusting the distance between said faces to vary the retarding of flow of emulsion between the faces from the container, a capillary conveyer for conveying the emulsion from the slot to the material to which the emulsion is to be applied, and means for moving the material relatively to the container and at an incline whereby the emulsion tends to collect on the material at the capillary conveyer.

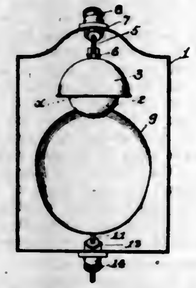
4. An apparatus for applying sensitive photographic emulsions and the like, having an emulsion container with means for regulating the temperature thereof, said container having an outlet slot and a capillary brush conveyer for conveying the emulsion from the slot to the material to be coated, and an inclined belt feed mechanism for conveying the material to be coated beneath the brush at an incline.

5. An apparatus for applying sensitive photographic emulsions and the like, having an emulsion container, said container having an outlet slot and a capillary brush conveyer for conveying the emulsion from the slot to the material to be coated, and an inclined belt feed mechanism for conveying the material to be coated beneath the brush at an incline.

[Claims 6 to 27 not printed in the Gazette.]

1,205,224. ANTIFLARE DEVICE. WILLIAM B. KOECHLEIN, Boundbrook, N. J., assignor of one-third to Alexander Morecraft and one-third to Theodore T. Staats, Boundbrook, N. J. Filed July 22, 1915. Serial No. 41,218. (Cl. 240—44.)

1. An anti-flare device in conjunction with a source of light; consisting of a plurality of reflector members, each adjustable upon a horizontal axis with reference to the opposed reflector and with reference to the source of light, one of said reflector members partially inclosing the source of light and directing its rays to the other of the reflector members and adjustable for cutting off direct horizontal rays emanating from the source of light without impeding the reflected rays of light.



2. An anti-flare device in conjunction with a source of light; consisting of a plurality of reflective members, both members adjustable upon adjacent horizontal axes with reference to each other and with reference to the source of light, one of said reflective members partially inclosing the source of light although reflecting light rays thereof to the opposed reflector and cutting off the direct horizontal rays emanating from the source of light, and means for individually adjusting each of the reflective members with reference to the other and with reference to the source of light.

3. An anti-flare device to be used in conjunction with the source of light; consisting of a semi-spheroidal reflector pivoted on a horizontal axis and inclosing the source of light against direct horizontal transmission of its rays, a coöperating horizontally pivoted reflector against which the semi-spheroidal reflector directs the rays of light of the source, means for adjusting the semi-spheroidal reflector, and means for adjusting the coöperating reflector.

4. An anti-flare device to be used in conjuction with a source of light; consisting of a reflector inclosing the source of light to prevent direct horizontal transmission of its rays, a coöperating reflector transversely disposed to and adjustable with reference to a horizontal projection of the rays of light and means for adjusting both reflector members with reference to each other toward and away from a common horizontal plane and with reference to the source of light.

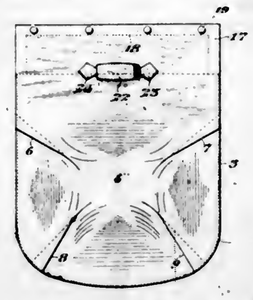
5. In a lamp, a casing, a source of light in fixed relation to the casing, a pair of reflectors horizontally pivoted for individual adjustment with reference to each other and with reference to the source of light, one of said reflectors reflecting light rays to the other and preventing direct rays of light from the source above a given horizontal plane, and adjusting devices for each of the reflectors extending through the casing and accessible from the exterior thereof.

1,205,225. LADY'S HAT-BAG. SARA E. LAUGHLIN, Philadelphia, Pa. Filed Aug. 26, 1914. Serial No. 858,590. (Cl. 150—52.)

1. A device of the class described, comprising a normally flat wall, a plaited wall having a closure flap overlying said flat wall, means for temporarily engaging said flap to said flat wall, and a handle on said plaited wall adjacent to said flap.

2. A device of the class described comprising a substantially flat wall, a reinforcement extending along the upper edge of said flat wall, a bulged wall having an extension forming a flap extendible over the edge of said flat wall, means on the outside of said flat wall for temporarily engaging said flap, and a handle on said bulged wall adjacent to said flap.

3. A device of the class described, comprising a substantially flat wall, a reinforcing bar included in the hem at the upper edge thereof, a bulged wall having an extension capable of projecting in a plane therewith or of extending around the upper edge and overlying the outside surface of said flat wall, snap clasp sockets in said flat wall spaced from the upper edge thereof, snap clasp buttons in the free edge of said flap and arranged to engage said sockets, and a handle secured to said bulged wall and extending in the plane of said flat wall when said flap is engaged therewith.

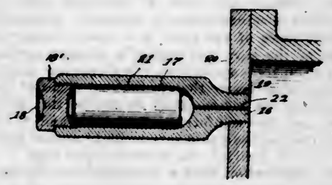


4. A hat case comprising a flat wall, a bulged wall having a flap overlying the opposite surface of said flat wall and arranged to be removably engaged therewith, a flexible support depending within said case from said flat wall and having means to engage a hat, and a handle on said bulged wall adjacent to the flap of said flap.

5. A hat case comprising a flat wall, a bulged wall having a flap overlying the flat wall and arranged to be engaged therewith, a handle on said bulged wall, and a pouch within said case in concentric relation with the crown of a hat supported therein.

[Claim 6 not printed in the Gazette.]

1,205,226. LUBRICATING DEVICE. SAMUEL E. LAWRENCE and GEORGE M. DAVIS, West Point, Ky. Filed Feb. 7, 1916. Serial No. 76,802. (Cl. 184—18.)

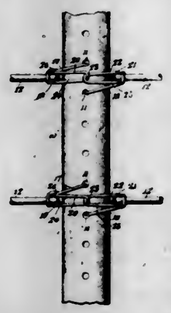


The combination with a part of an engine in which during operation pulsation of steam or other motive fluid in a heated state takes place, of a lubricant receptacle having a nipple whereby it is fixedly connected with such engine part and having a reduced bore communicating therewith, and a cartridge of congealed lubricating material in such receptacle whereby by the pulsation of the motive fluid said fluid will enter the receptacle, reduce a portion of the cartridge to a fluid condition and cause such fluid portion to be drawn through the nipple when the motive fluid is exhausted from the portion of the engine part with which the device is connected.

1,205,227. WIRE-FENCE TIE. RICHARD B. LEATHERMAN, Washington, Ga. Filed Dec. 22, 1915. Serial No. 68,240. (Cl. 256—57.)

1. The combination with a U-shaped stay, of a runner having a horizontal crimped portion therein providing spaced apart angled portions for engagement about the opposite edges of said stay to brace the sides thereof, and to hold the stay from lateral movement, said crimped

portion of the runner also providing an intermediate angled portion projecting into the concavity of the stay, and a wire tie engaging the stay and the runner to hold the spaced angled portions against the edges of the stay and prevent the relative movement of the runner and the stay, the ends of said tie being twisted together at the open side of the stay and being bent into the concavity of the stay and into the intermediate angled portion of the runner.



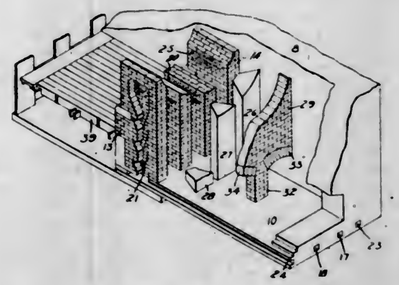
2. The combination with a U-shaped stay, and a runner traversing one side of the stay, a tie comprising a length of wire returned upon itself to provide an intermediate loop engaging about the runner and having its opposite strands extending forwardly through the stay, said strands being bent oppositely and laterally from the forward face of the stay and extending rearwardly and about said runner at the opposite sides of the stay, said strands being further carried forwardly and twisted to provide an interlock at the front of the stay, and being carried rearwardly and twisted a second time about the runner at the opposite sides of the stay, the ends of the strands then extending rearwardly and across the rear side of the stay, and being twisted thereat to secure the ends of the tie wire together.

3. The combination with a U-shaped stay having spaced apart openings disposed vertically intermediate of the lateral edges of the stay, of a runner traversing the rear side of the stay and having a crimped portion providing two spaced apart forwardly opening angled portions adapted to receive therein the rear edges of the stay, and providing an intermediate angled portion projecting into the stay for reinforcing the same, and a tie wire engaging the stay and said intermediate angled portion of the runner for securing the runner to the stay.

4. The combination with a U-shaped stay having vertically spaced apart openings therethrough, of a runner wire traversing the rear edges of the stay and being crimped to provide spaced angled portions receiving the edges of the stay and an intermediate angled portion, and a tie wire returned upon itself to provide a loop for engagement over the intermediate angle portion of the runner, the strands of the loop extending forwardly through said vertically spaced apart openings and thence being extended laterally and rearwardly against the opposite sides of the stay for engagement about the runner at the opposite sides of the stay, each strand then extending forwardly to the intermediate portion of the stay, at which point said strands are twisted about one another and looped, and are thence carried laterally and rearwardly in binding engagement against the outer face of the stay to said runner, said strands being twisted about said runner and carried rearwardly and across the rear face of the stay, the extremities of the strands being twisted together to secure the tie in place, the twisted ends being forced inwardly into said intermediate angled portion of the runner and adapted to lie within the concavity of said stay for housing the twisted ends of the tie.

5. The combination with a U-shaped stay having vertically spaced apart openings intermediate its longitudinal edges, of a runner engaging across the rear open side of the stay and being crimped to provide angled portions adapted to receive and brace the opposite edges of the stay and hold the runner from slipping longitudinally thereacross, said crimping of the runner also providing an intermediate angled portion projecting into the rear side of the stay, and a tie having a looped portion engaging about said intermediate angled portion and extending forwardly through said vertically spaced apart openings, the ends of the tie wire extending oppositely from the openings and engaging about the runner at the opposite sides of the stay, said tie wire extending forwardly from the runner at the opposite sides of the stay and being locked around each other at the front of the stay for holding the angled portions against the rear edges of the stay, the ends of said tie wire being secured together at the rear side of the stay and being bent inwardly into the concavity of the stay and of said intermediate angled portion.

1,205,228. BOILER-FURNACE. WILLIAM LEMB, Brooklyn, N. Y. Filed Apr. 24, 1916. Serial No 93,220. (Cl. 110—73.)



1. In a boiler furnace, the combination with a boiler and the grate bars that extend horizontally rearward from the front to an intermediate portion of the furnace, of a single row of hollow piers of substantially rectangular form that extend upward from the furnace floor to the boiler, the piers extending in a single transverse row with their parallel opposed side walls extending rearward from the grate for a distance greater than half the length of the furnace grate and providing an unobstructed passage for the furnace gases between them, the furnace having conduits in the base to admit outside air to the piers, the piers having small openings in the side walls near the top to feed such air to the furnace, said piers being connected with brick work for a short distance at their forward portions to form a closed bridge wall at the rear of the grate extending upward a short distance above the grate, the hollow piers having the chambers formed with projecting portions flat at the bottom and inclined at the top to intercept the upward flow of the air.

2. In a boiler furnace, the combination with a boiler and the grate bars extending horizontally rearward from the front to an intermediate portion of the furnace, of a row of hollow piers of substantially rectangular form that extend upward from the furnace floor to the boiler, the furnace having conduits in the base to admit outside air to the piers, the piers having small openings in the side walls near the top to feed such air to the furnace, the hollow piers having the chambers formed with projecting portions flat at the bottom and inclined at the top to intercept the upward flow of the air.

3. In a boiler furnace, the combination with a boiler and grate bars extending horizontally rearward from the front to an intermediate portion of the furnace, of a row of hollow piers of substantially rectangular form that extend upward from the furnace floor to the boiler, the piers extending in a single transverse row with their parallel opposed side walls extending rearward from the grate and providing an unobstructed passage for the furnace gases between them, the furnace having conduits in the base to admit outside air to the piers, the piers having small openings in the side walls near the top to feed such air to the furnace, said piers being connected with brick work for a short distance at their forward portions to form a closed bridge wall at the rear of the grate extending upward a short distance above the grate, and a baffle wall at the rear of the furnace extending from side to side to close the upper half of the chamber to deflect the gases downward to the floor of the chamber.

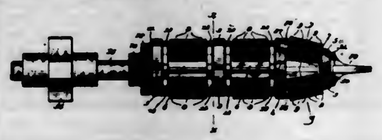
4. In a boiler furnace, the combination with a boiler and the grate bars extending horizontally rearward from the front to the intermediate portion of the furnace, of a row of hollow piers that extend upward from the furnace floor to the boiler, the furnace having conduits in the base to admit outside air to the piers, the piers having small openings in the side walls near the top to feed such air to the furnace, said piers being connected with brick work for a short distance at their forward portions to form a closed bridge wall at the rear of the grate extending upward a short distance above the grate, and a baffle wall at the rear of the furnace extending from side to side to close the upper half of the chamber to deflect the gases downward to the floor of the chamber.

1,205,229. REINFORCED CLOTH GLOVE. JOSEPH P. LINDEN, Milwaukee, Wis. Filed Nov. 15, 1915. Serial No. 61,463. (Cl. 2—9.)



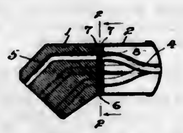
A cloth working glove having leather wearing strips stitched to the bearing surfaces of the fingers thereof by parallel lines of stitching spaced a substantial distance from the edges of the leather wearing strips, the parts of said leather wearing strips beyond the lines of stitching being free to turn outwardly at their side edges to form raised bearing flanges.

1,205,230. BOILER-TUBE CLEANER. GEORGE A. LUFKIN, Revere, Mass. Filed Apr. 1, 1916. Serial No. 88,226. (Cl. 83—64.)



In a boiler tube cleaner, the combination with a body having separated flanges connected by webs, of pins sustained by said flanges, frames situated between the flanges and pivotally mounted on said pins, and cutting disks sustained by the frames, each frame having projections at its front and rear ends to engage the web and limit its swinging movement.

1,205,231. TRACKER-BOARD. FRANK L. MCCORMICK, North Tonawanda, N. Y., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed July 23, 1914. Serial No. 852,597. (Cl. 84—165.)

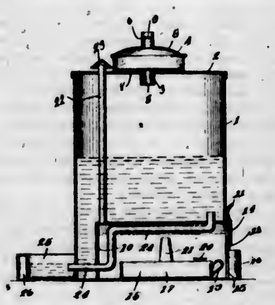


1. A tracker or the like having a duct and a dust-screen extending across the duct, the duct being provided with an enlargement adjacent to both sides of the screen and the walls of said enlargements which face the sides of the screen being both spaced therefrom.

2. A tracker divided transversely of its ducts and having a screen removably interposed between its sections, the opposing ends of corresponding duct-sections being provided with enlargements and the walls of said enlargements which face the sides of the screen being both spaced therefrom.

3. The combination of a tracker divided transversely of its ducts, layers arranged between the sections of the tracker and having registering openings which coincide with the tracker-ducts but are of larger dimensions than the ducts, and a screen interposed between said layers, said layers separating both sides of the screen from the opposing faces of the tracker-sections.

1,205,232. STOCK DRINKING-FOUNTAIN. JOHN J. MCCOURT, Bloomfield, Nebr. Filed Apr. 5, 1913. Serial No. 759,146. (Cl. 119—73.)

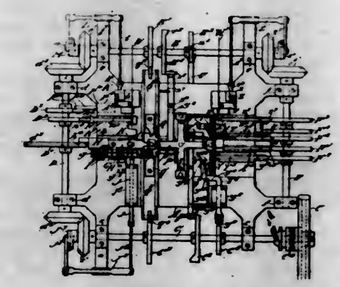


1. In a stock drinking fountain the combination with an outer casing forming a tank, of a heating compartment secured to the bottom of said tank and having one end thereof communicating with the exterior of the tank, means for heating said compartment disposed therein, a pipe disposed within said compartment extending directly over said heating means, one end of said pipe communicating with said tank, a trough the other end of said pipe, said pipe communicating with said trough, a second pipe communicating with said compartment and extending through said tank terminated exteriorly thereof, a pipe mounted in an opening in said casing and extending within said trough for the purpose set forth.

2. In a stock drinking fountain the combination with an outer casing forming a tank, of a heating compartment

secured to the bottom of said tank, one end of said compartment terminating exterior of said tank, the other end of said compartment terminating midway the center and opposite side of said tank, heating means disposed within said compartment, a trough, a pipe disposed within said compartment, and extending directly over said heating means, one end of said pipe communicating with said tank, the other end of said pipe terminating exteriorly of said compartment and said tank and communicating with said trough, a second pipe communicating with said compartment extending through and terminating exteriorly of said tank whereby to ventilate said compartment, a pipe mounted in an opening in said casing and extending within said trough, and means for admitting air within said compartment for the purpose set forth.

1,205,233. AUTOMATIC BEAD STRINGING AND LINKING MACHINE. JOSEPH E. MCCREDDEN, Providence, R. I. Filed Apr. 28, 1915. Serial No. 24,568. (Cl. 59—2.)



1. In an automatic bead-stringing and linking machine, the combination with means for stringing beads or other pierced ornaments on sections of wire, of mechanism coöperating therewith for forming the wire-sections into links adapted to be connected together in a continuous chain.

2. In an automatic bead-stringing and linking machine, the combination with means to apply beads or other ornaments to sections of wire, of mechanism coöperating therewith to form the ends of the wire-sections with loops to adapt them to be linked together in a chain.

3. In an automatic bead-stringing and linking machine, the combination with means to string beads or similar ornaments on sections of wire, of mechanism coöperating therewith to form the wire-sections with loops at their ends, and coördinated mechanism operating to link the loops together to form a chain.

4. In an automatic machine of the class specified, the combination with means to form lengths of wire with loops at their ends, of mechanism coöperating therewith to form connecting-links inserted through the end-loops of the wire-sections to attach them together in a continuous chain.

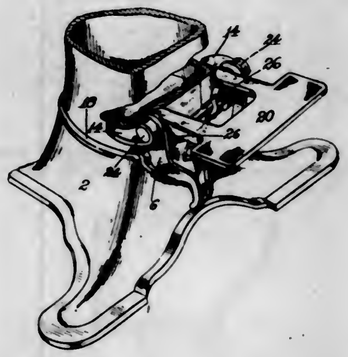
5. In a machine of the class specified, the combination with means for severing wire in predetermined lengths, of means for stringing beads or other pierced articles on the wire, and mechanism coöperating therewith for forming the severed lengths of the wire into links adapted to be connected together in a chain.

[Claims 6 to 40 not printed in the Gazette.]

1,205,234. SUPPORT. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 10, 1913. Serial No. 800,138. (Cl. 248—19.)

1. A device of the class described comprising, in combination, a bracket adapted to be attached to a supporting member and having bearings formed thereon, and a rest provided with trunnions pivotally mounted in said bearings and having also means for engaging the bracket to hold the rest projected in a substantially horizontal position for use, said bearings being suitably positioned with reference to the supporting member to permit the rest to be turned up and inclined toward said member when not in use and comprising hooks the free ends of which project in such relation to the supporting member as to prevent removal of the trunnions from said bearings while the bracket is attached to said member.

2. A device of the class described comprising, in combination, a bracket adapted to be attached to a supporting member and provided with open hook-shaped bearings having their open ends facing toward said supporting member, a rest having trunnions projecting therefrom in position to enter the open sides of said bearings and pivot the rest for swinging movement relatively to the bracket, and means for maintaining the rest in a substantially horizontal position for use, said bearings being supported with their open ends closed against the supporting member so as to prevent removal of the trunnions when the bracket is in operative position.



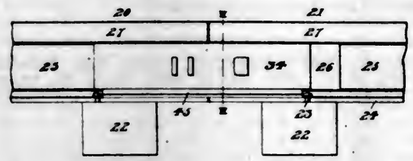
3. A device of the class described comprising, in combination, a bracket adapted to be attached to an upright standard and provided with a pair of hook-shaped bearings open at their rear sides, a rest having trunnions for engaging in said bearings, the bearings being constructed to prevent removal of the trunnions when the bracket is in position on the standard, means for engaging the bracket below said bearings to secure it to the standard, and lugs projecting from the bracket adjacent to the bearings in position to embrace the standard at opposite sides to determine the angular relation of the bracket to the standard.

4. In a device of the class described, the combination with a rest, of a bracket for supporting said rest adapted for attachment to an upright standard, a bolt for securing the bracket to said standard, and lugs on the bracket constructed to project at opposite sides of the standard to prevent the bracket from turning with reference to its point of attachment.

5. In a device of the class described, the combination with a rest, of a support upon which said rest is mounted comprising a bracket adapted for attachment to an upright standard and constructed to have a three point bearing upon said standard, a bolt engaging the bracket within the area between said bearing points to secure the bracket to the standard, and a pair of lugs projecting from the bracket at opposite sides of the standard to determine the angular relation of the bracket to the standard.

1,205,235. [WITHDRAWN.]

1,205,236. RAIL-JOINT. FRANK T. MALICH, Akron, Ohio. Filed July 21, 1916. Serial No. 110,447. (Cl. 238—9.)



1. A rail joint comprising in combination with alined rails, guide strips arranged upon the webs of the said rails provided with inclined slots communicating with longitudinal cut-out portions, a bridge piece seated within the said slots and cut-out portions when the device is assembled, the said strips and bridge pieces having alining grooves in their upper and lower edges, and a recessed fish plate longitudinally slidable over the said strips and bridge pieces contacting within the said grooves.

2. A rail joint comprising in combination with alined rails, guide strips arranged upon the webs of the said rails provided with inclined slots communicating with longitudinal cut-out portions, a bridge piece seated within the said slots and cut-out portions when the device is assembled, the said strips and bridge pieces having alining grooves in their upper and lower edges, a recessed fish plate longitudinally slidable over the said strips and bridge pieces contacting within the said grooves, a stop block for the plate carried by the web of one of said rails, and an interlocking wedge arranged between the said strip and plate intermediately positioned with respect to the said bridge piece and block.

3. A rail joint comprising in combination with alined rails, guide strips arranged upon the webs of the said rails provided with inclined slots communicating with longitudinal cut-out portions, a bridge piece seated within the said slots and cut-out portions when the device is assembled, the said strips and bridge pieces having alining grooves in their upper and lower edges, a recessed fish plate longitudinally slidable over the said strips and bridge pieces contacting within the said grooves, a stop block arranged at one end of the said strip, the said strip having a receiving socket opening at the lower edge of the strip and arranged between the said block and adjacent slot, a gravity operated wedge positionable within the said socket, the lower portion of the said plate having a keeper notch adapted for the reception of the said wedge when said notch and socket are positioned in substantial alinement with each other when the said plate is operatively positioned.

4. A rail joint comprising rail ends having adjacently positioned webs, guide strips longitudinally arranged upon the said webs having side grooves and one of the said strips having a socket opening at the bottom of the strip, a fish plate having a recessed face provided with inwardly extending upper and lower flanges arranged within the said grooves when the plate is slidably positioned upon the said strips, the lower one of said flanges having a keeper notch therein adapted for alining with the said strip socket, and a gravity operated wedge arranged within the said socket and seated within the said notch when the said plate is operatively positioned.

5. A rail joint comprising rail ends having adjacently positioned webs, guide strips longitudinally arranged upon the said webs having side grooves and one of the said strips having a socket opening at the bottom of the strip, a fish plate having a recessed face provided with inwardly extending upper and lower flanges arranged within the said grooves when the plate is slidably positioned upon the said strips, the lower one of said flanges having a keeper notch therein adapted for alining with the said strip socket, and a gravity operated wedge arranged within the said socket and seated within the said notch when the said plate is operatively positioned, the end of said plate opposite the said notch being closed and in abutting engagement with one end of the said strip when the latter is operatively arranged, and a stop block at the opposite end of the said strip in abutting engagement with the inclosed end of the said plate when the latter is operatively arranged.

[Claims 6 and 7 not printed in the Gazette.]

1,205,237. TRIGGER-LOCKING DEVICE FOR AUTOMATIC TOOLS. FRANK J. MALIHA, Wilmington, Del. Filed Apr. 19, 1916. Serial No. 92,267. (Cl. 74—33.)



1. The combination of a handle, a trigger movably mounted on said handle, a lever on said handle and movable between it and the trigger, means for holding said lever in said latter position, and automatic means for moving said lever from its position between said trigger and handle after it has been manually released from said holding means, substantially as described.

2. The combination of a handle and a block projecting therefrom, said block having lever-holding means thereon, a trigger movably mounted on said handle, a lever movably mounted on said block and movable between the handle and the trigger and into locking engagement with said holding means, and a coiled spring bendable under tension around said block and secured to said lever, said spring being operative when said lever is released from said holding means to automatically move said lever from its position between said trigger and the handle, substantially as described.

3. The combination of a handle, a trigger movably mounted on said handle, a lever pivoted on said handle and movable between it and the trigger, said handle being notched transversely to said trigger to receive the lever after said movement to prevent the accidental movement of said trigger, substantially as described.

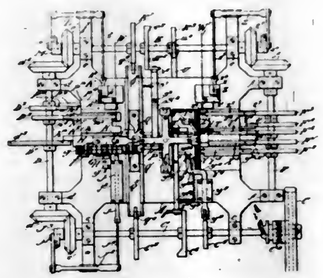
4. The combination of a handle, a trigger movable in said handle, a lever pivoted on said handle and movable between it and the trigger, said handle being notched to receive the lever after said movement, and automatic means for moving said lever from its position between the handle and trigger after the lever has been manually moved from the notch, substantially as described.

5. The combination of a handle, a block projecting therefrom, a trigger movably mounted on said handle, a lever on said handle and movable between it and said trigger, means for retaining said lever between the trigger and the handle, and a spring secured to the lever and designed to be bent around the block, said spring being operative to automatically move said lever from its position between the handle and the trigger after said lever has been manually released from the retaining means, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

secured to the bottom of said tank, one end of said compartment terminating exterior of said tank, the other end of said compartment terminating midway the center and opposite side of said tank, heating means disposed within said compartment, a trough, a pipe disposed within said compartment, and extending directly over said heating means, one end of said pipe communicating with said tank, the other end of said pipe terminating exteriorly of said compartment and said tank and communicating with said trough, a second pipe communicating with said compartment extending through and terminating exteriorly of said tank whereby to ventilate said compartment, a pipe mounted in an opening in said casing and extending within said trough, and means for admitting air within said compartment for the purpose set forth.

1,205,253. AUTOMATIC BEAD STRINGING AND LINKING MACHINE. JOSEPH E. MCCRUDDEN, Providence, R. I. Filed Apr. 28, 1915. Serial No. 24,568. (Cl. 59—2.)



1. In an automatic bead-stringing and linking machine, the combination with means for stringing beads or other pierced ornaments on sections of wire, of mechanism cooperating therewith for forming the wire-sections into links adapted to be connected together in a continuous chain.

2. In an automatic bead-stringing and linking machine, the combination with means to apply beads or other ornaments to sections of wire, of mechanism cooperating therewith to form the ends of the wire-sections with loops to adapt them to be linked together in a chain.

3. In an automatic bead-stringing and linking machine, the combination with means to string beads or similar ornaments on sections of wire, of mechanism cooperating therewith to form the wire-sections with loops at their ends, and coördinated mechanism operating to link the loops together to form a chain.

4. In an automatic machine of the class specified, the combination with means to form lengths of wire with loops at their ends, of mechanism cooperating therewith to form connecting-links inserted through the end-loops of the wire-sections to attach them together in a continuous chain.

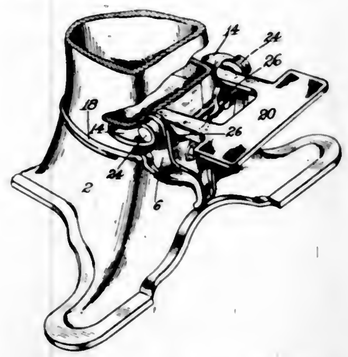
5. In a machine of the class specified, the combination with means for severing wire in predetermined lengths, of means for stringing beads or other pierced articles on the wire, and mechanism cooperating therewith for forming the severed lengths of the wire into links adapted to be connected together in a chain.

[Claims 6 to 40 not printed in the Gazette.]

1,205,234. SUPPORT. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 10, 1913. Serial No. 800,138. (Cl. 248—19.)

1. A device of the class described comprising, in combination, a bracket adapted to be attached to a supporting member and having bearings formed thereon, and a rest provided with trunnions pivotally mounted in said bearings and having also means for engaging the bracket to hold the rest projected in a substantially horizontal position for use, said bearings being suitably positioned with reference to the supporting member to permit the rest to be turned up and inclined toward said member when not in use and comprising hooks the free ends of which project in such relation to the supporting member as to prevent removal of the trunnions from said bearings while the bracket is attached to said member.

2. A device of the class described comprising, in combination, a bracket adapted to be attached to a supporting member and provided with open hook-shaped bearings having their open ends facing toward said supporting member, a rest having trunnions projecting therefrom in position to enter the open sides of said bearings and pivot the rest for swinging movement relatively to the bracket, and means for maintaining the rest in a substantially horizontal position for use, said bearings being supported with their open ends closed against the supporting member so as to prevent removal of the trunnions when the bracket is in operative position.



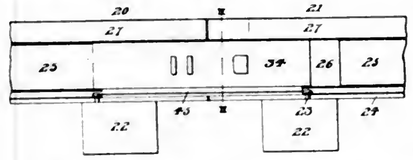
3. A device of the class described comprising, in combination, a bracket adapted to be attached to an upright standard and provided with a pair of hook-shaped bearings open at their rear sides, a rest having trunnions for engaging in said bearings, the bearings being constructed to prevent removal of the trunnions when the bracket is in position on the standard, means for engaging the bracket below said bearings to secure it to the standard, and lugs projecting from the bracket adjacent to the bearings in position to embrace the standard at opposite sides to determine the angular relation of the bracket to the standard.

4. In a device of the class described, the combination with a rest, of a bracket for supporting said rest adapted for attachment to an upright standard, a bolt for securing the bracket to said standard, and lugs on the bracket constructed to project at opposite sides of the standard to prevent the bracket from turning with reference to its point of attachment.

5. In a device of the class described, the combination with a rest, of a support upon which said rest is mounted comprising a bracket adapted for attachment to an upright standard and constructed to have a three point bearing upon said standard, a bolt engaging the bracket within the area between said bearing points to secure the bracket to the standard, and a pair of lugs projecting from the bracket at opposite sides of the standard to determine the angular relation of the bracket to the standard.

1,205,235. [WITHDRAWN.]

1,205,236. RAIL-JOINT. FRANK T. MALICH, Akron, Ohio. Filed July 21, 1916. Serial No. 110,447. (Cl. 239—9.)



1. A rail joint comprising in combination with alined rails, guide strips arranged upon the webs of the said rails provided with inclined slots communicating with longitudinal cut-out portions, a bridge piece seated within the said slots and cut-out portions when the device is assembled, the said strips and bridge pieces having alining grooves in their upper and lower edges, and a recessed fish plate longitudinally slidable over the said strips and bridge pieces contacting within the said grooves.

2. A rail joint comprising in combination with alined rails, guide strips arranged upon the webs of the said rails provided with inclined slots communicating with longitudinal cut-out portions, a bridge piece seated within the said slots and cut-out portions when the device is assembled, the said strips and bridge pieces having alining grooves in their upper and lower edges, a recessed fish plate longitudinally slidable over the said strips and bridge pieces contacting within the said grooves, a stop block for the plate carried by the web of one of said rails, and an interlocking wedge arranged between the said strip and plate intermediately positioned with respect to the said bridge piece and block.

3. A rail joint comprising in combination with alined rails, guide strips arranged upon the webs of the said rails provided with inclined slots communicating with longitudinal cut-out portions, a bridge piece seated within the said slots and cut-out portions when the device is assembled, the said strips and bridge pieces having alining grooves in their upper and lower edges, a recessed fish plate longitudinally slidable over the said strips and bridge pieces contacting within the said grooves, a stop block arranged at one end of the said strip, the said strip having a receiving socket opening at the lower edge of the strip and arranged between the said block and adjacent slot, a gravity operated wedge positionable within the said socket, the lower portion of the said plate having a keeper notch adapted for the reception of the said wedge when said notch and socket are positioned in substantial alinement with each other when the said plate is operatively positioned.

4. A rail joint comprising rail ends having adjacently positioned webs, guide strips longitudinally arranged upon the said webs having side grooves and one of the said strips having a socket opening at the bottom of the strip, a fish plate having a recessed face provided with inwardly extending upper and lower flanges arranged within the said grooves when the plate is slidably positioned upon the said strips, the lower one of said flanges having a keeper notch therein adapted for alining with the said strip socket, and a gravity operated wedge arranged within the said socket and seated within the said notch when the said plate is operatively positioned.

5. A rail joint comprising rail ends having adjacently positioned webs, guide strips longitudinally arranged upon the said webs having side grooves and one of the said strips having a socket opening at the bottom of the strip, a fish plate having a recessed face provided with inwardly extending upper and lower flanges arranged within the said grooves when the plate is slidably positioned upon the said strips, the lower one of said flanges having a keeper notch therein adapted for alining with the said strip socket, and a gravity operated wedge arranged within the said socket and seated within the said notch when the said plate is operatively positioned, the end of said plate opposite the said notch being closed and in abutting engagement with one end of the said strip when the latter is operatively arranged, and a stop block at the opposite end of the said strip in abutting engagement with the inclosed end of the said plate when the latter is operatively arranged.

[Claims 6 and 7 not printed in the Gazette.]

1,205,237. TRIGGER LOCKING DEVICE FOR AUTOMATIC TOOLS. FRANK J. MALIHA, Wilmington, Del. Filed Apr. 19, 1916. Serial No. 92,267. (Cl. 74—33.)



1. The combination of a handle, a trigger movably mounted on said handle, a lever on said handle and movable between it and the trigger, means for holding said lever in said latter position, and automatic means for moving said lever from its position between said trigger and handle after it has been manually released from said holding means, substantially as described.

2. The combination of a handle and a block projecting therefrom, said block having lever holding means thereon, a trigger movably mounted on said handle, a lever movably mounted on said block and movable between the handle and the trigger and into locking engagement with said holding means, and a coiled spring bendable under tension around said block and secured to said lever, said spring being operative when said lever is released from said holding means to automatically move said lever from its position between said trigger and the handle, substantially as described.

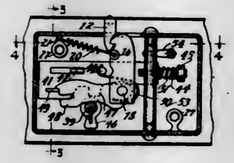
3. The combination of a handle, a trigger movably mounted on said handle, a lever pivoted on said handle and movable between it and the trigger, said handle being notched transversely to said trigger to receive the lever after said movement to prevent the accidental movement of said trigger, substantially as described.

4. The combination of a handle, a trigger movable in said handle, a lever pivoted on said handle and movable between it and the trigger, said handle being notched to receive the lever after said movement, and automatic means for moving said lever from its position between the handle and trigger after the lever has been manually moved from the notch, substantially as described.

5. The combination of a handle, a block projecting therefrom, a trigger movably mounted on said handle, a lever on said handle and movable between it and said trigger, means for retaining said lever between the trigger and the handle, and a spring secured to the lever and designed to be bent around the block, said spring being operative to automatically move said lever from its position between the handle and the trigger after said lever has been manually released from the retaining means, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,205,238. SEAL-LOCK FOR SAFETY-DEPOSIT BOXES. HOLMES MARSHALL, East Cleveland, Ohio. Filed Mar. 25, 1914. Serial No. 827,197. (Cl. 70—23.)



1. The combination of a container having a suitable designation, a card bearing a corresponding designation, a holder for the card carried by the container and having a sight opening, a lock for the container, and means whereby the unlocking of the lock and the opening of the container automatically results in the defacement of the card in the holder.

2. The combination of a metal safety deposit box having a hinged cover, a lock at the free end of said cover within the box, a projection carried by the cover, a bolt having a hooked end engaging said projection, a spring for holding said bolt into engagement with said projection, a slide operated by the key for moving said bolt, a punch operated by said slide, and a marking device adapted to be operated when said slide is moved.

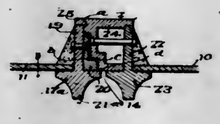
3. The combination with a receptacle having a door, a lock for said door having a bolt, means on the door engaging the bolt, a spring for holding said bolt into engagement, a slide operated by the key for releasing said bolt, a pocket, a card in said pocket, and a punch operated by said slide adapted to punch the card when said slide is moved.

4. In a safety deposit box, the combination of a door, a lock having a bolt, a projection carried by the door adapted to be engaged by the bolt, a spring for holding the bolt in engagement allowing it to spring into locked position when the door is closed, means operated by the key for moving said bolt to unlock the door, a holder for a card adjacent the lock, and a rock shaft operated by the first mentioned means for marking said card when the lock is released.

5. The combination, with a lock having a casing and an opening in the casing, of a movable bolt, a key-controlled slide operating the bolt, a movable finger adapted to be operated by the slide and adapted to project through the opening in the casing, and a pocket for a card adjacent to the opening so arranged that when the finger is moved it may deface the card.

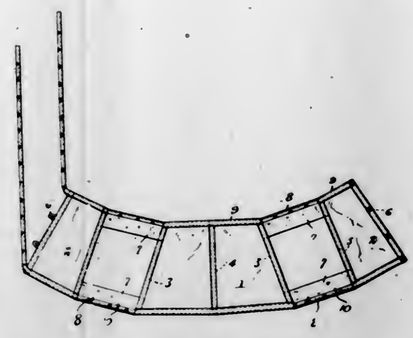
[Claim 6 not printed in the Gazette.]

1,205,239. SASH CONSTRUCTION. JOSEPH MATTHEWS, EDWARD W. FREEMAN, and WILLIAM H. S. BATEMAN, Philadelphia, Pa. Filed Sept. 19, 1914. Serial No. 862,573. (Cl. 189—65.)



In combination with a frame having T-shaped side strips and top and bottom strips forming an opening, a sash having T-shaped side strips and top and bottom strips, and mounted to swing in the opening of the frame, an L-shaped member secured to the confronting faces of the webs of the T-shaped side members of each the frame and sash, a step-shaped member also secured to the opposed faces of the webs of the T-shaped side strips of each the frame and sash, said step-shaped members adapted to contact with the terminals of said webs, with said L-shaped member and also with the inner faces of the heads of said T-shaped side strips.

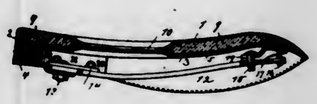
1,205,240. SKIRT-MEASURE. JACOB MAY, Richmond Hill, N. Y. Filed July 9, 1915. Serial No. 38,929. (Cl. 33—2.)



1. A measure comprising back and front panels, means for securing the front panels together, elastic strips connecting the front panels with the back panel, transversely disposed stays provided upon the said panels, said panels having folds at their upper and lower edges, and tape measures secured at one end to the edge of one of the front panels and trained through the folds of the panel and along the elastic strips.

2. A measure comprising back and front panels, transversely disposed stays applied to the edges of said panels, securing devices carried at the free edges of the front panels, elastic strips connecting the adjacent edges of the front and back panels together, said panels having folds located at their upper and lower edges, guides mounted upon the lowermost elastic strips, and tape measures secured at one end to the stay at the free edge of one of the front panels and trained through the fold at the upper and lower edges of the panels, the lowermost tape measure being trained through the guides upon the lowermost elastic strips.

1,205,241. SADDLE-TOP. FREDERICK MESINGER, New York, N. Y. Filed Sept. 1, 1916. Serial No. 117,972. (Cl. 208—15.)



1. A saddle top comprising an upper layer having a depending rear flange, a lower layer having a depending rear flange, a reinforcing sheet extending along the upper side of the lower layer, and over the flange thereof, and means for simultaneously stretching said layers and sheet.

2. A saddle top comprising an upper layer having a depending rear flange, a lower layer having a depending rear flange, a reinforcing sheet extending along the upper side of the lower layer and over the flange thereof, means for securing said sheet to said lower layer, and a binder extending over the sheet along said last named flange.

3. A saddle top comprising an upper layer having a depending rear flange, a lower layer having a depending rear flange, a reinforcing sheet extending along the upper side of the lower layer and over the flange thereof, rivets securing said sheet to said last named flange, and a binding wire likewise extending along said flange.

4. A saddle top comprising an upper layer having a depending rear flange, a lower layer having a depending rear flange, a reinforcing sheet extending along the upper side of the lower layer and over the flange thereof, rivets securing said sheet to said last named flange, and a binding wire likewise extending along said flange, said binding wire being engaged by the heads of said rivets.

1,205,242. METHOD OF AND APPARATUS FOR CONCRETE CONSTRUCTION. KARL H. MIDDENDORF and JOHN M. DAVIS, Omaha, Nebr., and OLIVER G. BOWEN, Kansas City, Mo. Filed Jan. 20, 1916. Serial No. 73,247. (Cl. 25—131.5.)



1. That improvement in the art of constructing concrete flooring of the joist type which consists in supporting a plurality of vaulted sheet-metal forms on centering, affixing with an adhesive agent soluble in water a plurality of porous covering-sheets to the outside of the forms so supported, pouring the concrete on the covering-sheets so affixed, permitting water from the concrete so poured to soak through the covering-sheets and soften the adhesive agent during the hardening of the concrete, and then removing the forms.

2. That improvement in the art of constructing concrete flooring of the joist type which consists in mounting on horizontal centering a plurality of spaced and vaulted sheet-metal forms, fitting over and between the forms a plurality of pliable covering-sheets permeable to water, sticking the covering-sheets to the outside of the forms with an adhesive agent subject to deterioration by wetting, pouring the concrete on the covering-sheets so stuck, permitting water from the poured concrete to soak through the sheets and wet the adhesive agent, and then removing the centering and the forms.

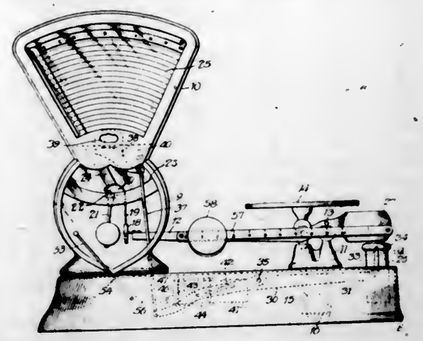
3. That improvement in the art of constructing concrete flooring of the joist type which consists in supporting on horizontal centering a plurality of forms longitudinally alined in parallel rows and separated by void spaces, covering the alined forms of each row with flexible sheets spanning the spaces between them, securing the sheets to the forms, pouring concrete on the sheets, permitting the same to harden thereon, and then removing the centering and the forms.

4. That improvement in the art of constructing concrete flooring of the joist type which consists in mounting on temporary supports a plurality of vaulted sheet-metal forms arranged lengthwise in rows and longitudinally spaced apart, covering the forms in each row with sheets spanning the gaps between them, inserting hangers through the sheets at the gaps, pouring concrete on the sheets, permitting the concrete to harden on the sheets, and afterward removing the forms.

5. Apparatus of the specified class, comprising a removable support, a plurality of forms spaced apart thereon in the direction of their length, and a plurality of protective sheets of pliable material covering the forms and spanning the gaps between them, for the support of a plurality of hangers perforating the sheets and dependent therefrom between the forms and through the platform.

[Claims 6 to 18 not printed in the Gazette.]

1,205,243. WEIGHING-SCALE. WILLIAM J. MINGLE, Lancaster, Pa., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Jan. 23, 1913. Serial No. 743,774. (Cl. 73—104.)



1. An automatic weighing scale comprising a beam, a scale pan mounted upon the beam and load counterbalancing means in combination with a supplemental poise adapted to be suspended from the beam, and a lever adapted to engage the poise and support the same independently of the beam.

2. In a weighing scale, a beam, a scale pan mounted upon the beam, load counterbalancing means connected to the beam, a supplemental poise provided with means for suspending it from the scale beam, a pivoted lever adapted in one position to engage the poise and hold it out of contact with the beam and in another position to be free from the poise and leave the poise suspended from the beam, and means for locking the lever in either position.

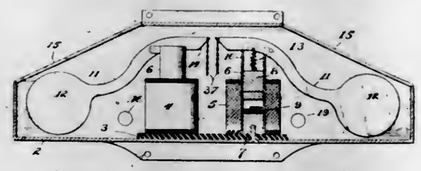
3. In a weighing scale, a beam, scale pan and load counterbalancing means, a supplemental poise provided with means for suspending it from the scale beam, a pivoted lever adapted in one position to engage the poise and hold it out of contact with the beam and in another position to be free from the poise and leave the poise suspended from the beam, and means for rocking said lever and locking it in either position.

4. In a weighing scale, the combination with a beam, a scale pan and load counterbalancing means, of a supplemental poise provided with means for suspending it from the scale beam, a pivoted lever adapted in one position to engage the poise and hold it out of contact with the beam and in another position to be free from the poise and leave the poise suspended from the beam, and a slide movable longitudinally of the lever and having cam means engaging the same for rocking and locking it in either position.

5. In a weighing scale and in combination with the beam, scale pan, and load counterbalancing means thereof, a hollow base upon which the beam is mounted, a rocking lever pivoted within the base, a supplemental poise adapted to be suspended either from the scale beam or from the lever according to the position of the latter, a slide movable substantially longitudinally of the lever and having a cam surface thereon, means on the lever for engaging said cam surface and means for moving the slide longitudinally of the lever.

[Claims 6 to 12 not printed in the Gazette.]

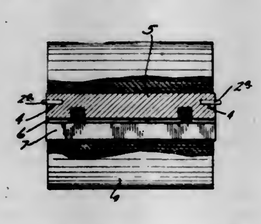
1,205,244. SIGNAL APPARATUS. CHARLES E. MITCHELL, Stockton, Cal. Filed Feb. 13, 1915. Serial No. 8,030. (Cl. 177—329.)



1. A signal device comprising a casing having the top wall thereof formed with a slot, a base plate mounted upon the bottom wall of said casing, a solenoid secured to said base plate, a tube within said solenoid and projecting above the latter and having the upper end formed with a slot, a signal arm pivoted in the slotted portion of said tube, a signal blade on one end of said arm adapted to be projected through the slot in the top wall of said casing, a stationary core in the bottom of said solenoid, a movable core mounted in said tube and adapted to be drawn into the latter upon the energization of said solenoid, and a connection between the upper end of said last-named core and said signal arm whereby the latter will be swung to signaling position upon the energization of the solenoid.

2. A signal device comprising a casing having the top wall thereof formed with a slot, a base plate mounted upon the bottom wall of said casing, a solenoid secured to said base plate, a tube within said solenoid and projecting above the latter and having the upper end formed with a slot, a signal arm pivoted in the slotted portion of said tube, a signal blade on one end of said arm adapted to be projected through the slot in the top wall of said casing, a stationary core in the bottom of said solenoid, a movable core mounted in said tube and adapted to be drawn into the latter upon the energization of said solenoid, a connection between the upper end of said last-named core and said signal arm whereby the latter will be swung to signaling position upon the energization of the solenoid, and means interposed between the said movable and stationary cores to prevent sticking thereof and to assist the movable core to return to normal position upon the deënergization of the solenoid.

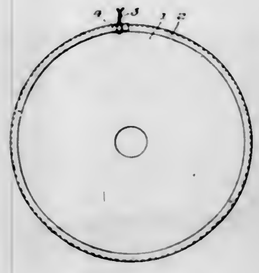
1,205,245. TOILET-PAPER HOLDER. DENNIS M. MORGAN, Hawarden, Iowa, assignor of one-half to Oliver E. Heggem, Minneapolis, Minn. Filed May 6, 1916. Serial No. 95,751. (Cl. 211—31.)



1. The combination with a bifurcated spindle support, of a spindle eccentrically journaled to the prongs of said support, and an outwardly spring-pressed clamping bar of material heavier than the material of said spindle, seated in said spindle at a point approximately opposite to its pivotal connections to said prongs.

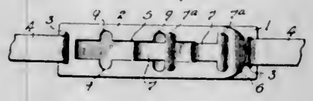
2. The combination with a bifurcated spindle support, of a spindle eccentrically journaled to the prongs of said support, and an outwardly spring-pressed clamping bar of material heavier than the material of said spindle, seated in said spindle at a point approximately opposite to its pivotal connections to said prongs, and the said spindle having a projecting stop normally away from the adjacent arms of said support, but engageable therewith when said spindle is rotated from its normal position.

1,205,246. SHIPPING-PACKAGE. EDWARD MOWRY, Sterling, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Oct. 27, 1913. Serial No. 797,480. (Cl. 206—46.)



A shipping package for disks comprising a flexible strip having its sides folded together along a longitudinally extending line, and means for connecting the ends of said strip and holding the latter in position upon a disk with the cutting edge of the disk disposed between the sides of the strip.

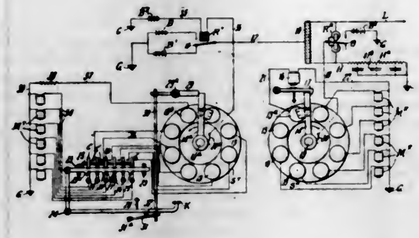
1,205,247. SHOE-FASTENER. LUSHER H. MUNROE, Bellingham, Wash. Filed Apr. 19, 1916. Serial No. 92,122. (Cl. 24—206.)



1. A detachable fastening device, including a pair of complemental superposed plates, one of the plates being formed with a longitudinal slot having notches in the sides thereof, and being also provided with a depression at the end of the slot, while the opposite plate is provided with a longitudinally extending spring tongue formed with a laterally enlarged nose which is curved downwardly and upwardly to provide a flared end and an inwardly facing rounded head, the nose being adapted to be inserted through the notches in the sides of the slot preparatory to bringing the tongue into engagement with the end of the slot, and the head of the tongue springing into the before mentioned depression of the first plate when the tongue is in locking position.

2. A detachable fastening device, including a pair of complemental superposed plates, one of the plates being formed with a longitudinal slot having corresponding notches in the opposite sides thereof, and being provided at the end of the slot with a depression, while the opposite plate is provided with a pair of alined longitudinally extending spring tongues, one or both of which is adapted to be engaged with the slot of the first mentioned plate to obtain a loose or a tight fastening, the noses of the tongues being laterally enlarged and curved inwardly and outwardly to provide flared ends and inwardly facing rounded heads, the enlarged noses being adapted to be inserted through the corresponding notches in the sides of the slot preparatory to bringing the tongues into operative position within the slot, the head of the foremost tongue then springing into the before mentioned depression of the first plate.

1,205,248. PRINTING-TELEGRAPH APPARATUS. CARL ERIC NELSON, Wilkinsburg, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Apr. 18, 1914. Serial No. 832,744. (Cl. 178—33.)



Printing telegraph apparatus comprising a keyboard comprising a plurality of keys and a plurality of circuit controlling contacts the number of contacts being less than the number of keys, a source of current, a transmitting sunflower for connecting said contacts in turn with said source and tending normally to rotate, means controlled by each key for closing a predetermined combination of said contacts when the key is depressed, means controlled by each key when depressed for releasing said sunflower, and a home recording receiver comprising a plurality of selector magnets, each of said magnets being connected in series with one of said contacts.

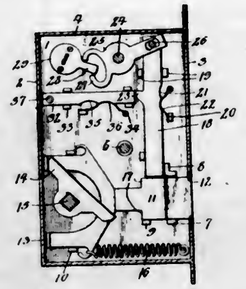
1,205,249. DOOR-LOCKING DEVICE. ROBERT B. NEWCOME, Amarillo, Tex. Filed Apr. 7, 1915. Serial No. 19,770. (Cl. 70—46.)

1. In a lock, a casing, a normally projected latching bolt slidably mounted therein, means for securing the latching bolt in projected position, means for dogging the securing means and thereby holding the same in operative position, means for rendering inoperative said holding means and retracting the securing means, and means for holding the securing means in inoperative position, said last-named means automatically acting upon the retraction of the securing means.

2. In a lock, a casing, a normally projected latching bolt slidably mounted therein, having a shoulder, means for securing the latching bolt in projected position, means for holding the securing means in operative position, means for rendering inoperative said holding means and retracting the securing means, means for holding the securing means in inoperative position, said last-named means automatically acting upon the retraction of the securing means, and means including independently operable members, operable respectively from opposite sides of the door for releasing said last-named means from the securing means.

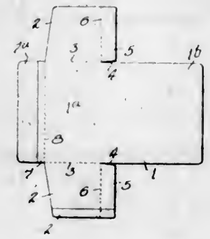
3. In a door lock, a casing, a normally projected latch bolt, means to secure the bolt in projected position, a lever to actuate the securing means, and a pair of revolubly mounted, independently operable members to engage the lever and cause the latter to move the securing means to latch bolt releasing position, said members being respectively operable from opposite sides of the lock.

4. In a lock, a casing, a normally projected latching bolt slidably mounted therein and having a shoulder, a spring actuated locking bolt slidably mounted in the casing at right angles to the locking bolt arranged to engage the shoulder to hold the latching bolt against retraction, means for holding the locking bolt in inoperative position, said means being operable from either side of the door, means for securing the locking bolt in operative locking position and means for releasing the said securing means and retracting the operating bolt.



5. In a door lock, a casing, a normally projected latch bolt, spring actuated means to secure the bolt in projected position, a lever connected to the securing means, a pair of revolubly mounted independently operated members to actuate the lever and cause the latter to move the securing means to latch bolt releasing position, and means operated by one of said independently operable members to hold said securing means in such position, said independently operable members being respectively operable from opposite sides of the lock.

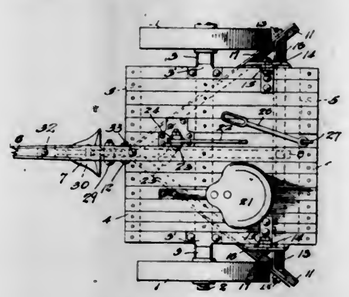
1,205,250. PACKAGE-ENVELOP. LESTER R. NICHOLS and ELMER H. NICHOLS, Strawberry Point, Iowa. Filed Feb. 9, 1916. Serial No. 77,177. (Cl. 229—74.)



A device of the character described including a single elongated piece of sheet material provided near one end thereof with a pair of laterally and oppositely extending wings projecting from the longitudinal edges of the main body portion of the piece of material, and adapted to fold over upon one side of the main body portion to form the end flaps of an envelop, a pair of corresponding supplemental wings formed upon the longitudinal edges of the said laterally extending wings, said supplemental wings being provided with an adhesive and being adapted to adhere to the main body portion to form the bottom edge of the envelop when the laterally projecting wings are folded upon the main body portion, and the end of the body portion adjacent the laterally extending wings

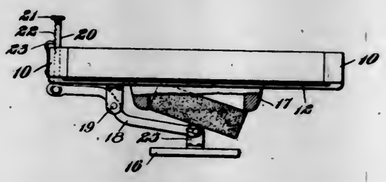
being adapted to serve as a sealing flap for the envelop, while the opposite end of the body portion is adapted to serve as an address card, the side of the body portion opposite that upon which the envelop is folded forming a continuous surface serving as the front of both the envelop and the address card and that portion serving as the front of the envelop being adapted to receive the name and address of the addressee for the envelop, while that portion serving as the front of the address card is adapted to receive the name and address of the consignee for the package.

1,205,251. DITCHING-MACHINE. PETER JOHN NORLING, Ellensburg, Wash. Filed July 24, 1916. Serial No. 110,983. (Cl. 97—12.)



In a ditching machine, the combination with its platform and wheels, of a plow beam and plow, and a pair of rearwardly extending diverging grading arms adjustably attached at the front of the beam, a pivoted link adjustably suspended at each side of the platform and pivotal connection between said links and the arms, a guide bar parallel with the beam and fixed on the forward part of the platform, a guide link pivoted on the beam and formed with an eye movable on the guide bar, and an elevating lever pivoted on the platform and to the plow beam.

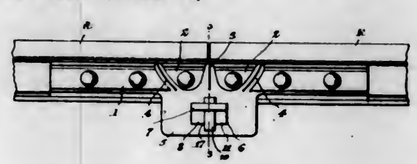
1,205,252. WASHBOARD. ABRAHAM DEB NORRID, Hanson, Okla. Filed Feb. 12, 1916. Serial No. 77,891. (Cl. 68—29.)



1. A self-soaping wash board including a soap receiving compartment communicating with the rubbing surface of the board, a lever fulcrumed at a point in its length, a follower pivotally associated with the free end of the lever and movably arranged within said compartment, an operating arm connected with the opposite end of the lever, and means for automatically locking said arm in adjusted position.

2. A self-soaping wash board including a soap receiving compartment communicating with the rubbing surface of the board, a lever fulcrumed at a point in its length, a follower pivotally associated with the free end of said lever and movably arranged within said compartment, an operating arm connected with the opposite end of said lever and having a toothed surface, and a spring cooperating with said toothed surface for automatically locking said arm in adjusted position.

1,205,253. RAIL-JOINT. JOHN J. O'BRIEN and JOHN P. WAGGONER, Roanoke, Va. Filed Mar. 3, 1916. Serial No. 81,965. (Cl. 239—6.)

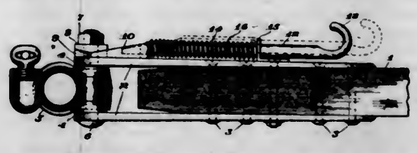


1. In a means for connecting the meeting ends of rails, angle bars upon the opposite sides of the rails and connected therewith, reinforcing ribs connecting the horizontal and vertical flanges of the angle bars at the central portions thereof and surrounding the central connecting means for the angle bars, wedge plates associated with the angle bars and underlying the rails, means for adjusting the wedge plates, and means for locking the adjusted wedge plates.

2. In a means for connecting the meeting ends of rails, angle bars, lug members secured to the angle bars and depending centrally therefrom, wedge plates one overlying the other and passing through central openings in the lugs disposed to engage with the flanges of the rails at the meeting ends thereof, means upon one of the wedge plates co-acting with the other wedge plate for adjusting the wedge plates, and a removable key for locking the adjusted plates.

3. In a means for connecting the meeting ends of rails, angle bars upon the opposite sides of the rails and connected with the rails, each of said angle bars having a central depending lug, a truss member comprising two lapping wedge plates passing through openings in the lugs and supporting the rails at the meeting ends thereof, the upper wedge plate having its thick end formed with a depending flange, the lower wedge plate having both of its ends provided with depending flanges which are disposed to contact with the outer faces of the opposite lugs, a headless bolt passing through an opening in the flange of the upper wedge plate and having one of its ends received in a threaded pocket in one of the flanges of the lower wedge plate, nut members upon this bolt and contacting with the opposite sides of the flange of the upper wedge plate, a wedge key passing through an opening in the upper wedge plate and received in a depression in the second flange of the lower wedge plate, and means for locking the said wedge key upon the plates.

1,205,254. PITMAN CONNECTION. CHARLES PEARSON, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed June 19, 1911. Serial No. 634,009. (Cl. 74—17.)



1. In a pitman connection, a pitman, a bolt protruding therefrom, a spring pressed wedge member carried on said pitman and disposed at one side of said bolt, and means having an inclined surface engageable with the surface of said wedge member and adjustable with respect to said bolt.

2. In a pitman connection, a pitman, spring jaws protruding therefrom, a bolt carried by one of said jaws and protruding through the other, a spring-pressed slotted wedge member carried by said pitman and receiving said bolt in the slot therein, and means having an inclined surface engageable with the surface of said wedge member and adjustable longitudinally of said bolt.

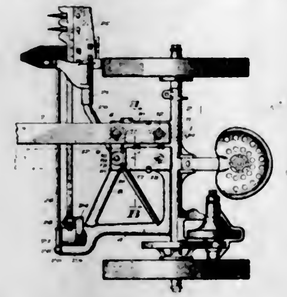
3. In a pitman connection, a pitman, having spaced spring jaws projecting from one end thereof, a bearing block between said jaws, a bolt extending through said jaws and bearing block, conical members on said bolt seated in recesses in said block between said jaws, a spring pressed wedge carried on said pitman, and means having an inclined surface engageable with the surface of said wedge and adjustable longitudinally of said bolt.

4. In a pitman connection, a pitman, a bolt protruding therefrom, a nut carried on one end of said bolt having an inclined face adjacent the surface of said pitman, and a wedge member carried by said pitman and movable longitudinally thereof between said nut and said pitman, said wedge having an inclined face engaging the inclined face of said nut.

5. In a pitman connection, a pitman, a bolt protruding therefrom, a nut carried on one end of said bolt having a plurality of inclined faces disposed in intersecting planes on each side of the bolt and adjacent the surface of said pitman, and a wedge member carried by said pitman and movable longitudinally thereof between certain of the inclined faces on said nut and the surface of said pitman.

[Claims 6 to 10 not printed in the Gazette.]

1,205,255. MOWING-MACHINE. CHARLES PEARSON, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Oct. 28, 1912. Serial No. 728,109. (Cl. 56—74.)



1. In a mowing machine, a main frame having a plurality of pole sockets thereon, a pole carried in one of said sockets, and means transforming the remaining socket into a tool receptacle.

2. In a mowing machine, a main frame having a plurality of parallel pole sockets thereon, a pole carried in one of said sockets, and means transforming the remaining socket into a tool receptacle.

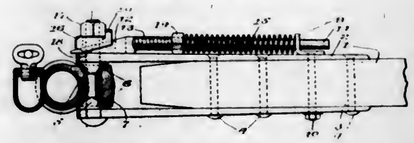
3. In a mowing machine, a main frame having a plurality of parallel pole sockets therein, a pole carried in one of said sockets, an oil can holder closing a portion of the other socket, and a tool box cover extending over the remainder of said socket.

4. In a mowing machine, a frame including two box members disposed in parallel relation in a horizontal plane with a division wall between the same, and a cover attached to said division wall and capable of being placed in different position to close either of said boxes.

5. In a mowing machine, a frame, a plurality of parallel tongue boxes carried thereon having an upstanding wall between the same, and an oil can holder attached to said frame and capable of being placed in different positions to form the end of either of said boxes.

[Claims 6 to 8 not printed in the Gazette.]

1,205,256. NUT-LOCK. CHARLES PEARSON, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Dec. 24, 1913. Serial No. 808,535. (Cl. 151—64.)



1. In combination, a bolt, a nut thereon, a sliding wedge member, a locking washer having an opening therein through which said bolt extends and a lower inclined channeled surface adapted to receive said wedge, said locking washer being provided upon its upper surface with a nut engaging portion disposed transversely of said opening.

2. In combination, a bolt, a nut thereon, a sliding slotted wedge member, a locking washer having an elongated opening therein through which said bolt extends and a lower inclined surface adapted to engage the surface of said wedge, said washer being provided with a nut engaging rib upon its upper surface disposed transversely of said elongated opening.

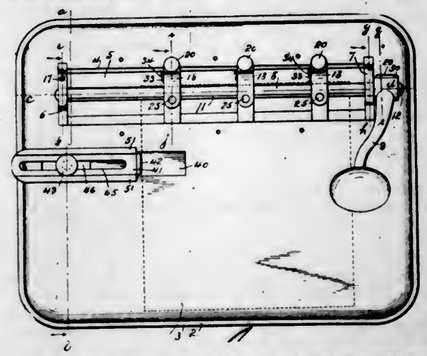
3. In combination, a bolt, a nut, a sliding slotted wedge member receiving the body of said bolt, a nut locking washer having an elongated opening receiving said bolt, a lower inclined channeled surface receiving said wedge, and a rib upon its upper side disposed transversely to said elongated opening and adapted to engage with said nut.

4. In combination, a bolt, a nut, a sliding spring-pressed slotted wedge member receiving the body of said bolt, a nut locking washer having an elongated opening receiving said bolt, a lower inclined channeled surface adapted to receive said wedge member, and a rib upon its upper surface disposed transversely to said elongated opening and adapted to engage with said nut.

5. In combination, a bolt, a nut, a sliding spring-pressed slotted wedge member having parallel sides and receiving the body of said bolt, a rectangular washer having an elongated opening and lower inclined channeled surfaces which receive said wedge member and a rib member upon its upper horizontal surface disposed transversely to said elongated opening and adapted to engage with a side of said nut.

[Claim 6 not printed in the Gazette.]

1,205,257. PUNCHING DEVICE. WILLIAM P. PITT, Independence, Mo., assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed June 29, 1912. Serial No. 706,557. (Cl. 164—91.)



1. In a punching device, a base member having two bearings, a rock shaft pivotally mounted in said bearings

and slidable lengthwise out of engagement with one of said bearings, a die member adjustable lengthwise on the rock shaft and engaging the base member and removable from the rock shaft when said shaft has been disengaged from one of said bearings, and a punch member reciprocative in said die member and operatively engaging the rock shaft.

2. In a punching device, a base member having a bearing, a rock shaft pivoted in said bearing, and releasable means for engaging said rock shaft and holding it from withdrawal from said bearing, and a die member longitudinally adjustable on the rock shaft.

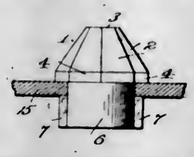
3. In a punching device, a base member having a bearing provided with a transverse hole, the bearing having another hole intersecting the first, a rock shaft pivoted in the first named hole and having a peripheral groove, and a yielding locking device mounted in the second hole and adapted to enter said groove.

4. In a punching device, a base member having a bearing having two intersecting holes, a rock shaft pivoted in one hole and having a peripheral recess, a locking device mounted in the other hole and adapted to enter said recess, and yielding means for normally forcing said locking device into said recess.

5. A die member having a punch hole, and a gage member rotatively adjustable thereon and having a gage surface eccentric to its axis.

[Claims 6 to 35 not printed in the Gazette.]

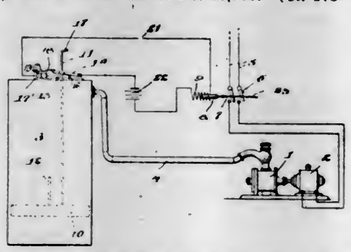
1,205,258. ILLUMINATING-LENS. ARTHUR S. FLOWMAN, Riverdale, and ROLAND C. DAISLEY, Brooklyn, N. Y. Filed Mar. 10, 1914. Serial No. 823,725. (Cl. 67—106.)



1. An illuminating lens comprising a hollow frustum of a pyramid, having a plurality of interior and exterior reflecting surfaces, the interior reflecting surfaces being one-half the number of the exterior reflecting surfaces and arranged in uniform angular relation to said exterior reflecting surfaces.

2. An illuminating lens, comprising a body portion having a plurality of exterior reflecting surfaces, and a longitudinal recess in said body, the walls of which form the interior reflecting surfaces and are one-half in number of the exterior reflecting surfaces.

1,205,259. AUTOMATIC CIRCUIT-CLOSER. HOWARD PLYMALE, West Huntington, W. Va., assignor of one-half to Ira H. Finkenman, West Huntington, W. Va. Filed Aug. 2, 1915. Serial No. 43,230. (Cl. 175—309.)

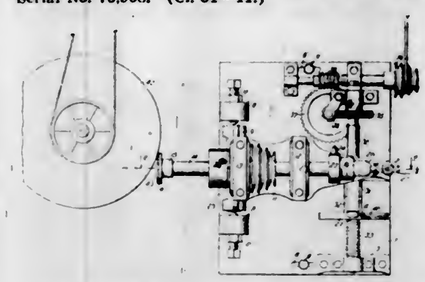


1. A float actuated circuit closure comprising an electroresponsive device for closing said switch, a circuit closer, an electroresponsive latching device for holding said circuit closer in circuit position, an electric circuit including said solenoid circuit closer and latching device in series, means holding said circuit closer normally in open position, a float, a rod connected to said float for actuating said circuit closer to closed position in one movement of the float, and a second rod connected to said float and operable therefrom to actuate the circuit closer to open position in the reverse movement of the float.

2. A float actuated circuit closer comprising an electroresponsive device connected to said switch for actuating the latter to closed position, a circuit closer, a latching device comprising a magnet, and an armature lever under the control of said magnet and operable therefrom to hold said circuit closer in circuit closing position, an electric circuit including said solenoid, circuit closer and magnet in series, a float actuated rod for actuating said circuit closer to closed position, and a second float actuated rod for moving said circuit closer to open position against the action of said latching device.

3. A float actuated circuit closer comprising an electroresponsive device connected to said switch for actuating the latter to closed position, a circuit closer, a latching device comprising a magnet, and an armature lever under the control of said magnet and operable therefrom to hold said circuit closer in circuit closing position, an electric circuit including said solenoid, circuit closer and magnet in series, a float actuated rod for actuating said circuit closer to closed position, a second float actuated rod for moving said circuit closer to open position against the action of said latching device, and a spring for holding said circuit closer normally in open position.

1,205,260. GLASS-BEVELING MACHINE. WLADYSLAW JOSEPH POROWSKI, New York, N. Y., assignor to Abraham Solomon, New York, N. Y. Filed Feb. 8, 1916. Serial No. 76,908. (Cl. 51—11.)



1. In a machine of the class described, a revoluble disk carrier, means for pneumatically retaining a disk on the carrier, means for revolving the carrier, a revolving grindstone, and means for feeding the carrier to bring the margin of the disk into engagement with the stone, said feeding means having means for displacing the carrier to clear the disk from the stone after a predetermined bevel has been formed on the disk.

2. In a machine of the class described, a revoluble disk carrier, a rocking frame supporting the disk carrier, means for pneumatically retaining a disk on the carrier, means for revolving the carrier, a revoluble grindstone, and means for rocking the frame to feed the carrier toward the stone, said means for rocking the frame including means for clearing the carrier from the stone after a predetermined feed of the carrier.

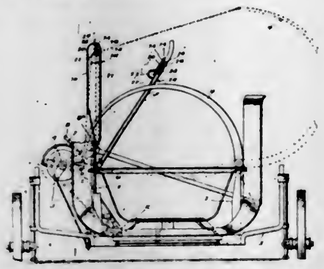
3. In a machine of the class described, a hollow spindle mounted to rock longitudinally, pneumatic means for creating a suction in the spindle whereby a disk is retained by the spindle, a revolving grindstone, and a spiral cam for rocking the spindle to bring the margin of the disk into engagement with the stone, said cam having means for rocking said spindle so as to move the disk on the spindle away from the stone after the disk has been fed through a predetermined distance toward the stone.

4. In a machine of the class described, a bed, a frame pivotally mounted on the bed, a hollow spindle carried in said frame, pneumatic means associated with one end of the spindle for creating a vacuum therein, a disk-receiving head associated with the other end of the spindle, means for revolving the spindle, a revoluble grindstone adjacent the head, the action of gravity on the frame tending to move the head of the spindle away from the stone, a cam having a peripheral, spiral surface, a roller carried by the frame engaging the peripheral surface of the cam, means for revolving the cam whereby the frame is moved on its pivot and whereby the margin of the disk is fed against the grindstone, said cam having a cut-out into which said roller is adapted to drop whereby the head is cleared from the grindstone, substantially as and for the purpose set forth.

5. In a machine of the class described, a base, a frame pivotally supported thereupon, a hollow spindle rotatably mounted in said frame, pneumatic means associated with one end of said spindle for exhausting the air from the hollow of the spindle, a disk carrier associated with the other end of the spindle, a revoluble grindstone adjacent the carrier, the force of gravity upon the frame tending to move the head away from the grindstone, a roller carried by said frame, a cam engaging the roller, means for revolving the cam, a clutch for coupling the cam to the revolving means, the revolving of said cam causing the frame to move on its pivot so as to bring the margin of the disk into engagement with the grindstone, said cam having a cut-out for receiving the roller whereby the disk is cleared from the stone and the engagement of the roller with the cut-out, causing the uncoupling of the cam from the revolving means.

[Claims 6 to 10 not printed in the Gazette.]

1,205,261. BINDING MECHANISM. CLEMMA R. RANEY, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed May 19, 1913, Serial No. 768,468. Renewed June 8, 1916. Serial No. 102,600. (Cl. 56—122.)



1. In combination, a movable binding needle, a knotter coöperating therewith, and means including a resilient member independent of said knotter and engageable with said needle for deflecting laterally the twine fed out from said needle after each binding operation.

2. In combination, a movable binding needle, a cooperating member movable laterally with respect thereto, means for operating said elements, and a yieldable twine positioning member carried by said coöperating member protruding into the path of said needle and engageable therewith as the latter is moved.

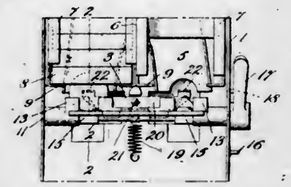
3. In a shocking machine, a movable binding needle, a movable compressor arm, means for moving said members in substantially parallel planes, and a resilient twine engaging member carried by said compressor arm extending into the path of said needle and automatically movable out of said path by said needle.

4. In combination, a frame, a binding needle pivoted thereon, a coöperating member carried on said frame and movable laterally with respect to said needle, mechanism for operating said elements, and a resilient twine engaging hook carried on said member and engageable with said needle and the twine thereon as said needle returns from each binding operation.

5. In a shocking machine, a movable binding needle, a movable compressor arm, means for operating said members in different directions in substantially parallel planes, and a twine engaging spring attached at one end to said compressor arm and having a hook-shaped free end extending into the path of said needle and underlying the twine fed out by the latter as it returns from each binding operation.

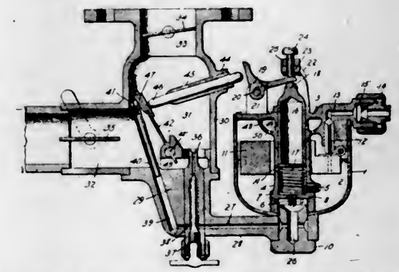
[Claims 6 to 12 not printed in the Gazette.]

1,205,262. VENDING-MACHINE. FELIX Q. RANT, New York, N. Y., assignor of one-half to W. Burton Foote, New York, N. Y. Filed Oct. 2, 1915. Serial No. 53,787. (Cl. 194—1.)



A vending machine having a wall provided with a coin chute and having a shoulder at the lower end of the chute, a coin receiver movably mounted below the shoulder, a resilient coin retarder interposed between the shoulder and the coin receiver, and attached to the wall at a point beyond the side of the chute and disposed transversely under the chute, said coin receiver adapted to engage the coin retarder and hold the same under the shoulder and the free end of the retarder being adapted to engage the wall of the machine and hold the coin receiver in position to receive a coin from the chute.

1,205,263. CARBURETER. ALBERT G. REDMOND, Flint, Mich., assignor to Marvel Carbureter Company, Flint, Mich., a Corporation of Indiana. Filed Dec. 12, 1914. Serial No. 876,800. (Cl. 261—41.)



1. In a carbureter, the combination with a suction-controlled air inlet valve, of a dash pot, a crank coöperating with said dash pot, means for limiting the movement of said crank in one direction, and a movable member arranged between said crank and air inlet valve for controlling the movement of said valve.

2. In a carbureter, the combination with a suction-controlled air inlet valve, of a dash pot, a crank engaged by said dash pot, and a slidably mounted member arranged in the path of travel of said air valve and crank.

3. In a carbureter, the combination with a carbureting chamber, of a suction-controlled air valve mounted therein, a casing, a plunger mounted in said casing, a spring for normally holding said plunger in raised position, an oscillating member arranged in the path of travel of said plunger and a coöperating movable member arranged between said oscillating member and air valve whereby the movement of said valve is retarded by said plunger.

and slidable lengthwise out of engagement with one of said bearings, a die member adjustable lengthwise on the rock shaft and engaging the base member and removable from the rock shaft when said shaft has been disengaged from one of said bearings, and a punch member reciprocative in said die member and operatively engaging the rock shaft.

2. In a punching device, a base member having a bearing, a rock shaft pivoted in said bearing, and releasable means for engaging said rock shaft and holding it from withdrawal from said bearing, and a die member longitudinally adjustable on the rock shaft.

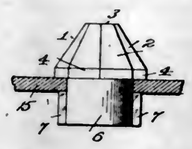
3. In a punching device, a base member having a bearing provided with a transverse hole, the bearing having another hole intersecting the first, a rock shaft pivoted in the first named hole and having a peripheral groove, and a yielding locking device mounted in the second hole and adapted to enter said groove.

4. In a punching device, a base member having a bearing having two intersecting holes, a rock shaft pivoted in one hole and having a peripheral recess, a locking device mounted in the other hole and adapted to enter said recess, and yielding means for normally forcing said locking device into said recess.

5. A die member having a punch hole, and a gage member rotatively adjustable thereon and having a gage surface eccentric to its axis.

[Claims 6 to 35 not printed in the Gazette.]

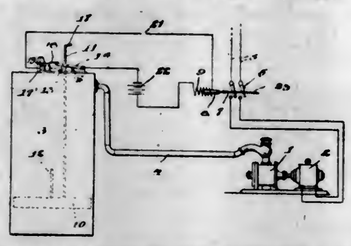
1,205,258. ILLUMINATING-LENS. ARTHUR S. FLOWMAN, Riverdale, and ROLAND C. DAISLEY, Brooklyn, N. Y. Filed Mar. 10, 1914. Serial No. 823,725. (Cl. 67—106.)



1. An illuminating lens comprising a hollow frustum of a pyramid, having a plurality of interior and exterior reflecting surfaces, the interior reflecting surfaces being one-half the number of the exterior reflecting surfaces and arranged in uniform angular relation to said exterior reflecting surfaces.

2. An illuminating lens, comprising a body portion having a plurality of exterior reflecting surfaces, and a longitudinal recess in said body, the walls of which form the interior reflecting surfaces and are one-half in number of the exterior reflecting surfaces.

1,205,259. AUTOMATIC CIRCUIT-CLOSER. HOWARD J'LAMALE, West Huntington, W. Va., assignor of one-half to Ira H. Pinkerman, West Huntington, W. Va. Filed Aug. 2, 1915. Serial No. 43,230. (Cl. 175—309.)

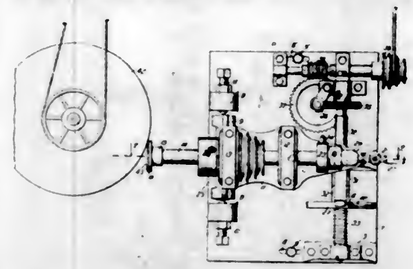


1. A float actuated circuit closure comprising an electroresponsive device for closing said switch, a circuit closer, an electroresponsive latching device for holding said circuit closer in circuit position, an electric circuit including said solenoid circuit closer and latching device in series, means holding said circuit closer normally in open position, a float, a rod connected to said float for actuating said circuit closer to closed position in one movement of the float, and a second rod connected to said float and operable therefrom to actuate the circuit closer to open position in the reverse movement of the float.

2. A float actuated circuit closer comprising an electroresponsive device connected to said switch for actuating the latter to closed position, a circuit closer, a latching device comprising a magnet, and an armature lever under the control of said magnet and operable therefrom to hold said circuit closer in circuit closing position, an electric circuit including said solenoid, circuit closer and magnet in series, a float actuated rod for actuating said circuit closer to closed position, and a second float actuated rod for moving said circuit closer to open position against the action of said latching device.

3. A float actuated circuit closer comprising an electroresponsive device connected to said switch for actuating the latter to closed position, a circuit closer, a latching device comprising a magnet, and an armature lever under the control of said magnet and operable therefrom to hold said circuit closer in circuit closing position, an electric circuit including said solenoid, circuit closer and magnet in series, a float actuated rod for actuating said circuit closer to closed position, a second float actuated rod for moving said circuit closer to open position against the action of said latching device, and a spring for holding said circuit closer normally in open position.

1,205,260. GLASS-BEVELING MACHINE. WLADYSLAW JOSEPH POROWSKI, New York, N. Y., assignor to Abraham Solomon, New York, N. Y. Filed Feb. 8, 1916. Serial No. 76,908. (Cl. 51—11.)



1. In a machine of the class described, a revoluble disk carrier, means for pneumatically retaining a disk on the carrier, means for revolving the carrier, a revolving grindstone, and means for feeding the carrier to bring the margin of the disk into engagement with the stone, said feeding means having means for displacing the carrier to clear the disk from the stone after a predetermined bevel has been formed on the disk.

2. In a machine of the class described, a revoluble disk carrier, a rocking frame supporting the disk carrier, means for pneumatically retaining a disk on the carrier, means for revolving the carrier, a revoluble grindstone, and means for rocking the frame to feed the carrier toward the stone, said means for rocking the frame including means for clearing the carrier from the stone after a predetermined feed of the carrier.

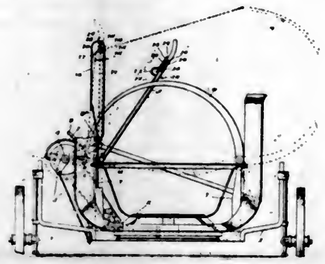
3. In a machine of the class described, a hollow spindle mounted to rock longitudinally, pneumatic means for creating a suction in the spindle whereby a disk is retained by the spindle, a revolving grindstone, and a spiral cam for rocking the spindle to bring the margin of the disk into engagement with the stone, said cam having means for rocking said spindle so as to move the disk on the spindle away from the stone after the disk has been fed through a predetermined distance toward the stone.

4. In a machine of the class described, a bed, a frame pivotally mounted on the bed, a hollow spindle carried in said frame, pneumatic means associated with one end of the spindle for creating a vacuum therein, a disk-receiving head associated with the other end of the spindle, means for revolving the spindle, a revoluble grindstone adjacent the head, the action of gravity on the frame tending to move the head of the spindle away from the stone, a cam having a peripheral, spiral surface, a roller carried by the frame engaging the peripheral surface of the cam, means for revolving the cam whereby the frame is moved on its pivot and whereby the margin of the disk is fed against the grindstone, said cam having a cut-out into which said roller is adapted to drop whereby the head is cleared from the grindstone, substantially as and for the purpose set forth.

5. In a machine of the class described, a base, a frame pivotally supported thereupon, a hollow spindle rotatably mounted in said frame, pneumatic means associated with one end of said spindle for exhausting the air from the hollow of the spindle, a disk carrier associated with the other end of the spindle, a revoluble grindstone adjacent the carrier, the force of gravity upon the frame tending to move the head away from the grindstone, a roller carried by said frame, a cam engaging the roller, means for revolving the cam, a clutch for coupling the cam to the revolving means, the revolving of said cam causing the frame to move on its pivot so as to bring the margin of the disk into engagement with the grindstone, said cam having a cut-out for receiving the roller whereby the disk is cleared from the stone and the engagement of the roller with the cut-out, causing the uncoupling of the cam from the revolving means.

[Claims 6 to 10 not printed in the Gazette.]

1,205,261. BINDING MECHANISM. CLEMMA R. RANEY, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed May 19, 1913. Serial No. 768,468. Renewed June 8, 1916. Serial No. 102,600. (Cl. 56—122.)



1. In combination, a movable binding needle, a knotter coöperating therewith, and means including a resilient member independent of said knotter and engageable with said needle for deflecting laterally the twine fed out from said needle after each binding operation.

2. In combination, a movable binding needle, a coöperating member movable laterally with respect thereto, means for operating said elements, and a yieldable twine positioning member carried by said coöperating member protruding into the path of said needle and engageable therewith as the latter is moved.

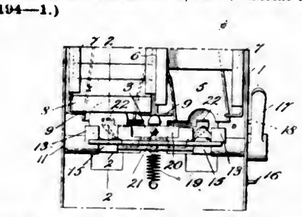
3. In a shocking machine, a movable binding needle, a movable compressor arm, means for moving said members in substantially parallel planes, and a resilient twine engaging member carried by said compressor arm extending into the path of said needle and automatically movable out of said path by said needle.

4. In combination, a frame, a binding needle pivoted thereon, a coöperating member carried on said frame and movable laterally with respect to said needle, mechanism for operating said elements, and a resilient twine engaging hook carried on said member and engageable with said needle and the twine thereon as said needle returns from each binding operation.

5. In a shocking machine, a movable binding needle, a movable compressor arm, means for operating said members in different directions in substantially parallel planes, and a twine engaging spring attached at one end to said compressor arm and having a hook-shaped free end extending into the path of said needle and underlying the twine fed out by the latter as it returns from each binding operation.

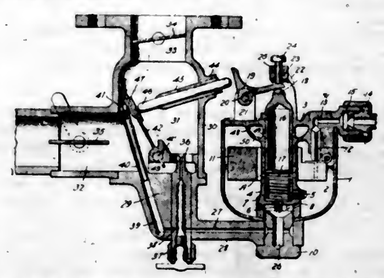
[Claims 6 to 12 not printed in the Gazette.]

1,205,262. VENDING-MACHINE. FELIX Q. RAST, New York, N. Y., assignor of one-half to W. Burton Foote, New York, N. Y. Filed Oct. 2, 1915. Serial No. 53,787. (Cl. 194—1.)



A vending machine having a wall provided with a coin chute and having a shoulder at the lower end of the chute, a coin receiver movably mounted below the shoulder, a resilient coin retarder interposed between the shoulder and the coin receiver, and attached to the wall at a point beyond the side of the chute and disposed transversely under the chute, said coin receiver adapted to engage the coin retarder and hold the same under the shoulder and the free end of the retarder being adapted to engage the wall of the machine and hold the coin receiver in position to receive a coin from the chute.

1,205,263. CARBURETER. ALBERT G. REDMOND, Flint, Mich., assignor to Marvel Carbureter Company, Flint, Mich., a Corporation of Indiana. Filed Dec. 12, 1914. Serial No. 876,800. (Cl. 261—41.)



1. In a carbureter, the combination with a suction-controlled air inlet valve, of a dash pot, a crank coöperating with said dash pot, means for limiting the movement of said crank in one direction, and a movable member arranged between said crank and air inlet valve for controlling the movement of said valve.

2. In a carbureter, the combination with a suction-controlled air inlet valve, of a dash pot, a crank engaged by said dash pot, and a slidably mounted member arranged in the path of travel of said air valve and crank.

3. In a carbureter, the combination with a carbureting chamber, of a suction-controlled air valve mounted therein, a casing, a plunger mounted in said casing, a spring for normally holding said plunger in raised position, an oscillating member arranged in the path of travel of said plunger and a coöperating movable member arranged between said oscillating member and air valve whereby the movement of said valve is retarded by said plunger.

4. In a carbureter, the combination with a fuel chamber, of a carbureting chamber, passages leading from said fuel chamber to said carbureting chamber, an air valve, a spring-supported plunger mounted in the fuel chamber, means for depressing said plunger, and a slidable member operated by the opening movement of said air valve for actuating said plunger-depressing means for injecting an additional charge of fuel from said fuel chamber to said carbureting chamber.

5. In a carbureter, the combination with a fuel chamber, of a carbureting chamber, passageways leading from said fuel chamber to said carbureting chamber, an air valve, a gravity member arranged in the path of travel of said air valve and normally held in contact therewith for initially retarding the movement of said air valve, an oscillating member arranged in the path of travel of said gravity member and normally out of contact therewith, and means coöperating with said oscillating member for exerting a resistance to the final opening movement of said air valve.

[Claims 6 to 20 not printed in the Gazette.]

1,205,264. PROCESS OF REMOVING CARBON FROM GAS-ENGINE CYLINDERS. WALTER K. ROGERS, Forest Hill, Md., assignor, by direct and mesne assignments, of two-ninths to Walter E. Tucker and two-ninths to Henry Rigdon, Forest Hill, Md., and one-third to Clarence B. Whitaker, San Francisco, Cal. Filed July 23, 1915. Serial No. 41,537. (Cl. 87—5.)

1. The process of removing carbon deposits from gas engine cylinders, which consists in introducing into the cylinder a composition of matter consisting of wood alcohol and ammonia.

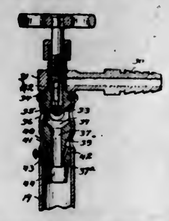
2. The process of removing carbon deposits from gas engine cylinders, which consists in introducing into the cylinder a composition of matter consisting of alcohol and ammonia.

3. The process of removing carbon deposits from gas engine cylinders, which consists in introducing into the cylinder a composition of matter consisting of a substantially water-free mixture of alcohol and ammonia.

4. The process of removing carbon deposits from gas engine cylinders, which consists in introducing into the walls of the cylinder a composition of matter consisting of a substantially water-free mixture of wood alcohol and ammonia.

5. The process of cleansing carbon from gas-engine cylinders which consists in introducing into the cylinder alcohol which has had ammonia gas absorbed therein.

1,205,265. SAD-IRON. GEORGE T. ROSENGREN, Chicago, Ill., assignor to Enterprise Tool and Metal Works, Chicago, Ill., a Corporation of Illinois. Filed June 19, 1915. Serial No. 34,977. (Cl. 158—118.)



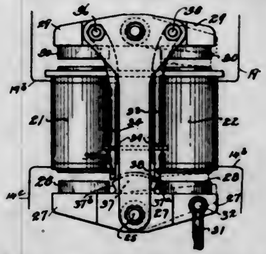
1. The combination with a burner-pipe, of a gas jet, the pipe being provided with an air-inlet and a plug fitting in the pipe, having a central duct into which gas from the jet and air from said inlet will be directed, the burner-pipe being provided with a second inlet around the plug, the latter having a portion fitting in said pipe and a duct in said portion leading inwardly from the second inlet and to direct air from the second inlet into the path of mixed air and gas from the central duct.

2. The combination with a burner-pipe, of a gas jet, the pipe being provided with an air-inlet adjacent the jet, and a plug in the pipe having a central duct into which gas from the jet and air from said inlet will be directed, the burner-pipe being provided with a second inlet around the plug, the latter having ducts leading from said second inlet, to direct air from the second inlet into path of mixed air and gas from the central opening, the plug having an enlarged opening below said central duct.

3. The combination with a burner-pipe, of a valve-casing connected to the burner-pipe and provided with a gas jet, a valve in said casing for controlling the supply of gas, the pipe being provided with an air-inlet to gas from the jet, and a plug in the pipe having a central duct into which gas from the jet and air from the inlet will be directed, the burner-pipe being provided with a second inlet around the plug, the latter having air-inlet ducts leading from said inlet to direct air to the fluid from the central duct, the plug being formed to fit in the pipe below the second inlet.

4. The combination with a burner-pipe, of a valve-casing connected to the burner-pipe and provided with a gas-jet, a valve in said casing for controlling the supply of gas, the pipe being provided with an air inlet adjacent the jet, and a plug in the pipe having a central duct into which fluid from the jet and the inlet will be directed, the burner-pipe being provided with a second inlet around the plug, the latter having air-ducts leading from the second inlet to fluid from the central duct, the plug having an enlarged outlet through which fluid from the central duct and the ducts from the second inlet passes, the plug being formed to fit in the pipe below the second inlet, and the lower wall of the central duct forming an annular flange between the central duct and the outlets of the air ducts.

1,205,266. ELECTRICAL SWITCH-THROWING MECHANISM. JAMES A. ROSS, Altoona, Pa. Filed Mar. 13, 1915. Serial No. 14,122. (Cl. 104—155.)



1. In an apparatus of the class described, the combination of a switch point locking and throwing device including a set of magnets, switch point operating means connected with the switch point and actuated by the magnets, and a lock controller also actuated by the same magnets and having means coöperating with said switch point operating means to alternately lock and release the latter.

2. In an apparatus of the class described, the combination with a switch point, of a switch point throwing and locking device including a frame, magnets supported by said frame, a switch point operating member pivotally mounted on one end of said frame and actuated by said magnets, rod connections between said operating member and said switch point, and a locking beam pivotally mounted on the opposite end of said frame and also actuated by said magnets, and means carried by said beam for locking said switch point operating member.

3. In an apparatus of the class described, the combination with a switch point, of a switch point throwing and locking device including a frame, magnets supported by said frame, a switch point operating member pivotally mounted on one end of said frame adjacent one end of said magnets and having rod connections with said switch point, an upstanding locking projection on said switch point operating member, a locking beam pivotally mounted on the opposite end of said frame adjacent the other end of said magnets, and means carried by said beam for alternately engaging with said locking projection on the switch point operating member.

4. In a device of the character described, the combination with a switch point, of a switch point throwing and locking device including a switch point operating armature member operatively connected with said switch point, a second armature member, magnets interposed between said armature members and adapted to shift the same upon being alternately energized, and means pivotally carried by one of said armature members for engaging and locking the switch point operating armature member.

5. In a device of the character described, the combination with a switch point, of a switch point throwing and locking device including a frame, magnets supported by said frame, a switch point operating armature member pivotally mounted at one end of said magnets and operatively connected with said switch point, an upstanding locking projection carried by the central portion of said switch point operating armature member, another armature member pivotally mounted on said frame at the other end of said magnets, and locking bolts pivotally carried by said last mentioned armature member at each side of its pivot, and means carried by said frame for guiding the free ends of said locking bolts into engagement with the opposite side faces of the locking projection at alternate times.

1,205,267. PAINT. AUGUSTE J. ROSSI, Niagara Falls, N. Y., and CHRISTIAN M. EDWARD SCHROEDER, Rutherford, N. J., assignors to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Nov. 19, 1912. Serial No. 732,195. (Cl. 134—39.)

1. Paint comprising a pigment containing amorphous, white, titanic oxid (TiO_2) uncombined chemically with other substances.

2. White paint containing a pigment composed principally of amorphous, white, titanic oxid (TiO_2) uncombined chemically with other substances.

3. Paint containing a plurality of pigments, one of which contains amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

4. White paint containing a plurality of pigments, one of which contains amorphous, white, titanic oxid (TiO_2) uncombined chemically with other substances.

5. Paint comprising a slightly yellowish or buff pigment which contains iron oxid and not less than 96% of amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

[Claims 6 to 9 not printed in the Gazette.]

1,205,268. PAINT. AUGUSTE J. ROSSI, Niagara Falls, N. Y., and CHRISTIAN M. EDWARD SCHROEDER, Rutherford, N. J., assignors to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Original application filed Nov. 19, 1912, Serial No. 732,195. Divided and this application filed May 7, 1915. Serial No. 26,503. (Cl. 134—39.)

1. Paint containing white lead and also another pigment containing amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

2. Paint containing white lead and also a slightly yellowish or buff pigment containing some iron oxid and more amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

3. Paint containing white lead, and also a slightly yellowish or buff pigment which contains iron oxid and not less than 96% of amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

4. Paint containing white lead, and amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

5. Paint containing white lead, iron oxid, and also amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

[Claim 6 not printed in the Gazette.]

1,205,269. PAINT. AUGUSTE J. ROSSI, Niagara Falls, N. Y., and CHRISTIAN M. EDWARD SCHROEDER, Rutherford, N. J., assignors to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Original application filed Nov. 19, 1912, Serial No. 732,195. Divided and this application filed May 7, 1915. Serial No. 26,504. (Cl. 134—39.)

1. Paint containing zinc oxid and also another pigment containing amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

2. Paint containing oxid of zinc and also a slightly yellowish or buff pigment containing some iron oxid and more amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

3. Paint containing oxid of zinc, and also a slightly yellowish or buff pigment which contains iron oxid and not less than 96% of amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

4. Paint containing oxid of zinc, and amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

5. Paint containing oxid of zinc, iron oxid, and also amorphous titanic oxid (TiO_2) uncombined chemically with other substances.

[Claim 6 not printed in the Gazette.]

1,205,270. WINDING-MACHINE. CLAES RYDEN, Cranston, R. I., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass., a Corporation of Massachusetts. Filed May 16, 1914. Serial No. 839,037. (Cl. 242—25.)



1. In a winding machine, the combination with the winding-spindle, of a traverse-guide adapted to recede from the spindle in accordance with the growth in diameter of the winding, and means operating to apply a constant degree of resistance to the movement of the guide away from the spindle and a less degree of resistance to its movement toward the spindle.

2. In a friction pressure-device for winding machines, the combination with the winding-spindle, of a traverse-guide adapted to recede from the spindle as the winding increases in diameter, and means to apply a constant degree of resistance to the movement of the guide away from the spindle and a less degree of resistance to its movement toward the spindle without tending to force the guide toward the spindle.

3. In a winding machine, the combination with a reciprocatable traverse-guide adapted to oscillate at substantially right-angles to its path of traverse, of means to resist the oscillating movement of the guide in one direction with respect to its traverse while applying a less resistance to the oscillating movement of the guide in the opposite direction.

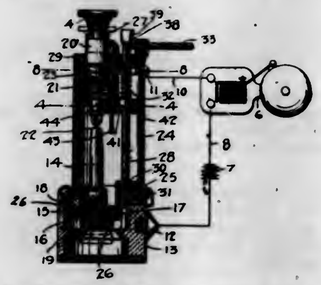
4. In a winding machine, the combination with a reciprocatable traverse-guide adapted to oscillate at substantially right-angles to its direction of traverse, of friction means adapted to resist the oscillating movement of the guide in one direction while applying a less resistance

to its movement in the opposite direction, and a spring connected to operate said friction-means.

5. In a winding machine, the combination with a traverse-guide adapted to oscillate at substantially right-angles to its direction of traverse, of a brake-disk, a friction-band operating in connection with said disk, means operated from the movement of the guide to effect a relative displacement between the disk and its brake-band, and a spring for applying frictional resistance between the band and the brake disk.

[Claims 6 to 12 not printed in the Gazette.]

1,205,271. SAFETY-CHEST. JOHN H. SAFFORD, Brooklyn, N. Y. Filed Nov. 11, 1914. Serial No. 871,462. (Cl. 177—316.)



1. In a safety chest, alarm mechanism having an electric circuit, combined with circuit-closing means comprising a gravity-operated member constituting a contact and a contact coöperative therewith, and means whereby said coöperative contact may be centered in relation to the gravity-operated member to compensate for the box being somewhat out of horizontal position.

2. In a safety chest containing electrical alarm mechanism, a gravity-operated circuit-closing member, a coöperative contact, and means for automatically centering said contact in relation to the gravity-operated member to compensate for the box being somewhat out of horizontal position.

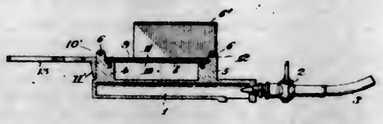
3. Alarm mechanism for safety chests comprising a pendulous contact, and a gravity-centered contact coöperative therewith, one of said contacts being encircled by the other.

4. In a safety chest, alarm mechanism comprising normally spaced contacts one within the other, and means for suspending both contacts for the purpose of centering the same.

5. In a safety chest, alarm mechanism having an electric circuit in combination with a pendulum, a contact member adapted to be engaged by said pendulum to close the circuit, and means carried by the pendulum for centering said contact member with reference to the pendulum.

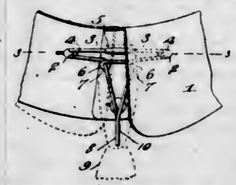
[Claims 6 to 28 not printed in the Gazette.]

1,205,272. HEATER FOR CURLING-IRONS. ALOIS SCHERRER and GEORGE SCHERRER, New York, N. Y. Filed Mar. 14, 1916. Serial No. 84,225. (Cl. 126—229.)



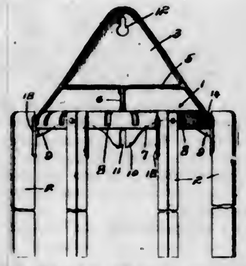
A heater of the class described comprising a horizontal burner tube, lugs integral with said tube adjacent to the respective ends thereof and projecting upwardly therefrom, a heating plate spanning the space between said lugs and secured thereto within the heat zone of the burner tube, a handle member pivotally connected to one of said lugs, a bottomless hood pivotally connected to the other lug and adapted to overlie said heating plate, said handle member being capable of swinging movement onto said heating plate and away from said plate to horizontal position, and a stop lug formed on said handle member and adapted to engage the adjacent plate carrying lug in the outward movement of said handle member to hold the latter in horizontal position.

1,205,273. TIE SUPPORTING AND ATTACHING DEVICE. KARL SCHMIDT, Lansing, Mich. Filed Mar. 4, 1914. Serial No. 822,439. (Cl. 2—84.)



In a four in hand tie supporting clip, a body convoluted at intervals along its length to provide eyes, and a member depending from the body and comprising a single piece of wire of substantially U-shaped formation, the legs of which are arranged parallel to each other at their lower ends for a portion of their length, the legs then being bent in opposite divergent directions to conform to the contour of the knot of a tie, the free ends of the legs being pivotally mounted within said eyes.

1,205,274. CLOTHES-HOLDER. SIGURD SCHEMNER, Chicago, Ill. Filed Oct. 13, 1915. Serial No. 55,728. (Cl. 68—34.)

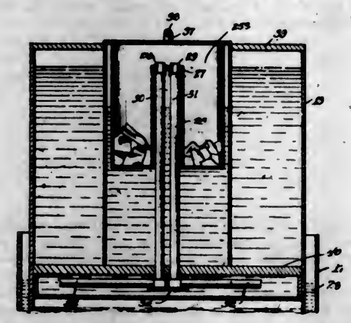


In a device of the class described, the combination with a bracket having slots therein, of a plate on said bracket over-lying said slots for a portion of their length, arms having wear plates thereon, attaching members passing through said arms and plates and having ends received in said slots, and other ends on said attaching elements extending above the arms and adapted for contact with said plate.

1,205,275. ACETYLENE-GAS APPARATUS. ALLEN H. SEYMOUR, Bainbridge, Ohio. Filed Dec. 11, 1913. Serial No. 806,041. (Cl. 48—6.)

1. An acetylene generator comprising in combination, a main tank provided with a gas receiving chamber, a plurality of carbid holders mounted in said tank to be partly immersed, said holders having the side walls thereof made imperforate having the tops open, a bell cover for each holder, means to normally hold said bell covers in a relation to close the open tops of said carbid holders against the ingress of air and moisture or vapor rising from the water in which the holders are partly immersed, a gas discharge pipe for each of said carbid holders arranged to extend adjacent the sides thereof to a point above the liquid level in the main tank and to be within the bell covers of the holders, said parts being so arranged that

access to the holders is closed by the bell covers and communication from the holders to the gas receiving chamber is also closed by such covers, and water supply means arranged to supply water successively to said carbid holders to cause generation of gas therein and in consequence to raise the bell covers to permit the gas to be conducted to the gas receiving chamber through the gas discharge pipe.



2. An acetylene generator comprising in combination, a main water seal tank provided with a gas receiving chamber, a plurality of carbid holders mounted in said tank around the gas receiving chamber to be partly immersed in the water contained in the tank, said holders having the side walls thereof made imperforate and terminating in rim-like edges at their upper ends, a bell cover for each holder made to have the sides of sufficient length to extend down into the water of the tank and having the top thereof imperforate so that as gas is generated in said holders, the bell covers will be caused to rise, gas discharge pipes for each of said holders arranged with the intake ends thereof above the level of the water in the tank and within the bell cover of each holder, gravity means for normally holding said bell covers in a relation to fit against the open rim top edges of the carbid holders to close the open ends thereof against the ingress of air and moisture and to also close communication to the gas discharge pipes, water supply means arranged to supply water successively to said carbid holders to cause generation of gas therein and in consequence to raise the bell covers to permit the gas to be conducted to the gas receiving chamber, a main gas receiving bell to which the gas is conducted from said gas receiving chamber, and water supply control means adjusted by movement of the gas bell to regulate and control the flow of water through said supply means.

3. An acetylene generator comprising in combination, a main water seal tank provided with a gas receiving chamber, a plurality of carbid holders mounted in said tank around the gas receiving chamber to be partly immersed in the water contained in the tank, said holders having the side walls thereof made imperforate and terminating in rimlike edges at their upper ends, a bell cover for each holder made to have the sides of sufficient length to extend down into the water of the tank and having the top thereof imperforate so that as gas is generated in said holders, the bell covers will be caused to rise, gas discharge pipes for each of said holders arranged with the intake ends thereof above the level of the water in the tank and within the bell cover of each holder, gravity means for normally holding said bell covers in a relation to fit against the open rim top edges of the carbid holders to close the open ends thereof against the ingress of air and moisture and to also close communication to the gas discharge pipes, a main water supply pipe arranged to lie adjacent each of the carbid holders, pipe couplings connected in said water pipe adjacent each of the holders provided with a pair of outlet openings and having a partition wall disposed between said openings, an intake water pipe connected with said couplings at one of the openings to have the inner end thereof disposed in the adjacent carbid holders, a water overflow pipe connected in the remaining opening of each of the couplings and extended to have its free end at the same level as the water supply pipe, and means controlled in accordance with the volume of gas passing from said gas receiving chamber to regulate the supply of water through said water supply pipe.

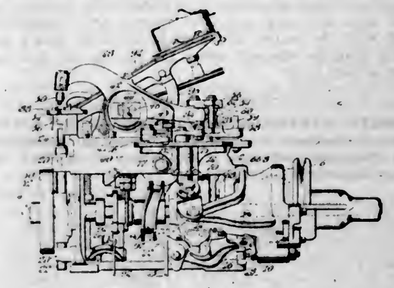
1,205,276. MACHINE OR INSTRUMENT FOR CRACKING NUTS. ROBERT C. SHARPE and EDWARD C. SHARPE, Youngstown, Ohio. Filed Mar. 29, 1915. Serial No. 17,826. (Cl. 146—3.)



1. In a mechanical nut cracker, a combination of a stationary gripper, to the extended end of which a movable handle is fastened by a pivot, a second movable handle being fastened to one end of this handle also by a pivot, and one end of this handle inserted into one end of a movable gripper and pivoted to it, said movable gripper inserted into an extended part of the stationary gripper, a coiled spring fastened to the extended ends of both grippers by means of pivots and an adjustable cutting blade fastened to the top part of the rear end of the stationary gripper, substantially as shown.

2. In a mechanical nut cracker, a combination of a stationary and a movable gripper, substantially as described, a part of the top of the rear end of the stationary gripper forming ears for carrying a pin and cutting blade with a V shaped cutting edge, which when placed in the operating position as above described and with its cutting edge opposite the movable gripper will act as a cutter of nut shells substantially as described.

1,205,277. FASTENER-SETTING MACHINE. WALTER SHAW, Dedham, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 20, 1913. Serial No. 749,640. (Cl. 218—15.)



1. A fastener setting machine of the class described having, in combination, a tool lever mounted to turn about, a fixed axis to feed the work, a work feeding tool on the lever, and means for sliding the lever across its axis in a path substantially parallel to the plane in which the work is supported during its feeding movement.

2. A fastener setting machine of the class described having, in combination, a tool carrier mounted to turn about a fixed axis and being also arranged to slide transversely relative to said axis, a work feeding tool mounted in said carrier, and means for moving the tool carrier relatively to its axis to cause the feeding tool to move in a straight path during the turning of the carrier.

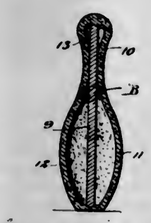
3. A fastener setting machine of the class described having, in combination, a carrier member mounted to turn about a fixed axis, power operated means for turning the carrier member, a tool lever carried thereby and having a sliding connection therewith, a work feeding tool on said lever, and means for moving the tool carrying lever relatively to the axis of the carrier member during the turning of the member.

4. A fastener setting machine of the class described having, in combination, a tool lever mounted to turn about a fixed axis disposed perpendicularly to the plane of the work to feed the work, a work feeding tool on the lever, and a curved cam for sliding the lever across its axis during its feeding movement.

5. A fastener setting machine of the class described having, in combination, a tool lever mounted to turn about an axis disposed perpendicularly to the plane of the work to feed the work, a work feeding tool on one end of the lever, and a cam acting upon the other end of the lever to slide the lever relatively to its axis during its feeding movement.

[Claims 6 to 27 not printed in the Gazette.]

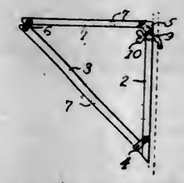
1,205,278. BOWLING-PIN. FRANK SKALLA, Niles, Mich. Filed May 7, 1915, Serial No. 26,581. Renewed Aug. 9, 1916. Serial No. 114,072. (Cl. 46—66.)



1. A bowling pin comprising a hollow unbroken body made from a composition, and a core of uniform cross sectional area throughout its length extending through the body into the neck and bowl thereof and terminating flush with the bottom and head of the body.

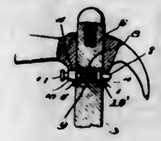
2. A bowling pin comprising a hollow unbroken body made from a composition, a core of uniform cross sectional area throughout its length extending through the body into the neck and bowl thereof and terminating flush with the bottom and head of the body, and a soft filling centrally disposed about the core in the bowl and neck of said body.

1,205,279. CARPENTER'S HOUSE-BRACKET. JOHN F. SMALL, Jefferson, N. H., assignor of one-half to Winfred A. Thompson, Jefferson, N. H. Filed July 14, 1915. Serial No. 39,877. (Cl. 20—84.)



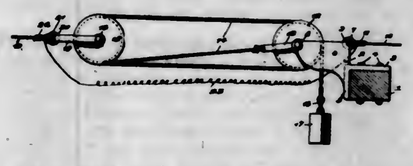
A collapsible bracket comprising three members, two of them connected to the ends of the third each by a link pivoted at both ends to the respective members at such a distance from the end of each that the end of each of the two members adjacent the third member may be swung to either abut or be abutted by the third member, and so that the two members may be swung to a position parallel to and one on each side of the third member, in combination with means for connecting the outer ends of the two members to each other; each of the members having a hole therethrough and a securing hook interchangeably engageable with the hole of any member.

1,205,280. TOOL-HANDLE. LOUIS C. SOMMER, Sr., Jersey City, N. J. Filed Aug. 18, 1915. Serial No. 46,116. (Cl. 145—105.)



The herein rescribed means for connecting a handle to a tool, including in combination, a tool having a socket provided upon one end with an opening and upon its diametrically opposite end with a key hole slot, the rounded opening of the slot being of a greater diameter than the first referred to opening and being in alinement with the said opening, a handle having one of its ends disposed to enter the socket of the tool, said handle having a transverse opening, a sleeve having closed ends at the opening and the said closed ends provided with alining openings, a bolt member passing through the opening in the sleeve, a stop member upon the portion of the bolt within the sleeve, a spring surrounding the bolt and exerting a pressure between the stop member and one of the ends of the sleeve, said bolt having one of its ends provided with an enlarged rounded portion arranged exterior of the sleeve and being formed with a head projecting from the said rounded portion and the bolt proper being of a size to enter the opening and the longitudinal portion of the key hole slot in the tool when the bolt is partly retracted from the sleeve and the enlarged portion of the bolt being of a size to engage with the wall of the rounded portion of the key hole slot when the bolt is retracted to permit of the end of the same passing through the referred to restricted opening in the socket of the tool.

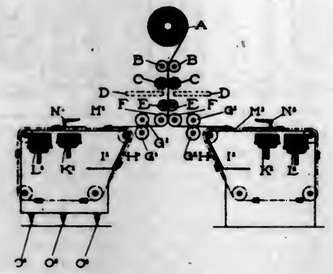
1,205,281. COMPENSATING DEVICE FOR LINE-WIRES. ARVID C. SORENSEN, Webster, N. D. Filed Apr. 1, 1916. Serial No. 88,413. (Cl. 173—251.)



1. In a device of the character described, a bracket having a right angular base adapted to seat on the usual cross bar or a telephone pole, said bracket including a pair of spaced parallel plates extending from the corner of the base with their rear edges rising vertically therefrom; a pair of spacing bolts connecting the plates, a pair of pulleys on one bolt, a link on the latter, an insulator on the other bolt, a second pair of pulleys spaced from the first pair of pulleys, a pair of bars supporting the second pair of pulleys therebetween, an insulator arranged between the bars, said insulators being adapted to have the line wire connected thereto in a manner to leave slack between the insulators, a cable fixed at one end to the link and passing over the pulleys, and a weight attached to the other end of the cable.

2. In a device of the character described, a fixedly mounted bracket, a pulley journaled thereon, a suspended pulley, a cable having one end anchored to the bracket and passing about the pulleys so as to have its opposite terminal freely hanging from the first pulley, a weight connected to the free end of the cable, and means connecting the first bracket and second pulley at spaced points to a line wire so as to provide a slack section therebetween.

1,205,282. MECHANISM FOR PRODUCING ASSORTED PILES OF PAPER SHEETS. GEORG SPIESS, Leipzig-Reudnitz, Germany. Filed June 24, 1914. Serial No. 847,044. (Cl. 164—68.)



1. A machine for producing assorted piles of defective and perfect sheets of paper in series in one continuous operation comprising means for cutting each clean web into sheets, means for passing along the cut clean sheets for observation and selection, means for releasing the selected defective sheets, and means for directly piling the defective sheets and then the perfect sheets.

2. A machine for producing assorted piles of defective and perfect sheets of paper in series in one continuous operation comprising means for cutting each clean web into strips, guide rollers for diverting the web strips in opposite directions, cutting cylinders adjoining said guide rollers to form sheets, means for passing along the cut clean sheets for observation and selection, means for releasing the selected defective sheets, and means at both sides of the machine for directly piling the defective sheets and then the perfect sheets.

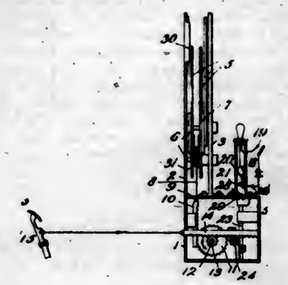
3. A machine for producing assorted piles of defective and perfect sheets of paper in series in one continuous operation comprising means for cutting each clean web into strips, guide rollers for diverting the web strips in opposite directions, cutting cylinders adjoining said guide rollers to form sheets, means for passing along the cut clean sheets for observation and selection, means for releasing the selected defective sheets, stationary means near one set of cutting cylinders for piling directly the defective and then the perfect sheets, and a second means near the second set of cutting cylinders adapted to be shifted laterally so as to receive the sheets passing on one or the other side of the middle sheets.

4. A machine for producing assorted piles of defective and perfect sheets of paper in series in one continuous operation comprising means for cutting each clean web into strips, guide rollers for diverting the web strips in opposite directions, cutting cylinders adjoining said guide rollers to form sheets, an endless chain with grippers at each side of the machine to convey the sheets over a course of observation and selection, a release for defective sheets at each side, means for piling the defective sheets and a pile table at each side for collecting the perfect sheets.

5. In a machine for producing piles of defective sheets and perfect sheets of paper in series in one continuous operation, means for producing the sheets, means for passing along the clean sheets for observation, means for selecting the perfect and defective sheets, and means for piling the defective and perfect sheets separately.

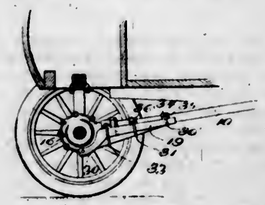
[Claim 6 not printed in the Gazette.]

1,205,283. AUTOMATIC SIGNALING DEVICE. THOMAS STAMATSON, Brooklyn, N. Y. Filed Oct. 15, 1915. Serial No. 56,072. (Cl. 40—67.)



A signal comprising a casing, a spring pressed arm pivotally mounted thereon, a rack bar movably mounted in the casing and connected with the arm, a gear wheel journaled in the casing and meshing with the said rack bar, a second gear wheel fixed to the first mentioned gear wheel, a shaft journaled in the casing, gear wheels mounted on said shaft, a rack bar meshing with the second mentioned gear wheel and one of the gear wheels on the said shaft, a lever operated means for moving the second mentioned rack bar, and a circuit closing rack bar movably mounted in the casing and meshing with one of the other gear wheels on the shaft.

1,205,284. BRACE FOR VEHICLE GEAR AND SHAFT HOUSINGS. CHARLES F. STEWART, Nashville, Kans. Filed Jan. 12, 1916. Serial No. 71,709. (Cl. 21—90.)



1. A brace for a joint connecting the differential and drive shaft housings of motor vehicles including a body adapted to engage against the lower face of such a joint and adjacent portions of the housings and having its upper face shaped to conform to the exterior surfaces of the housings against which it engages, and means for securing the body in place.

2. A brace for a joint connecting the differential and drive shaft housings of motor vehicles including a body adapted to engage against the lower face of such a joint and adjacent portions of the housings and having its upper face shaped to conform to the exterior surfaces of the housings against which it engages, and means for securing the body in place, said body throughout the greater portion of its length being provided with a longitudinal reinforcing web.

3. The combination with a differential housing and forwardly extending shaft housing connected to each other, of a brace adapted to engage against the lower faces of the housings and of the joint connecting them, and means for securing the brace in place.

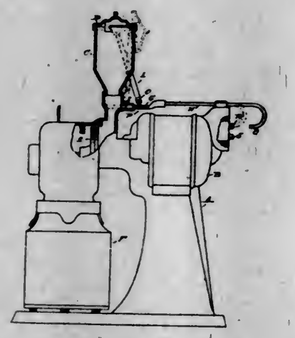
4. The combination with a differential housing and forwardly extending shaft housing connected to each other, of a brace adapted to engage against the lower faces of the housings and of the joint connecting them, and means for securing the brace in place, said means including U-

bolts embracing the brace, co-acting clamping plates partially embracing the housings and receiving the ends of the U-bolts, and clamping nuts threaded upon the bolts.

5. The combination with a drive shaft housing and two-part differential housing connected to the drive shaft housing and including sections having mating flanges through which extend bolts, of a brace member adapted to engage beneath the lower faces of the housings and joint connecting them and adapted at one end to seat the mating flanges of the differential housing, such end being formed with openings in alinement with one of the bolts of the differential housing, whereby such bolt may be passed through the member and housing, and additional means for securing the brace to the shaft housing.

[Claims 6 and 7 not printed in the Gazette.]

1,205,285. MILL. WALTER F. STIMPSON, Detroit, Mich. Filed Mar. 15, 1915. Serial No. 14,490. (Cl. 83—8.)



1. In a mill the combination of a grinder, a motor for operating the grinder, a hopper for feeding material to the grinder, means for controlling the motor, means controlling the discharge end of the hopper, and a connection for operating one of said means from the other.

2. In a mill the combination of a grinder, a motor for operating the grinder, a hopper for feeding material to the grinder, a valve for controlling the discharge from the hopper, a control for the motor, and means connected to said valve for operating said control to start the motor upon the closing of the valve.

3. In a mill the combination of a grinder, an electric motor for operating the grinder, a hopper for feeding material to the grinder, a valve for controlling the discharge from the hopper, a switch for controlling the electric motor, and means connected to said valve to operate the switch to start the motor upon the closing of the valve.

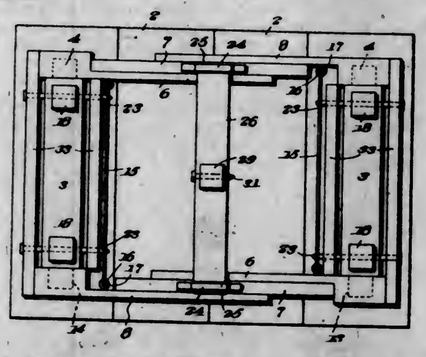
4. In a mill the combination of a grinder, a motor for operating the grinder, a hopper for feeding material to the grinder, a cover for the hopper, and means for closing the discharge end of the hopper and starting the motor upon the opening of the cover.

5. In a mill the combination of a grinder, a motor for operating the grinder, a hopper for feeding material to the grinder, a cover for the hopper, and means for closing the discharge end of the hopper and starting the motor upon the opening of the cover, said means effecting the opening of the valve upon the closing of the cover.

[Claims 6 to 9 not printed in the Gazette.]

1,205,286. TABLE. MYRLE STRAUCH, Vanderbilt, Pa. Filed Nov. 23, 1915. Serial No. 63,023. (Cl. 45—9.)

1. An extension table comprising end sections and center sections, end bars fastened to the under surfaces of said end sections respectively and extending longitudinally thereof, tenons on the outer ends of said bars, and extensible side bars having the outer extremities thereof formed with mortises adapted to receive the particular tenons.



2. An extension table comprising end sections and center sections, end bars fastened to the under surfaces of said end sections respectively and extending longitudinally thereof, tenons on the outer ends of said bars, extensible side bars having the outer extremities thereof formed with mortises adapted to receive the particular tenons, and detachable connections between said side bars acting to hold the side bars in proper relative positions and in engagement with said end bars.

3. An extension table comprising end sections and center sections, end bars fastened to the under surfaces of said end sections respectively and extending longitudinally thereof, tenons on the outer ends of said bars, extensible side bars having the outer extremities thereof formed with mortises adapted to receive the particular tenons, rods pivoted upon one of said side bars and projecting toward the other side bar, and eyes carried by the other side bar and engaging the adjacent ends of said rods respectively to hold the side bars in proper relative positions and in engagement with said end bars.

1,205,287. BRACELET. ANGELO TESORONI, Newark, N. J., assignor to Sloan & Company, Newark, N. J., a Corporation of New Jersey. Filed June 2, 1916. Serial No. 101,227. (Cl. 59—80.)



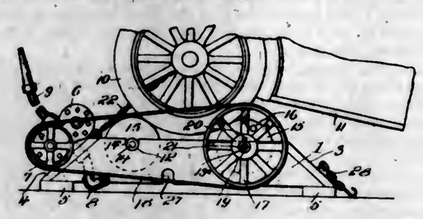
1. A bracelet comprising a series of oblong links, having outer sections, a pair of apertured sides and continuous inner sections, and two rows of staples extending along said apertured sides, the shanks of said staples engaging the sides of adjoining links.

2. A bracelet composed of a plurality of closed hollow links having arched outer sections, apertured side sections, and continuous inner sections that parallel the outer sections, and of staples engaging the apertured side sections.

3. A bracelet composed of a plurality of closed hollow oblong links, having arched outer sections, apertured side sections, and continuous inner sections, linings carried by the outer sections and underlying the joints between said sections, and staples engaging the apertured side sections.

1,205,288. POWER-TRANSMITTING DEVICE. NICHOLAS THOMAS, Burlington, Wis. Filed Apr. 8, 1916. Serial No. 89,833. (Cl. 21—90.)

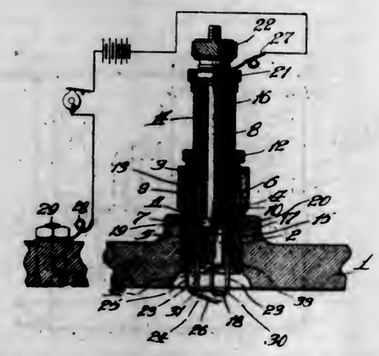
1. A power transmitting device comprising a frame embodying means for detachably mounting the same upon a carrying truck, said frame including an inclined end approach, transverse shafts mounted upon the frame and provided with friction wheels to support and receive driving motion from the driving wheels of an automobile, a driving pulley upon one side of said shafts, means for anchoring an automobile to the device, and means for attaching the frame to a tongue of the truck, said inclined approach being provided with an opening to receive and accommodate said tongue.



2. A power transmitting device comprising a frame formed of side bars connected by end pieces, one at least of said end pieces forming an inclined plane, said side bars being provided with notches in their lower edges for engagement with the wheeled axle of a carrying truck, transverse shafts mounted upon the frame and provided with friction wheels to support and receive driving motion from the driving wheels of an automobile, a driving pulley adjustable longitudinally upon one of said shafts and provided with means for fixing it thereto, said pulley being arranged upon an extension of the shaft outside the frame, means for anchoring an automobile to the device, and means for attaching the frame to a tongue of the truck, said inclined approach being provided with an opening to receive and accommodate said tongue.

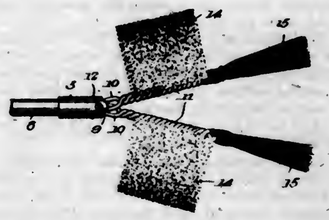
3. A power transmitting device comprising a frame formed of side bars connected by end pieces, one at least of said end pieces forming an inclined approach, said side bars being provided with notches in their lower edges for engagement with the wheeled axle of a carrying truck, transverse shafts mounted upon the frame and provided with friction wheels to support and receive driving motion from the driving wheels of an automobile, means for transmitting motion from said friction wheels, means for anchoring an automobile to the device, and means for attaching the frame to a tongue of the truck, said inclined approach being provided with an opening to receive and accommodate said tongue.

1,205,289. SPARKING PLUG. JAMES Z. TUCKER and LOUIS W. MARKWORT, St. Louis, Mo. Filed May 18, 1914. Serial No. 839,197. (Cl. 123—169.)



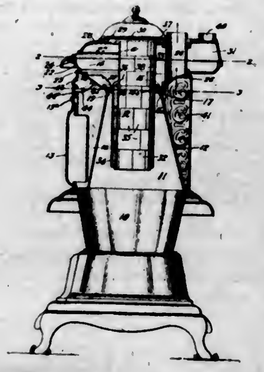
A spark plug having three electrodes, one of said electrodes having an annulus formed thereon, said annulus adapted to encircle one of said other electrodes, said encircled electrode being turnably mounted, said third electrode being located on the outside of said annulus and adapted to extend over said annulus, said annulus forming means of electric communication between said other electrodes.

1,205,290. BOTTLE-WASHING BRUSH. AVERY S. TURNER, Butte, Mont. Filed Sept. 10, 1915. Serial No. 50,036. (Cl. 141—7.)



The combination with a spindle having a bore therethrough, of a ferrule fitted on the end of the spindle and having a recess in its outer end, ears on opposite sides of the recess, a pivot disposed transversely in the recess and supported in the ferrule, a pair of wire lengths, each twisted together to provide an arm and a loop at one end thereof for loose engagement with the pivot between the ears which serve to hold arms parallel with each other, brush tips on the outer ends of the arms, and semi-cylindrical brush bodies fastened in the twisted portions of the arms, said ferrule being formed with an outlet aperture for the bore in the spindle.

1,205,291. STOVE. JAPEW S. VAN BUREN, Albany, N. Y. Filed Mar. 22, 1913. Serial No. 756,253. (Cl. 126—68.)



1. In a stove, the combination with a combustion chamber and a circulating chamber having a rear exit flue, of a quickly removable sectional combustion flue mounted between the combustion chamber and the exit flue, said combustion flue being covered throughout its inner surface with refractory material, the upper section of the combustion flue being positioned in the circulating chamber and having a longitudinal opening positioned to permit of the passage of products of combustion in the direction opposite to the exit flue, the exit opening being of less area than the combustion flue opening, whereby smoke and gases may be retarded in their outward circulating passage and consumed prior to passage through the exit flue.

2. In a stove having an exit flue and a top with a substantially central opening, a division wall to separate a

combustion chamber from a superposed circulating chamber, a sectional lined combustion flue having a lower section suspended from said division wall and removable through said top, and another section extending the full depth of the circulating chamber and suspended from the top into contact with the division wall and in alinement with said lower section, said upper section being adapted for quick removal from the circulating chamber for the purpose of cleaning the same independently of the lower section.

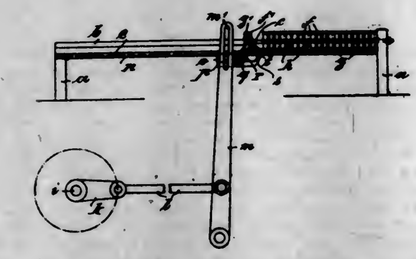
3. In a stove, a combustion chamber, a circulating chamber positioned above the combustion chamber and communicating with an opening in the top of the stove and with an exit flue, and a combustion flue comprising a plurality of sections, one section being immersed within the combustion chamber and adapted to be removed from the circulating section through the top of the stove, and another section removably mounted within the circulating chamber and having an opening in a part of its side wall which is opposite to the exit flue.

4. A stove comprising a base, a fire box section, a combustion section having a wall contracted at the upper end thereof and provided with a main feed door, a division wall of greater diameter than the combustion section and adapted to rest upon the contracted end of the combustion wall, said division wall being provided with a central opening and a gravity draft door, means to close the draft door simultaneously with the feed-door, a cover element adapted to rest on said division wall to form a circulating chamber which is closed except for said gravity door, a top opening and the exit flue, and means to close the top opening.

5. A stove having a horizontally arranged division wall to separate a combustion chamber from a circulating chamber, said division wall having a downwardly inclined section provided with an annular flanged opening, a flanged top plate for said circulating chamber, a sectional flue suspended centrally within the circulating chamber and the combustion chamber, the lower section of said flue being passed through the opening of the division wall to be suspended within the combustion chamber, said section being maintained in position by having an outwardly directed flange at its upper end seated upon the flange of the opening, the lower end of said section of the flue being provided with an inwardly directed flange, the upper section of said flue having an outwardly directed flange adapted to be seated against the flange of the top plate to suspend said upper section within the circulating chamber, said upper section registering with the lower section to form a continuation of the flue, and a sectional fire brick positioned within the sections of the flue, the fire brick sections being superimposed one upon the other, with the lowermost brick resting upon the inwardly directed flange of the lower section of the flue.

[Claims 6 and 7 not printed in the Gazette.].

1,205,292. MANUFACTURE OF COLD-DRAWN SEAMLESS TUBES. HERMANN VON FORSTER, Frankfort-on-the-Main, Germany. Filed July 16, 1914. Serial No. 851,364. (Cl. 205—8.)



1. The improvement in the manufacture of cold-drawn seamless thin-walled metal tubes, which consists in continuously drawing out a cold hollow blank to a finished thin tube in substantially uniform stages immediately succeeding each other.

2. The improvement in the manufacture of cold-drawn seamless thin-walled metal tubes, which consists in drawing out a cold hollow blank to a thin tube in an uninterrupted series of substantially uniform drawing operations.

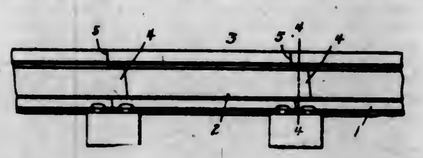
3. The improvement in the manufacture of cold-drawn seamless thin-walled metal tubes, which consists in subjecting a cold hollow blank on the draw-bench to as many passes in close succession as will suffice to reduce it to a finished thin tube.

4. The improvement in the manufacture of cold-drawn seamless thin-walled metal tubes, which consists in drawing a cold hollow blank in close succession through as many dies of slightly and substantially uniformly decreasing diameters as will suffice to reduce it to a finished thin tube.

5. The improvement in the manufacture of cold-drawn seamless thin-walled metal tubes, which consists in drawing out a cold hollow blank in close succession between a mandrel and as many dies of slightly and substantially uniformly decreasing diameters as will suffice to reduce the blank to a finished thin tube.

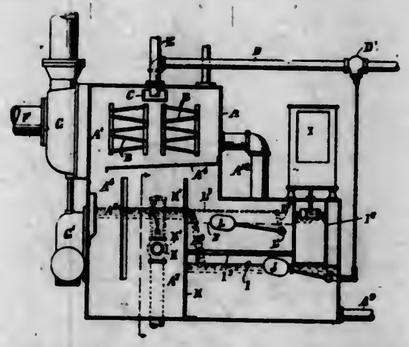
[Claims 6 and 7 not printed in the Gazette.]

1,205,293. RAIL-JOINT. ASA WALKER, Sourlake, Tex. Filed Apr. 27, 1916. Serial No. 93,995. (Cl. 239—8.)



The combination of the meeting ends of a pair of rails, one of said rails having its tread provided with a downwardly opening recess and its flange provided with spaced extensions, the other rail having its web terminating in a tongue, said tongue having its upper end adapted to engage the recess and its lower end to engage between said extensions, and means for securing the rails to the ties.

1,205,294. LIQUID-MEASURING APPARATUS. AXEL B. WALLEM, Cynwyd, Pa., assignor to Joseph S. Lovering Wharton, William S. Hallowell, and John C. Jones, Philadelphia, Pa., doing business in said Philadelphia under the firm-name of Harrison Safety Boiler Works. Filed Sept. 5, 1914. Serial No. 860,433. (Cl. 137—68.)

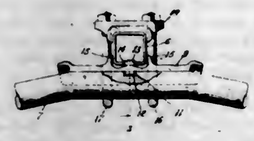


1. In liquid measuring apparatus, the combination with a weir chamber having inlet and outlet compartments, a weir between them, a liquid outlet from the outlet compartment, and means for supplying liquid to the inlet compartment, of a normally closed escape passage leading from the inlet compartment at a level below the lowermost level of flow over the weir, and means responsive to the height of liquid on the outlet side of the weir for opening and closing said escape passage as the last mentioned level rises to and falls below a predetermined height.

2. In a liquid measuring apparatus, the combination with a weir chamber having inlet and outlet compartments, a weir between said compartments, two liquid supply connections to said inlet compartment, and a liquid outlet from said outlet compartment, of a normally closed escape passage leading from said inlet compartment at a level below the lowermost level of flow over the weir, means responsive to the height of liquid on the outlet side of the weir for opening and closing said escape passage as the last mentioned level rises to, and falls below a predetermined height, and means responsive to the said height of liquid for opening and closing one of said liquid supply connections as said level rises to, and falls below a predetermined height less than the first mentioned height.

1,205,295. [WITHDRAWN.]

1,205,296. CORN-PLANTER. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 17, 1914. Serial No. 832,568. (Cl. 111—6.)



1. In a planter, the combination of a frame, a supporting-axle, wheel sections mounted thereon in spaced relation, a bearing member interposed between said frame and axle and having a lug engaged with said frame intermediate the spaced wheels, and means for so adjustably clamping said axle to the frame that by adjustment of said means the axle may be rocked on the frame-engaging lug as a fulcrum to move in unison the portion of each wheel section in contact with the ground laterally with respect to the frame.

2. In a planter, the combination of a frame, an axle mounted thereon, a pair of carrying-wheels mounted in spaced relation on the axle, seed delivery means the discharge end of which is located forward of and intermediate that portion of each wheel in contact with the ground, and means for adjustably rocking said axle on the frame on a substantially horizontal axis disposed intermediate said wheels and extending transversely of the axle, whereby to laterally adjust the tread of the wheels with respect to the said discharge end of the delivery means.

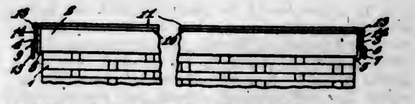
3. In a planter, the combination of a frame, an axle, a pair of supporting wheels mounted in spaced relation on the axle, means connecting the axle intermediate said wheels to the frame and including a pair of bolts spaced apart longitudinally of the axle, and means whereby upon adjustment of said bolts the axle will be rocked on a fulcrum intermediate said bolts to move in unison said wheels to laterally adjust the tread thereof.

4. In a planter, the combination with a frame, a pair of axles mounted thereon, a pair of supporting wheels mounted in spaced relation on each axle, a pair of seed delivery devices mounted on the frame and each having its seed discharge end located intermediate a pair of wheels, and means for adjusting each axle on a fore and aft fulcrum disposed intermediate its wheels so that the axle may be rocked to move in unison the tread of its wheels laterally with respect to the discharge end adjacent said seed delivery means.

5. In a planter, the combination of a frame, a pair of axles having their ends turned downwardly, a wheel mounted on each downturned end of each axle, the axles being each mounted on the frame to rock on a fore and aft fulcrum intermediate the downturned axle ends whereby to adjust the tread of the wheels on each axle laterally in unison by adjusting the axle on said fulcrum.

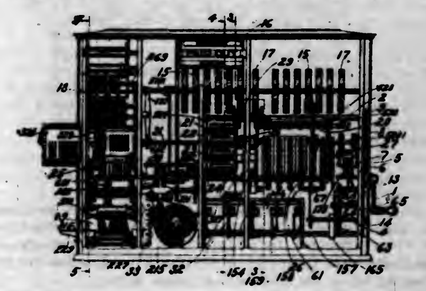
[Claims 6 to 8 not printed in the Gazette.]

1,205,297. REVERSIBLE-COVER FASTENING. HERMAN WEGWART, Burlington, Wis., assignor to Badger Basket & Veneer Co., Burlington, Wis. Filed Sept. 17, 1914. Serial No. 862,250. (Cl. 217—124.)



In a device of the class described, a receptacle having an outstanding rim; a cover resting on the rim; bails of equal length pivoted to the cover midway between the upper and lower faces of the cover, to provide for an inversion of the cover; and plates secured to the rim, one plate having a depending hook engaging one bail, and the other plate having an outstanding lug engaging the other bail, the lug being provided with a lock-receiving opening, each plate having a finger engaging beneath the rim and constituting means for so positioning the plates that the bails may be engaged interchangeably with the hook and the lug when the cover is reversed end for end.

1,205,298. CASH AND CREDIT ACCOUNTING MACHINE. JOHN A. WERNER, Dayton, Ohio, assignor to The National Cash Register Company, (Incorporated in 1906,) Dayton, Ohio, a Corporation of Ohio. Filed Sept. 30, 1911. Serial No. 652,089. (Cl. 235—3.)



1. In a machine of the class described, the combination with an accounting device and differential mechanism for operating it, of a plurality of plungers, and means for yieldingly projecting the plungers into the path of the differential mechanism, under control of a record material such as a card, and a separate means for controlling the differential mechanism for the purpose of altering the final setting of the accounting device.

2. In a machine of the class described, the combination with an accounting device and differential mechanism for operating it, of a plunger for controlling the movement of the differential mechanism, a movable member for operating the plunger, and a spring between said movable member and the plunger so that operation of the plunger may be prevented if holes in a punched record card are not in register therewith, and a separate means for controlling the differential mechanism for the purpose of altering the final setting of the accounting device.

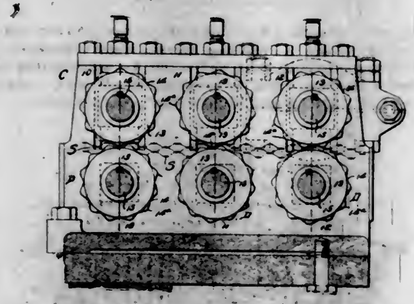
3. In a machine of the class described, the combination with a totaliser and differential mechanism constructed to actuate said totaliser, of a carriage on which a portion of record material may be placed, a punch connected to each denominational element of said differential mechanism and movable therewith, and means for projecting all of said punches through the record material.

4. In a machine of the class described, the combination with an accounting device and mechanism for differentially operating said accounting device and including rack bars, of a carriage for a record material such as a punch card, plungers mounted in denominational sets on said carriage, and means for moving said carriage and thereby projecting said plungers into the paths of said rack bars under control of said record material, and a separate means for controlling the differential mechanism for the purpose of altering the final setting of the accounting device.

5. In a machine of the class described, the combination with an accounting device, and differentially movable rack bars constructed to actuate said accounting device, of a movable carriage for a record material such as a card, spring pressed plungers mounted in said carriage, and means for moving said carriage and thereby projecting said plungers under control of said record material into the paths of said rack bars, and separate means for controlling the differential mechanism for the purpose of altering the final setting of the accounting device.

[Claims 6 to 164 not printed in the Gazette.]

1,205,299. FEED MECHANISM FOR EXPANDED-METAL MACHINES. HERBERT E. WHITE, Youngstown, Ohio, assignor to General Fireproofing Company, a Corporation of Ohio. Filed July 22, 1915. Serial No. 41,296. (Cl. 164—6.5.)



1. In a feed mechanism for metal expanding machines, a plurality of similar roll-pairs having gripping projections arranged to progressively and successively engage different tie pieces of the fabric, and means for operating all of the roll-pairs at equal speed.

2. In a feed mechanism for metal expanding machines, a plurality of equal-diametered roll-pairs provided with gripping elements having a progressive angular relation, means for maintaining said relative position of the several rolls, and means for driving all of the roll-pairs at equal speed.

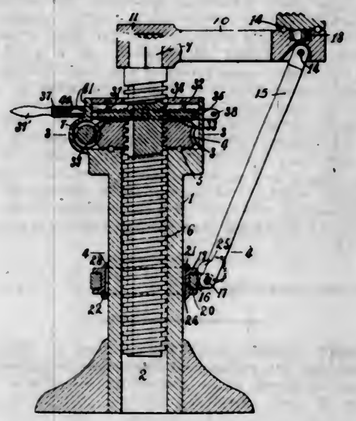
3. In a feed mechanism for metal expanding machines, a plurality of similar roll-pairs having gripping elements progressively displaced angularly, and driving means for operating all of the roll-pairs at equal speed.

4. In a feed mechanism for metal expanding machines, a plurality of similar roll-pairs having gripping projections, the gripping projections of the several pairs of rolls having a progressive angular displacement from the plane of the vertical diameter of the rolls and driving means for operating all of the roll-pairs at equal speed.

5. In a feed mechanism for metal expanding machines, a plurality of similar roll-pairs each consisting of spaced drawing disks provided with gripping elements, the gripping elements of successive rolls having a progressive angular setting, and driving means for operating all of the rolls at equal speed.

[Claims 6 to 9 not printed in the Gazette.]

1,205,300. LIFTING-JACK. HORATIO WHITING, New York, N. Y. Filed Jan. 11, 1912. Serial No. 670,544. (Cl. 254—85.)



1. The combination with a casing, of a standard mounted for vertical movement in said casing, a head on said standard for supporting a load and a unitary means for alternatively advancing said standard or rotating the same *in situ*.

2. The combination with a casing, of a standard mounted for vertical movement in said casing, a head eccentrically located with respect to the axis of said standard and arranged to move with said standard both vertically as when said standard advances and horizontally as when said standard rotates, and a unitary means for alternatively advancing said standard or rotating said standard *in situ*.

3. The combination with a casing, of a riser movably mounted in said casing, actuating means for said riser, and means for alternatively fixing said riser against rotation and fixing said riser to a part of said actuating means for rotation therewith.

4. The combination with a casing, of a riser movably mounted in said casing, actuating means for said riser, and means for alternatively fixing said riser against rotation and fixing said riser to a part of said actuating means for rotation therewith, and a head off-set out of alinement with said riser movable through the arc of a circle with the rotation of said riser and movable vertically with the longitudinal movement of said riser.

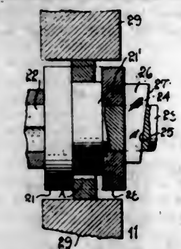
5. The combination with a casing, of a riser mounted in said casing, a worm wheel for operating said riser, a worm for actuating said worm wheel and locking means for alternatively fixing said riser for rotation with said worm or fixing said riser against rotation with said worm.

[Claims 6 to 17 not printed in the Gazette.]

1,205,301. METHOD OF MAKING BANDS FOR SHELLS OR PROJECTILES. JAMES E. WILLIAMS, Congress Heights, D. C. Filed Dec. 28, 1915. Serial No. 69,023. (Cl. 29—156.)

1. A method of making ordnance shell bands which consists in heating a metal blank and forming an annulus therefrom having plane side faces and conical-shaped inner and outer peripheral faces, then applying radial pressures to the inner and outer peripheral faces of the annulus to reduce the same to uniform thickness and finally exerting a pressure upon the annulus to produce a band of the required thickness, width and diameter.

2. A method of making ordnance shell bands, which consists first in heating a metal blank and mechanically forming an annulus therefrom of many-sided form in cross-section, then applying radial pressures to the meeting edges of adjacent faces of the annulus to reduce the same to uniform thickness, and finally exerting a compressing pressure upon the annulus to produce a band of the required thickness, width and diameter.



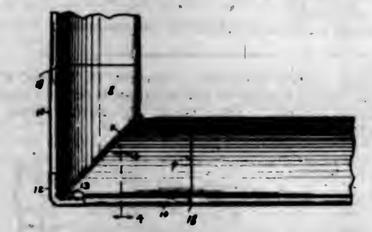
3. A method of making ordnance shell bands which consists first in heating a metal blank and mechanically forming an annulus therefrom of polygonal shape in cross-section and having inner and outer converging faces meeting at the transverse center of the annulus, then applying pressures to the meeting edges of said inner and outer faces to reduce the annulus to uniform thickness, and finally exerting a compressing pressure upon the annulus to produce a band of the required thickness, width and diameter.

4. A method of making ordnance shell bands which consists first in heating a metal blank and mechanically forming an annulus therefrom of hexagonal form in cross-section, said annulus having plane side faces and converging inner and outer faces, meeting at the transverse center of the annulus, then arranging said annulus upon a mandrel and applying pressure to the meeting edges of the outer peripheral faces thereof to reduce the annulus to uniform thickness, and finally exerting a compressing pressure upon the annulus to produce a band of the required thickness, width and diameter.

5. A method of making ordnance shell bands which consists first in heating a metal blank and mechanically forming an annulus therefrom of varying thickness, then arranging said annulus upon a mandrel and applying radial pressure to the outer peripheral face thereof to reduce the annulus to uniform thickness, and finally exerting a compressing pressure upon the annulus to produce a band of the required thickness, width and diameter.

[Claims 6 to 11 not printed in the Gazette.]

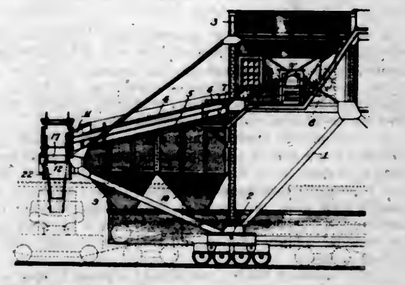
1,205,302. MITER-JOINT FOR GUTTERS. MARSHALL R. WILLIAMS, Terre Haute, Ind., assignor to Braden Manufacturing Company, a Corporation. Filed May 22, 1916. Serial No. 99,227. (Cl. 108—28.)



1. In a miter joint for gutters, the combination with a half-round gutter having a lock-seam uniting the mitered edges, and having cylindrical rolls at the outer edges of the gutter, of a one-piece cap bent half round in cross section to fit the top of the gutter rolls and also bent to form a continuation of the two rolls, said cap having an apron continuous with said half round portion extending into the gutter and soldered thereto, said cap also having a pair of outside aprons which are clenched to respective rolls on each side of the miter by being bent under said rolls.

2. A pair of short half round gutter members having adjacent mitered ends united by a lock-joint, each member having an outside edge-roll terminating with a gap between them at the joint and having spiral outer ends, in combination with a one piece cap overlapping both rolls and bent to form a continuation thereof, said cap being formed half-round in cross section with extended sides forming aprons of which an inner one is soldered to the inner wall of the gutter and outer ones of which are bent to conform to the contour of their respective rolls.

1,205,303. COAL-HANDLING PLANT. CHARLES S. WILLIAMSON, Chicago, Ill. Filed July 20, 1912. Serial No. 710,559. (Cl. 83—56.)



1. In apparatus of the class described, the combination of a source of coal supply mounted on wheels and adapted to occupy two parallel adjacent rails and inclined screens over which the coal is passed, a transverse conveyer for carrying the larger lumps of coal off at right angles to said track at the bottom of the screen, and a spout communicating from said conveyer directly to the container to be loaded, said container and all associated mechanism being mounted on a track parallel with the cars to be loaded and arranged to occupy said track alone.

2. A device of the character described, comprising the combination of a supporting structure arranged along a single track comprising two parallel and adjacent rails and supported thereon upon wheels with an inclined separator, a platform extending transversely of the lower end of said separator and arranged substantially below the adjacent end of the separator, an apron connecting said platform with said separator, a flight conveyer operating over said platform, and a spout extending from said platform at right angles to the supporting structure, whereby coal or the like may be sized and screened and gently deposited in a car or other container without danger of breakage.

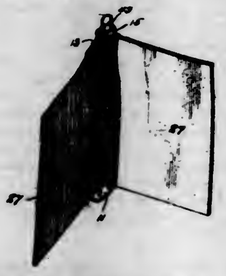
3. In a device of the character described, the combination of an inclined separator mounted on rails parallel with cars to be filled, a conveyer extending transversely of said separator and adapted to receive material therefrom without breakage or injury, an inclined spout leading from the medial portion of said conveyer, and retarding means mounted with said spout.

4. The combination with an inclined screen adapted to separate different grades of coal, a transversely extending conveyer operatively connected with the lower end of said screen for checking and conveying the large coal passing over said screen, an inclined spout leading from the medial portion of said conveyer, and pivotally mounted retarding fingers extending within said spout of the purpose specified.

1,205,304. TEMPORARY BINDER. ADOLPH WISSLER, St. Louis, Mo. Filed July 12, 1915. Serial No. 39,423. (Cl. 129—40.)

1. A temporary binder comprising a plate having terminal extensions substantially at right angles to the body portion of the plate, a fixed prong on one of the exten-

sions, a prong removably positioned in the opposite extension, and a yielding latching member on said last mentioned extension, which latching member is adapted to engage the removable prong.



2. A temporary binder comprising a plate having a fixed book engaging member at one end, a book engaging member removably seated in the opposite end of said plate, and a resilient latching device on said plate for engaging the removable book engaging member to prevent its accidental withdrawal from the plate.

3. A temporary binder comprising a plate having a projection at one end, a book engaging prong on said projection, a projection at the opposite end of the plate, which last mentioned projection is provided with pairs of bearings, a book engaging member having legs adapted to be positioned in said pairs of bearings, and a yielding latching member adapted to engage the legs of said book engaging member.

4. A temporary binder comprising a plate having a projection at one end, a book engaging prong on said projection, a projection at the opposite end of the plate, which last mentioned projection is provided with pairs of bearings, a book engaging member having legs adapted to be positioned in said pairs of bearings, said legs being provided with notches, and a yielding latching member adapted to engage said notches to hold the book engaging member in position on the plate.

5. A temporary binder comprising a plate having book engaging means at one end fixed with respect to the plate, a staple-shaped book engaging member removably positioned in the other end of the plate the legs of said member being provided with notches, and a latching member fixed to the plate and adapted to engage in the notches in the legs of the removable book engaging member.

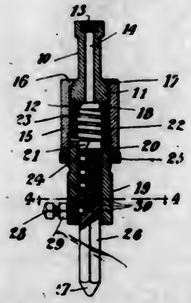
[Claims 6 to 9 not printed in the Gazette.]

1,205,305. LIFTING DEVICE. SAMUEL H. WOLFE, Lodgepole, Nebr. Filed Mar. 28, 1916. Serial No. 87,363. (Cl. 166—4.)



A device of the class described comprising a hollow tubular member exteriorly threaded at one end, a bracket arranged within said member, means for holding the parts operatively associated, an eye bolt swiveled to the upper end of said bracket, and a threaded rod depending from the opposite end of said bracket and detachably connected therewith.

1,205,306. FLANGE-LUBRICATOR. ROBERT WOOD, Brooklyn, N. Y., assignor to The Nathan Manufacturing Company, New York, N. Y., a Corporation of New York. Filed June 19, 1916. Serial No. 104,509. (Cl. 184—3.)



1. The combination with a flange oiler, of an oil conduit comprising a ball and socket joint, a feed rod, and a resilient means, in axial alinement with said feed rod, adapted to hold said feed rod in fixed relation to a wheel flange.

2. A discharge device, in combination with a flange oiler, comprising a ball and socket coupling, a feed rod, said ball and socket coupling being adapted to convey a lubricant to the said feed rod, and resilient means in axial alinement with said feed rod, coacting with said ball and socket coupling, to hold said feed rod in fixed relation to a wheel flange.

3. In combination with a flange oiler, an oil discharge medium consisting of two tubular members forming a ball and socket joint, a feed rod, and resilient means within and in axial alinement with one of said tubular members adapted to hold said feed rod in fixed relation to a wheel flange.

4. A discharge nozzle for a flange oiler comprising a universal pipe coupling consisting of a ball member and a socket member, a feed rod adjustably secured to the said socket member, and resilient means within the said socket member and coacting with the said ball member, adapted to maintain the said feed rod in fixed relation to a wheel flange.

5. In a discharge nozzle for a flange oiler, the combination of a ball member and a socket member forming a universal pipe coupling, a feed rod adjustably secured to the said socket member, and means within the said socket member adapted to force said coupling and feed rod into axial alinement.

[Claims 6 to 9 not printed in the Gazette.]

1,205,307. TOOL-HOLDER. EDWARD D. WOODS, Cleveland, Ohio, assignor to Koren Manufacturing Company, Cleveland, Ohio. Filed June 15, 1916. Serial No. 103,721. (Cl. 145—24.)



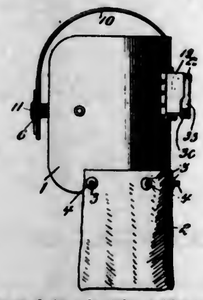
1. In a tool, a forked member, and a sleeve member slidingly movable thereon, a tool socket in the outer end of the forked member, said socket opening into the space between the forks of said forked member, and a weighted head for the sleeve member, the opening between the sides of the forked member permitting the insertion of a tool dislodging means adapted to receive the blow of the sleeve member.

2. In a tool, a forked member, and a non rotatable sleeve member slidingly movable thereon, a tool socket in the outer end of the forked member, said socket opening into the space between the forks of said forked member, and a weighted head for the sleeve member, the opening between the sides of the forked member permitting the insertion of a tool dislodging means adapted to receive the blow of the sleeve member, said weighted head serving as a handle for withdrawing the sleeve member.

3. In a tool, a forked member, a weighted sleeve member slidingly movable thereon, a tool socket in the outer end of said forked member, guides in said sleeve member for the sides of said forked member, said guides preventing the rotation of said socket member in said sleeve member, and means for preventing the escape of the forked member from the sleeve member.

4. In a tool, a forked member, a sleeve member slidingly movable thereon, a tool socket in the outer end of said forked member, said tool socket opening into the space between the forks of said forked member, said tool socket provided with lateral projections in the path of movement of said sleeve member, the opening between the sides of the forked member permitting the insertion of a tool discharging means adapted to receive the blow of the sleeve member and guide members on the inner walls of said sleeve member positioned between the said forks of the socket member to prevent rotation thereof in said sleeve member.

1,205,308. FACE-SHIELD. EDGAR L. WORK, Columbus, Ohio, assignor of one-third to F. J. Williams and one-third to Fred Armstrong, Columbus, Ohio. Filed Oct. 23, 1915. Serial No. 57,479. (Cl. 2—117.)



1. An eye guard for electric welders and the like comprising a plate carrier embodying longitudinal guards and an end bar having the inner edge thereof formed with grooves, the remaining end of said carrier being open, and plates slidable into and out of said carrier by way of the open end thereof and having the marginal edges thereof engaged in the grooves in said longitudinal bars and said end bars.

2. A face shield and eye protector for electric welders comprising a semi-circular shield adapted to inclose the face of the wearer, means for supporting said shield upon the head of the wearer, said shield having an opening formed therein in line with the eyes and a plate holder movable into and out of said opening and transparent plates of different colors interchangeably associated with said holder.

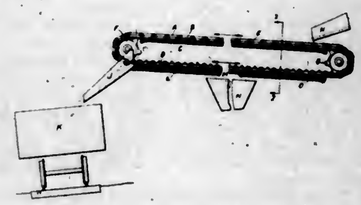
3. A face shield and eye protector for electric welders comprising a semi-circular shield adapted to inclose the face of the wearer, said shield having an opening formed therein in line with the eyes, a plate holder movable into and out of said opening, transparent plates of different colors interchangeably associated with said holder and means for maintaining said holder in position in said opening.

4. A face shield and eye protector for electric welders comprising a semi-circular shield adapted to inclose the face of the wearer, means for supporting said shield upon the head of the wearer, said shield having an opening formed therein in line with the eyes, a plate holder movable into and out of said opening, transparent plates or different colors interchangeably associated with said holder, a hood secured to the outer surface of said shield and surrounding the opening therein and designed to embrace the edges of said holder.

5. A face shield and eye protector for electric welders comprising a semi-circular shield adapted to inclose the face of the wearer, means for supporting said shield upon the head of the wearer, said shield having an opening formed therein in line with the eyes, a plate holder movable into and out of said opening, transparent plates of different colors interchangeably associated with said holder, an apron detachably connected to the lower edge of said shield, a head piece adapted to engage the forehead of the wearer and a chin rest on the inner surface of said shield adapted to engage the chin of the wearer and coöperating with said head piece to hold the shield spaced apart from the face.

[Claim 6 not printed in the Gazette.]

1,205,309. CASTING-MACHINE. PAUL D. WRIGHT, Wilkinsburg, Pa. Filed Sept. 12, 1916. Serial No. 119,630. (Cl. 22—57.)



1. A casting machine comprising a traveling series of molds and supports located beneath the return path of the molds to support any castings which may be carried past the discharge point of the machine.

2. A casting machine comprising a traveling series of molds and supports located beneath the return path of the molds to support any castings which may be carried past the discharge point of the machine, said supports being located close to the mouths of the molds so that castings falling on to said supports will be conveyed along the supports by the molds.

3. A casting machine comprising a traveling series of molds and adapted normally to dump their castings at a certain discharge point and means for preventing castings which are carried past said point from being discharged except at a second determined point.

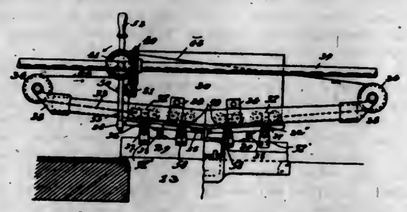
4. A casting machine comprising a flexible chain of molds, mold guiding rails and supplementary rails located beneath the return path of said chain of molds and parallel to the first-mentioned rails.

5. A casting machine comprising a flexible chain of molds, mold guiding rails and supplementary rails located beneath the return path of said chain of molds and parallel to the first-mentioned rails, said supplementary rails terminating at a point intermediate in the length of the chain of molds, so as to drop at that point any castings carried thereon.

1,205,310. INCINERATING-FURNACE. WALTER B. WRIGHT, Chicago, Ill. Filed Sept. 6, 1912. Serial No. 718,846. (Cl. 110—118.)

1. In an incinerating furnace, the combination with the furnace chamber having a feed-opening in its roof, of a feed hopper above said opening, trolley rails secured to opposite sides of said hopper, said trolley rails being inclined upwardly from a point centrally above said opening, a pair of gravity-closable sliding door sections for said feed-opening, vertically adjustable trolley hangers secured to said door sections and carrying wheels engag-

ing said trolley rails, hopper-bottom closure sections rigidly mounted upon and spaced from said door sections, respectively, and power mechanism for moving said door sections to open position.

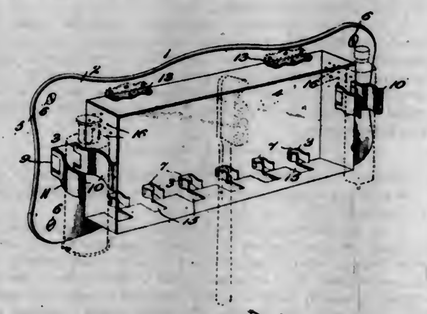


2. In an incinerating furnace, the combination with the furnace chamber having a feed opening in its roof, of a gravity-closable sliding door guarding said feed opening, a feed hopper above said opening having a sliding bottom secured to and movable with said door, power operated door-opening mechanism, and means for automatically disconnecting said door-opening mechanism at the limit of the door-opening movement.

3. In an incinerating furnace, the combination with the furnace chamber having a feed opening in its roof, of a feed hopper directly above said opening, a pair of track-ways located on opposite sides of said hopper, each of said track-ways being inclined upwardly from a point substantially coincident with the center of said hopper and feed opening, a pair of gravity-closable door sections suspended from said track-ways on opposite sides of the center thereof, hopper-bottom sections secured to and movable with said door sections, power operated door-opening mechanism, and means for automatically disconnecting said door-opening mechanism at the limit of the door-opening movement.

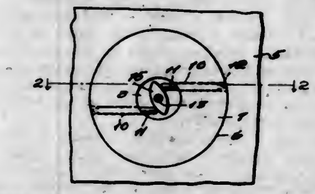
4. In an incinerating furnace, the combination with the furnace chamber having a feed opening in its roof, of a feed hopper directly above said opening, a pair of track-ways located on opposite sides of said hopper, each of such track-ways being inclined upwardly from a point substantially coincident with the center of said hopper and feed opening, a pair of door sections suspended from said track-ways on opposite sides of the center thereof, hopper bottom sections secured to and movable with said door sections, power operated door-opening mechanism including a clutch, manually operable means for throwing in said clutch to effect the opening movement of said door and hopper-bottom sections, and means serving to automatically throw out said clutch at the limit of the door and hopper-bottom opening movement.

1,205,311. SANITARY TOOTH-BRUSH HOLDER. FRANCIS M. A. WYBAILLIE and LENA WYBAILLIE, New York, N. Y. Filed Feb. 25, 1916. Serial No. 80,545. (Cl. 132—11.)



A brush holder comprising a bracket, clips mounted thereon, a cover hingedly mounted on the bracket at a point above the clips and having notches located at its free edge, the said free edge of the cover being adapted to engage the bracket below the clips whereby the notches lie vertically under the clips when the cover is in a closed position on the bracket and the clips are incased between the bracket and the cover.

1,205,312. BUNG-SEAL. CARL ZANG and JAMES HENRY SOWER, Louisville, Ky. Filed Sept. 22, 1915. Serial No. 51,987. (Cl. 217—106.)



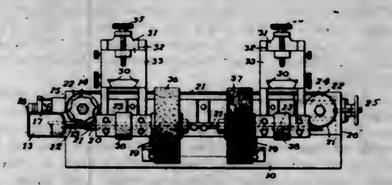
A bung provided with a main opening extending through its outer end to a point spaced a substantial distance from the inner end and provided in the bottom of this opening with a pivot recess and having openings passing through the periphery of the bung and leading into the main opening, pins mounted to reciprocate within the last named openings and having their outer ends pointed to enter the material of the barrel and their inner ends adapted to project into the main opening; a key comprising a body portion having its free end adapted for insertion within the pivot recess and a double ended cam rigidly mounted upon the body portion and spaced a substantial distance from the free end thereof and adapted to contact with the pins; and a sealing plug adapted to be mounted within the main opening whereby the pins cannot be manipulated without the sealing plug being partly or wholly destroyed.

1,205,313. TOY. CHARLES E. ZIM, Luzerne, Pa. Filed Mar. 1, 1916. Serial No. 81,480. (Cl. 46—46.)



In a device of the class described, a hollow base, a sounding board element thereon, a spring tongue mounted on the sounding board element, bearing elements on the sounding board element, and a revoluble star wheel mounted in said bearing elements and engaged by the free end of the spring tongue.

1,205,314. MACHINE FOR POLISHING THE HEADS OF SCREWS, BOLTS, AND THE LIKE. JOHN M. ADAMS, Orange, Mass. Filed June 3, 1916. Serial No. 101,649. (Cl. 51—12.)



1. In a machine of the character described, the combination with a polishing wheel, of a guide located immediately under the wheel, and a belt parallel with and adjacent to said guide engaging the shanks of the articles to be fed, said belt being movable constantly in one direction for feeding the articles with a rolling motion along the guide with their heads in contact with the bottom surface of the wheel.

2. In a machine of the character described, the combination of a vertical guide adapted to support on its upper surface the under surface of the head of an article to be polished, a movable member moving parallel with said guide and having its upper surface at the height thereof for assisting in supporting the articles to be fed, and for moving them along with a rolling motion and a polishing wheel located over said guide and member for polishing the upper surfaces of the heads of said articles.

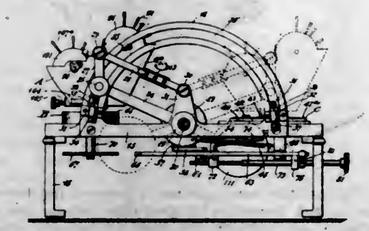
3. In a machine of the character described, the combination of a vertical longitudinal guide and a belt parallel with said guide and movable longitudinally, the upper edges of said guide and belt being adapted to support the articles to be operated upon with their shanks hanging down between them and in contact with both the guide and belt, whereby said articles will be moved along the guide by the belt with a rolling motion, and means for operating on the upper surface of the heads of the articles thus fed.

4. In a machine of the character described, the combination of a hopper for receiving articles, a chute adapted to guide the articles from the hopper, and a pair of guides for receiving the articles from the chute, one being stationary and the other movable, the stationary guide being adjustable toward and from the movable guide, and the movable guide being adapted to move the articles along the stationary guide.

5. In a machine for polishing headed articles, the combination of a hopper for receiving said articles, a bifurcated chute adapted to allow the shanks of said articles to pass through it, but to prevent the heads from passing and to support the heads, means for jarring the hopper to feed the articles into the chute, and a pair of guides, one stationary and the other movable, for receiving the articles from the chute and supporting them and at the same time feeding them along, the said stationary guide being adjustable toward and from the movable guide.

[Claims 6 to 9 not printed in the Gazette.]

1,205,315. PRINTING-PRESS. MARCUS O. ANTHONY and BERNARD H. FLURSCHEIM, New York, N. Y., assignors to Tagograph Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1911. Serial No. 668,609. (Cl. 101—161.)



1. In a ticket printing machine, the combination with an impression bed, pivoted arms, and a printing head carried by said arms, of guiding means fixed relatively to said printing head, means for imparting a traversing movement to said head, and additional arms for imparting pivotal movement to said head at the period of its traversing movement, said head and the guiding means coöperating to restrain the head from movement in directions other than in the predetermined path of the traversing movement and in the pivotal movement imparted to said head by the additional arms.

2. In a ticket printing machine, the combination with an impression bed, a printing head, and means for imparting a traversing movement to said printing head, of guides fixed relatively to said printing head, means movable with the head and contacting with said guides for restraining the head from displacement relative to the path followed by the head during such traversing movement, and a movable arm pivoted to said head for imparting pivotal movement to said head simultaneously with the traversing movement, said arm being movable on an axis eccentric to the axis of the traversing movement imparted to said head.

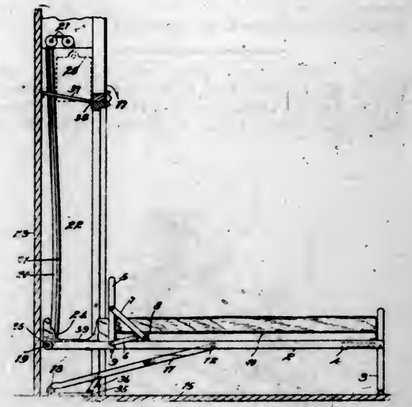
3. In a ticket printing machine, the combination with an impression bed, a printing head, pivoted arms for carrying said head, and means for imparting a traversing movement to said head, of guides fixed relatively to the path of said head, means movable with the head and contacting with said guides for restraining the head from displacement with respect to the predetermined path followed by the head during such traversing movement, and additional arms for imparting pivotal moveemnt to the head simultaneously with the traversing movement.

4. In a printing press, the combination of guiding means, a printing head fitted slidably to said guiding means, a rock shaft provided with arms on which the printing head is pivotally supported for imparting a traversing movement to the printing head, and additional arms swinging on a different center from the rockshaft and connected with the printing head for imparting thereto a pivotal movement simultaneously, with the traversing movement.

5. A ticket printing machine embodying an impression bed, a rock shaft provided with carrying arms, fixed slotted guides concentric to the axis of rotation of said rock shaft, a printing head carried by said arms, said head being positioned between said guides, means movable with said head and slidable in the slots of said guides during the traversing movement imparted to said head by the rock shaft and said arms, and additional arms pivoted to said head and pivoted independently of said rock shaft for imparting pivotal movement to the head simultaneously with the traversing movement.

[Claims 6 to 31 not printed in the Gazette.]

1,205,316. WALL-BED. PAUL BARNUM, San Francisco, Cal. Filed Jan. 2, 1913. Serial No. 739,679. (Cl. 5—54.)



1. In a wall bed, the combination with a wall having a doorway, of a bed structure including a bed-frame of greater length than the height of the doorway, and means coöperating with the bed-frame whereby the end of the bed adjacent to the doorway is movable upwardly and vertically behind the wall or through the doorway, said means comprising devices attached to the bed-end adjacent to the wall and correlated with the latter to define the movement of the bed-frame, and supporting arms pivoted adjacent the wall below the connection therewith of said devices and pivoted at their outer ends to the rails of the bed whereby to allow the foot end of the bed and said arms

to be moved initially downward on the last named pivots when moving the bed to vertical position.

2. A tiltable bed comprising a frame, antifrictional guides at the inner ends thereof, substantially vertical guideways relatively fixed with relation to the frame and engaging said guides, and links having one end pivoted to the bed-frame intermediate of its ends, and the opposite ends to fixed floor pivots beneath the inner end of the bed whereby the bed-frame is tilted from one position to another with the bedding outward and the head end moving upward from horizontal position, said links and guide ways being so arranged that the bed in its movement to stored position and said links initially move downwardly.

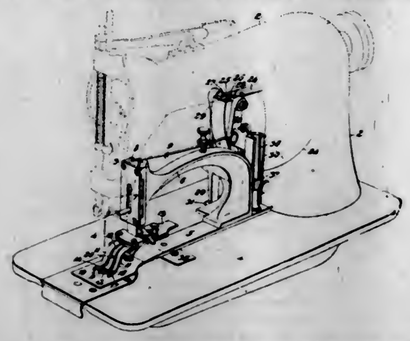
3. A vertically and horizontally adjustable bed-frame, means for facilitating adjustment of the bed-frame in its several positions, said bed-frame being arranged to form a receptacle at one end to contain bedding or other articles, and a wall structure having a part automatically adjustable by engagement with the moving bed-frame, said part assisting in holding the bedding in the receptacle when the bed is upright.

4. In a disappearing bed structure, a bed-frame having foldable supporting legs at one end, substantially vertical guideways for supporting the opposite end of the bed, when adjusted in horizontal position, and in which the head-end of the bed moves upwardly from horizontal position, members on the bed running in said guideways, when the outer end of the bed is forced downward, and whereby the bed is moved into a vertical position, and thrust links connected at their outer ends to the bed, the foot-end of which swings downward and toward the support while the head tilts upon the links and said links move down at their inner ends upon pivots below the bearing points of said guides when said legs are folded.

5. In combination with a support, a bed frame having a floating pivotal connection at its head end with the support, guiding means pivoted to the support and to the frame, and means for supporting the foot end of the frame and being movable to a position to allow the foot end of the frame and therewith the guiding means to first move downwardly as the head end moves upwardly and forwardly about the guiding means as a point of fulcrum.

[Claim 6 not printed in the Gazette.]

1,205,317. SEWING-MACHINE WORK-CLAMP. WILLIAM L. BARRON, New York, N. Y., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 3, 1914. Serial No. 842,695. (Cl. 112—32.)



1. A work-holder comprising a work-supporting plate and a fastener-holding foot sustained in laterally fixed relation therewith and formed with a pair of jaws having laterally grooved opposed edges and a stop with laterally grooved edge in angular relation with said grooved edges and disposed out of alinement with and directed intermediate said jaws, with a rectilinearly extending needle-space disposed intermediate said jaws and stop and arranged transversely to the grooved edges of said jaws and substantially parallel with the grooved edge of said stop.

2. A work-holder comprising a fastener-holding foot provided with opposed jaws for gripping the edges of a fastener-disk and with a stop for positioning the same relatively to said jaws, and an element having a fastener-engaging face acting in opposition to said stop for locking said disk in position within said jaws during a stitching operation.

3. A work-holder comprising a fastener-holding foot provided with opposed jaws for gripping the edges of a fastener-disk and with a stop for positioning the same relatively to said jaws, and a yielding detainer having a fastener-engaging face acting in opposition to said stop and movable transversely of the plane in which the fastener disk is gripped by said jaws and adapted to engage said disk and to restrain it against dislodgment in said jaws during a stitching operation.

4. A work-holder comprising a fastener-holding foot provided with opposed jaws for gripping the edges of a fastener-disk and with a stop for positioning the same relatively to said jaws, and a yielding detainer normally retracted from but adapted for engagement with a fastener-disk gripped between said jaws and adapted to engage said disk when the jaws are pressed upon the work for a stitching operation.

5. A work-holder comprising a fastener-holding foot provided with opposed jaws having grooved adjacent edges for gripping the beaded edge of a fastener-disk and with a stop for positioning the same relatively to said jaws, and a detent-spring provided with a lip for engagement with the bead of the fastener-disk when pressed upon the fabric for a stitching operation but normally maintained retracted therefrom.

[Claim 6 not printed in the Gazette.]

1,205,318. MEANS FOR ATTACHING GARMENT-FASTENERS. WILLIAM L. BARRON, New York, N. Y., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 3, 1914. Serial No. 842,696. (Cl. 112—32.)



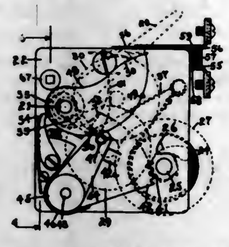
1. The combination of a fabric, a garment-fastener comprising a disk formed with fastening means and with thread-apertures through the same at opposite sides of said fastening means, and a plurality of series of fastening stitches entering said apertures and overlying said disks intermediate the same and extending over the edge of the disk on two opposite sides thereof, said series of fastening stitches being connected together by additional fastening stitches disposed transversely thereof and also passing through said disk.

2. The combination of a fabric, a garment-fastener comprising a disk formed with fastening means and with thread-apertures through the same at opposite sides of said fastening means, and fastening stitches entering said apertures and overlying said disk intermediate the same and extending over the edge of the disk in parallel lines on two opposite sides thereof.

3. The combination of a fabric, a garment-fastener comprising a circular disk formed centrally with fastening means and having a surrounding series of thread-apertures extending through the same, and fastening stitches penetrating said thread-apertures and wholly surrounding said fastening means and extending at opposite sides thereof in parallel lines across the edge of said disk and penetrating the fabric beyond the same.

4. The combination of a fabric, a plurality of garment-fasteners spaced apart and each comprising a disk formed with fastening means and with a series of thread-apertures through the same at opposite sides of said fastening means, and fastening stitches entering the thread-apertures of each of said disks and extending oppositely over the edges of the same in substantial alinement with those of an adjacent garment-fastener.

1,205,319. SIGNAL-BOX. CLARENCE E. BEACH and LEE J. VOORHEES, Binghamton, N. Y., assignors, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company, a Corporation of New York. Filed Feb. 23, 1915. Serial No. 9,991. (Cl. 77—378.)



1. In a signal-box, a windable signaling train, an operating handle for said train adapted to be manually operated in one direction to wind the train, a plurality of engaging means adapted for successive operation as the handle is moved into wound position for retaining said handle against movement in the opposite direction in intermediate positions as well as in wound position, said engaging means being arranged to be operated by a part moving with the train to release said handle when the train is unwound, and a spring for restoring the handle when released.

2. In a signal-box, a windable signaling train, a winding-member for the train, a manually operable cam coacting with said winding-member having a winding-face and a holding-face, the winding-face engaging and moving the winding-member during manual operation of the cam to wind the train, and the winding-member moving over the holding-face and holding the cam while the train is running to send its signal, and disengaging said holding-face when the signal is sent to admit of restoration of the cam and of the passing of the winding-member into engagement with the winding-face.

3. In a signal-box, a windable signaling train, a pivoted sector engaging the winding-shaft, a winding-arm independent of but adapted for engagement with said sector, a manually operable cam coacting with said winding-arm, having a winding-face and a holding-face, the winding-face moving the winding-member to wind the train, and the winding-arm passing over the holding-face while the train is running and the signal is being sent, to hold said cam against return movement, said cam having means for moving said winding-arm independently of the sector to cause it to pass onto the winding-face when the signal is sent.

4. In a signal-box, a windable signaling train, a pivoted sector engaging the winding-shaft, a winding arm independent of but normally held in engagement with said sector by a spring, a manually operable cam coacting with said winding-arm having a winding-face, a holding-face, and a deflecting-face, the winding-face engaging and moving the winding-arm during manual operation of the cam to wind the train, and the winding-arm moving over the holding-face and holding the cam while the train is running to send its signal and disengaging said holding-face when the signal is sent, and the deflecting-face engaging the winding-arm as the cam is being restored to lift said arm and permit it to pass from the deflecting-face onto the winding face.

5. In a signal-box, a windable signaling train, a winding-member for the train, a manually operable cam coacting with said winding-member having a winding-face, a holding-face, and a deflecting face, the winding-face adapted to engage and move the winding-member during manual operation of the cam to wind the train, the winding-member moving over the holding-face to hold the cam while the train is running to send its signal, and the deflecting-face engaging the winding-member and releasing it while the cam is being restored to admit of said winding-member passing onto the winding-face when disengaged from the deflecting-face.

[Claims 6 to 12 not printed in the Gazette.]

1,205,320. FOOD PRODUCT. ASHLEY V. BLACK, St. Louis, Mo., assignor to Grain Products Company, St. Louis, Mo., a Corporation of Delaware. Filed Aug. 18, 1916. Serial No. 115,593. (Cl. 99—11.)

1. As a new article of manufacture, the edible biscuit or cake herein described, the same being composed only of bran, a flaked cereal, and a syrup, intimately mixed together and compactly molded into cake or biscuit form.

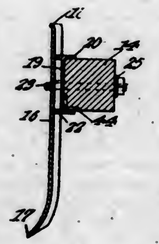
2. As a new article of manufacture, the edible toasted cake or biscuit herein described, the same being composed only of bran, a flaked cereal, and a syrup, intimately mixed together, compactly molded into cake or biscuit form, and toasted.

3. As a new article of manufacture, the edible toasted cake or biscuit herein described, the same being composed only of bran, flaked corn, and a syrup, intimately mixed together, compactly molded into cake or biscuit form, and toasted.

4. A manufactured toasted food product composed of bran, flaked corn, honey, and molasses.

5. A manufactured toasted food product composed of bran, a flaked cereal, and an edible syrup, all intimately mixed together in the proportions approximately of thirty-seven and one-half per cent. bran, twenty-five per cent. flaked corn, and thirty-seven and one-half per cent. edible syrup.

1,205,321. HARROW-TOOTH AND FASTENER. CALVIN C. BOYD, Pulaski, Pa. Original application filed Mar. 27, 1916, Serial No. 87,040. Divided and this application filed July 26, 1916. Serial No. 111,459. (Cl. 55—94.)



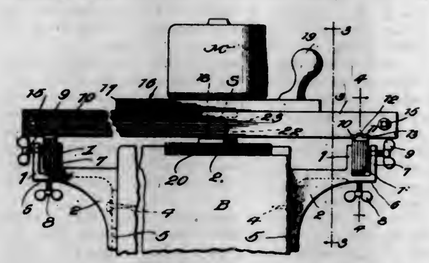
1. The combination with a bar, of a backing plate upon the front face of the bar, said plate having rearwardly extending flanges for engaging the upper and lower faces of the bar, a transversely curved harrow tooth engaging the backing plate, said tooth having a flared upper end, and a bolt straddling the tooth and extending through the bar for binding the tooth against the plate, said flared end of the tooth constituting means for holding the tooth against downward displacement relative to the bolt.

2. In a harrow the combination with a bar, of a backing plate upon the front face thereof, forwardly extend-

ing segmental ears thereon, a transversely bowed tooth fitting snugly against the ears and back plate and having a forwardly flared upper end, a U-bolt straddling the tooth and extending through the back plate and bar, and constituting means for binding the tooth against the back plate and ears, the flared upper end of the tooth constituting means for holding the tooth against downward detachment relative to the bolt.

3. The combination with a bar and a backing plate engaging one face of the bar, said plate having forwardly extending ears, of a harrow tooth straddling the ears and engaging the plate, a fastening bolt straddling the tooth and extending through the plate and bar, said tooth having a flared upper end for preventing downward withdrawal of the tooth from the bolt.

1,205,322. MACHINE FOR SURFACING BUTCHERS' BLOCKS. FRANK M. BROWN and WILLIAM WECHTER, Salem, Oreg. Filed Mar. 6, 1916. Serial No. 82,453. (Cl. 144—2.)



In a device of the class described, a pair of brackets to be temporarily secured to opposite sides of a butcher's block, each comprising a right-angular member, the vertical leg thereof forming an attaching portion, a U-shaped head on the end of the horizontal leg of the member, a vertically adjustable screw in the base of said head, and a clamping screw in one jaw, laminated track rails secured in each of said heads by said screws, the laminated strips of said rails being disposed vertically, a wear plate secured to the upper edge of each rail connecting the edges of said strips composing the same, a longitudinally extending rib on one of said plates, an additional track slidable on said track rails, a wear plate on said additional track adjacent the opposite end for engagement with the other track rail, and a cutter operable on said additional track.

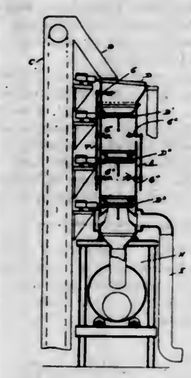
1,205,323. METHOD OF RESTORING MOLDING-SAND. CEYLON R. CADY, Detroit, Mich. Filed Jan. 24, 1916. Serial No. 73,799. (Cl. 22—217.)

1. The process of restoring molding sand, comprising the feeding of the hot sand through a conduit in one direction, the passing of a current of air through said conduit in the opposite direction, and the introduction of moisture to the sand while under air treatment.

2. The process of restoring molding sand, comprising the screening of the hot sand to separate the particles thereof, the subsequent passing of a current of air in opposition to the screened sand and the introduction of moisture.

3. The process of restoring molding sand, comprising the passing of the hot sand through a conduit, screening the sand at a series of points in said conduit to separate the same into line streams, the passage of a cooling current of air through said conduit in opposition and the introduction of moisture.

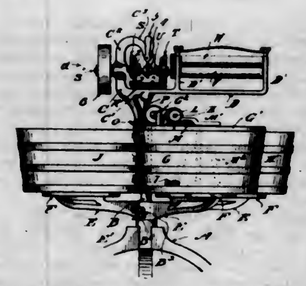
4. The process of restoring molding sand, comprising the dropping of the hot sand through a vertical conduit, screening of the sand at a plurality of points in said conduit to separate the same into fine streams, the passing of a cooling air current through said conduit in opposition to the sand and the introduction of moisture at a series of points.



5. The process of cooling molding sand consisting in causing the sand to fall within a confined area and in forcing a current of air upwardly through said area.

[Claims 6 to 9 not printed in the Gazette.]

1,205,324. COMBINED WASHING-MACHINE AND WRINGER STRUCTURE. JOSEPH E. CAMP, Eureka, Ill. Filed July 25, 1913. Serial No. 781,232. (Cl. 68—15.)



1. In combination, a support or standard, a wringer having a fixed position relative thereto, a series of tubs disposed around said support or standard below the wringer and adapted to rotate about said standard relatively to the wringer, washing mechanism mounted on one of the tubs, gearing included with the same and with the wringer, and a single driving mechanism engaging and driving the said wringer and the washing machine, the latter adapted to swing about the standard in undisturbed driving relation to the said driving mechanism.

2. In combination, a standard having a wringer mounted thereon in fixed position thereto, a series of tubs mounted on the standard beneath said wringer adapted to rotate about a common point to different positions with respect to said wringer, means to lock said tubs in a desired position with respect to said wringer, washing mechanism mounted on one of said tubs, a vertical drive shaft extending from said standard and mounted centrally with respect to said tubs for driving said wringer and washing mechanism, a driving gear on said vertical shaft, and a gear on said washing mechanism engaging the driving gear, the two gears having constant driving relation irrespective of the position of the tubs.

3. In combination, a support or standard, a wringer having a fixed position relative thereto, a series of tubs disposed around said support or standard below the wringer and adapted to rotate about said standard relatively to the wringer, washing mechanism mounted on one of the tubs, gearing included with the same and with the wringer, a single driving mechanism engaging and driving the said wringer and the washing machine, the latter adapted to swing about the standard in undisturbed driving relation to the said driving mechanism, and means to secure the series of tubs in a fixed position relative to said wringer.

4. A gearing, comprising in combination a main support, an upright primary driving shaft, rotatively mounted on said support, a secondary support rotatively mounted on said main support with its axis of rotation coaxial with said driving shaft, an auxiliary support mounted on and movable with said secondary support, gearing on said auxiliary support, means operatively connecting said gearing with said primary driving shaft, a fixed auxiliary support located above said rotary secondary support, a second gearing mounted on said fixed auxiliary support, and a controlling device for operatively connecting or disconnecting said second gearing to said primary driving shaft.

1,205,325. PYROMETER. EMERSON L. CLARK, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed Dec. 19, 1912. Serial No. 737,640. (Cl. 73—32.)



1. In a pyrometer system, a galvanometer, a thermocouple, a resistance having a positive temperature coefficient located closely adjacent the cold junction of said thermocouple, a second resistance, said resistances being connected together at one end and being connected together at their other ends through the thermocouple and galvanometer, and a source of E. M. F. in a circuit connected in parallel to each of said resistances.

2. In a pyrometer system, a galvanometer, a circuit connected thereto containing a thermocouple and a resistance having a positive temperature coefficient located closely adjacent the cold junction of said thermocouple, and a circuit in parallel to a part of said first mentioned circuit containing a source of E. M. F.

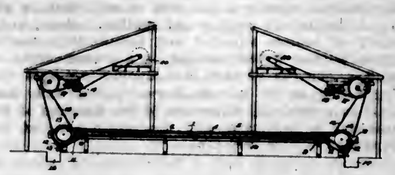
3. In a pyrometer system, a galvanometer, a circuit connected thereto containing a thermocouple and a resistance having a positive temperature coefficient located closely adjacent the cold junction of said thermocouple and a circuit in parallel to a part of said first mentioned circuit containing a source of E. M. F. and a resistance.

4. In a pyrometer system, a galvanometer, a circuit connected thereto containing a thermocouple and a resistance having a positive temperature coefficient located closely adjacent the cold junction of said thermocouple, and a circuit in parallel to said resistance containing a source of E. M. F.

5. In a pyrometer system, a galvanometer, a thermocouple, a resistance having a positive temperature coefficient located closely adjacent the cold junction of said thermocouple, a second resistance, said resistances, galvanometer and thermocouple being connected in series in a closed circuit, and a circuit consisting of a source of E. M. F. and a resistance connected in parallel to the circuit containing each of said resistances.

[Claims 6 to 8 not printed in the Gazette.]

1,205,326. ART OR METHOD OF TREATING SLIMES. DAVID COLE, Tucson, Ariz. Filed Apr. 12, 1913. Serial No. 760,702. (Cl. 83—82.)



1. The art of separating crystalloids from slimes which tend to become flocculent, which consists in diluting the slime mixture sufficiently to insure the existence of spaces between the flakes for the passage of the crystalloid particles, allowing said particles to settle through said spaces and removing said flakes while in suspension from the settling zone and prior to the precipitation of any substantial portion thereof.

2. The art of separating crystalloids from slimes which tend to become flocculent, which consists in diluting the slime mixture sufficiently to insure the existence of spaces between the flakes for the passage of the crystalloid particles, holding said diluted mixture in a shallow depth or layer and allowing said particles to settle through said spaces, whereby interference by the flakes with the settling of the particles is minimized, and removing the flakes while in suspension from the settling zone and prior to the precipitation of any substantial portion thereof.

3. The art of separating crystalloids from slimes which tend to become flocculent, which consists in diluting the slime mixture sufficiently to insure the existence of spaces between the flakes for the passage of the crystalloid particles, and producing a slow whole flow of the diluted mixture in a shallow stream permitting the settling of said particles through said flakes while carrying substantially all said flakes in suspension beyond the zone of precipitation of said particles.

4. The art of separating crystalloids from slimes which tend to become flocculent, which consists in diluting the slime mixture sufficiently to insure the existence of spaces between the forming and settling flakes for the passage of the crystalloid particles, allowing said particles to settle through said mixture prior to and during the formation of said flakes and removing said flakes while in suspension from the settling zone and prior to the precipitation of any substantial portion thereof.

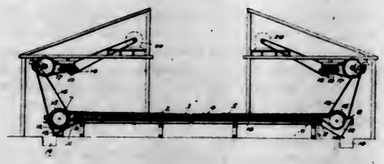
5. The art of separating crystalloids from slimes which tend to become flocculent, which consists in diluting the slime mixture sufficiently to insure the existence of spaces between the forming and settling flakes for the passage of the crystalloid particles, holding said diluted mixture in a shallow depth or layer and allowing said particles to settle through said mixture prior to and during the formation of said flakes, and removing said flakes while in suspension from the settling zone and prior to the precipitation of any substantial portion thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,205,327. APPARATUS FOR TREATING SLIMES. DAVID COLE, Tucson, Ariz. Original application filed Apr. 12, 1913, Serial No. 760,702. Divided and this application filed Mar. 24, 1915. Serial No. 16,702. (Cl. 83—83.)

1. In a device for treating slimes, the combination of a shallow tank closed against any but a transverse flow across the same; means for delivering slime in an extended shallow stream to one side of the tank; belt driving and guiding pulleys; and an endless conveyer belt running on said pulleys, one run of said belt dipping into said tank and traveling substantially horizontally on the bottom thereof in a direction transverse to the direction of flow of material in said tank, and the return run of said belt passing outside said tank.

2. In a device for treating slimes, the combination of a shallow tank closed against any but a transverse flow across the same; means for delivering slime in an extended shallow stream to one side of said tank; a plurality of sets of belt driving and guiding pulleys; and a plurality of endless adjacent and substantially parallel conveyer belts each belt running on a corresponding set of pulleys, one run of each belt dipping into said tank and traveling on the bottom thereof substantially horizontally in a direction transverse to the direction of flow of material in said tank, and the return runs of said belts passing outside said tank.



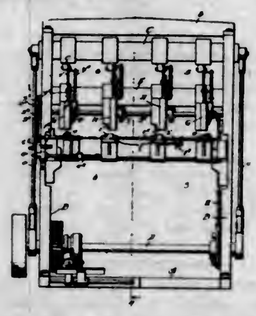
3. In a device for treating slimes, the combination of a shallow tank closed against any but a transverse flow across the same; means for delivering slime in an extended shallow stream to one side of said tank; a plurality of sets of belt driving and guiding pulleys; a plurality of endless adjacent and substantially parallel conveyer belts each belt running on a corresponding set of pulleys, one run of each belt dipping into said tank and traveling on the bottom thereof substantially horizontally in a direction transverse to the direction of flow of material in said tank, and the return runs of said belts passing outside said tank, and driving means for said belt driving pulleys for driving certain adjacent belts in opposite directions whereby the creation of disturbing currents by the movement of the belts is prevented.

4. In a device for treating slimes, the combination of a shallow tank closed against any but a transverse flow across the same; means for delivering slime in an extended shallow stream to one side of said tank; a plurality of sets of belt driving and guiding pulleys; a plurality of endless adjacent and substantially parallel conveyer belts each belt running on a corresponding set of pulleys, one run of each belt dipping into said tank and traveling on the bottom thereof substantially horizontally in a direction transverse to the direction of flow of material in said tank, and the return runs of said belts passing outside said tank; and individual driving means for groups of adjacent belt driving pulleys, each driving means including a change speed device, whereby the speeds of groups of belts are subject to individual regulation.

5. In a device for treating slimes, the combination of a pair of superposed shallow settling tanks each closed against any but a transverse flow across the same; means for delivering slime in an extended shallow stream to one side of each tank; a plurality of endless adjacent and substantially parallel conveyer belts one run of each belt dipping into one tank and traveling on the bottom thereof in a direction transverse to the flow therein and the other run of each belt dipping into the other tank and returning on the bottom thereof in a direction transverse to the flow therein; and means for guiding and driving said belts.

1,205,328. METAL-BOUND-BOX-BLANK-STAPLING MACHINE. EDWARD CRAIG, St. Joseph, Mich., assignor to Saranac Machine Co., St. Joseph, Mich., a Corporation of Michigan. Filed June 16, 1910. Serial No. 567,185. (Cl. 1—11.)

1. In a stapling machine, a plurality of staplers, feed mechanisms therefor adapted to feed round wire to some staplers and flat wire to other staplers, means for operating said staplers simultaneously, means for operating the said feed mechanisms simultaneously, including a rock shaft that extends through all of said mechanisms, and devices for acting on the mechanisms for feeding the flat wire to prevent at will the operation thereof, without interfering with the feeding of the round wire by the other mechanisms on said shaft.



2. In a stapling machine, a plurality of feed mechanisms for feeding the material from which the staples are made, a rock shaft for operating said mechanisms, a second rock shaft, means operated by the second rock shaft to prevent at will the operation of one or more of said mechanisms, and means for manually operating said second rock shaft.

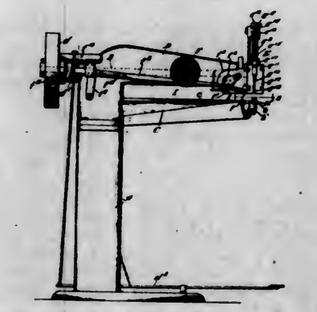
3. In a stapling machine, mechanism for clenching one prong or point of the staple without clenching the other, and means for controlling said mechanism to clench both points.

4. In a stapling machine, means for clenching one prong or point of the staple, and a rubber block that supports the other prong or point and yields to prevent clenching thereof.

5. In a stapling machine, mechanism for clenching only one point of the staple, and means for reversing said mechanism, whereby either point can be clenched.

[Claims 6 to 19 not printed in the Gazette.]

1,205,329. METAL-BOUND-BOX-END-STAPLING MACHINE. EDWARD CRAIG, St. Joseph, Mich., assignor to Saranac Machine Co., St. Joseph, Mich., a Corporation of Michigan. Filed June 16, 1910. Serial No. 567,186. (Cl. 1—11.)



1. In a stapling machine, a shaft, a stapling head operated thereby and disposed in position to form and drive the staples in a plane parallel with the vertical plane of the said shaft, a wire feed mechanism for said stapling head, a cam on said shaft, a rod operated endwise by said cam to actuate said feed mechanism and disposed lengthwise of said shaft, and a support below said shaft for the work, said feed mechanism having an axis extending crosswise of said shaft, whereby the staples are driven in a vertical plane extending longitudinally of the said shaft and support.

2. In a stapling machine, a horizontal shaft, a stapling head at one end of said shaft, disposed in position to form and drive the staples in a plane parallel with the vertical plane of the said shaft, an arm supporting and inclosing the middle portion of said shaft, a cam at the other end of the shaft, a wire feed mechanism for said stapling head, a rod disposed substantially horizontally and operated endwise by said cam to actuate the feed mechanism, said stapling head and feed mechanism being supported on the end of said arm, and a support below said shaft for the work, said feed mechanism having an axis extending crosswise of said shaft, whereby the staples are driven in a vertical plane extending longitudinally of the said shaft and support.

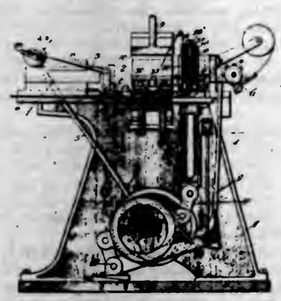
3. In a stapling machine, a staple former, a loop bar, a staple driver, staple supporting means on the staple former arranged to extend between the points of the staple, and a spring connection between the said means and the driver.

4. In a stapling machine, a staple former, a loop bar, a staple driver, an element pivoted on the staple former and arranged to extend between the points of the staple and a spring connection extending to said element to control the same and yieldingly hold the said former on the work.

5. In a stapling machine, movable elements for forming and driving the staple, means to move said elements down, means disposed on one of said elements and arranged to extend between the points of the staple during driving of the latter, and a device connected with said means to hold the said one element down.

[Claims 6 to 12 not printed in the Gazette.]

1,205,330. MACHINE FOR MAKING RECEPTACLES. EDWARD CRAIG, St. Joseph, Mich., assignor to Saranac Machine Company, Benton Harbor, Mich., a Corporation of Michigan. Filed Mar. 29, 1915. Serial No. 17,609. (Cl. 93—42.)



1. A machine for making receptacles from sheet material, of the kind in which the bottom of the receptacle is provided with openings formed by cutting out portions thereof to extend downward in rigid continuation of certain side walls, thereby forming feet to support the receptacle in slightly elevated position, comprising forming mechanism constructed to fold the sheet material and having porvisions to allow displacement of said feet from said openings in the bottom during the folding operation and permit forming of the recepetacle without injuring said feet, and staples for securing the folded sheet material together at opposite sides of said receptacle.

2. A machine for making receptacles from sheet material, of the kind in which the bottom of the receptacle is provided with openings formed by cutting out portions thereof to extend downward in rigid continuation of certain side walls, thereby forming feet to support the receptacle in slightly elevated position, comprising forming mechanism constructed to fold the sheet material and form the receptacle without injuring said feet, and staplers for securing the folded sheet material together at opposite sides of said receptacle, instrumentalities to form said feet in the sheet material ahead of said forming operation, and devices to feed the material to said mechanism.

3. A machine for making receptacles from sheet material, of the kind in which the bottom of the receptacle is provided with openings formed by cutting out portions thereof to extend downward in rigid continuation of certain side walls, thereby forming feet to support the receptacle in slightly elevated position, comprising forming mechanism constructed to fold the sheet material and having provisions to allow displacement of said feet from said openings in the bottom during the folding operation and permit forming of the receptacle without injuring said feet, and staplers for securing the folded sheet material together at opposite sides of said receptacle, said forming-mechanism including provisions at the top thereof to accommodate said feet.

4. A machine for making receptacles from sheet material, of the kind in which the bottom of the receptacle is provided with openings formed by cutting out portions thereof to extend downward in rigid continuation of certain side walls, thereby forming feet to support the receptacle in slightly elevated position, comprising forming mechanism constructed to fold the sheet material and form the receptacle without injuring said feet, and staplers for securing the folded sheet material together at opposite sides of said receptacle, instrumentalities to form said feet in the sheet material ahead of said forming operation, and devices to feed the material to said mechanism, said forming-mechanism including provisions at the top thereof to accommodate said feet.

5. A machine for making receptacles from sheet material, of the kind in which the bottom of the receptacle is provided with openings formed by cutting out portions thereof to extend downward in rigid continuation of certain side walls, thereby forming feet to support the receptacle in slightly elevated position, comprising forming mechanism constructed to fold the sheet material and having provisions to allow displacement of said feet from said openings in the bottom during the folding operation and permit forming of the receptacle without injuring said feet, and staplers for securing the folded sheet material together at opposite sides of said receptacle, said mechanism including a plunger arranged for upward movement to form the receptacle, and having provisions above said plunger to receive said feet, said staplers being arranged to operate on said certain walls of the receptacle.

[Claims 6 to 11 not printed in the Gazette.]

1,205,331. WIRE HANDLE. EDWARD CRAIG, St. Joseph, Mich., assignor to Saranac Machine Company, Benton Harbor, Mich., a Corporation of Michigan. Filed Apr. 17, 1915. Serial No. 21,065. (Cl. 217—125.)



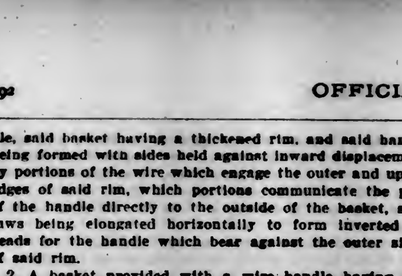
1. A basket provided with a wire handle having the ends of the wire inserted through the sides of the basket at points a distance below the upper edges thereof, the wire then extending upwardly and over said edges, then downwardly against the basket, then upwardly against the basket, thereby forming depending jaws, and then extending across the basket to form the grip of the han-

die, said basket having a thickened rim, and said handle being formed with sides held against inward displacement by portions of the wire which engage the outer and upper edges of said rim, which portions communicate the pull of the handle directly to the outside of the basket, said jaws being elongated horizontally to form inverted T-heads for the handle which bear against the outer sides of said rim.

2. A basket provided with a wire handle having the ends of the wire inserted through the sides of the basket at points a distance below the upper edges thereof, the wire then extending upwardly and over said edges, then downwardly against the basket, then upwardly against the basket, thereby forming depending jaws, and then extending across the basket to form the grip of the handle, said basket having a thickened rim, and said handle being formed with sides held against inward displacement by portions of the wire which engage the outer and upper edges of said rim, which portions communicate the pull of the handle directly to the outside of the basket, said jaws being elongated horizontally to form inverted T-heads for the handle which bear against said rim.

3. A basket provided with a wire handle having the ends of the wire inserted through the sides of the basket at points a distance below the upper edges thereof, the wire then extending upwardly and over said edges, then downwardly against the basket, then upwardly against the basket, thereby forming depending jaws, and then extending across the basket to form the grip of the handle, said basket having a thickened rim, and said handle being formed with sides held against inward displacement by portions of the wire which engage the outer and upper edges of said rim, which portions communicate the pull of the handle directly to the outside of the basket, said jaws being elongated horizontally immediately above said ends to form inverted T-heads for the handle which bear against the outer sides of said rim.

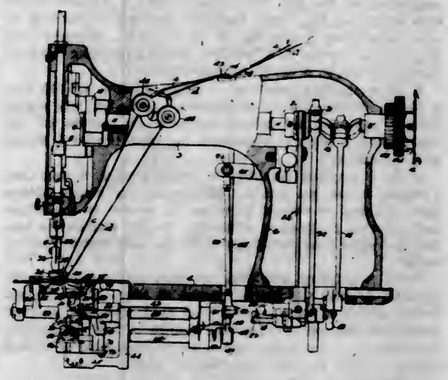
1,205,332. PORTABLE HOVER. CHARLES A. DAMON, Buffalo, N. Y., assignor to Cyphers Incubator Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 24, 1913. Serial No. 756,623. (Cl. 119—34.)



1. A portable hover having, in combination, a lamp-casing comprising a cylindrical body provided with a lateral lamp-receiving opening; a body located above and fixed to the lamp-casing, the casing having a portion located within the periphery of the body, and with the lamp-receiving opening directed outwardly; a radiator within the body and connected with the lamp-casing; a cylindrical door embracing and rotatably mounted upon the body of the lamp-casing and provided with a lamp-receiving opening adapted to register with the opening in the body; and a curved shield inclosing the portion of the lamp-casing which in within the periphery of the body and extending from the bottom to the top of the lamp-casing; the shield being formed to afford communication between its outer and inner surfaces adjacent the top of the body and to provide air inlet openings alongside the lamp-casing.

2. A hover having, in combination, a body in the form of a wide short cylinder; a radiator located eccentrically within the body; and heating-means connected with the radiator and located adjacent the side of the body most remote from the radiator; a portion of the heating-means normally located below the body being detachable and adapted to fit within a portion of the body not occupied by the radiator.

1,205,333. SEWING-MACHINE. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 14, 1913. Serial No. 741,929. (Cl. 112—24.)



1. In a sewing machine, in combination, a reciprocating needle, a coöperating loop-taker, a thread-carrying element having uniform, successive, reciprocatory movements and coöperating with said needle independently of the loop-taker, and means under manually selective control for changing the frequency of action of said implement relative to the needle movements.

2. In a sewing machine, the combination with a reciprocating needle and a coöperating loop-taker, of a plurality of thread-carrying implements coöperating with said needle at different points in its path of reciprocation, and means for changing the frequency of action of said implements relatively to that of the needle movements.

3. In a sewing machine, the combination with a reciprocating needle and a coöperating loop-taker, of a plurality of reciprocally movable thread-carrying implements coöperating alternately with said needle at the same point in its path of movement, and means for changing the frequency of action of said implements relatively to that of the needle movements.

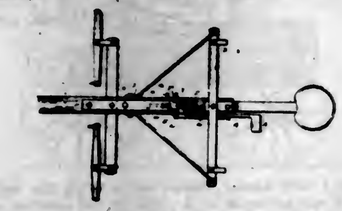
4. In a sewing machine, the combination with a reciprocating needle and a coöperating loop-taker, of a plurality of thread-carrying implements, an actuating member, operative connections between said actuating member and said implements whereby they are caused to coöperate with said needle at different points in its path of reciprocation, and means for changing the speed of said actuating member relatively to operative movements of the needle.

5. In a sewing machine, the combination with a reciprocating needle and a coöperating loop-taker, of a thread-carrying implement coöperating with said needle independently of the loop-taker, actuating members for said thread-carrying implement, and manually shiftable controlling connections permanently mounted upon the machine for rendering said implement effective or ineffective.

[Claims 6 to 25 not printed in the Gazette.]

1,205,334. DRAFT-POLE CONNECTION FOR AGRICULTURAL IMPLEMENTS. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Filed June 26, 1914. Serial No. 847,372. (Cl. 21—36.)

1. In combination with a frame, a draft pole pivoted thereto to swing laterally relatively to the frame, a link pivoted at one end to the free end of the pole, a guiding member on the frame in which the link is adapted to slide in the swinging movements of the pole, said link and guiding member coöperating with each other in limiting the swinging movement of the pole in both directions, and releasable means for holding the pole against swinging movement.



2. In combination with a frame, a draft pole pivoted thereto to swing laterally relatively to the frame, a swiveling head on the frame, a link pivoted to the pole and sliding through the head, a stop on the end of the link, and releasable means for holding the pole against swinging movement.

3. In combination with a frame provided with a stub pole, a draft pole pivoted to the stub pole to swing laterally and provided with a rearward extension adapted to overlie the stub pole when the draft pole is in a medial position, a releasable locking latch sustained by the stub pole and acting on the said extension to normally hold the pole against swinging movement, said latch being operable to release the pole at will to permit it to swing, and a connecting member between the stub pole and said extension, said connecting member being jointed at one end to the extension and having a jointed connection with the stub pole, and said member being shiftable by the movements of the pole alternately to opposite sides of the stub pole and operating in its shifting movements to limit the movements of the pole in both directions.

4. In combination with a frame, a stub pole thereon, a draft pole pivoted to the forward end of the stub pole to swing laterally relatively to the same, a rearward extension on the pole overlying the stub pole, a locking latch comprising two vertical arms and a horizontal connecting portion, the said arms extending on opposite sides of the stub pole and pivoted thereto on a horizontal transverse axis, and the connecting portion extending across the stub pole and being provided with a recess to receive the extension on the pole, and being provided also with sloping surfaces on opposite sides of the recess adapted to be engaged by the extension when the pole swings toward central position, and a spring acting to urge the latch in the path of said extension.

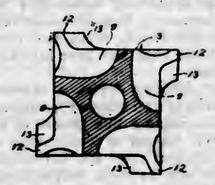
5. In combination with a frame, a draft pole sustained thereby and movable laterally relatively thereto, a locking latch pivoted on the frame and adapted to lock the pole against lateral movement, an operating lever mounted on the frame, and a connecting device pivoted to the latch and lever, the relation of said parts being such that when the lever is operated to release the latch, the point of pivotal connection of the connecting device with the lever will "pass center" and the latch will be held in releasing position.

[Claim 6 not printed in the Gazette.]

1,205,335. CHAIN-SHEAVE. JOHN M. DILLON, Sterling, Ill. Filed Oct. 12, 1914. Serial No. 866,221. (Cl. 74—31.)

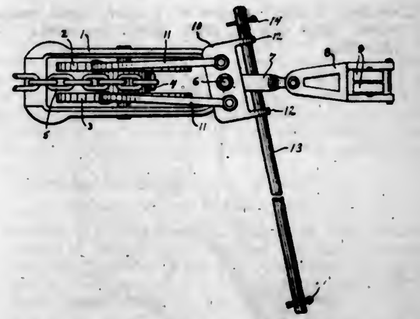
1. A chain sheave, provided with rectangular faces adapted to receive the alternate links of a chain; projections forming extensions of said faces; and means for accommodating the alternating links of said chain.

2. A chain-sheave, provided with rectangular faces adapted to receive the alternate links of a chain; and projections forming extensions of said faces and provided in their inner faces with recesses conforming to the shape of said chain links; said wheel being further provided



centrally with a series of recesses adapted to receive the links of said chain which alternate with said first-named links.

1,205,336. WIRE-FENCE STRETCHER. PAUL W. DILLON, Sterling, Ill., assignor to Northwestern Barb Wire Company, Sterling, Ill. Filed Mar. 12, 1913, Serial No. 753,886. Renewed May 1, 1916. Serial No. 94,756. (Cl. 254—164.)



In a device of the class named, the combination with a frame and pair of ratchet-wheels coincidently rotatable therein; of a yoke pivotally connected with said frame; wire fence engaging means connected with said yoke; a pair of plates on opposite sides of said yoke and pivoted in common therewith; a pair of end-plates uniting said last-named plates and provided with perforated projections in line with the opening in said yoke; ratchet-arms pivoted on the upper one of said plates on opposite sides of the pivotal point thereof, and adapted to engage said ratchet-wheels to suitably actuate the same; and a tubular hand-lever passing through said yoke and slidably held in said end-plates.

1,205,337. ICE-CREEPER. GUSTAV ADOLPH DONATH, Waverly, Iowa. Filed Feb. 21, 1916. Serial No. 79,644. (Cl. 36—62.)



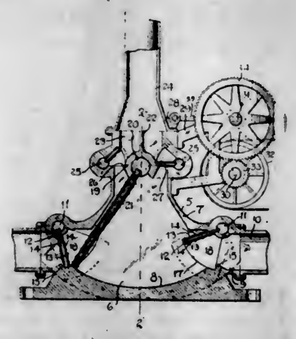
1. In a device of the character described, a plurality of links formed of strands of wire bent upon themselves to form arms, said arms being looped about adjacent links at or near the bent portion thereof, the free extremities of said arms being bent outwardly to form anti-slipping elements.

2. In an anti-slipping device, a plurality of interconnected links having arms the free ends of which are looped to form connecting means and anti-slipping elements, and a connecting member comprising a link formed of a strand of wire having arms, said arms being twisted adjacent their free ends and bent laterally to form anti-slipping elements.

3. In an anti-slipping device, a plurality of interconnected links forming anti-slipping members, and a connecting member comprising a link formed of a strank of wire bent intermediate its end to form curved arms, said arms being twisted adjacent their free extremities and laterally and outwardly bent to form anti-slipping elements, the first of said links having connection with the curved arms of the said second link.

4. In an anti-slipping device, a plurality of interconnected links, and a connecting member for the free link of said plurality of links formed of a strand of wire bent upon itself to form curved arms, said arms being engaged by the adjacent link, the free extremities of said arms being twisted and said twisted portion being laterally bent and formed to provide divergent ground engaging elements.

1,205,338. PUMP. JOSEPH O. FARLEY, North Yakima, Wash. Filed Oct. 20, 1915. Serial No. 56,974. (Cl. 103—73.)

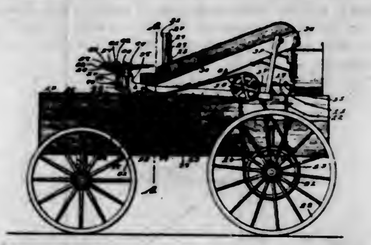


In a pump, a case having a water receiving chamber and intake ports at opposite sides thereof, laterally swinging valve plates fulcrumed in the case above said intake ports, the side wall of the case being provided with openings through which said valve plates may be readily inserted or removed, said valve plates operating at one of their ends in said openings, plates secured to the pump case and closing said openings, said valve plates moving by gravity to their closed positions, an oscillating pump blade mounted to operate in said chamber, the pump case having spaced outlet ports above the fulcrum of the oscillating blade, and oscillating valve plates normally closing said outlet ports.

1,205,339. KAFIR-CORN HEADER. JAMES F. FERGUSON, Comanche, Okla. Filed Nov. 15, 1915. Serial No. 61,573. (Cl. 56—131.)

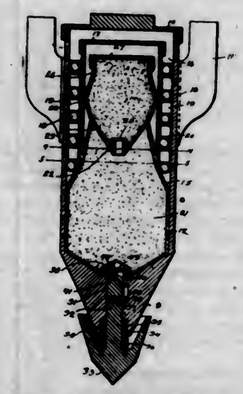
1. In a corn header, means for severing the stalks of grain, a reel arranged at one side of said means and having projecting arms, a reel arranged at the opposite side of the severing means and having arms adapted to be engaged by the arms of the first-named reel, and means for driving the first-named reel.

2. In a corn header, means for severing heads of grain, a reel arranged at one side of the severing means and arranged to revolve in a horizontal plane, said reel having projecting arms, a second reel arranged at the opposite side of the severing means and adapted to revolve in a horizontal plane, said second reel having projecting arms and pins projecting upward from said arms, the arms of the first-named reel being adapted to engage said pins to drive the second reel, and means for driving the first-named reel.



3. In a corn header, means for severing the heads of grain, a reel arranged at one side of the severing means and adapted to revolve in a horizontal plane, said reel comprising radial arms and an outer series of arms secured to said radial arms on a forward tangent, a second reel arranged at the opposite side of the severing means and adapted to be revolved in a horizontal plane, the second reel comprising radial arms and an outer series of arms secured to its radial arms on a back tangent, the second reel having a series of upwardly-projecting pins adapted to be engaged by the arms of the first-named reel to drive said second reel, and means for driving the first-named reel.

1,205,340. BOMB. EARL H. FOUTS, Ellisville, Ill. Filed Jan. 21, 1916. Serial No. 73,377. (Cl. 102—29.)

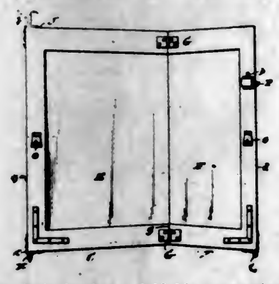


1. A bomb including a cylindrical body having a tapered forward end, a closure for the rear end of said body, an explosive holder having its forward portions snugly fitted within said cylindrical body and its rear portion spaced from said body and filling shot disposed in the space between the reduced rear end of said explosive holder and said cylindrical body.

2. A bomb including a cylindrical body, an explosive holder arranged within said body, a partition arranged within said explosive holder, a filling spout for the forward extremity of said explosive holder, a closure cap for said spout, a rearwardly directed extension carried by said partition disposed in spaced relation to the inner surface of said explosive holder, and explosive material arranged in said holder upon opposite sides of said partition.

3. A bomb including a cylindrical body, a head carried by said body having an axial opening, a plunger slidably mounted in said opening, an explosive holder arranged in said body, a frangible socket at one end of said explosive holder arranged in line with said plunger, a plate interposed between said head and said holder adapted to be moved inwardly against said socket by said plunger, means for limiting the outward movement of said plunger, and means normally retaining said plunger in outwardly extended position.

1,205,341. SNOW-SHIELD FOR MOVING VEHICLES. HENRY FROHNAPFEL, Wheeling, W. Va. Filed Apr. 8, 1916. Serial No. 89,819. (Cl. 105—93.)



1. A car body having a foldable converging shield provided with means for hinging one side edge to the body, means for detachably securing the other side edge to the body, and means for holding the shield in folded condition when thrown back on its hinge.

2. A shield of the character described comprising foldable transparent portions inclining inwardly and outwardly from a line of juncture therebetween to deflect snow and the like away from the shield, one of said sections being of greater width than the other substantially as and for the purpose described.

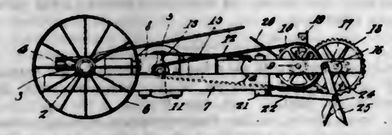
3. A shield of the character described comprising transparent portions inclining inwardly and outwardly from a line of juncture therebetween to deflect snow and the like away from the shield, one of said sections being of greater width than the other, substantially as and for the purpose described.

4. A shield of the character described comprising foldable sections having transparent portions, and means for securing the sections in angular relation, the transparent portion of one of the sections overlapping the edge of the transparent portion of the adjacent section.

5. A shield of the character described comprising foldable sections having transparent portions, means for securing the sections in angular relation, the transparent portion of one of the sections overlapping the edge of the transparent portion of the adjacent section and projecting a substantial distance outwardly therebeyond.

[Claims 6 to 17 not printed in the Gazette.]

1,205,342. CULTIVATOR. CHARLES A. GLASS, Greensburg, Kans. Filed Apr. 7, 1913. Serial No. 759,455. (Cl. 97—53.)



1. In a cultivator, a frame, an engine mounted on the frame, pivoted spindles at one end of the frame, wheels journaled on the spindles, and reciprocatory spading elements operatively connected with the engine, and forming the sole support of the other end of the frame, the entire traction or driving weight of the cultivator being on the spading elements.

2. In a cultivator, a pair of spading elements forming the sole driving means of the cultivator, cranks operatively connected to said spading elements to move the same simultaneously through opposing positions in parallel cycles of motion, and links connecting said elements with the frame of the cultivator.

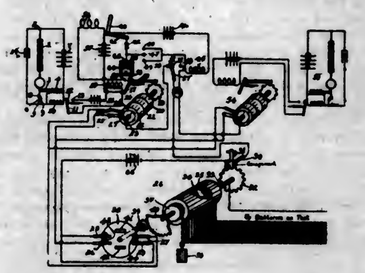
3. In a cultivator, a frame, an engine mounted on the frame, cranks carried by the frame and operatively connected with the engine, a pair of standards operatively connected, respectively, with the cranks, links connecting said standards with the frame, and spading blades carried by the standards and operating to move simultaneously through opposing positions in parallel cycles of motion, said spading blades and their standards forming the sole supporting means of the outer end of the frame, the entire traction weight of the cultivator being borne thereby.

4. In a cultivator, a frame, an engine mounted on the frame, cranks carried by the frame and operatively connected with the engine, a pair of standards operatively connected, respectively, with the cranks, links connecting said standards with the frame, and spading blades carried by the standards and operating to move simultaneously through opposing positions in parallel cycles of motion, said spading blades being the sole means for propelling the cultivator.

5. In a cultivator, a frame, an engine carried by the frame, cranks carried by one end of the frame and operatively connected with the engine, standards pivoted to the frame and connected with the cranks, spading elements carried by the standards and forming the sole support of the crank end of the frame, and a wheeled truck supporting the other end of the frame in such manner as to allow the crank end of the frame to play up and down freely with the varying vertical extension of the spading elements.

[Claims 6 to 14 not printed in the Gazette.]

1,205,343. APPARATUS FOR TESTING DRY CELLS. JOSEPH H. GOODWIN and FRANK A. ADAMSKI, Fremont, Ohio, assignors to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed May 12, 1913. Serial No. 767,065. (Cl. 175—183.)



1. In a battery tester, a contact-closer having a series of spaced contacts, a pair of contact arms spaced apart, and a chronometer means to move intermittently the contact-closer to connect the contacts alternately with said contact arms in succession.

2. In a battery tester, a contact-closer having a series of spaced contacts, a pair of contact arms spaced apart a distance equal to an odd multiple of half the distance between said contacts, and chronometer means to intermittently move the contact-closer half the distance between said spaced contacts to connect them alternately with said contact arms in succession.

3. In a battery tester, a contact-closer having a series of spaced contacts, a pair of contact arms spaced apart a distance equal to an odd multiple of half the distance of said contacts, chronometer means for moving the contact-closer, a second contact closer, an electro-magnet adapted

to cause said second circuit closer to move a predetermined distance, and means moved by the second contact-closer for connecting said electromagnet alternately with said contact arms.

4. In a battery tester, a test mechanism, a timer adapted to be connected thereto, means for periodically operating said timer and means for disconnecting said mechanism from said timer when it ceases to operate.

5. In a battery tester, a test mechanism, a timer adapted to be electrically connected thereto, means for operating said timer including an electro-magnetic coil, a switch in the circuit of the coil, a pendulum for opening and closing the switch, a switch in the connection between the timer and the mechanism and means for opening the second mentioned switch when the timer ceases to operate.

[Claims 6 to 14 not printed in the Gazette.]

1,205,344. [WITHDRAWN.]

1,205,345. **REINFORCED VULCANIZABLE ARTICLE AND METHOD OF PRODUCING THE SAME.** ANDREW L. HATFIELD, Hillside, N. J. Filed Feb. 5, 1916. Serial No. 76,280. (Cl. 154—2.)



1. A method of producing reinforced flat vulcanized articles consisting of coating a suitable reinforcing fabric with a vulcanizable compound, rolling up the coated fabric in convolute form to provide alternated layers of fabric and compound, cutting from the rolled up coated fabric transverse sections thereof to form mold blanks having a thickness greater than the depth of the mold, then placing the blanks in a mold, submitting the blanks to pressure directed edgewise to the layers of reinforcing fabric therein for the purpose of filling up the mold chamber, compacting the compound and producing laterally and oppositely projecting binding portions extending from opposite faces of said fabric into the intervening layers of compound, and then vulcanizing said blanks in the mold to harden the compound and embed therein the reinforcing fabric thus disposed and formed.

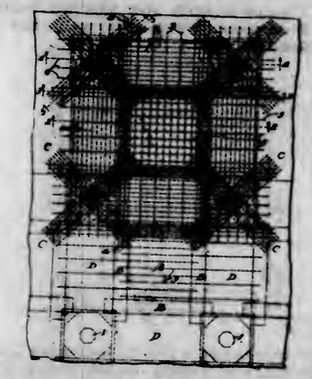
2. In articles of the kind described a flat body or hardened material, a reinforcing fabric strip extending through the mass thereof in convolute form to provide fabric layers disposed edgewise to the plane of said flat body alternated with layers of said hardened material, said fabric strip being of wavy form in cross section whereby it interlocks with the hardened material on each side thereof and one fabric layer interlocks relatively with another.

1,205,346. TONG-WRENCH. CHRISTIAN HEILRATH, Sacramento, Cal. Filed June 19, 1916. Serial No. 104,486. (Cl. 81—78.)



A tong wrench comprising a carrier provided with a recess and a longitudinal slot opening into the recess, a tong movable through the slot and provided with teeth along its edge projecting into the recess, a worm turnably mounted in the recess and engaging said teeth, and another tong pivoted to the carrier at a point off center of the axis of the first named tong, said tongs having coacting jaws.

1,205,347. **REINFORCED CONCRETE CONSTRUCTION.** HIPOLIT M. HINCS, Chicago, Ill., assignor, by mesne assignments, to Patented Devices Company, Portland, Me., a Corporation of Maine. Filed Jan. 27, 1912. Serial No. 673,793. (Cl. 72—15.)



1. A girderless monolithic reinforced-concrete construction consisting of a plurality of columns and a flat slab of concrete over the columns, said columns being located at the angles of the slab, said slab containing reinforcement extending directly from one column to another and forming beams of a width exceeding the thickness of the slab, said slab comprising a central portion, reinforcement extending in two directions through the central portion, part of the last mentioned reinforcement being extended transversely through and beyond the beams, reinforcement within the slab forming a plurality of beams lying between the first mentioned beams and the central portion, and carrying said central portion, and reinforcing means within the slab forming cantaliivers over the columns and supporting the second mentioned beams.

2. A girderless monolithic reinforced concrete construction consisting of a plurality of columns and a flat-slab panel of concrete over the columns, said columns being located at the angles of the slab, said panel containing reinforcement extending directly from one column to another and forming beams of a width exceeding the thickness of the panel, said panel comprising a central portion, reinforcement extending in two directions through said central portion, a part of the last mentioned reinforcement extending transversely through and beyond the beams, reinforcement within the panel forming four beams lying between the first mentioned beams and the central portion and carrying the central portion, the second mentioned beams having intersecting ends and forming a rectangle, two groups of reinforcing elements crossing one another above each column and forming cantaliivers, the outer ends of said groups of reinforcing elements underlying the reinforcement for the second mentioned beams at the corners of the rectangle.

1,205,348. **CIRCUIT MAKER AND BREAKER.** WILLIAM A. HOUSEMAN, Brooklyn, N. Y. Filed Nov. 23, 1915. Serial No. 63,047. (Cl. 200—27.)

1. In a device of the kind described a casing, clamp-devices connected with the ends of said casing for securing thereto conduits carrying the electric circuit wires to be passed through said casing, an oscillating member pivoted within said casing, said casing having an opening in its walls giving access to said oscillating member, said oscillating member having a closed interior chamber, a pair of electrically separated contact-points supported in connection with said oscillating member so as to enter one end of said chamber, a movable medium in said chamber which is a conductor of electricity, said oscillating member being balanced on its pivot so as to normally tilt said chamber to maintain said movable medium normally out of contact with said contact-points, means for connecting said contact points electrically with the wires of an electric circuit passing through said casing, and means adapted to be moved into engagement with said oscillating member to so tilt its chamber as to move said movable medium into bridging contact with said contact-points.



2. In a device of the kind described a casing, a pivot post in said casing, an oscillatable member pivoted on said pivot post, said casing having an opening in its walls giving access to said oscillatable member, said oscillatable member having an inner chamber, means for closing said chamber, a pair of electrically separted contact-points adapted to enter one end of said chamber, fluid mercury adapted to be inclosed in said chamber, means for normally tilting said oscillatable member and its chamber to flow said mercury away from said contact-points, means adapted to be carried into engagement with said oscillatable member to tilt the same in an opposite direction to flow said mercury over said contact-points, stop means for limiting the tilting movements of said oscillatable member, an insulating base secured within said casing, a pair of binding-post devices mounted on said insulating base, electric conductors extending respectively from said contact-points to said respective binding posts, electric circuit wires passing through said casing, one of said circuit wires being broken and its separated ends respectively secured to said respective binding-post devices, a semi-circular neck-portion integrally formed at each end of said casing, a separable semi-circular neck-portion adapted to be registered with each integral neck-portion, means for securing said neck-portions together, said neck-portions providing clamp devices within which tubular conduits carrying said circuit wires may be clamped in operative connection with said casing.

3. In a device of the kind described a casing, a pivot post in said casing, an oscillatable member pivoted on said pivot post, said casing having an opening in its walls giving access to said oscillatable member, said oscillatable member having an inner chamber, means for closing said chamber, a pair of electrically separated contact-points adapted to enter one end of said chamber, fluid mercury adapted to be inclosed in said chamber, means for normally tilting said oscillatable member and its chamber to flow said mercury away from said contact-points, means adapted to be carried into engagement with said oscillatable member to tilt the same in an opposite direction to flow said mercury over said contact-points, stop means for limiting the tilting movements of said oscillatable member, an insulating base secured within said casing, a pair of binding-post devices mounted on said insulating base, electric conductors extending respectively from said contact-points to said respective binding posts, electric circuit wires passing through said casing, one of said circuit wires being broken and its separated ends respectively secured to said respective binding-post devices, and means within said casing for retaining said circuit wires adjacent to one side wall of said casing.

1,205,349. **HEDDLE.** ARTHUR L. JENKINS, Methuen, and WILBUR E. WINGATE, Lawrence, Mass. Filed Apr. 12, 1916. Serial No. 90,656. (Cl. 139—14.)



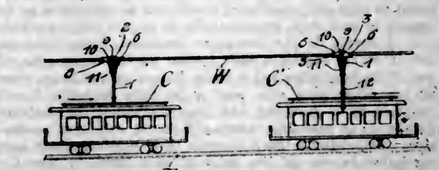
1. In a heddle, a mail having an opening through which a warp thread is adapted to be passed, end openings, and fingers at one end, in combination with a cord which is passed through the end opening adjoining the fingers and is then crossed between them, the fingers being bent between the crossed parts of the cord to lock it in position.

2. In a heddle, a mail having an opening through which a warp thread is adapted to be passed, end openings and fingers at one end, in combination with a cord which is passed through the end opening adjoining the fingers and is then crossed between them, the fingers being bent between the crossed parts of the cord to lock it in position, together with varnish which substantially fills the spaces between the adjoining parts of the cord and the end of the mail.

3. In a heddle, a mail having an opening through which a warp thread is adapted to be passed, end openings, and a finger at one end, in combination with a cord which is passed through the end opening adjoining the finger and is then crossed the finger being bent between the crossed parts of the cork to lock it in position.

4. In a heddle, a mail having an opening through which a warp thread is adapted to be passed, end openings, and an extension at one end, in combination with a cord which is passed through the end opening adjoining the extension, such extension being so bent into engagement with the cord as to lock it in position.

1,205,350. SINGLE-WIRE TROLLEY. GEORGE A. JILLSON and HENRY O. ANDREWS, Sacramento, Cal., assignors to Henry P. Andrews and John J. Worthington, county of Sacramento, Cal. Filed June 22, 1916. Serial No. 105,244. (Cl. 191—51.)



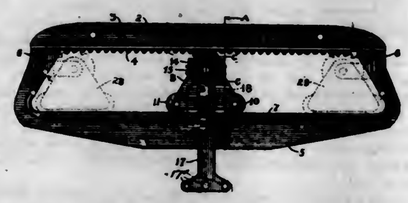
1. A trolley for permitting electric cars on a double-track railway to employ a single wire between said tracks, said trolley comprising a pair of parallel side members adapted to travel on opposite sides of the wire, one or more rollers mounted rotatably between said members and adapted to engage the under side of the wire, one edge of said members being inclined at one end, and means for inverting said members at will to dispose the incline thereof upwardly or downwardly.

2. A trolley for permitting electric cars on a double-track railway to employ a single wire between said tracks, said trolley comprising a shaft to be mounted on and extend laterally from a car, a sleeve mounted rotatably on the outer end of said shaft, a pair of cross arms secured between their ends on said sleeve, one or more rollers extending between said cross arms and adapted to travel on

the lower side of the wire, one edge of said cross arms being inclined at one end to permit the passage of additional arms on another car thereunder, and means connected with the inner end of the sleeve for rotating the same, whereby to invert the cross arms at will to dispose the inclines thereof upwardly or downwardly.

3. A trolley for permitting cars on a double track railway to receive current from a single trolley wire between the two tracks, said trolley comprising an invertible member to travel on the underside of the trolley wire, said member having means serving when said trolley is in one position to direct an oppositely moving trolley downwardly and serving when the trolley is inverted to cause it to travel beneath an oppositely moving trolley.

1,205,351. AUTOMATIC ADJUSTABLE DRAW-BAR FOR TRACTION-ENGINES. ALFRED C. JOHNSON, Winters, Cal. Filed Mar. 4, 1915, Serial No. 12,140. Renewed Dec. 13, 1915. Serial No. 66,636. (Cl. 21—137).



1. A device of the character described, comprising an oblong frame having a rack formed on the inner edge of one of its long sides, and a laterally movable frame operable by a draw-bar and gear mechanism operatively positioned in said first mentioned frame, said gear mechanism comprising a gear secured to a vertical shaft and journaled in one of the sides of said laterally movable frame and secured to one arm of said draw-bar, said vertical shaft being journaled in the other side of said laterally movable frame and secured to the other arm of said draw-bar, a relatively smaller gear secured to a sleeve revolubly mounted on a vertical shaft secured in said laterally movable frame in such position that said gear will engage said first mentioned gear, a third and relatively large gear secured to said sleeve, a fourth and relatively small gear secured to a sleeve revolubly mounted on said first mentioned vertical shaft in such a position as to engage said third gear, and a fifth and relatively large gear secured to said last mentioned sleeve and so positioned as to engage in said rack, substantially as shown and described.

2. A device of the character described, comprising an oblong frame having a rack formed on the inner edge of one of its long sides and a track formed on the inner edge of the other long side, and a laterally movable frame operable by a draw-bar and gear mechanism operatively positioned in said first mentioned frame, said gear mechanism comprising a gear secured to a vertical shaft and journaled in one of the sides of said laterally movable frame and secured to one arm of said draw-bar, said vertical shaft being journaled in the other side of said laterally movable frame and secured to the other arm of said draw-bar, a relatively smaller gear secured to a sleeve revolubly mounted on a vertical shaft secured in said laterally movable frame in such a position that said gear will engage said first mentioned gear, a third and relatively large gear secured to said sleeve, a fourth and relatively small gear secured to a sleeve revolubly mounted on said first mentioned vertical shaft in such a position as to engage said third gear, and a fifth and relatively large gear secured to said last mentioned sleeve and so positioned as to engage in said rack, said laterally movable frame having a plurality of rollers mounted therein in such a manner as to engage said track, substantially as shown and described.

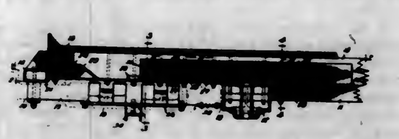
3. A draft connection consisting in the combination of a swinging draw-bar and a laterally shiftable fulcrum therefor, a support for the fulcrum, and means operated by the swinging movement of the draft-bar for positively shifting the fulcrum on its support in the direction of the swinging of the draw-bar.

4. A draft connection consisting in the combination of a swinging draw-bar and a laterally shiftable fulcrum therefor, a support for the fulcrum, and means operated by the swinging movement of the draft-bar for positively shifting the fulcrum on its support in the direction of the swinging of the draw-bar, said last named means including speed increasing devices, whereby a slight angular movement of the draw-bar will cause a comparatively great lateral movement of the fulcrum.

5. The combination with a traction engine, of a transversely extending trackway, a rack parallel therewith, a carriage shiftable along said trackway and having gear connections with the rack, a draw-bar fulcrumed on the carriage and operatively connected with the gearing thereon whereby the travel of the carriage on said trackway is controlled through the oscillation of the draw-bar.

[Claims 6 and 7 not printed in the Gazette.]

1,205,352. CAR-UNDERFRAME. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Oct. 9, 1914. Serial No. 865,787. (Cl. 105—76.)



1. In car underframing, the combination with a wood center sill, body bolster, and end sill, of a draft arm having an integral abutment on the top thereof located between the end sill and the body bolster, and a commercially shaped iron having one web thereof secured to the inner face of said center sill and having the forward end thereof in engagement with said abutment, said abutment being seated in a gain provided therefor in the center sill.

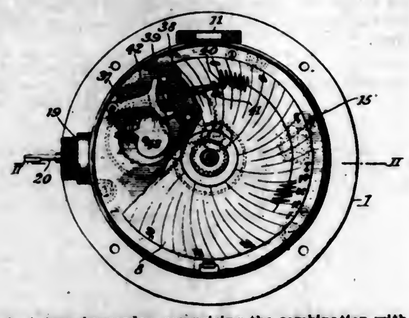
2. In under-framing for railway cars, the combination with a wood center sill, an end sill, and a body bolster, of a cast draft arm having an upper horizontal and outwardly extending flange disposed beneath and secured to said center sill, the draft arm extending from the body bolster underneath the end sill, said draft arm having a horn near its forward end engaging the rear side of the end sill and provided also with a box-like shoulder on its upper portion, said center sill being recessed to receive said box-like shoulder.

1,205,353. TRAVEL-RECORDER. JOSEPH W. JONES, New York, N. Y., assignor to The Jones Speedometer, Brooklyn, N. Y., a Corporation of New York. Filed Nov. 23, 1911. Serial No. 661,893. (Cl. 234—32.)

1. A travel-recorder, comprising the combination with a chart and clockwork for rotating the same, and a tracer for marking upon said chart, of mechanism actuated positively and directly by, and at a rate corresponding to, the travel of the vehicle for reciprocating said tracer over said rotating chart, and means comprising a spring and a snail-shell cam actuated by said clockwork for spirally advancing the zigzag pathway of said tracer.

2. A travel-recorder, comprising the combination with a chart and means for rotating the same, and a tracer for marking upon said chart, of mechanism actuated positively and directly by, and at a rate corresponding to, the travel of the vehicle for reciprocating said tracer over said rotating chart, and mechanism for spirally advancing the zigzag pathway of said tracer.

3. A travel-recorder, comprising the combination with a chart and means for rotating the same, and a tracer for marking upon said chart, of a rock-shaft carrying said tracer, means comprising an eccentric-carrying floating-gear for swinging said rock-shaft to-and-fro, an intermittent-drive for actuating said gear, and mechanism driven by the travel of the vehicle for actuating said intermittent-drive.

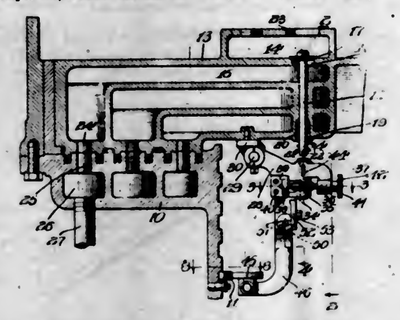


4. A travel-recorder, comprising the combination with a chart and means for rotating the same, and a tracer for marking upon said chart, of a rock-shaft carrying said tracer, means comprising an eccentric-carrying floating-gear for swinging said rock-shaft to-and-fro, and mechanism driven by the travel of the vehicle for actuating said gear.

5. A travel-recorder, comprising the combination with a flat disk-shaped chart and means for rotating the same, and a tracer for marking upon said chart, of mechanism actuated by positive mechanical connection from the rotating wheel or axle of the vehicle for reciprocating said tracer over said chart, and mechanism actuated by the chart-rotating means for spirally advancing the said tracer over the face of said chart.

[Claims 6 to 12 not printed in the Gazette.]

1,205,354. AUTOMATIC VALVE MECHANISM. AUGUST KADOW, Toledo, Ohio, assignor to The Westlake Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Sept. 11, 1912. Serial No. 719,867. (Cl. 49—18.)



1. The combination with a relatively movable cam and valve support, of a valve on said support and transmission mechanism carried by said support and interposed between the valve and the cam comprising an element adjustable with relation to the valve to vary the valve opening, and other elements adjustable to vary the moment of actuation of the cam.

2. The combination with a relatively movable cam and valve support, of a valve on said support and transmission mechanism carried by said support and interposed between the valve and the cam comprising an element adjustable with relation to the valve to vary the valve opening, and other elements adjustable to vary the moment of actuation by the cam, said cam being formed to hold the valve open to different extents in successive stages of operation.

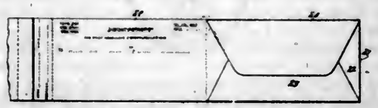
3. In vacuum glass' gathering mechanism, the combination with a support, of a vacuum valve carried thereby, valve operating mechanism for said valve, and a cam arranged to actuate said mechanism to periodically hold said valve open to a certain degree, then to hold it open a less degree and then permit it to close.

4. In apparatus of the character described, the combination with a valve and a cam, one having transitory movement with respect to the other, of a rocking device for actuating the valve from said cam, provided with adjustable members for engaging the valve and cam respectively, the device for engaging the valve being normally out of contact therewith and means for varying the positions of said members with respect to said device.

5. In apparatus of the character described, the combination with a reciprocating valve having a stem, of a cam, a rocking device for actuating said valve from said cam, a member mounted on said rocking device so as to be movable in substantial alinement with said valve stem but normally out of contact therewith and having a threaded portion, a worm wheel having a threaded opening through which the threaded portion of said member passes, and a shaft provided with a worm engaging said worm wheel.

[Claims 6 to 13 not printed in the Gazette.]

1,205,355. CORRESPONDENCE-PAD. WILLIAM P. KENNEDY, New York, N. Y. Filed Jan. 14, 1914. Serial No. 812,086. (Cl. 11—19.)



1. A correspondence pad rectangular in shape comprising a plurality of easily detachable mailable sheets, each having an envelop portion integral therewith and adapted to be inserted between the flaps of the envelop and the body thereof, and record sheets between the mailable sheets bound in the pad adapted to record the communication written upon the mailable sheet, the free end edge of said record sheets being adjacent the inner end of the envelop portion and approximating in thickness that of the flaps of the envelop portion to equalize the thickness of the pad throughout.

2. A correspondence pad comprising a plurality of easily detachable mailable sheets, each having an envelop portion integral therewith and adapted to be inserted between the flaps of the envelop and the body thereof, record sheets bound in the pad between the mailable sheets, and carbon sheets between the mailable and record sheets, said carbon and record sheets being equal in length to the mailable sheets, their free lateral edges being adjacent the inner lateral end of the envelop portion, the combined thickness of said carbon and record sheets approximating the thickness of the flaps of the envelop portion so as to make the thickness of the pad uniform throughout.

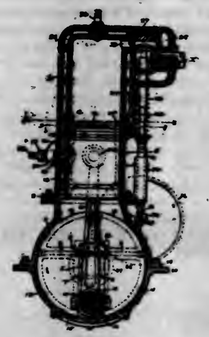
3. A correspondence pad comprising a plurality of easily detachable mailable sheets and record sheets interposed therebetween, an envelop pocket connected with each mailable sheet and readily detachable therefrom, said mailable sheet being adapted to be inserted within the pocket without detaching the same therefrom to close the envelop and serve as a confidential communication.

4. A correspondence pad comprising duplicate mailable and record sheets, each mailing sheet having an envelop pocket extending therefrom and integral therewith and adapted to receive the mailable sheet therein without detachment therefrom, there being a weakened portion between the mailable sheet and the body of the envelop pocket whereby the sheet may be detached from the envelop for the purpose of filing.

1,205,356. FOUR-CYCLE SUPPLEMENTARY-PORT GAS-ENGINE. BERTRAM C. KENYON, Mishawaka, Ind., assignor of one-half to Dodge Manufacturing Company, Mishawaka, Ind., a Corporation of Indiana. Filed Oct. 20, 1913. Serial No. 796,307. (Cl. 123—76.)

1. In gas engines, a crank case, a cylinder supported thereby, inlet and outlet valves at one end of the cylinder, additional ports at the other end one of such ports forming

an external connection to the interior of the cylinder and the other leading to the crank case through a by-pass, a crank operable in the case, a piston in the cylinder, a connecting rod between the crank and piston, disks or fillers attached to the cranks adapted to occupy the vacant space in the crank case on each side of the path of travel of the connecting rod, bearings for the crank shaft, and compensating packing between the crank and bearings to prevent leakage through the bearings.



2. In a gas engine, a suitable inclosed base, a cylinder attached thereto, bearings therein, a crank shaft in the bearings, a piston slidable in the cylinder, connections therefrom to the crank, inlet and outlet ports at the outer end of the cylinder, a by-pass from the cylinder to the base, another opening extending through the cylinder walls independent of the by-pass, a disk or filler inclosing each half of the crank, elastic packing between the crank and the bearings, the external opening through the movement of the piston automatically admitting fresh air to the crank case and the air being delivered once for each instroke at constant volume to the cylinder, and means for operating the fuel valve from the crank shaft in a "four cycle" sequence.

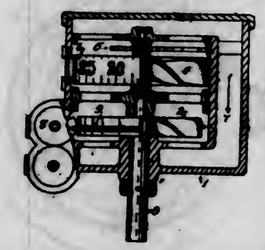
3. In a gas engine, a crank case, a cylinder supported thereby, inlet and outlet valves therefor at one end of the cylinder, ports at the other end one of said ports leading through the cylinder walls to its inside and the other one by means of a by-pass to the crank case, a crank operable in the crank case, a piston in the cylinder, a connecting rod therebetween, removable disks or fillers inclosing the cranks, suitable fastening means therefor, bearings for the crank shaft, an elastic packing between the cranks and bearings to prevent leakage through the bearings, and suitable means for adjusting the flow from the crank case to the cylinder.

4. In a gas engine, a plurality of cylinders, a plurality of crank cases for supporting the cylinders, cranks rotatable in the cases, a shaft connecting the several cranks, pistons for the cylinders, connecting rods from the pistons to the cranks, a plurality of inlet and outlet ports for the cylinders, automatic means for operating the same, unlined openings in the cylinders controlled by the inner end of the pistons, a by-pass for each cylinder leading from one of said openings to its crank case, suitable disks attached to and inclosing the cranks and providing working spaces between the disks for the connecting rods, elastic packings between the cranks and bearings to prevent leakage, suitable axially aligning means external of each crank case, means for holding a series of "engine" units assembled on one crank shaft, a control in the by-pass of each unit, and means for simultaneously adjusting the controls of all the units.

1,205,357. SPEEDOMETER. AUGUST J. KROWECK, New York, N. Y. Filed Oct. 25, 1915. Serial No. 57,743. (Cl. 264—13.)

2. In a speedometer, an outer casing, an inner casing positioned at a side thereof and a mechanically driven fan and an air driven fan located in said central casing.

2. In a speedometer, an outer casing, an inner casing positioned at a side thereof and a mechanically driven fan and an air driven fan located in said central casing, said two casings forming a passage for air currents therebetween.



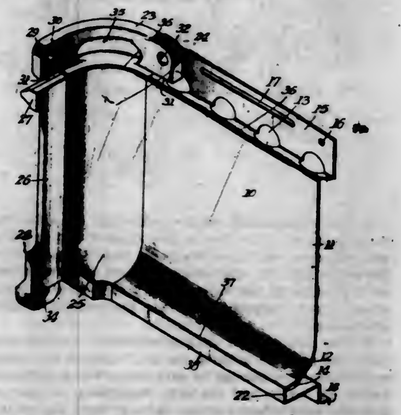
3. In a speedometer, an outer casing, an inner casing positioned at a side thereof and a mechanically driven fan and an air driven fan located in said central casing, said two casings forming a passage for air currents therebetween, said outer casing being entirely closed.

4. In a speedometer, an outer casing, an inner casing positioned at a side thereof and a mechanically driven fan and an air driven fan located in said central casing, said two casings forming a passage for air currents therebetween, said outer casing being entirely closed and a revolution counter on said outer casing and means within the casing for operating the same.

5. In a speedometer, an outer casing, an inner casing positioned at a side thereof and a mechanically driven fan and an air driven fan located in said central casing, said two casings forming a passage for air currents therebetween, said outer casing being entirely closed and a revolution counter on said outer casing and means within the casing for operating the same, said means consisting of a gear on said mechanically driven fan.

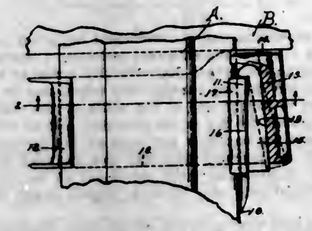
[Claims 6 to 14 not printed in the Gazette.]

1,205,358. METAL BASE-BOARD. GEORGE S. KNAPP, La Grange, Ill., assignor to Knapp Brothers Manufacturing Company of Chicago, Ill., Chicago, Ill., a Corporation of Illinois. Filed Sept. 7, 1915. Serial No. 49,310. (Cl. 189—87.)



A fitting for joining sections of sheet metal base boards having upper and lower longitudinal marginal portions bent rearwardly and then outwardly into the same plane for attachment to a wall, said fitting comprising a body part having a face surface shaped to form a continuation of the exposed surface of the base board, integral end members projecting from the body part to underlie the rear face of the base board intermediate its marginal portions, projections extending from the body part near its upper end and spaced vertically from the end members to form horizontally extending openings there between to receive the upper rearwardly extending marginal portion of the base board, the upper outwardly bent edge portion of the base board lying at the rear of the projections, and fastening means taken through the projections and outwardly bent edge portions of said base board.

1,205,359. RAIL-ANCHOR. EDWARD LAAB, Chicago, Ill., assignor, by mesne assignments, to Otto R. Barnett, Chicago, Ill. Filed Feb. 26, 1916. Serial No. 80,658. (Cl. 238—4.)



1. In a rail anchor, the combination of a rail embracing element and a spring key V-shaped in plan view intervening between the rail embracing element and the rail.

2. In a rail anchor, the combination of a rail embracing element and a spring key intervening between the rail embracing element and the rail providing divergent members united at one end.

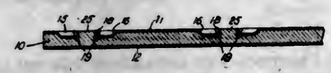
3. In a rail anchor, the combination of a rail embracing element and a spring key intervening between the rail embracing element and the rail consisting of a strip of metal bent upon a transverse axis to form divergent legs.

4. In a rail anchor, the combination of a rail embracing element and a spring key intervening between the rail embracing element and the rail consisting of a strip of metal bent upon a transverse axis to form divergent legs and provided with an edge adapted to bite into the rail.

5. In a rail anchor, the combination of a rail embracing element and a spring key V-shaped in plan view intervening between the rail embracing element and the rail and provided with an edge adapted to bite into one of the surfaces between which the key is interposed.

[Claims 6 to 38 not printed in the Gazette.]

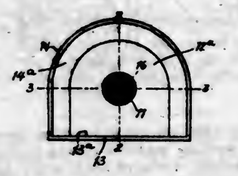
1,205,360. PLASTER-LATH. HENRY LA CASSE and JAMES P. SEXTON, Los Angeles, Cal., assignors to Buttonlath Manufacturing Company, Los Angeles, Cal., a Corporation of California. Filed June 28, 1915. Serial No. 36,790. (Cl. 72—124.)



1. In a plaster lath, a perforated facing sheet having surface depressions and apertures therethrough in the bottoms of the depressions, and having reinforcing tongues extending outwardly from the bottoms of the depressions into the depressions around the apertures, and a cementitious base back of the facing sheet projecting through the apertures to form protrusions extending into the depressions and about the reinforcing tongues.

2. In a plaster lath, a perforated facing sheet having surface depressions and apertures therethrough in the bottoms of the depressions, and having reinforcing tongues extending outwardly from the bottoms of the depressions into the depressions around the apertures, said tongues being integral with the facing sheet and formed of the material struck out of the facing sheet to form the apertures, and a cementitious base back of the facing sheet projecting through the apertures to form protrusions extending into the depressions and about the reinforcing tongues.

1,205,361. NON-GLARING HEADLIGHT. HARRY W. LAKIN, Medford, Mass. Filed Feb. 10, 1916. Serial No. 79,312. (Cl. 240—41.)



1. A headlight comprising an illuminator, a hood having a closed inner end provided with a forwardly facing rear reflecting surface behind the illuminator, and a body portion surrounding the illuminator and provided with a non-reflecting bottom surface and with an internal reflecting surface the top portion of which is inclined and reflects in a forward and downward direction, while its side portions are oblique and reflect in forward and substantially horizontal directions, the hood having a light-emitting front end, and a shield located between the illuminator and the said light-emitting end and formed and arranged to prevent the emission of light rays in a forward and upward direction and to permit the emission of light rays in forward, downward and oblique or lateral directions.

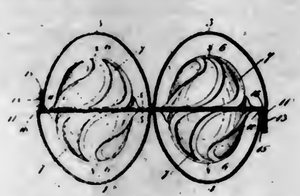
2. A headlight comprising an illuminator, a hood having a closed inner end provided with a forwardly facing rear reflecting surface behind the illuminator, and a body portion surrounding the illuminator and provided with a non-reflecting bottom surface and with an internal reflecting surface the top portion of which is inclined and reflects in a forward and downward direction, while its side portions are oblique and reflect in forward and substantially horizontal directions, the hood having a light-emitting front end, and a shield located between the illuminator and the said light-emitting end and formed and arranged to prevent the emission of light rays in a forward and upward direction and to permit the emission of light rays in forward, downward and oblique or lateral directions, said shield being also formed and arranged to permit the emission of glaring rays in a forward and downward direction.

3. A headlight comprising an illuminator, a hood having a closed inner end provided with a forwardly facing rear reflecting surface behind the illuminator, and a body portion surrounding the illuminator and provided with a non-reflecting bottom surface and with an internal reflecting surface the top portion of which is inclined and reflects in a forward and downward direction, while its side portions are oblique and reflect in forward and substantially horizontal directions, the hood having a light-emitting front end, and a shield located between the illuminator and the said light-emitting end, and formed and arranged to prevent the emission of light rays in a forward and upward direction and to permit the emission of light rays in forward, downward and oblique or lateral directions, and an inwardly facing convex reflecting surface in front of the illuminator formed and arranged to reflect against the rear reflecting surface and radially against the reflecting surface of the body portion.

1,205,362. EGG-CASE. JAMES S. LANG, Boston, Mass. Filed Aug. 10, 1914. Serial No. 855,099. (Cl. 220—29).

1. An egg case of cardboard or other flexible material comprising an outer enveloping wall, interior egg-supporting pieces parallelly arranged adjacent one another, each of said pieces having therein spiral cuts annularly arranged to form egg-receiving pockets, said pockets hav-

ing outwardly-yielding arms and center pieces carried by said arms, said arms and center pieces engaging respectively the sides and ends of the eggs deposited within said pockets.



2. In an egg case, an egg-supporting piece of cardboard or other suitable material having in it a series of spiral cuts annularly arranged to form an egg-receiving pocket for one-half of an egg, said pocket having outwardly-yielding arms and a center piece carried by said arms, and which arms and center piece bear respectively against the sides and end of that portion of the egg contained within said pocket.

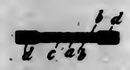
3. An egg case of cardboard or other flexible material comprising an outer enveloping wall made up of separate superposed sections, interior egg supporting pieces carried by said respective sections, the same having spirally curved cuts therein to form openings in said pieces with curved arms extending from said pieces to embrace the sides of the eggs and pieces carried by said arms bearing against the ends of the eggs for pocketing the same and holding them out of contact with the outer enveloping wall.

4. In an egg case, associated flat pieces of cardboard or other flexible material each having openings in them oppositely arranged in said respective pieces with arms extending from around said openings to embrace the sides of eggs contained therein, and other pieces with which said arms connect and which are held thereby to bear against the ends of the eggs.

5. In an egg case, associated flat pieces of cardboard or other flexible material, each having curved cuts in them annularly arranged to provide separate yielding arms of material between the sides of said cuts, and a common piece of material centrally disposed between the ends of the cuts and with which said arms connect, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

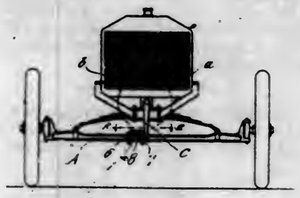
1,205,363. DRIVING-BELT. MAURICE LEBLANC, Val Sur Seine par Croisy, France, assignor to Société Anonyme pour l'exploitation des Procédés Westinghouse-Leblanc, Paris, France. Filed Dec. 11, 1912. Serial No. 736,092. (Cl. 74—63.)



An extensible transmission belt comprising a single layer of threads of fiber, the threads being laid closely together side by side in contact with one another, said layer of threads forming the body, and the tensile member, of the belt, a layer of fabric to which said threads are fastened to retain them in position, and a surface layer of knitted fabrics.

1,205,364. ANTIKICKING SAFETY ATTACHMENT FOR INTERNAL-COMBUSTION ENGINES. WILLIAM M. LINDLEY, Lawrence, Kans. Filed Mar. 13, 1916. Serial No. 83,020. (Cl. 74—53.)

1. An anti-kicking safety attachment for internal combustion engines comprising a supporting member having means for connecting it to a supporting structure, a stop carried by said member adapted to be positioned to normally project into the path of the crank of an engine, said stop being yieldable to move out of the path of the crank on the engagement thereof by the crank when turned in one direction and to be locked against movement when engaged by the crank on the turning of said crank in the opposite direction.



2. An anti-kicking safety attachment for motor vehicles comprising a supporting structure including a casing open at one end, a pentagonal dog pivotally mounted in said casing and having two parellel side edges, one of which is designed to engage one of the walls of the casing on the movement of the dog in one direction, and an obliquely disposed edge for engaging said wall on the movement of the dog in the opposite direction and designed to form a stop for limiting the inner movement of the dog, the first mentioned side edge forming locking means for the dog.

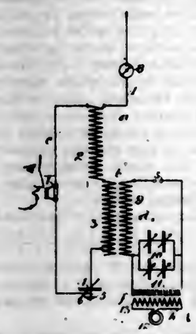
3. In an anti-kicking device of the class described, the combination of a support having attaching means, a lateral stop on said support, a member pivotally mounted on said support and adapted to be positioned for engagement by an engine crank, said member having adjacent edges arranged at an angle to each other, one of which is positioned to engage said stop and lock said member against turning when pressure is exerted thereon in one direction and to clear said stop and permit the member to turn a predetermined distance when pressure is exerted thereon in the opposite direction, the other angular edge engaging said stop and limiting the turning movement of said member in said last mentioned direction, and means for returning said member to normal locked position.

4. In an anti-kicking device of the class described, the combination of a support having attaching means, a lateral stop on said support, a dog pivotally mounted on said support adjacent said stop, one of the edges of said dog being substantially parallel with said stop when in normal position and arranged for locking engagement therewith, one end of said dog projecting normally beyond said support and adapted to be positioned in the path of the crank of the engine with which the device is used, the projecting end of said dog having one edge inclined and the other disposed at an acute angle to said inclined edge whereby the engine crank will engage the inclined edge and ride freely thereover when moved in one direction and engage the other edge of the projecting end when moved in the opposite direction and force said dog against said stop and be locked by it against continued movement in said direction.

1,205,365. METHOD AND APPARATUS FOR WIRELESS TELEPHONY. JOHN P. MCCARTY, Oakland, and KENDALL DOUGLAS, San Francisco, Cal., assignors, by mesne assignments, to Universal Wireless Telephone and Telegraph Company, Los Angeles, Cal., a Corporation of California. Filed Mar. 6, 1912. Serial No. 682,016. Renewed Sept. 30, 1916. Serial No. 123,197. (Cl. 250—6.)

1. A method of transmitting speech by wireless telephony which consists in continually producing oscillations in an oscillation circuit, deriving therefrom oscillations the radiation of which is suppressed in a radiation circuit, and emitting radiative energy from said circuit in direct correspondence with speech waves.

2. A method of transmitting speech by wireless telephony which consists in continually producing oscillations in an oscillation circuit, deriving therefrom oscillations in a radiation circuit, suppressing radiation therefrom during moments of silence, and emitting waves of radiative energy in direct correspondence with speech waves.



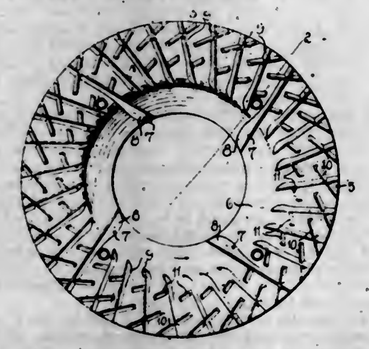
3. Apparatus for transmitting speech by wireless telephony which consists in an oscillation circuit, means for continually producing oscillations therein, a radiation circuit associated therewith, means for deriving from said oscillation circuit oscillations the radiation of which is suppressed in said radiation circuit, and means for emitting radiative energy in direct correspondence with speech waves.

4. Apparatus for transmitting speech by wireless telephony which consists in an oscillation circuit, means for continually producing oscillations therein, a radiation circuit associated therewith, means for suppressing radiation in said radiation circuit during the moments of silence, and means for emitting waves of radiative energy in direct correspondence with speech waves.

5. Apparatus for transmitting speech by wireless telephony which consists in a radiation circuit, an associated continually operated oscillation circuit tuned thereto, a branch circuit for suppressing the radiation from said radiation circuit, and a microphone transmitter in said branch for transmitting radiative energy in correspondence with speech waves.

[Claims 6 to 9 not printed in the Gazette.]

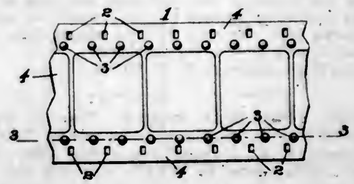
1,205,366. GRINDING-PLATE FOR FEED-MILLS. SAMUEL J. MCVEY, Belleville, W. Va. Filed June 5, 1916. Serial No. 101,829. (Cl. 83—3.)



1. An annular grinding plate provided upon its grinding face with a plurality of teeth converging inwardly from the outer edge of said plate, and a plurality of retarding ribs angularly disposed with respect to said teeth and extending from the adjacent teeth in staggered relation and in substantially parallel lines with respect to each other.

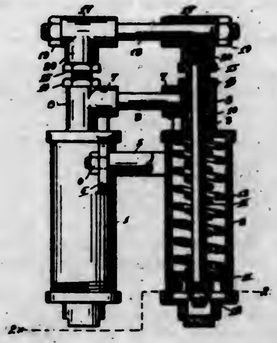
2. An annular grinding plate having a dished inner edge portion and a plurality of spaced directing ribs extending entirely across the grinding face of the plate having a convex face on one side extending over the dished portion of the plate, each of said ribs extending in a line at right angles to the inner end of an adjacent rib, a plurality of grinding teeth extending inwardly from the outer edge of the plate in convergent relation to each other and terminating at their inner ends at the outer edge of the dished portion of the plate and on a line concentric with the inner edge of said plate, and obliquely disposed retarding ribs arranged in staggered relation between the grinding teeth and the directing ribs, said ribs projecting from adjacent grinding teeth toward each other and in substantially parallel relation.

1,205,367. MOVING-PICTURE FILM. JAMES A. MACBRIDE, Arlington, N. J. Filed May 10, 1915. Serial No. 26,985. (Cl. 88—19.5.)



A picture-film adapted to be rolled up or unreeled, provided at its marginal edge-portions with longitudinally extending series of small intermittently disposed projections forced out of the film-body, said projections having minute contacting end-portions.

1,205,368. SHOCK-ABSORBER. AUGUST MAGIN, Rochester, N. Y. Filed Mar. 14, 1916. Serial No. 84,070. (Cl. 267—42.)



1. In a shock absorber the combination of a pair of bearing pins held yieldably spaced apart, a pair of rods on which one of said bearing pins is mounted to move toward and away from the other of said pins, adjustable means on said rods and interposed between said pins to increase or decrease the distance between said pins.

2. In a shock absorber the combination of a pair of bearing pins, a pair of rods on which one of said pins is mounted to move toward and away from the other, adjustable means on said rods interposed between said pins to hold said pins apart, yieldable means to resist the force acting on said pins tending to move said pins away from each other.

3. In a shock absorber the combination of a pair of bearing pins, a pair of rods on which one of said pins is mounted to move toward and away from the other, adjustable means on said rods to space said pins apart from each

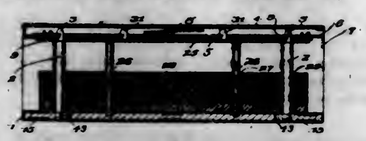
other and yieldable means to allow said pins to move away from each other.

4. In a shock absorber the combination of a pair of cylinders, a pair of lugs on the sides of each of said cylinders, spacing bolts clamped between said lugs to hold said cylinders together, a piston mounted to slide in each of said cylinders, a piston rod fastened to each of said pistons and passing through the top of said cylinders, a pair of bearing pins, one of said bearing pins being mounted to rock between the ends of said piston rods, the other of said bearing pins being mounted to rock between said cylinders.

5. In a shock absorber the combination of a pair of cylinders, a pair of lugs on the sides of each of said cylinders, spacing bolts clamped between said lugs to hold said cylinders together, a piston mounted to slide in each of said cylinders, a piston rod fastened to each of said pistons and passing through the top of said cylinders, each of said pistons being fluted on the outside to permit the passage of air from one side of said piston to the other side of said piston, a pair of bearing pins, one of said bearing pins being mounted to rock between the ends of said piston rods, the other of said bearing pins being mounted to rock between said cylinders.

[Claim 6 not printed in the Gazette.]

1,205,369. LOOSE-LEAF BINDER. JOHN G. MAGIN, Rochester, N. Y., assignor to Henry Conolly Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 4, 1913. Serial No. 799,177. (Cl. 129—8.)



1. A binder member comprising two channel members, one fitting within the other, each of which has a shoulder and both being formed with registering cut away portions, and a pivot rod supported by the shoulders within the binder member adjacent to said registering cut-away portions.

2. In a loose leaf binder, the combination with a back piece, of two binder members hinged to the back piece, one of said binder members being provided with an impaling projection and the other of said binder members being in the form of a casing having a locking member mounted therein for coöperation with the impaling projection, the casing comprising two channel members, one having lugs struck up from one of its side walls and the other having lugs struck up from its bottom wall, a pivot rod supported by said lugs, and two cover members, one hinged to the binder member carrying the impaling projection and the other having portions turning on the pivot rod within the casing.

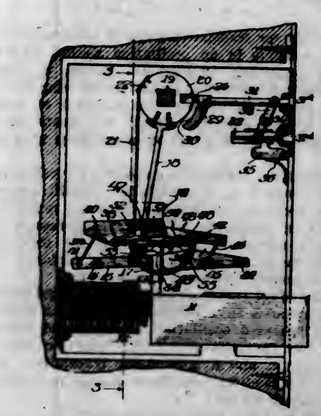
3. In a loose leaf binder, the combination with a pair of binder members, one having impaling means and the other having a locking member movable thereon for coöperating with the impaling means to hold leaves on the impaling means, a back piece hinged to the binder members, and cover members connected to the binder members, of a transfer device adapted to be secured in operative position by the locking member when the cover members are in the same plane, said transfer device extending to a point out of line with the impaling means where it can receive the leaves from the impaling projections.

4. In a loose leaf binder, the combination with a pair of binder members, one having an impaling projection and the other having a locking member movable thereon for coöperating with the impaling projection to hold leaves upon the impaling projection, a back piece hinged to the binder members, and cover members connected to the binder members, of a transfer device adapted to be secured by the locking member and having a loop which extends through the leaves on the impaling projection to one side of the impaling projection and also serves for supporting leaves on the cover member connected to the binder member with the locking means.

5. In a loose leaf binder, the combination with a pair of binder members, one having impaling means and the other having locking means for coöperation with the impaling means to hold the leaves upon the impaling means, a back piece hinged to the binder members, and cover members connected to the binder members, of a transfer device embodying two loops, each having one of its ends connected to the other member, means for securing said transfer device to the binding member having the locking means, the loops of said transfer device being arranged to receive leaves from the impaling means when the covers are in the same plane and the transfer device is held to the aforesaid binding member.

[Claims 6 to 13 not printed in the Gazette.]

1,205,370. LOCK. ROY S. MARSH, Chicago, Ill., assignor of one-fourth to Clarence S. Marsh, Evanston, Ill. Filed July 23, 1914. Serial No. 852,544. (Cl. 70—29.)



1. In a lock, the combination with a bolt having a portion thereof projecting into the plane of rotation of the key and adapted for operative engagement by the key ward, of a guard member arranged to oppose the retraction of the bolt, a second guard member arranged to oppose the key ward, and a pair of guard-operating members arranged to be engaged and operated each by a key ward, the second guard and the operating member for the first guard presenting to the same key ward one an unyielding shoulder and the other a surface yielding under the pressure of the ward.

2. In a lock, the combination with a bolt having a portion thereof projecting into the plane of rotation of the key and adapted for operative engagement by the key ward, of a pivoted guard member arranged to oppose the retraction of the bolt, a second pivoted guard member arranged to oppose a key ward, and a pair of pivoted guard-operating members arranged to be engaged and operated each by a key ward, the second guard and the operating member for the first guard being arranged in a common plane and presenting to the same key ward one an unyielding shoulder and the other a surface yielding under the pressure of the ward.

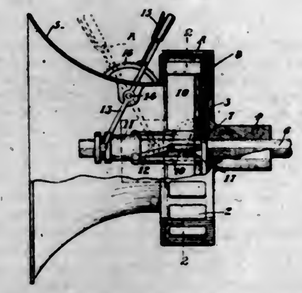
3. In a lock, the combination with a bolt having a portion thereof projecting into the plane of rotation of the key and adapted for operative engagement by the key ward, of a guard lever arranged to oppose the retraction of the bolt, a second guard lever arranged to oppose a key ward, and a pair of guard-operating levers arranged to be engaged and operated each by a key ward, the second guard lever and the operating lever for the first guard being arranged in a common plane and presenting to the same key ward one an unyielding shoulder and the other a surface yielding under the pressure of the ward.

4. In a lock, the combination with a bolt having a portion thereof projecting into the plane of rotation of the key and adapted for operative engagement by the key ward, of a guard lever arranged with its end behind the bolt projection, a second guard lever arranged in the path of a key ward, an operating lever for the first guard, a link connection between one arm of the guard operating lever and the arm of the first guard lever, the free arm of the guard-operating lever being disposed in the same plane and adjacent to the end of the second guard lever in the path of the said key ward, a second guard-operating lever, a link connection between the second guard-operating lever and the second guard lever, the free end of the second guard-operating lever disposed in the same plane as the first mentioned key ward and in the path of the ward on the opposite side of the key, the first-mentioned ward acting through the first guard-operating lever to move the first guard lever out of the path of the bolt and the second guard-operating lever acting to move the second guard lever out of the path of the first mentioned guard.

5. In a lock, the combination with a bolt having a portion thereof projecting into the plane of rotation of the key and adapted for operative engagement by the key ward, of a guard arm disposed within the plane of rotation of the key, the key having a hole to receive the guard arm and to guide the key thereon.

[Claims 6 to 8 not printed in the Gazette.]

1,205,371. SIREN. GORDON E. MARSHALL, San Francisco, Cal. Filed June 2, 1915. Serial No. 31,685. (Cl. 116—13.)



1. In a siren, the combination of a casing having a plurality of ports formed therein, a rotor revoluble therein, and a plurality of blades pivotally mounted on the rotor.

2. In a siren, the combination of a casing having a plurality of ports formed therein, a rotor revoluble therein, a plurality of blades pivotally mounted on the rotor, and means for raising or lowering the blades with relation to the face of the rotor.

3. In a siren, the combination of a casing having a plurality of ports formed therein, a rotor revoluble therein, a plurality of blades pivotally mounted on the rotor, a driving shaft journaled in the casing upon which the rotor is secured, a sleeve slidably mounted on the shaft, links connecting the sleeve with the blades, one for each blade, and means for reciprocating the sleeve to vary the position of the blades.

4. In a siren, the combination of a casing having a plurality of ports formed therein, a rotor revoluble therein, a plurality of blades pivotally mounted on the rotor, a driving shaft journaled in the casing upon which the rotor is secured, a sleeve slidably mounted on the shaft, links connecting the sleeve with the blades, one for each blade, means for reciprocating the sleeve to vary the position of the blades, said means comprising a fork-shaped lever pivotally mounted in the casing and engageable with the sleeve, and means for locking the lever.

5. In a siren, the combination of a casing having a plurality of ports formed therein, a rotor revoluble therein, a plurality of blades pivotally mounted on the rotor, a driving shaft journaled in the casing upon which the rotor is secured, a sleeve slidably mounted on the shaft, links connecting the sleeve with the blades, one for each blade, means for reciprocating the sleeve to vary the position of the blades, said means comprising a fork-shaped lever pivotally mounted in the casing and engageable with the sleeve, and means for locking the lever against movement.

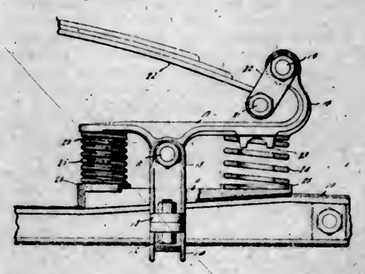
[Claim 6 not printed in the Gazette.]

1,205,372. CURTAIN HANGING AND ADJUSTING DEVICE. ELIZABETH M. MARTIN, Sterling, Ill. Filed Aug. 31, 1914. Serial No. 859,287. (Cl. 57—110.)



A device of the class described, comprising a handle; a semi-cylindrical socket attached to one end thereof; and a pair of semi-tubular supports, telescopically arranged, provided in their inner ends with coinciding slots, and secured to said socket by means of pins passing through said slots into the socket.

1,205,373. SHOCK-ABSORBER. BENJAMIN F. MARTZ and JOSEPH MARTZ, Indianapolis, Ind. Filed Oct. 8, 1915. Serial No. 54,705. (Cl. 267—19.)



1. A shock absorber, comprising a bed plate provided with means for clamping it to an axle, a lever pivotally mounted on said bed plate and extending in both directions from its pivotal point, a spring between each projecting end of such lever and the bed plate, said two springs tending to turn the lever in opposite directions, and a link pivotally mounted at one end on one projecting end of said lever and provided at the other end with means for direct pivotal attachment to the main vehicle spring.

2. A shock absorber, comprising a support, a lever pivoted at an intermediate point on said support and provided at one projecting end with an attaching device, a spring acting between said support and said lever on each side

of the pivotal point of the lever, said two springs tending to move the lever in opposite directions, and a link pivotally mounted at one end on one projecting end of said lever and provided at the other end with means for attachment to the other of the two relatively movable parts connected by the shock absorber from that which carries said support.

3. A shock absorber, comprising a bed plate provided with means for clamping it to an axle, a lever pivotally mounted on said bed plate and provided with two arms, a spring between each of said arms and the bed plate, said two springs tending to turn the lever in opposite directions about its pivot, and a link pivotally connected at one end to one of said arms and provided at the other end with means for direct pivotal attachment to the main vehicle spring.

4. A shock absorber, comprising a support, a lever pivotally mounted on said support and having two arms, one of said arms being provided with an attaching device, and a spring acting between each of said arms and said support, said two springs tending to move the lever in opposite directions, and a link pivotally connected at one end to one of said arms and provided at the other end with means for attachment to the other of the two relatively movable parts connected by the shock absorber from that which carries said support.

1,205,374. GROUND-CONNECTOR. ISRAEL MARCUS, Winthrop, Mass. Filed Jan. 24, 1916. Serial No. 74,024. (Cl. 173—273.)

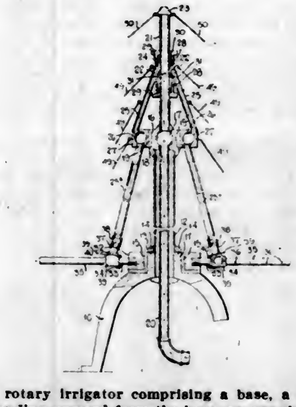


In a device of the class described, a flexible metallic strip adapted to surround a suitable conductor and having its end portions disposed adjacent each other with alined apertures therethrough, a projecting portion on one end of said strip to form a connecting terminal, side plates of equal width and greater thicknesses than said strip positioned against the outer surfaces of the end portions and having apertures therethrough alining with the apertures through said ends, one of said plates having its apertures screw threaded, a locking screw extending through the alining apertures in the plates and end portions and operatively engaging said threaded aperture in one of the plates, a lock nut on the outer end of the screw adjacent said plate, and obliquely inclined outwardly extending spacing flanges projecting from the inner edges of said plates and adapted to space said plates from the conductor and to additionally clamp the strip around the same.

1,205,375. ROTARY IRRIGATOR. SLOMON W. MOODY, Mulberry, Fla. Filed June 24, 1916. Serial No. 105,744. (Cl. 137—87.)

1. A rotatable irrigator comprising a base, a casing extending upward from the base, a supply pipe extending upward through the base and casing, an annulus rotatably mounted upon the base, an annulus rotatably mounted upon the upper end of the casing and having an annular chamber, a sleeve rotatably mounted upon the upper end of the supply pipe and having communication with the interior thereof and provided with downwardly and outwardly extending arms connected to said annular chamber, a plurality of radially disposed sprinkler arms mounted upon the first named annulus, and pipe connections between the annular chamber and said sprinkling arms.

2. A rotator irrigator comprising a base, a hollow casing extending upward from the base, an annulus rotatably mounted upon the base, an annulus rotatably mounted upon the upper end of the casing and having an annular chamber, a supply pipe extending upward through the base and above the second named annulus, a sleeve member rotatably mounted upon the upper end of the supply pipe and having communication with the interior thereof and having outwardly and downwardly extending hollow arms communicating with the interior of the second named annulus, packing members surrounding the supply pipe and engaging the sleeve member, a plurality of radially disposed arms mounted upon the first named annulus and having discharge openings, and a plurality of pipe sections extending downward from said annular chamber to the sprinkling arms.



3. A rotary irrigator comprising a base, a hollow casing extending upward from the base, an annulus rotatably mounted upon the base, an annulus rotatably mounted upon the upper end of the casing and having an annular chamber, a supply pipe extending upward through the base and above the second named annulus, a sleeve member rotatively mounted upon the upper end of the supply pipe and having communication with the interior thereof and having outwardly and downwardly extending hollow arms communicating with the interior of the annular chamber, packing members surrounding the supply pipe and engaging the sleeve member, a plurality of radially disposed arms mounted upon the first named annulus and having discharge openings, a plurality of pipe sections extending downward from the annular chamber to the sprinkling arms, and guy wires extending downward from the second named annulus and the sleeve member to said sprinkling arms.

4. A rotary irrigator comprising a base, a hollow casing extending upward from the base, an annulus rotatably mounted upon the base, an annulus rotatably mounted upon the upper end of the casing and having an annular chamber, a supply pipe extending upward through the base and above the second named annulus, a sleeve member rotatably mounted upon the upper end of the supply pipe and having communication with the interior thereof and having outwardly and downwardly extending hollow arms communicating with the interior of the annular chamber, packing members surrounding the supply pipe and engaging the sleeve member, a plurality of radially disposed arms mounted upon the first named annulus and having discharge openings, a plurality of pipe sections extending downward from the annular chamber to the sprinkling arms, guy wires extending downward from the second named annulus and the sleeve member to said sprinkling arms, each of the sprinkling arms being braced by a plurality of bracing wires, and straining members including struts mounted upon each of said sprinkling arms and over which said bracing wires pass.

5. A rotary irrigator comprising a base having an annular seat, a bearing mounted upon said seat, a tubular casing mounted upon the base and having an annular

seat, a bearing or bushing mounted upon said seat, a supply pipe section extending upward through the casing and having a hollow head, a supply pipe section extending upward from the hollow head, a sleeve menber rotatably mounted upon the upper end of the supply pipe and having downwardly and outwardly extending tubular arms, an annulus mounted upon the bearing member of the head and rotatable therearound and to which said arms are connected, said annulus being hollow, an annulus rotatably mounted upon the first named bearing, a plurality of radially disposed sprinkling arms mounted upon the last named annulus and including elbows, and a plurality of tubular members connecting said elbows with the interior of the first named annulus.

1,205,376. MATERIAL FOR COVERING FURNITURE, &c., AND IN METHOD OF MAKING IT. HAROLD B. MORRIS, Glendale, Cal. Filed Feb. 23, 1916. Serial No. 79,998. (Cl. 28—5.)



1. A cord for covering frames of different articles, comprising a core of fibrous material having designs applied thereto and treated with adhesive material, and a covering for the core united thereto by the adhesive and which is provided with designs registering with those on the core.

2. A cord for covering frames of different articles, comprising a core, a covering of fibrous material adhesively connected with the core and which is ornamented by designs applied thereto and another cover adhesively connected with the first mentioned cover and which is provided with designs or ornamentations registering with those of the first cover.

3. The method herein described of forming a cord for covering frames of different articles, which consists in forming a core by intertwisting with wire a mass of loose fibrous material, applying designs to the core thus formed, treating said core with adhesive material, allowing the adhesive to dry, then softening the adhesive by heat, then applying to the core a covering which is united to the core by the adhesive, applying designs or ornamentations to the cover to register with those on the core and subsequently applying in a similar manner a second cover to that first mentioned.

4. The method herein described of forming a cord for covering frames of different articles, which consists in forming a core, applying a covering to this core, twisting the cord, applying longitudinal creases thereto, allowing the cord to untwist to give to the creases a spiral form, and then applying a finsh to the cord.

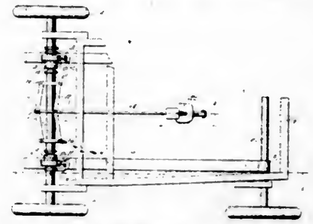
1,205,377. ELECTRODE FOR ARC-LAMPS. WILLIAM ROY MOTT, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed Nov. 8, 1911. Serial No. 659,203. (Cl. 176—136.)

1. An arc lamp electrode containing a rare-earth titanate.

2. An arc lamp electrode containing carbon and rare-earth titanates.

1,205,378. AUTOMOBILE-BRAKE. ALBERT L. NEGSTAD, Arlington, S. D. Filed Jan. 22, 1916. Serial No. 73,557. (Cl. 21—8.)

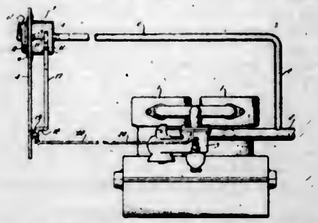
1. The combination with the frame of a machine mounted upon axles, of brake shoes supported at one end upon one of said axles, flexible means connecting the body of said brake shoes with the said frame for yieldingly supporting the former members, racks carried by said brake shoes, pinions loose upon another of said axles and in mesh with said racks and foot-controlled means slidably keyed to said last named axle for operative engagement with said pinions to cause them to rotate with said axle.



2. The combination with the frame of a machine mounted upon axles, of toothed brake shoes supported at one end upon one of said axles, flexible members adapted to yieldingly support the other end of said brake shoes, racks carried by said brake shoes, pinions loose upon another of said axles and in mesh with the said racks, clutches slidably keyed to said last named axle for operative engagement with the said pinions to cause them to rotate with said axle, idlers carried by said clutches, a pitman, links pivotally connecting said pitman and idlers a foot lever carried by said frame and connected to said pitman and a pressure spring carried by said lever for yieldingly retaining the same in inoperative relation.

3. The combination with the frame of a machine mounted upon axles, of toothed brake shoes supported at one end upon one of said axles, flexible members adapted to yieldingly support the outer end of said brake shoes, racks carried by said brake shoes, guide brackets for said racks carried by another of said axles, stop pins carried by said racks for limiting the movement thereof with relation to said guide brackets, pinions loose upon said last named shaft and in mesh with the said racks, clutches slidably keyed to said last named axle for operative engagement with the said pinions to cause them to rotate with said axle and foot-controlled actuating means for said clutches.

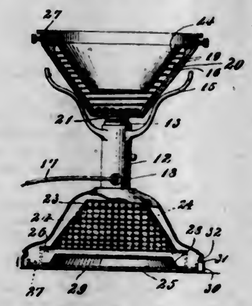
1,205,379. SYSTEM FOR INDICATING THE CONDITION OF INTERNAL-COMBUSTION ENGINES. OSCAR EMMANUEL NELSON, Oakland, Nebr. Filed Feb. 13, 1915. Serial No. 8,076. (Cl. 123—198.)



1. In a device for indicating the condition of an internal combustion engine, said device including a gas passage communicating with the exhaust of the engine, a housing communicating with said gas passage, a sectional casing communicating with said housing, said casing sections being formed with alined gas outlets and with alined gas chambers and with alined annular channels; a temperature responsive element disposed in the channeled portions of said casing sections, a shaft passing centrally through said sectional casing, a control lever for said shaft carried thereby and fuel control means for said engine operatively connected to said shaft.

2. In a device for indicating the condition of an internal combustion engine, said device including a gas passage communicating with the exhaust of the engine, a housing communicating with said gas passage, a sectional casing communicating with said housing, a temperature responsive element disposed in said sectional casing and a fuel control lever for said engine associated with said sectional casing and temperature responsive element whereby the speed of the engine may be varied according to the action of said element.

1,205,380. COMBINATION ELECTRIC LAMP AND STOVE. NORMAN G. NICOLL, Newark, N. J., assignor to Rubes Electric Devices Inc., a Corporation of New York. Filed Apr. 5, 1916. Serial No. 89,008. (Cl. 219—19.)



1. An apparatus of the character described comprising a base, and a member serving as a shade when the apparatus is used for illuminating purposes, and serving as a heater when said apparatus is used for heating purposes, substantially as specified.

2. An apparatus of the character described comprising a base having a cooking utensil housed therein, and a member serving as a shade when the apparatus is used for illuminating purposes, and serving as a heater to receive said cooking utensil when the apparatus is used for cooking purposes, substantially as specified.

3. An apparatus of the character described comprising a base provided with electrical terminals, and a lamp shade carrying a heating element adapted for electrical connection with said electrical terminals, substantially as specified.

4. An apparatus of the character described comprising a base provided with a socket, a lamp shade, a plug carried thereby and adapted for engagement with said socket, and a heating element carried by said lamp shade and electrically connected to said plug, substantially as specified.

5. An apparatus of the character described comprising a base provided with supporting means and with electrical terminals, and a lamp shade adapted to be supported in its upright position by said supporting means, said lamp shade being provided with a heating element having electrical terminals adapted to engage said first-named electrical terminals when said lamp shade is inverted, substantially as specified.

[Claims 6 to 12 not printed in the Gazette.]

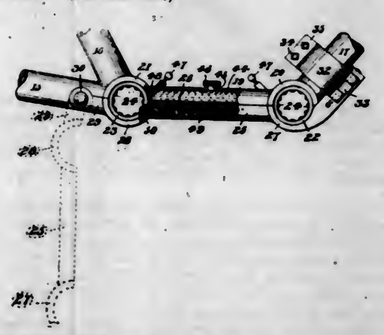
1,205,381. FENDER FOR AUTOMOBILES. ELIZABETH T. ORTON, New York, N. Y. Filed Aug. 25, 1914, Serial No. 858,514. Renewed Oct. 2, 1916. Serial No. 123,449. (Cl. 105—33.)

1. In combination, a cross bar adapted to be secured to the side frame bars on the front end of an automobile and extend horizontally, a plurality of clasps on the said cross bar, a second bar detachably secured to the first mentioned bar by means of said clasps, a collapsible fender secured to said last mentioned bar and extending downwardly therefrom, a bar on the lower end of said fender, loops on the ends of the said first-mentioned cross bar adapted to engage the last mentioned bar and maintain the same in its raised position, eyes on the rear of the first mentioned bar and brace bars detachably connected to said eyes and adapted to be connected to the front axle of the automobile.



2. In combination, a cross bar adapted to be secured to the side frame bars on the front end of an automobile and extend horizontally, a second bar secured to the first mentioned bar, a collapsible fender secured to the second bar, a bar secured to the lower edge of the fender and brace bars detachably connected with the last mentioned bar and adapted to be pivotally connected to the axle of the automobile.

1,205,382. BICYCLE CONSTRUCTION. STANLEY PARDA, North Adams, Mass. Filed July 27, 1916. Serial No. 111,619. (Cl. 208—11.)



1. A bicycle frame having a horizontal shaft supporting section comprising a horizontal frame portion, half bearings at the opposite ends of said portion, a mounting section pivotally arranged with respect to the said portion, half bearings at the opposite ends of the said section adapted for coöperating with the aforementioned half bearing sections when the said mounting section and portion are in operative engagement, and clamp connections between the said mounting section and horizontal portion.

2. A device of the class described comprising in combination with a bicycle frame having a lower rear fork connected to the middle brace of the frame and with a forward lower bar attached at its upper end to the head thereof, a horizontal supporting portion connecting the lower end of the said forward bar with the point of attachment between the said fork and middle brace, half bearings arranged at the opposite ends of the said support positioned transversely of the frame, a mounting section of substantially the same length and shape as the said supporting portion, half bearings at the opposite ends of the said section adapted for coöperating with the aforementioned half bearing sections when the said mounting section and supporting portion are in longitudinal engagement with each other, hinge connections between the said fork and one of the half bearings of the said mounting section, and releaseable clamp connections between the other half bearing of the said mounting section and the forward bar of the frame.

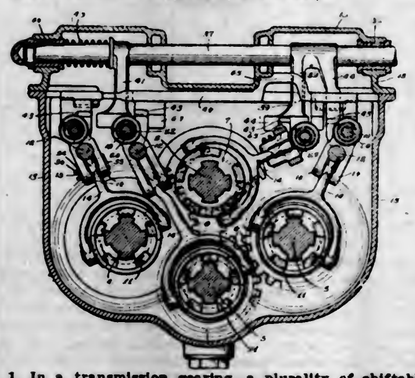
3. A device of the class described comprising in combination with a bicycle frame having a lower rear fork connected to the middle brace of the frame and with a forward lower bar attached at its upper end to the head thereof, a horizontal supporting portion connecting the lower end of the said forward bar with the point of attachment between the said fork and middle brace, half bearings arranged at the opposite ends of the said support positioned transversely of the frame, a mounting section of substantially the same length and shape as the said supporting portion, half bearings at the opposite ends of the said section adapted for coöperating with the aforementioned half bearing sections when the said mounting section and supporting portion are in longitudinal engagement with each other, hinge connections between the said fork and one of the half bearings of the said mounting section, releasable clamp connections between the other half bearing of the said mouting section and the forward bar of the frame, coöperating grooves upon the inner faces of the said bearing sections, antifriction ball mounting cages within the said grooves, and operating shafts journaled wthin the said cages.

4. A device of the class described comprising a bicycle frame having a lower horizontal supporting portion between the rear fork and front brace of the frame, half bearings arranged at the front and rear ends of the said portion transversely of the frame, the said supporting portion being substantially semi-circular in cross-section with a flattened lower face, a mounting section of substantially the same form and dimensions as the said supporting portion adapted for flat engagement therewith forming a cylindrical member, half bearings at the opposite ends of the said mounting section adapted for coöperation with the aforementioned half bearings, a forward extension angularly carried by the forward half bearing of the said mounting section normally seated against the said forward brace, hinge clamping members upon the said forward extension detachably arranged encircling the said brace, a rear extension upon the rearward half bearing of the said mounting section, and hinge connections between the said rear fork and rear extension.

5. A bicycle frame comprising a lower horizontal supporting portion having a lubricating chamber therein, a tubular mounting section hingedly positioned in normal contact beneath the said supporting portion, shaft bearings at the opposite ends of the said supporting portion and mounting section, regulated oiling ports between the said chamber and bearings, and an absorbent packing longitudinally arranged through the said mounting section projecting within the said bearings beneath the said ports.

[Claim 6 not printed in the Gazette.]

1,205,383. TRANSMISSION-GEARING. CLARK W. PARKER, Fulton, N. Y., assignor, by mesne assignments, to James H. Dunn, Springfield, Mass. Filed May 27, 1912. Serial No. 699,931. (Cl. 74—58.)



1. In a transmission gearing, a plurality of shiftable members, shifters connected respectively to said members, and means for actuating the shifters comprising an axially movable rock shaft having a plurality of arms for coacting with the shifters, the arms being spaced apart to select two predetermined shifters upon predetermined axial movements of the rock shaft and to move the selected shifters when the shaft is rocked, substantially as and for the purpose described.

2. In a transmission gearing, a main shiftable member and a plurality of additional shiftable members, the main shiftable member acting in conjunction with any one of the additional shiftable members, shifters associated respectively with said members, and means for selecting and actuating the shifters comprising an axially movable rock shaft having a rock arm for actuating the shifter of the main member in all the axial positions of the rock shaft and additional rock arms located so that but one of said arms is effectively engaged with any of the additional shifters in any axial position of the rock shaft, substantially as and for the purpose specified.

3. In a transmission gearing, a main shiftable member and a plurality of additional shiftable members, the main shiftable member acting in conjunction with any one of the additional shiftable members, shifters associated respectively with said members, and means for selecting and actuating the shifters comprising an axially movable rock shaft having a rock arm for actuating the shifter of the main member in all the axial positions of the rock shaft and additional rock arms located so that but one of said arms is effectively engaged with any of the additional shifters in any axial position of the rock shaft, one of the additional rock arms being common to two of the additional shifters and having a neutral position between said two shifters, substantially as and for the purpose set forth.

4. In a transmission gearing, a main shiftable member and a plurality of additional shiftable members, the main shiftable member acting in conjunction with any one of the additional shiftable members, shifters associated respectively with said members, and means for selecting and actuating the shifters comprising an axially movable rock shaft having a rock arm for actuating the shifter of the main member in all the axial positions of the rock shaft and additional rock arms located so that but one of said arms is effectively engaged with any of the additional shifters in any axial position of the rock shaft, one of the additional rock arms being common to two of the additional shifters and having a neutral position between said two shifters, and another of such additional rock arms being arranged to engage its shifter when the former additional rock arm is in neutral position, and to be disengaged therefrom when the rock arm common to said two shifters is engaged with either of its coacting shifters, substantially as and for the purpose described.

5. In a transmission gearing, a main shiftable member, and three additional shiftable members, the main member acting in conjunction with any one of the additional members, or alone, shifters associated respectively with said members, and means for selecting and actuating the shifters comprising an axially movable rock shaft having a main rock arm for actuating the shifter associated with the main member at all times, and two additional rock arms, one of the additional rock arms actuating one of the shifters, and the other rock arm being common to two shifters and being normally in neutral position between said two of the shifters when the former additional rock arm is engaged with its companion shifter, substantially as and for the purpose described.

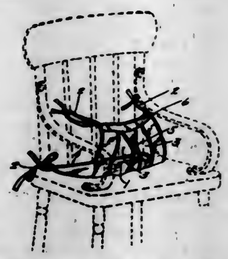
[Claims 6 to 25 not printed in the Gazette.]

1,205,384. BABY-HOLDER. RUTH PECK, Minneapolis, Minn. Filed Mar. 11, 1916. Serial No. 83,495. (Cl. 155—12.)

1. A baby holder constructed from a sheet of flexible material, the body thereof having large passages extending from points near one end thereof, back to the intermediate portion of said sheet, a part at the rear of said large passages affording a seat, and the said sheet, at its corners, having devices adapting it to be securely anchored to a chair.

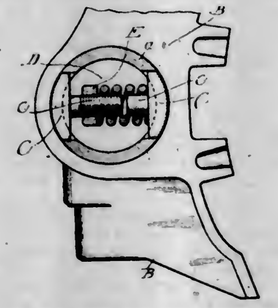
2. A baby holder constructed from flexible material, the body thereof having an approximately rectangular form with the leg passages extended from points near one end

thereof to points near the center, the unperforated portion serving as a seat, and tie cords applied to the four corners of the said sheet.



3. A baby holder constructed from flexible material, the body thereof having an approximately rectangular form with leg passages extended from points near one end thereof to points near the center, the unperforated portion serving as a seat, and tie cords applied to the four corners of the said sheet, the edges of the said sheet being reinforced by a tape stitched thereto, the said leg passages being likewise reinforced, and the said sheet having an additional reinforcing strip extended across one end thereof and across the outer extremity of said leg passages.

1,205,385. BRAKE-HEAD TRUNNION. ANDREW R. PEFFERS, Aurora, Ill., assignor, by direct and mesne assignments, to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Original application filed Sept. 18, 1913, Serial No. 790,488. Divided and this application filed June 7, 1915. Serial No. 32,506. (Cl. 188—28.)



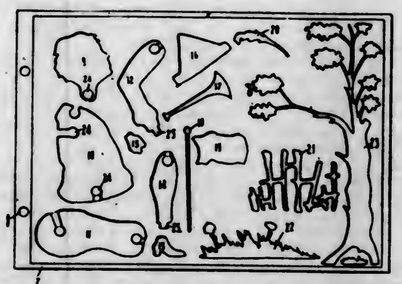
1. A brake beam comprising end portions provided with self adjusting brake heads, and means having screw-thread adjustment in said end portions for holding said heads in position by friction, operating by outward movement laterally of said end portions.

2. A brake beam comprising end portions provided with self adjusting brake heads, and means in said end portions for holding said heads in position by friction, operating by outward movement laterally of said end portions, said means including a pair of engaging members movable toward and away from each other, a spring interposed between said members, and means for compressing said spring.

3. A brake beam comprising end portions provided with self adjusting brake heads, and means in said end portions for holding said heads in position by friction, operating by outward movement laterally of said end portions, said means including a pair of engaging members movable toward and away from each other, each member having a stud on the inner side thereof, a spring on said studs, and a nut on one stud, having threaded engagement therewith, for adjusting the tension of said spring.

4. A brake beam comprising end portions provided with self adjusting brake heads, and means in said end portions for holding said heads in position by friction, operating by outward movement laterally by said end portions, said means including a pair of engaging members movable toward and away from each other, and means having screw-thread adjustment between said members to push them outward.

1,205,386. CUT-OUT PICTURE. DESIDER ELMER PERÉNYI and WILLIAM MICHAEL PERÉNYI, Jersey City, N. J. Filed Jan. 7, 1916. Serial No. 70,796. (Cl. 46—40.)



As a new article of manufacture, a blank, said blank having holes therein conforming substantially to the outlines of distinct parts of the body of living beings, each of said parts representing a complete member or limb fully outlined, and means in said blank for indicating the correct location for joints whereby said parts, when cut out of sheet material, may be assembled.

1,205,387. ROLLER-BEARING CAGE. JULIUS A. PERKINS, New York, N. Y. Filed Jan. 14, 1913, Serial No. 741,906. Renewed Apr. 14, 1916. Serial No. 91,265. (Cl. 64—62.)



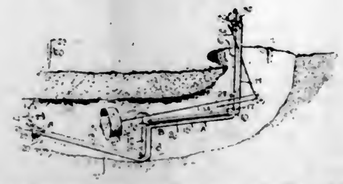
1. A cage for roller bearings, comprising end plates and connecting ribs, rollers carried by said cage and provided, each, with end pintles, and a guiding cup for each end of each of said rollers, said cage end plates being provided with bores therethrough in the position of each roller end to receive, loosely, a corresponding guiding cup, said bores being of less diameter on the outer surfaces of said end plates than on the inner surfaces.

2. A cage for roller bearings, comprising end plates and connecting ribs, rollers carried by said cage and provided, each, with end pintles, and a guiding cup for each end of each of said rollers, said cage end plates being recessed in the position of each roller end to receive, loosely, a corresponding guiding cup and said guiding cups being substantially flush with the outer surfaces of said end plates.

3. A cage for roller bearings, comprising end plates and connecting ribs, rollers carried by said cage and provided, each, with end pintles, and a guiding cup for each roller end, said cage end plates being provided with bores therethrough in the position of each roller end to receive, loosely, a corresponding cup, and being also provided with a groove at the periphery of each of said bores to permit the escape of foreign matter which might enter between said cups and end plates.

4. In a bearing provided with a cage, rollers therein, and end pintles on said rollers; a cup on each of said pintles, and a series of balls interposed between said rollers and cups, said cage being provided with bores in the positions of said cups to receive the same, loosely, and of less diameter on the outer surfaces of the cage end plates than on the inner surfaces to prevent the escape of said cups.

1,205,388. ANIMAL-TRAP. JUDSON C. PEWTHER, Oswego, Oreg. Filed Jan. 3, 1916. Serial No. 69,907. (Cl. 43—23.)



1. An animal trap having a body formed of longitudinally extending parallel jaw shanks operatively connected to each other for relative rotation, coacting jaws at one end of the body, each jaw being connected to one of the shanks, and operating extensions at the other end of the body each connected to one of the shanks, a latching device carried upon one extension and engaging the other extension, and a tripping mechanism mounted upon the body relatively adjacent the jaws and operatively connected to the latching device.

2. An animal trap having longitudinally extending jaw shanks angularly bent intermediate their ends, the jaw shanks being rotatably engaged with each other, jaws carried upon one end of the shanks, operating members extending at an angle to the other ends of the shanks, and a latching mechanism disposed upon the ends of said angularly extending members.

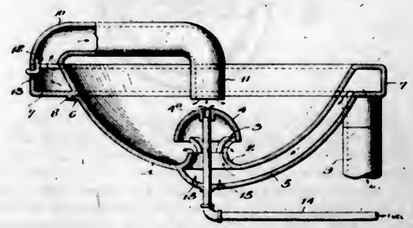
3. An animal trap including two parallel rods, means for relatively rotating the rods with relation to each other, jaws each carried upon one end of each rod, angular extensions at the other ends of the rods, a spring urging the relative rotation of the rods to bring the jaws into engagement with each other, means mounted upon the ends of the angular extensions for latching the rods with the jaws in an open position against the tension of the spring, and a trip mechanism supported intermediate of the rods and adapted when actuated to disengage said latching means.

4. An animal trap including two longitudinally extending rods having parallel portions engaged with each other for relative rotation and forming the body of the trap, the rods at one end of said parallel portions being angularly bent to form actuating arms, the rods at the other end of the parallel portions being bent to form crank arms extending in an opposite direction to the actuating arms, the rods being extended from the ends of the crank arms, convergent toward each other and the common axis of the rods and at the extremities being bent to form opposed jaws, a spring for relatively rotating the rods to carry the jaws to a closed position, means for latching the rods with the jaws in an open position, and animal actuating means for tripping said actuating means.

5. In an animal trap, longitudinally extending jaw shanks, jaws at one end of the shanks and operating extensions on the other ends of the shanks disposed at right angles to the length of the jaw shank and at right angles to the jaws whereby when said extensions are brought together the jaws will be opened, means urging the jaws toward each other, means for latching the jaws in an open position, and animal actuated means for releasing the jaws.

[Claims 6 to 9 not printed in the Gazette.]

1,205,389. OIL-BURNER. WALTER G. PRESTON, Omaha, Nebr. Filed Apr. 14, 1916. Serial No. 91,143. (Cl. 158—92.)



1. In a burner, a pan, a hot air conduit resting on said pan, the inner wall of the conduit forming a continuation of the pan, a burner cap mounted centrally with respect to the pan, means for feeding oil to said cap, and means for conducting superheated air from said conduit and discharging the same on said cap.

2. In a burner, a pan, an annular conduit mounted on said pan, a burner cap arranged centrally in the pan, means for feeding oil to said cap, an air inlet pipe leading to the underside of said conduit, and an air discharge pipe leading from the top of said conduit and discharging downwardly on the burner cap, said last mentioned pipe being 180° from the air inlet pipe.

3. In a device of the kind described, a pan, a burner cap arranged centrally in the pan and spaced therefrom, and a hot air conduit for feeding air to said burner cap, said conduit encircling the pan and forming a continuation upwardly of the sides of the pan.

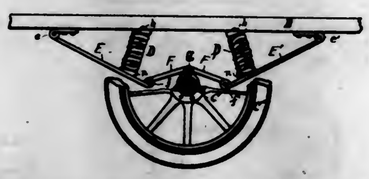
4. In combination with a burner and pan, a conduit adapted to rest on the pan, means for preventing rotation of the conduit with respect to the pan, said conduit having an inwardly inclined inner wall adapted when the conduit is positioned on the pan to form a continuation of the walls of the pan, and means for supplying air to said conduit.

5. In a device of the kind described, a pan, a burner cap therein, an oil supply pipe to said cap, said pan having a hollow radially extending rib formed on its under side, the inner end of the rib communicating with the interior of the pan, a tube forming a hot air conduit positioned on the rim of the pan, the rib communicating at its outer end with said tube, an air supply pipe leading into said tube, and an air discharge pipe leading from the tube and on the side of the pan opposite the air supply pipe, the discharge pipe leading to the center of the pan and discharging downwardly on the burner cap.

1,205,390. COMBINATION VEHICLE SUSPENSION-SPRING. PAUL D. RANDALL, Fresno, Cal. Filed Feb. 10, 1916. Serial No. 77,519. (Cl. 267—8.)

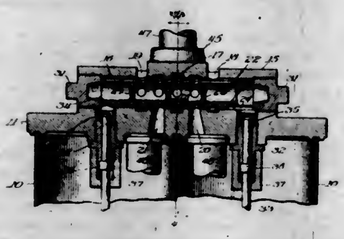
1. A vehicle spring consisting of the beam upon which the load of the vehicle is carried, levers hinged at opposite ends to the under side of said beam so they will swing on a vertical plane with said beam, an axle, straps hinged at one end to said axle, one of said straps being hinged at the other end to each of said levers opposite to the end which is hinged to said beam, and coil springs placed between the levers and beam, constructed to normally hold the levers apart from the beam, all substantially as described.

2. A vehicle spring consisting of a beam, an axle, two levers hinged to said beam on the under side thereof in such relation that they will swing on a vertical plane common with the beam, a strap hinged to the end of each of said levers, and at the other end to the axle, and compression springs arranged between the lever and the beam to normally hold the lever away from the beam all substantially as described.



3. In a vehicle spring the combination of a beam having levers hinged on the under side thereof in such relation that they will swing on a common vertical plane with the beam, spring retainers consisting of a cup shaped member, one of which is attached to the upper side of each of said levers, and two of which are attached to the under side of said beam in such relation that when the lever is swung approximately parallel with the beam the cup in the beam will be directly opposite the cup in the lever, said cups being constructed with a transverse projection on the bottom thereof, and corresponding depressions being formed in said levers and beam so that when the cups are assembled with the lever and beams they have a slight rocking motion on a common plane with the movement of said levers, and compression springs constructed to fit in said cups and to be placed between the beam and the levers so the lever will normally be held apart from the beam, and straps hinged at one end to each of said levers and at the other to the axle, all substantially as described.

1,205,391. PNEUMATIC PUMP. CASPER L. REDFIELD, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 757,861. (Cl. 103—8.)



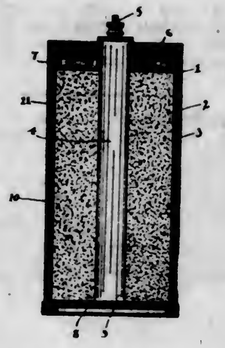
1. In a pneumatic pump, two pump cylinders, a cap covering said cylinders and provided with an interior valve chamber, a valve in said chamber, openings thru said cap from the interiors of said cylinders to the ends of the valve cylinder, and supplementary valves located in said openings and each controlled separately by the water level of the cylinder with which it is associated.

2. In a pneumatic pump, a hollow valve provided with ports furnishing independent passageways therethru, a conduit by which air pressure is conveyed to the ends of the valve, two chambers to which air is admitted and from which it is exhausted thru the passageways in the valves, and means located in the chambers for controlling the pressure at the ends of the valve.

3. In a pneumatic pump, a main valve controlling the operation of the pump, means for applying compressed air to move the valve, a supplementary valve controlling the application of air to the main valve, a float, a connection from the float to the supplementary valve for operating it, and means by which the air exhausted by a movement of the supplementary valve will be discharged thru said connection.

4. In a pneumatic pump, an air actuated valve for controlling the pump, a float and connections for opening an exhaust for the air used to actuate the valve, and means for discharging such exhaust thru said connections.

1,205,392. ELECTRIC BATTERY. LLOYD R. RHOADES, Fremont, Ohio, assignor to National Carbon Company, a Corporation of New Jersey. Filed Dec. 18, 1915. Serial No. 67,517. (Cl. 204—34.)



1. In electric batteries, a zinc electrode containing an electrolyte, a layer of waterproof material and a jacket shrunk around said waterproof material to bind tightly against the zinc.

2. In electric batteries, a zinc electrode containing an electrolyte, a sheet of waterproof paper around the zinc electrode and a cardboard jacket shrunk on said sheet of paper.

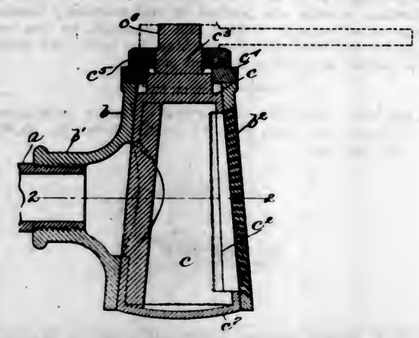
1,205,393. VIEW-FINDER. WILLIAM A. RIDDELL, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Sept. 28, 1914. Serial No. 863,810. (Cl. 88—1.5.)



1. In a view finder, the combination with a circular element in which the image is viewed and a frame or holder therefor having an annular flange overhanging the margin of the element, of a rotatable mask or diaphragm carried by said frame by being confined between the flange thereof and the element to slide on the face of the latter and having an elongated opening therein whereby the greater dimension of the field of the image may be shifted from the vertical to the horizontal, or vice versa as the diaphragm is rotated for the purpose set forth.

2. In a view finder, the combination with a circular element in which the image is viewed and a frame or holder therefor having an annular flange overhanging the margin of the element, a portion of the edge of said flange being cut away to form a pair of shoulders, of a rotatable mask or diaphragm carried by said frame by being confined between the flange thereof and the element to slide on the surface of the latter and having an elongated opening therein for the purposes set forth, and an upstanding finger portion on the diaphragm arranged within the confines of the frame and adapted to engage the respective shoulders on the flange thereof as limiting stops when the diaphragm is rotated in opposite directions.

1,205,394. SPRAY-NOZZLE FOR WASHING SUGAR AND THE LIKE. EUGENE ROBERTS, Salt Lake City, Utah, assignor to Sugar Centrifugal Discharger Company, Salt Lake City, Utah, a Corporation of Utah. Filed Jan. 22, 1914. Serial No. 813,800. (Cl. 137—85.)



1. A spray-regulating device for washing sugar and the like, embracing in its construction a conical valve casing open at both ends and having a lateral inlet opening and a series of spray orifices arranged on the opposite side of said inlet, a hollow conical valve plug fitted to the interior wall of said casing and having closed ends preventing the end-wise escape of fluid from the casing, said hollow plug being provided with oppositely disposed inlet and outlet openings, one edge of said outlet opening being formed to leave uncovered a greater number of spray orifices at the bottom than at the upper portion in order to distribute the spray more copiously toward the bottom than at the upper portion, substantially as described.

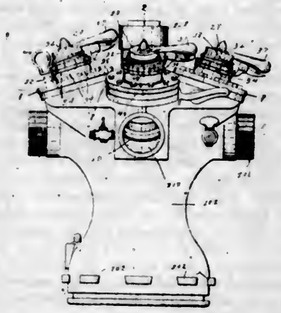
2. A device of the class described embracing in its construction a valve casing provided at one side with an inlet opening and provided on the opposite side with a series of vertical rows of divergent jet orifices, a hollow valve plug fitted into said casing and provided with an inlet opening on one side and with an outlet opening on the opposite side, one edge of said outlet opening being inclined to the vertical rows of jet orifices in order to leave uncovered a gradually increasing number of orifices toward the bottom of the series in order to distribute the spray unequally upon different portions of the sugar wall.

3. The combination of the valve casing provided with an inlet opening on one side and with a series of jet orifices arranged in vertical rows on the opposite side, a hollow rotatable valve provided with an inlet opening on one side and an outlet opening whose edge is formed to give it an irregular contour with relation to the series of jet orifices whereby the valve in adjusted position will leave uncovered a greater or less area of perforations at different heights in the valve casing in order to secure the desired distribution of the spray, substantially as described.

1,205,395. HYDRANT-HEAD. WILLIAM ROSS, Troy, N. Y. Filed Oct. 21, 1912. Serial No. 726,980. (Cl. 137—13.)

1. The combination with a hydrant-head having a main passageway and a plurality of divergent outlet passageways and having valve-seats surrounding the respective outlet passageways, said valve-seats being in planes oblique one to another; caps mounted upon said head to complete therewith valve-inclosures for the respective valve-seats; a plurality of automatic pressure regulating valves contained within the respective valve-inclosures; and exterior regulating means for varying the pressure-capacity of the respective valves separately.

2. The combination with a hydrant-head provided with a main passageway and with a lateral outlet passageway and having a valve-seat surrounding the outlet passageway in a plane oblique to the axes of both the main and the outlet passageways; of an automatic pressure-regulating valve coöperative with said seat having its axis oblique to the axes of both the main and the outlet passageways.



3. The combination with a hydrant-head provided with a main passageway and a plurality of divergent outlet passageways; of a plurality of automatic pressure-regulating valves for the respective outlet passageways mounted upon the head with their axes divergent and oblique to the respective axes of both the main passageway and the outlet passageways; and exteriorly located handles rotatory about the axes of said valves for varying the pressure capacity of the respective valves separately.

4. The combination with a hydrant-head comprising a casting having means whereby it can be connected with a high-pressure supply, and having internal walls forming a plurality of valve-inclosures with the casting and provided with a main passageway and with a plurality of outlet passageways through the respective valve-inclosures, and having valve-seats surrounding the respective outlet passageways; of caps mounted upon said head to complete therewith the respective valve-inclosures, a plurality of automatic pressure-regulating valves contained within the respective valve-inclosures; and exterior regulating means for varying the pressure-capacity of the respective valves separately.

5. The combination with a hydrant-head comprising a casting having internal walls forming within the casting a plurality of valve-inclosures with divergent axes, and provided with a main passageway, and with a plurality of outlet passageways through the respective valve-inclosures; and having valve-seats surrounding the respective outlet passageways; of caps mounted upon said head to complete therewith the respective valve-inclosures; a plurality of automatic pressure-regulating valves contained within the respective valve-inclosures; and exterior regulating means for varying the pressure-capacity of the respective valves separately.

1,205,396. ICE-CREAM DISHER. WILLIAM ROSS, Troy, N. Y. Filed June 1, 1915. Serial No. 31,340. (Cl. 107—48.)



1. In a device of the class described, and in combination, a pair of elements comprising a support and a shaft rotatively mounted with respect to said support, said shaft having a portion angular in cross-section; a pinion provided with a laterally-open slot slidable transversely onto and off from, and longitudinally of, said angular portion of the shaft, said pinion and one of said elements having parts interengageable by longitudinal sliding movement of the pinion to prevent transverse

movement thereof; and means for holding the pinion from longitudinal sliding movement with said parts interengaged.

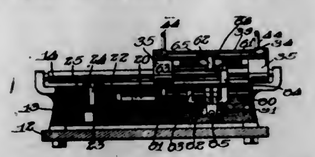
2. In a device of the class described, and in combination, a shaft having a portion angular in cross-section; a pinion provided with a laterally-open slot slidable transversely onto and off from, and longitudinally of, said angular portion of the shaft, said pinion and shaft having parts interengageable by longitudinal sliding movement of the pinion to prevent transverse movement thereof; and means for holding the pinion from longitudinal sliding movement with said pairs interengaged.

3. In a device of the class described, and in combination, a shaft having a portion angular in cross-section and adjacent thereto a portion of larger cross-section dimensions than said angular portion; a pinion provided with a laterally-open slot slidable transversely onto and off from, and longitudinally of, said angular portion of the shaft, and with a countersink at the inner end of said slot adapted to receive the said portion of the shaft of larger dimensions; and means for holding said pinion frome movement longitudinally of the angular portion of the shaft with said countersink occupied by said portion of the shaft of larger dimensions.

4. In a device of the class described, and in combination, a shaft having a portion angular in cross-section and adjacent thereto a portion of larger cross-sectional dimensions than said angular portion; a pinion provided with a laterally-open slot slidable transversely onto and off from, and longitudinally of, said angular portion of the shaft, and with a countersink at the inner end of said slot adapted to receive the said portion of the shaft of larger dimensions; and a keeper mounted on said shaft for holding said pinion from movement longitudinally of the angular portion of the shaft with said countersink occupied by said portion of the shaft of larger dimensions.

5. A device of the class described having in combination, a semispherical bowl provided with diametrically-opposite bearing-apertures; a semicircular resilient scraper loosely fitting within the bowl and having fixed on one of its ends a shaft insertible in, and withdrawable from, one of said apertures, through the bowl, and having on its other end a trunnion insertible in, and withdrawable from, the other of said bearing-apertures by compression of the scraper, said pinion having a portion angular in cross-section projecting outside the bowl; a handle having a bearing-support; a pinion provided with a laterally-open slot slidable transversely onto and off from, and longitudinally of, said angular portion of the shaft, said pinion and shaft having parts interengageable by longitudinal sliding movement of the pinion to prevent transverse movement thereof; and means for holding the pinion from longitudinal sliding movement with said parts interengaged.

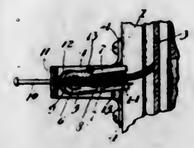
1,205,397. INTERMITTENT FEED MECHANISM FOR SLICING-MACHINES. FRANK M. SCHAEFER, Chicago, Ill., assignor, by direct and mesne assignments, to G. S. Blakeslee & Co., a Corporation of Illinois. Filed Dec. 9, 1909. Serial No. 532,222. (Cl. 74—53.)



1. A feeding element for slicing machines of the type described, comprising a reciprocating member, a rotatable element supported by said reciprocating member, means including an adjustable stationary element for imparting to said rotatable element an intermittent rotation when said reciprocating member reciprocates, a rock-shaft, and connections whereby the position of said stationary element may be adjusted by rocking said rock-shaft.

2. A feeding element for slicing machines of the type described, comprising a reciprocating member, a rotatable element supported by said reciprocating member, means including an adjustable stationary element for imparting to said rotatable element an intermittent rotation when said reciprocating member reciprocates, a rock-shaft, connections whereby the position of said stationary element may be adjusted by rocking said rock-shaft, an arm carried by said rock-shaft for rocking the same, and means for locking said arm in different positions.

1,205,398. WINDOW-CLEANER. HENRY SCHNEIDER, Chicago, Ill. Filed Nov. 11, 1915. Serial No. 60,858. (Cl. 15—59.)



1. A window cleaner, comprising supports, bifurcated guide members pivotally mounted on said supports, yielding means for resisting pivotal movement of said guide members, a squeegee slidably mounted on said guide members, and a spring bearing between said support and squeegee for shifting said squeegee on said guide members.

2. A window cleaner, comprising supports, guide members pivotally mounted on said supports, yielding means for resisting pivotal movement of said guide members, a squeegee mounted in said guide members, a pin mounted on said squeegee and passing through a lug on said support, a spring surrounding said pin and bearing between said squeegee and lug for shifting said squeegee in said guide members, and means on said pin for limiting the movement of said squeegee.

1,205,399. PLASTER-LATH. JAMES P. SEXTON, Los Angeles, Cal., assignor to Buttonlath Manufacturing Company, a Corporation of California. Filed June 28, 1915. Serial No. 36,657. (Cl. 72—124.)

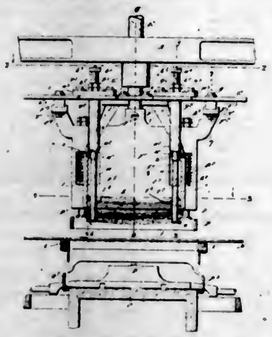


1. A plaster lath, embodying a face sheet having circular depressions of relatively large diameter and small depth and having sloping sides, and having circular perforations at the bottoms of said depressions, and a cementitious base back of said face sheet, said base projecting through the perforations to form a protrusion in each depression, and said protrusion at its periphery clenching over the edges of the perforation.

2. A plaster lath, embodying a face sheet having circular depressions of relatively large diameter and small depth and having sloping sides, and having circular perforations at the bottoms of said depressions, and having a reinforcing bead formed in the sheet around the edge of each aperture in each depression, and a cementitious base back of said face sheet, said base projecting through the perforations to form a protrusion in said depression, and said protrusion at its periphery clenching over the edge of the perforation and over said bead.

1,205,400. PATCH-APPLYING MECHANISM. JOHN A. SHERMAN and FRED F. FLAGG, Worcester, Mass.; said Flagg assignor to said Sherman. Filed Aug. 16, 1915. Serial No. 45,642. (Cl. 93—61.)

1. A device of the kind described comprising a hopper and a blank holding member hanging upon and adapted to move with relation to said hopper, said hopper having means for supporting patches from below, and means for engaging the edges of said patches whereby said patches will be forced downward into engagement with said patch supporting means.



2. In a device of the kind described, a reciprocating rod and a patch hopper comprising a front plane fixedly hung from said rod, a top plate supported by said front plate, rods yieldingly hung from said top plate, and having patch supporters at their lower ends, means adapted to coöperate with said patch supporters to hold patches in engagement therewith.

3. In a device of the kind described, a reciprocating rod and a patch hopper comprising a front plate fixedly hung from said rod, a top plate supported by said front plate, rods yieldingly hung from said top plate, and having patch supporters at their lower ends, means adapted to coöperate with said patch supporters to hold patches in engagement therewith, and a blank holding member hung on said hopper to have a slight movement with relation thereto.

4. In a device of the kind described, a reciprocating rod and a patch hopper comprising a front plate hung from said rod, a top plate mounted on said front plate, two pairs of rods also hung from said top plate, one pair near each end of said plate, said rods having patch supports at their lower ends in combination with serrated end pieces one located between each pair of rods to engage the end edges of the patches and cause them to engage said patch supports.

5. In a device of the kind described, a reciprocating rod and a patch hopper comprising a front plate hung from said rod, a top plate mounted on said front plate, two pairs of rods also hung from said top plate, one pair near each end of said plate, said rods having patch supports at their lower ends, in combination with end pieces also hung from said top plate, said end pieces having horizontal serrations and being located between each pair of rods to engage the end edges of the patches and cause them to engage said patch supports, the horizontal surfaces of said serrations being located to give a downward pressure to said patches.

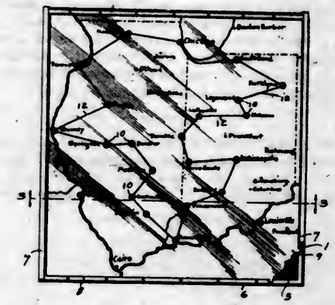
[Claims 6 to 9 not printed in the Gazette.]

1,205,401. ROUTE-MAP AND INDICATOR. FREDERICK L. SMITH and AVERY A. MITCHELL, Indianapolis, Ind. Filed Aug. 18, 1916. Serial No. 115,738. (Cl. 35—6.)

1. A holder having a flat surface and a map secured to said surface, in combination with a transparent material covering the map and disks adhesively secured to the outer surface of the transparent material over points of the map to be conspicuously designated.

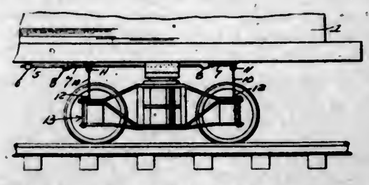
2. A holder having a flat surface and a map secured to said surface, in combination with a transparent material covering the map and disks adhesively secured to the outer surface of the transparent material over points of the map to be conspicuously designated, said transparent material having lines marked thereon connecting said disks.

3. A holder having a flat surface and a map secured to said surface and said surface having edge-means to removably secure a frame, in combination with a frame removably secured by said means, a transparent material



filling said frame, and disks adhesively secured to the outer surface of the transparent material.

1,205,402. SAFETY AIR-BRAKE APPLIANCE. GEORGE W. SMITH, Pittsburg, Kans. Filed Mar. 21, 1916. Serial No. 85,649. (Cl. 188—2.)



1. The combination with a car body, truck and train pipe, of an emergency valve connected to said pipe, a reciprocatory rod connected to said valve and projecting over the truck, guides carried by the body for guiding said rod, and flexible elements carried by the body, connected to said rod and connected to the four corners of the truck, whereby the derailment of the truck will move said rod to open the valve.

2. The combination with a car body, truck and train pipe, of an emergency valve connected to said pipe, a longitudinal rod connected to said valve and projecting over the truck, guides attached to the body for guiding said rod, bell crank levers fulcrumed to the body, flexible elements connecting said levers and rod, pulleys carried by the body, and flexible elements connected to said levers, passed over said pulleys and connected to the four corners of the truck, whereby the derailment of the truck will move said rod to open the valve.

1,205,403. SCARF-HAT. NAT C. SMOLIN, New York, N. Y. Filed Nov. 13, 1915. Serial No. 61,221. (Cl. 2—118.)

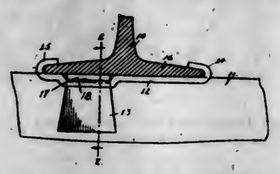


1. A combined hat and scarf formed of a single piece of material of double thickness, one end of said material provided with a head-opening and a line of stitching con-

necting the two plies of material together thereby separating the head-opening from the scarf portion.

2. A combined hat and scarf formed of a single piece of material of double thickness, one end of said material provided with a head-opening, elastics secured around the edge of said opening and a line of stitching connecting the two plies of material together thereby separating the head-opening from the scarf portion.

1,205,404. ANTICREEPER. HIRAM H. SPONENBURG, Gurnee, Ill., assignor, by mesne assignments, to Otto R. Barnett, Chicago, Ill. Filed Feb. 14, 1916. Serial No. 78,168. (Cl. 238—4.)



1. An anti-creeping device for a railroad rail comprising a tie abutting element and a rail clamping element adapted to assume an operative position in which it holds the rail engaged thereby from creeping, said rail clamping element interfitting with and being freely movable with respect to the tie abutting element from and to said position.

2. An anti-creeping device for a railroad rail comprising a tie abutting element and a rail clamping element adapted to bear against said tie abutting element when in its rail holding position, said rail clamping element interfitting with and being freely movable with respect to the tie abutting element from and to said position.

3. An anti-creeping device for a railroad rail comprising a tie abutting element and a rail clamping element adapted to bear against said tie abutting element at a point adjacent one edge of the rail base, said rail clamping element interfitting with and being movable with respect to the tie abutting element from and to said position.

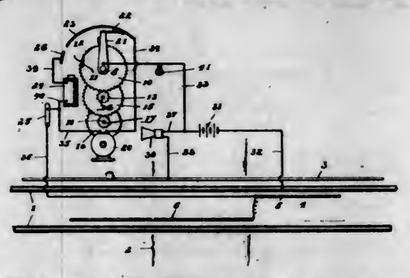
4. An anti-creeping device for a railroad rail comprising a tie abutting element and a rail clamping element which extends under the base of the rail engaging opposite edges thereof, and is adapted to assume an operative position in which it holds the rail engaged thereby from creeping, said rail engaging element interfitting with and being movable with respect to said tie abutting element from and to said position, and adapted to have an engagement with the rail which is unaffected by the position of said rail engaging element with respect to said tie abutting element.

5. An anti-creeping device for a railroad rail comprising a tie abutting element adapted to stand at one side of the median longitudinal line of the rail base, and a rail clamping element adapted to assume an operative position in which it holds the rail engaged thereby from creeping, said rail clamping element being movable with respect to said tie abutting element from and to said position.

[Claims 6 to 43 not printed in the Gazette.]

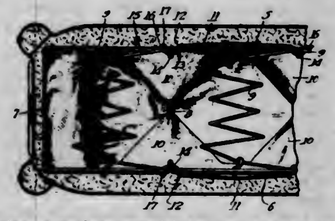
1,205,405. AUTOMATIC RAILROAD-GATE. ARTHUR J. M. ST. MARIE, Oldtown, Me. Filed Dec. 4, 1915. Serial No. 65,156. (Cl. 269—3.)

An automatic railroad gate comprising a shaft, a gate mounted upon said shaft and normally disposed in vertical position and capable of movement to horizontal position, a motor, driving connections between said motor and shaft whereby the shaft may be rotated to lower the gate, a train controlled electric circuit for said motor, a contact finger included in said circuit and mounted upon said shaft, a curved contact strip normally engaged by said finger, a contact spaced apart from one end of the strip and adapted to be engaged by said finger in the movement of the latter when the gate is lowered, and electro responsive means connected to said last contact strip and adapted to be energized when said last contact strip is



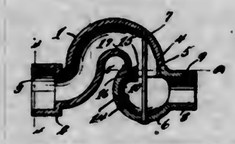
engaged by said finger to hold the gate in lowered position after the deënergization of the motor when said finger leaves the first-mentioned contact strip.

1,205,406. SPRING STRUCTURE FOR USE IN UPHOLSTERING. LOUIS A. SUEKOFF, Chicago, Ill. Filed June 1, 1915. Serial No. 31,366. (Cl. 5—13.)



A spring structure comprising a top and bottom sheet of fabric joined at their edges to form a spring inclosing envelop, a plurality of coil springs arranged in parallel rows within the envelop with their ends abutting against the top and bottom sheets, said sheets being fastened together at spaced apart intervals to provide inwardly tapering pockets between each four adjacent springs, the fabric being doubled in between adjacent spring ends to stretch the fabric tight across the spring ends and form nodes therebetween extending below the spring ends, and cords, crossing the major portions of the spring ends outside the fabric at right angles and passing through the fabric to the inner side thereof near the spring coils and through doubled-in folds of fabric at points inside the plane of the end coils to secure the spring ends to the fabric at the points of cord penetration.

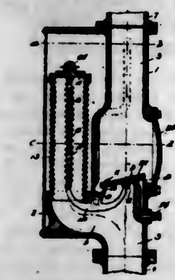
1,205,407. ATTACHMENT FOR TALKING-MACHINES. WOODRUFF T. SULLIVAN, Norwich, Conn. Filed Nov. 26, 1915. Serial No. 63,583. (Cl. 274—24.)



1. In an attachment of the class described, the combination of a neck, said neck being adapted to be carried by a talking machine, said neck having a reduced end thereby forming an abutment shoulder, a socket pivotally mounted upon said reduced end, means for holding said socket upon said reduced end, whereby said socket will be permitted to move in a horizontal plane, said reduced end having internal horizontally alined pockets, and a flat spring fixedly secured to said socket, a lug carried by said spring and removably fitting in a selected pocket, said spring extending in a plane at right angles to the line movement of said socket, whereby said spring will be firm in action for more positively holding said socket against accidental movement.

2. In an attachment of the class described, the combination of a neck, said neck being adapted to be carried by a talking machine, said neck having a reduced end thereby forming an abutment shoulder, a socket pivotally mounted upon said reduced end, means for holding said socket upon said reduced end, whereby said socket will be permitted to move in a horizontal plane, said reduced end having internal horizontally alined pockets, a flat spring positioned within said socket, an ear extending from one end of said spring, a lug formed upon said ear, rivets passing through said spring and engaging said socket, thereby fixedly supporting said spring in a vertical position, said lug being adapted to removably fit within a selected pocket, said spring extending at right angles to the line of movement of said socket, whereby strain upon said spring will take place across the breadth thereof, whereby said spring will be firmly supported so as to positively resist accidental movement of said socket.

1,205,408. AUTOMATIC VALVE. NATHAN H. SUREN, Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Original application filed Apr. 6, 1914, Serial No. 829,886. Divided and this application filed June 14, 1915. Serial No. 33,936. (Cl. 169—23.)



1. An automatic valve for sprinkler-systems or the like including a balanced automatic check-valve controlling direct communication between the supply and service sides of the system, and movable balancing means responsive to the pressure of the supply side of the system, and means flexibly connecting said balancing means with the check-valve.

2. An automatic valve for sprinkler-systems and the like including a casing formed to provide a conduit forming a communication between the supply and service sides of the system, a check-valve arranged in the conduit, an expansible actuator in open communication with the pressure from the supply side of the system, and means to flexibly connect said actuator with said check-valve.

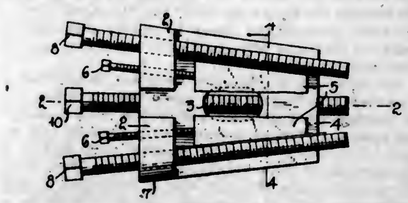
3. An automatic valve for sprinkler-systems and the like including a casing formed to provide a conduit forming a communication between the supply and service sides of the system, a check-valve arranged in the conduit, a corrugated cylinder closed at one end and its other end being in open communication with the pressure from the supply side of the system, and means arranged within the cylinder to flexibly connect said cylinder with the check-valve.

4. An automatic valve for sprinkler-systems and the like including a casing formed to provide a conduit forming a communication between the supply and service sides of the system, a check-valve arranged in the conduit, an extensible cylinder open at its lower end to the pressure from the supply side of the system, a cap closing the upper end of the cylinder, and a yielding connection between the cap and valve, arranged within the cylinder and casing.

5. An automatic valve for sprinkler-systems and the like including a casing formed to provide a conduit forming a communication between the supply and service sides of the system, a check-valve arranged in the conduit, an extensible cylinder open at its lower end to the pressure from the supply side of the system, a cap closing the upper end of the cylinder, a lever supported within the casing and connected at one end to the valve, a telescopic rod connecting the opposing end of the lever with said cap, and a spring also connecting said opposing end of the lever and the cap.

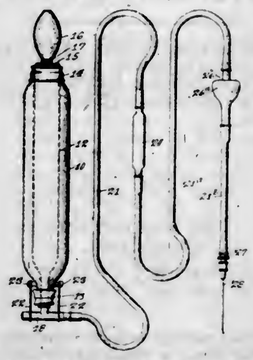
[Claims 6 to 14 not printed in the Gazette.]

1,205,409. KEY-REMOVER. ARTHUR SWINK, Bluff City, Kans. Filed Feb. 12, 1916. Serial No. 78,041. (Cl. 29—86.1.)



A key remover comprising a body having one face provided with an elongated groove, wedges mounted within the groove and between which the key is adapted to be inserted, members threaded through one end of the body and engaging the wedges for moving the wedges in one direction to cause the same to grip the key inserted therebetween, and threaded members carried by the body for imparting movement to the body in one direction, said threaded members overlying opposite faces of the body, and said last named threaded members being alternately arranged.

1,205,410. INJECTION APPARATUS. ALONZO C. TENNEY, Chicago, Ill. Filed Jan. 7, 1914. Serial No. 810,786. (Cl. 128—28.)



1. An apparatus of the class described, comprising a receptacle provided with several compartments for retaining liquid and having communication with each other at a predetermined point and provided with outlets, a member with which the outlets of the compartments communicate, a single valve arranged to shut off the flow into said member from either one or all of said compartments, and a single conduit connected with said member and provided with means for automatically closing off said conduit when gaseous matter is entrained with the liquid flowing from the compartments.

2. An apparatus of the class described, comprising a pair of liquid retainers arranged one within the other and having communication with each other adjacent the upper ends thereof, a single member having communication with both retainers and provided with a single outlet, a single valve whereby the flow into said member from either one or both of the retainers may be shut off, and a conduit connected with the discharge end of said member and provided with means whereby the flow therethrough may be observed.

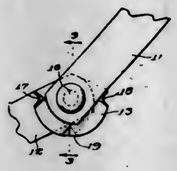
3. An apparatus of the class described, comprising a pair of glass liquid retainers arranged one within the other, said retainers having communication with each other adjacent the upper ends thereof and provided with discharge ports, a cylindrical valve member provided with several ports so arranged as to separately or simultaneously establish communication with the ports of either or both of said retainers and control the flow therefrom, means whereby the orifices of said retainers are sealed, a single conduit secured to the discharge end of said cylindrical valve member, and means located in said conduit whereby air entrained with the flow of liquid through the conduit will be arrested.

4. An apparatus of the class described, comprising a pair of glass retainers arranged one within the other, the inner retainer being provided with a port at a predetermined point for effecting communication between said retainers while both retainers are provided with outlets, a valve common to both outlets whereby the flow from either or both of the retainers may be controlled, a conduit connected with the discharge end of said valve, a needle arranged at the discharge end of said conduit whereby the contents of the retainers may be intravenously or subcutaneously applied, and means whereby the flow through the conduit may be automatically controlled.

5. An apparatus of the class described, comprising a pair of liquid retainers arranged one within the other and provided with inlets and outlets at opposite ends thereof, means arranged at the outlet ends of said retainers whereby the flow may be controlled, a single conduit communicating with said means, a needle arranged at the discharge end of said conduit whereby the fluid from said retainers may be intravenously or subcutaneously administered, and means intermediate of the ends of the conduit whereby the flow therethrough may be automatically shut off by gaseous matter entrained with the liquid.

[Claims 6 to 8 not printed in the Gazette.]

1,205,411. DESK-FALL SUPPORT. KONSTANTINE THULANDER and VICTOR B. NELSON, Rockford, Ill., assignors to National Lock Company, Rockford, Ill., a Corporation of Illinois. Filed Feb. 3, 1913. Serial No. 745,812. (Cl. 45—91.)



1. A reversible desk-fall support comprising two pivotally connected arms, a stop-plate rotatably mounted between said arms and adapted to limit the opening movement of said arms in either direction, and a lug pivoted at the end of one of said arms and adapted to form a reversible connection with the desk-fall.

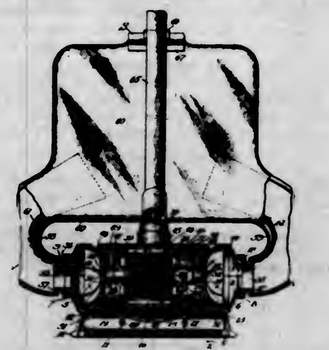
2. A desk fall support comprising pivotally connected arms and a rotatable stop plate adapted to prevent said arms from opening in either direction to a dead center.

3. In a desk fall support, two pivotally connected arms and a stop plate rotatably mounted between said arms and adapted to limit the opening movement of said arms in either direction.

4. In a desk fall support, two pivotally connected arms, and a stop plate interposed between said arms having two stops on one face and one stop on the opposite face.

5. In a desk fall support, two pivotally connected arms and a stop plate rotatably mounted between said arms and having two oppositely positioned stops adapted to engage either side of one of said arms, and a single stop adapted alternately to engage either side of the other arm.

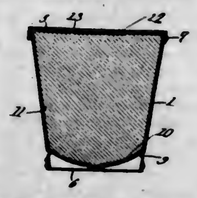
1,205,412. SUCTION CLEANING DEVICE. HENRY TIDEMAN, Menominee, Mich., assignor of one-half to B. B. Downs, St. Paul, Minn. Filed Aug. 25, 1910. Serial No. 578,856. (Cl. 230—11.)



1. In a suction device, the combination of a horizontally disposed motor housing having end compartments, motor mechanism within said housing including a horizontally disposed driving shaft extending into the end compartments of the housing, and fans in said end compartments operatively connected with said shaft to be simultaneously driven thereby, said end compartments having a common inlet and separate outlets said inlet being a long narrow slot-like opening.

2. In a suction device, the combination of a horizontally disposed housing frame necked at its ends to form outlets, a motor frame arranged centrally within said housing and terminating short of the ends thereof to leave fan compartments between the motor frame and said outlets, a fan in each end compartment connected with the motor, and a common inlet to said fan compartments extending throughout the chief width of the device, and having a long narrow slot.

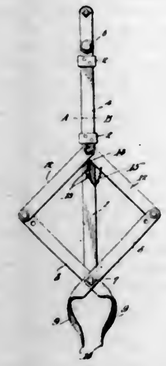
1,205,413. COMBINED MOLD AND SHIPPING-BOX. ADDISON B. TINSLEY, Ansted, W. Va. Filed Nov. 6, 1914. Serial No. 870,642. (Cl. 220—5.)



1. A shipping container for butter and the like, including a frusto-conical body formed in one piece and having detachably connected abutting ends, said body having an inwardly extending annular bead, a die plate resting at its margin upon the bead, a closure detachably engaging the lower end of the body and constituting a support for the die plate, coöperating means upon the abutting end portions of the body for detachably fastening said end portions together, and a closure detachably engaging the upper end portion of the body.

2. A shipping container for butter and the like including a one piece split body having its upper and lower end portions screw threaded and having an inwardly extending annular bead adjacent the lower threaded portion, a die plate removably mounted upon said bead, closures detachably engaging the upper and lower threaded end portions of the body, the lower closure constituting a support for the die plate, lugs outstanding from the body at one side of the split therein, and spring loops extending from the body at the other side of the split and detachably engaging the lugs.

1,205,414. DEVICE FOR PULLING BEETS, THISTLES, AND THE LIKE. RICHARD TITUS, Bowling Green, Ohio. Filed Mar. 11, 1916. Serial No. 83,588. (Cl. 55—148.)



1. An implement of the class described including parallel members movable longitudinally relative to each other, a handle upon each member, crossed levers fulcrumed upon one of the members, opposed jaws carried by the respective levers, link connections between the other member and the respective levers.

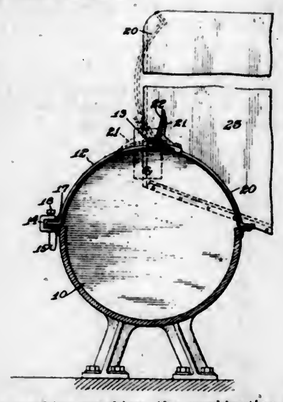
2. An implement of the class described including parallel members movable longitudinally relative to each other, a handle upon each member, crossed levers fulcrumed upon one of the members, opposed jaws carried by the respective levers, link connections between the other member and the respective levers, and adjustable means for limiting the relative movement of the members.

3. An implement of the class described including parallel members, a slidable connection therebetween, handles upon the respective members, crossed levers fulcrumed upon one of the members, opposed jaws carried by the respective levers, each jaw having a terminal tongue, link connections between said levers and the other member, and a foot rest carried by the lever carrying member.

4. An implement of the class described including a member, crossed levers fulcrumed thereon, opposed jaws carried by the respective levers and having terminal digging tongues, a second member slidable longitudinally upon the first mentioned member, link connections between said second member and the levers, and handles connected to the respective members.

5. An implement of the class described including a member, a pivot pin extending therethrough and forming a foot rest, crossed levers fulcrumed upon said pin, opposed concavo-convex jaws upon the respective levers and having terminal digging tongues, a pin adjustably connected to said member and constituting a stop, a second member slidable longitudinally on the first mentioned member, and link connections between said second member and the respective levers, and handles upon the respective members.

1,205,415. WASHING-MACHINE. ABRAHAM TRAUBE, New York, N. Y. Filed Oct. 23, 1915. Serial No. 57,390. (Cl. 8—8.)



1. In a washing machine, the combination with a tub, of a cover therefor, means for locking the cover, an auxiliary cover which is free to open during the operation of the machine, and means communicating with the opening normally closed by the auxiliary cover for confining the flame when the auxiliary cover is opened by the force of an explosion.

2. In a washing machine, the combination with a tub, of a cover therefor, means for locking the same during the operation of the machine, an auxiliary cover opening from the rear of the machine, and means at each end of the machine for confining the flame when the auxiliary cover is opened by the force of an explosion.

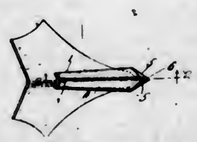
3. In a washing machine, the combination with a tub, of a cover therefor, means for locking the cover, an auxiliary cover which is free to open during the operation of the machine, stops for said auxiliary cover for limiting the opening movement thereof, and means surrounding the opening normally closed by the auxiliary cover for confining the flame when the auxiliary cover is opened by the force of an explosion.

4. In a washing machine, the combination with a tub, of a vent therefor consisting of a lid which is free to open during the normal operation of the machine, means for determining the degree of opening of said lid to a vertical position, and shields at each end of the machine to confine the flame to a vertical direction.

5. In a washing machine, the combination with a tub, of a vent therefor comprising a lid which is free to open during the operation of the machine, and a flue device coöperating with said lid for confining the flame when the lid is forced open by an explosion of the vapor within the tub.

[Claim 6 not printed in the Gazette.]

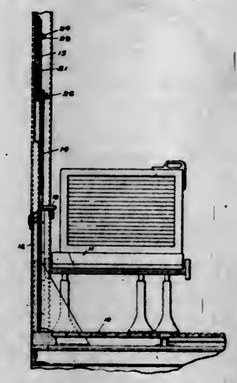
1,205,416. PLOW-POINT ATTACHMENT. CALVIN L. TROUT, Wellington, Tex. Filed July 18, 1916. Serial No. 109,876. (Cl. 97—22.)



A plow point attachment comprising a body having at its forward end a shank portion adapted to fit over the shin of a plow point, said body also having a pocket adapted to receive the extremity of the plow point, the said

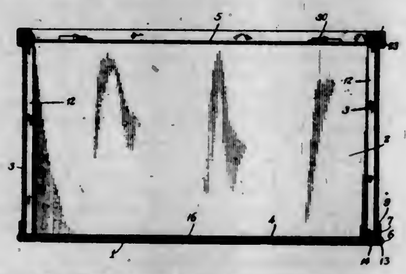
body also having its outer face composed of converging surfaces which form a wedge-shaped peak located behind the forward end of the body and approximately at the forward end of the pocket, and means for securing the attachment to the plow point.

1,205,417. PASSENGER-CAR. CHARLES H. TURNER, Worcester, Mass., assignor to Osgood Bradley Car Company, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 10, 1915. Serial No. 20,525. (Cl. 20—40.)



In a car, in combination, a window frame, a lower sash, a pair of sash guides fixed to said sash and extending above said sash and within said frame, means for removably securing said sash and guides in said frame, and a second sash slidable in said guides.

1,205,418. COLLAPSIBLE CONTAINER. ALEXANDER L. WARD, New York, N. Y. Filed Mar. 14, 1916. Serial No. 84,025. (Cl. 220—17.)



1. In a collapsible container, the combination of separable bottom, false bottom, side and end sections, said bottom section having upwardly extending flanges inwardly from the edges, with recesses beneath the same, and said side and end sections having outwardly directed bottom flanges adapted to extend into said recesses and inwardly directed bottom flanges, said false bottom section being adapted to rest snugly within the side and end sections upon said inwardly directed bottom flanges, with the side and end sections contacting against said upwardly extending flanges of the bottom section, substantially as set forth.

2. In a collapsible container, the combination of separable bottom, false bottom, side and end sections, said bottom section having marginal flanges, and said side and end sections being adapted to be received within said flanges and having inwardly directed bottom flanges resting on the bottom section, and said false bottom being adapted to rest snugly within the side and end sections upon said inwardly directed flanges, said false bottom section having provisions for lifting the same from its operative position, substantially as set forth.

3. In a collapsible container, the combination of separable bottom, side end and top sections, the bottom section having upwardly extending flanges inwardly from the edges with recesses beneath the same, and said side and end sections having bottom flanges extending both inwardly and outwardly, adapted to rest on the bottom section with the outwardly extending flanges engaged in said recesses, the side and end sections also having vertical edge flanges directed inwardly therefrom, the vertical flanges of the side sections contacting the outer surfaces of the end sections, to form reinforced corner portions; and said top section having downwardly extending marginal flanges with recesses extending on the inner sides of said flanges, said recesses being adapted to embrace the upper edges of the side and end sections when mounted in position, substantially as set forth.

4. In a collapsible container, the combination of separable bottom, side and end sections, the bottom section having its edges arched upwardly and inwardly, and thence extended upwardly to form vertical flanges, the side and end sections having outwardly extending bottom flanges adapted to extend into the arched portions with the webs of the said sections contacting the said vertical flanges, and means for holding the side and end sections in position adjacent the tops thereof, the vertical flanges of the bottom section being joined together at the corners and constituting a reinforcing strap running continuously around the container, substantially as set forth.

5. In a collapsible container, a bottom section formed of a sheet of metal having its edges arched upwardly and inwardly, and thence extended upwardly to form vertical flanges, said flanges being secured together at the corners and thus constituting a continuous strap around the container, and said arched portions forming recesses beneath said flanges, adapted to receive bottom flanges of upright members of the container, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

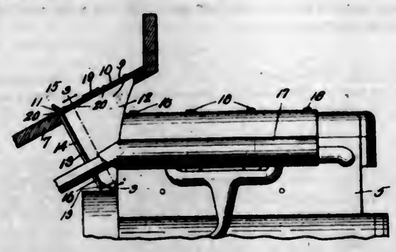
1,205,419. CLUTCH AND BRAKE MECHANISM FOR BALING-PRESSES. JOSEPH F. WELLS, Pinkstaff, Ill., assignor of one-sixth to Frank S. Lindsay and one-sixth to Redmond H. Emmons, Pinkstaff, Ill. Filed June 14, 1915. Serial No. 33,950. (Cl. 74—46.)



A clutch and brake mechanism for baling presses comprising a clutch whose driving element is connected with a source of power and driven constantly and whose driven element is connected with the pressing mechanism, a clutch lever swinging in an upright plane and connected with said driven element, a band brake around said driven element, a bell crank lever pivoted to the machine frame and swinging in a horizontal plane, a push rod connecting one arm of the bell crank lever with the clutch lever, an oblique rod connecting the other arm of the bell crank lever with said brake band, and means for turning the bell crank lever on its pivot from a remote point whereby the clutch is opened and the brake applied, or the reverse.

1,205,420. AUTO-HEATER. CHARLES V. ANTHENAT, Sheridan, Ill. Filed Mar. 23, 1916. Serial No. 86,166. (Cl. 237—21.)

1. In a device of the class described, the combination with a motor vehicle, of a heat register arranged in the floor of said vehicle over the exhaust pipe of the motor, spaced flanges depending from said register one upon each side of said pipe and being provided with grooves, and a damper plate adapted to slide in said grooves, substantially as described.

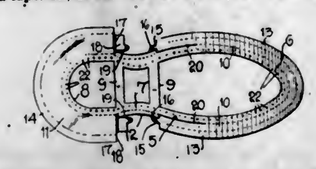


2. In a device of the class described, the combination with a motor vehicle, of a heat register including a plate arranged in the floor of said vehicle over the exhaust pipe of the motor and being provided with openings, spaced flanges depending from said plate one upon each side of said pipe and being provided with grooves, the said plate being provided with a transverse slot communicating at its opposite ends with said grooves, and a damper plate adapted to slide in said grooves, substantially as described.

3. In a device of the class described, the combination with a motor vehicle, of a heat register comprising a plate arranged in the floor of said vehicle over the exhaust pipe of the motor thereof, the said plate having an apertured depressed central portion providing spaced parallel shoulders, flanges depending from said plate and being spaced apart a distance equal to that between said shoulders and positioned one on each side of said exhaust pipe, the said flanges being provided with channels, the said plate having a transverse slot communicating at its ends with said channels, a damper plate adapted to slide through said slot and to engage at its opposite edges in said channels for sliding movement therein, and clamps secured adjacent the edges of said register plate and projecting over said depressed portion, substantially as described.

4. In a device of the class described, the combination with a motor vehicle, of a plate located in the floor of said vehicle behind the engine having centrally disposed apertures, said plate being depressed inwardly from its lateral edges to provide spaced parallel shoulders, and being provided with a transverse slot equal in length to the distance between said shoulders, flanges extending in spaced relation from the under side of said plate and being connected thereto by said shoulder portions, the said flanges having grooves communicating with the opposite end of said slot, a damper plate adapted to slide in said slot and grooves, and clamps on said register plate, substantially as described.

1,205,421. SHOE. MILES E. APPLEGATE, Sugarloaf, Pa. Filed Apr. 12, 1916. Serial No. 90,734. (Cl. 36—15.)

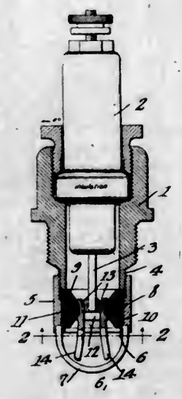


1. The combination with a shoe, of a band carried thereby, a flange etxending from said band for engagement with the heel portion of the shoe, and plates hinged to said flange for the purpose set forth.

2. The combination with a shoe, of a band carried thereby, a flange extending from said band for engagement with the heel of the shoe, a second flange extending from said band for engagement with the sole of the shoe, plates hinged to said second flange and adapted to overlie the inner face of the heel and provided with means whereby the same may be anchored to the heel, and a short flange extending from said band and arranged intermediate the first and second-mentioned flanges for engagement with the arched portion of the shoe.

3. The combination with a shoe, of a band permanently connected thereto, flanges extending from said band, one of said flanges being adapted for engagement with the heel of the shoe, the other of said flanges being adapted for engagement with the sole of the shoe, intermediate flanges on the band for engagement with the arched portion of the sole of the shoe, inwardly extending portions on the first and second-mentioned flanges for engagement with the under faces of the heel and sole of the shoe, and plates hinged to the first named flange adapted to overlie the inner face of the heel and provided with means whereby the same may be secured to the heel.

1,205,422. SPARK-PLUG. CARL F. ARNOLD, Watsonville, Cal. Filed Feb. 7, 1916. Serial No. 76,663. (Cl. 123—169.)



1. A spark plug attachment including a sleeve attachable to the shell of a spark plug, an arcuate electrode terminally secured to one end of the sleeve to bridge the same, an annular insulator fitted within the sleeve, and a ring fitted within the insulator to surround the electrode of the spark plug, and having an electrode coöperating with the arcuate electrode.

2. A spark plug including a shell having a reduced terminal, an insulator within the shell, an electrode carried by the insulator and projecting from the reduced terminal of the shell, a sleeve fitted upon said terminal, an annular insulator fited within the sleeve and held thereby against said terminal, an electrode carried by the free end of the sleeve, and a ring fitted within an annular insulator surrounding the first mentioned electrode and having an electrode for coöperating with the second mentioned electrode.

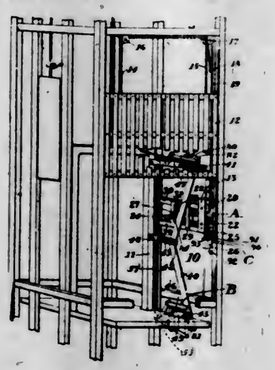
3. A spark plug having a shell, an insulator therein, an electrode carried by said insulator; an electrode grounded to the shell, an annular insulator assembled with the shell between the first mentioned insulator and the second mentioned electrode, and a ring fitted within the annular insulator surrounding the first mentioned electrode and having an electrode projecting therefrom and cooperating with the second mentioned electrode, there being an annular spark gap between the first mentioned electrode and the ring, and the spark gap between the first and second mentioned electrodes being adjustable when either the annular insulator or ring are rotated relative to the second mentioned electrode.

4. A spark plug attachment including a sleeve attachable to the shell of a spark plug, an electrode carried by the sleeve to be grounded to the shell, an annular insulator fitted within the sleeve, and a ring fitted within the insu-

lator and having an electrode coöperating with the aforesaid electrode, said ring being adapted to surround the insulated electrode of the spark plug.

5. A spark plug attachment including a sleeve having an inturned flange at one end, an arcuate electrode terminally attached to said end of the sleeve to bridge the same, an annular insulator fitted within the sleeve to bear against said flange and having an inner anular flange, a ring fitted within the insulator and having fingers extending across said ridge and bent to hold the ring in place, said ring having opposite electrodes coöperating with the aforesaid electrode, and said ring being adapted to surround the insulated electrode of a spark plug.

1,205,423. GATE-OPERATING MECHANISM. WILLIAM F. BACH, Chicago, Ill. Filed July 1, 1910. Serial No. 569,939. (Cl. 187—59.)



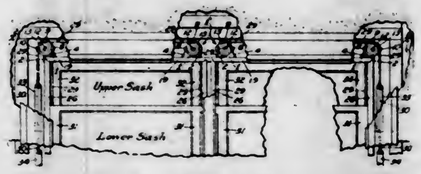
1. The combination with an elevator car movable in a shaft, a gate, and actuating mechanism carried by the car, of gate operating mechanism comprising a cable, a pair of stationary sheaves, and a moving cage carrying a pair of sheaves and adapted for engaging said actuating mechanism, and a fifth sheave arranged between said pairs of sheaves, said cable engaging said five sheaves, and the fifth sheave being arranged at an angle to said several pairs of sheaves, whereby twisting of the cable is avoided.

2. The combination with an elevator car movable in a shaft, a gate, means for operating the gate including a striking member, and means operable by the movement of the car for actuating said operating means, of a substantially vertical rack and a latch normally disposed at an angle to said rack for locking the gate adapted to be held in engagement with each other in one position, said striking member being movable by the movement of the gate operating means and adapted to move the latch out of engagement with the rack when the gate operating means is operated by the movement of the car.

3. The combination with an elevator car movable in a shaft, a gate, means for operating the gate, including a striking member and means operable by the movement of the car for actuating said operating means, of a coöperating rack and latch for locking the gate, said latch having a weighted arm for holding the latch in engagement with the rack in one position, and said striking member being operable by the movement of the gate operating means and adapted to move the latch out of engagement with the rack when the gate operating means is operated by the movement of the car.

4. The combination with an elevator car movable in a shaft, a gate, means for operating the gate including a striking member, and means operable by the movement of the car for actuating said operating means, of a coöperating rack and latch for locking the gate, said latch having a weighted arm for holding the latch in engagement with the rack in one position, and said striking member being operable by the movement of the gate operating means and adapted to move the latch out of engagement with the rack when the gate operating means is operated by the movement of the car, said weighted arm being located in the path of movement of said latch operating means.

1,205,424. WINDOW-PULLEY. CLIFFORD A. BALCH and ARMAND F. FEVERGEON, Pasadena, Cal. Filed Feb. 8, 1915. Serial No. 6,963. (Cl. 16—17.)



1. An overhead window pulley comprising a foot to rest on the lintel, and standards bent from opposite edges of the foot and extending upward from said foot to form supports for the ends of the pulley axle, such axle supported by the standards and a plurality of wheels mounted on the axle.

2. In a window pulley, a foot to rest on the lintel of a window frame, standards bent from opposite edges of said foot and extending in one direction therefrom to support the pulley axle, and a lip bent from another edge of said foot and extending in the other direction therefrom to engage the end of the lintel.

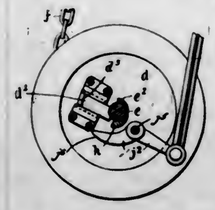
3. In a window pulley, a foot to rest on the lintel of a window frame, standards extending from the foot to support a pulley axle, and extensions of said standards bent away from the standards respectively to form cord guides.

4. A pulley frame struck up from sheet metal and comprising a foot to rest on the lintel of a window frame, standards joined to said foot and provided with apertures to receive the pulley axle, and extensions from said standards to form guides around the pulley wheel.

5. A pulley frame struck up from sheet metal comprising a foot, standards bent up from said foot in one direction, and a lip bent from said foot in the other direction between said standards, said standards being provided with apertures for the pulley axle.

[Claims 6 to 14 not printed in the Gazette.]

1,205,425. GRAB. DUDLEY JAMES BARNARD, East Ham, England. Filed May 4, 1912. Serial No. 695,069. (Cl. 37—30.)



1. In a grab, the combination with hinged complementary bucket members of a drum or wheel, a hoisting chain adapted to be wound thereon, a shaft upon which such drum is freely mounted, bucket closing means normally disconnected from said drum carried by said shaft and means for operatively connecting said bucket closing means with said drum, comprising a sliding locking catch carried by the drum, a fast cam carried by and rotating with said shaft positioned to co-act with said locking catch, and a loose cam positioned to co-act with the locking catch and shroud said fast cam during a certain period of the revolution of the drum.

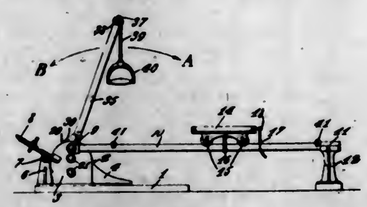
2. In a grab, the combination of a plurality of complementary bucket members, a spring drum, an axle therefor, a shield or casing for said drum, a pivotal connection between said shield or casing and one of the aforesaid bucket members, and a link pivotally connected to said axle and to the other bucket member.

3. In a grab, the combination of a plurality of complementary bucket members, of a drum, a hoisting chain adapted to be wound thereon, bucket closing means normally disconnected from said drum, means for operatively connecting said bucket closing means with said drum, comprising a locking catch carried by the drum, a fast cam carried by and rotating with the bucket closing means positioned to co-act with and engage said locking catch and a loose cam positioned to co-act with the locking catch and shroud the fast cam and trip means for releasing said locking catch from the fast cam, one member of said trip means being carried by the grab, and another co-acting member thereof being supported in the path of travel of said first named trip member, and means connected with the aforesaid bucket members for bringing said first named trip member, when said bucket members are closed, into a path of travel where it can come into operative relation to said second named trip member.

4. In a grab, the combination with hinged complementary bucket members of a drum, a hoisting chain adapted to be wound thereon, bucket closing means normally disconnected from said drum, means for operatively connecting said bucket closing means with said drum, means comprising a sliding locking catch carried by the drum, a fast cam carried by and rotating with the bucket closing means positioned to co-act with and engage said locking catch and a loose cam positioned to co-act with the locking catch and shroud the fast cam during a period of the revolution of the drum, and means comprising a tipping ring carried separately from the grab, and a loose tripping lever carried by the grab engaging with said tipping ring, for throwing said locking catch out of engagement with the fast cam.

5. In a grab, the combination with hinged complementary bucket members of a hoisting chain, a shaft supporting said bucket members, a drum mounted loose on said shaft actuated by said chain, bucket-closing means normally disconnected from said drum, means including a sliding locking catch on the drum and a fast cam on the shaft for operatively connecting said bucket-closing means with said drum, and means for delaying such connection, comprising a loose cam positioned to co-act with the locking catch and shroud said fast cam during a certain period of the drum's revolution and to be pushed away therefrom during an opposite revolution of the drum, the bucket operating parts being so adjusted or proportioned to each other that such pushing away will take place when said cams are at the upper part of their circular path.

1,205,426. EXERCISING DEVICE. EDWARD B. BARNHILL, Marion, Ind. Filed Jan. 29, 1916. Serial No. 75,061. (Cl. 46—69.)



1. In a rowing exerciser, a supporting structure including a track; a seat mounted to reciprocate on the track; a lever mounted to swing vertically in a direction parallel to the line of reciprocation of the seat; hand-grips pivoted to the lever adjacent its upper end; and a clutch forming an operative connection between the lower end of the lever and the supporting structure.

2. In a rowing exerciser, a supporting structure including a seat; a lever mounted to swing in a vertical plane toward and away from the seat; a handle pivoted to the upper end of the lever; and a clutch forming an operative connection between the lower end of the lever and the supporting structure.

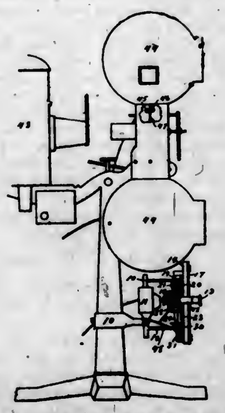
3. In a rowing exerciser, a supporting structure; a track; a seat mounted to move along the track; a drum fixed to the supporting structure; a pair of pivotally connected clamps surrounding the drum; a lever fulcrumed on one clamp and adapted to be actuated by an operator occupying the seat, the other clamp having means wherewith the lever engages to tighten the clamp about the drum when the lever is swung in one direction; and an adjustable element carried by the clamp whereon the lever is fulcrumed, the adjustable element coöperating with the lever to limit the tightening of the clamps about the drum.

4. In a rowing exerciser, a supporting structure; a track pivoted to the supporting structure and adapted to be swung upwardly; a seat mounted to move along the track; a drum fixed to the supporting structure; a lever adapted to be actuated by an operator occupying the seat; a clutch member carried by the lever and surrounding the drum; and a connection between the seat and the lever, the connection constituting a means for holding the track in an upturned position, whereby the weight of the track will actuate the lever to a limited extent and cause the clutch member to coöperate with the drum, thereby preventing the lever from swinging, and rendering the lever efficient in combination with the connection, as a means for holding the track in an upturned position.

5. In a rowing exerciser, a supporting structure; coöperating elements comprising a track pivoted to the supporting structure, and a seat mounted to move along the track; a lever adapted to be actuated by an operator occupying the seat; a clutch mechanism operatively connecting the lever with the supporting structure; and a detachable connection uniting one of said coöperating elements with the lever, to hold the track in an upturned position, whereby the weight of the track will actuate the lever to a limited extent and operate the clutch mechanism, thereby to hold the lever rigid and to render the lever efficient, in combination with the connection, as a means for holding the track in an upturned position.

[Claim 6 not printed in the Gazette.]

1,205,427. DESCRIPTIVE-FILM ATTACHMENT AND SYNCHRONIZING MECHANISM. JOHN W. BILLINGS, Union, Iowa. Filed Oct. 2, 1915. Serial No. 53,706. (Cl. 88—16.2.)



1. In a moving picture machine having a picture film, means controlled by the travel of said picture film for intermittently closing an electric circuit, and a supplementary descriptive film bearing radially arranged items

of descriptive matter, a housing for said descriptive film, a shaft mounted for rotation in said housing, means for securing said descriptive film to said shaft, a ratchet wheel fixed to said shaft, a lever pivoted on said housing, a pawl pivoted on said lever and adapted to engage said ratchet wheel, a solenoid coil on said housing and adapted to receive impulses by the closing of said circuit, and a vertically arranged armature in said coil adapted to operate said lever.

2. In a moving picture machine having a picture film, means controlled by the travel of said picture film for intermittently closing an electric circuit, and a supplementary film bearing radially arranged items of descriptive matter, a housing for said descriptive film, a shaft mounted for rotation in said housing, means for removably and replaceably securing said descriptive film to said shaft, a ratchet wheel fixed to said shaft, a lever pivoted on said housing, a pawl pivoted on said lever and adapted to engage said ratchet wheel, a solenoid coil on said housing and adapted to receive impulses by the closing of said circuit, and a vertically arranged armature in said coil adapted to operate said lever.

3. In a moving picture machine having a picture film, means controlled by the travel of said picture film for intermittently closing an electric circuit, and a supplementary film bearing radially arranged items of descriptive matter, a housing for said descriptive film, a shaft mounted for rotation in said housing, means for securing said descriptive film to said shaft, a ratchet wheel fixed to said shaft, a lever pivoted on said housing, a pawl pivoted on said lever and adapted to engage said ratchet wheel, a solenoid coil on said housing and adapted to receive impulses by the closing of said circuit, a vertically arranged armature in said coil adapted to operate said lever, and a keeper embracing the free end of said lever.

4. In a moving picture machine having a picture film, means controlled by the travel of said picture film for intermittently closing an electric circuit, and a supplementary film bearing radially arranged items of descriptive matter, a housing for said descriptive film, a shaft mounted for rotation in said housing, means for securing said descriptive film to said shaft, a ratchet wheel fixed to said shaft, a lever pivoted on said housing, a pawl pivoted on said lever and adapted to engage said ratchet wheel, a solenoid coil on said housing adapted to receive impulses by the closing of said circuit, a vertically arranged armature in said coil adapted to operate said lever, and a holding detent pivoted on said housing and yieldingly engaging said ratchet wheel.

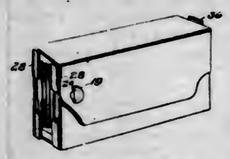
5. In a moving picture machine having a picture film, means controlled by the travel of said picture film for intermittently closing an electric circuit, and a supplementary film bearing radially arranged items of descriptive matter, a housing for said latter film, a shaft mounted for rotation in said housing, means for securing said descriptive film to said shaft, a ratchet wheel fixed to said shaft, a lever pivoted on said shaft and extending laterally therefrom, a pawl pivoted on said lever and adapted to engage said ratchet wheel, a solenoid coil on said housing adapted to receive impulses by the closing of said circuit, a vertically arranged armature in said coil adapted to oscillate said lever, and means to limit the downward movement of said armature.

[Claim 6 not printed in the Gazette.]

1,205,428. MATCH-BOX HOLDER. ADOLPH BRAND, Washington, D. C. Filed Feb. 1, 1913. Serial No. 745,605. (Cl. 206—31.)

1. A match box holder comprising two members pivotally connected together, each of said members having sides and an end, the end of one of said members having an extension bent at right angles thereto and constituting a pusher-tongue, and extensions at the corresponding ends of the sides of both of said pivotally connected members bent so as to overlap the extension constituting the pusher-tongue near the attached and free ends of the latter.

2. A match box holder comprising two parts each having sides and an end, the sides of one of the parts fitting within the sides of the other part, means pivotally connecting the two parts together, the end of the outer part having an extension constituting a pusher-tongue, and an extension on the other part adapted to overlap the pusher-tongue when the parts are closed together.

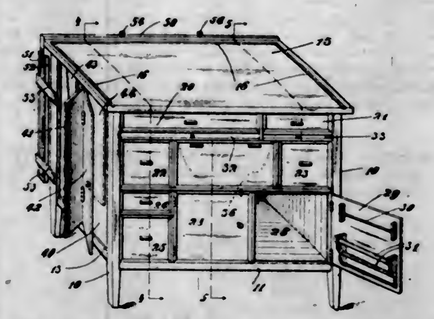


3. A match box holder comprising a two part casing, each part having sides and an end, the sides of one part fitting within the sides of the other part and having T-shaped pivot portions struck therefrom, the other part having apertures through which the pivot portions project, whereby the parts of the casing are pivotally connected together.

4. In a match box holder, the combination of two pivotally connected members, each of said members having sides and an end, the end of one of said members being provided with a right angle extension having stiffening means extending longitudinally thereof, said extension constituting a pusher-tongue, and means on the sides of the member carrying the pusher-tongue arranged so as to reinforce the pusher-tongue near the attached end thereof.

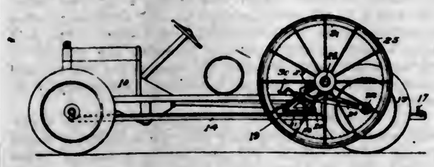
5. In a match box holder, the combination of a body member comprising an edge and sides, a member pivoted to said body member and having a pusher-tongue near its pivoted end, and means on said body member extending toward the pivoted connection of said member and adapted to engage and retain the husk of a match box in the body member when the pusher-tongue forces out the drawer of the match box.

1,205,429. KITCHEN-CABINET. ANTON BRANDT, New York, N. Y. Filed Aug. 30, 1915. Serial No. 47,932. (Cl. 45—16.)



The combination with a cabinet having a plurality of means for holding kitchen utilities, of a permanent cover over said cabinet, grooves formed directly in said permanent cover contiguous to the edges thereof, an auxiliary cover disposable over said permanent cover, means for detachably engaging said auxiliary cover with said cabinet when not in use, said auxiliary cover being of equal magnitude with the permanent cover, and vertically disposable at the rear of the cabinet when not in use, guides enveloping said auxiliary cover when vertically disposed and means on the edge of said auxiliary cover whereby it may be operated, said means being manually engageable above the surface of said fixed cover.

1,205,430. TRACTOR ATTACHMENT FOR AUTOMOBILES. CYRUS J. BRISTOL, Des Moines, Iowa, assignor of one-half to Fred W. Swanson, Des Moines, Iowa. Filed Aug. 22, 1916. Serial No. 116,217. (Cl. 21—114.)



1. The combination with an automobile, of a pair of tractor wheels, means for establishing a driving connection between the said tractor wheels and the driving elements of the automobile, and means for raising or lowering the tractor wheels relative to the automobile frame for bringing either the tractor wheels or the automobile wheels into supporting position on the road surface.

2. The combination with an automobile, of a pair of tractor wheels, means for establishing a driving connection between the said tractor wheels and the driving elements of the automobile, and means for raising or lowering the tractor wheels relative to the automobile frame for bringing either the tractor wheels or the automobile wheels into supporting position on the road surface, and also at the same time for establishing or disconnecting the driving connections with the tractor wheels.

3. The combination with an automobile, of a pair of tractor wheels, means for establishing driving connections between the tractor wheels and the driving elements of the automobile, and means for raising and lowering the tractor wheels relative to the automobile rear wheels, said means being arranged to operatively disconnect the driving connections for the traction wheels when the traction wheels are elevated, and to operatively connect same when the traction wheels are lowered.

4. The combination with an automobile, of a pair of traction wheels, a gearing device for each traction wheel, capable of being operatively connected with the driving mechanism for the corresponding automobile wheel, and means operatively connected with each traction wheel for raising and lowering it relative to the corresponding automobile rear wheel, said means being so arranged that when the traction wheel is elevated the gearing connection between it and the corresponding driving element of the automobile will be disconnected, and when the traction wheel is lowered the said gearing connection will be established.

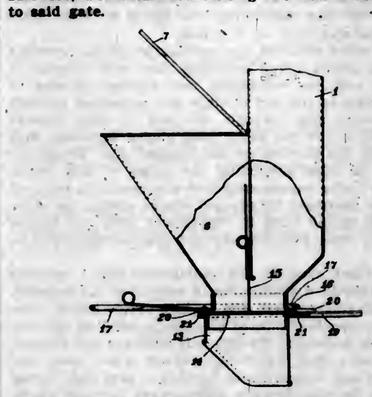
5. The combination with an automobile, of a tractor device including two tractor wheels, a driving shaft for each tractor wheel, means for detachably connecting each of said driving shafts with a corresponding rear automobile wheel, and a gearing device for connecting each of said driving shafts with the corresponding tractor wheel.

[Claims 6 to 9 not printed in the Gazette.]

1,205,431. BAGGING-PIPE. WILLIAM G. BURNS, New York, N. Y., assignor to Jabez Burns & Sons, a Corporation of New York. Filed May 6, 1915. Serial No. 26,439. (Cl. 198—29.)

1. The combination with a bin, of a return pocket therefor comprising a receptacle with surrounding walls and a downwardly opening outlet common to said bin and said pocket, and a gate controlling said pocket and said bin and positively controlling the discharge of material from both said pocket and said bin during a single movement.

2. The combination with a bin, of a return pocket opening from the bottom thereof and comprising a receptacle with surrounding walls extending above the opening from said bin, a gate opening the bottom of said pocket and discharging material from said pocket while material is in said bin, and means controlling the flow from said bin to said gate.



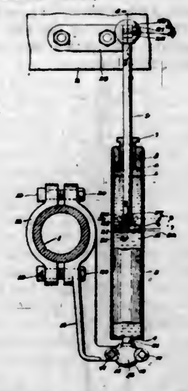
3. The combination with a bin, of a return pocket therefor comprising a receptacle with surrounding and upwardly extending walls adapted to receive and retain material from above, a common outlet for said pocket and said bin, a gate for controlling the flow from said bin to said outlet, and a second gate independent of said first gate for positively controlling both said pocket and said bin through said outlet during a single movement.

4. The combination with a bin, of a return pocket therefor, of a downwardly extending bagging pipe communicating directly with both said pocket and said bin, and a gate movable across said pipe and discharging material from said pocket in advance of the material from said bin.

5. The combination with a bin, of a return pocket therefor, a common downwardly opening bagging pipe discharging material from both said pocket and said bin, a gate sliding across the bottoms of both said pocket and said bin and opening to discharge material from said pocket and said bin in predetermined succession.

[Claims 6 to 9 not printed in the Gazette.]

1,205,432. SHOCK-ABSORBER. ALBERT R. CHRISTMAN, Philadelphia, Pa., assignor of one-half to Julius Eisenbrand, Philadelphia, Pa. Filed Oct. 18, 1915. Serial No. 56,346. (Cl. 21—105.)



1. In a shock absorber, the combination with a cylinder containing liquid, a rod extending into said cylinder, a piston on said rod comprising two members located at opposite sides of the rod, a hinge pin projecting through said members and through the rod, and a disk secured to the end of the rod below said hinged members, said

disk fitting the interior of the cylinder and having recesses in its edge permitting the liquid to flow therethrough, substantially as described.

2. In a shock absorber, the combination with a cylinder containing liquid, a rod extending into said cylinder, a piston on said rod comprising two members located at opposite sides of the rod, a hinge pin projecting through said members and through the rod, a disk secured to the end of the rod below said hinged members, said disk fitting the interior of the cylinder and having recesses in its edge permitting the liquid to flow therethrough, a spring surrounding said rod, means on said rod forming an abutment for one end of said spring, the other end of said spring being in engagement with said hinged members to move them toward said disk, substantially as described.

3. In a shock absorber, the combination with a cylinder containing liquid, a stuffing box in one end of the cylinder, a rod projecting through the stuffing box, a piston comprising two members located at opposite sides of the rod, a hingle pin projecting through said members and through the rod, and a disk detachably secured to the lower end of said rod and fitting the said cylinder, said disk having recesses in its edge forming passageways for said liquid, substantially as described.

4. In a shock absorber, the combination with a cylinder containing liquid, a stuffing box in one end of the cylinder, a rod projecting through the stuffing box, a piston comprising two members located at opposite sides of the rod, a hinge pin projecting through the said members and through the rod, a disk secured to the end of the rod and having recesses in its edge, and a washer interposed between the disk and the two members of the piston limiting the movement of said members in one direction, substantially as described.

5. In a shock absorber, the combination with a cylinder containing liquid, a stuffing box in one end of the cylinder, a rod projecting through the stuffing box, a piston comprising two members located at opposite sides of the rod, a hinge pin projecting through the said members and through the rod, a disk secured to the end of the rod and having recesses in its edge, a washer interposed between the disk and the two members of the piston limiting the movement of said members in one direction, and a coiled spring around the rod exerting pressure on the members tending to force them against the washer, substantially as described.

[Claim 6 not printed in the Gazette.]

1,205,433. SHOCK-ABSORBER. ALBERT R. CHRISTMAN, Philadelphia, Pa., assignor of one-half to Julius Eisenbrand, Philadelphia, Pa. Filed Dec. 28, 1915. Serial No. 69,116. (Cl. 21—105.)



1. In a shock absorber, the combination with a cylinder, of a piston movable therein and having an extension and a series of by-pass ports, and shutters fitting closely and being pivoted to said extension for controlling said by-pass ports, the upward pivotal movement of said shutters being stopped by their engagement with the extension, substantially as described.

2. In a shock absorber, the combination with a cylinder, of a piston movable therein and having a circular extension, and a series of by-pass ports, and shutters pivoted on said extension for controlling said by-pass ports, said shutters each having a portion following the contour of said extension and designed to engage the piston and thereby limit their upward movement, substantially as described.

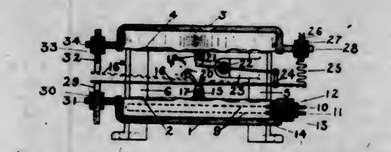
3. In a shock absorber, the combination with a cylinder, a tubular rod projecting into the cylinder, a piston secured on the tubular rod and having a conical recess in its face, said piston having by-pass ports extending through the piston and at one end communicating with said recess, a rod projecting through the tubular rod, and a tapering valve on the end of said last-mentioned rod movable in the recess in the piston and controlling the by-pass of fluid through the said ports, substantially as described.

4. In a shock absorber, the combination with a cylinder, a tubular rod projecting into the cylinder, a piston secured on the tubular rod and having a conical recess in its face, said piston having by-pass ports extending through the piston and at one end communicating with said recess, a rod projecting through the tubular rod, and a tapering valve on the end of said last-mentioned rod movable in the recess in the piston and controlling the by-pass of fluid through the said ports, other by-pass ports extending through the pitson and not controlled by the said valve, and pivoted shutters on the piston controlling the last-mentioned ports, substantially as described.

5. In a shock absorber, the combination with a cylinder, a piston therein having an annular valve seat, and two sets of by-pass ports, the ports of one set being arranged in annular formation and opening into said valve seat, an adjustable valve designed to fit said valve seat and operated by means outside of the cylinder for regulating said latter set of by-pass ports, said second set of ports being located around said first set, and pivoted shutters on the piston controlling the other set of by-pass ports, substantially as described.

[Claim 6 not printed in the Gazette.]

1,205,434. ELECTRIC-CIRCUIT CONTROLLER. ROY CONNELL, Westfield, N. J. Filed Dec. 15, 1911. Serial No. 666,004. (Cl. 175—324.)



1. In a circuit controller the combination of two sealed expansible chambers mounted on a supporting frame, a contact located on each of the said chambers, a contact finger mounted on one of said chambers and in engagement with the contact of said chamber, means mounted on the other said chamber and actuated thereby and connecting with the said contact finger, for preventing the said finger moving away from the contact which it engages by a change of temperature without the said chambers and expanding means located within the first named chamber for causing the said contact finger to move away from the contact which it engages and to engage the contact of the second named chamber.

2. In a circuit controller the combination of two sealed chambers each having an expansible cover, a contact finger connected with the cover of one of the said chambers, a contact suitably located and engaging the said contact finger, means within the said chamber for expanding its cover and causing the contact finger to disengage the said contact and means connected with the cover of the other chamber and with the contact finger for preventing a movement of the said finger by a change of temperature without the chambers.

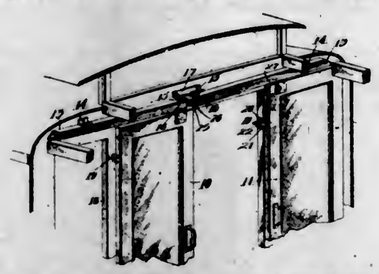
3. In a circuit controller the combination of two expansible chambers, a contact finger movably connected with one of the said chambers, means within the chamber for expanding the chamber and moving the finger, and means connected with the other chamber and with the contact finger for preventing a movement of the finger when both chambers are simultaneously expanded.

4. In a circuit controller the combination of two sealed chambers each having an expansible cover, said cover adapted to move equally when the chambers are subjected simultaneously to the same change of temperature, a contact, a movable finger engaging the contact located between and connected with the covers of both chambers, so that simultaneous equal expansion of the chambers will prevent the finger moving away from said contact, means located within one of said chambers for causing a greater change of temperature within said chamber than exists within the other chamber, and for causing a movement of the finger away from said contact.

5. In a circuit controller the combination of chambers with expansible covers, contacts, a contact finger operatively connected with the expansible covers of the chambers so that equal expansion of the chambers will not alter the relation between the contacts and the contact finger, and means associated with one of the said chambers for causing a greater expansion within said chamber than simultaneously obtains within the other chamber, to change the relation between the contacts and contact finger.

[Claim 6 not printed in the Gazette.]

1,205,435. CAR-DOOR MECHANISM. WILBUR G. CORY, New York, N. Y., assignor to Osgood Bradley Car Company, Worcester, Mass., a Corporation of Massachusetts. Filed Oct. 29, 1913. Serial No. 798,141. (Cl. 268—8.)

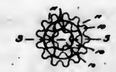


1. In a car, in combination, a door casing, a door movable by gravity to closed position in said casing, means including a spring for yieldingly holding said door in closed position without positively locking the same, and a single additional device effective to positively lock the door in either open or closed position.

2. In a car, in combination, a door casing, a door movable by gravity to closed position in said casing, means to hold said door yieldingly in closed position, and a single locking device mounted on the door casing effective to positively lock said door in either open or closed position, said device including a pivoted member movable into operative and inoperative positions, and means being provided for supporting said member in either of said positions.

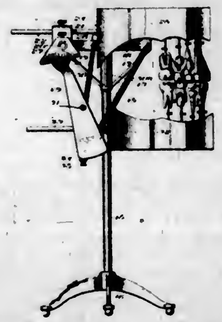
1,205,436. MIXING UNIT FOR GASES. FRANCIS G. CRONE, Buffalo, N. Y. Filed Apr. 22, 1914. Serial No. 833,650. (Cl. 158—112.)

A mixing unit for gases comprising, a solid, annularly tapered central member having an external corrugated surface, an annular member having a smooth, tapered, interior surface and a tapered, exterior, corrugated surface disposed around and in contact with said central member, and an annular, exterior member having a tapered, smooth,



inner surface and a corrugated outer surface, said annular, exterior member being disposed around said annular member and in contact with the corrugations thereof.

1,205,437. ADJUSTABLE DENTAL MODEL. FRANK A. DELABARRE, Boston, Mass. Filed Aug. 19, 1915. Serial No. 46,325. (Cl. 35—16.)



1. In a dental model, a jaw, a support carried by said jaw, and a tooth on said support in separated relation to said jaw.

2. In a dental model, a jaw, a plurality of independent tooth supports in said jaw, and teeth on said supports in separated relation to said jaw.

3. In a dental model, a jaw, adjustable supports in said jaw, and teeth on said supports.

4. In a dental model, a jaw, a plurality of independently adjustable tooth supports in said jaw, and teeth on said supports.

5. In a dental model, upper and lower jaws, tooth supports adjustable in said jaws, and teeth on said supports.

[Claims 6 to 37 not printed in the Gazette.]

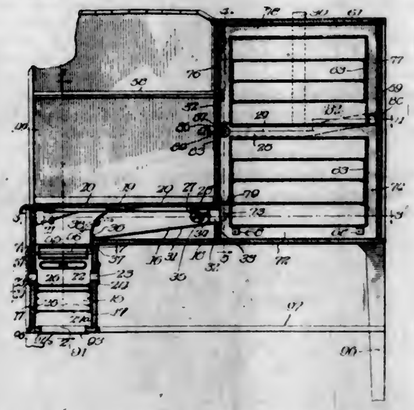
1,205,438. COOKING APPARATUS. FOREST V. DETWILER, Chicago, Ill. Filed July 11, 1914. Serial No. 850,388. (Cl. 126—39.)

1. A stove embodying a cooking top, an elevated oven adjacent thereto, a burner beneath the said top, a flue leading from the burner to the lower part of the oven, a damper controlling said flue, an outlet damper in said flue between the burner and said oven, and an operative connection between the dampers whereby the opening of one damper will close the other.

2. A stove embodying a cooking top, an elevated oven adjacent thereto, a burner beneath the said top, a flue leading from the burner to the lower part of the oven, said top forming one wall of the flue, the bottom of the flue being inclined and provided with an upwardly projecting wall to form a tray beneath the top, a damper controlling said flue, an outlet damper in said flue between the said oven and burner, and an operative connection between the dampers whereby the opening of one damper will close the other damper.

3. A stove embodying a cooking top, an elevated oven adjacent thereto, a burner beneath the said top, a flue leading from the burner to the lower part of the oven, a tapering deflector disposed above the burner, supported by and depending from the said cooking top, a damper controlling said flue, an outlet damper in said flue between the burner and said oven, and an operative connection be-

tween the dampers whereby the opening of one damper will close the other.



4. A stove embodying a cooking top, an elevated oven adjacent thereto, a burner beneath the said top, a flue leading from the burner to the lower part of the oven, a damper controlling said flue, an outlet damper in said flue between the burner and said oven, an operative connection between the dampers whereby the opening of one damper will close the other, and a combined damper and deflector for controlling the inlet to the said flue.

5. A cooking apparatus embodying a burner chamber having stove holes in the top thereof, a burner in the chamber, an elevated oven compartment adjacent thereto, an outlet from the oven compartment, a flue leading from said burner chamber to the lower part of the oven compartment, a damper for controlling the inlet to the oven compartment, an outlet from the burner chamber, and means responsive to the movement of the said damper for closing the said outlet of the burner chamber when the damper is adjusted to open the inlet to the oven compartment, and for opening the outlet when the said damper is closed.

[Claims 6 to 10 not printed in the Gazette.]

1,205,439. BRAKE-SHOE. FRANK T. DICKINSON, Chicago, Ill. Filed Oct. 18, 1907, Serial No. 397,994. Renewed Apr. 17, 1916. Serial No. 91,747. (Cl. 188—27.)



1. A brake shoe comprising in combination, a soft metal body portion provided with an attaching lug, and a hard metal insert having separated staggered wearing faces of a cross section varying relatively to the radius of the shoe but presenting substantially the same amount of wearing surface disposed in the body portion adjacent the wearing surface thereof.

2. A brake shoe comprising a body portion having an attaching lug, and a plurality of oppositely disposed staggered wearing inserts embedded in the body portion adjacent the wearing surface thereof.

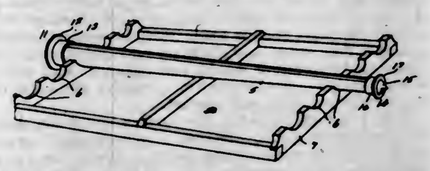
3. A brake shoe comprising a body portion having an attaching lug, and a plurality of oppositely disposed staggered wearing inserts embedded in the body portion adjacent the wearing surface thereof, staggered portions of the relatively soft metal of the body portion extending between said wearing inserts.

4. A brake shoe comprising a body portion having an attaching lug, and a plurality of oppositely disposed staggered wearing inserts embedded in the body portion adjacent the wearing surface thereof, said wearing inserts being of different cross section.

5. A brake shoe comprising a body portion having an attaching lug, and a plurality of oppositely disposed wearing inserts embedded in the body portion adjacent the wearing surface thereof, said wearing inserts having certain portions wider than others thereof and extensions of the cast metal of the body of the shoe therebetween.

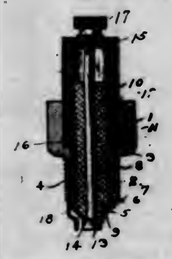
[Claims 6 to 12 not printed in the Gazette.]

1,205,440. MOLD. DAVID A. DYER, Jr., Martinsville, Ill. Filed July 20, 1915. Serial No. 40,940. (Cl. 25—121.)



A fence post mold comprising a flexible sheet metal body being bent in cylindrical formation and having its longitudinal edges spaced apart to receive plastic material and permit setting of wire fence fasteners, an annular flange surrounding one end of the body to prevent spreading of said body, a circular plate formed on said flange and projecting laterally thereof to form a closure to the end of the body and a finger hold to remove the flange from the body, a conical member provided with an annular flange positioned on the other end of the body to provide a closure for the last mentioned end of the body and to form the pointed end of a post, and an annular flange formed on the conical member to provide a finger hold to remove said conical member from the body.

1,205,441. SPARK-PLUG. HARRY N. EASTMAN, Dayton, Ohio, assignor of one-half to Ernest A Eastman, Dayton, Ohio. Filed Mar. 20, 1915. Serial No. 15,679. (Cl. 123—169.)



1. A spark plug comprising a bushing having an internal shoulder or seat therein, a core, an electrode within the core, a separable sleeve of insulating material surrounding the core and engaging at one end the shoulder or seat within the bushing, a seat for a second insulating sleeve formed in said first mentioned sleeve, and a second sleeve of insulating material also surrounding the core and seated within the first mentioned sleeve.

2. In a spark plug, a series of telescopic members each independently movable and each seated upon the other in adjusted position comprising a main bushing, a seat thereon, a sleeve of insulating material slidably mounted in said bushing and engaging said seat, a seat on said sleeve, a second sleeve of insulating material also slidably mounted in said bushing and engaging the seat upon the first mentioned sleeve, a core slidably mounted within the said sleeves, a seat on said core engaging the last mentioned sleeve, and means for retaining said parts in adjusted positions.

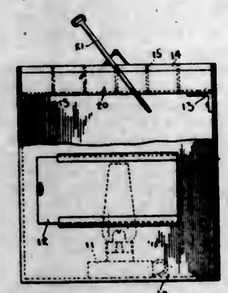
3. A spark plug comprising a bushing having an internal shoulder or seat therein, a core within the bushing having an external shoulder, a sleeve of insulating material surrounding the core and engaging at one end upon the shoulder within the bushing, a second sleeve of insulating material surrounding the core and engaging the shoulder thereof, and abutting upon the first mentioned sleeve at its opposite end, and means for retaining the parts in adjusted positions.

4. A spark plug comprising a bushing having an internal seat or shoulder, a core therein having a truncated conical head forming a shoulder upon the core, a sleeve of insulating material surrounding the core and engaging the bushing shoulder, a second sleeve of insulating material surrounding the core and engaging the head and shoulder thereof, said second sleeve being telescopically connected with the first sleeve, an electrode extending through the core, a head on said electrode registering with the apex of the truncated head of the core, and an adjusting member screw threaded upon the electrode and engaging the first mentioned sleeve.

5. A spark plug comprising a bushing, a core within the bushing having a truncated conical head, said head having a concentric groove therein, a sleeve of insulating material within the bushing and surrounding the core, said sleeve projecting into the concentric groove of the core head, and an electrode extending through the core.

[Claim 6 not printed in the Gazette.]

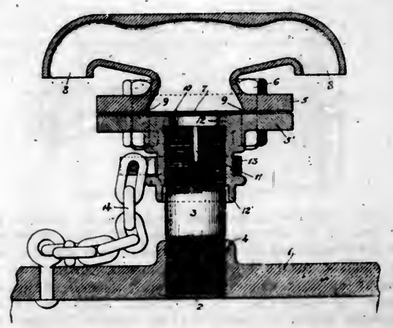
1,205,442. EGG-CANDLER. HARRY A. ELEYET, Lake View, Ohio. Filed May 5, 1915. Serial No. 26,036. (Cl. 99—6.)



A device for holding eggs to be candled comprising a support provided with oppositely disposed cleats, an egg holder consisting of longitudinal and transverse interlocking partitions forming egg compartments, said holder being arranged to have the outer longitudinal partitions supported on said cleats, bottom members hinged to the lower edges of the transverse partitions and formed with a plurality of openings each adapted to be centered in the respective compartment, a frame resting against one of the outside longitudinal partitions and having the free edges of the bottom members pivotally connected thereto, said frame being adapted to rest on said cleats when the bottoms are in closed position and the holder is on the cleats whereby to hold said bottoms closed, and means carried by the holder and pivotally and slidably connected to the frame for moving the bottoms into and out of egg retaining position.

1,205,443. TANK-CAR VENT. ARTHUR W. ELKINS, East Orange, N. J., assignor to General Chemical Company, New York, N. Y., a Corporation of New York. Filed June 6, 1913. Serial No. 772,048. (Cl. 220—120.)

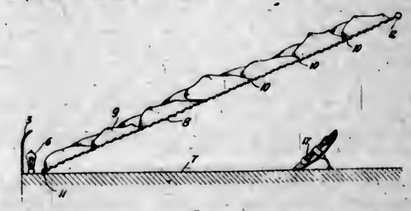
1. The combination of a tank, a nipple in communication therewith, a closing cap for said nipple, said cap and said nipple being provided with coöperating screw threads whereby said two members are joined together, one of said members being provided with a passage extending longitudinally from one end thereof to said screw threaded joint at a point intermediate the ends of said joint.



2. In combination, a nipple and a cap screw threaded thereon, said cap being provided with a portion adapted to contact with the end of said nipple when in closed position, said nipple being provided with an exterior groove deeper than the depth of the screw threads on said nipple and extending from the end of said nipple to a point intermediate the ends of the screw threaded portion thereof.

3. In combination, a nipple and a cap screw threaded thereon, said cap comprising upper and lower hollow members secured together, the hollow space of said upper member being in communication with the atmosphere and said lower member being provided with an annular flange adapted to contact with the end of said nipple when in closed position, said nipple being provided with an exterior groove deeper than the depth of the screw threads on said nipple and extending from the end of said nipple to a point intermediate of the ends of the screw threaded portion thereof.

1,205,444. WAVE AND WATER ILLUSION APPARATUS. IDA MAY FULLER, New York, N. Y. Filed Jan. 26, 1916. Serial No. 74,328. (Cl. 46—70.)



1. An exhibition device for simulating water comprising a movable support, and a fabric festooned thereon so as to be capable of billowing when moved back and forth with the support.

2. An exhibition device for simulating water comprising an open-work support, and a light reflecting fabric festooned thereon so as to be capable of billowing when moved back and forth.

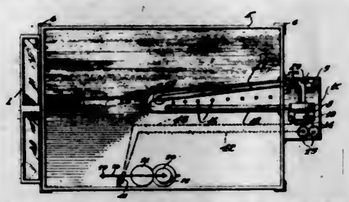
3. An exhibition device for simulating water comprising an open-work support, and a shiny fabric of light texture festooned thereon so as to be capable of billowing in response to air currents.

4. An exhibition device for simulating water comprising an inclined open work support, and a fabric of light texture festooned thereon in loose folds so as to be capable of billowing when subjected to intermittent air currents.

5. An exhibition device for simulating water comprising a netting support, and a light reflecting fabric festooned thereon so as to be capable of billowing when subjected to intermittent air currents.

[Claims 6 to 15 not printed in the Gazette.]

1,205,445. INCUBATOR ATTACHMENT. ROY F. FULLINGTON, Clifton Hill, Mo. Filed Sept. 18, 1914. Serial No. 862,376. (Cl. 237—3.)

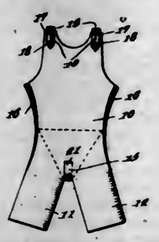


1. An incubator attachment including an exhaust pipe for the air of said incubator, an inlet pipe therefor, a fan for circulating air through both of said pipes, a heating element for said incubator, means sensitive to the amount of heat generated by said element, adjustable means for controlling the automatic operation of said sensitive means in regulating the amount of heat distributed, and means connected with said adjustable means and interconnected with said fan to cause actuation of the latter upon an increase of heat beyond said maximum.

2. In combination, with a heating element, a damper mounted in the path of the heated gases generated by said element and adapted to be actuated by the flow of such heated gases, a pair of pivoted arms, means for adjusting one of said arms, means carried by the other of said arms and tending to prevent contact of the two, connections between said damper and said second arm to cause a contact of said arms upon rise of said damper, an air pan apertured longitudinally, an outlet pipe spaced from said air pan to draw heated air therefrom, an inlet pipe positioned in said pan to convey a cooler air, and fan means for circulating air through said inlet and outlet pipes in a circuit set in motion by the contact between said arms caused by said damper.

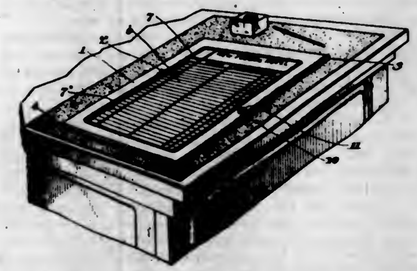
3. The combination with an apertured tray, of a pipe serving as an air outlet from said tray, an air inlet for said tray, a fan for circulating air through both of said pipes simultaneously to cool the tray, a heating element, a damper sensitively pivoted in the path of the heated gases from said element for actuation by the flow thereof, a support, arms separately pivoted to said support, adjustable means supporting one of said arms, weight means carried by the other of said arms to prevent a contact between the arms, a flexible connection between said weight arm and the sensitive mounting for said damper to cause a contact between the arms upon movement of the damper in one direction and permitting said weight means to break the contact of said arms in the other direction and a circuit closed by contact between said arms for the operation of said fan.

1,205,446. UNDERGARMENT. GEORGE I. GOLDEN, Tucson, Ariz. Filed Aug. 11, 1915. Serial No. 44,952. (Cl. 2—144.)



A union suit comprising a body portion including forward and rear sections, the forward section being provided with openings, and shoulder straps extending from the rear section and passing through the openings of the forward section below the opening, means for releasably connecting said shoulder straps with said forward section.

1,205,447. HOTEL-REGISTER. CHARLES R. HADLEY, Los Angeles, Cal., assignor to Charles R. Hadley Company, Los Angeles, Cal., a Corporation of California. Filed July 3, 1916. Serial No. 107,225. (Cl. 11—11.)



1. A hotel register comprising a back, a backing projecting from said back, and an open frame mounted to open from said back and provided with a recess to accommodate the marginal portion of the backing when the register is closed, said recess being of no greater depth than the thickness of the backing.

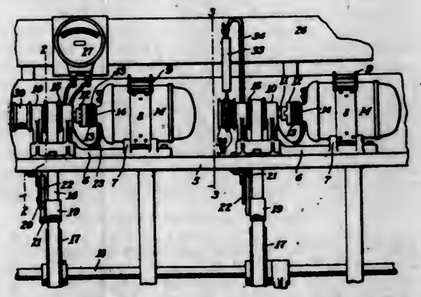
2. A hotel register comprising a back, a backing having a surface of relatively great frictional value and projecting from said back, and an open frame mounted to open from said back and provided with a recess to accommodate the marginal portion of the backing when the register is closed, said recess being of no greater depth than the thickness of the backing.

3. A hotel register comprising a back, an open frame mounted to open from said back, and a backing having a nap surface of relatively great frictional value between the frame and the back to hold a sheet of paper exposed to view through the frame.

4. A hotel register comprising a back, an open frame mounted to open from said back, and a backing of leather fastened to the back, said leather having a roughened upper surface substantially as and for the purpose described.

5. A hotel register comprising a back, a front hinged to said back and provided with an opening and with a recess in its inner face around the margin of said opening, said recess being wider at the side margins than at the end margins, a backing fastened to and projecting from said back and having its marginal portion fitting in said recess, and means to hold the front and back closed together.

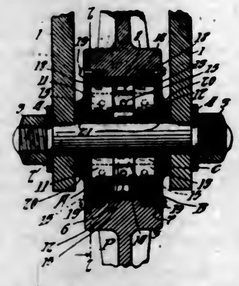
1,205,448. TEST-BENCH. EDWARD A. HALBLEIB, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed June 19, 1915. Serial No. 35,076. (Cl. 175—183.)



1. In a test-bench, the combination of a seat and means for fixing a motor thereon; a countershaft journaled in position to aline with the armature-shaft of a motor on the seat, and provided with a brake-member and with means for coupling the countershaft to the armature-shaft; and means for connecting the countershaft with a source of power.

2. In a test-bench, the combination of a frame provided with shaft-bearings and a motor-seat; means for clamping a motor on said seat; a countershaft journaled in said bearings; a brake-drum on one end of the countershaft; a coupling-member for connecting the other end of the countershaft with the armature-shaft of a motor on said seat; and means for connecting the countershaft with a source of power.

1,205,449. ROLLER-BEARING. ORLANDO W. HART, Fall River, Mass. Filed Jan. 20, 1916. Serial No. 73,167. (Cl. 64—61.)



1. In a roller bearing, a plurality of concentric series of rolls, each of the rolls being loosely mounted on a shaft, the rolls and shafts of each series respectively coöperating with the shafts and rolls of an adjacent series to prevent the collapsing of the rolls of any of said series toward the axis of the bearing.

2. A roller bearing, comprising a plurality of series of concentric rolls, all the rolls being rotatable about their axes respectively, and each of the series of rolls being rotatable about the axis of the bearing, each of the rolls of the bearing being loosely mounted on a member having rolling contact with rolls in another series to maintain the rolls in assembled position in the bearing.

3. A roller bearing, comprising a pair of concentric series of cylindrical rolls of equal size, the series of rolls each comprising equi-spaced rolls staggered with respect to the rolls of the other series, each of the rolls of the bearing being loosely mounted on a cylindrical shaft, all of said shafts being of the same diameter which is greater than the shortest distance between the peripheries of any two adjacent rolls of either series, the shafts of the rolls of each series respectively extending between different pairs of adjacent rolls of the other series.

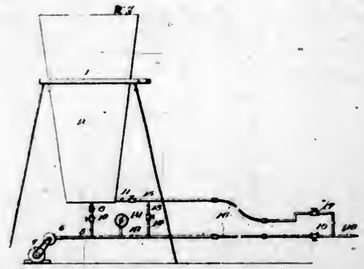
4. A roller bearing comprising a plurality of concentric series of cylindrical rolls, the rolls of each series being equally spaced and staggered with respect to the rolls of any adjacent series, all of said rolls being respectively loosely mounted on shafts of equal diameter greater than the shortest distance between the peripheries of any two adjacent rolls of any series, the shafts of the rolls of each series respectively extending between different pairs of adjacent rolls of an adjacent series.

5. A roller bearing comprising a pair of concentric series of rolls, and hollow perforated shafts on which the rolls of each series are respectively rotatably mounted, the shafts of each series respectively directly engaging and coacting with different pairs of adjacent rolls of the other series to maintain the rolls in assembled position in the bearing.

[Claims 6 to 10 not printed in the Gazette.]

1,205,450. PAINTING APPARATUS. JOSEPH CLARK JOHNSTONE, Butte, Mont. Filed June 17, 1916. Serial No. 104,243. (Cl. 91—45.)

1. In an apparatus of the character described, in combination, a receptacle having an inlet opening at the top provided with an air vent, a source of compressed air connected with the bottom of said receptacle, and an outlet pipe for the liquid contents of said receptacle connected at a plurality of points along the outlet pipe with said source of compressed air whereby the nature of the stream may be varied or the conveying pipes cleaned as desired.



2. In an apparatus of the character described, in combination, a receptacle having an air vent at the upper part thereof, a source of compressed air connected with the lower part thereof, a check valve in the pipe leading from said source of compressed air, a manually operated valve for controlling the flow of air to the receptacle, an outlet pipe and a valve in said outlet pipe, said outlet pipe being connected with said source of compressed air at a plurality of points along its length.

3. In an apparatus of the character described, in combination, a receptacle of substantially inverted truncated conical form having an air vent at the upper part thereof, an air inlet at the lower part, means for supplying compressed air through said inlet, a check valve preventing a flow of the liquid contents of the receptacle to said source of compressed air, a nozzle, and valved connections between the nozzle and the receptacle with the source of compressed air for varying the nature of the stream.

4. In an apparatus of the character described, in combination, a supporting frame, a receptacle carried thereby of substantially inverted truncated conical form having an air vent at the upper part thereof and a valved inlet connected with the central part of the base, a source of compressed air leading to said inlet, an outlet pipe leading from the base of the receptacle, a nozzle flexibly connected with said outlet pipe and with said source of compressed air, valves associated with the nozzle for varying the proportions of air and coating material and a valve connected between the outlet pipe and source of compressed air positioned between the receptacle and the nozzle.

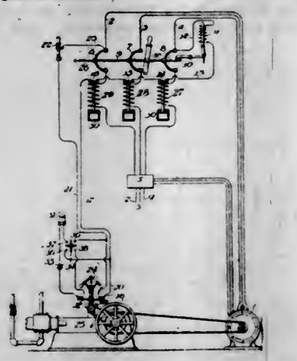
1,205,451. ELECTRIC CONTROL SYSTEM. NELS JOLEEN, Chicago, Ill. Original application filed Apr. 10, 1914, Serial No. 830,911. Divided and this application filed Mar. 13, 1915. Serial No. 14,198. (Cl. 175—294.)

1. In a system of the character described the combination with a motor, a machine driven by said motor, a three phase circuit for supplying current to said motor, and means controlled by the speed of the motor and the current conditions in any conductor of said three phase circuit to control the association of said motor with said three phase circuit.

2. In a system of the character described the combination with a motor, a pump driven by said motor, a three phase circuit for supplying current to said motor, a main line switch for all phases to control the connection of said motor with said circuit, and means controlled by the speed of the motor and the current conditions in any conductor of said three phase circuit to control said main line switch.

3. In a system of the character described the combination with a motor, a machine driven by said motor, a three phase circuit for supplying current to said motor,

and a governor responsive to the speed of the motor to control the association of said motor and the current conditions in any conductor of said three phase circuit with said three phase circuit.



4. In a system of the character described the combination with a motor, a pump driven by said motor, a three phase circuit for supplying current to said motor, a main line switch for all phases to control the connection of said motor with said circuit, means responsive to current conditions in either conductor of said three phase circuit to control said main line switch, and a governor responsive to the speed of the motor to control said main line switch.

5. In a system of the character described the combination with a motor, a machine driven by said motor, a three phase circuit for supplying current to said motor, means responsive to current conditions in either conductor of said three phase circuit to control the association of said motor with said three phase circuit, a governor responsive to the speed of the motor to control the association of said motor with said three phase circuit, and an alarm circuit controlled by said governor.

[Claims 6 to 11 not printed in the Gazette.]

1,205,452. SIGNAL-CHIME FOR AUTOMOBILES. CHARLES PAUL JONES and IDA MARIE JONES, Cleveland, Ohio. Filed June 1, 1914. Serial No. 842,085. (Cl. 116—59.)



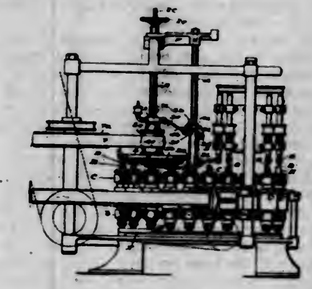
1. A chime signal of the class described comprising a central tube, a distributing chamber mounted on the tube and communicating therewith, a plurality of whistle tubes connected with the chamber and grouped around the central tube, and a pair of disks fastened together and secured to the central tube, one disk having a plurality of openings to receive the whistle tubes, and the other disk serving to close the said whistle tubes.

2. A chime whistle of the class described comprising a central tube adapted to have one end connected with a source of fluid under pressure and provided with apertures adjacent such end, a chamber surrounding the tube and supported thereby and communicating through the apertures with the tube, said tube extending through the chamber, a plurality of whistle tubes fastened to the chamber and extending along the central tube, each whistle tube having an opening in the end adjacent the said chamber, a plug inserted in each tube between its opening and the chamber to provide a throat through which fluid passes from the chamber to the whistle tube, and thimbles disposed in the whistle tubes and arranged at different points from the openings therein.

3. A chime whistle comprising a central pipe threaded at its ends and having apertures adjacent its inlet extremity, a chamber surrounding the pipe and communicating therewith through the apertures, whistle tubes communicating with the said chamber to receive elastic fluid under pressure therefrom, a plurality of disks on the opposite end of the central tube and arranged in contact, one disk having a plurality of openings to receive the whistle tubes and the other disk forming a closure for the said tubes, and nuts threaded on the ends of the central tube to fasten thereto the structure formed by the distributing chamber, whistle tubes and disks.

4. A chime whistle comprising a distributing chamber formed of a drum-shaped section and a disk section joined to the open side thereof, said sections having alining central openings and the disk section having a plurality of whistle-tube receiving openings arranged around the central opening, a plate spaced from the said chamber and having a central opening and formed of two disks of which one has a plurality of whistle-tube receiving openings, whistle tubes having shouldered ends engaged in the openings of the said disk section of the distributing chamber and in the openings of the said plate, and a supporting and connecting element extending longitudinally of the whistle and through the central openings of the said chamber and plate, and said element having means through which fluid under pressure enters the distributing chamber.

1,205,453. GRINDING ATTACHMENT FOR AUTOMATIC BUTTON-MACHINES. ALBERT F. KEFFLO, Muscatine, Iowa. Filed May 13, 1916. Serial No. 97,305. (Cl. 79—9.)



1. In a button grinding machine the combination of a vertically disposed shaft, a blank holding chuck and means for traveling the blank holding chuck around said shaft, a grinding disk adjustable on said shaft, means for adjusting the disk laterally of the shaft, and means for rotating the disk.

2. In a button grinding machine the combination of a vertically disposed shaft, a blank holding chuck and means for traveling the blank holding chuck around said shaft, a sleeve adjustable on said shaft, means for adjusting the sleeve laterally of the shaft, a grinding disk rotatably supported on said sleeve, and means for rotating the disk on the sleeve.

3. In a button grinding machine the combination of an endless series of chucks adapted to hold the blanks, means for traveling the series of chucks, a grinding disk located adjacent and within the orbit of the chucks, a hollow shaft, a sleeve surrounding the shaft on which sleeve the disk is journaled, means for vertically adjusting the sleeve, and means for adjusting the sleeve laterally of the shaft so as to place the grinding disks more or less eccentric to the orbital path of the travel of the chucks.

4. In a button grinding machine the combination of a vertically disposed shaft, a blank holding chuck and means for traveling a blank holding chuck around said shaft, a sleeve vertically adjustable on said shaft, a grinding disk rotatably supported on said sleeve, a second shaft, a sleeve adjustable thereon, means for clamping the latter sleeve upon its shaft, rigid connections between the said sleeves whereby when said first named sleeve is adjusted the eccentricity of the grinding disk with reference to the blank holding chuck will be adjusted, and means for rotating the disk.

5. In a button grinding machine the combination of a vertically disposed shaft, a blank holding chuck and means for traveling the blank holding chuck around said shaft, a sleeve vertically adjustable on said shaft, a second shaft, a sleeve adjustable thereon, means for clamping the latter sleeve upon its shaft, rigid connections between the said sleeves whereby when said first named sleeve is adjusted the eccentricity of the grinding disk with reference to the blank holding chuck will be adjusted, means for adjusting the first sleeve laterally of the shaft which it surrounds, a grinding disk rotatably supported on said sleeve and means for rotating the disk on the sleeve.

[Claims 6 to 14 not printed in the Gazette.]

1,205,454. CLOSURE FOR CONTAINERS. HENRY A. KEINER and EMILE PLANÇON, New York, N. Y., assignors to said Henry A. Keiner. Filed Nov. 15, 1913. Serial No. 801,133. (Cl. 220—61.)



1. The combination, with a container, of a closure therefor comprising a stopper-member, and a skeleton locking-member comprehending a plurality of arms, at least two of which are lockingly engageable with said container, and at least two others of which lockingly engage said stopper-member and are movable throughout the arc of a circle independent thereof.

2. The combination, with a container, of a closure therefor comprising a stopper-member, and a skeleton locking-member comprehending a plurality of arms, the ends of at least two of which are lockingly engageable with said container, and the ends of at least two other arms lockingly engaging said stopper-member and having limited rotation independent thereof to permit engagement and disengagement between the ends of said first-mentioned arms and said container without movement of said stopper-member.

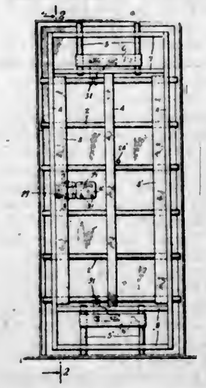
3. The combination, with a container, of a closure therefor comprising a stopper-member, and a locking-member comprehending a plurality of arms diametrically arranged with reference to a common center, at least two oppositely disposed arms being lockingly engageable with said container, and at least two other oppositely disposed arms being lockingly engageable with said stopper-member and are movable throughout the arc of a circle independent thereof.

4. The combination, with a container, of a closure therefor comprising a stopper-member, and a skeleton locking-member comprehending a plurality of arms diametrically arranged with reference to a common center, the ends of at least two oppositely disposed arms being lockingly engageable with said container, and the ends of at least two other oppositely disposed arms lockingly engaging said stopper-member and having limited rotation independent thereof to permit engagement and disengagement between the ends of said first-mentioned arms and said container without movement of said stopper-member.

5. The combination, with a container, of a closure therefor comprising a stopper-member, a skeleton locking-member comprehending a plurality of arms, at least two of which are lockingly engageable with said container, and at least two others of which lockingly engage said stopper-member and are movable throughout the arc of a circle independent thereof, and a sealing-member disposed beneath said stopper-member and having a marginal portion interposed between the top of said container and the bottom of said stopper-member.

[Claims 6 to 9 not printed in the Gazette.]

1,205,455. VAULT CONSTRUCTION. EVERETT C. KLINE, Norwood, Ohio, assignor to The Victor Safe & Lock Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 7, 1916. Serial No. 82,551. (Cl. 109—3.)



1. In vault construction, the combination of a door, locking means therefor, a shaft extending entirely through the door and having a hand lever means at the outer end thereof and a portion extending from the inner end thereof, adapted to be engaged by a suitable implement from the inner side of the door, to turn the same, shafting on the outer side of the door rotated in one direction or the other by the rotation of said shaft, and pressure exerting means adapted to be applied to or removed from the door jamb by the rotation of said shafting and adapted to press the door firmly against its seat, substantially as set forth.

2. In vault construction, the combination of a door, bolt-work for securing the same, clock means for the bolt-work, on the inner side of the door, means for pressing the door firmly against its seat, means for actuating the bolt-work when unlocked, comprising a shaft extending through the door having a recess of angular section in the inner end thereof, and means for actuating the door-pressing means including a shaft extending entirely through the door, having a manually operable device at the outer end thereof and a portion of angular section at the inner end thereof, said recess and the angular portion of said last-named shaft being accessible from the inner side of the door, substantially as set forth.

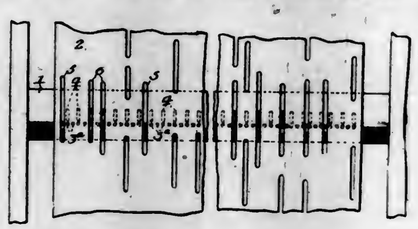
1,205,456. TRACKER-BOARD AND MUSIC-SHEET. PAUL B. KLUGH, Chicago, Ill., assignor to The Cable Company, Chicago, Ill., a Corporation of Illinois. Filed July 11, 1911, Serial No. 637,973. Renewed Nov. 15, 1913. Serial No. 801,260. (Cl. 84—165.)

1. A tracker having a plurality of ports side by side for a single note, and channels uniting said ports into a single unobstructed passage, and another port in transverse alinement with one of the first named ports for modifying the action of the same note sounding mechanism.

2. A tracker having a double aperture therein and an elongated aperture in the rear of part of the double aperture, for modifying the action of the same note sounding mechanism, the parts of said double aperture being connected together.

3. A tracker having a double aperture therein, and an aperture for modifying the action of the same note sound-

ing mechanism, coöperating with said first named aperture in such a position in said tracker that said last named aperture is opened before said first named aperture, the parts of said double aperture being connected together.

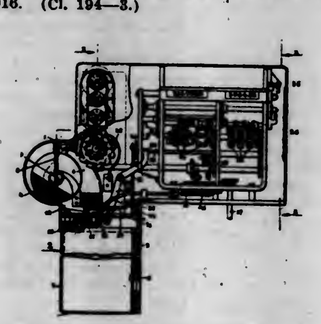


4. The combination of a tracker having a plurality of ports for the same note arranged at the side of one another lengthwise of the tracker and also having a port for modifying the action of the same note sounding mechanism in the rear of one of the aforesaid ports, and a music sheet having perforations some of which are adapted to open one of the aforesaid plurality of ports and the port in the rear thereof and others of which are adapted to open another of said plurality of ports.

5. A tracker having a plurality of ports side by side longitudinally of the tracker, and channels uniting said ports into a single unobstructed passage, and another port in transverse alinement with one of the first named ports for modifying the action of the same note sounding mechanism as the first named ports.

[Claims 6 to 18 not printed in the Gazette.]

1,205,457. PREPAYMENT-METER. NÁNDOR KOLÁR, Budapest, Austria-Hungary, assignor to Autometograph Részvénytársaság, Budapest, Austria-Hungary, a Corporation of Hungary. Filed Apr. 16, 1915. Serial No. 21,916. (Cl. 194—3.)



1. In a prepayment meter, a receipt recording means; a coin receptacle; a locking device connected to the meter and adapted to hold the coin receptacle locked until the receipt recording means is operated.

2. In a prepayment meter, a recording means; a coin receptacle; a locking device connected to the meter and adapted to hold the coin receptacle locked until after the recording means has made a record.

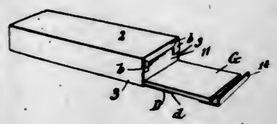
3. In a prepayment meter, a recording means; a coin receptacle; a locking device connected to the meter and adapted to hold the coin receptacle locked until after the recording means has made a record and has been seroised.

4. In a prepayment meter, the combination of a coin receiver, a coin collecting receptacle detachable from the meter, a receipt recording frame adapted to coöperate with the counting train of the meter, a mechanism controlling the connection of the collecting receptacle with the meter and actuated by the said receipt recording frame so that the collecting receptacle can be detached only after the receipt has been recorded and the counting train seroized.

5. In a prepayment meter, the combination of a coin receiver, a coin collector, mechanism for delivering individual coins from the receiver to the said collector, a receipt recording frame, a locking device connecting the collector to the meter and releasing mechanism operated by the receipt recording frame, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,205,458. NON-REFILLABLE CONTAINER. HERMAN LANES, Brooklyn, N. Y., and PAUL F. W. MÜLLER, West Hoboken, N. J. Filed Oct. 9, 1915. Serial No. 54,946. (Cl. 206—40.)



1. A non-refillable container for carrying and dispensing a plurality of superposed articles, comprising an outer casing composed of one sheet and having integrally formed locking flanges, and an inner holder comprising a fixed member and a slidable member, said flanges locking said holder within said casing, substantially as shown and described.

2. In a non-refillable container, the combination, with a casing open at each end and having integral extensions; of a holder held within said casing by means of said extensions, said holder comprising a fixed member having a feeding-spring, and a slidable member, said holder adapted to contain and dispense a plurality of superposed articles, one at time, substantially as shown and described.

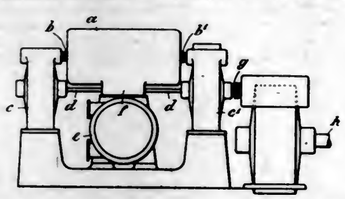
3. In a non-refillable container, the combination, with a casing composed of one sheet of material and having integral locking flanges at each end; of a holder locked within said casing by means of said flanges, said holder comprising a fixed member having a feeding spring, a capped rear end and a flanged front end, and a slidable member having a flanged rear end and a flanged front end making a thumb-piece, said holder adapted to contain a plurality of superposed articles, and said slidable member adapted to discharge said articles, one at time, substantially as shown and described.

4. In a non-refillable container for carrying and delivering a plurality of superposed pieces of manufactured product, one at a time, the combination, with a casing formed of a single sheet having bent flanges at each end; of a holder comprising a member fixed within said casing by means of said bent flanges, and having an attached feed-spring, a capped end closing one end of said casing, and a flanged end partly closing the other end of said casing, said capped end having an inwardly extended lug, and a slidable feeding-member having an inner flanged end for engaging said pieces, and an outer flanged end making a thumb-piece, and side stops for limiting the outward movements of said slidable member, substantially as shown and described.

1,205,459. SHIP-TURBINE. FREDRIK LJUNGSTRÖM, Finspong, Sweden, assignor to Aktiebolaget Ljungströms Angturbin, Finspong, Sweden. Filed Sept. 11, 1915. Serial No. 50,242. (Cl. 121—58.)

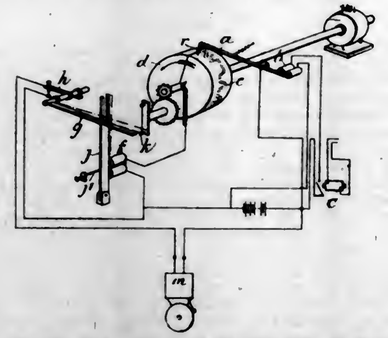
1. In combination with a turbine-casing, a condenser mounted thereunder, a pair of turbine shafts, a third shaft driven by these turbine shafts, and two sets of gearing between said turbine shafts and this third shaft, said sets of gearing being arranged with the condenser and turbine casing between them.

2. In combination with a turbine-casing, a condenser thereunder, a pair of turbine shafts, a third shaft driven by these turbine shafts and passing through a tubular part connected to said condenser, and two sets of gearing



between said turbine shafts and this third shaft, said sets of gearing being arranged with the condenser and turbine-casing between them.

1,205,460. RECEIVING APPARATUS FOR ELECTRIC TELEGRAPHS AND ELECTRIC SELECTIVE SYSTEMS. WILLIAM JOSEPH LYONS, Dublin, Ireland. Filed May 5, 1913. Serial No. 765,560. (Cl. 177—353.)



1. Electric telegraph receiving apparatus of selective type comprising a movable member, means whereby said movable member will be set in motion upon the receipt of an electric impulse, a second movable member adapted to co-act with the first mentioned movable member, electromagnetic means whereby said second movable member will be operated in a variable manner by the electric impulses received, and in such manner that movement of said second movable member relative to the first mentioned movable member will be determined by the nature of the electric impulses received, a device to be operated upon the receipt of a predetermined signal, electric connections and a source of current for operating said device, said movable members being arranged to coöperate in conjunction with the electric connections and cause the operation of said device only upon the complete receipt of a signal of a predetermined character.

2. Electric telepraph receiving apparatus of selective type comprising an electric contact device mounted to move to and fro in a variable manner and in accordance with the electric impulses received, a rotary circuit closing device co-acting with said contact device, means whereby said rotary circuit closing device will be set in motion upon the receipt of an electric impulse, electrical connections, a call device to be operated upon the receipt of a predetermined signal and a source of current for operating said call device, said contact device and circuit closing device being arranged to coöperate to close a circuit in said electric connections and bring about the operation of said call device only when they occupy certain predetermined relative positions depending upon the nature of the signal for which the apparatus is designed to respond.

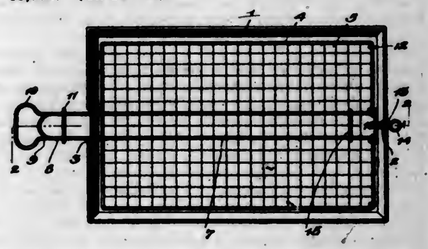
3. Electric telegraph receiving apparatus for selective type comprising a movable circuit controlling surface, means whereby said surface will be set in motion upon the receipt of an electric impulse, an arm movable in relation to said surface, means under the control of the electric impulses received adapted to move said arm in relation to and upon said surface, electrical connections controlled by said relative movement between said surface and arm, and call means adapted to be brought into action under the control of said electrical connections only upon the arm following a predetermined path relatively to said surface and occupying a definite position at the completion of the transmission of the predetermined signal for which the apparatus is designed to respond.

4. Electric telegraph receiving apparatus of selective type comprising a movable circuit controlling surface, means whereby said surface will be set in motion upon the receipt of an electric impulse, an arm movable in relation to said surface, means under the control of the electric impulses received adapted to move said arm transversely to the direction of movement of said surface and upon said surface, electrical connections controlled by the transverse movement of said arm relatively to said surface and call means adapted to be brought into action under the control of said electrical connections only upon the arm following a predetermined path relatively to said surface and occupying a definite position at the completion of the transmission of the predetermined signal for which the apparatus is designed to respond.

5. Electric telegraph receiving apparatus of selective type comprising a movable circuit controlling surface, means whereby said surface will be set in motion upon the receipt of an electric impulse, an arm movable in relation to and upon said surface, means under the control of the electric impulses received adapted to move said arm in a to-and-fro direction across said surface, said surface being arranged to be set in motion in a direction substantially at right angles to the to-and-fro motion of said arm upon the receipt of en electric impulse, electrical connections controlled by the relative movement between said surface and arm and a call device, the formation of said controlling surface and the movement of said arm being such that said call device will not be brought into operation by an electric signal of shorter or longer duration than that for which the apparatus is designed to respond.

[Claims 6 to 15 not printed in the Gazette.]

1,205,461. COOKING UTENSIL. JOSIE M. MCCULLOCH, Chula Vista, Cal. Filed Mar. 13, 1916. Serial No. 83,973. (Cl. 53—5.)

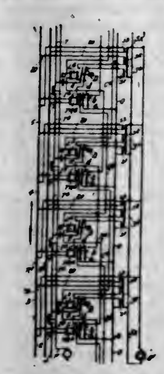


A gridiron of the class described comprising a pair of rectangular wire sections pivotally connected at one of their ends, handle members extending from the other ends of said sections, a locking member for retaining said sections in their relative closed positions, and a tang arranged at the pivoted end of one of said sections midway of the width thereof, the pivoted end of the other section being notched inwardly midway of the width thereof to allow said tang to swing transversely through the same when said sections are being reversed.

1,205,462. RAILWAY-TRAIN-CONTROL SYSTEM. JOHN C. MCDONALD, New York, N. Y. Filed Aug. 27, 1915. Serial No. 47,581. (Cl. 246—58.)

1. A railway train control system comprising in combination a track, a conductor extending along said track and divided into block sections, means for the supply of

train control current for each block, comprising a time-element circuit controller, and train actuated means for each block, each such train actuated means controlling the said time-element circuit controller of its own block and the said time-element circuit controller of a block in advance.



2. A railway train control system comprising in combination a track, a conductor extending along said track and divided into block sections, means for the supply of train control current for each such block comprising a time-element circuit controller, and train actuated means for each such block, each such train actuated means controlling the said time-element circuit controller of its own block, and the said time-element circuit controller of a block in advance, and the said time-element circuit controller of a block in rear.

3. A railway train control system comprising in combination a track, a conductor extending along said track and divided into block sections, means for the supply of train control current for each such block comprising a time-element circuit controller, and train actuated means for each such block, each such train actuated means controlling the said time-element circuit controller of its own block, and the said time-element circuit controller of a block in advance, and the said time-element circuit controller of a block in rear, the time-element circuit controller of each block also controlling the time-element circuit controller of a block in rear.

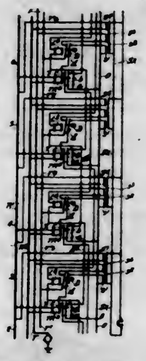
4. A railway train control system comprising in combination a track, a conductor extending along said track and divided into block sections, means for the supply of train control current for each such block comprising a time-element circuit controller, and train actuated means for each such block, each such train actuated means controlling the said time-element circuit controller of its own block, and the said time-element circuit controller of a block in advance, and the said time-element circuit controller of a block in rear, the train actuated means and time-element circuit controller of each block jointly controlling the time element circuit controller of a block in rear.

5. A railway train control system comprising in combination a track, a conductor extending along said track and divided into block sections, means for the supply of train control current for each such block, comprising a time-element relay and train actuated means for each block and a circuit controlled thereby and passing through the magnet of the time-element relay of a block in advance.

[Claims 6 to 25 not printed in the Gazette.]

1,205,463. RAILWAY-TRAIN-CONTROL SYSTEM. JOHN C. MCDONALD, New York, N. Y. Filed Jan. 18, 1916. Serial No. 72,863. (Cl. 246—58.)

1. A railway train control system comprising a propulsion current conductor and a train control circuit conductor, insulated one from another and the latter divided into sections, in combination with a train circuit connected on one side to the train control conductor and on the other side to the propulsion current conductor and including train control means, and means for supplying train control current to said train control conductor and propulsion current conductor as parts of the train control circuit.



2. A railway train control system comprising a propulsion current conductor and a train control circuit conductor, insulated one from another, and the latter divided into sections, in combination with a train circuit connected on one side to the train control conductor and on the other side to the propulsion current conductor, and including a train control relay and means for supplying train control current to said train control conductor and propulsion current conductor, as parts of the train control circuit.

3. A railway train control system comprising a propulsion current conductor and a train control circuit conductor, insulated one from another, and the latter divided into sections, in combination with a train circuit connected on one side to the train control conductor and on the other side to the propulsion current conductor, including a train control relay and means for supplying train control current to said train control conductor and propulsion current conductor, as parts of the train control circuit, and a brake line comprising means operated by said relay for applying the brakes.

4. A railway train control system comprising in combination a propulsion current conductor and a train control circuit conductor, the latter divided into sections, means for supplying train control current to said two conductors as opposite sides of a train control circuit, and a time-element device controlling such supply of current, in combination with a train circuit connected on one side to the train control conductor and on the other side to the propulsion current conductor, and including train control means.

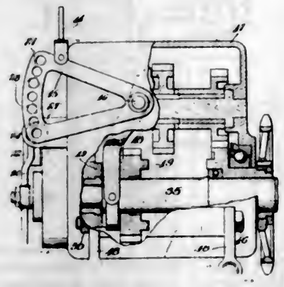
5. A railway train control system comprising a propulsion current conductor and a train control circuit conductor, the latter divided into sections, and means for supplying train control current to said two conductors as opposite sides of a train control circuit, in combination with a train circuit having a contact shoe provided with two contact members, one for one of such conductors and the other for the other of said conductors, and train control means included in such train circuit.

[Claims 6 to 9 not printed in the Gazette.]

1,205,464. VARIABLE-SPEED-TRANSMISSION GEARING. FRANK J. MACK, Chicago, Ill. Filed Dec. 7, 1915. Serial No. 65,539. (Cl. 74—58.)

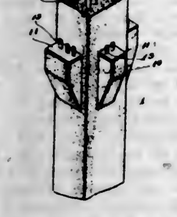
1. In a change-speed gearing, a shiftable gear, means for shifting said gear, said means including a swinging member having apertures, a spring actuated locking bolt positioned to enter the apertures, an abutment on the bolt, and a clutch-actuating lever engaging the abutment and retracting the bolt when swung to disengage the clutch.

2. In a change-speed gearing, a shiftable gear, means for shifting said gear, said means including a swinging member having apertures, a locking bolt positioned to enter the apertures, an abutment on the bolt, a clutch-actuating lever engaging the abutment and retracting the bolt when swung to disengage the clutch, and projections on the swinging member alongside the apertures for guiding the bolt into the latter.



3. In a change-speed gearing, a shiftable gear, means for shifting said gear, said means including a swinging member having apertures, a locking bolt positioned to enter the apertures, an abutment on the bolt, a clutch-actuating lever in contact at one end with the abutment, and an actuating rod connected to the other end of the lever.

1,205,465. REINFORCED-CONCRETE BUILDING CONSTRUCTION. PATRICK J. MAGUIRE and PAUL R. GOPPOLDT, Los Angeles, Cal. Filed June 30, 1913. Serial No. 776,476. (Cl. 72—1.)



1. A building construction comprising preformed concrete columns having reinforcing rods with bends in them, horizontal bearing plates embedded in the columns at the bends of the rods, said rods passing through said plates, preformed concrete girders having reinforcing rods, other bearing plates at the ends of the girders, the girder rods passing through said other bearing plates, nuts on the ends of the girder rods bearing against said other bearing plates, and bolts connecting the first bearing plates to said other bearing plates.

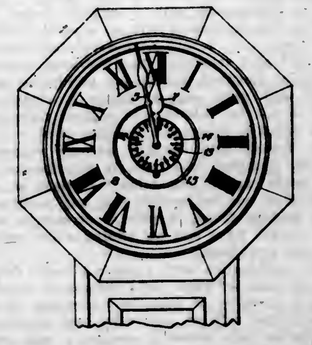
2. A building construction comprising preformed concrete columns each having concrete brackets projecting laterally therefrom, a horizontal bearing plate, embedded in the concrete column, having arms projecting laterally from the concrete column, capping the concrete brackets, and bolts molded into the concrete brackets with their heads beneath the arms of the bearing plate and their stems extending up through said arms, and concrete girders each having inverted T-shaped bearing plates, seating on the arms of the bearing plates of the concrete columns at their ends, secured to the bolts of the concrete brackets and longitudinal reinforcing rods having their ends secured to the vertical flanges of the inverted T-shaped bearing plates whereby the latter are secured to the girders.

1,205,466. COMBINATION CAN-COVER LOOSENER AND DOPE-PADDLE. LESTER MARLATT, Atchison, Kans. Filed June 16, 1915. Serial No. 34,905. (Cl. 220—6.)



The combination with a can body, a cover therefor having a horizontal slot positioned adjacent the top of the cover, of an implement formed from a single piece of metal slidably mounted in said slot and normally arranged in intimate contact with the under surface of the cover and the upper edge of the can body when the cover is in position, and a handle for facilitating the removal of the implement from the cover and provided with spaced longitudinal ribs having curved outer surfaces for engagement with the upper edge of the can body for forcing the cover from engagement therewith when the implement is being removed.

1,205,467. ELECTRIC-CIRCUIT CONTROLLER. SAMUEL MAZUR, Buffalo, N. Y., assignor to Charles Ahrhart, Jr., Buffalo, N. Y. Filed Feb. 14, 1916. Serial No. 78,150. (Cl. 161—4.)

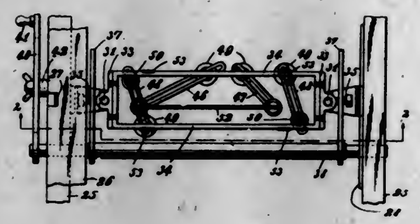


1. An electric circuit controller comprising a clock works having an hour shaft and a minute shaft, a setting disk mounted on said hour shaft and turning in unison therewith and provided with a plurality of radial slots, and a plurality of settable contacts each adjustable radially from the front of the clock in one of said slots and adapted to engage with a relatively fixed contact, each of said settable contacts having the form of a pin and provided with an externally threaded part which receives screw nuts engaging with opposite sides of said disk.

2. An electric circuit controller comprising a clock works having an hour shaft and a minute shaft, a countershaft turning in unison with said minute shaft, an arm pivotally connected with said shaft and provided with a contact roller, a stationary insulating supporting disk having a fixed contact which is adapted to be engaged by the contact roller, and a spring for pressing said arm toward said disk.

3. An electric circuit controller comprising a clock works having an hour shaft and a minute shaft, a setting disk turning in unison with said hour shaft and having a plurality of settable main contacts, a relatively stationary contact adapted to be engaged by said settable contacts, a counter shaft turning in unison with said minute shaft, a stationary insulating disk provided on diametrically opposite sides of said countershaft with fixed contacts, and an arm mounted on said countershaft and provided with a rolling contact adapted to engage successively with said fixed contacts.

1,205,468. EMBROIDERY-MACHINE FABRIC-HOLDER. OSWALD MEYER, Jersey City, N. J. Filed Nov. 10, 1915. Serial No. 60,657. (Cl. 112—7.)



1. The combination with a support frame having a pair of rigid parallel bars, a floating frame engageable therewith, said floating frame having a plurality of spaced, fabric holding bars, a horizontal frame vertically adjustable in the space between the bars of said floating frame, means for raising or lowering said horizontal frame, a plurality of slotted links adjustably engaged with said horizontal frame, means of securing said links in an adjusted position, needle points carried by said links and a fabric alining means carried by said links.

2. The combination with a support frame having a pair of horizontal support bars, of a work support frame, a shaft mounted in said bars extending therebetween, levers rigid with said shaft in which said support frame is pivotally mounted, means for oscillating said shaft whereby said work support frame is elevated or depressed, means for guiding said support frame vertically as it is raised or lowered, a plurality of slotted links adjustable linearly and laterally on said support frame, means for clamping said links in an adjusted position, needle points carried adjustably in certain of said links whereby they may be brought into any position relative to said support frame, a pair of stretchers carried by others of said links and an alining guide extended between said stretchers.

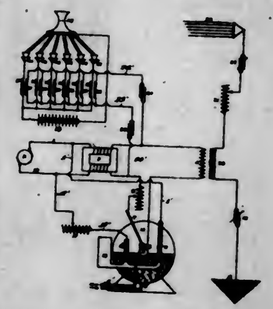
3. The combination with a support frame having fixed horisontal bars, of angle rails disposable longitudinally thereon, a plurality of angle bars arranged in pairs rigidly connecting between said rails and spaced one pair from another, rods hingedly engaged at one end to one of said rails, engageable at their opposite end with the other of said rails, said rods being in register with said bars, spring operated latch members for engaging or disengaging said rods with said rails, an elastic cushion covering on said rods and a cushion surface upon said bars on which said covering may seat.

4. The combination with a support frame having fixed horisontal bars, of angle rails disposable longitudinally thereon, a plurality of angle bars arranged in pairs rigidly connecting between said rails and spaced one pair from another, rods hingedly engaged on one of said rails, engageable at their opposite end with the other of said rails, said rods being in register with said bars, means for engaging or disengaging said rods on said rails, elastic cushion coverings on said rods, elastic cushion surfaces disposed on said bars engageable by said rod coverings, and rows of spurs in said cushion surfaces extending thereabove.

5. The combination in an embroidery machine, of a floating frame having longitudinally disposed angle rails, a series of angle bars arranged in pairs secured transversely to said rails, clamp rods disposed in pairs over said bars, said clamp rods being hinged at one end, a spring catch engageable at the other end of said rods, laterally turned ends formed with said rods, and sleeves connecting between said ends, said sleeves acting cooperatively with said rails in clamping fabrics in position for operation.

[Claims 6 to 9 not printed in the Gazette.]

1,205,469. APPARATUS FOR SPACE TRANSMISSION OF ENERGY. FREDERICK HOYER MILLENER, Omaha, Nebr. Filed Apr. 10, 1911. Serial No. 620,035. (Cl. 250—6.)



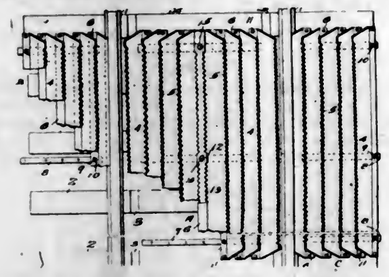
1. An apparatus for the wireless transmission of energy through space, comprising, in combination, a source of electrical energy; conductors proceeding from the terminals of said source; a choke coil connected with said conductors; a transformer, the primary winding of which is electrically connected with said conductors beyond the choke coil; an electrolytic gas generator; electrodes arranged within communicating insulating tubes in said generator, and included in a shunt circuit from the conducting wires of the source of current between said source and the choke coil, one of said tubes extending through and opening outside of a wall of said gas generator and the other opening thereinto; an electrolyte in which said electrodes are immersed; electrodes included in the conductors or circuit proceeding from the source of energy, and located within said gas generator; a local battery or source of energy; a low resistance microphone transmitter, including a series of open-core transformers, the primary coils of which are arranged in parallel between the terminals of said local battery or source of energy, and the secondary coils of which are arranged in parallel in a shunt circuit branching from the main energizing circuit at points between the choke coil and the primary of the transformer; condensers included in said shunt circuit on each side of the secondary coils; and an ethereal circuit comprising the secondary of a transformer, an inductance, a condenser, an antennæ, on one side of the secondary coils, and a condenser and ground connection on the opposite side of said secondary coils of the transformer, substantially as described.

2. In apparatus for wireless transmission of energy, the combination of antennæ; a source of electric energy; a conducting circuit therefor; a plurality of low resistance transmitters; a corresponding number of low resistance primary, open-core transformers, the primaries of which are in circuit with said transmitters; and two condensers in a shunt from the main circuit between which the secondaries of the transformers are arranged, whereby the transmitters are placed in transmitting relation with the antennæ.

3. In apparatus for the wireless transmission of energy, the combination of an oscillation circuit; a source of electric energy therefor; a plurality of couples forming part of said oscillation circuit, each couple consisting of a low resistance microphone and a transformer, each microphone being connected in series with the primary of the corresponding transformer, the secondaries of said transformers being connected in parallel with each other; and condensers interposed between said secondaries and the remaining portion of said oscillation circuit and connecting said couples across the terminals of said source.

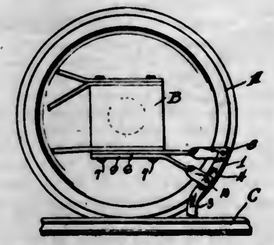
4. In an apparatus for the wireless transmission of energy, the combination of an oscillation circuit; a source of electric energy therefor; a plurality of couples forming part of said oscillation circuit, each couple consisting of a low resistance microphone and a transformer, each microphone being connected in series with the primary of the corresponding transformer, the secondaries of said transformers being connected in parallel with each other; condensers interposed between said secondaries and the remaining portion of said oscillation circuit and connecting said couples across the terminals of said source; and an antenna circuit electrically related to said oscillation circuit.

1,205,470. CATTLE-GUARD FOR RAILROADS. EDWIN CALHOUN MITCHELL, De Quincy, La. Filed Feb. 10, 1916. Serial No. 77,506. (Cl. 256—18.)



A railway cattle guard comprising angle plates arranged parallel with the rails and each angle plate formed with a toothed upper edge and a flange having perforations therein, said plates having their toothed edges pointed from the center at each side thereof and the two central plates having their flanges overlapping, a series of transverse bars perforated and bolts securing said flanges to the bars, and a toothed bar located in the valley between the two central plates having under bent ends, perforated and secured by bolts extending through the flanges and the transverse bars, and means for attaching the plates to cross ties of the railway.

1,205,471. WHEEL-FENDER. THOMAS MITCHELL, Melcher, Iowa. Filed Apr. 15, 1916. Serial No. 91,445. (Cl. 105—131.)



1. The combination with a car wheel and a car wheel journal box, of a wheel fender supported from the bottom of said journal box, said fender comprising a curved plate conforming to the curve of the periphery of the wheel and terminating in a reversely curved portion at its lower end, and supporting means carried by said journal box and connected to said fender for disposing the lower end of the fender in close proximity to the top of a rail.

2. The combination with a car wheel and a car wheel journal box, of a wheel fender supported from the bottom of said journal box, said fender comprising a curved plate conforming to the curve of the periphery of the wheel and terminating in a reversely curved portion at its lower end, the end of said reversely curved portion being disposed in close proximity to the top of the rail, a right angularly disposed flange formed integrally with and extending along the outer edge of said curved plate, and supporting means fastened to said flange and connected to said journal box for holding said fender in close proximity to the periphery of the car wheel.

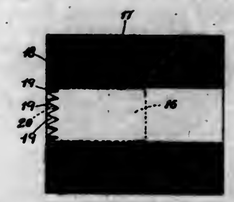
3. The combination with a car wheel and a car wheel journal box, of a wheel fender supported from the bottom of said journal box, said fender comprising a curved plate conforming to the curve of the periphery of the wheel and terminating in a reversely curved portion at its lower end, the end of said reversely curved portion being disposed in close proximity to the top of the rail, a right angularly disposed flange formed integrally with and extending along the outer edge of said curved plate, a supporting bar formed of a flat bar having one end secured to the bottom of the journal box and its opposite end twisted at right angles and secured to said flange at the upper end thereof, and retaining means secured to one end of said supporting bar and to said flange for retaining the end of said fender in position adjacent the top of a railway rail.

4. The combination with a car wheel and a car wheel journal box, of a wheel fender supported from the bottom of said journal box, said fender comprising a curved plate conforming to the curve of the periphery of the wheel and terminating in a reversely curved portion at its lower end, the end of said reversely curved portion being disposed in close proximity to the top of the rail, a right angularly disposed flange formed integral with and extending along the outer edge of said curved plate, a supporting bar formed of a flat bar having one end secured to the bottom of the journal box and its opposite end twisted at right angles and secured to said flange at the upper end thereof, a retaining bar formed of a flat bar having one end secured to said supporting bar and its opposite end bent downwardly at an angle and twisted at right angles and secured to said flange intermediate the ends of said flange.

5. The combination with a car wheel and a car wheel journal box, of a wheel fender supported from said journal box, including a curved plate conforming to the curve of the periphery of the wheel and terminating in a reversely curved portion at its lower end, the extreme terminal of said lower end being disposed in close proximity to the top of a rail.

[Claim 6 not printed in the Gazette.]

1,205,472. TOILET-PAPER PACKAGE. FREDERICK H. MOORE, Melrose, Mass. Filed Oct. 2, 1915. Serial No. 53,696. (Cl. 206—58.)

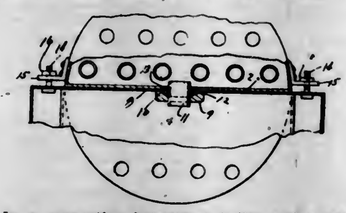


A toilet paper package comprising a tubular core and a web of toilet paper wound thereon and covering the periphery of the core, one end of the core being provided with a plurality of notches forming female clutch members opening at said end and having closed inner ends, either of said female clutch members being adapted to engage a male clutch member projecting from the periphery of a cylindrical drum fitting the interior of said core, the tongues between said notches being externally covered and protected by the corresponding end portion of the rolled web.

1,205,473. BOILER. OLLIE T. NELSON, Seattle, Wash. Filed Aug. 10, 1915. Serial No. 44,763. (Cl. 122—90.)

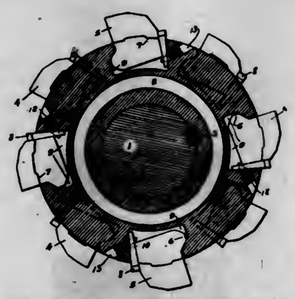
1. In a water leg boiler setting which is cut away in a semi-circular shape in front and on a horizontal line in

the rear and a freely supported boiler with a semi-circular offet in its rear end resting on said setting, the combination of a water connection between the said offset portion of the boiler and the said horizontal portion of the setting, said connection including a concave collar ring secured to the inside of said horizontal portion and positioned opposite an opening therein, a nipple passing through and secured to the ring and a tubular copper packing ring encircling the said nipple and resting in the concave portion of the collar, whereby when an opening in the offset portion of the boiler is positioned around the said nipple the weight of the boiler compresses the copper ring and forms a watertight joint.



2. In a connection between a boiler and a water leg boiler setting, the combination of a concave collar ring secured to the inner side of the said setting and concentric with an opening in said setting, a tubular nipple secured in the opening in the said collar and projecting through an opening in said boiler, and an endless tubular copper packing ring encircling the said nipple and resting in the concave portion of said collar, whereby the weight of the boiler compresses the said copper packing ring between the collar and the boiler and forms a water tight joint between said boiler and setting.

1,205,474. CRUSHING-ROLL. RAY C. NEWHOUSE, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed July 18, 1914. Serial No. 852,117. (Cl. 83—12.)



1. In combination, a roll, a breaker knob, one of said elements having a recess therein and the other of said elements having a projection engaging said recess, a wedge for securing said knob to said roll, said wedge having a projecting end provided with an abutment facing said roll, and means for locking said wedge.

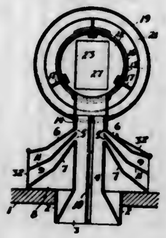
2. In combination, a roll having a recess therein, a breaker knob engaging said roll at said recess, a wedge having an end projecting beyond the periphery of said roll, said projecting end being provided with an abutment facing said roll, and means for locking said wedge.

3. In combination, a roll, a breaker knob, a wedge for securing said knob to said roll, said wedge having a projecting end provided with an abutment facing said roll, and wedge locking means coacting with the inner end of said wedge at a point beyond the base of said knob.

4. In combination, a roll, a breaker knob, a wedge for securing said knob to said roll, said wedge having an opening therethrough and having a projecting end provided with an abutment facing said roll, and wedge locking means engaging said wedge at said opening.

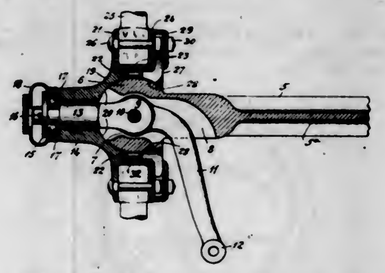
5. In combination, a roll, a breaker knob having a recess in its base, a wedge for securing said knob to said roll, said wedge having a projecting end provided with an abutment facing said roll, and wedge locking means embedded in said roll and engaging the inner end of said wedge at a point beyond said recess.

1,205,475. CAR-VENTILATOR. THOMAS PATTISON, Santa Clara, Cal. Filed Apr. 12, 1915. Serial No. 20,712. (Cl. 98—22.)



In a car ventilator, the combination of a flue leading upwardly from the inside to the outside of the car, a conduit leading rearwardly from the outside of the car to an intermediate point of the flue and directed upwardly at its rear end, a transversely extending pipe open at both ends into which said flue discharges at the top and means for preventing the entrance of rain or the like into said pipe.

1,205,476. VEHICLE. HENRY P. PFLUM, New York, N. Y. Filed Feb. 1, 1916. Serial No. 75,513. (Cl. 21—142.)



1. In a vehicle, the combination of an axle, a spherical head at an end of said axle, a spindle projecting beyond said spherical head, a wheel having a hub portion surrounding said spindle and journaled on said spherical head and means for preventing an axial movement of said wheel relatively to said head and spindle.

2. In a vehicle, the combination of an axle, a spherical head formed at an end of said axle, a wheel journaled on said head and means movable in the arc of a circle having said head as a center whereby said wheel is adjusted in a horizontal plane relatively to said axle.

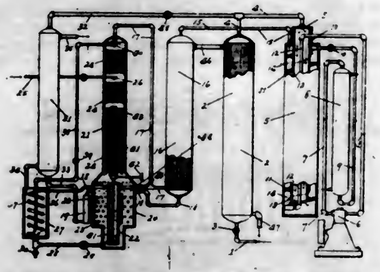
3. In a vehicle, the combination of an axle, a spherical head formed integrally with said axle at an end thereof, a spindle movably connected with said head, a wheel having a hub portion surrounding said spindle and journaled on said head, and means for moving said spindle in an arc having the spherical head as a center.

4. In a vehicle, the combination of an axle, a spherical head formed integrally with said axle at an end thereof, and having a horizontally disposed slot, means pivotally mounted in said slot and projecting from opposite ends thereof, and a wheel having a hub portion journaled on said spherical head and operatively connected with said means.

5. In a vehicle, the combination of an axle having a recess near an end thereof, a spherical head formed integrally with said axle at an end thereof and provided with a horizontally disposed slot communicating with said recess, a bearing pivoted in said slot about a substantially vertical pivot, a spindle projecting from said bearing and out of the outer end of said slot, a wheel having a hub portion surrounding said spindle and journaled on said head and a lever projecting from said bearing and out of the inner end of said slot and out of said recess.

[Claim 6 not printed in the Gazette.]

1,205,477. ART OR PROCESS OF SEPARATING THE GASES OF AIR. JAMES F. PLACE, Glen Ridge, N. J., assignor to American Air-Liquefying Company, New York, N. Y., a Corporation of New York. Filed June 8, 1915. Serial No. 32,863. (Cl. 62—122.)



1. The process of separating the oxygen from the nitrogen of air, which comprises compressing and cooling air, and forcing the same while compressed through spiral tubes, located substantially in horizontal planes, and submerged in liquefied oxygen of substantially atmospheric pressure, delivering the same from said tubes to a receiver also submerged in said liquefied oxygen and conveying the more volatile of the constituents from said receiver, substantially as described.

2. The process of liquefying air and separating its constituents, oxygen and nitrogen, which consists of compressing air and removing the heat of compression, moisture and carbon dioxid gas therefrom; then cooling the same by a counter-current of partially reheated gases, the products of rectification of air previously liquefied; and further cooling said compressed air by subjecting the same to the refrigerative effect of boiling liquefied gas as released from pressure; and still further cooling said compressed air by the cold gaseous products of rectification of air previously liquefied, before being partially reheated as aforesaid, and then passing the same while compressed through but not in physical contact with liquefied air or oxygen liquid at or near to atmospheric pressure and causing thereby evaporation thereof and the liquefaction of the said compressed air.

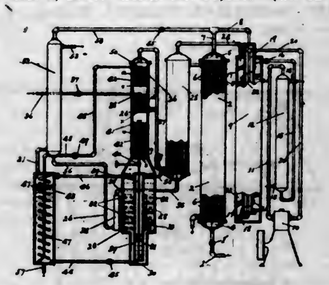
3. The process of liquefying air and separating its constituents, oxygen and nitrogen, which consists of compressing air and removing the heat of compression, moisture and carbon dioxid gas therefrom; then cooling the same by a counter-current of partially reheated gases, the products of rectification of air previously liquefied; and further cooling said compressed air by subjecting the same to the refrigerative effect of boiling liquid gas as released from pressure; and still further cooling said compressed air, by the cold gaseous products of rectification of air previously liquefied, before being partially re-heated as aforesaid; and then passing the same while compressed and cooled as aforesaid through but not in physical contact with liquefied air or oxygen liquid at or near to atmospheric pressure, and causing thereby evaporation thereof and separating the more readily liquefiable portions of said compressed air from the more refractory or less easily liquefiable portions thereof; and finally liquefying the latter by passing the same when compressed through but not in physical contact with a body of liquefied oxygen, thereby causing said oxygen liquid to evaporate.

4. In the process herein described, the method of cooling compressed air successively—first by the partially reheated nitrogenous gaseous products of rectification; and second, by pressure-released boiling liquefied N_2O; and third, by the aforesaid nitrogenous gaseous products of rectification before being partially re-heated.

5. The process of separating the constituents of air, oxygen and nitrogen, comprising the method of compressing air and removing the heat of compression, carbon dioxid gas and moisture therefrom, and then cooling the same, successively; first, by the partially re-heated nitrogenous gaseous products of rectification at or near to atmospheric pressure; second, by boiling liquid nitrous oxid released from pressure; and third, by the aforesaid nitrogenous, gaseous products of rectification before being partially re-heated.

[Claims 6 to 13 not printed in the Gazette.]

1,205,478. APPARATUS FOR THE SEPARATION OF THE CONSTITUENTS OF AIR. JAMES F. PLACE, Glen Ridge, N. J., assignor to American Air-Liquefying Company, New York, N. Y., a Corporation of New York. Filed June 9, 1915. Serial No. 33,129. (Cl. 62—122.)



1. In an apparatus for the separation of gaseous mixtures, the combination of a liquefied gas evaporating low-pressure receptacle; a header for the reception of gaseous mixtures; a high-pressure separating holder or bottle in said receptacle; horizontally arranged coiled tubes connected with the said header and with said holder or bottle and being adapted to be submerged wholly or partially in a liquid formed by the liquefaction of one of the constituents of the mixture, means for discharging the unliquefied gases from said bottle and other means for discharging the liquefied gases therefrom.

2. In an apparatus for the separation of the primary constituents of air, oxygen and nitrogen, the combination of a low-pressure vessel for the evaporation of pressure-released liquefied gases therein; a header for the reception of cooled compressed air; a bottle or high-pressure receptacle within said low-pressure vessel; said bottle being adapted to separate the liquefied from the unliquefied gases therein by gravity and a series of tubes connected with said header at one end and with said bottle or receptacle inclosed in said low-pressure vessel, at the other end—said tubes being adapted to be wholly or partially submerged in the pressure-released liquefied gases in said low-pressure vessel, means for discharging the unliquefied gases from said bottle and other means for discharging the liquefied gases therefrom.

3. In an apparatus for the separation of the primary constituents of air, oxygen and nitrogen, the combination of a low-pressure vessel for the reception and evaporation of pressure-released liquefied gases; a header for the reception of cooled compressed air; a metal bottle or high-

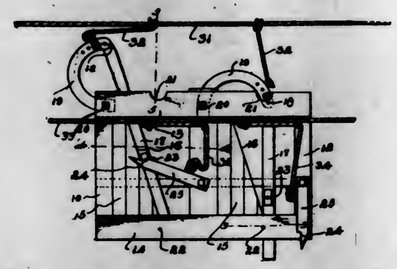
pressure separating receptacle; said bottle being adapted to separate the liquefied from the unliquefied gases therein by gravity and a series of tubes connecting said header with said bottle or separating receptacle—said tubes being adapted to be submerged wholly or partially in a liquid formed by the liquefaction of one or both of the primary constituents of air, means for discharging the unliquefied gases from said bottle and other means for discharging the liquefied gases therefrom.

4. In an apparatus for the separation of gaseous mixtures, the combination of a liquefied gas evaporating low pressure chamber, a holder or bottle situated in said chamber, a series of coiled tubes connected with said holder or bottle, means for supplying a cold compressed gaseous mixture to said coiled tubes, the latter being adapted to be submerged wholly or partially in a liquid formed by the liquefaction of one of the constituents of the gaseous mixture, means for discharging the unliquefied gases from said holder or bottle and separate means for discharging the liquefied gases therefrom.

5. In an apparatus for the separation of the primary constituents of air, oxygen and nitrogen, the combination of a rectifying column or drum; metal balls therein; and a plurality of metal disks across the inside of said column at different points, some of said disks having openings or apertures near the periphery, and some with openings or apertures in and near the center—the two kinds of said disks being alternated in location in said column.

[Claims 6 to 17 not printed in the Gazette.]

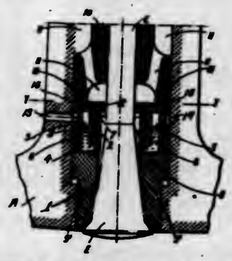
1,205,479. CATTLE-STANCHION. WILLIAM P. PRICE, Monte Vista, Colo. Filed Jan. 5, 1916. Serial No. 70,498. (Cl. 119—148.)



A cattle stanchion comprising spaced upright bars, double transverse bars connecting the upright bars at their upper ends, double transverse bars connecting the upright bars at their lower ends, a plurality of movable bars guided between the upper and lower transverse bars, arms pivoted between the upper double transverse bars and having their free ends pivotally connected respectively to the upper ends of the movable bars, locking arms pivoted on respective upright bars engageable with respective movable bars to support the latter in released position, a cable above the pivoted arms, a flexible connection between the cable and each pivoted arm, a second cable above the locking arms and a flexible connection between the second cable and each locking arm.

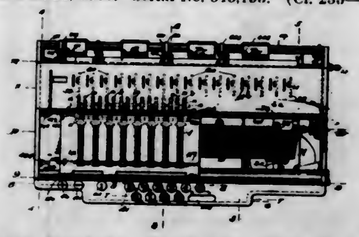
1,205,480. INTERNAL-COMBUSTION ENGINE. CHARLES RADIGUER, St. Denis, France, assignor to The Société Anonyme des Établissements Delaunay-Belleville, St. Denis, France, a Corporation of France. Filed Feb. 1, 1915. Serial No. 5,558. (Cl. 123—131.)

A fuel atomizer comprising a casing, a valve positioned therein and having a relatively long tapering portion diverging toward the outlet of the atomizer and having a relatively short and more divergent extremital portion, the inner wall of the casing adjacent said tapering portion of the valve being in close proximity with the surfaces of such tapering portion and forming therewith a narrow chamber converging toward the outlet, and that portion of the casing adjacent the extremital portion of



the valve forming a valve seat upon which said extremital portion of the valve may seat, and means to supply fuel to said chamber.

1,205,481. CALCULATING-MACHINE. ALEXANDER RECHNITZER, Vienna, Austria-Hungary, assignor to Autarit-gesellschaft M. B. H., Vienna, Austria-Hungary. Filed Feb. 21, 1910. Serial No. 545,193. (Cl. 235—62.)



1. In a calculating machine, the combination with means for setting up a multiplier, and means for setting up a multiplicand, of means to perform additions and subtractions, and means to select a suitable combination of additions and subtractions instead of the multiplier set up.

2. In a calculating machine, the combination with means for setting up a dividend, of means for setting up a divisor, means adapted to perform the operation of division, a paper carriage, means to print the result of the division upon a paper arranged on the paper carriage, means arranged in working relationship to the paper carriage to print the divisor and the dividend thereof, and letter printing mechanism arranged also in working relationship to the paper carriage.

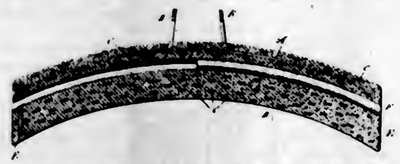
3. In a calculating machine, the combination with means for setting up a multiplicand, of registering devices, means to add the multiplicand set up to said registering devices, means to change the position of the multiplicand relative to said registering devices to different denominations, a set of keys for setting up the multiplier and means actuated by said keys for causing primarily a change to a lower denomination followed by a number of additions or subtractions in accordance with the multiplier key set.

4. In a calculating machine, the combination with means for setting up a multiplier, of means for setting up a multiplicand, registering means and operating means for the same to add to or subtract the multiplicand from them, a slidable carriage, one of said means, that is the means for setting up a multiplier and means for setting up a multiplicand, being mounted upon said carriage, a spring or weight for drawing said carriage during a calculation out of its initial position to different digit places, a motor, and means driven by said motor to return said carriage to its initial position in opposition to the traction of said carriage spring or weight.

5. In a calculating machine, the combination with means for setting up a multiplier in the machine and for printing said multiplier by a single operation of the operator, of means for adjusting a multiplicand, means adapted to perform the multiplication and to register the result thereof comprising operating means and also registering means, one of which means is bodily movable relatively to the other and said operating means being adapted to simultaneously transfer two or more digits to said registering means, typewriting mechanism including a paper carriage and means to shift the paper carriage sidewise opposite the printing means for the multiplier.

[Claims 6 to 56 not printed in the Gazette.]

1,205,482. BRAKE-SHOE. ANDREW H. REID, Toronto, Ontario, Canada, assignor to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed Apr. 26, 1916. Serial No. 93,580. (Cl. 188—27.)



1. A brake shoe comprising a tough metal back; a plurality of layers of reticulated metal and a body of hydraulic cement cast about said back and reinforcement and binding the same together.

2. A brake shoe formed of a mixture of hydraulic cement and sulfur reinforced with metal.

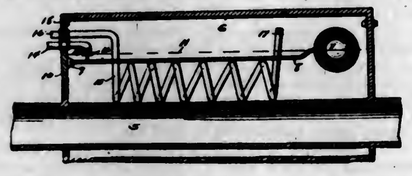
3. A brake shoe formed of a mixture of hydraulic cement, sulfur and salt, reinforced with metal.

4. A brake shoe formed of a mixture of hydraulic cement, sulfur, salt and antimony reinforced with metal.

5. A brake shoe formed of a mixture of hydraulic cement, sulfur, salt, antimony and asbestos reinforced with metal.

[Claim 6 not printed in the Gazette.]

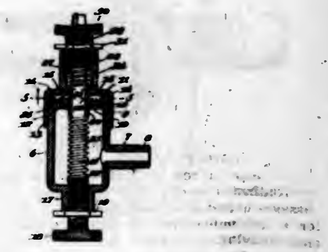
1,205,483. STEAM-GENERATING ATTACHMENT FOR INTERNAL-COMBUSTION ENGINES. JOSEPH J. RILEY, San Diego, Cal., assignor of one-half to William R. Byars, San Diego, Cal. Filed Oct. 7, 1915. Serial No. 54,525. (Cl. 60—9.)



1. The combination with a steam generator casing, of an exhaust pipe passing therethrough, and lying in spaced relation to the bottom and sides thereof, and made in one piece with said casing, said casing having an opening formed therein and a closure plate for said opening, a float pivoted to said plate, a valve actuated by said float and a water supply pipe closed by said valve and passing through said plate.

2. The combination with a steam generator casing, of an exhaust pipe passing therethrough, and lying in spaced relation to the bottom and sides thereof, and made in one piece with said casing, said casing having an opening formed therein and a closure plate for said opening, a float pivotally supported by said plate and bodily removable therewith, a valve actuated by said float, a water supply pipe closed by said valve and passing through said plate and a coil supported from said plate and having a terminal end disposed above the water line within the casing.

1,205,484. AIR-CONTROLLING DEVICE FOR INTERNAL-COMBUSTION ENGINES. WALTER F. ROPER, Hopedale, Mass. Filed Jan. 22, 1915. Serial No. 3,812. (Cl. 137—26.)



1. In an internal combustion engine, the combination of the cylinders and intake pipe, a casing having a vacuum chamber in communication with the intake pipe, inner and outer valve seats independent in relation to each other having air passages, a single valve between said seats operating without relation to the chamber walls, a spring adapted to seat the valve against the outer seat and close the air passage thereof when there is a minimum vacuum in the said chamber and permitting the valve to rest against the inner seat when a maximum vacuum exists in said chamber, and means acting upon the valve to hold it from the outer seat when there is a vacuum between maximum and minimum in said chamber.

2. In an internal combustion engine, the combination of the cylinders and intake pipe, a casing having a vacuum chamber in communication with said intake pipe, an inner valve seat having air passages, an outer valve seat having inlets for the admission of air to said chamber, a valve movable between the inner and outer valve seats, a spring acting on the valve in one direction to force the valve against the outer seat when the engine is at rest and also when a minimum vacuum exists in said chamber during the slow operation of the engine and permitting the valve to rest against the inner seat and close the air passages thereof when a maximum vacuum exists in said chamber, and an auxiliary spring-actuated device operated to act upon the valve to hold it from its outer seat when the vacuum is near but above the minimum.

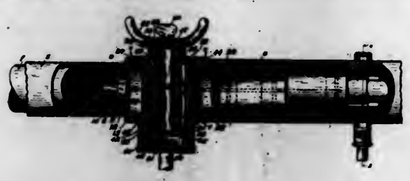
3. An air controlling device for internal combustion engines, comprising a casing having a chamber, an inner valve seat adjacent one end of said chamber and having an air passage, an outer valve seat having an air inlet, a valve between said seats, a spring for forcing the valve toward its outer seat, and an auxiliary spring for modifying the action of said first-named spring when the valve is moved toward its outer seat.

4. An air controlling device for internal combustion engines, comprising a casing having a chamber, an outer valve seat having an air inlet passage, an inner valve seat within the casing having an air passage, a valve movable between said outer and inner valve seats, a spring for moving the valve toward one of said seats, a spring plunger extending beyond one of said valve seats and adapted to modify the action of the first-named spring on said valve.

5. An air controlling device for internal combustion engines, comprising a casing, an inner and outer valve seat in said casing forming a valve chamber between them, a valve movable in said valve chamber, said valve seats having air passages, a spring for moving the valve toward the outer valve seat to close the air passages thereof, a plunger having a part extending into the valve chamber adapted to be engaged by the valve as it moves toward the outer valve seat to modify the action of the first-named spring.

[Claims 6 to 8 not printed in the Gazette.]

1,205,485. PNEUMATIC HAMMER-DRILL. HENRY SCHUMACHER, Denver, Colo. Filed Mar. 19, 1912. Serial No. 684,832. (Cl. 121—10.)



1. The combination with a motor and fluid supply means therefor, of means for controlling the fluid supply to said motor, comprising a disk valve piece interposed between the motor and fluid supply means, a valve block in which said disk valve piece is rotatable, said valve piece having its axis of rotation disposed at right angles to the longitudinal axis of the motor, said valve block having a passage extending at right angles to the axis of the motor and communicating with the latter, and said valve piece having an opening adapted to register with said passage for establishing communication of said motive fluid with said motor.

2. In a machine of the character set forth, the combination with a fluid operated motor, and fluid operated feeding means for the motor, of controlling means interposed between the motor and the motor feeding means, the said means having passages communicating respectively with the motor and the motor feeding means, a disk valve having slots therein adapted to be brought into register with the aforesaid passages, and said disk valve having a restricted opening, adapted to register with the passage leading to the feeding means after the said slot has been moved out of register with the latter, substantially as described.

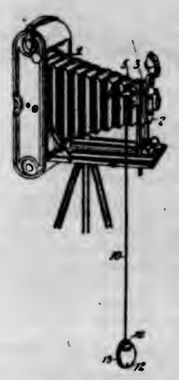
3. In a machine of the character set forth, the combination with a motor and a motor feeding cylinder, of means for controlling the supply of motive fluid to the motor and the motor feeding cylinder, comprising a valve interposed between the motor and the motor feeding cylinder, the block having passages communicating respectively with the motor and the motor feeding cylinder, a valve piece for controlling the said passages, said valve piece having slots adapted to register with the passages in the valve block, one of the said slots of the valve piece being located to register with the passage communicating with the feed cylinder before the other slot registers with the passage communicating with the motor, and said valve piece having a restricted opening adapted to follow the first named slot into register with the passage communicating with the feed cylinder.

4. In a machine of the character set forth, the combination with a motor and feeding means for the motor, of means for controlling the supply of motive fluid to the motor and the motor feeding means, comprising a valve interposed between the motor and the motor feeding means, the valve block having passages communicating respectively with the motor and the motor feeding means, and a valve piece for controlling the said passages, said valve piece having slots adapted to be brought into register with the passages in the valve block, one of the said slots in the valve piece being adapted to be brought into register with the passage leading to the feeding means, before the other slot comes into register with the passage leading to the motor, and said valve piece having a reduced opening adapted to register with said passage leading to the feeding means after the said slot has been moved out of register therewith for admitting motive fluid to the feeding means under control, substantially as described.

5. In a machine of the class described the combination with a motor and a feed cylinder, of motive fluid controlling means interposed between the motor and the feed cylinder, said means comprising a valve block having passages formed therein and respectively communicating with the motor and feed cylinder, and a valve piece operable in the said valve block and having slots, one of which is adapted to register with the passage leading to the motor, while the other is adapted to register with the passage leading to the feed cylinder, the slot adapted to register with the passage leading to the feed cylinder being positioned in the disk with respect to the slot adapted to register with the passage leading to the motor so that the slot adapted to register with the passage leading to the feed cylinder will register with the said passage before the other slot registers with the passage leading to the motor, and said valve piece having a restricted opening positioned to register with the passage leading to the feed cylinder while the first named slot is still in register with the passage leading to the motor.

[Claims 6 to 9 not printed in the Gazette.]

1,205,486. CAMERA-OPERATING DEVICE. FLOYD L. SCOTT, Buffalo, N. Y. Filed Oct. 27, 1914, Serial No. 868,845. Renewed Sept. 30, 1916. Serial No. 123,196. (Cl. 161—26.)



1. An operating device for a camera having its shutter mechanism provided with a trigger having an L-shaped outer end, comprising a clip provided at its opposite ends with right and left hand L-shaped sockets one or the other of which is adapted to receive the L-shaped outer end of said trigger, and a timing device connected with said clip.

2. An operating device for a camera having its shutter mechanism provided with a trigger comprising a clip having its central part constructed of two folded leaves of metal, extensions at opposite ends of one of said leaves and sockets on said extensions either one or the other of which is adapted to receive the end of said trigger, and a timing device connected with said clip.

3. An operating device for a camera having its shutter mechanism provided with a trigger, comprising a clip adapted to be connected with said trigger and provided with a longitudinal row of openings, and a timing device having a suspending thread adapted to be secured in one or the other of said openings.

4. An operating device for a camera having its shutter mechanism provided with a trigger, comprising a thread attached at its upper end to said trigger, and storing elements from which the lower end of said thread is paid out by the weight of said elements and associated parts.

5. An operating device for a camera having its shutter mechanism provided with a trigger, comprising a thread attached at its upper end to said trigger, storing elements from which the lower end of said thread is paid out by the weight of said elements and associated parts, and which are organized to cause the first part of said thread to be paid out from said elements slowly and uniformly and the last part thereof to be paid out rapidly.

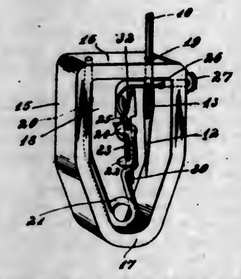
[Claims 6 to 14 not printed in the Gazette.]

1,205,487. TOBACCO-PIPE. ALFRED C. SEWALL, Wilmington, Del. Filed Nov. 9, 1915. Serial No. 60,483. (Cl. 131—12.)



The combination in a tobacco pipe of a tobacco bowl having a rounded bottom and a smoke passage leading from the interior thereof through said bottom, a neck extending from said tobacco bowl intermediate the ends thereof, and having a stem socket therein, said tobacco bowl having a second smoke passage leading upwardly adjacent said first mentioned smoke passage, from the bottom of said tobacco bowl to said stem socket, and a nicotin bowl removably secured to the lower end of the tobacco bowl.

1,205,488. TIE-PIN RETAINER. ANTHONY J. SMIELINSKI, Cleveland, Ohio. Filed May 26, 1916. Serial No. 99,933. (Cl. 24—155.)

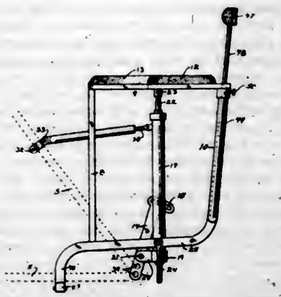


The combination with a pin having an elongated slot formed therethrough near the point end thereof, of a keeper adapted to receive said pin including the point and mentioned slot, a spring element secured within the said keeper, a spring loop formed in said element, a plurality of eyes formed in the free end of said element, said eyes being screw-threaded, an anchor having a stem suited to said eyes whereby it may be adjusted longitudinally, said anchor being adapted to enter the mentioned slot and held normally therein by said spring element, and means extending through the walls of said keeper for releasing said anchor.

1,205,489. SHOCK-ABSORBING MOTOR-CYCLE REAR SEAT. FRANK M. STOLL, Denver, Colo. Filed Oct. 8, 1912. Serial No. 724,613. (Cl. 208—24.)

1. A shock absorbing motor-cycle rear seat, comprising a frame, members secured to the axle of the motor-cycle, said members having sector slots at their upper extremities, cylinders pivotally connected with said members, spring actuated pistons arranged within said cylinders and supporting the said frame, the said cylinders having parts received in said sector slots of said members, and spring actuated means connecting the said frame with the frame work of the motor-cycle at angles to the said cylinders, substantially as described.

2. A vehicle seat, comprising a frame, members secured to the frame work of the vehicle and having sector shaped guides at their upper extremities, cylinders pivoted to said members, spring actuated pistons arranged within said cylinders and supporting the said frame, the said cylinders having parts received by said sector shaped guides, and spring actuated means connecting the said seat frame with the motor-cycle frame at angles to the said cylinders.



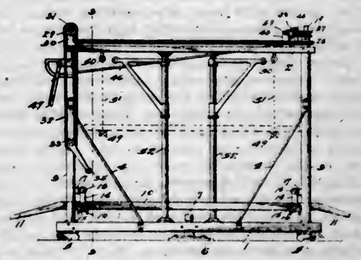
3. A vehicle seat, comprising a frame, members secured to the vehicle frame work and having sector shaped slots at their upper extremities, cylinders pivotally connected to said members, spring actuated rods arranged within said cylinders and supporting the seat frame, the cylinders having parts received in said sector shaped slots of said members, the said spring actuated rods permitting the seat to yield upwardly and downwardly, and means connecting the said seat frame with the frame work of the vehicle at angles to the said spring actuated rods, said means comprising cylinders pivoted at one extremity to the frame work of the vehicle, and spring actuated pistons arranged within the said cylinders and pivotally connected with the seat frame, substantially as described.

4. A vehicle seat, comprising a seat frame, members secured to the frame work of the vehicle and having sector shaped guides, cylinders pivoted to said members, spring actuated pistons arranged within said cylinders and supporting the said seat frame, the said cylinders having parts received by said sector shaped guides, and tension yielding means connecting the said seat frame with the vehicle frame at angles to the said cylinders.

5. A vehicle seat, comprising a seat proper, members secured to the frame work of the vehicle and having sector shaped guides, cylinders pivoted to said members, spring actuated means arranged within said cylinders, and supporting the said seat proper, the said cylinders having parts received by said sector shaped guides, and yielding means connecting said cylinders with the vehicle frame at angles to said cylinders.

[Claims 6 to 8 not printed in the Gazette.]

1,205,490. AUTOMOBILE-HOIST. EUGENE STRETCH, Shelbyville, Ill. Filed Nov. 10, 1915. Serial No. 60,676. (Cl. 187—24.)



1. The combination with a supporting structure including hollow, vertical posts and screw shafts therein, a non-rotatable nut on each shaft, a supporting frame, links suspending said frame from said nuts, means for revolving the shafts to vertically move the supporting frame, means whereby one end of the supporting frame may be

held stationary while the other is lifted or lowered, said means consisting of clutches on certain of said shafts, a pair of clutch levers and forks pivoted in brackets secured on the supporting structure, a rock shaft for lifting said clutches out of engagement with the drive sprockets, and means for operating said rock shaft.

2. The combination with a supporting structure including hollow, vertical posts and screw shafts therein, a non-rotatable nut on each shaft, a supporting frame, links suspending said frame from said nuts, means for revolving the shafts to vertically move the supporting frame, means whereby one end of the supporting frame may be held stationary while the other is lifted or lowered, said means consisting of clutches on certain of said shafts, a pair of clutch levers and forks pivoted in brackets secured on the supporting structure, a rock shaft for lifting said clutches out of engagement with the drive sprockets, and means for operating said rock shafts, said means consisting of a quadrant mounted on the opposite end of said supporting structure and a lever pivoted to said quadrant.

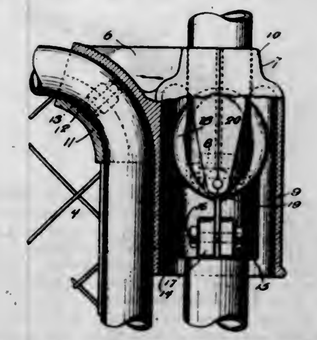
3. The combination with a supporting structure including hollow, vertical posts and screw shafts therein, a non-rotatable nut on each shaft, a supporting frame, lugs on said supporting frame, lugs integral with said non-rotatable nuts, links connecting said lugs with said frame, thereby suspending said supporting frame from said non-rotatable nuts, means for revolving the shafts to vertically move the supporting frame, means whereby one end of the supporting frame may be held stationary while the other is lifted or lowered, said means consisting of clutches on certain of said shafts, a pair of clutch levers and forks pivoted in brackets secured on the supporting structure, a rock shaft for lifting said clutches out of engagement with the drive sprockets, and means for operating said rock shafts, said means consisting of a quadrant mounted on the opposite end of said supporting structure and a lever pivoted to said quadrant.

4. The combination with a supporting structure including hollow, vertical posts and screw shafts therein, a non-rotatable nut on each shaft, a supporting frame, lugs on said supporting frame, perforated lugs formed on and integral with said non-rotatable nuts, links connecting said lugs, thereby pivotally suspending said supporting frame from said non-rotatable nuts, means for revolving the shafts to vertically move the supporting frame, means whereby one end of the supporting frame may be held stationary while the other is lifted or lowered, said means consisting of clutches on certain of said shafts, brackets secured on the supporting structure, clutch levers and forks pivoted in said brackets, a rock shaft for lifting said clutches out of engagement with the drive sprockets, and means for operating said rock shafts, said means consisting of a quadrant mounted on the opposite end of said supporting structure, an operating lever pivoted to said quadrant and connections between said operating lever and rock shafts.

5. The combination with a supporting structure including hollow, vertical posts and screw shafts therein, a non-rotatable nut on each shaft, a supporting frame, lugs on said supporting frame, perforated lugs formed on and integral with said non-rotatable nuts, links connecting said lugs, thereby pivotally suspending said supporting frame from said non-rotatable nuts, means for revolving the shafts to vertically move the supporting frame, means whereby one end of the supporting frame may be held stationary while the other is lifted or lowered, said means consisting of clutches on certain of said shafts, brackets secured on the supporting structure, clutch levers and forks pivoted in said brackets, a rock shaft for lifting said clutches out of engagement with said driving means, and means for operating said rock shafts, said means consisting of a quadrant mounted on the opposite end of said supporting structure, an operating lever pivoted to said quadrant and connections between said operating lever and rock shafts, said connections consisting of a crank arm fixed to said rock shafts and a draw rod connecting said crank arm and said operating lever.

[Claim 6 not printed in the Gazette.]

1,205,491. GATE-HINGE. AUGUST SUNDH, Hastings upon Hudson, N. Y. Filed Feb. 18, 1916. Serial No. 79,043. (Cl. 16—163.)



1. A gate hinge comprising in combination, a stationary hinge member formed in sections to engage opposite sides of a post, means to clamp said sections to the post, and a rotary hinge member surrounding the post and having its axis of rotation concentric with the post, said hinge members having coöperating bearing surfaces.

2. A gate hinge comprising in combination, a stationary hinge member formed in sections to engage opposite sides of a post, means to clamp said sections to the post, and a rotary hinge member comprising a casing arranged to surround said post and stationary hinge member and inclose the stationary hinge member.

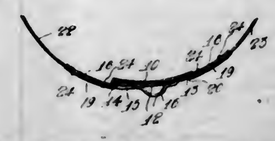
3. The combination with a gate post, of a split hinge member formed to surround the post, means to clamp said member to the post, and a rotary hinge member having a bearing part to run on said first mentioned member, the axis of rotation being within said post.

4. The combination with a gate post, of a split hinge member formed to surround the post, means to clamp said member to the post, a rotary hinge part supported on said first mentioned member and made in sections to facilitate the mounting of the hinge on the gate post, and means to clamp said sections together so that they surround the post.

5. The combination with a gate post, of a hinge part surrounding the post and adjustable vertically thereon, means to clamp said part to the post in its adjusted position, and a rotary hinge part mounted for rotation on said first mentioned part, said rotation being about said post as an axis.

[Claims 6 to 8 not printed in the Gazette.]

1,205,492. BUCKLE. EARL R. SWIFT, Nebraska City, Nebr. Filed Jan. 13, 1915. Serial No. 2,070. (Cl. 24—206.)

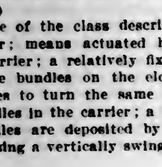


A fastener comprising a plate provided with transversely extending openings and having depending side flanges, and an engaging element including an attaching member and an engaging member, the engaging member being formed from a strand of resilient wire bent intermediate its length to provide a bridge engaged by said attaching element to pivotally mount the engaging element and having arms extending therefrom, the arms being bent inwardly adjacent the bridge and then carried away from the bridge in spaced relation and bent intermediate their length to provide finger grips, the free end portions of the arms being bent downwardly and then outwardly to provide side prongs for passing through the openings of said plate to engage the flanges thereof.

1,205,493. PROCESS OF PRODUCING OXALIC ACID. EMIL VON PORTHEIM, Prague, Austria-Hungary. Filed Mar. 27, 1916. Serial No. 86,969. (Cl. 23—24.)

The process of producing oxalic acid from sugar and other carbohydrates by means of nitric oxids or nitric acid and catalyzers, which comprises subjecting the carbohydrates to a preliminary treatment with nitrous gases.

1,205,494. STORE-CABINET. JESSE G. WATTS, Mayfield, Ky., assignor of thirty one-hundredths to Dan W. Stamper, Mayfield, Ky. Filed Jan. 3, 1916. Serial No. 69,944. (Cl. 211—8.)

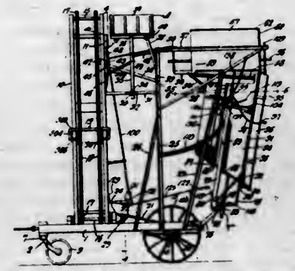


1. A dispensing chamber for a distributing apparatus comprising a substantially cylindrical drum disposed on one side and having a plurality of inlets arranged around the upper portion of its periphery and a discharge spout opening through the side of the drum opposite to that into which the inlets open, the side walls of the drum being curved inwardly at the junction with the discharge spout to present convexed inner faces at this point to facilitate the discharge of the contents of the drum, and peripherally spaced baffle plates depending from the inner face of the inlet side of the drum and curved inwardly from their fixed toward their free edges, the convexed faces of said plates being arranged opposite each other and their free ends disposed over the discharge spout.

2. A discharge tube for a dispensing apparatus having a peripheral slot extending transversely around one-half thereof, a laterally extending guiding and supporting plate mounted on said tube around the lower wall of said slot, said plate having upstanding side flanges provided with inturned lips, said flanges converging toward their front ends with their terminals spaced apart, said plate also having rearwardly extending side arms projecting into said tube through said slot adjacent the opposite ends of the slot and forming oppositely disposed supports within said tube, the free ends of said arms extending rearwardly beyond the ends of the slot and engaging the opposed side walls of the tube at the rear of the ends of the slot and leaving a closed rear wall unobstructed on its inner face, a cut-off valve slidable transversely in said tube through said slot and traveling and guided therein on said arms with its perimeter closely engaging the wall of said tube beyond said arms when in closed position, the inward closing movement of said valve serving to eject the material from said arms and discharge it into the tube and insure the tight closing of the valve against the rear wall of the tube.

1,205,495. SHOCKING-MACHINE. JOHN L. WELCH, Trenton, Mo., and WILLIAM ALMON WELCH, Minneapolis, Minn. Filed Jan. 11, 1916. Serial No. 71,531. (Cl. 56—121.)

1. In a device of the class described, an elevator; a swinging carrier; means actuated by the elevator for swinging the carrier; a relatively fixed element lying in the path of the bundles on the elevator and coacting with the bundles to turn the same end for end and to deposit the bundles in the carrier; a rocking dropper into which the bundles are deposited by the carrier; a depository comprising a vertically swinging main frame and an auxiliary frame mounted to slide in the main frame, a core in the auxiliary frame, the dropper constituting means for depositing bundles alternately on opposite sides of the core; a latch coöperating with the auxiliary frame to prevent the main frame from swinging downwardly, the auxiliary frame being downwardly movable on the main frame out of engagement with the latch; spring means for elevating the auxiliary frame with respect to the main frame and spring means for swinging the main frame upwardly to permit the latch to engage with the auxiliary frame; latch mechanism coöperating with the auxiliary frame to prevent the same from moving downwardly with respect to the main frame; and mechanism operable by the means for swinging the carrier for disengaging the latch mechanism from the auxiliary frame to permit a downward movement of the auxiliary frame after a predetermined number of bundles have been raised by the elevator.



2. In a device of the class described, an elevator; a swinging carrier; a relatively fixed element lying in the path of the bundles on the elevator and constituting means for turning the bundles end for end and for depositing the same in the carrier; a rocking dropper into which the bundles are deposited by the carrier; a vertically swinging depository; a core therein, the dropper constituting means for depositing bundles on opposite sides of the core; and means for holding the depository in upturned position to receive the bundles from the dropper.

3. In a device of the class described, a supporting structure; a swinging carrier mounted on the supporting structure; an elevator mounted to move on the supporting structure and discharging into the carrier; a primary lever fulcrumed on the supporting structure and lying in the path of the conveyer; a flexible element connecting the primary lever with the carrier whereby the carrier will be actuated when the primary lever is engaged by the elevator; a secondary lever fulcrumed on the supporting structure and engaged with the flexible element thereby to move the primary lever out of the path of the elevator, the secondary lever being in the path of the bundles on the elevator, whereby when there is a bundle on the elevator, the secondary lever will be actuated to relieve the flexible element and to permit the primary lever to move in the path of the conveyer; latch mechanism coacting with the secondary lever to hold the same in released relation to the flexible element; and an operative connection between the primary lever and the secondary lever whereby the latter may be released from the latch when the primary lever is actuated by the elevator.

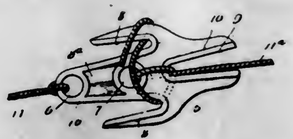
4. In a device of the class described, a supporting structure; a swinging carrier mounted on the supporting structure; an elevator mounted to move on the supporting structure and discharging into the carrier; a primary lever fulcrumed on the supporting structure and actuated by the elevator; a connection between the primary lever and the carrier; a secondary lever fulcrumed on the supporting structure and lying in the path of the bundles on the elevator, the secondary lever being engaged with the connection to move the primary lever out of the path of the conveyer; and an operative connection between the levers, whereby when the primary lever is actuated by the

conveyer, the secondary lever will be moved into engagement with the connection, thereby to move the primary lever out of the path of the conveyer.

5. In a device of the class described, a sheaf-elevator; a shock-forming means; a sheaf-distributing means discharging into the shock-forming means; a mechanism for conveying sheaves from the elevator to the distributing means; and a relatively fixed element lying in the path of the sheaves as the same are raised by the elevator, and coöperating with the sheaves to turn the same end for end and to deposit them in the distributing means.

[Claims 6 to 20 not printed in the Gazette.]

1,205,496. ROPE-HOLDER. REUBEN J. WHITEHEAD, Harrison, N. J. Filed June 28, 1913. Serial No. 776,399. (Cl. 24—129.)



A rope holder including an elongated plate provided with a tapering recess in one end and an opening in the opposite end, said plate having an opening between the apex of said recess and said first mentioned opening, one end of the rope being secured in the first mentioned opening and the opposite end trained through the second opening and said recess, the lateral margins of said plate being recessed to receive the free end of the rope, the apices of all of said recesses being rounded to prevent mutilation of the rope.

1,205,497. SLIDING-DOOR FASTENER. CALVIN A. WHITEHURST, Clyde, Miss. Filed Sept. 22, 1915. Serial No. 51,949. (Cl. 70—102.)



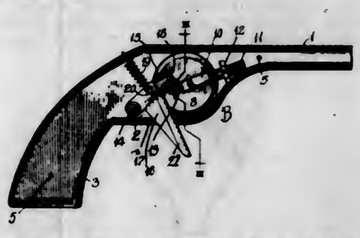
1. A device of the character described including a supporting member having a base, a frame extending laterally from the base and terminating at one end in a block, a locking element shiftably mounted within the frame, a hasp shiftable to engage the locking element, and a stop carried by said block and movable to engage the locking element for holding it in inoperative position out of the path of the hasp or for holding it in operative position in engagement with the hasp.

2. A device of the character described including a base, a block projecting laterally from the base and an upwardly extending shoulder, a hasp pivotally mounted upon the block, a supporting member, and a locking element shiftably mounted upon the supporting member, the hasp being shiftable to engage the locking element and being shiftable to a position in engagement with said shoulder out of the path of the locking element.

3. A device of the character described including a supporting member, a locking element shiftably mounted thereon, a base having a block projecting laterally therefrom and provided with a cut away portion, a hasp pivotally mounted in the cut-away portion of said block and shiftable to engage the locking element, and a shoulder projecting laterally from the hasp and adapted to engage the outer side wall of the block for limiting the hasp in its downward swinging movement into the path of the locking member.

4. A device of the character described including a hollow frame provided with a solid portion, a locking element shiftably mounted upon the frame, a hasp shiftable to engage the locking element, and a stop carried by the solid portion of the frame and movable to engage the locking element for holding it in operative position in engagement with the hasp.

1,205,498. TOY PISTOL. BYRON P. WILLETT, Detroit, Mich. Filed Mar. 27, 1916. Serial No. 86,853. (Cl. 46—46.)



1. In a toy pistol, a diaphragm carried by a wall of said pistol and in parallelism therewith, a hammer carried by the same wall adapted to impinge upon said diaphragm, and means for operating said hammer.

2. In a toy pistol, a diaphragm carried by a wall of said pistol, a trigger member, and a hammer actuated by said trigger member to impinge upon said diaphragm.

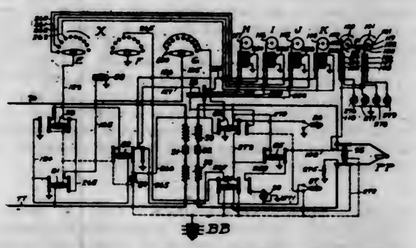
3. In a top pistol, a diphragm carried by a wall of said pistol, a normally cocked trigger member, and a hammer normally engaging said diaphragm adapted to be actuated by said trigger member to impinge upon said diaphragm.

4. In a toy pistol, matched longitudinal members, a diaphragm between said members, and a hammer adapted to impinge upon said diaphragm.

5. In a toy pistol, matched longitudinal members, a diaphragm between said members, a normally cocked trigger member, and a hammer adapted to be actuated by said trigger member to impinge upon said diaphragm.

[Claims 6 to 10 not printed in the Gazette.]

1,205,499. TELEPHONE-EXCHANGE SYSTEM. JOSEPH L. WAIGHT, Washington, D. C., assignor, by mesne assignments, to James R. Garfield, trustee, Cleveland, Ohio. Filed Feb. 8, 1912. Serial No. 676,395. (Cl. 179—27.)



1. In a telephone exchange system, an exchange having a plurality of subscribers' lines associated therewith, a second exchange having a plurality of subscribers' lines associated therewith, a plurality of digit indicators at such first exchange capable of representing the respective designations of the subscribers' lines of said first exchange, setting means for said indicators controlled over an impulse circuit including one conductor of a trunk line connecting such exchanges, and means for shifting said setting means from one digit indicator to another, controlled over another conductor of such trunk line.

2. In a telephone exchange system, an exchange having a plurality of subscribers' lines connected therewith, a second exchange having a plurality of subscribers' lines connected therewith, an indicator at the first exchange having a number of digit wheels representing digit numerals, and means for operating said digit wheels successively from the second exchange, said means including trunks, trunk selector switches, a sending machine, and a keyboard, together with step by step switching apparatus to successively associate the digit wheels with the trunk.

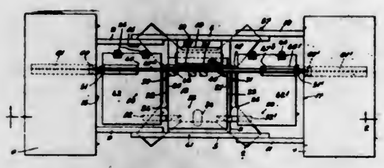
3. In a telephone exchange system, an exchange having a plurality of subscribers' lines connected therewith, a second exchange having a plurality of subscribers' lines connected therewith, and a trunk provided with an indicator at the first exchange, capable of representing the respective designations of the subscribers' lines of said exchange, and means for controlling the indicator, and also provided with means for automatically ringing the indicated subscriber when connection is made with his line.

4. In a telephone exchange system, an exchange having a plurality of subscribers' lines connected therewith, a second exchange having a plurality of subscribers' lines connected therewith, a trunk provided with an indicator at the first exchange capable of representing the respective designations of the subscribers' lines of said exchange, means for controlling the indicator, and also provided with means for automatically ringing the indicated subscriber when connection is made with his line, selector switches for controlling the connection between exchanges over the trunk, and means for automatically disconnecting the ringing means when the called subscriber answers.

5. In a telephone system, the combination of an automatic exchange including a plurality of subscribers' lines, automatic switches, a key board associated with said switches for directively controlling the selective action of the same, a manual exchange, an indicator at said manual exchange, adapted to display the numbers of called lines in the manual exchange, a signal associated with said indicator and means for operating said indicator to display the number when the same is set up on the key board of the automatic exchange and means for displaying said signal after the complete number is displayed by said indicator.

[Claims 6 to 17 not printed in the Gazette.]

1,205,500. EXTENSION-TABLE. MAX WURM, Brooklyn, N. Y. Filed July 30, 1915. Serial No. 42,786. (Cl. 45—9.)



1. In a table of the class described, the combination of relatively movable top-members, a telescoping filler support slidably mounted below said top members and adapted to be moved endwise on its bearings, and folding fillers pivoted to swing on said telescoping support, substantially as described.

2. In a table of the class described, the combination of relatively movable top-members, a telescoping filler-supporting member mounted below the level of said top members and having sliding connection with the under side of said top-members, and folding-fillers mounted to swing on said supporting-member, substantially as described.

3. In a table of the class described, the combination of relatively movable top-members, a telescoping filler-supporting member mounted below the level of said top-members, a slide on each section of said telescoping member, and a guide on the under side of each top-member for the respective slides, to travel in, and folding-fillers mounted to swing on said supporting-member, substantially as described.

4. In a table of the class described, the combination of relatively movable top-members, a telescoping filler support slidably mounted below said top members and adapted to be moved endwise on its bearings, the said support comprising a tubular section and a rod sliding therein and provided upon its end within the tubular section with a stop for preventing the rod from being drawn out of said tubular section, and folding fillers pivoted to swing on said telescoping support, substantially as described.

5. In a table of the class described, the combination of relatively movable top-members, horizontally projecting brackets mounted upon a central part of said table, filler-supporting bars slidably mounted in said brackets and having sliding connection at their respective outer ends with the adjacent top-member, and folding-fillers mounted upon said respective supporting-bars and adapted to turn thereon and to slide laterally and capable of being swung in folded positions beneath the supporting-bars and of being slid laterally in such folded lowered positions.

[Claims 6 to 27 not printed in the Gazette.]

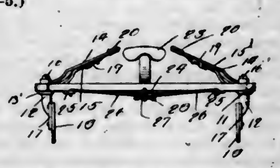
1,205,501. STORAGE-BIN. JOHN E. ALLSTEADT, Hastings, Nebr. Original application filed Jan. 28, 1914, Serial No. 814,959. Divided and this application filed Mar. 10, 1915. Serial No. 13,433. (Cl. 189—34.)



1. In a structure of the class described, a wall formed of a plurality of sheet metal sections, one of said sheets being folded near one edge into parallel relation to the body of the sheet and the portion of the sheet in advance of the fold bent to form a socket to receive the adjacent edge of the next sheet, the material of the sheet having the fold and socket being offset and bearing partially over the socket to reinforce the same and resist upward distortion thereof and the material of the contiguous sheet offset to reinforce the folded portion, and fastening devices operating through the folds and through the socket and the material held therein.

2. In a structure of the class described, a wall formed of a plurality of sheet metal sections, one of said sheets being folded near one edge into parallel relation to the body of the sheet and the portion of the sheet in advance of the fold bent to form a socket to receive the adjacent edge of the next sheet, the material of the sheet having the fold and socket being offset and bearing partially over the socket to reinforce the same and resist upward distortion thereof, and fastening devices operating through the folds and through the socket and the material held therein.

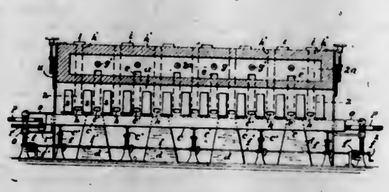
1,205,502. ROAD-SCRAPER. STANLEY ASHCRAFT, Wellington, Kans. Filed July 9, 1915. Serial No. 38,996. (Cl. 37—5.)



A road scraper comprising an elongated frame having an operator's seat mounted thereon, draft means carried

by the frame, vertical stub-shafts mounted in the ends of the frame, a bearing flange formed on each of the stub shafts to suport the frame, vertically disposed elongated scraper blades secured to the lower ends of the stub shafts, toothed segments carried by the ends of the frame, and operating ratchet handles secured to the upper ends of the stub shafts and engageable with the segments, said handles extending to points adjacent the operator's seat, whereby the blades can be readily adjusted either singly or together to different forwardly or rearwardly converging positions.

1,205,503. CONTINUOUS HEATING-FURNACE. CLARENCE D. BARNHART, Brooklyn, N. Y., and WILLIAM H. JACOBI, East Orange, N. J., assignors to W. S. Rockwell Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 17, 1915. Serial No. 67,340. (Cl. 263—8.)



1. A furnace for heating, annealing, &c., having a heating-chamber extended horizontally and provided with means substantially as described for heating a horizontal zone less in depth than the said chamber within the top of the same, the chamber having an open bottom operating to disperse the gases below the heated zone, and an endless conveyer movable below the heated zone parallel with the same, and provided with carriers to receive the articles to be heated and transport them through the heating-chamber with a projection into the heated zone.

2. A furnace for heating, annealing, &c., having a combustion-chamber for supplying heated gases and a heating-chamber extended horizontally and open at the bottom and having inlet-flues connected with the combustion-chamber, the inlet-flues introducing the heated gases at the same level at different points through the side-walls of the heating-chamber and operating to form a heated zone above the level of such inlets, and the open bottom of the chamber operating to disperse the heated gases below the said inlet-flues and to form a cooler zone below the said inlets, and an endless conveyer movable below the said heated zone parallel with the same and carrying articles with more or less of their upper portions penetrating the heated zone.

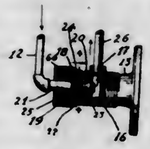
3. A furnace for heating, annealing, &c., having a heating-chamber extended horizontally and having a depth materially greater than its width, means for heating a horizontal zone less in depth than the said chamber within the top of said chamber, such means consisting of a combustion-chamber delivering heated gases to the heating-chamber by means of inlet-flues in the side-walls of the chamber at the bottom limit of the said zone, and outlet-flues discharging the gases not lower than the said limit, and means for conveying a series of articles horizontally through the chamber with their upper ends extended into the said heated zone.

4. A furnace for heating, annealing, &c., having a heating-chamber extended horizontally and open at the bottom, means for heating a horizontal zone less in depth than the chamber within the top of the same, such means consisting of a combustion-chamber delivering heated gases to the heating-chamber by means of inlet-flues in the side-wall of said chamber at the level required to limit the depth of the said zone, and a conveyer having carriers for carrying a series of articles horizontally through the chamber and the carriers adjustable vertically upon the conveyer to vary the penetration of the articles into the said zone.

5. A furnace for heating, annealing, &c., comprising a heating-chamber, means for heating a zone within the said chamber, comprising several series of inlets for introducing heated gases into the chamber at different levels to vary the bottom limit of the zone, outlets to discharge the heated gases not lower than the said limit and means movable below the heated zone for conveying a series of similar articles through the chamber parallel with the said zone, and penetrating into the same.

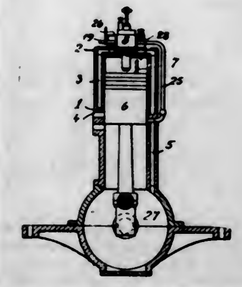
[Claims 6 to 11 not printed in the Gazette.]

1,205,504. FLUID-TIGHT SWIVEL-JOINT. WILSON B. BEARCE, Sawtelle, Cal., assignor of one-third to Rees J. Jones, Sawtelle, Cal., and one-third to Francesco Hammond, Casey, Ill. Filed June 11, 1915. Serial No. 33,499. (Cl. 137—34.)



A fluid tight swivel joint comprising a casing externally threaded at the outer end and provided with an internal annular retaining flange, a tube in rotatable relation to said casing, said tube axially projecting into said casing, and provided with a pair of collars spaced from said retaining flange on opposite sides thereof, antifriction balls between said flange and said collars, a washer loosely mounted on said tube and spaced from the collar adjacent thereto, antifriction balls interposed between said washer and said adjacent collar, a bushing between the outer end of said casing and said tube through which said tube extends and which constitutes a bearing for the tube so that said casing may turn around said tube, a packing between said bushing and said washer, and a cap engaging the threaded outer end of said casing.

1,205,505. APPARATUS FOR EMPLOYING KEROSENE AND HEAVIER LIQUID FUELS IN INTERNAL-COMBUSTION ENGINES. ELIJAH BAILEY BENHAM, New London, Conn., assignor to Thomas A. Nevins, East Orange, N. J. Filed July 9, 1913. Serial No. 778,106. (Cl. 123—1.)



1. The combination, with an internal combustion engine having a cylinder, of a chamber so situated within the combustion space of such cylinder as to be surrounded and heated by the hot gases of such combustion space during the combustion period therein, such chamber provided with fuel admission means, with a discharge outlet external to said cylinder, and with means for the projection of gas under pressure from such engine cylinder through said chamber to said outlet, and a duct connecting the said outlet to the fuel inlet connection of the engine.

2. The combination, with an internal combustion engine having a cylinder, of a chamber seated in an aperture of said cylinder and projecting into the combustion space of such cylinder, and arranged to be heated by combustion within said combustion space, said chamber provided with a fuel inlet and with an outlet connection, the latter external to said engine cylinder, and with means for the projection of gas under pressure from said cylinder through said chamber to said outlet, and a duct connecting the said outlet to the fuel intake of the engine.

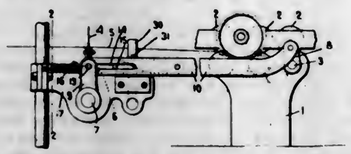
3. The combination, with an internal combustion engine having a cylinder, of a chamber so situated within the combustion space of said cylinder as to be heated by combustion within said space, said chamber provided with a fuel inlet connection and with a discharge connection, a baffle within said chamber forming a tortuous open passage between said fuel inlet and said outlet, means for projecting gas under pressure from said cylinder along said baffle in the direction of flow of the fuel from said inlet to said outlet, and a duct connecting said outlet to the fuel intake of the engine.

4. The combination, with an internal combustion engine having a cylinder, of a chamber seated in an aperture in said cylinder and projecting into the combustion space of said cylinder, said chamber provided with a fuel inlet and with an outlet, a baffle in said chamber between said fuel inlet and outlet, a tube projecting into said chamber from the engine cylinder, and open at its cylinder end and provided at its opposite end with a port, means for deflecting gas flowing from said tube into said chamber along said baffle and in the direction of the flow of fuel from said inlet to said outlet, and a duct connecting said outlet to the fuel intake of the engine.

5. The combination, with an internal combustion engine having a cylinder, of a chamber seated in an aperture of said cylinder and projecting into the combustion space of said cylinder, a tube extending from the so-projecting end of said chamber into the chamber, said tube open at its engine-cylinder end, and provided at its other end with a valve-port, a valve regulating flow through said port, said chamber provided with a fuel inlet and with an outlet connection, a baffle within said chamber and surrounding said tube and spaced away from both said tube and said chamber, and forming, with the tube and chamber, a tortuous passage for the flow of fluid form said inlet to said outlet, means for causing gas under pressure passing from said cylinder through said tube and port to flow through said tortuous passage in the direction of flow of fuel from said inlet to said outlet, and a duct connecting said outlet to the fuel intake of the engine.

[Claims 6 to 29 not printed in the Gazette.]

1,205,506. STOP MECHANISM FOR ROVING-MACHINES, AND THE LIKE. THOMAS BENTLEY, Dracut Center, Mass., assignor of one-half to George M. Harrigan, Lowell, Mass. Filed Aug. 18, 1913. Serial No. 785,216. (Cl. 19—25.)



1. In a machine of the class described, in combination, a detector capable of assuming different positions, a feeler reciprocating adjacent said detector and arranged to be intercepted in its motion by said detector when said detector is in one position, a constantly moving member, means operated by said constantly moving member to give a reciprocating motion to said feeler comprising a two part connector, the parts of which are slidably connected, one of said parts being provided with a cam surface, a releasing member carried by said other part and having a cam surface arranged to engage the first mentioned cam surface, a shifter rod, means for holding said shifter rod in one position and arranged to be engaged by said releasing member to release said shifter rod.

2. In a machine of the class described, in combination, a constantly rotating member, a reciprocating feeler, means to intercept the motion of said reciprocating feeler, a stop mechanism, means connecting said constantly rotating member and said reciprocating feeler comprising a two part connector, the parts of which are slidably connected, a releasing member pivotally connected to one of said parts, and having cam engagement with the other part, whereby said relensing member moves about its pivot when the movement of said reciprocating feeler is prevented, and a stop mechanism arranged to be set in operation by the pivotal movement of said releasing member.

3. In a machine of the class described, in combination, detectors arranged to be held in normal position by slivers and to assume a second position upon the breaking of said slivers, a feeler reciprocating adjacent said detector, and movable past said detector when the detector is in normal position, but arranged to be intercepted and stopped by said detector when in its second position, and a constantly rotating member, means operated by said constantly rotating member to normally give reciprocatory movement to said feeler comprising a two part connector, the parts of which are slidably connected, one of said parts being provided with a cam surface, a releasing member pivotally connected to said other part and having a cam surface arranged to engage the first mentioned cam surface, whereby said releasing member is moved upon its pivot by the interengaging cam surfaces when the said feeler is intercepted by said detector, a stop mechanism adapted to be set into operation by the pivotal movement of said releasing member when said feeler is intercepted by said detector.

4. In a device of the class described, in combination, a constantly rotating crank, an oscillating feeler, a connector between said crank and oscillating feeler, comprising a link pivotally connected to said crank, a member slidable relative to said link and provided with a cam surface, a releasing member pivotally connected to said link and having a cam surface normally engaging said first mentioned cam surface and arranged to be moved about its pivot by said interengaging cam surfaces when resistance is offered to the movement of said feeler, a stop mechanism adapted to be set into operation by the pivotal movement of the releasing member.

5. In a device of the class described, in combination, detectors normally held in elevated position, a feeler moving to and fro beneath said detectors and arranged to be intercepted in its motion whenever one of said detectors falls, means for moving said feeler to and fro comprising a link arranged to move said feeler in one direction and free to move relative to said feeler in the opposite direction a spring arranged to move said feeler in the opposite direction, a releasing member carried by said link and arranged to be operated by the relative movement of said feeler and link when the movement of the feeler is interrupted by a detector, and a stop mechanism arranged to be set in operation by said releasing member.

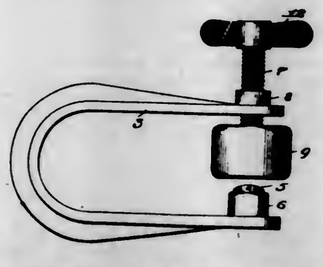
[Claims 6 to 8 not printed in the Gazette.]

1,205,507. SHOE-STRETCHER. ALEXANDER E. BLOCK, St. Louis, Mo. Filed May 27, 1911. Serial No. 629,839. (Cl. 12—130.)

1. In a shoe-stretcher, the combination of a female stretching member; a male stretching member; a moisture pad carried by said male stretching member; and means for bringing said stretching members into operative contact with the substance to be stretched.

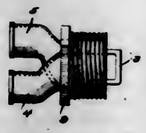
2. In a shoe stretcher, a frame; a male member carried by the frame and comprising a pin, a moisture pad carried thereby and a sleeve surrounding said pad; and a female member so connected to the frame as to be capable of movement with reference to the frame and the male member.

3. In a shoe-stretcher, a yoke; a male stretching member mounted in one of the termini of said yoke; a moisture pad carried by said male stretching member; a plunger mounted through the opposite terminus of said yoke; a female stretching member mounted upon the inner end of said plunger; and means for operating said plunger.



4. In a shoe-stretcher, a yoke; a male stretching member mounted in one of the termini of said yoke; a moisture pad carried by said male stretching member; a sleeve arranged to secure said pad in place upon said male stretching member; a plunger mounted through the opposite terminus of said yoke; a female stretching member mounted upon the inner end of said plunger; and means for operating said plunger.

1,205,508. CIRCULATING-FITTING. WILLIAM A. BODELL, Bluefield, W. Va. Filed Apr. 9, 1915. Serial No. 20,281. (Cl. 137—75.)



1. A single piece fitting for both supply and return connections in radiators, comprising a cylindrical casing divided interiorly into two longitudinal passages having their inner ends presented in different directions; said fitting having at its outer end a pair of connecting legs with ends adapted to receive supply and return connections, said ends being presented in the direction of the axis of the casing and lying on opposite sides of two axial planes of the casing that are perpendicular to each other.

2. An integral internally-partitioned, double-passage fitting for both supply and return connections in radiators comprising a casing fitted to an external opening of the radiator, with its passages communicating with the circulating and return channels of the radiator, respectively, and a pair of connecting legs projecting from the casing in line with but on opposite sides of the horizontal and vertical planes of its axis, and connected respectively to the supply and return pipes of the system.

3. A single piece fitting for both supply and return connections in radiators, comprising a cylindrical casing divided interiorly into two longitudinal passages by an internal partition, said partition having an upturned portion at its outer end adapted to abut against the end of one of the radiator sections to intercept communication between the passages and present their inner ends in different directions; said fitting having at its outer end a pair of connecting legs with ends adapted to receive supply and return connections, said ends being presented in the direction of the axes of the casing and lying on opposite sides of two axial planes of the casing that are perpendicular to each other.

1,205,509. SILICON COMPOUND AND PROCESS OF MAKING SAME. RUDOLPH BOEHRINGER, Newark, N. J., assignor to Staten Island Chemical Corporation. Filed Oct. 26, 1915. Serial No. 57,939. (Cl. 23—13.)

1. The process of producing a silicon compound which comprises mixing a solution of an alkali-metal silicate with a solution of borax, and removing and drying the precipitate formed.

2. The process of producing a silicon compound which comprises mixing a solution of sodium silicate with a solution of borax.

3. The process of producing a silicon compound which comprises mixing a solution of an alkali-metal silicate with a solution of borax in a weakly alkaline condition, and removing and drying the precipitate formed.

4. The process of producing a silicon compound which comprises mixing a solution of sodium silicate with a solution of borax in a weakly alkaline condition.

5. The process of producing a silicon compound which comprises reacting upon a solution of sodium silicate with a solution of borax in proportions and dilution to form a compound which when dried and ground is suitable for the removal of calcium and magnesium from water when used as a filtering medium.

[Claims 6 and 7 not printed in the Gazette.]

1,205,510. MATCH-BOX. ERNEST W. BROWN, Butte, Mont. Filed Feb. 7, 1916. Serial No. 76,661. (Cl. 206—20.)



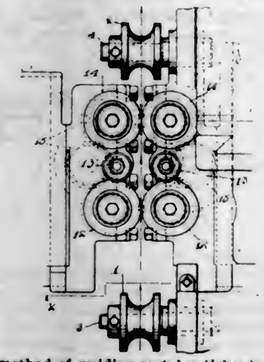
1. A match box comprising telescopic sections, each having its inner end open and its outer end closed, one of said sections being provided exteriorly with a circumscribing conical portion, the wall of which is smooth and unobstructed and the other section being designed to have its interior surface frictionally contact with said smooth conical portion whereby to exclude moisture from the interior of said box.

2. A match box comprising telescopic sections, each having its inner end open and its outer end closed, one of said sections being provided adjacent its closed end with an exterior conical surface designed to be engaged by the inner surface of the other section at the open end thereof when said sections are assembled, the first mentioned section being provided with an exterior match striking surface located between the conical portion and the open end thereof and adapted to be entirely housed within the other section when said sections are assembled.

3. A match box including telescopic cylindrical sections, each having its inner end open and its outer end closed, one of said sections near the closed end thereof being provided with a circumscribing conical surface adapted to be frictionally engaged by the inner surface of the mating section at the open end thereof, that portion of the first mentioned section between the conical surface and the open end thereof being of less diameter than the closed end of said section and having its exterior wall roughened to provide a match striking surface adapted to be housed within the mating section when said sections are assembled.

4. A match box comprising telescopic sections, each section having its inner end open and its outer end closed, one of said sections being provided exteriorly with a circumscribing conical portion and the other section having its inner wall at the open end thereof cylindrical in shape and smooth and unobstructed and adapted to frictionally engage the conical portion on the mating section when said sections are assembled.

1,205,511. METHOD OF AND APPARATUS FOR WELDING. HARRY E. BUTCHER, Cleveland, Ohio, assignor to The Standard Welding Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 22, 1913. Serial No. 808,132. (Cl. 219—6.)



1. The method of welding metal articles together, which consists in maintaining said articles with the faces to be welded in partial contact under pressure; raising such articles to a temperature short of fusion by passing a heating electric current through the same across the point of contact; and then completing such fusion by directing an igneous blast onto such faces and continuing the pressure, whereby such faces are welded together.

2. The method of welding metallic articles together, which consists in maintaining said articles with the faces to be welded in approximate line contact under pressure; raising such articles along such line of contact to a temperature short of fusion by passing a heating electric current through the same across such line; and then completing such fusion by directing an igneous blast onto such faces and continuing the pressure, whereby such faces are welded together.

3. The method of welding metallic articles together, which consists in maintaining said articles with their edges abutting under pressure; raising such abutting edges of the articles to a temperature short of fusion by passing a heating electric current through such articles and across such abutting edges progressively along the latter; and then completing such fusion by directing an igneous blast progressively along such edges.

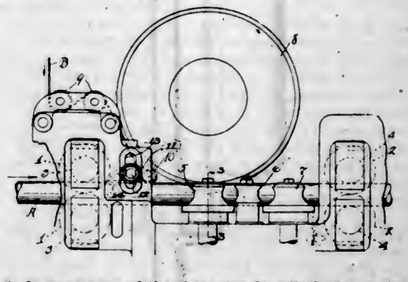
4. The method of welding metallic articles together, which consists in maintaining said articles with their edges abutting under pressure and forming a V-shaped groove; raising such abutting edges of the articles to a temperature short of fusion by passing a heating electric current through such articles and across such abutting edges progressively along the latter; and then completing such fusion by directing a gas flame progressively along such V-shaped groove immediately following the passage of such electric current.

5. In the manufacture of metallic tubing, the steps which consist in maintaining a preliminarily formed tube with its edges abutting under pressure; raising such abutting edges to a temperature short of fusion by passing a heating electric current through such tube and across such abutting edges progressively along the latter; and then completing such fusion by directing an igneous blast progressively along such edges immediately following the passage of such electric current.

[Claims 6 to 10 not printed in the Gazette.]

1,205,512. METHOD OF AND APPARATUS FOR MAKING TUBING. HARRY E. BUTCHER, Cleveland, Ohio, assignor to The Standard Welding Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 1, 1914. Serial No. 828,789. (Cl. 219—6.)

1. In apparatus of the character described, the combination of means adapted to maintain a preliminarily formed tube with its edges abutting under pressure and at the same time progressively feed such tube; other means adapted to feed a strand of braze-material between the edges of such tube; and electrodes independent of said first-named means disposed to contact with such tube adjacent to such edges, whereby a heating electric current may be passed across the latter and the interposed braze-material.



2. In apparatus of the character described, the combination of rolls adapted to maintain a preliminarily formed tube with its edges abutting under pressure and at the same time progressively feed such tube; means adapted to feed a strand of braze-material between the edges of such tube; and electrodes independent of said rolls disposed to contact with such tube adjacent to such edges, whereby a heating electric current may be passed across the latter and the interposed braze-material.

3. In apparatus of the character described, the combination of rolls adapted to maintain a preliminarily formed tube with its edges abutting under pressure and at the same time progressively feed such tube; means adapted to feed a strand of braze-material between the edges of such tube; a roller adapted to forcibly press such strand into any space between such edges; and electrodes independent of said rolls disposed to contact with such tube adjacent to such edges, whereby a heating electric current may be passed across the latter and the interposed braze-material.

4. In apparatus of the character described, the combination of rolls adapted to maintain a preliminarily formed tube with its edges abutting under pressure and at the same time progressively feed such tube; means adapted to feed a strand of braze-material between the edges of such tube; a roller adapted to forcibly press such strand into any space between such edges; and electrode rolls, independent of said feed and pressure rolls, disposed to contact with such tube adjacent to such edges, whereby a heating electric current may be passed across the latter and the interposed braze-material.

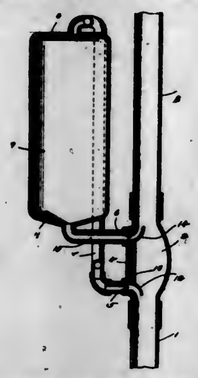
5. In apparatus of the character described, the combination of rolls adapted to maintain a preliminarily formed tube with its edges abutting under pressure and at the same time progressively feed such tube; means adapted to feed a strand of braze-material between the edges of such tube; a holder vertically adjustable relatively to such tube; a roller rotatably mounted in said holder and adapted to forcibly press such strand into any space between such edges; and electrode rolls, independent of said feed and pressure rolls, disposed to contact with such tube adjacent to such edges, whereby a heating electric current may be passed across the latter and the interposed braze-material.

[Claims 6 and 7 not printed in the Gazette.]

1,205,513. CHEMICAL-INJECTOR. ERIC A. CARLSON, Quincy, Mass. Filed Aug. 9, 1915. Serial No. 44,615. (Cl. 169—9.)

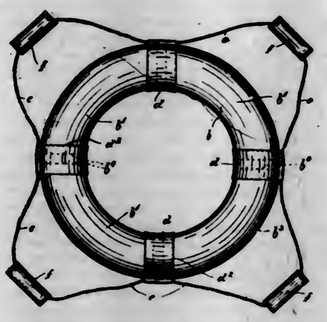
The combination with a communicating main supply and a feed pipe, of a chemical injector, including a coupling mounted between said pipes and having two ports in the same side thereof, a deflector adjacent the offside of the port nearer the supply pipe, a deflector for the other port projected toward the feed pipe, a tank for the chemical

having ports in the bottom and top thereof, a pipe leading from the top port of the tank to the port near the supply pipe, and a pipe leading from the bottom port of the tank to the remaining port of the coupling, whereby a portion of the water in the supply pipe is deflected and directed to



the top of the tank to force the chemical out of the bottom port of the tank into the coupling beyond the second deflector, the flow of water through the coupling and beyond the deflector producing a suction action in the last pipe to accelerate the drawing of the chemical from the tank.

1,205,514. LIFE-BUOY. WILLIAM CARROLL, East Ham, England. Filed June 10, 1916. Serial No. 102,924. (Cl. 9—17.)



1. A life buoy comprising an annular disk of multi-ply wood, provided with a packing of suitable quantity of buoyant material held in position upon said disk and inclosed by a covering of flexible or woven material.

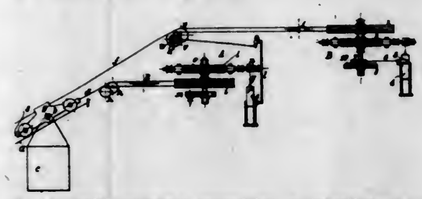
2. A life buoy comprising an annular disk of multi-ply wood, provided on both sides with a packing of suitable quantity of buoyant material held in position upon said disk and inclosed by a cover of flexible or woven material.

3. A life buoy comprising an annular disk of multi-ply wood, a packing of buoyant material, a covering of flexible water-proof material, said covering being made in sections, overlapping junction pieces covering the ends of the said sections.

4. A life buoy comprising an annular disk of multi-ply wood, a packing of buoyant material, a covering of flexible water-proof material, said covering being made in sections, overlapping junction pieces covering the ends of said sections, and an exterior looped flexible member attached to the buoy by being confined within said junction pieces.

5. A life buoy comprising an annular disk of multi-ply wood, and a packing of buoyant material, a covering of flexible water-proof material, said covering being made in sections, overlapping junction pieces covering the ends of the said sections, and an exterior looped flexible member attached to the buoy by being confined within said junction pieces, and a float upon each of said loops.

1,205,515. AERIAL ROPEWAY. WALTER CONRAD, Vienna, Austria-Hungary. Filed May 16, 1913. Serial No. 768,012. (Cl. 187—12.)



1. An aerial ropeway comprising a traveling car, a hauling rope, a hauling gear, a catch-rope movable in both directions, a clamp on the car for engaging the catch-rope, said catch-rope being moved upon being seized by the clamp of the traveling car and means to arrest the car, said means being controlled by the motion of the catch-rope.

2. An aerial ropeway comprising cars traveling in opposite sidections, a hauling rope, one catch rope for said cars movable in opposite directions, a clamp on each of the cars for engaging the catch-rope and means controlled by the motion of the catch-rope, and independent of its direction of motion, to arrest the car.

3. An aerial ropeway comprising a traveling car, a hauling rope, a hauling gear, a catch-rope movable in both directions, a clamp on the car for engaging the catch-rope, said catch-rope being moved upon being seized by the said clamp, and arresting means for the catch-rope, controlled by the motion of the catch-rope.

4. An aerial ropeway comprising a traveling car, a hauling rope, a hauling gear, a catch-rope movable in both directions, a clamp on the car for engaging the catch-rope, said catch rope being moved upon being seized by the said clamp and arresting means for the hauling rope, controlled by the motion of the catch-rope.

5. An aerial ropeway comprising a traveling car, a hauling rope, a hauling gear, a catch-rope movable in both directions, a clamp on the car for engaging the catch-rope, said catch-rope being moved upon being seized by the clamp of the car, arresting means for the hauling rope and arresting means for the catch-rope, both arresting means being controlled by the motion of the catch-rope.

[Claims 6 to 14 not printed in the Gazette.]

1,205,516. EXPLOSIVE CONTAINING NITROGLYCERIN. WALTER COSPY, San Francisco, Cal. Filed July 8, 1916. Serial No. 108,220. (Cl. 52—3.)

1. An explosive compound consisting of nitro-glycerin and tetrachlorethene in the manner and proportions set forth.

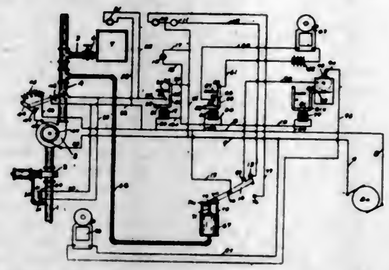
2. In explosive compound consisting of nitro-glycerin, 80 per cent. and tetrachlorethene, 20 per cent.

3. An explosive compound consisting of nitro-glycerin, tetrachlormethane and tetrachlorethene, all combined in the manner and proportions set forth.

4. An explosive compound consisting of nitro-glycerin, 80 per cent. tetrachlormethane and tetrachlorethene, 20 per cent.

1,205,517. FIRE-PROTECTION SYSTEM. JOHN W. COX, Erie, Pa. Filed May 9, 1913. Serial No. 766,511. (Cl. 177—382.)

1. In a fire protection system, the combination of a water distributing system; devices controlling the flow in said system; an electric apparatus controlling said devices; a switch controlling the electric apparatus; and an indicator observable at the switch controlled by the flow of water in the system indicating the operation of said devices.



2. In a fire protection system, the combination of a normally dry water distributing-system; devices controlling the flow in said system; an electric apparatus controlling said devices; a switch controlling the electric apparatus; and an indicator observable at the switch controlled by the flow of water in the system indicating the operation of said devices.

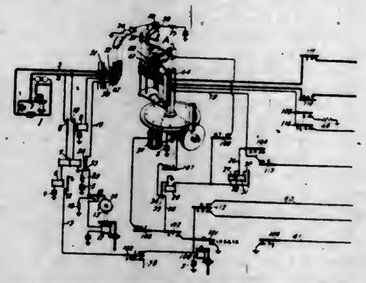
3. In a fire protection system, the combination of a water distributing system; a pump influencing the flow of water in the system; an electric apparatus controlling the action of said pump; a switch controlling the electric apparatus; and an indicator observable at the switch controlled by the flow of water in the system indicating the operation of said devices.

4. In a fire protection system, the combination of a water distributing system; a pump influencing the flow of water in the system; a valve controlling the flow of water in the system; an electric apparatus controlling said pump and valve; a switch controlling the electric apparatus; and an indicator observable at the switch and controlled by the flow of water in the system indicating the operation of said pump and valve.

5. In a fire protection system, the combination of a water distributing system; devices controlling the flow of water in said system; an electric apparatus controlling said devices; a switch controlling the electric apparatus; an indicator observable at the switch comprising a motor connected with the system and adapted to be actuated by the water from the system, and an electric signaling device actuated by the motor.

[Claims 6 to 10 not printed in the Gazette.]

1,205,518. TELEPHONE-EXCHANGE SYSTEM. EDWARD B. CRAFT, Hackensack, N. J., and JOHN N. REYNOLDS, Greenwich, Conn., assignors, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed July 28, 1915. Serial No. 41,590. (Cl. 179—27.)



1. In a telephone system, the combination with a plurality of telephone lines, a plurality of operators' positions and means for extending any one of said lines to any one of said operators' positions, of means associated with each of said lines for producing characteristic signal impulses, a signal receiving device at said operators' position, means under the control of the operator for bringing said receiving device into association with the extended line to render the same responsive to said signal impulses to receive said signal, and means for repeating the transmission of said signal whenever said last mentioned means is operated.

2. In a telephone system, the combination with a plurality of telephone lines extending from their respective stations to a central office, of means associated with each line at the central office for producing impulses characteristic of said line, a plurality of operators' positions, means for extending any one of said lines to any one of said operators' positions, a signal receiving device at said operators' positions, means under the control of the operator for bringing said signal receiving device into association with an extended line to receive said signal, and means for repeating the transmission of said signal whenever said last mentioned means is operated.

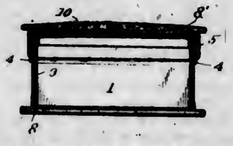
3. In a telephone system, the combination with a plurality of lines extending to a central office, of means associated with each line for impressing upon the same impulses characteristic of said line, means for extending the circuit of any one of said lines, a plurality of signal receiving devices, means under the control of an operator for bringing one of said devices into association with said extended line to receive said signal, and means for repeating the transmission of said signal whenever said last mentioned means is operated.

4. In a telephone system, the combination with a plurality of operators' positions, of a plurality of lines of differing characteristics adapted to be extended thereto, means associated with each line for identifying the same with respect to its special characteristics, an indicating device at each of said operators' positions responsive to said identifying means, means under the control of any one of said operators for bringing the said associated indicating device into association with any extended line, whereby a characteristic signal is received by said indicating device, and means for repeating the transmission of said signal whenever said last mentioned means is operated.

5. In a telephone system, the combination with a plurality of terminating lines differing in their characteristics, normally inactive line-characterized identifying means associated with each line, a plurality of line characteristics indicating devices responsive to said identifying means, operator-controlled means for bringing one of said indicating devices into temporary association with any of said lines and rendering active the identifying means associated with said line, whereby a characteristic signal is received by said indicating device, and means for repeating the transmission of said signal whenever said last mentioned means is operated.

[Claims 6 to 12 not printed in the Gazette.]

1,205,519. BOX. CHARLES W. DENNIS, Brooklyn, N. Y., assignor to Metal Package Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 23, 1916. Serial No. 79,857. (Cl. 220—5.)



1. A box or container made on a sheet metal foundation having a closely adherent surface or coating of paper or similar fabric cemented to the surface of the metal in a manner to leave a continuous band-like line of exposed metal the bounding edges of which are the edges of the cemented surface coating of paper.

2. A compound box or container consisting essentially of a sheet metal base and closely adherent coating or

surface of paper cemented to the surface of the metal, the body of the box being provided on its side between the top and bottom edges with a continuous bead consisting of the exposed metal of the sheet metal base exposed between edges of the paper coating upon the same plane surface as and for the purpose described.

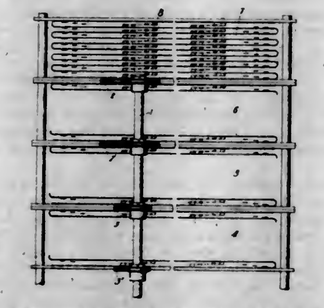
3. A compound box or container of sheet metal and paper comprising a sheet metal base having a closely adherent coating of paper cemented to the exterior thereof, the sheet metal for the body of the box or container being provided with a continuous bead of exposed metal and the cover of the box having its paper surface extended around the edge of the cover and adapted to engage said bead.

4. A compound box or container composed essentially of sheet metal and paper, the sheet metal forming the base and being provided with a sanitary lining consisting of a sanitary lacquer while the paper constitutes a closely adherent coating cemented to the surface of the sheet metal base.

5. A compound box or container composed of sheet metal and paper, the sheet metal being provided with a sanitary lacquer and the paper constituting a closely adherent coating cemented to a lacquered surface of the sheet metal as and for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]

1,205,520. SELECTOR-SWITCH. HENRY F. DOBBIN, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 10, 1916. Serial No. 102,900. (Cl. 179—27.5.)



1. In an automatic switch, a contact bank of the panel type, terminal sets therein divided into a plurality of groups, a brush shaft, a plurality of brush sets thereon, and means for actuating said brush shaft in a vertical direction and then in a rotary direction, the arrangement being such that one of said brush sets begins rotary travel over one of said groups of terminal sets at the time a preceding brush set completes its rotary travel over another one of said groups of terminal sets.

2. In an automatic switch, a contact bank of the panel type, terminal sets therein divided into two groups, a brush shaft, two brush sets thereon, and means for actuating said brush shaft in a vertical direction and then in a rotary direction, the arrangement being such that the second of said brush sets begins rotary travel over the second of said groups of terminal sets at the time the first brush set completes its rotary travel over the first of said groups of terminal sets.

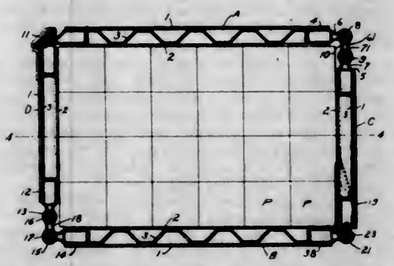
3. In an automatic switch for use in telephone exchange systems, a contact bank of the panel type, terminal sets therein divided into groups, the tip and ring terminals of said terminal sets being located in separate sections of a group, a brush shaft, a plurality of brush sets thereon, equal in number to the number of groups of terminal sets, and means for actuating said brush shaft in a vertical direction and then in a rotary direction to move said brush sets successively into engagement with successive groups of terminal sets.

4. In an automatic switch for use in telephone exchange systems, a contact bank of the panel type, terminal sets therein divided into two groups, the tip and ring terminals of said terminal sets being located in separate sections of a group, a brush shaft, two brush sets thereon, and means for actuating said brush shaft in a vertical direction and then in a rotary direction to move said brush sets successively into engagement with successive groups of terminal sets.

5. In an automatic switch for use in telephone exchange systems, a contact bank of the panel type, terminal sets therein divided into a plurality of groups, each of said groups being served by a brush set individual thereto, each of said groups comprising a plurality of series of terminal sets, the tip contacts of each series being offset so as to lie in the same plane, the ring contacts of each series being similarly offset, but lying in a different section of the group, a brush shaft carrying said brush sets, and means for moving said shaft vertically and then rotatably, each vertical step moving the brush sets to the successive levels of the series of terminal sets in the groups respectively served by said brush sets.

[Claim 6 not printed in the Gazette.]

1,205,521. SHIPPING-CASE. WILLIAM H. DOBLE, Quincy, Mass., assignor of one-fourth to Pneumatic Scale Corporation, Limited, Quincy, Mass., a Corporation of Maine. Filed Jan. 20, 1916. Serial No. 73,235. (Cl. 220—17.)



1. A box having a drop bottom, a separable connection between said bottom and one of the side panels, means for normally tending to disengage said connection and so constructed and located that said tendency is resisted by the engagement of the contents of the box against said connection.

2. A box having a drop bottom panel, said bottom panel having a hinged connection with one of the side panels, a separable connection with the side panel opposite said first side panel, said separable connection being held in its engaging position by the resistance of the contents of the box when the box contains material which bears against said connection, and means which automatically disengages said connection when the contents are removed, the bottom being constructed to drop automatically when the empty box is lifted.

3. A box having a separable latch connection between the bottom and one of the side panels thereof, and which is held in latching engagement by the pressure thereon of the contents of the box if the box contains material of sufficient quantity to bear against said latch mechanism, and means which automatically disengages said latch mechanism when the pressure of the contents of the box is removed, the said side panel automatically separating from said bottom panel when the side panel is raised while the latch mechanism is in disengaged position.

4. A box having a separable latch connection between the bottom and one of the side panels thereof, said separable connection comprising a member hinged to one edge of the bottom panel and having an extension which projects up on the inner face of the said side panel, and a latch portion mounted thereon, said side panel being formed with a recess with which said latch portion is adapted to engage to hold the said bottom and side panel in locking engagement, and means which normally presses against said latch member and holds it out of engaging position when the box is empty, the pressure of said disengaging means being overcome by the pressure of the contents of the box if the box contains material of sufficient quantity to press against said latch mechanism from the inside of the box.

5. A box having a separable connection between the bottom and one of the side panels thereof, said separable connection comprising a hinge rod attached to an extension of one edge of the bottom panel, a latch plate having on one edge a coil through which said hinge rod loosely passes, said latch plate having an extension which extends up between the adjacent edges of the said bottom and side panel and alongside of the inner face of said side panel, a hook portion on the face of said latch member toward the face of said side panel, said side panel being formed with a recess with which said hook is adapted to engage to lock said two panels together and which is held in such engaging position by the pressure of the contents of the box if the box contains material of sufficient quantity to press against said latch member from within the box, and means which automatically disengages said hook from said recess when the pressure from within the box is released.

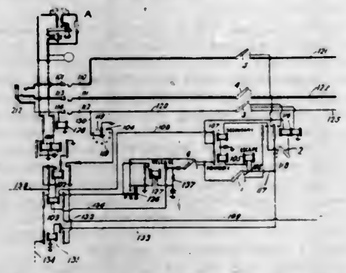
[Claims 6 to 12 not printed in the Gazette.]

1,205,522. BAKE-PAN. ALBERT I. DOERR, Erie, Pa., and GEORGE W. DOERR and FRANCISCO J. MURRAY, Milwaukee, Wis. Filed Aug. 30, 1915. Serial No. 47,934. (Cl. 53—6.)



A pan for baking apples or other fruit, having a fluid tight connection between its wall and bottom, upwardly struck convex supports on its bottom whereby juice receiving gutters are formed between the supports, said supports being provided with central apertures and upstanding hollow fruit holders disposed over said apertures.

1,205,523. TELEPHONE-EXCHANGE SYSTEM. BERT G. DUNHAM, Hawthorne, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 22, 1916. Serial No. 99,130. (Cl. 179—18.)



1. In a telephone exchange system, the combination with telephone lines, having multiple calling and called test terminals, a connecting circuit, means for associating a calling line with said connecting circuit and charging the electrical condition of its test terminal, and an operator's telephone set adapted to be associated with said connecting circuit, of a relay associated with said connecting circuit, a circuit adapted to energize the same, a key for closing said circuit, a circuit for operating said relay closed when the desired line is tested, and a shunt about said relay closed during such testing operation if the calling and called test terminals are multiples of the same line, the closure of said shunt deënergizing said relay, and means rendered operative by the inert condition thereof for producing a tone in said set.

2. In a telephone exchange system, the combination with calling and called telephone lines including party lines, a connecting circuit, means for associating calling lines with said connecting circuit, and an operator's telephone set, of a discriminating relay, a key to include said set in circuit with the calling line and to energize said relay to prepare a circuit including said set, a relay energized when the called line is tested to complete said circuit whereby a single click is produced in said set, a source of interrupted current, and a shunt about said discriminating relay closed when the calling and called lines are the same, to deënergize said relay, which in its inert condition connects said source to said set to produce a tone in said set.

3. In a telephone exchange system, the combination with calling and called telephone lines including party lines, jacks wherein said lines terminate as called lines, a connecting circuit including a calling plug, means for associating calling lines with said connecting circuit, and an operator's telephone set, relays 205, 209, a listening key to include said set in circuit with the calling line and to energize relay 205, a circuit to energize relay 209 closed when the tip of the plug is placed in engagement with the sleeve of the jack, a circuit including said set and an armature and front contact of relay 205, said circuit being closed by the operation of relay 209 to produce a single click in said set, a source of interrupted current, and a shunt about said relay 205 closed when the calling and called lines are the same, adapted to deënergize relay 205, said relay at its back contact connecting said source to said set to produce a tone therein.

4. In a telephone exchange system, the combination with calling and called telephone lines including party lines, jacks wherein said lines terminate as called lines, a connecting circuit including a calling plug, means for associating calling lines with said connecting circuit, an operator's telephone set, a key for associating the same with said connecting circuit, of a relay 205 associated with said connecting circuit energized when said key is operated, a shunt about said relay to deënergize the same when the calling plug is placed in contact with a called sleeve which is a multiple of the calling sleeve, a relay 209 connected to the tip of the calling plug and energized when said tip is placed in engagement with the sleeve of a busy line to close a circuit including a front contact of said relay 205 and said set to produce a signal of one character in said set, or a circuit including a back contact of said relay 205 and said set to produce a signal of another character, dependent upon the character of the call.

5. In a telephone exchange system, the combination with telephone lines, finders to which said lines are multiplied, driving circuits therefor, means including an extended starter wire for associating said lines with an idle finder, means actuated upon the initiation of a call to close the driving circuit of the finder apportioned to the calling group if idle, and also to close the driving circuit of the next idle finder, and means actuated in case said first named finder is idle to prevent the closure of such last named circuit.

[Claims 6 and 7 not printed in the Gazette.]

1,205,524. TAPE OR RIBBON HOLDER. HENRY W. FLATOW and FRED LICKERT, Milwaukee, Wis. Filed May 11, 1915. Serial No. 27,434. (Cl. 206—54.)

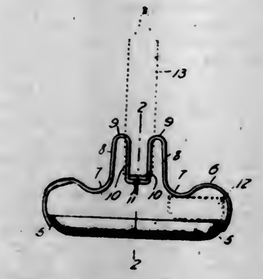
A device of the character described including a hub, a holding element formed from a single length of material bent intermediate its ends to provide spaced arms joined by a connecting portion, the length of material being bent to define loops at the juncture of said connecting portion with the arms with the connecting portion normally

seating against the said arms to close the loops, the arms being freely connected to the hub, and yieldable means ex-



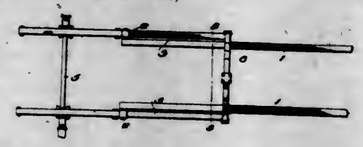
tending through said loops to be maintained in position therein by said connecting portion and engaging the hub for urging the connecting portion toward the hub.

1,205,525. CANDLESTICK. THOMAS F. FLINN, Brooklyn, N. Y. Filed May 14, 1915. Serial No. 28,160. (Cl. 67—23.)



In a candlestick, a dish-shaped base, a resilient candle engaging member suitably connected, at its ends, to said base, and a candle gripping portion formed in said member comprising vertically disposed spaced portions, and horizontally disposed overlapping loops carried by said vertical portions.

1,205,526. AUTOMOBILE SPRING-FRAME. SAMUEL C. GORDON, Richmond, Va. Filed July 24, 1915. Serial No. 41,787. (Cl. 21—90.)



1. In a vehicle, the combination of a main frame, a supplemental frame pivotally mounted between its ends upon and above the front end of the main frame, an axle disposed below the front end of the supplemental frame, a spring connecting the axle with the front end of the supplemental frame, a spring having its ends secured to the rear end of the supplemental frame, and a rigid connection between the center of said spring and the main frame.

2. In a vehicle, the combination of a main frame, standards erected upon the outer end of the main frame, a rigid arch connecting the sides of the main frame in spaced relation to the end of the same, a supplemental frame pivoted between its ends to the upper ends of the said standards, an axle disposed below the front end of the supplemental frame, a spring connecting the axle with the supplemental frame, an elliptical spring disposed between and secured to the inner ends of the supplemental frame and having its central portion secured to the said rigid arch, and coil springs extending between the sides of the supplemental frame and the subjacent sides of the main frame.

1,205,527. RIM FOR VEHICLE-WHEELS. CHARLES W. GAESSLE, Cleveland, Ohio, assignor to The Standard Welding Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 22, 1913. Serial No. 808,109. (Cl. 152—21.)



1. A tire-supporting rim for vehicle wheels including annular sections adapted to laterally abut and provided with corresponding engaging elements on their inner faces; two resilient, substantially semi-circular band parts having their adjacent ends rigidly attached to one of said rim-sections and adapted to be pressed outwardly against the same, said band parts being respectively provided with engaging elements complementary to those on said rim-sections and adapted to engage with the same to hold said rim sections against relative transverse movement.

2. A tire-supporting rim for vehicle wheels, including annular sections adapted to laterally abut and provided with corresponding, inwardly directed lugs; two resilient, substantially semi-circular band parts having their adjacent ends rigidly attached to one of said rim-sections and adapted to be pressed outwardly against the same, said band parts being respectively provided with a series of slots, each such slot being adapted to engage with a registering pair of said lugs and thereby hold said rim-sections against relative transverse movement.

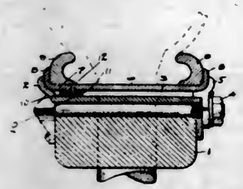
3. A tire-supporting rim for vehicle wheels, including annular sections adapted to laterally abut and provided with corresponding, inwardly directed lugs; two substantially semi-circular band parts having their adjacent ends attached to one of said rim-sections and adapted to be pressed outwardly against the same, said band parts being respectively provided with a series of slots, each such slot being adapted to engage with a registering pair of said lugs and thereby hold said rim-sections against relative transverse movement; and means carried by one of said rim-sections, adapted to secure said band parts in engagement with said lugs.

4. A tire-supporting rim for vehicle wheels, including annular sections adapted to laterally abut and provided with corresponding, inwardly directed lugs; two substantially semi-circular band parts having their adjacent ends attached to one of said rim-sections and adapted to be pressed outwardly against the same, said band parts being respectively provided with a series of slots, each such slot being adapted to engage with a registering pair of said lugs and thereby hold said rim-sections against relative transverse movement; and a latch pivotally attached to one of said rim-sections at a point between the free ends of said band parts, said latch being adapted to simultaneously engage such ends and thereby secure said band parts in engagement with said lugs.

5. A tire-supporting rim for vehicle wheels, including annular sections adapted to laterally abut and provided with corresponding, inwardly directed lugs; two substantially semi-circular band parts having their adjacent ends attached to one of said rim-sections and adapted to be pressed outwardly against the same, said band parts being respectively provided with a series of slots, each such slot being adapted to engage with a registering pair of said lugs and thereby hold said rim-sections against relative transverse movement; and a latch pivotally attached to one of said rim-sections at a point between the free ends of said band parts, said latch having cam-faces adapted to simultaneously engage such ends and force the same apart, whereby said band parts are forced into engagement with said lugs.

[Claims 6 to 9 not printed in the Gazette.]

1,205,528. VEHICLE-WHEEL. TRACY W. GUTHRIE, Cleveland, Ohio, assignor to The Standard Welding Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 6, 1911. Serial No. 658,676. (Cl. 152—21.)



1. A tire-supporting rim for vehicle wheels, including annular sections adapted to laterally abut and provided with registering, inwardly directed lugs; and a segmental band movably attached at one end to one of said rim-sections and adapted to be expanded outwardly against said rim-sections, said band being provided with a series of slots, each such slot being adapted to engage with a corresponding pair of registering lugs, thereby holding said rim-sections against relative transverse movement.

2. A tire-supporting rim for vehicle wheels, including annular sections adapted to laterally abut and provided with registering, inwardly directed lugs, each such pair of said lugs forming together a rectangular projection having its longer dimensions parallel with the plane of said rim; and a segmental band movably attached at one end to one of said rim-sections and adapted to be expanded outwardly against said rim-sections, said band being provided with a series of slots, each such slot being of rectangular form, and of a size adapting it to snugly engage the lateral faces of such a rectangular projection but permitting relative movement between the latter and such slot in the plane of said rim.

3. A tire-supporting rim for vehicle wheels, including annular sections adapted to laterally abut and provided with registering, inwardly directed lugs along their respective abutting edges; and an annular band made up of segments each pivotally attached at its one end to one of said rim-sections and adapted to be expanded outwardly against the latter, the respective segments of said band being provided with a series of spaced slots adapted to engage a corresponding series of such registering pairs of said lugs to hold said sections against relative movement.

4. A tire-supporting rim for vehicle wheels, including annular sections adapted to laterally abut and provided with registering, inwardly directed lugs; and an annular band made up of segments each pivotally attached at one end to one of said rim-sections and adapted to be expanded outwardly against the latter, the respective segments of said band being provided with slots longer than said lugs and of a width just sufficient to engage a registering pair thereof to hold said sections against relative transverse movement.

1,205,529. RAIL JOINT OR COUPLING. WILLIAM M. HAFER, Cambridge, Ohio. Filed Apr. 4, 1916. Serial No. 88,851. (Cl. 239—6.)

1. A coupler having flanges to embrace the base of a rail, and, upon one side, a chamber above the flange and to one side thereof, wedges inserted in said chamber and both bodily relatively movable therein, and pins inserted between said wedges to spread them in said chamber.

2. A coupler having flanges to engage the base of a rail, a chamber to receive wedges, wedges in said chamber, and having grooves upon their adjacent faces, and pins inserted in said grooves and having enlarged lower ends.



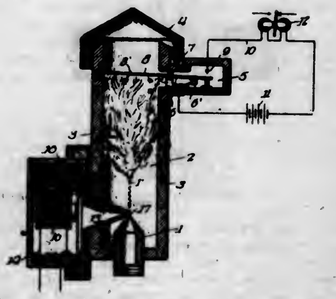
3. A coupler having flanges to engage the base of a rail and a chamber to receive wedges, wedges inserted endwise into said chamber, means inserted between said wedges, and means interposed between adjacent ends of the rails and through said coupler to prevent creeping of the coupler except with the rail.

4. A coupler having a chamber to receive wedges, wedges in said chamber, means for spreading the wedges, and means interposed between the adjacent ends of the rails to force the coupler to creep with the rails.

5. A coupler having flanges to engage the base of a rail and a chamber to receive wedges with a horizontal portion to cover such wedges, wedges in said chamber beneath said horizontal portion, pins inserted between the wedges, and means inserted between adjoining ends of the rails to compel the coupler to creep with the rails.

[Claim 6 not printed in the Gazette.]

1,205,530. METHOD OF AND MEANS FOR TRANSLATING SOUNDS. RAY E. HALL, Portland, Oreg., assignor of one-half to C. A. Robertson, Portland, Oreg. Filed Apr. 16, 1914, Serial No. 832,219. Renewed Apr. 20, 1916. Serial No. 92,532. (Cl. 250—27.)



1. A method of causing sounds of relatively small volume to be readily perceptible, which consists in subjecting a vane capable of mechanical movement to and fro to the action of a fluid jet adapted to assume varying phases requiring relatively gross changes in form, impressing sound vibrations on said jet to produce said varying phases, whereby said vane is caused to move to and fro, said movements being of lesser period and greater magnitude than sound vibrations, and transferring the energy of said movements to suitable indicating media.

2 A method of causing sounds of relatively small volume to be readily perceptible, which consists in subjecting a vane capable of mechanical movement to and fro and biased in one direction to the action of a gaseous jet adapted to assume varying phases requiring relatively gross changes of form, impressing sound vibrations on said jet to produce said varying phases, whereby said vane is caused to move to and fro, each of said movements corresponding in duration to the duration of the individual sounds, and transferring the energy of said movements to suitable indicating media.

3. A method of causing sounds of relatively small volume to be readily perceptible, which consists in producing a sensitive fluid jet adapted, when disrupted, to assume a

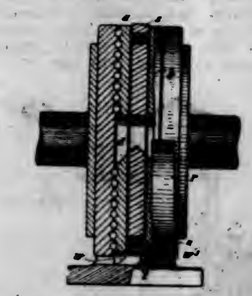
varied form, causing sound vibrations to impinge on and disrupt said jet and subjecting a vane capable of oscillation to the action of said jet, whereby said vane is caused to oscilate, each of said oscillations corresponding in duration to the duration of the individual sounds, and transferring the energy of said oscillations to suitable indicating media.

4. A method of causing sounds of relatively small volume to be readily perceptible, which consists in producing a sensitive gaseous jet adapted, when disrupted, to assume a varied form, causing sound vibrations to impinge on and disrupt said jet and subjecting a vane capable of oscillation to the action of said jet, whereby said vane is caused to oscillate, each of said oscillations corresponding in duration to the duration of the individual sounds, and transferring the energy of said oscillations to suitable indicating media.

5. A device for translating sound waves into mechanical movements of appreciably greater magnitude than sound vibrations, comprising oscillatable means, and means sensitive to sound adapted to assume varying phases and mechanically cöoperating with said oscillatable means to cause oscillations of said oscillatable means, each oscillation corresponding in duration to the duration of the individual sounds and being of lesser period than sound vibrations.

[Claims 6 to 31 not printed in the Gazette.]

1,205,531. BALL-GRINDING MACHINE. EWALD HANUS, Tegel, near Berlin, Germany. Filed Sept. 8, 1916. Serial No. 119,008. (Cl. 51—4.)



1. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other and having their inner faces formed with annular grooves; a pair of relatively stationary grinding plates fitting loosely in the space between the rotatable plates, and likewise arranged in spaced, parallel relation to each other, said stationary plates having their outer faces formed with annular grooves registering with the first-named grooves; a stationary partition plate fitting in the space between the stationary grinding plates; and resilient means for pressing said stationary plates against said rotatable grinding plates.

2. In a ball-grinding machine, the combination of a pair of grinding plates arranged in spaced, parallel relation to each other and having their inner faces formed with annular grooves; a pair of relatively stationary grinding plates fitting loosely in the space between the rotatable plates, and likewise arranged in speced, parallel relation to each other, said stationary plates having their outer faces formed with annular grooves registering with the first named grooves; a stationary partition plate fitting within the space between the stationary grinding plates, and formed with a plurality of transverse, opened, apertures; and springs disposed in the said apertures and bearing at opposite ends against the inner faces of said stationary grinding plates, to yieldingly press the latter against said rotatable grinding plates.
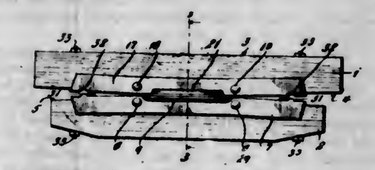
3. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other and having their inner faces formed with annular grooves; a pair of relatively stationary grinding plates fitting loosely in the space between the rotatable plates, and likewise arranged in spaced, parallel relation to each other, said stationary plates having their outer faces formed with annular grooves registering with the first-named grooves; a stationary partition plate fitting in the space between the stationary grinding plates; and resilient means for pressing said stationary grinding plates against said rotatable grinding plates; said machine having a charging recess which is formed jointly in said stationary grinding plates and said partition plates and which has a width equal to the combined thickness of said plates.

4. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other and having their inner faces formed with annular grooves; and a relatively-stationary grinding plate fitting in the space between said rotatable plates and comprising a pair of counter-part plate-like members having a limited yielding movement both axially and radially; said members having their outer faces formed with annular grooves registering with the first-named grooves.

5. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other and having their inner faces formed with annular grooves; a pair of relatively-stationary grinding plates fitting loosely in the space between the rotatable grinding plates and likewise arranged in spaced, parallel relation to each other; said stationary grinding plates having their outer faces formed with annular grooves registering with the first-named grooves, and also having a limited yielding movement both axially and radially; and a stationary partition plate fitting in the space between the stationary grinding plates.

[Claims 6 to 13 not printed in the Gazette.]

1,205,532. BOLSTER-BEARING. RICHARD S. HAYES, Commerce, Tex. Filed Oct. 26, 1915. Serial No. 58,006. (Cl. 21—39.)



1. In a device of the class described, the combination of a sand bolster and a rocking bolster, protector plates carried upon said bolsters, the protector plate carried by said sand bolster provided with a circular disk intermediate its ends, said disk having an upstanding central portion, a cup formed upon the central portion of the plate carried by said rocking bolster, said cup being adapted to fit over said disk whereby the rocking bolster will be carried in its correct position above said sand bolster, bushings formed integral upon the central portion of said disk and said cup, said bushings extending through said bolsters so as to be positioned in alinement with each other whereby a bolt may be passed through said bushings for retaining said rocking bolster against accidental displacement, said plates being adapted to prevent wear upon the inner portions of said bolsters when the device is in operation.

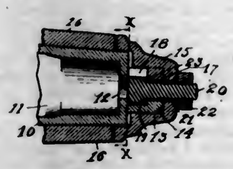
2. In a device of the class described, the combination of a sand bolster and a rocking bolster, plates positioned upon said bolsters and provided with overhanging flanges fitting upon the side surfaces of said bolsters for holding said plates against accidental displacement, a disk formed integral upon the central portion of the plate carried by said sand bolster, said disk comprising a groove extending to form an upstanding annular rib, said rib terminating in a depressed pocket, a cup formed integral upon the central portion of the plate carried by said rocking bolster, said cup fitting over the disk formed upon the plate of said sand bolster, said pocket being adapted to contain lubricant for efficiently lubricating the inner portions of said disk and cup when the device is in operation, said disk and cup being adapted to retain said bolsters in their correct positions when in operation.

1,205,533. POLISHING-MACHINE. WARREN T. HEAPS and WILLIAM THACKERAY, Kewanee, Ill. Filed Jan. 21, 1916. Serial No. 73,414. (Cl. 15—37.)



A portable polishing machine comprising an electric motor, a handle secured to the casing of said motor at one end thereof coaxial with the motor shaft, a shaft connected to the motor shaft at the other end of the casing and projecting outwardly therefrom in axial alinement with said handle, a handle loosely surrounding the outer end of said shaft, a sleeve surrounding said shaft between said handle and motor casing and having the end adjacent to the motor casing threaded onto the shaft, a cylinder surrounding said sleeve and fixed thereto, and polishing means carried by said cylinder.

1,205,534. HUB-ATTACHING DEVICE. JOHN HERBY and FREDERICK CHARLES HERBY, Jamestown, N. Y. Filed Feb. 5, 1916. Serial No. 76,268. (Cl. 21—30.)



1. A hub attaching device comprising a skein having an opening in the end thereof, a bolt with nut therefor, the head of said bolt received in holding engagement in said opening in the end of said skein, and a cap having a hole to receive said bolt therethrough, said nut on said bolt holding said cap against said skein.

2. A hub attaching device comprising a bolt with nut therefor, a skein with an extension on the end thereof having a lengthwise supporting groove in the upper side of said extension to receive said bolt in holding engagement with a threaded projecting end, and a cap for the end of said skein having a hole to receive said projecting end therethrough to hold said cap on said skein by said nut on said projecting end.

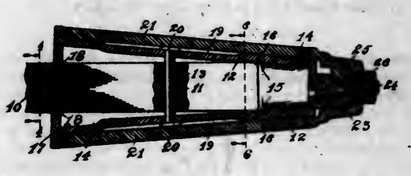
3. A hub attaching device comprising a skein having an opening in the end thereof, a bolt with a nut therefor, the head of said bolt received in holding engagement in said opening in the end of said skein, a cap for the end of said skein having a hole to receive said bolt therethrough, a lug on the inner side of said cap fitting into said opening in said skein to hold said bolt in said opening and prevent said cap from turning, said cap attached on said skein by said nut on said bolt on the outer side of said cap.

4. In a hub attaching device the combination with a thimble-skein of an extension on the outer end thereof, said extension having a lengthwise groove in the upper side with a square enlargement in the inner portion of said groove, a bolt received in said groove with the bolt head in said squared enlargement, a nut on said bolt, and a cap fitting over said extension of said skein to bear against the skein and having a central hole to receive the shaft of said bolt, and said nut of said bolt on the outside of said cap to hold said cap against said skein.

5. A hub attaching device comprising a square headed bolt with nut a skein, an extension on the end of the skein having a lengthwise groove in the side thereof with a squared enlargement in the inner portion of said groove to receive and hold the square head of said bolt by means of retaining shoulders, a cap to fit over said extension and bear against the skein having a hole to receive said bolt therethrough, said nut placed in holding engagement on said bolt on the outer side of said cap, and a lug on the inner side of said cap to fit into said groove against the shaft of said bolt to hold said bolt in said groove and to hold said cap from turning.

[Claims 6 and 7 not printed in the Gazette.]

1,205,535. WAGON-AXLE. JOHN HERBY and FREDERICK CHARLES HERBY, Jamestown, N. Y. Filed Mar. 3, 1916. Serial No. 81,836. (Cl. 21—5.)

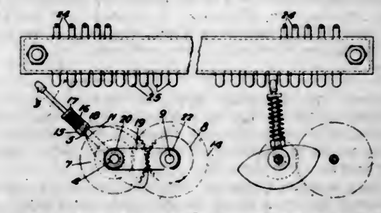


1. The combination of a square bar axle cut from the drawn bar without machining, a hollow cast thimble-skein having a hole in its larger end shaped to fit said bar axle, corner grooves in the inner walls of said hollow thimble-skein which wedgingly fit the end of said bar axle, and a rivet through said thimble-skein and bar axle to attach said parts.

2. The combination of a bar axle having the same contous throughout its length, a thimble-skein having a hole in its larger end to fit said axle bar, said hole in said thimble skein extending lengthwise a portion of the way therethrough and slightly diminishing in size toward the end to wedgingly fit the end of said axle bar, said thimble-skein driven onto the end of said axle bar, and a rivet through said thimble-skein and axle bar to securely attach said parts.

3. The combination of a square axle cut from the drawn bar without machining, a cast thimble-skein having a lengthwise offset opening therein to receive and fit onto the end of said axle bar at the proper chamber, said thimble-skein having recesses in the outer opposite sides thereof to form grease-cups, and a rivet through said thimble-skein and axle bar headed in said recesses to attach said thimble skein to said axle.

1,205,536. AUTOMATIC SWITCH. GEORGE H. HEYDT, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 10, 1916. Serial No. 102,898. (Cl. 179—27.5.)



1. In an automatic switch, a rotatable shaft, a brush carried thereby, and means for causing said brush to traverse, during rotation of said shaft, a series of com-

tacts, said contacts being at various distances from the axis of the shaft.

2. In an automatic switch, a rotatable shaft, a radially movable brush carried thereby, and means for causing a constantly varying radial motion of the brush.

3. In an automatic switch, a rotatable shaft, an arm mounted thereon, a brush carriage mounted on said arm, a brush, and means for causing said brush to traverse, during rotation of said shaft, a series of contacts, said contacts being arranged at various distances from the axis of the shaft.

4. In an automatic switch, a rotatable shaft, an arm mounted thereon, a brush carriage mounted on said arm, a radially movable brush, and means for causing a constantly varying radial motion of the brush.

5. In an automatic switch, a rotatable shaft, a radially movable brush carried thereby, a series of contacts, said contacts being arranged at various distances from the axis of said shaft, and means for causing said brush, during rotation in the plane of said contacts, to establish connection to any desired one of said contacts.

[Claims 6 and 7 not printed in the Gazette.]

1,205,537. FLOWER-HOLDER. HELEN HILPERT, Glenside, Pa. Filed May 23, 1916. Serial No. 99,365. (Cl. 24—6.)



1. In a device of the class described, a hollow body having an open upper end, the body being of less height at its front than at its rear and the upper edge of the body at its said open end being provided with a plurality of notches, the wall of the body being formed with flutes terminating at their upper ends substantially at the said notches.

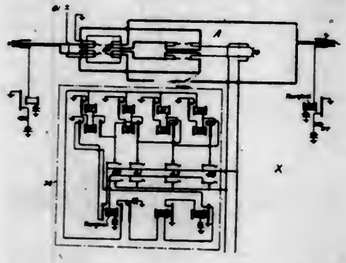
2. In a device of the class described, a hollow receiving body having substantially the form of an inverted triangular scalene pyramid and the wall of the body at the front thereof being provided with a relatively deep notch, and at opposite sides of the notch being formed with flutes.

3. In a device of the class described, a hollow receiving body having substantially the form of an inverted triangular scalene pyramid and the wall of the body at the front thereof being provided with a relatively deep notch, and at opposite sides of the notch being formed with flutes, the said body being provided in the upper edge of its wall at the upper ends of the flutes with other notches.

4. In a device of the class described, a hollow downwardly tapered body open at its upper end formed from a blank substantially triangular in outline and provided at its apex with a tab lying within the body at its apex and closing the lower end of the said body.

1,205,538. TELEPHONE SYSTEM. EDWARD E. HINRICHSEN, East Orange, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Oct. 8, 1915. Serial No. 54,725. (Cl. 179—27.)

1. In a telephone system, a main trunk circuit extending from a first to a second central office, local trunk circuits and associated call wire circuits, one of each extending from the second central office to each of a plurality of local offices, a step-by-step selector at the second central office controlled from the first central office to select one of said local trunk circuits, and apparatus operating upon the selection of a local trunk circuit to connect said main trunk circuit with the call wire circuit associated with the selected local trunk circuit.



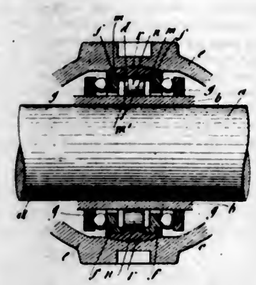
2. In a telephone system, a main trunk circuit extending from a first to a second central office, local trunk circuits, and associated call wire circuits, one of each extending from the second central office to each of a plurality of local offices, a step-by-step selector at the second central office controlled from the first central office over said main trunk circuit to select one of said local trunk circuits, and relays operating upon the selection of a local trunk circuit to connect the main trunk circuit with the call wire circuit associated with the selected local trunk circuit.

3. In a telephone system, a main trunk circuit extending from a first to a second central office, local trunk circuits and associated call wire circuits, one of each extending from the second central office to each of a plurality of local offices, an impulse transmitter at the first central office, a step-by-step selector at the second central office responsive to impulses from said impulse transmitter transmitted over said main trunk circuit to select one of said local trunk circuits, and apparatus operating upon the selection of a local trunk circuit to connect said main trunk circuit with the call wire circuit associated with the selected local trunk circuit.

4. In a telephone system, a main trunk circuit extending from a first to a second central office, local trunk circuits and associated call wire circuits, one of each extending from the second central office to each of a plurality of local offices, an impulse transmitter at the first central office, a source of signaling current thereat, a relay associated with the main trunk circuit at the first central office responsive to current impulses from the impulse transmitter to intermittently connect said source of signaling current with the main trunk circuit, a step-by-step selector at the second central office responsive to signaling current impulses over the main trunk circuit to select one of said local trunk circuits, and apparatus operating upon the selection of a local trunk circuit to connect said main trunk circuit with the call wire circuit associated with the selected local trunk circuit.

5. In a telephone system, a main trunk circuit extending from a first to a second central office, local trunk circuits and associated call wire circuits, one of each extending from a second central office to each of a plurality of local offices, a link circuit, an impulse transmitter and a source of signaling current at the first central office, a relay associated with the main trunk circuit at the first central office responsive to current impulses from said impulse transmitter when said link circuit is connected with said main trunk circuit, said relay intermittently connecting said source of signaling current to the main trunk circuit, a step-by-step selector at the second central office responsive to signaling current impulses over the main trunk circuit to select one of said local trunk circuits, and relays operating upon the selection of a local trunk circuit to connect said main trunk circuit with the call wire circuit associated with the selected local trunk circuit.

1,205,539. BEARING. CARL ALBERT HIRTH, Cannstatt-Stuttgart, Germany. Filed Apr. 27, 1915. Serial No. 24,182. (Cl. 64—39.)



1. A duplex bearing comprising a central supporting cylinder bearing including concentric rings and a series of cylindrical rollers disposed between them, pressure bearings disposed on opposite sides of said central bearing, said pressure bearings including rings disposed side by side and rollers between them, the inner rings of said pressure bearings having lateral inward flanges engaging the opposite ends of said cylindrical rollers adjacent the peripheral portion in contact with the outer bearing ring.

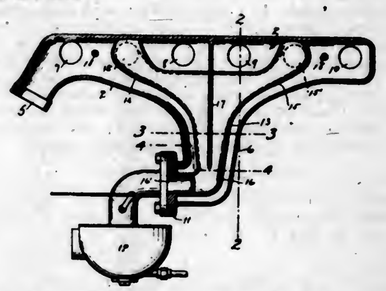
2. A duplex bearing comprising a central supporting cylinder bearing including concentric rings and a series of cylindrical rollers disposed between them, and pressure bearings disposed on opposite sides of said central bearing, said pressure bearings including inner rings having concave annular grooves, outer rings disposed adjacent to said inner rings and ball rollers disposed between said inner and outer pressure rings, said inner pressure rings having lateral inward flanges engaging the opposite ends of said cylindrical rollers adjacent the peripheral portion in contact with the outer bearing ring.

3. A duplex bearing comprising a central supporting cylinder bearing including an outer ring having annular recesses on its inner face and a cylindrical race surface between them, a series of cylinders traveling on said cylindrical race surface, pressure bearings disposed on opposite sides of said central bearing and including inner and outer rings and rollers between them, said inner rings having lateral inward flanges fitting said recesses and engaging the opposite ends of said cylindrical rollers adjacent the peripheral portion in contact with the outer bearing ring.

4. A duplex bearing comprising a bearing body provided with a segmental spherical concave surface, an outer race ring having on its outer face a segmental spherical surface adapted to fit the spherical surface of said bearing body and provided on its inner face with a central cylindrical race surface and on opposite sides thereof with annular recesses, a series of cylindrical rollers traversing said cylindrical race surface, inner rings disposed on opposite sides of said cylindrical rollers and provided with lateral inward flanges fitting said recesses and engaging the opposite ends of said cylindrical rollers adjacent the peripheral portion in contact with the outer bearing ring, outer rings disposed on opposite sides of said inner rings apart therefrom and rollers disposed between said inner and outer rings.

1,205,540. COMBINED INTAKE AND EXHAUST MANIFOLD. HARRY W. HIZINGTON, East Syracuse, N. Y., assignor of two-thirds to Orey W. Crandall, East Syracuse, N. Y., and Robert A. Aldridge, Syracuse, N. Y. Filed Jan. 6, 1916. Serial No. 70,697. (Cl. 123—52.)

1. A combined intake and exhaust manifold, for internal combustion engines, comprising a hollow body adapted to receive the exhaust from an engine and having a depending neck arranged to connect to and support a carbureter, an intake manifold disposed entirely within said hollow body having a neck provided with a port communicating with the carbureter, said manifold being spaced from three of the inner sides of the said body, and a wall interposed between said manifold and one wall of said body for compelling a portion of the burned gases to flow downwardly and thence over the neck of the manifold for heating said neck.



2. The combination of an exhaust manifold comprising a hollow body having ports to receive the burned gases from an engine and having a depending neck supporting a carbureter, an intake manifold comprising a smaller hollow body inclosed within the exhaust manifold having a port to receive the explosive gas from the carbureter and ports for discharging said gas into the engine, and a wall connecting one side of the intake manifold to the corresponding side of the exhaust manifold for compelling a portion of the burned gases to flow downwardly into said neck for heating the lowermost parts of the intake manifold.

1,205,541. MOTOR-CYCLE-SEAT BACK. CHARLES A. HOEHN, Wilkinsburg, Pa. Filed June 24, 1916. Serial No. 105,622. (Cl. 208—138.)

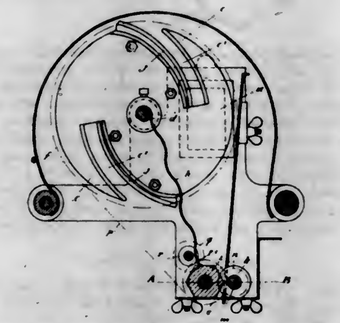


1. A device of the class described comprising a supporting frame, said supporting frame adapted to be bent from a single strand of resilient wire so as to form a semi-circular body portion, said body portion terminating in eyes, said eyes adapted to extend at right angles to the plane of said body portion, said eyes terminating in arms, said arms extending parallel to one another and in the same direction with the body portion, said frame adapted to be supported upon a seat whereby because of the resilient nature of the wire, the back will have sufficient give, and means for holding said supporting frame upon a seat.

2. In a device of the class described, the combination of a supporting frame with a body portion, said body portion adapted to be struck from a single sheet of metal and provided with a channel extending around its circular periphery, said channel adapted to receive said supporting frame, said supporting frame adapted to be formed from a single strand of resilient wire and bent so as to form a semi-circular body, said body terminating in eyes extending at right angles thereto, said eyes terminating in arms, said arms extending parallel to one another and in the same direction with said semi-circular body whereby because of the resilient wire sufficient give will be imparted to the device, and means provided for attaching said supporting frame to said body portion.

3. In a device of the class described, the combination of a supporting frame with a body portion, said body portion adapted to be struck from a single sheet of metal and provided with a channel extending around its circular periphery, said channel adapted to receive said supporting frame, said supporting frame adapted to be formed from a single strand of resilient wire and bent so as to form a semi-circular body, said body terminating in eyes extending at right angles thereto, said eyes terminating in arms, said arms extending parallel to one another and in the same direction with said semi-circular body, a clip adapted to connect said arms with the approximate center of said body portion, said clip being substantially rectangular in shape and bent so as to form sockets adapted to receive said arms, and said clip provided with an aperture whereby the same may be riveted upon said body portion.

1,205,542. MEAT-CUTTING MACHINE. GUSTAV ADOLF HOLZAPFEL, Leipzig, Germany. Filed Jan. 27, 1916. Serial No. 74,617. (Cl. 17—21.)



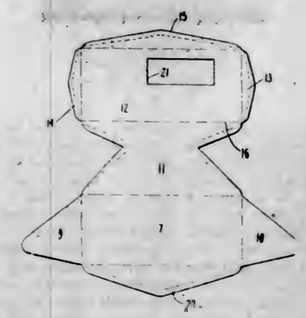
1. A cutting device for a machine of the character described comprising a rotary cutting roller having a series of spaced cutting disks, a rotary feed roller having a series of annular slots engaged by the disks of said cutting roller and peripheral projections adapted to engage the material and impel it toward said cutting roller, and a guide plate suspended above said feed roller and engaged and vibrated by said projection.

2. A cutting device for a machine of the character described comprising a rotary cutting roller having a series of spaced cutting disks, a rotary feed roller having a series of annular slots engaged by the disks of said cutting roller and peripheral projections adapted to engage the material and impel it toward said cutting roller, and a corrugated guide plate suspended above said feed roller and engaged and vibrated by said projections.

1,205,543. RETURN MAILING-ENVELOP. FRANZ EDUARD WILLIAM HOPKE and LEON STEUART SHARPS, New York, N. Y. Filed Mar. 2, 1914. Serial No. 821,884. (Cl. 229—73.)

1. A return mailing envelop formed from a single blank of material comprising a rectangular face portion, having end flaps projecting therefrom and a back portion adapted to rest upon said end flaps and be secured thereto to form the containing portion of the envelop, a sealing flap projecting from the free edge of said envelop, and a rectangular extension of the same dimension as said face portion formed integral with the normally free edge of said portion and provided with a fold along said edge whereby said extension may be folded to cover the entire face portion of said envelop and flaps projecting from the three free edges of said extension and adapted to fold over upon and be secured to the back portion of said envelop to maintain said rectangular extension in position relatively to said face portion, for the purposes described.

2. A return mailing envelop having a rectangular front face and a back face formed by flaps extending from three of the edges of the front face, said flaps being adapted to be secured together by an adhesive, whereby the flaps on the parallel edges of the face portion will underlie the larger flap to form a complete envelop, a sealing flap extending from the front face of the envelop, and a rectangular extension formed integral with the normally free edge of the larger back forming flap and adapted to overlie and cover the front face of the envelop and flaps formed on the three edges of the said extension and adapted to fold over and be secured to the back of the envelop.



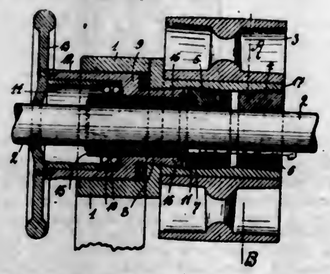
3. A return mailing envelop having a rectangular front face and a back face formed by flaps extending from three of the edges of the front face, said flaps being adapted to be secured together by an adhesive, whereby the flaps on the parallel edges of the face portion will underlie the larger flap to form a complete envelop, a sealing flap extending from the front face of the envelop, a rectangular extension formed integral with the normally free edge of the larger back forming flap and adapted to overlie and cover the front face of the envelop and flaps formed on the three free edges of the said extension and adapted to fold over and be secured to the back of the envelop, and an elongated sight opening provided in said extension whereby a portion of the face of the envelop will be disclosed.

4. As a new article of manufacture, a return mailing envelop formed from a single blank having two rectangular portions of the same dimensions and an intermediate cut-out portion, one of said rectangular portions being provided with flaps projecting from its three free edges, said latter portion being adapted to fold over upon said cut-out portion, whereby the end flaps of said rectangular portion will coöperate with said cut-out portion to form a complete envelop, extensions being formed along the three free edges of the remaining rectangular portion, whereby said latter portion may be folded over upon and completely cover the face portion of the envelop, its flaps being adapted to be folded over upon and adhere to the back portion of the envelop.

1,205,544. COMBINED CLUTCH AND BEARING. KLAS HERMAN JOHANSSON, Säfsjö, Sweden, assignor to Aktiebolaget Lindéns Hemmaskiner, Nässjö, Sweden, a Corporation of Sweden. Filed Jan. 25, 1916. Serial No. 74,103. (Cl. 192—7.)

1. In a combined bearing and coupling device for a rope or belt pulley, toothed wheel or the like, the combination of a continually rotating driving shaft, two conical parts, provided on the said driving shaft and coöperating with the hub of the pulley, one of the said parts being fixed to the said driving shaft and the other sliding on the same, a stationary bearing block, and a mechanism, supported by and engaging said block, by means of which the slidable part is brought into and out of engagement with the hub of the said pulley for connecting the pulley with the shaft and disconnecting the same respectively, said shaft passing entirely through said block and mechanism.

2. In a combined bearing and coupling device for a rope or belt pulley, toothed wheel or the like, the combination of a continually rotating driving shaft, a stationary bearing block, two conical parts, provided on the said driving shaft and coöperating with the hub of the pulley, one of the said parts being fixed to the said driving shaft and the other one sliding on the same, a sleeve which is in screw-threaded engagement with the bearing block, means connecting the said sliding part with the said sleeve in such manner, that the part can rotate but not slide with relation to the sleeve and means for rotating the said sleeve for bringing the sliding part into engagement with the hub of the pulley and out of engagement with the same, said shaft passing through said block and sleeve, substantially as described and shown in the drawing.

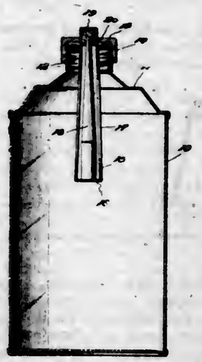


3. In a combined bearing and coupling device for a rope or belt pulley, toothed wheel or the like the combination of a continually rotating driving part, two conical parts provided on the said driving part and coöperating with the hub of the pulley, one of the said parts being fixed to the said driving part and the other one sliding on the same, a sleeve, which is in screw-threaded engagement with the bearing block, means connecting the said sliding part with the said sleeve in such manner, that the part can rotate but not slide with relation to the sleeve, means for rotating the said sleeve for bringing the sliding part into engagement with the hub of the pulley and out of engagement with the same, and a conical extension of the said sleeve increasing in width inward and coöperating with a corresponding conical part of the hub of the pulley in such manner, that it is out of engagement with the pulley, as the latter is connected with the shaft, but is brought into engagement with the pulley, as the latter is disengaged from the shafts, substantially as described and for the purpose set forth.

1,205,545. SPOUT FOR RECEPTACLES. WILLIAM G. KENDALL, Newark, N. J. Filed Apr. 23, 1915. Serial No. 23,449. (Cl. 221—27.)

1. A spout for receptacles including an inner cap adapted to be applied to a receptacle, a cage extending from the cap into the receptacle, a spout member proper telescopically mounted in the cage to be extended for the greater portion of its length through the cap or to be retracted into the cage to extend but a slight distance at its free end through the cap, an outer cap adapted to be applied about the inner cap and provided with a reduced cylindrical extension to receive the extended end of the spout, and a packing member seating in the outer cap and having an extension filling the extension of the cap and formed with a concavity whereby when the outer cap is applied to the inner cap to force its packing member into engagement with the inner cap and seal the cage, the extended end of the spout will be frictionally engaged in the concavity of the extension of the packing member and sealed by the end wall of such concavity.

2. A spout for receptacles including an inner cap adapted to be applied to a receptacle, a spout extensible through the inner cap, means for supporting the spout when retracted through the cap to keep its free end extended slightly through the cap, an outer cap adapted to be applied to the inner cap and provided with a reduced extension to receive the end of the spout, and a packing member seating in the outer cap and having an extension filling the extension of the cap and formed with a concavity to receive and seal the end of the spout when the body of the packing member seals the opening in the inner cap.



1,205,546. VANITY-BOX. WILLIAM G. KENDALL, Newark, N. J. Filed May 6, 1916. Serial No. 95,903. (Cl. 132—28.)



1. A vanity box including a box body, balls secured within the body and to the peripheral wall thereof, and a rouge holding pad including a base having an upwardly and inwardly directed peripheral flange adapted to be lockingly engaged beneath the balls by forcing the pad against the bottom of the body.

2. In a vanity box, the combination with a box having a base and marginal wall, of a rouge holding pad seating upon the base and having an unwardly and inwardly directed marginal wall spaced from the wall of the box, and a plurality of balls peripherally spaced within the box and secured to the upstanding wall thereof, the balls projecting to engage the marginal wall of the pad.

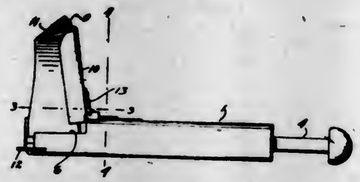
3. A vanity box including a body having an upstanding marginal wall, means for lockingly holding a rouge pad within the box, a cover having a depending marginal wall adapted to encircle the marginal wall of the box, and a hinge connecting the cover and box and disposed to hold the cover in vertical position with respect to the box when the cover is open, said hinge including hinge ears, one of which carries an eye disposed in a vertical plane with its upper peripheral face adapted to engage the marginal wall of the cover when the cover is in substantially vertical position.

4. A vanity box including a box body, balls secured within the body and to the peripheral wall thereof, and a rouge holding pad including a base having an upwardly and inwardly directed peripheral flange adapted to be lockingly engaged beneath the balls by forcing the pad against the bottom of the body, the base of the pad being formed with an upstanding loop.

5. A vanity box including a box body, abutments projecting inwardly from the marginal wall thereof, and a

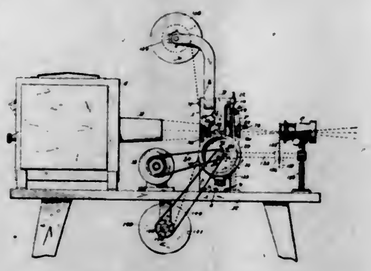
rouge holding pad including a base having an upwardly and inwardly directed marginal flange adapted to be lockingly engaged beneath the abutments by forcing the pad against the bottom of the box body.

1,205,547. STAPLE-SETTING IMPLEMENT. JOHN H. KERSTETER, State College, Pa. Filed Apr. 21, 1916. Serial No. 92,744. (Cl. 1—49.)



A device of the class described comprising a handle having a longitudinal bore formed therein, a spring retractable drive rod slidable in the bore, a staple supporting bar having its inner end disposed adjacent the inner end of said bore and so arranged that the staples will be successively fed into the path of movement of the drive rod, a spring pressed guard carried by the handle for inclosing one edge of the staple supporting bar, and a yoke carried by the outer end of the guard and arranged to straddle the supporting bar to retain the staples thereon, as and for the purpose set forth.

1,205,548. MOTION-PICTURE MACHINE. WILLIAM H. H. KNIGHT, Philadelphia, Pa. Filed Apr. 2, 1912, Serial No. 688,050. Renewed Apr. 7, 1916. Serial No. 89,722. (Cl. 88—18.)



1. A reciprocating carrier, means to continuously move said carrier in opposite directions, a picture bearing band or film to be carried by said carrier, and means controlled and actuated by said carrier to move the band or film to and upon said carrier, substantially as described.

2. A reciprocating carrier, means to continuously move said carrier in opposite directions, a picture bearing band or film to be carried by said carrier, and means actuated by the carrier during its movement in one direction only to move said band or film to and upon said carrier, substantially as described.

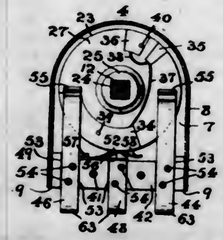
3. A reciprocating carrier, means to continuously move said carrier in opposite directions, a picture bearing band or film to be carried by said carrier, and intermittently actuated means to move said band or film to and upon the carrier, substantially as described.

4. A reciprocating carrier, means to continuously move said carrier in opposite directions, a picture bearing band or film to be carried by said carrier, a device to move said band or film to and upon said carrier during the movement of said carrier in one direction, and means to hold said band or film from movement upon the carrier during the movement of said carrier in the opposite direction, substantially as described.

5. A continuously reciprocating carrier, means to move said carrier in one direction at one speed and in the opposite direction at another speed, a picture bearing band or film to be carried by said carrier, and intermittently actuated means to move said band or film to and upon said carrier, substantially as described.

[Claims 6 to 107 not printed in the Gazette.]

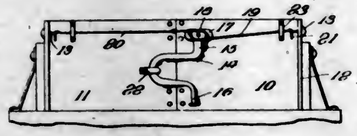
1,205,549. ELECTRIC SWITCH. HENRY KRUESHELD, Irvington, N. J. Filed Nov. 11, 1915. Serial No. 60,831. (Cl. 175—282.)



1. An electric switch of the character set forth, comprising a main shell or casing, a spindle rotatably mounted in said shell or casing, a face-plate bearing indicating notations, a lever mounted upon said spindle, said lever being provided with a pointer adapted to be brought into reading registration with said notations, a cylindrical disk mounted upon said spindle, contact-establishing metal plates inlaid in the opposite faces of said disk, circuit-establishing metal strips also inlaid in said disk and connecting some of said metal plates, a right-angled contact-establishing portion connected with one of said plates and inlaid in the peripheral surface-portion of said disk, a brush-block mounted within said shell or casing, said brush-block being a non-conductor of electricity, metallic brush-elements mounted upon the opposite faces of said block, the majority of said brush-elements extending upwardly within said shell or casing upon opposite sides of said disk and being provided with brush-like contacting end-portions in slidable engagement with the opposite faces of said disk and the metal plates inlaid in said faces, and a contact-making spring-finger extending from another of said brush-elements beneath the peripheral surface-portion of said disk in slidable engagement with said peripheral surface-portion and the said right-angled contact-establishing plate-like portion.

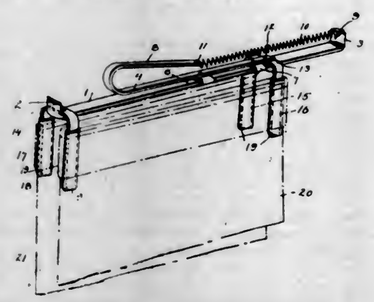
2. An electric switch of the character set forth, comprising a main shell or casing, a spindle rotatably mounted in said shell or casing, a face-plate bearing indicating notations, a lever mounted upon said spindle, said lever being provided with a pointer adapted to be brought into reading registration with said notations, a cylindrical disk mounted upon said spindle, contact-establishing metal plates inlaid in the opposite faces of said disk, circuit-establishing metal strips also inlaid in said disk and connecting some of said metal plates, a right-angled contact-establishing portion connected with one of said plates and inlaid in the peripheral surface-portion of said disk, a brush-block mounted within said shell or casing, said brush-block being a non-conductor of electricity, metallic brush-elements mounted upon the opposite faces of said block, the majority of said brush-elements extending upwardly within said shell or casing upon opposite sides of said disk and being provided with brush-like contacting end-portions in slidable engagement with the opposite faces of said disk and the metal plates inlaid in said faces, and a contact-making spring-finger extending from another of said brush-elements beneath the peripheral surface-portion of said disk in slidable engagement with said peripheral surface-portion and the said right-angled contact-establishing plate-like portion, the said peripheral surface-portion of the disk and said right-angled contact-establishing plate-like portion being provided with a series of depressions, and a projection extending upwardly from said contact-making spring-finger for registration with said depressions to intermittently arrest the rotary movement of said disk.

1,205,550. END-GATE FASTENER. ROBERT P. KRUSE, Rushville, Ill. Filed Oct. 13, 1915. Serial No. 55,669. (Cl. 21—21.)



The combination with a sectional end gate, of a locking lever swingingly connected to one of said sections, a stop carried by the other section, and coacting tie rods having their inner extremities arranged in overlapping relation and respectively secured to the said lever at points spaced above and below the pivotal axis thereof with the said rods adapted to urge the lever to swing in a plane with the said rods to a position overlying the joint between the sections in engagement with said stop for holding the inner ends of the sections against relative movement.

1,205,551. TROUSERS HANGER AND STRETCHER. DAVID H. LEACH, Sacramento, Cal. Filed Feb. 19, 1916. Serial No. 79,382. (Cl. 223—19.)



1. Trousers hanger and stretcher comprising a bar, said bar provided with its ends bent at right angles and extending upwardly therefrom to provide stops, a second bar slidably mounted upon first mentioned bar between said stops, means for slidably securing second mentioned bar to first mentioned bar, a U-shaped member secured to second mentioned bar and extending downwardly therefrom, a second U-shaped member secured to the first mentioned bar and extending downwardly therefrom, said U-shaped members adapted to receive the ends of a pair of trousers, and means attached to one end of second mentioned bar and to one of said stops to hold said U-shaped members within the ends of the trousers.

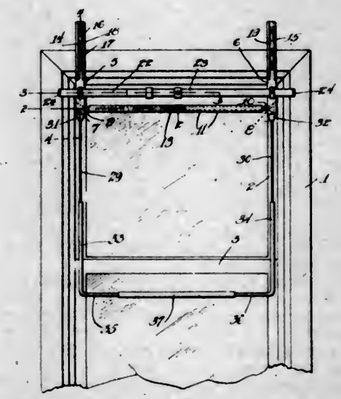
2. Trousers hanger and stretcher comprising a lower bar, stops formed on each end of said lower bar, an upper bar slidable upon the lower bar between said stops, clips secured to the upper bar and adapted to engage the lower bar to slidably secure the lower bar to the upper bar, a U-shaped member secured to one end of the upper bar and extending downwardly on each side thereof, a second U-shaped member secured to the lower bar adjacent one of the stops and extending downwardly therefrom and upon each side thereof, said U-shaped members inserted within the ends of a pair of trousers, and a coil spring secured to one of the stops and to one end of the upper member to hold said upper member and lower member in an extended position to crease and secure the ends of the trousers to the U-shaped members.

3. Trousers hanger and stretcher comprising a lower bar, upwardly extending stops formed on each end of said bar, an upper bar slidable upon said lower bar between the stops, means for slidably securing the upper bar to the lower bar to allow it to move between said stops, a U-shaped member secured to one end of the upper bar and extending downwardly therefrom, a second U-shaped member secured to the lower bar adjacent the stop at one end thereof and extending downwardly therefrom, said U-shaped members adapted to receive the ends of a pair of trousers, said upper bar bent intermeditae its ends in a direction upwardly and rearwardly upon itself to form a finger grip, and means attached to the end of the finger grip and to one of said stops to hold the bars in an extended position.

4. Trousers hanger and stretcher comprising a lower bar, stops formed on each end of said bar, an upper bar slidably mounted upon said lower bar and adapted to move in a space between said stops, means for slidably securing the upper bar to the lower bar, a U-shaped member secured to one end of the upper bar and extending downwardly therefrom, a second U-shaped member secured to the lower bar and extending downwardly therefrom, said U-shaped members adapted to receive the ends of a pair of trousers, said upper bar bent intermediate its ends to form a finger grip, and a spring attached to said finger hold and to said stops to hold the bars in an extended position.

5. Trousers hanger and stretcher comprising a lower bar, stops formed on each end of said bar, clips slidably mounted on said bar, an upper bar secured to said clips and adapted to slide upon the lower bar between said lugs, a U-shaped member secured to one end of the upper bar, the opposite end of said upper bar bent upwardly and rearwardly upon itself to form a finger grip to receive a hook or support for suspending the device, a second U-shaped member secured to the lower bar and extending downwardly therefrom, said U-shaped members adapted to be inserted within the ends of a pair of trouser legs, and a spring connected to the finger grip and to one of said stops to normally hold the bars in an extended position.

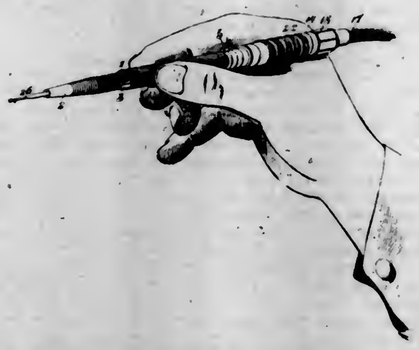
1,205,552. COMBINATION CURTAIN AND SASH-SUPPORT. OLIVER LONDON and SWAN A. NELSON, Patton, Pa. Filed Mar. 30, 1915. Serial No. 18,105. (Cl. 156—23.)



1. A curtain and shade support, including a supporting frame adjustable to various widths of windows, means for supporting a curtain pole and a shade roller arranged upon said frame and vertically adjustable relative thereto, and means carried by the frame and depending therefrom for supporting a sash curtain.

2. In a curtain and shade support, a supporting frame, including vertical and horisontally adjustable bars, brackets slidably engaged with the vertical bars of said frame for supporting a curtain pole and a shade roller, means for securing said brackets in adjusted positions, and a second adjustable frame carried by the first-mentioned frame and depending therefrom for supporting a sash curtain.

1,205,553. HANDPIECE FOR DENTAL MACHINES. WILLIAM T. LYON, Portland, Oreg. Filed Oct. 29, 1914, Serial No. 869,296. Renewed Aug. 9, 1916. Serial No. 114,068. (Cl. 32—15.)



1. In a dental hand piece, a bearing member, an outer shell or casing secured thereto and having a tool opening in its front end, a hollow shaft rotatable in said shell and projecting through said bearing, said hollow shaft having its outer end internally coned and apertured to receive the tool, a chuck in said hollow shaft adjacent to said coned end, a thrust rod in said hollow shaft, a threaded connection between said thrust rod and said hollow shaft, a flexible drive shaft connected to said thrust rod for effecting driving rotation of the same, means for holding said hollow shaft from rotation and means for engaging said thrust rod, said last named means being rotatably mounted whereby said thrust rod may be turned to secure or release the chuck.

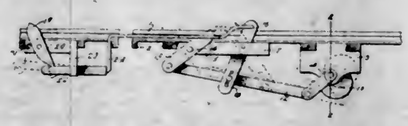
2. In a dental hand piece, a bearing member, a casing in which said bearing member is mounted, a hollow shaft mounted in said casing and projecting through said bearing member, a tool chuck in said hollow shaft, a thrust rod for operating said tool chuck, a threaded connection between said thrust rod and said hollow shaft, whereby said thrust rod may be longitudinally moved within said hollow shaft, a latch device for latching said hollow shaft to said bearing at times to prevent rotation of said hollow shaft, said latch device lying normally out of action, means for imparting rotation to said thrust rod and thereby rotate said thrust rod and said hollow shaft, and a shiftable sleeve mounted on said casing and adapted to engage said latch member whereby when said sleeve is shifted in one direction said latch member will be forced to its latching position.

3. In a dental hand piece, a bearing member, a casing in which said bearing member is mounted, a hollow shaft mounted in said casing and projecting through said bearing member, a tool chuck in said hollow shaft, a thrust rod for operating said tool chuck, a threaded connection between said thrust rod and said hollow shaft, whereby said thrust rod may be longitudinally moved within said hollow shaft, a latch device for latching said hollow shaft to said bearing at times to prevent rotation of said hollow shaft, said latch device lying normally out of action, means for imparting rotation to said thrust rod and thereby rotate said thrust rod and said hollow shaft, a shiftable sleeve mounted on said casing and adapted to engage said latch member whereby when said sleeve is shifted in one direction said latch member will be forced to its latching position, said thrust rod and said shiftable sleeve having coöperating clutch elements adapted to be brought into and out of engagement with one another whereby when said clutch elements are in engagement and said latch is in its latching position, said thrust rod can be turned with relation to said casing to secure or release said chuck.

4. In a dental hand piece, a casing, a hollow shaft rotatably mounted in said casing, a latch device relatively fixedly located with relation to said casing, a chuck mounted in said hollow shaft, a thrust rod in said hollow shaft, a threaded connection between said thrust rod and said hollow shaft for imparting thrust movements to said rod, said hollow shaft having a slot, said latch having a clutch lug to engage in said slot when said latch is depressed, a shiftable sleeve mounted on said casing, a coöperative connection between said sleeve and said latch whereby said latch will normally lie out of its latching positiotn and upon shifting said sleeve, said latch will be forced into its latching position, and means for imparting rotation to said thrust rod.

5. In a dental hand piece, a casing, a hollow shaft rotatably mounted in said casing, a latch device relatively fixedly located with relation to said casing, a chuck mounted in said hollow shaft, a thrust rod in said hollow shaft, a threaded connection between said thrust rod and said hollow shaft for imparting thrust movements to said rod, hollow shaft having a slot, said latch having a clutch lug to engage in said slot when said latch is depressed, a shiftable sleeve mounted on said casing, a coöperative connection between said sleeve and said latch whereby said latch will normally lie out of its latching position and upon shifting said sleeve said latch will be forced into its latching position, means for imparting rotation to said thrust rod, said thrust rod having a bearing portion to which said rotation imparting means is attached, a bearing for receiving said bearing portion, said bearing having a projection on which said sleeve is also slidable, said sleeve and said thrust rod having coöperating clutch elements adapted to be brought into and out of engagement with one another whereby when said elements are in engagement and said latch is depressed, said thrust rod may be turned to move said chuck into its clutching or tool releasing position, substantially as shown and described.

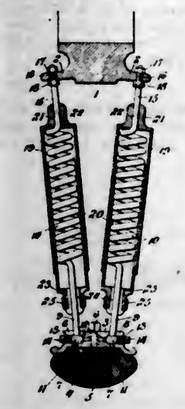
1,205,554. AUTOMATIC CROSSING-SIGNAL. HENRY MACHAC, Crowell, Tex. Filed June 15, 1915. Serial No. 34,185. (Cl. 246—48.)



In a railway crossing signal, a signal member, an operating shaft therefor, a pair of oppositely movable rock arms, one of said rock arms being disposed distant from the crossing and the other of said rock arms being positioned between first said rock arm and the crossing and adjacent the latter, an oscillatable lever having one end pivotally connected with said operating shaft and with said second rock arm and positioned between the latter and the railway crossing, and a connecting rod interposed between first said rock arm and said oscillatable lever, whereby upon the approach of a train first said rock arm will be actuated to move the signal to indicating position and when the train reaches a point proximate the crossing the second said rock arm will be actuated to return the singal to normal inoperative position.

1,205,555. SPRING-WHEEL. FRANK ANDERSON MERRHON, Red Hill, Va. Filed Sept. 16, 1915. Serial No. 51,025. (Cl. 152—52.)

1. A spring wheel having spokes comprising coiled springs connected to the hub and rim of the wheel, respectively, and pneumatic dash pots consisting of telescoping members located between the hub and rim, the springs and dash pots being in coactive relation to each other and the members of each dash pot participating in the contracting and elongating movements of the respective springs, whereby the dash pots constitute pneumatic cushions contributing to the elasticity of the wheel and serving as retarding means counteracting rapidity of response of the springs to elongation and contraction.



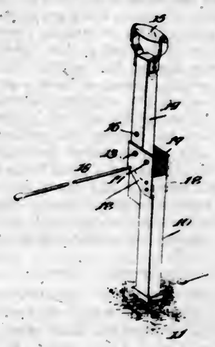
2. A spring wheel having spokes composed of elongated coiled springs with the ends connected to the hub and rim of the wheel, respectively, and a dash pot for each coiled spring consisting of a pair of telescoping sleeves carried solely by the spring and having telescoping movements corresponding in extent to the elongation and contraction of the coiled part of the spring, whereby each dash pot counteracts the tendency of the respective spring to rapidly respond to contracting and expanding forces.

3. A spring wheel having spokes composed of elongated coiled springs each with extended terminal shanks with one shank screw threaded at the ends and the other shank formed with an expanded head for attachment of the springs to the hub and rim portions, respectively, of the wheel, and a cover member for each spring comprising two telescoping sleeves each terminating in a head secured to a respective one of the shanks of the spring, the head of the sleeve connected to the shank of the spring having an expanded head thereon being provided with a split bushing for permitting the passage of the head of the shank of the spring and providing a close fit of the sleeve to the shank of the spring.

4. A spring wheel having spokes composed of elongated coiled springs with extended terminal shanks for attachment of the springs to the hub and rim, respectively, of the wheel, and a pair of telescoping sleeves on each spring carried solely by the spring and each attached to a respective shank of the spring, said sleeves constituting a dash pot counteracting the tendency of the springs to rapidly respond to contracting and expanding forces.

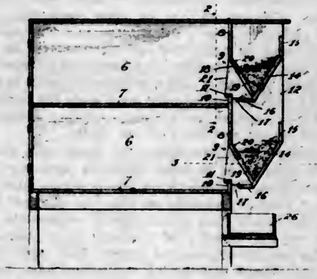
1,205,556. SHOCK-SUPPORT. GEORGE M. MESSINGER, Mechanicsburg, Pa. Filed Mar. 22, 1916. Serial No. 85,994. (Cl. 56—5.)

In a device of the class described, a standard, cheek plates attached to the opposite faces of said standard and extending above and laterally of the same, a supporting member disposed intermediate its ends between said cheek plates, a pivot device extending through the laterally extending portions of the cheek plates and through the supporting member, and a rod extending through the upwardly extending portion of the cheek plates and through the supporting member to lock the supporting member between the cheek plates and holding



the same in horizontal position and upon the upper end of the standard.

1,205,557. FEED-HOPPER. JOHN METZGER, Los Angeles, Cal., assignor of one-half to Olaf G. Norquist, Huntington Park, Los Angeles, Cal. Filed May 12, 1915. Serial No. 27,508. (Cl. 119—58.)



1. In a feed-hopper, the combination with a wall having an opening therein, of a feed receptacle having a discharge opening, a wire mesh extending over said feed opening and arranged on an inclination adjacent the opening in the wall, a shelf extending beneath the wire mesh on a plane below the lower marginal edge of the opening in the wall and spaced from said wall to form an unrestricted slot, and a partition extending between the wall and the wire mesh at right angles thereto.

2. In a feed-hopper, the combination with a vertical wall having an opening therein, a rearwardly and downwardly inclined panel at the upper edge of said opening, a feed receptacle into which said panel extends having an inclined wall spaced from said panel to form a discharge opening, a wire mesh extending across said discharge opening secured to said inclined wall and loosely attached at its opposite edge to the inclined panel, and a shelf connecting with the inclined wall beneath the wire mesh on a plane below the lower edge of the first mentioned opening and spaced from the vertical wall to form a slot.

3. In a feed hopper the combination with a vertical wall having an opening therein, of a feed receptacle formed with a discharge opening, a reticulated feed support formed across said discharge opening, a horizontal shelf beneath the reticulated feed support, said horizontal shelf being formed with an unrestricted slot extending longitudinally along its forward edge, and a perpendicular ledge bounding the outer edge of said slot.

4. In a feed hopper the combination of a vertical wall having an opening therein, a feed receptacle formed with

a discharge opening, a reticular feed support formed across said discharge opening and arranged at an inclination adjacent the opening in the wall, the lowermost portion of the feed receptacle being on a plane below the lower marginal edge of the opening in the vertical wall, and a horizontal shelf secured to the lower edge of the feed receptacle and toward the vertical wall, and terminating in spaced relation thereto to form a slot.

5. In a feed hopper, the combination with a vertical wall having an opening therein, of a feed receptacle formed with a discharge opening communicating with the opening in the wall, a reticulated feed support formed across said discharge opening, a shelf beneath the reticulated feed support having a slot along its forward edge, a perpendicular ledge bounding the outer edge of the slot terminating above the plane of the shelf, and a horizontal ledge projecting beyond the vertical face of the perpendicular ledge.

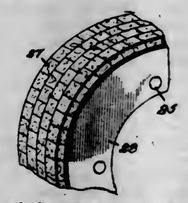
1,205,558. PISTON-PACKING. CHARLES H. MILES, Fort Worth, Tex., assignor to Motor Equipment Company, Fort Worth, Tex., a Firm composed of O. S. Lattimore, Sr., K. D. Holland, R. C. Lewis, and C. H. Miles. Filed Oct. 2, 1913. Serial No. 792,988. (Cl. 121—108.)



1. Piston packing comprising an inner open ring member having a flange at the top edge projecting radially outward and providing a packing or pressure surface on top thereof and an open ring member mounted on the exterior of said inner member and having the outer surface thereof flush with the outer surface of said flange and having the bottom edge thereof flush with the bottom edge of said inner member, both members being automatically expansible by the resiliency of the metal.

2. Piston packing comprising an inner open ring automatically expansible member provided with an exterior flange projecting radially from the pressure edge thereof forming a pressure surface on the top edge of the ring and an outer open ring automatically expansible member mounted on the exterior of the said inner member and having its peripheral pressure surface flush with the outer edge of said flange and having its bottom edge flush with the bottom edge of said inner member and said members being connected by a ground joint.

1,205,559. CASTER-WHEEL. CHARLES W. MILLET, New Hartford, N. Y. Filed May 22, 1915. Serial No. 29,838. (Cl. 16—75.)

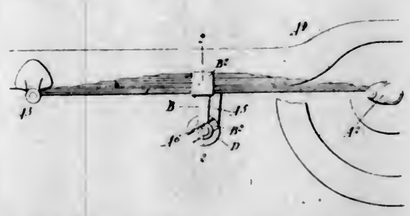


1. A device of the class described, including a hub, a plurality of fibrous strips arranged to extend transversely of the periphery of the hub in an annular series, the strips being provided with a plurality of slits extending inwardly from their outer edges, and rigid annular anchoring members seating in the inner ends of the slits and connecting the said strips throughout the series and holding the same in position upon the hub.

2. In a device of the class described, a hub, a plurality of fibrous strips disposed in an annular series about the hub and extending transversely of the periphery thereof, the said strips being arranged with the ends of the fibers presented at the outer surfaces of the strips, the said strips being provided with a plurality of slits extending inwardly from their outer edges, rigid annular anchoring rings disposed to surround the said strips and seating at the inner ends of the said slits and holding the strips against radial displacement, and side plates laterally binding the ends of the strips of the series whereby to close the outer ends of the said slits.

3. In a device of the class described, a hub, fibrous segments arranged in an annular series extending circumferentially of the hub, the individual segments of the series extending transversely of the periphery of the hub and being disposed with the ends of their fibers presented to constitute the working faces of the device, and means securing the segments in place upon the hub.

1,205,560. CANTALIVER-SPRING SUCH AS IS USED ON MOTOR-VEHICLES. OLIVER DANSON NORTH, Chelsea, England. Filed Jan. 12, 1916. Serial No. 71,631. (Cl. 267—31.)



1. In a cantaliver spring, an attachment at one end to the vehicle frame, an attachment at the other end to the axle, a stem carried by said spring, a cross pin on said stem, and an adjustable member carried by the frame having a surface bearing upon said cross pin.

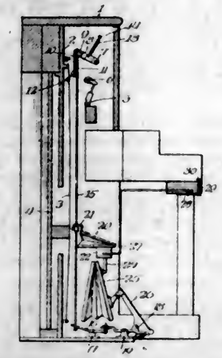
2. In a cantaliver spring, an attachment at one end to the vehicle frame, an attachment at the other end to the axle, a stem carried by said spring, a cross pin on said stem, a disk carried by the frame, a groove in said disk with which said cross pin engages, and means for adjusting said disk.

3. In a cantaliver spring, an attachment at one end to the vehicle frame, an attachment at the other end to the axle, a bracket on said frame, a pair of connected grooved disks carried by the said bracket and adapted to turn therein, a stem carried by said spring and guided in said bracket, a cross-pin on said stem projecting on both sides thereof and engaging the grooves in said disks, and a lever connected with one of said disks for adjusting both disks relative to said cross-pin.

4. In a cantaliver spring, an attachment at one end to the vehicle frame, an attachment at the other end to the axle, a bracket on said frame, a pair of connected grooved disks carried by the said bracket and adapted to turn therein, one pair of disks being provided on each side of the said frame, a stem carried by said spring and guided in said bracket, a cross-pin on said stem projecting on both sides thereof and engaging the grooves in the respective disks, a lever connected with one of said disks for adjusting them relative to said cross-pin, and a tubular member connecting the two inner disks on both sides of the said frame permitting simultaneous adjustment of all the disks.

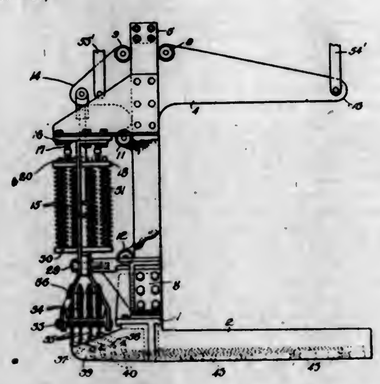
1,205,561. TONE-MODULATING DEVICE FOR PIANOS. ROY H. OLSEN, Hammond, Ind., assignor to Straube Piano Company, Hammond, Ind., a Corporation of Indiana. Filed June 1, 1915. Serial No. 31,402. (Cl. 84—160.)

In a device of the character described, the combination of a plurality of strings, a plurality of hammers, a swinging frame, resilient means to normally maintain said frame in raised position, metallic means suspended from said frame, means for swinging said frame and moving said metallic means into the path of said hammers, including a tension rod connected to said frame, a pneumatic, an abutment on said tens on rod, means on said pneumatic engaging said abutment, whereby said rod may be actuated



by said pneumatic but is free therefrom when otherwise actuated, means for controlling said pneumatic, a pivoted lever connected to said tension rod, and a pivoted pedal connected to said lever, whereby said frame is depressed when said pedal is actuated.

1,205,562. APPARATUS FOR HANDLING BRICKS IN STACKED UNITS. RAYMOND C. PENFIELD, New York, N. Y. Filed Jan. 12, 1912. Serial No. 670,825. (Cl. 57—9.)



1. An apparatus of the kind described, comprising a base frame having fingers extending at one side thereof with brick clamps, spaced apart bails slidably guided on said base frame extending out over said fingers and also at the other side of the line of slidable engagement with the base frame, said bails being connected to operate said brick clamps, and also having springs positioned to balance the parts along the lines of slidable engagement when under load, an overhead lifting frame, and links connecting said lifting frame to said bails near the ends thereof and constituting a substantially balanced suspension for the apparatus under load.

2. An apparatus of the kind described, comprising a base frame having lifting fingers with brick clamps, spaced apart bails slidably guided on said base frame connected to operate said brick clamps and having provision for balancing along the line of slidable engagement with the base frame under load, and lifting means including a plural link connection to said bails symmetrically disposed with reference to the axis of lift.

3. An apparatus of the kind described, comprising a base frame having lifting fingers extending at one side thereof with brick clamps, bails in slidable engagement with said base frame with connections for operating said brick clamps, a lifting frame having plural link connections with said bails, and a swivel connecting said lifting frame with a crane or the like, said swivel and said link connections being arranged symmetrically with reference to the axis of lift when the machine is loaded.

4. An apparatus of the kind described, comprising an upper support adapted for engagement by a crane or the like, a lifting frame having a turn-table connection with said upper support, bails having link connections with said lifting frame, said link connections and said turn-table being symmetrically disposed with reference to the axis of lift, a base frame in slidably guided engagement with said bails having laterally extending fingers with brick clamps carried thereby, connections from said bails to operate said clamps, and a spring connection between the bails and said base frame adapted to yield under load for the purpose stated.

5. An apparatus of the kind described, comprising a base frame having lifting fingers extending laterally therefrom with brick clamps, spaced apart bails slidably guided on the base frame, connections from said bails for operating said clamps and for lifting the load, including levers pivoted to either side of the frame connected with the clamps, and an evener connected centrally to the free ends of said levers and at its ends to said bails for distributing lifting strains.

[Claims 6 to 10 not printed in the Gazette.]

1,205,563. SPRAY-NOZZLE. CHESTER L. PEPPER, Chelsea, Mass., assignor to Schutte & Koerting Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 29, 1911. Serial No. 663,015. (Cl. 137—17.)



1. A spray nozzle having a spray producing spiral vane for imparting rotary motion to the advancing fluid whereby the fluid is caused to break into spray as it leaves the nozzle, said vane extending inward from the nozzle wall and ending short of the axis of the nozzle so as to leave an unobstructed axial channel or path to allow the central portion of the stream of liquid to advance faster than the surrounding portion said channel or path being defined by the edge of the vane and being in open communication with the surrounding space through which the vane extends, and having a velocity-increasing unobstructed tapering channel beyond the spiral vane.

2. A spray nozzle having a plurality of intercoiling spray producing spiral vanes for imparting rotary motion to the anvancing fluid whereby the fluid is caused to break into spray as it leaves the nozzle, said vanes extending inward from the nozzle wall and ending short of the axis of the nozzle so as to leave an unobstructed axial channel or path to allow the central portion of the stream of liquid to advance faster than the surrounding portion, said axial channel or path being defined by the edges of the vanes and being in open communication with the

channel between the vanes, and having a velocity-increasing unobstructed tapering channel beyond the spiral vanes.

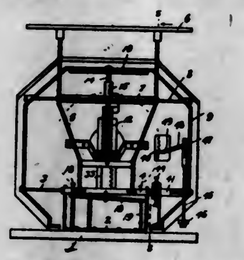
3. A spray nozzle having a spray producing spiral vane for imparting rotary motion to the advancing fluid whereby the fluid is caused to break into spray as it leaves the nozzle, said vane extending inward from the nozzle wall and ending short of the axis of the nozzle so as to leave an unobstructed axial channel or path to allow the central portion of the stream of liquid to advance faster than the surrounding portion, said axial channel or path being defined by the edge of the vane and being in open communication with the surrounding space through which the vane extends, and having a velocity-increasing unobstructed tapering channel beyond the spiral vane, and a suction inlet for admitting air at a point near the mouth of the nozzle.

4. A spray nozzle having a flaring mouth, an air suction inlet for admitting air to the jet at a point just beyond the point of narrowest cross-section of the nozzle, and means for imparting spray producing rotary motion to the fluid advancing through the nozzle tube whereby the fluid is caused to break into spray as it leaves the nozzle.

5. A spray nozzle comprising a nozzle tube having a tapering nose portion, and a tip piece adjustable toward and from the end of the nozzle tube to vary the spray angle and formed to provide a passage between it and the end of the nozzle tube to serve as an air suction passage when the tip piece is closed to the end of the nozzle tube and as a discharge passage when the tip piece is moved away from the end of the nozzle tube.

[Claims 6 and 7 not printed in the Gazette.]

1,205,564. PARCEL-POST SCALE. EMERSON B. PRIDDY, Chicago, Ill., assignor to The Parcel Post Scale Co., Logansport, Ind., a Corporation of Indiana. Filed Oct. 22, 1914. Serial No. 868,063. (Cl. 73—104.)



1. In a scale, a casing provided with a sight opening, a weight influenced dial located in the casing and bearing a set of rates which are displayed progressively through said opening and which increase in value in direct proportion to the progression of the weight units, and means for positively shifting the dial forwardly independently of its movement under the influence of the weight units to present a single rate reading only through said opening, said means being movable in a direction intersecting the radius of the dial at the point of engagement of the said means.

2. In a scale, a casing provided with a sight opening, a weight influenced dial located in the casing and bearing a set of rates which are progressively displayed through said opening and which increases in value in direct proportion to the progression of the weight units, and means for positively shifting the dial forwardly independently of its movement under the influence of the weight units to present the highest only of two rate readings displayed through said opening under the weight units, said means being movable in a direction intersecting the radius of the dial at the point of engagement of the said means.

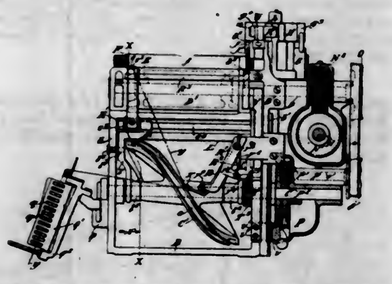
3. In a scale, a weight influenced dial bearing a set of rates arranged progressively in increasing values in direct proportion to the progression of the weight units, and means for positively shifting the dial forwardly independently of its movement under the influence of the weight units to shift the dial so as to present the rate readings to a position beyond that which the weight units have positioned same, said means being movable in a direction intersecting the radius of the dial at the point of engagement of the said means.

4. The combination with a data bearing scale dial, of means having a limited movement in the direction of the rotation of the dial for shifting said dial in one direction only to a degree controlled by the position of the data thereon.

5. A scale formed with a sight opening, a weight influenced data characteristics bearing dial arranged to present the data through said opening under the influence of weight units, and manually operable means for shifting the dial forwardly to insure registry of only one data characteristic with the opening, said means being movable in a direction intersecting the radius of the dial at the point of engagement of the said means.

[Claims 6 to 13 not printed in the Gazette.]

1,205,565. WINDING-MACHINE. FESTUS S. RAND, Providence, and GEORGE N. TAYLOR, East Providence, R. I., assignors to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Mar. 13, 1914. Serial No. 824,490. (Cl. 242—37.)



1. In a winding machine, the combination with the reciprocating thread-guide and rotating drive-roll, of a winding-spindle for supporting the cop to adapt it to be driven from the roll, a bearing for the spindle pivoted on an axis arranged above the roll, said bearing arranged to recede from the drive-roll with a straight-line movement in a plane passing through the axis of the roll and means to swing said spindle-bearing laterally with respect to the vertical plane of the axis of the roll to remove the cop from contact with the roll.

2. In a winding machine, the combination with the reciprocating thread-guide and rotating drive-roll, of a carriage adapted to move away from the drive-roll in a substantially vertical direction during the growth in diameter of the cop, a bearing supported on the carriage to adapt it to be moved in a substantially horizontal direction toward and away from the roll, and a spindle rotatably mounted in said bearing and adapted to support the cop to normally maintain it in contact with the roll.

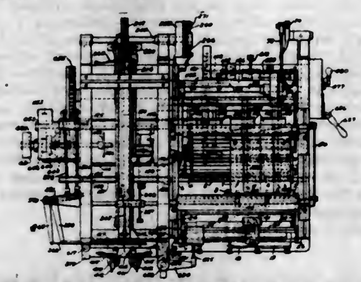
3. In a winding machine, the combination with the reciprocating thread-guide and rotating drive-roll, of a winding-spindle for supporting the cop to adapt it to be driven from the roll, means for supporting the spindle to move away from the roll in a substantially vertical direction during the growth in diameter of the cop, and means to move said spindle in a substantially horizontal direction to carry the cop out of contact with the roll to arrest its rotation.

4. In a winding machine, the combination with the reciprocating thread-guide and rotating drive-roll, of a winding-spindle for supporting the cop to adapt it to be driven from the roll, a carriage arranged to move upwardly away from the drive-roll, and a bearing for the winding-spindle pivoted on the carriage to adapt it to swing at substantially right-angles to the direction of movement of the carriage to remove the cop from contact with the drive-roll.

5. In a winding machine, the combination with the reciprocating thread-guide and rotating drive-roll, of a carriage adapted to move away from the roll in a substantially vertical direction, a bearing pivoted on the carriage above the roll to adapt it to swing across the vertical plane of the axis of the roll, and a winding-spindle mounted to rotate in said bearing and adapted to support the cop in contact with the roll.

[Claims 6 to 17 not printed in the Gazette.]

1,205,566. MACHINE FOR FORMING CARTONS. GEORGE A. ROBINSON, Boston, Mass., assignor to Pneumatic Scale Corporation Limited, Quincy, Mass., a Corporation of Maine. Filed July 7, 1914. Serial No. 849,396. (Cl. 93—49.)



1. Mechanism for forming a carton out of a single blank previously cut to form side panels and end forming flaps and previously scored to form definite folding lines for the said panels and flaps, said mechanism comprising a forming block of cross sectional contour such as to fit the said previously scored folding lines for said panels, means for folding the blank around the sides of the forming block along said predetermined folding lines to form the body of the carton with overlapping panels, means for positioning the tubular body of the carton on the forming block so that the said predetermined folding lines of the end forming flaps will register with the end of the forming block, and means for folding the end forming flaps against the end of the forming block.

2. Mechanism for forming a carton out of a single blank having side panels and end forming flaps, said mechanism comprising a forming block, means for folding the blank around the sides of the block with overlapping panels and sealing the over-lapping panels to form the tubular body of the carton, means for positioning said body of the cartou on the forming block so that the folding lines of the end forming flaps will register with the end of the forming block, means for folding the several end forming flaps into overlapping relation against the end of the forming block, means for moving the folder for the outermost flap in from one side to fold said flap, and means for actuating said last folder toward the end of the forming block after the said last flap is folded to positively press the folded flaps against the end of the forming block.

3. Mechanism for forming a carton out of a single blank having side panels and end forming flaps, said mechanism comprising a forming block, means for folding the blank around the sides of the block with overlapping panels and sealing the overlapping panels to form the body of the carton, means for positioning the tubular body of the carton on the forming block so that the folding lines of the end forming flaps will register with the end of the forming block, means for folding the end forming flaps against the end of the forming block, means for sealing the outer end forming flap to the contacting end forming flap or flaps, a stripper which slides the carton partially off of the forming block, draw rolls spaced apart from each other which engage opposite sides of the carton in its squared out form after it has been partially ejected from the forming block and remove the carton from the block while the carton is in its squared out form, and means for maintaining the said draw rolls at a predetermined distance apart from each other while they are removing the carton.

4. In combination with a forming block, means for folding a blank upon the block to form a tubular body and a closed end for the carton, a follower which extends longitudinally through the block, means for reciprocating said follower in such manner as to cause it to engage the inner face of the closed end of the carton to partially eject the carton from the block, a pair of draw rolls located in front of the said forming block and spaced apart from each other and so positioned as to grip the carton in squared out form when it has been partially ejected from the block by the follower to complete the stripping of the carton in squared out form from the block, and means for maintaining the draw rolls at a predetermined distance apart from each other while they are engaged with and are removing the carton.

5. In combination with a forming block, means for folding a blank upon the block to form a tubular body and a closed end for the carton, means for partially stripping the carton from the block so that its closed end will project beyond the end of the forming block, a pair of draw rolls located in front of the forming block and spaced apart from each other and so positioned as to grip the partially ejected carton and complete the removal from the forming block, while the carton retains its squared form.

[Claims 6 to 62 not printed in the Gazette.]

1,205,567. RIM FOR SEAT-SPRINGS. BERT E. ROCKHOFF, Detroit, Mich., assignor to Leonard A. Young, Highland Park, Mich. Filed Feb. 11, 1916. Serial No. 77,771. (Cl. 155—25.)



1. A rim strip for the purpose specified, comprising a strip of metal along whose lower longitudinal edges means is provided for holding the spiral springs of a spring cushion and along whose upper longitudinal edges cross slits are provided forming portions which are alternately struck in and struck out and which may be pinched over the bottom of an upholstering skirt to hold the same in place.

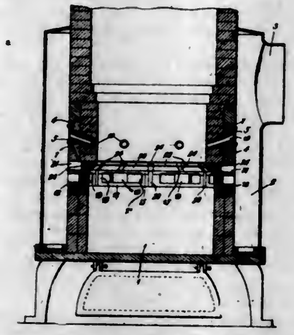
2. A rim strip, comprising a strip of metal whose lower longitudinal edge is bent over to form a channel for holding the spiral springs of the spring cushion and whose upper longitudinal edge is provided with a plurality of cross slits forming along the entire strip portions alternately struck in and struck out, thereby forming a mutilated channel portions of which may be pinched over the bottom edge of an upholstering skirt.

1,205,568. TWYER. WALTER D. ROSS, Jr., Anniston, Ala. Filed May 6, 1916. Serial No. 95,948. (Cl. 266—30.)

1. A twyer consisting of upper and lower arcuate plates, the lower plate having posts at its ends to support the upper plate, said posts having concave inner end surfaces, and a division block fitted between the said upper and lower plates between and spaced from the said posts and having its outer wall convex and opposed to the concave walls of said posts.

2. A twyer consisting of a base plate, posts at the ends of said base plate, an upper plate resting upon said posts and bridging the space between them and having a shallow recess in its lower side extending from post to post, and a

division block between the base plate and the upper plate intermediate the said posts.

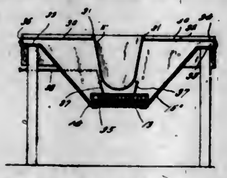


3. The combination of a plurality of arcuate plates constituting upper and lower members of a twyer, the lower plates being constructed with posts at their ends to support the upper plates, substantially wedge-shaped spacers between the posts at the ends of adjacent lower plates, and filler blocks resting upon the upper of said plates and overhanging the inner edges of the same.

4. The combination with a cupola furnace, of a twyer consisting of upper and lower members constructed to provide a passage therebetween and set into the wall of the furnace, filler blocks set into the wall of the furnace and resting upon the said upper plates, and other filler blocks set into the wall of the furnace and resting upon the upper twyer plates at the inner edges thereof and bearing against the inner surfaces of the first-mentioned filler blocks, the second-mentioned filler blocks having their inner edges overhanging the twyers.

5. The combination with a cupola furnace, of twyers consisting of upper and lower plates constructed to provide diverging air passages between them, filler blocks resting upon the upper twyer plates at the outer edges of the same and other filler blocks resting upon the upper twyer plates and against the inner walls of the first-mentioned filler blocks, the second-mentioned filler blocks overhanging the twyers and being beveled on their under sides at their inner ends, the several filler blocks and the twyer plates being set into the wall of the furnace.

1,205,569. ELECTRICALLY-HEATED CHOCOLATE-TABLE. HENRY W. SCHWIMMER, Indianapolis, Ind., assignor to H. W. Schwimmer Company, Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 7, 1914. Serial No. 870,744. (Cl. 219—43.)



1. A chocolate heating apparatus, comprising a chocolate reservoir, a receptacle into which said reservoir depends, and an electric heater located in the lower part of said receptacle, said reservoir being spaced from the heater and from the walls of the receptacle to provide an air space, and movable baffle plates for deflecting to a greater or less extent the currents of air rising from the heater toward the reservoir.

2. A chocolate heating apparatus, comprising a chocolate reservoir, a receptacle into which said reservoir depends, and an electric heater located in the lower part of said receptacle, said reservoir being spaced from the heater and from the walls of the receptacle to provide an air space, said receptacle being provided with openings for permitting the flow of air therethrough, and a damper for controlling such flow of air.

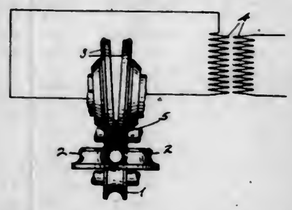
3. A chocolate heating apparatus, comprising a chocolate reservoir, a receptacle into which said reservoir depends, and an electric heater located in the lower part of said receptacle, said reservoir being spaced from the heater and from the walls of the receptacle to provide an air space, said receptacle being provided with openings for permitting the flow of air therethrough.

4. A chocolate heating apparatus, comprising a table having a depression to form a chocolate reservoir, an electric heater located below and spaced from the bottom of said reservoir, and a receptacle in which said heater is mounted and which is located below the table and reservoir and spaced therefrom so as to afford an air space for the passage of heating air currents from the heater to the under side of the reservoir and table, and movable baffle plates controlling the flow of such air currents.

5. A chocolate heating apparatus, comprising a table having a depression to form a chocolate reservoir, an electric heater located below and spaced from the bottom of said reservoir, and a receptacle in which said heater is mounted and which is located below the table and reservoir and spaced therefrom so as to afford an air space for the passage of heating air currents from the heater to the under side of the reservoir and table, said receptacle being provided with an opening below the heater for the inlet of air to the receptacle and with an opening near the top for the outlet of air, and a damper controlling one of said openings.

[Claim 6 not printed in the Gazette.]

1,205,570. METHOD OF AND APPARATUS FOR ELECTRIC WELDING. FRANK L. SESSIONS, Lakewood, Ohio, assignor to The Standard Welding Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 7, 1913. Serial No. 766,004. (Cl. 219—6.)



1. The method of welding metallic articles together, which consists in maintaining said articles in contact under pressure along the line to be welded; and progressively passing a heating electric current across such contacting line and directing an igneous blast along the same, the one agency closely following the other and respectively preliminarily fusing and finally welding such articles together along such line.

2. The method of welding metallic articles together, which consists in maintaining such articles in contact, edge on, under pressure; and progressively passing a heating electric current across such abutting edges and directing an igneous blast along the same, the last-named agency closely following the first-named, and said agencies respectively preliminarily fusing and finally welding such edges together.

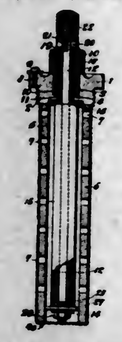
3. The method of welding metallic articles together, which consists in maintaining said articles in contact under pressure along the line to be welded; progressively passing a heating electric current across such contacting line, whereby such articles are preliminarily fused together along such line; and then progressively directing an igneous blast along such line closely following said preceding step, whereby such articles are finally welded together.

4. The method of welding metallic articles together, which consists in maintaining such articles in contact, edge on, under pressure; progressively passing a heating electric current across such abutting edges, whereby the latter are preliminarily fused together; and then progressively directing an igneous blast along such line closely following said preceding step, whereby such edges are finally welded together.

5. The method of welding metallic articles together, which consists in maintaining said articles in contact, edge on, under pressure; passing a heating electric current through such articles and across such abutting edges progressively along the latter, whereby such edges are preliminarily fused and a bur formed; and then directing an igneous blast progressively along such edges, whereby such bur is flattened down and such edges welded together.

[Claims 6 to 14 not printed in the Gazette.]

1,205,571. ELECTRIC HEATER, (ELECTROLYTIC TYI'E.) GEORGE SHARPNACK and THOMAS J. NASH, Lincoln, Nebr., assignors of one-half to George P. Elmen, one-fourth to Stephen O. Salisbury, and one-fourth to Adolphus R. Talbot, Lincoln, Nebr. Filed Mar. 27, 1916. Serial No. 87,071. (Cl. 219—40.)



1. A heater comprising a plug having a threaded portion, an electrode projecting from said threaded portion, said plug having a bore provided with a recess, a second electrode, a rod clamping said second electrode to said plug, means for insulating said second electrode from said plug, a compressible insulating packing in said recess and a nut device on said rod and engaging said packing for compressing the same.

2. A heater comprising a plug having a threaded portion, an electrode projecting from said threaded portion, said plug having a bore provided with a recess, a second electrode, a rod clamping said second electrode to said plug, means for insulating said second electrode from said plug, a compressible insulating packing in said recess and a nut device on said rod and engaging said packing for compressing the same, and means for securing electric terminal wires to the rod, and plug and an insulating collar carried by said packing and plug, substantially as shown and described.

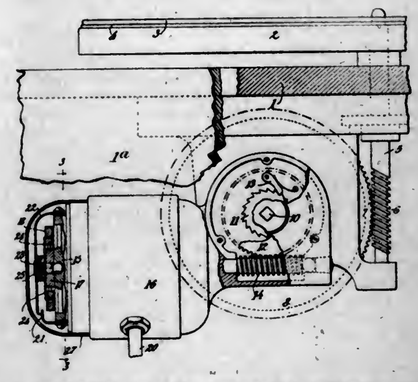
3. A heater of the class described comprising a plug having a threaded portion and a nut portion, said plug having a recess in one face and a bore through the same, a disk of insulating material held in said recess, an inner electrode, a rod on which said inner electrode is carried, said rod projecting through said insulating disk and through said plug bore, a compressible tubular packing member around said rod in said bore, and means for securing said rod and packing in place, and a tubular electrode projecting from said plug around said inner electrode and spaced from the same, said tubular electrode having water circulating passages.

4. A heater of the class described comprising a plug having a threaded portion and a nut portion, said plug having a recess in one face and a bore through the same, a disk of insulating material held in said recess, an inner electrode, a rod on which said inner electrode is carried, said rod projecting through said insulating disk and through said plug bore, a compressible tubular packing member surrounding said rod in said bore, and means for securing said rod and packing in place, a tubular electrode projecting from said plug around said inner electrode and spaced from the same, said tubular electrode having water circulating passages, said compressible packing projecting beyond the face of the nut portion of said plug and a hard rubber ring encircling said projecting portion in said packing, substantially as shown and described.

5. A water heater comprising a plug, said plug having a bore provided with a recess, a tubular electrode attached to said plug and projecting therefrom, an inner electrode disposed within said tubular electrode, an insulating disk in said plug recess, a rod passing through said inner electrode, said disk, and said plug bore for sustaining said inner electrode, means for electrically insulating said rod and for effecting a water-tight closure between said rod and said plug.

[Claims 6 to 9 not printed in the Gazette.]

1,205,572. WINDER FOR SPRING-MOTORS. WILLIAM GENTRY SHELTON, New York, N. Y. Filed June 27, 1916. Serial No. 106,221. (Cl. 185—43.)



1. In a winder for spring motors, the combination with means for attachment to the winding element of a spring motor, of an electric motor for driving said attachment means, and an automatic switch in the motor circuit adapted to break such circuit when the motor is stalled.

2. In a winder for spring motors, the combination with a driving part adapted for attachment to the arbor of a spring motor, of an electric motor for operating the same, the driving force of said motor being so proportioned that the motor will be stalled upon the completion of a predetermined amount of spring winding, and an automatic switch associated with said motor and adapted for breaking the circuit thereof upon the motor being stalled.

3. The combination with a part adapted for attachment to the shaft of a spring motor, of means for electrically driving such part, a switch controlling the circuit thereof, and an automatic switch for opening the circuit upon the stoppage of such part.

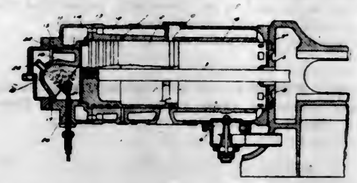
4. The combination with a part adapted to be connected to the shaft of a spring motor, of an electric motor for driving the same, said motor having a spindle, a pair of weights pivoted to the said spindle and movable in a plane radially to the axis of rotation thereof, a circuit closer comprising a resilient contact member normally adapted to move to its circuit closing position, a saucer-shaped device carried by said resilient member, actuators carried by said weights and comprising bars having members adapted to lie under the deepest part of the said saucer-shaped

member when the weights are moved outwardly incident to centrifugal force and adapted to engage the shallower portions of said saucer-shaped member and move said resilient contact member into its circuit breaking position upon the inward movement of the said weights.

5. In a device of the character described, the combination with a spring motor, of an electric motor adapted to wind the same and so proportioned in strength to the strength of the spring that the electric motor becomes stalled upon a predetermined amount of winding of the spring, and an automatic switch for breaking the circuit of such electric motor upon the same being stalled.

[Claims 6 and 7 not printed in the Gazette.]

1,205,573. INTERNAL-COMBUSTION ENGINE. HAROLD F. SHEPHERD, Grove City, Pa., assignor to Bessemer Gas Engine Company, Grove City, Pa., a Corporation of Pennsylvania. Filed Aug. 12, 1914. Serial No. 856,389. (Cl. 123—30.)



1. In an internal combustion engine, the combination of a cylinder; a cylinder head forming an annular joint with the cylinder and having a hot bulb extending inwardly from the joint, said bulb being arranged diagonally to the axis of the cylinder and opening directly into the cylinder; and an injector for delivering fuel to the bulb directly through the mouth of the bulb.

2. In an internal combustion engine, the combination of a cylinder; a cylinder head forming an annular joint with the cylinder and having a hot bulb extending inwardly from the joint and opening directly into the cylinder, the axis of the bulb being tilted to the axis of the cylinder; and an injector arranged in the wall of the cylinder opposite the opening of the bulb for delivering fuel directly into the bulb through the mouth of the bulb.

3. In an internal combustion engine, the combination of a cylinder; a cylinder head having a hot bulb tilted to the axis of the cylinder and opening directly into the cylinder with its opening tilted toward one wall of the cylinder; and a fuel injector delivering fuel from along the wall opposite the opening and directly into the bulb through the mouth of the bulb.

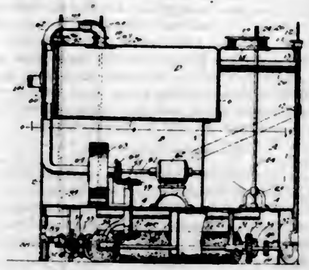
4. In an internal combustion engine, the combination of a cylinder; a cylinder head having a hot bulb tilted to the axis of the cylinder and opening directly into the cylinder and having its opening tilted toward the bottom wall of the cylinder; and a fuel injector delivering fuel from along the wall opposite the opening and directly into the bulb through the mouth of the bulb.

5. In an internal combustion engine, the combination of a cylinder; a cylinder head having a hot bulb open at one side along the cylinder wall and forming a closure with other parts of the cylinder wall; and a fuel injector delivering fuel from along the wall opposite the opening and directly into the bulb through the mouth of the bulb.

[Claims 6 to 10 not printed in the Gazette.]

1,205,574. SCRUBBING OR CLEANING MACHINE. NERSES B. SOURIAN, Chicago, Ill., assignor of one-half to MAX BORCHARDT, Chicago, Ill. Filed Mar. 6, 1914. Serial No. 822,907. (Cl. 15—14.)

1. In a device of the kind described and in combination, a suitable casing provided with a liquid supply tank therein, and formed with a chamber at the lower part of the casing, open at the bottom, adjustable wheels for carrying said casing, a plurality of brushes arranged in said chamber, means arranged in said casing and operatively connected with said brushes for driving the same, suction mechanism arranged in said casing and operatively connected with said brush driving mechanism, a fluid-receiving tank operatively connected at its top with said suction mechanism, and a separate suction pipe extending from said tank to proximate the lower side of the casing, and means for conveying the used cleansing fluid to proximate said suction pipe.



2. In a device of the kind described and in combination, a casing provided with means for adjustably supporting the same, and with a fluid supply tank, a scrubbing chamber, a motor chamber, and a receiving tank, scrubbing brushes arranged in said scrubbing chamber along each side thereof, and at the rear, driving mechanism for said brushes arranged in said motor chamber and operatively connected with said brushes, distributing pipes connected with said supply tank and positioned to discharge the cleansing fluid proximate said side brushes, a squeegee arranged proximate said rear brushes, suction shoes arranged proximate the ends of said squeegee, means for connecting said shoes with said receiving tank, suction mechanism arranged in said motor chamber, and operatively connected with the top of said tank, and means for operatively connecting said suction mechanism with said brush driving mechanism.

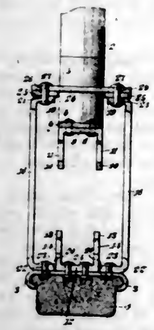
3. In a device of the kind described and in combination, scrubbing mechanism, comprising a pair of brushes arranged in the form of a V, means for driving the brushes in opposite directions with the under sides thereof thrown inwardly, and a pair of brushes arranged end to end at the separated ends of said first brushes, and each operatively connected with the adjacent end of said first mentioned brushes, a source of cleansing fluid supply, adjustable means for conducting the cleansing fluid to proximate the first mentioned brushes at the exterior sides thereof, a receptacle for receiving the used cleansing fluid, and means for conveying the fluid from the scrubbing mechanism to said receptacle, comprising pipes extending to the outer ends of said last mentioned brushes and to said receptacle, and means for creating a vacuum in said receptacle.

4. In a device of the kind described and in combination, scrubbing mechanism, a source of cleansing fluid supply, means for conducting the cleansing fluid to proximate the first mentioned brushes at the exterior sides thereof, a receptacle for receiving the used cleansing fluid, and means for conveying the fluid from the scrubbing mechanism to said receptacle, comprising an adjustable wiper arranged at the rear of the scrubbing mechanism, and suction mechanism connected to said receptacle, including suction shoes arranged at each end of said wiper, a pipe to said receptacle and pumping mechanism independently piped to said receptacle.

5. In a device of the kind described and in combination, scrubbing mechanism, comprising a pair of brushes arranged in the form of a V, and a pair of brushes arranged end to end at the separated ends of said first brushes, and each operatively connected with the adjacent one of said first mentioned brushes, a source of cleansing fluid supply, means for conducting the cleansing fluid to proximate the first mentioned brushes at the exterior sides thereof, a receptacle for receiving the used cleansing fluid, and means for conveying the fluid from the scrubbing mechanism to said receptacle, comprising an adjustable wiper arranged at the rear of the scrubbing mechanism, said wiper adjustable both horizontally and vertically, means for positively holding said wiper in the desired position, and suction mechanism connected to said receptacle including suction shoes arranged at each end of said wiper.

[Claims 6 to 10 not printed in the Gazette.]

1,205,575. RESILIENT WHEEL. JEROME JOHN SOUTH, Memphis, Tenn. Filed July 14, 1915. Serial No. 39,842. (Cl. 152—32.)



1. A resilient wheel having normally concentric radially spaced bands, one being connected to the spokes of the wheel and the other carrying the rim of the wheel, each band having a circular series of ears on opposite sides and each ear having an elongated slot therethrough trending in a direction circumferential of the wheel, the slots in the ears on one side having their circumferential trend opposite to that of the ears on the other side, and the slots of the ears of one band being of opposite trend to the corresponding slots of the ears of the other band, and extension coiled springs having their ends engaging in the slots of the respective ears.

2. A resilient wheel having normally concentric radially spaced bands, one being connected to the spokes of the wheel and the other carrying the rim of the wheel, each band having a circular series of ears formed on each edge and bent to extend radially from one face of the band toward the other band, each ear having an elongated slot therein with the slots of all the ears tangential to a circle between the inner band and the axis of the wheel and the slots of the ears on one side of a band trending circumferentially of the band in a direction opposite to the slots of the ears on the other side of the band, and the slots of the ears on one band being of opposite trend to that of the slots of the ears on the corresponding sides of the other band, and springs having ends engaging in the slots of the respective ears.

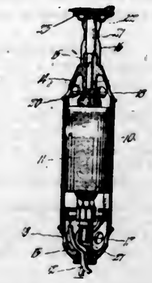
3. A resilient wheel having normally concentric radially spaced bands, each formed on opposite edges with slotted ears, one band being carried by the spokes of the wheel and the other band carrying the rim of the wheel, a circular series of springs connecting the bands and in engagement with the slotted ears thereof, with the springs in tangential arrangement to a circle described about the axis of the wheel, and the slots being elongated in the direction of the length of the springs and having substantially the same tangential arrangement as the springs, protecting braces carried by opposite sides of the rim and extending radially toward the hub beyond the inner band, separate rings on opposite sides of the spokes and fast to the corresponding sides of the braces, and tie plates connecting said rings and extending crosswise of the wheel between and in spaced relation to the spokes.

4. A resilient wheel comprising inner and outer normally concentric bands with the outer band carrying the rim of the wheel and the inner band provided with thimbles or sockets receiving the outer ends of the spokes of the wheel and in which the spokes are fixed, each band having ears on opposite edges matching corresponding ears of the other band, springs extending between the ears, side braces carried by the rim and extending beyond the inner band toward the hub of the wheel, rings on opposite sides of the thimbles joining the corresponding ends of the braces, and tie plates connecting the rings and extending crosswise of the wheel between and in spaced relation to the thimbles or sockets.

5. A resilient wheel comprising inner and outer normally concentric bands with the outer band carrying the rim of the wheel and the inner band provided with thimbles or sockets in which the outer ends of the spokes of the wheel are fixed, springs extending between and connecting the bands, side braces carried by the rim and extending beyond the inner band toward the hub of the wheel, flat rings joining the corresponding ends of the braces in normally concentric relation to the hub of the wheel and disposed on opposite sides of the thimbles receiving the spokes, and tie plates connecting the rings and extending crosswise of the wheel between and in spaced relation to the thimbles, the rings having edges presented toward the thimbles and the thimbles having their exteriors rounded where adjacent to the rings.

[Claim 6 not printed in the Gazette.]

1,205,576. SAFETY-RAZOR. MARCO B. STEARNS, Huntington Beach, Cal., and LEO B. STEARNS, Yuma, Ariz. Filed Apr. 20, 1916. Serial No. 92,550. (Cl. 30—12.)



1. A safety razor comprising a hollow handle, an electric motor therein, a handle extension, a fixed carriage guideway mounted on the outer end thereof, said guideway having a central recess in the upper face thereof, a pair of vertically projecting guide lugs integral with said slide arranged on opposite sides of said recess, a blade carriage reciprocably mounted on said slide, said carriage being provided with a pair of downwardly extending transverse flanges and a pair of guide slots arranged on opposite sides of said flanges, said slots being adapted for the reception of said guide lugs of said guideway, a blade holder, a spring hinge connecting said blade holder and said guideway, and yieldingly pressing said holder against said guideway, the lateral ends of the adjacent faces of said blade holder and said carriage being provided with blade holding flanges and lugs, a stationary blade mounted in said blade holder, a blade mounted for reciprocatory movement in said carriage, said blades lying flat and parallel against each other and being provided at their cutting edges with cutting teeth, the adjacent faces of said blades being each provided with a central longitudinal shallow recess forming when the blades are in engagement with each other a longitudinal slot, a motor shaft extending through said guideway, an eccentric pin extending from the outer end of said shaft and a

carriage operating apertured block loosely mounted on said pin, said block engaging the guide flanges of said carriage.

2. A safety razor comprising a hollow handle, a motor therein, a fixed carriage guideway mounted at one end of said handle, a pair of outwardly projecting guide lugs formed integral with said guideway, a reciprocating blade carriage provided with a pair of guide slots adapted for the reception of said guide lugs, a holder for the stationary blade, means for pressing said holder against said guideway with yielding pressure, the lateral ends of the adjacent faces of said blade holder and said carriage being each provided with blade holding means, a stationary blade mounted in said holder, a blade mounted in said carriage, said blades lying flat and parallel against each other, the adjacent faces of said blades being each provided with a longitudinal recess forming when the blades are in engagement with each other a longitudinal slot, and means connected to said motor for reciprocating said carriage.

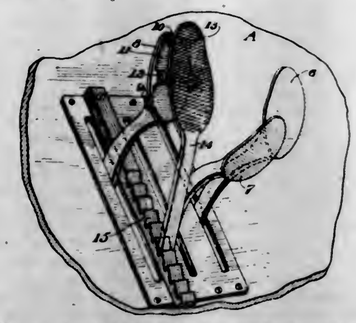
3. A safety razor comprising a handle, a fixed carriage guideway connected to one end thereof, a reciprocating blade carriage mounted thereon, means for reciprocating said carriage, a fixed blade holder hinged to said guideway, a spring moving said holder against said guideway with yielding pressure, means on said blade holder and said carriage for holding the blades in fixed relation thereto, a stationary blade mounted in said holder, and a reciprocatory blade mounted in said carriage, said blades being provided with coacting cutting edges.

4. A safety razor comprising a handle, a reciprocating blade carriage supported thereby, means for reciprocating said carriage, a fixed blade holder, means for yieldingly pressing said holder against said carriage, a fixed flat blade in said holder, a reciprocatory flat blade in said carriage, and separate means for holding said blades in fixed relation to said carriage and to said holder respectively.

5. A safety razor comprising a handle, a reciprocating blade carriage supported thereby, a flat blade mounted in said carriage, means for holding said blade in fixed relation to said carriage, a fixed blade holder a flat blade supported thereby, means for holding said blade in fixed relation to said holder, the cutting edges of said blades contacting with each other, and resilient means for pressing said blades together.

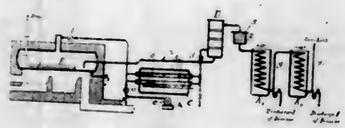
[Claims 6 to 15 not printed in the Gazette.]

1,205,577. PEDAL-LOCK. WILLIAM H. STEGLICH, King City, Cal. Filed July 18, 1916. Serial No. 109,889. (Cl. 74—81.)



The combination with the clutch actuating pedal of an automobile, of a supplemental pedal plate having side clips adapted to grip the main pedal, and having upturned fulcrum lugs, a second pedal plate superposed above said plate, having down-turned lugs tiltably engaged with the fulcrum lugs, a pawl formed with and extending rearwardly from the tiltable plate, and to one side of the clutch lever, and a straight rack bar fixed in a line parallel to and at one side of the line of travel of the lever and engageable by the pawl.

1,205,578. PROCESS FOR CONVERTING HEAVY HYDROCARBONS INTO LIGHT HYDROCARBONS. HUGO STRACHE and PHILIPP PORGES, Vienna, Austria-Hungary. Filed May 13, 1914. Serial No. 838,279. (Cl. 196—26.)

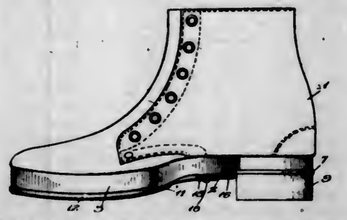


1. The process of converting heavy hydrocarbon oils into light hydrocarbon oils, which comprises passing a mixture of a heavy oil vapor and steam over a metal oxid capable of transferring oxygen to the decomposition products of said oil and heated to a temperature sufficient to cause the formation of light hydrocarbon oils capable of immediate industrial use without the formation of tar and carbon.

2. The process of converting heavy hydrocarbon oils into light hydrocarbon oils, which comprises passing a mixture of heavy oil vapor and steam at substantially atmospheric pressure and without destructive distillation, over the oxid of a metal capable of more than one stage of oxidation and of being reduced to metal at the temperatures employed, and heated to substantially a red heat, the quantity of steam being proportioned to prevent the formation of tar and carbon.

3. The process of converting heavy hydrocarbon oils into light hydrocarbon oils, which comprises passing a mixture of heavy oil vapor and steam at substantially atmospheric pressure and without destructive distillation over the oxid of a metal capable of more than one stage of oxidation and of being reduced to metal at the temperatures employed, and heated to substantially a red heat, the quantity of steam being proportioned to prevent the formation of tar and carbon, and periodically passing a rapid current of air in contact with said oxid when the yield of light hydrocarbons begins to decrease.

1,205,579. FOOTWEAR. CHARLES STREB, Rochester, N. Y., assignor of one-half to Fitz Henry Boyer, Rochester, N. Y. Filed Jan. 22, 1912, Serial No. 672,575. Renewed Aug. 11, 1916. Serial No. 114,467. (Cl. 36—73.)



1. Foot-wear comprising an upper made of flexible material, and a sole of metal having a surrounding upturned flange secured to the upper, the upturned flange of said sole being bent to provide guides at its front and its rear end to be engaged by a detachable sole and a detachable heel respectively.

2. Foot-wear comprising an upper and a sole of sheet metal having a surrounding upturned flange secured to the upper, said upturned flange being bent to provide a guide for engagement by a detachable sole.

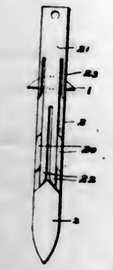
3. Foot-wear comprising an upper, a main sole of sheet metal having an upwardly turned flange, the under side of the rear portion of the sole being in a higher plane than the forward portion and the flange having a rib bent from the same at the rear thereof, and a heel formed separately from the sole and engaging the rib of the flange to be held to the sole.

4. Foot-wear comprising an upper, a main sole of sheet metal having a surrounding upturned flange, the rear portion of said sole being in a higher plane than the forward portion and bent above its lower surface to provide guides, and a heel having guiding portions coöperating with the guides on the main sole.

5. Foot-wear comprising an upper formed of flexible material, and a sole of metal having a surrounding upturned flange with a rib extending around the front end thereof and along opposite sides of the same, the bottom of the sole being curved on an arc, and the ends of the rib lying at the sides of the sole being also curved on an arc which is concentric with the curve of the bottom of the sole.

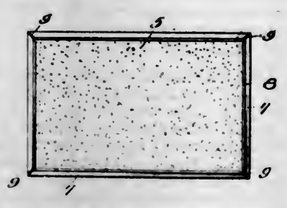
[Claim 6 not printed in the Gazette.]

1,205,580. BOLT OR RAILROAD-SPIKE. AUGUSTUS H. TAFT, Fair Haven, Vt. Filed June 7, 1915. Serial No. 32,706. (Cl. 85—23.)



A bolt or a railroad spike, comprising a head and shank, a thickened portion forming a shoulder adjacent to the lower end of the shank having a divergently beveled upper face, a plurality of projections on the face of the shank adjacent to its outer edges and intermediate of its upper end and said shoulder, a headless locking element having a bifurcated end adapted to pass between said projections and to be deflected laterally by said shoulder to enter the material into which the spike is driven, and a pair of prongs on said locking member intermediate of its ends adapted to engage said projections on the shank and be deflected laterally and caused to enter the material into which the spike is driven in a different plane from said bifurcated ends, substantially as described.

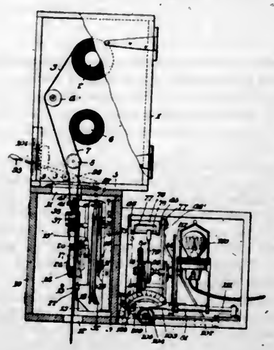
1,205,581. MAT-HOLDER. GEORGE H. TAYLOR, Wakefield, Mass. Filed Mar. 15, 1916. Serial No. 84,491. (Cl. 15—62.)



1. A holder for floor mats comprising a receptacle having a bottom on which the mat seats, and side walls engaging the edges of the mat, said side walls being provided with openings.

2. A holder for floor mats comprising a sheet metal plate having upward bends at its edges to form retaining side walls for the mat, the mat seating on the plate inside the side walls, and adjacent ones of said walls being spaced from each other at their ends to produce openings at the corners of the holder.

1,205,582. MOTION-PICTURE-PRINTING MACHINE. JULIEN TESSIER, Philadelphia, Pa., assignor to Lubin Film Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 21, 1914. Serial No. 857,830. (Cl. 95—75.)



1. In a motion picture machine, driving mechanism, film feeding devices operated by said mechanism, a light regulator, and means controlled by a film carried by said devices whereby said driving mechanism is connected with and operates said regulator intermittently.

2. In a motion picture machine, film feeding devices, a light regulator, a revoluble device, means whereby said revoluble device operates said regulator, and means normally supported by a film carried by said film feeding devices for rendering said first named means inoperative.

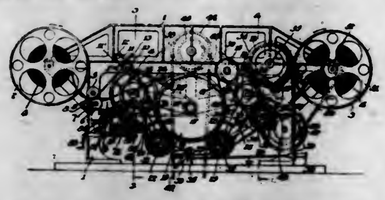
3. In a motion picture machine, a light regulator, an actuating device, mechanism comprising a rocking member whereby said device operates said regulator, and means for moving said member into and out of position to be operated upon by said device.

4. A motion picture printing machine provided with a shutter having apertures of different sizes for passing light to intermittently moving films, one of which has sections of different densities and is provided with perforations and mechanism comprising a lever coacting with the film aforesaid having perforations therein for shifting said shutter so as to position an aperture thereof adapted for passing the amount of light desired for printing from a coördinated film section.

5. A motion picture printing machine provided with a shutter having means for passing different amounts of light to intermittently moving films, one of said films having sections of different densities and containing perforations coördinated with said sections, and means with which said perforated film coöperates to shift said shutter and position means for passing the amount of light required by the density of the film section, said means comprising a lever mechanism adapted to contact with said perforated film so that it can be shifted when registering with perforations thereof, a cam for rocking said lever mechanism, a second lever mechanism acting in coördination with said lever mechanism first named to throw a catch, an arm adapted to be held out of operative position by said catch until the latter is thrown, a wheel by which said arm is rocked, and means operated by the arm for adjusting the position of the shutter.

[Claims 6 to 22 not printed in the Gazette.]

1,205,583. FILM CLEANING AND POLISHING MECHANISM. JULIEN TESSIER, Philadelphia, Pa., assignor to Lubin Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 11, 1916. Serial No. 108,605. (Cl. 15—8.)



1. The combination with film carrying mechanism, of film polishing mechanism comprising a swinging member, a revoluble brush supported by said member, a journaled device, and a link connecting said device with said swinging member whereby said brush is positioned relatively to said film.

2. The combination with revoluble film carrying mechanism, of film polishing mechanism comprising a plurality of swinging arms movable about axes parallel with the axis of revolution of said film carrying mechanism, revoluble brushes carried by said arms, and means whereby said arms are simultaneously shifted in position and the relation of said brushes to film carried by said carrying mechanism adjusted.

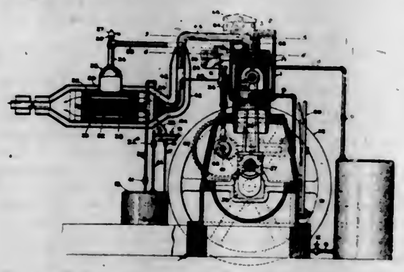
3. The combination with film carrying mechanism, of film polishing mechanism comprising a plurality of swinging arms, revoluble brushes carried by said arms, a rocking device, links connecting said rocking device eccentrically with said arms, and means for holding said rocking device in position.

4. The combination of a frame provided with a winding reel and a roller for carrying a film, means for positively driving said reel and roller simultaneously independently of said film, differential tension mechanism acting on said film between said reel and roller, means for rubbing said film at it travels in contact with said roller, and a roller for applying a cleaning fluid to said film as it approaches said roller first named.

5. The combination of a frame, reels journaled at opposite ends of a frame, rollers for carrying said film between said reels, means for driving one of said reels and said rollers simultaneously, a revoluble brush for engaging said film, swinging means for changing the relation of said brush to said film, and means connecting one of said rollers and said brush for revolving the latter.

[Claims 6 to 12 not printed in the Gazette.]

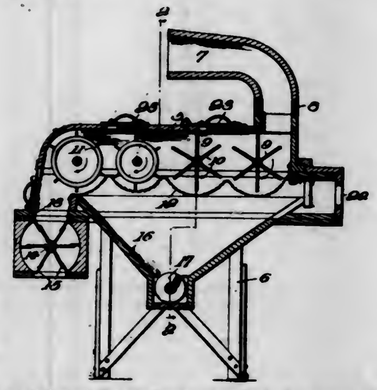
1,205,584. INTERNAL-COMBUSTION ENGINE. JOHN F. WENTWORTH, Rochester, N. H. Filed May 13, 1910. Serial No. 561,195. (Cl. 123—181.)



1. The combination with an internal combustion engine, comprising starting and fuel valves, of a reservoir provided with heating surface for heating water to a temperature corresponding with a fair working steam pressure, a pipe leading from the space above the water line in said reservoir to the starting valve, whereby the said engine may be started and reversed by the saturated steam generated by a reduction in pressure in said reservoir, and a high pressure steam boiler connected with the fuel valve of said engine, whereby the fuel may be driven into the engine against a high pressure of compression by means of the steam pressure behind the fuel in the fuel valve, means for first heating the water in the reservoir from the high pressure boiler, and means for maintaining the temperature thereof from the heat of the exhaust gases from the engine.

2. The combination, with an internal combustion engine having conventional admission exhaust and starting valves, of means for starting and maneuvering said engine, said means consisting of a primary steam generator and a secondary steam generator in which water is heated from the energy generated in the primary generator, and a pipe connecting the steam space of the secondary generator with the starting valve, whereby the energy for starting said engine may be derived from the energy stored in the hot water in said secondary generator.

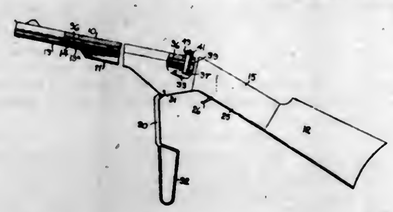
1,205,585. COTTON-CLEANER. SAMUEL WILLIAMS, Elk City, Okla. Filed July 26, 1916. Serial No. 111,501. (Cl. 13—19.)



In a device of the character described, in combination, a casing having a hopperlike bottom, a substantially horizontally disposed undulating screen positioned above said hopper, an inlet chute near one end of said casing, a plurality of beater rolls adjacent the inlet and above said screen, a plurality of picker rolls near the opposite end of the casing and above said screen and a substantially air-tight trap beyond the picker rolls, said casing being provided with air ducts along its sides below the pickers and beaters whereby the air used in feeding the material to be cleaned passes uniformly through the screens and horizontally with respect thereto out through said air ducts, and a conveyer in the bottom of said hopper having a trap outlet adapted to discharge the refuse extracted from the material to be cleaned.

1,205,586. AIR-COMPRESSION GUN. ROBERT CLIFTON WORLEY, Owens Cross Roads, Ala. Filed Feb. 2, 1916. Serial No. 75,804. (Cl. 124—11.)

1. In an air gun of the character described, a barrel, a magazine extending parallel to the barrel, a feed spring in the magazine, a valve and carrier movable transversely across the barrel and the magazine and having a perforation extending entirely through it and formed to provide a projectile seat, means for normally holding the valve in a position where the projectile seat registers with the magazine, an air compression chamber disposed behind the valve, a piston operating therein, a spring urging the piston forward, a sear adapted to hold the piston in its retracted position, a trigger for releasing the sear, and a lever operatively engaged with the end of the valve and carrier and disposed in the path of movement of said piston whereby when the piston has shifted to a predetermined position the valve will be shifted to dispose a projectile in the barrel and open communication between the forward end of the barrel and the compression chamber.



2. In an air gun of the character described, a barrel, a magazine extending parallel thereto, a valve and projectile carrier movable across the magazine and barrel and having a perforation formed to provide a projectile seat, a spring normally holding the valve with its seat in registry with the magazine, a lever operatively engaged with one end of the valve and adapted to shift it, a compression chamber disposed behind the barrel and opening thereinto, a piston mounted in the compression chamber and having a piston rod re-turned upon itself and extending forward and disposed to engage with the valve operating lever, a spring urging the piston forward, a sear adapted to hold the piston in a retracted position, a lever for shifting the piston to its retracted position, and a trigger for releasing the piston.

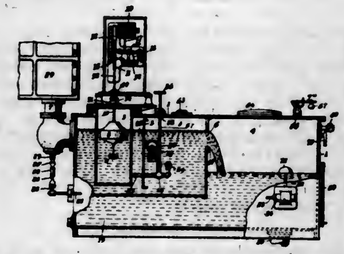
3. In an air gun of the character described, a barrel, a forestock, a magazine disposed beneath the barrel and extending into the forestock and to the rear end of the barrel, a spring disposed in the magazine and urging the projectile therein rearward, a stock engaging the barrel and including an air compression chamber, a piston mounted in the air compression chamber and having its rear end downwardly and forwardly curved and extended toward the barrel, the stock being cut away to permit the retraction of the piston, a spring within the compression chamber urging the piston toward the barrel, a lever mounted upon the frame of the gun, a link connected to the lever and having detachable engagement with the re-turned end of the piston, said lever being movable to shift the piston rearward, a sear adapted to engage the piston in its rearmost position, a trigger operating the sear, and automatically operating means actuated by said piston for shifting a projectile from the magazine into the barrel of the gun.

4. In an air gun of the character described, a barrel, a forestock, a magazine disposed beneath the barrel and extending into the forestock and to the rear end of the barrel, a spring disposed in the magazine and urging the projectile therein rearward, a stock engaging the barrel and including an air compression chamber, a piston mounted in the air compression chamber and having its rear end downwardly and forwardly curved and extended toward the barrel, the stock being cut away to permit the retraction of the piston, a spring within the compression chamber urging the piston toward the barrel, a lever mounted upon the frame of the gun, a link connected to the lever and having detachable engagement with the re-turned end of the piston, said lever being movable to shift the piston rearward and being independently movable in the reverse direction, a sear adapted to engage the piston in its rearmost position, a trigger operating the sear, a valve movable across the barrel and having an aperture adapted to register with the bore of the barrel, this aperture being enlarged at its forward end to form a projectile seat, means normally holding the valve in a position with its aperture in registry with the magazine, and means for shifting the valve to carry its aperture into registry with the bore of the barrel including a lever having one arm disposed in the path of movement of the re-turned portion of the piston.

5. In an air gun, a barrel, a magazine disposed below the barrel, a vertically movable valve and projectile carrier vertically movable through the barrel and having a perforation adapted to register therewith, said perforation forming a projectile seat, a compression chamber disposed behind the barrel, a spring actuated piston mounted in the compression chamber, a trigger adapted to operatively engage the piston to hold it in its retracted position to release the piston to permit it to be impelled by the spring, a lever pivotally mounted below the barrel, a push rod having engagement with the piston upon a movement of the lever in one direction but moving relative with the piston upon a movement of the lever in the opposite direction, said push rod holding the valve and projectile carrier in its raised position when the push rod is shifted to retract the piston, and means engaged by the end of the piston for shifting the valve and carrier to its raised position when the piston has nearly reached the end of its forward movement.

[Claims 6 to 10 not printed in the Gazette.]

1,205,587. METER-GLAND. DAVID ROBERT YARNALL, Philadelphia, Pa., assignor to Yarnell-Waring Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Apr. 1, 1912, Serial No. 687,630. Divided and this application filed May 27, 1913. Serial No. 770,134. (Cl. 137—115.)



1. In a device of the character stated, a box, a float rod vertically movable therein, packing of fibrous material surrounding the float rod and free to move laterally in the box, plates of hard material upon opposite sides of the packing material, also free to move laterally in the box, and a cupped cap screwing into the box and pressing the plates and fibrous material.

2. In a device of the character stated, a gland box, a rod passing through the box, sheets of fibrous material and plates on opposite sides thereof, all surrounding the rod and capable of lateral movement in the box, a rubber sheet above the upper plate and a cover for the box adapted to press the rubber sheet, plates and packing together.

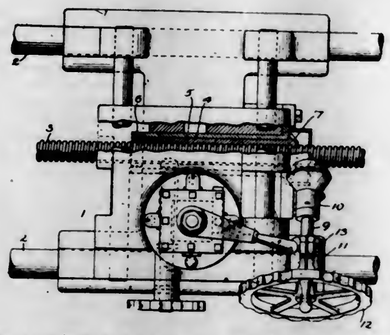
3. In a device of the character stated, a gland box, a sheet of rubber in the bottom thereof, a rod passing through the rubber and box, a sheet of hard material above the rubber, packing above the hard material, a sheet of hard material above the packing and an oil-receiving cup adapted to engage the sides of the box and force the hard material, packing and rubber together.

4. In a device of the character stated, a gland box, a plurality of parallel fibrous disks in said box and in contact with each other and free to move laterally, plates upon opposite sides of said disks adapted to grip the disks between them, a rod passing through the disks and plates, a cap for the box adapted to bring pressure upon the plates and disks and oil in said cap and about said rod.

1,205,588. MACHINE-TOOL. LUCIEN I. YEOMANS, Chicago, Ill., and GEORGE F. BRYANT, Providence, R. I., assignors to Amalgamated Machinery Corporation, Chicago, Ill., a Corporation of New York. Filed Aug. 26, 1915. Serial No. 47,389. (Cl. 82—21.)

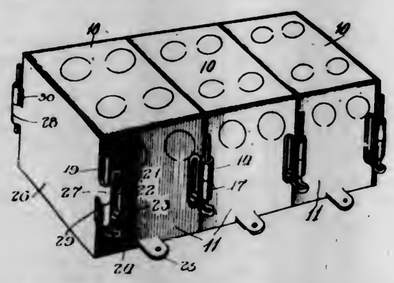
1. A machine tool having, in combination, spaced apart guides, a carriage movably supported by said guides, a

lead screw and nut located intermediate the guides for moving the carriage, one of said screw-threaded elements being located on the carriage, a shaft on the carriage, a hand wheel on said shaft, gearing connecting the shaft to the screw-threaded element on the carriage, and a split bearing inclosing said shaft and having means for variably clamping the same to frictionally resist rotation of the shaft so as to prevent accidental rotation of said screw-threaded element on the carriage while permitting rotation thereof by said hand wheel.



2. A machine tool having, in combination, spaced apart guides, a carriage movably supported by said guides, a lead screw and nut located intermediate the guides for moving the carriage, one of said screw-threaded elements being located on the carriage, hand-operable means for imparting rotation to the screw-threaded element on the carriage, and adjustable clamping means frictionally engaging the hand operable means to prevent rotation of such screw-threaded element by its coöperating power-driven element but permitting rotation of said element by said hand-operable means.

1,205,589. SECTIONAL OUTLET-BOX FOR ELECTRIC CONDUITS OR WIRES. LESTER J. YOUNG, Oswego, Ill., assignor to Allsteelequip Company, Aurora, Ill., a Corporation of Illinois. Filed June 7, 1915. Serial No. 32,488. (Cl. 247—5.)



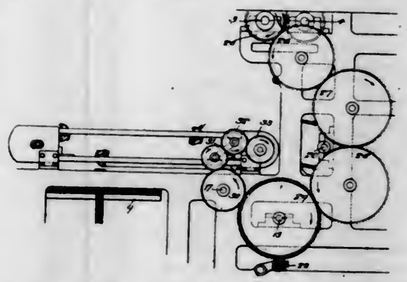
1. A sectional outlet-box comprising a plurality of units, interlocking means provided upon their adjoining edges, a plurality of pintles, one being carried by each respective unit, each of which pintles engages the interlocking means of the unit adjacent that upon which it is carried, and means for locking each pintle to its respective unit.

2. A sectional outlet-box comprising a plurality of substantially U-shaped units the edges of the parallel members whereof are provided with knuckles that are adapted to register with corresponding knuckles upon the abutting units, a pintle engaging said registering knuckles and comprising a length of wire a portion whereof is bent back upon itself to provide a guideway, and a locking member the shank whereof enters said guideway.

3. A sectional outlet-box comprising a plurality of units, knuckles on the abutting edges of each of said units adapted to register with each other, and locking means for said knuckles comprising a length of wire, a portion whereof provides a pintle for said knuckles and the remaining portion whereof is bent laterally to provide a mounting bracket for said box.

4. An outlet-box comprising one or more U-shaped units, substantially flat end plates therefor, the abutting edges of said units and end plates being recessed, knuckles adjacent to and adapted to fit said recesses, and a pintle engaging said knuckles, a portion of said pintle bent laterally to provide a bracket whereby said box is mounted in position.

1,205,590. SHEET-DELIVERY MECHANISM FOR PRINTING-MACHINES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 28, 1914. Serial No. 879,324. (Cl. 164—68.)



1. In a machine of the character described, means for feeding a web at a certain speed, means for cutting sheets therefrom, sheet delivery means including a constant speed rotary sheet carrier and an endless sheet delivery carrier both traveling at a higher surface speed than the web, and a variable speed rotary carrier having grippers arranged to take the advance edge of the web at the speed thereof and to transfer the sheets cut from the web to the constant rotary carrier at the surface speed thereof.

2. In a machine of the character described, means for feeding a web at a certain speed, means for cutting sheets therefrom, sheet slitting means traveling at a higher surface speed than the web and means arranged to take the advance edge of the web at the speed thereof and transfer the sheets cut from the web to the slitting means at the speed thereof.

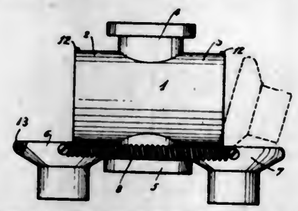
3. In a machine of the character described, means for feeding a web at a certain speed, means for cutting sheets therefrom, sheet slitting means traveling at a higher surface speed than the web, means arranged to take the advance edge of the web at the speed thereof and transfer the sheets cut from the web to the slitting means at the speed thereof, and an endless sheet delivery carrier traveling at the surface speed of the slitting means.

4. In a machine of the character described, means for feeding a web at a certain speed, means for cutting sheets therefrom, rotary sheet slitting means traveling at a higher surface speed than the web and rotary means arranged to take the advance edge of the web at the speed thereof and transfer the sheets cut from the web to the slitting means at the surface speed thereof.

5. In a machine of the character described, means for feeding a web at a certain speed, means for cutting sheets therefrom, rotary sheet slitting means traveling at a higher surface speed than the web, rotary means arranged to take the advance edge of the web at the speed thereof and transfer the sheets cut from the web to the slitting means at the surface speed thereof, and an endless sheet delivery carrier traveling at the surface speed of the said rotary slitting means.

[Claims 6 to 14 not printed in the Gazette.]

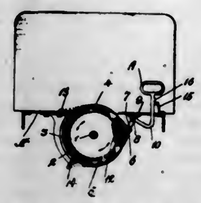
1,205,591. CLOSURE MEANS FOR FUEL-HEATING DEVICES AND THE LIKE. DAVIS BARNARD, Los Angeles, Cal., assignor to Barnard Manufacturing Company, Los Angeles, Cal., a Corporation of California. Filed Feb. 25, 1913. Serial No. 750,695. (Cl. 137—34.)



1. A casing having oppositely arranged open ends, a closure rotatably mounted on each end, springs extending longitudinally on opposite sides of the casing connected at their ends to said closures and adapted to normally hold the closures to their seats, and a flanged abutment extending transversely from the casing adapted to be engaged by the closures when they are removed from the ends of the casing.

2. A casing having oppositely arranged open ends, a closure adapted to seat on each of said ends, a plurality of tension springs attached at their opposite ends to said closures and adapted to hold said closures to their seats, a transversely extending conduit projecting from said casing between said longitudinally extending springs, and a flange on the end of said conduit, said closures being so shaped that they may engage between the casing and the flange, the points of attachment of the springs to the closures being such that the tension of the springs holds the closures in position against said flange.

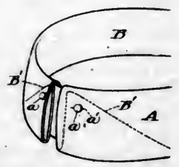
1,205,592. AUTOMOBILE-STARTER. CARL H. F. BERGNER, Harrington Park, N. J. Filed Dec. 4, 1914. Serial No. 875,395. (Cl. 74—54.)



An automobile starter comprising a ratchet wheel connected with the crank shaft of the engine, a pair of arms lying on opposite sides of said wheel with respect to its center, pawls on each of said arms coöperating with said wheel, an operating lever pivoted to the frame of the machine and having a free end pivotally joined to an end of each of said arms, said pivotal joining point thus having a to and fro motion with respect to the ratchet wheel when the aforesaid lever is operated, and cam lugs arranged to engage the free ends of the pawl carrying arms so as to move the pawls out of engagement with the ratchet wheel when said pivotal joining point is in its innermost position.

1,205,593. COLLAR. CHARLES EDWARD BRADLEY, Boston, Mass. Filed Feb. 18, 1916. Serial No. 79,088. (Cl. 2—71.)

1. In a turn-over collar a neck band, an attached turn-over top, the vertical length of the points of said turn-over top being greatly in excess of the vertical breadth of the neck band and of the breadth of the middle part of the turn-over top, said points being adapted to be folded inwardly between the turn-over top and the neck band, a fastener member on the under side of each point near its lower extremity, and a complementary fastener member on the under side of the turn-over top at each end near its upper edge.

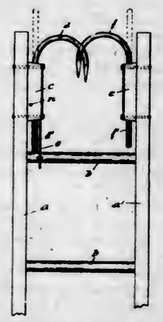


2. In a turn-over collar a neck band, an attached turn-over top, the vertical length of the points of said turn-over top being greatly in excess of the vertical breadth of the neck band and of the breadth of the middle part of the turn-over top, said points being adapted to be folded inwardly between the turn-over top and the neck band, and a button and buttonhole to hold each point in folded position, of which one is on the under side of the point near its lower extremity and the other is on the under side of the turn-over top near its upper edge.

3. In a turn-over collar a neck band, an attached turn-over top, the vertical length of the points of said turn-over top being approximately twice the vertical breadth of the neck band, said points being designed to be folded inwardly between the turn-over top and the neck band, and means separably to fasten the inner side of each point to the inner side of the turn-over top near the upper edge of the latter, when the point is in folded position.

4. In a turn-over collar a neck band, an attached turn-over top, the middle part of which is of approximately the same width as that of the neck band and the points of which are of a length approximately twice the width of said neck band, said points being adapted to be folded inwardly between the turn-over top and the neck band to form a loop of approximately the same width as the neck band, a button on the under side of each point near its extremity, and a buttonhole in the under side of the turn-over top near its upper edge.

1,205,594. SCALING-LADDER. EDMUND E. CLOSE, Brockton, Mass., assignor, by direct and mesne assignments, of one-half to Adelbert L. Sewall and one-half to Charles R. Felton, Brockton, Mass. Filed Nov. 22, 1915. Serial No. 62,741. (Cl. 228—20.)



1. In combination with a ladder, a pair of hooks mounted thereon, means tending to move said hooks from a folded to an unfolded position, one of said hooks having a locking device for holding it in folded position, and the other hook being relatively associated therewith to be locked in folded position by the aforesaid hook.

2. In combination with a ladder, a pair of hooks mounted thereon, means tending to move said hooks from a folded to an unfolded position, one of said hooks having a locking device for holding it in folded position, and for releasing it, to permit it to move to unfolded position, and the other hook being relatively associated therewith to be locked in folded position by the aforesaid hook, and to be released thereby, to permit both hooks to move, simultaneously, to unfolded positions, when the locking device is moved to releasing position.

3. In combination with a ladder, a pair of hooks mounted thereon and each separately spring-actuated to move from folded to unfolded positions, one of said hooks having a locking device for holding it in folded position, said locking device being movable to permit the hook to move to unfolded position, and the other hook being arranged to be engaged by and locked in folded position by the aforesaid hook, when the latter is in its folded position, to permit simultaneous release of said hooks by said locking device.

4. In combination with a ladder, a hook mounted thereon to swing between a folded position, in which it lies flat with the ladder, and an unfolded position in which it projects therefrom, means normally actuated to swing said hook from folded to unfolded position, and a locking device for holding the hook in folded position, and movable to release the hook to permit it to be moved to unfolded position.

5. In combination with a ladder, a hook mounted thereon to swing between a folded position, in which it lies flat with the ladder, and an unfolded position in which it projects therefrom, spring-actuated means arranged to swing the hook from folded to unfolded position, a latch arranged to lock the hook when moved to folded position, and means to operate the latch to release the hook.

[Claims 6 to 8 not printed in the Gazette.]

1,205,595. GRIP FOR BOOT AND SHOE LACES. CARLETON ARTHUR CURRIE, Wonthaggi, Victoria, Australia. Filed Jan. 12, 1916. Serial No. 71,661. (Cl. 24—117.)



1. A lace gripping device comprising a plate cut away to leave arms on each side and a central tongue having recessed slots on each of its sides.

2. A lace gripping device comprising a plate cut away to leave arms on each side terminating in spherical heads and to leave a central tongue having recessed slots on each of its sides.

1,205,596. POOL-BOARD. CHARLES HENRY DAVIS, Rushworth, Victoria, Australia. Filed Jan. 8, 1916. Serial No. 71,057. (Cl. 46—6.)

1. In an apparatus of the character described, the combination with a box or casing having a head provided with a plurality of openings, of a slidable bar arranged over said head and provided with a plurality of ball-receiving pockets adapted to coincide with the openings in the head when the said bar is operated as described, a ball conductor arranged within the casing and adapted to receive the balls falling through the openings in the head, and means arranged within the casing to form a funnel into which the balls are conducted by the said conductor and a receptacle arranged to receive the balls passing downwardly through the funnel.

2. In an apparatus of the character described, the combination with a box or casing having a head provided with a plurality of openings, of a slidable bar arranged over said head and provided with a plurality of ball-receiving pockets adapted to coincide with the openings in the head when the said bar is operated as described, means for limiting the sliding movement of the slidable bar, means for locking the said bar against movement, a ball conductor arranged within the casing and adapted to receive the balls falling through the openings in the head, means arranged within the casing to form a funnel into which the balls are conducted by the said conductor, and a receptacle arranged to receive the balls passing downwardly through the funnel.



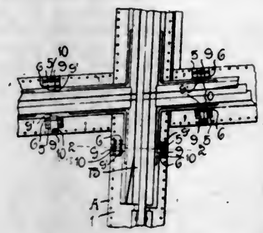
3. In an apparatus of the character described, the combination with a box or casing having a head provided with a plurality of openings, of a slidable bar arranged over said head and provided with a plurality of ball-receiving pockets adapted to coincide with the openings in the head when the said bar is operated as described, means for limiting the sliding movement of the slidable bar, means for locking the said bar against movement, a ball conductor arranged within the casing and adapted to receive the balls falling through the openings in the head, means arranged within the casing to form a funnel into which the balls are conducted by the said conductor, and a receptacle arranged to receive the balls passing downwardly through the funnel.

4. In an apparatus of the character described, the combination with a box or casing having a head provided with a plurality of openings, of a slidable bar arranged over said head and provided with a plurality of ball-receiving pockets adapted to coincide with the openings in the head when the said bar is operated as described, means for limiting the sliding movement of said bar comprising a post on the head projecting within a slot in the slidable bar, means for locking the bar immovable when desired comprising a keeper provided with a slot and movably arranged within a recess in the bar, said keeper being adapted to occupy a position transversely of the slot in the bar adjacent the aforesaid post, a ball conductor arranged within the casing and adapted to receive the balls falling through the openings in the head, means arranged within the casing to form a funnel into which the balls are conducted by the said conductor, and a receptacle arranged to receive the balls passing downwardly through the funnel.

5. In an apparatus of the character described, the combination with a box or casing having a head provided with a plurality of openings, of a slidable bar provided with a plurality of ball-receiving pockets adapted to coincide with the openings in the head when the said bar is operated as described, an inclined conducting surface arranged in the casing to receive the balls falling through the openings in the head, partitions arranged within the casing to form a passage for the balls falling from the said inclined conducting surface and also to form a recess, and a ball-receiving receptacle arranged in said recess to receive the balls falling downwardly through the said passage.

[Claims 6 and 7 not printed in the Gazette.]

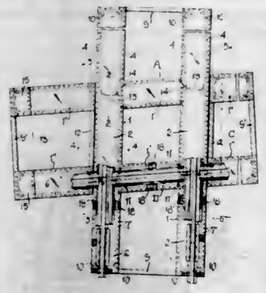
1,205,597. RAIL-FASTENING DEVICE. WILLIAM PATRICK DAY, Cleveland, Ohio. Filed Apr. 3, 1916. Serial No. 88,660. (Cl. 238—2.)



1. A fastening of the character described, comprising a plate provided with an upstanding flange designed to abut against the base flange of a rail or crossing arm, said flange having an opening formed therein below its upper edge, a clamping bar receivable snugly in said opening and adapted to extend inwardly therethrough, the inner end of said bar being inclined upwardly and inwardly for engagement over the base flange of the rail or crossing arm, and a bolt passing downwardly through the outer end of said bar, and arranged for attachment to a foundation.

2. In a construction of the character described, the combination with a foundation embodying a supporting plate for a rail or crossing arm, plates riveted to said foundation and provided with upstanding flanges adapted to abut against opposite sides of the base flanges of the rail or crossing arm, said flanges having openings formed therein below their upper edges, and clamping bars insertible through said openings and adapted to extend at their inner ends over the base flanges of the rail or crossing arm, the outer ends of said clamping bars being apertured, and bolts passing through the apertures of said bars and into the foundation and secured thereto as and for the purpose set forth.

1,205,598. SUBSTRUCTURE FOR RAILROAD-CROSSINGS. WILLIAM PATRICK DAY, Cleveland, Ohio. Filed Apr. 3, 1916. Serial No. 88,661. (Cl. 104—40.)



1. In a substructure for railroad crossings, a unit composed of box-like side members connected together in spaced relation to each other, box-like members bridging the space between said side members and connected thereto, and blocks filling all of said members and inclosed thereby.

2. In a substructure for railroad crossings, a unit composed of box-like members arranged in spaced relation to each other and adapted to extend longitudinally of that portion of the crossing designed to be supported thereby, and a filler in said members and consisting of a plurality of wooden blocks extending transversely of the members.

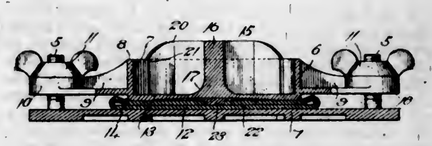
3. In a substructure for railroad crossings, a unit embodying box-like members composed of upper and lower metallic plates and channel beams intermediate of said plates and riveted thereto fillers in said members, consisting of blocks arranged side by side and extending transversely of said members and housed in and by said plates and beams, and transversely extending beams closing the ends of said members and connected thereto and holding said members rigidly in spaced relation to each other.

4. In a substructure for railroad crossings, a unit composed of box-like metallic members with wooden block fillers, means for holding said members together in spaced relation to each other, and metallic strengthening braces mounted in said members and extending transversely thereof, as and for the purpose set forth.

5. In a substructure for railroad crossings, a unit composed of metallic box-like side members, box-like cross members bridging the space between said side members and connected thereto, and cross braces mounted in the side members where the latter connect to the cross members.

[Claims 6 and 7 not printed in the Gazette.]

1,205,599. VULCANIZING DEVICE. THOMAS E. DEMPSEY, New York, N. Y. Filed Aug. 27, 1914. Serial No. 858,800. (Cl. 18—18.)



1. In a vulcanizing device, an open receptacle for fluent fuel having a bottom forming a vulcanizing face, said bottom having a heat conducting body projecting therefrom into said receptacle for conducting heat from the flame to said bottom, a preponderance of the mass of said heat conducting body being centrally disposed with respect to said receptacle to impart a higher temperature to the central portion of said bottom than to radially outer portions thereof, substantially as described.

2. In a vulcanizing device, an open receptacle for fluent fuel having a bottom forming a vulcanizing face and provided with a surrounding wall, and a heat conducting body rising from the bottom of said receptacle and having a central portion extending above the margin of said surrounding wall and radially outer portions receding toward the margin of said wall, a preponderance of the mass of said conducting body being centrally disposed with respect to said receptacle to impart a higher temperature to the central portion of said bottom than to radially outer portions thereof, substantially as described.

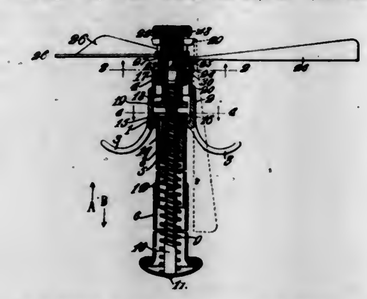
3. In a vulcanizing device, an open receptacle for fluent fuel having a bottom forming a vulcanizing face and provided with a surrounding wall, and a heat conducting body rising from said bottom and having a central portion extending above the margin of said wall and radially outer portions receding toward said margin, a preponderance of the mass of said body being disposed at the center of said body with a gradual reduction of the mass in radially outer portions of said body, substantially as described.

4. In a vulcanizing device, an open receptacle for fluent fuel having a bottom forming a vulcanizing face and provided with a surrounding wall, a post rising from the bottom of said receptacle and having flanges extending radially toward said wall with their terminal ends forked or bifurcated and extending toward but not to said surrounding wall, said post and flanges being integral with said bottom to conduct heat from the flame thereto, substantially as described.

5. In a vulcanizing device, an open receptacle for fluent fuel having a bottom forming a vulcanizing face, and provided with a surrounding wall, and a heat conducting body rising from said bottom and extending above the margin of said wall, a preponderance of the mass of said

body being disposed centrally thereof to impart a higher temperature in the central portion of said bottom than to radially outermost portions thereof, substantially as described.

1,205,600. FAN. STEPHEN O. DE ORLOW, Akron, Ohio. Filed Apr. 16, 1915. Serial No. 21,741. (Cl. 230—33.)



1. In a device of the class described, a support; a rotatable element journaled on one end of the support; a blade pivoted intermediate its ends to the rotatable element, the inner end of the blade extending transversely of the rotatable element, the blade being foldable toward the other end of the support to lie in approximate parallelism with the support; a tubular member movable longitudinally of the rotatable element, the tubular member bearing on the inner end of the blade to hold the blade in outstanding position, the tubular member being movable to lie between the rotatable element and the inner end of the blade when the blade lies in approximate parallelism with the support, thereby to hold the blade in approximate parallelism with the support; and means assembled with the support for rotating the rotatable element.

2. In a device of the class described, a support; a secondary clutch journaled for rotation on the support; a fan carried by the secondary clutch; a primary clutch movable longitudinally of the support to coöperate with the secondary clutch; and a shaft threaded into the primary clutch, the shaft constituting means for moving the primary clutch to engage with the secondary clutch, and constituting means for rotating both clutches.

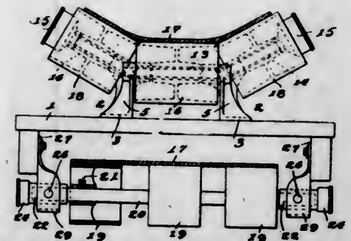
3. In a device of the class described, a support; a secondary clutch journaled on the support; a fan carried by the secondary clutch; a primary clutch movable longitudinally of the support to coöperate with the secondary clutch; a shaft threaded into the primary clutch and movable longitudinally of the support, the shaft constituting means for advancing the primary clutch to engage the secondary clutch and constituting means for rotating both clutches at once; and spring means for retracting the shaft and the primary clutch.

4. In a device of the class described, a support; a movable element journaled thereon; a blade pivotally mounted intermediate its ends on the rotatable element; and a holding device movable longitudinally of the rotatable element, the holding device engaging one end of the blade to hold the same in outstanding relation to the rotatable element, and being movable to engage the said end of the blade to hold the blade in approximate parallelism with the support.

1,205,601. SHAFT-HANGER. JOSEPH DIENDORFF, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Apr. 27, 1911. Serial No. 623,640. (Cl. 64—14.)

1. In an apparatus for supporting a conveyer belt, the combination of a shaft, bearing boxes at the ends of the shaft each provided with pivot trunnions, suspending U-shaped hangers for said boxes, each having two integral arms provided with apertures for detachably receiving said trunnions and adapted to have their upper ends move toward and from each other to release the pivoted box, and means for securing said arms of each hanger rigidly in operative position to hold the box as set forth.

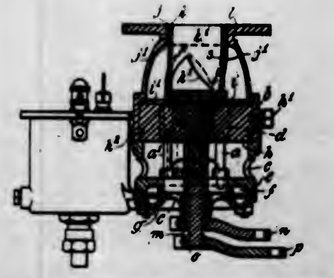
2. In an apparatus for supporting a conveyer belt, the combination of a shaft, bearing boxes at the ends of the shaft, suspending brackets, and fastening devices for the upper ends of said brackets, each of said brackets having two integral legs with their upper ends adapted to be moved from and toward each other while engaging with the fastening devices, each box being hinged on a horizontal axis to one of said brackets and adapted to be released from the bracket when its legs are separated as described.



3. In an apparatus for supporting and lubricating a belt supporting shaft, the herein described bearing box having a non-rotary part which is adapted to receive the end of a rotating shaft, pivot projections adapted to suspend the box and hold it against rotation, an end wall 23 integral with the box part and provided with a lubricant inlet, and a detachable and axially adjustable cup adapted to form, together with said end wall, a lubricant chamber.

4. The combination with a shaft, of a bearing box for an end of the shaft, the said bearing box having at its outer end an integrally formed externally threaded flange adapted to form the base portion of a grease container, a grease cup internally threaded to engage the said threaded flange of the bearing, a U-shaped bracket formed from a resilient strip of metal and provided with opposite circular holes in its lower portion, and opposite pivot lugs on the bearing extending into the holes in the bracket, the sides of the said bracket being normally spaced apart a distance approximately equal to the width of the said bearing at the bases of the lugs.

1,205,602. CARBURETER. THOMAS JOHN DISTURNAL, Belmont, Ireland. Filed Jan. 11, 1916. Serial No. 71,497. (Cl. 261—41.)



1. A carbureter comprising a casing, fuel supply nozzles, carbureting tubes to coöperate with the nozzles, means adapted to cover and uncover said tubes, and two sleeves adapted to coöperate with each other and with said means to control the carbureted air.

2. A carbureter comprising a casing, fuel supply nozzles, carbureting tubes to coöperate with said nozzles, a plate adapted to be actuated to cover and uncover said tubes, and two sleeves mounted one within the other and adapted to be actuated independently or simultaneously to coöperate with each other and with said plate to control the carbureted air.

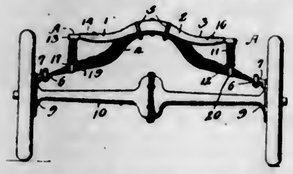
3. A carbureter comprising a casing, fuel supply nozzles, carbureting tubes to coöperate with said nozzles, a slotted plate mounted immediately upon said tubes and adapted to be turned in its own plane to cover and uncover said tubes, and two coöperating ported sleeves mounted above said plate and one within the other and adapted to be turned axially independently or simultaneously to coöperate with said plate to control the carbureted air.

4. A carbureter comprising a casing, fuel supply nozzles, carbureting tubes to coöperate with said nozzles, a disk or plate adapted to be actuated to cover and uncover said tubes, two sleeves adapted to be actuated to coöperate with each other and with said plate to control the carbureted air, and an operative connection between one of said sleeves and the plate whereby when said seleve is actuated it also actuates the plate.

5. A carbureter comprising a casing, fuel supply nozzles, carbureting tubes to coöperate with said nozzles, a plate adapted to be actuated to cover and uncover said tubes, two sleeves adapted to be actuated to coöperate with each other, and with said plate to control the carbureted air, and means operatively connecting one of said sleeves with the plate and permitting of lost-motion between same, whereby said sleeve is given a lead in its movements, and whereby when it is actuated, and the lost motion has been taken up, the place is also actuated.

[Claims 6 to 8 not printed in the Gazette.]

1,205,603. SPRING AND FRAME SUPPORTER FOR MOTOR-CARS. JOSEPH DOTTL, Madison, Wis. Filed Nov. 20, 1915. Serial No. 62,601. (Cl. 267—19.)

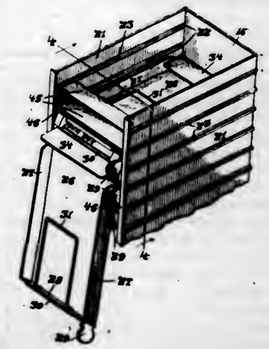


The combination with a vehicle frame, a bolster extending transversely thereof and having parallel longitudinal flanges extending downwardly therefrom, and an arched body-supporting main spring centrally secured to the bolster and terminally connected with the axle housing, of auxiliary body-supporting units interposed between the bolster ends and said spring, each unit comprising a coiled expansion spring, a holder for the bottom end of said expansion spring supported upon the main spring, and a bolster extension arm fastened to the underside of the bolster between the flanges thereof and embodying a spring holding cap which fits over the upper end of said expansion spring.

1,205,604. FILING DEVICE. JOHN E. DUNGAN, Canton, Ohio, assignor of one-half to The Thomas-Peter Company, Canton, Ohio, a Corporation of Ohio. Filed May 27, 1915. Serial No. 30,841. (Cl. 45—96.)

1. In a device of the character described, a receptacle provided with substantially horizontal grooves in its side walls, a plurality of movable trays slidably mounted within said grooves, means for tilting the trays when the same are moved out of their normal position, hinge members carried upon the rear extremities of said trays provided with overhanging flanges located within the horizontal grooves and projecting beyond the side edges of the tray, said flanges adapted to hold the hinge members against pivotal movement with reference to the grooves, whereby the contents of the trays are released when in a lowered position and clamped when in their normal position.

2. In a device of the character described, a receptacle provided with substantially horizontal grooves in its side walls, a plurality of trays slidably mounted between said side walls, supporting members between said side walls arranged to normally support the forward extremities of said trays, pins carried at the rear extremity of said trays and slidably mounted within said grooves, a hinged member located at the rear extremity of each tray and provided with a forwardly extending flange normally located above and parallel to the tray and ears carried by said hinged members, said ears being located within said grooves.



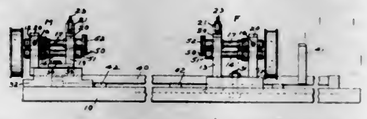
3. In a device of the character described, a receptacle provided with substantially horizontal grooves in its side walls, a plurality of movable trays suitably supported one above the other within said receptacle, supporting members carried between said side walls and adapted to normally support the forward extremity of each tray, each of said trays being provided with up-turned flanges upon its forward and side edges, a rearwardly disposed retaining frame carried by the forward flange, an upwardly disposed member hinged at the rear extremity of each tray, a forwardly disposed flange provided upon said hinged member, a pintle arranged to hingedly connect said member to said tray, the extremities of said pintle being slidably mounted within said grooves and ears carried by said hinged member, said ears being slidably mounted within said grooves.

4. In a device of the character described, a receptacle provided with substantially horizontal grooves in its side walls, a plurality of movable trays slidably supported within the receptacle, each of said trays being provided with up-turned flanges upon its forward and side edges, a hinged member connected to the rear extremity of each tray, projections carried by said hinged members and located within said grooves, said trays being adapted to be tilted into a substantially vertical position when the same are moved out of their normal position and a finger piece located at one extremity of the forward up-turned flange, said finger pieces being off-set for the purpose of allowing the trays to be tilted as described.

1,205,605. DEVICE FOR SIMULTANEOUSLY PERFORMING TWO OPERATIONS ON AN ARTICLE. CHARLES A. ELIGH, Detroit, Mich., assignor to Long Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 12, 1915. Serial No. 45,200. (Cl. 153—73.)

1. A device for simultaneously forming a bead on each end of a tube, comprising a bed carrying two beading machines, each having a stationary and a laterally movable roller, the latter being normally held away from the former, and each machine carrying a member whereby the latter roller is moved toward the former, one of the machines being normally fixed and the other movable on the bed; a lever to move the latter machine to and fro with reference to the former, and a rock shaft mounted on the

bed and extending past both machines so as to be contiguous to said operating members, said shaft having the character of a cam and adapted when rocked to engage said members, whatever the position of the machines with reference to each other or to the bed, and simultaneously press the movable rollers against the stationary ones.



2. A device for simultaneously forming a bead on each end of a tube, comprising a bed carrying two beading machines, each having a stationary beading roller to enter the tube, with a shoulder to limit the distance it enters the tube, a laterally movable roller and a member to press said roller against the stationary roller, said machines being adapted to operate in various positions with reference to each other and to the bed and one of them being movable on the bed; a lever for moving the movable machine to and fro with reference to the other machine, and a rock shaft mounted on the bed and extending past both machines contiguous to the aforesaid members, whatever the positions of the machines with reference to each other or to the bed, said shaft having the character of a cam and adapted when rocked to move said members and press the movable roller against the stationary one.

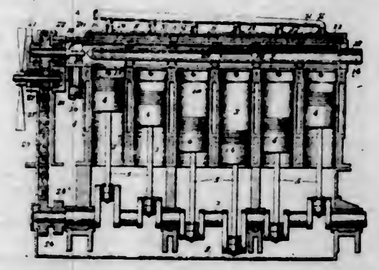
3. A device for simultaneously performing two operations on an article, comprising a bed carrying two independent machines, the operations performed by said machines requiring them to be operative at various distances from each other, each machine carrying a member whereby it is operated; and a rock shaft mounted on the bed and extending past both machines contiguous to said members whatever the positions of the machines with reference to each other or the bed, said shaft having the character of a cam adapted when rocked to lift the operating members, thereby simultaneously operating both machines.

4. A device for simultaneously performing two operations on an article, comprising a bed carrying two independent machines, one of which is movable to and fro on the bed, and a lever for moving said machine; the other machine being normally fixed with reference to the bed but having means for fixing it at various points thereon, each of said machines carrying a member whereby it is operated; and a rock shaft mounted on the bed and extending past both machines so as to be contiguous to said operating members whatever the positions of the machines with reference to each other or to the base, said shaft having the character of a cam and adapted when rocked to move the members and thereby simultaneously operate both machines.

1,205,606. INTERNAL-COMBUSTION ENGINE. EDWIN J. ELLIS, Aurora, Ill. Filed Feb. 25, 1914. Serial No. 820,939. (Cl. 123—59.)

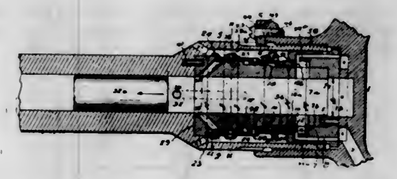
1. In a multiple cylinder internal combustion engine, a rotary tubular charge-distributing and exhaust-collecting manifold valve common to all of the cylinders, said valve comprising an outer cylindrical shell provided with a lateral intake orifice adjacent to one end thereof and having a supply port for each cylinder, and an inner shell concentric with the outer shell closed at one end and having an exhaust-collecting port for each cylinder, said inner shell terminating at its closed end short of the lateral intake orifice of the outer shell and being open at its other end, the inner shell having a progressively increasing internal and external diameter from its closed end toward its discharge end.

2. In a multiple cylinder internal combustion engine, a rotary tubular charge-distributing and exhaust-collecting manifold valve common to all of the cylinders, said valve comprising an outer cylindrical shell provided with a lateral intake orifice adjacent to one end thereof and having a supply port for each cylinder, an inner shell concentric with the outer shell closed at one end and having an exhaust-collecting port for each cylinder, said inner shell terminating at its closed end short of the lateral intake orifice of the outer shell and being open at its other end,



the inner shell having a progressively increasing internal and external diameter from its closed end toward its discharge end, and suction vanes carried by said valve and having their peripheral edges arranged to sweep across said lateral intake orifice.

1,205,607. PNEUMATIC HAMMER. FRANK M. FABER, Canton, Ohio. Filed Sept. 2, 1915. Serial No. 48,614. (Cl. 121—20.)



1. In a pneumatic hammer a valve having a first radial surface subject to constant pressure tending to throw the valve in a certain direction, a second radial surface subject to intermittent pressure tending to throw the valve in the same direction, a third radial surface subject to intermittent pressure tending to throw the valve in the same direction, and a fourth radial surface subject to intermittent pressure tending to throw the valve in the opposite direction; the area of the fourth radial surface being greater than the sum of the first and second radial surfaces, but less than the sum of the first, second and third radial surfaces.

2. In a pneumatic hammer a valve having a radial surface under constant pressure, a second radial surface under pressure intermittently admitted from the cylinder bore, a third radial surface under pressure intermittently admitted from the cylinder bore, all of said pressures tending to force the valve in one direction, and a fourth radial surface under pressure intermittently admitted from the main supply tending to force the valve in the opposite direction; the area of said fourth radial surface being less than the combined areas of the other three.

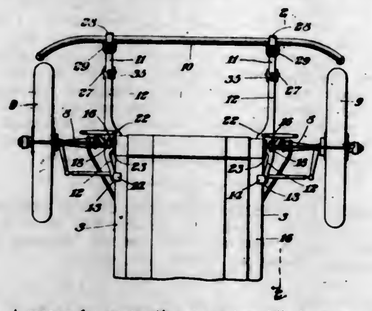
3. In a pneumatic hammer a valve having a radial surface subject to constant pressure and a second radial surface subject to pressure intermittently admitted from the cylinder bore of the hammer, said pressures tending to force the valve in one direction, and a third radial surface, subject to pressure intermittently admitted through the main supply and tending to force the valve in the opposite direction, said third surface being greater than the combined areas of the other two.

4. In a pneumatic tool a valve block, a valve slidingly fitting the exterior of the valve block, a thimble fitting the peripheral exterior of the valve block and also the peripheral exterior of the valve, a port in the thimble to which fluid pressure is constantly admitted while the tool is in operation, said port being sealed by the valve when the valve is at one end of its stroke, and being open to communication with the interior of the cylinder when the valve is at the other end of its stroke.

5. In a pneumatic tool a cylinder, a valve block, having its interior of the same diameter as the cylinder bore, means for holding the bore of the valve block in axial alinement with the cylinder bore, said valve block having four diameters on its exterior and a valve having four diameters on its interior said diameters in valve corresponding to and slidingly fitting the exterior diameters of the valve block.

[Claims 6 to 13 not printed in the Gazette.]

1,205,608. AUTOMOBILE-BUMPER. ROLLIN B. FAGEOL, Philadelphia, Pa. Filed Apr. 13, 1912. Serial No. 690,600. (Cl. 213—39.)



1. A means for supporting an automobile bumper transversely of the vehicle, comprising a bracket having a portion adapted to project outwardly from the vehicle to support the bumper and a laterally-directed portion adapted to abut against a transverse portion of the frame of the vehicle to prevent longitudinal movement of the bracket under pressure applied thereto.

2. The combination with the frame of an automobile, of a bumper, and means for connecting said bumper to said frame, said means comprising a bracket having a portion adapted to project forwardly from the front end of the vehicle and a laterally-directed portion adapted to abut against a transverse portion of the automobile to prevent movement of the bracket in a longitudinal direction, means for securing said bracket against movement in a lateral direction and means for fastening the bumper to the projecting portion of said bracket.

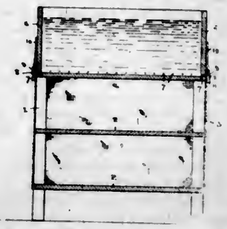
3. In combination with the frame of an automobile, a bumper, and means for positioning the bumper bar in advance of the frame, said means comprising a bracket having a forwardly-directed portion extending beyond the plane of the forward end of the automobile frame and a laterally-extending portion adapted to abut against a transverse portion of the automobile frame, means for securing the bumper to said forwardly-directed portion of the bracket, means for fastening said laterally-directed portions to the automobile frame and means carried by said bracket for engagement with a part of the automobile separate from the frame, whereby said bracket will be rigidly held against movement in any direction.

4. In combination with the frame of an automobile, a bumper extending transversely and forwardly thereof, and means for connecting said bumper to said frame, said means comprising an arm adapted to extend forwardly of the automobile frame substantially in alinement with a longitudinal member thereof, means carried by said arm to secure said arm against movement in a perpendicular plane and means formed integral with said arm and lying in a plane at right angles to the plane of said arm adapted to engage a transverse portion of said frame to secure said arm against longitudinal movement upon the application of pressure to said bumper.

5. The combination with the longitudinally-extending side bars of an automobile frame, of a transversely-extending bumper bar, means connecting said bumper bar to one of said side bars, an extension bar adjacent the other of said side bars and extending forwardly from the forward end thereof, said extension bar having a part extending over and a part extending under one portion of the adjacent side bar, a bracket extending from another portion of said adjacent side bar, means for securing said extension bar to said bracket, and means for connecting said bumper bar to the forward part of said extension bar.

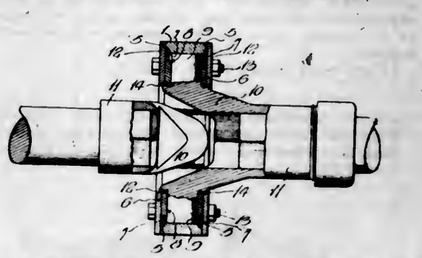
[Claims 6 to 18 not printed in the Gazette.]

1,205,609. REFRIGERATOR. WILLIAM FARRE, Burns, and PERRY F. CHANDLER, Canyon City, Oreg. Filed Nov. 16, 1915. Serial No. 61,814. (Cl. 45—132.)



A refrigerator, comprising supporting posts, fibrous walls attached to said posts, a tank above said walls having a plurality of perforations through the walls thereof, spring actuated bars attached to the tank, points carried by the bars adapted to coöperate with said perforations, and means to regulate the position of said points with respect to said openings.

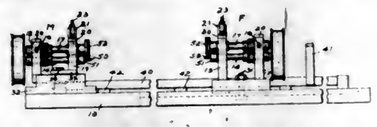
1,205,610. UNIVERSAL JOINT. LEVIN FAUST, CARL E. SWENSON, and CARL ANDERSON, Rockford, Ill. Filed Oct. 15, 1915. Serial No. 56,092. (Cl. 74—19.)



1. A universal joint comprising a connecting ring having parallel edges disposed in planes transverse to its axis, the inner curved side of said ring being formed with four notches spaced ninety degrees apart and opening through one of the aforesaid edges, bearing blocks inserted removably into said notches, and each having a radially disposed bearing opening, a pair of shaft members having studs received in said openings, and a retaining ring secured in contact with said one edge of the ring to prevent removal of the bearing blocks.

2. A universal joint comprising a ring having parallel edges disposed in planes transverse to its axis, the inner curved side of said ring being formed with four notches spaced ninety degrees apart and leading from one of the aforesaid edges to the other, bearing blocks inserted removably into said notches and each having a radially disposed bearing opening, a pair of shaft members havin-

bed and extending past both machines so as to be contiguous to said operating members, said shaft having the character of a cam and adapted when rocked to engage said members, whatever the position of the machines with reference to each other or to the bed, and simultaneously press the movable rollers against the stationary ones.



2. A device for simultaneously forming a bead on each end of a tube, comprising a bed carrying two beading machines, each having a stationary beading roller to enter the tube, with a shoulder to limit the distance it enters the tube, a laterally movable roller and a member to press said roller against the stationary roller, said machines being adapted to operate in various positions with reference to each other and to the bed and one of them being movable on the bed; a lever for moving the movable machine to and fro with reference to the other machine, and a rock shaft mounted on the bed and extending past both machines contiguous to the aforesaid members, whatever the positions of the machines with reference to each other or to the bed, said shaft having the character of a cam and adapted when rocked to move said members and press the movable roller against the stationary one.

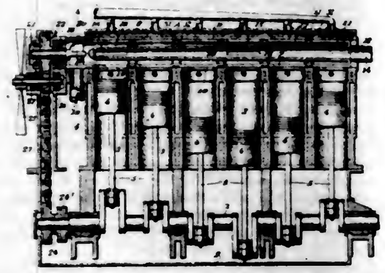
3. A device for simultaneously performing two operations on an article, comprising a bed carrying two independent machines, the operations performed by said machines requiring them to be operative at various distances from each other, each machine carrying a member whereby it is operated; and a rock shaft mounted on the bed and extending past both machines contiguous to said members whatever the positions of the machines with reference to each other or the bed, said shaft having the character of a cam adapted when rocked to lift the operating members, thereby simultaneously operating both machines.

4. A device for simultaneously performing two operations on an article, comprising a bed carrying two independent machines, one of which is movable to and fro on the bed, and a lever for moving said machine; the other machine being normally fixed with reference to the bed but having means for fixing it at various points thereon, each of said machines carrying a member whereby it is operated; and a rock shaft mounted on the bed and extending past both machines so as to be contiguous to said operating members whatever the positions of the machines with reference to each other or to the base, said shaft having the character of a cam and adapted when rocked to move the members and thereby simultaneously operate both machines.

1,205,606. INTERNAL-COMBUSTION ENGINE. EDWIN J. ELLIS, Aurora, Ill. Filed Feb. 25, 1914. Serial No. 820,939. (Cl. 123—59.)

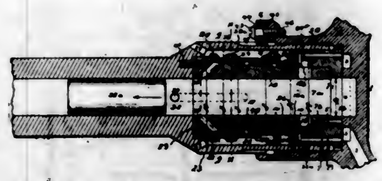
1. In a multiple cylinder internal combustion engine, a rotary tubular charge-distributing and exhaust-collecting manifold valve common to all of the cylinders, said valve comprising an outer cylindrical shell provided with a lateral intake orifice adjacent to one end thereof and having a supply port for each cylinder, and an inner shell concentric with the outer shell closed at one end and having an exhaust-collecting port for each cylinder, said inner shell terminating at its closed end short of the lateral intake orifice of the outer shell and being open at its other end, the inner shell having a progressively increasing internal and external diameter from its closed end toward its discharge end.

2. In a multiple cylinder internal combustion engine, a rotary tubular charge-distributing and exhaust-collecting manifold valve common to all of the cylinders, said valve comprising an outer cylindrical shell provided with a lateral intake orifice adjacent to one end thereof and having a supply port for each cylinder, an inner shell concentric with the outer shell closed at one end and having an exhaust-collecting port for each cylinder, said inner shell terminating at its closed end short of the lateral intake orifice of the outer shell and being open at its other end,



the inner shell having a progressively increasing internal and external diameter from its closed end toward its discharge end, and suction vanes carried by said valve and having their peripheral edges arranged to sweep across said lateral intake orifice.

1,205,607. PNEUMATIC HAMMER. FRANK M. FABER, Canton, Ohio. Filed Sept. 2, 1915. Serial No. 48,614. (Cl. 121—20.)



1. In a pneumatic hammer a valve having a first radial surface subject to constant pressure tending to throw the valve in a certain direction, a second radial surface subject to intermittent pressure tending to throw the valve in the same direction, a third radial surface subject to intermittent pressure tending to throw the valve in the same direction, and a fourth radial surface subject to intermittent pressure tending to throw the valve in the opposite direction; the area of the fourth radial surface being greater than the sum of the first and second radial surfaces, but less than the sum of the first, second and third radial surfaces.

2. In a pneumatic hammer a valve having a radial surface under constant pressure, a second radial surface under pressure intermittently admitted from the cylinder bore, a third radial surface under pressure intermittently admitted from the cylinder bore, all of said pressures tending to force the valve in one direction, and a fourth radial surface under pressure intermittently admitted from the main supply tending to force the valve in the opposite direction; the area of said fourth radial surface being less than the combined areas of the other three.

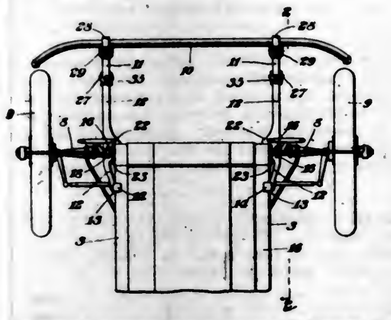
3. In a pneumatic hammer a valve having a radial surface subject to constant pressure and a second radial surface subject to pressure intermittently admitted from the cylinder bore of the hammer, said pressures tending to force the valve in one direction, and a third radial surface, subject to pressure intermittently admitted through the main supply and tending to force the valve in the opposite direction, said third surface being greater than the combined areas of the other two.

4. In a pneumatic tool a valve block, a valve slidingly fitting the exterior of the valve block, a thimble fitting the peripheral exterior of the valve block and also the peripheral exterior of the valve, a port in the thimble to which fluid pressure is constantly admitted while the tool is in operation, said port being sealed by the valve when the valve is at one end of its stroke, and being open to communication with the interior of the cylinder when the valve is at the other end of its stroke.

5. In a pneumatic tool a cylinder, a valve block, having its interior of the same diameter as the cylinder bore, means for holding the bore of the valve block in axial alinement with the cylinder bore, said valve block having four diameters on its exterior and a valve having four diameters on its interior said diameters in valve corresponding to and slidingly fitting the exterior diameters of the valve block.

[Claims 6 to 13 not printed in the Gazette.]

1,205,608. AUTOMOBILE-BUMPER. ROLLIE B. FAGEOL, Philadelphia, Pa. Filed Apr. 13, 1912. Serial No. 690,600. (Cl. 213—39.)



1. A means for supporting an automobile bumper transversely of the vehicle, comprising a bracket having a portion adapted to project outwardly from the vehicle to support the bumper and a laterally-directed portion adapted to abut against a transverse portion of the frame of the vehicle to prevent longitudinal movement of the bracket under pressure applied thereto.

2. The combination with the frame of an automobile, of a bumper, and means for connecting said bumper to said frame, said means comprising a bracket having a portion adapted to project forwardly from the front end of the vehicle and a laterally-directed portion adapted to abut against a transverse portion of the automobile to prevent movement of the bracket in a longitudinal direction, means for securing said bracket against movement in a lateral direction and means for fastening the bumper to the projecting portion of said bracket.

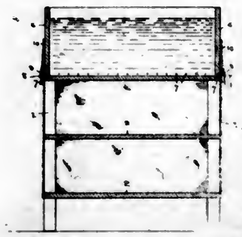
3. In combination with the frame of an automobile, a bumper, and means for positioning the bumper bar in advance of the frame, said means comprising a bracket having a forwardly-directed portion extending beyond the plane of the forward end of the automobile frame and a laterally-extending portion adapted to abut against a transverse portion of the automobile frame, means for securing the bumper to said forwardly-directed portion of the bracket, means for fastening said laterally-directed portions to the automobile frame and means carried by said bracket for engagement with a part of the automobile separate from the frame, whereby said bracket will be rigidly held against movement in any direction.

4. In combination with the frame of an automobile, a bumper extending transversely and forwardly thereof, and means for connecting said bumper to said frame, said means comprising an arm adapted to extend forwardly of the automobile frame substantially in alinement with a longitudinal member thereof, means carried by said arm to secure said arm against movement in a perpendicular plane and means formed integral with said arm and lying in a plane at right angles to the plane of said arm adapted to engage a transverse portion of said frame to secure said arm against longitudinal movement upon the application of pressure to said bumper.

5. The combination with the longitudinally-extending side bars of an automobile frame, of a transversely-extending bumper bar, means connecting said bumper bar to one of said side bars, an extension bar adjacent the other of said side bars and extending forwardly from the forward end thereof, said extension bar having a part extending over and a part extending under one portion of the adjacent side bar, a bracket extending from another portion of said adjacent side bar, means for securing said extension bar to said bracket, and means for connecting said bumper bar to the forward part of said extension bar.

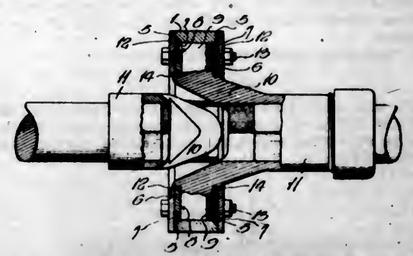
[Claims 6 to 18 not printed in the Gazette.]

1,205,609. REFRIGERATOR. WILLIAM FARRE, Burns, and PERRY F. CHANDLER, Canyon City, Oreg. Filed Nov. 16, 1915. Serial No. 61,814. (Cl. 45—132.)



A refrigerator, comprising supporting posts, fibrous walls attached to said posts, a tank above said walls having a plurality of perforations through the walls thereof, spring actuated bars attached to the tank, points carried by the bars adapted to coöperate with said perforations, and means to regulate the position of said points with respect to said openings.

1,205,610. UNIVERSAL JOINT. LEVIN FAUST, CARL E. SWENSON, and CARL ANDERSON, Rockford, Ill. Filed Oct. 15, 1915. Serial No. 56,092. (Cl. 74—19.)



1. A universal joint comprising a connecting ring having parallel edges disposed in planes transverse to its axis, the inner curved side of said ring being formed with four notches spaced ninety degrees apart and opening through one of the aforesaid edges, bearing blocks inserted removably into said notches, and each having a radially disposed bearing opening, a pair of shaft members having studs received in said openings, and a retaining ring secured in contact with said one edge of the ring to prevent removal of the bearing blocks.

2. A universal joint comprising a ring having parallel edges disposed in planes transverse to its axis, the inner curved side of said ring being formed with four notches spaced ninety degrees apart and leading from one of the aforesaid edges to the other, bearing blocks inserted removably into said notches and each having a radially disposed bearing opening, a pair of shaft members having

studs received in said openings, and a pair of retaining rings secured in contact with the aforesaid edges of the first named ring to prevent removal of the bearing blocks.

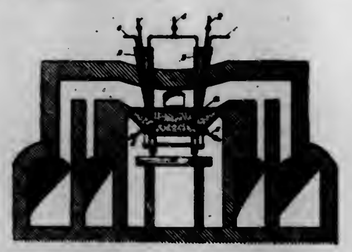
3. A universal joint comprising a ring having parallel edges disposed in planes transverse to its axis, the inner curved side of said ring being formed with four notches spaced ninety degrees apart and leading from one of the aforesaid edges to the other, and the body of said ring being formed with oil ports connecting said notches, bearing blocks inserted removably into said notches and each having ports registering with the aforesaid ports and having radially disposed bearing openings with which their ports communicate, a pair of shafts having studs received in said bearing openings, and a pair of retaining rings secured in contact with the aforesaid edges of the other ring to prevent removal of the bearing blocks.

4. A universal joint comprising a ring having parallel edges disposed in planes transverse to its axis, the inner curved side of said ring being formed with four notches spaced ninety degrees apart and opening through one of the aforesaid edges, and the body of said ring being formed with oil receiving recesses disposed between the notches and opening through said one edge of the ring, said body being also formed with ports connecting said recesses and notches, bearing blocks inserted removably into the notches and having radially disposed bearing openings and ports connecting such openings in the aforesaid ports, a pair of shaft members having studs received by the bearing openings, and a retaining ring secured in contact with said one side of the first named ring to prevent removal of the bearing blocks and to close the open ends of the oil receiving recesses.

5. A universal joint comprising a connecting ring having parallel edges disposed in planes transverse to its axis, the inner curved side of said ring being formed with four notches spaced ninety degrees apart and leading from one of the aforesaid edges to the other, and the body of said ring being formed with oil receiving recesses disposed between the notches and likewise opening through both of the aforesaid edges of the ring, said body of the ring being also formed with ports establishing communication between the recesses and notches, bearing blocks inserted removably into the notches and having radially disposed bearing openings and ports leading to such openings from the aforesaid ports, a pair of shaft members having studs received by the bearing openings, and a pair of retaining rings secured in contact with the aforesaid edges of the connecting ring, whereby to prevent removal of the bearing blocks and to close the ends of the oil recesses.

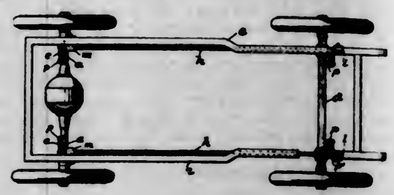
[Claim 6 not printed in the Gazette.]

1,205,611. METHOD OF CHANGING THE COMPOSITION OF IRON AND STEEL. BRUCE FORD, Philadelphia, Pa. Filed Aug. 3, 1909. Serial No. 511,008. (Cl. 75—27.)



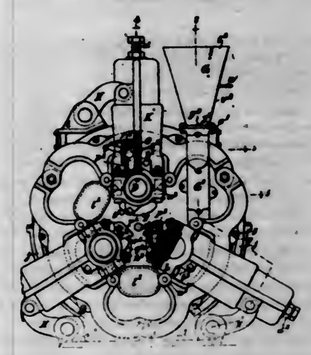
In the art of making iron or steel of definite carbon content, the improvement which consists in melting and completely decarburizing a mass of the metal, melting and supercarburizing to saturation another mass of the metal, and mixing the masses of molten metal in predetermined proportions thereof to make the iron or steel of definite carbon content.

1,205,612. VEHICLE SUSPENSION. BRUCE FORD, Philadelphia, Pa. Filed Oct. 21, 1911. Serial No. 655,987. (Cl. 267—39.)



In a vehicle comprising a road member and a body member movable toward and away from each other in response to forces acting in opposite directions, the combination of a toggle-joint intermediate of and connecting said members and comprising a pivotally connected lever and link pivotally connected respectively with the body and road members and whereof one is longer than the other to permit the lever to swing out of normal position in two directions into alinement with the direction of said forces, and a spring acting directly on the toggle-joint for opposition in two directions and adapted to exert a constantly increasing opposition to alinement of the link and lever with the direction of forces in both directions and to restore them to normal position.

1,205,613. CRUSHING, GRINDING, OR PULVERIZING MACHINERY. GEORGE H. FRASER, New York, N. Y. Filed June 20, 1905, Serial No. 266,156. Renewed Feb. 11, 1916. Serial No. 77,798. (Cl. 83—9.)



1. The combination with a revolving annular die, a crushing roll therein, a casing inclosing said parts, and a movable bearing for said roll, and means movably supporting said bearing, of a guide for said bearing disposed between the inner face of the latter and said casing and attached at its end to said casing and crossing said bearing.

2. The combination with a revolving annular die, a crushing roll therein, a casing inclosing said parts, and movable bearings for said roll at opposite sides of said casing, and means movably supporting said bearings, of a member attached to said casing for guiding said bearings extending between the inner face of the latter and said roll for limiting inward movement of said bearings axially of said roll.

3. In combination, an annular revolving crushing die having an internal crushing face, a rotatable and axially movable crushing roll within and eccentric to said die having a peripheral crushing face reciprocal to the inner face of the latter, means for revolving one of said parts, a casing for said parts, a non-rotative member revolubly carrying said roll, and means yieldingly positioning said roll axially relatively to said non-rotative member.

4. In combination, a revolving annular crushing die having an internal crushing face, a movable and rotatable crushing roll within and eccentric to said die having an external crushing face reciprocal to the internal face of the latter, means for revolving one of said parts, a casing for said parts, a non-rotative movable member carrying said roll, means holding said roll outwardly toward the inner face of said die to resist a crushing pressure therefrom and means positioning said movable member relatively to said casing consisting of a member pivotally connected to one of said parts and moving in contact with the other of said parts.

5. The combination with a revolving annular die, a crushing roll therein, a casing inclosing said parts, and a movable bearing for one of said parts, of means movably supporting said bearing, and a bar attached to said casing after its extremities, extending past the external walls of said bearing, and movably positioning the latter.

[Claims 6 to 41 not printed in the Gazette.]

1,205,614. MANIFOLD FOR INTERNAL-COMBUSTION ENGINES. HENRY J. GAISMAN, Woodmere, N. Y., and ERNEST W. GRAEF, Caldwell, N. J.; said Graef assignor to said Gaisman. Filed Mar. 13, 1916. Serial No. 83,752. (Cl. 123—122.)



1. A manifold comprising a passage for exhaust gases and a passage for fuel mixture in thermal relation thereto, and means to admit fuel mixture into the mixture passage at different points thereof for a longer or shorter course through said passage.

2. A manifold comprising a passage for exhaust gases and a passage for fuel mixture in thermal relation thereto, said mixture passage having a mixture receiving compartment, and means to admit fuel mixture at different points of said compartment to permit the flow therethrough of mixture for a greater or less extent.

3. A manifold comprising a passage for exhaust gases and a passage for fuel mixture in thermal relation thereto, said mixture passage having a compartment communicating at one end therewith and curved with respect to said passage, the opposite end of said compartment being closed, and means to admit fuel mixture to said compartment at different distances along the same to cause said mixture to traverse said compartment to a greater or less extent.

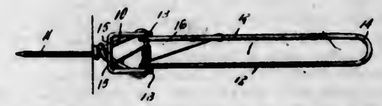
4. A manifold comprising a passage for exhaust gases and a passage for fuel mixture in thermal relation thereto, and an adjustable element for communication with a carbureter and provided with an outlet communicating with said passage whereby fuel mixture may be directed for a longer or shorter course in said passage.

5. A manifold comprising a passage for exhaust gases and a passage for fuel mixture in thermal relation thereto, and a tubular member movably supported in said passage and adapted for communication with a carbureter, said member having a mixture outlet communicating with said passage whereby the fuel mixture may be admitted into said passage at different points to provide a shorter or longer course within the passage for such mixture.

[Claims 6 to 14 not printed in the Gazette.]

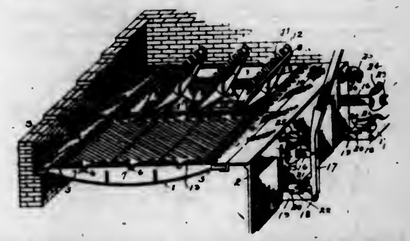
1,205,615. TOWEL-HOLDER. WILLIAM H. GEBAUER, St. Louis, Mo. Filed June 9, 1915. Serial No. 33,135. (Cl. 45—32.)

A towel holder including a pair of coöperating wire members, one of said members consisting of a single length of wire bent to provide a triangular head and a securing portion, the apex of the triangle being arranged to lie close to a wall and the base of the triangle being arranged to lie parallel to the wall, the other member consisting of a single length of wire bent intermediate its ends into U-shape to form a supporting arm, the legs



of the U being bent around the base of the triangle and extended thereover, the extremities of the wire being bent toward each other to lie in alinement across the triangle near its apex, and a spring wound around the base of the triangle and holding the outer end of the arm yieldably raised.

1,205,616. DUMPING-GRATE. EARL V. GILBERT and GEORGE H. KRAMER, Dayton, Ohio, assignors to The Kramer Brothers Foundry Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 8, 1914. Serial No. 876,160. (Cl. 126—169.)



1. The combination with an oscillatory grate unit of an operating lever therefor, a detent carried by the lever, fixed stops spaced one from the other and alternately engaged by the detent permitting a limited movement of the lever in either direction of less extent than the full stroke of which said lever is capable, said detent being movable independent of the lever out of position to engage the stops, thereby permitting the lever an additional degree of movement.

2. The combination with an oscillatory grate of an operating lever therefor, an arm pivoted to the lever, a lug on said arm, a rest for the arm having therein a recess having inwardly projecting shoulders beneath which the said lug engages at the limit of its stroke in either direction, substantially as and for the purpose specified.

3. The combination with an oscillatory grate unit of an operating lever therefor, a bracket to which the lever is pivoted said bracket having a recess therein provided with beveled shoulders, an arm pivoted to the operating lever and normally projecting into the recess in the bracket, the engaging portion of the arm being of less extent than the recess permitting a limited movement of the arm therein, the opposite faces of the engaging portion being beveled to engage beneath the beveled shoulders of the recess adapted by its engagement with the sides of the recess to limit the movement of the lever, said arm being capable of disengagement from the recess by its oscillatory movement about its pivotal connection with the lever to permit the lever an additional movement.

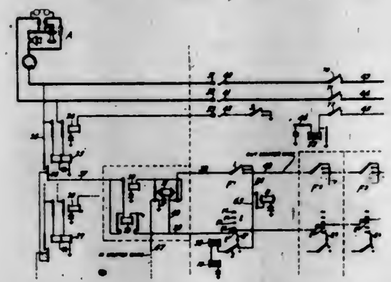
4. The combination with a series of rocking grate bars, of a reciprocatory actuating member operatively connected with the several grate bars, a lever connected with said actuating member, two fixed stops arranged in spaced relation one with the other, a detent pivotally mounted on said lever, said detent being movable into and out of position intermediate the said fixed stops, said fixed stops being spaced apart to permit the lever to have

limited movement and serving to positively limit the movement of said lever in either direction to a degree less than the full stroke of which said lever is capable, said detent being movable to disengage the same from the stud to permit of a longer movement of said lever.

5. The combination with a series of grate bars, and a reciprocating actuating bar therefor, of a lever connected with said bar, a detent to lock said bar against all movement, a fixed stop, a second detent connected with the lever and coöperating with said stop to permit the said lever to have a limited movement when said first mentioned detent is in its inoperative position, said last detent being also movable into an inoperative position to permit the unlimited movement of said lever.

[Claims 6 and 7 not printed in the Gazette.]

1,205,617. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 22, 1916. Serial No. 99,127. (Cl. 179—18.)



1. In an automatic telephone exchange system wherein calling lines are divided into groups, the groups terminating in different sections of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, driving means for said carriers, and multiply connected brushes mounted on said carriers, one for each section of terminals, of means associated with said carriers and so constructed and arranged that upon the simultaneous initiation of calls in several of said groups, brushes, each serving a different section, will be simultaneously driven over such sections by said driving means in search of the calling lines.

2. In an automatic telephone exchange system wherein calling lines are divided into groups, said groups terminating in different sections of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, and multiply connected brushes mounted thereon, one for each section of terminals, said brushes being normally in inoperative relation to the sections they are adapted to serve, of means associated with said carriers and so constructed and arranged that upon the simultaneous initiation of calls in several of said groups, brushes, each serving a different section, will be rendered operative, and means for thereupon driving said carriers to cause said brushes to wipe over the corresponding sections in search of the calling lines.

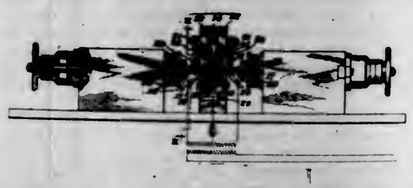
3. In an automatic telephone exchange system wherein calling lines are divided into groups, said groups terminating in different sections of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, and multiply connected brushes mounted thereon, one for each section of terminals, said brushes being normally in inoperative relation to the sections they are adapted to serve, of a trip rod associated with each carrier, each rod having a tripping device for each brush thereon, means for actuating said rod to render one of said brushes operative upon the initiation of a call, the relation of the tripping devices to the brushes on the various carriers being such that when calls come in from several of the groups simultaneously said trip rods render operative brushes serving a different section in each row, and means for driving said carriers to cause said brushes to wipe over the corresponding sections in search of the calling lines.

4. In an automatic telephone exchange system wherein calling lines are divided into groups, said groups terminating in different sections of a vertical row of terminals multiplied across the face of a panel so as to be accessible to a number of brush carriers, the combination with a carrier for each vertical row, driving means for said carriers, and multiply connected brushes mounted on said carriers, one for each section of the row, of means associated with said carriers and constructed and arranged, upon the simultaneous initiation of calls in several of said groups, to cause said carriers to be driven by said driving means over said rows with a brush serving a different section in each row wiping over the terminals of said section in search of the calling lines.

5. In an automatic telephone exchange system wherein calling lines are divided into groups, each of said groups terminating in a different section of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, each carrier being allotted to a different line group, and multiply connected brushes mounted thereon, one for each section of terminals, each brush having a trip lever and resting at the base of the section it is adapted to serve and being normally pressed out of the line of the terminals, of a trip rod associated with each carrier, each rod having a tripping finger for each brush thereon, means for simultaneously rotating said rods upon the initiation of a call in each group, the relation of the fingers on the various trip rods being such that a finger associated with a brush serving a different section in each row is interlocked with the lever of such brush, and means for driving said carriers, during which movement said fingers cause the corresponding levers to trip the associated brushes.

[Claims 6 and 7 not printed in the Gazette.]

1,205,618. SPEECH-TRANSMITTING MECHANISM. ELWOOD GAISSINGER, Buffalo, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 17, 1914. Serial No. 862,132. (Cl. 179—170.)



1. An instrument of the kind described having a vibratory system including an arm supported on a member resisting vibration by its elastic resistance to torsion and such resistance being sufficient to impart to the system as a whole a frequency below the limit of audibility but in excess of the frequency of the highest resonance period of vowel sounds.

2. An instrument of the kind described having a vibratory system including a rod or member fixed at both ends and subject to torsion by force applied between its ends and having a torsional resistance suited to give a natural frequency to the said system as a whole, below the limit of audibility but in excess of the resonance region of vowel sounds.

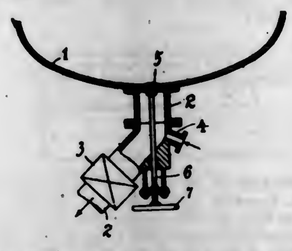
3. A telephonic transmitting device comprising a microphone cell, means connected therewith to operate it and a torsion member connected to such means and impressing thereon a natural frequency period below the limit of audibility but higher than the highest resonance region of vowel sounds.

4. A transmitting means for telephonic apparatus comprising a microphone, means for operating the same, comprising a lever, said means and lever having a natural frequency above 1000 vibrations per second and said microphone lever and parts thereof having only one resonance region below 2000 vibrations per second, in combination with means for operating said parts by human speech waves.

5. In a telephone repeater, the combination of opposed electro-magnets, a variable resistance medium located between said magnets and having relatively movable electrodes, one of said electrodes having an armature on each side thereof, and torsion means for imparting to the movable system a natural frequency below the limit of audibility but in excess of the frequency of the highest resonance period of vowel sounds.

[Claims 6 to 10 not printed in the Gazette.]

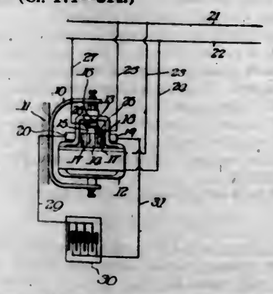
1,205,619. RECEPTACLE FOR CHEMICAL PURPOSES. BJARNE HANSEN, Notodden, Norway, assignor to Norsk Hydro-elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed June 7, 1916. Serial No. 102,369. (Cl. 137—21.)



1. In a receptacle for carrying out chemical reactions, a discharge pipe connected to the receptacle, a free outlet from the receptacle to said pipe, a spherically surfaced valve controlling said outlet and opening into the receptacle, a valve in said pipe adjacent the aforesaid valve and a steam inlet between the valves.

2. In a receptacle for carrying out chemical reactions, a short, downwardly directed discharge pipe, a continuation of said pipe at an angle, a free outlet from the receptacle to said pipe, a spherically surfaced valve controlling said outlet and opening upwardly into the receptacle, a second valve in said continuation adjacent the first mentioned valve, and a steam inlet between the valves in said continuation.

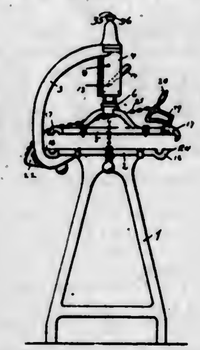
1,205,620. CHARGING STORAGE BATTERIES. VARIAN M. HARRIS, Chicago, Ill., assignor to Henry S. Hawley, trustee, Chicago, Ill. Filed Aug. 24, 1912. Serial No. 716,808. (Cl. 171—314.)



1. The method of charging storage batteries from an electric current having phase waves, which consists in interrupting said current in the portions of said waves below a predetermined voltage, said predetermined voltage being sufficiently below the mean counter-electromotive force of said battery to compensate for the electrolytic lag thereof, substantially as described.

2. A method of charging storage batteries from a source of alternating current, which consists in converting said alternating current into unidirectional pulsating current having phase waves and interrupting said current in the portions of said waves below a predetermined voltage, said predetermined voltage being sufficiently below the mean counter-electromotive force of said battery to compensate for the electrolytic lag thereof, substantially as described.

1,205,621. SHEET-METAL-FOLDING MACHINE. MATTHEW E. HASTINGS, New York Mills, N. Y. Filed May 29, 1915. Serial No. 31,305. (Cl. 153—17.)



1. The combination in a sheet-metal-folding machine of a table, a presser-plate adapted to descend upon the table, oppositely disposed halved-bearings at the edges of said table and of said presser plate, turning-brakes mounted in said halved bearings and means adapted to lock said halved bearings together when the presser plate is in lowered position.

2. The combination in a sheet-metal-folding machine of a table, a presser-plate adapted to descend upon the table, oppositely disposed halved bearings at the edges of said table and of said presser-plate, turning-brakes mounted in said halved bearings and means adapted to automatically lock said halved bearings together upon the presser-plate being lowered.

3. The combination in a sheet-metal-folding machine of a table, a presser-plate adapted to descend upon the table with a downwardly and sidewise movement, oppositely disposed halved bearings at the edges of said table and of said presser-plate, turning-brakes mounted in said halved bearings and projections adjacent to said halved bearings on the table and on the presser-plate adapted to interlock upon the presser-plate being moved downwardly and sidewise.

4. The combination in a sheet-metal-folding machine of a table, a framework extending thereabove, a presser-plate adapted to descend upon the table and hold the sheet of metal placed thereon, a stem extending upwardly from said presser-plate and a plurality of links each pivotally connected to said stem and said frame and adapted to allow said presser-plate to descend with a downward and sidewise movement.

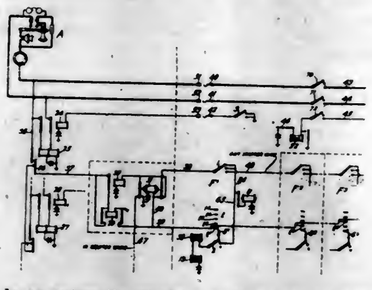
5. The combination in a sheet-metal-folding machine of a table, a framework extending thereabove, a presser-plate adapted to descend upon the table and hold the sheet of metal placed thereon, a stem extending upwardly from said presser-plate, a plurality of links each pivotally connected to said stem and said frame and adapted to allow said presser-plate to descend with a downward and sidewise movement, halved-bearings adjacent the edges of

limited movement and serving to positively limit the movement of said lever in either direction to a degree less than the full stroke of which said lever is capable, said detent being movable to disengage the same from the stud to permit of a longer movement of said lever.

5. The combination with a series of grate bars, and a reciprocating actuating bar therefor, of a lever connected with said bar, a detent to lock said bar against all movement, a fixed stop, a second detent connected with the lever and coöperating with said stop to permit the said lever to have a limited movement when said first mentioned detent is in its inoperative position, said last detent being also movable into an inoperative position to permit the unlimited movement of said lever.

[Claims 6 and 7 not printed in the Gazette.]

1,205,617. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 22, 1916. Serial No. 99,127. (Cl. 179—18.)



1. In an automatic telephone exchange system wherein calling lines are divided into groups, the groups terminating in different sections of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, driving means for said carriers, and multiply connected brushes mounted on said carriers, one for each section of terminals, of means associated with said carriers and so constructed and arranged that upon the simultaneous initiation of calls in several of said groups, brushes, each serving a different section, will be simultaneously driven over such sections by said driving means in search of the calling lines.

2. In an automatic telephone exchange system wherein calling lines are divided into groups, said groups terminating in different sections of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, and multiply connected brushes mounted thereon, one for each section of terminals, said brushes being normally in inoperative relation to the sections they are adapted to serve, of means associated with said carriers and so constructed and arranged that upon the simultaneous initiation of calls in several of said groups, brushes, each serving a different section, will be rendered operative, and means for thereupon driving said carriers to cause said brushes to wipe over the corresponding sections in search of the calling lines.

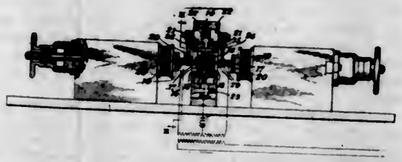
3. In an automatic telephone exchange system wherein calling lines are divided into groups, said groups terminating in different sections of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, and multiply connected brushes mounted thereon, one for each section of terminals, said brushes being normally in inoperative relation to the sections they are adapted to serve, of a trip rod associated with each carrier, each rod having a tripping device for each brush thereon, means for actuating said rod to render one of said brushes operative upon the initiation of a call, the relation of the tripping devices to the brushes on the various carriers being such that when calls come in from several of the groups simultaneously said trip rods render operative brushes serving a different section in each row, and means for driving said carriers to cause said brushes to wipe over the corresponding sections in search of the calling lines.

4. In an automatic telephone exchange system wherein calling lines are divided into groups, said groups terminating in different sections of a vertical row of terminals multiplied across the face of a panel so as to be accessible to a number of brush carriers, the combination with a carrier for each vertical row, driving means for said carriers, and multiply connected brushes mounted on said carriers, one for each section of the row, of means associated with said carriers and constructed and arranged, upon the simultaneous initiation of calls in several of said groups, to cause said carriers to be driven by said driving means over said rows with a brush serving a different section in each row wiping over the terminals of said section in search of the calling lines.

5. In an automatic telephone exchange system wherein calling lines are divided into groups, each of said groups terminating in a different section of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, each carrier being allotted to a different line group, and multiply connected brushes mounted thereon, one for each section of terminals, each brush having a trip lever and resting at the base of the section it is adapted to serve and being normally pressed out of the line of the terminals, of a trip rod associated with each carrier, each rod having a tripping finger for each brush thereon, means for simultaneously rotating said rods upon the initiation of a call in each group, the relation of the fingers on the various trip rods being such that a finger associated with a brush serving a different section in each row is interlocked with the lever of such brush, and means for driving said carriers, during which movement said fingers cause the corresponding levers to trip the associated brushes.

[Claims 6 and 7 not printed in the Gazette.]

1,205,618. SPEECH-TRANSMITTING MECHANISM. ELWOOD GRISSINGER, Buffalo, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 17, 1914. Serial No. 862,132. (Cl. 179—170.)



1. An instrument of the kind described having a vibratory system including an arm supported on a member resisting vibration by its elastic resistance to torsion and such resistance being sufficient to impart to the system as a whole a frequency below the limit of audibility but in excess of the frequency of the highest resonance period of vowel sounds.

2. An instrument of the kind described having a vibratory system including a rod or member fixed at both ends and subject to torsion by force applied between its ends and having a torsional resistance suited to give a natural frequency to the said system as a whole, below the limit of audibility but in excess of the resonance region of vowel sounds.

3. A telephonic transmitting device comprising a microphone cell, means connected therewith to operate it and a torsion member connected to such means and impressing

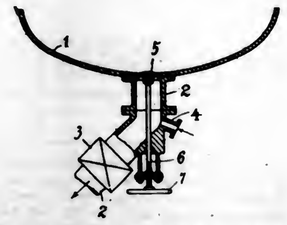
thereon a natural frequency period below the limit of audibility but higher than the highest resonance region of vowel sounds.

4. A transmitting means for telephonic apparatus comprising a microphone, means for operating the same, comprising a lever, said means and lever having a natural frequency above 1000 vibrations per second and said microphone lever and parts thereof having only one resonance region below 2000 vibrations per second, in combination with means for operating said parts by human speech waves.

5. In a telephone repeater, the combination of opposed electro-magnets, a variable resistance medium located between said magnets and having relatively movable electrodes, one of said electrodes having an armature on each side thereof, and torsion means for imparting to the movable system a natural frequency below the limit of audibility but in excess of the frequency of the highest resonance period of vowel sounds.

[Claims 6 to 10 not printed in the Gazette.]

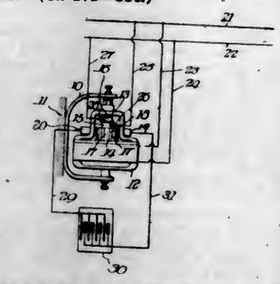
1,205,619. RECEPTACLE FOR CHEMICAL PURPOSES. BJARNE HANSEN, Notodden, Norway, assignor to Norsk Hydro-elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed June 7, 1916. Serial No. 102,369. (Cl. 137—21.)



1. In a receptacle for carrying out chemical reactions, a discharge pipe connected to the receptacle, a free outlet from the receptacle to said pipe, a spherically surfaced valve controlling said outlet and opening into the receptacle, a valve in said pipe adjacent the aforesaid valve and a steam inlet between the valves.

2. In a receptacle for carrying out chemical reactions, a short, downwardly directed discharge pipe, a continuation of said pipe at an angle, a free outlet from the receptacle to said pipe, a spherically surfaced valve controlling said outlet and opening upwardly into the receptacle, a second valve in said continuation adjacent the first mentioned valve, and a steam inlet between the valves in said continuation.

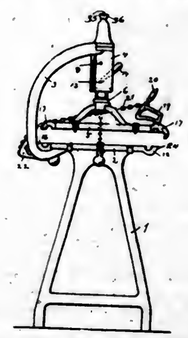
1,205,620. CHARGING STORAGE BATTERIES. VARIAN M. HARRIS, Chicago, Ill., assignor to Henry S. Hawley, trustee, Chicago, Ill. Filed Aug. 24, 1912. Serial No. 716,808. (Cl. 171—314.)



1. The method of charging storage batteries from an electric current having phase waves, which consists in interrupting said current in the portions of said waves below a predetermined voltage, said predetermined voltage being sufficiently below the mean counter-electromotive force of said battery to compensate for the electrolytic lag thereof, substantially as described.

2. A method of charging storage batteries from a source of alternating current, which consists in converting said alternating current into unidirectional pulsating current having phase waves and interrupting said current in the portions of said waves below a predetermined voltage, said predetermined voltage being sufficiently below the mean counter-electromotive force of said battery to compensate for the electrolytic lag thereof, substantially as described.

1,205,621. SHEET-METAL-FOLDING MACHINE. MATTHEW E. HASTINGS, New York Mills, N. Y. Filed May 29, 1915. Serial No. 31,305. (Cl. 153—17.)



1. The combination in a sheet-metal-folding machine of a table, a presser-plate adapted to descend upon the table, oppositely disposed halved-bearings at the edges of said table and of said presser plate, turning-brakes mounted in said halved bearings and means adapted to lock said halved bearings together when the presser plate is in lowered position.

2. The combination in a sheet-metal-folding machine of a table, a presser-plate adapted to descend upon the table, oppositely disposed halved bearings at the edges of said table and of said presser-plate, turning-brakes mounted in said halved bearings and means adapted to automatically lock said halved bearings together upon the presser-plate being lowered.

3. The combination in a sheet-metal-folding machine of a table, a presser-plate adapted to descend upon the table with a downwardly and sidewise movement, oppositely disposed halved bearings at the edges of said table and of said presser-plate, turning-brakes mounted in said halved bearings and projections adjacent to said halved bearings on the table and on the presser-plate adapted to interlock upon the presser-plate being moved downwardly and sidewise.

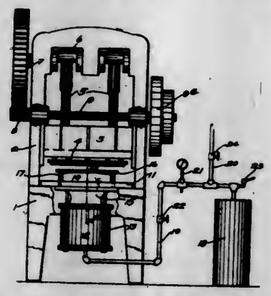
4. The combination in a sheet-metal-folding machine of a table, a framework extending thereabove, a presser-plate adapted to descend upon the table and hold the sheet of metal placed thereon, a stem extending upwardly from said presser-plate and a plurality of links each pivotally connected to said stem and said frame and adapted to allow said presser-plate to descend with a downward and sidewise movement.

5. The combination in a sheet-metal-folding machine of a table, a framework extending thereabove, a presser-plate adapted to descend upon the table and hold the sheet of metal placed thereon, a stem extending upwardly from said presser-plate, a plurality of links each pivotally connected to said stem and said frame and adapted to allow said presser-plate to descend with a downward and sidewise movement, halved-bearings adjacent the edges of

said table and of said presser-plate, turning-brakes mounted therein and projections adjacent to said halved bearings adapted to interlock upon the presser plate being moved downwardly and sidewise.

[Claim 6 not printed in the Gazette.]

1,205,622. DRAW-PRESS. BERT H. HAWKINS, Detroit, Mich., assignor to McCord Manufacturing Company, Detroit, Mich., a Corporation of Maine. Filed July 6, 1914. Serial No. 849,110. (Cl. 113—50.)



1. In a draw press, the combination with coöperating dies and a stripper plate, of an air storage receptacle, and a movable element subject to air pressure delivered therefrom, supporting said stripper plate for limited movement, the capacity of said air storage receptacle being so great, in respect to the movement of said movable element and stripper plate, that variation in the fluid pressure in said storage receptacle and on said movable element, due to movements of the latter and said stripper plate, is rendered negligible.

2. In a draw press, the combination with coöperating dies and a stripper plate, of an expansible fluid pressure chamber yieldingly supporting said stripper plate, and an equalizing tank connected to said expansible fluid pressure chamber.

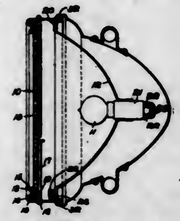
3. In a draw press, the combination with coöperating dies and die operating mechanism, of a stripper plate cooperating with said dies, a fixed cylinder, a piston working in said cylinder and supporting said stripper plate, and an equalizing tank connected to said cylinder and having such capacity that the displacement caused by the movement of the piston raises the pressure only a negligible amount.

4. In a draw press, the combination with coöperating dies and die operating mechanism, of a stripper plate cooperating with said dies, a fixed cylinder, a piston working in said cylinder and supporting said stripper plate, an air tank connected to said cylinder, and a valved air supply pipe leading to said tank.

5. In a draw press, the combination with coöperating dies and die operating mechanism, of a stripper plate cooperating with said dies, a fixed cylinder, a piston working in said cylinder and supporting said stripper plate, an equalizing tank connected to said cylinder, a valved air air supply pipe leading to said tank, and a pressure gage applied to indicate the equalized pressure in said cylinder and tank.

1,205,623. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed May 19, 1913. Serial No. 768,399. (Cl. 240—41.)

1. In a lamp, the combination of a lamp casing having packing receiving grooves, a light transmitting closure for said casing, packings of suitable material in the grooves, against which packing the outer face of said closure is disposed, and means to retain said closure against the packing thereby to insure a tight joint to exclude moisture and dust from the interior of the lamp casing, the packing in one of said grooves closing the joint at the edge of the casing and the packing in the other that at the edge of the closure.



2. In a lamp, the combination of a lamp-casing comprising a body portion provided with laterally projecting lugs, a bezel swiveled upon said body portion and provided with a circumferential groove in which said lugs are normally located, and provided with a recess through which one of said lugs may be withdrawn, a threaded lug on said body portion, and a screw passing through said bezel into said threaded lug.

1,205,624. SWITCH. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed July 31, 1913. Serial No. 782,215. (Cl. 175—282.)



1. An apparatus of the class described comprising, in combination, a casing having a cover provided with an opening, a switch in said casing, and a switch handle normally accessible through said opening but having provision whereby it may be placed within said casing and rendered inaccessible from the exterior thereof.

2. An apparatus of the class described comprising, in combination, a casing provided with an opening, a switch in said casing, a switch handle normally accessible through said opening for manual prehension, and having provision for rendering said handle inaccessible from the exterior of said casing.

3. An apparatus of the class described comprising, in combination, a casing having a cover provided with a lateral slot, a switch in said casing, and a hinged switch handle normally projecting through said slot but capable of being swung about its pivot to a position within said cover.

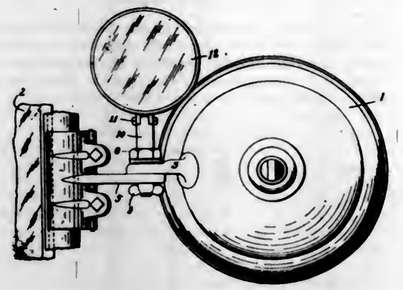
4. An apparatus of the class described comprising, in combination, a casing having a cover provided with a slot having an open end forming an entrance from the edge of said cover, a switch in said casing, and a hinged switch handle adapted to enter said slot through its open end and play to and fro in said slot during its normal operation of completing and interrupting a circuit.

5. An apparatus of the class described comprising, in combination, a casing having a cover provided with a slot having a main portion parallel with the margin of the cover and a part forming an entrance from the edge of and disposed transverse to the margin, a switch in said casing, and a switch handle movably connected to the switch and adapted to play to and fro in said main portion during its normal operation of completing and interrupting a circuit.

[Claims 6 to 8 not printed in the Gazette.]

1,205,625. VEHICLE-LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed June 26, 1916. Serial No. 105,788. (Cl. 240—57.)

1. In combination, a lamp, a bracket for mounting said lamp in universally adjustable relation to a windshield, and a mirror mounted on said bracket between the lamp and the windshield so as to be guarded and protected thereby and adjustable independently of the adjustment of the lamp.



2. In combination, a lamp, a bracket for mounting said lamp in universally adjustable relation to a windshield, and a mirror reversibly and invertibly mounted on said bracket between the lamp and the windshield so as to be guarded and protected thereby and adjustable independently of the adjustment of the lamp.

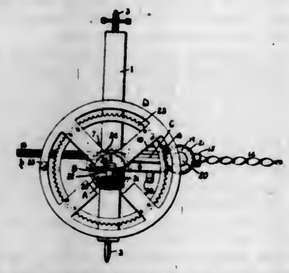
3. In combination, a lamp, a bracket comprising a windshield engaging arm and a lamp carrying arm swiveled to each other, and a mirror mounted on said bracket at said swivel connection.

4. In combination, a lamp, a bracket comprising a windshield engaging arm and a lamp carrying arm swiveled to each other, a stem disposed through said swivel connection, and a mirror on said arm.

5. In combination, a lamp, a bracket comprising a windshield engaging arm and a lamp carrying arm swiveled to each other, a stem disposed through said swivel connection, and a mirror pivoted on said stem.

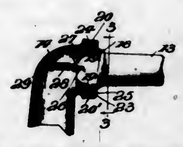
[Claims 6 and 7 not printed in the Gazette.]

1,205,626. DRILLING-MACHINE. RICHARD HEFLIN, Sandoval, Ill. Filed Nov. 18, 1915. Serial No. 62,105. (Cl. 255—46.)



A drilling machine comprising a supporting frame, an adjustable supporting member, fitted to the supporting frame, having a laterally extending stud, a bearing seat having a lug-aperture in the bottom thereof and provided with a pair of trunnions whereby it is mounted in the supporting member, a shiftable bearing mounted in the bearing seat, consisting of a lower bearing section having bearing lugs adapted to occupy the lug-aperture in the bearing seat, and an upper bearing section secured to the lower bearing section, an internally screw-threaded sectional sleeve, secured between the bearing sections, a longitudinally grooved feed-screw adapted to work in the sectional sleeve, a bevel gear wheel splined to the feed screw and fitted to one end of the shiftable bearing, a bevel gear wheel meshing with the first mentioned bevel gear wheel and provided with a transmission gear wheel, and a multiple drive wheel, mounted on the laterally extending stud, having an inner gear wheel and an outer gear ring adapted to engage the transmission gear wheel.

1,205,627. TONE-ARM MOUNTING FOR TALKING-MACHINES. FRANK C. HINCKLEY and LOUIS G. LARSEN, Bridgeport, Conn., assignors to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed July 31, 1915. Serial No. 43,009. (Cl. 274—23.)



1. In a talking machine, the combination of a casing, an amplifier, a hollow stationary elbow mounted on said casing and communicating at its lower end with said amplifier, a tone-arm provided with a bulged or spherical portion surrounded by the upper horizontal end of said elbow, and opposed vertical pivot pins carried by one of said last two members and engaging opposed slots in the other of said members.

2. In a talking machine, the combination of a casing, an amplifier, a hollow stationary elbow mounted on said casing and communicating at its lower end with said amplifier, a tone-arm provided with a bulged or spherical portion surrounded by the upper horizontal end of said elbow, and opposed vertical pivot pins carried by said upper end of said elbow and engaging in opposed slots in said spherical portion.

3. In a talking machine, the combination of a casing, an amplifier, a hollow stationary elbow mounted on said casing and communicating at its lower end with said amplifier, a tone-arm provided with a bulged or spherical portion surrounded by the upper horizontal end of said elbow, opposed vertical pivot pins carried by one of said last two members and engaging opposed slots in the other of said members, and a spring reacting between said spherical portion and said elbow.

4. In a talking-machine, the combination of a casing, an amplifier, a hollow stationary member mounted on said casing and communicating at its lower end with said amplifier, a tone-arm provided with a bulged or spherical portion surrounded by the upper end of said stationary member, a felt washer interposed between said upper end of said stationary member and said spherical portion, and opposed pivot pins carried by said upper end of said stationary member and engaging in opposed slots in said spherical portion.

5. In a talking machine, a hollow stationary member, a tone-arm provided with a bulged or spherical portion surrounded by one end of said stationary member, a felt washer interposed between said end of the stationary member and said spherical portion, and an annular member carried by said end of the stationary member and having an inwardly extending flange provided with an elliptical opening.

[Claims 6 to 14 not printed in the Gazette.]

1,205,628. PORTABLE ELECTRIC LIGHT. GUSTAVE FREDERICK HITZELBERGER, London, England, assignor to American Ever Ready Company, a Corporation of New York. Filed Mar. 9, 1914. Serial No. 823,300. (Cl. 175—282.)

1. A circuit closer for a portable electric light comprising, in combination, a tubular supporting column of electrically conductive material having apertures therein at opposite sides of the column, an electrically conductive circuit-closing member slidable through the apertures in electrically conductive connection with the column and including portions joined together to provide shoulders,

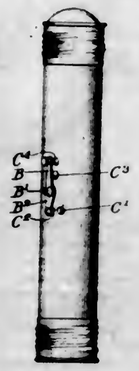
a contact piece and an insulating member both clamped between the shoulders of the circuit-closing member and movable therewith, an insulating plug held in place within the tubular conductive column by the slidable circuit-closing member, a resilient contact member carried by the insulating plug and engageable with the contact piece and with the movable insulating member to maintain the closed circuit or the open circuit condition according to the position of the slidable circuit-closing member, a circuit-completing post carried by the insulating plug in electrically conductive connection with the resilient contact member and projecting upward within the tubular conductive column, a spacing disk of insulating material carried by the post in spaced relation to the insulating plug, and a resilient contact terminal projecting upward from the upper end of the post in electrically conductive connection therewith.



2. A circuit closer for a portable electric light comprising, in combination, a tubular supporting column of electrically conductive material having apertures therein at opposite sides of the column, an electrically conductive circuit-closing member slidable through the apertures in electrically conductive connection with the column, an insulating plug held in place within the tubular conductive column by the slidable circuit-closing member, an insulating member carried by the slidable electrically conductive circuit-closing member to move therewith within the tubular conductive column, a spring-pressed contact member carried by the insulating plug and engageable with the slidable circuit-closing member and the movable insulating member to maintain the closed circuit or the open circuit condition according to the position of the slidable circuit-closing member, a circuit-completing post carried by the insulating plug in electrical connection with the spring-pressed contact member and projecting upward from such plug within the tubular conductive column, and a contact spring carried by the upper end of the post.

3. A circuit closer for a portable electric light comprising, in combination, a tubular supporting column of electrically conductive material having apertures therein at opposite sides of the column, an insulating block of cup shape in the tubular conductive column having opposite apertures therein in registry with the apertures of the column, an electrically conductive circuit-closing member in electrically conductive connection with the column and slidable through the aligned apertures in the column and block and holding the latter in place in the former, such circuit-closing member having stem portions joined together to provide a middle reduced portion between opposite shoulders within the cup-shaped insulating block, a contact piece and an insulating member on the reduced portion of the circuit-closing member and clamped between the shoulders thereof, a circuit-completing post carried by the insulating block and projecting upward within the tubular conductive column, a spring-pressed contact member secured to the lower end of the post and having engagement with the contact piece and the insulating member to maintain the closed circuit or the open circuit condition according to the position of the circuit-closing member, and a spring-pressed contact terminal carried by the upper end of the post.

1,205,629. CIRCUIT-CONTROLLER FOR PORTABLE ELECTRIC LIGHTS. GUSTAVE FARDERICK HITZELBERGER, London, England, assignor to National Carbon Company, a Corporation of New Jersey. Filed Jan. 6, 1915. Serial No. 742. (Cl. 175—282.)



1. A circuit controller for a portable electric light comprising a resilient pivoted circuit-closing lever yieldable in a plane coincident with its pivotal axis, a stationary contact-making stud projecting into the rotational path of the lever for closing the circuit through the lever, the lever and the stud having interengaging surfaces for yieldingly holding the lever in contact-making engagement with the stud, another stationary contact member out of the rotational path of the lever in another rotative position of the lever so that the resilient lever may be manually depressed to close the circuit through the latter contact member and automatic opening of the circuit may be effected by reason of the resiliency of the lever, and means for yieldingly holding the lever at the rotational position for such manual circuit-closing actuation.

2. A circuit controller for a portable electric light comprising a pivoted circuit-closing lever having two resilient arms each yieldable in a plane coincident with the pivotal axis of the lever, a lever-holding the contact-making stud projecting into the rotational path of one of the resilient lever arms and engageable therewith for yieldingly holding the lever at the corresponding rotative position with the circuit closed through the lever and such stud, and another stationary contact member in register with but out of the rotational path of the other resilient lever arm in another rotative position of the lever and providing for the manual depression of the lever arm to close the circuit and the automatic return of such lever arm to open the circuit, and means for yieldingly holding the lever at the rotational position for such manual circuit-closing actuation.

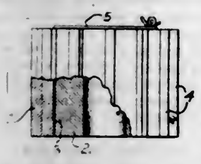
3. A circuit controller for a portable electric light comprising a resilient pivoted circuit-closing lever yieldable in a plane coincident with its pivotal axis, two studs projecting into the rotational path of the lever at different places in such path, the lever and the studs having interengaging surfaces for yieldingly holding the lever in engagement with each stud, one of these studs forming also a stationary contact member by which the circuit is closed through the lever, and the other stud having no circuit connections, and another stationary contact member out of the rotational path of the lever in its rotative position corresponding to the unconnected lever-holding stud so that the resilient lever may be manually depressed to close the circuit through the latter contact member and automatic opening of the circuit may be effected by reason of the resiliency of the lever.

4. A circuit controller for a portable electric light comprising a pivoted circuit-closing lever having two resilient arms yieldable in a plane coincident with the pivotal axis of the lever, two lever-holding studs projecting into the rotational path of one of the resilient lever arms and engageable therewith to yieldingly hold the lever at the corresponding rotative position, one of these studs forming also a stationary contact member by which the circuit is closed through the lever, the other lever-holding stud having no circuit connections, and another stationary contact member in register with but out of the rotational path of the other resilient lever arm in a rotative position of the lever in which the lever is engaged by the unconnected lever-holding stud, providing for the manual depression of the lever arm to close the circuit and the automatic return of such lever arm to open the circuit.

5. A circuit controller for a portable electric light comprising a resilient circuit-closing lever yieldable in a plane coincident with its pivotal axis, three studs projecting into the rotational path of the lever at different places in such path, the lever and the studs having interengaging surfaces for yieldingly holding the lever in engagement with each stud, one of these studs forming also a stationary contact member by which the circuit is closed through the lever, and the other two studs having no circuit connections, and another stationary contact member out of the rotational path of the lever in one of its rotative positions corresponding to one of the unconnected lever-holding studs so that the resilient lever may be manually depressed to close the circuit through the latter contact member and automatic opening of the circuit may be effected by reason of the resiliency of the lever.

[Claims 6 to 9 not printed in the Gazette.]

1,205,630. METHOD OF MAKING CUTTERS. WILLIAM P. HOGLUND, Hartford, Conn. Filed Mar. 27, 1916. Serial No. 86,831. (Cl. 76—101.)

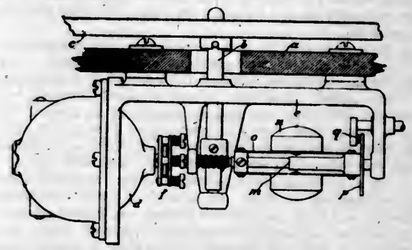


A method of making cutters comprising inserting a plurality of cutter blades of high speed steel into the peripheral grooves of a body of softer steel, so that the blades will be gripped by the side walls of the grooves, supporting binding means for the blades on an end of the body adjacent the butts of said blades and which fuses approximately at the hardening heat of the blades, and then hardening the blades to effect fusion of the binding means and the running of the fused material into said grooves.

1,205,631. DRIVING APPARATUS FOR PHONOGRAPHS. ALLEN A. HORTON, Detroit, Mich. Filed Oct. 23, 1915. Serial No. 57,426. (Cl. 74—45.)

1. In driving apparatus for phonographs, the combination of a drive shaft, a driven shaft, load producing apparatus connecting with the latter for increasing the load when the shaft accelerates beyond a given speed, and a spring actuated clutch interposed between the drive shaft and the driven shaft, the clutch parts being so stressed as to maintain a uniform speed for the driven shaft although the drive shaft speeds up, such uniform speed being accomplished by the clutch parts slipping due to increased load due to the load producing apparatus.

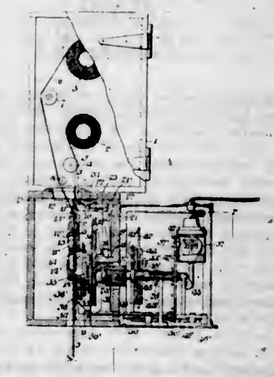
2. In driving apparatus for phonographs, the combination of a drive shaft, a driven shaft, load producing apparatus connecting with the latter for increasing the load when the driven shaft is accelerated above a given speed, and a clutch interposed between the drive shaft and the driven shaft and comprising a plurality of disks yieldingly pressed against each other by a force calculated to allow a certain amount of slippage of the disks when the drive shaft accelerates above a given speed to secure uniformity of speed of the driven shaft.



3. In phonograph driving apparatus, the combination of a drive shaft, a driven shaft, the latter of which is divided into two parts which telescope, a friction disk on the movable telescoping part, a governor for controlling the sliding of the telescoping parts, a friction point against which the friction disk may be brought, and a clutch interposed between the drive shaft and the driven shaft and calculated to slip to a certain extent when the governor throws the friction disk and friction point together to increase the load on the driven shaft, such slippage being calculated to secure uniform speed for the driven shaft.

4. In driving apparatus for phonographs, the combination of a drive shaft, a driven shaft, load producing apparatus connected directly with the driven shaft for varying the load upon the driven shaft in accordance with the speed thereof, and a clutch connection between the drive shaft and the driven shaft, the said clutch parts being maintained in such frictional engagement as to avoid the transmission of sudden changes of speed from the driven shaft to the drive shaft and also to maintain uniformity of speed of the driven shaft by reason of a certain amount of slippage at the clutch when the load producing apparatus increases the load when there is a tendency to accelerate.

1,205,632. PHOTOGRAPHIC-PRINTING MACHINE. LODEWYK J. R. HOLST, Philadelphia, Pa., assignor to Lubin Film Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 23, 1914. Serial No. 868,185. (Cl. 95—75.)



1. In a photographic printing machine, means for feeding a film, adjustable mechanism for regulating the light

passing therethrough to said film, and automatic means for variably adjusting said mechanism proportionately to the density of the film.

2. In a photographic printing machine, means for feeding a film, a movable device for regulating the light passing to said film, and means for automatically moving said device variable predetermined distances proportionately to irregular differences of density between successive sections of said film.

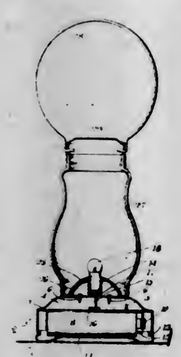
3. In a photographic printing machine, the combination of revoluble shutter mechanism, a source of light, a device having apertures adapted for regulating the amount of light passed from said source of light through said shutter mechanism, and means comprising an electric circuit whereby said device is operated to change the aperture disposed between said source of light and shutter when the latter cuts off the light from said film.

4. In a photographic printing machine, revoluble shutter mechanism, a lamp, an apertured device revoluble between said lamp and shutter mechanism, means whereby said shutter mechanism turns said apertured device and changes the aperture through which light is passed, and electromagnetic mechanism whereby said means last named are brought into operative relation.

5. In a photographic printing machine, a shutter wheel, a lamp, a revoluble apertured device for passing light from said lamp through said shutter wheel, and means for operating said device by said shutter wheel, said means comprising a film, means for feeding said film across the path of light from said lamp through said apertured device and through said shutter wheel, and an electric circuit controlled by said film.

[Claims 6 to 23 not printed in the Gazette.]

1,205,633. PORTABLE ELECTRIC LIGHT. CONRAD HUBERT, New York, N. Y. Filed Mar. 6, 1915. Serial No. 12,479. (Cl. 240—8.5.)



1. A portable electric light comprising an electrically conductive battery-containing casing, an electrically conductive battery holder in the casing in electrically conductive connection with one of the battery contact terminals and insulated from the casing and supporting the battery with both of its contact terminals out of electrical connection with the casing, an electrically conductive lamp socket carried by the casing and electrically connecting one terminal of the lamp to the casing and supporting the lamp with its other terminal in electrical connection with the battery holder, and a circuit closer for electrically conductively connecting the casing with the battery contact terminal which is not in electrical connection with the battery holder.

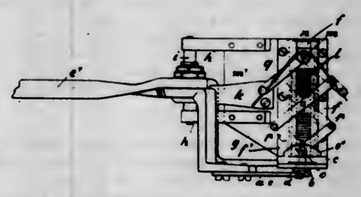
2. A portable electric light comprising an electrically conductive battery-containing casing, an electrically conductive battery holder in the casing in electrically conductive connection with one of the battery contact terminals, insulating means supporting the battery holder in the casing with both contact terminals of the battery out of electrical connection with the casing, an electrically conductive lamp socket carried by the casing and electrically connecting one terminal of the lamp to the casing, means forming an electrically conductive connection between the battery holder and the other terminal of the lamp, and a circuit closer for electrically connecting the casing with the battery contact terminal which is not in electrical connection with the battery holder.

3. A portable electric light comprising an electrically conductive battery-containing casing, an electrically conductive battery holder in the casing in electrically conductive connection with one of the battery contact terminals, insulating means supporting the battery holder in the casing with both contact terminals of the battery out of electrical connection with the casing, an electrically conductive lamp socket in contact with the outside of the casing, an electrically conductive combined contact-making and socket-holding member holding the lamp socket in place on the casing, such member being in contact at its inner end with the battery holder and at its outer end being exposed at the center of the bottom of the lamp socket in position to make electrical connection with the center terminal of the lamp, insulation interposed between such holding member and the lamp socket, such member also being out of electrical connection with the casing, and a circuit closer for electrically connecting the casing with the battery contact terminal which is not in electrical connection with the battery holder.

4. A portable electric light having, in combination, a sheet metal battery-containing casing of flattened cylindrical shape forming the base of the light and open at its lower flat side, a sheet metal battery-holding socket secured to the upper side of the casing and open at its lower side adjacent to the open lower side of the casing for inserting or removing the battery through the open side of the socket and casing, and a resilient sheet metal closure for the open lower side of the casing offset inwardly at the middle yieldingly to press upon and hold the battery in the socket, the closure and casing being provided with interengaging means for locking the closure in closed battery-retaining position on the casing.

5. A portable electric light having, in combination, a battery-containing casing, a lamp socket projecting from the outside of the casing, a convex reflector surrounding the lamp socket, a globe-supporting flange on the casing surrounding the reflector, and a chimney globe held by such flange and holding the reflector in place on the casing.

1,205,634. STAPLE-SETTING IMPLEMENT. HUBERT PETER HÜBSCH, Hamburg, Germany. Filed Apr. 18, 1916. Serial No. 92,016. (Cl. 1—49.)



1. A staple setting implement, comprising two pivoted members, each having a handle and a jaw, both jaws being laterally offset from the plane of the handles, and arranged parallel or substantially parallel to the same, and means operating during the movement of the jaws to feed a staple into driving position.

2. A staple setting implement comprising two pivoted members, each having a handle and a jaw, both jaws being laterally offset from the plane of the handles, and arranged parallel or substantially parallel to the same, a stapling head rotatably attached to the pivot of the members, the jaw of one member carrying an anvil, and a plunger connected with the jaw of the other member and vertically guided on the stapling head.

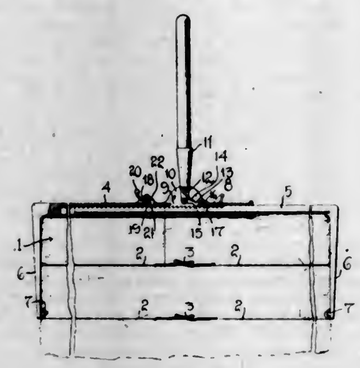
3. A staple setting implement comprising two pivoted members, each having a handle and a jaw, both jaws being laterally offset from the plane of the handles, and arranged parallel or substantially parallel to the same, a stapling head rotatably attached to the pivot of the members, the jaw of one member carrying an anvil, a plunger connected with the jaw of the other member and vertically guided on the stapling head, and a magazine for the staples attached to the stapling head.

4. A staple setting implement, comprising two pivoted members, each having a handle and a jaw, both jaws being laterally offset from the plane of the handles, and arranged parallel or substantially parallel to the same, a stapling head rotatably attached to the pivot of the members, the jaw of one member carrying an anvil, a plunger connected with the jaw of the other member and vertically guided on the stapling head, and a magazine for the staples arranged parallel to the axis of the pivot of the members and attached to the stapling head.

5. A staple-setting implement comprising two pivoted members, each having a handle and a jaw, both jaws being laterally offset from the plane of the handles and arranged parallel or substantially parallel to the same, a stapling head rotatably attached to the pivot of the members, the jaw of one member carrying an anvil, a plunger connected with the jaw of the other member and vertically guided on the stapling head, a magazine for the staples attached to the stapling head, and a spring pressed block guided within the magazine and adapted to press the staples toward the plunger.

[Claim 6 not printed in the Gazette.]

1,205,635. CLAMP. HERMAN L. HUMMEL, Telluride, Colo. Filed Apr. 17, 1916. Serial No. 91,699. (Cl. 100—15.)

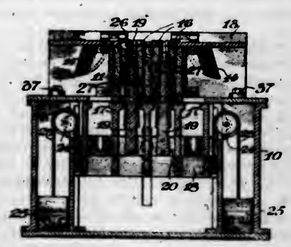


1. A device of the character described comprising a pair of telescoping sections, teeth formed upon one of said sections, a lever pivotally connected to the other section, a dog on said lever for engagement with the teeth of the other section, and a second dog carried by the second section and independent of the lever for engagement with the teeth of the first section, said second dog having a portion thereof extending exteriorly and in spaced relation to the second section for the purpose set forth.

2. A device of the character described comprising a pair of relatively longitudinally movable sections, each of said sections being provided with jaws, a lever pivotally connected to one of said sections, teeth formed on the other section, a dog pivoted to said lever and adapted to engage the teeth of the second section to move the same longitudinally of the first section upon the swinging of the lever, a second dog to prevent outward movement of the second section relative to the first section, and means to cause the first dog to automatically disengage itself from the teeth of the second section upon swinging the lever in an opposite direction.

3. A device of the character described comprising a pair of telescoping sections, each of said sections being provided with a jaw, one of said sections having a lever pivoted thereto, the other of said sections being provided with teeth, a dog pivoted to the lever for engagement with the teeth, a lug on one of said sections, said dog being provided with an annular face for engagement with said lug when the lever is moved in one direction for the purpose set forth.

1,205,636. TILE-PRESS. ROBERT E. HUNN, Oakland, Cal. Filed Mar. 13, 1916. Serial No. 83,792. (Cl. 25—1.)



1. In a device of the character described, the combination of means to receive and support a hollow tile, and means to form an impression on the face thereof.

2. In a device of the character described, the combination of means to receive a hollow tile, means to support the same at the walls of its cavities, and means to form an impression on one side thereof.

3. A device for forming impressions on hollow tiles, comprising means movable into the cavities of the tile and expansible therein to engage and support the walls thereof, and an impression member movable against the face of the tile to form an ornament thereon.

4. A device for forming impressions on hollow tiles, comprising a templet having hinged ends and a cover to receive a hollow tile, expansible supporting members movable into the cavities of the tile to support the walls thereof, and an impression member movable against the face of the tile.

5. A device for forming impressions on hollow tiles, comprising a templet removable and replaceable to receive various sized tiles, a plurality of expansible supporting members movable into the cavities in the tile and adjustable to provide for varying numbers of cavities, and an impression member movable against the face of the tile.

[Claims 6 to 10 not printed in the Gazette.]

1,205,637. DESTINATION-SIGN. LYTLE GALE HUNTER, Flushing, N. Y. Filed Jan. 2, 1915. Serial No. 81. (Cl. 40—94.)



1. In a destination sign, a pair of rollers, a sign-bearing web wound thereon, an operating shaft disposed trans-

versely of said rollers and rotatable in opposite directions, independent sets of gearing connecting said shaft with said rollers, and means including a plurality of clutch members movable transversely of the shaft whereby rotation of said shaft connects and disconnects said sets of gearing in accordance with the direction of rotation of said shaft.

2. In a destination sign, a pair of rollers, a sign-bearing web wound thereon, an operating shaft, independent sets of gearing movable relatively to and connecting said shaft with said rollers, and means whereby rotation of said shaft connects one set of gearing with its roller and disconnects the other set of gearing from its roller.

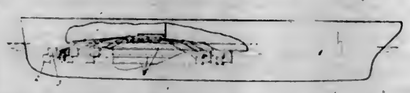
3. In a destination sign, a pair of rollers, a sign-bearing web wound thereon, an operating shaft rotatable in opposite directions, independent sets of gearing for driving each roller from said shaft, clutches actuated by and adapted to connect said sets of gearing to the respective rollers, and means whereby rotation of said shaft automatically acts upon said gearing to connect and disconnect said clutches.

4. In a destination sign, a pair of rollers, a sign-bearing web wound thereon, an operating shaft rotatable in opposite directions, and carrying a worm gear for each roller, a clutch associated with each roller, a member of each clutch being movable to connect and disconnect the clutch and provided with a worm gear, said clutch worm gears meshing with the worm gears on said operating shaft, whereby the thrust on said gears operates to connect and disconnect the driving connection between the said shaft and rollers.

5. In a destination sign, a pair of rollers, a sign-bearing web wound on said rollers, an operating shaft rotatable in opposite directions, a clutch member fixed to rotate with one of said rollers, a second clutch member movable into and out of engagement with said first clutch member, a worm gear connected to said second clutch member to rotate the latter, and a worm gear on said shaft in mesh with said first-named worm gear, the arrangement being such that the thrust between said worm gears engages and disengages the clutch members.

[Claims 6 to 8 not printed in the Gazette.]

1,205,638. SHIP-BRAKE. JOHN H. HYDE, Tacoma, Wash. Filed Apr. 8, 1915. Serial No. 19,980. (Cl. 114—145.)



1. The combination with a ship of at least one pair of brakes therefor, the brakes of each pair being arranged to overlap from the rear to the front and the rear brake being at a higher level than the front brake.

2. The combination with a ship having a stem of girders fixed to said stem and extending rearwardly within the skin of the ship and a brake hinged to the exterior of the ship, said brake being so connected to the ship that the stress coming on the hinges is taken by said girders.

3. The combination with a ship of a plurality of brakes therefor, cables attached to said brakes, and means for hauling in said cables comprising a steam cylinder having a piston therein, and means connected with said piston arranged to oppose the movement of the same on the offstroke of the brakes and to assist the same on the inward stroke of the brakes.

4. The combination with a ship of a plurality of brakes therefor, cables attached to said brakes, and means for hauling in said cables comprising a steam cylinder having a piston therein, an air cylinder, and a piston in said air cylinder connected to said steam piston, said means being so arranged that air is compressed on the outstroke of the brakes whereby the air piston assists the steam piston in drawing in the brakes.

5. The combination with a ship of a plurality of brakes therefor, cables attached to said brakes, coaxial drums to each of which a portion of said cables are connected, the adjacent edges of said drums having interfitting teeth, means for holding the teeth of said drums out of mesh, means for throwing the teeth of the drums into mesh, and means for positively operating one of said drums.

1,205,639. OVERALL-POCKET CONSTRUCTION. CURTIS W. HYMES, Detroit, Mich., assignor to Larned, Carter & Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 25, 1913. Serial No. 750,496. (Cl. 2—15.)



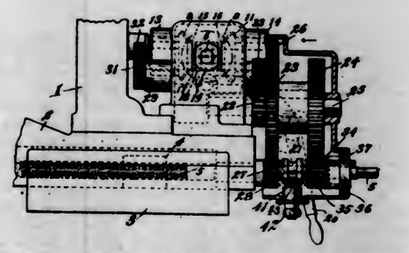
1. In a garment, a portion comprising two sections connected by a discontinuous vertical seam, whereby a pocket opening is formed, and a patch having each of its edges secured to said portion, the patch and the portion to which it is secured respectively forming the inner and outer walls of the pocket, the pocket opening being spaced from the vertical edges and bottom of the patch.

2. In a garment, a portion formed with a vertical opening, a patch having each of its edges secured to said portion, the patch and the portion to which it is secured respectively forming the inner and outer walls of the pocket, the opening being spaced from the vertical and bottom edges of the patch, and flaps oppositely projecting within the pocket from the edges of the opening.

3. A garment having a portion formed of two pieces united by a seam, and a pocket piece sewed to both pieces and underlying the seam, said seam being discontinued for a short distance to form an opening for the pocket.

4. A bib for overalls formed of two pieces united together by a vertically-extending seam, and a pocket piece sewed to the rear side of said pieces and underlying said seam so that said seam will be arranged between the side edges thereof, said seam being discontinued for a short distance to form an opening to the upper portion of the pocket defined by said pocket piece and overlying bib.

1,205,640. METAL-PLANER. CHARLES G. JOHANNESMEYER and GEORGE LANGEN, Oakley, Ohio, assignors to The Cincinnati Planer Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 1, 1914. Serial No. 848,463. (Cl. 90—49.)



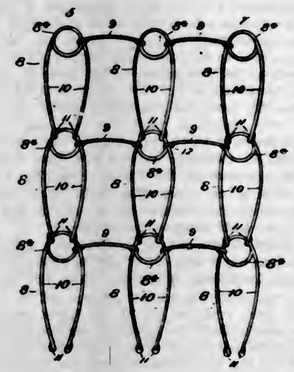
In a metal planer, the combination of a constantly driven shaft, an intermittently driven shaft, a feed screw-independent gear connections each including a clutch from said shafts therewith, a reversible pawl and ratchet mechanism for driving the screw in either of opposite directions from the latter shaft, and reversing gear connections including a clutch from the former shaft with the screw.

1,205,641. SAFETY-RAZOR-BLADE HOLDER. GEORGE L. JORDAN, Minden, Nebr. Filed May 10, 1916. Serial No. 96,631. (Cl. 30—25.)



As an article of manufacture, a sharpening holder for safety razor blades consisting of a spring wire bent upon itself, the portions of the wire adjacent the bend being spaced apart to constitute a handle, and the end portions lying in close relation, the closely lying portions of the wire being twisted together at their ends portions only, and wire rings upon said closely related portions in contact with both of them.

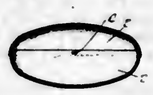
1,205,642. BED-BOTTOM WIRE FABRIC. CHARLES J. KINDEL, Grand Rapids, Mich., and JOSEPH DELANEY, Brooklyn, N. Y. Filed Feb. 28, 1916. Serial No. 80,838. (Cl. 245—5.)



1. A wire fabric bed-bottom, consisting of a plurality of similar and longitudinally disposed straight parallel series of principal-links, each link of said series consisting of a piece of spring-wire coiled upon itself at its middle to form an eye and extended beyond the same to form plain bowed terminals extending in the same direction as and inclosing said eye, said terminals terminating in hooks, the two hooks of each pair of terminals engaging the same eye of the next succeeding link of the same longitudinal series, and cross-links, terminating in hooks, engaging those eyes of the opposite links of adjacent series with whiche the terminals of the principal-links engage.

2. A wire fabric bed-bottom consisting of a plurality similarly and longitudinally disposed straight parallel series of principal-links, each link of each series consisting of a piece of spring-wire coiled upon itself at its middle to form an eye and extended beyond the same to form plain oppositely bowed terminals extending in the same direction as and inclosing said eye, said terminals terminating in hooks, the two hooks of each pair of terminals engaging with the same eye of the next succeeding link of the same longitudinal series, and bowed cross-links, terminating in hooks, engaging those eyes of the opposite links of adjacent series with which the terminals of the principal-links engage.

1,205,643. SOAP-PACKAGE. FRANCIS MCMASTER KNIGHT, Chicago, Ill. Filed Apr. 22, 1916. Serial No. 92,813. (Cl. 87—23.)



1. A sanitary soap cake comprising a hollow core made up of two halves detachably fitting together and covered with a thin layer of soap sufficient for a single wash, said halves of said core being adapted to stack together, whereby they will take up a minimum space and can readily be packed and shipped.

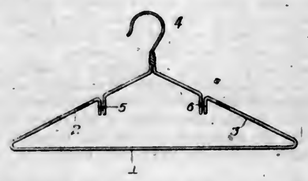
2. As an article of manufacture, a shell coated upon one side with a thin layer of soap, said shell being adapted to be assembled with another similarly coated shell to form a sanitary soap cake, comprising a hollow core covered with a layer of soap sufficient for a predetermined number of washings.

3. A stiff shell of wax paper or the like, coated upon its convex side with a thin layer of soap and adapted to be nested with other similar shells to form a compact package.

4. A pair of stiff shells of wax paper or the like coated upon their convex sides with a thin layer of soap and adapted to be nested together, or to be assembled, so as to make a hollow, closed sanitary soap cake, substantially as described.

5. A stiff hollow form of wax paper, or the like, large enough to comfortably fit the hand when used for washing, comprising two halves tightly but removably fitting together and adapted to be nested when separated and decorated upon its exterior with advertising matter or the like, and a thin layer of transparent soap through which the advertising matter may be plainly read, completely covering said form, the whole comprising a sanitary soap cake having thereon sufficient soap for a predetermined number of uses after which the hollow form may be thrown away or recoated.

1,205,644. GARMENT-HANGER. MONROE KOHN and GEORGE J. REITER, Chicago, Ill., assignors to F. Lewald & Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 26, 1913. Serial No. 791,886. (Cl. 211—18.)



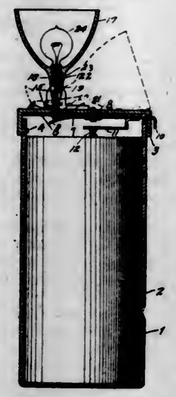
1. A garment hanger comprising an open wire frame having the shape of an isosceles triangle, approximately the upper half of the frame being bent forwardly so as to make a considerable angle with the remainder and bring the apex a considerable distance in advance of the other two corners of the triangle.

2. A garment hanger comprising an open wire frame having the shape of an isosceles triangle, approximately the upper half of the frame being bent forwardly so as to make a considerable angle with the remainder, the two upper members of the frame being bent into depending hooks.

3. A garment hanger having the general shape of an isosceles triangle, approximately the upper half of the triangle being bent forwardly so as to bring the upper and lower halves of the hanger into two planes making a considerable angle with each other and bring the apex a considerable distance in advance of the other two corners.

4. A garment hanger comprising an open wire frame having the shape of an isosceles triangle, the frame being bent laterally along a line approximately halfway between the base and the apex so as to shape the hanger into two flat portions lying at an angle to each other, the two upper sides of the triangle being bent into the form of depending hooks in the vicinity of the aforesaid line.

1,205,645. ELECTRIC-BATTERY LAMP. JAMES W. LAWHEAD, Wilmington, Ohio. Filed Dec. 7, 1914. Serial No. 875,822. (Cl. 240—8.5.)



1. A hand battery lamp comprising a casing, a battery within said casing, a cover for said casing, a resilient contact member arranged to engage with one of the contacts of said battery and carried by said cover, a switch member forming a portion of said contact member, a reflector pivoted to said cover, and an electric light bulb in said reflector electrically connected with said battery.

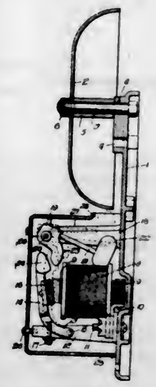
2. A hand battery lamp comprising a casing, a cover for said casing, a battery within said casing, upstanding pivot members on said cover, a reflector pivoted between said members, means for adjusting the frictional grip of said members on said reflector, an electric light bulb carried by said reflector, and a flexible connection between said battery and said bulb, the base portion of said reflector being formed so that said connection enters it centrally at a point above its pivot center.

3. A hand battery lamp comprising a casing, a cover for said casing, a battery within said casing, upstanding pivot members on said cover, a reflector pivoted between said members, means independent of the pivot connection for adjusting the frictional grip of said members on said reflector, and an electric light bulb carried by said reflector.

4. A hand battery lamp comprising a casing, a cover for said casing, a battery within said casing, a reflector, pivoting means carried by said reflector beneath its base portion, an electric light bulb carried by said reflector, and a flexible connection between said battery and said bulb, the base portion of said reflector being formed so that said connection enters it centrally at a point above its pivot center.

1,205,646. ELECTROMAGNETIC BELL. LEWIS A. LITTLER, Shelby, Ohio, assignor to The Autocall Company, Shelby, Ohio, a Corporation of Ohio. Filed Apr. 28, 1916. Serial No. 94,131. (Cl. 177—7.)

1. In a device of the character described, a vertical base plate, a gong mounted upon and in front of the upper portion of the base plate, a striker mounted on the base plate below the gong so as to swing in a vertical plane at right angles to the plane of the base plate toward and from the gong, an electro-magnet mounted on the base plate below the striker, a swinging arm extending upwardly in front of the electro-magnet, an armature on said arm adapted to be attracted by the electro-magnet, and coöperating parts on the upper end of the arm and on the striker adapted to engage with each other when the electro-magnet is energized and drive the striker toward the gong.



2. In a device of the character described, a base plate, a gong lying in front of and secured to one end of the base plate, posts projecting forwardly from the base plate below the gong, a striker pivotally supported at one end by said posts, an electro-magnet lying beneath said posts and rigidly connected to the base plate, a third post projecting forwardly from the base plate beneath the electro-magnet, an arm hinged to the latter post and projecting upwardly in front of the electro-magnet into the vicinity of the striker, an armature on said arm, and coöperating parts on the arm and on the striker engaging with each other but having no connection with each other and adapted to cause the striker to be driven toward the gong when the electro-magnet is energized.

3. In a device of the character described, a base plate, a gong mounted upon one end of and in front of the base plate, a post projecting forwardly from the base plate below the gong, a striker hinged at one end to the outer end of said post and having at its inner end a head adapted to engage with the gong, an electro-magnet fixed to the base plate below said post, a second post projecting forwardly from the base plate beneath the electro-magnet, an arm hinged at its lower end to said second post and projecting upwardly in front of the electro-magnet to the striker, an adjustable stop between said arm and the post on which the arm is mounted, the stop being adapted to limit the movement of the arm in the outward direction, an armature on said arm, and coöperating faces between the upper end of the arm and the striker for causing the striker to be propelled toward the gong when the electro-magnet is energized.

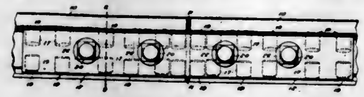
4. In a device of the character described, a base plate, a gong mounted upon and in front of the upper end of the base plate, a post projecting forwardly from the base plate beneath the gong, a striker lying beside the post and having a gong engaging part at its inner end, a pivotal connection between the outer end of the striker and the aforesaid post for permitting the striker to swing in a vertical plane, the striker having a downwardly projecting part near the outer end, an actuator lying in front of said part and having a cam face for engagement therewith, said actuator being moved in one direction by the weight of the striker, and means for moving the actuator in the opposite direction to cause the striker to approach the gong.

5. In a device of the character described, a vertical base plate, a gong mounted upon and lying in front of the upper end of the base plate, a striker mounted on the

base plate below the gong so as to be freely movable in a vertical plane at right angles to the plane of the base plate from and toward the gong, an electro-magnet secured to the base plate below the striker with the core thereof extending forwardly at right angles to the base plate, an armature movably supported in front of the electro-magnet, and a part associated with said armature having no connection with the striker but simply contacting therewith for throwing the striker upwardly against the action of gravity in order to engage the gong.

[Claim 6 not printed in the Gazette.]

1,205,647. SPLICE-BAR FOR RAIL-JOINTS. CHARLES G. MCCAULLEY, Washington, D. C. Filed Aug. 2, 1916. Serial No. 112,749. (Cl. 239—5.)



1. In a splice bar for rail joints the combination with a rail support projecting from said bar, of suitable insulating material interposed between said support and the body of said bar.

2. In a splice bar for rail joints the combination with a plurality of spaced metallic rail supporting members recessed into and projecting from one edge of said bar, of suitable insulating material interposed between said supporting members and the body of said bar.

3. In a splice bar for rail joints the combination with rail supports recessed into said bar, of suitable insulating material interposed between said supports and the body of said bar.

4. In a splice bar for rail joints the combination with rail supporting and offsetting members projecting from said bar, of suitable insulating material interposed between said supporting members and the body of said bar.

5. In a splice bar for rail joints the combination with rail supporting and offsetting members partially embedded in said bar, of suitable insulating material interposed between said supporting members and the body of said bar.

[Claims 6 to 15 not printed in the Gazette.]

1,205,648. LAST. WILLIAM J. MACFARLAND, Boston, Mass. Filed Jan. 21, 1914. Serial No. 813,488. (Cl. 12—139.)



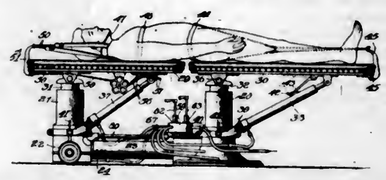
1. The combination of a last, a detachable templet therefor, and clips carried by one of said members for securing the same together, the other member being provided with means for engaging the clips.

2. The combination of a last, a detachable templet therefor, and clips carried by said templet for securing the same to the last; the latter being provided with means for engaging the clips.

1,205,649. AUTOMATIC HYDRAULIC TREATING-TABLE. OTIS A. MILLER, Lawton, Okla. Filed Aug. 12, 1916. Serial No. 114,546. (Cl. 128—16.)

1. A treating-table of the class described, comprising, in combination, a plurality of body-supporting surfaces, independent means for elevating each of said surfaces, and independent means for adjusting the inclination of each of said surfaces.

2. In a treating-table of the class described, a pair of supporting standards, longitudinally adjustable connections between said standards, a table-top carried by each of said standards, and means for adjusting the inclination and elevation of each of said table-tops.



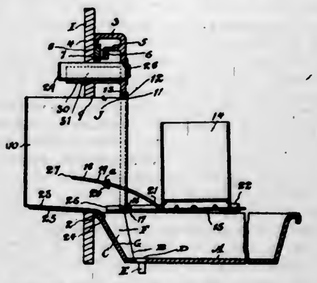
3. In a treating-table of the class described, a stationary standard, a traveling standard, connections between the two standards for positively moving the traveling standard toward and away from the stationary standard, and a body-supporting surface carried by each of said standards.

4. A treating-table of the class described, comprising relatively movable body-supporting surfaces, a fluid-pressure cylinder connected with one of said surfaces and a coöperating piston connected with the other surface, and means for controlling the supply of fluid to the said cylinder to effect relative movement of the two surfaces.

5. A treating-table of the class described, comprising, in combination, a stationary standard having a body-supporting surface mounted thereon, a traveling standard having a body-supporting surface mounted thereon, and telescoping fluid-pressure-actuated connections between the said standards for effecting relative movement thereof.

[Claims 6 to 14 not printed in the Gazette.]

1,205,650. SINK. WILLIAM GEORGE MILLER, Toronto, Ontario, Canada. Filed Feb. 3, 1916. Serial No. 76,065. (Cl. 4—36.)



1. The combination with a sink, of a wall plate projecting above said sink at the back thereof and provided with an opening therethrough extending above said sink, and further provided with a drainage pocket communicating with the drainage opening in the bottom of said sink.

2. The combination with a sink, of a wall plate projecting above said sink at the back thereof and provided with an opening therethrough extending above said sink, and further provided with a drainage pocket having converging side walls and a sloping back wall, the said pocket communicating with the drainage opening in the bottom of said sink.

3. As a new article of manufacture, a sink provided in the rear side thereof with a drainage pocket wholly open at its front side and extending above the bottom of said sink, and further provided with a vertical wall plate projecting above the back of said sink and provided with an opening extending above said sink and communicating with said drainage pocket.

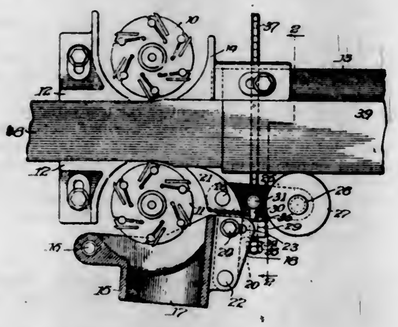
4. As a new article of manufacture, a sink provided in the rear side thereof with a converging drainage pocket wholly open at its front side and offset therefrom, and ex-

tending above the bottom of said sink, and further provided with a vertical wall plate projecting above the back of said sink and integrally formed therewith and having an opening communicating with said drainage pocket.

5. The combination with a sink, of a wall plate provided with an opening therein, extending vertically above the rear side of said sink; a housing provided with an open front and designed to be held in said opening, and drainage means communicating with said sink whereby any drainage accumulating in said housing drains into said sink.

[Claims 6 to 9 not printed in the Gazette.]

1,205,651. SIDE-HEAD HOLD-OVER AND CHIP-BREAKER-LIFT STRUCTURE. HARRISON J. MITCHELL, Beloit, Wis., assignor to P. B. Yates Machine Company, Beloit, Wis., a Corporation of Wisconsin. Filed Oct. 6, 1915. Serial No. 54,318. (Cl. 144—243.)



1. In an appliance of the character described, the combination of a guide against which an edge of the work is adapted to bear, a movably-mounted chipbreaker adapted to coöperate with the opposite edge of the work, means constructed to bear against said latter edge of the work in advance of the chipbreaker and press the work over to the guide, said means and chipbreaker being adapted to co-act with the work at the same time, and means common to said chipbreaker and pressing-means acting to force both the chipbreaker and pressing-means toward the edge of the work, substantially as described.

2. In an appliance of the character described, the combination of a guide against which an edge of the work is adapted to bear, a movably-mounted chipbreaker adapted to coöperate with the opposite edge of the work, means constructed to bear against said latter edge of the work in advance of the chipbreaker and press the work over to the guide, said means and chipbreaker being adapted to co-act with the work at the same time, means common to said chipbreaker and pressing-means acting to force both the chipbreaker and pressing-means toward the edge of the work, and means enabling said pressing-means to actuate said chipbreaker away from the work, substantially as described.

3. In an appliance of the character described, the combination of a guide against which an edge of the work is adapted to bear, a chipbreaker mounted to be capable of movement toward and from and adapted to coöperate with the opposite edge of the work, means constructed to bear against said latter edge of the work in advance of the chipbreaker and press the work over to the guide, said means and chipbreaker being adapted to co-act with the edge of the work at the same time, means supporting said pressing-means on said chipbreaker mounting and movable relatively thereto, and means common to said chipbreaker and pressing-means acting to force both the chipbreaker and pressing-means toward the edge of the work, substantially as described.

4. In an appliance of the character described, the combination of a movable chipbreaker, means adapted to bear against the work in advance of the chipbreaker and press the work over to the guide, an equalizer common to said chipbreaker and pressing means, and means acting on said equalizer tending to force both the chipbreaker and the pressing means toward the work, substantially as described.

5. In an appliance of the character described, the combination of a movable chipbreaker, means adapted to bear against the work in advance of the chipbreaker and press the work over to the guide, an equalizer common to said chipbreaker and pressing means, means acting on said equalizer tending to force both the chipbreaker and pressing means toward the work, and a loose connection between said equalizer and chipbreaker, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

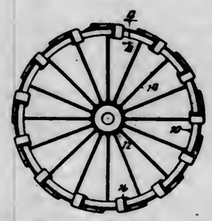
1,205,652. GAS WATER-HEATER. GEORGE ALBERT MOORE, Los Angeles, Cal. Filed May 3, 1915. Serial No. 25,426. (Cl. 126—53.)



1. A gas water heater the combination with a burner and a grid having inwardly projecting fingers, of a tubular member, portions of which project toward the center of said burner and partially surround said fingers and means formed integral with said fingers for supporting said tubular member.

2. In a water heater the combination with a gas burner of a grid having a plurality of fingers a lug formed integral with each said finger and projecting at each side thereof, a tubular member bent to produce a portion extending approximately parallel to each said finger and another portion between each pair of said fingers, said tubular member being adapted to be received upon said lugs to be supported thereby.

1,205,653. VEHICLE-WHEEL TREAD. AUGUST E. MUELLER, Chicago, Ill., assignor of one-third to Thomas J. Hruby and one-third to John O. Hruby, Chicago, Ill. Filed June 17, 1916. Serial No. 104,151. (Cl. 21—214.)



1. A tread structure for vehicle wheels extensible and collapsible in the direction of its length comprising a series of parallel bars extending across the tread face of the wheel from side to side of said tread face and flexibly connected together between their ends on the face of the wheel so as to be capable of being collapsed, and means whereby the tread structure may be fastened on the wheel rim.

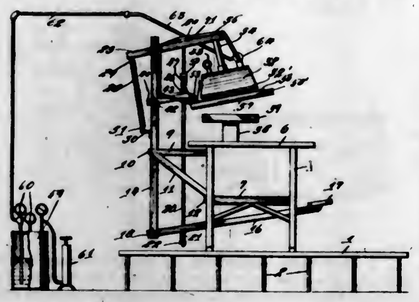
2. A tread structure for vehicle wheels collapsible and extensible in the direction of its length, comprising parallel bars which extend entirely across the wheel rim, said bars being provided at their ends with hooks to engage over the edges of the rim, and links, shorter than said bars, extending across the rim and pivotally connected to the bars on the face of the rim.

3. A tread structure for vehicle wheels comprising flexibly connected, loosely jointed parallel bars which are adapted to extend diagonally and entirely across the wheel rim, said bars being provided at their ends with hooks obliquely offset to the longitudinal axis of the bars, to engage over the edges of the rim, and parallel tread-forming links shorter than said bars and loosely connected to said bars between their hooked ends.

4. A tread structure for vehicle wheels, collapsible and extensible in the direction of its length, comprising a series of parallel bars to extend diagonally across the face of the wheel rim and provided with hooked ends to engage over the edges of the wheel rim, and links, parallel to each other and at an oblique angle to said bars, pivotally connected to said bars inside the hooked ends of the latter and arranged at such angle to the bars, whereby the angle of said bars to the plane of the axis of the wheel may be varied to adapt the tread structure to wheel rims of varying widths.

5. A tread structure for vehicle wheels, comprising a series of bars adapted to extend diagonally across the wheel rim and provided at their ends with hooks to engage over the edges of the rim and links shorter than said bars and disposed at oblique angles to said bars, extending between and pivotally connected to adjacent bars near their opposite ends but inside of the hooked ends of the latter, the bar at one end of the series having means to fix it to the wheel rim near one side of said rim, and the bar at the other end of the series having means to adjustably connect it to the wheel rim near the other side of said rim.

1,205,654. POWER CLOTHES-PRESS. EDMUND MUNDY, Denton, Tex., assignor of one-third to Emmett O. Hayes and one-third to Daniel O. Byrnes, Krum, Tex. Filed Feb. 12, 1916. Serial No. 77,983. (Cl. 68—9.)



1. In a power clothes press of the class described, the combination of a frame having an ironing board, a self-heating iron carried by said frame, a pressing cloth frame mounted upon said first-mentioned frame, said pressing cloth frame being adapted to carry a pressing cloth, means for supplying said pressing cloth frame with water for dampening the pressing cloth carried thereby, said pressing cloth frame being normally spaced from said iron, means for moving the pressing cloth carried by said pressing cloth frame upon a garment carried by said ironing board, at which time said iron will be swung upon said pressing cloth so as to efficiently press the garment.

2. In a clothes press of the class described, the combination of a table, vertical bars carried by said table, a lever pivotally mounted upon said vertical bars, a shaft connected to said lever, arms connected to the upper ends of said vertical bars, means for connecting the upper end of said shaft to said arms, coiled springs connected to the rear ends of said arms and to said bars, whereby the forward ends of said arms will normally be urged upwardly, an iron carried by the forward ends of said arms, an ironing board carried by said table, said lever being adapted to be swung downwardly so as to pull downwardly upon said shaft, whereby said shaft will swing the forward ends of said arms downwardly so as to swing said iron into engagement with a garment carried by said ironing board, after which said lever may be released so as to allow the tension of said springs to swing the forward ends of said arms upwardly thereby returning the iron to its normal position.

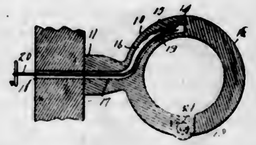
3. In a clothes press of the class described, the combination of a supporting frame, an iron mounted upon said supporting frame, an ironing board carried by said supporting frame, a spraying pipe, means for supporting said spraying pipe, means for retaining a pressing cloth in engagement with said spraying pipe, means for supplying said spraying pipe with water, whereby the pressing cloth may be dampened, and means for successively moving the cloth carried by said spraying pipe into engagement with said ironing board and then moving said iron into engagement with said pressing cloth, whereby a garment positioned upon said ironing board may be pressed.

4. In a clothes press of the class described, the combination of a supporting frame having an ironing board, a self-heating iron carried by said frame, a spraying pipe positioned in a plane beneath said iron, said spraying pipe being adapted to carry a pressing cloth, a band passing around the outer portions of said spraying pipe for holding the cloth in engagement therewith, means for clamping said band upon said spraying pipe for retaining the pressing cloth in engagement therewith, fingers pivotally mounted upon said frame and being secured to said spraying pipe, means for supplying said spraying pipe with water, and means for swinging said spraying pipe downwardly so as to allow the pressing cloth to engage a garment carried upon said ironing board, said last-mentioned means also being adapted to swing said iron downwardly upon the pressing cloth for pressing a garment.

5. In a clothes press of the class described, the combination of a frame having an ironing board, an iron carried by said frame, a tank positioned upon said iron, means for supplying said tank with water, a spraying pipe carried beneath said iron, said spraying pipe being adapted to carry a pressing cloth, a tube connecting said tank to said spraying pipe, means carried by said tank for discharging water into said tube whereby the water may be conveyed to said spraying pipe, means for successively swinging said pressing cloth downwardly and said iron downwardly, whereby said iron may engage the dampened pressing cloth so as to press a garment carried upon said ironing board.

[Claims 6 to 12 not printed in the Gazette.]

1,205,655. DEVICE FOR SUSPENDING MILK-BOTTLES. ALBERT NELSON, New York, N. Y. Filed Mar. 22, 1916. Serial No. 85,935. (Cl. 282—41.)

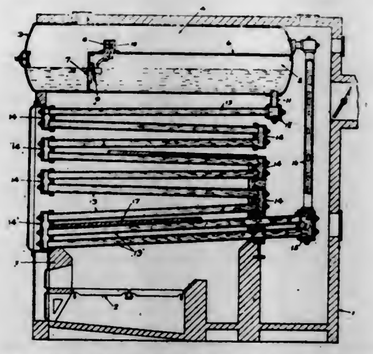


1. A bottle holder comprising a ring having a hinged section, means for securing the ring to a support, latching means between the separable ends of the sections of the ring and a releasing element connected to the latching means and extending through the ring and the support.

2. A bottle supporting device comprising a ring including hingedly connected sections, one of the sections being

arranged to be secured to a support and having a channel extending part way therethrough and through the support, a resilient latch member in the outer end of the channel, a hook lug on the abutting end of the other section for entrance into the channel and for engagement with the latch, and a flexible element connected to the latch and extending through the channel and support.

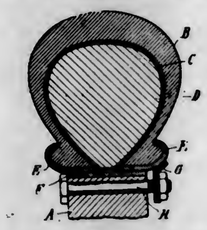
1,205,656. STEAM-GENERATOR. JOHN C. PARKER, Bala, Pa. Filed July 8, 1915. Serial No. 38,792. (Cl. 122—258.)



1. In a steam generator, steam and water containing means, an upcast connected with the steam space of said means, a down-flow coil having an upper section connected with the water space of said means, a bottom section inclined upwardly in the direction of flow therethrough and having its upper end connected with said upcast, the lower end of the upper section discharging into the lower end of said bottom section, a baffle between said bottom and upper sections, and means for applying primary heating action to said bottom section immediately beneath said baffle.

2. In a steam generator, steam and water containing means, an upcast connected with the steam space of said means, a down-flow coil having an upper section connected with the water space of said means, a bottom section inclined upwardly in the direction of flow therethrough and having its upper end connected with said upcast, a downwardly inclined intermediate section higher than said bottom section and discharging through the lower end thereof to the lower end of said bottom section, a baffle between said bottom and intermediate sections, and means for applying primary heating action to said bottom section immediately beneath said baffle.

1,205,657. MEANS FOR SECURING RESILIENT TIRES TO VEHICLE-WHEELS. ORREL A. PARKER, New York, N. Y. Filed Nov. 21, 1907, Serial No. 403,143. Renewed Feb. 19, 1916. Serial No. 79,468. (Cl. 152—5.)



1. The combination, with a resilient tire comprising an outer casing and a filling member not possessing in itself sufficent rigidity to properly support the desired loads, of spaced retaining members constructed to engage the base of the tire laterally to hold the tire in place, and means for varying the space between said retaining members to produce contraction or expansion of the base of the tire as desired, whereby the outer casing can be bound around the filling member as tightly or loosely as desired, to vary the tension or hardness of the tire.

2. The combination, with a resilient tire comprising an outer casing and a filling member not possessing in itself sufficient rigidity to properly support the desired loads, of spaced retaining flanges engaging the base of the tire to hold the tire in place, and means for varying the space between said flanges, whereby the outer casing can be bound around the filling member as tightly or loosely as desired, to vary the tension or hardness of the tire.

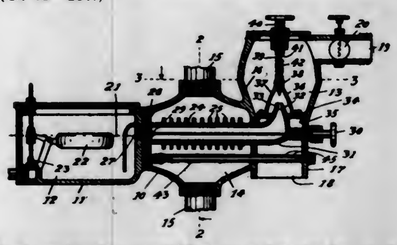
3. The combination, with a resilient tire comprising an outer casing and a filling member not possessing in itself sufficient rigidity to properly support the desired loads, of fixed and adjustable retaining members engaging the base of the tire to hold the tire in place, and means for securing the adjustable member in adjusted position relative to the fixed member, whereby the outer casing can be bound around the filling member as tightly or loosely as desired, to vary the tension or hardness of the tire.

4. The combination, with a resilient tire comprising a casing and a filling not having in itself sufficient rigidity to properly support the desired loads, of a rim having members constructed to engage the base of the tire at the sides thereof, and means for adjusting one of said members toward and from the other, whereby the casing of the tire can be bound tightly or loosely around the filling with the degree of tightness desired.

5. The combination, with a resilient tire comprising a casing and a filling not having in itself sufficient rigidity to properly support the desired loads, of a wheel rim engaging the tire and having an adjustable member adapted to bind the said casing tightly or loosely about the filling with the degree of tightness desired.

[Claims 6 to 11 not printed in the Gazette.]

1,205,658. CARBURETER. LOUIS A. PAZANDAK, Minneapolis, Minn. Filed Jan. 2, 1915. Serial No. 104. (Cl. 48—107.)



1. A carbureter comprising a casing having a fuel chamber, an outlet at the side of said fuel chamber, an expanded horizontal oval passageway communicating with said outlet, a second casing attached to the first and forming a chamber inclosing said passageway for directing the engine exhaust gases downwardly against said passageway to vaporize the fuel within, an upwardly projecting nozzle on the end of said passageway, an air intake passageway below and about said nozzle, a mixing chamber formed in said casing above said nozzle, and means to mix and distribute the heated carbureted air.

2. A carbureter comprising a casing formed with a fuel chamber a mixing chamber and an intermediate chamber forming a portion of the exhaust passageway of the engine, a generator member extending across the intermediate chamber and having communication at one end with the fuel chamber and at the other end with the mixing chamber, said mixing chamber having a passageway for admitting air past the opening into the generator, and a water pipe extending through the intermediate chamber and into the air passageway and having apertures for the delivery of steam into said air passageway.

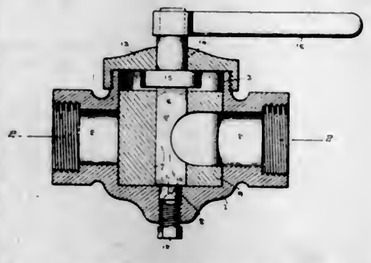
3. A carbureter comprising a fuel chamber, a mixing chamber, means for delivering fuel from the fuel chamber into the mixing chamber, means for admitting a current of air into and through the mixing chamber induced by the action of the engine, means for heating the fuel oil as it passes from the fuel chamber to the mixing chamber, whereby said oil is generated into a gas and said generated gas is delivered into the current of air in the mixing chamber, and a water supply pipe subject to said heating means and having apertures for delivery into said current of air of steam generated by said heating means.

1,205,659. PROCESS OF PRODUCING MAGNESIUM COMPOUNDS. SAMUEL PEACOCK, Philadelphia, Pa., assignor, by mesne assignments, to Marden, Orth & Hastings Co. Inc., New York, N. Y., a Corporation of Maine. Filed July 15, 1915. Serial No. 40,096. (Cl. 23—13.)

1. The process of producing magnesium compounds from minerals, which consists in finely dividing a magnesium bearing mineral; treating said mineral with sulfuric acid; permitting the heat of the reaction to rise sufficiently high to prevent the formation of gelatinous silica; and suitably recovering the magnesium compound thus produced substantially as described.

2. The process of producing magnesium compounds from minerals, which consists in finely dividing a magnesium bearing mineral; treating said mineral with less sulfuric acid than is necessary to combine with all the magnesium present; permitting the heat of the reaction to rise sufficiently high to prevent the formation of gelatinous silica; and suitably recovering the magnesium compound thus produced substantially as described.

1,205,660. VALVE. WILLIAM PETERSON, Prairie City, Oreg., assignor of one-half to R. L. Laurence, Prairie City, Oreg. Filed Jan. 28, 1916. Serial No. 74,801. (Cl. 137—7.)

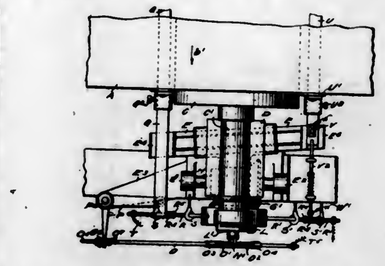


1. In a valve structure, the combination with a casing having an opening therethrough and a cavity in said casing, of a valve seated in said cavity having a channel therein, a stem projecting through said valve and having longitudinal movement independently of said valve, a trunnion at the lower end of the stem, said casing having a seat to receive said trunnion, an adjusting screw coöperating with said trunnion to adjust the stem longitudinally, a cap fitting over the end of the cavity through which the upper end of the stem projects, and a collar on the stem adapted to be forced against the lower face of the cap by said adjusting screw to prevent leakage between the cap and stem.

2. In a valve construction, the combination with a casing having a cavity therein, a cap adapted to close said cavity, and a valve in said cavity, of a valve stem extending through said valve and cap and having longitudinal movement independently of said valve and cap, an integral collar on the stem adapted to be forced against the under face of said cap to prevent leakage between the stem and cap, and means to adjust the stem longitudinally.

3. In a valve construction, the combination with a casing having a cavity therein, a cap adapted to close said cavity and a valve rotatably mounted in said cavity, said valve having a socket therethrough square in cross section, of a stem having a squared portion to fit the opening in the valve, said stem being longitudinally movable independently of the valve, a collar fixed to the stem beyond one end of the valve, a trunnion integral with one end of the stem having a conical depression therein, a screw threaded through said casing and having a pointed end adapted to engage said conical depression, said screw being adapted to force the collar against the under face of the cap to prevent leakage between the stem and cap.

1,205,661. CONTROLLING AND ALARM DEVICE. LOUIS M. PLANSOEN, Garfield, N. J. Filed June 5, 1915. Serial No. 32,338. (Cl. 193—23.)



1. A controlling device for the guide roller of a screen, comprising shifting means for the said guide roller to move the latter laterally and longitudinally on a deflection of the screen, a normally inactive actuating means for actuating the shifting means, and means controlled by the screen and connected with the said actuating means to render the latter active for shifting the guide roller.

2. A controlling device, comprising a guide roller over which passes a screen, a bearing in which the said roller is journaled, a guideway for the said bearing to slide on and arranged obliquely to the axis of the guide roller, a shifting device for shifting the said bearing on the guideway, whereby the roller will be moved laterally and longitudinally, a driving device for the said shifting device and having a normally inactive member driven continuously from the said guide roller, and a connecting device connecting the screen with the said member to render the latter active on a deflection of the screen.

3. In a paper making machine, the combination of a traveling screen, a guide roller over which the screen passes, a sliding bearing carrying the roller, means controlled by the screen for shifting the bearing, spring pressed circuit closing members adapted to make contact with a part movable with the roller when said roller is shifted, and an electric alarm connected with the said members.

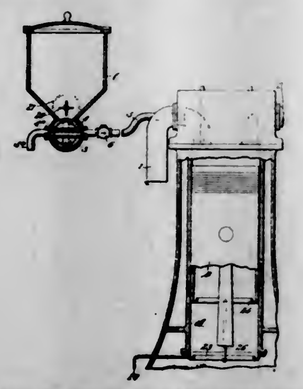
4. In a paper making machine, the combination of a traveling screen, a guide roller over which the screen passes, a sliding bearing carrying the roller, mechanism controlled by the screen for shifting the said bearing, spring pressed circuit closing rods on opposite sides of a member of the said mechanism and adapted to be engaged by said member when the roller is shifted, and an electric alarm connected with the said rods.

5. In a paper-making machine, the combination of an endless traveling screen, a guide roller over which passes the screen, a bearing for the guide roller, a guideway for the bearing to slide on and arranged obliquely relatively to the axis of the guide roller, a nut turning in the said bearing and provided with a gear wheel, a screw rod mounted to turn and screwing in the said nut, a toothed wheel mounted on the said bearing and having a bevel gear wheel in mesh with the bevel gear wheel on the nut, a rock arm carrying a double pawl adapted to engage

the said toothed wheel to turn the latter in either direction, a crank connection between the said rock arm and the guide roller to rock the said arm continually, means connected with the said pawl and with the said screen to throw the pawl into engagement with the toothed wheel on a deflection of the screen, and an electric alarm having two circuit closers controlled by the said toothed wheel to sound an alarm on a deflection of the screen.

[Claim 6 not printed in the Gazette.]

1,205,662. METHOD AND APPARATUS FOR LUBRICATING MACHINE-CYLINDERS. GEORGE D. POGUE, St. Louis, Mo. Filed May 19, 1915. Serial No. 29,169. (Cl. 184—18.)



1. A lubricating device for internal combustion engines, comprising a receptacle for holding a quantity of dry lubricant in finely divided form, a rotatable device provided with an opening for receiving lubricant from said receptacle, pipes arranged adjacent the path of movement of said device in such a manner that they will aline with the opening therein when said device is in a certain position and thus form an air passageway or conduit through which air is taken into the cylinder of the engine, mechanism for rotating said device, and means for holding said device at rest when it is in its filling and discharge positions long enough to insure the proper filling and discharge of same.

2. A lubricating device for internal combustion engines, comprising a receptacle for holding a quantity of dry lubricant in finely divided form, a rotatable device that is adapted to receive lubricant from said receptacle and thereafter introduce said lubricant into a current of air that is being taken into the cylinder of the engine, an operating mechanism for said device comprising a rotatable element, a holding means for said device which causes it to remain at rest when said rotatable element is in motion, and means for transmitting movement from said rotatable element to said device, said holding means being so constructed that it imparts a quick or sudden movement to said device when said rotatable element reaches a certain position.

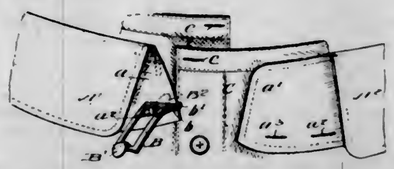
3. An internal combustion engine, comprising means for introducing a dry lubricant in finely divided form into the cylinder of the engine, and means for preventing said lubricant or carbon or other abrasive matter from becoming mixed with the lubricating oil in the crank case of the engine.

4. An internal combustion engine, comprising means for introducing a dry lubricant in finely divided form into the cylinder of the engine, and means for preventing said lubricant or carbon in the cylinder from becoming mixed with the lubricating oil in the crank case of the engine, said means comprising a collecting device arranged at the lower end of the cylinder and a drain device leading from said collecting device to waste.

5. An internal combustion engine, comprising a cylinder, a piston in said cylinder, a collecting device arranged at the lower end of the cylinder for collecting any substance that works down the inner wall of the cylinder, a waste pipe leading from said collecting device, and means for preventing the oil that is thrown off the wrist pin bearing on the piston from mixing with the substance in said collecting device.

[Claim 6 not printed in the Gazette.]

1,205,663. COLLAR-FASTENING. ROBERT MINARD REID, Colorado Springs, Colo. Filed Feb. 23, 1915. Serial No. 9,933. (Cl. 24—40.)

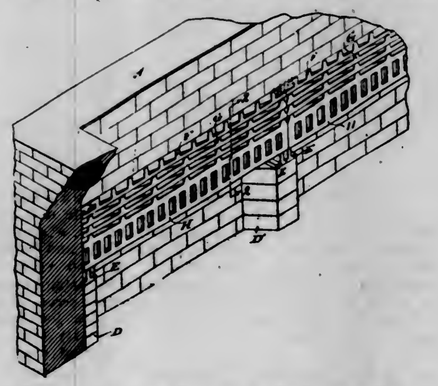


1. A fastener of the character described, comprising a body having integral projections upset therefrom upon relatively opposite sides thereof, said projections being offset from the body and extending toward relatively opposite ends thereof, and said body having a rigid lateral extension adjacent one end, terminating in an engaging hook, all for the purpose described.

2. A fastener of the character described comprising a body having rigid projections offset therefrom at opposite sides and adjacent and extending in opposite directions beyond opposite ends thereof, and having a rigid laterally projecting hook adjacent one end.

3. A fastener of the character described formed in a single piece, comprising a body having integral projections offset therefrom at opposite sides and extending toward opposite ends thereof, said body having an integral laterally projecting hook member adjacent one of its said ends.

1,205,664. GRATE. WILLIAM E. RIDER, Mansfield, Mass. Filed Feb. 27, 1911. Serial No. 611,210. (Cl. 110—75.)



1. A device of the character described comprising a wall; a fuel support; and adjacent to it fuel retaining means consisting of a member with a horizontal wall-supporting portion, a vertical fuel retaining portion, and a web at an obtuse angle with said vertical portion, a second member with a fuel retaining portion and a web parallel with the web of the first member and having spacing lugs on the upper side of said web, and between said members one or more additional members each having a web parallel with said webs and spacing lugs on the upper side thereof; and means to hold said members removably in place.

2. In a grate the combination of fuel supporting means; a wall adjacent to said supporting means and having a recess; a supporting member secured to said wall within said recess and having a projecting lug; a metal member consisting of a web at an angle with said wall and having on its upper surface lugs whose top surfaces are horizontal, the end lug having a lip to engage the projecting lug of the supporting member, the latter supporting the metal member and the metal member supporting the wall.

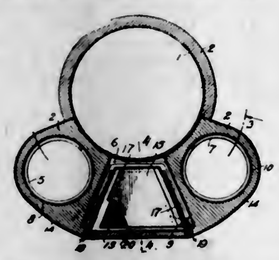
3. A device of the character described comprising a wall with a recess; a fuel support; and fuel retaining means comprising a member with a horizontal wall supporting portion, a vertical fuel retaining portion and a web at an obtuse angle to said vertical portion and comprising also another member within said recess with two webs parallel with the web of the first member and having vertical fuel retaining means between said two webs, said two members being spaced apart.

4. A device of the character described comprising a wall with a recess; a fuel support; and fuel retaining means comprising a member with a horizontal wall-supporting portion, a vertical fuel retaining portion and a web at an obtuse angle with said vertical portion and comprising also a member having a web parallel with the web of the first member, the said members being spaced apart.

5. A furnace comprising a wall; a fuel support; and adjacent to the fuel support a fuel retaining surface consisting of a member with a horizontal wall-supporting portion, a vertical fuel retaining portion, and a web at an obtuse angle with said vertical portion; a second member with a fuel retaining portion and a web parallel with the web of the first member; and between said members one or more additional members each having a web parallel with said webs, said members being spaced apart; and means to hold said members removably in place.

[Claims 6 to 11 not printed in the Gazette.]

1,205,665. HEATING AND COOKING APPARATUS. WALTER WARD ROBERTS, Seattle, Wash. Filed Dec. 22, 1915. Serial No. 68,184. (Cl. 219—19.)



1. A cooking apparatus comprising a water reservoir, a plurality of cooking chambers, one of the cooking chambers having a heating unit for heating the same, a piping system between the chambers and connected with the reservoir, and means for regulating the admission of heat from the chamber having the heating unit to the piping system to heat the same.

2. A cooking apparatus, comprising a water reservoir, a plurality of cooking chambers, one of the cooking chambers having a heating unit, and a piping system connected with the reservoir and conducting the heat from the chamber having the heating unit to the remaining cooking chambers.

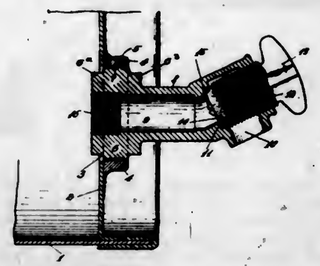
3. In combination with a water reservoir, a fireless cooker external to said reservoir and having a plurality of cooking chambers, and water conducting means from the said reservoir to the cooker comprising a plurality of coils, one for each chamber, said coils being connected with the water reservoir and one of the pipe units of the system being heated electrically.

4. In combination with a heat reservoir, fireless cooking chambers arranged by means of piping in heat conducting relationship therewith, one of the said chambers being provided with a hinged platform means, arranged to form the base of said chamber and having a heat unit thereupon, whereby the platform may be moved away from the walls of the chamber to do external cooking when desired.

5. A fireless cooker having chambers contiguous to an oven chamber, piping connecting the several chambers, a water reservoir with which the piping is connected, a regulatable damper within the oven chamber for controlling the heat conducted to the piping to heat the same, and a heating element within said oven chamber.

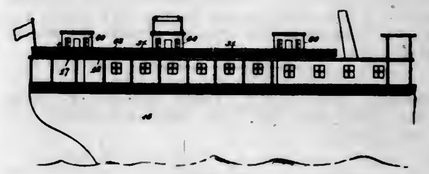
[Claims 6 to 15 not printed in the Gazette.]

1,205,666. COMBINED BUNG AND FAUCET. SIDNEY ROSENFELD, Cleveland, Ohio. Filed June 5, 1914. Serial No. 843,177. (Cl. 221—24.)



1. The combination with a container having a threaded opening, of a reversible combined bung and faucet, the bung having a threaded portion that is adapted to be received by said opening, the thread of the opening being tapered and the thread of the bung being straight.

1,205,667. LIFE-RAFT. NATHAN RUBENSTEIN, New York, N. Y. Filed Feb. 11, 1916, Serial No. 77,604. Renewed Oct. 7, 1916. Serial No. 124,437. (Cl. 9—12.)



1. A life raft comprising a plurality of sections formed of beams with the alternating beams of each section projected beyond the ends of the intermediate ones, the projecting ends of the beams of each section pivotally secured together.

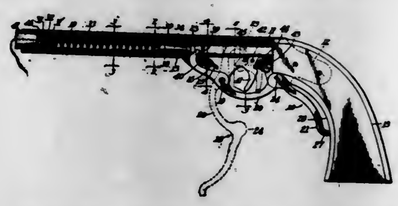
2. A life raft comprising a plurality of sections, each section comprising a plurality of planks spaced on end and secured together, forming connected beams, the ends of alternating beams projecting beyond the ends of intermediate beams, forming hinged joints at the ends of each section, rods extending through the projecting beams of each section, hingedly securing them together, and flexible connections extending between the sides of adjacent sections, providing for limited transverse movement of the sections one with respect to the other.

3. A life raft comprising a plurality of sections hingedly secured together and adapted to articulate one with respect to the other, and launching means carried by the sections comprising plungers with rollers at the lower

extremities thereof, and means for forcibly lowering said plungers to thereby raise the raft sections and support them upon said rollers.

4. A life raft comprising a plurality of sections secured together and adapted to articulate one with respect to the other, and means for raising the raft above the deck of a boat comprising plungers with rollers supported upon the lower extremities thereof, and cam arms engaging said plungers and adapted to be manually raised for the forcible raising of the raft sections and supporting them upon said rollers.

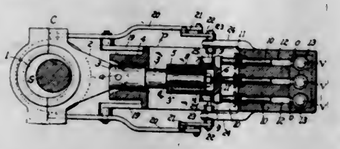
1,205,668. AIR-PISTOL. JACOB R. SANDAGM, St. Joseph, Mich., assignor to Upton Machine Company, St. Joseph, Mich., a Corporation of Michigan. Filed Feb. 13, 1915. Serial No. 7,926. (Cl. 124—10.)



1. An air gun comprising a barrel; a housing, for a setting lever and a trigger, and two parallel, rearwardly extending projections between which to receive the stock, made of a single integral piece of sheet metal; a bead joining the longitudinally extending meeting edges of the barrel part and a washer in the barrel near the front end thereof held in place by compression produced by said bead.

2. A device of the character described comprising a barrel; a piston rod; a piston on the front end thereof; an open helical spring surrounding the rod; a lever for moving said rod, piston and spring rearwardly when the lever is moved in one direction; a trigger for holding said rod and piston in the position in which they have been moved by said lever, and a spring abutment crimped at its forward edges to slidably engage the said rod and movable rearwardly with said rod, piston and spring and movable forwardly to compress the spring by the lever, when it is returned to normal position, and held in such returned position by the lever to prepare the gun for firing.

1,205,669. FUEL-PUMP. HENRY SCHRECK, St. Louis, Mo. Filed May 22, 1915. Serial No. 29,895. (Cl. 123—140.)

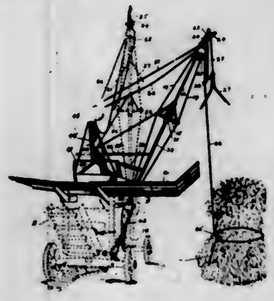


1. In combination with the gear-shaft of an internal combustion engine, a speed governor on said shaft, a source of liquid fuel supply, a feed pump provided with a cylinder having a reciprocating plunger therein, a complementary member yieldingly and telescopically connected to the plunger, means interposed between the gear-shaft and said complementary member for imparting to the latter reciprocations of constant stroke, and means controlled by the governor for controlling the intake stroke of the plunger whereby the quantity of fuel fed to the engine is regulated to suit the load conditions imposed on the engine.

2. In combination with the gear-shaft of an internal combustion engine, a speed governor on said shaft, a reciprocating member operating under constant stroke and actuated from the gear-shaft, a member telescoping with, and movable longitudinally along the reciprocating member, the latter being provided with a shoulder for limiting the movement of the telescoping member in one direction, an abutment on said reciprocating member, a spring interposed between said abutment and the telescoping member for normally forcing the latter against the shoulder of the reciprocating member, feed-pump plungers carried by the telescoping member, an oscillating member actuated by the speed governor, and suitable devices interposed between the telescoping member and oscillating member aforesaid, for forcing the telescoping member away from the shoulder of the reciprocating member against the tension of the spring aforesaid, with any response of the governor to the load conditions imposed on the engine, whereby the strokes of the telescoping member and of the plungers carried thereby may be varied according to said conditions independently of the constant strokes of the reciprocating member.

3. In combination with a gear-shaft of an internal combustion engine, a speed governor on said shaft, a piston head, an eccentric on the shaft, an eccentric-rod or link connecting said piston head to the eccentric for imparting reciprocations to the piston, a stem leading from the piston, an offset or shoulder being formed at the base of the stem, a sleeve loosely receiving the stem and adapted to be arrested by said shoulder, an expansion spring coiled about the stem and interposed between a terminal wall of the shell and a fixed abutment on the stem and tending to drive the sleeve against the shoulder aforesaid, a cross-piece at the outer end of the sleeve projecting beyond the peripheral walls of the sleeve and forming suitable ledges, cams engaging the inner faces of the ledges, feed-pump plungers carried by the cross-piece along the outer face thereof, a pair of oscillating bent levers pivoted at intermediate points of their lengths, one arm of a lever being actuated by the governor, and intermediate connections between the opposite arm of the lever and its corresponding cam for actuating the latter and regulating the stroke of the sleeve and the plungers.

1,205,670. SHOCK-HANDLING ATTACHMENT FOR CORN HUSKING AND SHREDDING MACHINES. JAMES B. SCHUMAN, Indianapolis, Ind., assignor to The Schuman Company, Indianapolis, Ind., a Corporation of Maine. Filed Jan. 30, 1914. Serial No. 815,534. (Cl. 212—45.)



1. The combination, in a shock handling mechanism, of a trussed boom arranged in inclined position and pivotally mounted at its lower end and designed to swing outwardly from a shredder to elevate a shock and inwardly to deposit a shock thereon, a frame upon said shredder to which said boom is flexibly connected, and a trip bar communicating with said frame and boom for controlling the movements of said boom.

2. The combination, in a shock handling mechanism, of a boom arranged in inclined position pivotally mounted at its lower end and designed to swing outwardly from a shredder to elevate a shock and inwardly to deposit a shock thereon, a frame upon said shredder to which said boom is flexibly connected, a trip bar engaging said frame to maintain said boom in its outermost position, and means for disengaging said bar to permit the same and said boom to travel inwardly over said shredder.

3. Shock handling mechanism, comprising a boom arranged in inclined position pivotally mounted at its lower end and designed to swing outwardly from a shredder to elevate a shock and inwardly to deposit a shock thereon, a frame upon said shredder, means connecting said frame and the upper end of said boom, a trip bar communicating with said frame and boom for limiting the movement of said boom, and a spring connecting said frame and boom to draw the latter toward said frame when said trip bar is disengaged from said frame.

4. Shock handling mechanism, comprising a boom composed of a trussed structure arranged in inclined position, means for elevating a shock to said boom, means for tripping said boom to permit the same with its shock to swing inwardly over a platform, means for limiting the movement of said elevating means to maintain said shock in suspended position, means for releasing said elevating means to permit the deposit of said shock upon said platform, and means for limiting the outward movement of said boom.

5. Shock handling mechanism, comprising a boom composed of a trussed structure arranged in inclined position, a trip mounted on said boom, a shock lifting cable supported in said trip and boom, winding mechanism for said cable, a cable communicating with said trip and said winding mechanism, means for actuating said mechanism to wind said lifting cable and elevate said shock to contact with said trip and the latter to actuate said trip cable to throw said winding mechanism out of rotary motion and to so maintain the same until said shock has been released and said boom returned outwardly for another shock.

[Claims 6 to 15 not printed in the Gazette.]

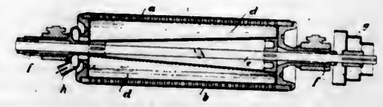
1,205,671. STOCKING. ROBERT W. SCOTT, Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed June 8, 1916. Serial No. 102,442. (Cl. 66—4.)



1. A stocking having a seamless tubular leg and at the rear of the ankle web a seam uniting edges of a gap in the web, which edges are selvaged throughout a portion of their extent, said ankle web also having, on each side of said seam, a spliced area whose splicing web prevents selvaged front edges, the rear edges of said splicing webs being also united by said seam.

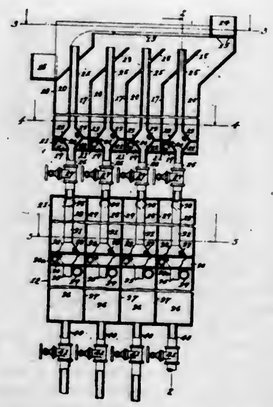
2. A stocking having a seamless tubular leg and at the rear of the ankle web a seam uniting edges of a gap in the web, which edges are selvaged throughout a portion of their extent, said ankle web also having, on each side of said seam, a spliced area whose splicing web presents selvaged edges both at front and rear, the rear edges of said splicing webs being also united by said seam.

1,205,672. COUCHING-PRESS FOR PAPER-MACHINES. CHRISTIAN SEYBOLD, Düren, Germany. Filed Dec. 6, 1915. Serial No. 65,343. (Cl. 92—47.)



A couching-press for paper-machines, thereby characterized, that within the pressing roller *a*, constructed as a perforated drum, independently from it a shovel-wheel *d* is rotatably journaled, the same being adapted to rotate with a different speed of revolution from that of the perforated drum, substantially as set forth and for the purpose specified.

1,205,673. CONCENTRATOR. EVERETT RICHARD SHAHAN, St. Paul, Minn. Filed Jan. 19, 1916. Serial No. 73,017. (Cl. 83—82.)



1. A concentrator, comprising an open tank for receiving ores in a pulp state, a supplemental tank thereunder, pipes connecting said tanks, and having, each, an enlarged chamber having a perforated top, and water supply pipes adjacent the upper side of said supplemental tank to provide an upward flow of water through the pulp to remove the sludge while permitting downward movement of the concentrates to said supplemental tank.

2. A concentrator, comprising an open tank for the reception of ores in a pulp state, a closed supplemental tank thereunder, pipes joining said tanks, and having, each, an enlarged chamber having a perforated top, a third closed tank beneath said supplemental tank, pipes connecting said two last named tanks, water supply pipes adjacent the top of said two last named tanks, and draw-off pipes for said third tank, said water supply pipes being adapted to provide an upward flow of water through the pulp under pressure to remove the sludge while permitting the concentrates to settle.

3. A concentrator, comprising an open tank for the reception of ores in a pulp state, a closed tank thereunder, partitions dividing said tanks into compartments, pipes connecting the respective compartments of said tanks, and having, each, an enlarged chamber having a perforated top, and water supply pipes for said closed tank to provide an upward flow of water through the pulp under

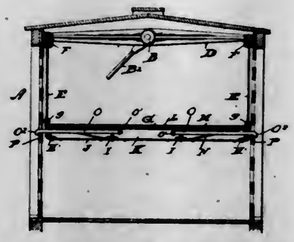
pressure to remove the sludge while permitting the concentrates to settle.

4. A concentrator, comprising an open tank for the reception of ores in a pulp state, a closed tank thereunder, perforated pipes arranged in vertical position in said open tank, pipes connecting said perforated pipes with said closed tank, and water supply pipes for said closed tank to provide an upward flow of water through the pulp under pressure to remove the sludge while permitting the concentrates to settle.

5. A concentrator, comprising an open tank for the reception of ores in a pulp state, a closed tank thereunder, pipes connecting said tanks, a perforated concentrating chamber at the upper end of each pipe, within said open tank, a pipe leading upwardly from each concentrating chamber, and water supply pipes for said closed tank to provide an upward flow of water through the pulp under pressure to remove the sludge while permitting the concentrates to settle.

[Claims 6 to 8 not printed in the Gazette.]

1,205,674. COMBINED FREIGHT AND STOCK CAR. JOHN BELL SHELTON, San Francisco, Cal., assignor to The Shelton Adjustable Double Deck Car Co., San Francisco, Cal. Filed Feb. 16, 1916. Serial No. 78,559. (Cl. 105—15.)



1. In a car, a rotatable shaft located within the car having right and left screw-threaded portions, a traveling beam extending from side to side of the car fitted to each screw-threaded portion of the shaft, a movable platform adapted to rest upon the floor of the car when not in use, cables connecting the ends of the traveling beams with the sides of the platform intermediate of its length, a plurality of sheaves bolted to the side walls of the car for supporting and guiding said cables, and manually actuated means carried by the shaft adapted to rotate the latter in either direction, whereby the platform may be raised or lowered.

2. In a device of the character described, a movable platform, a plurality of slidable bolts carried by the frame of the platform adapted to be projected beyond the edge of the platform into engagement with the walls of the car, whereby the platform may be supported when adjusted, and means connecting two or more of the slidable bolts together, whereby they may be simultaneously and manually actuated.

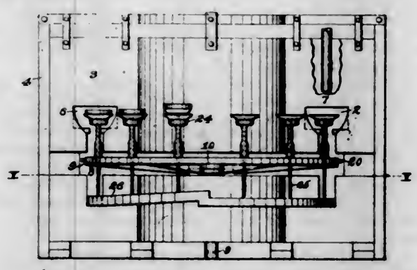
3. In a car, a rotatable shaft located within the car, traveling beams extending from side to side of the car and fitted to the rotatable shaft, a movable platform, cables connecting said traveling beams and the sides of said platform intermediate its length, and means for rotating said rotatable shaft to raise or lower said platform.

4. In a car, a rotatable shaft, located within the car, traveling beams extending from side to side of the car and fitted to the rotatable shaft, a movable platform, cables connecting said traveling beams and the sides of the platform intermediate its length, means for rotating said rotatable shaft to raise or lower said platform and means carried by the platform for supporting it in any adjusted position.

5. In a car, a rotatable shaft located within the car having right and left screw threaded portions, a traveling beam extending from side to side of the car fitted to each screw threaded portion of the shaft, a movable platform, cables connecting the ends of the traveling beams with the sides of the platform intermediate its length, means for rotating the rotatable shaft and thereby raise and lower said platform and means carried by the platform for supporting it in any adjusted position.

[Claims 6 and 7 not printed in the Gazette.]

1,205,675. APPARATUS FOR FIRE-POLISHING AND REHEATING GLASS. MAURICE A. SMITH, Jeannette, Pa. Filed July 10, 1913. Serial No. 778,368. (Cl. 49—58.)



1. In apparatus for fire-polishing or reheating glass, the combination of a reheating furnace, a table rotatable on a vertical axis adapted to carry a glass article within the zone of heat and provided with a clutch-member, a continuously rotatable driving device in axial alinement with said rotatable table and provided with a clutch-member, and means for automatically and intermittently raising and lowering said table, and thus connecting and disconnecting said table and said driving device.

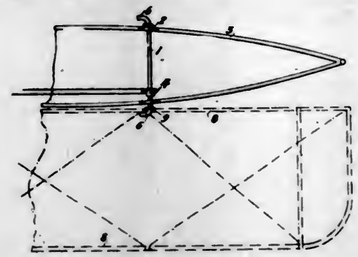
2. In apparatus for fire-polishing or reheating glass, the combination of a reheating furnace, a table rotatable on a vertical axis adapted to carry a glass article within the zone of heat and provided with a clutch-member, a stop in the path of said table, a continuously rotatable driving device in axial alinement with said table and provided with a clutch-member, and means for automatically and intermittently raising and lowering said table whereby said table and said driving device are connected and disconnected and said table disengaged from said stop.

3. In apparatus for fire-polishing or reheating glass, the combination of a reheating furnace, a table rotatable on a vertical axis adapted to carry a glass article within the zone of heat and provided with a clutch-member, a series of projections on said table, a stop adapted to be engaged by one of said projections, a continuously rotatable driving mechanism provided with a clutch-member, and means for automatically and intermittently raising and lowering said table whereby said table and said driving device are connected and disconnected, and said projections are brought into and out of engagement with said stop.

4. In apparatus for fire-polishing and reheating glass, the combination of a reheating furnace, a vertical shaft, a clutch-member carried by said shaft, a table loosely mounted on said shaft, a clutch-member connected to said table located below the clutch member on said shaft, a cam-sleeve on said shaft and forming a support for said table, a bearing for the lower end of said shaft having a cam-face engaged by the cam-face on the lower end of said cam sleeve, whereby said table is raised and lowered by the action of said cam.

5. In apparatus for fire-polishing or reheating glass, the combination of a reheating furnace, a vertical shaft, a clutch member on said shaft, a table loosely mounted on said shaft, a clutch-member connected to said table located below the clutch member on said shaft, a stop in the path of said table when lowered, a cam-sleeve on said shaft forming a support for said table, and a bearing for said shaft having a cam-face engaged by the cam-face on the lower end of said cam-sleeve.

1,205,676. FOLDING-WING AEROPLANE. HORACE LEONARD SHORT, ALBERT EUSTACE SHORT, and HUGH OSWALD SHORT, Battersea Park, England. Filed May 4, 1916. Serial No. 95,518. (Cl. 244—31.)



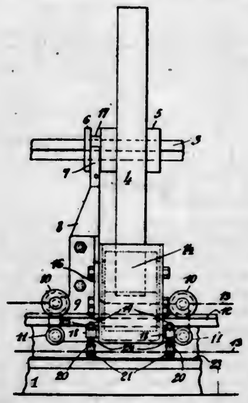
1. In guiding the folding wings of aeroplane flying machines into their folded position and securing same therein; the combination of a revoluble shaft extending transversely of the longitudinal axis of the machine, bearings on the framework of said machine to carry said shaft, said shaft having both its ends beyond said bearings inclined in the same direction at an angle to the axis of said shaft to present inclined surfaces when said ends are turned downward, engaging surfaces on said wings to contact with said ends of said shaft when said wings are folded parallel with the framework to guide and lift said wings into their folded position, and means for communicating to said shaft angular adjustment about its axis to cause said inclined ends of said shaft to take behind said engaging surfaces and thereby support and lock said wings when folded.

2. In guiding the folding wings of aeroplane flying machines into their folded position and securing same therein; the combination of a revoluble shaft extending transversely of the longitudinal axis of the machine, bearings on the framework of said machine to carry said shaft, said shaft having both its ends beyond said bearings inclined in the same direction at an angle to the axis of said shaft to present inclined surfaces when said ends are turned downward, engaging surfaces on said wings to contact with said ends of said shaft when said wings are folded parallel with the framework to guide and lift said wings into their folded position, a hand lever within reach of the aviator, bearings to support said hand lever, and mechanism connecting said hand lever with said shaft to cause the ends of said shaft in one position of said hand lever to incline downward to receive said engaging surfaces of said wings at the termination of their folding movements, and in another position of said lever to cause said inclined ends to take behind said engaging surfaces and thereby support and lock said wings when folded.

3. In guiding the folding wings of aeroplane flying machines into their folded position and securing same therein; the combination of a revoluble shaft extending transversely of the longitudinal axis of the machine, bearings on the central framework of said machine to carry said shaft, a collar fixed on said shaft near each end thereof, inclined ends to said shaft beyond said collar both of said ends being inclined in the same direction, brackets on said wings to contact with and mount upon the downwardly inclined ends of said shaft when said wings are folded parallel with the framework, said brackets contacting with said flanges on said shaft, and means operable by the aviator from his seat to communicate to said shaft angular adjustment about its axis to cause said inclined ends of said shaft to take behind parts of said wings to support and lock same in their folded position.

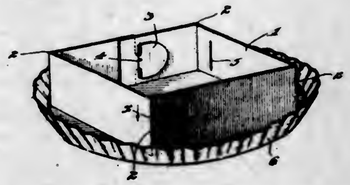
4. In guiding the folding wings of aeroplane flying machines into their folded position and securing same therein; the combination of a revoluble shaft extending transversely of the longitudinal axis of the machine, bearings on the framework of said machine to carry said shaft, said shaft having both its ends beyond said bearings inclined in the same direction at an angle to the axis of said shaft to present inclined surfaces when said ends are turned downward, engaging surfaces on said wings to contact with said ends of said shaft when said wings are folded parallel with the framework to guide and lift said wings into their folded positions, a hand lever within reach of the aviator, bearings to support said hand lever, a two-armed lever fixed on said shaft and extending in opposite directions relatively to the axis of said shaft, and wires extending from said levers to opposite sides of the fulcrum of said hand lever to cause said end of said shaft to incline downward in one position of said lever to receive and guide the engaging surfaces of said wings and to cause said inclined ends of said shaft in another position of said hand lever to take behind said engaging surfaces on said wings.

1,205,677. INKING MECHANISM FOR BULLETIN-PRINTING MACHINES. KARL A. A. STAAHLGREN, New York, N. Y., assignor to National Electric Bulletin Corporation, a Corporation of New York. Filed Nov. 20, 1915. Serial No. 62,586. (Cl. 178—35.)



In a telegraph printer the combination with a large type wheel and a carriage for operating the same laterally, of an ink reservoir, ink rolls in said reservoir for inking said type wheel, a bracket mounted on each end of said ink reservoir, a squared bolt slidably supported in said bracket, a roller carried by said bolt, an adjusting nut on the latter and a spring for yieldingly supporting said ink reservoir on the said rollers.

1,205,678. FOLDING PAPER BOX. ERICH STEUDEL, Chicago, Ill. Filed May 29, 1915. Serial No. 31,267. (Cl. 229—16.)



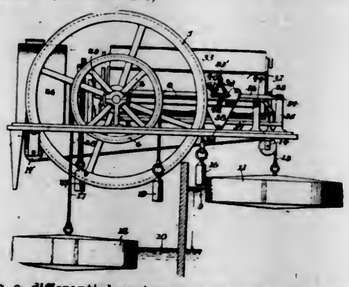
1. A paper box comprising a circular lateral wall formed of a single elongated piece of resilient material, said member being provided with scores on its inner sur-

face whereby said member may, by reverse bending, be formed into a rectangular wall, substantially as described.

2. A paper box comprising a circular lateral wall formed of a single elongated piece of resilient material, said member being provided with a plurality of transversely extending scores on its inner surface whereby said member may, by reverse bending, be formed into a rectangular wall, substantially as described.

3. A paper box comprising a circular lateral wall formed of a single elongated piece of resilient material, said member being provided on its inner surface with a plurality of spaced parallel transversely extending scores each extending part way through said member whereby said member may, by reverse bending, be formed into a wall of polygonal form with the corners defined by said scores, substantially as described.

1,205,679. DIFFERENTIAL-WATER-STAGE RECORDER. JOHN C. STEVENS, Portland, Oreg., assignor to Leupold, Voelpel & Co., a Partnership composed of Frederick Leupold, Adam J. Voelpel, and John C. Stevens, Portland, Oreg. Filed Dec. 19, 1914. Serial No. 878,120. (Cl. 234—10.)



1. In a differential water stage recorder, the combination with a recording sheet, a marker for the sheet, a shaft operating said marker, two pulleys of different sizes mounted upon the shaft, separate floates operating the pulleys and a differential connection between the pulleys for operating the shaft according to the differential movement of the two floats.

2. In a differential water stage recorder, the combination with a recording sheet, a marker for said sheet, a shaft operating said marker, two pulleys of different sizes mounted upon the shaft, and separate floats operating the pulleys and constructed and arranged to impart the different movements of the two floats to the shaft for moving the marker and recording the said movement.

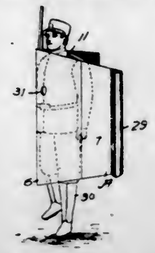
3. In a differential water stage recorder, the combination with a recording sheet, a marker for said sheet, a shaft operating the marker, two pulleys mounted upon the shaft, floats adapted to operate said pulleys, and a differential gear connection between said pulleys whereby the differential movement of the floats is imparted to the shaft for operating the marker.

4. In a differential water stage recorder, the combination with a recording sheet, a marker for said sheet, a shaft operating the marker, a pulley loosely mounted upon the shaft, a second pulley loosely mounted upon the shaft and of a diameter less than that of the first pulley, a differential gear connection between the two pulleys, separate cables passing over the pulleys and floats carried by cables, whereby the differential movement of the two floats is imparted to the shaft to cause the marker to record it upon the sheet.

5. In a differential water stage recorder, the combination with a recording sheet, a marker for said sheet, a shaft operating the marker, a larger pulley loosely mounted upon the shaft, a beveled gear rigidly mounted upon the shaft, an idle gear carried by the pulley and meshing with the gear rigidly mounted upon the shaft, a second smaller pulley loosely mounted upon the shaft, a beveled gear rigidly carried by the smaller pulley and meshing with the idle gear carried by the larger pulley, separate cables passing over the pulleys, and floats carried by the cables whereby the differential of the two floats is imparted to the shaft to cause the marker to record it upon the sheet.

[Claims 6 to 8 not printed in the Gazette.]

1,205,680. PORTABLE SHIELD FOR SOLDIERS. THOMAS R. STONEBURNER, Alexandria, Va. Filed Mar. 30, 1916. Serial No. 87,745. (Cl. 89—36.)



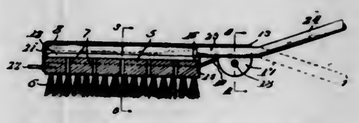
1. A device of the character described, comprising a belt, swivel rods attached to said belt, a V-shaped metallic shield, means for securing said shield to said swivel members and straps for supporting said shield from the shoulders of the wearer, said straps being detachable from their engagement with the shield, and said shield being reversible upon said swivel members.

2. A bullet-proof shield made of spring steel throughout to render it locally yielding, said shield being shaped to present a convex front face and means for supporting said shield from the shoulders.

3. A bullet-proof shield of V shape, made of spring steel to render it locally yielding in combination with means for supporting said shield upon the person.

4. A bullet-proof shield of V shape, having its rear edges curved outwardly to provide elements for catching bullets deflected by the other portions of the shield and shoulder straps secured to said shield for supporting the shield upon the person.

1,205,681. FOUNTAIN-BRUSH. CARL A. SUNDSTRAND, Rockford, Ill. Filed Feb. 8, 1916. Serial No. 76,915. (Cl. 15—51.)

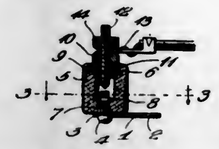


1. The combination of a brush head the back of which is formed with a pair of parallel grooves, a channel-shaped cap having parallel sides fitting in said grooves and being shaped at one end to provide a socket having movable wall portions, a conduit fitting in said socket so as to discharge into the chamber formed by the cap and the brush head, the brush head being perforated to allow passage of liquid from said chamber to the face of the brush, and means for clamping said movable portions of the cap to the conduit so as to adjustably secure the said pipe section to the cap.

2. The combination of a brush head formed on its back with spaced grooves and shaped so that the stock of the head is higher along the inner side of the grooves than on the outer side thereof, a channel-shaped cap having spaced sides fitting in said grooves, the said raised portions of the brush head being adapted to prevent liquid from passing to the exterior of the channel cap through said grooves, the brush head being perforated so as to connect the chamber of the cap with the face of the brush, and a conduit connected with the cap for supplying liquid thereto.

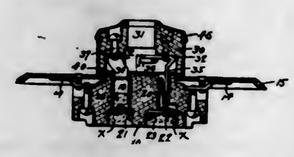
3. The combination of a brush head, a chambered cap secured to the head so that the cap chamber lies adjacent to the back of the brush head which is perforated to permit passage of liquid from said chamber to the face of the brush, a conduit serving as a handle and adjustably secured to the cap so as to discharge into the chamber thereof, said conduit being formed so that its outer portion is in angular relation to its attached end whereby the handle may be rotatably adjusted in its connection with the cap to position the brush head in different angular relations to the handle.

1,205,682. SPARK-INTENSIFIER. ROBERT M. SUTHERLIN, Kansas City, Mo. Filed Oct. 21, 1915. Serial No. 57,075. (Cl. 175—183.)



A spark intensifier for spark plugs comprising an elongated flat metal link apertured adjacent its ends and connected at one end to a spark plug, a threaded bolt projecting upwardly through the aperture in the other end of said link, a substantially cylindrical shaped glass casing having alined openings at its top and bottom, the bottom opening adapted to receive said bolt, a locking nut on the end of said bolt to securely hold the same in the casing, a centrally bored nut in the opening in the top of the casing, a screw positioned in the bore in said nut having a frusto-conical point spaced from the end of said bolt which is positioned in the casing, and adjustable locking nuts on the said screw above the said centrally bored nut adapted to secure a wire from the source of current in contact with said screw.

1,205,683. ATTACHMENT-PLUG AND RECEPTACLE. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Oct. 21, 1915. Serial No. 57,133. (Cl. 173—330.)



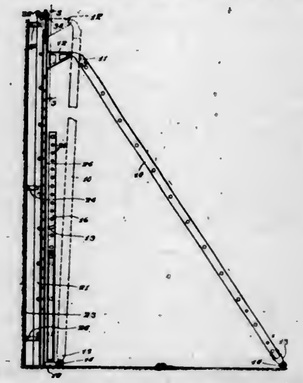
1. An electrical device of the type described comprising an attachment plug receptacle having a one-piece insulating body pierced by slots, wire terminals on diagonally opposite corners of the outer face of the block, conducting straps let into recesses on the opposite face of the block and underlying the wire terminals, screw means electrically and mechanically connecting said straps and wire terminals and securing the same upon said block, together with receptacle terminals carried by and wholly supported from said straps and projecting into said slots, and supplemental means piercing the blocks for securing said straps thereto and holding the receptacle terminals in position in their slots, substantially as described.

2. In an electrical device, a block of insulation having a channel in a face thereof, a conducting strap lying in said channel, an anchor lug struck from said strap and an insulating composition covering said strap in the channel and engaging said anchor lug on all sides whereby said composition is held in the channel by said anchor lug on the strap.

3. An electrical device of the type described, comprising an attachment plug having an insulating block recessed on one face to form a wiring chamber, plug jacks secured at one end within said chamber and projecting beyond the face of the block, and wire terminals electrically connected to said jacks within the wiring chamber, said face of the block having a marginal rim and a shallow ledge inwardly offset therefrom, in combination with an insulating disk slotted in register with said jacks and fitting within said rim and against said ledge with the jacks passing through said slots in the assembled position of the parts, substantially as described.

4. An electrical device of the type described, comprising an attachment plug having an insulating block recessed on one face to form a wiring chamber, plug jacks secured at one end within said chamber and projecting beyond the face of the block, and wire terminals electrically connected to said jacks within the wiring chamber, said face of the block having a marginal rim and a shallow ledge inwardly offset therefrom, in combination with an insulating disk slotted in register with said jacks and fitting within said rim and against said ledge with the jacks passing through said slots in the assembled position of the parts, said rim being notched out at predetermined points to afford access to the edge of the insulating disk for the removal of the latter.

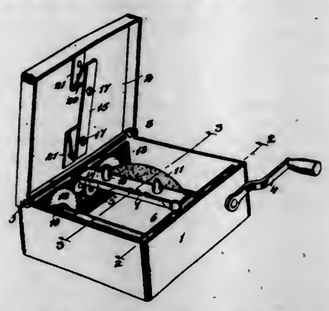
1,205,684. SUPPORTING MEANS FOR INCLINED LADDERS. WILLIAM S. TOTHILL, Chicago, Ill. Filed Nov. 1, 1915. Serial No. 59,011. (Cl. 228—3.)



1. The combination of a standard fixed in upright position, a bracket slidably mounted upon said standard and having an extended vertical bearing thereon whereby it is held securely against angular movement relative to the standard, means carried by said bracket for securing the bracket in adjusted vertical position upon the standard, a ladder pivotally connected with said bracket, and means comprising flexible connections having operative connection with the ladder for moving the ladder and the bracket vertically relative to the standard.

2. The combination of a standard fixed in upright position, a bracket slidably mounted upon said standard and extending forward therefrom, said bracket having an extended vertical bearing upon said standard, a ladder pivotally connected at its upper end with the forwardly-extending portion of said bracket, means carried by said bracket in rear of the pivotal connection of said ladder with the bracket for securing the bracket in adjusted vertical position upon the standard, and means comprising flexible connections having operative connection with the bracket for adjusting the bracket vertically relative to the standard.

1,205,685. SAFETY-RAZOR STROPPER. BERNHARD TROSKY, New York, N. Y. Filed Apr. 20, 1916. Serial No. 92,393. (Cl. 51—16.)

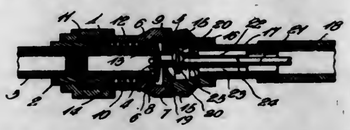


1. A razor sharpening device comprising a box composed of two sections hingedly connected together, sharpening means in the box, a holder for supporting a blade in cooperative relation with the sharpening means, said holder comprising two registering bars carried by the respective sections of the box, and springs forming means for attaching one of the bars to its associated section of the box and permitting the bar to yield when a blade is clamped between the bars by the bringing of the box sections together.

2. A razor sharpening device comprising a casing composed of two sections movable with respect to each other, sharpening means in the casing, and a blade holder composed of two registering bars, and springs supporting one of the bars and serving to connect such bar with one of the sections of the casing.

3. A razor sharpening device comprising a body, sharpening means mounted therein, a bar on the body and disposed to hold a razor blade in coöperative relation with the said means, a cover hingedly mounted on the body, a bar carried by the cover and adapted to mate with the first-mentioned bar to clamp the razor blade on the latter, said last-mentioned bar having Z-shaped extremities rigidly secured to the inside of the cover, whereby the second-mentioned bar is resilient.

1,205,686. AUTOMATIC TRAIN-PIPE-COUPLING VALVE. HENRY UHL, Albany, Oreg. Filed Jan. 20, 1916. Serial No. 73,212. (Cl. 137—30.)



1. In a device of the class described, a male member having an opening in the end thereof, a valve in said member and having one end projecting through said opening, a tube provided with a closed end and having a plurality of outlet openings adjacent said end, said tube being relatively stationary and connected with a line pipe, a socket member slidable on said tube and normally closing said outlet openings, means for holding said socket member in position to close said openings, said socket member sliding on said tube to open said outlet openings when engaged by said male member, the valve in said latter member being simultaneously opened when its outwardly projecting end contacts with said closed end of the tube.

2. In a device of the class described, a male member, a valve provided with a plurality of outlet openings and having a hollow stem, a socket member slidable on said stem and having a seat therein to receive said valve and close said outlet openings, said socket member also having an annular shoulder, an annular shoulder on said valve stem, a coil spring having its opposite ends contacting with said shoulders to normally close said outlet openings, said male member contacting with said socket member to move the same to open the valve.

3. In a device of the class described, a male member, a valve provided with a plurality of outlet openings in its side and having a hollow stem, its interior communicating with said openings, a sleeve coupling said stem to the line pipe, a socket member slidable on said stem and having a seat therein to receive said valve and close the said outlet openings, said socket member also having an annular recess to form an annular shoulder, a coil spring surrounding said stem, its opposite ends contacting with said shoulder and the end of said sleeve to normally close said outlet openings, said male member contacting with said socket member to move the same on the stem to open the valve.

4. In a device of the class described, a male member comprising a spherical head provided with an opening in its outer face, said opening forming a valve seat, a tube extending from the opposite end of said head, a valve within said head for coaction with said seat and having a stem extending into said tube, a spring for maintaining the valve in normally closed position, an additional tube provided with a closed end, a socket member slidable on said additional tube, said valve contacting with said closed end to open the same when the male member abuts said socket member.

5. In a device of the class described, a male member comprising a spherical head provided with an opening in its outer face, said opening forming a valve seat, a tube extending from the opposite side of said head, a guide within said tube, a valve on said head for coaction with said seat, a stem on said valve extending through said guide, a coil spring surrounding said stem, one end contacting with said guide and the other end with said valve to normally close the same, an additional tube provided with a closed end, a socket member slidable on said additional tube, said valve contacting with said closed end to open the same when the male member abuts said socket member.

1,205,687. MEASURING INSTRUMENT. JAMES VREHEY and DIRK A. L. JANSZ, Pella, Iowa. Filed Apr. 29, 1916. Serial No. 94,359. (Cl. 33—194.)



A measuring instrument for the purpose specified comprising a body formed of flat slotted bars that are slidable lengthwise on each other and provided with studs and clamp screws for guiding and clamping them as desired, and duplicate heads arranged in planes parallel to the body and formed of a straight edge and an arc-bar and clamp-screws securing the aforesaid body to the arc-bar, as described.

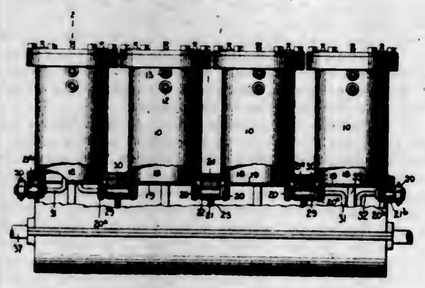
1,205,688. DOUBLE SKIP OR KIBBLE FOR AUTOMATICALLY RECEIVING LOOSE MATERIAL. PAUL VOLKENBORN, Cologne-Ehrenfeld, Germany. Filed Apr. 24, 1913. Serial No. 763,194. (Cl. 37—30.)

1. In a device of the character described, a frame, a pulley block vertically movable in said frame, a pair of bell crank levers having their arms arranged at substantially right angles to each other pivotally mounted on said frame, a scoop pivotally mounted to one arm of each of said bell crank levers adjacent their rear ends and separate links of substantially equal length connected to the other ends of each of said scoops, and to the other arms of the bell cranks, respectively.



2. In a device of the character described, a frame, a pulley block vertically movable in said frame, a pair of bell crank levers having arms disposed at substantially right angles to each other pivotally mounted on said frame, scoops pivotally connected adjacent their rear ends to one arm of each of said bell crank levers, and separate links connecting the other ends of said scoops and the other arms of the bell crank levers, respectively, to said pulley block, said links being of a length to cause the pivotal point of attachment of a bell crank to each of the scoops to be moved a substantial distance above and below the fixed pivotal point of attachment between the bell cranks and frame.

1,205,689. VALVE-OPERATING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. HUGO C. WELL, New York, N. Y., assignor of fifty one-hundredths to Frederick A. B. Meinhardt, New York, N. Y. Filed Dec. 31, 1914. Serial No. 879,914. (Cl. 123—59.)

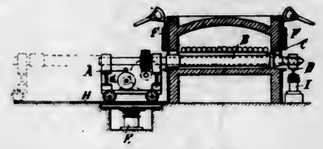


1. In a device of the class described, two cylinders having ports, two valve sleeves, one disposed in each of the cylinders for coöperating with the ports, gearing on each of the sleeves, a spindle hollow at one end and journaled in a bearing between the cylinders, a second spindle disposed substantially in alinement with the first spindle and spaced from the hollow end of the first spindle, gears on the ends of the spindles meshing with the gearing on the valve sleeves, a crank having an end disposed in an open end of the first spindle, and with a second end secured to the gear on the second mentioned spindle, a piston in each cylinder, a piston rod having means for operating the crank and articulated to one of the pistons, and a piston rod articulated to the other piston.

2. In a device of the character described, two cylinders having ports, two valve sleeves, one disposed in each of the cylinders for coöperating with the ports, gearing on each of the sleeves, spindles, gears on the spindles meshing with the gearing on the sleeves, pistons in the cylinders, piston rods articulated to the pistons and means operable by one of the pistons for rotating one of the spindles.

3. In a device of the class described, two cylinders having ports, two valve sleeves one in each of the cylinders, two pistons one in each of the cylinders, a shaft having two cranks, piston rods articulated to the pistons and to the cranks, gear teeth extending from each of the valve sleeves, a spindle journaled between the cylinders substantially at right angles to the cylinder axes and extending to each cylinder, a gear at each end of the spindle at the cylinders, the gears meshing with the gear teeth on the sleeves, a second spindle having an end disposed at one of the cylinders, a gear at the said end of the second spindle meshing with the gear teeth on one of the sleeves, and means operable by a pieton rod for rotating the second mentioned spindle.

1,205,690. MOVABLE CHARGING DEVICE FOR A FURNACE. JOHANN MARTIN WETCKE, Duisburg, Germany. Filed June 23, 1914. Serial No. 846,861. (Cl. 214—23.)



1. A furnace provided with side openings, a carriage adapted to be raised and lowered, rolls mounted on the said carriage and adapted to be turned, and a track for the carriage extending at a right angle to one side of the furnace to allow of moving the carriage sidewise to pass the rolls into or out of the furnace.

2. A furnace provided with side openings, a carriage adapted to be raised and lowered, rolls mounted on the said carriage and adapted to be turned, a track for the carriage extending at a right angle to one side of the furnace to allow of moving the carriage sidewise to pass the rolls into or out of the furnace, and delivery and removing end rolls in the end of the furnace for passing the material onto the set of rolls or from the latter onto the end rolls.

3. A furnace provided with a front opening for the introduction of the material to be heated, the furnace having side openings, a carriage movable toward and from the side openings of the said furnace, rolls mounted on the carriage and projecting therefrom, the rolls being adapted to pass into and out of the furnace through the side openings, the rolls when within the furnace extending transversely of the same to receive and support the material introduced through the front of the furnace, and means for turning the said rolls to cause the same to carry the material to heating position.

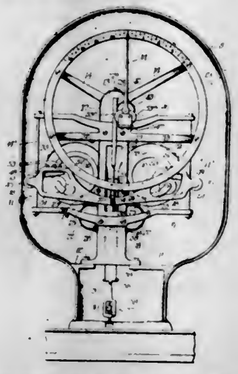
4. A furnace provided with a front opening and side openings, a charging device provided with rolls adapted to be moved into and out of the furnace through said side openings, and means at the front of the furnace for supporting the materials to be heated and directing the same through the front opening onto the rolls of the charging device when the latter are within the furnace.

5. A furnace provided with a front opening and side openings, a charging device provided with rolls, means for raising and lowering the charging device and its rolls, the rolls of the charging device when in lowered position being adapted to be moved into and out of the furnace through said side openings, rolls arranged at the front of the furnace for supporting the material and passing the same onto the rolls of the charging device when the latter are in raised position within the furnace, and means for turning the rolls of the charging device.

1,205,691. WEIGHING-SCALE. LEWIS CALVIN WETZEL, Toledo, Ohio, assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Jan. 15, 1912. Serial No. 671,147. (Cl. 73—29.)

1. In a weighing scale, a stationary support, a commodity receptacle, a pair of counterbalance members each comprising a pendulum, connections from said counterbalance members to said commodity receptacle, a vertically movable frame, connections from said frame to the counterbalance members at corresponding points of the latter removed from their axes and independent of the connection from the counterbalance members to the commodity re-

ceptacle, and indicating means connected to the frame for operation thereby.



2. In a weighing scale, a stationary support, a commodity receptacle, a pair of counterbalance members each comprising a pendulum, connections from said counterbalance members to the commodity receptacle, a frame connected to the counterbalance members at corresponding points removed from the axes of the latter and independent of the connection to the commodity receptacle, and indicating means connected to a point on the frame intermediate the counterbalance members for operation thereby.

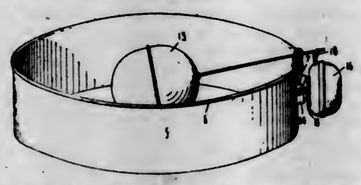
3. In a weighing scale, a stationary support, a commodity receptacle, a pair of counterbalance members each comprising a pendulum, connections from said counterbalance members to said commodity receptacle, a vertically movable frame, vertical guides for said frame, connections from said frame to the counterbalance members at corresponding points of the latter removed from their axes and independent of the connection from the counterbalance members to the commodity receptacle, and indicating means connected to the frame for operation thereby.

4. In a weighing scale, a stationary support, a commodity receptacle, a pair of counterbalance members comprising pendulums, abutments rigidly connected to the pendulums at points eccentric to the axes thereof, a vertically movable frame supported by said abutments, an indicator and connections from the vertical frame for operating the same.

5. In a weighing scale, a stationary support, a commodity receptacle, a counterbalance member connected to the commodity receptacle and comprising a pendulum and an oscillating support therefor, a vertically movable frame having a cammed bearing surface thereon, an abutment on the counterbalance member eccentric to its center of oscillation coöperating with the cammed bearing surface to move the frame, indicating mechanism, and connections between the same and the vertically movable frame.

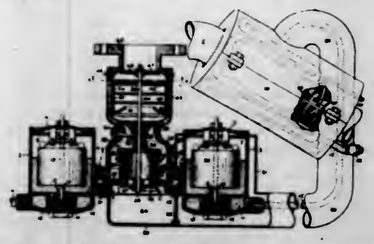
[Claims 6 to 20 not printed in the Gazette.]

1,205,692. OVERFLOW-ALARM FOR ICE-BOXES. ALBERT WOLF, Brooklyn, N. Y. Filed Mar. 23, 1916. Serial No. 86,042. (Cl. 116—15.)



The combination with a drip pan for ice boxes of the ordinary form, of a spring clamp adapted to be sprung on the sides thereof, means formed in said spring clamp for accommodating the rim with which such drip pans are usually provided, means for tightening said spring clamp on said drip pan, means for removably attaching a mechanical bell to said spring clamp, outside of the drip pan, a lever pivoted in said spring clamp, having one arm projecting into the drip pan and a float attached to it and its outer arm projecting over said bell, a push rod adapted to operate said bell and means provided on said push-rod for receiving therein said latter mentioned arm of the lever, substantially as and for the purpose set forth.

1,205,693. CARBURETER. SIDNEY WOOLF, Lynch, and FRED E. HALE, South Omaha, Nebr., assignors to Henry R. Gering, Omaha, Nebr. Filed Feb. 13, 1915. Serial No. 8,046. (Cl. 261—12.)



1. In a carbureter, a vertically-disposed tubular distributer-body having a plurality of transverse passages extending radially through the sides thereof, means for supplying liquid fuel to said passages, a casing inclosing the distributer-body and adapted to direct an air-current through and around the distributer-body past both ends of the transverse passages, and a rotary controller adapted to serially close and open said ends of the passages.

2. In a carbureter, a casing inclosing a distributer-chamber and a mixing chamber in superposed relation and having a constricted neck-portion between said chambers, variable fuel-supplying means disposed in the distributer-chamber, stationary charge-comminuting means disposed in the mixing-chamber, a movable deflector disposed in the constricted neck-portion and adapted to vary the sectional area of the passage through the same, a throttle controlling an outlet from the mixing-chamber, and means connecting the throttle, the movable deflector and the variable fuel-supplying means, whereby adjustments thereof are automatically coördinated.

3. In a carbureter, a casing having therein an air chamber, a distributer-chamber and a mixing-chamber in successively superposed relation, means for supplying preheated air to the air-chamber so that the same may be drawn therefrom through the distributer-chamber and mixing-chamber, means for supplying liquid fuel to a plurality of passages opening into the distributer-chamber, a controller movable to serially open and close the openings of the fuel-passages into the distributer-chamber, charge-comminuting devices disposed in the mixing-chamber, a throttle controlling an outlet from the mixing-chamber, and connecting means for positively actuating the throttle and controller simultaneously so that the number of fuel-passages opened by the controller is proportional to the extent of opening of the throttle.

4. The combination in a carbureter, of a casing having two fuel-chambers therein, a multiple-opening fuel-distributer, means for interchangeably connecting the fuel-chambers with said distributer, a movable controller for serially opening and closing the fuel-openings of the distributer, means for supplying preheated air and for directing the same past the distributer fuel-openings, means for preheating the fuel supply for one of the fuel-chambers, means for heating said fuel-chamber, and means for supplying water-vapor together with the pre-heated air.

5. In a carbureter, multiple-opening fuel-supplying means, a movable member for serially covering and uncovering the openings of said fuel-supplying means, a priming-cup, and means on the movable member for controlling a port connecting the fuel-supply with the priming-cup.

[Claims 6 to 9 not printed in the Gazette.]

1,205,694. COMPOSITION FOR TREATING HIDES. JOHN H. YOCUM, East Orange, N. J., assignor to The Clarendon-Yocum Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 17, 1913. Serial No. 761,748. (Cl. 149—1.)

1. A composition of matter consisting of sodium chlorid and a small percentage of a normal sulfite of an alkali metal.

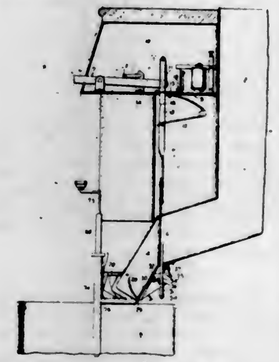
2. A composition of matter consisting of sodium chlorid and a small percentage of normal sulfite of sodium.

3. A composition of matter consisting of approximately 97 per cent. of sodium chlorid and approximately 3 per cent. of a normal sulfite of an alkali metal.

4. A composition of matter consisting of approximately 97 per cent. of sodium chlorid and approximately 3 per cent. of normal sulfite of sodium.

5. The product herein described and composed solely of common salt intimately associated with approximately 3 per cent. of normal sulfite of sodium.

1,205,695. GROCER'S CABINET. JOHN F. ALLEY, New York, N. Y. Filed Dec. 28, 1915. Serial No. 69,107. (Cl. 73—177.)



1. A grocer's dispensing cabinet divided into compartments for holding bulk material, a discharge spout connected with each compartment, a weighing hopper into which the spouts discharge, valve means controlling the discharge of material from the spouts, and means within the hopper adjustable toward and from the spouts for catching the material delivered therefrom.

2. In a grocer's dispensing cabinet, the combination of a plurality of compartments, each having a discharge spout, a valve mechanism for each spout to control the flow of material therethrough, a hopper into which the spouts discharge, and an adjustable bottom in the hopper movable toward or from the spouts according to the amount of material desired to be dispensed.

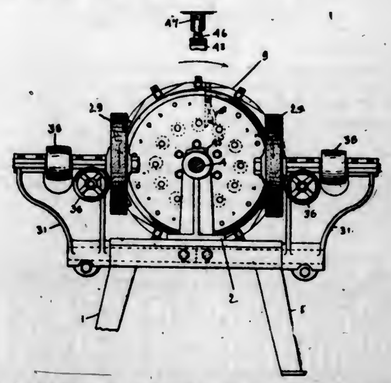
3. In a grocer's dispensing cabinet, the combination of a plurality of dispensing spouts, a hopper having a spout in its bottom, a false bottom disposed in the hopper and adjustable toward and from the dispensing spouts and including an opening, and a valve controlling the opening.

4. A cabinet of the class described including a plurality of dispensing devices, a hopper into which the devices are adapted to discharge, a post in the hopper, a false bottom movable along the post and having an opening, a valve normally closing the opening, and means supported by the post for manually opening the valve.

5. The combination of a plurality of dispensing means, a hopper into which said means discharge, a fixed post in the hopper, a false bottom disposed in the hopper and having a plurality of openings, a tubular member connected with the false bottom and slidable longitudinally on the post, a rotary valve for the openings of the false bottom, means for yieldingly holding the valve in closed position, and means operatively connected with the valve and slidable in the post for permitting the valve to be manually opened.

[Claims 6 to 22 not printed in the Gazette.]

1,205,696. MULTIPLE-FACE FINISHER. HENRY J. BECK and LAWRENCE M. RAKESTRAW, Toledo, Ohio, assignors to The United Engineering Company, Toledo, Ohio, a Corporation of Ohio. Filed July 6, 1914. Serial No. 849,035. (Cl. 51—12.)



1. A machine for multiple faced articles embodying a rotary holder for an article, said holder providing a radially open pocket having automatic engaging means including a radially fixed seat and an opposing relatively movable seat.

2. A machine for multiple faced articles embodying a rotary holder for an article, said holder having automatic engaging means including seats, and lever actuating means for a seat to article holding position.

3. A machine for acting upon multiple faced articles embodying a rotary holder for an article, said holder having automatic engaging means including seats, a seat actuating lever, and a yieldable arm for shifting the lever.

4. A machine for acting upon multiple faced articles embodying a rotary holder for an article, said holder having engaging means including a seat, and actuating mechanism for the seat including a rocking cam.

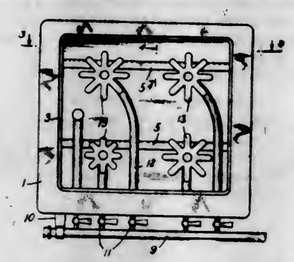
5. A machine for acting upon multiple faced articles embodying a rotary holder for an article, and automatic means for bringing the holder into closed and open positions for locking or releasing an article therein including a lever, an eccentric, and an arm actuated by the eccentric to shift the lever.

[Claims 6 to 14 not printed in the Gazette.]

1,205,697. BURNER-SUPPORT FOR GAS-RANGES. ALFRED B. BELL, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 27, 1915. Serial No. 11,089. (Cl. 126—39.)

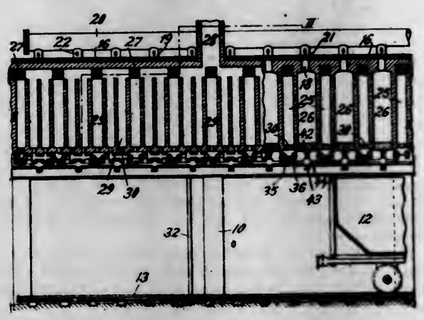
In a gas range, the combination of a burner support comprising a horizontal transverse supporting bar having a slot in one edge portion thereof, a manifold, a mixing pipe movably connected to the manifold, and a burner carried by said mixing pipe, said burner having a downwardly extending lug loosely engaging in said slot and a second downwardly extending lug adapted to loosely engage the opposite edge of said supporting bar when the first lug is

in the slot, both the top surface of said bar and bottom surface of said burner in engagement therewith being flat and horizontal, said lugs being separated by a distance from front to rear slightly greater than the bearing width



of a bar between a slot and the opposite edge of the bar, and said slot being of a slightly greater dimension lengthwise of the bar than the width of the lug seated therein, substantially as set forth.

1,205,698. BY-PRODUCT COKE-OVEN. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Dec. 11, 1911. Serial No. 664,987. (Cl. 202—9.)



1. The combination in a coking oven, of a series of coking chambers, a series of heating flues, burners located in said heating flues, said heating flues of such dimensions as to permit instantaneous combustion at the burner orifices without the development of flame, together with means for delivering gas and air to said burners at such pressures as will cause the velocity of flow to correspond to the speed of combustion.

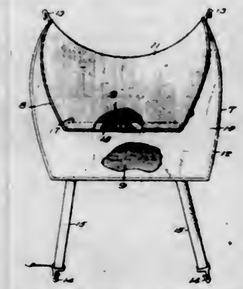
2. The combination in a coking oven of a series of coking chambers, a series of heating flues of such size as to permit free development of flame therein, burners located in said heating flues, together with means for delivering gas and air to said burners at pressures substantially of one to one and one quarter pounds to the square inch respectively.

3. The combination in a coking oven of a series of coking chambers, a series of heating flues, each heating flue having four lateral side walls, two of said walls constituting also the side walls of the coking chambers and an intervening space of such size as to permit free development of flame therein, burners located in said heating flues, together with means for delivering gas and air to said burners at pressures substantially of one to one and one quarter pounds to the square inch respectively.

4. The combination in a coking oven of a series of coking chambers, a series of heating flues one on each side of said coking chambers, said flues consisting of four lateral side walls, two of said walls constituting also the side walls of the coking chambers, and an intervening space of such size as to permit free development of flame therein, a gas burner in the bottom of each of said flues, together with means for feeding gas and air to said burners at pressures substantially of one to one and one quarter pounds to the square inch respectively.

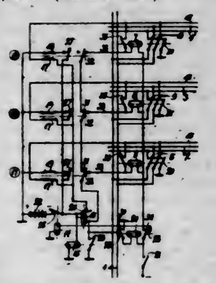
5. The combination in a coking oven of a series of coking chambers, a series of heating flues, each of these said flues having four lateral walls, two of said walls constituting also the side walls of the coking chambers and an intervening space between the walls, said walls and said space designed and adapted to permit free development of flame and evolution of the heat units of said flame, a gas burner located in each flue, together with means for delivering gas and air at pressures substantially of one to one and one quarter pounds to the square inch respectively.

1,205,699. DRESS-SHIELD. CLARA D. BENNETT, Cresskill, N. J. Filed May 12, 1915. Serial No. 27,539. (Cl. 2—34.)



A dress shield comprising a body portion; an arm portion, said body portion being colored in correspondence with the garment under which it is to be worn, and said arm portion being colored to correspond with the skin of the arm over which it is worn; a plurality of elastic members for holding said body portion in outspread position; and weights for holding said arm portion in depressed, extended position.

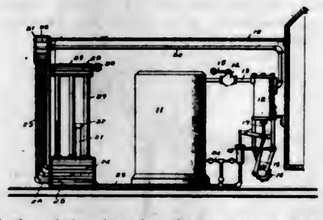
1,205,700. SELECTING DEVICE FOR AUTOMATIC OR SEMI-AUTOMATIC TELEPHONE SYSTEMS. GOTTHILF ANSGARIUS BETULANDER, Södertörns Villastad, and NILS GUNNAR PALMGREN, Stockholm, Sweden, assignors to The Betulander Automatic Telephone Company Limited, London, England. Filed June 26, 1914. Serial No. 847,495. (Cl. 179—20.)



1. A non-numerical selecting device consisting of relays and comprising one selecting relay for each selective position, operating circuits for said relays including means for marking the selective lines as engaged, and a common relay controlling the operating circuits of said relays so as to prevent re-operation of the selecting device by a selected line being marked as engaged.

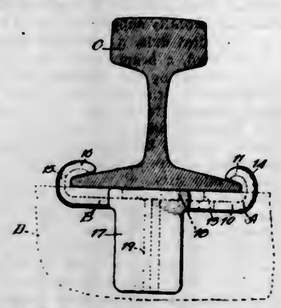
2. A non-numerical selecting device consisting of relays and comprising one selecting relay for each selective position, operating circuits for said relays including means for marking the selective lines as engaged, holding circuits for said relays independent of the condition of the selectable lines, and a common relay controlling the operating circuits of said relays so as to prevent re-operation of the selecting device by a selected line being marked as engaged.

1,205,701. CONDENSER FOR STEAM-ENGINES. CARL E. BISHOP and IRA J. BISHOP, Mitchellville, Iowa. Filed May 12, 1913. Serial No. 767,225. (Cl. 261—4.)



In a device of the class described, a receptacle a second receptacle spaced vertically above the first receptacle, tubes connecting the upper and lower receptacles, a discharge tube leading from the lower part of the lower receptacle, a plurality of steam and water carrying tubes mounted in the wall of the first receptacle and extending toward the interior thereof at different heights therein, said last described tube being graduated in length on the interior of said receptacle, the lower tubes being the shortest and the upper tubes being the longest, whereby steam discharged from the lower tube will travel a greater distance upwardly in said first receptacle and reach the top thereof, than steam discharged from said longer upper tube.

1,205,702. RAIL-ANCHOR. WILLIAM A. BOCK and RICHARD G. BOCK, Chicago, Ill. Filed Apr. 10, 1916. Serial No. 90,132. (Cl. 238—4.)



1. A rail anchor comprising, a gripping plate having portions thereof arranged to grip opposite edges of a rail base, and a locking bar arranged to engage a tie, said bar having means to engage one rail base edge only and an extension coöperable with said gripping plate, the extension being at an angle to the axis of a rail and thereby effecting a twisting action of the plate and bar upon a relative approach thereof.

2. A rail anchor of the character described comprising, a gripping plate having flanged ends arranged to grip opposite edges of a rail base, said gripping plate extending at an angle to the axis of the rail when in operative position, and a follower having a tie engaging abutment, said follower being provided with means for gripping one edge of a rail base and having an arm extending at an angle to the axis of the rail, said arm passing through and engaging a channel in said plate.

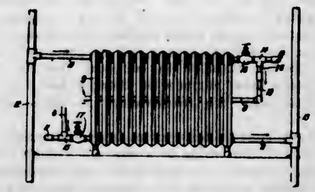
3. A rail anchor of the character described, comprising, a follower member having means for engaging one edge of a rail and an abutment to engage a tie, said follower member being provided with an arm extending at an acute angle to the axis of the rail when in position, and a gripping plate extending transversely to the axis of the rail, said plate having a channel to receive said arm, the follower and plate being twisted relatively to the rail base to grip the latter as the plate is forced toward the follower.

4. A rail anchor of the character described, comprising, a follower having a flange at one side thereof arranged to engage over and grip one edge of a rail base, said follower having a depending flange arranged to abut a tie, said follower being provided also with an arm extending at an acute angle to the axis of the rail when said follower is in position, and a gripping plate extending normally at an angle to the axis of the rail and having flanged ends arranged to engage and grip the opposite edges of a rail base, said plate having a channel to receive said arm, the channel being inclined to correspond with the angle of said arm relatively to the axis of the rail, whereby, as the plate moves toward the follower, the two members are relatively twisted and more firmly grip the rail base.

5. A rail anchor of the character described comprising, a follower having an upwardly and inwardly turned flange at one side thereof arranged to grip one edge of a rail base, said follower having a depending abutment adapted to engage a tie and provided also with an integral arm extending at an angle to the axis of the rail with which said follower is adapted to coöperate, and a gripping plate etxending transversely of the rail and having integral opposed, upwardly and inwardly turned flanges arranged to engage and grip the opposite edges of the rail base, said plate having a recess on its upper face inclined to correspond with said arm and adapted to receive the latter, whereby, as the plate and follower move relatively toward each other, the same are twisted and more firmly grip the rail base.

[Claims 6 and 7 not printed in the Gazette.]

1,205,703. HEAT-RADIATING UNIT. JOHN MCENTEE BOWMAN, New York, N. Y. Filed Feb. 16, 1916. Serial No. 78,663. (Cl. 257—124.)

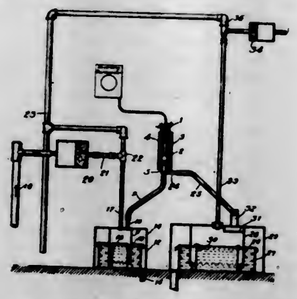


1. The combination of a radiator; a supply pipe; a delivery pipe; a supply radial operatively connecting said supply pipe and said radiator, said supply radial being disposed in parallel juxtaposed relation to said radiator, and extending lengthwise of said radiator for connection at the far end thereof; means controlling the supply of medium to said radiator, said means embodying a manually operative valve intermediate said supply radial and said radiator; and an auxiliary circulating member permanently connecting said supply radial and said delivery pipe, said member being disposed in parallel juxtaposed relation to said radiator and equidistant from said radial and delivery pipe, the connection of said auxiliary circulating member with said supply radial being intermediate said supply pipe and said valve.

2. The combination of a radiator; a supply pipe; a delivery pipe; a supply radial operatively connecting said supply pipe and said radiator, said supply radial being disposed in parallel juxtaposed relation to said radiator, and extending lengthwise of said radiator for connection at the far end thereof; means controlling the supply of

medium to said radiator, said means embodying a manually operative valve intermediate said supply radial and said radiator; an auxiliary circulating member operatively connecting said supply radial and said delivery pipe, said member being disposed in parallel juxtaposed relation to said radiator and equidistant from said radial and delivery pipe, the connection of said auxiliary circulating member with said supply pipe being intermediate said supply pipe and said valve; and a choke member for limiting the supply of medium to said auxiliary circulating member and for providing a permanent supply thereto.

1,205,704. CONTINUOUS GAS-CALORIMETER. FRANK GOTTLOB BAEYER, Palmerton, Pa., assignor to The New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 31, 1915. Serial No. 18,247. (Cl. 73—184.)



1. In a continuous gas calorimeter, the combination of a combustion chamber opening freely into the atmosphere, a gas tank and an air tank, means for maintaining the gas and air under pressures having a constant ratio, means for delivering gas and air from said tanks to said combustion chamber in constant relative rates of flow for maintaining combustion therein and a thermometer for indicating the temperature in said combustion chamber.

2. In a continuous gas calorimeter, the combination of a combustion chamber opening freely into the atmosphere, a gas tank and an air tank, means for maintaining gas and air under hydrostatic heads having a constant ratio, said hydrostatic heads being exposed to atmospheric pressure, means for delivering gas and air from said tanks to said combustion chamber in constant relative rates of flow for maintaining combustion therein, and a thermometer for indicating the temperature in said combustion chamber.

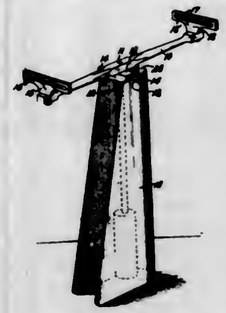
3. In a calorimeter for continuously indicating and recording the calorific value of a gas, the combination of a combustion chamber, an indicating and recording thermometer having its sensitive element positioned to indicate temperature variations in said combustion chamber, means for supplying gas and air under hydrostatic heads to said combustion chamber for maintaining combustion therein, said heads having a constant ratio one to another and being exposed to atmospheric pressure; substantially as described.

4. In a continuous gas calorimeter, the combination of a combustion chamber opening freely into the atmosphere, a thermometer positioned to indicate temperature changes therein, means for supplying gas to said chamber for combustion therein, means for supplying air to said combustion chamber to oxidize the gas and absorb heat from the products of combustion, said gas and air being supplied by means having hydrostatic heads of constant ratio one to the other; said hydrostatic heads being exposed to atmospheric pressure and thereby compensating for any change in barometric pressure at the combustion chamber substantially as described.

5. In a calorimeter for indicating and recording continuously the calorific value of a gas, the combination of a combustion chamber opening freely into the atmosphere, an indicating and recording thermometer having its sensitive element positioned to indicate the temperature in said combustion chamber, means for continuously supplying gas and an excess of air to said combustion chamber for maintaining combustion therein, said supply means comprising a pair of tanks, one for gas and the other for air, with means for maintaining the contents of said tanks under the pressures respectively of water columns of constant height each of which is exposed to the atmosphere.

[Claims 6 to 14 not printed in the Gazette.]

1,205,705. AUTOMATIC HAND-LEVEL. JOHN I. D. BRISTOL, Chappaqua, N. Y. Filed May 13, 1916. Serial No. 97,295. (Cl. 33—73.)



1. The herein described hand level comprising a cross head, means to pivotally support the cross head for rotation around a horizontal axis, a beam pivoted upon the cross head for movement with respect thereto around a vertical axis, a pendulum rigidly connected to the cross head, the connecting means between the cross head and the beam serving to maintain the beam in a plane perpendicular to the pendulum, and sighting devices connected to the ends of the beam, substantially as set forth.

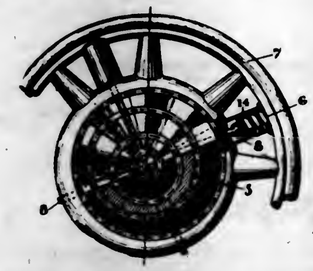
2. In an automatic hand level, the combination of a cross head, means to pivotally support the same for movement around a horizontal axis, a pendulum rigidly connected to the cross head, a beam connected to the cross head and held thereby and by the pendulum in a horizontal plane perpendicular to the pendulum, and a pair of sighting members connected to the ends of the beam, each sighting member being provided with a horizontal transverse slit, both slits being at the same elevation above the axis of the beam, and a wire extending from one end to the other of one of said slits.

3. In an automatic hand level, the combination of an open sided tubular upright holder having at its upper end a pair of notches arranged on opposite sides and forming seats, a cross head having trunnions seated in said seats, a pendulum connected rigidly to the cross head and swinging freely within the holder, a beam provided with a pintle projecting downwardly through the cross head and into the pendulum whereby the beam is held from tilting movement with respect to the pendulum but is free to rotate around the axis thereof, and sighting devices at the ends of the beam, substantially as set forth.

1,205,706. AXLE AND THE LIKE BEARING. OLOF HENNING BURSELL, Umeå, Sweden. Filed Feb. 26, 1914. Serial No. 821,169. (Cl. 152—28.)

1. A bearing for an axle of a vehicle wheel, pulley, or the like, comprising a plurality of eccentrics, one of said eccentrics being rotatably mounted on the axle and surrounded by another of said eccentrics and means to interconnect the axle and the eccentrics to maintain the eccentrics in normal position.

2. A bearing for an axle of a vehicle wheel, pulley, or the like, comprising a plurality of eccentrics, one of said eccentrics being mounted on the axle and surrounded by another of said eccentrics and adjustable means to interconnect the axle and the eccentrics to maintain the eccentrics in normal position.



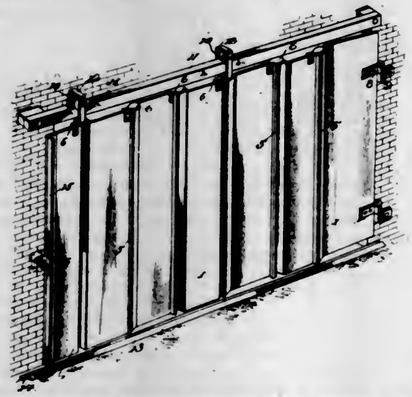
3. A bearing for an axle of a vehicle wheel, pulley, or the like, comprising a plurality of eccentrics, one of said eccentrics being mounted on the axle and surrounded by another of said eccentrics, means to interconnect the axle and the eccentrics and additional means to compensate for an excessive strain of said first named means.

4. A bearing for an axle of a vehicle wheel, pulley, or the like, comprising a plurality of eccentrics, one of said eccentrics being mounted on the axle and surrounded by another of said eccentrics, adjustable means to interconnect the axle and the eccentrics and additional means to compensate for an excessive strain of said first named means.

5. A bearing for an axle of a vehicle wheel, pulley, or the like, comprising a plurality of eccentrics, one of said eccentrics being mounted on the axle and surrounded by another of said eccentrics, and means to interconnect said plurality of eccentrics and the axle, said means being secured to said eccentrics on opposite sides of the axle.

[Claims 6 to 28 not printed in the Gazette.]

1,205,707. FIREPROOF FOLDING DOOR OR SHUTTER. JOHN CAHILL, Norfolk, Va. Filed June 25, 1910. Serial No. 568,829. (Cl. 189—59.)



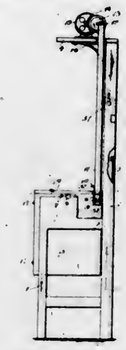
1. A collapsible fire-resistant barrier embodying a series of sheet metal slats of U or channel form in cross-section, the bottoms of the channels being flat and the webs terminating in hinge sections, one of the webs being of greater extent than the other and the short web of one slat telescoping the extended web of the next adjoining slat, substantially as described.

2. A collapsible fire-resistant barrier embodying a series of sheet metal slats with flat bodies and whereof the vertical edges are rolled and are adapted to be introduced endwise into the rolled edges of adjoining panels to provide self-locking hinges, the flat parts of the slats being superimposed or nested when the slats are folded, and means to prevent the vertical displacement of the slats, substantially as described.

3. A structure of the type recited, comprising the combination with floor and overhead rails, of a horizontally folding and sliding door formed of a plurality of flat sheet metal slats having their vertical edges rolled or beaded to provide telescopic hinge connections with the next adjoining slats, one of said rolled edges being projected beyond the other to maintain an alinement of the slats when the door is closed, means to prevent the vertical displacement of the slats and having an extension which slides in the floor rail, and rollers on the overhead rail and operatively connected with the door, substantially as described.

4. A structure of the type recited, comprising the combination with floor and overhead rails, of a folding and sliding door embodying a series of sheet metal slats which are U-shaped in cross-section with flat bodies and rolled edges that form hinge locks with the next adjacent slats, whereby the slats are nested in the folded state, means for guiding the door in the floor rail, a roller suspension cooperating with the overhead rail, and a hinge mounting at one end of the doorway whereby the door may be lifted from the rails and swung clear of the door-way, substantially as described.

1,205,708. PHOTOGRAPHIC DEVELOPING APPARATUS. EUGENE W. CALDWELL, New York, N. Y. Filed July 1, 1915. Serial No. 37,430. (Cl. 95—99.)



1. In photographic developing apparatus, a rocking box formed of heat insulating material and having a hinged cover and a removable front side, a frame, trunnions for said rocking box above the normal level of the developer therein and swingingly mounted in said frame, a motor mounted on said frame and a connector operated by said motor and detachably pivoted to said rocking box to rock the same, a developing tank in said rocking box and having heat insulating material between the body of said tank and said rocking box, internal supports in said tank to support developing frames and a floating cooling cover pan formed of heat conducting material and fitting within said developing tank to float on the developer therein and minimize undesirable contact of air with the upper surface of the developer and adapted to contain ice to cool the developer.

2. In photographic developing apparatus, a rocking box formed of heat insulating material and having a movable front side, a frame, trunnions for said rocking box above the normal level of the developer therein and swingingly mounted in said frame, a motor mounted on said frame and a connector operated by said motor and detachably pivoted to said rocking box to rock the same, and a developing tank in said rocking box and having heat in-

sulating material between the body of said tank and said rocking box.

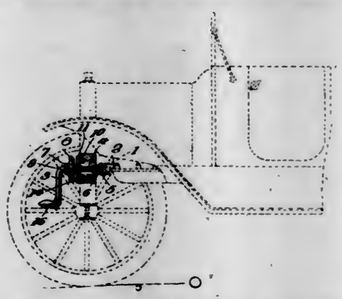
3. A photographic developing apparatus, a rocking box formed of heat insulating material, a frame, trunnions for said rocking box above the normal level of the developer therein and swingingly mounted in said frame, a motor and a connector operated by said motor and pivoted to said rocking box to rock the same, and a developing tank in said rocking box and having heat insulating material between the body of said tank and said rocking box.

4. In photographic developing apparatus, a substantially light-tight rocking box, a frame, trunnions for said rocking box above the normal level of the developer therein and swingingly mounted in said frame, means connected to said rocking box to rock the same, and a developing tank in said rocking box and provided with means to suspend plates substantially vertically in said tank substantially perpendicular to said trunnions.

5. In photographic developing apparatus, a rocking box having a hinged cover and a removable front side, a frame, trunnions for said rocking box above the normal level of the developer therein and swingingly mounted in said frame, a motor mounted on said frame and a connector operated by said motor and detachably connected to a pivot on said rocking box to rock the same and a developing tank adapted to removably fit in said rocking box.

[Claims 6 to 15 not printed in the Gazette.]

1,205,709. SAFETY CRANKING DEVICE FOR MOTOR-VEHICLES. JOSEPH P. CARSON, Richmond, Va. Filed Dec. 23, 1915. Serial No. 68,385. (Cl. 123—185.)

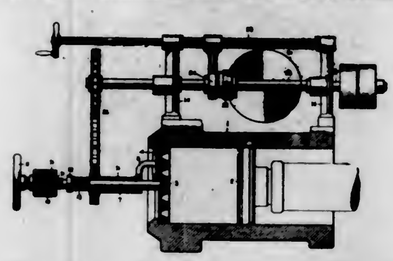


1. The combination with an internal combustion engine and its shaft, of a clutch member provided on said shaft, a crank provided with a clutch member for engaging said shaft clutch member, a ratchet device mounted on said crank, a channel shaped toothed ring rigidly mounted adjacent to said ratchet device, and a loose pawl mounted in said channel ring and adapted to be moved in one direction over the teeth of said ring by said ratchet device and to lock in engagement with the teeth of said ring when said ratchet device is moved in the opposite direction.

2. The combination with an internal combustion engine and its shaft, of a clutch member provided on said shaft, a crank provided with a clutch member for engaging said shaft clutch member, a ratchet wheel rigidly mounted on said crank, a channel shaped ring rigidly mounted adjacent to said ratchet wheel and provided in the bottom of its channel with teeth and a loose pawl provided with a nose adapted to be moved in one direction over the teeth of said ring by said ratchet wheel and its nose to lock in engagement with the teeth of said ring when said ratchet wheel is moved in the opposite direction.

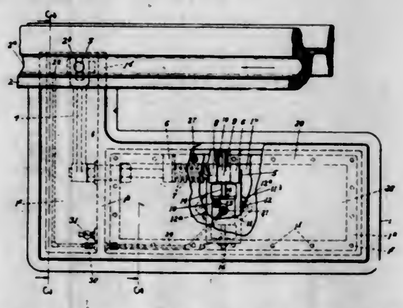
1,205,710. DOUGH-PRESS. JOHN J. CAVAGNARO, Harrison, N. J. Filed Mar. 24, 1915. Serial No. 16,615. (Cl. 107—14.)

1. In a press, the combination of a cylinder, a piston therein, a die through which the piston forces material out of the cylinder, a revolving cutter, a device movable axially of the cylinder and disposed outside the latter to form a support for the cutter and a supporting device for the die, means carried by the said device for yieldingly urging the cutter into engagement with the die, and a variable speed transmission means for actuating the cutter.



2. In a press of the class described, the combination of a cylinder, a die therein, a plunger in the cylinder for forcing material through the die, a shaft axially alining with the cylinder, a support in which the shaft is screwed for longitudinal adjustment for holding the die, a sleeve on the shaft, a spring on the shaft urging the sleeve toward the die, a cutter carried by the sleeve and maintained by the spring in contact with the die, a shaft, a driving connection between the last mentioned shaft and cutter-carrying sleeve for rotating the latter, and a variable speed device for driving the second-mentioned shaft.

1,205,711. RAIL-LUBRICATING DEVICE. CHARLES H. CLARK, Cleveland, Ohio. Filed Nov. 1, 1915. Serial No. 59,052. (Cl. 184—3.)



1. In a rail lubricating device, a rail, a source of lubricant supply leading thereto, a pump, means for adjusting and regulating the latter, and car wheel operated pump actuating mechanism operatively connected with said rail.

2. A rail lubricating device, comprising a casing including an oil reservoir, a pump having a lubricant outlet port at the side of the rail to be lubricated, means for adjusting and regulating said pump, and pump actuating plunger mechanism connected with said rail in proximity to said lubricant outlet port.

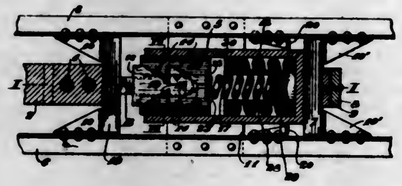
3. A rail lubricating device, comprising a casing including an oil reservoir and a plunger housing, a pump in said reservoir provided with a lubricant outlet port, pump actuating plunger mechanism in said plunger housing, and means for adjusting and regulating the working impulses imparted to said pump by said pump actuating mechanism.

4. In a rail lubricating device, a rail, a lubricant casing, a valved lubricant conduit leading to one side of said rail, and pump and pump actuating and adjusting mechanism carried by said casing in coöperative relation to said rail and the outlet portion of said lubricant conduit whereby a car wheel passing said lubricant conduit will receive a supply of lubricant.

5. A rail lubricating device, comprising a casing including a valved oil reservoir and a separate plunger housing, a pump in said oil reservoir provided with a valved outlet port intersecting the side of the rail to be lubricated, and wheel operated plunger mechanism in said plunger housing, said plunger mechanism including a plunger member vertically movable in said rail in proximity to the outlet portion of said valved outlet port.

[Claims 6 to 11 not printed in the Gazette.]

1,205,712. DRAFT-GEAR. JOHN F. COURSON, Pitcairn, Pa. Filed Sept. 11, 1913. Serial No. 789,279. (Cl. 213—64.)



1. In a draft gear, the combination with a rear abutment and a relatively movable drawbar, of a casing, a drawbar, a central wedge abutting toward the drawbar, a cylindrical series of assembled friction shoes within the casing having lateral co-acting longitudinally operative wedge faces, the alternating friction shoes having inwardly extending wedge portions directly engaging the central wedge.

2. In a draft gear, the combination with a rear abutment and a relatively movable drawbar, of a casing, a drawbar, a central wedge provided with front and back wedge faces, a cylindrical series of assembled friction shoes within the casing having lateral co-acting longitudinally operative wedge faces, the alternating friction shoes having inwardly extending wedge portions directly engaging the central wedge.

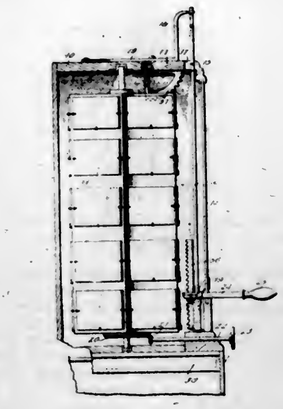
3. In a draft gear, the combination with a rear abutment and a relatively movable drawbar, of a casing, a drawbar, a central wedge abutting toward the drawbar, a cylindrical series of assembled friction shoes within the casing having lateral co-acting longitudinally operative wedge faces, the alternating friction shoes having inwardly extending wedge portions directly engaging the central wedge and the other friction shoes extending inwardly beyond said alternating shoes.

4. In a draft gear, the combination with a rear abutment and a relatively movable drawbar, of a casing, a drawbar, a central wedge, a cylindrical series of assembled friction shoes within the casing having lateral co-acting wedge faces, the alternating friction shoes having inwardly extending wedge portions engaging the central wedge and the other friction shoes extending inwardly beyond said alternating shoes, and a spring seating against said inwardly extending shoes and interposed between them and the rear abutment.

5. In a draft gear, the combination with a rear abutment and a relatively movable drawbar, of a casing, a drawbar, a central wedge, a cylindrical series of assembled friction shoes within the casing having lateral co-acting wedge faces, the alternating friction shoes having inwardly extending wedge portions engaging the central wedge and the other friction shoes extending inwardly beyond said alternating shoes, and a pair of separated springs interposed between the rear abutment and said friction shoes, one of said springs bearing against the inwardly extending bearing shoes, and the other bearing against the rear end of the casing.

[Claims 6 and 7 not printed in the Gazette.]

1,205,713. VENDING-MACHINE. FRANK HALLER COX, Gratton, Va. Filed June 16, 1916. Serial No. 104,017. (Cl. 194—37.)



1. A vending machine comprising a casing, an article support mounted therein, guiding elements also supported in said casing, a coin controlled lock mechanism adjustable along said guiding elements and normally in locked position, means for adjusting said lock mechanism after the same has been released, means associated with the last-named means for engaging an article on said support whereby the same may be lifted from its position thereon and extracted from the said casing, a closure for said casing, and means for automatically opening said closure as an article is being extracted.

2. A vending machine, comprising a casing, a rotary article support mounted therein, vertically adjustable means in said casing adapted to engage an article on said support whereby the same may be lifted from its position thereon and extracted from said casing, and a lock mechanism movable with said adjustable means and adapted to retain the same in normally locked position near the lower end of said casing.

3. A vending machine comprising a casing, an article support therein, guiding elements also supported in said casing, a coin controlled lock mechanism adjustable longitudinally of said guiding elements and normally in locked position, means movable with and relative to said lock mechanism for adjusting the same after being released, and a device associated with the last named means and including coöperating jaws having cam gripping surfaces for engaging an article on said support whereby the same may be lifted from its position thereon and extracted from said casing.

4. A vending machine comprising a casing, an article support mounted therein, a lock mechanism movable in said casing, adjustable means for engaging an article on said support and extracting the same from said casing and having a pivotal and a sliding connection with said lock mechanism and also movable therewith, and adapted to be retained thereby in normally locked position.

5. A vending machine comprising a casing, an article support therein, vertically adjustable means in said casing adapted to engage an article on said support whereby the same may be lifted from its position thereon and extracted from the casing, a coin controlled lock mechanism carried by said adjustable means for locking the same in a lowered position and released to permit an adjustment of said means whereby a predetermined article may be engaged and lifted from the casing.

[Claims 6 to 22 not printed in the Gazette.]

1,205,714. FOUNTAIN PAINT-BRUSH. JOHN S. CREECH, Aberdeen, Wash. Filed Jan. 6, 1916. Serial No. 70,669. (Cl. 15—49.)



1. A fountain paint brush comprising a head having bristles, a paint reservoir carried thereby and having an outlet discharging into the center of the body of bristles, a valve to control the said outlet, and a laterally movable stem for actuating the valve located centrally in the body of bristles and terminating above the lower ends of the bristles whereby said bristles will directly actuate the stem in the wiping motion of the brush.

2. A fountain paint brush comprising a head having bristles, a paint reservoir carried thereby and having a discharge opening therein, and revoluble means for controlling the discharge of paint from said reservoir operable by the wiping motion of the brush in applying paint.

3. A fountain paint brush comprising a head having bristles, a paint supply connected with said head and discharging into the body of bristles, a valve controlling said supply, a flexible paint distributer extending from said head into the body of bristles and having a discharge mouth located at a point spaced inwardly from the free ends of the bristles, and a stem connected with said valve and projecting into said distributer and adapted to be engaged and operated by the walls of said distributer during the wiping motion of the brush.

4. A fountain paint brush comprising a head having bristles, a paint reservoir carried thereby and having an outlet opening therein, a valve movable to and fro to control said outlet and having spaced discharge openings positioned to register with the outlet opening of the reservoir when the valve is moved a pre-determined distance in either direction, and a stem connected with said valve and arranged in the bristles of the brush, and operable thereby on the wiping motion of the brush.

5. A fountain paint brush comprising a head having bristles, a paint reservoir carried thereby and having an outlet opening therein, a valve movable to and fro to control said outlet and having spaced discharge openings positioned to register with the outlet opening of the reservoir when the valve is moved a pre-determined distance in either direction and a U-shaped bail having the legs thereof secured to said valve in the space between the apertures thereof, said bail extending into the body of bristles with its free end spaced inwardly from the free ends of the bristles and movable by the wiping motion of the brush to actuate the valve.

[Claim 6 not printed in the Gazette.]

1,205,715. PROJECTILE. GEORGE DAMER, U. S. Navy. Filed Mar. 24, 1916. Serial No. 99,489. (Cl. 102—26.)



1. A projectile, comprising a body provided in its peripheral face with longitudinal grooves spaced equidistantly apart, pivots extending transversely at the rear portions of the said grooves, and raking members mounted to slide in the direction of their length and to swing on the said pivots by the inertia thereof on the firing of the projectile.

2. A projectile, comprising a body provided in its peripheral face with longitudinal grooves spaced equidistantly apart, pivots extending transversely at the rear portions of the said grooves, and raking members mounted to slide longitudinally and to swing on the said pivots, the said raking members and the side walls of the said grooves having relatively engaging means to normally hold the raking members in forward folded position, disengageable by rearward movement of the said raking members by the inertia thereof on the firing of the projectile, whereby to allow the raking members to swing upward into extended active position.

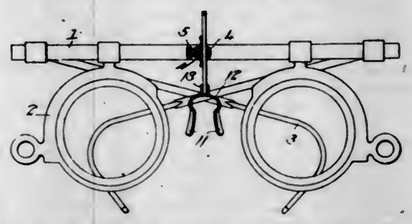
3. A projectile, comprising a body provided in its peripheral face with longitudinal grooves spaced equidistantly apart, pivots extending transversely at the rear portions of the said grooves, and raking members mounted to slide and to swing on the said pivots, the said raking members being provided at their sides with raised portions and the side walls of the grooves being provided with raised clamping portions normally engaged by the said raised portions of the raking members to hold the latter normally in forward position, the said raking members on sliding rearward moving their raised portions out of engagement with the clamping portions on the groove walls to allow the raking members to swing into open position.

4. A projectile, comprising a body provided in its peripheral face with longitudinal grooves, the rear end wall of each of which grooves is provided at the top with a forwardly extending overhanging abutment, pivots extending transversely through the rear portions of the said grooves, and raking members mounted to slide and swing on the said pivots and normally folded in the said grooves, the pivotal ends of the raking members being adapted to engage the said abutments to limit the outward and rearward swinging motion of the raking members.

5. A projectile, comprising a body having longitudinal grooves, raking members pivoted in the grooves of the said body and adapted to slide on their pivots in the direction of the axis of the projectile, said raking members extending beyond the end of the projectile and retaining means to hold the raking members in folded forward position and to allow the raking members to slide rearward into released position by the inertia thereof incident to the firing of the projectile whereby to allow the raking fingers to subsequently swing upward and rearward.

[Claim 6 not printed in the Gazette.]

1,205,716. NOSE-REST. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Continuation in part of application Serial No. 17,428, filed Mar. 27, 1915. This application filed July 23, 1915. Serial No. 41,514. (Cl. 88—20.)



1. In a device of the character described, nose engaging means including an arm mounted on a supporting bar and a yieldable nose engaging member pivotally mounted on said arm.

2. In a trial frame, a supporting bar, lugs extending from said bar, an arm mounted for swinging and sliding movement between said lugs, and spring means to hold said arm in any adjusted position.

3. In a device of the character described, a supporting bar, lugs extending laterally from one face of said bar, an arm mounted for swinging and sliding movement between said lugs, a spring to hold said arm in any adjusted position, and means to vary the tension of the spring.

4. In a device of the character described, a supporting bar, lugs extending from said bar, an arm mounted for vertical and lateral adjustment between said lugs, a spring to hold said arm in any adjusted position, a screw to vary the tension of said spring, and means to prevent accidental movement of the arm from its adjusted position.

5. In a device of the character described, the combination with a nose rest arm and a support therefor, one of said parts having transverse and the other of said parts having radial corrugations formed thereon, means pivotally and slidably connecting the parts, and a locking member mounted on the pivot and disposed between said parts, said locking member having differently arranged teeth or corrugations projecting from opposite faces thereof whereby one set of teeth will interlock with the radial and the other with the transverse corrugations of the members to lock the members against accidental relative sliding movement.

[Claims 6 to 9 not printed in the Gazette.]

1,205,717. SHAFT KEYING DEVICE. WARD DECKER, Owego, N. Y. Filed Sept. 18, 1915. Serial No. 51,411. (Cl. 74—8.)



1. A shaft provided with a suitable depression, a member provided with a keyway and mounted on the shaft, a sleeve provided with a radial opening and interposed between the member and the shaft and headed over at each end against the member, all in combination with a key lying in the keyway and projecting through the opening in the sleeve into the depression in the shaft.

2. A shaft provided with suitable holes, a member provided with a keyway and mounted on the shaft, a sleeve provided with radial holes registering with the shaft holes and interposed between the member and the shaft and headed over at each end against the member, all in combination with a key lying in the keyway and projecting through the holes in the sleeve into the holes in the shaft.

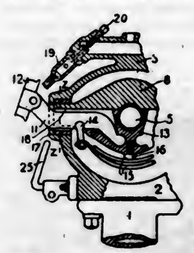
3. A shaft drilled radially with two holes, a keyseated member, a sleeve provided with holes corresponding with the shaft holes interposed between the member and the shaft and headed over at each end against the member, and a key formed by bending the ends of a rod at right angles and making these ends parallel, said key lying with its body in the keyway of the member with its ends passing through the holes in the sleeve into the holes in the shaft.

1,205,718. EDGE-SETTING MACHINE. MARK THOMAS DENNE, Ruskden, England. Filed May 18, 1914. Serial No. 839,208. (Cl. 12—78.)

1. In an edge-setting machine, the combination with an edge-tool-actuating member, of an edge tool sustained thereby, and means to give both said member and the tool combined vibrating and rocking motions.

2. In an edge-setting machine, the combination with a shaft, of a yoke-shaped member embracing said shaft, an edge-setting tool carried by said member, and means to impart to said member and the tool carried thereby lateral vibrating and rocking movements.

3. In an edge-setting machine, the combination with an edge-tool-actuating member, of an edge tool carrier supported thereby, an edge-tool secured to said carrier, and means to impart simultaneously to said member a vibrating motion and also a rocking motion.

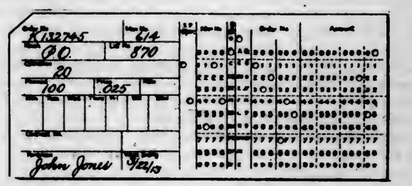


4. In an edge-setting machine, the combination with an edge-tool-actuating member, of a carrier yieldingly connected to said member, an edge-tool supported by said carrier, and means to impart to said member and carrier combined vibratory and rocking movements.

5. In an edge-setting machine, the combination with an edge-tool-actuating member, of a tool carrier sustained thereby, a reversible edge-setting tool mounted in said carrier, and means to give said member combined vibratory and rocking motions.

[Claim 6 not printed in the Gazette.]

1,205,719. COMBINED TICKET AND STATISTICAL CARD. GEORGE F. EATON, Wenham, Mass. Filed Mar. 2, 1915. Serial No. 11,560. (Cl. 11—15.)



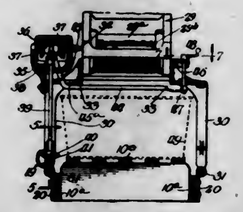
1. A combined workman's ticket and statistical card comprising a single sheet of stiff material capable of being written upon, provided with spaces having indicia to receive original entries of the foreman or other person authorized to make them, some or all of which are statistical in their nature, and at the other end spaces having indicia to receive punch holes relating to the statistical entries, certain of the said spaces on the ticket and on the card having indicia to receive entries in writing and in punch holes by which the card as a whole may readily be indexed, said card as a whole being adapted, when punched, for use with an automatic sorting machine.

2. A combined workman's ticket and statistical card comprising a single sheet of stiff material capable of being written upon, provided with spaces having indicia in which spaces are original entries of the foreman or other person authorized to make them, some or all of which are statistical in their nature, and at the other end punch holes relating to the statistical entries, certain of said spaces on the ticket and on the card respectively having entries in writing and in punch holes by which the card as a whole may be indexed, said card as a whole being adapted for use with an automatic sorting machine.

1,205,720. GEARING. JOHN EDENS, Davenport, Iowa, assignor to H. F. Brammer Manufacturing Company, Davenport, Iowa, a Corporation of Iowa. Filed Oct. 20, 1913. Serial No. 796,111. (Cl. 74—58.)

1. A device of the kind described comprising an elongated support, a power driven shaft extending longitudinally of said support, a frame mounted on said support and capable of longitudinal movement thereon, an operating shaft carried by said frame in a plane above said sup-

port, an upright shaft journaled in said frame and operatively connected with said power driven shaft, a reverse gear mechanism interposed between said operating shaft and the top of said upright shaft, and means for controlling said reverse gear mechanism in any position of said frame.



2. A device of the kind described comprising an elongated support, a power driven shaft extending longitudinally of said support, a frame mounted on said support and capable of longitudinal movement thereon, an operating shaft carried by said frame in a plane above said support, a reverse gear mechanism carried by said frame mounted on and operatively connected with said operating shaft, and means movable with said frame interposed between said power driven shaft and said reverse gear mechanism for operating said reverse gear mechanism.

3. A device of the kind described comprising an elongated support, a power driven shaft extending longitudinally of said support, a frame mounted on said support and capable of longitudinal movement thereon, an operating shaft carried by said frame in a plane above said support, a reverse gear mechanism carried by said frame mounted on and operatively connected with said operating shaft, means interposed between said power driven shaft and said reverse gear mechanism for driving said mechanism, and means carried by said frame for controlling said reverse gear mechanism.

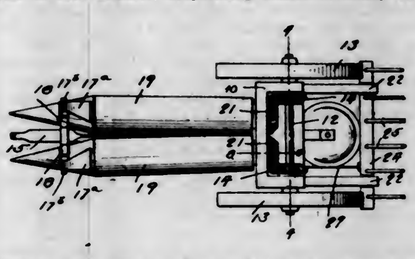
4. A device of the kind described comprising an elongated support, a power driven shaft extending longitudinally of said support, a frame mounted on said support and capable of longitudinal movement thereon, an operating shaft carried by said frame in a plane above said support, a reverse gear mechanism mounted on and operatively connected with said operating shaft at one side of said frame, means movable with said frame interposed between said power driven shaft and said reverse gear mechanism for operating the same, and controlling means carried by said frame at the side opposite from said reverse gear mechanism for controlling said reverse gear mechanism.

5. A device of the kind described comprising an elongated support, a power driven shaft extending longitudinally of said support, a frame straddling said support, longitudinally extending bars fixed to each side of said support upon which said frame is longitudinally movable, an operating shaft carried by said frame, a reverse gear mechanism carried by said frame on one side above said drive shaft adjacent to and operatively connected with said operating shaft, means movable with said frame interposed between said drive shaft and said reverse gear mechanism for operating the same, and controlling means carried by said frame at the side opposite from said reverse gear mechanism for controlling said reverse gear mechanism.

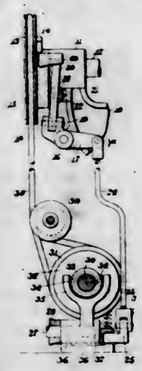
[Claims 6 and 7 not printed in the Gazette.]

1,205,721. COTTON-STALK PULLER. OTTO B. ELKINS, near Abbeville, Ga. Filed Mar. 9, 1916. Serial No. 83,118. (Cl. 55—66.)

In a stalk pulling machine the combination of a body provided with a recess opening through the rear and bottom faces of the body, an axle rotatably mounted in the body and extending through said recess, traction wheels fixed on the axle, a pair of gears fixed on the axle within the recess, a bar secured to the body and extending forwardly thereof, a U-shaped member depending from said bar, runners rotatably adjustable on the lower ends of the arms of said member, coöperating rollers rotatably supported at their forward ends by said arms, trunnions on the rear ends of said rollers rotatably engaged in the body and extending into said recess, and gears fixed on said trunnions meshing respectively with the gears on the axle.



1,205,722. STOP-MOTION. EDWARD ERICKSON, Cliftondale, Mass., assignor to Victor Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed Dec. 13, 1915. Serial No. 67,071. (Cl. 74—46.)



1. In a device of the class described, the combination of a revoluble shaft; driving means thereon; a stop lug projecting from a side face thereof; a cam projection on the same face of said driving means; a pivoted lever; an arm pivoted at one end to said lever and normally in the path of said projection; resilient means for moving said arm toward said shaft; and mechanism for moving said lever about its pivot and said arm from the path of said cam projection.

2. In a device of the class described, the combination of a revoluble shaft; driving means thereon; a stop lug projecting from a side face thereof; a cam projection on the same face of said driving means; a pivoted lever; an arm pivoted at one end to said lever and normally in the path of said projection; resilient means for moving said arm toward said shaft; a fixed shoulder to limit the outward movement of said arm; and mechanism for moving said lever about its pivot and said arm from the path of said cam projection.

3. In a device of the class described, the combination of a revoluble shaft; driving means thereon; a stop lug projecting from a side face thereof; a cam projection on the same face of said driving means; a pivoted lever; an arm pivoted at one end to said lever and normally in the path of said projection with the axis of its pivot perpendicular to the axis of said lever pivot; resilient means for moving said arm toward said shaft; and mechanism for moving said lever about its pivot and said arm from the path of said cam projection.

4. In a device of the class described, the combination of a revoluble shaft; driving means thereon; a stop lug projecting from a side face thereof; a cam projection on the same face of said driving means of greater length from the axis of said revoluble shaft than the length of said stop lug; a pivoted lever; an arm pivotally mounted thereon and normally in the path of said projection; resilient means for moving said arm toward said shaft; and mechanism for moving said lever about its pivot and said arm from the path of said cam projection.

5. In a device of the class described, the combination of a revoluble shaft; driving means thereon; a stop lug projecting therefrom; a cam projection on said driving means; a pivoted lever; an arm pivotally mounted thereon adapted to move in a plane perpendicular to the plane of movement of said lever and normally in the path of said cam projection; resilient means for moving said arm toward said shaft; a spring for moving said arm about its pivot and normally retaining said arm in the path of said stop lug; and mechanism for moving said lever about its pivot and said arm from the path of said cam projection.

[Claims 6 to 10 not printed in the Gazette.]

1,205,723. METHOD OF MANUFACTURING SULFURIC ACID. ANDREW MILLER FAIRLIE, Copperhill, Tenn. Filed Feb. 25, 1915. Serial No. 10,508. (Cl. 23—1.)

1. In the manufacture of sulfuric acid, the step of regulating the realtive amounts of nitrogen-oxygen compounds and sulfur dioxid introduced, in such a manner as to maintain at a predetermined given place in the acid-making system, a predetermined substantially uniform percentage of sulfur dioxid in the gases, said percentage being more than 0.7% by volume.

2. In the manufacture of sulfuric acid, the improvement which consists in determining that ratio between the percentages of sulfur dioxid in the gases at two predetermined places in the acid-making system, best adapted to a commercially complete absorption of nitrogen-oxygen compounds, at least one of said places being located in that part of the system where the normal percentage of SO_2 should be over 0.7%, and thereafter maintaining said ratio, by regulation of the relative amounts of nitrogen-oxygen compounds and sulfur dioxid introduced into the system.

3. In the manufacture of sulfuric acid, the improvement which comprises determining, by means of analyses of the gases at a plurality of separated points of the acid making plant, the proper ratio between the percentage of sulfur dioxid in the gases free from nitrogen-oxygen compounds entering the acid making system, and the percentage of sulfur dioxid in the gases containing nitrogen-oxygen compounds at a predetermined point in the acid making system where the percentage should normally be more than 0.7% by volume, and maintaining the proper ratio substantially constant, by regulating the relative amounts of nitrogen-oxygen compounds and sulfur dioxid introduced into the acid making system.

4. In the manufacture of sulfuric acid, the improvement which comprises determining the proper ratio between the percentages of sulfur dioxid in the gases free from nitrogen-oxygen compounds entering the acid-making system, and the percentage of sulfur dioxid in the gases containing nitrogen-oxygen compounds at a predetermined point in or near the Glover tower, by means of analyses of said gases, and maintaining said ratio substantially constant by regulating the relative amounts of nitrogen-oxygen compounds and sulfur dioxid introduced.

5. In the manufacture of sulfuric acid the step of determining the proper ratio for sulfur dioxid containing gases of different grades, between the percentages of sulfur dioxid in the gases free from nitrogen-oxygen compounds entering the acid making system and the percentages of sulfur dioxid in the gases containing nitrogen-oxygen compounds at a predetermined place in the acid making system where the percentage of sulfur dioxid should normally be more than 0.7% by volume, and thereafter regulating the amounts of oxygen-nitrogen compounds introduced, in accordance with the amount and grade of said incoming gases, in such a manner as to maintain the above mentioned proper ratio corresponding to the particular grade of gas being employed.

[Claims 6 to 10 not printed in the Gazette.]

1,205,724. METHOD OF DETERMINING SULFUR DIOXID. ANDREW M. FAIRLIE, Copperhill, Tenn. Filed Feb. 23, 1916. Serial No. 80,037. (Cl. 23—3.)

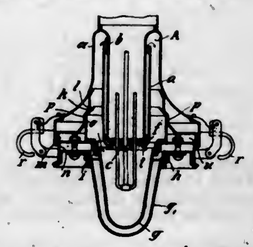
1. The herein described method of determining sulfur dioxid in gases containing sulfur dioxid and oxygen-nitrogen compounds which comprises passing said gases, into contact with a solution containing a known amount of free iodin, together with an acid and a salt, said acid and salt being inert to iodin, until the free iodin has entirely combined, and measuirng the amount of said gases necessary.

2. The herein described method of determining the amount of sulfur dioxid in a gas mixture containing this and oxids of nitrogen, which comprises passing said gases into contact with an acid solution containing sodium acetate and an acid, said acid being inert to iodin, inert to sulfur dioxid or sulfurous acid, and inert to oxids of nitrogen, said solution containing a known amount of free iodin, until said free iodin has entirely combined, and measuring the amount of said gas used.

3. A method of determining sulfur dioxid in gas mixtures which comprises passing the gases in contact with a solution containing a known volume of standard iodin solution, together with water, starch solution, sodium acetate solution and acetic acid, until the blue color just disappears and measuring the amount of gases so introduced to produce the elimination of the color.

4. A method of determining sulfur dioxid in gas mixtures which comprises passing the gas mixture in contact with a liquid comprising N/10 iodin solution, 1 c. c.; water, about 100 c. c.; starch solution, about 5–6 drops; saturated sodium acetate solution, 5 c. c.; strong acetic acid, about 5 c. c., until the blue coloration disappears, and measuring the volume of gases necessary to produce the elimination of the blue color.

1,205,725. INCLOSED-ARC LAMP. KARL FERBER, Berlin, and WILHELM WISSMANN, Charlottenburg, Germany, assignors to Siemens-Schuckert Werke G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Apr. 4, 1913. Serial No. 758,970. (Cl. 176—52.)



1. In an inclosed arc-lamp the combination with a casing having an inner downwardly-projecting portion bounding a smoke chamber therein, an economizer mounted at the end of said portion, and a baffle mounted in said chamber and curved at its lower end in the direction of said economizer, said baffle dividing said chamber into an uptake passage and a downtake passage having orifices which are immediately adjacent to each other, of a deflector mounted transversely on the end of the curved portion of said baffle and extending into said downtake passage, for the purpose specified.

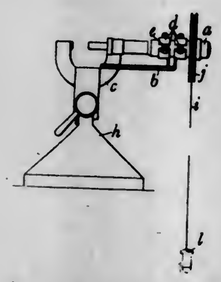
2. In an inclosed arc-lamp the combination with a casing having an inner downwardly-projecting portion bound-

ing a smoke chamber therein, an economizer mounted at the end of said portion, and a baffle mounted in said chamber and curved at its lower end in the direction of said economizer, said baffle dividing said chamber into an uptake passage and a downtake passage having orifices which are immediately adjacent to each other, of a deflector mounted transversely on the end of the curved portion of said baffle and extending into said uptake and also into said downtake passage, for the purposes specified.

3. In an inclosed arc-lamp the combination with a casing having an inner downwardly-projecting portion bounding a smoke chamber therein, a globe-carrier mounted in the outer portion of the casing, an economizer mounted at the end of said portion, and a baffle mounted in said chamber and curved at its lower end in the direction of said economizer, said baffle dividing said chamber into an uptake passage and a downtake passage having orifices which are immediately adjacent to each other, of a deflector mounted transversely on the end of the curved portion of said baffle and extending into said downtake passage, said globe-carrier forming with said casing a plurality of air-tight joints for the purpose specified.

4. In an inclosed arc-lamp the combination with a casing having an inner downwardly-projecting portion bounding a smoke chamber therein, a globe-carrier mounted in the outer portion of the casing, an economizer mounted at the end of said portion, and a baffle mounted in said chamber and curved at the lower end in the direction of said economizer, said baffle dividing said chamber into an uptake passage and a downtake passage having orifices which are immediately adjacent to each other, of a deflector mounted transversely on the end of the curved portion of said baffle and extending into said downtake passage, said globe-carrier forming with said casing a labyrinth packing, for the purpose specified.

1,205,726. MICROMETER MEASURING INSTRUMENT. ROBERT WILLIAM FIELDWICK, London, England. Filed Sept. 13, 1915. Serial No. 50,383. (Cl. 33—166.)

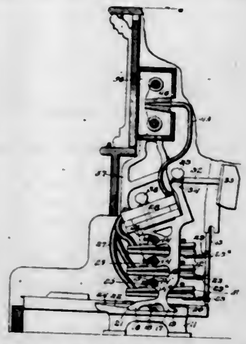


1. The combination with a screw-operated micrometer caliper fitted with a rotatable adjusting piece, of a pair of adjustable stops mounted on the said piece, and clamps for securing the stops on the adjusting piece, substantially as set forth.

2. The combination with a screw-operated micrometer caliper fitted with a rotatable adjusting piece, of a pair of adjustable stops mounted on the said piece and adapted to abut on opposite sides of the frame of the caliper, and clamps for securing the stops on the adjusting piece, substantially as set forth.

3. The combination with a screw-operated micrometer caliper fitted with a rotatable adjusting piece, of a pair of adjustable stops mounted on the said piece, clamps for securing the stops on the adjusting piece, a support for the caliper, and means for operating the adjusting piece, said means comprising a pulley on the adjusting piece, a cord passing over said pulley, and a spring and lever respectively connected to opposite ends of the cord, substantially as set forth.

1,205,727. PNEUMATIC PIANO-PLAYER. CHARLES FREBORG, Kankakee, Ill., assignor to Schaeffer Piano Mfg. Company, a Corporation of Illinois. Filed July 28, 1911. Serial No. 641,133. (Cl. 84—233.)



1. In a device of the character described, a series of piano stickers, a series of pneumatics arranged to coact with and operate said stickers, supporting bars, said pneumatics being attached thereto, supporting means, said bars being carried thereby and said means being constructed and arranged to move the pneumatics into operative relation with the stickers when assembling said device, said means being further constructed to lock the pneumatics in such relation.

2. In a device of the character described, a series of piano stickers, a series of adjustable pneumatics in operative relation to said stickers, and supporting means for said pneumatics adapted to guide said pneumtaics into said operative relation and to lock them in said position.

3. In a device of the character described, a series of piano stickers, a plurality of rows of pneumatics in operative relation to said stickers, a separate supporting bar for each row, a standard to which said bars are fixed, a base and means on said base adapted to guide said standard into its normal position and to automatically lock said standard in said position.

4. In a device of the character described, a series of piano stickers, a plurality of rows of adjustable pneumatics in operative relation to said stickers, a separate supporting bar for each row, a standard to which said bars are fixed, a base, and means on said base adapted to guide said standard into its normal position and to lock said standard in said position.

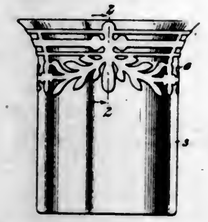
5. In a device of the character described, a series of piano stickers, a plurality of rows of pneumatics in operative relation to said stockers, a separate supporting bar for each row, a standard to which said bars are fixed, a base, and means on said base adapted to guide said standard into its normal position and to lock said standard in said position, and means for securing the upper portion of said standard to the frame of the instrument.

[Claims 6 to 17 not printed in the Gazette.]

1,205,728. DECORATED TRANSPARENT ARTICLE AND PROCESS OF MAKING SAME. ALFRED FRIEDRICH, New York, N. Y., assignor to National Silver Deposit Ware Co., Inc., New York, N. Y., a Corporation of New York. Filed Jan. 5, 1916. Serial No. 70,443. (Cl. 41—18.)

1. A transparent article having a decoration formed on one of its surfaces, the said decoration being formed of a layer of gold contacting with the surface on which the decoration is formed, a layer of gold-protecting substance over the layer of gold, and a layer of silver over said gold-protecting layer, said silver layer sealing the gold and gold-protecting layers on the surface where the decoration is formed and whereby said gold layer is visible through the body of the article only.

2. A process of decorating transparent articles which consists in forming a gold coating on one of the surfaces of the article, covering the gold coating with gold-protecting coating adapted to form also a background for a design with which the article is to be decorated, drawing the design with a composition immune to acid, etching the design by dipping the article into acid, whereby the uncovered portions of the gold-protecting coating and gold are removed, dissolving the coating immune to acid, metallizing the decoration on the article, and electroplating the decoration with silver.



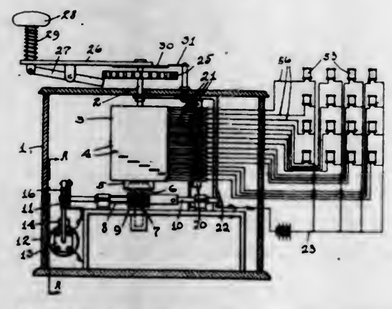
3. A process of decorating transparent articles which consists in forming a gold coating on one of the surfaces of the article, covering the gold coating with a coating for protecting the gold coating and forming a base for receiving a coating of silver, etching the said coatings to the surface of the article whereby a decoration is formed thereupon, then plating the non-etched part of the coating with silver.

4. A process of decorating transparent articles which consists in forming a gold coating on one of the surfaces of the article, covering the gold coating with a coating for protecting the gold coating, which forms a base for a silver coating, etching in said coatings a design to the surface of the article, then electroplating the non-etched parts of the coatings with silver.

5. A transparent article having a decoration formed on one of its surfaces, the said decoration being formed of a layer of metal in contact with the surface on which the decoration is formed, a layer of metal-protecting substance covering the layer of metal, and another layer of metal over said metal-protecting layer, said latter metal sealing the first-mentioned metal and the metal-protecting layer on the surface where the decoration is formed.

[Claims 6 and 7 not printed in the Gazette.]

1,205,729. PRESSURE-REGULATING APPARATUS. ROBERT L. FRINK, Lancaster, Ohio. Filed June 28, 1915. Serial No. 36,682. (Cl. 161—7.)



1. In pressure regulating apparatus, the combination of means for supplying pressure fluid to an inclosed space; means for controlling the supply to establish a desired pressure; and means actuated by variations of pressure in the space for governing the supply to maintain the established pressure.

2. In pressure regulating apparatus, the combination of means for supplying pressure fluid to an inclosed space; automatic means for controlling the supply to establish a desired pressure; and means actuated by variation of pressure in the space for governing the supply to maintain the established pressure.

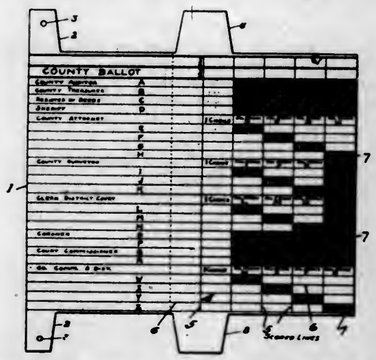
3. In pressure regulating apparatus, the combination of means for supplying pressure fluid to an inclosed space; automatic means for intermittently varying the supply to establish different pressures; and means actuated by variation of pressure in the space for governing the supply to maintain the established pressure.

4. In pressure regulating apparatus, the combination of means for supplying pressure to an inclosed space; electrically operated automatic means for controlling the supply to establish a desired pressure; and means actuated by variation of pressure in the space for governing the supply to maintain the established pressure.

5. In pressure regulating apparatus, the combination of means for supplying pressure fluid to an inclosed space; a valve controlling the supply; a lever connected to operate the valve; a movable weight on the lever; automatic means for moving the weight; and a manometer communicating with the space and connected with the lever.

[Claims 6 to 16 not printed in the Gazette.]

1,205,730. RECORDING-SHEET. NILS F. GARBO, Minneapolis, Minn., assignor to Counting Machine Manufacturing Co., Minneapolis, Minn., a Corporation. Filed Apr. 8, 1913. Serial No. 759,770. (Cl. 11—19.)



1. A vote recording sheet, having upon its face the designations of offices to be filled and names of candidates for each office, one or more columns on the face of said sheet and at one side thereof for the reception of vote indicating marks opposite said names, and means, forming a part of said sheet, to enable a series of like sheets of the same size to be spaced or assembled in underlapping relation to one another, with the edge of each overlying sheet coinciding with the inner edge of a vote receiving column of the next underlying sheet, substantially as described.

2. A recording sheet having upon its face names pertaining to transactions in respect to which entries are to be made, one or more columns on the face of said sheet and at one side thereof for the reception of indicating marks opposite said names, and means, forming a part of said sheet, to enable a series of like sheets of the same size to be spaced or assembled in underlapping relation to one another, with the edge of each overlying sheet coinciding with the inner edge of a mark receiving column of the next underlying sheet, substantially as described.

3. A vote recording sheet having upon its face the designations of offices to be filled and names of candidates for each office, a plurality of columns on the face of said sheet and at one side thereof for the reception of vote indicating marks opposite said names, and means, forming

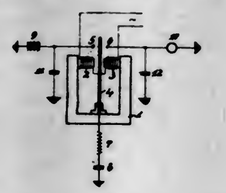
a part of said sheet, to enable a series of like sheets of the same size to be spaced or assembled in underlapping relation to one another with the edge of each overlying sheet coinciding with the inner edge of a vote receiving column of the next underlying sheet, substantially as described.

4. A vote recording sheet having upon its face the designations of offices to be filled and names of candidates for each office, a plurality of spaced columns upon the face of said sheet at one side of said names for the reception of vote indicating marks, said columns being separated by scored lines, and means, forming a part of said sheet, to enable a series of like sheets of the same size to be spaced or assembled in underlapping relation to one aonther, with the outer edge of any vote receiving column substantially coinciding with the inner edge of a corresponding vote receiving column of the next underlying sheet, substantially as described.

5. A vote recording sheet having upon its face the designations of offices to be filled and names of candidates for each office, a plurality of spaced columns upon the face of said sheet and at one side thereof for the reception of indicating marks opposite said names, said columns being separated by scored lines extending from the top to the bottom of the sheet and parallel to one another, facilitating the folding of said sheets on said scored lines, and means, forming a part of said sheet, to enable a series of said sheets to be spaced or assembled in underlapping relation to one another with the outer edge of any vote receiving column substantially coinciding with the inner edge of a corresponding vote receiving column of the next underlying sheet, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,205,731. RELAY. HANS GERDIEN, Berlin-Schmargendorf, Germany, assignor to Siemens & Halske A. G., Berlin, Germany, a Corporation of Germany. Filed Nov. 25, 1914. Serial No. 874,067. (Cl. 175—338.)



1. A resonance relay having an oscillating element tuned to a definite frequency, said element being provided with a condenser, contacts between which said element oscillates, a direct current source connected to one of said contacts, and a receiving circuit connected to the other of said contacts.

2. A resonance relay having spaced contacts, a receiving circuit connected to one of said contacts, a source of direct current connected to the other contact, and an oscillating element adapted to contact successively with said contacts, said element being adapted to receive a charge from said direct current source and to deliver said charge to said receiving circuit, said receiving circuit being provided with a condenser for receiving a portion of the charge from said oscillating element and subsequently delivering said portion to said receiving circuit.

3. A resonance relay having an oscillating element provided with a condenserd, spaced contacts with which said element successively contacts, a direct current source connected to one of said contacts, a condenser connected to said direct current source and to that contact, and a receiving circuit connected to the other contact.

4. A resonance relay having an oscillating element provided with a condenser, spaced contacts with which said element successively contacts, a direct current source connected to one of said contacts, a condenser connected to said direct current source and to that contact, and a receiving circuit connected to the other contact, said receiving circuit having a condenser connected up therewith to receive a portion of the current charge when the oscillating element contacts with the receiving circuit contact and to deliver said portion to the receiving circuit after the oscillating element has broken such contact.

5. A resonance relay having an oscillating element tuned to a definite frequency, said element being provided with a condenser, contacts between which said element oscillates, a direct current source connected to one of said contacts, and a receiving circuit connected to the other of said contacts, said contacts being yieldable to avoid detrimental damping of the oscillating element.

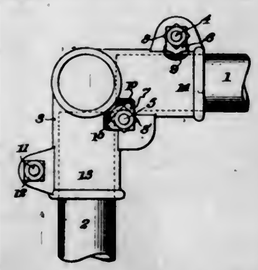
1,205,732. DENTAL THREAD-HOLDER. RICHARD GROETCHEN, Chicago, Ill. Filed Apr. 2, 1915. Serial No. 18,810. (Cl. 132—13.)



1. A device of the class described comprising a hollow handle provided with a handle extension and an opening leading from said handle adjacent said extension; spaced arms on said extension perforated at their outer ends, there being a thread perforation at the extreme end of said extension between said arms, a thread perforation at the base of each of said arms and a longitudinally disposed thread receiving groove on said extension; and a clamp slidably mounted on said extension arranged to clamp a thread thereto when moved to the end of said groove, substantially as described.

2. A device of the class described comprising a hollow handle adapted to contain thread and provided with a handle extension and a thread opening leading from said handle adjacent said extension; spaced arms on said extension perforated at their outer ends, there being a thread perforation at the extreme end of said extension between said arms and a thread perforation at the base of each of said arms; and a thread clamp slidable on said extension, there being a pressure relieving recess in said extension within the range of movement of said clamp, substantially as described.

1,205,733. JOINT-LOCK. WILLIAM GUTENKUNST, Milwaukee, Wis. Filed Mar. 22, 1915. Serial No. 16,025. (Cl. 189—36.)



1. In a device of the described class, the combination of a cylindrical member, a cylindrical sleeve constructed in two halves inclosing said cylindrical member, an aperture formed in said sleeve, a plurality of pairs of tapered locking blocks, each block being provided with an aperture, a plurality of barbs formed on the exterior surface of said blocks, a bolt provided with a screw thread located in the apertures of said locking blocks, a threaded nut operating on the thread of said bolt, said nut being adapted as it is turned down on said bolt to draw the blocks of each pair toward each other, and force said barbs into said cylindrical members, whereby said cylindrical members are rigidly locked together.

2. In a device of the described class, the combination of a plurality of cylindrical members, a cylindrical sleeve constructed in two halves inclosing the contiguous ends of said members, a plurality of apertures formed in said sleeve, a plurality of pairs of locking blocks each block provided with an aperture, a bolt provided with a screw thread located in the aperture of said locking blocks, a nut operating on the thread of said bolt, said bolt being adapted as said nut is turned down thereon to force said locking blocks into impinging contact with said cylindrical members, whereby said members and sleeve are rigidly locked together.

1,205,734. GREASE-CUP. HALBERT L. HALVERSON, Whitewater, Wis. Filed Aug. 28, 1914. Serial No. 859,129. (Cl. 184—48.)



1. A screw compression grease cup consisting of a base; a screw cap which works over the base; and, a set screw, which projects through the screw cap into and through the grease chamber and against the base whereby the several parts may be bound together substantially as set forth and described for the uses and purposes mentioned.

2. In screw compression grease cups, the combination of the base, the screw cap working over the base, and a set screw working through the cap against the base, in which screw there is a slot cut into and across the end *c* working against the base over the opening *d*, so that when it is screwed down against the base the end of the screw will not close the opening *d*, but will allow grease from the chamber of the cup to pass through the slot *c* into and through the opening *d*, all substantially as set forth and described, for the uses and purposes mentioned.

1,205,735. WATER-TIGHT CEMENT AND PROCESS OF PRODUCING THE SAME. ASMUS MATTHIAS HEINRICH HANSEN and MARTIN CHRISTIAN JOHANNES NEVE, Hamburg, Germany. Filed Jan. 23, 1913. Serial No. 743,761. (Cl. 106—25.)

1. A process of producing a water-tight cement, consisting in first preparing a mixture of an animal oil, hydrochloric acid and lime, in then adding this mixture to cement, in mixing the whole together and in finely grinding the whole.

2. The herein described process of producing a waterproof cement which consists in first preparing a mixture of a fat, hydrochloric acid and lime, and subsequently adding this mixture to cement, mixing the whole together and finely grinding the whole.

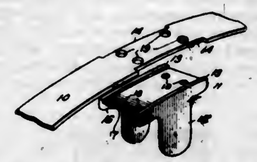
3. A process of producing a water-tight cement, consisting in boiling an animal oil with hydrochloric acid, in adding the warm mixture so obtained to lime while being slaked, in allowing the paste so formed to dry, in adding the dried paste to cement clinker, and in finely grinding the whole.

4. A process of producing a water-tight cement, consisting in boiling forty parts of fish-oil with ten parts of hydrochloric acid, in adding the warm mixture so obtained to two hundred parts burnt lime while being slaked in three hundred parts water, in allowing the paste so formed to dry, in adding the dried paste to cement clinker, and in finely grinding the whole.

5. In the process of producing a water-tight cement, the step consisting in boiling an animal oil with hydrochloric acid, in adding the mixture so obtained to lime and in allowing the paste so formed to dry.

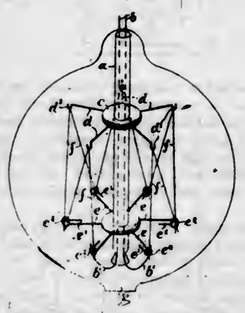
[Claims 6 to 8 not printed in the Gazette.]

1,205,736. TIRE-PROTECTOR. WALTER JOSEPH HARMON, St. Louis, Mo. Filed Dec. 15, 1915. Serial No. 66,960. (Cl. 152—17.)



A tire protector including an annular band having recesses in the side edges thereof, and a series of separate saddles having on the outer face thereof at the sides, ribs extending radially outward and fitting the recesses of the band, the inner sides of the saddles being adapted to fit over a tire and there being tongues at the sides of the saddles and extending radially inward, said tongues having a radial depth to extend beyond the base of the tire and overlap the sides of the wheel rim.

1,205,737. INCANDESCENT ELECTRIC LAMP. FRANCIS HARRISON and FRANCIS LESLIE HARRISON, Prestwick, Scotland. Filed Oct. 24, 1913. Serial No. 797,061. (Cl. 176—39.)



1. In an electric lamp, the combination of a leading-in wire; a support supported by the lamp separately from said wire and having a coil formed therein gripping said wire; and a filament also gripped by said coil.

2. In an electric lamp, the combination of a leading-in wire; a support supported by the lamp separately from said wire and having a coil formed therein gripping said wire between adjacent convolutions; and a filament also gripped between adjacent convolutions of said coil.

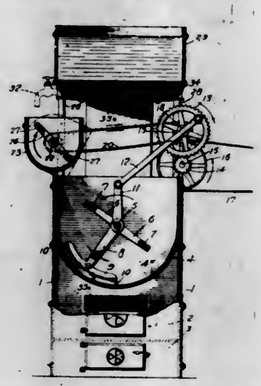
3. In an electric lamp, the combination of a leading-in wire; a gripping support supported by the lamp separately from said wire and having a coil formed therein gripping said wire between its convolutions and having an extension at its free end for manipulating the gripping support; and a filament also gripped between convolutions of said coil.

1,205,738. LIME-SULFUR MACHINE. HOMER V. HART, Hagerstown, Md., and CARL F. MASSEY, Winchester, Va. Filed June 2, 1916. Serial No. 101,347. (Cl. 23—3.)

1. In a lime-sulfur machine, a casing having a combustion chamber, a mixing tank carried by said casing, the bottom of the mixing tank constituting the top of the combustion chamber, means for agitating the contents of the mixing tank and for simultaneously scraping the bottom of the tank, a water heating tank disposed above the mixing tank, and pipes for supporting said water heating tank, one of said pipes constituting a conduit for delivering water from said water heating tank to said mixing tank.

2. In a lime-sulfur machine, a casing having a combustion chamber, a mixing tank carried by said casing, the

bottom of the mixing tank constituting the top of the combustion chamber, means for agitating the contents of the mixing tank and for simultaneously scraping the bottom of the tank, a water heating tank disposed above the mixing tank, pipes for supporting said water heating tank, one of said pipes constituting a conduit for delivering water from said water heating tank to said mixing tank, and a flue extending from said combustion chamber beneath said water heating tank for heating the water in said tank.



3. In a lime-sulfur machine, a casing having a combustion chamber, a mixing tank carried by said casing, the bottom of the mixing tank constituting the top of the combustion chamber, uprights carried by said mixing tank, an auxiliary tank hinged to certain of said uprights, an agitator within said mixing tank, an agitator within said auxiliary tank, and a common means for driving said agitators.

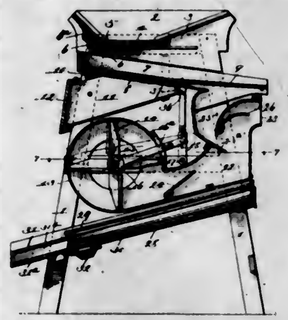
4. In a lime-sulfur machine, a casing having a combustion chamber, a mixing tank carried by said casing, the bottom of the mixing tank constituting the top of the combustion chamber, uprights carried by said mixing tank, an auxiliary tank hinged to certain of said uprights, an agitator within said mixing tank, an agitator within said auxiliary tank, a common means for driving said agitators, a water heating tank disposed above said mixing tank, pipes carried by said mixing tank for supporting said water heating tank, one of said pipes constituting a conduit, and means connected with said last named pipes for delivering water either into the mixing tank or into the auxiliary tank, at will.

5. In a lime-sulfur machine, a casing having a combustion chamber, a mixing tank carried by said casing, the bottom of the mixing tank being semi-cylindrical and constituting the top of the combustion chamber, means for agitating the contents of the mixing tank, comprising a rock shaft disposed within the tank, an agitating frame carried by said rock shaft, and a segmental scraping device arranged to engage the bottom of the semi-cylindrical tank and to be moved during the rotation of the rock shaft.

[Claims 6 and 7 not printed in the Gazette.]

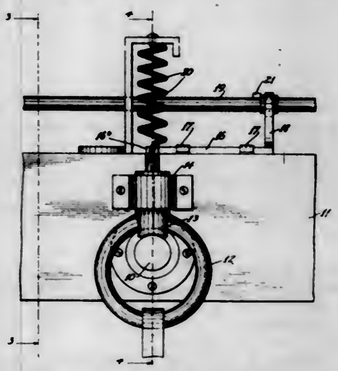
1,205,739. SEED AND GRAIN CLEANER. ORLAND C. HATFIELD, Richmond, Ind. Filed Aug. 10, 1915. Serial No. 44,705. (Cl. 130—15.)

A device of the kind described comprising two oppositely arranged shoes, the upper shoe being provided with two longitudinally alining screens at an obtuse angle with each other, a seed box under the forward of said screens, and the lower shoe being provided with superimposed screens, a fan casing between the shoes, an upwardly and rearwardly extending air chamber communicating directly with the rear end of the lower shoe and receiving grain from the upper shoe, a grain chute leading from the upper shoe into said air chamber, a wall of said grain shoe projecting transversely into an air chamber and forming a deflector, an air board arranged between the



fan casing and said deflector, and a second air board hinged in the upper portion of the air chamber and between its outlet and the point of entrance of the grain shoe.

1,205,740. AUTOMATIC RELEASE FOR TIE-ROPES. PEDER HAUGAARD, Laverne, N. D. Filed Mar. 11, 1916. Serial No. 83,556. (Cl. 119—115.)



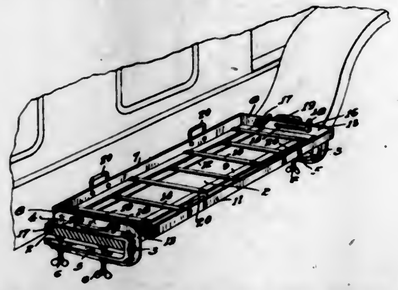
In an automatic release for tie rope comprising a stud projecting from the face of the tie-beam, a spring actuated plunger adapted to engage said stud and normally retain the tie ring of the halter strap thereon, a reciprocable lever mounted on said tie-beam adapted to hold said plunger in engagement with said stud and said tie ring, and means for reciprocating said last mentioned lever, said means comprising an integral arm extending from said lever, a reciprocable rod slidingly mounted in said arm, and a key on said rod adapted to engage said last mentioned arm upon the drawing of said rod in one direction.

1,205,741. LUGGAGE-CARRIER. LE ROY O. HENDRICKS, Minneapolis, Minn. Filed Dec. 2, 1915. Serial No. 64,672. (Cl. 224—29.)

1. In combination, with a vehicle running board, clamps, U-shaped substantially in form, mounted to straddle said board, each having an arm seated on the upper surface of the board and extending substantially the full width of the board, a main frame seated on the running board between said brackets and secured thereto, and an auxiliary frame also seated on the running board between said brackets and telescoping with said main frame.

2. A luggage carrier comprising brackets, U-shaped substantially in form and having horizontal and vertical

flanges, the upper arms of said brackets having their horizontal flanges seated on the upper surface of the running board and the lower arms of said brackets extending under the running board and having means for clamping them thereon, a rectangular main frame interposed between the vertical flanges of said brackets, bolts for securing said vertical flanges to the end rails of said frame, and an auxiliary rectangular frame having end rails provided with slots to receive said bolts and slidable thereon to increase or decrease the width of the carrier.



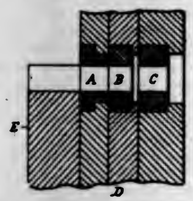
3. In combination with a running board, brackets secured thereon, a main frame interposed between said brackets and composed of side and end rails and cross bars connecting said side rails, an auxiliary frame also composed of side and end rails and cross bars between the side rails, the inner side rail of said auxiliary frame being beneath the cross bars of said main frame and guided thereby and by the end rails of said frame.

4. In combination with a running board, brackets secured thereon having vertical flanges, a main frame fitting between vertical flanges of said brackets and having end rails composed of angle bars, an auxiliary frame having end rails provided with longitudinal slots, bolts passing through said vertical flanges and through the end rails of said main frame and through the slots of the end rails of said auxiliary frame and on which bolts said auxiliary frame is slidable.

5. The combination, with a running board, of a luggage carrier comprising a pair of frames, rectangular in form, mounted to telescope one with the other and having side and end rails and cross bars between said side rails and clamps for securing said frames to said board for relative lateral movement thereon, the side rails of said frames alternating in position across the carrier.

[Claims 6 and 7 not printed in the Gazette.]

1,205,742. MANUFACTURE OF STEEL-SHEATHED TUBING. EDWIN J. HICKSON, Butler, Pa. Filed June 12, 1915. Serial No. 33,693. (Cl. 113—33.)



1. The method of producing sheathed cores which consists in longitudinally bringing together the core and a ribbon of thin sheet steel and while cold drawing the core and ribbon of steel through finishing means composed of brass or equivalent material that will force the steel ribbon to inclose and tightly conform to the core without distorting or marring the surface of the steel, substantially as described.

2. The method of producing sheathed cores which consists in bringing together the core and a ribbon of thin sheet steel having its exterior surface previously polished, and drawing the core and steel ribbon through tube conforming metallic means of higher specific gravity than steel that will not amalgamate with the polished surface of the steel ribbon in the presence of heat and pressure incident to such drawing, substantially as described.

3. The method of tightly inclosing cores in steel sheathing to produce steel sheathed tubing having a smooth and polished outer surface, which consists in applying a ribbon of thin sheet steel having a smooth and polished exterior surface to the core, and longitudinally drawing the core and steel ribbon through forming and finishing dies, the finishing dies being composed of metal of different density and softness than steel and that will not amalgamate with steel under heat and pressure incident to such drawing, substantially as described.

4. The method of producing sheathed cores which consists in longitudinally bringing together a cold core and a ribbon of cold thin sheet steel having a smooth outer surface, and drawing the core and steel ribbon while held under compression by copper alloy conforming means that will force the steel ribbon to tightly inclose the core without distorting or marring the smooth surface of the steel.

5. The method of permanently and tightly inclosing cores in steel sheathing to produce steel sheathed tubing having a smooth outer surface, which consists in longitudinally applying to the core when cold a ribbon of thin cold sheet steel having a smooth exterior surface, and folding the ribbon around the core and drawing the core and steel ribbon through a finishing die composed of copper alloy, substantially as and for the purposes described.

1,205,743. FILTER. URIAH HOKE, Cornwall, Pa. Filed May 25, 1916. Serial No. 99,844. (Cl. 210—6.)

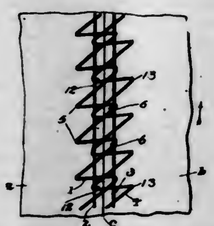


A filter comprising a casing composed of separable sections and having means for detachably connecting the sections together, each section being adapted to contain filtering material and having screens of perforate material at its ends for holding the said filtering material in place, one section having its outer end reduced to engage the neck of a canteen, and the other section having its outer end reduced to receive a cup, and a cup detachably connected with the said end.

1,205,744. SEAM FOR SEWED ARTICLES. ROBERT R. HUGHES, Jr., Utica, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 14, 1915. Serial No. 66,837. (Cl. 112—34.)

1. In a seam, the combination with a fabric, of a plurality of spaced rows of needle loops projecting through

the fabric, and means for securing the needle loops beneath the fabric, the needle threads between adjacent loops in the outer rows respectively extending laterally and disposed in overlapping relation and concatenating with the needle thread loops of an intermediate row of stitches.

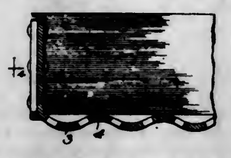


2. In a seam, the combination with a fabric, of four spaced rows of needle loops projecting through the fabric, and means for securing the needle loops beneath the fabric, the needle threads between adjacent loops in the outer rows extending laterally in opposite directions and disposed in overlapping relation and concatenating respectively with the inner row of needle loops farthest therefrom.

3. In a seam, the combination of abutted fabric sections, stitches for joining and covering the edges of said fabric sections, said stitches comprising four rows of needle loops projecting through the fabric sections, and means for securing the needle loops beneath the fabric sections, the needle threads between adjacent loops of the outer rows extending laterally in opposite directions and disposed in overlapping relation and concatenating respectively with the inner row of needle loops farthest therefrom.

4. In a seam, the combination of fabric sections, stitches for joining and covering the edges of said fabric sections, said stitches comprising four rows of needle loops projecting through the fabric sections, and means for securing the needle loops beneath the fabric sections, the needle threads between adjacent loops in the outer rows extending laterally across the juncture of the fabric sections in opposite directions and disposed in overlapping relation and concatenating respectively with the inner row of needle loops farthest therefrom, the extending portions of one of the said outer needle threads passing underneath the needle thread in the next adjacent row of needle loops and the extending portions of the other outer needle thread passing oved the needle thread in the next adjacent row of needle loops.

1,205,745. PERFORATED-BOTTOM METAL TRAY. FREDRICK LESTER JEFFERIES, Riverside, Ill. Filed Dec. 30, 1914. Serial No. 879,658. (Cl. 34—17.)

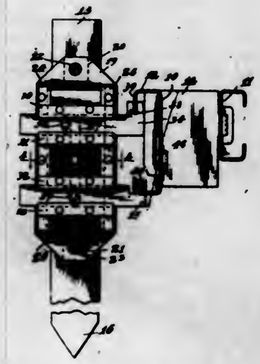


1. As a new article of manufacture, a drying tray having a bottom consisting of a single sheet of foraminous metal, said bottom being formed of continuous parallel curves.

2. As a new article of manufacture, a drying tray having a bottom consisting of foraminous metal, said bottom being formed of continuous parallel curves.

1,205,746. ALINING DEVICE FOR CONCRETE-FORMS. WILLIAM B. JONES, Streator, Ill. Filed July 7, 1916. Serial No. 107,910. (Cl. 25—118.)

1. In a device of the class described, the combination of a stake, a supporting member slidable along said stake, a form comprising front and back members, and form-supporting means carried by said slidable member and transversely slidable across the same whereby said form as a whole may be bodily adjusted vertically and transversely.



2. In a device of the class described, the combination of a stake, a plate slidable longitudinally of said stake, means for setting said plate in any position along said stake within its range of sliding movement, and a form, comprising front and back members, carried by and capable of bodily transverse sliding movement across said plate.

3. In a device of the class described, the combination of a stake, a plate slidable longitudinally of said stake, means for locking said plate in any position along said stake within its range of movement, and upper and lower form-supporting members carried by said plate and adjustable in a direction transversely of the stake.

4. In a device of the class described, the combination of a stake, a plate slidable longitudinally of said stake, means for locking said plate in any position along said stake within its range of movement, upper and lower form-supporting members carried by said plate and adjustable in a direction transversely of the stake, and means permitting relative transverse movement of said members.

5. In a device of the class described, the combination of a stake, a foundation plate secured to the side of said stake and provided with longitudinal guiding means, a plate associated with said guiding means and slidable along said stake, means for locking said sliding plate to said foundation plate, transverse guides carried by said sliding plate, and form-supporting means transversely slidable in said guides.

[Claims 6 to 8 not printed in the Gazette.]

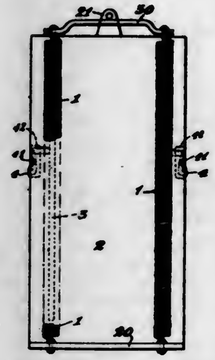
1,205,747. BAG HOLDER AND OPENER. HIYOZO KAWATE, Seattle, Wash., assignor of one-third to Otozo Shintani and one-third to Otomatsu Ota, Seattle, Wash. Filed Nov. 16, 1915. Serial No. 61,848. (Cl. 211—2.)

1. A bag holder and opener comprising a frame, a helically coiled spring supported thereon, means for distending the spring to insert the bag ends between the coils thereof, and automatically-engaging means for holding said spring distended.

2. A bag holder and opener comprising a frame composed of two telescopic parts, helically coiled springs connecting the outer ends of said frame parts, and automatically engaging catches adapted to hold said parts in distended position.

3. A bag holder and opener comprising two bar members, two helically coiled springs connecting said bars, and means for supporting said bars to permit their movement toward and from each other, said means limiting their movement toward each other.

4. A bag holder and opener comprising a frame board having guiding holes bored therein, bars slidable therein and connected to move together, helically coiled springs secured at one end to said bars and at their other end to said frame board, and automatically engaging means for holding said spring in distended position.



5. A bag holder and opener comprising a frame board having guiding holes bored therein, bars slidable therein and connected to move together, and helically coiled springs secured at one end to said bars, at their other end to said frame board, and spring-pressed catches adapted to hold said springs in distended position.

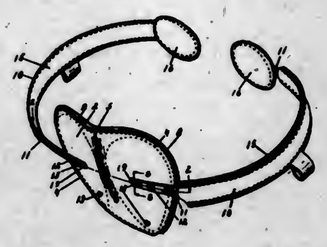
1,205,748. VALVE. JOHN A. KEISTER, St. Louis, Mo. Filed Feb. 21, 1916. Serial No. 79,505. (Cl. 152—12.)



1. In a device of the character described, a two-part valve-casing comprising an internally-threaded cap and a point externally threaded to engage the threads on said cap in combination with a tire valve-stem to which said cap is connected, said tire valve-stem having a bore formed with an enlarged portion and a tapered portion, said point having an enlarged portion and a tapered portion, said enlarged portion of said point making a tight fit with said enlarged portion of said bore and said tapered portion of said point making an air-tight fit with the tapered portion of said bore, a valve seat formed on said cap, a valve and stem for said valve, and means for normally holding said valve on said valve seat.

2. In a device of the character described, a two-part valve-casing comprising an internally-threaded cap and a point externally threaded to engage the threads on said cap in combination with a tire valve-stem to which said cap is connected, said tire valve-stem having a bore formed with an enlarged portion and a tapered portion, said point having an enlarged portion and a tapered portion, said enlarged portion of said point making a tight fit with said enlarged portion of said bore and said tapered portion of said point making an air-tight fit with the tapered portion of said bore, a valve seat formed on said cap, a valve and stem for said valve, said cap and point having restricted openings in their upper and lower ends respectively and the ends of said valve stem extending slidably through and being guided by said openings, and means for normally holding said valve on said valve seat.

1,205,749. ABDOMINAL SUPPORT. JOHN H. KELLOGG, Battle Creek, Mich. Filed Apr. 17, 1916. Serial No. 91,777. (Cl. 128—26.)



1. In an abdominal supporter, the combination of a pad comprising a pair of oval plates of metal bendable to permit conforming within the pad, a pair of casing back members between which said plates are disposed in a spaced relation with their small ends downward, said back members being stitched together around the edges of the plates, there being a dart extending from the upper edge of said back members centrally between said plates providing an inward dish to the upper edge of the pad, said back members constituting a flexible connection between said plates, said plates being spaced to permit limited relative torsional movement between the halves of the pad, a front casing member stitched at its edges to the edges of said back members, there being a filling between said front and back members, studs mounted centrally of said plates, and body attaching members comprising curved blade springs provided with pads at their rear ends adapted to rest against the back of the wearer and having key hole slots at their front ends adapted to engage said studs, said springs being twisted at their front ends so that they engage the studs with an inward and upward twisting action.

2. In an abdominal supporter, the combination of a pad comprising a pair of oval plates, a pair of casing back members between which said plates are disposed in a spaced relation with their small ends downward, said back members being stitched together around the edges of the plates, said back members constituting flexible connection between said plates, said plates being spaced to permit limited relative torsional movement between the halves of the pad, a front casing member stitched at its edges to the edges of said back members, there being a filling between said front and back members, studs mounted centrally of said plates, and body attaching members comprising curved blade springs provided with pads at their rear ends adapted to rest against the back of the wearer and having key hole slots at their front ends adapted to engage said studs, said springs being twisted at their front ends so that they engage the studs with an inward and upward twisting action.

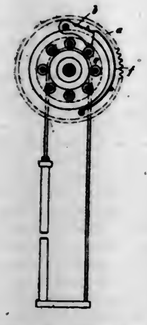
3. In an abdominal supporter, the combination of a pad comprising a pair of oval plates of metal bendable to permit conforming within the pad, a pair of casing back members between which said plates are disposed in a spaced relation with their small ends downward, said back members being stitched together around the edges of the plates, there being a dart extending from the upper edge of said back members centrally between said plates providing an inward dish to the upper edge of the pad, said back members constituting a hinge connection between said plates, said plates being spaced to permit limited relative torsional movement between the halves of the pad, a front casing member stitched at its edges to the edges of said back members, there being a filling between said front and back members, and curved resilient body attaching members connected centrally to said plates.

4. In an abdominal supporter, the combination of a pad comprising a pair of oval plates, a pair of casing back members between which said plates are disposed in a spaced relation with their small ends downward, said

back members being stitched together around the edges of the plates, said back members constituting a hinge connection between said plates, said plates being substantially spaced permitting torsional flexing of the back members between the plates and thereby providing for relative torsional movement between the halves of the pad, a front casing member stitched at its edges to the edges of said back members, there being a filling between said front and back members, and curved resilient body attaching members connected centrally to said plates.

3. In an abdominal supporter, the combination of a pad comprising a pair of plates, a pair of casing back members between which said plates are disposed in a spaced relation, said back members being stitched together around the edges of the plates, said back members constituting a flexible connection between said plates, a front casing member stitched at its edges to the edges of said back members, there being a filling between said front and back members, studs mounted centrally of said plates, and body attaching members comprising curved blade springs provided with pads at their rear ends adapted to rest against the back of the wearer and having key hole slots at their front ends adapted to engage said studs, said springs being twisted at their front ends so that they engage the studs with an inward and upward twisting action.

1,205,750. MOTOR ARC-LAMP. FRITZ KIESLER, Berlin-Charlottenburg, Germany, assignor to Siemens-Schuckertwerke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Apr. 17, 1914. Serial No. 832,664. (Cl. 176—52.)

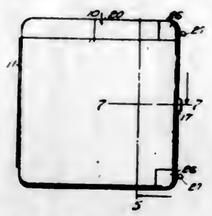


In a motor arc lamp the combination of driving works, a supporting disk for the movable carbons, a locking mechanism between said driving works and said supporting disk, rollers mounted upon said locking mechanism for temporarily releasing the connection between driving works and supporting disk which connection is effected by said locking mechanism in case of non-ignition of the lamp, said locking mechanism comprising a locking pawl and a locking wheel, said rollers being adapted to impart to said locking wheel an impact for backward motion, whereby the carbons will be set in motion to hammer upon one another.

1,205,751. CIGARETTE-CASE AND HUMIDOR THEREFOR. JOHN J. KING, Frankfort, Ky. Filed Aug. 26, 1915. Serial No. 47,404. (Cl. 131—30.)

1. In a cigarette case, the combination of a body member made in halves connected together along longitudinally extending edges and movable relatively to each other one of said halves being provided with an arched portion open at one end adjacent an edge of the case, and a humidor having an arched portion slidably fitting into said first mentioned arched portion through said open end.

2. In a cigarette case, the combination of a body member made in halves connected together along longitudinally extending edges and movable relatively to each other, each of the halves having a humidor receptacle open adjacent one edge, the said humidor receptacles being located upon opposite ends of the case, and humidors slidably disposed in the humidor receptacles through their open ends.

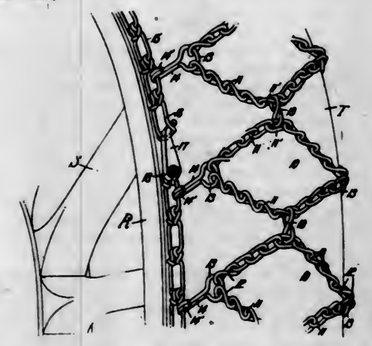


3. In a cigarette case, the combination of a body member provided with an arched portion open at one end; and a humidor provided with a portion for extending into said arched portion at its open end, said humidor being further provided with a shoulder for abutting against said arched portion, thus forming a limiting stop for controlling the degree of movement of said humidor.

4. The combination of a cigarette case provided with a pair of flanges and having an arched portion disposed adjacent the said flanges, an end of the arched portion being open adjacent an edge of the cigarette case, a humidor having an arched portion slidable through the said open end of the arched portion of the case, said humidor being hollow and being provided with perforations opening into the case, and a filling located within said humidor for holding a liquid furnishing humidity.

5. In a case of the character described, a body in two halves movably connected along longitudinally extending edges, one of the halves being open at one end of the body and the other half being open at the other end of the body, two humidor receptacles extending one from the end of each half for closing the said open ends of the halves when the halves of the body are closed, the humidor receptacles having open ends, and humidors slidably disposed in the humidor receptacles.

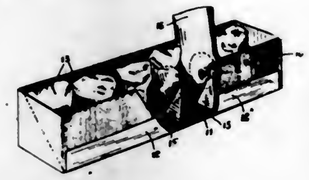
1,205,752. NON-SKID CHAIN. JOHN KIRKWOOD, Lenox, Mass. Filed Feb. 8, 1916. Serial No. 76,942. (Cl. 152—14.)



1. A non-skid chain for pneumatic tires comprising two binder chains adapted to extend along the side edges of a tire, a plurality of diamond shaped tread elements adapted to extend transversely of the tire, each element consisting of two short chains and two elongated hanger links, each having at one end an eye engaging the end links of the said two chains and at the other end a hook engaging a link of a binder chain, and a series of detachable links connecting the center links of adjacent chains of adjacent thread elements and spacing them a short distance apart.

2. A non-skid chain arrangement for tires comprising a pair of binder chains spaced apart and adapted to extend along the side edges of a tire, a plurality of diamond-shaped tread elements adapted to extend transversely of the tire and between the said chains, each tread element consisting of two continuous short chains and two elongated hanger links each flexibly attached at one end to the end links of the said two chains of the tread element and detachably held at the other end to the binder chains, and means for flexibly connecting the center links of adjacent chains of the tread elements and spacing them a short distance apart.

1,205,753. EGG-CARRIER. EDWARD O. KRAEPELIN, Botsford, Conn. Filed Sept. 20, 1915. Serial No. 51,517. (Cl. 217—28.)



1. An egg carrier comprising a frame formed with side and end walls, and a plurality of individual egg pockets of flexible material, each provided with a flat wall attached to said frame and extending diagonally across the same from top to bottom, and a lower portion folded to lie against one of said walls.

2. An egg carrier comprising a frame formed with side and end walls, and a plurality of individual egg pockets of suitable material each provided with a flat wall extending diagonally across the frame from top to bottom, and a lower portion folded to lie against one of said walls, said diagonal portion having flaps attached to opposite sides of said frame.

3. An egg carrier comprising a frame of rectangular form, a supporting strip extending from end to end and diagonally from an upper corner to a lower corner of the frame, and a plurality of independent pieces of flexible material attached to said supporting strip and folded to form egg pockets, said strip forming one wall of each pocket.

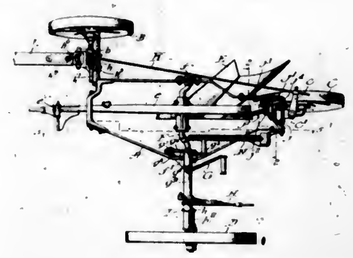
4. An egg carrier comprising a frame of rectangular form, a supporting strip extending from end to end and diagonally from an upper corner to a lower corner of the frame, and a plurality of independent pieces of flexible material attached to said supporting strip and folded to form egg pockets, said strip forming one wall of each pocket, the lower portion of the material forming each pocket being folded to lie against one of the walls of said frame.

5. An egg carrier comprising a frame formed from a strip bent to rectangular form and the ends secured together, a supporting strip extending from end to end and diagonally from an upper corner to a lower corner of the frame, and egg pockets formed from pieces of paper approximately square and provided with flaps which are secured to the supporting strip with their lower ends overlapping and their upper ends diverging, forming pockets, the upper and lower ends of which are closed by folding the material of the pockets.

[Claim 6 not printed in the Gazette.]

1,205,754. WHEELED IMPLEMENT. ALVARO S. KROTZ, Janesville, Wis., assignor to Janesville Machine Company, Janesville, Wis., a Corporation of Wisconsin. Filed Sept. 18, 1913. Serial No. 790,487. (Cl. 97—36.)

1. In a wheeled implement, a frame, a bail mounted to turn in bearings on said frame, a beam on said bail, mechanism for operating said bail to raise and lower the implement, an adjustable connection between said mechanism and bail, having provisions to change the relation between said mechanism and bail, for regulating the position of said beam to vary the working depth of said implement, front and rear furrow wheels for said frame, and a land-side wheel for said bail, subject to control by adjustment of said connection.



2. In a wheeled implement, a frame, a bail mounted to turn in bearings on said frame, a beam on said bail, adapted to be raised and lowered by rotation thereof, mechanism for operating said bail to raise and lower the implement, an adjustable connection between said mechanism and bail for regulating the position of said beam to vary the working depth of said implement, front and rear furrow wheels for said frame, and a land-side wheel for said bail, said connection including a rack loose on said bail, an arm fixed on said bail, and means for releasably engaging the rack, carried on said arm.

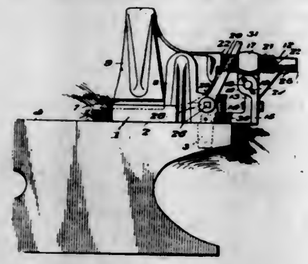
3. In a wheeled implement, a frame, a bail mounted to turn in bearings on said frame, a beam on said bail, adapted to be raised and lowered by rotation thereof, mechanism for operating said bail to raise and lower the implement, an adjustable connection between said mechanism and bail having provisions to change the relations between said mechanism and bail, for regulating the position of said beam to vary the working depth of said implement, front and rear furrow wheels for said frame, and a land-side wheel for said bail, a hand lever for said connection, fixed on the bail, and a pair of foot levers for operating said mechanism, one for lifting and the other for depressing the implement.

4. In a wheeled implement, a frame, a bail mounted to turn in bearings on said frame, a beam on said bail, adapted to be raised and lowered by rotation thereof, mechanism for operating said bail to raise and lower the implement, an adjustable connection between said mechanism and bail, having provisions to change the relations between said mechanism and bail, for regulating the position of said beam to vary the working depth of said implement during the operation thereof, front and rear furrow wheels for said frame, and a land-side wheel for said bail, said land-side wheel having an axle, an arm for said axle, mounted on said bail, and an adjustable connection between said arm and bail.

5. In a wheeled implement, a frame, a bail mounted to turn in bearings on said frame, a beam on said bail, adapted to be raised and lowered by rotation thereof, mechanism provided with lifting and depressing levers for operating said bail to raise and lower the implement, an adjustable connection between said mechanism and bail for regulating the position of said beam to vary the working depth of said implement, front and rear furrow wheels for said frame, and a land-side wheel for said bail, said furrow wheels mounted to travel at a fixed depth below said frame, a plow for said beam, a hand lever arranged for controlling said connection, and an offset axle for said land-side wheel, whereby the plow is leveled and the working depth thereof controlled entirely by said land-side wheel and bail.

[Claims 6 to 43 not printed in the Gazette.]

1,205,755. METAL CUTTER OR SHEARS. NELSON W. LARMORE, Mechanicsville, N. Y. Filed Feb. 26, 1916. Serial No. 80,620. (Cl. 164—41.)



1. In metal cutters or shears, the combination with a base having a cutter or shear member, of a free cutter or shear member adapted to coöperate therewith mounted for both up and down and lengthwise movement in relation to said first-named cutter or shear member when being operated, said free cutter having a striking head or portion adapted to receive the blows of a hammer or sledge, and means for cushioning the lengthwise movement of said free cutter.

2. In metal cutters or shears, the combination with a base having a cutter or shear member, of a normally closed free cutter or shear member adapted to coöperate therewith mounted for both up and down and lengthwise movement in relation to said first-named cutter or shear member when being operated, said free cutter having a striking head or portion adapted to receive the blows of a hammer or sledge, means for cushioning the lengthwise movement of said free cutter, and means for raising the movably mounted cutter or shear member to open the shears.

3. In metal cutters or shears, the combination with a base having a cutter or shear member, of a cutter or shear member adapted to coöperate with the first-named shear member and movably mounted for both up and down and lengthwise movement in relation thereto, spring means for closing the movable shear member, and means for cushioning the lengthwise movement of the movable shear member.

4. In metal cutters or shears, the combination with a base having a cutter or shear member, of a movably mounted cutter or shear member adapted to coöperate with the first-named shear member, a combined pivotal and slidable connection between the movable shear member and the base, and means for cushioning the sliding movement of the movable shear or cutter.

5. In metal cutters or shears, the combination with a base having a cutter or shear member, of a movably mounted cutter or shear member adapted to coöperate with the first-named shear member, a combined pivotal and slidable connection between the movable shear member and the base, and spring means for urging the movable cutter or shear toward the shear on the base.

[Claims 6 to 12 not printed in the Gazette.]

1,205,756. GUN-SIGHT. DAVID ALMON LÆ BARON, Mesa, Ariz. Filed Dec. 22, 1915. Serial No. 68,223. (Cl. 33—51.)



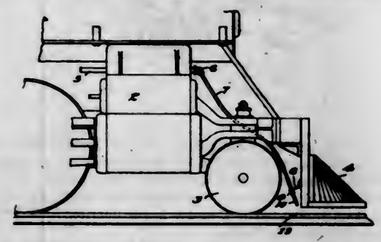
1. A gun-sight comprising a body adapted for application to a gun-barrel and bars extending laterally therefrom, spring clasps adapted for adjustment and locking engagement with said bars, and having supplemental beads or sights, as described.

2. A gun-sight comprising a body adapted for attachment to a gun-barrel and having a lateral bar provided with sockets arranged longitudinally, a clasp adapted to embrace the said bar and for longitudinal adjustment thereon, and provided with a supplemental bead or sight, one of the arms of said clasp being provided with a knob adapted for engaging any of the aforesaid sockets, as described.

3. A supplemental bead or sight attachment comprising a bead proper and a spring clasp on which it is fixed, the terminals of the clasp being separable and one of them projecting to form a thumb-piece, as described.

4. A gun-sight comprising a body portion adapted for attachment to a gun-barrel, and pairs of bars extending laterally therefrom and spaced apart vertically, and provided with adjustable beads or sight members, as described.

1,205,757. DEVICE FOR REMOVING ICE FROM RAILROAD-RAILS. THOMAS J. LEE, Minneapolis, Minn. Filed Jan. 3, 1916. Serial No. 69,896. (Cl. 104—153.)



The combination, with a locomotive, of a steam supply pipe arranged beneath and connected with the boiler for taking live steam therefrom, said pipe being centrally arranged substantially with respect to the boiler and having couplings at its forward end in advance of the locomotive driving wheels, of tubes radiating outwardly and downwardly from said couplings to a position in the rear of the cow-catcher and in front of the forward trucks, and nozzles mounted on the lower ends of said tubes and having tapered passages therein terminating in substantially circular, restricted outlet openings and supported above and adjacent to the track rails, said nozzles directing the steam vertically upon the heads of the rails and having means for bracing said nozzles on the locomotive frame.

1,205,758. BRASSIÈRE. JEANNE LEEMAN, San Francisco, Cal. Filed Mar. 21, 1916. Serial No. 85,582. (Cl. 2—87.)

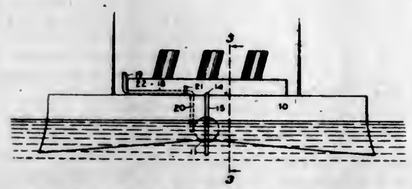


1. A brassière of the character specified comprising a band adapted to fit about the back and beneath the arms, having at each end a pocket and a shoulder strap for each pocket and connected at one end to the pocket and at the other to the band and adapted to pass over the shoulders, and hose supporting straps connected with the rear of the band and shaped to extend forwardly and downwardly above the hip bones to connect with the hose at the front,

the pockets having interengaging means for connecting them together and an elastic band beneath each pocket for the purpose specified.

2. A brassière of the character specified comprising a band adapted to fit about the back and beneath the arms and to connect at the front, and having shoulder straps and hose supporting straps connected to the rear of the band and shaped to extend forwardly and downwardly and to connect with the hose at the front whereby to exert downward pressure at the rear and upward pressure at the front of the band.

1,205,759. TOY SHIP. CHARLES AARON LEWIS, Carnegie, Pa. Filed Apr. 8, 1916. Serial No. 89,835. (Cl. 46—37.)



1. A toy ship having a seat at the interior, a spherical weight adapted to rest on said seat to maintain the ship on an even keel, said weight being displaceable from the seat to shift the center of gravity and thereby tilt the ship in the direction of movement of the weight.

2. A toy ship having a keel rising at the center and formed with a concave seat, and a spherical weight adapted to rest on said seat, and displaceable therefrom in a direction lengthwise of the ship to tilt the latter on its beam ends.

3. A toy ship having a raised seat at the approximate center, and a weight adapted to rest on said seat, the said weight being displaceable in the direction toward the bow of the ship, the said bow being shaped to dispose the weight adjacent to the ship's deck to maintain the ship on its beam ends.

4. A toy ship having a seat, a weight adapted to rest on said seat and displaceable therefrom to shift the center of gravity and tilt the ship, and stop means adjacent to said seat at one side to prevent movement of the weight in that direction.

5. A toy ship having a seat, a weight adapted to rest on said seat and displaceable therefrom, to shift the center of gravity to tilt the ship, and a weight-displacing device mounted adjacent to said seat.

[Claims 6 to 10 not printed in the Gazette.]

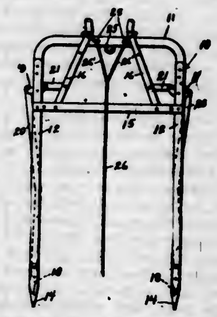
1,205,760. COMBINATION TOOL SET. ARTHUR LEE LIGON, Pecos, Tex. Filed Aug. 6, 1915. Serial No. 44,071. (Cl. 55—43.)



1. A handle of the class described comprising a body, a clamping plate removably secured to said body and provided with a depending end, said body provided with a socket at one end thereof, said clamping plate extending into said socket, said body provided with an aperture formed in one side thereof and adapted to receive said depending end for holding said clamping plate against longitudinal movement upon said handle, said body provided with a plurality of projecting ears, a clamping latch pivotally secured between said ears, a tool adapted to be engaged by said plate and handle whereby said tool will be firmly held in engagement with said handle as said clamping latch is swung into locked engagement with said clamping plate, a clamping ring slidably mounted upon said handle, means for limiting the movement of said clamping ring, and means formed upon said clamping latch for preventing said ring from accidentally slipping from said clamping latch.

2. A handle of the class described comprising a body, a clamping plate removably secured to said body and provided with a depending end, said body provided with a socket at one end thereof, said clamping plate extending into said socket, said body provided with an aperture formed in one side thereof and adapted to receive said depending end for holding said clamping plate against longitudinal movement upon said handle, said body provided with a plurality of projecting ears, a clamping latch pivotally secured between said ears, a tool adapted to be engaged by said plate and handle whereby said tool will be firmly held in engagement with said handle as said clamping latch is swung into locked engagement with said clamping plate, a clamping ring slidably mounted upon said handle, means for limiting the movement of said clamping ring, means formed upon said clamping latch for preventing said ring from accidentally slipping from said clamping latch, said ring provided with a notch formed therein, said clamping latch provided with a projecting bead adapted to register with said notch for permitting said ring to slide from said projecting bead and allow said clamping latch to be swung to an unlocked position.

1,205,761. HARPOON HAY-FORK. FRANK R. LINDSTROM, Milaca, Minn. Filed Feb. 8, 1915. Serial No. 6,820. (Cl. 57—41.)



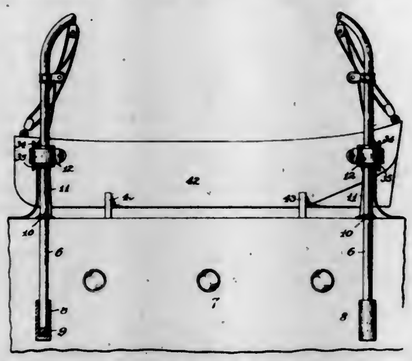
1. A harpoon fork including a frame, barb points pivoted to the frame, operating handles mounted on the frame, means operatively connecting said handles with the barbs to move and retain the latter in carrying position, trip means connected with said handles, resilient locking means secured to the frame to automatically lock said handles to the latter upon movement of the barbs to dumping position under the influence of a load in the fork.

2. A harpoon fork including a frame, barbs pivoted to the frame, handles mounted on the frame and operatively connected with the barbs to move and retain the latter in carrying position, trip means connected with said handles, and a resilient plate intermediately secured to the frame with its free ends spaced therefrom, whereby to automatically lock the handles to the frame upon movement of said barbs to dumping position.

1,205,762. FLEXIBLE BOAT-LAUNCHING DEVICE. ALLEN E. J. LUCKHURST, Ridgewood, N. J. Filed June 1, 1915. Serial No. 31,452. (Cl. 9—22.)

1. A flexible boat launching device comprising a pair of davits carrying falls, a worm gear and worm operatively connected with each davit, a worm and worm gears operatively disposed relative to the falls on each davit, and a flexible support for both of said sets of gears.

2. A flexible boat launching device comprising a pair of davits and means to hold the same in fixed position relative to the ship, a worm gear mounted on each davit, a casing inclosing each worm gear, a worm mounted on a shaft in each casing in mesh with the respective worm gear, a worm and worm gears mounted in each casing each of the latter carrying a drum end, a standard supporting said casing, and a double joint between said standard and casing whereby each casing is free to swing in two directions.



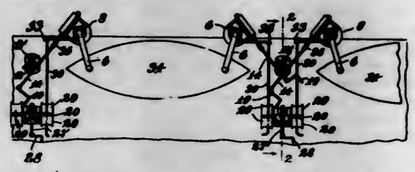
3. The combination with the davits of a ship, of gearing adapted to operate the davits, and gearing adapted to operate the falls, the operative shafts of both sets of gearing being substantially parallel and extending inwardly from the sides of the ship, a support for both sets of gearing, and a double joint between said support and said gearing whereby said gearing is free to swing in two directions.

4. The combination with the davits of a ship, of gearing adapted to rotate the davits, and gearing adapted to operate the falls, the operative shafts of both sets of gearing being substantially parallel, and extending inwardly from the sides of the ship, a casing in which both sets of gearing for each davit is mounted, a standard, and a double joint between said casing and said standard whereby said casing is free to swing in two directions.

5. The combination with the davits of a ship, of a worm gear composed of two parts mounted on each davit, a worm in mesh with each gear, a casing inclosing the worm and worm gear, said casing having two annular collars composed of segmental parts, and said worm gear having a hub on each side with extensions fitting within the respective collars, for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,205,763. BOAT-LAUNCHING DEVICE. ALLEN E. J. LUCKHURST, Ridgewood, N. J. Filed Oct. 20, 1915. Serial No. 56,886. (Cl. 9—22.)



1. A boat launching device comprising gearing mounted on the davits, operative shafts leading from said gearing to the deck of the ship, means to yieldingly hold said shafts above said deck, and means to operate the falls independently of said davit-operative means.

2. A boat launching device comprising gearing mounted on the davits, operative shafts leading from said gearing to the deck of the ship, a standard adapted to yieldingly hold said shafts above said deck, and means to operate the falls independently of said davit-operative means.

3. A boat launching device comprising mechanical means to operate the davits, a stay adapted to hold said mechanical means in fixed but yielding manner relative to the deck of the ship, and mechanical means mounted on the deck of the ship to raise and lower the life boat through said davits.

4. In a boat launching device, a davit carrying falls, gearing mounted on said davit, an operative shaft connected with said gearing and projecting over the deck, a standard having an elongated eye through which said shaft passes, and a hoist mounted on the deck of the ship adapted to operate said falls.

5. A boat launching device comprising davits carrying falls, gearing mounted on each davit, an operative shaft connected with the respective gearing, a standard fixed on the deck of the ship said standard having an elongated eye through which one of the shafts passes whereby the shaft is held over the deck of the ship, and a hoist mounted on the deck of the ship adjacent to each davit and adapted to operate the falls on the same.

[Claims 6 to 9 not printed in the Gazette.]

1,205,764. DAVIT-GEARING AND CASING. ALLEN E. J. LUCKHURST, Ridgewood, N. J. Filed Oct. 20, 1915. Serial No. 56,887. (Cl. 9—22.)



1. A davit gearing and casing comprising a gear removably fixed on the davit, a casing carried by said gear, and operating mechanism carried by said casing.

2. A davit gearing and casing comprising a worm gear composed of two parts clamped upon the davit, a casing mounted upon said worm gear and inclosing the same, two shafts carried by said casing, a worm carried by one of said shafts in mesh with said worm gear, and gearing mounted on said shafts whereby said worm may be rotated, for the purpose set forth.

3. A davit gearing and casing comprising a worm gear composed of two parts clamped upon the davit, a set screw mounted in each of said parts and engaging the davit, said worm gear having a hub with extensions on the opposite sides, a casing mounted on said hub surrounding said extensions, an operative shaft mounted in said casing carrying a pinion, a shaft mounted in said casing carrying a gear in mesh with said pinion and carrying a worm in mesh with said worm gear, for the purpose set forth.

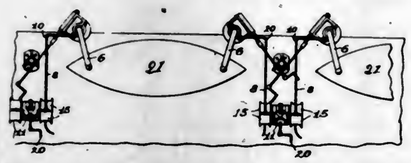
4. In combination, a davit, gearing mounted thereon and carried thereby, a casing mounted on said gearing and inclosing the same in a water-tight manner, an operative shaft extending from said gearing over the deck of the ship, and means to hold said shaft in substantially fixed relation relative to the ship, for the purpose set forth.

5. In combination, a davit mounted on a ship, a gear mounted on said davit, a casing mounted on said gear in a substantially water-tight manner, an operative shaft carried by said casing, and gearing in said casing and carried thereby connecting said operative shaft with the gear on said davit, for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

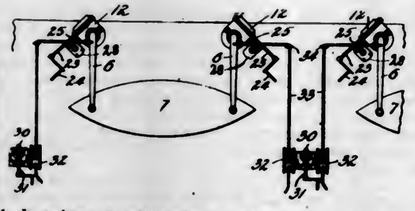
1,205,765. HOIST FOR BOAT-LAUNCHING DEVICES. ALLEN E. J. LUCKHURST, Ridgewood, N. J. Filed Oct. 20, 1915. Serial No. 56,888. (Cl. 9—22.)

The combination with a boat launching device having mechanical means for rotating each davit located inwardly from the sides of the ship whereby each davit may be rotated without danger of the operator being lurched, or washed overboard, of a hoist located inwardly from the davit-operating-means, said hoist having two pair of drum ends and an inclined operating shaft extending upwardly and rearwardly, and having gearing connected



with said shaft and with both pair of drum ends, and means to guide the operating rope from the falls on each of adjacent davits to the respective drum ends of said hoist, for the purpose set forth.

1,205,766. BOAT-LAUNCHING DEVICE. ALLEN E. J. LUCKHURST, Ridgewood, N. J. Filed May 6, 1916. Serial No. 95,847. (Cl. 9—22.)



1. In a boat launching device, gearing mounted on the davit adapted to rotate the same, means carried by said davit to operate said gearing, and means independently of any operating parts to hold said operating means in fixed relation to the ship.

2. In a boat launching device, a worm gear removably fixed on the davit, a casing carried by said worm gear, a worm within the casing, and operating mechanism associated with said worm, and means to hold said casing against rotation independently of said operating mechanism.

3. In a boat launching device, a worm gear removably fixed on the davit, a casing carried thereby, gearing carried by said casing in operative connection with said gear, means to operate said gearing, and means to hold said casing against rotation independently of said operating means.

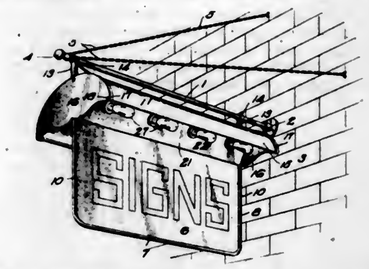
4. In a boat launching device, a worm gear removably fixed on the davit, a casing removably mounted on said gear, and carried thereby, a worm in said casing in operative connection with said gear, means to operate said worm from the deck of the ship, and means to hold said casing against rotation independently of the worm-operating means.

5. In a boat launching device, a worm gear removably fixed on the davit, a removable, water-tight casing carried by said gear, a worm in mesh with said gear, gearing carried by said casing in operative relation with said worm, a shaft passing through said casing and adapted to operate said gearing, and means to hold said casing against rotation, said holding means being independent of said shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,205,767. KNOCKDOWN ELECTRIC SIGN. CHARLES H. LUSH, Freeport, N. Y. Filed Oct. 21, 1915. Serial No. 57,048. (Cl. 40—130.)

1. A sign device comprising a supporting member, a U-shaped frame, a panel having its edges set into the frame, a removable hood disposed over the panel and having openings through which extend the side members of the frame, and a reflector arranged in the hood and supported on the top edge of the panel and supporting the hood.



2. A sign device comprising a panel, a U-shaped frame in which the side and bottom edges of the panel are disposed, a hood through which the side members of the frame extend upwardly, a supporting member to which the side members of the frame are connected, and a V-shaped reflector supported on top of the panel and having its reflecting portion disposed at the opposite sides of the plane of the panel.

3. A sign device comprising a hood having openings at its ends, a V-shaped reflector disposed within and unconnected with the hood and having a reëntrant pocket, a sign panel extending into the pocket, whereby the panel supports the reflector in the hood, a frame for supporting the panel and having side members extending through the openings of the hood, and lamps mounted in the hood in coöperative relation with the reflector.

4. A sign device comprising a supporting member, a U-shaped frame detachably connected with hand suspended from the member, a sign panel mounted on the frame, a reflector detachably mounted on the panel, a hood disposed over the reflector and detachably mounted on the frame, said hood having openings at its ends through which the side members of the frame extend, and lamps arranged under the hood and in coöperative relation with the reflector, said hood being supported by the reflector and the reflector being supported by the panel.

5. A sign device comprising a hood, a frame having side members extending upwardly through the hood, T-couplings detachably connected with the upper ends of the side members of the frame, a horizontal support extending through the couplings, a sign panel mounted on the frame, a reflector having portions disposed at opposite sides of the plane of the panel and supported on the top edge of the latter and lamps disposed in coöperative relation with the reflector.

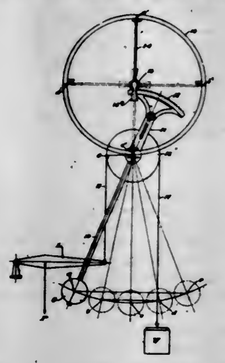
[Claim 6 not printed in the Gazette.]

1,205,768. AUTOMATIC SCALE. EDWARD MCGARVEY, Beaver Falls, Pa., assignor to The Standard Scale & Supply Company, Pittsburgh Pa., a Corporation of Delaware. Filed Nov. 4, 1915. Serial No. 59,542. (Cl. 73—29.)

1. An indicating scale comprising a rigid pendulum, a scale and a pivoted and counterweighted pointer angularly moved thereon by the angular movement of said pendulum, and a counterweight acting to hold the pendulum at an angle to the vertical when the pointer is at zero, and the counterweight of the pointer compensating at the middle point, whereby to obtain three positions on the scale in which the angular displacement of the pendulum is exactly proportional to the displacement of center of gravity from the vertical.

2. An indicating scale including a pendulum, a scale and pointer, circular gearing for rotating the pointer by the angular movement of the pendulum, and counterweights arranged on the pendulum and pointer to compensate for the discrepancy between the pendulum's angular movement and its horizontal displacement from the vertical, substantially as described.

3. In a scale, the combination of a pivoted pendulum, a drum attachment supporting a weight normally holding the pendulum at an angle to the vertical position, a scale and counterweighted pointer, a direct gearing of said pointer with the pendulum, said counterweights arranged to compensate for the discrepancy between the angular movement of the pendulum and its lateral displacement from the vertical, substantially as described.

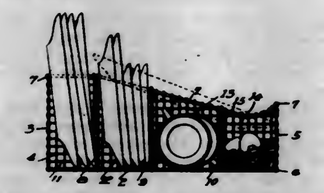


4. In a scale, the combination with a pendulum and a back balance weight geared thereto to hold it normally at an angle to the vertical, of a scale pointer and gearing connecting the pendulum with said pointer, said pointer having a weighted butt arranged to compensate, in moving the pointer, for the variation between lateral displacement of the pendulum and its movement along an arc, substantially as described.

5. In an automatic indicating scale, the combination of a pivoted disk, a flexible band thereon, a lever supporting the object to be weighed attached to one end of said band, a counterweight attached to the other end of the band, a pendulum fixed to said disk and carrying a gear sector, a scale pointer having a pinion engaging said gear sector to turn the pointer angularly in proportion to the angular movement of the pendulum, and a counterweight on the pointer adjusted to vary its angular movement independently of the pendulum and thus correct for the variation between the sine and the arc of movement of the pendulum, substantially as described.

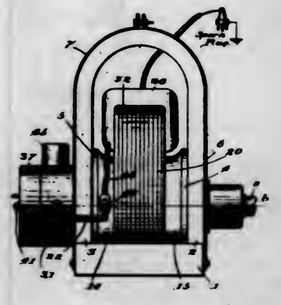
[Claim 6 not printed in the Gazette.]

1,205,769. DISH-BASKET. THURSTON MCGILL, Minneapolis, Minn. Filed May 19, 1913. Serial No. 768,664. (Cl. 141—11.)



A device of the class described comprising a receptacle having a perforated bottom and side and end walls and transverse partitions dividing the interior of said receptacle into a series of compartments, said partitions decreasing in height from the rear to the front of said receptacle, and the front wall of said receptacle being higher than the adjacent partition, said compartments being adapted to receive dishes placed on edge therein, said forward partition being adapted to support a platter placed flatwise thereon, and said front wall engaging the end of the platter and forming a stop therefor.

1,205,770. IGNITION-DYNAMO. CHARLES THOMAS MASON, Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Nov. 21, 1912. Serial No. 732,681. (Cl. 171—209.)



1. In a dynamo for ignition, a U-shaped magnet, an armature structure movably positioned between the ends of said magnet and supported thereby, laminations in said structure forming two circumferential oppositely positioned pole shoes, a rotor inclosed by said armature structure, a winding and a core therefor removably mounted on said armature structure, a condenser carried by said armature structure and movable therewith, a shoulder on said armature structure projecting through one of the poles of said magnet, and interrupter mechanism carried by said shoulder.

2. A dynamo for ignition comprising a base, a magnet, an armature structure carried by said magnet, end members on said armature structure projecting through said magnet parallel with flux lines therefrom, bearings in said end members, a rotor shaft carried in said bearings and projecting through said magnet ends, rotors carried by said shaft forming polar extensions of said magnet, and laminated portions on said armature structure forming circumferential pole shoes adjacent the path of travel of said rotors and at right angles to the magnet flux lines.

3. A magneto electric machine comprising a field structure having rotatable poles and an armature structure comprising a pair of pole shoes mounted in juxtaposition to said rotatable pole pieces and fixedly connected together, and an armature core normally bridging said armature pole pieces but freely removable therefrom, and a winding carried by said core member.

4. A magneto electric machine comprising a field structure having rotatable inductor pole pieces, an armature structure mounted for angular adjustment as respects said rotatable pole pieces and comprising a pair of magnetically insulated pole shoes and a magnetic armature core connecting said pole shoes but freely removable therefrom, together with an armature winding carried by said core.

5. A magneto electric machine comprising a field structure having rotatable inductor poles of permaneat and opposite magnetic polarity, and an armature structure comprising a pair of pole shoes rigidly connected together but magnetically insulated from each other, a core of magnetic material connecting the upper ends of said pole shoes, said core being freely removable therefrom, and an armature winding structure being mounted for angular adjustment about the axis of said rotatable field pole.

[Claims 6 to 20 not printed in the Gazette.]

1,205,771. AUTOMOBILE-RADIATOR. ROBERT G. MASON, Brooklyn, N. Y. Filed Mar. 16, 1916. Serial No. 84,568. (Cl. 257—125.).

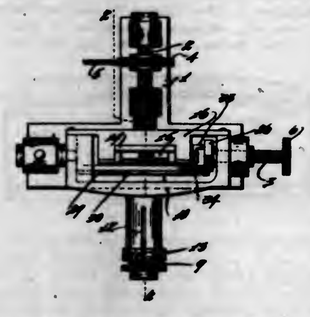
1. In a radiator, the combination of a radiator frame, cooling ducts containd within said frame, a by-pass also contained within said frame, said cooling ducts and by-pass discharging into a common return, a valve controlling the flow of water to said cooling ducts and to said by-pass, and means for controlling said valve.



2. In a radiator, the combination of a radiator frame, cooling ducts contained within said frame, a vertical by-pass, said cooling ducts and by-pass discharging into a common return, a connection having an upper port and a lower port, a valve coacting with said ports for controlling the flow of water to said cooling ducts and to said by-pass, means for controlling said valve, and a baffle plate above said cooling ducts and by-pass and between said ports, so that water is discharged from said first mentioned port above said baffle plate, the amount depending upon the position of said valve.

3. In a radiator, the comination of a radiator frame, cooling ducts contained within said frame, a vertical by-pass also contained within said frame, said cooling ducts and by-pass discharging into a common return, a valve controlling the flow of water to said cooling ducts and to said by-pass and means for controlling said valve, said valve having an axis of rotation which is horizontal, said by-pass being located midway between the sides of said frame, said valve being located adjacent to the upper ends of said cooling ducts and by-pass.

1,205,772. INTERMITTENT-MOTION MECHANISM. ANTON MEHLFELDER, New York, N. Y., assignor to Elizabeth Mehlfelder Uebelmesser, Bayside, Long Island. Filed Jan. 26, 1914. Serial No. 814,329. (Cl. 74—14.)



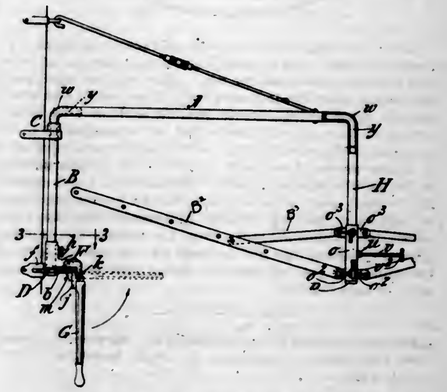
1. A mechanical movement consisting of a shaft for constant rotation, a cam on said shaft, slide plates operated by the cam, an intermittently rotated member adjacent thereto having holes in its face adapted to be engaged by the slide members actuated by the continuously rotated cam for the purpose of imparting an intermittent motion from one to the other.

2. An intermittent motion mechanism consisting of a continuously rotating cam, an intermittent member adjacent thereto, slide members interposed between the said cam and intermittent member, adapted to transmit intermittent motion from the continuously rotating cam to the intermittent moving member having holes in its annular surface.

3. An intermittent motion mechanism, consisting of a cam continuously rotated, an intermittent member having a plurality of holes on its surface, coöperating sliding members mounted in a shiftable frame to impart an intermittent motion to the intermittent member, said sliding members and their frame adapted to be shifted without interfering with the relative motion of the intermittent motion mechanism.

4. A mechanical movement consisting of a main shaft, a counter shaft, means operable by the main shaft adapted to operate said counter shaft at intervals, and means to move said counter shaft in the direction of its rotation, or opposite to the direction of its rotation, independently of the rotation of the main shaft.

1,205,773. CLOTHES-DRIER. JOHN C. MICHAUD, Springfield, Mass. Filed Oct. 24, 1914. Serial No. 868,391. (Cl. 68—34.)



1. A rotating member, means including a toothed plate for rotatably supporting the member, a bracket adapted for fixed relation with the member, said bracket overlying the plate, supporting means carried by the bracket and depending below the plate, a lever pivoted to said supporting means below the plate, said lever normally depending from the bracket under the influence of gravity, said lever being formed with an offset extremity to engage the toothed plate when the lever is in normal position.

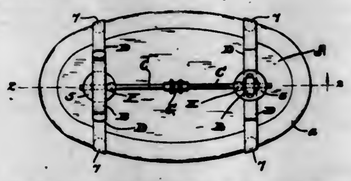
2. A rotating member, means including a toothed plate for rotatably supporting the member, a bracket adapted for fixed relation with the member, said bracket overlying the plate, supporting means carried by the bracket and depending below the plate, a lever pivoted to said supporting means below the plate, said lever normally depending from the bracket under the influence of gravity, said lever being formed with an offset extremity to engage the toothed plate when the lever is in normal position, the support of the lever in said means causing the lever extremity to pass through and below the toothed plate with respect to the bracket in the movement of the lever to operative position, whereby in the operation of the member through the use of the lever the bracket and lever are disposed on opposite sides of the toothed plate.

3. A clothes drier including an upright, means for supporting the same, a sleeve loosely encircling the upright, a plug fitted within the lower end of the upright and having an annular projecting edge to extend beyond the outer surface of the upright when the plug is in place to provide a support for the sleeve, and means engaging the upright and plug and concealed by the sleeve to secure the plug in position on the upright.

4. A clothes drier including a hollow upright, means for supporting said upright from above, a sleeve loosely en-

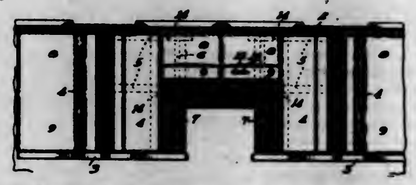
circling the upright, clothes supporting members carried by the sleeve, a plug fitting the lower end of the upright, and presenting a flange projecting beyond the surface of the upright to support the sleeve, and a pin passing through the plug and upright to secure the plug in place, said sleeve overlying and preventing accidental movement of the pin, and means for securing the sleeve in fixed position to the upright.

1,205,774. SUPPORTING DEVICE. SAMUEL A. MITCHELL, Spokane, Wash. Filed Mar. 17, 1913. Serial No. 754,718. (Cl. 65—15.)



In a supporting device of the character indicated, two spaced saddles each of which has a base having an interior chamber and provided with oppositely arranged slots extending laterally and outwardly from said chamber, a pair of arms which extend through each of said chambers and through said slots and are arranged the one next above the other within said chambers and terminate in hooks arranged to hook over the rim of the platter, a turn-buckle intermediately of the saddles, a rod extending through each of said chambers and across the upper of said arms and operatively connected with the turn-buckle, and means separate from the saddles for exerting pressure downwardly on the rods at one side of each of the aforesaid pair of arms to clamp said rods and said arms to said saddles.

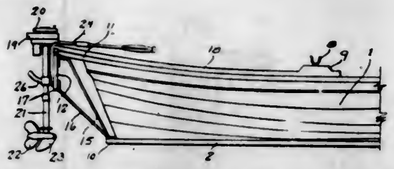
1,205,775. SLEEPING-CAR BERTH. EDWIN R. MOORE, St. Paul, Minn. Filed Sept. 23, 1915. Serial No. 52,273. (Cl. 105—23.)



A sleeping car berth comprising opposing seat frames spaced apart, back cushions adapted to slide down to a horizontal position to form the end supports for the mattress, seat cushions mounted to slide toward one another and fill the gap between the seats, supports extending under the seat cushions lengthwise thereof, said seat cushions being divided transversely into hinged sections, the sections adjacent the car aisle being adapted to be raised and tilted outwardly over the other sections to expose said supports and the floor of the car between the seats, said supports, when exposed, forming temporary seats in the berth.

1,205,776. BOAT-MOTOR SUPPORT. EVAN MORGAN, Loon Lake, Wash., assignor of one-half to Harry Holland, Spokane, Wash. Filed Feb. 28, 1916. Serial No. 80,848. (Cl. 115—17.)

1. In a boat motor support of the class described, a boat motor, and a boat having rigid portions of its frame extending rearwardly from its stern for attachment to such rigid frame extension of said motor whereby vibration and propulsive thrust of said motor will be transmitted directly and longitudinally to said frame independently of the planking of said boat, substantially as described.



2. In a boat motor support of the class described, a boat motor, and a boat comprising a frame, planking attached to said frame to form the hull and including a transom, portions of said frame extending rearwardly of said transom for direct attachment of said motor whereby vibration and propulsive thrust of said motor will be transmitted directly to said frame independently of said planking and transom, substantially as described.

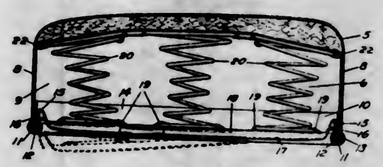
3. In a boat motor support of the class described, a boat motor, and a boat provided with a frame having rigid keel and gunwale portions extending rearwardly of the stern of the boat for attachment thereto of said motor whereby vibration and propulsive thrust of said motor will be transmitted directly to said portions, substantially as described.

4. In a boat motor support of the class described, a boat motor, and a boat provided with a rigid frame having rigid portions extending rearwardly of its stern, and means connecting said rigid portions rearwardly of the stern and forming a support for said motor whereby vibration and propulsive thrust will be transmitted directly to said frame, substantially as described.

5. In a boat motor support of the class described, a boat motor, a boat provided with a rigid frame including gunwale and keel portions extending rearwardly of the stern of said boat, substantially horizontally and vertically disposed braces connecting said gunwale and keel portions and forming a support for said motor whereby vibration and propulsive thrust of said motor will be transmitted directly to said portions, independently of the hull of said boat, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,205,777. SPRING-SEAT CONSTRUCTION. WILLIAM A. MURRAY and WILLIAM A. MURRAY, Jr., Cincinnati, Ohio, assignors to The William A. Murray Spring Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 31, 1915. Serial No. 42,864. (Cl. 155—25.)

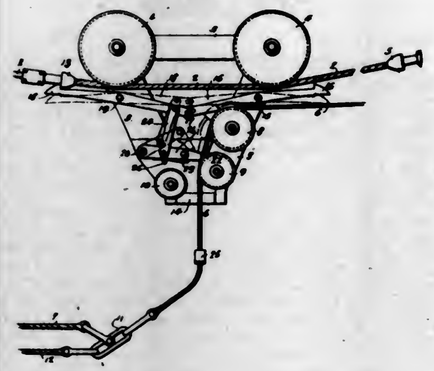


1. A spring seat comprising an upholstered portion, and a spring portion, said upholstered portion comprising a cushion located at the top thereof, and a looped frame secured at the bottom thereof, said spring portion comprising a series of springs, and a series of strips having hooked ends, said strips securing the lower ends of the springs thereto and holding the upper ends of the springs in engagement with the cushion when the hooked ends of the strips are brought into engagement with the loops of the frame.

2. In combination in a spring seat, an upholstered portion having a metal frame located at its lower edge, the edge of the upholstery being turned over the lower edge of the frame, and a substantially U-shaped metal edging embracing the overturned edge of the upholstery for clamping the frame and upholstery together, loops formed in the frame, a spring portion comprising a series of springs, and a series of strips for the springs, said strips having hooked ends for removably engaging the loops.

3. A spring seat comprising an upholstered portion, and a spring portion, said upholstered portion comprising a cushion located at its top, and a vertically disposed looped metal reinforcing frame located at its lower edge with its sides engaging the sides of the upholstery, the edges of the upholstery being turned over the lower edge of the frame, and a substantially U-shaped sheet metal clamp embracing the lower edge of the frame and upholstery for clamping the upholstery thereto, said spring portion comprising a series of springs, and a series of strips having hooked ends, said strips securing the lower end of the springs thereto and holding the upper ends of the springs in engagement with the cushion when the hooked ends of the strips are brought into engagement with the loops of the frame.

1,205,778. LOGGING WIRE-ROPE CARRIAGE. ANDREW OPSAL, Vancouver, British Columbia, Canada. Filed Dec. 10, 1915. Serial No. 66,192. (Cl. 212—108.)



1. In an overhead transmission system, the combination with an overhead track rope and a carriage endwise movable thereon, a member secured to the track at each end of the desired limit of movement of the carriage thereon, a latch lever pivotally mounted at each end of the carriage, the outer end of each lever designed to engage and secure the carriage to the member secured to the track, the inner end of which latch levers are so connected that they may move together, a sheave mounted in the carriage under one of the latch levers, over which sheave a rope by which the carriage is drawn on the track passes before connection to the load, a member secured on the hauling rope adjacent the connection of the load thereto which member is designed to engage the inner end of the latch lever adjacent the sheave over which the line passes, and means located beneath the sheave over which the line passes for sustaining the load on the latch operating projection secured on the hauling rope.

2. In an overhead transmission system, the combination with an overhead track rope and a carriage endwise movable thereon, of means for automatically securing the carriage to the track at each end of the desired limit of movement of the carriage thereon, a sheave mounted in the carriage over which sheave a carriage hauling rope passes for connection to the load, a member secured to the hauling rope adjacent the connection of the load thereto, which member is adapted to automatically release the carriage connection to the track when drawn within the carriage, a load sustaining pawl pivotally mounted in the lower part of the carriage, said pawl having an end pivotally connected to it and normally projecting in alinement with it, resilient means returning this pawl end to its normal position of alinement, a stop limiting downward movement of the main pawl, a stop limiting downward movement of the pivotally mounted pawl end, and means connected with the carriage releasing means for lifting the pawl off its stop.

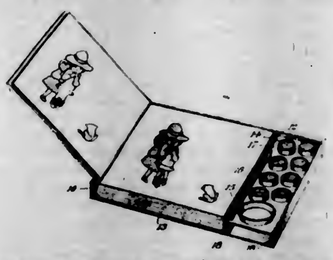
3. In an overhead transmission system, the combination with an overhead track rope and a carriage endwise movable thereon, a member secured on the track rope at each end of the desired limit of movement of the carriage thereon, said member having a conical end directed toward the carriage and a shoulder at the opposite end, a latch lever pivotally mounted on each end of the carriage and projecting beyond its end to engage the shouldered end of the member secured on the track rope, the inner ends of which latch levers are connected to move together, a sheave mounted on the carriage beneath the inwardly projecting end of one of the latch levers over which sheave the rope from the donkey engine passes which hauls in the carriage the end of which hauling-in rope is connected to the load and to the line from the donkey engine which hauls out the carriage, a member secured on the hauling-in rope adjacent the load connection thereto, which member is adapted to engage and lift the inner end of the latch lever to effect release of the carriage from either member secured on the track rope, a load sustaining pawl pivotally mounted in the lower part of the carriage, said pawl articulated intermediate of its ends to move in the same plane as the general movement of the pawl, said pawl end adapted to permit passage upward of the carriage releasing attachment on the hauling-in line but preventing backward movement of the same, resilient means for maintaining the articulated end in alinement with the pawl, a stop limiting downward movement of the main pawl, a stop limiting downward movement of the articulated end of the pawl, a connection between the main part of the pawl and one of the carriage latch levers whereby movement of either latch lever to release the carriage will lift the main pawl and permit its articulated end to move downward and the member secured on the hauling-in rope to pass out.

4. In an overhead transmission system, the combination with an overhead track rope and a carriage endwise movable thereon, latch members on the track rope between the locations of which the carriage is movable, oppositely disposed latching levers mounted on the carriage and having a pin and slot connection with one another, a pawl mounted on the carriage, a link connecting the pawl with one of said levers, a sheave on the carriage, a hauling in rope passing over said sheave, said pawl having its free end adapted to rest on said sheave, a stop on said hauling in rope adapted to engage the end of said pawl to move said pawl to release the carriage, a stop pin on the carriage for restraining the movement of said pawl in one direction, said pawl being adapted to restrain said hauling in rope when said rope abutment has passed the free end of said pawl on the hauling in movement, said hauling in rope abutment adapted to engage one of said levers for releasing purposes, substantially as shown and described.

5. In an overhead transmission system, the combination with an overhead track rope and a carriage endwise movable thereon, latch members on the track rope between the locations of which the carriage is movable, oppositely disposed latching levers mounted on the carriage and having a pin and slot connection with one another, a pawl mounted on the carriage, a link connecting the pawl with one of said levers, a sheave on the carriage, a hauling in rope passing over said sheave, said pawl having its free end adapted to rest on said sheave, a stop on said hauling in rope adapted to engage the end of said pawl to move said pawl to release the carriage, a stop pin on the carriage for restraining movement of said pawl in one direction, said pawl being adapted to restrain said hauling in rope when said rope abutment has passed the free end of said pawl on the hauling in movement, said hauling in rope abutment adapted to engage one of said levers for releasing purposes, said pawl having the end which engages said sheave articulated and means tending to hold the parts of said pawl in alinement.

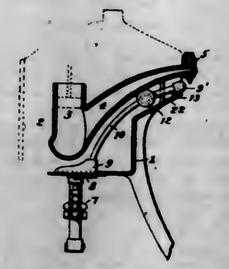
[Claim 6 not printed in the Gazette.]

1,205,779. CHILD'S PAINTING OUTFIT. JOSEPH RAY PECK, New York, N. Y., assignor to The Platt and Peck Co., New York, N. Y., a Corporation of New York. Original application filed Dec. 2, 1913, Serial No. 804,171. Divided and this application filed Feb. 12, 1916. Serial No. 77,876. (Cl. 41—4.)



A child's painting outfit comprising a shallow box provided with a removable closure and having a partition dividing it into a larger and a smaller compartment, a painting book in the larger compartment, a platfrom in the smaller compartment, below the top thereof and comprising a flat sheet having its side edges bent down to form supports for the platform, and coloring materials mounted on the platform; the platform serving to support the coloring materials at a convenient position for use and also to brace the walls of the compartment against breakage under lateral pressure.

1,205,780. BURNER ATTACHMENT FOR LINOTYPE-MACHINES. HANS PETERSEN, Davenport, Iowa. Filed July 21, 1916. Serial No. 110,597. (Cl. 22—71.)



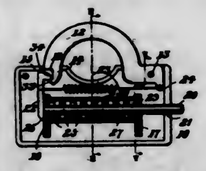
1. The combination with a casting pot, of a main burner disposed beneath said pot and having a burner cap, a jacket for the pot, a detachable mouthpiece burner located exteriorly of the jacket, a pipe connecting the main burner cap with said mouthpiece burner and extending for a portion of its way beneath the throat of the pot for conducting vapors to the auxiliary burner and a generator for feeding the main burner, substantially as described.

2. The combination with a casting pot, of a casing therefor, a main burner disposed beneath the casting pot, a generator for feeding said burner, a pipe extending from the main burner beneath the throat to a point near the mouthpiece and thence leading through the jacket, said portion disposed exteriorly of the jacket extending forwardly to a point beneath the mouthpiece of the crucible, and a burner connected with said portion and adapted to underlie the mouthpiece.

3. The combination with a casting pot, of a casing therefor, a main burner disposed beneath the casting pot, a generator for feeding said burner, a tube extending from the main burner beneath the throat to a point near the mouthpiece and thence leading through the jacket, said portion disposed exteriorly of the jacket extending forwardly to a point beneath the mouthpiece of the crucible, a burner connected with said portion and adapted to underlie the mouthpiece, and a partition separating said main and auxiliary burners.

4. The combination with a casting pot, of a main burner located beneath said pot, an auxiliary burner underlying the mouthpiece, a generator for the main burner, and fuel conducting connection between the auxiliary burner and the main burner, and a partition separating said burners.

1,205,781. PERMUTATION-PADLOCK. STANISLAW A. PIECO, Milwaukee, Wis. Filed June 1, 1916. Serial No. 101,052. (Cl. 70—112.)

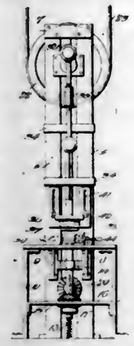


1. A permutation lock comprising a casing having opposite slots therein, mounting brackets within said casing secured to the opposite side plates thereof, one of the said brackets having a notch therein, a bolt slidably mounted through the said brackets and having a plurality of outwardly flaring wards arranged in alinement with the said notch, a swinging shackle pivoted at one end within the said casing and having a hooked free end positioned within the said casing when in its locked position, a locking head carried by the inner end of said bolt normally arranged within the path of movement of the said hooked end of the shackle, resilient positioning means for the said locking head, automatic swinging means for the said shackle fixed at one end to the inner pivoted end of the shackle and at its other end to said locking head, and a plurality of permutation members journaled upon the said bolt and projecting through said side slots of the casing arranged with notches positioned in alinement with the said bracket notch and bolt wards when the said device is in its unlocked position.

2. A lock comprising a casing, a swinging shackle having one end pivoted within the said casing and provided with a perforated lug, the other end of the said shackle forming a locking hook projecting inwardly of the casing when in its locked position, a slidable bolt mounted within the casing having one end normally projected therefrom, a locking head carried by the inner end of the said bolt and immovable relative thereto arranged within the path of movement of the said shackle hook, a positioning spring connected at one end of its ends to said perforated lug and at its other end to said locking head, and permutation engaging means carried by the said bolt.

3. A lock comprising a casing, a swinging shackle having one end pivoted within the said casing and provided with a perforated lug, the other end of the said shackle forming a locking hook projecting inwardly of the casing when in its locked position, a slidable bolt mounted within the casing having one end normally projected therefrom, a locking head carried by the inner end of the said bolt and immovable relative thereto arranged within the path of movement of the said shackle hook, a positioning spring connected at one of its ends to said perforated lug and at its other end to said locking head, radial projecting flaring wards carried by the said bolt in alinement with each other, a plurality of permutation disks journaled upon the said bolt and having chambers for the normal reception of the wards and being further provided with radial notches arranged in alinement with the wards when the disks are in their released positions, the opposite side plates of the casing being provided with longitudinal slots through which the peripheries of said disks freely project, and permutation characters arranged upon the peripheries of the disks.

1,205,782. GASKET-MAKING MACHINE. IRA ANDREW POWELL, St. Louis, Mo. Filed Mar. 13, 1916. Serial No. 83,883. (Cl. 18—5.)



1. A gasket machine including a pair of spaced uprights, a table carried thereby and having an opening therein, a vertically arranged shaft having a die extending through the opening and normally retained in position above the table, means being provided for returning the die to normal position after displacement therefrom, means for rotating said die, a roller, a lever on which the roller is carried, said lever being pivoted to the plate, in position to be shifted for moving the roller against the die, whereby to impart to an unfinished gasket the formation of the die, a main shaft, means for rotating the latter at will, a vertically arranged rod, bearings carried by the uprights through which the rod is slidably supported, connecting means between the main shaft and the rod whereby the latter may be reciprocated as the shaft is rotated, a cylindrical pilot having a tapered lower end and having an outstanding flange at its upper end connected with said vertical rod, said pilot being at its lower end of a diameter substantially coincident with the diameter of the die, and a stripper comprising a horizontally arranged plate having an opening therein of a diameter substantially equal to the diameter of the pilot, said stripper being arranged below the pilot and being provided with upwardly extending arms having slots provided therein, bolts carried by the uprights and extending through said slots for guiding the stripper and for limiting its movement, substantially as described.

2. A gasket machine including an upright member having a horizontally arranged table carried thereby, said table being provided with an opening, a die arranged normally above the table and movable through the opening, resilient means for returning the die to normal position after displacement therefrom, said die being of a diameter substantially equal to the diameter of the opening in the table, means for rotating the die, a roller, means whereby the roller may be moved into and out of engagement with the die whereby an unfinished gasket may be shaped against the die, a pilot arranged above the die, means whereby the pilot may be separately operated in vertical position at will, and a stripper having an opening through which the pilot may be projected as it is moved downwardly, and means for stopping the upward movement of the stripper prior to the arrival of the pilot at the upper terminus of its path of movement, for stripping the gasket from the pilot.

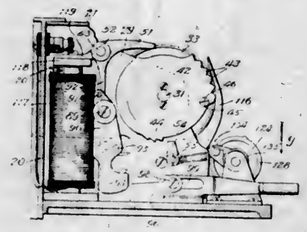
3. A gasket making machine, including a table, a die arranged above the table and adapted to be vertically reciprocated through an opening provided in the table, said opening being of a diameter substantially equal to the diameter of the die, means for compressing an unfinished gasket against the die whereby to impart the configuration of the die to the gasket, a pilot arranged above the die, said pilot being of a diameter substantially equal to the diameter of the die, means whereby the pilot may be vertically reciprocated for moving the die through the opening in the plate, resilient means for returning the die to its normal position, a stripper arranged between the die and pilot and having an opening through which the pilot is projected when moved downwardly, said pilot being provided with a flange for engaging the stripper whereby to move the latter downwardly with the pilot, and means for limiting the upward movement of the stripper prior to the arrival of the pilot at the upper end of its path of movement, whereby to strip the gasket from the pilot.

4. A gasket making machine including a table having an opening therein, a circumferentially corrugated cylindrical die arranged above the plate in alinement with the opening and adapted to be shifted downwardly through said opening, means for returning the die to its normal position, means for rotating said die, a circumferentially corrugated vertically arranged roller adapted to be moved toward and away from the die for imparting the configuration of the die to an unfinished gasket arranged on the die, a pilot arranged above the die, means for reciprocating the pilot in a vertical path at will, for driving the die through the opening in the plate whereby to compress the unfinished gasket against said plate, said pilot at its lower end being of a diameter substantially coincident with the diameter of the die whereby the pilot may advance through the gasket for imparting the proper internal diameter thereto, and means for stripping the gasket from the pilot as the latter moves upwardly.

5. A gasket forming machine including a circumferentially corrugated die, means for rotating the die, a vertically arranged circumferentially corrugated roller, means whereby said roller may be moved toward and away from the die for compressing an unfinished washer against said die whereby to impart the formation of the die to the washer, a plate having an opening therein through which the die may be forced for arresting the washer against the plate, a pilot arranged above the die, means for reciprocating the pilot whereby the washer may be compressed against the plate, the pilot being substantially of a diameter equal to the diameter of the die for imparting the proper diameter to the washer, and means for stripping the washer from the pilot as the latter moves upwardly.

[Claims 6 to 9 not printed in the Gazette.]

1,205,783. TELEPHONE PAY-STATION. CHARLES E. PRATT, Chicago, Ill. Filed Oct. 25, 1912. Serial No. 727,662. (Cl. 194—92.)



1. The combination of coin-controlled spring-returnable mechanism including a member having a shoulder, a rock device adapted to coöperate with said shoulder for releasably holding said coin-controlled mechanism against return movement under the action of its spring, a rock member operating, when actuated, to engage with said rock device to actuate the latter for releasing said coin-controlled mechanism, and means actuated after the expiration of a predetermined length of time for actuating said rock member, for the purpose set forth.

2. The combination of a spring-returnable member, coin-controlled mechanism including a member having a shoulder for actuating said spring-returnable member, means engaging with said shoulder when said coin-controlled mechanism is operated, for releasably holding the latter

against return movement, and means extending into the path of movement of said spring-returnable member during the return movement of the latter for operating said first-named means to release said second-named member, for the purpose set forth.

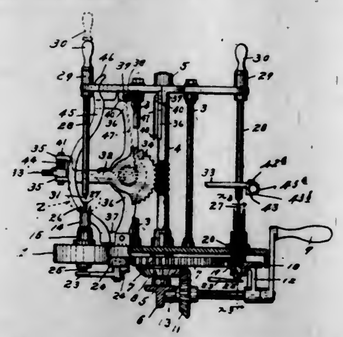
3. The combination of a spring-returnable member, coin-controlled mechanism including a member having a shoulder for actuating said spring-returnable member, means engaging with said shoulder when said coin-controlled mechanism is operated, for releasably holding the latter against return movement, means extending into the path of movement of said spring-returnable member during the return movement of the latter for operating said first-named means to release said second-named member, and electrically operated means for actuating said first-named means.

4. The combination of a rotatable member containing a coin-receiving pocket and movable to a position in which the coin will discharge therefrom by gravity, a bell-crank lever arranged to normally engage at one end with the coin and hold it in said pocket when the pocket is inverted, and means operating after the expiration of a predetermined length of time to engage with the other arm of said lever for moving the latter to coin-releasing position.

5. The combination of a movable member containing a coin-receiving pocket, means for releasably holding said member against return movement, means for releasably holding the coin in said pocket, and means operating to release said coin from the pocket and thereafter release said first-named means to permit said coin-controlled member to return to normal position.

[Claims 6 to 28 not printed in the Gazette.]

1,205,784. VEGETABLE-PARER. OSCAR P. G. RADSCH, Milwaukee, Wis. Filed Feb. 17, 1915. Serial No. 8,898. (Cl. 146—8.)



1. The combination with a rotary holder, and a co-operating paring knife-equipped arm, of a feed device for said arm, including a gear, a pinion meshing with said gear and axially alined with said rotary holder, a spring-separated clutch for connecting and disconnecting said rotary holder with said pinion, at will, and a clutch-actuated lever having a beveled cam surface engageable with said pinion.

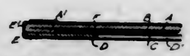
2. The combination with a plurality of rotary holders, and coöperating paring knife-equipped arms, of a common feed device for said arms, including a gear, a pinion loosely journaled on each of said holders, and meshing with said gear, spring-separated clutches for connecting and disconnecting said pinions with said rotary holders, at will, and clutch-actuated levers having beveled cam surfaces operative on said pinions.

3. The combination with a plurality of rotary holders, and coöperating paring knife-equipped arms, of a common feed device for said arms, including a gear, a pinion loosely journaled on each of said holders, and meshing with said gear, said pinions having half clutches, clutch pins on said rotary holders with which said half clutches coöperate, to lock said pinions to said rotary holders, springs tending to separate said members, and clutch-actuating levers having cam surfaces operative on said pinions.

4. In a paring machine, the combination with a plurality of rotary holders, and coöperating pivotally mounted paring knife-equipped arms, of common means for actuating said holders and arms, means for independently throwing said rotary holders into and out of action, and means for independently returning said arms to their normal positions.

5. In a paring machine, the combination with a plurality of rotary holders, and coöperating pivotally mounted paring knife-equipped arms, of means for actuating said holders, common means for actuating said arms, and means for independently returning said arms to normal positions.

1,205,785. PICTURE OR SIGN FRAME. ERWIN REACH, Jersey City, N. J., assignor to Louis E. Waldeck, doing business under the name of E. Waldeck & Co., Jersey City, N. J. Filed July 2, 1915. Serial No. 37,691. (Cl. 40—159.)



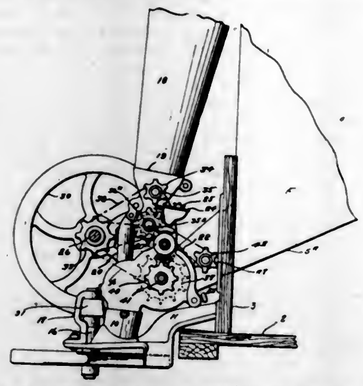
1. A mount or frame, comprising a pane of glass, a frame body formed of a sheet of stiff material creased along its margin to form strips bent upon one face of the sheet and fastened thereto to provide a recess for the reception of the said pane of glass, and retaining means attached to the said frame body and including a covering ornamented on its face to give the frame an appearance in harmony with the subject matter of the picture to be framed, the said covering overlying the face of the frame body and extending around the edges of the same to the back thereof.

2. A mount or frame, comprising a pane of glass, a frame body formed of a sheet of stiff material creased along its margin to form strips bent upon one face of the sheet and fastened thereto to provide a recess in the said face for the reception of the article to be framed and the said pane of glass, the depth of the recess corresponding approximately to the aggregate thickness of the article and the pane of glass, and a mat overlying the said strips and the margin of the pane of glass, and an ornamental covering attached to the face of the mat, of flexible material, the covering extending beyond the edges of the mat and being bent over the edges of the mat and the edges of the back and its strips and being fastened to the rear face of the frame body.

1,205,786. BROADCAST SEEDER. LUTHER E. ROBY, Peoria, Ill. Filed Feb. 10, 1913. Serial No. 747,263. (Cl. 111—38.)

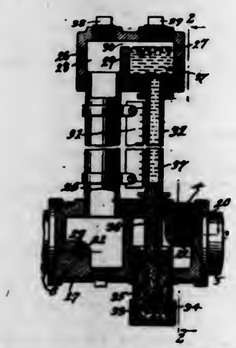
1. In a broadcast seeder, in combination, an endgate for a wagon provided with an opening therethrough, a hopper within the wagon body having a bottom portion inclined downwardly and outwardly, with an outlet communicating with the opening in the end gate, a chute without the wagon body, leading from the opening in the end gate, a casing having an inlet with which said chute communicates and also being provided with an outlet, a valve for controlling the flow of grain from the chute to the casing, a force feed roller in the casing and a distributing member.

2. In a broadcast seeder, in combination, an end gate for a wagon provided with an opening therethrough disposed approximately in its vertical and longitudinal center, a hopper disposed wholly within the wagon body having a bottom inclined downwardly and outwardly and with an outlet communicating with the opening in the end gate, a chute without the wagon body leading from the opening in the end gate, a force feed roller in the chute, said chute being inclined downwardly and outwardly at such an angle that while permitting the grain to flow by gravity to the feed roller will retard it sufficiently to prevent choking, and a distributing member to receive grain from the feed roller.



3. In a broadcast seeder, in combination, an end gate for a wagon provided with an opening therethrough disposed approximately in its vertical and longitudinal center, a hopper disposed on the inside of the end gate, the bottom member thereof inclined downwardly and outwardly, and in connection with the general hopper structure gradually contracted to form an outlet registering substantially with the opening through the end gate, a casing member on the opposite side of the end gate, a portion thereof registering with the outlet opening and having a similar incline to that of the bottom of the hopper, the outer portion of said casing being expanded into a substantially cylindrical shaped shell provided with an inlet opening in register with the inclined portion of said casing member and with an outlet opening, a force feed roller within the cylindrical shell portion of said casing and means for turning said feed roller whereby the grain deposited in the hopper will be fed under restricted flow through the end gate and lodged against the side of the feed roller, to be fed in measured quantities to the discharge opening.

1,205,787. FLOW-METER. FAY HARRY ROSENCRANTS, Corvallis, Oreg. Filed Nov. 10, 1915. Serial No. 60,703. (Cl. 73—167.)



1. A flow meter, comprising a casing arranged in a pipe line, a partition dividing said casing into compartments and provided with a relatively small orifice diverging in the direction of flow, a movable button substantially closing the smallest portion of said orifice at zero rate of flow and the position of which is controlled by the difference in the pressures in the two compartments, means for yieldingly resisting the movement of said button, a vertical pipe connected with one of said compartments, a mercury tube connected with the other of said compartments, a scale arranged alongside of said mercury tube, and a supplemental casing joining the tops of said pipe and tube.

2. A flow meter, comprising a casing arranged in a pipe line, a partition dividing said casing into compartments and provided with a relatively small orifice diverging in the direction of flow, a movable button substantially closing the smallest portion of said orifice at zero rate of flow and the position of which is controlled by the difference in the pressures in the two compartments, means for yieldingly resisting the movement of said button, a tube connected with one of said compartments, a mercury well at the bottom of said tube, a water reservoir connected with the upper end of said tube, and means for leading the liquid being measured to said mercury well and to the surface of the water in said reservoir to raise or lower the mercury in said tube as the difference of pressures in said compartments varies.

3. A flow meter, comprising a casing arranged in a pipe line, a partition dividing said casing into compartments and provided with a relatively small orifice diverging in the direction of flow, a movable button substantially closing the smallest portion of said orifice at zero rate of flow and the position of which is controlled by the difference in the pressures in the two compartments, means for yieldingly resisting the movement of said button, a vertical pipe connected with one of said compartments, means for controlling the flow to said pipe, a mercury tube connected with the other of said compartments, and a supplemental casing joining the tops of said pipe and tube.

4. A flow meter, comprising a casing arranged in a pipe line, a partition dividing said casing into compartments and provided with a relatively small orifice diverging in the direction of flow, a movable button substantially closing the smallest portion of said orifice at zero rate of flow and the positon of which is controlled by the difference in the pressure in the two compartments, means for yieldingly resisting the movement of said button, a vertical pipe connected with one of said compartments, a mercury tube connected with the other of said compartments, means for controlling the flow to said tube, and a supplemental casing joining the tops of said pipe and tube.

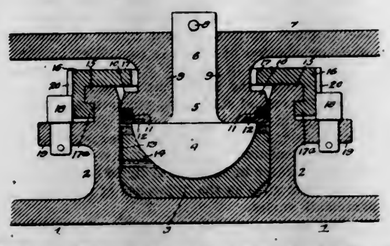
5. A flow meter, comprising a casing arranged in a pipe line, a partition dividing said casing into compartments and provided with a relatively small orifice diverging in the direction of flow, a slidably mounted rod projected through said orifice, a button carried by said rod, means for normally maintaining said button at the smallest portion of said orifice in a yielding manner, a vertical pipe connected with one of said compartments, a mercury tube connected with the other of said compartments, and a supplemental casing joining the tops of said pipe and tube, the position of said button with respect to said orifice being controlled by the difference in pressures in the two compartments.

1,205,788. CENTER-BEARING FOR TRUCKS. KENNETH RUSHTON, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 29, 1916. Serial No. 106,655. (Cl. 105—108.)

1. The combination of a truck bolster having a casing; the casing having a cavity therein; a body bolster having a depending portion mounted in the cavity of the truck bolster; a center pin having an enlarged hemispherical end; a bearing block mounted in the cavity having a recess to receive the hemispherical end of the center pin; an annular packing ring carried by the depending portion of the body bolster directly above the hemispherical end of the pin; and means for securing the ring in position.

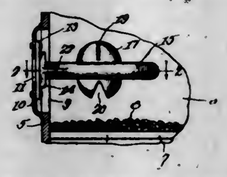
2. The combination in a center bearing for trucks, of a casing carried by the truck and having a cavity therein;

a bearing block mounted in the cavity; a body bolster having a depending portion entering the cavity and having an external flange; a packing ring secured to the flange and bearing against the walls of the cavity; a center pin mounted in the extension of the body bolster and having a hemispherical end adapted to the bearing block; a two-part ring secured to the casing and extending over the flange of the extension of the body bolster; and means for holding the ring in position.



3. The combination in a center bearing for trucks, of a truck bolster; a casing thereon, said casing having a cavity therein and having an external flange at its upper edge and lugs; a bearing block mounted in the cavity and having a recess therein; a body bolster having an extension provided with a flange at its lower edge, said flanged extension projecting into the cavity in the casing; a packing ring carried by the flange and bearing against the walls of the cavity; a center pin mounted in the extension of the body bolster and having a hemispherical end located in the bearing block; a two-part ring arranged to engage the flange in the upper end of the casing and projecting over the flange on the extension of the body bolster, each part of the ring having recesses therein; and retaining pins adapted to the recesses and extending through openings in the lugs on the casing.

1,205,789. FUEL-SAVING ATTACHMENT FOR FURNACES. NELSON J. RUSSELL, Chicago, Ill. Filed May 1, 1916. Serial No. 94,611. (Cl. 110—175.)



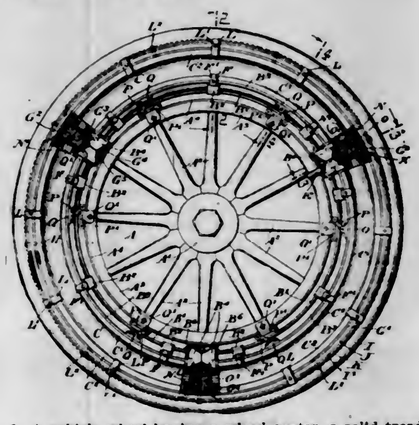
1. In a fuel saving attachment for furnaces, the combination with a furnace having a combustion chamber and an opening leading thereto, of a plate or member having a receiving chamber-casing mounted in communication with said opening and within the combustion chamber, said plate or member being horizontally disposed and provided about centrally thereof with a hollow enlargement having in its upper and lower portions each a transversely extended opening, the said plate or member also having a convolute conduit communicating at one of its ends with said receiving chamber and at its other end with said hollow enlargement.

2. In a fuel saving attachment for furnaces, the combination with a furnace having a combustion chamber and an opening leading thereto, of a plate or member having a receiving chamber-casing mounted in communication with said opening and within the combustion chamber, said plate or member being horizontally disposed and provided about centrally thereof with a hollow enlargement having in its upper and lower portions each a transversely extended opening, the opening in the lower portion of said enlargement being outwardly flared, the said plate or member also having a convolute conduit communicating at one of its ends with said receiving chamber and at its other end with said hollow enlargement.

3. In a fuel saving attachment for furnaces, the combination with a furnace wall having a doorway, of a hinged door therefor, said door having an opening therein leading to the combustion chamber of the furnace, a plate or member having a receiving chamber-casing mounted on the inner surface of the door in communication with the opening therein, said plate or member being horizontally disposed and provided about centrally thereof with a hollow enlargement having in its upper and lower portions each, a transversely extended opening, the said plate or member also having a convolute conduit communicating at one of its ends with said receiving chamber and at its other end with said hollow enlargement.

4. As a new article of manufacture, a plate or member having at its edge a receiving chamber-casing and provided with a convolute conduit leading from said chamber-casing to the central portion of said plate or member and having its inner end contracted, a hollow enlargement on the central portion of the said member in communication with said conduit and having in its upper portion a slot extended in parallelism with said chamber casing and in its lower portion a downwardly enlarged opening.

1,205,790. VEHICLE-WHEEL. THOMAS A. RYAN, Yonkers, N. Y. Filed Mar. 17, 1914. Serial No. 825,276. (Cl. 152—33.)



1. A vehicle wheel having a wheel center, a solid tread, an annular sectional frame, a cushioning tube interposed between the said tread and frame and to which the said tread and frame are attached, and link connections connecting the said sections of the said frame to the said wheel center.

2. A vehicle wheel having a wheel center provided with a rim, a solid tread, a sectional frame, a cushioning tube interposed between the said tread and frame and having annular flanges, fastening means engaging the said tread and one of the said cushioning tube flanges to fasten the tread and cushioning the tube together, and fastening means engaging the said frame and the other flange of the cushioning tube to fasten the said frame and cushioning tube together.

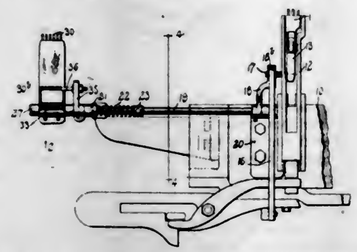
3. A vehicle wheel having a wheel center, a cushioning tube, a solid tread fitting on the outer face of the said cushioning tube and secured to the latter, a sectional bearing frame onto which fits the said cushioning tube, and pairs of connected links connecting each of the said frame sections with the said wheel center.

4. A vehicle wheel having a cushioning tube provided with integral inner and outer laterally projecting flanges, a solid tread fitting into the outer peripheral face of the tube and attached to the outer flanges, and a sectional band frame for the cushioning tube secured to the inner flanges and upon which the inner peripheral face of the tube is seated.

5. A vehicle wheel having a cushioning tube provided with integral laterally projecting flanges, and a sectional bearing frame for the said cushioning tube to rest on and attached to the said flanges.

[Claims 6 to 14 not printed in the Gazette.]

1,205,791. WEFT-DETECTING MECHANISM FOR LOOMS. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Dec. 29, 1915. Serial No. 69,277. (Cl. 139—85.)



1. A weft detecting mechanism for looms having, in combination, a transfer mechanism, an actuator, a connecting member through which said actuator may set said transfer mechanism in operation, said member being normally in operative position, means to move said member to inoperative position relatively to said actuator, means to thereafter restore said member to operative position, and a plurality of separate weft detectors each effective to prevent the movement of said member to inoperative position whenever said detector is not engaged by a sufficient weft supply in the active shuttle upon each alternate forward beat of the lay.

2. A weft detecting mechanism for looms having, in combination, a transfer mechanism, an actuator, a connecting member through which said actuator may set said transfer mechanism in operation, a support for said member movable by said actuator into operative position, means effective to withdraw said support, and a plurality of weft detecting devices, each effective to independently control the movement of said support by said means.

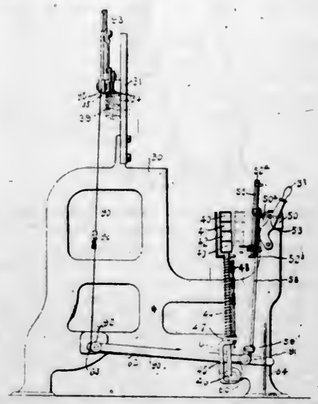
3. A weft detecting mechanism for looms having, in combination, a transfer mechanism, an actuator, a connecting member through which said actuator may set said transfer mechanism in operation a support for said member movable in one direction by said actuator to place said member in operative position, means for moving said support in the opposite direction, and a plurality of separately movable weft detectors, said detectors being moved out of the path of said arm by engagement with a sufficient weft supply to the active shuttle.

4. A weft detecting mechanism for looms having, in combination, a transfer mechanism, an actuator, a connecting member through which said actuator may set said transfer mechanism in operation, means normally effective to withdraw said member from operative position at each forward movement of said actuator, a plurality of weft detectors each operable upon substantial exhausting of weft in the active shuttle to prevent the operation of said means, and means to restore said member to operative position after its removal therefrom.

5. A weft detecting mechanism for looms having, in combination, a plurality of separate detectors, an actuator, a transfer mechanism having a member normally positioned to engage said actuator, a support for said member, means to move said support, from operative position, and means to thereafter restore said support to operative position, said first mentioned means being rendered inoperative whenever any one of said detectors indicate substantial exhaustion of weft in the active shuttle.

[Claim 6 not printed in the Gazette.]

1,205,792. WEFT-DETECTING MECHANISM. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 24, 1916. Serial No. 80,271. (Cl. 139—85.)



1. In a drop box loom, in combination, a plurality of shuttle boxes, means to shift said boxes vertically to operative position, a single weft detector connected to control the operation of said loom, and pattern-controlled means for moving said weft detector into position to cooperate with each box prior to the picking of the shuttle therefrom.

2. In a drop box loom, in combination, a plurality of shuttle boxes, means to shift said boxes vertically to operative position, a single weft detector connected to control the operation of said loom, and pattern-controlled means for moving said weft detector into position to cooperate with an indicated shuttle box and to determine the supply of weft therein as the lay moves forward prior to the picking of the shuttle therefrom.

3. In a drop box loom, in combination, a plurality of shuttle boxes, means to shift said boxes vertically to operative position, a single weft detector connected to control the operation of said loom, and pattern-controlled means for moving said weft detector into position to cooperate with an indicated shuttle box as the lay moves forward and before the boxes are shifted to bring the indicated box to operative position.

4. In a drop box loom, in combination, a plurality of shuttle boxes, means to shift said boxes vertically to operative position, a single weft detector connected to control the operation of said loom, vibrator levers, pattern mechanism for moving said levers to determine the position of said boxes, and connections from said vibrator levers effective to move said weft detector to a position opposite an indicated shuttle box before said box is moved to operative position.

5. In a drop box loom, in combination, a plurality of shuttle boxes, means to shift said boxes vertically to operative position, a single weft detector connected to control the operation of said loom, vibrator levers, pattern mechanism for moving said levers to determine the position of said boxes, and connections from said levers effective to move said weft detector to a position opposite an indicated shuttle box before said box is moved to operative position, said connections being so disposed that they will thereafter permit vertical movement of said shuttle boxes without causing relative movement between the indicated box and the weft detector.

[Claims 6 to 17 not printed in the Gazette.]

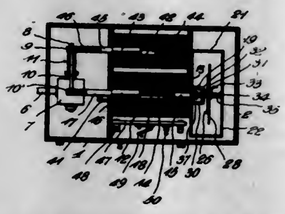
1,205,793. UNION-SUIT. MAX SALDIN, New York, N. Y., assignor to Esther Saldin. Filed Mar. 17, 1914. Serial No. 825,232. (Cl. 2—144.)



1. In an undergarment, a tubular body portion of a length to extend a substantial distance below the hip line of the garment and having approximately inverted U-shaped cut-out portions at the front and rear, said portions extending substantially to the waist line, leaving two depending side portions, tubular leg portions each cut out along its outer edge, thus forming front and rear flaps, the depending side portions of the body portion being secured to the edges of the cut outer edges of the leg portions and the flaps of one leg portion lapping the flaps of the other at their inner edge.

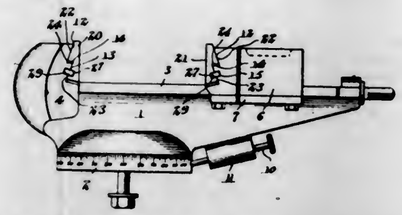
2. In an undergarment, a body portion comprising a section of tubular fabric of a length to extend below the hip line of the garment and having its lower edge both front and back cut away along lines inclined upwardly and inwardly toward the vertical center line of the front and the back of the garment respectively, leaving two depending side portions, and tubular leg portions each cut out along its outer edge to fit a cutout side portion of the body portion and attached thereto.

1,205,794. AUTOMATIC TRAIN-STOP. ARTHUR P. SANBORN and ROY C. WILSON, Ossining, N. Y., assignors of one-third to Horace R. Horton, Haymount, Briarcliff Manor, N. Y. Original application filed June 22, 1914, Serial No. 846,585. Divided and this application filed July 22, 1915. Serial No. 41,383. (Cl. 246—58.)



In a device of the character described, the combination with a rotary air controlling valve having a stem projecting longitudinally therefrom, and a pair of arms carried by said stem; of a service and an emergency solenoid having relatively fixed cores therein, said cores being provided with recesses in their ends adjacent said arms and extending longitudinally of the former, the recess in the core of said emergency solenoid being greater in length than the recess in the core of said service solenoid, reciprocating plungers slidably mounted in said recesses and having slots in their outer ends, said arms extending through said slots to provide an operative connection between the former and said plungers, the slot in the plunger of said emergency solenoid being greater in length than the slot in the plunger of said service solenoid, whereby said valve is operated independently by either of said solenoids, and means for energizing the latter.

1,205,795. CHUCK OR VISE. CHARLES H. SAPPER, Norfolk, Va. Filed Dec. 8, 1915. Serial No. 65,813. (Cl. 90—60.)



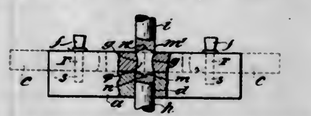
1. In a device of the class described a pair of jaws arranged for movement toward and from each other and provided with inclined opposing upwardly converging faces and key plates having inclined faces corresponding with and engaging those of the jaws and having vertical parallel opposing faces, and means to raise and lower the key plates, on the jaws.

2. In a device of the class described a jaw having a plane inclined face, a key plate having a vertical work engaging face and an inclined face engaging that of the jaw, a link bar mounted for angular movement in grooves in the opposing sides of the jaw and key plate, a lever bar connected to said link bar and means to operate said lever bar whereby to raise and lower the said key plate.

3. In a device of the class described a jaw having a plane inclined face, a key plate having a vertical work engaging face and an inclined face engaging that of the jaw, a link bar mounted for angular movement in grooves in the opposing sides of the jaw and key plate, a lever bar connected to said link bar, a spring exerting its tension on the lever bar to normally cause said lever bar and link bar to raise the key plate and a screw to move the lever bar against the tension of the spring and thereby lower the key plate.

4. In a device of the class described a jaw having a plane inclined face, a key plate having a vertical work engaging face and an inclined face engaging that of the jaw, a link bar mounted for angular movement in grooves in the opposing sides of the jaw and key plate, a lever bar connected to said link bar, a spring exerting its tension on the lever bar to normally cause said lever bar and link bar to raise the key plate and a screw to move the lever bar against the tension of the spring and thereby lower the key plate, said jaw having a recess in which the lever bar operates and also having a bore communicating with said recess and in which the spring and the adjusting screw are arranged, and a plug sleeve in the upper end of said bore and forming a guide for the adjusting screw.

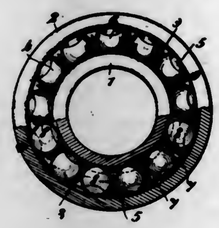
1,205,796. DEVICE FOR PRESSING ROLLERS, PARTICULARLY FOR LACING-EYELETS. JAKOB SCHLUMPF, Seebach, Switzerland. Filed Feb. 26, 1913. Serial No. 750,763. (Cl. 78—17.)



In a pressing device for producing rollers and the like, a frame having a hole, recessed matrices guided on the frame and adapted to butt against each other so as to form a space registering with the hole in said frame, the walls of said space being adapted to engage the lateral surface of the work piece to be pressed, a stamp adapted

to be moved first up to a predetermined distance in said hole of the frame and then to be moved a further distance in the direction of its longitudinal axis for effecting the pressing of said work piece, the work piece to be pressed being inserted in said space so that the work piece rests with one of its extremities against the end of said stamp, and a second stamp arranged to be moved first so as to contact against the other extremity of said work piece and then to be moved axially a further distance for performing the pressing of said work piece in a direction opposite to the direction of said first stamp, and means for locking the matrice parts in position, the said locking means being removable whereby the matrice parts may be separated to free the pressed work piece.

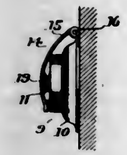
1,205,797. BALL-GUIDE FOR BALL-BEARINGS. JAKOB SCHMID-ROOST, Oerlikon, Switzerland. Filed Nov. 12, 1912. Serial No. 730,971. (Cl. 64—59.)



1. In a ball bearing, a plurality of balls, all having the same diameter, two rings mounted laterally of the balls and formed with spherical pockets for the reception of the latter, said rings having flat parallel parts between the pockets, thin unperforated connecting members projecting transversely through the parallel parts whose width is the same as the thickness of the connecting members, each connecting member having a single nose on each end of the same thickness as the body part of said member, one nose of each member being axially twisted to engage the outer surfaces of the adjacent pockets, the distance between the rings being adjusted by increasing the degree of twist to the nose of the connecting member.

2. In a ball bearing, balls all of the same diameter, two rings having spherical pockets for the reception of the balls, said rings having flat parallel parts between the pockets, thin connecting members between the balls and projecting transversely through said parallel parts whose width is substantially the same as the thickness of said members, the end of each member projecting through and beyond a parallel part being twisted out of its plane to lie against the outer surface of said pockets, the distance between the rings being adjusted by increasing the degree of twist to the ends of the connecting members.

1,205,798. DISTRESS-SIGNAL. MAURICE SCHOLDER, New York, N. Y. Filed Oct. 5, 1915. Serial No. 54,183. (Cl. 200—27.)



1. A push button, an actuator for said push button, and means for locking the actuator to said push button to prevent the breaking of the alarm circuit.

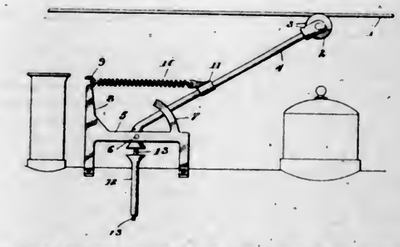
2. A push button, an actuator for said push button, means for locking the actuator to said push button to prevent the breaking of the alarm circuit, and means for holding the actuator out of contact with said button.

3. A push button, an actuator hingedly connected to said push button, and means for locking the actuator to the said push button to prevent the breaking of the alarm circuit.

4. A push button, an actuator hingedly connected to said push button, a contact formed on the actuator for engagement with the plunger of the push button upon the operative position of the actuator, and means for locking the contact in engagement with said plunger to preevnt the breaking of the alarm circuit.

5. An electric push button, an actuator therefor, said actuator comprising a single strip of material pivotally connected at one end to the button, means carried by the button and adapted to co-act with portions of the actuator for locking the actuator to said button, and means for automatically throwing the actuator upon the release of the same from said button.

1,205,799. AUTOMATIC TRAIN-STOP. EMIL H. SCHULTZ, Everett, Wash. Filed Sept. 1, 1915. Serial No. 48,508. (Cl. 246—58.)



1. In an automatic train stop, train carried mechanism, a current collector, a bracket pivotally supporting said current collector, arcuate members uprising from said bracket and contacting with opposite sides of said pole, a motor adapted to receive current from said current collector, a train of gears connected to the movable element of said motor, an air motor for cutting off the steam supply to the locomotive, an air valve for allowing air to pass to said motor, and means connected to said valve and adapted to be slid by the circular motion of said gears.

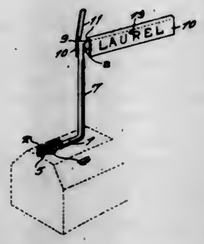
2. In an automatic train stop, train carried mechanism, a current collector, a bracket pivotally supporting said current collector, arcuate members uprising from said bracket and contacting with opposite sides of said pole, a motor adapted to receive current from said current collector, a train of gears connected to the movable element of said motor, a stub shaft secured to one of the gears, means for cutting off the steam supply to the locomotive including a slidably mounted rod, and an arm secured to said rod and arranged to be engaged by said shaft during the circular movement of the latter.

3. In an automatic train stop, train carried mechanism, a current collector, a bracket pivotally supporting said current collector, arcuate members uprising from said bracket and contacting with opposite sides of said pole, a motor adapted to receive current from said current collector, a train of gears connected to the movable element of said motor, means for cutting off the steam supply to the locomotive including a slide valve an arm secured to the stem of the slide valve, a stub shaft projecting laterally from one of the gears and adapted to move said arm during its circular motion.

4. In an automatic train stop, train carried mechanism, a current collector, a bracket pivotally supporting said current collector, arcuate members uprising from said bracket and contacting with opposite sides of said pole, a motor adapted to receive current from said current collector, a train of gears connected to the movable element of said motor, means for cutting off the steam supply to the locomotive including a slide valve, an arm rigidly

secured to the stem of the slide valve, a spring abutting said arm for normally holding the valve in an inoperative position and a stub shaft secured to one of the gears and adapted to engage said arm for sliding the valve against the action of said spring.

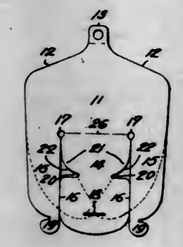
1,205,800. SIGN-HOLDER. ALTER L. SCHWARTZBERG, Shreveport, La. Filed Sept. 10, 1915. Serial No. 49,898. (Cl. 40—125.)



1. A sign holder formed from a single piece of metal including a base, a standard arranged at right angles thereto, divergent sign holding arms integral with and extending at right angles from, the upper end of the standard, sign plates removably clamped on said arms, and means for mounting the base on the radiator cap of a motor vehicle.

2. A sign holder formed from a single piece of metal including a base, a standard arranged at right angles to the base, and a pair of diverging sign holding arms formed on the upper ends of the standard, sign plates having their upper ends provided with flanges, means for removably clamping the plates to the arms so that the flanges engage the upper ends of the arms, and means for mounting the base on the radiator cap of a vehicle.

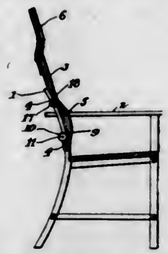
1,205,801. GARMENT-FORM. DAVID H. SHAPIRO, Montreal, Quebec, Canada. Filed Mar. 9, 1915. Serial No. 13,197. (Cl. 211—13.)



1. In a garment form, a sheet of material divided longitudinally to form a central tongue and a pair of side tongues, means for locking said side tongues together in overlapping position, and means on the central tongue cooperating with the side tongues for supporting said central tongue upon said side tongues comprising recesses in the edges of the central tongue into which the side tongues are adapted to fit.

2. In a garment form, a sheet of material divided longitudinally to form a central tongue and a pair of side tongues, means for locking said side tongues together in overlapping position, and means on the central tongues cooperating with the side tongues for supporting said central tongue upon said side tongues comprising a plurality of laterally projecting members on the central tongue between which said side tongues are adapted to pass.

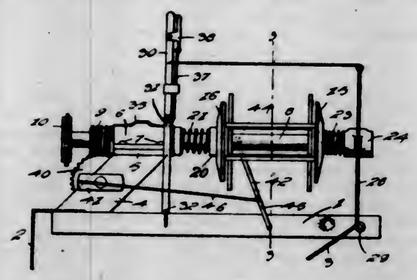
1,205,802. REST. AUGUST SILBERT, Fort Stanton, N. Mex. Filed Nov. 29, 1915. Serial No. 64,122. (Cl. 155—27.)



1. In combination with a chair back, including a pair of horizontally arranged vertically spaced bars, a plate slidably mounted on said bars, a rack bar secured to said plate, a gear meshing with said rack bar, a shaft mounted for rotation and mounted upon one of said bars, a bolt mounted on the other bar and connected with said plate for holding the latter associated with both bars.

2. In combination with a chair back, including a pair of horizontally arranged vertically spaced bars, a plate slidably mounted on said bars, a vertically arranged rack bar embedded in said plate, a gear meshing with said rack bar, a bearing carried by one of said bars for holding said gear associated with the rack bar, said plate being bulged at an upper and lower point and formed with a pair of recesses in the upper bulged portion disposed on opposite sides on a vertical line through said plate.

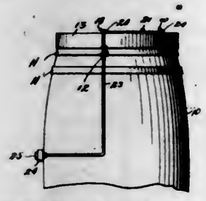
1,205,803. WIRE-REELING DEVICE FOR WAGONS. EDWARD A. SKJONHAUG, Buffalo, S. D. Filed Oct. 27, 1915. Serial No. 58,189. (Cl. 242—92.)



1. In a wire reeling device for wagons, the combination of a platform carried by the wagon, a shaft journaled on the platform, clutch disks slidable on the shaft and adapted to rotate therewith, one of the disks being detachable from the shaft, a reel loosely mounted on the shaft and positioned between the clutch disks, a collar slidable on the shaft and positioned at one end thereof and in spaced relation to the detachable disks, a helical spring mounted on the shaft and having one end engaging the collar and the other end engaging the detachable disk, an operating lever, means pivoted on the platform and engaging the collar and having connection with the operating lever, whereby to slide the collar in the direction of the detachable disk, when the operating lever is operated, so as to compress the spring and slide the detachable disk into engagement with the reel.

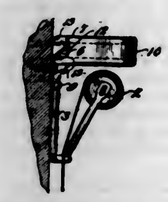
2. In a reeling device, the combination with a platform, uprights carried by the platform and arranged in spaced relation, a bearing carried by the upper ends of the uprights, a shaft journaled in the bearing, a reel loosely mounted on one end of the shaft, a worm mounted on the other end of the shaft, a second shaft journaled in the uprights and having a gear thereon arranged in meshing engagement with the worm on the first mentioned shaft, a rectangular shaped member secured to the second mentioned shaft, a movable guide, means connecting the guide to the rectangular member, so as to operate the guide when the second shaft is operated, means slidable on the first-mentioned shaft and adapted to rotate therewith and adapted when slid in one direction to engage the reel and lock the same to the shafts so as to effect rotation of the reel, a collar slidably and removably mounted on the first-mentioned shaft, a spring carried by the shaft and interposed between the collar and the sliding means, an operating lever, and means connecting the operating lever to the collar so as to effect sliding movement of the collar when the lever is moved in one direction so as to cause the sliding means to be moved into engagement with the steel and lock the reel to the shaft.

1,205,804. BARREL. PATRICK SMITH, Wrangell, Alaska. Filed Oct. 25, 1915. Serial No. 57,796. (Cl. 217—59.)



The combination with a barrel, of a pair of inclined loops mounted on opposite sides of the upper end of the barrel, an L-shaped arm disposed vertically through each of the loops and slidable therethrough, a horizontally disposed arcuate member formed integrally on the upper ends of the said arms and secured on the cover of the barrel, the ends of the horizontal portions of the arms being directed inwardly toward each other and in front of the barrel, a handle bar extending between and secured to the inwardly directed portions, said handle bar being arranged to bear against the front of the barrel to hold the cover in any desired height above the top of the barrel.

1,205,805. CURTAIN-SUPPORT. ULRICH SPRINCHORN, Jamestown, N. Y. Filed Feb. 4, 1916. Serial No. 76,196. (Cl. 156—22.)

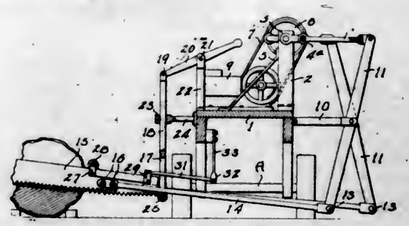


1. A curtain support comprising a rod having each end thereof slotted in a direction longitudinally of the rod to form upper and lower corresponding bracket engaging elements at each of said ends, and a bracket adapted to be received in said slot for supporting engagement by either of the engaging elements, the other of said elements abutting against the bracket to hold the rod in offstanding position.

2. A curtain support comprising a rod having a T-shaped slot at each end, said slot forming at one side a bracket engaging hook and at its other side an abutment member for holding the rod in offstanding position, and a bracket adapted to be received in said slot engageable by the hook and abutment aforesaid.

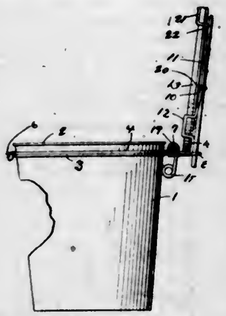
3. A curtain support comprising a rod having a bracket engaging extremity, a bracket consisting of a plate having an outwardly bent portion forming a horizontal ledge with which the rod extremity is slidably engaged, whereby to permit of bodily adjustment of the rod laterally of the bracket, and stop means formed upon said bracket to limit sliding adjustment of the rod.

1,205,806. WOOD-SAWING MACHINE. JAMES M. STAFFORD, Washington, Ind. Filed Mar. 11, 1915, Serial No. 13,614. Renewed Oct. 16, 1916. Serial No. 126,042. (Cl. 143—63.)



A sawing machine including a supporting frame, a saw blade, a pitman rigidly connected at one end thereof to the saw blade and projecting in alinement with the saw blade, mechanism for reciprocating the pitman, a pair of spaced guide plates receiving the saw between the same and extending longitudinally along opposite sides of the saw blade so as to prevent buckling of the saw blade, a roller carried by the guide plates and engaging the back of the saw, an arm rigid with the guide plates and pivotally mounted upon the supporting frame, a keeper loosely receiving the pitman and the before mentioned swinging arm, a roller journaled upon the keeper and supporting the other end of the pitman, and a vertical slide carrying the keeper for moving the same to raise and lower the saw blade.

1,205,807. CONTAINER FOR LARD AND BUTTER. GEORGE W. STECKLER and GEORGE M. BOWEN, Brooklyn, N. Y. Filed Aug. 3, 1915. Serial No. 43,459. (Cl. 215—34.)

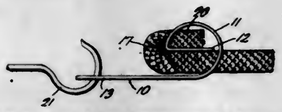


1. A container of the class described, having a band carried thereby, a frame hingedly connected to the band, said frame having side bars provided with loops, a top engaged under the side bars and over the loops, and slidable means carried by the frame for positively holding the top in its raised position.

2. A container of the class described, having a band engaged therewith, spaced eyes carried by the band, a frame comprising side bars, loops formed at the ends of the side bars, a top engaged under the side bars and over the loops, certain of said loops terminating in loops which engage on the upper surface of said top, said last named loops terminating in eyes which register with the first named eyes, a pin pivotally connecting said eyes, means

for limiting the swinging movement of the top in one direction, and means for positively holding the top in its open position.

1,205,808. ROPE-FASTENER. EARL E. STEELE, Toledo, Ohio. Filed Feb. 16, 1916. Serial No. 78,631. (Cl. 24—130.)



1. A fastener for a rope comprising a strip of relatively stiff material bent at one end portion thereof to provide a partial coil and a straight terminal extended within the coil parallel with the remaining portion of said strip, said strip being provided with apertures, one of which is located at the bight between the coil and said straight portion and having a wedge portion while the other aperture is located in the coil at one side of the plane of said portion.

2. A fastener for rope, made from a strip of metal and provided with a plurality of apertures, one of which is provided with a wedging portion, said strip being bent to form a partial coil having one straight terminal embraced by the coil, the aperture with the wedging portion being at the junction of the coil and the straight terminal.

3. A fastener for rope, made from a strip of metal and provided with a plurality of apertures, one of which is provided with a wedging portion, said strip being bent to form a partial coil having one straight terminal embraced by the coil, the aperture with the wedging portion being at the junction of the coil and the straight terminal, the other terminal of the strip being extended in an opposite direction to the embraced terminal and having an aperture to receive a supporting hook, the intermediate and wedging apertures forming receptacles for the rope.

4. A rope fastener comprising a member formed with a coil and a straight portion formed with an open coil and a straight portion extended within said coil and forming a bight at the juncture of said portion with the coil, said coil having a plurality of apertures, one of the apertures being wedge-shaped and located to intersect the bight between the straight portion and the coil.

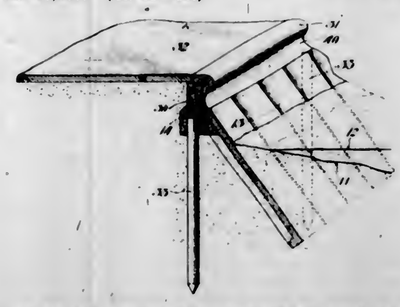
5. A rope fastener comprising a strip-like body bent to form reversely extending straight portions and an open coil, one of said straight portions being encircled by the coil, said coil being apertured at spaced points thereof, one of the apertures being of wedge shape and extending into the last named straight portion.

1,205,809. UMBRELLA. JAMES KNOX STEELE, Chicago, Ill. Filed Feb. 12, 1915. Serial No. 7,814. (Cl. 135—26.)



In a foldable umbrella, in combination, two stick sections arranged in telescoping relation, means for locking one section in projecting relation to the second section, said first and second sections having externally threaded portions, a sleeve having a contracted neck surrounding the second stick section and its main body portion internally threaded, a notch swivelably supported upon said neck, a ring surrounding the second stick section and being internally threaded, a series of ribs pivotally connected to said ring, a series of stretchers pivotally connected to said notch, said ring adapted to rest upon said notch whereby said ribs and stretchers can move simultaneously, said ring adapted to have its threads engaging the threaded portion of the second stick section whereby to space said notch and ring beyond the threaded portion on the first named stick section, said sleeve adapted to have its threads engaging the threaded portion of the second named stick section whereby to hold the stretchers in open position.

1,205,810. CONCRETE SEA-WALL. HENRY W. SCHLUETER, Venice, Cal. Filed Dec. 15, 1915. Serial No. 67,057. (Cl. 61—30.)



1. A sea wall comprising a continuous horizontal girder to which are secured a series of inclined panels, said panels being loosely tied together by means of a tongue and groove, said tongue and groove forming an open tortuous passage through the sea wall said tortuous passage consisting of a straight entering portion, a primary drain groove, a primary return bend, a straight central portion, a secondary drain groove, a secondary return bend and a wedge shaped gravel groove.

2. A sea wall comprising a continuous horizontal girder to which are secured a series of inclined panels, said panels being loosely tied together by means of a tongue and groove, said tongue and groove forming an open tortuous passage through the sea wall, said tortuous passage consisting of a straight entering portion, a primary drain groove, a primary return bend, a straight central portion, a secondary drain groove, a secondary return bend, and a wedge shaped gravel groove, said primary and secondary drain grooves being so formed that they drain off any water which is projected against the sloping face of the panels.

1,205,811. COMPUTING-TOLL-RATE MAP. HERBERT B. TAYLOR, Columbus, Ohio. Filed Oct. 19, 1910. Serial No. 587,868. (Cl. 33—75.)

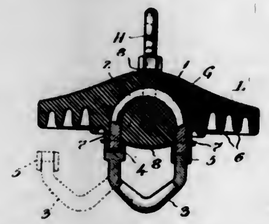
A toll indicator or schedule of charges comprising a flat body having delineated upon its surface a map showing traffic, telephonic or telegraphic centers and having a plurality of fixed pivot points, one for each center at which originating connections are to be computed, and a straight elongated scale having at one end a projecting pin or pivot point adapted to coöperate with any of said fixed points, and a handle connected to said pivot point, with the scale body pivoted thereon, so that the point may be attached with exactness to a center of communication from which tolls are to be computed and the scale easily rotated thereon, said scale carrying a double series of graduations one showing base charges and the other over-time charges, arranged in terms of mileage for zones

arbitrarily determined with reference to the traffic in each zone or radial distance around the center, said base and over-time graduations being inscribed for each zone with figures or indicia representing the tariff charges for said zone, the figures or indicia of the two sets of charges



being of distinctive character as for example of different colors, whereby base charges and over-time charges may vary in ratio as determined by necessary policy growing out of traffic conditions for any given zone distance from centers in the territory covered by the map.

1,205,812. STRAIN-INSULATOR. LOUIS STEINBERGER, Brooklyn, N. Y. Filed Nov. 24, 1913. Serial No. 802,686. (Cl. 173—366.)



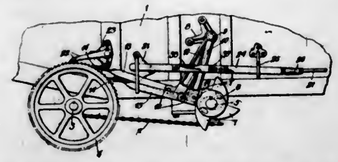
1. An insulator formed of a body portion of insulating material, a member partly embedded therein and having a portion projecting from said insulating material, a member to be connected to said projecting portion, a threaded sleeve rotatably mounted on said member, said projecting portion being threaded to be engaged by the threads of said sleeve, and said body of insulating material having a part disposed to be engaged by said sleeve for limiting the travel of said sleeve along the threads of said projecting portion for the purpose set forth.

2. A disk type strain insulator comprising a disk of insulating material, a strain member embedded partly within said insulating material and having threaded portions projecting from said insulating material in spaced relation, a U-shaped member disposed with its two legs arranged to abut the projecting portions of said strain member, threaded parts carried by each of the legs of said U-shaped member for engaging the threads of the projecting portions of said strain member, and the disk of insulating material being provided with parts disposed for limiting the travel of said threaded parts upwardly upon the projecting portions of said strain member for the purpose set forth.

3. An insulator formed of a body of insulating material, a member partly embedded therein having a threaded portion projecting beyond one surface of said body of insulating material, a second member to be connected to said projecting portion, said second member having threads formed on one end thereof, said end being adapted to be disposed in alinement with the projecting portion of said embedded member, so that the threads thereof will form a continuation of the thread of said projecting portion, a separately formed threaded sleeve engaging the threads of said second member being freely movable longitudinally therealong and onto the threads of the projecting portion of the first member, and the body of insulating material being formed with a part disposed to arrest the longitudinal movement of said sleeve when said sleeve is substantially equally in engagement with the threads of said first and said second members.

4. A strain insulator, comprising a body portion of insulating material, a pair of strain members partly disposed within said body portion and insulated from each other, one of said strain members comprising a U-shaped portion having the ends of its two legs extending from said insulating material, a strengthening member engaging the extending portion of the legs of said U-shaped portion, means engaging said ends of said legs to form a closed loop, and means whereby said loop may be opened.

1,205,813. FEEDING MECHANISM FOR MANURE-SPREADERS. HENRY SYNCK and BRUCE B. ROLLMAN, Coldwater, Ohio, assignors to New Idea Spreader Co., Coldwater, Ohio. Filed May 16, 1916. Serial No. 97,882. (Cl. 74—54.)



1. In mechanism for the purpose set forth, the combination of a ratchet wheel, a feeding pawl engaging said ratchet wheel, an oscillatory lever connected at its free end with said pawl, means for actuating said lever, an adjusting member, a retaining loop on the side of said member fitting around the lever, and an adjustable stop in one end of said loop to engage the lever.

2. In mechanism for the purpose set forth, the combination of a ratchet wheel, a plurality of feeding pawls engaging said ratchet wheel, a plurality of oscillatory levers each connected at its free end with one of the feeding pawls, a single adjusting rod, means actuated by said rod for holding all the levers inoperative, and means for adjusting said last-mentioned means whereby to regulate the extent of oscillation of the several levers.

3. In mechanism for the purpose set forth, the combination of a ratchet wheel, a pair of feeding pawls engaging the ratchet wheel, a pair of oscillatory levers connected at their free ends with the feeding pawls, cams acting upon the free ends of the respective levers, an adjusting member passing between the levers, and retaining loops mounted on the sides of said adjusting member and fitting around the levers and adapted to engage the same to limit the movement thereof.

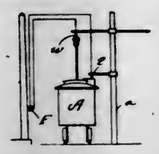
4. In mechanism for the purpose set forth, the combination of a ratchet wheel, a pair of feeding pawls engaging the ratchet wheel, a pair of oscillatory levers connected at their free ends with the feeding pawls, cams acting upon the free ends of the respective levers, an adjusting member passing between the levers, retaining loops mounted on the sides of said adjusting member and fitting around the levers and adapted to engage the same to limit the movement thereof, and stops adjustable through the ends of the retaining loops to impinge against the levers.

5. In mechanism for the purpose set forth, the combination of a ratchet wheel, a feeding pawl engaging the ratchet wheel, means for oscillating said pawl, adjustable

means for regulating the throw of the pawl, and means for holding the pawl inoperative independently of the adjustment of the means for regulating the throw of the pawl.

[Claims 6 to 10 not printed in the Gazette.]

1,205,814. AUTOMATIC CAR-STOP. ALPHONSO TAUBMAN, Richmond, Va. Filed Nov. 18, 1914. Serial No. 872,770. (Cl. 246—58.)



1. The combination with a main feeder, a contact electrically connected therewith and normally energized thereby, a car having suitable controlling devices and a motor in circuit with the feeder, a normally deënergized circuit, a contact carried by the car and a magnet both located in said deënergized circuit, a switch interposed between the controlling devices and the motor and adapted when the contact on the car engages with the first mentioned contact to break the circuit between the motor and the controlling devices converting said motor into a short circuited generator to stop the car, a switch remote from the car between the main feeder and the contact electrically connected therewith to prevent energization of the secondary circuit and actuation of the switch to place the motor in circuit as a short circuited generator.

2. The combination with a source of power, an electric motor in circuit therewith, an electromagnetic switch having a plurality of magnets and a plurality of contacts, each magnet being in a normally deënergized circuit whereby the energizing of one circuit operates the switch to place the motor in circuit as a short circuited generator when the car is moving in one direction and the energizing of another circuit operates the switch to place the motor in circuit as a short circuited generator when the car is moving in the opposite direction, and means for energizing the said circuit.

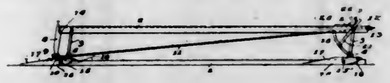
3. The combination with a source of power, of a car having an electric motor normally in circuit with a source of power, an electric switch in circuit with the source of power and the motor, a plurality of magnets controlling said switch, and means for energizing said magnets to operate the switch to place the motors of the said car in circuit as a short circuited generator in either direction in which the car may be moving, when the proper magnet is energized.

4. The combination with a main feeder, a stationary contact electrically connected therewith and normally energized thereby, and a traveling car, of a contact carried by the car, a motor for the car normally in circuit with the feeder, controller devices for the motor, an electromagnet carried by the car and electrically connected with the contact on the car, a plunger for the magnet, a drum connected with said plunger, contacts carried by the drum and normally in position to complete the circuit from the main feeder through the controlling devices to the motor, said magnet being energized when the contact on the car engages with the stationary contact to actuate the plunger to rotate said drum to break the circuit between the main feeder and the motor and convert such motor into a short circuited generator to stop the car independently of the controlling devices, a switch remote from the car between the main feeder and the stationary contact to prevent energization of the contact on the car to rotate the drum to place the motor in circuit as a short circuited generator.

5. The combination with a main feeder, a stationary contact electrically connected therewith and normally energized thereby, and a traveling car, of a contact carried by the car, a motor for the car normally in circuit with the feeder, and means interposed between the motor and the feeder and electrically connected with the contact on the car, said means being operable when the contact on the car engages with the stationary energized contact to break the circuit between the motor and the feeder and convert such motor into a short circuited generator to stop the car, and a distant switch in circuit with the main feeder and adapted to be actuated to deënergize the stationary contact and prevent the operation of said means.

[Claim 6 not printed in the Gazette.]

1,205,815. AUTOMATIC AUTOMOBILE-LIFTER. WILLIAM J. TAYLOR, Boise, Idaho. Filed July 19, 1916. Serial No. 110,152. (Cl. 254—91.)



1. In a lifter of the class described, the combination of a supporting base, a vehicle supporting frame connected thereto by parallel motion links and arranged to engage, elevate and support the front and rear axles of the vehicle, means engaged by the vehicle while in motion for actuating said vehicle supporting frame longitudinally, a stay rod having a slidable connection with one end of the last named frame, and a manually operable lever connected with said stay rod for shifting the body supporting frame in the opposite direction, said lever coöperating with the body supporting frame and the latter acting to limit the movement of the lever in one direction.

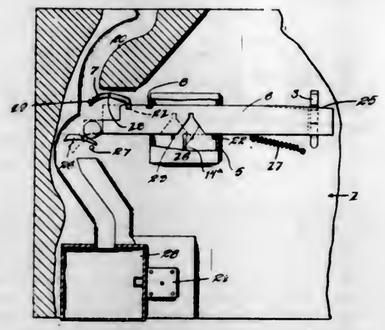
2. In a lifter of the class described, the combination of a supporting base, a vehicle elevating and supporting frame, parallel motion links connecting said frame with the supporting base, means for limiting the movement of said vehicle supporting frame in one direction, axle engaging stops on said frame, a rock shaft journaled on the base frame, and tilting blocks fast on said rock shaft and mounted in the path of the wheels, said blocks having upwardly inclined wheel elevating faces, and rocker faces adapting said blocks to be tilted when the wheels pass beyond the line of the rock shaft.

3. In a lifter of the class described, the combination of a supporting base, a vehicle elevating and supporting frame, parallel motion links connecting said frame and base, axle stops on said frame, a rock shaft extending transversely of the base frame, stop levers on said rock shaft adapted to bear against the vehicle supporting frame when the latter is elevated, and arms on said rock shaft adapted to be actuated by the vehicle axle for moving said stop levers into contact with the vehicle supporting frame to limit the movement of the links.

1,205,816. COIN-CONTROLLED MECHANISM. JOSEPH W. TEAGUE and JACOB HARTMAN, Salt Lake City, Utah. Original application filed July 10, 1913, Serial No. 778,354. Divided and this application filed Feb. 9, 1914. Serial No. 847,581. (Cl. 194—32.)

1. The combination with a wall board having a coin slot therein of a casing mounted upon said wall board, a locking bar slidable through the casing and adapted to be moved into and out of locking engagement with a pivoted arm or lever, a coin controlled trigger pivoted upon said wall board and having one terminal disposed within the coin slot, said bar having a recess formed therein adjacent to one end thereof to receive the other end of said trigger, said trigger adapted to be moved out of engagement with said recess upon the engagement of a coin therewith, locking means pivoted within said casing for holding said bar in locking position, a key adapted to be inserted within the casing and operated to move said locking means out of locking engagement with said bar and means for moving said bar into locking position upon the releasing action of said trigger.

2. The combination with a wall board having a coin slot therein, of a casing mounted upon said wall board, an elongated bar slidable through said casing and arranged to be moved into and out of locking engagement with a pivoted arm or lever, a coin controlled trigger pivoted on said wall board and having one terminal extended into said coin slot, the other terminal of said trigger being adapted for coöperation with a recess formed in the adjacent end of said bar to hold said bar in unlocked position, key controlled means mounted within the casing for holding the bar in locking position, and spring means for automatically moving said bar into locking position upon operation of the coin controlled trigger.

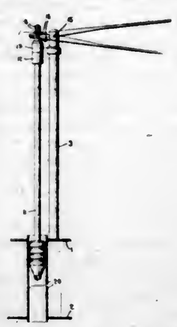


3. The combination with a wall board having a coin slot of a casing mounted upon said wall board, an elongated locking bar slidably mounted through said casing and arranged to be moved into and out of locking engagement with a pivoted arm or lever, a coin controlled trigger pivoted on said wall board and having one terminal extending into the coin slot to engage a coin, said bar having a recess formed in one end thereof, the other end of said trigger being adapted to be moved into and out of engagement with said recess, a pivoted locking plate mounted within said casing and arranged to hold said bar in locking position, a key operatively mounted within the casing and arranged to move said locking plate out of operative position, means for automatically moving said locking bar into locked position upon the releasing operation of the coin trigger, said bar having a V-shaped notch, said key adapted to be turned into engagement with the notch to move said lever into unlocked position.

4. The combination with a wall board having a coin slot therein, of locking mechanism mounted upon said wall board and comprising a casing, an elongated locking bar slidable through said casing and arranged to be moved into and out of locking engagement with a pivoted arm or lever, a coin trigger mounted upon said wall board and having one terminal extending into said coin slot, said bar having a recess formed in one end thereof adapted to receive one end of said coin trigger, a locking plate pivoted within said casing, a pin carried upon said bar and engaging one end of said locking plate to hold the bar in operative position, said locking plate having a longitudinal slot opening at one end thereof, a key arranged within said casing and adapted to move the locking plate so that the slot therein is in a position to receive said pin, means for normally holding said locking plate into operative engagement with said pin and means for moving the bar into locking position automatically when the coin trigger is moved out of engagement with said bar.

1,205,817. TOOL FOR SETTING BOILER-TUBES. CHARLES G. TENGDIN, Kankakee, Ill. Filed Oct. 8, 1915. Serial No. 54,772. (Cl. 57—9.)

1. A tool of the character described comprising a standard, a suspension member, an expansible head carried by said suspension member and means mounted on said standard and engaging said suspension member to effect the expansion of said head and to shift the longitudinal position of said suspension member.



2. A tool of the character described comprising a standard, a suspension member, an expansible head carried by said suspension member, an auxiliary member which when moved relatively to said suspension member effects the expansion of said head, and a duplex lever fulcrumed on said standard and having its members engaging respectively the suspension member and the auxiliary member, whereby by a relative movement of the members of the lever the head is expanded to grip the tube interior and whereby upon a bodily movement of the duplex lever the tube is shifted as required.

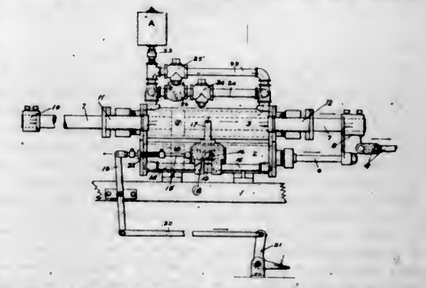
3. A tool of the character described comprising a standard, a suspension rod movably supported from said standard, a series of expansible annular wedges, a series of rigid annular wedges the members of said two series of wedges being mounted in superimposed alternating position on the lower end of said suspension rod and the lowermost wedge being supported by said rod, a sleeve mounted on said rod and engaging the uppermost wedge, and means for giving relative movement to said sleeve and rod to compress the expansible wedges into gripping engagement with the tube interior.

4. A tool of the character described comprising a standard, a suspension member, said suspension member being held by said standard, an expansible head carried by said suspension member, and means for effecting the expansion of said head.

5. A tool of the character described comprising a standard, a suspension member, said suspension member being movably supported from said standard, an expansible head carried by said suspension member, and means for effecting the expansion of said head.

[Claims 6 and 7 not printed in the Gazette.]

1,205,818. DASH-POT. EDWIN E. THOMAS, Portland, Oreg., assignor to Harry O. Tenney, Portland, Oreg. Filed July 5, 1913. Serial No. 777,485. (Cl. 74—69.)



1. A cushioning means for power-actuated mechanism, comprising in combination a cylinder, a piston therein, a

fluid in said cylinder, ports at opposite ends of said cylinder, means connecting said ports with each other around said piston and forming two passageways therebetween, and a check valve in one of said passageways, whereby to permit passage of fluid therethrough in one direction only.

2. A cushioning means for power-actuated mechanism, comprising in combination a cylinder, a piston therein, a fluid in said cylinder, a port through the side of said cylinder at each end thereof, and two pipes connected together at their opposite ends and connected into said ports, one of said pipes being provided with a check valve therein, whereby to permit the passage of fluid therethrough in one direction only, substantially as described.

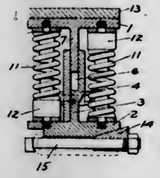
3. A cushioning means for power-actuated mechanism, comprising in combination a cylinder, a piston therein, a fluid in said cylinder, a port through the side of said cylinder at each end thereof, two pipes connected together at their opposite ends and connected into said ports, one of said pipes being provided with a check valve therein, whereby to permit the passage of fluid therethrough in one direction only, and the other of said pipes being provided with a valve for regulating the size of the passageway therethrough, substantially as described.

4. A cushioning means for power-actuated mechanism, comprising in combination a cylinder, a piston adapted to work therein, a fluid in said cylinder, outlet pipes from the opposite ends of said cylinder, two connecting pipes of less area connecting said outlet pipes together to form a double by-pass between said outlet pipes, one of said connecting pipes being provided with a check valve, whereby to prevent passage therethrough in one direction, while permitting passage therethrough in the opposite direction, and the other of said connecting pipes being provided with a controlling cock, substantially as described.

5. A cushioning means for power-actuated mechanism, comprising in combination a cylinder, pipe connecting ports at opposite ends of said cylinder, means forming a double passageway and connecting said ports together, one of said passageways being provided with a check valve to prevent passage therethrough in one direction, and a reservoir for fluid connected with said pipes with a check valve interposed in said connection, whereby to maintain a proper supply of fluid in said pipes and said cylinder, substantially as described.

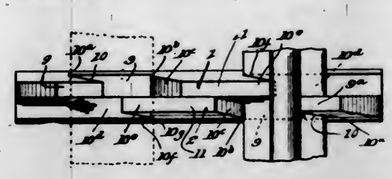
[Claim 6 not printed in the Gazette.]

1,205,819. RESILIENT WHEEL-RIM. EDWIN E. THOMAS, Portland, Oreg., assignor to Harry O. Tenney, Portland, Oreg. Filed July 5, 1913. Serial No. 777,486. (Cl. 152—32.)



A resilient wheel rim of the character referred to, comprising in combination, outer and inner rims having upon their adjacent faces overlapping, circumferentially extending ring members occupying a plane within the plane of the wheel, with means for limiting the movement of said rim members toward and from each other, and means for limiting the movement of said rims relative to each other circumferentially, two series of anchor studs arranged in pairs around the adjacent faces of said rim members at opposite sides of said ring members, the anchor studs of each pair of one series at one side of said ring members being arranged in alinement with each other at one angle to the radial, and the studs of each pair of the other series at the opposite side of said ring members being arranged in alinement with each other at an angle to the radial opposite to the angle of the other studs, the angle from the radial being less than 45 degrees, whereby relative movements between said outer and inner rims are opposed by compression action only of said coiled springs, substantially as shown and described.

1,205,820. RAILROAD-TIE. DANIEL W. THOMPSON, Wilmington, Ohio. Filed June 15, 1914. Serial No. 845,299 (Cl. 238—5.)



1. A rail tie comprising duplicate sections, each section having a horizontal base and upwardly and inwardly inclined outer and inner sides, and means securing the tie sections together with their inner sides in abutting relation, and their bases inclined upwardly in opposite directions, said inclined bases providing the tie on its under side with a longitudinally extending rib adapted to prevent the tie from moving longitudinally of the road bed.

2. A rail tie comprising duplicate sections, each section having a horizontal base and upwardly and inwardly inclined outer and inner sides, a recessed rail seat at one end of each section, an outer clamping jaw at this end provided with a beveled face overlying the seat, a shoulder at each end of the seat, a beveled end on the central portion of the section to facilitate the application of the rail base to the seat, a second rail seat at the other end of the section formed by reducing this end, an inner clamping jaw on the central portion having a beveled face overlying the second seat, an inner shoulder at the juncture of the second seat and the last named beveled face, and means securing the tie sections together with their inner sides in abutting relation, and their bases inclined upwardly in opposite directions, said inclined bases providing the under side of the tie with a longitudinally extending rib adapted to prevent the tie from moving longitudinally of the road bed.

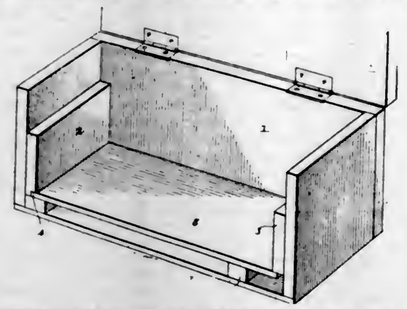
3. A rail tie comprising duplicate sections each having a horizontal base and upwardly inclined sides, a rail seat at each end of each section, clamping jaws on each section provided with beveled faces overlying the seats, said seats and beveled faces inclining downwardly in the direction of the outer sides, and means securing the tie sections together with their inner sides in abutting relation, the securing of the sections together moving the rail seats and beveled faces into full abutting and firm clamping engagement with the bases of the rails.

1,205,821. BOX. FRANK E. THOMPSON, Edmonton, Alberta, Canada. Filed Sept. 8, 1915. Serial No. 49,540. (Cl. 217—7.)

1. A box comprising a body, a cleat located at one end thereof, there being a groove provided at the outer end of the body, a spring mounted at the cleat and concealed behind the same and having a free end portion normally disposed below said cleat, and a panel adapted to fit between the walls of the box, with one edge in the groove and the spring bearing against the other edge.

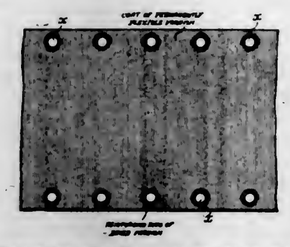
2. A box comprising a body, a cross bar mounted upon the bottom of the box, cleats located at opposite walls of the box, one of the cleats having a groove, a spring concealed behind the other cleat and having a free end portion disposed toward the grooved cleat and a panel adapted

to fit between the walls of the box and having an edge portion adapted to enter the groove of the grooved cleat the



said spring adapted to bear against the opposite edge of the said panel.

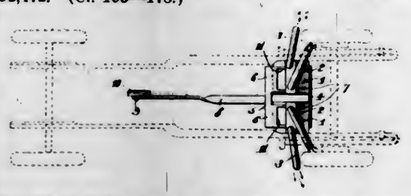
1,205,822. RENOVATED CINEMATOGRAPH-FILM. ADRIAAN PETER HERMAN TRIVELLI, The Hague, Netherlands. Filed Aug. 3, 1916. Serial No. 113,016. (Cl. 88—19.5.)



1. A cinematograph film, having its surfaces coated with a closely adherent layer of varnish, the said layer in a dried state being transparent and permanently flexible and having substantially the same co-efficient of refraction as said film, said varnish layer comprising a cellulose ester drying oil and a salt of a resin acid.

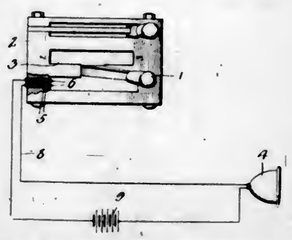
2. A cinematograph film, having its surface coated with a layer of a transparent varnish comprising a salt of a resin acid, said layer being of approximately the same coefficient of refraction as the substitute of the film.

1,205,823. SANDING DEVICE. WILLIAM P. TUCKER, Brooklyn, N. Y. Filed Apr. 20, 1916. Serial No. 92,472. (Cl. 105—178.)



A sanding device for automobiles comprising a sand container, a sliding valve therefor and a plurality of tubes normally closed by the valve and adapted to be simultaneously opened, the said tubes having their discharge ends disposed at the opposite sides of the path of movement of the automobile wheel, one of the said tubes being directed to discharge the sand, at the point of traction between the wheel and the ground and the other tube being directed to discharge the sand at one side and in advance of the said point of traction.

1,205,824. LAMP FOR MOTOR-VEHICLES. CHARLES F. ULRICH, Holbrook, N. Y. Filed Dec. 1, 1915. Serial No. 64,481. (Cl. 200—27.)



A circuit maker and breaker comprising a base member and a control lever operable therein, spring actuated terminal pins arranged in the base member and adapted to be electrically bridged by said control lever in one of its operable positions.

1,205,825. RESILIENT WHEEL. CHARLES WEBER, Bloomington, Ill. Filed Mar. 18, 1916. Serial No. 85,113. (Cl. 152—29.)



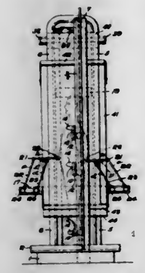
In a resilient wheel, the combination of a hub, spokes radiating from said hub and each embodying telescopic members, means for yieldingly sustaining those members of the telescopic spokes which have a radial movement in relation to the hub, each movable spoke member being longitudinally split for a portion of its length into sections one of which is less than the full length of the complete movable spoke member and is laterally separable in relation thereto, a sleeve threaded upon the last named spoke member and adjustable inwardly and outwardly for the purpose of clamping and releasing the longitudinally divided sections of said spoke members in relation to each other, and a rim embodying a plurality of sections transversely divided from each other and each longitudinally split into sections each having a fixed relation to one of the separable sections of the movable member of each telescopic spoke.

1,205,826. THORACOMETER. HAROLD A. WENTWORTH, Natick, Mass., assignor of one-half to Henry H. Austin, Wellesley, Mass. Filed Sept. 15, 1914. Serial No. 861,909. (Cl. 33—23.)

1. A thoracometer comprising a stand, a follower supporting member thereon, a follower to travel over the surface of a body comprising a plurality of frame members pivotally connected and movable on the supporting member, one of the frame members adapted to rest against and travel over the body and provided with a recording member for recording the body outline.

2. A thoracometer comprising a stand, a plurality of follower supporting members thereon, a carrier for said supporting members, a plurality of followers each comprising a plurality of frame members pivotally connected and movable on the supporting members, one of the frame

members of each follower adapted to rest against and to be moved over a relatively opposite side of the body, and provided with a recording member for recording a relatively opposed body outline.



3. A thoracometer having a carrier, a follower thereon adapted to be moved over the body, follower supporting members on said carrier, a plurality of rigid frame members pivotally mounted on said supporting members, a rigid body following frame member having pivotal connection with the first named frames, and carrying a recording member.

4. A thoracometer comprising a carrier supporting member, a carrier thereon, a follower on the carrier, follower supporting members on said carrier, a plurality of rigid frame members pivotally mounted on said supporting members, a rigid body following frame member having a recording member and having pivotal resilient connection with the first named members, a body following and contacting member on the frame member resting against and adapted to follow the contour of the body.

5. A thoracometer comprising a stand, a support thereon, a carrier movably mounted on the support, a follower on the carrier comprising a plurality of movably connected frames movably mounted on the carrier, two of the frames being in substantially parallel relation, said follower traveling as a unit over the body surface, one of the frames having a body contacting member adapted to follow the contour of the body, and means on said frame controlled by the body contacting member for recording the contour of the body so traveled.

[Claims 6 to 9 not printed in the Gazette.]

1,205,827. ATTACHMENT FOR PAPER-STANDS. JAMES A. WEST, Bellwood, Nebr. Filed Feb. 7, 1916. Serial No. 76,830. (Cl. 211—32.)

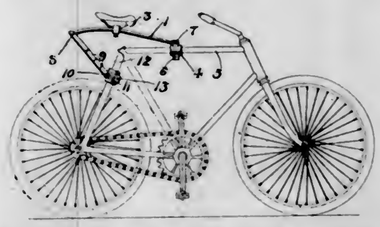


1. The combination with a paper stand having a roll of wrapping paper mounted thereon and a spring pressed tearing bar, of an attachment for said bar comprising a body, a downwardly extending spacing arm at one end of the body and curved outwardly therefrom throughout its length, a separating finger on said arm above the body adapted to extend beneath the tearing bar and the free edge of the paper roll, a clamping jaw formed integral with the other end of the body and extending above the same, a second clamping jaw, means for adjustably connecting said jaws with the tearing bar, and a spacing member formed integral with the last mentioned jaw and between the ends thereof.

2. The combination with a paper stand having a roll of paper mounted thereon and a spring pressed tearing bar, of an attachment for said bar comprising a body, a spacing arm at one end of the body curved throughout its length, a separating finger formed integral with said arm to extend above said body, an upwardly extending clamping jaw at the opposite end of the body, a second clamping jaw, fastening elements passing through said jaws and adapted to removably connect the same with the tearing bar, a spacing member formed integral with the last mentioned jaw, and a stop shoulder formed from said member and adapted to contact with the end of the roll of paper to space the separating finger and the spacing arm a predetermined distance from the end of said roll.

3. A device of the class described comprising a body, a spacing arm at one end of the body and extending below the same, a separating finger formed integral with the spacing arm and extending above said body, spaced clamping jaws, one of which is formed integral with the body and each provided with an alined slot, and fastening elements passing through said jaws with one of said elements movable in said slots.

1,205,828. BICYCLE SADDLE-SUPPORT. RUSSELL WHALEY, Beaux Arts, Wash. Filed July 14, 1916. Serial No. 109,328. (Cl. 208—61.)



The combination with the top horizontal frame bar of a bicycle, and the rearwardly inclined frame bar thereof, of a saddle support in the form of a spring extending in a fore and aft direction, a clamp adjustable longitudinally of the top bar of the frame and having the front end of said spring pivotally attached thereto, a second clamp adjustable longitudinally of said rearwardly inclined frame bar, and a pivotal link connection between said second clamp and the rear extremity of said spring.

1,205,829. PROCESS OF PRODUCING A STABLE FERTILIZER. LUDWIG WILKENING, Hanover, Germany. Filed Jan. 14, 1915. Serial No. 2,211. (Cl. 71—0.)

1. The process for producing a dry and stable, non-hygroscopic fertilizer which consists in subjecting a mixture of residues of molasses with an absorbent fibrous material to the action of bacteric fermentation.

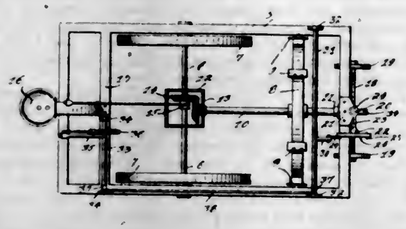
2. The process for producing a dry and stable, non-hygroscopic fertilizer, which consists in subjecting a mixture of residues of molasses with peat to the action of bacteric fermentation.

3. The process for producing a stable fertilizer which consists in subjecting a mixture of residues of molasses with peat to bacteric fermentation and introducing a mixture of air and carbonic acid gas into the fermenting mass.

4. The process for producing a stable fertilizer which consists in mixing a mixture of residues of molasses and peat with a solution obtained by treating decomposed stable manure with dilute residue of molasses.

5. In a process for producing a stable fertilizer by subjecting a mixture of residues of molasses and peat to bacteric fermentation, the step of adding to the fermenting mass dilute acids in order to interrupt the fermentation.

1,205,830. SUGAR-BEET BLOCKER. LESLIE T. WILKINS, Laurel, Mont. Filed July 16, 1915. Serial No. 40,326. (Cl. 97—46.)



A sugar beet blocker including a wheeled frame, a plant digging element mounted on the front of the frame, means for driving the digging element, a caster mounted on the front of the frame and including a vertically slidable and rotatable pintle, a lever centrally pivoted on the upper portion of the pintle, a crank arm mounted on the frame, a link connected to one end of the lever and to the crank arm, and a link connected to the other end of the lever and to the forward end of the frame.

1,205,831. RAILROAD-TORPEDO. WALTER A. WILLIAMS, Washington, D. C., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed June 15, 1915. Serial No. 34,222. (Cl. 246—20.)



1. A torpedo comprising two strips of flexible material secured together, the lower strip having its outer surface covered with a coating of adhesive substance, and a charge of explosive compound between said strips.

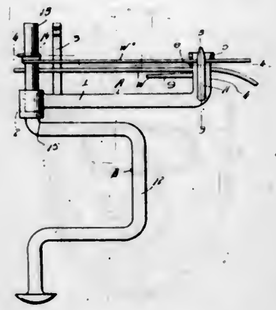
2. A torpedo comprising two strips of waterproof fabric secured together and embracing a charge of explosive compound, the under side of one of the said strips having a coating of adhesive substance to secure the torpedo to the rail.

3. A torpedo comprising two strips of waterproof flexible material cemented together and inclosing a charge of explosive compound, the under side of one of said strips having a coating of adhesive substance to secure the torpedo to the rail.

4. A torpedo comprising two strips of waterproof fabric cemented together and inclosing a charge of explosive compound, the ends of the strips extending beyond the charge, and means for adhesively securing the strips in operative position on the rail.

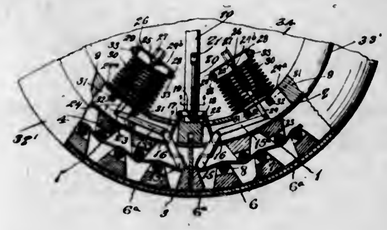
1,205,832. WIRE TIGHTENING AND SPLICING TOOL. WILLIAM WILLIAMS, Chester, Cal. Filed June 16, 1914. Serial No. 845,441. (Cl. 254—161.)

A tool of the class described comprising a body member having a bearing portion at one end, a lateral extension at the other end of the body member, means carried by and cooperating with the extension to clampingly engage a wire, a second extension in close relation to the first extension, a crank member including a shank rotatably mounted in the bearing and adapted to engage a wire, and a lateral extension on the body adjacent the shank, said



shank and extensions being substantially parallel one to the other.

1,205,833. CUSHION-TIRE. WILLIAM S. WOODS, Newcastle, Ind. Filed Jan. 30, 1915. Serial No. 5,270. (Cl. 152—8.)

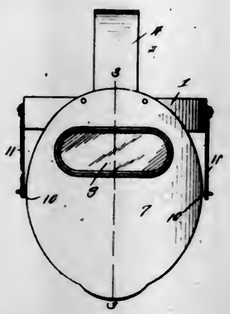


1. A cushion tire comprising an inner member secured to the felly of a wheel, an outer curved member, said member carrying intermediately disposed and alternately arranged tapering blocks provided with rollers, an intermediate belt extending between said rollers, means for adjusting the ends of said central belt comprising bolts secured to one of the spokes of the wheel, adjusting plates through which said bolts extend, and nuts on said bolts for adjusting the ends of the central belt, levers pivoted to the felly, said belt extending through the free ends of said levers, bolts pivoted to the opposite ends of the levers, springs surrounding bolts, and means for adjusting the tension of said springs.

2. A cushion tire comprising inner and outer members tapering blocks connected to said inner and outer members and being oppositely disposed and alternately arranged, an intermediate belt, bolts extending through said inner and outer members and through said central belt, means for adjusting the ends of said central belt, levers pivoted to the inner members and receiving said central belt in one of their ends, spiral springs, bolts connected to said levers and extending through said springs, means for adjusting the tension of said springs, and side plates for covering said springs, levers and adjusting devices.

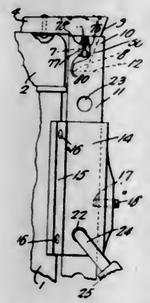
3. In combination, a wheel, rollers journaled upon the fellies of the wheel, an outer belt, rollers journaled upon the outer belt, a pair of levers pivoted between their ends upon the felly and each having one of its ends provided with slots, an inner belt located between the rollers and having the ends thereof passing through the slots in the levers, an element connecting the ends of the belt, means adjustably connecting said element to the wheel, and tension springs carried by the wheel and connected to the other ends of said levers.

1,205,834. FACE-SHIELD. MILICH D. YOVICH, Burnham, Ill. Filed Aug. 2, 1916. Serial No. 112,768. (Cl. 2—117.)



A device of the class described comprising a head engaging band, a strap having its rear end connected to the band, the forward end of said strap being provided with an offset, said offset terminating in a flange which is connected to the forward part of the band, a shield plate pivotally connected with the band, said shield plate having its upper edge provided with a guide normally engaged with the offset, said guide being slidably connected with the strap, a window carried by the shield plate, a channeled member connected to the inner surface of the plate and having a padding connected thereto, as and for the purpose set forth.

1,205,835. CAN-COVER. EDWARD S. AMBOCK, Mobile, Ala. Filed Nov. 29, 1915. Serial No. 64,091. (Cl. 220—115.)



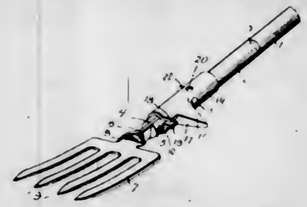
1. In a device of the class described, a can; a cover therefor; an arm secured to the cover; coöperating elements comprising a spindle and a socket receiving the spindle removably; one of said coöperating elements being attached to the can; means for pivotally connecting the other of said coöperating elements to the arm to permit a vertical swinging movement of the cover to and from a closed position; and a movable element under the control of an operator and engaging the said coöperating elements to hold the same united.

2. In a device of the class described, a can; a cover therefor; an arm secured to the cover; coöperating elements comprising a spindle and a socket receiving the spindle removably; one of said coöperating elements being attached to the can; means for pivotally connecting the other of said coöperating elements to the arm to permit a vertical swinging movement of the cover to and from a closed position; a set screw threaded into one of said coöperating elements and engaging the other of said coöperating elements; a removable key; and interengaging elements on the said screw and the key.

3. In a device of the class described, a can; a cover therefor; an arm secured to the cover; coöperating elements comprising a spindle and a socket receiving the spindle removably, one of said coöperating elements being attached to the cam; means for pivotally connecting the other of said coöperating elements with the arm to permit vertical swinging movement of the cover to and from a closed position; and a pad lock forming an operative connection between said coöperating elements.

4. In a device of the class described, a can; a cover therefor; coöperating elements interengaged for relative vertical sliding movement but against rotation about a vertical axis; means for securing one of said coöperating elements permanently to the cover; means for securing the other of said coöperating elements permanently to the side wall of the can adjacent the top of the can; a pivot member uniting said coöperating elements to permit a vertical swinging movement of the cover; and releasable means under the control of an operator and uniting the said coöperating elements to prevent relative vertical movement therebetween.

1,205,836. AGRICULTURAL TOOL. BRYSON A. ARNOLD and DAVID W. ANDERSON, Woodruff, S. C. Filed Mar. 12, 1915. Serial No. 13,956. (Cl. 55—25.)

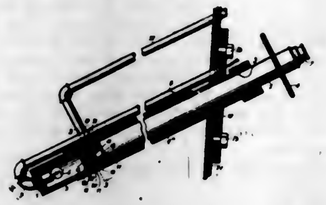


An agricultural tool of the class described including a handle, a ferrule secured to said handle, having its outer end slotted, a blade, a shank carried by the blade and pivoted in the slotted end of said ferrule to permit the blade to be positioned at right angles to or parallel with the ferrule, alined openings in the slotted ferrule and the shank, a sleeve slidably and rotatably mounted upon the ferrule, said sleeve having alining slots in the upper and lower wall of its forward end, a projection formed on said sleeve and having its inner forward face in alinement with said slot, said sleeve having two pairs of openings, each pair arranged at right angles to one another, a pin passing through certain of said openings, the alined openings in the ferrule and the shank to hold the sleeve and shank of said blade in parallel position, said pin also adapted to be inserted in certain of other of said openings and the openings in the ferrule for holding the shank of the blade in a perpendicular position with relation to said sleeve, said shank when in a perpendicular position fitting in the slotted end of the sleeve and abutting the face of the projection thereby preventing movement of the same.

1,205,837. DEVICE FOR EXAMINING A SAMPLE OF SYRUP OR MASSE-CUITE. WILLIAM A. BALDWIN, Haiku, Hawaii. Filed May 17, 1916. Serial No. 98,238. (Cl. 88—14.)

1. A device of the character described comprising a microscope, a support therefor, the microscope and its support being relatively movable and means including elements carried by said microscope and said support for trapping a definite volume of liquid for examination under the microscope.

2. A device of the character described comprising a microscope, a support therefor, the microscope and its support being relatively movable, means including elements carried by said microscope and said support for trapping a definite volume of liquid for examination under the microscope, and a source of light carried by said support for co-action with said means.



3. A device of the character described comprising a means for trapping a definite volume of liquid for examination which includes a pair of transparent plates and a central pocket for which said plates form a closure, a movably mounted microscope carrying one of said plates, and means carrying the other plate and providing a support for the microscope.

4. A device of the character described comprising a means for trapping a definite volume of liquid for examination which includes a pair of transparent plates and an intermediate element having a central pocket for which said plates form a closure, a movably mounted microscope carrying one of said plates and means carrying the other plate and providing a support for the microscope.

5. A device of the character described comprising a microscope, a holder in which the microscope is movably mounted and means for trapping within the holder a definite volume of liquid for examination under the microscope including a pair of transparent plates, one rigid with the holder and the other carried by the microscope.

[Claims 6 to 14 not printed in the Gazette.]

1,205,838. DEVICE FOR TAKING A SAMPLE OF SYRUP OR MASSE-CUITE. WILLIAM A. BALDWIN, Haiku, Hawaii. Filed May 17, 1916. Serial No. 98,234. (Cl. 88—14.)



1. A device of the type described having a plate provided with a central pocket and having transparent end closures for said pocket, one of said end closures being mounted for sliding movement across the face of said plate and having uniform contact therewith.

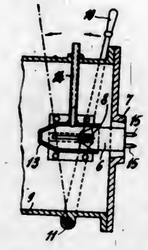
2. A device of the type described comprising a pair of transparent plates and an interposed plate having a central opening, one of the transparent plates being mounted for sliding movement across the face of the interposed plate and both of said transparent plates having uniform contact with said interposed plate.

3. A device of the type described, comprising a pair of transparent plates and an interposed plate having a central opening, one of the transparent plates being pivotally connected to said interposed plate for sliding movement across the face thereof and both of said transparent plates having uniform contact with said interposed plate.

4. A device of the type described comprising a pair of transparent plates, an interposed plate having a central opening, one of the transparent plates being mounted for sliding movement across the face of the interposed plate and both of said transparent plates having uniform contact with said interposed plate, and a flanged ring carrier for said interposed plate and one of the transparent plates.

5. A device of the type described comprising a pair of transparent plates, an interposed plate having a central opening, and a flanged ring carrier for one of the transparent plates and the interposed plate, the other transparent plate being movably mounted and when positioned against said interposed plate providing an end closure for said opening.

1,205,839. APPARATUS FOR PRODUCING HOLLOW ARTICLES. BERNHARD BALG, Görlitz, Germany. Original application filed Aug. 17, 1909, Serial No. 513,281. Divided and this application filed Nov. 15, 1911. Serial No. 660,432. (Cl. 25—11.)



1. In an apparatus for producing hollow articles, the combination of an exit mouthpiece and a core therein, the mouthpiece and core being relatively movable from a position in which the core is within the mouthpiece to a position in which the core is behind the mouthpiece, a press for forcing plastic material to issue from the mouthpiece, and means for changing the relation of the core and mouthpiece from one relative position to the other, said core when it is within the mouthpiece being adapted to direct the material to issue in tubular form, while when the core is behind the mouthpiece the material may issue in solid form, when webs may be formed in the hollow articles.

2. In an apparatus for producing hollow articles, the combination of, a press having a mouth piece; and a core for causing plastic material to issue therefrom in a tubular stream, said core being capable of being moved to an inactive position temporarily for forming an intervening web.

3. In an apparatus for producing hollow articles, the combination, of a press having a mouth piece; a core for causing plastic material to issue therefrom in a tubular stream, said core being capable of being moved to an inactive position temporarily for forming an intervening web, and a pin on said core for forming openings in said web.

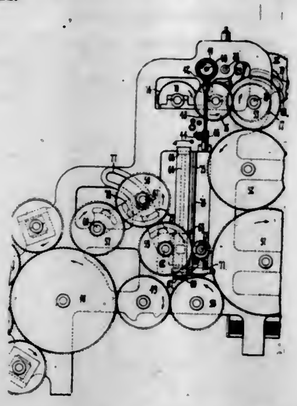
1,205,840. SHEET CUTTING AND FEEDING MECHANISM FOR PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 13, 1913. Serial No. 806,531. (Cl. 164—67.)

1. In a machine for cutting sheets and feeding them to a printing mechanism, a web, means for cutting sheets of different lengths therefrom and means for feeding the different length sheets to the printing mechanism including a plurality of coacting rotary carriers and means for bodily adjusting said carriers without changing their surface speed or coactive relationship.

2. In a machine for cutting sheets and feeding them to a printing mechanism, a web, means driven at a varying speed for cutting sheets of different lengths therefrom at the surface speed of the web and means for feeding the different length sheets to the printing mechanism including a plurality of coacting rotary carriers, and means for bodily adjusting said carriers without changing their surface speed or coactive relationship.

3. In a machine for cutting sheets and feeding them to a printing mechanism, a web, means for cutting sheets of different lengths therefrom and means for feeding the different length sheets to the printing mechanism including a

plurality of coacting rotary carriers, one of said carriers being adjustable toward and away from the sheet cutting means.

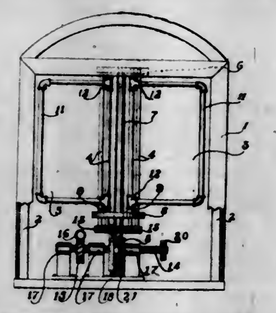


4. In a machine for cutting sheets and feeding them to a printing mechanism, a web, means driven at a varying speed for cutting sheets of different lengths therefrom and means for feeding the different length sheets to the printing mechanism including a plurality of coacting rotary carriers, one of said carriers being adjustable toward and away from the sheet cutting means.

5. In a machine for cutting sheets and feeding them to a printing mechanism, a web, means for cutting sheets of different lengths therefrom and means for feeding the different length sheets to the printing mechanism including three coacting rotary carriers, and means for bodily adjusting two of said carriers without changing their surface speed or coactive relationship.

[Claims 6 to 17 not printed in the Gazette.]

1,205,841. DISPLAY ADVERTISING-MACHINE. JOHN B. BARNETT, Fort Worth, Tex., assignor, by direct and mesne assignments, of two-thirds to Henry C. Hermsmeyer, Fort Worth, Tex., and one-third to R. D. Erwin, McKinney, Tex. Filed June 30, 1914, Serial No. 848,120. Renewed Oct. 16, 1916. Serial No. 126,044. (Cl. 40—35.)

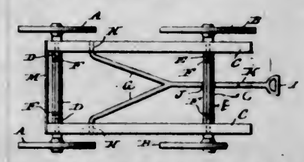


1. An advertising machine having a casing, a base rigid therewith, a socket formed on said base, a vertically disposed shaft adapted to rotate in said socket, disks rigid with said shaft, a plurality of frames pivotally mounted in said disks, pinions for turning said frames, and a driven disk having a rack rigid therewith and extending at an angle from the face of the disk for turning said pinions and for changing the positions of said pinions.

2. An advertising machine having a casing, a base rigid therewith, a socket formed on said base, a vertically disposed shaft adapted to rotate in said socket, disks rigid with said shaft, a plurality of display frames, each having a pivot post journaled in said disks and projecting below the lower disk, ball bearing collars holding said pivot posts in operative positions, gearing on the lower ends of said pivot posts, a driven shaft, and a disk rigid with said driven shaft and positioned with a portion of the disk adapted to project upwardly between two pinions and having a rack projecting therefrom at an angle to the faces of the disk and adapted to drive each pinion in succession and simultaneously to move all of said pinions one step at one time.

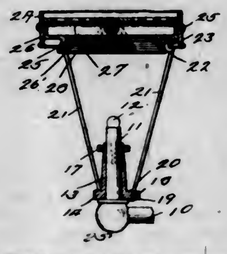
3. An advertising machine having an open front casing, a rotatable shaft vertically disposed in said casing, a pair of disks rigid with said shaft, a series of quadrangular frames, each provided with a pivot post journaled in said disks and extending below the lower disk, a pinion on each pivot post below the lower disk, a driven shaft positioned below said pinions, and a disk rigid with said driven shaft and having a segment cut therefrom whereby a pinion may pass horizontally through the disk and said disk having a rack formed thereon at an angle to the faces thereof and adapted to rotate said frames by means of said pinions and simultaneously to move a pinion from one side of the disk to the other whereby all of said display frames are moved a step at a time periodically and held stationary for regular periods of time.

1,205,842. COMBINATION CARRIAGE AND SLED. MELAS A. BELLIVEAU, Lynn, Mass. Filed Dec. 27, 1915. Serial No. 68,638. (Cl. 21—96.)



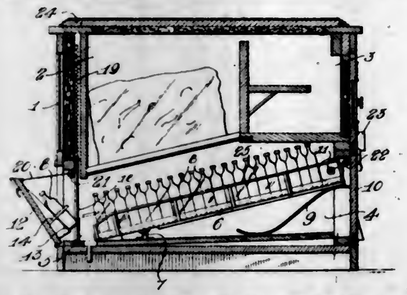
The combination with the axles of a vehicle, of a pair of inverted U-shaped supporting arms having their horizontal connecting portions pivoted to the undersides of said axles to swing forwardly and being formed at their lower ends with runner supports, an operating arm formed with relatively large notches adjacent its upper end to alternately engage over the rear axle to lock the runners in both a raised and lowered position, the lower free ends of said operating arm being pivoted to said runners intermediate the supporting arms, and a rod rigidly connecting the front ends of said runners to tie them upon their supports and to serve as a step to facilitate the raising of the vehicle.

1,205,843. GAS-JET STOVE. HENRY F. BERNHARDT, Westbury, N. Y. Filed Mar. 14, 1916. Serial No. 84,172. (Cl. 126—252.)



A stove attachment for gas jets comprising supporting portions arranged for connection with a gas jet, a utensil support carried by the supporting portions and a flame spreader associated with the utensil support in position to lie above the flame from a gas jet with which the supporting portions may be engaged, said flame spreader including a plurality of hollow arms open at their under faces and having openings through their upper faces, and a continuous downwardly extending outwardly deflected flange surrounding the openings in the under faces of the arms.

1,205,844. COLD-BOTTLE DISPENSER. JOHN WALTER BERRY, Greenville, S. C. Filed Oct. 2, 1915. Serial No. 53,777. (Cl. 211—8.)



1. A device of the class described comprising a case having a bottle storage compartment formed therein, an inclined runway within said compartment and extending longitudinally thereof, a door for said compartment, a shelf rigidly carried by said door, means for supporting bottles on ends on said runway, means for feeding bottles from said runway to said shelf when said door is in closed position, means for preventing more than one bottle at a time passing from the runway, means on the door for controlling the latter means to retain bottles against movement on the runway when said door is in open position, and means for resiliently supporting the higher end of said runway.

2. A device of the class described comprising a case having a bottle storage compartment formed therein, an inclined runway within said compartment, a rocking support for one end of said runway, a resilient support for the opposite end thereof, a door for said compartment, a shelf rigidly supported on said door, means for feeding bottles along said runway, means for feeding bottles one at a time to said shelf when said door is in closed position, said means also serving to retain bottles on the runway against movement when said door is in open position, and means for resiliently supporting the higher end of said runway.

3. A device of the class described comprising a case having a compartment formed therein, a runway pivoted in said compartment, a bottle receiving door for said compartment, means for feeding one bottle from said runway to said door, and means for closing said compartment upon movement of the door to open position.

4. A device of the class described comprising a case having compartments formed therein, runways pivoted in said compartments, means for supporting said runways in inclined position, a door for each compartment, each door having bottle receiving means, means for feeding one bottle from each runway, bottle receiving means carried by the door opposite the same when said door is in closed position, an auxiliary sliding door for each compartment, and means for closing each sliding door upon movement of the first-mentioned door opposite the same to open position.

5. A device of the class described comprising a case having a plurality of compartments formed therein, a runway within each compartment, a door for each compartment, means carried by each of said doors for supporting one of said runways in inclined position, a second door for each compartment opposite the first-mentioned door, bottle receiving means carried by each of the second-mentioned doors, means mounted in each runway to force objects upon the same toward the lower end causing the lowermost object to move to position upon the bottle holding means, means for controlling movement of said objects upon said runway, and a sliding member connected with and adapted to be operated by each of the second-mentioned doors.

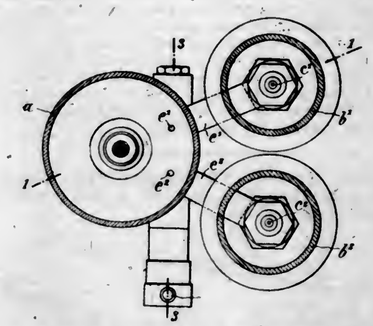
[Claim 6 not printed in the Gazette.]

1,205,845. ENAMELING COMPOSITION. HARRY A. BIGGAR, Long Beach, Cal. Filed Nov. 22, 1915. Serial No. 62,888. (Cl. 134—51.)

1. The herein described composition of matter containing soft asphalt, hard asphalt, rosin, bitumen, Portland cement, lime, petroleum spirits, and benzol, substantially in the proportions specified.

2. A new composition of matter containing ingredients combined in proportions approximately as follows: soft asphalt, three pounds; hard asphalt, five pounds; rosin, two pounds; bitumen, three pounds; Portland cement, one pound; lime, one pound; petroleum spirits, one-fourth pound; benzol, one to three pounds; substantially as and for the purpose specified.

1,205,846. CARBURETER. MARC BIRKIGT, Bois-Colombes, France. Filed Jan. 8, 1916. Serial No. 71,083. (Cl. 261—40.)



1. A carbureter, comprising, a supply chamber, a plurality of sprayers having independent connections with said supply chamber, and an obturator interposed in said connections between the sprayers and said chamber for simultaneously controlling the passage of fluid through said connections, said obturator being provided with a plurality of openings adapted to register with the passages of said connections.

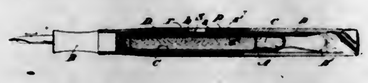
2. In a carbureter, the combination with the plurality of suction ducts, a supply chamber, a spraying device for each suction duct and having an independent connection with said supply chamber, and an obturator arranged in said connections between said spraying devices and supply chamber for simultaneously controlling the supply fluid to said spraying devices.

3. A carbureter, comprising, a fluid supply chamber, a plurality of sprayers, a duct connecting each sprayer with the supply chamber, an element having a bore therein extending transversely to said ducts and intersecting the same, an obturator arranged in said bore and having a plurality of passages therein adapted to register with the passage of the ducts, and means for moving said obturator in said bore whereby the supply of fluid from said supply chamber to said sprayer is simultaneously controlled.

4. A carbureter, comprising, a fluid supply chamber, a plurality of sprayers, a duct connecting the sprayers with the supply chamber, an element having a bore therein extending transversely to said duct and intersecting the same, an obturator slidably disposed in said bore and having a plurality of passages therein to normally register with the ducts, a member threaded in said bore and engageable with one end of said obturator to move the latter

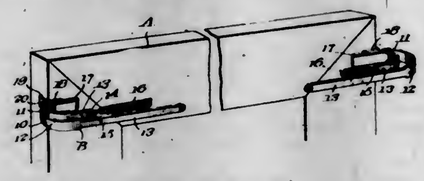
in the bore for simultaneously controlling the passage of fluid from said supply chamber to said sprayers when said member is rotated, and a spring engaging with the other end of said obturator and to hold the same in engagement with said threaded member and for returning said obturator to its normal position.

1,205,847. FOUNTAIN-PEN. CLARS W. BOMAN, Brooklyn, N. Y., assignor to Eagle Pencil Company, New York, N. Y. Filed Sept. 30, 1916. Serial No. 123,121. (Cl. 120—46.)



In a self-filling fountain pen, the combination with a tubular handle, nozzle, collapsible ink bag, and presser bar interposed between the ink bag and the handle and extending lengthwise of the said bag in line with an opening in the side of the handle through which it may be reached; of an operating stem fitting said opening, and longitudinally slotted at one end for a portion of its length; and a pin mounted in the handle to extend crosswise of the side opening therein and through the slot in the operating stem, said pin when the stem is in shut position being at or near that end of the slot farthest removed from the handle end of the stem, whereby the stem in moving from shut to open position or vice versa will swing on said pin as a pivot and, after reaching its upright position, when pushed inward to force the presser bar to compress the ink bag will move bodily in that direction upon the pin as a guide.

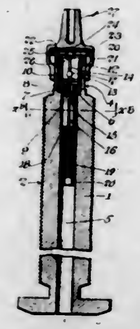
1,205,848. WINDOW-CURTAIN BRACKET. GEORGE E. BOURELLE, Elgin, Ill. Filed Oct. 6, 1915. Serial No. 54,427. (Cl. 156—23.)



1. A bracket of the class described comprising a relatively stiff strip bent on itself to form inner and outer loop-like stretches disposed in the same plane with each other, the inner stretch being spaced for a greater portion of its length from the outer stretch, both of said stretches having reduced end portions and provided with perforations, one reduced end portion being of greater length than the other, an L-shaped ear carried by the other loop portion and having spurs for biting engagement in a window frame and also having an aperture for receiving a fastener, and a spring adapted for detachable engagement with either of the perforations in the reduced portions.

2. A bracket of the class described comprising a relatively stiff strip bent on itself to form inner and outer loop-like stretches disposed in the same plane with each other, the inner stretch being spaced for a greater portion of its length from the outer stretch, both of said stretches having reduced end portions and provided with perforations, one reduced end portion being of greater length than the other, an L-shaped ear carried by the other loop portion and having spurs for biting engagement in a window frame and also having an aperture for receiving a fastener, a spring adapted for detachable engagement with either of the perforations in the reduced portions, and a split sleeve slidable upon one reduced portion and having a knob terminal.

1,205,849. TIRE-VALVE. JUNIUS A. BOWDEN, Los Angeles, Cal., assignor to A. Schrader's Son, Incorporated, New York, N. Y., a Corporation of New York. Filed May 6, 1913. Serial No. 765,923. (Cl. 152—12.)



1. In a tire valve, a body having an interior bore and an undercut shoulder therein, a removable valve seat in said bore, a valve in said bore adapted to contact with said seat, a retaining sleeve removably secured in said bore for holding said seat in position against said shoulder, and a pin extending from said valve into the retaining sleeve, said retaining sleeve being provided with means for engaging said pin, to cause the valve and seat to be lifted when the retaining sleeve is removed.

2. In a tire valve, a body having an interior bore and an undercut shoulder therein, a removable valve seat in said bore, a valve below said seat and adapted to bear against the seat, a pin on said valve projecting up through said seat, said pin having an enlargement, and a retaining sleeve removably secured in said bore for holding said seat in position against said shoulder, said retaining sleeve having a relatively wide interior and a bridge across its interior through which said pin extends, and adapted to engage the enlargement on said pin.

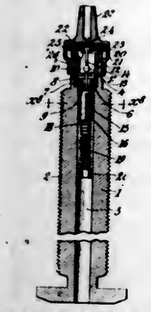
3. In a tire valve, a body having an interior bore and an internal undercut shoulder, a removable valve resting on said shoulder, a valve bearing against the underside of said seat, a pin on said valve projecting up through said seat, a retaining sleeve screwed in said bore for holding the removable seat in position against said shoulder, said retaining sleeve having a relatively wide interior and a bridge across its interior, and said pin extending through said bridge and having an enlargement above said bridge.

4. In a tire valve, a body having an interior bore and an internal undercut shoulder, a removable valve resting on said shoulder, a valve bearing against the underside of said seat, a pin on said valve projecting up through said seat, a retaining sleeve screwed in said bore for holding the removable seat in position against said shoulder, said retaining sleeve having a relatively wide interior and a bridge across its face, and said pin extending through said bridge and having an enlargement above said bridge, and a disk between said retaining sleeve and removable seat for directly receiving the end thrust of the retaining sleeve.

5. In a tire valve, a body having an interior bore and an internal undercut shoulder, a removable seat resting on said shoulder, a valve bearing against the underside of said seat, a pin on said valve projecting up through said seat, a retaining sleeve screwed in said bore for holding the removable seat in position against said shoulder, said retaining sleeve having a relatively wide interior and a bridge across said interior, said pin extending through said bridge and having an enlargement above said bridge, and a disk between said retaining sleeve and removable seat for directly receiving the end thrust of the retaining sleeve, said disk having an annular flange extending through said removable seat and preventing the inward contraction of said seat, and a square shoulder formed by the under face of the disk and the inner face of the flange.

[Claim 6 not printed in the Gazette.]

1,205,850. TIRE-VALVE AND CAP THEREFOR. JUNIUS A. BOWDEN, Los Angeles, Cal., assignor to A. Schrader's Son, Inc., Brooklyn, N. Y., a Corporation of New York. Original application filed May 6, 1913, Serial No. 765,923. Divided and this application filed Mar. 29, 1916. Serial No. 87,401. (Cl. 152—12.)



1. In a tire valve, a body with an externally threaded end, an internally threaded cap adapted to screw thereon, said cap having an inner enlarged portion, a plate revoluble within the cap in said enlarged portion, said plate having a flange at its outer edge and having a central annular flange and an annular rubber seat in the space between the annular flange and outer flange adapted to bear against the outer edge of the body when the cap is screwed down.

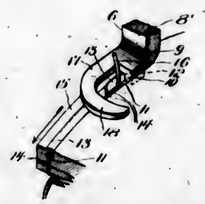
2. In a tire valve, a body having a threaded end, an internally threaded cap screwed thereon, said cap having an enlarged portion with an imperforate transverse wall, a plate in said enlarged portion with a central stud pivoted against said imperforate wall, said plate having a central annular flange, and having a peripheral flange, and a rubber seat between said flanges adapted to bear against the outer end of the body.

3. In a tire valve, a body having an interior bore, an inner valve, a retaining sleeve screwed in the outer end of said bore to retain the inner valve in position, and a cap on the end of said body, said cap having a conical outer end adapted to be fitted and wedged into the said retaining sleeve and frictionally grip with the walls thereof, to screw the sleeve when the cap is engaged therewith and rotated.

4. In a tire valve, a body having an interior bore, an inner valve in said bore with a pin extending to the outer end of the body, a retaining sleeve screwed into the end of the bore for retaining the end of the valve, a cap screwed on the outer end of the body, said cap having a hollow conical extension which when the cap is inverted is adapted to fit within the retaining sleeve, said pin being received in the hollow portion of said conical extension, and the tapered walls of the extension adapted to wedge with sufficient friction against said retaining sleeve to rotate the same when the cap is turned.

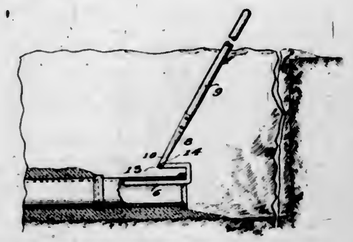
1,205,851. PRESSER-FOOT FOR SHOE-SEWING MACHINES. ALFRED BUCOLO, Washington, D. C. Filed Apr. 11, 1916. Serial No. 90,454. (Cl. 112—20.)

1. A presser foot for sole stitching machines comprising a foot proper, an attaching bracket carried thereby, a cutter of wedge-form arranged at one side of the center of the foot proper for cutting a welt channel, said cutter being provided with an oblique lateral face to lift the welt strip of the channel and thereby open the channel for the stitching action, an arm projecting rearwardly from the foot proper on the opposite side of the center thereof from the cutter, and a curved blade carried by said arm and extending transversely in rear of the cutter and in spaced relation thereto, for closing the welt strip subsequent to the stitching action.



2. A presser foot for sole stitching machines comprising a foot proper, an attaching bracket integral therewith, a cutter of wedge-form arranged at one side of the center of the foot proper and formed integral therewith for cutting a welt channel, said cutter being provided with an oblique lateral face to lift the welt strip of the channel and thereby open the channel for the stitching action, an arm projecting rearwardly from the foot proper on the opposite side of the center thereof from the cutter, and a curved blade integral with said arm and extending transversely in rear of the cutter and in spaced relation thereto, for closing the welt strip subsequent to the stitching action.

1,205,852. TILE-LAYER. SAMUEL J. BUEHLER, Port Washington, Ohio. Filed Feb. 8, 1916. Serial No. 77,044. (Cl. 57—9.)

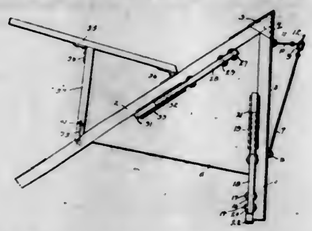


A tool of the class described comprising a substantially U-shaped member having a relatively long limb and a relatively short limb, a handle having a bifurcated end portion between the separated portions of which the terminal of said short limb is received, said terminal and separated portions having alined openings, a bolt passed through said openings to pivotally support the U-shaped member upon the handle, and a nut mounted upon the bolt and adapted to hold the handle fixed relatively to the U-shaped member in different adjusted positions.

1,205,853. ROAD-SCRAPER. MAY WILLIAM BURTON, Armstrong, Mo. Filed Mar. 11, 1916. Serial No. 83,585. (Cl. 37—5.)

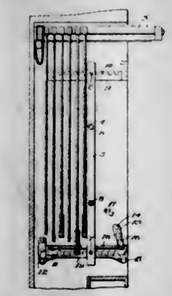
1. In a road grader and scraper structure, the combination of a land side and a mold board side, said sides converging at their forward ends and terminating in a point, a metallic plate mounted over said point and a metallic plate secured to the lower forward edge of said mold board and extending a long distance along the outer side of the front end of said land side, means connected to said mold board for raising the outer end of the mold board and means connected to said land side side adjacent its forward end for raising the forward end of said mold board and a deflecting wing hingedly connected to said mold board side and extending outwardly at an obtuse angle with respect to the mold board.

2. In a scraper and graded structure, the combination of a land side, a mold board side, said land side and mold board side converging and terminating in a point at their



forward ends and a deflecting wing hingedly connected to said land side and extending outwardly at an obtuse angle to the land side, and means for rigidly holding said wing in an extended position.

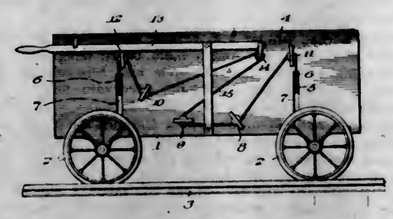
1,205,854. WARDROBE-TRUNK. JOHN J. CANNAN, Rochester, N. Y., assignor to Henry Likly & Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 31, 1913. Serial No. 798,574. (Cl. 190—36.)



1. In a trunk, the combination with a garment carrier, of a follower engaging garments arranged on the carrier, means for adjustably supporting one end of the follower, a notched bar pivotally arranged and engaging the opposite end of the follower to lock the latter, a pivoted actuating lever, and a link connecting the lever and said notched bar.

2. In a trunk, the combination with a garment carrier, of a follower engaging garments arranged on the carrier, means for adjustably supporting one end of the follower, the opposite end of the follower embodying a rod, and a locking bar having a series of notches arranged to engage the aforementioned rod, the locking bar being movable into and out of locking relation with said rod.

1,205,855. MANURE-CARRIER. JOSEPH C. CHAPEK, Michigan, N. D. Filed Apr. 6, 1916. Serial No. 89,403. (Cl. 105—14.)



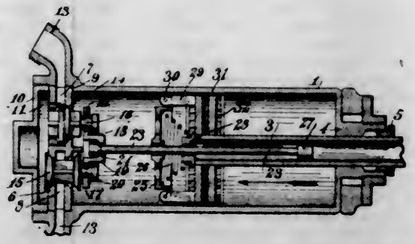
A carrier comprising a wheel mounted frame, a body mounted upon the frame and having hinged bottom panels, rollers journaled at the side of the body, the said body being provided with openings located below the rolers, pulleys mounted upon the body, other pulleys mounted upon the frame, and a lever fulcrumed upon the body and having at its working end a pulley and a chain trained around the said pulleys and the said rollers.

1,205,856. AXLE-LUBRICATOR. CHARLES W. CHEEK, East Chattanooga, Tenn. Filed Aug. 28, 1913. Serial No. 787,181. (Cl. 64—27.)



In combination a hollow axle having tapered ends, a saw dust filling arranged centrally within said axle, plugs snugly fitted in said axle and positioned against the opposite ends of said filling, and a coat of adhesive material applied to the opposed outer faces of said plugs.

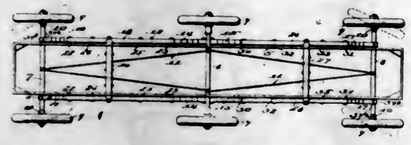
1,205,857. WATER-MOTOR. PETER T. COFFIELD, Dayton, Ohio, assignor to The Coffield Motor Washer Company, Dayton, Ohio, a Corporation of Ohio. Filed May 10, 1915. Serial No. 26,951. (Cl. 138—2.)



1. In a water motor, a cylinder having a detachable chambered head at one end, double puppet inlet and exhaust valves mounted in said head, a yoke connecting said valves, a piston movable in said cylinder, a hollow rod extending from said piston on one side, a buffer engaging one side of the piston, a second buffer loosely supported on the piston, a conical spring mounted between said buffers, a rod movable in the hollow rod extending from the piston and projecting through the axes of the buffers and the spring and connected at one end to said valve yoke, said rod being adapted to engage one of the buffers to cause a compression of the spring in the movement of the piston in one direction, the other buffer being adapted to engage the valve yoke to compress the spring in the movement of the piston in the other direction, said buffers being adapted to engage each other after the spring is compressed and to thereby form a rigid abutment to unseat the valves in the movement of the piston in both directions.

2. In a water motor, a cylinder provided with an enlarged end with an interior annular shoulder therein and inlet and outlet pipes extending therefrom, a head inserted in the enlarged end of said cylinder against said annular shoulder and having inlet and outlet passages communicating with said inlet and outlet pipes, a cap inserted in the enlarged end of said cylinder and maintaining said head in rigid engagement with said annular shoulder, to effect a water-tight joint between said head and the cylinder, said cap providing a chamber on the outside of said head with which the inlet and outlet passages in said head communicate, means providing a communication between said chamber and the remote end of the cylinder, valves in said head controlling the passages between the said head and the chamber on the outside thereof, a piston movable in said cylinder, and means interposed between said piston and said valves for operating said valves.

1,205,858. RUNNING-GEAR FOR VEHICLES. WILLIAM CORCORAN, Portland, Oreg. Filed Aug. 1, 1916. Serial No. 112,579. (Cl. 21—184.)



1. In running gear for vehicles, the combination of front and rear and intermediate axles having wheels thereon, the wheels of the front and rear axles being mounted for steering purposes and the intermediate axle constituting the driving means of the running gear, and spring units and equalizers interposed between the intermediate axle and the front and rear axles, the equalizers being independent organizations and respectively connected to the spring units between the intermediate and front and rear wheels.

2. In running gear for vehicles, the combination of front and rear axles both carrying steering wheels, an intermediate driving axle having wheels thereon, front and rear equalizer organizations, spring units between the opposite extremities of the equalizer organizations and the front and rear and intermediate axles, and a frame for supporting the body having one point of connection with the front equalizer organization and two points of connection with the rear equalizer organization.

3. In running gear for vehicles, the combination of front and rear and intermediate axles, the intermediate axle operating as the driving means for the running gear and the front and rear axles carrying steering wheels, and a frame for supporting the body having a single point of attachment at its front extremity relatively to the running gear and two points of attachment at its rear extremity relatively to the said gear.

4. The combination with running gear for vehicles including axles and spring units, of a frame for supporting a body having a single point of rest at its front extremity relatively to a portion of the running gear and two points of rest at its rear extremity relatively to said gear and wholly clear of the axles and spring units.

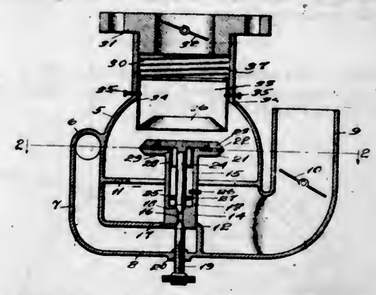
5. In running gear for vehicles, front and rear axles carrying steering wheels and an intermediate driving axle carrying wheels, spring units having terminals associated with all of the axles, and equalizer organizations having side bars with means at their ends for supporting the spring units and also provided with other means to which the adjacent ends of the spring units are attached.

[Claims 6 to 8 not printed in the Gazette.]

1,205,859. CARBURETER. HAMNER J. CORDLE, Littleton, N. C. Filed Mar. 16, 1916. Serial No. 84,619. (Cl. 261—53.)

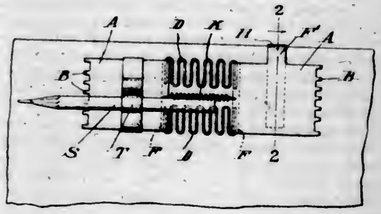
1. In a carbureter of the character described, a casing having a liquid fuel supply device and an air supply device, a substantially vertical valve casing arranged within the said casing and having its lower end provided with a port in communication with the interior of the liquid fuel supply device, a tray carried by the upper end of the valve casing and having grooves extending to the interior thereof, a cap arranged near and above the tray, a needle-valve depending from the cap to be moved thereby and adapted to cover and uncover the port, a sleeve attached to the cap and depending therefrom into the valve casing and having apertures adapted to be moved into and out of registration with the grooves, and an outlet device for the casing arranged near and above the cap.

2. In a carbureter of the character described, a casing having a liquid fuel supply conduit leading into the lower end thereof, a substantially vertical valve casing connected with the conduit and having its lower end provided with a port in communication with the conduit, a manually operated valve to cover and uncover the lower end of the port, a tray carried by the upper end of the valve casing and having grooves extending to the interior thereof, a cap arranged near and above the tray, a needle-



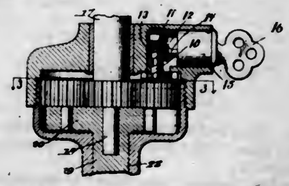
valve connected with the cap and depending therefrom and adapted to cover and uncover the upper end of the port, a sleeve connected with the cap and depending therefrom into the valve casing and having apertures adapted to be moved into and out of registration with the grooves, an outlet conduit connected with the casing near and above the cap, a suction operated air control valve mounted in the outlet conduit, and a spring to oppose the opening movement of the suction operated valve.

1,205,860. GARMENT-SUPPORTING DEVICE. JOHN H. COX, Hot Springs, Ark. Filed Aug. 17, 1916. Serial No. 115,473. (Cl. 241—7.)



A reversible garment supporting device comprising two plates with spurs at the outer ends thereof for engagement with the garment, the inner ends of the plates turned to form rolls, serpentine springs engaging said rolls and forming yielding connections intermediate the plates, a central coiled spring connecting the plates, one of said plates having an integral hook.

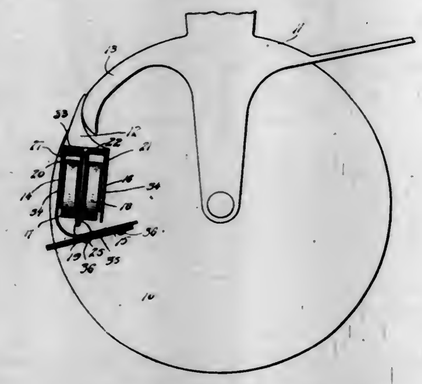
1,205,861. MEANS FOR LOCKING STEERING-HEADS OF AUTOMOBILES. WILLIAM L. B. CUSHING and GEORGE A. FLOOD, Los Angeles, Cal. Filed Jan. 26, 1916. Serial No. 74,455. (Cl. 70—90.)



In a steering head locking mechanism, the combination with a gear case or bowl provided with an interior pe-

ripheral gear and having gear wheels adapted to engage said peripheral gear, of a locking member adapted to be moved into engagement with the peripheral gear and two of the gear wheels by means of a vertically disposed worm gear shaft rotated by engagement of a beveled gear at the upper end of the shaft with a beveled gear pinion carried at the inner end of a horizontal shaft adapted to be rotated by a locking key, substantially as described and for the purpose specified.

1,205,862. ATTACHMENT FOR GRAIN-DRILLS. ARTHUR CZARNETZKI, Gardena, N. D. Filed June 3, 1916. Serial No. 101,594. (Cl. 97—64.)



1. A grain drill attachment comprising a frame having arms extending in spaced relation with one of the arms elongated and bent to extend beneath the free end of the second arm to provide a guard, yokes pivotally mounted in said frame between the arms thereof, rollers rotatably mounted in said yokes, and resilient means yieldably holding said yokes in a normal position and serving to swing the yokes outwardly.

2. An attachment of the character described comprising a frame, having depending arms, yokes pivotally mounted in said frame between the arms thereof, rollers rotatably mounted in said yokes, and resilient means yieldably holding said yokes swung outwardly of said frame.

3. A grain drill attachment comprising a frame having depending arms, yokes pivotally mounted in said frame between the arms thereof, rollers rotatably mounted in said yokes, pins extending from said yokes, and resilient means mounted upon said pins and engaging said yokes to yieldably hold the yokes extended outwardly beyond the sides of said frame.

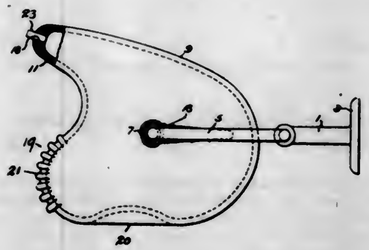
4. A grain drill attachment comprising a frame including depending arms, yokes pivotally mounted in said frame between the arms thereof, rollers rotatably mounted in said yokes, one arm of said frame being provided with a neck, and conduits extending through the arms of said yokes and into the neck of said frame to provide lubricant passages for lubricating said rollers.

5. A grain drill attachment comprising a frame, yokes pivotally mounted in said frame, rollers rotatably mounted in said yokes, and means for yieldably holding said yokes in an extended position.

[Claim 6 not printed in the Gazette.]

1,205,863. SOAP-DISPENSER. LADISLAUS DE DOORY, Allston, Mass. Filed Dec. 21, 1914. Serial No. 878,211. (Cl. 221—94.)

1. A liquid dispenser comprising a container having a body provided with a neck projecting forwardly therefrom having a small port at the end thereof, and a protuberance projecting forwardly from said body beneath said neck having provision for positively impelling the liquid through said port on imparting a sharp forward tilting movement to said container.



2. A liquid dispenser comprising a container having a body provided with a neck projecting forwardly therefrom having a small port at the end thereof, and a protuberance projecting forwardly from said body beneath said neck formed to positively impel the liquid to and through said port on imparting a sharp, forward, tilting movement to said container, said protuberance presenting a ribbon or equivalent exterior surface to be engaged by and prevent slipping of the fingers of the hand in tilting the container.

3. A liquid dispenser comprising a container 9 having a forwardly projecting neck 11 with a small discharge port 13 at the end thereof, and a protuberance 19 projecting forwardly beneath said neck and formed to impel the liquid through said port on imparting a sharp, forward, tilting movement to said container, all of said parts being formed of one integral piece.

4. A liquid dispenser comprising a container having a body provided with a neck projecting forwardly therefrom having a small discharge port at the end thereof, a protuberance projecting forwardly from said body beneath said neck having provision for impelling liquid and air from the container through said port on imparting a sharp, forward tilt to said container, and a support pivotally counected to said container above the center of gravity thereof to automatically return the container to a position with its neck above the level of the liquid therein to allow air to rush into said container and drive residual liquid from said port.

5. A liquid dispenser comprising a body having a neck projecting forwardly therefrom with a small discharge port therein, a discharge impelling protuberance projecting from the bottom of said body beneath said neck, a throat projecting a substantial distance into said body between said neck and protuberance and a curved unobstructed wall projecting from said protuberance to said neck; and means pivotally to support said body with its neck and protuberance normally projecting laterally in readiness for a discharging tilt of said body, said protuberance having provision for positively forcing the liquid through said neck on the discharging tilt of said body.

1,205,864. LAMP. FRANK DEBROSKY, Adams, Mass. Filed Feb. 17, 1916. Serial No. 78,863. (Cl. 67—81.)

In a portable lamp, a hollow spherical casing having a flattened bottom and a top opening, a frusto-conical oil receptacle located in said casing and having a large base in contact marginally with the inner wall of said casing and located adjacent to and spaced apart from the bottom of the casing, and a contracted top fitting in the top opening of the casing, said receptacle having side walls inclined inwardly and upwardly throughout and spaced from

the side walls of the casing by an annular interval of the form of a minor segment of a circle in cross-section, and

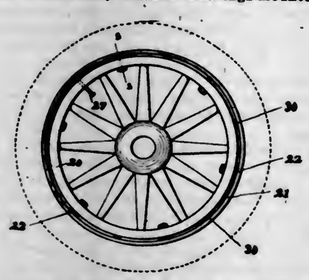


a flat weight located between the bottom of the casing and that of the receptacle.

1,205,865. [WITHDRAWN.]

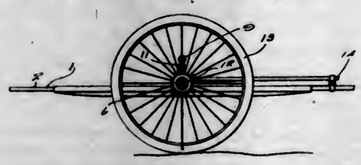
1,205,866. DEMOUNTABLE RIM FOR VEHICLE-WHEELS. OTIS E. DINGLEY, West Farmington, Me. Filed Oct. 18, 1915. Serial No. 56,416. (Cl. 152—21.)

A demountable rim for vehicles including a rim, a felly, a plurality of internally threaded bushings mounted in said



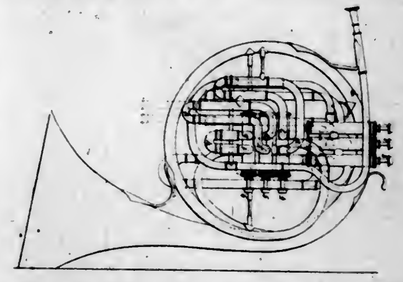
felly and having outwardly flared ends forming bearing surfaces flush with the outer periphery of said felly, a plurality of inwardly projecting hub-like extensions formed integral with the inner periphery of said rim and resting on said bearing surfaces, said extensions being provided with inwardly facing sockets, guide plates fastened on said felly surrounding one of said bushings and adapted to receive one of said hub-like extensions therein to position all of said sockets in registration with the bores of said bushings, and a plurality of bolts engaged with said bushings and having unthreaded outer ends adapted to extend beyond said felly and be loosely received in said sockets.

1,205,867. WHEELED STRETCHER OR LITTER. THOMAS P. DOOLE, Eagle Lake, Tex. Filed Sept. 3, 1915. Serial No. 48,909. (Cl. 21—80.)



In a wheeled litter or stretcher structure, the combination, of a truck structure including a substantially inverted U-shaped arch axle, spindles formed upon and extending outwardly from the free ends of the legs of said axle, a substantially U-shaped handle formed upon said axle and extending outwardly substantially at right angles to the axle from points a short distance above said spindles, supporting wheels mounted upon said spindles, hooks pivotally mounted upon the bight portion of said axle, an ordinary stretcher structure including side rails, eyes carried by said side rails and adapted for receiving the hook portions of said hooks for connecting the stretcher to the truck structure.

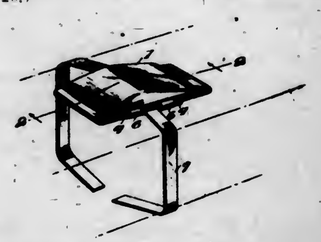
1,205,868. BRASS WIND INSTRUMENT. FÉLICIEN DURANT, Brussels, Belgium. Filed June 10, 1911. Serial No. 632,579. (Cl. 84—8.)



1. A wind instrument having three tone raising valves, and three tone lowering valves and corresponding crooks controlled by said valves respectively, the first tone raising valve raising the pitch of the open column by one tone, the second and first tone raising valves combined raising the pitch two tones, and the third in combination with the first and second raising the pitch by still an additional half tone.

2. A wind instrument having three tone raising valves, and three tone lowering valves and corresponding crooks controlled by said valves respectively, the first tone raising valve raising the pitch of the open column by one tone, the second and first tone raising valves combined raising the pitch two tones, and the third in combination with the first and second raising the pitch by still an additional half tone, the tone lowering valves lowering the pitch by one tone, one-half tone and two-tones respectively.

1,205,869. RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Apr. 22, 1915. Serial No. 23,176. (Cl. 246—20.)



1. An improved torpedo comprising a tubular fiber casing, an explosive placed therein, the ends of the tube extended beyond the explosive and doubled under the body portion, a clip extending under the body of the torpedo and transverse thereof, the ends of the clip bent around and clamping the bent under ends of the tube thus closing their ends and holding them in position.

2. An improved torpedo comprising a fiber tube, an explosive therein, the ends of the tube extended beyond the explosive and doubled inward under the body of the torpedo, a clip extending under the body portion and transverse thereof, the ends of the clip clamping the turned under ends of the tube, and a rail-engaging strap held to the torpedo by one of the said turned under ends and the clip.

1,205,870. FIBER RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Apr. 4, 1916. Serial No. 88,765. (Cl. 246—20.)



1. An improved fiber torpedo comprising an inner explosive containing case composed of a flattened fiber tube having its ends extending beyond the explosive and doubled back on the body of the case, the extended ends being of a length to overlap each other, and an outer fiber case composed of a flattened tube inclosing the inner explosive containing case and holding its doubled back ends in folded positions, and a rail-engaging strap.

2. An improved fiber torpedo comprising an inner explosive containing case composed of a flattened fiber tube having its ends extending beyond the explosive and flattened and doubled back under the body of the case, and a rail-engaging strap attached to the outer doubled back flattened ends, and an outer inclosing case composed of a flattened tube receiving the inner case and holding the doubled back ends in their folded position and inclosing the center of the rail-engaging strap.

3. An improved fiber torpedo comprising an inner explosive containing case composed of a flattened fiber tube having its ends extending beyond the explosive and flattened and doubled back on the bottom of the case, the outer folded end having openings, a rail-engaging strap passing through the said openings, and an outer inclosing case composed of a flattened tube inclosing the inner case and the center of the rail engaging strap to hold the extended ends in their folded positions.

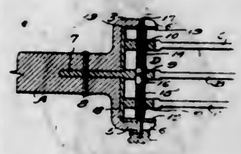
4. An improved fiber torpedo comprising an inner explosive containing case composed of a flattened fiber tube having its ends extending beyond the explosive and flattened and doubled back under the body of the case, a rail engaging strap attached to the doubled back portion of the case, and an outer inclosing case composed of a flattened tube receiving the inner case with its doubled back ends and inclosing the center of the attached rail engaging strap.

5. A railroad torpedo including a flattened tube folded along transverse lines to form an intermediate or bottom portion, and lapping end portions, an explosive contained within said intermediate portion, an attaching strap threaded through one of the lapping end portions, and a flattened tube housing the folded tube.

1,205,871. SLICING-KNIFE. JOHN T. DWYER, West Philadelphia, Pa. Filed Aug. 29, 1916. Serial No. 117,558. (Cl. 146—12.)

1. A slicing knife comprising in combination, a handle, a blade rigid therewith, two blades movable with respect to said handle and disposed one at each side of said rigid blade in parallel relation thereto, and means for moving said second-mentioned blades simultaneously toward or from said rigid blade and retaining the same in an adjusted position with respect thereto.

2. A slicing knife comprising in combination, a handle, a blade rigid therewith, two blades movable with respect to said handle and disposed one at each side of said rigid blade in parallel relation thereto, and a revoluble member carried by said handle and provided with screw-threaded sections, the thread of one section extending in a direction counter to that of the other section, and said sections separately in screw-threaded engagement with said movable blades.



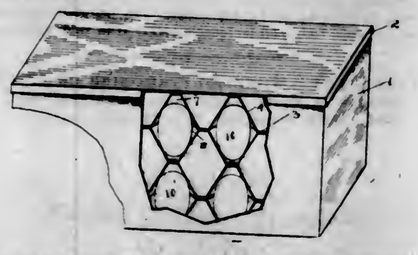
3. A slicing knife comprising in combination, a handle, two blades movable toward and from each other laterally, guided by said handle, and a revoluble member carried by said handle and provided with screw-threaded sections, the thread of one section extending in a direction counter to that of the other section, and said sections separately in screw-threaded engagement with said blades.

4. A slicing knife comprising in combination, a handle including two arms in spaced relation at one end portion thereof, a U-shaped bushing, the main body of which lies transversely of the axis of and adjacent said handle between the said arms thereof, with the arms of said bushing engaging the confronting faces of said arms of said handle, two blades movable toward or from each other laterally, with ends engaging and slidable over the face of the main body of said bushing, and a revoluble member carried and extending between the said arms of said handle, said revoluble member being provided with screw-threaded sections, the thread of one section extending in a direction counter to that of the other section, and said sections separately in screw-threaded engagement with said blades.

5. A slicing knife comprising in combination, a handle including two arms in spaced relation at one end portion thereof, a bushing lying transversely of the axis of and adjacent said handle between the said arms thereof, two arms movable toward and from each other laterally, with ends engaging and slidable over the face of said bushing, and a revoluble member carried by and extending between the said arms of said handle, said revoluble member being provided with screw-threaded sections, the thread of one section extending in a direction counter to that of the other section, and said sections separately in screw-threaded engagement with said blades.

[Claims 6 to 8 not printed in the Gazette.]

1,205,872. PACKING-CASE. CLAYTON T. EAID, Portland, Oreg. Filed Apr. 16, 1914. Serial No. 832,226. (Cl. 217—27.)



1. In a packing case, a pair of plates each provided with coöperating supporting members adapted to inclose and confine an article between them by line contacts lying wholly in planes on opposite sides of and substantially parallel to said plates, said supporting members each having a length greater than one-half the length of the article to be supported therein, whereby spaces are left at opposite ends of the supported article.

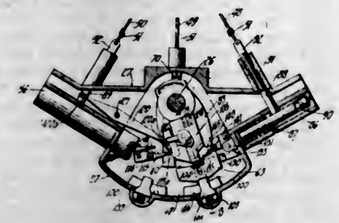
2. In a packing case, the combination with a plate of resilient material having a resilient supporting member projecting from one side thereof, a second plate provided with a coöperating supporting member, the combined length of said supporting members being greater than the length of the article to be supported thereby, said supporting members each having converging straight side walls whereby a spheroidal article inserted therein will have a peripheral line contact only with said walls.

3. In a container, a pair of sheets each provided with egg supporting members having straight tapering walls, the length of which walls in each sheet is greater than one-half the length of the article to be supported, said members adapted to support an egg by substantially circular contact therewith adjacent each end at points lying in a common plane.

4. In a device of the character described, a plurality of sheets each having supporting members projecting from one side only thereof, said supporting members each having a length greater than half the length of the article to be supported thereby, and having their sides lying in planes tangent to the sides of the article to be supported.

5. In a packing case, a plurality of plates provided with egg supporting members, said plates being adapted to be positioned with the supporting members of one in coöperative position with the supporting members of the other, said supporting members being substantially cone-shaped and having the walls thereof contacting with and tangent to a peripheral line of the egg adjacent each end thereof, the length of each of said supporting members being greater than one-half the length of the egg whereby a space is left adjacent each end of said egg.

1,205,873. CHANGE-GEAR MECHANISM. GERALD A. EDDY and JOHN FRANKLIN MCNUTT, Los Angeles, Cal., assignors of one-third to said Eddy, one-third to Edgar J. Belk, Los Angeles, Cal., and one-third to John Hettermann, Louisville, Ky. Filed July 23, 1912. Serial No. 711,108. (Cl. 74—58.)



1. The combination with a shaft, a clutch therefor, a pedal for operating the clutch, and a transmission mechanism including sets of shiftable power transmission elements, of transmission selecting and shifting mechanism comprising a driving member connected to and operated by the clutch pedal, a driven member capable of movement with the driving member operatively connected to the transmission elements, means for locking the driven member in different positions to hold in and out of action different transmission elements, means for locking the members together for common movement, and manually controlled means to cause freeing of the driven member from the driving member and to cause the locking of the driven member stationarily in any selected position.

2. The combination with a shaft, a clutch therefor, a pedal for operating the clutch, and a transmission mechanism including sets of shiftable power transmission elements, of transmission selecting and shifting mechanism comprising an oscillating driving member connected to and operated by the clutch pedal, an oscillating driven member pivoted concentrically with the driving member and capable of movement therewith operatively connected to the transmission elements, means for locking the driven member in different positions to hold different transmission elements in and out of action, means for locking the members together for common movement, and manually controllable means to cause the freeing of the driven member from the driving member and to cause the locking of the driven member stationarily in any selected position.

3. The combination with a shaft, a clutch therefor, a pedal for operating the clutch, and a transmission mechanism including sets of shiftable power transmission elements, of transmission selecting and shifting mechanism comprising an oscillating driving member connected to and operated by the clutch pedal, an oscillating driven member pivoted concentrically with the driving member and capable of movement therewith operatively connected to the transmission elements, means for locking the driven member in different positions to hold the different transmission elements in and out of action, means for mechanically locking the members together for common movement, and manually controllable means to cause freeing of the driven member from the driving member and to cause the locking of the driven member stationarily in any selected position.

4. The combination with a shaft, a clutch therefor, a pedal for operating the clutch, and a transmission mechanism including sets of shiftable power transmission elements, of transmission selecting and shifting mechanism comprising an oscillating driving member connected to and operated by the clutch pedal, an oscillating driven member pivoted concentrically with the driving member and capable of movement therewith operatively connected to the transmission elements, means for locking the driven member in different positions to hold the different transmission elements in and out of action, means for mechanically locking the members together for common movement, and manually controllable means to cause freeing of the driven member from the driving member and to cause the locking of the driven member stationarily in any selected position.

5. The combination with a shaft, a clutch therefor, a pedal for operating the clutch, and a transmission mechanism including sets of shiftable power transmission elements, of transmission selecting and operating mechanism comprising a driving member connected to and operated by the clutch pedal, a driven member capable of movement with the driving member operatively connected to the transmission elements, means for locking the driven member in different positions to hold different transmission elements in and out of action, means for mechanically locking the members together for common movement, and manually controllable means to cause freeing of the driven member from the driving member and to cause the locking of the driven member stationarily in any selected position.

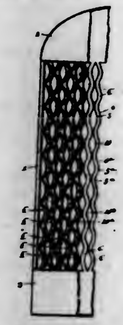
[Claims 6 to 28 not printed in the Gazette.]

1,205,874. RADIATOR OR COOLER. EDWARD H. ELLISON, Jamestown, N. Y., assignor to Jamestown Car Parts Manufacturing Company, Jamestown, N. Y., a Corporation of New York. Filed Nov. 1, 1915. Serial No. 59,097. (Cl. 257—130.)

1. A radiator for automobiles including in combination a plurality of conduits, each conduit being composed of similarly shaped plates bent so as to form therebetween a continuous passage, the side edges of said plates being bent so as to have contact throughout the entire length of the conduit and so as to space the plates to form said passage, said side edges having formed therein alternately relatively large and small bends the angles of which are the same and face in the same direction whereby the outer face of the larger bend in one plate may nest in and be firmly secured in the smaller bend of an adjacent plate.

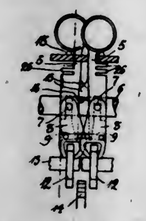
2. A radiator for automobiles including in combination a plurality of conduits, each being composed of similarly shaped plates bent so as to form therebetween a continuous passage having vertical portions and inclined portions connecting said vertical portions, the side edges of said plates being bent so as to have contact throughout the entire length of the conduit and so as to space the plates to form said passage, said side edges having formed there-

in alternately relatively large and small bends, the angles of which are the same and face in the same direction, said larger bend projecting beyond the vertical wall of the conduit to such an extent that when nested in the smaller bend of the adjacent conduit the walls of said adjacent conduit will be spaced to form vertical air passages.



3. A radiator for automobiles including a plurality of conduits, each being composed of similarly shaped plates bent so as to form therebetween a continuous passage, the side edges of said plates being bent so as to have contact throughout the entire length of the conduit and so as to space the plates to form said passage, said side edges having therein alternately relatively large and small bends the angles of which are the same and face in the same direction, said conduits being arranged side by side with the large bends in the side edges of the plates forming one conduit nested in the small bend in the side edges of the plates forming the adjacent conduit and secured thereto throughout the entire length of said small bend.

1,205,875. CALCULATING-MACHINE, CASH-REGISTER, AND THE LIKE. JOHN CHRISTER ENBERG, Skarsatra, Sweden. Filed Aug. 26, 1914. Serial No. 858,622. (Cl. 235—8.)



1. In a key mechanism for calculating machines, cash registers and the like, the combination of a series of groups of devices, each group comprising a pair of fulcrumed arms each provided with an inner projection; a pair of members pivoted for movement transverse to that of the arms and provided with a plate having oppositely inclined slots, each slot receiving one of said projections; a pair of register actuating shafts; a register actuating wheel slidable on each shaft and adapted to be slid by engagement by one of said members; and a transmitting wheel adapted to be engaged by either one of said registering wheels.

2. In a key mechanism for calculating machines, cash registers and the like, the combination of a series of pairs of fulcrumed arms, each arm having an inner projection; a plurality of pivoted members, each member having a plate having an inclined slot engaged by one of said projections, the slots receiving the projection of each pair of arms being inclined in opposite directions; a pair of register actuating wheels associated with each pair of arms, each wheel adapted to be engaged for sliding movement by one of said devices; and a transmitting wheel adapted to be engaged each by one of the register actuating wheels associated with each pair of arms.

3. In a key mechanism for calculating machines, cash registers and the like, the combination of a series of shafts; a series of pairs of arms fulcrumed on said shafts respectively, one pair to each shaft, each arm having a projection at its inner end; a pair of disks associated with each arm and pivoted to the shaft on which the arm is fulcrumed, and adapted to have their pivotal movement transverse to that of the arm, and having bifurcated ends; a plate connecting each pair of disks and provided with an inclined slot receiving the projection of the arm with which such disks are associated, the slots receiving the projections of each pair of arms being inclined in opposite directions; register actuating shafts; register actuating wheels each slidably mounted on one of said shafts and held against rotation relative thereto and each received by one of said bifurcated ends; and transmitting wheels, one associated with each pair of wheels associated with each pair of arms and adapted to engage either of such wheels.

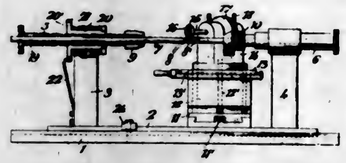
4. In a key mechanism for calculating machines, cash registers and the like, the combination of a series of parallel shafts, a series of pairs of arms fulcrumed on said shafts, one pair to each shaft, each arm having a projection at its inner end, a key on its outer end, and its middle part formed into a boss encircling the shaft and having a curved slot lying in a plane perpendicular to the shaft; a pin passing through each slot and the shaft; disks pivoted one on each end of each pin and each having a bifurcated end; a plate rigidly connecting in pairs the disks of each pin and each provided with an oblique slot receiving one of said projections, the slots of the plates receiving the projections of the arms of each pair being inclined in opposite directions; register actuating shafts; pairs of register actuating wheels, each wheel slidably mounted on one of said shafts respectively and held against rotation relative thereto and received each by the bifurcated ends of the disks associated with one of said arms; and a transmitting wheel associated with each pair of arms and adapted to be engaged by either of the register actuating wheels associated therewith.

5. In a key mechanism for calculating machines, cash registers and the like, the combination of a plurality of shafts arranged in a series; a pair of arms mounted on each of said shafts, and each provided with a key on the outer end, a slotted boss at the middle part and a projection at its inner end; pins passing respectively through each slotted boss and said shafts and holding the pins against longitudinal movement and in a pair of series, but permitting pivotal movement of the keys on the shafts; a disk pivoted on each end of each of said pins and provided with a bifurcated end; a connecting plate rigidly connecting in pairs the disks of each pin and provided with an inclined slot receiving one of said projections of said arms, the slots of the plates receiving the projections of the same pair of arms being inclined in opposite directions; register actuating shafts; register actuating wheels slidably mounted on said shafts respectively and held against rotation relative thereto and received between the bifurcations of each pair of disks; and transmitting wheels with which said register actuating wheels are adapted to engage.

[Claims 6 to 9 not printed in the Gazette.]

1,205,876. APPARATUS FOR SHARPENING THE CUTTERS OF DRAWING-PISTONS SERVING FOR MANUFACTURING THE GROOVES OF BARRELS. GOTTHARD END, ARNOLD SCHLAEPFER, and AUGUST ALTENBURGER, Neuhausen, Switzerland, assignors to The Firm: "Schweizerische Industrie-Gesellschaft," Neuhausen, Switzerland. Filed Oct. 25, 1915. Serial No. 57,839. (Cl. 51—7.)

1. In an apparatus for sharpening the cutters of drawing pistons serving for manufacturing the grooves of barrels, means for fixing the drawing piston together with its cutters, a sharpening tool, an adjustable carrier for the fixing means of the drawing piston and means independent of the cutters for moving the drawing piston and the sharpening tool in a positive manner relatively to one another in accordance with the helical line shaped course of the cutters, substantially as described and as illustrated.



2. In an appaartus for sharpening the cutters of drawing pistons serving for manufacturing the grooves of barrels, two sliding chucks for fixing the drawing piston, said chucks lying in the same axis and being adjustably mounted in the axial direction, a sharpening tool arranged between the sliding chucks, a screw-thread on one of these sliding chucks corresponding to the helical line shaped course of the cutters and a nut, in which lies said last mentioned sliding chuck, the nut being rotatably and adjustably mounted and capable of being brought into two positions at an angle of 180°, substantially as described and as illustrated.

3. In an apparatus for sharpening the cutters of drawing pistons serving for manufacturing the grooves of barrels, a sharpening tool, means for fixing the drawing piston together with its cutters, means for moving the drawing piston and the sharpening tool in a positive manner relatively to one another in accordance with the helical line shaped course of the cutters and stops for determining the different grinding positions of the drawing piston with regard to the sharpening tool, substantially as described and as illustrated.

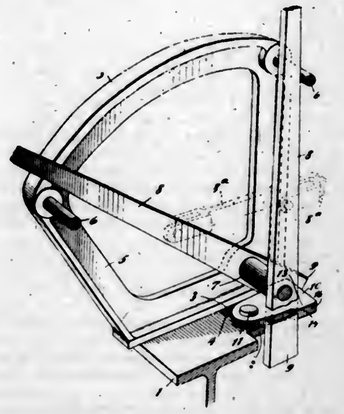
4. In an apparatus for sharpening the cutters of drawing pistons serving for manufacturing the grooves of barrels, a sharpening tool, means for fixing the drawing piston together with its cutters, means for moving the drawing piston and the sharpening tool in a positive manner relatively to one another in accordance with the helical line shaped course of the cutters, a movable carrier for the fixing means of the drawing piston, stopping levers provided on said carrier and fixed stops acting together with said levers to determine the different grinding positions of the drawing piston with regard to the sharpening tool, substantially as described and as illustrated.

5. In an apparatus for sharpening the cutters of drawing pistons serving for manufacturing the grooves of barrels, a sharpening tool, means for fixing the drawing piston together with its cutters, means for moving the drawing piston and the sharpening tool in a positive manner relatively to one another in accordance with the helical line shaped course of the cutters, a movable carrier for the fixing means of the drawing piston, reversible stop levers provided on said carrier, fixed stops working together with said stop levers to determine the different grinding positions of the drawing piston with regard to the sharpening tool and springs acting upon the carrier for the fixing means of the drawing piston to shift the drawing piston upon the reversal of a stop lever into the next grinding position, substantially as described and as illustrated.

[Claims 6 to 8 not printed in the Gazette.]

1,205,877. LOCKING MEANS FOR OPERATING-LEVERS. CYRUS EVENS, New York, N. Y., assignor to Lidgerwood Manufacturing Company, New York, N. Y., a Corporation of New York. Filed June 7, 1913. Serial No. 772,255. (Cl. 74—39.)

1. In combination, a pair of operating levers movable in vertical planes, a locking member mounted on a vertical pivot between said levers and movable in opposite directions toward and away from said levers respectively, locking shoulders on said member on opposite sides thereof to coöperate with the respective levers, and means whereby the swinging movement of either lever moves said locking member toward the other lever to cause one of said shoulders to lock said other lever against movement.



2. In combination, a pair of operating levers, each having a member extending below the fulcrum thereof, a locking device pivoted between said members to swing in a direction lengthwise of the fulcrum, a projection on each side of said locking device adapted to coöperate with the said member adjacent thereto to lock the lever carrying said member against movement, and means whereby the swinging movement of one lever moves the device laterally to cause it to lock the other lever throughout said swinging movement.

3. In combination, a pair of operating levers, each having a member projecting below the fulcrum thereof, a locking plate pivoted between said members and having lateral projections on opposite sides thereof forming shoulders to coöperate with said members to lock the levers against movement, said members on the levers and the projections on the locking plate being so arranged that the swinging movement of one lever engages the projection adjacent thereto to move the locking plate toward the other lever to place the locking shoulder for said other lever in locking engagement therewith.

4. In combination, a pair of operating levers fulcrumed on the same axis, a locking plate pivoted between said levers and movable in opposite directions in a plane parallel with said axis, said plate having lateral projections on opposite sides thereof forming shoulders to coöperate with said levers to lock the levers against movement, and an engaging face on each projection adapted to be engaged by the adjacent lever when swung on its fulcrum to hold the plate in locking engagement with the other lever throughout the swinging movement of said first-named lever.

1,205,878. TERMINAL CONNECTOR. ARTHUR H. FARGO, Poughkeepsie, N. Y. Filed Feb. 5, 1915. Serial No. 6,219. (Cl. 173—324.)



1. A terminal connector, comprising a body portion formed from a tube collapsed at one end and having its walls tapered at the opposite end, in combination with a sleeve, and yieldingly means to secure said sleeve in position on said body.

2. A terminal connector, comprising a body portion formed from a tube collapsed at one end and having its walls tapered at the opposite end and slotted to form spaced resilient fingers, in combination with a conical sleeve, and yielding means to secure said sleeve in position on said body and surrounding said fingers.

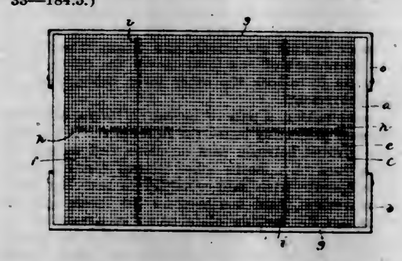
3. A terminal connector, comprising a body portion formed from a tube collapsed at one end to form a supporting base and having its walls tapered at the opposite end and slotted to form spaced resilient fingers, in combination with a conical sleeve, and yielding means to engage said body portion and secure said sleeve in position upon said body and surrounding said fingers.

4. A terminal connector, comprising a body portion formed from a tube, having its walls pressed together at one end to form an attaching portion, and at its other end slotted at intervals to form yielding gripping members, means to contract said members about a conductor, and yielding means integral with said last-named means and operative to secure the same in operative relation with said body portion.

5. A terminal connector, comprising a body portion formed from a tube, having its walls pressed together at one end to form at attaching portion, and at its other end slotted at intervals to form yielding gripping members, said members being similarly tapered, and a conical sleeve operative to be forced over and contract said members about a conductor, and yielding means integral with said sleeve operative to engage said body portion to secure the same against relative movement.

[Claims 6 to 8 not printed in the Gazette.]

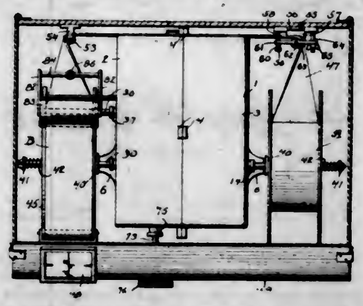
1,205,879. TYMPAN-SHEET. JOHN D. FELTEN, Marengo, Ill. Filed June 7, 1915. Serial No. 32,622. (Cl. 33—184.5.)



A tympan sheet provided with horizontal and transverse division lines arranged at right angles to each other and in spaced relation to form units of measurement on the point system, and longitudinal and transverse gage lines arranged at right angles to each other and parallel with the longitudinal and transverse edges of the sheet, said longitudinal gage line extending centrally of the sheet, and said transverse gage lines being arranged between the transverse center of the sheet and the opposite transverse edges thereof, each of said gage lines having gage scale indications consisting of two sets of numerals of like character designating similar units of measurement and beginning with the numerals of least value at the center of each line and thence extending progressively in increasing values toward the ends of the line, said longitudinal and transverse gage lines having similar numerals registering therewith at their points of intersection.

1,205,880. EXHIBITOR. CLARENCE W. FLEMING, Sparland, Ill. Filed May 17, 1915. Serial No. 28,672. (Cl. 40—42.)

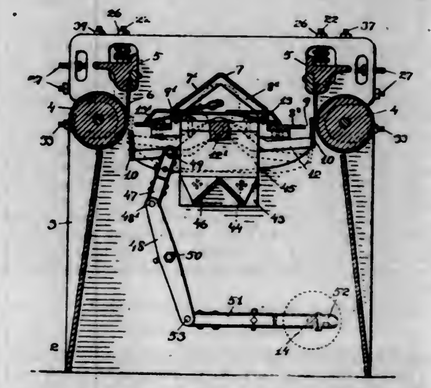
1. In a road map exhibitor, a shaft, a gear train for controlling the direction of rotation of the shaft, a clutch cone secured to the shaft near each end, thumb nuts adapted to be threaded on opposite ends of the shaft, reels loosely mounted on the shaft intermediate the clutch cones and the thumb nuts and compression coil springs interposed between the thumb nuts and the outer ends of the reels to yieldably hold the reels against the clutch cone.



2. In a road map exhibitor, a shaft, a gear train controlling the direction of rotation of the shaft, clutch cones secured to the shaft near opposite ends, the active faces of said cones being disposed outwardly, reels loosely mounted on the shaft intermediate the clutch cones and the ends of said shaft, the inner faces of the reels being provided with tapered recesses forming clutch faces to receive the clutch cones, thumb nuts threaded on the ends of the shaft, springs interposed between the thumb nuts and the reels to hold said reels against the clutch cones, the position of the thumb nuts gaging the pressure with which the springs bear against the reels and thereby gaging the pressure of the reels against the clutch cones, and guide rollers for guiding the material wound onto and off from the reels.

3. In a road map exhibitor, a shaft, reels loosely mounted on the opposite ends of the shaft, a drive shaft, a friction roll on one end of the drive shaft and positioned in alinement with one of the reels, a coöperating friction roll mounted above the first mentioned friction roll, means to cause the peripheries of the friction rolls to be pressed together and clutch means on the shafts for controlling the rotation of the reels.

1,205,881. DOUBLE-ROLLER COTTON-GIN. LELAND L. FOSS, Vidalia, Ga., assignor of one-half to Moses Leader, Vidalia, Ga. Filed Apr. 15, 1916. Serial No. 91,329. (Cl. 13—7.)



1. In a cotton gin, the combination with a ginning roller, of a breast, a ginning blade carried by said breast and adapted to contact tangentially with said roller, and means for adjusting said breast bodily and arcuately to adjust the blade with relation to the roller, from its tangential contacting line with said roller as a center.

2. In a cotton gin, end frames having vertical and horizontal slotted flanges, a ginning roller, a breast provided with overlying end extensions and vertical extensions engaging the slots of said horizontal flanges, nuts upon said vertical bolt extensions engaging said horizontal flanges, a ginning blade carried by said breast and adapted to contact tanentially with said roller, upper and lower horizontal bolts having at their inner ends pivotal engagement with said end extensions and at their outer ends engagement with the slots of said vertical flanges and nuts bearing against the flanges, and coiled springs surrounding said vertical bolts and bearing at their upper ends against said horizontal flanges and at their lower ends against said breast.

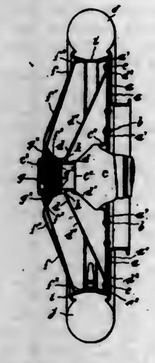
3. In a double roller cotton gin, breasts carrying ginning blades, vibratory hackers provided with blades cooperating with the ginning blades, oppositely inclined shed boards provided throughout the length thereof with transverse slots extending from top to bottom of the said boards, horizontal slotted griddles, reciprocatory feeders upon said griddles having each a horizontal body and at its outer end an inclined end face corresponding in inclination approximately to that of the shed boards, the body and face of said feeder being provided throughout their lengths with transverse slots.

4. In a cotton gin, the combination with a roller, a ginning blade coöperating therewith, a hacker blade cooperating with said ginning blade, a driving shaft, and means for operating said hacker blade past the working edge of the ginning blade and reversely to normal position a plurality of times upon each revolution of the driving shaft.

5. In a cotton gin, the combination with a roller, a ginning blade coöperating therewith, a hacker blade coöperating with said ginning blade, a driving shaft, and means for operating said hacker blade past the working edge of the ginning blade and reversely to normal position a plurality of times for each revolution of the driving shaft, including toggle levers bowed in one direction for the movement of said hacker blades past the ginning blades and back to normal position, and bowed in the opposite direction for a repetition of this movement.

[Claim 6 not printed in the Gazette.]

1,205,882. VEHICLE-WHEEL. EUGÈNE GADOUX, Asnieres, France. Filed Sept. 10, 1913. Serial No. 789,197. (Cl. 21—69.)



1. A dished vehicle wheel comprising, in combination, a hub, a rim, inner and outer cheeks of stamped metal to connect the hub and the rim, the inner cheek being flat and normal to the axis of the hub and the outer cheek being dished, the cheeks having peripheral means to engage the rim at opposite sides thereof and thereby retain the rim in position, a dished counter-cheek secured at its circumference to the inner cheek and having a cylindrical flange at its center adapted to take over the hub, the inner cheek being carried by the hub, and means engaging the hub and the central portion of the outer cheek for securing the outer cheek in operative position.

2. A dished vehicle wheel comprising, in combination, a hub, a rim, inner and outer cheeks to connect the hub and the rim, said cheeks having peripheral means to engage the rim at opposite sides thereof and thereby retain the rim in position and the outer cheek being of outwardly directed frusto-conical form and having a central opening and a reëntrant conical flange adjacent said opening, and a nut engaging with the outer end of the hub and having a conical face to conformably engage said reentrant conical flange.

3. A dished vehicle wheel comprising, in combination, a hub, a rim, inner and outer cheeks to connect the hub and the rim, said cheeks having peripheral means to engage the rim at opposite sides thereof and thereby retain the rim in position and the outer cheek being of outwardly directed frusto-conical form and having a central opening and a reëntrant conical flange adjacent said opening, and a nut engaging with the outer end of the hub and having a conical face to conformably engage said reëntrant conical flange, the engaging faces of said nut and said flange having intermatching grooves and projections.

4. A dished vehicle wheel comprising, in combination, a hub, a rim, having oppositely directed conical surfaces at its sides, inner and outer cheeks to connect the hub and the rim, conical flanges at the peripheries of said cheeks to conformably engage the conical surfaces of said rim, the outer cheek being of outwardly directed frusto-conical form and having a central opening, and a reëntrant conical flange adjacent said opening, and a nut engaging with the outer end of the hub and having a conical face to conformably engage said reëntrant conical flange.

1,205,883. FITTING-UP BOLT. DONALD GAY, Newport News, Va. Filed Apr. 25, 1916. Serial No. 93,409. (Cl. 85—1.)

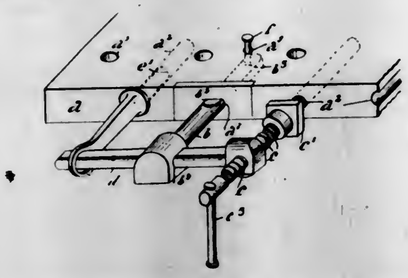


1. In a fitting-up bolt for temporarily holding structural steel plates, shapes and the like in position preparatory to reaming and riveting, the combination of a headless bolt body having a screw threaded portion and a plain unthreaded portion of substantially the same diameter, said body being adapted to be initially inserted with said plain unthreaded portion forward through perforations of substantially the same size as said bolt in the plates or shapes to be temporarily held, the sides of aid plain portion near the outer end thereof being transversely recessed to form a neck, a nut mounted on said threaded portion, and a rigid locking member formed in one piece and adapted to be mounted on said neck and disposed at a right angle thereto, said locking member being adapted to contact with said plates or shapes interposed between it and said nut, and having an aperture therethrough of greater diameter than said bolt body, said aperture terminating in a laterally extending slot having its faces straight in the direction of its length, the width of said slot being substantially the same as the thickness of said neck, said locking member in assembling being adapted to be first moved in a direction parallel to the axis of said bolt and then in a direction at a right

angle to the axis of said bolt until said slot and neck interlock, whereby said bolt body and locking member are interlocked without the assistance of extraneous means.

2. In a fitting-up bolt for temporarily holding structural steel plates, shapes and the like in position preparatory to reaming and riveting, the combination of a headless bolt body having a screw threaded portion and a plain unthreaded portion of substantially the same diameter, said body being adapted to be initially inserted with said plain unthreaded portion forward through perforations of substantially the same size as said bolt in the plates or shapes to be temporarily held, the sides of said plain portion near the outer end thereof being transversely recessed to form a neck, a nut mounted on said threaded portion, and a rigid locking member formed in one piece and adapted to be mounted on said neck and disposed at a right angle thereto, and to contact with said plates or shapes interposed between it and said nut, said locking member having an aperture therethrough of greater diameter than said bolt body, said aperture terminating in a laterally extending slot having its faces straight in the direction of its length, the width of said slot being substantially the same as the thickness of said neck, and said locking member having its outer wall inclined from said slot portion toward its opposite end to facilitate its disconnection from said bolt.

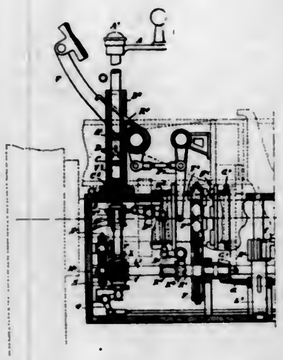
1,205,884. JOINER'S BENCH. CHRISTIAN GÖRLITZ, Altona-Ottensen, Germany. Filed Oct. 27, 1914. Serial No. 868,866. (Cl. 144—286.)



A joiner's bench for use upon tables or the like comprising in combination a wooden board with a plurality of horizontal and vertical holes and having at its ends plates having not wholly round openings with plane sides respectively and a hole crossing one of the first mentioned openings, a bolt having at its lower end planes fitting into one of said openings and a not wholly round hole arranged parallel to said latter planes, a spindle with cramping foot and handle and a bolt having planes fitting the planes of one of the first mentioned openings, a pin adapted to engage with one of the holes first mentioned and that in the bolt, a bolt adapted to serve for an abutment for the free end of the first mentioned bolt and having a foot fitting into any horizontal hole.

1,205,885. STARTING DEVICE. ERNEST GRÉBY, Issy, France. Filed July 6, 1914. Serial No. 849,205. (Cl. 123—187.)

1. A starting device for internal combustion engines including a resilient element for accumulating energy, means for placing and holding the element under strain including a clutch and worm gears, means for releasing said element, means for transmitting the expending energy of the element when released to the engine shaft, and means in said transmitting means for regulating the expenditure of energy whereby the turning effort on the engine shaft is kept constant throughout the releasing period of the resilient element.



2. A starting device for internal combustion engines including a resilient element, means for placing the element under strain, holding means for retaining the element under strain, said latter means including a clutch and worm gears, key operated means for releasing the holding means, means for imparting the accumulated energy of the resilient element when released to the engine shaft for rotating the same, and means for increasing the application of power to the engine shaft as the energy of the resilient element is expended, said means including a rotative member and a system of oscillating levers coöperating with said member.

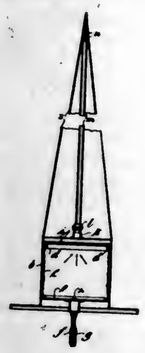
3. A starting device for motor vehicles including a resilient element, manually operated means for placing and holding the element under strain, means for releasing the resilient member, a pulley, a flexible element connecting the resilient member with the pulley whereby said pulley is rotated when the resilient member is released, a driving gear, means on the pulley for engaging the driving gear for rotating the same, said means being adapted to act upon the gear with various degrees of effort so as to maintain the rotating speed of the driving gear constant throughout the releasing period of the resilient member, and means connecting the driving gear with the motor shaft for rotating the same.

4. A starting device for motor vehicles including a resilient element, means for placing and holding said element under strain, means for releasing said holding means, a pulley, a flexible band connecting the resilient member with the periphery of the pulley, a lever mounted for rotation with the pulley, a driving gear, a radial projection on the driving gear, a link pivoted at one end to an extremity of the lever, a roller on the forward end of the link adapted to engage the projection, and means for connecting the driving gear with the motor shaft.

5. A starting device for motor vehicles including a resilient member, means for placing and holding the member under strain, means for releasing the holding means, a shaft, a pulley mounted on the shaft, a flexible band connecting the resilient member with the periphery of the pulley, a lever fixed to the pulley shaft, a spur gear eccentrically mounted in relation to the pulley shaft, a radial projection on the driving gear, a yoke adapted to reciprocate diametrically across the face of the driving gear, said yoke being pivoted at one end to the free end of the lever, a pulley mounted on the other end of the yoke for engagement with the radial projection, and means for connecting the driving gear with the motor shaft.

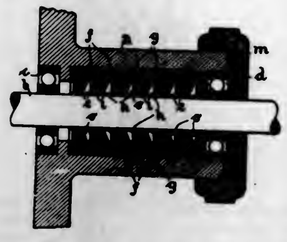
[Claims 6 to 12 not printed in the Gazette.]

1,205,886. DEVICE FOR MAKING HOLLOW SUGAR ARTICLES. MARTIN GRÜNWALD, Temesvár, Austria-Hungary. Filed Apr. 30, 1914. Serial No. 835,470. (Cl. 107—8.)



In a device of the form of a hollow cone for turning out hollow sugar goods a cylindrical extension at the base of the cone, a blower therein, said blower being in communication with a tube in the cone and having its outlet in the apex of the cone, substantially as described.

1,205,887. STUFFING-BOX. MAX GÜTTNER, Schmölln, Germany. Filed Dec. 1, 1915. Serial No. 64,569. (Cl. 137—115.)

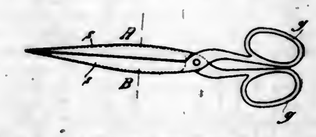


1. In a stuffing box, in combination, an outer shell, rigid metallic rings located within said shell and preventing substantially flat surfaces to the base end of said shell and a substantially funnel-shaped surface to the outer end of said shell, and a pair of elastic packing rings between each two metallic rings, one elastic ring being closely applied to the funnel-shaped surface of the metal ring, while the other elastic ring is applied to the flat surface of the metal ring next following, a cylindrical flange provided at the inner edge of the first named elastic ring extending into the opening of said metal ring and a cylindrical flange at the inner edge of the other elastic ring.

2. In a stuffing box, in combination, an outer shell, rigid metallic rings located within said said shell and presenting substantially flat surfaces to the base end of said shell and a substantially funnel-shaped surface to the outer end of said shell, and a pair of elastic packing rings between each two metallic rings, one elastic ring being closely applied to the funnel-shaped surface of the metal ring, while the other elastic ring is applied to the flat surface of the metal ring next following, a cylindrical flange provided at the inner edge of the first named elastic ring extending into the opening of said metal ring and a cylindrical flange at the inner edge of the other elastic ring, the free edge of said flange being beveled.

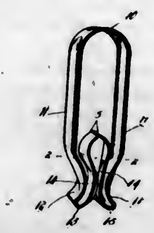
3. In a stuffing box, in combination, an outer shell, rigid metallic rings within said shell, ring shaped interstices of substantially triangular section between said rings and a pair of internally flanged elastic packing rings confined between each two succeeding metallic rings, said elastic rings being closely applied to the surfaces of said metallic rings so as to leave interstices between each other.

1,205,888. TOOL FOR TAKING SAMPLES. HERMANN HAAS, Dusseldorf, Germany. Filed June 6, 1914. Serial No. 843,462. (Cl. 83—15.)



A tool for taking samples comprising two members pivoted together at a point intermediate their ends, said members being formed as handles on one side of the pivot, and being formed at the other side of the pivot of narrow tapered half-shell sections, the line of width of each is parallel with the pivotal line of the members, each half-shell section extending from adjacent the pivot and terminating in a point, the half-shell sections when brought together having their edges flush with one another and forming a completely closed pointed, tapered cone.

1,205,889. CLOTHES-PIN. JULIUS HALVORSON, Rexburg, Idaho. Filed Sept. 8, 1915. Serial No. 49,491. (Cl. 24—259.)



A clothes pin formed of a single strip of metal which is concavo-convex in cross section, said strip being bent in its middle portion to provide a pair of parallel resilient leg portions, the outer end portions of the legs being doubled on themselves and inclined downwardly and outwardly, and the terminals directed upwardly and inwardly between the legs with the convex faces abutting each other, the doubled portions being bowed outwardly away from each other to provide a recess for the reception and resilient detention of the clothes line.

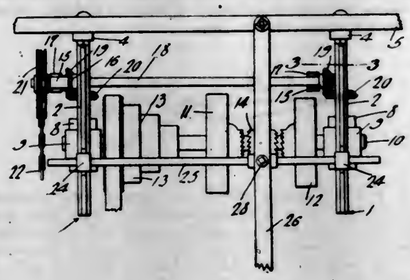
1,205,890. ADJUSTABLE SHAFT-HANGER. MICHAEL HANNA, Jr., Earlington, Ky. Filed May 3, 1916. Serial No. 95,182. (Cl. 64—14).

1. A hanger embodying a pair of screws, nuts threaded thereon and having bearings, a shaft journaled in said bearings, and means for operating said screws simultaneously.

2. A hanger embodying a pair of sections, a vertical screw carried by each section, a nut threaded upon each screw and having a bearing, a shaft journaled in the bearings, and means connected with said screws for rotating them simultaneously.

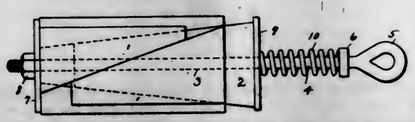
3. A hanger embodying a pair of sections, screws journaled to said sections parallel with one another, a nut threaded upon each screw and having a bearing at one side thereof arranged at right angles therewith, a shaft at one side of the screws journaled in said bearings, and means connected with said screws for rotating them simultaneously.

4. A hanger embodying a pair of sections having vertically spaced cross pieces, vertical screws journaled in said cross pieces, sleeve nuts threaded upon the screws between the cross pieces and provided at certain sides with horizontal bearings, a shaft journaled in said bearings, and means for rotating said screws simultaneously.



5. A hanger comprising a pair of hanger sections, each hanger section embodying vertical members having vertically spaced cross pieces, vertical screws journaled in said cross pieces, sleeve nuts threaded upon the screws between the cross pieces and provided at certain sides with horizontal bearings, a shaft journaled in said bearings, brackets attached to said members of the hanger sections above the upper cross pieces and having bearings between their ends, a shaft journaled in the last mentioned bearings, intermeshing bevel gears attached to the last mentioned shaft and the upper ends of the screws respectively, and means for rotating said shaft.

1,205,891. PLUG FOR BOILER-TUBES. PERCY HARRISON, Baltimore, Md., assignor to Harrison Specialty Company, a Corporation of Maryland. Filed May 24, 1916. Serial No. 99,497. (Cl. 137—76.)



1. A plug comprising a plurality of tapered sections, a tapering core fitted within said sections, and a rod extending through said core.

2. A plug comprising a plurality of tapered sections, a tapering core fitted within said sections, a rod extending through said core, and a spring exerting its tension against one end of said core.

3. A plug for boiler tubes comprising a plurality of tapered sections, a tapering core fitted within said sections, a rod extending through said core and having a collar near one end thereof, and a spring between said collar and the end of said core.

4. A plug for boiler tubes comprising a plurality of tapered sections, a tapered core fitted within said sections, a rod extending through said core and having an eye on one end and a collar adjacent said eye, a washer mounted on said rod and impinging against one end of said core, a spring between said washer and said collar, and a washer at the opposite end of said plug.

1,205,892. CONTAINER FOR LOOSE SHEETS. ISIDOR HECHT, Budapest, Austria-Hungary. Filed Mar. 28, 1913. Serial No. 757,430. (Cl. 206—57.)

1. A cardboard container for loose sheets having a lid attached thereto, an adhesive member fixed to the inner side of said lid, and an abutment, normally preventing contact of the adhesive member with the uppermost sheet.

2. A container for loose sheets, having a lid, an adhesive composition of glue and glycerin attached to the inner side of said lid, and an abutment, normally preventing contact of said adhesive composition with the uppermost sheet.



3. A cardboard container for loose sheets, having a lid attached thereto and having a portion normally held out of contact with the sheets, and an adhesive member fixed to said portion.

4. A card board container for loose sheets, having a lid attached thereto; an adhesive means fixed to the inner face of said lid; and means normally preventing contact of the uppermost sheet with the adhesive means.

1,205,893. APPARATUS FOR DEVELOPING PHOTOGRAPHIC PLATES BY DAYLIGHT. THEODOR HEINEN, Solingen, Germany. Filed June 9, 1915. Serial No. 33,152. (Cl. 95—90.)



Apparatus for developing photographic plates by daylight, comprising in combination, a casing having an open top end and cut-away portions in its two opposite sides, a red glass in each cut-away portion, a glass receptacle in said casing for the reception of the developing liquid having also an open top end, a closable outlet at the bottom end of said glass receptacle, a hood movably located over the open top end of said casing and having also cut-away portions in its two opposite sides corresponding with those in said casing upon the hood being entirely lowered over the latter, a slide to close one cut-away portion in said hood, a frame movably suspended in said hood for the reception of the plate to be developed and adapted to be located either directly above the open end of said receptacle or upon the other cut-away portion in said hood, and a supply-pipe at the top end of said hood, substantially as and for the purpose set forth.

1,205,894. TOILET-IMPLEMENT. FREDERICK O. HILFIKER, Syracuse, N. Y., assignor to F. O. Hilfiker Co., Syracuse, N. Y., a Corporation of New York. Original application filed Apr. 7, 1911, Serial No. 619,518. Divided and this application filed Dec. 9, 1912. Serial No. 735,634. (Cl. 15—48.)

1. The combination with a head having a central opening therein extending entirely through the head, of a removable cup-shaped flesh brush composed of flexible material arranged within the opening and comprising an inwardly compressible rim portion frictionally engaging the walls of the head, and a relatively transversely extending flexible bristle carrying body portion offset outwardly from the rim portion.

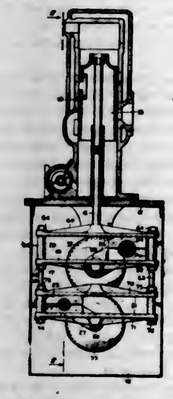


2. The combination with a head having a central tapered opening, of a removable cup-shaped flesh brush composed of flexible material, arranged within the smaller end of the opening and having its inwardly compressible rim portion frictionally engaging the inclined walls of the latter, the body of the brush being also sufficiently flexible to permit of distortion adapting it to be thrust through the opening from the larger side thereof.

3. The combination with a head having a central opening therein, provided with a shoulder on its walls, of a removable cup-shaped flesh brush composed of flexible material arranged within the opening and having its inwardly compressible rim portion frictionally engaging the walls of the latter beyond the shoulder.

4. The combination with a head having a central opening therein, of a removable cup-shaped flesh brush composed of flexible material arranged within the opening and having its inwardly compressible rim portion frictionally engaging the walls of the latter, and coöperating retaining shoulders on said rim and the walls of the opening.

1,205,895. ENGINE CRANK-MOVEMENT. GABRIEL P. B. HOYT, New York, N. Y. Filed Dec. 17, 1915. Serial No. 67,369. (Cl. 74—14.)



1. A crank movement, comprising parallel shafts provided with cranks, gear wheels connecting the said shafts with each other to run the shafts in opposite directions, and a yoke having parallel guideways extending in a plane at right angles to a plane passing through the axes of the said shafts, the said crank arms engaging the said guideways.

2. A crank movement, comprising parallel shafts provided with cranks, gear wheels connecting the said shafts with each other to run the shafts in opposite directions, a yoke having parallel guideways extending in a plane at right angles to a plane passing through the axes of the said shafts, and bearings slidable in the said guideways and engaged by the crank pins of the said cranks, the latter being arranged one relative to the other to slide the bearings alternately in opposite directions.

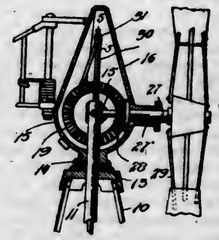
3. A crank movement for an engine, comprising a pair of crank shafts having their axes in a plane containing the axis of the engine cylinder, gear wheels connecting the said shafts with each other to run the shafts in unison and in opposite directions, and a yoke adapted to be attached to an engine piston and provided with two parallel guideways engaged by the cranks of the said crank shafts.

4. A crank movement for an engine, comprising a rod having a reciprocating movement in the direction of its axis, a yoke provided with two parallel guideways, each guideway having parallel guide plates, rods on which the ends of the guide plates of both guideways are adjustably secured, the said rod being attached to one of the outer guide plates, bearings slidable in the said guideways, and two parallel crank shafts having their cranks engaging the said bearings, the cranks being arranged to slide the bearings in opposite directions, gear wheels connecting the shafts with each other, and fly wheels on opposite ends of the said shafts.

5. A crank movement for a multicylinder engine, comprising a power crank shaft having cranks, one for each cylinder, the cranks standing at an angle one to the other, a balancing crank shaft parallel to the said power crank shaft and having cranks complementary to the cranks on the power crank shaft, gear wheels connecting the said shafts with each other, and yokes adapted to be attached to the piston rods of the engine, each yoke having two parallel guideways and slidable bearings in the said guideways, and of which one is engaged by a crank shaft on the power crank shaft and the other bearing is engaged by the complementary crank of the balance crank shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,205,896. GEARING FOR WINDMILLS. OLIVER P. HURST, Mutual, Okla. Filed Oct. 26, 1914. Serial No. 868,758. (Cl. 74—14.)



In a windmill, the combination of a casing, opposed beveled gears rotatably mounted in said casing, a windwheel shaft rotatably mounted in the casing, a pinion on said shaft meshing with said gears, a reciprocating pump rod having its upper end disposed in said casing, a cross head secured to the upper end of the pump rod, stud shafts rotatably supported by the casing, blocks having wrist pins, the sides of said blocks being adjustably connected with the stub shafts and bevel gears, and connecting rods between respective wrist pins and the cross head.

1,205,897. METALLIC RAILWAY-TIE AND RAIL-FASTENING. JACOB A. HYLE and JACOB W. HERMAN, Harrisburg, Pa., assignors to The Railway Tie Corporation, Chicago, Ill., a Corporation of Delaware. Filed July 20, 1916. Serial No. 110,288. (Cl. 238—5.)



1. A railway tie comprising a flat metallic base portion, a central integral upright portion extending throughout the length of the tie, two wooden blocks resting upon the base portion at each side of the said central portion, each block having smooth straight vertical faces and pro-

jecting above the central portion, a plurality of vertically arranged clamping plates extending throughout the height of each block, each clamping plate having a plurality of inwardly projecting spurs adapted to enter the wooden blocks, and bolts and securing nuts for fastening the wooden blocks to the metallic portions.

2. A railway tie comprising a central upright metallic portion extending throughout the length of the tie, an integral laterally extended base portion extending the entire length of the tie on each side of said central portion, two wooden blocks resting upon the base portion at each side of the central portion, each block having smooth straight vertical faces and projecting above the central portion, two clamping plates secured vertically against the outer side face of each block extending throughout the height of the block, each clamping plate having a plurality of inwardly projecting spurs adapted to enter the wooden blocks, a right angle brace bar secured to each side of the central portion, a single rivet passing through the central portion and each brace bar for securing the bars to the central portion, and bolts and securing nuts for locking the parts together.

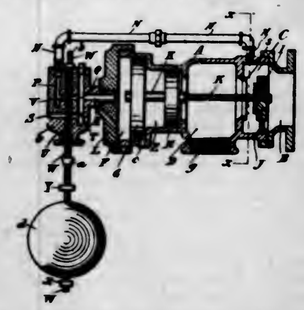
3. A railway tie comprising a flat metallic base portion, a central integral upright metallic portion extending the entire length of the tie, two wooden blocks resting upon the base portion at each side of said central portion, each block having smooth straight vertical faces and projecting above the central portion, two clamping plates secured against the outer side face of each block, each clamping plate having a plurality of inwardly projecting spurs adapted to enter the wooden block, said plates extending throughout the entire height of the block, a right angle brace bar secured by a single rivet to each side of the central portion intermediate the height of said central portion, two bolts passing through said clamping plates, blocks and central portion, and a securing nut fitted to the threaded end of each bolt for securely locking the said clamps, blocks and bolts to the metallic portions.

4. A railway tie comprising a central upright metallic portion extending throughout the length of the tie, an integral laterally extended base portion extending the entire length of the tie on each side of said central portion, two wooden blocks resting upon the base portion at each side of the central portion, each block having smooth straight vertical faces and projecting above the central portion, a right angle bar secured to each side of said central portion with one arm of each bar resting in contact with the central portion and the other arm against the outer end face of each block, a single rivet passing through the said central portion for securing the bars thereto, and bolts, clamping plates and securing nuts for firmly locking the said parts together.

5. A railway tie comprising a flat metallic base portion, a central upright metallic portion extending throughout the length of the tie, two wooden blocks resting upon the case portion at each side of said central portion, each block having smooth straight vertical faces and projecting above said central portion, a right angle bar secured to each side of said central portion at the outer end face of each block, one arm of said bar resting in contact with the end face of the block and the other arm in contact with said central portion, a single rivet passing through the central portion and each bar for securing said bars to the central portion, two clamping plates secured against the outer side face of each block extending the entire height of the block, each clamping plate having a plurality of inwardly projecting spurs adapted to enter the wooden block, and bolts and securing nuts for firmly locking the parts together.

1,205,898. VALVE. OWEN MARSHALL JONES, New York, N. Y. Filed May 2, 1913. Serial No. 765,178. (Cl. 137—101.)

1. In a valve, the combination of a casing or body with an inlet chamber, a valve chamber, a valve in the valve chamber opening toward the inlet chamber, a valve seat extending into the valve chamber with the surface of the face of the valve seat located transversely to the common axis of the casing and the chambers therein, a discharge chamber on the opposite side of the valve seat from the valve chamber, two piston chambers which are contiguous and located beyond and in direct line with the discharge chamber, and two pistons each of a diameter greater than the diameter of the valve operatable within their respective chambers, substantially as described.



2. In a valve, the combination of a casing or body with an inlet chamber, a valve chamber, a valve in the valve chamber opening toward the inlet chamber, a valve seat extending into the valve chamber with the surface of the face of the valve seat located transversely to the common axis of the casing and the chambers therein, a discharge chamber on the opposite side of the valve seat from the valve chamber, two piston chambers which are contiguous and located beyond and in direct line with the discharge chamber, and two pistons each of a diameter greater than the diameter of the valve operatable within their respective chambers, the several chambers and the valve and valve seat being located in the order mentioned and in a direct line on a common axis, substantially as described.

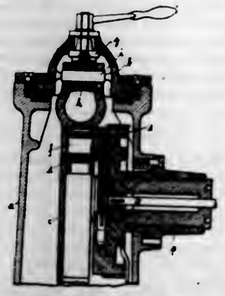
3. In a valve, the combination of a casing or body with an inlet chamber, a valve chamber, a valve in the valve chamber opening toward the inlet chamber, a valve seat extending into the valve chamber with the surface of the face of the valve seat located transversely to the common axis of the casing and the chambers therein, a discharge chamber on the opposite side of the valve seat from the valve chamber, two piston chambers which are contiguous and located beyond and in direct line with the discharge chamber, and two pistons each of a diameter greater than the diameter of the valve operatable within their respective chambers, the several chambers and the valve and valve seat being located in the order mentioned and in a direct line on a common axis, one of the pistons employed to move the valve from the valve seat and hold the valve from the valve seat and the other piston employed to move the valve to the valve seat and hold the valve against the valve seat.

4. In a valve, the combination of a casing or body with an inlet chamber, a valve chamber, a valve in the valve chamber opening toward the inlet chamber, a valve seat extending into the valve chamber with the surface of the face of the valve seat located transversely to the common axis of the casing and the chambers therein, a discharge chamber on the opposite side of the valve seat from the valve chamber, two piston chambers which are contiguous and located beyond and in direct line with the discharge chamber, two pistons each of a diameter greater than the diameter of the valve operatable within their respective chambers, and a spindle on which the said valve and the said two pistons are rigidly attached in their respective positions, substantially as described.

5. In a valve, the combination of a casing or body with an inlet chamber, a valve chamber, a valve in the valve chamber opening toward the inlet chamber, a valve seat extending into the valve chamber with the surface of the face of the valve seat located transversely to the common axis of the casing and the chambers therein, a discharge chamber on the opposite side of the valve seat from the valve chamber, two piston chambers which are contiguous and located beyond and in direct line with the discharge chamber, two pistons each of a diameter greater than the diameter of the valve operatable within their respective chambers, the several chambers and the valve and valve seat being located in the order mentioned and in a direct line on the common axis.

[Claims 6 to 13 not printed in the Gazette.]

1,205,899. SHAPING-MACHINE. KARL JUNG, Berlin, Germany, assignor to The Samsonwerk, Gesellschaft mit beschränkter Haftung, Berlin, Germany, a Corporation. Filed Dec. 30, 1914. Serial No. 879,777. (Cl. 74—14.)



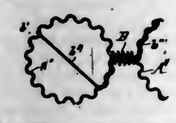
1. In a shaping machine, the combination with the frame, a slide slidable to and fro thereon, and a lever mounted to rock in the frame, of a hollow driver carried by the slide, a member rotatable in the driver, and a pin carried by said lever and passing laterally through the driver with play and through said member.

2. In a shaping machine, the combination with the frame, a slide slidable to and fro thereon, and a lever mounted to rock in the frame, of a hollow driver carried by the slide, a member screwed into the driver, and a pin carried by said lever and passing laterally through the driver with play and through said member.

3. In a shaping machine, the combination with the frame, a slide slidable to and fro thereon, and a lever mounted to rock in the frame, of a hollow driver carried by the slide, a member rotatable in the driver, means for preventing the member leaving the driver, and a pin carried by said lever and passing laterally through the driver with play and through said member.

4. In a shaping machine the combination with the frame, a slide slidable to and fro thereon and a lever mounted to rock in the frame, of means connecting the lever with the slide and containing two parts turnable against each other about an axis vertical to the sliding movement of the slide the two parts being connected to the lever and slide respectively.

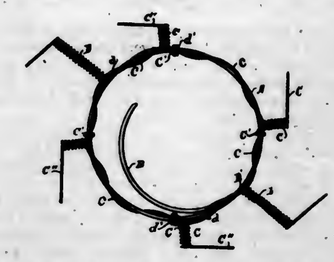
1,205,900. BED-SPRING. FRANCIS KARR, Holland, Mich. Filed Dec. 1, 1911, Serial No. 663,465. Renewed Mar. 22, 1916. Serial No. 85,988. (Cl. 5—29.)



1. In spring bed bottom construction, surface coils having a series of lateral indentures, helical springs placed between the adjacent edges of the surface coils and securely connected directly with said coils and the integral ends of said springs passed across the surfaces of the coils and securely attached to the opposite edges thereof at points of indenture, substantially as shown.

2. In spring bed bottom construction, spiral springs having large terminal coils made serpentine in form by reason of oppositely disposed indentations, helical springs connecting said surface coils by means of tangential ends of said springs wound around the wire in the surface coils at given points and engaging two or more of the indentations in the surface coils in such a manner that the wire forming the surface coils cannot revolve in the windings of the tangential ends of the helical springs and cause grating and squeaking noises.

1,205,901. SPRING BED-BOTTOM. FRANCIS KARR, Holland, Mich. Filed Nov. 12, 1914. Serial No. 871,790. (Cl. 5—29.)



1. In combination with the surface coils of a spiral spring bed bottom, helical connecting-springs radiating at right angles from four given points on the surface coils and having tangential extensions, said tangential extensions passed around the surface coils and then to and through the terminal coil of the next succeeding helical connecting-spring, and then securely connected with the surface coil and the beginning of the tangential extension of the said next succeeding helical connecting spring, and diagonal helical connecting-springs connected with the surface coils in like manner.

2. In combination with the surface coils of a spiral spring bed bottom, helical connecting-springs radiating at right angles from four given points on the surface coils and having tangential extensions, said tangential extensions passed around the surface coils and then to and through the terminal coils of the next succeeding helical connecting-spring, and then securely connected with the surface coil and the beginning of the tangential extension of the said next succeeding helical connecting-spring.

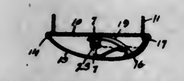
3. In combination with the surface coils of a spiral spring bed bottom, helical connecting-springs having tangential extensions locked to the said surface coils by the tangential extension of each helical connecting-spring being passed over and around the surface coil to and through the terminal coil of the next succeeding helical connecting-spring, then in the reverse direction wound tightly around the surface coil and the beginning of the tangential extension of the said next succeeding helical connecting-spring, thus locking each helical connecting-spring tightly to the surface coil of the spiral spring by means of the tangential extension of the next preceding helical connecting-spring, as shown and described.

4. In combination with the surface coils of spiral spring bed bottoms, and with the helical connecting-springs having tangential extensions, the tangential extensions of the said helical connecting-springs placed upon the surface coils, then carried over and around the same to and through the terminal coils of the next succeeding helical connecting-spring and securely connected with the surface coils and the beginning of the tangential extension of the next succeeding helical connecting-spring, each helical connecting-spring secured to the surface coil in like manner.

5. In combination with the surface coil of a spiral spring bed bottom, helical connecting-springs having tangential extensions and radiating from given points on the surface

coils, the tangential extensions of each helical connecting-spring passed over and around said surface coil to and through the terminal coil of the next succeeding helical connecting-spring, and then in a reverse direction around the surface coil and the beginning of the tangential extension of the said succeeding helical connecting-spring, thus locking each helical connecting-spring firmly and positively to the surface coil by means of the tangential extension of the next preceding helical connecting-spring.
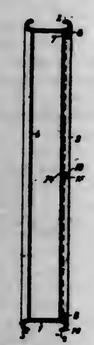
1,205,902. LACING-HOOK. ABBOTT A. KAUFFMAN, Brooklyn, N. Y. Filed Nov. 9, 1915. Serial No. 60,560. (Cl. 24—147.)



1. A lacing hook including a concavo convex guard element having a depression at one end thereof constituting a seat, a concavo convex hook element pivotally secured to said guard element and adapted to snugly fit in said seat, and a curved tongue carried by said hook element disposed under the guard element.

2. A lacing hook including a concavo convex guard element having one end depressed to provide a seat, a hook element of concavo convex formation hingedly secured to one end of said guard element and movable into said seat, the depressed portion of said guard element having a longitudinally elongated slot therein, a curved tongue carried by said hook element, and a spring retaining element for said curved tongue and hook element carried by said guard element.

1,205,903. WHEEL-RIM. ROBERT M. KEATING, Springfield, Mass. Filed Feb. 27, 1914. Serial No. 821,528. (Cl. 152—21.)



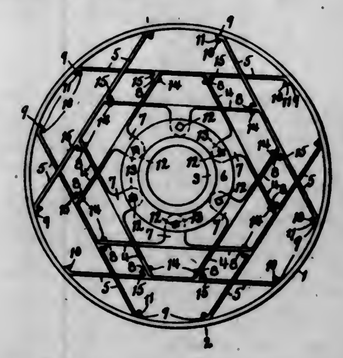
1. A wheel rim comprising a band having a tire-engaging part, and provided with inwardly-extending lugs at or adjacent to the outer edge of said band, and with an annular rib behind and separate from said lugs, a ring having a tire-engaging part, and provided with outwardly-extending lugs arranged and adapted to be laterally and circumferentially moved into engagement with said first-mentioned lugs, and to occupy the spaces between said rib and said first-mentioned lugs, and to be circumferentially and laterally moved out of such engagement, and wedge-shaped means, radial to the wheel, to secure said ring against rotation when said means is actuated inwardly, and to release the same when said means is released and permitted to move outwardly.

2. A wheel rim comprising a band having a tire engaging part, and provided with inwardly-extending lugs, a split ring having a tire-engaging part, and provided with outwardly-extending lugs arranged and adapted to be laterally and circumferentially moved into engagement with and circumferentially and laterally moved out of engagement with said first-mentioned lugs, and wedge-shaped expanding means for said ring, said expanding means being operative, when forced inwardly toward the center of the wheel, to separate the ends of said ring.

3. The combination, in a wheel rim, with a band having a tire-engaging part, and provided with inwardly-extending lugs, of a split ring having a tire-engaging part, and provided with outwardly-extending lugs, two of the latter being at the ends of said ring, and said ring lugs being arranged and adapted to be laterally and circumferentially moved into engagement with and circumferentially and laterally moved out of engagement with said band lugs, a spreader between said lugs at the ends of said ring, and actuating means for said spreader.

4. The combination, in a wheel rim, with a band having a tire-engaging part, and provided with inwardly-extending lugs, of a split ring having a tire-engaging part, and provided with outwardly-extending lugs, two of the latter being at the ends of said ring and being tapered to form a wedge-shaped opening between them, a wedge-shaped spreader capable of fitting said space, said ring lugs with said spreader being arranged and adapted to be laterally and circumferentially moved into engagement with and circumferentially and laterally moved out of engagement with said band lugs, and means to actuate said spreader to expand said ring.

1,205,904. SPRING-WHEEL. ROBERT M. KEATING, Springfield, Mass. Filed Apr. 16, 1914. Serial No. 832,202. (Cl. 152—28.)



1. A spring wheel comprising a hub provided with peripheral projecting members, a rim, and an intermediate spring unit consisting of a plurality of substantially straight one-piece inner springs forming the sides of an incomplete equilateral triangle and having interior central projecting members, a plurality of substantially straight one-piece outer springs forming the sides of an incomplete equilateral triangle, means rigidly to connect said inner-spring projecting members with said peripheral hub members, means rigidly to connect the ends of said inner springs with said outer springs at points intermediate of the ends thereof, and means rigidly to connect the ends of said outer springs with said rim, all of said springs being in the same plane.

2. A spring wheel comprising a hub, a rim, and an intermediate spring unit consisting of a plurality of substantially straight one-piece inner springs forming the sides of an incomplete equilateral triangle, a plurality of substantially straight one-piece outer springs forming the sides of an incomplete equilateral triangle and having interior-projecting members and end rim-engaging members, means rigidly to connect said inner springs with said hub, means rigidly to connect said inner springs at their ends with said outer-spring projecting members, and means rigidly to connect said outer-spring rim-engaging members with said rim, all of said springs being in the same plane.

3. A spring wheel comprising a hub provided with peripheral projecting members, a rim, and an intermediate spring unit consisting of a plurality of substantially straight end-piece inner springs forming the sides of an incomplete equilateral triangle and having interior central projecting members, a plurality of substantially straight one-piece outer springs forming the sides of an incomplete equilateral triangle and having interior projecting members and end rim-engaging members, means rigidly to connect said inner-spring projecting members with said peripheral hub members, means rigidly to connect said inner springs at the ends with said outer-spring projecting members, and means rigidly to connect said outer-spring rim-engaging members with said rim, all of said springs being in the same plane.

4. A spring wheel comprising a hub provided with peripheral projecting members, a rim, and a plurality of intermediate spring units consisting of intersecting inner springs, forming the sides of incomplete equilateral triangles and having interior central projecting members, intersecting outer springs forming the sides of incomplete equilateral triangles, means rigidly to connect said inner-spring projecting members with said peripheral hub members, means rigidly to connect said inner springs at the ends with said outer springs, and means rigidly to connect said outer springs at their ends with said rim.

5. A spring wheel comprising a hub, a rim, and a plurality of intermediate spring units consisting of intersecting outer springs forming the sides of incomplete equilateral triangles and rigidly connected with said rim, said springs having inwardly-projecting divergent lugs, intersecting inner springs forming the sides of incomplete equilateral triangles and rigidly connected with said hub, and means rigidly to connect the ends of said inner springs with said lugs.

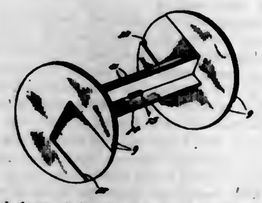
[Claim 6 not printed in the Gazette.]

1,205,905. CLOTH-STRETCHING ROLLER. EINAR G. KNIERIEM, Westchester, N. Y. Filed Oct. 11, 1915. Serial No. 55,316. (Cl. 26—8.)



A cloth-stretching roller comprising a shfat, heads on the shaft, guide-pins on the heads, two sets of slats forming the periphery of the roller, bearing blocks attached to the slats and slidable and the guide pins and heads for sliding the slats longitudinally of the roller, grooved cams at each end of the roller, one for each set of slats, rollers in the grooves, and pins on the bearing-blocks, and engaging the rollers, whereby the slats may be slid off the roller upon removal of the screws.

1,205,906. REEL. CHARLES P. KUEHN, Chicago, Ill., assignor of one-half to Claude C. Chadwick, Chicago, Ill. Filed July 22, 1915. Serial No. 41,300. (Cl. 242—119.)



1. A reel formed in two parts formed from blanks of sheet material, each of said parts consisting of a stem and a head at each end thereof, said heads being notched to receive the stem on the other part, and the heads on one of said stems being positioned to fit snugly outside the heads on the other, substantially as described.

2. A reel formed in two parts formed from blanks of sheet material, each of said parts consisting of a stem and a head at each end thereof, said stem being formed in part from said heads producing notches in said heads adapted to pass over the stem of the other part, and said heads being bent at right angles to said stem, the heads on one of said stems being positioned to fit snugly outside the heads on the other, substantially as described.

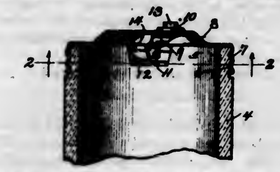
3. A reel formed in two parts formed from blanks of sheet material, each of said parts consisting of a rectangular stem and a circular head at each end thereof, said stem being formed in part from said heads producing notches in said heads adapted to pass over the stem of the other part, and said heads being bent at right angles to said stem, the heads on one of said stems being positioned to fit snugly outside the heads on the other, substantially as described.

4. A reel formed in two parts formed from blanks of sheet material, each of said parts consisting of a stem and a head at each end thereof, said stem being formed in part from said heads producing notches in said heads adapted to pass over the stem of the other part, and said heads being bent at right angles to said stem, there being registering slots through said stems; and a locking key passed through said slots, substantially as described.

5. A reel formed in two parts formed from blanks of sheet material, each of said parts consisting of a rectangular stem and a circular head at each end thereof, said stem being formed in part from said heads producing notches in said heads adapted to pass over the stem of the other part, and said heads being bent at right angles to said stem, there being registering slots through said stems; and a locking key passed through said slots, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,205,907. SCREW-CAP LOCK. HERMAN P. LESMANN, Chicago, Ill., assignor to Antiseptol Liquid Soap Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 2, 1914. Serial No. 810,089. (Cl. 215—33.)



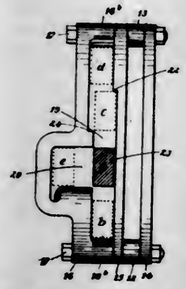
1. A receptacle provided with an exterior screw thread about its open end and a notch in the peripheral edge of the opening, an internally threaded cap to fit said exterior screw thread and close the open end, a pivoted locking lever mounted on said cap arranged to have its free end swing into and out of the notch, and means for swinging said locking lever on its pivot.

2. A receptacle provided with an exterior screw thread about its open end and a notch in the peripheral edge of the opening, an internally threaded cap to fit said exterior screw thread and close the open end, a rotatable pin mounted in and extending through said cap, a locking lever rigidly mounted on said pin on the inner side of the cap arranged to have its free end swing into and out of the notch, and means for turning said pin to swing the free end of the locking lever in or out of the notch as desired.

1,205,908. CONTROLLING MECHANISM FOR MOTOR-VEHICLES. ALLEN LOOMIS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 3, 1910. Serial No. 575,356. (Cl. 74—39.)

1. In controlling mechanism for motor vehicles, the combination with a guide, of a controlling lever mounted for movement along and transversely of said guide, a

latch sliding on and embracing said lever, a rod in said lever having a transverse pin thereon, and an adjustable screw on said latch provided with a socket engaging said pin.



2. A controlling lever having a body of channel cross section, a tubular handle thereon arranged at an angle to said body, and a release rod mounted in the channel of the lever, extending through the handle, and bent to conform to the lever body and handle, said parts being constructed to permit endwise removal of said rod from said lever.

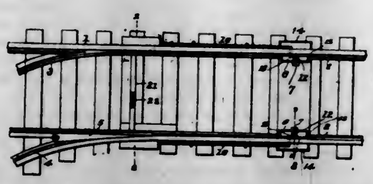
3. A controlling lever having a body of channel cross section, a tubular handle thereon arranged at an angle to said body, a release rod mounted in the channel of the lever, extending through the handle and bent to conform to the lever body and handle, a button on the handle end of said rod, and a spring on said rod, said parts being constructed to permit endwise removal of said rod from said lever.

4. In controlling mechanism for motor vehicles, a guide including a stamped metal side member having a transverse recess formed therein, the metal at the recess being bent at right angles to said guide, and longitudinal openings at the opposite sides of said bent portion.

5. In controlling mechanism for motor vehicles, a guide including a stamped metal side member having a transverse recess formed therein, the metal at the recess being bent down to form a shoulder, and longitudinal openings at the opposite sides of said shoulder.

[Claims 6 to 14 not printed in the Gazette.]

1,205,909. SWITCH-OPERATING MECHANISM. HUBERT W. MCCLUNG and JOSEPH C. EARHEART, Richmond, Va. Filed Feb. 20, 1915. Serial No. 9,636. (Cl. 104—24.)



1. In switch operating mechanism, the combination with grooved rails and a switch point of rotary trip members mounted within the grooves of the rails, rods connected with the switch point and associated with the trip members to be moved when the trip members are rotated to shift the switch point, and means to releasably lock the trip members in position.

2. In switch operating mechanism, the combination with grooved rails and a switch point of rotary trip members mounted within the grooves of the rails, rods connected with the switch point and associated with the trip members to be moved when the trip members are rotated to shift the switch point, means to releasingly lock the trip members in position, comprising projections carried by the trip members, the rails having recesses therein to receive said projections and spring means to yieldingly hold said projections in engagement with the rails.

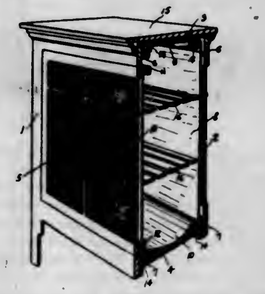
3. In switch operating mechanism, the combination with grooved rails and a switch point of rotary trip members mounted within the grooves of the rails, rods connected with the switch point and associated with the trip members to be moved when the trip members are rotated to shift the switch point, means to releasingly lock the trip members in position, comprising projections carried by the trip members, the rails having recesses therein to receive said projections, spring means to yieldingly hold said projections in engagement with the rails, and car carried means to engage and rotate said trip members.

4. In a switch operating mechanism, the combination with grooved rails and a switch point, of casings secured to the inner faces of the rails, shafts journaled in the casings and rails, rotary trip members secured to the shafts, rods connected with the switch point and associated with the trip members to be moved when the trip members are rotated to shift the switch point, and means to releasingly lock the trip members in position.

5. In switch operating mechanism, the combination with grooved rails having recesses therein, and a switch point of casings secured to the faces of the rails, shafts journaled in the casings and rails, rotary trip members secured to the shafts, projections formed on the trip members and received within the recesses of the rails, means for normally holding the projections within the recesses, and rods connected with the switch point and associated with the trip members to be moved when the trip members are rotated to shift the switch point.

[Claims 6 to 10 not printed in the Gazette.]

1,205,910. AIR-COOLED STORAGE-CABINET. ROBERT MCKINNEY, Victoria, British Columbia, Canada, assignor of one-half to John W. Connell, Victoria, British Columbia, Canada. Filed June 25, 1915. Serial No. 36,258. (Cl. 45—133.)

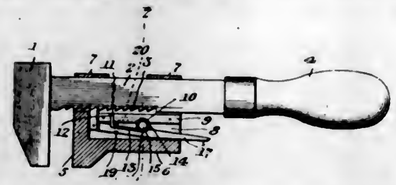


1. In an air cooled storage cabinet, a water reservoir, a curtain having its end edge extending into the water in said reservoir, and a mesh-like element covering the edge and walls of the reservoir for spacing and supporting the curtain therefrom so as to have free capillary action from end to end of said curtain.

2. An air cooled storage cabinet, comprising a framework, upper and lower reservoirs carried thereby, a plurality of porous curtains extending vertically and transversely between said reservoirs so as to inclose the interior space of the cabinet on all sides but one, a door frame hingedly connected on the open side of the cabinet, a reservoir carried by said frame at the top thereof, a gutter carried by said frame at the bottom thereof, and a porous curtain extending between said door reservoir and said gutter, said curtain being adapted to swing outwardly or inwardly with said door frame so as to give access to the interior space of said cabinet or to complete the inclosure of same.

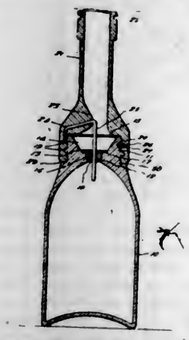
3. An air cooled storage cabinet, comprising a framework, upper and lower reservoirs carried thereby, porous curtains extending vertically and transversely between said reservoirs so as to inclose the interior space of the cabinet on all sides but one, protecting screens for said curtains, a screen door hung on the remaining open side of the cabinet, a reservoir carried on the inside of said door near the top thereof, a gutter carried on the inside of said door near the bottom thereof, the said gutter being closed on one end and adapted to drain into the lower reservoir aforesaid in any position of said door, and a porous curtain extending between said door reservoir and said gutter, said curtain completing the inclosure of the interior space of the cabinet.

1,205,911. WRENCH. CHARLES MCLAY, Melville, Saskatchewan, Canada. Filed Jan. 4, 1916. Serial No. 70,099. (Cl. 81—140.)



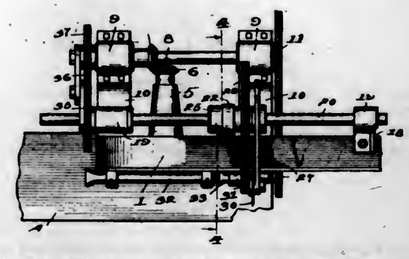
The herein described construction of wrenches including, in combination, a stationary jaw having a toothed shank, a slidable jaw on the shank, said slidable jaw having a longitudinal slot communicating with the toothed edge of the shank, a strip arranged longitudinally in the slot and having its end terminating away from the inner wall of said slot and secured to the side walls of the said slot, said strip adjacent its inner end having its edge next to the shank provided with a transverse notch and its other edge formed with a round depression which is spaced from the said notch, a lever loosely arranged in the slot and projecting therethrough, said lever adjacent its inner end having one of its edges notched and its other edge provided with a transverse rounded depression which is adapted to be disposed to align with the rounded depression in the strip, a pivoted dog upon the inner end of the lever and adapted to play between the end wall of the slot and the inner end of the strip and to co-act with the teeth of the shank, a spring having a coiled portion disposed to be received in the alining rounded depressions in the lever and in the strip, the arms extending from the coil of the spring having their ends bent whereby one of said ends will be received in the notch in the strip and the other end received in the notch in the lever to swing the lever to normally force the dog into engagement with the teeth of the shank.

1,205,912. NON-REFILLABLE BOTTLE. SIDNEY R. M. MALLOCH, Philadelphia, Pa. Filed June 7, 1916. Serial No. 102,221. (Cl. 215—103.)



A non-refillable bottle comprising a body formed with a reduced end provided with a stepped inverted substantially conical shaped opening forming a valve seat and chamber, a neck separable from and fastened to the reduced end of the body, a valve normally engaged within the valve seat and movable into the chamber, said valve seat being formed with a counter-sink concentrically of the opening formed thereby, an annular flange on the valve and engageable in the counter-sink to lie flush with the step in the inverted conical shaped opening, a reticulated guard held within the neck and against the reduced end spaced from the valve, and a guide stem passed centrally through the inverted conical shaped opening, guard and valve for guiding the latter toward and away from the screen for the proper seating of the valve and having an arm anchored within the neck contiguous to the guard.

1,205,913. CUT-OFF FOR STRAW-MAKING MACHINES. LEWIS C. MALTBY and FRANK CASEY, Washington, D. C., assignors to The Stone Straw Company, Washington, D. C., a Corporation of New Jersey. Filed Feb. 12, 1916. Serial No. 78,059. (Cl. 164—60.)



1. The combination of a reciprocating cross-head which carries a straw-guide and an arm, a slidably mounted shaft rotatable in and reciprocated by said arm, an arm fixed to said shaft and carrying a rotary disk-cutter, means for causing the disk-cutter to revolve due to the rotation of the arm with the rotary reciprocating shaft, and gears for transmitting motion from one moving part to another, the slidably mounted shaft having slidable keyed connection with one of said gears.

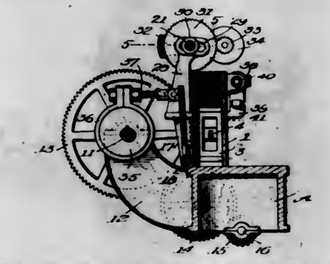
2. The combination of a machine-bed or frame, and a cross-head or plunger which carries two arms, a straw guide section carried by one arm, a shaft rotatably mounted in the other arm, and movable therewith, a gear-wheel secured to said arm, an arm secured to the shaft, an axle rotatably supported in the arm and having a disk cutter, a gear-wheel secured thereto, the teeth of the latter gear-wheel meshing with the teeth of the gear-wheel carried by the arm secured on the cross-head or plunger, and means for rotating said shaft and for reciprocating the plunger, whereby the disk cutter, plunger, and straw guide section move together with the forward movement of the straw, and the cutter disk crosses the path of the straw, whereby to sever the latter with each cycle of movement around the gear carried by the arm from the plunger or cross-head.

3. The combination of a machine-bed or frame, arms secured thereto, a reciprocating cross-head or plunger, a shaft slidably and rotatably supported by said arms, an arm extending from the cross-head, and having a collar at its upper end, a large gear-wheel secured to said collar and through which collar and the hub of which gear-wheel said shaft passes, an arm secured to the shaft, and carrying an axle, a disk cutter and gear secured to said axle, the teeth of the gear meshing with the teeth of the large gear, and which cause the disk cutter to rotate with the travel of the latter around the large gear in the rotation of the shaft, and a straw-guide carried by the cross-head.

4. The combination of a machine bed or frame, a housing thereon terminating in a plunger or cross-head guide, a plunger or cross-head slidably mounted therein, means for reciprocating said plunger, an arm erected on the plunger on each side of the housing, one carrying a straw-

guide, and a large gear-wheel secured to the other, a shaft slidably and rotatably supported by the machine and passing through said arm on the cross-head and the large gear wheel, an arm carried by said shaft, an axle rotatably supported on said arm and carrying a disk cutter and gear, the teeth of which latter mesh with the teeth of the large gear-wheel, a main shaft, a counter-shaft driven thereby, a cross-shaft, bevel pinions on the counter- and cross-shafts for transmitting motion from one to the other, a crank-disk secured on the cross-shaft, and a connecting-rod extending therefrom to the plunger or cross-head, and gears for transmitting motion from the counter-shaft to the shaft which carries the disk cutter.

1,205,914. MACHINE FOR MAKING ARTIFICIAL STRAWS. LEWIS C. MALTBY, Washington, D. C., assignor to The Stone Straw Company, Washington, D. C., a Corporation of New Jersey. Filed Feb. 12, 1916. Serial No. 78,060. (Cl. 164—60.)



1. The combination with means for guiding and supporting the article to be cut, of a disk cutter, and means for imparting thereto a rotary oscillatory, orbital, reciprocating motion.

2. The combination with means for guiding and supporting the article to be cut, of a disk cutter which has a rotary, oscillatory, orbital, reciprocating motion imparted thereto.

3. The combination with a straw guide and a cross-head or plunger for reciprocating the latter, of a disk cutter which has a rotary oscillatory orbital reciprocating motion, and means for causing said disk cutter to reciprocate with the straw guide.

4. The combination with a machine-bed or frame, a rocking-frame, a shaft carried by the latter, and a rotary disk cutter which travels and rotates concentrically around the shaft, of means for rocking the rocking-frame to bring the disk cutter across the path of the straw to be cut at intervals during certain circuits around the shaft.

5. The combination with a machine-bed or frame, a rocking frame pivoted thereto, a sliding rotary shaft carried thereby, a slidable non-rotary gear-wheel and a disk cutter carried by the shaft and revolving with and rotated by the non-rotating gear-wheel, a straw-guide through which the straws to be cut are fed, of means for swinging the rocking-frame laterally while the disk cutter is being moved forwardly to cause the disk cutter to cross the path of the straw at the speed of the straw.

[Claims 6 and 7 not printed in the Gazette.]

1,205,915. TONE-CONTROLLER. AUGUSTINE MAYER, Tiffin, Ohio. Filed Apr. 4, 1916. Serial No. 88,818. (Cl. 274—37.)

1. The combination of a reproducer having a stylus arm and a needle socket at the lower end of the stylus arm, of a tone modifier adapted for connection to the socket comprising a connector having a cushioning element and a stylus holder arranged in angular relation so that when the stylus rests on a record it will engage the cushioning element and thus modify the tone.

2. In combination with a reproducer having a stylus arm and a needle socket at the lower end of the stylus arm, a connector adapted to be inserted in the needle socket, a stylus holder carried by the connector, a stylus in the stylus holder and means carried by the connector to engage the stylus to transmit the sound waves of a record through the stylus and connector to the stylus arm and reproducer.



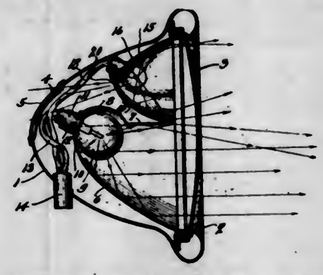
3. The combination with a reproducer having a stylus arm and a needle socket at the lower end of the stylus arm, of a connector adapted to be secured to the needle socket, a cushioning element at the lower end of the connector, a resilient arm carried by the connector, a stylus holder carried by the arm in angular relation to the connector, and a stylus in the stylus holder adapted to rest on a sound record and support the connector and reproducers.

4. A tone modifier comprising a connector adapted to be attached to a reproducer, a resilient arm carried by the connector, a stylus holder carried by the resilient arm, the connector being provided with a socket, a cushioning member in said socket having an inverted V-shaped slot in its lower end and a stylus in the stylus holder adapted to engage in the V-shaped slot of the cushioning member.

5. A tone modifier comprising a connector, a fiber block carried by the connector, said fiber block being provided with an inverted V-shaped slot, a resilient arm carried by the connector, a split sleeve at the free end of the arm, a cushioned needle holder adjustable in the split sleeve and a stylus carried by the needle holder and adapted to engage in the inverted V-shaped slot in the fiber block, whereby the sound will be transmitted from a sound record to the stylus and to the connector.

[Claim 6 not printed in the Gazette.]

1,205,916. ILLUMINATING APPARATUS. EUGENE F. MEADOR, Danville, Va. Filed May 3, 1915. Serial No. 25,563. (Cl. 240—41.)



1. A headlight structure comprising a reflector body consisting of a lower semi-paraboloidal section, a supplemental concave reflector arranged over said section and having its focal center coincident with the focal center of the first mentioned reflector whereby the light rays from the concave reflector are reflected back through the focal center aforesaid, a source of light in said reflector, and means for deflecting upwardly directed rays downwardly across the axis of the paraboloid.

2. A headlight structure comprising a reflector consisting of a main semi-paraboloidal reflector, a source of light arranged at the focal center of said reflector, and a supplemental reflector of relatively small area coöperating with the main reflector and arranged in close proximity to the source of light and above the same, whereby to intercept the upwardly directed light rays close to the point of divergence of the same and reflect them back through the focal center of and onto the main reflector.

3. A headlight structure comprising a main semi-paraboloidal reflector, a source of light disposed substantially at the focal center of said reflector, a supplemental concave reflector of relatively small area extending forwardly of the apex and over the main reflector and having its focal center coincident with the focal center of said main reflector, and a flat reflector above the axis of the paraboloid and joining the front edge of the supplemental reflector and extending to the base of the main reflector to intercept the upwardly directed rays emanating from the portion of the source of light not at the focal center aforesaid.

4. In a headlight structure, the combination, with a casing, of a reflector in the lower portion thereof comprising substantially the lower half of a paraboloidal reflector and a cover for said lower half having its forward portion flattened to provide a maximum space intermediate the cover and the top portion of the casing, and an independent reflector in said casing disposed in the upper portion thereof and occupying the space unoccupied by the first mentioned reflector, said independent reflector having its upper portion conforming to the casing and its lower portion conforming to the flattened portion of the cover aforesaid and seating thereon.

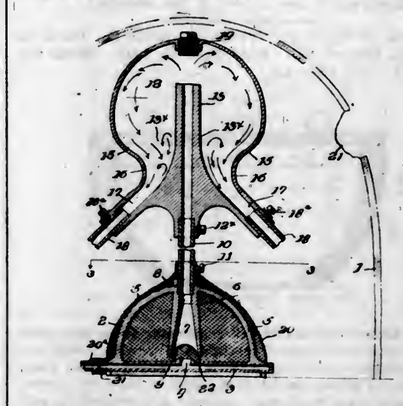
1,205,917. UMBRELLA-SUPPORT. DIMMITT H. MERRILL, Buffalo, Tex., assignor of one-half to Robert O. Applegate, Sr., Tyler, Tex. Filed Oct. 4, 1915. Serial No. 53,972. (Cl. 135—12.)



An umbrella support comprising a belt, brace straps secured at their ends to said belt, a metal back plate carried by said brace straps and provided with an outwardly extending lug having a perforation, a belt plate provided with belt loops and a central standard, said standard having an outward extending portion and an upper portion spaced apart from the belt plate by the length of said outwardly extending portion, said upper portion having an outwardly extending lug provided with a perforation and adjacent thereto a lower outwardly extending lug having also a perforation, said lower lug having a vertical arm, all of the perforations being in alinement and adapted to be slidably engaged by an umbrella stem, said vertical arm having a threaded perforation, and a set screw engaging the same.

1,205,918. TRACK-SANDING APPARATUS FOR LOCOMOTIVES. MARK R. MILLER, Charleston, and GEORGE L. DISBLE, Florence, S. C. Filed Sept. 6, 1916. Serial No. 118,677. (Cl. 105—263.)

1. In a track sander, the combination of a base having a vertical tubular element open at the bottom, a nozzle located centrally under the open end of the tubular element, a vertical pipe communicating with the tubular element, a distributing chamber having a semi-spherical upper portion and a centrally disposed tubular extension communicating at its lower end with the vertical pipe and its upper end terminating and spaced from the semi-spherical portion of said chamber, the lower portion of the said chamber converging and subsequently flared outwardly, the outer walls of the central tubular extension forming two sand outlet ducts.



2. In a track sander, the combination of a vertical pipe having an enlarged mouth at its lower end, a blast nozzle centrally located at the enlarged mouth at the end of the vertical pipe, a distributing chamber at the upper end of the pipe, the upper portion of the said chamber being of semi-spherical form, the chamber having a centrally disposed tubular extension, the lower end of which communicates with the vertical pipe, the upper end of said tubular extension terminating and in spaced relation with the semi-spherical walls of the chamber, the lower portion of the said chamber below the upper end of the tubular extension having two outwardly extending ducts.

3. In a track sander, the combination of a vertical pipe having an enlarged mouth at its lower end, a blast nozzle centrally located at the enlarged mouth at the end of the vertical pipe, a distributing chamber at the upper end of the pipe, the upper portion of the said chamber being of semi-spherical form, a detachable plug centrally located in the top of the sand chamber, the chamber having a centrally disposed tubular extension, the lower end of which communicates with the vertical pipe, the upper end of said tubular extension being in alinement with and terminating in spaced relation with the plug, the lower portion of the said chamber below the upper end of the tubular extension having ducts for the passage of sand.

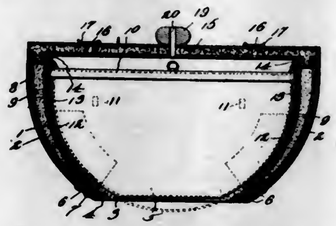
4. In a track sander, the combination of a base frame comprising a horizontal tubular member formed with a centrally disposed opening, arms extending upwardly from the horizontal tubular member, and a vertically disposed tubular member having a tapered bore and supported centrally on the arms, the lower end of the vertical tubular member being centrally disposed over the opening and having recesses cut in opposite walls to form sand passages for the entrance of sand when air is blown through the opening, a screen surrounding the mouth of the vertical tubular member, a vertical pipe communicating with the vertical tubular member, a chamber having a central tubular extension communicating with the vertical pipe, the upper portion of the chamber being downwardly curved, and the upper end of the tubular extension terminating within and spaced from the curved walls of the chamber, said chamber having sand outlet ducts in its lower portion below the plane of the upper end of the tubular extension.

5. In a track sander, the combination of a sand distributing chamber formed semi-spherical at its upper portion and converging below said semi-spherical portion and terminating in two outwardly extending sand ducts, the chamber having a central vertical tubular extension terminating in spaced relation with the semi-spherical walls of said chamber, the outer walls of the vertical tubular extension tapering outwardly from the top and

merging into the walls of the ducts, and means for forcing sand under pressure through the central vertical extension.

[Claims 6 and 7 not printed in the Gazette.]

1,205,919. FIRELESS COOKING UTENSIL. DAVID Q. MINAR, Upland, Cal. Filed Nov. 23, 1915. Serial No. 63,015. (Cl. 53—11.)



1. A fireless cooking utensil comprising inner and outer shells arranged in spaced relation and provided with bottom openings, insulating material arranged in the space between the shells for retaining heat within the device, said shells and insulating material constituting a substantially kettle shaped body adapted to be placed upon a stove or heater, an inner removable cooking utensil arranged within the inner shell, a cover for the inner and outer shells and means for covering the bottom opening without removing the said body from the stove or heater.

2. A fireless cooking utensil comprising inner and outer shells arranged in spaced relation and provided with bottom openings, insulating material arranged in the space between the shells for retaining heat within the devices, said shells and insulating material constituting a substantially kettle shaped body adapted to be placed on a stove or heater, an inner removable cooking utensil arranged within the inner shell, a cover for the inner and outer shells, slidable gates or closures for the bottom opening, and means for operating the gases or closures without removing the body from a stove or heater.

3. A fireless cooking utensil comprising inner and outer shells arranged in spaced relation and provided with bottom openings, insulating material arranged in the space between the shells for retaining heat within the devices, an inner removable cooking utensil arranged within the inner shell, a cover for the inner and outer shells and slidable gates or closures for the bottom opening, said gates or closures operating between the inner shell and the inner cooking utensil.

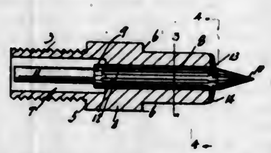
4. A fireless cooking utensil comprising inner and outer shells arranged in spaced relation and provided with bottom openings, insulating material arranged in the space between the shells for retaining heat within the devices, said shells and insulating material forming a substantially kettle shaped body adapted to be placed upon a stove or heater, an inner removable cooking utensil arranged within the inner shell, a cover for the inner and outer shells, slidable gates or closures for covering and uncovering the bottom opening, and operating means connected with the gates or closures and adapted to support the same in an elevated position and capable also of closing the gates or closures without removing the said body from the stove or heater.

5. A fireless cooking utensil having a bottom opening and provided with a cover, an inner removable vessel or utensil arranged in spaced relation with the fireless cooker, sliding gates operating between the fireless cooker and the inner removable receptacle or vessel and means for holding the same in an open position.

[Claims 6 and 7 not printed in the Gazette.]

1,205,920. STYLOGRAPH. TOMIJI MIURA, Seattle, Wash. Filed Apr. 8, 1915, Serial No. 20,054. Renewed Oct. 18, 1916. Serial No. 126,459. (Cl. 120—43.)

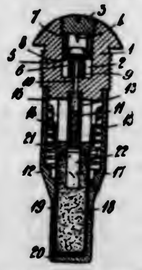
1. In a stylograph or fountain pen, the combination of a hollow barrel, a chambered tip attachable to the barrel, a grooved feed stem fitting within the chamber of the said tip, a writing point on the external end of said stem, a shanked portion between the said stem proper and the writing point, and a feed regulating cap fitting around said shanked portion, whereby the amount of ink flowing to the writing point is regulated.



2. In a stylograph or fountain pen, the combination of a hollow barrel internally threaded at one end, a tip having internal connected chambers and an externally threaded portion which is adapted to screw into the barrel, a feed stem fitting snugly in the smaller of the said chambers and projecting from both ends thereof, a tapered point on one end of the feed stem and a shanked portion between the body of the stem and the said point, the said stem having longitudinal external feed grooves which run from the point to near the opposite end of the body of the stem, a resilient feed regulating cap fitting snugly around the shanked portion of the stem and against the outer end of the tip, whereby the amount of ink flowing from the barrel along the feed grooves to the point, is regulated.

3. In a fountain pen, the combination of a barrel adapted to hold ink, a chambered tip attachable to said barrel, an externally grooved and pointed feed stem fitting within the chamber of the tip, and a resilient feed regulating cap attachable to the said stem, whereby the amount of ink flowing to the point is regulated.

1,205,921. SAFETY DEVICE FOR SHELL-FUSES. HUGO MORÉN, Bofors, Sweden, assignor to Aktiebolaget Bofors-Gullspång, Bofors, Sweden, a Company Limited. Filed Apr. 8, 1915. Serial No. 19,877. (Cl. 102—89.)



1. A safety device for fuses consisting of a movable liner for the walls of the expansion chamber of the fuse having such a length that it surrounds the detonator in safe condition along the entire length of same and protects the walls of the expansion chamber in case of an unintentional detonation of the detonator, said liner at the same time serving as an actuating member.

2. A safety device for fuses consisting of a movable liner for the walls of the expansion chamber of the fuse having such a length that it surrounds the detonator in safe condition along the entire length of same and protects the walls of the expansion chamber in case of an unintentional detonation of the detonator, said liner being resilient at one end.

3. A safety device for fuses, consisting of a movable liner for the walls of the expansion chamber of the fuse having such a length that it surrounds the detonator in safe condition along the entire length of same and protects the walls of the expansion chamber in case of an unintentional detonation of the detonator, and a resilient member to which said liner is connected, said resilient member being adapted to grasp the detonator and carry it forth with the liner.

4. A safety device for fuses, consisting of a movable liner for the walls of the expansion chamber of the fuse having such a length that it surrounds the detonator in safe condition along the entire length of same and protects the walls of the expansion chamber in case of an unintentional detonation of the detonator, and a resilient member, connected to said liner and adapted to grasp the detonator charge and carry it forth with the liner.

1,205,922. ARTIFICIAL TOOTH. SIMON MYERSON, Cambridge, Mass. Filed July 27, 1916. Serial No. 111,652. (Cl. 32—9.)



1. An artificial tooth comprising a body having a lingual face, an incisal edge, a ridge lap and a socket extending from the ridge lap into the body of the tooth and provided with an end mouth on the ridge lap, said socket having a main portion near the ridge lap and a reduced portion with a lateral mouth extending from the ridge lap toward the incisal edge, said main portion having a floor facing the ridge lap, and a metallic backing formed to cover the lingual face and having a tenon formed to enter said end mouth and closely fit the socket and its lateral mouth, the socket wall forming an abutment cooperating with the tenon to resist force of mastication.

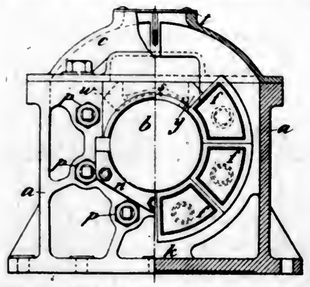
2. An artificial tooth comprising a body having a lingual face, an incisal edge, a ridge lap, and a socket extending from the ridge lap into the body of the tooth and provided with an end mouth on the ridge lap, and with a lateral mouth extending from the ridge lap toward the incisal edge, said mouth having a closed end relatively near the ridge lap, a considerable portion of said socket being entirely closed between the lateral mouth and the incisal edge, and a metallic backing formed to cover the lingual face and having a tenon formed to enter said end mouth and closely fit the socket and its lateral mouth.

3. An artificial tooth comprising a body having a lingual face, an incisal edge, a ridge lap, and a socket extending from the ridge lap into the body, said socket being provided with an end mouth on the ridge lap, and with a mouth in the thicker portion of the body extending rearwardly to the lingual face, said mouth having a closed end relatively near the ridge lap, said socket having a portion extended a considerable distance below the closed end of the mouth into the acting portion of the body, and a metallic backing formed to cover the lingual face, and having a tenon shaped to enter said mouth and closely fit the socket and its lateral mouth, the tenon being provided with oppositely projecting lateral flanges fitting recesses formed for their reception in the socket.

4. An artificial tooth comprising a body having a ridge lap, and a socket extending therefrom into the interior of said body, said socket having a reduced inner portion, the main portion of the socket being in the thicker portion of the tooth, and extending to and opening on the lingual face, the inner end of the said main portion providing a shoulder forming a floor facing said ridge lap, relatively near the same, and a metallic backing shaped to have an extended bearing on the lingual face of said body and having a tenon projecting from its inner face and complemental to said socket, said tenon having a shoulder abutting against said floor when the tenon is within the socket.

1,205,923. THRUST AND LIKE BEARING. HENRY T. NEWBIGIN, Newcastle-upon-Tyne, England. Filed Dec. 3, 1915. Serial No. 64,932. (Cl. 64—25.)

1. A thrust bearing having a fixed bearing surface formed of separately pivoted segments arranged to admit a shaft in a direction normal to the axis, the segments embracing or surrounding more than half the shaft, and a single member carrying all of the segments.



2. A thrust and journal bearing comprising a single main carrying member, a journal bearing therein to carry a shaft, and separately pivoted blocks mounted therein or thereon and adapted to extend at both sides beyond or above a plane passing through the axis of the shaft so as to admit the shaft in a direction normal to its axis.

3. A thrust bearing having a fixed bearing surface comprising a plurality of separately pivoted segments adapted to embrace a shaft for more than 180°, and a single carrying member to support or carry said pivoted segments formed with an opening at one part for the passage of the shaft.

4. A thrust bearing having a fixed bearing surface comprising a plurality of separately pivoted segments adapted to embrace a shaft for more than 180°, and a single approximately U-shaped carrying member to support or carry said pivoted segments, the sides of which form an opening for the passage of the shaft, and when the latter is in position extend above or beyond a plane passing through its axis.

5. A thrust bearing having a fixed bearing surface comprising a plurality of separately pivoted segments adapted to embrace a shaft for more than 180°, a single approximately U-shaped carrying member, and a series of pins or studs upon the carrying member to support or carry said pivoted segments, the upper or extreme pins or studs being above or beyond the plane of the axis of the shaft, but spaced apart sufficiently to allow the shaft to pass or be lowered into position between them.

[Claims 6 to 8 not printed in the Gazette.]

1,205,924. PROCESS FOR IMPROVING THE ANTISEPTIC, FUNGICIDAL, AND INSECTICIDAL ACTION OF TAR-OILS. HUGO NOERDLINGER, Flörsheim-on-the-Main, Germany. Filed Sept. 24, 1912. Serial No. 722,119. (Cl. 167—6.)

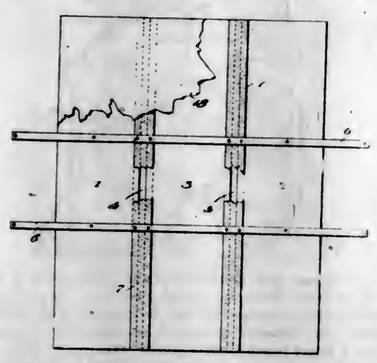
1. A process of improving the antiseptic, fungicidal, and insecticidal action of tar-oils, consisting in dissolving in tar-oil higher phenols of the benzol series having more than 7 carbon-atoms, and in subsequently removing the carbolic acids and the cresols from the treated tar-oil.

2. A process of improving the antiseptic, fungicidal, and insecticidal action of tar-oils, consisting in dissolving in tar-oil phenols of the naphthalene series, and in subsequently removing the carbolic acids and the cresols from the treated tar-oil.

3. A process of improving the antiseptic, fungicidal, and insecticidal action of tar-oils, consisting in treating tar-oils with an alkaline solution of the higher phenols of the benzol series having more than 7 carbon-atoms, and in subsequently removing the alkaline lye containing the carbolic acid and the cresols of the treated tar-oil.

4. A process of improving the antiseptic, fungicidal, and insecticidal action of tar-oils, consisting in treating tar-oil with an alkaline solution of the phenols of the naphthalene series, and in subsequently removing the alkaline lye containing the carbolic acid and the cresols of the treated tar-oil.

1,205,925. KNOCKDOWN BOX. WILLIAM W. NORMAN, Hunterville, Mo. Filed Mar. 28, 1912. Serial No. 685,781. Renewed Apr. 27, 1916. Serial No. 94,048. (Cl. 217—12.)



1. A knock-down box comprising a body portion composed of thin strips of material spaced apart, flexible tape secured over the space between the strips, metal bands extending across said strips and secured thereto, and an outer covering glued over the entire area to cover the flexible tape and metal bands.

2. A knock-down box comprising thin strips of material spaced apart, flexible bands extending across the same and secured thereto whereby to maintain the relation of the strips, an outer covering glued over the entire area to cover the surface of the several strips and to extend across the spaces therebetween, end members to which strips of material are assembled to form a bottom and sides, a top detached from the box, strips secured to the top through which the ends of the flexible bands are inserted to hold the top in place, and means to seal said ends together.

3. A knock-down box comprising a body portion composed of thin strips of material spaced apart, flexible tape secured over the space between the strips, metal bands extending across said strips and secured thereto, an outer covering glued over the entire area to cover the flexible tape and metal bands, a top separate from the body portion, an outer covering glued upon said top, straps secured to the upper side of the top, the metal bands adapted to be brought over the top and inserted through the straps for holding the top in place, and means for connecting the ends of the metal bands to seal and inclose the box.

4. A knock-down box comprising a body portion composed of three veneers spaced a predetermined distance apart, flexible bands secured across the veneers for holding them in said spaced relation, end members about which said veneers are assembled, and to which they are secured, a top comprising three veneers spaced similarly to those of the body portion, bands secured across the veneers of said top in proximity to the ends thereof, the side veneers at the top adapted to be bent down upon the sides of the box, the flexible bands of the box provided with extensions which are brought up over the top of the box and sealed.

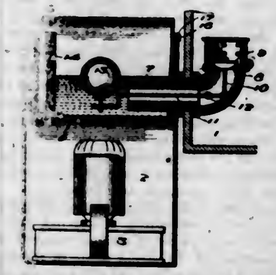
5. A knock-down box comprising a body portion composed of three veneers spaced a predetermined distance apart, flexible tape secured over the space between the veneers, flexible bands secured across the veneers for holding them in said spaced relation, end members about which the veneers of the box are assembled and secured, a top comprising three veneers spaced similarly to those of the top portion, flexible tapes secured over the space between said veneers of the top, flexible bands secured across the veneers in proximity to the ends thereof, the said members of said top adapted to be bent down upon the sides of the box, straps secured to the middle veneer of the top, the flexible bands of the body portion provided with extensions which are brought up over the top and passed through the straps thereof, and means for sealing the said extended ends one to the other for holding the top upon the body portion.

1,205,926. HOSE-CLAMP. LAFAYETTE PALMER and ABRAM L. TAYLOR, Harrisburg, Pa. Filed Apr. 26, 1915. Serial No. 23,943. (Cl. 137—28.)



A hose clamp comprising companion semi-circular sections, a lug formed on one end of one of said sections and projecting outwardly therefrom, an ear formed on the corresponding end of the other section and adapted to receive said lug to form a pivotal connection between said sections, ears formed on the remaining ends of said sections and projecting outwardly therefrom, a bolt passed through said ears and adapted to draw said sections together around the hose, one of said sections being stamped adjacent to one end thereof to form a tongue bent back upon such section and overlying the meeting ends of the sections and forming, in effect, a continuation of the inner surfaces of the sections, said section adjacent to the other end being stamped to form a tongue and the last-mentioned tongue being bent back upon the inner surface of the section and forming, in effect, a continuation of the inner surfaces of said sections and spanning the space between the pivoted ends of said sections, said tongues acting to prevent pinching of the hose at the meeting ends of the sections of said clamp.

1,205,927. STOCK-WATERER. GUSTAVE C. PERSONS and SHERMAN W. DOWNS, Greene, Iowa. Filed Mar. 28, 1916. Serial No. 87,222. (Cl. 119—80.)



A stock waterer comprising a casing open at its top, a trough arranged in said casing and bearing on the upper edges of the side walls thereof and having its bottom spaced from that of the casing and also having a pipe disposed in the transverse center of the trough and communicating with the space below its bottom and fixed to and extending upwardly from said bottom and arranged adjacent to one of the trough sides, a lamp arranged in the casing and below the trough, a water supply pipe extending through side walls of the casing and trough and into the trough, and arranged in the same transverse vertical plane as the upwardly extending pipe, a valve for controlling the passage of water through said pipe, a float arranged in the trough in transverse alinement with the upwardly extending pipe and the water supply pipe, means disposed in the water supply pipe and connecting the valve and the float, and a guard arranged transversely in and on the trough and connected thereto and having a top wall and an end wall and also having an open end arranged adjacent to the upwardly extending pipe and vertical skirts resting at opposite sides of and adjacent to the upwardly extending pipe, the float and the water supply pipe.

1,205,928. TIME-BURNING RAILWAY SIGNAL-FUSEE. ELMER C. PFEIL, Fostoria, Ohio, and HARVEY O. BEMISDERFER, Hammond, Ind., assignors to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 29, 1916. Serial No. 100,730. (Cl. 102—34.)



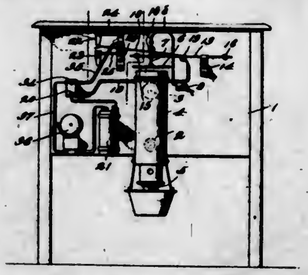
1. An improved time burning railway signal fusee, comprising a tube, a burning composition within the tube, a closure extending across the end of the tube outside of the burning material, said member having throughout its surface a plurality of openings, and a plastic match material outside of the closure and interlocking with the walls of the openings therein and communicating through the openings with the burning material, whereby the plastic match material is effectively united to the fusee and the fire thereof effectively communicated through the said openings.

2. An improved time burning railway signal fusee, comprising a tube, a burning compound therein, a plastic lighting head within the end of the tube, a wire mesh closure for the end of the tube and a plastic match material outside of the closure, the said plastic materials interlocking and communicating through the openings of the mesh whereby the match compound is effectively united to the fusee and the fire thereof effectively communicated to the lighting material.

3. An improved burning railway signal fusee comprising a tube, a burning compound therein, a plastic lighting head within the end of the tube, a wire mesh closure for the end of the tube and extending within the tube around the plastic lighting head, a plastic match material on the outside of the wire mesh closure extending therethrough and communicating with the plastic lighting head, whereby the lighting head extends through the surrounding wire mesh member and in engagement with the inside of the tube, and whereby the lighting head and match material are effectively united to the tube and fire from the match material effectively communicated to the lighting head.

4. An improved time burning railway signal fusee, comprising a tube, a burning compound therein, a plastic lighting head in the end of the tube, a wire mesh closure for the end of the tube shaped from a rectangular piece of wire mesh constituting an end closure with a wall terminating in pointed ends, the wall and pointed ends surrounding the plastic lighting head, and a plastic match material on the outside of the closure and communicating with the lighting head through the wire mesh closure whereby the lighting head and match material are effectively united to the tube and the fire of the match material effectively communicated to the lighting head.

1,205,929. ALARM FOR INCUBATORS. JOHN F. POOLE, Waco, Tex. Filed Aug. 31, 1915. Serial No. 48,826. (Cl. 200—31.)



1. In a circuit make and break mechanism, a thermostatically controlled electrical conductive arm, a pair of arms, contacts pivotally carried by said arms and normally held within an operative position for engagement with said thermostatically controlled arm, and insulating plates carries by said contacts.

2. In a circuit make and break mechanism, a thermostatically controlled electrical conductive arm, a pair of pivotally mounted contacts, said contacts being adjustable with respect to each other, insulating plates carried by said contacts, said contacts being movable for moving said insulating plates into engagement with said arms for breaking an electrical circuit.

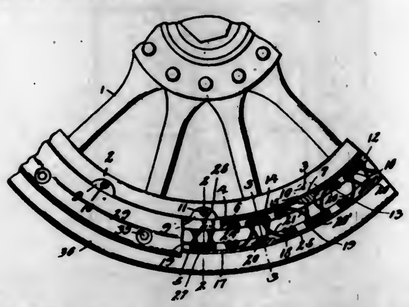
3. In a circuit make and break mechanism, a thermostatically controlled arm, a pivotally supported arm, a pair of rods adjustably connected to said pivotally supported arm, a pair of contacts pivotally carried by the outer ends of said rods, insulating plates secured to one side of said contacts, extensions formed upon said contacts for normally holding them in a position for electrical engagement with said theremostatically controlled arm, said contacts being pivotally supported for moving said insulating plates into engagement with said thermostatically controlled arm.

4. In a circuit make and break mechanism, a thermostatically controlled arm, a pivotally supported rod operatively connected to said arm for pivotal movement upon the rise or fall of the arm, an electrical conductive arm carried by said rod for synchronous movement therewith, a second pivotally supported arm, a pair of rods connected to the opposite ends of said last named arm for adjustable movement with respect to each other, a pair of contacts pivotally carried by the outer ends of said last named rods, said contacts being substantially U-shaped and having elongated extensions formed upon one side thereof for normally holding the contacts in a position for electrical engagement with said first mentioned arm, and insulating plates carried by said contacts for engagement with said first mentioned arm upon pivotal movement of the contacts.

1,205,930. TIRE. JAMES HENRY PRESTON, Medicine Hat, Alberta, Canada. Filed Jan. 18, 1916. Serial No. 72,846. (Cl. 153—87.)

1. The combination with the felly of a wheel, of a tire for the said felly, said tire including inner and outer metallic rims, means secured to the felly arranged and received in notches in the inner rims for securing the inner rim to the felly, each of the rims having their adjacent faces provided with centrally arranged circumferential ribs, oppositely disposed laterally extending fingers upon the ribs, alternating block members projecting from the sides of the rib between each alternating pair of fingers, an ear upon each of the rims opposite each of the blocks and the block of one of the rims being disposed adjacent the ear of the opposite rim, spring members, each of said spring members including a straight body portion which is secured one to each of the blocks, outwardly extending

angular-arms formed upon the ends of each of the blocks of the spring, said arms terminating in hooks, and the said hooks adapted to be engaged with the fingers upon the opposite rims, and annular side plates secured to the outer rim and inclosing the springs.



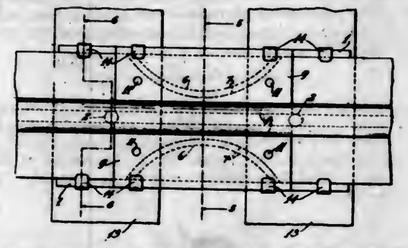
2. The combination with the felly of a wheel, of a tire including an inner rim and an outer rim surrounding the inner rim, means for securing the inner rim to the felly, each of the rims having their adjacent faces centrally formed with circumferential ribs, oppositely disposed laterally extending fingers for the ribs, block members extending laterally from the opposite sides of the ribs between each alternately arranged pairs of fingers, said blocks being centrally slitted to provide the same with tongues, ears disposed opposite each of the blocks, substantially U-shaped springs engaged between the tongues of the blocks, the arms of the springs terminating in hooks which receive the fingers of the respective rim members, and annular side plates secured to the outer rim and engaging with the sides of the inner rim and inclosing the springs.

3. A tire for wheels including an inner rim secured to the felly of the wheel and an outer rim surrounding the inner rim and spaced therefrom, laterally extending block members upon the rims and slitted longitudinally from their ends, laterally extending fingers upon the rims disposed between the blocks, springs, said springs including a central portion having oppositely disposed angularly arranged side leaves having hooked ends, said springs having their body portions arranged in slits in the blocks of the respective rims, and the hooked ends of their leaves engaging the lateral fingers of the opposite respective rims, flat annular bands upon the sides of the rims and inclosing the springs, and means for removably securing the bands to one of the rims.

4. A tire for wheels including an inner rim secured to the felly of the wheel and an outer rim surrounding the inner rim and spaced therefrom, said outer rim being of a greater width than the inner rim and having its opposite sides recessed from its inner edges, laterally extending slitted blocks formed with the rims, laterally extending fingers intermediate of the blocks, springs between the rims, said springs including each a central portion having its ends formed with angularly arranged side leaves which terminate in hooks, the connecting portion of the springs adapted to be inserted in the slits of the blocks from the ends of the said blocks of the respective rims, and the hook ends of the side members of the springs engaging with the fingers of the respective rings opposite the rim to which the spring is connected, side members for the rims, and means for removably securing the side members to one of the rims.

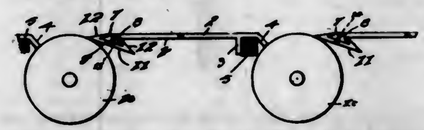
1,205,931. RAIL-JOINT. JOSEPH PRIBNITZ, Olmits, Kans. Filed Oct. 8, 1915. Serial No. 54,832. (Cl. 239—6.)

A railway joint including a base-plate having lateral edge recesses, means for effecting connection therebetween and the rail, said base-plate being provided with arcuate channels or grooves, the inner edges of the resultant channeled or grooved portions thereof being beveled, oppositely arranged castings applied to the rail-webs and having rail-flange-embracing portions provided with inwardly extending lips conformable with, and received



under the arcuate channeled or grooved portions of said base-plate, said rail-flange embracing portions being received by said lateral-edge recesses intermediate of said flange-embracing portions and said lips.

1,205,932. GUIDE FOR ROLLING-MILLS. CHARLES H. QUIGG, Conshohocken, Pa. Filed Dec. 18, 1915. Serial No. 67,663. (Cl. 80—51.)

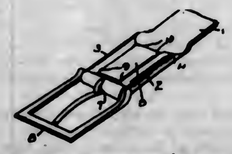


1. A guide for rolling mills including a body provided with a reversible head located at the front end of the body and provided with tapered side portions and adapted to present either of the side portions to a roller.

2. A guide for rolling mills including a body portion and a reversible head set at an inclination at the front of the body portion and having tapered side portions and means for detachably securing the head to the body portion, said means permitting the head to be reversed to present either of its tapered portions to a roll.

3. A guide for rolling mills including a plate or body provided at the front with an enlargement forming a rib and beveled at the front and rear edges and a reversible head having a dove-tailed groove in its upper face receiving the said ribs, said head being arranged at an inclination and having a flat lower face and beveled at its upper face at opposite sides of the said groove to provide front and rear tapered portions, the head being reversible to present either of the tapered portions to a roll.

1,205,933. BELT. ADOLPH RAFFEL, Louisville, Ky., assignor of one-half to Minnie E. McCallum, Louisville, Ky. Filed Nov. 16, 1915. Serial No. 61,779. (Cl. 241—8.)



1. A belt of the class described having one end folded against the inner side of the belt, and having a slot located adjacent the point of fold of the end, flaps formed on the belt and foldable against the folded end of the belt, a rectangular shaped plate overlying the folded flap and having spaced pairs of spurs thereon, the spurs forming one pair being longer than the other, and the longer spurs extending through the flaps and folded end of the belt and the body of the belt at a point adjacent the buckle, and the shorter spurs extending through the folded flap and having their free ends upset against the inner side of the slots.

2. A belt comprising a body having one end provided with a longitudinally extending slot, a buckle having a pivoted prong, the said end of the belt being folded over a portion of the buckle and having the slot therein receiving the pivoted tongue, flaps formed on the body and foldable on the folded end of the body, fastening means extending through the flaps and the said folded end and the body, the said body having a transverse slot therein located adjacent the point of fold between the body and the folded end, for the purpose specified.

1,205,934. BALL-BEARING CAGE. AUGUST RIEBE, Weissensee, near Berlin, Germany. Filed May 23, 1914. Serial No. 840,564. (Cl. 64—59.)

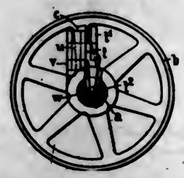


1. A ball bearing cage comprising ring members, each ring member having a plurality of circular openings, the walls thereof being beveled to provide ball seats, one of the rings having integral tongues, the other ring having tongue slots, said tongues having a reduced end portion, said slots in one ring adapted to receive the reduced ends of the tongues of the opposed ring for securing the rings together, and means on the tongues for preventing lateral movement of one ring with relation to the other.

2. A ball bearing cage comprising spaced rings, each ring having a plurality of recesses to receive balls, integral tongues on one of the rings, the opposite ring having tongue slots, each of the tongues having a reduced end portion and shoulders adjacent the reduced end portions, the reduced end portions of the tongues of one ring adapted to be positioned in the recesses in the opposite ring, and said shoulders adapted to engage the opposed ring for holding the rings in spaced relation to each other.

3. A ball bearing cage comprising rings, one of said rings having integral tongues, the opposite ring having slots, the tongues of one ring adapted to be positioned in the slots of the opposed ring for holding the rings in spaced relation, each of the rings having a plurality of circular openings, the walls of said openings being inclined to provide ball seats, and the inclined walls of the openings having cut-out portions.

1,205,935. DYNAMOMETER. MAX ROCKSTROH, Klein-Sedlitz, near Pirna, Germany. Filed Dec. 30, 1915. Serial No. 69,424. (Cl. 73—15.)

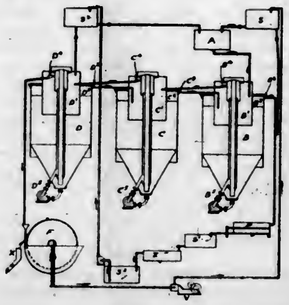


1. In apparatus for measuring the energy transmitted from a driving member to a driven member, a lever pivotally mounted on one of said members, an abutment carried by the other member and adjustable to different radial distances from the axis thereof, said abutment cooperating with one arm of said lever, and a part cooperative with the other arm of said lever for transmitting energy therefrom to a measuring device.

2. In apparatus for measuring the energy transmitted from a driving member to a shaft, a lever pivotally mounted on the shaft and having one of its arms movable axially of the shaft and its other arm movable in a substantially circumferential direction, an abutment carried by the driving member and coöperative with the circumferentially movable arm of the lever, said abutment being adjustable in a direction radially of the driving member, and a part movable axially within the shaft and actuated by the axially movable arm of said lever to operate a measuring device.

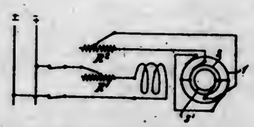
3. In a device of the character described wherein the energy between the driving pulley and the driven shaft is transmitted to recording mechanism by a non-revolving piston disposed exteriorly of the shaft the combination of a bell crank lever pivotally mounted on to the shaft, an ear fixed on the driving pulley and carrying a radially adjustable abutment, said abutment adapted to engage one of the arms of said bell crank lever, the shaft having an axial bore, a displaceable piston actuating rod mounted in said bore, the shaft also having a radially cut recess at the end of said bore, the other arm of said bell crank adapted to project into said recess and act against said piston actuating rod.

1,205,936. LEACHING ORES AND OTHER PRODUCTS. JOHN EDWARD ROTHWELL and HUGH BLACKIE LOWDEN, Denver, Colo., assignors to Colorado Iron Works Company, Denver, Colo., a Corporation of Maine. Filed June 3, 1912. Serial No. 701,282. (Cl. 23—31.)



A method of continuous leaching consisting in actively agitating a mixture of solids and solvent in a suitable vessel, continuously withdrawing solids with a portion of the liquid directly from said vessel while it is undergoing such agitation and passing the same to a following vessel, and at the same time continuously passing a substantially clear solution directly from said first named vessel to a preceding vessel.

1,205,937. SYNCHRONOUS MOTOR. LUCIEN ROUZET, Levallois-Perret, France. Filed June 13, 1912. Serial No. 703,458. (Cl. 172—277.)

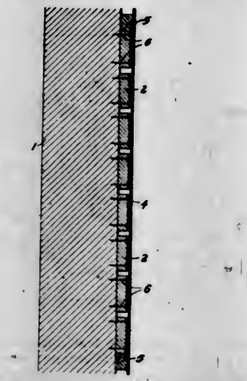


1. In a single-base alternating current motor of the repulsion motor type having an inducing winding, an armature including a commutated armature winding, short-circuited brushes placed slightly behind the neutral axis whereby the motor tends to rotate at a speed slightly

above or very close to synchonism; a pair of leads connected to electrically-diametrically-opposite fixed points on said armature winding, a fixed contact mounted on the armature and connected to one of said leads, an arm pivoted eccentrically on said armature and connected to the other of said leads, a movable contact on said arm cooperating with said fixed contact to short circuit the armature winding, and a spring arranged between said arm and armature for normally maintaining said contacts disengaged and adapted to yield and permit closing of the contacts when the armature attains a predetermined speed, said second short-circuit compelling the motor to run at synchronous speed and to maintain said speed of the motor, substantially as described.

2. In a single-phase alternating current motor of the repulsion type having an inducing winding, an armature including a commutated armature winding, short-circuited brushes placed slightly behind the neutral axis whereby the motor tends to rotate at a speed slightly above or very close to synchronism; a pair of leads connected to electrically-diametrically-opposite fixed points on said armature winding, and a switch externally located for permanently short-circuiting said points after the motor has reached a predetermined speed, this second short circuit operating to compel the motor to run at synchronous speed and to maintain said speed of the motor, substantially as described.

1,205,938. SOUND-ABSORBING WALL OR CEILING. WALLACE C. SABINE, Boston, Mass., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed Nov. 29, 1915. Serial No. 64,149. (Cl. 72—17.)

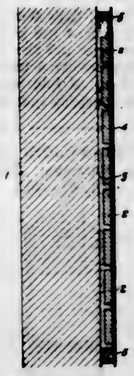


1. A sound absorbing wall or ceiling comprising in combination a layer of porous sound absorbing masonry material having a surface broken by open pores and devoid of decorative finish, and a single outer covering of fabric capable of decorative treatment and which is sound absorbing and transmitting by reason of pores passing therethrough from surface to surface.

2. A sound absorbing structure comprising in combination a wall or backing provided with a layer of porous, sound absorbing masonry material, a single outer covering of fabric capable of decorative treatment and porous throughout which is stretched under sufficient tension to maintain a plane surface located parallel to the masonry surface, and a series of widely spaced supports for said fabric which project from the wall slightly beyond the surface of the porous masonry.

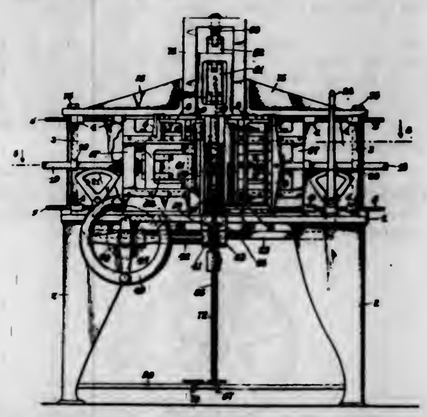
1,205,939. SOUND-ABSORBING WALL OR CEILING. WALLACE C. SABINE, Boston, Mass., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed Nov. 29, 1915. Serial No. 64,150. (Cl. 72—17.)

1. A sound absorbing, hygienic and decorative surfacing for walls and ceilings, comprising in combination a porous, sound absorbing layer of masonry material and a relatively impervious non-porous elastic membrane composed of sheets of textile material treated with size affixed thereto, stretched under tension in front of the first mentioned layer and separated therefrom by an intervening air space.



2. A sound absorbing, hygienic and decorative surfacing for walls and ceilings, comprising in combination a porous, sound absorbing layer of masonry material, a relatively impervious, non-porous elastic membrane stretched in front of the first mentioned layer under a tension sufficient to render it resonant to sounds in the middle and immediately upper registers and separated therefrom by an intervening air space and a series of widely spaced supports projecting slightly beyond the outer surface of the porous masonry, to which supports the stretched membrane is attached.

1,205,940. MACHINE FOR MAKING BATTERY-JARS. WILLIAM W. WEITLING, College Point, N. Y., assignor to American Hard Rubber Co., New York, N. Y., a Corporation of New York. Filed May 26, 1916. Serial No. 100,008. (Cl. 18—19.)



1. A machine for making battery jars and similar articles out of hard rubber, comprising in combination a core arranged to hold on its top surface a sheet of rubber in a plastic condition, means for folding another sheet of rubber in a plastic condition about the sides of said core in contact with the edges of the sheet of rubber on the top of said core, and means for applying pressure to the sides and top of said core to firmly unite all the contacting edges of said rubber sheets.

2. A machine for making battery jars and similar articles out of hard rubber, comprising in combination a core arranged to hold on its top surface a sheet of rubber in a plastic conditon, means for folding another sheet of rubber in a plastic condition about the sides of said core in contact with the edges of the sheet of rubber on the top of said core, and means for applying pressure to the sides and top of said core to firmly unite all the contacting edges of said rubber sheets.

3. A machine for making battery jars and similar articles out of hard rubber, comprising in combination a core arranged to hold on its top surface a sheet of rubber in a plastic condition, means for folding another sheet of rubber in a plastic condition about the sides of said core in contact with the edges of the sheet of rubber on the top of said core and means for applying pressure simultaneously to the sides and top of said core to firmly unite all the contacting edges of said rubber sheets.

4. A machine for making battery jars and similar articles out of hard rubber comprising in combination a core arranged to hold on its top surface a sheet of rubber in a plastic conditon, and means for folding another sheet of rubber in a plastic condition about the sides of said core in contact with the edges of the sheet of rubber on the top of said core, and means for overlapping the ends of the sheet of rubber on the sides of said core.

5. A machine for making battery jars and similar articles out of hard rubber comprising in combination, a core arranged to hold on its top surface a sheet of rubber in a plastic condition, means for folding another sheet of rubber in a plastic condition about the sides of said core in contact with the edges of the sheet of rubber on the top of said core, and means for overlapping the ends of the sheet of rubber on the sides of said core, and means for applying pressure to the sides and top of said core to firmly unite all the contacting edges of said rubber sheets.

[Claims 6 to 16 not printed in the Gazette.]

1,205,941. METALLIC PISTON-PACKING. CLARENCE E. WHITEMAN and JAMES R. W. GREGG, Medford, Oreg. Filed Dec. 3, 1914. Serial No. 875,376. (Cl. 121—108.)

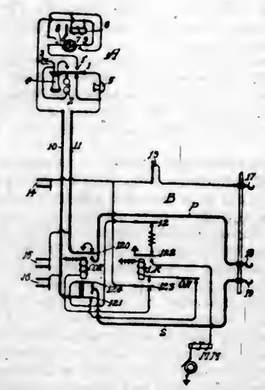


A metallic piston packing comprising expansible side rings and an expansible intermediate ring, the side rings having their outer lateral faces located in parallel planes and portions of their inner lateral faces disposed parallel with the outer lateral faces and other portions of their inner lateral faces located in relatively inclined planes diverging in the direction of the outer circumferential surface of the packing, the intermediate ring being triangular in cross section and having its lateral faces intersecting at the junction of the inclined and parallel portions of the inner lateral faces of the side rings, the outer circumferential surface of the intermediate ring being of a width greater than the combined widths of the outer circumferential surfaces of the side rings, the side and intermediate rings having a tendency to expand diametrically.

1,205,942. CARTRIDGE-CASING. WILLIAM H. BUELL, New Haven, Conn., assignor to Winchester Repeating Arms Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 8, 1915. Serial No. 20,087. (Cl. 102—16.)

A cartridge casing comprising a core of ferrous metal approaching pure iron in composition, and having a coating of zinc deposited thereon, and a coating of copper deposited on such zinc coating, substantially as described.

1,205,943. AUTOMATIC TELEPHONE SYSTEM. ALFRED H. DYSON, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 10, 1910. Serial No. 596,652. (Cl. 179—18.)



1. In a telephone system the combination with a substation telephone line, of trunk lines, an automatic spring restored line switch for said line operated upon initiation of a call from said line, to select an idle one of said trunks, a cutoff relay for said line energized after connection with said trunk and means associated with a selected trunk and controlled at said sub-station for deenergizing said relay, whereby said switch is released.

2. In a telephone system the combination with a substation telephone line, of an automatic line switch therefor, a line relay for said line energized upon initiation of a call from said sub-station, said switch being adapted responsive to said energization of the line relay to extend the connection of said line, means for deënergizing the line relay, a cutoff relay, energized responsive to said connection and deënergization of the line relay, and means operated responsive to deënergization of said cutoff relay whereby said switch is restored.

3. In a telephone system the combination with a substation telephone line, of an automatic spring restored line switch therefor, a line relay for controlling the selecting operation of the switch, a cut-off relay for said switch for rendering the line relay inoperative, and mechanism controlled by said cut-off relay for restoring said switch when said switch is operated.

4. In a telephone system the combination with a substation telephone line, of an automatic switch therefor, a private wiper for said switch, means controlled at the substation for operating said wiper, switch contacts in a normally closed circuit with said wiper, a cutoff relay adapted to be energized after said wiper has been operated and means adapted to be actuated upon deenergization of said cutoff relay, whereby said contacts are operated to place said wiper on open circuit and then release the said wiper.

5. In a telephone system the combination with a substation telephone line, of an automatic line switch therefor, a private wiper for said switch, means controlled at the substation for operating said wiper, switching contacts in circuit with said wiper, a cutoff relay adapted to be energized after said wiper has been operated, and mechanical release means operated by deënergization of said cutoff relay, whereby said wiper is restored and means also operated by the deënergization of said relay, whereby said switch contacts interrupt the circuit of said wiper while restoring.

[Claims 6 to 19 not printed in the Gazette.]

1,205,944. PROCESS FOR SINTERING FINE ORES, FLUE-DUST, PURPLE ORE AND THE LIKE. CARL GIESECKE, Bad Harsburg, Germany. Filed Aug. 30, 1916. Serial No. 117,735. (Cl. 75—73.)

1. The herein-described process of sintering finely-divided material containing iron, which consists in mixing such material with slimes; agglomerating the mixture; and heating the agglomerate, together with finely-divided fuel, in a shaft furnace.

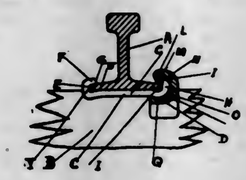
2. The herein-described process of sintering finely-divided material containing iron, which consists in mixing such material with slimes containing a high percentage of clay; agglomerating the mixture; and heating the agglomerate, together with finely-divided fuel, in a shaft furnace.

3. The herein-described process of sintering finely-divided material containing iron, which consists in mixing and agglomerating such material with finely-divided fuel; subjecting the agglomerates to pressure to form them into more or less regular bodies; distributing fuel in the form of small lumps over said bodies and between their interstices, in a sintering furnace; and subjecting said bodies to rapid heating and cooling in said furnace.

4. The herein-described process of sintering finely-divided material containing iron, which consists in mixing and agglomerating such material with slimes; subjecting the agglomerates to pressure to form them into more or less regular bodies; distributing fuel in the form of small lumps over the said bodies and between their interstices, in a sintering furnace; and subjecting said bodies to rapid heating and cooling in said furnace.

5. The herein-described process of sintering finely-divided material containing iron, which consists in mixing and agglomerating such material with slimes containing a high percentage of clay; subjecting the agglomerates to pressure to form them into more or less regular bodies; distributing fuel in the form of small lumps over said bodies and between their interstices, in a sintering furnace; and subjecting said bodies to rapid heating and cooling in said furnace.

1,205,945. RAIL-ANCHOR. HORATIO G. GILLMOR, Washington, D. C. Filed May 24, 1915. Serial No. 29,952. (Cl. 238—4.)



1. A cross bar for rail anchors constructed with a jaw adapted to engage the rail base at one side, a shoulder adapted to engage the rail base edge at the opposite side and curved surfaces upon the lower side of said bar below said shoulder adapted to engage and coact with a pressure producing part.

2. A rail gripping cross bar for rail stays constructed with an integral base flange engaging jaw a transversely extending portion and an integral rail base edge engaging portion at the end opposite said jaw, said transversely extending portion having convex surfaces on the lower side thereof adjacent the rail base edge engaging portion adapted to engage with a pressure producing part.

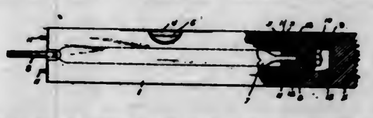
3. A vertical pressure producing part for anticreepers constructed so to engage the upper surface of a rail base and a rail base edge and bottom engaging element that rotational movement of said pressure producing part about a longitudinal axis above the rail base will force surfaces of said pressure producing part into engagement with surfaces of the bottom engaging element below the rail and thereby produce pressure of the bottom engaging element upwardly upon the rail bottom.

4. A part for rail anchors constructed with surfaces adapted to engage a rail bottom engaging element below the rail and a portion adapted so to engage the upper surface of the rail base flange as to permit angular movement of said part about a longitudinal axis above the rail base.

5. A rail stay comprising a rail gripping element engaging the rail base at one side of the rail and a part so engaging said gripping element below the rail and the upper surface of the rail base opposite to said gripping element as to be rotatable about a longitudinal axis above the rail base for effecting the gripping action of said element.

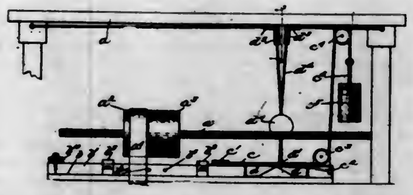
[Claims 6 to 25 not printed in the Gazette.]

1,205,946. LEVEL. GEORGE W. LYONS, Orange, Conn., assignor of three-fourths to Abraham L. Notkins, James A. Notkins, and Matthew A. Notkins, New Haven, Conn. Filed Apr. 16, 1915. Serial No. 21,808. (Cl. 33—75.)



In a level, the combination with a central section, having a longitudinal aperture therethrough; of a member, substantially rectangular in cross section, within said aperture, and by its engagement therewith held against rotation, said member having a threaded shank at each end which projects beyond the ends of said section; a dowel pin fixed in each end of said section and projecting outwardly therefrom; companion end sections, each having a transverse opening therethrough between its ends and a longitudinal opening extending from one end to said transverse opening, with one or more blocks fixed in the end having the longitudinal opening therein; and a nut secured upon each of the threaded shanks of the member connected with said central section, said nuts being within the transverse opening.

1,205,947. SAFETY SHIPPING DEVICE FOR WORK-TABLES. ELI W. PHILLIPS, Boston, Mass., assignor to American Tool & Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 12, 1914. Serial No. 876,984. (Cl. 64—4.)

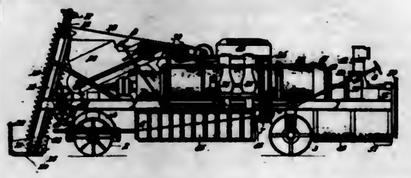


1. The combination with a work table and its power shaft and fast and loose belt pulleys mounted thereon, of a belt shipper member shiftable from driving to idle position, an actuating weight suspended by a cord connected to said shipper for automatically shifting the shipper to idle position, means for normally holding the shipper against movement by said weight, a releasing cord connected with said holding means and extending along the length of the table to be within reach of the operators working thereat, and means for maintaining said release cord in taut condition substantially as described.

2. The combination with a work table and its power shaft carrying fast and loose belt pulleys thereon, a belt shipper shiftable from driving to idle position, means for automatically moving the shipper to idle position, a detent device acting normally to hold the shipper against such shifting movement, a release cord carried along said table to be within reach of the operatives thereat, said cord being connected with said detent device to enable any operative to release the detent device, and having its ends anchored to the table, and a tension weight connected with said release cord to keep it taut throughout its length in order to maintain it in position to be quickly grasped by any operative, substantially as described.

3. The combination with a work table and its driving shaft carrying fast and loose belt pulleys, a belt shipper movable from driving to idle position, automatic means normally tending to shift said shipper to idle position, a detent device for holding said shipper normally against shift to idle position, a release rope extending along the table to be within easy reach of each operative thereat, said rope being connected with the detent device and having its ends anchored to the table whereby any pull in a lateral direction acts to release the detent device and means for re-setting the shipper to driving position, substantially as described.

1,205,948. MACHINE FOR TREATING EARTHY MATERIAL WITH A BINDER. MICHAEL A. POPKESS, Kansas City, Mo. Filed Oct. 8, 1910. Serial No. 586,054. (Cl. 94—6.)



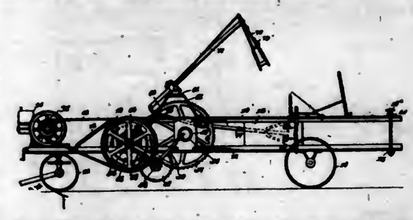
1. A machine of the class described, comprising in combination means for gathering up the surface material, a rotary cylinder into one end of which the material is fed by said means, a shaft carrying inclined blades axially mounted within said cylinder, means to rotate said shaft at a higher rotary speed than said cylinder, means to spray a liquid binder into the material while it is being thrown about by said blades, and means to deliver the mixed material from the other end of said cylinder.

2. A traveling machine for treating surface earthy material to render it suitable for paving, comprising in combination a rotary cylinder, a bucket elevator carried on the front of the machine and arranged to gather up the material as the machine travels along and deliver it into said cylinder, means within said cylinder to break the material up into dust, means to intimately mix it while in that condition with a hot liquid binder which congeals when cool, and means to deliver the mixed material upon the ground.

3. A machine for making a waterproof plastic paving substance from earthy material, comprising in combination a rotary cylinder, a bucket elevator vertically adjustably mounted adjacent the front end of the cylinder to receive the material and deliver it into the same, means to heat the interior of said cylinder, rapidly rotating means within said cylinder to comminute the material into fine dust and means to intimately mix the material while being so comminuted with a liquefied binder.

1,205,949. PRESS. JAMES CAMPBELL THOMAS, Ottumwa, Iowa, assignor to Dain Manufacturing Company of Iowa, Ottumwa, Iowa, a Corporation of Iowa. Filed Jan. 3, 1914, Serial No. 810,224. Renewed Mar. 19, 1915. Serial No. 15,651. (Cl. 100—3.)

1. In a press of the character described, a frame including a pressing chamber, a driven shaft rotatably connected with said frame, gear-wheels rigidly secured to said driven shaft, eccentric gear-wheels rotatably connected with said frame, a hanging shaft positioned beneath said frame, supporting links loosely connected with said hanging shaft and with said driven shaft, a second set of supporting links loosely connected with said hanging shaft and eccentrically connected with said eccentric gear-wheels whereby rotation of said eccentric gear-wheels will cause vertical movement of said hanging shaft, gear-wheels rigidly secured to said hanging shaft and meshing with the gear-wheels of said driven shaft, gear-wheels rigidly secured to said hanging shaft and meshing with said eccentric gear-wheels, vertical movement of said hanging shaft keeping said gear-wheels at all times in mesh, a plunger operated by said eccentric gear-wheels and moving in said compressing chamber, and a feeding plunger operated by said eccentric gear-wheels for feeding material into said compressing chamber.



2. A press of the character described comprising a frame including a pressing chamber, eccentric gear-wheels rotatably supported by said frame, a driven shaft rotatably supported by said frame, gear-wheels carried by said driven shaft, a hanging shaft, gear-wheels carried by said hanging shaft and meshing with said eccentric gear-wheels and with the gear-wheels of said driven shaft, means for supporting said hanging shaft and operated by said eccentric gear-wheels to keep said gear-wheels at all times in mesh during their rotation, feeding means operated by said eccentric gear-wheels, and compressing means operated by said eccentric gear-wheels.

3. A press of the character described, comprising a frame including a pressing chamber, a driven shaft, gear-wheels carried by said driven shaft, eccentric gear-wheels carried by said frame, bodily-movable means for transmitting rotary motion from the gear-wheels of said driven shaft to said eccentric gear-wheels, feeding means operated by said eccentric gear-wheels, and compressing means operated by said eccentric gear-wheels.

4. A press including a supporting frame, a driven shaft, operating means including an eccentric gear-wheel, a gear-wheel carried by said driven shaft, and bodily-movable means for transmitting rotary motion from the gear-wheel of said driven shaft to said eccentric gear-wheel.

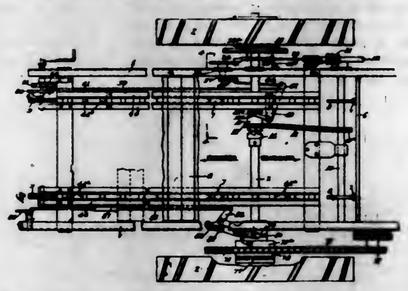
5. A press including a supporting frame, a driven shaft, operating means including an eccentric gear-wheel, a gear-wheel carried by said driven shaft, a hanging shaft, loosely-mounted means suspending said hanging shaft from said driven shaft and eccentric gear-wheel, and means carried by said hanging shaft and meshing with the gear-wheel of said driven shaft and with said eccentric gear-wheel to permit rotary motion to be transmitted from the gear-wheel of said driven shaft to said eccentric gear-wheel.

[Claims 6 to 12 not printed in the Gazette.]

1,205,950. MANURE-SPREADER. JOSEPH BODA, Plano, Ill., assignor to The Independent Harvester Company, Plano, Ill., a Corporation of Illinois. Filed Nov. 9, 1914. Serial No. 870,956. (Cl. 111—40.)

1. In a spreader, in combination with an endless carrier apron, a continuously rotating shaft; a clutch member fast on the shaft; a gear fast on the shaft; a second clutch member loose on the shaft for engagement with the first mentioned clutch member; a sprocket wheel rigid with the loose clutch member, and means by which it drives the apron in its return movement to loading position; a speed-reducing train driven by said gear and means by which said train drives the apron in its delivery travel, said train comprising a member which is movable for disengagement of the train, and automatic means for so moving said member at the limit of the de-

livery travel of the apron comprising a lever engaging the loose clutch member for shifting it into and out of engagement with the other clutch member, and connections by which said lever engages said movable member of the train for engaging the train members with each other by the opposite movement of the lever from that by which the clutch members are engaged with each other.

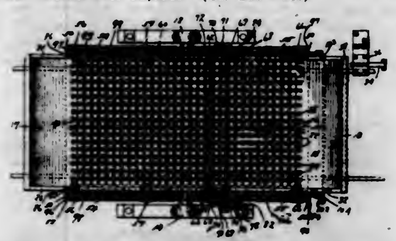


2. In a spreader in combination with an endless carrier apron, a continuously rotating shaft; a clutch member fast on the shaft; a gear fast on the shaft; a second clutch member loose on the shaft for engagement with the first clutch member; a sprocket wheel rigid with the loose clutch member, and means by which it drives the apron in its return movement to loading position; a disengageable speed-reducing train and means by which it drives the apron in its delivery travel, said train being driven by said gear; a lever engaging the loose clutch member for shifting it into and out of engagement with the other clutch member, and connections by which the lever engages the train members with each other by the opposite movement from that by which it engages the clutch members with each other; and connections for operating said lever, comprising a tappet positioned to be actuated by the carrier apron at the limit of its delivery travel for moving the lever in the direction for disengagement of the train members from each other.

3. In a spreader in combination with an endless carrier apron, a continuously rotating shaft; a clutch member fast on the shaft; a gear fast on the shaft; a second clutch member loose on the shaft for engagement with the first clutch member; a sprocket wheel rigid with the loose clutch member, and means by which it drives the apron in its return movement to loading position; a disengageable speed-reducing train and means by which it drives the apron in its delivery travel, said train being driven by said gear; a lever engaging the loose clutch member for shifting it into and out of engagement with the other clutch member, and connections by which the lever engages the train members with each other by the opposite movement from that by which it engages the clutch members with each other; means for operating said lever, comprising a tappet positioned to be actuated by the carrier apron at the limit of its delivery travel for moving the lever in the direction for disengagement of the train members from each other, and a spring operating on the last named means which is put under tension by movement of said means in engaging said train, and which reacts to complete the disengaging movement.

4. In a spreader in combination with an endless carrier apron, a continuously rotating shaft; a clutch member fast on the shaft; a gear fast on the shaft; a second clutch member loose on the shaft for engagement with the first mentioned clutch member; a sprocket wheel rigid with the loose clutch member and means by which it drives the apron in its return movement to loading position; a disengageable speed-reducing train and means by which it drives the carrier apron in its delivery travel; a movable bearing for one member of said train; a lever engaging the loose clutch member for shifting it into and out of engagement with the other clutch member; a rock shaft mounted on the frame; a crank arm at the inner end of the rock shaft; a mutilated gear at the outer end of the rock shaft; a coöperating mutilated gear and a bearing in which the gear rocks; link connections from an eccentric point on said last mentioned mutilated gear wheel to said movable bearing, and a spring operating on said link connections which is put under tension by the movement of said connections in the direction for effecting engagement of the train, and which reacts for completing the disengaging movement.

1,205,951. MACHINE FOR ASSEMBLING WAFERS. ALEXANDER BRADY, Newton Lower Falls, Mass. Filed Nov. 25, 1913, Serial No. 802,928. Renewed Apr. 22, 1916. Serial No. 93,021. (Cl. 107—46.)



1. A machine of the character described, comprising a table arranged to be agitated and having holes adapted to allow the articles to be stacked to pass freely therethrough, a supporting member adapted to support the stacks of articles in vertical alinement below said holes, and means for lowering said supporting member as the stacks build up.

2. A machine for assembling wafers into stacks, comprising a table arranged to be agitated, said table having a top pierced by a series of rows of holes of such size as to enable a wafer to pass freely therethrough, a series of strips extending along the under side of said top and adapted to engage said wafers to form supports for the sides of the stacks, a frame having members adapted to pass between said strips to form supports upon which said stacks are carried, and means for raising and lowering said frame.

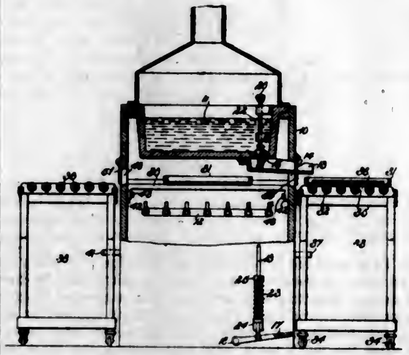
3. A machine for assembling wafers into stacks, comprising a table having a flat apertured top which is curved upward at each end and arranged to be agitated, means under said table for supporting from underneath the stacks formed by the wafers which pass through the apertures in said top, means for laterally supporting said stacks during their formation, and means whereby said underneath supporting means may be gradually lowered as said stacks are built up.

4. A machine for assembling wafers into stacks, comprising a pivotally mounted table having a flat top which is curved upward at each end, the flat portion of said top having a plurality of rows of apertures adapted to allow wafers to pass freely therethrough, a series of strips depending from said top between said rows of apertures, said strips having arcuate recesses adapted to receive said wafers, a frame having members arranged to pass between said strips to form supports upon which the stacks of wafers are carried, and means for gradually lowering said frame to enable the stacks to build up.

5. A machine for assembling wafers into stacks, comprising a pivotally mounted table having apertures adapted to allow the wafers to pass therethrough, a supporting member arranged to support the stacks, a plurality of chains detachably connected to said supporting member, means for actuating said chains to enable said member to be gradually lowered as the stacks are formed, said chains being arranged to be detached from said member when the latter has been lowered a predetermined distance, and means for holding said chains free from said member to allow the latter to be removed from the machine.

[Claims 6 to 27 not printed in the Gazette.]

1,205,952. BACKING APPARATUS. EDWARD KEEFE, Jersey City, N. J. Filed July 12, 1916. Serial No. 108,805. (Cl. 22—58.)



1. A backing apparatus for printing plates, comprising a furnace having a melting pot and a source of heat for heating the melting pot, a support within the said furnace and adapted to temporarily support a tray for heating the same by the said source of heat, and a backing table adapted to receive and support the heated tray from the furnace to allow of placing the shell and the solder into the heated tray, the heat of the latter causing the solder to melt, the tray while on the said backing table receiving the molten metal from the said melting pot.

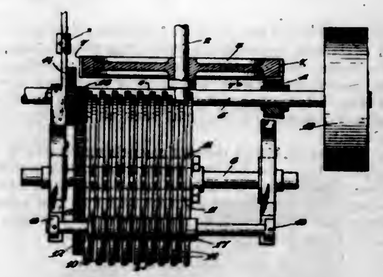
2. A backing apparatus for printing plates, comprising a furnace having a melting pot adapted to contain the backing metal and provided with a discharge spout, a source of heat for heating the melting pot to melt the backing metal therein, a support within the said furnace for temporarily supporting a tray to heat the same by the said source of heat, and a backing table adapted to receive the said heated tray from the furnace and to support the tray under the said spout to allow the molten backing metal to flow from the said melting pot into the tray.

3. A backing apparatus for printing plates, comprising a melting pot having a discharge spout for the backing metal, a support underneath the said melting pot for removably supporting a tray, a source of heat for heating the melting pot and the said tray when in position under the said melting pot, and a backing table adapted to receive the heated tray from the said support and to support the tray directly under the said spout to allow the molten metal from the said melting pot to flow into the tray.

4. A backing apparatus for printing plates, comprising a furnace having a melting pot provided with a valved outlet spout, the said furnace having a side opening through which extends the spout, a source of heat in the furnace, a support in the said furnace intermediate the said melting pot and the said source of heat, the ends of the support leading to the said side opening, the said support being adapted to temporarily support a tray to be heated by the said source of heat, and a portable backing table at the side of the furnace having the spout, the backing table being below the spout and on a level with the said support to allow of moving the heated tray out of the furnace through the side opening and onto the backing table to support the tray under the spout to receive the molten backing metal at the time the spout valve is opened.

5. A backing apparatus for printing plates, comprising a furnace having a melting pot provided with a valved outlet spout, the said furnace having a side opening through which extends the spout, a source of heat in the furnace, a support in the said furnace intermediate the said melting pot and the said source of heat, the ends of the support leading to the said side openings, the said support being adapted to temporarily support a tray to be heated by the said source of heat, a portable backing table at the side of the furnace having the spout, the backing table being below the spout and on a level with the said support to allow of moving the heated tray out of the furnace through the side opening and onto the backing table to support the tray under the spout to receive the molten backing metal at the time the spout valve is opened, the said furnace having a second side opening located opposite the first-named side opening and likewise in register with the said support, and a second portable table at this side of the furnace and supporting an empty tray to be pushed through the second side opening onto the support to be heated at the time the molten metal is flowing into the first tray.

1,205,953. LOOM. FRED PEARSON, Downingtown, and FRANK M. KAUFMAN and HARRY KAUFMAN, Philadelphia, Pa. Filed Dec. 27, 1915. Serial No. 68,940. (Cl. 139—78.)



1. The combination in a loom, of a cam shaft, a series of harness lever-operating cams on said cam shaft, a drive shaft, a loom driven shaft, means on the drive shaft operative to transmit motion to the loom driven shaft independently of said cams, and additional means on the drive shaft for transmitting motion to the cam shaft, substantially as described.

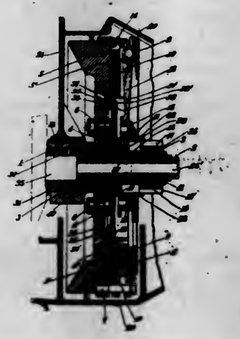
2. The combination in a loom, of a cam shaft, a series of harness lever-operating cams on said cam shaft, a drive shaft, a loom driven shaft, a gear on said loom driven shaft, a pinion on the drive shaft operative to drive said gear independently of said cams, and a train of gearing independent of said pinion for connecting the drive shaft with the cam shaft, substantially as described.

3. The combination in a loom, of a main drive shaft, a cam shaft, a series of harness lever-operating cams on the cam shaft, a loom driven shaft, a train of gearing connecting the cam shaft and the drive shaft, and independent driving means connecting the main drive shaft and said loom driven shaft, substantially as described.

4. The combination in a loom, of a main drive shaft, a cam shaft located substantially parallel with the drive shaft, a gear on the cam shaft, a series of harness lever-operating cams on the cam shaft, an additional shaft having a pinion and a gear thereon operative together, said pinion meshing with the gear on the cam shaft, and a pinion on the drive shaft meshing with the gear on said additional shaft, substantially as described.

5. The combination in a loom, of a cam shaft, a series of harness lever-operating cams on the cam shaft, a drive shaft located adjacent the cam shaft, means on one portion of the drive shaft for taking power therefrom and transmitting it to said cam shaft, means for taking power from another portion of the drive shaft and transmitting the same to other portions of the loom, whereby the heddle operating cams and other portions of the loom are driven independently but directly from the drive shaft, substantially as described.

1,205,954. CLUTCH. JOSEPH B. FERGUSON, New York, N. Y. Filed Oct. 19, 1916. Serial No. 126,526. (Cl. 192—7.)



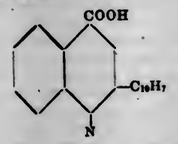
1. In a clutch a first member comprising relatively movable parts and a second member comprising a core part and a radial disk secured to and extending therefrom and being positioned between the parts of said first member, said disk being composed substantially entirely of substantially non-metallic material such as Raybestos or its equivalent.

2. In a clutch a first member comprising relatively movable parts and a second part comprising a disk positioned between said parts, one of said parts having an annular groove in the face thereof adjacent said disk and passages leading from said groove to the opposite face of said part to conduct away oil collected in said groove.

REISSUES.

14,216. 2-NAPHTHYLQUINOLIN-4-CARBOXYLIC ACIDS. MAX DOHRN, Berlin, Germany, assignor to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Filed Oct. 7, 1916. Serial No. 124,320½. Original No. 1,197,462, dated Sept. 5, 1916, Serial No. 33,261, dated June 10, 1915. (Cl. 23—24.)

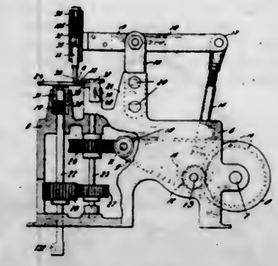
As new products the 2-naphthylquinolin-4-carboxylic acids having the formula



($C_{10}H_7$ meaning alpha- or beta-naphthyl), being soluble in alcohol and alkalis, insoluble in benzene, and possessing valuable therapeutic properties, substantially as described.

14,217. MACHINE FOR MAKING INSOLES. WILLIAM FOWLER, Cincinnati, Ohio, assignor of one-half to Charles H. Krippendorf, Cincinnati, Ohio. Filed Aug. 14, 1916. Serial No. 114,940. Original No. 1,146,789, dated July 20, 1915, Serial No. 827,566, filed Mar. 27, 1914. (Cl. 12—30.)

1. In a machine for turning up two lips previously cut in an insole, a revoluble work-table, a stationary lip-turning tool, a rocking tool holder having a tubular tool supporting head, a vibrating tool vertically-reciprocatingly carried by said tool holder head, a plug seated in the upper end of said head, a collar carried by said vibrating tool, a spring interposed between said plug and said collar, and a revoluble roll having its edge extending over the work-table, said roll feeding the stock and coöperating with said vibrating tool in turning up the two lips and pressing them together.



2. In a machine for turning up two lips previously cut in an insole, a revolving work-table, a stationary lip-turning tool, a vibrating tool provided with a beveled lip-turning surface, means for vertically-yieldingly supporting said vibrating tool, and a revoluble roll having its edge extending over the work table, said roll feeding the stock and coöperating with said vibrating tool in turning up the two lips and pressing them together.

3. In a machine for turning up and pressing together two lips previously cut in an insole, a revoluble work-table, a revoluble roll having an edge extending over the work-table, means located adjacent to said edge to turn up one lip before it reaches said edge, means located opposite said edge for turning up the other lip and means for imparting vibratory motion to said last named means in substantially a diagonal direction.

4. In a machine for turning up and pressing together two lips previously cut in an insole, a revoluble work-table, a revoluble roll having an edge extending over the work-table, means located adjacent to said edge to turn up one lip before it reaches said edge, means located opposite said edge for turning up the other lip, means for imparting vibratory motion to said last means in substantially a diagonal direction and a spring operating together with said vibratory means to impart a clawing motion to said means.

5. In a machine for turning up and pressing together two lips previously cut in an insole, a revoluble work-table, means for resiliently supporting the table, an oppositely revoluble disk above the table, a means for turning up one lip of the insole located adjacent to the edge of the disk, a vibrating tool to turn up the other lip, located opposite the edge of the disk, and means for resiliently mounting the vibrating tool.

6. In a machine for turning up and pressing together two lips previously cut in an insole, a revoluble work-table, means for resiliently supporting the table, an oppositely revoluble disk above the table, a means for turning up one lip of the insole located adjacent to the edge of the disk, a vibrating walking beam, a tool for turning up the other lip, located opposite the edge of the disk and means for resiliently mounting the tool on one end of the walking beam.

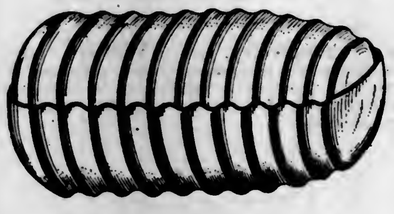
7. In a machine for turning up a lip previously cut in an insole from the inner portion outwardly, comprising a rotatable work supporting table yieldingly longitudinal to its axis, a rotatable feed and anvil roll having an edge extending over the work table, a lip turning and setting tool yieldingly urged transversely against the table and rapidly movable toward and from the periphery of the feed roll, said tool having a forward toe plow portion for raising the lip, and a rear heel hammer portion for forcibly compressing the upturned lip against the periphery of said feed and anvil roll, and means for reciprocating or vibrating said tool.

8. In a machine for turning up and beating a lip previously cut in an insole, the combination of a rotary work support, an overlapping rotary anvil, and a vibratory tool having a hammer portion adjacent the anvil, and a forwardly extending toe portion for raising the lip and guiding it between the anvil and the hammer portion of the tool.

9. In a machine for turning up and beating together two lips previously cut in an insole, the combination of a rotary and yielding work support, a rotary anvil edge overlapping said table, means located advancely adjacent said anvil to turn up one lip, and a vibratory tool having a forwardly extending toe portion for raising the second lip and a hammer portion adjacent said anvil for pressing said lips together between said hammer and anvil.

DESIGNS.

49,915. HAM-MOLD. HANS ADELMANN, New York, N. Y., assignor to Ham Boiler Corp., New York, N. Y., a Corporation of New York. Filed Mar. 2, 1916. Serial No. 81,759. Term of patent 14 years.



The ornamental design for a ham mold, as shown.

49,916. TOY FIGURE. ESTELLE ALLISON, New York, N. Y. Filed Sept. 28, 1916. Serial No. 121,899. Term of patent 7 years.



The ornamental design for a toy figure, substantially as shown.

49,917. WEAPON. JOHN BEDNAROWICZ, Herkimer, N. Y. Filed Sept. 11, 1916. Serial No. 119,594. Term of patent 7 years.



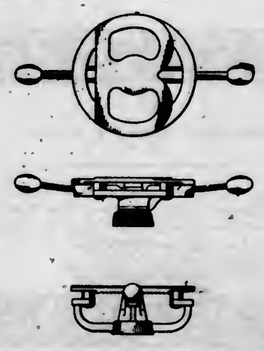
The ornamental design for a weapon, as shown.

49,918. SLIPPER. PHILIP E. BLUM, Dansville, N. Y. Filed Sept 28, 1916. Serial No. 122,766. Term of patent 3½ years.



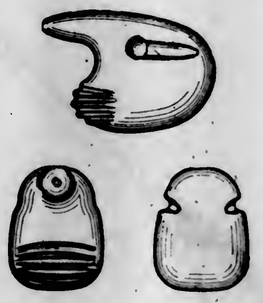
The ornamental design for a slipper as shown.

49,919. THROTTLE AND SPARK CONTROL BRACKET FOR MOTOR-CARS. ALFRED L. CAMPBELL, Elmhurst, N. Y., assignor to Brewster & Co., a Corporation of New York. Filed Aug. 22, 1916. Serial No. 116,895. Term of patent 14 years.



The ornamental design for a throttle and spark control bracket for motor cars, substantially as shown.

49,920. SOAP-DISPENSER. LADISLAUS DE DOOSY, Allston, Mass. Filed Sept. 23, 1915. Serial No. 52,321. Term of patent 14 years.



The ornamental design for a soap dispenser, as shown.

49,921. HAT AND COAT HOOK. HOMER A. DOW, Salem, Ohio. Filed Apr. 19, 1916. Serial No. 92,329. Term of patent 7 years.



The ornamental design for a hat and coat hook, as shown.

49,922. LACE. HAROLD FINEGOLD, New York, N. Y., assignor to Feldman-Garfield Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 8, 1916. Serial No. 119,134. Term of patent 3½ years.



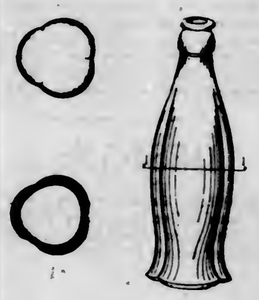
The ornamental design for lace, as shown.

49,923. LACE. HAROLD FINEGOLD, New York, N. Y., assignor to Feldman-Garfield Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 8, 1916. Serial No. 119,135. Term of patent 3½ years.



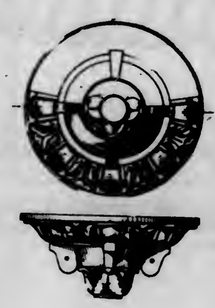
The ornamental design for lace as shown.

49,924. BOTTLE. RAY A. GRAHAM, Evansville, Ind. Filed June 30, 1916. Serial No. 106,982. Term of patent 14 years.



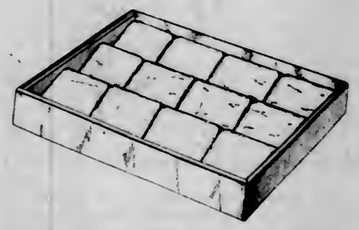
The ornamental design for a bottle as shown.

49,925. CHANDELIER CHAIN SUPPORT. WILLIAM HORN, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1916. Serial No. 109,179. Term of patent 3½ years.



The ornamental design for a chandelier chain support, as shown.

49,926. DISPLAY-CABINET. MAURICE J. KARPELES, Providence, R. I. Filed Nov. 6, 1915. Serial No. 60,155. Term of patent 7 years.



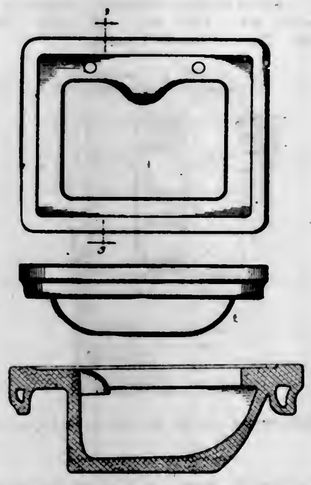
The ornamental design for a display cabinet, as shown.

49,927. AUTOMOBILE-TIRE. ROBERT H. KEATON, San Francisco, Cal. Filed Nov. 3, 1915. Serial No. 59,485. Term of patent 14 years.



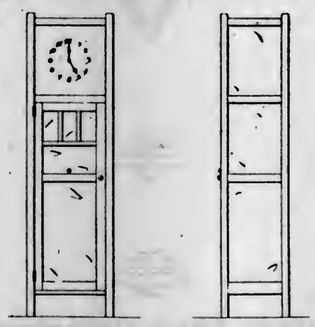
The ornamental design for an automobile tire as shown.

49,928. LAVATORY. JOHN F. KELLY, Trenton, N. J., assignor to Thomas Maddock's Sons Company, Trenton, N. J., a Corporation of New Jersey. Filed Aug. 19, 1916. Serial No. 115,907. Term of patent 14 years.



The ornamental design for a lavatory as shown.

49,929. CABINET. BENJAMIN F. KLEIN, St. Paul, Minn. Filed Aug. 17, 1916. Serial No. 115,538. Term of patent 7 years.



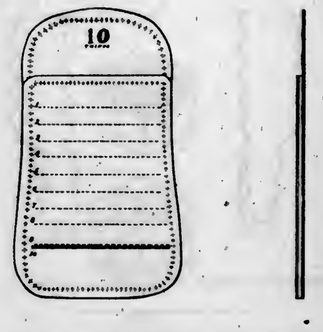
The ornamental design for a cabinet, as shown.

49,930. CATCH-HOOK. JACOB LIGHTER, Montreal, Quebec, Canada. Filed Feb. 7, 1916. Serial No. 76,871. Term of patent 7 years.



The ornamental design for a catch hook, as shown.

49,931. PENCIL-HOLDER. WALTER A. OLIVE, Indianola, Iowa. Filed Feb. 16, 1916. Serial No. 78,772. Term of patent 3½ years.



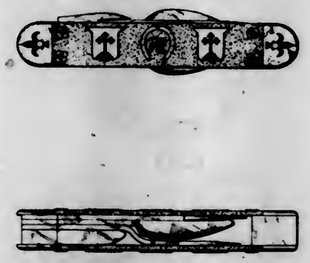
The ornamental design for a pencil holder, as shown.

49,932. SLIDING-DOOR BOLT. SAMUEL ROWLAND PARKES, Willenhall, England. Filed Apr. 5, 1916. Serial No. 89,213. Term of patent 3½ years.



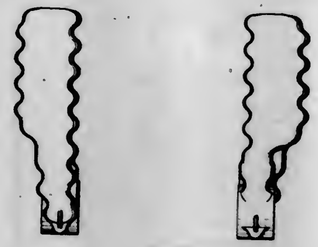
The ornamental design for a sliding bolt, as shown.

49,933. POCKET ARTICLE. STANISLAW RABIJAK, Chicago Heights, Ill. Filed Sept. 5, 1916. Serial No. 119,585. Term of patent 7 years.



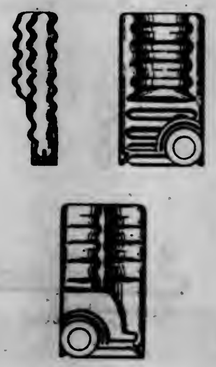
The ornamental design for a pocket article, as shown.

49,934. RADIATOR-SECTION. WILLIAM B. REED, Westfield, Mass., assignor to The H. B. Smith Company, Westfield, Mass., a Corporation of Massachusetts. Filed July 9, 1915. Serial No. 39,005. Term of patent 14 years.



The ornamental design for a radiator section as shown.

49,935. RADIATOR-SECTION. WILLIAM B. REED, Westfield, Mass., assignor to The H. B. Smith Company, Westfield, Mass., a Corporation of Massachusetts. Filed July 9, 1915. Serial No. 39,007. Term of patent 14 years.



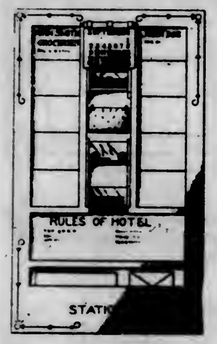
The ornamental design for a radiator section as shown.

49,936. DRINKING-GLASS. JOHN REYNOLDS, Blakely, Olyphant, Pa. Filed Oct. 4, 1916. Serial No. 123,779. Term of patent 3½ years.



The ornamental design for drinking glass, as shown.

49,937. ADVERTISING-BOARD. WYATT T. SEBERR, Louisville, Ky. Filed Sept. 23, 1916. Serial No. 121,892. Term of patent 7 years.



The ornamental design for an advertising board, as shown.

49,938. BUTTON. RUDOLPH SIEBERT, Rochester, N. Y., assignor to German-American Button Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 30, 1916. Serial No. 117,813. Term of patent 3½ years.



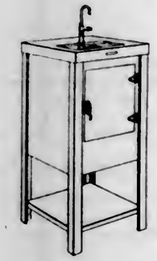
The ornamental design for a button substantially as shown and described.

49,939. WATER-COOLER. LOUIS J. STERN, Boston, Mass. Filed May 26, 1916. Serial No. 100,161. Term of patent 14 years.



The ornamental design for a water cooler, as shown.

49,940. WATER-COOLER. LOUIS J. STERN, Boston, Mass. Filed May 26, 1916. Serial No. 100,162. Term of patent 14 years.



The ornamental design for a water cooler, as shown.

49,941. LOAF OF BISCUIT OR ROLLS. FRANK H. VAN HOUTEN, Beacon, N. Y. Filed May 29, 1915. Serial No. 31,295. Term of patent 3½ years.



The ornamental design for a loaf of biscuit or rolls, substantially as shown and described.

49,942. LOAF OF BISCUIT. ASHLEY F. WARD, Boston, Mass., assignor to The A. F. Ward Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed Feb. 19, 1915. Serial No. 9,460. Term of patent 14 years.



The ornamental design for a loaf of biscuit, substantially as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 21, 1916.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 81,475. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New York, N. Y. Filed Sept. 25, 1914.



Consisting of a yellow band completely encircling the top of the boot, the body of boot being of a contrasting color, no claim being made for the representation of the boot.

Particular description of goods.—Rubber Boots and Shoes.

Claims use since July 29, 1914.

Ser. No. 81,476. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New York, N. Y. Filed Sept. 25, 1914.



Consisting of a violet band completely encircling the top of boot, the body of the boot being of a contrasting color, no claim being made for the representation of the boot.

Particular description of goods.—Rubber Boots and Shoes.

Claims use since July 29, 1914.

Ser. No. 81,477. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New York, N. Y. Filed Sept. 25, 1914.



Consisting of a blue band completely encircling the top of the boot, the body of the boot being of a contrasting color, no claim being made for the representation of the boot.

Particular description of goods.—Rubber Boots and Shoes.

Claims use since July 29, 1914.

Ser. No. 81,478. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New York, N. Y. Filed Sept. 25, 1914.



Consisting of an orange band completely encircling the top of the boot, the body of the boot being of a contrasting color, no claim being made for the representation of the boot.

Particular description of goods.—Rubber Boots and Shoes.

Claims use since July 29, 1914.

Ser. No. 81,479. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New York, N. Y. Filed Sept. 25, 1914.



Consisting of a green band completely encircling the top of the boot, the body of the boot being of a contrasting color, no claim being made for the representation of the boot.

Particular description of goods.—Rubber Boots and Shoes.

Claims use since July 29, 1914.

Ser. No. 81,480. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New York, N. Y. Filed Sept. 25, 1914.



Consisting of a white band completely encircling the top of the boot, the body of the boot being of a contrasting color, no claim being made for the representation of the boot.

Particular description of goods.—Rubber Boots and Shoes.

Claims use since July 29, 1914.

Ser. No. 82,330. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE BRUNSWICK-BALKE-COLLENDER CO., Chicago, Ill. Filed Nov. 2, 1914.

BRUBALCOL No.2.

Particular description of goods.—Billiard-Cloth.

Claims use since the 8th day of October, 1914.

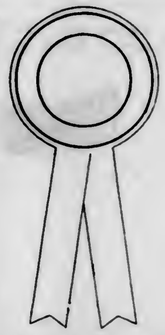
Ser. No. 85,589. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) RACINE AUTO TIRE COMPANY, Racine, Wis. Filed Mar. 31, 1915.

HORSESHOE

Particular description of goods.—Inner Tubes for Tires, and Non-Metallic Tires and Tire-Casings Composed of Rubber or Rubber and Fabric.

Claims use since about Feb. 1, 1910.

Ser. No. 85,688. (CLASS 39. CLOTHING.) THE BUCKLEY-NEWHALL COMPANY, New York, N. Y. Filed Apr. 5, 1915.



The trade-mark consists of a medallion with pendent streamers, both being printed in blue.

Particular description of goods.—Waterproofed Coats for Men, Waterproofed Coats for Women, Hats, Rain-Coats, Textile Underwear, Knit Underwear, and Hosiery.

Claims use since Aug. 10, 1910.

Ser. No. 85,689. (CLASS 39. CLOTHING.) THE BUCKLEY-NEWHALL COMPANY, New York, N. Y. Filed Apr. 5, 1915.

BLUE RIBBON

Particular description of goods.—Waterproofed Coats for Men, Waterproofed Coats for Women.

Claims use since Aug. 10, 1910.

Ser. No. 87,261. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING CO., Eastport, Me. Filed June 11, 1915.

CONTINENTAL

The applicant herein herewith disclaims all right to the exclusive use of the word "Continental," as set forth in the application heretofore filed, except in connection with the representation of the soldier shown on the drawing.

Particular description of goods.—Canned American Sardines.

Claims use since June, 1899.

Ser. No. 88,151. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WIRT COMPANY, Germantown, Pa. Filed July 23, 1915.

DIM-A-LITE

Particular description of goods.—Rheostats.

Claims use since 1908.

Ser. No. 89,523. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) S. S. PIERCE CO., Boston, Mass. Filed Sept. 28, 1915.

CHOISA

Particular description of goods.—Coffee.

Claims use since Aug. 5, 1915.

Ser. No. 89,619. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ANNAN-BURG GRAIN & MILLING COMPANY, St. Louis, Mo. Filed Oct. 4, 1915.

Particular description of goods.—Wheat-Flour, Grain, and Mill Feed.

Claims use since about May 1, 1884.

Ser. No. 89,628. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ELGIN MOTOR CAR CORPORATION, Wilmington, Del., and Chicago, Ill. Filed Oct. 4, 1915.



No claim is made to the word "Elgin" apart from the mark shown in the drawing or to the representation of an automobile.

Particular description of goods.—Automobiles.

Claims use since on or about Sept. 20, 1915.

Ser. No. 90,929. (CLASS 39. CLOTHING.) DELSON KNITTING MILLS, Chicago, Ill. Filed Nov. 26, 1915.

Delso

Particular description of goods.—Knitted and Textile Sweaters, Hosiery, Headwear, Including Caps and Hoods, Mufflers, Booties, Bathing-Suits, Shirt-Waists, Gloves, Mittens, Underwear, Including Undershirts, Drawers, and Union-Suits; Vests, Waists, Jerseys, Jackets, Coats, Sacks, Muffs.

Claims use since October, 1912.

Ser. No. 91,223. (CLASS 20. LINOLEUM AND OILED CLOTH.) JUDSON & AIRD, New York, N. Y. Filed Dec. 6, 1915.

LINOTEX

Particular description of goods.—Floor-Coverings Made from Felt Saturated with Asphaltum and Coated on Both Surfaces.

Claims use since Nov. 5, 1915.

Ser. No. 91,409. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ZOL, LIMITED, London and Kensington, England. Filed Dec. 11, 1915.

ZOL

Particular description of goods.—A Preparation for the Treatment of Whooping-Cough and Like Ailments.

Claims use since August, 1913.

Ser. No. 92,125. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LEHIGH & WILKES BARRE COAL CO., Wilkes-Barre, Pa. Filed Jan. 14, 1916.



The triangle shown therein being in red.

Particular description of goods.—Anthracite Coal.

Claims use since Nov. 27, 1915.

Ser. No. 92,145. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed Jan. 14, 1916. Under ten-year proviso.

MUG

Particular description of goods.—Shaving and Toilet Soaps.

Claims use since about the month of July, 1880.

Ser. No. 92,804. (CLASS 38. PRINTS AND PUBLICATIONS.) WINFIELD JONES, Washington, D. C. Filed Feb. 16, 1916.

THE
NATIONAL GUARDSMAN

Particular description of goods.—A Monthly Publication.
Claims use since December, 1915.

Ser. No. 93,766. (CLASS 39. CLOTHING.) LEYSER, GREEN CO., New York, N. Y. Filed Mar. 22, 1916.



No claim is made to the words "Made in New York City" or to the word "Finish."
Particular description of goods.—Hats.
Claims use since Mar. 13, 1916.

Ser. No. 94,154. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) PAUL H. TERRY, New York, N. Y. Filed Apr. 4, 1916.

AL FALFA
THE NATURE FAKING FARMER

Particular description of goods.—Motion-Picture Films of Animated Cartoons Issued Serially.
Claims use since about July 6, 1915.

Ser. No. 94,273. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) ANACONDA COPPER MINING COMPANY, Anaconda, Mont. Filed Apr. 10, 1916.

ANACONDA
ELECTRIC

Particular description of goods.—Spelter or Zinc, and Particularly Slabs or Blocks of Zinc Obtained by Electrolytic Deposition or by Casting, Molding, or other Methods Known to the Art.
Claims use since Nov. 15, 1915.

Ser. No. 94,403. (CLASS 15. OILS AND GREASES.) WARREN OIL COMPANY, Warren, Pa. Filed Apr. 17, 1916.

Pure Quill

Particular description of goods.—Illuminating and Lubricating Oils and Greases.
Claims use since about May 12, 1914.

Ser. No. 94,524. (CLASS 10. FERTILIZERS.) THE AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. Filed Apr. 19, 1916. Under ten-year proviso.



Particular description of goods.—Fertilizer.
Claims use since June, 1879.

Ser. No. 94,589. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) TOUSEY VARNISH COMPANY, Chicago, Ill. Filed Apr. 20, 1916.

EKO

Particular description of goods.—Driers.
Claims use since 1902.

Ser. No. 94,627. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PARKER PRESERVATIVE PRODUCTS CO., Brooklyn, N. Y. Filed Apr. 21, 1916.

PAR-A-LAC

Particular description of goods.—Paste and Ready-Mixed Paints.
Claims use since about Apr. 1, 1916.

Ser. No. 94,905. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ST. CLAIRE RANSFORD-GAY, New York, N. Y. Filed May 4, 1916.

NOVIDOL

Particular description of goods.—An Antiseptic Compound.
Claims use since Sept. 30, 1915.

Ser. No. 95,193. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ASSOCIATED MANUFACTURERS COMPANY OF NEW YORK, New York, N. Y. Filed May 17, 1916.

AMCO

Particular description of goods.—Rubber, Fiber, Leather, and Pasteboard Washers, Rubber Gaskets and Rings, Rubber Valves, Leather and Rubber Cups, Rubber-Diaphragm Steam-Regulators, Rubber Elbows, Rubber Balls for Fuller Bibs and Closet-Tanks, Rubber Connections, Packings for Siphon-Valves, and Sheet-Packing.
Claims use since Mar. 1, 1911.

Ser. No. 95,311. (CLASS 17. TOBACCO PRODUCTS.) NOAH N. SMITH, Frankfort, Ind. Filed May 20, 1916.

BANKABLE



Particular description of goods.—Cigars.
Claims use since the 19th day of July, 1910.

Ser. No. 95,498. (CLASS 39. CLOTHING.) WILLIAM C. WEILLER, Baltimore, Md. Filed May 27, 1916.



Particular description of goods.—Middy-Blouses.
Claims use since Feb. 4, 1916.

Ser. No. 95,664. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WINTER HAVEN PACKING CO., Winter Haven, Fla. Filed June 6, 1916.



No claim is made to the words "Brand" and "Winter Haven, Fla.," apart from the mark shown in the drawing.
Particular description of goods.—Oranges, Grape-Fruit, and Tangerines.
Claims use since July 1, 1899.

Ser. No. 95,717. (CLASS 17. TOBACCO PRODUCTS.) CHRISTIAN PEPER TOBACCO CO., St. Louis, Mo. Filed June 8, 1916.

TRUE SMOKE

The trade-mark consisting of the words "True Smoke," no claim being made to the word "Smoke" except in association with the word "True."
Particular description of goods.—Smoking and Chewing Tobacco.
Claims use since about the year 1878 or earlier.

Ser. No. 95,751. (CLASS 39. CLOTHING.) KUTTNER & SIEGEL, INC., Pleasantville, N. Y. Filed June 9, 1916.

WIN-SUM

Particular description of goods.—Knitted and Textile Underwear and Sweaters.
Claims use since May 5, 1916.

Ser. No. 95,814. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JACOB E. DECKER & SONS, Mason City, Iowa. Filed June 12, 1916.

IOWANA

Particular description of goods.—Hams.
Claims use since June 1, 1916.

Ser. No. 96,044. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) BATCHELDER MANUFACTURING CO. INC., New York, N. Y. Filed June 22, 1916.

B

Particular description of goods.—Bracelets, Belt-Buckles, Made of or Plated with Precious Metal, Link-Buttons, Lavallières, and Brooches.
Claims use since on or about Mar. 22, 1916.

Ser. No. 96,080. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE CLEVELAND DENTAL MANUFACTURING COMPANY, Cleveland, Ohio. Filed June 23, 1916.

CLEV-DENT

Particular description of goods.—Dental Tools and Supplies, Dental Alloys and Amalgams, Gas and Alcohol Annealers, Articulators, Dental Engines and Parts Thereof, Bench-Blocks, Dental Blowpipes, Dental Brackets and Tables, Broaches, Dental Steel Instruments—Namely, Burnishers, Burs, Inlay and Wax Carvers, Chisels, Enamel-Cleavers, Plastic Instruments, Cutting Instruments, Cement, Clamps—Investment Compounds, Forceps and Elevators, Flasks and Flask-Presses, Gutta-Percha Preparations, Rubber-Dam and Cotton Holders, Lathe Heads and Chucks, Matrices, Dental Pliers, Foil-Carriers, Gold-Pluggers, Dental Regulating Appliances for Straightening Teeth, Saw-Frames and Saws, Vulcanite-Scrapers, Broach-Holders, Cement and Wax Spatulas, Fountain-Spittoons, Operating-Stands, Syringes, Impression-Trays, Vulcanizers, Wax Preparations.
Claims use since the early part of 1905.

Ser. No. 96,135. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JULIUS E. BROWN, Peekskill, N. Y. Filed June 26, 1916.

JUMPETTE

Particular description of goods.—A Toy Consisting of a Bouncing Horse on Wheels.
Claims use since June 13, 1916.

Ser. No. 96,145. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JENSEN CREAMERY MACHINERY COMPANY, New York, N. Y. Filed June 26, 1916.

JENSEN

Particular description of goods.—Ripeners, Pasteurisers, Sterilisers, Retarders, and Regenerators, All Essentially Parts of Dairy Machines or Equipment.
Claims use since Dec. 1, 1915.

Ser. No. 96,286. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ACORN MOVIE CARTOON COMPANY, Wilmington, Del. Filed July 3, 1916.

"CLAYTOONS"

Particular description of goods.—Moving-Picture Films.
Claims use since about Mar. 15, 1916.

Ser. No. 96,510. (CLASS 38. PRINTS AND PUBLICATIONS.) THE ARTHUR P. SCHMIDT CO., Boston, Mass. Filed July 11, 1916.

FIRST YEAR SERIES

The words "First Year Series" are not included in our application.
Particular description of goods.—Printed Books and Musical Works.
Claims use since July 1, 1916.

Ser. No. 96,554. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) O. B. ANDREWS COMPANY, Chattanooga, Tenn. Filed July 14, 1916.

ASK THE JUDGES
The Dollar Making Line

No claim is made to the words "Ask The Judges" and "The Dollar Making Line" except in association with the mark as shown.
Particular description of goods.—Incubators, Brooders, Coops, Portable Chick-Houses, Portable Laying and Breeding Houses, Portable Automatic Fresh-Air Suction Poultry-Houses, Drinking-Fountains, Oat-Sprouters, and Trap-Nests.
Claims use since May 10, 1916.

Ser. No. 96,609. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE VAPORINE CO., Chicago, Ill. Filed July 15, 1916.

Vaporine

Particular description of goods.—Cleaning and Polishing Compound Adapted for Cleaning and Polishing Automobiles, Pianos, Furniture, Woodwork, Hardwood Floors, and Linoleum.
Claims use since Dec. 25, 1915.

Ser. No. 96,610. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ZAUDER BROS. INC., New York, N. Y. Filed July 15, 1916.

ZAUDORA

Particular description of goods.—Face-Powder, Grease Paints, Dry Rouge, Lip-Rouge, Theatrical Paste for Applying Artificial Hair, Cosmetics for Keeping Hair Straight, Hair-Coloring, and Cold-Creams.
Claims use since June 15, 1916.

Ser. No. 96,705. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID WRÓBLEWSKI, New York, N. Y. Filed July 20, 1916.



Particular description of goods.—A Liniment Used for Rheumatism, Croup, Stiff Neck, Pains in the Sides, Chest, and Back, Headache, Catarrh, Grippe, Neuralgia, Sore Throat, Coughs, Colds, and Insect-Stings.
Claims use since July 1, 1916.

Ser. No. 96,849. (CLASS 38. PRINTS AND PUBLICATIONS.) FREDERICK WILLIAM SHEPPERD, New York, N. Y. Filed July 25, 1916.



Particular description of goods.—A Weekly Publication.
Claims use since Nov. 10, 1915.

Ser. No. 96,910. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) SILVEL METAL MANUFACTURING COMPANY INC., New York, N. Y. Filed July 27, 1916.



Particular description of goods.—Metals and Metal Alloys, Particularly Known to the Trade as Silvel Metal.
Claims use since July 21, 1916.

Ser. No. 96,922. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWIN J. LIPSCOMB, Duncan, Miss., and Memphis, Tenn. Filed July 28, 1916.



DR. E. J. LIPSCOMB'S
BLUD TONE

The portrait shown being that of the applicant, no claim being made to the words "Blud Tone" apart from the mark shown in the drawing.
Particular description of goods.—Diseases of the Blood and Skin, Skin Eruptions, Sores, Rashes, Breaking Out on the Skin, Bad Blood, Rheumatism, Scrofula, Loss of Appetite, Liver and Kidney Troubles, Pellagra, and the Nerves.
Claims use since Apr. 1, 1916.

Ser. No. 96,923. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWIN J. LIPSCOMB, Duncan, Miss., and Memphis, Tenn. Filed July 28, 1916.



DR. E. J. LIPSCOMB'S
RED PINOL

No claim being made to the words "Red Pinol" apart from the mark shown in the drawing, the portrait shown being that of the applicant.
Particular description of goods.—Headache, Neuralgia, Rheumatism, Sprains, Bruises, Wounds, Old Sores, Toothache, Indigestion, Pain in Stomach, Heartburn, Palpitation of the Heart, Colic, and Pains in Kidneys.
Claims use since Apr. 1, 1916.

Ser. No. 96,973. (CLASS 15. OILS AND GREASES.) WARREN OIL COMPANY, Warren, Pa. Filed July 29, 1916.

PURE-Quiff

Particular description of goods.—Illuminating-Oils and Lubricating Oils and Greases.
Claims use since May 12, 1914.

Ser. No. 97,023. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ROYAL PALM SOAP CO. INC., Tampa, Fla. Filed Aug. 1, 1916.



No claim being made to the use of the word "Soap" apart from the mark shown.

Particular description of goods.—A Soap.

Claims use since Apr. 1, 1916.

Ser. No. 97,042. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) AMERICAN PIANO COMPANY, New York, N. Y. Filed Aug. 3, 1916. Under ten-year proviso.

Haines Bros.

Particular description of goods.—Pianos.

Claims use since about 1853.

Ser. No. 97,043. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) BALBOA AMUSEMENT PRODUCING COMPANY, Long Beach, Cal. Filed Aug. 3, 1916.



BALBOA

Particular description of goods.—Both Positive and Negative Cineograph and Moving-Picture Films.

Claims use since on or about the 9th day of April, 1913.

Ser. No. 97,056. (CLASS 39. CLOTHING.) NOYES-NORMAN SHOE CO., St. Joseph, Mo. Filed Aug. 3, 1916.

THE NORMAN SHOE

Applicant enters disclaimer to the words "Norman" and "Shoe," no claim being made to the exclusive use of said words "Norman" and "Shoe" apart from the mark shown in the drawing.

Particular description of goods.—Men's and Youths' Leather Boots and Shoes.

Claims use since July 21, 1916.

Ser. No. 97,157. CLASS 12. CONSTRUCTION MATERIALS.) HARRY C. ANGELL, Grand Rapids, Mich. Filed Aug. 7, 1916.



No claim is made to the words "Angells Fire Resistant Shingles" aside from the mark shown in the drawing.

Particular description of goods.—Lumber and Shingles.

Claims use since Jan. 1, 1916.

Ser. No. 97,477. (CLASS 17. TOBACCO PRODUCTS.) UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y. Filed Aug. 21, 1916.



The trade-mark consists of the words "John McCullough," a portrait of John McCullough, and the words "The Noblest Roman of Them All."

Particular description of goods.—Cigars.

Claims use since the year 1881.

Ser. No. 97,608. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAVANNAH BERNEY WALLACE, Augusta, Ga. Filed Aug. 24, 1916.



The same being a portrait of the applicant.

Particular description of goods.—A Preparation for the Growth of Hair, a Hair-Tonic, a Vegetable Shampoo, and a Preparation for Giving Gloss to the Hair.

Claims use since July 21, 1916.

Ser. No. 97,646. (CLASS 39. CLOTHING.) KORN BROS., New York, N. Y. Filed Aug. 26, 1916.



No claim is made herein for the use of the word "Standard" independently of the word "Nemo."

Particular description of goods.—Apparel-Corsets.

Claims use since July 1, 1916.

Ser. No. 97,666. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HED-TONE COMPANY, Waco, Tex. Filed Aug. 28, 1916.

HED-TONE

Particular description of goods.—A Preparation for the Treatment of Headaches, Fever, Neuralgia, Sciatica, Nervousness, and Insomnia.

Claims use since July 1, 1915.

Ser. No. 97,690. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE PENN-COLA CO., Wilmington, Del., and Pittsburgh, Pa. Filed Aug. 29, 1916.

PENN COLA

No claim is made to the word "Cola" apart from the mark as shown in the drawing.

Particular description of goods.—A Beverage Which is Carbonated and Sold as Soft Drink and Syrups for Manufacture of Same.

Claims use since Oct. 6, 1915.

Ser. No. 97,691. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) RICHMOND MICA COMPANY, Inc., Richmond, Va. Filed Aug. 29, 1916.



Particular description of goods.—Mica Powder.

Claims use since the 1st day of June, 1916.

Ser. No. 97,712. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LOUIS MEYERS & SON, New York, N. Y. Filed Aug. 30, 1916.



Particular description of goods.—Washable Leather.

Claims use since June 27, 1916.

Ser. No. 97,821. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DAVID C. LARSON, New York, N. Y. Filed Sept. 6, 1916.

D.C.L.

Particular description of goods.—Electric Relays, Magnets, Switches, Motors, Transformers, Controllers, and Regulators.

Claims use since June 23, 1916.

Ser. No. 97,857. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) CAHN, BELT & COMPANY, Baltimore, Md. Filed Sept. 8, 1916.

MC

Particular description of goods.—Whisky.

Claims use since the year 1870.

Ser. No. 97,886. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WATERTOWN CARBONATING CO., Watertown, S. D. Filed Sept. 9, 1916.



The words "Laxo Vim" being printed in red.

Particular description of goods.—A Natural Laxative Medicinal Water.

Claims use since the 1st day of September, 1916.

Ser. No. 97,904. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) HERMANN-SANFORD SADDLERY COMPANY, Springfield, Mo. Filed Sept. 11, 1916.

THE OIL QUEEN
NO-GALL
Hermann-Sanford Saddlery Co. Springfield, Missouri

No claim is made to the descriptive words "No-Gall" and no claim is made to the geographical expression "Springfield, Missouri" apart from the mark shown in the drawing.

Particular description of goods.—Horse-Collars.
Claims use since Jan. 1, 1914.

Ser. No. 97,905. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) HERMANN-SANFORD SADDLERY COMPANY, Springfield, Mo. Filed Sept. 11, 1916.

THE OIL KING
NO-GALL
Hermann-Sanford Saddlery Co. Springfield, Missouri

No claim is made to the descriptive words "No-Gall" and no claim is made to the geographical expression "Springfield, Missouri" apart from the mark shown in the drawing.

Particular description of goods.—Horse-Collars.
Claims use since Jan. 1, 1914.

Ser. No. 97,918. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GEORGE W. NEWGASS, New York, N. Y. Filed Sept. 11, 1916.

FACILLO FRAME

No claim is made to the exclusive use of the word "Frame."

Particular description of goods.—Motion-Picture-Projecting Apparatus and Parts Thereof, Screens, Screen-Frames, Portable and Collapsible Screens, and Portable and Collapsible Screen-Frames.
Claims use since Aug. 17, 1916.

Ser. No. 97,942. (CLASS 31. FILTERS AND REFRIGERATORS.) AUTO VACUUM FREEZER COMPANY, INC., New York, N. Y. Filed Sept. 12, 1916.

LA
Neverita

Particular description of goods.—Liquid-Freezers.
Claims use since Aug. 25, 1916.

Ser. No. 97,970. (CLASS 39. CLOTHING.) CORSET H. COMPANY, Worcester, Mass. Filed Sept. 13, 1916.

IVY CORSET COMPANY

We hereby disclaim the exclusive right to the use of the word "Company" except in connection with this trade-mark, and we also disclaim the exclusive right to the use of the word "Corset" except as used in connection with this trade-mark.

Particular description of goods.—Corsets.
Claims use since Sept. 11, 1916.

Ser. No. 98,021. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLUMBIA RIVER PACKERS ASSOCIATION, Astoria, Oreg. Filed Sept. 16, 1916. Under ten-year proviso.

DELMONICO

Particular description of goods.—Canned Salmon.
Claims use since 1891.

Ser. No. 98,045. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EMERSON-BRANTINGHAM COMPANY, Rockford, Ill. Filed Sept. 18, 1916.

THE E-B LINE

The trade-mark consists of the letters "E-B," surrounded by a diamond-shaped border, no exclusive claim being made to the use of the words "The," "Line," "Emerson," "Brantingham," "Farm," and "Machinery" apart from the mark as shown.

Particular description of goods.—Riding and Walking Cultivators, Lister-Cultivators, Roller-Pulverisers, Spiked-Tooth and Disk Harrows, Renovators, Ridge-Busters, Stalk-Cutters, Middle-Breakers, Manure-Spreaders, Fertilizer-Distributers, Planters and Seeders, Grain-Drills, Listing-Plows, Listers, Walking and Riding Plows, Quick-Detachable Shares, Gang-Plows, Engine-Plows, Power Lift-Plows, Hay Rakes and Tedders, Mowing-Machines, Sweep-Rakes and Hay-Stackers, Hay-Loaders, Gas-Engines, Binder-Engines, Stationary and Portable Gas and Gasolene Engines, Steam and Internal-Combustion Traction-Engines, Engine Gang-Plows, Grain-Separators, Clover-Hullers, Corn-Shellers, Pneumatic Straw-Stackers, Band-Cutters and Feeders, Huller-Feeders, Baling-Presses, Engine-Tenders, Pumps, Baggers, Wagon-Loaders, Draft-Hitches, Sawmills, Feed-Mills, Pumps, Road Rollers and Scarifiers.

Claims use since Jan. 1, 1916.

Ser. No. 98,100. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEORGE BORGFELDT & CO., New York, N. Y. Filed Sept. 20, 1916.

POLLYANNA

Particular description of goods.—Toys and Games as Follows: Dolls and Toy Animals; Doll-Houses, Doll-Clothes, and Doll Articles; Cut-Outs, Stencil-Boxes, Paint and Drawing Boxes, Mechanical Toys, Toy Musical Instruments, Toy Tea Sets, Toy Garden Sets and Beach Sets, Rubber Balls, Rubber Toys and Balloons, Boats and Canoes; Roly-Polys. Nodding-Head Figures, Building-Blocks, Picture-Blocks, and Construction Toys, Masks; Christmas-Tree, Holiday, Party, and Table Favors; Rattles, Air-Guns, Pop-Guns, Pistols, Archery Goods, and Toy Books.

Claims use since Sept. 19, 1916.

Ser. No. 98,112. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DAVID CROWNFIELD, Boston, Mass. Filed Sept. 20, 1916.

DEE-CEE

Particular description of goods.—Electric-Lighting Fixtures.

Claims use since July 1, 1915.

Ser. No. 98,126. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE WILLIAMS HARDWARE CO., Clarksburg, W. Va. Filed Sept. 20, 1916.

WILCO

Particular description of goods.—Hatchets, Axes, Chisels, Drawing-Knives, Planes, Hammers, Saws, Tool-Handles, Augers and Auger-Bits, Bit-Braces, Pincers and Pliers, Wrenches, Files, Shovels, Agricultural Forks, Hoes and Rakes, Picks and Mattocks.

Claims use since Aug. 21, 1916.

Ser. No. 98,137. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FAGBOL & TATE, Oakland, Cal. Filed Sept. 21, 1916.

FUMO

Particular description of goods.—Compounds for Purifying Products of Combustion Issuing from Heaters, Stoves, Radiators, and Like Apparatus.

Claims use since Jan. 1, 1915.

Ser. No. 98,139. (CLASS 39. CLOTHING.) JOHN GATELY CO., Chicago, Ill. Filed Sept. 21, 1916. Under ten-year proviso.

GATELY'S

Particular description of goods.—Men's Suits, Coats, Hats, Shoes, Shirts, Underwear, Caps, Hosiery; Women's Suits, Coats, Dresses, Waists, Hats, Petticoats, Shoes, Corsets, Hosiery, Skirts, Fur Coats, Scarfs, and Muffs; Boys' Suits, Coats, Hats, Shoes, and Socks.

Claims use since August, 1888.

Ser. No. 98,141. (CLASS 33. GLASSWARE.) HAMMEL, RIGLANDER & CO., New York, N. Y. Filed Sept. 21, 1916.

VTF

Particular description of goods.—Watch-Glasses.
Claims use since the year 1888.

Ser. No. 98,144. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SCIENTIFIC PRODUCTS CO., New Cumberland, W. Va., and Steubenville, Ohio. Filed Sept. 21, 1916.

Particular description of goods.—Electric Warming-Pads, Vulcanizers, Toasters, and Flat-Irons.
Claims use since April, 1915.

Ser. No. 98,157. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOSMAN & LOHMAN CO., Norfolk, Va. Filed Sept. 22, 1916.

RIBO
THE OIL OF PLENTY

Particular description of goods.—Peanut-Oil.
Claims use since Sept. 19, 1916.

Ser. No. 98,169. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. J. MCGRATH CO., Baltimore, Md. Filed Sept. 22, 1916.

UNICO

Particular description of goods.—Dried Vegetables.
Claims use since July 1, 1916.

Ser. No. 98,192. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW PRAGUE FLOURING MILL COMPANY, New Prague, Minn. Filed Sept. 23, 1916.



Particular description of goods.—Wheat-Flour.
Claims use since January, 1912.

Ser. No. 98,195. (CLASS 32. FURNITURE AND UPHOLSTERY.) C. R. PATTEN & Co., Tacoma, Ohio. Filed Sept. 23, 1916.

BABY-NEST

Particular description of goods.—Supporting Devices for Babies, Known as Baby-Jumpers.
Claims use since Aug. 17, 1916.

Ser. No. 98,260. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE JOHNS-PRATT COMPANY, Hartford, Conn. Filed Sept. 27, 1916.

NOARK

THE JOHNS-PRATT CO. HARTFORD CONN.

The Johns-Pratt Company makes no claim to any exclusive rights in the geographical words "Hartford, Ct." appearing in the present trade-mark.
Particular description of goods.—Inclosed Fuses, Inclosed-Fuse Cut-Outs and Clips, Contacts, and Blocks.
Claims use since Aug. 1, 1916.

Ser. No. 98,276. (CLASS 31. FILTERS AND REFRIGERATORS.) LOUIS E. WISER, Philadelphia, Pa. Filed Sept. 27, 1916.

YZR

Particular description of goods.—Household, Store, and Office Furniture, Being Wooden and Metal Beds, Chairs, Bureaus, Chiffonniers, Tables, Sideboards, Desks, and Bookcases.
Claims use since Aug. 1, 1916.

Ser. No. 98,306. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOWLES BROS. CO., Los Angeles, Cal. Filed Sept. 29, 1916. Under ten-year proviso.

MAKAKAKE

Particular description of goods.—Pancake-Flour.
Claims use since September, 1891.

Ser. No. 98,312. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CUMMER PRODUCTS CO., Cleveland, Ohio. Filed Sept. 29, 1916.

Everclene

Particular description of goods.—A Cleaner for Silks, Laces, Furs, Kid Gloves, Leathers, Feathers, and Felt.
Claims use since Jan. 1, 1913.

Ser. No. 98,314. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MOTHER'S MACARONI COMPANY, Minneapolis, Minn. Filed Sept. 29, 1916.

Creamettes

Particular description of goods.—Wheat Breakfast Foods.
Claims use since about Aug. 15, 1912.

Ser. No. 98,318. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOSEPH THORLEY, LIMITED, London, England. Filed Sept. 29, 1916. Under ten-year proviso.

LACTIFER

Particular description of goods.—A Substance Used as Food for Calves.
Claims use since January, 1884.

Ser. No. 98,323. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BAUER AND BAUER, Bridgeport, Pa. Filed Sept. 30, 1916.

Scarab

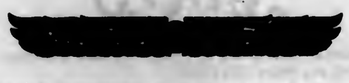
Particular description of goods.—Corn-Starch.
Claims use since Aug. 10, 1916.

Ser. No. 98,324. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BAUER AND BAUER, Bridgeport, Pa. Filed Sept. 30, 1916.



Particular description of goods.—Corn-Starch.
Claims use since Aug. 10, 1916.

Ser. No. 98,325. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BAUER AND BAUER, Bridgeport, Pa. Filed Sept. 30, 1916.



Particular description of goods.—Corn-Starch.
Claims use since Aug. 10, 1916.

Ser. No. 98,339. (CLASS 10. FERTILIZERS.) GEORGE A. LIPPINCOTT, Philadelphia, Pa. Filed Sept. 30, 1916.



No claim being made to the printed matter or figures appearing therein apart from the mark as shown in the drawing.
Particular description of goods.—A Food and Tonic for Plants, Flowers, &c.
Claims use since Sept. 16, 1916.

Ser. No. 98,345. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) STARK BRO'S. NURSERIES AND ORCHARDS CO., Louisiana, Mo. Filed Sept. 30, 1916.

OLD OAK PROCESS

Particular description of goods.—Fruit-Trees.
Claims use since Mar. 1, 1887.

Ser. No. 98,353. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) DURST & CHARTZ FURNITURE CO., Carson City, Nev. Filed Oct. 2, 1916.

SUNBEAM

Particular description of goods.—A Polish for Automobiles, Carriages, and Furniture.
Claims use since Aug. 17, 1916.

Ser. No. 98,419. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN SEXTON & COMPANY, Chicago, Ill. Filed Oct. 4, 1916.

LA SALLE



Particular description of goods.—Canned Fruits and Vegetables.
Claims use since Oct. 1, 1909.

Ser. No. 98,421. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD VARNISH WORKS, New York, N. Y. Filed Oct. 4, 1916.

FLEX-O-YL-LAC

Particular description of goods.—Varnishes, Japans, Driers, Stains, Enamels, Paints, and Varnish-Removers.
Claims use since Mar. 23, 1916.

Ser. No. 98,427. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) THE AMERICAN WRINGER COMPANY, New York, N. Y. Filed Oct. 5, 1916.

PROTECTOR

Particular description of goods.—Clothes-Wringers and Parts Thereof.
Claims use since Sept. 9, 1916.

Ser. No. 98,438. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MANHATTAN ELECTRICAL SUPPLY COMPANY, Jersey City, N. J., and New York, N. Y. Filed Oct. 5, 1916.

MESCO

Particular description of goods.—Electric Meters, Registers, Calculators, and Thermostats.
Claims use since November, 1905.

Ser. No. 98,446. (CLASS 39. CLOTHING.) FRANKLIN SIMON & CO. INC., New York, N. Y. Filed Oct. 5, 1916.

WEAROSCOPE

Particular description of goods.—Men's Furnishings, Undergarments, and Clothing—Namely, Bath and Smoking Robes, Smoking-Jackets, Sweaters, Dressing-Gowns, Waistcoats, Pajamas, Bathing-Suits, Swimming-Suits, Shirts, Undershirts, Night-Shirts, Union-Suits, Drawers, Gloves, Hats, Caps, Mufflers, Collars, Hosiery, Overcoats, Rain-Coats, Business-Suits, Sport-Suits, Dress-Suits, Dinner-Suits, Riding-Habits, Separate Trousers, and Cutaway Coats and Vests Made Out of Textile Material, and Gloves, Sweaters, Mufflers, Bathing-Suits, Swimming-Suits, Drawers, Undershirts, Hats, Sport-Suits, Overcoats, Separate Trousers, Caps, Night-Shirts, Union-Suits, Collars, Hosiery, Business-Suits, Dress-Suits, Dinner-Suits, Riding-Habits, and Cutaway Coats and Vests Made Out of Knitted Material, and Gloves, Shoes, Hats, and Caps Made Out of Leather.
Claims use since Sept. 20, 1916.

Ser. No. 98,447. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUGH C. SMALL, Chicago, Ill. Filed Oct. 5, 1916.

NIPS

Particular description of goods.—Confections.
Claims use since about the 3d day of September, 1909.

Ser. No. 98,456. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEYER BROS. COMMISSION CO., New York, N. Y. Filed Oct. 6, 1916.

Bonny Brook

Comprising the words "Bonny Brook."
Particular description of goods.—Butter, Eggs, and Cheese.
Claims use since Jan. 1, 1916.

Ser. No. 98,457. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEYER BROS. COMMISSION CO., New York, N. Y. Filed Oct. 6, 1916.

Country Place

Comprising the words "Country Place."
Particular description of goods.—Butter, Eggs, and Cheese.
Claims use since Jan. 1, 1916.

Ser. No. 98,463. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EVANSVILLE MILL & ELEVATOR CO. INC., Evansville, Ind. Filed Oct. 6, 1916.

WHITE LINE

Particular description of goods.—Self-Rising Wheat-Flour.
Claims use since July 27, 1916.

Ser. No. 98,467. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ERNEST L. HEEBNER, New York, N. Y. Filed Oct. 6, 1916.

SARTO

Particular description of goods.—Canned Sardines.
Claims use since July, 1915.

Ser. No. 98,471. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE LESLIE COMPANY, Lyndhurst, N. J. Filed Oct. 6, 1916.

UNITO

Comprising the word "Unito."
Particular description of goods.—Machine Parts—viz., Couplings and Nuts.
Claims use since July, 1916.

Ser. No. 98,473. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEXINGTON FLOURING MILLS, Lexington, Mo. Filed Oct. 6, 1916.

BUSTER

Particular description of goods.—Self-Rising Flour.
Claims use since Oct. 2, 1916.

Ser. No. 98,474. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE MADISON BOTTLING WORKS, Madison, N. C. Filed Oct. 6, 1916.

KING KOLE

Particular description of goods.—Carbonated Soft Drink.
Claims use since 1906.

Ser. No. 98,475. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARTIN-KLEPPER CO., INC., Decatur, Ind. Filed Oct. 6, 1916.

Orchid

Particular description of goods.—Butter.
Claims use since Sept. 6, 1916.

Ser. No. 98,477. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) L. F. MIKESELL, Traverse City, Mich. Filed Oct. 6, 1916.

GRAND TRAVERSE BRAND

No claim being made to the words "Grand Traverse Brand" apart from the mark as shown.
Particular description of goods.—Sweet Apple-Cider Sold as a Soft Drink.
Claims use since 1910.

Ser. No. 98,479. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PARIS MILLING COMPANY, Paris, Tex. Filed Oct. 6, 1916.

TAKME

Particular description of goods.—Wheat-Flour.
Claims use since Aug. 24, 1916.

Ser. No. 98,480. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANCIS MILLING CO., New Douglas, Ill. Filed Oct. 6, 1916.

MUTUAL

Particular description of goods.—Wheat-Flour.
Claims use since Aug. 18, 1916.

Ser. No. 98,485. (CLASS 39. CLOTHING.) THE WARNER BROTHERS COMPANY, Bridgeport, Conn. Filed Oct. 6, 1916.

The trade-mark consists of a gold or gilt colored thread or ribbon along the lower edge of the brassière, no claim being made to the representation of the brassière apart from the mark shown in the drawing.
Particular description of goods.—Brassières.
Claims use since Sept. 16, 1916.

Ser. No. 98,494. (CLASS 48. MALT EXTRACTS AND LIQUORS.) M. K. GOETZ BREWING CO., St. Joseph, Mo. Filed Oct. 7, 1916.

"COUNTRY CLUB"

Particular description of goods.—Beer.
Claims use since Mar. 1, 1898.

Ser. No. 98,495. (CLASS 48. MALT EXTRACTS AND LIQUORS.) M. K. GOETZ BREWING CO., St. Joseph, Mo. Filed Oct. 7, 1916.

Particular description of goods.—Beer.
Claims use since July 8, 1895.

Ser. No. 98,519. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN F. JELKE COMPANY, Chicago, Ill. Filed Oct. 9, 1916.

LUCKY SPREAD

Particular description of goods.—Oleomargarin.
Claims use since Sept. 30, 1916.

Ser. No. 98,520. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Kansas City, Mo. Filed Oct. 9, 1916.

"DAN AND JOE"



Consisting of an illustration of two negro men seated facing each other and smoking pipes, about whose heads appear the words "Dan and Joe."

Particular description of goods.—Cakes.

Claims use since about Oct. 8, 1914, as far as the illustration is concerned, and has been accompanied by the words "Dan and Joe" since about Aug. 14, 1916.

Ser. No. 98,531. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARRY W. SLOAT, Chicago, Ill. Filed Oct. 9, 1916.

AMIRONES

Particular description of goods.—Cakes.

Claims use since Nov. 1, 1915.

Ser. No. 98,536. (CLASS 7. CORDAGE.) AMERICAN MANUFACTURING COMPANY, Boston, Mass., and New York, N. Y. Filed Oct. 10, 1916.

CLIPPER

Particular description of goods.—Rope, Cord, Lines, and Twine Manufactured from Vegetable Fiber.

Claims use since Sept. 27, 1916.

Ser. No. 98,537. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CANTRELL & COCHRANE LTD., Dublin and Belfast, Ireland. Filed Oct. 10, 1916.

C & C

The letters "C" and "C" with the figure "&" between them.

Particular description of goods.—Ginger-Ale.

Claims use since 1868.

Ser. No. 98,545. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SUTLIFF & GUNST, San Francisco, Cal. Filed Oct. 10, 1916.

BDV

The lining shown upon the sides of the letters represents shading and not lining for color.

Particular description of goods.—Cigarette-Papers.

Claims use since Sept. 20, 1916.

Ser. No. 98,564. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) KAUFMANN BROS. & BONDY, New York, N. Y. Filed Oct. 11, 1916.

Chesterfield

Particular description of goods.—Pipes, Cigar-Holders, and Cigarette-Holders.

Claims use since December, 1905.

Ser. No. 98,575. (CLASS 17. TOBACCO PRODUCTS.) THEOBALD AND OPPENHEIMER COMPANY, Philadelphia, Pa., and New York, N. Y. Filed Oct. 11, 1916.



Particular description of goods.—Cigars.

Claims use since the year 1898.

Ser. No. 98,579. (CLASS 17. TOBACCO PRODUCTS.) UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y. Filed Oct. 11, 1916.

WHITE SPOT



Particular description of goods.—Cigars.

Claims use since the year 1904.

Ser. No. 98,595. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN P. KEETON, Atlanta, Ga. Filed Oct. 12, 1916.

Southern King

Particular description of goods.—Cotton-Seed Meal.

Claims use since July 19, 1916.

Ser. No. 98,600. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) CHAUNCEY MARSHALL, Jr., Brooklyn, N. Y. Filed Oct. 12, 1916.

BULSAK

Particular description of goods.—Self-Closing Tobacco-Pouches.

Claims use since Sept. 1, 1916.

Ser. No. 98,621. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEST-CLYMER MANUFACTURING COMPANY, St. Louis, Mo. Filed Oct. 13, 1916.

JENNY LINN

Particular description of goods.—Horse and Mule Feed.

Claims use since August, 1916.

Ser. No. 98,622. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEST-CLYMER MANUFACTURING COMPANY, St. Louis, Mo. Filed Oct. 13, 1916.

JERSEY QUEEN

Particular description of goods.—Dairy Feed.

Claims use since August, 1916.

Ser. No. 98,623. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEST-CLYMER MANUFACTURING COMPANY, St. Louis, Mo. Filed Oct. 13, 1916.

HY-PEAK

Particular description of goods.—Dairy Feed.

Claims use since August, 1916.

Ser. No. 98,624. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEST-CLYMER MANUFACTURING COMPANY, St. Louis, Mo. Filed Oct. 13, 1916.

SUGAR LOAF

Particular description of goods.—A Fattening Feed for Stock.

Claims use since August, 1916.

Ser. No. 98,628. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. ELLIOTT COFFEE CO., Newville, Pa. Filed Oct. 13, 1916.

No-Kix

Particular description of goods.—Coffee and Tea.

Claims use since Sept. 29, 1916.

Ser. No. 98,635. (CLASS 16. PAINTS AND PAINTERS MATERIALS.) W. W. LAWRENCE & COMPANY, Pittsburgh, Pa. Filed Oct. 13, 1916.



No claim is made to the words "Everything Best in Paint" apart from the showing made in the drawing.

Particular description of goods.—Ready-Mixed Paint.

Claims use since May 1, 1906.

Ser. No. 98,638. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEELEVILLE MILLING COMPANY, Steeleville, Ill. Filed Oct. 13, 1916.

Blue Flag

Particular description of goods.—Self-Rising Wheat-Flour.

Claims use since about September, 1916.

Ser. No. 98,693. (CLASS 39. CLOTHING.) GOODYEAR RUBBER COMPANY, Middletown, Conn. Filed Oct. 16, 1916.

UWEAR

Particular description of goods.—Rubber Boots and Shoes.

Claims use since December, 1915.

Ser. No. 98,696. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE H. & D. COMPANY, Goodland, Ind. Filed Oct. 16, 1916.

Aitchandee

Particular description of goods.—Shock-Absorbers.

Claims use since Feb. 1, 1916.

Ser. No. 98,714. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY CO., Springfield, Mass. Filed Oct. 16, 1916.

SOMETHING TO DO

Particular description of goods.—Games.
Claims use since on or about Jan. 25, 1916.

Ser. No. 98,717. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CHR. A. HANSEN, New York, N. Y. Filed Oct. 16, 1916.

ABOCA

Particular description of goods.—Turpentine and Turpentine Substitute.
Claims use since Sept. 21, 1916.

Ser. No. 98,727. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID W. BOYER, Cairo, Ill. Filed Oct. 17, 1916.



Consisting of the portrait of this applicant and a facsimile of the applicant's signature.
Particular description of goods.—A Palliative for Cancer, Eczema, Gangrene or Blood-Poison, Sore Eyes, Cuts, and Sprains.
Claims use since 1912.

Ser. No. 98,732. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JENSEN CREAMERY MACHINERY COMPANY, New York, N. Y. Filed Oct. 17, 1916.

JENSEN

Particular description of goods.—Sanitary Pumps, Conveyers, Butter-Cutters, Can-Washers, and Churns.
Claims use since Dec. 1, 1915.

Ser. No. 98,737. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. M. MCCRACKEN CO., Boston, Mass. Filed Oct. 17, 1916.

HEARTHSTONE

Particular description of goods.—Tea and Coffee.
Claims use since Oct. 14, 1912.

Ser. No. 98,738. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW ORLEANS COFFEE CO. LTD., New Orleans, La. Filed Oct. 17, 1916.

Pointer



Particular description of goods.—Rice.
Claims use since Sept. 5, 1916.

Ser. No. 98,758. (CLASS 39. CLOTHING.) A. J. TOWER COMPANY, Boston, Mass. Filed Oct. 18, 1916.

THE ISLANDER

Particular description of goods.—Oiled Clothing.
Claims use since Oct. 11, 1916.

Ser. No. 98,819. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WEST DISINFECTING COMPANY, New York, N. Y. Filed Oct. 21, 1916.

WESTOLINA

Particular description of goods.—Disinfectants and Insecticides.
Claims use since Oct. 7, 1916.

Ser. No. 98,826. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CHAPMAN MILLING CO., Sherman, Tex. Filed Oct. 23, 1916.

JERSEY CREAM

Particular description of goods.—Wheat-Flour.
Claims use since 1887.

TRADE-MARK REGISTRATIONS GRANTED

NOVEMBER 21, 1916.

114,052. TOILET-PAPER. ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y.
Filed November 24, 1915. Serial No. 90,894. PUBLISHED SEPTEMBER 12, 1916.

114,053. MALT TONIC. BARTHOLOMAY BREWERY COMPANY, Rochester, N. Y.
Filed August 14, 1916. Serial No. 97,324. PUBLISHED SEPTEMBER 19, 1916.

114,054. CERTAIN NAMED PAINTERS' MATERIALS. THE CHARLES H. BROWN PAINT COMPANY, New York, N. Y.
Filed July 18, 1916. Serial No. 96,642. PUBLISHED SEPTEMBER 12, 1916.

114,055. BEER. BURKHARDT BREWING COMPANY, Boston, Mass.
Filed August 21, 1916. Serial No. 97,494. PUBLISHED SEPTEMBER 19, 1916.

114,056. BEER. BURKHARDT BREWING COMPANY, Boston, Mass.
Filed August 24, 1916. Serial No. 97,595. PUBLISHED SEPTEMBER 19, 1916.

114,057. CERTAIN PHARMACEUTICAL PREPARATIONS FOR TOILET PURPOSES. GEORGE C. CAMPBELL, New York, N. Y.
Filed July 1, 1916. Serial No. 96,268. PUBLISHED SEPTEMBER 12, 1916.

114,058. SELF-RAISING FLOUR. F. B. CHAMBERLAIN CO., St. Louis, Mo.
Filed April 10, 1916. Serial No. 94,281. PUBLISHED AUGUST 29, 1916.

114,059. FANCY BRAIDS, FEATHER-STITCHING, EMBROIDERIES, AND EDGINGS. THE H. B. CLAFLIN CORPORATION, New York, N. Y.
Filed March 31, 1916. Serial No. 94,007. PUBLISHED AUGUST 15, 1916.

114,060. FOUNTAIN-PENS. CROCKER PEN COMPANY, Boston, Mass.
Filed May 19, 1916. Serial No. 95,261. PUBLISHED SEPTEMBER 12, 1916.

114,061. NURSES' BLANK CHARTS FOR RECORDING THE TREATMENT AND CONDITION OF PATIENTS. EUNICE K. DALRYMPLE, New York, N. Y.
Filed July 20, 1916. Serial No. 96,686. PUBLISHED SEPTEMBER 12, 1916.

114,062 TALKING-MACHINES, PARTS THEREOF, AND CABINETS THEREFOR. DOMESTIC TALKING MACHINE CORPORATION, Philadelphia, Pa.
Filed June 22, 1916. Serial No. 96,052. PUBLISHED SEPTEMBER 12, 1916.

114,063. POLISH FOR AUTOMOBILES, FURNITURE, HARDWOOD FLOORS, AND WOODWORK GENERALLY. FRAZELE LABORATORIES, Tomahawk, Wis.
Filed August 14, 1916. Serial No. 97,333. PUBLISHED SEPTEMBER 19, 1916.

114,064. BEARINGS AND BUSHINGS. GENERAL ALUMINUM & BRASS MFG. CO., Detroit, Mich.
Filed August 14, 1916. Serial No. 97,337. PUBLISHED SEPTEMBER 19, 1916.

114,065. CERTAIN NAMED CUTLERY, TOOLS, AND PARTS THEREOF. LOUIS HENS, Baltimore, Md.
Filed August 15, 1916. Serial No. 97,349. PUBLISHED SEPTEMBER 19, 1916.

114,066. SOLE-LEATHER, SOLE-LEATHER STRIPS, AND HARNESS-LEATHER. MAGNUS HESSBERG, INC., Richmond, Va.
Filed May 5, 1916. Serial No. 94,923. PUBLISHED SEPTEMBER 12, 1916.

114,067. CERTAIN NAMED FOODS. THEODORE KRAININ, New York, N. Y.
Filed February 15, 1916. Serial No. 92,873. PUBLISHED JUNE 20, 1916.

114,068. FINISHED NEEDLEWORK. BENJAMIN KUGEL, New York, N. Y.
Filed March 29, 1916. Serial No. 93,965. PUBLISHED SEPTEMBER 12, 1916.

114,069. NON-ALCOHOLIC NON-INTOXICATING BEVERAGES OR SOFT DRINKS. ISAAC MAY, Chicago, Ill.
Filed May 6, 1916. Serial No. 94,961. PUBLISHED SEPTEMBER 19, 1916.

114,070. BEER CONTAINING LESS THAN TWO PER CENT. ALCOHOL. THE MONUMENTAL BREWING CO., Baltimore, Md.
Filed August 23, 1916. Serial No. 97,586. PUBLISHED SEPTEMBER 19, 1916.

114,071. PRINT-BLOCKS AND PRINT-ROLLERS. NATIONAL PRINT CUTTERS ASSOCIATION OF AMERICA, Lodi, N. J.
Filed July 8, 1916. Serial No. 96,437. PUBLISHED SEPTEMBER 19, 1916.

114,072. BOND-PAPER. NEENAH PAPER COMPANY, Neenah, Wis.
Filed May 18, 1916. Serial No. 95,226. PUBLISHED SEPTEMBER 12, 1916.

114,073. BACK, SIDE, AND DRESSING COMBS, BARRETTES, AND HAIR-PINS. NICHOLS MANUFACTURING COMPANY, Providence, R. I.
Filed May 15, 1916. Serial No. 95,149. PUBLISHED SEPTEMBER 12, 1916.

114,074. HORSE, DAIRY, AND POULTRY FEED. NOWAK MILLING CORPORATION, Buffalo, N. Y.
Filed March 27, 1916. Serial No. 93,917. PUBLISHED JUNE 20, 1916.

114,075. SUSPENDERS, BELTS, AND ARMBANDS. PIONEER SUSPENDER COMPANY, Philadelphia, Pa.
Filed July 11, 1916. Serial No. 96,505. PUBLISHED SEPTEMBER 12, 1916.

114,076. AUTOMOBILE AND FURNITURE POLISH. W. C. ROSS MANUFACTURING CO., Little Rock, Ark., and St. Louis, Mo.
Filed August 5, 1916. Serial No. 97,119. PUBLISHED SEPTEMBER 19, 1916.

114,077. CERTAIN NON-ALCOHOLIC CARBONATED BEVERAGES SOLD AS SOFT DRINKS AND SYRUPS FOR MAKING SAME. THE SCHUSTER COMPANY, Cleveland, Ohio.
Filed August 7, 1916. Serial No. 97,151. PUBLISHED SEPTEMBER 19, 1916.

114,078. TALKING-MACHINES, PHONOGRAPHS, RECORDS, GRAMOPHONES, GRAPHOPHONES, MUSIC-BOXES, TONE-ARMS, SOUND-BOXES, AND AMPLIFYING DEVICES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed January 11, 1916. Serial No. 92,070. PUBLISHED SEPTEMBER 12, 1916.

114,079. TALKING-MACHINES, PHONOGRAPHS, RECORDS, GRAMOPHONES, GRAPHOPHONES, MUSIC-BOXES, TONE-ARMS, SOUND-BOXES, HORNS, AND AMPLIFIERS. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed July 8, 1916. Serial No. 96,439. PUBLISHED SEPTEMBER 12, 1916.

114,080. SOFT DRINKS. SUPERIOR SPRING BOTTLING CO., Excelsior Springs, Mo.
Filed August 10, 1916. Serial No. 97,259. PUBLISHED SEPTEMBER 19, 1916.

114,081. PAPER TOWELS AND NAPKINS. THE UNION PAPER AND TWINE COMPANY, Cleveland, Ohio.
Filed September 20, 1915. Serial No. 89,338. PUBLISHED SEPTEMBER 12, 1916.

114,082. TALKING-MACHINES. EUGENE W. WALSH, New York, N. Y.
Filed April 6, 1916. Serial No. 94,220. PUBLISHED SEPTEMBER 12, 1916.

114,083. FOUNTAIN-PENS. WILLIAM A. WELTY, Waterloo, Iowa.
Filed June 23, 1916. Serial No. 96,098. PUBLISHED SEPTEMBER 12, 1916.

TRADE-MARK REGISTRATIONS RENEWED.

13,960. CARBONATED BOTTLED BEVERAGES. BADGER STATE BOTTLING CO., Watertown, Wis.
Registered January 11, 1887. Renewed January 11, 1917.

LABELS

REGISTERED NOVEMBER 21, 1916.

19,747.—*Title:* "THE SCIENTIFIC TONIC RECONSTRUCTOR." (For a Tonic.) ISIDORE HOROVITZ, Savannah, Ga. Filed November 1, 1916.

19,748.—*Title:* "NEW YORK BEVERAGE COMPANY, INC." (For a Concentrated Extract of Malt, Barley, Hops, and Sugar.) NEW YORK BEVERAGE COMPANY, INC., New York, N. Y. Filed September 18, 1916.

19,749.—*Title:* "CYRO." (For Cigars.) WELCHER BROTHERS, New York, N. Y., and Chicago, Ill. Filed March 30, 1916.

PRINTS

REGISTERED NOVEMBER 21, 1916.

4,567.—*Title:* "BRIGHT GEMS OF KILLARNEY." (For a New Irish Badge.) WILLIAM FREDERICK MILLER, New York, N. Y. Filed October 31, 1916.

4,568.—*Title:* "EAT PURITAN MAID BREAD." (For Bread.) HENRY F. OLSCHEWSKY, Montesano, Wash. Filed September 28, 1916.

4,569.—*Title:* "PACKER'S TAR SOAP." (For Tar Soap.) EDWARD A. OLDS, New York, N. Y. Filed September 6, 1916.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

LITLE, JR., *v.* ARMSTRONG.

Decided October 31, 1916.

1. INTERFERENCE—PATENTABILITY TO WINNING PARTY OF CLAIMS BROADER THAN ISSUE—TESTIMONY SHOWING MANUFACTURE AND SALE.

Where there is testimony in a prior interference to the effect that a device was made and marketed by the unsuccessful party therein at a date prior to the filing date of the prevailing party, which device falls within the broader claims now presented by the prevailing party, though found not to conform to the issue of the prior interference, *Held* that the broader claims cannot be allowed to the prevailing party until he has in some way overcome the effect of the testimony as to prior sale and use.

2. SAME—RES ADJUDICATA—GROUNDS OF JUDGMENT IN FIRST INTERFERENCE AND FACT THAT PREVAILING PARTY IS APPLICANT FOR REISSUE TO BE CONSIDERED.

Where an applicant for reissue, after securing an interference with a pending application having broad and narrow claims standing allowed therein, fails to include the broader claims in the issue and prevails upon the narrower issue upon the ground that the device made and marketed by his opponent did not embody the structure of the limited issue, *Held* that he cannot prevail in a second interference having a count broad enough to cover the marketed device of his opponent upon the ground that the broader count also is *res adjudicata*.

3. SAME—SAME—SAME—SECOND INTERFERENCE PROPER UNDER SPECIAL CIRCUMSTANCES.

Where under the circumstances set forth above it appeared that the prevailing party also had claims in his case during the interference which might be construed as the equivalent of the broad claims now in issue, *Held* that the second interference is proper and should take the usual course.

APPEAL from Examiners-in-Chief.

GLOBE-HOLDER.

Messrs. Bakewell, Byrnes & Parmelee for Litle, Jr.

Messrs. Spear, Middleton, Donaldson & Spear for Armstrong.

EWING, *Commissioner:*

This is an appeal by Litle from a decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention to Armstrong.

The count of the issue (originally count 1) is:

A shade or globe holder having an annular flange, a ringlike wire shade retaining element having a loop in its intermediate portion, there being a slot formed in the said annular flange through which the loop extends, said loop and slot being shaped to permit the loop to move freely a predetermined distance and to prevent the removal of the loop when the shade retaining element is in its normal position within the shade holder.

The Examiners-in-Chief on the second page of their opinion have set forth the relation of the subject-matter of this interference with that of a former interference, No. 36,727, and have sustained the Examiner of Interferences in awardng priority to Armstrong as to count 1 on the doctrine of *res adjudicata*, Armstrong having adopted the broader claim of Litle's Patent No. 1,090,635 after winning the interference No 36,727, the issue whereof was specific.

The Examiners-in-Chief have in effect held that claim 4 of Armstrong's reissue application as originally filed was as broad as the present issue, and I am not inclined to disturb that conclusion; but I cannot adopt the conclusion which they have reached as to Armstrong's right to the broadened claim under the doctrine of *res adjudicata*.

The right of an applicant to amend his claim after successfully contesting an interference has been recognized in a number of decisions. (See *Cross* v. *Rusby*, 204 O. G., 321; 42 App. D. C., 341.) It is a right of great value, for the reason that during a protracted interference proceeding the invention is much more carefully studied than it is likely to be while drafting the application, and frequently its essential elements and scope will be appreciated better as the result of this study.

The late Mr. Justice Brown, of the Supreme Court of the United States, once called attention to the difficulty of drafting an application in the following words:

The specification and claims of a patent, particularly if the invention be at all complicated, constitute one of the most difficult legal instruments to draw with accuracy, and in view of the fact that valuable inventions are often placed in the hands of inexperienced persons to prepare such specifications and claims, it is no matter of surprise that the latter frequently fail to describe with requisite certainty the exact invention of the patentee and err either in claiming that which the patentee had not in fact invented, or in omitting some element which was a valuable or essential part of his actual invention.

Fundamentally an inventor must have some one point of advantage over all the rest of the world. If his invention is of commercial value, it is a point of advantage which in almost every case others have sought but have failed to attain. It is of course necessarily novel. To define a new thing accurately, so that it may all be embraced within the description, but nothing included which is not essential, is an art of itself, and, as Justice Brown indicated, a difficult art, one requiring long and careful training and in the practice of which oversights and mistakes of judgment are bound to occur.

To deny to an applicant who has successfully contested an interference proceeding the right to broaden his claim would therefore clearly be a harsh rule.

None the less the right to a claim broader than the issue is not a logical consequence of the judgment in interference proceedings. The Court of Appeals of the District of Columbia in *Horine* v. *Wende* (129 O. G., 2858; 29 App. D. C., 415) said:

It is unfortunate, perhaps, that the Patent Office practice permits amendment by the successful party to broaden the scope of his claims after a final decision in an interference upon claims for the same invention narrower in scope. That question, however, is not before us.

The winning party is entitled to the full benefit of the judgment; but where he seeks to broaden his claim the testimony and the ground upon which the judgment is based must always be considered in determining to what limits the privilege of enlargement of the claim may be extended.

The question is analogous to that of enlargement of decree in an infringement suit to cover devices different from the one sued on. (See *Individual Cup Co.* v. *Public Service Co.*, 234 Fed. Rep., 653.) The courts have never been disposed to apply any hard and fast rule in such cases. They have not been alert to charge the complainant with failure to bring forward other examples of infringement, and therefore to deny him the right to include them within the decree or to bring another suit. The doctrine of *res adjudicata* has not been applied with the purpose of diminishing the number of suits which the court has to pass upon, but merely with the aim of giving full effect to the judgment of the court and of relieving litigants from loss of rights and from oppression. Each case is treated on its merits. It doubtless results that more suits are brought than would be brought if rigid rules were applied, but more often probably justice is secured.

The doctrine of *res adjudicata* as applied in interference proceedings can be carried to the point where a second interference is impossible no matter how widely different in breadth of statement the claims may be and equally without regard to whether or not the question of scope of the issue controlled the decision.

When the case of *Cross* v. *Rusby* (204 O. G., 319) was before me, I reached the conclusion, somewhat broadly, as stated in the syllabus, that where after a decision in favor of one of the parties to an interference a second interference was declared between the same application of the winning party and a patent to the losing party having an earlier filing date, with an issue clearly readable upon the disclosure involved in the prior interference, the question of priority was *res adjudicata*. I made this statement believing that it was in accord with the line of decisions of the court of appeals applying this doctrine. In their decision in *Cross* v. *Rusby, supra*, (42 App. D. C., 341,) although I was sustained and the court quoted a part of my opinion, they did so with a certain apparent qualification or reservation. They said:

The question for determination is whether the second interference related to substantially the same cause of action as the prior interference. If it did, the decision in the first is conclusive in the second as to every question which was or might have been presented or determined in the first. * * *

Assuming, for the purposes of this decision, that the claims of the second interference are slightly broader than those of the former, although there is much force in the contention of counsel for Rusby that the difference is one of expression rather than of fact, we concur in the Commissioner's conclusions.

Clearly this falls short of holding that the right of the winning party to claims, regardless of their breadth, which are readable upon the subject-matter of the interference is *res adjudicata* between the parties. It would seem that it was because the court found the claims only slightly broader and were in doubt as to whether there was any difference that they sustained the conclusion. This leaves the way open for the declaration of a second interference when a broadened claim is demanded, and it appears that the conclusion reached in the first interference would probably have been different had the scope of the issue been broader.

The Office has never been prone to declare second interferences. As was said by Commissioner Allen, denying a second interference in *Corry and Barker* v. *Trout* v. *McDermott*, (1904, C. D., 144:)

The declaration of a second interference between the same applications should be necessary only in rare cases and under very exceptional circumstances. It should not ordinarily be declared upon claims to the same device and differing from the first issue merely in scope. If a mere change in the scope of claims were considered good ground for a second interference, the number of successive interferences between the same parties would be practically unlimited, and the interference procedure would become an intolerable burden to applicants. The Office is justified in taking the decision as to priority of invention as *prima facie* evidence that the successful party was the first inventor not merely of the particular issue in controversy, but of the invention common to the two cases, whether more broadly or more specifically stated. The burden is upon the defeated party to show special circumstances of the particular case which make it improper to apply the decision to the other claims presented. It is not sufficient that the claims differ, and that it is theoretically possible for one party to be the prior inventor as to the first and the other party prior inventor as to the second, for this would apply in all cases where the claims are not identical.

This passage is quoted in the opinion in *Horine* v. *Wende*, (1907, C. D., 615; 29 App. D. C., 415,) apparently with approval.

The same principle was applied by Commissioner Allen in *Sarfert* v. *Meyer*, (76 MS. Dec., 410,) where, however, he concluded that a second interference should be declared because—

the Examiners-in-Chief have held that Meyer has shown by his testimony that he had the broad invention prior to the date established by Sarfert in the interference No. 20,509. (See also *Sarfert* v. *Meyer*, 1904, C. D., 120.)

With the exception of a holding such as is referred to the facts in that case are practically identical with those presented in the case at bar, including the point that Meyer filed his reissue application, presenting the claims involved, at a date anterior to any decision in the former interference. The patent to Litle was granted March 17, 1914, and the decision of the Examiner of Interferences in interference No. 36,727 was dated January 28, 1915.

The ground upon which the decision favorable to Armstrong was based in interference No. 36,727 was that the issue was narrowed to that form of holder which Litle did not put upon the market, whereas the present issue is broadened to cover the form which Litle did put upon the market. In their brief before the Examiners-in-Chief the attorneys for Armstrong, while presenting also broader reasons why priority should be awarded to him, said, (p. 3:)

The invention in issue is extremely specific, relating only to the deflection of the radially extending loop for coacting with the wall of the slot in the back of the basket, or burner shell, for retaining the spring holder in place. The spring holder was not novel with either of the present applicants, since it is fully disclosed in British Patent 7740, of 1908, Mundler.

Moreover, it is fully disclosed in prior patents granted to Litle, Jr., 1,008,836, November 14, 1911, and 1,090,635, March 17, 1914. The application for the first of these two patents was filed June 12, 1911, and for the second one, July 16, 1912.

In view of these two patents, granted to Litle, Jr., his present application must be strictly limited to the stated feature.

Litle's Patent No. 1,090,635, referred to above, is the one involved in the present interference, the broad claim of which Armstrong seeks to appropriate.

Following the argument of the attorneys for Armstrong, the Examiner of Interferences in his opinion said:

Litle further alleges that both of these devices were completed in May, 1910, at which time they were tested under the conditions of actual use and their success practically demonstrated. The prong form admittedly does not embody the issue. By his alleged successful operation of the bent loop form, however, Litle claims that he accomplished an actual reduction to practice of the invention long prior to any date to which his opponent is entitled.

Again:

Litle also admits that no burners of the bent loop type were ever sold or shipped to customers (X-Q. 9), while beginning in the early part of the year 1911, upward of two million burners * * * of the prong form had been sold by his company. (Q. 10; X-Qs. 11–13.) The only explanation advanced is that the prong form was selected by the company as preferable mechanically.

The Examiner of Interferences then points out that Litle had two applications prior to the one there involved, (one of Patent No. 1,090,635.) He says that in neither of these applications was any mention made of the bent-loop feature of retaining means here in issue. He then adds that the facts presented—

strongly indicate that what was done in connection with the bent loop form when the same was tested, either in 1910, or later, was merely experimental, that Litle did not attach sufficient importance to the device to obtain a patent therefor, and that the device was abandoned in favor of the prong form.

The Examiner of Interferences concludes that Litle has not overcome the *prima facie* date established by the Armstrong record date and that Armstrong must therefore prevail, standing on his record date alone. He reviewed briefly the testimony for Armstrong, which he says strengthens his conclusion.

The Examiners-in-Chief questioned whether the finding that Litle's construction was an abandoned experiment was right; but, citing *Mason* v. *Hepburn* (84 O. G., 147; 13 App. D. C., 86) and other cases, they said:

If the Litle construction should be regarded as constituting an actual reduction to practice, it must also be held that the invention completed thereby was concealed by Litle until after Armstrong who had previously conceived had taken a patent therefor. The circumstances are such as not to entitle Litle to prevail.

There is testimony in interference No. 36,727 tending to show that from a date prior to Armstrong's filing date continuously Litle's prong form of burner has been sold to the number of about two million burners.

I do not hold that this testimony establishes that Litle sold the prong form of the burner before Armstrong filed. As the contention that the issue was limited was constantly pressed by objections to testimony, it may be that Litle's case is not completely developed; but it is strong enough to demand inquiry by this Office, for what he did present was enough to induce Armstrong practically to demur to the evidence and led the tribunals to rest their decision on the limitation of the issue.

The argument now presented by Armstrong leads to the conclusion that he is relieved from the consequence of these alleged prior public sales because Litle failed to make a proper motion to broaden the issue in interference No. 36,727. This is an obvious *non sequitur*. It would be improper to grant the broad claim which Armstrong is now seeking on the holding of *res adjudicata* between the parties, for to establish that he is entitled to a patent Armstrong must overcome a marketing of these goods prior to his filing date by convincing proofs that he completed the invention before the sales were made. (*Thayer* v. *Hart*, 20 Fed. Rep., 693; *Hart* v. *Thayer*, 20 Fed. Rep., 696; *Brooks et al.* v. *Sacks*, 81 Fed Rep., 403; *Forney* v. *Hancock*, 184 Fed. Rep., 61.)

The question arises whether Armstrong is entitled to a judgment against Litle, leaving the effect of the alleged sales by Litle to be investigated in a public-use proceeding, or whether Litle is still entitled to contest with Armstrong the right to the broad claim here involved.

I know of no decision under which Litle's right to the broad claim can be held to be lost, apart from Armstrong's individual rights. *In re Marconi* (38 App. D. C., 286) upheld the rejection of Marconi's claim solely on the ground that Babcock's rights would be impaired. The court said, (p. 291:)

The Commissioner might in the exercise of his discretion, and especially if in doubt, have declared another interference with Babcock and devolved upon him the burden of maintaining the conclusiveness of the former adjudication. But he was under no obligation to pursue that course in what he regarded as a plain case, and the effect of his representation of Babcock's interest for the purpose of urging the former adjudication is for all purposes of the present proceeding the same as if Babcock were a formal party.

At page 292 the court plainly indicates that Marconi elected not to present his claim when he had opportunity, for they say he was given time to determine what course he would pursue. Had he desired to pursue the course suggested by the Examiner, doubtless he would have been given all necessary time.

Instead, he elected to abide the judgment in the depending cause, and suffer Babcock's patent to issue in pursuance thereof.

Litle's application in the former interference, on the contrary, as originally filed, contained as its first claim substantially the broad claim of his patent. Thus he is entirely relieved from any charge of having failed to present his claim in ample time.

The distinction between the two forms of holder here involved is not a mere matter of detail. It was of sufficient importance to cause the assignee of Litle to decide in favor of one form as against the other for purposes of manufacture. The two

forms are distinguished from each other according to the view of the Office, in a patentable sense, as appears from the fact that Litle's two applications were received and acted upon and that Armstrong obtained his Patent No. 1,014,433 upon one specific form and Litle based his Patent No. 1,090,635 upon the other specific form.

The testimony in the former interference established that Armstrong came into the Office for the purpose of interference after he had learned that he had a rival. His application for reissue was not filed until more than two years after he had put his device on the market and until a still longer time had elapsed after Litle claims to have put his device on the market. As an applicant for reissue Armstrong was under duty to the public and to Litle as a member of the general public, who would be particularly affected thereby, to act promptly and to develop fully whatever right of amendment he wished to press.

When he got access to Litle's application, Armstrong found the broad and narrow claims therein. Instead of challenging Litle's right and presenting his own right to a patent to the full limit he chose a narrow ground for controversy.

After Armstrong had made his election Litle asked that a claim be transferred to his other application and the patent allowed. The exact language in which this request is made is found in the paper filed June 17, 1913, and is as follows:

> This claim is transferred from applicant's co-pending case Serial No. 719,112, and it covers broadly the form of this present application as well as the application in which it was first drawn. As the present application is now allowed and will doubtless issue first, it is important for applicant's purpose that this broad claim be allowed in the present case rather than in the other case, which is now involved in an interference.
>
> As this amendment merely transfers an allowed claim from another case to the present case, we beg to ask that it be recommended for insertion without withdrawal from issue.

This request the Examiner denied on the ground that the claim then presented in fact was to the specific structure disclosed in Litle's other application, from which the claim had been taken.

Under date of December 17, 1913, a different claim was presented, with the statement:

> Claim 3 has been taken from applicant's co-pending case, No. 719,112, in which case said claim will be canceled. * * *
>
> The other application, No. 719,112, is involved in an interference, but claim 3 transferred to this case is not involved in this interference.

Thereafter, with some further amendment, the application was allowed January 7, 1914. It will therefore be seen that the allowance of the patent was not an inadvertence. Litle took the position that Armstrong having indicated what he wished to contest he (Litle) was entitled to the broad claim, and the Examiner apparently accepted this argument.

The testimony in the other interference apprised Armstrong of Litle's business in these globe-holders, which he is now seeking to deprive Litle of the right to conduct, a business which, according to Litle's testimony, he had developed to large volume before Armstrong filed his application for reissue.

If Armstrong had not presented the broad claim until after the termination of the first interference, I would, under all the circumstances, deny him the right to enlarge his claim.

It is plain that he has not sustained the burden of maintaining the conclusiveness of the former adjudication.

However, since both parties were presenting broad claims and both were remiss in not raising the broad issue, neither has the other on the hip, and this interference should have taken the usual course.

The judgment in favor of Litle as to count 2 has become final. The judgment in favor of Armstrong as to count 1 is vacated on the ground that the doctrine of *res adjudicata* does not apply, and the interference is remanded to the Examiner of Interferences to set times for taking testimony.

LITLE, JR., *v.* ARMSTRONG.

Decided November 4, 1916.

APPEAL from Examiners-in-Chief.

PETITION for rehearing.

GLOBE-HOLDER.

Messrs. Bakewell, Byrnes & Parmelee for Litle, Jr.

Messrs. Spear, Middleton, Donaldson & Spear for Armstrong.

EWING, *Commissioner:*

I have considered the petition for rehearing, but without changing my opinion nor finding anything which I care to have reargued.

In *Blackford* v. *Wilder* (127 O. G., 1255; 21 App. D. C., 1) the court discussed Wilder's Exhibit E and said:

> As produced it is incomplete. There is no vertically disposed lighting member shown, but the bowl or trough of the burner is adapted to hold oil and has the contracted lower portion required by the issue.

They thereupon held that Wilder's right to judgment of priority necessarily depends upon his Exhibit E and said:

> We cannot agree with the Commissioner, that this exhibit, in its condition when produced and in the light of the entire evidence relating to it, embodied the special issue of the interference in its construction and operation.

They accordingly held that Blackford must prevail.

Wilder thereupon moved that an investigation be made as to Exhibit E; but this motion was denied. (21 App. D. C., 11.) In the second interference the court refers to this motion as follows, (127 O. G., 1225; 28 App. D. C., 535:)

> The issue turned, mainly, upon the point whether Wilder's "Exhibit E" showed the invention of the issue, and as such had been reduced to practice. This exhibit had passed through the Patent Office, and had been produced in this court on the hearing of the appeal. It had no lighting member in it, and attempt was made by Wilder, on a motion for rehearing, to introduce affidavits to show that it had, when presented in the Patent Office and considered by the several tribunals therein, a thin, vertical asbestos lighting member or kindler, answering the requirements of the issue. It appearing to the court, from the recitals in the decisions of the Examiners-in-Chief and the Commissioner, that the lighter was not in the exhibit when considered by them, the motion was denied.

The second interference was an attempt to escape the effect of the denial of the motion by the court.

It seemed to me that this was enough of itself to cause the court to refuse a second interference to Wilder, and in the discussion in my opinion I considered cases which state the doctrine of *res adjudicata* and are free from any such special point as the one indicated against Wilder.

I did not assume that Armstrong had no claim as broad as the present issue. I think it clear from my opinion that I was comparing the issue of the first interference with the issue of the second interference. No statement is made which is inconsistent with the finding of the Examiners-in-Chief as to the scope of claim 4 of Armstrong's reissue application.

Petitioner's discussion of the question whether Litle's patent issued inadvertently or not seems to me to assume that Litle and the Examiner necessarily took the same view of the scope of claim 4 as the Examiners-in-Chief ultimately took; but since claim 4 on its face is limited this does not follow.

The order with which my opinion closed was specifically asked for by Litle. The proposition that Armstrong was under a special duty arising out of the fact that he is a reissue applicant, which is the main ground of my decision, is in accord with the general treatment of the subject of reissues by the courts. I do not believe a reargument will alter my opinion.

The petition for rehearing is denied.

DECISION OF THE EXAMINERS-IN-CHIEF.

EX PARTE CUTLER.

Decided March 29, 1916.

INTERFERENCE—RES ADJUDICATA—BROADER CLAIMS.

> Where a party loses an interference upon the ground that he has no right to make the claims, but had standing allowed in his application during the interference claims broad enough to cover common subject-matter, and the prevailing party fails to make such claims either during or after the interference and takes his patent limited to the specific feature which was held to be disclosed by him alone, *Held* that the losing party is not barred from obtaining the broader claims by the doctrine of *res adjudicata*. (*Sutton et al.* v. *Wentworth*, 204 O. G., 320; 41 App. D. C., 582, distinguished.)

Messrs. Jones, Addington & Ames, *Mr. Edwin B. H. Tower*, and *Mr. Frank H. Hubbard* for the appellant.

Before the Examiners-in-Chief.

BAYARD, *Examiner-in-Chief:*

The appeal in this case from the action of the Primary Examiner finally rejecting claims 20 and 21 has been reconsidered in connection with the motion for rehearing filed March 18, 1916.

The Examiner does not question that the appealed claims are properly readable upon the applicant's disclosure. These claims are, in fact, the claims of the issue of the interference except that the limitation in the latter which the appellant could not make has been replaced by one which he can make, apparently without room for question.

In our decision of January 10, 1916, we held that the applicant was barred from obtaining a patent containing the appealed claims by operation of the doctrine of *res adjudicata*, as applied in the case of *Sutton et al.* v. *Wentworth*, (204 O. G., 320; 41 App. D. C., 582.) In the petition for rehearing the applicant calls attention to claims 8, 9, and 12, advanced by him prior to the interference and standing allowed in his application during the interference. These claims contain limitations which were not set forth in the counts of the issue of the interference; but these limitations appear to consist merely in recitals of features which are disclosed by each party as a portion of his means for securing the operation and results which characterized the counts in the issue of the interference. These claims therefore are, in effect, broad claims dominating the structure disclosed by the opposing party, Knight, for carrying out the invention recited in the interference issue.

We believe that the doctrine of *Sutton et al.* v. *Wentworth*, *supra*, should not be applied to bar the grant of claims for common subject-matter to a party who loses an interference upon an interpretation of the issue too narrow to cover the common subject-matter when such party had in his application throughout the interference claims which were broad enough to cover the common disclosure and the prevailing party fails to make any such claim either during or after the interference and takes a patent limited to the specific feature which has held to be disclosed by him alone. The appellant calls our attention to the fact that we have recognized this distinction in a previous case, and it so happens that in that case the distinction worked in favor of the same party in interest, who was the successful party in the interference in which the appellant in the present case was involved. The relationship of claims upon which the distinction from *Sutton et al.* v. *Wentworth*, *supra*, was based in that case appears to be very much like the relationship of claims upon which we are basing the distinction in the present case.

We hereby vacate our decision of January 10, 1916, in this case and reverse the action of the Primary Examiner finally rejecting the appealed claims.

ADJUDICATED PATENTS.

(U. S. D. C.) The Isaacs and Pellar patent, No. 819,548, for a fabric-folding machine, *Held* valid and infringed. *Isaacs* v. *Sussman*, 235 Fed. Rep., 403.

Disclaimer.

1,183,551.—*John R. Gammeter* and *Walter H. Allen*, Akron, Ohio. PROCESS OF MAKING TIRES. Patent dated May 16, 1916. Disclaimer filed November 7, 1916, by the assignee, *The B. F. Goodrich Company*.

Enters this disclaimer—

"To the subject-matter of the following claims, to wit:

"1. The process of forming solid rubber tires consisting in winding a sheet of rubber compound about a rim until a sufficient number of layers to give the desired thickness of tire are applied, and then vulcanizing the tire while upon the rim.

"2. The process of forming solid rubber tires consisting in winding a sheet of rubber compound about a rim until a sufficient number of layers to give the desired thickness of tire are applied, and then subjecting the rubber structure thus built up, while on the rim, to a vulcanizing action, thus uniting the successive layers of rubber to each other and uniting the rubber structure to the rim.

"3. The process of forming the tread portions of solid rubber tires consisting in winding a sheet of rubber compound about a rim into substantially cylindrical form until the tread contains a sufficient number of substantially cylindrical layers to give the required thickness of tread, and then vulcanizing the tread thus built up.

"5. The process of forming complete solid rubber tires consisting in winding a sheet of rubber compound into substantially cylindrical form upon an annular support.

"6. The process of forming complete solid rubber tires consisting in winding a sheet of rubber compound into substantially cylindrical form upon an annular support, and vulcanizing the same.

"7. The process of forming solid rubber tires consisting in winding a sheet of rubber compound upon an annulus until a laminated base has been built up from the successive windings, and then overlaying said base with a second sheet of rubber compound of such ingrediency that it will become less hard under the temperature of vulcanization, and winding such second sheet upon the laminated base until a laminated tread has been built up on said base.

"9. The process of forming solid rubber tires consisting in winding a sheet of rubber compound upon an annulus of metal, until a laminated base has been built up from the successive windings, and then superposing a second sheet of rubber compound of such ingrediency that it will become less hard under the temperature of vulcanization, and winding such second sheet upon the laminated base until a laminated tread has been built up on said base, and vulcanizing the tire thus formed directly upon said annulus.

"12. The process of forming a solid rubber tire having a basic core of rubber harder than the parts external thereto consisting in winding a band of rubber upon a metallic rim in layers; and then superposing a second band of rubber characterized by greater resistance to vulcanization than the first, and winding it upon the core formed by the first band in layers.

"13. The process of forming a solid rubber tire having a basic core of rubber harder than the parts external thereto consisting in winding a band of rubber upon a metallic rim in layers; and then superposing a second band of rubber characterized by greater resistance to vulcanization than the first, and winding it upon the core formed by the first band in layers, and vulcanizing the tire thus formed directly upon said band.

"19. The step in the process of forming a rubber tire having a base of harder rubber than the tread, by forming and winding upon itself a strip of rubber compound of progressively increasing resistance to vulcanization.

"21. The process of making solid rubber tires which consists in wrapping a strip of warm freshly-calendered rubber compound upon itself on an annular support, said strip shrinking as it cools, and vulcanizing the resultant structure.

"24. The steps in the process of making solid rubber tires having bases of harder vulcanizing compound than the treads consisting in forming a strip of rubber compound of uniform thickness and decreasing hardness and supplying such strip while in the tacky state resultant from the forming means direct to a tire-forming means."

Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1916.

The Hughes Anti-Friction Company, its assigns or legal representatives, take notice:

A cancelation proceeding having been instituted by this Office upon the application of The Ironsides Company, of Columbus, Ohio, to effect the cancelation of the trade-mark registration of The Hughes Anti-Friction Company, of Boston, Mass., No. 44,340, dated March 21, 1905, and the notice of such proceeding sent by registered mail to the said The Hughes Anti-Friction Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said The Hughes Anti-Friction Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

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OFFICIAL GAZETTE
OF THE
United States Patent Office.

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CONTENTS

	Page.
ISSUE OF NOVEMBER 28, 1916	941
CHANGES IN CLASSIFICATION	941
AMENDMENTS TO AMENDMENTS	941
APPLICATIONS UNDER EXAMINATION	942
PATENTS GRANTED	943
REISSUES	1226
DESIGNS	1231
TRADE-MARKS—REGISTRATION APPLIED FOR	1239
TRADE-MARK REGISTRATIONS GRANTED	1256
TRADE-MARK REGISTRATIONS CANCELLED	1266
TRADE-MARK REGISTRATIONS RENEWED	1266
LABELS AND PRINTS	1267
COMMISSIONER'S DECISIONS—	
Simplex Electric Heating Company v. The Ramey Company	1269
ADJUDICATED PATENTS	1263
PATENT, TRADE-MARK, AND COPYRIGHT REGULATIONS IN FINLAND	1263
DISCLAIMERS	1263
NOTICE OF CANCELATION	1263
INTERFERENCE NOTICE	1264
ADVERSE DECISIONS IN INTERFERENCE	1264

ISSUE OF NOVEMBER 28, 1916.

Patents	894—No.	1,205,955 to No.	1,206,788, inclusive.
Designs	34—No.	49,943 to No.	49,976, inclusive.
Trade-Marks	44—No.	114,084 to No.	114,127, inclusive.
Labels	18—No.	19,750 to No.	19,767, inclusive.
Prints	10—No.	4,570 to No.	4,579, inclusive.
Reissues	6—No.	14,218 to No.	14,223, inclusive.
Total	946		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	8	.....	North Carolina	3	.....
Arizona	2	.....	North Dakota	4	.....
Arkansas	1	.....	Ohio	40	3
California	38	5	Oklahoma	6	1
Colorado	5	6	Oregon	15	.....
Connecticut	22	.....	Pennsylvania	94	4
Delaware	1	.....	Rhode Island	7	.....
Florida	5	.....	South Carolina	1	.....
Georgia	7	2	South Dakota	3	.....
Idaho	4	.....	Tennessee	3	.....
Illinois	60	6	Texas	21	.....
Indiana	23	2	Utah	3	.....
Iowa	17	.....	Vermont	2	.....
Kansas	11	.....	Virginia	9	1
Kentucky	2	.....	Washington	16	1
Louisiana	7	.....	West Virginia	2	.....
Maine	5	1	Wisconsin	26	2
Maryland	6	2	Wyoming	3	.....
Massachusetts	41	10			
Michigan	24	1	Alaska, District of	.....	.....
Minnesota	16	1	Canal Zone	.....	.....
Mississippi	5	1	District of Columbia	5	.....
Missouri	27	3	Hawaii Territory	.....	.....
Montana	5	.....	Philippine Islands	.....	.....
Nebraska	9	.....	Porto Rico	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	3	.....	U. S. Navy	.....	.....
New Jersey	35	3			
New Mexico	2	.....	Total to residents of the United States.	708	70
New York	142	15			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	.....	Netherlands	.....	.....
Austria-Hungary	3	3	New South Wales	.....	.....
Belgium	3	.....	New Zealand	.....	.....
Brazil	.....	.....	Norway	.....	.....
Canada	17	.....	Portugal	.....	.....
China	.....	.....	Queensland	.....	.....
Costa Rica	1	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	2	.....
Denmark	.....	.....	South Australia	1	.....
England	14	.....	Spain	.....	.....
Finland	.....	.....	Sweden	2	.....
France	4	.....	Switzerland	1	.....
Germany	13	.....	Transvaal, South Africa	.....	.....
Greece	.....	.....	Uruguay	.....	.....
India	.....	.....	Victoria	.....	.....
Ireland	.....	.....	Wales	.....	.....
Isle of Jersey	.....	.....	Western Australia	.....	.....
Italy	3	.....			
Japan	.....	.....	Total to residents of foreign countries	70	2
Luxemburg	.....	.....			
Mexico	.....	.....			

Changes in Classification.

(ORDER No. 2,292.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 18, 1916.

It is hereby directed that class 116, Signals, be transferred from Division XLII to Division XXXV, to take effect immediately.

THOMAS EWING,
Commissioner.

Changes in Classification.

(ORDER No. 2,293.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 23, 1916.

It is hereby directed that class 241, Garment-Supporters, be transferred from Division XXXV to Division XXIV, to take effect immediately.

THOMAS EWING,
Commissioner.

Amendments to Amendments.

RULE 74. When an amendatory clause is amended, it must be wholly rewritten, so that no interlineation or erasure shall appear in the clause, as finally amended, when the application is passed to issue. If the number or nature of the amendments shall render it otherwise difficult to consider the case or to arrange the papers for printing or copying, the Examiner or Commissioner may require the entire specification to be rewritten.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 24, 1916.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 12	Sept. 13	399
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 7	Sept. 23	716
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Oct. 30	Nov. 7	74
232	4. Conveyors; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Devices; Railway Mail Delivery; Store-Service; Traversing Hoists.	Oct. 17	Oct. 26	232
167	5. Bookbinding; Harvesters; Jewelry; Music.	Aug. 19	Oct. 7	216
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Aug. 17	Oct. 31	301
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	July 24	Sept. 8	546
121	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 24	Aug. 21	1262
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	May 25	July 31	542
235	10. Carriages and Wagons; Spring Devices.	June 2	Oct. 10	236
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 2	Nov. 13	91
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Aug. 2	Oct. 16	566
320	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	July 5	Sept. 30	806
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 24	Oct. 21	282
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Oct. 25	Nov. 9	287
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	June 5	Sept. 13	861
303	17. Matrix-Making; Ornamentation; Paper Manufactures; Printing; Type-Bar Making.	Aug. 3	Oct. 30	198
327	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 28	Nov. 1	100
226	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	July 1	Sept. 1	443
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 8	Nov. 8	100
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Aug. 9	Oct. 27	241
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	June 13	Sept. 13	478
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 12	July 14	455
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	May 26	Sept. 21	376
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers. Gas Separation.	Oct. 5	Oct. 17	196
106	26. Electricity, Generation; Motive Power.	Mar. 27	July 17	666
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Oct. 7	Oct. 19	219
65	28. Internal-Combustion Engines.	June 21	Sept. 20	528
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 5	Oct. 21	366
183	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Sept. 25	Nov. 3	272
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	June 2	Sept. 16	350
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	May 1	Sept. 22	841
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 11	Oct. 7	389
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fastenings.	May 10	Aug. 4	349
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	.....	.....	.....
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	July 10	Oct. 5	305
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Apr. 17	Sept. 21	774
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Oct. 23	Oct. 19	148
231	39. Water Distribution.	May 9	Oct. 9	322
220	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 1	Nov. 2	665
126	41. Railway Draft Appliances; Resilient Tires and Wheels.	July 31	Oct. 7	507
264	42. Electricity, Conductors; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	May 23	Sept. 21	343
282	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 31	Sept. 27	107

Oldest new case, Mar. 27; oldest amended, July 14.
Total number of applications awaiting action..... 13,396

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.	Oct. 17	Nov. 4	520
	Designs.	Oct. 13	Oct. 20	304
	Labels and Prints.	Nov. 17	Nov. 17	39

PATENTS

GRANTED NOVEMBER 28, 1916.

1,205,955. CARTON. GEORGE J. ADAMS, New York, N. Y. Filed Mar. 30, 1916. Serial No. 87,691. (Cl. 206—44.)



1. A carton formed from a single blank, and consisting of two container portions having a connecting web, said web comprising a movable wall to form an end closure for the carton, and said web flexing in opening out said containers at opposite display angles.

2. A carton formed from a single blank, and consisting of two container portions having a connecting web, said web comprising a movable wall to form an end closure for the carton, and said web flexing in opening out said containers at opposite display angles, and means for limiting the angular spread of said containers at predetermined, opposite display angles.

3. A carton formed from a single blank, and consisting of two container portions having a connecting web, said web comprising a movable wall to form an end closure for the carton, and said web flexing in opening out said containers at opposite display angles, and said web affording opposite advertising areas intermediately above said containers.

4. A carton formed from a single blank, and consisting of two container portions having a connecting web, said web comprising a movable wall to form an end closure for the carton, and having a medial flexing line, and a stiffening strip of the same width as said web and secured thereto at one side of its flexing line, said web alone flexing in opening out said containers at opposite display angles.

5. A carton formed from a single blank, and consisting of two container portions, each having a wall around three sides thereof, and an open side, a connecting web between the opposed free sides of said containers, and an inturned ledge along opposed walls, forming seats, said web forming a movable wall for the open sides of said container portions, to close the carton, and said web flexing in opening out said containers at opposite display angles.

[Claims 6 to 11 not printed in the Gazette.]

1,205,956. LEVEL. ERNEST B. ADKINS, Salt Lake City, Utah. Filed Jan. 24, 1916. Serial No. 74,039. (Cl. 33—211.)



In an adjustable spirit level the combination of an outer cylindrical casing having portions of each edge cut out; outwardly extending transversely disposed lugs integral therewith and having threaded holes therein; a concentrically disposed inner casing rotatable in said outer casing; radially disposed integral lugs outwardly extended from one edge of said inner casing and having an arc shaped elongated slot in each and operable in the cuts in the edge of the outer casing; diametrically disposed sleeves secured within said inner casing to hold a spirit level; set screws passed through said arc shaped slots and seating in the threaded holes in said transverse lugs; and a glass plate and retaining washer secured on each of the ends of said outer casing.

1,205,957. PREPARATION FOR TREATING TEETH. JULIUS ALBRECHT, Frankfort-on-the-Main, Germany. Filed Jan. 4, 1913. Serial No. 740,191. (Cl. 167—9.)

1. A liquid preparation for use in preserving and filling roots of teeth, comprising a solution of a phenol in formaldehyde, diluted with a viscous retarding agent, and combined with a condensing agent, said preparation being in a thinly fluid form adapted to penetrate into the smallest cavities, and being slowly self-hardening without objectionable self-heating at body temperatures.

2. A liquid preparation for use in preserving and filling roots of teeth, comprising a solution of resorcin in formaldehyde, diluted with a viscous retarding agent, and combined with a condensing agent, said preparation being in a thinly fluid form adapted to penetrate into the smallest cavities, and being slowly self-hardening without objectionable self-heating at body temperatures.

3. A liquid preparation for use in preserving and filling roots of teeth, comprising a solution of a phenol in formaldehyde, diluted with glycerin, said preparation being in a thinly fluid form adapted to penetrate into the smallest cavities, and being slowly self-hardening without objectionable self-heating at body temperatures.

4. A liquid preparation for use in preserving and filling roots of teeth, comprising a solution of resorcin in formaldehyde, diluted with glycerin, said preparation being in a thinly fluid form adapted to penetrate into the smallest cavities, and being slowly self-hardening without objectionable self-heating at body temperatures.

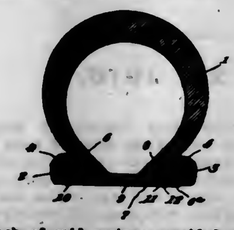
5. A liquid preparation for use in preserving and filling roots of teeth, comprising a solution of a phenol in an excess of formaldehyde, diluted with a viscous retarding agent, and combined with a condensing agent, said preparation being in a thinly fluid form adapted to penetrate into the smallest cavities, and being slowly self-hardening without objectionable self-heating at body temperatures.

[Claim 6 not printed in the Gazette.]

1,205,958. DEMOUNTABLE TIRE-RIM. GROVER C. ALLISON, Canton, Ohio. Filed May 13, 1916. Serial No. 97,273. (Cl. 152—21.)

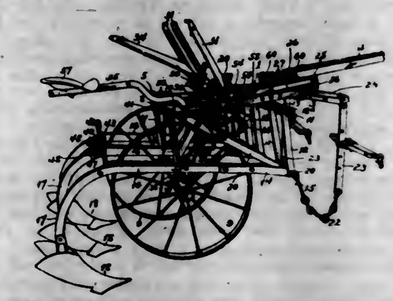
A demountable rim comprising an annular member adapted to extend across the base of a tire casing, a curved flange at one edge of said annular member adapted to engage the tire casing, a reduced shouldered portion provided at the other edge of said member, a second comparatively narrow annular member provided with a reduced portion adapted to engage the reduced portion of said first named member and with a curved flange adapted to engage the other edge of the tire casing, said narrow member provided with a shoulder arranged to abut against the inner edge of said first named annular member, the

joint thus formed being located adjacent the edge of the base of the tire casing, a plurality of leaf springs connected at one extremity to the inner face of said first named member and extending across the reduced portion



thereof, each of said springs provided with an aperture adjacent said reduced portion and studs carried upon the inner surface of said second named member and adapted to engage the apertures in said springs.

1,205,959. CULTIVATOR. RUDOLPH J. ALTGELT, Buenos Aires, Argentina, assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed Feb. 26, 1915. Serial No. 10,787. (Cl. 97—35.)



1. The combination with a horizontal main frame, forward and rear cross beams, and wheels, of crank axle members connected with said rear cross beam and mounted in the hubs of said wheels, plow beams carrying soil-engaging members, connections between the forward ends of said plow beams and the forward cross beam, a shaft mounted on the frame, a plurality of arms on said shaft, connections between two of said arms and the crank-axle members, an operating lever secured to the shaft, and a spring connected with one of the arms on said shaft and the rear cross beam.

2. The combination with a frame, wheels, axle members connecting said frame with the hubs of the wheels, beams carrying soil engaging members, and connections between the forward ends of said beams and the frame, of a single continuous shaft mounted on the frame, a plurality of segments secured to said shaft, levers pivoted to said segments, connections between said levers and the several beams for raising and lowering the latter separately and a lever secured to said shaft for raising and lowering said beams simultaneously.

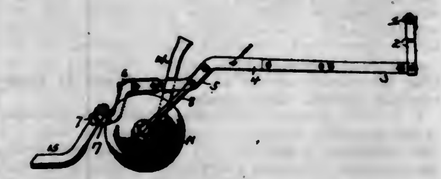
3. The combination with a horizontal frame, wheels, crank axle members connecting the frame and wheels, and beams pivotally supported at their forward ends and provided with soil-engaging members, of a single continuous shaft mounted on the frame, a lever secured to said shaft, means for locking said lever, a plurality of segments secured to said continuous shaft, a lever pivoted to each of said last-mentioned segments, a connection between each of said plurality of levers and one of said beams and connections between said shaft and the crank axle members.

4. The combination with a horizontal frame, wheels, and crank-axle members between the frame and the wheels, of pairs of hangers depending from the forward portion of the frame, beams provided with soil-engaging members, coupling devices at the forward ends of said last-mentioned beams, bolts pivotally connecting said coupling devices with the lower ends of said hangers, and diagonal braces secured at their rear ends to the rear portion of the frame and mounted near their forward ends on said bolts, the forward ends of two of said braces projecting forwardly beyond said bolts, and constituting means for attachment of draft devices.

5. The combination with a main horisontal frame, of forward and rear cross beams secured thereto, wheels, axle members connecting the rear cross beam and the wheels, hangers depending from the forward cross beam, soil-engaging parts connected with said hangers, braces connecting the lower ends of said hangers with the rear cross beam, a tongue movable relatively to the frame, a cross head pivoted to the forward cross beam and rigidly connected with the rear end of the tongue, foot levers pivoted between their ends to said braces, and connections between the upper arms of said foot levers and said pivoted cross head.

[Claim 6 not printed in the Gazette.]

1,205,960. PLANTER. RUDOLPH J. ALTGELT, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Original application filed Feb. 26, 1915, Serial No. 10,788. Divided and this application filed Sept. 15, 1915. Serial No. 50,836. (Cl. 111—11.)



1. In a planter, the combination with a frame and a beam attached thereto, of a pair of resilient arms secured to the beam and provided with inwardly projecting journals, furrow opener disks disposed between said arms and having central openings, hubs secured to the outside of said disks and mounted on said journals, said hubs having rounded heads projecting through the central openings of the disks and pressed against each other by said resilient arms.

2. In a planter, the combination with a frame, of a beam attached thereto, said beam having a rear inclined portion, inclined arms secured at their upper ends to said inclined portion of the beam and provided at their free ends with inwardly projecting journals, furrow opener disks disposed between said arms, and hubs secured to the outside of said disks and mounted on said journals.

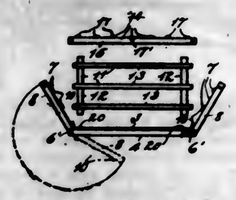
3. In a planter, the combination with a frame, and a beam attached thereto, of a pair of arms secured to said beam forwardly of its rear end and provided with journals, furrow opener disks mounted on said journals, a bracket secured to the rear end of said beam, covering blades, and an adjustable mounting for said blades on said bracket.

4. In a planter, the combination with a frame and a beam attached thereto, said beam having a bifurcated rear end, of arms secured to said beam and provided with journals, furrow opener disks disposed between said arms and mounted on said journals, and a seed spout mounted in the bifurcated portion of the beam and adapted to discharge between said disks in front of their axes.

5. In a planter, the combination with a frame and a beam attached thereto and having a bifurcated rear end, of furrow opener disks, supporting means for said disks secured to the beam, a rearwardly and downwardly projecting bracket having its forward portion secured in the bifurcated rear end of the beam, said arm having a journal at its rear end, a sleeve mounted to rock on the journal of the bracket and provided with a curved bearing, a pair of connected covering blades, and a curved block secured to the connecting portion of said blades and adjustably secured on said curved bearing.

[Claim 6 not printed in the Gazette.]

1,205,961. FOLDING CRATE. LUTHER W. ARMSTRONG and JAMES J. FRAZEE, Galesburg, Ill. Filed Dec. 13, 1915. Serial No. 66,523. (Cl. 217—15.)



1. A knock-down crate comprising a base including a bottom proper having its corners cut away to provide recesses, transversely arranged frame-bars united to said bottom, the corresponding ends of said bars provided with registering eyes, ends including posts adapted to seat in said recesses, sides including posts provided with eyes at both their upper and lower ends, and a top including transversely arranged frame-bars each end of each of which is provided with an eye, rods passed each through eyes in one end of the bottom frame bars and through the corresponding ones in the lower ends of the side posts, and rods passed each through eyes in the top-frame bars and through the corresponding ones in the upper ends of the side posts.

2. A knock-down crate comprising a base including a bottom proper having its corners cut away to provide recesses, transversely arranged frame-bars united to said bottom, the corresponding ends of said bars provided with registering eyes, ends including posts adapted to seat in said recesses, sides including posts provided with eyes at both their upper and lower ends, a top including transversely arranged frame-bars each end of each of which is provided with an eye, rods passed each through eyes in one end of the bottom frame bars and through the corresponding ones in the lower ends of the side posts, and rods passed each through eyes in the top-frame bars and through the corresponding ones in the upper ends of the side posts, the frame bars of the top arranged to prevent the ends from movement outwardly, and the side-posts adapted to prevent them from endlong movement.

3. A knock-down crate comprising a base including a bottom proper having its corners cut away to provide recesses, transversely arranged frame-bars united to said bottom, the corresponding ends of said bars provided with registering eyes, ends including posts adapted to seat in said recesses, sides including posts provided with eyes at both their upper and lower ends, a top including transversely arranged frame-bars each end of each of which is provided with an eye, rods passed each through eyes in one end of the bottom frame bars and through the corresponding ones in the lower ends of the side posts, and rods passed each through eyes in the top-frame bars and through the corresponding ones in the upper ends of the side posts, said bottom proper arranged on top of the frame-bars to which it is secured.

4. A knock-down crate comprising a base comprising transversely arranged frame-bars and a bottom proper secured thereon; sides each comprising posts and slats secured thereto; ends comprising each posts and slots secured thereto; a top comprising transversely arranged frame-bars and slats secured thereto; a plurality of rods whereby said base, sides, ends and top may be secured together to form a crate; and links removably positioned on said rods; said sides and ends adapted to be disassembled and then positioned in the plane of the base and top and intermediate them, said rods adapted to be passed through registering eyes in said base and top frame-bars whereby to unite them, and said links to connect adjacent pairs of said rods.

5. A knock-down crate comprising a base consisting of transverse frame-bars and a bottom-proper secured thereon; ends adapted to lie between and transversely of said bars when knocked-down; a top comprising transverse frame-bars and slats united thereto; sides adapted to lie intermediate and longitudinally of said base and top when knocked-down; rods uniting the outer ends of the frame-bars of the base and top, and links embracing adjacent pairs of said rods, said links adapted to prevent escape of said ends from between the base and top.

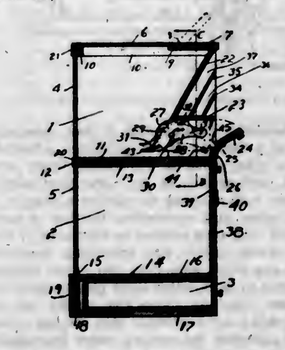
[Claims 6 to 8 not printed in the Gazette.]

1,205,962. TOE-STRAIGHTENER. JAMES W. ARROWSMITH, Morristown, N. J., assignor to The Arrowsmith Mfg. Co., Inc., Morristown, N. J., a Corporation of New Jersey. Filed May 28 1914. Serial No. 841,522. (Cl. 128—28.)



A toe straightening device consisting of an elongated tapering block of sponge rubber with the sides and ends concave and the interstices of the rubber there exposed to form numerous air cups causing non-sliding tenacious adherence of the block to the toes and the top and bottom of the block provided with a skin or rind impervious to moisture.

1,205,963. DISPLAY-CASE. THEODORE P. BAHR, San Francisco, Cal. Filed Dec. 13, 1915. Serial No. 66,562. (Cl. 211—9.)

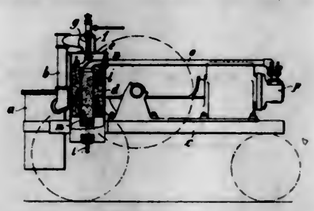


1. A display case of the class described, comprising a compartment entirely inclosed to exclude dust, the front, top, and sides being of transparent glass to allow for inspection of the commodities contained therein, a portion of the top being hinged to allow for filling the said compartment, a retaining device consisting of a transverse side board extending from the top rear corner at an angle to meet the inner edge of a horisontal inwardly projecting transverse board, said horizontal board being spaced from the floor of said compartment to leave an opening into said compartment, a curved blade pivoted so that a circular portion of said blade will rotate in close contact with the underside and adjacent the inner edge of said horisontal board, a reverse curved portion projecting from said circular curved portion with its free edge adjacent the floor of said compartment, a stop to limit the movement of said curved blade, a handle for tilting same, a door hinged to a strip extending the full width of said compartment at the rear bottom corner, and closing

tightly on the underside of said horizontal board, spaced boards parallel with the said angle side board and joined to the said horizontal board outside to form small open compartments, substantially as described, and for the purpose set forth.

2. In a display case of the class described, an inclosed compartment with transparent glass in the front, sides, and top, an opening in the rear of said compartment, and above the level of the floor of said compartment, a transverse horizontal board extending into said compartment and forming the top of said opening, a transverse board extending into said compartment from the top rear corner at an angle to meet the said horizontal board at a predetermined point within the said compartment, a door for closing said opening, a transverse double curved blade mounted to rotate with one curved portion in sliding contact with the underside of said horizontal board, the other curved portion of said blade reversed with its edge extending toward the floor of said compartment for partially closing said opening to regulate the flow of the contents of said compartment into said opening, a stop for holding said blade with its free edge at a predetermined low point, and a handle for rotating said blade above said low point, to control the flow of the contents of said compartment, substantially as described, and for the purpose set forth.

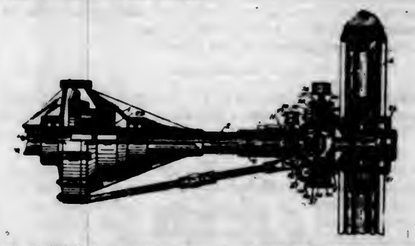
1,205,964. GAS WASHING, COOLING, AND DRYING APPARATUS. FREDERICK BALASSA, Budapest, Austria-Hungary, assignor to Hungarian Banking and Trading Company, Limited, Budapest, Austria-Hungary. Filed Dec. 27, 1913. Serial No. 809,130. (Cl. 261—98.)



In a gas washing, cooling and drying apparatus, the combination of a vertical outer container adapted to be supplied with coke, with a concentric inner container provided with perforations in its lower part within said outer container and adapted to receive a supply of iron filings, a gas outlet pipe connecting the top of said inner container, a gas inlet pipe carried by the cover of the outer container, a water inlet pipe extending concentrically through said gas inlet pipe into the outer container, a sprinkler carried by said water inlet pipe beneath the outlet of said gas pipe but above the means for connecting the top of said inner container with the gas outlet pipe, said sprinkler spraying the cooling water immediately underneath the cover of the outer container in close proximity to said connecting means and in a plane perpendicularly to the direction of flow of the gases, substantially as described and for the purpose set forth.

1,205,965. COMBINED DRIVING AND STEERING MECHANISM FOR MOTOR-DRIVEN VEHICLES. PETER J. F. BATENBURG, Clintonville, Wis., assignor to Four Wheel Drive Auto Co., Clintonville, Wis., a Corporation of Wisconsin. Filed May 1, 1913. Serial No. 764,758. (Cl. 21—90.)

1. A driving and steering axle structure, comprising the combination of supporting hollow axle members pivotally connected for relative movement about a vertical axis, a longitudinally movable driving axle extending through said members and having a universal joint at said pivotal axis, a bearing bushing for said driving axle, interposed between it and one of the supporting hollow axle members, a collar in end thrust relation to said bushing, and an annular shoulder on the shaft, adapted to exert thrust pressure against said collar.



2. A driving and steering axle structure comprising the combination of supporting hollow axle members pivotally connected for relative movement about a vertical axis, a driving axle extending through said members and having a universal joint at said pivotal axis, a bearing bushing for said driving axle, interposed between it and one of the supporting hollow axle members, and having one end abutting an internal shoulder on one member of the axle, a fiber thrust collar abutting the other end of said bushing with its inner surface in contact with the shaft and its outer surface embraced by said hollow axle member, and an annular shoulder on the driving axle in end thrust relation to the bushing and collar.

3. A driving steering axle structure comprising the combination of supporting hollow-axle members pivotally connected for relative movement about a vertical axis, a driving axle extending through said members and having a universal joint at said pivotal axis, a bearing bushing for said driving axle, interposed between it and one of the supporting hollow axle members and having one end abutting an internal shoulder on one supporting axle member, a fiber thrust collar abutting the other end of said bushing and having its inner and outer surfaces in contact with the shaft and hollow axle member respectively, and an annular shoulder on the driving axle in end thrust relation to the bushing and collar, together with a metallic collar interposed between the fiber thrust collar and said shoulder.

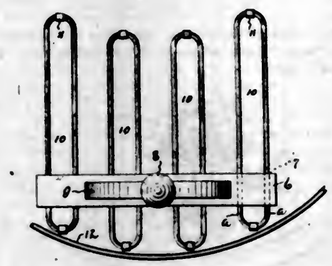
4. A driving and steering axle structure, comprising the combination of supporting hollow axle members pivotally connected for relative movement about a vertical steering axis, a wheel mounted upon the outer hollow axle member, a longitudinal movable driving axle extending through said axle members and having connection with the wheel, said driving shaft being universally jointed at the steering axis, a bearing for said driving shaft mounted in the supporting axle member, a shoulder on the driving shaft adjacent to said bearing, and a thrust bearing collar interposed between said shoulder and bearing, substantially as described.

5. A driving and steering axle structure, comprising the combination of supporting hollow axle members pivotally connected for relative movement about a vertical axis, a driving shaft extending through said members and having a universal joint at said pivotal axis, a bearing bushing for said shaft interposed between it and one of the supporting hollow axle members, a collar in end thrust relation to said bushing, an annular shoulder on the shaft adapted to exert thrust pressure against said collar, and means for separating the supporting hollow axle members and removing the outer end portion thereof without disturbing said pivotal connections, whereby access is afforded for the removal and replacement of said thrust collar when the driving axle is removed.

[Claims 6 and 7 not printed in the Gazette.]

1,205,966. POTATO-MASHER. JOHN G. BRATH, Gothenburg, Nebr. Filed Jan. 28, 1916. Serial No. 74,950. (Cl. 146—15.)

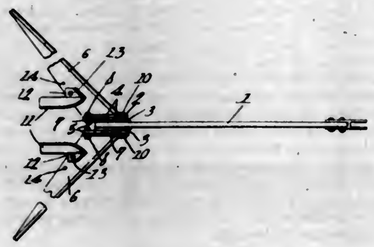
1. A potato masher consisting of an elongated, rectilinear head-piece provided with transverse apertures, a handle for said head-piece, and a plurality of elongated loops adapted to have slidable movements independent of each other while disposed in the apertures of the head-piece.



2. In a potato masher, a head-piece provided with a handle and formed with substantially parallel apertures arranged in pairs, and a plurality of elongated loops, each being loosely seated in a pair of apertures to permit slidable movements therein.

3. A potato masher consisting of an elongated head-piece provided with a handle and a plurality of elongated loops adapted to have movements transversely of the head-piece while supported thereby.

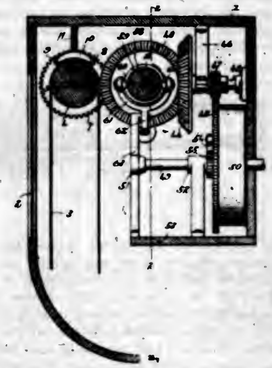
1,205,967. WEED-CUTTER. SILAS A. BILLINGTON, Havener, N. Mex. Filed Feb. 8, 1916. Serial No. 76,982. (Cl. 55—60.)



A weed cutter embodying a supporting member, a pair of rearwardly diverging blades having their adjacent ends attached to said supporting member, and a pair of deflectors having their forward ends pivoted upon said blades, said deflectors projecting rearwardly from the blades and being inclined toward one another.

1,205,968. REVERSING-GEAR MECHANISM. HOUSTON W. BLANKENSHIP, Wardner, Idaho. Filed July 1, 1913. Serial No. 776,842. (Cl. 74—59.)

A device of the character described including an operating mechanism having a driving shaft, a rotatably mounted driven shaft, a gear rigidly mounted upon said driving shaft, gears rotatably mounted upon said driven shaft in spaced relation and meshing with opposite sides of the gear of said driving shaft, the gears of said driven shaft being provided with clutch teeth, a clutch slidably mounted upon said driven shaft between the gears thereof and provided with teeth for engaging the clutch teeth of said gears, a standard positioned beneath said driven shaft and provided with an arm at its upper end forming a pivot pin, a shifting fork having its arms engaging said clutch and having its shank pivotally connected with the pivot pin at a point intermediate the length of the shank, links pivotally connected with the lower end of said shank, solenoids having their cores connected with said links, and means for selectively energizing said solenoids to move the clutch into engagement with the



teeth of a selected one of the gears mounted upon said driven shaft.

1,205,969. DIPPER-TOOTH. WALTER BRINTON, Wilmington, Del., assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed July 18, 1914. Serial No. 851,686. (Cl. 37—16.)



1. A dipper tooth consisting of a shank with rearwardly extending upper and lower jaws and a forwardly extending nose in the form of a truncated pyramid with a flat outer end, a rectangular-shape rib extending across the flat outer end of the nose with the axis thereof lying in a plane substantially parallel to the plane of the bottom wall of the said jaws, and a wedge-shape detachable point provided with an opening therein, receiving the nose of the said shank therein, the bottom wall of the opening of the point provided with a rectangular-shape recess extending thereacross, in a plane substantially parallel to the plane of the tapering surfaces of the said point, and receiving the rib of the nose therein, and means for holding said point assembled upon said nose.

2. A dipper tooth comprising a base with a forwardly extending tapered nose, a detachable tapered point with rearwardly diverging top, bottom and side walls forming a box-shape housing receiving the nose of the base therein, the top and bottom walls of said point provided with alined openings therein adjacent their rear extremities, the side walls of said nose provided with recesses extending thereacross and alining with the said openings at the point, and keys fitting within the alined openings and recesses of the point and nose, said keys provided with alined openings adjacent their center, said nose provided with an opening extending therecross communicating with the afore-mentioned recesses approximate their center and alining with the openings in said keys, and a fastening member extending through the alined openings of the keys and the nose.

1,205,970. AUTOMATIC STOP MECHANISM FOR TURRET-LATHES. EDWARD P. BURRELL, Cleveland, Ohio, assignor to The Warner and Swasey Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 15, 1916. Serial No. 97,457. (Cl. 29—65.)

1. In stop mechanism for turret lathes, the combination of a turret slide, a stop roll which is rotatably

mounted upon said turret slide, a plurality of stops adjustably supported by said stop roll, means to adjust said stop roll lengthwise with respect to said turret slide and to hold it in any adjusted position, a turret rotatably mounted upon said turret slide, and means to transmit rotary motion from said turret to said stop roll.

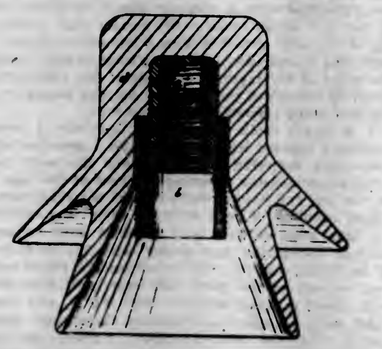


2. In stop mechanism for turret lathes, the combination of a turret slide, a stop roll which is rotatably mounted upon said turret slide, a plurality of stops adjustably supported by said stop roll, means to adjust said stop roll lengthwise with respect to said turret slide and to hold it in any adjusted position, and a rotatable stop shaft which is concentric with said stop roll and has a tongue and groove driving connection therewith.

3. In stop mechanism for turret lathes, the combination of a turret slide, the stop shaft rotatably mounted thereon, the stop roll which embraces and has a tongue and groove connection with said shaft, a sleeve which is rotatably mounted upon said roll and lies between and in engagement with two annular shoulders thereon and is screwed into a part of the turret slide.

4. In stop mechanism for turret lathes, the combination of a turret slide, the stop shaft rotatably mounted thereon, the stop roll which embraces and has a tongue and groove connection with said shaft, a sleeve which is rotatably mounted upon said roll and lies between and in engagement with two annular shoulders thereon and is screwed into a part of the turret slide, and means to lock this adjustment sleeve against movement relative to said turret slide.

1,205,971. ELECTRIC INSULATOR. CLAUDIO BUSCHETTI, Milan, Italy. Filed Apr. 10, 1915. Serial No. 20,568. (Cl. 173—28.)



1. In combination, an electric insulator body, a recessed portion thereon, a metallic sleeve electrolytically deposited upon the inner portion of the recess and projecting freely within said recessed portion, means upon the projecting portion for attaching another sleeve thereto and a sleeve thereon adapted to be secured to a supporting member, substantially as set forth.

2. In combination, an electric insulator body, a recessed portion thereon, a metallic sleeve electrolytically deposited upon the inner portion of the recess and projecting freely within said recessed portion, a thread upon the projecting portion and a sleeve thereon adapted to be secured to a supporting member, substantially as set forth.

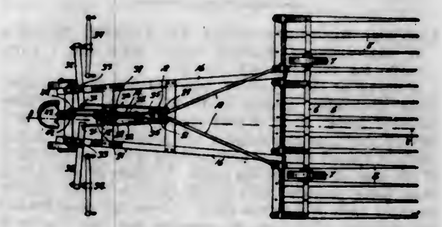
1,205,972. SPRING-WHEEL. SPENCER A. CHERRY, Nashville, Tenn. Filed Mar. 6, 1916. Serial No. 82,484. (Cl. 152—28.)



1. A wheel of the class described comprising a hub section, said hub section comprising a plurality of spaced plates, spring members interposed between said spaced plates, means for securing the inner ends of said spring members in engagement with said plates, each spring member comprising a spiral end, means for limiting the forward and backward movement of said springs within said hub section, means for sealing the outer end of said hub section, lubricating means positioned between said plates and fitting around said spiral end of said spring for thoroughly lubricating the same while in action, a rim section engaging the opposite end of said spring, and said spring provided at each end with similarly constructed convolutions extending in opposite directions.

2. A spring wheel of the class described comprising a hub section, a rim section, springs interposed between said sections, each spring provided with a spiral end, the convolutions of one spiral end extending in an opposite direction to the other spiral end, a lubricated packing positioned around said spring and extending around the outer face of said convolutions, said convolutions provided with an open pocket upon the inner face thereof free from packing to facilitate the free expansion and contraction of said convolutions while the wheel is under pressure, a resilient sealing means for the outer edge of said hub section, a rim section, and means formed in said rim section similar to said hub section for holding said spring in engagement therewith.

1,205,973. SWEEP-RAKE. JOSEPH H. COPE, Windsor, Colo., assignor to The Windsor Manufacturing Company, Windsor, Colo., a Corporation of Colorado. Filed Aug. 25, 1913. Serial No. 786,360. (Cl. 56—66.)



1. In a sweep rake, the combination with a frame and a head tiltably mounted thereon, of a bell crank lever fulcrumed on the frame, an operative connection between the head and one arm of said lever, power lift devices connected with the said arm of the lever, hand lift devices connected with the other arm of the lever, means for locking the power lift devices against operating the head, said locking means including a manually operable lever, and a link connected therewith to form a toggle, said lever provided with an extension adapted to engage the link.

2. In a sweep rake, the combination with a frame and a head tiltably mounted, of a bell crank lever fulcrumed on the frame, an operative connection between the head and said lever, power lift devices connected with one arm of the lever, hand lift devices connected with the other arm of the lever, means for locking the power lift devices against operating the head, the hand lift devices being operable independently of the power lift devices, and comprising a lever provided with an extension and a link connected with the lever to form a toggle.

3. In a sweep rake, the combination with a power lift, a hand lift, a bell crank lever connected in operative relation with the rake head, a connection between one arm of the lever and the power lift, and a link connecting the other arm of the lever and the hand lift, the latter provided with an extension adapted to engage said link, for the purpose set forth.

4. In a sweep rake, the combination of a power lift, a hand lift, a bell crank lever connected in operative relation with the rake head, a connection between one arm of the lever and the power lift, a connection between the other arm of the lever and the hand lift, the latter provided with an extension adapted to engage said link, and means for locking the power lift in the inactive position.

5. In a sweep rake, the combination with a frame and a head tiltably mounted thereon, of a bell crank lever fulcrumed on the frame, an operative connection between the head and one arm of said lever, links connected with the said arm of the lever, rods attached to said links, eveners for supporting the whiffle trees mounted upon the framework and connected with said rods, and hand lift devices connected with the other arm of the lever.

1,205,974. SINGLE-CENTER-SILL DRAFT-GEAR. ALFRED COPONY, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Jan. 12, 1914. Serial No. 811,623. (Cl. 105—76.)



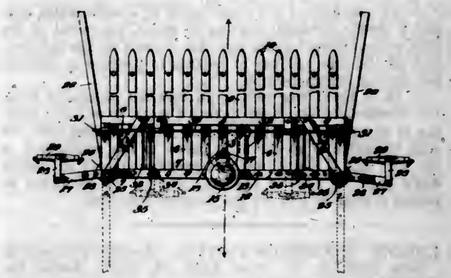
1. In a car, the combination with a single center sill extending from end to end of the car, said center sill being recessed over the bolsters and reinforced with steel castings around said recessed portions, the reinforcing castings being so designed that the center of mass of a vertical section of the center sill over the bolsters is substantially in line with the center line of mass of all similar sections of the sill throughout its remaining portions, the ends of the center sill being bifurcated.

2. In a car, a single center sill extending from end to end of the car, each half of said center sill being recessed over the bolster and bifurcated at its end and having a cast reinforcement secured thereto at the portion where it is recessed for the bolster, substantially as specified.

1,205,975. HAY-GATHERER. WILLIAM H. CRAWFORD, RICHARD H. CRAWFORD, CHARLES R. CRAWFORD, and JESSE M. CRAWFORD, Rosemond, Ill. Filed June 2, 1915. Serial No. 31,735. (Cl. 56—66.)

1. A hay gatherer comprising a frame having vertical end plates provided with longitudinal grooves in their outer faces, guide poles pivotally mounted upon the frame at the rear ends of the grooves and adapted to seat in said grooves and be supported by the lower walls of the same, draft devices connected with the rear ends of the guide poles, and means upon the frame for retaining the said guide poles in said grooves.

2. A hay gatherer comprising a frame, fingers mounted on said frame, guide poles pivotally mounted at their rear ends upon the frame, lateral arms connected with said guide poles, draft devices carried by said arms, and locking mechanism on the frame having end members to engage around the said guide poles and retain them in a forwardly projecting position and rearwardly extending members to engage around the said arms and thereby retain the guide poles in a rearwardly projecting position.



3. A hay gatherer comprising a frame, gathering teeth mounted on said frame, guide poles pivotally mounted upon the frame at the ends thereof, lateral arms connected with said guide poles, draft devices carried by said arms, a rock shaft mounted on and extending across the frame, lateral locking arms at the ends of said shaft adapted to engage the guide poles when said poles extend forwardly, and hooks carried by said rock shaft and projecting rearwardly therefrom to engage over the said arms when the guide poles are in a rearwardly extending position.

4. A hay gatherer comprising a frame having front and rear cross bars, loops secured rigidly to and depending from the cross bars, the loops on one cross bar being alined with the loops on the other cross bar, teeth inserted in alined loops, and fastening devices inserted through the loops on the rear cross bar and through the rear ends of the teeth engaged in said loops, the said teeth resting loosely in the loops on the front cross bar.

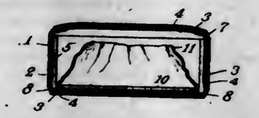
5. A hay gatherer comprising end plates provided in their outer faces with grooves extending upwardly from rear to front, front and rear cross bars extending between the lower corners of said end plates, a cross bar extending between the upper front corners of the said plates, teeth carried by and projecting forwardly from the lower cross bars, guide poles pivoted at the rear ends of the grooves in the end plates and adapted to seat in said grooves, supporting arms connected with the rear ends of the poles and disposed at an angle thereto, draft devices carried by the said arms, a rock shaft mounted on the upper cross bar and having lateral arms at its ends adapted to engage around the guide poles and retain them in said grooves, and hooks extending rearwardly from the rock shaft between the ends of the same to engage around said lateral supporting arms when the guide poles are swung inwardly.

1,205,976. COMPOSITION OF MATTER FOR COATING PURPOSES. WILLIAM T. DAVIES, Cleveland, Ohio, assignor to The Patterson-Sargent Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 7, 1916. Serial No. 107,912. (Cl. 134—39.)

1. The herein described composition of matter, comprising red lead, magnesium silicate, oxid of iron, calcium sulfate, calcium carbonate, linseed oil and a suitable drier.

2. The herein described composition of matter comprising 457 parts of red lead, 228 parts of magnesium silicate, 15 parts of oxid of iron, 6 parts of calcium sulfate, 50 parts of calcium carbonate, 285 parts of linseed oil and 30 parts of suitable drier.

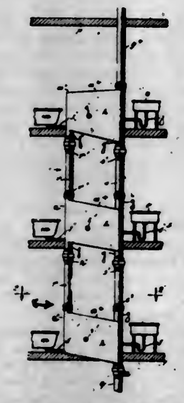
1,205,977. BOX. CHARLES W. DENNIS, Brooklyn, N. Y., assignor to Metal Package Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 23, 1916. Serial No. 79,858. (Cl. 220—5.)



1. An ornamental box constructed of a sheet metal base and a closely adherent coating of paper, the metal of the base being exposed along the edge formed by the intersection of the side and top or bottom to produce a continuous line of ornamentation.

2. In a metal box having an inserted pasteboard neck, the combination of a body having a metal base and a coating of paper cemented to said base and extending over the edge thereof and up for attachment to the pasteboard of the neck and a coating for the pasteboard neck extending down over the edge of the base coating and cemented or pasted thereto as and for the purpose described.

1,205,978. PLUMBER'S FITTING. ROBERT DOUGHERTY, New York, N. Y. Filed Sept. 18, 1916. Serial No. 120,610. (Cl. 4—21.)



1. A plumber's fitting including a casing formed near its top with a laterally-extending air-passage and near its bottom with a laterally-extending waste-water passage and between said passages with a series of depthwise-extending channels the upper ends of which communicate with said air-passage and the lower ends of which communicate with said waste-water passage; and a waste-pipe section arranged within said casing and formed with an opening through which said waste-water passage communicates with said waste-pipe section; said casing being formed with inlet openings arranged to permit the entrance of waste into said channels from outside the fitting.

2. A plumber's fitting including a casing formed near its top with a laterally-extending air-passage and near its bottom with a laterally-extending waste-water passage and between said passages with a series of depthwise-extending channels the upper ends of which communicate with said air-passage and the lower ends of which communicate with said waste-water passage; a waste-pipe section arranged within said casing and formed with an opening through which said waste-water passage communicates with said waste-pipe section; and an air-pipe section arranged within said casing and formed with an opening through which said air-passage communicates with said air-pipe section; said casing being formed with inlet openings arranged to permit the entrance of waste into said channels from outside the fitting.

3. A plumber's fitting including a casing formed near its top with a laterally-extending air-passage and near its bottom with a laterally-extending waste-water passage and between said passages with a series of depthwise-extending channels the upper ends of which communicate with said air-passage and the lower ends of which communicate with said waste-water passage; a waste-pipe section arranged within said casing and formed with openings through which said passages communicate with said waste-pipe section; and an air-pipe section arranged within said casing and formed with an opening through which said air-passage communicates with said air-pipe section; said casing being formed with inlet openings arranged to permit the entrance of waste into said channels from outside the fitting.

1,205,979. FLOOR-POLISHER AND THE LIKE. GEORGE S. DOHM, Toledo, Ohio. Filed Aug. 14, 1916. Serial No. 114,859. (Cl. 15—56.)



1. The combination with a base plate having a flange along one edge thereof, of a reinforcing plate secured along the other edge thereof and having end wings, bearing sleeves integral with said wings, a yoke having oppositely extending terminals extending into the bearing sleeves, a handle carried by the yoke, a clamping plate pivotally connected to the sleeves, and means for engaging the clamping plate to hold it pressed toward the base plate.

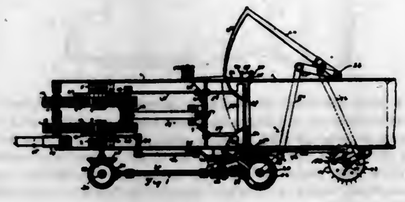
2. The combination with a base plate having a flange along one edge thereof, of a reinforcing plate secured along the other edge thereof and having end wings, bearing sleeves integral with said wings, a yoke having oppositely extending terminals extending into and detachable from the bearing sleeves, a handle carried by the yoke, a clamping plate pivotally connected to the sleeves, and means for engaging the clamping plate to hold it pressed toward the base plate, said clamping plate having a longitudinal flange adapted to be seated parallel with and close to the flange upon the base plate.

3. The combination with a base plate having an upstanding flange along one edge thereof, of a reinforcing plate secured along the other edge of said plate and having end wings, bearing sleeves formed by the terminals of said wings, a pivoted yoke having its terminal portions projecting into and detachable from the sleeves, a handle connected to the yoke, a clamping plate having side arms, pintles on the arms and projecting into the sleeves, and yieldable clamping fingers pivotally connected to the wings and detachably engaging the clamping plate.

4. The combination with a base plate having an upstanding flange along one edge thereof, of a reinforcing plate secured along the opposite edge of said plate and having end wings, bearing sleeves formed by the terminals of said wings, a yoke having its terminal portions projecting into the sleeves, a handle connected to the yoke, a clamping plate having side arms pivotally connected to the sleeves, and yieldable clamping fingers pivotally connected to the wings and detachably engaging the clamping plate, said base plate having a longitudinal slot adjacent its reinforcing plate.

5. The combination with a base plate having an upstanding flange along one edge thereof, of a reinforcing plate secured along the opposite edge of said plate and having end wings, bearing sleeves formed by the terminals of said wings, a yoke having its terminal portions projecting into the sleeves, a handle connected to the yoke, a clamping plate having side arms pivotally connected to the sleeves, and yieldable clamping fingers pivotally connected to the wings and detachably engaging the clamping plate, there being a toothed flange upon the clamping plate movable to position parallel with and close to the flange upon the base plate, said base plate having a longitudinal slot adjacent the reinforcing plate.

1,205,980. HAY-PRESS. ANDREW T. DUDLEY, Houston, Tex., assignor of one-tenth to W. L. Mitchell, J. H. Mitchell, and H. E. Werner, Houston, Tex. Filed Jan. 31, 1913. Serial No. 745,401. (Cl. 100—20.)



1. A device of the character described, including a compress chamber, a plunger arranged to reciprocate therein, a plunger operative mechanism, a needle operative mechanism and a needle carried thereby and arranged to swing laterally back and forth across the compress chamber and carrying a tying cord around the bale therein, a knotter alined with said needle and arranged to coact therewith and knot the tying cord around the bale, a knotter operative mechanism, means operatively connected with the knotter operative mechanism and also with the needle operative mechanism, and causing the former to operate the latter, a means at predetermined intervals connecting the plunger operating mechanism with the knotter operative mechanism, a mechanism fixing the time of said connection, and being in turn controlled by the plunger operative mechanism.

2. A device of the character described, including a compress chamber, a plunger arranged to reciprocate therein, a mechanism, operatively connected with the plunger and imparting a reciprocating movement thereto, a needle operative mechanism and a needle carried thereby and arranged to move back and forth across the compress chamber and carry a tying cord around the bale formed therein, a knotter arranged to co-act with the needle and knot said tying cord around said bale, a mechanism for operating the knotter, means operatively connected with the knotter mechanism, and also with the needle operative mechanism, and transmitting movement from the former to the latter, a means for operatively connecting the plunger operative mechanism and knotter operative mechanism, a mechanism moving in unison with the bale forming in the compress chamber, and automatically releasing said connecting means and thereby connecting the plunger operating mechanism with the knotter operative mechanism, and means controlled by the knotter operative mechanism for disconnecting the same.

3. A device of the character described, including a compress chamber, a plunger arranged to reciprocate therein, whose forward end is provided with a plurality of transverse slots, a mechanism operatively connected with the plunger and imparting a reciprocating movement thereto, a needle operative mechanism, a plurality of laterally swinging needles operated thereby and arranged to move back and forth across the compress chamber and pass through the corresponing slots of the plunger and carry tying cords around the bale forming in said chamber, a plurality of knotters, one for each needle each knotter being arranged to co-act with its corresponding needle and knot the tying cord carried by said needle around said bale, a mechanism for operating the knotters, means operatively connected with the knotter operative mechanism, and also with the needle operataive mechanism and operating the latter from the former, a clutch whereby the plunger operative mechanism may be connetced with and disconnected from the knotter operatiave mechanism, a means for operatively engaging the clutch, a means operated by the bale as it moves along in the compress chamber and normally holding said clutch engaging means in locked position but which at predetermined intervals releases said engaging means, thereby controlling said clutch, and causes the connection of the plunger operative mechanism with the knotter operative mechanism, and means for predetermining the time of said connection.

4. A device of the character described including a compress chamber, having a feed inlet leading thereto, a plunger arranged to reciprocate in the chamber and compress the material fed through said inlet into said chamber into a bale, the forward end of said plunger being provided with a plurality of transverse slots, a mechanism operatively connected with the plunger and imparting a reciprocating movement thereto, a needle operative mechanism, a plurality of laterally swinging needles operated thereby and arranged to move back and forth through the compress chamber and pass through the corresponding slots of the plunger and carry tying cords around the bales formed in said chamber, a securing mechanism for each needle being arranged to co-act therewith and secure the tying cord carried by said needle around said bale, a means for operating said securing mechanism, means operatively connected with said last mentioned means, and also with the needle operative mechanism, and operating the latter from the former, a clutch whereby the plunger operative mechanism may be connected with and disconnected from the mechanism which operates said securing means, and means operated by the bale as it moves along in the compress chamber for controlling said clutch, and connecting the plunger operating mechanism with the mechanism which operates said securing means, and a means controlled by the plunger operating mechanism by which the time of the connection of the plunger operating mechanism and the mechanism which operates said securing means is predetermined.

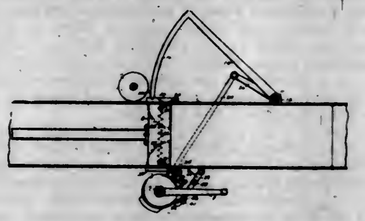
5. A device of the character described including a compression chamber in which material is compressed into a bale, a mechanism for compressing said material in said chamber, a binding mechanism, a drive shaft, a mechanism for operatively connecting said drive shaft and binding mechanism, a means for locking said connecting mechanism against movement, a means for releasing said locking means and permitting said connecting mechanism to operatively connect the drive shaft and binding mechanism, a means controlled by the compressing mechanism, and at predetermined times engaging with the connecting mechanism after the locking means have been released and fixing the time of the connection of said binding mechanism with said drive shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,205,981. BALING-PRESS. ANDREW T. DUDLEY, Houston, Tex., assignor of one-tenth to W. L. Mitchell, J. H. Mitchell, and H. E. Werner, Houston, Tex. Filed Apr. 10, 1913. Serial No. 760,151. (Cl. 100—20.)

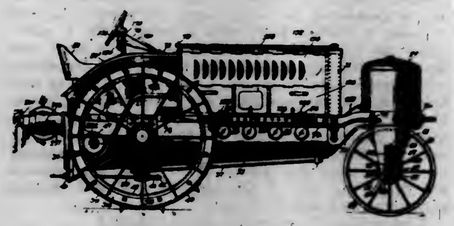
1. A device of the character described including a compress chamber, a plunger arranged to reciprocate therein and compress material into a bale, a plurality of dogs arranged to engage with the compressed material and prevent the expansion thereof, a needle shaft arranged on one side of the compress chamber, a plurality of swinging needles carried thereby and provided to carry tying cords around said bale, wire storing means carried on one side of the compress chamber, a knotter shaft on the opposite side of said compress chamber, a plurality of knotters

operated thereby, said knotters being arranged to co-act with the needles and secure the cords around said bale, means for manually rotating the knotter shaft, a mechanism engaging with the knotter shaft and provided to lock the same against rotation, an arm fixed to the lower end of the knotter shaft, an arm fixed to the lower end of the needle shaft, a link connecting the free ends of said arms, said link operating to rotate the needle shaft simultaneously with the knotter shaft and swinging the needles back and forth through the compress chamber during the operation of said knotter shaft and said knotters.



2. A device of the character described including a compress chamber, a reciprocating plunger therein, a means provided to engage with the compressed material and prevent the expansion thereof, a rotatable needle shaft on one side of said chamber, needles carried thereby and provided to carry securing wires around the bale, wire storing means on one side of said chamber, a knotter shaft on the opposite side thereof, knotters operated thereby and arranged to co-act with the needles and secure said wires around the bale, means for rotating the knotter shaft, a locking mechanism provided to engage with said shaft and lock it against rotation, an operative connection between the knotter and needle shafts whereby the latter is rotated from and simultaneously with the former to swing the needles back and forth through said chamber during the operation of the knotter shaft and knotters.

1,205,982. TRACTOR-ENGINE. CLARENCE M. EASON and ROBERT O. HENDRICKSON, Cleveland, Ohio, assignors to Wallis Tractor Company, Racine, Wis., a Corporation of Wisconsin. Filed Nov. 1, 1913. Serial No. 798,687. (Cl. 21—114.)



1. In a tractor engine, a frame comprising a continuous hollow body member of sheet metal bent transversely into U-shape forming a support for and partially inclosing the mechanism of the tractor.

2. In a tractor engine, a frame comprising a continuous trough-shaped hollow body member of sheet metal bent transversely into U-shape forming a support for the mechanism of the tractor and partially inclosing the same.

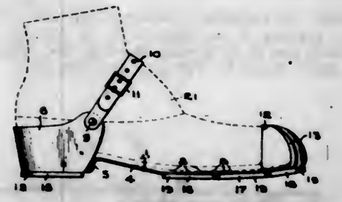
3. In a tractor engine, a frame comprising a longitudinal trough-shaped body member of sheet metal bent transversely into U-shape formed from a continuous sheet of metal constituting a support for and partially inclosing the operating mechanism of the tractor.

4. In a tractor engine, a frame comprising a hollow longitudinal trough-shaped body member of sheet metal bent transversely into U-shape with an inclined bottom constituting a support for and partially inclosing a mechanism of the tractor.

5. In a tractor engine, a frame comprising a longitudinal trough-shaped body member of sheet metal bent transversely into U-shape, and a casting secured to the forward end of said body member and forming a bearing for the steering head.

[Claims 6 to 29 not printed in the Gazette.]

1,205,983. SHOE-PROTECTOR. STEPHEN C. EMMERTH, McAdoo, Pa. Filed May 19, 1915. Serial No. 29,048. (Cl. 36—63.)



A shoe protector including a metallic plate conforming to the shape of the sole of a shoe, and a plurality of wear plates secured to said metallic plate, said wear plates having transverse edges located at an angle to the longitudinal axis of the plate and having depending flanges at said transverse edges, and other depending flanges connecting said first flanges, substantially as described.

1,205,984. HOSE. THOMAS A. FORSITH, Boston, Mass., assignor to Boston Belting Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 8, 1915. Serial No. 49,598. (Cl. 137—90.)

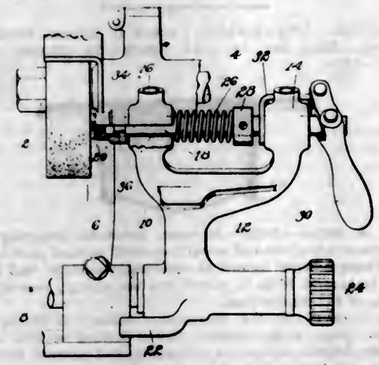


A suction and discharge hose comprising a body portion; a metal collapse-resisting coil around the exterior of said body portion; and rubber around the exterior of said body portion and filling the spaces between the coils, said rubber being vulcanized to the body portion and to said coil and entering between the coil and said body portion.

1,205,985. GRINDING-MACHINE. ALFRED B. FOWLER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 2, 1914. Serial No. 835,929. (Cl. 51—7.)

1. In a grinding machine, the combination with a grinding member, of a supporting member having a threaded portion upon which to screw an article with a threaded bore to present the article in position to be ground by the grinding member, and means arranged to engage said article to prevent it from turning upon its supporting member during the grinding operation.

2. In a machine for grinding an article having a screw-threaded bore, the combination with a grinding member, of a supporting spindle threaded at one end for engagement in the bore in said article to present the article in operative relation to the grinding member, and means mounted upon the spindle arranged to engage said article to prevent it from turning relatively to the spindle during the grinding operation.



3. In a grinding machine, a spindle arranged to engage in an opening in an article to be ground to present the article in operative relation to the grinding member, and means for preventing relative rotation of the article and the spindle during the grinding operation comprising a retaining member between which and the spindle there is provision for relative sliding movement lengthwise of the spindle, and resilient means for holding said member and the article in engagement.

4. In a grinding machine, a spindle upon which to mount an article to be ground, and means for preventing rotation of the article relatively to the spindle comprising a retaining member encircling the spindle with provision for relative movement of the member and the spindle lengthwise of the spindle, said spindle being constructed to receive the article to be ground at one side of said member, and means at the opposite side of said member for effecting relative movement of the spindle and the member to cause the member to engage said article.

5. In a grinding machine, the combination with a grinding member, of a spindle upon which to mount an article to be ground, a support provided with a bearing for the spindle, means at one side of said bearing arranged to engage the article to be ground upon movement of the spindle lengthwise in the bearing to prevent the article from turning relatively to the spindle, and means at the other side of the bearing for effecting such lengthwise movement of the spindle.

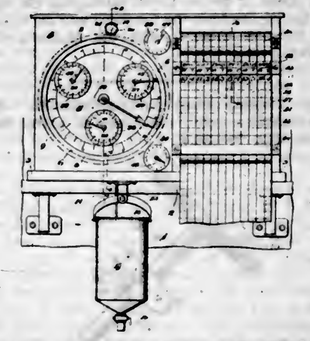
[Claims 6 to 14 not printed in the Gazette.]

1,205,986. APPARATUS FOR WEIGHING AND TESTING MILK. HARRISON B. GIPE, Palmyra, and AMOS M. KUHNS, Union Deposit, Pa. Filed Dec. 27, 1915. Serial No. 68,861. (Cl. 73—42.)

1. In an apparatus of the character described, the combination with two dials, and a single pointer registering with both dials, of weighing means operating the pointer, and measuring means for engagement with the material to be weighed and operatively connected with and to move one of said dials with respect to the other of said dials, substantially as described.

2. In an apparatus of the character described, the combination with a stationary dial, and a movable ring dial, of a pointer registering with both dials, weighing mechanism controlling the movement of the pointer, and measuring mechanism controlling the movement of the ring dial, and including a member for engagement with the material to be weighed, substantially as described.

3. In an apparatus of the character described, the combination with a stationary dial, and a movable ring dial, of a pointer registering with both dials, weighing mechanism controlling the movement of the pointer, measuring mechanism controlling the movement of the ring dial, and including a member for engagement with the material to be weighed and totaling indicators operated by the weighing mechanism, substantially as described.



4. In an apparatus of the character described, the combination with a stationary dial, and a movable ring dial, of a pointer registering with both dials, weighing mechanism controlling the movement of the pointer, measuring mechanism controlling the movement of the ring dial, and including a member for engagement with the material to be weighed, totaling indicators operated by the weighing mechanism, said totaling indicators on the face of the stationary dials, substantially as described.

5. In an apparatus of the character described, the combination with a stationary dial, of a shaft projecting through the center of the stationary dial, a pointer secured to the shaft registering with said dial, a ratchet wheel secured to said shaft, a pinion loose on the shaft, a pawl carried by the pinion and meshing with the teeth of the ratchet wheel, a second pawl engaging the teeth of the ratchet wheel and holding the latter against movement in one direction, a vertically positioned rack bar meshing with the pinion, a spring exerting upward pressure on the rack bar, and a receptacle supported by the rack bar, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,205,987. HOSE ATTACHMENT. CHARLES E. GIBTEN and ARCHIBALD M. BOWMAN, Houston, Tex. Filed Apr. 14, 1914. Serial No. 831,750. (Cl. 137—34.)



An attachment of the character described including the combination with a tubular hose formed of fabric layers, of a rubber cap secured to and protecting the free end of the hose, a tubular nipple having its outer end threaded and its inner end formed of an elongated neck, which is inserted between the layers of fabric, forming the hose

ends, said neck being circumferentially corrugated from end to end, forming annular beads, both on the outside and inside, which are serrated in cross section, said beads engaging with the adjacent layers of fabric on the outside and inside of the neck and preventing the disengagement of the nipple from the hose end and an intermediate annular shoulder integral with the nipple and resting against said rubber cap.

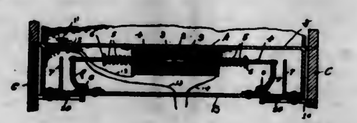
1,205,988. LOCK FOR AUTOMOBILES. BENEDICT GOODMAN, Holly, Colo. Filed Sept. 6, 1916. Serial No. 118,723. (Cl. 70—90.)



1. In a locking device for steering gears, and in combination, a hollow steering tube having a slot in one side thereof, and a steering post mounted in the tube and having a keeper slot therein adapted to be brought into register with the opening in the tube, a lock casing fitting against the side of said steering tube and provided with straps adapted to inclose said tube and having outturned flanges on their free ends, a lock bolt in said casing adapted to be projected through said slots in the tube and the steering post to lock the latter from turning in the tube, a web secured to and extending along the opposite side of said tube and adapted to receive said flanges thereagainst, an elongated clip fitting over said flanges and said web, and securing means passing through said clip, said flanges and said web to secure all of said elements together and hold the lock casing from rotation about said tube.

2. In a locking device for automobiles, and in combination, a steering tube having a slot and openings adjacent to the slot in one side, a lock casing having a concaved face adapted to fit snugly against said steering tube and provided with a lock bolt adapted to be projected into said slot, anchoring pins projecting from the concaved face of the casing for engagement in said openings of the steering tube to hold the lock casing from shifting longitudinally of or about the tube, a pair of straps on said lock casing engaging about the opposite sides of the tube, a longitudinal web fixed to and outstanding from the tube, flanges on the outer ends of said straps adapted to abut against the opposite sides of the web, a clip engaging over said flanges and said web to bind them together, and securing means passing through the clip, the flanges and the web to secure said elements in assembled relation.

1,205,989. ELEVATOR-BRAKE. NIELS W. GUDMUNDSON, Salt Lake City, Utah. Filed Mar. 23, 1915. Serial No. 16,438. (Cl. 187—93.)



An elevator brake consisting of a solenoid secured beneath the floor of an elevator; a pair of alined bars operable therein; buffers to limit the movement of said bars in either direction; levers fulcrumed to the floor of said elevator and with one end of each pivoted to the outer end of the adjacent bar; tongs movable by the free ends of said levers to grip the guide rails of said elevator; and a switch plug in the floor of said elevator to complete the circuit between a source of electric energy and said solenoid.

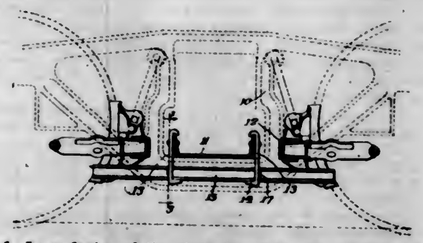
1,205,990. SWEAT-BAND. LOUIS B. HEADY, Houston, Tex. Filed Oct. 11, 1915. Serial No. 55,165. (Cl. 2—32.)



1. A device of the character described including an elastic band, a tubular sheath secured around said band said sheath being formed of non-elastic material and having transverse folds to permit the lengthening and shortening of the elastic band.

2. A device of the character described including an elastic band, a flat tubular sheath formed of thin non-elastic flexible material surrounding and secured to said band said sheath having transverse folds throughout the entire circumference thereof so as to permit the sheath to vary in circumference as the band lengthens or shortens, the lower edge of the device being secured within the hat crown and the device contracting inwardly so that its inner and upper edge will be spaced from the crown of the hat.

1,205,991. EMERGENCY-BRAKE-BEAM SUPPORT. WILLIAM C. HEDGCOCK, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Oct. 2, 1916. Serial No. 123,257. (Cl. 188—70.)



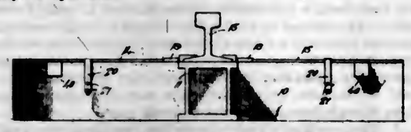
1. In a device of the class described, the combination of a hanger, a horizontal bar engaging an aperture in said hanger, the lower end of said hanger being bent angularly to provide an increased bearing area for said horizontal bar, substantially as described.

2. In a device of the class described, the combination of a pair of vertical hangers, a horizontal bar engaging an aperture in each hanger and a lateral shelf on the lower end of each hanger, the top surface of which shelf is in a plane with the bottom of the opening through said hanger, substantially as described.

3. In a device of the class described, the combination of a car truck, a hanger supported from a rigid portion of said truck, a bar adapted to engage said hanger by a longitudinal sliding movement, and a shelf formed as a part of said hanger and adapted to underlie said bar and provide a relatively wide support for said bar, substantially as described.

1,205,992. RAIL-TIE. CARMON F. HEPLER, Phillipston, Pa. Filed Dec. 1, 1915. Serial No. 64,567. (Cl. 238—4.)

1. In a device of the character described, a rail tie, rail clamping means associated therewith, a tensioning member coöperating with said clamping means, means to adjust said tensioning member to vary the tension exerted on said clamping means, and means to retain said tensioning member in certain adjusted positions, as and for the purpose specified.



2. In a rail tie, means to support the rail, rail clamping means movably associated with said supporting means, a tensioning member coöperating with said clamping means, means to lock one end of said tensioning member with respect to said supporting means, means to adjust the other end of said tensioning member whereby the tension on said clamping means may be varied, and means to lock the last mentioned end of said tensioning member in certain adjusted positions, as and for the purpose specified.

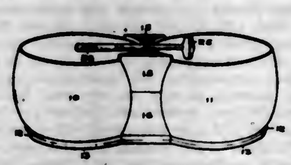
3. In a device of the character described, a rail tie including rail supporting means, rail clamping means associated therewith, a tensioning member coöperating with said rail clamping means, means to lock one end of said tensioning member with respect to said supporting means, means to adjust the other end of said member whereby the tension on said clamping means may be varied, means to shift the last mentioned end of said tensioning member laterally, and means to lock the last mentioned end of said tensioning member in certain adjusted positions, as and for the purpose specified.

4. In a device of the character described, rail supporting means, clamping means associated therewith, a tensioning member coöperating with said clamping means, means to lock one end of said tensioning member with respect to said supporting means, means to adjust the other end of said tensioning member whereby the tension on said clamping means may be varied, a wedge to shift the last mentioned end of said tensioning member laterally, and means carried by said supporting means to lock said last mentioned end of said tensioning member in certain adjusted positions, as and for the purpose specified.

5. In a device of the character described, rail supporting means, rail clamping means movably associated therewith, a tensioning member coöperating with said clamping means, means to shift one end of said tensioning member laterally, means adjacent that end of said member to lock the same stationary with respect to said supporting means, means to adjust the other end of said tensioning member whereby the tension on said clamping means may be varied, means to shift the last mentioned end of said tensioning member, and means carried by said supporting means to lock said last mentioned end of said tensioning member in certain adjusted positions, as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,205,993. COMBINED NUT SERVING AND CRACKING DEVICE. HENRY H. HIGERT, Indianapolis, Ind. Filed Mar. 25, 1916. Serial No. 86,788. (Cl. 146—3.)



1. The combination, with a portable base, of a plurality of nut holding receptacles mounted upon said base and spaced apart from each other, and an anvil mounted on the base independently of the receptacles to form a filling member in the space between said receptacles.

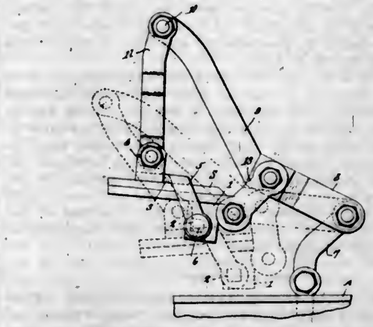
2. The combination, with a portable base, of a plurality of nut holding receptacles mounted upon said base and spaced apart from each other, means for securing said receptacles to said base, an anvil mounted on the base independently of the receptacles to form a filling member in the space between said receptacles, and means for securing said anvil to said base.

3. In a device of the herein described class comprising a nut holding receptacle, an anvil formed independently and arranged exteriorly of said receptacle, the crown of said anvil being provided with a hammer holding notch, mounting-means for mounting both the receptacle and anvil, means for securing the receptacle to said mounting-means, and means for securing said anvil to said mounting-means.

4. In a device of the herein described class comprising a nut holding receptacle, an anvil formed of a plurality of independent sections, means for securing the anvil-sections together, and means for mounting both the receptacle and anvil and for receiving and absorbing the force of the hammer blows delivered to said anvil.

5. In a device of the herein described class comprising a pair of nut holding receptacles arranged in close proximity, an anvil arranged between and independently of said receptacles, said anvil following approximately the exterior contour of said receptacles on both sides of a line drawn through the longitudinal center of the receptacles to present nut cracking surfaces of varying widths, and means for mounting both the receptacles and anvil and for receiving and absorbing the force of the hammer blows delivered to said anvil.

1,205,994. SHOCK-ABSORBER. CHARLES A. HORNBURG, Devine, Tex. Filed Apr. 24, 1916. Serial No. 93,349. (Cl. 267—27.)



1. The combination with a vehicle spring and a perch adjacent thereto, of a clip upon the spring, means for transmitting thrusts therefrom to the end of the spring, a lever pivotally connected to the perch, a connecting lever extending therefrom and to the clip, and a hanger connecting the first named lever to the end of the spring.

2. The combination with a vehicle spring and a perch adjacent thereto, of shock absorbing means including a clip mounted upon the spring adjacent one end thereof, a long lever pivotally connected to the perch and overhanging the spring, a short lever pivotally connecting said long lever to the clip, and a hanger connecting the long lever to the end of the spring.

3. The combination with a vehicle spring and a perch adjacent thereto, of shock absorbing means including a clip bearing upon and adjustably connected to the spring for transmitting thrusts against the end of the spring, pivotally connected levers, a pivotal connection between one of the levers and the clip, hangers connecting the other lever to the end of the spring, and a pivotal connection between said last named lever and the perch.

4. The combination with a vehicle spring and a perch adjacent thereto, of a clip bearing on the spring adjacent

one end, arms depending therefrom at the sides of the spring, an angularly adjustable block carried by the arm for engaging the bottom and end of the spring, pivotally connected levers, a pivotal connection between one of the levers and the clip, hangers connecting the other lever to the end of the spring, and a pivotal connection between the last named lever and he perch.

1,205,995. RESILIENT TIRE. ERNEST F. HOWARD, Ansonia, Ohio. Filed Oct. 8, 1915. Serial No. 54,761. (Cl. 152—8.)

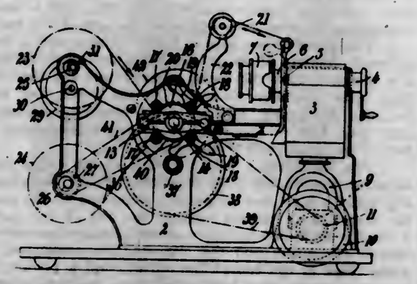


1. In a tire of the character described comprising an outer casing, a plurality of metallic rings disposed within the casing and arranged parallel with the plane of rotation thereof, said rings being arranged in staggered relation affording free sliding contact one with another and interfitting to afford a resilient filler for the casing.

2. A tire of the character described, comprising an outer casing, and a plurality of resilient rings disposed within the casing parallel with the plane of rotation thereof and in staggered relation and formed substantially V-shaped in cross-section and having their edges bent inwardly at an angle.

3. A tire of the character described, comprising an outer casing, a plurality of resilient rings disposed in the outer casing parallel with the plane of rotation thereof and in staggered relation and formed substantially inverted V-shaped in cross-section and having their edges bent inwardly at an angle, a tread portion ring arranged between the resilient rings and the tread portion of the casing and having recesses to receive the outermost rings, and side rings disposed within the inner portion of the casing and having flanges to contact with the edges of the adjacent resilient rings.

1,205,996. CINEMATOGRAPHIC PROJECTING APPARATUS. ERNEST ALBERT IVATTS, Paris, France, assignor to Society Compagnie Generale de Phonographes, Cinematographes et Apparells de Precision, Paris, France. Filed Jan. 29, 1912. Serial No. 674,109. (Cl. 88—17.)

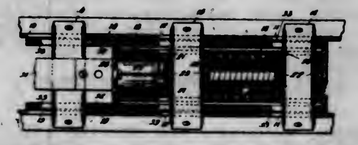


1. In a moving picture projecting machine, the combination of a supporting base, a main driving shaft supported approximately centrally over said base, an optical system supported adjacent one end of said base, a separate shaft for each reel, a film-feeding drum carried by said driving shaft and adapted to feed a film through the apparatus, a driving connection from the driving shaft to the wind-on reel, means for releasing said driving connection, and means for operating said wind-off reel independently o said driving shaft whereby a film may be wound directly from the wind-on reel to the wind-off reel.

2. In a moving picture projecting machine, the combination of a supporting base, a main driving shaft supported approximately centrally over said base, a film-feeding drum on said driving shaft, an optical system supported adjacent one end of said base at one side of the driving shaft a wind-off reel and a wind-on reel supported in vertical alinement adjacent the opposite end of said base and at the opposite side of the driving shaft, a separate shaft for each reel, a belt-drive connection between the main driving shaft and the shaft of the wind-on reel, clutch mechanism for releasing said belt-drive connection, and means for operating said wind-off reel independently of said driving shaft whereby a film may be wound directly from the wind-on reel to the wind-off reel without passing through said optical system.

3. In a moving picture projecting machine, the combination of a supporting base a main driving shaft supported approximately centrally over said base, a film-feeding drum on said driving shaft, an optical system supported adjacent one end of said base at one side of the driving shaft a wind-off reel and a wind-on reel supported in vertical alinement adjacent the opposite end of said base and at the opposite side of the driving shaft, a separate shaft for each reel, a belt-drive connection between the main driving shaft and the shaft of the wind-on reel, clutch mechanism for releasing said belt-drive connection, and means for operating said wind-off reel independently of said driving shaft whereby a film may be wound directly from the wind-on reel to the wind-off reel without passing through said optical system, said means comprising a gear secured to the spindle of the wind-off reel, an internally toothed wheel adapted to actuate said gear, and an operating handle rotating with said wheel.

1,205,997. RAILWAY-CAR DRAFT-RIGGING. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Nov. 30, 1914. Serial No. 874,666. (Cl. 213—64.)



1. A draft rigging for railway cars comprising in combination, draft sills, a friction shell, friction devices cooperable therewith, a spring, keys extending through said shell and sills and supporting the shell, one of said keys being located intermediate the friction devices and the spring and movable in only one direction from normal, whereby the friction devices and springs are both actuated under buff and only the spring under draft.

2. In a railway draft rigging, the combination with a longitudinally movable friction shell having friction devices cooperable therewith, of a follower in the rear of of said friction devices, means preventing movement of said follower in one direction from normal, a second follower, a spring between said followers, and a draw bar, whereby the friction devices are movable with the shell but inoperative when said first named follower is stationary.

3. In a draft rigging for railway cars, the combination with a draw bar, of a longitudinally movable friction shell having friction devices cooperable therewith, the draw bar engaging the latter under buff, a follower in the rear of the friction devices, a spring in the rear of said follower, a second follower at the rear of said spring, said first follower being movable under buff only and the second named follower under draft only.

4. A draft rigging for railway cars comprising in combination, a draw bar, a friction shell having friction devices cooperable therewith, the draw bar engaging said devices under buff, a pair of followers located in the rear of said friction devices, a spring between said followers, longitudinally movable keys extending through said followers, one of said keys being movable only under buff and the other only under draft, and means connecting said keys with the draw bar.

5. In a railway draft rigging, the combination with a friction shell having a spring case, said shell being provided with slots at the rear and elongated slots near the front thereof, keys extending through said slots, followers on said keys within said shell, a spring between said followers, friction devices located forwardly of the front follower, and links arranged to connect said keys with the draw bar.

[Claims 6 and 7 not printed in the Gazette.]

1,205,998. TREATING RAILS. EDWARD F. KENNEY, Westmont borough, Pa. Filed Mar. 20, 1916. Serial No. 85,479. (Cl. 148—24.)

1. The steps in the method of treating rails, which consists in quenching them in a vertical or slightly inclined position and thereby cooling them to a temperature not less than 400 degrees.

2. The steps in the process of treating rails comprising quenching them at their finishing temperature to a temperature not less than 400 degrees, then heating them to a temperature above 800 degrees, but not to their recalescent temperature, then straightening them while above a temperature of 600 degrees.

3. The process of treating rails, which consists in finishing them at temperatures from 1400 degrees to 2000 degrees, then quenching them to a temperature not less than 400 degrees, then reheating them to temperatures above 800 degrees, but not more than their recalescent temperature, then straightening them before they are at a temperature of less than 600 degrees.

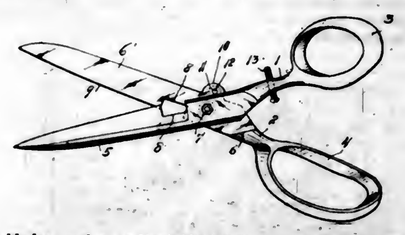
4. The steps in the method of treating rails, which consists in heating them to temperatures from 1400 degrees to 2000 degrees, then quenching them in a vertical or slightly inclined position and thereby cooling them to a temperature not less than about 400 degrees.

5. The process of treating rails, which consists in heating them to temperatures from 1400 degrees to 2000 degrees, then quenching them to a temperature not less than 400 degrees, then reheating them to temperatures above 800 degrees, but not more than their recalescent temperature, then straightening them before they are at a temperature of less than 600 degrees.

1,205,999. SCISSORS. BRUNO KIRMSEE, Fremont, Ohio. Filed Nov. 24, 1914. Serial No. 873,699. (Cl. 164—5.)

1. Scissors, comprising a pair of blades pivotally connected together, the cutting edge of each blade having a notch formed therein and the said notches being oppositely disposed with respect to each other, a handle for each blade, a lug formed upon one of said blades and projecting laterally therefrom in proximity to the pivot of the blades, and an adjustable element extending through said lug and adapted to engage the other of said blades for limiting the opening movement of the blades with respect to each other.

2. Scissors, comprising a pair of blades pivotally connected together, the cutting edge of each blade having a notch formed therein and the said notches being oppositely disposed with respect to each other, a handle for each blade, a lug formed upon one of said blades and projecting laterally therefrom in proximity to the pivot of



the blades, and an adjustable element extending through said lug and adapted to engage one edge of the other of said blades for limiting the opening movement of the blades with respect to each other.

1,206,000. COLOR PHOTOGRAPHY. ISIDOR KITSEE, Philadelphia, Pa. Filed Apr. 8, 1915. Serial No. 19,969. (Cl. 95—81.5.)

1. The method of producing color carriers for autochrome blanks, which consists in first dissolving a suitable solid in a liquid, dyeing that liquid with a suitable color, spraying the colored liquid through a gaseous atmosphere adapted to produce a non-adherence between the different particles, drying the different particles, producing such particles of as many colors as required, and inter-mixing the particles of different colors.

2. The method of producing auto-chrome blanks which consists in first producing the different color carriers through the process of spraying the color solutions, each separately, through an atmosphere surcharged with a chemical agent adapted to make the different particles non-adherent, then inter-mixing the different colored particles and cementing the same onto the blank adapted to be used for an auto-chrome.

3. In the production of color carriers for autochrome blanks the step which consists in first dissolving a suitable solid coagulable by formaldehyde in a suitable liquid, coloring the same with a suitable color and then spraying the same through an atmosphere surcharged with formaldehyde.

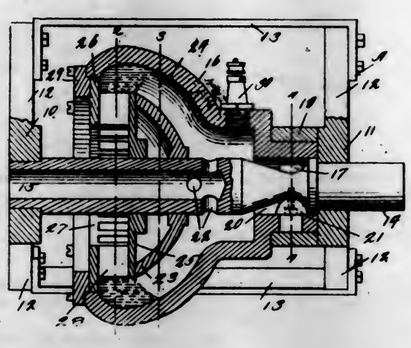
4. In the art of producing color screens for photographic blanks the method which consists in first dissolving suitable solid substances coagulable by formaldehyde in suitable liquids, dyeing said dissolved substances in the required colors, spraying the so-colored liquids, each separately through an atmosphere containing formaldehyde, thereby producing minute colored particles and then cementing said particles onto a blank adapted to be used for photographic purposes.

5. In the art of producing color screens for photographic blanks the steps as follows: dissolving a suitable substance with the aid of a suitable liquid, dividing said liquid into separate parts, coloring each part separately, spraying each of the divided liquids through an atmosphere charged with a gaseous agent adapted to congeal said liquids into minute parts thereby producing minute colored carriers, drying said carriers and cementing the same on a suitable base adapted for photographic purposes.

1,206,001. GAS-TURBINE. PHILIP C. KUHL, Landusky, Mont. Filed Aug. 31, 1915. Serial No. 48,311. (Cl. 123—9.)

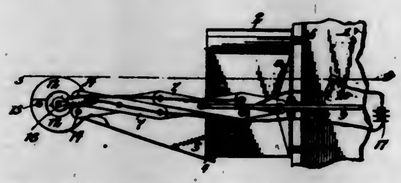
1. In a turbine, the combination of a frame, a shaft rotatably mounted on the frame, a bell shaped member encircling the shaft and having its minor end fixed thereto, a plurality of blades carried by the member within same and spaced from the shaft, said shaft being provided with a passage communicating at one end with the interior of the member and adapted to convey water into the

interior of the member, means for supplying an explosive mixture into the interior of the member and means for intermittently exploding said mixture to force the water and the resulting gases through the blades and out of the member whereby said water and gases will react upon the blades to rotate the member and shaft.



2. In a turbine, the combination of a frame, a shaft rotatably mounted on the frame, a bell shaped member encircling the shaft and having its minor end fixed thereto and provided with a plurality of recesses a plurality of blades within the member, said shaft being provided with a circumscribing groove communicating with the interior of the member and with said recesses, a tubular member fixed with respect to the frame and surrounding the minor end of the bell shaped member, a lateral extension on said tubular member for conveying an explosive mixture, a valve mounted in said groove and overlying one of said recesses, means for supplying water to the interior of the member, means for intermittently exploding the mixture within the member whereby said water and resulting gases will react upon the blades to rotate the member and shaft.

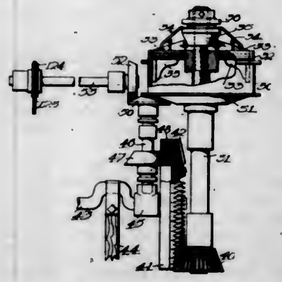
1,206,002. SIGNAL DEVICE FOR VEHICLES. JAMES J. LANAHAN, Buffalo, N. Y. Filed Feb. 10, 1915. Serial No. 7,265. (Cl. 116—31.)



A signal device comprising a semaphore arm having a plurality of pivotally connected levers and pivotally mounted at its inner end on a fixed support, and a ring-shaped signal head having two semi-circular sections which have their outer ends pivotally connected and their inner ends pivotally connected respectively with two of said levers.

1,206,003. DRIVING MECHANISM FOR LOOMS. LOUIS H. LANDRY, Uxbridge, Mass., assignor of one-half to Samuel B. Taft and one-eighth to Udgie Larocque, Uxbridge, Mass., and one-eighth to Louis Bousquet and Theodore Bousquet, Burrillville, R. I. Original application filed July 24, 1908, Serial No. 445,155. Divided and this application filed June 14, 1909. Serial No. 501,890. (Cl. 74—46.)

1. In a loom, the combination of a driving shaft, a loose pulley thereon having a friction surface rotatable therewith, means for positively connecting said loose pulley with the driving shaft, a crank shaft, a power transmitting member connected with the crank shaft for driving it, means constantly connected with the driving shaft for operating the power transmitting member, and means whereby power may be transmitted from said friction surface to the power transmitting member when the loose pulley is not connected to the driving shaft by said positive means.



2. In a loom, the combination of a driving shaft, a loose pulley thereon, a crank shaft, means connected with the driving shaft for operating the crank shaft, means for connecting the loose pulley with the driving shaft and means independent of the last named means for connecting the loose pulley with the crank shaft operating means.

3. In a loom, the combination of a driving shaft, a loose pulley thereon having a friction surface, means for connecting the loose pulley with the driving shaft to operate it, a crank shaft, a gear on the crank shaft, means for driving said gear from the driving shaft, said gear having a friction surface, and means for transmitting power from the first named friction surface to the second when the driving shaft is not driven directly from the loose pulley.

4. In a loom, the combination of a driving shaft, a loose pulley thereon having a friction surface, means for connecting the loose pulley with the driving shaft to operate it, a crank shaft, a gear on the crank shaft having a friction surface, means for driving the gear from the driving shaft, and means for transmitting power from the first named friction surface to the second, said means comprising a shaft parallel with the driving shaft and perpendicular to the crank shaft and having a pair of friction disks thereon engaging said friction surfaces.

5. In a loom, the combination with a driving shaft, a loose pulley thereon, and means for connecting the loose pulley with the driving shaft, of a crank shaft, means for operating the crank shaft from the driving shaft, means independent of said driving shaft and connection means and coöperating with a part of the latter for operating the crank shaft from the loose pulley, and manually operated means for controlling said independent means.

[Claims 6 to 17 not printed in the Gazette.]

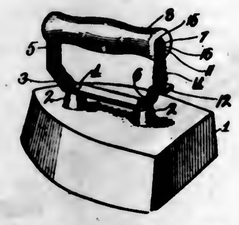
1,206,004. HANDLE. GEORGE W. LA RUE, Kansas City, Mo., assignor to United Gas Iron Company, Chicago, Ill., a Corporation of South Dakota. Continuation of application Serial No. 57,092, filed Oct. 21, 1915. This application filed Jan. 31, 1916. Serial No. 75,393. (Cl. 68—26.)

1. A handle comprising a hand grip, and relatively rigid and yieldable supporting members.

2. A handle comprising a hand grip, and rigid arm and spring members fixed to the grip in spaced relation to form firm propelling and cushioned connections with a body to which said members are attached.

3. A handle comprising a hand grip, a rigid arm attached to the grip and a helical spring having its smaller end attached to the grip in spaced relation to said rigid arm.

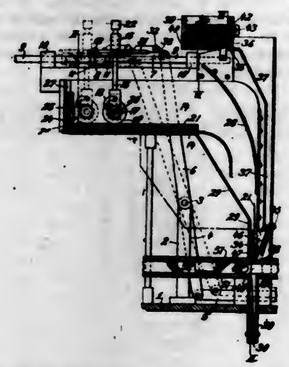
4. A handle comprising a rigid base, a grip, and relatively rigid and flexible members forming firm propelling and cushioned bearing mounting of the grip on said base.



5. A handle comprising a rigid base, having an end arm integral with the base and a grip fixed to the end arm, and cushioning means connecting the grip with the base at a point spaced from the end arm.

[Claims 6 to 8 not printed in the Gazette.]

1,206,005. PAPER-FEEDING MECHANISM. FRANK WILLIAM LEV, New York, N. Y., assignor to C. & L. Machine Company, Astoria, N. Y., a Corporation of New York. Filed Mar. 18, 1915. Serial No. 15,376. (Cl. 101—39.)



1. A paper sheet feeding device, comprising a magazine having a horisontal support for a series of sheets of paper, a slide located near one edge of said series of sheets of paper and having pointed needles adapted to penetrate several of said sheets of paper; a carriage having horisontal reciprocating movements on said magazine, said carriage provided with a freely moving vertical slide adapted during horizontal movement in one direction to engage with and tear one of said sheets from said needles; means whereby said slide can be moved upward clear of said magazine; in combination with a horizontally reciprocating slide on which said carriage is pivoted; whereby said carriage and vertically moving slide can be swung clear of said magazine, in order that additional wrappers may be placed therein, substantially as described.

2. In a paper sheet feeding device, a magazine for receiving a horizontal series of sheets of paper, a carriage having horizontal reciprocating movements on said magazine, said carriage provided with a freely moving vertical slide adapted for engagement with one of said sheets of paper; means whereby said slide can be moved upward clear of said magazine; in combination with a horizontally reciprocating slide on which said carriage is pivoted; whereby said carriage and vertically moving slide can be swung clear of said magazine, in order that additional wrappers may be placed therein, substantially as described.

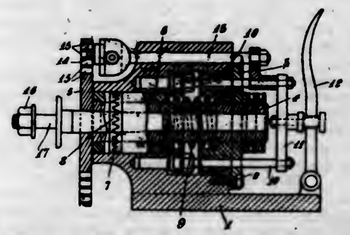
3. Paper feeding mechanism, comprising a support for a series of sheets of paper, a slide located near one edge of said series of sheets of paper and having pointed needles adapted to penetrate several of said sheets of paper; a support for a series of thicker paper coupons, a gage located next to one end of said series of coupons and placed a distance from the support thereof equal to the thickness of one coupon; in combination with a reciprocating carriage provided with friction surfaces adapted to tear one of said sheets free from said needles, said carriage having knives adapted to take against and move the lower coupon of said series forward between said gage and support.

4. Paper feeding mechanism, comprising a wrapper folding channel, a support for an article, a support for a wrapper between said folding channel and said article, and a support for a coupon above said article; a horizontal support for a series of sheets of paper, a vertically moving slide located near one edge of said series of sheets of paper and having pointed needles at its lower end adapted to penetrate several of said sheets of paper; in combination with a horizontally reciprocating slide carrying a vertically moving slide having friction surfaces at its lower end and adapted during horizontal movement in one direction to cause said friction surfaces to move the upper sheet of said series free from the remaining sheets and to tear said sheet free from said needles; means whereby a coupon can be moved to rest on said coupon support, return movement of said slide then permitting the separated sheet to fall to said wrapper support; and means whereby movement of said article and wrapper into said wrapper folding channel causes said coupon to be moved from said coupon support to rest between said wrapper and said article.

5. Paper feeding mechanism, comprising a wrapper folding channel, a support for an article, a support for a wrapper between said folding channel and said article, and a support for a coupon above said article; a support for a series of sheets of paper, a movable slide located near one edge of said series of sheets of paper and having pointed needles adapted to penetrate several of said sheets of paper; in combination with a reciprocating carriage provided with friction surfaces adapted to tear one of said sheets free from said needles and move it to rest on said wrapper support; means whereby a coupon can be moved to rest on said coupon support; and means whereby movement of said article and wrapper into said wrapper folding channel causes said coupon to be moved from said coupon support to rest between said wrapper and said article.

[Claims 6 to 10 not printed in the Gazette.]

1,206,006. DIVIDING APPARATUS. JOHAN OSCAR LIFFLANDER, Stockholm, Sweden, assignor to J. & C. G. Bolinders Mekaniska Verkstads Aktiebolag, Stockholm, Sweden. Filed July 26, 1915. Serial No. 42,100. (Cl. 90—57.)



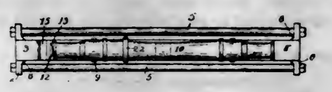
1. In a dividing apparatus, the combination of a frame, a spindle for rotatably supporting a work-piece in said frame, a member rotatable with said spindle and provided with different series of indications corresponding to different angular positons, each of said series having a different number of indications therein, a second member

connected to the frame and arranged to coöperate with any of said series of indications to facilitate setting said spindle in the desired angular position, and a jaw coupling between the spindle and the frame the number of teeth in each member of which coupling is a multiple of the number of angular positions corresponding to each series, substantially as and for the purpose described.

2. In a dividing apparatus, the combination of a frame, a spindle for rotatably supporting a work-piece in said frame, a disk on said spindle provided with different series of indications corresponding to different angular positions, each of said series having a different number of indications therein, a member connected to the frame for indicating the position of the disk, a jaw coupling between the spindle and the frame the number of teeth in each member of which coupling is a multiple of the number of indications in the various series, one member of said coupling being secured to the spindle and the other being movable in the frame in the axial direction of the spindle and guided against rotation in the frame, means for guiding the movement of said second member, and a lever connected to said second member for moving the same into and out of engagement with the member secured to the spindle, substantially as and for the purpose described.

3. In a dividing apparatus, the combination of a frame, a spindle for rotatably supporting a work-piece in said frame, a disk on said spindle provided with different series of different numbers of holes arranged in concentric circles, a jaw coupling member secured to the spindle, a second jaw coupling member movable in the frame in the axial direction of the spindle and guided against rotation in the frame, the number of teeth of each of said jaw coupling members being a multiple of the number of holes in each circle, means for moving the second member into and out of engagement with the first-mentioned member, a rod sliding in the frame and rigidly connected with the movable jaw coupling member, and a stud in the end of said rod adjustable so as to enter the holes of one of the said circles, substantially as and for the purpose described.

1,206,007. UPSETTING-TOOL. JAMES J. LYNCH and HENRY PFLUGER, St. Paul, Minn. Filed Sept. 20, 1915. Serial No. 51,645. (Cl. 78—17.)



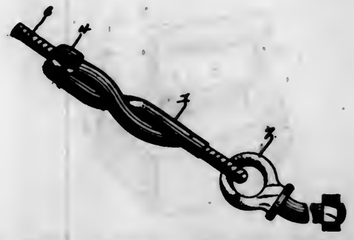
1. An upsetting tool of the class described comprising a base plate, end abutments, a die movably positioned inside one of said abutments, and a wedge slidable between said die and the adjacent abutment.

2. An upsetting tool of the class described comprising a base plate, end abutments, a die movably positioned inside one of said abutments, a wedge slidable between said die and the adjacent abutment, and brace rods adjustably connecting said abutments.

3. An upsetting tool of the class described comprising a base, rests for the part to be upset movably supported upon said base, abutments carried by said base, one of said abutments having a downwardly inclined inner face, a die movably positioned inside said inclined abutment face, and a wedge downwardly slidable between said die and inclined face.

4. An upsetting tool of the class described comprising a base, rests for the part to be upset movably supported upon said base, abutments carried by said base, one of said abutments having a downwardly inclined inner face, a die movably positioned inside said inclined abutment face, a wedge downwardly slidable between said die and inclined face, and a yoke removably supported by said frame in position to surround the part to be upset.

1,206,008. ROPE-FASTENER. IRA E. MCCABE, Lexington, Nebr. Filed Nov. 27, 1915. Serial No. 63,830. (Cl. 24—129.)



1. A device of the character described, a sleeve of pliable metal, two longitudinal passageways formed therein adapted to allow of the passage of a cable through one passageway with the end of the cable brought back and received in the other passageway, said sleeve adapted to be bodily twisted upon its longitudinal axis to secure the end to the main portion of the cable.

2. A device of the character described, comprising a sleeve of pliable metal having two longitudinal passageways formed therein with the wall of one passageway extending beyond the termination of the wall of the other passageway, adapted to allow the passage of the cable through the shorter passageway with the end of the cable received in the longer passageway, the extended wall being adapted to be bent back upon the body of the sleeve to secure the cable end.

1,206,009. CASTER. WILLIAM J. MCINTYRE, Hartford, Conn. Filed Aug. 10, 1915. Serial No. 44,676. (Cl. 16—4.)

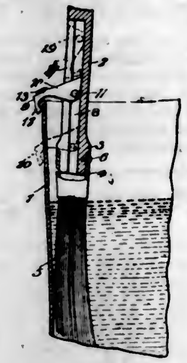
1. A caster comprising a horn provided with a wheel and with a pintle, and a yoke-like resilient member connected with and straddling the pintle, the branches of the yoke-like member being flat, freely movable inwardly and outwardly and having outwardly extending projections on their outer faces between the sides thereof, said projections being cut from said branches and their ends being integral with said branches, the outer surfaces of the projections diverging downwardly and said projections acting to space said branches from the wall of a socket into which said yoke-like resilient member is introduced.

2. A caster comprising a horn provided with a wheel and with a pintle, a yoke-like resilient frame member connected with and straddling the pintle the sides of the said frame member having exterior holding projections, and an auxiliary frame member perforated to receive the pintle, the auxiliary frame member being provided with upstanding flanges interlocked with the sides of the main frame member and provided with means for limiting contracting movement of said sides.

3. A caster comprising a pintle, a main frame member of yoke-like form and resilient, connected with and straddling said caster, the sides of said frame member being approximately in parallelism and being provided with integral outwardly-extending projections on the exterior thereof, an auxiliary frame member perforated to receive

said pintle and provided with upstanding flanges equipped with inwardly-extending necks, having T heads, said sides being notched in their lower edges to receive said necks.

1,206,010. SUSPENDING ATTACHMENT FOR BRUSH-HANDLES. EDWIN F. MACKEEVER, Eddington, Me. Filed June 16, 1916. Serial No. 104,025. (Cl. 248—50.)



1. In a paint brush handle, the combination of a body having a slot therein, an arm pivotally arranged for slidable movement in said slot, and means for retaining the arm in said slot.

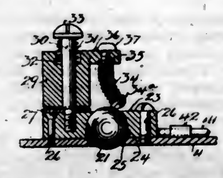
2. In an attachment for paint brushes, the combination with a brush handle, said handle having a slot arranged longitudinally thereof, an arm pivotally and slidably arranged in said slot, the free end of said arm being formed with a hook, the inner end of said arm having a shoulder for engagement with the base of the slot whereby to prevent movement of the arm when in the outermost position.

3. In an attachment for paint brushes, the combination with a paint brush handle having a slot extending longitudinally thereof, said slot being provided with a longitudinal enlargement throughout its length at its base, a supporting arm formed of sheet metal and provided with oppositely extending semi-spherical projections for engagement in the enlargement of said slot, said arm projecting through said slot, finger engaging portions carried by the arm, and a shoulder carried by the inner end of the arm for engagement with the base of said slot to limit the movement of the arm when in extended position.

4. In an attachment for paint brush handles, the combination with a handle having a longitudinal groove therein and said groove being provided with an enlargement extending throughout its length at the base thereof, of supporting arms for said handle including a body formed of a sheet of metal bent upon itself to form parallel portions for engagement through said slot, the outer end of said arm having a hook portion and the inner end of said arm having projections extending laterally therefrom for engagement with the enlargements of said slot.

1,206,011. ALARM FOR BOXES AND OTHER RECEPTACLES. CHARLES A. MAHLA, Jersey City, N. J., assignor to Park G. Hammar, New York, N. Y. Filed Nov. 27,1914. Serial No. 874,150. (Cl. 177—316.)

1. In a burglar alarm of the character described, the combination of a receptacle, alarm actuating mechanism comprising means for initiating the operation thereof comprising a ball mounted with facility of rising and falling and rolling, and projecting through said receptacle for the purpose set forth, a coiled spring adapted to stand on said ball, and having a free end coöperating with the ball and having its other end fixed against lateral movement and means for guiding said spring whereby it may move toward and from the ball, said alarm actuating mechanism being controlled by said latter mentioned movements of said spring.

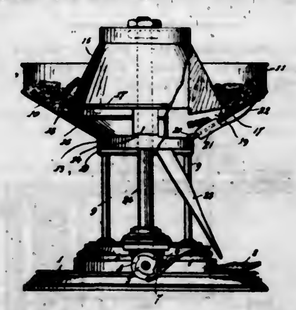


2. In a burglar alarm of the class described the combination of a receptacle, alarm actuating mechanism and means controlling the operation thereof, comprising a ball mounted with facility of rising, falling and rolling, and projecting through said receptacle for the purpose set forth, a reciprocating block moving in a single path in relation to the ball, a coiled spring having one end secured to the block and having a free end coöperating with the ball whereby the spring may be fixed, said ball being adapted to hold up said spring, and said alarm actuating mechanism being operable upon the downward movement of said spring.

3. In a burglar alarm of the character described, a receptacle, an alarm device, and alarm actuating mechanism comprising means forming a pocket for holding a ball so as to be capable of rising, falling and rolling therein, a ball therein projecting to the exterior of the receptacle, a post secured to said means, a block guided by said post, a coiled spring carried by said block and having one end fixed to the block and the other end free and coöperating with said ball, said block and spring being adapted to be held up by said ball and adapted to fall when the free end of the spring moves off the center of said ball and to thereby operate the alarm actuating device.

4. In a burglar alarm of the class described, a receptacle, an alarm device, an alarm actuating mechanism, comprising means forming a pocket for holding a ball so as to be capable of rising, falling and rolling therein, a ball therein projecting to the exterior of the receptacle, a post secured to said means, a block guided by said post, a spring on said post tending to force the block downwardly, a coiled spring having one end fixed to said block and having a free end adapted to rest on said ball, an electric circuit, and contact members adapted to be brought together upon the falling of said block to operate said alarm actuating mechanism.

1,206,012. SUGAR-DISPENSING CABINET. FRANCESCO MANARESI, Florence, Italy. Filed Mar. 4, 1915. Serial No. 12,091. (Cl. 211—8.)



1. Sugar dispensing cabinet comprising in combination a container having a funnel-shaped bottom, a dispensing member fitting in and mounted to rotate within the bottom part of said container, means on the bottom of the container whereby the lumps of sugar engaged by the dispensing member will be discharged one at a time, and means on said dispensing member extending over the said

discharging means and coöperating with the walls of the container to support the lumps of sugar contained therein.

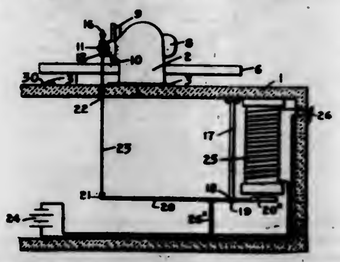
2. Sugar dispensing cabinet comprising in combination a container having a funnel-shaped bottom, a hollow dispensing member fitting in and mounted to rotate within the bottom part of said container, said dispensing member having peripheral apertures and being arranged to form, in conjunction with the bottom of the container, an annular race from which the lowermost lumps of sugar are discharged through the apertures of the dispensing member, and means on the bottom of the container whereby the lumps of sugar engaged by the dispensing member will be discharged one at a time.

3. Sugar dispensing cabinet comprising in combination a container having a funnel-shaped bottom, discharging means in the bottom of the container, a hollow dispensing member fitting in and mounted to rotate within the bottom part of said container, said dispensing member having a smooth top surface extending over the said discharging means and peripheral apertures through which the lumps of sugar are admitted to the discharging means, means on the path of the lumps of sugar being discharged whereby they will be dispensed one at a time.

4. Sugar dispensing cabinet comprising in combination a container having an upper part or chamber and an enlarged lower part or chamber having a funnel-shaped bottom, a hollow dispensing member fitting in and mounted to rotate within the lower chamber and arranged so as to leave an annular space between the said dispensing member and the walls of the container, means on the bottom of the container whereby the lumps of sugar engaged by the dispensing member will be discharged one at a time, the top surface of the dispensing member extending over the said discharging means and coöperating with the walls of the container to support the lumps of sugar contained in the lower chamber, and guiding means whereby the lumps of sugar in the upper chamber are caused to bear on the top surface of the dispensing member.

5. Sugar dispensing cabinet comprising in combination a container having a cylindrical upper chamber and an enlarged lower chamber with a funnel-shaped bottom, a hollow dispensing member fitting in and mounted to rotate within the lower chamber and arranged so as to leave an annular space between the said dispensing member and the walls of the container, means on the bottom of the container whereby the lumps of sugar will be discharged one at a time, the dispensing member having peripheral apertures and a smooth and substantially flat top surface extending over the said discharging means, a substantially cylindrical partition extending beyond the wall of the upper chamber and projecting into the lower chamber to a distance from the top surface of the dispensing member just sufficient to allow for the passage of a lump of sugar.

1,206,013. PHONOGRAPH. DONALD MILNE MANSON, Hamilton, Ontario, Canada. Filed Jan. 24, 1916. Serial No. 73,992. (Cl. 274—14.)



1. In a phonograph, the combination with the sound box, sound box crook and supporting arm, of a drum carried by the sound box crook, an arm extending from the drum, electromagnetic means for drawing the outer end of the arm downwardly, manual means for making and breaking the circuit of the electromagnetic means, and means for carrying the arm back to the initial position.

2. In a phonograph, the combination with the sound box, sound box crook and supporting arm, of a drum carried by the sound box crook, an arm extending from the drum, electro-magnetic resiliently yieldable means for drawing the outer end of the arm downward, manual means for making and breaking the circuit of the electromagnetic means, and means for carrying the arm back to the initial position.

3. In a phonograph, the combination with the sound box crook, of a drum turnably carried thereby, an operating arm rigidly secured to the drum, means for depressing the arm to turn the drum and raise the crook, and interengaging means between the drum and the sound box crook adapted to permit of manually turning over the sound box crook of the operating arm.

1,206,014. SCREW-DRIVER. LOUIS G. MASSICOTTE, Providence, R. I. Filed Dec. 7, 1915. Serial No. 65,517. (Cl. 145—50.)



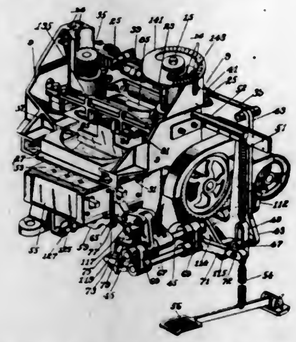
1. As an article of manufacture, a screw driver having a blade provided with a tang, a handle which the tang enters, a metal member in the other end of the handle, and an intervening section of electrically insulating material abutting against the end of the tang and the end of said metal member located at a distance from the end of the handle.

2. As an article of manufacture, a handle comprising a body provided with a small central uniform bore from end to end, a tang entering said bore at one end, a metallic rod entering it at the other end, and a body of dense non-conducting material of the same diameter as the tang and rod located in the bore between them and in close contact with both.

1,206,015. SPLITTING-MACHINE. BENJAMIN F. MAYO, Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 19, 1915. Serial No. 15,543. (Cl. 69—13.)

1. A machine for splitting a piece of stock in accordance with its thickness, having, in combination, splitting mechanism adapted to be adjusted for different thicknesses of stock, thickness detecting mechanism to which the stock may be presented and past which it may be advanced to the splitting mechanism, and manually controlled means connected with both mechanisms for operating the detecting mechanism and for adjusting the splitting mechanism.

2. A machine for splitting a piece of stock in accordance with its thickness, having, in combination, splitting mechanism adapted to be adjusted for different thicknesses of stock, thickness detecting mechanism located in front of said splitting mechanism to which the stock may be presented and from which it may be advanced to the splitting mechanism, and manually controlled means for causing the detecting mechanism to grip the stock and for simultaneously adjusting the splitting mechanism.



3. A machine for splitting a piece of stock in accordance with its thickness, having, in combination, splitting mechanism adapted to be adjusted for different thicknesses of stock, thickness detecting mechanism adapted to grip the stock, and manually controlled means including a yielding member through which power is applied for simultaneously causing the detecting mechanism to grip the stock and for adjusting the splitting mechanism.

4. A machine for splitting a piece of stock in accordance with its thickness, having, in combination, splitting mechanism, detecting mechanism located in front of said splitting mechanism in position to permit the stock to be advanced between the members of the detecting mechanism to the splitting mechanism, means for simultaneously adjusting the splitting mechanism and operating the detecting mechanism to grip the stock, and means for thereafter loosening the grip of the detecting mechanism while maintaining the adjustment of the splitting mechanism.

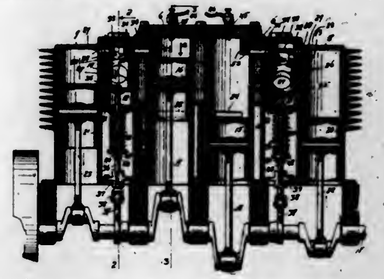
5. A machine for splitting a piece of stock in accordance with its thickness, having, in combination, splitting mechanism, detecting mechanism located in front of said splitting mechanism in position to permit the stock to be advanced between the members of the detecting mechanism to the splitting mechanism, means for simultaneously adjusting the splitting mechanism and operating the detecting mechanism to grip the stock, means for thereafter loosening the grip of the detecting mechanism while maintaining the adjustment of the splitting mechanism, and means for relatively adjusting the detecting and splitting mechanisms to predetermine the thickness of the chip or skiving which is to be removed.

[Claims 6 to 25 not printed in the Gazette.]

1,206,016. INTERNAL-COMBUSTION ENGINE. HERBERT L. MEEDER, Denver, Colo., assignor of one-half to Allison Stocker, Denver, Colo. Filed Sept. 14, 1915. Serial No. 50,567. (Cl. 123—70.)

1. An internal combustion engine comprising an explosion cylinder, a compression cylinder, pistons therein, and a hollow valve mounted to reciprocate, the chamber in which the valve moves being in communication with the chambers of both cylinders by suitable ports, the said valve having but two ports one of which establishes communication between the hollow of the valve and the manifold of the engine while the other port is adapted to register with the port forming communication between the chamber of the compression cylinder and the chamber in which the valve moves.

2. An internal combustion engine comprising an explosion cylinder, a compression cylinder, pistons therein, a valve chamber, a hollow valve mounted to reciprocate therein, the valve chamber being in communication with the chambers of both cylinders by way of suitable ports, the said valve having but two ports one of which establishes communication between the hollow of the valve and the manifold of the engine while the other port is adapted to register with the port forming communication between the compression cylinder chamber and the valve chamber, and means for actuating the valve to place, first, its interior chamber or hollow in communication with the compression cylinder chamber, second, its exterior chamber in communication with the chambers of both cylinders, and third, to cut off both cylinder chambers from communication with the exterior valve chamber.



3. An internal combustion engine comprising an explosion cylinder, a compression cylinder, pistons therein, a valve having an interior chamber, an exterior chamber in which the valve is mounted to reciprocate, the exterior chamber being in communication with the chambers of both cylinders by suitable ports, the said valve having but two ports one of which establishes communication between the hollow of the valve and the manifold of the engine while the other port is adapted to register with the port forming communication between the compression cylinder chamber and the exterior valve chamber, and means for actuating the valve to place its interior chamber in communication with the compression cylinder chamber; its exterior chamber in communication with the chambers of both cylinders; and to cut off the compression chamber from communication with the interior chamber of the valve; the three aforesaid conditions occurring successively and the series of conditions being repeated constantly during the operation of the engine.

4. In an internal combustion engine, the combination with a manifold in communication with a source of explosive mixture, of an explosion cylinder, a compression cylinder and an interposed valve chamber having three ports forming communication respectively with the manifold, the explosion cylinder chamber and the compression cylinder chamber, and a hollow valve movable in said valve chamber, and having two ports only by way of which the hollow of the valve is constantly in communication with the manifold and alternately in communication with the compression cylinder chamber.

5. In an internal combustion engine, the combination with a manifold in communication with a source of explosive mixture, of an explosion cylinder, a compression cylinder and an interposed valve chamber having three ports forming communication respectively with the manifold, the explosion cylinder chamber and the compression cylinder chamber, and a hollow valve movable in said valve chamber and having two ports only adapted to register with the ports of the valve chamber which communicate respectively with the manifold and the compression cylinder chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,206,017. CLASP. CLARENCE E. MEHLHOPE, Chicago, Ill., assignor to George Plamondon, Wheaton, Ill. Filed Nov. 29, 1912. Serial No. 733,982. (Cl. 24—248.)

1. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting member to which said first two members are hinged, a trigger made rigid with said clasp supporting member and adapted for operative engagement with said toggle member to open said clasp, said trigger and clasp supporting member being capable of limited inoperative movement.

2. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting member to which said first two members are hinged, a trigger movable with said clasp supporting member and adapted for operative engagement with said toggle member to open said clasp, said trigger and clasp supporting member being capable of limited inoperative movement.



3. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting member to which said first two members are hinged, a trigger interposed between said rigid member and said toggle jointed member, said trigger being movable with said clasp supporting member to open said clasp, said trigger and clasp supporting member being capable of limited inoperative movement.

4. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting member to which said first two members are hinged, a trigger made integral with said clasp supporting member and adapted to open said clasp, said trigger being located between said rigid shoulder carrying member and said toggle jointed member, the parts being constructed to provide a limited inoperative movement of said trigger between the members between which it is interposed.

5. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting loop to which said first two members are hinged, a trigger made integral with said clasp supporting loop and extending into the space between said rigid member and toggle jointed member of the clasp, said trigger being adapted for engagement against the rear face of the toggle jointed member adjacent its hinged connection with said clasp supporting loop.

[Claims 6 to 12 not printed in the Gazette.]

1,206,018. METHOD OF MAKING WELT-SHOES. MICHAEL J. MOLONEY, Rochester, N. Y. Filed Feb. 5, 1915. Serial No. 6,298. (Cl. 12—142.)



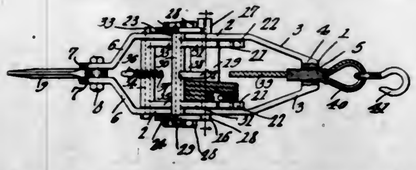
1. The method of making a shoe comprising securing an inner sole to the bottom of a last, inserting the last in a tempered upper having a welt secured thereto, securing the welt to the inner sole and the last, allowing the upper to dry, cementing the inner sole to the upper face of the welt and stitching an outer sole to the welt.

2. The method of making a shoe comprising securing an inner sole to the bottom of a last, inserting the last in a tempered upper having a welt secured thereto, tacking the welt to the inner sole and the last, allowing the upper to dry, removing the tacks, cementing the welt to the inner sole and securing an outer sole to the welt.

3. The method of making a shoe comprising tacking an inner sole to a last, inserting the last in a tempered upper having a welt secured thereto, tacking the welt to the last through the insole, allowing the upper to dry thoroughly, removing the tacks from the welt, cementing the welt to the inner sole, cementing a filler to the bottom of the inner sole, cementing an outer sole to the welt, and stitching the welt and the outer sole together.

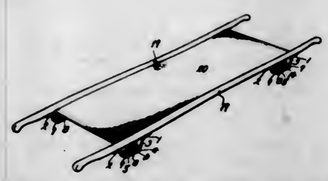
4. The method of making a shoe comprising securing an inner sole to the bottom of a last, inserting the last in a tempered upper having a welt secured thereto, tacking the upper to the last, cementing a filler to the bottom of the insole, cementing an outer sole to the welt, and stitching the welt and outer sole together.

1,206,019. POWER-PULLEY. EDWARD BROWN MOORE, Newark, Ohio. Filed Feb. 19, 1916. Serial No. 79,372. (Cl. 254—164.)



In a device of the class described, a frame embodying side arms; a drum journaled between the side arms and including rims having ratchets; a yoke-like lever comprising side arms; pivot elements uniting the side arms of the lever with the side arms of the frame; a shaft extended between the side arms of the lever; a tube mounted to rock on the shaft and provided with feed pawls coacting with the ratchets, the tube having a forwardly presented finger located between the feed pawls; a second shaft connecting the side arms of the frame; a tube mounted to rock on the second shaft, the said tube being provided with back-stop pawls coacting with the ratchets and being provided with a rearwardly inclined finger located between the back stop pawls; and a retractile spring connected at its rear end with the last specified finger, and connected at its forward end with the lever.

1,206,020. STRETCHER. CHARLES MOSES, Philadelphia, Pa. Filed July 5, 1916. Serial No. 107,515. (Cl. 21—80.)



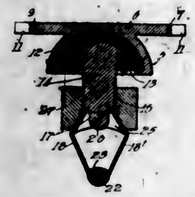
1. The combination with a stretcher, of a main body portion constituting a leg, a ground-engaging shoe movable relatively to said leg, a rod projecting from said leg and forming a sliding connection between the leg and the shoe, a coiled spring having one end connected to said leg portion and its other end secured to said rod for gradually stopping the relative movement of said shoe toward the leg portion, substantially as described.

2. The combination with a stretcher, of a main body portion constituting a leg, a ground-engaging shoe movable relatively to said leg portion, means forming a sliding connection between the leg and the shoe, a spring connected to said leg portion and to said sliding means for gradually stopping the relative movement of said shoe toward said leg portion, and additional sliding means connected to said shoe and extending through said leg portion, substantially as described.

3. The combination with a stretcher, of a main body portion constituting a leg, a ground-engaging shoe movable relatively to said leg portion, a rod projecting upwardly from said shoe and slidable through said leg, a tension spring having one end connected to said leg and the other end connected to said upwardly projecting rod, substantially as described.

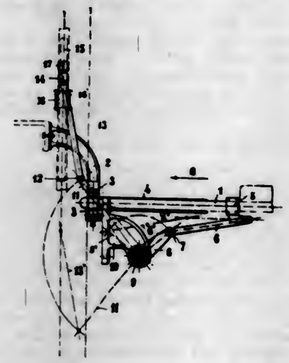
4. The combination with a stretcher, of a main body portion constituting a leg, a ground-engaging shoe movable relatively to said leg portion, a rod projecting upwardly from said shoe and slidable through said leg, a tension spring having one end connected to said leg and the other end connected to said upwardly projecting rod, and lateral rods located either side of said first rod, said lateral rods being connected to said shoe and slidably engaging said leg, said lateral rods preventing relative turning movement between the leg and the shoe and forming additional support for the latter, substantially as described.

1,206,021. WIRE CLAMP AND HANGER. OTTO MUELLER, Chicago, Ill., assignor of one-half to William David Hamer, Indianapolis, Ind. Filed July 16, 1915. Serial No. 40,186. (Cl. 191—43.)



A trolley wire clamp and hanger comprising an insulated threaded stud; a pair of duplicate wire clamping jaws, each having a flat body part with a longitudinal edge for engaging a trolley wire and a semi-conical projection on the opposite longitudinal edge with forked ends extending from the upper edges of the semi-conical projection to overlie the stud end for pivoted connection therewith; and a nut threaded on the stud above the jaws and provided with a taper counter-bore to engage the cone formed by the associated semi-conical projections on said jaws.

1,206,022. MACHINE FOR MANUFACTURING MANTLES EMPLOYED IN INCANDESCENT LIGHTING. JEAN LEON MULLER, Sannois, France, assignor to himself, and Joseph Bonnet, Paris, France. Filed Jan. 16, 1915. Serial No. 2,619. (Cl. 67—100.)



1. In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of the cam rod; a rigid transmission system between said cam rod and the elevator, a pair of movable bars arranged to slide along each other and having instantaneous gripping means for said mantle supporting and guiding rods; mechanical connection between the said bars and said cam rod; a stopping system for the latter having instantaneously stopping means on the said cam rods; mechanism for determining the number of stoppages or idle periods of the machine; and connecting members between said stopping system and the determining mechanism.

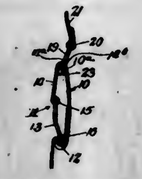
2. In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of the cam rod; a collar fixed on the cam rod; a system of pivoted levers or rods between said collar and the elevator; resilient connecting means between the last lever of said system of pivoted levers and said elevator; a pair of movable bars arranged to slide along each other and having instantaneous gripping means for said mantle supporting and guiding rods; a mechanical connection between the said bars and said cam rod; a stopping system for the latter having instantaneously stopping means on the said cam rod; mechanism for determining the number of stoppages or idle periods of the machine; and connecting members between said stopping system and said determining mechanism.

3. In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of the cam rod; a rigid transmission system between said cam rod and said elevator; a pair of movable bars arranged to slide along each other; gripping tappets fixed on each of the said bars; coöperating pivoted levers and toothed sectors for effecting the simultaneous sliding movement of the said bars; an operating lever or rod for the toothed sectors; a lever pivoted to the first-named lever and having a finger or toe; a member integral with the cam rod arranged to operate said finger or toe; a stopping system for the cam rod having an instantaneous stop on the said cam rod; mechanism for determining the number of stoppages or idle periods of the machine; and connecting means between said stopping system and the determining mechanism.

4 In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of said cam rod; a rigid transmission system between said cam rod and said elevator; a pair of bars arranged to slide along each other and having instantaneous gripping means for said mantle supporting and guiding rods; a mechanical connection between said bars and the cam rod; a stopping system for the cam rod having a finger or toe; a spring arranged to draw said finger or toe toward the cam rod; a shoulder or stop on the cam rod for stopping the said finger or toe; a retaining system for said finger or toe; mechanism for releasing the same; mechanism for determining the number of stoppages or idle periods of the machine; and a connecting lever between said releasing mechanism and the determining mechanism.

5. In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of the cam rod; a collar fixed on the cam rod; a system of pivoted levers or rods between the said collar and the elevator; a resilient connecting means between the last lever of said system of pivoted levers and said elevator; a pair of bars arranged to slide along each other; gripping tappets fixed on each of said bars; coöperating pivoted levers and toothed sectors for effecting the simultaneous sliding movement of said bars; an operating lever or rod for the toothed sectors; a lever pivoted to the first-named lever and having a finger or toe; a member integral with the cam rod arranged to operate said finger or toe; a stopping system for the cam rod having an instantaneous stop on

2. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting member to which said first two members are hinged, a trigger movable with said clasp supporting member and adapted for operative engagement with said toggle member to open said clasp, said trigger and clasp supporting member being capable of limited inoperative movement.



3. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting member to which said first two members are hinged, a trigger interposed between said rigid member and said toggle jointed member, said trigger being movable with said clasp supporting member to open said clasp, said trigger and clasp supporting member being capable of limited inoperative movement.

4. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting member to which said first two members are hinged, a trigger made integral with said clasp supporting member and adapted to open said clasp, said trigger being located between said rigid shoulder carrying member and said toggle jointed member, the parts being constructed to provide a limited inoperative movement of said trigger between the members between which it is interposed.

5. In a clasp comprising a rigid shoulder carrying member, a toggle jointed latch member and a clasp supporting loop to which said first two members are hinged, a trigger made integral with said clasp supporting loop and extending into the space between said rigid member and toggle jointed member of the clasp, said trigger being adapted for engagement against the rear face of the toggle jointed member adjacent its hinged connection with said clasp supporting loop.

[Claims 6 to 12 not printed in the Gazette.]

1,206,018. METHOD OF MAKING WELT-SHOES. MICHAEL J. MOLONEY, Rochester, N. Y. Filed Feb. 5, 1915. Serial No. 6,298. (Cl. 12—142.)



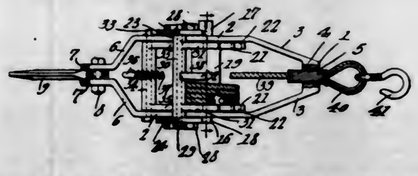
1. The method of making a shoe comprising securing an inner sole to the bottom of a last, inserting the last in a tempered upper having a welt secured thereto, securing the welt to the inner sole and the last, allowing the upper to dry, cementing the inner sole to the upper face of the welt and stitching an outer sole to the welt.

2. The method of making a shoe comprising securing an inner sole to the bottom of a last, inserting the last in a tempered upper having a welt secured thereto, tacking the welt to the inner sole and the last, allowing the upper to dry, removing the tacks, cementing the welt to the inner sole and securing an outer sole to the welt.

3. The method of making a shoe comprising tacking an inner sole to a last, inserting the last in a tempered upper having a welt secured thereto, tacking the welt to the last through the insole, allowing the upper to dry thoroughly, removing the tacks from the welt, cementing the welt to the inner sole, cementing a filler to the bottom of the inner sole, cementing an outer sole to the welt, and stitching the welt and the outer sole together.

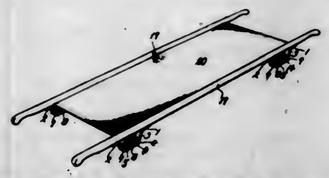
4. The method of making a shoe comprising securing an inner sole to the bottom of a last, inserting the last in a tempered upper having a welt secured thereto, tacking the upper to the last, cementing a filler to the bottom of the insole, cementing an outer sole to the welt, and stitching the welt and outer sole together.

1,206,019. POWER-PULLEY. EDWARD BROWN MOORE, Newark, Ohio. Filed Feb. 19, 1916. Serial No. 79,372. (Cl. 254—164.)



In a device of the class described, a frame embodying side arms; a drum journaled between the side arms and including rims having ratchets; a yoke-like lever comprising side arms; pivot elements uniting the side arms of the lever with the side arms of the frame; a shaft extended between the side arms of the lever; a tube mounted to rock on the shaft and provided with feed pawls coacting with the ratchets, the tube having a forwardly presented finger located between the feed pawls; a second shaft connecting the side arms of the frame; a tube mounted to rock on the second shaft, the said tube being provided with back-stop pawls coacting with the ratchets and being provided with a rearwardly inclined finger located between the back stop pawls; and a retractile spring connected at its rear end with the last specified finger, and connected at its forward end with the lever.

1,206,020. STRETCHER. CHARLES MOSES, Philadelphia, Pa. Filed July 5, 1916. Serial No. 107,515. (Cl. 21—80.)



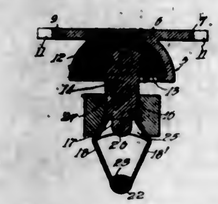
1. The combination with a stretcher, of a main body portion constituting a leg, a ground-engaging shoe movable relatively to said leg, a rod projecting from said leg and forming a sliding connection between the leg and the shoe, a coiled spring having one end connected to said leg portion and its other end secured to said rod for gradually stopping the relative movement of said shoe toward the leg portion, substantially as described.

2. The combination with a stretcher, of a main body portion constituting a leg, a ground-engaging shoe movable relatively to said leg portion, means forming a sliding connection between the leg and the shoe, a spring connected to said leg portion and to said sliding means for gradually stopping the relative movement of said shoe toward said leg portion, and additional sliding means connected to said shoe and extending through said leg portion, substantially as described.

3. The combination with a stretcher, of a main body portion constituting a leg, a ground-engaging shoe movable relatively to said leg portion, a rod projecting upwardly from said shoe and slidable through said leg, a tension spring having one end connected to said leg and the other end connected to said upwardly projecting rod, substantially as described.

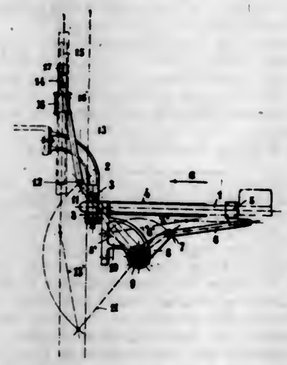
4. The combination with a stretcher, of a main body portion constituting a leg, a ground-engaging shoe movable relatively to said leg portion, a rod projecting upwardly from said shoe and slidable through said leg, a tension spring having one end connected to said leg and the other end connected to said upwardly projecting rod, and lateral rods located either side of said first rod, said lateral rods being connected to said shoe and slidably engaging said leg, said lateral rods preventing relative turning movement between the leg and the shoe and forming additional support for the latter, substantially as described.

1,206,021. WIRE CLAMP AND HANGER. OTTO MUELLER, Chicago, Ill., assignor of one-half to William David Hamer, Indianapolis, Ind. Filed July 16, 1915. Serial No. 40,186. (Cl. 191—43.)



A trolley wire clamp and hanger comprising an insulated threaded stud; a pair of duplicate wire clamping jaws, each having a flat body part with a longitudinal edge for engaging a trolley wire and a semi-conical projection on the opposite longitudinal edge with forked ends extending from the upper edges of the semi-conical projection to overlie the stud end for pivoted connection therewith; and a nut threaded on the stud above the jaws and provided with a taper counter-bore to engage the cone formed by the associated semi-conical projections on said jaws.

1,206,022. MACHINE FOR MANUFACTURING MANTLES EMPLOYED IN INCANDESCENT LIGHTING. JEAN LEON MULLER, Sannois, France, assignor to himself, and Joseph Bonnet, Paris, France. Filed Jan. 16, 1915. Serial No. 2,619. (Cl. 67—100.)



1. In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of said cam rod; a rigid transmission system between said cam rod and said elevator; a pair of movable bars arranged to slide along each other and having instantaneous gripping means for said mantle supporting and guiding rods; mechanical connection between the said bars and said cam rod; a stopping system for the latter having instantaneously stopping means on the said cam rods; mechanism for determining the number of stoppages or idle periods of the machine; and connecting members between said stopping system and the determining mechanism.

2. In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of the cam rod; a collar fixed on the cam rod; a system of pivoted levers or rods between said collar and the elevator; resilient connecting means between the last lever of said system of pivoted levers and said elevator; a pair of movable bars arranged to slide along each other and having instantaneous gripping means for said mantle supporting and guiding rods; a mechanical connection between the said bars and said cam rod; a stopping system for the latter having instantaneously stopping means on the said cam rod; mechanism for determining the number of stoppages or idle periods of the machine; and connecting members between said stopping system and said determining mechanism.

3. In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of the cam rod; a rigid transmission system between said cam rod and said elevator; a pair of movable bars arranged to slide along each other; gripping tappets fixed on each of the said bars; coöperating pivoted levers and toothed sectors for effecting the simultaneous sliding movement of the said bars; an operating lever or rod for the toothed sectors; a lever pivoted to the first-named lever and having a finger or toe; a member integral with the cam rod arranged to operate said finger or toe; a stopping system for the cam rod having an instantaneous stop on the said cam rod; mechanism for determining the number of stoppages or idle periods of the machine; and connecting means between said stopping system and the determining mechanism.

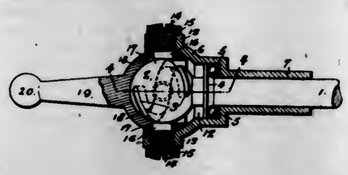
4 In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of said cam rod; a rigid transmission system between said cam rod and said elevator; a pair of bars arranged to slide along each other and having instantaneous gripping means for said mantle supporting and guiding rods; a mechanical connection between said bars and the cam rod; a stopping system for the cam rod having a finger or toe; a spring arranged to draw said finger or toe toward the cam rod; a shoulder or stop on the cam rod for stopping the said finger or toe; a retaining system for said finger or toe; mechanism for releasing the same; mechanism for determining the number of stoppages or idle periods of the machine; and a connecting lever between said releasing mechanism and the determining mechanism.

5. In a machine for manufacturing incandescent mantles, the combination, with mantle supporting and guiding rods; of a cam rod; an elevator for said mantle supporting and guiding rods located at one end of the cam rod; a collar fixed on the cam rod; a system of pivoted levers or rods between the said collar and the elevator; a resilient connecting means between the last lever of said system of pivoted levers and said elevator; a pair of bars arranged to slide along each other; gripping tappets fixed on each of said bars; coöperating pivoted levers and toothed sectors for effecting the simultaneous sliding movement of said bars; an operating lever or rod for the toothed sectors; a lever pivoted to the first-named lever and having a finger or toe; a member integral with the cam rod arranged to operate said finger or toe; a stopping system for the cam rod having an instantaneous stop on

the said cam rod; mechanism for determining the number of stoppages or idle periods of the machine; and connecting means between said stopping system and said determining mechanism.

[Claims 6 to 8 not printed in the Gazette.]

1,206,023. STEERING MECHANISM. THOMAS J. NASH, Lincoln, Nebr., assignor to Nash Manufacturing Company, Lincoln, Nebr. Filed Jan. 12, 1916, Serial No. 71,680. Renewed September 27, 1916. Serial No. 122,558. (Cl. 74—79.)



1. In a steering mechanism, a steering post shaft, a crank arm having a spherical socket member at one end, a ball on the steering post shaft to fit into said socket, a pin and slot connection between said ball and socket, a supporting casing in which said steering post shaft is journaled, and trunnion elements on said supporting casing and engaging bearing recesses in said socket.

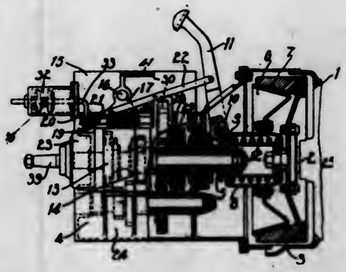
2. In a steering mechanism, the combination with the steering post shaft, of a supporting casing having a bearing in which said steering post shaft is journaled, said casing having a spherical section, a ball on the end of said shaft, a crank member having a spherical socket fitted into said spherical section with bearing engagement, said spherical section and said spherical socket forming a housing for said ball, trunnion bearings connecting said spherical socket with said spherical section to form an axis on which said arm may be turned, and a globoid-spiral slot and pin connection between said ball and said socket.

3. In a steering mechanism, the combination with the steering post shaft, of a supporting casing having a bearing in which said steering post shaft is journaled, said casing having a spherical section, a ball on the end of said shaft, a crank member having a spherical socket fitted into said spherical section with bearing engagement, said spherical section and said spherical socket forming a housing for said ball, trunnion bearings connecting said spherical socket with said spherical section to form an axis on which said arm may be turned, a globoid-spiral slot and pin connection between said ball and said socket, said spherical socket forming an end thrust bearing for said steering post shaft when moved in one direction, and a ball thrust bearing in said casing to sustain the end thrust of said steering post shaft in the opposite direction.

4. In a steering mechanism, the combination with the steering post shaft, of a supporting casing having a bearing in which said steering post shaft is journaled, said casing having a spherical section, a ball on the end of said shaft, a crank member having a spherical socket fitted into said spherical section with bearing engagement, said spherical section and said spherical socket forming a housing for said ball, trunnion bearings connecting said spherical socket with said spherical section to form an axis on which said arm may be turned, a globoid-spiral slot and pin connection between said ball and said socket, said pin and slot connection including a screw tapped into said socket member and projecting into the slot in said ball.

5. In a steering mechanism, the combination with the steering post shaft, of a supporting casing having a bearing in which said steering post shaft is journaled, said casing having a spherical section, a ball on the end of said shaft, a crank member having a spherical socket fitted into said spherical section with bearing engagement, said spherical section and said spherical socket forming a housing for said ball, trunnion bearings connecting said spherical socket with said spherical section to form an axis on which said arm may be turned, a globoid-spiral slot and pin connection between said ball and said socket, said spherical socket forming an end thrust bearing for said steering post shaft when moved in one direction, and a ball thrust bearing in said casing to sustain the end thrust of said steering post shaft in the opposite direction, said pin and slot connection including a screw tapped into said socket member and projecting into the slot in said ball.

1,206,024. STARTING AND GEAR-SHIFTING MECHANISM. JOHN P. NIKONOW, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 7, 1914. Serial No. 855,594. (Cl. 74—7.)



1. The combination with an engine shaft, a gear-shifting mechanism, and a motor, of means for operatively connecting said motor either to said engine shaft or to said gear-shifting mechanism.

2. The combination with an engine shaft, a gear-shifting mechanism, and a motor, of means for operatively connecting said motor to said engine shaft or to said gear-shifting mechanism according to the direction of rotation of said motor.

3. The combination with an engine shaft, a gear-shifting mechanism, and a motor, of means for operatively connecting said motor to said engine shaft or to said gear-shifting mechanism according to the direction of rotation of said motor, and means for controlling the direction of rotation of the motor.

4. The combination with an engine shaft, a transmission mechanism, and a gear-shifting mechanism for controlling said transmission mechanism, of a motor, and means for selectively connecting said motor to said engine shaft and to said gear-shifting mechanism.

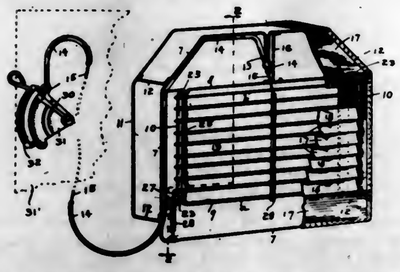
5. The combination with an engine shaft, a gear-shifting mechanism, and a motor, of automatic means comprising one-way mechanisms for operatively connecting said motor either to said engine shaft or to said gear-shifting mechanism, according to the direction of rotation of said motor.

[Claims 6 to 10 not printed in the Gazette.]

1,206,025. AUTOMOBILE-RADIATOR COVER. FRANK P. NUCKLES, Indianapolis, Ind. Filed Dec. 20, 1915. Serial No. 67,896. (Cl. 257—132.)

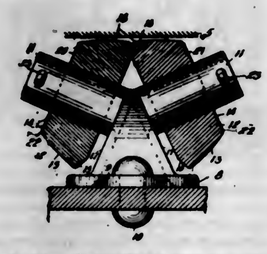
1. In a radiator hood, a frame, a flexible covering therefor having a front ventilating opening, horizontal wires above and below the opening secured to the frame and having portions cranked toward each other near the vertical edges of the opening, slats having end hinge-stubs, a support for said hinge-stubs formed of metal strips bent centrally and longitudinally to form U-shaped flanges, said flanges being slotted to receive the hinge-stubs, eyes at the ends of the metal straps connecting the latter with the cranks of the horizontal wires, and wires longitudinally of the U-shaped flanges to retain the hinge stubs.

2. A radiator hood comprising a front and integral top and side member at right angles to the front formed of a wire skeleton frame at the angles and margins, a covering of flexible material, the covering for the front of the hood having a ventilating opening, horizontal wires near the top and bottom of the opening secured to the frame, said wires having cranked bends toward each other, slats for said opening end hinge-stubs and supports for the latter comprising metal straps bent longitudinally to form U-shaped flanges, which flanges are notched to receive the hinge-stubs, fastening wires longitudinally of the U-shaped flanges to retain the hinge-stubs and means to secure the metal straps to the horizontal wires at the cranked portions of the latter.



3. A supplemental hood for an automobile comprising a wire frame and a flexible covering, said hood having a ventilating opening and said hood adapted to be applied to the outer surface of the automobile radiator, a damper comprising a plurality of slats hinged to the frame of the hood and adapted to close the ventilating opening, a bar hingedly connecting all of the slats together, means to automatically close the slats, a lever pivoted to the automobile dash, a cable connecting the lever with the bar connecting said slats and a flexible tube surrounding the cable and fixed at an end adjacent to the lever.

1,206,026. SIDE BEARING FOR RAILWAY CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chasy, N. Y. Filed Mar. 1, 1916. Serial No. 81,826. (Cl. 64—64.)



1. A side bearing for railway cars comprising a base member having upwardly and outwardly extended trunnions and rollers mounted on said trunnions.

2. In a side bearing for railway cars, the combination with a bearing plate, of rollers adapted to engage said plate and a base member having outwardly and upwardly extended trunnions supporting the rollers.

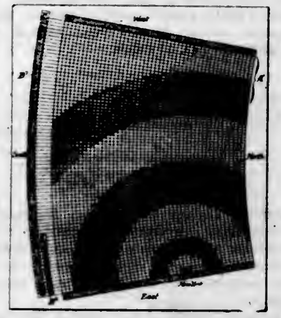
3. In a side bearing for railway cars, the combination with a bearing plate, of rollers adapted to engage the same, and a base member supporting said rollers, the said rollers engaging each other near the bearing plate and being separated from each other opposite the bearing plate.

4. In a side bearing for railway cars, a bearing plate, a base member having trunnions thereon, rollers upon said trunnions, the rollers having longitudinal movement on the said trunnions whereby the plane of the bearing face of the rollers as a whole will adjust itself to changes in the plane of the bearing plate.

5. In a side bearing for railway cars, a base member, upwardly and outwardly extended trunnions thereon, a roller on each of said trunnions, a bearing plate adapted to engage the rollers, the rollers having bevel edges in the same plane when in normal position, the said rollers being each longitudinally movable upon its trunnion.

[Claims 6 to 9 not printed in the Gazette.]

1,206,027. DEVICE FOR DETERMINING RELATIVE GEOGRAPHICAL LOCATIONS AND THE LIKE. WILLIAM B. OLIVER, Collingswood, N. J. Filed Dec. 31, 1912. Serial No. 739,522. (Cl. 235—89.)



1. In a device of the class described, the combination of a chart element displaying areas determined by longitude meridians and latitude parallels, said areas being also arranged in distinguishable zones referable to a common center; means for indicating the latitudinal positions of the respective areas; and a longitude band, independent of the chart element, and comprising subdivisions indicated by transverse lines adapted to register with the extremities of the longitude meridians at an edge of the chart, substantially as set forth.

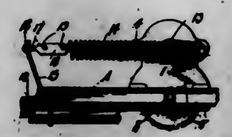
2. In a device of the class described, the combination of a chart element displaying areas determined by longitude meridians and latitude parallels, said areas being also arranged in distinguishable half zones referable to a common center, but being represented as progressing in only one direction of longitude from said center; means for indicating the respective latitudinal positions of said areas; and longitude bands independent of the chart element and comprising sub-divisions indicated by transverse lines adapted to register with the extremities of the longitude meridians at an edge of the chart, said subdivisions being progressively numbered upon each band, but the direction of progress upon one being reversed with relation to the other; whereby any given area may be interchangeably used for either east or west longitude relative to the zone center.

3. In a device of the class described, the combination of a chart element displaying areas determined by longitude meridians and latitude parallels, said areas being also arranged in distinguishable zones referable to a common center; means independent of the chart element for indicating the latitude positions of the respective areas; said latitude indicating means being adapted to move in a definite path corresponding to the actual direction of the latitude parallels; and a longitude band independent of the chart element, and comprising sub-divisions indicated by transverse lines adapted to register with the extremities of the longitude meridians at an edge of the chart, substantially as set forth.

4. In a device of the class described, the combination of a chart element displaying areas determined by longitude meridians and latitude parallels, said areas being also arranged in distinguishable zones referable to a com-

mon center, but being represented as progressing in one longitude direction only from said center; means for indicating the respective latitudinal positions of said areas; and a longitude band independent of the chart element and comprising progressively numbered subdivisions indicated by transverse lines adapted to register with the extremities of the longitude meridians at one edge of the chart, said longitude subdivisions being duplicated upon opposite faces of said band in inverted progressive relation; and the numerals being displaced by one complete sub-division, whereby said band may be transversely severed at any line of sub-division, and the respective portions employed to designate east or west longitude from a given zone center.

1,206,028. MARKER FOR PLANTERS. EMIL J. PETERSON, Albion, Mich., assignor to Gale Manufacturing Company, Albion, Mich. Filed July 9, 1915. Serial No. 38,957. (Cl. 111—24.)



1. An auxiliary appliance for raising the marker bar of planters, comprising an automatic raising means, and gearing provided between said automatic raising means and said marker bar, said means exerting a downward pressure on the outer end of said bar when said bar is in lowered position.

2. An auxiliary appliance for raising the marker bar of a planter, comprising a spring and gearing interposed between said spring and said marker bar for raising said marker bar.

3. In auxiliary means for manipulating the marker bar of planters, the combination with a planter frame, of a marker bar, a spring having one of its ends secured to said frame, a crank to which the other end of said spring is secured, and gearing provided between said crank and said marker bar.

4. In auxiliary means for manipulating the marker bars of planters, the combination with a planter frame, of a marker bar, a strap secured to said frame and provided with a plurality of notches, a spring having one of its ends secured in one of said notches, a crank to which the other end of the spring is secured, and gearing provided between said crank and said marker bar.

5. In auxiliary means for manipulating the marker bars of planters, the combination with a planter frame, of a marker bar, a gear wheel to which the inner end of said marker bar is secured, a smaller gear meshing with the larger gear, a crank rigid with said smaller gear, and a spring interposed between said crank and said frame.

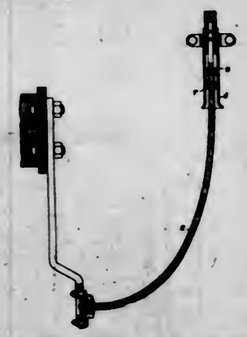
[Claims 6 to 10 not printed in the Gazette.]

1,206,029. FLEXIBLE-SHAFT CONNECTION. GEORG RENSCH, Berlin, Germany. Filed Apr. 30, 1913. Serial No. 764,593. (Cl. 64—30.)

1. A driving shaft for tachometers, comprising in combination, a jointless flexible shaft section disposed to transmit motion from a horizontal axis to a vertical axis, a linked flexible shaft section comprising a series of links connected to the vertical portion of said jointless flexible shaft section, and a protective housing for said linked flexible shaft section.

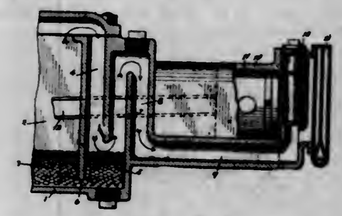
2. A driving shaft for tachometers, comprising in combination, coupled shaft sections forming a continuous shaft, one of the shaft sections being formed of jointless shafting material and being arranged to transmit motion from a horizontal axis to a vertical axis and the remaining section being formed of a series of links adapted to avoid irregularities due to torsional elasticity in the structure.

3. A driving shaft for tachometers, comprising in combination, coupled shaft sections forming a continuous shaft, one section consisting of jointless shafting material and disposed to constitute a quadrant-like bend for the purpose of transmitting motion from a horizontal axis to a vertical axis, and the remaining section consisting of a series of links free of torsional elasticity, and a protective housing covering the shaft, but leaving the quadrant-like bend free of covering.



4. A driving shaft for tachometers, comprising in combination, a jointless flexible shaft section disposed to transmit motion from a horizontal axis to a vertical axis, a linked flexible shaft section comprising a series of links connected to the vertically disposed portion of the jointless shaft section, a protective housing covering the linked flexible shaft section and the connection between the two sections, and means for engaging and supporting a link upon the accidental breaking of a link for preventing said sections from falling apart.

1,206,030. FLUID-COMPRESSOR. WALTER J. RICHARDS, Milwaukee, Wis., assignor to National Brake & Electric Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 14, 1915. Serial No. 50,582. (Cl. 230—32.)



1. The combination with a fluid compressor having the back pressure vent from the crank chamber connected to the suction inlet of the compressor, of means for preventing the passage of oil with the air flowing from the crank chamber to the suction inlet.

2. The combination with a fluid compressor having the back pressure vent from the crank chamber connected to the suction inlet of the compressor, of an oil chamber containing oil and means for directing the current of air flowing from the crank chamber against the oil in said chamber to thereby free the air from oil.

3. The combination with a fluid compressor having the back pressure vent from the crank chamber connected to the suction inlet of the compressor, of an oil chamber having a passage for supplying oil from the crank chamber to the oil chamber and means for directing the flow of air from the crank chamber against the surface of oil in the oil chamber to thereby free the air from oil.

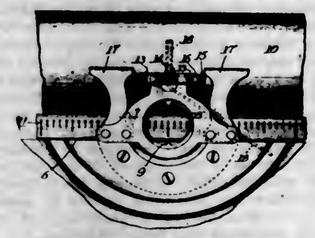
4. The combination with a fluid compressor having the back pressure vent from the crank chamber connected to the suction inlet of the compressor, of an oil chamber communicating with the oil supply in the crank chamber and a restricted passageway for directing the flow of air from the crank chamber against the surface of oil in the oil chamber as the air passes to the suction inlet of the compressor.

1,206,031. BRUSH. FRANZ RITTER, Sr., and FRANZ RITTER, Jr., Munich, Germany. Original application filed Feb. 4, 1913, Serial No. 747,597. Divided and this application filed Sept. 10, 1915. Serial No. 50,111. (Cl. 15—37.)



A rotary brush of the character described, comprising a metal disk having an annular upturned flange at its outer edge, a hub for said disk, an annular ring secured to the disk adjacent the hub and having an upturned flange, an annular cylinder of tightly compacted bristles carried on the outer edge of the disk, a flexible binding element closely coiled around the bristles, adhesive material applied to said bristles and to said binding element, said bristles being tightly clamped on the disk between the upturned flange of the disk and the upturned flange of the annular ring, said binding element, by reason of the adhesive material, adhering to the upturned flange of the disk, whereby the bristles are held against movement relative to each other and also held tightly as a whole onto the metal disk.

1,206,032. TYPE-WRITER. ALVAH C. ROEBUCK, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed Nov. 12, 1913. Serial No. 800,433. (Cl. 197—43.)



1. In a typewriter, a type bar guide formed entirely of a single piece of material with parallel extending portions bent out of the plane of the material and then turned toward each other to form a guide proper.

2. In a typewriter, a type-bar guide formed of a single piece of sheet material with a notched portion along the upper edge, and portions extending oppositely from the sides of the notch adapted to be bent out of the plane of the material and rounded inwardly with the ends of said portions disposed in the notch to form a guide proper.

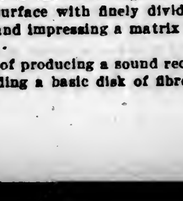
3. In a typewriter, a type-bar guide composed of a single piece of resilient sheet material having a notch in the upper edge thereof wider than the type-bar, with portions extending oppositely from the sides of the notch adapted to be bent out of the plane of the material and to be rounded inwardly with the ends thereof disposed and freely movable laterally in the notch, the said opposite ends in the notch being substantially parallel and the notch being of sufficient width to permit the lateral movement of both of the said ends in the notch.

4. In a typewriter, a type-bar guide comprising a member with a notch in the upper edge thereof, and resilient members formed as a continuation of the sides of the notch bent outwardly and rounded toward each other and inwardly with resilient extremities substantially parallel, spaced apart and spaced from the sides of the notch, and a single adjusting device for each resilient extremity to vary the position of the extremity in the notch.

5. In a typewriter, a type-bar guide comprising a member having an opening and resilient portions extending oppositely from the sides of the opening bent first at right angles and then rounded inwardly toward each other until the extremities are disposed in the opening, the sides of the extremities being substantially parallel with each other, spaced apart and spaced from the sides of the opening, the resiliency of the said portions tending to separate them at the extremities, and an adjusting screw inserted through the right angled portion of each member with the end of the screw bearing against the oppositely extending member adjacent the end to vary the positions of the parallel ends in the opening.

[Claims 6 to 20 not printed in the Gazette.]

1,206,033. REFLECTOR. FRANKLIN P. SACKETT, Boston, Mass. Filed Jan. 25, 1916. Serial No. 74,141. (Cl. 240—48.2.)



The combination with a vehicle lamp and a suitable source of light carried therein, of a light-projecting reflector comprising a concave plate, a plate of non-reflective material carried on the face of said reflector and extending approximately from the center of the reflector to its outer edge and covering a sector of the reflector of less than one-half of the surface thereof, adapted to eliminate a portion of the rays from the projected beam, and means for adjustably positioning said non-reflective plate thereon.

1,206,034. METHOD OF PRODUCING DISK SOUND-RECORDS. JOSEPH SANDERS, Washington, D. C. Filed Jan. 11, 1913. Serial No. 741,377. (Cl. 18—48.4.)

1. The process of producing a sound record tablet, which consists in providing a thermoplastic fibrous basic disk, heating an annular marginal portion only of said disk corresponding approximately to the area exterior to and surrounding the label receiving central portion of the disk to a degree to cause applied record material to become adherent thereto, covering the heated area with record material and impressing a sound record matrix into the surface of said material.

2. The process of producing a sound record tablet, which consists in providing a thermoplastic basic disk, softening the surface of said disk, covering a portion of said surface with thermoplastic record material with the portion so covered localized to an annular band surrounding and exterior to the label receiving area of said surface, and impressing a matrix upon the surface of said record material.

3. The process of producing a sound record tablet, which consists in providing a thermoplastic fibrous basic disk, heating the disk to a temperature rendering the surface adhesive with such heat so localized as to confine it to an annular zone exterior to the label receiving area and extending therefrom to the outer edge of the disk, covering the said heated surface with finely divided thermoplastic record material, and impressing a matrix upon the surface of said material.

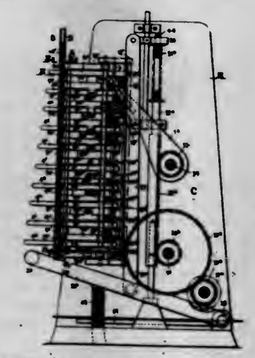
4. The process of producing a sound record tablet, which consists in providing a basic disk of fibrous material ren-

dered thermoplastic by incorporation therewith of a material capable of being softened and rendered adhesive by heat, heating a circumscribed area, thereof, extending substantially from the outer edge of the disk to the outer edge of the label receiving area of said disk to a temperature to render the surface adhesive, applying powdered record receiving material to the disk for adherence to the circumscribed heated area thereof, and impressing a matrix into sound record material so applied.

5. The process of producing a sound record tablet, which consists in providing a thermo-plastic basic disk, softening an annular marginal portion of the surface of said disk, covering said portion with finely divided thermo-plastic record material, and simultaneously subjecting said material and said disk to heat and pressure, impressing a matrix upon the surface of said material, and forcing the surface of the central portion of said disk out of the plane of the adjacent marginal portion.

[Claims 6 to 19 not printed in the Gazette.]

1,206,035. INDICATING AND RECORDING MECHANISM. REINHOLD SCHMIDT, Berlin, Germany, assignor to Richard Bauchwitz, Berlin, Germany. Filed May 1, 1913, Serial No. 764,860. Renewed June 1, 1916. Serial No. 101,171. (Cl. 235—4.)



1. In a machine as described, a plurality of digit wheels, a swinging feeler for each of the latter to control the extent of movement of each wheel, a stop for each digit of said wheel independently movable into the path of the feelers to determine the exent of movement of the latter, an actuating member for each feeler, means to move said members simultaneously, and a yielding connection between the actuating members and their moving means, whereby when one feeler and its actuating member is limited by a stop said moving means can continue its movement to further move the other feeler and its actuating means.

2. In a machine as described, the combination with a plurality of rows of indicator levers, stops on said levers, feeler levers movable in the paths of said stops, a catch for holding the indicator levers in operative position, an actuating lever common to a plurality of indicator levers of different digits, recording wheels, and means common to the recording wheels of a plurality of digits for actuating them.

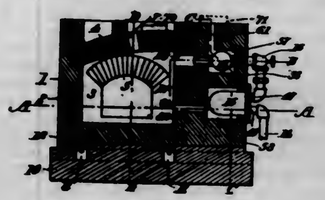
3. In a machine as described, a set of indicator carrying levers for each digits column, actuating levers common to like digit indicator carrying levers of different digit columns, to actuate said indicator carrying levers, and a catch for each of the latter, all of the catches of a digit column being simultaneously movable on a single axis.

4. In a machine as described, a set of indicating levers for each digits column, a shield on each lever, a screen behind which said shields are moved when said levers are actuated, a casing through which said levers project, the shield of the zero digit having zero thereon, all the other shields being blank and covering their respective numbers when in inoperative position, means connected to the zero-indicating lever and in the path of movement of all the other levers, whereby the zero lever will be actuated by any other digit lever and simultaneously cause the zero-indication to disappear and the numeral to become exposed.

5. In a machine as described, a set of indicating levers for each digits column, a shield on each lever, a screen common to all the shields of a column, a key lever for each digit of the column of digits, the zero key lever when moved to zero position operating to cause the return of any digit of the column to inoperative position, and means on said zero indicator lever actuated by any one of the other digits indicator levers of the column to move said zero lever to non-indicating position.

[Claims 6 to 10 not printed in the Gazette.]

1,206,036. GAS-HEATED FORGING OR WELDING FURNACE. WILLIAM SCRIMGEOUR, Lancaster, Pa., assignor to Mircs Fuel-Oil Equipment Company, Incorporated, Norfolk, Va., a Corporation of Virginia. Filed May 4, 1914. Serial No. 836,287. (Cl. 263—15.)



1. In a furnace, a refractory structure, a work-chamber therein, gas burners to heat said work-chamber, an interconnecting flue-system leading from said work-chamber to conduct heated gases from said work-chamber, comprising preheating chambers, gas and air heaters in said chambers, a separate vent from the work-chambers to each preheating chamber, an omnibus vent to the preheating chambers, a burner-heating chamber, separate vents from each preheating chamber to the burner-heating chamber, and a plurality of controllable outlets from the burner chambers.

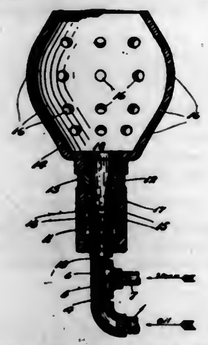
2. In a furnace, a refractory structure, a work-chamber therein, a combustion chamber opening into the upper part of the work-chamber, outlets from the lower part of the work-chamber, preheating chambers, a burner-heating chamber, a system of vents arranged to conduct predetermined quantities of the products of combustion to the preheating chambers, flues connecting the preheating and burner chambers and controlled outlets to conduct the products of combustion in a predetermined direction through the preheating and burner chambers.

3. In a furnace, a refractory structure, a work-chamber therein having a roof slanting toward the wall opposite the combustion chambers, a closable outlet in the roof of said furnace, combustion chambers opening into the upper part of said furnace, outlet vents from the lower part of said furnace, preheater chambers and a burner-heating chamber, a system of interconnected flues to conduct heated gases first into the preheater chambers, then into the burner-heating chamber, and closable outlets from said burner-heating chamber.

4. In a furnace, a refractory structure, a work-chamber therein, a gas burner to heat said work chamber, an interconnecting flue-system in the refractory structure, a plurality of chambers in proximity to each other and constituting a part of said flue-systems, two of said chambers constituting preheating chambers and arranged to receive heated gases in parallel from said work-chamber, a gas preheater in one of said preheating chambers, an air preheater in the other of said preheating chambers, outlets from said preheating chamber leading into a burner-heating chamber, and pipe connections and valves connecting said gas preheater and air preheater with said gas burner.

5. In a furnace, a refractory structure, a work-chamber, gas burners to heat said work-chamber, a system of flues leading from said work-chamber, preheating chambers in said refractory structure and connected to said flues, a gas preheater, an air preheater, said gas and air preheaters in preheating chambers and arranged to be heated by the products of combustion from said combustion chamber, and means to create a greater draft over one preheater than the other, thereby conducting a greater quantity of products of combustion over one preheater than over the other.

1,206,037. OIL-BURNER. EDWARD W. SEAMANS, Grand Rapids, Mich. Filed Feb. 29, 1916. Serial No. 81,113. (Cl. 158—74.)



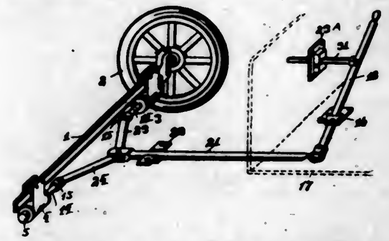
1. In a device of the character described, a member having a tapered extension and with a passage extending therethrough, a coupling through which said member is inserted, means to carry liquid fuel to said member, means to introduce steam or the like into the coupling around the extension, an elongated member connected to the coupling into which the combined steam and fuel is passed, said member having an elongated passageway therethrough, the cross-section of which increases outwardly away from the coupling, and also having a plurality of openings through the walls of the member for the entrance of air, and an enlarged hollow head having a plurality of openings through its walls secured at the end of the elongated member, substantially as described.

2. In a device of the character described, a hollow burner head provided with a plurality of openings through its walls, an elongated member to one end of which the burner head is secured, said member having a longitudinal passageway of comparatively large cross-section and with a plurality of openings therethrough for the entrance of air to the passageway, said cross section progressively diminishing in area away from the burner head, and means for introducing a limited amount of liquid fuel and steam into the passageway in said elongated member, substantially as described.

1,206,038. LOCKING DEVICE FOR AUTOMOBILES. DE WITT CLINTON SEE, Rochester, N. Y. Filed Mar. 5, 1915. Serial No. 12,465. (Cl. 70—90.)

1. In a locking device for automobiles the combination of an axle, wheels mounted to swing thereon, said wheels having spokes, a pair of cylinders rigidly mounted to said axle, a bolt yieldably mounted in each of said cylinders, a piston rod slidably connected to each of said bolts, a compression spring interposed between said bolt and said piston rod, means to move said piston rod in and out of said cylinders and move said bolts into and out of engagement between said spokes of said wheels.

2. In a locking device for automobiles the combination of an axle, wheels mounted to swing thereon, said wheels having spokes, a pair of cylinders rigidly mounted to said axle, a yieldable bolt mounted to slide in each of said cylinders, a piston rod slidably connected to each of said bolts, a compression spring interposed between said bolts and said piston rod, a shoulder on said piston rod, a compression spring mounted between said shoulder and the walls of said cylinders, means to move said piston rods in and out of said cylinders and move said bolts into and out of engagement between said spokes of said wheels.



1,206,039. TYPE-WRITING MACHINE. GEORGE A. SEIB, Ilion, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Sept. 18, 1916. Serial No. 120,852. (Cl. 197—136.)



1. In a typewriting machine, the combination of a platen, an angle-bar constituting a gripper bar for small pieces of paper, a spring-actuated plunger extending into the platen and carrying said bar, and a lever lying lengthwise of the platen and having its inner end in operative relation to said plunger and its outer end projecting through the end of the platen in position to act as a finger key.

2. In a typewriting machine, the combination of a platen having an end-piece, a spring-actuated gripper near one end of the platen and having a plunger extending inside said platen, and a key lever of the first order pivoted to said platen-end-piece and having one arm thereof in operative relation to said plunger and the other arm thereof outside the platen in position to be manipulated.

3. In a typewriting machine, the combination of a roller platen having a longitudinal channel therein, an angle-bar in said channel, a plunger having an arm or bracket to which said angle-bar is fixed, and a lever for operating said plunger, said lever lying lengthwise of said platen and projecting beyond the end of the platen.

4. In a typewriting machine, the combination of a roller platen, said platen having a longitudinal channel at one end and of sufficient length to accommodate a small piece of paper, a gripper in said channel, said gripper having a plunger extending into said platen, and a key lever of the first order lying lengthwise of said platen and pivoted within said platen but extending through the platen-end in position to be manipulated.

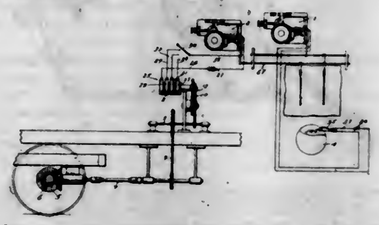
5. In a typewriting machine, the combination of a platen having a longitudinal slot therein, an angle-bar having one flange thereof in said slot and the other flange overhanging to grip a piece of paper, and a plunger behind said slot and having an arm extending forward and secured to the upper side of said overhanging flange, whereby the angle between said flanges is left free, one of said flanges acting to grip the paper and the other flange acting as an end stop for the paper.

[Claims 6 and 7 not printed in the Gazette.]

1,206,040. RECORDING DEVICE. ISAAC SIMPSON, Edgewood, Pa. Filed July 19, 1913. Serial No. 779,913. (Cl. 234—33.)

1. A recording instrument comprising a ratchet wheel provided with teeth, a pawl for engaging said wheel, an

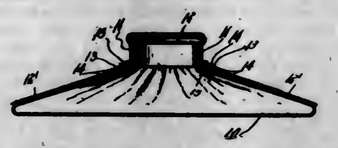
electro-magnet, a spring, an armature subject to the opposing forces of the electro-magnet and said spring for operating said pawl, a second ratchet wheel driven by and having teeth equal in number to those of the first ratchet wheel, a pawl adapted to be reciprocated by engagement with the teeth of the second ratchet wheel, and a recording arm operated by said pawl.



2. A recording instrument comprising an electro-magnet, a rotatable ratchet wheel controlled by said magnet, a recording mechanism, a pawl operatively connected to said recording mechanism, a second ratchet wheel provided with teeth for operating said recording pawl, periodical notches formed by the teeth in said wheel being made deeper than the other notches, to effect an increased movement of the recording pawl at predetermined intervals.

3. A recording instrument comprising an operating ratchet wheel provided with teeth, a pawl for engaging said teeth, a spring acting on said pawl for rotating the same and thereby the ratchet wheel, an electro-magnet, an armature actuated by said magnet for retracting said pawl against the resistance of the spring, a recording ratchet wheel provided with teeth, a recording mechanism, and a reciprocating ratchet pawl operated by the movement of the recording ratchet wheel from tooth to tooth for effecting the movement of said recording mechanism.

1,206,041. PROTECTIVE COVERING FOR ICE-BAGS. ALICE L. SLATAPER, Houston, Tex. Filed Mar. 28, 1916. Serial No. 87,305. (Cl. 128—39.)



The combination with an ice bag having a filling tube, of a protective covering therefor consisting of a circular piece of waterproof fabric having a central lopening receiving the said tube therethrough, and an elastic element secured continuously around the wall of the opening, whereby said cover is held in firm engagement with the tube.

1,206,042. MINE-CAR. EDWIN E. SLICK, Westmont borough, Pa. Filed June 9, 1915. Serial No. 32,998. (Cl. 105—15.)

1. In a car body, a metallic floor plate provided with an integral portion projecting therefrom and extending longitudinally of the car near the center portion, thereby forming a stiffener and center sill.

2. A metallic car body comprising a plate floor, the integral intermediate portion of which extends longitudinally of the car of trongh form, thereby providing a stiffener and center sill.

3. A metal car body provided with a plate floor the integral intermediate longitudinally extending portion of which projects therefrom in trough form, thereby providing a stiffener and center sill.

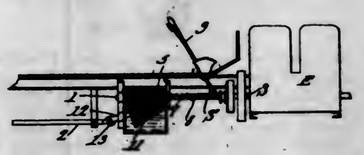
4. A car body comprising a bottom plate portion, a longitudinal trough integral therewith, the sides of the body projecting upwardly thence flaring outwardly and upwardly, and end plates provided with internal integral flanges secured to the said bottom and sides.



5. A car body comprising a horizontal bottom plate portion, a longitudinal trough portion, integral side portions, extending upwardly and outwardly, end plates provided with internal integral flanges secured to the bottom and sides aforesaid, and a turned over bead on the upper edges of said side and end plates, thereby forming a finish and stiffener for the same.

[Claim 6 not prined in the Gazette.]

1,206,043. TRANSMISSION MECHANISM. ABIRAM J. SLONECKER, Trenton, Mo. Filed Jan. 2, 1915. Serial No. 136. Renewed Apr. 24, 1916. Serial No. 93,252. (Cl. 74—58.)



1. A transmission mechanism, including a driving and a driven element, a frusto-conical member having a plurality of gears, a plurality of circumferential and mutilated gear segregating members carried thereby, and a progressively operated gear for intermeshing with one gear at a time of the frusto-conical member and forming with the gear of the frusto-conical member, a transmission connection between the driving and driven elements.

2. A transmission mechanism, including a driving and a driven element, a frusto-conical member having a plurality of gears, a plurality of circumferential and mutilated gear segregating members carried thereby, a slidably mounted gear, and manually controlled means for sliding said gears so that one gear at a time of the frusto-conical member may be engaged, and whereby the gear of the frusto-conical member and the sliding gear constitutes a transmission connection between the driving and driven elements.

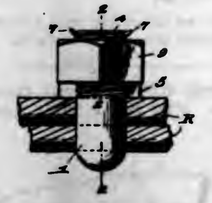
3. A transmission mechanism, including a driving and a driven element, a frusto-conical member having a plurality of gears, the adjacent gears of the same at a single point of the circumference having alined teeth, a plurality of circumferential and mutilated gear segregating members carried by the frusto-conical member, the mutilated portion of the same being adjacent the alined gear teeth of the plurality of gears, and a progressively operated gear for intermeshing with one gear of the frusto-conical member at a time and forming with such gear a transmission connection between the driving and driven elements.

4. A transmission mechanism, including a driving and a driven element, a frusto-conical member having a plurality of gears, the adjacent gears of the same at a single point of the circumference having alined teeth, a plurality of circumferential and mutilated gear segregating members carried by the frusto-conical member, the mutilated portion of the same being adjacent the alined gear teeth of the plurality of gears, and manually controlled means for sliding said gears so that one gear at a time of the frusto-conical member may be engaged, and whereby the gears of the frusto-conical member and the sliding gear constitute a transmission connection between the driving and driven elements.

5. A transmission mechanism, including a driving and a driven element, a frusto-conical member having a plurality of gears, a plurality of circumferential and mutilated gear segregating members carried thereby, a progressively operated gear for intermeshing with one gear at a time of the frusto-conical member and forming with the gear of the frusto-conical member a transmission connection between the driving and driven elements, and an end ring carried by the frusto-conical member and constituting a limiting means for the movement of the progressively operated gear.

[Claims 6 to 10 not printed in the Gazette.]

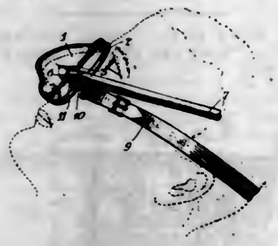
1,206,044. ROPE-CLAMP. DONALD G. SMART, Grand Rapids, Wis. Filed Oct. 28, 1915. Serial No. 58,420. (Cl. 24—125.)



1. A device of the class described comprising a U-shaped rope receiving yoke having its arms externally threaded, a nut movable on said arms, a T-shaped rope clamping member having its transverse portion slidable between said arms and its neck portion extending into the opening in said nut, and projections extending outwardly from said neck portion for maintaining said nut and said member in movable assembled relation.

2. A device of the class described comprising a U-shaped rope receiving yoke having its arms externally threaded, a nut movable on said arms, a T-shaped rope clamping member having its transverse portion slidable between said arms and its neck portion extending into the opening in said nut, and tongues of pliable material struck outwardly from the opposite edges of the free end of said neck portion for maintaining said nut and said member in movable assembled relation.

1,206,045. NASAL INHALER. ARTHUR E. SMITH, Cleveland, Ohio. Filed Jan. 3, 1914. Serial No. 810,114. (Cl. 128—13.)



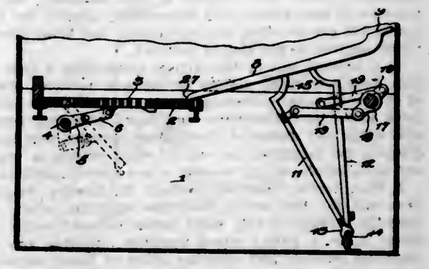
1. A nasal inhaler comprising a casing which is of the general shape of a nose and has inner marginal edges, and a hardening material on said edges which is initially plastic at ordinary temperatures and adapted to receive and retain the contour of the nose when applied thereto.

2. A nasal inhaler comprising a casing which is of the general shape of a nose and has inner marginal edges, and a hardening material removably mounted on said edges which is initially plastic at ordinary temperatures and adapted to receive and retain the contour of the nose when applied thereto.

3. A nasal inhaler comprising a casing which is of the general shape of a nose and has inner marginal edges, provided with a groove, and a hardening material fitting upon said edges and in the groove which is initially plastic at ordinary temperatures and adapted to receive and retain the contour of the nose when applied thereto.

4. A nasal inhaler comprising a casing which is of the general shape of a nose and has inner marginal edges, and a hardening material in the shape of a ring corresponding to the shape of such edges and applied thereto, said material being initially plastic at ordinary temperatures and adapted to receive and retain the contour of the nose when applied thereto.

1,206,046. FURNACE-GRATE. GEORGE F. SPENCER, Thompson, Pa. Filed Dec. 27, 1915. Serial No. 68,785. (Cl. 126—175.)



1. In a furnace, a horizontal main grate, a plurality of inclined grate sections having their lower ends slidably engaged with the main grate, a pair of rockable frames each supporting different ones of the inclined grates, a rock shaft, arms on the shaft connected with the rockable frames, and means for oscillating the shaft.

2. In a furnace, a horizontal main grate, a plurality of inclined grate sections having their lower ends slidably engaged with the main grate, a pair of rockable frames each supporting different ones of the inclined grates, a rock shaft, arms on the shaft connected with the rockable frames, a rotatably mounted crank having a handle, and a pitman connection between the crank and the rock shaft.

3. In a furnace, a stationary grate, a plurality of movable grates each having one end supported by the stationary grate, a frame pivotally supporting the opposite ends of the movable grates, a fulcrum plate on which the frame freely rests, and oscillatory means connected to the frame for swinging the latter and holding it in position on the fulcrum plate.

4. In a furnace, a main grate, a second grate having one end slidable on the main grate, means for sliding the second grate, and means slidably connecting the grates positively to each other to prevent the specified end of the second grate from riding up off the main grate.

5. In a furnace, a stationary grate, a plurality of movable grates each having one end supported by the stationary grate, a pair of frames each pivotally supporting certain of the movable grates and provided with downwardly facing U-shaped bearings, a common fulcrum means for the bearings of the frames, and oscillatory means connected to each frame for swinging the latter in opposite directions and holding the same seated on the fulcrum means.

1,206,047. BATHING-CAP AND METHOD OF MAKING SAME. ARTHUR C. SQUIRES, Keyport, N. J., assignor of one-half to David Basch, New York, N. Y. Filed July 29, 1915. Serial No. 42,579. (Cl. 2—106.)

1. A bathing cap or the like article comprising a body of thin elastic material plaited in opposite portions, and

tapes extending across and secured to such plaited portions and adapted for fastening the cap or other article in place, such tapes being elastic where secured to the plaited portions.



2. A bathing cap or like article comprising a body of thin elastic material plaited in opposite portions and having portions of the plait-folds integrally united, and tapes extending across and secured to the integrally united portions of said plaits, such tapes being adapted for fastening the cap or other article in place, and being elastic where secured to the plaited portions.

3. A bathing cap or like article comprising a body of thin elastic material plaited in opposite portions, strips of elastic material extending across portions of the plait-folds and united therewith, and tapes extending across said strips and secured to the plaited portions, said tapes adapted for fastening the cap or other article in place, and being elastic where secured to the plaited portions.

4. The herein described method of forming bathing caps and the like which comprises applying cement to opposite portions of thin sheet rubber material while the latter is in a partly cured condition, plaiting the so-cemented portions and applying strips of elastic material to both sides of the plaited portions, completing the vulcanization of the material, and then applying head bands over said strips, and securing such head bands in place.

1,206,048. ART OF FINISHING CUT-PILE RUG OR CARPET FABRICS. DAVID H. STROUD, Philadelphia, Pa. Filed July 30, 1915. Serial No. 42,672. (Cl. 26—12.)



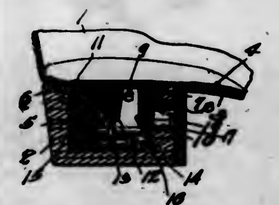
The hereinbefore described improvement in the art of finishing cut pile rugs, or carpet fabrics, which consists in, first, subjecting the fabric to a bath of strong soap and water and persistently scrubbing it therein, the scrubbing movement being applied substantially in all directions across the surface; then scraping the fibers continuously in one direction, by means of sand paper, or the like, until the retained fibers of the individual tufts are substantially straightened out, and laid over in general alinement; and finally, hot pressing the surface by ironing applied in the direction of inclination of the tufts; whereby superficial loose fibers and foreign objects are removed, the remaining fibers of the tufts are laid over and the general inclination of the tufts is emphasized, and luster is imparted to the surface.

1,206,049. LADDER. AUGUST F. TANK, Snover, Mich., assignor of one-half to Charles J. Oleson, Sandusky, Mich. Filed Apr. 8, 1916. Serial No. 89,861. (Cl. 228—1.)

In a ladder, longitudinal strands, brackets having their inner ends provided with means for bearing against a wall or other support, said brackets having their outer ends overturned to provide loops for engagement about said longitudinal strands, a rung having threaded ends engaging through the sides of the loops inwardly of the longitudinal strands, and a pair of binding nuts threaded on the ends of the rung and engaging against the opposite sides of the loops to compress the same about the longitudinal strands and secure the rung and the longitudinal strands to the outer ends of the brackets.



1,206,050. SHOE-HEEL. JEPTHA COLUMBUS TATUM, Richland, Ga. Filed May 1, 1916. Serial No. 94,706. (Cl. 36—38.)

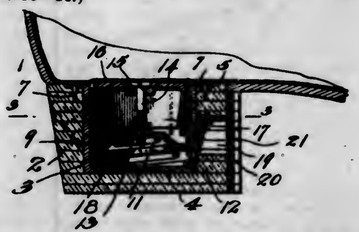


1. A hollow shoe heel having a cup fixed therein, and a resiliently supported reciprocable member in the cup provided with a detachable portion in frictional engagement with the walls of the cup, said member being adapted to reciprocate as the wearer of the shoe walks.

2. A hollow shoe heel having a cup fixed therein, a reciprocable member provided with a friction band to engage the walls of said cup, and a spring for holding said member in raised position.

3. A hollow shoe heel having a cup fixed therein, a reciprocable member provided with a friction band and a retaining head therefor, and a spring under said head for holding the member in raised position.

1,206,051. SHOE-HEEL. JEPTHA COLUMBUS TATUM, Richland, Ga. Filed Aug. 12, 1916. Serial No. 114,543. (Cl. 36—38.)



1. A hollow shoe heel having a cup fixed therein, a resiliently supported reciprocable member in the cup in frictional engagement with the walls of the cup, and means for varying the friction between said member and

cup, said member adapted to reciprocate as the wearer of the shoe walks.

2. A hollow shoe heel having a fixed cup, a resiliently supported reciprocable member including a slotted body portion in frictional contact with the walls of the cup, and means for varying the friction between said body portion and the cup, for the purpose described.

3. A shoe heel having a fixed cup, a resiliently supported reciprocable member including a metallic, slotted body portion in frictional contact with the cup and lugs with inclined faces integral with said body portion, an inverted, frusto-conical shell closing the upper end of the body portion, a bottom plate for said portion, and a screw connecting these portions whereby the friction between the body of the member and the cup may be varied.

1,206,052. WINDOW-OPERATING DEVICE. ALVAR K. TRANSTEDT, New York, N. Y., assignor to Perfect Window Regulator Company, New York, N. Y., a Corporation of Maine. Filed Dec. 19, 1911. Serial No. 666,759. (Cl. 16—53.)



1. In a window operating device, the combination of a cam mechanism for moving the window in both directions transverse to its plane, said mechanism comprising two cam surfaces and means including a pin adapted to engage both said surfaces when moving the window in either direction.

2. In a window operating device, the combination of a cam mechanism for moving the window both back and forth across the weather rail, said mechanism comprising opposed cam surfaces and an actuating pin provided with means engaging both said opposed surfaces during movement of the window in either direction.

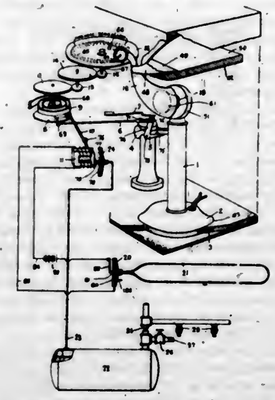
3. In a window operating device, the combination of raising and lowering means and cam mechanism adapted to positively move the window in both directions transverse to its plane and actuated by said means, said mechanism comprising a cam surface for forcing the window in one direction transverse to its plane and a second cam surface for forcing the window in the opposite direction, and means including a pin adapted to engage both said surfaces during the movement of the window in both directions.

4. In a window operating device, the combination of cam mechanism for moving the window positively in both directions transverse to its plane and comprising a plate depending from the window and an actuating pin having means positively engaging opposite surfaces of said plate when moving the window in either direction.

5. In a window operating device, the combination of raising and lowering means and cam mechanism for moving the window positively in both directions across the weather rail, said mechanism comprising a plate depending from the window, a pin having means positively engaging opposite surfaces of said plate when moving the window in either direction and cam surfaces brought into operation by said means and adapted to positively force the window in both said directions.

[Claims 6 to 15 not printed in the Gazette.]

1,206,053. TELEPHONIC FIRE-ALARM APPARATUS. EVERETT L. THOMPSON, Dover, N. J., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y., a Corporation of New York. Filed Nov. 14, 1914, Serial No. 872,085. Renewed Apr. 27, 1916. Serial No. 94,050. (Cl. 179—5.)



1. In telephonic fire alarm apparatus, an alarm transmitting mechanism comprising a casing provided with an alining socket adapted to receive the base of a portable telephone instrument, a coöperating alining portion to prevent insertion of the instrument until its base has been inserted in said socket, a sound passage having an alining flaring end to receive the transmitter mouthpiece of the telephone instrument and hold the same in substantial alinement, a phonograph having a repeating articulate disk record and coöperating transmitting mechanism to transmit an articulate alarm signal through said sound passage, calling devices coöperating with said telephone instrument and comprising a lifting call lever to lift the telephone hook, a detent coöperating with said call lever to hold the same in calling position, a motor mechanism to simultaneously operate said phonograph and said calling devices, a retainer device normally keeping said motor mechanism inoperative, and alarm operating devices coöperating with said retainer mechanism and comprising an alarm operating magnet and connected detector devices and an alarm operating diaphragm and connected emergency alarm devices adapted to be actuated when a connected fire extinguisher system is in emergency operation.

2. In telephonic fire alarm apparatus, an alarm transmitting mechanism comprising a casing provided with an alining socket adapted to receive the base of a portable telephone instrument, a sound passage having an alining flaring end to receive the transmitter mouth-piece of the telephone instrument and hold the same in substantial alinement, a phonograph having a repeating articulate record and coöperating transmitting mechanism to transmit an articulate alarm signal through said sound passage, calling devices coöperating with said telephone instrument and comprising a lifting call lever to lift the telephone hook, a detent coöperating with said call lever to hold the same in calling position, a motor mechanism to simultaneously operate said phonograph and said calling devices, a retainer device normally keeping said motor mechanism inoperative, and alarm operating devices cooperating with said retainer mechanism and comprising connected emergency alarm devices adapted to be actu-

ated when a connected fire extinguisher system is in emergency operation.

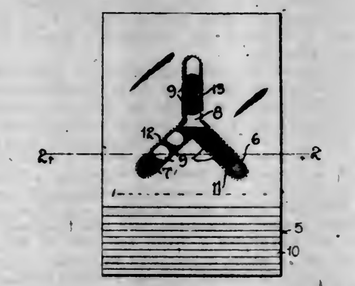
3. In telephonic fire alarm apparatus, an alarm transmitting mechanism comprising a casing adapted to receive the base of a portable telephone instrument, a sound passage having an alining flaring end to receive the transmitter mouth-piece of the telephone instrument and hold the same in substantial alinement, a phonograph having a repeating articulate record and coöperating transmitting mechanism to transmit an articulate alarm signal through said sound passage, calling devices coöperating with said telephone instrument, a detent coöperating with said call lever to hold the same in calling position, a motor mechanism to simultaneously operate said phonograph and said calling devices, a retainer device normally keeping said motor mechanism inoperative, and alarm operating devices coöperating with said retainer mechanism.

4. In telephonic fire alarm apparatus, an alarm transmitting mechanism comprising a casing adapted to receive the base of a portable telephone instrument, a sound passage having an alining flaring end to receive the transmitter mouth-piece of the telephone instrument and hold the same in substantial alinement, a phonograph having a repeating articulate record and coöperating transmitting mechanism to transmit an articulate alarm signal through said sound passage, calling devices coöperating with said telephone instrument, a motor mechanism to simultaneously operate said phonograph and said calling devices, a retainer device normally keeping said motor mechanism inoperative, and alarm operating devices coöperating with said retainer mechanism.

5. In telephonic fire alarm apparatus, a portable telephone instrument and a connected telephone circuit and central station, an alarm transmitting mechanism comprising alining means including a sound passage having an alining flaring end to receive the transmitter mouth-piece of the telephone instrument and hold the same in substantial alinement, a phonograph having a repeating articulate record and coöperating transmitting mechanism to transmit an articulate alarm signal through said sound passage, calling devices coöperating with said telephone instrument and comprising a lifting call lever to lift the telephone hook, motor mechanism to simultaneously operate said phonograph and said calling devices and transmit a periodic call signal and an articulate alarm signal over the telephone circuit, a retainer device normally keeping said motor mechanism inoperative, and automatic fire alarm actuating devices coöperating with said retainer mechanism.

[Claims 6 to 22 not printed in the Gazette.]

1,206,054. PUZZLE. CLARENCE A. TRULL, Waco, Tex. Filed Feb. 26, 1916. Serial No. 80,693. (Cl. 46—41.)



1. A puzzle consisting of a base having a plurality of grooves in its surface extending in different angular directions and having a common communicating point, the walls of each groove being colored differently from the walls of the remaining grooves, and a plurality of movable elements for each groove corresponding in color thereto.

2. A puzzle consisting of a base having a plurality of grooves in its surface communicating at the same point, a plurality of elements for each groove movable therein, the several grooves and certain of the elements having a common characteristic whereby the same may be distinguished from the remaining elements and every other groove.

3. A puzzle consisting of a base having a plurality of grooves in its surface extending in different angular directions and having a common communicating point, the walls of each groove being differently colored from the walls of the other grooves, and a plurality of balls corresponding in color to the respective grooves and of such diameter as to be movable in the grooves.

4. A puzzle consisting of a base having a plurality of grooves in its surface extending in different angular directions and having a common communicating point, the walls of each groove being differently colored from the walls of the other grooves, a plurality of balls of substantially the same diameter as the respective grooves and colored correspondingly thereto, and means for retaining the balls in the grooves but permitting of their free rolling movement therein.

5. A puzzle consisting of a base having a plurality of grooves in its surface extending in different angular directions and having a common communicating point, the walls of each groove being differently colored from the walls of the remaining grooves, a plurality of balls for each groove colored correspondingly thereto, each groove being of such length as to contain one ball in addition to the number of balls which are of the same color as said groove, and means secured upon the base to retain the balls in the grooves but permit of their free rolling movement therein.

1,206,055. METALLIC TIE AND RAIL-FASTENER. DANIEL FRANK UPDEGRAFF, Hunkers, Pa., assignor to David O. Beistel, Hunkers, Pa. Filed Oct. 26, 1914. Serial No. 868,716. (Cl. 238—5.)



A metallic tie and rail fastener, comprising a U-shaped metallic cross tie having each side wall cut out with the cut-outs in alinement, a block lodged in the tie between and fastened to and bracing the said side walls, one side of said passage having its wall upright to engage one face of the web of a rail traversing the block and said wall having a recess to receive and embrace the base flange of the rail on one side of the web, and the other side of said passage being undercut and in spaced relation to the rail web and corresponding flange of the rail, and of a depth to extend below and beneath the base of the rail to substantially the vertical plane of the web engaging upright side of the passage, and a longitudinally shouldered key adapted to the undercut portion of the passage through the block and of a width to bear against the adjacent face of the web of the rail, said key having a longitudinal recess to receive the corresponding side of the bottom flange of the rail and also having a bottom extension to lodge in that portion of the passage which is underneath the flange of the rail and to abut the first-named side of the passage; and said key having one end provided with a stop flange to engage one end of the block and the other end provided with a hole to receive a stop pin to engage the corresponding end of the block.

1,206,056. PROCESS OF PREPARING A PLASTIC BINDING COMPOSITION. JAMES G. VAIL, Chester, Pa. Filed June 29, 1915. Serial No. 37,068. (Cl. 106—40.)

1. The process of forming an emulsion of an alkaline solution of a silicate and a bituminous product which consists in substantially equalizing the viscosities of the substances and then mixing the substances together.

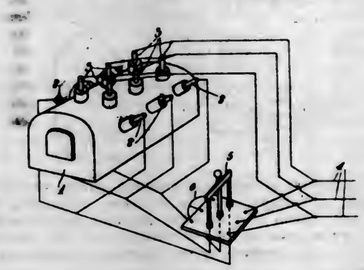
2. The process of forming a binding material which consists in increasing the viscosity of an alkaline solution of sodium silicate, decreasing the viscosity of a bituminous product and mixing said solution and said product together when their respective viscosities are substantially equal.

3. The process of forming a binding material comprising an alkaline solution of sodium silicate and a bituminous product, which consists in reducing the viscosity of the bituminous product to substantially that of the solution and then mixing said product and said solution together.

4. The process of forming a binding material which consists in increasing the viscosity of a solution of sodium silicate by incorporating stone screenings therein, reducing the viscosity of a bituminous product with a suitable solvent and thereafter mixing said product and said solution together when their respective viscosities are substantially equal.

5. The process of forming a binding material comprising an alkaline solution of a silicate and a bituminous product, which consists in raising the viscosity of the silicate solution to substantially the viscosity of the bituminous product and then mixing said solution and said bituminous product together when in a fluid condition.

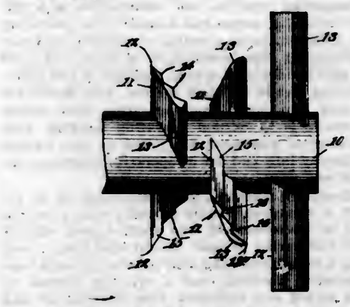
1,206,057. ELECTRIC-ARC FURNACE. CLAS WALTHER HARRY VON ECKERMANN, Ljusne, and IVAR RENNERFELT, Djursholm, Sweden. Filed July 15, 1915. Serial No. 40,145. (Cl. 204—64.)



1. The combination with an electric arc furnace provided with a horizontally elongated crucible, of a plurality of systems of electrodes, each system being composed of a number of electrodes located in a plane perpendicular to the longitudinal axis of the furnace, and means for connecting said electrodes to a source of electric current in such manner as alternately to produce arcs between the electrodes of each system, and between the electrodes and the charge in the furnace.

2. The combination with an electric arc furnace provided with a horizontally elongated crucible, of a plurality of systems of electrodes, each system being composed of a number of electrodes located in a plane perpendicular to the longitudinal axis of the furnace, and means for connecting said electrodes to a three-phase alternating current circuit in such manner as alternately to produce arcs between the electrodes of each system by connecting each system in one phase of the circuit, and between the electrodes and the charge in the furnace by connecting the electrodes in Y-connection with the charge as neutral point.

1,206,058. PROPELLER. ALBERT WAKEFIELD, Washington, D. C. Filed Dec. 6, 1915. Serial No. 65,884. (Cl. 170—159.)

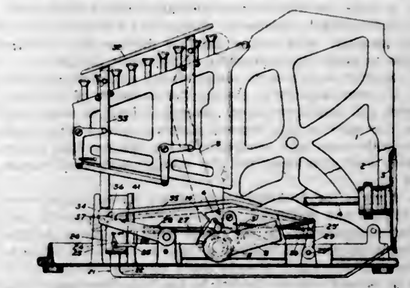


1. A propeller blade having on its driving face a series of corrugations, the faces of the corrugations on the following edge of the blade having a steeper inclination as compared with those of the leading edge.

2. A propeller blade having on its driving face a series of corrugations, the faces of the corrugations on the following edge of the blade having a steeper inclination as compared with those of the leading edge, and said corrugations being offset relative to each other.

3. A propeller blade which is wedge-shaped in cross-section, the taper being toward the leading edge of the blade, and the driving faces of the blade having a series of corrugations, the faces of said corrugations on the following edge of the blade having a steeper inclination as compared with the leading edge.

1,206,059. CALCULATING-MACHINE. CHARLES WALES, New Haven, Conn., assignor to The White Adding Machine Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 22, 1915. Serial No. 23,073. (Cl. 235—58.)



1. In a computing machine, the combination of a calculating mechanism, a motor and a handle for operating the same at different times, a switch controlling said motor and controlled by said handle so as to be in "off" position when said handle is in normal position.

2. In a computing machine, the combination of a calculating mechanism, a motor and a handle for operating the same at different times, a switch controlling said motor, connections between said handle and said switch controlled by said handle so as to open said switch when said handle is in normal position and close said switch when said handle is in abnormal position.

3. In a computing machine, the combination of a calculating mechanism, a motor and a handle for operating the same at different times, a switch controlling said motor and controlled by said handle so as to be in "off" position when said handle is in normal position, a trip plate, me-

tor connecting means actuated thereby, and means for preventing said trip plate from actuating said means when said handle is in normal operating position.

4. In a computing machine, the combination of a calculating mechanism, a motor and a handle for operating the same at different times, a switch controlling said motor and controlled by said handle so as to be in "off" position when said handle is in normal position, a trip plate, motor connecting means actuated thereby, and means for preventing said trip plate from actuating said means when said handle is in normal operating position, said means consisting of a member controlled by said handle and moved thereby into and out of operative position relatively to said trip plate.

5. In a calculating machine, the combination of an actuating shaft, a removable handle provided with a hollow barrel fitting on the outside of said shaft, a pawl carried by said shaft and spring pressed toward said barrel, said barrel having a socket receiving said pawl when said handle is in operative position, and a cutaway portion in front of said socket and extending from the end of said barrel to a transverse plane in which said socket lies.

[Claims 6 to 8 not printed in the Gazette.]

1,206,060. SIGHT FOR FIREARMS. ROBERT L. WARNER, Concord, Mass. Filed Sept. 13, 1913. Serial No. 789,688. (Cl. 33—58.)



1. A sight for firearms comprising a cam mounted to rotate on an axis crosswise of the firearm, said cam having a continuous surface on its exterior the distance of which from said axis graddally changes circumferentially, a spring sight member fixed at one end and having its other end movable and having a wide face bearing directly on the cam, and means to hold the cam with any desired portion of its acting surface supporting the spring.

2. A sight for firearms comprising a spring sight member; and a rotary member to change the elevation of said sight member, said rotary member having two annular flanges to guide the movement of the sight member.

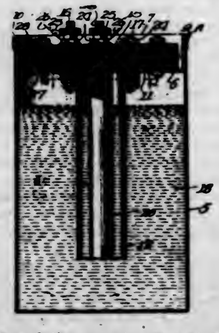
3. A sight for firearms comprising a spring sight member; a rotary member to change the elevation of the sight member; a spring-actuated plunger acting to hold said rotary member in the desired position; and a base made in a single piece and comprising a bearing for said rotary member and a housing for the plunger-actuating mechanism.

4. A sight for firearms comprising a spring sight member having one end fixed and the other end movable and having a projection on its lower side; a rotary member having a continuous surface to engage said projection to change the elevation of said sight member and having a stop to engage said projection to limit the rotation of the rotary member.

1,206,061. CURRENT-RECTIFIER. WILLIAM F. WARNER, Davenport, Iowa. Filed Jan. 20, 1916. Serial No. 73,108. (Cl. 175—316.)

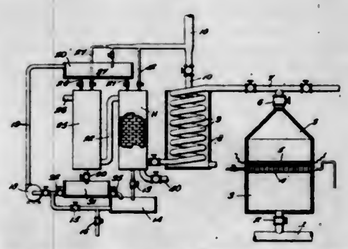
1. A current rectifying cell comprising a sheet-metal containing case; a disk of insulating material; electrodes depending into the case, carried by said disk, and a cover, for the case, depressed below the top edge thereof sufficiently to contain said disk, and having its peripheral edge beaded over the salient edge of the case to support the cover, reinforce the wall of the case and to provide a smooth contacting surface overlying the upper edge thereof.

2. A current rectifying cell comprising a sheet-metal containing case; a disk of insulating material of less diameter than the case; a cylindrical electrode and a rod electrode therein, suspended from the disk, said cylinder having vent openings near the disk; a cover, for the case, depressed below the top edge thereof sufficiently to contain said disk and having its peripheral edge beaded over the



salient top edge of the case to support the cover, reinforce the case and to provide a smooth contacting surface; a vented, threaded closure, and a threaded sleeve projecting upwardly above the case cover covered by said closure.

1,206,062. PROCESS OF MAKING NITRIC ACID AND OTHER PRODUCTS. FRANK S. WASHBURN, New York, N. Y. Filed Feb. 7, 1916. Serial No. 76,647. (Cl. 23—1.)



1. The process of oxidizing ammonia, which consists in subjecting a suitable mixture of gases containing ammonia and oxygen to a suitable catalyzer and at such a velocity as to cause an oxid of nitrogen and free ammonia to appear in the products of the reaction, substantially as described.

2. The process of oxidizing ammonia which consists in subjecting a mixture of ammonia and oxygen containing gases to the action of a catalyzer at such a velocity that nitrose gases and undecomposed ammonia will appear in the products of the reaction; suitably combining said ammonia and nitrose gases; and separating out the ammonia compounds formed, substantially as described.

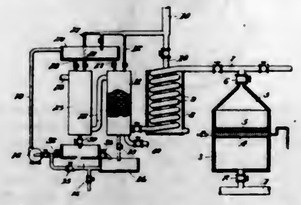
3. The process of producing nitric acid simultaneously with ammonium nitrate, which consists in subjecting a mixture of ammonia gas and oxygen containing gases in suitable proportions to the action of a catalyzer and at such a rate as to cause nitrose gases and not exceeding 20% of free ammonia to appear in the products; causing said gases and said ammonia to chemically combine to produce the said nitric acid and ammonium nitrate; and separating these said nitrogen containing compounds, substantially as described.

4. The process of producing nitric acid and ammonium nitrate which consists in subjecting a mixture of ammonia and oxygen-containing gases to the action of a catalyzer at such a rate that nitrose gases and ammonia will appear in the products of the reaction; causing said ammonia and nitrose gases to form a solution of nitric acid and ammonium nitrate; and suitably concentrating said solution, substantially as described.

5. The process of producing nitric acid and ammonium nitrate, which consists in subjecting a mixture of ammonia and oxygen containing gases to the action of a catalyzer and at such a rate as to cause not exceeding 20% of free ammonia and nitrose gases to appear in the products of the reaction; producing a solution of nitric acid and ammonium nitrate from said products; concentrating said solution; and recovering the nitric acid remaining in said solution, substantially as described.

[Claim 6 not printed in the Gazette.]

1,206,063. PROCESS OF MAKING NITRIC ACID AND OTHER PRODUCTS. FRANK S. WASHBURN, New York, N. Y. Original application filed Feb. 7, 1916, Serial No. 76,647. Divided and this application filed May 6, 1916. Serial No. 95,896. (Cl. 23—1.)



1. The process of producing nitric acid and ammonium sulfate, which consists in subjecting a mixture of ammonia and oxygen containing gases to the action of a catalyzer and at such a rate as to cause free ammonia and nitrose gases to appear in the products of the reaction; producing a solution of nitric acid and ammonium nitrate from said products; concentrating said solution; and treating the ammonium nitrate in said solution with sulfuric acid to concentrate the nitric acid present and to form ammonium sulfate, substantially as described.

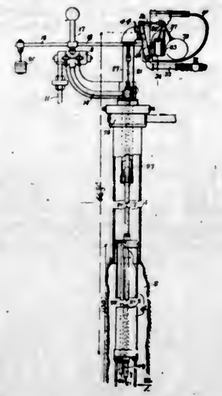
2. The process of producing nitric acid and ammonium sulfate, which consists in subjecting a mixture of ammonia and oxygen containing gases to the action of a catalyzer and at such a rate as to cause nitrose gases and not exceeding 20% of free ammonia to appear in the products of the reaction; producing a solution of nitric acid and ammonium nitrate from said products; concentrating said solution; and treating the ammonium nitrate in said solution with sulfuric acid to concentrate the nitric acid present and to form ammonium sulfate, substantially as described.

1,206,064. TIRE-HANDLING TOOL. MINOR WATERS, New Albany, Ind. Filed Oct. 26, 1915. Serial No. 57,989. (Cl. 157—6.)



A tool for removing and replacing a tire, comprising a shank having at one end an engaging lip and at its opposite end a curved hook which is adapted to embrace and fit the side and bottom of the rim of a wheel and serve as a guide and stop, the portion of the shank between the lip and the hook being straight and flat on both faces, so as to allow the insertion of the tool transversely between the rim and the tire, and a substantially straight handle extending outwardly from the outer side of the hook at a point between the free end of the hook and the base thereof thereby offsetting the handle below the plane of the shank, the end of the shank having the engaging lip and the handle being grasped in drawing the tool around the rim.

1,206,065. DISPLACEMENT-PUMP. ELMER A. WATTS, Springfield, and IRWIN L. DUNN, Marietta, Ohio. Filed Apr. 19, 1915. Serial No. 22,296. (Cl. 103—8.)



1. A mechanism for elevating fluids comprising a plurality of closed receptacles arranged one above the other and spaced apart, the lowermost receptacle communicating with a source of fluid supply, a conduit leading from the lower portion of each lower receptacle to the upper portion of the next higher receptacle, and means for admitting air under pressure to the upper portion of said lowermost receptacle, whereby the air will first discharge the fluid from said lowermost receptacle through one of said conduits to said next higher receptacle and will then follow the fluid through said conduit into said next higher receptacle and discharge the fluid therefrom.

2. A mechanism for elevating fluids comprising a plurality of receptacles arranged one above the other and spaced apart, the lowermost receptacle communicating with a source of fluid supply, a pipe connecting each adjacent receptacle, whereby fluid can be elevated from a lower to a higher receptacle, means for admitting air under pressure to said lower receptacle to elevate said fluid to the next receptacle, said pipes being unobstructed to allow the compressed air in the lowermost receptacle to follow the fluid through the pipe to elevate the same from the next receptacle to the one above.

3. In a mechanism for elevating fluids, a receptacle, a discharge line leading from said receptacle, means for admitting compressed air to said receptacle, means controlled by the rise of fluid in said receptacle for admitting compressed air thereto, and means located in said discharge line and operable by the fluid when it has been discharged from said receptacle and discharge line for controlling the shutting off of the air to said receptacle.

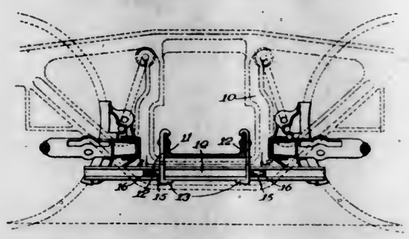
4. In a system for raising fluids, a plurality of receptacles, one above the other and spaced apart, portions connecting said receptacles and so arranged that the fluid may be raised step by step through the system by the following action of compressed air through the connecting portions and the receptacles, means for admitting compressed air to the lowermost receptacle, and means controlling said air-admitting means to shut the same off when the fluid has been discharged through the system.

5. In a system for raising fluids, a plurality of receptacles arranged one above the other, each lower receptacle having portions communicating with the next upper receptacle whereby fluid may be discharged step by step through the system by the following action of air through the communicating portions from the lowermost recep-

tacle, means for admitting and exhausting air to and from the lowermost receptacle, and means for controlling the exhaust for said lowermost receptacle when the fluid has been discharged from the system.

[Claims 6 to 29 not printed in the Gazette.]

1,206,066. BRAKE-BEAM SUPPORT. JOSEPH W. WEINLAND, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Sept. 25, 1916. Serial No. 121,971. (Cl. 188—70.)



1. In an emergency brake beam support, the combination of a hanger, a bar supported by said hanger and longitudinally movable into and out of engagement therewith and automatic means acting as a lock to prevent relative movement of the hanger and bar, substantially as described.

2. In a car truck having frame members, the combination of a vertically disposed hanger engaging a frame member, a horizontally disposed bar engaging said hanger and spring means fixed to one of said members and automatically engaging the other thereof when the parts are in operative position, substantially as described.

3. In a device of the class described, the combination of a pair of depending hangers each having an aperture, a bar horizontally disposed and occupying the apertures in said hangers, and a spring fixed to said bar and adapted to automatically hold said bar when the same is in operative position, substantially as described.

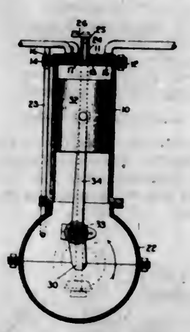
4. In a device of the class described, the combination of a hanger having an aperture, a bar adapted to be supported by said hanger and engaging said aperture, said bar having a side recess, a spring mounted in said recess, the end of which spring is adapted to normally project outside of the plane of the side of the bar, the arrangement being such that said spring acts as a fastening device, preventing longitudinal movement of said bar under normal conditions, substantially as described.

1,206,067. VALVE MECHANISM FOR INTERNAL-COMBUSTION ENGINES. HUGO C. WELL, New York, N. Y., assignor of fifty one-hundredths to Frederick A. B. Meinhardt, New York, N. Y. Filed Aug. 24, 1915. Serial No. 47,072. (Cl. 123—80.)

1. In a valve mechanism for internal combustion engines, a cylinder having a head, with a combustible mixture port, an exhaust port, and an air port, a valve plate for rotating against the head for commanding the three ports, and means for operating the rotary valve for uncovering the cylinder air and exhaust ports simultaneously.

2. In a valve mechanism for internal combustion engines, a cylinder having a head with a combustible mixture port, an exhaust port and an air port, a valve plate for rotating against the head and having a port for uncovering the combustible mixture port in the cylinder head during the suction period of the engine, a port for uncovering the exhaust port in the cylinder head during the exhaust period of the engine, and another port for uncovering the air port in the cylinder during the compression period in the engine.

3. In a valve mechanism for an internal combustion engine, a cylinder having a head with a combustible mixture port, an exhaust port and an air port, a plate valve for rotating against the head and having a port for uncovering the combustible mixture port during the suction period of the engine, and ports for uncovering the exhaust port and the air port in the cylinder head during the exhaust period of the engine.



4. In a valve mechanism for internal combustion engines, a cylinder having a head with a combustible mixture port, an exhaust port and an air port, a valve plate for rotating against the head, and having a port for uncovering the combustible mixture port in the head during the suction period of the engine, ports for uncovering the exhaust port and the air port in the cylinder during the exhaust period of the engine, and another port for uncovering the air port during the compression period of the engine.

1,206,068. NAIL. HENRY L. C. WENK, Jr., New York, N. Y. Filed Dec. 4, 1915. Serial No. 64,974. (Cl. 85—28.)

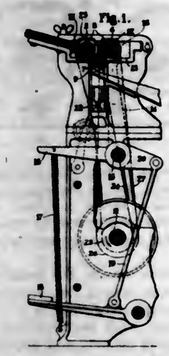


1. In a nail, the combination of a shank, and a head of softer metal, from the lower face of which head at a point between the peripheral edge of said face and the shank projects a comparatively thin outwardly flaring flange, there being a concave recess within the flange and immediately around the shank, and there being also a recess between the outer periphery of the flange and the adjacent peripheral edge of the lower face of the head.

2. In a nail, the combination of a shank, and a head of relatively soft metal, said head being formed on its underside with a flat face provided with a dependent flaring flange concentric with the shank, and there being a concave recess within the flange immediately around the shank, and there being also an angular recess between the lower face of the head and the adjacent outer surface of said flange, the outer peripheral edge of the flange being directly below the outer peripheral edge of the lower face of the head.

1,206,069. CANDY-FORMING MACHINE. JOHN WERNER, Rochester, N. Y., by Theodore Werner, representative in trust, Rochester, N. Y. Filed Aug. 27, 1914. Serial No. 858,974. (Cl. 107—10.)

1. A candy-forming machine provided with a supporting-roller and two forming-rollers between which a body of candy is cut and rolled, and with means for rotating the forming-rollers both in the same direction; the machine being characterized by the fact that said means are constructed and adapted to rotate that forming-roller of which the operative portion of the periphery moves toward the supporting-roller at a higher peripheral velocity than that of the other forming-roller.



2. In a candy-forming machine provided with a supporting-roller and two forming-rollers between which a body of candy is cut and rolled, and with means for rotating the forming-rollers both in the same direction; means for moving one forming-roller away from and toward the other forming-roller to permit the introduction of, and the application of pressure to, a body of candy, and means for rotatably supporting the supporting-roller in substantially fixed relation to that one of the forming-rollers of which the operative portion of the periphery moves away from the supporting-roller, so that the supporting-roller may cooperate with said forming-roller in discharging the formed candy when the other forming-roller is moved away.

3. A candy-forming machine provided with a supporting-roller and two forming-rollers between which a body of candy is cut and rolled, and with means for rotating the forming-rollers both in the same direction; the machine being characterized by the fact that said means are constructed and adapted to rotate that forming-roller of which the operative portion of the periphery moves toward the supporting-roller at a higher peripheral velocity than that of the other forming-roller, and that the supporting-roller is rotatably supported at a substantially fixed distance from the plane of the axes of the forming-rollers during the forming operation.
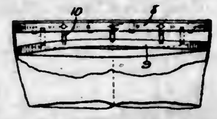
4. A candy-forming machine provided with a supporting-roller and two forming-rollers between which a body of candy is cut and rolled, means for rotating the forming-rollers both in the same direction, means for moving at least one of the forming-rollers away from and toward the other forming-roller to permit the introduction of, and the application of pressure to, a body of candy between the forming-rollers; and spring means operating automatically to return the one forming-roller toward the other so as to subject the candy to a predetermined pressure during the forming operation.

5. A candy-forming machine provided with a supporting-roller and two forming-rollers between which a body of candy is cut and rolled, means for rotating the forming-rollers both in the same direction, means for moving at least one of the forming-rollers away from and toward the other forming-roller to permit the introduction of, and the application of pressure to, a body of candy between the forming-rollers; and spring means acting automatically to return the one forming-roller toward the other with a predetermined force so as to subject the candy to a predetermined pressure during the forming operation.

[Claims 6 and 7 not printed in the Gazette.]

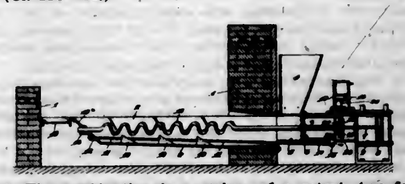
1,206,070. BELT. JOSEPH S. WOHLGEMUTH, Pittsburgh, Pa. Filed Apr. 4, 1916. Serial No. 88,808. (Cl. 241—9.)

1. A belt for holding up trousers comprising an upper flexible belt element formed of a single length of straight material capable of surrounding the waist of the wearer, a lower belt element formed of a single length of elastic material capable of being positioned around the body of the wearer below the stomach, spaced flexible hangers permanently secured at their lower ends to said elastic element and removably connected at their upper ends with said flexible element, independent means for securing the ends of each belt element together, and said lower element from its center toward each end inclining downwardly with respect to said upper belt element to facilitate the positioning of the lower belt element below the stomach.



2. A belt for holding up trousers comprising an upper flexible belt element formed of a single length of straight material capable of surrounding the waist of the wearer, a lower belt element formed of a single length of elastic material capable of being positioned around the body of the wearer below the stomach, spaced flexible hangers permanently secured at their lower ends to said elastic element and removably connected at their upper ends with said flexible element, independent means for securing the ends of each belt element together, and said lower element from its center toward each end inclining downwardly with respect to said upper belt element to facilitate the positioning of the lower belt element below the stomach, said upper belt element provided throughout with button holes for connecting said element to buttons secured on the trousers.

1,206,071. AUTOMATIC STOKER. GEORGE W. WOOD, Camden, N. J. Filed Feb. 15, 1916. Serial No. 78,342. (Cl. 110—44.)



1. The combination in a stoker, of a retort, two feed worms located at opposite sides of the retort, means for rotating said worms in opposite directions, and means for supplying fuel to the feed worms, substantially as described.

2. The combination in a stoker, of a retort, two feed worms located at opposite sides of the retort, means for rotating said worms in opposite directions, means for supplying fuel to the feed worms, and reciprocating boosters located between the feed worms, substantially as described.

3. In an automatic stoker, the combination with a retort, of a pair of longitudinally positioned feed worms located in the retort and operative through the body of fuel, a reciprocating member, ratchet wheels secured to turn with the worms and having oppositely pitched teeth, and pawls engaging the teeth on oppositely disposed portions of the ratchet wheels, said pawls being operated by said member, substantially as described.

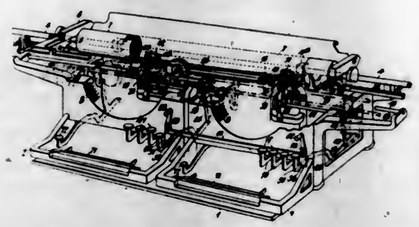
4. In an automatic stoker, the combination with a retort, of a pair of longitudinally positioned feed worms located in the retort and operative through the body of fuel, a reciprocating member, ratchet wheels secured to turn with the worms and having oppositely pitched teeth, arms loose on the worms, pawls connected to the arms and engaging the teeth on oppositely disposed portions of the ratchet wheels, and links connecting the arms with said member, substantially as described.

5. In an automatic stoker, the combination of a retort, two feed worms rotatably mounted in said retort and spaced apart, a rod movable in a plane extending between said feed worms and said rod having portions thereon

forming boosters for raising fuel between and into contact with said feed worms, means for rotating said feed worms, and means for reciprocating said rod, said feed worms and boosters co-acting to both convey and raise the body of fuel upwardly through said retort, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,206,072. TYPE-WRITING MACHINE. SUKESHIGE YANAGIWARA, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 1, 1915. Serial No. 5,344. (Cl. 197—5.)



1. The combination of two type systems, each having a keyboard, a carriage mounted to coöperate with either type system, a rack on said carriage, two escapement mechanisms for coöperation with said rack, one of said escapement mechanisms for each of said type systems, and shiftable means for silencing either escapement mechanism.

2. The combination of two type systems, each having a keyboard, a carriage mounted to coöperate with either type system, a rack on said carriage, two escapement mechanisms for coöperation with said rack, one of said escapement mechanisms for each of said type systems, and shiftable means for silencing either escapement mechanism and concomitantly bringing the other into use.

3. The combination with a carriage and two escapement mechanisms therefor, of separate type systems respectively controlling said escapement mechanisms, and shiftable means for silencing either of said escapement mechanisms and concomitantly bringing the other into use.

4. The combination of two type systems, each having a keyboard, a carriage mounted to coöperate with either type system, a rack on said carriage, two escapement mechanisms for coöperation with said rack, one of said escapement mechanisms for each of said type systems, and means for dissociating each of said escapement mechanisms from said rack.

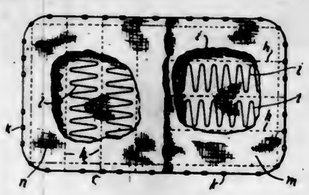
5. The combination of two type systems, each having a keyboard, a carriage mounted to coöperate with either type system, a rack on said carriage, two escapement mechanisms for coöperation with said rack, one of said escapement mechanisms for each of said type systems, and means for dissociating each of said escapement mechanisms from said rack; each escapement including a pinion to mesh with said rack, and said dissociating means including a device for disengaging its pinion from said rack.

[Claims 6 to 20 not printed in the Gazette.]

1,206,073. SEAT-SPRING. LEONARD A. YOUNG, Highland Park, Mich. Filed Feb. 25, 1916. Serial No. 80,499. (Cl. 155—25.)

1. In a spring construction, the combination of a plurality of springs, means upon which the springs are carried, and a webbing for laying over the tops of the springs and provided with a reinforcement in the form of flat springs elastic in one direction stretched over the tops of the springs.

2. In a spring construction, the combination of a plurality of spiral springs, means for carrying the same, and a pocketed fabric having flat extensible springs in the said pockets, the said pocketed fabric being arranged over the tops of the spiral springs.



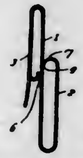
3. In a spring construction, the combination of a plurality of spiral springs, means for carrying the same, and a webbing comprising a fabric provided with pockets extending from one side of the spring construction to another, and having flat zig-zag springs located in the said pockets.

4. In a spring construction, the combination of a plurality of spiral springs, means for carrying the same, and a webbing for stretching over the top of the springs, comprising a fabric sewed with parallel lines of stitching to form parallel extending pockets and provided with zig-zag springs located in said pockets.

5. In a spring construction, the combination of a plurality of spiral springs, means for carrying the same, and a webbing for stretching over the tops of the spiral springs, comprising a two-layer fabric stitched to form pockets and provided with zig-zag springs contained in said pockets.

[Claims 6 to 14 not printed in the Gazette.]

1,206,074. KEY-HOOK. ALOIS ZWIENER and WILLIAM A. BAYNER, Pittsburgh, Pa. Filed Oct. 21, 1915. Serial No. 57,137. (Cl. 24—3.)



1. As a new article of manufacture a hook formed from a strip of sheet metal and bent to provide an elongated intermediate portion and a front and rear portion, said front portion arranged forward and of the forward face of the intermediate portion and connected by curved bend with the lower terminus of said intermediate portion, said front portion including a curved part abutting against the forward face of the intermediate portion, said rear portion depending from the upper terminus of said intermediate portion and connected therewith by a curved bend, and said rear portion having a curved part abutting against the rear face of the intermediate portion, said front and rear portions of less length than the length of the intermediate portion.

2. As a new article of manufacture a hook formed from a strip of sheet metal and bent to provide an elongated intermediate portion and a front and rear portion, said front portion arranged forward of the forward face of the intermediate portion and connected by curved bend with the lower terminus of said intermediate portion, said front portion including a curved part abutting against the forward face of the intermediate portion, said rear portion depending from the upper terminus of said intermediate portion and connected therewith by a curved bend, and said rear portion having a curved part abutting against the rear face of the intermediate portion, said front and rear portion of less length than the length of the intermediate portion, said curved part of said rear portion positioned above the lower terminus of said rear portion.

1,206,075. PROCESS FOR RUST-PROOFING METAL. WILLIAM H. ALLEN, Detroit, Mich., assignor to Parker Rust Proof Company of America, Detroit, Mich., a Corporation of Michigan. Filed Aug. 21, 1915. Serial No. 46,721. (Cl. 148—41.)

1. The process of rendering articles of iron and steel rust-proof, which consists in immersing the same in a phosphoric acid solution of a manganese phosphate.

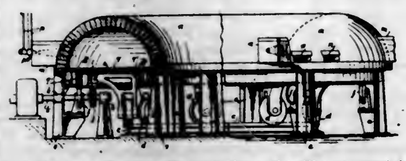
2. The process of rendering articles of iron and steel rust-proof, which consists in immersing the same in a solution of phosphoric acid in which manganese phosphate has been dissolved to saturation.

3. The process of rendering articles of iron and steel rust-proof, which consists in immersing the same in a solution of phosphoric acid in which manganese phosphate has been dissolved to saturation, until hydrogen ceases to be evolved by the chemical action in the bath.

1,206,076. PLASTIC COMPOSITION. OSCAR ALTPETER, Milwaukee, Wis. Filed Jan. 8, 1915. Serial No. 1,155. (Cl. 106—31.)

As a new article of manufacture, a composition of matter for roofing and the like comprising the following ingredients in approximately the gravimetric proportions specified: asbestos, 58 parts; rock asphalt, 20 parts; gum asphalt, 10 parts; refined tar pitch, 10 parts.

1,206,077. FURNACE. FRANK J. ARDNER, Detroit, Mich. Filed Feb. 3, 1916. Serial No. 75,913. (Cl. 263—35.)



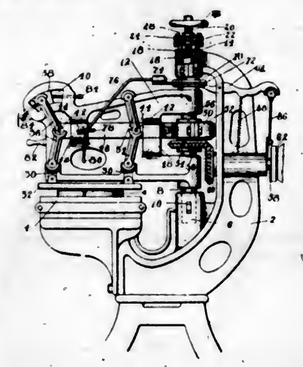
1. A furnace for treating steel or the like, comprising a conduit of refractory material, a movable bottom for the conduit comprising a metallic plate, refractory material covering the top surface of said plate, channeled flanges depending from the side edges of said plate, and refractory members disposed and projecting above the plate to retain said refractory material thereupon.

2. A furnace for treating steel or the like, comprising an annular conduit of refractory material, an annular rotatable table forming the bottom for the conduit, said table consisting of a plurality of segmental metallic plates connected at their ends, refractory material covering the top surface of said plates, channeled flanges depending from the side edges of said plates, and refractory members disposed in the channel of said flanges and projecting above the plates to retain said refractory material thereupon.

1,206,078. CLICKING-MACHINE. ORRELL ASHTON, deceased, Swampscott, Mass., by Hannah Ashton, executrix, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 13, 1916. Serial No. 83,882. (Cl. 164—19.)

1. A machine of the class described comprising, in combination, a cutting bed, an arm extending over the bed, a presser member supported by said arm, and operating means for moving said member relatively to the arm to effect a cutting operation, said operating means being constructed and arranged to effect a greater relative movement between the arm and one end of said member than between the arm and the other end of said member.

2. A machine of the class described comprising, in combination, a cutting bed, an arm supported at one side of the bed and projecting over the bed, a presser member supported by said arm and projecting over the bed, and operating means for moving said member relatively to the arm to effect a cutting operation, said operating means being constructed and arranged to effect a greater relative movement between the arm and the outer projecting end of the presser member than between the arm and the other end of said member.



3. A machine of the class described comprising, in combination, a cutting bed, an arm supported at one side of the bed and projecting over the bed, a presser member supported by said arm, and operating means for moving said member relatively to the arm to effect a cutting operation, said means comprising connections between different portions of said member and arm, said connections having different respective ranges of operative movement to compensate for the tendency for different portions of the arm to yield unequally.

4. A machine of the class described comprising, in combination, a cutting bed, an arm pivoted for movement over the bed about an axis substantially perpendicular to the plane of the bed, a presser member carried by said arm and movable therewith to different positions corresponding to different locations of a die on the bed, and operating means for moving the presser member relatively to the arm to effect a cutting operation, said operating means comprising connections to different portions of the presser member and including a connection to that end of the presser member which is the more remote from the axis of said arm, said last named connection having a relatively greater range of operative movement to compensate for the tendency of the outer end of the arm to yield under resistance in the cutting operation.

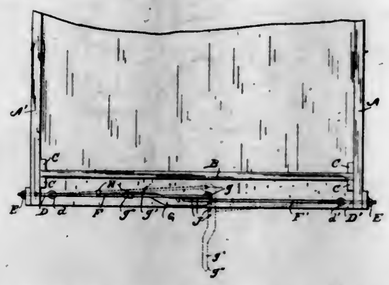
5. A machine of the class described comprising, in combination, a cutting bed, an arm supported at one end and movable over the bed to different positions corresponding to different locations of a die with respect to the bed, a presser member carried by said arm, and operating means for moving the presser member relatively to the arm to cause the die to cut the stock, said means comprising connections to opposite ends of the presser member, the connection to that end of said member which is the more remote from the point of support of said arm having a relatively greater range of operative movement to compensate for the tendency of the outer projecting end of the arm to yield under resistance in the cutting operation.

[Claims 6 to 30 not printed in the Gazette.]

1,206,079. END-GATE FASTENING FOR WAGONS. HOMER A. BEALS, Fort Atkinson, Wis. Filed Aug. 9, 1915. Serial No. 44,385. (Cl. 21—21.)

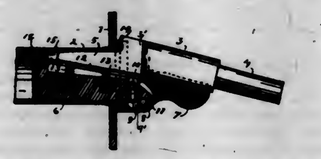
1. The combination with the side walls of a wagon body, of a set of links each connected with one of said walls, a lever pivotally connected with one of said links and adapted to swing through the other link, said lever having a series of notches in any one of which the end of said other link may engage, and a free end portion offset in a position to swing through the link to which it is

pivoted when the lever is in clamping position at maximum pressure, and a sliding holding member connected with the link to which the lever is pivoted and adapted to engage one side of the offset portion of the lever when the lever is swung to a position substantially parallel with the links, the extremity of said lever having a projection to engage the holding member and prevent it from slipping away from said offset portion.



2. An end gate fastening for wagons comprising a pair of end members adapted to adjustably engage the side walls of a wagon body, a link pivotally secured to each of said end members, a lever pivoted to one of the links and adapted to swing through both of the links, said lever having a series of notches in which one of the links may engage, a lever engaging slide mounted on the link to which the lever is pivoted, and a projection on the free end of said lever and on the side thereof opposite said notches, said projection being located in a position to be engaged by said lever engaging slide, substantially as described.

1,206,080. FLUE-CALKING MACHINE. JOHN F. BECK, Grand Rapids, Mich. Filed Mar. 25, 1916. Serial No. 86,813. (Cl. 153—81.)

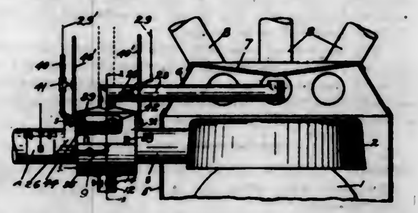


1. In combination with an ordinary tool for calking the ends of locomotive boiler tubes, a cylindrical body fitted to enter the end of the tube, and having a longitudinal slot therein, a slotted flange integral with said body and having an annular groove therein, semicircular in cross section, a ledge projecting over the back end of the groove, a supporting plate pivotally and slidably mounted in the groove, springs for forcing said plate against the surface of the tool to force its other edge against the inner surface of the tube.

2. In combination with an ordinary tool for calking the ends of tubes in locomotive boilers, a cylindrical body made to fit into the end of the tube and having a longitudinal slot in from one side, a ledge extending over one end of the slot, a plate adjustably secured in the slot, springs for forcing said plate outward, a flange integral with the body and having an annular groove adjacent to the body, and a handle adjustably mounted on the body and adapted to engage with, and support the tool.

1,206,081. AIR-HUMIDIFIER. CHRISTIAN BECKER and FRANK D. KLEINHEKSEL, Holland, Mich. Filed Mar. 8, 1916. Serial No. 82,974. (Cl. 126—113.)

1. The combination of a furnace having an inclosing casing, a smoke pipe leading therefrom, a check damper for said smoke pipe, a vapor casing disposed to be heated by said pipe and to the furnace side of said check damper, damper means for admitting air to said vapor casing, a supply tank for delivering water to the said vapor casing, a float valve for regulating and controlling the level of the water in said vapor casing, a conduit leading from said vapor casing into the said furnace casing for humidifying the air delivered from said furnace, and damper means in the said conduit for regulating the delivery of the vapor.



2. The combination of a furnace having an inclosing casing, a smoke pipe leading therefrom, a vapor casing disposed to be heated by said pipe, damper means for admitting air to said vapor casing, a supply tank for delivering water to the said vapor casing, a float valve for regulating and controlling the level of the water in said vapor casing, a conduit leading from said vapor casing into the said furnace casing for humidifying the air delivered from said furnace, and damper means in the said conduit for regulating the delivery of the vapor.

3. The combination of a furnace having an inclosing casing, a smoke pipe leading therefrom, a vapor casing disposed to be heated by said pipe, means for admitting air to said vapor casing, a supply tank for delivering water to the said vapor casing, a float valve for regulating and controlling the level of the water in said vapor casing, a conduit leading from said vapor casing into the said furnace casing for humidifying the air delivered from said furnace, and damper means in the said conduit for regulating the delivery of the vapor.

4. The combination of a furnace having an inclosing casing, a smoke pipe leading therefrom, a vapor casing disposed to be heated by said pipe, means for admitting air to said vapor casing, a supply tank for delivering water to the said vapor casing, a float valve for regulating and controlling the level of the water in said vapor casing, and a conduit leading from said vapor casing into the said furnace casing for humidifying the air delivered from said furnace.

5. The combination of a furnace having an inclosing casing, a smoke pipe leading therefrom, a vapor casing disposed to be heated by said pipe, means for admitting air to the said vapor casing, a supply tank for delivering water to the said vapor casing, a conduit leading from said vapor casing into the said furnace casing for humidifying the air delivered from said furnace, and damper means in the said conduit for regulating the delivery of the vapor.

[Claims 6 to 25 not printed in the Gazette.]

1,206,082. WIND-SHIELD. RUDOLPH P. BECKER and OSCAR P. BECKER, Milwaukee, Wis. Filed Sept. 27, 1915. Serial No. 52,781. (Cl. 21—148.)

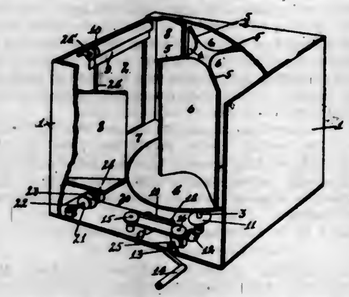
1. In a device of the described class, the combination with the hood of a motor cycle side car, of a bracket, a movable rod adjustably secured at one end to said bracket, a rectangular frame adjustably secured to the opposite end of said rod, a transparent member secured to said frame, a flexible fabric secured at one end to said hood and at its opposite end to said frame and to the sides of said car, all substantially as and for the purpose specified.

2. In a device of the described class, the combination with the hood of a motor-cycle car, of a rod adjustably secured at one end to said hood, a frame secured to the opposite end of said rod, a transparent member secured to said frame, a flexible fabric secured at one end to said



hood, at its opposite end to said frame, and to the sides of said car, all substantially as and for the purpose specified.

1,206,083. AUTOMATIC MERCHANDISE-DISPLAYER. JACOB W. BEHRENDT and BALAMBER BANGHA, San Francisco, Cal. Filed Dec. 14, 1914. Serial No. 877,121. (Cl. 211—21.)

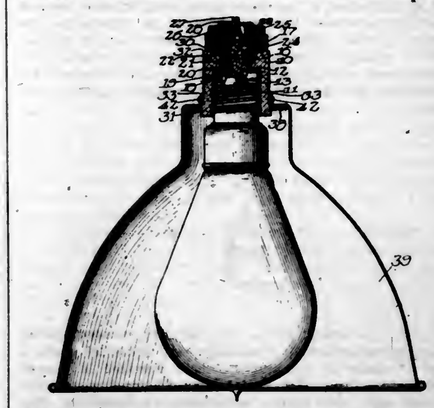


A merchandise displayer comprising a case having a sight-opening; a platform within the case, carrying a series of vertical partitions forming a plurality of display compartments; means for imparting to said platform an intermittent rotation to carry its compartments successively into view behind the sight-opening and there holding them at rest for a period; means to cover and uncover the sight-opening; and means for operating said last named means to cover the opening during the movement of the compartments and to uncover the opening during their rest period.

1,206,084. SHADE-SUPPORTING LAMP-SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Mfg. Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 1, 1912. Serial No. 681,002. (Cl. 173—358.)

1. A pendant electric lamp socket comprising, in combination, an integral insulating base having a lamp engaging socket, lamp-terminal-engaging contacts mounted on the front side of said base in said socket, binding terminals mounted on the rear side of said base, a one-piece insulating cap removably secured directly to said base and covering said binding terminals, said base and said cap being formed so as to grip the lead wires between them when said cap is secured directly to said base, said cap having a single opening therethrough for the leads from said terminals.

2. A pendant electric lamp socket comprising, in combination, a one-piece integral insulating base having an internally screw-threaded shoulder at its rear side and having an internally threaded lamp-engaging socket in its front side, lamp-terminal-engaging contacts mounted on the front side of said base, binding terminals mounted on the rear side of said base, and a one-piece screw-threaded insulating bushing adapted to screw into the shoulder of said base, so as to cover said binding terminals, said base and said bushing being formed so as to grip the lead wires between them when said bushing is screwed into said shoulder, said bushing having a single opening therethrough for the leads from said terminals.



3. A pendant electric lamp socket comprising, in combination, a one-piece integral insulating base having a projection at the rear side thereof and having an internally threaded lamp-engaging socket in its front side, lamp-terminal-engaging contacts mounted on the front side of said base in said socket, binding terminals mounted on the rear side of said base, and a one-piece cap having screw-threaded connection with said base and covering said binding terminals, said cap having a single aperture therein for the passage of lead wires therethrough, such aperture being located with respect to the projection of said base so that the lead wires will be clamped between the edge of such aperture and said projection.

4. A pendant electric lamp socket comprising, in combination, a one-piece integral insulating base having an internally screw-threaded shoulder at its rear side, a lamp-engaging socket at its front side and also having a projection at its rear side, lamp-terminal-engaging contacts mounted on the front side of said base, binding terminals mounted on the rear side of said base, and a one-piece screw-threaded bushing adapted to be screwed into said shoulder so as to cover said binding terminals, said bushing having a single aperture for permitting the passage of lead wires therethrough, such aperture being positioned with respect to said projection so that the lead wires will be clamped between said projection and the edge of such aperture.

5. A pendant electric lamp socket comprising, in combination, a one-piece insulating base having an internally screw-threaded shoulder at the rear side thereof and also having a frusto-conical projection at the rear side thereof, binding terminals mounted on the rear side of said base, and a one-piece screw-threaded bushing adapted to be screwed into said shoulder so as to cover said binding terminals, said bushing having an aperture for permitting the passage of lead wires therethrough, such aperture being positioned with respect to said projection so that the lead wires will be clamped between said projection and the edge of such aperture.

[Claim 6 not printed in the Gazette.]

1,206,085. CONDUCTOR-GRIP. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Mfg. Company, Chicago, Ill., a Corporation of Illinois. Original application filed Nov. 18, 1910, Serial No. 592,989. Divided and this application filed Apr. 19, 1912. Serial No. 691,967. (Cl. 173—322.)

1. An electrical fixture comprising a binding terminal for a conductor, a conductor grip comprising a plurality of members adapted to grasp the conductor between them when said members are forced together, releasable means

for forcing said members together, and means for separating said members when said last-named means is released.

2. An electrical fixture comprising a binding terminal for a conductor, a conductor grip comprising a pair of oppositely disposed members adapted to grasp the conductor between them when said members are forced together, releasable means for forcing said members together, and springs disposed between said members for separating the same when said last-named means is released.



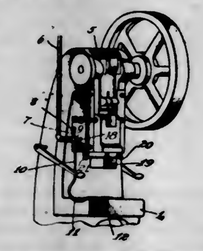
3. In an electrical device, an insulating member, casing means therefor including two separably connected parts, a pair of conductor gripping members mounted in one of said parts and means for retaining said gripping members in said part, said means comprising an insulating disk permanently secured in said part and having a longitudinal movement therein.

4. In an electrical device, the combination with casing means comprising a pair of endwise separable portions, of a conductor-carrying member disposed in said casing, a plurality of conductor-gripping members mounted in one of said casing portions, means for forcing said gripping members together in gripping engagement with a cord when one of said casing portions is moved toward the other, and means for securing said gripping members in position when the casing portions are separated.

5. In an electrical device, the combination with casing means comprising a pair of endwise separable portions, of a conductor-carrying member disposed in said casing, a plurality of conductor-gripping members mounted in one of said casing portions, means for forcing said conductor-gripping members together in gripping engagement with a cord when one of said casing portions is moved toward the other, means tending to normally separate said conductor gripping members, and means for securing said conductor gripping members in position when said casing portions are separated.

[Claims 6 to 9 not printed in the Gazette.]

1,206,086. APPARATUS FOR DELIVERING AN INTERMITTENT AIR-BLAST. REUBEN B. BENJAMIN and WILLIAM COTTRELL, Chicago, Ill., assignors to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 2, 1914. Serial No. 822,082. (Cl. 164—86.)



1. An apparatus for delivering an intermittent air blast, adjacent the material operated on by an intermittently operated machine comprising the combination with a valve, of a reciprocating member, means associated therewith for opening said valve at desired intervals, and adjustable means for varying the duration and extent of said opening thereby to vary the duration and intensity of the blast.

2. An apparatus for delivering an intermittent air blast, adjacent the material operated on by an intermittently operated machine comprising the combination with a valve, of a reciprocating member, means associated therewith for opening the valve at desired intervals, adjustable means for varying the time of said opening with respect to the position of said reciprocating member, and adjustable means for varying the intensity and duration of the blast delivered.

3. In an apparatus for delivering an intermittent air blast, a valve having a stem protruding from the valve casing, a reciprocating member having a tripper associated therewith, a stem-displacing member associated with said valve stem and operated by said tripper to open the valve, and means for varying the position of said tripper with respect to said stem-displacing member to vary the intensity and duration of said air blast.

4. In an apparatus for delivering an intermittent air blast, a valve having a stem protruding from the valve casing, a reciprocating member having a tripper associated therewith, a stem-displacing member associated with said valve stem and operated by said tripper to open said valve, means for varying the position of said tripper with respect to the position of said reciprocating member to vary the time of said air blast with respect to the stroke of said member, and means for varying the position of said tripper with respect to said stem-displacing member to vary the intensity and duration of said air blast.

5. In an apparatus for delivering an intermittent air blast, a valve having a stem protruding from the valve casing, a reciprocating member having associated therewith a vertically and angularly adjustable tripper, and a stem-displacing tripper-operated member associated with said valve stem.

[Claims 6 to 11 not printed in the Gazette.]

1,206,087. SPIKE. JAMES H. BENEDICT, Detroit, Mich. Filed May 22, 1916. Serial No. 99,047. (Cl. 85—19.)

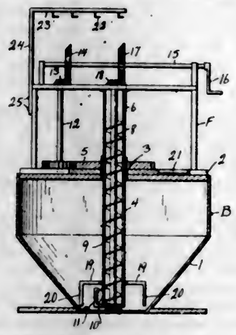


1. A spike comprising a channel shaped shank, having walls of equal thickness beveled at one end of the spike with a beveled edge of two of the walls terminating at the beveled edge of the other wall to provide a pointed shank end, a head at the opposite end of said shank, and a liquid shedding member carried by the side and outer faces of said shank contiguous to said head.

2. A spike comprising a channel shaped shank having opposed walls at one end thereof beveled and the connecting wall of said opposed walls beveled inwardly to provide a flat pointed end extending bellow the beveled ends of the opposed walls of said spike, a head at the opposite end of said shank, a filler under said head between the opposed walls of said spike, a depending retaining member carried by said head adapted for engagement in the base flange of a rail, and a liquid shedding member carried by the three walls of said shank contiguous to said head.

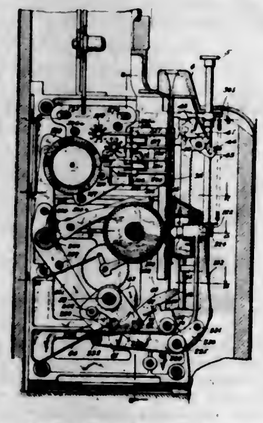
1,206,088. DISPENSING APPARATUS. WILLIAM L. BOATRIGHT, Glendale, Tenn. Filed Feb. 5, 1916. Serial No. 76,432. (Cl. 193—13.)

A dispensing apparatus comprising a base plate, a sleeve rotatably supported thereby and depending therefrom and having its lower end closed and provided with an opening in a side thereof adjacent the closed end, a shaft disposed through the sleeve and provided with a spiral flange, means for rotating the shaft and sleeve in unison but in opposite directions, a shield carried by the



sleeve and overlying the opening in the sleeve, and outstanding arm carried by the sleeve at a point above the opening in the sleeve and terminating in depending extensions, said arms and extensions serving as agitating means.

1,206,089. TIME-RECORDER. JAMES W. BAYCE, Brooklyn, N. Y., assignor to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed July 31, 1915. Serial No. 43,023. (Cl. 234—43.)



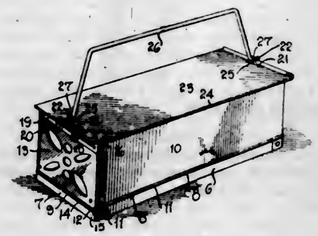
1. In a time recording mechanism, the combination with a driving clock train, of disks representing by type thereon different time units, of means for impressing on a suitable surface from each type the time of an operation of the machine, cylinders movable in a plane at right angles to their axes, and having radially projecting pins set therein, time indicating punches adapted to be operated by the engagement therewith of the pins, and connections between the pin cylinders and the driving clock train whereby at the hours and fraction of an hour the said cylinders will be rotated to bring the appropriate pins to operative position.

2. In a time recording mechanism, the combination with a driving clock train, of disks representing by type thereon different time units and means for impressing on a suitable surface from such type the time of an operation of the machine, of cylinders movable in a plane at right angles to their axes, having radially extending pins set therein, time indicating punches in the path of said pins and extra wheel connections between the said cylinders and the clock train, whereby at hours and fractions of one hour the pin cylinders will be rotated to bring the appropriate pins to their operative position without interfering with the lateral movement of the cylinders.

3. In a time recording mechanism, the combination with a series of punches of a clock train and groups of rotary punch selectors movable bodily with respect to the normal position of said punches, extensible driving shafts between the clock train and the punch selectors whereby the latter are continuously moved to present those selectors appropriate to a given time to operative position, and means for bringing the punches and selectors into operative relation.

4. In a time recording mechanism, the combination with a driving clock train, time card printing wheels, operated thereby, punch selecting devices also operated by the driving clock train, of a series of punches, means for positively forcing the same forward and back through a card to be perforated, and means for locking the punching and the printing mechanism except while the cards to be marked are in the proper operative position for that purpose.

1,206,090. FOLDING EGG-CRATE. EMMETT PRICE CARPER and LANE STRICKLER PATTERSON, Fordwick, Va. Filed Apr. 17, 1916. Serial No. 91,731. (Cl. 220—17.)

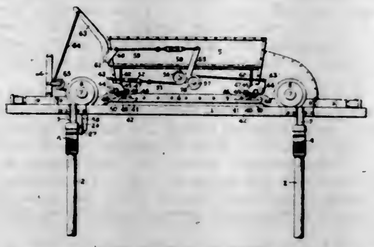


In a folding crate, a bottom wall having upstanding marginal flanges, side and end walls hingedly mounted upon said marginal flanges, said side and end walls being provided with means upon their vertical edges for interlocking connection with each other to hold said walls in their erect positions, said side walls being each provided with a bead upon its free longitudinal edge, a removable top having inwardly curved flanges on its longitudinal edges for engagement with said beads, said side and end walls being foldable upon the bottom wall between the marginal flanges thereon, said top being provided with slots in its opposite ends, bail eyes vertically movable upon the ends of the crate and adapted for engagement through the respective slots, a bail having terminal studs adapted to be engaged through said eyes, whereby the cover is held against sliding movement, and the curved flanges on said top being adapted for sliding engagement with the hinge knuckles connecting the side walls to the bottom of the crate to retain the sides and ends of the crate in their superposed folded positions.

1,206,091. ORE-CAR. WILLIAM C. CARR, Buffalo, N. Y. Filed Apr. 16, 1913. Serial No. 761,452. (Cl. 246—59.)

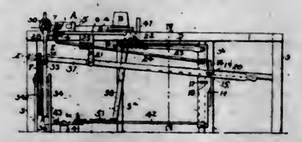
1. The combination of a car arranged for travel on a track, of braking mechanism for said car, means carried by the car for automatically actuating the braking mechanism, a member connected with said means, a lock for normally holding the member inoperative, means carried by the track for releasing the lock, and additional means carried by the track for actuating the member to restore the lock.

2. The combination of a car arranged for travel on a track, of braking mechanism for said car, means carried by the car for automatically actuating the braking mechanism, a lever controlled by the actuating means, a shaft carried by the car, a lug carried by the shaft and normally interposed in the path of the lever to prevent such movement of the lever as will permit operation of the ordinary brake setting means, and a stop secured to the track to operate the shaft to move the lug beyond the path of movement of the lever.



3. The combination of a car arranged for travel on a track, of braking mechanism for said car, means carried by the car for automatically actuating the braking mechanism, a lever controlled by the actuating means, a shaft carried by the car, a lug carried by the shaft and normally interposed in the path of the lever to prevent such movement of the lever as will permit operation of the ordinary brake setting means, and a stop secured to the track to operate the shaft to move the lug beyond the path of movement of the lever, and additional means carried by the track to swing the lever to a position to be again engaged by the lug.

1,206,092. SAFETY MECHANISM FOR WIRE-MACHINES. JOHN CETNAROWSKI, Monessen borough, Pa. Filed Apr. 14, 1916. Serial No. 91,071. (Cl. 205—16.)



1. In combination with a wire mill provided with a winding block and a die through which said block draws the wire, said die being movable toward and away from said block and being normally held in proximity thereby by the tension of the wire, clutch mechanism for the application of power to said block, a locking device adapted to hold said clutch mechanism in its operative position, resilient connection between said locking device and the frame of the mill tending to disengage said locking device, and operative connection between said locking device and said die whereby said locking device is held in its engaged position when the wire is being drawn through said die but said locking device is disengaged by said resilient connection when the wire tension is interrupted.

2. In combination with a wire mill provided with a winding block and a die through which said block draws the wire, said die being movable toward and away from said block and being normally held in proximity thereto by the tension of the wire, clutch mechanism for the application of power to said block, means engaging said clutch mechanism and tending to disengage it from its operative position, a locking member normally engaging said clutch mechanism to hold it in its operative position, spring means engaging said locking member and tending to throw the latter out of engagement with said clutch member, and operative connection between said die and said locking member whereby while the wire tension is maintained said locking member is held in its operative position but when said tension is interrupted said locking member is released and is thrown by said spring means into its inoperative position.

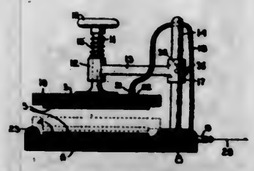
3. In a wire machine, a die, a block adapted to draw the wire through said die, power mechanism adapted to be connected to said block to rotate the latter, a releasing lever adapted to disengage said block from said power mechanism, a second lever pivotally supported intermediate of its ends, operative connection between the lower end of said second lever and said releasing lever, and a perforated guide on the upper end of said lever through which the unsnarled wire passes freely but which will be engaged by a snarled portion of the wire swinging said second lever and causing said releasing lever to operate.

4. In combination with the die and winding block of a wire mill, clutch mechanism adapted to apply power to said block, a lever pivoted intermediate of its ends to swing in a plane at right angles to said mill, a stem pivoted to the upper end of said lever to swing in a plane parallel with said mill, a perforated guide mounted on the upper end of said stem through which the unsnarled wire passes freely but through which the snarled wire will not pass, and operative connection between the lower end of said lever and said clutch mechanism whereby when a snarled portion of the wire engages said guide and the lower end of said lever is swung away from the mill said clutch mechanism is thrown into its inoperative position rendering said block idle.

5. In combination with the die of a wire mill, a guide head for the wire provided with a relatively large opening for the free passage of the wire to the die, and a face plate provided with a small hole for the passage of the unsnarled wire to said die mounted to shift over the opening in said guide head.

[Claim 6 not printed in the Gazette.]

1,206,093. ELECTRIC PAD-HEATING DEVICE. RALPH W. CHAPMAN, Oldtown, Me., assignor of one-half to T. M. Chapman's Sons' Company, Oldtown, Me., a Corporation of Maine. Filed Dec. 24, 1915. Serial No. 68,512. (Cl. 219—19.)



1. In a device for heating moistened pads, the combination with two flat-faced electrodes insulated from each other and between which the moist pads may be placed, means supporting said electrodes for movement toward and from each other, and circuit connections by which the electrodes may be connected to a source of current supply, whereby the circuit is completed through the pad placed between the electrodes.

2. In a device of the class described, the combination with a pad-supporting electrode, of a coöperating electrode movable toward and from the pad-supporting electrode but insulated therefrom, means to guide the movable electrode in its movement, and means to limit the movement of the movable electrode toward the pad-supporting electrode so as to prevent said electrodes from coming into contact when there is no pad interposed between them.

3. In a device of the class described, the combination with two flat-faced electrodes between which the moist pads may be placed, means supporting said electrodes for movement toward and from each other, said supporting means having provision for insulating the electrodes from each other, means to limit the movement of the electrodes toward each other so as to prevent their coming in contact when there is no pad interposed between them, and means connecting said electrodes to a source of current supply.

4. In a device of the class described, the combination with a base, of a pad-supporting electrode sustained thereby, a post rising from said base, an arm extending from said post, a head vertically movable in said arm, a coöperating electrode secured to the underside of said head, and circuit connections for connecting said electrodes to a source of current supply.

5. In a device of the class described, the combination with a base, of a pad-supporting electrode sustained thereby, a post rising from said base, an arm extending from said post, a head vertically movable in said arm, a coöperating electrode secured to the underside of said head, means to limit the movement of the head toward the pad-supporting electrode so as to prevent said electrodes from coming into contact, and circuit connections for connecting said electrodes to a source of current supply.

[Claim 6 not printed in the Gazette.]

1,206,094. BAROMETER. FRANCIS E. COLLINSON, London, England, assignor of one-half to Taylor Instrument Companies, Rochester, N. Y., a Corporation of New York. Filed Aug. 12, 1914. Serial No. 856,322. (Cl. 73—4.)



A barometer comprising a stationary dial and a movable indicator, an annular or ring-like index plate rotatable with relation to said dial and provided on its face with weather indicia extending or reading circularly of the axis of the index plate, the indicator being visible beyond the outer edge and within the inner edge of the index plate.

1,206,095. FLASH-LIGHT MACE. JOSEPH A. COX, Ludlow, Ky. Filed June 23, 1915. Serial No. 35,787. (Cl. 240—8.4.)

1. A mace comprising a solid main part, a hollow handle part, a lamp contained in the butt end of said handle part, a battery contained in said hollow handle part between said lamp and said solid part, an electrical connection between said battery and said lamp, and a switch included in and controlling said connection and comprising a switch lever inside said hollow handle and pivoted on said solid part, said hollow handle part having a transverse slot and said switch lever extending through said slot to be swung transversely therein for operating said switch.

2. A mace comprising a solid main part and a hollow handle part, a lamp in the butt end of said handle part, a battery contained in said hollow handle part between said lamp and said solid main part, an electrical connection between said battery and said lamp, a radially yieldable mounting for said lamp in said hollow part, and yieldable means between the mounting of said lamp and said battery.

3. A mace comprising a solid main part and a hollow handle part, a lamp in the butt end of said handle part, a battery contained in said hollow handle part between said lamp and said solid main part, an electrical connection between said battery and said lamp, a radially yieldable mounting for said lamp in said hollow part, yieldable means between the mounting of said lamp and said battery, and yieldable means between said battery and said solid part.



4. A mace comprising a solid main part and a hollow handle part, a lamp in the butt end of said handle part, a battery contained in said hollow handle part between said lamp and said solid main part, an electrical connection between said battery and said lamp, a radially yieldable mounting for said lamp in said hollow part, yieldable means between the mounting of said lamp and said battery, a switch inside said hollow part on said solid part, controlling said connection, and yieldable means between said battery and said switch.

5. A mace comprising a solid main part and a hollow handle part, a reflector mounted in the butt end of said handle part, a lamp mounted on said reflector, a battery mounted in said hollow handle part, means yieldably supporting said battery away from said solid part, an electrical connection between said battery and said lamp, and yieldable means between said battery and said reflector whereby the reflector yieldably supports the battery and relieves the lamp of the support of the battery.

[Claims 6 to 14 not printed in the Gazette.]

1,206,096. MILK-PAIL. LAURITS DINESEN, Minneapolis, Minn., assignor to Perfection Manufacturing Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Oct. 16, 1915. Serial No. 56,216. (Cl. 31—101.)

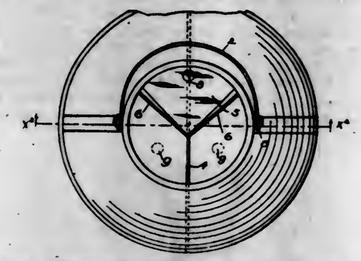
1. A liquid container having a partition dividing the same into two compartments, and a deflector extending on each side of said partition.

2. A liquid container having a discharge neck, a partition dividing the container into two compartments and extending into said discharge neck, and a deflector extending into said discharge neck from each side of the partition.

3. A liquid container having an annular discharge neck, a partition dividing the container into two compartments, and a segmental deflector extending on each side of the partition.

4. A liquid container having an annular discharge neck, a partition dividing the container into two compartments and extending into said discharge neck, and a segmental deflector extending into said discharge neck from each side of the partition and having its axis located in the plane thereof.

5. A liquid container having an annular discharge neck, a partition dividing the container into two compartments, and a deflector supported on said partition and extending



on each side thereof, said deflector being located slightly below the outer edge of the discharge neck.

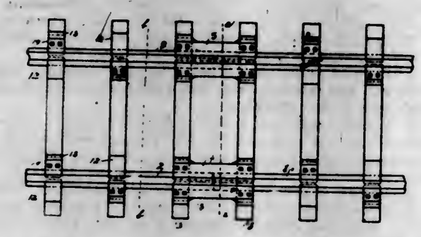
[Claims 6 to 10 not printed in the Gazette.]

1,206,097. SCREW-HOLDING SCREW-DRIVER. JOHN C. DOUST, Seattle, Wash. Filed Feb. 3, 1916. Serial No. 76,051. (Cl. 145—52.)



The combination in a screwdriver of a shank having duplicate, superimposed spring clips attached thereto, one of said clips being slotted and provided with contact surface for engagement with screw heads of one shape, and the other clip having a reduced contact surface occupying the slot of the first mentioned clip, for engaging the heads of screws of a different shape.

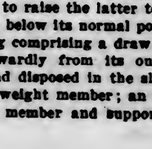
1,206,098. RAIL-FASTENER FOR RAILWAYS. WHITFIELD H. EDWARDS, Oakdale, La. Filed Apr. 27, 1915. Serial No. 24,206. (Cl. 238—4.)



1. In a device of the character described, including the combination with railway ties, of rails mounted thereon whose ends abut, upstanding projections integral with the ties on the opposite sides of the rails, said projections having undercut grooves, fish plates arranged on opposite sides of the abutting ends of said rails adapted to span from one tie to another, whose outer edges rest in said grooves and are secured to said tie and whose inner edges are upturned and rest against the corresponding side of the rail web.

2. In a device of the character described the combination with railway ties formed of I-beams of rails mounted thereon having abutting ends, upstanding projections integral with the ties and on opposite sides of the rail and spaced therefrom, whose inner sides have undercut grooves, fish plates spanning from one tie to the other arranged on opposite sides of said abutting ends, whose outer edges rest in said grooves and are bolted to the web of said I-beams and whose inner edges are formed to correspond to the contour of and rest against the adjacent sides of the rails and means for securing said plates to the rail webs.

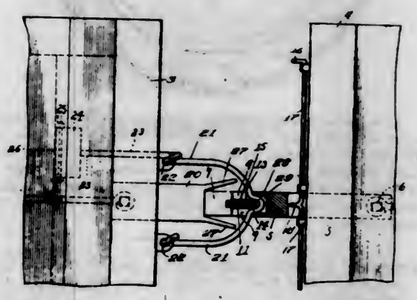
1,206,099. NUT-LOCK. JOSEPH ELGER, Chicago, Ill. Filed Jan. 3, 1916. Serial No. 70,019. (Cl. 151—14.)



1. The combination with a right and left hand threaded separate, single nut, of a T bolt stub end, having threads the opposite of a bolt thread; said bolt thread having socket means to receive the T stub end, substantially as described and shown.

2. The combination with a right and left hand threaded separate, single nut of a T bolt stub end having threads the opposite of a bolt thread, said bolt thread having socket means to receive the bolt stub end, said T stub end having a small opening that communicates with the socket means of threaded bolt, substantially as described and shown.

1,206,100. TRUCK-COUPLING. EDWARD FITZGERALD, Chicago, Ill. Filed Dec. 8, 1915. Serial No. 65,644. (Cl. 21—114.)



1. The combination with two trucks, of a draw bar head secured to one of the trucks and having a ball engaging slot therein; a ball pivoted to the other truck and adapted to engage said ball slot; a pivotally mounted weight member on one of the trucks having a shoulder limiting the pivotal movement of the member in one direction; and an arm on the ball engaging the weight member and adapted to raise the latter to permit the ball to swing downwardly below its normal position.

2. A truck coupling comprising a draw bar head having a slot extending inwardly from its outer end; a ball pivotally mounted and disposed in the slot of said head; a yieldably mounted weight member; an arm on said ball engaging the weight member and supporting the ball in substantially horizontal position when not in engagement with the draw bar head; and a catch locking the ball in the head.

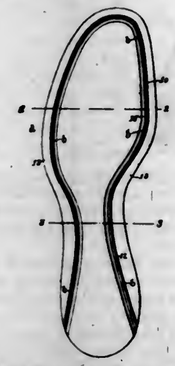
3. A truck coupling comprising a draw bar head having a slot extending inwardly from its outer end; a pivotally mounted ball adapted to engage the slot of said draw bar head; an arm on the ball; a yieldable member engaging the arm and normally holding the ball in position to be engaged by the slot of the draw bar head; and locking means in the draw bar head adapted to lock the ball in the slot of said head.

4. A truck coupling comprising a draw bar head having a slot extending inwardly from its outer end; a ball in the slot of said head; locking means in the head for locking the ball in the slot; and a bumper head adapted to engage the draw bar head and limit the movement of the ball into the slot.

5. In combination, two trucks; a draw bar head on one of the trucks having two diverging prongs thereon and a recess between the bases of the prongs; a ball on the other truck having a portion engaging said recess; and a bumper head on the last mentioned truck engaging one of the prongs of the draw bar head and limiting the movement of the ball into said recess, said bumper head also having prongs on its outer end engaging a prong of the draw bar head and coöperating with the ball and said recess to hold the trucks in substantial alinement when said trucks are moving down a grade.

[Claims 6 and 7 not printed in the Gazette.]

1,206,101. INSOLE. HOWARD W. GIBBS, Boston, Mass., assignor to J. Spaulding & Sons Co., Rochester, N. H., a Copartnership comprising Emma C. Spaulding and Marion L. Spaulding, Boston, Mass., Roland H. Spaulding and Huntley N. Spaulding, Rochester, N. H., and Leon C. Spaulding, Buffalo, N. Y. Filed July 26, 1915. Serial No. 41,847. (Cl. 36—22.)



1. An insole for welted boots and shoes composed of substantially non-stretchable fiber and provided with a lip having a fore part curved about a center on the inner side of the lip and transversely corrugated or crimped, and having a shank portion curved about a center outside of the lip and free from transverse corrugations or crimps for a major portion of its length.

2. An insole for welted boots and shoes composed of substantially non-stretchable-chemically-treated fiber and provided with a lip having a fore part curved about a center on the inner side of the lip and transversely corrugated or crimped, and having a shank portion curved about a center outside of the lip and free from transverse corrugations or crimps for a major portion of its length.

3. An insole for welted boots and shoes composed of substantially non-stretchable fiber and provided with a lip having a transversely crimped or corrugated fore part curved about a center outside of said lip.

4. An insole for welted boots and shoes provided with a lip having a transversely crimped or corrugated fore part curved about a center on the inner side of the lip and having a shank portion which is free from transverse corrugations or crimps for a major portion of its length and is curved about a center outside of the lip.

1,206,102. GLOVE. JOHN C. GIBSON, Akron, Ohio. Filed Feb. 4, 1915. Serial No. 6,106. (Cl. 2—9.)



1. A glove having a flute or corrugation between the thumb and forefinger forming a fullness and an air passage and having such flute extending outward along a side of the glove.

2. A glove having a flute extending along one side of the wrist portion of the glove and thence between the thumb and forefinger stall of the glove and thence along the under or forward side of the wrist portion of the glove, the said flute opening inwardly and affording a ventilating passage and a fullness.

3. As a new article of manufacture a rubber glove having flutes therein along the backs of the fingers and extending from the tips of such fingers to a point about in line with the wrist.

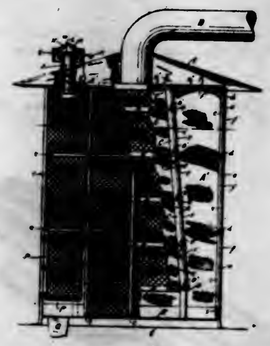
4. A glove provided with a flute extending along one of its fingers and substantially to the wrist, the said flute being imperforate and opening inwardly whereby to provide an air passage and a fullness.

1,206,103. DUST-COLLECTOR. ALFRED C. GOSTERL, Milwaukee, Wis. Filed Oct. 25, 1913. Serial No. 797,189. (Cl. 183—70.)

1. The combination with a dust pipe, of an initial dust collecting chamber having upwardly tapering walls and connected at its upper end with said pipe, an outer dust collecting chamber inclosing the inner dust collecting chamber, and having a closed bottom, said inner dust collecting chamber being wholly open and unobstructed at its lower end, and having walls terminating at a sufficient distance above the bottom of said chamber to provide an open and unobstructed space for the escape of air from the initial chamber to the space between said initial chamber and the outer wall without constriction, whereby the air may pass from the initial to the outer chamber without developing sufficient current to carry dust with it from the bottom of said outer chamber, substantially as described.

2. The combination with a dust pipe, of an initial dust collecting chamber, having upwardly tapering walls and connected at its upper end with said pipe, said chamber being open and unobstructed near its bottom portion, said walls comprising a supporting frame, a dust collecting fabric inclosing the tapering portions of said frame, a reinforcing wire netting covering the outer surface of said fabric and connected with the frame and against which the fabric may vibrate to shake off the dust, and a dust

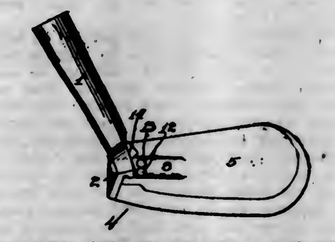
collecting pan forming the bottom of said chamber below the lower margin of the fabric walls, the space between said pan and fabric walls being open and unobstructed.



3. A dust collecting chamber, comprising a set of posts, a set of horizontal frame bars connecting said posts, coupling strips, each having one margin folded in gripping relation to one of said frame bars, other coupling strips, each having one margin folded in gripping relation to said posts, and strips of fabric spanning the spaces between said posts and frame bars, said coupling members having their opposing margins folded in coupling relation to the margins of said fabric strips, substantially as described.

4. A dust collector, comprising an initial separating chamber, having walls permeable to air, extending from the top of said chamber to points near the bottom thereof, said walls terminating above the bottom of said chamber with open and unobstructed spaces between their lower margins and the chamber bottom, means for delivering dust laden air into the top of said chamber, and an outer chamber, provided with walls also permeable to air, and spaced from the walls of the inner chamber, said outer chamber being provided with a vent and a safety valve controlling the passage of air through said vent.

1,206,104. GOLF-CLUB. ALONZO C. GOODRICH, Chicago, Ill. Filed July 11, 1914. Serial No. 850,318. (Cl. 46—4.)



1. In a device of the class described a golf club comprising a shank, an integral extension thereon, a head pivoted to said extension, coacting tongues and grooves on said extension and head to guide and retain the head in its pivotal movement, and a plurality of independent spring impelled locking means mounted in the head of the club and engaging said extension to hold the head in various adjusted positions.

2. In a device of the class described a golf club comprising a shank to receive a shaft therein, an integral depending extension thereon angled rearwardly therefrom, a head pivoted thereto, coacting tongue and groove members formed on said respective shank and head interfitting with one another to retain and guide the head in its movement on the shank and extension, and resilient means engaged within the head adapted to interlock with said extension at different points to hold the head rigidly in different adjusted positions.

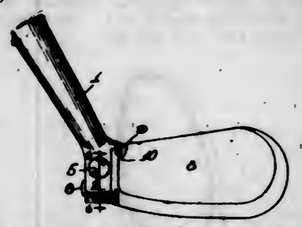
3. A golf club comprising a shank, a head pivoted thereto, coacting tongue and groove members on said head and shank to guide the head in its movement, and a plurality of resilient means mounted within the head of the club parallel to the axis of movement thereof adapted to engage the shank to hold the head in various positions of adjustment.

4. In a device of the class described a shank, an extension integral therewith angled downwardly therefrom and angled laterally and rearwardly, a head pivoted on said extension with the pivotal axis at right angles to the plane of said extension and means for locking said head in different positions of adjustment on said extension.

5. In a device of the class described a shank, an extension thereon said extension angled rearwardly with respect to the shank, a head mounted on said extension and adjustable thereon with the surface of said head in contact with the extension also angled rearwardly with respect to an axis perpendicular to the striking face of said head, and means for locking said head in different angled positions of adjustment on said extension to tilt the striking face into different planes for different shots to be played.

[Claim 6 not printed in the Gazette.]

1,206,105. GOLF-CLUB. ALONZO C. GOODRICH, Chicago, Ill. Filed Dec. 9, 1914. Serial No. 876,185. (Cl. 46—4.)



1. In a golf club of the class described, a shank, a heel piece integral therewith, a head pivoted in said heel piece, a worm wheel connected to said head, and a worm journaled in said heel piece adapted to adjust the head into various positions.

2. In a device of the class described, a shank, a heel piece integral therewith, a head pivoted in said heel piece, and worm and worm gear connections between said heel piece and said head whereby the head may be adjusted in said heel piece and held from movement therein.

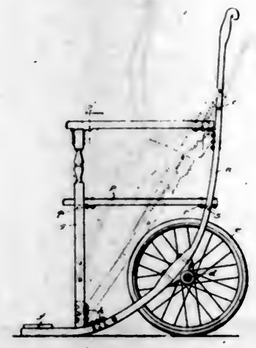
3. In a golf club of the class described, a shank, a head pivotally mounted thereon, interfitting tongue and groove members on said shank and head respectively to guide and retain the same in proper relation during movement thereof, and worm and worm wheel connections between said shank and head whereby an adjustment is effected between the two.

4. In a device of the class described, a shank, a heel piece integral therewith, rotatable means therein, a head, toothed means thereon adapted to engage said rotatable means to permit changing the angle of the striking face of the device, the connection between said head and heel piece being such as to also change the alinement between the axis of the shank and the axis of the head when said head is adjusted.

5. In a device of the class described, a shank, a heel piece integral therewith, a head pivoted thereon, and rotatable means within said heel piece to permit adjustment of said head through various striking angles.

[Claims 6 to 10 not printed in the Gazette.]

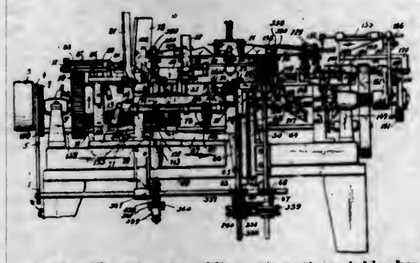
1,206,106. FOLDING WHEEL-CHAIR. EDWARD B. GRANN, Jr., Buffalo, N. Y. Filed Feb. 4, 1916. Serial No. 76,174. (Cl. 155—11.)



1. In folding wheel-chairs, the combination with a set of trundle wheels, of dual curved side rails carried thereby and sloping forward practically to a horizontal level, a stretcher foot rest extended crosswise between the rails, companion front legs hinged upright to the side rails below, companion arm rests pivoted to the same rails above and hinged at front in sliding union with the tops of said upright legs and a seat frame pivoted to the upright legs intermediately, the frame being latched to the side rails behind for taut stretch or collapsible release of the sliding union between the arm rests and the upright legs, at will of the operator.

2. In folding wheel-chairs, the combination with a set of trundle wheels, of dual curved side rails carried thereby and sloping forward practically to a horizontal level, a stringer extended cross-wise between the rails, companion front legs hinged upright to the side rails below, companion arm rests pivoted to the same rails above and hinged at front in sliding union with the flat tops of said upright legs and a stretcher frame pivoted to the upright legs intermediately but latched to the side rails behind for taut stretch or collapsible release of the sliding union between the arm rests and the upright legs.

1,206,107. MACHINE FOR ASSEMBLING AUTOMATIC SPRINKLER-HEADS. JOHN R. HAMILTON, Yonkers, N. Y. assignor to Automatic Sprinkler Company of America, New York, N. Y., a Corporation of New York. Filed Apr. 6, 1912, Serial No. 688,872. Renewed May 27, 1916. Serial No. 100,377. (Cl. 29—38.)



1. In machines for assembling automatic sprinkler heads or the like, a rotary turret carrier provided with arms having holding devices to engage head frames, a valve plug mounted axially of said carrier and provided with pressure and suction passages and ports, testing pipes connected with said holding devices and adapted to cooperate with said ports, cut-off valves in said testing pipes and connected trips coöperating with said holding devices, means to intermittently move said carrier to bring the head frames into coöperation with various stations, feeding and inserting devices to bring head frames into coöperation with the holding devices in said carrier, means to feed caps into coöperation with said head frames, retainer setting devices to feed retainers into coöperation with said head frames at one of said stations, means to insert holding screws into said head frames at one of said stations, a tension shaft and connected slip friction clutch driving gear to screw home said holding screws with a substantially uniform torque and place said caps and retainers under substantially uniform load, load testing devices to engage and test the assembled heads at one of said stations and to automatically set the coöperating trips in rejection position in case of the unsatisfactory condition of any of said heads, pressure testing apparatus comprising a reduction valve and a pressure gage in each of said testing pipes and coöperating automatic trip, actuating means to test said heads throughout a number of said stations and set said trips in rejection position in case undesirable leakage occurs in the corresponding heads, locking devices coöperating with said carrier and having their operation controlled by said trips, disengaging means to disengage said heads from said carrier and sorting devices controlled by said trips to separate the heads when the corresponding trips are in rejection position.

2. In machines for assembling automatic sprinkler heads or the like, a rotary turret carrier provided with arms having holding devices to engage said frames, a valve plug mounted axially of said carrier and provided with pressure passages and ports, testing pipes connected with said holding devices and adapted to coöperate with said ports, trips coöperating with said holding devices, means to intermittently move said carrier to bring the head frames into coöperation with various stations, feeding and inserting devices to bring head frames into coöperation with the holding devices in said carrier, means to feed caps into coöperation with said head frames, retainer setting devices to feed retainers into coöperation with said head frames at one of said stations, means to insert holding screws into said head frames at one of said stations, a tension shaft and connected slip driving gear to screw home said holding screws with a substantially uniform torque and place said caps and retainers under substantially uniform load, load testing devices to engage and test the assembled heads at one of said stations and to automatically set the coöperating trips in rejection positon in case of the unsatisfactory condition of any of said heads, pressure testing apparatus comprising a reduction valve and a pressure gage in each of said testing pipes and coöperating automatic trip actuating means to test said heads throughout a number of said stations and set said trips in rejection position in case undesirable leakage occurs in the corresponding heads, locking devices coöperating with said carrier and having their operation controlled by said trips, disengaging means to disengage said heads from said carrier and sorting devices controlled by said strips to separate the heads when the corresponding trips are in rejection position.

3. In machines for assembling automatic sprinkler heads or the like, a rotary turret carrier provided with arms having holding devices to engage head frames, trips coöperating with said holding devices, means to intermittently move said carrier to bring the head frames into coöperation with various stations, feeding and inserting devices to bring head frames into coöperation with the holding devices in said carrier, means to feed caps into coöperation with said head frames, retainer setting devices to feed retainers into coöperation with said head frames at one of said stations, means to insert holding screws into said head frames at one of said stations, a tension shaft and connected slip driving gear to screw home said holding screws with a substantially uniform torque and place said caps and retainers under substantially uniform load, testing devices to engage and test the assembled

heads and to automatically set the coöperating trips in rejection position in case of the unsatisfactory condition of any of said heads, locking devices coöperating with said carrier and having their operation controlled by said trips, disengaging means to disengage said heads from said carrier and sorting devices controlled by said trips to separate the heads when the corresponding trips are in rejected position.

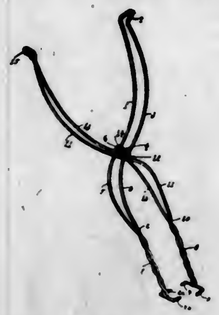
4. In machines for assembling automatic sprinkler heads or the like, a rotary carrier having holding devices to engage head frames, a valve plug mounted axially of said carrier and provided with pressure and suction passages and ports, testing pipes connected with said holding devices and adapted to coöperate with said ports, cut-off valves in said testing pipes and connected trips cooperating with said holding devices, means to intermittently move said carrier to bring the head frames into cooperation with various stations, feeding and inserting devices to bring head frames into coöperation with the holding devices in said carrier, means to feed caps into coöperation with said head frames, retainer setting devices to feed retainers into coöperation with said head frames at one of said stations, means to insert holding screws into said head frames at one of said stations, a tension shaft and connected slip friction clutch driving gear to screw home said holding screws with a substantially uniform torque and place said caps and retainers under substantially uniform load, pressure testing apparatus comprising a reduction valve and a pressure gage in each of said testing pipes and coöperating automatic trip actuating means to test said heads throughout a number of said stations and set said trips in rejection position in case undesirable leakage occurs in the corresponding heads, locking devices coöperating with said carrier and having their operation controlled by said trips, disengaging means to disengage said heads from said carrier and sorting devices controlled by said trips to separate the heads when the corresponding trips are in rejection position.

5. In machines for assembling automatic sprinkler heads or the like, a rotary carrier having holding devices to engage head frames, a valve mounted axially of said carrier and provided with pressure passages and ports, testing pipes connected with said holding devices and adapted to coöperate with said ports, trips coöperating with said holding devices, means to intermittently move said carrier to bring the head frames into coöperation with various stations, feeding and inserting devices to bring head frames into coöperation with the holding devices in said carrier, means to feed caps into coöperation with said head frames, retainer setting devices to feed retainers into coöperation with said head frames at one of said stations, means to insert holding screws into said head frames at one of said stations, a tension shaft and connected slip driving gear to screw home said holding screws with a substantially uniform torque and place said caps and retainers under substantially uniform load, pressure testing apparatus comprising a reduction valve and a pressure gage in each of said testing pipes and cooperating automatic trip actuating means to test said heads throughout a number of said stations and set said trips in rejection position in case undesirable leakage occurs in the corresponding heads, locking devices cooperating with said carrier and having their operation controlled by said trips, disengaging means to disengage said heads from said carrier and sorting devices controlled by said trips to separate the heads when the corresponding trips are in rejection position.

[Claims 6 to 68 not printed in the Gazette.]

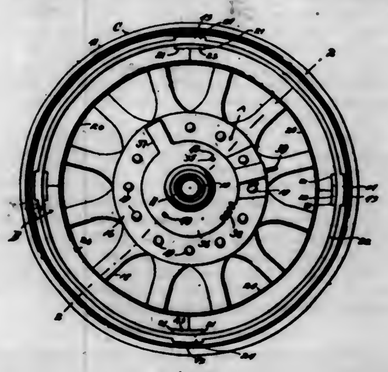
1,206,108. KITCHEN APPLIANCE. CHRISTIAN H. HANSEN and THOMAS HANSEN, Bethany, Cal. Filed Feb. 21, 1916. Serial No. 79,630. (Cl. 65—32.)

An appliance comprising two members, one member having a twisted wire handle, the wires of the handle branching beyond the handle and being formed into two loops linked together, such wires projecting beyond said loops in spaced relation, the other member having a twisted wire handle, such wires branching from the handle and being looped around the loops of the first member and



curved outwardly from said loops in spaced relation, as described.

1,206,109. AUTOMOBILE-WHEEL. EDWARD HAUGHS, Shelburn, Ind. Filed Nov. 2, 1915. Serial No. 59,185. (Cl. 152—21.)



1. In a wheel structure, the combination of a hub, a tubular member, spaced clamping plates mounted on the member, spokes having their inner ends secured between the plates, a felly mounted on the outer ends of said spokes, longitudinal rods slidable in certain of said spokes, a locking shoe on the outer end of each rod adapted to seat in a recess in the periphery of the felly, a demountable rim mounted on the felly and provided with recesses to receive said locking shoes, normally holding the locking shoes in the recesses in the felly, and means for simultaneously moving said locking shoes into the recesses in the demountable rim to secure the latter against lateral or circumferential displacement with respect to the felly.

2. In a wheel structure, the combination of a hub, a tubular member, spaced clamping plates mounted on the member, spokes having their inner ends secured between the plates, a felly mounted on the outer ends of said spokes, longitudinal rods slidable in certain of said spokes, a locking shoe on the outer end of each rod adapted to seat in a recess in the periphery of the felly, a demountable rim mounted on the felly and provided with recesses to receive said locking shoes, means normally holding the locking shoes in the recesses in the felly, a rotatable member mounted on the tubular member and adapted during its rotation to coöperate with the inner ends of the rods and move the latter longitudinally to positon the locking shoes in the recesses of the demountable rim, means for rotating said member, and means for locking said member against rotation.

1,206,110. FASTENING DEVICE. GEORGE E. HEARN, Providence, R. I., assignor to Robert L. Moorhead, Brooklyn, N. Y., doing business under the name of R. L. Moorhead & Co., Providence, R. I. Filed July 9, 1915. Serial No. 38,849. (Cl. 24—230.)

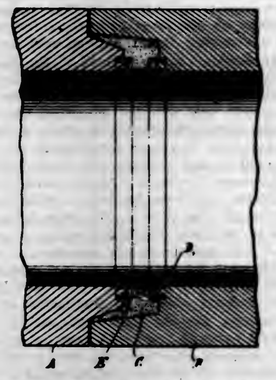


1. An article of the character described comprising a barrel-member provided with an open end and a bridge-member extending across said open end, and a hook-member provided with means adapted to hold said bridge-member in engagement with said hook-member.

2. An article of the character described comprising a barrel-member provided with an open end and a bridge-member extending across said open end, and a V-shaped hook-member provided upon each leg with means for holding said bridge-member in engagement between the legs of said hook-member when the barrel-member and hook-member are in open position.

3. An article of the character described comprising a barrel-member provided with an open end and a bridge-member extending across said open end, and a V-shaped hook-member having the legs thereof provided with an inwardly bent portion and an enlarged opening adjacent said inwardly bent portions.

1,206,111. JOINT FOR CONCRETE PIPES. ALLAN M. HIRSH, Montclair, N. J. Filed Feb. 5, 1916. Serial No. 76,280. (Cl. 72—53.)

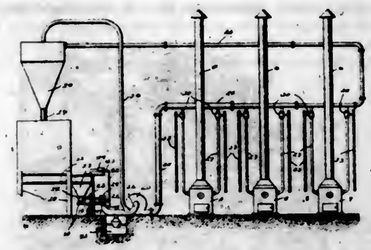


1. A watertight joint for concrete pressure pipes composed of a body of plastic material filling the space or recess between adjacent pipe sections, into which body project from grooves in the ends of said sections, and are embedded therein, continuous strips of material adapted to expand under the influence of moisture.

2. A pipe composed of molded sections of concrete having spaces or recesses between abutting ends, sealing fillers of plastic material, such as cement contained in said recesses, and continuous strips of wood embedded in grooves in the ends of the sections and extending into the body of the filler, as set forth.

3. A pipe composed of molded sections of concrete recessed or shaped at their ends to form across portions of each joint a space or recesses, sealing fillers of cement in such recesses, and strips of wood embedded in continuous grooves in the ends of the pipe sections and extending into the body of the cement fillers.

1,206,112. FUEL-FEEDER. AUSTIN A. HOLBECK, Cleveland, Ohio, assignor to Charles A. Brauchler, Canton, Ohio. Filed Dec. 27, 1913. Serial No. 809,100. (Cl. 110—104.)



1. The combination with a fuel supply, of a conduit adapted to receive material from the fuel supply for delivering it to a furnace, means for supplying a fluid to the conduit, means for delivering the fuel from the fuel supply to the conduit, a controller for said means, means automatically operated by a variance in the density of fluid within the conduit for actuating the controller, and means including a pipe connected with the conduit for returning the unspent material to the fuel supply.

2. The combination with a fuel supply, of a conduit adapted to receive material from the fuel supply for delivering it to a furnace, means for supplying a fluid to the conduit, means for delivering the fuel from the fuel supply to the conduit, a controller for said means, means automatically operated by a variance in the density of fluid within the conduit for actuating the controller, means including a pipe connected with the conduit for returning the unspent material to the fuel supply, and means located between the conduit and the furnace for regulating the supply of material from said conduit to the furnace.

3. The combination with a furnace, of a container, feed mechanism arranged for feeding fuel from the container, a conduit adapted to receive material from the feed mechanism for delivering it to the furnace, a motor connected with the feed mechanism, a controller for the said motor, means for supplying a fluid to the conduit, means automatically regulated by a variance in the density of fluid within the conduit for actuating the controller, a collector for communication with the container, and a return pipe connected with the conduit and the said collector.

4. The combination with a furnace, of feed mechanism arranged for feeding fuel, a conduit adapted to receive material from the feed mechanism for delivering it to the furnace, a motor connected with the feed mechanism, a controller for the said motor, means for supplying fluid to the conduit, means automatically regulated by a variance in the density of fluid in the conduit for actuating the controller, a collector interposed between the conduit and the feed mechanism, and a pipe connected with the conduit and the collector for returning unspent fuel to the latter from the said conduit.

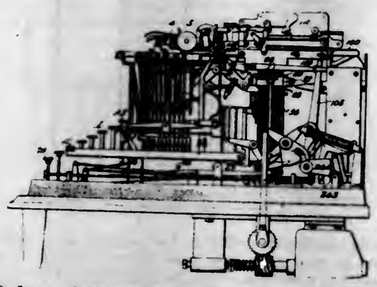
5. The combination with a furnace, of a container, feed mechanism arranged for feeding fuel from the container, a conduit adapted to receive material from the feed mechanism for delivering it to the furnace, a motor connected with the feed mechanism, a controller for the said motor, means for supplying a fluid to the conduit, means automatically regulated by a variance in the density of fluid within conduit for actuating the controller, means located in the conduit for regulating the supply of material to the furnace, and a return pipe connected with the conduit for delivering unspent fuel therefrom to the container.

[Claims 6 to 25 not printed in the Gazette.]

1,206,113. CALCULATING-MACHINE. HUBERT HOPKINS, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation. Filed Mar. 29, 1912. Serial No. 687,200. (Cl. 235—60.)

1. In a calculating machine, means for representing a number corresponding to a minued, devices for represent-

ing a number corresponding to a subtrahend, means for moving the first mentioned means under control of the subtrahend representing devices to positions whereby the correct difference may be subsequently obtained where the number represented in the minuend mechanism is smaller than the number represented by the subtrahend devices.



2. In a calculating machine, the combination of means for representing a number corresponding to a minuend, devices for representing a number corresponding to a subtrahend, means for placing one of said number representing mechanisms in control of the other whereby the complement of the subtrahend is added to the minuend and "1" simultaneously added in the units column thereof, and means whereby when the number in the subtrahend representing devices is larger than the number in the minuend representing means, the complement of the total of the numbers formerly obtained may be secured and "1" simultaneously added to the units column to thereby obtain the true difference between the two numbers originally set up in the minuend and subtrahend representing devices.

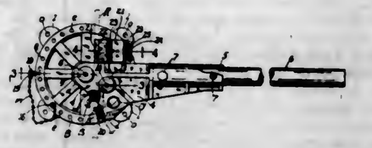
3. In a calculating machine, the combination of means for representing a number corresponding to a minuend, devices for representing a number corresponding to a subtrahend, means for moving the first mentioned means under control of the subtrahend representing devices whereby said subtrahend devices are cleared or returned to zero and the complement of the number formerly contained therein is added to the number in the minuend representing means, and means whereby when the number in the subtrahend representing devices is larger than the number in the minuend representing means, the total of the number in the minuend representing means and the complement of the number formerly standing the subtrahend representing devices is transferred from the minuend representing means to the subtrahend representing devices and a complement of such transferred number subsequently obtained and registered in the minuend representing means to indicate the difference between the two numbers originally standing in the minuend representing means and subtrahend representing devices, and means for adding "1" in the minuend representing means at the taking and transferring of such complemental numbers.

4. In a calculating machine, the combination of register wheels for registering a number corresponding to a minuend, devices for representing a number corresponding to a subtrahend, racks which control and are controlled by said minuend register wheels and subtrahend representing devices, printing type positioned by said racks, means for making a record from the positioned type, means whereby the subtrahend representing devices are placed in control of said register wheels to thereby add the complement of the number represented by said subtrahend register wheels to the number represented in the minuend representing register wheels, the subtrahend representing devices standing clear at the end of such operation, means for setting up the total represented in said register wheels in the subtrahend representing devices thereby clearing said register wheels and again obtaining the complement of the number represented by said subtrahend representing devices and registering the same in said register wheels, and means for preventing the operation of said printing type during the time that the complements are being transferred into the register wheels.

5. In a calculating machine, means for representing a number corresponding to a minuend, devices for representing a number corresponding to a subtrahend, means for moving the first mentioned means under control of the subtrahend representintg devices whereby the correct difference may be obtained where the number represented in the minuend mechanism is smaller than the number represented by the subtrahend devices, printing mechanism operable to record numbers represented in the minuend and subtrahend representing mechanisms together with the remainders obtained, and means for rendering said printing mechanism inoperative when the complement of the subtrahend is being transferred to the minuend representing means.

[Claims 6 to 22 not printed in the Gazette.]

1,206,114. BAR-BENDING APPLIANCE. ADRIAN O. JAMETON, San Antonio, Tex. Filed May 7, 1915, Serial No. 26,519. Renewed Oct. 9, 1916. Serial No. 124,686. (Cl. 153—45.)



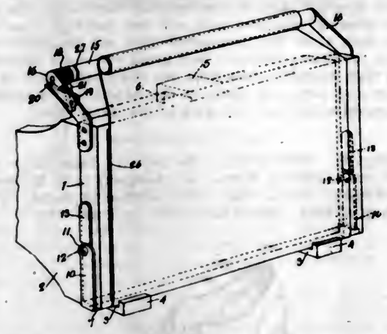
1. In a bending appliance, a stationary base, an oscillating lever pivoted thereto and supporting the bar to be bent, a fulcrum pin disposed about the axis of oscillation of the lever and projecting above the bar-supporting surface thereof, for engaging the bar from one side, a stud on the lever removed a suitable distance from the axis of oscillation thereof for engaging the bar from the opposite side, means on the lever permitting the positioning of the stud at varying distances from said axis, a movable stop pin adapted to be secured to the base at any desired point in the path of sweep of the lever during the bending operation, an adjustable member on the lever adapted to strike said pin for arresting the leer at a point to produce any predetermined angle of bend in the bar, an abutment on the base for limiting the sweep of the lever toward normal position, and means on the abutment for fulcruming the bar during the bending operation.

2. In a bending appliance for bars, a suitable, base, an operating lever pivoted thereto, the base being provided with a series of circularly disposed openings, a pin adapted to be dropped into any one of said openings, an adjustable member on the lever for impinging against said pin with a sweep of the lever in the direction to bend the bar, a fulcrum pin disposed about the oscillation axis of the lever for engaging the bar to be bent on one side, an adjustable stud removed from said axis for engaging the bar from the opposite side when the bar is resting on the lever, an abutment on the base for arresting the lever in its sweep to normal position, the abutment being provided with a supporting surface for the bar to be bent, and a fulcrum block on said abutment against which the bar may bear during the bending operation.

3. In a bending appliance of the character described, an operating bending lever pivoted about a fixed axis, a heel formation on the lever removed from said axis, the heel having a basal wall disposed radially to the path of sweep of the heel, an adjusting bolt on the heel disposed substantially at right angles to the redial wall, and a stop pin coöperating with said adjusting bolt.

1,206,115. PLATEN FOR PRINTING-PRESSES AND THE LIKE. EMERSON P. JENNINGS, Jr., Lehighton, Pa. Filed May 28, 1915. Serial No. 30,889. (Cl. 272.)

1. The combination with a platen, of a clamping device supported adjacent to one edge of said platen, said platen and said clamping device having coöperating tongue and groove, and actuating means for moving said clamping device toward and from said platen to cause said tongue and said groove to coöperate to secure one edge of a tympan to said platen and to release the same therefrom.



2. The combination with a platen, of a clamping bar supported near one edge of said platen for swinging movement into and out of the plane thereof, means to move said bar radially toward and from said platen to cause it to clamp a tympan between the same and the edge of said platen, and an adjustable attaching device supported near the opposite edge of said platen to support the adjacent portion of said tympan and regulate the tension thereof.

3. The combination with a platen, of a clamping bar extending parallel with one edge of said platen, said platen and said bar having interlocking clamping parts, arms secured to the respective ends of said bar and pivotally connected to said platen to permit said bar to be moved into and out of the plane of said platen, and means to impart longitudinal movement to said arms to move one of said clamping parts into and out of interlocking relation with the other of said clamping parts.

4. The combination with a platen, of a clamping bar extending parallel with one edge of said platen, said platen and said bar having interlocking clamping parts, arms secured to the respective ends of said bar and pivotally connected to the said platen to permit said bar to be moved into and out of the plane of said platen, means to impart longitudinal movement to said arms to move one of said clamping parts into and out of interlocking relation with the other of said clamping parts, and an adjustable supporting device arranged at the opposite edge of said platen to support the adjacent portion of said tympan and to regulate the tension of said tympan.

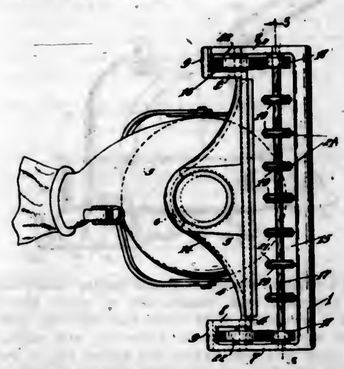
5. The combination with a platen, of a clamping bar arranged parallel with one edge of said platen, arms secured to the respective ends of said bar, eccentric studs rotatably mounted on the respective ends of said platen and forming centers about which said arms swing, and means to rotate said eccentric studs to impart longitudinal movement to said arms.

[Claims 6 to 11 not printed in the Gazette.]

1,206,116. PNEUMATIC CLEANER. JAMES B. KIRBY, Cleveland, Ohio. Original application filed Aug. 19, 1911. Serial No. 644,956. Divided and this application filed Jan. 22, 1916. Serial No. 73,581. (Cl. 15—60.)

1. In a suction cleaner, a nozzle having spaced front and rear walls terminating in spaced, parallel, horizontal lips defining an elongated inlet mouth, spaced parallel transverse walls extending from said first walls, and defining a housing, a floor engaging traction wheel journaled in said housing, and floor-engaging agitating devices located in said inlet mouth and operatively connected to said traction wheel.

2. In a suction cleaner, a nozzle having spaced front and rear walls terminating in parallel, horisontal lips defining an elongated inlet mouth, a vertical wall extending rearwardly at right angles from each end of each of said first walls, the rear wall of said nozzle being shorter than the front wall whereby said vertical walls are spaced from each other, webs connecting said vertical walls to complete the housings defined thereby, a shaft mounted in said nozzle longitudinally thereof, dust dislodging devices carried by said shaft, and traction wheels journaled in said housings and operatively connected to said shaft.



3. In a suction cleaner, a nozzle having spaced front and rear walls terminating in parallel, horisontal lips defining an elongated inlet mouth, the rear wall being shorter than the front wall, transverse vertical walls extending rearwardly from the ends of each of said first walls and spaced apart to define housings that communicate with said inlet mouth, webs connecting the top and rear edges of each pair of walls and inclosing said housings, carrying wheels journaled in said housings, and agitating devices in said inlet mouth operatively connected to said wheels.

4. In a pneumatic cleaner, the combination of a suction chamber provided with an outwardly flaring nozzle, a housing formed at each side of the suction chamber, traction wheels mounted in said housings, a shaft extending longitudinally of said nozzle, friction wheels mounted on the ends of said shaft and adapted to engage said traction wheels, and agitating devices carried by said shaft adapted to come in contact with the surface which is to be cleaned when said shaft is rotated.

5. In a suction cleaner, a nozzle having a downwardly facing inlet mouth, a horizontal shaft journaled in said nozzle above said mouth, a plurality of eccentric members carried by said shaft, and beating devices loosely mounted on said eccentric members and adapted to strike the working surface when said shaft is revolved.

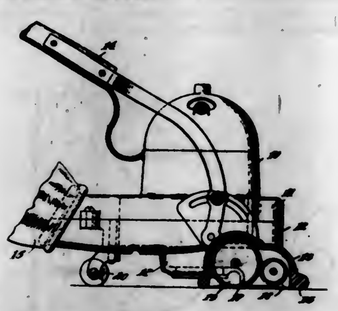
[Claims 6 to 8 not printed in the Gazette.]

1,206,117. PNEUMATIC CLEANER. JAMES B. KIRBY, Cleveland, Ohio. Original application filed Aug. 19, 1911, Serial No. 644,956. Divided and this application filed Jan. 22, 1916. Serial No. 73,582. (Cl. 15—60.)

1. In a suction cleaner, a casing having a suction chamber, the wall of said suction chamber flaring outwardly and forwardly and terminating in a nozzle, the mouth of which is adapted to pass over the surface which is to be cleaned, the rear lip of said nozzle being arranged in a horizontal plane above the front lip of said nozzle, floor engaging wheels carried one at each side of said casing rearwardly of said nozzle, in position to prevent sealing contact of the surfaces being treated with said rear lip, and a suction device communicating with said suction chamber.

2. In a suction cleaner, a casing having a suction chamber whose wall flares outwardly and forwardly and terminate in a nozzle, the mouth of which is adapted to pass over the surface which is to be cleaned, one lip of

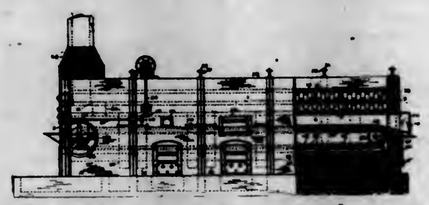
said nozzle being arranged above the horizontal plane of the other lip thereof, carrying wheels carried by said casing one one each side thereof and located upon that side of said mouth having the elevated lip, in position to prevent sealing contact of the surfaces being treated with said elevated lip, and a suction device communicating with said suction chamber.



3. In a suction cleaner, a nozzle having a downwardly facing, elongated inlet mouth, one of whose lips is located in a horizontal plane above the other lip, and floor engaging supporting devices carried by said casing and located upon that side having the higher lip, in position to prevent lift of the surface being treated to sealing contact with said higher lip.

4. In a suction cleaner, a casing having a collecting nozzle transversely arranged across its forward part, said nozzle having a downwardly-facing, elongated inlet mouth, whose rearward lip is arranged slightly higher than its forward lip, a pair of supporting rollers arranged rearwardly of and adjacent to said nozzle, one at each side of said casing, in position to prevent contact of the rearward lip with the surface being treated, and a third roller at the rear of said casing, all of said rollers being substantially tangent to the plane which includes the forward plane of said mouth.

1,206,118. BAKING-OVEN. JOHN LARRABURU, San Francisco, Cal. Filed Apr. 8, 1816. Serial No. 89,910. (Cl. 107—55.)



1. A baking oven having side walls, upper and lower arches between said side walls and forming therewith a baking chamber, an end furnace, auxiliary side furnaces, longitudinal flues above the baking chamber connected with the end furnace, and longitudinal flues below the baking chamber connected with the side furnaces.

2. A baking oven having side walls, upper and lower arches between said side walls and forming therewith a baking chamber, an end furnace, auxiliary side furnaces, longitudinal flues above the baking chamber connected with the end furnace, and longitudinal flues above and below the baking chamber connected with the side furnaces.

3. A baking oven having side walls, upper and lower arches between said side walls and forming therewith a baking chamber, an end furnace, auxiliary side furnaces, longitudinal flues above the baking chamber connected with the end furnace, longitudinal flues below the baking chamber connected with the side furnaces, and longitudinal flues above the first-named flues and communicating with the baking chamber.

4. A baking oven having side walls, upper and lower arches between said side walls and forming therewith a baking chamber, an end furnace, auxiliary side furnaces, longitudinal flues above the baking chamber connected with the end furnace, longitudinal flues below the baking chamber connected with the side furnaces, longitudinal flues above the first-named flues and communicating with the baking chamber, said upper and lower longitudinal flues extending first from one end to the other at the sides and then back again in the middle, and a chimney communicating with said flues at the latter ends.

1,206,119. MOCCASIN. ERNEST A. LLEWELLYN and JOHN R. BRIGGS, Wilton, Me., assignors to G. H. Bass & Company, Wilton, Me., a Corporation of Maine. Filed Aug. 5, 1915. Serial No. 43,867. (Cl. 36—11.)



A moccasin or shoe comprising a sole, a toe-piece and two vamp sections each forming one of the quarters and a lower front portion of the upper, said lower front portions of the upper being attached to said toe-piece by a seam extending around the front to near the usual ankle seam on a line substantially parallel with said sole, and said vamp sections having their lower edges rounded at the front and provided with V-shaped cuts therein which are drawn and sewed together while the lower portions of the two sections thus formed are turned under and abuttingly secured together by a seam extending on a median line longitudinally of the sole; the heel and toe portions being secured together at their meeting ends.

1,206,120. CAN-WASHING MACHINE. PETER H. MCCUE and JOSEPH R. NICHOLS, Seattle, Wash. Filed Mar. 21, 1916. Serial No. 85,728. (Cl. 141—7.)

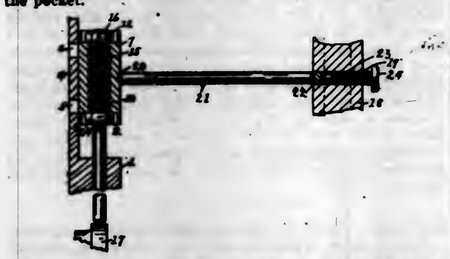


1. A can washing machine of the class described including a tank, a trackway positioned in said tank, a movable conveyer associated with said trackway, U-shaped brackets carried by said trackway, arms adjustably mounted on said brackets, spray pipes carried by said arms, and pumping mechanism for feeding fluid from the tank to said pipes.

2. A can washing machine of the class described including a tank, a trackway carried thereby, U-shaped brackets fixed to said trackway, arms having threaded ends engaging the brackets, sockets formed in the inner ends of said arms, and spray pipes mounted in the sockets.

1,206,121. SLIDE-VALVE. GEORGE E. MCELROY, Newark, N. J., assignor to McElroy Engine Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 13, 1915. Serial No. 66,533. (Cl. 123—188.)

1. In an internal combustion engine, a valve pocket in the combustion space, a slide valve therein, a spring without the combustion space and means connecting said spring and valve for maintaining the valve in a gas tight seat in the pocket.



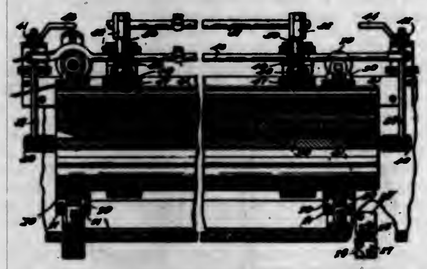
2. In an internal combustion engine, a valve pocket in the combustion space, a slide valve therein, a push rod extending across the combustion space and bearing on the valve, a spring without the combustion chamber operating on the push rod to maintain a gas tight seat between the valve and its seat in the pocket.

3. In an internal combustion engine, a valve pocket, a slide valve therein recessed in its outer face, a push rod one end of which engages said recess, an opening in the cylinder casting opposite the valve, a recessed plug therein engaging the other end of the push rod, a spring without the combustion space bearing on the plug and an adjusting screw bearing on the spring.

4. In an internal combustion engine, a valve pocket, a slide valve therein with an opening therethrough, a valve stem extending through the opening of less diameter than the opening means on the stem holding the valve therebetween, and a pushrod one end of which bears on the valve and extends across the combustion space, a spring without the combustion space maintaining pressure on the other end of the rod for maintaining the valve in a gas tight seat in the pocket.

5. In an internal combustion engine, a valve pocket, a slide valve therein with an opening therethrough, a valve stem extending through the opening threaded at the upper end, a sleeve on the stem within the opening of less diameter and slightly greater length than the opening, upper and lower nuts engaging the sleeve and valve, and a pushrod one end of which bears on the valve and extends across the combustion space, a spring without the combustion space maintaining pressure on the other end of the rod for maintaining the valve in a gas tight seat in the pocket.

1,206,122. ELECTROPLATING-MACHINE. EDWARD J. MILLER, Jennings, Mo., assignor to St. Louis Screw Company, St. Louis, Mo., a Corporation of Missouri. Filed June 16, 1916. Serial No. 103,942. (Cl. 204—5.)



1. In an electro-plating machine, a solution case, a rotatable drum longitudinally suspended therein, an anode or anodes extending through said drum, and means for imparting movement to said anode or anodes toward and away from the center of said drum.

2. In an electro-plating machine, a solution case, a frame in each end of said case, a rotatable drum carried by said frames, and means for lowering and raising either end of said drum.
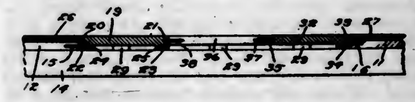
3. In an electro-plating machine, a solution case, a rotatable drum extending longitudinally therethrough, and a cam carried by said case adapted to impart vertical movement to one end of said drum.

4. In an electro-plating machine, a solution case, a frame in either end of said case, a rotatable drum carried by said frame, and means for imparting vertical movement to said frame.

5. In an electro-plating machine, a rotatable drum, an anode or anodes extending therethrough, means carried by said drum for engaging the articles to be plated, and means for reciprocally moving said anode or anodes in a vertical line.

[Claims 6 to 9 not printed in the Gazette.]

1,206,123. EXTENSION-TABLE. JOHN L. MCKAY, Minneapolis, Minn., assignor of one-half to Robert L. Forrest, Minneapolis, Minn. Filed Nov. 4, 1915. Serial No. 59,593. (Cl. 45—9.)



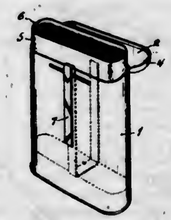
1. In combination with the end sections of an extension table and protective pads for covering the same, a set of leaves for said table, and means for holding said leaves assembled in the table with the surfaces thereof in a plane above that of the surfaces of the end sections and in the plane of the surfaces of said protective pads.

2. An extension table comprising end sections having their surfaces in fixed planes and leaves adapted to be applied in said end sections with the surfaces thereof in the plane of the surfaces of the end sections, and means for securing said leaves in the table with the surfaces thereof above the plane of the surfaces of the end sections.

3. A table top comprising end sections and leaves for extending the table, and means for assembling said leaves in the table so that the surfaces thereof shall be exposed and in a plane above that of the surfaces of the end sections when the table is in the extended position.

4. A table top comprising end sections having a set of dowel pins in said end sections, a table leaf having thickened portions provided with two sets of apertures at different levels adjacent said dowel pins in the end sections, and movable supports on said table leaf whereby the same may be assembled in the table at either of two levels to bring the surface of the leaf in the plane of the end sections or above the same, as desired.

1,206,124. CONTENTS-EJECTOR FOR BOXES. ALBERT J. MEYERS, Kansas City, Kans., assignor to Edith V. Meyers, Kansas City, Kans. Filed Dec. 31, 1914. Serial No. 879,863. (Cl. 206—56.)



1. In a contents ejector for boxes, the combination with a box having a discharge opening and a cover hinged to one side of the box and adapted to cover said opening,

of a flexible ejecting member having one end secured to said side and adapted to be extended downwardly from its place of securing, thence under the contents of the box, and thence upwardly and out of said opening between the upper edge of the box and the free edge of the cover, and arranged, when its free end is upwardly drawn to swing the cover to the open position and to force the box contents toward said opening.

2. In a contents ejector for boxes, the combination with a box having a discharge opening and a cover for the same, of a contents holder slidable in said box toward and from said opening, and a flexible ejecting member having one end secured to one side of the box, and being adapted to be extended downwardly from its place of securing and thence under said holder and thence upwardly out of said opening between the upper edge of the box and the free edge of the cover, and arranged when its free end is upwardly drawn to open the cover and force the holder toward said opening.

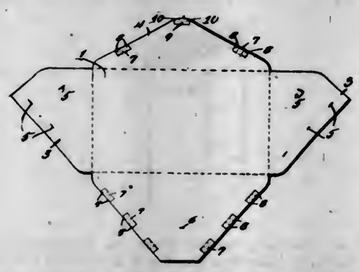
3. In a contents ejector for boxes, the combination with a box having a discharge opening and a cover hinged to one side of the box and adapted to cover said opening, of a contents holder slidable in said box toward and from said opening, and a flexible ejecting member having one end secured to one side of the box and adapted to be extended downwardly from its place of securing, thence under said holder, and thence upwardly and out of said opening between the upper edge of the box and the free edge of the cover, and arranged, when its free end is upwardly drawn to swing the cover to the open position and to force said holder toward said opening.

4. In a contents ejector for boxes, the combination with a box having an open end and having a hinged cover provided with a flange adapted to embrace the open end of the box when the cover is in the closed position, of a flexible ejecting member, having one end secured to one side of the box and being adapted to be extended downwardly from its place of securing, thence under the contents of the box, and thence upwardly out of the open end of the box and, when the cover is in the closed position, being adapted to be disposed between said flange and the outer side of the box, with its free end extending beyond said flange, whereby when the free end of the ejecting member is drawn upwardly, said member will swing the cover to the open position and will force the box contents toward the open end of the box.

5. In a contents ejector for boxes, the combination with a box having an open end, of a paper bag slidable therein, the box having a cover for said open end, and a flexible ejecting member secured at one end to the box and extending downwardly from its place of securing, thence under said bag, and thence upwardly and out of said open end, between the upper edge of the box and the free edge of the cover, and adapted, when the cover is in the closed position, and the free end of the ejecting member is drawn upwardly against the cover to open the cover and force the bag toward the open end of the box.

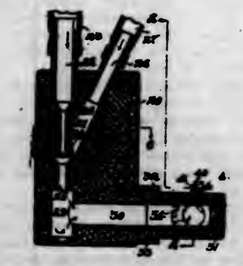
[Claim 6 not printed in the Gazette.]

1,206,125. ENVELOP. JOHN MILUTIN, Alta Loma, Tex. Filed Apr. 3, 1916. Serial No. 88,674. (Cl. 229—82.)



As a new article of manufacture, an envelop of the class described comprising a body, said body provided with end flaps and upper and lower flaps, said end flaps provided with slots formed therein, tongues formed upon the peripheries of said top and bottom flaps, said tongues adapted to be passed through said slots formed in said ends flaps for holding the envelop in a closed position, each tongue provided with ears adapted to be spread for preventing the withdrawal of the tongues from said slots, and an elastic strip secured to the under faces of the tongues of said top flap and projecting over the under faces of the ears of said tongues of said top flap and adapted to normally hold said last-mentioned ears in an extended position with respect to said last-mentioned tongues.

1,206,126. VACUUM-GENERATOR. JOHN A. MITSCH, Boston, Mass. Filed Nov. 16, 1911. Serial No. 660,657. (Cl. 230—13.)



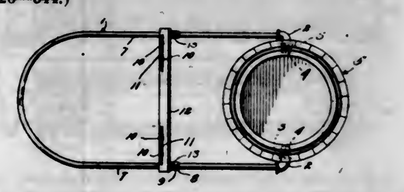
1. An apparatus of the character described, comprising an ejector having a terminal member including inner and outer tubes having slots adapted to register, one of said tubes being rotatable relatively to the other.

2. An apparatus of the character described, comprising an ejector having a terminal member including inner and outer tubes having slots adapted to register, one of said tubes being rotatable relatively to the other, and means whereby the tubes may be held with their slots registering with each other.

3. An apparatus of the character described, comprising a block, an ejector nozzle therein, conduits in said block for an actuating fluid and an induced fluid, an outlet through another portion of the block, and a terminal outlet member adjustable to vary the height of the point of discharge relatively to passageways in the block.

4. An apparatus of the character described, comprising a portable member having conveying passages, flexible pipes connected with said passages, one of said passages terminating in a chamber and the other having a nozzle in said chamber to constitute an ejector, and a controllable outlet leading from said chamber, said outlet being closable to cause a reversal of flow through the pipe and passage leading to said chamber.

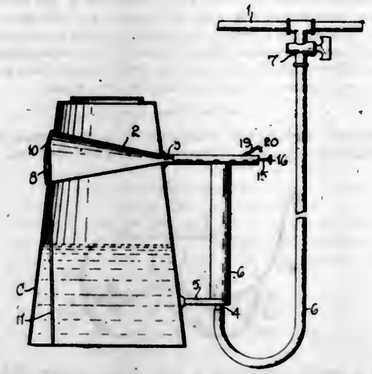
1,206,127. WATER-HEATER. JOSEPH L. MODLIN, Handsom, Va. Filed Mar. 28, 1916. Serial No. 87,310. (Cl. 126—344.)



In combination with a barrel having openings formed therein adjacent its bottom, a heater comprising a U-shaped pipe, couplings engaged in said opening and engaged with the ends of the pipe for receiving water from the barrel, whereby when a fire is lighted under the bight portion of the pipe the water in said pipe will be heated

to create a circulation in the barrel, clamps adjustable longitudinally of the pipe, a shield disposed transversely of the pipe and adjustably connected with the clamps.

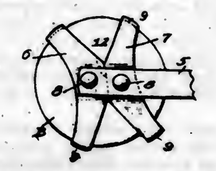
1,206,128. SPRAYING DEVICE. NEIL E. MORGAN, Hermon, N. Y. Filed Dec. 13, 1915. Serial No. 66,609. (Cl. 137—67.)



1. A spraying device of the character described comprising a container, an air chamber disposed therethrough and provided with a discharge opening, a tube extending longitudinally of the container and terminating at one end within the container adjacent the bottom thereof, the opposite end of the tube terminating below and adjacent the discharge opening of the air chamber, said chamber being provided with an extension extending exteriorly of the container, a handle member coacting with the container and extension of the air chamber and provided with a passage-way in communication with the extension of the air chamber at a point intermediate the length thereof, a sleeve mounted for sliding movement within the extension of the air chamber and having its outer end closed, said sleeve intermediate its length being provided with an opening adapted to communicate with the air passage of the handle member upon inward movement of the sleeve, automatic means for normally holding the sleeve at the limit of its outward movement with the opening therein out of register with the air passage of the handle member, and manually operated means for imparting inward movement to the sleeve to bring the opening thereof in register with the air passage of the handle member.

2. A spraying device of the character described comprising a container, an air chamber disposed therethrough and provided with a discharge opening, a tube extending longitudinally of the container and terminating at one end within the container adjacent the bottom thereof, the opposite end of the tube terminating below and adjacent the discharge opening of the air chamber, said chamber being provided with an extension extending exteriorly of the container, a handle member coacting with the container and extension of the air chamber and provided with a passage-way in communication with the extension of the air chamber at a point intermediate the length thereof, a sleeve mounted for sliding movement within the extension of the air chamber and having its outer end closed, said sleeve intermediate its length being provided with an opening adapted to communicate with the air passage of the handle member upon inward movement of the sleeve, automatic means for normally holding the sleeve at the limit of its outward movement with the opening therein out of register with the air passage of the handle member, manually operated means for imparting inward movement to the sleeve to bring the opening thereof in register with the air passage of the handle member, and means connected with the manually operated means for holding the sleeve in its last named position.

1,206,129. JAR-WRENCH. FRANCIS THOMAS MURRAY, Chicago, Ill. Filed July 28, 1915. Serial No. 42,289. (Cl. 65—26.)



1. A wrench of the character described comprising a handle, a pair of plate-like jaws disposed transversely to the handle, and each independently pivoted between its ends to the handle, the two pivotal centers of the jaws being substantially alined in a direction lengthwise of the handle, each jaw having its opposite ends bent at an angle to provide gripping flanges, and the midportions of the two jaws being arranged to bear against each other to turn the jaws.

2. A wrench of the character described comprising a rigid handle, two jaws extending transversely to said handle and each independently pivoted between its ends to the handle, each jaw having angular gripping fingers at opposite ends, and the adjacent edges of the said jaws being arranged to slide in contact with each other to turn the jaws.

3. A wrench of the character described comprising a handle, two gripping jaws each having gripping elements at opposite ends, said gripping jaws being mounted on the handle and having abutting faces which cause relative movement of the jaws when the handle is swung in either direction whereby the wrench will grip a cap to rotate the latter in either direction.

4. A wrench comprising a rigid handle and two jaws arranged to overlie a jar cap, each independently pivoted between its ends to said handle, each jaw having cap gripping fingers at the opposite ends and the adjacent edges of the jaws being of generally convex form and adapted to bear against each other to turn the jaws, the fingers at the adjacent ends of the two jaws being spaced a material distance apart.

1,206,130. CORNER-BEAD. RUSSELL K. NASH, Somerville, Mass., assignor to Lamb & Nash Company, Boston, Mass., a Corporation of Maine. Filed Aug. 18, 1916. Serial No. 115,652. (Cl. 72—121.)



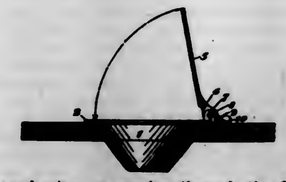
1. A metal corner bead section provided with a substantially flat body member folded at one edge to form a longitudinally extended bead and having arms extended from its other edge at an angle to said body portion and normally lying in the plane of said body portion with adjacent arms spaced apart by a distance substantially equal to the width of one of said arms, and which forms a bonding opening for plaster between the arms, fingers integral with said arms and struck therefrom and normally lying in the plane thereof, said fingers being folded substantially parallel with said arms and projected beyond the lower edge thereof to form therewith arms of a predetermined length but of different widths and to provide bonding openings for plaster in the arms themselves.

2. A metal corner bead section provided with a substantially flat body member having arms extended from one of its edges at an angle to said body portion and normally lying in the plane of said body portion with ad-

jacent arms spaced apart by a distance substantially equal to the width of one of said arms, and which forms a bonding opening for plaster between the arms, fingers integral with said arms and struck therefrom and normally lying in the plane thereof, said fingers being folded substantially parallel with said arms and projected beyond the lower edge thereof to form therewith arms of a predetermined length but of different widths and to provide bonding openings for the plaster in the arms themselves.

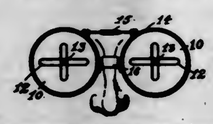
3. A metal corner bead section provided with a substantially flat body portion having arms extended from one of its edges at an angle to said body portion and normally lying in the plane of said body portion with adjacent arms spaced apart to form bonding openings for the plaster between said arms, fingers integral with said arms and struck therefrom and normally lying in the plane thereof, said fingers being folded substantially parallel with said arms and projected beyond the lower edge thereof to form therewith arms of a predetermined length but of different widths and to provide bonding openings for the plaster in the arms themselves.

1,206,131. RAILWAY APPLIANCE. MICHAEL O'BRIEN, St. Louis, Mo., assignor to United Railways Company of St. Louis, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 21, 1916. Serial No. 92,779. (Cl. 4—39.)



In a car having an opening through the floor thereof, a flange in connection with the car floor around said opening, an annular seat within said flange, lugs rising from said flange, a closure supported on said seat having its upper surface in substantially the same plane with the upper surface of the flange, an arm extending upwardly and laterally from said closure between said lugs, a pivot pin retaining the arm between the lugs, and a lever extending from said arm obliquely upwardly and outwardly relative to said closure, whereby said closure may be raised from said seat, said arm being arranged to engage with the car floor to stop movement of said closure before the closure reaches vertical position, to enable said closure to return to closed position by gravity when said arm is released.

1,206,132. GOGGLES. OTHO M. OTTE, Jamestown, N. Y. Filed Mar. 3, 1916. Serial No. 81,829. (Cl. 2—149.)



1. A goggle comprising a transparent disk, an opaquing or semi-opaquing material on said transparent disk having a straight horizontal clearance slot therein, the center of said slot intersected by a straight vertical clearance and the center of vision coinciding with the point of intersection of said slots to give full lateral and vertical vision without head movement.

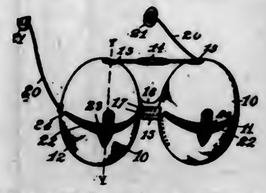
2. A goggle comprising a transparent disk, an opaquing or semi-opaquing material on said transparent disk having vertical and horizontal clearance slots therein intersecting and coinciding with the center of the line of vision to give a full lateral and vertical field of vision without head movement.

3. A goggle comprising a transparent disk, a similarly shaped opaqued or semi-opaqued disk attached to said transparent disk, said opaqued or semi-opaqued disk having a slotted clearance opening in the form of a cross central of the line of vision to give a limited field of vision.

4. In a goggle, transparent disks, similar shaped opaqued or semi-opaqued disks attached to said transparent disks having clearance slots crosswise of the center of vision, and suitable frames for supporting said disks.

5. In a goggle, a frame, transparent disks in said frame, opaque or semi-opaque disks in said frame alongside said transparent disks, said opaque or semi-opaque disks having a cleared central portion in the form of a cross.

1,206,133. GOGGLES. OTHO M. OTTE, Jamestown, N. Y. Filed Mar. 3, 1916. Serial No. 81,830. (Cl. 2—149.)



1. A goggle comprising a sheet metal concave disk, the edge of said disk turned in tubular form to strengthen the same, said concave disk having a slotted vision opening therein.

2. A goggle comprising a concave sheet metal disk having a cross-shaped opening therein across the center of vision, the outer ends of the arms of said cross-shaped opening diminished in size.

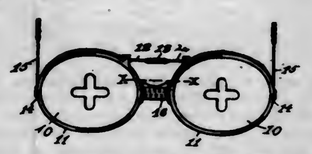
3. A goggle comprising a sheet metal concave disk, the edge of said disk turned in tubular form, said concave disk having a slotted opening therein for the vision, and a screen disk attached in said tubular edge within said concave disk to protect the eye.

4. A goggle comprising a sheet metal disk having a horisontal slot therein for the line of vision, the upper portion of said disk extending out over the lower portion of said disk, and the edge of said disk turned in tubular form to stiffen the same.

5. A goggle comprising a sheet metal concave disk having a vertical and horisontal slot therein crosswise of the line of vision, the upper portion of said concave disk extending out over the lower portion of said concave disk, the rim of said concave disk turned in tubular form to stiffen the same, and a disk-shaped wire screen attached in said tubular edge within said concave disk to protect the eye.

[Claim 6 not printed in the Gazette.]

1,206,134. GOGGLE-FRAME. OTHO M. OTTE, Jamestown, N. Y. Filed Mar. 3, 1916. Serial No. 81,831. (Cl. 88—41.)



1. A frame for goggles comprising rims for said goggles, two supports for said rims connecting the same, one of said supports slidably mounted and forming the nose rest between said rim and the other a master adjustment screw, and bows for said rims.

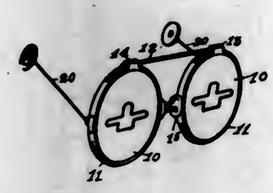
2. A frame for goggles comprising rims for said goggles, an attachment between said rims for adjusting the distance between said rims to focus said goggles, an automatically adjusting nose piece connecting said rims and independent of said attachment for adjusting the same, and bows for said rims.

3. A frame for goggles comprising rims for said goggles, a turnbuckle connection for said goggles to adjust said goggles as to the interpupillary distance, a nose piece permitting slidable adjustment between said rims, and bows for said rims.

4. A frame for goggles comprising rims for said goggles, a turnbuckle connection for said goggles to adjust the distance between said goggles, a nose piece having holes in the opposite sides, projections on said rims slidably engaging in said holes to support said nose piece and hold the parts in line, and bows for said rims.

5. A frame for goggles comprising rims for said goggles, oppositely placed wires on said rims projecting toward one another having a right hand thread on one of said wires and a left hand thread on the other, a connecting sleeve for said wires having a right hand thread in one end and a left hand thread in the other to move said goggles to and from one another by turning said sleeve, a nose piece having holes in the opposite sides thereof one above the other, pins on said rims slidably engaging in said holes to support said nose piece in position, and bows hinged to said rims.

1,206,135. GOGGLE-FRAME. OTHO M. OTTE, Jamestown, N. Y. Filed Mar. 3, 1916. Serial No. 81,832. (Cl. 88—41.)



1. A frame for goggles comprising rims for said goggles, a turnbuckle nose piece connecting said rims to adjust them to or from one another, and all sides of said nose piece shaped to fit the bridge of the nose.

2. A frame for goggles comprising a spool-shaped nose piece all sides of which fit the bridge of the nose, said nose piece having a hole therethrough with a righthand thread in one end and a lefthand thread in the other end of said hole, pins having right and left threads to fit in said right and left threads in said hole, and means for attaching said pins to said goggles to move said goggles to or from one another by turning said nose piece.

3. A frame for goggles comprising rims for said goggles, oppositely projecting pins on said rims therebetween having right and left threads thereon, a nose piece all sides of which fit the bridge of the nose, said nose piece having a hole in each opposite end with right and left threads therein to fit said right and left threads on said pins to move said rims to or from one another by turning said nose piece.

4. A frame for goggles comprising rims for said goggles, oppositely projecting pins on said goggles thereontween having a righthand thread on one pin and a lefthand thread on the other, a nose piece spool-shaped having a continuous fit for the nose around said nose piece, said nose piece having a hole therethrough with a right hand thread in one end to fit said righthand thread on one of said pins and a lefthand thread in the other end to fit the lefthand thread on the other pin to move said goggles to and from one another by turning said nose piece.

5. A frame for goggles comprising rims for said goggles, oppositely projecting pins on said goggles having right and left threads cut thereon, a nose piece having a hole therein with right and left threads to fit said pins, a rod attached to one of said goggles and slidably attached to the other to hold the same in line, and suitable bows for said goggles.

[Claims 6 not printed in the Gazette.]

1,206,136. SWITCH. JOHN ALLEN PARSONS, Philadelphia, Pa. Filed Apr. 26, 1915. Serial No. 23,907. (Cl. 175—292.)



1. In an electric switch, the combination with a box, a movable cover on the box, a stationary switch member in the box, a movable switch member in the box, contacts on said switch members, a shaft projecting through the cover, a crank arm on the shaft having a portion engaging the movable member, a crank handle on the shaft outside of the box, a lug on the box, and means on the shaft for engaging the lug to lock the cover in its closed position when the shaft is turned to a position to move the contacts together, substantially as described.

2. In an electric switch, the combination with a box, a movable cover on the box, a stationary switch member in the box, a movable switch member in the box, contacts on said switch members, a shaft projecting through the cover, a crank arm on the shaft having a portion engaging the movable member, a crank handle on the shaft outside of the box, a lug in the box, and a finger secured to the crank arm and located under the lug when the crank arm is in a position to move the contacts together, whereby the cover is locked in closed position, substantially as described.

3. In an electric switch, the combination with a box, a movable cover on the box, a stationary switch member in the box, a movable switch member in the box, contacts on said switch members, a shaft projecting through the cover, a crank arm on the shaft engaging the movable member, a lug on said box, a crank handle on the shaft outside of the box, means on the shaft for engagement with the lug to lock the cover in closed position when the shaft is turned to a position to move the contacts together, elastic means exerting pressure on the movable member tending to separate the contacts, and said crank arm and crank handle located at an angle to each other, substantially as described.

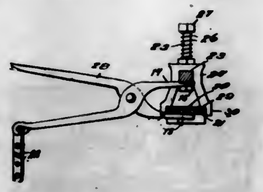
4. In an electric switch, the combination with a box, a movable cover on the box, a stationary switch member in the box, a movable switch member in the box, contacts on said switch members, a shaft supported in the cover, a crank arm on the shaft engaging the movable member, a crank handle on the shaft outside of the box, a lug in the box, a finger secured to the crank arm and located under the lug when the crank arm is in a position to move the contacts together, whereby the cover is locked in closed position, elastic means exerting pressure on the movable member tending to separate the contacts, and said crank arm and crank handle located at an angle to each other, substantially as described.

5. In an electric switch, the combination with a box, a stationary member in the box having contacts thereon, rods supported in the box, a movable member mounted to slide on the rods and supported by the box, contacts on the movable member, springs on the rods exerting pressure on the movable member tending to hold the contacts of the two members apart, a cover on the box movable independently of said stationary and movable members, and a crank shaft projecting through the cover and movable therewith,

a crank arm secured to said shaft for moving the movable member into position to bring the contacts together, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,206,137. SPRING-FITTING TOOL. ALEXANDER E. PATTERSON, Scranton, Pa. Filed Sept. 7, 1915. Serial No. 49,319. (Cl. 266—6.)



1. In a bending tool, the combination with upper and lower dies; of a pair of tongs comprising two handles crossing and pivoted to each other and extended into jaws whereof the lowermost underlies the lower die and the uppermost is provided with a hole, a bolt passing through said hole and engaging the upper die, and a keeper linked to the end of one handle and having eyes adapted to be engaged with the end of the other handle, for the purpose set forth.

2. In a bending tool, the combination with a rigid lower die whose upper face constitutes a form, and a pair of tongs whose lower jaw is connected with said die at the mid-length of the latter; of an upper die connected with the upper jaw of the tongs and adapted to shape the work upon said form, and guides depending from the upper die at its edge and adapted to pass and contact with the edge of the work and form as the tongs are closed.

3. In a tool for bending spring leaves, the combination with a rigid lower die whose upper face is curved to constitute a form; of a bar overlying said die, a plurality of plungers movably mounted on and projecting below said bar, expansive springs bearing said plungers with yielding force toward said form, a foot on each plunger to engage one side of the leaf resting on said form, and means for pressing the bar toward the form.

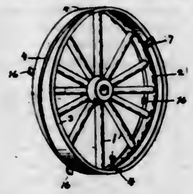
4. In a tool for bending spring leaves, the combination with a curved form, a bar overlying the same, and means for pressing the bar toward the form; of a series of bolts rising from said bar, a series of plungers each having its upper end slidably mounted on one bolt and its lower end provided with a foot to engage one side of the leaf resting on said form, and a guide projecting below the foot to engage the edge of said leaf and form, and an expansive spring coiled on the bolt between its upper end and the upper end of said plunger.

5. In a tool for bending spring leaves, the combination with a curved form, a bar overlying the same, and means for pressing the bar toward the form; of a series of bolts rising from said bar, a series of plungers of inverted U-formation standing astride said bar and each mounted loosely on one of said bolts, expansive springs on the latter between its upper end and the plunger, and shoulders on the plunger-arms forming feet engaging the work near its edges and extensions passing by said edges, for the purpose set forth.

1,206,138. WHEEL. LOUIS H. PERLMAN, New York, N. Y. Filed Mar. 16, 1909. Serial No. 483,815. (Cl. 152—21.)

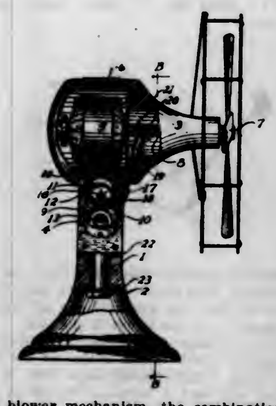
1. In a wheel, the combination of a fixed rim, a rim designed to be detachably mounted thereon, and a thread connection between the rims, the terminal end of the female thread being tapered with respect to depth and the entering end of the male thread being correspondingly tapered.

2. In a wheel, the combination of a fixed rim, a rim designed to be detachably mounted thereon, and a thread connection between the detachable rim and fixed rims, tapering longitudinally with respect to its width and tapering with respect to its thickness at one end.



3. In a wheel, the combination of a fixed rim, a rim designed to be detachably mounted thereon, and a thread connection between the detachable rim and fixed rim, said threaded connection tapering longitudinally throughout its length with respect to its width, the male thread tapering with respect to its thickness at its entering end and the female thread correspondingly tapering with respect to its thickness at its terminal end.

1,206,139. OSCILLATING FAN. EDWIN P. PHELPS, Wilmette, Ill., assignor to Willard M. McEwen, Chicago, Ill. Filed Jan. 29, 1916. Serial No. 75,006. (Cl. 230—1.)

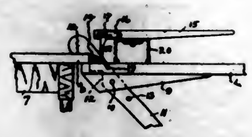


1. In a blower mechanism, the combination of a support, a member journaled thereon, motor-driven blower mechanism tiltably mounted on said member, a slotted head rigid on said member and disposed at right angles to the axis of the connection of said mechanism and member, an eccentric rotatably supported on said mechanism so as to be located in said slotted head, and gearing connecting said eccentric with the motor of said blower mechanism whereby said eccentric will be rotated to cause the tilting of said blower mechanism.

2. In a blower mechanism, the combination of a support, a member journaled thereon, motor-driven blower mechanism tiltably mounted on said member, a vertically disposed slotted head rigid on said member, a depending bifurcated stem on said mechanism embracing said head and pivotally connected to said member, an eccentric journaled on said stem and located in said slotted head, and gearing connecting said eccentric with the motor of said blower mechanism whereby said eccentric will be rotated to cause the tilting of said blower mechanism.

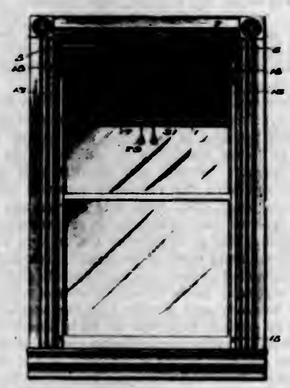
3. In a blower mechanism, the combination of a support, a member journaled thereon on a vertically disposed axis, motor-driven blower mechanism pivotally connected to said member on a horizontally disposed axis so as to tilt back and forth in a vertical plane, an eccentric rotatably mounted on said mechanism, said member being recessed to receive said eccentric, and gearing connecting said eccentric with the motor of said blower mechanism whereby said eccentric will be rotated to cause said mechanism to tilt back and forth.

1,206,140. IRONING-BOARD. JOHN D. REYNOLDS, Niobrara, Nebr. Filed Apr. 3, 1916. Serial No. 88,609. (Cl. 68—10.)



A device of the type described, including a support, said support having lugs at one end, said lugs having apertures opening out through the inner ends thereof, and a sleeve-board provided upon its opposite sides, at one end, with pivoted links having foot-pieces engaging the apertures in said lugs, said sleeve-board also having a swiveled prop for engagement with said support.

1,206,141. ROLLER-SCREEN. MILFORD M. REYNOLDS, Van Wert, Ohio, assignor of forty-five one-hundredths to Charles A. Jones, Van Wert, Ohio. Filed Nov. 8, 1915. Serial No. 60,269. (Cl. 156—39.)



1. In a screen construction, the combination of a frame, a spring-actuated roller mounted adjacent to one end of said frame, combined guides and racks connected with the side stiles of the frame, a screen movable in said guides and connected with and adapted to be wound on the roller, a casing connected with the free end of the screen and arranged with its end portions in the guides, spring-pressed latches guided in said casing and arranged at their outer ends to engage the racks, spring-pressed pawls mounted in the casing and arranged to engage and hold the latches against outward movement, and means carried by the casing for retracting the latches and other means also carried by the casing for disengaging the pawls from the latches.

2. In a screen construction, the combination of a frame, a spring-actuated roller mounted adjacent to one end of said frame, guides connected with the side stiles of the frame and provided with racks at their backs, a screen movable in said guides and connected with and adapted to be wound on the roller, a casing connected with the free end of the screen and open at its ends and having its ends movable in the guides, and spring-pressed means carried by said casing and movable through the open ends thereof and into and out of engagement with the racks.

3. In a screen construction, the combination of a screen, a casing connected thereto and open at its ends, rectilinearly movable latches guided in said casing and having shoulders and notches, pawls mounted in the casing and arranged to engage said notches, springs mounted in the casing and having outer arms engaging the shoulders of the latches and inner arms bearing against the pawls, and cables connected with the latches and the pawls, respectively, and extending outside the casing.

4. In a screen construction, a roller casing, a roller mounted therein, a screen connected to the roller and movable into and out of the casing, and brackets fixed with respect to the end portions of the casing and disposed at right-angles thereto and each having notches at opposite edges, arranged out of alinement with each other.

5. In a screen construction, the combination of a suitably-supported spring-actuated roller, a screen connected to said roller, a fixed channel guide receiving one edge of the screen and having a rack at its back and also having lugs provided in their lower edges with notches, means resting in said notches and supporting and connecting the channel guide to a support, and means carried by the screen and detachably engaging the rack of the channel guide to hold the screen against movement by the action of the spring-actuated roller.

1,206,142. INFANT'S DIAPER. EMMA RICKERT, Aurora, Ill. Filed May 27, 1916. Serial No. 100,352. (Cl. 2—131.)



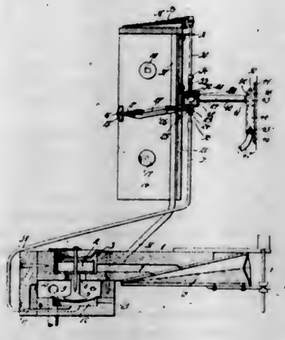
1. An infant's diaper constructed from a single piece of material and including a tubular body adapted to extend around the hips and abdomen of the infant, said body having a relatively long back portion and a tab depending therefrom, relatively long bands extending from the body portion at each side of the tab, a fastening element secured to the front of the tubular body, said bands being adapted to be wound around the respective thighs and passed in opposite directions entirely around the abdomen and connected at their extremities to said fastening element, and said tab being adapted to be drawn forwardly and upwardly between the thighs of the infant and attached to said fastening element.

2. An infant's diaper constructed from a single piece of knit material and including a tubular body adapted to extend over the hips and abdomen of the infant, said tubular body having a relatively long back portion centrally provided with a depending tab and relatively long bands on opposite sides of said tab, said tab and bands being provided in their extremities with button-holes, a single button secured to the front of the tubular body adjacent its upper edge, the bands being adapted to be wound around the thighs and passed in opposite directions around the abdomen and connected at their extremities to said button, and said tab being adapted to be drawn upwardly between the thighs of the infant and connected to said button.

1,206,143. AUTOMATIC PLAYER-PIANO. MAX ROTHFELD, Philadelphia, Pa. Filed June 16, 1916. Serial No. 103,915. (Cl. 84—178.)

1. The combination in a player piano, of a tracker bar, a main valve casing, tubes connected to the tracker bar,

tubes connected to the main valve casing, a union for said tubes, passages in the union communicating with said tubes and extending to an outer face of the union, means for forming suction adjacent said outer face of the union, and a valve for engagement with said face to cut off communication between said passages and the suction forming means, substantially as described.



2. The combination in a player piano, of a tracker bar, a main valve casing, tubes connected to the tracker bar, tubes connected to the main valve casing, a union for said tubes, passages in the union communicating with said tubes and extending to an outer face of the union, a casing into which said face of the union extends, means for providing suction in said casing, a valve in said casing, and means for moving said valve into and out of engagement with said face of the union, substantially as described.

3. The combination in a player piano, of a tracker bar, a main valve casing, tubes connected to the tracker bar, tubes connected to the main valve casing, a union for said tubes, passages in the union communicating with said tubes and extending to an outer face of the union, a casing into which said face of the union extends, means for providing suction in said casing, a valve in said casing, and means for moving said valve into and out of engagement with said face of the union, means connected to said latter casing for collecting dirt produced by the suction within the casing, substantially as described.

4. The combination in a player piano, of a tracker bar, a main valve casing, tubes connected to the tracker bar, tubes connected to the main valve casing, a union for said tubes, passages in the union communicating with said tubes and extending to an outer face of the union, a casing into which said face of the union extends, means for providing suction in said casing, a valve in said casing, bellows, means connecting a movable part of the bellows with the valve in said latter casing, means for normally holding said valve out of engagement with said face of the union, and means for creating suction within said bellows to move and hold the valve in engagement with said face of the union, substantially as described.

5. The combination in a player piano, of a tracker bar, a main valve casing, tubes connected to the tracker bar, tubes connected to the main valve casing, a union for said tubes, passages in the union communicating with said tubes and extending to an outer face of the union, a casing into which said face of the union extends, means for providing suction in said casing, a valve in said casing, bellows, means connecting a movable part of the bellows with the valve in said latter casing, spring means for normally holding said valve out of engagement with said face of the union, and means for creating suction within said bellows to move and hold the valve in engagement with said face of the union, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,206,144. CONFORMATEUR OR APPARATUS FOR MAKING CHARTS OF SURFACE CONFORMATIONS. WILLIAM J. SCHATZ, Philadelphia, Pa., assignor to A. G. Spalding & Bros. Manf'g Co., a Corporation of Massachusetts. Filed Dec. 22, 1915. Serial No. 68,255. (Cl. 33—23.)



1. In combination in apparatus for making tracings or curves of the human body, a chart disposed in a vertical plane, a horizontally disposed tracing rod having marking means at one end to engage said chart and a tracing device at the other end to bear upon the body and follow its curves, a vertically movable support for said rod, and connecting means between said support and said rod to permit the same to have movement longitudinally and vertically while maintaining the same in horizontal position, substantially as described.

2. In combination in apparatus of the class described, a horizontal tracing rod having marking means at one end and a rotary member at its other end having a grooved periphery to follow the curve or surface to be traced, a vertically movable carrier, and parallel rods connecting the tracing rod with the vertically movable carrier, and having pivotal connection with said carrier and with said horizontal tracing rod, substantially as described.

3. In combination in apparatus for making tracings or curves of the human body, a vertically arranged chart, a vertically arranged support, a horizontally disposed tracing rod, a vertically movable carrier on the vertical rod, a connection between said carrier and the horizontally disposed rod to permit said rod to have longitudinal and lateral movement while maintaining the same in horizontal position, marking means at one end of the tracing rod to engage said chart and a tracing implement at the other end of the rod, said tracing implement being adjustable to be set on said horizontal rod to work on a surface lying in a plane transverse to the end of said rod, whereby said rod will move longitudinally as it is raised and lowered along the irregularities of said surface or to be set on said rod to work on a surface lying in a plane substantially parallel with the rod, whereby said rod will be caused to assume different elevations as the rod is moved longitudinally, substantially as described.

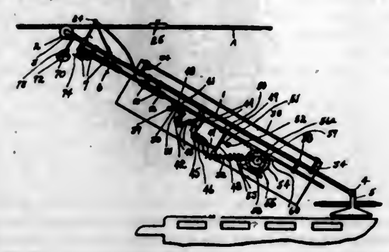
4. In combination in apparatus of the class described, a tracing rod, a movable support therefor, permitting said rod to have both longitudinal and lateral movement, marking means at one end of the rod and a tracing implement at the other end of the rod, said tracing implement being adjustable to operate parallel to the axis of the tracing rod or at right angles thereto, substantially as described.

5. In combination in apparatus of the class described, a tracing rod, a movable support therefor, marking means at one end of the rod and a tracing implement at the other end of the rod, said tracing implement consisting of a bracket having openings at right angles to each other to receive the tracing rod for setting the implement in different positions relative to the said rod, said tracing rod having movement both longitudinally and laterally, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,206,145. TROLLEY. RICHARD SCHRADER, Utica, N. Y. Filed Feb. 19, 1916. Serial No. 79,235. (Cl. 191—83.)

1. In a trolley, wires mounted thereon for restoring the trolley to a given position, a rack and gear for restoring said wires to normal position, and an electric motor for revolving said gear.



2. In a trolley, a trolley wheel, adapted to run under a trolley wire, wires movably mounted upon said trolley, automatic means for moving said wires into given position, whereby to restore the trolley wheel to the trolley wire and a rack and gear for restoring said wires to normal position.

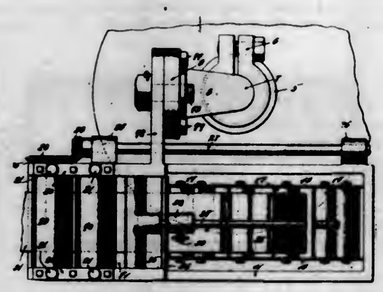
3. In a trolley, a trolley wheel adapted to run under a trolley wire, a cylindrical casing movably mounted in relation to said trolley, wires extending from the upper end of said trolley, automatic means for moving said casing and wires at given intervals, whereby to restore the trolley wheel to the trolley wire and a rack and gear for restoring said casing to normal position.

4. In a trolley, a trolley wheel adapted to run against a trolley wire, a casing movably mounted in relation to said trolley, wires extending from said casing, spring means for actuating said casing, whereby to move the wires to restore the trolley wheel to the trolley wire and a rack and gear for restoring said casing to normal position.

5. In a trolley, flexible wires connected to a collar attached to a rod, a rack on said rod, a gear in mesh with said rack, a spring for moving said rod, whereby to restore the trolley wheel to the trolley line, and means for revolving said gear, whereby to restore said rod to normal position.

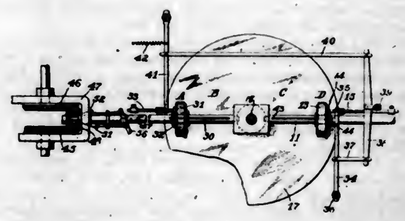
[Claim 6 not printed in the Gazette.]

1,206,146. LUBRICATOR FOR SHEET METAL. ALEXANDER L. SCHRAM, Hillsboro, Ill., assignor to Schram Glass Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 6, 1914. Serial No. 865,295. (Cl. 91—32.)



In a machine of the class described, a tank, a drain board, a plurality of rollers in the tank for the support of a roll of sheet material, a pair of power driven rollers for moving the sheet material, a variable pressure gravity operated wiper and a pair of rollers in staggered relationship with each other for removing the curl from the sheet material and means for adjusting one of said rollers relative to the other.

1,206,147. TRANSMISSION-GEARING. OTTO J. SENUM, Kariuk, Saskatchewan, Canada. Filed Mar. 9, 1916. Serial No. 83,079. (Cl. 74—26.)

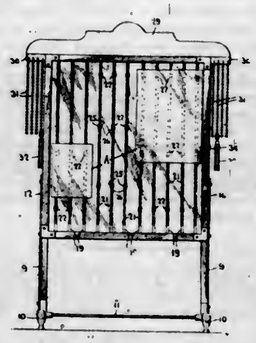


1. A device of the class described including friction disks, two friction wheels coacting therewith, a single controlling handle, and means for selectively changing the position of either of said wheels operated by said handle comprising levers operating to move said wheels, an equalizer pivoted to said controlling handle, and connections between the ends of said equalizer and said levers.

2. A device of the class described including friction disks, two friction wheels coacting therewith, a single controlling handle, and means for selectively changing the position of either of said wheels operated by said handle comprising levers operating to move said wheels, a spring acting upon one of said levers, an equalizer pivoted to said controlling handle, and connections between the ends of said equalizer and said levers.

3. A device of the class described including friction disks, two friction wheels coacting therewith, a single controlling handle, and means for selectively changing the position of either of said wheels operated by said handle comprising levers operating to move said wheels, a spring acting upon one of said levers, stops for limiting the outward movement of said wheels, an equalizer pivoted to said controlling handle, and connections between the ends of said equalizer and said levers.

1,206,148. BULLETIN-BOARD. THOMAS C. SHAW, Atlanta, Ga. Filed Mar. 10, 1916. Serial No. 83,363. (Cl. 40—125.)



1. In a device of the character set forth, the combination with a supporting structure including a case having a rear

wall and a transparent wall, said supporting structure having slots, and clips having mountings adjustably engaged in the slots, said clips coacting with one of the walls to clamp thereagainst articles to be displayed through the transparent wall.

2. In a device of the character set forth, the combination with a supporting structure including a wall, said supporting structure having a slot, of a carrier having a bolt slidable in the slot for securing the carrier in different adjusted positions, a clip pivoted in the carrier and bearing against the wall for securing an article thereagainst, and a spring interposed between the carrier and clip for yieldingly urging the latter against the wall.

3. In a device of the character set forth, the combination with a supporting structure including a case having a wall, said supporting structure having a slot, a carrier within the case having a fastening device slidable in the slot, and a yielding clip mounted on the carrier and bearing against the wall to clamp thereagainst a sheet placed between the clip and wall.

4. In a device of the character set forth, the combination with a case having a transparent face, of a plurality of standards in the case, and clips mounted on the standards and adjustable along the same, said clips having elements coacting with the transparent face to clamp articles thereagainst.

5. In a device of the character set forth, the combination with a case having a transparent face and a rear movable closure, of standards located in the case, carriers slidable in the standards, means for securing the carriers in different positions to the standards, and yielding clips mounted on the carriers and coacting with the transparent face to clamp articles thereagainst.

[Claim 6 not printed in the Gazette.]

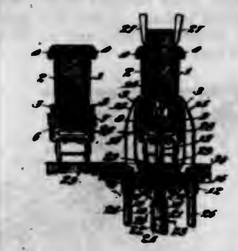
1,206,149. POULTRY-HOUSE. WILLIE D. SIDDALL and WILLIAM R. HASSELL, Alvarado, Tex. Filed Apr. 8, 1916. Serial No. 89,914. (Cl. 119—21.)



A poultry house including a frame comprising upstanding supports, a plurality of vertically spaced pairs of bars connecting said supports and directed on a downward incline, the bars of each pair being in transverse alinement, a series of roost bars connecting each pair of bars, an endless floor positioned beneath each series of roost bars and disposed substantially in parallelism with the bars to which said roost bars are connected, and a scraping member coacting with the lower end portion of each of the endless floors, said housing being provided with a door above the lower end of each of said endless floors and extending above the pair of bars adjacent thereto, the lower ends of the vertically spaced pairs of bars serving to limit the inward movement of the doors.

1,206,150. METHOD AND APPARATUS FOR STRIPPING INGOTS. EDWIN E. SLICK, Westmont borough, Pa. Filed Apr. 20, 1914. Serial No. 833,028. (Cl. 22—190.)

1. The method which consists in lifting a mold and the ingot therein from their supporting stool, then placing and holding the mold firmly while the lower end of the ingot is exposed, then pushing said ingot upwardly partly out of the mold, then grasping the ingot by its upper end and removing it from the mold.



2. The method which consists in lifting a mold and the ingot therein from their supporting stool, then placing and holding the mold firmly on a support, then pushing said ingot partly out of the mold, then grasping the ingot by its exposed end and removing it from the mold.

3. The method comprising casting an ingot large end upward in a mold which is open top and bottom, the mold bottom being set on a seating stool and thereby temporarily closed, then taking the mold and contained ingot from the seating stool, then holding the mold firmly fixed, then pushing the ingot upwardly therein until its top extends above the mold, then grasping said top and removing the ingot from the mold.

4. The method which consists in casting an ingot in a mold open at top and bottom, quickly abstracting the heat from the lower part of the ingot, then transferring the mold and contained ingot to another support with the lower end of the ingot exposed, then holding the mold firmly and pushing the ingot upwardly partly out of the mold, then finally withdrawing the ingot by grasping its upper end and thereby lifting it from the mold.

5. The method which consists in casting an ingot in a tapered metal mold open at top and bottom with the large end upward, the inner sides of said mold being straight the entire length thereof, the openings being therefore of full section, quickly abstracting the heat from the lower and smaller end of the ingot causing said end to solidify considerably sooner than the upper portion, then transferring the mold and contained ingot to another and perforated support exposing the lower end of said ingot, then holding said mold firmly down on said perforated support and pushing said ingot upwardly by positive means contacting with its lower end, thereby projecting its upper portion out of the mold, then grasping said upper portion and removing the ingot thereby from the mold.

[Claims 6 to 11 not printed in the Gazette.]

1,206,151. MINE-CAR BODY. EDWIN E. SLICK, Westmont borough, Pa. Original application filed June 9, 1915, Serial No. 32,998. Divided and this application filed Nov. 18, 1915. Serial No. 62,082. (Cl. 105—15.)



1. In a car body, open at the top, a plate floor, a trough extending longitudinally of the car and secured on the plate floor, thereby forming a combined stiffener and center sill.

2. An open top metal car body, comprising floor plates, spaced apart at the longitudinal center of the car, on which plates is an inverted trough, comprised of corner angles, side plates and top plate, secured together and on the floor plates, thereby providing a combined stiffener and center sill.

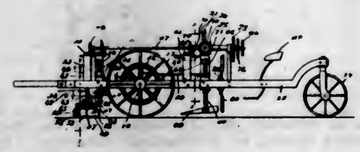
3. A metallic car body, comprising a plate floor, an inverted trough, composed of external lower angles, side plates secured to said angle, an inverted channel, located and secured between the upper portions of said side plates, said trough being secured to the floor plates, thereby providing a combined stiffener and center sill.

4. A car body comprising a plate floor, provided with an upwardly projecting and longitudinally extending portion of inverted trough form, thereby forming a stiffener and center sill, sides extending upwardly and integrally from the floor portion, the upper portions of which sides flare outwardly and are provided with a rounded bead on their upper edges.

5. A metallic car body comprising a plate floor, a trough extending longitudinally thereof, side portions extending integrally upwardly from the sides thereof, the upper portions flaring outwardly, in combination with end plates fitted therein and provided with means for securing them to the bottom and side plates aforesaid.

[Claim 6 not printed in the Gazette.]

1,206,152. BEET AND POTATO HARVESTER. ANDREW B. SMITH, Mason City, Iowa, assignor of one-half to Louis E. Touff, Chicago, Ill. Filed Jan. 3, 1914, Serial No. 810,213. Renewed June 28, 1916. Serial No. 106,491. (Cl. 55—9.)



1. In a machine of the class described, a frame structure including yokes, internally threaded sleeves supported on said yokes, threaded rods guided through the sleeves, and implements carried by said threaded rods, said implements including a topping device, digging devices and a pivoted frame supporting a rotary shaft carrying a spreading device.

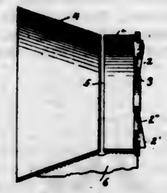
2. In a machine of the class described, a frame structure, a ground wheel carrying axle supporting the same, yokes included in the frame structure, internally threaded sleeves supported for rotation on the yokes, threaded rods guided through the sleeves, implements carried by said rods and including moving parts, means for transmitting motion to said moving parts from the axle of the machine, and means for rotating the sleeves and for controlling such rotation to effect adjustment of the implements.

3. In a machine of the class described, a main frame, a ground wheel carrying axle supporting the same, yokes rising from the frame in front of the axle, internally threaded front and rear sleeves supported for rotation on the yokes, a rod guided through the forward sleeve in threaded engagement therewith, said rod being bifurcated at its lower end, a topping device supported by said rod and including movably supported cutting members, a shaft having eccentrics and rods connecting the eccentrics with the cutting members, a threaded rod guided through the rearward sleeve, a shaft connected with said rod for rotation independently thereof, means for transmitting motion to said shaft from the axle of the machine, and means for transmitting motion from said shaft to the eccentric carrying shaft of the topping device.

4. In a machine of the class described, a main frame, a rod vertically adjustable with respect to the main frame, a topping device carried by said rod and including movably supported cutting members, means for effecting vertical adjustment of the rod and for controlling such adjustment, a ground wheel carrying axle supporting the frame structure, and means for transmitting motion from said axle to the movably supported cutting members of the topping device, said means including a rotary shaft supported for vertical sliding movement, and means for effecting adjustment of said shaft concurrently with the adjustment of the rod carrying the topping device.

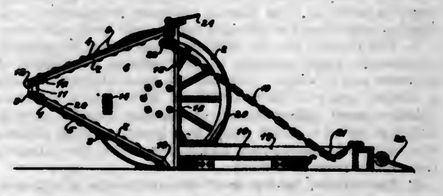
5. In a machine of the class described, a frame structure, a ground wheel carrying axle supporting the same, implement carrying rods supported for vertical adjustment with respect to the frame, means for effecting adjustment of said rods and for controlling such adjustment, implements carried by said rods and including movable parts, and means for transmitting motion from the wheel carrying axle to said movable parts, said means including front and rear longitudinal shafts each including a clutch member, and means for simultaneously actuating said clutch members to throw the shafts into and out of gear.

1,206,153. AIR-DIRECTOR FOR USE IN BURNING LIQUID FUEL. HENRY PELHAM SMITH, London, England. Filed Oct. 29, 1915. Serial No. 58,678. (Cl. 158—1.5.)



The herein described device for use in burning liquid fuel comprising, in combination, a cylindrical portion the interior of which is unobstructed, a truncated conical portion coaxial with and diverging from the end adjacent to said cylindrical portion, the boundaries of the contiguous ends of said cylindrical and conical portions being circles of equal diameter and spaced to afford a narrow peripheral gap of substantially uninterrupted annular formation, and an impeller plate comprising angularly disposed blades and secured to said cylindrical portion at the end remote from said conical portion.

1,206,154. ARMOR UNIT FOR GUNNERS. JOHN J. SPENCE, Greenville, Tex. Filed Nov. 15, 1915. Serial No. 61,494. (Cl. 89—36.)



1. A device of the class described comprising an armored housing, ground wheels disposed at opposite sides of said housing and eccentric with respect to the transverse axis of the latter, and a platform supported by said housing and normally acting to balance the latter vertically of the axis of said ground wheels.

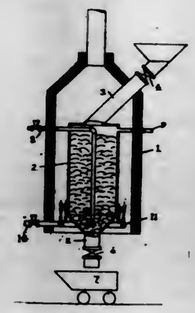
2. A device of the class described comprising an armored housing, ground wheels disposed at opposite sides of said housing and eccentric with respect to the trans-

verse axis of the latter, a platform hingedly secured to said housing at one end, and means connecting the opposite end of said platform with said housing whereby the same are retained in normally inoperative position.

3. A device of the class described comprising an armored housing, ground wheels disposed at opposite sides of said housing and eccentric with respect to the transverse axis of the latter, a platform supported by said housing and normally acting to balance the latter vertically of the axis of said ground wheels, and means for releasing one end of said platform, whereby the latter is lowered to ground simultaneously with the forward tilting of said housing to operative position.

4. A device of the class described comprising an armored housing, substantially triangular in cross section, said housing being provided with port holes at its apex, ground wheels disposed at opposite sides of said housing and eccentric with respect to the transverse axis of the latter, a platform supported by said housing and normally acting to balance the latter vertically of the axis of said ground wheels, and means for releasing one end of said platform, whereby the latter is lowered to ground simultaneously with the forward tilting of said housing to operative position.

1,206,155. PROCESS FOR THE SYNTHETIC PRODUCTION OF NITROGEN COMPOUNDS. PAUL A. STARKE and ERIC A. STARKE, Berkeley, Cal., assignors to Standard Oil Company, Richmond, Cal., a Corporation of California. Filed May 3, 1915. Serial No. 25,608. (Cl. 23—13.)



1. The process for the synthetic production of nitrogen compounds which consists in first making a mixture of methane and nitrogen; then passing said mixture through a heated catalytic mass devoid of carbon as a chemical reactive agent to form therein cyanogen compounds; and, finally, recovering the nitrogen compounds from said mass.

2. The process for the synthetic production of nitrogen compounds which consists in first making a mixture of methane and nitrogen; then passing said mixture through a heated catalytic mass devoid of carbon as a chemical reactive agent and composed of alkaline substances with which is mixed a metal of the iron group, to form therein cyanogen compounds; and, finally, recovering the nitrogen compounds from said mass.

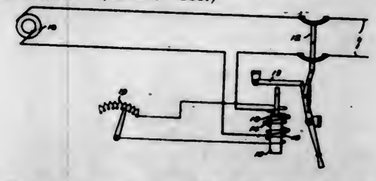
3. The process for the synthetic production of nitrogen compounds which consists in first making a mixture of methane and nitrogen; then passing said mixture through a heated catalytic mass devoid of carbon as a chemical reactive agent and composed of a mixture of alkalis, alkaline earths and a metal of the iron group to form cyanogen compounds in said mass; and, finally, recovering the nitrogen compounds from said mass.

4. In the process for the synthetic production of nitrogen compounds by catalysis, that step which consists in subjecting a mixture of methane and atmospheric air, under a temperature not lower than 600 degrees centigrade, to a catalytic agent devoid of carbon as a chemical reactive agent.

1,206,156. PROCESS OF PURIFYING AND IMPROVING HYDROCARBON GASES. PAUL A. STARKE and ERIC A. STARKE, Berkeley, Cal., assignors to Standard Oil Company, Richmond, Cal., a Corporation of California. Filed Jan. 24, 1916. Serial No. 73,781. (Cl. 48—220.)

The process of purifying and improving hydrocarbon gases of the generic formula C_nH_{n+2} which consists in passing them over a catalytic mass composed of a metal of the iron group, an alkaline earth and an alkali, under approximately atmospheric pressure and at a temperature ranging between 1000 degrees Fahr. and 1600 degrees Fahr., approximately, whereby aromatic bodies and nitrogen compounds are formed and the latter separated out; and then subjecting them, after cooling, to a pressure of approximately 500 pounds to the square inch and allowing them to expand whereby the aromatic bodies are separated, leaving the residual gas improved in thermal units and illuminating quality.

1,206,157. OVERLOAD PROTECTIVE DEVICE. HALVDAN A. STEEN, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed July 22, 1911. Serial No. 639,969. (Cl. 175—268.)



1. In an automatic circuit-breaking device for alternating current circuits, an electromagnet comprising a winding carrying alternating current, an element of magnetic material disposed in inductive relation to said winding and movable in response to energization of said winding to a predetermined degree, a circuit-controlling device rendered operative through actuation of said element of magnetic material, and means for varying the value of current in said winding at which said element of magnetic material is actuated for circuit-controlling purposes, said means comprising a second winding permanently closed-circuited and in inductive relation to said first winding and said element of magnetic material, and a variable impedance in the circuit of said second winding.

2. In a circuit-breaking apparatus for alternating current circuits, controlling means responsive to abnormal conditions in the circuit to be controlled and comprising a winding carrying alternating current proportional to the current in the circuit to be controlled, a movable member of magnetic material whose effective actuation is controlled by magnetic effects produced thereon by said winding, and means for varying the value of current in said winding at which said member is effectively actuated, said latter means comprising a winding inductively related to said first winding and said member of magnetic material and permanently closed-circuited through a variable impedance during the use of the apparatus.

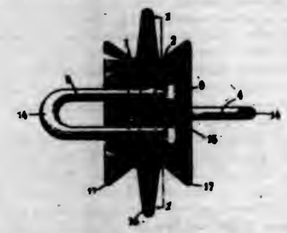
3. In a circuit-controlling apparatus, a switch, and means for controlling the operation of said switch in response to abnormal conditions in the circuit to be controlled, said controlling means comprising an operating coil carrying alternating current of an intensity proportional to that of the current in the circuit to be controlled, a member of magnetic material inductively related to said coil and actuatable in response to sufficient energization of said coil, and means for modifying the effect of said coil on said member of magnetic material to variably adjust the value of current in said coil at which said member is effectively actuated, said means comprising a second coil inductively related to said first coil and said member of magnetic material and permanently closed-circuited through a variable resistance.

4. In a circuit-controlling apparatus for alternating current circuits, a controlling device responsive to abnormal conditions in the circuit to be controlled, said controlling device comprising an operating coil carrying alternating current proportional to the current in the circuit to be controlled, and a member of magnetic material movable under the influence of the magnetic effects produced thereon by said coil, and means for calibrating said controlling device for rendering the latter capable of effectively actuating said member of magnetic material on the occurrence of abnormal circuit conditions of different intensities, said calibrating means comprising a short-circuited coil inductively related to said first coil and said member of magnetic material, and a variable impedance in the circuit of said second coil.

5. In a circuit-controlling apparatus, a controlling device responsive to abnormal conditions of different intensities in the circuit to be controlled, said controlling device comprising an operating winding carrying alternating current of a value proportional to that of the current in the circuit to be controlled, and a member of magnetic material actuatable under the influence of the magnetic effects produced thereon by said winding, and means for calibrating said controlling device to render said device capable of effectively actuating said member of magnetic material on the occurrence of abnormal circuit conditions of different intensities, said calibrating means comprising a short-circuited winding inductively related to said first winding and said member of magnetic material, and regulable means associated with said second winding and operative to vary the effect of said second winding in opposing actuation of said member of magnetic material by said first winding.

[Claim 6 not printed in the Gazette.]

1,206,158. SAFETY STRAIN-INSULATOR. LOUIS STEINBERGER, New York, N. Y. Filed July 25, 1912. Serial No. 711,466. (Cl. 173—366.)



1. In an insulator, the combination comprising an anchoring member, a single rod extending into engagement with said anchoring member and having integral formations thereon interlocking with coöperating formations integral with said anchoring member in such manner as to retain said rod against longitudinal movement in two directions relatively to said anchoring member, and said interlocking formations on said rod and on said anchoring member serving also to retain said rod against relative transverse movement; and a body of insulating material within which said anchoring member is embedded.

2. In an insulator, the combination comprising an anchoring member; a U-shaped conductor arranged with its two legs extending into engagement with said anchoring member, each of said legs having integral formations thereon sprung into interlocked relation with coöperating formations integral with said anchoring member by relative spring action between said legs; each leg of said U-shaped conductor, when interlocked with said anchoring member, being held by said interlocking formations irrespective of the presence of the other leg or of the spring action between the legs in such manner as to be retained against longitudinal movement in two directions relatively to said anchoring member and being also held against relative transverse movement; and a body of insulating material within which said anchoring member is embedded.

3. In an insulator, the combination comprising an anchoring member having an opening formed through the material thereof; a U-shaped conductor arranged with its two legs projecting through said opening, each of said legs having integral formations thereon sprung into interlocked relation with coöperating formations integral with said anchoring member by relative spring action between said legs tending to spring said legs apart and into contact with the walls of the opening in said anchoring member, each leg of said U-shaped conductor, when interlocked with said anchoring member, being held by said interlocking formations irrespective of the presence of the other leg or of the spring action between the legs in such manner as to be retained against longitudinal movement in two directions relatively to said anchoring member and being also held against relative transverse movement; and a body of insulating material within which said anchoring member is embedded.

4. In an insulator, the combination comprising an anchoring member, a single rod extending into engagement with said anchoring member and having integral formations thereon interlocking with coöperating formations integral with said anchoring member in such manner as to retain said rod against longitudinal movement relatively to said anchoring member, and said interlocking formations on said rod and on said anchoring member serving also to retain said rod against relative transverse movement, said integral formations on said rod and anchoring member comprising shoulders on said rod engaging relatively opposite surfaces of said anchoring member to prevent relative longitudinal movement of the rod, the anchoring member being formed with a recess to receive said rod, and shoulders on said anchoring member engaging said rod for retaining said rod in said recess to prevent relative transverse movement of the rod; and a body of insulating material within which said anchoring member is embedded.

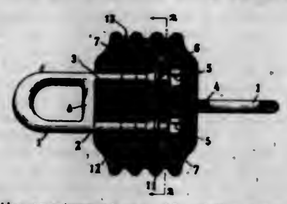
5. In an insulator, the combination comprising an anchoring member, a single rod extending into engagement with said anchoring member and having integral formations thereon interlocking with coöperating formations integral with said anchoring member in such manner as to retain said rod against longitudinal movement relatively to said anchoring member, and said interlocking formations on said rod and on said anchoring member serving also to retain said rod against relative transverse movement, said integral formations on said rod and anchoring member comprising shoulders on said rod engaging relatively opposite surfaces of said anchoring member to prevent relative longitudinal movement of the rod, the anchoring member being formed with a recess to receive said rod, one of the shoulders on said rod being wedge-shaped, and said anchoring member having a wedge-shaped depression for receiving said wedge-shaped shoulder in such manner as to retain said rod in said recess to prevent relative transverse movement of the rod; and a body of insulating material within which said anchoring member is embedded.

[Claims 6 to 12 not printed in the Gazette.]

1,206,159. SAFETY STRAIN DISK INSULATOR. LOUIS STEINBERGER, New York, N. Y. Filed July 25, 1912. Serial No. 711,467. (Cl. 173—366.)

In a strain insulator, a disk shaped member having an opening therethrough, said opening being of a length so as to leave a comparatively small amount of the material of said member between the opposite ends of the opening and the outer marginal edge of said member, and being of a width so as to leave a comparatively great amount of material of said member between the opposite sides of the opening and the outer marginal edge of said member, the relatively great amount of material at opposite sides of said opening being each formed with an aperture therethrough, a U-shaped strain member having its legs extended through and beyond said apertures, shoulders formed upon the legs of said U-shaped strain member

engaging one surface of said disk shaped member, nuts carried by the projecting portions of said legs and engaging the opposite surfaces of said disk-shaped member to clamp said disk-shaped member rigidly against said shoul-



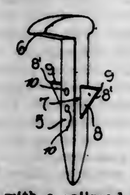
ders, and the aperture at one side of the opening in said disk shaped member being arranged so that a line drawn parallel to the central longitudinal axis of the opening in said disk shaped member and intersecting the central axis of said aperture will define surface extents at one side of the longitudinal central axis of the opening in said disk shaped member of substantially equal proportion at opposite sides of said line.

1,206,160. HIGH-POTENTIAL INSULATOR. LOUIS STEINBERGER, New York, N. Y. Filed Aug. 21, 1912. Serial No. 716,157. (Cl. 173—318.)



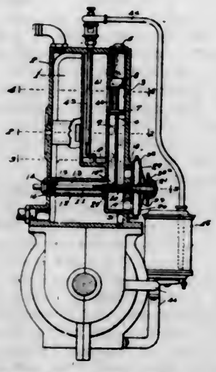
A pin type insulator comprising a head part and a cylindrical stem depending therefrom to form a column-like body part to the upper end of which the head part is attached, the body part being of insulating material and having an annular groove formed thereupon near its upper end and having a transverse groove formed across its upper end, the surface of the body adjacent said grooves rounding smoothly from one of said grooves to the other, the head part being of fictile insulating material and being molded about the upper end of the body and into said grooves, so as to fix said body rigidly and inseparably in said head, and the body being adapted to serve as an attaching means.

1,206,161. RAILROAD-SPIKE. EARL W. STENGEL, near Beresford, S. D. Filed May 3, 1916. Serial No. 95,163. (Cl. 85—23.)



The combination with a railroad spike having a longitudinal slot in its shank, of a triangular shaped anchoring plate disposed in said slot and having opposite corner portions projecting laterally from the opposite side faces of the shank, the upper edges of said corner portions extending at right angles to the axis of the shank.

1,206,162. GAS-ENGINE. BENJAMIN F. STEWART, Chicago, Ill. Filed Oct. 31, 1912. Serial No. 728,791. (Cl. 123—59.)



1. A gas engine having the cylinders cast integral and provided with an exterior water jacket with fuel oil heating means and carbureter and converting and storage reservoir located between the cylinders and within the water-jacket.

2. A gas engine comprising a plurality of cylinders, a casing for said cylinders and a carbureter within said casing, a receptacle in the casing into which the mixed air and gas from the carbureter are received, a storage reservoir in the casing, a communication between said reservoir and receptacle and an automatic valve controlling said communication.

3. A gas engine comprising a plurality of cylinders, a casing for said cylinders, a carbureter contained within said casing and located intermediate the cylinders, a fuel oil pipe entering said casing on the side of the cylinders opposite the carbureter and extending past said cylinders to the carbureter and through which heated oil is delivered to the carbureter.

4. A gas engine comprising two cylinders, a casing therefor, a carbureter, a fuel supply pipe passing through said casing and projecting past said cylinders to said carbureter so that the fuel therein will be heated by the heat from the cylinders, and a wall surrounding said pipe and at a distance therefrom, so as to provide a space between the wall and the pipe.

5. A gas engine comprising a cylinder, a casing therefor, a carbureter, a fuel supply pipe passing through said casing and projecting past said cylinder to said carbureter so that the fuel therein will be heated by the heat from the cylinders before being delivered to said carbureter.

[Claims 6 to 12 not printed in the Gazette.]

1,206,163. CAR-FENDER. TIRA S. STEWART, Terre Haute, Ind., assignor of one-half to Edward L. Isbell, Jr., Terre Haute, Ind. Filed Mar. 1, 1916. Serial No. 81,440. (Cl. 105—250.)



1. The combination with a car having a brake, of a U-shaped frame mounted on the car and extending forwardly therefrom, a fender pivotally mounted on the frame and connected to the brake, means for raising the fender, means for maintaining it in its raised position, and means for releasing the last mentioned means whereby the fender will be permitted to drop and the brake applied.

2. The combination with a car having a brake, of a frame extending forwardly from the car, a fender pivotally mounted on the frame and connected to the brake, a trip member pivotally mounted at its upper end on the frame and having a hook thereon adapted to engage the fender to maintain the same in a raised position, manually controlled means for raising the fender and means connecting the last mentioned means and the trip member for resetting the latter upon the raising of the fender.

1,206,164. VALVE-GRINDING TOOL. JOSEPH M. STRYHAL, Washington, D. C. Filed July 28, 1916. Serial No. 111,885. (Cl. 51—12.)



1. A valve grinding tool, comprising an operating shank, a valve engaging head having a socket in which the end portion of the shank is received, and a pin extending transversely through openings in said shank and head, said pin being fastened in one of said members, and the opening in the other member being of considerably greater diameter than the pin to allow of a limited relative axial turning movement between the shank and head.

2. A valve grinding tool comprising, in combination, an operating shank formed with an opening extending transversely therethrough and having the ends thereof flared, a valve engaging head having a bore in which the end portion of the shank has a loose wabbling fit, a pin extending through said opening and of smaller diameter than said opening and serving to connect the head to the shank, and yieldable means between the head and shank.

1,206,165. BOUQUET-HOLDER. WILLIA SUGGS, Holly Springs, Miss., assignor of one-half to Buck Suggs, Holly Springs, Miss. Filed Aug. 10, 1916. Serial No. 114,224. (Cl. 24—6.)



1. A device of the character described comprising a receptacle, the rear wall of the receptacle being of a greater width than the front wall, a clip pivotally mounted at the top of the receptacle adjacent the edges of the said rear wall, the said clip being of semi-circular formation and adapted to rest upon the said front wall when in inoperative position.

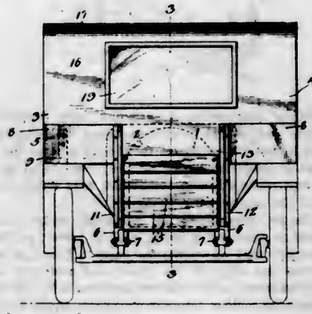
2. A device of the character described comprising a receptacle, a clip member pivotally mounted at the top of the receptacle, one end of the said clip being extended and bent to provide a hook, and means for engaging the hook whereby the said clip may be held in operative position.

3. A device of the character described comprising a receptacle, a clip member pivotally mounted at the top of the receptacle, one end of the said clip being extended and bent to provide a hook, means for engaging the hook whereby the said clip may be held in operative position, the said means including a spring-bowed pin adapted to have its free end engaged with said hook.

4. A device of the character described comprising a receptacle, a clip pin secured to one side of the receptacle having a supporting arm vertically disposed and fastened to the receptacle, the said clip pin being disposed above the receptacle and extending across the opening therein, and a clip having a hook adapted to be caught into the free end of said pin for holding the same in operative position.

5. A device of the character described comprising a receptacle, a clip pin secured to one side of the receptacle having a supporting arm vertically disposed and fastened to the receptacle, the said clip pin being disposed above the receptacle and extending across the opening therein, a clip having a hook adapted to be caught into the free end of said pin for holding the same in operative position, and a supporting ing fastened to the opposite side of the receptacle and pivotally receiving one end of the said clip, the opposite end of the said clip being pivotally connected to the said standard.

1,206,166. MUD-GUARD FOR AUTOMOBILES. ROBERT ALPHONSIS SUMMERS, Lemoncove, Cal. Filed Apr. 17, 1916. Serial No. 91,669. (Cl. 21—23.)



1. The combination with an automobile, of a guard comprising a flat substantially rectangular member secured to the front of the automobile disposed outward of the radiator and engine hood thereof, and projecting above said hood, said guard having openings arranged to communicate with the radiator.

2. The combination with an automobile or the like, of a guard secured to the front thereof forward of the radiator and projecting above the radiator, said guard having openings arranged in a line with the radiator, and shield plates for the said openings.

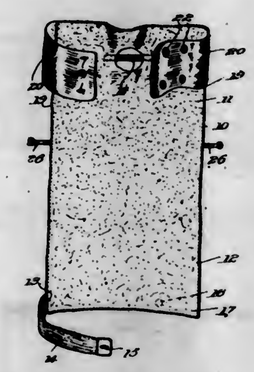
3. The combination with an automobile, of a guard secured to the automobile forward of the radiator and projecting above the radiator, slotted straps depending from the guard, securing elements passing through the straps and entering the chassis or frame of the automobile, angular brace rods connecting the guard with the automobile, said guard having openings to aline with the radiator, and a shield plate for each of the openings.

4. The combination with an automobile, of a flat substantially rectangular member comprising a guard secured to the front of the automobile, forward of the radiator thereof and projecting above the radiator, said guard having openings therein arranged opposite the radiator of the automobile, angularly disposed shield plates for the openings and deflector plates arranged to the rear of the shield plates.

5. The combination with an automobile, of a guard secured to the front of the automobile, outward of the radiator thereof and projecting above the said radiator, said guard comprising a substantially rectangular member having openings therein which are arranged forward of the radiator, downwardly disposed deflecting plates for the openings, an elongated opening in the upper portion of the guard, and a transparent plate closing the said opening.

[Claims 6 to 8 not printed in the Gazette.]

1,206,167. DIAPER. AMANDA D. SWETZEL, Philadelphia, Pa. Filed Mar. 28, 1916. Serial No. 87,340. (Cl. 2—131.)



1. A diaper comprising a garment body formed to provide a back and a front, a connecting element on a corner of the front and adapted to extend across the back to connect with another corner of the front, and a band on the back and foldable onto the front, said band covering a portion of the connecting element.

2. A diaper comprising a garment body having an upper portion forming a back and a lower portion foldable forwardly and upwardly to form a front, a tape projecting from one edge of the front and adapted to extend across the back to connect with another edge of the front and straps adapted to connect adjacent edges of the back and front to form openings.

3. A diaper comprising a garment body comprising a front and a back, a connecting element on an edge of the front and extending across the front of the back to connect with another edge of the front, band members on the back and foldable to connect at the front of the garment body, said members being adapted to overlie the front and cover a portion of the connecting element and a tension tape on the back and serving to take up any slack in the band members.

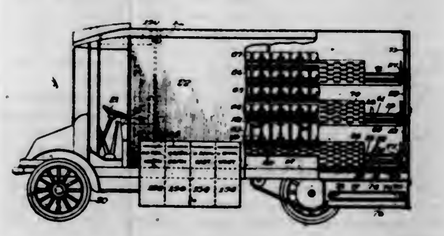
4. A diaper comprising a piece of material of uniform width throughout its length, and foldable to provide front and back portions respectively, means for connecting the upper ends of the front portion, and a belt secured to the back portion with its free end extending beyond the side edges thereof to fold onto the front portion of the diaper concealing said connecting means of the upper ends thereof, the free ends of the belt being connectible at the front.

1,206,168. REPRODUCER ATTACHMENT. CARL E. TACKMANN, Columbus, Ohio. Filed May 8, 1915. Serial No. 26,815. (Cl. 274—1.)



An attachment of the class described constructed from a single piece of resilient material, and embodying a split band terminating to provide oppositely disposed hooks, a substantially L-shaped arm projecting from one edge of the band immediately adjacent one of said hooks, the vertical branch of said arm extending below said hook and terminating to provide an elongated loop, bristles clamped between the walls of said loop, and a coil spring having its opposite ends connected with said hooks for the purpose set forth.

1,206,169. DELIVERY-VEHICLE. CHARLES L. TALBOT. Chicago, Ill. Filed Aug. 9, 1915. Serial No. 44,371. (Cl. 21—7.)



1. In a structure of the character described, the combination of a vehicle, a plurality of superposed endless conveyers longitudinally disposed in the central portion of the vehicle body, a plurality of endless superposed conveyers arranged longitudinally of, inside of, and adjacent the side-wall of the vehicle body and each equipped with a plurality of vertically-arranged holders, and means to operate said conveyers, the planes of said central and side conveyers being at right angles to one another, said central conveyers being adapted to accommodate heavier and bulkier articles than the holders of said side conveyers, substantially as described.

2. In a structure of the character described, the combination of a vehicle, a plurality of superposed conveyers longitudinally disposed in the central portion of the vehicle body, a plurality of endless superposed conveyers arranged longitudinally of, inside of, and adjacent the side-wall of the vehicle body and equipped with a plurality of vertically-arranged holders, means to operate said conveyers, and means to maintain said holders facing always inwardly of the vehicle, said central conveyers being adapted to accommodate heavier and bulkier articles than the holders of said side conveyers, substantially as described.

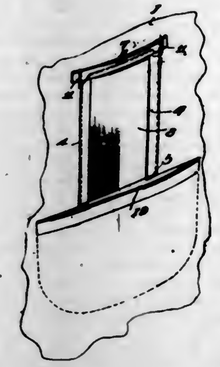
3. In a structure of the character described, the combination of a vehicle, a plurality of conveyers therein, means adapted to operate said conveyers to advance the articles thereon, and means on one of said conveyers adapted to indicate the contents of one or more of the others, substantially as described.

4. In a structure of the character described, the combination of a vehicle, a compartment on said vehicle, a conveyer in said compartment, means to operate said conveyer from the outside of the vehicle, a door for said compartment, and means controlled by the door to lock and unlock the conveyer, substantially as described.

5. In a structure of the character described, the combination of a vehicle, a compartment on said vehicle, means associated with said compartment adapted to contain a refrigerating element, a conveyer in said compartment, means to operate said conveyer from the outside of said compartment, a door for said compartment, and means controlled by the door to lock and unlock the conveyer, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,206,170. MATCH-STRIKING ATTACHMENT FOR GARMENTS. RALPH H. TAYLOR, Butte, Mont. Filed Aug. 21, 1915. Serial No. 46,631. (Cl. 2—15.)



1. The combination with a garment having an opening therein, of a pocket having a back wall secured to the rear surface of the cloth of which the garment is formed and extending across the opening therein, said pocket being provided with spaced lateral hems comprising an open front wall, and a sheet of material removably fitted within the pocket between the hems and the back wall and having a match striking surface exposed between the adjacent edges of the hems.

2. The combination with a garment, of a pocket forming a part of the garment and comprising a back wall and having an open front wall comprising spaced hems having their free edges presented toward each other, a strip connecting the upper ends of the hems, the lower ends of said hems being connected with the body of the garment by a line of stitching, and a sheet of material removably fitted within the pocket at the rear of the strip and between the hems and resting on said line of stitching, said sheet having a match striking surface presented at the opening defined by the adjacent edges of the hems and strip.

3. The combination with a garment, of a pocket formed directly in the body of the garment and comprising a back wall and spaced lateral hems forming an open front wall, the lower ends of said hems being connected to the body of the garment by a line of stitching, a transverse strip connecting the upper ends of the hems and having its opposite ends extended through incisions in the body of the garment and secured directly to the rear face thereof, and a sheet of material removably fitted within the pocket at the rear of the strip and between the hems and resting on said line of stitching, said sheet having a match striking surface presented at the opening defined by the adjacent edges of the hems and transverse strip.

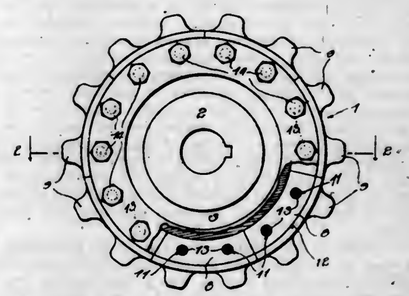
4. The combination with a garment including a pocket having a normally open mouth, of an auxiliary pocket arranged directly above the open mouth of the garment pocket and having an open front, and a sheet of match striking material removably fitted within the auxiliary pocket and having its surface exposed at said open front, the surface of the match striking material being constantly in vertical alinement with the back of the garment pocket.

1,206,171. WEARING-APPAREL. RICHARD THIERFELDER, Milwaukee, Wis., assignor to Phoenix Knitting Works, Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 30, 1915. Serial No. 58,736. (Cl. 2—23.)



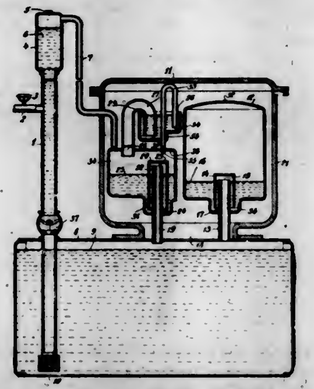
A stocking having a hem at the top thereof and an integral circular plait formed by a seam extending entirely around said stocking and located below said hem, said plait overlapping said hem upon the outside and terminating below the top of said hem, whereby the leg of the wearer is protected from contact with a garter attachment secured to said plait by the double thickness of said hem.

1,206,172. SPROCKET AND GEAR WHEEL. ROBERT E. THOMAS, Coplay, Pa. Filed May 1, 1916. Serial No. 94,682. (Cl. 74—28.)



In a device of the class described, the combination of a hub and a web, said web having an enlarged portion adjacent its periphery with a circumferentially extending groove in said periphery, said groove being of equal width to the normal width of the web, the side portions of the groove being provided with a plurality of spaced alining transversely extending apertures, segmental sections of corresponding width to the periphery of said groove, each having a pair of teeth projecting from their outer surface, reduced inner ends on said sections of corresponding width to the width of said groove adapted to be positioned therein, the shoulders formed thereby on the sections engaging the outer surface of the side portions of said groove, said reduced ends of the sections having transversely extending apertures therethrough disposed one beneath each tooth and adapted for alinement with the apertures through the side portions of said groove when in position, headed bolts projecting through said alining apertures, and removable fastening means on the outer ends of said bolts whereby separate sections are removable from the web without disturbing the remaining sections.

1,206,173. CHEMICAL FIRE-EXTINGUISHING APPARATUS. EVERETT L. THOMPSON, Jr., Dover, N. J., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y., a Corporation of New York. Filed Oct. 27, 1915. Serial No. 58,096. (Cl. 169—34.)



1. In chemical fire extinguishing apparatus, a vented distributing system normally charged with extinguishing liquid and comprising automatic distributing devices, and a supplemental supply of extinguishing liquid connected to said system and comprising a chemical mixing tank and a coöperating casing containing chemical mixing devices to discharge pressure producing chemical into said mixing tank, including a suction siphon chamber having a reduced area bottom containing a charge of pressure producing chmical, an automatically discharging siphon arranged in said chamber and having a discharge pipe delivering into said mixing tank, a primary chemical receiver containing a starting charge of similar pressure producing chemical, a starting siphon coöperating with said receiver and having its discharge end communicating with said suction siphon chamber to discharge therein, a pneumatic suction actuating connection between the upper part of said distributing system and said suction siphon chamber to create a suction in said chamber on the fire emergency discharge of liquid from said system and thereby actuate said starting siphon and simultaneously retard the action of said automatically discharging siphon until said starting charge has been delivered into said chamber.

2. In chemical fire extinguishing apparatus, a distributing system normally charged with extinguishing liquid and comprising distributing devices, and a supplemental supply of extinguishing liquid connected to said system and comprising a chemical mixing tank and chemical mixing devices to discharge pressure producing chemical into said mixing tank, including a suction siphon chamber having a reduced area bottom containing a charge of pressure producing chemical, an automatically discharging siphon arranged in said chamber and having a discharge pipe delivering into said mixing tank, a primary chemical receiver containing a starting charge of similar pressure producing chemical, a starting siphon coöperating with said receiver and having its discharge end communicating with said suction siphon chamber to discharge therein, a pneumatic suction actuating connection between said distributing system and said suction siphon chamber to create a suction in said chamber on the fire emergency discharge of liquid from said system and thereby actuate said starting siphon and simultaneously retard the action of said automatically discharging siphon until said starting charge has been delivered into said chamber, and automatic pressure maintaining means coöperating with said mixing tank to discharge chemical therein.

3. In chemical fire extinguishing apparatus, a distributing system normally charged with extinguishing liquid and comprising distributing devices, and a supplemental supply of extinguishing liquid connected to said system and comprising a chemical mixing tank and a coöperating casing containing chemical mixing devices to discharge pressure producing chemical into said mixing tank, including a suction siphon chamber containing a charge of pressure producing chemical, an automatically discharging siphon arranged in said chamber and having a discharge pipe delivering into said mixing tank, a primary chemical receiver containing a starting charge of similar pressure producing chemical, a starting siphon coöperating with said receiver and having its discharge end communicating with said suction siphon chamber to discharge therein, a pneumatic suction actuating connection between the upper part of said distributing system and said suction siphon chamber to create a suction in said chamber on the fire emergency discharge of liquid from said system and thereby actuate said starting siphon and simultaneously retard the action of said automatically discharging siphon until said starting charge has been delivered into said chamber.

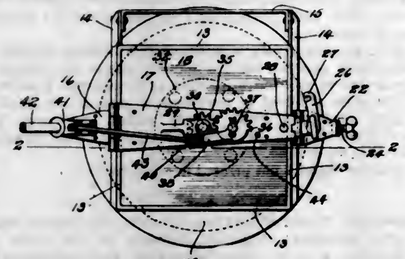
4. In chemical fire extinguishing apparatus, a distributing system comprising automatic distributing devices, and a supplemental supply of extinguishing liquid connected to said system and comprising a chemical mixing tank and coöperating chemical mixing devices to discharge pressure producing chemical into said mixing tank including a suction siphon chamber containing a charge of such chemical, an automatically discharging siphon arranged in said chamber and having a discharge pipe delivering into said mixing tank, a primary receiver containing a starting charge, a large area starting device coöperating with said receiver and having its discharge end communicating with said suction siphon chamber to discharge therein, a pneumatic suction actuating connection between said distributing system and said suction siphon chamber to create a suction in said chamber on the fire emergency discharge from said system and thereby actuate said starting device and simultaneously retard the action of said automatically discharging siphon until said starting charge has been delivered into said chamber to thereby quickly discharge a substantially definite amount of such chemical into said tank without the use of rigid moving parts.

5. In chemical fire extinguishing apparatus, a distributing system normally charged with extinguishing liquid and comprising distributing devices, and a supplemental supply of extinguishing liquid connected to said system and comprising a chemical mixing tank and coöperating chemical mixing devices to discharge pressure producing chemical into said mixing tank including a suction siphon chamber containing a charge of such chemical, an automatically discharging siphon arranged in said chamber and having a discharge pipe delivering into said mixing tank, a primary chemical receiver containing a starting charge of such chemical, a starting siphon coöperating with said receiver and having its discharge end communicating with said suction siphon chamber to discharge therein, a pneumatic suction actuating connection between said distributing system and said suction siphon chamber to create a suction in said chamber on the fire emergency discharge of liquid from said system and thereby actuate said starting siphon and simultaneously retard the action of said automatically discharging siphon until said starting charge has been delivered into said chamber to thereby discharge a substantially definite amount of such chemical without the use of rigid moving parts, and automatic pressure maintaining means coöperating with said mixing tank.

[Claims 6 to 34 not printed in the Gazette.]

1,206,174. WASHING-MACHINE. FRANCIS H. TRAU, St. Louis, Mo. Filed June 3, 1916. Serial No. 101,485. (Cl. 68—15.)

1. In a washing apparatus, a cover plate adapted to be applied to a tub, said plate being provided with an opening, a frame fixed on top of the plate around the opening therein, a door adapted to fit within the frame and close the opening in the plate, a plate secured to the top of the door and extending across the same, one end of which plate is hinged to the cover plate, means on the opposite side of the cover plate for engaging the free end of the plate on the door to hold said door closed, a shaft journaled in the door and the plate thereon, a clothes engaging member carried by the lower portion of said shaft, a pinion on the upper portion of said shaft, a toothed segment journaled on the plate on the door, the teeth of which segment engage the teeth of the pinion, an arm fixed to and projecting outwardly from the toothed segment, a lever fulcrumed on the cover plate, a connection from said lever to the end of the arm of the toothed segment, and stops on the plate carried by the door which stops are in the path of travel of the arm projecting from the toothed segment.



2. In a washing apparatus, a cover plate adapted to be applied to a tub, said plate being provided with an opening, a door adapted to close said opening, a centrally arranged plate fixed to and extending across the top of said door, a plate fixed to the top of the cover plate to the side of the door opening therein, the plate on the door being hinged to the plate on the cover plate, a bearing formed in the center of the plate on the door, a shaft journaled in said bearing, a clothes engaging member carried by the lower portion of said shaft, a pinion fixed on the upper portion of said shaft, a toothed segment journaled on the plate on the door adjacent to the bearing thereon, the teeth of which segment engage the teeth of the pinion, an arm fixed to and projecting outwardly from the toothed segment, a stop pin fixed on the plate on the door on the opposite side of the toothed segment from the bearing on the plate, said bearing and pin forming stops to limit the swinging movement of the arm which projects from the segment, a lever fulcrumed to the plate on the cover plate, the fulcrum point of said arm being directly in alinement with the axis of the shaft which carries the pinion and the axis of the toothed segment, and a connecting rod, the ends of which are pivotally connected to the lever and to the end of the arm projecting from the toothed segment.

1,206,175. END STRUCTURE FOR RAILWAY-CARS. PERCIVAL H. TRUMAN, Evanston, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,738. (Cl. 105—192.)

1. An end structure for railway cars comprising a plurality of rectangular metal end sheets secured together, formed at their meeting edges with inturned angular flanges, and disposed so that the structure projects out farther at its vertical center line than at the sides.

2. An end structure for railway cars comprising a plurality of metal end sheets secured together, disposed so that they bulge out at the center and formed with interior flanges constituting trusses across the bulged portion of the end.

3. An end structure for railway cars comprising a plurality of metal end sheets secured together, disposed so that said structure bulges out at the center and formed at their meeting edges with inturned flanges.

4. An end structure for railway cars comprising a plurality of corrugated metal end sheets secured together, formed at their meeting edges with inturned angular flanges, and disposed so that the structure projects out farther at its vertical center line than at the sides.

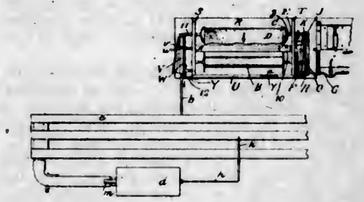
5. An end structure for railway cars comprising a plurality of corrugated metal end sheets secured together, disposed so that they bulge out at the center and



formed with interior flanges constituting trusses across the bulged portion of the end.

[Claims 6 to 12 not printed in the Gazette.]

1,206,176. PNEUMATIC PLAYER. EUGENE T. TURNEY, New York, N. Y., assignor, by mesne assignments, to American Player Action Company, New York, N. Y., a Corporation of New York. Filed Dec. 13, 1912. Serial No. 736,514. (Cl. 84—161.)



1. Mechanism for actuating the rewinding means of a piano player or the like including in combination a bellows which is normally under suction and holding the rewinding means out of operation while the power is being applied, and means for opening communication between said bellows and the atmosphere to permit the immediate actuation of the rewinding means.

2. In a player for pianos or the like, in combination, a motor shaft, a take up shaft, a rewinding shaft, means for clutching the motor shaft alternatively to the take up shaft and to the rewinding shaft, a bellows normally collapsed and holding said clutching means in the take up position while the power is being applied and means for opening communication between said bellows and the atmosphere to permit the immediate shifting of said clutching means to the rewinding position and a spring for so shifting said clutching means.

3. In a player for pianos or the like, in combination, a motor shaft, a take up shaft, a rewinding shaft, a bellows controlling said clutching means and means for opening communication between said bellows and the atmosphere.

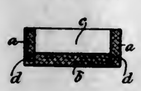
4. In a player for pianos or the like, in combination, a rewinding means, a bellows controlling the same, an action wind chest communicating with said bellows, a valve for cutting off communication between said wind chest and the pumper and a second valve operatively connected with the first for opening communication between said chest and the atmospuere when communication is cut off from the pumper.

5. In a player for pianos or the like rewinding means, a bellows communicating with a wind chest and acting

when collapsed to hold the rewinding means out of operation, means for opening said wind chest to the atmosphere to cause a quick expansion of said bellows, and skipping means for holding said bellows closed to prevent such expansion when the wind chest is opened.

[Claims 6 to 9 not printed in the Gazette.]

1,206,177. JOINING TOGETHER GLASS SURFACES. FRANK TWYMAN, REGINALD GEORGE PARKER, and ARTHUR J. DALLADAY, London, England, assignors to Adam Hilger, Limited, London, England. Filed May 23, 1916. Serial No. 99,451. (Cl. 49—82.)



1. The process of joining together glass surfaces without distortion of any of the parts consisting in cleaning the surfaces, placing them together without the interposition of any substance whatever and then submitting them to a temperature which is insufficient to cause permanent distortion of the surfaces but sufficiently high to cause the surfaces to join together.

2. The process of joining together glass surfaces without distortion of any of the parts consisting in cleaning the surfaces, placing them together in optical contact without the interposition of any substances whatever and then submitting them to a temperature which is insufficient to cause permanent distortion of the surfaces but sufficiently high to cause the surfaces to join together.

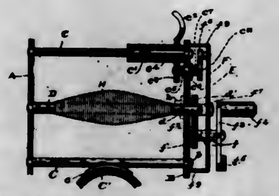
3. The process of joining together glass surfaces consisting in cleaning the surfaces, placing them together in optical contact, submitting them to pressure and to a temperature which is insufficient to cause permanent distortion of the surfaces but sufficiently high to cause the surfaces to join together.

4. The process of joining together surfaces of a glass having a melting point of 1100° C. and an annealing point of 600° C., consisting in cleaning the surfaces, placing them together in optical contact, suomitting them to pressure and to a temperature not exceeding 520° C.

5. The process of joining together glass surfaces consisting in cleaning the surfaces, placing them together, and then submitting them to the same temperature which is insufficient to cause permanent distortion of the surfaces but sufficiently high to cause the surfaces to join together.

[Claim 6 not printed in the Gazette.]

1,206,178. FISHING-REEL. PERRY J. UDELL, Decatur, Mich. Filed July 5, 1913. Serial No. 777,400. (Cl. 242—84.7.)



1. In reels, a suitable support, a line holding spindle rotatable therein, a gear on said spindle, a suitable pivoted casing, a gear shaft and crank secured thereon the same being adapted to engage the spindle gear, and means for retaining such engagement or releasing the same as desired by movement of the casing.

2. In reels, a pair of stationary heads, suitable distance rods for holding the said heads, a free running headless spindle rotatable in the heads, a casing pivoted to one of the heads, and means for raising or lowering the casing whereby interrelated operating means located on said spindle and said casing may be thrown out of or into engagement as desired.

3. In reels, a stationary support, a headless spindle rotatable thereon, a casing pivoted to the support, intermeshing rotative members secured on the said spindle and said head, and means adapted to retain said members in mesh or hold them disengaged as desired.

4. A suitable frame, a line holding spindle rotatable therein, a gear carried by the spindle, a suitable pivoted holder, a shaft projecting therethrough, a thumbing lever, acting thereon, a crank at one end, a gear at the other end adapted to engage the gear on the spindle, means for retaining such engagement or releasing the same as desired, and a finger projecting from the holder for actuating the same.

5. A suitable frame, a headless line holding spindle, a brake lever operable on the spindle, means for confining the rewind to the central portion of the spindle, a pivoted holder plate attached to the frame, a gear on the spindle, a gear, shaft and crank on the holder, and means for moving and holding the gears in engagement, and releasing the same as desired.

[Claims 6 and 7 not printed in the Gazette.]

1,206,179. WARP KNITTING FRAME. FRIEDRICH WAGNER, Russdorf, Germany, assignor to the Firm of Schubert & Salzer Maschinenfabrik, Aktiengesellschaft, Chemnitz, Germany. Filed May 20, 1915. Serial No. 29,333. (Cl. 66—33.)



1. In a warp knitting frame, the combination with a pair of oppositely arranged needle bars, and the needles mounted thereon, of a single sinker bar and a single row of sinkers mounted thereon adapted to coöperate with the needles of both needle bars, a pair of guide bars, and mechanism for operating said needle bars, sinker bar and guide bars.

2. In a warp-knitting frame, the combination with a pair of oppositely arranged needle bars, and the needles mounted thereon, of a single sinker bar and a single row of sinkers mounted thereon having throats at their upper and lower sides for locking in and knocking over the rows of loops of both needle bars and adapted to coöperate with the needles of both needle bars, a pair of guide bars, and mechanism for operating said needle bars, sinker bar and guide bars.

3. In a warp knitting frame, the combination with a pair of oppositely arranged needle bars, and the needles mounted thereon, of a single sinker bar and a single row of sinkers mounted thereon each having one throat at its upper side and two throats at its lower side for locking in and knocking over the rows of loops of both needle bars and adapted to coöperate with the needles of both needle bars, a pair of guide bars, and mechanism for operating said needle bars, sinker bar and guide bars.

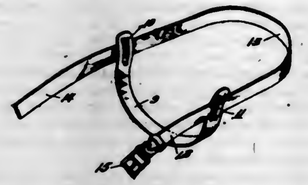
4. In a warp knitting frame, the combination with a pair of oppositely arranged needle bars, and the needles mounted thereon, one of said needle bars being adapted to be shifted exclusively in the direction of the needles mounted thereon and the other one being adapted to be shifted in the direction of the needles mounted thereon and to be rocked into knitting position prior to the formation of the loops and back again, of a sinker bar and a row of sinkers mounted thereon adapted to coöperate with the needles of both needle bars, a pair of guide bars, and mechanism for operating said needle bars, sinker bar and guide bars.

5. In a warp knitting frame, the combination with a pair of oppositely arranged needle bars, and the needles

mounted thereon, one of said needle bars being adapted to be shifted exclusively in the direction of the needles mounted thereon and the other one being adapted to be shifted in the direction of the needles mounted thereon and to be rocked into knitting position prior to the formation of the loops and back again, of a sinker bar and a row of sinkers mounted thereon each having one throat at its upper side and two throats at its lower side for locking in and knocking over the rows of loops of both needle bars and adapted to coöperate with the needles of both needle bars, a pair of guide bars, and mechanism for operating said needle bars, sinker bar and guide bars.

[Claims 6 to 11 not printed in the Gazette.]

1,206,180. OVERSHOE-RETAINER. ELLA A. WARD, Profit, Va. Filed Mar. 28, 1916. Serial No. 87,266. (Cl. 36—58.5.)



1. A retainer comprising a member shaped to be received and to fit beneath the instep of an overshoe or slipper with its ends terminating at the sides of the foot adjacent to the instep, said instep band provided with loops at its ends, a second member mounted through the loops of the first member in a relation to fit around the heel as the first mentioned member is fitted to the instep, and means to secure said bands in the proper retaining relation.

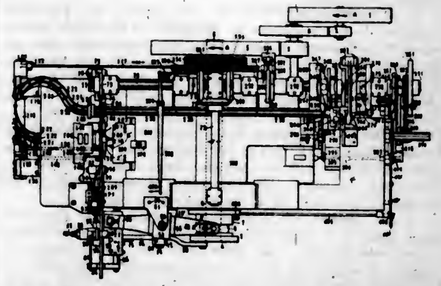
2. A retainer comprising an instep band arranged to be fitted under the instep of an overshoe or slipper and provided at its ends with loops, a heel band connected through said loops in a relation to be capable of swinging movement to a collapsed relation and to be received around the heel as the instep band is fitted in the proper position, strap securing means formed in conjunction with one of said bands, and straps connected with said strap securing means to be received over the arch of the foot and connected together to retain the heel band and instep band in an operative relation.

3. A retainer comprising a heel band, an instep band provided with looped and hooked formations at the ends thereof, eyes formed on the ends of said heel band received through the loops of the instep band to hingedly connect the bands together in a relation to permit the same to be swung to a collapsed position and to an open position to be received in an operative relation upon an overshoe or slipper, and straps connected on the hooks of the instep band to be secured across the arch of the foot to hold the heel and instep bands against displacement.

1,206,181. NUT-MAKING MACHINE. WILLIAM L. WARD, HERBERT D. REMSEN, and EMILE C. BOERNER, Port Chester, N. Y., assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y., a Corporation of New York. Original application filed June 27, 1910, Serial No. 569,053. Divided and this application filed Apr. 27, 1912. Serial No. 693,606. (Cl. 10—166.)

1. A machine of the nature disclosed comprising, in combination, a trackway for a train of blanks, a pair of spring-tongs adapted to be reciprocated toward the end of said trackway to enable said tongs to frictionally engage the blank at the head of the train of blanks, and means for operating said tongs whereby the blanks may be successively removed from the end of said trackway.

2. A machine of the nature disclosed comprising, in combination, a trackway for a train of nut blanks, a pair of spring-fingers mounted opposite the end of said trackway and adapted to reciprocate toward the same, and means operative to reciprocate said fingers to enable the latter to successively withdraw blanks from said trackway.



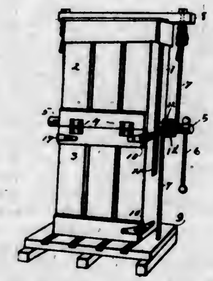
3. A machine of the nature disclosed comprising, in combination, a conveyer for a train of blanks, a pair of spring-fingers mounted opposite the end of said conveyer and adapted to advance into engagement with a blank at the head of said train to engage and remove the same from said conveyer, a plunger for forcing the blank from said fingers, a spring normally maintaining said plunger in its retracted position, and means operative against the resistance of said spring adapted to reciprocate said plunger.

4. A machine of the nature disclosed comprising, in combination, a conveyer for a train of blanks, a pair of spring-fingers mounted opposite the end of said conveyer and adapted to reciprocate in alinement with said conveyer, a plunger, a spring normally maintaining said plunger out of proximity with a blank, and intermittent means operative against the resistance of said spring adapted to advance said plunger to discharge a blank.

5. A machine of the nature disclosed comprising, in combination, a trackway for a train of blanks, a pair of spring-fingers slidably mounted in alinement with said trackway, a plunger, a spring normally maintaining said plunger in retracted relation with respect to said fingers, mechanism co-acting with said plunger to actuate the same against the resistance of said spring, and cam means adapted to intermittently operate said mechanism to cause a reciprocation of said plunger.

[Claims 6 to 30 not printed in the Gazette.]

1,206,182. BALING-PRESS. CLARENCE A. WARREN, Le Roy, Mich. Filed Nov. 15, 1915. Serial No. 61,702. (Cl. 100—12.)



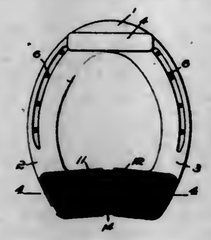
1. In combination with the case, base, plate and pressure head of a baling press, a shaft revolubly mounted directly upon the pressure head and extending outward beyond the sides of the case, a rope secured to the ends

of the plate at each side of the case, extending downward and wound several times around the ends of the shaft, and thence extending downward and the other ends securely connected with the base, and a lever connected with the shaft for revolving the shaft to raise and lower the pressure head.

2. In combination with the case, base, plate and pressure head of a baling press, the sides of said case having slots therethrough, a shaft revolubly connected with the pressure head with its ends extending through the slots in the sides of the case, a rope at each side of the case having one end securely connected with the ends of the plate and the other ends securely connected with the base, the bodies of said ropes wound several times around the ends of the shaft, means for preventing the shaft from slipping in the coils of the rope, and a lever for revolving the shaft to raise and lower the pressure head by the action of the shaft upon the coils of the rope.

3. In combination with the case, base, plate and pressure head of a baling press, the sides of said case having slots therethrough, and doors upon the case, a shaft revolubly mounted on the pressure head with its ends extending through the slots in the sides of the case, a rope so connected with each end of said shaft, and with the base and plate of the press that the revolving of the shaft will cause the pressure head to raise and lower.

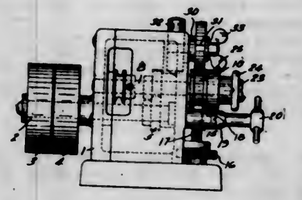
1,206,183. HORSESHOE. JAMES WATSON, Manchester, Conn., assignor of one-half to James Pullar, Hartford, Conn. Filed Dec. 13, 1915. Serial No. 66,404. (Cl. 168—13.)



1. A horse shoe constructed of a single piece of metal and having a toe calk, the sides of the shoe having their heel extremities provided with inwardly turned extensions integral therewith and terminating in proximity to each other, each of said extensions having spaced, substantially parallel, side flanges extending transversely of the shoe and terminating in proximity to each other, each also having an outer flange extending along the side thereof, thereby to provide two open ended, calk-receiving sockets at the heel end only of the shoe and calk material extending from side to side of the shoe, supported in said sockets and confined therein by said flanges.

2. A horse shoe having a metallic toe calk integral with the body, each of the sides having inwardly turned extensions integral with the heel portions of said sides, each of said extensions comprising base portions 9, 10 and a flange normal to the adjacent base portion, each of said flanges extending about three sides of the adjacent base portion, thereby to provide two open-ended receiving sockets facing each other, the flanges of said base portions extending into proximity to each other and together with said base portions being integral with the body of the shoe, and strips of calk material inserted edgewise in said sockets and extending transversely of and being of substantially the full width of said shoe, said sides of the shoe being initially formed and positioned to cause the portions of the said flanges forming the outer ends of said receiving sockets to compress by inward stress said strips of calk material, the resistance of said strips effecting an evenly balanced construction.

1,206,184. WIRE-STRAIGHTENING MACHINE. JAMES M. WELSH, deceased, Meadville, Pa., by MARIETTA K. Welsh, administratrix, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Jan. 13, 1915. Serial No. 2,059. (Cl. 153—54.)



1. A wire fabric straightening machine, comprising two rollers lying on the same side of the fabric, and means for rotatably adjusting one of said rollers around its axis to produce a reverse bend in the fabric between said rollers.

2. A wire fabric straightening machine, comprising two rollers lying on the same side of the fabric, means for rotatably adjusting one of said rollers around its axis to produce a reverse bend in the fabric between said rollers, and means for feeding the fabric through the machine for straightening the same.

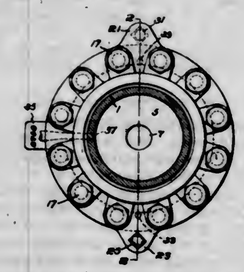
3. A wire fabric straightening machine, comprising two driven rollers located on the same side of the fabric, means for rotatably adjusting one of said rollers around its axis to produce a reverse bend in the fabric between said rollers, and a roller on the other side of the fabric arranged to coöperate with both of said rollers for feeding the fabric through the machine.

4. A wire fabric straightening machine, comprising two rollers lying on the same side of the fabric, means for feeding the stay past said rollers and between the same to form a reverse bend in the fabric for straightening the same, and means for varying the form of said reverse bend.

5. A wire fabric straightening machine, comprising feeding rollers lying on the same side of the fabric, means coöperating with said rollers for feeding the fabric through the machine and producing a reverse bend thereof between said rollers, and means for varying the form of said reverse bend.

[Claims 6 to 24 not printed in the Gazette.]

1,206,185. ORIFICE-PLATE FOR FLUID-FLOW METERS. THOMAS R. WEYMOUTH, Oil City, Pa., assignor to The Foxboro Company, Foxboro, Mass., a Corporation of Massachusetts. Filed Sept. 24, 1914. Serial No. 863,380. (Cl. 137—5.)



1. In a fluid flow meter, the combination of pipes 1 and 3 having opposed ends, an orifice plate 5, rings 9 and 11 threaded to said pipes, bolts 17 for drawing said rings into tight clamping engagement with said plate, ears 21, 23, 27 and 29 projecting from said rings, and set screws 25 and 31 coöperating therewith for spreading said rings to permit the removal of said plate.

2. In a fluid flow meter, the combination of pipes, an orifice plate, rings secured to said pipes, means for adjusting said rings to clamp said plate between them, and screw means for separating said rings to permit the removal of said plate.

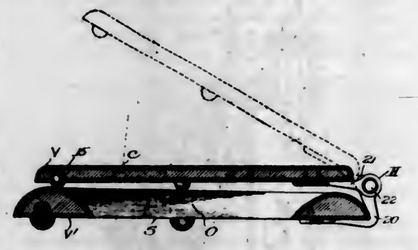
3. In a fluid flow meter, the combination of pipes, an orifice plate interposed between them, members secured to said pipes, and means for drawing said members toward one another to secure said plate between them, one of said members having a blank ear and the other of said members having an ear tapped for receiving a screw whereby the screw may be turned to act on said blank ear and force the members apart and release the plate therefrom.

4. In a fluid flow meter, the combination of pipes, an orifice plate interposed between them, and rings secured to said pipes, each of said rings having a blank ear and an ear tapped for receiving a screw, a blank ear of one being opposed to a tapped ear of another whereby the screws may be turned to force the rings apart and release the plate therefrom.

5. In a fluid flow meter, the combination of an orifice plate, members for receiving said plate between them, means for drawing said members toward one another, and means for forcing said members apart to permit the removal of said plate.

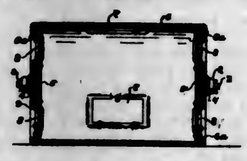
[Claims 6 to 9 not printed in the Gazette.]

1,206,186. CLOSET-SEAT AND THE LIKE. MICHAEL J. WHELAN, Muskegon, Mich., assignor to Brunswick-Balke-Collender Co., a Corporation of Delaware. Filed July 14, 1913. Serial No. 778,982. (Cl. 4—18.)



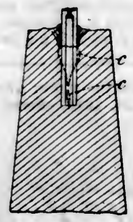
The herein-described method of making closet seats which consists in providing a core composed of a plurality of rough-surfaced wood sections loosely fitted and connected together, then entirely enveloping the core in a covering of rubber composition in a plastic state, subjecting the same to heavy pressure to force the rubber composition into the joints between the sections and into the rough surface of the core, then subjecting the same to a vulcanizing heat while maintaining said pressure, and then burnishing the seat.

1,206,187. GRAVEL-CONVEYER AND ROLLER. WILLIAM WHITFIELD, Justin, Tex. Filed July 3, 1915. Serial No. 37,890. (Cl. 55—48.)



In a combined roller and material distributer, a hollow roller having sides and a periphery formed of sheet metal having end flanges bent downward to engage the sides, fastenings traversing the sides and flanges and securing the sides to said flanges, a series of openings countersunk in the periphery of the roller and doors removably secured in said openings and opening inward of the roller.

1,206,188. METHOD OF MAKING INGOTS. JAMES E. YORK, New York, N. Y. Filed Mar. 21, 1913. Serial No. 755,931. (Cl. 22—216.)



1. A method of making ingots, comprising inserting metal in piece form into the zone of the ingot wherein "pipes" occur while the metal of the interior of the ingot is mobile, and feeding the metal to compensate for the portion which flows into the cavities in the interior of the ingot.

2. A method of making ingots, comprising inserting metal in piece form into the zone of the ingot wherein "pipes" and "segregation" occur, while the metal of the interior of the ingot is mobile, and gradually displacing said metal of said zone.

3. A method of making ingots, comprising inserting metal in piece form into the zone of the ingot wherein "pipes" and "segregation" occur, while the metal of the interior of the ingot is mobile, and gradually displacing the metal in the interior of the ingot to fill said "pipes" and to expel the portion of said metal containing the "segregation" to the exterior of the ingot.

4. A method of making ingots, comprising inserting metal in piece form into the zone of the ingot wherein "pipes" and "segregation" occur, while the metal of the interior of the ingot is mobile, gradually displacing the metal in the interior of the ingot to fill said "pipes" and to expel the portion of said metal containing the "segregation" to the exterior of the ingot, and heating said extruded metal at the issuing point to maintain its mobility.

5. A method of making ingots, comprising inserting materials for thermally treating the metal into the interior of the ingot and inserting metal in piece form into the zone of the ingot wherein "pipes" occur while the metal in the interior of the ingot is mobile.

[Claims 6 to 9 not printed in the Gazette.]

1,206,189. COMPOSITION OF MATTER FOR SIZING AND DYEING. MAURICE N. AISEN, Chicago, Ill. Filed May 15, 1914. Serial No. 838,690. (Cl. 134—23.)

1. A composition of matter containing hydrolyzed glue in solution in an organic solvent and a dyestuff.

2. A composition of matter containing hydrolyzed glue in an alcoholic solution, and a dyestuff.

3. A composition of matter containing hydrolyzed glue in solution in alcohol and a basic coal tar color.

4. A sizing and dyeing solution containing hydrolyzed glue and a dyestuff.

5. A sizing and dyeing solution containing hydrolyzed glue and a basic coal tar color.

[Claims 6 and 7 not printed in the Gazette.]

1,206,190. COMPOSITION OF MATTER AND METHOD OF MAKING THE SAME. MAURICE N. AISEN, Chicago, Ill. Filed July 6, 1914. Serial No. 849,267. (Cl. 134—23.)

1. As a composition of matter glue hydrolyzed by an alkali and dissolved in an organic solvent.

2. As a composition of matter an alcoholic solution containing glue hydrolyzed by an alkali.

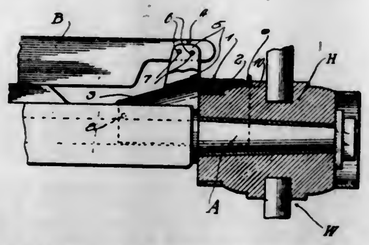
3. As a composition of matter a neutral alcoholic solution containing glue hydrolyzed by an alkali.

4. The method of making a solution containing glue consisting in first hydrolyzing the glue by an alkaline agent and then dissolving it in an organic solvent.

5. The method of making a solution containing glue consisting in first hydrolyzing the glue by an alkaline agent and then dissolving it in alcohol.

[Claims 6 and 7 not printed in the Gazette.]

1,206,191. DUST-GUARD. FRANK ANDERSON, Protection, Kans. Filed Apr. 24, 1916. Serial No. 93,198. (Cl. 21—40.)



1. A device of the class described comprising a semi-cylindrical guard adapted to be disposed above the hub of a wheel, and a pair of spaced apart arms extending from the top thereof to be attached to a stationary portion of the vehicle to secure the guard in adjusted positions above said hub.

2. In a device of the class described, a guard, semi-cylindrical for a portion of its length, the rest of said guard being arched in cross section and decreased in size from the edge of the first mentioned portion to its end, a U-shaped member secured to the top of said guard, the upright portions of said member forming attaching arms to be attached to a stationary portion of a vehicle to secure the guard in adjusted positions above said hub, and a depending inwardly extending bead on the outer edge of said guard adapted to contact with the hub.

1,206,192. GAS-INDICATOR. HERMAN BACHARACH, Pittsburgh, Pa. Filed June 5, 1916. Serial No. 101,705. (Cl. 23—3.)

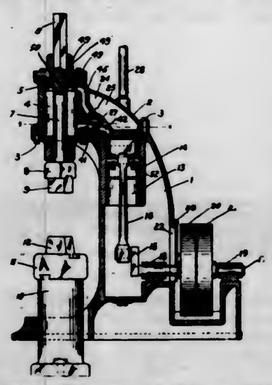


1. In combination in a gas indicator, a metal inlet fixture provided with a valve, a second metal fixture provided with a valve, a glass fluid receptacle detachably secured to the second fixture, a glass gas receptacle lying between the two fixtures, and means independent of the gas receptacle for securing the two fixtures together with the glass receptacle therebetween.

2. In a gas indicator comprising an inlet fixture provided with a valve, a second fixture, a gas receptacle and indicator between the fixtures, and a fluid receptacle below the second fixture, a valve in said second fixture which in one position connects the gas receptacle with the outer air and shuts off communication between the gas receptacle and the fluid receptacle, which in a second position places the two receptacles in communication and shuts off the communication of the gas receptacle with the outer air, and which in a third position shuts off communication between the receptacles and also between the gas receptacle and the outer air.

3. In a gas indicator comprising an inlet fixture provided with a valve, a second fixture, a gas receptacle and indicator between the fixtures, and a fluid receptacle below the second fixture, a valve in said second fixture provided with an oblique passage extending therethrough and with a second passage extending transversely of the axis of the valve and leading from the periphery thereof into the oblique passage, the said passages being arranged so that in one position of the valve the oblique passage communicates with the outer air and is cut off from the fluid receptacle while the second passage communicates with the gas receptacle, and in a second position of the valve the oblique passage communicates at its ends with both receptacles, and in a third position is out of communication with both receptacles.

1,206,193. PNEUMATIC POWER-HAMMER. RALPH E. BATES, Philadelphia, Pa. Filed Nov. 3, 1915. Serial No. 59,357. (Cl. 78—42.)



1. In a pneumatic power hammer, in combination, the frame or housing comprising an upper portion and a lower portion, a pump cylinder within said lower portion, a hammer cylinder within said upper portion, the lower portion constituting a closure for the hammer cylinder and the upper portion constituting a closure for the pump cylinder, substantially as described.

2. In a pneumatic power hammer having a pump cylinder and a hammer cylinder and its piston, the combination with the hammer cylinder of a port opening into its upper end and adapted to be closed by the piston and a non-return valve located in the upper end of the hammer cylinder opening inwardly, substantially as described.

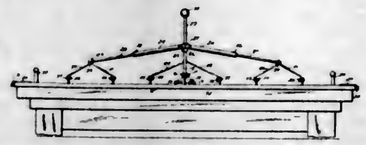
3. In a pneumatic power hammer the combination of a pump cylinder and a hammer cylinder with ports to connect the two ends of the hammer cylinder with one end only of the pump cylinder, means for diverting the flow of air to either of said hammer cylinder ends, substantially as described.

4. In a pneumatic power hammer the combination of a pump cylinder; a hammer cylinder; an air chamber; an air diverting device; a non-return valve incorporated in said device; a port connecting said device with the pump cylinder; a port connecting said device with the upper end of the hammer cylinder; a port connecting said device with the lower end of the hammer cylinder, a port connecting said device with said air chamber whereby when the device is brought to the proper position air passes from the pump cylinder to the upper end of the hammer cylinder through the non-return valve, from the lower end of the hammer cylinder to the outer atmosphere and to and from the pump cylinder and air chamber, substantially as described.

5. In a pneumatic power hammer having a pump cylinder and a hammer cylinder having closures at each end, the combination with the hammer cylinder of a piston-rod extending through both of said closures and having a piston formation intermediate its length and means for preventing rotation of said piston and its rod.

[Claims 6 to 10 not printed in the Gazette.]

1,206,194. INDOOR-CROQUET GAME. ERNEST BECKER and PER O. GISSBERG, Perry, Iowa. Filed Dec. 27, 1915. Serial No. 68,905. (Cl. 46—61.)



1. A croquet game device comprising an upright member, arch supporting members secured to the lower ends thereof, frame members pivotally secured to said upright members and extending downwardly and away therefrom in different directions, frame members adjustably mounted on said first described frame members respectively and arches adjustably mounted on said last described frame members.

2. A croquet game device comprising an upright member, arch supporting members secured to the lower ends thereof, frame members pivotally secured to said upright members and extending downwardly and away therefrom in different directions, frame members adjustably mounted on said first described frame members respectively and arches adjustably mounted on said last described frame members, said arches being adjustable in width.

3. A croquet game device comprising an upright member, arch supporting members secured to the lower ends thereof, frame members pivotally secured to said upright members and extending downwardly and away therefrom in different directions, frame members adjustably mounted on said first described frame members respectively, and arches adjustably mounted on said last described frame members, and means for locking said device on a table.

4. In a device of the class described, the combination of a table with a supporting member, a plurality of arches adjustably mounted thereon and adapted to be supported in different positions on said table.

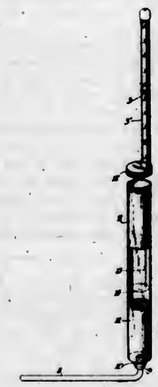
1,206,195. MESH-BAG. ELIE BELINE, New York, N. Y., assignor to Beline & Glasser, New York, N. Y., a Copartnership composed of said Beline and Hyman Glasser, New York, N. Y. Filed Mar. 30, 1916. Serial No. 87,721. (Cl. 150—29.)

1. A mesh bag including a pair of main jaws one of which is formed with a flange which holds said main jaws spaced apart in their closed position; a purse arranged wholly within said mesh bag and having as one of its jaws said main jaw formed with a flange; and an auxiliary purse jaw that extends from side to side of said main jaw and is formed with a flange both the end portions of which are pivotally mounted on the flange of said main jaw and which is shaped to lie snugly in its closed position within the last-named flange.

2. A mesh bag including a pair of main jaws both of which are formed with flanges which hold said main jaws spaced apart in their closed position; a purse arranged wholly within said mesh bag and having one of said main jaws as one of the jaws of the purse; an auxiliary purse jaw formed with a flange both the end portions of which are hingedly fastened to the flange of the last-named main jaw and which is shaped to lie snugly in its closed position within the flange thereof; an article of toilet arranged within the mesh bag; and a suspensory device to which said article is attached; said device lying in the closed position of said main jaws in the space between one of the latter jaws and said auxiliary jaw.



1,206,196. GASOLENE-GAGE. EDWARD M. BENFORD, Mount Vernon, N. Y. Filed June 25, 1915. Serial No. 36,176. (Cl. 73—82.)



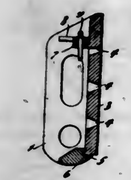
1. A gasolene gage comprising an upright float-carrying chamber, an upright indicating tube of less diameter than said chamber and eccentrically connected with the top thereof and having an opening along a portion of its length and provided on its inner surface with a graduated quantity-indicating scale, a float in said chamber, an indicator connected thereto and extending into said tube, and means for connecting the chamber with a gasolene reservoir.

2. A gasolene gage comprising an upright float-carrying chamber, an upright indicating tube of less diameter than said chamber and eccentrically connected with the top thereof and having an opening along a portion of its length and provided on its rear inner surface with a graduated quantity-indicating scale, a float in said float chamber and having a passage therethrough, an indicator connected with said float and extending into said tube,

and means for connecting the chamber with a gasolene reservoir.

3. A gasolene gage comprising an upright float-carrying chamber, a removable cover therefor, an upright indicating tube of less diameter than said chamber and eccentrically connected with the removable cover and having an opening along one portion of its length and provided on its rear inner surface with a graduated quantity-indicating scale and also having a transparent medium covering said opening, a float in said float chamber and having a passage therethrough, an indicator connected with said float and extending into said tube, and means for connecting the chamber with a gasolene reservoir.

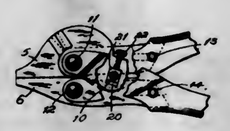
1,206,197. CHAIN GRATE. CYRIL GEORGE MANCHA BENNETT, London, and SYDNEY HERBERT SMITH, West Ealing, England, assignors to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Mar. 25, 1913. Serial No. 756,674. (Cl. 110—40.)



1. A flap firebar for chain grates comprising a frame having means for pivotally connecting one end only to a grate chain, a removable top, said frame having an undercut portion at the hinged end thereof, there being a projection on the removable top adapted to be seated in the undercut portion of the frame, and means for securing the other end of the top to the frame, substantially as described.

2. A chain grate stoker comprising a plurality of chains, grate bar supporting members connected to said chains, a series of bars pivotally connected each at one end only to said supporting members, each of said grate bars comprising a frame and a removable top, the frame having an undercut portion and the top having at one end a projection adapted to be seated in the undercut portion, and means for securing the other end of the top to the frame, the arrangement being such that the top is adapted to fall downwardly from the frame when said securing means is inactive and the grate bar is vertically suspended from its supporting member, substantially as described.

1,206,198. HAND-TOOL. WILLIAM A. BERNARD, New Haven, Conn., assignor to The William Schollhorn Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 13, 1915. Serial No. 1,087. (Cl. 81—50.)



1. In a hand tool, a pair of parallel jaws, a pair of lever handles, a device for pivoting said lever handles together, devices for pivoting the respective jaws to the respective extremities of said lever handles, a subsidiary jaw pivoted coincidently with the pivot of one of said parallel jaws, and also pivoted on said first-named pivoting device, and screw operated adjusting means for positively moving said subsidiary jaw relatively to said first-named pivoting device; substantially as described.

2. In a hand tool, the combination of a pair of parallel jaws, a pair of crossed lever handles, a pivot member for pivoting said lever handles together at the point where they intersect, means for pivoting the forward ends of the lever handles to said parallel jaws, means guiding said jaws for parallel movement, a subsidiary jaw pivoted coincidently with one of said parallel jaws and carrying a relatively movable member engaging said first-named pivoting member to pivot said subsidiary jaw thereto, and a screw for positively adjusting said subsidiary jaw with respect to said relatively movable member so as to shift said subsidiary jaw relatively to said first-named pivot member; substantially as described.

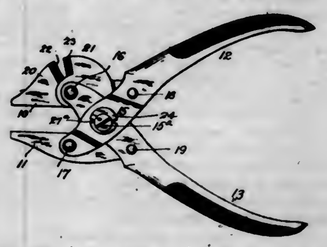
3. In a hand tool, a pair of parallel jaws, a pivoted subsidiary jaw, a pair of lever handles for operating all of said jaws, and screw mechanism for adjusting the pivoted subsidiary jaw relatively to the parallel jaws; substantially as described.

4. In a hand tool, the combination of a pair of parallel jaws, a pair of crossed lever handles, a pivot screw for pivoting said lever handles together at the point where they intersect, means for pivoting the forward ends of the lever handles to said parallel jaws, a subsidiary jaw pivoted coincidently with one of said parallel jaws and having a slot therein, a member having a threaded engagement with said pivot screw and held in said slot thereby, and a screw for adjusting said subsidiary jaw relatively to said last-named member and said pivot screw; substantially as described.

5. In a hand tool, the combination of a pair of parallel jaws, a pair of crossed lever handles, a screw for pivoting said lever handles together at the point where they intersect, means for pivoting the forward ends of said lever handles to said parallel jaws, a subsidiary jaw pivoted coincidently with one of said parallel jaws and having a slot, said slot undercut at the side opposite the head of said pivot screw, a nut fitting said slot and having threaded engagement with said pivot screw, whereby the pivot screw holds said nut in position in said slot, and means for adjusting said subsidiary jaw relatively to said nut; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,206,199. HAND-TOOL. CHARLES W. BLODGIB, Chicago, Ill., assignor to The William Schollhorn Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 12, 1915. Serial No. 1,794. (Cl. 81—50.)



1. In a hand tool, a pair of parallel jaws, a pair of lever handles for operating said jaws, a pivoted subsidiary jaw coöperating with one of said parallel jaws, means for operating said subsidiary jaw from said lever handles concurrently with the parallel jaws, and means for adjusting said subsidiary jaw relatively to said parallel jaws; substantially as described.

2. In a hand tool, the combination of a pair of parallel jaws, one of said jaws having a subsidiary jaw thereon, a pivoted subsidiary jaw, a pair of lever handles for closing all of said jaws, and means for adjusting the pivoted subsidiary jaw relatively to the parallel jaws so that it will be completely closed when the parallel jaws are completely closed; substantially as described.

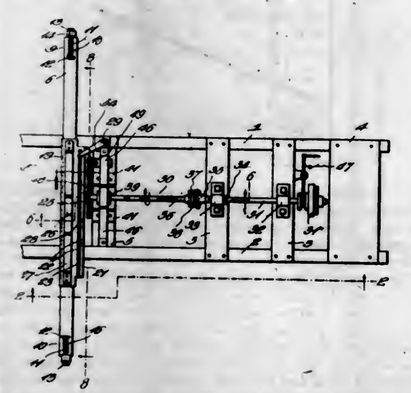
3. In a hand tool, the combination of a pair of parallel jaws, a pair of crossed lever handles, means for pivoting said lever handles at the point where they intersect, means for pivoting the forward ends of the lever handles to said parallel jaws, means guiding said jaws for parallel movement, and a subsidiary jaw pivoted coincidently with one of said parallel jaws, said subsidiary jaw being also pivoted adjacent the pivot of the lever handles but adjustable relatively to said pivot; substantially as described.

4. In a hand tool, a pair of parallel jaws, a pivoted subsidiary jaw, a pair of lever handles for operating all of said jaws, and means for adjusting the pivoted subsidiary jaw relatively to the parallel jaws; substantially as described.

5. In a hand tool, a pair of jaws, a pair of operating lever handles for said jaws adapted to give the latter a parallel closing movement, a pivot for said lever handles, pivots connecting the respective lever handles with the respective jaws, a pivoted subsidiary jaw supported on one of said last named pivots and on the pivot of the lever handles and means for mounting said subsidiary jaw adjustably relatively to one of said pivots; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,206,200. MECHANISM FOR CONVERTING ROTARY INTO RECIPROCATORY MOTION. DANIEL J. BONTRAGER, Woodburn, Oreg. Filed Mar. 9, 1916. Serial No. 83,162. (Cl. 74—27.)



1. The combination of a continuously rotating shaft one end of which is mounted for vertical movement, a pinion carried by said shaft end, a member mounted to reciprocate in a plane at right angles to the plane of the longitudinal axis of said shaft, a rack carried by said member and having teeth on its upper and lower faces positioned for engagement by said pinion and means for positively raising said pinion at the end of the stroke of said member in one direction to position it in engagement with the upper face of said rack and permitting it to lower by gravity in a position for engagement with the lower face of said rack at the end of the stroke of said member in the opposite direction.

2. The combination of a supporting structure, a reciprocatory member mounted thereon and having a longitudinally extending rack with teeth on both faces, a rotatable shaft extending at right angles to said reciprocatory member, a pinion carried by said shaft, a movable bearing block in which the pinion carrying shaft is revolubly mounted to adapt the pinion fo move to position it alternately for engaging the teeth on opposite faces of said rack, a support for said block having oppositely disposed guides, coöperating elements on said block engaging said guides, means at the ends of said guides for limiting the movement of said block in opposite directions, said block moving by gravity in one direction, and means controlled by said rack for moving it in the other direction.

3. The combination of a supporting structure, a reciprocatory member mounted thereon and having a longitudinally extending rack with teeth on both faces, a rotatable shaft extending at right angles to said reciprocatory member, a pinion carried by said shaft and mounted to move laterally toward and away from said rack, a movable pinion moving member mounted to engage one side of said pinion-carrying shaft, a lever connected with said member on the opposed side of said shaft, a coöperating element on said rack for engaging said lever at a predetermined point during the movement of said rack in one direction, whereby said lever is operated to bring said pinion moving member into engagement with said shaft for moving said shaft and lifting the pinion into engagement with the teeth on the other face of said rack when said rack reaches its limit of movement in one direction.

4. The combination of a supporting structure, a reciprocatory member mounted thereon and having a longitudinally extending rack with teeth on both faces, a rotatable shaft extending at right angles to said reciprocatory member, a pinion carried by said shaft and mounted to move laterally toward and away from said rack, a movable pinion moving member mounted to engage one side of said pinion carrying shaft, a lever connected with said member on the opposed side of said shaft, and a coöperating element on said rack for engaging said lever at a predetermined point during the movement of said rack in one direction, whereby said lever is operated to bring said pinion moving member into engagement with said shaft for moving said shaft and lifting the pinion into engagement with the teeth on the other face of said rack when said rack reaches its limit of movement in one direction.

5. The combination of a supporting structure, a reciprocatory member mounted thereon and having a longitudinally extending rack with teeth on both faces, a rotatable shaft extending at right angles to said reciprocatory member, a pinion carried by said shaft, a movable bearing block in which the pinion carrying shaft is revolubly mounted to adapt the pinion to move to position it alternately for engaging the teeth on opposite faces of said rack, an inverted U-shaped block-support mounted on said structure, the arms of said support having longitudinally extending slots therein, projections on said block extending into said slots whereby the block is guided and its movement limited in opposite directions, said block being movable by gravity in one direction, and means controlled by said reciprocatory member for moving it in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

1,206,201. LAPPING DEVICE. FRED E. BRIGHT, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company, a Corporation of Delaware. Filed Apr. 23, 1914. Serial No. 833,886. (Cl. 51—4.)



1. A lapping device adapted to act on circumferentially extending grooves, said lapping device comprising a holder, and a flexible lapping element mounted thereon and curved to extend in the groove, the lapping element being secured at one point to the holder so that in the lateral rocking motions of the holder, the lapping element will be oscillated transversely, and said lapping element being free at another point to enable the holder to be rocked laterally relatively thereto.

2. A lapping device comprising a holder provided with a curved supporting portion, and a curved flexible lapping element applied to said supporting portion and secured at its ends to the holder, and being free between its ends; whereby the holder may be rocked transversely relatively to the free portion of the lapping element, and in such movements will oscillate the lapping element.

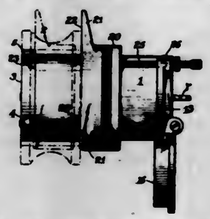
3. A lapping device comprising a holder having a segmental edge, and a lapping element mounted on the holder and extending circumferentially of said edge and movable laterally relatively to the holder.

4. A lapping device comprising a holder provided with a supporting surface curved circumferentially, and a curved flexible lapping element applied to said supporting surface, said lapping element being secured at its ends to the holder, and being free between its ends to enable the holder to move laterally relatively to it, the said lapping element presenting an active surface curved in a transverse direction.

5. A lapping device comprising a holder provided with an open circumferentially extending groove, a curved flexible lapping element seated in the groove and having its active surface exposed beyond the same, said lapping element being secured to the holder at its ends, and being free between its ends to enable the holder to be moved laterally relatively to the same.

[Claims 6 to 9 not printed in the Gazette.]

1,206,202. GAGE. FRED E. BRIGHT, Philadelphia, Pa. Filed Mar. 6, 1915. Serial No. 12,519. (Cl. 33—174.)



1. In a gage, the combination of a frame or support, fixed laterally projecting positioning stops carried thereby, a laterally projecting yielding gage element mounted on the support, an indicating mechanism sustained by the support, means operated by the yielding gage element for operating said indicating mechanism, and a member sustained by the support and provided with a laterally extending bearing surface at right angles to the axis of the support and adapted to bear flatly against the end of the work to square the gage with the work.

2. In a gage, the combination of a frame or support, fixed laterally projecting positioning stops carried thereby, a laterally projecting yielding gage element mounted on the support, an indicating mechanism sustained by the support, means operated by the gage element for operating said indicating mechanism, and a member movable longitudinally on the support and provided with a bearing surface extending in a plane at right angles to the longitudinal axis of the support, said bearing surface adapted to coöperate with the end of the work in squaring the gage with the work.

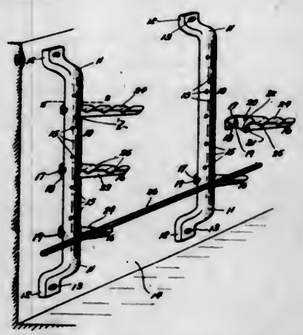
3. In a gage, the combination of a body or support, fixed laterally projecting positioning stops carried thereby, a laterally projecting yielding gage element mounted on the support, an indicating mechanism operated by the gage element, a member movable longitudinally on the support and provided with a bearing surface extending at right angles to the axis of the support and adapted to coöperate with the work in squaring the gage with the same, and a longitudinally adjustable abutment carried by the support in position to be engaged by said longitudinally movable member.

4. In a gage, the combination of a body or support, fixed laterally projecting positioning stops carried thereby, a laterally projecting yielding gage element mounted on the support, an indicating mechanism sustained by the support, means operated by the gage element for operating said indicating mechanism, a sleeve loosely surrounding the body or support and movable longitudinally thereof, said sleeve being provided with a bearing surface extending at right angles to the axis of the support and adapted to coöperate with the ends of the work in squaring the gage with the work, and means for limiting the longitudinal movement of the sleeve on the support.

5. In a gage, the combination of a body or support, fixed laterally projecting stops carried thereby, a yielding gage element projecting laterally from the support, an indicating member sustained by the support, an operating lever extending longitudinally within the support and movable transversely thereof, said lever being connected respectively with the gage element and indicating mechanism to operate the latter, and means to locate the support in relation to the work being gaged.

[Claims 6 and 7 not printed in the Gazette.]

1,206,203. CABLE-HANGER. EDWIN L. BROCKWAY, Glenside, Pa. Filed Sept. 10, 1915. Serial No. 49,876. (Cl. 248—36.)



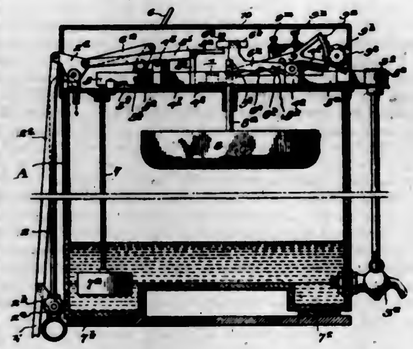
1. A cable hanger embracing a standard of substantially circular cross-section the front face of which is provided with a series of staggered apertures extended partially around the standard face and a series of interchangeable hangers supported upon said standard for adjustment in arcs of circles therearound in a horizontal plane as well as for vertical adjustment thereon, each hanger embracing a one-piece article consisting of an arm the top of which is laterally grooved for cable accommodation which arm terminates in a hook-like member gradually tapering to a pointed end, the hook-like member abutting against the standard back and the heel portion of said arm abutting against the standard face, means being present upon said hanger for engaging within an apertured portion of the standard to interlock the parts.

2. A cable hanger embracing a tubular standard the front face of which is provided with a series of apertures arranged in staggered relation partially around said standard face and a series of interchangeable hangers supported upon said standard for adjustment in arcs of circles therearound in a horizontal plane as well as for vertical adjustment thereon, each hanger embracing a one-piece article consisting of an arm the top of which is laterally grooved for cable accommodation which arm terminates in a hook-like member gradually tapering to a pointed end, which hook-like member encircles the standard with its pointed end abutting against the standard back and the heel portion of the arm abutting against the standard face and a projection carried by said heel portion for engagement with an apertured portion of the standard to interlock the parts.

3. A cable hanger embracing in combination a supporting structure, a standard of tubular formation supported thereby and at least a portion thereof spaced therefrom, the front face of said standard being provided with a series of apertures disposed in staggered relation and a series of interchangeable hangers supported by said standard each hanger embracing a one-piece article consisting of an arm the top of which is laterally grooved for cable accommodation which arm terminates in a hook-like member gradually tapering to a pointed end free of the heel portion of said arm, which hook-like member encircles the standard and abuts against the back thereof and the heel portion of the arm abutting against the standard face which heel portion is inclined and terminates at its base in a flat portion provided with a projection for engagement with an apertured portion of the standard to interlock the parts.

4. A one-piece hanger for cables embracing an arm consisting of a rib carrying at its top a horizontally, relatively broad portion, grooved laterally for cable accommodation, and the heel portion of said arm being inclined downwardly and terminating in a vertical portion which heel portion has extended therefrom in a horizontal plane a hook-like standard encircling member which gradually tapers to a pointed end free of the heel portion and a standard engaging pin projected from the said vertical portion of the heel of the arm.

1,206,204. LIQUID DISPENSING AND MEASURING APPARATUS. CHARLES F. BROWN, New York, N. Y., assignor to Universal Liquid Register Co., New York, N. Y., a Corporation of New York. Filed Oct. 6, 1914. Serial No. 865,274. (Cl. 221—99.)



1. In combination with a measuring vessel having inlet and outlet valves, a reciprocating bar adapted to lock the valves alternately, means for moving said bar, a float and connections for locking the bar in projected position, a second float and connections for locking the bar in retracted position and means for releasing the locking means.

2. In combination with a measuring vessel having inlet and outlet valves, a reciprocating bar adapted to lock the valves alternately, manually operable means for moving said bar in one direction and a spring for moving the bar in the opposite direction, a float and connections for locking the bar in projected position, a second float and connections for locking the bar in retracted position and means for releasing the locking means.

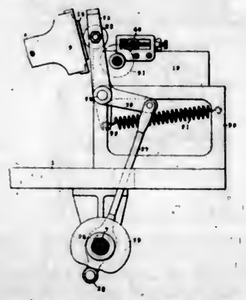
3. In a liquid measuring apparatus, the combination of a vessel having inlet and outlet valves, a reciprocatory bar adapted to alternately lock the valves in closed position, an oscillating lever beside said bar, means for limiting the oscillatory movement of said lever, a float, devices for locking the bar, and means connected with the float for releasing the locking devices, substantially as described.

4. In a liquid measuring apparatus, the combination of a vessel having inlet and outlet valves, a reciprocatory bar adapted to alternately lock the valves in closed position, an oscillating lever beside said bar, means for limiting the oscillatory movement of said lever, a float operatively engaged with said lever, devices for locking the bar when in projected position, and means operated by the float for releasing the locking devices, substantially as described.

5. In a liquid measuring apparatus, the combination of a vessel having inlet and outlet valves, a reciprocatory bar adapted to alternately lock these valves in closed position, an oscillating lever beside said bar, means for limiting the oscillatory movement of said lever, a float, means for locking the bar when in projected position, a device operated by the float for releasing said locking means; a spring for retracting the bar, and a second float and devices for locking the bar in its retracted position.

[Claims 6 to 22 not printed in the Gazette.]

1,206,205. COATING-MACHINE. HAROLD CARLE, Buffalo, N. Y., assignor to F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of Ontario, Canada. Original application filed May 5, 1914, Serial No. 836,400. Divided and this application filed Mar. 7, 1916. Serial No. 82,556. (Cl. 91—50.)



1. In an apparatus of the character described, in combination, a flat adhesive receiving surface movable in a curved path, an adhesive carrier movable transversely of said surface, means adapted to cause relative progressive movement between said carrier and surface when in contact with each other, a yielding device adapted to cause pressure between said carrier and surface during said progressive movement, and means adapted to compensate for the varying pressure tension of said yielding means so as to maintain a substantially constant pressure between said surface and said carrier during said progressive movement.

2. In an apparatus of the character described, in combination, a flat adhesive receiving surface movable in a curved path, an adhesive carrier movable transversely of said surface, means adapted to cause relative progressive movement between said carrier and surface when in contact with each other, a device adapted to press said carrier against said surface during said progressive movement, and means adapted to variably limit the transverse movement of the carrier.

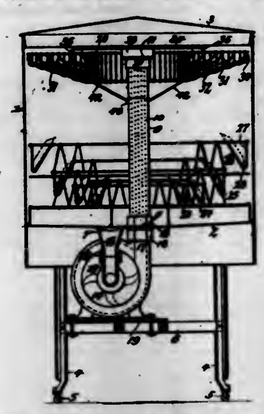
3. In an apparatus of the character described, in combination, a flat adhesive receiving surface, an adhesive carrying roller movable transversely of said surface, means adapted to move said surface progressively past said roller in a curved path, a device adapted to press said roller against said surface, and means adapted to maintain a substantially constant degree of pressure between said roller and surface.

4. In an apparatus of the character described, in combination, a flat adhesive receiving surface, an adhesive carrying roller movable transversely of said surface, means adapted to move said surface progressively past said roller in a curved path, a spring adapted to press said roller against said surface, and means adapted to compensate for the variable tension of said spring so as to maintain a substantially constant pressure between said surface and said carrier.

5. In an apparatus of the character described, in combination, a flat adhesive receiving surface, an adhesive carrying roller movable transversely of said surface, means adapted to move said surface progressively past said roller in a curved path, a spring adapted to press said roller against said surface, and a rotatable cam adapted to compensate for the variable tension of said spring so as to maintain a substantially constant pressure between said surface and said carrier.

[Claims 6 and 7 not printed in the Gazette.]

1,206,206. DISH-WASHING MACHINE. RICHARD CARY and GEORGE W. HEWITT, Niagara Falls, N. Y. Filed Mar. 12, 1914. Serial No. 824,173. (Cl. 141—9.)



1. A dish washing machine comprising a washing chamber, an upright water delivery pipe arranged within said chamber, and means for supporting articles to be washed comprising a rack arranged within the chamber, and a cross bar mounted on the upper end of said delivery pipe and provided at its opposite ends with hooks adapted to engage with the adjacent parts of said rack.

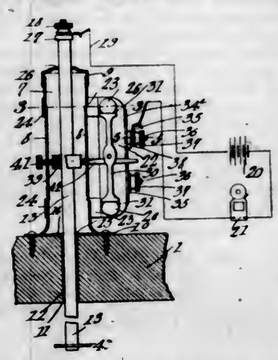
2. A dish washing machine comprising a washing chamber, an upright water delivery pipe arranged within said chamber, and means for supporting articles to be washed comprising a rack arranged within the chamber, and a cross bar mounted on the upper end of said delivery pipe and provided at its opposite ends with hooks adapted to engage with the adjacent parts of said rack and a brace extending from said rack to the water delivery pipe below the rack.

3. A dish washing machine comprising a washing chamber, an upright water delivery pipe arranged within said chamber, and means for supporting articles to be washed comprising a rack arranged within the chamber, and a cross bar mounted on the upper end of said delivery pipe and provided at its opposite ends with hooks adapted to engage with the adjacent parts of said rack and a brace comprising two arms having their upper ends connected with the upper part of said rack and their upper parts engaging with the inner wall of said rack and a cross bar connecting the lower ends of said arms and engaging with the side of said water delivery pipe below said rack.

1,206,207. INCUBATOR-ALARM. ALVIA R. COX, Ada, Okla. Filed Sept. 24, 1915. Serial No. 52,448. (Cl. 200—32.)

1. In a device of the character described, a casing having means for attachment to an incubator and having a longitudinal slot, a rod slidable within the casing and projecting from one end thereof, the projecting portion of the rod having means for engagement with a thermostat, an insulated plate attached to the casing and disposed at one side thereof, a pair of contact members adjustably carried by said plate, and a switch member carried by said rod and projecting through said slot between said contact members to move against them for closing an electrical circuit.

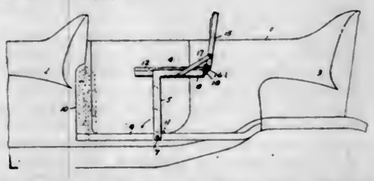
2. In a device of the character described, a casing, a rod slidable therethrough, an insulated plate carried by the casing and having an angularly extending flange provided with a longitudinal slot and an angularly extending lip, a pair of contact plates bearing against said flange, certain edges of said contact plates projecting beyond said plate and the opposite edges of the contact plates bearing against said lip, bolts engaged through said contact plates and working in said slot, and a switch member carried by the rod and projecting between said contact plates to contact therewith.



3. In a device of the character described, a tubular casing having an aperture at one end and a longitudinal slot, an apertured cap threaded upon the other end of the casing, a rod slidable through the apertures of the casing and cap, an adjustable collar carried by the rod within the casing, a contact finger carried by said collar and working in said slot, a pair of arms having curved portions embracing the casing adjacent the ends of said slot, and an insulated plate carried by said arms and having a pair of contacts between which said finger projects.

4. In a device of the character described, a tubular casing having an aperture at one end and a longitudinal slot, an apertured cap threaded upon the other end of the casing, a rod slidable through the apertures of the casing and cap, an adjustable collar carried by the rod within the casing, a contact finger carried by said collar and working in said slot, a pair of arms having curved portions embracing the casing adjacent the ends of said slot, an insulated plate having an angularly extending flange provided with a slot, bolts engaged through said plate and arms, a guide parallel with the plate having offset ends engaging said bolts, a pair of contact plates bearing against the said flange, and bolts engaged through said contact plates and working in said slot of the flange, the contact finger projecting between said first mentioned plate and guide and between the contact plates.

1,206,208. AUTOMOBILE-SEAT. HENRY MIDDLEBROOK CRANE, New York, N. Y., assignor to Simplex Automobile Company, Inc., New Brunswick, N. J., a Corporation of Delaware. Filed Aug. 13, 1915. Serial No. 45,301. (Cl. 21—43.)



1. In an automobile, and in combination with the car body having front and rear seats, an intermediate folding seat comprising a standard part normally rising from the bottom of the body and hinged at its lower end so as to fold downwardly and forwardly, a seat-receiving part rigid with and extending rearward from said standard part, a seat mounted slidably in said seat-receiving part and when in use projecting forwardly from the same, a back hinged to the seat so as to fold forwardly thereover, and one or more links connecting the back with the seat-receiving portion so as to compel the seat to slide rearwardly when the back is lowered.

2. An intermediate folding automobile seat comprising a frame rising from the bottom of the car body with a rearwardly projecting top portion and hinged at its lower end so as to fold forwardly and downwardly, a seat slidable on the rearwardly projecting top portion of said frame, a back hinged so as to fold downward over the seat, and linkage connecting the back with the hinged frame for compelling said seat to slide rearward when the back is lowered.

3. A folding automobile seat comprising a frame substantially of inverted L-shape, hinged at its lower end so as to fold forwardly, a seat slidably mounted on the rearwardly projecting top portion of the frame and capable of sliding forwardly and rearwardly with relation thereto, a back hinged to the seat so as to fold downwardly upon the seat, and connections between the back and seat for automatically effecting the sliding of the seat upon the frame.

4. In an automobile, and in combination with the car body having front and rear seats, an intermediate seat adapted to fold into the floor of the car and into the back of the seat in front, said intermediate seat comprising a frame substantially of inverted L-shape hinged at its lower end so as to fold forwardly, a seat slidable on the rearwardly projecting top portion of said frame and when in use overhanging the front of the same, a back hinged to the seat so as to be capable of folding down thereover, one or more links connecting the back with the top portion of the frame so as to compel the seat to slide rearwardly when the back is lowered, and a stop limiting the forward movement of the seat on the frame.

5. In an automobile, and in combination with the car body having front and rear seats, an intermediate folding seat comprising a frame part rising from the bottom of the body and hinged at its lower end so as to fold downward in it, a seat mounted slidably upon said frame, a back hinged to the seat so as to fold forwardly thereover and connections between the said back and the frame for the seat so as to compel the seat to slide when the back is lowered.

[Claims 6 to 9 not printed in the Gazette.]

1,206,209. STEREOTYPE-PLATE-CASTING BOX. AMANDUS H. CAUSS, Brooklyn, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Mar. 18, 1915. Serial No. 15,277. (Cl. 22—5.)



1. In a casting box, the combination with the mold, of a side gage, and a matrix back movable with the gage and arranged to position itself between the edge of the matrix and the mold and hold the matrix edge out of the plane of the matrix body when the gage is moved to closed position.

2. In a casting box, the combination with the mold, of a side gage, and a resiliently mounted matrix back movable therewith and arranged to position itself between the edge of the matrix and the mold and hold the edge of the matrix out of the plane of the matrix body when the gage is moved to closed position.

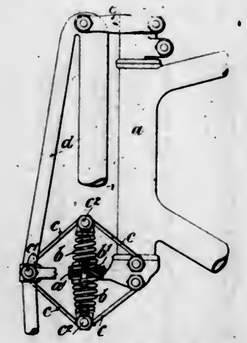
3. In a casting box, the combination with the mold, of a pivoted side gage, and a resiliently mounted matrix back carried by the side gage and positioning itself between the edge of the matrix and the mold when the gage is swung to closed position.

4. In a casting box, the combination with the mold, of a side gage, and a spring actuated matrix back carried by the gage and arranged to position itself between the mold body and the edge of the matrix when the gage is moved to closed position.

5. In a casting box, the combination with the mold, of a pivoted side gage, a matrix backing bar, and a plurality of springs carried by the gage on which the bar is mounted, said bar being arranged to position itself between the mold body and the edge of the matrix when the gage is swung to closed position.

[Claims 6 and 7 not printed in the Gazette.]

1,206,210. SPRING-FORK FOR VELOCIPEDES. ALFRED HENRY CULLEY, Erdington, Birmingham, England, assignor of one-half to Samuel Davies, London, England. Filed Aug. 1, 1916. Serial No. 112,585. (Cl. 208—97.)



1. In a spring fork for velocipedes, a pair of single links and a double hinge link connecting the steering column with the fork and springs interposed between the upper and lower hinging points of the double hinge link, as set forth.

2. In a spring fork for velocipedes, a pair of single links connecting the upper end of the steering column with the upper end of the fork, a double hinge link connecting the lower end of the steering column with the fork, a forwardly extending plate on the lower end of the steering column, two pairs of helical compression springs each taking a bearing at one of their ends on said plate one pair of said springs above it and the other pair below it, and the free ends of said springs being attached to the upper and lower hinging points of the double hinge link, as set forth.

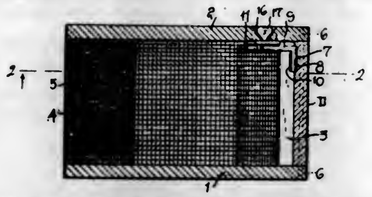
3. In a spring fork for velocipedes, a pair of single links and a pair of double hinge links connecting the steering column with the fork, and a tension spring interposed between the upper and lower hinging points of each double hinge link, as set forth.

4. In a spring fork for velocipedes, a pair of double hinge links connecting the upper end of the steering column with the upper end of the fork, a tension spring attached to the upper and lower hinging points of each double hinge link, and a pair of single links connecting the lower end of the steering column with the fork, as set forth.

1,206,211. COOP. SAMUEL L. DENNEY, Lincoln University, Pa. Filed Mar. 11, 1916. Serial No. 83,623. (Cl. 119—19.)

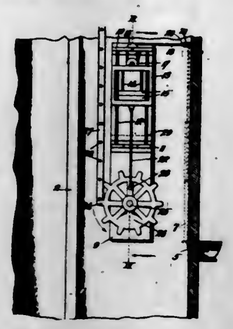
A coop provided with an entrance opening, a swinging door for said opening, an arcuate rod provided with a depending end portion, means for pivotally connecting said depending end portion with the inner face of the door adjacent the top thereof, a loop depending from the

top of the coop and through which the arcuate rod passes, and a clamping member disposed through the top and



coacting with the rod for holding the door in its various adjustments.

1,206,212. ELEVATOR-GATE-OPERATING MECHANISM. JOSEPH J. DULLE, Kansas City, Mo. Filed Feb. 14, 1916. Serial No. 78,286. (Cl. 187—58.)



1. An elevator gate operating mechanism comprising in combination with an elevator car and a landing gate, a vertically slidable weight, a toothed wheel yieldingly held in a predetermined position with respect to the weight when the latter is elevated, a connection between said weight and said wheel whereby the rotation of the latter a certain distance shall pull the weight downward a predetermined distance and a second rotation of said wheel the same distance shall leave the weight free to be moved upward, a rack bar on the car for imparting such movements to said wheel in the travel of said car, and a block and tackle connection between the weight and the gate whereby downward movement imparted to the former shall open the gate and whereby said gate shall reëlevate the weight when the rack bar imparts the said second rotation to said wheel.

2. An elevator gate operating mechanism comprising in combination with an elevator car and a landing gate, a vertically slidable weight, a toothed wheel below the weight and provided with a weighted portion for normally holding the wheel in a predetermined position, a cable having a swivel connection at its lower end with the wheel at a point diametrically opposite the weighted portion of the latter and attached at its upper end to the slidable weight, a block and tackle connection between the upper end of the slidable weight and the gate, and a vertical rack bar secured to the elevator car and adapted to impart a half revolution to the wheel by the time the car arrives at the landing with which the wheel is associated and to impart a second half revolution to the wheel upon moving away from said landing to restore the wheel to normal position.

3. An elevator gate operating mechanism comprising in combination with an elevator car and a landing gate, a support in the elevator shaft, a vertical guide secured to the support, a slidable weight mounted on the guide and adapted to be arrested in its descent by the latter if such travel exceeds a predetermined range of movement, sheaves journaled in the upper part of the guide and weight, a cable suitably guided and extending around said sheaves and attached at one end to a fixed point and at its other end to the gate, a toothed wheel journaled on the support below the guide, a connection pivoted at one end to the weight and having a swivel connection at its opposite end with the toothed wheel, and a rack bar secured to the elevator car and adapted for rotating the toothed wheel a single revolution in passing the same; said wheel having a weighted portion diametrically opposite said swivel connection for normally holding the wheel in a predetermined position.

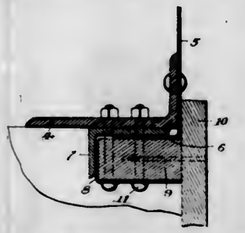
1,206,213. MATCH-STRIKING SURFACE FOR PIPES. FRANK FRUSTAGLIO, South Porcupine, Ontario, Canada. Filed Apr. 1, 1916. Serial No. 88,311. (Cl. 206—36.)



1. An article of manufacture consisting of a match striker comprising a striking plate having a roughened outer surface and being arcuate in transverse section, inwardly projecting pins carried adjacent the opposite ends of said plate, oppositely projecting mounting bands centrally carried by the said plate having overlapping end portions having interlocking teeth upon their adjacent contacting surfaces, the said bands and plate being normally arranged in adjustable annular formation and laterally projecting tabs at the ends of the said bands overlying the adjacent band in loop forming arrangement.

2. A device of the class described comprising a scratch plate, curved bands carried by opposite sides thereof with the band ends overlapped, the opposed faces of the overlapped ends of the bands being notched to provide engaging teeth, and tabs carried by each band end adapted to be bent into engagement with the opposed band end.

1,206,214. CAR CONSTRUCTION. CHARLES E. FULLER, Omaha, Nebr. Filed Sept. 14, 1914. Serial No. 861,571. (Cl. 105—192.)



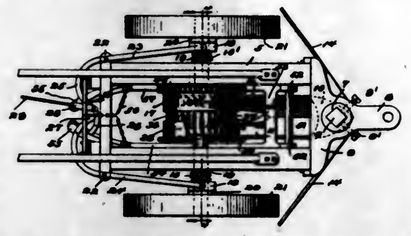
1. The combination with a freight car having a metallic door frame, of a clamping strip removably mounted adjacent said frame; bolts passing through said frame and clamping strip; and a nailing strip of wood or the like clamped between said clamping strip and frame.

2. The combination with a freight car having a metallic door frame of two companion clamping members mounted thereon; releasable connections between said clamping members; and a nailing strip clamped between said members to present a nailing surface adjacent the doorway.

3. The combination with a freight car having a metallic door frame and a metallic sheathing connected thereto, of a clamping strip; bolts connecting said clamping strip and frame; and a nailing strip clamped by said clamping strip to said door frame in close engagement with said sheathing.

4. The combination with a box freight car having a metallic door-frame, of nail receiving members one for each side of the doorway and each comprising a pair of metallic clamp members of angular cross section, a nailing strip of wood or like material, and releasable connections passing through said clamp members, strip and door-frame to hold the same in assembled relation.

1,206,215. UNIVERSAL SEED-PLANTER. JOHN A. GARDNER, Grifton, N. C. Filed Aug. 8, 1916. Serial No. 113,712. (Cl. 111—34.)



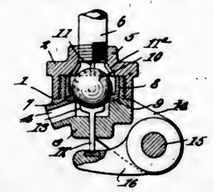
1. A seed planter having a frame, a seed distributing member journaled therein and comprising a double diametered cylindrical member and a cup shaped cylindrical member, the inner diameter of which telescopically fits upon the reduced diameter of the double diametered cylindrical member and whose inner edge coöperates with the shoulder between the double diametered portions to provide a circumferential seed distributing space, and means for locking the cup shaped member from longitudinal movement; and a hopper carried by the frame for supplying the seed to the circumferential seed distributing space.

2. A seed planter having a seed distributing member composed of a double diametered cylinder, the enlarged diameter of which is provided with a plurality of spaced peripheral pockets, adjustable means for regulating the depth of each pocket, and a cup shaped member for fitting upon the reduced diameter of said cylinder, and means for moving the cup shaped member to regulate the space between its inner end and the adjacent portion of the cylinder.

3. A seed planter having a frame, a seed distributing member journaled therein and comprising a double diametered cylindrical member and a cup shaped cylindrical member, the reduced diametered portion of the cylindrical member being provided with longitudinal corrugations forming seed receiving and directing surfaces while the interior of the cup shaped cylindrical member is correspondingly corrugated to telescopically fit thereon, the inner edge of the cup shaped cylindrical member coöperating with the shoulder between the double diametered portions to provide a circumferential seed distributing space, and means for locking the cup shaped member from longitudinal movement.

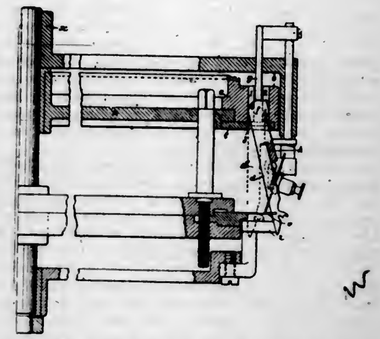
1,206,216. CYLINDER-COCK. JOSEPH P. GRAY, Pittsburg, Kans. Filed Jan. 31, 1916. Serial No. 75,399. (Cl. 137—32.)

1. A drain cock embodying a casing comprising a lower cup-shaped section and an upper cap-shaped section, the upper section having its rim fitted detachably upon and surrounding the rim of the lower section, the lower section having an upwardly facing shoulder and an outlet below said shoulder leading to one side, the upper section having an inlet, a ring fitted within the lower section having its upper edge flush with the edge of the lower section and having its lower edge provided with an inturned flange seating upon said shoulder and providing a valve seat, the upper section seating upon the edge of the lower section and the upper edge of said ring, a ball valve within and surrounded by said ring and seatable upon said seat, and a lift rod slidable through the bottom of the lower section for unseating the valve.



2. In a device of the character described, a drain cock having a casing and a normally seated valve therein, a lift rod slidable through the bottom of said casing for unseating said valve, a rock shaft having an arm projecting under said rod for raising it and having a second relatively long outstanding arm, a vertical cylinder, a piston working within said cylinder and having a downwardly projecting piston rod, a vertical link connecting the lower end of said piston rod and free end of the second mentioned arm, the piston rod having opposite outstanding lugs, a bracket projecting from the cylinder, a bell crank lever having its elbow fulcrumed to said bracket, one arm of said lever having a bifurcated portion straddling the piston rod and bearing downwardly against said lugs, means connected to the other arm of the bell crank lever for manually oscillating it, and a pressure fluid supply pipe attached to the other end of the cylinder.

1,206,217. CIRCULAR-KNITTING MACHINE. EMIL HAAGA, Chemnitz, Germany. Filed Apr. 8, 1912, Serial No. 689,423. Renewed Oct. 17, 1916. Serial No. 126,203. (Cl. 66—26.)

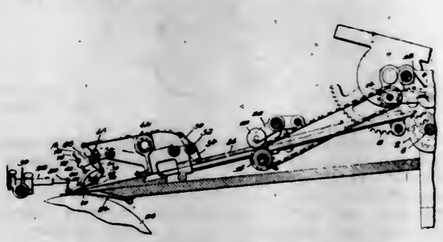


1. An improved guiding device for the sinkers of circular knitting machines comprising two concentric rings *a* and *b*, forming a vertical slot, a third concentric ring *c*, having radial slots therein and connecting the two rings *a* and *b*, a head on each sinker, the sides of each sinker head having portions sliding in the vertical guide slots, so that each sinker head is accurately guided and the sinkers can oscillate in said radial slots when reciprocating, the sinker ring *h* being mounted below the guides for the sinker heads.

2. An improved guiding device for the sinkers of circular knitting machines, comprising in combination two concentric rings forming a vertical slot, a third concentric ring having radial slots and serving for connecting the two concentric rings *a* and *b*, curved extensions at either side of the head of the sinkers sliding in the vertical guide slot so that the sinker head is securely guided and

the sinkers can oscillate in the said radial slots when reciprocating, substantially as described and shown and for the purpose set forth.

1,206,218. REGISTERING MECHANISM FOR SHEET-FEEDERS. HENNING HALLSTREAM, Brockton, Mass., assignor to Cross Paper Feeder Company, a Corporation of Maine. Filed Dec. 27, 1915. Serial No. 68,777. (Cl. 101—38.)



1. A front registering mechanism for sheet feeders, having, in combination, front guides movable into and out of the path of the sheet, sheet registering grippers each comprising upper and lower jaws arranged adjacent to the front guides and independently supported, means for actuating the grippers to grip the front edge of the sheet, draw it forward against the front guides, and slide over the sheet after the forward movement of the sheet is arrested by the corresponding front guide, and means for removing the grippers from the path of the sheet and for returning them to position with their upper and lower jaws on opposite sides of the path of the sheet.

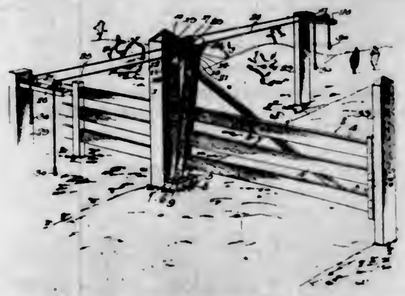
2. A front registering mechanism for sheet feeders, having, in combination, front guides movable into and out of the path of the sheet, a sheet registering gripper corresponding to each front guide comprising an upper and a lower jaw between which the front edge of the sheet passes, supports for the grippers independent of the front guides, means for actuating the grippers to grip the front edge of the sheet, draw it forward against the front guides and slide over the sheet after the forward movement of the sheet is arrested by the corresponding front guide, and means for raising the grippers during the removal of the sheet and for thereafter returning them to position with their upper and lower jaws on opposite sides of the path of the sheet.

3. A front registering mechanism for sheet feeders, having, in combination, front guides movable into and out of the path of the sheet, a sheet registering gripper corresponding to each front guide comprising a reciprocating arm provided with a fixed lower gripping jaw and a vertically movable upper jaw, supports for the arms independent of the front guides, means for advancing a sheet to bring its front edge between the jaws of the grippers, means for closing the gripper jaws and for advancing the gripper arms to carry the rear edge of the lower jaw beyond the front guides, and means for raising the arms during the removal of the sheet and for returning the grippers to position for the entrance of the succeeding sheet between their jaws.

1,206,219. OPENER FOR GATES. MARTIN S. HAMMER, Modesto, Cal. Filed Feb. 10, 1916. Serial No. 77,459. (Cl. 39—56.)

1. In a device of the character described, the combination of a normally balanced swinging gate, a pinion rotatably mounted at the upper inner end of said gate, a stationary rack guide supported adjacent said gate and positioned for engagement with said pinion, and means for rotating said pinion, whereby to tilt said gate.

2. In a device of the character described, the combination of a normally balanced swinging gate, a segmental rack arranged adjacent the upper end of said gate, a pivotally mounted member connected to the upper inner end of said gate, a pinion mounted on said member and engaging said rack, and means for rotating said pinion for moving the upper inner end of said gate, whereby to tilt the latter.



3. In a device of the character described, the combination of a normally balanced swinging gate, a segmental plate arranged adjacent the upper inner end of said gate, a link member pivoted to said plate, a shaft revolubly mounted on said member, one end of said shaft being loosely connected to the upper inner end of said gate, a rack arranged on the arcuate edge of said plate, a pinion fixed to said shaft and engaging said rack, and means for rotating said pinion for moving the upper inner end of said gate around said rack, whereby to tilt said gate.

4. In a device of the character described, the combination of a normally balanced swinging gate, a segmental plate arranged adjacent the upper inner end of said gate, a U-shaped link member pivoted to said plate, the arms of said member being spaced and disposed on opposite sides of said plate, a shaft mounted on the outer ends of said arms and loosely connected to the upper inner end of said gate, a rack arranged on the arcuate edge of said plate, a pinion fixed to said shaft and engaging said rack, a pulley fixed to said shaft, and means for rotating said pulley for moving the upper inner end of said gate around said rack, whereby to tilt said gate.

5. In a device of the class described, the combination with a normally balanced swinging gate having a recess in its upper inner end and a pivot stud at its lower inner end, a supporting plate arranged below the lower inner end of said gate and having a recess therein for receiving said stud, a segmental rack supported adjacent the upper inner end of said gate, an upright shaft rotatably supported adjacent the last referred to end of said gate and having a pinion fixed thereon for engagement with said rack, the lower end of said shaft being loosely received in the recess in the upper inner end of said gate, and means for rotating said shaft whereby to tilt said gate.

1,206,220. PICKLING PROCESS. EMMET FRANCIS HITCH, Alton, Ill., assignor to Western Cartridge Company, East Alton, Ill, a Corporation of New Jersey. Filed Aug. 25, 1916. Serial No. 116,782. (Cl. 148—42.)

1. The process of cleansing metal which comprises pickling the same in a bath containing a bisulfate and a chromate.

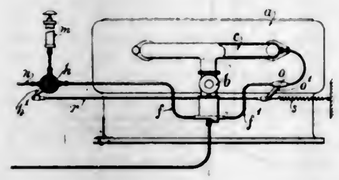
2. The process of cleansing copper and copper containing metals which comprises pickling the same in a bath containing sodium bisulfate and an oxidizing agent.

3. The process of cleansing copper and copper containing metals which comprises pickling the same in a bath containing sodium bisulfate and a chromate.

4. The process of cleansing copper and copper containing metals which comprises pickling the same in a bath containing sodium bisulfate and sodium bichromate.

5. As a new composition of matter a pickling bath containing dissolved sodium bisulfate and dissolved sodium bichromate.

1,206,221. DEVICE FOR PRIMING THE INDUCTION-PIPES OF INTERNAL-COMBUSTION ENGINES. ERNEST WALTER HIVES, Derby, England. Filed Feb. 16, 1916. Serial No. 78,765. (Cl. 123—180.)



1. A priming device for internal combustion engines comprising in combination with the float chamber of the carbureter and the induction pipe connecting the carbureter to the engine, of a supplementary chamber, a port or passage connecting said chamber to the float chamber of the carbureter, a pipe or passage connecting the supplemental chamber to the induction pipe of the engine, said pipe having a vertically arranged part extending as high as the normal level of the liquid fuel in the float chamber, a spraying nozzle on the end of said pipe within the induction pipe, a hand-operated air pump, a pipe or passage connecting the supplementary chamber of the carbureter with the air pump, a tap for shutting off the connection between the supplementary chamber and the induction pipe, means for shutting off the connection between the supplementary chamber and the air pump, and means for causing the tap in the pipe connecting the supplementary chamber with the induction pipe to close automatically.

2. In an internal combustion engine, the combination with the carbureter and induction pipe, of a supplemental chamber in connection with the float chamber of the carbureter by means of a suitable port or passage, a non-return valve in said port or passage, a pipe or passage connecting said supplemental chamber with the induction pipe of the engine and terminating therein in a spraying nozzle, a tap or valve in said pipe or passage, a pipe or passage connecting the supplemental chamber to the fuel supply tank, a three-way tap in said pipe or passage, and a hand operated air pump connected to said three-way tap.

3. In an internal combustion engine, the combination with the carbureter and induction pipe, of a supplemental chamber in connection with the float chamber of the carbureter by means of a suitable port or passage, a non-return valve in said port or passage, a pipe or passage connecting said supplemental chamber with the induction pipe of the engine and terminating therein in a spraying nozzle, a tap or valve in said pipe or passage, a pipe or passage connecting the supplemental chamber to the fuel supply tank, a three-way tap in said pipe or passage, a hand operated air pump connected to said three-way tap, and means for automatically closing the tap or valve in the pipe or passage connecting the supplemental chamber with the induction pipe.

4. In an internal combustion engine, the combination with the carbureter and induction pipe, of a supplemental chamber in connection with the float chamber of the carbureter by means of a suitable port or passage, a non-return valve in said port or passage, a pipe or passage connecting said supplemental chamber with the induction pipe of the engine and terminating therein in a spraying nozzle, a tap or valve in said pipe or passage, a pipe or passage connecting the supplemental chamber to the fuel supply tank, a three-way tap in said pipe or passage, a hand-operated air pump connected to said three-way tap, a coupling between the three-way tap and the tap or valve in the pipe or passage connecting the supplemental chamber with the induction pipe, and means for automatically closing the tap or valve in the pipe or passage connecting the supplemental chamber with the induction pipe.

1,206,222. PRODUCTION OF ETHYLENE GLYCOL. ARTHUR HOUGH, Lavigne, Quebec, Canada. Filed Feb. 21, 1914. Serial No. 820,336. (Cl. 23—24.)

1. In the process of producing ethylene compounds that improvement which consists in passing ethyl alcohol vapor in contact with thin layers of aluminum sulfate carried upon neutral material, under exclusion of air and at a temperature in the aluminum sulfate of about 350–400° C.

2. The process of producing ethylene glycol which consists in removing all combined oxygen from ethyl alcohol vapor without forming aldehydes by passing said vapor in contact with thin layers of aluminum sulfate carried upon neutral material, under exclusion of air and at an elevated temperature, combining the freshly produced product (ethylene) with chlorin to form ethylene dichlorid and then replacing the chlorin of the ethylene dichlorid with a hydroxyl group.

3. The process of producing ethylene glycol which consists in removing all combined oxygen from ethyl alcohol vapor without forming aldehydes by passing said vapor in contact with thin layers of aluminum sulfate carried upon neutral material, under exclusion of air and at an elevated temperature, converting the freshly produced ethylene into ethylene dichlorid and then converting the dichlorid into ethylene glycol.

4. The process of producing ethylene glycol which consists (1) in removing all combined oxygen from ethyl alcohol vapor without forming aldehydes by passing said vapor in contact with thin layers of aluminum sulfate carried upon neutral material, under exclusion of air and at an elevated temperature (2) combining the freshly produced product (ethylene) with chlorin to form ethylene dichlorid (3) then replacing the chlorin of the ethylene dichlorid with a hydroxyl group by means of ferric oxid (4) oxidizing the ferric chlorid thus produced to obtain ferric oxid and chlorin and (5) then returning the oxid and chlorin thus obtained to the third and second stages of the process respectively.

1,206,223. PROCESS OF MAKING GLYCOL DINITRATE FOR EXPLOSIVE USES. ARTHUR HOUGH, Choisy, Quebec, Canada. Filed Oct. 22, 1914. Serial No. 868,115. (Cl. 52—3.)

1. The process of making glycol dinitrate for explosive uses which comprises nitrating glycol with a mixture of nitric and sulfuric acids, the total weight of acids in which mixture is more than 93% but less than 96% of the weight of the whole mixture.

2. The process of making glycol dinitrate for explosive uses which comprises nitrating glycol with a mixture containing approximately 35% nitric acid and approximately 59% sulfuric acid.

3. The process of making glycol dinitrate for explosive uses which comprises nitrating glycol with a mixture containing 35 to 36% nitric acid and 58 to 59% sulfuric acid.

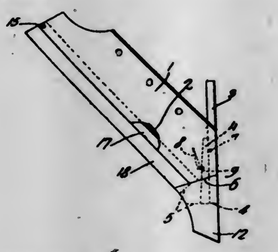
4. The process of making glycol dinitrate for explosive uses which comprises nitrating glycol with a mixture containing 35.1% nitric acid, 59% sulfuric acid, and 5.85% water.

5. The process of making glycol dinitrate for explosive uses which comprises adding 1 part of glycol to 7 parts of a mixture of nitric and sulfuric acids, the total weight of acids in which mixture is more than 93% but less than 96% of the weight of the whole mixture.

1,206,224. PLOW. CLARENCE S. JOHNSTON, Glendive, Mont. Filed May 14, 1915. Serial No. 28,135. (Cl. 97—22.)

1. The combination with a plow share and a landside therebelow, and a wing extending forwardly from the share, said landside being extended under and throughout the length of the wing, the upper face of the wing being below the surface of the upper face of the share to form an obliquely disposed shoulder, there being a dove-

tail groove in the bottom face of the share and close to the landside, said groove diminishing in depth toward the rear end thereof, of a point adapted to abut against the forward edge of the wing, an apron extending rearwardly from the point and adapted to lap the wing and to abut against the shoulder, a tongue extending rearwardly from the point and insertible longitudinally into the dovetail groove, and means upon the bottom of the share and coöperating with the tongue for holding said tongue within the groove.



2. The combination with a plow share having a forwardly extending wing adjacent the landside thereof, the upper face of the wing being disposed below the corresponding face of the plow share to form an obliquely disposed shoulder, there being a longitudinal groove in the front edge of the plow share, of an elongated blade fitted against the front edge of the plow share, a rib upon the blade and extending within and longitudinally of the groove in the share, means extending through the share and rib for securing one end of said rib in the groove, a point bearing against the wing on the share, an apron thereon lapping the wing and abutting against the shoulder and the adjacent end of the blade, said apron constituting means for holding the adjacent end of the blade in engagement with the share, and means for detachably securing the point to the share.

1,206,225. BLANKET-FASTENER. GEORGE F. JOLY, JR., Atlantic City, N. J. Filed Mar. 27, 1916. Serial No. 86,881. (Cl. 24—206.)

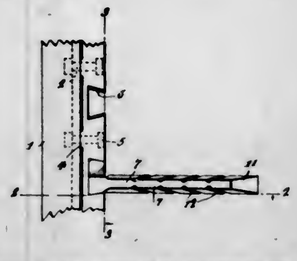


1. In combination with an animal blanket having flaps at the neck portion thereof, adapted to be overlapped more or less in accordance with the size of the neck of the animal, a hook mounted on one of said flaps, a relatively flat one-piece base plate secured to the opposite flap and provided with a series of integral outwardly bowed loops, a backing plate extending across the back of the same and hook-receiving loops pivotally mounted in the loops provided on the base plate.

2. As an article of manufacture, a multiple loop attachment for horse blankets and the like comprising a base plate of strip metal bent to form out-standing spaced apart retaining loops on the face and at the ends thereof and having end portions doubled back upon said base plate in rear of said retaining loops, closing and reinforcing said hinge loops and hook-receiving loops engaged in said retaining loops.

1,206,226. MOLDER'S FLASK. WILLIAM L. JULIEN, Dayton, Ohio. Filed Oct. 22, 1914. Serial No. 868,052. (Cl. 22—111.)

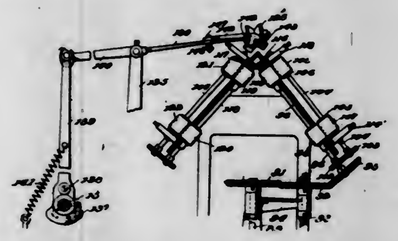
1. A molder's flask comprising sides having vertically extending dove-tailed and tapered recesses, flask bars shaped at one end on one face to fit and hold in the dove-tailed recesses and on the opposite face made plain, and means to be wedged between the plain face and the open side of the dove-tailed recess to secure the flask bar in a rigid mounting.



2. A molder's flask comprising in combination with side members and rails secured to said side members and provided with vertically extending dove-tailed tapered recesses, flask bars shaped at one end on the one face to fit and hold within the dove-tailed recesses and on the opposite face made plain, and a tapered key shaped to be received against said face and within the dove-tailed recesses to hold the flask bars rigidly secured in place.

3. As an article of manufacture, a flask bar adapted to be used in connection with a flask having a plurality of dove-tailed and tapered recesses for the reception of said bars and wedges to secure the same in place, said bar comprising a body portion shaped to the desired form and design and having an end thereof shaped on the one side to be received within and fit one of the side walls of the dove-tailed and tapered recess and the opposite face shaped to have bearing of the wedge thereagainst as the parts are mounted in the operative relation.

1,206,227. SIGNATURE-HANDLING MECHANISM. EDWARD R. KAST, Baltimore, Md., assignor to Kast Insetting & Gathering Machine Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 10, 1913. Serial No. 753,363. (Cl. 193—4.)



1. In a book-making machine, the combination of an inverted V-shaped saddle on which open signatures are supported to be operated on by stitching mechanism, a belt mounted on the under side of each face of the saddle, a belt mounted on the upper side of each face of the saddle, and gearing connections between said belts so arranged that they are all positively driven to feed the signatures past said stitching mechanism.

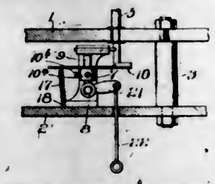
2. In a book-making machine, the combination of an inverted V-shaped saddle on which open signatures are supported to be operated on by stitching mechanism, a pair of belts mounted on the under side of each face of the saddle, a pair of belts mounted on the upper side of each face of the saddle, and gearing connections between said belts so arranged that they are all positively driven to feed the signatures past said stitching mechanism.

3. In a book-making machine, the combination of an inverted V-shaped saddle on which open signatures are supported to be operated on by stitching mechanism, a pair of belts mounted on the under side of each face of the saddle, a pair of belts mounted on the upper side of each face of the saddle, the belts on the upper faces of said saddle being opposite those on the under faces, and means for feeding signatures to said belts.

4. In a book-making machine, the combination of an inverted V-shaped saddle on which open signatures are supported to be operated on by stitching mechanism, a shaft mounted on each side of each face of said saddle on each side of said stitching mechanism, a belt passing around each shaft, and gearing connections between the shafts on one side of said stitching mechanism whereby the belts are positively driven to feed the signatures past said stitching mechanism, and means feeding signatures to said belts.

5. In a book-making machine, the combination of an inverted V-shaped saddle on which open signatures are supported to be operated on by stitching mechanism, a shaft mounted on each side of each face of said saddle on each side of said stitching mechanism, a pair of belts passing around each shaft, and gearing connections between the shafts on one side of said stitching mechanism whereby the belts are positively driven to feed the signatures past said stitching mechanism, and means feeding signatures to said belts.

1,206,228. BRAIDING-MACHINE. WALTER KELLNER, Barmen-Wechlinghausen, Germany, assignor to Carl F. Ahlstrom and Otto J. Ahlstrom, New York, N. Y. Original application filed Aug. 9, 1912, Serial No. 714,190. Divided and this application filed Aug. 26, 1914. Serial No. 858,643. (Cl. 28—4.)

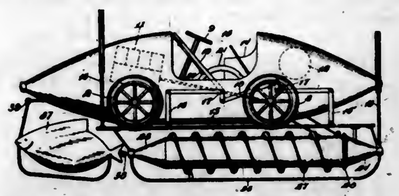


1. In a braiding machine, the combination with a carrier movable along a track and guided to move to a station out of the path of travel, an upwardly extending rocker arm at the station, an adjustable locking member on said arm, said locking member having opposed inclined guiding faces, an ejector at the upper end of said arm and adapted for rectilinear movement upon the movements of said arm, said ejector having inclined guiding faces opposed to the guiding faces on said locking member, the guiding faces of the locking member and ejector being designed to engage and hold the carrier, and means yieldingly holding the locking member and ejector in retracted position with the carrier out of reach of the drivers of said machine.

2. In a braiding machine in combination, a carrier movable along a track and adapted to stop at determined stations therein out of the path of travel, an upwardly extending rocker arm, an adjustable locking member having means for engaging one side of the carrier on said arm, an ejector adapted to engage the side thereof opposite to the side engaged by the locking member, the said ejector being engaged by the upper end of said rocker arm, means yieldingly holding the locking member and ejector in retracted position with the carrier out of reach of the drivers of said machine, and means for actuating said rocking arm to cause the substantial simultaneous canting of the locking member for the release of the carrier and to cause rectilinear movement of the ejector to return the carrier to the path of travel.

1,206,229. LAND AND WATER VEHICLE. PETER B. KENNEDY and ELMER L. MORROW, Santa Monica, Cal. Filed Mar. 27, 1914. Serial No. 827,746. Renewed Aug. 24, 1916. Serial No. 116,703. (Cl. 115—1.)

1. A vehicle of the character described including a body, a hydro-base including platforms adjustably mounted on the body, propeller floats carried by said platforms, means for raising and lowering said platforms in unison, and means for driving the propeller floats.



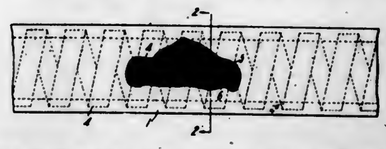
2. A vehicle of the character described comprising a body, a hydro-base including side platforms adjustably mounted on the body, longitudinally extending shafts supported by the platforms, floats carried by said shafts and provided with propeller blades, means for raising and lowering the platforms, guards carried by the platforms and extending longitudinally beneath the propeller floats and means for driving the propeller floats.

3. A vehicle of the character described including a body, front and rear axles carried by the body, wheels carried by said axles, a motor upon the body for driving the rear axle, a hydro-base consisting of side platforms telescopically connected with the body for vertical adjustment, adjusting means upon the body for raising and lowering said hydro-base, longitudinally extending pontoons revolubly mounted upon the platforms and provided with propeller blades, a cross shaft between the platforms in gear with said revoluble pontoons, a driving connection between the rear axle and the cross shaft, steering floats linked to the body and platforms for a universal motion, and means for adjusting said steering floats.

4. A vehicle of the character described including a body, a hydro-base provided with longitudinally extending revoluble pontoons or floats provided with propeller blades, means for driving said revoluble pontoons, front pontoons pivotally mounted for lateral adjustment, and means for adjusting said front pontoons.

5. A vehicle of the character described including a body provided with front supporting and steering wheels and rear supporting and driving wheels, a motor on the body for transmitting motion to said driving wheels, steering mechanism on the body for adjusting the steering wheels, a hydro-base vertically adjustable with relation to the body, said base being provided with main pontoons having propeller blades and adjustably mounted front steering pontoons, means for adjusting the hydro-base with relation to the body, means for driving the main pontoons from the motor, and means for adjusting the steering pontoons from the said steering gear.

1,206,230. RUBBER HOSE. WILLIAM W. KINCAID, Meadville, Pa. Filed Nov. 19, 1913, Serial No. 801,815. Renewed Oct. 23, 1916. Serial No. 127,315. (Cl. 137—90.)

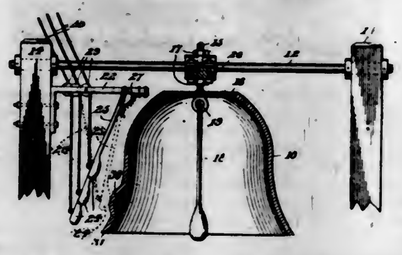


1. A rubber tube or conduit, comprising a rubber wall or body having a reinforcement consisting of wire bent back and forth into zigzag form to form a series of oppositely disposed pear-shaped loops, said reinforcement being coiled into spiral form with the turns of the spirals spaced apart along the axis of the spiral and embedded within said tube wall.

2. A rubber tube or conduit, comprising a rubber wall or body having a reinforcement consisting of wire bent back and forth into zigzag form to form a series of oppositely

disposed pear-shaped loops, said reinforcement being coiled into spiral form with the turns of the spirals spaced apart along the axis of the spiral and embedded within said tube wall, said spiral coil being also under initial tension when wound into the tube wall.

1,206,231. BELL-RINGING DEVICE. JAN KOWAL, Linoleumville, N. Y. Filed Dec. 15, 1915. Serial No. 67,025. (Cl. 116—40.)



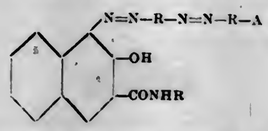
1. A device of the class described, comprising supporting posts, a horizontal shaft journaled in said posts, a bell fixed to said shaft, protuberances positioned at different heights and in different radial planes in the side walls, thereof, arms carried by one of the said posts and extending toward said bell in substantially the same horizontal plane as the top of the said bell when the latter is at rest, and a plurality of striking hammers of different lengths pivoted to the said arms and having paths of movement in line with the said protuberances.

2. A device of the class described, comprising a normally stationary bell having outwardly projecting protuberances in the sides thereof arranged at different heights and in different radial planes, supporting arms arranged adjacent the top of the said bell, striking members of different lengths having their upper ends pivoted to the said arms and adapted to be brought into contact with the said protuberances, springs for normally holding the striking members out of engagement with the bell, and separate pull cords operating means for each of the striking members.

1,206,232. AZO-DYESTUFFS AND PROCESS OF PRODUCING THE SAME. AUGUST LEOPOLD LASKA, Offenbach-on-the-Main, Germany, assignor to The Corporation of Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Filed Feb. 25, 1916. Serial No. 80,392. (Cl. 23—24.)

1. Process for the production of azo dyestuffs, which consists in combining the diazo compounds from asymmetrically alkylized p-diaminoazo bodies with arylids of 2.3-oxynaphthoic acid.

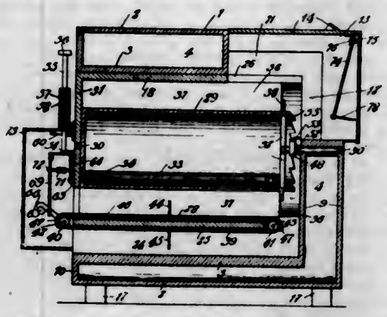
2. As new articles of manufacture the dyestuffs of the formula



wherein A means an alkylamido group and R aromatic residues, which dyestuffs, when reduced give an alkylized p-diamin, a p-diamin and an arylid of 1-amino-2-oxynaphthoic acid.

1,206,233. BUTTER-CUTTER. PETER S. LEKAS, Portland, Oreg. Filed May 20, 1916. Serial No. 98,942. (Cl. 31—65.)

1. In a butter cutter, a housing, a frame in said housing, a rotatable butter conveyer comprising a drum having partitions radially extending therefrom forming butter receiving chambers, teeth formed on one end of said drum, an actuating lever engageable with said teeth to rotate the drum, cutting mechanism carried by the frame, and a butter delivering mechanism coöperating with said rotary conveyer for the purpose specified.



2. In a butter cutter, a housing, a frame removably mounted in said housing, butter feeding mechanism associated with said frame comprising a rotatable drum having butter chambers formed thereon, teeth formed on one end of said drum, a lever for engagement with said teeth to rotate said drum, spring means to permit engagement and disengagement of said lever with said teeth, and butter delivering mechanism coöperating with said rotary conveyer and connecting means operatively associated with said butter delivering mechanism to move the butter after each cutting movement.

3. In a butter cutter, the combination of a housing, a frame removably mounted therein, a butter distributing drum rotatable in said frame, said drum having a plurality of butter chambers, a conveyer having blades, said blades being movable in one of the butter chambers to deliver butter therefrom, a ratchet arm to intermittently move said conveyer, a knife operable with said arm, and a ratchet lever for rotating said drum.

4. In a device as specified, the combination with a housing, a frame removably mounted therein, and a drum rotatable in said frame having a plurality of butter chambers, of a conveyer having blades movable, at times, through one of the butter chambers, a pair of ratchet arms for intermittently actuating said conveyer, a carrier connected with said ratchet arms and vertically movable on the frame, means for actuating said carrier, and a knife carried thereby, vertical reciprocation of said carrier serving to move said conveyer intermittently to deliver butter or the like to the knife.

5. In a device of the class described, the combination of a housing, and a frame removably arranged therein, a butter drum rotatable in the frame, of a conveyer movable in said housing and coöperating with the drum to deliver butter therefrom, a pair of ratchets and levers for intermittently operating said conveyer, a carriage connected to said levers, and vertically movable on said frame, a knife on the carriage, a spring returned arm for depressing the carriage, means for adjusting the carriage to and from said frame, said carriage serving to move forward the conveyer when the knife moves to the inoperative position.

1,206,234. METAL STOCK AND RECEIVER FOR FIREARMS. ALBERT K. LOVELL, New Haven, Conn. Filed Aug. 20, 1915. Serial No. 46,496. (Cl. 42—71.)



1. In firearms, a combined stock, and receiver formed as a continuous metal shell provided with bed bearings fitting the barrel, and a reversed over arched bearing intermediate of the bed bearings and in combination therewith forming a bore for the reception of the barrel.

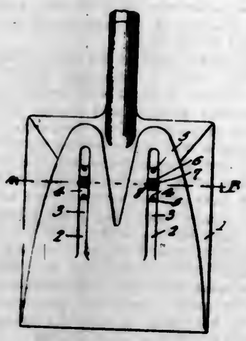
2. A stock and receiver for firearms formed with bed bearings for seating the barrel, in combination with a reversed over arched bearing intermediate of the bed bearings and comprising therewith a bore for the reception of the barrel.

3. A combined stock and receiver for firearms comprising a metal blank arched centrally along its length from the butt to the barrel seat, and provided with oppositely curved arches forming the bore of the barrel seat, with the edges of the blank abutting and secured together.

4. A combined stock and receiver for firearms, comprising a metal blank arched centrally along its length from the butt to the barrel seat, and provided with oppositely curved arches forming the bore of the barrel seat, with the edges of the blank provided with flanges, and grooved locking pieces embracing the flanges to secure them together.

5. In firearm mechanism the combination with a gun barrel and its stock of a barrel holder attached to and connected with the gun stock, comprising opposing bearings in separate cross planes fitting the semi-circumference of the barrel on opposite sides thereof, the bearings together forming a bore for receiving and holding a gun barrel.

1,206,235. SHOVEL. CLEVIA J. LUTHER, Wasson, Ill., assignor of one-third to Louis N. Parish and one-third to Robert Hargis, Harrisburg, Ill. Filed Dec. 10, 1915. Serial No. 66,148. (Cl. 55—147.)

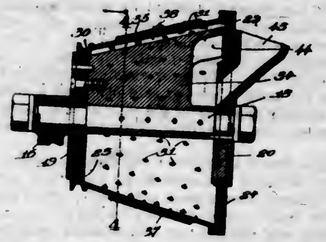


The combination with a shovel having parallel upstruck ribs extending longitudinally of the bottom thereof and constituting reinforcing means, said ribs forming longitudinal grooves thereunder, of a block fitted snugly in each groove and held against lateral movement by the walls of the groove, securing means extending through each block and the bottom of the shovel, each block having a thickened central portion formed with an arcuate recess in the bottom thereof, and an anti-friction roller mounted for rotation in each recess and projecting beyond the block, the wall of the recess being concentric with the roller.

1,206,236. CAP-FEEDING MECHANISM. CHARLES MACDONALD, Wollaston, Mass., assignor to Tubular Rivet & Stud Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 29, 1915. Serial No. 5,103. (Cl. 218—2.1.)

1. A cap feeding mechanism comprising a rotary hopper, a stationary member inside of the hopper having a cap guiding surface and a cap aligning slot formed therein to align the caps edge to edge with their peripheries in the same plane, means for depositing a cap upon the guiding surface with the open face upward, and a feed chute for delivering caps to a setting mechanism.

2. A cap feeding mechanism comprising a rotary hopper, a plurality of hooks projecting within the hopper and arranged to engage the flange of a disk-shaped cap, a stationary arranging member for receiving the caps from the hooks, and alining them edge to edge with their peripheries in the same plane, a feed chute, and connections between the arranging member and feed chute.



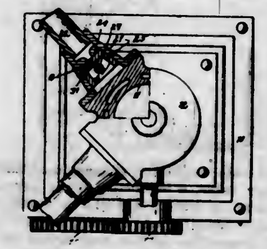
3. A cap feeding mechanism comprising a hopper having a perforated shell, a plurality of U-shaped members having hooked ends projecting through the perforations in the shell, and a sleeve surrounding the outside of the shell to secure the U-shaped members in place.

4. A cap feeding mechanism comprising a hopper, a plurality of inwardly projecting hooks supported by the hopper, an arranging member having a curved guiding surface and a cap receiving slot, a guide plate on said member for diverting the caps into the slot, and a chute communicating with the slot to feed the caps to a setting mechanism, and means to move the hooks to pick up the caps.

5. A cap feeding mechanism comprising a rotary hopper, means constructed and arranged to pick up disk-shaped caps by holding them freely suspended by a flange, a feed chute for receiving the caps, and means for guiding the caps from the picking-up means to the feed chute with their peripheries in the same plane.

[Claims 6 to 18 not printed in the Gazette.]

1,206,237. VALVE FOR INTERNAL-COMBUSTION ENGINES. JOSEPH B. MARVIN, Malcom, Iowa. Filed May 18, 1915. Serial No. 28,070. (Cl. 123—75.)



1. In a device of the class described, an engine cylinder, a valve chamber communicating therewith having side walls, inclined toward each other, the narrow side of said chamber being provided with an opening, and a boss surrounding said opening, a valve slidably mounted in said chamber, having inclined walls for engaging the inclined sides of the chamber and having a wall adapted to slide over said opening, and in engagement with said boss.

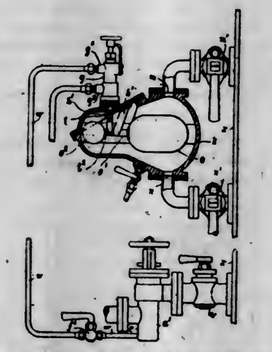
2. In a device of the class described, an engine cylinder, a valve chamber communicating therewith, having side walls inclined toward each other, the narrow side of said chamber being provided with an opening and a boss surrounding said opening, a valve slidably mounted in said chamber, having inclined walls for engaging the inclined sides of the chamber, and having a wall adapted to slide over said opening and in engagement with said boss, a valve stem slidably mounted in the wall of said chamber and operatively connected with the valve to allow some

play of the latter, and means for yieldingly holding said valve toward the narrow side of said chamber.

3. In a device of the class described, an engine cylinder, a valve chamber communicating therewith, having side walls inclined toward each other, the narrow side of said chamber being provided with an opening and a boss surrounding said opening, a valve slidably mounted in said chamber having inclined walls for engaging the inclined sides of the chamber and having a wall adapted to slide over said opening, and in engagement with said boss, a valve stem slidably mounted in the wall of said chamber and operatively connected with the valve to allow some play of the latter, means for yieldingly holding said valve toward the narrow side of said chamber, a stem on said valve slidably mounted in the wall of said valve chamber, and means for imparting reciprocating motion to said stem.

4. In a device of the class described, an engine cylinder, a valve chamber communicating therewith, having side walls inclined toward each other, the narrow side of said chamber being provided with an opening, and a boss surrounding said opening, a valve slidably mounted in said chamber, having inclined walls for engaging the inclined sides of the chamber and having a wall adapted to slide over said opening and in engagement with said boss, a piston in said cylinder, a shaft, means for imparting rotary motion to said shaft from said piston, a stem slidably mounted in the wall of said valve chamber, a link pivoted to said stem outside the valve chamber, and means for reciprocating said link from said shaft.

1,206,238. FEED-WATER REGULATOR FOR STEAM-GENERATORS. ARTHUR GEORGE MUMFORD, Colchester, England. Filed Mar. 7, 1916. Serial No. 82,772. (Cl. 137—101.)



1. In a feed water regulator, the combination of a check or feed delivery valve, a balancing piston coupled to said valve, a cylinder in which said piston works, an outlet in said cylinder beneath said piston, means for permitting a small proportion of the feed water to pass said balancing piston, a float box mounted on the exterior of the generator and in communication with the interior thereof, a balanced float operating in said box, a casing mounted on the float box and having an inlet and an outlet, a pipe connecting the outlet of the cylinder containing the balancing piston of the check or feed delivery valve with the inlet of said casing, a valve coöperating with said seating, a spindle for carrying said valve the diameter of which is smaller than the valve and the length of which is greater than that of its guide, a guide for said spindle mounted directly on the float box, an enlarged extension on lower end of said spindle, and a coupling between said extension and the balanced float.

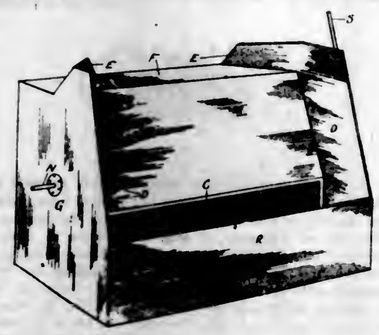
2. In a feed water regulator, the combination of a check or feed delivery valve, a balancing piston coupled to said valve, a cylinder in which said piston works, an outlet in said cylinder beneath said piston, means for permitting a small proportion of the feed water to pass said balancing piston, a float box mounted on the exterior of the generator and in communication with the interior thereof at two different levels, a balanced float operating in said box, a casing mounted on the float box and having an inlet and an outlet, a pipe connecting the outlet of the cylinder containing the balancing piston of the check or feed delivery valve with the inlet of said casing, a detachable valve seating mounted in said casing, a valve coöperating with said seating, a spindle for carrying said valve the diameter of which is smaller than the valve, a guide for said spindle mounted directly on the float box the length of said guide being such that the spindle projects beyond its lower end, an enlarged extension on the lower end of said spindle, and a coupling between said extension and the balanced float.

3. In a feed water regulator the combination of a check or feed delivery valve, a balancing piston coupled to said valve, a cylinder in which said piston works, an outlet in said cylinder beneath said piston, means for permitting a small proportion of the feed water to pass said balancing piston, a float box mounted on the exterior of the generator in communication with the interior thereof, a casing mounted on the float box and having an inlet and an outlet, a pipe connecting the outlet of the cylinder containing the balancing piston of the check or feed delivery valve with the inlet of said casing, a detachable and adjustable valve seating mounted in said casing, a valve coöperating with said seating, a spindle for carrying said valve the diameter of which is smaller than the valve, a guide for said spindle mounted directly on the float box, an enlarged extension at the lower end of said spindle, a lever pivoted in the float box, a float mounted on one end of said lever, a balance weight adjustably mounted on the other end of said lever, a couple between said float lever and the extension of the valve spindle, and means for adjusting the position of the seating of the controlling valve in relation to the float.

4. In a feed water regulator the combination of a check or feed delivery valve, a balancing piston coupled to said valve, a cylinder in which said piston works, an outlet in said cylinder beneath said piston, means for permitting a small proportion of the feed water to pass said balancing piston, a float box mounted on the exterior of the generator and in communication therewith by two pipes at different levels, a casing mounted on the float box and having an inlet and an outlet, a pipe connecting the outlet of the cylinder containing the balancing piston of the check or feed delivery valve with the inlet of said casing, a stop valve in said pipe, a valve seating mounted in said casing, a valve coöperating with said seating, a spindle for carrying said valve the diameter of which is smaller than the valve, a guide for said spindle mounted directly on the float box, an enlarged extension of said spindle at its lower end, a lever pivoted in the float box, a float mounted on one end of said lever, a balance weight adjustably mounted on the other end of said lever, and a coupling between said float lever and the enlarged end of the spindle carrying the valve.

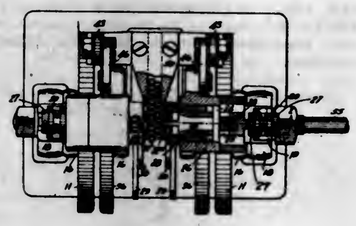
5. The combination in a feed water regulator of a balancing piston coupled to the check or non-return valve in the delivery pipe of the feed pump, a cylinder in which said piston works, an outlet in said cylinder beneath said piston, means for permitting a small proportion of the feed water to pass said balancing piston, a float box mounted on the exterior of the generator and in communication with the interior thereof by two pipes at different levels, a casing mounted on the float box and having an inlet and an outlet, a pipe connecting the outlet of the cylinder containing the balancing piston of the check or feed delivery valve with the inlet of said casing, a stop valve in said pipe, a detachable and adjustable valve seating mounted in said casing, a valve coöperating with said seating, a spindle carrying said valve, a guide for said spindle mounted directly on the float box, an enlarged extension of said spindle clear of the bottom of said guide, a lever pivoted in the float box, a float mounted on one end of said lever, a balance weight adjustably mounted on the other end of said lever, a coupling between said float lever and the enlarged extension of the spindle carrying the valve, and means for adjusting the position of the seating of the controlling valve in relation to the float.

1,206,239. MACHINE FOR TREATING OR PICKLING GRAIN. CHARLES HENRY NELSON, Vulcan, Alberta, Canada. Filed Mar. 23, 1916. Serial No. 86,310. (Cl. 83—28.)



A grain pickling machine comprising a casing having an inclosed compartment provided with an angularly disposed front wall, a screen located at the lower end of the said wall, an open compartment adjacent to the closed compartment provided with a front wall extending above the top of the screen, the end walls of the open compartment being offset inwardly and converging toward the top end and a frame operatively supporting the said casing.

1,206,240. MACHINE FOR MAKING GARMENT-STAYS. SAMUEL HARRY NORTON, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Nov. 16, 1914. Serial No. 872,408. (Cl. 140—91.)



1. In a machine for forming wire garment stays, means for gripping adjacent loops or eyes along opposite edges of the stay, and means for producing relative rotation between said gripping means to twist a crossing portion of the wire.

2. In a machine for forming wire garment stays, means for gripping adjacent loops or eyes along opposite edges of the stay, and means for rotating one of said gripping means to twist a crossing portion of the wire.

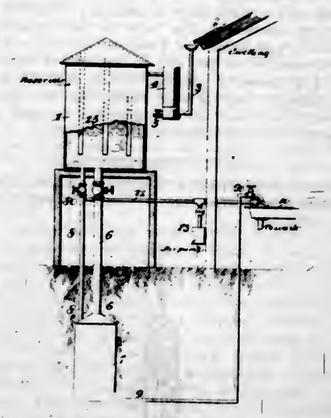
3. In a machine for forming wire garment stays, means for gripping adjacent loops or eyes along opposite edges of the stay, and means for rotating one of said gripping means about an axis in the plane of the stay and transverse to the length thereof to twist a crossing portion of the wire.

4. In a machine for forming wire garment stays, means for gripping adjacent loops or eyes along opposite edges of the stay, means for producing relative rotation between said gripping means to twist a crossing portion of the wire, and means for operating said gripping means to feed the stay fabric through the machine.

5. In a machine for forming wire garment stays, means for gripping adjacent loops or eyes along opposite edges of the stay, means for rotating one of said gripping means to twist a crossing portion of the wire, and means for operating said gripping means to feed the stay fabric through the machine.

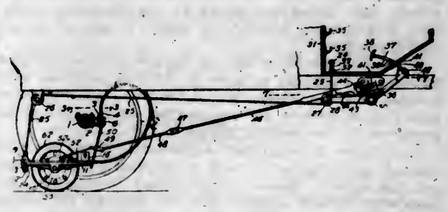
[Claims 6 to 18 not printed in the Gazette.]

1,206,241. WATER COOLING AND DISTRIBUTING APPARATUS. ALBERT N. PETERS, Galena, Mo. Filed Aug. 14, 1915. Serial No. 45,574. (Cl. 257—122.)



In a water distributing apparatus, the combination with a source supplying water, a reservoir elevated above the level at which the water is to be distributed and into which the water is delivered from the said source of supply; of a cooling tank located in the ground below the normal freezing point, a lead pipe and a return pipe connecting the bottom of the reservoir with the top of the cooling tank, and a valved outflow pipe that extends from the lower end of the cooling tank to a point of delivery.

1,206,242. ANTISKIDDING DEVICE FOR AUTOMOBILES. HERLUF A. F. PETERSEN, Washington, D. C. Filed Nov. 23, 1915. Serial No. 62,940. (Cl. 21—8.)



1. The combination with an automobile of an antiskidding device comprising a rocker bar, an auxiliary traction device mounted to swing laterally with respect to the true straight line of travel and yieldable means intermediate the said rocker bar and traction device and operably connected therewith.

2. The combination with an automobile of an antiskidding device comprising a rocker bar, an auxiliary traction device mounted to swing laterally with respect to the true straight line of travel and yieldable means intermediate said rocker bar and traction device, said yieldable means being rigidly connected to said rocker bar.

3. The combination with a motor vehicle and its driving wheels, of an antiskidding device yieldingly suspended from the vehicle, comprising an auxiliary traction device mounted to swing laterally with respect to the true line

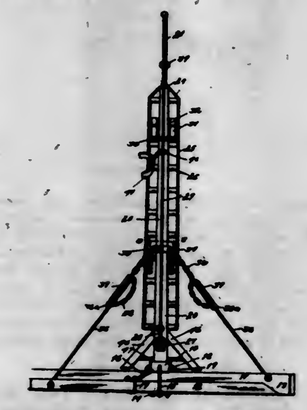
of travel, and means for causing such lateral swing in a direction opposite to the skidding movement.

4. The combination with an automobile and its driving axle, of a truck yieldingly suspended from said axle, a single wheel rotatably mounted in said truck and adapted to bear downwardly and forwardly on the road bed, said truck pivotally connected at one end to the yielding suspension means, to permit angular lateral swing of the truck, and means for varying the pressure of the suspension means on the said truck.

5. The combination with a motor vehicle of an anti-skidding device comprising an auxiliary rotatable traction device and resilient means carrying said auxiliary traction device, and supported from the vehicle, a rocker bar rigidly connected at one end to one end of said resilient means and manually operated means operably connected to the opposite end of said rocker bar for varying the pressure of said resilient means on said traction device.

[Claims 6 to 8 not printed in the Gazette.]

1,206,243. ADJUSTABLE LADDER. LEWIS PETERSON, Madrid, Iowa. Filed Apr. 11, 1916. Serial No. 90,508. (Cl. 228—10.)



1. In a device of the class described, a base, a ladder having its upper end capable of swaying to different positions, and adjustable means for interchangeably rigidly, or yieldingly holding the ladder in any of its adjusted positions.

2. A ladder having a base, an upright member mounted thereon, and adapted to move to different positions with relation thereto, means for yieldingly supporting said ladder in an upright position and for limiting the swing permitted by the yielding means.

3. A ladder having a base, an upright member mounted thereon, and adapted to move to different positions with relation thereto, means for yieldingly supporting said ladder in upright position and for limiting the swing permitted by the yielding means, said last means being adjustable for holding said upright member in vertical position regardless of variations in the base from the horizontal.

4. In a device of the class described, a base, an upright, and plural diagonal brace members between the upright and base, said brace members being adjustably attached at one end and having a yielding portion with means for limiting the play allowed by said yielding portion.

1,206,244. ELECTRIC SWITCH. JOSEPH LEVEQUE-PETIT, Brussels, Belgium. Filed Apr. 24, 1913. Serial No. 763,303. (Cl. 175—290.)

1. A switch comprising a base, contacts on said base, an eccentric body rotatably mounted on said base, a switch blade mounted on said body and having a slot therein within which the said eccentric body is disposed, a coiled spring surrounding said eccentric body having one end in engagement with a stop on said eccentric body, and the other attached to the blade, and resilient means for stopping the movement of said blade.



2. A switch comprising a base, contacts on said base, an eccentric body rotatably mounted on said base, a switch blade having a slot therein, said blade having an upturned lug at one side of said slot, stops to limit the movement of said blade, a coiled spring surrounding said eccentric body, said spring having its upper end in engagement with a stop on said eccentric body, its lower end bearing on the blade, and also bearing on the outside of said upturned lug to retain said blade in position with respect to said body, the extremity of the spring being shaped to form a buffer to contact with said stops upon rotation of the blade.

3. A switch comprising a base, contacts on said base, an eccentric body rotatably mounted on said base, a switch blade having a slot and having an upturned lug at one side of said slot, stops to limit the movement of said blade and a spring surrounding said eccentric body said spring having its upper end in engagement with a stop on said eccentric body, its lower end bearing on the blade and also bearing on the outside of said upturned lug to retain said blade in position with respect to said body, the extremity of the spring being shaped to form a buffer to contact with said stops upon rotation of the blade, and means for preventing the backward rotation of the switch blade.

1,206,245. EXTENSION-PLUG FOR ELECTRIC LIGHTS, &c. ARTHUR L. POWELL, Colorado Springs, Colo. Filed Nov. 17, 1915. Serial No. 62,008. (Cl. 173—360.)

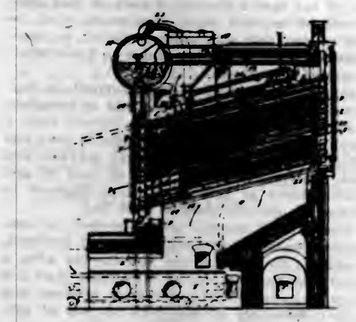


An attachment plug for electric lamps and the like comprising a two-part body formed with a cavity opening onto one side thereof, a block in said cavity capable of lateral sliding movement therein, a lever pivoted between its ends within the cavity and having one end bearing against the block whereby the block may be moved out of the cavity in the movement of the lever in one direction to bind the plug against the side wall of the receptacle, and a rod extending through the plug longitudinally thereof and having one end disposed within said cavity and connected to said lever whereby the latter may be swung to slide the block.

1,206,246. SUPERHEATER-BOILER. ARTHUR D. PRATT, New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Oct. 8, 1915. Serial No. 54,703. (Cl. 122—478.)

1. A water tube boiler having longitudinal water tubes, a superheater having transversely extending bent tubes between the water tubes, and baffling for directing the products of combustion, at least a part of this baffling extending transversely of the water tubes.

2. A water tube boiler having front and rear headers connected by inclined water tubes, a primary superheater above the bank of water tubes, a secondary superheater extending transversely of and between rows of water tubes, and pipe connections between the steam drum and the primary superheater and between the latter and the secondary superheater.

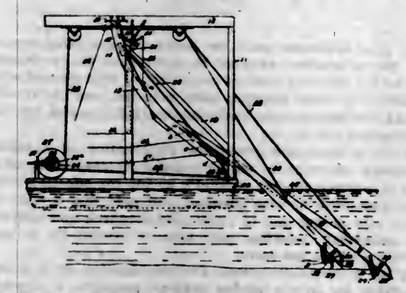


3. A water tube boiler having front and rear headers connected by inclined water tubes, a primary superheater above the bank of water tubes, a secondary superheater having curved tubes extending transversely of and between rows of water tubes, and pipe connections between the steam drum and primary superheater and between the latter and the secondary superheater.

4. A water tube boiler having front and rear headers connected by inclined water tubes, a primary superheater above the bank of water tubes, and a secondary superheater having curved tubes extending transversely of and between rows of water tubes, said secondary superheater comprising a plurality of sections, and pipe connections between the steam drum and primary superheater and independent connections between the latter and each section of the secondary superheater.

5. A water tube boiler having front and rear headers connected by inclined water tubes, a superheater comprising boxes located in the side walls, and having at least their inner portions exposed to the gases, said boxes being connected by bent tubes extending between rows of water tubes, the superheater tubes being removable and replaceable through the boxes.

1,206,247. SPAR-PROPELLER. JOHN REAM, Jacksonville, Fla. Filed July 12, 1913, Serial No. 778,734. Renewed Apr. 19, 1916. Serial No. 92,314. (Cl. 115—9.)



1. In a propeller of the class described, the combination with a plurality of propelling spars, of mechanism for lifting said spars, separate means for exerting a downward thrust on said spars, and independent automatic means to separately throw said lifting and thrusting mechanisms into and out of operation.

2. In a propeller of the class described, the combination with a plurality of propelling spars, of independent mechanisms for lifting and for exerting a downward thrust on said spars, said mechanisms being timed to operate said spars alternately in two groups, tripping mechanisms operated by the downward movement of the spars of each group to connect the elevating mechanism for the spars of the other group, then connecting the mechanism for drawing said spars downwardly and finally disconnecting their own downwardly thrusting mechanism, and means operated by the upward movement of the spars for disconnecting their elevating mechanism.

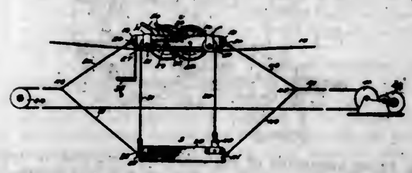
3. In a propeller of the class described, the combination with a plurality of propelling spars, of independent mechanisms for elevating and for exerting a downward thrust on said spars, said mechanisms being timed to operate said spars alternately in two groups, separate means actuated by the spars of each group on their downward movement to successively throw the lifting mechanism of the other group into operation, then the thrusting mechanism of said group into operation and finally disconnecting its own thrusting mechanism, and means actuated by each spar upon the completion of its upward movement for disconnecting the elevating mechanism of its own group.

4. In a propeller of the class described, the combination with a plurality of propelling spars, of independent mechanisms for lifting and for exerting a downward thrust on said spars, said mechanisms being timed to operate said spars alternately in two groups, mechanism for temporarily locking each spar in its elevated position, separate means actuated by the spars of each group on their downward movement to successively throw the lifting mechanism of the other group into operation to raise the spars thereof into engagement with said locking mechanism, then unlocking said spars, then throwing the downwardly thrusting mechanism of said group into operation and finally disconnecting its own downwardly thrusting mechanism, and means actuated by each spar upon the completion of its upward movement for disconnecting the elevating mechanism of its group.

5. In a propeller of the class described, the combination with a plurality of propelling spars, of cross heads to which the said spars are pivotally connected, guiding tracks for said cross heads, mechanism for lifting said spars, mechanism for exerting a downward thrust on said spars, and means on said tracks in the path of movement of said spars to alternately throw said lifting and thrusting mechanisms into and out of operation.

[Claims 6 to 20 not printed in the Gazette.]

1,206,248. EXCAVATING APPARATUS. JAMES A. REED, Henryetta, Okla., assignor of one-half to Henry Howard, Henryetta, Okla. Filed May 1, 1916. Serial No. 94,763. (Cl. 214—13.)



1. In an excavating device, a carriage, an elevated track supporting the same, drum shafts and guide wheels on the carriage, a scraper, cables connected with the scraper and with the drum shafts and guided over the guide wheels, dogs and ratchet wheels to prevent reverse rotation of the drum shafts, and means for rotating the drum shafts to wind the cables thereon.

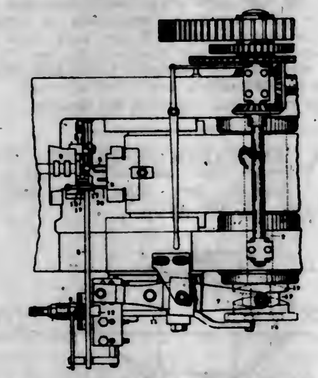
2. In an excavating device, a carriage consisting of a rectangular frame having side members and end members, hangers connected with the side members, each hanger comprising two inverted yokes and a bridge piece connecting the same, said bridge piece bearing against

the lower edge of one of the side members of the frame, the yokes being positioned adjacent to the inner and outer faces of such side members, axles extending through the side members of the car frame and through the yokes of the hangers, supporting wheels mounted on the axles within the yokes adjacent to the outer faces of the side members, and guide wheels mounted on the axles within the yokes adjacent to the inner faces of the side members.

3. In an excavating device, a carriage consistoing of a rectangular frame having side members and end members, hangers connected with the side members, each hanger comprising two inverted yokes and a bridge piece connecting the same, said bridge piece bearing against the lower edge of one of the side members of the frame, the yokes being positioned adjacent to the inner and outer faces of such side member, axles extending through the side members of the car frame and through the yokes of the hangers, supporting wheels mounted on the axles within the yokes adjacent to the outer faces of the side members, and guide wheels mounted on the axles within the yokes adjacent to the inner faces of the side members; in combination with drum shafts journaled in the side members of the frame, a scraper, and supporting cables connecting the scraper with the drum shafts, said cables being guided over the guide wheels.

4. In an excavating device of the class described, a carriage arranged to travel on an elevated track, drum shafts on said carriage, a scraper, a yoke connected pivotally with the scraper at the front end thereof, cables connected with the yoke adjacent to the sides of the scraper, said cables being also connected with a drum shaft on the carriage, cables connecting the rearward end of the scraper with another drum shaft on the carriage, and guide wheels mounted adjacent to the inner faces of the side members of the carriage over which the cables are guided.

1,206,249. MACHINE FOR MAKING NUT-BLANKS. HERBERT D. REMBEN, Port Chester, N. Y., assignor to Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, N. Y., a Corporation of New York. Filed Apr. 21, 1915. Serial No. 22,771. (Cl. 164—12.)



1. In an apparatus of the character described, in combination, means adapted to feed a stock bar at intervals, and means adapted to flex said bar and thereby aline a portion thereof comprising a pair of bar alining jaws having faces inclined to each other transversely of the path of feed of the bar and means adapted to cause relative movement between said bar and jaws tarnsversely of the path of feed of said bar.

2. In an apparatus of the character described, in combination, means adapted to feed a stock bar at intervals, and means adapted to flex said bar and thereby aline a portion thereof comprising a pair of bar alining jaws having faces inclined to each other longitudinally of the path of feed of the bar and means adapted to cause relative movement between said bar and jaws tarnsversely of the path of feed of said bar.

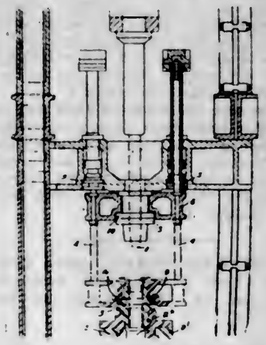
3. In an apparatus of the character described, in combination, means adapted to feed a stock bar at intervals, and means adapted to flex said bar and thereby aline a portion thereof comprising a pair of bar alining jaws having faces inclined to each other transversely of the path of feed of the bar, a portion of each of said faces being also inclined to each other longitudinally of the path of feed of the bar, and means adapted to cause relative movement between said bar and jaws transversely of the path of feed of said bar.

4. In an apparatus of the character described, in combination, means adapted to feed a stock bar at intervals, and means adapted to flex said bar and thereby aline a portion thereof comprising a pair of bar alining jaws and means adapted to cause relative movement between said bar and jaws transversely of the path of feed of said bar, the alining faces of said jaws being disposed in planes at angles to opposite sides of said bar.

5. In an apparatus of the character described, in combination, means adapted to feed a stock bar at intervals, and means adapted to flex said bar and thereby aline a portion thereof comprising a pair of bar alining jaws and means adapted to cause relative movement between said bar and jaws transversely of the path of feed of said bar, the alining faces of said jaws being disposed in planes intersecting the lines of movement of said jaws.

[Claims 6 to 25 not printed in the Gazette.]

1,206,250. HYDRAULIC PRESS. HAROLD BULKELEY REYNOLDS, Renfrew, Scotland, assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Feb. 3, 1916. Serial No. 76,066. (Cl. 78—9.)



1. In a hydraulic press, in combination, a billet-receiving die, a mandrel adapted to enter said die, hydraulic means for effecting relative movement of said die and said mandrel, a bush sleeving said mandrel, and hydraulic means for moving said bush, substantially as and for the purpose set forth.

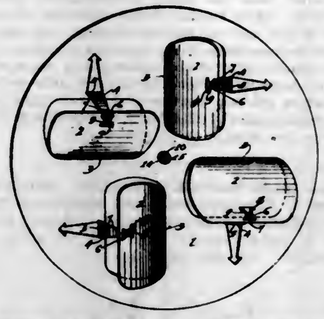
2. In a hydraulic press, the combination of a billet-receiving die with a pocket coaxial therewith, a mandrel to enter said die, hydraulic means for effecting relative movement of said mandrel and said die, a bush to enter said pocket and to guide said mandrel, and hydraulic means for operating said bush, substantially as and for the purpose set forth.

3. In a hydraulic press, the combination of a billet-receiving die with a pocket coaxial therewith, a mandrel to enter said die, a ram for effecting relative movement of said mandrel, a bush to enter said pocket and to guide said mandrel, hydraulic means for operating said bush, and a universal point mechanically interposed between said hydraulic means and said bush, substantially as and for the purpose set forth.

4. In a hydraulic press, the combination of a movable billet-receiving die with a pocket coaxial therewith, a mandrel to enter said die, a bush to enter said pocket and guide said mandrel, hydraulic means for moving said mandrel into a position adjacent to said die, hydraulically operated means for temporarily sustaining said mandrel in such position and hydraulically operated means for moving said die into operative relationship with said mandrel, substantially as described.

5. In a hydraulic press, the combination of a billet-receiving die with a pocket coaxial therewith, a mandrel to enter said die, means for operating said mandrel, a bush to enter said pocket, a ram for operating said bush, a crosshead on said ram, and a slideway tracked by said crosshead.

1,206,251. NOVELTY WIND-WHEEL. JOHN F. REYNOLDS, Los Angeles, Cal., assignor of one-half to John I. Boyer, Los Angeles, Cal. Filed Sept. 22, 1915. Serial No. 52,115. (Cl. 170—79.)



1. A novelty windwheel comprising an integrally formed disk with regularly spaced vanes normally occupying planes coincident with the disk and capable of movement outwardly therefrom at one of their sides, braces also occupying planes normally coincident with the disk and capable of being bent outwardly in the direction of and for supporting said vanes in planes at acute angles to the body of the disk.

2. A novelty windwheel comprising an integrally formed disk, a plurality of regularly spaced vanes and a plurality of vane supporting braces, said disk, vanes and braces occupying normally coincident planes and said vanes and braces being capable of deflection at acute angles from said disk and supported at such angles by means of said braces.

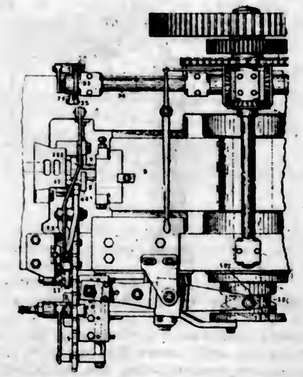
3. A novelty windwheel comprising a revoluble disk, regularly spaced vanes integral therewith and capable of being bent outwardly therefrom at acute angles, braces integral with the disk and also capable of being bent outwardly therefrom in the direction of and for holding said vanes extended at such angles, and supporting means for the disk.

4. A novelty windwheel comprising a disk, regularly spaced vanes integral therewith and normally maintained in the same plane therewith, braces integral with the disk and normally in the same plane therewith but capable of movement for holding said vanes supported at angles relative to said disk, a handle for the disk, and means for pivotally attaching said disk to and supporting it upon said handle.

5. A novelty windwheel comprising integrally formed disk, vane and vane bracing members normally occupying coincident planes, said vanes and said braces being capable of extension so as to occupy planes at acute angles relative to said disk and self sustained at such angles, and means for supporting said disk during operation for preventing the deflection thereof from a plane at right angles to its axis.

[Claim 6 not printed in the Gazette.]

1,206,252. MACHINE FOR MAKING NUT-BLANKS. WILLIAM D. RIGNEY, Port Chester, N. Y., assignor to Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, N. Y., a Corporation of New York. Filed Apr. 21, 1915. Serial No. 22,770. (Cl. 164—12.)



1. In an apparatus of the character described, in combination, mechanism adapted to perform a nut blank forming operation on a serrated stock bar, and means adapted to set said bar in position to be operated on by said mechanism comprising means adapted, at intervals, to advance said bar a predetermined distance toward said forming means, and separate means adapted to operate between the intervals of advance of said bar to vary the advanced position of said bar caused by said advancing means.

2. In an apparatus of the character described, in combination, mechanism adapted to perform a nut blank forming operation on a serrated stock bar, and means adapted to set said bar in position to be operated on by said mechanism comprising means adapted, at intervals, to advance said bar a predetermined distance toward said mechanism and to retract said bar slightly after the advance movements and separate means adapted to operate between said intervals of retraction to vary the advanced position of said bar.

3. In an apparatus of the character described, in combination, mechanism adapted to perform a nut blank forming operation on a serrated stock bar, and means adapted to set said bar in position to be operated on by said mechanism comprising means adapted, at intervals, to advance said bar a predetermined distance toward said mechanism and to retract said bar slightly after the advance movements and separate means adapted to operate between said intervals of retraction and between said intervals of advance to vary the advanced position of said bar.

4. In an apparatus of the character described, in combination, mechanism adapted to perform a nut blank forming operation on a serrated stock bar, and means adapted to set said bar in position to be operated on by said mechanism comprising means adapted, at intervals, to move said bar relative to said forming means and means adapted to slidingly contact said bar and thereby move said bar relative to said forming mechanism between the intervals of motion caused by said second mentioned means.

5. In an apparatus of the character described, in combination, mechanism adapted to perform a nut blank forming operation on a serrated stock bar, and means adapted to set said bar in position to be operated on by said mechanism comprising means adapted, at intervals, to move said bar relative to said forming means and means adapted to slidingly contact said bar and thereby move said bar relative to said forming means between

the intervals of motion caused by said second mentioned means, said last mentioned means being movable transversely of said bar.

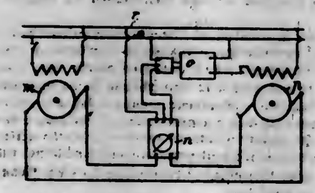
[Claims 6 to 34 not printed in the Gazette.]

1,206,253. LANTERN-SLIDE. JOHN B. ROAN, St. Petersburg, Fla. Filed Apr. 3, 1914. Serial No. 829,338. (Cl. 88—26.)



In an exhibiting slide, the combination with a frame, a transparent plate mounted in said frame, a self contained mechanism having laterally extending pins formed on one side thereof, said mechanism mounted on said plate and having the pins extending into the plate, and a second transparent plate detachably mounted in the frame and engaging the opposite side of said mechanism whereby the said pins will be held within the first mentioned plate.

1,206,254. SUBSIDIARY PLANT FOR DRIVING PROPELLER-SHAFTS WHEN NOT UNDER LOAD. MARTIN ROELLIG, Bremen, Germany. Filed Aug. 23, 1912. Serial No. 716,642. (Cl. 172—8.)



1. In a ship, the combination with several power producing units, of propeller shafts, clutches for severally connecting said engines with said propeller shafts and disconnecting them from the latter, subsidiary power producing units, and transmissions from said subsidiary power producing units to said propeller shafts, said subsidiary power producing units being adapted to so drive said propeller shafts that the propeller practically neither gives off nor receives any power.

2. In a ship, the combination with several power producing units, of propeller shafts, clutches for severally connecting said power producing units with said propeller shafts and disconnecting them from the latter, power producing units, means for automatically maintaining nearly constant a suitable strength of the current passing through said power producing units, and transmissions from said power producing units to said propeller shafts, said power producing units being adapted to so drive said propeller shafts that the propeller practically neither gives off nor receives any power.

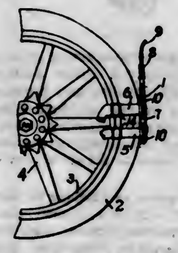
3. In a ship, the combination with several engines, of propeller shafts, clutches for severally connecting said engines with said propeller shafts and disconnecting them from the latter, electromotors, transmissions from said electromotors to said propeller shafts, a dynamo, conductors connecting said dynamo with said electromotors, an automatically regulating resistance connected with said conductors, and a contact current meter connected with said conductors and adapted to control said automatically regulating resistance for maintaining nearly constant a suitable strength of the current passing through said electromotors, said electromotors being adapted to so drive said propeller shafts that the propeller practically neither gives off nor receives any power.

4. In a ship, the combination with several engines, one of them in the vertical longitudinal central plane of the ship, of propeller shafts, clutches for severally connecting said engines with said propeller shafts and disconnecting them from the latter, electromotors, means for automatically maintaining nearly constant a suitable strength of the current passing through said electromotors, and transmissions from said electromotors to said propeller shafts, said electromotors being adapted to so drive said propeller shafts that the propeller practically neither gives off nor receives any power and electromotors on both sides of the ship being connected in pairs.

5. In a ship, the combination with several engines, one of them in the vertical longitudinal central plane of the ship, of propeller shafts, clutches for severally connecting said engines with said propeller shafts and disconnecting them from the latter, electromotors, means for automatically maintaining nearly constant a suitable strength of the current passing through said electromotors, and transmissions from said electromotors to said propeller shafts, said electromotors being adapted to so drive said propeller shafts that the propeller practically neither gives off nor receives any power, and electromotors on both sides of the ship being connected in series.

[Claim 6 not printed in the Gazette.]

1,206,255. ELECTRICALLY-HEATED VULCANIZER. EDWARD E. ROSE, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 10, 1912. Serial No. 670,524. (Cl. 18—18.)



1. In a vulcanizer, the combination with an electrically heated working member, and a handle containing the heater leads of a plurality of strain members associated with the working member, rollers severally disposed thereon and a plurality of belts of pliable material coöperating with said rollers for strapping the working member in position.

2. In a vulcanizer, the combination with an electrically heated working member having a plurality of strain members and rollers longitudinally disposed in pairs on the respective sides thereof and spaced therefrom and a handle containing the heater leads, of a plurality of belts of pliable material severally coöperating with said rollers in pairs for strapping said working member in position.

1,206,256. POSTAL CARD OR PACKET. WILLIAM ROY, Edinburgh, Scotland. Filed Oct. 18, 1915. Serial No. 56,522. (Cl. 229—6.)

1. A postal card or packet comprising in combination a sheet having an outstanding recessed portion integral therewith perforated in the outstanding wall of the recess and fixed at the inner side of its margin on a plain sheet to form a receptacle, a label affixed in part to the outer side of the said recessed portion, the unfixed part of the label being adapted for covering and sealing a perforation in the wall of said recess, substantially as described.

2. A postal card or packet comprising in combination a sheet having an outstanding recessed portion integral therewith perforated in the outstanding wall of the recess and fixed at the inner side of its margin on a plain sheet to form a receptacle, a label affixed in part to the outer side of the said recessed portion, the unfixed part of the label having a transparent portion and being adapted for covering and sealing a perforation in the wall of said recess and for displaying the contents of the receptacle, substantially as described.



3. A receptacle for a postal card or packet comprising in combination a sheet having an outstanding recessed portion integral therewith perforated in the outstanding wall of the recess and having a label in part affixed to the outer side of said recessed portion the unfixed part of the label being adapted for covering and sealing a perforation in the wall of said recess, substantially as described.

1,206,257. FURNITURE CONSTRUCTION. OTTO RUDD, Kenosha, Wis., assignor to Simmons Manufacturing Company, Kenosha, Wis., a Corporation of Wisconsin. Filed May 7, 1915. Serial No. 26,502. (Cl. 5—4.)



1. In a furniture construction, the combination with a hollow metallic frame member and a connecting member, said frame member being apertured to receive an end of said connecting member, of a ferrule member positioned within and secured by a spot weld to the inner surface of the frame member and adapted to telescopically engage the end of said connecting member which extends into the frame member.

2. In a furniture construction, the combination with a hollow metallic frame member having inner and outer sides, of a connecting member extending in angular relation thereto, said frame member having its inner side apertured to receive the inner end of the connecting member, a ferrule positioned within the frame member and having one end united to the imperforate outer side of the frame member and the opposite end telescopically engaged with the connecting member.

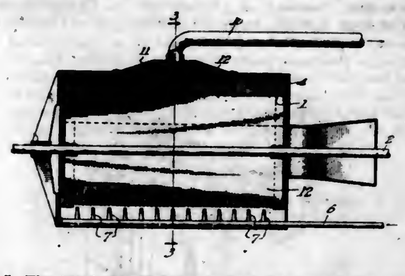
1,206,258. METHOD OF BLANCHING PEANUTS. FELIX SALOMON, Chicago, Ill., assignor to United Fig & Date Company, Chicago, Ill., a Copartnership. Filed Sept. 15, 1915. Serial No. 50,846. (Cl. 146—14.)

1. The herein described method of blanching nuts which consists in projecting membrane fracturing air jets against a mass of nuts.

2. The hereindescribed method of blanching nuts which consists in projecting membrane fracturing air jets against a mass of nuts, and moving the nuts during the application of the air jets to subject the several portions of the mass to the action of the jets.

3. The hereindescribed method of blanching nuts which consists in projecting membrane fracturing air jets against the under surface of a mass of nuts.

4. The hereindescribed method of blanching nuts which consists in projecting membrane fracturing air jets against the under surface of a mass of nuts and moving the nuts during such application to bring all of the individual nuts into position to be acted on by the air jets.



5. The hereindescribed method of blanching nuts which consists in projecting membrane fracturing jets of hot air against a mass of nuts.

[Claims 6 to 8 not printed in the Gazette.]

1,206,259. SPLICER FOR TROLLEY-CONDUCTORS. WILLIAM SCHAAKE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 7, 1911. Serial No. 642,881. (Cl. 173—303.)



1. A trolley-wire splicer comprising a body member having a wire-holding recess that is open at each end, an integral annular shoulder intermediate the ends of said recess, a sleeve having a tapered inner surface disposed in one end of said recess with one end seated against said shoulder, and a tapered split chuck seated in said sleeve.

2. A trolley-wire splicer comprising a casting having a wire-receiving socket that is open at each end, an integral annular shoulder intermediate the ends of said socket, an internally tapered steel sleeve disposed in one end of said socket and seated against said shoulder, an upset portion of said casting for locking said sleeve within said socket and a longitudinally split chuck fitted into said sleeve.

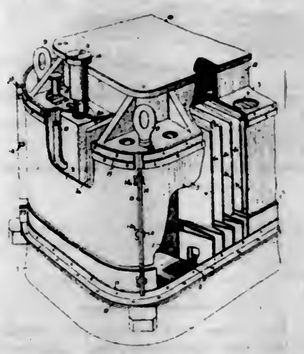
3. A trolley-wire splicer comprising a body having a wire-receiving socket open at both ends and provided with an annular shoulder intermediate its ends, an internally tapered sleeve fitted into said socket and having one end in engagement with said shoulder, a longitudinally split chuck fitted into said sleeve and provided with wire-gripping projections on its inner surface.

4. A trolley-wire splicer comprising a body member having a longitudinal groove and a communicating inclined tubular opening extending through said member for receiving an end of a wire conductor, said member being provided with an annular shoulder intermediate the ends of said opening, a sleeve having a tapered inner surface disposed in the end of said opening removed from said groove and having its inner end seated against said shoulder, and a tapered split chuck having wire-gripping projections seated in said sleeve.

5. A trolley-wire splicer comprising a body member having a wire-receiving tubular recess therethrough and provided with an integral annular shoulder intermediate the ends of said recess, a sleeve having a tapered inner surface disposed in one end of said recess and having an end thereof seated against said shoulder and a tapered split chuck seated in said sleeve for coöperative engagement with said wire conductor and adapted to grip said conductor when it is placed in tension, said sleeve and said chuck being removable from said recess in a direction away from said shoulder.

[Claim 6 not printed in the Gazette.]

1,206,260. ELECTRICAL TRANSFORMER. ALF SCHAANNING, Manchester, and GEORGE HARLOW, Altrincham, England, assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 1, 1916. Serial No. 118,042. (Cl. 175—361.)



1. A containing casing having corrugated sides, detachable side plates to surround the corrugated sides, a base member, and a top end-frame member, said members being severally provided with openings so as to permit air currents to flow between the corrugated sides of the casing and said side plates.

2. A containing casing having sides in which are formed a plurality of outwardly extending adjacent heat-radiating fins that are normally exposed to the outer air, exteriorly detachable side plates co-extensive with the sides of the casing for inclosing said casing sides but being spaced therefrom in order to provide circulating passageways for air currents, and end frames that are provided with openings through which air currents may be directed to flow in said passageways.

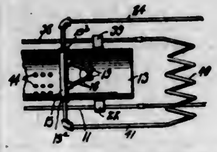
3. A casing having sides provided with outwardly-extending and adjacent heat radiators, detachable side plates for inclosing the said sides having heat radiators, and top and bottom end plates therefor in which openings are formed that communicate with the air spaces between adjacent heat radiators.

4. A containing casing for an electrical apparatus having sides that are conducive to dissipating the heat generated by the apparatus under normal operating conditions, exteriorly detachable side plates for inclosing the containing casing, said side plates being spaced from the sides of the casing in order to provide passageways therebetween, and top and bottom end-frames engaging said side plates and being provided with openings through which air currents may be conducted to said passageways.

5. A containing casing for an electrical apparatus having adjacently disposed radiators normally in direct contact with the outer air, detachable side plates for inclosing said radiators of the casing, said side plates being spaced from the casing in order that cooling air currents may flow therebetween, and top and bottom end plates severally provided with openings that register with the air spaces between adjacent radiators.

1,206,261. HYDROCARBON-BURNER. LOUIS J. SCHETTL, Manitowoc, Wis. Filed Feb. 2, 1916. Serial No. 75,720. (Cl. 158—57.)

1. A hydrocarbon burner including a burner head, an oil supply tank, a water supply tank, a pipe line leading from each of said tanks to said burner head, a heating coil in each of said pipe lines in front of said burner head for separately vaporizing both water and oil before entering the burner head, an independent pipe line for supplying air under pressure to said tanks and to the pipe line leading from the water supply tank, and valves in both water pipe and air pipe lines for directing the compressed air when desired into the water pipe line to remove all water therefrom through the burner tip.



2. In a hydrocarbon burner, a burner head including a tube closed at one end and having air inlet openings, a burner tip arranged within and diametrically across said tube, a plurality of converging nozzles projecting forwardly from the burner tip, fuel and water coils arranged in advance of the open end of said tube, pipes connecting the respective coils with opposite ends of the burner tip, and supply pipes leading to said coils.

3. In a hydrocarbon burner, a burner tip containing two separate chambers and provided with nozzles extending therefrom, said nozzles converging and having diagonally extending openings at their outlet ends to impart rotary motion to vapor and steam issuing therefrom, and means to supply said nozzles respectively with oil vapor and steam.

4. In a hydrocarbon burner, a burner tip including a member having two chambers therein, nozzles carried by the member and communicating each with a chamber, said nozzles being arranged in converging relation, the outer ends of said nozzles being partially closed and provided with diagonally extending slots, and means to supply fuel and steam to said chambers.

5. In a hydrocarbon burner, a burner head including a tube having an open end, a burner tip arranged within said tube and having converging nozzles, a pair of coils disposed across and in advance of the open end of said tube, pipes connecting said coils with an end of said burner tip, means to supply fuel and water to the respective coils, and means in each of said nozzles to impart rotary motion to the oil vapor and steam issuing therefrom, which being ignited is adapted to heat the coils.

[Claim 6 not printed in the Gazette.]

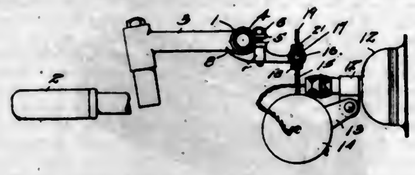
1,206,262. NUT-LOCK. SPURGEON T. SHELLENBERGER, Bridgeport, Conn. Filed May 10, 1916. Serial No. 96,645. (Cl. 151—28.)



The combination of a bolt having its shank provided with a threaded bore and the threads in the bore being pitched at a different angle from the threads of the bolt, a nut screwed upon the bolt and having angular openings, a screw member received in the threaded bore of the bolt, said screw having a shouldered end provided with a flat head, said head having its outer face provided with a transverse kerf and its periphery formed with angular slots, a coiled spring having angular ends received in one of the angular openings of the bolt, said spring being wound around the bolt and having its second angular end received in one of the slots in the head of the screw, all as and for the purpose set forth.

1,206,263. LAMP-SUPPORT. NICHOLAS WATT SHIPP, Salem, Oreg. Filed Jan. 10, 1916. Serial No. 71,283. (Cl. 240—58.)

1. The combination with a supporting bracket and a supporting bar for a lamp, of a yoke on the bar adapted to fit over the bracket, means for clamping the yoke, bracket and bar together, and means for clamping the yoke against lateral movement on the bar.

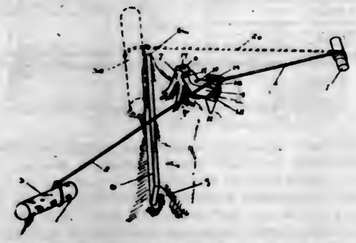


2. The combination with a slotted bracket and a supporting bar seated therein, of a yoke fitted over said bar and bracket and set screw for clamping the parts together, said bar being threaded, and a clamp nut at each end of the yoke for retaining the yoke against lateral movement on the bar.

3. The combination with a slotted bracket, of a bar having a flattened portion fitted in the slotted bracket, and an abutment on the bar, a clamp nut on the bar for holding the bracket to the bar, a battery casing suspended from the bar, and a lamp supported from the casing.

4. The combination with a bracket and a bar for a lamp, of a yoke on the bar adapted to fit over the bracket, means for clamping the yoke, bracket, and bar together, a hook formed at the end of the bracket engaging the yoke, and means for clamping the yoke against lateral movement on the bar.

1,206,264. LOGGING SYSTEM. PHY SIMPSON, Airlie, Oreg. Filed July 20, 1915. Serial No. 40,901. (Cl. 254—135.)



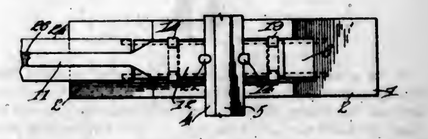
1. In a logging system for hauling logs, a hauling rope propelled by any source of power, a sheave block base, a sheave rotatably mounted upon said base, a clevis pivotally attached to said base and adapted to be secured upon the top of a stump, a guide adjacent said block base and said stump, said guide being placed across the path of the log and at such an angle with said path as will cause the log to be deflected past said stump.

2. In a logging system for hauling logs, a hauling rope propelled by any source of power, in combination with means for causing a log to turn a corner without lowering the traveling speed of said rope, said means comprising a guide sheave for said rope, and a guide adjacent said sheave and across the path of the log, said guide being adapted to deflect the log around said sheave.

3. In a logging system for hauling logs, a hauling rope propelled by any source of power, in combination with means for causing a log to turn a corner without lowering the traveling speed of said rope; said means comprising an open sided guide sheave block disposed within the reëntrant angle included between the two reaches of said hauling rope as it turns the corner, a swivel clevis connected to said block and adapted to allow the sheave to lie always in the plane of said rope, said clevis being secured to a stump located outside said reëntrant angle, and a guide adjacent said sheave block and across the path of the log, said guide being adapted to deflect the log around said sheave block and around said stump.

4. In a logging system for hauling logs, a hauling rope propelled by any source of power in combination with means for causing a log to turn a corner; said means comprising an open sided guide sheave block disposed within the angle included between the two reaches of said hauling rope as it turns the corner; a swivel clevis connected to said block adapted to allow the sheave to lie always in the plane of said rope, said clevis being secured outside said angle included between the two reaches of said rope; and a guide adjacent said sheave block and across the path of the log, said guide being adapted to deflect the log into a new path or direction of travel.

1,206,265. RAIL-TIE STRUCTURE. MILTON E. SMITH, Spokane, Wash. Filed Aug. 11, 1915. Serial No. 44,907. (Cl. 238—6.)



1. In a rail tie structure, alined sleepers each provided with marginal rail receiving portions recessed from the tops thereof and extending transversely of the sleepers for receiving the rails, a gage bar connecting said rails and having rail chairs formed at its ends, said sleepers being longitudinally recessed between their lateral margins to receive said chairs and said longitudinal recesses having centrally disposed cavities, cushioning elements seated in said cavities and lying substantially flush with said longitudinal recesses to support the rail chairs at a sufficient elevation to clear the rails from engagement with the bottoms of said transverse recesses, U-shaped holders embedded in said sleepers and having terminal ends for engagement with said chairs, and means for locking said chairs to said sleepers, substantially as described.

2. In a rail tie structure, alined sleepers each provided with marginal rail receiving portions recessed from the tops thereof and extending transversely of the sleepers for receiving the rails, a gage bar connecting said rails and having rail chairs formed at its ends, said sleepers being longitudinally recessed between their lateral margins to receive said chairs and longitudinal recesses having centrally disposed cavities, cushioning elements seated in said cavities and lying substantially flush with said longitudinal recesses to support the rail chairs at a sufficient elevation to clear the rails from engagement with the bottoms of said transverse recesses, and rail anchorage means extending into said sleepers and coacting with said gage bar to hold the parts in locked relation, substantially as described.

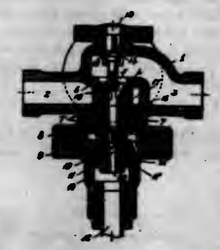
3. In a rail tie structure, a composite sleeper, threaded terminals projecting therefrom, a rail chair mounted on said sleeper and provided with a retaining opening, and a bar fixed to said threaded ends and having a retaining lug projecting into said opening to lock said rail chair in position, substantially as described.

4. In a rail tie structure, a composite sleeper, a U-shaped bolt embedded in said sleeper and having threaded ends projecting therefrom, a rail chair mounted on said sleeper and provided with a retaining opening, a retaining bar mounted on and secured to the threaded end of said bolt and provided with a retaining lug projecting into said retaining opening, substantially as described.

5. In a rail tie structure, alined sleepers provided with sloping ends, a gage bar for the rails mounted on said sleepers and spanning the space therebetween, and a composite bridge loosely mounted on adjacent sloping ends of said alined sleepers and having a groove for receiving said bar thereby causing the latter to hold said supporting bridge against lateral displacement, substantially as described.

[Claim 6 not printed in the Gazette.]

1,206,266. COMBINED BY-PASS VALVE AND CONTROLLING DEVICE FOR ENGINE-CYLINDERS. HARRY ALEXANDER STENNING, London, England, assignor to Locomotive Superheater Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 17, 1915. Serial No. 22,211. (Cl. 137—32.)



1. In a device of the character described, a valve body having superposed passages adapted for connection to the ends of the engine cylinders, coaxial openings through the body between the passages and to the atmosphere from the upper passages, a bore communicating with the lower passage and in line with the coaxial openings, a piston in said bore provided with portions at one end adapted to close the aforesaid coaxial openings, an opening through the body to the other side of said piston adapted to be joined to the main steam supply, and a connection to the atmosphere from said last named opening said connection being closed when the coaxial openings are closed and open when said openings are open.

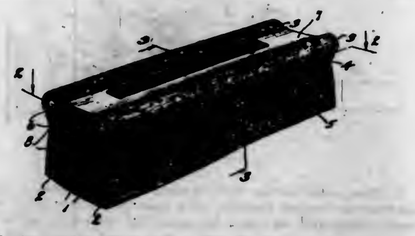
2. In a device of the character described, a valve body having superposed passages adapted for connection to the ends of the engine cylinder, coaxial openings through the body between the passages and to the atmosphere from the upper passages, a bore communicating with the lower passage and in line with the coaxial openings, a piston in said bore provided with portions at one end adapted to close the aforesaid coaxial openings, an opening through the body to the other side of said piston adapted to be joined to the main steam supply, and a connection to the atmosphere from said last named opening said connection being closed or open according to the position of the piston.

3. In a device of the character described, a valve body having superposed passages adapted for connection to the ends of the engine cylinder, coaxial openings through the body between the passages and to the atmosphere from the upper passages, a bore communicating with the lower passage and in line with the coaxial openings, a piston in said bore provided with portions at one end adapted to close the aforesaid coaxial openings, an opening through the body to the other side of said piston adapted to be joined to the main steam supply, an opening through the piston joining the steam supply connection to the opening between the superposed passages, and a valve in said piston opening arranged to be acted upon by the steam supply.

1,206,267. BLACKBOARD-ERASER. SVEN SWANSON, Chicago, Ill. Filed Mar. 4, 1916. Serial No. 82,210. (Cl. 15—65.)

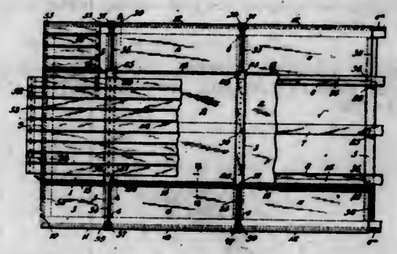
1. An eraser of the class described comprising a plurality of erasing strips arranged side by side, the outer strips being turned outwardly and downwardly at their upper portions, and stitching passing through all of said strips to bind them together and through the downwardly turned portions so as to form lateral depressions.

2. An eraser of the class described comprising a plurality of erasing strips of fibrous material, and of substantially rectangular configuration, the outer of said strips being wider than the intermediate strips and having their upper edges turned outwardly to form gripping elements, longitudinally extending reinforcing rods disposed in said turned portions, and stitching passing transversely through all of said strips beneath the reinforcing members aforesaid to bind the strips together and secure the reinforcing members in place.



3. An eraser of the class described comprising a plurality of erasing strips, stiffening means for said eraser consisting of a sheet of material having lateral flanges disposed between said erasing strips, said stiffening means having an intermediate flange also engaged between the strips, and stitching passing through the erasing strips and said flanges.

1,206,268. CAR-ROOF. WILSON E. SYMONS, Chicago, Ill. Filed Nov. 30, 1912. Serial No. 734,370. (Cl. 105—5.4.)



1. A single layer self sustaining flexible metallic car roof including relatively large unattached floating center sheets extending across the ridge or center line of the car roof and terminating at points intermediate of the center line and the eaves, and relatively small side sheets secured at their outer edges and constituting marginal portions of the car roof, the adjacent edges of the center and side sheets being arranged in loose overlapping relation so as to permit free relative movement of such overlapped parts and consequent free movement of the unattached floating sheets.

2. A flexible metallic car roof including imperforate unattached floating center sheets extending across the ridge or center line of the car roof and terminating at their side edges at points approximately midway between the ridge or center line and the eaves of the roof, said floating center sheets constituting the major portion of the area of the car roof, and side sheets secured at the eaves and constituting the marginal portions of the car roof, said side sheets and center sheets having their adjacent edges arranged in loose overlapping relation to permit free movement of the unattached floating sheets.

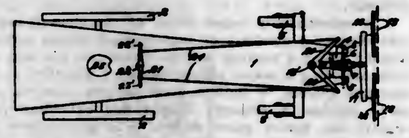
3. The combination with a car body, of carlines extending across the car body, and side purlins located at opposite sides of and spaced from the center of the car body and supported by the carlines, and a roof including center floating sheets extending across the center of the car to points intermediate of the center and the side edges of the roof and supported at the side edges upon the side purlins, and side sheets secured at their outer edges to the car body, the inner longitudinal edges of the center and side sheets being arranged in loose overlapped relation at the said purlins.

4. The combination with a car body, of carlines extending across the car body, and side purlins located at opposite sides of and spaced from the center of the car body and supported by the carlines, and a roof including side sheets supported upon the carlines and having their outer edges secured to the car body and provided at their inner longitudinal edges with upwardly extending flanges supported upon the side purlins, and center floating sheets extending across the center of the car to points intermediate of the center and the side edges of the roof and supported upon the side purlins and provided at their side edges with downturned flanges engaging with the upwardly extending flanges of the side sheets to form a loose overlapped connection, the members of which have free relative movement.

5. The combination with a car body, of carlines extending across the car body, and side purlins located at opposite sides of and spaced from the center of the car body and supported by the carlines, and a roof including side sheets supported upon the carlines and secured at their outer edges to the car body and provided at their inner edges with upwardly extending approximately L-shaped flanges fitted against the outer portions of the purlins and supported by the same, and center sheets extending across the center of the car to points intermediate of the center and the side edges of the roof and supported upon the side purlins and extending over the L-shaped flanges of the side sheets and provided at their side edges with downturned flanges located at the outside of the said L-shaped flanges.

[Claims 6 to 20 not printed in the Gazette.]

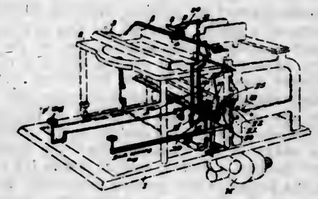
1,206,269. DRAFT ATTACHMENT FOR VEHICLES. GARDNER A. TAYLOR, Salinas, Cal. Filed Jan. 3, 1916. Serial No. 69,864. (Cl. 21—189.)



1. In combination with a vehicle frame having rear supporting wheels and one or more freely movable front caster wheels each pivoted on a vertical axis said frame recessed at its front end, a draft attachment therefor comprising a draft bar disposed transversely of said recess and connected at its ends to the implement frame, a clevis slidably mounted on said draft bar and freely movable longitudinally thereof and transversely of the longitudinal center of the implement frame, a grooved wheel carried by said clevis in rear of said draft rod and for resting thereon, a shifting member pivotally mounted on said frame, said member provided with a plurality of arms one of which overhangs said recess and coöperates with the clevis to shift the same on the draft bar, a pair of arms extended laterally from said shifting member and positioned one at each side of said first mentioned arm, a foot operated lever pivoted at its center to the frame and freely movable at all times, and a pair of rods pivotally connecting said arms with the corresponding ends of said lever, and the pivotal connecting points of said rods and lever being in advance of the pivotal point of the lever.

2. A draft attachment for vehicles comprising in combination with the vehicle frame, a draft bar extending transversely of the vehicle frame, a clevis for positioning over said draft bar, a wheel rotatably carried between the members of said clevis in rear of said draft rod and for resting thereon, a pair of spaced rotatably mounted idlers carried between the members of said clevis in advance of said bar, said roller and idlers preventing a lateral swinging of the clevis on the bar, a portion of the rear of said clevis projecting under the vehicle frame, a shifting member pivotally mounted on said frame, said member provided with a plurality of arms, one of said arms formed with a slot which coöperates with said clevis to shift the same on said draft bar, and a pair of arms extended laterally from said shifting member and positioned one at each side of said first mentioned arm, a foot operated controlling lever centrally pivoted to said frame and freely movable at all times, and a connection between the ends of said lever and said shifting member.

1,206,270. TOTALIZER-CONTROLLING MECHANISM FOR CALCULATING-MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 7, 1913. Serial No. 759,493. (Cl. 235—60.)



1. In a calculating machine, the combination of a plurality of totalizers, a movable paper supporting carriage, positioning means under control of said carriage for rendering a selected group of totalizer wheels operative, and total taking mechanism including means for rendering said positioning means ineffective.

2. In a calculating machine, the combination of a plurality of totalizers, a movable paper supporting carriage, positioning means under control of said carriage for rendering a selected group or groups of totalizer wheels operative, and total taking mechanism including means for rendering said positioning means ineffective.

3. In a calculating machine, the combination of a plurality of groups of totalizer wheels, actuating racks therefor, printing type positioned by said racks, a laterally movable paper supporting carriage, and means controlled by said carriage for governing the coöperation of the totalizers and their racks without affecting the type positioning operation of the latter.

4. In a calculating machine, the combination of a plurality of groups of totalizer wheels, actuating racks therefor, printing type positioned by said racks, said totalizer wheels being adapted to govern the total printing positions of said type, a laterally movable paper supporting carriage, and means controlled by the carriage for governing the coöperation of the totalizers and their racks without affecting the type positioning operation of the latter whereby significant numbers only will be accumulated in a selected group of totalizer wheels.

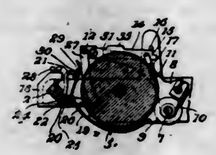
5. In a calculating machine, the combination of a plurality of groups of totalizer wheels, actuating racks therefor, printing type positioned by said racks for printing significant and non-significant numbers, the total printing positions of said type being controlled by said totalizer wheels, a laterally movable paper carriage, and means controlled by said paper carriage for governing the coöperation of said racks and totalizers in item printing operations so that only significant numbers of those printed will be accumulated in a selected group or groups of totalizer wheels.

[Claims 6 to 11 not printed in the Gazette.]

1,206,271. PAPER-SUPPORT FOR WRITING-MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 3, 1913. Serial No. 804,384. (Cl. 197—127.)

1. A paper holding mechanism for writing machines including the combination of a revoluble platen, holding elements movable toward and from the platen, operating

mechanism for moving said holding elements, and impaling members carried by said holding elements and adapted to penetrate paper supported on the platen to retain the paper in fixed position relative to the printing line, the platen being formed to accommodate the said impaling elements.



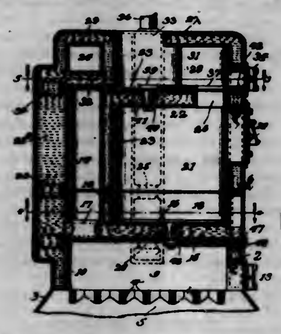
2. A paper support for writing machines including the combination of a platen arranged for line spacing movement, holding elements movable relative to the platen, means for manipulating said holding elements to engage and disengage paper supported on the platen, and impaling members carried by the holding elements and adapted to engage one or more sheets supported on the platen to hold the same in fixed position relative to the printing line.

3. In a device of the class described, the combination of a paper carriage, a platen, holding means for coöperating with the platen in line spacing movement, means for rendering said holding means inoperative, holding elements on the carriage and movable to transfix paper on the platen to retain it in position when the holding means is cast off, and means for moving said holding elements to engage and disengage paper supported on the platen.

4. In a device of the class described in combination with a movable platen for supporting paper, an impaling holding element movable to transfix paper on the platen to retain it in fixed position, the platen being formed to accommodate the impaling element, and manipulative means for operating said holding element to engage and disengage paper supported on the platen.

5. In a device of the class described in combination with a movable platen for supporting paper, an impaling member adapted for movement toward the platen to transfix a plurality of sheets supported on the platen to hold them in fixed position, and means for moving said impaling member into and out of engagement with paper supported on the platen.

1,206,272. CONVERTIBLE UPDRAFT AND DOWNDRAFT BOILER. HENRY TIELKEMEYER, St. Louis, Mo. Filed Aug. 2, 1916. Serial No. 112,733. (Cl. 122—217.)



1. A cylindrical boiler of the class described consisting of a plurality of horizontally arranged superimposed hollow sections through which a heating medium circulates, the said sections including a major hollow section having a vertical flue therein, a water grate section arranged beneath the major hollow section, a bottom hollow section arranged beneath the water grate section, a top section positioned upon the major hollow section, a vertical arcuate shaped flue extending from the said bottom section to the top section, an adjacent flue communicating with said flue and extending to the outside of the boiler, and means interposed between the vertical flue in the major water section and the aforesaid flues for directing the flow of the products of combustion through said boiler.

2. A substantially round boiler of the class described consisting of a plurality of superimposed hollow sections through which a heating medium circulates, the said sections including a major section having a vertical flue therein, a hollow grate section arranged below said major section, a vertical arcuate shaped flue extending from beneath the hollow grate section to a point above the major section, an adjacent conduit communicating with said vertical arcuate flue and extending to the outside of the boiler, and means for controlling the direction of the products of combustion through said boiler.

3. A substantially round boiler of the class described consisting of a plurality of superimposed hollow sections through which a heating medium circulates, the said sections including a major section, having a flue therein, a hollow grate section beneath said major section, an arcuate shaped flue extending from beneath the said hollow grate section to a point above the flue opening in the section to the outside of the boiler, and means for relatively controlling the direction of the products of combustion through the aforesaid flue openings.

4. A substantially round boiler of the class described consisting of a plurality of superimposed hollow sections through which a heating medium circulates, the said sections including a major section having arcuate flue openings therein, a hollow grate section beneath said major section, an arcuate shaped flue extending from beneath the hollow grate section to a point above the arcuately arranged flue openings to the outside of the boiler, and means for relatively controlling the direction of the products of combustion through the first mentioned flue openings.

5. A substantially round boiler of the class described consisting of a plurality of superimposed hollow sections through which a heating medium circulates, the said sections including a major section having a plurality of flue openings therein, a hollow grate section beneath said major section, a crescent shaped flue extending from beneath the hollow grate section to a point above the flue openings, of the major section to the outside of the boiler, said flue being arranged within the cross sectional boundaries of the boiler on one side thereof, and means for relatively controlling the direction of the products of combustion through the first mentioned flue openings.

[Claims 6 and 7 not printed in the Gazette.]

1,206,273. BOTTLE CLEANING OR WASHING BRUSH. MAX VERCK and CARL E. REICHERT, Philadelphia, Pa. Filed Feb. 8, 1916. Serial No. 77,083. (Cl. 141—7.)



1. A brush of the character described, comprising a head of brush material, an end tuft, a fastening therefor,

and a shank formed of a plurality of lengths of twisted wire, said end tuft having a bend passed through portions of said twisted wire and the said lengths of twisted wires being bent upon themselves beyond the fastening of the end tuft, the portions of said tuft above and below said fastening lying substantially flat against the adjacent portions of said shank.

2. A brush comprising a head of brush material, an end tuft extending in the direction of the length of the brush, a shank of a plurality of lengths of twisted wires bent upon themselves, the bend of said end tuft being passed through portions of said twisted wires, and a binding around said end tuft and said portions of the twisted wires.

3. A brush comprising a head of brush material, an end tuft extending in the direction of the length of the brush, a shank of a plurality of lengths of twisted wires bent upon themselves, the bend of said end tuft being passed through portions of said twisted wires, a binding around said end tuft and said portions of the twisted wires, and a sleeve constituting a handle and having bores of different lengths, the portions of the shank being of corresponding different lengths, and means in said sleeve for engaging one of said lengths of wire.

4. A brush comprising a head of brush material, a tuft on the outer end thereof, a shank composed of a plurality of lengths, said tuft and head being connected with said lengths, a handle, the lengths of said shank being differential, and said shank having the bores of differential lengths to receive said lengths of the shank, and a screw fitted in the side of said handle entering a bore therein and adapted to tighten against the shank in said bore.

1,206,274. PORTABLE ELECTRIC LIGHT. CHARLES WACHTEL, Brooklyn, N. Y., assignor to Interstate Electric Novelty Co., New York, N. Y., a Corporation of New York. Filed May 21, 1914. Serial No. 839,936. (Cl. 240—8.5.)



1. A portable electric light of the class described comprising an exterior casing containing a battery and having at its upper end an electric lamp in electrical connection with said battery, circuit terminal conductors extending along said casing normally separated from each other at adjacent ends and one of which is in electrical connection with the lamp and the other with the battery, and circuit closing means for electrically connecting the adjacent ends of said terminal conductors comprising a closer-casing on the exterior main casing and insulated from both said terminal conductors and a conductor therein adapted on being moved for the purpose to engage said ends of the terminal conductors, said terminal conductors being embedded within the material of said main casing and said main casing being recessed at the adjacent ends of said conductors and thereat exposing said ends to be engaged by the circuit closer conductor.

2. A portable electric light of the class described comprising an exterior casing containing a battery and having at its upper end an electric lamp in electrical connection with said battery, circuit terminal conductors extending along said casing normally separated from each other at adjacent ends and one of which is in electrical connection with the lamp and the other with the battery, and circuit closing means for electrically connecting the adjacent ends of said terminal conductors comprising a closer-casing on the exterior main casing and insulated from both said terminal conductors and a conductor therein adapted on being moved for the purpose to engage said ends of the terminal conductors, said terminal conductors being embedded within the material of said main casing and said main casing having an approximately V-shaped recess at the adjacent ends of said conductors and thereat exposing said ends to be engaged by the circuit closer conductor, which has an approximately V-shaped portion adapted to said recess.

3. In a portable flash light of the character described a casing containing a battery and an electric lamp, circuit closing means comprising circuit terminal conductors extending along said casing in line with each other and normally separated from each other at adjacent ends, an escutcheon on the exterior of said casing and insulated from both said conductors and a manually operative conductor adapted, on being moved for the purpose to engage and electrically connect said ends of said terminal conductors, said terminal conductors being embedded within the material of said casing and said casing being recessed at the adjacent ends of said terminal conductors and thereat exposing said ends, and said manually operative conductor being a spring associated with an exposed slide mounted on said escutcheon.

1,206,275. PORTABLE ELECTRIC LIGHT. CHARLES WACHTEL, Brooklyn, N. Y., assignor to Interstate Electric Novelty Company, New York, N. Y., a Corporation of New York. Filed Dec. 9, 1914. Serial No. 876,190. (Cl. 175—282.)



1. In a portable flash light having a casing containing a battery and an electric lamp, circuit closing means comprising normally separated circuit terminal conductors extending along said casing, said casing being recessed in its outer wall to expose adjacent end portions of said conductors, a chambered escutcheon plate secured to said casing over said recess, a spring switch in the chamber of said plate and at one end rigidly held and having near its free end an outward projection, and a slide mounted on and guided by said plate and having a finger to be moved along the said switch and by engaging said projection force the free end of the switch against the adjoining ends of both said conductors.

2. In a portable flash light having a casing containing a battery and an electric lamp, circuit closing means com-

prising circuit terminal conductors extending along said casing in line with each other and normally separated from each other at adjoining ends and exposed at said ends, a transversely disposed chambered escutcheon secured to said casing and insulated from both said conductors, a spring switch within said escutcheon having a bifurcated end, and a slide mounted on and guided by said escutcheon and adapted to operate said switch to force the free end thereof inwardly against the adjoining ends of both said conductors, thereby to complete the circuit.

3. In a portable flash light having a casing containing a battery and an electric lamp, circuit closing means comprising circuit terminal conductors extending along said casing in line with each other and normally separated from each other at adjoining ends and exposed at said ends, a transversely disposed chambered escutcheon secured to said casing and insulated from both said conductors, a spring switch within the chamber of said escutcheon and at one end rigidly held and having near its free end an outward projection, and a slide mounted on and guided by said escutcheon and having a part to be moved along the said switch and by engaging said projection force the free end of the switch inwardly against the adjoining ends of both said conductors.

4. In a portable flash light having a casing containing a battery and an electric lamp, circuit closing means comprising circuit terminal conductors extending along said casing in line with each other and normally separated from each other at adjoining ends and exposed at said ends, a transversely disposed chambered escutcheon secured to said casing and insulated from both said conductors, a spring switch within the chamber of said escutcheon and at one end rigidly held and having near its free end an outward projection, and a slide mounted on and guided by said escutcheon and having a part to be moved along said switch and by engaging said projection force the free end of the switch inwardly against the adjoining ends of both said conductors, said switch at its free end being bifurcated to afford independently yieldable parts for engagement with said conductors.

5. In a portable flash light having a casing containing a battery and an electric lamp, circuit closing means comprising normally separated circuit terminal conductors extending along said casing, said casing being transversely recessed in its outer wall to expose adjacent end portions of said conductors, a chambered escutcheon plate secured to said casing over said recess, a spring switch in the chamber of said plate and at one end rigidly held and having near its free end an outward projection and at said end being bifurcated to afford independently yieldable members, and a slide mounted on and guided by said plate and having a part projecting through said plate and engaging said switch to be moved along the same and by engaging said projection to force said members at the free end of the switch against the adjoining ends of said conductors, thereby to complete the circuit.

[Claims 6 and 7 not printed in the Gazette.]

1,206,276. TRAVELING-BAG. SAMUEL H. WALLACH, New York, N. Y. Filed July 22, 1916. Serial No. 110,626. (Cl. 190—41.)



1. A traveling bag including a substantially rigid shallow bottom tray, a plurality of superposed trays each having upwardly and inwardly inclined walls, two pairs of walls constituting extensions from the upper edges of the walls of the bottom tray, the walls of one of said pairs folding over to meet above the top tray and a pair of handles secured to the last mentioned walls adjacent to their meeting edges and adapted to be gripped together in carrying the bag.

2. A traveling bag including a shallow, rectangular bottom tray or body portion, a plurality of superposed trays disposed thereon, each tray being directly supported by the tray beneath, means for preventing lateral sliding movement of each tray with respect to the other trays, a plurality of flaps or extensions from the upper edges of the bottom tray, means for securing together two opposed flaps or extensions, and separate means for securing together the other two flaps or extensions and concealing and protecting the first mentioned fastening means.

3. A traveling bag including a bottom tray or body section, a separate tray directly supported thereon, a pair of flaps secured to opposite sides of said bottom tray, means for fastening said flaps together over the second mentioned tray, a pair of flaps secured to the other two sides of the bottom tray, separate handle sections on said last mentioned flaps, and means for securing said last mentioned flaps together over the second mentioned tray and the first mentioned flaps.

4. A traveling bag including a body portion, a plurality of separate flaps extending from the upper edges of the walls thereof, a tray supported directly upon said body portion, means for securing two of said flaps together above said tray and separate handles secured to said last mentioned flaps and adapted to be gripped together in carrying the bag.

5. A traveling bag including a rectangular body portion, two pairs of separate flaps extending from the upper edges of the walls thereof, a series of separate article receiving pockets upon the inner surfaces thereof, a tray supported directly upon said body portion and held from sliding movement in respect thereto, means for securing together the flaps of one of said pairs above said tray, and auxiliary flaps or flanges along the side edges of said last mentioned pair for over-lapping the edges of the flaps of the other pair.

1,206,277. WINDOW-SEAT. JULIUS A. WALZ, Jersey City, N. J. Filed Mar. 30, 1916. Serial No. 87,706. (Cl. 20—87.)

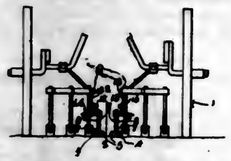


1. A window cleaner's seat comprising a plurality of members disposed to extend inwardly and outwardly of a window ledge, brackets mounted inwardly of the window and removably receiving the inner ends of said members, bars slidable longitudinally in the members, means for detachably supporting a seat on the bars, a stop carried by the said members for engagement by the seat supporting means to limit the sliding movement of the bars, and supporting elements carried by the said members for engagement on the sill outwardly of the window.

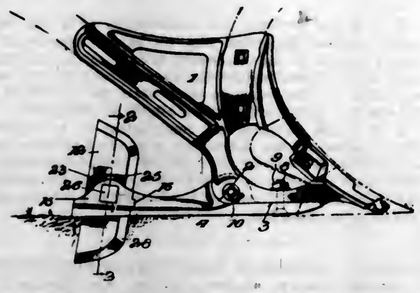
2. In a window cleaner's seat, channel members detachably secured inwardly of the window and supported on the sill outwardly thereof, bars slidable longitudinally in the channel members, vertical socket members carried by the bars, a seat having downwardly extending pins removably received in the socket members, and a stop bar carried by each of the channel members for engagement by the socket members to limit the sliding movement thereof.

1,206,278. ATTACHMENT FOR CULTIVATORS. WILLIAM R. WHITAKER, Winston, Mo. Filed Dec. 6, 1915. Serial No. 65,301. (Cl. 97—1.)

An attachment for cultivators comprising a pair of plates having upturned forward edges, shanks supported by the plates, arms having heads formed upon their inner ends and slidably engaged by the shanks, sleeves adjustably connected to the arms, and means for adjustably connecting the sleeves to the beams of the cultivator.



1,206,279. PLOW-RUDDER. ARTHUR M. WHITE, Norfolk, Va., assignor to S. R. White's Sons, Inc., Norfolk, Va., a Corporation of Virginia. Filed Apr. 6, 1916. Serial No. 89,421. (Cl. 97—21.)



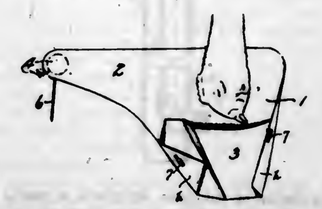
1. The combination with a plow standard having a flat lower face and curved heel pierced by a bolt receiving opening, of a rudder bar having its front portion bearing against the flat lower face of the standard and provided with an upstanding flange having a slot therein, the said bar at the flange being provided with a curved wall conforming to the shape of and adapted to bear against the curved heel, the rear end of the rudder being extended longitudinally in a straight line beyond the heel of the plow standard, a bolt passing transversely through the opening in the heel and the slot in said flange, a second bolt disposed at substantially right angles to the first mentioned bolt and extending upwardly through the bottom of the rudder at the forward end thereof and through the flat lower face of the heel, and a vertically disposed blade mounted on the extended end of the rudder.

2. A rudder attachment for plows including a bar having a recess formed in one side thereof and defining spaced shoulders, the forward shoulder being provided with a horizontal notch and the rear shoulder being provided with a groove defining spaced lugs, a vertically disposed blade seated in the said recess and bearing against the bar, a clamping plate bearing against the blade and having one end thereof provided with a projection seated in the notch and its other end formed with a rib engaging the groove, and means piercing the clamping plate, blade and bar for securing the parts in assembled position.

3. A rudder including a bar having means at one end thereof for attachment to a plow and having a recess formed in one side thereof at the other end of the bar, said recess defining front and rear shoulders, the rear shoulder being formed with a notch and the front shoulder provided with a groove defining spaced lugs, there being a vertically thickened portion formed on the bar at said recess and pierced by a transverse opening, a clamping plate having one end thereof provided with a projection adapted to seat within the notch and its other end provided with spaced cut away portion adapted to receive the lugs and defining an intermediate rib adapted to enter the groove, said clamping plate being also formed with a vertically thickened portion pierced by a transverse opening disposed in alinement with the opening in the thickened portion of the bar, a vertically disposed blade bearing against the bar at said recess, and a clamping bolt extending through the openings in the thickened portions of the clamping plate and bar and through a slot in the blade for clamping the parts in assembled position.

4. A rudder including a bar having means at one end thereof for attachment to a plow and having its other end at one side provided with a seating recess, there being vertically spaced lugs at one end of the recess and a vertical shoulder at the other end thereof, a blade seated in said recess and bearing against the side of the bar between said shoulder and lugs, a clamping plate having interlocking engagement with the shoulder and lugs and bearing against the side of the plate, and means for clamping the plate and blade on the bar.

1,206,280. COVER FOR THE MUTILATED PORTIONS OF POULTRY. DICK B. WILLIAMS, New Orleans, La., assignor to L. Frank and Company, New Orleans, La., a Corporation of Louisiana. Filed May 29, 1916. Serial No. 100,661. (Cl. 229—77.)



1. A wrapper of the class described consisting of a wrapper body having an offset wrapping extension at one edge adjacent a corner thereof and having a pocket forming portion folded back upon the lower part of the wrapper body to a point below the wrapping extension, permanent fastenings for holding said folded pocket forming portion of the body in position to form an expansible pocket, and a temporary fastening carried by the offset wrapping extension.

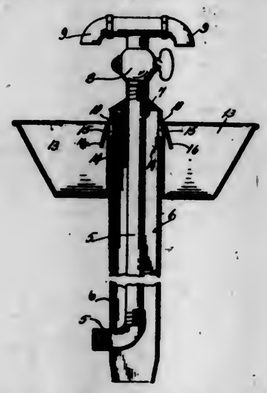
2. A wrapper of the class described comprising a wrapper body folded upon itself to form a permanent pocket, said body being extended beyond the open side of the pocket and having a laterally offset wrapping extension, said portion of the body at the open side of the pocket and the wrapping extension being adapted to embrace a portion of the article to be wrapped, and a temporary fastening device carried by the wrapping extension.

3. A cover for the mutilated portions of poultry consisting of a substantially rectangular wrapper body having an offset wrapping extension at one edge adjacent a corner thereof, and having the lower portion thereof folded back upon the wrapper body along intersecting lines, and also having the lateral edges of the lower folded portion thereof folded inwardly, and permanent fastenings for holding said folded portions of the body in position to form an expansible pocket.

1,206,281. STOCK-WATERING FOUNTAIN. FREDERICK E. WOOD, Flushing, N. Y. Filed Mar. 14, 1916. Serial No. 84,159. (Cl. 119—74.)

1. In a device of the class described, a supply pipe, a casing surrounding said pipe and spaced therefrom to provide a chamber, the casing being provided with an opening, a trough provided with an aperture adapted to register with the opening in said casing, a lip on said trough for engagement over the lower edge of said opening, and means for delivering fluid from said pipe to said trough, substantially as described.

2. In a device of the class described, a supply pipe, a casing surrounding said pipe and spaced therefrom to provide a chamber, the said casing being provided adjacent its upper portion with oppositely disposed openings, a trough provided with an aperture adapted to register with said opening arranged upon opposite sides of said casing, a lip on each of said troughs for engagement over the lower edge of each of said openings, flanges projecting outwardly from the edges of said aperture to protrude through said opening into said chamber, an apron secured to project within each of said troughs outwardly from the rear wall, and nozzles on said pipe for directing fluid into each of said troughs, substantially as described.



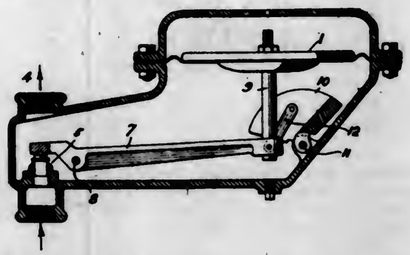
3. In a device of the class described, a casing having an opening therein, certain of the edges of the opening being parallel and the other edges inclining toward each other from one to the other of the parallel edges, a trough, a lip projecting rearwardly and downwardly from said trough and adapted to engage upon one of said parallel edges, angularly and rearwardly projecting flanges on said trough adapted to engage within said opening and to rest upon the inclined edges thereof, and means for directing fluid into said trough, substantially as described.

4. In a device of the class described, a casing, a pipe extending through and beyond said casing, a nozzle on said pipe, the said casing having an opening in the side thereof, the upper and lower edges of said opening being parallel and the side edges inclining downwardly toward each other, a trough, a lip projecting rearwardly and downwardly from said trough and adapted to rest upon the lowermost of said casing opening edges, the said trough having an opening for registration with the opening in said casing, rearwardly projecting inclined flanges on said trough adapted to enter the casing opening and to rest upon the inclined edges thereof, and an apron within said trough spaced from the rear wall thereof and extending below the trough opening, substantially as described.

1,206,282. GAS-GOVERNOR. WILLIAM M. WOOD, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 27, 1915. Serial No. 63,866. (Cl. 50—27.)

1. In a gas governor the combination of a rim supported flexible diagram and its valve connection, a weight applied to the diaphragm to balance the gas pressure, and means for automatically loading and unloading the diaphragm to compensate for variations in the effective area thereof and to produce a uniform gas pressure, substantially as described.

2. In a gas governor the combination of a rim supported flexible diaphragm and its valve connections, a weight applied to the diaphragm to balance the gas pressure, a pivotal weight for automatically loading and unloading the diaphragm to compensate for variations in the effective area thereof, and means for supporting the pivotal weight in unstable equilibrium, substantially as described.



3. In a gas governor the combination of a rim supported flexible diaphragm and its valve connections, a weight applied to the diaphragm to balance the gas pressure, and a pivotal weight for automatically loading and unloading the diaphragm to compensate for variations in the effective area thereof, substantially as described.

4. In a gas governor the combination of a weighted rim-supported flexible diaphragm, a spindle and valve connections for the diaphragm, a pivotal weight overhanging its support and provided with lobes straddling the spindle, and links interposed between the weight and spindle, substantially as described.

1,206,283. PROCESS OF TREATING RESINOUS WOODS. HARVEY CARROLL ALFORD, Mobile, Ala., assignor to Joseph M. Walsh and Benjamin Thurley, Mobile, Ala., and H. Carroll Alford, Baldwin county, Ala., trustees. Filed July 11, 1914. Serial No. 850,435. (Cl. 92—2.)

1. In the treatment of resinous woods, the process of subjecting a charge of deresinated wood particles while hot to the action of caustic soda whereby the latter is converted into carbonate, removing said carbonate solution, and adding thereto an oxid or hydrate of an alkaline earth whereby the caustic soda is regenerated.

2. In the treatment of resinous woods, the process of subjecting a charge of wood particles confined in a series of intercommunicating containers, to the action of a hot resin solvent traversing the several containers, driving the solution from the first container into the second container of the series, cutting out the first container from the series, whereby the second becomes the first container of a new series to receive the solvent, adding a new terminal container at the end of said new series for each first container cut out from a preceding series, and repeating the operation until the first container of the original series is reached whereby the process is continuous, and whereby each container receives the solvent at progressively increasing temperature, removing the resin solutions from any series by discharging the same from the last container of such series, distilling the solution, heating the solvent distillate, and utilising the same for subsequent operations.

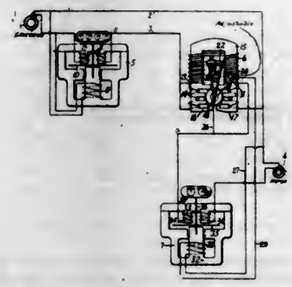
3. In the treatment of resinous woods, the process of subjecting a charge of wood particles confined in a series of intercommunicating containers, to the action of a hot resin solvent traversing the several containers, driving the solution from the first container into the second container of the series, cutting out the first container from the series, whereby the second becomes the first container of a new series to receive the solvent, adding a new terminal container at the end of said new series for each first container cut out from a preceding series, and repeating the operation until the first container of the original series is reached whereby the process is continuous, and whereby each container receives the solvent at progressively increasing temperature, removing the resin solutions from any series by discharging the same from the last container of such series during the passage of the solvent therethrough, and regenerating and heating the solvent for subsequent operations.

4. In the treatment of resinous woods, the process of subjecting the wood while confined in a series of intercommunicating containers to the action of a hot resin solvent traversing the several containers, bringing a fresh container into the series at the end of the first series, advancing the free liquor in the containers under pneumatic pressure until the free liquor is expelled from the first container of the series, discontinuing the pneumatic pressure, cutting off the first container from the series, steaming the contents thereof to expel all adhering solvent and solution, then repeating the operation on the succeeding series in which the fresh container aforesaid temporarily brought into the first series becomes the last member of the series, and the second container of the original series becomes the first member of the second series, and repeating the operation continuously.

5. In the treatment of wood for the manufacture of wood pulp, the process of subjecting a charge of deresinated pulp-wood while hot to the action of caustic soda, removing the resulting sodium carbonate, adding a hydrate of an alkaline earth to said sodium carbonate, thereby regenerating the caustic soda, and removing the resulting alkaline-earth carbonate.

[Claims 6 and 7 not printed in the Gazette.]

1,206,284. MAXIMUM-DEMAND METER. CLAXTON E. ALLEN, Pittsburgh, and EDWARD M. FAY, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 28, 1913. Serial No. 757,356. (Cl. 171—34.)



1. In a measuring system, the combination with a maximum-demand wattmeter and contact members actuated thereby, of means controlled by the contact members for registering the total amount of energy when the maximum demand has a predetermined value.

2. In a measuring system, the combination with a maximum-demand indicating wattmeter having coöperating contact members thereon that are adapted to engage when the maximum demand has a predetermined value, of means controlled by the contact members for registering the total energy consumed when the contact members are engaged.

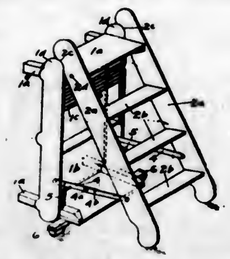
3. In a measuring system, the combination with an indicating wattmeter having a maximum-demand indicator and coöperating contact members attached thereto, of an electro-responsive device controlled by the said contact members to register the energy consumed when the contact members are engaged.

4. In a measuring system, the combination with a maximum-demand indicating wattmeter and contact members operatively connected thereto, of means controlled by the said contact members for registering only when the contact members are engaged.

5. In a measuring system, the combination with an indicating wattmeter, of electro-responsive means having windings that are adapted to be controlled by the indicating wattmeter for registering the total amount of energy when the demand is in excess of a predetermined instantaneous value.

[Claims 6 to 9 not printed in the Gazette.]

1,206,285. COMBINATION SEAT AND LADDER. FLETCHER D. ALLISON, Portland, Oreg. Filed Oct. 22, 1914. Serial No. 867,960. (Cl. 155—21.)



1. A combination seat and ladder, comprising in combination, a lower part of box-like form adapted to set upon the floor, an upper part of box-like form having side members resting edgewise upon the side members of the lower part and projecting beyond the ends thereof, and having between its sides a series of step members, a hinge connection between said parts, whereby they can be opened and set up A-fashion, as a ladder, with the side members of the upper part bearing upon the upper ends of the side member of the lower part, said members having a common end board adapted to form a top step, substantially as described.

2. A combination seat and ladder comprising in combination a lower part of rectangular, box-like form having short feet, an upper part of rectangular frame-like form with a series of step members angularly disposed between the sides of said upper part, said upper part being hingedly connected to the lower part adjacent one end and adapted at a point above the joint to rest upon said lower part when opened as a ladder, a removable top or seat board over said step members, and a jointed brace member connecting the upper and lower parts near their lower ends, when set up as a ladder, substantially as described.

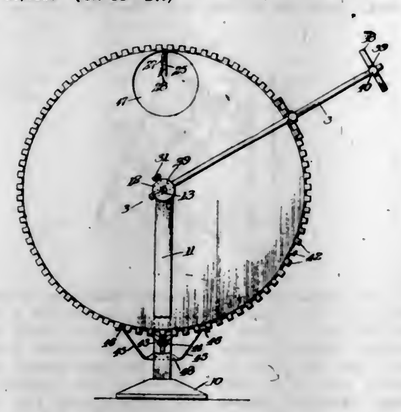
3. A combination seat and ladder comprising a lower part of box-like form adapted to rest upon the floor, an upper part of box-like form resting upon said lower part and hingedly connected thereto adjacent one end, and having step members between its sides, a top or seat board removably mounted over said step members, jointed brace members connecting said upper and lower parts near their lower ends when set up as a ladder, and means for automatically moving said brace members into operating positions when said upper part is lifted, substantially as described.

4. A combination seat and ladder of the character referred to, comprising an upper part of frame-like form with a series of step members arranged crosswise therein, a top or seat board detachably mounted thereupon over said step members, a lower part of box-like form having feet and adapted to receive articles therein, said upper and lower parts being hingedly connected together adjacent one end, and adjustably connected together near their opposite ends whereby to be opened out A-fashion, and auxiliary feet members adapted to be adjusted to laterally projecting positions, for the purpose indicated.

5. A combination seat and ladder of the character referred to, comprising a lower part of box-like form having top and bottom and feet portions, an upper part of rectangular frame-like form with cross step members arranged between its sides, a top or seat board detachably mounted upon said upper part over said step members, said upper and lower parts being hingedly connected adjacent one end and adjustably connected by jointed brace

members near their opposite ends, and springs for automatically moving said brace members into operating positions as said upper part is lifted from said lower part, substantially as described.

1,206,286. TOY MOVING-PICTURE MACHINE. HARRY V. ASHBY, Erie, Pa. Filed Mar. 23, 1916. Serial No. 86,139. (Cl. 88—17.)



1. A toy motion picture machine comprising two uprights, a drum rotatably mounted at the upper ends thereof and adapted to carry a series of motion pictures on its cylindrical surface, an aperture plate, means extending from the upper end of the uprights for supporting said plate adjacent the cylindrical surface of said drum, and coöperating means on the drum and uprights for rotating the drum step by step.

2. A toy motion picture machine comprising a support, a drum rotatably mounted on the support and adapted to carry a series of motion pictures on its cylindrical surface, an aperture plate, a rod projecting from said support and arranged radially of the drum and carrying said plate adjacent the cylindrical surface of said drum, and coöperating means on the drum and support for rotating the drum step by step.

3. In a toy motion picture machine, a rotatable drum adapted to carry on its cylindrical surface a strip having a series of motion pictures thereon, a slot in the cylindrical surface, through which the ends of the strip may be thrust, and means located inside of the drum to hold the said ends in position.

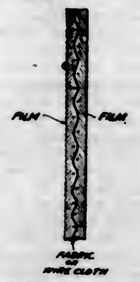
4. In a toy motion picture machine, a drum adapted to carry on its cylindrical surface a series of motion pictures, said drum comprising two pieces, a single piece forming one head, the cylindrical surface, and a serrated flange, and a second piece forming the other head.

5. A toy motion picture machine comprising a base, an upright projecting from the base, a drum rotatably supported on the upright, a member carried by the upright and projecting beyond the circumference of the drum, an aperture plate carried by the said member adjacent the cylindrical surface of the drum, a lens spaced from and substantially alined with the aperture in the plate, and means to rotate the drum step by step.

[Claims 6 to 9 not printed in the Gazette.]

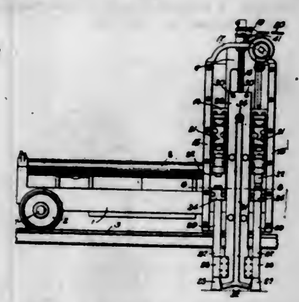
1,206,287. PROCESS OF MAKING PROJECTION-SCREENS. LOUIS J. AUERBACHER, Newark, N. J., assignor to The Federal Screen Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 8, 1915. Serial No. 20,049. (Cl. 154—2.)

1. The art of making a projection screen which consists in forming upon the surface of a sheet of transparent filmlike material a series of refractive optical elements, and attaching to the opposite side of the sheet a sheet of suitable reticulated material.



2. The process of making a projection screen which consists in forming upon the surface of a sheet of transparent film-like material a large number of interruptions of its continuity whereby the refractive power of such surface is promoted, attaching to the opposite surface thereof a sheet of suitable reticulated material, and providing at the back of the latter sheet a second sheet of film.

1,206,288. CHANNELING-MACHINE. ALBERT BALL, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 27, 1907. Serial No. 408,254. (Cl. 125—2.)



1. The method of cutting a channel groove which consists in advancing the cutting tool in substantially the same plane along the rock with the cutting edge resting loosely thereagainst, and at the same time delivering to the opposite end thereof a series of rapidly recurring hammer blows.

2. The method of cutting a channel groove which consists in advancing the cutting tool in substantially the same plane along the rock with the cutting edge resting loosely thereagainst, and at the same time delivering to the opposite end thereof a series of rapidly recurring hammer blows and delivering fluid to said cutting edge.

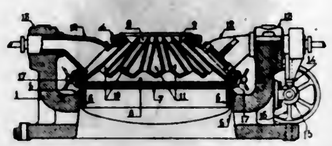
3. The method of cutting a channel groove which consists in advancing the cutting tool in substantially the same plane along the rock with the cutting edge resting loosely thereagainst at such a rate that successive applications of the cutting edges are caused to overlap and at the same time delivering to the opposite end thereof a series of rapidly recurring hammer blows.

4. A channeling machine having a piston hammer tool-actuating device, a cutting tool adapted to receive the impact of the hammer, a traveling support on which the hammer and the tool may be moved along the rock to cut a channel groove and means to hold the cutting edge loosely in contact with the rock during such travel.

5. A channeling machine having a pressure-fluid operated piston hammer, a cutting tool adapted to receive the impact of said hammer, means for advancing the hammer and the tool along the line of cut and means to hold the tool loosely against the rock at the bottom of the cut during such advance.

[Claims 6 to 33 not printed in the Gazette.]

1,206,289. MACHINE FOR DRAWING OUT MACARONI OR LIKE ALIMENTARY PASTES. FILADE BARDUCCI, Naples, Italy. Filed Nov. 4, 1915. Serial No. 59,610. (Cl. 107—14.)



1. In an apparatus for drawing out pastes, in combination a receiver in which the paste is forced, a single removable block having an upper chamber communicating with the mouth of said receiver when said block is in operative position, lower chambers in said block extending beyond the projection of the area of the receiver, passages in said block connecting the upper chamber with the lower chambers to distribute the paste in said lower chambers, dies at the mouths of said lower chambers, a member carrying said block and means in said member on which rest the edges of the dies when the block is in operative position.

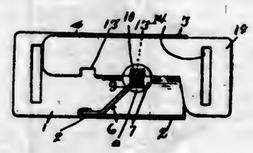
2. In an apparatus for drawing out pastes, in combination a receiver in which the paste is forced, a single removable block having an upper chamber communicating with the mouth of said receiver when said block is in operative position, lower chambers in said block extending beyond the projection of the area of the receiver, passages in said block connecting the upper chamber with the lower chambers to distribute the paste in said lower chambers, a seat at the mouth of each lower chamber, dies arranged in said seats, a member carrying said block and means in said member on which rest the edges of the dies when the block is in operative position.

3. In an apparatus for drawing out pastes, in combination a receiver in which the paste is forced, a single removable block having an upper chamber communicating with the mouth of the receiver when said block is in operative position, lower chambers in said block extending beyond the projection of the area of the receiver, passages in said block connecting the upper chamber with the lower ones to distribute the paste in said lower chambers, dies arranged at the mouths of the lower chambers, a member carrying said block, means for pivoting said block in said member in order to overturn the same, and means in said member on which rest the edges of the dies when the block is in operative position.

4. In an apparatus for drawing out pastes, in combination a receiver in which the paste is forced, a single removable block having an upper chamber communicating with the mouth of the receiver when said block is in operative position, lower chambers in said block extending beyond the projection of the area of the receiver, passages in said block connecting the upper chamber with the lower ones to distribute the paste in said lower chambers, ducts encircling said passages, means for causing heated fluid to circulate in said ducts, dies arranged at the mouths of said lower chambers, a member carrying said block, means for pivoting said block in said member in order to overturn the same and means in said member on which rest the edges of the dies when the block is in operative position.

5. In an apparatus for drawing out pastes, in combination a receiver in which the paste is forced, a single removable block having an upper chamber communicating with the mouth of the receiver when said block is in operative position, lower chambers in said block extending beyond the projection of the area of the receiver, passages in said block connecting the upper chamber with the lower ones to distribute the paste in said lower chambers, ducts encircling said passages, dies arranged at the mouths of the lower chambers, a member carrying the block, hollow pivots journaled in said member and secured to the block at a side of its middle plane to overturn the same, means for causing a heated fluid to circulate through said hollow pivots and the ducts encircling the paste distributing passages, and means on said member on which rest the edges of the dies when the block is in operative position.

1,206,290. OVERSHOE-BUCKLE. CHARLES B. BARKER, Bradford, Ill. Filed May 1, 1916. Serial No. 94,719. (Cl. 24—230.)



In a buckle, the combination with spaced front and rear plates and edge plates all of which are formed from a single sheet of metal, of a fastener plate slidable between the said plates and having rectangular notches in one edge thereof, a locking member slidable transversely between the front and rear plates, said locking member having a rectangular shank and a pair of spaced flanges and a spring extending from one edge plate and having a flat face bearing against a flat face of the shank between the flanges of said locking member to normally maintain the shank within one of the recesses in the fastener plate.

1,206,291. PROCESS OF PREPARING COLORED GOGGLES. JOHN U. BARR, New York, N. Y. Filed Aug. 11, 1915. Serial No. 44,947. (Cl. 91—72.)

1. The process of producing clear transparent colored goggle glasses and the like, which consists in uniformly coating the surface of the glass with pigment in a finely atomized condition and utilizing the transparency of the glass to determine the degree of density of such coating, and simultaneously drying the coating with an independent current of air, and finally fixing the dried pigment coating.

2. The process of producing clear transparent colored goggle glasses and the like, which consists in uniformly coating the surface of the glass with pigment in a finely atomized condition and utilizing the transparency of the glass to determine the degree of density of such coating, and simultaneously delivering independently, air to the surface of the glass in relatively larger volume per unit of time than the atomized pigment to rapidly dry the pigment coating, and finally fixing the coating.

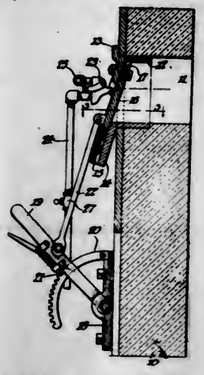
3. The method of making transparent colored goggle glasses which consists in repeatedly spraying a finely atomized pigment uniformly over the surface of the glass by the action of an excess of air pressure, and finally fixing the deposited pigment by subjecting the glass to heat.

4. The method of making transparent colored goggle glasses which consists in repeatedly spraying a finely atomized pigment uniformly over the entire surface of the glass by the action of an excess of air pressure, then uniformly increasing the density of the pigment deposited upon a defined portion of the surface of the glass, and finally fixing the deposited pigment by heat.

1,206,292. FLUID-INJECTING ATTACHMENT FOR FURNACES. WILLIAM N. BEST, New York, N. Y. Filed Mar. 16, 1916. Serial No. 84,545. (Cl. 110—22.)

1. A furnace having an air inlet passage through the wall thereof and from the atmosphere to the fire box, the side walls of said passage flaring inwardly, a flange depending from the upper side of said passage at the outer end of the latter and having a recess in its lower edge, a vaporizer disposed adjacent the outer surface of said

flange and opposite said recess and adapted to deliver a liquid fuel through said passage in a substantially fan-shaped sheet spaced above the lower side of said passage, and a closure slidable upwardly to vary the air inlet space below said vaporizer and adapted to engage with said flange and close said recess.



2. A furnace having an air inlet passage through the wall thereof, a flange depending from the upper side of said passage at the outer end of the latter and having its lower edge spaced above the lower side of said passage, a vaporizer disposed adjacent to the outer surface of said flange adapted to deliver vaporized fuel through said passage closely adjacent the lower side of said flange and a closure slidable upwardly past said vaporizer and into engagement with said flange to close said passage.

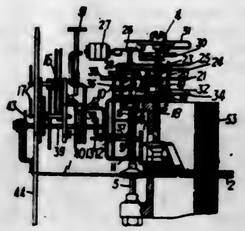
3. A furnace having an air inlet passage through the wall thereof, a cast iron box disposed within said passage and having its outer surface inclined at an angle to the plane of the wall and including two opposed guides, a closure plate slidable between said guides, a lever pivoted to the wall below said passage, a link connecting said lever and said closure plate, and means for locking said lever in position with said closure plate open to any desired extent.

4. A furnace having an air inlet passage through the wall thereof, a cast iron box disposed within said passage and having its outer surface inclined at an angle to the plane of the wall and including two opposed guides, a closure plate slidable between said guides, a lever pivoted to the wall below said passage, a link connecting said lever and said closure plate, means for locking said lever in position with said closure plate open to any desired extent, and means for delivering a substantially fan-shaped jet of expansible fluid through said passage in a line spaced a considerable distance above the lower wall of said passage.

5. A furnace having an air inlet passage through the wall thereof, the opposite side walls of said passage converging at their outer ends, a metal box having converging walls within the passage and serving to prevent outward movement of said box, a flange engaging with the outer surface of the furnace wall to prevent inward movement of the box, said box having a pair of downwardly and outwardly extending spaced guides, a closure plate slidable between said guides to close said passage, and means adjacent the outer surface of said closure plate and adapted to deliver an expansible fluid inwardly through said passage when said closure is open.

1,206,293. ELECTRICAL MEASURING INSTRUMENT. CLARENCE A. BODDIE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 5, 1913. Serial No. 771,883. (Cl. 171—34.)

1. In an electrical measuring instrument, the combination with a main and an auxiliary mechanism, and a single means for simultaneously and independently actuating the said mechanisms, of means interposed between the said mechanisms whereby one controls the operation of the other, and means for returning the controlled mechanism to its initial position under predetermined conditions.



2. In an electrical measuring instrument, the combination with a main and an auxiliary mechanism, and a single means for simultaneously and independently actuating the said mechanisms, of means interposed between the said mechanisms whereby one controls the operation of the other, and means for returning one of the said mechanisms to its initial position under predetermined conditions.

3. In an electrical measuring instrument, the combination with a main and an auxiliary mechanism, and a single means for simultaneously and independently actuating the said mechanisms, of means interposed between the said mechanisms whereby the main mechanism controls the time required for the auxiliary mechanism to operate, and means for returning the said auxiliary mechanism to its initial position under predetermined conditions.

4. A wattmeter comprising two armature elements, means for simultaneously applying thereto similar actuating forces, integrating and indicating mechanisms associated respectively with said armature elements, means whereby the integrating armature element controls the operation of the indicating mechanism, and means for returning one of the armature elements to its initial position when the actuating force is removed.

5. A wattmeter comprising a main and an auxiliary mechanism, means for simultaneously applying said mechanisms similar actuating forces, a controlling mechanism disposed between said main and said auxiliary mechanisms for controlling the operation of said auxiliary mechanism, and a resetting mechanism for returning a part of said auxiliary mechanism to its initial position when the actuating forces are removed.

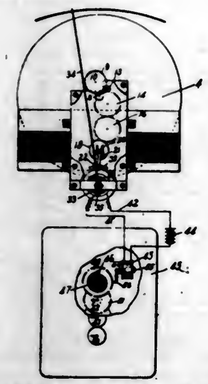
[Claims 6 to 16 not printed in the Gazette.]

1,206,294. MAXIMUM-DEMAND METER. CLARENCE A. BODDIE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 2, 1914. Serial No. 864,585. (Cl. 171—34.)

1. In an electrical measuring instrument, the combination with an indicating maximum-demand meter, of a clock having a time indicating pointer adapted to be continuously connected to the clock, and means controlled by the said maximum-demand meter for controlling the operation of the said pointer to indicate the time of a maximum demand.

2. In an electrical measuring instrument, the combination with a maximum-demand meter and a clock, of a time-indicating device operatively connected to said clock, and means controlled by said maximum-demand meter for controlling the operation of said time-indicating device.

3. In a maximum-demand meter, the combination with a maximum-demand pointer and an operating mechanism therefor, of a clock mechanism, a time-indicating mechanism continuously and yieldingly connected to the said clock mechanism, and means controlled by the operation of the maximum-demand pointer and the said operating mechanism for controlling the operation of the said time-indicating mechanism.

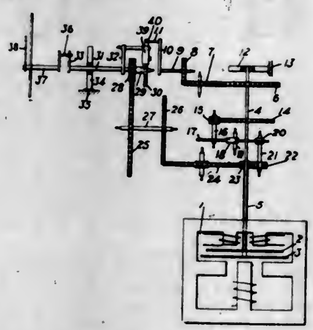


4. In a maximum-demand meter, the combination with a maximum-demand pointer and an operating mechanism therefor, of a clock mechanism, a time-indicating mechanism resiliently connected to said clock mechanism, means for restraining the operation of said time-indicating mechanism, and means operatively connected to said pointer and said operating mechanism for controlling the said restraining means

5. In a maximum-demand meter, the combination with a maximum-demand pointer and an operating mechanism therefor, of a clock mechanism, a time-indicating mechanism resiliently connected to said clock mechanism, electromagnetic means for restraining the operation of the said time-indicating mechanism, and electrical contact members operatively connected to said pointer and said operating mechanism for controlling the said electromagnetic means.

[Claims 6 to 8 not printed in the Gazette.]

1,206,295. ELECTRICAL MEASURING INSTRUMENT. CLARENCE A. BODDIE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 7, 1915. Serial No. 54,591. (Cl. 171—34.)



1. A meter comprising a main and an auxiliary rotatable armature, means for simultaneously applying similar actuating forces to said armatures, an indicating mechanism actuated by the auxiliary armature and controlled by the main armature, a pointer, means actuated by the main armature and adapted to actuate the pointer, and means actuated by the indicating mechanism for controlling the resetting of the said means actuated by the main armature.

2. A meter comprising two rotatable members, means for simultaneously applying similar actuating forces to said members, an indicating mechanism actuated by one member and controlled by the other, a pointer, means actuated by the rotatable member that controls the indicating mechanism and adapted to actuate the pointer, and means actuated by the indicating mechanism for controlling the resetting of the said means that is adapted to actuate the pointer.

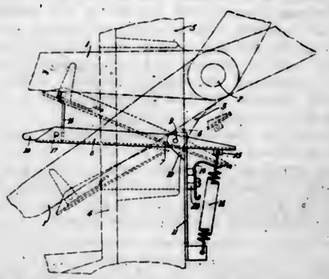
3. A meter comprising a main and an auxiliary rotatable member, means for simultaneously applying similar actuating forces to said members, an indicating mechanism actuated by the auxiliary member and controlled by the main member, a pointer, means actuated by the main member and adapted to actuate the pointer, and means actuated by the indicating mechanism for periodically disengaging the pointer from the means for actuating it.

4. In an electrical measuring instrument, the combination with means for integrating power and means controlled by the integrating means for indicating power, of means actuated by the means for indicating power for controlling the resetting of a portion of the integrating means periodically.

5. A meter comprising two rotatable members, a mechanism actuated by one of the members and controlled by the other, a pointer, means actuated by the rotatable member that controls the said mechanism and adapted to actuate the pointer, and means actuated by the said mechanism for periodically disengaging the pointer from the said means for actuating it.

[Claims 6 to 14 not printed in the Gazette.]

1,206,296. ALARM DEVICE. ADDISON E. BOGGS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 3, 1915. Serial No. 5,877. (Cl. 200—34.)



1. An alarm device for a circuit interrupter comprising a pivotally mounted arm, a member pivotally mounted on the said arm, a stationary contact member and means for yieldingly holding the said arm in engagement with the stationary contact member and the movable member of the circuit interrupter.

2. An alarm device for a circuit interrupter comprising a stationary contact member, a main pivotally mounted arm, a second arm pivotally mounted on one end of the main arm that is adapted to engage the operating lever arm of the circuit interrupter and means for yieldingly holding the said main pivotally mounted arm in engagement with the stationary contact member and the lever arm of the circuit interrupter.

3. An alarm device for a circuit interrupter comprising a stationary contact member, a main pivotally mounted arm having an auxiliary arm pivotally mounted thereon, and a spring for yieldingly holding the said main arm in engagement with the stationary contact member and the operating lever arm of the circuit interrupter, said auxiliary arm being adapted to engage the operating lever arm of the circuit interrupter under predetermined conditions.

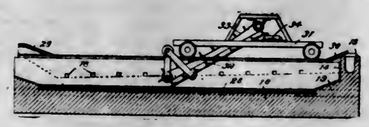
4. An alarm device for a circuit interrupter comprising a stationary contact member, a main pivoted arm hav-

ing an auxiliary arm pivoted thereon, and a spring for yieldingly holding the main arm in engagement with the stationary contact member and the lever arm of the circuit interrupter, said auxiliary arm being adapted to move the main pivoted arm out of engagement with the stationary contact member when it is moved relatively to the main pivoted arm.

5. A device for indicating the movement of a lever arm, comprising a pivotally mounted arm having a pivotally mounted member thereon, a stationary contact terminal, and a resilient member for effecting the engagement of the contact terminal and the pivotally mounted arm under predetermined conditions and for maintaining the pivotally mounted member in engagement with the operating lever arm.

[Claims 6 and 7 not printed in the Gazette.]

1,206,297. METHOD OF OPERATING FILTERS. CHARLES S. BRADLEY, New York, N. Y. Original application filed Dec. 18, 1912, Serial No. 737,455. Divided and this application filed Mar. 13, 1913. Serial No. 754,099. Cl. 210—1.)

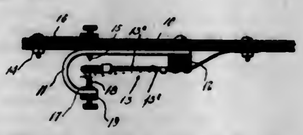


1. The method of filtering, which comprises applying pressure within the interior of the filtering medium simultaneously and equally toward and away from its support, whereby displacing tendency is avoided, while passing fluid only through the filtering medium in a direction away from its support.

2. The method of filtering, which comprises withdrawing the substance through the interior of the filtering medium, and removing cake by applying pressure within the interior of the filtering medium simultaneously and substantially equally toward and away from its support, whereby displacing tendency is avoided, while passing fluid only through the filtering medium in a direction away from its support.

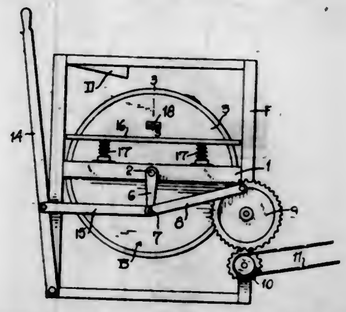
3. Method of operating stationary filters, which comprises introducing a charge, filtering the charge, introducing a scraping mechanism and conveying away all but a small remnant of cake next the filtering medium, introducing a new charge, and blowing the remnant of cake into and mixing it with the new charge.

1,206,298. THERMOSTAT. JOHN H. BRUHN, Spirit Lake, Iowa. Filed June 30, 1914. Serial No. 848,191. (Cl. 200—31.)



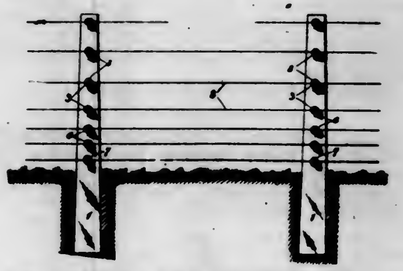
The combination with an insulating base; of a J-shaped conductor plate having its stem secured flat on said base, a contact screw carried by the end of the free arm of the conductor plate and insulated therefrom, a second contact screw extending through the stem of the plate opposite the first screw, and a thermostatic expansion member having one end fixed adjacent the end of the stem of the J-shaped member and its other end located between said screws, said thermostatic members comprising a strip of insulating material and a strip of conducting material fixed together at one end, the conducting strip being longer than the insulating strip and having its remaining end bent around and clamped to the remaining end of the conducting strip.

1,206,299. WASHING-MACHINE. MATT BURNS, Twin Valley, Minn. Filed Sept. 5, 1916. Serial No. 118,504. (Cl. 68—21.)



A washing machine comprising spaced beams, a body interposed between the beams and rotatably supported thereby, means for rocking the body, an elongated strip coacting with one of the beams, expansible means interposed between and secured to the strip and beam and holding said strip in suspension, said expansible means being positioned at opposite sides of the axial center of the body, and a stop carried by an end of the body and arranged for contact with the strip at the limit movement of the body in either direction.

1,206,300. CONCRETE POST. ARTHUR E. CARLINE, Overland, Mo. Filed Jan. 7, 1916. Serial No. 70,760. (Cl. 256—51.)

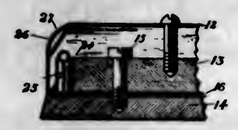


1. The combination with a concrete post body, of a series of fastening devices each comprising a threaded socket, extensions in the form of angular legs extending from one end of said socket, said socket with said extensions adapted to be embedded in the post body, vertical reinforcements in the post body adapted to engage with said angular extensions effectively to anchor said socket in position, a removable pin arranged to be threaded into said socket, and a binding device operable effectively in connection with said pin to clamp the wire in position, substantially as specified.

2. A concrete post comprising a body portion, a series of fastening devices including for each device a socket having a body portion in which is formed a threaded central opening, extensions from the rear face of said socket portion extending rearwardly and laterally, a pin being of the same diameter throughout and having threads throughout its entire length on its exterior surface, a slot in said pin extending to a depth so that when the pin is threaded into the socket the base of the slot will be substantially in the same plane as the exterior face of the socket, and a binding device which threads over the end of the pin and is adapted to retain the wire seated in the slot substantially flush with the face of the post, substantially as specified.

3. A concrete post being provided with a series of devices for fastening wire thereto comprising a socket member having a body portion with a central threaded opening, angular extensions from the rear face of said socket portion, a cylindrical pin threaded exteriorly throughout its length and being provided with a slot in one end thereof adapted to seat in said socket, so that the base of the slot will be substantially flush with the face of the socket, and a nut adapted to be threaded over the extending end of said pin for holding a stretch of wire seated in said slot, substantially as specified.

1,206,301. ELECTRIC FLAT-IRON. EDWARD A. CARSON, Compton, and JOSEPH ATHERTON, Redondo, Cal. Filed Apr. 26, 1916. Serial No. 93,761. (Cl. 177—311.)



1. The combination of an electric heating element, a pressure plate thereover, the pressure plate having an opening, a cover inclosing the heating element and the pressure plate, an incandescent electric conductor connected to the heating element and extending through the pressure plate opening, said conductor being located entirely within said cover, and an observation port formed in the cover, whereby said incandescent conductor may be observed.

2. The combination with an electric heating element, an incandescent conductor electrically connected with the heating element, a cover adapted to inclose said element, said conductor being located entirely within said cover, and a transparent observation window in said cover, whereby the incandescent condition of said conductor may be observed.

3. The combination with an electric heating element, an incandescent electrical conductor electrically connected in series with the heating element, a pressure plate secured over the heating element, the pressure plate having an opening adapted to allow the incandescent conductor to extend upwardly through the pressure plate, an insulation lining fitted within the opening through said pressure plate, a cover adapted to inclose the heating element and pressure plate, an observation port formed through the cover and a transparent closure fitted over the observation port whereby the condition of the incandescent conductor may be observed when a current is passing through the heating element.

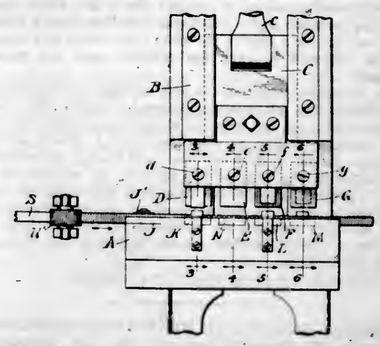
1,206,302. CORRUGATED-FASTENER MACHINE. SPENCER C. CARY and HERMAN H. BRAND, New York, N. Y., assignors to Cary Manufacturing Co., Brooklyn, N. Y., a Corporation of New York. Filed Oct. 8, 1914. Serial No. 865,678. (Cl. 10—28.)

1. In a corrugated fastener machine, the combination with means for feeding a length of corrugated stock, of a swaging die operating to compress an edge portion of said corrugated stock, thereby producing embryo teeth with fillets, and means for removing said fillets.

2. In a corrugated fastener machine, the combination with means for feeding a length of corrugated stock, of a swaging die having means acting simultaneously upon the respective faces of said corrugated stock for compressing an edge portion thereof to produce embryo teeth with fillets therein, and means for cutting out said fillets.

3. In a corrugated fastener machine, the combination with means for feeding a length of corrugated stock, of means for compressing an edge portion of said corrugated stock to produce embryo teeth thereon.

4. In a machine for producing corrugated fasteners, the combination of means for swaging an edge portion of corrugated stock to produce oppositely inclined surfaces thereon, and cutting means positioned for operation upon the swaged edge for cutting metal therefrom on definite lines to produce well defined saw teeth.



5. In a machine for producing corrugated fasteners, the combination of swaging means operating with compressive force upon an edge portion of a corrugated stock for displacing the metal and producing inclined fillets upon the respective faces of said stock, and cutting dies operating upon the successive portions of said corrugated stock for removing the fillets from the respective face portions, thereby resulting in saw teeth the points of which are in the median line of the corrugated stock.

[Claims 6 to 19 not printed in the Gazette.]

1,206,303. LOOM-SHUTTLE. GEORGE M. CHENEY, Southbridge, Mass., assignor to Litchfield Shuttle Company, Southbridge, Mass., a Corporation of Massachusetts. Filed Oct. 23, 1915. Serial No. 57,581. (Cl. 139—46.)



1. In a shuttle having one of its walls apertured to form an eye and slotted to provide a thread passage leading thereto, thread engaging instrumentalities in said eye comprising a hollow thread delivery member slotted to permit the introduction of the thread through said threading passage and a thread guiding member having an extension engaging the said delivery member and adapted to be adjusted rotarily in respect thereto to vary the abruptness of the angle formed by the thread in passing over said thread guiding member and thereby to modify the tension upon the running thread.

2. In a shuttle having an eye and slotted to provide a thread passage leading thereto, thread guiding instrumentalities in said eye comprising a hollow thread delivery member slotted to permit the introduction of the thread through said threading passage and a rotarily movable thread guiding member adapted to be adjusted to vary the tension upon the running thread, said members having interlocking means adapted to limit the adjustment whereby the thread guiding passage may not be closed.

3. In a shuttle having an eye and slotted to provide a threading passage leading thereto, a thread eye comprising a hollow substantially cylindrical delivery member having a longitudinal threading slot to permit the introduction of the thread and a recessed portion, and a relatively movable member having a thread guiding tongue seated in said recess adapted by adjustment to vary the tension upon the running thread.

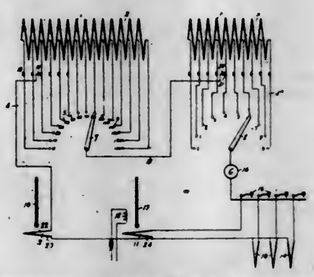
4. In a shuttle having an eye and slotted to provide a threading passage leading to the under portion of said eye, thread guiding instrumentalities comprising a curved delivery member presenting a longitudinal opening com-

municating with said threading passage and having an extension embedded in the wood of the shuttle and the wall thereof recessed to receive the coöperating thread guiding member and a relatively movable thread guiding member having a tongue seated in said recess and adapted to be adjusted to vary the tension upon the running thread.

5. A shuttle comprising a body portion having an aperture extending transversely thereof through the shuttle body to form an eye hole and slotted to provide a threading passage leading to said eye hole, a thread delivery member fitting in said eye hole and having an extension embedded in the body of the shuttle, the wall of the delivery portion opposite the threading slot being cut away to form a recess, a screw threaded member mounted in the aperture forming an extension of the eye hole and having a thread guiding tongue seated in the recess of said delivery eye.

[Claims 6 to 9 not printed in the Gazette.]

1,206,304. ELECTRICAL MEASURING INSTRUMENT. LEWIS W. CHUBB, Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 2, 1915. Serial No. 178. (Cl. 175—183.)



1. A measuring instrument comprising a plurality of thermo-couples so arranged as to constitute a potentiometer conductor having a plurality of equal-potential sections.

2. A measuring instrument comprising a plurality of thermo-couples so arranged as to constitute a potentiometer conductor.

3. A measuring instrument comprising a plurality of thermo-couples arranged to constitute a potentiometer conductor and means for comparing therewith the potential of an unknown source of potential.

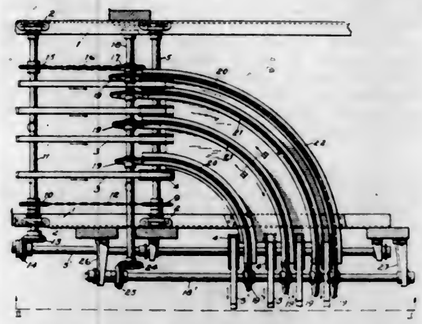
4. A potentiometer comprising a potentiometer conductor and a thermo-couple having a thermometer adjacent thereto, said thermo-couple being so arranged as to determine the drop in potential along the said potentiometer conductor.

5. A potentiometer comprising a thermo-electric potentiometer conductor and a thermo-couple having a thermometer adjacent thereto, said thermo-couple being so arranged as to determine the drop in potential along the said thermo-electric potentiometer conductor.

[Claims 6 to 13 not printed in the Gazette.]

1,206,305. CORNER FOR CONVEYERS. JAMES T. COWLEY, Minot, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Mar. 22, 1915. Serial No. 16,038. (Cl. 193—2.)

1. A corner for conveyers comprising a corner piece having grooves therein the opposed sides of each of which grooves are concentrically arcuate, rotatable members upon substantially opposite sides of said corner piece, flexible elements in engagement with said grooves and guided thereby in lines which are at variance with those which said rotatable members would normally cause said elements to travel in, in the absence of such guiding provisions, and means to drive said rotatable members and flexible elements.



2. The combination of two conveyers traveling in lines at variance to each other, with corner forming means to connect said conveyers and deliver material from one to the other, said means comprising a plurality of independently movable endless flexible elements, spaced rotatable members upon which said elements rise, said members having a tendency to cause the portions of said elements lying therebtween to move in determined paths, guiding means acting independently on each of said flexible elements to laterally flex said portions and to compel them to travel in paths different from said determined paths, said different paths being concentrically curved and at the extremities thereof, being substantially in alinement with the respective conveyers, said guiding means being out of the way of articles being carried by said flexible elements and maintaining the load carrying portions of adjacent elements equi-distant from each other at substantially all times.

3. In mechanism for conveying articles around a curve lying in a determined plane, the combination of a plurality of separate endless flexible elements to directly support said articles, the article-carrying parts of said flexible elements moving in concentric curves in said plane to effect translation of said articles around said curve while maintaining the points of contact between said parts and the articles supported thereby substantially fixed, fixedly located means to separately engage and laterally guide portions of said elements for movement through their respective curved courses in said plane, means to guide other portions of said elements for movement through arcuate courses in planes angularly disposed with respect to that aforesaid, and driving means for said mechanism.

4. In mechanism for conveying articles around a curve lying in a determined plane, the combination of an endless flexible element which by its movement in said plane effects a translation of said articles around said curve, a grooved support below said plane and parallel thereto for holding the article moving portion of said flexible element in said plane, said support having an arcuate groove therein which opens upwardly toward said plane to present the curved lateral walls of said groove to the respective sides of said element to definitely locate the latter, means to guide other portions of said element for movement through arcuate courses in planes which are angularly disposed with respect to that aforesaid, and means to drive said mechanism.

5. In mechanism for conveying articles around a curve lying in a determined plane, the combination of a plurality of co-acting endless flexible elements which by concentrically curvilinear movements thereof in said plane effect a translation of said articles around said curve, tapering rolls at the ends of said curve around which said endless elements pass respectively for forward movement in the direction in which said articles travel and for return, grooved means to individually support said separately guide each of said elements, independently of any other, for travel curvilinearly in both said forward and return movements, the forward traveling portions of said flexible elements projecting up above said grooved means where in contact therewith, and means to drive said mechanism.

1,206,306. METALLIC PACKING AND METHOD OF MAKING THE SAME. JOHN CRANE, Chicago, Ill., assignor to Crane Packing Company, Chicago, Ill., a Partnership consisting of Frank E. Payne and John Crane. Filed May 29, 1916. Serial No. 100,572. (Cl. 154—2.)



1. A packing consisting of a resilient core, sheet metal wound thereon, and a tension member interposed between successive turns of said sheet metal for insuring a compact product and for reinforcing it mechanically, said core being of such cross sectional area, as to permit substantial compression of said packing and subsequent enlargement thereof as the pressure is relieved.

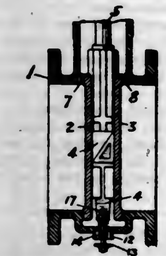
2. A packing comprising a rubber core, a helical roll of metal foil about said core, and lubricating means between the adjacent turns thereof.

3. A new article of manufacture consisting of rings of rectangular cross section formed of metal foil rolled about an expansible core and an outer coating of non-abrasive metal protecting and further reinforcing said inner metal.

4. A packing consisting of a resilient core, non-abrasive metal wrapped around said core, and an outer metal coating wrapped around said non-abrasive metal, said outer coating being also non-abrasive and serving to protect said inner metal.

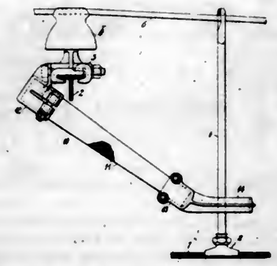
5. The method of manufacturing packing which consists in helically winding a strip of metal foil on to a rubber core, winding a protecting covering of harder metal over said first metal, molding the roll thus formed to the desired cross section, and bending the product thus formed to the desired outline.

1,206,307. AIR-VALVE FOR WATER-GAS APPARATUS. JAMES A. P. CRISFIELD, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 27, 1915. Serial No. 24,355. (Cl. 137—5.)



An air valve for gas apparatus comprising the combination of a valve casing, a valve structure slidable in the casing and comprising spaced gates or disks and their complemental interposed wedge-mechanism, a fitting provided with a spider and inserted through the casing and located between said gates or disks, a relief valve coöperating with the outer end of the fitting and having a headed stem, a spring interposed between the head of the stem and the spider and tending to close the valve, and means carried by the wedge-mechanism and adapted to operate on said stem to open the relief valve.

1,206,308. OVERHEAD STRUCTURE FOR TROLLEY-CONDUCTORS. CHARLES H. DAVIS, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 7, 1913. Serial No. 766,178. (Cl. 191—41.)



1. In an overhead structure for electric railways, the combination with a trolley conductor and supporting means therefor, of a steadying arm disposed in substantially symmetrical relation to the median plane of said conductor.

2. In an overhead structure for electric railways, the combination with a trolley conductor and supporting means therefor, of a steadying arm disposed in substantially symmetrical relation to the median plane of said conductor and adapted to prevent lateral movement thereof.

3. In an overhead structure for electric railways, the combination with a trolley conductor and supporting means therefor, of a steadying arm the longitudinal median line of which is substantially disposed in a common plane with said conductor and adapted to allow movement thereof in said common plane only.

4. In an overhead structure for electric railways, the combination with a messenger cable and suspending means associated therewith, of a trolley conductor secured to said suspending means, and a steadying arm the longitudinal median line of which is substantially disposed in the common plane of said messenger cable and said trolley conductor.

5. In an overhead structure for electric railways, the combination with a messenger cable and suspending means associated therewith, of a trolley conductor secured to said suspending means, and a steadying arm the longitudinal median line of which is substantially disposed in the plane of said conductor and which embodies portions inclosing said suspending means.

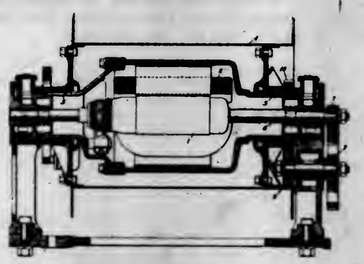
[Claims 6 to 10 not printed in the Gazette.]

1,206,309. MOTOR FOR LOCOMOTIVE GATHERING-REELS. JOSEPH LE CONTE DAVIS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 2, 1912. Serial No. 681,268. (Cl. 242—91.)

1. The combination with a cable and a gathering reel therefor, of an electric motor for continuously exerting a unidirectional torque upon said reel and having an armature upon which a predetermined load-varying voltage is impressed and a field magnet winding upon which a differing voltage is impressed.

2. The combination with a cable and a gathering reel therefor, of an electric motor for continuously exerting a pull on said cable in one direction that varies with the winding speed thereof and having an armature, a resistor in series therewith, and a field magnet winding in shunt circuit relation to the armature and a portion of the resistor.

3. The combination with a locomotive gathering reel, of an electric motor comprising an armature, a resistor connected in series therewith and a field magnet winding connected in shunt relation to the armature and a portion of the resistor and adapted to exert a decreasing torque on said reel as the locomotive speed increases in one direction and an increasing torque thereon as the locomotive speed increases in the opposite direction.



4. The combination with an electric motor mounted transversely upon a movable body and comprising an armature, a resistor connected in series relation therewith and a field-magnet winding entirely connected between the free terminal of the armature and a permanent intermediate point in the resistor, of a mechanical load that turns the motor armature during its lateral movement in one direction and is operated by the motor during its lateral movement in the opposite direction.

5. The combination with a locomotive gathering reel, of an electric motor comprising an armature, a resistor connected in series therewith and a field magnet winding connected in shunt relation to the armature and a portion of the resistor and adapted to exert a decreasing torque on said reel as the locomotive speed increases in a direction to unreel the cable and an increasing torque thereon as the locomotive speed increases in a direction to reel the cable.

[Claims 6 to 13 not printed in the Gazette.]

1,206,310. AUXILIARY SIGHT FOR FIREARMS. EDMUND A. DEBUCHY, West Hoboken, N. J. Filed Nov. 22, 1915. Serial No. 62,724. (Cl. 33—53.)



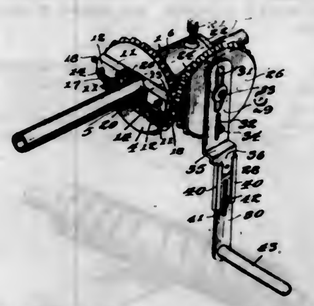
1. A rifle having an ordinary notched sight and an auxiliary sight comprising a perforated plate and a frictional clamp adapted to secure it in position with the perforation coinciding with the notch of said sight.

2. The combination with a notched sight for firearms of a perforated front and back plate formed integral and adapted to engage upon said sight and coöperate therewith as and for the purpose set forth.

3. The combination with a notched sight for firearms of a perforated front and back plate formed integral and adapted to engage upon said sight with said perforation coinciding with the notch thereof and a clamp adapted to secure said device in operable position upon said sight.

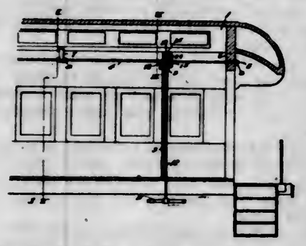
1,206,311. PIPE-CUTTER. CHARLES E. DILLINGER, Orcutt, Cal. Filed Feb. 7, 1916. Serial No. 76,741. (Cl. 81—190.)

In a pipe cutter, a body comprising a sleeve, a head comprising a beveled toothed wheel secured for rotation upon the sleeve, said head having a central opening communicating with the sleeve, longitudinally extending guides arranged in pairs upon the head, toothed racks between the guides, a chuck for each of the guides, a spring pressed pawl carried by each of the chucks and engaging between the teeth of the rack bars, spring pressed cutter members carried by the chucks, means for adjusting the said members, a beveled toothed wheel



journaled angularly of the sleeve and co-acting with the teeth of the rotary head, and an adjustable handle for the said beveled toothed wheel.

1,206,312. TRAIN-OPERATING SYSTEM. IRA S. DOWNING, Indianapolis, Ind. Filed Aug. 31, 1915. Serial No. 48,185. (Cl. 188—88.)



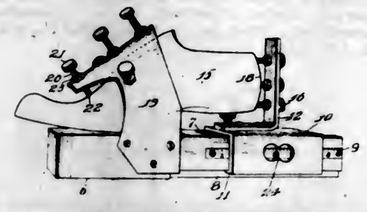
1. A train operating system comprising a signal valve, a brake valve, an operating rod, connections between the valves and the rod, means whereby the rod may be rotated in either direction to operate one valve or the other, the said means comprising a pair of oppositely disposed hand levers extending at substantially right angles to the rod.

2. A train operating system comprising in combination a signal valve, a brake valve, means for normally holding the valves in closed position, crank arms for the valves adapted to be rotated in opposite directions to open the valves, a single operating rod for the valves, and lost motion connections between the operating rod and the valves whereby operation of the rod in one directions opens one valve without operating the other valve.

3. A train operating system comprising a rod extending longitudinally of the car and provided with spaced handles whereby the rod may be rotated in either direction, a brake valve for controlling the operation of the brakes, a signal valve for controlling the operation of a signal, and connections between the valves and the rod whereby rotation of the rod in one direction actuates one of the valves and rotation in the other direction actuates the other valve.

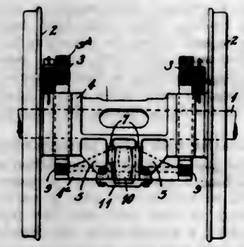
1,206,313. LAST-GAGE. WILLARD L. DUNBAR, St. Louis, Mo., assignor to Dunbar Pattern Company, Brockton, Mass. Filed Feb. 24, 1914. Serial No. 820,494. (Cl. 33—3.)

A last gage comprising an elongated rectangular base provided with an elongated recess located in a portion of the top of said base, a yoke mounted on the front of the base and firmly secured to the sides thereof, said base having recesses formed near the bottom thereof; a slidable member located on the base, its ends projecting into the last named recesses; an adjustable screw located on



the member and projecting into the first named recess and a plurality of adjustable screws located on the yoke and also on the slidable member, substantially as specified.

1,206,314. ELECTRIC LOCOMOTIVE. GEORGE M. EATON, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 7, 1911. Serial No. 601,320. (Cl. 105—259.)



1. A railway vehicle comprising a wheel axle, journals and journal boxes therefor and a frame, said journal boxes being united and embodying means located in the central longitudinal plane of the locomotive and materially below the axle centers for preventing relative lateral movement of said frame and said boxes.

2. A railway vehicle comprising wheel axles, journals and journal boxes, a body frame supported on said journals and provided with jaw projections in the central longitudinal plane of the locomotive, said journal boxes being united and embodying projections located one on each side of the central vertical plane of the axle adapted to engage the jaw projections of the frame materially below the center of the wheel axles.

3. In a railway vehicle, the combination with side frames having U-shaped pedestals and wheel axles, of journal boxes united in pairs to form a single structure for each axle, of means secured to the side frames and coöperating with the journal structure for preventing relative lateral movement of said frames and said journal structure.

4. In a railway vehicle, the combination with side frames having U-shaped pedestals and wheel axles, of journal boxes united in pairs to form a single structure for each axle, and a pedestal binder structure coöperating with the journal structure in the central longitudinal plane of the locomotive for laterally restraining the frames.

5. In a railway vehicle, the combination with side frames having U-shaped pedestals and wheel axles, of journal boxes united in pairs to form a single structure for each axle, of a pedestal binder structure extending laterally of the locomotive, secured to the side frames and provided with laterally extending projections in the central longitudinal plane of the locomotive, said journal structure being provided with coöperating jaw projections for laterally restraining the locomotive frame.

[Claims 6 to 30 not printed in the Gazette.]

1,206,315. RAZOR-BLADE SHARPENER. LEO EHRLICH, St. Louis, Mo., assignor to Twinplex Sales Company, composed of Herbert S. Gardner, St. Louis, Mo. Filed Dec. 14, 1914. Serial No. 877,088. (Cl. 51—16.)



1. In a razor-blade stropper, the combination of a pair of revoluble stroppers, a blade-holder, a rotatably-operating handle, a gear-connection between said handle and stropers including a mutilated gear to rotate said stroppers alternately first both in one and the same direction and then both in the opposite direction, and a connection between said handle and the blade-holder adapted to rock the holder to apply the blade-edge alternately to the stroppers, substantially as described.

2. In a razor-blade stropper, the combination of a pair of revoluble cylindrical stroppers, a blade-holder, a rotatable operating-handle, a gear connection between said handle and stroppers including a mutilated gear to rotate said stroppers alternately first both in one and the same direction and then both in the opposite direction, and a friction-drive connection between said handle and blade-holder adapted to rock the holder to apply the blade-edge alternately to the stroppers, substantially as described.

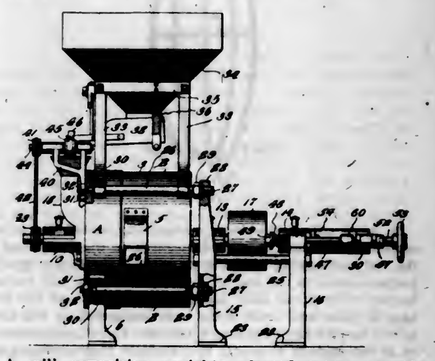
3. In a razor-blade stropper, the combination of a pair of revoluble stroppers, a blade-holder, a train of gears connecting said stroppers together, a slip-drive connection between one of said gears and said holder, a rotatable handle, and a connection between said handle and train of gears, including a mutilated gear, substantially as described.

4. In a razor-blade stropper, the combination of a pair of revoluble stroppers, a blade-holder, a train of intermeshing gears connected to said stroppers and blade-holder, a rotatable handle, and a mutilated gear operatively associated with said gear-train and rotated by said handle, substantialy as described.

5. In a razor-blade stropper, the combination of a pair of revoluble stroppers, a blade-holder, a train of intermeshing gears connected to said stroppers and blade-holder, two of such gears being thicker than the others, a mutilated operating-gear positioned to intermesh alternately with said thicker gears, and an actuating-handle for rotating said mutilated gear, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

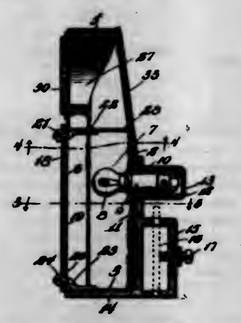
1,206,316. CORN-MILL. CHARLES S. ELLIS, Ore Hill, N. C. Filed Jan. 24, 1912. Serial No. 673,051. (Cl. 83—8.)



A mill comprising uprights adapted to be movably mounted upon a support, a bed stone supported by the up-

rights, a frame mounted in fixed position opposite the movable uprights, a runner stone journaled for rotation in the frame, means for adjusting the runner stone toward the bed stone, means for resiliently holding said adjusting means and the runner stone toward the bed stone, rods screw threaded in the frame and disposed transversely across the bed stone beyond the edges thereof, said rods being journaled in the uprights and restrained against longitudinal movement in the same and means for locking the rods to the frame.

1,206,317. LICENSE-DISPLAY APPARATUS. ELMER E. FAHLER, Whitten, Iowa. Filed Feb. 9, 1915. Serial No. 7,010. (Cl. 40—133.)



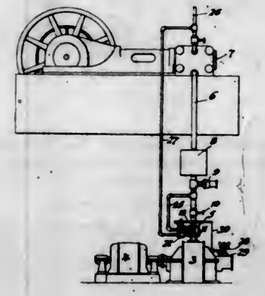
A sign display device comprising a casing having top, front, back, bottom and end walls, said casing being open at its lower front portion, an apertured partition dividing the interior of the casing into upper and lower compartments, a lens mounted in the front wall of the casing for the emission of light rays from the upper compartment, a lamp mounted upon the rear wall of the casing within the lower compartment in line with the aperture in said partition, bolts carried by the bottom wall and partition, and a sign display panel detachably connected with said bolts and closing the opening at the front of the casing.

1,206,318. LAMP-CHIMNEY CLEANER. ROBERT C. FARRELL, Kintyre, N. D. Filed May 17, 1916. Serial No. 98,083. (Cl. 15—42.)



A lamp chimney cleaner comprising a handle, a rod carried by the handle, a plate secured to the upper end of the rod and having radial arms carried thereby, a similar plate secured to the rod adjacent the handle, coil springs having their upper ends secured to the arms of the first named plate and their lower ends connected to the arms of the second named plate, a circular coil spring connected to the springs at points intermediate their ends, as and for the purpose set forth.

1,206,319. MOTIVE-FLUID-SUPPLY CONTROLLER FOR TURBINES. WARREN B. FLANDERS, Pittsburgh, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 25, 1909. Serial No. 474,087. (Cl. 137—144.)



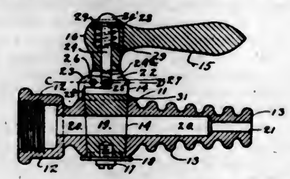
1. A motor, a primary fluid supply, a secondary fluid supply, pipes leading from both fluid supplies to the motor, valves in said pipes, an actuating lever having a rigid connection with one valve and a connection with the other valve permitting a limited movement of the lever independent of said valve and a speed responsive device on the motor for actuating the lever to unseat both said valves.

2. In combination with a low pressure turbine, a source of low pressure fluid supply communicating with the inlet port of the turbine, a source of high pressure fluid supply communicating with said inlet port, a valve for controlling the delivery of fluid from said low pressure source to said inlet port, a second valve for controlling the delivery of fluid from said high pressure source to said inlet port, a lever for controlling the operation of both of said valves, a load responsive governor driven by the motor for actuating the lever, and a lost motion connection between said lever and the second valve whereby said second valve is opened subsequent to the opening of the first mentioned valve.

3. In combination with a low pressure turbine, a low pressure source of fluid supply, a high pressure source of fluid supply, means for establishing communication between the low pressure source of fluid supply and the inlet port to the turbine, a valve located in said means between the low pressure source of supply and the inlet port, conduit means communicating with the high pressure source of supply and said first mentioned means for augmenting the fluid delivered from the low pressure source of supply, to the inlet port with fluid from the high pressure source of supply, a second valve located in said conduit, means between the high pressure source of supply and the first mentioned means for controlling the delivery of augmenting fluid, a load responsive governor, and means positively actuated by the governor for positively actuating both of said valves, and a lost motion connection between said positively actuated means and the second valve whereby the second valve is opened subsequently to the opening of the first mentioned valve.

4. In combination with a low pressure turbine, a low pressure source of fluid supply communicating with the working passage of the turbine, a valve located between said source and the turbine, a high pressure source of fluid supply communicating with the working passage of the turbine, a second valve located between said high pressure source and the turbine, a speed responsive governor, means positively actuated by the governor for positively actuating both of said valves, and a lost motion connection between said means and the second valve, whereby the second valve is opened subsequently to the opening of the first mentioned valve.

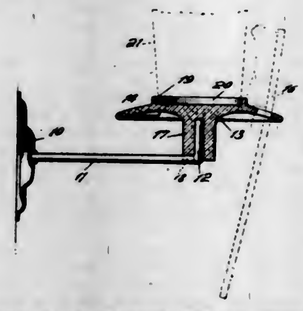
1,206,320. SAFETY-COCK FOR GAS-RANGES. SIDNEY GITTLER, Brooklyn, N. Y. Filed Mar. 9, 1916. Serial No. 83,065. (Cl. 137—7.)



1. In a safety cock for gas ranges a seating, a plug, a pair of ratchets on said seating, the teeth in each of said ratchets being inclined in opposite directions, a single groove or notch at the meeting point of said ratchets, a click, pivotally connected to said plug and adapted to fit the grooves between the teeth of said ratchets and into said single groove or notch, a controlling rod slidably connected to said plug and operatively connected to said click, thereby keeping said click in position in said grooves, and a means for resisting the motion of said rod in such a direction as to remove said click from said grooves.

2. In a safety cock for gas ranges a pair of ratchets having their teeth laterally extending and inclined in opposite directions, a click, adapted to fit the grooves between the teeth of said ratchets, and a controlling means adapted to keep said click in position in said grooves, thereby allowing the closing of said gas cock and resisting the opening of said gas cock.

1,206,321. TOOTH-BRUSH HOLDER. CHARLES HAMMERFAHR, New York, N. Y. Filed Dec. 29, 1914. Serial No. 879,510. (Cl. 211—14.)

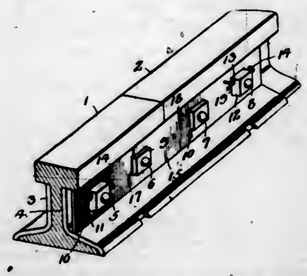


1. A device of the character described, comprising a base adapted to be attached to a support, a substantially L-shaped rod having one portion extending horizontally and secured to the base substantially centrally thereof and a shorter upright portion, a holder member of glass having a boss provided with an opening to fit over the short part of the rod and provided with a slot adapted to fit over the body of the rod to prevent rotation of said member, said holder member having a plurality of openings arranged around the same and adapted to support tooth brushes, and a flange forming a socket for an object arranged within the space occupied by the openings.

2. A device of the character described, comprising a base adapted to be attached to a support, a substantially L-shaped rod having one portion extending horizontally and secured to the base substantially centrally thereof, and a holder member having a boss provided with an opening to fit over the smaller part of the rod and provided with a slot adapted to fit over the body of the rod to prevent rotation of said member, said holder member having a plurality of openings arranged around the same and adapted to support tooth brushes.

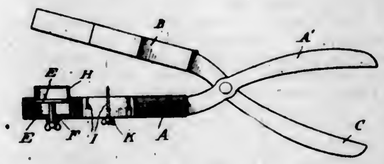
3. A device of the character described, comprising a base adapted to be attached to a support, a substantially L-shaped rod having one portion extending horizontally and secured to the base substantially centrally thereof and a shorter upright portion, a holder member having a boss provided with an opening to fit over the smaller part of the rod and provided with a slot adapted to fit over the body of the rod to prevent rotation thereof, said holder member having a plurality of openings arranged around the same and adapted to support tooth brushes, and a flange forming a socket for an object arranged within the space occupied by the openings.

1,206,322. NUT-LOCK. WALTER HARPER, Webster, Pa. Filed June 28, 1916. Serial No. 106,436. (Cl. 151—54.)



In combination, a fish plate, bolts passing therethrough, and supporting nuts, one of which has a through opening, a locking bar having openings snugly receiving the nuts, a pin arranged in the opening of said nut and abutting said bar and a leaf spring having one end gripped between the nut with the opening and said fish plate and its other end resiliently engaging said bar for holding the latter in a tight engagement with said pin.

1,206,323. DEVICE FOR MARKING EARS OF ANIMALS. WILLIAM P. HARPER, Abilene, Kans. Filed May 7, 1915. Serial No. 26,544. (Cl. 128—27.)

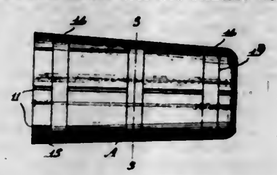


A device for marking ears of animals consisting of a die plate with grooves formed in one face thereof, each groove having an aperture extending through the jaw from the bottom of said recess, blades seated in said recesses and engaging the bottom walls thereof and each blade provided with an integral threaded screw portion extending through the aperture, winged nuts upon the threaded ends of the screw portions, said jaw having a projecting portion which is provided with a recess, a cutting die mounted therein and having a threaded shank portion mounted in a threaded aperture leading into the wall of the recess in which the die is positioned, and a cover hinged to the projecting part of said jaw.

1,206,324. SURGICAL APPLIANCE. LEWIS B. HART, Plaquemine, La. Filed Apr. 20, 1916. Serial No. 92,456. (Cl. 128—28.)

A device of the character described comprising a sleeve formed from resilient material having a slit throughout

the length and intersecting the wall thereof in a plane parallel to its axis which does not coincide with a plane



radial thereto, and annular members detachably embedded in the outer surface of the sleeve transversely thereof at intervals to hold the slit closed.

1,206,325. RESILIENT TIRE. CLYDE B. HEATH, Brooksburg, Ind. Filed May 12, 1916. Serial No. 97,125. (Cl. 152—8.)



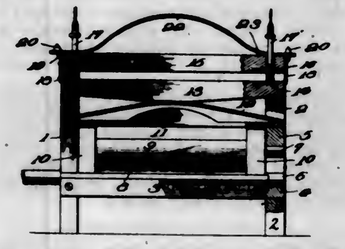
1. A resilient tire comprising a base member of annular formation, resilient tread supporting means embodying annular members having a fixed relation to the base member and each formed with a circular series of spring tongues arranged in spaced relation to each other, the tongues of said members being arranged in pairs and being curved toward each other and connected at their outer extremities by a hinge pin, and a resilient tread carrier for each pair of spring tongues, said tread carrier being supported by said spring tongues, and means for preventing displacement of the tread carrier in relation to said tongues.

2. A resilient tire comprising a base member of annular formation, resilient tread supporting means embodying annular members having a fixed relation to the base member and each formed with a circular series of spring tongues arranged in spaced relation to each other, the tongues of said members being arranged in pairs and being curved toward each other and connected at their outer extremities by a hinge pin, a resilient tread carrier for each pair of spring tongues, said tread carrier being supported by said spring tongues, means for preventing displacement of the tread carrier in relation to said tongues, said means comprising arms extending inwardly from each tread carrier, and arm retaining means in connection with which said arms are slidable radially with respect to the center of the wheel.

3. A resilient tire comprising a base member of annular formation, resilient tread supporting means embodying annular members having a fixed relation to the base member and each formed with a circular series of spring tongues arranged in spaced relation to each other, the tongues of said members being arranged in pairs and being curved toward each other and connected at their outer extremities by a hinge pin, a resilient tread carrier for each pair of spring tongues, said tread carrier being supported by said spring tongues, means for preventing displacement of the tread carrier in relation to said tongues, said means comprising arms extending inwardly from each tread carrier, arm retaining means in connection with which said arms are slidable radially with respect to the center of the wheel, and positioning lips extending inwardly from the central portion of the tread carrier and straddling the corresponding portions of said spring tongues.

4. A resilient tire comprising a base member of annular formation, resilient tread supporting means embodying annular members having a fixed relation to the base member and each formed with a circular series of spring tongues arranged in spaced relation to each other, the tongues of said members being arranged in pairs and being curved toward each other and connected at their outer extremities by a hinge pin, a resilient tread carrier for each pair of spring tongues, said tread carrier being supported by said spring tongues, means for preventing displacement of the tread carrier in relation to said tongues, said means comprising arms extending inwardly from each tread carrier, and arm retaining means in connection with which said arms are slidable radially with respect to the center of the wheel, said arm retaining means consisting of keeper rings fastened to the base member and having looped portions through which said arms are slidable.

1,206,326. CLOTHES-WRINGER. JOHN F. HEMENWAY, New York, N. Y., and FITZHUGH C. SPEER, Madison, N. J.; said Speer assignor to said Hemenway. Filed May 4, 1916. Serial No. 95,473. (Cl. 68—32.)



1. A clothes wringer comprising a frame having pressure rolls and pressure means mounted therein, a top bar for said frame having pressure screws for adjusting said pressure means, headed studs carried by the side bars of said frame, and a bowed spring carried by the top bar having slots in the ends thereof provided with reduced end portions coöperating with the headed studs for holding and releasing said top bar.

2. A clothes wringer comprising a frame having pressure rolls and pressure means mounted therein, a top bar for said frame having pressure screws for adjusting said pressure means, members secured to the side bars of said frame having vertically disposed headed studs, and a bowed spring slidably mounted on the pressure screws of the top bar having slots with reduced portions coöperating with the headed studs for holding and releasing said top bar.

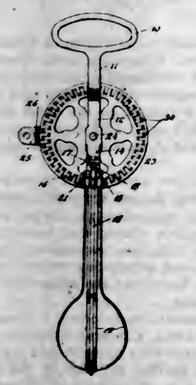
3. A clothes wringer comprising a frame having pressure rolls and pressure means mounted therein, a top bar for said frame having pressure screws for adjusting said means, members secured to the side bars of said frame having vertically disposed headed studs, and a bowed spring having slots in the ends thereof embracing said headed studs for normally holding said top bar in position within the wringer frame, the slots of said bowed spring being enlarged to receive the headed studs for allowing said top bar to move vertically within the wringer frame.

4. A clothes wringer comprising a frame having a movably mounted top bar carrying pressure screws, headed studs carried by the wringer frame, and a bowed spring carried by said top bar having substantial key-hole shaped slots formed in the ends thereof coöperating with said headed studs for holding said top bar in position with said frame, and for allowing said top bar to move vertically by the lateral movement of the ends of said spring.

5. A clothes wringer having pressure rolls and pressure means mounted therein, a movable top bar carrying pressure screws coöperating with said pressure means, members secured to the side bars of said frame having vertically disposed headed studs extending into a plane above the top bar, a bowed spring carried by the top bar, provided with substantially horizontally disposed ends having substantially key-hole shaped slots coöperating with the headed studs of the wringer frame for holding and releasing said top bar.

[Claims 6 and 7 not printed in the Gazette.]

1,206,327. GEAR-WHEEL. SIDNEY C. HILLS, Torrington, Conn., assignor to The Turner & Seymour Manufacturing Co., Torrington, Conn., a Corporation of Connecticut. Filed Nov. 4, 1915. Serial No. 59,561. (Cl. 74—41.)



1. A gear wheel comprising a sheet of material and radial teeth projecting alternately from opposite surfaces of said sheet, said teeth having their opposite ends integrally connected with said sheet.

2. A gear wheel comprising a sheet of material, radial strips projecting outwardly from said sheet to form teeth and a peripheral rim integrally connected with said teeth.

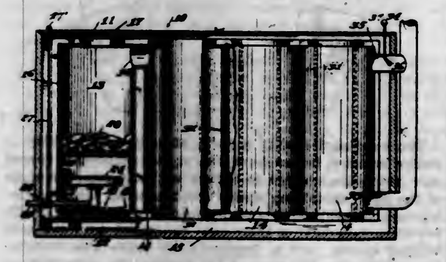
3. A gear wheel comprising a sheet of material, radial strips arched outwardly and projecting alternately from opposite surfaces of said sheet to form teeth and a peripheral rim integrally connected with all of said teeth.

4. A gear wheel comprising a sheet of material and radial strips having their intermediate portions bulged outwardly alternately in opposite directions to form teeth and their opposite ends integral with said sheet.

5. A gear wheel comprising a main portion, a peripheral rim and a series of strips each of which is formed integrally with said main portion and peripheral rim and bulged outwardly intermediate thereof to form teeth.

[Claims 6 to 8 not printed in the Gazette.]

1,206,328. GAS-BURNER HEATER. JOHN R. HOLMES, Jr., Pasadena, Cal. Filed Feb. 28, 1916. Serial No. 80,936. (Cl. 126—91.)

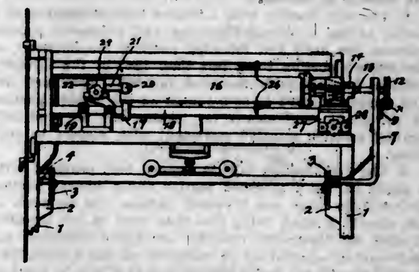


1. A heater comprising a casing having a register on top, an air inlet near the bottom of said casing, a burner chamber and a plurality of vertical tubular radiator sections mounted within said casing and in spaced relation thereto, a vertical air pipe open at both ends, centrally disposed in each of said radiator sections, each pair of adjacent radiator sections being connected by a passage extending throughout the height of said sections, a passage connecting the top of said burner chamber with the top of the adjacent radiator section, a waste gas off-take flue leading from the last radiator section, a burner in the lower end of said burner chamber and valve controlled means for supplying fuel to said burner.

2. A heater comprising a casing having a register, an air inlet in said casing at a point remote from said register, a burner chamber and a plurality of vertical tubular radiator sections mounted within said casing and in spaced relation thereto, a vertical air pipe open at both ends, centrally disposed in each of said radiator sections, each pair of adjacent radiator sections being connected by a passage extending throughout the length of said sections, a passage connecting the top of said burner chamber with the top of the adjacent radiator section, a waste gas off-take flue leading from the bottom of the last radiator section, a burner in the lower end of said burner chamber and valve controlled means for supplying fuel thereto.

3. A heater comprising a burner chamber, a plurality of tubular radiators, a tube extending through each of said radiators open at the top and bottom so that air may pass therethrough, said burner chamber communicating at the top with the top of the adjacent radiator, each pair of adjacent radiators being connected by a passage extending throughout the height thereof, a burner in said burner chamber, means for supplying fuel to said burner, means for supplying air to said burner, a waste gas off-take leading from the lower end of the radiator farthest from said burner, and a register plate extending over the top of the heater.

1,206,329. PANTOGRAPH ENGRAVING-MACHINE. WILLIAM H. HOPE, Providence, R. I. Filed Nov. 20, 1915. Serial No. 62,587. (Cl. 33—22.)



1. In a pantograph engraving machine, a supporting structure, a carriage movable thereon, a frame on the carriage having its ends formed with vertical grooves, a bracket in each groove of the frame, a wire having its ends adjustably secured to the brackets, a vertically adjustable bearing, a shaft journaled in the bearing, a grooved wheel on the shaft about which the wire is engaged, a clutch carried by the shaft and adapted to engage one end of a roll, a rotatably mounted wheel on which the opposite end of the roll is adapted to rest, spaced wheels adapted to engage the opposite sides of the roll, and means for varying the spacing of said spaced wheels.

2. In a pantograph engraving machine, a supporting structure, a carriage movable thereon, a frame on the carriage having its ends formed with vertical grooves, a bracket in each groove of the frame, a wire having its ends adjustably secured to the brackets, a vertically adjustable bearing, a shaft journaled in the bearing, a grooved wheel on the shaft about which the wire is engaged, a clutch carried by the shaft and adapted to en-

gage one end of a roll, and means adapted for supporting the opposite end of the roll.

3. In a pantograph engraving machine, a roll to be engraved, a clutch adapted to engage the roll, a shaft supporting the clutch, a grooved wheel fixed on the shaft, a wire engaged about the wheel, and a relatively movable stylus carrying frame to which the ends of the wire are secured.

4. In a pantograph engraving machine, the combination with a roll to be engraved, of a support therefor including a rotatable wheel on which the roll is adapted to rest, and spaced wheels adapted to engage the sides of the roll to hold it in position.

5. In a pantograph engraving machine, the combination with a roll to be engraved, of a support therefor including a rotatable wheel on which the roll is adapted to rest, spaced wheels adapted to engage the sides of the roll to hold it in position, and means to vary the spacing of said spaced wheels.

[Claims 6 to 10 not printed in the Gazette.]

1,206,330. BOLT AND NUT-LOCK. GEORGE W. HOWELL, Greensburg, Pa. Filed Feb. 12, 1913. Serial No. 747,921. (Cl. 151—32.)



1. The combination with a bolt provided with a shank having a threaded portion and a smooth portion, the diameter of the smooth portion being less than that of the threaded portion, of an internally threaded reversible combined nut and washer adapted to be screwed over the threaded portion and mounted on the smooth portion of the shank and held against accidental displacement by the threads of the bolt.

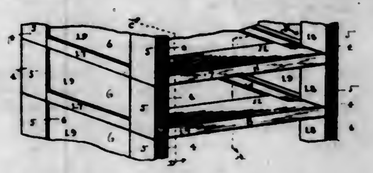
2. The combination with a headed bolt provided with a shank having a threaded portion and a smooth portion between the head and threaded portion, the diameter of the smooth portion being less than that of the threaded portion, an internally threaded reversible combined nut and washer adapted to be mounted on the smooth portion of the shank, and means for locking the nut and bolt against relative rotative movement with respect to each other.

3. The combination with a headed bolt provided with a shank having a threaded portion and a smooth portion between the head and threaded portion, the diameter of the smooth portion being less than that of the threaded portion, an internally threaded reversible combined nut and washer adapted to be mounted on the smooth portion of the shank, and a locking key in a slot in the bolt and provided with a projecting end bendable over the nut.

4. In a device of the character described, the combination with a bolt having its shank formed with a threaded portion and a smooth portion and with a longitudinally extending key-way and a radial recess, of a reversible combined nut and washer adapted to be mounted in the smooth portion of the shank, and a locking key having a portion entered in the key-way and a bent portion entered in the recess, said nut and washer formed with notches and an end of the key entered in a notch.

1,206,331. METAL-CABINET CONSTRUCTION. DAVID E. HUNTER, Muskegon, Mich., assignor to The Shaw-Walker Company, Muskegon, Mich., a Corporation of Michigan. Filed Oct. 17, 1914. Serial No. 867,062. (Cl. 45—78.)

1. In metal-cabinet construction, a beat metal connector having an upright and a lateral extension, a corner post secured directly to the connector's upright on the outer side of the same, and a sill having flanges embracing said extension.



2. In metal-cabinet construction, a connector having an upright with lateral flanges angularly spaced, such flanges having horizontal extensions whose faces lie in the planes of said flanges respectively, a corner post secured directly to the connector's upright on the outer side of the same, and sills secured to said extensions respectively and having inwardly-turned flanges mitered to meet in a common horizontal plane.

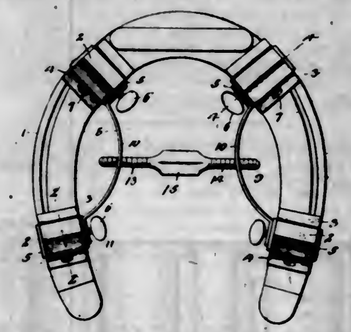
3. In metal-cabinet construction, a connector having an upright with lateral flanges angularly spaced, such flanges having horizontal extensions, a corner post having lateral flanges angularly spaced and secured to the outside of the connector's flanges respectively, and sills having faces outside of said extensions respectively, the edge of the corner post's flange and the edge of the face of the adjacent sill abutting.

4. In metal-cabinet construction, a connector consisting of an upright having a lateral extension, a corner post secured to the connector's upright, and a sill having a face portion abutting against the edge of the corner post, the sill having also a horizontal flange extending behind the corner post.

5. In metal-cabinet construction, a connector consisting of an upright having a lateral extension, a corner post secured to the connector's upright, and a sill having a face portion abutting against the edge of the corner post, the sill having also flanges embracing such extension and extending behind the corner post.

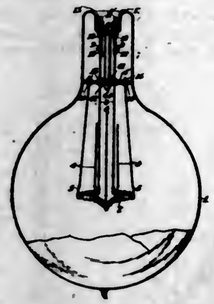
[Claims 6 to 12 not printed in the Gazette.]

1,206,332. HORSESHOE-CALK. JUSTUS KNEELAND, Hackensack, N. J. Filed May 31, 1916. Serial No. 100,834. (Cl. 168—29.)



The combination with a shoe, of calks for the shoe, a holder member for each of the calks comprising spaced ears which are adapted to engage with the opposite edges of the shoe, sustaining means for the calks, said sustaining means comprising two oppositely disposed inwardly bowed springs having their ends connected with the calk holding means, and a longitudinally adjustable member associated with the springs for forcing the same toward the inner edges of the shoe or to bring the said springs away from the said edges of the shoe, substantially as described.

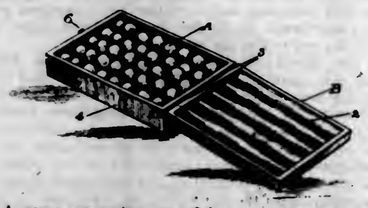
1,206,333. ELECTRIC LAMP. FREDERICK G. KEYES, East Orange, N. J., assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Mar. 6, 1914. Serial No. 822,863. (Cl. 176—40.)



1. In a tungsten lamp, a luminant of tungsten in the form of a crimped ribbon and leads connected with the terminals of said ribbon.

2. In a tungsten lamp, a luminant of tungsten in the form of a crimped ribbon having its ends brought into proximity to each other and forming a filament having angles at intervals and leads connected with the terminals of the ribbon.

1,206,334. GAME. ERNEST KOHLER, Alameda, Cal. Filed Apr. 3, 1916. Serial No. 88,524. (Cl. 46—21.)



1. A game apparatus comprising a rectangular shaped case having a plurality of parallel grooves formed in its upper face extending longitudinally from end to end, and two sets of different colored balls adapted to be placed in the grooves.

2. A game apparatus comprising a rectangular shaped case having a plurality of parallel grooves formed in its upper face extending longitudinally from end to end, two sets of different colored balls adapted to be placed in the grooves, and means for supporting the case on an incline.

3. A game apparatus comprising a rectangular shaped case having a plurality of parallel grooves formed in its upper face extending longitudinally from end to end, said grooves being semi-circular in cross-section, and two sets of different colored balls adapted to be placed in the grooves.

4. A game apparatus comprising a rectangular shaped case, a cover section hingedly secured to said case, said cover section when opened out being adapted to be supported on an incline, a plurality of parallel grooves formed on the interior face of the cover section extending from end to end, said grooves being semi-circular in cross-section, a plurality of white balls contained in the case and a similar number of red balls contained in the case, said balls being adapted to be placed in the parallel grooves formed on the interior face of the cover section substantially as described.

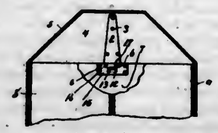
1,206,335. BOTTLE. OLE O. KOLSTAD, Duluth, Minn. Filed Feb. 16, 1916. Serial No. 78,746. (Cl. 215—28.)

A bottle comprising a body having a neck joined therewith, there being provided at the point of juncture between the neck and the body a seat, the neck having between its ends a swelled portion and a constricted outlet end, a ball located completely within the swelled portion



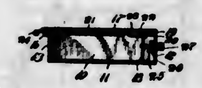
of the neck and adapted to engage the seat, and a cork located in the swelled portion of the neck and adapted to engage the constricted end thereof when the bottle is turned to an inverted position.

1,206,336. FASTENER FOR CRATES. HENRY B. KOPF, New Haven, Conn. Filed July 12, 1915. Serial No. 39,263. (Cl. 70—3.)



An anchor-plate adapted to be applied to the inner faces of the ends of the cover of a pineapple-crate, the said plate being formed at its projecting lower end with locking-prongs, and with a locking-tongue positioned between the said prongs, the said tongue being removably fastened to the ends of the crate-body and the said prongs being driven thereinto.

1,206,337. MATCH-BOX. JOSEPH F. KUCERA, Warrensburg, Mo. Filed Apr. 11, 1916. Serial No. 90,450. (Cl. 46—41.)



1. A match box, a hinged cover therefor, a slide adjustably mounted on the under side of the cover and adapted to coöperate with means on the box to hold the cover in closed position, one end of the slide being disposed exteriorly of the box to provide a finger grip, to manipulate the slide, and means for concealing said finger grip.

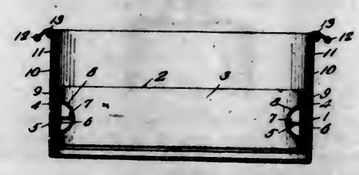
2. A match box, a hinged cover therefor, a flange secured to the front wall of the box and adapted to lie beneath said cover, a slide adjustably mounted upon the under side of the cover and having an offset terminal adapted to be positioned beneath said flange to hold the cover closed, the opposite end of the slide being disposed exteriorly of the box to provide a finger grip to manipulate said slide, and means for concealing the latter.

3. A match box, a cover hinged upon one wall thereof, a slide adjustably mounted upon the under side of the cover and adapted to coöperate with means on the box for holding said cover in closed position, one end of said slide projecting from between the cover and said wall of the box to provide a finger grip to manipulate said slide, and said cover having one edge projecting beyond said wall of the box for concealing said finger grip.

4. A match box, a hinged cover therefor, a slide adjustably mounted upon the underside of the cover and

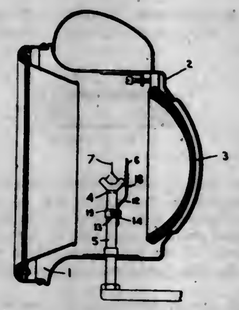
adapted to coöperate with means on the box to hold the cover in closed position, one end of the slide projecting beyond the rear side of the box to provide a finger grip to manipulate the slide, means for concealing said finger grip, and means at the front side of the box for pricking the fingers in an attempt to open the box from said side.

1,206,338. CLOTHES-BOILER DRAINER. ANDREW JOHN LAMBEL, Clements, Kans. Filed Mar. 16, 1916. Serial No. 84,637. (Cl. 68—30.)



The combination with a clothes boiler, of a draining receptacle slidably mounted therein, said receptacle having spring arms secured to its ends, said arms terminating at their lower ends in horizontal bars for movement into and out of the receptacle, the ends of said receptacle being provided with slots for slidably receiving said bars, housings mounted interiorly of the ends of the receptacle for receiving the bars when said receptacle is engaged in the boiler, handles secured to the ends of the receptacle, second handles slidably connected to the first named handles, means carried by the second named handle for detachably engaging the upper edge of the boiler wall to hold the receptacle suspended within the boil. said arms being adapted to flex outwardly when the receptacle is moved upwardly, whereby said bars will engage the boiler wall to hold the receptacle in its elevated position.

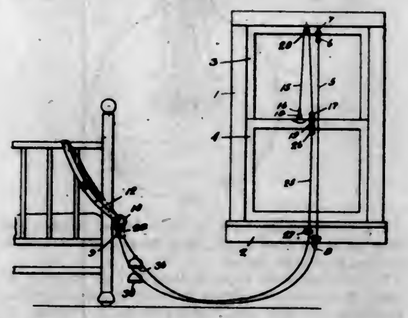
1,206,339. DIMMER FOR HEADLIGHTS. JOHN J. LAWLESS, Medford, Mass. Filed Feb. 11, 1916. Serial No. 77,774. (Cl. 240—48.2.)



1. A dimmer for acetylene headlights comprising a shield portion having a shape approximately that of the acetylene frame and provided on its upper portion with a plurality of light-diffusing apertures of progressively-decreasing size from the top edge of the shield and in its lower portion with horizontally extending light-diffusing slits, the portion of the shield above each slit having a downwardly-inclined light-reflecting surface which reflects the light through said slit, and means to clamp said shield to the burner directly back of the flame.

2. A dimmer for acetylene headlights comprising a shield portion having a shape approximately that of the acetylene flame and provided above its horizontal diameter with a plurality of apertures and below its horizontal diameter with a plurality of horizontally-extending slits, said apertures and slits breaking up and diffusing the light from the flame, and means to clamp said shield to the burner directly back of the flame.

1,206,340. MEANS FOR RAISING AND LOWERING WINDOW-SASHES. HARRY V. LAWRENCE, Boston, Mass. Filed Sept. 7, 1916. Serial No. 118,910. (Cl. 16—58.)



1. The herein described means for moving the upper and lower sashes of a window into open and closed positions consisting of an operating-cord connected to the top rail of the upper sash, an operating-cord connected to the top rail of the lower sash, said operating-cords being extended over pulleys to a distant point, and an intermediate cord extended over a pulley and connected at its ends, respectively, to the bottom rail of the upper sash, and to the top rail of the lower sash.

2. The herein described means for moving window sashes into open and closed positions consisting of an operating-cord detachably connected to the top rail of an upper sash, and an operating-cord detachably connected to the top rail of the lower sash, said operating-cords being extended over pulleys to a distant point, and an intermediate cord having snap-hooks at its ends, and screw-eyes secured, respectively, to the bottom rail of the upper sash and to the top rail of the lower sash to which the ends of said cord are detachably connected, and a pulley over which said cord passes.

3. The herein described means for moving window sashes into open and closed positions, comprising two operating cords having end connections, and connections on the upper and lower sashes adapting said cords to be detachably connected therewith, and an intermediate cord having end connections at both ends, and connections on the upper and lower sashes adapting said intermediate cord to be detachably connected with both sashes, the several connections on the sashes being arranged to admit of a shifting of the cords to provide for moving either sash alone.

1,206,341. SAFETY-ALARM FOR STEAM-BOILERS. JAMES A. LEAVITT, Lompoc, Cal. Filed May 3, 1916. Serial No. 95,196. (Cl. 236—16.)

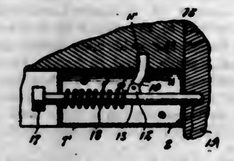
A safety device for boilers comprising a boiler and a crown sheet having registering apertures, a recessed threaded plug having threaded connection with one of the apertures and provided with ducts leading from the bottom of the recessed portion thereof through the end of the plug, the recess in the plug adapted to contain a fusible metal, a plunger having a head movable within said recess and adapted to rest upon the fusible metal therein, a cylinder having threaded connection with the aperture in the wall of the boiler and centrally apertured for the reception of the stem of said plunger, a valve in the cylinder connected to the upper end of the plunger stem, the walls of the cylinder being provided with apertures, one above and one below the valve, pipes communicating with

apertures of the cylinder, a threaded plug fitted to the upper end of the cylinder and centrally apertured, a spring-pressed plunger movable through said cap in the



cylinder and adapted to bear against the valve in the latter, and a valved pipe communicating with one of said pipes which communicates with the cylinder.

1,206,342. SASH-LOCK. CHRISTINA O. LINBORG, Olean, N. Y. Filed June 22, 1915. Serial No. 35,734. (Cl. 16—52.)

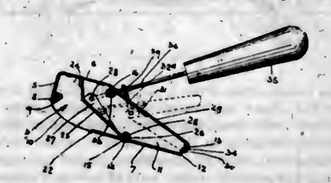


1. In combination, an upper window sash provided with a vertical series of sockets, a lower window sash, a window frame provided with a vertical series of sockets, the axis of which intersects the axis of the sockets of the upper window sash, a casing secured to the upper edge of the lower sash and provided with three openings, a bolt slidably mounted in a pair of openings and adapted to engage the sockets in the window frame, a link pivotally connected to said bolt and slidably mounted in the remaining openings of the casing, said locking element cooperating with the socket in said upper sash, a spring encircling said bolt and adapted to force the bolt and link into engagement with the socket, and a rounded tongue formed on said casing and contacting with the locking element for guiding the same through one of the openings in the casing.

2. In a window sash lock, a casing secured to the upper edge of the lower sash, a bolt slidably mounted in said casing, a locking element pivoted to said bolt and passing through the opening in said casing, the wall of the opening being formed into a curved guide bearing upon said locking element and means for giving reciprocatory movement to said bolt.

1,206,343. CRUMB-COLLECTOR. WALTER H. MCCONNAUGHEY, Pittsburgh, Pa. Filed Jan. 26, 1915. Serial No. 4,514. (Cl. 65—20.)

1. A crumb collecting device comprising a tray having an opening at its front and an opening in its top at the rear thereof, said tray further having a groove in the upper face of its bottom, a trap member arranged within said tray and extending from the forward portion of the top to and normally snugly fitting in the groove in the bottom thereof, said trap member having end flanges below the top thereof, a shiftable lid normally closing said top opening and having its forward portion normally extending into the trap and capable when the lid is moved to open position to engage the trap member to prevent movement of the latter, said lid having its forward edge reinforced, a bail extending in said tray and engaging in said flanges for pivotally supporting said trap member, a handle connected to the bail, and means carried by the bail for pivotally supporting the lid exteriorly of the tray.



2. A crumb collecting device comprising a tray having an opening at its front and an opening in its top at the rear thereof, said tray further having a groove in the upper face of its bottom, a trap member arranged within said tray and extending from the forward portion of the top to and normally snugly fitting in the groove in the bottom thereof, said trap member having end flanges below the top thereof, a shiftable lid normally closing said top opening and having its forward portion normally extending into the trap and capable when the lid is moved to open position to engage the trap member to prevent movement of the latter, said lid having its forward edge reinforced, a bail extending in said tray and engaging in the upper end of said flanges for pivotally supporting said trap member, a handle connected to the bail, said lid having side flanges normally positioned exteriorly of the sides of the tray and each of said flanges formed with a forward projection, and means carried by the bail and engaging with said projections for pivotally supporting said bail.
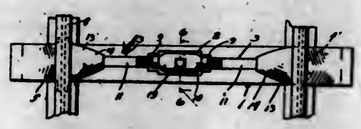
3. A crumb collector comprising a tray having an opening at its front and its top provided with an opening at the rear thereof, a shiftable lid normally closing said rear opening, a trap member formed of an upper and lower portion angularly disposed with respect to each other, said trap member positioned in the tray and extending from the forward portion of the top to the rear portion of the bottom of the tray, said trap member having end flanges, a bail having its ends extending through the sides of the tray and through said flanges for pivoting said member, a handle connected to the bail, and means carried by the bail for pivotally supporting the lid, said means arranged exteriorly of the tray.

4. A crumb collector comprising a tray having an opening at its front and its top provided with an opening at the rear thereof, a shiftable lid normally closing said rear opening, a trap member formed of an upper and lower portion angularly disposed with respect to each other, said trap member positioned in the tray and extending from the forward portion of the top to the rear portion of the bottom of the tray, said trap member having end flanges, a bail having its ends extending through the sides of the tray and through said flanges for pivoting said member, a handle connected to the bail, and a pair of rearwardly extending arms carried by the bail and having angularly disposed ends for pivotally supporting the lid.

1,206,344. COMBINED RAILWAY TIE AND RAIL CLAMP. WILLIAM S. MCCULLEY, Huntsville, Ala. Filed Apr. 4, 1916. Serial No. 88,860. (Cl. 238—5.)

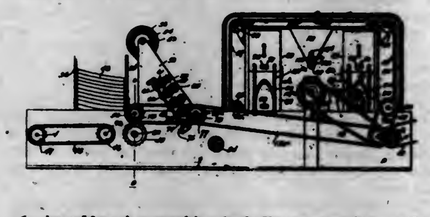
1. The combination with a tie having clamping jaws fixed to its upper surface, said tie having a recess formed centrally thereof, a turn buckle rotatably mounted in the recess, guides formed in the tie and having their inner ends opening into the recess, the outer ends of said guides being provided with overhanging shoulders, bars slidably

mounted in the guides, jaws carried by the bars, said bars having their outer ends provided with beveled shoulders for engaging the overhanging shoulders when the last named jaws are in clamped engagement with the rails, and means for adjustably connecting the bars to the turn buckle.



2. The combination with a tie, guides formed longitudinally in the upper surface of the tie, said guides having their outer ends provided with overhanging shoulders, bars slidably mounted in the guides and having their outer ends formed with beveled shoulders, means for adjustably connecting the adjacent inner ends of the bars and serving to slide said bars in the guides, clamping jaws carried by the tie, and clamping jaws carried by the bars and adapted to coact with the first named jaws to clamp the rails to the tie.

1,206,345. ADDRESSING-MACHINE. LEVI MCMILLAN, Wilmington, N. C. Filed Aug. 28, 1915. Serial No. 47,724. (Cl. 216—2.)



1. An addressing machine including means for continuously conveying single articles to be addressed through the machine in successive order, label affixing mechanism comprising, a web supply, means for severing a label from said web supply, means for supplying adhesive to said label, a pressure roller to affix said label to the article, means for feeding the label with the adhesive applied thereto to the pressure roller, stencil strips to be applied to the article over the label, means to print a name to said stencil strip, and means to remove the stencil strips subsequent to the printing operation.

2. An addressing machine, including means for continuously conveying single articles to be addressed through the machine in successive order, label affixing mechanism comprising, a web supply, means for severing a label from said web supply, means for applying adhesive to a portion of said label, a pressure roller to affix the label to the article, means engaging that portion of each label free from adhesive to guide and feed said labels to said pressure roller, a plurality of stencil strips, means to be brought into operation subsequent to the affixing of the label to place a stencil strip thereover, means to imprint an address through the stencil strip, and means to take up the stencil strip following the printing.

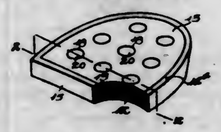
3. An addressing machine including means for continuously conveying articles to be addressed through the machine in successive order, label affixing mechanism comprising, a web supply, means for severing a label from said web supply, means for supplying adhesive to the label, a pressure roller to affix the label to the article and spread the adhesive, means for feeding the label with the adhesive applied thereto to said pressure roller, means for placing a stencil strip upon the article to be carried therewith, a printing roller to imprint an address through the stencil, and means to take up the stencil following the printing operation.

4. An addressing machine including means to engage and carry single articles through the machine in successive order, label affixing mechanism comprising, a web supply, means for partially severing a label from said web supply, means for supplying adhesive to said label, a pressure roller to affix the label to the article, means for feeding the label with the adhesive applied thereto to said pressure roller, and means for driving said article carrying means at a greater rate of speed than said label feeding means to complete the severance of the label.

5. An addressing machine including means to engage and carry single articles through the machine in successive order, address printing means operating upon the articles during passage through the machine, means supporting the articles during passage and printing, and mechanism for adjusting said supporting means relatively to the article carrying means to accommodate articles of different thicknesses.

[Claims 6 to 23 not printed in the Gazette.]

1,206,346. RUBBER TREAD FOR FOOTWEAR. ANDREW MCTERNEN, Andover, Mass. Filed July 11, 1916. Serial No. 108,719. (Cl. 36—35.)



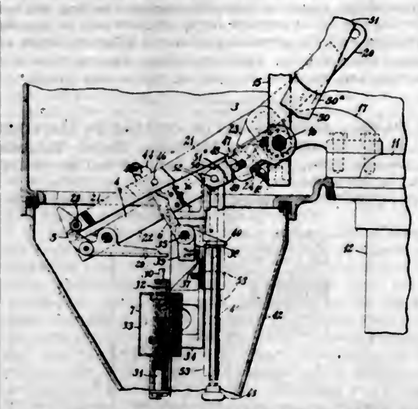
1. A rubber tread for foot wear, comprising a relatively soft and elastic body of vulcanized material having a bottom tread face and a top face, and a relatively hard nail-engaging member of vulcanized material seated on said top face, united to the latter by vulcanisation, and provided with holes, the said body being provided with integral anchoring studs equal in height to the thickness of the said member and united by vulcanisation to the margins of said holes to provide an additional practically positive union between the said body and member and permit the said member to be located wholly at one side of said body.

2. A rubber tread for foot wear, comprising a relatively soft and elastic body of vulcanized material having a tread face and integral anchoring studs on its opposite face, and a relatively hard nail-engaging member of vulcanized material spaced by a portion of the body from said tread face, and composed of two superimposed layers having coinciding orifices of different areas and collectively constituting stepped holes receiving said anchoring studs, the contacting surfaces of said body and its studs and the corresponding surfaces of the nail-engaging member including the stepped margins of the holes therein being united by vulcanisation.

3. A rubber tread for foot wear, comprising a relatively soft and elastic body of vulcanized material having a tread face and integral anchoring studs on its opposite face, and a relatively hard nail-engaging member of vulcanized material spaced by a portion of the body from said tread face, and composed of two superimposed layers having coinciding orifices forming holes receiving the anchoring studs, one of said layers being of larger area than the other to form a stepped margin.

1,206,347. CIRCUIT-INTERRUPTER. HOWARD G. MACDONALD, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 15, 1912. Serial No. 677,866. (Cl. 175—267.)

1. In a circuit interrupter, the combination with relatively movable contact members, an operating mechanism for said movable members embodying a pivotally mounted compound operating lever, means associated with said lever for latching the component members thereof together, and means for restraining said compound lever in its closed position, of means for releasing said latching means and a cam member associated with said restraining means and coöperating with one of said component members for subsequently releasing said restraining means.



2. In a circuit interrupter, the combination with relatively movable coöperating contact members, an operating mechanism for the movable members, a compound operating lever associated with said mechanism, and means for restraining said lever in its closed position and for connecting the component parts thereof together, of means for automatically releasing the component parts of said compound lever in succession and for manually releasing the compound lever as a unit.

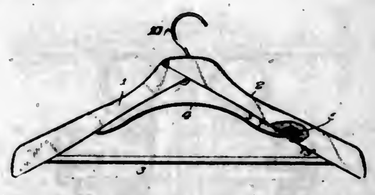
3. In a circuit interrupter, the combination with relatively movable coöperating contact members, an operating mechanism for the movable members, and a compound operating lever associated with said mechanism and comprising main and auxiliary levers, of means for latching said main and auxiliary levers together, means for releasing said latching means, a second means for latching said compound lever in its closed position and a cam member forming a part of said second latching means and normally adapted to engage a portion of said auxiliary lever for automatically releasing said second latching means subsequent to the release of said first latching means.

4. In a circuit interrupter, the combination with relatively movable coöperating contact members, an operating mechanism for the movable member and a compound operating lever associated with said operating mechanism and comprising a main lever and an auxiliary lever having an opening therein and a pin projecting transversely across said opening, of a latch for connecting said levers, means dependent upon predetermined circuit conditions for releasing said latch a second latch for restraining said main lever in its closed position, means for manually releasing said second latch, and a cam constituting a part of said second latch and projecting normally through said opening and in engagement with said pin for effecting the automatic release of said second latch under predetermined conditions.

5. In a circuit interrupter, the combination with relatively movable coöperating contact members, an operating mechanism for said movable members embodying an operating toggle and a main operating lever associated therewith, of an auxiliary lever having a transverse engaging member, means for latching said levers together, a latch for restraining said auxiliary lever and its associated main lever in their closed positions, a cam constituting a projecting portion of said latch and adapted to coöperate with said engaging member, electro-responsive means for releasing said latching means, whereby the opening of the interrupter is effected and the said engaging member operates said restraining latch to cause said main levers to be released.

[Claims 6 to 8 not printed in the Gazette.]

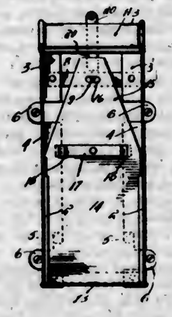
1,206,348. GARMENT-HANGER. JOHN ALEXANDER MACPHERSON, Chicago, Ill., assignor to Benjamin J. Buckingham, Chicago, Ill. Filed June 21, 1915. Serial No. 35,255. (Cl. 211—13.)



1. A garment hanger, comprising a pair of divergent arms, a horizontal bar extending between the free ends of said arms, and a pressure device extending from one of said arms to the other and having its ends separated from the bar, said pressure device having a flat contact face for coöperation with said bar to hold the suspended garment against movement relatively to said bar.

2. A garment hanger, comprising a pair of divergent arms, a suspension bar extending between the free ends of said arms, and an elongated flexible retainer having its ends seated on said arms at points separated from the suspension bar, said retainer being of greater length than the distance between the points at which its ends are seated on said arms, whereby to bow the retainer at either side of the points of its connection with said arms and thereby hold the retainer in restraining and non-restraining positions, the retainer when flexed toward the suspension bar coöperating with the latter to restrain movement of the garment suspended by the bar.

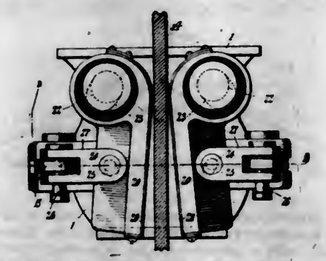
1,206,349. MAIL-BOX. BURTON MANGUS, Imler, Pa. Filed June 5, 1916. Serial No. 101,828. (Cl. 232—23.)



1. In a mail box, the combination with a door, of a casing, means for securing the casing to the door, a bottom slidably engaged in the casing, a back carried by the bottom, a pin associated with the casing, means carried by the back for engaging the pin to hold the bottom in its operative position, and means carried by the door for engaging the back to disengage the same from the pin, as and for the purpose set forth.

2. In a mail box, the combination with door, of a casing, flanges carried by the sides of the casing, certain of said flanges having hooks carried by their lower ends, a bottom slidably engaged in the casing and having a back, a pin associated with the casing and adapted to engage the back to hold the bottom in its operative position, a strip secured transversely of the back, a pin slidably associated with the door and adapted to engage the back when moved outwardly to disengage the first named pin, whereby the bottom will slide downwardly until the ends of said strip engage the hooks.

1,206,350. ELEVATOR-BRAKE. ALFRED H. MERCH, Chatham, N. Y., assignor to Elevator Air Brake Company, a Corporation of Missouri. Filed July 12, 1910. Serial No. 571,576. (Cl. 187—80.)



1. In an elevator braking appliance, a fixed part, a pair of slidably pivoted shoes adapted to grip said fixed part, and means for initially moving said shoes into frictional engagement with said part, said means comprising members having pin and inclined guideway engagements with said shoes, said shoes moving laterally with respect to said members, when the latter are operated.

2. In an elevator braking appliance, a fixed part, a pair of shoes adapted to grip said fixed part, means for impelling said shoes into engagement with said part, fixed studs having an inclined slot connection with said shoes and links joined to said means and also having an inclined slot connection with said shoes.

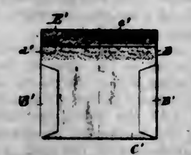
3. In an elevator braking appliance, a fixed part, a pair of power arms, a pair of fixed studs, shoes having slots converging upwardly toward the fixed part and receiving said studs, and links joining said shoes and said power arms, said links having a slidable connection with said shoes.

4. In an elevator braking appliance, a fixed rail, a member carried by the car, a pair of brake shoes adapted to engage the opposite faces of said rail, power arms mounted on said member one connected to each of said shoes and exerting when actuated, a pressure on said shoes substantially at right angles to the rail, means for actuating said power arms, said shoes also having an inclined slot and stud conection with said member permitting said shoes to adjust themselves laterally with respect to the rail independently of the power arms and of each other and causing the shoes to wedge themselves between the member and the fixed rail when the brake shoes are applied.

5. In an elevator braking appliance, a fixed rail, a member carried by the car, a pair of brake shoes adapted to engage opposite faces of said rail for a substantial portion of their length and loosely pivoted on said member to have a lateral movement with respect thereto and to be wedged between said fixed rail and member when the shoes are pressed against the rail, a pair of power arms and connections between said power arms and shoes for pressing said shoes against said rail.

[Claims 6 to 8 not printed in the Gazette.]

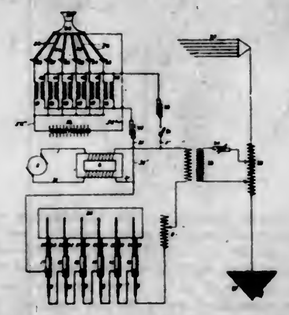
1,206,351. ENVELOP. CHARLES L. MEYERS, Jersey City, N. J. Filed July 26, 1916. Serial No. 111,866. (Cl. 229—69.)



1. As a new article of manufacture, an envelop comprising a front having a gummed sealing flap, a back extending beyond said sealing flap and gummed on its rear face, the gummed surfaces being upon opposed faces of the back and flap, and end flaps on said front folded and gummed upon said back, all arranged to serve substantially as and for the purposes herein set forth.

2. As a new article of manufacture, an envelop of transparent material having a gummed sealing flap and having one of its exterior faces adjacent said sealing flap gummed with the gummed portions in different planes and upon opposed faces, one for securing the envelop to an article, and the other for sealing the envelop proper.

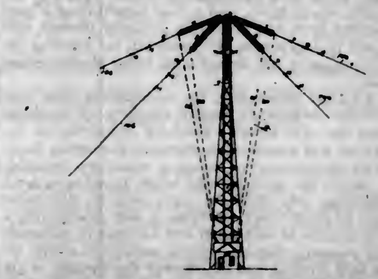
1,206,352. APPARATUS FOR WIRELESS TRANSMISSION OF ENERGY. FREDERICK HOYER MILLENER, Omaha, Nebr. Filed Apr. 29, 1911. Serial No. 624,118. (Cl. 250—36.)



1. In an apparatus for wireless transmission of energy, employing a pair of arcing electrodes for production of oscillations in the energizing circuit, the combination of a hollow metallic electrode having a chamber or cavity in its arcing end, the axial measurement of which is at least equal to its transverse diameter, and a negative electrode having its hemispherical end introduced within said cavity and substantially in the focal point thereof.

2. In apparatus for wireless transmission of energy, employing arcing electrodes for producing oscillations in the energizing circuit, a pair of electrodes, one of which is provided at its arcing end with a cavity, and the other of which has its end projected into said cavity, the cavity being of such axial measurement and the two electrodes of such relative diameters as to permit the one to extend into the cavity of the other a distance sufficient to cause the arc forming between them to be completely encompassed by the walls of the cavity.

1,206,353. ANTENNA AND SUPPORT THEREFOR FOR USE IN WIRELESS TELEGRAPH OR TELEPHONE SYSTEMS. FREDERICK HOYER MILLENER, Omaha, Nebr. Filed Jan. 19, 1912. Serial No. 672,168. (Cl. 250—33.)



1. An aerial for etheric transmission systems, comprising in combination a suitable upright; a plurality of antenna units, each comprising a pair of stretchers and a plurality of stretches of wire extending from one stretcher to the other in common plane; means for mechanically connecting the upper end of each unit with, but electrically insulating it from, the upright; guys mechanically connected with but electrically insulated from the lower ends of the antenna units; and suitable anchorages to which said guys are secured, substantially as described.

2. In an aerial for wireless or etheric transmission systems, an antenna unit comprising two stretchers suitably separated one from the other, and each provided with eyes; and a wire or conductor connected at one end to one of said stretchers, and extending thence back and forth from one stretcher toward the other and passing freely through eyes of said stretchers, and finally connected at its second end with one of said stretchers; whereby there is produced a unitary structure comprising a series of stretches of wire in common plane, suitably spaced apart and flexibly connected with the stretchers.

3. An antenna unit comprising two separated stretchers each provided with eyes; a wire or electric conductor extending back and forth from each stretcher toward the other and laced or threaded through the eyes thereof alternately, and having ends secured to one or other of said stretchers; cross conductors electrically connecting the several stretches of wire; converging strain insulators for the upper end of said unit, connected with the stretcher at said end near its extremities; a straining or tension rope connected with said insulators at the point of convergence; similar converging strain insulators connected in like manner with the lower stretcher of the unit; and a guy connected with the latter strain insulators at the point of convergence; whereby the wires of the antenna unit may be suitably stressed and held in common plane and at proper distances one from another.

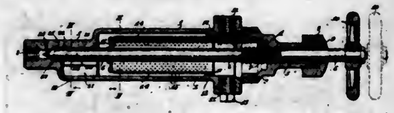
4. In combination with a suitable mast or upright, an antenna-support or carrier, comprising an inner hoop or band adapted to encircle the mast and to move freely thereon; a second hoop or band concentric with the first; links or hangers flexibly connected at their upper ends with the inner hoop or band, and at their lower ends with the second hoop or band; a third hoop or band concentric with the second one, divided at one or more points, and there provided with ears; a series of insulating blocks having their inner and outer faces grooved to receive the two lower hoops or bands; and means for contracting the outer hoop and thereby binding together the two hoops and the interposed insulating blocks, substantially as described.

5. In combination with a suitable mast or upright, an antenna-supporting device comprising an upper hoop or band 25, adapted to encircle the mast and to move freely up and down thereon; hangers loosely jointed to said band; a lower hoop or band 44 to which the lower ends of said hangers are likewise loosely jointed; segmental insulating blocks as 46, having their inner and outer faces circumferentially grooved, and having the band 44 seated in their inner grooves; a sectional band 45 encircling the insulating blocks, seated in the outer grooves thereof, and provided at the ends of each section with ears; strain insulators having their perforated ends introduced between proximate ears of the sectional band; and bolts passing through said ears, and serving both to contract the sectional band and to connect the strain insulators therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,206,354. COMBINED STRAINER AND REGULATING-VALVE FOR OIL-BURNERS. BERNARD S. NELSON, New Orleans, La., assignor to A. M. Lockett & Co., Ltd., New Orleans, La., a Corporation of Louisiana. Filed June 3, 1915. Serial No. 32,001. (Cl. 210—16.)

1. A combined strainer and valve comprising a hollow body having an inlet, a discharge passage-way, a cavity in communication with the interior of the body and having a slot connection with the passage-way, a valve spindle within the body portion having its inner end movably supported in the passage-way and controlling the slot connection with the passage-way, means for adjusting the spindle over the slot connection, and a strainer within the body surrounding the valve spindle and interposed between inlet and discharge passage-way.



2. A combined strainer and valve comprising a hollow body having an inlet, a discharge passage-way, a cavity in communication with the interior of the body and having a slot connection with the passage-way, a valve spindle within the body portion having its inner end movably supported in the passage-way and controlling the slot connection with the passage-way, means for adjusting the spindle over the slot connection, and a strainer within the body surrounding the valve spindle and interposed between inlet and discharge openings.

3. A combined strainer and valve comprising a hollow body having an inlet, a discharge passage-way, a cavity in communication with the interior of the body and having a slot connection with the passage-way, a valve spindle within the body portion having its inner end movably supported in and tightly fitting the passage-way and controlling the slot connection with the passage-way, said slot connection comprising a rectangular opening, means for adjusting the inner end of the spindle over the rectangular opening, a cylindrical strainer surrounding the valve spindle within the body portion and interposed between the inlet and the discharge passage-way, said strainer having the end near the discharge supported by the spindle and the other end by the inner wall of the hollow body.

4. A strainer casing comprising a hollow body having an inlet, a discharge passage-way, a cavity in communication with the interior of the body and having a slot connection with the passage-way, a valve spindle within the body portion having its inner end movably supported in the passage-way and controlling the slot connection with passage-way, means for adjusting the spindle over the slot connection.

5. A strainer casing comprising a hollow body having an inlet, a discharge passage-way, a cavity in communication with the interior of the body and having a slot connection with the passage-way, a valve spindle within the body portion having its inner end movably supported in and tightly fitting the passage-way and controlling the slot connection with the passage-way, said slot connection comprising a rectangular opening, means for adjusting the inner end of the spindle over the rectangular opening.

1,206,355. STARTING AND GEAR-SHIFTING MECHANISM. JOHN P. NIKONOW, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 18, 1914. Serial No. 877,898. (Cl. 74—58.)

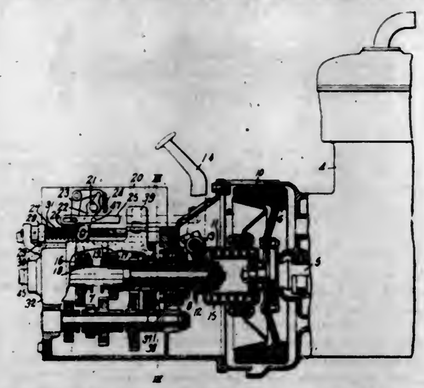
1. The combination with a gear shifting mechanism, an energy storage device for actuating said mechanism, and a power device, of means for controlling said mechanism and for simultaneously causing said power device to supply energy to said storage device.

2. The combination with a gear shifting mechanism, a spring for actuating said mechanism, and a motor, of means for simultaneously controlling said mechanism and causing said motor to store energy in said spring.

3. The combination with a gear shifting mechanism, a spring for actuating said mechanism, and a motor, of common means for controlling said mechanism and said motor to cause said motor to store energy in said spring.

4. The combination with an engine shaft, a gear shifting mechanism, a spring for actuating said mechanism, and a motor, of means for operatively connecting said motor either to said engine shaft or to said spring.

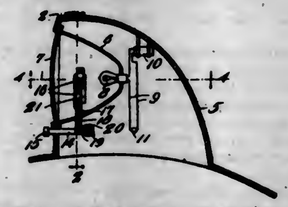
5. The combination with an engine shaft, a gear shifting mechanism, a spring for actuating said mechanism, and a motor, of means for operatively connecting said motor



to said engine shaft or to said spring, according to the direction of rotation of said motor.

[Claims 6 to 12 not printed in the Gazette.]

1,206,356. FIREMAN'S HELMET. CHARLES H. NORTON, New York, N. Y. Filed Mar. 20, 1916. Serial No. 85,481. (Cl. 240—8.4.)



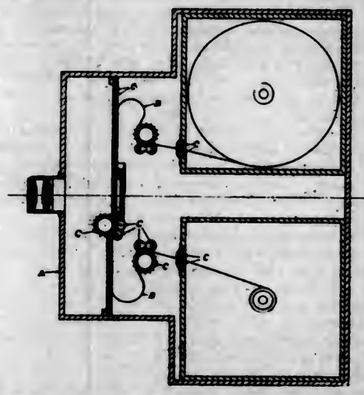
1. In a device of the class described, the combination with a helmet having a lamp and a reflector therefor, of a shaft in said helmet, arms carried by said shaft and projecting divergently into said reflector, panes on the ends of said arms, the said reflector being provided with slots for the reception of said panes, and means on said shaft and arms for selectively projecting said panes into the path of light emanating from said lamp, substantially as described.

2. In a device of the class described, the combination with a reflector provided with oppositely disposed slots, of a shaft mounted for rotation beneath said reflector, a stud on said shaft, arms rotatably mounted on said shaft and projecting into said reflector, panes on the ends of said arms adapted to slide within said slots to the exterior of said reflector, and shoulders on said arms adapted to be engaged by said stud, substantially as described.

1,206,357. MEANS FOR PREVENTING THE GENERATION OF STATIC ELECTRICITY IN MOVING-PICTURE APPARATUS. GEORGE W. NUSBAUM, Takoma Park, Md. Filed Aug. 7, 1914. Serial No. 855,581. (Cl. 175—264.)

1. In an apparatus of the class described, a frame, a dielectric member movable with respect to the frame and means for preventing the generation of static electricity by the moving dielectric, comprising surfaces in movable contact therewith of a material similar to the movable dielectric.

2. In an apparatus of the class described, a frame, a dielectric member movable with respect to the frame, and means for preventing the generation of static electricity by the movable dielectric, comprising surfaces in movable contact therewith of the same material as the movable dielectric.



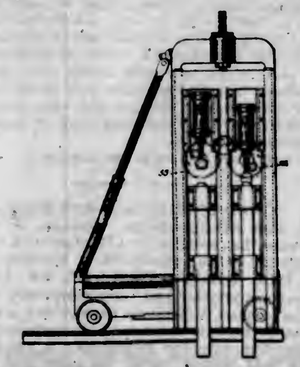
3. In an apparatus of the class described, a frame, a ribbon of dielectric material movable with respect to the frame, and means for preventing the generation of static electricity by said ribbon comprising surfaces in movable contact with said ribbon of a substance similar to the movable ribbon.

4. In an apparatus of the class described, a frame, a dielectric member movable with respect to the frame, and means for preventing the generation of static electricity by said dielectric, comprising surfaces in movable contact therewith of material having the same electrical characteristics when subjected to the influence of friction.

5. In an apparatus of the class described, in combination, a frame, a member of dielectric material movable with respect to the frame, and means for preventing the generation of static electricity by said dielectric member, comprising surfaces in movable contact therewith composed of material having the same composition as the movable dielectric.

[Claims 6 to 8 not printed in the Gazette.]

1,206,358. STONEWORKING-MACHINE. THOMAS OFFICER and HENRY H. MERCER, Claremont, N. H., assignors, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 2, 1908. Serial No. 408,965. (Cl. 125—2.)



1. In a channeling machine the combination with a truck, a standard mounted at the side thereof and adjustable to a position adjacent either end of said truck, a

sliding frame upon said standard, a reciprocatory hammer member and a reciprocatory driving part both mounted upon said frame, a coöperating piston and cylinder connected the one to the hammer member and the other to the driving part, means for loosely guiding a tool gang, the latter non-reciprocatively related to the said hammer, an electric motor connected to drive said reciprocatory driving part and also mounted upon said frame, moving means for raising or lowering said frame upon said standard and connections between said moving means and said motor.

2. In a channeling machine the combination with a traveling truck, a standard mounted at the side thereof and adjustable to a position adjacent either end, means for loosely guiding a tool gang, a sliding frame upon said standard, a hammer member for striking the tool gang a hammer blow, a reciprocatory driving part upon said frame, a coöperating piston and cylinder connected the one to the hammer member and the other to the driving part, and a driving motor for said driving part also mounted upon said frame.

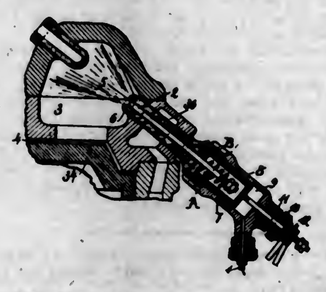
3. In a channeling machine the combination with a traveling truck, a standard mounted at the side thereof, means for loosely guiding a tool gang, a sliding frame upon said standard, a hammer member for striking the tool gang a hammer blow, a driving motor and a coöperating piston and cylinder connected between the driving motor and the hammer member to interpose a pneumatic cushion.

4. A tool-actuating device comprising a standard, a plurality of hammer members upon said standard, means for driving said hammer members in opposed step, and means for maintaining a pressure-fluid cushion between said driving means and said hammer members.

5. In a channeling machine, the combination with a truck, a standard mounted at the side thereof, and adjustable to a position adjacent either end of the truck, a sliding frame upon said standard, a pair of reciprocatory hammer members each with its reciprocatory driving part, both mounted upon said frame, a coöperating piston and cylinder connected, one to the hammer member and the other to the driving part, means loosely guiding a tool gang, the latter non-reciprocatively related to the said hammer, an electric motor connected to drive said reciprocatory driving parts in opposed step, and means for raising and lowering said frame upon said standard.

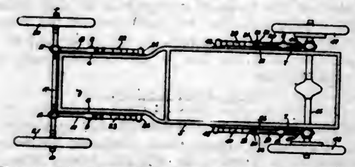
[Claims 6 to 10 not printed in the Gazette.]

1,206,359. MEANS FOR REGULATING IGNITION IN INTERNAL-COMBUSTION ENGINES. OLOF OHLSSON, Södertelje, Sweden. Filed Apr. 16, 1912. Serial No. 691,124. (Cl. 123—32.)



In a device for injecting liquid fuel in internal combustion engines, the combination of a spring actuated inlet valve for the fuel having a substantially sharp edge, a seat for the said valve also having a substantially sharp edge, means for forcing the fuel through the valve with such power that it is able to open the valve, and means for regulating the load of the said spring in such manner that a minute division and spreading of the fuel is effected in a greater degree when a small quantity of fuel is fed in and in a less degree when a greater quantity of fuel is fed in.

1,206,360. VEHICLE. ROBERT E. OLANN, Seattle, Wash. Filed Mar. 4, 1916. Serial No. 82,259. (Cl. 267—9.)



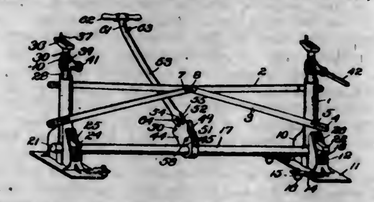
1. The combination with the chassis and axle of a vehicle, of four brackets fastened two on each of different sides of the rearward end portion of said chassis; a link suspended from each of the forwardly disposed ones of said brackets; two supporting-springs disposed one to extend rearwardly between and to connect with the lower end of a different one of said links and a different one of the rearwardly disposed ones of said brackets; two levers pivotally mounted one on each side of said rearward end portion of said chassis to extend in a line parallel therewith; a roller rotatably mounted on the forwardly projecting end portion of each of said two levers and disposed to engage with and to rest upon the central portion of the top surface of the adjacent supporting-spring; clamping means associated with the rearward end portions of said two levers and disposed rigidly to clamp said end portions to the rearward one of said axles; two other levers pivotally mounted one on each side of the forward end portion of said chassis to extend in a line parallel therewith; bearings associated with the forwardly projected end portion of each of said two other levers, within which bearings are disposed the forward one of each of said axles to be rotatively movable therein; two pivot studs disposed in fixed relation to the underside of said forward one of said axles; two studs disposed one on each side of the forward end portion of said chassis in fixed relation thereto; connecting rods disposed each to extend between and to connect with a different one of said pivot studs and a corresponding one of said fixed studs; supporting-springs, each having one end portion fastened to the rearward end portion of a different one of said two other levers; and a link suspended from each side of the forward end portion of said chassis at a point adjacent to the rearward end of the respective one of said supporting-springs, to the lower end of which link is articulated the end of the adjacent one of said supporting-springs.

2. A vehicle which embodies a chassis; a front axle; a rear axle; four brackets, two of which are fastened on each of different sides of the rearward end portion of said chassis; a link suspended from each of the forwardly disposed ones of said brackets; supporting-springs disposed one to extend between and to connect with the lower end of a different one of said links and a different one of the rearwardly disposed ones of said brackets; two levers pivotally mounted one on each side of said rearward end portion of said chassis to extend in a line parallel therewith; a roller rotatably mounted on the forwardly projecting end portion of each of said two levers and disposed to engage with and to rest upon the central portion of the top surface of the adjacent supporting-spring; and clamping means associated with the rearward end portions of said two levers and disposed rigidly to clamp the end portions of said two levers to said rear axle.

3. A vehicle which embodies a chassis; a front axle; a rear axle; two levers pivotally mounted one on each side of the forward end portion of said chassis to extend in a line parallel therewith; bearings associated with the forwardly projecting end portion of each of said two levers, within which bearings are disposed said front axle to be rotatively movable therein; two pivot studs disposed in fixed relation to the underside of said front axle; two

studs disposed one on each side of the forward end portion of said chassis in fixed relations thereto; connecting rods disposed each to extend between and to connect with a different one of said pivot studs and a corresponding one of said fixed studs; supporting-springs, each having one end portion fastened to the rearward end portion of a different one of said two levers; and a link suspended from each side of the forward end portion of said chassis at a point adjacent to the rearward end of the respective one of said supporting-springs, to the lower end of which link is articulated the end of the adjacent one of said supporting-springs.

1,206,361. JACK FOR AUTOMOBILES. CHARLES WILSON PARKER, St. Louis, Mo., assignor, by mesne assignments, to Fannie M. Wittliff, Waco, Tex. Filed Apr. 1, 1914. Serial No. 828,684. (Cl. 254—89.)



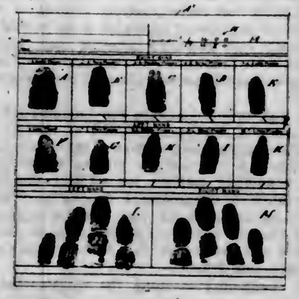
1. A lifting jack comprising a pair of standards, a pair of lifting bars each movable in one of the standards, a shaft connecting the standards, a pair of cams arranged on the shaft and each having a plurality of bearing faces thereon to coöperate with one of the lifting bars, and an operating lever for the shaft arranged between the standards and adjustably connected to said shaft so that its operating movement will correspond to any one of the bearing faces on the cams.

2. A lifting jack comprising a pair of standards, a pair of lifting bars each movable in one of the standards, a pair of cams arranged on the shaft and each having a plurality of bearing faces thereon to coöperate with one of the lifting bars, a bracket secured to said shaft between the standards, a lever pivoted to said bracket, and means for holding said lever in different positions on said bracket so that the operating movement of the lever can be made to correspond to any one of the bearing faces on the cams.

3. A lifting jack comprising a pair of standards adjustable toward and from each other, lifting bars movable in the standards, cams mounted in the standards for coöperation with the lifting bars, a shaft adjustable in said cams to accommodate the relative adjustment of the standards, and a lever connected to said shaft between the standards.

1,206,362. FILING DEVICE FOR FINGER-PRINT RECORDS. FRANK C. PARLIMAN, Rochester, N. Y., assignor to Yawman & Erbe Mfg. Co., Rochester, N. Y., a Corporation of New York. Filed Nov. 16, 1915. Serial No. 61,852. (Cl. 129—16.5.)

1. A filing device for finger print records comprising a plurality of series of primary guides, all but one of which series are subsidiary respectively to the units of the remaining series, and each unit of each series bearing one of a set of characters representative of the joint readings of two hands according to the occurrences of one type of print in different positions in the sequence of digits, a group of coördinate secondary guides subsidiary to one or more units of each subsidiary series of primary guides and each bearing a character representative of a different type of print in a given digit of one hand, a second group of guides corresponding to the first named group and bearing the same characters as applied to the corresponding digit of the other hand, subsidiary to one or more units of said first named group, a series of guides bearing duplicate characters representative of characteristics of the several types of prints comprised by the said second group arranged to be subsidiary to one or more units of said group, and a plurality of like guides subordinate to each unit of said last mentioned series.



2. A filing device for finger print records having formulæ derived in accordance with the Henry system comprising thirty-three series of primary guides, the units of which are numbered from one to thirty-two all but one of which series are subordinate respectively to the units of the remaining series, a group of four coördinate secondary guides subordinate to one or more units of each subordinate series of primary guides and bearing, respectively, the characters representative of arches, tented-arches, radial loops and ulnar loops, a second group of four guides bearing, respectively, the same characters as the first mentioned group and subordinate to one or more units of that group and a plurality of guides bearing characters representative of different characteristics of arches, tented-arches, radial loops and ulnar loops subordinate to one or more units of said last mentioned group.

3. A filing device for finger print records having formulæ derived in accordance with the Henry system comprising thirty-three series of primary guides the units of which are numbered from one to thirty-two, all but one of which series are subordinate, respectively, to the units of the remaining series, and a series of secondary guides subordinate to one or more of the subordinate primary guide units and bearing characters representative of the print characteristics of the fulcrum fingers.

4. A filing device for finger print records having formulæ derived in accordance with the Henry system comprising a plurality of series of guides successively subordinate to each other and bearing, respectively, entitling characters representative of the following parts of the formulæ in the order named: the numerical denominator; the numerical numerator; the numerator of the fulcrum and the denominator of the fulcrum.

5. A filing device for finger print records having formulæ derived in accordance with the Henry system comprising a plurality of series of guides successively subordinate to each other and bearing, respectively, entitling characters representative of the following parts of the formulæ in the order named: the numerical denominator; the numerical numerator; the numerator of the fulcrum; the denominator of the fulcrum; the collective numerator of finger type characteristics and the collective denominator of finger type characteristics.

1,206,363. EXPANSIBLE BIT. JOHN G. PASSAUER, Titusville, Pa. Filed Nov. 13, 1915. Serial No. 61,361. (Cl. 145—127.)

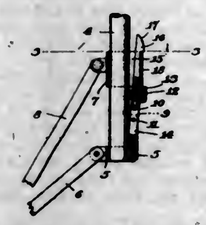
A bit comprising a cylindrical hollow shank having one end open, a bearing detachably mounted in the open end and extending beyond the end whereby said shank may be rotated, a shaft rotatably mounted in said bearing and having one end mounted in the wall of the closed end of the shank, a pair of jaws slidably mounted in the shank in a right-angular direction with relation to said shaft, a gear secured to said shaft and engaging teeth

formed on said jaws, said gear and shaft being insertible into the interior of the shank through the open end of the



latter, and a set screw mounted in said shank and engaging an intermediate portion of said shaft at a point adjacent said bearing.

1,206,364. FOLDABLE STAND. ANDREW PAUL and JOHN A. SMITH, Philadelphia, Pa. Filed Apr. 17, 1915. Serial No. 21,951. (Cl. 45—121.)

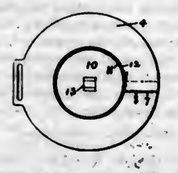


1. In a foldable stand, the combination of a central post, legs pivoted to parts fixed to the lower end of said post, a collar slidable on said post and having a longitudinal opening extending therethrough outwardly of said post, braces connecting said legs and said collar and pivoted thereto, and a latch arm connected to a part fixed on said post between the lower end thereof and said collar and having a free end extending upwardly and adapted to pass through said opening in said collar, the upper end of said latch arm having an outwardly extending projection adapted to engage over the top of said collar and prevent its upward movement upon said post.

2. In a foldable stand, the combination of a central post, legs pivoted to parts fixed to the lower end of said post, a collar slidable on said post and having a longitudinal opening extending therethrough outwardly of said post, braces connecting said legs and said collar and pivoted thereto, a latch arm pivoted to a part fixed on said post between the lower end thereof and said collar and having a free end extending upwardly and adapted to pass through said opening in said collar when said collar is moved longitudinally, and a spring tending to force the upper end of said arm outwardly from said post, the lower end of said arm being adapted to engage said post and limit the outward movement of the upper end thereof and prevent it from being moved out of alinement with the opening in said collar, the upper end of said latch arm having an outwardly extending projection adapted to engage over the top of said collar and prevent its upward movement upon said post.

3. In a foldable stand, the combination of a central post, legs pivoted to parts fixed to the lower end of said post, a collar slidable on said post, braces connecting said legs and said collar and pivoted thereto, a latch arm pivoted to a part fixed on said post and provided with an outwardly extending hollow stop projection adapted to engage said collar and limit the movement thereof, and a spring housed within said projection and interposed between said latch arm and said post and tending to force said latch arm outwardly, the upper end of said latch arm having an outwardly extending projection adapted to engage said collar and prevent its upward movement upon said post.

1,206,365. GAS-METER. FRANK H. PAYNE, Erie, Pa. Filed July 9, 1915. Serial No. 38,877. (Cl. 73—1.)



1. In a dry gas meter, means forming a measuring chamber comprising a diaphragm base; and a diaphragm having its edge seated on said base, said diaphragm being of leather and of conoidal shape formed by joining the edges of a sector-shaped piece.

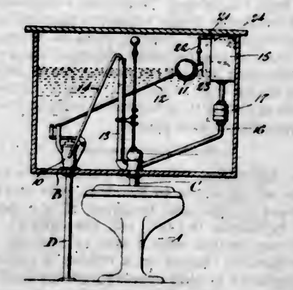
2. In a dry gas meter, means forming a measuring chamber comprising a diaphragm base; a diaphragm having its edge seated on said base, said diaphragm being of leather and of conoidal shape formed by joining the edges of a sector-shaped piece and having an opening at its center; a link plate in the opening, said plate having an annular flange; and means for binding the edge of the diaphragm surrounding the opening on the flange.

3. In a dry gas meter, means forming a measuring chamber comprising a diaphragm base; a diaphragm having its edge seated on said base, said diaphragm being of leather and of conoidal shape formed by joining the edges of a sector-shaped piece and having an opening at its center; a link plate in the opening, said plate having an annular grooved flange; and means for binding the edge of the diaphragm surrounding the opening on the flange.

4. In a dry gas meter, means forming a measuring chamber comprising a diaphragm base; a diaphragm having its edge seated on said base, said diaphragm being of leather and of conoidal shape formed by joining the edges of a sector-shaped piece and having an opening at its center; a link plate in the opening, said plate having an annular flange; and a cord wrapped on the edge of the diaphragm surrounding the opening binding the edge of the diaphragm on the annular flange.

5. In a gas meter, the combination of a diaphragm base; a diaphragm having its edge seated on said base, said diaphragm being of leather and of conoidal shape formed by joining the edges of a sector-shaped piece, the joint being formed by overlapping the edges of the sector-shaped piece and sewing said edges together, the stitches penerating only partly through the wall of the leather forming the inner lap at the joint.

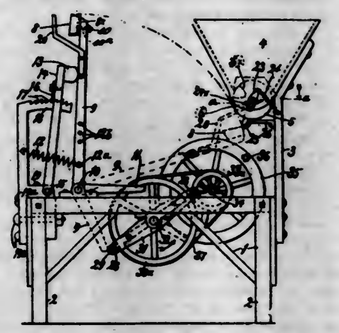
1,206,366. DISINFECTANT DEVICE. CHARLES C. PETERMAN and HENRY L. PETERMAN, Stony Brook, N. Y. Filed May 26, 1916. Serial No. 100,135. (Cl. 4—30.)



A disinfectant apparatus comprising a container adapted to be mounted within a flush tank, a lead pipe extending from the container for the delivery of disinfectant from the same to a bowl and having a vertical portion next to said container, a valve casing formed in the vertical por-

tion of the pipe and having double reversely beveled valve seats, said casing being formed in three sections united to each other, a double cone valve alternately engageable with the respective seats and working within the casing, a rocking lever pivoted on the container, a valve rod connected with said valve and with one end of the lever, and a weighted trip arm pivoted to and depending from the other end of the lever and adapted to be operated by the float arm in the flush tank.

1,206,367. WILD-OATS SEPARATOR AND GRAIN CLEANER AND GRADER. LARS PETERSON, Colman, S. D. Filed June 28, 1915. Serial No. 36,610. (Cl. 130—17.)

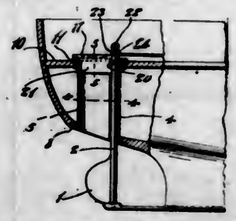


1. A wild oats separator comprising a frame, a casting scoop having an arm pivoted in the frame, a spring acting on said arm to swing the scoop forward, an obstructing device for stopping the arm after it has attained a suitable speed for casting the grain from the scoop, a rotating wheel and operative connection between said wheel and the scoop arm to swing it against the resistance of the spring and then suddenly release it to let the spring throw it against the obstruction; a hopper adapted to hold a supply of uncleaned grain, a delivering device in the bottom of the hopper adapted to convey a charge of grain to the scoop, means whereby the delivering device is operated automatically when the scoop is swung into position to receive said charge, and means whereby the delivering device is automatically returned to the position in which it receives each charge of grain from the hopper.

2. In a machine of the kind described, the combination with a hopper, of a grain delivering device in the bottom thereof and constructed to deliver small or large charges of grain from the hopper, means for automatically operating said delivering device when the machine is in operation, a spring actuated casting scoop so actuated by the machine that it receives each separate charge delivered by said delivering device; and means for so adjusting the delivering device that it delivers only the same quantity in each charge until it is regulated to deliver a larger or smaller quantity in each charge.

1,206,368. RUDDER. THEODORE PLAZZE, New York, N. Y., assignor of one-fourth to Frank L. Otto and one-fourth to Edward H. Ruestow, Brooklyn, N. Y. Filed Sept 3, 1915. Serial No. 48,818. (Cl. 114—165.)

1. The combination with a ship or the like having an elongated opening therein, of a rudder, a rudder case arranged vertically in said opening and designed to extend from the bottom of the hull upwardly and provided with upper and lower marginal attaching portions, said casing having a substantially circular bearing opening to receive the stock or pivot of the rudder and provided also with a relatively narrow extension to form a casing for the body or blade of the rudder, and a cap secured to the top of the casing and fitting around the stock or pivot of the rudder forming a liquid tight joint.

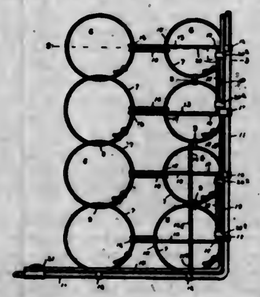


2. The combination with a ship or the like having an elongated opening therein, of a rudder, a rudder case having a substantially circular bearing opening and provided with a relatively narrow extension opening, said rudder adapted to pass through the rudder case, and having a stock or pivot journaled in the circular opening, and a cap secured to the rudder case and having a plug fitting in and filling the extension opening to close the same at the top of the case, forming a liquid tight joint.

3. The combination with a ship or the like having an opening therein, of a rudder, a rudder case having a circular bearing opening and provided at the top thereof with a recess forming a seat, said casing being also provided with a relatively narrow extension opening, said rudder adapted to pass through the rudder case and having a stock or pivot provided with a collar arranged in said recess and a sectional cap fitted on the rudder case and extending around the stock or pivot forming a liquid tight joint.

4. The combination with a ship or the like having an opening therein, of a rudder case seated in said opening, and secured to the deck and hull thereof, said case comprising a substantially circular portion and an oblong extension, a rudder adapted to pass through the rudder case and having a stock or pivot arranged in the circular portion of case, and a sectional cap composed of longitudinal sections provided with a plug fitted in the oblong portion of the rudder case, said sections being also provided with approximately semi-circular portions fitting around the stock or pivot of the rudder and having a terminal attaching means forming a liquid tight connection with the case.

1,206,369. MATTRESS-HOLDER. REINHOLD PIETSCH, Utica, N. Y., assignor to Foster Brothers Manufacturing Company, Utica, N. Y., a Corporation. Filed Jan. 6, 1916. Serial No. 70,556. (Cl. 5—29.)



1. In a mattress holder the combination of a bed spring composed of rows of coiled springs set on end and arms each having one end attached to the top convolution of a spring back from an edge spring and extending over the inner side of said edge spring and having its outer end turned up before the outer side of said outer spring is reached and adapted to engage the outer edge of the mattress and hold it in place, the outer part of said arms with

their upturned outer ends being adapted to be forced down into the cavity of the edge springs over which they project.

2. In a mattress holder the combination of a bed spring composed of rows of coiled springs set on end, arms each having one end attached to the top convolution of a spring adjacent to an edge spring and extending over the inner side of said edge spring and having its outer end turned up before the inner side of said edge spring is reached and members connecting the extremities of said upturned ends adapted with said upturned ends to engage the outer edge of the mattress and hold it in place, the outer part of said arms with their upturned ends being adapted to be forced down into the cavity of the edge springs over which they project, and the said connecting members being adapted to then lie flat upon the upper surface of the bed spring.

3. In a mattress holder the combination of a bed spring composed of rows of coiled springs set on end and U-shaped arms having their separate ends attached to the top convolutions of springs adjacent to edge springs and extending over the inner side of said edge springs and having their outer or looped ends turned up before the outer side of said edge springs is reached and adapted to engage the outer edge of the mattress and hold it in place, the outer part of said arms with their upturned outer ends being adapted to be forced down into the cavity of the edge springs over which they project and the connecting or loop part of said arms being adapted to then lie flat upon the upper surface of the bed spring.

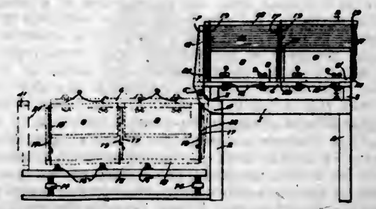
4. In a mattress holder the combination of a bed spring composed of rows of coiled springs set on end, U-shaped arms having their separate ends attached to the top convolutions of springs adjacent to edge springs and extending over the inner side of said edge spring and having their outer or looped ends turned up before the outer side of said edge springs is reached and adapted to engage the outer edge of the mattress and hold it in place, and members connecting the looped upper part of said arm along the edge of the bed spring, the outer part of said arms with their upturned outer ends being adapted to be forced down into the cavity of the edge springs into which they project and the connecting or loop part of said arms, together with the connecting members adapted to lie flat within the upper surface of the bed spring.

5. In a mattress holder the combination of a bed spring composed of rows of coiled springs set on end, arms each having one end attached to the top convolution of a spring adjacent to an edge spring and extending over the inner side of said edge spring and having its outer end turned up before the inner side of said edge spring is reached and members connecting the extremities of said upturned ends adapted with said upturned ends to engage the outer edge of the mattress and hold it in place, the outer part of said arms with their upturned ends being adapted to be forced down into the cavity of the edge springs over-which they project and the said connecting members being adapted to then lie flat upon the upper surface of the bed spring, the ends of said connecting members being turned back along the adjacent end of the bed spring and downward to the bed spring edge and hingedly secured thereto.

1,206,370. APPARATUS FOR BUNDLING CARBONS. ROBERT D. PIKE, San Francisco, Cal. Filed Apr. 1, 1916. Serial No. 88,419. (Cl. 25—153.)

1. An apparatus for preparing electric arc carbons and the like for firing, comprising in combination with a saggar, an invertible form adapted to receive a bundle of carbons; a temporary supporting member adapted to be superposed upon said bundle and to support the same when said form is inverted; means for retaining said form, said bundle, and said temporary supporting member in their relative positions during the inversion thereof; and means for supporting the saggar in axial alinement with said bundle when the same is inverted.

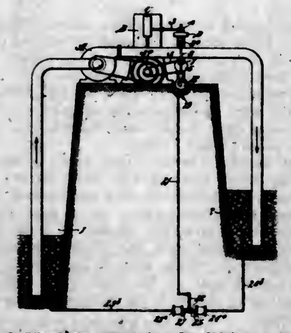
2. An apparatus for preparing electric arc carbons and the like for firing, comprising in combination with a saggar, an invertible form adapted to receive a bundle of carbons; a temporary supporting member adapted to be superposed upon said bundle and to support the same when said form is inverted; means for retaining said form, said bundle, and said temporary supporting member in their relative positions during the inversion thereof; and a vertically adjustable transfer table for supporting said temporary supporting member with the bundle superposed thereon, in a substantially horisontal position, when the same are inverted, and for supporting the saggar in axial alinement with said bundle.



3. An apparatus for preparing electric arc carbons and the like for firing, comprising in combination with a saggar, an invertible form adapted to receive a bundle of carbons; a temporary supporting member adapted to be superposed upon said bundle and to support the same when said form is inverted; means for retaining said form, said bundle, and said temporary supporting member in their relative positions during the inversion thereof; and a transfer table for supporting said temporary supporting member with the bundle superposed thereon, when the same are inverted, and for supporting the saggar in axial alinement with said bundle.

4. An apparatus for preparing electric arc carbons and the like for firing, comprising in combination with a saggar, an invertible form adapted to receive a bundle of carbons; a temporary supporting member adapted to be superposed upon said bundle and to support the same when said form is inverted; means for retaining said form, said bundle, and said temporary supporting member in their relative positions during the inversion thereof; a transfer table for supporting the saggar in a substantially horisontal position; and transfer rollers carried by said table for supporting said temporary supporting member with the bundle superposed thereon, when the same are inverted, in axial alinement with said saggar.

1,206,371. SPEED-GOVERNING MECHANISM FOR PUMPING APPARATUS. GEORGE D. POGUE, St. Louis, Mo. Filed Oct. 27, 1915. Serial No. 58,239. (Cl. 103—66.)



1. In a pumping apparatus for lifting a liquid from a lower to a higher level, the combination of a pump, a driving device for the pump, and means governed by the differential in head between the two bodies of liquid for

automatically varying the speed of the pump driving device as the differential in head varies.

2. In a pumping apparatus for lifting a liquid from a lower to a higher level, the combination of a pump, a driving device for the pump, and means governed by the differential in head between two bodies of liquid for automatically adjusting and maintaining the speed of the pump driving device so as to obtain the highest efficiency in the operation of the pump for the existing differential in head.

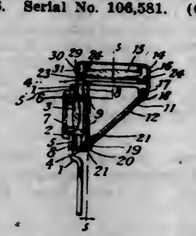
3. In a pumping apparatus for lifting a liquid from a lower to a higher level, the combination of a pump, a driving device for the pump, and means controlled by the bodies of liquid between which the pump is arranged for causing the speed of the pump to vary automatically as the differential in head between said bodies of liquid varies, said means being so constructed that any corresponding rise or fall in the levels of said bodies of liquid does not effect a change in the speed of the pump.

4. In a pumping apparatus for lifting a liquid from a lower to a higher level, the combination of a pump, a device for driving the pump, and a speed governing mechanism for the pump-driving device comprising means governed by the differential in head between the two bodies of liquid between which the pump is arranged for causing the speed of the pump to vary automatically whenever there is a variation in the differential in head, but any corresponding change in the level of the two bodies of liquid will not effect a change in the speed of the pump.

5. In an apparatus of the character described, a pump arranged so that it will lift a liquid from a lower to a higher level, a device for driving said pump, a speed governor for said pump-driving device, and means for automatically changing the speed ratio between said device and said speed governor only in case the differential in head between the two bodies of liquid varies.

[Claims 6 to 21 not printed in the Gazette.]

1,206,372. FINDER FOR CAMERAS. JOHN F. POLMEMUS, Johnson City, N. Y., assignor to Ansco Company, Binghamton, N. Y., a Corporation of New York. Filed June 29, 1916. Serial No. 106,581. (Cl. 88—1.5.)



1. A finder having a rotary front plate, a back plate pivoted to the front plate, a top plate pivoted to the back plate, means to detachably hold said pivoted parts in dual positions, a stationary gear on or near the front plate, a diaphragm rotatably supported upon the top plate, and a gear connected with the diaphragm supporting structure adapted to rotate with it and which meshes into the stationary gear on the front plate.

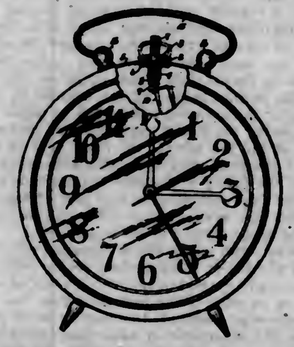
2. A finder having a rotary front plate, a back plate pivoted to the front plate, a top plate pivoted to the back plate, means to detachably hold said pivoted parts in dual positions, a stationary gear on or near the front plate, a diaphragm rotatably supported upon the top plate, a gear connected with the diaphragm supporting structure adapted to rotate with it and which meshes into the stationary gear on the front plate, and a stop which automatically indicates the limit of the movements of the diaphragm.

3. A finder having a rotary front plate, a back plate pivoted to the front plate, a top plate pivoted to the back plate, a spring at each of said pivotal points which normally tend to throw the finder open, means on the front plate engaging means on the top plate to detachably hold the said pivoted parts against the stress of said springs, a stationary gear on or near the front plate, a diaphragm rotatably supported upon the top plate, and a gear connected with the diaphragm supporting structure and adapted to rotate with it and which meshes into the stationary gear at the front plate.

4. A finder having a rotary front plate, a back plate pivoted to the front plate, a top plate pivoted to the back plate, means to detachably hold said pivoted parts in dual positions, a stationary gear on or near the front plate, a diaphragm supporting frame, means on said frame whereby it will be supported and controlled during rotation, and a gear connection with the diaphragm frame adapted to rotate with it and which meshes into the stationary gear at the front plate.

5. A finder having a rotary front plate, a back plate pivoted to the front plate, a top plate pivoted to the back plate, means to detachably hold said pivoted parts relative to the front plate, a stationary gear on or near the front plate, a diaphragm supporting frame, a gear connected with the diaphragm supporting frame adapted to rotate with it and which meshes with the stationary gear at the front plate, an annular groove in the diaphragm supporting frame, and a pair of rods supported upon the top plate which engage in said groove at opposite sides of the diaphragm supporting frame.

1,206,373. EIGHT-DAY ALARM-CLOCK. WILSON E. POTTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed July 2, 1915. Serial No. 37,725. (Cl. 58—17.)



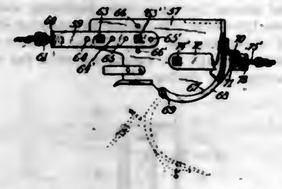
1. In an eight-day alarm clock, the combination with a clock-movement having an alarm-mechanism, of a clock-case, a spring-actuated plunger mounted in the clock-case and co-acting with a movable part of the said alarm-mechanism for restraining the same, and means also mounted in the clock-case and co-acting with the said plunger for manually locking the same in its alarm-restraining position.

2. In an eight-day alarm clock, the combination with a movable member of the alarm-mechanism of the clock, of a spring-actuated plunger co-acting with the said member, and a pivotal bow co-acting with the plunger for holding the same in its alarm-restraining position.

3. In an eight-day alarm clock, the combination with a movable member of the alarm-mechanism of the clock, of a spring-actuated plunger co-acting with the said member and provided with a push-button, a plug mounted in the clock-case for the reception of the said plunger and push-button, and a bow pivotally mounted in the plug for co-action with the push-button to retain the plunger in engagement with the said movable member against the tension of the spring operating the plunger.

1,206,374. EXCAVATING AND CONVEYING APPARATUS. JOSEPH L. POTTER, Indianapolis, Ind. Filed Dec. 11, 1913. Serial No. 805,890. (Cl. 37—19.)

1. Excavating and conveying apparatus including a drag bucket body part, a door hinged to the body part, and a bail pivoted to the body part for controlling the door and provided with a runner for enabling the bail to hold the door in closed position.



2. Excavating and conveying apparatus including a bucket having a hinged door and a pivoted bail normally holding the door in closed position, a cable for hoisting the bucket, a supporting sheave for the cable, and movable means adapted to move the pivoted bail away from the door.

3. Excavating and conveying apparatus including a bucket having a hinged door and a pivoted bail normally holding the door in closed position, means for hoisting the bucket, means for engagement with the pivoted bail when the bucket is hoisted and coöperating to swing the bail away from and release the door, and a cable connected to the bail.

4. Excavating and conveying apparatus including a structure, a drag bucket body part having a relatively fixed bail, a hoisting cable connected to the fixed bail, means on the structure for operating the cable, a door hinged to the body part, a bail hinged to the body part for controlling the door, a controlling cable connected to the pivoted bail, and guide sheaves on the structure for guiding the controlling cable.

5. Excavating and conveying apparatus including a structure, a bucket having a hinged door and a pivoted bail normally holding the door in closed position, means on the structure for suspending the bucket, a cable connected with the pivoted bail, and means coöperating with the structure for causing the bail to swing from and permit the door to swing to open position.

[Claims 6 to 15 not printed in the Gazette.]

1,206,375. RAILWAY-TIE. JOHN F. RAHN, Thornton, Ill., assignor of one-half to John C. Gustafson, Chicago, Ill. Filed Apr. 5, 1915. Serial No. 19,160. (Cl. 238—3.)



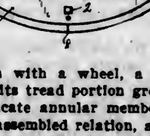
1. A railway tie of plastic material having a rail seat consisting of a metallic band encircling the tie, said band being slotted at its opposite ends for the reception of rail fastening devices.

2. A railway tie of plastic material having a metallic band encircling the tie and embedded in said plastic material, said band and said tie being provided with a pair of vertical slots upon the opposite sides of the tie for the reception of rail-fastening devices.

3. The combination of a railway tie of plastic material, a rail seat comprising a metallic band encircling the tie and embedded in said plastic material, the under surface of said band having a socket, a bolt having a head seated in said socket, and means carried by said bolt for securing a rail upon said seat.

4. The combination, in a railway-tie of plastic material, of a rail seat comprising a metal plate on the top and bottom of said tie, said lower plate having a socket and said upper plate having a slot, a rail flange engaging clip resting on said upper plate and having a projection received within said slot, and a bolt having a head seated in said socket passing through said tie and through openings in said plates and through said clip and a nut on said bolt above said clip whereby said bolt and clip serve to secure a rail upon said seat.

1,206,376. BINDING-POST. KARL C. RANDALL, of Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 3, 1915. Serial No. 5,868. (Cl. 173—259.)



1. A binding post comprising a screw threaded member, a washer member having a plurality of resilient legs and a body portion that is chamfered toward its outer edges, and a nut for engaging the washer member.

2. A binding post comprising a screw threaded member, a nut therefor and a washer member having a portion chamfered on its under side toward its outer edges and a plurality of resilient legs.

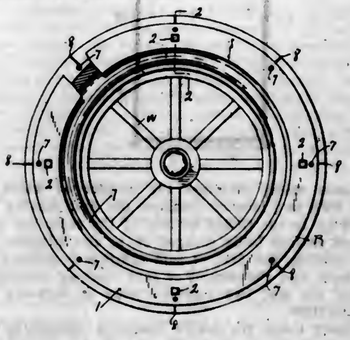
3. A binding post for a fusible conductor comprising a post member, a clamping member, and a resilient washer member disposed between the clamping member and the fusible conductor and having a chamfered engaging face and a plurality of resilient legs.

4. A binding post for a fusible conductor comprising a screw threaded post, an internally threaded clamping member therefor, and a washer member having a chamfered under portion and a plurality of resilient legs, said washer member being disposed around the post and between the clamping member and the fusible conductor.

5. A binding post for a fusible conductor comprising a screw threaded post, a nut therefor and a washer member having a plurality of legs and an under surface that is substantially flat in its central portion and chamfered toward its outer edges.

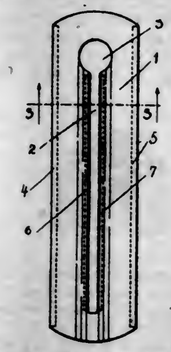
[Claims 6 and 7 not printed in the Gazette.]

1,206,377. WHEEL STRUCTURE. ELIJAH RINGSMITH, Morenci, Aris. Filed Feb. 9, 1916. Serial No. 77,282. (Cl. 152—33.)



In combination with a wheel, a rim coacting therewith and having its tread portion grooved, said rim comprising two duplicate annular members, means for holding the same in assembled relation, a tread member seated within the groove, bolts disposed through the rim and the tread member for holding the tread member in applied position and affording additional means for holding the annular members of the rim in assembled relation, and members disposed transversely of the tread member and overlying the same, the extremities of the members extending within the groove of the rim and secured to said bolts at opposite sides of the tread member.

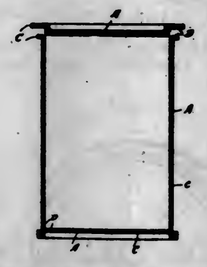
1,206,378. DEVICE FOR CLEANING BUTTONS. FREDERICK ROTTI, Elisabethport, N. J. Filed May 28, 1915. Serial No. 30,998. (Cl. 51—4.)



1. A device of the character described comprising a plate provided with a slot, the surface of said plate being gradually reduced as it approaches the slot thereby providing a supporting surface for buttons of various cross sectional areas.

2. A device of the character described comprising a plate provided with an aperture, the body of the plate as it approaches the slot being bent out of alinement with the rest of the plate thereby providing a supporting surface for buttons of various cross sectional areas.

1,206,379. SHEET-METAL CONTAINER FOR THE PRESERVATION OF FOOD. FRANKLIN RUDOLPH, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 9, 1914. Serial No. 823,333. (Cl. 220—98.)
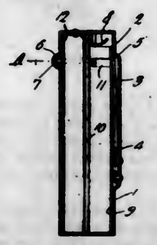


1. A sheet metal container the interior of which is provided with two lacquer coatings, the first coating being baked on to the tinned surface of the container and the second coating being sprayed on to and adherent to the first coating, the first of said coatings consisting of varnish gum, and the second of said coatings consisting of shellac, the said two coatings being of different resistant qualities.

2. A sheet metal tin coated container comprising on the interior tinned surface thereof: first a baked on lacquer coating of one constituency adhering to and covering the inner surface and ends of the container; and second a sprayed on lacquer coating of another constituency adhering to and covering the first named lacquer coating.

1,206,380. SAVINGS-BANK. FREDERICK J. RUPERT, Salem, Oreg. Filed Apr. 10, 1916. Serial No. 90,186. (Cl. 133—7.)

1. A savings bank including a casing, a locking spring therein extending longitudinally of the wall thereof and provided with spaced portions, there being an aperture within the casing at a point diametrically opposite the space between said portions for the reception of an opening tool, the wall of the opening constituting means for holding the tool against lateral movement while being inserted, said casing having a coin receiving slot, a coin container insertible into the casing and having diametrically opposed openings, the wall of one of said openings being adapted to engage the spring whereby the container is secured within the casing.



2. A savings bank including a casing having a coin receiving slot, a spring housed within the casing and having inwardly extending spaced projections, there being an aperture within the casing at a point diametrically opposite the space between said projections, a coin container insertible longitudinally into the casing and having diametrically opposed openings, one of said openings being adapted to register with an opening in the casing, a wall of the other opening being adapted to engage the projections on the spring whereby the coin receptacle is held within the casing, and coöperating means upon the casing and receptacle for holding them against relative rotation.

3. A savings bank including a casing having a coin receiving slot, there being a longitudinal depression within the casing, a forked spring secured at one end within the depression and having inwardly extending projections upon the free end portions of the fork, there being an opening within the casing diametrically opposite the space between the projections, a coin container insertible longitudinally into the casing and having diametrically opposed openings, the wall of one of the openings being adapted to receive the projections to lock the container within the casing, the other one of said openings being adapted to register with one of the openings in the casing.

4. A savings bank including a casing having a coin receiving slot, there being a longitudinal depression within the casing, a forked spring secured at one end within the depression and having inwardly extending projections upon the free end portions of the fork, there being an opening within the casing diametrically opposite the space between the projections, a coin container insertible longitudinally into the casing and having diametrically opposed openings, the wall of one of the openings being adapted to receive the projections to lock the container within the casing, the other one of said openings being adapted to register with one of the openings in the casing, coöperating means upon the casing and container for holding them against relative rotation.

5. A savings bank including a casing having a coin receiving slot, there being a longitudinal depression within the casing, a forked spring secured at one end within the depression and having inwardly extending projections upon the free end portions of the fork, there being an opening within the casing diametrically opposite the space between the projections, a coin container insertible longitudinally into the casing and having diametrically opposed openings, the wall of one of the openings being adapted to receive the projections to lock the container within the casing, the other one of said openings being adapted to register with one of the openings in the casing, and a guard spring secured to one end of the container and normally projecting across the coin receiving opening.

[Claims 6 and 7 not printed in the Gazette.]

1,206,381. ROLLING-MILL. WILLIAM A. SALTER, Kansas City, Mo. Filed Jan. 17, 1916. Serial No. 72,492. (Cl. 80—23.)

1. In an ordnance rolling mill, the combination of a multiplicity of rolls, and hollow adjustable centers contiguous to the ends of the rolls.



2. In an ordnance rolling mill the combination of a multiplicity of rolls, hollow adjustable centers contiguous to the rolls and adapted to convey a cooling element, and yielding constant pressure connection between the centers.

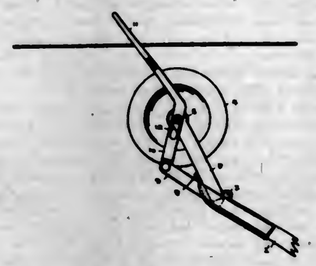
3. In an ordnance rolling mill, the combination of a multiplicity of rolls, hollow adjustable centers contiguous to the rolls, a means to convey cooling element connected to one of the centers and means for controlling the flow of the cooling element.

4. In an ordnance rolling mill, the combination of a multiplicity of rolls, a hollow adjustable center adapted to convey a cooling element, and means for applying pressure endwise to the center.

5. In an ordnance rolling mill, the combination of a multiplicity of rolls, hollow adjustable centers contiguous to the ends of the rolls, and means for applying variable pressure to the rolls.

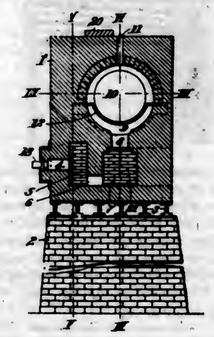
[Claims 6 to 10 not printed in the Gazette.]

1,206,382. TROLLEY FINDER OR CATCHER. HARRY B. SAWYER, Ogden, Utah. Filed Dec. 11, 1915. Serial No. 66,800. (Cl. 191—88.)



The combination with a trolley pole, of a harp, a socket at one end of the harp, means to lock the end of said pole in said socket, a bifurcated extension hingedly secured to the harp, a spring carried by the harp adapted to swing said extension forwardly and upwardly out of alinement with the pole when the pole is moved to inoperative position, a shaft extending through the bifurcated end of said extension, a trolley wheel rotatably mounted on said shaft between the arms of the extension, a pair of arms fixed to said harp, a pair of fingers having one of their ends pivotally attached to the free ends of said arms, an elongated slot through said fingers at a point beyond the pivotal connection of the fingers with the arms, said slots receiving the ends of said shaft, the ends of said fingers beyond said slots being outwardly and rearwardly inclined and inwardly and downwardly inclined prongs on said fingers, said prongs being extended a distance over the inner faces of the flanges of the trolley when the trolley is in inoperative position and moved a distance from the trolley wheel when the wheel is in operative position.

1,206,383. TANK-HEATING FURNACE. WILLIAM SCRIMGEOUR, Lancaster, Pa., assignor to Mirca Fuel Oil Equipment Company, Incorporated, Lancaster, Pa., a Corporation of Pennsylvania. Filed Oct. 1, 1914. Serial No. 864,521. (Cl. 158—1.)



1. A heating furnace comprising a long narrow heating chamber having a long narrow channel in the bottom portion thereof, and means for delivering heating gases to said channel comprising a series of combustion devices arranged along the side of the heating furnace, each comprising a burner, a preliminary combustion chamber, a main combustion chamber and a distributing chamber connected thereto by a series of ports, the upper wall of each distributing chamber having an opening connected to the channel in the bottom of the heating chamber.

2. A heating furnace comprising a long narrow heating chamber having a long narrow channel in the bottom portion thereof, and means for delivering heating gases to said channel comprising a series of combustion devices arranged along the side of the heating furnace, each comprising a burner, a preliminary combustion chamber, a main combustion chamber and a distributing chamber connected thereto, the upper wall of each distributing chamber having an opening connected to the channel in the bottom of the heating chamber.

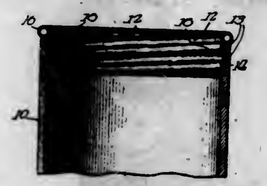
3. A heating furnace comprising a long narrow heating chamber having a long narrow channel in the bottom portion thereof, and means for delivering heating gases to said channel comprising a series of combustion devices arranged along the side of the heating furnace, each comprising a burner, a preliminary combustion chamber, a main combustion chamber and a distributing chamber connected thereto, the upper wall of each distributing chamber having an opening connected to the channel in the bottom of the heating chamber, and a series of vents in the upper wall of the heating chamber.

4. A heating furnace comprising a long narrow heating chamber having a long narrow channel in the bottom portion thereof, and means for delivering heating gases to said channel comprising a series of combustion devices arranged along the side of the heating furnace, each comprising a burner, a preliminary combustion chamber, a main combustion chamber and a distributing chamber connected thereto, the upper wall of each distributing chamber having an opening connected to the channel in the bottom of the heating chamber, a series of vents in the upper wall of the heating chamber, and a tank eccentrically mounted in said heating chamber, the top of the tank being closer to said vents than is its bottom to said channel.

5. A heating furnace comprising a long narrow heating chamber having a long narrow channel in the bottom thereof and vents in its top, a tank eccentrically mounted in said heating chamber, the top of the tank being closer to said vents than is its bottom to said channel, and means for delivering heating gases to said channel.

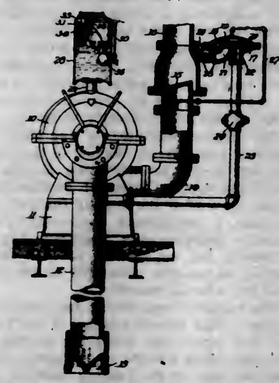
[Claims 6 to 8 not printed in the Gazette.]

1,206,384. CONTAINER. VERNON C. SNYDER, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed May 15, 1915. Serial No. 28,292. (Cl. 22.9—12.)



A container comprising a cylindrical fibrous compressible body molded at one end with an internal screw thread and with an external smooth and cylindrical surface, whereby the internally projecting portions of the screw thread are of the maximum thickness extending to the said cylindrical exterior of the body; combined with a sheet metal cap formed with corresponding exterior screw threads and an outwardly extending edge which abuts the end of the body.

1,206,385. PUMP. JOHN B. SPERRY, Aurora, Ill., assignor to The American Well Works, Aurora, Ill., a Corporation of Illinois. Filed Dec. 3, 1913. Serial No. 804,342. (Cl. 103—43.)

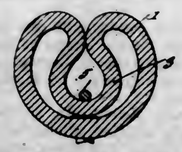


1. The combination of a pump, a regulating valve comprising a casing, a diaphragm extending across said casing, two ports leading from said casing on one side of said diaphragm, and a plate mounted on said diaphragm adapted to close both of said ports, means connecting one of said ports with a head of water, means connecting the other of said ports with said pump, and means connecting said casing on the other side of said diaphragm with the discharge outlet of said pump whereby the pressure of the water pumped during the effective operation of the pump serves to hold said plate in position to keep said ports closed.

2. The combination of a pump, a regulating valve comprising a casing, a diaphragm extending across said casing, two ports leading from said casing on one side of said diaphragm, and a plate mounted on said diaphragm adapted to close both of said ports, means connecting one of said ports with the head of water pumped, means connecting the other of said ports with the inlet side of said pump, and means connecting the said casing on the other side of the diaphragm with the discharge outlet of the pump whereby the pressure of the water pumped acting through the last-named connecting means during the effective operation of the pump serves to hold said plate in position to keep said two ports closed.

3. The combination of a pump, a regulating valve comprising a casing, a diaphragm extending across said casing, two ports leading from said casing on one side of said diaphragm, and a plate mounted on said diaphragm adapted to close both of said ports, a check-valve preventing the return of water to the pump through the discharge outlet, means connecting one of the said two ports of the casing with the head of water pumped above said check-valve, means connecting the other of said two ports with the inlet side of the pump, and a pipe communicating at one end with the casing on the side of the diaphragm opposite that on which said two ports are located and extending into the discharge outlet of the pump between the said check-valve and the pump, being provided with a port in the discharge outlet opening toward the pump whereby the pressure in the casing of the water pumped acting through the said pipe during the effective operation of the pump serves to hold said plate in position to keep said two ports closed.

1,206,386. INNER TUBE FOR PNEUMATIC TIRES. ROPER C. SPRATLING, Opelika, Ala. Filed Feb. 4, 1916. Serial No. 76,199. (Cl. 152—13.)



1. As an article of manufacture, an endless inner tube for pneumatic tires having an annular inwardly extended fold and a restraining means for holding the tube in its folded condition, said restraining means being removable bodily from the tube.

2. As an article of manufacture, an endless inner tube for pneumatic tires, having relatively thick walls of soft rubber provided with a single inwardly extending annular fold, and restraining means detachably connected to the tube for holding it in its folded condition.

3. As an article of manufacture, an endless inner tube for pneumatic tires, having relatively thick walls of soft rubber provided with a single inwardly extending annular fold, and restraining means detachably connected to the tube for holding it in its folded condition, the external diameter of the tube when released from its restraining means being greater than the internal diameter of the casing with which it is to be used.

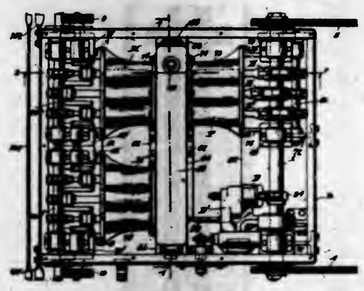
4. As an article of manufacture, an endless inner tube for pneumatic tires, having relatively thick walls of soft rubber, and restraining means detachably connected to the tube for holding the tube partly collapsed out of normal position with a single inwardly extending annular fold, said fold being adapted to return automatically to its normal position when released from its restraining means, the external diameter of the tube when released from said restraining means being greater than the internal diameter of the casing with which it is to be used.

5. As an article of manufacture, an endless inner tube for pneumatic tires having relatively thick walls of soft rubber provided with a single inwardly extending annular fold, and a restraining cord seated within the fold and having detachably connected end portions.

1,206,387. HYDRAULIC VARIABLE AND DIFFERENTIAL SPEED GEAR. AUGUST SUNDH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 17, 1909. Serial No. 496,357. (Cl. 138—22.)

1. The combination with a pressure chamber, and a supply chamber closed to atmospheric pressure, of means for circulating a liquid through said chambers, and devices within said chambers for independently maintaining a continuous elastic pressure on the liquid in both of said chambers during the normal operation of said circulating means.

2. The combination with a supply chamber, of a device within the chamber and operable constantly to maintain a light elastic pressure on liquid in said chamber, a pressure chamber, means therein operable continuously to maintain a heavy elastic pressure of liquid therein, and means for circulating liquid through said chambers.



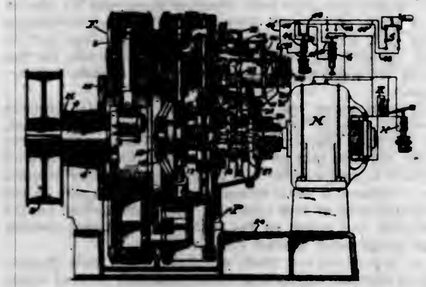
3. The combination with a pressure chamber and a supply chamber, of cylinders therein, a piston in each cylinder, and springs within the cylinders behind the pistons.

4. The combination of a hollow shaft, an eccentric carried thereby, a cam device within the shaft for adjusting the eccentric, means to apply fluid pressure within the shaft to operate the cam device, and pumping mechanism operated by the eccentric and having an output regulated by the adjustment of said eccentric.

5. The combination with a hollow shaft, of an eccentric thereon, pumping mechanism operated thereby, a member movable longitudinally within the shaft and provided with a cam surface, a coöperating member carried by the eccentric and extending into position to engage said cam surface, and fluid pressure mechanism for operating said longitudinally movable member.

[Claims 6 to 21 not printed in the Gazette.]

1,206,388. ELEVATOR SYSTEM. AUGUST SUNDH, Hastings-upon-Hudson, N. Y., and WALDEMAR F. MAYER, Hoboken, N. J., assignors to Otis Elevator Company, a Corporation of New Jersey. Filed May 7, 1914. Serial No. 836,858. (Cl. 187—43.)



1. In a traction elevator system, the combination with a car and counterweight, means for suspending the same, motive power for the car, means controlled from the car for controlling the motive power to control the car in ascending, and to effect a momentary application only of the motive power to give to the car an initial impulse to start the same in a descending direction, and means coöperating with the second named means to prevent a second application of the motive power to the car until the latter has been brought to rest.

2. In a traction elevator system, the combination with a car and counterweight, means for suspending the same, motive power for the car, means controlled from the car for controlling the motive power to control the car in ascending, and to effect a momentary application only of the motive power to give to the car an initial impulse to start the same in a descending direction, the car traveling thereafter by gravity, and means coöperating with the second named means to prevent a second application of the motive power to the car until the latter has been brought to rest.

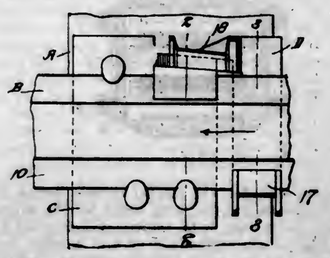
3. In a traction elevator system, the combination with a car, a counterweight, means for suspending the car and counterweight, motive power for the car, means controlled from the car for controlling the motive power to control the car in ascending, and to effect a momentary application only of the motive power to give to the car an initial impulse to start the same in a descending direction, the car traveling thereafter by gravity, and means coöperating with the second named means to prevent a second application of the motive power to the car in descending as the first named means is moved from operated to neutral position.

4. In a traction elevator system, the combination with a car and counterweight, of a hoisting apparatus comprising a driving sheave, cable connections between the sheave, car and counterweight, motive power for driving the car, a manually operable device in the car, means controlled by the said device for effecting the application of the motive power to drive the car in an ascending direction and for effecting a momentary application of the motive power to start the car in a descending direction, and arranged thereafter to allow the same to descend by gravity, and means controlled by the said lever device for effecting a braking action of variable power to the said motive power.

5. In a traction elevator system, the combination of a car and counterweight, means comprising a traction sheave and cable connections for suspending the car and counterweight, motive power for the car, said motive power comprising an electric motor arranged to run in one direction, and fluid power transmission mechanism between the sheave and the electric motor, a manually operable device in the car, and mechanism controlled thereby for controlling the operation of the motive power when the car is ascending, and for effecting a momentary application of the driving power to start the car in a descending direction.

[Claims 6 to 13 not printed in the Gazette.]

1,206,389. TIE-PLATE. RYUSUKE WATANABE, Granger, Wyo. Filed June 16, 1916. Serial No. 104,033. (Cl. 238—2.)

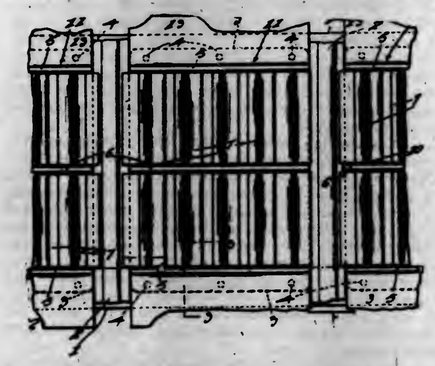


A tie plate comprising a body member having a shoulder thereon adapted to be engaged by the base of a rail, a retaining flange formed with the member and partly overlying the latter, the outer face of the body being provided with an inclined portion disposed at an angle to the longitudinal axis of the body, and a wedge member including a base plate, a retaining flange on the end of the base plate remote from the retaining flange on the body, and a lateral extension on the other end of the base plate having an inclined face coöperating with the inclined face on the body.

1,206,390. CATTLE-GUARD. EUGENE L. WATSON, Deming, Wash. Filed Feb. 4, 1916. Serial No. 76,198. (Cl. 256—16.)

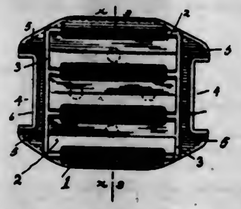
In a cattle guard for railroads, the combination with a plurality of plates mounted on adjacent rail ties, and

on opposite sides of the rails and provided with a plurality of openings, a plurality of shafts positioned between adjacent ties and having their opposite ends arranged within the openings in the adjacent plates, heads carried by the ends of the shafts and lying in spaced relation with the adjacent plates, rollers journaled on the shafts, anchor plates associated with the first-mentioned plates



on the ties and each including an angular body having one side thereof arranged in engagement with the adjacent plate on the adjacent tie and having a plurality of slots therein for receiving the reduced portions of the shafts, at points between the heads and the first-mentioned plates, the said anchor plate having its opposite side spaced from the adjacent tie and extending outwardly and beyond the same, as and for the purpose specified.

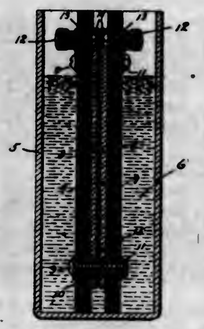
1,206,391. ROLLER-SEAT FOR LATERAL-MOTION TRUCKS. EDWIN W. WEBB and FRANKLIN L. BARBER, Chicago, Ill., assignors to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Sept. 3, 1915. Serial No. 48,929. (Cl. 105—248.)



A roller seat, for the lateral motion device of a car truck, formed on one face with roller bearing surfaces and provided at its ends with column-engaging notches, and thrust lugs at the extremities of said notches, said seat, on its side with the roller bearing surfaces, having flanges that follow the three sides of said column-engaging notches and on its other side having an endless marginal flange that follows the outer side edges thereof, the margins of said thrust lugs and the three sides of said column-engaging notches.

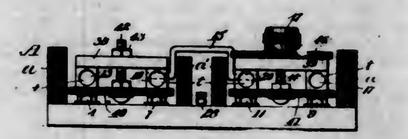
1,206,392. ELECTRIC WATER-HEATER. JESSE F. WHEELOCK, Dobbins, Cal. Filed July 14, 1914. Serial No. 850,937. (Cl. 219—40.)

An electric heating element for insertion into a container to heat a liquid therein, consisting of a pair of insulating plates in parallel relation, a conductor plate disposed against the inner face of each insulating plate, an insulating spacing block disposed between and in contact with the mutually adjacent faces of the conductor plates at one end thereof, said plates and block having registering perforations, a clamping device passed through said perforations and insulated from the conductor plates



and impinging against the outer faces of the insulating plates, and electrical connections carried by the conductor plates.

1,206,393. METER TEST-BLOCK. ROGER S. WHITE, Washington, D. C. Filed Apr. 10, 1914. Serial No. 830,976. (Cl. 175—183.)



1. In a meter test block, a suitable base, a plurality of studs secured to and projecting therefrom, and supply, house, and meter terminals, each supported on one of said studs and spaced away from the base.

2. In a meter test block, a suitable base, a plurality of studs secured to and projecting therefrom, supply, house and meter terminals each mounted separately on one of said studs and spaced away from the base, connecting bars each adapted to engage two adjacent studs and to rest against the terminals thereon, and means on the studs for clamping the connecting bars against the terminals.

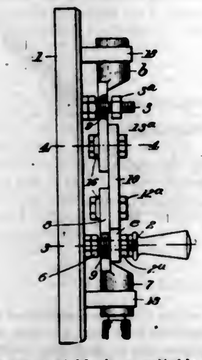
3. In a meter test block, a base, a supply terminal theeron, a house terminal adjacent said supply terminal, an insulated clamping member loosely connected with the block and arranged at one side of said terminals, a stud secured to said member and projecting outwardly between the terminals, a metal bridge piece adapted to rest on the opposite sides of said terminals and perforated to receive the stud, and means on the stud for forcing said member and bridge piece against the terminals.

4. In a meter test block, a suitable base, studs projecting therefrom, supply and house terminals secured thereto, an insulated clamping member connected to the block beneath each supply terminal and an adjacent house terminal, a stud secured to each clamping member and projecting outwardly between the adjacent supply and house terminals, metal bridge pieces, each adapted to engage the outer sides of adjacent supply and house terminals and having a central opening to receive the stud, and means on the studs for clamping said members and bridge pieces against the terminals.

5. In a meter test block, a suitable base, supply, house and field terminals thereon, means for short-circuiting the meter fields, means for making and breaking the connections between the field terminals and the supply and house terminals, a housing adapted to cover the supply and house terminals connected with one side of the line, and means for connecting the fields in series.

[Claim 6 not printed in the Gazette.]

1,206,394. METER TEST-BLOCK. ROGER S. WHITE, Washington, D. C. Filed May 8, 1915. Serial No. 26,711. (Cl. 175—183.)

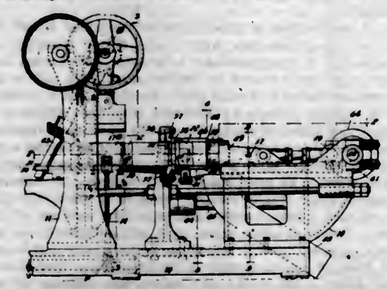


1. In a meter test block, a suitable base, supply, house and meter field terminals mounted thereon and each adapted to rock laterally and longitudinally, bars detachably connecting the meter field terminals with the supply and house terminals, respectively, and a bar adapted to connect the supply and house terminals.

2. In a meter test block, a suitable base, supply, house and meter field terminals each fulcrumed thereon and each adapted to rock in two directions, said terminals having flat contact surfaces, bars having similar surfaces connecting the meter field terminals with the supply and house terminals respectively, and a bar having a flat surface adapted to engage the contact surfaces of the supply and house terminals.

3. In a meter test block, a suitable base, supply, house and meter field terminals, devices projecting from the base and each loosely supporting a terminal away from the base, each terminal having a wire attaching portion and a flat contact portion, bars, having flat surfaces, connecting the contact portions of the meter field terminals with the like portions of the house and supply terminals, means for clamping said bars to said terminals, a bar having a flat surface adapted to engage the contact surfaces of the house and supply terminals, and means for clamping said latter bar against said latter terminals.

1,206,395. CAN-BODY-MAKING MACHINE. MAGNUS E. WIDELL, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 8, 1912. Serial No. 689,418. (Cl. 113—7.)



1. In a machine of the class described, in combination, a can body supporting horn, beading dies and necking-in mechanism including a reciprocating external necking-in die.

2. In a machine of the class described, in combination, a can supporting horn, beading dies, an internal necking-in die secured to the end of said horn and a reciprocating external necking-in die.

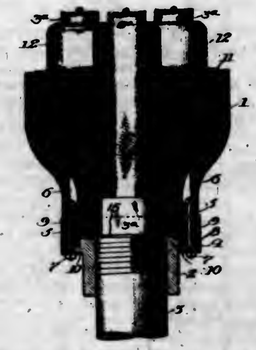
3. In a machine of the class described, in combination, a can body supporting horn, expansible beading dies mounted on the end of said horn and coöperating external and internal necking-in dies.

4. In a machine of the class described, in combination, a can body supporting horn, beading dies, necking-in mechanism and flanging mechanism, said dies and mechanisms adapted to operate on a can body while on the supporting horn.

5. In a machine of the class described, in combination, a can body supporting horn, a conveyer for moving can bodies along said horn, flanging dies and beading dies, said sets of dies being adapted to operate on a can body while the same is on the supporting horn.

[Claims 6 to 37 not printed in the Gazette.]

1,206,396. MULTIPLE POTHEAD. PAUL F. WILLIAMS, Chicago, Ill., assignor to G. & W. Electric Specialty Co., Chicago, Ill., a Corporation of Illinois. Filed June 1, 1908. Serial No. 435,940. (Cl. 247—12.)



1. A device of the class specified, comprising a bowl made of insulating material and having its bottom provided with an aperture to receive a cable sheath, and having a top which is provided with a plurality of apertures of a size to serve as outlets for the insulated strands of the cable, a cable having its outer sheath or covering arranged within the bottom aperture of the bowl and having said sheath removed from the portion of the cable within the bowl and having the outer insulation of the cable removed from a portion of said part of the cable within the bowl, said cable having its insulated strands extended out through the outlets in the top of the bowl, said outlets being formed by upwardly extending tubular projections formed integral with the cover and having bores substantially the size of the insulated cable strands, and insulating material in the interior of the bowl surrounding the insulated cable strands and the portion of the cable stripped of its outermost cover or sheath.

2. A pot head comprising a bowl, 1, having a contracted lower end provided with apertures, a collar, 2, located at the bottom of the bowl, and having a flange 4, adapted to fit the lower edge of the bowl, a rubber gasket, 8, between the flange, 4, and the lower edge of the bowl, a metallic sheath, 9, fitted upon the lower end portion of the bowl, and having its lower edge bent inwardly below the flange 4, threaded bolts, 5, 5, passed through said apertures in the lower portion of the bowl, 1, and engaging the flange 4 of the collar 2, and a loose cover or top, 11, fitted to the open top of the bowl.

3. A device of the class specified comprising a bowl having its bottom provided with an aperture adapted to receive a cable sheath, said aperture being of substantially the same size as the cable sheath, said bowl having a top provided with a plurality of apertures adapted to serve as outlets for strands of cable, said apertures being of

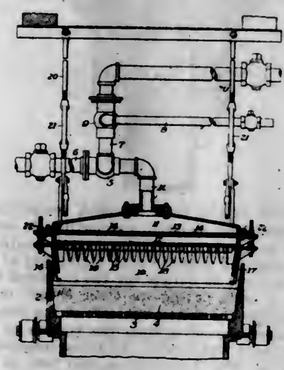
substantially the same size as the cable strands, a cable extending through said aperture in the bottom of the bowl and having its sheath and parts of its insulation removed and its strands separated within the bowl and extended up through the outlet apertures in the top thereof, and insulating material substantially filling the interior of said bowl and sealing the cable end.

4. A device of the class specified, comprising a casing having an opening, a perforate plug for said opening and a metal tube or pipe passing through said opening and flanged at the inner edge of said plug, insulating compound within the casing sealing the joint between the flanged end of the tube or pipe and the perforated plug and insulated conductors extended through said metal tube or pipe and also through said insulating compound.

5. A device of the class specified, comprising a casing having an opening, a perforate plug for closing said opening, said plug having a shoulder adapted to fit against a rim of said opening, screw bolts extended through the casing wall and engaging said plug to hold the same in position and insulating compound arranged within the casing covering the inner ends of said bolts.

[Claims 6 to 13 not printed in the Gazette.]

1,206,397. IGNITION-FURNACE FOR SINTERING-MACHINES. FREDERICK W. YOST, New York, N. Y., and BETHUNE G. KLUGH, Cleveland, Ohio, assignors to American Ore Reclamation Company, New York, N. Y., a Corporation of New York. Filed Mar. 11, 1915. Serial No. 13,721. (Cl. 266—21.)



1. An ignition furnace for sintering apparatus, having a combustion chamber and an interchangeable fluid fuel supply, substantially as described.

2. An ignition furnace for sintering apparatus, having a combustion chamber, supply connections leading to different sources of gas supply, and controlling means whereby either source of supply may be used independently of the other, or a proper mixture of both may be used, substantially as described.

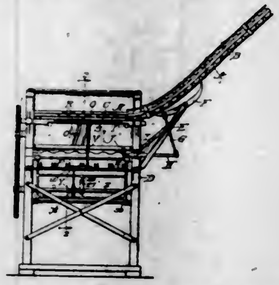
3. An ignition furnace for sintering apparatus, having a combustion chamber and a detachable and interchangeable fluid fuel supply system, substantially as described.

4. An ignition furnace for sintering apparatus, having a combustion chamber, a distributing chamber formed with a transverse perforated distributing element, and a plurality of burner orifices below said element above the combustion chamber, substantially as described.

5. An ignition furnace for sintering apparatus, comprising a distributing chamber having a transversely arranged perforated distributing plate or diaphragm, a fuel supply system connected thereto above the plate or diaphragm, and a series of burner orifices or nozzles below said plate or diaphragm, substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

1,206,398. CAN-FEEDING MECHANISM. AUGUST M. AUGENSEN, Maywood, Ill., assignor to Sanitary Can Company, New York, N. Y., a Corporation of New York. Filed Mar. 25, 1912. Serial No. 686,116. (Cl. 198—1.)



1. A mechanism of the character described and adapted to be used in conjunction with a can filling machine and comprising an inclined chute through which cans are adapted to travel by gravity, resting on their sides and bearing successively against each other, an escapement lever pivotally mounted contiguous to said chute at the incline thereof and arranged to have its integral ends projected alternately into said chute to prevent passage of cans therethrough and to release a predetermined number thereof, means for rocking said lever, a succession of righting devices over which respectively said predetermined number of cans are caused to be fed by gravity and by the operation of said escapement lever, and means having connection with said escapement lever for actuating all of said righting devices simultaneously.

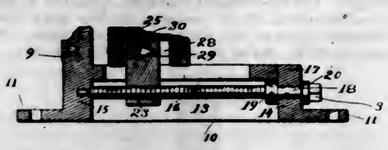
2. A mechanism of the character described adapted to be used in conjunction with a can filling machine and comprising, in combination: a gravity feed chute down which cans are adapted to fall by gravity; a rocker arm pivoted contiguous to said chute for releasing a predetermined number of cans at intervals from said chute; a reciprocating table onto which the cans pass when delivered from said chute; a plate beneath said table having a plurality of holes therein, the number of said holes corresponding to the number of cans fed at each interval; horizontally arranged guide tracks located below said plate, the number of said tracks corresponding to the number of said holes; chutes leading from each of said holes to said tracks; a stop against which the cans are brought when said table is reciprocated; a reciprocating feed bar located above said tracks and below the bottoms of said chutes for pushing the cans along said tracks; and means for reciprocating said bar and table and for oscillating said rocker arm, substantially as specified.

3. A mechanism of the character described adapted to be used in conjunction with a can filling machine and comprising, in combination: a gravity feed chute down which cans are adapted to fall by gravity; a rocker arm pivoted contiguous to said chute for releasing a predetermined number of cans at intervals from said chute; a reciprocating table onto which the cans pass when delivered from said chute; a plate beneath said table having a plurality of holes therein, the number of holes corresponding to the number of cans fed at each interval; horizontally arranged guide tracks located below said plate, the number of said tracks corresponding to the number of said holes; chutes leading from each of said holes to said tracks; a stop against which the cans are brought when said table is reciprocated; a reciprocating feed bar located above said tracks and below the bottoms of said chutes for pushing the cans along said tracks; and means for reciprocating said bar and table and for oscillating said rocker arm, said means including a cam carried by said feed bar, a lever operated by said cam and connections between said lever and the rocker arm, substantially as specified.

4. A mechanism of the character described adapted to be used in conjunction with a can filling machine and comprising, in combination: a chute down which cans are adapted to feed by gravity; an arcuate-shaped escapement lever located adjacent said chute and arranged to have its ends projected alternately into the chute whereby to feed a predetermined number of cans at a time; a reciprocating table onto which the cans pass when delivered from said chute; a plurality of tracks located below said table; a plurality of chutes beneath the table and having their lower ends disposed above said tracks; stops against which the cans are brought when said table is reciprocated; concave plates opposite said stops at the opposite ends of the cans arranged to prevent the cans from binding thereon as the cans tilt when the table is withdrawn from beneath the cans; and mechanism for oscillating said escapement lever and for reciprocating said table, substantially as specified.

5. A mechanism of the character described comprising, in combination: a reciprocating table onto which a plurality of cans are adapted to be fed at intervals; a stationary plate having a plurality of holes therein located below said reciprocating table; a plurality of tracks below said plate, the number of said tracks corresponding to the number of holes in said plate; a plurality of chutes for guiding the cans as they pass through said holes onto the tracks; stops against which the ends of the cans are brought when said table is reciprocated and moved from beneath the cans; and concave plates R arranged opposite said stops and adapted to prevent binding of the edges of the cans as the same tilt through the holes when the table is reciprocated, substantially as specified.

1,206,399. VISE. EDWARD C. BARTLETT, Middletown, Conn., assignor to David Grant, Middlefield, Conn. Filed Oct. 28, 1914. Serial No. 869,027. (Cl. 81—33.)



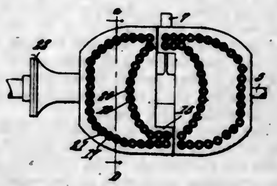
1. In vise mechanism the combination of a frame, a screw journaled in the frame, a movable jaw slidable in the direction of the axis of the screw, a nut carried upon the screw, and engaging means for connecting the nut with the movable jaw having the force transmitting abutment oblique to the line of the screw thrust in the direction to force the jaw to its seat by the act of forcing it against the work.

2. In vise mechanism the combination of a frame, carrying a fixed clamping jaw, a power screw journaled in the frame, a movable jaw slidably seated and guided upon the frame, in clamping relation to the fixed jaw, a nut carried upon the screw in engagement with the movable jaw, the jaw and nut being provided with coacting engaging camming surfaces for such engagement adapted to transmit the force of the screw to the movable jaw diagonally to the plane of its movement, and in the direction to force the jaw upon its seat by the action of clamping the work between the fixed and movable jaws.

3. In vise mechanism the combination of a frame, a fixed clamping jaw carried upon the frame, a screw journaled in the frame and adapted to thrust upon the fixed jaw, a movable nut block carried upon the screw, a movable clamping jaw guided upon the frame and slidably mounted with relation to the fixed jaw, and engaging means between the movable jaw and nut block comprising diagonal camming surfaces by which the pressure of the actuating screw upon the block is transmitted to the clamping jaw in a line diagonal to the movement of the jaw to actuate the movable jaw at right angles to the axis of the screw, and upon its seat in the act of clamping the work, substantially as and for the purpose specified.

4. In vise mechanism the combination of a frame having a fixed clamping jaw mounted thereon, a power screw journaled in the frame and adapted to thrust upon the fixed jaw, a nut block carried upon the screw, a movable clamping jaw guided upon the frame slidable in relation to the fixed jaw, and engaging means between the movable jaw and nut block comprising coacting surfaces oblique to the axial line of the screw in the direction to transmit the screw pressure on the movable jaw in part to force the jaw against its bearing on the frame and seat it thereon in the act of clamping the work, substantially as and for the purpose specified.

1,206,400. BURNER FOR FLUID-HEATERS AND THE LIKE. ADOLF BELER, Pittsburgh, Pa. Filed Nov. 12, 1915. Serial No. 61,131. (Cl. 158—112.)



1. A gas burner including a conduit, spaced base members carried thereby and communicating therewith, cover plates secured upon the base members and having gas vents, there being an air space between the base members and extending upwardly between the cover plates, said air space being surrounded by the gas vents.

2. A gas burner including a conduit, spaced base members integral with the conduit and having apertures thereing opening into the conduit, a cover plate detachably secured upon each base member, each cover plate having a longitudinal extension at one side projecting up to the opposed cover plate, there being an air space between the cover plates and their longitudinal extensions and above the space between the base members, said cover plates having gas vents.

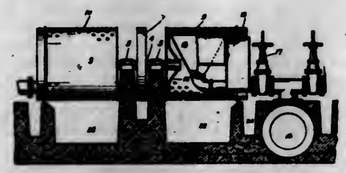
3. A gas burner including a conduit, spaced base members carried thereby and communicating therewith, a screen mounted upon each base member and having parallel upstanding corrugations formed with transverse slits, and cover plates bearing upon the marginal portions of the screens and clamping them upon the base members, said cover plates having gas vents, there being an air space between the base members and extending upwardly between the cover plates, said air space being surrounded by the gas ports or vents.

4. A gas burner including a conduit, base members integral with the conduit and spaced apart, cover plates detachably secured upon the respective base members and each having a hollow longitudinal extension at one side extending up to the opposed cover plate, there being a space between the cover plates registering with the space between the base members, each cover plate having a series of gas vents extending transversely thereof and into the hollow extension.

1,206,401. PULP-SCREEN AND PROCESS. DANIEL L. BELLINGER, Glens Falls, N. Y. Filed Oct. 25, 1915. Serial No. 57,763. (Cl. 92—35.)

1. The method of screening paper pulp stock which consists in discharging the stock against the inner surfaces of a rotating cylindrical open-ended perforated screen in a direction substantially transverse to the axis of the screen and at a level substantially above the lowest point of travel of the screen, the speed of rotation of the screen being so calibrated to the stock treated and the level of the feed that the tailings will fall away from the surface of the screen before the level of the feed is reached, continuously and progressively forming a roll along the ascending lower portion of the screen and will continuously

and progressively move out of the open end of the screen in a longitudinal direction.



2. The method of screening paper pulp stock which consists in discharging the stock upon a clean portion of the inner surface of a rotating cylindrical perforated screen in a lateral direction and in a sheet extending lengthwise of the screen, and keeping the screen perforations at the level of discharge clean by rotating the screen under such conditions that the tailings separated by the screen will continuously and progressively roll back along the ascending lower portion of the screen forming a roll which withdraws from the perforations any slivers that have temporarily lodged therein.

3. In a paper pulp screening machine, a rotary cylindrical screen having a freely open end constituting the discharge verge for the tailings of the screening operation, a distributer extending lengthwise of the screen for discharging the pulp in a lateral direction upon the inner surface of the screen, and means adjacent the open outlet end of the screen for receiving the tailings as they contiuously and progressively move out over the open tailings-discharge verge of the screen; substantially as described.

4. In a paper pulp screening machine, a rotary cylindrical screen, having a freely open end constituting the discharge verge for the tailings of the screening operation, a distributer extending lengthwise of the screen for discharging the pulp upon the inner surface of the screen in opposite lateral directions, and means adjacent the open outlet end of the screen for receiving the tailings as they continuously and progressively move out over the open tailings-discharge verge of the screen; substantially as described.

5. In a paper pulp screening machine, a rotary cylindrical screen having a freely open end constituting the discharge verge for the tailings of the screening operation, a distributer extending lengthwise of the screen for discharging the pulp in the form of a sheet and in a lateral direction upon the inner surface of the screen, the distributer terminating short of the discharge end of the perforated portion of the screen to afford a screening region for the progressive drying of the tailings, and means adjacent the open outlet end of the screen for receiving the tailings as they continuously and progressively move out over the open tailings-discharge end of the screen; substantially as described.

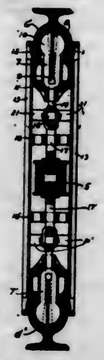
[Claims 6 to 13 not printed in the Gazette.]

1,206,402. ELEVATOR SAFETY DEVICE. JAMES F. BEMIES, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 31, 1913. Serial No. 798,395. (Cl. 187—91.)

1. In an elevator safety device, the combination of a car, a hollow expansive guide rail, a bushing carried by the car and movable in the hollow guide rail, and means for expanding said bushing.

2. In an elevator safety device, the combination of a car, a hollow expansive guide rail, a bushing carried by the car and movable in the hollow guide rail, and automatic means for expanding said bushing into frictional contact with the said guide rail to retard the car.

3. In an elevator safety device, the combination of a car, a hollow guide rail, a bushing carried by the car and movable in the hollow guide rail, and means controlled by the speed of the car for expanding said bushing into frictional contact with the said guide rail to retard the car.

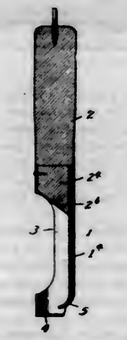


4. In an elevator safety device, the combination of a car, a hollow expansive guide rail of substantially cylindrical form, and a device on the car adapted to be forced into frictional contact with said guide rail.

5. In an elevator safety device, the combination of a car, a hollow expansive guide rail of substantially cylindrical form, and a device on the car freely movable within the hollow portion of said guide rail and adapted to be forced into frictional engagement therewith to retard the car.

[Claims 6 to 12 not printed in the Gazette.]

1,206,403. APPLE-CORING DEVICE. CHARLES P. BENEDICT, Montclair, N. J., assignor to The Boye Needle Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 5, 1916. Serial No. 118,455. (Cl. 146—6.)



1. A coring-device comprising a tubular member having one wall cut away and having an inwardly-projecting tongue at the lower end.

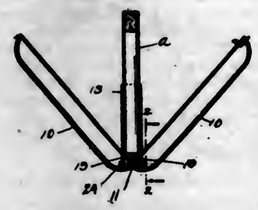
2. A coring-device comprising a tubular member having its front wall cut away and having its rear wall provided near the lower end of the tubular member with an inwardly-curved tongue, and a handle.

3. A coring-device comprising a tubular member having a sharpened lower end edge and having a portion of its front wall cut away, the lower portion of the rear wall of said tubular member being provided with an in-curved tongue, and a handle from which said tubular member depends.

4. A coring-device comprising a sheet-metal tubular member having a vertical seam, the metal being cut away at points flanking the lower end of said seam and the seam-portion curved inwardly, a portion of the front wall of said tubular member being also cut away, and a handle carrying said tubular member.

5. A coring-device comprising a metal tubular member having a portion of its front wall cut away and having a sharpened lower end edge, the lower end-portion of said tubular member having metal cut away to form a tongue, said tongue being curved inwardly.

1,206,404. CIGARETTE-CASE. JOHN H. BENS, Providence, R. I. Filed Mar. 11, 1916. Serial No. 83,473. (Cl. 206—41.)



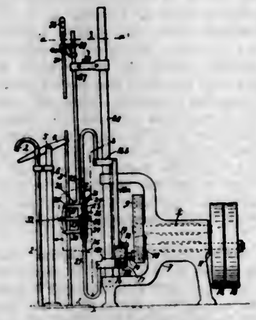
1. A case of the character described comprising a pair of hinged lids, a holder within the case, said holder being supported by a leg on either side of the hinge rigidly connected to the holder and pivotally connected to the opposite lids.

2. A case of the character described comprising a pair of hinged lids, a holder within the case, said holder being supported by a bridge member having legs straddling the lid hinge and pivoted at either end to the opposite lids.

3. A case of the character described comprising a pair of hinged lids, a holder within the case, said holder being supported on legs fixed to the holder and yieldingly attached to the opposite lid members.

4. A case of the character described comprising a pair of hinged lids, a holder within the case having two sides connected by a spring hinge, said holder being supported on four legs, two being hinged to each lid.

1,206,405. PUMPING-JACK. VICTOR E. BENSON, Dassel, Minn. Filed June 8, 1916. Serial No. 102,495. (Cl. 74—14.)



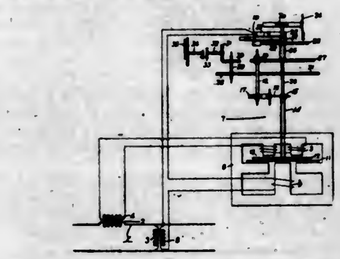
1. In a pumping jack and mounted in a suitable frame, a drive shaft having a pinion, an internally-toothed gear driven by said pinion and having a crank pin with an antifriction roller on same, a yoke guided to reciprocate up and down in the frame and operated by said roller, a vertically disposed bar carried by the yoke, a cross-head adjustably secured on the bar and means for adjustably securing a pump rod to the cross head, said antifriction roller having an annular flange moving along the yoke and the yoke having a guiding ledge taking over the flange of the roller to prevent separation of the roller and the yoke.

2. In a pumping jack, the combination with a main frame and a main post fixed in the same, of a yoke slidable on the post and means for reciprocating the yoke on the post, a cross-head carried by the yoke and having clamping means for securing a pump-rod to it; a secondary post removably secured to the cross-head and having a guide slidable on the main post and clamping means at the upper end of the secondary post for engaging the pump rod of a pump having a hollow post about it so it cannot be attached at a lower point.

3. In a pumping jack, the combination with a vertically reciprocated yoke, of a vertical rod carried by the yoke and having indentures, a cross head slidable on said rod and having a dog adapted to engage in the indentures, a spring tending to withdraw the dog, a cam lever arranged to press and hold the dog in engagement and means for securing a well pump rod to the cross-head.

4. In a pumping jack, the combination with a vertically reciprocated yoke of a vertical rod carried by the yoke and having indentures, a cross-head slidable on said rod and having a dog adapted to engage in the indentures, a spring tending to withdraw the dog, a cam lever arranged to press and hold the dog in engagement, and means for securing a well pump rod to the cross head, said rod securing means comprising meeting jaws having adjacent notches for gripping a flat rod and segmental notches for gripping a round rod and a clip forcing said jaws toward each other.

1,206,406. ELECTRICAL MEASURING INSTRUMENT. CLARENCE A. BODDIE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 4, 1915. Serial No. 65,012. (Cl. 171—34.)



1. In an electrical-measuring instrument, the combination with two movable armatures and a single means for simultaneously actuating the same, of means interposed between the said armatures whereby one controls the operation of the other, means for yieldingly opposing the movement of one armature and for returning the said armature that is opposed in its movement to its initial position when its resultant torque is substantially zero.

2. In an electrical-measuring instrument, the combination with two movable armatures and a single means for simultaneously actuating the same, of means interposed between the said armatures whereby one controls the said operation of the other, means for opposing the movement of one armature and means for open-circuiting the actuating means when the torque of the armature that is opposed in its movement reaches a predetermined value.

3. In an electrical-measuring instrument, the combination with two movable armatures and a single means for simultaneously actuating the same, of means interposed between the said armatures whereby one controls the other, resilient means for retarding the operation of one armature, and means controlled by the said retarded armature for open-circuiting the actuating means when the torque of the resilient means neutralizes the torque of the armature.

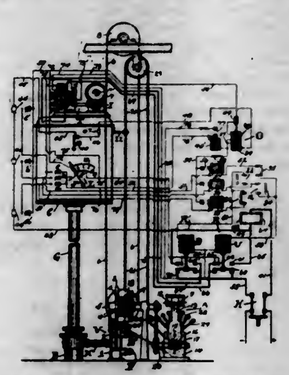
4. In an electrical-measuring instrument, the combination with two movable armatures and a single means for simultaneously actuating the same, of a spring for oppos-

ing the operation of one armature, and means controlled by the spring-opposed armature for open-circuiting the actuating means when the torque of the spring neutralizes the torque of the armature.

5. In an electrical-measuring instrument, the combination with two armatures and a single means for simultaneously actuating the same, of means interposed between the armatures whereby one controls the operation of the other, and means for periodically returning one of the armatures to its initial position.

[Claims 6 to 23 not printed in the Gazette.]

1,206,407. HYDRAULIC-ELEVATOR CONTROL. JOHN E. BOYCE, Peekskill, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 10, 1913. Serial No. 753,232. (Cl. 187—29.)



1. In a hydraulic elevator, the combination of a car, a hydraulic motor, a controlling valve therefor, and motor means carried on the car and connected to the valve operable automatically to control the car throughout its entire travel.

2. In a hydraulic elevator, the combination of a car, a hydraulic motor, a controlling valve therefor, and electro-responsive means carried on the car and connected to the valve to control the car in accordance with its speed.

3. In a hydraulic elevator, the combination of a car, a hydraulic motor, a valve, and an automatically controlled electro-responsive means carried on the car and connected to the valve operable to control the car in accordance with its speed.

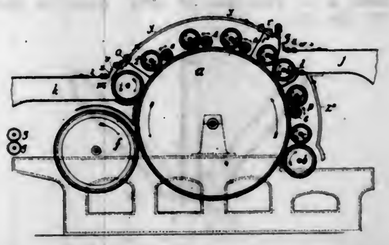
4. In a hydraulic elevator, the combination of the car, the valve, a rotary power unit carried by the car and connected to the valve dependent on the joint action of its speed and the car speed for its operation to control the speed of the car.

5. In a hydraulic elevator, the combination of the car, a hydraulic motor, a valve therefor, and motor means carried by the car and connected to the valve dependent on the joint action of its speed and the car speed for its operation automatically to control the speed of the car.

[Claims 6 to 41 not printed in the Gazette.]

1,206,408. APPARATUS FOR SEPARATING AND GRADING FIBERS. FREDERICK SAMUEL JAMES BROOMB, Matlock, England. Filed Aug. 22, 1911. Serial No. 645,462. (Cl. 19—3.)

1. Apparatus for separating and grading fibers comprising a carding-engine with a cylinder, means for effecting preliminary carding, and a casing and a roller within the casing in proximity to the cylinder to remove fiber therefrom and an opening in the casing in proximity to the roller extending in width throughout the length of such roller, means for driving the roller, a trunk which extends across the whole width of and is in connection with the said opening and has adjacent to such opening an opening extending across its whole width for the entrance of air from without the carding engine casing, settling space in connection with the said trunk for allowing diminution of the velocity of an air current entering it and the deposit of different fibers in different parts and means for causing a current of air through the trunk into the settling space independently of the action of the roller, substantially as hereinbefore described.



2. Apparatus for separating and grading fibers comprising a carding engine with a cylinder, means for effecting preliminary carding, and a casing and a roller within the casing in proximity to the cylinder to remove fiber therefrom and an opening in the casing in proximity to the roller extending in width throughout the length of such roller, means for driving the roller, a plate fixed adjacent to such roller and opening, a trunk which extends across the whole width of and is in connection with such opening and has adjacent to such opening an opening extending across its whole width for the entrance of air from without the carding engine casing, settling space in connection with the said trunk for allowing diminution of the velocity of an air current entering it and the deposit of different fibers in different parts and means for causing a current of air through the trunk into the settling space independently of the action of the roller, substantially as hereinbefore described.

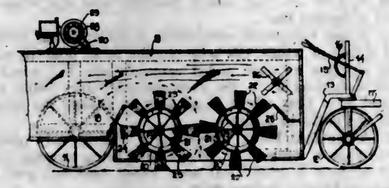
3. Apparatus for separating and grading fibers comprising a carding engine with a cylinder, means for effecting preliminary carding, and a casing and a plurality of rollers within the casing in proximity to the cylinder to remove fiber therefrom and an opening in the casing in proximity to each such roller extending in width throughout the length of such roller, means for driving the rollers, a trunk which extends across the whole width of and is in connection with said openings and has adjacent to each such opening an opening extending across its whole width for the entrance of air from without the casing of the carding engine, settling space in connection with the said trunk for allowing diminution of the velocity of an air-current entering it and the deposit of different fibers in different parts and means for causing a current of air through the trunk into the settling space independently of the action of the rollers, substantially as hereinbefore described.

4. Apparatus for separating and grading fibers comprising a carding engine with a cylinder, means for effecting preliminary carding, and a casing and a plurality of rollers within the casing in proximity to the cylinder to remove fiber therefrom and an opening in the casing in proximity to each roller extending throughout the length of such roller, means for driving the rollers, a plurality of trunks each of which extends across the whole width of and is in connection with one of said openings and has adjacent to such opening with which it is in connection an opening extending across its whole width for the entrance of air from without the carding engine casing, settling spaces each in connection with one of the said trunks for allowing diminution of the velocity of an air-current entering it and the deposit of different fibers in different parts and means for causing a current of air through each trunk into the corresponding settling space independently of the action of the rollers, substantially as hereinbefore described.

5. Apparatus for separating and grading fibers comprising a carding engine with a cylinder, means for effecting preliminary carding, and a casing and a plurality of rollers within the casing in proximity to the cylinder to remove fiber therefrom and an opening in the casing in proximity to each roller and extending in width throughout the length of such roller, means for driving the rollers, plates fixed adjacent to such rollers and the openings adjacent to them, a plurality of trunks each of which extends across the whole width of and is in connection with one of said openings and has adjacent to the opening with which it is connected an opening extending across its whole width for the entrance of air from without the carding engine casing, settling space in connection with the said trunks for allowing diminution of the velocity of air-current entering it and the deposit of different fibers in different parts and means for causing currents of air through the trunks into the settling space independently of the action of the rollers, substantially as hereinbefore described.

[Claim 6 not printed in the Gazette.]

1,206,409. CLOVER-HEAD HARVESTER OR PICKER. WILLIAM R. BRUCE, Twin Falls, Idaho. Filed July 26, 1916. Serial No. 111,478. (Cl. 56—2.)



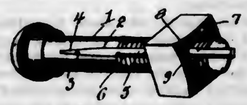
1. A clover head harvester of the character described comprising a casing open at its bottom and formed at its rear with a seed compartment, a pair of rotatable elements mounted in the bottom of the casing and having radially projecting brushes adapted to engage with the ground, so spaced from each other that paths of the confronting ends of the brushes intersect, means for directing a blast of air across the path of travel of the upper portion of the brushes and toward the receptacle at the rear of the machine, and means for rotating the brushes in relatively reverse directions.

2. In a clover head harvester of the character described, a wheeled casing open at the bottom and formed at its rear with a seed compartment, a pair of rotatable elements mounted in the casing and extending transversely thereof, brushes mounted thereon, the paths of travel of the ends of said brushes intersecting; means for rotating said elements in relatively reverse directions to carry seed engaged by the brushes upward into the casing, and a fan mounted above and in advance of the forward rotatable element and directing a blast of air rearward toward the seed compartment and across the upwardly extending bristles of the brushes.

3. In a clover head harvester machine of the character described, a wheeled casing open at its lower end, having a seed compartment at its rear end, rotatable elements mounted in the casing and extending transversely thereof, a plurality of brushes mounted on each rotatable element, the forward brushes being of wire, a fan mounted in the casing above and in advance of the forward brushes and directing a blast of air rearward toward the seed receptacle and across the upwardly extending bristles of the brushes, and means for driving the fan and driving the rotatable elements in relatively reverse directions to each other.

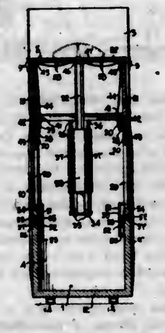
4. In a clover head harvester of the character described, a casing open at its bottom and formed at its rear with a seed receptacle, wheels supporting the rear end of the casing, a wheeled support for the forward end of the casing, means for vertically adjusting the forward end of the casing upon said wheeled support, a pair of drums rotatably mounted within the casing and extending transversely thereof and having radially projecting brushes, each of said drums including a shaft extending to the exterior of the casing, said drums being so disposed relatively to each other that the paths of travel of the ends of the brushes intersect, a fan mounted in the forward end of the casing above and in advance of the forward drum, said fan including a shaft, a band wheel on the shaft, a motor mounted on the casing, and a belt connection between the motor and the band wheels and driving the forward and rear drums in a clockwise and counter-clockwise direction respectively and driving the fan in the same direction as the forward drum.

1,206,410. NUT-LOCK. ERASTUS H. BUTLER, Knoxville, Miss. Filed Apr. 26, 1915. Serial No. 23,970. (Cl. 151—9.)



In combination a threaded bolt, said bolt being formed with a longitudinal channel, said channel extending inwardly of the threads upon the bolt, the edges of the inner end of said channel converging inwardly thereof and being disposed in dove-tailed relation as to incline in opposite directions, the edges of said channel leading from said dovetailed edges being disposed substantially rectangular in cross section and opening out from the threaded end of the bolt, a nut threaded on to the threaded end of the bolt, said nut being formed upon the inner edge of its bore with opposing grooves consisting of a straight and curved edge and a longitudinally extending spring lock member having its inner portion converging and dovetailed into the converging dovetailed edges of the channel of the bolt, said spring lock member having its intermediate portions deflected out of in advance from the dovetailed end of said channel, said lock member having its intermediate end portion and outer end portion adapted to dispose so as to lie in the rectangular end of the channel and provided with oppositely straight and curved edges whereby to normally enter the grooves of the nut but depressible into the channel of the bolt.

1,206,411. TRUNK. GEORGE MILLARD CALMESS, Anderson, Ind. Filed Mar. 15, 1916. Serial No. 84,412. (Cl. 190—15.)



1. A trunk having one end open, a closing member for said open end, an extensible section mounted within the trunk and adapted to pass outwardly through the open end thereof, automatic means for imparting movement to the section in one direction, automatic means carried by the trunk and coacting with the section for holding the same

against outward movement, and means for releasing said last named means.

2. A trunk having one end open, a closing member for said open end, an extensible section mounted within the trunk and adapted to pass outwardly through the open end thereof, automatic means for imparting movement to the section in one direction, automatic means carried by the trunk and coacting with the section for holding the same against outward movement, and means extending exteriorly of the trunk for releasing said last named means.

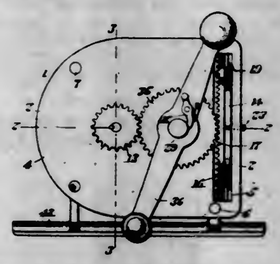
3. A trunk having one end open, a closing member for said open end, an extensible section mounted within the trunk and adapted to pass outwardly through the open end thereof, automatic means for imparting movement to the section in one direction, automatic means carried by the trunk and coacting with the section for holding the same against outward movement, and an endwise movable member extending through a wall of the trunk and coacting with the last named means for adjusting the same into inoperative position.

4. A trunk having one end open, an extensible section fitting within the trunk and movable through the open end thereof, a locking means carried by the section and coacting with the trunk for holding the section against inward movement, a flexible hand grasp carried by the section, and a flexible connection between the hand grasp and the locking means for adjusting the locking means into inoperative position upon movement of the hand grasp independently of the section.

5. A trunk provided with an opening, an extensible section mounted within the trunk and adapted to pass outwardly through said opening, an inwardly directed bar carried by the section, a guide carried by a wall of the trunk and through which the bar of the section is slidably disposed, and retractile means coacting with the bar for imparting outward movement to the section.

[Claim 6 not printed in the Gazette.]

1,206,412. FISHING-REEL. WILLIAM N. CAVILEER and RUTH L. CAVILEER, Phoenix, Ariz.; said William N. Cavileer assignor to said Ruth L. Cavileer. Filed May 12, 1916. Serial No. 97,162. (Cl. 242—84.4.)



1. A fishing line reel comprising a frame, a winding spool carried by the frame, a line distributing band supported for turning movement on the frame in advance of the winding spool, and means for imparting turning movement to the winding spool and line distributing band.

2. A fishing line reel comprising a frame, a winding spool carried by the frame, a line distributing band mounted to turn within the frame and arranged in advance of the winding spool, means for operating the winding spool and line distributing band, and a line carrying hook on the line distributing band to engage with a line connected with the winding spool.

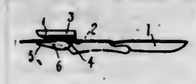
3. A fishing line reel comprising a frame, a winding spool carried by the frame, a line distributing band connected with the frame for turning movement, and means for operating the winding spool and line distributing band and a flange on said band having a tapered extension providing a line carrying hook.

4. A fishing line reel comprising a frame, a winding spool carried by the frame, bearing members connected with the frame, a flanged line distributing band supported for turning movement in said bearings, means for operating the winding spool and line distributing band, and a tapered extension on said band forming a hook and recessed to provide a line receiving eye.

5. A fishing line reel comprising a frame, a winding spool mounted to turn in the frame, a line distributing band mounted for turning movement within the frame in advance of the winding spool, a stub shaft mounted to turn in said frame, a gear wheel mounted to slide on said shaft and to impart turning movement to the winding spool and line distributing band, and means for operating said wheel and shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,206,413. INK-FEEDING ATTACHMENT FOR PENS. REINHOLD CEDARDOM, New York, N. Y. Filed Mar. 22, 1915. Serial No. 16,169. (Cl. 120—114.)



1. A pen font blank comprising a central body portion and a pair of wings, the body portion being adapted to be bent to form an open ended reservoir and the wings to form a feeding duct.

2. A pen font blank comprising a central body portion and a pair of wings, the body portion being adapted to be bent to form an open ended reservoir and the wings to form a feeding duct, the reservoir and duct being connected by a neck which is adapted to engage the pen to hold the parts in position.

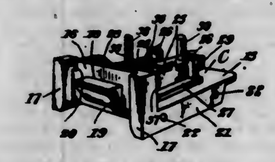
3. A pen font blank comprising a central body portion and a pair of wings, the body portion being adapted to be bent to form a cylindrical open ended reservoir and the wings to form a feeding duct.

1,206,414. SELF-HEALING COMPOSITION FOR THE INNER TUBES OF TIRES. JAMES P. CLARK, Stratham, N. H. Filed Apr. 1, 1916. Serial No. 88,406. (Cl. 106—23.)

1. A self-healing composition for the inner tubes of tires comprising a mixture of reclaimed rubber, tar free from moisture and a softening agent free from moisture, said composition having a dense, semi-plastic and semi-elastic, tacky consistency and retaining these properties when heated in contact with rubber containing sulfur.

2. A self-healing composition for the inner tubes of tires comprising reclaimed rubber, pine tar and palm oil, the mixture having a dense, semi-plastic, semi-elastic, tacky consistency free from pores and retaining these properties when heated in contact with rubber containing sulfur.

1,206,415. SWITCH-STAND. LOCKETT GWIN COLEMAN, Ottawa, Ontario, Canada. Filed June 25, 1915. Serial No. 36,270. (Cl. 104—25.)



1. In a switch lock and in combination, a switch stand, an operating lever therefor, a lock casing having an opening, a tongue on the stand adapted to enter the opening, a reciprocable sliding spring actuated locking bolt adapted to engage the tongue, a spring latch device adapted to retain the bolt in retracted position and adapted to be released by engagement with the tongue, a key and means adapted to prevent withdrawal of the key except when the bolt is in a locking position.

2. The combination with a switch stand, of a lever provided with a bifurcated end, a lock casing formed integral with the lever and embraced by the said end the lateral faces of the casing being beveled, a removable bottom plate carrying the locking mechanism adapted to engage the casing, and means for securing the bottom plate to the casing.

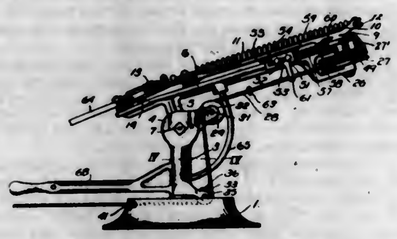
3. The combination with a switch stand, of a lever provided with a bifurcated end, a lock casing formed integral with the lever and embraced by the bifurcated end, a bottom plate, a locking bolt slidably mounted on the bottom plate, resilient means for pressing the locking bolt normally outwardly, a pivotally mounted locking plate provided with a downwardly extending projection adapted to coact with the locking bolt, and means for operating the pivotally mounted locking plate, as and for the purpose specified.

4. The combination with a switch stand, of a lock comprising a slidably mounted locking bolt provided with a bifurcated end, wards formed integral with the upper edges of the arms of the bifurcated end, flanges on the lower ends of the arms, resilient means controlling the motion of the locking bolt, a pivotally mounted locking plate provided with a downwardly extending projection designed to engage with one of the flanges, and means for operating the locking plate.

5. The combination with a switch stand, of a lock comprising a locking bolt having an inner bifurcated end, a spiral spring coacting with the locking bolt, flanges on the lower ends of the arms of the locking bolt, a pivotally mounted locking plate provided with a downwardly extending projection designed to coact with one of the flanges, resilient means for pressing the locking plate into contact with the flange, and means for releasing the locking plate.

[Claims 6 and 7 not printed in the Gazette.]

1,206,416. TARGET-TRAP. WILLIAM B. COSBY, Kansas City, Mo., assignor of one-half to D. D. Gross, Kansas City, Mo. Filed July 12, 1915. Serial No. 39,824. (Cl. 124—6.)



1. The combination with supporting mechanism, of a throwing arm pivotally mounted on said mechanism and adapted for travel in an inclined plane, and a carrier mounted on said arm and comprising a target supporting portion, inclined toward the horizontal relative to the plane of travel of the throwing arm at the point of discharge.

2. The combination with supporting mechanism, of a carrier arm pivotally mounted on said mechanism and adapted for travel in an inclined plane, and a target carrier pivotally mounted on said arm and arranged at an incline approaching the horizontal relative to the plane of travel of the throwing arm.

3. In a target trap the combination with a pivotally mounted throwing arm, of a carrier having a base and pivotally mounted in the end of the throwing arm, and having a target supporting member inclined relative to the plane of travel of the throwing arm to approach the horizontal when in discharge position, and means for actuating the throwing arm.

4. The combination with a supporting arm, of a latch movably mounted on said arm, a shaft carried by said arm, a throwing arm carried by said shaft, yielding means for actuating the throwing arm, a rotatable setting member carried by said shaft and adapted for engaging the arm, to move the same to engagement with the latch, a rope for actuating said setting member when moved in one direction, a button on said rope for engaging the latch to release the throwing arm when the rope is moved in the opposite direction, and yielding means for returning the setting member.

5. The combination with a supporting arm, of a latch slidably mounted on said arm, a shaft carried by said arm, a throwing arm carried by said shaft, yielding means for actuating the throwing arm, a rotatable setting member carried by said shaft and adapted for engaging the arm, to move the same to engagement with the latch, a rope for actuating said setting member when moved in one direction, a button on said rope for engaging the latch to release the throwing arm when the rope is moved in the opposite direction, and a spring connected with the opposite end of the rope for returning the setting member to initial position and actuating the latch.

[Claim 6 not printed in the Gazette.]

1,206,417. REVERSIBLE MAILING-BAG. HARRY K. CUNKLE, Wormleysburg borough, Pa. Filed Sept. 10, 1915. Serial No. 50,021. (Cl. 150—1.)



As a new article of manufacture, a bag proper having a tag projecting within the bag and without the bag, whereby the bag may be reversed and have a tag for each side.

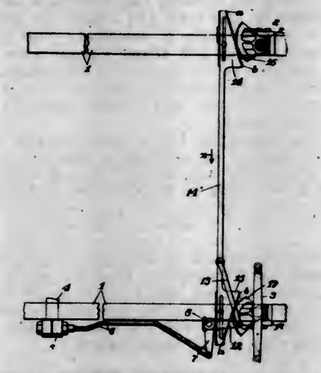
1,206,418. DIRIGIBLE HEADLIGHT. RONALD HUGH CURRIE, Calgary, Alberta, Canada. Filed May 25, 1916. Serial No. 99,898. (Cl. 240—62.)

1. In combination with a pair of automobile lamps mounted to turn about a vertical axis, means for connecting said lamps to the steering mechanism, said means consisting of a transverse bar having incline racks, for turning them differentially in respect to each other to concentrate the light substantially at the point or points toward which the car is moving in making turns, substantially as described.

2. In combination with a car, a pair of lamps turnable into angular positions about vertical axis, and means for connecting said lamps to the steering mechanism of the car, said means consisting of a transverse bar having incline racks for turning the lamp at the inside curve to less angular degrees than the lamp at the outer side of the curve is turned, substantially as described.

3. In combination with a pair of lamps for an automobile, each mounted to turn about a vertical axis, eccen-

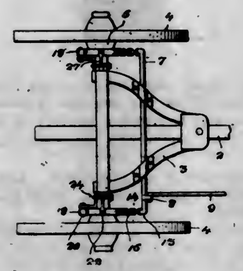
tric gears on the axes of said lamps reversed in position in relation to each other, and rack bars to engage said eccentric gears lying in inclined position with respect to their line of movement and reversed in respect to each other, substantially as described.



4. In combination with a pair of automobile lamps, each turnable about a vertical axis, eccentric gears on the rotary posts of said lamps and a bar extending transversely across the machine and having incline rack teeth to engage the said gears and a connection for operating the rack bar from the steering gear of the machine, substantially as described.

5. In combination with a pair of automobile lamps mounted on vertical posts which are turnable, eccentric gears mounted on said posts with their low parts toward the inside of the machine, rack bars inclined to their line of transverse movement across the machine and having their low parts opposite the high parts of the eccentric gears and means for operating the rack bars from the steering mechanism, substantially as described.

1,206,419. VEHICLE-BRAKE. HENRY T. DAHMS, Walcott, Iowa. Filed Nov. 13, 1915. Serial No. 61,350. (Cl. 21—8.)



In a vehicle brake, the combination with an axle, and a wheel journaled thereon, said wheel being provided with a brake surface, of an L-shaped bracket having fastening and supporting arms extending respectively parallel with and at an angle to the axle, pairs of spaced retaining pins projecting from the upper and lower edges of the fastening arm of the bracket, a contracting brake band pivoted to the supporting arm of the bracket, a leaf spring secured at one end to the band and at its opposite end to the axle, in parallel relation to the latter, and serving to normally hold the band expanded and against lateral deflection, means for actuating the brake band, and a clip embracing the axle and also embracing the fastening arm of the bracket between the pairs of spaced pins thereof.

1,206,420. YARN-COATING DEVICE. WALTER R. DUNMAN, Akron, Ohio, assignor to The Miller Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed July 27, 1916. Serial No. 111,674. (Cl. 8—19.)



1. Apparatus for coating or impregnating threads and the like comprising a substantially U-shaped tank having guides at its outer upper edges, endless carriers arranged to travel through said tank, a bar carried by said carriers, and means for securing the threads to said bar.

2. Apparatus for coating or impregnating threads or the like comprising inner and outer walls of U-shape with space between for coating medium, thread guides at the outer upper edges of the tank, a shaft journaled over the space between the inner walls, sprocket wheels carried by said shaft, endless sprocket chains passing over said wheels and through said tank, a bar carried by said chains, and means for securing the thread ends to said bar.

3. Apparatus for coating or impregnating threads or the like comprising a substantially U-shaped tank having guides at its upper outer edges, endless carriers arranged to travel through said tank, a bar carried by said carriers, means for temporarily securing the threads to said bar, presser devices arranged to bear on the thread on the delivery side, and means for holding said presser devices out of contact with the thread at will.

4. Apparatus for coating or impregnating threads and the like comprising an impregnation tank, means for passing thread therethrough, guide means on the delivery side over which the thread passes, a plurality of yielding presser devices for pressing on the threads, and pawls for holding said devices away from the threads.

5. Apparatus for coating or impregnating threads and the like comprising an impregnation tank, means for passing thread therethrough, a plurality of thread guides on the delivery side of said tank, pivoted arms carrying presser portions coöperating with said guides, and means for holding said pivoted arms elevated at will.

[Claims 6 and 7 not printed in the Gazette.]

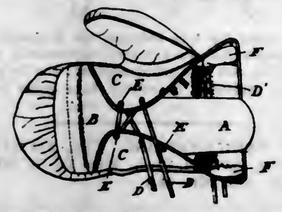
1,206,421. CURTAIN-HANGER. ADAM DICKEY, Boston, and ROBERT A. HOPE, Quincy, Mass. Filed Oct. 1, 1915. Serial No. 53,611. (Cl. 156—20.)



1. A curtain support including a molding strip having a longitudinal bore, and a longitudinal slot leading from the bore through the face of the molding, a plurality of cylindrical blocks slidable in the bore, each block having adjacent its ends, circumferential grooves, an eye for each block having spaced attaching-arms with terminal embracing loops confined in the grooves, said attaching-arms being disposed for sliding movement along the slot.

2. A curtain support including a molding-strip having a longitudinal bore, and a longitudinal slot leading from the bore through the face of the molding, a plurality of elongated cylindrical blocks slidable longitudinally in the bore, and having unobstructed ends, each block having one or more circumferential grooves, an eye for each block having one or more attaching-arms, the terminals of which are formed with circular embracing-loops arranged in planes at right angles to the eye, and adapted to be confined in the grooves, said eye extending through the slot and adapted to project therefrom.

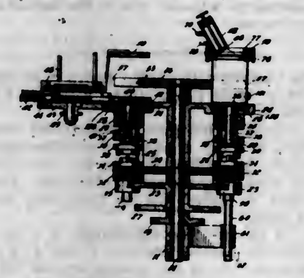
1,206,422. BOXING-GLOVE. FRANK DIETERLE, Philadelphia, Pa., assignor to George A. Reach, Philadelphia, Pa. Filed Feb. 21, 1916. Serial No. 79,692. (Cl. 2—196.)



1. In a boxing glove, the combination with a pair of side flaps secured at the sides of the glove and adapted to provide an opening the full width of the glove, of a tongue independent of the side flaps and secured only at its top and covering the palm and wrist of the wearer, and means for holding said flaps together above the location of the tongue.

2. In a boxing glove, a body portion containing a filling, a wrist or cuff portion, and a lacing connection for joining said portions, whereby an opening may be formed between the same to gain access to the filling of the glove.

1,206,423. COMBINED SPRAYING AND SEAMING MACHINE. FELIX EBERHART, Newark, N. J., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 3, 1913. Serial No. 751,776. (Cl. 113—7.)



1. A combined, protective coating applying and seaming machine comprising, in combination: means for applying a coating of protective material to the interior of an assembled flanged can body and can end; mechanism for seaming the body and end together; and coöperating means for conveying the assembled can body and end from said applying means to the seaming mechanism, substantially as specified.

2. A machine of the character described comprising, in combination: means for assembling a can body and can end in juxtaposition for seaming; a device for applying a coating of lacquer or equivalent material to the interior of an assembled body and end; seaming mechanism for uniting the body and end; and coöperating means for conveying the assembled can body and end from the said coating device to the seaming mechanism, substantially as specified.

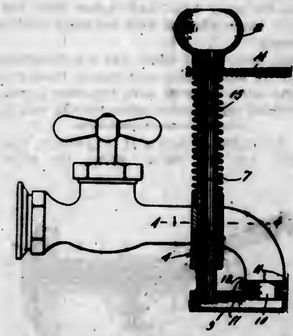
3. A combined, protective coating applying and seaming machine comprising, in combination: means for applying a coating of lacquer to the interior walls of an assembled, flanged can body and can end; double seaming mechanism for uniting the body and end; and coöperating means for conveying the assembled can body and end successively to the said coating means and to the seaming mechanism, substantially as specified.

4. A machine of the character described comprising, in combination: means for assembling a flanged can body and can end in juxtaposition for double seaming; a lacquer spraying device for applying a coating of lacquer to the interior of the assembled body and end; and double seaming mechanism operating subsequently to said spraying device for uniting the body and end, substantially as specified.

5. A machine of the character described including, in combination: a movable carrier having a can holder thereon; means, located in operative position relatively to said carrier, for applying a coating of protective material to the walls of the can; and seaming mechanism operating subsequently to said applying means, arranged in operative position relatively to the carrier, for uniting a can body and can end while on said carrier, substantially as specified.

[Claims 6 to 31 not printed in the Gazette.]

1,206,424. DETACHABLE DRINKING-FOUNTAIN FOR FAUCETS. WINFRED C. EDWARDS, Denver, Colo. Filed Jan. 28, 1916. Serial No. 74,844. (Cl. 137—109.)



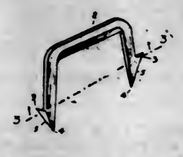
1. A drinking fountain attachment for faucets, comprising in combination, a sleeve fixed in vertical position on a faucet, a pipe section vertically slidable in said sleeve, a bowl carried by the upper end of said pipe section, a coil spring surrounding said pipe and expanding between said bowl and said sleeve, and a transverse extension on the lower end of said pipe section having a mouth adapted to be swung into connection with the outlet of the faucet, said spring acting to draw said pipe section upwardly either to lock the extension in coupled relation to the faucet outlet or to hold the latter below the faucet in detached relation.

2. A drinking fountain attachment for faucets, comprising in combination, a sleeve fixed in vertical position on a faucet adjacent its outlet, a pipe section slidable and rotatable in said sleeve, a bowl on the upper end of the pipe section, a connection on the lower end of said pipe section for coupling the latter to said faucet outlet, by the manipulation of the pipe section in said sleeve, and means resiliently holding said pipe section whereby to lock the device in either coupled or uncoupled position.

3. In an attachment for faucets, a sleeve secured to the faucet, a pipe mounted for rotary and longitudinal movement in said sleeve, a bowl at one end of said pipe, a tension spring encircling said pipe and engaging said bowl and sleeve respectively at its opposite ends to normally force the said pipe outwardly, an extension provided with an intake on the opposite end of said pipe, adapted to be swung beneath to register said intake with the discharge end of said faucet, and means for holding said pipe against rotation when said intake and discharge ends are engaged, substantially as described.

4. In an attachment for faucets, a sleeve, an annular member secured to said sleeve and adapted to engage over a faucet, a set screw in said annular member for engaging said faucet, a pipe mounted for sliding and rotary movement within said sleeve and having its ends projecting above and below said faucet, a spring for normally holding said pipe projecting upwardly, an extension on the lower end of said pipe provided adjacent its outer end with an intake, said intake comprising a stub pipe provided at its outer end with a flange for engaging within the mouth of a faucet, and a discharge bowl upon the opposite end of said pipe, substantially as described.

1,206,425. STAPLE FOR WINDOW-SASHES OR THE LIKE. ALFRED H. FRASHY, San Francisco, Cal. Filed July 10, 1916. Serial No. 108,315. (Cl. 85—49.)



1. A staple, each leg of which has a barb extending outwardly from its outer edge, and tapers from the barb to its point, the outer edge of said tapering portion of the leg being sharp.

2. A staple, each leg of which has a barb extending outwardly from its outer edge, and tapers from the barb to its point, the outer edge of said tapering portion of the leg being beveled on opposite sides for the two legs.

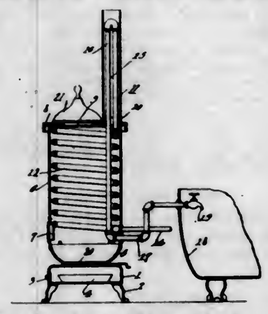
1,206,426. FAUCET. JOSEPH H. FLANIGAN, Town Creek, Ala. Filed Apr. 12, 1916. Serial No. 90,708. (Cl. 137—4.)



A faucet embodying a barrel having a valve seat, a valve seatable against said seat and having stem projecting out of one end of the barrel, a T-head carried by the projecting end of the stem and having an oblique cam edge, a spring between said head and barrel to seat the valve, and a U-shaped lever having its terminals pivoted to the sides of the barrel, the intermediate portion of said lever contacting with said cam edge for forcing said rod in a direction to unseat the valve when the lever is swung in one direction, said head having a stop at one end of the cam edge to limit the movement of the lever when the valve is seated, and having a notch in its cam edge adjacent the other end thereof to receive the lever when the valve is unseated.

1,206,427. HEATER. HIRAM C. FONDE, Birmingham, Ala. Filed Jan. 11, 1916. Serial No. 71,562. (Cl. 122—250.)

In a device of the class described, a heater comprising a drum; a coil within the drum and comprising superposed convolutions, the lower convolution of the coil opening laterally through the heater adjacent the bottom of the heater; a flue assembled with the heater; and a U-shaped pipe connected with the upper convolution of the coil and



projecting upwardly into the flue, the U-shaped pipe embodying a depending arm extended downwardly within the contour of the coil to a point adjacent the bottom of the heater, and prolonged outwardly to a point beyond the heater.

1,206,428. VEHICLE-SPRING. CARL FRANCIS and JOE F. FRANCIS, Portland, Oreg. Filed Feb. 8, 1915. Serial No. 6,946. (Cl. 267—33.)



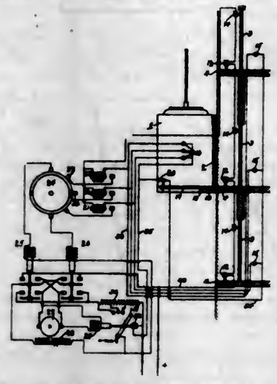
A vehicle spring comprising in combination, a plurality of semi-elliptical leaves having transverse corrugations at the central portion thereof, such corrugations being formed in the body of the leaf without altering the cross section thereof, the corrugations of one leaf meshing with those of the immediately adjacent leaves, an upper leaf, the top surface of which is substantially plane and the lower surface of which is corrugated to mesh with the corrugations of the uppermost elliptical leaf, a lower leaf, the lower surface of which is substantially a plane and the upper surface of which is corrugated to mesh with the corrugations of the lower surface of the lowermost elliptical leaf, said lower and upper leaves each terminating in eyes at each end thereof, and links for connecting the adjacent eyes in the ends of said lower and upper leaves.

1,206,429. SAFETY DEVICE. FLOYD C. FUSLOW, Montclair, N. J. Filed Feb. 3, 1915. Serial No. 5,826. (Cl. 187—29.)

1. In a push button passenger controlled elevator, the combination of a car, a landing, a standing ledge extending between the landing and the car, and means automatically operable by the exit of a passenger from the car to the ledge, to prevent the car from being moved away from the ledge.

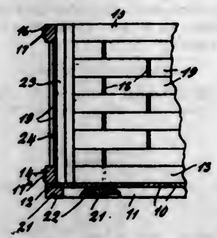
2. In an elevator, the combination of a car, an electrical controlling circuit therefor, a door at a floor landing, a standing sill on the landing between the door and car, a spring pressed safety foot plate or tread movable with respect to the sill, normally closed contacts in said car-controlling circuit, and means operative by the weight of the passenger upon stepping upon the safety plate to depress the plate or tread to cause the said contacts to open to prevent the car from being moved away from the sill.

3. The combination with a push button passenger elevator, of a car, an electrical controlling circuit therefor, a door at a floor landing, a standing ledge or sill at the floor landing between the car and door at the floor landing; a spring pressed plate in the ledge flush with the sill of said door adapted to be trod upon by a passenger and depressed by his weight to open a switch, a stop to limit the depression of said plate, and switches in said con-



trolling circuit controlled by said plate and door, respectively, to prevent the car from being moved away from the ledge or sill if the door be open or a passenger remain standing on the plate.

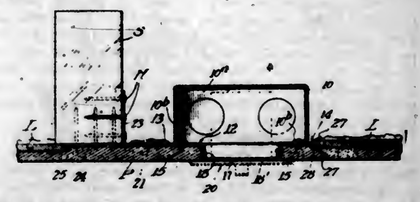
1,206,430. BASKET. ARTHUR CLIFTON GOFF, Boyne City, Mich. Filed Jan. 31, 1913. Serial No. 745,888. (Cl. 217—122.)



In a basket of the class described, comprising a bottom frame consisting of longitudinal and transverse members having continuous grooves in their undersides, a top rim, a floor formed of a series of strips secured to the bottom frame, a second frame resting on said floor at the outer edges thereof and consisting of longitudinal and transverse members, the said floor strips at their outer ends being held between said upper and lower frames, vertical wires extending between said frames and top rim, said wires having hooks at their ends provided with driving points, the points of the top hooks being driven into the top rim and the points of the bottom hooks being driven into the bottom frame within said grooves, flexible strips woven in and out between said wires to form the walls of said basket and corner posts secured to the said floor and top rim and having vertically extending grooves to form seats adapted for the reception of the ends of said flexible strips.

1,206,431. ELECTRIC-WIRING FIXTURE. BIRD MALVIN GRAYBILL, Chicago, Ill., assignor to Economy Electrical Specialty Company, Chicago, Ill., a Corporation of Illinois. Filed May 26, 1915. Serial No. 30,504. (Cl. 247—5.)

1. The combination with an outlet box, of a one piece combination cover and support therefor comprising three portions, one portion constituting a support and cover for the box and adapted to overlie the open front thereof, said portion having an opening therein to permit access to the interior of the box, another portion extending beyond one side of the box and having lath engaging projections thereon, and the third portion extending beyond the opposite side of the box in the plane of the first portion and having apertures therein to receive attaching instrumentalities.



2. A combined support and cover for outlet boxes comprising a sheet metal plate, having one end adapted to be secured to a suitable support, and having a portion adjacent its other end adapted to receive an outlet box, and having in the last said portion a rimmed opening, said plate having, between said rimmed opening and the first mentioned portion, apertures through which plaster may key.

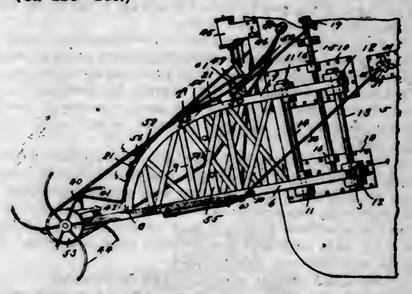
3. The combination of an outlet box member and a cover member therefor provided with a lateral extension integral therewith and constructed, adjacent its extremity, for connection to a support, and one of said members having, laterally opposite to said extension, a wing integral therewith and providing a lath-receiving channel at its edge.

4. A combined cover and support for an outlet box, comprising a cover portion provided with a rimmed opening and with apertures to receive box attaching means, a lateral extension beyond one side of said cover portion, divided into ears, one of said ears being bent backwardly to form a gage and brace, and said ears having apertures therein to receive attaching means.

5. The combination of an outlet box member and a cover member therefor, one of said members having a lateral extension connected therewith and divided into ears, one of said ears bent backward to form a gage and brace, and said ears adapted to receive attaching means.

[Claim 6 not printed in the Gazette.]

1,206,432. MINE-SWEEPER. MORRIS W. GREEN, Landing, N. J. Filed Sept. 17, 1915. Serial No. 51,220. (Cl. 114—240.)



1. The combination with a boat, of a frame secured thereto and extending forwardly of the bow, a mine sweeping member rotatably supported at the forward end of the frame to engage, depress and explode a mine in its path, and operating means for said mine sweeping member.

2. The combination with a boat, of a frame secured thereto, a mine sweeping member supported by and movable relatively of the frame to engage, depress and explode a mine in its path, and means for actuating said mine sweeping member.

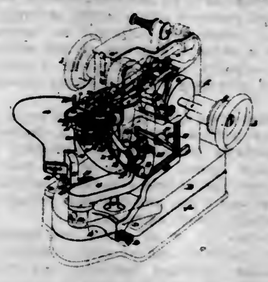
3. The combination with a boat of relatively movable frame sections pivoted thereto, to extend at times outwardly of the boat in parallel relation and lie folded thereagainst at times, means for automatically locking said sections together in extended position and mine sweeping members at the free ends of the section.

4. The combination with a boat, of pivoted sections normally folded thereagainst, means for moving said sections toward each other to extend outwardly of the boat in abutting relation, means connecting said sections whereby to provide a rigid frame structure, and a mine sweeping member operatively supported by the frame thus provided, said member including separable elements respectively carried by said pivoted sections.

5. A mine sweeper comprising the combination with a boat of independent frame sections hinged thereto to extend at times forwardly of the bow, rotary mine sweepers at the free end of each of said sections, means for connecting said sweepers for simultaneous movement and operating means for said sweepers.

[Claim 6 not printed in the Gazette.]

1,206,433. SEWING-MACHINE. ALFRED GRIEB, Elizabeth, N. J., assignor to the Singer Manufacturing Company, a Corporation of New Jersey. Filed Feb. 26, 1915. Serial No. 10,678. (Cl. 112—31.)



1. In a hat sewing machine, the combination with a frame, a driving shaft, a reciprocating needle and cooperating stitch-forming mechanism connected with said driving shaft, of a feed-wheel, a presser-arm provided with a presser-wheel, and a vertically disposed supporting disk intermediate the operative faces of the presser and feed-wheels and rotatable about an axis extending transversely of the axis of the presser-wheel to engage a hat at its fold intermediate the brim and crown.

2. In a hat sewing machine, the combination with a reciprocating needle and coöperating stitch-forming members, of yieldingly opposed feed and presser members, a rotatable hat supporting disk having its periphery in a plane intermediate said feed and presser members, and a pivotal support for said disk disposed closely adjacent to said plane.

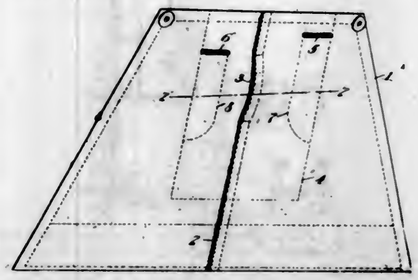
3. In a hat sewing machine, the combination with a reciprocating needle and coöperating stitch-forming members, of yieldingly opposed feed and presser members, a rotatable hat supporting disk having its peripehery in a plane intermediate said feed and presser members, a support for said disk and a universal joint connection between said disk and said support.

4. In a hat sewing machine, the combination with a reciprocating needle and coöperating stitch-forming members, of yieldingly opposed feed and presser members, a rotatable hat supporting disk having its periphery in a plane intermediate said feed and presser members, a support for said disk and a ball and socket connection between said disk and said support.

5. In a hat sewing machine, the combination with a frame, a driving shaft, and stitch-forming mechanism operatively connected with said driving shaft, of opposed feeding and presser-wheels, a hat-supporting disk rotatable about an axis extending transversely of the axis of the presser-wheel, a spring-pressed supporting arm common to the disk and presser-wheel, and means whereby said arm may be retracted against the pressure of its spring.

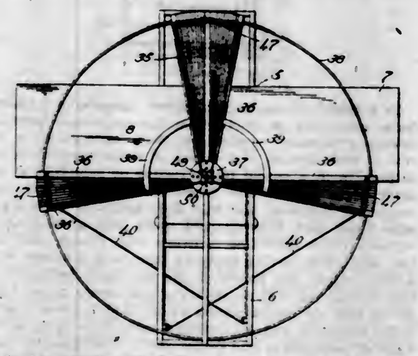
[Claims 6 to 14 not printed in the Gazette.]

1,206,434. COMBINATION-POCKET. SOLOMON GROSS and JOSEPH GROSS, Galesburg, Ill. Filed July 18, 1914. Serial No. 851,800. (Cl. 2—15.)



A garment having a portion formed of two pieces united by a seam and provided with a horizontal slit at each side of the seam, and a pocket piece sewed to both pieces and underlying the seam and slits, the stitches securing the sides of the pocket piece to the garment being adjacent the outer end of each slit, and stitching beginning at the inner end of each slit and extending downwardly therefrom to a point below the horizontal center of the pocket, where it joins the stitching, securing a side of the pocket piece to the garment, to form small elongated pockets, the said seam being discontinued for a short distance to form an opening for the main pocket.

1,206,435. AEROPLANE. ELIAS S. HALL, Millstone, N. J. Filed Sept. 18, 1914. Serial No. 862,371. (Cl. 244—12.)



1. An aeroplane including a frame, a foldable crown structure associated with said frame, elastic elements for normally holding said structure in a folded position, operating cables extending from said structure and operable by the occupant of the aeroplane for opening said structure, and means carried in said frame and in connection with said cables to hold the same in a predetermined position whereby the crown structure is held in a predetermined adjusted position.

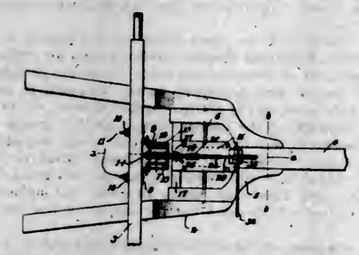
2. An aeroplane including a frame, a circular impact member mounted on the top of the frame and being relatively flat to occupy a minimum amount of space, said member being movable in segments, to increase the atmospherical resistance at any part of the frame, and circular securing members engaged with movable portions of adjacent segments to simultaneously move the latter.

3. An aeroplane including a frame, a crown structure associated with said frame comprising a plurality of sections which are independently actuable, means carried by said frame for actuating said sections independently of each other, means mounted in said frame for locking said sections in a predetermined open position, means for normally holding said sections in a folded position, and means carried by said frame for coöperation with said crown sections to preserve the equilibrium of said frame in altitudes.

4. An aeroplane including a frame, an air resisting crown superimposed on the frame and foldable thereon to decrease the air resistance, and to occupy a minimum amount of space when not in use, said crown comprising a plurality of independently operable sections, whereby any one of said sections may be operatively positioned for atmospherical impact at a predetermined point.

5. An aeroplane including a frame, a foldable crown superposed on the frame, said crown being relatively flat to provide a substantially air-impinging surface remote from said frame, said crown being of a circular contour to permit construction of the same in segmental sections, whereby any section of the crown may be operatively positioned at the desired angle on the frame.

1,206,436. WAGON-TONGUE SUPPORT. JOSEPH D. HAWLEY, Kenesaw, Nebr. Filed Apr. 12, 1916. Serial No. 90,700. (Cl. 21—63.)

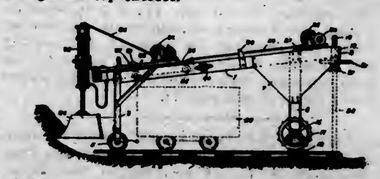


1. In a vehicle, a tongue, a tongue supporting spring attached to a fixed part of the vehicle, a connecting rod attached to the spring and having a notch, a bracket plate secured on the tongue and having an opening to receive the rod, a latch mounted for vertical movement on the bracket plate and provided with a slot to engage and disengage the notched portion of the connecting rod, and a lever pivotally mounted on the bracket plate and having an arm bearing under and arranged to lift the latch.

2. In a vehicle, a tongue, a tongue supporting spring attached to a fixed part of the vehicle, a connecting rod attached to the spring and having a notch, a bracket plate secured on the tongue and having an opening to receive the rod, a latch mounted for vertical movement on the bracket plate and provided with a slot to engage and disengage the notched portion of the connecting rod, and a lever pivotally mounted on the bracket plate and having an arm bearing under and arranged to lift the latch, said lever also having a stop lug to bear on the upper side of the latch.

1,206,437. TUNNELING-MACHINE. SAMUEL HOAR, Virginia, Minn. Filed Mar. 9, 1916. Serial No. 83,055. (Cl. 105—245.)

1. In a tunneling machine of the character described, the combination with a chassis having a reciprocal carriage therein carrying a pivoted shovel thereupon, of supporting wheels permanently mounted within the forward end of the chassis and designed to traverse a tram track, similar wheels and of a like gage supporting the rear end of the chassis but removably mounted therein, a third pair of wheels of considerably wider gage than that of the tram track fixed to the rear end of the chassis and designed to traverse a temporary track and means for vertically adjusting the rear end of the chassis for mounting it upon the temporary track whereby tram cars may be run in under the chassis and loaded by the shovel through the top thereof.



2. The combination with a tunneling machine chassis of permanently mounted tram track wheels in the forward end thereof, wheels of the same gage as the first mentioned wheels removably mounted in the rear end, a third pair of wheels of considerably greater gage than the other mentioned wheels mounted in the rear end of the chassis and designed to engage a temporary track and means for vertically adjusting the rear end of the chassis, to rest upon said wider gaged wheels whereby tram cars may be run upon the tram track beneath the chassis for loading purposes.

3. The combination with a tunneling machine, having a chassis mounted upon wheels and designed to traverse a tram track, of wheels permanently mounted in the front of the chassis and designed to traverse the track, a second pair of wheels of the same gage as the track but removably mounted within the rear of the chassis, a third pair of wheels of considerably wider gage than the track for support of the rear end of the chassis independent of the tram track when the second pair of wheels are removed and means for vertically adjusting the rear end of the chassis, for removal of the second pair of wheels, to admit of tram cars being run under the chassis for loading purposes.

4. A machine of the character described, comprising a frame having permanent tram track engaging wheels at its forward end, removable similar wheels at its opposite end, a pair of auxiliary wheels for supporting the rear end of the frame from either side of the tram track, when the removable wheels are removed and means for adjusting the rear end of the frame whereby it may be supported upon said auxiliary wheels and tram cars run in under the frame for loading purposes.

5. An inclined tunneling machine chassis of the character described, having a pair of permanently fixed tram track wheels in the forward end, a pair of removable similar wheels in the rear end, and a pair of auxiliary wheels adjacent the removable wheels for supporting the rear end of the chassis when spanning the track to admit of tram cars passing thereunder for loading purposes.

[Claim 6 not printed in the Gazette.]

1,206,433. SIFTER-TOP CONTAINER. EDMUND HOFFMAN, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 19, 1915. Serial No. 9,389. (Cl. 221—64.)



A sifter-top sheet metal powder container comprising a body the top member of which tightly and permanently engages around the bottom member of said body, said top member being formed with an inwardly extending top plate formed with an upwardly extending neck of much less diameter than that of the body; a sheet metal member 14 elevated above said body and having a central

aperture and its outer edge turned down to form a depending flange which tightly and permanently fits around said neck of the body; a sifter top member of less diameter than said member 14 and having a perforated top and a depending neck integral therewith, the edge of said neck being flanged to embrace above and below the edge of the aperture of said part 14; a perforated rotatable closing cap mounted on said sifter top member and inclosing and engaging the same by a depending flange; and an auxiliary closure inclosing the sifter top and having a depending flange removably engaging around the depending flange of said part 14.

1,206,439. SIFTER-TOP CONTAINER. EDMUND HOFFMAN, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 19, 1915. Serial No. 9,390. (Cl. 221—64.)



A sheet metal powder container and sifter comprising a body having an upstanding side wall and a top having a depending flange which is tightly embraced within said wall of the body, said top having a central aperture; a sifter top having a perforated top plate and a depending neck integral therewith, the edge of said neck being flanged to embrace above and below the edge of the aperture of said top; a perforated rotatable closing cap mounted on said sifter top and inclosing and engaging the same by a depending flange; and an auxiliary closure inclosing the sifter top and having a depending flange removably engaging around the depending flange of said top and opposing the edge of said wall of the body; said auxiliary closure being adapted to receive a puff the middle part of which is held on the said perforated top plate and the marginal part of which is received in the inclosed space around said sifter top.

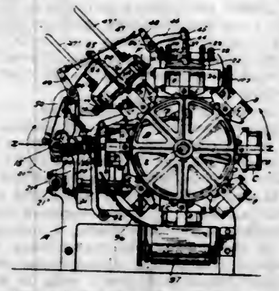
1,206,440. SIFTER-CONTAINER. EDMUND HOFFMAN, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 19, 1915. Serial No. 9,391. (Cl. 221—64.)



A powder container and sifter comprising a body having an upstanding side flange and a domed top having a depending flange which is tightly embraced within said upstanding side flange of the body, said domed top being perforated and fitted on the under side with a correspondingly perforated rotary closure, the latter having a finger piece extending through the said domed top; and an auxiliary cover formed with a depending side flange which has a slip engagement around and without the depending flange of said domed top and opposing the upstanding flange of the body, and leaving a space for a puff on and above the perforated part of said domed top.

1,206,441. BOX-FLANGING MACHINE. JAMES JESSEN, Minneapolis, Minn., assignor to Brown Machinery Manufacturing Company, St. Paul, Minn., a Corporation of Minnesota. Filed Feb. 18, 1916. Serial No. 79,072. (Cl. 93—55.)

1. A machine of the class described comprising a rotary carrier, a plurality of box top holders peripherally supported by said carrier, glue depositing mechanism supported adjacent to said carrier, means arranged adjacent to said carrier for supporting a plurality of superimposed box top flanges, means for imparting a step by step rotary movement to said carrier to successively carry the box top holders past said glue depositing means and flange receptacle, and means for actuating said glue depositing mechanism and depositing the lowermost flange in said receptacle upon an adjacent holder supported box top for the purpose set forth.



2. A machine of the class described comprising a rotary carrier, a box top holder supported by said carrier, means arranged adjacent to said carrier for applying glue to a box supported upon said holder, means arranged adjacent said carrier for supporting a superimposed plurality of box top flanges, means for engaging with and shoving the lowermost flange outwardly from the remainder of the flanges, and depositing the same upon an adjacent holder supported box top, and means for rotating said carrier.

3. A machine of the class described comprising a rotary carrier, actuating means therefor, means for supporting a plurality of boxes or box covers upon the periphery of said carrier, glue depositing means arranged in position to apply glue to the carrier supported boxes or covers in the rotation of the carrier, flange holding means arranged adjacent to said carrier, adjacent flange depositing means, means for shoving the lowermost flange in said holding means into said depositing means, and means for actuating said depositing means to carry the supported flange against an adjacent carrier supported box top or cover.

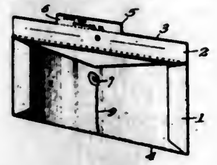
4. A machine of the class described comprising a rotary carrier, actuating means therefor, means for supporting a plurality of boxes or box covers upon the periphery of said carrier, glue depositing means arranged in position to apply glue to carrier supported boxes or covers in the rotation of the carrier, flange holding means arranged adjacent to the periphery of said carrier, adjacent flange depositing means, an adjustable slide arranged at the bottom of said flange holding means, means for actuating said slide to shove the lowermost flange into said depositing means, and means for actuating said depositing means to carry the supporting flange against an adjacent carrier supported box top or cover.

5. A machine of the class described comprising a rotary carrier, actuating means therefor, means for supporting a plurality of boxes or box covers upon the periphery of said carrier, glue depositing means arranged in position to apply glue to carrier supported boxes or covers in the rotation of the carrier, flange holding means arranged adjacent to the periphery of said carrier, said holding means being adjustable to conform to different sizes of flanges, an adjustable slide for shoving the lowermost flange in said holding means outwardly therefrom, and means for depositing such flange upon an adjacent carrier supported box cover or box.

[Claims 6 to 21 not printed in the Gazette.]

1,206,442. FILING-ENVELOP. FRANKLIN H. JOHNSON, Aurora, Ill., assignor to Lyon Metallic Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed Mar. 23, 1916. Serial No. 86,181. (Cl. 129—16.7.)

1. An envelop having a flap at the top adapted to fold against the body of the envelop to thereby form a closure for the envelop, said flap having a suitably designated space on the inner surface for indicia, whereby, when the flap is closed the indicia are covered and when the flap is in upstanding position the indicia appear above the body of the envelop and on the same side as the opening of the envelop.



2. An envelop having a flap at the top adapted to fold down aainst the body of the envelop to close it, and an index strip on the flap arranged to stand upright when the flap is open and upright, the indicia-bearing surface of the strip being on the inside to consequently be covered when the flap is closed and to be exhibited above the opening of the envelop when the flap is upstanding, the top edge of the index strip being parallel to the line of fold of the flap.

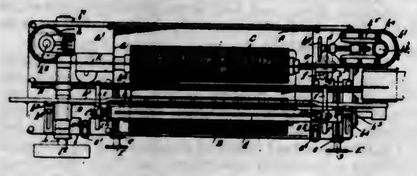
3. A mailing envelop closed at the bottom and ends and having a flap at the top adapted to fold over the opening of the envelop, an index strip on said flap, said strip standing upright when the flap is open and upright, the upper edge of the strip being parallel to the line of fold of the flap, and a fastening device for said flap, a part of said fastening device engaging the index strip and passing over the outside thereof.

4. An envelop having a flap provided with an indexing strip rising from its outer edge, the outer edges of the strip and of the remainder of the flap being parallel to the bottom of the envelop, the index strip having an unobstructed space for the indicia on the inner surface of the strip whereby the indicia are protected and covered when the envelop is closed.

5. An envelop having a flap provided with an indexing strip rising from its outer edge, the outer edges of the strip and of the remainder of the flap being parallel to the bottom of the envelop, the index strip having a suitably designated space for the indicia on the inner surface of the strip whereby the indicia are protected and covered when the envelop is closed, and means for fastening and unfastening the envelop without damage thereto.

[Claim 6 not printed in the Gazette.]

1,206,443. MACHINE FOR REMOVING SUPERFLUOUS SOLDER FROM SHEET-METAL CANS. OLIVER J. JOHNSON, Wheeling, W. Va. Filed Oct. 3, 1913. Serial No. 793,160. (Cl. 113—97.)



1. In a machine for removing superfluous solder from cans, the combination of rotary solder-removing members which are arranged to revolve about substantially parallel axes and are adjustable in direct alinements at an angle to each other, a drive shaft, and toothed gear wheels which connect the drive shaft to both of said solder-removing members and are arranged to permit said adjustments of the solder-removing members without disturbing the mesh of said gear wheels.

2. In a machine for removing superfluous solder from cans, the combination of rotary solder-removing members which are adjustable in directions at an angle to each other, a drive shaft, intermeshing gear wheels which connect the drive shaft directly to one of said solder-removing members and permit the adjustment of said member rectilinearly in one direction, and intermeshing gear wheels which connect the drive shaft directly to the other solder-removing member and permit the adjustment of said member rectilinearly in a direction at an angle to the direction of adjustment of the first solder-removing member.

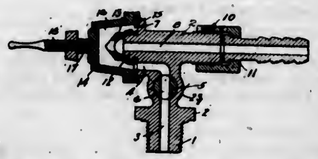
3. In a machine for removing superfluous solder from cans, the combination of rotary solder-removing members which are adjustable in directions at an angle to each other, a drive shaft, and spiral gear wheels which connect the drive shaft to both of said solder-removing members and are arranged to permit the adjustment of said solder-removing members rectilinearly in directions at an angle to each other without disturbing the mesh of said gear wheels.

4. In a machine for removing superfluous solder from cans, the combination of rotary solder-removing members which are adjustable in directions at an angle to each other, a drive shaft, spiral gear wheels which connect the drive shaft to one of the solder-removing members and permit the adjustment of said member lengthwise of the drive shaft, and spiral gear wheels which connect the drive shaft to the other solder-removing member and permit the adjustment of said member crosswise of the drive shaft.

5. In a machine for removing superfluous solder from cans, the combination of solder-removing members arranged to revolve about substantially parallel axes, a drive shaft which extends in a direction crosswise of said axes, means for adjusting said solder-removing members in different directions one substantially parallel with and the other crosswise of said drive shaft, and gearing connecting each of said members to said drive shaft and including a spiral gear driven by said drive shaft, a spiral gear secured to one of said members and meshing with said driven gear when said member is adjusted to different positions, an idler spiral gear actuated by said drive shaft, and a gear connected with said other solder-removing member and connected with said idler.

[Claim 6 not printed in the Gazette.]

1,206,444. SANITARY CONNECTING DEVICE. JOSEPH KANUER, Jr., Pittsburgh, Pa. Filed June 12, 1915. Serial No. 33,801. (Cl. 225—3.)



1. A connecting device comprising a body member having a face thereon and provided with a plurality of passages leading from the exterior of said member at different portions thereof and opening through said face, a boss on said face and surrounding one of said passages, a one-way nipple upon said boss, and a removable cap arranged to be secured to said face and connect said passages.

2. A tap connection comprising a member having a portion provided with a passage and arranged to be connected to a barrel tap, a portion arranged to be connected to a source of fluid pressure and having a through passage opening at its other extremity to the atmosphere, and means arranged to close said second named passage from the atmosphere and open communication between it and said first named passage.

3. A tap connection comprising a member having a portion arranged to be connected to a barrel tap and provided with a passage leading thereto, a portion arranged to be connected to a source of fluid pressure and having a through passage opening at its other extremity to the

atmosphere, and means arranged to cut off said pressure passage from the atmosphere and place it in communication with the passage leading to said tap.

4. A tap connection comprising a member having a portion arranged to be connected to a barrel tap and provided with a passage leading thereto, a portion arranged to be connected to a source of fluid pressure and having a through passage opening at its other extremity to the atmosphere, means arranged to cut off said pressure passage from the atmosphere and place it in communication with the passage leading to said tap, and independent means for closing said last named passage.

5. A connecting device comprising a member provided with a passage extending through one portion thereof and a passage having an opening through another portion of said member, and means arranged to permit communication between said first named passage and the atmosphere or to close it to the atmosphere and connect it to said second named passage.

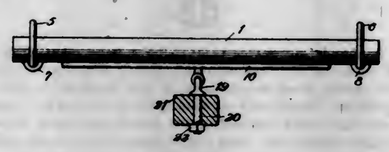
[Claim 6 not printed in the Gazette.]

1,206,445. NECKTIE-RETAINER. FREDRICK W. LIEBRECHT, New York, N. Y. Filed Mar. 31, 1913. Serial No. 757,939. (Cl. 24—56.)



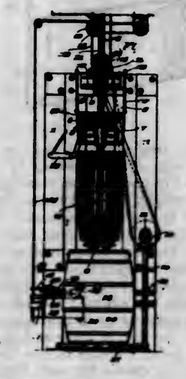
A necktie retainer constructed from a single blank, said blank being bent to form a vertical rear wall and side walls, said rear wall provided centrally with a button shank receiving slot opening out through its lower edge, necktie engaging prongs formed centrally on the longitudinal edges of the side walls and directed in opposite directions, a tongue formed on the upper edge of the rear wall, said tongue bent inwardly and downwardly and located between the side walls, said inwardly directed portion of the tongue holding the upper portion of the same at a spaced distance from the inner face of the rear wall, said tongue being provided with a circular opening and adapted to engage the head of a button, when the shank of which is fitted in the slot thereby preventing accidental movement of the same.

1,206,446. DRAFT-EQUALIZING NECK-YOKE, ARTHUR J. LEHMAN and CARL H. FAUROTE, Slater, Iowa. Filed Aug. 21, 1916. Serial No. 116,167. (Cl. 21—77.)



In a draft equalizing neck yoke, the combination of a tubular body, a carriage longitudinally mounted in said body, ring members integrally formed on the free ends of said body for connection with the draft means, said tubular member having a slot therein extending longitudinally thereof, said slot being short of one end thereof but extending to the opposite end to provide means for associating the carriage in said tubular member, said carriage comprising a pair of anti-friction rollers, side bars connecting the said rollers, a pin member connecting said side bars centrally thereof, a connecting arm pivotally mounted on said pin, an enlarged head formed on the said arm providing means for keeping the side arms in spaced relation, said head being provided with a transverse opening to mount the connecting arm on said pin for the purpose specified.

1,206,447. MACHINE FOR WASHING CONTAINERS. CHARLES C. LEIBINGER and PATRICK T. LOGAN, Rochester, N. Y. Filed Mar. 17, 1915. Serial No. 14,975. (Cl. 141—6.)



1. The combination with a cleaning member arranged to engage the inner surface of a hollow container and means for effecting relatively rotary movement of said parts, of devices operating to hold said container in contact with the cleaning member and automatically to permit relative movement bodily of the container and cleaning member transversely of their rotary axes after a predetermined period to effect disengagement of one from the other.

2. The combination with a cleaning member and means for retaining it in operative engagement with the inner surface of a hollow container, of devices operating to hold said container in contact with the cleaning member and automatically to permit relative movement bodily of the container and cleaning member in a direction laterally of the longitudinal axis of the container after a predetermined period to effect disengagement of one from the other.

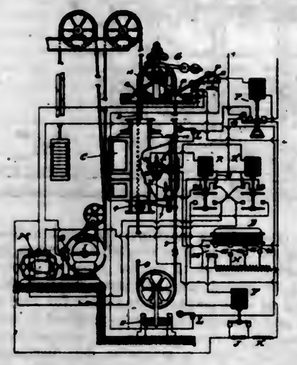
3. The combination with a cleaning member and means for retaining it in operative engagement with the inner surface of a hollow container, of devices operating to hold said container in contact with the cleaning member and automatically to permit relative movement bodily between the container and cleaning member in a direction transversely of the longitudinal axis of the cleaning member after a predetermined period to effect disengagement of one from the other, and embodying adjustable means for varying the period of engagement between the cleaning member and container.

4. The combination with a cleaning member arranged to engage the inner surface of a hollow container and means for effecting relative rotary movement of said parts, of devices operating to hold said container in contact with the cleaning member and automatically to permit relative movement bodily of the container and cleaning member in a direction transversely of their rotary axes after a predetermined period to effect disengagement of one from the other, and embodying adjustable means for varying the period of engagement between the cleaning member and container.

5. The combination with a cleaning member and means for operating it in engagement with the inner surface of a hollow container, of devices operating to hold said container in contact with the cleaning member and automatically to permit movement of the container bodily away from the cleaning member in a direction transversely of the longitudinal axis of the container after a predetermined period.

[Claims 6 to 13 not printed in the Gazette.]

1,206,448. ELEVATOR. DAVID L. LINDQUIST, Yonkers, N. Y., assignor to Otis Elevator Company, New York, N. Y., a Corporation of New Jersey. Filed June 20, 1913. Serial No. 774,746. (Cl. 187—29.)



1. In an elevator, the combination of a car, guide rails therefor, a brake carried by the car adapted to co-act with said guide rails, a governor for controlling said brake, an electric hoisting motor, a source of current supply, branch circuits leading from a source of supply to the armature and field circuits, a switch in each of said branch circuits, a resistance in parallel to one of said switches, and a plurality of cams controlled by the governor arranged to effect the successive operation of said switches to slow down and stop the motor.

2. The combination with an elevator car, a safety device carried by the car, a running rope associated with said device, a speed governor, a clamp adapted to grip said running rope to effect the operation of the safety device, a latch normally preventing the operation of said clamp, and means operated by the governor for releasing said latch and moving said clamp into gripping engagement with the running rope.

3. The combination with an elevator car, a safety device, carried by the car, a running rope associated with said device, a speed governor, a clamp adapted to grip said running rope to effect the operation of the safety device, a spring pressed latch normally holding said clamp against operation, and a dog actuated by the governor first to release said latch and thereafter move said clamp into engagement with the running rope.

4. In an elevator, the combination with a hoisting motor, car and guide rails, of a safety device adapted to clamp the car to the guide rails, a governor, a running rope associated with the governor and safety device, a shaft controlled by the governor, an eccentric clamping member on said shaft adapted to engage the running rope and thereby actuate the safety device, a cam on said shaft, and a switch controlling a circuit to said motor operated by said cam.

5. In an elevator, the combination with a hoisting motor, car and guide rails, of a safety device adapted to clamp the car to the guide rails, a governor, a running rope associated with the governor and safety device, a shaft controlled by the governor, an eccentric clamping member on said shaft adapted to engage the running rope and thereby actuate the safety device, a pair of cams on said shaft, a separate switch operated by each cam, and circuits controlling the slowing down and stopping of said motor controlled by said switches.

[Claim 6 not printed in the Gazette.]

1,206,449. APPLIANCE FOR BENDING OR FOLDING SHEET METAL. JESSE W. LINQUIST, Portland, Oreg. Filed Oct. 11, 1915. Serial No. 55,226. (Cl. 81—15.)

1. A metal bending device comprising in combination a pair of side plates, a handle rigidly secured at one corner of said plates, a jaw rigidly secured to said plate at the corner diagonally opposite the point of connection of said handle, a jaw complemental to said first mentioned jaw for clamping a metal sheet therebetween, and a former for bending said sheet around the inner edge of said fixed jaw.

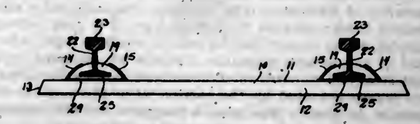


2. A metal bending device comprising in combination a pair of side plates, a handle rigidly secured at one corner of said plates, a jaw rigidly secured to said plate at the corner diagonally opposite the point of connection of said handle, a jaw complemental to said first mentioned jaw for clamping a metal sheet therebetween, and a former for bending said sheet, said complemental jaw being pivoted between said plates, and a handle pivoted between said plates having means thereon for forcing the complemental jaw against said fixed jaw.

3. A metal bending device comprising in combination a pair of side plates, a handle rigidly secured at one corner of said plates, a jaw rigidly secured to said plate at the corner diagonally opposite the point of connection of said handle, a jaw complemental to said first mentioned jaw for clamping a metal sheet therebetween, and a former for bending said sheet, said complemental jaw being pivoted between the plates, and a handle pivoted between the said plates having means thereon for forcing the complemental jaw against said fixed jaw, said handle having also means for throwing said complemental jaw into the open position.

4. A metal bending device comprising in combination a pair of side plates, a handle rigidly secured at one corner of said plates, a jaw rigidly secured to said plate at the corner diagonally opposite the point of connection of said handle, a jaw complemental to said first mentioned jaw for clamping a metal sheet therebetween, and a former for bending said sheet, said complemental jaw being pivoted between the plates, and a handle pivoted between said plates having means thereon for forcing the complemental jaw against said fixed jaw, said handle having also means for throwing said complemental jaw into the open position, said former being carried by said pivoted handle.

1,206,450. RAIL-TIE. SAMUEL MCCAMUS, Spokane, Wash. Filed Feb. 24, 1916. Serial No. 80,192. (Cl. 238—5.)



1. In combination with rails, a metallic tie, means adapted to hold said tie from shifting its position, said means comprising down-turned side and end members integral with said tie, a portion of said end members being cut away to allow the insertion of track laying and leveling tools beneath said tie, rail chairs supported by said tie, a shock absorber positioned between the base of said

rail chairs and said tie, means integral with said tie to hold said rail chairs from lateral movement in any direction on said tie, said means comprising opposed flanges on said tie, recesses in said chairs and positioning members carried by said flanges and adapted to be forced into registry with said recesses, substantially as described.

2. In combination with rails, a metallic tie, said tie comprising a bed plate, downwardly pressed side and end members integral with said tie, rail chairs, grooves in said rail chairs adapted to receive the base flanges and webs of said rails, recesses in the faces of each rail chair, opposed retaining flanges integral with said tie and adapted to closely engage the exterior faces of said rail chairs, and means integral with said bed plate adapted to hold said rail chairs in a predetermined position on said bed plate, said means comprising sections of said retaining flanges adapted to be forced downwardly into the aforementioned recesses, substantially as described.

3. In a device for supporting and positioning rails, the combination of a metallic tie, rail chairs supported thereon, means for retaining said rail chairs in a predetermined position on said tie, said means comprising opposed flanges struck up from said metal tie and integral therewith, and further means comprising recesses in said rail chairs and portions of said opposed flanges adapted to be forced downwardly to firmly engage the shoulders formed in said rail chairs by the formation of said aforementioned recesses, substantially as described.

4. In a device of the character described, the combination of rails with apertured webs, a metallic tie, rail chairs supported thereon and in turn supporting and positioning said rails, said rail chairs each consisting of two members with registering tongues and grooves in their bases adapted to hold said members from spreading apart, a bearing face on each member adapted to closely engage the opposite sides of the webs of said rails, means integral with said tie for retaining said rail chairs in a predetermined position on said ties, said means comprising opposed flanges struck up from said tie and firmly engaging the sides of said rail chairs and further means comprising recesses in said rail chairs sections of said opposed flanges adapted to be forced downwardly into said recesses; projections extending outwardly from the bearing faces of said rail chair members adapted to be inserted in the apertures provided in said webs to hold the rails from lengthwise movement through the rail chairs, substantially as described.

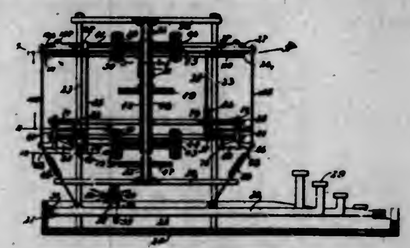
5. In a device for supporting and positioning rails, the combination of a metallic tie, rail chairs supported thereon, means retaining said rail chairs in a predetermined position on said tie, said means comprising opposed flanges provided on said tie, recesses in said rail chairs and positioning members carried by said flanges and adapted to be forced into registry with said recesses, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,206,451. TYPE SETTING AND DISTRIBUTING MACHINE. ALLISON M. MACFARLAND, Buffalo, N. Y., assignor to Keyboard Compositor Corporation, Buffalo, N. Y., a Corporation of New York. Filed July 5, 1913. Serial No. 777,455. (Cl. 101—130.)

1. In a type setting machine, the combination with a plurality of stationary type magazine channels and a stationary holder adapted to receive type, of a type carrier adapted to be moved into operative relation with reference to any of said magazine channels for receiving type therefrom and to carry the type so received to said holder, and means actuated by the carrier when the same is in position to receive type from a magazine for discharging type from said magazine channels to said carrier.

2. In a type setting machine, the combination with a plurality of stationary type magazine channels and a stationary holder adapted to receive type, of a type carrier adapted to be moved into operative relation with reference to any of said magazine channels for receiving type therefrom and to carry the type so received to said holder, and means actuated by the carrier when the same is in position to deposit type into said holder for discharging type from said carrier into said holder.



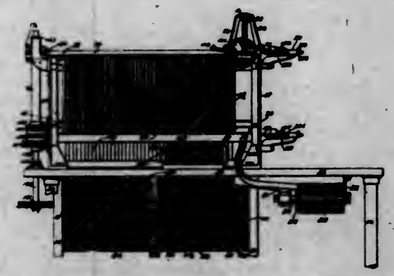
3. In a type setting machine, the combination with a plurality of stationary type magazine channels and a stationary holder adapted to receive type, of a type carrier adapted to be moved into operative relation with reference to any of said magazine channels for receiving type therefrom and to carry the type so received to said holder, means actuated by the carrier when in operative position to receive type from a magazine for discharging type from said magazine channels to said carrier, and means for discharging type from said carrier into said holder.

4. In a type setting machine, the combination with a plurality of stationary type magazine channels, of a stationary type holder, a movable type carrier, means for stopping said carrier at any of said magazine channels, and means actuated by the engagement of said carrier and said stop means for dropping type from a magazine channel into said carrier when the same is so stopped.

5. In a type setting machine, the combination with a plurality of stationary type magazine channels, of a stationary type holder, a movable type carrier, means for stopping said carrier at any of said magazine channels, means for dropping type from a magazine channel into said carrier, and means for stopping the carrier at said holder and releasing the type from the carrier to deposit the type in said holder.

[Claims 6 to 86 not printed in the Gazette.]

1,206,452. TYPE SETTING AND DISTRIBUTING MACHINE. ALLISON M. MACFARLAND, Buffalo, N. Y., assignor to Keyboard Compositor Corporation, Buffalo, N. Y. Filed Sept. 11, 1914. Serial No. 861,207. (Cl. 101—130.)



1. In a type setting machine, the combination of a plurality of upright stationary type magazine channels arranged substantially in a straight line, a stationary type holder arranged in line with said magazine channels, a type carrier adapted to be moved into operative relation with the lower end of any of said type magazine channels and having a receptacle adapted to contain one type at a time and to carry the type to said holder and means for dropping a type into said carrier while the same is in operative relation to a type magazine channel.

2. In a type setting machine, the combination of a plurality of stationary type magazine channels arranged substantially in a straight line, a type holder, a type carrier movable back and forth between said magazine channels and said holder and having a receptacle adapted to carry one type at a time from the channels to the holder, and means on said channels for dropping a type into said carrier when the same is in operative relation to said channels.

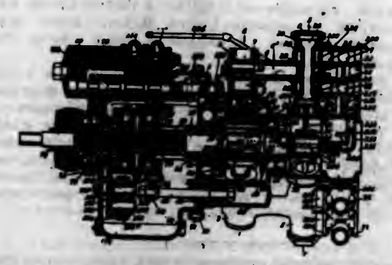
3. In a type setting machine, the combination of a plurality of upright stationary type magazine channels arranged substantially in a straight line, a type holder, a type carrier movable from the holder to the type magazine and having a receptacle adapted to carry one type at a time therefrom, means for dropping a type into said carrier when the same is in operative relation to a type magazine channel, means on said channels for placing a type into said carrier, and means for reversing the direction of movement of said carrier to move the same to said holder to drop the type therein.

4. In a type setting machine, the combination of a plurality of upright stationary type magazine channels, a stationary type holder, a type carrier movable back and forth between said magazine channels and said holder and having a receptacle adapted to carry one type at a time and to carry the type from said channels to said holder, means on said channels which are engaged by said carrier to release a type and drop the same into said carrier, and means for guiding said carrier in its movement.

5. In a type setting machine, the combination of a plurality of upright stationary type magazine channels, a stationary type holder having a substantially upright portion adapted to receive type, a type carrier having a receptacle adapted to carry one type at a time from the lower ends of said magazines to said upright portion of the holder, an escapement on each of said magazine channels adapted to be actuated by said carrier when in operative relation to a channel to drop a type into the carrier, a track for guiding said carrier into operative relation to said channels and said holder, and means for moving said type carrier back and forth in said guide means.

[Claims 6 to 42 not printed in the Gazette.]

1,206,453. VARIABLE-SPEED POWER-TRANSMITTING MECHANISM. CHARLES MATTHEWS MANLY, Freeport, N. Y. Filed July 19, 1911. Serial No. 639,464. (Cl. 138—22.)



1. In a machine of the class described, the combination of a crank shaft, a crank casing in which said shaft is rotatably supported, said crank casing having a double series of bores arranged radially around the center of rotation of said crank shaft, a plurality of separate forged steel cylinders and integral valve chambers having screw threaded ends projecting into said bores with flanges engaging the casing around said bores, clamping nuts on said screw threaded ends within said crank casing, the angle of slope of the sides of the thread of the said cylinder and valve chamber ends which are in compression when the said nuts are tightened up being less than the angle the sine of which represents the coefficient of friction between the said sides of the threads of the said cylinder and valve chamber ends and their respective nuts, and pistons and valves mounted in said cylinders and valve chambers respectively and operatively connected to said crank shaft, substantially as described.

2. In a variable capacity pump, the combination of a crank shaft, a crank casing in which said shaft is rotatably supported, a plurality of pump cylinders radially mounted on said crank casing, pistons in said cylinders, connections between said pistons and crank shaft adjustable to vary the stroke of said pistons and means for adjusting said connections comprising cylinders formed in said crank casing between each two adjacent pump cylinders with their axes parallel with said shaft, pistons in said cylinders, a longitudinally shiftable member on said shaft connected to said stroke adjusting means, connections between said member and said pistons, and means for controlling the admission of fluid pressure to said cylinders, substantially as described.

3. In a variable capacity pump, the combination of a plurality of pump cylinders having pistons operating therein, a central casing on which said pump cylinders are radially arranged, fluid operated means for varying the capacity of said pump comprising adjusting cylinders formed in said central casing and arranged between said pump cylinders, bores in said central casing interconnecting said adjusting cylinders, pistons in said adjusting cylinders operatively connected to said capacity varying means, and means for controlling the admission of fluid pressure to said interconnecting bores, substantially as described.

4. In a variable stroke pump, the combination of a plurality of pump cylinders having pistons operating therein, a central casing on which said cylinders are radially arranged, fluid operated means for varying the capacity of said pump comprising adjusting cylinders formed in said central casing and arranged between said pump cylinders, a series of bores in said central casing interconnecting said adjusting cylinders at one end, a second series of bores in said central casing connecting the other ends of said adjusting cylinders, pistons in said adjusting cylinders operatively connected to said stroke varying means, and means for admitting fluid pressure to either of said series of bores to shift said pistons in either direction, substantially as described.

5. In a variable capacity pump, the combination of a plurality of radially arranged pump cylinders and valve chambers, said valve chambers having ports for the admission of fluid, a manifold for connecting said valve chambers having ports registering with said ports in the valve chambers, said manifold having fluid tight connections with said valve chamber ports comprising oppositely tapered counterbores formed in said registering ports of the valve chambers and manifold and thin compressible bushings in said bores having their outer surfaces tapered to correspond with the said bores, substantially as described.

[Claims 6 to 43 not printed in the Gazette.]

1,206,454. PUSH-BUTTON CIRCUIT-CONTROLLER. RAY H. MANSON, Elyria, Ohio, assignor to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Aug. 18, 1914. Serial No. 857,294. (Cl. 200—27.)



1. In a push button circuit controller, the combination of a base of insulating material, a pair of contacts mounted thereon, one of said contacts consisting of an angular piece having a long arm extending along the top of said base and a short arm turned up substantially at right angles thereto, means to connect the long arm of the angular piece to the base, the other of said contacts being a spring contact doubled back in form and connected at one end to the top of said base, the free end of the spring contact being normally above the short arm of the angular piece and adapted to engage the same when de-

pressed, a casing about said base projecting above the same, an annular inwardly turned flange upon the top of said casing integral therewith substantially at right angles to the walls of the casing, a dome-shaped push button of substantially the same area as the base mounted with its bottom portion inclosed in said casing, an annular catch upon the bottom edge of said button loosely engaging with its top side the underside of said casing normally and adapted to be slid or tilted in said casing, a downwardly projecting member on said button normally engaging the doubled back spring, said spring normally holding said button with its flange engaging the flange on the casing, said button when either depressed or tilted causing through said projection the depression of the free end of the doubled back contact spring and causing it to engage the short arm of the angular piece to close an electric circuit.

2. In a push button circuit controller, the combination of a base of insulating material, a pair of contacts mounted thereon, one of said contacts consisting of an L-shaped piece with its long arm extending along the top of the base and connected thereto and its short arm projecting upwardly from the top of the base, a second contact consisting of a doubled back piece of metal, one arm of which is connected to the top of the base and the other arm of which is bent upwardly and positioned over the short arm of the L-member, the short arm of the L-shaped member being in the path of movement of the free arm of the doubled back member, a casing about said base projecting above the same having a catch on the top of the casing extending inwardly, a push button of substantially the same area as the base provided with a catch adapted to coöperate with the catch on the casing to maintain the button in position on the casing, the free arm of the doubled back contact engaging a portion of the button and maintaining it in normal position, said button being both depressible and tiltable in the casing and when either depressed or tilted causing the free end of the doubled back contact to engage the short arm of the L-shaped contact closing an electric circuit.

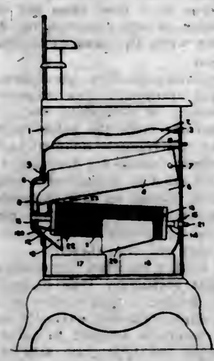
3. In a push button circuit controller, the combination of a cylindrical base of insulating material, a pair of contacts mounted thereon, one of which is doubled back, means to connect one of the legs of the doubled back contact to the top of the base, the other leg of the doubled back contact being free and bent upward from the upper surface of the base, said doubled back member being made of spring material, the second of said contacts being mounted upon the base with a portion in the path of movement of the free arm of the doubled back contact, a cylindrical casing mounted about the base member and extending above the same, a push button of substantially the same area as the base mounted in the casing above the base, said push button extending above the casing, means including a catch on the casing and on the button for limiting the upward movement of the button in the casing, the free arm of the doubled back contact engaging a portion of the button and normally pressing it upward in the casing and causing the catch members on the casing and the button to engage, said button being both tiltable and depressible in the casing and when depressed or tilted causing the free end of the doubled back contact to engage a portion of the other contact and close an electric circuit.

4. In a push button circuit controller, the combination of a base member having a channel cut therein, a port to said channel in the bottom of the base member and a port to said channel in the side of the base member, a casing about said base member and rotatable with respect thereto, and an opening in said casing adapted to register with the port in the side of the base member.

5. In a push button circuit controller, the combination of a base member, a channel in said member, a port to said channel in the side of said base member, a casing rotatably mounted on said base and provided with an opening for registering with the side port in the base member and with a solid wall for covering the port in the base member.

[Claims 6 to 8 not printed in the Gazette.]

1,206,455. STOVE. Ivo MARCHETTI, Boston, Mass. Filed Sept. 20, 1916. Serial No. 121,294. (Cl. 126—245.)



1. In a stove having the usual grate, the combination with an inclined vibratory chute situated beneath the grate to receive material dumped therefrom, of a rotatable cylindrical ash sifter situated beneath the chute, means to direct the material from the chute to the ash sifter, means to vibrate the chute by rotation of the ash sifter, and two receptacles situated beneath the ash sifter and adapted to receive the ashes and the coarse material, respectively.

2. In a stove having the usual grate, the combination with an inclined vibratory chute situated beneath the grate to receive material dumped therefrom, of a rotatable cylindrical ash sifter situated beneath the chute, means to direct the material from the chute to the ash sifter, means to vibrate the chute by rotation of the ash sifter, a receptacle situated beneath the lower end of the ash sifter to receive the coarse material delivered therefrom, an ash-receiving receptacle, and deflecting aprons to deflect into said ash-receiving receptacle the ashes that are sifted through the sifter.

1,206,456. PROCESS OF MAKING A DETONATING EXPLOSIVE. ALEXANDRE JOSEPH MARIN, Laeken, near Brussels, Belgium. Filed Apr. 2, 1914. Serial No. 829,058. (Cl. 52—1.)

1. The process of making detonating products which consists in treating chlorate of lead or its described equivalents with glycerin or its described equivalents.

2. The process of making detonating products which consists in treating chlorate of lead or its described equivalents with glycerin or its described equivalents, and treating the resulting substance with a substance insoluble in water, volatile, and having its boiling point above 100° C. at atmospheric pressure.

1,206,457. SPECTACLES OR OTHER VISION-GLASSES. SILAS B. MILLS, Baltimore, Md. Filed June 3, 1916. Serial No. 101,450. (Cl. 88—41.)

1. In an eyeglass the combination with a nose bridge-piece, of a pair of lenses fixed with respect to said nose bridge-piece, said fixed lenses each having two fields of vision, and lenses sustained at one side of each fixed lens and ground to modify the focus of one field of vision of the fixed lenses,—said modifying lenses being movable so as to cover only one field of vision of said fixed lenses, whereby the said eyeglasses provide for the wearer a near field of vision, a distance field of vision, and an intermediate field of vision.

2. In an eyeglass the combination with a bridge-piece, of a pair of fixed lenses rigidly attached to said bridge-piece and ground to provide two fields of vision; temple-bars pivotally mounted at the outer ends of the fixed lenses, and lenses pivotally sustained from each temple-bar mounting and movable from a position substantially parallel with and where they cover one field only of the fixed lenses to a position substantially parallel with the temple-bars whereby to provide a near field of vision, a distance field of vision and an intermediate field of vision for the wearer.



3. In vision glasses of the kind described, the combination with a nose bridge-piece, of a pair of bifocal lenses in fixed relation to the said nose bridge-piece; a lens hinged adjacent the outer edge of each bifocal lens and having a different focus from either foci of the said bifocal lenses, said hinged lenses when swung into position adapted to coact with and modify one focus only of said bifocals, thereby producing a third and intermediate focus for the eyes of the wearer.

1,206,458. BOX-FASTENER. EDMOND MONNIER, New York, N. Y. Filed June 24, 1916. Serial No. 105,591. (Cl. 70—8.)

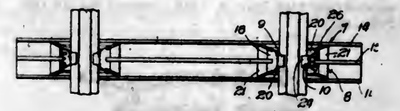


1. A box fastener for boxes having the cover projecting beyond the box body and comprising a fastener member on the lid with a projecting tongue projecting below and in line with the lid, a spring catch projecting inwardly from said tongue, and a coöperating fastener member on the box body having an upwardly opening slot to receive said tongue and adapted to hold said spring catch in compression between the fastener member and the box body.

2. A box fastener comprising a plate secured to the box body and provided with a transverse slot therein opening upwardly, the material of the plate below the slot being projected outwardly, and, a spring catch member secured to the lid having a tongue with an inwardly upturned lip, said spring catch member being adapted to enter into said slot and be received in said outward projecting part and to hold said spring catch in compression between said member and the box body, the said upturned lip of the tongue engaging with the plate above the slot, substantially as described.

1,206,459. SUPPORTING AND ATTACHING MEANS FOR RAILROAD-RAILS. FRANK P. MURPHEY, Decatur, Ill. Filed Mar. 29, 1916. Serial No. 87,569. (Cl. 238—5.)

1. An appliance of the class described, comprising a base portion, a longitudinally extending flange on the upper face of the base portion having a notch cut therein, a rail-chair seated in said notch, said chair comprising a rail supporting surface of less width than the notch to provide a space between one wall of the notch and the corresponding side of the chair, a fixed gripping jaw on one side of the chair, a removable gripping jaw on the opposite side of the chair, said removable gripping jaw being in the form of a spring key with an overhanging rail engaging portion, and said key being adapted to be inserted in the space between the chair and said wall of the notch for locking the chair and base member together, substantially as described.



2. An appliance of the class described, comprising a base portion, a longitudinally vertically extending flange on the upper face of the base portion having a notch cut therein, a rail-chair seated in said notch, said chair comprising a rail supporting surface of less width than the notch to provide a space between one wall of the notch and the corresponding side of the chair, a fixed gripping jaw on one side of the chair, a removable gripping jaw on the opposite side of the chair, said removable jaw being in the form of a spring key of tapering construction and provided with an overhanging rail engaging portion, and said key when inserted in the space between the chair and said wall of the notch locking the chair and base member together, substantially as described.

3. An appliance of the class described, comprising a base portion, a longitudinally vertically extending flange on the upper face of the base portion having a notch cut therein, a rail-chair seated in said notch, said chair comprising a rail supporting surface of less width than the notch to provide a space between one wall of the notch and the corresponding side of the chair, a fixed gripping jaw on one side of the chair, a removable gripping jaw on the opposite side of the chair, said removable jaw being in the form of a key of one-piece construction, embodying an overhanging rail engaging portion and oppositely-disposed downwardly-extending spring arm portions, said key when inserted in the space between the chair and said wall of the slot acting to lock the chair and base member together, substantially as described.

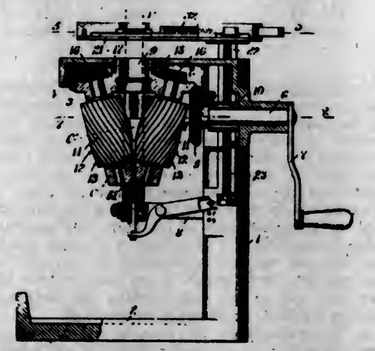
4. An appliance of the class described, comprising a base portion, a longitudinally vertically extending flange on the upper face of the base portion having a notch cut therein, a rail-chair seated in said notch, said chair comprising a rail supporting surface of less width than the notch to provide a space between one wall of the notch and the corresponding side of the chair, a fixed gripping jaw on one side of the chair, a removable gripping jaw on the opposite side of the chair, said removable jaw being in the form of a key of one-piece construction, embodying an overhanging rail engaging portion and oppositely-disposed downwardly-extending spring arm portions extending in diverging relation to one another, said key when inserted in the space between the chair and said wall of the slot acting to lock the chair and base member together, substantially as described.

5. An appliance of the class described, comprising a base portion, a longitudinally vertically extending flange on the upper face of the base portion having a notch cut therein, a rail-chair seated in said notch, said chair comprising a rail supporting surface of less width than the notch to provide a space between one wall of the notch and the corresponding side of the chair, a fixed gripping jaw on one side of the chair, a removable gripping jaw on the opposite side of the chair, said removable jaw being in the form of a key of one-piece construction, embodying an overhanging rail engaging portion and oppositely-disposed downwardly-extending spring arm portions, said spring arm portions being spaced apart from one another a

greater distance at one end of the key than at the other to provide a tapering construction, and said key when inserted in the space between the chair and said wall of the slot acting to lock the chair and base member together, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,206,460. MACHINE FOR SHARPENING PENCILS. LOUIS MYERS, Brooklyn, N. Y., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Original application filed Dec. 22, 1913, Serial No. 808,147. Divided and this application filed Mar. 9, 1915. Serial No. 13,163. (Cl. 120—96.)



1. In a pencil sharpening machine or the like, a milling device, hand-operated means for actuating said milling device with a planetary movement about the axis of said pencil, non-rotatable pencil-clamping means normally in pencil clamping position, and means actuated by said hand-operated means for unclamping said pencil-clamping means.

2. In a pencil sharpening machine or the like, a milling device, hand-operated means for actuating said milling device with a planetary movement about the axis of said pencil, non-rotatable pencil-clamping means arranged to be moved toward and away from said milling device, and means actuated by said hand-operated means for moving said clamping means away from said milling device said clamping normally tending to move toward said milling device.

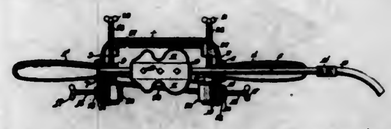
3. In a pencil sharpening machine or the like, a milling device, hand-operated means for actuating said milling device with a planetary movement about the axis of said pencil, when moved in a forward direction, non-rotatable pencil-clamping means arranged to be moved toward and away from said milling device, and means actuated by said hand-operated means when moved in the reverse direction for moving said clamping means away from said milling device, said clamping means normally tending to move toward said milling device.

4. In a pencil sharpening machine or the like, a milling device, hand-operated means for actuating said milling device with a planetary movement about the axis of said pencil when moved in a forward direction, non-rotatable pencil-clamping means normally in clamping position and arranged to be moved toward and away from said milling device, and means actuated by said hand-operated means for moving said pencil-clamping means away from said milling device and unclamping said pencil-clamping means, said clamping means normally tending to move toward said milling device.

5. In a pencil sharpening machine or the like, a milling device, hand-operated means for actuating said milling device with a planetary movement about the axis of said pencil, non-rotatable pencil clamping means normally in pencil clamping position, means for unclamping said pencil clamping means, and a pawl connected to said hand-operated means and actuating said unclamping means when said hand-operating means is moved in a reverse direction,

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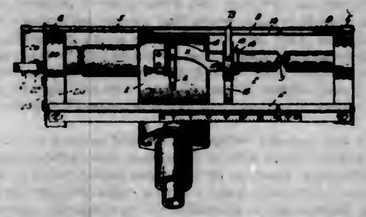
1,206,461. WOOD-CUTTING TOOL. WILBERT NICKELSON, Chicago, Ill. Filed Sept. 9, 1913, Serial No. 788,820. Renewed May 17, 1916. Serial No. 98,212. (Cl. 144—134.)



1. A wood cutting device of the class described comprising in combination, a casing, a cutter revolubly mounted in said casing, independently adjustable screw rods arranged in pairs, one pair of screw rods being disposed on each side of the axis of rotation of said cutter, a bracket carried by each screw rod, and a roller device carried by each pair of screw rods, the respective roller device terminals being pivotally supported by the respective brackets for adjusting the said rollers at an angle to the axis of rotation of said cutter, as and for the purpose set forth.

2. A hand advanced wood cutting device comprising in combination, a casing provided with end walls, handles mounted on said end walls in aligned relation with respect to each other, an operating shaft mounted in said casing in axial relation with respect to said handles and extending through one thereof for connection with the source of power, a cutter mounted on said shaft, brackets disposed one adjacent each end of said cutter, means movable relatively to the support to adjust said brackets, a guide roller carried by each bracket, guide pins rigid with each bracket and extending through the said end walls of the casing to hold said brackets against movement laterally relatively to said casing, rollers disposed on opposite sides of the cutter, support means for the rollers adjustable vertically relatively to the casing to move said rollers at different elevations either in parallel or angular relation with respect to the axis of rotation of said cutter to regulate the depth of the cut, the respective rollers being pivoted at their respective ends to the said adjustable means, as and for the purpose set forth.

1,206,462. AUTOMATIC ALARM FOR DICTATING-MACHINES. SYDNEY C. NOTT, La Grange, Ill. Filed Dec. 4, 1915. Serial No. 64,988. (Cl. 274—17.)



1. In a dictating machine, traveling mechanism having a dictating position and other positions, a farthest-advance marker, a warning device, and means for causing said device to act when it is attempted to carry the said mechanism in any other position than the dictating position past the point corresponding to the position of the marker.

2. In a dictating machine, mechanism for recording and reproducing dictation having a neutral position and working positions, a warning device, and means causing said device to act when the machine is operated while said mechanism is in the neutral position.

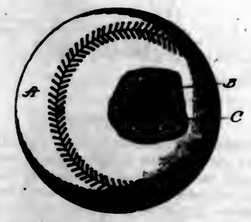
3. In a dictating machine, traveling mechanism having a dictating position and a reproducing position; a farthest advance marker, a warning device; and means for causing said device to act when it is attempted to advance the said mechanism, while in the dictating position, from a point remote from that corresponding to the position of the marker.

4. In a dictating machine, a traveling dictating and reproducing mechanism having a dictating position and a second position, a farthest-advance marker, and means for causing a continuing warning to be made when said mechanism while occupying said second position reaches the point indicated by said farthest-advance marker.

5. In a dictating machine, traveling mechanism for recording and reproducing dictation having a plurality of positions, a farthest-advance marker for said mechanism, and means controlled jointly by said marker and said mechanism for causing a warning to be given when said mechanism approaches the point indicated by said marker while occupying one of its said positions and for permitting it to pass said point without causing a warning while occupying another of said positions.

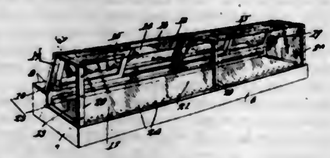
[Claims 6 to 17 not printed in the Gazette.]

1,206,463. REMEDIAL APPLIANCE. EMILY PARKINSON, Evanston, Ill. Filed Dec. 15, 1913. Serial No. 806,761. (Cl. 128—16.)



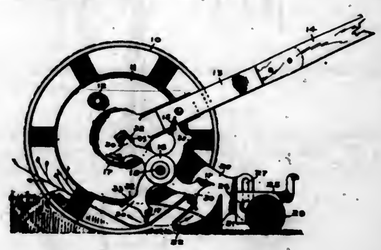
A remedial appliance of spherical form, including an envelop formed of an outer covering of soft leather, whereby to adapt the same to distortion at all portions of its surface under the influence of externally-exerted pressure, a fabric lining arranged at the inner face of said covering, and a mass of closely packed spherical bodies arranged within the lining and each having relative rolling movement with respect to the contiguous bodies, whereby to exert internal pressure upon the envelop during movement of the appliance over the part being treated and thereby to distort the surface of the appliance in accordance with the changing configuration of the part under treatment.

1,206,464. REFRIGERATOR SHOW-CASE. GEORGE L. PETERSON, Baltimore, Md., assignor to Ottenheimer Brothers, Baltimore, Md., a Firm composed of Ruben E. Ottenheimer, Samuel M. Ottenheimer, and Bernard M. Ottenheimer. Filed Aug. 25, 1915. Serial No. 47,351. (Cl. 45—71.)



A show case refrigerator, comprising an ice receiving chamber having a partially open top-side and insulated walls forming the remaining sides and bottom, a display case mounted on the front portion of said ice receiving chamber and over the open portion of the top-side, said ice receiving chamber embodying a deep rear portion having an ice receiving opening in its top-side and a relatively shallow front portion, the bottoms of said portions being coincident with each other, and a horizontal shelf having perforations adjacent its front edge and forming a top for said shallow portion and the bottom of said display case and provided at its rear edge with an upstanding flange to partially separate the display case from the deep rear portion and to provide an air passage at its top edge, the space beneath said shelf being in open communication with said deep rear portion to form a continuous ice receiving chamber extending the entire area of the bottom of said case and which is accessible through said ice receiving opening in the top of said deep rear portion.

1,206,465. LAWN-MOWER ATTACHMENT. CHARLES E. PHILLIPS, Indianapolis, Ind. Filed Aug. 18, 1916. Serial No. 115,674. (Cl. 56—19.)



1. The combination, with a lawn mower, of a stationary cutter blade, a rotating reel provided with grass cutting blades, and means carried by said reel for gathering the stalks of weeds and bending them over the cutting edge of the stationary blade and into the path of travel of the cutting edges of the grass cutting blades on the reel.

2. The combination, with a lawn mower, of a stationary cutter blade, a rotating reel provided with grass cutting blades, means carried by said reel for gathering the stalks of weeds and bending them over the cutting edge of the stationary blade and into the path of travel of the cutting edges of the grass cutting blades on the reel, and means for adjusting said grass gathering means to and from the axis of the reel.

3. The combination, with a lawn mower, of a stationary cutter blade, a rotating reel provided with grass cutting blades, and means arranged on said reel and extending in planes approximately parallel with the cutting edges of the grass cutting blades for gathering the stalks of weeds and bending them over the cutting edge of the stationary blade and into the arc of travel of the cutting edges of the grass cutting blades.

4. The combination, with a lawn mower, of a stationary cutter blade, a rotating reel provided with grass cutting blades, means arranged on said reel and provided with a series of extensions for gathering the stalks of weeds and bending them over the cutting edge of the stationary blade and into the path of travel of the cutting edges of the grass cutting blades on the reel.

5. The combination, with a lawn mower, of a stationary cutter blade, a rotating reel provided with grass cutting blades, weed gathering means arranged on said reel consisting of bars provided with undercut extensions for gathering the stalks of weeds and bending them over the cutting edge of the stationary blade and into the path of travel of the cutting edges of the grass cutting blades on the reel.

[Claims 6 to 8 not printed in the Gazette.]

1,206,466. SUPPORT FOR PRESSING-IRONS. JEROME RATNER, New Brunswick, N. J. Filed Jan. 15, 1916. Serial No. 72,272. (Cl. 68—9.)

1. The combination with an overhead rail, a trolley movable along the rail and a pressing iron, of a hanger connected at one end to the trolley and at its other end to

the iron, said hanger comprising a rod pivoted to the trolley, a universal joint connected to the lower end of the rod, a sleeve, a pair of straps connecting the sleeve to the universal joint, a shank slidable and rotatable within the sleeve, a light spring extending between the upper end of the shank and the universal joint, means to connect the iron to the lower end of the shank, and means carried by the sleeve to maintain the shank and iron in an elevated position, said means being releasable upon rotation of the shank.



2. The herein described hanger for a pressing iron, the same comprising an overhead support, a sleeve, means to connect the sleeve to the overhead support, a cylindrical shank slidable and rotatable in the sleeve, said shank being provided between its ends with a shoulder, a spring pressed automatic detent carried by the sleeve and coöperating with said shoulder to hold the shank elevated after it is lifted, and means to cause the release of the detent to lower the shank when the shank is rotated with respect to the sleeve.

1,206,467. CHEWING-GUM. WILLIAM A. REID, Spring Grove, Ind. Filed Apr. 10, 1916. Serial No. 90,077. (Cl. 127—4.)

1. Chewing gum comprising paraffin as a base, and sugar and flour as sub-basic elements.

2. Chewing gum composed of paraffin as the base, sugar and flour as sub-basic elements, cocoa and flavor as minor elements.

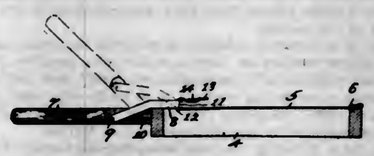
3. Chewing gum composed of paraffin as the base, combined with sugar, flour and cocoa, and a flavor.

4. Chewing gum composed of paraffin as the base, finely powdered minor elements added to the paraffin while the latter is in a liquid state.

5. Chewing gum composed of paraffin, sugar, flour, cocoa, a flavor, and a coloring element combined substantially as set forth.

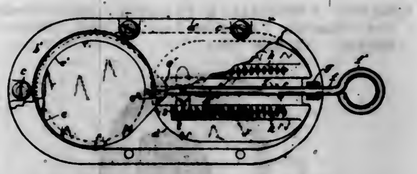
1,206,468. STRAP-STRETCHER. ABRAHAM ROBINSON, New York, N. Y. Filed July 13, 1916. Serial No. 109,158. (Cl. 254—62.)

A stretcher for the straps on articles of furniture, comprising a handle, the inner end of which is perpendicular to the longitudinal axis thereof, and a yoke-shaped frame having its connecting member formed with teeth and its side members intermediate of their ends bent downwardly and outwardly, said downwardly and outwardly extending ends of the side members being pivoted to opposite sides of the handle intermediate of the ends of the handle and adjacent to the lower face thereof whereby the forward end of the frame will lie in the plane of the upper face of the handle so that when the frame is engaged by a strap and the handle is forced down with its end into engagement



with the article of furniture, the handle will be held depressed to hold the strap stretched.

1,206,469. BLAST-GATE. WALTER S. ROCKWELL, New York, N. Y., assignor to W. S. Rockwell Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 10, 1915. Serial No. 66,152. (Cl. 137—5.)



1. A blast-gate, for insertion in a pipe-line, having a wholly closed casing with a valve-plate movable wholly within the said casing, a rod attached to the valve-plate and extended outside the casing for adjusting the valve-plate in various operative positions, and a spring acting directly upon the rod and exerting a yielding frictional resistance to any accidental derangement of such adjustment, while permitting a manual adjustment of the plate in either direction without any manipulation of the spring.

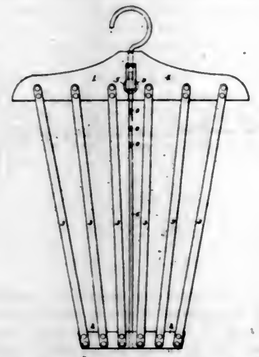
2. A blast-gate having an inlet and outlet, a chamber at one side of the passage between such inlet and outlet, a plate adapted to close the passage and movable into the chamber, a rod attached to the plate and movable within the chamber and extended outside of the same for adjusting the plate, transverse ridges upon the wall of the chamber adjacent to the sides of the rod, and a leaf-spring carried by the rod and adapted to elastically engage the ridges to retain the rod and valve-plate yieldingly in their adjusted position.

1,206,470. GARMENT-SUPPORTER. DAVID ROSEN, Camden, N. J., assignor of one-fourth to Clarence B. Groff, Haddon Heights, N. J., and one-fourth to Joseph Taylor, Camden, N. J. Filed Apr. 13, 1915. Serial No. 21,902. (Cl. 211—13.)

1. The combination, in a garment hanger, of upper and lower bars, flexible strips connecting the same, said upper bar having intersecting vertical and transverse openings therein, a notched rod passing through said vertical opening, and a pawl whose free end plays in the transverse opening and engages the notches of the rod.

2. The combination, in a garment hanger, of upper and lower bars, flexible strips connecting the same, an adjusting rod for retaining said upper and lower bars in different vertical relations to one another, a suspension hook, and a swivel connection between the same and the upper end of said adjusting rod.

3. The combination, in a garment hanger, of upper and lower bars, flexible strips connecting the same, an adjusting rod for retaining said upper and lower bars in different vertical relations to one another, a suspension hook, and a swivel connection between the same and the upper end of said adjusting rod, said swivel connection comprising a sleeve secured to one of said members and surrounding a portion of the other member, the latter being grooved



and the sleeve being indented so as to form thereon an internal rib for engaging said groove.

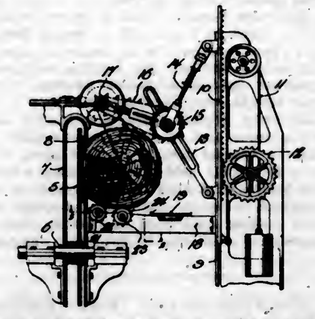
1,206,471. STRAINER. ANNA M. ROSWELL, Elmsford, N. Y. Filed July 17, 1916. Serial No. 109,708. (Cl. 53—3.)

1. A strainer attachment for coffee and tea pots, comprising a blank of bendable sheet metal foldable to constitute perforated side walls and a solid top wall, means arranged upon said top wall engageable with one of said side walls whereby the perforate side walls and top may be maintained in folded position, and means arranged upon the marginal edges of said perforate side walls whereby the strainer may be attached to the pot interiorly thereof and adjacent the pouring spout.

2. A strainer attachment for coffee and tea pots, comprising a blank of bendable sheet metal, said blank being folded to constitute a V-shaped body having perforate side walls and an inclined top wall, a catch formed upon said top wall and engageable with one of said perforate side walls whereby the body will be held in folded position, a hooked engaging means formed upon the marginal edges of said side walls whereby the body may be attached to the pot interiorly thereof and adjacent the pouring spout, such inclined solid top wall serving as means for directing the fluid contents of the pot to the pouring spout.

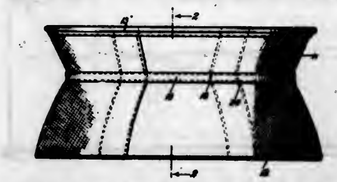
1,206,472. WOOD-BARKING MACHINE. FRANK E. SAECKER, Appleton, Wis., assignor to Appleton Machine Company, Appleton, Wis. Filed Jan. 31, 1916. Serial No. 75,287. (Cl. 144—208.)

In a wood barking machine the combination with a knife wheel and adjustable means for rotatively engaging the upper portion of a log to hold it against said wheel of a pair of rollers disposed below said means in parallel relation to form a bed for the log and having their axes



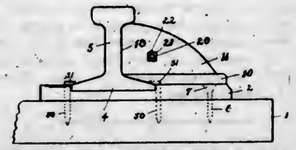
in a plane inclined downwardly from the said wheel, and means for rotating said rollers.

1,206,473. HAT-FRAME. OTTO G. SAMISH, Yonkers, N. Y., assignor to Weiss & Samish, New York, N. Y. Filed May 10, 1916. Serial No. 96,551. (Cl. 2—108.)



A hat frame comprising an annular body formed of material cut on the bias, the body having an upper portion and a lower portion, both portions being made of frusto-conical form with their smaller base circles coinciding on a common meeting line, the meeting edges abutting and being of a single thickness and flush with each other, a tape extending around the exterior of said portions and having its median line coinciding with the said meeting line, and rows of stitches connecting the tape to the body at opposite sides of said median line.

1,206,474. RAIL-BRACE. JOSEPH L. SCHMIDT, Utica, N. Y. Filed Sept. 16, 1916. Serial No. 120,560. (Cl. 238—2.)



1. In a rail brace, a plate having a bracket, spikes for holding said plate in given position, a hood detachably mounted upon said bracket, whereby to offset any lateral strain against said rail, and said hood adapted to cover the heads of said spikes, whereby to hold said spikes in set location.

2. In a rail brace, a plate having a bracket, a hood detachably secured upon said bracket, a bolt for securing said hood to said bracket, whereby to brace said rail against lateral strain, an elongated recess in said plate, and a lug on said hood adapted to fit into said elongated recess, whereby to aid in assembling said hood to said bracket.

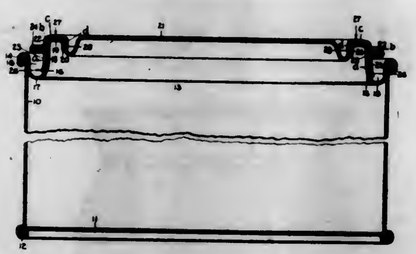
3. In a rail brace, a plate, a bracket formed upon said plate, an elongated recess in said plate, a hood having

a lug adapted to fit into said recess, and a bolt and lock nut for holding said hood to said bracket, whereby to brace the rail against lateral movement.

4. In a rail brace, a plate having a recess for the disposition of the lower part of a rail, a bracket formed in said plate, a hood adapted to be mounted upon said bracket, and a bolt and nut for holding said hood in assembled position upon said bracket, whereby to aid in offsetting any lateral strain against said rail.

5. In a rail brace, a plate having a recess for the disposition of the lower part of a rail, an elongated recess in said plate, a bracket formed on said plate, a hood adapted to be detachably held to said bracket, a bolt and lock nut for holding said hood to said bracket, a lug on said hood adapted to rest in said elongated recess, whereby to aid in holding said hood in position upon said bracket, whereby to offset any lateral strain against said rail.

1,206,475. FRICTION-TOP CAN. MORRIS SHALITA and PINCUS SHALITA, New York, N. Y. Filed Feb. 20, 1915. Serial No. 9,570. (Cl. 220—76.)



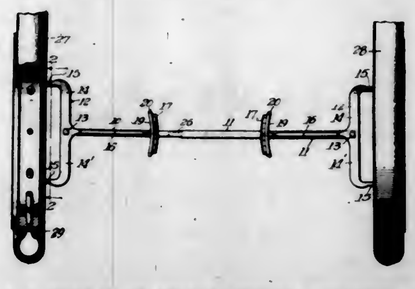
1. The combination with a metal container rim bent to provide upwardly and downwardly disposed spaced contact surfaces, of a top therefor having a downwardly projecting shoulder having frictional contact with said rim downwardly projecting contact surface and having a downwardly projecting flange spaced outwardly from said shoulder and having broad frictional contact with said upwardly projecting rim surface, said top flange being crimped to form an outwardly projecting rib, the walls of which are spaced forming a liquid seal space of annular form surrounding said upwardly projecting rim surface first mentioned, said top flange having frictional contact with said upwardly projecting rim surface both above and below said pocket.

2. The herein described metal can top having a downwardly projecting friction flange bent outwardly to form a rib lying substantially in a horizontal plane, the walls of the rib being spaced one above the other forming a pocket, and the portions of the flange adjacent said rib walls extending in substantially the same direction on opposite sides of said pocket.

1,206,476. APPARATUS FOR GAGING THE POSITION OF VEHICLE-WHEELS. PARKE T. SNYDER, Chicago, Ill. Filed Sept. 30, 1915. Serial No. 53,223. (Cl. 33—203.)

1. A device of the character described comprising two axially movable members; a double pointed caliper member pivoted to one end of one axially movable member, one point on each side of the pivot; an index extending inwardly from the pivotal point of said caliper member and a coöperating scale for said index secured to the respective axially movable member.

2. A device of the character described comprising two axially movable telescoping tubes; a double pointed caliper member pivoted at its center to the end of each tube, respectively; an index extending inwardly from the pivotal point of each said caliper member; a coöperating scale for said index secured to each said telescoping tube and a spring to hold the tubes extended.



3. A device of the character described comprising two axially movable telescoping tubes; a double pointed caliper member pivoted to the end of each tube, respectively, one point on each side of the pivot; an index extending inwardly from the pivotal point of each said caliper member; a coöperating scale for each said index secured to each of said telescoping tubes and a spring within one said tube to hold the tubes extended.

4. A device of the character described comprising two relatively movable telescoping tubes; a double pointed caliper member pivoted to the end of each tube, one point on each side of the pivot; an index extending inwardly from the pivotal point of each said caliper member; a coöperating scale for said index secured to each of said telescoping tubes; and a spring to hold the tubes extended, said relatively movable tubes having formed thereon an index and scale to indicate the extent of separation of said caliper members.

5. A device of the character described comprising two axially movable relatively long members; a U-shaped caliper member pivoted at its center to the outer end of each said telescoping member, an index, extending inwardly from said caliper member; a scale on each of the telescoping members, said scale being graduated from a center zero point outwardly; and the end surfaces of each limb of the caliper member being in a plane at right angles to the axis of the respective telescoping member when the index points to a zero on the scale; a spring to yieldingly hold said telescoping members extended and a stop to prevent separation of said members.

[Claim 6 not printed in the Gazette.]

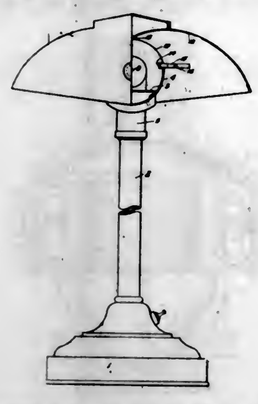
1,206,477. ELECTRIC LAMP. WILLIAM H. SPENCER, New York, and JAMES T. HOLMES, Brooklyn, N. Y., assignors to George Frink Spencer, New York, N. Y. Filed Dec. 30, 1915. Serial No. 69,404. (Cl. 240—81.)

1. The combination with a support, of a lamp housing carried thereby, said housing being provided with flat end walls, a reflector trunnioned in the flat end walls of said housing, sockets spaced longitudinally of said housing, said sockets being coaxially arranged with respect to each other and with respect to the trunnioned axis of said reflector, and a lamp mounted in said sockets.

2. The combination with a support, of an elongated housing mounted thereon, co-axially arranged lamp sockets adjacent opposite ends of said housing, an elongated filament lamp mounted in said lamp sockets, said housing being provided with opaque walls along opposite edges thereof, and a reflector arranged opposite to said housing on the other side of said lamp, said reflector being extended to intercept the lights rays from the filament of the lamp which pass the edges of said opaque walls.

3. The combination with a line filament incandescent lamp provided with coaxially arranged sockets at opposite ends thereof, means for supporting said sockets, and a reflector for said lamp movably connected to said supporting means to swing about an axis coinciding with the line filament of said lamp.

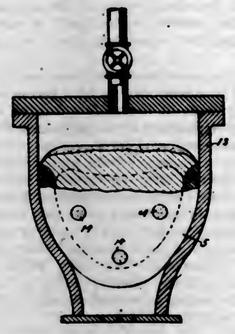
4. The combination with a support, of an elongated housing mounted thereon, coaxially arranged lamp sockets adjacent opposite ends of said housing, an elongated filament lamp mounted in said lamp sockets, said housing being provided with opaque walls along opposite edges thereof, and a reflector arranged opposite to said housing on the other side of said lamp, said reflector being extended to intercept the lights rays from the filament of the lamp which pass the edges of said opaque walls, said reflector being movable relatively to said housing, and means releasably interengaging between the housing and reflector to hold them in normal positions of service.



5. The combination with a support, of an elongated plate carried thereby, sockets co-axially arranged on said plate, a lamp mounted in said sockets, said plate being provided with uprights adjacent opposite ends thereof and a reflector for said lamp journaled in said uprights.

[Claims 6 to 12 not printed in the Gazette.]

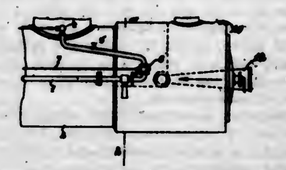
1,206,478. APPARATUS FOR MAKING PLATES FOR ARTIFICIAL TEETH. LAKE H. SPRINKLE, Brooklyn, N. Y. Filed Jan. 6, 1916. Serial No. 70,614. (Cl. 22—69.)



1. The combination with a flask having a relatively large end and a relatively small end, and being provided with a pair of opposite parallel sides and a pair of opposite converging sides, of a tapering flask likewise provided with a large end and a small end, and having parallel outer faces received between the parallel sides of the first-named flask, said tapering flask comprising separable sections inclosing a mold cavity whose periphery lies substantially in the plane of the meeting edges of adjacent sections, said tapering flask being engaged between its ends by the converging sides of the first-named flask, the small end of the tapering flask being closed and the large end presenting an opening to the relatively large end of the first flask, said opening extending substantially across the width of the mold cavity.

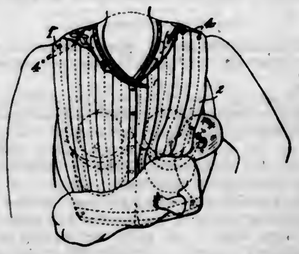
2. A mold-containing flask comprising a pan-shaped section having a rim, a ring-shaped section similar in outline to the rim, and a third section, said sections having projections and recesses to enable them to be fitted together, so that the ring-shaped section will coincide with the rim, and the third section with the ring-shaped section, the rim and the ring-shaped section having registering recesses forming an aperture in the flask to admit molten material to the mold-cavity, said aperture extending across substantially the width of the mold-cavity, the rim and the ring-shaped section having other registering recesses forming exit openings, the bottom of the pan-shaped section and the third section also being provided with exit openings, said openings being located at various points with respect to the mold-cavity, whereby a pressure agent may be applied through the aperture to force the molten material into the mold-cavity, and be subsequently enabled to escape from the flask.

1,206,479. CAR-HEATER. WILHELM STABY, Ludwigshafen-on-the-Rhine, Germany. Filed July 31, 1912. Serial No. 712,566. (Cl. 237—24.)



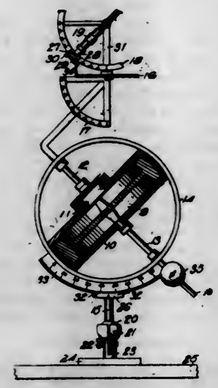
A car heating device in combination with a locomotive, comprising a semi-circular air heating chamber, within the upper part of the smoke box of said locomotive, an air intake at one side, and an exhaust at the other side of said chamber, a valve controlled steam and air supply device, an air regulating valve in the conduit between said steam and air supply device and said air heating chamber, said conduit being provided with a tapered air inlet pipe stem, a two-way valve piece in said air regulating valve and means of predetermined dimensions connecting said two-way valve with the steam supply valve for regulating the supply of steam, cold air and preheated air by alternately closing the steam conduit, the cold air inlet and the conduit to the preheating chamber in proportion with the opening and closing movements of the steam-supply valve.

1,206,480. WAIST. KATHERINE STAGG, New York, N. Y. Filed Apr. 26, 1915. Serial No. 23,799. (Cl. 2—98.)



A double front nursing waist comprising a body portion and a blouse portion completely detached therefrom, said blouse portion being so constructed and arranged as to conceal both the breast of the nurse and the face of the nursing child.

1,206,481. SPEED AND RANGE FINDER. CHARLES SEMMES STANWORTH, Norfolk, Va. Filed Oct. 14, 1915. Serial No. 55,845. (Cl. 33—46.)



1. An apparatus as characterized, comprising a sighting instrument; a pivotal support therefor; a device for determining the angular disposition of said instrument in a vertical plane; means for fixing the operative disposition of said device in its relation to said support; and means for maintaining the fixed disposition of said device independent of said support.

2. An apparatus as characterized, comprising a sighting instrument; a supporting structure for said instrument embodying a pivotal mounting and a calibrated quadrant disposed concentric to said mounting; a disk-like table disposed in supporting relation to said structure and having calibrations thereon for determining the angular relation of said structure to said table; means for fixing the operative disposition of said quadrant in its relation to said supporting structure; and means for maintaining immutable said disposition of said quadrant independently of said supporting structure.

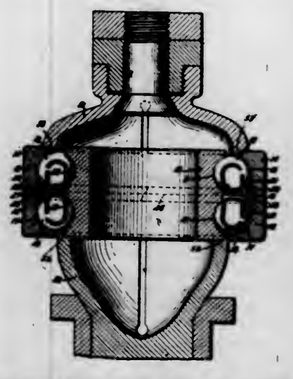
3. An apparatus as characterized, comprising a sighting instrument; a supporting structure for said instrument embodying a pivotal mounting and a calibrated quadrant disposed concentric to said mounting; a disk-like table disposed in supporting relation to said structure and having calibrations thereon for determining the angular relation of said structure to said table; means for fixing the operative disposition of said quadrant independently of said supporting structure; means for maintaining immutable said disposition of said quadrant; and a supporting structure for said table embodying a pivot for said table arranged for permitting the table to swing in a plane corresponding with the fixed disposition of said quadrant.

1,206,482. BALL-BEARING. FRANK STARIN, Springfield, Mass. Filed Apr. 27, 1916. Serial No. 93,886. (Cl. 64—59.)

1. A ball bearing, comprising an inner member, an outer casing made in two parts, the said inner member and the said casing having oppositely disposed ball races, a locking ring on the inner faces of the casing parts intermediate the ball races thereof, sets of balls in the said races, and cages one for each set of balls.

2. A ball bearing, comprising an inner member provided on its peripheral face with two parallel ball races, an outer ball race casing made in two parts each having an internal ball race directly opposite a corresponding ball race of the said inner member, sets of balls engaging the races, and a cage for confining each set of balls and allowing rotation thereof, and a locking ring for locking the casing parts together at their inner faces and extending across the joint of the casing parts intermediate their ball races.

3. A ball bearing, comprising an inner member provided on its peripheral face with two parallel ball races, an outer ball race casing made in two parts each having an internal ball race directly opposite a corresponding ball race of the said inner member, sets of balls engaging the races and a cage for confining each set of balls and allowing rotation thereof, and a locking ring for locking the casing parts together at their inner faces and extending across the joint of the casing parts intermediate their ball races, the said locking ring being V-shape in cross section thereby forming diverging wings, and the inner faces of the casing parts being provided with annular grooves shaped for the reception of the said diverging wings of the locking ring.



4. A ball bearing, comprising an inner member provided on its peripheral face with two parallel ball races, an outer ball race casing made in two parts each having an internal ball race directly opposite a corresponding ball race of the said inner member, sets of balls engaging the races and a cage for confining each set of balls and allowing rotation thereof, and a locking ring for locking the casing parts together at their inner faces and extending across the joint of the casing parts intermediate their ball races, the said locking ring being V-shaped in cross section thereby forming diverging wings, and the inner faces of the casing parts being provided with annular grooves shaped for the reception of the said diverging wings of the locking ring, the locking ring being provided with a pair of struck-up lugs engaging corresponding recesses in the walls of the said grooves.

5. A ball bearing, comprising an inner member provided on its peripheral face with two parallel ball races, an outer ball race casing made in two parts having an internal ball race directly opposite a corresponding ball race of the said inner member, sets of balls engaging the races and a cage for confining each set of balls and allowing rotation thereof, and a locking ring for locking the casing parts together at their inner faces and extending across the joint of the casing parts intermediate their ball races, the said locking ring being provided with a pair of lugs and the inner faces of the casing parts being provided with annular grooves having channels in their back walls for engagement by the said lugs, the channel diverging from a point at the joint of the casing parts and terminating in recesses engaged by the said lugs.

1,206,483. DOLL. JANE G. STOKES, New York, N. Y., assignor to Jane Gray Company, a Copartnership, of New York, N. Y. Filed June 13, 1916. Serial No. 103,436. (Cl. 46—40.)

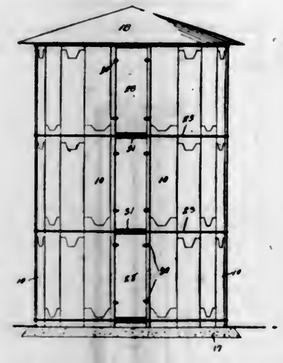
1. A doll of the class described comprising a case made of knitted fabric with an unnapped outer surface and a napped inner surface, and a filling of fibrous material, the outer surface being decorated to represent features and clothing.

2. A doll of the class described comprising a case made of knitted fabric with an unnapped outer surface and a



napped inner surface, and a filling of kapok in direct contact with the napped inner surface of the case.

1,206,484. SILO CONSTRUCTION. CHARLES H. SWAN, Cassopolis, Mich. Filed Mar. 30, 1915. Serial No. 18,091. (Cl. 72—6.)



1. In a silo construction, wall staves arranged in vertical courses, band members adapted to embrace the silo walls adjacent the joints between the ends of the staves of the several courses, and means for tightening said band members upon said walls, said staves being gradually reduced in width from their ends toward the centers thereof.

2. In a silo construction, wall staves arranged in vertical courses by interlocking joints, the joints of the adjacent courses being relatively staggered, retaining hoops for embracing the walls of the silo between the staggered joints of the several courses, means simultaneously operable upon the ends of said hoops to tighten the same upon said wall, and means consisting in gradually lessening the width of each of said staves toward their centers to reduce pressure at said point and prevent cracking of the same.

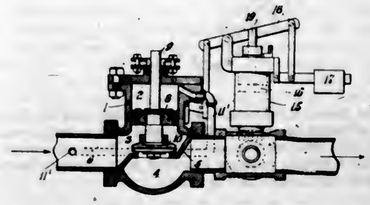
3. In a silo construction, wall staves having slightly greater widths at their ends than at their centers adapted to be arranged in vertical courses, interlocking joints between the staves of each course, respectively concave and convex vertical edges for each stave to preserve said courses in cylindrical alinement, band members adapted to encircle the wall formed by said courses and adjacent the interlocking joints to support said staves and means simultaneously operable upon the extremities of said band members to tighten the same whereby the greatest compression is placed upon the ends of the staves and the centers thereof practically relieved of the pressure.

4. In a silo construction, wall staves therefor of substantially rectangular formation having interlocking end means and of less width across the center between the ends than at either end.

5. In a silo construction, wall staves therefor of elongated substantially rectangular construction each stave being narrower at its longitudinal center than at either end, said narrowing being produced by slightly concaving one longitudinal edge only of the stave, and interlocking means on said ends.

[Claim 6 not printed in the Gazette.]

1,206,485. VALVE. JOHN J. TAGUE, New York, N. Y., assignor of one-half to Henry Bollman, Brooklyn, N. Y. Filed Dec. 9, 1914. Serial No. 876,300. (Cl. 169—23.)



1. A valve comprising a casing consisting of an inlet chamber, an outlet chamber and a cylinder above the inlet chamber, a valve adapted to close the opening between the inlet and outlet chambers, a valve stem thereon, a piston on the stem within the cylinder, a fluid passage between the inlet chamber and the cylinder space above the piston, means for venting the cylinder space above the piston and means for closing the fluid passage while the cylinder is venting.

2. A valve comprising a casing provided with an outlet chamber, an inlet chamber and a cylinder above the inlet chamber, a valve adapted to close the opening between the inlet and outlet chambers, a valve stem thereon, an imperforate piston in the cylinder on the valve stem, an open passage between the inlet chamber and the cylinder space above the piston, a vent valve in the passage and means for opening said vent valve controlled by the pressure in the outlet.

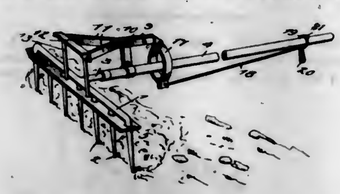
3. A valve comprising a casing provided with an outlet chamber, an inlet chamber and a cylinder above the inlet chamber, a valve adapted to close the opening between the inlet and outlet chambers, a valve stem thereon, an imperforate piston in the cylinder on the valve stem, an open passage between the inlet chamber and the space above the piston, a vent valve and a shut off valve in the passage and means for synchronously opening one and closing the other of said valves controlled by the pressure in the outlet.

4. A valve comprising a casing, a cylinder extending upwardly therefrom, a piston in said cylinder, a valve seat dividing the space below the piston into an upper and a lower chamber, a valve disk normally on said seat connected with the piston, an inlet leading into the upper chamber and an outlet leading from the lower chamber, a connection between the inlet and the space above the piston, means for relieving the pressure above the piston whereby the pressure below will cause it to rise and open the valve, a second connection between the inlet and outlet and a reducing valve therein whereby proportionate pressures may be maintained in the inlet and outlet.

1,206,486. RAKE. BYRON TERWILLIGER, Grants Pass, Oreg. Filed May 11, 1916. Serial No. 96,801. (Cl. 55—146.)

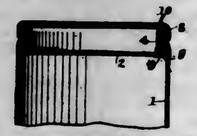
1. The combination with the rake, of a plate having openings for the teeth and mounted to move longitudinally thereof, a bearing bracket for engaging the handle of the rake, a lever pivoted to the bracket and having a fork at the end adjacent to the plate, hanger rods connecting the arms of the fork with the plate, the lever having at the oher end a ring loosely fitting over the handle, and a link pivoted at one end to the ring at the opposite side from the lever and having at the other end a bearing mounted to slide on the handle, and a grip for operating the link.

2. A cleaning plate for rake teeth having openings for teeth and adapted to be mounted thereon, a bearing bracket for engaging the handle, a lever pivoted intermediate its ends to the bracket and connected at one end



to the plate, a ring rigid with the other end of the lever and adapted to encircle the handle and a link connected with the ring at the opposite side from the lever and having a handle member provided with a ring adapted to encircle the handle of the rake.

1,206,487. PROCESS FOR FORMING CHIMES ON METAL BARRELS. CHARLES VOLTZ and SAMUEL B. COCHRANE, New York, N. Y. Filed Dec. 14, 1915. Serial No. 66,749. (Cl. 113—116.)



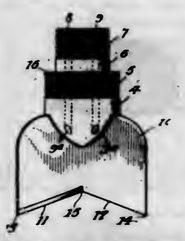
1. The process of securing a flanged head to the body of a metal barrel, which consists in first pressing the flanges of the head and the overlying portion of the body inwardly to form a channel, then partially closing the channel by bringing the outer corners thereof closer together, and finally bringing said corners into close proximity and flattening out the walls of the channel at both sides of said meeting corners, thereby forming an interlocking connection in the shape of a box-plait.

2. The process of securing a flanged head to the body of a metal barrel, which consists in first pressing the flange of the head and the overlying portion of the body inwardly to form a channel, then partially closing the channel by bringing the outer corners thereof closer together, then bringing said corners into close proximity and flattening out the walls of the channel at both sides of said meeting corners, thereby forming an interlocking joint in the shape of a box-plait, and finally bending the extremities of the flange of the head and overlying portion of the body inwardly upon the outer edge of the box-plait.

3. The process of securing a flanged head to the body of a metal barrel, which consists in first pressing the flange of the head and the overlying portion of the body inwardly to form a channel, a slight groove being formed in the inner face of the inner wall of the channel at the same time, then partially closing the channel by bringing the outer corners thereof closer together, and finally bringing said corners into close proximity and flattening out the walls of the channel at both sides of said meeting corners, thereby forming an interlocking joint in the shape of a box-plait.

1,206,488. DRILL. FRED RICHARD WEATHERSBY, Houston, Tex. Filed Aug. 30, 1913. Serial No. 787,458. (Cl. 255—61.)

The herein described drill comprising a substantially cylindrical stem and a flat blade integral with the stem, the lower portion of the stem extending below the upper edge of the blade and being tapered downwardly and rounded, said blade being provided with oppositely facing cutting edges, inclining downwardly from the central portion to the ends of the blade, said stem being provided with a pair of bores arranged in a plane lying in acute angular relation with the blade and opening at points



in the rounded and tapered portion of the stem above and intermediate the ends of the cutting edges and below the upper edge of the blade.

1,206,489. DRAPERY-SUPPORT. IZIDUR WEISS, New York, N. Y. Filed Sept. 8, 1915. Serial No. 49,481. (Cl. 156—23.)

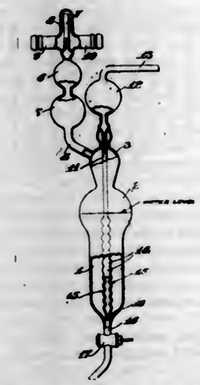


In a drapery support, a bar adapted to be disposed between two supports, stationary pointed pins on one end of the bar, adapted to be forced into engagement with one of the supports for holding one end of the bar, a rod rotatable on the other end of the bar so as to be extensibly adjusted relative to this end of the bar, and the rod having pointed pins projecting therefrom to engage the second support when the rod is adjusted accordingly for holding the second end of the bar to the support, a rod removably mounted on the bar to permit drapery to be detachably suspended therefrom, and pointed pins also on the bar to allow other draperies to be detachably suspended from the bar.

1,206,490. APPARATUS FOR INDICATING THE VOLUMETRIC FLOW OF A GAS. ERNEST E. WERNER, St. Louis, Mo. Filed Nov. 24, 1915. Serial No. 63,197. (Cl. 73—167.)

1. In an apparatus of the class described, in combination with a glass container for a liquid, a conduit sealed in said container and adapted to be connected with a source of gas supply under pressure, and for a portion of its length to be submerged in the liquid of said container, the latter portion of the conduit having apertures extending transversely of the wall of the conduit, and a discharge pipe for conducting the gas from the container for use, said pipe communicating with said container above the level of the liquid therein and affording the sole means of escape of the gas from said container.

2. In an apparatus of the class described, in combination with a glass container for a liquid, a conduit sealed in said container and adapted to be connected with a source of gas supply under pressure, and for a portion of its length to be submerged in the liquid of said container, the latter portion of the conduit having two rows of apertures extending longitudinally of the conduit and arranged in alternation on opposite sides thereof, and a discharge pipe communicating with said container above the level of the liquid therein.



3. In an apparatus of the class described, in combination with a glass container for a liquid, a vertically-disposed conduit sealed in said container and adapted to be connected with a source of gas supply under pressure, and for a portion of its length to be submerged in the liquid of said container, the latter portion of the conduit having two rows of apertures extending longitudinally of the conduit and arranged in alternation on opposite sides thereof, and a discharge pipe communicating with said container above the level of the liquid therein.

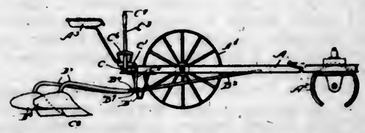
4. In an apparatus of the class described, in combination with a glass container for a liquid, a conduit sealed in said container and adapted to be connected with a source of gas supply under pressure, and for a portion of its length to be submerged in the liquid of said container, the latter portion of the conduit having the form of a series of connected chambers, each of which is provided with an aperture, said apertures being arranged in two longitudinally-extending rows and in alternation on opposite sides of the conduit, and a discharge pipe communicating with said container above the level of the liquid therein.

5. In an apparatus of the class described, in combination with a glass container for a liquid, a vertically-disposed conduit sealed in said container and adapted to be connected with a source of gas supply under pressure, and for a portion of its length to be submerged in the liquid of said container, the latter portion of the conduit having the form of a series of communicating spherically-shaped chambers, each of which is provided with an aperture, said apertures being arranged in two longitudinally-extending rows and in alternation on opposite sides of the conduit, and a discharge pipe communicating with said container above the level of the liquid therein.

[Claims 6 and 7 not printed in the Gazette.]

1,206,491. PLOW-LIFT. JOHN WOLF, Laporte, Ind., assignor, by mesne assignments, to Advance-Rumely Company, Laporte, Ind., a Corporation of Indiana. Filed Mar. 26, 1915. Serial No. 17,086. (Cl. 21—114.)

1. The combination with a traction engine of a draw bar, means for transmitting the pull from the engine to the bar, separate means for raising and lowering the bar with respect to the engine frame and means for guiding the draw bar comprising an A frame mounted on and downwardly depending from the engine frame and located immediately in front of and in loose engagement with the draw bar.



2. The combination with a traction engine of a draw bar, means for transmitting the pull from the engine to the bar, separate means for raising and lowering the bar with respect to the engine frame and means for guiding the draw bar comprising an A frame mounted on and downwardly depending from the engine frame and located immediately in front of and in loose engagement with the draw bar, the side of the A frame in engagement with the draw bar being substantially perpendicular to the link.

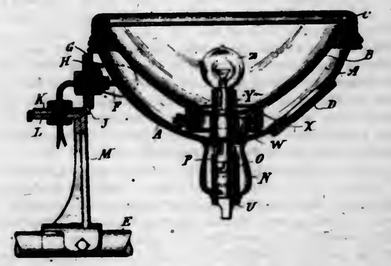
3. A draw bar for traction engines and the like comprising an angle bar and a flat plate separated one from the other, traction pins held between the bar and the plate and projecting beyond the ends thereof, the bar and one flange of the plate being perforated in register one with the other, traction links pivoted at one end of the engine frame and at the other on the traction pins, and means for supporting the draw bar from the engine frame.

4. The combination with a traction engine frame of a draw bar, a pivoted traction connection between the bar and the frame, means for adjustably supporting the bar on the frame and for raising and lowering it with respect to the frame, said means comprising a bell crank, a controlling lever and a link connection between the bell crank and the draw bar, means for varying the effective length of the connecting link to vary the response of the draw bar to the manipulation of the end lever.

5. The combination with a traction engine frame of a draw-bar, a pivoted traction connection between the bar and frame, operator controlled means for raising and lowering the bar with respect to the frame during operation, together with means adjustable only when the machine is not in operation for varying the response of the draw-bar to the operator controlled means.

[Claim 6 not printed in the Gazette.]

1,206,492. AUTOMOBILE-LAMP. LAWRENCE M. WOOD, Fairfield, Conn. Filed Oct. 30, 1915. Serial No. 58,757. (Cl. 240—41.)



1. An automobile lamp adapted to be pivotally attached to a car, comprising an outer metallic casing extended at its central rear portion to form a hollow handle to contain a switch, an inner reflector secured to the forward portion of the casing and having a central opening at the rear, and a lamp holder secured to the reflector around said opening.

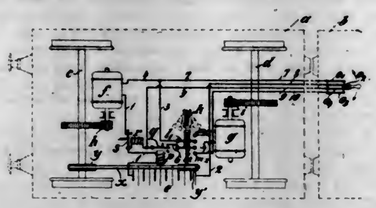
2. An automobile lamp adapted to be pivotally attached to a car, comprising an outer casing extended at the central rear portion to form a hollow handle in combination with a lamp holder contained within the casing a switch therefor, in the hollow handle, and a switch button exterior to and located at the end of the handle.

3. An automobile lamp adapted to be pivotally attached to a car, comprising an outer casing, having a mirror secured to its back, and extended centrally in the rear to form a hollow handle, an inner reflector, a lamp holder within the casing carrying a lamp that projects through a central opening in the reflector, and a switch for a lamp contained in the handle.

4. An automobile lamp adapted to be pivotally attached to a car, comprising an outer metallic casing and an inner reflector secured together, a lamp holder secured to the reflector and adapted to carry a lamp projecting into the reflector through a central rear opening, and a hollow handle projecting from the central rear part of the casing and containing a switch for the lamp.

5. An automobile lamp adapted to be pivotally attached to a car, comprising a reflector casing and inner reflector secured thereto having a flanged opening at the center, a lamp holder in the form of a cup secured to the flange, the central rear portion of the casing projecting rearwardly and forming a handle, a lamp switch in said handle and a key for operating the same exterior to and at the rear end of said handle.

1,206,493. ARRANGEMENT FOR THE SERVICE ON RAILROADS. OTTO WULFERDING, Hacienda Aragon, Turrialba, Costa Rica. Filed Nov. 26, 1912, Serial No. 733,708. Renewed June 23, 1916. Serial No. 105,520. (Cl. 105—27.)



1. In a railroad service arrangement with accumulation of energy in braking the train or when running down gradients, and transmission of energy for assisting the main driving power of the engine of trains, a special auxiliary service car, coupled in the said train and containing an independent plant for accumulating energy gained during the journey and delivering and utilizing such energy for the purposes of running the said train, the said plant in said auxiliary car consisting of an electric generator driven from the axle of the car, an electric motor coupled with an axle of the car, a storage battery and mechanical and electrical switch devices in the auxiliary car, adapted to connect at given speeds of the train either the generator or the motor with the said storage battery and so temporarily employ this battery for accumulating energy and temporarily for supplying electric energy, substantially as and for the purpose described.

2. In a railroad service arrangement with accumulation of energy in braking the train or when running down gradients, and transmission of energy for assisting the main driving power of the engine of trains, a special auxiliary service car, coupled in the said train and containing an independent plant for accumulating energy gained during the journey and delivering and utilizing such energy for the purposes of running the said train, the said plant in said auxiliary car consisting of an electric generator driven from the axle of the car, an electric motor coupled with an axle of the car, a storage battery and mechanical and electrical switch devices in the auxiliary car, adapted to connect at given speeds of the train either the generator or the motor with the said storage battery and so temporarily employ this battery for accumulating energy and temporarily for supplying electric energy, the said switch devices of the auxiliary car consisting of a switch controlled by a centrifugal governor, substantially as and for the purpose described.

3. In a railroad service arrangement with accumulation of energy in braking the train or when running down gradients, and transmission of energy for assisting the main driving power of the engine of trains, a special auxiliary service car, coupled in the said train and containing an independent plant for accumulating energy gained during the journey and delivering and utilizing such energy for the purposes of running the said train, the said plant in said auxiliary car consisting of an electric generator driven from the axle of the car, an electric motor coupled with an axle of the car, a storage battery and mechanical and electrical switch devices in the auxiliary car, adapted to connect at given speeds of the train either the generator or the motor with the said storage battery and so temporarily employ this battery for accumulating energy, the said switch devices of the auxiliary car consisting of a switch controlled by a centrifugal governor, a separate hand switch fitted on board of the engine, electric connections between said switch controlled by the centrifugal governor and the hand switch on the engine of such a kind, that when the hand switch on the engine is operated, the automatic switch on the auxiliary car is cut out, substantially as and for the purpose described.

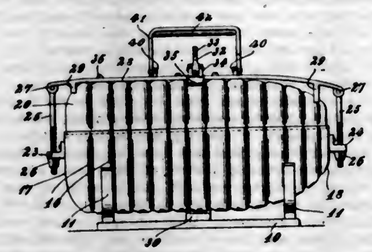
4. In a railroad service arrangement with accumulation of energy in braking the train or when running down gradients, and transmission of energy for assisting the main driving power of the engine of trains, a special auxiliary service car, coupled in the said train and containing an independent plant for accumulating energy gained during the journey and delivering and utilizing such energy for the purposes of running the said train, the said plant in said auxiliary car consisting of an electric generator driven from the axle of the car, an electric motor coupled with an axle of the car, a storage battery and mechanical and electrical switch devices in the auxiliary car, adapted to connect at given speeds of the train either the generator or the motor with the said storage battery and so temporarily employ this battery for accumulating energy, the said switch devices of the auxiliary car consisting of a switch controlled by a centrifugal governor, a separate hand switch fitted on board of the engine, electric connections between said switch controlled by the centrifugal governor and the hand switch on the engine of such a kind, that when the hand switch on the engine is operated, the automatic switch on the auxiliary car is shortcircuited, substantially as and for the purpose described.

5. In a railroad service arrangement with accumulation of energy in braking the train or when running down gradients, and transmission of energy for assisting the main driving power of the engine of trains, a special auxiliary service car, coupled in the said train and containing an independent plant for accumulating energy gained during the journey and delivering and utilizing such energy for the purposes of running the said train, the said plant in said auxiliary car consisting of an electric generator driven from the axle of the car, an electric motor coupled with an axle of the car, a storage battery and mechanical and electrical switch devices in the auxiliary car, adapted to connect at given speeds of the train either the generator or the motor with the said storage battery and so temporarily employ this battery for accumulating energy, the said switch devices of the auxiliary car consisting of a switch controlled by a centrifugal governor, a separate hand switch fitted on board of the engine, electric connections between said switch controlled by the centrifugal governor and the hand switch on the engine of such a kind, that when the hand switch on the engine is operated, the automatic switch on the auxiliary car is cut-out by electromagnetic switches connected in the circuit of the storage battery, substantially as and for the purpose described.

1,206,494. HAM-SHAPER. HANS ADELMANN, New York, N. Y., assignor to Ham Boiler Corporation, New York, N. Y., a Corporation of New York. Filed Feb. 25, 1916. Serial No. 80,434. (Cl. 100—57.)

1. In a meat mold, the combination of a lower casing, an upper casing receivable therewithin, means for resiliently pressing said casings together, and means for varying the effect of the resilience of said pressing means.

2. In a meat molding device, the combination of a hollow lower casing, an upper casing receivable in said lower casing, peripheral corrugations formed with both of said casings, and means for resiliently clamping said upper casing with respect to said lower casing.



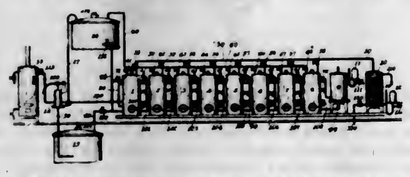
3. In a meat mold, the combination with the frame, and a semi-elliptical lower casing having a circular cross section disposed in said frame, of a correspondingly shaped upper casing receivable in said lower casing, means for clamping said upper casing resiliently to said lower casing, and means for varying the effect of the resiliency of said clamping means.

4. In a meat shaper, the combination of two relatively movable and coöperating casings, said casings have circumferentially arranged inwardly projecting ribs, and means to cause one of the casings to forcibly approach the other.

5. In a meat shaper, the combination of a lower relatively stationary casing, an upper casing movable up or down with respect to the lower casing, a hand lever having stationary pivotal connection at one end and pivotally connected intermediate of its ends to the upper casing whereby when the free end of the lever is depressed the upper casing will be forced downwardly, and means projecting beyond and below the ends of the upper casing to interlock with the ends of the lower casing to connect the two casings together.

[Claims 6 and 7 not printed in the Gazette.]

1,206,495. APPARATUS FOR REFINING POTABLE GRAIN SPIRITS. ZOBEL ARONOWITZ, New York, N. Y. Filed Jan. 11, 1916. Serial No. 71,415. (Cl. 195—7.)

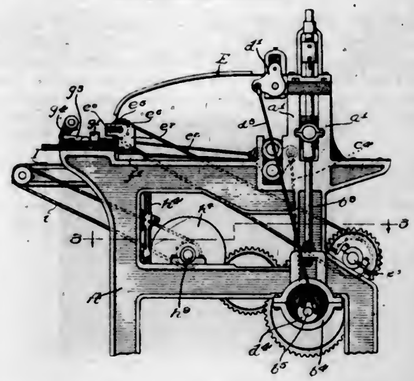


1. In an apparatus for refining potable grain spirits, a spirits reservoir, a series of charcoal filters, means for controllably feeding the spirits from said reservoir to any of said filters to cause said reservoir fed filter to be the first in operation, means for controllably causing the spirits to flow through said filters consecutively, and means for testing the continuous flow of said spirits between said filters and for controllably causing said spirits to flow from the operatively last charcoal filter.

2. In an apparatus for refining potable grain spirits, a mixing reservoir, a series of charcoal filters at a level higher than that of said mixing reservoir, a feed reservoir at a level higher than that of said filters, means for transferring the spirits from said mixing reservoir to said feed reservoir, a pipe line connecting said feed reservoir and said filters, a valve on said pipe line for each of said filters, pipes connecting the upper end of each filter with the lower end of the filter consecutively juxtapositioned, valves on said filter connecting pipes, a pipe connecting the upper end of the filter last in position with the lower end of the filter last in position, valves on said last mentioned pipe, a steam pipe line operatively connectible to each of said charcoal filters, a pipe line connecting each of said charcoal filters with a vapor condensing apparatus, valves on said last mentioned pipe, a pipe line connecting said charcoal filters with a sand filter and valves on said last mentioned pipe line.

3. A charcoal filter for refining potable grain spirits comprising in combination a metallic filter vessel, a coal supporting screen near the lower end of said vessel, a liquid proof door closure at the lower part of said vessel for removing coal therethrough, a liquid proof closure at the upper end of said vessel for inserting coal therethrough, a steam conducting pipe, a spirits inlet pipe, a spirits outlet pipe, a vapor outlet pipe, an air relief pipe, a sand filter connection pipe, all of said pipes being connected to said filter vessel, valves on each of said pipes and screens attached on the inside of said filter vessel at each of the outlet and air relief pipe connections for preventing coal from entering said pipes.

1,206,496. MACHINE FOR MAKING EGG-FILLERS. HALGE S. AXCELL, Chicago, Ill., assignor to William A. Schurmann, Chicago, Ill. Filed Jan. 6, 1913. Serial No. 740,346. (Cl. 93—37.)



1. A carton machine comprising means for feeding parallel strips, means for feeding a sheet edgewise into engagement with said strips, crosswise thereof, means for cutting off the engaging portion of the sheet, after said portion has reached its final position in the carton, means for cutting off the end portions of said strips after a plurality of portions of said sheet have been applied thereto, and means for completely punching the sheet before it engages said feeding means therefor.

2. A carton machine comprising means for intermittently feeding parallel strips, means for feeding a sheet edgewise into engagement with said strips, crosswise thereof, means for cutting off the engaging portion of the sheet, while the sheet and strips are interlocked and stationary, means for cutting off the end portions of said strips after a plurality of portions of said sheet have been applied thereto, the means for feeding the strips being connected for operating the means for cutting the sheet.

3. A carton machine comprising means for feeding parallel strips, means for feeding a sheet edgewise into engagement with said strips, crosswise thereof, means for cutting off the engaging portion of the sheet, and means for cutting off the end portions of said strips after a plurality of portions of said sheet have been applied thereto, disposed in position to operate in rear of the last portion of said sheet, the means for feeding the strips being provided with intermittently operated knives for cutting the

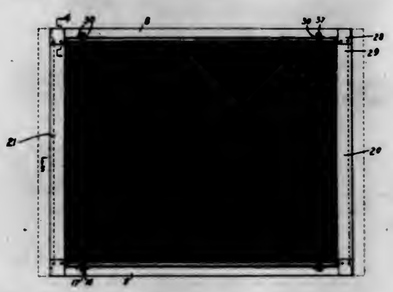
strips from a sheet of material, connected for operating the means for cutting the sheet.

4. A carton machine comprising means for feeding parallel strips, means for feeding a sheet edgewise into engagement with said strips, crosswise thereof, means for cutting off the engaging portion of the sheet, after said portion has reached its final position in the carton, means for cutting off the end portions of said strips after a plurality of portions of said sheet have been applied thereto, the means for feeding the sheet comprising a stationary front plate, a swinging back plate, said plates disposed a distance apart to form a slot between them, means for directing the sheet into said slot, means on one of said plates for engaging the edges of the sheet, and a spring for yieldingly holding said back plate in operative position.

5. A carton machine comprising means for feeding parallel strips, means for feeding a sheet edgewise into engagement with said strips, crosswise thereof, means for cutting off the engaging portion of the sheet, means for cutting off the end portions of said strips after a plurality of portions of said sheet have been applied thereto, after said portion has reached its final position in the carton, the means for feeding the sheet comprising a curved table having a downturned delivery end, and continuously operating feed rolls which receive the sheet directly from said table.

[Claims 6 to 34 not printed in the Gazette.]

1,206,497. WINDOW-SCREEN. FREDERICK S. BANKS, Norwalk, Conn. Filed Sept. 23, 1913. Serial No. 791,308. Renewed Apr. 29, 1916. Serial No. 94,516. (Cl. 156—38.)



1. In a screen of the class described, a frame formed with top and bottom bars and end members, said top and bottom bars being formed with tracks, a wire mesh, and bindings for said wire mesh formed with grooves, said grooves being adapted to fit over said tracks, whereby the wire mesh may be bodily applied and removed and means for bodily adjusting said end members toward and from each other without molesting said wire mesh.

2. In a screen of the class described, a frame formed with laterally movable ends, and with top and bottom members formed with tracks, a wire mesh connected with said tracks and loosely extending into said end members, and means for adjusting said ends toward and from each other without molesting said wire mesh.

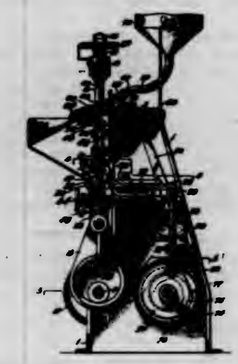
3. In a screen of the class described, a frame formed with top and bottom members and side members, said side members being slidingly mounted at their ends on said top and bottom members, said side members being provided with longitudinal openings to receive the edges of a sheet of wire mesh, means for adjusting said end members longitudinally of said top and bottom members, and a wire mesh connected with said top and bottom members and slidingly fitting in said side members.

4. In a screen of the class described, top and bottom members and end members, said end members being formed with openings at each end for slidingly fitting over the ends of said top and bottom members, said end members being provided with longitudinal openings to receive the edges of a sheet of wire mesh, an adjusting member connecting said end members and said top and bottom members at each corner of the frame so as to move the end members longitudinally of the top and bottom members, and thereby vary the width of the frame, and a wire mesh connected with said top and bottom members and loosely projecting into said end members through said longitudinal openings, said wire mesh being substantially the same length as said top and bottom members, whereby the ends of the screen will continually remain projecting into said end members, regardless of the adjustment thereof.

5. In a screen of the class described, a frame formed with top and bottom members, end members slidingly fitting over the ends of said top and bottom members, said end members being provided with longitudinal openings to receive the edges of a sheet of wire mesh, a threaded bar rigidly connected to each end of each of said end members, a thumb operated member for each of said threaded bars carried by said top and bottom members whereby when said thumb members are operated said end members will be adjusted in a direction longitudinal of the top and bottom members, and a wire mesh with its ends projecting loosely into said end members through said longitudinal openings.

[Claims 6 and 7 not printed in the Gazette.]

1,206,498. MACHINE FOR MAKING POWDER PELLETS FOR TIMING-FUSES. WAYNE MACVEAGH BARKER, Philadelphia, Pa. Filed Mar. 23, 1916. Serial No. 86,325. (Cl. 25—93.)



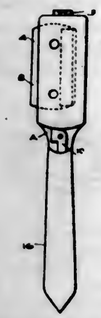
1. A machine of the character described comprising, in combination, a punch ram, a punch carried thereby and an actuating means for said ram comprising a rocking lever fulcrumed intermediate its ends and pivoted at one end to the punch ram, an actuating means for said rocking lever pivoted to the opposite end thereof and means for shifting the fulcrum of the rocking lever lengthwise of said lever.

2. A machine of the character described comprising, in combination, a punch ram, a punch carried thereby and means for actuating said punch ram, said means comprising a rocking lever, a fulcrum for said rocking lever, manually operable means for shifting said fulcrum lengthwise of the lever, a connection between one end of the rocking lever and the punch ram, said connection being adjustable lengthwise of the punch ram and an actuating member connected to the opposite end of the rocking lever.

3. A machine of the character described comprising, in combination, a punch ram, a slotted rocking lever connected at one of its ends to the punch ram, an actuating member connected to the other end of the slotted lever, a fulcrum passing through the slot of the lever, a movable bearing by which the fulcrum is carried and a manually operable screw engaging said movable bearing for shifting the fulcrum with relation to the slotted lever.

4. A machine of the character described comprising, in combination, a frame having a horizontal table at the upper portion thereof, a feed shoe movable over said table, a plurality of upper punches disposed to operate above said table, a plurality of lower punches, compression chambers formed in the table and within which the lower punches operate, a driving shaft disposed transversely of the frame beneath the punches and at the front side of the frame, a driven shaft parallel with the driving shaft at the lower rear portion of the frame, driving connections between said shafts, means for actuating the upper plungers from the first named shaft, a cam upon the driven shaft, a rocking lever extending from front to rear of the frame and pivoted intermediate its ends, means connected to the rear end of said lever and to said cam for actuating the lever from the cam, connections between the forward end of the lever and the lower punches, a second cam upon the driven shaft, a rocking lever pivoted intermediate its ends and having its lower end engaged with the last named cam and a connection between the upper end of said lever and said shoe.

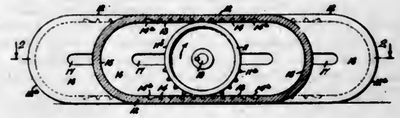
1,206,499. BLADE-HOLDER. FRANK BARUTIO, St. Louis, Mo. Filed Sept. 13, 1915. Serial No. 50,409. (Cl. 30—25.)



In a holder for safety razor blades, the combination of a rectangular holding member slightly wider and longer than the blade, and having short raised studs adapted to fit in the apertures of a certain style of safety blade; said studs being located on one side of a longitudinal line drawn centrally through the holding member and so arranged that a cutting edge of a blade held thereon will project beyond one side edge of the holding member and said holding member being also provided with a longitudinal recess located on the opposite side of a central line drawn through the holding member, to receive a thickened portion of another style of razor blade and to hold said blade with its cutting edge projecting beyond the opposite side edge of the holding member, a handle extending from one end of the holding member, a second holding member similar in size and form to the first mentioned member, said second holding member being adapted to be folded upon the first member to clamp a safety blade in interposed position, and being provided with circular recesses to receive the studs of the first member, and a longitudinal recess corresponding to and adapted to register with the longitudinal recess of the first member, a hinge connecting the outer ends of the two holding members, and a pivotal latch attached to the handle and adapted to be turned to lock the two members in clamping position.

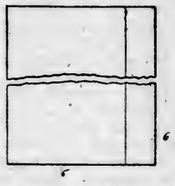
1,206,500. TRACTOR. JAMES BEARD, Dos Rios, Cal. Filed June 3, 1916. Serial No. 101,477. (Cl. 21—150.)

1. In a tractor wheel, a series of separate, self-laying, oblong track sections, the sections being rigid and nondeformable and disposed side by side with their major axes in angular relation, said sections having internal teeth at opposite sides parallel with the major axes of the sections, the ends of the sections at the interior presenting untoothed semi-circular surfaces, an axle extending transversely through the track sections, and a series of wheels on said axle, one wheel for each track section, the gear wheels presenting teeth to engage the teeth of the track sections and said wheels for a portion of the periphery being untoothed to correspond with the untoothed end surfaces of the track sections.



2. In a tractor wheel, a series of separate, self-laying, oblong track sections, the sections being rigid and nondeformable and disposed side by side with their major axes in angular relation, said sections having internal teeth at opposite sides parallel with the major axes of the sections, the ends of the sections at the interior presenting untoothed semi-circular surfaces, an axle extending transversely through the track sections, and a series of wheels on said axle, one wheel for each track section, the gear wheels presenting teeth to engage the teeth of the track sections and said wheels for a portion of the periphery being untoothed to correspond with the untoothed end surfaces of the track sections; the teeth of the track sections alternating with depressions in the said sections and the end depressions having a greater flare than the remaining depressions to afford clearance for the end teeth on the wheels in leaving the teeth of the track sections.

1,206,501. STRIP OF MATERIAL FOR FORMING CARTRIDGE-SHELLS. EDWARD C. BELL and RAYMOND S. CASE, Unionville, Conn. Filed Aug. 15, 1914. Serial No. 856,977. (Cl. 93—94.)



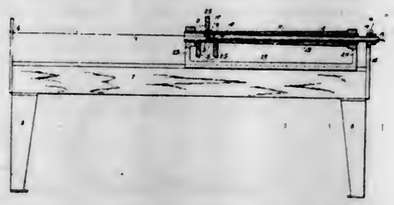
1. A strip of material for the production of tubes to be formed into cartridge shells, said strip having its edge treated with a protective coating to prevent contact of paraffin therewith, said coating extending a distance equal to the circumference of a tube to be formed from said strip.

2. A strip of material for the production of tubes to be formed into cartridge shells, said strip being of a width to produce a shell of several plies, said strip being in its natural state from one edge to such distance from the opposite edge as will comprise a margin equal to the circumference of the shell, such margin being treated with colored protective coating to prevent contact of paraffin therewith.

1,206,502. METHOD OF AND APPARATUS FOR DETECTING AND LOCATING CROOKS IN GUN-BARRELS. THOMAS G. BENNETT, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Apr. 26, 1916. Serial No. 93,808. (Cl. 88—14.)

1. A method of detecting and locating crooks in gun-barrels, the said method being characterized by the projection of a beam of light from within the bore of the gun-

barrel, moving the barrel relatively to the beam of light and parallel thereto, and keeping the source of the beam of light a fixed distance from the wall of the bore of the barrel during such movement.



2. A method of detecting and locating crooks in gun-barrels, the said method being characterized by progressively subjecting the several portions of the wall of the bore of a gun-barrel to the action of a carrier supporting a lamp from which a beam of light is projected from within the gun-barrel upon a screen located outside of the barrel, the carrier being constructed to follow the walls of the bore and to maintain the lamp at a constant distance therefrom at any given point.

3. In an apparatus for detecting and locating crooks in gun-barrels, the combination with a yielding lamp-carrier adapted to be located within the bore of the gun-barrel and carrying a lamp from which a beam of light is projected from within the barrel upon a screen located outside of the barrel, and a gun-barrel support, one of the said parts being movable in line with the other to permit the lamp-carrier to be brought into contact with the various surfaces of the wall of the bore of the barrel.

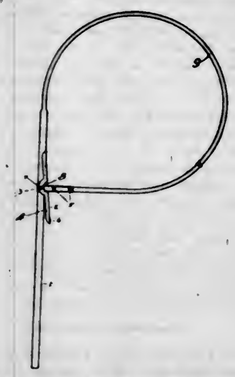
4. In an apparatus for detecting and locating crooks in gun-barrels, the combination with a yielding lamp-carrier adapted to be located within the bore of a gun-barrel and carrying a lamp from which a beam of light is projected from within the barrel upon a screen located outside of the barrel, and a gun-barrel support, one of the said parts being movable in line with the other, and one of the said parts being rotatable with respect to the other, to permit the lamp-carrier to be progressively brought into contact with the various portions of the wall of the bore of the barrel.

5. In an apparatus for detecting and locating crooks in gun-barrels, the combination with a yielding carrier, of a lamp carried thereby and adapted to project a beam of light from within the bore of the barrel upon a screen located outside of the barrel, a holder upon which the said carrier is pivotally mounted, means for supporting the said holder, and a slide adapted to suport a gun-barrel and to be moved longitudinally with respect to the said carrier and to permit the barrel to be rotated with respect thereto.

1,206,503. MESSAGE-HOOP. ALBERT N. BIERLY and ELLIS BIERLY, Central City, Boggs township, Center county, Pa. Filed May 13, 1916. Serial No. 97,430. (Cl. 258—3.)

1. A device of the character described comprising an elongated rod having one end portion returned to afford a loop, a clip secured to the end of said return portion and straddling the rod, a member disposed through the clip and the rod for holding said clip against movement longitudinally of the rod, and a clamping member coacting with the portion of the rod comprised in the loop, said member for holding the clip against movement serving as a pivotal mounting for the clamp.

2. A device of the character described comprising an elongated rod having one end portion returned to afford a loop a clip secured to the end of said return portion and straddling the rod, a member disposed through the clip and the rod for holding said clip against movement longitudinally of the rod, and a clamping member coacting with the portion of the rod comprised in the loop, said member for holding the clip against movement serving as a pivotal mounting for the clamp, said clamp being provided with an opening through which the clip is directed.



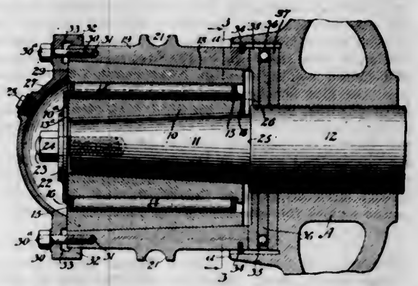
1,206,504. FASTENER. GEORGE E. BISHOP, Cleveland, Ohio. Filed Feb. 15, 1915. Serial No. 8,146. (Cl. 24—221.)



1. In an improved fastener for automobiles, an eyelet comprising a ring member adapted to be secured to a curtain fabric; and two independent oppositely disposed flexible members secured only at their centers, respectively, to said ring member, and so disposed as to intersect the opening of said ring member.

2. In an improved fastener for automobiles, an eyelet comprising a ring member adapted to be secured to a curtain fabric; and two independent oppositely disposed flexible members each secured to said ring member by one connection only and so disposed that portions thereof upon both sides of said connection intersect the opening of said ring member.

1,206,505. ROLLER-BEARING. GEORGE FRED BLUME, Richmond, Ind. Filed Feb. 7, 1916. Serial No. 76,771. (Cl. 64—62.)



1. An axle and bearing therefor, said axle having a tapered end and having a shoulder at the base of the tapered end and the bearing including a sleeve tapered to fix said axle, and rollers disposed about said sleeve; together with a washer secured to the end of the axle, the sleeve and rollers having a length sufficiently less than the distance between the washer and shoulder to adjust the washer and sleeve on the tapered end of the axle.

2. A bearing including inner and outer sleeves, rollers between said sleeves, a shell in which the outer sleeve is received, said shell and outer sleeve being reversely tapered, and a cap closing the outer end of the shell and adjustable thereon, the said cap bearing against the outer sleeve to constitute a follower in adjusting the same.

3. A bearing including inner and outer sleeves, rollers between said sleeves, a shell in which the outer sleeve is received, said shell and outer sleeve being reversely tapered, and a cap closing the outer end of the shell and adjustable thereon, said cap having a flange overlapping the shell and formed with an annular recess at the base of the said flange between the same and the outer sleeve, and receiving the outer end of the shell.

4. A bearing including inner and outer sleeves, rollers between said sleeves, a shell in which the outer sleeve is received, said shell and outer sleeve being reversely tapered, a cap covering the outer end of the shell and bearing against the outer end of the outer sleeve, and means adjustably connecting the cap with the end of the shell to adjust the cap to and from the shell and outer sleeve.

1,206,506. ENGINEER'S STORM-WINDOW. WILLIAM W. BOYNTON, St. Louis, Mo. Filed Feb. 23, 1916. Serial No. 79,897. (Cl. 20—40.)



1. An engineer's storm window comprising a sash frame mounted to slide in the window frame of the cab, a housing attached on said sash frame and constructed to be extended beyond the side of the cab, said housing having a sight opening therein, said housing also having a plurality of joints enabling the same to hold into the space surrounded by the said sash frame, and means on said sash frame for holding the folded housing therein.

2. An engineer's storm window comprising a sash frame mounted in the window frame of the cab, a housing comprising a top panel hingedly attached to said sash frame and an outer panel hingedly attached to said top panel, foldable end panels attached to said sash frame, said top panel having a transverse break-joint at an intermediate point on said top panel permitting said top panel and said outer panel to fold inwardly into said sash frame.

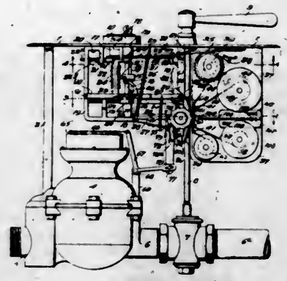
3. An engineer's storm window comprising a rectangular frame mounted in the window frame of the cab, top, side, end and bottom members hingedly secured at their inner edges to said frame and forming corresponding parts of a housing projecting beyond the frame, and an outer member hingedly secured to the outer edge of said top member, said end walls being provided with sight openings.

4. An engineer's storm window comprising a rectangular frame mounted in the window frame of the cab, a housing comprising end members hingedly secured to the side rails of said frame, a bottom member hingedly secured to the bottom rail of said frame, a top member hingedly secured to the upper rail of said frame, a plate hingedly secured to the outer edge of said top member, and a side member hingedly secured to said plate, said plate operating to fold upon said top member and side member and thereby permit the same to swing inwardly.

5. An engineer's storm window comprising a frame adapted to be mounted in the window frame of the cab, a foldable housing comprising end, top and bottom members hingedly secured to the corresponding rails of said frame, and a side member hingedly secured to the outer edge portion of said top member, said side member having interlocked relation at its edges with said end and bottom members, respectively, and said end members having sight openings.

[Claims 6 and 7 not printed in the Gazette.]

1,206,507. LIQUID-DISPENSING APPARATUS. RICHARD C. BRADLEY, Shreveport, La., assignor of one-fourth to Lee Kinnebrew and one-fourth to J. Mally Eastham, Shreveport, La., and one-fourth to C. Frank Ireland, Houston, Tex. Filed Feb. 2, 1914. Serial No. 815,951. (Cl. 234—34.)



1. In a liquid dispensing apparatus, a lock having a rotatable shaft, a lug slidable on said shaft and rotatable therewith, an arm carried by the lug, a key having a shoulder arranged to engage said arm for moving the lug longitudinally of the shaft, a type segment, and means operated by the movement of the lug for shifting the type segment.

2. In a liquid dispensing apparatus, a lock having a rotatable shaft, a lug slidable on said shaft and rotatable therewith, an arm carried by the lug, a key having a shoulder arranged to engage said arm for moving the lug longitudinally of the shaft, a type segment, means operated by the movement of the lug for shifting the type segment, said means comprising a lever for supporting the type segment, and a link pivotally connected with said lever and adapted to be moved by the lug when the latter is shifted.

3. In a liquid dispensing apparatus, a lock having a rotatable shaft, a lug slidable on said shaft and rotatable therewith, an arm carried by the lug, a key having a shoulder arranged to engage said arm for moving the lug longitudinally of the shaft, a type segment, means operated by the movement of the lug for shifting the type segment, said means comprising a lever for supporting the type segment, a link pivotally connected with said lever and adapted to be moved by the lug when the latter is shifted, and spring means for maintaining the link in constant engagement with the lug at all times.

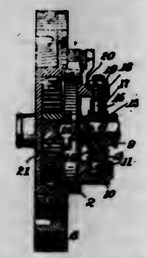
4. In a liquid dispensing apparatus, a lock having a rotatable shaft, a lug slidable on said shaft and rotatable therewith, an arm carried by the lug, a key having a shoulder arranged to engage said arm for moving the lug longitudinally of the shaft, a type segment, means operated by the movement of the lug for shifting the type segment, said means comprising a lever for supporting the type segment, a link pivotally connected with said lever and adapted to be moved by the lug when the latter is shifted, spring means for maintaining the link in constant engagement with the lug at all times, a platen disposed in operative relation with said type segment, and

means connected with the shaft for causing a movement of the platen toward the type segment.

5. In a liquid dispensing apparatus, a lock having a rotatable shaft, a lug slidable on said shaft and rotatable therewith, an arm carried by the lug, a key having a shoulder arranged to engage said arm for moving the lug longitudinally of the shaft, a type segment, means operated by the movement of the lug for shifting the type segment, said means comprising a lever for supporting the type segment, a link pivotally connected with said lever and adapted to be moved by the lug when the latter is shifted, spring means for maintaining the link in constant engagement with the lug at all times, a platen disposed in operative relation with said type segment, means connected with the shaft for causing a movement of the platen toward the type segment, said means comprising an arm rigidly conected to the shaft and rotatable therewith, a rod arranged to be engaged by said arm in its rotation, and a bell-crank lever secured to said platen and adapted to be actuated by the arm.

[Claims 6 to 15 not printed in the Gazette.]

1,206,508. LAWN-MOWER. WILLIAM P. M. BRAUN, Philadelphia, Pa., assignor, by mesne assignments, to Pennsylvania Lawn Mower Works, a Corporation of Pennsylvania. Filed Feb. 2, 1916. Serial No. 75,642. (Cl. 56—19.)



1. In a lawn mower, the combination of the general framing of the machine comprising two side frames each having two laterally projecting lugs, a normally fixed cutter bar extending transversely between the side frames, a rotatable cutter arranged above the stationary cutter bar and coöperating therewith and having at each end journals by which it is supported and may be driven, bearings through which the journals extend, a spring below each of the bearings and supported by one of the lugs on the side frames for forcing said bearings upwardly to move the rotatable cutter away from the stationary cutter bar, and adjusting screw studs extending downwardly through the remaining lugs of the side frames for forcing the bearings downwardly against the action of the springs for accurately adjusting the rotatable cutter and providing an adjustable abutment to prevent movement of the axis of the rotatable cutter from the cutter bar.

2. In a lawn mower, the combination of the general framing of the machine comprising two side frames each having two laterally projecting lugs, a normally fixed cutter bar extending transversely between the side frames, a rotatable cutter arranged above the stationary cutter bar and coöperating therewith and having at each end journals by which it is supported and may be driven, bearings through which the journals extend, a spring below each of the bearings and supported by one of the lugs on the side frames for forcing said bearings upwardly to move the rotatable cutter away from the stationary cutter bar, adjusting screw studs extending downwardly through the remaining lugs of the side frames for forcing the bearings downwardly against the action of the springs for accurately adjusting the rotatable cutter and providing an adjustable abutment to prevent movement of the axis of the rotatable cutter from the cutter bar, and adjustable connections between the adjusting screw studs and the bearings to permit oscillating adjustment of the bearings relatively to the studs.

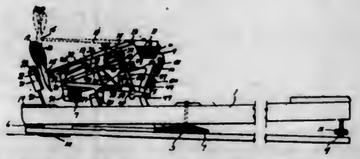
3. In a lawn mower, a main frame, a fixed cutter bar, a rotatable cutter having a journal by which it is rotated, and an adjustable support for the journal consisting of a bearing through which the journal extends, a coil spring arranged below the bearing and supported by the main frame to force the bearing upwardly, an adjusting screw-threaded stud carried by the main frame and having its axis in alinement with the thrust of the spring, and a sleeve surrounding the bottom of the screw-threaded stud and forming a connection between it and the bearing whereby the position of the bearing against the action of the spring may be accurately adjusted and the rotatable cutter to properly coöperate with the stationary cutter bar.

4. In a lawn mower, a main frame, a fixed cutter bar, a rotatable cutter having a journal by which it is rotated, and an adjustable support for the journal consisting of a bearing through which the journal extends having at its upper part a curved rib in the plane of the axis of the journal, a coil spring aranged below the bearing and supported by the main frame to force the bearing upwardly, an adjusting screw-threaded stud carried by the main frame and having its axis in alinement with the thrust of the spring, and a sleeve surrounding the bottom of the screw-threaded stud and provided with a grooved end fitting over the curved rib and forming an adjustable connection with the bearing whereby the position of the bearing against the action of the spring may be accurately adjusted and the rotatable cutter to properly cooperate with the stationary cutter bar.

5. In a lawn mower, the combination of a main frame, a stationary cutter bar, a rotatable cutter coöperating therewith and having a journal at each end, bearings for the respective journals each having a projection on the bottom and a guide at the top in the plane of the axis of the journal, coil springs respectively surrounding the downwardly extending projections of the bearings and supported and positioned by extensions from the main frame, adjusting screw studs in alinement with the springs above the bearings and carried by the main frame, sleeves fitting the bottoms of the studs and shaped to engage the guide portions on the tops of the bearings, whereby the rotatable cutter has its weight supported by the springs and its position accurately adjusted by the screw studs.

[Claim 6 not printed in the Gazette.]

1,206,509. GRAND-PIANO ACTION. VINSON H. BROWN, Spokane, Wash. Filed Nov. 24, 1914. Serial No. 873,739. (Cl. 84—26.)



1. A grand piano action comprising a support, a repetition lever, a jack mounted directly on said support for movement into and out of actuating relation with said lever, and a stop mounted directly on said support for limiting movement of said jack away from said lever, substantially as described.

2. A grand piano action comprising a support, a repetition lever, a jack mounted on said support for movement into and out of actuating relation to said lever, a stop mounted on said support for limiting retractive movement of said jack and a regulating button on said jack to limit movement of said jack in a forward direction, substantially as described.

3. A grand piano action comprising a support, a repetition lever, a jack mounted on said support for movement into and out of actuating relation with said lever, a stop carried by said support which extends past and about said jack for limiting retractive movement of the latter, and a regulating button carried by said jack to limit movement of the jack in the opposite direction.

4. A grand piano action comprising a support rail, a plurality of flange posts secured thereto, supports pivoted to said flange posts, repetition levers pivoted to and actuated by the upward movement of the said supports, and stops carried by the said flange posts for limiting the upward movement of the repetition levers.

5. A grand piano action comprising a support flange rail, a plurality of independent flange posts secured to and rising from said rail, and a support pivotally connected with each post, each post having a hammer rest, substantially as described.

[Claim 6 not printed in the Gazette.]

1,206,510. ELECTRICAL HEATING UNIT. CARYL E. CHANEY, Detroit, Mich. Filed June 19, 1916. Serial No. 104,364. (Cl. 219—67.)



1. An electrical heating unit, comprising a tubular core member formed of a refractory insulating material formed in segments, said core being provided with a double thread or groove therein, a resistor wound in said thread to extend from one end to the other of the tube and to return in the intermediate groove to the original end, and an internal and external armor for said tube.

2. An electrical heating unit, comprising an inner armor tube, an insulator tube formed in segments placed about said inner armor tube and in contact therewith, a resistor wound upon said segmental insulator tube, an outer armor tube, and a refractory, solidified plastic insulation between the resistor and the outer tube.

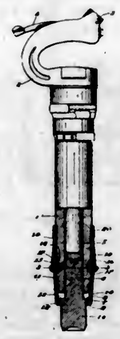
3. An electrical heating unit, comprising an inner armor tube, a refractory insulator tube formed of segments placed about said inner armor tube, said segments having complementary grooves forming a spiral thread thereabout, a resistor wound in said thread, an outer armor tube, and a solidified plastic insulator between said resistor and outer tube.

4. An electrical heating unit, comprising an inner armor tube, an insulator tube formed in segments arranged about said inner armor tube, said segments being provided externally with grooves forming complementary portions of a double thread, a resistor wound in said grooves from one end of the tube to the other and returning through an intermediate groove, an outer armor tube, and solidified plastic insulation between said resistor and outer tube.

5. An electrical heating unit, comprising an inner armor tube, an insulator tube formed in segments arranged about said inner armor tube, said segments being provided externally with grooves forming complementary portions of a double thread, a resistor wound in said grooves from one end of the tube to the other and returning through an intermediate groove, an outer armor tube, and means for decreasing the thermal conductivity to the inner tube in relation to the thermal conductivity to the outer tube to equalize the temperatures thereof.

[Claim 6 not printed in the Gazette.]

1,206,511. SAFETY APPLIANCE FOR AUTOMATIC HAMMERS. ALFRED C. CLARK, Philadelphia, Pa., assignor to U. S. Safety Appliance Company, Baltimore, Md., a Corporation of Maryland. Filed Mar. 17, 1916. Serial No. 84,910. (Cl. 78—44.5.)



1. In an automatic hammer having a barrel, a power-driven reciprocating member therein, a tool having a shank in the barrel extending into the path of the said reciprocating member, a safety thimble on the end of the barrel and means for locking the thimble in position on the barrel, consisting of a transverse key having flat surfaces at right angles to the line of reciprocation, the thimble being slotted transversely through its entire thickness, the barrel having registering slots, both slots fitting the key and having surfaces at right angles to the path of the piston to engage the corresponding surfaces of the key.

2. A safety thimble for an automatic hammer having transverse slots extending through the entire thickness of the thimble, transverse keys in the slots and a heavy leaf spring for each key secured at one end to the thimble and at the other end to the key.

3. A safety thimble for an automatic hammer having transverse slots extending through the entire thickness of the thimble, the slots presenting on one side a surface equal to substantially one-half the cross-section of the thimble, transverse keys in the slots and a heavy leaf spring for each key secured at one end to the thimble and at the other end to the key.

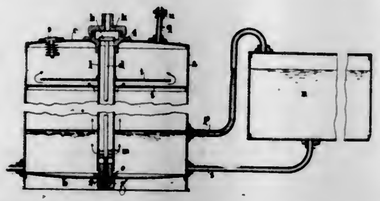
4. In an automatic hammer having a barrel, a power-driven reciprocating member therein, a tool having a shank in the barrel and extending into the path of the power-driven reciprocating member, a safety thimble on the end of the barrel and engaging the tool in its advanced position, means for locking the thimble in position on the barrel consisting of a transverse key having flat surfaces at right angles to the path of reciprocation, the thimble being slotted transversely through its entire thickness and the barrel having registering slots, the slots in the thimble presenting a surface on one side at right angles to the line of reciprocation substantially equal to one-half the cross-section of the thimble, both slots fitting the key and adapted to permit it to be inserted and withdrawn.

5. In an automatic hammer having a barrel, a power-driven reciprocating member therein, a tool having a shank also in the barrel and extending into the path of the power-driven reciprocating member, a safety thimble on the end of the barrel and engaging the tool in its advanced position, means for locking the thimble in position on the barrel consisting of a transverse key having flat surfaces at right angles to the path of reciproca-

tion, the thimble being slotted transversely through its entire thickness and the barrel having registering slots, the slots in the thimble presenting a surface on one side at right angles to the line of reciprocation, substantially equal to one-half the cross-section of the thimble, both slots fitting the key and adapted to permit it to be inserted and withdrawn, the surfaces of the slots in the key and the barrel being substantially equal.

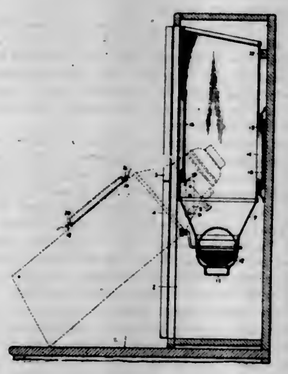
[Claims 6 to 9 not printed in the Gazette.]

1,206,512. CARBURETER. GOGU CONSTANTINESCO, London, England. Filed July 17, 1913. Serial No. 779,492. (Cl. 261—124.)



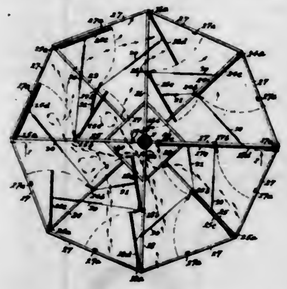
Means for supplying both combustible gas and liquid fuel comprising in combination a fuel supply tank, a carbureting chamber, said carbureting chamber having flexible ends, a valve stem connected to one end of said chamber, a valve box secured to the other end of said chamber, a valve seat formed in said valve box, a gas supply pipe leading into said valve box, two pipes connecting said fuel supply tank with said carbureting chamber, one of said pipes leading from the bottom of said tank to the bottom of said chamber, the other of said pipes leading from the top of said tank to an intermediate point in the height of said chamber, a guiding tube fixed to the top of said carbureting chamber, said tube having perforations below the level of the liquid in said carbureting chamber, as and for the purpose set forth.

1,206,513. FLOUR-BIN. HAROLD FRANK COPPES, Nappanee, Ind. Filed May 6, 1915. Serial No. 26,438. (Cl. 211—6.)



In a flour bin, a housing having a chamber, a can arranged in said chamber, the upper end of the can when in operative position in the housing being closed, and the lower end being provided with a discharge member, the said can being formed with a filling opening in its back near the said lower end, a rod connected with the lower part of the can near the front thereof, and means for pivotally supporting the ends of the rod to permit the can to be swung freely downward and out of the housing, the said filling opening, when the can is swung outwardly, being at the front and adjacent the highest part of the can to permit of readily filling the can.

1,206,514. WINDMILL. ANDREW JACKSON CROWLEY, Folsom, N. Mex. Filed Sept. 15, 1915. Serial No. 50,757. (Cl. 170—26.)



1. A wind-mill, comprising a support, a vertical shaft rotatable thereon, a plurality of radial frames carried by said shaft, a vane hinged to the outer edge of each frame and movable into and to one side of the plane of its frame, a spring for resiliently resisting movement of each vane out of the plane of its frame, a supplemental vane hinged at its outer edge to alternate frames between said first named vanes and said shaft, and movable into and to one side of the plane of its frame, and a spring for resiliently resisting movement of each supplemental vane into the plane of its frame.

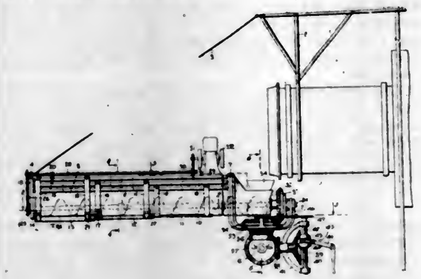
2. A wind-mill, comprising a support, a vertical shaft rotatable thereon, a plurality of radial frames carried by said shaft, a vane hinged to the outer edge of each frame and movable into and to one side of the plane of its frame, a spring resiliently resisting movement of each vane out of the plane of its frame, a supplemental vane hinged at its outer edge to certain of said frames between said first named vanes and said shaft and movable into and to one side of the plane of its frame, a spring resiliently resisting movement of each supplemental vane into the plane of its frame, and means for locking each vane to its frame.

3. A wind-mill, comprising a support, a vertical shaft rotatable thereon, a plurality of radial frames carried by said shaft, a vane hinged to the outer edge of each frame and movable into and to one side of the plane of its frame, a spring resisting movement of each vane out of the plane of its frame, a supplemental vane hinged at its outer edge to certain of said frames between said first named vanes and said shaft, a spring resisting movement of each supplemental vane into the plane of its frame, means for locking each vane to its frame, and means common to all said vanes for unlocking the same.

1,206,515. TROUGH FOR DISTRIBUTING CONCRETE. HAROLD DANIELSON, Passaic, N. J. Filed Aug. 19, 1915. Serial No. 46,276. (Cl. 193—13.)

1. In a concrete spreading machine, a concrete guiding trough having an open bottom, a plurality of sections slidingly mounted on said trough and normally covering said open bottom, and means for moving said sections successively for varying the effective length of the trough, whereby concrete passing through the trough may be discharged at any point between the ends thereof.

2. In a distributing mechanism for concrete, a trough for guiding the concrete mixture, means arranged in the trough for propelling the mixture toward the outer end, a plurality of telescoping members arranged on the trough for varying the effective length of the trough whereby the concrete may be discharged at any desired point along the trough, and means arranged at the inner end of the trough for swinging the trough horizontally while the concrete is being forced therethrough.



3. In a concrete distributing device, a trough for receiving concrete at one end, means for transporting concrete along said trough toward the outer end, said trough being open at the bottom, a plurality of telescoping members for closing said opening, said telescoping members being adapted to be moved successively from beneath the trough so as to shorten the effective length of the trough, whereby said concrete may be discharged at any desired point between the ends of the trough, and means for supporting said trough so that the same may be swung in a substantially horizontal plane.

4. In a distributing trough for concrete, a pivotally mounted body formed with an open bottom extending from the outer end to near the inner end, means for pivotally supporting the inner end, covering slides for the opening in the bottom of said body, means for suspending for holding in position said slides, said supports being formed so as to allow the slides to telescope over each other as the slides are moved toward the inner end of the body, whereby the effective length of the body is varied, and a screw arranged in said body for propelling concrete toward the outer end of said body.

5. In a concrete spreading device, a pivotally mounted trough, a plurality of slides arranged adjacent the bottom of said trough, said trough being open at the bottom so that said slides form a bottom therefor, means for moving said slides inwardly so as to affect the operative length of the trough, a screw arranged in the trough for feeding concrete outwardly therethrough, and a power member arranged on the trough and connected with said screw for rotating the same.

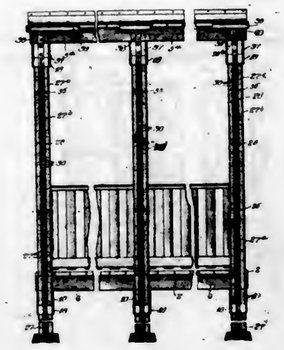
[Claims 6 to 11 not printed in the Gazette.]

1,206,516. ARCHITECTURAL STRUCTURE. FELIX E. DAUDELIN, Chicago, Ill. Filed June 30, 1915. Serial No. 37,259. (Cl. 72—1.)

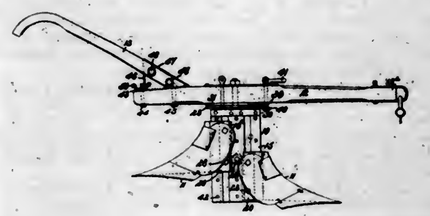
1. In an architectural structure, the combination with a vertical column, and a substantially horizontal look-out of a collar surrounding the column, said column having a vertical series of depressions and said collar having projections adapted to engage in said depressions, a hanger having a socket in which the end of the look-out fits, means for securing said hanger to the collar and means for preventing the endwise movement of the "look-out".

2. In an architectural structure the combination of a plurality of columns, a plurality of look-outs located in the vertical planes of said columns, respectively, collars supported by the columns adjacent to the outer ends of the look-outs, hangers having sockets in which the outer ends of said look-outs fit, means for securing said hangers to said collars, joists resting upon the look-outs and crossing them transversely, and flooring laid upon said sills.

3. In an architectural structure, the combination of a plurality of columns, a plurality of look-outs located in the vertical planes of said columns, respectively, collars secured to and supported by said columns adjacent to the outer ends of the look-outs, hangers having sockets in which the outer ends of said look-outs fit, means for securing said hangers to said collars, fittings embracing said column and resting upon the uppermost collars, off-set brackets secured to said fittings, and outer roof-joists supported by said brackets outside of the vertical plane of the columns, other roof joists resting upon the uppermost look-outs and crossing them transversely and a roof-flooring supported by the several joists.



1,206,517. PLOW. JOHN DOWLING, Powell, Wyo. Filed May 20, 1916. Serial No. 98,735. (Cl. 97—27.)

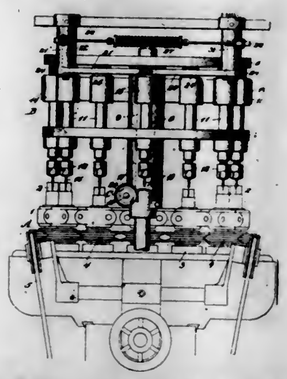


1. In a plow of the class described a standard having under-cut vertical channels, separate plowshares disposed in opposite directions at the back and front on said standard, a face plate on each plowshare overlying the standard at one of the side faces thereof, and over said channels, each plowshare at the opposite face of the standard overlapping the latter, slides T-shaped in cross section and rigid with the first-mentioned face plates of the plowshares, said slides being vertically movable in said channels, and means engaging said slides to oppositely move the plowshares.

2. In a plow of the class described a standard, a plow beam, a turntable on the standard beneath the plow beam, a vertical pivot bolt extending through the plow beam and turntable, the said plow beam and turntable having series of vertical pin holes disposed radially out of alinement, and a pin receivable in the respective pin holes of the plow beam and turntable when said pin holes are brought into register.

3. A plow beam, a turntable on the standard beneath the plow beam, a vertical pivot bolt extending through the plow beam and turntable, the said plow beam and turntable having series of vertical pin holes disposed radially out of alinement, and a pin receivable in the respective pin holes of the plow beam and turntable when said pin holes are brought into register; together with a vertical pin extending through the plow beam at the periphery of the turntable and having a laterally bent member adapted to engage beneath said turntable.

1,206,518. PEARL-BUTTON-DRILL SHARPENER. PAUL F. DUSHA and ANTON FEYK, New York, N. Y., assignors to Holub-Dusha Company, New York, N. Y., a Corporation of New York. Filed June 28, 1916. Serial No. 106,356. (Cl. 79—8.)



1. A pearl button working machine comprising a rotary carrier having a plurality of rotatable button chuck spindles, a second rotary carrier having a plurality of rotary tool-carrying spindles, and a grinding device disposed in the path of the tool-carrying spindles and constructed to operate successively on opposite sides of each tool for producing oppositely disposed bevels thereon.

2. In a machine of the class described, the combination of a rotatable carrier, tool holders mounted thereon, and a rotary grinder having spaced oppositely disposed beveled surfaces with which each tool successively engages for producing opposite bevels on the tools.

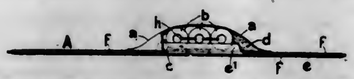
3. A machine of the class described comprising a rotatable carrier, a rotatable tool-carrying spindle, and a grinding device disposed in the path of a tool in the spindle, said grinding device comprising spaced oppositely disposed beveled surfaces with which the tool successively engages to produce opposite bevels on opposite sides.

4. In a machine of the class described, the combination of a rotatable carrier, a spindle rotatably mounted on the carrier at a point eccentric to the axis thereof, a tool-carrying chuck on the spindle, and a relatively fixed grinding device including spaced rotating beveled surfaces disposed at a slight angle to the path of the tool for causing one surface to engage one side of the tool and then the other surface the other side of the tool for producing opposite bevels.

5. A machine of the class described including a revolving tool spindle carrier, a relatively stationary grinding device, spindles on the carrier traveling across the grinding device, and relatively stationary means acting on each spindle for moving each spindle to a predetermined position as it crosses the grinding device.

[Claims 6 to 9 not printed in the Gazette.]

1,206,519. ELASTIC SUPPORT FOR FLAT FEET. AEGIDIUS DÜSTERWALD, Halle-on-the-Saale, Germany. Filed Aug. 30, 1916. Serial No. 117,743. (Cl. 36—71.)

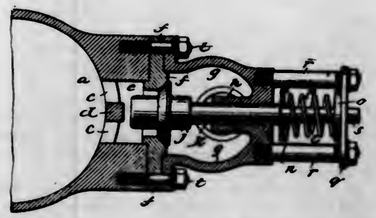


1. An elastic support for flat feet, consisting of a sole plate, an arched pocket fastened on the upper side of said sole plate and elastic rubber tubes within said pocket, said tubes being cut off vertically at one end and sloping at their other end, said sole plate being provided with an upright flange serving as a stop for the said vertically cut off ends of the rubber tubes, substantially as described.

2. An elastic support for flat feet, consisting of a sole plate, an arched pocket fastened on the upper side of said sole plate, elastic rubber tubes within said pocket and a metal plate fixed to said sole plate and arranged to hold the rubber tubes in place within the pocket, substantially as described.

3. An elastic support for flat feet, consisting of a sole plate, a covering therefor, an arched pocket fastened on the upper side of said sole plate, elastic rubber tubes within said pocket and a cushioning filling in the free space of the pocket around said rubber tubes, substantially as described.

1,206,520. AUXILIARY EXHAUST-VALVE FOR INTERNAL-COMBUSTION ENGINES. LINDSAY STEWART EGLINTON, Kent Town, South Australia, Australia. Filed July 18, 1914. Serial No. 851,757. (Cl. 123—189.)



1. Auxiliary exhaust valve mechanism for internal combustion engines having an auxiliary exhaust port, said mechanism comprising a perforated boss surrounding said port, an exhaust casing having a lateral opening and secured to said boss, a valve seat rigidly held between the boss and the casing, an auxiliary exhaust valve fitted to said valve seat and having a recess in one side, a valve stem loosely seated in said recess and extending through said casing to the outside thereof, and spring means exteriorly of the casing adapted to engage said stem and normally hold said valve to its seat and also permit unseating of the same by exhaust pressure from the interior of the engine cylinder.

2. Auxiliary exhaust valve mechanism for internal combustion engines having an auxiliary exhaust port, said mechanism comprising an enlarged chamber surrounding said port, an exhaust valve casing rigidly secured to said enlarged chamber, a valve seat rigidly held between said chamber and casing and projecting into the casing, an auxiliary exhaust valve head fitted to the valve seat and having a recess in one side thereof, a valve stem loosely seated in said recess and extending through said casing to the outside thereof, and spring means exteriorly of the casing adapted to engage said stem and normally hold said valve to its seat and also to permit the unseating of the same by exhaust pressure from the interior of the cylinder.

3. Auxiliary exhaust valve mechanism for internal combustion engines having a divided auxiliary exhaust port adjacent one end of the engine cylinder, said mechanism comprising an auxiliary casing secured to the engine cylinder, a valve seat projecting within said casing and rigidly but removably held between the casing and the engine cylinder, a valve head having a recess in one face and fitted to the said valve seat, a tubular guide within the casing, a valve stem loosely engaging at one end the recess in the valve head and its opposite end passing through said tubular guide to the exterior of the casing, a coiled spring surrounding said spindle outside the casing and a yoke secured to the casing and exteriorly thereof for holding said spring in place to engage the aforesaid stem, whereby the valve head will be normally held to its seat but permitted to unseat by exhaust pressure from within the engine cylinder.

4. Auxiliary exhaust valve mechanism for internal combustion engines having an auxiliary exhaust port adjacent the lower end of the engine cylinder, said mechanism consisting of an exhaust casing detachably secured to the cylinder and controlling the auxiliary exhaust port, a valve seat removably held between said casing and the engine cylinder, a tubular guide within the casing, a valve head engaging said valve seat, a valve stem loosely engaging at one end the valve head and its opposite end extending through the said tubular guide and casing to the outside thereof, and a coiled spring outside the casing controlling said stem to normally hold the valve head to its seat, but permitting the same to be unseated by exhaust pressure through the auxiliary exhaust port from the interior of the explosion chamber of the engine.

1,206,521. REMOVABLE HINGED COVER. ERNEST G. FISCHER and HEINRICH CONRAD WEHMANN, New York, N. Y. Filed Dec. 13, 1915. Serial No. 66,480. (Cl. 65—16.)

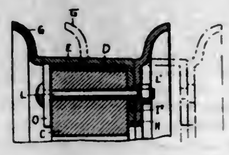


1. In a device of the class described, the combination with a support detachably engaging the wall of a vessel, of a pair of spaced leaves hinged independently to said support, means for clamping said leaves together, a transparent cover removably engaged with said leaves, and a stop formed with said support limiting the swinging movement of said leaves.

2. In a device of the class described, the combination with a support engaging the wall of a vessel, of a pair of leaves each individually hinged to said support, a transparent cover engageable between said leaves and means for detachably clamping said cover to said leaves.

3. In a device of the class described, a transparent cover plate, a containing frame circumjacent thereto, said frame having a pair of perforations parallel with and equally spaced relative to a radial line, a support engaging the wall of the vessel, clamp leaves hingedly engaged with said support, said leaves being receptive of said frame, hooks formed with the lower of said leaves, the other leaf being perforated, and a clamp bar pivoted on the upper leaf, said bar being engageable with said hooks thereby clamping the cover plate rigidly.

1,206,522. DEMOUNTABLE RIM. LUKE G. FLEMING, Tarrytown, N. Y. Filed Dec. 31, 1914. Serial No. 879,894. (Cl. 152—21.)



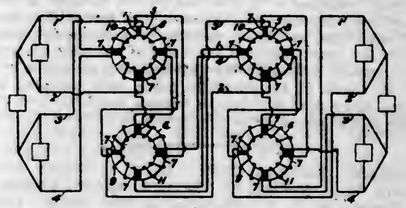
A rim for vehicle wheels, comprising a ring having at one edge an integral inner tire flange and at its other edge an inwardly extending flange for securing it to a felly, and an outer tire flange formed of two disconnected sections, one permanently secured to the inwardly extending flange of the ring and the other detachably secured to the said flange whereby the said detachable section may be bodily removed as and for the purpose set forth.

1,206,523. SUCKER-ROD ELEVATOR. GEORGE FOGGAN, Pleasantville, Pa. Filed May 11, 1916. Serial No. 96,907. (Cl. 57—9.)



In a sucker rod elevator, the combination with the usual shank having attaching means at one of its ends and a pair of spaced arms at its other end, and a slotted plate journaled between said arms; of an apertured lug formed on one side of one of said arms, a rod coiled around said shank and slidable thereon and forming a sleeve, one end of said rod being bent laterally to extend substantially longitudinally of the coiled portion thereof to form a stem, said stem extending through the aperture in said lug and having its free end disposed adjacent the open end of the slot in said plate, and stops on said shank for limiting the movement of said sleeve.

1,206,524. PHANTOM LOADING-COIL. WILLIAM FONDILLER, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 2, 1915. Serial No. 64,678. (Cl. 179—15.)



1. The combination of two physical circuits, a derived phantom circuit, two loading coils each with four windings and means for causing the flux between the two loading coils to link with and load the said physical circuits, the phantom loading being provided by flux lying wholly within said loading coils.

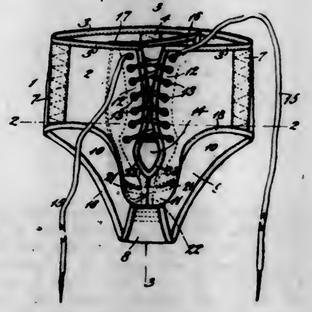
2. The combination of two physical circuits, a derived phantom circuit, two loading coils each with four windings and four magnetic yokes joining said coils and providing paths for the flux used to load the said physical circuits.

3. The combination, with two physical circuits and a phantom circuit, of a loading unit comprising two toroids separated by four symmetrically placed pillars which divide the toroids into quadrants, and a winding upon each of said quadrants, said windings being so connected that fluxes due to the phantom currents shall lie wholly in said toroids, and fluxes due to the physical circuit cur-

rents lie in paths each containing two quadrants and two pillars.

4. The combination, with two physical circuits and a phantom circuit, of two loading coils having quadrantal windings of which pairs of diagonally opposite windings are connected respectively to the two physical circuits, and four magnetic yokes joining said coils at winding terminals and adapted to carry flux due to the physical circuit currents, while fluxes due to the phantom circuit currents lie in paths wholly in said loading coils.

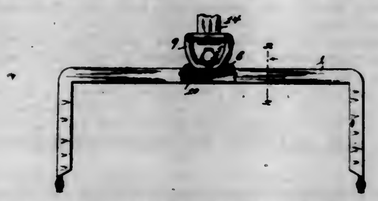
1,206,525. COMBINED ABDOMINAL SUPPORTER AND SUSPENSORY. WILLIAM R. FORCH, Philadelphia, Pa. Filed July 26, 1916. Serial No. 111,401. (Cl. 128—38.)



1. In a combined abdominal supporter and suspensory, a body composed of a washable and pliable band like portion adapted to support and compress the abdomen of the wearer, the front of said body having an opening extending downwardly from the upper edge and the edges of the body adjacent the opening having stitched eyelets therein, a lacing cord engaging said eyelets, a sack at the front of said supporter below said lacing devices, upright and transverse reinforcing strips for said sack, and a narrowed bottom member extending from the rear of said supporter to the bottom of said sack.

2. In a combined abdominal supporter and suspensory, a body composed of a band-like portion adapted to support and compress the abdomen of the wearer, the front of said body having an opening extending downwardly from the upper edge and the edges of the body adjacent the opening being provided with fastening devices, a sack at the front of the supporter below said fastening devices, and a narrowed bottom member extending from the rear of said supporter to the bottom of said sack.

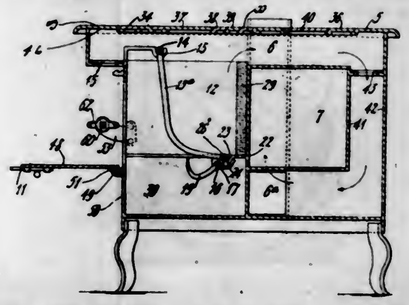
1,206,526. BAG-FASTENER. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 25, 1914. Serial No. 834,319. (Cl. 150—33.)



1. In a purse or bag fastener, the combination with a pair of hinged frame members, of a catch member mounted on each of said frame members for mutual coöperation, and adapted to engage with each other for holding said frame sections together, one catch member comprising a base, said base provided with two limbs terminating into and engaging enlargement extending therefrom and the other catch member comprising a base and handle securing means pivotally secured to said base.

2. In a purse or bag fastener, the combination with a pair of hinged frame members, of a catch member mounted on each of said frame members for mutual coöperation, and adapted to engage with each other for holding said frame sections together, one catch member comprising an extended base consisting of two limbs having an angularly disposed engaging enlargement extending therefrom, the other catch member comprising upwardly extending members and pivoted means connecting said members for securing a handle thereto.

1,206,527. COMBINED RANGE AND BROILER. GEORGE GIOVANNA, New York, N. Y. Filed June 30, 1911. Serial No. 636,253. (Cl. 126—14.)

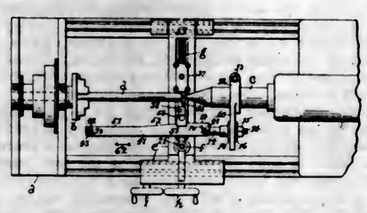


1. A stove embodying a grate chamber having an open front side, an upwardly extending grate positioned within said chamber for directing the heat toward said open side, a horizontal flue positioned intermediate the grate chamber and the stove top, said horizontal flue extending at the forward end portion thereof beyond the plane of the open front side of said chamber and said forwardly extended part of said flue having downwardly opening inlets positioned beyond said open front side of the chamber, a spit positioned exteriorly to the grate chamber, said spit being directly below the inlets to the forwardly extended part of the top flue whereby the smoke arising from the material on the spit is free to flow upwardly through the inlets and into the flue, and a damper positioned to open and close the inlets to said top flue.

2. A stove embodying a grate chamber the front side of which is open, a door for closing said open side of the chamber, said door being hinged to turn on a horizontal axis, and adapted to form a shelf for supporting a tray exteriorly to the grate chamber, an upwardly extending grate positioned within the chamber for directing heat toward the open front side of said chamber, a horizontal top flue positioned intermediate the stove top and the grate chamber, the forward part of said horizontal flue being extended beyond the open front side of the chamber and said forwardly extended part of the flue being provided with downwardly opening inlets positioned forwardly of the plane of the open side to said chamber, a spit exteriorly to the open front side of the chamber and below the forwardly extended part of the horizontal flue so that the smoke arising from the material on the spit is free to flow into the horizontal flue, and a sliding damper positioned within the horizontal flue for controlling the inlets thereto.

1,206,528. ATTACHMENT FOR LATHES. WILLIAM GODDU, Winchester, Mass. Filed June 19, 1916. Serial No. 104,362. (Cl. 82—14.)

1. The combination with a lathe provided with a spindle and with a carriage having a tool post, of an attachment comprising a stationary member affixed to said spindle and provided with a pattern, and a movable member engaged with said tool post and movable on said stationary member and provided with a tool holder coöperating with said pattern and bodily movable on said movable member substantially at right angles to said spindle.



2. An attachment for lathes provided with carriages having tool posts, comprising a stationary member capable of being attached to the spindle of said lathe and provided with a pattern detachably secured to said stationary member to permit it to be removed from the latter without disturbing the relation of the stationary member to the said spindle, and a movable member capable of engaging the tool post of the lathe and provided with a tool holder movable on the stationary member and coöperating with said pattern.

3. An attachment for lathes comprising a stationary member capable of being affixed to a stationary part of the lathe and provided with a pattern detachably secured thereto, and a movable member comprising a tool carrying member mounted on said stationary member to move thereon with relation to said pattern.

4. An attachment for lathes comprising a stationary member and a movable member, said stationary member having an arm capable of being mounted on a spindle of the lathe, and a rod extended from said arm substantially at right angles thereto, and a pattern secured to said rod, said movable member having a bar mounted to slide on said rod and provided with a chamber, a tool holder movable in said chamber and provided with a device engaging said pattern, and yielding means acting on said holder to maintain said device in engagement with said pattern.

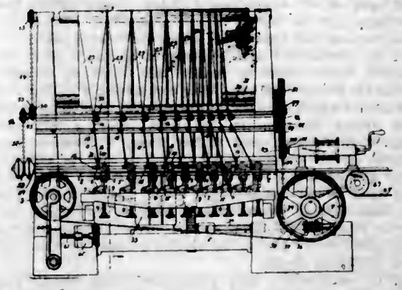
1,206,529. SAFETY COLLAR-BUTTON. MAX GONICK, New York, N. Y. Filed May 12, 1914. Serial No. 838,089. (Cl. 24—97.)



A collar button, comprising in combination, a base, a post and head, said post and head being formed from a blank consisting of a central portion designed to form a head, strips extending from opposite sides of said central portion and folded together to provide a post, and means for securing said post to the base, said strips being shaped to provide a rectangular recess therebetween, and a yoke-like clamp having lugs extending inwardly into the ends of said recess and being spring held by said strips to cause the clamp to lie in position over said head or in substantially horizontal position.

1,206,530. MACHINE FOR FORMING STRIPS FOR AUTOMOBILE-TIRE TREADS. WILLIAM A. GORDON, Shelton, Conn., assignor to Birmingham Iron Foundry, Derby, Conn., a Corporation. Filed Feb. 15, 1916. Serial No. 78,417. (Cl. 154—37.)

1. In a machine for working stock material comprising strips of rubber and wrapper, the combination with a wrapper roll over which the wrapper is drawn, a supporting roll over which the rubber is drawn, means for driving said rolls, and an accelerating roll between the wrapper roll and the supporting roll adapted to be engaged by the strip of rubber, if the rubber adheres to the wrapper, and means for driving the accelerating roll faster than the wrapper roll.



2. In a machine for forming strips of material for automobile tire treads from rolls of rubber alternating with rolls of wrapper, means for stripping the wrapper from the rubber, bearing-rolls beneath which the strips pass, a moving bearing surface upon which the strips are laid, means for driving said bearing-surface, and a variable-speed mechanism between the moving bearing-surface and the stripper mechanism.

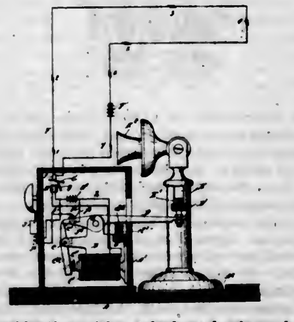
3. In a machine for forming strips of material for automobile tire treads from rolls of stock material comprising strips of rubber and wrapper, means for stripping the wrapper from the rubber, bearing-rolls beneath which the strips pass, guide-plates in rear of said bearing rolls, a moving bearing-surface upon which the strips are laid, means for driving said bearing surface, and a variable speed mechanism between the moving bearing surface and the stripper mechanism.

4. In a machine for forming strips or material for automobile tire treads from rolls of rubber, including bearing rolls beneath which the strips pass, a moving bearing surface upon which the strips are laid, means for driving said bearing surface, and adjustable yielding pressure rolls below the said bearing surface, and upon which it rests.

5. A machine for forming strips for automobile tire treads provided with a series of bearing-rolls, and a guide-plate in rear of each roll and projecting above said rolls.

[Claims 6 to 8 not printed in the Gazette.]

1,206,531. AUTOMATIC FIRE-ALARM. DANIEL P. GOSLINE, Boston, Mass. Filed June 13, 1914. Serial No. 844,867. (Cl. 179—5.)



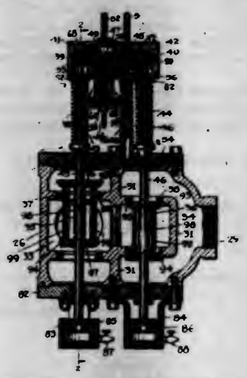
1. In combination with a telephone having a hook lever adapted when lifted to render the telephone operable,

means for lifting said hook lever comprising a lifting lever one arm of which engages said hook lever, means operating said lifting lever to lift the hook lever, a trip lever adapted to restrain said lifting lever, a normally open electric circuit adapted when closed to operate said trip lever and having a circuit closer, and means for closing said open circuit comprising a closed circuit having fusible links and an electro-magnet adapted to attract said circuit closer and hold it out of circuit-closing position.

2. In combination with a telephone having a hook lever adapted when lifted to render the telephone operable, means for lifting said hook lever comprising a lifting lever one arm of which engages said hook lever, means operating said lifting lever to lift the hook lever, a trip lever adapted to restrain said lifting lever, a normally open electric circuit adapted when closed to operate said trip lever and having a circuit closer, and means for closing said open circuit comprising a closed circuit having fusible links and an electro-magnet adapted to attract said circuit closer and hold it out of circuit-closing position, said open circuit containing an alarm operable when said open circuit is closed.

3. In combination with a normally closed circuit comprising fusible links and an electro-magnet, a normally open circuit, a circuit closer in said open circuit located to be normally attracted by said electro-magnet to keep said circuit normally open, a telephone having a hook lever adapted when lifted to render the telephone operable, means for lifting said hook lever comprising a lifting lever one arm of which engages said hook lever, means for operating said lifting lever to lift said hook lever, and means for restraining said lifting lever comprising a trip lever and an electro-magnet in said open circuit and adapted when said circuit is closed to release said lifting lever, an alarm also located in an open circuit, and a circuit closer adapted to close said alarm circuit upon the operation of said lifting lever.

1,206,532. UNLOADER. LAWRENCE A. GRAY, Mullan, Idaho. Filed Mar. 8, 1916. Serial No. 82,788. (Cl. 230—24.)



1. The combination of a multi-stage air or gas compressor having an intercooler, and means controlled by receiver pressure and operative when the same reaches a predetermined value to shut off the intake of the low pressure cylinder from the source and thereupon to place said intake in communication with the intercooler.

2. The combination of a multi-stage air or gas compressor having an intercooler, means controlled by receiver pressure and operative when the same reaches a predetermined value to shut off the intake of the low pressure cylinder from the source and thereupon to place said intake in communication with the intercooler, and means controlled by the intercooler pressure and operative to connect both the intake and the intercooler with the source when the pressure in the intercooler has been reduced approximately to that of the source by the continued operation of the high pressure cylinder piston.

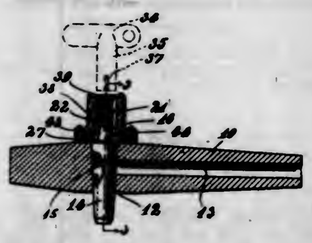
3. The combination of a multi-stage air or gas compressor having an intercooler, means controlled by receiver pressure and operative when the same reaches a predetermined value to shut off the intake of the low pressure cylinder from the source and thereupon to place said intake in communication with the intercooler, and means connected with the intercooler and operative upon a predetermined lowering of pressure therein to re-open the intake to the source, the communication between the intake and intercooler remaining open.

4. The combination of a multi-stage air or gas compressor having an intercooler, means controlled by receiver pressure and operative when the same reaches a predetermined value to shut off the intake of the low pressure cylinder from the source and thereupon to place said intake in communication with the intercooler, means connected with the intercooler and operative upon a predetermined lowering of pressure therein to re-open the intake to the source, the communication between the intake and intercooler remaining open, and means whereby the said communication is closed when the receiver pressure falls below a critical value.

5. The combination of a multi-stage air or gas compressor having an intercooler, means controlled by receiver pressure and operative when the same reaches a predetermined value to shut off the intake of the low pressure cylinder from the source and thereupon to place said intake in communication with the intercooler, means connected with the intercooler and operative upon a predetermined lowering of pressure therein to re-open the intake to the source, the communication between the intake and intercooler remaining open, and means whereby the communication between the intake and the intercooler is closed and that between the intake and source re-opened, in event of the receiver pressure falling to a critical value before the supply of compressed fluid trapped in the intercooler has been exhausted.

[Claims 6 to 24 not printed in the Gazette.]

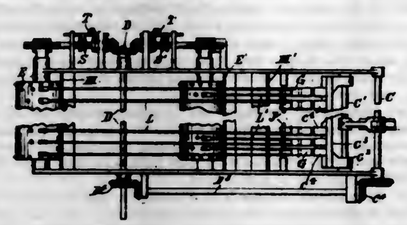
1,206,533. FAUCET. GEORG GUNDERMANN, Brooklyn, N. Y. Filed Aug. 11, 1916. Serial No. 114,345. (Cl. 137—7.)



In a faucet comprising a casing having an inlet opening, a turning plug mounted in said casing having an opening registerable with the said inlet opening, a stem extending from said plug having a recess formed therein, a spring-pressed locking member mounted in said recess, lugs on said stem, a casing covering said stem and secured to said faucet, the casing having recesses formed therein to receive the ends of said locking member, and a key having a cylindrical portion fitting over said stem and resting on said locking member, said key having slots formed therein which receive said lugs.

1,206,534. AUTOMATIC AND SEMI-AUTOMATIC KEY-LEVER ACTUATOR. HERBERT T. GUTHRIE, New York, N. Y. Filed Feb. 29, 1916. Serial No. 81,098. (Cl. 197—20.)

1. A typewriter operator comprising key-levers, a power actuator therefor, operative connections adapted to be selectively interposed between said key-levers and actuator, means for automatically moving a selected connection into operative position, and means operable upon manual depression of a key-lever for moving a corresponding connection into operative position.



2. In mechanism for operating key-levers and other movable parts, the combination, with power-driven means for operating said levers and other parts, of means for automatically selecting said levers for operation by said power-driven means, and means actuated by manual selection of said key-levers for connecting manually selected key-levers with said power-driven means.

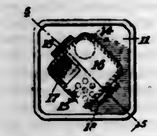
3. In a typewriter operator, the combination, with levers and other parts to be moved, of finger-keys operatively connected with said levers and other movable parts, a power-driven mechanism to operate said levers and other parts including a power-driven actuator and connections from the same to each key-lever including a rocker-lever, automatic mechanism for selectively engaging such connections with the power-driven actuator, and means for connecting the actuator through the rocker-levers with said levers upon manual depression of said finger keys.

4. In mechanism for operating key-levers and other movable parts, the combination, with a power-driven grooved roll and a selector sheet extended over the same, of rocker-levers having connections to the parts to be operated, an actuator for moving the rocker-levers when engaged therewith, a slide arranged to move lengthwise and tip the rocker-lever associated therewith, each slide having a pin adapted to engage the grooved roll to shift the slide lengthwise, springs to retract the said slides, and separate means for shifting the slide to connect the actuator through the rocker-levers with key-levers selected and manually depressed by the operator.

5. In mechanism for automatically operating key-levers and other movable parts, the combination, with a power driven selector mechanism comprising a power driven grooved roll, a perforated selector sheet, and pins resting upon the imperforate portion of such sheet and adapted to drop through the perforations in the sheet, to become engaged with and moved by the roll, of transmission members carrying said pins, rocker-levers arranged to be moved by the transmission members, links connecting the rocker-levers to the parts to be operated, and a power driven actuator adapted to engage and operate the said rocker-levers when moved by the transmission members.

[Claims 6 to 14 not printed in the Gazette.]

1,206,535. RECEPTACLE FOR SPICES AND LIKE SUBSTANCES. GILBERT F. HELSON, New York, N. Y., assignor to E. R. Durkee & Co., New York, N. Y., a Firm. Filed Apr. 6, 1916. Serial No. 89,265. (Cl. 221—61.)



1. A receptacle for spices and like substances, comprising a body, a cover fixed at its outer edge to said body and having a substantially square projecting center portion with vertical sides, the horizontal surface of said projection having a single opening in one corner and a group of openings in the opposite corner, a cap of the same contour fitting said projection and provided with a single opening in one corner, said cap in its normal position covering all the openings in said cover, but by its bodily removal from said cover and replacement thereon in a different position uncovering said single opening in the cover while the said group of openings are covered, and by its bodily removal and replacement in still another position the said group of openings in the cover are uncovered while the said single opening in the cover is closed.

2. A receptacle for spices and like substances, comprising a body, a cover fixed at its outer edge to said body and having a substantially square projecting center portion with vertical sides, the horizontal surface of said projection having a single opening in one corner and a group of openings in the opposite corner, a cap of the same contour fitting said projection and provided with a single opening in one corner, lugs upon two opposite sides of said cap, said cap in its normal position covering all the openings in said cover, but by its bodily removal from said cover and replacement thereon in a different position uncovering said single opening in the cover while the said group of openings are covered, and by its bodily removal and replacement in still another position the said group of openings in the cover are uncovered while the said single opening in the cover is closed.

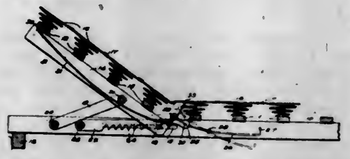
3. A receptacle for spices and like substances, comprising a body, a bottom therefor adapted for attachment after the receptacle has been filled, a cover fixed at its outer edge to said body and having a substantially square projecting center portion with vertical sides, the horizontal surface of said projection having a single opening in one corner and a group of openings in the opposite corner, a cap of the same contour fitting said projection and provided with a single opening in one corner, said cap in its normal position covering all the openings in said cover, but by its bodily removal from said cover and replacement thereon in a different position uncovering said single opening in the cover while the said group of openings are covered, and by its bodily removal and replacement in still another position the said group of openings in the cover are uncovered while the said single opening in the cover is closed.

4. A receptacle for spices and like substances, comprising a body, a cover fixed thereto at its outer edge and extending therefrom a predetermined distance in a horizontal line level with the top of said body, and having a substantially square depressed center portion with vertical side walls, the horizontal surface between said walls being provided in one corner with a single opening and in the opposite corner with a group of openings, a plug shaped to fit the interior of said depression in the cover and provided with a single opening, said plug being adapted for insertion in said depression in different positions, whereby in one position all the openings in the cover are closed, in another position the single opening in the cover is uncovered and the group of openings closed, and in another position said group of openings in the cover are uncovered while the single opening therein is closed, such changes of position being made only by the bodily removal of said plug from said depression and its re-insertion therein.

5. A receptacle for spices and like substances, comprising a body, a cover fixed thereto at its outer edge and extending therefrom a predetermined distance in a horizontal line level with the top of said body, and having a substantially square depressed center portion with vertical side walls, the horizontal surface between said walls being provided in one corner with a single opening and in the opposite corner with a group of openings, a plug shaped to fit the interior of said depression in the cover and provided with a single opening, lugs upon two opposite sides of said plug, said plug being adapted for insertion in said depression in different positions, whereby in one position all the openings in the cover are closed,

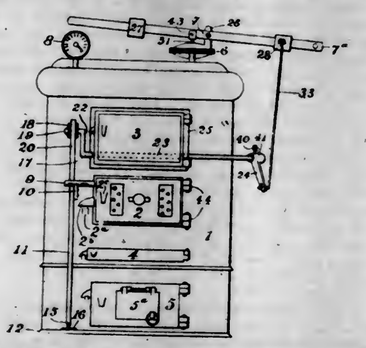
in another position the single opening in the cover is uncovered and the group of openings closed, and in another position said group of openings in the cover are uncovered while the single opening therein is closed, such changes of position being made only by the bodily removal of said plug from said depression and its re-insertion therein.

1,206,536. BED-SPRING. FRED WILLIS HILL, Lyndonville, N. Y. Filed June 9, 1915. Serial No. 33,085. (Cl. 5—43.)



In a bed spring, the combination of stationary frame members, a movable frame member comprising longitudinal rails connected to the stationary frame, said stationary frame including longitudinal parallel rails having slots formed transversely therein in the same plane, a pivot rod carried by the movable frame rails and movable along said slots, a pair of links connecting the movable frame to the stationary frame, a pair of racks pivoted to the stationary frame and movable in vertical planes into and out of engagement with the transverse rod, and means operable from the end of the bed spring to release the racks to permit the adjustment of the movable frame, said last mentioned means including a pair of levers of the second class fulcrumed in and slidable along keepers secured to the longitudinal rails of the main frame, a transverse bar connected to the free ends of the levers, the middle portions of the levers being bent laterally into cranks connected to the free ends of the racks, and a flexible member extending from the end of the bed spring beneath the transverse bar, substantially as shown and described.

1,206,537. DRAFT-REGULATOR FOR DOMESTIC FURNACES. ALBERTIS C. HILSINGER, East Orange, N. J. Filed Jan. 26, 1916. Serial No. 74,363. (Cl. 236—6.)



1. In a draft regulator for domestic furnaces and the like, a furnace door provided with a latch and its keeper all of which are arranged and adapted to swing bodily together with the door in combination with heat controlled connections whereby the door and latching devices vibrate back and forth in response to fluctuations in the heat of the furnace.

2. In an automatic draft regulator for furnaces the combination with usual steam diaphragm, of a door provided with a latch on its free end, a vibratory prop, a keeper on the prop, a fork and spool connection at the upper end of said prop, a bell-crank connected with the fork and spool connection, a weighted lever and connecting rod between the lever and the bell-crank.

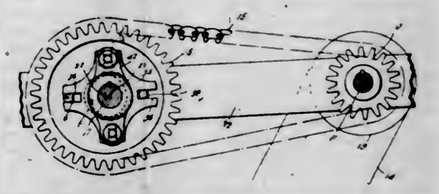
3. In a draft regulator for steam furnaces, and the like, a furnace fire door which swings in a horizontal path and has a latch on its free end, in combination with a movable keeper, and heat-controlled devices connected to move the keeper and door together and in harmony with the rise and fall of the heat in the furnace whereby an even temperature is maintained.

4. In a draft regulator for domestic steam furnaces and the like, the combination with a swinging door and its latch, of a movable keeper which engages and moves back and forth with the latch and door, and heat actuated devices attached to the keeper.

5. In a draft regulator for furnaces and the like, a door, a latch at its free end, a vibrating member provided with a keeper, said latch removably resting upon said keeper and supporting said door and devices for operating said vibrating member for the purposes substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,206,538. ADJUSTABLE TRANSMISSION MECHANISM. JOHN CLARK HOWE, Indianapolis, Ind. Filed Jan. 15, 1916. Serial No. 72,188. (Cl. 64—53.)



1. In combination, a shaft, a power-transmitting member, a supporting member on which said power-transmitting member is rotatably mounted, said supporting member being itself supported on said shaft, the interengaging surfaces of rotation about which said power-transmitting member rotates on said supporting member having an axis which is separated from the axis of said shaft, said supporting member being rotatably adjustable about the axis of the shaft, a rotatably mounted member separable from said supporting member for adjusting the latter about the shaft axis, a floating plate provided with angularly separated slots, and parts carried by said shaft and said power-transmitting member respectively and slidingly fitting in said angularly separated slots in said floating plate.

2. In combination, a shaft mounted for rotation about a fixed axis, a power-transmitting member mounted for rotation about an axis, means for rotatably supporting said power-transmitting member so that its axis can be shifted relatively to the axis of said shaft, a rotatably mounted member separable from said supporting means for shifting the latter to shift the axis of said power-transmitting member, a floating plate provided with angularly separated slots, and parts carried by said power-transmitting member and said shaft respectively and slidingly fitting in said slots.

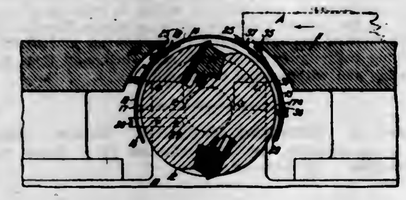
3. In combination, a shaft mounted for rotation about a fixed axis, a power-transmitting member mounted for rotation about an axis which is separated from the axis of said shaft, means for rotatably supporting said power-transmitting member so that its axis can be rotated angularly about the axis of said shaft a rotatably mounted member separable from said supporting means for shifting the latter to shift the axis of said power-transmitting member, a floating plate provided with angularly separated slots, and parts carried by said power-transmitting member and said shaft respectively and slidingly fitting in said slots.

4. In combination, a shaft mounted to rotate about a fixed axis, an angularly adjustable, normally fixed bushing in which said shaft has a rotatable mounting, said bushing having eccentric inner and outer surfaces, a rotatably mounted member separable from the bushing for rotatably adjusting the bushing, a power transmitting member mounted on the outer surface of said bushing, a floating plate provided with angularly separated slots, and parts carried by said shaft and said power-transmitting member respectively and having a sliding fit in said respective slots.

5. In combination, a shaft, a power-transmitting member, a supporting member on which said power-transmitting member is rotatably mounted, said supporting member being itself supported on said shaft, the interengaging surfaces of rotation about which said power-transmitting member rotates on said supporting member having an axis which is separated from the axis of said shaft, said supporting member being rotatably adjustable about the axis of the shaft, a rotatably mounted member separable from said supporting member for adjusting the latter about the shaft axis, and means rotatable with said power-transmitting member and said shaft and interconnecting them to transmit power between them which allowing them to rotate about different axes.

[Claims 6 and 7 not printed in the Gazette.]

1,206,539. JOINTER-GUARD. ABRAM RUBERT HUNSICKER, Williamson School, Pa. Filed Feb. 18, 1916. Serial No. 79,202. (Cl. 144—251.)



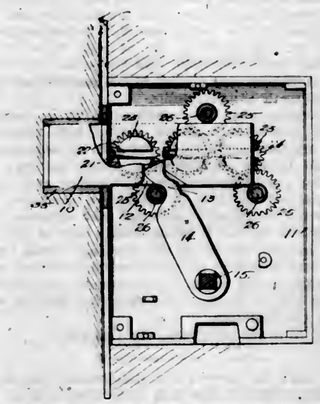
1. A guard for cutters of jointer machines and the like, including a series of separate guard sections, means to mount the said sections side by side for movement separately or together to and from positions over the cutter, a flexible element common to all of the said sections and having running engagement with the several sections of the series and means acting on said common flexible element and tending to move the several guard sections of the series to positions over the cutter, said means being yieldable to pressure on any of the guard sections by an advancing piece of work.

2. A cutter guard attachment for jointer machines and the like, including guard sections, means to movably mount the guard sections on the machine, means to maintain the guard sections in positions over the cutter to be engaged by an advancing piece of work, said means being yieldable to the pressure of the work on the sections to permit the depression of the latter to expose the cutter, and holding means for the sections when depressed, said last-mentioned means including a yieldable bar, means to mount the same on the jointer adjacent to the path of movement of the guard sections, said guard sections each having a member adapted to engage said bar and be yieldingly held thereby in the depressed position.

3. The combination with a machine having a revolving cutter, of guard sections mounted on the machine adjacent to the cutter and movable to and from positions over the cutter and in the path of movement of the work to be cut, sheaves on the machine in fixed positions, sheaves on the guard sections, a flexible element running alternately over the sheaves on the machine and the sheaves on the guard sections, and means acting on the said flexible element and tending to maintain the sections in positions over the cutter.

4. A guard for the cutters of jointer machines including guard sections for the rear side of the cutter, means to movably mount the separate sections for movement to and from a position above the cutter and in the path of movement of a piece of work to be cut, whereby said sections will be depressed by the work to expose the cutter, a flexible element having running engagement with the several guard sections, a separate series of guard sections for the front of the cutter, means to yieldingly mount the separate front sections for movement toward and from the back sections, whereby to follow in the rear of the piece of work passing over the cutter, a flexible element having running engagement with the said front guard sections, a weight acting on the flexible element of the rear guard sections, and a smaller weight acting on the flexible element of the front guard sections, the respective weights tending to move the respective guard sections toward each other, the return movement of the rear guard sections from a depressed position serving to give a return movement to the front guard sections.

1,206,540. KEYLESS LOCK. BENJAMIN A. HURWITZ, Kingston, N. Y., assignor of one-half to Jacob H. Rosen, New York, N. Y. Filed Apr. 22, 1916. Serial No. 92,917. (Cl. 70—53.)



1. In a keyless lock, the combination of a casing, a sliding bolt within said casing having lugs projecting therefrom at one side, tumblers arranged in the path of movement of the lugs to normally lock the bolt against movement, and having slots through which the lugs may pass in the movements of the bolt, means for moving the bolt in opposite directions, spindles extending through said casing and having longitudinal teeth, gears within the casing having tubular portions internally toothed and receiving the spindles, said tubular portions also having bearings in the casing, the said tumblers having gears engaged by the said gear members whereby to rotate the tumblers from the spindles, dials connected to the opposite ends of said spindles, one of said dials of each spindle being rigid therewith, and the other dial having internal teeth engaging the teeth at the respective end of the spindle, said end of the spindle having an axial threaded opening, and a screw member engaging the said threaded end opening of the spindle and bearing against the said internally toothed dial to secure the latter in connection with the spindle.

2. In a keyless lock, the combination of a casing, a sliding bolt within said casing having lugs projecting therefrom at one side, tumblers arranged in the path of movement of the lugs to normally lock the bolt against movement and having slots through which the lugs may pass in the movements of the bolt, means for moving the bolt in opposite directions, spindles extending through said casing and having longitudinal teeth, gears within

the casing having tubular portions internally toothed and receiving the spindles, said tubular portions also having bearings in the casing, the said tumblers having gears engaged by the said gear members whereby to rotate the tumblers from the spindles, dials connected to the opposite ends of said spindles, one of the dials of each spindle being rigid therewith, and the other dial being detachably connected to the spindle, whereby upon its removal the spindle may be withdrawn from its respective gear member.

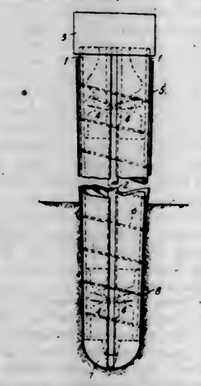
3. In a keyless lock, the combination of a casing, a sliding bolt within said casing having lugs projecting therefrom, tumblers arranged in the path of movement of the lugs and having slots through which the lugs may pass, spindles extending through said casing and having operative connections therein with the tumblers, and dials connected to opposite ends of said spindles, said connections including a gear carried by each tumbler, and a spindle actuated gear in engagement with each tumbler gear, said last gear being detachably connected to the spindle and having bearing in the casing whereby to permit the spindle to be withdrawn.

4. In a keyless lock, the combination of a casing, a sliding bolt within said casing having lugs projecting therefrom, tumblers arranged in the path of movement of the lugs and having slots through which the lugs may pass, spindles extending through said casing and having operative connections therein with the tumblers and provided with longitudinal teeth, and dials connected to opposite ends of said spindles, one of said dials of each spindle being rigid therewith, and the other dial being removable therefrom and having inner longitudinal teeth engaging the teeth of the spindle.

5. In a keyless lock, the combination of a casing, a sliding bolt within said casing having lugs projecting therefrom, tumblers arranged in the path of movement of the lugs and having slots through which the lugs may pass, spindles extending through said casing and having operative connections therein with the tumblers, and dials connected to opposite ends of said spindles, each of said tumblers having a spring within and at one side of its slot, secured thereto at one end and having its opposite free end extending angularly within the slot to reduce the width of the latter at the opposite ends thereof, and lock the bolt in its outer and retracted position without turning the tumblers.

[Claims 6 to 8 not printed in the Gazette.]

1,206,541. ART OF APPLYING REINFORCEMENT TO CONCRETE-PILING SHELLS AND THE LIKE. NATHAN C. JOHNSON, Englewood, N. J., assignor to Raymond Concrete Pile Company, New York, N. Y., a Corporation of New Jersey. Filed June 4, 1915. Serial No. 32,174. (Cl. 72—81.)



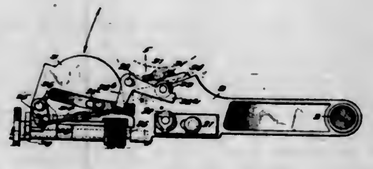
1. The herein described improvement in the art of applying reinforcement to concrete piling shells and the like, which consists in driving a shell of material yieldable under earth pressure, each shell having supporting reinforcement within it, into the ground, and by the laterally exerted earth pressure pressing the casing in around the reinforcement, and thereby causing the casing to unite with the reinforcement.

2. The herein described improvement in the art of applying reinforcement to concrete piling shells and the like, which consists in driving a shell of material yieldable under earth pressure, each shell having supporting reinforcement within it, into the ground, and by the laterally exerted earth pressure forming in the casing a bead receiving and in part surrounding the reinforcement.

3. The herein described improvement in the art of applying reinforcement to concrete piling shells and the like, which consists in placing around reinforcement a shell of material yieldable under earth pressure, placing an expansible mandrel within the shell and reinforcement, and expanding the mandrel and so holding the reinforcement against the shell, driving the shell, with the reinforcement and mandrel within it, into the ground, and by the laterally exerted earth pressure pressing the shell inward and around the reinforcement, and thereby uniting the reinforcement with said shell, and then collapsing and withdrawing the mandrel.

4. The herein described improvement in the art of applying reinforcement to concrete piling shells and the like, which consists in placing around a helically wound reinforcement coil a shell of material yieldable under earth pressure, placing an expansible mandrel within that coil, and expanding the mandrel and so holding the reinforcement against the shell, driving the shell, with the reinforcement and mandrel within it, into the ground, and by the laterally exerted earth pressure pressing the shell inward and around the reinforcement, and thereby uniting the reinforcement with said shell, and then collapsing and withdrawing the mandrel.

1,206,542. SPINNING-MACHINE. EBBERT ASHBY JONES, Danville, Va. Filed Dec. 30, 1914. Serial No. 879,770. (Cl. 242—43.6.)



1. In a spinning machine, a power shaft, a main cam carried by said power shaft, an auxiliary cam carried by said power shaft, a builder arm, a bell crank lever, a roller carried by said bell crank lever and arranged to be engaged by said auxiliary cam, a roller carried by said builder arm and arranged to be engaged by said main cam, a shiftable stop member arranged to engage said bell crank lever for controlling the position of the roller with respect to the auxiliary cam, and means operated by the movement of said builder arm for moving the shiftable stop member, said last named means comprising a slidable plate carried by the arm, and means operated through the reciprocatory movement of the arm for causing a progressive movement of the plate.

2. In a spinning machine, a power shaft, a main cam carried by said power shaft, an auxiliary cam carried by said power shaft, a builder arm, a bell crank lever, a roller carried by said bell crank lever and arranged to be engaged by said auxiliary cam, a roller carried by said builder arm and arranged to be engaged by said main cam, a shiftable stop member arranged to engage said bell crank lever for controlling the position of the roller with respect to the auxiliary cam, and means operated by the movement of said builder arm for moving the shiftable stop member, said means comprising a slidable plate carried by the builder arm arranged to bear the shiftable stop, a rack carried by the plate, a shaft rotatably carried by the arm and bearing a worm arranged to engage the rack, and means for rotating said last named shaft.

3. In a spinning machine, a power shaft, a main cam carried by said power shaft, an auxiliary cam carried by said power shaft, a builder arm, a bell crank lever, a roller carried by said bell crank lever and arranged to be engaged by said auxiliary cam, a roller carried by said builder arm and arranged to be engaged by said main cam, a shiftable stop member arranged to engage said bell crank lever for controlling the position of the roller with respect to the auxiliary cam, and means operated by the movement of said builder arm for moving the shiftable stop member, said means comprising a slidable plate carried by the builder arm arranged to bear the shiftable stop, a rack carried by the plate, a shaft rotatably carried by the arm and bearing a worm arranged to engage the rack, a ratchet carried by said last named shaft, a weighted pawl pivotally mounted on said rock arm and arranged to engage said ratchet, and a fixed stop member arranged to engage the pawl.

4. In a spinning machine, a power shaft, a main cam carried by said power shaft, an auxiliary cam carried by said power shaft, a builder arm, a bell crank lever, a roller carried by said bell crank lever and arranged to be engaged by said auxiliary cam, a roller carried by said builder arm and arranged to be engaged by said bell crank lever for controlling the position of the roller with respect to the auxiliary cam, and means operated by the movement of said builder arm for moving the shiftable stop member, said means comprising a slidable plate carried by the builder arm arranged to bear the shiftable stop, a rack carried by the plate, a shaft rotatably carried by the arm and bearing a worm arranged to engage the rack, a ratchet carried by said last named shaft, a weighted pawl pivotally mounted on said builder arm and arranged to engage said ratchet, a fixed stop member arranged to engage the pawl, and means for automatically controlling the movement of the pivoted weighted pawl.

5. In a spinning machine, a power shaft, a main cam carried by said power shaft, an auxiliary cam carried by said power shaft, a builder arm, a bell crank lever, a roller carried by said bell crank lever and arranged to be engaged by said auxiliary cam, a roller carried by said builder arm and arranged to be engaged by said bell crank lever for controlling the position of the roller with respect to the auxiliary cam, means operated by the movement of said builder arm for moving the shiftable stop member, said means comprising a slidable plate carried by the builder arm arranged to bear the shiftable stop, a rack carried by the plate, a shaft rotatably carried by the arm and bearing a worm arranged to engage the rack, a ratchet carried by said last named shaft, a weighted pawl pivotally mounted on said builder arm and arranged to engage said ratchet, a fixed stop member arranged to engage the pawl, and means for automatically controlling the movement of the pivoted weighted pawl, said last named means comprising a pivoted arm arranged to swing in the path of the pawl, and a link connecting said pivoted arm with said bell crank lever.

1,206,543. UNION-SUIT. WILLIAM K. JONES, Wichita, Kans. Filed June 3, 1915. Serial No. 31,936. (Cl. 2—144.)

1. The improved union garment comprising a jacket or body portion having buttons 5 and 8 secured, respectively, below and above the waist-line, a jacket flap extending down below the waist line and having button holes adapted for engagement with the lower set of buttons attached to the jacket, and a drop flap having button holes at its corners for engagement with the buttons 8 located on the jacket above the waist line, the drop flap when closed thus covering the lower portion of the jacket flap as described.

2. The improved union garment comprising a jacket or body portion having fastening devices 5 and 8 secured respectively below and at the waist line, a jacket flap extending down and below the waist line and adapted for engagement with the lower portion of the jacket, and a



drop flap having its corners constructed for engagement with the fastening device located at 8 on the jacket, the drop flap when closed thus covering the lower portion of the jacket flap, as described.

1,206,544. VALVE. BENJAMIN KAPLAN, New York, N. Y. Filed Apr. 14, 1915. Serial No. 21,375. (Cl. 137—26.)



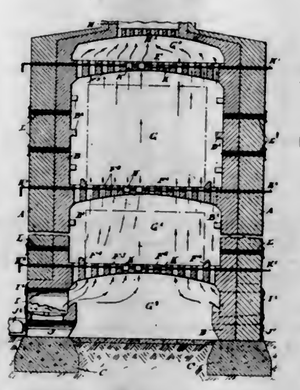
1. A device of the character described comprising a casing having a transverse bore and four ports opening into said bore, two of said ports being substantially opposite each other, a third port being located at a point approximately midway of the two first mentioned ports, and the fourth port being located in the wall of the casing opposite the third mentioned port and at a point unequally distant from the two opposite ports; and a valve mounted in the bore of said casing having a cut away portion and being capable upon rotation of providing a free passage between the first three mentioned ports, or between either opposed port and the fourth mentioned port, and also adapted to close all four ports.

2. A device of the character described comprising a casing having a transverse bore and four ports opening into said bore, two of said ports being substantially opposite each other, a third port being located at a point approximately midway of the two first mentioned ports, and the fourth port being located in the wall of the casing opposite the third mentioned port and at a point unequally distant from the two opposite ports; and a valve mounted in the bore of said casing having a cut away portion and being capable upon rotation of providing a free passage between both of the opposed ports and either of the other two ports simultaneously, or either one of the opposed ports with either one of the other two ports, and also being adapted to positively close all four ports.

3. A device of the character described, comprising a casing having two registered inlets in opposite parts thereof, and having two outlets one midway between the inlets and the other in a part of the casing opposite to the first outlet, this second inlet being unequally distant from the inlets, and a manually rotatable circular valve in the casing normally closing all of the inlets and outlets, part of the valve being transversely cut-out to provide a passage

between the valve and the wall of the casing so that when the valve is rotated accordingly its cut-out will provide communication between one or both of the inlets and one of the outlets to permit a liquid to flow through the casing.

1,206,545. ARTIFICIAL BUILDING MATERIAL AND METHOD FOR PRODUCING THE SAME. LUDWIG KERN, Hamburg, Germany. Filed June 22, 1914. Serial No. 846,490. (Cl. 106—11.)



1. As an article of manufacture, a brick for building purposes formed of a mixture of infusorial earth and a clay having a low melting point, in about the proportions specified, the mixture melting at a temperature of about 650° to 950° centigrade, whereby a brick which is porous, fireproof, and of low specific gravity is produced.

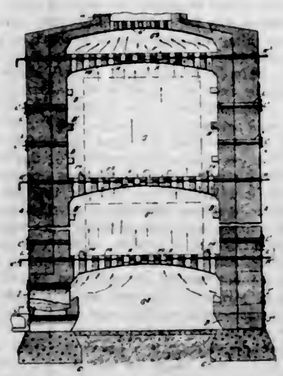
2. The herein described method for producing a brick which is porous, fireproof and of low specific gravity, consisting in mixing infusorial earth and a clay having a low melting point while both ingredients are wet, then molding and pressing the resultant mass into the desired shape, then subjecting the brick to the action of a current of air, then burning the brick, and then quickly cooling the brick.

1,206,546. PROCESS FOR PRODUCING ARTICLES FROM DIATOMACEOUS EARTH. LUDWIG KERN, Hamburg, Germany. Filed May 15, 1915. Serial No. 28,309. (Cl. 106—9.)

A process for the production of articles from diatomaceous earth containing acid soluble metal compounds, which consists in mixing the diatomaceous earth and its compounds with diluted hydrochloric acid to convert the compounds into chlorids and to form a moldable mass, then molding the mass and partly drying the same, and then burning the molded product to transform the chlorids of the compounds into oxids.

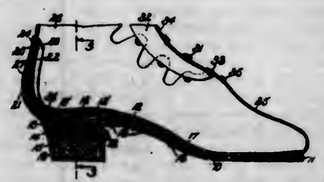
1,206,547. KILN OR OVEN. LUDWIG KERN, Hamburg, Germany. Original application filed June 22, 1914, Serial No. 846,490. Divided and this application filed Jan. 4, 1916. Serial No. 70,217. (Cl. 25—147.)

A kiln comprising a housing having horizontal perforate partitions dividing it into a plurality of chambers, one above the other, the lowermost one being a combustion chamber and the one next above a brick-receiving chamber, a furnace arranged in the sides of the housing and opening into the combustion chamber and adapted to permit admission of air for circulation through the chambers prior to and after burning of the bricks in the receiving chambers, and slidable dampers arranged horizontally in the perforations of the said partitions at the middle



thereof to divert the heat to the sides of the receiving chambers, as specified.

1,206,548. BATHING-SHOE. JOEL KIMMEL, New York, N. Y. Filed Aug. 3, 1916. Serial No. 112,922. (Cl. 36—45.)

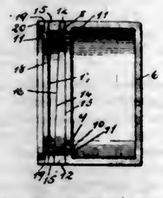


1. In a bathing shoe, the combination of a waterproof out sole, a metal arch support, means to secure the arch support to the shank portion of the out sole, certain of said securing means being located in the longitudinal center of the arch support, said arch support having a notch formed in the longitudinal center of the heel end, a heel, an insole, and fastening devices securing the heel to parts above it, one of said fastening devices passing through the notch at the rear end of the arch support in longitudinal alinement with said central arch support fastening means.

2. In a bathing shoe, the combination of an out sole, an insole, both of waterproof material, a metal arch support between the two soles at the shank portion thereof, the heel end of the arch support being longitudinally notched, a leather pad between the notched end of the arch support and the insole, a heel comprising a plurality of lifts and fastening devices passing through the heel, the sole members and the pad, one of said fastening devices passing through said notch.

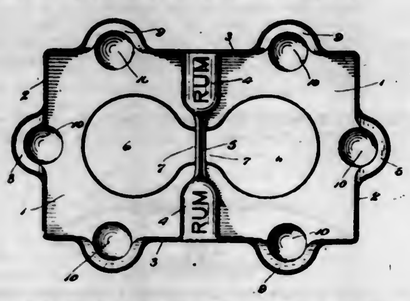
3. In a bathing shoe, the combination of a one piece vamp and upper, the lower free edges of which lie adjacent to but spaced from the vertical central line at the rear of the heel, a reinforcing strip extending vertically over the space between said free edges, the edges of the strip being stitched to the edge portions of the vamp and upper, a quarter of two parts secured to the rear portion of the vamp and upper, the two parts of the quarter being connected by a vertical seam back of the space aforesaid between the edges of the vamp and upper, a hard rubber counter between the back portion of the quarter and the reinforcing strip, a heel, the lower end of the reinforcing strip being slitted longitudinally and lying over the heel, and fastening devices passing upwardly through the heel, the bottom of the counter and the said lower end of the reinforcing strip.

1,206,549. OUTLET-BOX. ALLAN R. LAKIN, New York, N. Y. Filed Jan. 14, 1914. Serial No. 811,934. (Cl. 247—6.)



An outlet device for electric wires having in combination a box with a flat circular face with openings therein to receive fastening devices, of two circular rings having their outer circumferences flush and each ring having a flat face and a circular beveled face at one side, the beveled face sides of the rings being in contact and the flat face of the inner ring being seated against the flat circular face of the box at the outer side of the openings for the fastening devices; a ring-plate having an inner diameter less than the inner diameter of said two rings whereby to project laterally over the openings of both rings, said ring-plate having a flat face that seats against the flat face of the outer ring and said flat face of the ring plate having openings in alinement with the openings in the flat face of the box, and threaded fastenings extending through the openings in the box face and the ring plate face and passing freely through the openings of both rings whereby upon loosening said fastenings one ring may be rotated with respect to the other to tilt the outer ring plate with respect to the flat face of the box mouth.

1,206,550. RUMMY-BOARD. WILLIAM J. LEACH and CHARLES G. HARRINGTON, Grand Rapids, Mich. Filed Apr. 10, 1916. Serial No. 90,157. (Cl. 46—55.)



1. In a device of the character described, a base provided with a longitudinal opening, sides and ends extending upwardly from the base, a partition having thickened end sections and a narrow center section lying between the sides, said center section passing across the opening dividing the device into two compartments, an offset section at each end of the device and at each side of each compartment, a depression being formed in the base at each offset section thereby forming a plurality of spaced apart feet supporting the device and elevating the base above the surface on which the device is placed, substantially as described.

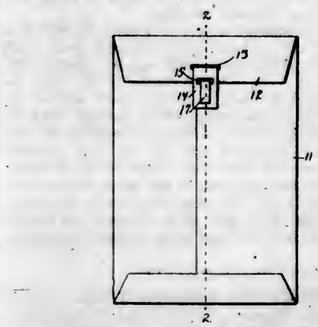
2. In a device of the character described, a base provided with a longitudinal opening, sides and ends extending upwardly from the base, a partition having thickened end sections and a narrow center section located between the sides and dividing the device into two compartments, and an offset section centrally located in each end of the device, and in each side of each compartment the height thereof being the same as the height of the sides and ends of said device, there being a depression formed in the base at each offset portion, substantially as described.

3. In a device of the character described, a base, sides and ends extending upwardly from the base, a partition having thickened end sections and a narrow central section located between the sides dividing the device into two compartments and an offset section centrally positioned in each end of the device and in each side of each compartment, substantially as described.

4. In a device of the character described, a base, sides and ends extending upwardly from the base, a partition between the sides dividing said device into two compartments, and an offset section centrally positioned in each end of said device and in each side of each compartment, substantially as described.

5. In a device of the character described, a tray having a base and sides and ends, means interposed between the sides dividing the tray into two compartments each adapted to receive a pack of cards, and outwardly extending offset sections in the ends of the tray permitting the insertion of the fingers between the edges of cards and said offset sections, substantially as described.

1,206,551. PACKAGE-FASTENING DEVICE. LOUIS LEDERER, Farmingdale, N. J. Filed Mar. 5, 1914. Serial No. 822,745. (Cl. 229—78.)

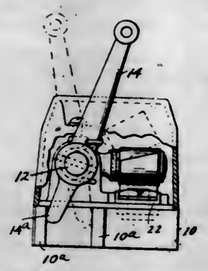


The combination with a package closure having a slotted flap and rear wall, of a fastening device formed of a thin flexible piece of sheet metal and comprising an apertured body portion having wings extending at right angles from the lower side edges thereof, and a reduced tongue projecting from its lower end, the said wings adapted to be inserted through the slots in the rear wall and bent to lie upon the said rear wall for retaining the said fastening device thereon, the apertured portion of said body adapted to extend through the flap slot and to be bent downwardly into engagement with the outer face of the flap, the said tongue being adapted to be disposed through the aperture of the said body portion.

1,206,552. ELECTRIC SWITCH. BENNETT M. LEECE, Cleveland, Ohio, assignor to The Leece-Neville Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 10, 1915. Serial No. 33,220. (Cl. 175—282.)

1. In a switch, a pair of flexible contact clips spaced apart, and a movable switch member comprising a bridging contact in the form of a roller having its axis parallel to and movable in a plane substantially midway between the clips, the spacing of the clips and diameter of the roller being such that the roller enters between and engages the inner faces of the two clips with a sliding or wiping action, a support on which the roller is free to

turn, and on which it is coaxially mounted, and means for shifting the roller and its support so as to cause the former to move into and out of the space between the clips.



2. In a switch, a pair of flexible contact clips spaced apart, and a movable switch member comprising a bridging contact in the form of a roller having its axis parallel to and movable in a plane substantially midway between the clips, the spacing of the clips and diameter of the roller being such that the roller enters between and engages the inner faces of the two clips with a sliding or wiping action, a support for said roller comprising an arm on which the roller is coaxially arranged, and which is mounted to turn about an axis at right angles to the axis of the roller, and means for giving said arm an oscillatory movement such as to cause the roller to move into and out of the space between the clips.

3. In a switch, a support, a pair of flexible contact clips spaced apart on said support and insulated from each other, a rock shaft mounted on said support adjacent the clips to turn on an axis at right angles to the clips, an arm projecting laterally from said rock shaft and having its axis movable in a plane substantially midway between said clips, a bridging contact arranged coaxially on said arm and insulated therefrom but free to turn thereon, and means for turning said rock shaft so as to cause the roller to move into and out of the space between the clips, the spacing of the clips and diameter of the roller being such that the roller may enter between and engage the inner faces of the two clips with a sliding or wiping action.

1,206,553. METHOD FOR MOLDING TILES. ANSON F. LEWIS, Santa Barbara, Cal., assignor of one-half to William E. Mouck, Santa Barbara, Cal. Filed Mar. 22, 1916. Serial No. 85,887. (Cl. 25—155.)



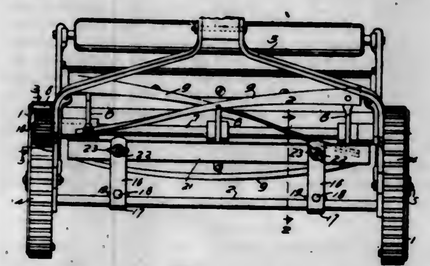
1. The method of making tiles, which consists in forming a bed of absorbent granular material in a mold, shaping the surface of the said bed to conform to the inner surface of the tile to be produced, forming a continuous layer of cement in the mold directly on said shaped bed, shaping the surface of the cement layer while on the bed, to correspond with the profile of the tile to be produced, severing the layer while on the bed into tiles by passing a cutter downward through the said layer and into the said bed, punching the tile while on the bed, permitting the tiles to cure on the bed, then removing the cured tiles from the bed.

2. The method of making tiles, which consists in forming in a mold a longitudinal continuous bed of sand or the like, of a character to be penetrated by a knife, shaping the surface of the bed to conform to the inner surface of the tiles to be produced, forming and shaping a continuous layer of cement in the mold directly on the said shaped bed, then severing the said layer into separate tiles on the said bed.

3. The method of making tiles, which consists in forming in a mold, a longitudinal continuous bed of sand or the like, penetratable by a knife, shaping the surface of the bed to conform to the inner surface of the tiles to be produced, forming and shaping a continuous layer of cement in the mold directly on the said shaped bed, severing the said layer into separate tiles on said bed by forcing a cutter downwardly therethrough to the said bed, finishing said tiles, permitting the said separated tiles to remain on said bed for curing, then removing the cured tiles from the bed.

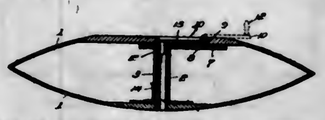
4. The method of making tiles, which consists in forming in a mold a longitudinal continuous bed of sand or the like, of a character to be penetrated by a knife, shaping the surface of the bed to conform to the inner surface of the tiles to be produced, forming and shaping a continuous layer of cement in the mold directly on the said shaped bed, severing the said layer into separate tiles on the said bed, then finishing said tiles on said bed.

1,206,554. SHARPENER. FRANK WALLACE LEIDECKER, Muskogee, Okla., assignor to Leidecker Lawn Mower Sharpening Company, Muskogee, Okla., a Corporation of Oklahoma. Filed Mar. 30, 1916. Serial No. 87,815. (Cl. 56—19.)



A lawn mower including a ground-wheel; a rotary cutter; a means for connecting the ground-wheel with the cutter to rotate the cutter in one direction only, said means including a removable pawl; a sharpener coacting with the cutter; and a locking member interchangeable with the pawl.

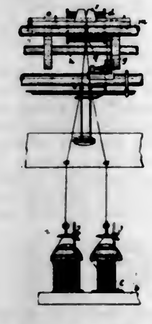
1,206,555. TATTING-SHUTTLE. OTTO W. LINQUIST, Paskin, Wis. Filed Apr. 26, 1916. Serial No. 93,683. (Cl. 66—10.)



1. A shuttle including side pieces, a transverse shaft secured between the said side pieces, a bobbin rotatably mounted on the shaft and comprising an intermediate tubular portion and spaced flanges, one of the said flanges being toothed, a bearing member supported by one of the side pieces, a stub shaft rotatably mounted in the said bearing member, a gear secured to the stub shaft and adapted to operably engage the toothed flange of the bobbin, a crank pivotally secured to the stub shaft and adapted to be moved about its pivot to and from operative position, and a resilient hook carried by the bobbin and adapted to secure the thread to the said bobbin.

2. A shuttle including side pieces, one of which having a longitudinal slot formed therein, a tubular shaft secured between the side pieces, a bobbin rotatably mounted upon the tubular shaft and having a toothed flange extending therefrom, a stub shaft rotatably supported by the slotted side pieces, a gear secured to the stub shaft and adapted to operably engage the said toothed flange, a crank pivotally secured to the stub shaft, said crank being received by the longitudinal slot when it has been moved to its inoperative position, a manipulating finger secured to the outer terminal of the crank, said finger extending into one terminal of the tubular shaft when the crank is in its inoperative position.

1,206,556. METHOD OF UNITING TEXTILE STRANDS. EMORY J. LIPPS and LLOYD H. LIPPS, Fountain Hill borough, Lehigh county, Pa., assignors of fifty-one one-hundredths to said Emory J. Lipps and forty-nine one-hundredths to said Lloyd H. Lipps. Filed Mar. 21, 1916. Serial No. 85,552. (Cl. 28—34.)



1. The hereindescribed method of uniting textile strands which consists in drawing the strands lengthwise and simultaneously wrapping one strand around the other alternately right and left and forming the strands as thus wrapped into a wound package.

2. The hereindescribed method of uniting textile strands which consists in drawing the strands lengthwise over a suitable surface and simultaneously effecting relative back and forth movement as between said surface and the strands crosswise of the line of draft, whereby to wrap one strand around the other alternately right and left.

3. The hereindescribed method of uniting textile strands which consists in wrapping one strand alternately right and left around the other and forming the strands as thus wrapped into a wound package.

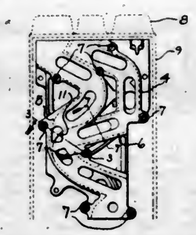
4. The hereindescribed method of uniting textile strands which consists in drawing the strands lengthwise over a suitable surface and simultaneously effecting relative movement as between said surface and the strands crosswise of the line of draft, whereby to wrap one strand around the other, and forming the strands as thus wrapped into a wound package.

5. The hereindescribed method of uniting textile strands which consists in drawing the strands lengthwise and simultaneously moving one strand around the other alternately right and left repeatedly, whereby to cause the first strand to be laid around the other in a repetition of alternately right and left wrappings.

1,206,557. CHUTE STRUCTURE FOR TELEPHONE PAY-STATIONS. GEORGE A. LONG, Hartford, Conn., assignor to The Gray Telephone Pay Station Company, Hartford, Conn., a Corporation of Connecticut. Filed July 6, 1916. Serial No. 107,781. (Cl. 232—44.)

1. A chute structure comprising a coin runway having a V portion, one leg of the V being above the other and the side wall of the upper leg of the V being on a slant.

2. A chute structure comprising a coin runway having a V portion, one leg of the V being above the other, and a second coin runway opening into the first coin runway at the junction of the legs of the V, the V portion having means for positively guiding the coin around said junction.



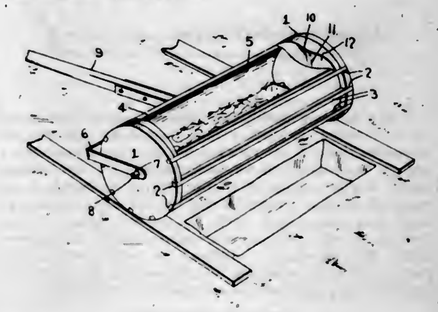
3. A chute structure comprising a coin runway having a V portion, one leg of the V being above the other and said V portion having a bend connecting the two legs of the V, said chute structure having a second coin runway opening into the first coin runway at the bend, the first coin runway being deeper than the second coin runway.

4. A chute structure comprising a coin runway having a V portion, one leg of the V being above the other and said V portion having a bend connecting the two legs of the V, said chute structure having a second coin runway opening into the first coin runway at the bend, the first coin runway being deeper than the second coin runway, the side wall of the upper leg of the V being on a slant.

5. A chute structure comprising a coin runway having a V portion, one leg of the V being above the other and the V portion at the junction of the legs being on a bend, said upper leg being narrower than the lower leg, said chute structure having a second coin runway opening into the first coin runway at said bend, the width of the second coin runway being substantially equal to the width of the lower leg of the V, and the upper leg of the V being deeper than the second coin runway to guide the coin around the bend.

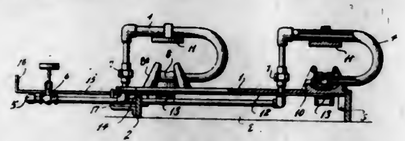
[Claim 6 not printed in the Gazette.]

1,206,558. DEVICE FOR FILLING GRAVES. NATHAN C. LOWE, Lebanon, Oreg. Filed Nov. 9, 1915. Serial No. 60,518. (Cl. 214—1.)



A device for filling graves comprising a cylindrical member including a pair of spaced circular end members, longitudinally extending spaced bars connecting the circular end members, a lining secured to the inner face of said longitudinally extending bars and having its free ends secured to adjacent bars to provide a discharge opening, a handle, means carried by the handle and engaging one of the longitudinal bars to secure the cylindrical member against movement, and inclined deflecting plates secured to each of the circular members, and of a length equal to the width of the discharge opening.

1,206,559. HYDROCARBON-BURNER. EPPS M. LUCUS, Van Alstyne, Tex. Filed July 3, 1916. Serial No. 107,268. (Cl. 158—63.)



1. In a hydrocarbon burner, the combination with a base, of a pair of burner tubes arranged upon the base, a burner jet carried by each burner tube, air nozzles clustered about the burner jets, said air nozzles having an inclined position toward the burner jets, a slide plate held in contact with the underneath surface of the base, and projecting ears formed on the slide plate adapted to pass over and close the air nozzles.

2. In a hydrocarbon burner, the combination with a base, of a pair of burner tubes arranged upon the base, a burner jet carried by each burner tube, air nozzles clustered about the burner jets, said air nozzles having an inclined position toward the burner jets, a slide plate held in contact with the underneath surface of the base, projecting ears formed on the slide plate adapted to pass over the air nozzles, and an upturned handle rod having connection with the slide plate adapted to vary the position of said slide plate.

3. In a hydrocarbon burner, a base member, a downturned web or wall formed on the base, burner tubes arranged upon the base and having connection with a supply, a plurality of air nozzles formed in the base and adapted to draw air from underneath the base through apertures formed therein, a slide valve supported under the base and in contact with said base and guided by the side walls, a plurality of extended ears formed on the slide valve and in line with the air nozzle apertures, a slot formed in the wall adapted to allow the passage of the slide plate, and a handle connected with the slide valve.

1,206,560. TIRE-INFLATING DEVICE. FREDERICK H. C. LUCAS, Chico, Cal. Filed Jan. 8, 1915. Serial No. 1,218. (Cl. 230—27.)



A tire inflating device comprising a rod having one of its ends screw-threaded, a spur formed on said rod and extending through the running board of an automobile, a nut on said spur and in engagement with the running board, a plate mounted on the end of said rod, a nut mounted on the screw-threaded end of the rod to said plate into engagement with the running board, a base formed on said plate, an air pump secured to the base, means for detachably securing the piston rod of the pump to the rear wheel of the automobile, and means for connecting the tires of the automobile to said pump.

1,206,561. LIGHTING-FIXTURE. WILFRID LUMLEY, Conneaut, Ohio, assignor to General Electric Company, a Corporation of New York. Filed Sept. 26, 1913. Serial No. 791,982. (Cl. 240—78.)

1. An electric lighting fixture comprising an insulating block having therein means for supporting an electric lamp and electrical connections therefor, a cover extending over the top of the said block and supported thereby, a reflector or shade holding means, and means for supporting the latter independently of the said block.

2. An electric lighting fixture comprising an insulating block having therein means for supporting an electric lamp and electrical connections therefor, a reflector or shade holding means below said block, and means extending through the said block for supporting the said reflector or shade holding means independently thereof.



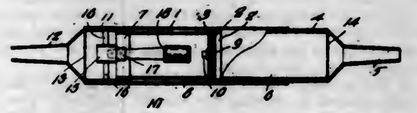
3. An electric lighting fixture comprising an insulating block having means therein for supporting an electric lamp and electrical connections therefor, a cover for the said block, a reflector or shade holding means located below the said block and engaging therewith and means extending through the said block for supporting the said reflector or shade holding means independently of the said block and the said cover.

4. An electric lighting fixture comprising an insulating block having an upper peripheral flange and having means for supporting an electric lamp therein and electrical connections therefor, a reflector or shade holding means below said block, ventilating passages extending through said block and through the said reflector or shade holding means, a dome shaped cover for the said block, and passages extending through the aforesaid flange and connecting the space between the said cover and the said block with the outer air.

5. In an electric light fixture, the combination of a block of insulating material having cavities therein for the reception of an incandescent lamp and its electrical connections, metallic parts extending through the said block for supporting the same and for supporting a shade or reflector below the same, and an insulating cover supported by the said block and extending beyond the periphery thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,206,562. ROLLING-PIN. THOMAS A. MCCARTY, Washington, D. C., assignor of one-half to William G. Chandler, Washington, D. C. Filed May 10, 1916. Serial No. 96,580. (Cl. 107—50.)



1. In a rolling pin, the combination with a cylindrical body portion, of end pieces removably mounted therein, a partition mounted in the body portion and means engageable with the end pieces and with the partition to limit the inward movement of the end pieces into the body portion.

2. In a rolling pin, the combination with a cylindrical body portion having a partition between its ends, of an end piece including a cylindrical portion and a tubular handle portion, the cylindrical portion being adapted to be inserted in the body portion, a substantially cylindrical extension removably mounted in the end piece and adapted to engage the partition to limit the inward movement of the end piece and a second end piece mounted in the other end of the body portion.

3. In a rolling pin, the combination with a cylindrical body portion having a partition between its ends, of an end piece removably mounted in one end of the body portion, means for limiting the inward movement of the end piece into the body portion including a collar, a U-shaped arm and a cross arm mounted on the bight portion of the U-shaped arm, which bight portion and cross arm contact with the partition and an end piece mounted in the opposite end of the body portion.

4. A device of the class described including a hollow cylindrical body portion having a screen member in spaced relation to one end thereof, end pieces removably mounted in said body portion and an agitator rotatably mounted within the body portion and arranged to limit the inward movement of one end piece.

1,206,563. AUTOMATIC HOSE-REEL. CHARLES D. MCCONNELL, Oskaloosa, Iowa, assignor of one-half to John M. Bryson, Oskaloosa, Iowa. Filed June 8, 1915. Serial No. 32,985. (Cl. 137—31.)



1. A hose reel structure comprising a carrier, a spindle on the carrier provided with a fluid conducting passage, a hose reel having a hub portion mounted and rotatable on the spindle and provided with a fluid conducting passage for connection to a supply of fluid and to hose on the reel, and a fusee spring drum on the carrier provided with flexible connections to and windable upon the hub of the hose reel to provide yieldable means for rewinding hose on and connected to the drum when said hose is withdrawn from the drum.

2. A hose reel structure comprising a support in the form of a hollow standard, a stationary spindle on and inclosed by and fast to one end of the standard and when in the installed position extending substantially horizontally, said spindle being provided with an axial internal passage for fluid under pressure, a hose reel having a hub mounted on the spindle for rotation thereon and provided with a bore communicating with the internal passage of the spindle, a casing on one side of the standard inclosing the reel, hose connections on the reel communicating with the bore of the hub, and a fusee spring drum and flexible connections therefrom to and windable upon the hub of the hose reel and housed in the standard.

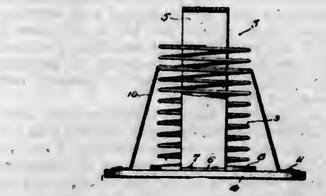
3. A hose reel structure comprising a carrier having one end adapted to be fixed to a support, a spindle on the other end of the carrier and provided with a fluid conducting passage, said spindle being arranged to extend substantially horizontally when in the installed position, a hose reel having a hub portion mounted and rotatable on the spindle and provided with a fluid conducting passage for connection to a supply of fluid and to hose on the reel, and means on the carrier having flexible connections to and windable upon the hub of the hose reel and having a normal tendency to rotate the reel in a direction to wind hose thereon and yieldable to the withdrawal of hose from the reel.

4. A hose reel structure comprising a carrier or support, a stationary spindle on and fixed to the support and extending horizontally in the installed position of the support, said spindle having a passage extending from one end part of the way through it and opening at the surface of the spindle, means for the connection of a supply of fluid under pressure to the passage in the spindle, a hub mounted for rotation on the spindle and having an interior chamber communicating with the passage through the spindle, said hub having a hose connection communicating with the chamber, a hose reel carried by the hub and adapted to have a hose wound thereon with one end fast to the hose connection and the other end accessible, and packing means within the hub about the spindle, said packing including a spacing sleeve within the interior chamber and a gland carried by the hub and surrounding the end of the spindle remote from the end fixed to the support.

5. A hose reel structure comprising a hollow pedestal with a substantially cylindrical casing supported thereon to one side of said pedestal with the center of the casing at approximately the upper end of the pedestal, a stationary spindle carried by and fixed to the pedestal and extending into the casing in the axis thereof, said spindle having a passage extending from one end part way through it and opening at the surface of the spindle, means for the connection of a supply of fluid under pressure to the passage in the spindle, a hub mounted for rotation on the spindle and having an interior chamber communicating with the passage through the spindle, said hub being provided with a hose connection communicating with said chamber, a hose reel carried by the hub, a hose fast at one end to the hose connection and normally wound on the reel with the other end accessible at one side of the casing, and a spring and spring drum mounted in the pedestal and connected to the hub for actuating the reel in a direction to wind the hose thereon.

[Claims 6 to 8 not printed in the Gazette.]

1,206,564. FIRE-ALARM APPARATUS. PETER MCDONOUGH, Braddock, Pa. Filed Feb. 16, 1916. Serial No. 78,700. (Cl. 200—33.)



1. In a fire alarm system, a circuit closer adapted to control an alarm circuit and comprising a base plate, a substantially U-shaped frame having the ends of the legs thereof outturned and secured to said base plate and adapted to be connected to one side of the controlled circuit, a spring contact arranged within said frame and adapted to be connected to the other leg of the controlled circuit, and inflammable means holding said spring contact normally out of engagement with said frame.

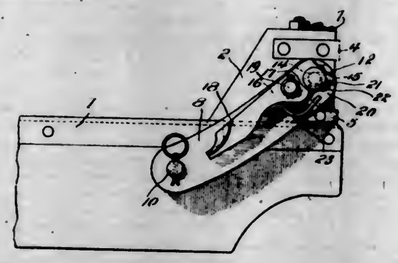
2. In fire alarm apparatus, a circuit closer adapted to control the alarm circuit and comprising a base plate, a frame mounted upon the base plate and connected to one leg of the controlled circuit, a coiled spring contact arranged within said frame and secured to said base plate and adapted to be connected to the other leg of the controlled circuit, and an inflammable strip secured to said base plate and passed through certain coils of said spring to hold the latter normally out of engagement with the frame.

3. In fire alarm apparatus, a circuit closer adapted to control the alarm circuit and comprising a U-shaped frame adapted to be connected to one leg of the controlled circuit, a coiled expansion spring within the frame, a disk supporting said spring, and an inflammable strip passed through certain coils of the spring and acting to hold the latter normally out of engagement with said frame.

1,206,565. BUMPER-BLOCK. THOMAS MCMICHIEL, Purvis, Miss. Filed May 19, 1916. Serial No. 98,612. (Cl. 105—173.)

1. In combination with a bolster, a bumper block thereon and having a slot in its outer side, a pair of link arms

arranged on opposite sides of the bolster, a locking pin carried by one of the link arms and adapted for arrangement in the slot of the block and instantaneously releasable means to detachably secure the locking pin to the other link arm.

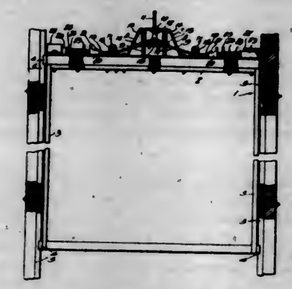


2. In combination with a bolster, a bumper block thereon having a transverse slot in its outer side, a pair of link arms pivotally mounted on opposite sides of the bolster, a locking pin pivotally connected to one of the link arms, adapted for arrangement in the slot of the block and for detachable engagement with the other link arm, and instantaneously releasable means on the last named link arm to detachably secure the locking pin to said link arm.

3. In combination with a bolster, a bumper block thereon having a transverse slot in its outer side, a pair of link arms pivotally mounted on opposite sides of the bolster, a locking pin pivotally connected to one of the link arms, adapted for arrangement in the slot of the block and for detachable engagement with the other link arm, instantaneously releasable means on the last named link arm to detachably secure the locking pin to said link arm, said instantaneously releasable means including a pivotally mounted shackle element and a spring to normally hold the same in engaged position.

4. In combination with a bolster, a bumper block thereon, having a transverse slot in its outer side and also provided with a guide extending across said slot, a pair of link elements arranged one on each side of the bolster, a locking pin flexibly connected to one link element and detachably connected to the other and adapted for arrangement in the slot of the bumper block, a locking element in and removable from the guide of the bumper block and instantaneously operable locking means on the last named link element to detachably secure the locking pin thereto.

1,206,566. ELEVATOR SAFETY-STOP. SOLOMON MAHER, North Adams, Mass. Filed July 13, 1916. Serial No. 109,116. (Cl. 187—84.)

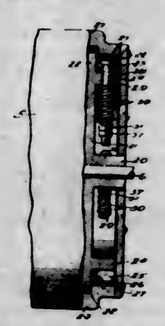


1. The combination with an elevator mounted in a shaft, a hoisting cable, rack bars secured to the opposite sides of said shaft, of a spring pressed cable holder slidably mounted on the elevator, a flat spring on the elevator connected intermediate its ends with said holder and bowed thereby, guides on the elevator adjacent its sides, bolts slidably mounted in said guides, rollers positioned above said flat spring adjacent its ends, blocks on the ends of said spring, inwardly projecting rods connecting the inner ends of said bolts with the blocks, stationary perforated plates through which the rods are adapted to slide, and coiled springs surrounding the rods between the plates and the inner ends of said bolts.

2. The combination with an elevator mounted in a shaft, a hoisting cable, rack bars secured to the opposite sides of said shaft, of a frame having downwardly projecting arms secured to the top of the elevator, a pair of upright standards in said frame, a plate slidably mounted in the frame on the standards, coiled springs surrounding said standards between the plate and the upper end of the frame, a cable holder secured to said plate and adapted to normally hold the same against the compression of the coiled springs, a flat spring on the elevator secured to the plate and projecting from between the arms of the frame, and bolts slidably mounted on the elevator adjacent its sides connected with the ends of said flat spring.

3. The combination of an elevator mounted in a shaft, a hoisting cable, rack bars secured to the opposite sides of said shaft; of a pair of upright standards on said elevator, a cable holder slidably mounted on said standards, coiled springs surrounding the standards and normally compressed by the holder when the cable is taut, a flat spring on the elevator connected with the cable holder, and bolts operated by the ends of the said spring adapted for engagement with the rack bars should the cable break.

1,206,567. REGULATOR FOR LIGHTING SYSTEMS. WILLIAM T. MANOGUE and CHARLES F. SCHROEDER, Evansville, Ind.; Louis E. Fricke, Evansville, Ind., executor of said Schroeder, deceased; said Manogue and said executor assignors to Schroeder Headlight Company, Evansville, Ind., a Corporation of Indiana. Filed Feb. 8, 1915. Serial No. 6,825. (Cl. 74—45.)



1. The combination with a rotating member, an annular flange on the end thereof spaced from the periphery, and provided with apertures, of a brake-shoe located on the outer side of the flange, pins connected with the shoe and extending radially through the apertures toward the longitudinal axis of the rotating member, springs carried by the pins and arranged to normally press said pins inwardly, a hub carried by the rotating member, a casing for the latter, and a plate extending from the hub to the end of the casing and constituting the outer portion of a chamber inclosing the pins and the outer portion of a chamber concentric with the first chamber and inclosing the shoe.

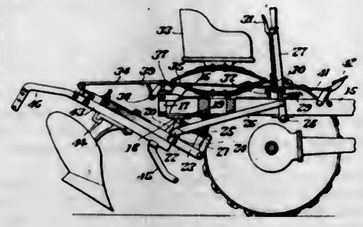
2. The combination with a rotating member, an annular flange on the end thereof spaced from the periphery, and provided with apertures, of a brake-shoe located on the outer side of the flange, pins connected with the shoe and extending radially through the apertures toward the longitudinal axis of the rotating member, springs carried by the pins and arranged to normally press said pins inwardly, a hub carried by the rotating member, a casing,

a flange projecting longitudinally and radially from the casing, a plate extending from the hub to the flange on the casing and constituting the outer portion of a chamber inclosing the pins and a chamber concentric with the first chamber and inclosing the shoe.

3. The combination with a drum of a motor and brake supporting means carried by the drum, of a brake shoe carried by the supporting means and having an exterior bearing surface presenting an arc of a circle of substantially the same diameter as that of the drum, and a substantially cylindrical casing having a bore for the drum and forming a bearing surface for the shoe operating within said bore.

4. The combination with a rotating member constituting the drum of a motor, of a casing therefor, having an inwardly and longitudinally extending flange on one end, said rotating member having a flange concentric with the flange of the casing, a brake shoe between the flanges, supporting means for the shoe, and a plate extending across the outer portion of each flange and inclosing the shoe.

1,206,568. FARM IMPLEMENT. GILBERT P. MARINIER, Pontiac, Mich. Filed Feb. 9, 1916. Serial No. 77,233. (Cl. 97—36.)



1. The combination with a wheeled frame, of rearwardly extending brackets, a rock shaft carried thereby and having downwardly extending divergent arms, a frame having side members connected with and carried by said divergent arms, arms extending forwardly from the rock shaft, links connecting said arms with portions of the side members of the frame that extend forwardly with respect to the divergent arms, a crank arm extending downwardly from the rock shaft, a hand lever, and a rod connecting the hand lever with the crank arm.

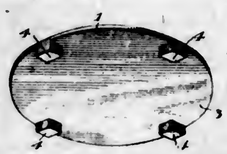
2. The combination with a wheeled frame, of rearwardly extending brackets, a rock shaft carried thereby and having radially extending arms, a frame connected with and carried by said arms, and means for rocking the shaft to move the frame toward and from the ground, said means comprising a spring pressed hand lever, a crank arm connected with the rock shaft, and a rod connecting the crank arm with the hand lever.

3. The combination with a wheeled frame, of rearwardly extending brackets, a rock shaft carried thereby, a frame connected with and swingingly carried by the rock shaft, means including a hand lever for actuating the rock shaft, a brace member pivotally connected with the rearward end of the frame and having a terminal hook, and a keeper having a slot adapted to be engaged by the hook.

4. The combination with a wheeled frame, of rearwardly extending brackets, a rock shaft carried thereby, a frame connected with and swingingly carried by the rock shaft, means including a hand lever for actuating the rock shaft, a brace member pivotally connected with the rearward end of the frame and having a terminal hook, and a keeper having a slot adapted to be engaged by the hook; and means for releasing the hook from the keeper, said means including a rock shaft having a tongue engaging the brace and a radial arm, a foot lever, and a rod connecting the radial arm of the rock shaft with the foot lever.

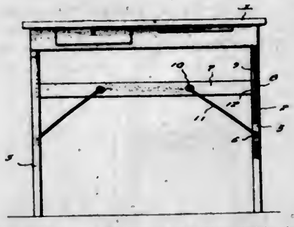
5. A wheeled frame having rearwardly extending brackets and an arch connecting the same, a rock shaft carried by the bracket, a frame connected with and swingingly supported by the rock shaft, means for actuating the rock shaft including a spring pressed hand lever, a crank arm connected with the rock shaft, and a rod connecting the crank arm with the hand lever, a brace pivotally connected with the rearward portion of the frame and having a terminal hook, a keeper supported on the arch and having a slot adapted to be engaged by the hook, and pedal means for releasing the hooked brace from the keeper.

1,206,569. CAKE-PLATE. ELIZABETH HENDERSON MAGAH, Reedville, Va. Filed Mar. 31, 1915. Serial No. 18,361. (Cl. 65—15.)



A device for the purpose described, comprising a solid plate having a smooth, plane upper surface free from protuberances and depressions, said plate having feet projecting from its lower surface and each of a height to elevate the lower surface from a support for a distance sufficient to admit the human hand flatwise beneath the plate when so supported, and said feet being located at the outer edge portions of the plate and being spaced apart a distance sufficient to permit the introduction of the laterally contracted human hand between them but to prevent the withdrawal of the hand when laterally spread.

1,206,570. REMOVABLE BRACE-BAR FOR TYPEWRITER TABLES. FRANCIS M. MARSH, Atlanta, Ga. Filed June 15, 1915. Serial No. 34,235. (Cl. 45—11.)



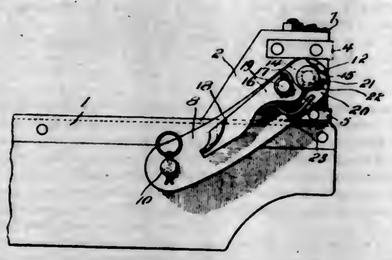
The combination with a typewriter table including a table top and legs hinged to the table top and adapted to support the same, the said legs being provided with longitudinal grooves near their upper ends and having longitudinal slots formed below the grooves, of a horizontal brace bar, tongues on opposite ends of the brace bar adapted to enter the grooves in the legs, hooks pivoted to the bar intermediate its ends, said hooks being positioned in the slots and pins extending transversely through the slots over which the hooks engage to prevent the brace bar from being accidentally removed.

1,206,571. EXTENSION RUNNING-BOARD FOR AUTOMOBILES. HUGH B. MASON, San Bernardino, Cal., assignor of one-half to Byron Gay, San Bernardino, Cal. Filed Apr. 9, 1915. Serial No. 20,195. (Cl. 224—29.)

1. The combination with an automobile, of a running board comprising a stationary section, a series of sections hinged thereto and adapted to fold over upon the stationary section and forming the tread of the running board, and means for supporting the hinged sections in a horizontal position in alinement.

2. The combination with an automobile, of a running board comprising a stationary section, a series of sec-

arranged on opposite sides of the bolster, a locking pin carried by one of the link arms and adapted for arrangement in the slot of the block and instantaneously releasable means to detachably secure the locking pin to the other link arm.

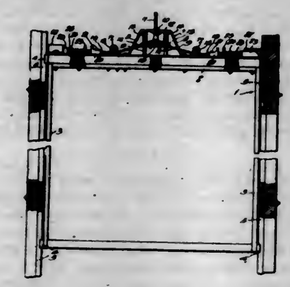


2. In combination with a bolster, a bumper block thereon having a transverse slot in its outer side, a pair of link arms pivotally mounted on opposite sides of the bolster, a locking pin pivotally connected to one of the link arms, adapted for arrangement in the slot of the block and for detachable engagement with the other link arm, and instantaneously releasable means on the last named link arm to detachably secure the locking pin to said link arm.

3. In combination with a bolster, a bumper block thereon having a transverse slot in its outer side, a pair of link arms pivotally mounted on opposite sides of the bolster, a locking pin pivotally connected to one of the link arms, adapted for arrangement in the slot of the block and for detachable engagement with the other link arm, instantaneously releasable means on the last named link arm to detachably secure the locking pin to said link arm, said instantaneously releasable means including a pivotally mounted shackle element and a spring to normally hold the same in engaged position.

4. In combination with a bolster, a bumper block thereon, having a transverse slot in its outer side and also provided with a guide extending across said slot, a pair of link elements arranged one on each side of the bolster, a locking pin flexibly connected to one link element and detachably connected to the other and adapted for arrangement in the slot of the bumper block, a locking element in and removable from the guide of the bumper block and instantaneously operable locking means on the last named link element to detachably secure the locking pin thereto.

1,206,566. ELEVATOR SAFETY-STOP. SOLOMON MAHER, North Adams, Mass. Filed July 13, 1916. Serial No. 109,116. (Cl. 187—84.)

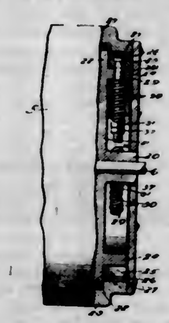


1. The combination with an elevator mounted in a shaft, a hoisting cable, rack bars secured to the opposite sides of said shaft, of a spring pressed cable holder slidably mounted on the elevator, a flat spring on the elevator connected intermediate its ends with said holder and bowed thereby, guides on the elevator adjacent its sides, bolts slidably mounted in said guides, rollers positioned above said flat spring adjacent its ends, blocks on the ends of said spring, inwardly projecting rods connecting the inner ends of said bolts with the blocks, stationary perforated plates through which the rods are adapted to slide, and coiled springs surrounding the rods between the plates and the inner ends of said bolts.

2. The combination with an elevator mounted in a shaft, a hoisting cable, rack bars secured to the opposite sides of said shaft, of a frame having downwardly projecting arms secured to the top of the elevator, a pair of upright standards in said frame, a plate slidably mounted in the frame on the standards, coiled springs surrounding said standards between the plate and the upper end of the frame, a cable holder secured to said plate and adapted to normally hold the same against the compression of the coiled springs, a flat spring on the elevator secured to the plate and projecting from between the arms of the frame, and bolts slidably mounted on the elevator adjacent its sides connected with the ends of said flat spring.

3. The combination of an elevator mounted in a shaft, a hoisting cable, rack bars secured to the opposite sides of said shaft; of a pair of upright standards on said elevator, a cable holder slidably mounted on said standards, coiled springs surrounding the standards and normally compressed by the holder when the cable is taut, a flat spring on the elevator connected with the cable holder, and bolts operated by the ends of the said spring adapted for engagement with the rack bars should the cable break.

1,206,567. REGULATOR FOR LIGHTING SYSTEMS. WILLIAM T. MANOGUE and CHARLES F. SCHROEDER, Evansville, Ind.; Louis E. Fricke, Evansville, Ind., executor of said Schroeder, deceased; said Manogue and said executor assignors to Schroeder Headlight Company, Evansville, Ind., a Corporation of Indiana. Filed Feb. 8, 1915. Serial No. 6,825. (Cl. 74—45.)



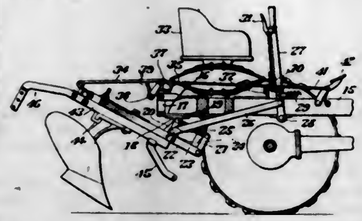
1. The combination with a rotating member, an annular flange on the end thereof spaced from the periphery, and provided with apertures, of a brake-shoe located on the outer side of the flange, pins connected with the shoe and extending radially through the apertures toward the longitudinal axis of the rotating member, springs carried by the pins and arranged to normally press said pins inwardly, a hub carried by the rotating member, a casing for the latter, and a plate extending from the hub to the end of the casing and constituting the outer portion of a chamber inclosing the pins and the outer portion of a chamber concentric with the first chamber and inclosing the shoe.

2. The combination with a rotating member, an annular flange on the end thereof spaced from the periphery, and provided with apertures, of a brake-shoe located on the outer side of the flange, pins connected with the shoe and extending radially through the apertures toward the longitudinal axis of the rotating member, springs carried by the pins and arranged to normally press said pins inwardly, a hub carried by the rotating member, a casing, a flange projecting longitudinally and radially from the casing, a plate extending from the hub to the flange on the casing and constituting the outer portion of a chamber inclosing the pins and a chamber concentric with the first chamber and inclosing the shoe.

3. The combination with a drum of a motor and brake supporting means carried by the drum, of a brake shoe carried by the supporting means and having an exterior bearing surface presenting an arc of a circle of substantially the same diameter as that of the drum, and a substantially cylindrical casing having a bore for the drum and forming a bearing surface for the shoe operating within said bore.

4. The combination with a rotating member constituting the drum of a motor, of a casing therefor, having an inwardly and longitudinally extending flange on one end, said rotating member having a flange concentric with the flange of the casing, a brake shoe between the flanges, supporting means for the shoe, and a plate extending across the outer portion of each flange and inclosing the shoe.

1,206,568. FARM IMPLEMENT. GILBERT P. MARINIER, Pontiac, Mich. Filed Feb. 9, 1916. Serial No. 77,233. (Cl. 97—36.)



1. The combination with a wheeled frame, of rearwardly extending brackets, a rock shaft carried thereby and having downwardly extending divergent arms, a frame having side members connected with and carried by said divergent arms, arms extending forwardly from the rock shaft, links connecting said arms with portions of the side members of the frame that extend forwardly with respect to the divergent arms, a crank arm extending downwardly from the rock shaft, a hand lever, and a rod connecting the hand lever with the crank arm.

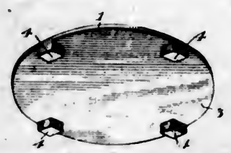
2. The combination with a wheeled frame, of rearwardly extending brackets, a rock shaft carried thereby and having radially extending arms, a frame connected with and carried by said arms, and means for rocking the shaft to move the frame toward and from the ground, said means comprising a spring pressed hand lever, a crank arm connected with the rock shaft, and a rod connecting the crank arm with the hand lever.

3. The combination with a wheeled frame, of rearwardly extending brackets, a rock shaft carried thereby, a frame connected with and swingingly carried by the rock shaft, means including a hand lever for actuating the rock shaft, a brace member pivotally connected with the rearward end of the frame and having a terminal hook, and a keeper having a slot adapted to be engaged by the hook.

4. The combination with a wheeled frame, of rearwardly extending brackets, a rock shaft carried thereby, a frame connected with and swingingly carried by the rock shaft, means including a hand lever for actuating the rock shaft, a brace member pivotally connected with the rearward end of the frame and having a terminal hook, and a keeper having a slot adapted to be engaged by the hook; and means for releasing the hook from the keeper, said means including a rock shaft having a tongue engaging the brace and a radial arm, a foot lever, and a rod connecting the radial arm of the rock shaft with the foot lever.

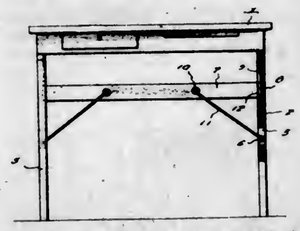
5. A wheeled frame having rearwardly extending brackets and an arch connecting the same, a rock shaft carried by the bracket, a frame connected with and swingingly supported by the rock shaft, means for actuating the rock shaft including a spring pressed hand lever, a crank arm connected with the rock shaft, and a rod connecting the crank arm with the hand lever, a brace pivotally connected with the rearward portion of the frame and having a terminal hook, a keeper supported on the arch and having a slot adapted to be engaged by the hook, and pedal means for releasing the hooked brace from the keeper.

1,206,569. CAKE-PLATE. ELIZABETH HENDERSON MARSH, Reedville, Va. Filed Mar. 31, 1915. Serial No. 18,361. (Cl. 65—15.)



A device for the purpose described, comprising a solid plate having a smooth, plane upper surface free from protuberances and depressions, said plate having feet projecting from its lower surface and each of a height to elevate the lower surface from a support for a distance sufficient to admit the human hand flatwise beneath the plate when so supported, and said feet being located at the outer edge portions of the plate and being spaced apart a distance sufficient to permit the introduction of the laterally contracted human hand between them but to prevent the withdrawal of the hand when laterally spread.

1,206,570. REMOVABLE BRACE-BAR FOR TYPEWRITER TABLES. FRANCIS M. MARSH, Atlanta, Ga. Filed June 15, 1915. Serial No. 34,235. (Cl. 45—11.)



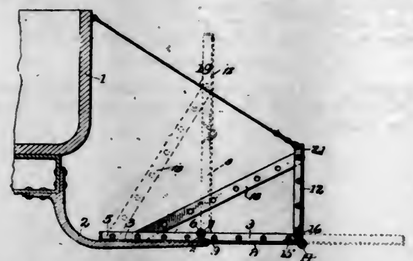
The combination with a typewriter table including a table top and legs hinged to the table top and adapted to support the same, the said legs being provided with longitudinal grooves near their upper ends and having longitudinal slots formed below the grooves, of a horizontal brace bar, tongues on opposite ends of the brace bar adapted to enter the grooves in the legs, hooks pivoted to the bar intermediate its ends, said hooks being positioned in the slots and pins extending transversely through the slots over which the hooks engage to prevent the brace bar from being accidentally removed.

1,206,571. EXTENSION RUNNING-BOARD FOR AUTOMOBILES. HUGH B. MASON, San Bernardino, Cal., assignor of one-half to Byron Gay, San Bernardino, Cal. Filed Apr. 9, 1915. Serial No. 20,195. (Cl. 224—29.)

1. The combination with an automobile, of a running board comprising a stationary section, a series of sections hinged thereto and adapted to fold over upon the stationary section and forming the tread of the running board, and means for supporting the hinged sections in a horizontal position in alinement.

2. The combination with an automobile, of a running board comprising a stationary section, a series of sec-

tions movably connected thereto and adapted to fold over the stationary section and forming the tread of the running board, means for supporting the movable sections in a horizontal position in alinement, and means for supporting the movable section or sections in a vertical position.



3. The combination with an automobile, of a running board comprising a stationary section, a series of hinged sections folding in opposite directions, and means for supporting the sections in a horizontal position in alinement, and means for supporting the outer section or sections in a vertical position.

4. The combination with an automobile, of a running board, comprising a series of hinged sections folding in opposite directions, and a bar adapted to support the sections in a horizontal position in alinement with each other.

5. The combination with an automobile, of a running board comprising a series of hinged sections folding in opposite directions, and a bar adapted to support the sections in a horizontal or vertical position, for the purpose described.

[Claims 6 to 10 not printed in the Gazette.]

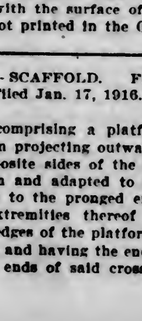
1,206,572. CONVERTIBLE FRONT TRACTOR GUIDE-WHEEL. URVA D. MAXSON, Portland, Oreg. Filed Feb. 17, 1916. Serial No. 78,953. (Cl. 21—J14.)



1. The combination of an inverted substantially U-shaped yoke, said yoke having openings through its arms to form bearings, an axle extending through said bearings and removably mounted therein, a pair of ground wheels each of a width substantially one-half the width of the space between the arms of the yoke removably mounted on said axle between the arms, and releasable locking means between the abutting sides of the two wheels to detachably unite them when they are disposed end to end between the arms of said yoke.

2. The combination of an inverted substantially U-shaped steering yoke carried by a vertical pivot, said yoke having alining openings through its arms to form bearings, an axle extending through said bearings and removably mounted therein, a pair of ground wheels each of a width substantially one half of the width of the space between the arms of the yoke and removably mounted on said axle between the arms of said yoke, inwardly projecting annular flanges on the inner edges of the rims of said wheels adapted to engage each other when the wheels are mounted between the arms of said yoke, said flanges having alining apertures therethrough, and fastening members projecting through said apertures to detachably unite the wheels.

1,206,573. WASHER FOR WALL-ANCHORS. NORMAN MELLOR, Philadelphia, Pa. Filed Apr. 28, 1914. Serial No. 834,966. (Cl. 85—2.4.)



1. A washer consisting of a plate of metal having an opening provided with an extension, a part of said washed being extended under said lateral extension to form a support.

2. A washer for a wall anchor consisting of a metallic plate having a central opening and a lateral extension therefrom, the metal from said central opening being extended substantially at right angles to the plane of the washer to form a collar around the opening and that from the lateral extension being projected under the same but spaced away from the body of the plate.

3. The combination of a wall anchor having a lateral projection at its head end, and a washer fitting said end and provided with a recess for the reception of the projection of said anchor, said washer having a portion extended under the projection to prevent the wall anchor passing completely through it.

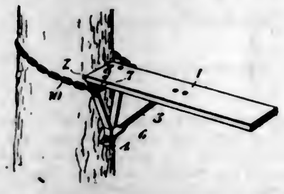
4. The combination of a wall anchor, having a lateral projection and a washer for the head end thereof provided with a lateral extension for said projection; said washer having means for preventing passage of said anchor therethrough beyond a position in which its top surface is substantially flush with the top surface of said washer.

5. The combination of a wall anchor having a lateral projection from its head end; with a washer having a central opening fitting the head end of said wall anchor and provided with a lateral extension from its central recess for the reception of the extension from the wall anchor, the material of the washer being projected under said extension in position to retain the head end of the wall anchor flush with the surface of said washer.

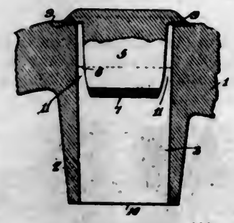
[Claims 6 to 9 not printed in the Gazette.]

1,206,574. TREE-SCAFFOLD. FERDINAND MILLER, Seattle, Wash. Filed Jan. 17, 1916. Serial No. 72,527. (Cl 20—84)

A tree scaffold comprising a platform, spurs at one end of said platform projecting outwardly therefrom and disposed at the opposite sides of the longitudinal center line of the platform and adapted to penetrate the tree, a cross bar secured to the pronged end of the platform and having the extremities thereof projecting beyond the respective side edges of the platform, a chain adapted to surround the tree and having the ends thereof fastened, respectively, to the ends of said cross bar, a brace arm having one end secured to the bottom of said platform adjacent to the transverse center line thereof and projecting downwardly therefrom toward the spur end and having the lower end formed with a spur adapted to penetrate the tree, and a yoke connected with the bottom of said platform immediately adjacent to said cross bar and first-mentioned spurs and depending therefrom and secured to the spur end of said arm.

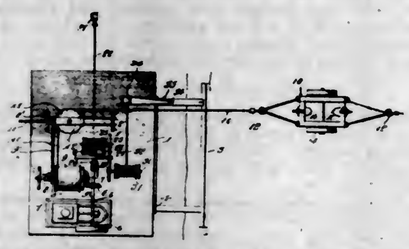


1,206,575. HAMMER. JOHN H. MOORE, Marsden, Okla., assignor of one-half to Edward G. Siggers, Washington, D. C. Filed June 22, 1915. Serial No. 35,644. (Cl. 145—79.)



The method of providing hammer or other tool heads with handle holding wedges integrally united thereto and located in the handle receiving eyes of said heads, which consists in providing a cap plate of greater area or spread than the area of the outer end of the eye and having a wedge fast thereto and adapted to enter the eye of the hammer head, and then welding the edge portion of the cap plate to the exterior face of the hammer head about the eye with said cap plate exterior to the hammer head and projecting from the face of the head to which it is welded.

1,206,576. DRAFT APPLIANCE FOR PLOWS, &c. LOUIS K. MOSS, Birmingham, Ala. Filed Jan. 21, 1915. Serial No. 3,566. (Cl. 104—92.)



1. In combination, opposed trucks, a tractor movable from one to the other of the trucks, means on each truck to move the tractor, and means to move each truck for the purpose specified.

2. In combination, two trucks, a tractor movable from one to the other of the trucks, a motor mounted on each truck to move the tractor, means to free one motor during the operation of the other, means to bodily move the trucks through action of the motor, and means driven through action of the motor to elevate the tractor.

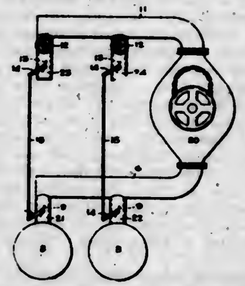
3. In a device of the character described, a platform, runners forming a support for the platform, means to brace the platform against lateral movement, a stationary support, a motor mounted on the platform, a drum, means to rotate the drum through action of the motor, and means wound upon the drum and connected to the stationary support for moving the truck longitudinally and toward said stationary support for the purpose specified.

4. In combination, a truck, an engine mounted thereon, a tractor, a stationary support, means mounted on the platform, and driven through action of the motor to move said truck toward said structure, means mounted on the platform and driven through action of the engine to move the tractor toward the truck, and a derrick mounted on the platform to move the tractor for the purpose specified.

5. In a device of the character described, a platform, a motor mounted thereon, an operating shaft driven through action of the motor, a drum on said shaft, a tractor, means connecting the tractor and the drum to move the former relatively to the platform, a friction disk mounted on the shaft, a second drum, a stationary support, means connecting the stationary support and the said second drum, means to rotate the drum through rotation of the first mentioned shaft, said means operating to move the truck bodily toward said stationary support through rotation of the drum, and means to brace the platform against lateral movement during actuation of the first mentioned drum to move the tractor.

[Claims 6 to 9 not printed in the Gazette.]

1,206,577. CENTRIFUGAL COMPRESSOR. SANFORD A. MOSS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 25, 1915. Serial No. 4,154. (Cl. 230—11.)



1. In an apparatus of the character described, the combination with a centrifugal compressor having inlet and discharge conduits, of throttling valve means in each conduit for throttling the flow therethrough, and means for simultaneously operating them.

2. In an apparatus of the character described, the combination with a centrifugal compressor having inlet and discharge conduits, of valve means in each conduit, and means for simultaneously operating them in the same sense.

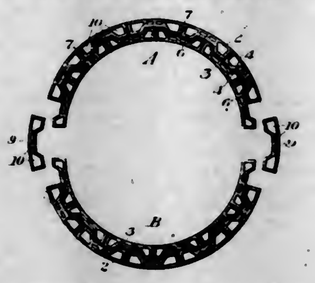
3. In an apparatus of the character described, the combination with a centrifugal compressor having a branched inlet conduit and a discharge conduit, of valve means in each branch of the inlet conduit, and in the discharge conduit, and means for simultaneously operating said valve means in the same sense.

4. In an apparatus of the character described, the combination with a centrifugal compressor having an inlet conduit and a branched discharge conduit, of valve means in the inlet conduit and in each branch of the discharge conduit, and means for simultaneously operating them in the same sense.

5. In an apparatus of the character described, the combination with a centrifugal compressor having a branched inlet conduit and a branched discharge conduit, of valve means in each of said branches, and an operative connection between a valve means in a discharge conduit and a valve means in an inlet conduit for simultaneously operating them.

[Claims 6 to 9 not printed in the Gazette.]

1,206,578. METHOD OF CONSTRUCTING HOLLOW CYLINDRICAL TILE CONDUITS. HARRY B. NAYLOR, Pittsburgh, Pa., assignor to National Fire Proofing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 29, 1914. Serial No. 853,832. (Cl. 72—51.)



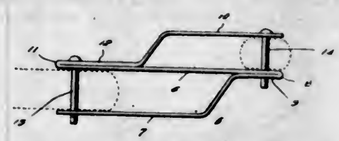
1. The method of constructing hollow cylindrical tile conduits, which consists in building up a plurality of separate segmental units or sections of a plurality of individual tiles, by laying the tiles in position with relation to each other and placing mortar in the joints between adjacent tiles, allowing the mortar to set to secure the tiles to each other, then assembling said units or sections to form a cylindrical structure, and then uniting the units at their meeting edges by keying tiles, and placing mortar between adjacent keying tiles and the keying tiles and tiles of the units, substantially as described.

2. The method of constructing hollow cylindrical tile conduits, which consists in building up a plurality of separate segmental units or sections of a plurality of individual tiles, by laying the tiles in position with relation to each other and placing mortar in the joints between adjacent tiles, allowing the mortar to set to secure the tiles to each other, then assembling said units or sections to form a cylindrical structure, and then uniting the sections both at their longitudinal meeting edges and also at their ends by means of keying tiles, and placing mortar between adjacent keying tiles and the keying tiles and the tiles of the sections, substantially as described.

3. The method of constructing hollow cylindrical tile conduits, which consists of building up a plurality of separate segmental units or sections, each composed of an inner and an outer course of tiles, one of the courses being complete and the other course being incomplete at both the longitudinal and end edges of the sections, then assembling said units or sections to form the cylindrical structure, and completing the outer courses or adjacent sections by inserting tiles which overlap adjacent sections both longitudinally and endwise, substantially as described.

4. The method of constructing hollow cylindrical tile conduits, which consists in building up a plurality of separate segmental units or sections each having an inner and outer course composed of a plurality of individual tiles which are laid up in position with relation to each other, and placing mortar in the joints between adjacent tiles, allowing the mortar to set to secure the tiles to each other, then assembling said sections to form a cylindrical structure, and then uniting said sections at their meeting edges by means of keying tiles and placing mortar in the joints between adjacent keying tiles and the keying tiles and adjacent tiles of the sections, substantially as described.

1,206,579. CLEVIS. ERVIN L. NICHOLS, Roundup, Mont. Filed July 25, 1916. Serial No. 111,299. (Cl. 97—4.)



1. A clevis, made from a single strip of flat metal bent to provide a relatively long central member, and two oppositely disposed spaced and parallel members, the junction of the respective parallel members being formed at the opposite ends of the intermediate member.

2. A clevis, made from a single strip of flat metal bent to provide a relatively long central member, and two oppositely disposed spaced and parallel members, the junction of the respective parallel members being formed at the opposite ends of the intermediate member, said junction being formed by bending the end of the intermediate member and providing a portion of the respective parallel members co-extensive therewith, the free terminals of the parallel members being apertured, as also the terminals of the intermediate member, for the reception of connecting pins.

1,206,580. FLOOR CONNECTION FOR CLOSET-BOWLS AND SOIL-PIPES. MICHAEL O'LEARY, Syracuse, N. Y. Filed Sept. 11, 1915. Serial No. 50,220. (Cl. 137—94.)

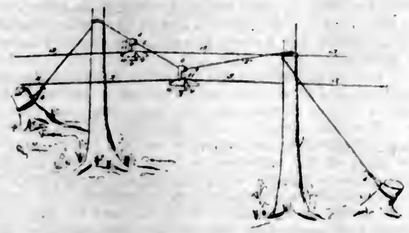


A floor and soil pipe connection for closet bowls, said bowl having its base provided with a central annular flange co-axial with the soil pipe and a relatively larger annular flange resting upon the floor and forming with the inner annular flange an intervening chamber, a collar attached to the upper end of the soil pipe and extending into said chamber, means for securing the collar to the floor, studs secured to the collar and projecting upwardly through openings in the base of the bowl between said flanges, blocks slidably fitted on the upper ends of said studs and resting upon the base of the bowl, nuts engaging the upper ends of the studs for clamping the blocks in place and securing the base of the bowl to the floor, a packing ring wholly within said chamber between the base of the bowl and collar and provided with bearings, and adjusting screws engaged in threaded apertures in the blocks and passing through openings in the base of the bowl and engaged with the packing ring for tightening the latter.

1,206,581. OVERHEAD-CARRIER TRACK-LINE. ANDREW OPSAL, Vancouver, British Columbia, Canada, assignor to Sophy Opsal, Vancouver, British Columbia, Canada. Filed June 26, 1915. Serial No. 36,464. (Cl. 104—146.)

1. In an overhead wire rope track, means for suspending the track rope beneath the cross ropes by which it is supported, said means comprising suspending hangers having eyes through which the cross ropes pass and wedge keys located in said eyes for adjustably securing the hangers to the cross ropes.

2. In an overhead wire rope track, the combination with supporting cross ropes extending between suitable upright supports on each side of the track line, track rope suspending hooks endwise adjustable on the cross ropes, and a track rope beneath the cross ropes and connected to the suspending hooks, said suspending hooks including eyes through which the cross ropes pass and wedge devices for securing said hooks to the cross ropes.



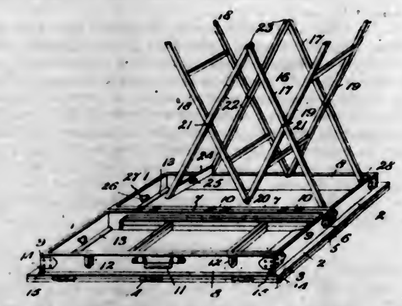
3. In an overhead wire rope track, the combination with cross ropes extending between suitable upright supports on each side of the track line, means for suspending the track rope beneath each cross rope, said means comprising a member having an eye portion which is endwise movable on the cross rope and a portion downwardly projecting from one end of the eye and inwardly turned horizontally under it, means for securing the suspension member on the cross rope, and means for connecting the track rope to the upper side of the horizontally disposed portion of the suspending means.

4. In an overhead wire rope track comprising the combination with the cross ropes and the track rope, of means for suspending the track rope beneath the cross ropes, said means comprising suspending hooks to which the track rope is secured, said hooks having eyes through which the cross ropes pass, and means coöperative with said eyes for clamping the said hooks at any desired position along the cross ropes.

5. In an overhead wire rope track, the combination with cross ropes extending between suitable upright supports on each side of the track line, means for suspending the track rope beneath each cross rope, said means comprising a member having an eye portion which is endwise movable on the cross rope and a portion downwardly projecting from one end of the eye and inwardly turned horizontally under it, said horizontally turned portion having an upwardly projecting jaw, means for securing the suspension member on the cross rope, a track rope connecting member pivotally mounted in the jaw of the suspension member the upper edge of which track rope connection is convex and grooved to receive the track rope, and means for attaching the track rope adjacent the middle of the pivotally mounted members.

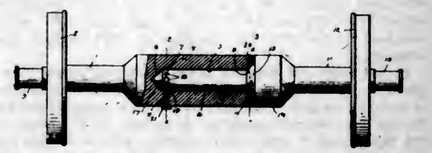
[Claims 6 to 9 not printed in the Gazette.]

1,206,582. FOLDING TABLE. DOMENICO OROFINO, New York, N. Y. Filed Oct. 5, 1915. Serial No. 54,212. (Cl. 45—116.)



A table comprising a top, side and end frame walls attached thereto, a plurality of sets of lazy tong legs pivotally connected together, one set of legs being pivotally connected with the side frame walls at the inner sides thereof and in the vicinity of one end of the top, and means located on the end wall of the frame at the opposite end of the top, and at the inner side thereof for securing one of the other sets of legs to the end frame of the wall at the opposite end of the top.

1,206,583. CAR-AXLE. JOHN PALLEY, Springvalley, Ill. Filed May 27, 1916. Serial No. 100,240. (Cl. 105—68.)



1. In a car axle, a pair of axle sections, an enlargement on the inner end of one of said sections, said enlargement being provided with an axial bore, an extension on the inner end of the opposite section adapted to fit in the bore of the enlargement, ball bearings positioned between the enlargement and the second axle section, the enlargement being provided with an internal annular groove, the extension being provided with a plurality of pockets arranged in alinement with the groove, and bearing balls positioned in the pockets and fitting into the groove to prevent the axle sections from being separated and to provide a frictionless bearing.

2. A car axle comprising a pair of axle sections, an enlargement on one of said axle sections, said enlargement being provided with an axial bore and having a groove formed near the inner end of the bore, said groove providing an annular ball race, the enlargement also having a radial opening communicating with the groove, an enlargement at the inner end of the coöperating axle section, a frusto-conical bearing element formed at the inner end of the enlargement, the first mentioned enlargement having an annular groove near its inner end forming a ball race, balls positioned in said groove and bearing on the frusto-conical bearing element, a cylindrical extension formed at the outer end of the element and projecting into the axial bore in the first mentioned enlargement, the inner end of said extension being provided with an annular row of ball bearing receiving pockets, bearing balls positioned in the pockets and projecting into the inner groove to prevent relative lateral movement of the axle sections with relation to each other and a screw positioned in the opening to prevent the balls from being accidentally removed.

1,206,584. NECKLACE. JAMES A. PALMER, Cranston, R. I., assignor to Parks Bros. & Rogers, Providence, R. I., a Firm composed of William C. Parks, Brooklyn, N. Y., and Everett I. Rogers, Providence, R. I. Filed Aug. 27, 1914. Serial No. 858,943. (Cl. 24—116.)



1. An article of the character described, comprising a chain, a series of beads mounted thereon, a bead member at one end of the chain provided with a longitudinal slot having an enlarged end, means upon the end of the chain engaging the interior of said bead member, and a bead member at the other end of the chain provided with means projecting from one end and adapted to engage the slot in the other bead member, and means projecting from the opposite end and adapted to engage the end of the chain.

2. An article of the character described, comprising a chain provided with a ball at one end, a series of beads mounted thereon, a bead member mounted upon the ball

end of said chain and having a longitudinal slot provided with an enlarged opening at one end, and a bead member provided with a pin mounted therein and having one end project upon the outside and provided with an enlarged head, and having the opposite end project upon the outside and connected to the opposite end of the chain.

3. An article of the character described, comprising a chain, a series of beads mounted thereon, a bead member at one end of said chain provided with a longitudinal slot having an enlarged opening, a second bead member at the other end of said chain provided with a headed projection adapted to engage the walls of said slot, and means adapted to indicate the position of said slotted bead member.

4. An article of the character described, comprising a chain, a series of beads mounted thereon, a bead member at one end of said chain provided with a longitudinal slot having an enlarged opening, a second bead member at the other end of said chain provided with a headed projection adapted to engage the walls of said slot, and means adapted to indicate the position of said longitudinal slot.

5. An article of the character described, comprising a chain, a series of beads mounted thereon, a double bead member comprising two beads jointed to each other, an enlarged opening between said beads, a small opening and an external projection in one of said beads, a longitudinal slot having an enlarged end portion in the other of said beads, and a second bead member provided with a headed projection adapted to engage the walls of said slot.

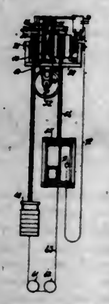
[Claims 6 and 7 not printed in the Gazette.]

1,206,585. TOOL FOR SHOEMAKERS. JAMES N. PARRAHM, Kansas City, Mo. Filed Jan. 6, 1916. Serial No. 70,630. (Cl. 12—104.)



A shoemaker's tool, including a handle having a tapered end, and a metal cap therefor V-shaped in longitudinal section fitting upon the tapered end, and forming a smoothing and burnishing implement.

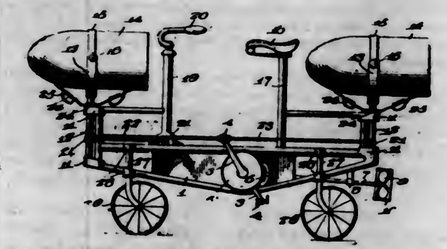
1,206,586. ELECTRIC TRACTION-ELEVATOR. EDWARD G. PARVIN, Roselle Park, N. J. Filed Aug. 8, 1914. Serial No. 855,721. (Cl. 187—20.)



1. In an apparatus of the character described the combination of a motor having a rotatable field yoke with a driving sheave thereon, a driving sheave on the armature shaft of the motor, the armature shaft rotating in a direction opposite to that of the field yoke, an idler sheave below the motor, a bracket extending from the frame of the motor, a solenoid in said bracket, a brake pulley formed with the field yoke, a brake pulley on the armature shaft, a brake strap for each brake pulley, connections between the solenoid and straps, and a cage for the apparatus and means operated by the driving sheaves to actuate the cage.

2. In an apparatus of the character described the combination of one electric motor having a rotatable field yoke, a sheave formed with the yoke, the yoke rotating in a direction opposite to the armature of the motor, a sheave fastened to the armature shaft, a brake pulley on the shaft of the armature, a brake pulley for the field yoke, brake straps for the brake pulleys, a rock shaft between said brake pulleys, a link connecting each of the brake straps to the rock shaft, a solenoid for the brake straps, and connections between said rock shaft and solenoid to operate the rock shaft and thereby the brake straps.

1,206,587. BICYCLE-BOAT. LEWIS PETERSON, Madrid, Iowa. Filed Mar. 1, 1916. Serial No. 81,476. (Cl. 115—2.)



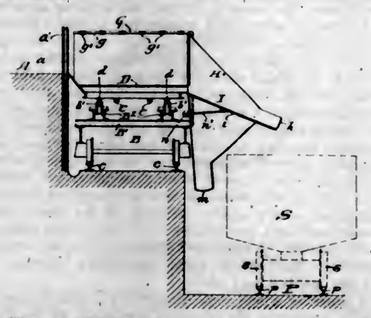
1. In a bicycle boat, a frame, propelling means on the frame, floats connected to the opposite ends of the frame and disposed above the latter to hold the frames suspended in the water, pivotal connections between each float and the frame whereby the float may have vertical swinging movement to adapt itself to rough water, and means for limiting the swinging movement of the float and returning the same to normal position.

2. In a bicycle boat, a frame, propelling means on said frame, vertical shafts journaled in the opposite ends of said frame, floats secured to the upper ends of said shafts respectively, and acting to hold the frame suspended in the water, a vertical steerage shaft on the frame, connections between said steering shaft and the front float carrying shaft whereby the latter may be rotated to turn the float to steer the boat, and connections between the front float shaft and the rear float shaft whereby the latter will be rotated to rotate the float thereon in the relatively opposite direction to facilitate the steering of the boat.

3. In a bicycle boat, a frame, propelling means on said frame, vertical shafts journaled in the opposite ends of said frame, yokes on the upper ends of said shafts respectively, floats mounted in said yokes and acting to hold the frame suspended in the water, a vertical steering shaft on the frame, connections between said steering shaft and the front float carrying shaft whereby the latter may be rotated to turn the float to steer the boat, and connections between the front float shaft and the rear float shaft whereby the latter will be rotated to rotate the float thereon in the relatively opposite direction to facilitate the steering of the boat.

1,206,588. APPARATUS FOR QUENCHING, SCREENING, AND LOADING COKE. CHARLES PIEZ, Chicago, Ill., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed May 8, 1912. Serial No. 696,005. (Cl. 202—5.)

1. The combination in a series of coke ovens having the discharge openings at one end, of a track extending along the front of the ovens; a car arranged to travel on the track so as to be moved in front of any one of the ovens; a longitudinally moving platform on the car; means for moving the platform so that as the platform is moved past the discharge end of the coke oven, while the coke is being discharged, the coke will be distributed over the platform.



2. The combination in an apparatus for quenching, screening and loading coke, of a series of coke ovens having their discharge openings at the same end; a track located at the discharge ends of the coke ovens and extending parallel with the faces of the ovens and below the discharge openings; a car arranged to travel on the track so as to be placed in front of any one of the ovens; a platform mounted on the car and arranged to move longitudinally thereon; a fixed quenching device on the car and extending over the platform, said platform arranged to receive coke from an oven in front of which the car is located; and means for longitudinally moving the platform independently of the car so that the platform is moved at a given speed as the coke is discharged from the oven in order that it will be spread on the platform and, as the movement of the platform continues, the coke will pass under the quenching device and be quenched.

3. The combination in an apparatus for quenching, screening and loading coke, of a series of coke ovens having their discharge openings at the same end; a track located at the discharge ends of the coke ovens and extending parallel with the faces of the ovens and below the discharge openings; a car arranged to travel on the track so as to be placed in front of any one of the ovens; a platform mounted on the car and arranged to move longitudinally thereon; a fixed quenching device on the car and extending over the platform, said platform arranged to receive coke from an oven in front of which the car is located; means for longitudinally moving the platform independently of the car so that the platform is moved at a given speed as the coke is discharged from the oven in order that it will be spread on the platform and, as the movement of the platform continues, the coke will pass under the quenching device and be quenched; a plow pivoted at one side of the car and arranged to extend diagonally over the platform; and a chute at the side of the car in line with the plow so that after the platform has moved forward and receives the coke the discharge plow can be moved so as to discharge the coke laterally from the platform on its return movement.

1,206,589. VALVE-GRINDER. VALENTINE PIPSHIK, New York, N. Y. Filed June 27, 1916. Serial No. 106,215. (Cl. 51—4.)

A valve grinder including a stem, a handle mounted on one end thereof, the opposite end of the stem being integrally formed to engage the valve, said stem being formed with opposite sinuous grooves, and a sleeve slidably embracing the stem and formed at diametrically opposite points with countersunk threaded openings, and pins threaded in said openings and having reduced plain terminals to freely engage the sinuous grooves, the sleeve loosely fitting the stem and the plain terminals of the



pins loosely fitting the grooves, whereby to avoid sticking in operation.

1,206,590. COOLING APPARAUS. RUDOLPH PURDUE, Daytona, Fla. Filed Nov. 10, 1914. Serial No. 871,347. (Cl. 261—3.)



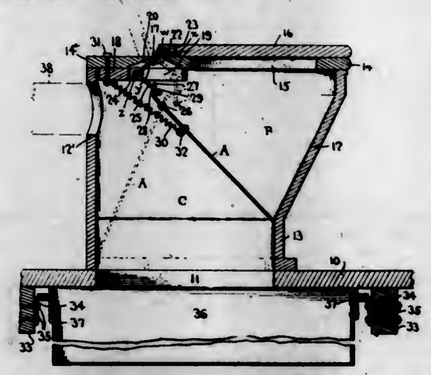
Cooling apparatus comprising a hollow cylindrical liquid container, a rotary hollow cylinder journaled to revolve on a horizontal axis therein while partially submerged in the liquid and abutting at its ends against the container heads, said cylinder inclosing an evaporating surface consisting of a spirally rolled sheet, ties connecting the convolutions of said sheet, means interposed between said convolutions to maintain the same in spaced relation to each other, liquid inlet and outlet connections, inlet and outlet connections for air under pressure, and propelling flights arranged around the periphery of the cylinder in the path of the inflowing liquid.

1,206,591. DRY CLOSET. EBEN W. PYLE, Wichita Falls, Tex. Filed Jan. 19, 1915. Serial No. 3,119. (Cl. 4—20.)

1. In a dry closet, a bowl having an opening in its top and an opening in its bottom and also provided with a vent opening adjacent its upper edge, a seat member for the bowl including a seat opening and a slot, a lid hingedly connected to the seat member, a plate swingingly mounted on an axis in the rear portion of the bowl, a lug connected to the underside of the lid and projecting through the slot of the seat member with the portion of the lug which extends into the bowl having an eye, said plate having an apertured lug, a connection between the aperture of the lug of the lid and the apertured lug of the plate whereby, upon closing the lid the plate may be swung forward across the bowl between the top and bottom openings thereof to divide the bowl into upper and lower compartments and from the lower compartment of which odors and fumes may be vented through said vent opening when the lid is closed.

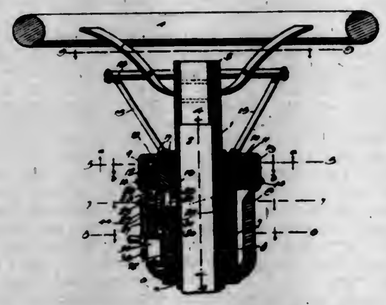
2. In a dry closet, a bowl having an opening in its top and an opening in its bottom and also provided with a vent opening adjacent its upper edge, a seat member for the bowl including a seat opening and a slot, a lid

hingedly connected to the seat member, a plate swingingly mounted on an axis in the rear portion of the bowl, a lug connected to the underside of the lid and projecting through the slot of the seat member and having an eye, said plate having an apertured lug, a connection between the aperture of the lug of the lid and the apertured lug of the plate whereby upon closing the lid the plate may be swung forward across the bowl between the top and bottom openings thereof, and means having connection with the plate to swing the latter rearwardly of the bowl when the lid is raised.



3. In a dry closet, a bowl having an opening in its top and an opening in its bottom and also provided with a vent opening adjacent its upper edge, a seat member for the bowl including a seat opening and a slot, a lid hingedly connected to the seat member, a plate swingingly mounted on an axis in the rear portion of the bowl, a lug connected to the underside of the lid and projecting through the slot of the seat member and having an eye, said plate having an apertured lug, a connection between the aperture of the lug of the lid and the apertured lug of the plate, whereby upon closing the lid, the plate may be swung forward across the bowl between the top and bottom openings thereof to divide the bowl into upper and lower compartments, means having connection with the plate to swing the latter rearwardly of the bowl when the lid is raised, and a receptacle having connection with the bowl through the bottom thereof.

1,206,592. STEERING-WHEEL LOCK. WILLIAM HENRY RANDALL, Kansas City, Kans. Filed July 13, 1916. Serial No. 109,113. (Cl. 70—90.)



1. A steering wheel lock comprising a ring adapted to rotatably surround the steering post and to be rigidly secured to the steering wheel, a tubular locking member adapted to surround said post slidably below said ring, coacting locking teeth on said member and ring to be interengaged when the former is raised, an inclined cam on the lower end of said locking member, a second tubular member adapted to rotatably surround the post below said locking member, a second cam on said second member engaging the cam on said locking member, the adjacent ends of both of said members having elongated apertures, a horizontal rotary shaft carrying at its inner end a head equipped with projections fitting into said apertures whereby rotation of said shaft will turn the two members in opposite directions to raise the locking member, and means for locking said shaft.

2. A steering wheel lock comprising a ring adapted to rotatably surround the steering post and to be rigidly secured to the steering wheel, a tubular locking member adapted to surround said post slidably below said ring, coacting locking teeth on said member and ring to be interengaged when the former is raised, an inclined cam on the lower end of said locking member, a second tubular member adapted to rotatably surround the post below said locking member, a second cam on said second member engaging the cam on said locking member, the adjacent ends of both of said members having elongated apertures, a horizontal rotary shaft carrying at its inner end a head equipped with projections fitting into said apertures whereby rotation of said shaft will turn the two members in opposite directions to raise the locking member, and means for locking said shaft.

3. A steering wheel lock comprising a ring adapted to rotatably surround the steering post and to be rigidly secured to the steering wheel, a tubular locking member adapted to surround said post slidably below said ring, coacting locking teeth on said member and ring to be interengaged when the former is raised, an inclined cam on the lower end of said locking member, a second tubular member adapted to rotatably surround the post below said locking member, a second cam on said second member engaging the cam on said locking member, the adjacent ends of both of said members having elongated apertures, a horizontal rotary shaft carrying at its inner end a head equipped with projections fitting into said apertures whereby rotation of said shaft will turn the two members in opposite directions to raise the locking member, a toothed wheel secured on said shaft, a locking bolt cooperating with said wheel for securing the same against movement, and means for operating said bolt.

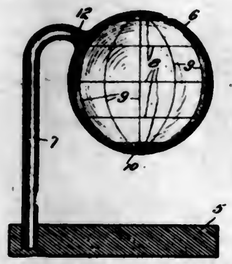
4. A steering wheel lock comprising a ring adapted to rotatably surround the steering post and to be rigidly secured to the steering wheel, a tubular locking member adapted to surround said post slidably below said ring, coacting locking teeth on said member and ring to be interengaged when the former is raised, an inclined cam on the lower end of said locking member, a second tubular member adapted to rotatably surround the post below said locking member, a second cam on said second member engaging the cam on said locking member, the adjacent ends of both of said members having elongated apertures, a horizontal rotary shaft carrying at its inner end a head equipped with projections fitting into said apertures whereby rotation of said shaft will turn the two members in opposite directions to raise the locking member, and means for operating said bolt.

5. A steering wheel lock comprising a ring adapted to rotatably surround the steering post and to be rigidly secured to the steering wheel, a tubular locking member adapted to surround said post slidably below said ring, coacting locking teeth on said member and ring to be interengaged when the former is raised, an inclined cam on the lower end of said locking member, a second tubular member adapted to rotatably surround the post below said locking member, a second cam on said second member engaging the cam on said locking member, the adjacent ends of both of said members having elongated apertures, a horizontal rotary shaft carrying at its inner end a head equipped with projections fitting into said apertures whereby rotation of said shaft will turn the two members in opposite directions to raise the locking member, a toothed wheel secured on said shaft, a locking bolt cooperating with said wheel to lock the shaft against

movement, and a plurality of rotary tumblers having openings to be alined to permit retraction of said bolt.

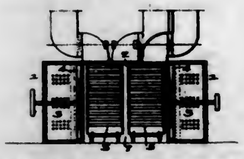
[Claim 6 not printed in the Gazette.]

1,206,593. LEVEL. RAINIER F. REED, Des Moines, Iowa. Filed Feb. 10, 1915. Serial No. 7,341. (Cl. 33—206.)



A level comprising a base, a spherical transparent hollow body having external meridian and latitude lines thereon indicative of a scale, a tubular stem having an open end detachably fitted within the base, said stem being formed with a goose neck merging into the transparent hollow body for suspending the same at one side of the stem and elevated above the base, a spherical element insertible through the stem into the body and freely movable therein for coöperating with said scale, and a plug insertible in the stem for closing the communication between the stem and the body at a point where the goose neck merges into the body.

1,206,594. PROCESS OF DRYING LEATHER AND OTHER COMPOSITION BOARDS. WILLIAM H. RIHL, Philadelphia, Pa., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 9, 1914. Serial No. 876,303. (Cl. 34—24.)

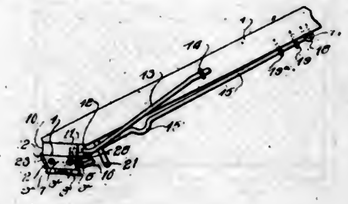


1. The process herein described of drying leather and other composition boards, said process consisting in mounting the board loosely on a frame so as to prevent access of air to one side of the board at the edges thereof and subjecting the board to a current of air whereby the body of the board will dry more rapidly than the edges.

2. The process herein described of drying leather and other composition boards, said process consisting in protecting one side of the board near the edges thereof, subjecting the balance of the board to the action of currents of air so as to cause the body of the board to dry simultaneously with the edges or slightly in advance of the edges, to prevent buckling and warping of the board.

3. The process herein described of drying leather and other composition boards, said process consisting in mounting the board on a frame so as to prevent the access of air to one side of the board at the edges thereof; spacing the boards apart and directing a current of warm air through the spaces between the boards so that both sides of each board will be subjected to the currents of heated air with the exception of the underside near the edges thereof in order to dry the entire upper surface of each board and the lower surface of the body portion and to protract the drying of the lower portion of the board, near the edge thereof, so as to prevent buckling and warping of the board.

1,206,595. MOP. ORVILLE DOUGLASS ROGERS, Shoals, Ind. Filed Apr. 24, 1916. Serial No. 93,184. (Cl. 15—24.)



1. In a device of the class described, the combination of a head, a connector, a slot and pin connection between said connector and head, said connector being slidable for engagement and disengagement relatively to said head, said head and connector having recesses positioned to register with each other when the connector is in operative position, and a locking element for insertion in said recesses to hold said members against relative movement.

2. In a device of the class described, the combination of a head, a connector, a slot and pin connection between said connector and head, said connector being slidable for engagement and disengagement relatively to said head, said head and connector having recesses positioned to register with each other when the connector is in operative position, a handle carried by said head, and a laterally movable locking rod mounted on said handle and having a head positioned to enter the recesses in said connector and first mentioned head for locking said members together.

3. In a device of the class described, the combination of a head, plates secured thereto and having flanges projecting forwardly from the opposed side edges thereof, one of the flanges of each plate having a longitudinally extending open slot, the slot of one plate opening in the same direction as that of the other plate, and a connector bar of a width to fit between the flanges of said plates and provided with projections on one edge for interlocking engagement with said slots, said bar being slidable longitudinally relative to said head, and means for locking said bar against sliding movement.

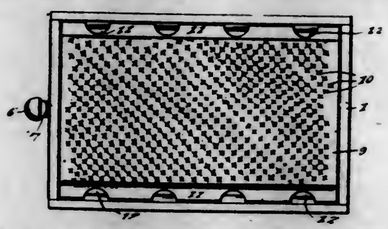
4. In a device of the class described, the combination of a head, plates secured thereto and having flanges projecting forwardly from the opposed side edges thereof, one of the flanges of each plate having a longitudinally extending open slot, and the other being inclined inwardly, the slot of one plate opening in the same direction as that of the other plate, and a connector bar fitting between the flanges of said plates and having one edge beveled to fit under the inclined flanges of said plates, pins extending laterally from the other edge of said bar for interlocking engagement with said slotted plate flanges, and means for locking said bar in operative position.

5. In a device of the class described, the combination of a head, plates secured thereto and having flanges projecting forwardly from the opposed side edges thereof, one of the flanges of each plate having a longitudinally extending open slot, the slot of one plate opening in the same direction as that of the other plate, both flanges of each plate each having a tongue cut out therefrom and bent in an opposite direction to its flange and apertured to receive a fastening element, a connector bar fitting between the flanges of said plates, coöperating interengaging elements carried by said bar and plates, and means for locking said bar in operative position.

1,206,596. CABINET-GRATER. NICHLAS ROMANO, Brattleboro, Vt. Filed May 12, 1916. Serial No. 97,087. (Cl. 146—15.)

1. A cabinet grater comprising a casing, substantially semicircular blocks secured within the casing and adjacent the top thereof, a grater secured to said blocks, and

means slidably mounted within the casing for collecting grated materials from the grater.



2. A cabinet grater comprising a casing, a removable cover secured to said casing, substantially semicircular blocks secured to the front and rear walls of the casing and adjacent the top, a grater secured to the blocks, flanges formed on the sides of the grater and provided with openings therein, and means slidably mounted within the casing and positioned below the grater for collecting the grated materials from the grater.

1,206,597. SHOE CUSHION-SOLE. ERNESTINE RUSSELL, Almira, Wash. Filed Jan. 31, 1914. Serial No. 815,624. (Cl. 36—59.)



In combination, a shoe sole proper having an opening adjacent the ball of the shoe, the upper face of the sole adjacent said opening being beveled downwardly and toward the opening, the outer edges of the bevel being elliptical in contour, and a renewable insert sole having beveled edge portions of a size and contour to correspond to the bevel of the sole and to fit the same so as to prevent twisting, the longitudinal axis of the ellipse approximating and disposed correspondingly with the length of the sole forward of the shank and being such as to extend from diametric opposite sides of said opening considerably beyond the normal point of greatest wear of the shoe sole, the arrangement such as to prevent the insert sole from becoming detached in case of considerable wear upon the shoe sole over the insert, said insert sole having a downwardly extending portion corresponding to, fitting and protruding through said opening.

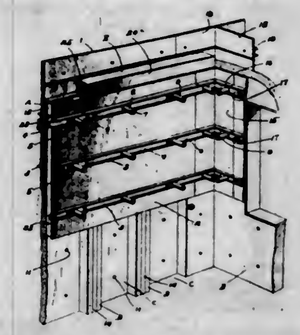
1,206,598. CONCRETE-WALL MOLD. OTTO SAGER, Rochester, N. Y. Filed Apr. 14, 1916. Serial No. 91,179. (Cl. 25,131.)

1. In a mold of the class described, sections, channel bars arranged on the outer sides of the sections, and strips detachably secured in the channel bars and extending across the joints between and connecting the sections together.

2. In a mold of the class described, sections, reinforcing angle bars arranged on the outer sides of the sections, and strips detachably secured to said reinforcing bars and extending across the joints and connecting the sections together.

3. In a mold of the class described, inner and outer sections having reinforcing bars on their outer sides, strips arranged on the reinforcing bars and extending across the joints between the sections, and spacing and connecting means between the inner and outer sections, said spacing and connecting means also detachably securing the strips in place.

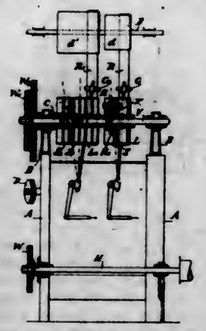
4. In a mold of the class described, inner and outer sections having channel bars on their outer sides, strips arranged in the channels of the channel bars and extending across the joints between the sections, and bolts connecting the inner and outer sections together, and also detachably securing the strips in place.



5. In a mold of the class described, inner and outer sections, bolts connecting the inner and outer sections together, tubular spacer elements on the bolts, permanently secured to the outer sections, and tubular spacer elements on the bolts and arranged between the first-named spacer elements and the inner sections, the last-named tubular spacing means being detachable from the bolts and hence left in the wall molded between said inner and outer sections.

[Claims 6 and 7 not printed in the Gazette.]

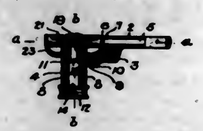
1,206,599. VARIABLE-SPEED DRIVING MECHANISM. LUDWIG SCHORSCH, Biala, Austria-Hungary, assignor to the Firm of G. Josephy's Erben, Bielitz, Austria-Hungary. Filed Jan. 15, 1915. Serial No. 2,430. (Cl. 74—21.)



1. The combination with the drum shaft of a ring spinning and twisting machine, of a countershaft, a belt pulley fixed on the latter, a sleeve loose on the countershaft, a pulley fixed on the sleeve, a driving belt shiftable from one pulley to the other, a rope change speed pulley fixed on the countershaft, a rope change speed pulley fixed on the sleeve, a rope pulley on the drum shaft, and an endless rope passing around all of the rope pulleys whereby the drum shaft is driven at the desired speed.

2. The combination with the drum shaft of a ring spinning and twisting machine, of a driving shaft, a small and a large drive pulley thereon, a counter shaft, a ratchet wheel fixed on the latter, a first-speed pulley on the countershaft, a pawl on the first speed pulley to connect the latter to the ratchet wheel, a drive belt connecting said small pulley and the first speed pulley, a brake spring operable by an increase in speed of the countershaft to throw said pawl out of engagement with the ratchet wheel, a second speed pulley fixed on the counter shaft, a drive belt connecting the large drive pulley to the second speed pulley, a rope pulley fixed on the countershaft, a sleeve on the latter, a third-speed pulley fixed on the sleeve and adapted to be driven from the large drive pulley, a rope pulley fixed on the sleeve of larger diameter than the rope pulley on the countershaft, a rope pulley on the drum shaft, and an endless rope connecting all of the rope pulleys together.

1,206,600. COUPLING DEVICE. ADOLPH W. SCHRAMM, Riverton, N. J., and EDWARD B. WILFORD, Merion, Pa., assignors to Electro Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 28, 1911. Serial No. 640,978. (Cl. 64—13.)



1. A coupling consisting of a supporting structure; a tubular spindle rotatably mounted in said structure; and an independently movable dog consisting of a flat plate having projecting trunnion arms adjacent one end and loosely mounted so as to lie wholly within said spindle; with a member removably fitting the spindle and capable of engaging said dog.

2. A coupling consisting of a supporting structure; a tubular spindle fixed in said structure but free to turn therein; means for connecting a driven member to the spindle including an oscillatory dog loosely mounted within the same; a driving pulley on said spindle; and a single device connecting the pulley to the spindle and holding the dog in place.

3. The combination of a supporting structure; a tubular spindle therein slotted at one end; a driving pulley mounted on the slotted end of the spindle; and a screw engaging said end of the spindle to spread the same for attaching it to the pulley; with a movable dog mounted in the slotted end of the spindle and retained therein by said screw.

4. The combination of a supporting structure; two sleeves concentrically mounted therein, the inner sleeve being longitudinally slotted at one end and threaded; a pulley mounted on said slotted end; and a screw for altering the shape of said slotted end to cause it to grip the pulley; with a dog projecting into the inner sleeve and held in position by said screw.

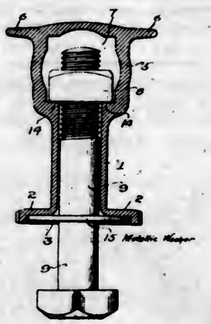
5. The combination of a supporting structure; a tubular spindle mounted in said structure and longitudinally slotted at one end; an independently movable dog in the form of a substantially flat plate extending within said spindle and having trunnions entering the slot thereof; means for driving the spindle; means for retaining the dog in position; with a member formed to enter said spindle and transversely slotted at the end to receive said dog.

[Claims 6 and 7 not printed in the Gazette.]

1,206,601. HANGER. ADOLPH W. SCHRAMM, Riverton, N. J., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 13, 1914. Serial No. 818,558. (Cl. 72—105.)

1. The combination of a socket having a hollow head and a tubular body; a nut in said head; a bolt extending through the body into engagement with said nut; with means engaging said bolt adjacent the open end of the body and also engaging said body adjacent said end for preventing lateral movement of the bolt.

2. The combination of a socket having a hollow head and a tubular body; a nut in said head; a bolt extending through the body into engagement with said nut; with a washer engaging the bolt adjacent the open end of the body and held by the latter to prevent lateral movement of the bolt.



3. The combination of a socket having a hollow head and a tubular body; a flange adjacent the open end of said body; a nut in the hollow head; a bolt passing through the hollow body and engaging said nut; with a member held by said flange and engaging the portion of the bolt adjacent thereto for preventing lateral movement of said bolt.

4. The combination of a socket having a hollow body; a chambered head connected to one end of said body, a flange at the other end of the body provided with an annular recess in its face; a nut in the head; a washer seated in the recess of said flange; and a bolt passing through the washer into engagement with the nut.

5. As a new article of manufacture, a socket consisting of a body having a passage therethrough of substantially rectangular section, one of whose transverse dimensions is slightly greater than the thickness of the nut for which the socket is designed and its other transverse dimension is slightly greater than the width of said nut; and a head for the body having a cavity providing a seat for holding said nut from rotation and lateral movement, there being a washer-receiving recess adjacent the open end of the tubular body.

[Claim 6 not printed in the Gazette.]

1,206,602. REVOLVING TOY. FREDERICK CHARLES SCOTT, Hornby Island, British Columbia, Canada. Filed Mar. 13, 1916. Serial No. 83,886. (Cl. 46—14.)

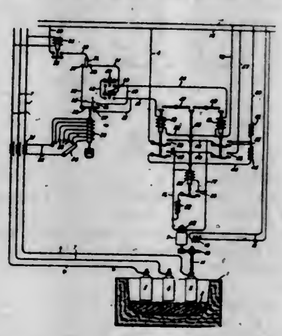


1. A toy comprising a wire strand provided at each end with plain stems, and between the stems being closely wound forming spiral coils, and an article mounted on one of the stems and prevented from traveling lengthwise of the strand by the coils, said coils when distended or drawn out permitting the article to travel lengthwise of the strand and revolve as it travels.

2. A toy comprising a wire strand wound spirally nearly the entire length thereof forming a plurality of coils, said strand having plain stems formed at the ends of the coils, the terminals of the stems being bent to

form loops, an article loosely mounted on one of the stems and held in place by the coils, said coils when drawn out or distended permitting the article to travel lengthwise of the coiled surface and revolve thereon as it travels.

1,206,603. ELECTRIC-FURNACE CONTROL APPARATUS. JOHN A. SEEDE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 12, 1916. Serial No. 90,765. (Cl. 204—64.)



1. An apparatus for regulating electric furnaces, comprising an electrode to be shifted, a power circuit for said electrode, an electric motor operatively connected to said electrode, switching means responsive to variations of energy in the electrode circuit for controlling and reversing said motor, a brake resistance, and means operative to close the armature circuit of said motor through said resistance when the motor is open-circuited by said switching means.

2. An apparatus for regulating electric furnaces comprising the combination of a reversible electric motor, a supply circuit for said motor, a resistance, means for short circuiting the motor armature through said resistance to dynamically brake the motor, an electro-responsive means for changing connections to the motor to produce desired regulation, and an interlock permitting dynamic braking means to operate when the motor is de-energised.

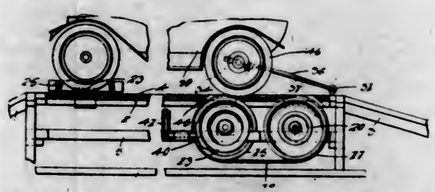
3. A regulating apparatus for arc furnaces, comprising an electrode, an energy circuit therefor, an electric motor mechanically connected to said electrode, circuit connections for said motor, a contact-making magnet responsive to variations of energy in the electrode circuit, relay magnets energized by said contact-making magnet for changing the motor circuit connections to control the motor, and dynamic braking means interlocked with said relay magnets to brake the motor when the motor circuit is opened.

4. An apparatus for regulating furnace electrodes comprising an electrode, an energy circuit therefor, a reversible electric motor for moving said electrode, connections for energizing said motor, control means for shifting connections to reverse said motor, electro-responsive means for operating said control means in accordance with variations of current in the electrode supply circuit, a resistance, means interlocked with said control means to close the armature circuit of said motor through said resistance to brake the motor when the motor supply circuit is open, and means for disconnecting the control means, thereby deenergizing the motor, when the voltage of current in the electrode circuit falls below a predetermined value.

5. An apparatus for regulating electric furnaces comprising an electrode, an energy supply circuit therefor, an electric motor mechanically connected to said electrode, electromagnetic means, responsive to variation of energy in the electrode supply circuit, for controlling and reversing said motor, means for dynamically braking said motor, and an electromagnetic cut out for deenergizing said motor when the voltage of the electrode supply circuit falls below a predetermined value.

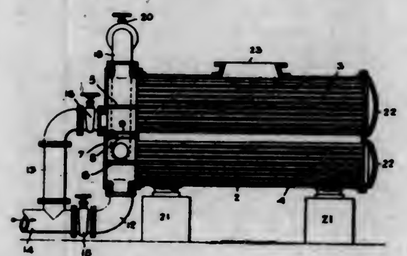
[Claims 6 to 8 not printed in the Gazette.]

1,206,604. TREADMILL. BUSWELL SEETIN, Sweet, Idaho. Filed Feb. 16, 1915. Serial No. 8,608. (Cl. 21—90.)



In a tread mill, a substantially rectangular structure, a platform carried by the upper ends of said structure, side rails connected at their opposite ends to opposite sides of said structure and extending longitudinally therewith, said side rails located beneath said platform, bearings seated in each of said side rails adjacent their rear ends, shafts journaled transversely across said side rails in said bearings, said platform being provided adjacent its rear end with longitudinally extending slots on opposite sides thereof, pulleys mounted upon said shafts adjacent their outer ends and located on the inner sides of said rails and in direct alinement with the slots, power of transmission pulleys mounted upon the opposite ends of one of said shafts and located on the outer side of said side rails, balance wheels on the opposite ends of the other of said shafts, means carried by said side rails and engaging said balance wheels for retarding the rotation of the same, belts trained over said pulleys, means at the forward and rear end of said platform for engaging the front and rear axle of a vehicle for holding the same positioned over the belts of the shafts and to prevent the movement of said vehicle when rotating the shafts substantially as set forth.

1,206,605. SURFACE CONDENSER. AUGUST SIEGEL, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Apr. 3, 1914. Serial No. 829,233. (Cl. 257—240.)



1. The combination in a condenser, of a casing, a plurality of groups of cooling tubes therein, and means for connecting the groups either in parallel or in series as regards the flow of cooling fluid, said means comprising a supply conduit for each group, a discharge conduit for each group, valve means for regulating the flow through said conduits, a partition within the casing separating one group from another, said partition having an opening therein, a valve controlling said opening, and means for opening and closing said valve.

2. The combination in a condenser of a casing, a plurality of groups of cooling tubes therein, supply conduits and discharge conduits for each group, valves in said conduits whereby any group may be cut out of service without affecting the operation of the other group or groups, a partition within the casing having an opening therethrough, a valve controlling the opening, and means located outside of the casing for opening and closing the valve.

3. The combination in a condenser of a casing, a plurality of groups of cooling tubes therein, a supply conduit and a discharge conduit for each group, valves in said conduits, a partition having an opening therethrough located within the casing separating said groups from each other, and a valve controlling said opening.

4. In a condenser, the combination of a casing, a plurality of groups of cooling tubes therein, a branched conduit for conveying cooling fluid to the tubes, a valve in each of said branches, conduits for conveying cooling fluid from said groups of tubes, valves in each of the last named conduits, and valve means located inside of the casing and operable from without, said valves and valve means enabling the respective groups of cooling tubes to be connected either in parallel or in series as regards the flow of cooling fluid, or any group to be cut out of service.

1,206,606. ROLLING RAILS. EDWIN E. SLICK, Westmont borough, Pa. Filed Nov. 17, 1915. Serial No. 61,872. (Cl. 80—66.)



1. The steps in rolling rails, comprising maintaining the web portion substantially parallel to the roll axis, then bending one of the flanges at an angle with its companion flange while reducing the same, and then straightening the said flange while similarly bending and reducing the other, substantially as described.

2. The steps in rolling rails, which consist in forming grooves on opposite edges of a blank nearer to one side of same than the other, producing a comparatively compact portion on one side of said grooves and elongated projecting portions on the other side, then bending one of said longer projections to a lesser angle with the roll axis while reducing it in thickness, thereby subjecting it to a considerable normal pressure in the direction of its thickness, to thoroughly work it and maintain its length.

3. The steps in rolling rails, which consist in taking a blank provided with grooves in opposite edges and with projections on one side longer than those on the other, then bending one of said longer projections while reducing it in thickness, then straightening said projection and bending the other and reducing it in thickness, while maintaining the web portion, at the base of the grooves, in substantially the same relative position with respect to the rolls.

4. The steps in rolling rails, comprising maintaining the web portion in substantially the same relative position with respect to the rolls, then bending one of the flanges to an acute angle with the roll axis and maintaining the general direction of the other flange substantially at right angles to the roll axis while reducing said flange and other portions, then squaring the bent flange with respect to the roll axis while similarly bending the other flange during the further reduction of said flanges, substantially as described.

5. The steps in rolling rails, consisting in taking a rectangular bloom and reducing portions of its opposite edges to produce a blank of substantially rectangular outline, with portions of its edges tapered and with rounded corners, then turning said blank on its axis about 90 degrees and producing grooves in its two opposite edges, the grooves being nearer the longer side, thereby providing a pair of longer and thinner projections on one side and a pair of shorter and thicker projections on the other.

[Claims 6 to 9 not printed in the Gazette.]

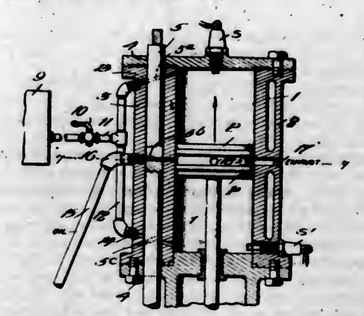
1,206,607. SLIDING DOOR. HENRY E. SPECK, Des Moines, Iowa. Filed June 13, 1916. Serial No. 103,454. (Cl. 20—19.)



1. The combination with a sliding door provided with recesses in the two lower corners thereof, of a weather stop or strip slidably attached to one face adjacent the lower edge of the door and having suporting rollers for movement into and out of said recesses.

2. The combination with a sliding door provided with recesses in the two lower corners thereof, of a weather stop or strip slidably attached to one face adjacent the lower edge of the door and having supporting rollers for movement into and out of said recesses, said strip being provided with a plurality of transversely disposed elongated slots, and a studded fastening means fitting in each slot and attached to the door for securing the stop to the door for sliding movement.

1,206,608. INTERNAL-COMBUSTION ENGINE. DON FULLER SMITH, Corry, Pa. Filed Jan. 24, 1916. Serial No. 73,970. (Cl. 123—61.)



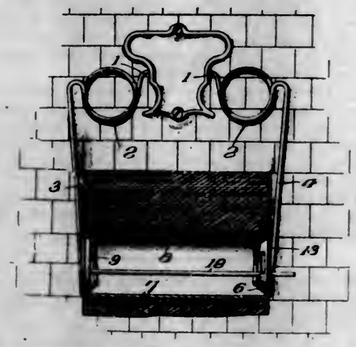
1. In an internal combustion engine, a cylinder provided with an intake port at each end thereof, and an exhaust port disposed near the central portion of the cylinder, an oil port disposed in the wall of the cylinder substantially midway between said intake ports, an oil pipe in communication with said oil port, and a rotary valve provided with passages arranged to register with said intake ports in different positions of the valve, and a central passage arranged to register with said oil port during the revolution of the valve.

2. In an internal combustion engine, a cylinder provided with an intake port at each end thereof and an exhaust port disposed near the central portion of the cylinder, an oil port disposed in the wall of the cylinder substantially midway between said intake ports, an oil pipe in communication with said oil port and a rotary valve provided with passages arranged to register with said in-

take ports in different positions of the valve, and a central passage arranged to register with said oil port twice during the revolution of the valve, a piston arranged to travel past said oil port, said piston being arranged to cover said oil port when the passage in the valve is in registration with the oil port.

3. In an internal combustion engine, a cylinder provided with an extension, said extension being provided with a bore extending parallel with the axis of the cylinder, a rotary valve disposed within said bore, said extension being provided with diagonally extending intake ports and said valve being provided with passages arranged to register with said diagonally extending ports in different positions of the valve, one of said intake ports being in registration with the valve passage when the other is out of registration, said cylinder being also provided with an oil port and said rotary valve being provided with a passage arranged to register twice with said oil port during the revolution of said rotary valve.

1,206,609. LOCK FOR PAPER-TOWEL HOLDERS AND THE LIKE. EDWARD F. SMITH, Rochester, N. Y., assignor to Josiah Anstice, Rochester, N. Y. Filed Jan. 19, 1916. Serial No. 73,037. (Cl. 211—31.)



1. The combination with a paper roll holder, comprising two laterally movable arms having at their ends means for supporting a roll, of a locking device carried at one end, means for engaging the free end of one of said arms and a member movable on the other end of the rod outside of the arm and carrying a locking member engaging the said rod.

2. A locking device for roll holders, having roll supporting arms and transverse openings, the locking device comprising a rod passing through the said openings and having at one end a member engaging one arm and a member longitudinally movable on the other end of the rod, said member carrying a lock at its inner side whereby the lock is inaccessible while the roll is in position in the holder.

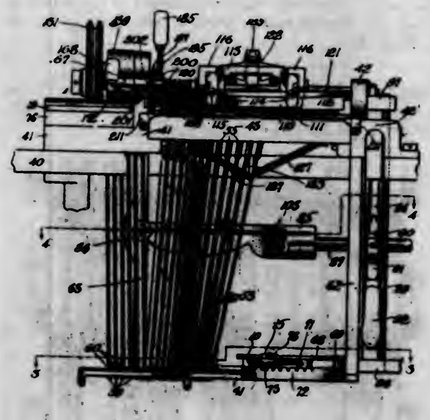
3. A locking device for roll holders having roll supporting arms provided with transverse openings, the locking device comprising a rod having one end operatively engaging one of the arms, the other end of the rod passing through the opening of the other arm, a member slidable upon the rod and carrying a locking device at its inner side for locking it on the rod, one of said arms movable inward when the paper roll is used up to permit ready access to the locking member to release it from the rod for the placing of an unused paper roll in position on the holder arms.

4. The combination with a paper roll having roll supporting arms, one of which is laterally movable, of a separate locking device therefor, the locking device comprising a rod adapted to pass through the ends of the arms, one end of the rod constructed to operatively engage one of the arms, the other end of the rod passing through the other arm and projecting therebeyond, and a member slidable upon the projecting end of the rod to engage the outside of the arm, said member carrying a spring lock at its inner side to lock against the rod, whereby the lock is inaccessible when the paper roll is in position.

5. A lock of the character described, comprising a head, a rod eccentrically carried by the inner face of the head, a second head having a thickened portion at one side and provided with a recess, a head having an opening therethrough communicating with the recess, a leaf-spring rigidly carried by the head and arranged at an angle thereto and having a flat outer edge intersecting the opening in the second head whereby the said head is free to move inwardly on the rod to hold it against movement thereon.

[Claim 6 not printed in the Gazette.]

1,206,610. MACHINE FOR MARKING BUTTONHOLES. HENRY W. STEDLER, Boston, Mass., assignor of one-fourth to Lawrence H. Cox, Winthrop, Mass. Filed July 25, 1913. Serial No. 781,193. (Cl. 38—190.)



1. A buttonhole marking machine comprising a fly supporting table, provided with a curved guideway approximating the standard curvature of a button fly, and a plurality of markers all movable longitudinally of said guideway in the same direction, said table having means located beyond one end of said guideway to form an extension of the guideway to carry a selected portion of said markers into inactive position, the remaining portion of the markers being retained in an active position within the main portion of the guideway.

2. A buttonhole marking machine comprising a fly supporting table, provided with a curved guideway approximating the standard curvature of a button fly, and a plurality of markers all movable longitudinally of said guideway in the same direction, said table having a lateral extension provided with means located beyond one end of said guideway to form an extension of the guideway to carry a selected portion of said markers into inactive position, the remaining portion of the markers being retained in an active position within the main portion of the guideway, and means for relatively spacing the markers retained in active position in the main guideway.

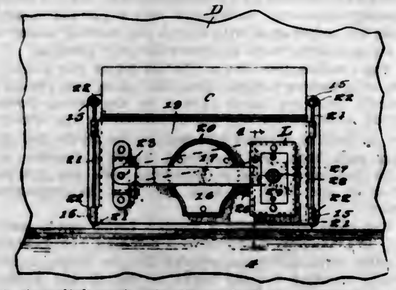
3. A button hole marking machine comprising a fly supporting table, provided with a curved guideway approximating the standard curvature of a button fly, and a plurality of markers all movable longitudinally of said guideway in the same direction, said table having means located beyond one end of said guideway to form an extension of the guideway to carry a selected portion of said markers into inactive position, the remaining portion of the markers being retained in an active position within the main portion of the guideway, means for holding the active markers in spaced relation, and means for varying the relative spacing of the markers retained in active position, without affecting those in inactive position.

4. A button hole marking machine comprising a fly supporting table, provided with a curved guideway approximating the standard curvature of a button fly, and a plurality of markers all movable longitudinally of said guideway in the same direction, said table having means located beyond one end of said guideway to form an extension of the guideway to carry a selected portion of said markers into inactive position, the remaining portion of the markers being retained in an active position within the main portion of the guideway, and a cover for the guideway extension to prevent accidental exposure of the inactive markers.

5. A button hole marking machine comprising a fly supporting table having a curved guideway, a plurality of marking devices provided with markers movable longitudinally along said guideway in the same direction, said guideway being provided with an extension to carry a selected portion of said markers into inactive position, a spacer having means for engaging the marking devices carrying the markers remaining in active position without affecting those in inactive position, and means for bringing the marking devices carrying the active markers and the work into engagement.

[Claims 6 to 78 not printed in the Gazette.]

1,206,611. SWITCH-LOCK. GEORGE H. STRODE, Columbus, Ohio. Filed Mar. 28, 1916. Serial No. 87,270. (Cl. 70—8.)



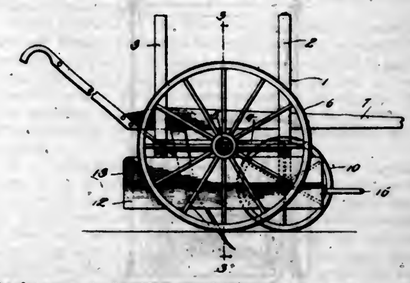
1. A switch casing having a keyhole, a guard member mounted pivotally adjacent to one side of the casing and having a laterally extending lug at its free end, a lock casing mounted adjacent to the other side of the switch casing and having slots for the admission of the free end of the guard member, and a bolt in the lock casing adapted to be projected in the path of the lug of the guard member.

2. A switch casing having a keyhole, a guard member mounted pivotally adjacent to one side of the casing and having a laterally extending lug at its free end, a lock casing mounted adjacent to the other side of the switch casing and having slots for the admission of the free end of the guard member, and a bolt in the lock casing adapted to be projected in the path of the lug of the guard member; and a spring within the lock casing adapted to be tensioned by engagement with the free end of the guard member.

3. A coil box, fastening means for securing the same on a dash board, a supporting base having limbs provided with eyes adapted to be engaged by the fastening means, said supporting base having an opening, a switch casing on the coil box adapted to project through the opening of the supporting base, a guard member pivoted adjacent to one side of said opening, and locking means adjacent to the other side of said opening for engagement with the free end of the guard member.

1,206,612. INSECT-EXTERMINATOR. GEORGE W. STUART, Bay Minette, Ala. Filed Sept. 11, 1916. Serial No. 119,484. (Cl. 43—1.)

An insect exterminator comprising a frame including a front and a rear arch each formed of a single metal bar with its lower ends bent inwardly toward each other and spaced apart, and a longitudinal bar secured rigidly at its ends to the legs of the arches at one side of the machine, the legs at the other side thereof being adapted to be secured to a cultivator beam, a vertical bar spaced outwardly from one of the last named legs, means for drawing said vertical bar toward said one leg to clamp the cultivator beam between the two, a wheel mounted on



the lower end of said vertical bar, a second wheel mounted on the aforesaid longitudinal bar, and a pair of parallel elongated pans beneath the aforesaid inwardly bent ends of the arches, said pans having upstanding flanges along their outer edges secured to the legs of the arches, the bottoms of said pans being secured to the inner terminals of said inwardly bent ends.

1,206,613. FISHING-LINE HOLDER. JOHN F. TEELING, Wayville, N. Y. Filed Mar. 22, 1916. Serial No. 86,916. (Cl. 43—4.)



1. A device of the class described comprising a hollow body having its lower end open, a reel operatively mounted within the body, a lever pivoted within the body, a sheave carried by one end of the lever, a line wound around the reel having one end passing over the sheave, and a weight slidably mounted on the lever.

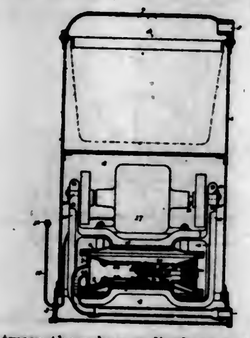
2. A device of the class described comprising a hollow body having one end thereof open, a partition mounted within the body adjacent the open end, a bracket arm secured to the partition, a lever pivoted to the bracket arm, a reel journaled within the body, and a line wound around the reel and having one end trained over the sheave.

3. A device of the class described comprising a vertically disposed hollow body having its lower end open, a partition located within the body at the open end thereof and provided with an opening, a receptacle mounted in the opening in the partition and adapted to contain a non-freezable liquid, and a line having one end passing through the receptacle, and tension means for the line.

1,206,614. APPARATUS FOR UNLOADING VACUUM-PUMPS. JOSEPH H. TEMPLIN, Philadelphia, Pa., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed May 31, 1910. Serial No. 564,175. (Cl. 230—24.)

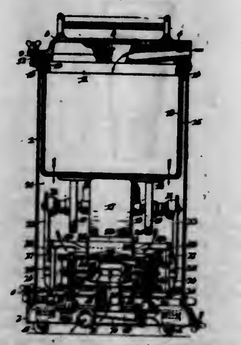
In a vacuum creating apparatus, the combination of a casing having a vacuum chamber, a frame therein, a

pumping apparatus comprising two parallel opposed diaphragms carried by the frame, a motor, means connecting it to the diaphragms for actuating them, suction and discharge valves for the pumping apparatus, said valves being arranged parallel to each other with the suction valves opposed to each other, a suction and discharge



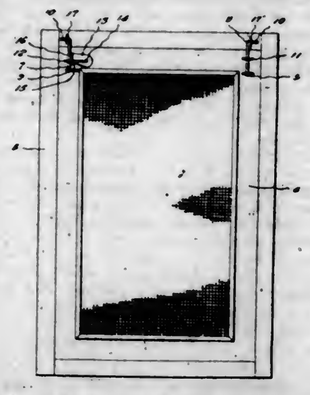
chamber between the valves, a diaphragm separating them, a spring pressed member having a guide adapted to be moved by the diaphragm, rollers on said member, and lugs having beveled faces carried by the suction valves, which lugs are adapted to be engaged by the rollers to lift the suction valves off their seats when the vacuum in the vacuum chamber reaches a predetermined value.

1,206,615. DUPLEX PUMPING APPARATUS. JOSEPH H. TEMPLIN, Philadelphia, Pa., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Mar. 27, 1912. Serial No. 686,468. (Cl. 230—5.)



In a device of the character described, the combination of a pumping unit comprising a pair of central spaced walls having flanges on opposite sides which are connected to each other, a partition dividing the space between said walls into a suction chamber and a discharge chamber, a cup-shaped member connected to each of said spaced walls, diaphragms closing the open sides of the cup-shaped members and forming pumping chambers, and suction and discharge valves connecting said suction and discharge chambers to the pumping chambers; a motor mounted on the pumping unit, means operatively connecting the motor to the diaphragms to actuate them, a casing having an inlet and an outlet, rods in the casing, springs on said rods, said pumping unit and motor being mounted on said rods between said springs so that it is resiliently supported in each direction, said rods passing through the flanges of the central spaced walls, and a flexible conduit connecting the discharge chamber of the pumping unit to the outlet in the casing.

1,206,616. SCREEN-FASTENER. MARTIN LUTHER TEWELL, Pittsburg, Kans. Filed July 24, 1916. Serial No. 111,025. (Cl. 16—48.)

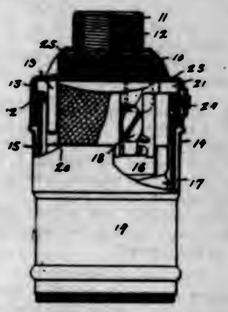


1. The combination with a supporting frame and a screen frame, of a hanger therefor, including two swinging hooks and coöperating receiving staples for the hooks, a limiting means for each hook and a pivoted locking member for coöperation with one of the limiting means to hold its respective hook in screen hanging position.

2. The combination with a window frame and a screen frame, of a hanger for the frame, including two pivotally outwardly swinging hooks carried by the screen frame, receiving members for the hooks carried by the window frame, a limiting member attached to the frame and embracing each hook, and a pivoted wedging member carried by the screen and coöperating with the limiting member of one hook to hold the hook in supporting position.

3. The combination with a window frame and a screen frame, of a hanger for the frame, including two pivotally outwardly swinging hooks carried by the screen frame, receiving members for the hooks carried by the window frame, a limiting member attached to the frame and embracing each hook, a flat piece of metal provided with a pivoting end and with an offset end for engagement with one of the limiting members and for coöperation with its hook to hold the hook in hanging position.

1,206,617. ELECTRIC-LAMP SOCKET. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed June 27, 1914. Serial No. 847,700. (Cl. 173—362.)



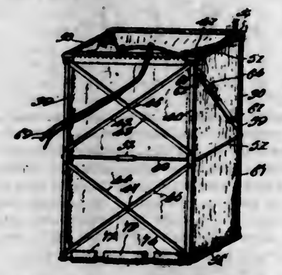
1. In an incandescent lamp socket, a casing comprising a shell and a cap having a screw-threaded sleeving connection, an insulating socket body within said casing and having a recess, together with a pin projecting below the lower edge of said cap and adapted to enter said recess in the socket body to prevent the latter from turning with relation to the cap during the assembly of the shell and cap.

2. In an incandescent lamp socket, a casing comprising a shell and a cap having a screw-threaded sleeving connection, an insulating socket body within said casing adapted to be carried by the shell during the assembly of the shell and cap, and means carried by the cap and engaging the socket body in advance of the sleeving of the shell and cap and serving to prevent the rotation of said socket body with relation to the cap during said assembly of cap and shell.

3. An incandescent lamp socket having a casing comprising a shell and cap detachably connected together in sleeved relationship, an insulating socket body within said casing and having lateral recesses for wire terminals and an auxiliary recess, an insulating lining in the cap having ears extending into said wire terminal recesses in the assembled condition of the casing, and means carried by the cap and engaging said auxiliary recess in advance of the sleeving of the shell and cap on the assembly of the latter, for the purpose described.

4. An incandescent lamp socket, having a casing comprising a shell and cap detachably connected together, an insulating socket body within said casing and having lateral recesses for binding-screw terminals and an auxiliary recess, an insulating lining in said cap having portions entering the wire terminal recesses in the assembled position of the parts together with a pin projecting below the lower edge of said cap and adapted to enter said auxiliary recess to properly locate the socket body with relation to the cap and its lining, substantially as described.

1,206,618. PARCEL-POST AND MERCHANDISE PROTECTOR. FRANKLIN J. THRASHER and CATHARINE I. THRASHER, Hallowell, Me. Filed Dec. 16, 1915. Serial No. 67,236. (Cl. 150—49.)



1. In a device of the character described, the combination of front and rear frames, a series of rigid single links having their opposite ends pivotally secured to the edges of the respective front and rear frames for connecting said frames to swing relatively and move to an offset collapsed condition, bearings on said front and rear frames, and one-piece end frames composed each of a single length of material bent into rectangular shape and journaled to swing in said bearings, substantially as described.

2. In a device of the character described, the combination of front and rear open metallic frames composed of angle-posts and flat strips connecting said angle-posts, series of flat rigid single links having their opposite ends pivotally secured respectively to the adjacent posts of said front and rear frames for connecting said frames to swing and collapse in offset relation, rolled ends on said posts, one-piece end frames journaled in the rolled ends on said posts and each being bent into rectangular shape from a single length of round bar material, and means for securing said device in set-up position, substantially as described.

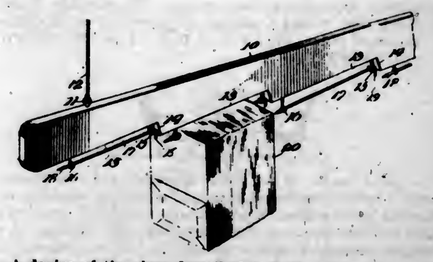
3. In a device as described, the combination of collapsible frames, and means for securing said frames in set-up position including a pair of relatively-reciprocating bars, a guide carried on the end of each of said bars through which the companion bar slides, and complemental interengaging elements on said bars for automatically securing the bars against relative movement when the frames are shifted to set-up position, substantially as described.

4. In a device of the character described, the combination of frames connected for collapse, and means for securing said frames in set-up position including a pair of relatively reciprocating bars, one bar having a notch therein, and a pivoted spring-pressed dog on the other bar adapted to engage the notch in the companion bar when brought to register therewith, substantially as described.

5. In a device of the character described, the combination of a plurality of frames, means connecting said frames for collapse, and means for securing said frames in set-up position including a pair of relatively-reciprocating bars having notches therein, guides on said bars, a pivoted spring-pressed dog on one of said bars operating in the notch therein and adapted to enter the notch in the companion bar when such notches are brought into registry, substantially as described.

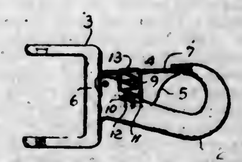
[Claims 6 and 7 not printed in the Gazette.]

1,206,619. BAG-HOLDER. PETER TRELEAVEN, San Diego, Cal. Filed Feb. 7, 1916. Serial No. 76,669. (Cl. 211—2.)



A device of the class described including a body having a depending stop shoulder, an upwardly opening hook relatively near the shoulder, an eye spaced from the hook, and a rod pointed at one end and with an offset at the other end, the body of the rod being of greater length than the distance between the eye and the hook, so that when the pointed end of the rod is inserted through the eye and the offset end engaged with the hook, the rod is prevented from endwise displacement in either direction by the coaction of the offset, the hook and the shoulder.

1,206,620. SNAP-HOOK. GEORGE W. TROOP, New Britain, Conn., assignor to The North & Judd Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Jan. 29, 1916. Serial No. 74,964. (Cl. 24—234.)



1. A snap comprising a hook, a sheet metal swinging tongue, and an interposed coiled spring, the spring being supported at one end portion by the shank, the tongue having an internal seat pressed therefrom to receive the opposite end portion of the spring.

2. A snap hook comprising a hook, a sheet metal tongue having sides and a top connecting the same, the top having an internal seat and also having a corresponding projection on its outer surface pressed from the top, said sides straddling and being pivoted to the shank, said projection constituting a manipulating portion for the tongue, and a coiled spring between said sides, supported at one end portion by the shank, the other end portion being fitted in said seat.

3. A snap hook comprising a hook, a swinging sheet metal tongue, and an interposed spring having a connection with the hook extending approximately in parallelism with the axis of motion of the tongue, the tongue having an interior seat pressed thereinto to receive the spring.

4. A snap hook comprising a hook, a swinging tongue, and an interposed spring acting against the tongue, the shank portion of the hook having a transverse perforation, and a terminal portion of the spring extending through said perforation.

5. A snap hook comprising a hook, a pivotally mounted tongue, and an interposed spring, the shank of the hook having a transverse perforation in parallelism with the axis of motion of the tongue and the terminal portion of the spring being fitted in said perforation, the tongue having an interior seat pressed thereinto to receive the other terminal portion of the spring.

[Claims 6 to 8 not printed in the Gazette.]

1,206,621. SUPPORTING MEMBER FOR CONCRETE STRUCTURES. JULIUS TUTBUR, Cleveland, Ohio, assignor, by mesne assignments, to The Republic Structural Iron Works Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 5, 1912. Serial No. 675,497. (Cl. 72—105.)



1. In a device of the class described, the combination with a hollow cast metal base portion having upwardly extending side portions, a key-hole opening in its lower face and an elevated inner rim encircling said opening, of a headed sustaining member adapted to be inserted within the opening and rim and an inclosing sheet metal casing for the body portion, substantially as set forth.

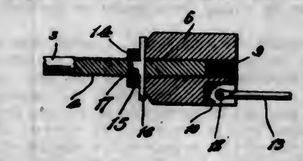
2. In a device of the class described, the combination with a cast metal body portion, having a key-hole opening in its lower face, a retaining lug adjacent to the expanded portion of said opening, and an elevated continuous inner rim adjacent to the narrower portion thereof, of an associated sustaining member and an inclosing sheet metal casing for said casting, substantially as set forth.

3. In a supporting member for concrete structures, the combination with a hollow cast metal base portion, having a slot in its lower face, and upwardly extending side walls with lateral openings therein, of an inclosing casing having openings in its side walls registering with those of the casting, and a transverse strap inserted through the registering openings to serve as a sustaining member, substantially as set forth.

4. In a supporting member for concrete structures, the combination with a hollow cast metal base portion, having a slot in its lower face, and upwardly extending side walls with lateral openings therein, of an inclosing casing having upwardly flaring walls and openings in its side walls registering with those of the casting, and a transverse strap inserted through the registering openings to serve as a sustaining member, substantially as set forth.

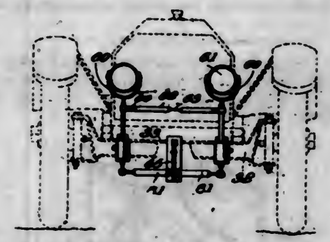
5. A device of the class described, comprising a hollow three-sided casting, the lower face thereof being provided with a key-hole slot, surrounded by an elevated rim, and the side portions having alined openings, in combination with a headed bolt adapted to be inserted within said slot, and retained from turning by said rim, and means for covering the hollow casting, substantially as set forth.

1,206,622. CROSS-HEAD CONNECTION FOR PISTON-RODS. LEE VANDERMARK, Stevenson, Wash. Filed Aug. 24, 1915. Serial No. 47,091. (Cl. 74—47.)



The combination with a piston rod having one of its ends threaded and being provided with a longitudinally extending slot, of a block provided with a longitudinally extending axially threaded bore adapted to be threaded on to the piston rod, said block being provided with a plurality of transversely extending grooves in one end, a key adapted to project through the slot in the piston rod and to lie within a pair of the grooves in the block, said key having a tongue adapted to fill the slot in the piston rod, the tongue being of slightly less width than the diameter of the piston rod so that the same lies wholly within the slot and a nut threaded on the piston rod and adapted to bear against the key to hold the same within the grooves and surround the tongue thereof to prevent said key from moving longitudinally.

1,206,623. DIRIGIBLE HEADLIGHT MECHANISM. BUD VANORMAN, Mason City, Ill. Filed Feb. 7, 1916. Serial No. 76,650. (Cl. 240—62.)



1. A dirigible headlight mechanism having rotatable posts each including coacting sections with one of said sections providing a floating member adapted to operatively receive a lamp, and stop members carried by the other of said sections for limiting the said first mentioned section in its shifting movement in opposite directions, and means for rotating the said posts and adapted for attachment to an element of a vehicle steering gear whereby the said posts will be rotated as the vehicle is steered.

2. A dirigible headlight mechanism having rotatable posts, each of said posts including coacting sections one providing a floating member adapted to operatively receive a lamp, and opposed coacting means respectively housed in one of the sections and surrounding the other section with the said means acting to normally urge the said member in opposite directions, and means for rotating said posts and adapted for attachment to an element of a vehicle steering gear whereby the said posts will be rotated as the vehicle is steered.

3. A dirigible headlight mechanism having rotatable posts, each of said posts including a floating member adapted to receive a lamp, opposed coacting means normally acting to urge the said member in opposite directions, and spaced means extending through the member for limiting the said member in its movement, and means for rotating said posts and adapted for attachment to an element of a vehicle steering gear whereby the said posts will be rotated as the vehicle is steered.

4. A dirigible headlight mechanism having rotatable posts, each of said posts including telescopic sections, means for cushioning one of said sections in its movement upon the other section in opposite directions, and a socket member adjustable upon said first mentioned section and adapted to operatively receive a lamp, and means for rotating said posts and adapted for attachment to an element of a vehicle steering gear whereby the said posts will be rotated as the vehicle is steered.

5. A dirigible headlight mechanism having supporting brackets each formed of telescopic sections, means adjustably connecting the sections of each bracket, rotatable lamp receiving posts carried by said brackets, and means for rotating said posts and adapted for attachment to an element of a vehicle steering gear whereby the said posts will be rotated as the vehicle is steered.

[Claims 6 to 15 not printed in the Gazette.]

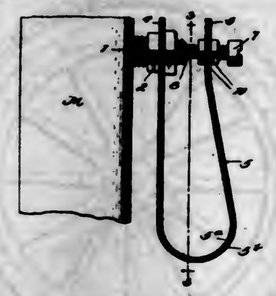
1,206,624. PNEUMATIC HORSE-COLLAR. LEMUEL E. VAN TREESE, Letts, Ind. Filed Mar. 29, 1916. Serial No. 87,536. (Cl. 54—19.)



1. In a horse collar, side sections hingedly connected together at their upper ends, each of said side sections being formed with clamping flanges, one of said clamping flanges being provided with a perforated projection, a cushioning pad fastened on each of said side sections through the medium of said flanges, a covering for said cushioning pad fixed at one end to the other of said clamping flanges and provided with a series of eyelets in the free edge thereof, and means passing through the openings of said projections and through the eyelets of the covering for fastening the latter over the pads and to the said projection.

2. In a horse collar, hingedly connected side sections, each formed with inturned clamping flanges, one of said flanges being formed with a projection having a series of openings, a split casing formed with thickened grooved edges, the grooves of the casing receiving the inturned clamping flanges of said side sections for clamping the casing thereon, a tubing in said casing, a covering for said casing fastened at one end to one of said inturned flanges and detachably connected with the projection of the other of said inturned flanges, and means for fastening the lower ends of the fastening members together.

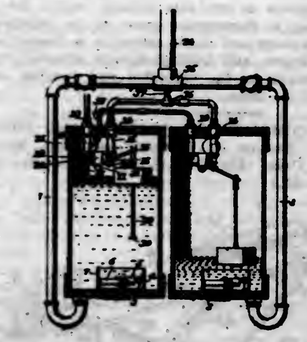
1,206,625. AUXILIARY AIR-INTAKE FOR INTERNAL-COMBUSTION ENGINES. WALTER GROVER VETTER, Alva, Okla. Filed Dec. 6, 1915. Serial No. 65,305. (Cl. 236—5.)



1. An auxiliary air intake valve for internal combustion engines comprising a combined attaching member and air passage in the form of a short tube having one end externally threaded to be tapered into an intake manifold, the other end of said tube being formed with a valve seat, a U-shaped thermostat having alined openings in its two ends, the opening in one end of said thermostat being spaced from and alined with the valve seat, a needle valve disposed through this opening and coöperating with said valve seat, the opening in the other end of said thermostat receiving therein the aforesaid tube, an external enlargement on the intermediate portion of said tube bearing against one side of the last named end of the thermostat, and a nut threaded on said tube and bearing against the opposite side of said end, the thermostat being adapted to expand under an increase in temperature to open the valve, thus admitting fresh air into the manifold.

2. An auxiliary air intake valve for internal combustion engines comprising a combined attaching member and air passage in the form of a tube having its opposite ends externally threaded, one of said ends being adapted to be tapped into an intake manifold while the other end is internally chamfered to form a valve seat, an external enlargement formed integrally with the intermediate portion of the aforesaid tube, a U-shaped thermostat having in one of its arms an opening receiving the last named end of said tube and bearing against said enlargement, a nut threaded on said end of the tube and contacting with said end of the thermostat to anchor the latter, the other end of said thermostat being formed with an opening alined with the tube and disposed contiguous to the aforesaid seat, a screw passed through the last named opening and having a conical end coöperating with said seat, and a pair of lock nuts threaded on said screw and contacting with the opposite sides of the last named end of the thermostat, said thermostat being adapted to expand under an increase in temperature, thus causing the screw to recede from the seat to admit fresh air into the manifold.

1,206,626. PUMP. MARION C. WALLS, Clayton, Ind. Filed Aug. 31, 1915. Serial No. 48,267. (Cl. 103—8.)

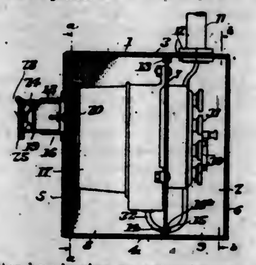


A pump comprising a plurality of cylinders each provided at its lower end with a water inlet valve, pipes communicating with the lower portions of the cylinders and connected together at their upper ends, air inlet pipes located in the upper ends of both cylinders, a pipe connecting the said air inlet pipes together, said air inlet pipes having at their sides ports, air exhaust pipes located in the upper ends of the cylinders and having ports, said air exhaust pipes being connected together and communicating with the first mentioned pipes, valve members located in the air inlet and air exhaust pipes of the cylinders, walking beams located in the cylinders and operatively connecting the valve members in the air inlet and air exhaust pipes of the respective cylinders together and float operated means located one in each cylinder and operatively connected with the walking beams.

1,206,627. METER-BOX. MONT C. WALRATH, North Tonawanda, N. Y. Filed Nov. 17, 1915. Serial No. 61,970. (Cl. 73—167.)

1. A meter box of the class described having spaced stops in one side and angle pins in the opposite side, a

partition in the box, having one edge inserted between the spaced stops and provided near the opposite edge with openings through which the arms of the angle pins extend, and securing means on said arms detachably holding the partition in place.

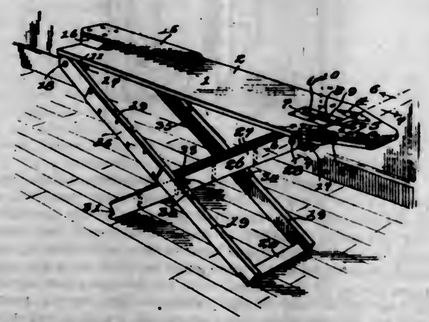


2. A meter box having an extension at one side, a door in the side opposite the extension, and also having a partition dividing the box into different compartments, a meter secured on the partition and arranged in the compartment from which the extension extends, and switch plugs secured to the partition and arranged in the compartment to which the door leads.

3. A meter box having an extension at one side, a door in the side opposite the extension, and also having a partition dividing the box into different compartments, a meter secured on the partition and arranged in the compartment from which the extension extends, switch plugs secured to the partition and arranged in the compartment to which the door leads, said partition being removable from the box together with the meter, and the switch plugs attached to said partition.

4. A meter box to receive and incase a meter and having an extension at one side through which the meter may be read, a transparent pane in the extension, a frame at the outer end of the extension, a closure mounted in said frame, and holding springs attached to said frame, arranged in the extension and bearing on the outer side of the pane.

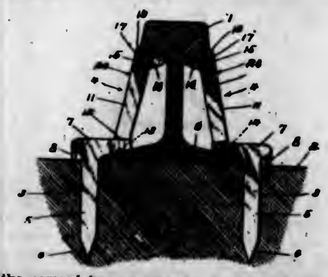
1,206,628. COMBINED STEP-LADDER AND IRONING-BOARD. EVELYN F. WEBSTER and EARL WEBSTER, Portland, Oreg. Filed Jan. 4, 1916. Serial No. 70,289. (Cl. 228—32.)



1. An article for the purpose set forth including a board comprising two co-extensive sections of unequal lengths, a hinged connection between the sections, a rod pivotally arranged in a groove in the shorter section and extending into a recess in the longer section, a covering plate for the mentioned recess having an elongated slot, the end of the rod having lateral extensions adapted to engage with the inner face of the plate when the shorter section is swung upon the longer section of the bolt, and block members secured to the longer section adapted to support the shorter section when the sections are in alinement.

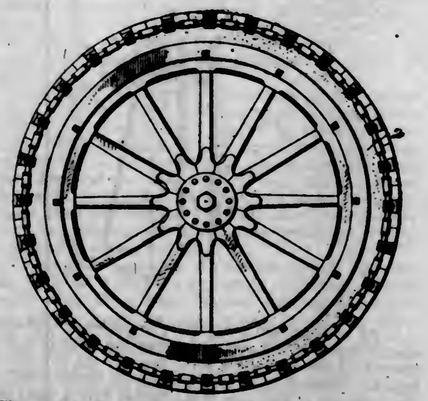
2. The combination with a board having its ends provided with blocks, end supporting members pivotally connected with the blocks, and the blocks at one of the ends of the board projecting beyond the said end, of an extension hingedly secured to the said end of the board proper and adapted to be supported upon the blocks when the extension is swung in a line with the board, a rod member pivotally secured to the extension and having its free end formed with a laterally arranged member, the board having a recess to receive the end of the rod and a slotted plate covering the recess and retaining the end of the rod in the said recess.

1,206,629. RAILROAD-SPIKE. JOSEPH WHITE, Pittsburg, Kans. Filed Mar. 29, 1916. Serial No. 87,533. (Cl. 85—25.)



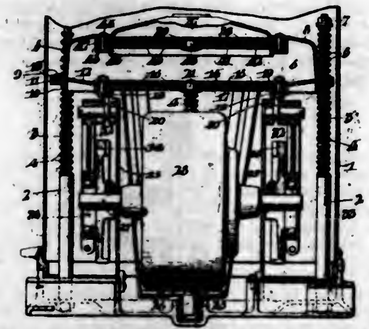
A spike comprising an apertured head, provided with a shank for engagement with the rail tie, a locking member therefor, said locking member embodying a shank, a head formed on the upper end of said shank and including a horizontally extending lip, a pin depending from the lower end of the shank, and adapted to be inserted in the opening of the head of the spike and swiveled therein, said locking member adapted to be bent to assume an inclined position for positioning the horizontal lip thereof in binding engagement with the under portion of the head of a rail, and a vertically extending projection formed integral with the head of the locking member and extending at right angles to the horizontally projecting lip thereof, said projection adapted to engage with the longitudinal side edges of the rail head for preventing the displacement of the pin from the head of the spike, substantially as and for the purpose specified.

1,206,630. TIRE-ARMOR. JAMES W. WHITSETT, Berkeley, Cal. Filed July 13, 1914. Serial No. 850,760. (Cl. 152—17.)



The combination with a tire, of an armor fitted to the tread surface of the tire and comprising a plurality of sections arranged end to end and each provided medially of its longitudinal edges with diverging lugs having studs projecting laterally therefrom and formed with sockets, links having overlapping ends engaging pivotally over the studs and bearing against the outer faces of the diverging lugs, and retaining devices fitted into the sockets and projecting over the links.

1,206,631. PUMPING APPARATUS. THEODORE WIEDMANN and JOSEPH H. TEMPLIN, Philadelphia, Pa., assignors, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Jan. 5, 1912. Serial No. 669,558. (Cl. 230—5.)



1. A vacuum cleaner including in combination, a diaphragm pumping member having a valve located centrally thereof; hangers secured to the diaphragm; means for engaging the hangers for reciprocating the diaphragm; guiding members connected to said hangers; and means cooperating with the guiding members for preventing oscillations of the hangers.

2. A vacuum cleaner including in combination, a diaphragm pumping member having a valve located centrally thereof; hangers connected to said diaphragm; guiding members secured to the hangers; connecting rods pivotally connected to the hangers; means for operating the connecting rods for reciprocating the diaphragm; guiding members connected with the hangers; and means cooperating with the guiding members for causing the hangers in the central portion of the diaphragm to move bodily laterally, without oscillation.

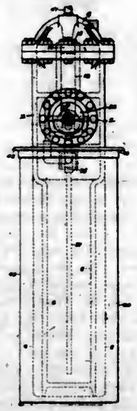
3. A vacuum cleaner including in combination, a pumping member having a central bodily moving portion; hangers connected therewith; connecting rods pivoted to said hangers; means for actuating the connecting rods; guiding members rigidly connected to the hangers; and devices cooperating with the guiding members for causing said central portion to move bodily laterally, without oscillation.

1,206,632. ANIMAL-POKE. OSKER WILLIAMS, Forestburg, Tex., assignor of one-half to J. L. Romines, Forestburg, Tex. Filed Feb. 27, 1915. Serial No. 11,002. (Cl. 119—142.)



In an animal poke structure, a face bar, a transversely extending prong formed upon the upper end of said face bar, a metallic nose band secured to the lower end of said face bar and having a portion thereof cut away, a guard pivotally connected to said nose band, the cut away portion of said nose band permitting of a limited forward pivotal movement of said guard, a shoulder formed upon the pivoted end of said guard, a lug carried by said face bar and provided for engagement with said pivoted guard for preventing rearward pivotal movement of the guard with respect to the face bar.

1,206,633. REFRIGERATING APPARATUS. JOSEPH F. WINKLER, Philadelphia, Pa. Filed Dec. 4, 1915. Serial No. 65,127. (Cl. 62—115.)



1. The combination in a refrigerating apparatus of a container having condensing and evaporating chambers; a duct positioned to allow flow of liquid by gravity from the condensing to the evaporating chamber; a valve for said duct; and a float connected to the valve to open it when more and close it when less than a predetermined quantity of liquid is present in the condensing chamber.

2. The combination in a refrigerating apparatus of a casing having an evaporating chamber and a condensing chamber, of which the latter includes a well having a passage into said first chamber; a valve for said passage; with a float guided in the well and connected to open the valve only when more than a predetermined body of liquid is present.

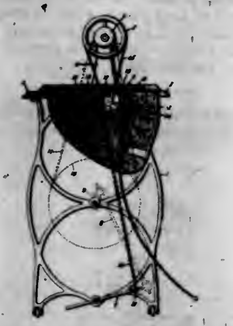
3. The combination in a refrigerating apparatus of a vertically elongated container; a partition dividing said container into condensing and evaporating chambers, of which the former is above the latter; a conduit for cooling medium in the condensing chamber; and means for automatically controlling the flow of liquid by gravity from the condensing chamber to the evaporating chamber.

4. The combination in a refrigerating apparatus of a vertically elongated container having a partition dividing it into condensing and evaporating chambers; a cylinder carried by said partition and opening into both of said chambers; a power driven plunger for said cylinder for drawing gas from the evaporating chamber and compressing it into the condensing chamber; with automatically acting means dependent for its action upon the quantity of liquid in said condensing chamber for controlling the flow of such liquid from the latter to the former chamber.

5. The combination in a refrigerating apparatus of a container having condensing and evaporating chambers; a cylinder opening into both of said chambers; a valve normally closing the opening from the cylinder to the condensing chamber; a valved plunger operative in the cylinder; and a gravity controlled device for including a float operative in the condensing chamber governing flow of liquid from the condensing chamber to the evaporating chamber.

[Claims 6 to 15 not printed in the Gazette.]

1,206,634. MOTOR-DRIVE. JAMES J. WOOD, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed Sept. 2, 1915. Serial No. 48,719. (Cl. 172—179.)



1. The combination with a machine to be driven, of an electric motor adapted to drive the same, and means for controlling said motor comprising a switch for the motor supply circuit, a friction brake for said motor, a brake lever operatively connected with said brake, a slide having a slot and pin connection with the motor frame and operatively connected with said switch and said brake lever, said slide being adapted to move in a substantially straight line, and means for actuating said slide to close said switch and progressively release said brake.

2. The combination with a machine to be driven, of an electric motor adapted to drive the same, and means for controlling said motor comprising a switch for the motor supply circuit, a slide having a slot and pin connection with the motor frame and being operatively connected with said switch, a friction brake for said motor, a brake lever pivotally mounted on the motor frame and operatively connected with said brake, said brake lever having a slot and pin connection with said slide, and means for actuating said slide to close said switch and progressively release said brake.

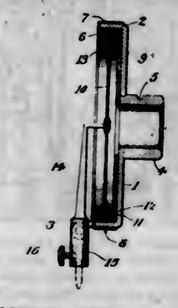
3. The combination with a machine to be driven, of an electric motor adapted to drive the same, and means for controlling said motor comprising a switch for the motor supply circuit, a friction brake for said motor, a brake lever operatively connected with said brake, a slide having a slot and pin connection with the motor frame and operatively connected with said switch and said brake lever, means for actuating said slide to close said switch and progressively release said brake, spring means engaging said brake lever for normally applying said brake, and other spring means operatively associated with said slide for normally maintaining the slide in the position in which the switch is open and the brake applied.

4. The combination with a machine to be driven, of an electric motor adapted to drive the same, and means for controlling said motor comprising a switch for the motor supply circuit, a slide having a slot and pin connection with the motor frame and being operatively connected with said switch, a friction brake for said motor, a brake lever pivotally mounted on the motor frame and operatively connected with said brake, said brake lever having a slot and pin connection with said slide, means for actuating said slide to close said switch and progressively release said brake, spring means engaging said brake lever for normally applying said brake, and other spring means operatively associated with said slide for normally maintaining the slide in the position in which the switch is open and the brake applied.

5. The combination with a machine to be driven, of an electric motor adapted to drive the same, and means for controlling said motor comprising a switch for the motor supply circuit, a slide having a slot and pin connection with the motor frame and being operatively connected with said switch, stationary and rotatable friction plates surrounding the motor shaft, a brake lever pivotally mounted on the frame of said motor and operatively connected with said friction plates, said brake lever having a slot and pin connection with said slide, means for actuating said slide to close said switch and progressively release said brake, spring means engaging said brake lever for normally maintaining said friction plates in engagement with each other, and other spring means operatively associated with said slide for normally maintaining said slide in the position in which the switch is open and the brake applied.

[Claims 6 and 7 not printed in the Gazette.]

1,206,635. SOUND-BOX FOR TALKING-MACHINES. CLINTON E. WOODS, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Jan. 21, 1915. Serial No. 3,524. (Cl. 274—37.)



1. In a sound-box for talking-machines, a casing comprising a front and a rear portion, marginal flanges on said portions fitted tightly one over the other, a diaphragm within said casing, gaskets fitted within said casing around the periphery of said diaphragm, and a centrally-apertured weight of non-resonant material such as lead in the form of a disk of uniform thickness located within the rear portion of said casing.

2. In a sound-box for talking-machines, a two-part casing of sheet metal or the like held together by friction, a non-resonant metallic disk and a diaphragm within said casing, an annular gasket between said disk and diaphragm, and a stylus bar mounted on said casing and secured at one end to said diaphragm.

3. In a sound-box for talking-machines, a diaphragm, annular gaskets on either side of said diaphragm, a metallic disk of non-resonant material adjacent one of said gaskets, and a two-part casing held together by friction and providing a chamber for securely inclosing the whole.

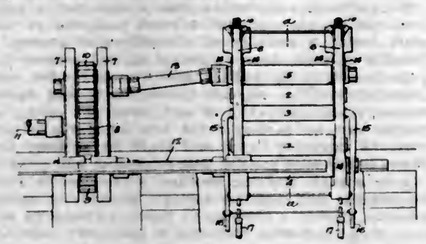
4. A sound-box for talking-machines, comprising a front casing and a rear casing fitted tightly one into the other to provide a chamber, annular gaskets within said chamber, a diaphragm between said gaskets, a non-resonant disk of substantially uniform thickness and of heavy material such as lead between one of said gaskets and one wall of said chamber, a stylus-bar connected to said diaphragm, and portions integral with said rear casing and extending forwardly beyond said front-casing to support said stylus-bar.

5. In a sound-box for talking-machines, a casing of sheet-metal or the like forming a diaphragm-chamber, a diaphragm in said chamber, a non-resonant disk of lead or the like between said diaphragm and one wall of said casing, a sylus-bar attached at one end to the center of said diaphragm, and supports integral with said casing and on which said stylus-bar is fulcrumed.

[Claims 6 to 13 not printed in the Gazette.]

1,206,636. ROLLING-MILL. JOHN S. WORTH, Coatesville, Pa., assignor to himself and William P. Worth, Coatesville, Pa. Filed Aug. 21, 1915. Serial No. 46,661. (Cl. 80—39.)

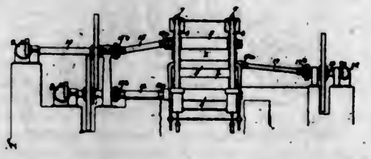
1. The combination in a rolling mill, of housings; two working rolls; supporting rolls, one supporting roll being mounted above the upper working roll and the other below the upper working roll, said supporting rolls being less in length than the working rolls and having trunnions; bearings for the trunnions of the supporting rolls; said bearings being of a greater width than the housings and taking the thrust of the working rolls.



2. The combination in a rolling mill, of housings; two working rolls; a supporting roll back of one of said working rolls, said supporting roll being less in length than the working roll against which it rests, said supporting roll having trunnions; bearings for the trunnions of said supporting roll, said bearings being of a greater width than the housings and taking the thrust of the working rolls.

3. The combination in a rolling mill, of housings; two working rolls and an intermediate roll; a supporting roll mounted below the lower working roll and a supporting roll mounted above the upper working roll; means for directly driving the two supporting rolls; and means for driving the intermediate roll.

1,206,637. ROLLING-MILL. JOHN S. WORTH, Coatesville, Pa., assignor to himself and William P. Worth, Coatesville, Pa. Filed Sept. 28, 1915. Serial No. 53,095. (Cl. 80—54.)



1. A rolling mill having a plurality of rolls; and means for independently driving a plurality of said rolls.

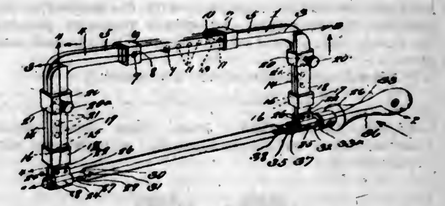
2. The combination in a rolling mill, of two working rolls and an intermediate roll; and independent means for driving each of said working rolls and for driving the intermediate roll.

3. The combination in a rolling mill, of two working rolls; a supporting roll back of each working roll; an intermediate roll; and means for directly driving each supporting roll independently.

4. The combination in a rolling mill, of two working rolls and an intermediate roll; a supporting roll back of each working roll; independent means for directly driving each of said supporting rolls; and independent means for driving the intermediate roll, said working rolls being driven by their supporting rolls.

1,206,638. HACKSAW AND FRAME THEREFOR. THOMAS B. WREN, Mahanoy City, Pa. Filed Oct. 28, 1914. Serial No. 869,122. (Cl. 145—33.)

In improvements in a hack saw construction, a frame, a saw blade, sleeves mounted on the inner and outer ends of the frame and having corresponding notches in their outer edges, plugs loosely mounted in the said sleeves, one connected to each end of the saw blade, a handle threaded on one of the plugs and having means coöperating with the adjacent sleeve whereby the plug may be adjusted longitudinally upon its axis, said means having projections to engage the notches in the edge of the inner sleeve, the plug of the outer sleeve having a transverse pin for engagement with the notches of the outer sleeve, and a spring in said outer sleeve interposed between one end of said outer sleeve and the pin for holding the saw blade taut while it is being adjusted on its axis.



1,206,639. CABINET-MAKER'S CLAMP. WILLIAM E. YOUNGQUIST and SVEN A. HOLMQUIST, Minneapolis, Minn.; said Youngquist assignor to said Holmquist. Filed June 3, 1915, Serial No. 31,846. Renewed July 28, 1916. Serial No. 111,830. (Cl. 144—303.)



1. A clamping device comprising coöperating clamping bars, one thereof having an adjustable clamping head and means for moving the same thereon, a second clamping head, having means for adjustably anchoring the same to both clamping bars, and a device for detachably anchoring the ends of the said two clamping bars.

2. A clamping device comprising coöperating clamping bars, one thereof having a fixed thrust-head and sliding clamping head, a clamping-screw adjustably connecting said clamping head to said thrust head, a second clamping head having means for adjustably anchoring the same to both clamping bars, and a device for detachably anchoring the thrust-head end of one clamping bar to the free end of the other clamping bar.

3. A clamping device comprising coöperating clamping bars, one thereof having a fixed thrust-head and an adjustable clamping head, a clamping-screw adjustably connecting said clamping head to said thrust-head, a second head, having means for adjustably anchoring the same to both of said clamping bars, and an oblique link detachably connecting the thrust-head end of the one clamping bar to the free end of the other clamping bar.

4. A clamping device comprising coöperating clamping bars, having notched outer edges, one of said bars having a fixed thrust-head and a sliding clamping head, the other bar terminating short of said clamping head and having a link engaging detail, a clamping-screw connecting said thrust-head to said clamping head, an anchor link pivoted to said thrust-head and detachably engageable with the detent of the other clamping bar, obliquely across the inner edges of both clamping bars, a second clamping head slidably mounted on both clamping bars with clearance permitting the said bars to be separated by annular movement, and anchor links pivoted to the said second clamping head and detachably engageable with the notches of the said two clamping bars.

5. A clamping device comprising coöperating clamping bars, having notched outer edges, one of said bars having a fixed thrust-head and a sliding clamping head, the other bar terminating short of said clamping head and having a link engaging detail, a clamping-screw connecting said thrust-head to said clamping head, an anchor link pivoted to said thrust-head and detachably engageable with the detent of the other clamping bar, obliquely across the

inner edges of both clamping bars, a second clamping head slidably mounted on both clamping bars with clearance permitting the said bars to be separated by annular movement, anchor links pivoted to the said second clamping head and detachably engageable with the notches of the said two clamping bars, and springs yieldingly pressing the anchor links of said second clamping head toward each other.

[Claims 6 and 7 not printed in the Gazette.]

1,206,640. HORSESHOE. JOHN JOSEP ZIPAY, Sandcoulee, Mont. Filed June 26, 1916. Serial No. 105,900. (Cl. 168—9.)

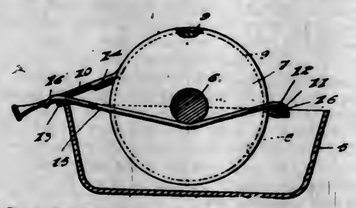


1. A horse shoe of the class described comprising two hinged sections, longitudinally extensible connecting means between the free ends of said sections, upwardly and inwardly projecting flanges on said sections, an arcuate slightly flexible plate adapted to be positioned across the upper front portion of a horse's hoof and having its ends adjustably and detachably connected with the flanges adjacent their rear ends, and said plate detachably connected with the adjacent ends of said flanges at the front of the hoof.

2. A horse shoe of the class described comprising two hinged sections having calks thereon, longitudinally extensible connecting means between the free ends of said sections, upwardly and inwardly projecting serrated flanges on said sections, fastening members secured adjacent the rear ends of said flanges, hooks formed on the uppermost points at the front ends of the flanges, an arcuate slightly flexible plate with converging ends adapted to be positioned across the upper front portion of a horse's hoof, said ends of the plate having a plurality of spaced slots therein adapted to receive the fastening members, and the lower edge of said plate being slotted to receive the hooks on said flanges.

3. A horseshoe of the class described comprising two hinged sections having openings adjacent their free ends, calks with projecting studs adapted to be removably positioned in said openings, means to secure said sections to a horse's hoof, a laterally projecting integral socket member extending from one of said calks and forming an arm thereon, the other calk having an opening therethrough disposed in alinement with the said socket member, and a bolt projecting through said opening in the calk and having a threaded engagement with the socket member of the opposite calk.

1,206,641. LABEL-PASTING MACHINE. HANS ACKERMANN, San Francisco, Cal. Filed Feb. 18, 1916. Serial No. 79,207. (Cl. 91—58.)



1. In a paste applying machine, a paste container, a roller supported in said container having a plurality of uniformly spaced circumferential grooves, a plurality of fingers arranged in said grooves and projecting forwardly of said roller, and a deflector plate secured to said fingers having a beveled edge engaging said roller.

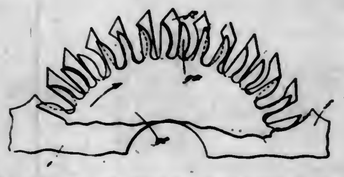
2. In a paste applying machine, a container, a roller supported in said container having a plurality of circumferential grooves, a plurality of fingers arranged in said grooves and projecting forwardly of said roller, means connecting said fingers forwardly and rearwardly of said roller, and spring means engaged with said connecting means and extending under said roller for retaining said fingers in said grooves.

3. In a paste applying machine, a container, a shaft supported in said container, a roller supported on said shaft having a plurality of circumferential grooves, a plurality of guide fingers arranged in said grooves and projecting forwardly and rearwardly of said roller, rods connected with the opposite extremities of said fingers forwardly and rearwardly of said roller, and spring retaining members having curved ends engaged with said rods and extending under said shaft for securing said fingers in operative position with relation to said roller.

4. In a paste applying machine, a container, a roller supported in said container having a plurality of circumferential grooves, a plurality of fingers arranged in said grooves and projecting forwardly of said roller, rods connected with the opposite extremities of said fingers forwardly and rearwardly of said roller, and means associated with said rods for securing said fingers in operative position with relation to said roller.

5. In a paste applying machine, a container, a paste applying roller supported in said container having a plurality of circumferential grooves, a plurality of fingers arranged in said grooves and projecting forwardly of said roller, a deflector plate connecting said fingers forwardly of said roller, rods connecting said fingers forwardly and rearwardly of said roller, and spring-retaining members having curved ends engaged with said rods for securing said fingers in operative position with relation to said roller.

1,206,642. MACHINE FOR CUTTING CROPS. NAOUM ALCHEVSKY, Holborn, England. Filed Apr. 18, 1916. Serial No. 92,031. (Cl. 56—45.)



1. A crop cutting machine comprising a fixed comb having a plurality of teeth provided with curved cutting edges and a movable cutter having a plurality of teeth provided with curved cutting edges, the cutting edges of the teeth of the comb and those of the cutter being so shaped that they are parallel with each other when effecting the cutting action.

2. A crop cutting machine comprising a fixed comb having a plurality of curved portions which are provided with cutter teeth radially arranged thereon, and a rotating cutting wheel for each curved portion of the fixed comb, the said cutting wheels having teeth provided with curved cutting edges which are positioned parallel to the cutting portions of the fixed comb teeth when effecting the cutting action.

3. A crop cutting machine comprising rotary cutting wheels having radial teeth, a fixed comb having semi-circular portions on which are provided radial teeth which point generally in the direction of travel of the machine whereby standing crops may be guided into the path of the cutting teeth, the cutting edges of the teeth on the wheels and the fixed comb being parallel to each other when effecting the cutting action.

4. In a crop cutting machine, a fixed semi-circular comb having a series of radiating teeth including a centrally positioned tooth, the teeth on each side of the central tooth having angular pointed ends, said teeth being of different form the angle at the vertex at the ends of the teeth being reduced gradually away from the central tooth, each of said teeth having a concave cutting edge of substantially the same formation, and a rotary cutter having teeth semi-ovate in form to produce convex cutting edges, the convex cutting edge of each tooth of the rotary cutter coöperating with the concave cutting edge of each tooth of the comb so that the coöperating teeth will cut throughout their length at the same instant.

5. In a crop cutting machine, a plurality of rotatable cutters each having a sprocket wheel, an endless sprocket chain for engagement with a plurality of said sprocket wheels, rake mechanism coöperating with the cutters, said rake mechanism including a plurality of endless sprocket chains each of which pass over a plurality of end sprocket wheels of the rake mechanism, a power wheel having a shaft movable therewith, said shaft having a sprocket wheel to engage the cutter sprocket chain, and another sprocket wheel which engages a plurality of rake mechanism sprocket chains.

[Claims 6 to 11 not printed in the Gazette.]

1,206,643. CONTROLLING ALTERNATING CURRENTS. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 7, 1912. Serial No. 735,359. (Cl. 250—19.)



1. An apparatus of the character described comprising a unitary structure composed of laminated magnetic material and having two cores adapted to receive windings, the magnetic circuits in the magnetic material formed thereby being partly coincident and partly separate, a winding for said cores supplied by a source of high frequency alternating current and a second magnetising winding for said cores supplied by a source of direct current, the two windings being so related to each other and to the magnetic cores that high frequency alternating currents will not flow in the circuit supplying the direct current winding.

2. An apparatus of the character described comprising a unitary structure composed of laminated magnetic material and having two cores adapted to receive windings, the magnetic circuits in the magnetic material formed thereby being partly coincident and partly separate, a winding for each of said cores supplied by a source of high frequency alternating current and a second magnetising winding for each of said cores supplied by a source of direct current, the windings being so related to each other and to said cores that the electromotive forces induced in the direct current windings of the two cores by the high frequency alternating current are substantially equal and opposite.

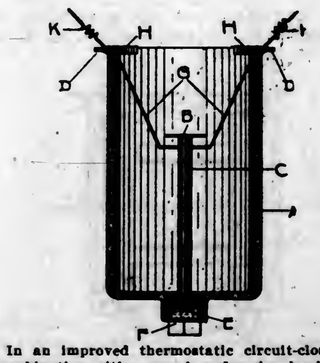
3. An apparatus of the character described comprising a unitary structure of laminated iron and having two cores adapted to receive windings, the magnetic circuits in the magnetic material formed thereby being partly coincident and partly separate, a winding for said cores supplied by a source of high frequency alternating current, a second magnetising winding for said cores supplied by a constant source of direct current and a third winding for said cores supplied by a variable current, the windings being so related to one another and to the cores that high frequency alternating currents will not flow in the circuit supplying the direct current winding.

4. An apparatus of the character described comprising a unitary structure of laminated iron and having two cores adapted to receive windings, the magnetic circuits in the magnetic material formed thereby being partly coincident and partly separate, a winding for each of said cores supplied by a source of high frequency alternating current, a second magnetising winding for each of said cores supplied by a constant source of direct current and a third winding for each of said cores supplied by a variable current, the windings being so related to one another and to the cores that the electromotive forces induced in the direct current windings of the two cores by the high frequency alternating current are substantially equal and opposite.

5. An apparatus of the character described comprising a unitary structure composed of laminated magnetic material and having a plurality of cores adapted to receive windings, the magnetic circuits in the magnetic material formed thereby being partly coincident and partly separate, a winding for said cores supplied by a source of high frequency alternating current, and a second magnetising winding for said cores supplied by a source of direct current, the two windings being so related to each other and to the cores that high frequency alternating currents will not flow in the circuit supplying the direct current winding.

[Claims 6 and 7 not printed in the Gazette.]

1,206,644. FIRE-ALARM APPARATUS. ORAZIO ALFREDO ALGERI, Providence, R. I. Filed Nov. 27, 1915. Serial No. 63,871. (Cl. 200—33.)



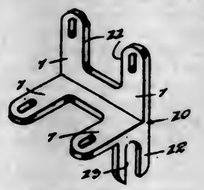
1. In an improved thermostatic circuit-closing device, the combination with a cup-shaped casing having an opening in its bottom, of a hollow stopper in said opening adapted to receive a charge of fusible substance such as paraffin, two terminals depending from the rim of the casing within its interior and connected with an electrical circuit, a rod of non-conducting material supported by the terminals to slide between their ends and normally arranged with its lower end resting on the fusible charge in the stopper, and a contact-piece carried at the upper end of the rod to adopt it to make contact across the terminals when the charge fuses and allows the rod to drop.

2. In an automatic circuit-closing apparatus, the combination with a cup-shaped shell of non-conducting material such as glass, two separate segments of conducting-material secured to the rim of the shell and connected to the wires of an electrical circuit, terminals depending from said segments within the shell with their ends spaced apart, a non-conductor rod arranged to slide vertically in notches in the ends of the terminals, a contact-member at the upper end of the rod adapted to connect the terminals in circuit, and a plug secured in the bottom of the shell and carrying a charge of fusible material adapted in its solidified state to support the rod in raised position with the contact-member held clear of the terminals.

3. In a circuit-closing apparatus, the combination with a cylindrical casing of vitreous material having an opening in its bottom, of a hollow metal plug screwed into said opening to adapt it to hold a charge of fusible substance in a solidified state, metal strips bent over the rim of the casing and fastened thereto in spaced-apart relation, binding-posts on said strips for connecting electrical conductors therewith, arms extending downwardly from the strips within the casing and bent toward each other to

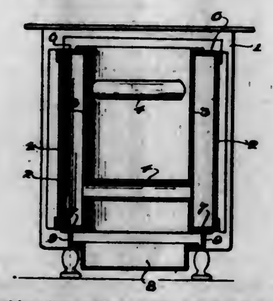
form spaced apart terminals at their ends, a vertical rod of non-conducting material slidably supported between the ends of the terminals with its lower end resting on the fusible charge in the plug, and a contact-member mounted on the upper end of the rod to be normally supported thereby free from contact with the terminals.

1,206,645. BRACKET. HERMAN ALTMAN, New York, N. Y. Filed June 2, 1914. Serial No. 842,447. (Cl. 248—18.)



A bracket consisting of a pair of angularly disposed members having slots formed therein, and a depending bifurcated flange formed integral with one of the members, for the purpose specified.

1,206,646. WATER-HEATER FOR BATH-TUBS. JOHN ANNAU, Baltimore, Md. Filed June 2, 1915. Serial No. 31,746. (Cl. 126—350.)

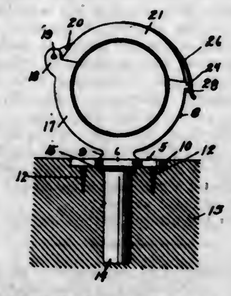


1. In combination with a bath tub having openings in one end thereof, of a heater comprising upper and lower heads secured to the end of the bath tub and having openings therein, an outer casing secured to said heads and the bath tub, an inner casing extending through the openings of the heads and having its ends bent to engage the faces of the heads to form a water jacket to receive water from the bath tub, water pipes extending transversely of the inner casing and in communication with the water jacket, said pipes forming a grate to support a fire for heating the water in the water jacket to set up a circulation of water therein and in the bath tub, and an ash tray connected to the lower head and positioned under the inner casing to receive ashes from the fire.

2. In combination with a bath tub having openings in the end thereof, of a heater comprising an outer casing, upper and lower heads secured to the casing and to the tub and provided with openings therein, an inner casing mounted in said heads to form a water jacket, water pipes carried by said inner casing and in communication with the water jacket and forming a grate to support a fire, a casing provided with a downwardly depending flange received by the upper end of the inner casing to receive heat from the fire within the inner casing for heating a room, a door carried by the heat receiving casing for supplying fuel to the fire, and a smoke stack connected to said last named casing.

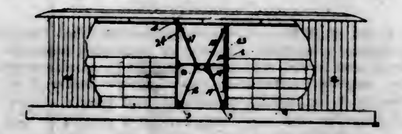
1,206,647. SAFETY OAR-LOCK. GEORGE W. ARMSTRONG, Salem, Oreg. Filed Dec. 9, 1915. Serial No. 65,951. (Cl. 9—26.)

An oar lock, comprising in combination a spindle, a lock member formed on said spindle and forming the greater part of a circle, the ends of the lock extending above the horizontal diameter of the circle, a closing member pivoted upon one end of the lock and shaped to close the latter, a locking tongue on the free end of the closing member and fitted to recess within the free end of the lock, an outwardly projecting latch member formed



on the free end of the lock member and extending beyond the outer edge thereof, and a leaf spring secured to the closing member and extending therefrom in slightly divergent relation to overlie its free end, and a catch on said spring adapted to engage over the tongue on said lock.

1,206,648. BRACE FOR HOLDING BOXES AND CRATES IN RAILWAY-CARS. CHARLES BACON, Fresno, Cal. Filed May 20, 1915. Serial No. 29,429. (Cl. 105—15.)



1. A clamp for holding merchandise within a car consisting of two movable frames, toggle members between such frames, each toggle member consisting of two center blocks having holes therein, one having a right hand thread therein and the other a left hand thread, a pair of toggle braces pivoted to each of such blocks, one of such toggle braces of each such pairs being pivoted to each of such movable frames, each of such toggle braces consisting of a plurality of toggle bars radiating from the block to which the brace is pivoted, and on a common plane, a screw having right hand threads at one end and left hand threads at the other end constructed to coöperate with the threads in such blocks, all substantially as described.

2. A car brace consisting of two upright, parallel movable frames F and G, a plurality of toggle braces connecting such frames F and G, such toggle braces being made operative by means of a screw having threads on one end thereof running in a different direction from the threads on the other end, and catches for locking either of such frames to the walls of a car, all substantially as described.

1,206,649. ANIMAL-TRAP. WILLIAM EDWARD BAKER, McCauley, Tex., assignor of one-half to William F. Sonneman, Waco, Tex. Filed July 17, 1915. Serial No. 40,384. (Cl. 43—24.)

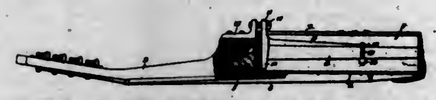
1. An animal trap including a cage provided with a chamber having an entrance at one end thereof and communicating through the bottom thereof with the interior of the cage, a downwardly swinging horizontally disposed trap door normally closing the bottom of the chamber and pivoted at a point spaced from the outer end thereof to swing about a horizontal axis so that the outer end of the trap door swings upwardly as the inner end thereof swings downwardly to deposit an animal into the trap,

an upwardly swinging door overhanging the outer end of the trap door and normally resting flatly upon the same, said upwardly swinging door extending beyond the horizontal axis of the trap door so as to provide a firm footing for the animal until he is well within the trap, and the outer end of the upwardly swinging door being pivoted to swing about a transverse axis parallel to the axis of the trap door and in the same horizontal plane therewith, an arm projecting downwardly from the pivot end of the upwardly swinging door, and a link pivotally connecting the arm and the outer end of the trap door for producing a simultaneous actuation of the two doors as soon as the weight of the animal is transferred from the upwardly swinging door to the trap door.



2. An animal trap including a cage provided with a chamber having an entrance at one end thereof and communicating through the bottom thereof with the interior of the cage, a downwardly swinging horizontal trap door normally closing the bottom of the chamber and pivotally mounted at a point spaced from the outer end thereof so that the outer end thereof swings upwardly when the inner end thereof swings downwardly to deposit an animal into the trap, an upwardly swinging door overhanging the outer end of the trap door and resting squarely thereon, said upwardly swinging door extending beyond the axis of the trap door so as to provide a firm footing for the animal until it is well within the trap, and said upwardly swinging trap door being pivotally mounted at its outer end to swing about a transverse axis parallel to the axis of the trap door and in the same horizontal plane therewith, a rigid arm projecting downwardly from the pivot end of the upwardly swinging door, and a U-shaped link member having the cross bar thereof pivotally connected to the end of the arm while the extremities of the side pieces thereof are pivotally connected to the outer end of the trap door so as to produce a simultaneous actuation of the two doors as soon as the weight of the animal is transferred from the upwardly swinging door to the trap door.

1,206,650. BRACE FOR MUSICAL INSTRUMENTS OF THE BANJO TYPE. EDWARD E. BARDSLEY, Westville, N. J. Filed June 22, 1916. Serial No. 105,197. (Cl. 84—123.)



1. The combination with a musical instrument having a neck, a rim and strings of a brace extending within said rim and having a projecting arm; a bracket on the neck having an arm projecting adjacent the arm of the brace; and means for connecting said arms.

2. The combination with a musical instrument having a neck, a rim and strings of a brace extending within said rim and having a projecting arm; a bracket on the neck having an arm projecting adjacent the arm of the brace; and means for adjustably connecting said arms.

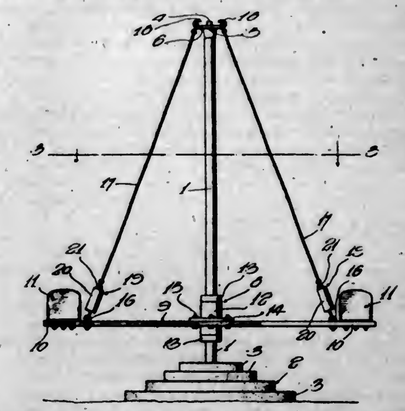
3. The combination with a musical instrument having a neck, a rim and strings of a brace extending within said rim and having arms projecting in opposite directions from one end, one of said arms extending beyond the edge of the rim; a bracket on the neck having an arm extending adjacent said latter arm of the brace; and means for connecting said arms of the brace and bracket.

4. The combination with a musical instrument having a neck, a rim and strings of a brace extending within said rim and having a fork at one end bearing against the inner surface of the rim; an arm projecting from said brace at the same end thereof as said fork; and means for adjustably connecting said arm to the neck.

5. The combination with a musical instrument having a neck, a rim and strings of a brace extending within said rim and having a fork at one end bearing against the inner surface of the rim; an arm projecting from said brace at the same end thereof as said fork; means for adjustably connecting said arm to the neck, the same consisting of an angle piece fixed to the neck; and a bolt extending between the arm of said brace and one of the arms of said angle piece.

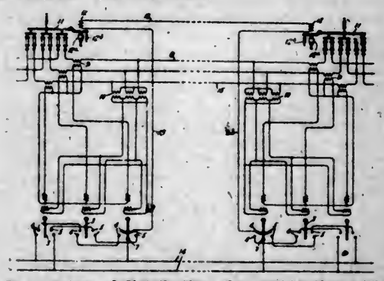
[Claim 6 not printed in the Gazette.]

1,206,651. MERRY-GO-ROUND. EDWARD MARTIN BARIDO and ALFRED CLEARENCE HARTLING, Ambridge, Pa. Filed Feb. 7, 1916. Serial No. 76,843. (Cl. 46—27.)



A device of the class described comprising an upright, cable attaching means secured on the upper end of said upright, a sleeve adapted for slidable and rotary movement on said upright, a plurality of cables depending from said cable attaching means, an arm carried by said sleeve and supported by said cables, seats supported on said arm, and a series of annular concentric steps surrounding and supporting said upright.

1,206,652. PROTECTIVE SYSTEM. DAVID BASCH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 7, 1912. Serial No. 719,061. (Cl. 175—294.)



1. In a system of distribution, the combination with an energy carrying circuit and switches for controlling said circuit, of electroresponsive tripping means for said switches comprising normally energized trip coils, and means for tripping said switches when said coils are deenergized, an energizing circuit for said trip coils, relays responsive to the direction of energy flow through said

switches, similar contacts closed by said relays to maintain said energizing circuit energized when the energy flow through said switches is in the same direction, and other contacts closed by said relays to maintain said energizing circuit energized when there is no energy flow through said switches, said relays operating only when the energy flow through said switches is in opposite directions to open said energizing circuit and thereby allow said switches to open.

2. In a system of distribution, the combination with an energy carrying circuit and switches for controlling said circuit, of electroresponsive tripping means for said switches comprising normally energized trip coils, and means for tripping said switches when said coils are de-energized, an energizing circuit for said trip coils, energy responsive relays comprising contact arms movable into either one of two positions dependent upon the direction of energy flow through said switches and biased to a neutral position upon the occurrence of no flow of energy through said switches, two sets of similar contacts adapted to be closed when said contact arms are respectively in either one of said first mentioned positions to close the energizing circuit for said trip coils, and other similar contacts adapted to close the energizing circuit for said trip coils when said contact arms are in said neutral position whereby said switches remain closed not only while the flow of energy through said switches is in the same direction but also when there is no energy flow through said switches.

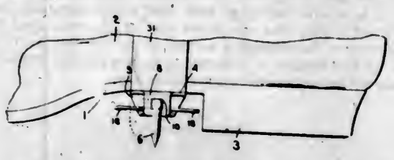
3. In a system of distribution, the combination with an energy carrying circuit and switches for controlling said circuit, of electroresponsive tripping means for said switches comprising normally energized trip coils, and means for tripping said switches when said coils are de-energized, an energizing circuit for said trip coils, energy responsive relays responsive to the direction of energy flow through said switches, contacts closed by said relays to complete said energizing circuit when the energy flow through said switches is in one direction, second contacts closed by said relays to complete said energizing circuit when the energy flow through said switches is in the reverse direction, and third contacts between said first and second mentioned contact closed by said relays to complete said energizing circuit when there is no energy flow through said switches.

4. In a system of distribution, the combination with an energy carrying circuit and switches for controlling said circuit, of electroresponsive tripping means for said switches comprising normally energized trip coils, and means for tripping said switches when said coils are de-energized, an energizing circuit for said trip coils, control relays for said energizing circuit responsive to direction of energy flow through said switches, similar contacts closed to maintain said circuit energized by the movement of said relays in response to the flow of energy through said switches in one direction, a second set of similar contacts closed to maintain said circuit energized by the movement of said relay in response to the flow of energy through said switches in the reverse direction, and retarding means operatively related to said tripping means for preventing said switches from opening as the unidirectional flow of energy through said switches reverses.

5. The combination with electrical apparatus and switches adapted to cut said apparatus either partly or wholly from the source of supply and load, of means for operating said switches including trip coils, relays connected to said apparatus, each relay held in one position with energy flow through its point of connection to said apparatus in one direction and in another position with energy flow in the reverse direction, and held in a neutral position when there is no energy flow, a set of contacts closed by each of said relays in each of said positions, a source of energy for energizing said trip coils, and connections between said trip coils said source of energy and contacts so arranged that a circuit is completed through the trip coils in one direction when the relays are all influenced by energy flowing through their points of connection to the apparatus in certain relative directions, and is completed in the reverse direction when the flow of energy is reversed in direction through all said points and is completed when the relays are in a neutral position.

[Claim 6 not printed in the Gazette.]

1,206,653. ICE-CREEPER. WILLIAM A. BEARD, Ayer, Mass. Filed June 21, 1916. Serial No. 105,048. (Cl. 36—61.)



1. In an ice creeper, the combination with a plate adapted to be secured to the sole of a shoe and bent to present at each end thereof an upturned ear, each ear having a square aperture therein, of a bar having holding spurs and extending through the apertures in said ears, said bar having non-circular portions of a size to fit the apertures and also other portions capable of rotation in said apertures, said bar being slidable longitudinally in the apertures to bring either the non-circular or other portions into said apertures, one of said ears having a locking latch extending therefrom adapted to engage said bar and lock it in a position in which the non-circular portions occupy the apertures.

2. In an ice creeper, the combination with a plate having upturned ears, of a bar provided with holding spurs and mounted in said ears for longitudinal movement, said bar in one position being free to turn to carry the spurs from operative to inoperative position and in another position being locked from turning movement, and means to lock the bar from longitudinal movement when in the latter position.

3. In an ice creeper, the combination with a plate having upturned ears, of a bar provided with holding spurs and mounted in said ears for longitudinal movement, said bar in one position being free to turn to carry the spurs from operative to inoperative position and in another position being locked from turning movement, and a locking latch carried by one ear and adapted to have locking engagement with the bar to lock the latter from longitudinal movement.

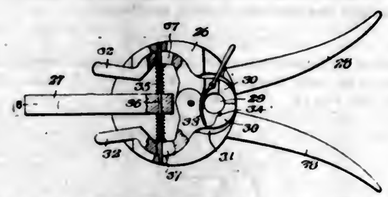
4. In an ice creeper, the combination with a plate having upturned ears, of a bar provided with holding spurs and mounted in said ears for longitudinal movement, said bar in one position being free to turn to carry the spurs from operative to inoperative position and in another position being locked from turning movement, said bar having a shoulder, and a locking latch adapted to engage said shoulder and lock the bar positively from longitudinal movement when it is locked from turning movement.

5. In an ice creeper, the combination with a plate having upturned ears, of a bar provided with holding spurs and mounted in said ears for longitudinal movement, said bar in one position being free to turn to carry the spurs from operative to inoperative position and in another position being locked from turning movement, said bar having a shoulder, and a resilient locking latch carried by one of the ears and adapted to engage said shoulder and lock the bar from longitudinal movement.

[Claim 6 not printed in the Gazette.]

1,206,654. MAIL-BAG CATCHING AND DELIVERING DEVICE. MARTIN BECKER, Macdona, Tex. Filed May 1, 1914. Serial No. 835,703. (Cl. 258—22.)

1. A mail bag catcher comprising a table formed with rigid outwardly divergent catching arms and with an opening between the catching arms, grab jaws, pivotally mounted on the table and having hand levers arranged to move within recesses in said table, means acting on the levers for automatically closing grab jaws and a trip latch pivoted to one of the grab jaws and engaging with the other for normally holding the said jaws open and bridge the opening in the table.



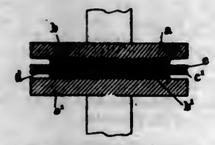
2. A mail bag catcher comprising a table formed with an opening and a recess the wall of which being arcuate shaped at two-spaced points, grab jaws pivotally mounted in the recess and having arcuate shaped hand levers adapted to move in engagement with the arcuate portion of the recess wall for distributing the stress to which the pivot of the jaws are subjected, means acting upon the levers for automatically closing the grab jaws, and a trip latch arranged to be struck by the mail bag, said trip being pivotally mounted upon one jaw and having a detachable engagement with the other jaw.

1,206,655. MOP, BROOM, AND CARPET-SWEEPER HOLDER. JOHN W. BELCHER, Allston, Mass. Filed Oct. 5, 1915. Serial No. 54,245. (Cl. 24—249.)



A support adapted for attachment to a fixed structure embodying a plate formed with bearings, an article holder pivotally mounted in the bearings of said plate, said holder being stamped out at one end to provide a slot and at its opposite end to form a circular opening, the opening being adapted for the insertion of the article to be supported, a series of prongs arranged on the inner circumference of the opening for penetrating the handle of the article to be supported to prevent any accidental removal of the latter from said holder, and a spring mounted in the slot of the article holder and preventing displacement of the pivots of said article holder from the bearings of said plate.

1,206,656. PRESS-PLATE. EDOUARD BENEDICTUS, Paris, France. Filed Aug. 1, 1912. Serial No. 712,732. (Cl. 25—102.)

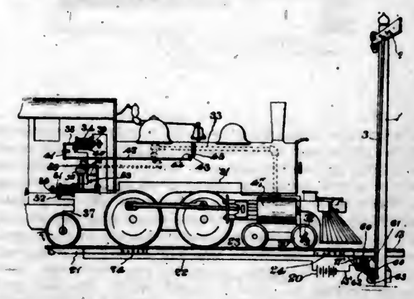


1. A press of the character described having upper and lower press plates, one of said plates having its face normally convexed, in combination with cushioning mattresses on the faces of said plates, said mattresses being susceptible of material lateral expansion in all directions under pressure, for the purpose described.

2. A press of the character described, having upper and lower press plates, one of the said plates having its face permanently convexed, in combination with cushioning mattresses on the faces of said plates, for the purpose described.

3. A press for compressing sheets of glass upon an interposed sheet of adhesive, said press having upper and lower press plates, one of said plates having its face normally convexed, in combination with cushioning mattresses on the faces of said plates, said mattresses being normally of less area than that of the adhesive sheet but expanding under operating pressure to substantially the area of the adhesive sheet, for the purpose described.

1,206,657. AUTOMATIC TRAIN-STOP. ODUS A. BENEFIEL, Rushville, Mo. Filed Sept. 9, 1914. Serial No. 860,879. (Cl. 246—58.)



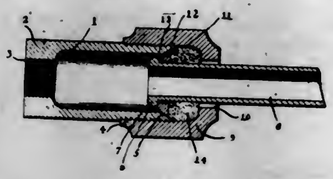
1. In combination with a locomotive provided with electrically controlled automatic stopping means and having the wheels of its pony truck insulated from the axle thereof, a pair of alining rails, the adjacent ends of said rails being spaced, said rails being adapted to carry electric current, a section of rail insulated from and secured to the rails to form a substantially continuous rail and to prevent the rails from being electrically connected except when the locomotive bridges said rail and thereby causes the stop mechanism to be operated.

2. In a train stop, a locomotive provided with the usual steam dome, steam chest, pipe for connecting the steam dome and steam chest and a throttle valve for controlling the flow of the steam from the dome into the steam chest, a gate valve mounted in said pipe between the throttle valve and the steam chest, electrical means controlling the operation of said gate valve, an air valve, electrical means controlling the operation of the air valve, the steam and air valve controlling means being in series, wheels carried by and insulated from the pony truck of the locomotive, a wire leading from said wheels to the steam valve controlling means, a wire connecting the steam valve controlling means with the air valve controlling means, a wire connecting the air valve controlling means to the frame of the locomotive, a pair of track rails in spaced relation and arranged in longitudinal alinement, a rail section of less length than the length of the locomotive connecting the rails and being insulated therefrom, a power source, a wire connecting one terminal of the power source to one of the rails, an automatically operated switch, a wire connecting the opposite terminal of the power source to one pole of said switch, a wire connecting the opposite pole of the switch with the other rail and means to close the switch upon the movement of a semaphore arm into its "danger" position.

3. In combination with a locomotive having electrically controlled stopping means, a pair of rails arranged in spaced longitudinal alinement, a section of rail connecting the rails, and insulated therefrom to form a substantially continuous rail, a semaphore positioned near the rails, a semaphore arm at the upper end of the semaphore, a switch, one pole of said switch being connected to one of the rails, a power source, one terminal of the power source being connected to the opposite terminal of the switch, the opposite terminal of the power source being connected to the other rail and means connecting the semaphore arm with the switch whereby upon the movement of the semaphore arm into "danger" indicating position, the

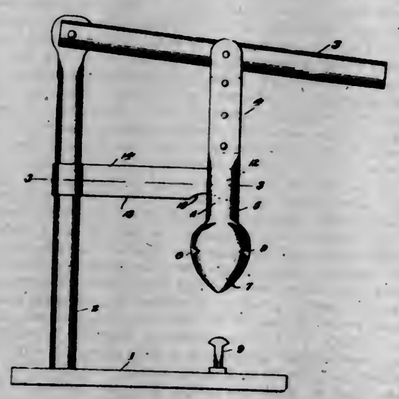
switch will be closed, thereby charging both rails and causing the current to flow through the train stopping mechanism, when the locomotive bridges the rail section.

1,206,658. EXPANSION-UNION. WILLIAM F. BERRYMAN, Middletown, Ohio. Filed Mar. 18, 1916. Serial No. 85,149. (Cl. 137—34.)



A pipe joint comprising two pipe sections of relatively different diameters, one slidable within the other, the large pipe having its confronting edge formed with an annular groove which is arcuate shape in cross section, a packing ring mounted in said groove and having its outer face rounded, the opposite sides of the ring being flat, an annular packing box threadedly mounted upon the inner confronting edge of the larger pipe and having its outer end formed with an inwardly extending annular flange, compressing packing material mounted within the box, said flange coöperating with said ring to hold the packing within the box, said smaller pipe being of such a diameter as to loosely fit within said box and said ring, an annular shoulder formed on the inner end of the smaller pipe and engageable with the inner flat side of said ring whereby upon lateral movement of the pipes, the ring will be moved to compress the packing.

1,206,659. PITTER. FRED BETHKE, Visalia, Cal. Filed July 28, 1916. Serial No. 111,918. (Cl. 146—6.)

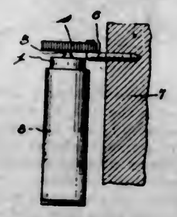


1. A pitter comprising a base, a standard formed on the base, a lever pivotally connected to the standard, vertically disposed spaced resilient arms having their upper ends pivotally connected to the lever, the lower ends of the arms being provided with spoon shaped portions, and means carried by one of the portions for limiting the spreading of the portions.

2. A pitter comprising a base, a standard formed on the base, a lever pivotally connected to the standard, spaced resilient arms pivotally connected to the lever, means carried by one of the arms for limiting spreading of the arms, and a loosening member formed on the base and disposed in vertical alinement with the said arms.

3. A pitter comprising a base, an upright formed on the base, a lever pivotally connected to the upright, spaced resilient arms pivoted to the lever, a loosening member formed on the base and arranged in vertical alinement with the said arms and an ejecting member carried by the upright and disposed between said arms.

1,206,660. COMBINED CAP AND HANGER. HENRY J. BOISSEAU, New Orleans, La. Filed Apr. 13, 1915. Serial No. 21,112. (Cl. 221—60.)



1. The combination with a closure cap for receptacles of a shank carried by the cap and extending outwardly from the outer end thereof, and hanging means in spaced relation with the cap carried by the shank.

2. The combination with a receptacle closure cap of a shank carried by said cap and extending outwardly from the outer face thereof and a laterally projecting hanging element carried by said shank in spaced relation with the cap and projecting outwardly beyond the same, the side of the cap forming a guiding means for the hook for engaging the hanging element.

3. The combination with a closure cap, of a shank extending outwardly therefrom and formed integral therewith, and a circular head carried by said shank and being provided with a plurality of hook receiving openings therein, said cap being arranged to guide the bill of a hook into the said opening.

4. A device of the class described including an interiorly threaded closure cap having vertical side walls and provided with a central upwardly projecting shank rigid with the cap and a circular head consisting of a flat disk centrally connected to the outer end of the shank and being of greater diameter than and projecting outwardly beyond the cap in spaced relation with the top of the same and provided with openings having their inner walls arranged in substantially vertical alinement with the side wall of the cap, whereby the side walls of the cap are adapted to guide the bill of a hook into the said openings, said head being provided with a roughened periphery for screwing the cap on and off.

5. A device of the class described including an interiorly threaded closure cap having vertical side walls and a circular head projecting outwardly beyond the vertical side walls of the cap and provided with vertical openings having their inner walls arranged in vertical alinement with the side walls of the cap whereby the side walls of the cap are adapted to guide the bill of a hook into the said openings.

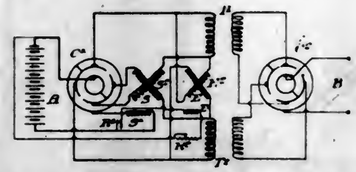
1,206,661. CLOSURE FOR COLLAPSIBLE TUBES. ALBA C. BOOTH, Burlington, Vt. Filed Apr. 14, 1916. Serial No. 91,156. (Cl. 221—60.)



1. A colapsible tube having an outlet, and an inverted dome-shaped resilient body arranged within the tube and having a central opening in its bottom portion for the passage of the material, the said bottom portion of the body provided with the opening being flexible in both directions from a normal position.

2. A colapsible tube having an outlet, a diaphragm arranged within said tube and comprising an inverted dome-shaped body of resilient material having its bottom portion provided with a central opening, said bottom portion of the body being flexible in both directions from a normal position, and a spring acting upon the central portion of the body for limiting its opening movement toward the outlet of the tube.

1,206,662. TRANSFORMER OF CONTINUOUS CURRENT. PAUL MARIE JOACHIM BOUCHEROT, Paris, France. Filed Aug. 28, 1913. Serial No. 787,130. (Cl. 171—97.)



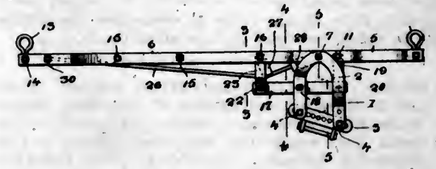
1. A direct current transformer consisting of a plurality of successively working static transformers, a pair of rotary commutators respectively connected, one to the primary windings of said transformers and to the generator of direct current, the other to the secondary windings of the same transformers and to the receptor of direct current, and an exciting alternator, operating in synchronism with said commutators, and having each of its induced windings permanently connected in shunt with one of the windings of each transformer, and having its inducing windings permanently connected in shunt with one of the direct current apparatus.

2. A direct current transformer consisting of a plurality of successively working static transformers, a pair of rotary commutators respectively connected, one to the primary windings of said transformers and to the generator of direct current, the other to the secondary windings of the same transformers and to the receptor of direct current, and a compensating alternator, operating in synchronism with said commutators, and having each of its induced windings permanently connected in series with one of the windings of each transformer, and having its inducing windings permanently connected in series with one of the direct current apparatus.

3. A direct current transformer, consisting of a plurality of successively working static transformers, a pair of rotary commutators, respectively connected, one to the primary windings of said transformers and to the generator of direct current, the other to the secondary windings of the same transformers and to the receptor of direct current, an exciting alternator, operating in synchronism with said commutators, having each of its induced windings permanently connected in shunt with one of the windings of each transformer, and having its inducing windings permanently connected in shunt with one of the direct current apparatus, and a compensating alternator, operating in synchronism with said commutators, having each of its induced windings permanently connected in series with one of the windings of each transformer, and having its inducing windings permanently connected in series with one of the said direct current apparatus.

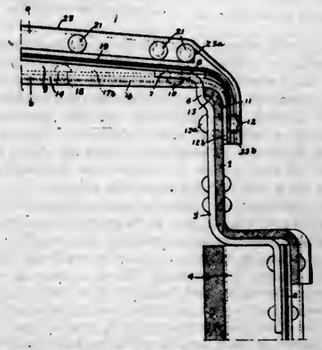
1,206,663. DRAFT-EQUALIZER. CLINTON H. BRADSHAW, Prairie Depot, Ohio. Filed Apr. 26, 1915, Serial No. 23,977. Renewed May 26, 1916. Serial No. 100,158. (Cl. 21—76.)

The herein described draft equalizer comprising a yoke, a short draft bar and a long draft bar extending from opposite sides of the yoke, pivotally connected thereto and having a common pivot axis, a lever pivotally connected to that side of the yoke from which the long draft bar extends and links connecting the opposite ends of said lever respectively to the short and long draft arms, the pivotal connections between said links and said draft arms being at unequal distances from the common pivot of said draft bars, the said yoke comprising a pair of U-shaped members having their central or front portions spaced apart, a clevis secured between the arms of the members of the said yoke and each of the said draft bars comprising a pair of spaced inwardly diverging members,



the pivot connection between said draft bars and the members of the yoke being a bolt, the pivot connections between the links and the draft bars also being bolts, each of said bolts having a spacer sleeve, and the said longer arm also having a truss comprising a rod having its outer end attached thereto, a U-shaped link connecting the inner end of said rod to the common pivot bolt of said draft bars and a U-shaped strut attached to the pivot bolt which connects the links of the long lever bar.

1,206,664. CAR-ROOF. CHARLES BRECHT, Coatesville, Pa., assignor to John S. Worth and William P. Worth, Coatesville, Pa. Filed Sept. 21, 1915. Serial No. 51,850. (Cl. 108—5.4.)



1. The combination in a car roof structure of cornice plates; a series of carlines, having their ends turned down over the upper edges of the cornice plates and secured thereto, said carlines having lateral flaring portions; roof sheets resting on the flaring portions; and braces secured to said flaring portions and to the cornice plates.

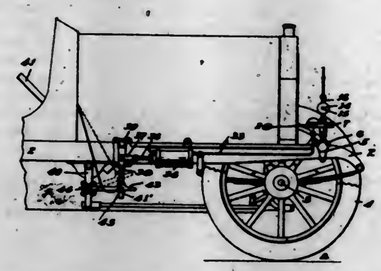
2. The combination of cornice plates; carlines extending from one cornice plate to the other, channeled in cross section and having flared flanges at each end; roof sheet supports secured to the carlines and extending above the upper edge thereof and also turned down at each end over the cornice plates; and roof sheets having upturned flanges abutting the roof sheet supports and secured thereto by transverse rivets, said roof sheets also extending down over the cornice plates and the turned over portions of the carlines.

3. The combination of a channeled carline having its base pressed to form a recess; an angular roof sheet support resting on the raised portion of the base of the carline; and rivets securing the two parts together, the lower heads of the rivets resting in the recess, the upper edge of the roof sheet support extending above the car-

line, the roof sheet having upwardly extending flanges secured to the roof sheet support.

4. The combination in a car roof structure, of cornice plates at each side of the car; a series of carlines U-shaped in cross section extending across the car and having their ends bent down over the edge of the cornice plates; a roof sheet support projecting from the carlines; flanged roof plates, the flanges of which are secured to the said roof sheet support, the edges of the plates being turned down over the cornice plates, the roof sheet being spaced from the carlines at the cornice plates so as to allow for the escape of water from the carlines due to leakage and to allow for ventilation.

1,206,665. HEADLIGHT-ADJUSTING MEANS. HOWARD D. CAMMACK and EDWARD V. VERHEYEN, Minneapolis, Minn., assignors, by mesne assignments, to Universal Auto Supply Co., Minneapolis, Minn., a Corporation of Minnesota. Filed Feb. 15, 1916. Serial No. 78,375. (Cl. 240—62.)



1. The combination, with the steering mechanism of a power propelled vehicle, of a headlight mounted on the vehicle, an inelastic fluid circulating system, a piston therein connected with said steering mechanism to be actuated through the operation of said mechanism in swinging the wheels, and means connected with said headlight and actuated through said inelastic fluid and the movement of said piston to rotate said head-light simultaneously with the movement of the wheels.

2. The combination, with a power propelled vehicle and its forward wheels and a steering mechanism therefor, of headlights mounted on the vehicle for rotation thereon, a cylinder having a piston operatively connected with said lights for rotating them, a second cylinder and a piston therefor, and inelastic fluid pipes connecting said cylinders with one another and forming therewith an inelastic fluid circulating system, and means connecting the piston of said second cylinder with said steering mechanism.

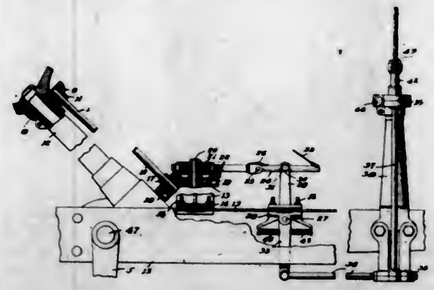
3. The combination, with a power propelled vehicle and its forward carrying wheels, of a steering mechanism therefor, head-lights mounted on said vehicle, an inelastic fluid circulating system having means connected with said lights for rotating them, a piston in said circulating system, a lever pivotally connected with said piston and means connecting said lever with said steering mechanism for transmitting the movement of the steering post to said lever and piston, for the purpose specified.

4. The combination, with a power propelled vehicle, of headlights mounted to rotate thereon, a fluid pressure circulating system having a piston connected with said headlights, a second piston and means operatively connecting said second piston with said steering mechanism for transmitting the movement of said steering mechanism through said inelastic fluid to said first named piston and lights.

5. The combination, with a power propelled vehicle and headlights mounted for rotation thereon, of a steering mechanism, including a steering post, operating mechanism including an inelastic fluid circulating system for said lights, means connecting said operating mechanism with said steering mechanism for simultaneous operation thereof, said means being mounted for movement to an inactive position to disconnect said steering mechanism from said operating mechanism.

[Claims 6 and 7 not printed in the Gazette.]

1,206,666. HEADLIGHT-ADJUSTING MEANS. HOWARD D. CAMMACK and EDWARD V. VERHEYEN, Minneapolis, Minn., assignors, by mesne assignments, to Universal Auto Supply Co., Minneapolis, Minn., a Corporation of Minnesota. Filed Mar. 8, 1916. Serial No. 82,848. (Cl. 240—62.)



1. The combination, with the steering wheel of a power propelled vehicle, of headlights mounted on the vehicle, a rock shaft, arms mounted thereon, means operatively connecting one of said arms with said headlights, a rack bar geared to said steering wheel, a tilting arm mounted on said rack bar and having means for engagement with an arm of said rock shaft for completing the connection between said steering wheel and said headlights, said tilting arm when disengaged from said rock shaft arm breaking the connection between said steering wheel and headlights.

2. The combination, with the steering wheel of a power propelled vehicle, of headlights mounted thereon, a rock shaft, arms projecting upwardly and downwardly from said shaft, springs for normally holding said arms in a vertical position, means connecting the depending arm with said headlights, and mechanism geared to said steering wheel and having means for engagement with the upwardly projecting arm of said shaft for rocking said shaft when said wheel is operated.

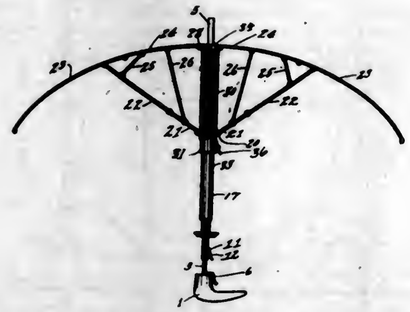
3. The combination, with a vehicle frame and lamp standards mounted thereon, of lamp brackets having depending studs journaled in said standards, gears mounted on said studs, a rack bar having teeth in engagement with said gears for simultaneous rotary movement of said lamp brackets, a spindle mounted adjacent to one of said standards, a pinion on the upper end of said spindle meshing with the gear of the adjacent lamp stud, a steering post, a rack bar geared to said post, and mechanism operatively connecting said rack bar and the lower end of said spindle for rotating said studs and lamps simultaneously.

4. The combination, with the steering wheel of a power propelled vehicle, of a headlight mounted for rotation on said vehicle, a shaft geared to said wheel, a reciprocating rack bar geared to said shaft, a rock shaft having means for connection with said rack bar, and means operatively connecting said rock shaft with said headlight.

5. The combination, with the steering wheel of a power propelled vehicle, of a headlight mounted for rotation, a rock shaft having a depending lever operatively connected with said headlight, said shaft also having an upwardly projecting lever, a rack bar having means for connection with said upwardly projecting lever, and a gearing connecting said rack bar with said steering wheel.

[Claims 6 to 9 not printed in the Gazette.]

1,206,667. FOLDING UMBRELLA. ARTHUR F. CARLSON, Edmonton, Alberta, Canada. Filed Apr. 14, 1914, Serial No. 831,886. Renewed Aug. 26, 1916. Serial No. 117,069. (Cl. 135—25.)



1. A device of the character described comprising a stem, a sleeve mounted upon said stem and having a reduced portion, stretchers, supporting members projecting from said sleeve, rods arranged around said sleeve and connected at their opposite ends by rings, ribs projecting from one of said rings, said stretchers being connected with said ribs, and a spring mounted in said sleeve and engaged with one of said rings to resiliently retain the stretchers and ribs in their outermost position.

2. A device of the class described comprising a stem, a sleeve mounted upon said stem and having an enlarged portion, a ring slidably mounted upon said stem outwardly of said sleeve, a ring slidably mounted upon said sleeve, rods connecting said rings, a spring actuated pawl carried by the second mentioned ring for engagement with the inner end of the enlarged portion of said sleeve to retain said rods and rings in their innermost positions, stretchers, a third ring rigid with said sleeve, ears projecting radially from the third mentioned ring; said stretchers being pivoted to said ears, ribs pivoted to the ring slidably mounted upon the stem, said ribs and stretchers being pivotally connected and adapted to fold against one another when said first and second mentioned rings and rods are in their innermost position, and a spring for forcing said rods and rings outwardly to retain said stretchers and ribs in their extended positions.

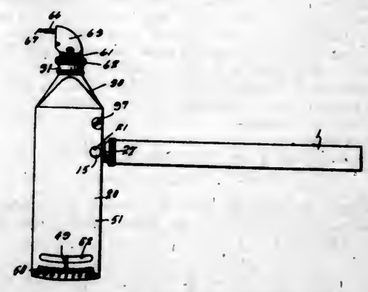
3. A device of the class described comprising the combination with an inner stem section, a handle removably engaged upon said inner stem section, an outer stem section telescopically connected with the inner stem section, a sleeve rigidly mounted upon said outer stem section, connected ribs and stretchers, supporting means carried by said outer stem section and sleeve to support said connected stretchers and ribs, and a pawl for locking the outer stem section against movement upon the inner stem sections.

4. A device of the class described comprising a stem, a sleeve and ring rigidly mounted upon said stem, inner stretcher sections mounted upon said sleeve and ring, outer stretcher sections pivoted to said inner stretcher sections, a ring slidably mounted upon said stem, inner rib sections mounted upon the last mentioned ring, outer rib sections pivotally connected to said inner rib sections, said outer stretcher sections being pivotally connected to the outer rib sections, said inner and outer rib sections and inner and outer stretcher sections being adapted to be folded against said stem, and a spring for resiliently retaining said stem and stretcher sections in extended position.

5. A device of the class described comprising a stem, a ring slidably mounted upon said stem, inner rib sections pivotally connected to said ring, outer rib sections pivotally connected to the inner rib sections, a sleeve rigidly mounted upon said stem, inner stretcher sections pivotally connected to said sleeve, outer stretcher sections pivotally connected to said inner stretcher sections, said outer stretcher sections being pivotally connected to said outer rib sections, means for locking the ring in its innermost position to retain the rib sections and stretcher sections in folded position against said stem, and a spring within the sleeve and bearing against the ring to force the latter outwardly when it is released.

[Claim 6 not printed in the Gazette.]

1,206,668. SURFACE-GAGE. LUDGER J. CARON, Leominster, Mass. Filed May 14, 1915. Serial No. 28,110. (Cl. 33—172.)



1. In a surface gage, a casing, a scale graduated upon said casing, an indicating finger carried by said casing for co-action with said scale, said indicating finger having one end secured to a pin, said pin being rotatably supported by said casing, a ball secured to and extending outwardly from said pin oppositely to the direction of extension of said indicating finger, means engaging said ball for rotating said pin for oscillating said finger, a resilient wire bent intermediate of its ends to form resilient convolutions, said convolutions coiled about said pin, oppositely disposed hooks formed upon the ends of said wire and engaging said indicating finger at different distances from said ball for holding said finger at a zero indicating position.

2. In a surface gage, a casing, a scale graduated upon said casing, an indicating finger carried by said casing for co-action with said scale, said indicating finger having one end secured to a pin, said pin being rotatably supported by said casing, a ball secured to and extending outwardly from said pin oppositely to the direction of extension of said indicating finger, a pin slidably carried by said casing, a ball mounted upon the inner end of said pin and engaging said first named ball, a ball formed upon the outer end of said pin, a resilient wire bent intermediate of its ends to form resilient convolutions, said convolutions coiled about said pin, oppositely disposed hooks formed upon the ends of said wire and engaging said indicating finger at different distances from said ball for holding said finger at a zero indicating position.

3. In a surface gage, a casing, a scale graduated upon said casing, an indicating finger carried by said casing for co-action with said scale, means for normally holding said finger at zero indicating position, said indicating finger having one end secured to a pin, said pin being rotatably supported by said casing, a ball secured to and extending outwardly from said pin oppositely to the direction of extension of said indicating finger, a pin slidably carried by said casing, a ball mounted upon the inner end of said pin and engaging said first named ball, a ball formed upon the outer end of said pin, a sleeve encompassing said last named pin, a nipple for detachably mounting upon said sleeve, said nipple carrying work surface engaging means for moving said pin for operating said indicating finger.

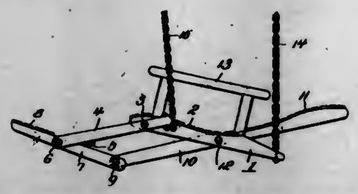
4. In a surface gage, a casing, a scale graduated upon said casing, an indicating finger carried by said casing for co-action with said scale, means for normally holding said finger at zero indicating position, said indicating

finger having one end secured to a pin, said pin being rotatably supported by said casing, a ball secured to and extending outwardly from said pin oppositely to the direction of extension of said indicating finger, a pin slidably carried by said casing, a ball mounted upon the inner end of said pin and engaging said first named ball, a ball formed upon the outer end of said pin, a sleeve encompassing said last named pin, a nipple for detachably mounting upon said sleeve, a working surface engaging pin carried by said nipple, and means carried by said nipple and operable by said pin for moving said casing carried slidable pin.

5. In combination with a surface gage, a detachable nipple comprising a body portion, a split sleeve formed thereon to receive one end of the surface gage, a nut mounted on said sleeve for clamping said sleeve upon the surface gage, said body portion provided with its outer end tapered to form a substantially acorn formation, said body portion provided with a central bore terminating at its inner end in a bore of large dimension, a pin slidably mounted in said bore and engaging a working surface to operate the surface gage.

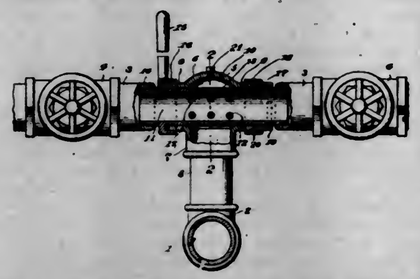
[Claims 6 and 7 not printed in the Gazette.]

1,206,669. SWINGING CHAIR. JESSE P. CARTER, Rochelle, Ga. Filed Jan. 29, 1916. Serial No. 75,085. (Cl. 155—35.)



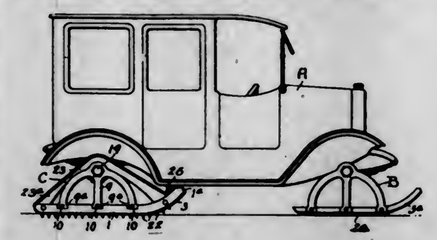
In a swinging chair, a seat having side members extended beyond the rear thereof, a back member arranged between the side extensions and pivotally secured thereto, a foot rest arranged below the seat and pivotally connected with the back members, front members pivotally secured to the foot rest and to the seat and extending above the seat, a flexible support connected to the upper ends of said front members, and a flexible support connected to the outer ends of said side extensions of the seat.

1,206,670. IRRIGATION-UNION. FRANK J. CHAMBERLIN, Battle Creek, Mich. Filed Feb. 7, 1916. Serial No. 76,836. (Cl. 137—66.)



In an irrigation system, a main feed pipe, a T-connection communicating therewith, a tube extending through and journaled in said connection, said tube having its ends projecting beyond the lateral outlets of the connection and being provided with openings connecting the interior of said tube with the feed pipe, sprinkler pipes connected with the ends of the tube, a gland integral with one of the projecting ends of the tube, a gland adjustable upon the other end of the tube, said glands embracing the outlets of the casing, packing between the glands and outlets of the casing, and a lever carried by the integral gland.

1,206,671. SLED-RUNNER ATTACHMENT FOR AUTOMOBILES. GUY Z. CLARK, Davenport, Wash., assignor of one-half to Lausen S. West, Davenport, Wash. Filed Apr. 18, 1916. Serial No. 91,885. (Cl. 21—47.)



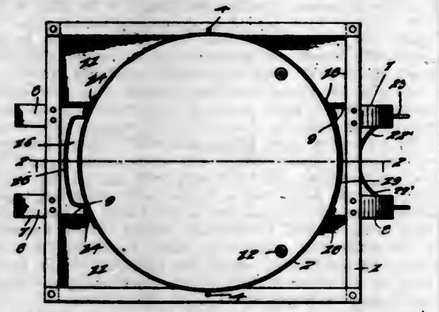
1. A sled runner attachment for automobiles, including a runner, a standard projecting from the runner, a drive sprocket journaled upon the standard, a drive chain engaging the drive sprocket and passing under the runner, guide sprockets at opposite ends of the runner for engagement with the drive chain, an arched channel shaped chain guard fitting over the standard and detachably connected at its ends to the runner, and positioning members at the middle portion of the arched chain guard for engaging the standard to prevent lateral displacement of the chain guard.

2. A sled runner attachment for automobiles, including a runner, a standard projecting from the runner, a drive sprocket journaled upon the standard, a drive chain engaging the drive sprocket and passing under the runner, guide sprockets journaled upon the runner at opposite ends thereof and engaging the drive chain, an arched channel shaped chain guard fitting over the standard and provided at one end thereof with a laterally projecting ear, one end of the runner being provided with inclined openings adapted to removably receive the inclined pins of the chain guard, and a fastening member for securing the ear to the runner.

3. A sled runner attachment for automobiles, including a runner, a standard projecting from the runner, a drive sprocket journaled upon the standard, a drive chain engaging the drive sprocket and passing under the runner, guide sprockets mounted upon opposite ends of the runner and engaging the drive chain, an arched channel shaped chain guard fitting over the standard and provided at one end thereof with inwardly inclined pins, positioning pins projecting from the middle portion of the chain guard, and a fastening member for detachably securing the opposite end of the chain guard to the runner, the runner and standard respectively being provided with openings to receive the inclined end pins and intermediate positioning pins of the chain guard.

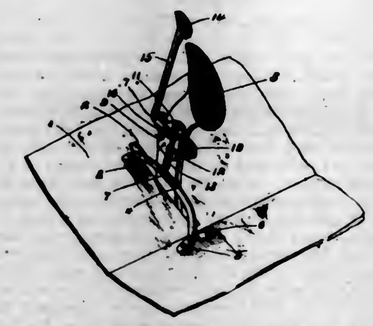
4. A sled runner attachment for automobiles, including a runner, a standard projecting from the runner, a drive sprocket journaled upon the standard, a drive chain engaging the drive sprocket and passing under the runner, guide sprockets journaled upon the runner and engaging the drive chain, an arched channel shaped chain guard fitting over the standard, and provided at one end thereof with inwardly inclined pins and at the opposite end thereof with a laterally projecting ear, the flanges of the chain guard at the middle portion thereof being cut away and shaped to fit accurately against the top of the standard, positioning pins projecting from the flanges of the chain guard, and a fastening member for detachably securing the car of the chain guard to the runner, the runner and standard respectively being provided with openings to receive the inclined pins and positioning pins of the chain guard.

1,206,672. STOCK-WATERING DEVICE. JOHN Q. CLARKE, Crawfordsville, Ind. Filed Dec. 28, 1915. Serial No. 69,062. (Cl. 126—344.)



A stock watering device comprising a frame, a tank mounted on said frame, a pair of relatively spaced runners secured to the tank, walls secured to the runners and to the tank to provide side closures for the space between the runners and tank, troughs secured to the tank, a pair of relatively spaced guides secured to the tank, a member provided with its edges bent inwardly and outwardly to be received by said guides to space said member from the tank to provide a chimney, and a draft regulating member slidably secured to the opposite side of the tank from said member to regulate the draft of the chimney.

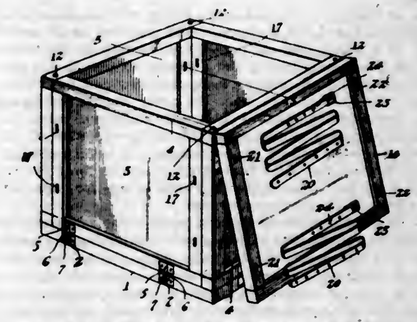
1,206,673. AUTOMOBILE GEAR-LOCK. NORMAN A. COBB, Littell, Wash. Filed June 6, 1916. Serial No. 101,980. (Cl. 74—81.)



1. In combination with an automobile clutch pedal, a rack bar having neutral and low gear notches, a catch bolt carried by said pedal and arranged to engage either of said notches, and a clutch lock pedal arranged in front of the clutch pedal and having a downwardly extending arm and a rearwardly extending arm, said clutch lock pedal being pivotally mounted, at the angle between its arms on said clutch pedal, and the rearwardly extending arm of the clutch lock pedal being connected to and adapted to operate the catch bolt.

2. In combination with the clutch pedal of a Ford automobile, a rack element adapted to be fixedly mounted near one side of the clutch pedal, a base element provided with means for securing said base element to said clutch pedal, a catch bolt mounted in guides on said base element, a spring to engage said catch bolt with either of the notches of the rack element and a clutch lock pedal arranged in front of the clutch pedal and having a depending long arm and a rearwardly extending short arm, said clutch lock pedal being pivotally mounted at the angle between its arms on said base and the rear arm of said clutch lock pedal being connected to said catch bolt to actuate the latter.

1,206,674. FOLDING CRATE. GEORGE H. COMBS, Ithaca, N. Y. Filed Dec. 4, 1915. Serial No. 65,113. (Cl. 217—12.)

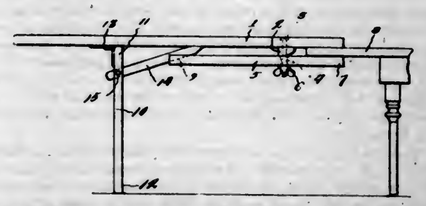


1. A crate, including a base having its edges provided with eyes, side and end panels resting on the base and having their edges contacting, members having hook-shaped ends rigidly secured to the outer faces of the panels and depending therefrom and engaging in the eyes on the base, tenons upon certain of the panels received in mortises in the other panels, means for locking the tenons in the mortises, and a hinged lid for the crate.

2. A knock-down crate including a flat bottom having its edges provided with eyes, side and end panels resting on the bottom at the edges thereof and the opposite edges of the side panels contacting with the inner faces of the end panels at the opposite edges of the said end panels, members of substantially goose-neck formation rigidly secured to the panels and engaging in the eyes of the bottom, tenon members projecting from the opposite edges of the side panels and entering mortises in the end panels, locking pins passing through apertures in the end panels and through openings in the tenons, a hinged lid upon one of the panels, and means for locking the lid to the crate.

3. In a knock-down crate, a flat bottom having its edges provided with eyes, side and end panels resting upon the bottom at the edges thereof, rigid hook members upon the panels engaging with the eyes, certain of the panels having projecting tenons entering mortises in the contacting panels, slidable locking means for the tenons, the panels adjacent their corners having slots, a lid hingedly secured to one of the panels, and strap members secured to the lid and adapted to be passed through the slots and through certain of the eyes of the bottom when the device is in its knocked-down position and the panels are arranged one upon the other over the base, substantially as described.

1,206,675. IRONING-BOARD. GEORGE W. CONGDON, Marion, N. D., assignor of fifty one-hundredths to Gusta Tucker, Marion, N. D. Filed Aug. 2, 1916. Serial No. 112,821. (Cl. 68—10.)



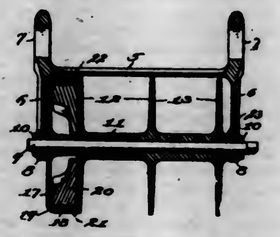
1. In a support for an ironing board, the combination of an ironing board and a clamp loosely mounted on its under face, of a supporting leg hingedly connected to the under face of the ironing board, and a wedge pivoted to the supporting leg and adapted to wedge between one end of the

clamp and the board to force the other end of the clamp into clamping engagement with the table top, when the supporting leg is swung or moved in the direction of the table.

2. In a support for an ironing board, the combination of an ironing board and a clamp loosely mounted on its under face, of a supporting leg hingedly connected to the under face of the ironing board, and a wedge pivoted to the supporting leg and adapted to wedge between one end of the clamp and the board to force the other end of the clamp into clamping engagement with the table top, when the supporting leg is swung or moved in the direction of the table, the upper end of the supporting leg being rectangular to engage the under face of the board to limit the leg in its movement toward the table, and means for adjusting the clamp in its looseness of play.

3. In a support for an ironing board, the combination of an ironing board and a clamp loosely mounted on its under face, of a supporting leg hingedly connected to the under face of the ironing board, and a wedge pivoted to the supporting leg and adapted to wedge between one end of the clamp and the board to force the other end of the clamp into clamping engagement with the table top, when the supporting leg is swung or moved in the direction of the table, the upper end of the supporting leg being rectangular to engage the under face of the board to limit the leg in its movement toward the table, and means for adjusting the clamp in its looseness of play, one end of the clamp on its upper face having a channel provided with a ratchet toothed plate and a spring plate carried by the wedge and provided with teeth to coöperate with the teeth of the plate in said channel, to prevent movement of the leg after having been adjusted to the position desired.

1,206,676. FIRE-ESCAPE. WILLCORD W. COTE, Holyoke, Mass., assignor of one-half to F. G. Burnham, Holyoke, Mass. Filed Dec. 22, 1915. Serial No. 68,231. (Cl. 254—157.)



1. In a fire escape, a suspending frame carrying a fixed shaft, a drum loosely and rotatably mounted on the shaft and having projections at one end, a brake drum also mounted on the shaft and held against rotation by a part of the frame and into which the said end projections of the rotatable drum extend, the loose rotatable drum extending over a greater portion of the shaft and having the end projections only thereof located within the brake drum so that the remaining portion of the rotatable drum may be entirely clear of the brake drum, friction blocks loosely mounted in the brake drum between the projections and operable to engage a portion of the friction drum, the said blocks having their side edges in loose engagement with the opposite sides of the end projections of the rotatable drum, and a cable having winding association with the first named drum, the shaft also loosely extending through the brake drum.

2. In a fire escape, a suspending frame having a fixed shaft engaging opposite end portions thereof, a cable drum of less length than the frame and loosely and rotatably mounted on said shaft and provided with a cable in winding association therewith, the inner end of the drum having radial flanges projecting therefrom, a hollow brake drum also mounted on the shaft and held against rotation and provided with a rim having an inner lining of suitable material, the flanges on the inner end of the rotatable drum being freely movable within the said brake drum, the latter having a fully open inner end, and segmental friction blocks loosely mounted in the brake drum and held between the said radial flanges of the cable drum and by their form providing extended friction edges to engage the lining of the brake drum and operating to automatically check the movement of the cable drum, the shaft also loosely extending through the brake drum.

3. In a fire escape, the combination of a suspending frame having a shaft disposed horizontally therein and engaging opposite end portions of the frame, a cable drum divided into two parts and loosely and rotatably mounted on the said shaft, the said cable drum being engaged by reversely winding cables and said drum also having radial flanges at the inner end, a hollow brake drum fully open at its inner end and into which the radial flanges of the cable drum extend, and friction blocks loosely mounted in the brake drum between the radial flanges of the cable drum and operable to engage the periphery of the brake drum to check the rotation of the cable drum, the shaft also loosely extending through the brake drum.

1,206,677. PROTECTIVE APPARATUS. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 10, 1914. Serial No. 844,188. (Cl. 175—30.)



1. Means for protecting a system of distribution from the effects of high frequency disturbances arising therein, comprising disk insulators for insulating the line conductors of said system from earth, said insulators having appreciable capacity so as to offer a much lower impedance to the flow of high frequency currents between the line conductors and earth than to the flow of currents of the normal frequency of the system and high resistances between said insulators and earth for absorbing the energy of high frequency disturbances occurring in the system.

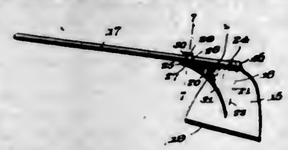
2. Means for protecting a system of distribution from the effects of high frequency disturbances arising therein comprising earthed supports for the line conductors of said system, insulators for insulating said line conductors from said supports, said insulators having appreciable capacity so as to offer a much lower impedance to the flow of high frequency currents between the line conductors and earth than to the flow of currents of the normal frequency of the system and high resistances between said insulators and said supports for absorbing the energy of high frequency disturbances occurring in said system.

3. The combination in a system of distribution of a line conductor, a support therefor, a series of disk insulators having appreciable capacity supporting said conductor, an insulating joint between said disks and said support and a high resistance shunting said insulating joint.

4. Protective means for a system of distribution comprising disk insulators having appreciable capacity for insulating the line conductors of said system from earth, and high resistances between said insulators and earth for absorbing the energy of high frequency disturbances occurring in said system.

5. The combination in a system of distribution of a transmission line, grounded supports for said line, a series of disk insulators for each conductor at each support for insulating said conductors from ground and from each other, said insulators having appreciable capacity so as to offer a much lower impedance to the flow of high frequency currents than to the flow of currents of the normal frequency, and a high resistance in series with each series of disk insulators to absorb the energy of high frequency disturbances occurring in the system.

1,206,678. HOE. LUTHER H. CAIBBS, Blanton, Fla., assignor of one-half to Eugene S. Blocker, Blanton, Fla. Filed Mar. 29, 1916. Serial No. 87,546. (Cl. 55—39.)



1. A hoe comprising a handle, a main blade having an eye engaging the same, an auxiliary blade having an eye at one end adjacent to the eye of the main blade and having auxiliary eyes at the other end thereof, clamp members engaging the handle and having eyes positioned between the eyes of the auxiliary blade, and a pintle assembling the eyes of the auxiliary blade with the eyes of the clamp members.

2. A hoe comprising a handle, a main blade having an eye engaging the same, an auxiliary blade having an eye at one end adjacent to the eye of the main blade and having auxiliary eyes at the other end thereof, clamp members engaging the handle and having eyes positioned between the eyes of the auxiliary blade, and a pintle assembling the eyes of the auxiliary blade with the eyes of the clamp members, said auxiliary blade being provided with lugs engaging slots in the main blade to prevent rotation of said auxiliary blade about the axis of the handle.

1,206,679. COMBINATION TOILET SET AND CASE. FLOYD CUMMINGS, Oneonta, N. Y. Filed Oct. 15, 1915. Serial No. 56,049. (Cl. 132—11.)



As a new article of manufacture; a pair of pivotally connected elements; brush bristles carried by one of the elements; comb teeth carried by the other element; either element being adapted to serve as a handle during the use of the other element; and the said elements being adapted, when not in use, to be folded into parallelism with each other and to have the comb teeth engage in the brush bristles.

1,206,680. FLYING-MACHINE. WILLIAM E. DENNIS, Far Rockaway, and HARRY S. BRETTON, Long Island City, N. Y., assignors, by mesne assignments, to American Aerocar Holding Corporation, Richmond Hill, N. Y. Filed Aug. 26, 1910. Serial No. 579,114. (Cl. 244—14.)



1. In a flying machine, the combination of a main frame, superposed supporting surfaces carried thereby, a carriage rigid with the main frame and arranged wholly below the lower supporting surface, propelling and steering devices also mounted upon the main frame, a driving motor, an aviator's seat and fuel carrying means all mounted directly upon the carriage and supplementing the weight thereof, whereby the carriage and its load weight serves as a weighted stabilising pendulum, longitudinally tapered and longitudinally and transversely curved wings mounted to swing vertically on fore and aft axes at the ends of the upper supporting surface, a control device on the carriage, and connections between said control device and wings for simultaneously and coördinately adjusting said wings in the same direction either upward or downward and at an equal angle of incidence to said supporting surface.

2. In a flying machine, the combination of a main frame, a supporting plane carried thereby, braces fixed to said plane, wings pivoted to and extending outwardly laterally from the lateral margins of the main plane, said wings being longitudinally and transversely curved, arcuately curved guides fixed to said main frame and braces, guide members on the free edges of the wings slidably engaging said guides, a controlling device, and connections between said guide members on the wings and the said controlling device for vertically moving said wings to like degrees in the same direction simultaneously.

3. In a flying machine, the combination of a main frame, a supporting plane carried thereby, main wings pivoted to and extending outward laterally from the lateral margins of the supporting main plane, said wings being longitudinally and transversely curved, supplemental wings pivotally mounted below the main wings and extending both beneath and laterally beyond the lateral margins of the supporting plane, connections between each main wing and the underlying supplemental wing to effect their movement in unison, a controlling device, and connections between said controlling device and the pairs of wings for vertically moving both pairs of wings to like degrees in the same direction simultaneously.

4. In a flying machine, a frame structure, superposed supporting surfaces, an upwardly and rearwardly inclined rod fixed at its lower end to the frame structure and at its upper end to the upper supporting surface, a series of hollow concentric control shafts mounted on said rod and each provided with an operating member and a ratchet wheel, a plurality of governing elements, connections between the respective shafts and the governing elements, and locking devices on the frame to engage said ratchet wheels.

5. In a flying machine, the combination of a main frame, a pair of supporting planes carried thereby, main wings pivoted to and extending outward from the lateral margins of the upper supporting plane, said wings being longitudinally and transversely curved, guiding means for the free ends of said wings, a supplemental wing pivotally mounted below each main wing on a line between the supporting planes and extending inwardly and outwardly beyond the vertical plane of the lateral margins of said supporting planes, a connection between each main wing and the underlying supplemental wing coupling said wings for movemtnt in unison, a controlling device, and connections between said controlling device and the pairs of wings for vertically moving both pairs of wings to like degrees in the same direction simultaneously.

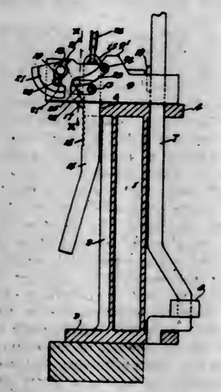
[Claims 6 to 22 not printed in the Gazette.]

1,206,681. ATTACHMENT TO SWITCH-STANDS. JOHN JAMES DILLON, West Edmonton, Alberta, Canada. Filed Dec. 20, 1915. Serial No. 67,848. (Cl. 104—25.)

1. The combination with a switch stand, the crank shaft and the table thereof, having suitably disposed side notches therein, of a head piece permanently secured to the crank shaft and operating over the table, a downwardly extending pivoted operating lever secured to the head piece and normally entering one of the notches, said lever having the rear face thereof fitted with a series of ratchet teeth, and a releasable dog pivotally secured to the head piece and normally engaging with the teeth of the lever and holding the lever normally in closed position within the notch.

2. The combination with a switch stand, the crank shaft and the table thereof, having suitably disposed side notches therein, of a head piece permanently secured to the crank shaft and operating over the table, a down-

wardly extending pivoted operating lever secured to the head piece and normally entering one of the notches, said lever having the rear face thereof fitted with a series of ratchet teeth, a dog pivotally secured to the head piece and gravity operated means for retaining the dog normally in engagement with the teeth of the lever to hold the lever in the down position.



3. The combination with a switch stand, the crank shaft and the table thereof, having suitably disposed side notches therein, of a head piece permanently secured to the crank shaft and operating over the table, a downwardly extending pivoted operating lever secured to the head piece and normally entering one of the notches, said lever having the rear face thereof fitted with a series of ratchet teeth, a cross pin rotatably mounted in the head, a dog housed within the head and secured to the cross pin and designed to operate on the teeth of the lever, a trip bar permanently secured to the cross pin, a stud extending from the bar and a weight pivotally mounted on the cross pin and engaging with the stud and designed to effect, through the trip bar, the holding of the dog normally against the teeth of the lever.

4. The combination with a switch stand, the crank shaft and the table thereof, having suitably disposed side notches therein, of a head piece permanently secured to the crank shaft and operating over the table, a downwardly extending pivoted operating lever secured to the head piece and normally entering one of the notches, said lever having the rear face thereof fitted with a series of ratchet teeth, a cross pin rotatably mounted in the head, a dog housed within the head and secured to the cross pin and designed to operate on the teeth of the lever, a trip bar permanently secured to the cross pin, a stud extending from the bar and a weight mounted on the cross pin and provided with a slot normally receiving the stud and with a lug designed to engage the stud in the swinging of the weight.

5. The combination with a switch stand, the crank shaft and the table thereof, having suitably disposed side notches therein, of a head piece operating over the table and permanently secured to the upper end of the crank shaft, a cross pin pivotally mounted in the extending end of the head, an operating lever secured to the pin and having the upper end thereof housed within the head and fitted on the rear side with a series of ratchet teeth and with the forward side normally entering one of the notches in the table, a second cross pin rotatably mounted in the head, a dog secured to the latter pin, a trip bar secured to the latter pin, a stud projecting outwardly from the bar, a weight pivotally mounted on the latter pin and provided with a slot normally receiving the stud and with a projecting lug, said weight being designed, with the stud in the slot, to hold the dog engaged with the ratchet teeth of the lever and when turned on the pin to effect, through the lug, the swinging of the stud and the release of the dog from the teeth, a trip arm permanently secured to the former cross pin and a latch pivotally secured to the head and bearing normally on the arm and provided with a catch to receive the weight in the final upswung position thereof.

[Claim 6 not printed in the Gazette.]

1,206,682. BUTTER-PICK. EDWARD DORAN, Winnipeg, Manitoba, Canada. Filed Oct. 18, 1915. Serial No. 56,526. (Cl. 30—5.)



A butter pick comprising, a pair of pivotally connected shanks having their rear ends projected into handles and their forward ends formed one into a disk like backing plate and the other into a piercing point extending slidably and centrally through the backing plate, a sleeve located on the top side of the backing plate and receiving the point and a spring associated with the handles and normally spreading the handles.

1,206,683. PENCIL. JAMES FRANK DRAKE, Atlanta, Ga. Filed Jan. 17, 1916. Serial No. 72,534. (Cl. 120—19.)



In a pencil, a centrally bored body, the bore being extended through one end thereof, said body being further provided with a slot opening through one side and extended for substantially a greater portion of the length of the bore, a single piece of material bent to provide a tapered split sleeve slidable in the bore and having extensions projected through the slot, and a clamping member arranged between and pivoted to the extensions and having one end exteriorly of the body to provide a clip and its opposite end having a biting tip to engage in the wall of the bore in the body for locking the sleeve in adjusted position.

1,206,684. PROCESS OF PRODUCING PHONOGRAPHIC RECORDS. THOMAS EYNON, Chicago, Ill., assignor to Ribbon Record Company, a Corporation of Illinois. Original application filed Nov. 11, 1911, Serial No. 659,745. Divided and this application filed Aug. 25, 1915. Serial No. 47,298. (Cl. 18—48.3.)

1. The process of reproducing flexible phonograph records which consists in providing a substantially rigid matrix having embossed thereon a matrix impression of a spiral record, placing a flexible record blank against said impression, and applying pressure to act against said record blank to cause the record to be embossed by the matrix upon said record blank, and then dividing said record blank along a spiral line between adjacent convolutions so as to form a flexible strip having the phonograph record running lengthwise thereon.

2. The process of reproducing flexible phonographic records which consists in forming the initial spiral phonographic impression on a cylindrical plastic record blank, making a substantially rigid matrix of the impression on said plastic record, separating the matrix and record, placing a flexible record blank against said matrix and applying pressure to cause the record to be embossed by said matrix upon said record blank, and then dividing said record blank along a spiral line extending along and between convolutions of the record so as to form a strip having the record reproduced thereon in a continuous line from one end of said strip to the other.

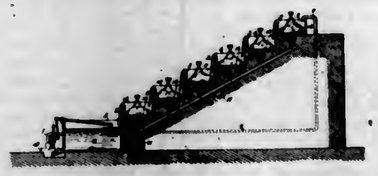
3. The process of reproducing phonographic records which consists in coating a flexible sheet of material with a plastic substance to form a record blank, bringing said blank in contact with a matrix record and applying pressure to cause the record to be embossed upon said blank, forming the latter into a cylinder, and then dividing it along a spiral line extending between convolutions of the record so as to form a strip having a record thereon in a continuous line from one end of said strip to the other.

4. The process of reproducing phonographic records which consists in coating a flexible cylinder with a plastic substance to form a record blank, bringing said record blank cylinder in contact with a matrix record and applying pressure to cause the record to be embossed upon said record cylinder, and then dividing the latter along a spiral line extending between convolutions of the record so as to form a strip having the record reproduced thereon in a continuous line from one end of said strip to the other.

5. The process of reproducing flexible phonographic records which consists in coating a flexible sheet of material with a plastic substance to form a record blank, placing said record blank in contact with a cylindrical matrix record and applying pressure to cause the record to be embossed by said matrix upon said record blank, and then dividing said record blank along a spiral line extending along and between convolutions of the record so as to form a strip having the record reproduced thereon in a continuous line from one end of said strip to the other.

[Claims 6 and 7 not printed in the Gazette.]

1,206,685. APPARATUS FOR PERIODICALLY DRENCHING A MATERIAL WITH A LIQUID AND THEREAFTER DRAINING IT THEREFROM. ADAM TUDOR EYTON, Nelson, and FREDERICK J. HENDERSON, Vancouver, British Columbia, Canada. Filed Oct. 20, 1915. Serial No. 57,019. (Cl. 134—67.)



1. A means for periodically drenching a material with a liquid and thereafter draining it therefrom, said means comprising a series of vats adapted to retain the material to be treated, said vats arranged one below the other each vat being connected to the one beneath by a siphon through the side of the vat adjacent its upper edge, the shorter leg of the siphon extending to near the bottom of the upper vat and the longer leg delivering into the vat beneath, and means for periodically filling the uppermost vat of the series with the drenching liquid which liquid will empty itself successively into and from the several vats of the series through their siphons.

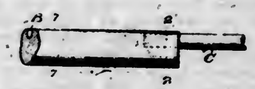
2. A means for periodically drenching a material with a liquid and thereafter draining it therefrom, said means comprising a series of vats adapted to retain the material to be treated and arranged one below the other, each vat being connected to the one beneath by a siphon through the wall of the vat adjacent its upper edge the shorter leg of each siphon extending to near the bottom of the upper vat and the longer leg delivering into the vat beneath, a liquid supply tank into which the siphon of the lower vat of the series delivers, and means for periodically filling the upper vat of the series with a liquid from the supply tank whereby the liquid will pass successively through all the vats of the series.

3. A means for periodically drenching a material with a liquid and thereafter draining it therefrom, said means comprising a series of vats each having a perforated tray suitably supported clear of the bottom, said vats arranged one below the other each vat being connected to the one beneath by a siphon through the wall of the vat adjacent its upper edge the shorter leg of each siphon extending below the underside of the perforated tray and the longer leg delivering into the vat beneath, and means for automatically filling the uppermost vat of the series at definite intervals with a drenching liquid which liquid will empty itself successively into and from the several vats of the series through their siphons.

4. A means for periodically drenching a material with a liquid and thereafter draining it therefrom, said means comprising a series of vats each having a perforated tray suitably supported clear of the bottom, said vats arranged one below the other each vat being connected to the one beneath by a siphon through the wall of the vat adjacent its upper edge the shorter leg of each siphon extending below the underside of the perforated tray and the longer leg delivering into the vat beneath, a liquid supply tank into which the siphon of the lower vat of the series delivers, and means for automatically filling at definite intervals the upper vat of the series with a liquid from the supply tank whereby the liquid will pass successively through all the vats of the series.

5. A means for periodically drenching a material with a liquid and thereafter draining it therefrom, said means comprising a series of vats each having a closable draining aperture in the bottom and a perforated tray suitably supported clear of the bottom, said vats arranged one below the other each vat being connected to the one beneath by a siphon through the wall of the vat adjacent its upper edge the shorter leg of each siphon extending below the underside of the perforated tray and the longer leg delivering into the vat beneath, a liquid supply tank into which the siphon of the lowermost vat of the series delivers and means for automatically filling the uppermost vat of the series at definite intervals with a liquid from the supply tank whereby the liquid will pass successively through all the vats of the series.

1,206,686. METHOD OF UNITING WIRES OF DIFFERENT SIZES. JOHN T. FAGAN, Cleveland, Ohio, assignor to General Electric Company, a Corporation of New York. Filed July 12, 1912. Serial No. 709,054. (Cl. 113—112.)

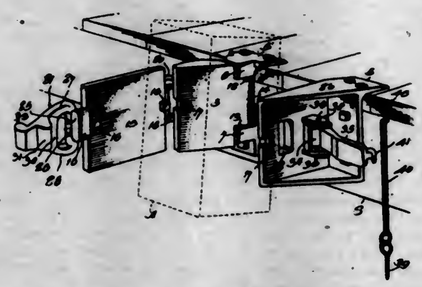


1. The method of uniting the ends of wires of different sizes to form a leading-in wire for an electric incandescent lamp, the larger of said wires being of more fusible material than the smaller, which consists in forming a lateral groove at the end of the larger wire, placing the end of the smaller wire therein, and fusing the metal of the portion of the larger wire in which the smaller wire lies to cause it to surround and embed the smaller wire.

2. The method of uniting small wires of different sizes to form a leading-in wire for an electric incandescent lamp, the larger of said wires being of more fusible material than the smaller, which consists in forming a groove

at the end of the larger wire having its side walls of smaller cross-section than its bottom wall, placing the end of the smaller wire in the said groove and fusing the said side walls to embed said smaller wire.

1,206,687. LOGGING-CAR STAKE-HOLDER. CASPER FAUST, Oshkosh, Wis. Filed Sept. 1, 1916. Serial No. 118,065. (Cl. 105—173.)



1. A bolster stake holder comprising laterally spaced cheek pieces, a saddle adapted to bridge the cheek pieces and in swinging union with one of them, a link pivotally mounted on said saddle, releasable means for connecting said link with the other cheek piece, and a lug carried by said saddle and projecting through said link when the latter is in closed position to relieve strain from the pivot thereof.

2. A bolster stake holder comprising cheek pieces, a saddle adapted to bridge the cheek pieces and in swinging union with one of them, an angular lug projecting longitudinally from the free end of said saddle, a bearing on said saddle at one side of said lug, an open saddle retaining link pivotally mounted in said bearing and adapted to swing over said lug in contact therewith to relieve strain from the bearing, and means for releasably connecting the link with the other cheek piece.

3. A stake holder of the class described comprising laterally spaced cheek pieces, a saddle bridging said cheek pieces, said cheek pieces and saddle having interlocking teeth and notches, angular lugs extending longitudinally from the ends of said saddle and having bearings on their outer faces, triangular links having their bases rotatably mounted in said bearings, said links embracing said lugs when in closed position with their bases in contact with said lugs, whereby the bearings of said links are relieved of strain, and means for connecting said links with the two cheek pieces.

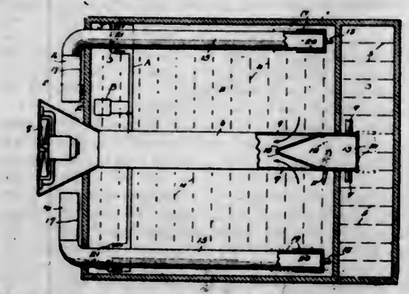
4. In a stake holder of the class described, a pair of cheeks having attaching means at their rear edges one of said cheeks being fixed and the other hinged to its attaching means, a saddle bridging said cheeks and in swinging union with one of them, and means for detachably connecting said saddle with the other cheek.

5. In a stake holder of the class described, a cheek plate, an attaching flange extending at right angles from the outer face of said plate at its rear edge, another cheek plate, vertically disposed bearing blocks having sockets in their opposed faces, said last mentioned cheek plate having recesses in its rear corners with pintles extending longitudinally into said recesses and engaging said sockets, said bearing blocks having their outer corners rounded to permit the outward opening of the cheek piece, and a saddle bridging said cheek plates at their front ends and detachably engaged with one of them.

[Claims 6 to 11 not printed in the Gazette.]

1,206,688. VENTILATING AND AIR-PURIFYING APPARATUS. JOHN C. FLEMING, Boston, Mass. Filed Oct. 26, 1915. Serial No. 57,972. (Cl. 98—27.)

1. A ventilating and air-purifying apparatus for buildings, including a main air-discharge-flue having one end in communication with the outside-air and equipped with a suction-generating means, the other end of said flue being in communication with a compartment in the building, said flue being ported and having its ports in communication with a separate compartment, said flue also having closures for said ports, said inclosures, when in open position with respect to said ports, being adapted to close off the other end of said flue from the first referred to compartment, said flue having means for controlling communication therebetween and said first-referred to compartment, an air-supply flue in communication with the outside-air, and means for establishing communication between said air-supply flue and said separate or second compartment.



2. A ventilating and air purifying apparatus for buildings, including a main air discharge-flue having one end in communication with the outside air and equipped with a suction-generating means, the other end of said flue being in communication with a compartment in the building, means for controlling said communication, said flue being ported in opposite sides, the ports being in communication with a separate or second compartment and being controlled by oppositely hinged closures, said closures when in open position with respect to said ports, being adapted to meet or contact, within said flue, at their free ends, and close off the other end of said flue from the first-referred to compartment, a plurality of air-supply flues in communication with the outside air at their outer ends and provided at their inner ends with slidable sleeves controlling ports therein, said ports establishing communication between said plurality of air-supply flues and said separate or second compartment, and means for generating an electric spark within said plurality of air-supply flues.

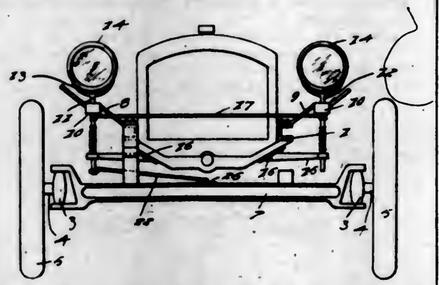
1,206,689. FISHING-HOOK. SEBASTIAN FORSTER, Brooklyn, N. Y. Filed Mar. 4, 1916. Serial No. 82,153. (Cl. 43—7.)



A fishing hook including an integral snood of flexible wire, the end of the said wire being bent to provide a

plurality of loops forming eyes, the eyes being not less than three in number and being all arranged in the same longitudinal plane.

1,206,690. DIRIGIBLE AUTOMOBILE-LIGHT. ROBERT O. FROST, Minden, and ROBERT A. LEVIA, Kinmount, Ontario, Canada. Filed July. 25, 1916. Serial No. 111,269. (Cl. 240—62.)



In combination, an automobile including a chassis and a connecting rod of a steering gear thereof, of a pair of lamp standards journaled to the chassis, means for connecting the lamp standards together, headlights carried by the lamp standards, a clamp secured to the connecting rod, a substantially cylindrical housing mounted upon the clamp, adjusting bolts carried by each end of the housing, a block slidably mounted within the housing, coil springs interposed between the ends of the block and the ends of the adjusting bolts, said housing having an elongated slot in the top thereof, an operating rod detachably secured to the block and to one of the lamp standards for turning the headlights.

1,206,691. PISTON-RING. AUGUST FRYKMAN, Souris, N. D. Filed July 21, 1916. Serial No. 110,533. (Cl. 121—108.)



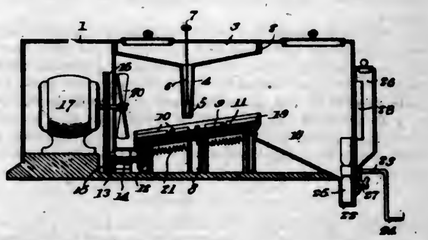
An expansible piston ring having separable free ends, said separable ends having diagonally opposite recesses adjacent their sides, and provided with diagonally opposite side tongues to enter said diagonally opposite recesses, whereby the tongues will sidewise overlap each other, one of said ends having integral therewith on its inner face a cover plate of sufficient length to entirely overlap said diagonally opposite recesses and tongues to insure against leakage, the inner face of one of said ends adjacent its respective recess having a groove at a slight incline to the side edge of the ring, the outer face of said cover plate having a rib correspondingly inclined and designed to enter said groove, to force the adjacent faces of the sidewise overlapping tongues, to so frictionally engage as to insure against leakage.

1,206,692. BOTTLE-CAP OPENER. GEORGE GILL, Providence, R. I. Filed Mar. 4, 1915. Serial No. 12,062. (Cl. 65—47.)

A bottle cap opener comprising a body portion consisting of a flat ring, a spear having angularly disposed cutting edges, a contracted neck integrally connecting the ring and the spear, said spear having a horizontal upper surface forming shoulders upon opposite sides of the neck to engage under the bottle cap, said shoulders having spurs projecting upwardly to pierce the bottle cap, said spear having a spiral or screw twist, whereby when the spear is forced through the cap, a rotary movement is imparted to the opener sufficiently to carry the shoulders under the cap beyond the incision made by the spear, whereby the spurs may pierce the cap upwardly.



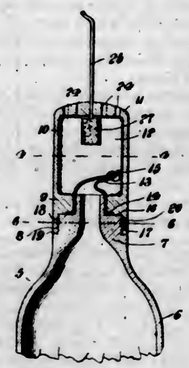
1,206,693. CORN-POPPING MACHINE. FREDERIC C. GILLITT, Hastings, Minn. Filed Jan. 5, 1915. Serial No. 681. (Cl. 53—4.)



1. In a corn popping machine, a circular popping plate disposed at an angle to the horisontal and rotatable about a vertical axis, a stationary annular band surrounding the plate and extending thereabove, means for feeding the pop corn grains to said plate, a heater for said plate, and means for rotating said plate.

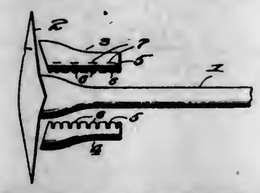
2. In a corn popping machine, a circular popping plate disposed at an angle to the horizontal and rotatable about a vertical axis, upwardly extending ribs upon said plate, means for feeding the pop corn grains to said plate, a heater for said plate, means for rotating said plate, means for blowing air in a horizontal plane across said plate to blow the popped corn from the plate, and a receptacle adapted to receive the corn blown from said plate.

1,206,694. BOTTLE. JAMES GREEN, Bay St. Louis, Miss., assignor of one-third to Robert W. Taylor, Bay St. Louis, Miss. Filed Mar. 1, 1916. Serial No. 81,494. (Cl. 215—60.)



A non-refillable bottle embodying a body having a neck, a head fastened on said body, a guard, and an extractor operating axially through said head for extracting a cork from the bottle neck and through said guard.
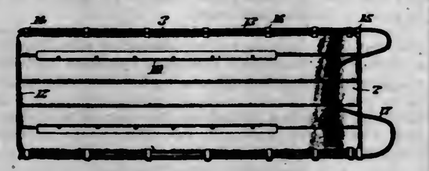
1,206,695. ATTACHMENT FOR PICKS. LENIA GREENWOOD, Jasonville, Ind. Filed Jan. 18, 1916. Serial No. 72,820. (Cl. 145—78.)



1. An attachment for picks comprising two members each having one edge constructed to have a series of tongues and a series of slots adjacent another edge, the tongues of one member being inserted in the slots of the other member when the members are arranged around the pick handle, and securing elements passed through the tongues when in the assembled position and into the pick handle.

2. An attachment for picks comprising a pair of members completely inclosing that portion of the pick handle adjacent the pick blade and each member provided with a series of tongues adapted to pass through and bend over slots formed in the other member, said parts being bent in a direction to lock said members together, and securing elements passing through said members and engaging the pick handle and coöperating with said tongues to prevent movement of the members in any direction.

1,206,696. SURF-COASTER. MICHAEL ADOLF GULBRANDSEN, New Orleans, La., assignor of one-half to Pneumatic Surf Coaster Amusement Co., Inc., New York, N. Y., a Corporation of New York, and one-half to Joseph Butily, New Orleans, La. Filed Mar. 14, 1916. Serial No. 84,191. (Cl. 9—11.)



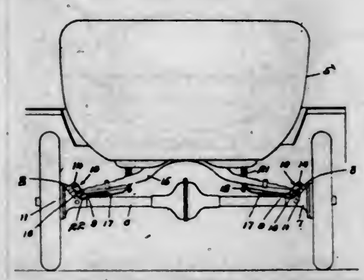
1. A coaster comprising a body formed of a fabric casing subdivided into cells or compartments open at their rear ends, said fabric casing having edge portions partially closing said cells, air bags within the respective cells or compartments, fastening means for uniting the said edge portions of the fabric body which partially close the open ends of the cells, and an independent closure strip for the open ends of the cells adapted to overlie the said edge portions and fastening means.

2. A coaster comprising a body formed of a fabric casing, said body being provided with partitions forming cells or compartments open at the rear end of the body, air bags fitted within the respective cells, individual casings for the rear ends of the bags, fastening means uniting the edges of the fabric body at the open ends of the cells, and an independent closure strip for the open ends of the cells arranged to overlie said fastening means.

3. A coaster comprising a buoyant body including a fabric casing, cleats extending longitudinally along the upper surface of said casing on opposite sides of the longitudinal center of the body between the same and the sides of the body, said cleats having series of perforations therein, a rigid board adapted to be disposed between said cleats so as to extend longitudinally of and rest upon the surface of the buoyant body, said board being provided with openings along the longitudinal edges thereof, and lacing thongs passing through the openings in the cleats and board and detachably fastening the board in position.

4. A coaster comprising a fabric body open at the rear and having longitudinal partitions separating the same into a plurality of cells, a cover at the rear end of the body arranged to close said cells, air bags within the respective cells, and individual casings for the bags.

1,206,697. SHOCK-ARRESTER. HARRIS HARRISON, Stoughton, Wis. Filed Dec. 4, 1915. Serial No. 65,159. (Cl. 267—19.)



1. A shock absorber comprising a bell crank lever including a link and an arm, the point of connection of the link with the arm being rounded and serving as a fulcrum point for the bell crank lever, means for pivotally connecting the link of the bell crank lever with a vehicle axle casing, means on the pivoted end of the bell crank lever for supporting the body spring of the vehicle, and a tension spring adapted for connection with the body of the vehicle and also connected with the free end of the bell crank lever.

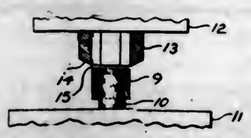
2. In combination with a motor vehicle including a rear axle having a casing thereon provided with hangers, a body spring for said vehicle, a shock absorber therefor embodying a pair of bell crank levers each formed with upstanding spaced ears having apertures and an arm provided with an offset hooked end, the angle of the bell crank levers serving as a fulcrum, means passing through said ears for pivotally connecting the levers with said hangers, means passing through the ears at a point below the former mentioned means for pivotally connecting between the ears the body spring, and yieldable means connected with the hooked ends of the said arms and with the body portion of the vehicle to permit of a vertical swinging movement of the levers.

3. In combination with a motor vehicle including a rear axle having a casing thereon provided with hangers, a body spring for said vehicle, a shock absorber therefor embodying a pair of bell crank levers each formed with upstanding spaced ears having apertures and an arm provided with an offset hooked end, the angle of the bell crank levers serving as a fulcrum, means passing through said ears for pivotally connecting the levers with said hangers, means passing through the ears at a point below the former mentioned means for pivotally connecting between the ears of the body spring, defining the hooked ends of said arms in rear of said body spring, and yieldable means connected with the hooked ends of the said arms and with the body portion of the vehicle body substantially as and for the purpose specified.

4. In combination with a motor vehicle including a rear axle having a casing thereon provided with hangers, a body spring for said vehicle, a shock absorber therefor embodying a pair of bell crank levers each formed with upstanding spaced ears having apertures and an arm provided with an offset hooked end, means passing through said ears for pivotally connecting the levers with said hangers, means passing through the ears at a point below the former mentioned means for pivotally connecting between the ears the body spring, defining the hooked ends of said arms in rear of said body spring, a rod having hooked ends secured to the vehicle body and aligning vertically with the hooked ends of said arms, and yieldable means connected with the hooked ends of said arms and the hooked ends of said rod.

5. A shock absorber comprising a pair of bell crank levers each embodying a link and an arm provided with an offset hooked end, the point of juncture of the link with the arm being rounded and serving as a fulcrum point for the bell crank levers, means for pivotally connecting the links of the bell crank levers with a vehicle axle casing, means on the pivoted end of the bell crank levers for supporting the body spring of the vehicle forwardly of the hooked ends of said arms and a tension spring adapted for connection with the body of the vehicle and also connected with free end of each bell crank lever.

1,206,698. METHOD OF MAKING POLYGONAL NUTS. HUBERT C. HART, Unionville, Conn. Filed Jan. 3, 1916. Serial No. 69,766. (Cl. 10—86.)



A method comprising the formation from a blank of a cylindrical tube turned in at one end and open at the other, inverting the tube and supporting the tube by its inturned portion upon a stud with the open end or lower edge of the blank spaced from the support from which said stud extends, then externally shearing the cylindrical body from its upper end to its lower or open end to produce and externally polygonal article and in suitably threading said tubular body interiorly thereof.

1,206,699. RELAY. CHARLES E. HARTHAN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 19, 1915. Serial No. 29,059. (Cl. 175—321.)



1. The combination in an electromagnet of a core of magnetic material, windings surrounding said core, a U-shaped magnetic yoke surrounding three sides of said windings, a pivoted contact member carried by one arm of said magnetic yoke, an armature carried by said contact member so as to be attracted by the magnetic core and yoke when current flows through said windings and a spring for normally holding said armature in a retracted position and so positioned that it is interposed between the armature and the yoke when the armature is attracted.

2. The combination in an electromagnet of a core of magnetic material, windings surrounding said core, a U-shaped magnetic yoke surrounding three sides of said windings, a fixed contact member carried by one arm of said yoke, a pivoted contact member carried by the other arm of said yoke, an armature carried by said pivoted contact member so as to be attracted by the yoke when the latter is energized and a flat spring of non-magnetic material carried by said armature and bearing against the end of said yoke for normally holding said armature in a retracted position and for keeping the armature from contact with the yoke when attracted thereby.

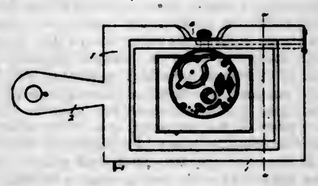
3. The combination in an electromagnet of a magnetising coil, a magnetic circuit of low reluctance surrounding said coil, having an air gap therein and contacts adapted to be made and broken by the action of the electromagnet, located adjacent to and above said air gap.

4. The combination in an electromagnet of a magnetising winding, a magnetic yoke surrounding said winding on three sides, a movable armature of magnetic material adjacent the fourth side of said winding and forming a part of the magnetic circuit, an air gap in the magnetic circuit between said armature and said yoke and contacts, adapted to be made and broken by the movement of said armature located adjacent to and above said air gap.

5. The combination in an electromagnet of a magnetising winding, a U-shaped magnetic yoke surrounding said winding on three sides, a fixed contact carried by one arm of said yoke, a coöperating movable contact carried by the other arm of the yoke, an armature so arranged as to be attracted by the magnetic yoke when the latter is magnetised and an air gap in the magnetic circuit between said armature and the end of said yoke, said air gap being located adjacent said contacts.

[Claim 6 not printed in the Gazette.]

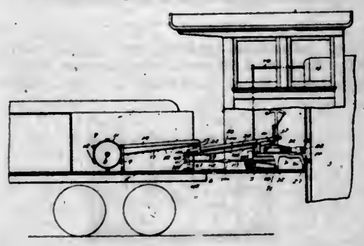
1,206,700. HOLDER-SLIDE. GEORGE F. HASKINS, Sinton, Tex. Filed Oct. 26, 1915. Serial No. 57,934. (Cl. 88—26.)



1. A holder for a watch including a frame having a marginal recess in one side thereof to receive the watch stem, transparent sides for the frame forming therewith an inclosed chamber, a stop projecting from the frame and a projecting handle carried thereby.

2. A holder including a frame, the one side thereof having an orifice therethrough, the outer end of which is enlarged forming a recess, said side being formed of two parts dove-tailed together, transparent sides for the frame forming therewith an inclosed chamber, a stop projecting from the frame and a projecting handle carried by said frame.

1,206,701. STOKER. WILLIAM S. HASLEU, Montevideo, Minn. Filed Feb. 9, 1915. Serial No. 7,184. (Cl. 110—115.)



1. In a mechanical stoker, the combination with a rotary feeder including a casing having an outlet spout and curved wings pivoted to the opposite sides of the spout, link members connected with the wings adjacent the outer end thereof and pivotally secured together and connected to the outlet spout, an arm pivotally connected with each of the wings adjacent the inner end thereof, said arms being arranged one over the other and pivotally connected, an operating element for each of the arms, and spring means connected with each of

the wings to normally retain the wings against sides of the spout.

2. In a mechanical stoker, a horizontally disposed rotary feed member, an endless conveyer delivering to the feed member, said conveyer having its outer end mounted on a pivoted support, an elevator including an endless chain connected with and longitudinally adjustable upon the conveyer, a carriage supporting the free end of the elevator, a rotary shovel for the elevator, and means for simultaneously operating all of said members.

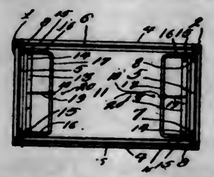
3. In a mechanical stoker, a horizontally disposed rotatable fuel feed member, means for operating the feed member, a laterally movable support for the feed member, a delivery conveyer pivotally connected with the support adjacent one end thereof and having its opposite end mounted upon a pivoted support, an elevator having one of its ends connected with the frame of the conveyer, means comprising mechanism between the elevator and conveyer for moving the elevator longitudinally of the conveyer, a carriage supporting the elevator, and means for simultaneously operating the feed member, the conveyer and the elevator.

4. The combination with a fire box having a laterally disposed track, of a support engaging said track, a casing having an outlet spout arranged upon the support, a rotatable fuel feed horizontally disposed within the casing and having a shaft passing through the casing and through the support to pivotally connect the casing with the support, an endless conveyer having the outer end of its frame mounted upon a pivoted support and the inner end of the frame pivotally connected with the first mentioned support, an elevator having one of its ends supported upon a carriage and its other end connected with the casing of the conveyer, means for longitudinally adjusting the elevator upon the conveyer, means for rotating the shaft of the fuel feed, and means comprising apparatus connected with the elevator and with the conveyer for simultaneously actuating said elevator and said conveyer when the fuel feed is actuated.

5. In a mechanical stoker, a laterally movable support, a casing having an open top and an outlet spout, a fuel feeder within the casing, a shaft for the fuel feeder passing through the casing and the support and pivotally connecting the casing to the support, an endless conveyer for the casing having its inner end pivotally connected with the support and its outer end supported upon a pivoted member, an elevator for delivering to the conveyer, a carriage supporting the outer end of the elevator, means connecting the inner end of the elevator to the frame of the conveyer, means for rotating the feeder shaft, means actuated by said shaft for operating the conveyer and the elevator, and means comprising mechanism also actuated by the said feeder shaft for moving the elevator longitudinally with respect to the conveyer.

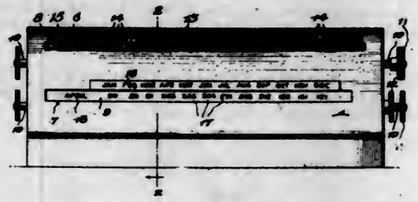
[Claims 6 to 9 not printed in the Gazette.]

1,206,702. SHIPPING-CRATE FOR BREAD AND THE LIKE. RICHARD L. HAWES, New Rockford, N. D. Filed Oct. 7, 1915. Serial No. 54,529. (Cl. 217—64.)



In a shipping carton or crate, the combination of a casing and an auxiliary cover conforming to and adjustably fitting said casing, of strips having perforations secured vertically in the corner portions of the casing, strips secured to the upper face of said cover, one adjacent each end thereof and having guides, U-shaped elements on said cover, each being constructed of a single length of rod and having its arms mounted in said guides and extending beyond the end of the cover, whereby the extremities of the arms will engage and disengage the apertures of said vertical strips, a spring connection between each U-shaped element and a transverse strip of the cover to hold the extremities of the arms in the apertures, and a lug carried by said cover to be engaged by the U-shaped element to hold the arms out of engagement with the apertures.

1,206,703. COMPUTING DEVICE. DAVID H. HAWTHORNE, Anthon, Iowa. Filed June 5, 1916. Serial No. 101,803. (Cl. 235—89.)



A computing system designed primarily for determining the elapsed days between any given date and the day on which the computation is made, said system comprising a chart having thirty-one vertically extending rows of horizontally alined numbers representing month days, each row containing thirty-one numbers, a horizontal scale having thirty-one numbers representing month days for cooperation with said thirty-one rows, an additional row of month days on the chart distinguished from the other rows and disposed to the left thereof, said additional row containing thirty-one numbers in horizontal alinement with the others and representing month days; a second chart having twelve vertically extending rows of horizontally alined numbers representing year days, each of said rows containing twelve numbers, a second horizontal scale having twelve legends coöperating with said twelve rows of numbers and representing the twelve months, and a row of legends on said second chart to the left of the others, in horizontal alinement with the numbers thereof, and representing the twelve months, half of the numbers in the thirty-one columns of the first-named chart being distinguished from those of the other half, the dividing line between the two sets of numbers extending obliquely from one corner of the chart to the other.

1,206,704. METHOD OF PRODUCING MALLEABLE TUNGSTEN. ARMIN HELFGOTT, Uj-Pest, Austria-Hungary, assignor to General Electric Company, a Corporation of New York. Filed July 16, 1913. Serial No. 779,268. (Cl. 75—17.)

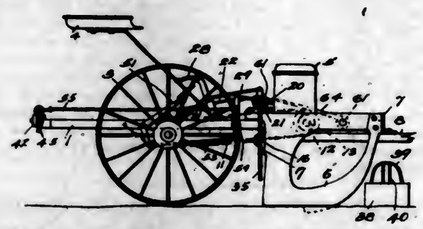
1. The method of making tungsten bodies which consists in admixing coarse grained tungsten powder and very fine grained tungsten powder, pressing the mixture of powder to form a coherent mass, and sintering said mass.

2. The method of making mechanically workable tungsten bodies which consists in pressing into a coherent mass a mixture composed of granular powdered tungsten and finely powdered tungsten, and sintering the mass.

3. The method of producing tungsten bodies which consists in heating finely pulverized tungsten in a reducing atmosphere to free it from oxid while maintaining its fineness unimpaired, making an admixture composed of said finely pulverized oxid free tungsten and of granular tungsten, pressing said admixture to form a coherent mass, and sintering said coherent mass.

1,206,705. CORN-PLANTER. FRANK HEVEL, GROVER CLEVELAND HARRINGTON, and WILLIAM HEVEL, McCune, Kans. Filed Aug. 14, 1916. Serial No. 114,835. (Cl. 111—6.)

1. The combination in a seed planter with its driving mechanism and feed actuating mechanism, means for throwing the feed mechanism out of gear, and means carried by the planter adapted to contact with an abutment for throwing the feed mechanism into gear as the implement travels forward.



2. The combination with the wheels, supporting frame, driving mechanism, and feed actuating mechanism, of a rock bar having end extensions projecting at the sides of the frame adapted to contact with an abutment, and connections from said rock bar to the driving mechanism for operatively connecting the driving mechanism and feed mechanism.

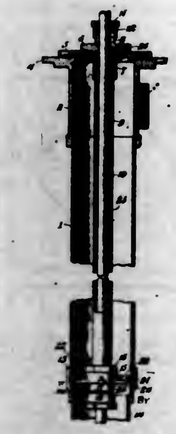
3. The combination in a seed planter with its driving mechanism and feed mechanism, of a transversely arranged rock bar having foldable end wings projecting from its ends beyond the wheels and adapted to contact with an abutment on the ground, and connections between said rock bar and the driving mechanism for operatively connecting the driving mechanism with the feed mechanism.

4. The combination in a seed planter having projecting contact members at the sides of the planter, of means at the rear of said members for supporting a detachable block, and means for detaching said block to have it fall in line with one of said contact members.

5. The combination with a seed planter and its frame of a supporting arm and a pivoted suspension member thereon, means for holding said member to retain an abutment member, and means for releasing the suspension member to drop said abutment member.

[Claims 6 to 8 not printed in the Gazette.]

1,206,706. PUMP STRUCTURE. ROBERT E. L. HOLMES, Beaver Falls, Pa. Filed Feb. 4, 1916. Serial No. 76,207. (Cl. 103—61.)



1. In well pump structures, the combination with a reciprocable pump rod, of a guide tube therefor having means for positively locking it at both the upper and lower ends with the locking means for the lower end of the guide tube located adjacent to the upper end of the pump barrel.

2. In pump structures for deep wells and the like, a guide tube for a reciprocable pump rod having means at the upper end for positively suspending it in surrounding relation to the pump rod and at the lower end having means for positively holding it in fixed relation to the pump rod and against either lateral or longitudinal movements, the holding means on the lower end of the tube being of a size to permit withdrawal of the pump structures carried by the lower end of the pump rod with the guide tube when the latter is withdrawn from the well.

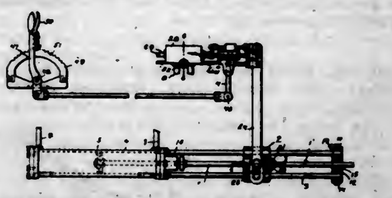
3. In pump structures for deep wells and the like, an interiorly notched locking ring adapted to be located in the well adjacent to the upper end of the pump barrel, and a guide tube for the pump rod having means for positively holding it at the upper end and at the lower end provided with outstanding arms adapted to the notches in the locking ring and movable into underriding relation to said locking ring by a turning movement of the tube about its longitudinal axis.

4. In pump structures for deep wells and the like, an interiorly notched locking ring adapted to be located in the well adjacent to the upper end of the pump barrel, and a guide tube for the pump rod having means for positively holding it at the upper end and at the lower end provided with outstanding arms adapted to the notches in the locking ring and movable into underriding relation to said locking ring by a turning movement of the tube about its longitudinal axis, said locking ring having stops on its under face for limiting the turning movement of the arms in a direction away from the notches.

5. In pump structures for deep wells and the like, a guiding tube for the pump rod provided with means at the upper end for introducing lubricant thereinto and at the lower end having a locking member applied thereto with packing means for the pump rod, and another locking member coacting with the first-named locking member and adapted to be fixedly lodged adjacent to the upper end of the pump barrel.

[Claims 6 to 9 not printed in the Gazette.]

1,206,707. POWER-ACTUATED VALVE-GEAR-OPERATING MECHANISM. SMITH H. HUNTER, Memphis, Tenn. Filed Apr. 10, 1915. Serial No. 20,490. (Cl. 121—98.)



1. The combination of a cylinder, a piston reciprocally mounted within the cylinder and provided with a piston rod, a guide extending from one end of the cylinder, a slide block mounted on the said guide, and connected with the outer end of said piston rod, a valve casing located above the cylinder and the guide, a slide valve operated in the valve casing for controlling the admission and exhaust of fluid pressure to the said cylinder, said slide valve having a stem extending beyond the casing, a link pivotally connected at its lower end to the slide block and extending upwardly therefrom, and pivoted at its upper portion to the valve rod or stem, said link being extended above the valve stem, a slidable rod located above the valve stem and connected at one end with the said link and provided with spaced abutments, a fixed guide receiving the slidable rod and located between the said abutment, a rocker located below the valve stem and pivoted intermediate of its ends, one end being connected with the said link, and a reversing lever connected with the other end of the rocker.

2. The combination of a cylinder, a piston reciprocally mounted within the cylinder and provided with a piston rod, a guide extending from one end of the cylinder, a

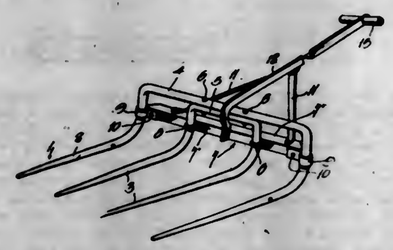
slide block mounted on the said guide, and connected with the outer end of said piston rod, a valve casing provided with an extension having a bearing spaced from the casing and provided at the top with a guide lug and having a depending support, a valve operating in the casing for controlling the admission and exhaust of fluid pressure to the said cylinder and provided with a stem guided in the said bearing, a link pivoted intermediate of its ends to the stem and connected at its lower end with a slide block, a slidable rod mounted in the guide lug and located above the valve stem and connected at one end with the upper end of the said link, said rod being provided with spaced abutments arranged to engage the guide lug, a rocker pivoted intermediate of its ends to the depending support and connected at its upper end with the said link below the valve stem, a reversing lever and a reach rod connecting the reversing lever with the lower end of the rocker.

1,206,708. FLOWER-POT. CHARLES A. HUTCHINS, Lakewood, Ohio. Filed July 25, 1913. Serial No. 781,189. (Cl. 47—34.)



A flower pot made from a single strip of paper, said paper strip being sector shaped having a long and a short arcuate longitudinal edge, said strip of paper having its arcuate marginal portions bent back to form reinforcing portions, the reinforcing portion of the shorter marginal edge being wider than the other, said paper strip being rolled into tubular form, the shorter and wider reinforcing portion being adapted to extend in crimped relation to form a horizontal bottom for the pot the end edges and longer reinforcing marginal portion being telescoped and held against spreading and displacement by virtue of the crimped bottom, formed by the shorter marginal reinforcing portion of the pot.

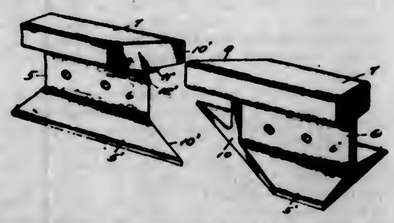
1,206,709. SCRAPER. STANISLAUS W. HYTREK, Stuart, Nebr. Filed May 25, 1916. Serial No. 99,863. (Cl. 37—40.)



1. A scraper comprising a pair of horizontal bars secured in contact, the ends of both bars being bent downwardly and forwardly to provide a plurality of fork tines having upwardly directed rear ends, a horizontal reinforcing bar secured rigidly to said rear ends of the tines, a handle secured to the contacting portions of said pair of bars and extending rearwardly therefrom, braces for said handle secured thereto at one end and to said reinforcing bar at their other end, and a pair of drawbars pivoted to the outermost tines.

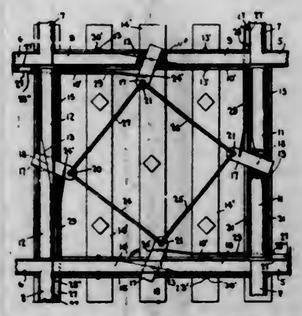
2. A scraper comprising a pair of horizontal bars secured in contact at their intermediate portions, the ends of said bars being bent downwardly and extended forwardly to provide parallel fork tines having upwardly directed rear ends, an angle metal bar parallel with the intermediate portions of the other bars and contacting with the upwardly directed rear ends of the fork tines, U-bolts passing around the innermost of said tines and through the upright flange of said angle metal bar, the ends of the latter being bent around the upwardly directed ends of the outermost tines, a handle secured at its front end to the contacting portions of said pair of bars, inclined braces secured at their front ends to the horizontal flange of said angle metal bar and at their rear ends to said handle, and a pair of drawbars pivoted to the outermost tines.

1,206,710. RAIL-JOINT. MAXEY JACKSON, Toppenish, Wash. Filed Mar. 16, 1916. Serial No. 84,677. (Cl. 239—8.)



In a rail joint, rail sections having the tread portions thereof cut at an angle with relation to the edge thereof, the webs and bases thereof being cut at an angle in the opposite direction, each section having a semi-circular cut out portion in the web thereof adjacent the tread, shoulders formed by the semi-circular cut out portions and shoulders formed on the rail section on opposite sides from the shoulders formed by the semi-circular cut out portions, the shoulders formed by the semi-circular cut out portions lying in a plane above the shoulders formed on the opposite sides of the respective rail sections.

1,206,711. RAILWAY-CROSSING. MAXEY JACKSON, Toppenish, Wash. Filed Mar. 16, 1916. Serial No. 84,678. (Cl. 104—116.)



1. In a railway crossing, stationary rail sections, movable rail sections, operating levers extending through the adjacent ends of the movable rail sections, bars for connecting the operating levers, means positioned adjacent the stationary rail sections and adapted to be engaged by the flange of a car wheel passing thereover, for operating the operating levers simultaneously for moving the movable rail section.

2. In a railway crossing, stationary rail sections, movable rail sections arranged in pairs and coöperating with the stationary rail sections to form continuous tracks, each of the movable rail sections having a beveled extremity, an operating lever connected with the beveled ends of each pair of movable rail sections, means connecting the operating levers whereby they will operate the movable rail sections simultaneously, operating rods positioned adjacent the rails of the stationary rail sections, and operating arms connected to the operating levers, said arms lying in a plane to be engaged by the flange of a car wheel passing thereover, for rocking the arms to impart a horizontal movement to the operating rods for moving the movable rail sections.

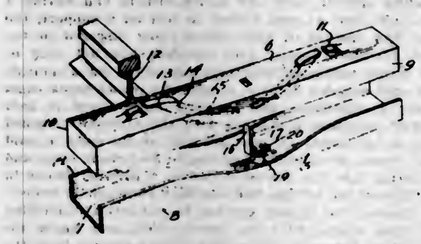
3. In a railway crossing, stationary rail sections, movable rail sections coöperating with the stationary rail sections, movable plates for supporting the movable rail sections, said movable rail sections having transverse openings, operating levers extending through the openings, operating arms supported adjacent the rails of the stationary rail sections, means for connecting the operating levers and operating arms whereby movement of the operating levers produces a relative movement of the operating arms.

4. In a railway crossing, stationary rail sections, movable rail sections, having beveled coöperating ends, movable supporting plates having coöperating beveled ends supporting the respective movable rails, operating levers connected with the beveled ends of each of the movable rail sections, a pivot pin for the operating levers, the supporting plates having coöperating notched portions forming guide-ways for the pins of the operating levers, means for connecting the operating levers, and means for causing the operating levers to operate simultaneously, for moving the movable rail sections into and out of engagement with the stationary rail sections.

5. In a railway crossing, stationary rail sections, and movable rail sections, each movable rail section comprising a plate, movable supporting plates for each movable section, rails carried by the movable supporting plates and rigidly secured thereto, said rails having overlapping beveled ends provided with transverse alining openings, operating levers extending through the alining openings for moving the rails simultaneously and said movable supporting plates having means coöperating with means on the operating levers for holding the operating levers in position, and means for operating the operating levers simultaneously.

[Claims 6 and 7 not printed in the Gazette.]

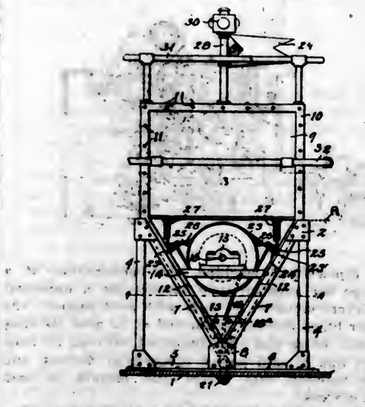
1,206,712. RAILWAY APPLIANCE. KALLE JARVI and KARL MAKINEN, Ishpeming, Mich. Filed May 4, 1916. Serial No. 95,405. (Cl. 238—5.)



1. In a cross tie, a base, a cover having an aperture in its top applied to the said base, lugs struck from the said cover and constituting rail engaging members, said cover having apertures adjacent the rail engaging members, clamps extending through the apertures and engaging the rail, tail pieces on the said clamps bearing against the base for exerting pressure of the clamps on the rail, and a latch secured to the base and projecting through an aperture of the cover for retaining the said cover in place.

2. In a railway appliance, a base, a cover embracing the base, said cover having apertures therein, rail engaging lugs struck from the said cover and adapted to engage the base flanges of the rails, movable clamps extending through apertures of the said cover, tail pieces on the said clamps extending downwardly and longitudinally of the cross tie, the parts being in such relation that when the cover is seated on the base the tail pieces are in engagement with the said base and cause pressure to be exerted by the clamps of which they are a part, and means for holding the sections of the cross tie in assembled relation to each other.

1,206,713. SIGNAL FOR LOCATING SUNKEN VESSELS. CHARLES GEORGE JOHNSON, Sault Ste. Marie, Mich. Filed July 17, 1914, Serial No. 851,559. Renewed Oct. 13, 1916. Serial No. 125,501. (Cl. 9—9.)



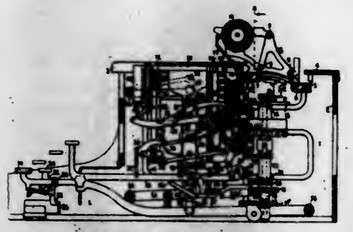
1. A signal for locating a vessel after it is sunk including a buoy adapted to float upon the water, said buoy being provided with a substantially V-shaped base, a cradle mounted upon the vessel and provided with a substantially V-shaped seat upon which the V-shaped base of the buoy is adapted to removably rest under normal conditions, said V-shaped seat being provided on opposite sides thereof with upstanding flanges to prevent the buoy from jarring or slipping out of the cradle, and means for anchoring the buoy to the sunken vessel to prevent said buoy from drifting.

2. A signal for locating a vessel after it is sunk, including a buoy adapted to float upon the water, said buoy being provided with suitable day and night signals, the upper portion of said buoy consisting of a water tight compartment, while the lower portion thereof consists of a frame forming a substantially V-shaped base, a reel mounted upon said frame adapted to receive a suitable length of cable, one end of said cable being fastened to the vessel while the opposite end thereof is fastened to the reel, said cable being adapted to be unwound from the reel as the vessel sinks, braking means for preventing the cable from unwinding from the reel after the vessel has reached bottom, cable guide rollers mounted upon the buoy, and a cradle upon the vessel provided with a substantially V-shaped seat upon which is adapted to removably rest under normal conditions the V-shaped base of the buoy.

3. A combined signal for locating a vessel after it is sunk and life buoy, including a buoy adapted to float upon the water, the upper portion of the buoy consisting of a water tight compartment provided with suitable day and night signals and rails adapted to be grasped by shipwrecked persons, while the lower portion thereof consists of a frame forming a substantially V-shaped base, a reel mounted on said frame adapted to receive a suitable length of cable, one end of said cable being fastened to the vessel while the opposite end thereof is fastened to the reel, said cable being adapted to unwind from the reel as the vessel sinks, braking means for preventing the cable from unwinding from the reel after the vessel has reached bottom, means for winding the cable upon

the reel, guide rollers mounted on the buoy, and a cradle carried by the vessel having a substantially V-shaped seat upon which is adapted to removably rest under normal conditions the V-shaped base of the buoy.

1,206,714. TYPE-WRITING MACHINE. HERBERT L. JOHNSON, Fairfield, and EDWIN W. JOHNSON, Bridgeport, Conn., assignors to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Sept. 1, 1915. Serial No. 48,478. (Cl. 197—97.)



1. In a typewriting machine, the combination of a shiftable type bar support, type bar actions, a universal bar, three levers mounted to shift with said support, the universal bar being directly connected at or near its ends to two of said levers and also connected between its ends to the outer one of said levers, escapement devices, and connections between said levers and certain of said escapement devices.

2. In a typewriting machine, the combination of a shiftable type bar support, type bar actions, a universal bar, three levers mounted to shift with said support, the universal bar being directly connected to one of said levers near its middle and to the other two levers near its ends, a rock shaft on said support, connections between said levers and said rock shaft, and escapement devices, certain of said devices being operative from said rock shaft.

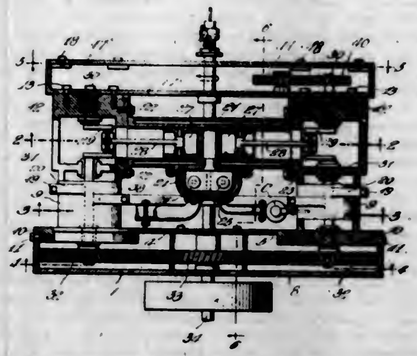
3. In a typewriting machine, the combination of a shiftable type bar support, a universal bar, type bar actions operative thereon, three levers mounted to shift with said support and to which said universal bar is directly pivotally connected, two of the pivotal points of connection being in the same horizontal line and the other pivotal point of connection being at a different level, and escapement devices, certain of said devices being operatively connected with said levers.

4. In a typewriting machine, the combination of a shiftable type bar segment, a curved universal bar, type bar connections operative thereon, three levers mounted to shift with said segment and to which said universal bar is pivotally connected, two of the pivotal points of connection being in the same horizontal line and the other pivotal point of connection being between the other two and below said horizontal line, and escapement devices, certain of said devices being operatively connected with said levers.

5. In a typewriting machine, the combination of a shiftable type bar segment, a curved universal bar, type bar connections operative thereon, three levers mounted to shift with said segment and to which said universal bar is pivotally connected, two of the pivotal points of connection being in the same horizontal line and the other pivotal point of connection being between the other two and below said horizontal line, said universal bar being arranged within the curve of said segment but out of contact therewith, guide fingers at the ends of said segment and overlying the end portions of said universal bar, and escapement devices, certain of said devices being operatively connected with said levers.

[Claims 6 to 13 not printed in the Gazette.]

1,206,715. ENGINE. DAVID N. JONES, Minneapolis, Minn. Filed Dec. 27, 1915. Serial No. 68,772. (Cl. 123—51.)



1. In combination, a pair of spaced parallel flat casings standing upright and adapted to rest on a support, an engine between and supported by said casings, said engine having a pair of driven crank shafts extending into one casing, a horizontal power shaft also extending into said casing, gearing in the latter connecting the crank shafts to said power shaft, a timer or magneto shaft extending into the other casing, and gearing in the latter for driving said shaft.

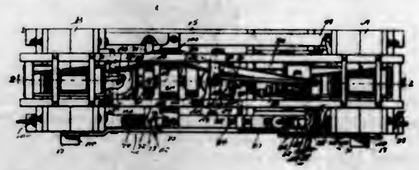
2. In combination, a flat upright casing having a horizontally elongated base to rest on a support, a smaller flat upright casing spaced from and parallel to said first named casing, a leg depending centrally from said smaller casing and also adapted to rest on said support, a horizontally elongated cylinder between and secured to both casings, horizontal crank shafts at the ends of said cylinder extending into the first named casing, a pair of pistons in the cylinder for driving said shafts, a gear on each shaft disposed in said first named casing, a horizontal power shaft extending transversely through this casing, a third gear on said power shaft meshed with the aforesaid gears, a horizontal timer or magneto shaft extending transversely through the smaller casing, and gearing in this casing for driving said timer or magneto shaft.

3. In combination, a substantially triangular flat casing standing upright upon one of its corners and having a horizontal base at such corner to rest on a support, the other two corners of said casing being disposed in the same horizontal plane and rounded, one flat side of said casing having circular openings whose walls coincide with said rounded corners, a pair of parallel crank cases having a cylindrical end inserted and secured in said circular openings in contact with the aforesaid rounded ends, a horizontal cylinder secured at its ends to said crank cases, crank shafts disposed in said crank cases and projecting into the aforesaid casing, a pair of pistons in the cylinder for driving said shafts, a power shaft projecting through the casing, gearing in the latter connecting the crank shafts with the power shaft, and means for supporting the ends of the crank cases remote from the casing.

4. An internal combustion engine comprising a double-ended cylinder having a pair of pistons therein, crank cases at the ends of said cylinder, crank shafts in said cases driven from the pistons, a power shaft disposed transversely below the cylinder and driven by the crank shafts at half the speed of the latter, a valve casing extending from the center of the cylinder and having intake and exhaust valves provided with depending operating stems spaced longitudinally of the cylinder, rigid operating arms projecting horizontally from the lower ends of said stems and disposed in spaced parallel relation, being positioned longitudinally of the cylinder, cams on the power shaft for intermittently raising said arms to open the valves, a rigid bar extending longitudinally of the cylinder and having its ends rigidly secured to the lower sides of the two crank cases, a rigid arm projecting laterally at right angles from the center of said bar between the valve stems and above the operating arms thereof, and a trio of rigid guide pins depending from said last named rigid arm, one of said pins being disposed between said operating arms while the other two are positioned contiguous to the remote edges of said arms.

5. In combination, a pair of spaced parallel casings standing upright and adapted to rest on a support, a pair of spaced parallel crank cases extending between and secured to the ends of said casings, a cylinder extending between and secured at its ends to said crank cases, crank shafts in said crank cases and extending into one of the aforesaid casings, gearing in this casing, a power shaft extending between and through the casings, said gearing connecting the crank shafts with said power shaft, a magneto or timer shaft extending into the other casing, gearing in this casing for driving said magneto or timer shaft, and pistons in the cylinder for operating the crank shafts.

1,206,716. MILL. JAMES C. KELLER and WILSON L. REECE, Butler, Tenn.; said Keller assignor of one-fourth of the whole right to John E. Reece, Butler, Tenn. Filed June 12, 1915. Serial No. 33,822. (Cl. 83—8.)



1. In a mill, a housing, a bed stone carrying back support mounted for longitudinal slidable movement within the housing, said back support having diametrically opposite lugs, a bridge tree supported pivotally at one end, said bridge tree having a collar provided with pivot members engaging the lugs of the back support, a coiled spring interposed between the housing and the free end of the bridge tree, the latter being provided with a cam face, a threaded rod extending slidably through the housing and having at one end a nut engaging the outer face of the housing and at the other end a stop member, said rod extending through the coiled spring, and a cam lever fulcrumed on the rod and engaging the cam face of the bridge tree to force the latter against the tension of the coiled spring, thereby effecting longitudinal adjustment of the bed stone carrying back support.

2. In a mill, a housing, a bed stone carrying back support mounted for longitudinal slidable movement within the housing, said back support having diametrically opposite lugs, a bridge tree supported pivotally at one end, said bridge tree having a collar provided with pivot members engaging the lugs of the back support, a coiled spring interposed between the housing and the free end of the bridge tree, the latter being provided with a cam face, a threaded rod extending slidably through the housing and having at one end a nut engaging the outer face of the housing and at the other end a stop member, said rod extending through the coiled spring, cam levers fulcrumed on the rod, one of said cam levers engaging the cam face of the bridge tree, and a plate mounted on the rod between the cam levers and having a cam face engaged by the other cam lever, whereby said cam levers independently or in conjunction with each other may be utilized to tension the spring and to effect longitudinal adjustment of the bed stone carrying back support of various extent.

3. A mill comprising housings, a longitudinally adjustable mandrel journaled in the housings, a bed stone fixed in one housing, a bed stone adjustably mounted in the other housing, said bed stones facing in the same direction, runner stones carried by the mandrel, means for moving the mandrel to vary the space between the faces of the runner and bed stones, feeders for delivering grist to the housings, friction means for operating the feeders from the mandrel, said means being so arranged that when one feeder is in operation the other is at rest and vice versa.

1,206,717. CORRUGATED VESSEL. WILHELM KÖCHLING, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 5, 1914. Serial No. 843,157. (Cl. 220—2.)



1. A corrugated wall, the ends of some of the corrugations being bent at an angle to the wall and located within such corrugations, and a body attached to the free ends of such bent portions.

2. A corrugated wall, the ends of some of the corrugations being bent at an angle to the wall and located within such corrugations a portion of the adjacent faces of each bent portion engaging with each other to form a ridge projecting away from those bent portions.

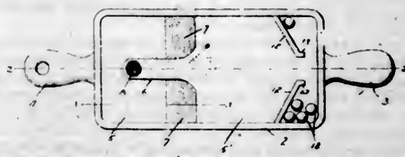
3. A corrugated wall, the ends of some of the corrugations being bent at an angle to the wall and located within such corrugations a portion of the adjacent faces of each bent portion engaging with each other to form a ridge projecting away from those bent portions, and a body attached to the free ends of such bent portions.

4. A corrugated wall, some of the corrugations terminating at an angle to their extent and each of such corrugations being provided with a portion located within such corrugations adjacent the ends thereof and inclosing the space within such corrugations.

5. A corrugated wall, some of the corrugations terminating at an angle to their extent and each of such corrugations being provided with a portion located within such corrugations adjacent the ends thereof and inclosing the space within such corrugations, and a body attached to the free edges of such inclosing portions.

[Claim 6 not printed in the Gazette.]

1,206,718. GAME. ERNEST KOHLER, Alameda, Cal. Filed Mar. 27, 1916. Serial No. 86,996. (Cl. 46—41.)



1. A game device comprising a rectangular body portion, a raised flange around the periphery thereof, a raised field, a depressed field, an inclined surface connecting said fields, a tongue forming a continuation of said raised field extending into said depressed field, said body portion having an elongated recess under said tongue and an opening from the surface of said tongue into said recess.

2. A game device comprising a rectangular body portion, a raised flange around the periphery thereof, a raised field, a depressed field, an inclined surface connecting said fields, a tongue forming a continuation of said raised field extending into said depressed field, said body portion having an elongated recess under said tongue and an opening from the surface of said tongue into said recess, and wings on said raised field extending from said flange to form pockets therebetween and the corners of said raised flange.

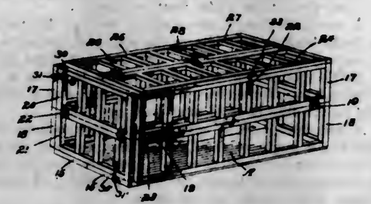
3. A game device comprising a rectangular body portion, a raised flange around the periphery thereof, a raised field, a depressed field, an inclined surface connecting said

fields, a tongue forming a continuation of said raised field extending into said depressed field, said body having an elongated recess under said tongue, the bottom of said recess having retaining notches formed therein, said tongue having an opening on the end thereof extending into said recess, and wings on said raised field forming pockets therebetween and the corners of said raised flange.

4. A game device comprising a raised field, a depressed field, a tongue forming a continuation of said raised field extending into said depressed field, said tongue having an opening thereunder and an opening from the surface thereof into said recess.

5. A game device comprising an elongated body having a flat field of substantial area, a second flat field of smaller area and in a different plane, said fields being joined by inclined surfaces, and a narrow tongue projecting from an edge of the larger field and over the smaller field, between said inclined surfaces, the top surface of said tongue being in the same plane as the corresponding surface of the larger field, said tongue having a closed chamber in its outer extremity leading in from the top thereof.

1,206,719. FOLDING CRATE. IRA F. LAMP, Griffithsville, W. Va. Filed Nov. 23, 1915. Serial No. 63,086. (Cl. 217—46.)

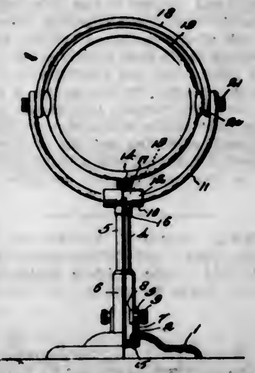


1. A folding crate comprising a longitudinally divided bottom member, the wings of which are hingedly connected together, longitudinally divided side members, the wings of which are hingedly connected together, hinges connecting the lower wings of the side members with the outer edges of the wings of the bottom members, longitudinally divided end members each consisting of hingedly connected upper and lower wings, hinges connecting the upper wings of the two end members with the ends of the upper wing of one side member, a longitudinally divided top member comprising hingedly connected wings, and hinges connecting one wing of the top member with the upper wing of the other side member.

2. A folding crate comprising a longitudinally divided bottom member, the wings of which are hingedly connected together, longitudinally divided side members, the wings of which are hingedly connected together, hinges connecting the lower wings of the side members with the outer edges of the wings of the bottom members, longitudinally divided end members each consisting of hingedly connected upper and lower wings, hinges connecting the upper wings of the two end members with the ends of the upper wing of one side member, a longitudinally divided top member comprising hingedly connected wings, and hinges connecting one wing of the top member with the upper wing of the other side member; one wing of the top member being composed of two hingedly connected parts, one of which constitutes an auxiliary lid.

3. A folding crate comprising a longitudinally divided bottom member, the wings of which are hingedly connected together, longitudinally divided side members, the wings of which are hingedly connected together, hinges connecting the lower wings of the side members with the outer edges of the wings of the bottom members, longitudinally divided end members each consisting of hingedly connected upper and lower wings, hinges connecting the upper wings of the two end members with the ends of the upper wing of one side member, a longitudinally divided top member comprising hingedly connected wings, and hinges connecting one wing of the top member with the upper wing of the other side member; and fastening means whereby the upper wings of the end members may be detachably connected with the upper wing of the side member with which the top member is hingedly connected.

1,206,720. FOLDING MIRROR. MICHAEL EDW. LANE, Chicago, Ill. Filed Oct. 29, 1914. Serial No. 869,257. (Cl. 45—100.)



A folding mirror comprising a base, said base provided with a central socket, attaching lugs formed on said base and extending upwardly from the socket, a standard consisting of telescopic sections mounted between said attaching lugs, one of said sections provided with slots in the lower end thereof, screw-threaded bolts mounted in said slots and passed through the attaching lugs to receive nuts to hold said section of the standard to the lugs, a T-coupling secured to the upper end of the other section of the standard, said T-coupling having its horizontal portion slotted to provide bifurcated arms, a U-shaped bracket provided with an enlarged portion journaled in the bifurcated arms of the T-coupling, said enlarged portion of the U-shaped bracket provided with a vertically extending internally screw-threaded opening, a headed rod provided with screw threads at one end and adjacent the headed end to be passed between the bifurcated arms and threaded within the opening of the U-shaped bracket and screw-threaded into the central socket of the base to prevent rotation of said U-shaped bracket, within the T-coupling and to hold the sections extended, and a mirror pivoted to said U-shaped bracket.

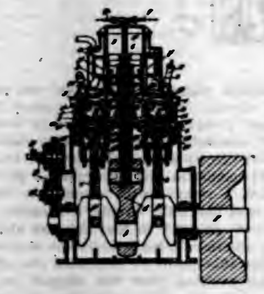
1,206,721. HEEL-PROTECTOR FOR HOSIERY. DONALD LAURIE, Bickleton, Wash., assignor of one-half to Gertrude B. Crow, Bickleton, Wash. Filed Aug. 9, 1916. Serial No. 113,932. (Cl. 36—37.)



1. A hosiery heel protector comprising a body constructed of celluloid having a perforated rear portion, perforated opposite sides, and a non-perforated bottom, which parts merge together and are shaped to conform to the heel of the wearer and fit between the heel of the wearer and the inner surface of the heel of the shoe.

2. A hosiery heel protector comprising a body constructed of celluloid having a perforated rear portion, perforated opposite sides, and a non-perforated bottom, which parts merge together and are shaped to conform to the heel of the wearer and fit between the heel of the wearer and the inner surface of the heel of the shoe, and an auxiliary protector or shield constructed of cork secured to the non-perforated part of the body, and blending into the outer surface of the body, the upper portion of the rear and the edge portions of the sides and the forward edge portion of the bottom of the body being tapered.

1,206,722. CONSTRUCTION OF INTERNAL-COMBUSTION ENGINES. JAMES MCKECHNIE, Barrow-in-Furness, England, assignor to Vickers Limited, London, England. Filed Feb. 12, 1916. Serial No. 77,937. (Cl. 123—53.)



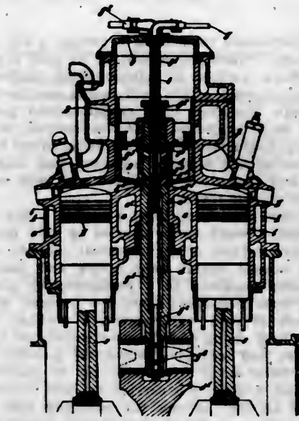
1. In an internal combustion engine, a large central cylinder, two side cylinders having a combined cross section approximately equal to that of the large cylinder and connected to the latter by passages, a large piston in the central cylinder adapted at the end of the compression stroke almost to meet the cylinder end so as to leave no compression space in the said cylinder, two small side pistons acting oppositely to and balancing the pressures on the large piston, two separate compression spaces each made in the form of a transverse channel leading from the outside edge of a small cylinder to one of the said passages leading to the central cylinder, and an injection valve at the outer end of each channel and directed inwardly toward the central cylinder.

2. In an internal combustion engine, a large central cylinder, two side cylinders having a combined cross section approximately equal to that of the large cylinder and connected to the latter by passages, a large piston in the central cylinder adapted at the end of the compression stroke almost to meet the cylinder end so as to leave no compression space in the said cylinder, two small side pistons acting oppositely to and balancing the pressures on the large piston, a transverse channel in the end of each of the small pistons, each channel forming a narrow compression space leading from the outer edge of the small cylinder to the passage communicating with the large cylinder, and an injection valve at the outer edge of each small cylinder and directed along the corresponding channel.

3. In an internal combustion engine, a large central cylinder, two side cylinders having a combined cross section approximately equal to that of the large cylinder and connected to the latter by passages, a large piston in the central cylinder adapted at the end of the compression stroke almost to meet the cylinder end so as to leave no compression space in the said cylinder, two small side pistons acting oppositely to and balancing the pressures on the large piston, two separate compression spaces each made in the form of a transverse channel leading from the outside edge of a small cylinder to one of the said passages leading to the central cylinder, an injection valve at the outer end of each channel and directed inwardly toward the central cylinder, and a separate fuel pump for each valve and pump driving gear connected to the crank shaft.

4. In an internal combustion engine, a large central cylinder provided with exhaust ports in its walls, two side cylinders each provided with air inlet ports in their walls and having a combined cross section approximately equal to that of the large cylinder and connected to the latter by passages, a large piston in the central cylinder adapted at the end of the compression stroke almost to meet the cylinder end so as to leave no compression space in the said cylinder, two small side pistons acting oppositely to and balancing the pressures on the large piston, two separate compression spaces each made in the form of a transverse channel leading from the outside edge of a small cylinder to one of the said passages leading to the central cylinder, and an injection valve at the outer end of each channel and directed inwardly toward the central cylinder.

1,206,723. MEANS FOR COOLING PISTON-RODS AND PISTONS. JAMES MCKECHNIE, Barrow-in-Furness, England, assignor to Vickers Limited, London, England. Original application filed Feb. 12, 1916, Serial No. 77,937. Divided and this application filed June 20, 1916. Serial No. 106,634. (Cl. 123—176.)



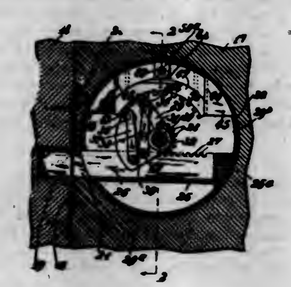
1. In an internal combustion engine a cylinder, a piston, a tubular piston rod, fixed water inlet and outlet tubes arranged one within the other and passing through the end of the cylinder and a central water tube in the said piston rod, making sliding contact with the central fixed tube, the said water tubes being adapted to provide a longitudinal flow of cooling water in the piston rod through the central tubes and surrounding annular channel.

2. In an internal combustion engine a cylinder, a hollow piston, a tubular piston rod, passages leading from the hollow rod to the upper and lower ends of the piston cavity, fixed water inlet and outlet tubes arranged one within the other and passing through the end of the cylinder, a central water tube extending through the tubular piston rod and making sliding contact with the central fixed tube, the upper end of the said piston rod tube closing the annular water passage between the upper and lower passages leading to the piston cavity, the said water tubes being arranged to provide a flow of cooling water through the central tubes, the surrounding annular channel and the piston cavity.

1,206,724. LOCK. STANISLAW NOWOSIELSKY, New York, N. Y. Filed Dec. 31, 1914. Serial No. 879,836. (Cl. 70—47.)

1. A lock mechanism, comprising a casing, a key to be inserted therein, a ward sector, carried by said key and having a pattern surface of arbitrary form, a labyrinth sector housed within said casing and having an operating

surface mating said pattern surface of said key, a rocking barrel housed within said casing and disposed adjacent said labyrinth sector, a bolt controllable by said rocking barrel, and mechanism carried by said rocking barrel and actuated by said ward sector for controlling freedom of movement of said rocking barrel relatively to said labyrinth sector.



2. A lock mechanism comprising a casing, a key to be inserted therein, a ward sector carried by said key and having a pattern surface of asymmetrical contour, a labyrinth sector housed within said casing and having a number of teeth staggered in a predetermined path of asymmetrical form dependent upon the contour of said pattern surface of said ward sector, a rocking barrel housed within said casing and disposed adjacent said labyrinth sector, and a bolt operatively connected with said rocking barrel and controllable thereby.

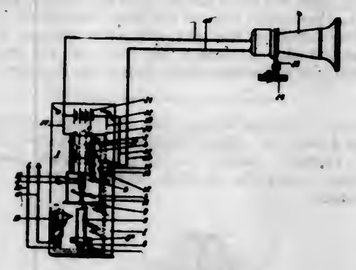
3. A lock mechanism comprising a casing, a key to be inserted therein, a ward sector carried by said key and having a pattern surface of asymmetrical contour, a labyrinth sector housed within said casing and having a number of teeth staggered in a predetermined path of asymmetrical form dependent upon the contour of said pattern surface of said ward sector, a rocking barrel housed within said casing and disposed concentric to said labyrinth sector and located adjacent the position occupied by said ward sector when said key is inserted in said casing, and a dolly pin carried by said barrel and provided with an end portion for engaging said ward sector, and a guide member carried by said dolly pin for the purpose of controlling freedom of movement of said rocking barrel relatively to said teeth of said labyrinth sector.

4. A combination lock comprising a casing, a key, a ward sector carried by said key and provided with a pattern surface, a labyrinth disposed within said casing and provided with a series of obstructions, a movable member for engaging said ward sector and controllable by the pattern surface thereof, said movable member having a portion extending into said labyrinth and adapted to lodge against some one of said obstructions unless said pattern surface of said ward sector is specially formed to guide said movable member in a clear path of arbitrary direction through said labyrinth, actuating mechanism for shifting said movable member, and a locking member mounted movably in relation to said casing and controllable by shifting movements of said movable member.

5. A device of the character described comprising a key, having a pattern surface, a labyrinth having an obstructive surface through which a clear path may be traced, a movable member provided with a portion for engaging said pattern surface, said movable member being provided with a portion extending into said labyrinth and adapted to follow the said clear path through said labyrinth if said pattern surface of said key has a predetermined form relatively to the form of said labyrinth, but not otherwise, and a locking member controllable by movements of said movable member.

[Claims 6 to 9 not printed in the Gazette.]

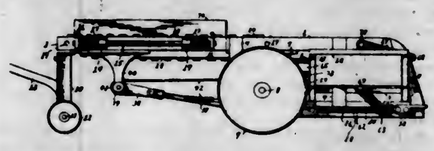
1,206,725. ALARM-AUGMENTING MEANS. RAY W. OREWILER, Portland, Oreg. Filed Oct. 2, 1914. Serial No. 864,699. (Cl. 177—335.)



1. In an electric signaling apparatus, the combination with a main circuit, of an auxiliary circuit, energizing means therefor, a signaling device in said auxiliary circuit, a switch, normally open, for closing said auxiliary circuit, a shunt circuit connected with the auxiliary circuit, an electro-magnet in said shunt circuit provided with a movable core, a relay switch connection between the shunt circuit and the main circuit, a member carried by the movable core adapted to bear against and close the switch of the auxiliary circuit when the magnet is energized, and adjustable means for retarding the return of the core to normal position after the magnet has been de-energized.

2. In an electric signaling apparatus, the combination with a main circuit, of an auxiliary battery circuit, an electric horn in said auxiliary circuit, a push-button switch, normally open, for closing said auxiliary circuit, a shunt circuit connected with the auxiliary circuit, an electro-magnet in said shunt circuit provided with a movable core, a relay switch connection between the shunt circuit and the main circuit, a fluid cylinder located beneath the magnet, a piston carried by the magnet core operating in said cylinder, an arm carried by the piston rod adapted to bear against and close the push-button switch of the auxiliary circuit when the core is attracted by the magnet, and a needle valve in said cylinder for retarding the return of the core to normal position after the magnet has been de-energized.

1,206,726. SHOCKER. PEARL E. PARKER, Winchester, Kans., assignor of one-fourth to Henry G. Sickel, Leavenworth county, Kans., and one-fourth to John Jacob Dold, Johnson county, Kans. Filed Nov. 3, 1915. Serial No. 59,341. (Cl. 56—121.)



1. The combination of running gear, a frame mounted thereon and formed with ways in its lower rear portion, means for connecting said frame with a harvesting machine, an endless conveyer mounted in the upper forward part of the frame and adapted to convey from front to rear of the frame, connecting mechanism between the running gear and the conveyer whereby the conveyer is driven by the running gear; a shock-assembling and discharging platform reciprocatingly mounted in said ways having movement forwardly and rearwardly of the frame and comprising a skeleton platform frame and a series of rods extending from front to rear and being in substantially a horizontal plane and attached at their forward ends to said platform frame and their rear ends being free; a shaft mounted in the frame forward of the platform, crank arms secured to the shaft, connecting rods between the crank arms and the platform, connecting mechanism between the shaft and the running gear whereby said shaft is driven by said running gear and said connecting mechanism including a clutch, means for controlling and operating said clutch, a shock-holding rod extending transversely across said frame at the rear of the platform, a discharging rod extending across the frame at the forward end of the platform, and connecting mechanism between the platform and said last two named rods for lifting the retaining rod and moving the discharge rod rearwardly upon the forward movement of the platform.

2. The combination of running gear, a frame mounted thereon and formed with ways in its lower rear portion, means for connecting said frame with a harvesting machine, an endless conveyer mounted in the forward upper part of the frame, connecting mechanism whereby the conveyer is driven to convey from front to rear by the running gear; a shock-assembling and discharging platform mounted in said ways at and under the rear end of the conveyer and having forward and rearward reciprocating movement in said ways and formed with a series of rods having their rear ends free; connecting mechanism between the running gear and the platform whereby the platform is actuated by the running gear, said connecting mechanism including a clutch normally disengaged, a vertically movable shock-retaining rod across the rear of the frame above the platform, a shock-discharging rod across said frame at and above the front end of the platform and movable rearwardly, and suitable connecting and actuating mechanism associated with the last two named rods and the platform for lifting the retaining rod and moving the discharging rod rearwadly upon the forward movement of the platform.

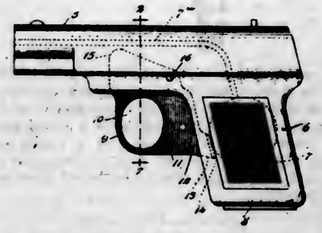
3. The combination of running gear, a main frame mounted thereon and formed with ways in its lower rear portion, an endless conveyer mounted in the forward upper portion of the frame, connecting mechanism whereby the conveyer is driven to convey from front to rear by the running gear; a shock-assembling and discharging platform reciprocatingly mounted in said ways, having forward and rearward movement and located at the discharge end of said conveyer, a shock-discharging device at and above the forward end of said platform and having rearward and forward movement, connecting mechanism between the running gear and the platform and said device and including a clutch whereby said platform and said device are actuated by the running gear, and means for controlling said clutch; the forward movement of the platform and the rearward movement of the said device simultaneously coöperating on the shock to discharge it from said platform onto the ground.

4. The combination of running gear, a main frame mounted thereon and formed with ways in its lower rear portion, a conveyer mounted in the forward upper portion of the frame connecting mechanism between the running gear and the conveyer for actuating the conveyer to convey from front to rear; a shock-assembling and discharging platform reciprocatingly mounted in said ways and having its forward end under the rear end of the conveyer and also having forward and rearward movement in said ways; a shock-holding device located at the rear end of said platform, a shock-discharging device located at and above the forward end of said platform and having rearward movement, connecting mechanism between the running gear and the platform, the shock-holding device, and the shock-discharging device, whereby they are actuated by the running gear, said connecting mechanism including a clutch, and means for controlling said clutch; said shock-charging device coöperating with said platform to discharge the shock onto the ground from said platform by a rearward movement against the shock simultaneously with the forward movement of the platform and the withdrawing movement of the shock-holding device; together with suitable means for restoring said parts to their normal positions.

5. The combination of running gear, a main frame mounted thereon, a conveyer mounted in the forward upper portion of the frame, connecting mechanism between the running gear and the conveyer whereby the conveyer is driven from front to rear by the running gear, a shock-assembling platform mounted in the lower rear portion of the main frame with its forward end under the rear end of the conveyer and having forward and rearward movement in the frame; a shock-discharging device mounted in the frame above the forward end of the platform and having rearward and forward movement, connecting mechanism between the running gear and the platform and the said shock-discharging device, and including a clutch, for simultaneously imparting forward movement to the platform and rearward movement to the shock-discharging device, means for controlling said clutch, and means for restoring said platform and said shock-discharging device to their initial positions.

[Claims 6 to 14 not printed in the Gazette.]

1,206,727. PISTOL. RUSSELL PARKER, New York, N. Y., assignor to Parker, Stearns & Company, Brooklyn, N. Y., a Corporation of New York. Filed Sept. 15, 1916. Serial No. 120,259. (Cl. 42—56.)



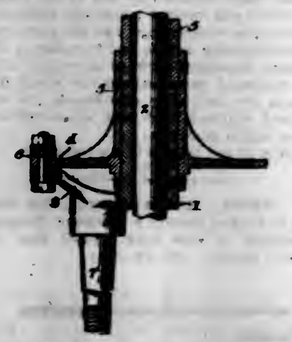
1. In a pistol of the kind described, a grip having an internal chamber and provided with a slot communicating therewith, a compressible ball in said chamber adapted to contain and expel a liquid, a pivoted trigger, a guide web forming a continuation of said trigger and movable in said slot, a pressure member forming a continuation of said web and extending into said chamber and a flange carried by said pressure member and adapted to compress said ball as the trigger is actuated.

2. In a pistol of the kind described, a barrel having a slot, a grip having an internal chamber and provided with a slot communicating therewith, a compressible ball in said chamber adapted to contain and expel a liquid, a pivoted trigger provided with a finger hole, a flange adjacent to said hole forming a rest for the finger, a guide web forming a rearward continuation of said trigger and movable in the grip slot, a pressure member forming a continuation of said web and extending into said chamber, a flange carried by said pressure member and adapted to compress said ball as the trigger is actuated and a web forming an upward continuation of said trigger and movable in said barrel slot.

1,206,728. EMERGENCY ATTACHMENT FOR DRIVING-AXLES OF AUTOMOBILES AND THE LIKE. PETER PAULY, Milwaukee, Wis., assignor of one-half to Alfred A. Lienemann, Milwaukee, Wis. Filed May 1, 1916. Serial No. 94,599. (Cl. 21—5.)

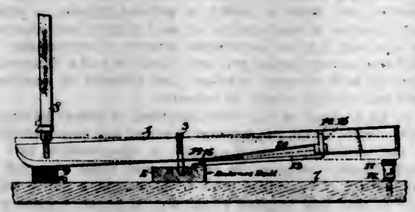
1. An emergency attachment for an axle of the differential type from which the wheel spindle has been broken consisting of a member adapted to be attached to a non-rotating part associated with the axle and provided with a wheel spindle, offset from the axis of the shaft section, and a sleeve adapted to be slipped onto the shaft section, said sleeve being provided with a groove or channel in its face adjacent the shaft for the introduction of means to lock the shaft to the sleeve.

2. An emergency attachment for an axle of the differential type from which the wheel spindle has been broken consisting of a member adapted to be attached to a non-rotating part associated with the axle and provided with a wheel spindle, offset from the axis of the shaft section, and a sleeve having a passage therethrough, open at both ends, into which the shaft section is adapted to be slipped and means for locking the sleeve and shaft section together.



3. An emergency attachment for an axle of the differential type from which the wheel spindle has been broken consisting of a member adapted to be bolted to the brake flange of the axle and provided with a wheel spindle extending from one side thereof and a sleeve extending from the other side thereof said sleeve adapted to be slipped onto the broken shaft and keyed thereto to prevent its retation.

1,206,729. KEY FOR PIANOS, ORGANS, AND THE LIKE. JAMES F. POAGE, Kirksville, Mo. Filed Sept. 20, 1915. Serial No. 51,710. (Cl. 84—16.)



1. The combination with the balance rail and the keys, and the limiting means for the keys; of a screw engaging each key at the balance rail, the balance rail having an opening for each screw, the screw engaging the opening; a pad of cushioning material beneath each screw, an inclined brace rod connecting the outer end of each key with the balance rail, each key having an opening in its under side and intermediate the screw and the outer end; each brace rod having an angular portion at each end, the angular portion at one end engaging the opening of the key, and the balance rail having an opening for engagement by the angular portion at the other end of the brace; each key being cut away at its under side to prevent interference of the brace with the swinging of the key, and the several braces being pivoted at the balance rail.

2. The combination with the balance rail and the keys, and the limiting means for the keys; of a screw engaging each key at the balance rail, and the balance rail having an opening for each screw, the screw engaging the opening, a pad of cushioning material beneath each screw, and an inclined brace rod connecting the outer end of each key with the balance rail.

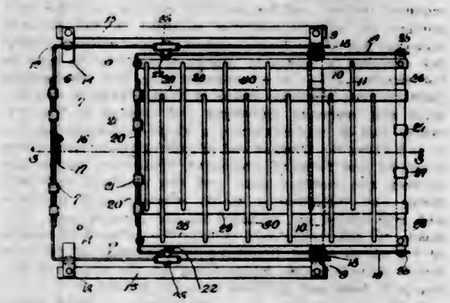
3. The combination with the balance rail and the keys, and the limiting means for the keys, of a screw engaging each key at the balance rail, and the balance rail having an opening for each screw, the screw engaging the opening, and a pad of cushioning material beneath each screw.

4. The combination with the balance rail and the keys, of a screw threaded through the key at the balance rail, and the balance rail having an opening for receiving the lower end, said opening gradually increasing in diameter from its bottom upward; and an inclined brace rod connecting each key with the balance rail, each rod being pivoted to the key intermediate the screw and the outer end of the key and to the balance rail; each brace rod having angular portions at each end extending in opposite directions, and the key having an opening in its under side for receiving one portion; the rail having an opening in its upper side for receiving the other portion and the key being cut away from the opening to prevent interference with the rod, said rod being pivoted to the balance rail.

5. The combination with the balance rail and the keys, of a screw threaded through the key at the balance rail, and the balance rail having an opening for receiving the lower end, said opening gradually increasing in diameter from its bottom upward, and an inclined brace rod connecting each key with the balance rail, each rod being pivoted to the key intermediate the screw and the outer end of the key and to the balance rail.

[Claim 6 not printed in the Gazette.]

1,206,730. OVEN-SHELF. THOMAS H. RIDEOUT, Cambridge, Mass., assignor to T. H. Rideout Manufacturing Company, a Corporation of Massachusetts. Filed Oct. 25, 1915. Serial No. 57,780. (Cl. 126—330.)



1. A shelf mechanism comprising a main frame and a shelf each constituted by pairs of slidably adjustable members, said shelf members having means engaged with the frame whereby said shelf follows all adjusting movements of the frame.

2. A shelf mechanism comprising a main frame having a pair of ways each having inwardly extending overlapping arms, guides for slidably connecting said arms, a shelf having rigid side members and pairs of inwardly extending overlapping arms, means for slidably connecting said latter arms, and means mounted on said rigid side members to slidably receive the ways of said main frame whereby the ways of said frame and said shelf are positively connected and all lateral adjusting movements of either are transmitted to the other.

3. A shelf mechanism comprising a main frame, having pairs of ways, arms extending inward from said ways and slidably connected, grooved sheaves rotatably mounted relative to said ways, and a shelf constituted by a pair of adjustably connected members each of which has a track received in the related grooved sheave of said main frame, and a pair of grooved sheaves mounted on members of said shelf to receive the respective ways of said main frame whereby said main frame members and shelf members are positively engaged by said sheaves and each follows all adjusting movements of the other.

1,206,731. SPARKING CONNECTION FOR AUTOMOBILES. ANDREW L. RIKER, Short Hills, N. J., assignor to The "Locomobile" Company of America, New York, N. Y., a Corporation of West Virginia. Filed Nov. 4, 1902. Serial No. 130,031. (Cl. 123—148.)



1. The combination with an internal combustion engine of a spark plug, a source of high potential current, an insulated electrical conductor for conveying current from said source to said plug, and an electrical conductor consisting of a series of loosely connected members electrically uniting said conductor with said spark plug.

2. In a motor vehicle of the type employing an internal combustion engine igniting by means of a spark, the combination with an insulated secondary conductor and an engine and its spark plug of a multi-part conductor interposed between the said insulated conductor and said plug and consisting of a series of flexibly connected links or members joining said insulated conductor and plug.

3. The combination with an internal combustion engine of an engine spark plug, a source of electrical currents, an insulated conductor for conveying current from said source to said plug, a multipart conductor interposed between the said insulated conductor and said plug and consisting of a series of loosely connected links or members joining said insulated conductor and plug, and insulation supporting means for supporting said conductor including a device for maintaining the connected end of said multipart conductor in fixed position relative thereto, to prevent vibration of the adjacent end of said insulated conductor while permitting free vibration of said links.

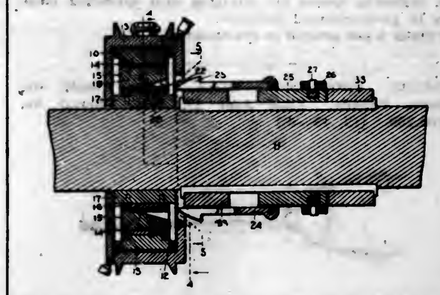
4. The combination of an internal combustion engine, sparking devices therefor, a source of high potential current, an insulated conductor for conveying current from said source to said sparking devices, a terminal contact for said conductor, a series of flexibly connected contacting links connecting said conductor with said terminal contact, a supporting member secured thereto, and means on said supporting member for supporting said conductor by its insulated covering and arranged to maintain said series of contacting links normally taut.

5. In a device of the class described, the combination of an insulated conductor comprising the inner member 6 and sheath 60, having a terminal cap r¹⁰, with a chain conductor connected therewith, having rigid connection at its opposite end with a sparking device, and a conductor clamp for the cap end of said conductor acting as a support therefor and normally to maintain said chain taut.

[Claims 6 to 10 not printed in the Gazette.]

1,206,732. CAR-BRAKE. LEON LEROY RUSSELL, Livermore Falls, Me. Filed Apr. 22, 1916. Serial No. 92,879. (Cl. 188—67.)

1. In combination with the axle of a car and a brake-cylinder lever, a carrier constrained to revolve with the axle, a revoluble drum bearing on the carrier, a flexible member connecting the drum to the lever, a friction block constrained to rotate with the carrier and free to move radially of the carrier, a sectional cam block associated with the carrier and the friction block, resilient means for maintaining the sections together, a spreading member engaging said sections, means carrying said spreading member constrained to revolve with the axle and free to slide thereupon, and means for sliding said spreading member carrier whereby the distance between the sections of the cam block may be varied, substantially as and for the purpose set forth.



2. In combination with the axle of a car and brake-cylinder lever, a carrier constrained to revolve with the axle, a revoluble drum bearing on the carrier, a flexible member connecting the drum to the lever, a frictional block, a sectional cam block connecting the frictional block to the carrier, means for varying the distance between the sections of the cam block whereby the engagement of the friction block with the drum is controlled, and means for actuating the last-named means accessible from the side of a car.

3. In combination with the axle of a car and a brake-cylinder lever, a carrier in the shape of a pulley secured to the axle to revolve therewith, a revoluble drum bearing on the carrier and free to revolve thereupon, a flexible member connecting the drum to the lever, said carrier having diametrically opposite openings in the periphery thereof, a friction block in each opening, said carrier having a hub, a sectional cam block, one section of which is secured to the hub and the other to a friction block, means for guiding the sections of the cam block, resilient means, normally resisting the parting of said sections of the cam block, said sections having coöperating, wedge-shaped grooves, a wedge-shaped member coöperating with the grooves of the sections of the cam block, a carrier for said wedge-shaped member mounted to slide on the axle and constrained to revolve therewith, a yoke for sliding said carrier, and means for actuating said yoke from either side of the car, including means for retaining said yoke in predetermined positions.

4. In combination with the axle of a car and a brake-cylinder lever, a carrier in the shape of a pulley having a hub secured to the axle to revolve therewith, a revoluble drum bearing on the carrier and free to revolve thereupon, a flexible member connecting the drum to the lever, said carrier having diametrically-opposite openings in the periphery thereof, an arcuate friction block in each opening, an arcuate plate carried on the said blocks, a sectional cam block interposed between each plate and the hub of th epulley, one of the sections being secured to the plate and the other to the hub, resilient means connecting the plate to the hub, whereby the friction block is maintained clear of the drum, guiding means for the sections of the cam block, said cam sections having coöperating grooves which have the shape of a wedge, a yoke having a wedge-shaped member for engaging the groove in the sections of the cam, a collar mounted to slide on the axle and constrained to revolve therewith, means pivotally connecting the yoke to said collar, means for shifting said collar on the axle, and means for actuating said shifting means from either side of the car, including means for retaining said shifting means in predetermined positions.

5. In combination with the axle of a car and a brake-cylinder lever, a drum free to revolve on the axle, friction block associated with the axle, resilient means main-

taining the friction blocks clear of the drum, a cam block having an inclined plane associated with each friction block, a spreading member mounted to slide on the axle and constrained to rotate therewith for engaging the inclined planes of the cam, whereby the friction block may be brought into engagement with the drum, and means for actuating the spreading members from the side of the car, including means for retaining said spreading members in predetermined positions.

[Claim 6 not printed in the Gazette.]

1,206,733. FISH-HOOK. OYILA SIRARD, Cobalt, Ontario, Canada. Filed June 17, 1916. Serial No. 104,259. (Cl. 43—6.)



1. A hook of the character described comprising a pair of gripping jaws, guards encircling said jaws, means for connecting said guards to said jaws, toggle links for holding said jaws in open position and means for closing said jaws when said toggle links have been released.

2. A hook of the character described comprising a pair of gripping jaws, levers carried by said jaws, guard members encircling each of said jaws and connected thereto, means for normally holding said jaws closed and toggle levers connecting said jaws for the purpose set forth.

3. A hook of the character described comprising a sleeve, a pair of rods supported upon said sleeve, a gripping jaw pivotally connected to each rod, coiled springs encircling said rods, guard members carried by said coiled springs and means for connecting said guard members to the gripping jaws.

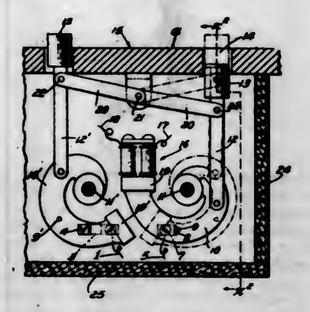
4. A hook of the character described comprising a sleeve, a pair of rods, gripping jaws pivotally connected to said rods, teeth formed within one end of said gripping jaws, a handle formed with the opposite end of each of said gripping jaws, coiled springs encircling said rods, one end of said coiled springs being connected to said sleeve, the opposite ends of said coiled springs encircling said gripping jaws for forming guard members, and means for connecting said guard members to the gripping jaws for the purpose set forth.

5. A hook of the character described comprising a support, a pair of jaws pivotally connected to said support, guard members connected to said jaws, resilient connections between said support and said guard members for normally holding said jaws in closed position and means adapted to retain the jaws in open position against the tension of said resilient connections for the purpose set forth.

1,206,734. SWITCH. WILLIAM A. SPALDING, Los Angeles, Cal. Filed May 16, 1913. Serial No. 768,169. (Cl. 175—282.)

1. An electric switch comprising a casing, stationary contact means mounted in said casing, movable contact means for each stationary contact means disposed so as to be moved into contact with its stationary contact means, said movable contact means comprising curved levers substantially as illustrated, each of said levers pivoted at one end in said casing, lugs on each side of each of said levers disposed so as to engage with one of said stationary contact means when being moved, each lever when contacting with its stationary contact means obstructing the path of movement of the other lever to prevent the other lever from contacting with its stationary contact means, and an electro-magnet fixed in said casing to contact with the free end of each lever when in contacting position to lock such lever in contacting position.

2. An electric switch having two sets of contacts arranged so that one set will contact to the exclusion of the other, each of said sets of contacts comprising stationary contact means fixed in said casing, movable contact means comprising levers, said levers being fulcrumed in said casing and disposed so as to engage with respective fixed contact means when moved, each of said levers in the contacting position obstructing the path of movement of the opposite lever, and an energized electro-magnet to hold either of said movable levers in the contacting position thereby preventing a contacting movement of the opposite lever.

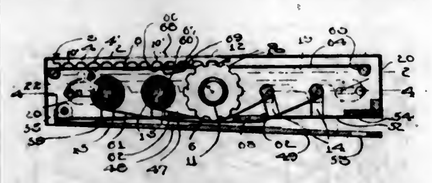


3. The combination with a casing comprising a plate having apertures therethrough and an outer face, of an electric switch comprising two sets of contact means, said contact means embracing stationary contact means fixed in said casing and movable contact means pivotally mounted in said casing, said movable contact means being disposed so as to engage said stationary contact means when moved in one direction, push buttons operatively connected to the movable contact means and normally extending out through said apertures, said push buttons when depressed closing the sets of contact means and electro-magnetic means for holding either set of contact means in the closed position, the depressed push button remaining below said outer face in said closed position.

4. In combination, an arrangement for making two contacts, a plate having apertures therethrough, two push buttons normally projecting through said apertures and beyond said plate, said buttons being adapted to be depressed through said apertures and below the outer face of said plate, stationary contact means for each of said contacts, two movable members adapted to be moved into position to engage said stationary contact means, one of said movable members being operated by one of said push buttons and the other of said movable members being operated by the other of said push buttons, and an electro-magnet for locking said members in the position where they respectively contact with said stationary contact means, and said movable members being so positioned relative to each other that when one makes a contact, it will obstruct the path of movement of the other to prevent the other from making a contact.

5. In combination, a plate having apertures therethrough and having an outer face, two push buttons normally extending out through said apertures and beyond the outer face of said plate, said push buttons being adapted to be depressed through said apertures and below the outer face of said plate, two pivotally mounted members connected to said push buttons respectively, stationary contact means, one of said movable members being adapted to engage one of the stationary contact means to make one contact and the other of said movable members being adapted to engage the other of said stationary contact means to make another contact, and an electro-magnet for locking said movable members in the position where they make their respective contacts, said movable members being so positioned relative to each other that when one is locked in its contacting position by said electro-magnet it will obstruct the path of movement of the other movable member whereby the other movable member is prevented from being moved to contacting position.

1,206,735. STAMP. MEREDITH G. STANDLEY, Cincinnati, Ohio. Filed Oct. 19, 1912. Serial No. 726,740. (Cl. 101—161.)



1. A printing attachment for a recording stamp comprising a disk, said disk provided with a plurality of teeth formed upon its periphery, each tooth provided with a type face of less width than said teeth, a rack member provided with a plurality of teeth upon its under surface, said teeth adapted to straddle said teeth formed upon said printing disk and adapted to engage the sides of said teeth upon said printing disk for rotating the printing disk when said rack is shifted, and said rack provided with a notched portion between each tooth for constituting a pocket for receiving the type face formed upon the outer faces of the teeth formed upon said printing disks and constituting a protector for the face of the type formed upon said printing disks.

2. A receipt register of the class described comprising a body, a bottom plate hingedly secured to said body, printing means carried by said body, a pigment carrying ribbon carried by said body and passing under said printing means for causing an impression to be made therethrough, means for feeding said pigment, an operating lever cooperating with said feeding means and provided with a rounded forward end, said plate provided with an upwardly extending ear having a circular notch formed therein, and means engaging the forward end of said lever for holding the same in engagement with said notch.

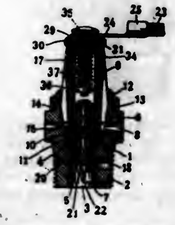
3. A receipt register of the class described comprising a body, a bottom plate hingedly secured thereto, a closure plate secured to said body, said bottom plate provided with an ear extending through said closure plate, printing ribbons carried within said body, means for feeding said printing ribbons, an operating lever coöperating with said feeding means, means for pivotally securing said lever to said ear, a clutch throwing rod secured to one end of said operating lever, locking means carried by said casing and engaging one end of said clutch throwing rod for holding the rod against accidental longitudinal movement relative to said casing.

4. A device of the class described comprising a casing, a bottom plate secured to said casing and provided with an inwardly extending lug, ribbon feeding means carried within said body, a ribbon wound upon said ribbon feeding means, duplicating and recording sheets associated with said ribbon, means for printing therethrough, an operating lever coöperating with said ribbon feeding means, an upwardly extending ear formed upon said base plate, said lever engaging said upwardly extending ear, a rod for detachably holding said lever in engagement with said ear, locking means carried by said casing, said rod engaging said locking means and normally held against longitudinal movement thereby, and means secured to said rod and extending through said casing for facilitating the removal of said lever from said ear and allowing longitudinal movement of said rod relative to said casing.

5. In a stamp, a relative movable casing and printing platen, the casing having a longitudinally slotted face plate, a rotatable disk in the casing having type bearing teeth, a longitudinally slidable bar supported between the face plate and type disk, having rack teeth on its under surface protectively intermeshing the type teeth of the disk, the upper face of said bar directly above the spaces between the rack teeth having a series of numbers corresponding to the character of the disks and being formed with a projection extending through said slot, said face plate being orificed to display a bar character in the disk position for stamping said display character.

[Claims 6 to 29 not printed in the Gazette.]

1,206,736. SPARK-PLUG. LOUIS STEINBERGER, Brooklyn, N. Y. Filed Sept. 21, 1912, Serial No. 721,692. Renewed Aug. 15, 1916. Serial No. 115,116. (Cl. 123—169.)



1. In a spark plug, the combination with a metallic base member carrying one of the electrodes, of an insulating member engaging said base member carrying the other of the electrodes, said insulating member being readily detachable from said base member, so as to give access to both of the electrodes, and a cooling air-passage extending along the joint between said members having its opposite ends open to the atmosphere.

2. In a spark plug, the combination of a metallic base member and an insulating member engaging said base member, said insulating member having means formed thereon adapted to coöperate with parts of the base member for forming a plurality of substantially uniformly spaced air passages about said insulating member for the purpose set forth.

3. In a spark plug, the combination of a metallic base member and an insulating member engaging said base member, said insulating member having an annular groove formed thereon, said base member having an aperture opening transversely therethrough and into the annular groove of said insulating member, and a passage leading from said annular groove to the atmosphere so as to afford a circulation of air through said aperture and passage for the purpose set forth.

4. In a spark plug, the combination of a metallic base member and an insulating member engaging said base member, said insulating member having a longitudinally extending groove on its outer surface, and said base member having an aperture extending transversely therethrough adapted to coöperate with said groove to provide an air passage transversely through said base and longitudinally along said insulating member, for the purpose set forth.

5. In a spark plug, the combination with a metallic base member carrying one of the electrodes, of an insulating member engaging said base member carrying the other of the electrodes, said base member being formed with a seat and having cooling apertures formed therein, and said insulating member having a part snugly fitting within said seat and held thereby against movement in one direction, said insulating member being provided with means registering with said cooling apertures to provide against the over heating of said plug.

[Claims 6 to 25 not printed in the Gazette.]

1,206,737. BINDING-POST. LOUIS STEINBERGER, Brooklyn, N. Y. Filed July 18, 1913, Serial No. 779,701. Renewed Aug. 15, 1916. Serial No. 115,117. (Cl. 173—259.)

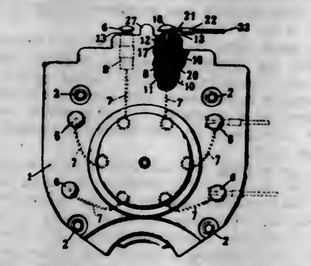
The combination with a conductor terminal formed of a sheet of material having a part thereof pressed to form a

convexed surface portion at one side of the conductor terminal and a concaved surface portion at the other side thereof, of a binding post having a concavity therein to receive the convexed portion of the conductor terminal, said binding post having a clamping member adjacent the concavity thereof convexed to be received within said concavity, and means for yieldingly pressing said clamping



member into said concavity comprising a rod extending from the center of the concaved portion of the binding post into engagement with said clamping member, and a spring engaging said rod to urge said rod in a direction to move the clamping member toward said concaved portion.

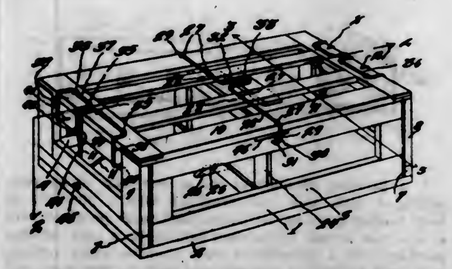
1,206,738. CONNECTING DEVICE FOR ELECTRICAL CONDUCTORS. LOUIS STEINBERGER, Brooklyn, N. Y. Filed May 17, 1912, Serial No. 698,188. Renewed Nov. 1, 1916. Serial No. 128,030. (Cl. 173—350.)



1. In a device of the class described, the combination with a tubular metallic casing open at one end adapted to be fixed within a body of insulating material or the like so that its open end opens through the surface of said body of insulating material, of a closure for said open end having an aperture therethrough, a rod extending through said aperture beyond the inner end of said closure into the open space within said casing, said rod being slidable through said aperture and having a head at its outer end, spring means disposed within the casing engaging between the inner end of said rod and the inner end surface of said closure to urge said head toward the outer surface of said closure so as to comprise a clamp for attaching a conductor terminal between said head and the outer surface of said closure, and means whereby said closure with said rod and the parts carried thereby forming the terminal retaining clamp is detachably connected to said casing so that the terminal retaining clamp may be detached as an entity from said casing at will.

2. The combination with a sheet metal conductor terminal pressed to form a semi-spherical depression in one surface thereof and a substantially concentrically disposed semi-spherically convexed portion at the opposite surface thereof, of a binding post comprising a clamp, one of the clamping faces of which is semi-spherically convexed to engage within the semi-spherical depression in the conductor terminal whereby to urge the conductor terminal toward a given central position between the surfaces of the clamp, and the semi-spherical convexed opposite surface of the terminal by presenting a continuously concentric rounding surface to the other clamping face of the clamp serving to facilitate and assist the sliding movement of the terminal into said given central relation with the binding post.

1,206,739. COLLAPSIBLE COOP OR CRATE. JOHN SIMON STURM, Hayti, Mo. Filed June 1, 1916. Serial No. 101,092. (Cl. 217—47.)



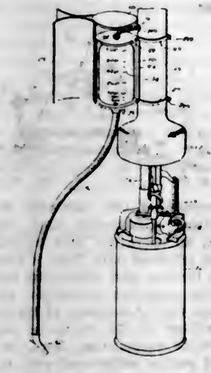
1. A collapsible crate comprising a bottom, side, and end pieces hinged to the bottom and provided with upper rails, and designed to collapse, the sides toward and against the bottom, and the end pieces toward and upon the side pieces, connections between the side and end pieces both in collapsed and erect positions of said parts, a top or closure for the crate, one of the end pieces having loose links, said top or closure having means slidably engaging said links, whereby the top may be collapsed against the end pieces, a rocking rod mounted in bearings adjacent each end of the top or closure having arms at both ends to overlie the end piece, said arms having hooks to engage under the upper rail of the end piece, and a hasp loop forming an integral part of the rod designed to be detachably connected to the end piece to secure the parts of the crate in erect positions.

2. A collapsible coop comprising a bottom, side, and end pieces hinged to the bottom and provided with upper rails, and designed to collapse, the sides toward and against the bottom, and the end pieces toward and upon the side pieces, connections between the side and end pieces both in collapsed and erect positions of said parts, a top or closure for the coop, one of the end pieces having loose links, said top or closure having members slidably engaging said links, whereby the top may be collapsed against the end pieces, a rocking rod mounted in bearings adjacent each end of the top or closure having arms at both ends to overlie the end piece, said arms having hooks to engage under the upper rail of the end piece, and a hasp loop forming an integral part of the rod designed to be detachably connected to the end piece to secure the parts of the coop in erect positions, and means carried by a part of the bottom to be received by the hasp loop to secure the parts of the coop in collapsed position.

3. A collapsible coop comprising a bottom, side, and end pieces hinged to the bottom, provided with upper rails, and designed to collapse, the sides toward and against the bottom, and the end pieces toward and upon the side pieces, connections between the side and end pieces both in collapsed and erect positions of said parts, a top or closure for the coop having upon its under surface adjacent one end spaced apart rods extending partially longitudinally of the top or closure and being spaced apart from each other, one of the end pieces having loose links engaging upon the rods connecting the top or closure slidably to one of said end pieces, whereby the top or closure may be collapsed against both end pieces, a rocking rod mounted in bearings adjacent each end of the top or closure having arms at both ends to overlie the end piece, said arms having hooks to engage under the upper rail of the end piece, and a hasp loop forming an integral part of the rod designed to be detachably connected to the end piece to secure the parts of the coop in erect positions, means carried by a part of

the bottom to be received by the hasp loop to secure the parts of the coop in collapsed positions, a central partition collapsibly connected to the top or closure, and a rocking rod mounted in bearings of the top or closure extending transversely and substantially centrally thereof and having hook arms at its ends, means upon the side pieces to receive the hooked arms to hold the parts of the coop more secure, and a hasp loop carried by the central rocking rod designed to be detachably connected to the top or closure.

1,206,740. MEASURING-PUMP ATTACHMENT. WILLIAM L. THAXTON, Baltimore, Md. Filed May 15, 1916. Serial No. 97,554. (Cl. 221—90.)



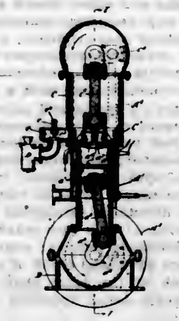
1. An attachment for measuring pumps of the type comprising an upright or post and an upwardly directed discharge pipe supported by said post, said attachment comprising a casing having means for securing the same to said post, a graduated measuring vessel within said casing and adapted to receive liquid from said discharge pipe, and a valve controlled delivery pipe leading from said vessel and casing.

2. An attachment for measuring pumps comprising a casing provided with means for securing the same to the pump upright, a transparent measuring vessel within said casing and arranged to receive the discharge from the pump, and a valve controlled delivery pipe leading from the bottom of said vessel and casing, said casing being provided with doors for closing the opposite sides thereof but adapted to be opened to expose the opposite sides of said vessel.

3. An apparatus of the character described, comprising a measuring force pump having a hollow post extending upwardly therefrom and provided with a lateral opening and an upwardly directed discharge pipe within said post and extending through said opening, said pump being adapted to force measured quantities of liquid through said discharge pipe, a graduated measuring vessel secured to the exterior of said post and with which said discharge pipe communicates, and a valve controlled delivery pipe leading from said vessel.

1,206,741. INTERNAL-COMBUSTION ENGINE. CHARLES J. WEGER, Cleveland, Ohio, assignor to The Weger Motor Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 23, 1914, Serial No. 833,882. Renewed Feb. 29, 1916. Serial No. 81,206. (Cl. 123—65.)

1. In an internal combustion engine, the combination of the working-cylinder and piston, a portion of the interior of said cylinder forming a firing-chamber; ignition-means communicating with the latter; a separate cylinder communicating with the source of supply of the explosive mixture; a piston in said latter cylinder; a valve for controlling communication between said separate cylinder and said source of supply; two crank-shafts and connecting-rods connecting said pistons with said shafts respectively; and means connecting said crank-shafts whereby a definite and predetermined relationship of the piston movements is obtained, said connecting rods and



crank-shafts being set so as to allow the pistons to move in opposite directions throughout a part of their respective strokes; said first-named valve being arranged to cut off communication between the two cylinders at the time of the explosion of the mixture in the firing chamber.

2. In an internal combustion engine, the combination of a working-cylinder and piston, a part of the interior of said cylinder forming a firing-chamber; ignition-means communicating with the latter; a separate cylinder of greater diameter than said working-cylinder, and communicating with the source of supply of the explosive mixture; a piston in the latter cylinder; a valve for controlling communication between said separate cylinder and said source of supply; two crank-shafts and connecting-rods connecting said pistons with said shafts respectively; means connecting said two crank-shafts, whereby a definite and predetermined relationship of the piston movements is obtained; said crank shafts and connecting-rods being set so as to cause said pistons to move in opposite directions throughout a part of their respective strokes; said first-named valve being arranged to cut off communication between the two cylinders at the time of the explosion of the mixture in said firing-chamber.

3. In an internal combustion engine, the combination of the working-cylinder and piston, a part of said cylinder forming a firing-chamber; ignition means communicating with the latter; a separate cylinder communicating with the source of supply of the explosive mixture; a piston in said latter cylinder; a valve for controlling communication between said two cylinders; a valve for controlling communication between said separate cylinder and said source of supply; crank-shafts mounted adjacent to the outer ends of said two cylinders respectively; connecting-rods connecting said pistons with said crank-shafts respectively; each of said crank-shafts being provided with two additional cranks; and two additional connecting-rods having their opposite ends connected with one of said additional cranks on each of said crank-shafts.

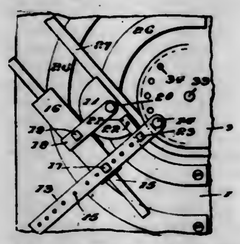
4. In an internal combustion engine, the combination of the working-cylinder and piston; a separate compression-cylinder and piston therefor communicating therewith; a valve opening inwardly with respect to said working-cylinder and controlling such communication, said valve arranged to depend for its operation upon the pressure of the gases in such cylinders; said compression-cylinder communicating with a source of supply of explosive mixture; an automatically-operating valve for controlling such last named communication and opening inwardly with respect to such compression-cylinder; two crank-shafts suitably mounted; two connecting-rods mounted upon the cranks on said crank-shafts and connected respectively with the said pistons; said shafts being arranged to reciprocate said pistons in opposite directions throughout a part

only of their respective strokes; said crank-shafts being provided with additional cranks; and connecting-rods joining the additional cranks of one shaft to those of the other shaft.

5. In an internal combustion engine, the combination of the working-cylinder and piston therefor; a separate compression-cylinder and piston placed end to end therewith; a passage-way providing communication between the contiguous ends of said cylinders; a spring-held puppet-valve opening inwardly with respect to said working-cylinder and controlling such communication; said compression-cylinder communicating with a source of supply of explosive mixture; a spring-held puppet-valve opening inwardly with respect to such compression-cylinder and controlling such last named communication; two crank-shafts suitably mounted; two connecting-rods connecting such crank-shafts with said pistons respectively; said two shafts being arranged so as to reciprocate said pistons in opposite directions throughout a part only of their respective strokes; each such crank-shaft being provided with two additional cranks; connecting-rods each connecting one such additional crank of one of said shafts to a similar crank of the other shaft; the additional cranks of each shaft being angularly related to each other.

[Claim 6 not printed in the Gazette.]

1,206,742. PIPE-BENDING MACHINE. JOHN S. WHEELER, Dunsmuir, Cal. Filed Mar. 10, 1915. Serial No. 13,429. (Cl. 153—46.)



1. In a pipe-bending machine, the combination of a pipe form, a clevis pivoted to the pipe form, a lever pivoted to and extending laterally from the clevis in the plane of the pipe form, a presser piece disposed between and in the same plane with the lever and the pipe form, a clip connecting the lever and the presser piece, and straps connecting the presser piece and the clevis.

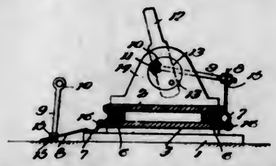
2. In a pipe-bending machine, the combination of a pipe form having a plurality of pivot openings, a clevis having a longitudinal series of openings, a shiftable pivot carried by the clevis and insertible in any one of the pivot openings in the pipe form, a lever extending laterally from the clevis, a pivot inserted through the lever and one of the openings in the clevis, a presser piece between the lever and the pipe form and coöperating with the pipe form, a clip connecting the presser piece with the lever, and straps connecting the presser piece with the clevis.

3. In a pipe-bending machine, the combination of a pipe form having an arcuate pipe-engaging edge, a clevis pivoted thereto, a lever extending laterally from the clevis in the plane of the pipe form, a presser piece having a straight edge coöperating with the pipe form and an arcuate edge bearing against the side of the lever, a clip pivoted to the presser piece and connecting the same with the lever, and straps pivoted to the clevis and to the presser piece near one end of the straight edge thereof.

4. A pipe bending machine comprising a pipe form, a clevis pivotally connected with the pipe form, a lever extending laterally from the clevis and having a constant movement relative thereto, a presser piece arranged to bear against the side of said lever between the ends of the same and coöperate with the pipe form, connections between the presser piece and the lever, and other connections between the presser piece and the clevis, said last-mentioned connections being entirely free of the lever.

5. A pipe bending machine comprising a pipe form, a clevis having a shiftable and pivotal connection with the pipe form, a lever adjustably pivoted to and extending laterally from the clevis, a presser piece disposed between the lever and the pipe form and bearing against the side of the lever between the ends thereof, connections between the presser piece and the lever, and other connections between the presser piece and the clevis, said last-mentioned connections being free of the lever.

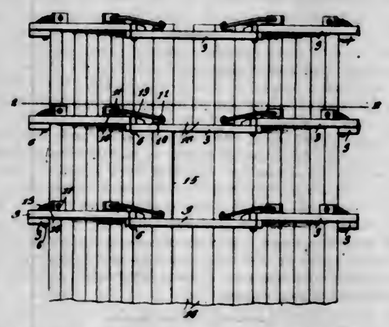
1,206,743. PIPE-BENDING MACHINE. JOHN S. WHEELER, Dunsmuir, Cal. Filed July 13, 1915. Serial No. 39,598. (Cl. 153—46.)



1. In a machine of the character described, a work-holder comprising coöperating jaws, one of such jaws being movable, an operating lever having an end portion bifurcated and provided with hubs, a bearing having such hubs mounted therein, and connecting means for the movable jaw having eccentric connection with the hubs and passing between the bifurcations of the lever.

2. In a machine of the character described, a work-holder comprising coöperating jaws, an operating lever having an end portion bifurcated and having the bifurcations formed on the outer sides with hubs, a bearing receiving such hubs, and a connection between the operating lever and movable jaw, such connection passing between the bifurcations of the lever and having eccentric connection therewith.

1,206,744. PORTABLE SILO. GEORGE WIESENBORN, Abernathy, Tex. Filed June 12, 1914. Serial No. 844,805. (Cl. 217—4.)



1. A portable silo including a plurality of sections, each of said sections provided on one side edge with a longitudinal groove for the reception of the adjacent section to form an efficient water-tight joint, means for securing said sections together, and adjusting means connecting each of the sections adjacent their engaging edges for independently bracing each of the sections at their engaging edges.

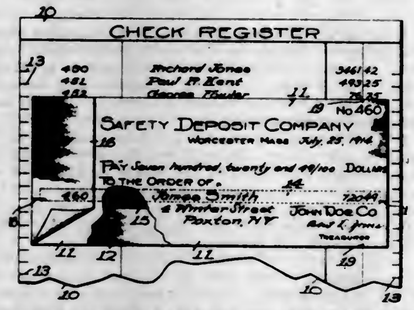
2. A portable silo including a plurality of sections, each of said sections composed of a plurality of staves, one of the end staves on each of said sections being provided with a rounded edge, the other of the end staves on each of said sections provided with a longitudinal groove for the reception of the rounded edge of the end stave of the adjacent section, means for holding said staves and sections, and means for bracing said staves and sections.

3. A portable silo including a plurality of interlocking sections, fastening means passing through the adjacent sections for removably holding the same in a set-up position, angle irons secured to the outer surfaces of said sections, and adjusting means connecting said angle irons for independently bracing each of the said sections at their engaging edges.

4. A portable silo including a plurality of interlocking sections, each of said sections composed of a plurality of staves, cross bars for connecting said staves having their free ends extending beyond the edges of the staves and provided with openings, bolts passing through said openings, angle irons secured upon the upper surfaces of said bars, and elongated bolts adjustably connecting the angle irons of the adjacent sections for holding the sections in a rigid set-up position.

5. A portable silo including a plurality of interlocking sections, each of said sections composed of a plurality of staves, cross bars for connecting said staves, said bars extending beyond the sides of the end staves, one of said sections provided with an opening, a door for closing said opening, said cross bars bracing said door, and means for detachably connecting the cross bars of one section to the cross bars of the adjacent section.

1,206,745. MEANS FOR LISTING CHECKS. CHARLES G. WINTER, Webster, Mass. Filed Aug. 14, 1914. Serial No. 856,859. (Cl. 11—28.)

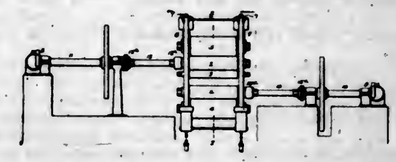


1. A means for listing checks comprising a check register adapted to receive selected data from a plurality of checks, a check having a horizontal space for the same data, and an intermediate sheet comprising a shield of plain paper of substantially the same size and outline as said check and having a relatively narrow horizontal slot therein, and a strip of carbon paper underlying said slot, said intermediate sheet being adapted to be positioned between said check and said register with said slot and carbon paper underlying the horizontal space on said check and thereby causing transfer of the data in said space to said register while transfer of other data from the check to the register is prevented by the shield of plain paper, and said check and register having coöperating index marks adjacent their vertical edges by reference to which they may be relatively positioned.

2. A means for listing checks, comprising a check register having a plurality of horizontal spaces each adapted to contain the number of the check, the name of the payee, and the amount of the check, a check having a horizontal space for the name of the payee and the amount of the check, and an intermediate sheet adapted to be positioned between said check and said register, said sheet having an opening therein adapted to overlie said space on said register, said opening being covered with carbon paper and said sheet having a flap at one end adapted to overlie a portion of the face of the check, whereby data may be placed upon the register without causing it to be reproduced upon the face of the check.

3. A means for listing checks, comprising a check register having a plurality of horizontal spaces, each adapted to contain the name of the payee and the amount of the check, a check having a horizontal space for the same data, and an intermediate sheet adapted to be positioned between said check and said register, said sheet having an opening therein covered with carbon paper and adapted to underlie the space on said check containing said data, said check having an extension on one end adapted to be folded beneath the carbon sheet and to receive additional data written near one end of the check, while at the same time the transfer of said data to the check register is prevented.

1,206,746. ROLLING-MILL. JOHN S. WORTH, Coatesville, Pa., assignor to himself and William P. Worth, Coatesville, Pa. Original application filed Sept. 28, 1915, Serial No. 53,095. Divided and this application filed July 6, 1916. Serial No. 107,810. (Cl. 80—54.)

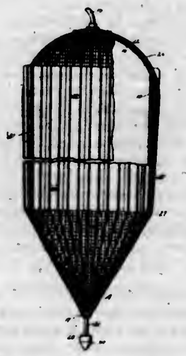


1. The combination in a rolling mill, of two working rolls; and means for independently driving each of said rolls so that the surface speed of each working roll will be the same.

2. The combination in a rolling mill, of two working rolls and an intermediate roll; and independent means for driving each of said working rolls.

3. The combination in a rolling mill, of two working rolls; a supporting roll for each working roll; and means for independently driving each working roll so that the surface speed of the working rolls will be the same.

1,206,747. BAG AND HOLDING AND RELEASING DEVICE. ALEXANDER J. BERGERON, Des Moines, Iowa. Filed Jan. 31, 1916. Serial No. 75,473. (Cl. 114—54.)



1. A device of the class described, comprising an air-tight water proof bag, having an opening, a valve for closing said opening, air supply tubes communicating with said opening adjacent to said valve, a plurality of rigid reinforcing members arranged circumferentially of the central portion of said bag flexibly hinged together at their side edges means for supporting said reinforcing members against longitudinal movement with relation to the bag, a rigid member mounted at the upper end of the bag, a rigid member mounted below the lower end of the bag, and a supporting and reinforcing member capable of

connecting said rigid members and extending from said first described reinforcing members.

2. In a device of the class described, an air-tight water proof bag having an opening at one end, a rigid reinforcing member on the interior of said bag, surrounding said opening, a rigid reinforcing member on the exterior of said bag surrounding said opening, a valve seat formed on the interior of said second member, a valve adapted to coact with said seat, said second rigid member having a central opening adjacent to said valve seat, rigid reinforcing members arranged in a series around the circumference of the central portion of the bag, said members being flexibly connected together, a meshed reinforcing member secured to the upper ends of said last described reinforcing members and to the second rigid member at the upper end of the bag, a rigid member below the lower end of the bag, a meshed reinforcing member covering the lower end of said bag and secured to the lower ends of said flexibly connected members, reinforcing members capable of securing the rigid member at the top of the bag and the rigid member at the lower end thereof, and extending outside said flexibly connected reinforcing members.

3. In a device of the class described, an anchor comprising a cylinder, a grappling device at one end thereof, a rotary member mounted in said cylinder below the upper end thereof, downwardly opening hinged members at the upper end of said cylinder, means for limiting the upward movement of said hinged members, means for yieldingly holding said hinged members in their upper position, and a coacting device comprising a shank having an enlarged head thereon.

4. In a device of the class described, an anchor comprising a cylinder, a grappling device at one end thereof, a rotary member mounted in said cylinder below the upper end thereof, downwardly opening hinged members at the upper end of said cylinder, means for limiting the upward movement of said hinged members, means for yieldingly holding said hinged members in their upper position, and a coacting device comprising a shank having an enlarged head thereon, said coacting device having in its lower end an opening receiving a rope, pivoted trigger members projecting into said opening, upright rods pivotally mounted on said trigger members and projecting upwardly above the head of said shank.

5. In a device of the class described, an anchor comprising a cylinder, a grappling device at one end thereof, a rotary member mounted in said cylinder below the upper end thereof, downwardly opening hinged members at the upper end of said cylinder, means for limiting the upward movement of said hinged members, means for yieldingly holding said hinged members in their upper position, and a coacting device comprising a shank having an enlarged head thereon, said coacting device having in its lower end an opening receiving a rope, trigger members projecting into said opening and pivotally mounted on the coacting device, upright rods pivotally connected with said trigger members and projecting upwardly above the head of said shank, a rope member extended around the said rotary member having a head thereon adapted to be received in the lower end of said co-acting device.

[Claims 6 and 7 not printed in the Gazette.]

1,206,748. SLIPPER. ERNEST A. BICKFORD, Worcester, Mass., assignor to The Wiley-Bickford-Sweet Co., Worcester, Mass., a Corporation of Massachusetts. Original application filed Aug. 31, 1915, Serial No. 48,216. Divided and this application filed July 18, 1916. Serial No. 109,986. (Cl. 36—9.)



1. As an article of manufacture, a slipper comprising an upper and insole, and an outsole secured to the insole by a line of stitches located entirely within the slipper, having one side of the line of stitches located on the inside of the upper and insole, and the other side located on the outside of the insole but on the inner side of the outsole.

2. As an article of manufacture, a slipper comprising a felt upper and insole integral with each other, said insole being slit from end to end and sewed up, an outsole secured to the insole by a line of stitches entirely concealed from the exterior of the slipper, and a cushion located between the outsole and insole.

3. As an article of manufacture a slipper comprising an upper, an insole integral therewith, and an outsole secured to the insole by a line of stitches located entirely within the slipper so that said stitches cannot come to wear on the exterior surface of the slipper, said insole having a slit therethrough to permit access to the stitches, and the slit being sewed up.

1,206,749. SHOE. CHESTER C. BURNHAM, North Brookfield, Mass., assignor to B & R Rubber Co., North Brookfield, Mass., a Corporation of Massachusetts. Filed Aug. 23, 1915. Serial No. 46,851. (Cl. 36—18.)



1. As an article of manufacture, a sole for turn shoes consisting of a fibrous layer of sufficient thickness to receive a channel and to be shouldered, and a relatively thick layer of rubber compound extending with substantially its full thickness the entire width of the sole and vulcanized to the fibrous layer.

2. As an article of manufacture, a sole for turn shoes consisting of a stitch receiving layer of fibrous material channeled and shouldered on one side to receive upper securing stitches and having a plurality of apertures, and a tread layer of rubber compound vulcanized to the opposite side of the fibrous layer and having integral keys filling the apertures in the fibrous layer.

3. As an article of manufacture, a one piece turn shoe sole comprising rubber and fibrous plies vulcanized together and presenting a rubber tread face and a fibrous foot engaging face provided with a channeled and shouldered marginal edge.

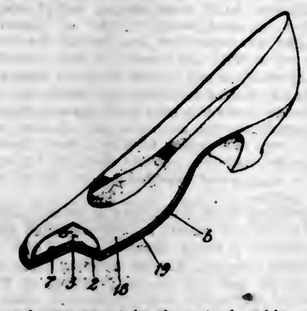
4. As an article of manufacture, a sole for turn shoes comprising a rubber body portion having its upper side provided with a stitch receiving structure raised with relation to a laterally adjacent portion of the sole and comprising fibrous material to adapt said structure to receive and hold single faced stitches for securing a shoe upper to the sole.

5. As an article of manufacture, a turn shoe comprising an upper, a sole consisting of a tread layer of rubber and a layer of fibrous material vulcanized to the rubber layer and provided with a channel and shoulder, and means for securing the upper to the channeled and shouldered portion of the sole.

[Claims 6 and 7 not printed in the Gazette.]

1,206,750. METHOD OF MAKING SHOES. CHESTER COLBY BURNHAM, North Brookfield, Mass., assignor to The B & R Rubber Co., North Brookfield, Mass., a Corporation of Massachusetts. Filed June 5, 1915. Serial No. 32,450. (Cl. 12—142.)

1. The process of making, as an article of manufacture, a rubber sole for a turn shoe which comprises providing a leather blank which is adapted to be channeled and shouldered, applying a layer of rubber compound to one side of the blank, subjecting the leather blank and rubber compound to a sufficient degree of heat to cause the rubber compound to become firmly bonded to the fibers of the leather blank, and then forming a shoulder and a channel on the leather portion of the sole.

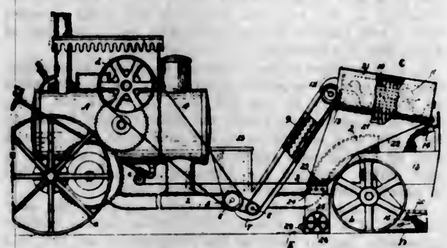


2. That improvement in the art of making turn shoes which comprises providing a leather blank, treating the leather so as to extract moisture, applying a layer of rubber compound to one side of the leather blank, uniting the leather and rubber by vulcanization, channeling and shouldering the leather blank and securing a shoe upper to the sole by sewing the upper to the leather portion of the sole in the usual manner.

3. That improvement in methods of making turn shoes which comprises vulcanizing to a rubber sole body leather thick enough to be channeled and shouldered, channeling and shouldering the leather portion of the sole, assembling a shoe with the rubber side of the sole inside, lasting the upper and sewing it to the channeled and shouldered leather portion of the sole and turning the shoe to present the rubber side of the sole outward.

4. That improvement in the art of making turn shoes which comprises providing a leather shoe upper securing member, vulcanizing a layer of rubber compound to the leather member, channeling and shouldering said leather member and securing a shoe upper to the sole by the channel and shoulder provided on said leather portion.

1,206,751. PROCESS OF AND APPARATUS FOR MAKING ROADS. JAMES D. CLARKSON, Carthage, Mo. Filed Aug. 28, 1915. Serial No. 47,842. (Cl. 94—6.)



1. A road building apparatus comprising mechanism for crushing rock, means for separating the crushed rock into relatively coarse and fine material, means for delivering the coarse material in a substantially uniform sheet on the road surface as the apparatus is caused to traverse the roadway, and means for delivering the separated fine material laterally to one side of the said sheet of coarse material and in position to be conveniently applied thereto subsequently.

2. A road building apparatus comprising in combination a tractor for rolling and compacting the road surface, a rock crusher, a screen for the product of the rock crusher, means for driving the rock crusher and the screen from the engine of the tractor, a receptacle in which the coarse material from the screen is accumulated, means for delivering the material from the said receptacle and spreading it in a layer as the apparatus is advanced, amad means for delivering the fine material from the screen laterally at one side of the layer of coarse material in a position to be conveniently applied to the surface of the latter by hand, the said parts being connected so as to be propelled as a unitary apparatus by the tractor.

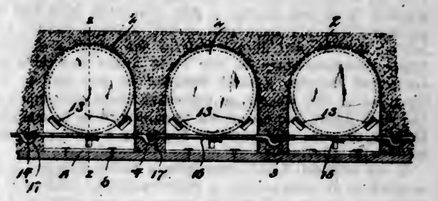
3. A road building apparatus comprising in combination a tractor, a rock crusher, a screen for the product of the rock crusher, means for driving the rock crusher and the screen from the engine of the tractor, a receptacle in which the coarse material from the screen is accumulated, and a spout through which the material from the said receptacle is delivered to the roadway arranged to spread the material in a uniform layer, the spout being adjustable toward and from the surface of the ground, the said parts being connected so as to be propelled as a unitary apparatus by the tractor.

4. A road building apparatus comprising in combination a tractor, a rock crusher, a screen for the product of the rock crusher, means for driving the rock crusher and the screen from the engine of the tractor, means for taking the coarse material from the screen and delivering it in a layer upon the road surface, and means extending laterally to one side of the apparatus and arranged to receive the fine material from the screen and deliver it laterally beyond the layer of coarse material, the said parts being connected so as to be propelled as a unitary apparatus by the tractor.

5. A road building apparatus comprising in combination a tractor, a rock crusher, a screen for the product of the rock crusher, means for driving the rock crusher and the screen from the engine of the tractor, a receptacle in which the coarse material from the screen is accumulated, means for delivering the material from the said receptacle and spreading it in a layer as the apparatus is advanced, a jacket surrounding the screen and receiving the fine material therefrom, and a laterally disposed delivery spout for discharging the said fine material at one side of the layer of coarse material, the said parts being connected so as to be propelled as a unitary apparatus by the tractor.

[Claim 6 not printed in the Gazette.]

1,206,752. REINFORCED CONCRETE CONSTRUCTION FOR FLOORS AND CEILINGS. HAROLD DAVIS, Washington, D. C., assignor to Davis Construction Company, Inc., a Corporation of Virginia. Filed Feb. 1, 1915, Serial No. 5,467. Renewed Oct. 7, 1916. Serial No. 124,438. (Cl. 72—66.)



1. A reinforcing structure for reinforced concrete ceilings and the like, the same comprising a series of hollow molds arranged side by side, and a series of caps for closing the ends of the molds, said caps at their lower sides being extended some distance below the undersides of the molds to form an elevating means for the same and spaces thereunder for the reception of the concrete mass, the standards terminating at their lower ends in laterally disposed flanges forming bases.

2. A reinforcing structure for reinforced concrete ceilings and the like, the same comprising a series of hollow molds arranged side by side, and a series of caps for closing the ends of the molds, said caps at their lower sides being extended some distance below the undersides of the molds to form an elevating means for the same and spaces thereunder for the reception of the concrete mass.

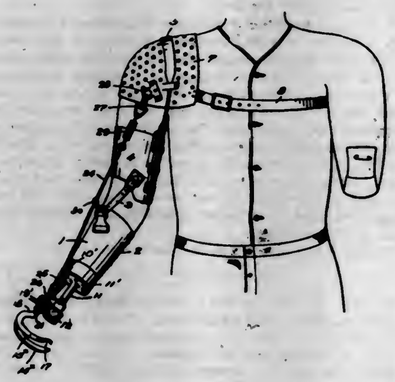
3. A reinforcing structure for reinforced concrete ceilings and the like, the same comprising a series of hollow molds, arranged side by side and spaced apart, and a series of caps for closing the ends of the molds, said caps having flanges for engaging the molds, and at their lower sides extended some distance below the molds to form standards for elevating the molds and spaces thereunder for the reception of the concrete mass.

4. A reinforcing structure for reinforced concrete ceilings and the like, the same comprising a series of hollow molds, arranged side by side, a series of caps covering the ends of the molds and terminating at their lower ends in standards for supporting the same, and means connecting the caps and spacing the same and the molds apart.

5. A reinforcing structure for reinforced concrete ceilings and the like, the same comprising a series of hollow molds, arranged side by side, a series of caps covering the ends of the molds and terminating at their lower ends in standards for supporting the same, and tie-rods connected to the molds and serving to hold the same in their spaced positions.

[Claims 6 to 9 not printed in the Gazette.]

1,206,753. ARTIFICIAL HAND. PETER DESMORE, Seattle, Wash. Filed Nov. 2, 1915. Serial No. 59,172. (Cl. 3—12.)



1. An artificial hand comprising a socket adapted to be secured to an arm stump, a post connected with and extending forwardly from said socket, a finger rigidly connected to said post at one side of the latter, a movable finger complementary to the rigid finger and hingedly connected thereto, a cord fastened at one end to the shoulder of the wearer, a bell-crank lever fulcrumed to the rigid finger and connected to said cord to be operated thereby to raise said movable finger by a sliding engagement with the latter.

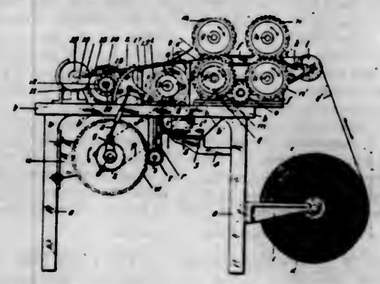
2. An artificial hand comprising a socket adapted to be secured to an arm stump, a plate rotatably connected to the outer end of said socket, means to lock said plate in selected rotary positions, a post rigidly connected to said plate, a finger rigidly connected to said post at one side of the latter, a movable finger complementary to the rigid finger and hingedly connected thereto, a spring tending to yieldingly hold said movable finger in closed relations with the rigid finger, a cord fastened at one end to the shoulder of the wearer, and a bell-crank lever fulcrumed to the rigid finger and connected to said cord to be operated thereby to raise said movable finger by a sliding engagement with the latter.

3. An artificial hand comprising a socket adapted to be secured to an arm stump, a knob carried by said socket in axial alinement therewith, a finger carried by said socket in offset relations with the axis of the socket, a second finger hingedly connected to the first named finger, means for yieldingly holding the fingers in closed position, and devices operable from the wearer's shoulder for actuating the fingers in opposition to said means.

4. An artificial hand comprising a socket adapted to be secured to an arm stump, a pair of hingedly connected fingers connected to said socket for revoluble movements about the axis thereof, a recess provided in the outer extremity of one of said fingers, a looped projection provided on one of said fingers to coöperate with the aforesaid recess in holding an article grasped between the fingers, a spring tending to retain said fingers in closed relations, a lever fulcrumed to one of said fingers, and means operable from the wearer's shoulder for actuating said lever to engage and eventually move the other finger into open position.

5. An artificial hand comprising a socket adapted to be secured to an arm stump, a post extending forwardly from said socket, a finger disposed to one side of said post and rigidly connected thereto, a second finger hingedly connected at its rear end to the rear end of the rigid finger, a lever engageable with the second named finger and fulcrumed to the rigid finger in advance of said hinge connection, and a cord operable from the wearer's shoulder for actuating said lever to effect the relative opening movements of the fingers.

1,206,754. MACHINE FOR MAKING CORES FROM A ROLL OF PAPER. JAMES DUVALL, Camas, Wash. Filed Apr. 28, 1915. Serial No. 23,528. (Cl. 164—28.)



1. In a machine of the character specified, the combination of a pair of coöperating draw rolls, a knife on the periphery of one roll, and the other roll being provided with a slot adapted for receiving said knife, one side of which slot is adjustable to the other side.

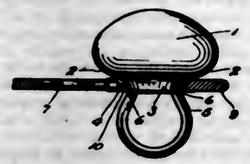
2. In a machine of the character specified, the combination of a pair of coöperating draw rolls, an angular knife on the periphery of one roll, and the other roll being made with an angular cavity the wall of which forms the fixed side of a slot for receiving said knife, the opposite wall or side of said slot being formed by a member, in said cavity, adapted for adjustment relatively to, but in parallel alinement with, said fixed side.

3. In a machine of the character specified, the combination of a pair of coöperating draw rolls, a radially adjustable angular knife on the periphery of one roll, and the other roll being made with an angular cavity the wall of which forms the fixed side of a slot for receiving said knife, the opposite wall or side of said slot being formed by a member, in said cavity, adapted for adjustment relatively to, but in parallel alinement with, said fixed side.

4. A machine of the character specified, comprising a pair of coöperating rolls one thereof made with a cavity, a knife secured to the wall of such cavity, the other roll being made with a slot adapted for receiving said knife, one side of which slot is adjustable to vary the width of the slot, automatic means located in the cavity of the knife-carrying roll for ejecting the cut-out portion deposited therein, such means being adapted to be placed in active state by the rolling of the rolls into cutting position and acting when the rolls have passed such position, and means for driving said rolls.

5. A machine of the character specified comprising a pair of coöperating rolls one thereof made with an angular cavity, an angular knife secured to the wall of such cavity, the other roll being made with a slot adapted for receiving said knife, one side of which slot is adjustable to vary the width of the slot, automatic means located in the cavity of the knife-carrying roll for ejecting the cut-out portion deposited therein, such means being adapted to be placed in active state by the rolling of the rolls into cutting position and acting when the rolls have passed such position, and means for driving said rolls.

1,206,755. SHOE-BUTTON. WILLIAM E. ELLIOTT, Grand Rapids, Mich. Filed Oct. 11, 1915. Serial No. 55,219. (Cl. 24—90.)



1. A shoe button, comprising a head, a neck projecting from the head, and an eye projecting from the neck, the eye and neck having substantially the same outside diameter at their junction, whereby the margin of a button hole if engaged with the eye will normally slide off the same and come to rest upon the neck.

2. A shoe button, comprising a head, a neck extending below the head, and an eye extending below the neck, the eye having substantially the same outside diameter as the neck where joined therewith and having sides converging toward the neck, whereby when in use the neck remains in a button hole, and the eye will not remain in the same.

3. A button, comprising a head, a neck projecting from the head and having a concave periphery and an eye projecting from the head, having sides converging toward the neck and having substantially the same outside diameter as the neck where joined therewith.

4. A button, comprising a head, a neck projecting from the head and having a concave periphery, an eye projecting from the neck, the neck and eye being of substantially equal diameter where they are joined and oppositely increasing diameter therefrom, whereby the neck will normally rest in a button hole and engage the margin thereof and the eye will not normally remain in said button hole.

5. A shoe button comprising a head having a convex margin, an eye projecting below the head, and a neck surrounding the eye near the head and having a concave periphery merging into the margin of the head at the top to guide the margin of a button hole freely over the head of the button, and of less diameter than the eye at the lower end.

[Claims 6 to 8 not printed in the Gazette.]

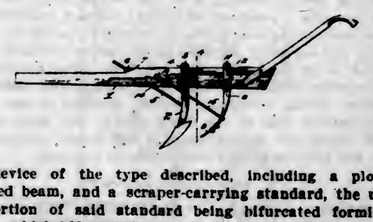
1,206,756. AUTOMOBILE-WHEEL RIM. FRED F. ENTER, Cuyahoga Falls, Ohio. Filed Aug. 23, 1915. Serial No. 46,916. (Cl. 152—21.)



1. A device of the character described, including a felly band formed on its outer face with lugs, a tire holding rim adapted to be slipped upon said band and formed with circumferentially elongated slots afforded by inwardly directed flanges, a portion of one side flange being cut away to admit of the passage of said lugs whereby a subsequent circumferential adjustment of the rim will cause the lugs to be received in the closed end portions of said slots, one of said slots having both side flanges open instead of merely one, a wedge insertible across the last named slot through the open portions of the side flanges, for the purpose specified, and withdrawable means carried by said rim and engageable with said wedge to hold it in position.

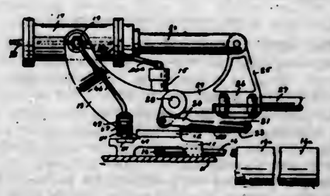
2. A device of the character described, including a felly band formed on its outer face with lugs, a tire holding rim adapted to be slipped upon said band and formed with circumferentially elongated slots afforded by inwardly directed flanges, a portion of one side flange being cut away to admit of the passage of said lugs whereby a subsequent circumferential adjustment of the rim will cause the lugs to be received in the closed end portions of said slots, one of said slots having both side flanges open instead of merely one, a wedge insertible across the last named slot through the open portions of the side flanges, for the purpose specified, and withdrawable means carried by said rim and engageable with said wedge to hold it in position, the lugs being wedge shaped in one direction and the closed ends of the rim slots being wedge shaped in the opposite directions, as and for the purpose set forth.

1,206,757. PLOW. WILLIAM H. FURLOW and JOHN C. DUNN, Hampton, Ark. Filed Sept. 28, 1911. Serial No. 651,837. (Cl. 97—9.)



A device of the type described, including a plow-equipped beam, and a scraper-carrying standard, the upper portion of said standard being bifurcated forming prongs, which bifurcated portion straddles said beam, the prongs thereof being secured to the latter, said standard being laterally offset at the lower end of the bifurcated portion thereof then projecting downwardly, forwardly and slightly outwardly from the outer end of said lateral offset, a bracket, right-angled in structure, secured to the same side of the beam to which the scraper-carrying standard is offset, the outstanding arm of the bracket being perforated, a grass rod interposed between the outstanding arm and the scraper-carrying standard, one end of the latter being received by and retained in the perforation of the outstanding arm, the other arm of the bracket secured to the beam.

1,206,758. TROLLEY-POLE CONTROLLER FOR ELECTRIC CARS. CLARENCE V. GREENAMYER, Los Angeles, Cal., assignor of one-half to Joseph McMillan, Glendale, Cal. Filed Mar. 6, 1916. Serial No. 82,364. (Cl. 191—87.)



1. In a trolley pole controller the combination of a trolley pole; a compressed air reservoir; with an air cylinder having a piston operatively connected with the trolley pole, said cylinder being in communication with said reservoir at the front only of said cylinder and

having its rear end closed; a passage way connecting the ends of the cylinder; a valve on said passage way normally closing the same; and means to open the valve on the passage way between the front and rear ends of the air cylinder when the trolley wheel accidentally leaves the feed wire.

2. In a trolley pole controller the combination of a compressed air reservoir; an air cylinder pivotally connected to a support; a piston in said air cylinder; a channel connecting said air cylinder at the front end thereof with said reservoir; a trolley pole pivotally connected to said air cylinder support; a stem connected to the front side of said piston and pivotally connected to said trolley pole; means carried by said piston to open communication through the piston between the two ends of the air cylinder when the trolley wheel accidentally leaves the feed wire when the car is running.

3. In a trolley pole controller the combination of a compressed air reservoir; an air cylinder pivotally connected to a support; a piston in said air cylinder; a channel connecting said air cylinder at the front end thereof with said reservoir; a trolley pole pivotally connected to said air cylinder support; a stem connected to the front side of said piston and pivotally connected to said trolley pole, said piston having a follower ring provided with a transverse channel; a bolt having a tapered head connecting said piston and stem, said bolt having transverse channels in the head and a transverse channel within the follower ring of the piston from the center to one side a longitudinal central channel connecting the transverse channels, and a valve slidably mounted on said bolt and normally closing the transverse channels in the head; a spring to normally hold said valve positioned; a diaphragm secured to said valve and to the piston, said piston having a channel therein opening at one end to atmosphere and at the other end to the space between the piston and diaphragm said last named channel being in the bolt connecting the piston to its stem.

1,206,759. CARPET ANCHOR-CLIP. ANDREAS HANAUER, New York, N. Y. Filed May 22, 1916. Serial No. 99,187. (Cl. 16—3.)

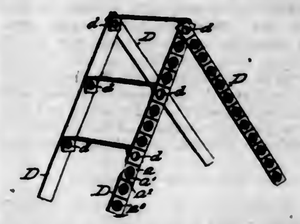


In a device of the class described, the combination with a rigid U shaped element, a U shaped spring contained within the rigid element, an anchor engaged to both said elements, said anchor being adapted for insertion in a floor, a plurality of rearwardly turned prongs formed upon said inner spring, a lever pivoted on said outer element, a projection formed upon said lever adapted to press the upper portion of said spring toward the lower portion thereof, and means for moving said U shaped element longitudinally of said anchor.

1,206,760. STRUCTURAL TOY. CARL C. HARRIS, Orange, Mass., assignor to Riveto Manufacturing Company, Orange, Mass., a Corporation of Massachusetts. Filed Nov. 5, 1915. Serial No. 59,849. (Cl. 46—35.)

1. As an article of manufacture, an element or plate for use in building a toy structure consisting of a strip of imperforate sheet material capable of being perforated by a hand punch and having a series of means thereon for indicating a plurality of positions for perforations.

2. As an article of manufacture, an element or plate for use in building a toy structure comprising a piece of sheet material having a series of marks thereon for indicating a plurality of positions for perforations, said series of marks being located in regular order, the plate also having means for indicating and readily identifying different marks to enable the user to pick out any specific one.



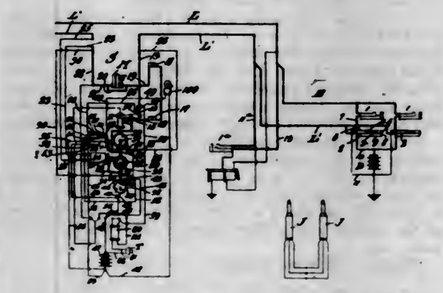
3. A plate for use in building a toy structure comprising a piece of flat sheet material having marks thereon arranged at intervals indicating points at which the material is to be bent, the zones between said points being provided with means indicating and readily identifying different zones to enable the user to pick out specific ones.

4. As an article of manufacture, a plate for use in building a toy structure comprising a piece of flat imperforate sheet material capable of being perforated by a hand punch and divided up into a plurality of zones of equal size divided from each other to indicate where the plate can be bent, said zones being provided with marks for indicating where the plate is to be perforated.

5. As an article of manufacture, an element or plate for use in building a toy structure comprising a piece of imperforate sheet material having a series of means thereon for indicating a plurality of positions for perforations, said means being provided with numerals arranged in regular order to facilitate the identification of any particular one.

[Claims 6 to 14 not printed in the Gazette.]

1,206,761. TELEPHONE SYSTEM. REUBEN C. M. HASTINGS, Columbus, Ohio, assignor to International Telephone Co., Columbus, Ohio. Filed Apr. 11, 1912, Serial No. 690,014. Renewed Aug. 20, 1913. Serial No. 785,818. (Cl. 179—32.)



1. A telephone system, having an exchange station and a plurality of sub-stations, each sub-station having a circuit including a battery, a call alarm in the circuit, and means controlled by the insertion and removal of a calling plug in its socket at the exchange station to close and open the call-alarm circuit.

2. A telephone system, having an exchange station and a plurality of sub-stations, each sub-station having a local battery circuit, a transmitter and a receiver, another circuit including the battery of the local battery circuit, a call alarm in the last circuit, and means controlled by the insertion and removal of a calling plug in its socket at the exchange station to close and open the call alarm circuit.

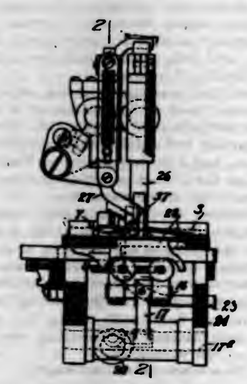
3. A telephone system, having an exchange station and a plurality of sub-stations, each sub-station having a circuit including a battery, a receiver hook forming one closure for said circuit, a call alarm in the battery circuit, said circuit being open when the hook is raised, and means controlled by the insertion and removal of a calling plug in its socket at the exchange station to close and open the call alarm circuit.

4. In a telephone system, the combination of an exchange and a plurality of substations, each of said substations including a receiver, a local battery circuit, a transmitter in said circuit, a call-up alarm connected in series with the battery, automatic means for connecting and disconnecting the call up alarm relative to the battery, manually operated means in the exchange for connecting a called to a calling substation and for automatically actuating the automatic means to connect the call-up alarm in the called substation with the battery to energize the call up alarm, and a switch in the connection with the call-up alarm and battery controlled by the receiver in the called substation, whereby the removal of the receiver opens such switch and the call-up alarm circuit.

5. In a telephone system, the combination of an exchange and a plurality of subscribers' sets of instruments, an electromagnetically controlled circuit making device disposed in each subscriber's set and connected to the line, a call-up alarm in each set, an individual circuit connected therewith and controlled by said device, said circuit being normally open, a calling jack circuit to each set located in the exchange, and means in operable relation thereto actuated upon the insertion of the calling plug within the socket to actuate the device in the called subscriber's set to close the call-up circuit and actuate the alarm.

[Claims 6 to 11 not printed in the Gazette.]

1,206,762. FOLD-PRESSER FOR FOLDING-MACHINES. WILLIAM F. LAUTENSCHLAGER, Cincinnati, Ohio, assignor to Lorenz Muther, Newton, Mass. Filed June 26, 1916. Serial No. 105,929. (Cl. 12—55.)



1. In a folding machine, means for feeding and means for folding over the edge of sheet material, and a fold-presser for pressing down the folded edge having a fold-pressing surface adjustably mounted thereon and arranged to be adjusted approximately longitudinally of the fold-presser and approximately laterally across the line of fold.

2. In a folding machine, means for feeding and means for folding over the edge of sheet material, a fold-presser for pressing the folded edge having a fold-pressing surface adjustably mounted thereon and arranged to be adjusted approximately longitudinally of the fold-presser, and means for moving the fold-pressing surface into its adjusted position.

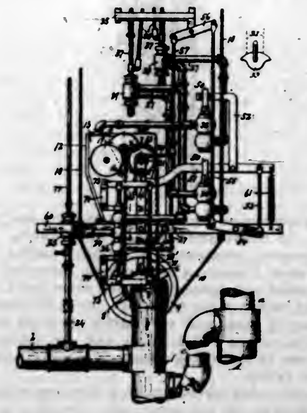
3. In a folding machine, a fold-turning block, and a fold-presser for pressing the folded edge having an adjustable fold-presser surface adjustable approximately longitudinally of the fold-presser.

4. In a folding machine, means for folding over the edge of sheet material, and a fold-presser having an adjustable stopped fold-presser surface adjustable approximately longitudinally of the fold-presser for pressing down the folded edge.

5. In a folding machine, means for turning over the edge of sheet material, a fold-presser having an adjustable fold-presser surface adjustable approximately longitudinally of the fold-presser, and means for adjusting said fold-presser surface to the desired position.

[Claims 6 and 7 not printed in the Gazette.]

1,206,763. CONTROL MECHANISM FOR ELEVATORS. ADOLPH B. ROVER, Binghamton, N. Y. Filed Dec. 27, 1912. Serial No. 738,900. (Cl. 138—14.)



1. In control mechanism for elevators, the combination of a main valve, a water motor for operating said valve, separate supply pipes leading to the motor for driving it in reverse directions and each provided with a normally closed valve adapted to be opened at will, and means actuated by said main valve when opened for cutting off the supply of motive fluid to the opened valve and thereby stopping the motor.

2. In control mechanism for elevators, the combination of a main valve, a water motor for operating said valve, a separate valve controlling the flow of the operating fluid to the motor, and additional means actuated by the main valve for cutting off the fluid supply to the second named valve when the main valve is opened.

3. In control mechanism for elevators, the combination of a main valve, a water motor, means including a clutch for transmitting motion from the motor to the main valve, a normally closed valve operable at will and controlling the fluid passage to the motor, means actuated by such fluid when the second named valve is opened for operating said clutch.

4. In control mechanism for elevators, the combination of a main valve, a water motor, means including a clutch for transmitting motion from the motor to the main valve, a normally closed valve operable at will and controlling the fluid passage to the motor, means actuated by such fluid when the second named valve is opened for operating said clutch, and additional means actuated by the main valve for cutting off the fluid supply to the motor and thereby stopping further movement of the main valve.

5. Control mechanism for elevators comprising a main valve, a rotary water motor having separate inlets for reversing its direction of rotation, separate valves for the

inlet operable at will and means for transmitting motion from the motor to the main valve as said motor is rotated in either direction.

[Claims 6 to 23 not printed in the Gazette.]

1,206,764. CONTROL MECHANISM FOR ELEVATORS. ADOLPH B. ROVER, Binghamton, N. Y. Filed Dec. 27, 1912. Serial No. 738,901. (Cl. 138—14.)



1. In an elevator controlling mechanism for hydraulic elevators, in combination with a main valve, operating means therefor, comprising a cylinder having ports in opposite ends thereof, a supply pipe connected to both ports, a relief pipe connected to the same ports, normally open relief valves in the relief pipe, normally closed valves in the supply pipe, and voluntarily operated means for closing one of the relief valves and for simultaneously opening one of the closed supply valves independently of the other valves.

2. A controlling mechanism for elevators comprising a main controller, an operating cable therefor, a cylinder, a piston movable in the cylinder, means actuated by the piston for operating the cable, a supply pipe and a relief pipe both connected to one end of the cylinder and provided respectively with a normally closed valve and a normally open valve, and means, operable at will, for opening the normally closed valve and simultaneously closing the normally open valve.

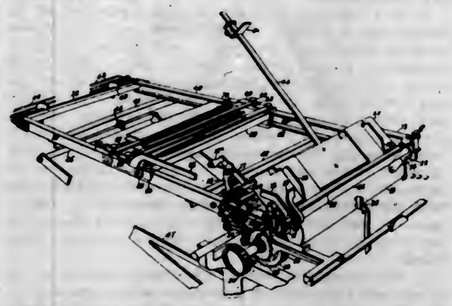
3. A controlling mechanism for elevators comprising a main controller, an operating cable therefor, a cylinder, a piston movable in the cylinder, means actuated by the piston for operating the cable, a supply pipe and a relief pipe both connected to one end of the cylinder and provided respectively with a normally closed valve and a normally open valve, a separate cable operable at will, and additional means actuated by the last-named cable for operating said valves simultaneously.

4. A controlling mechanism for hydraulic elevators comprising a main valve, a cable for operating said valve, and operating means for the cable comprising a cylinder, having ports in its opposite ends, conduits for the pressure fluid leading to said ports and having separate sets of valves therein; and means movable in one direction for operating one set of valves and in a reverse direction for operating the other set.

5. A controlling mechanism for hydraulic elevators comprising a main valve, a cable for operating said valve, and operating means for the cable comprising a cylinder, a normally closed supply valve and a normally open relief valve both connected to one end of the cylinder and constituting one set, a separate normally closed supply valve and a normally open relief valve connected to the other end of the cylinder and constituting another set, and voluntarily operated means for operating one set of valves independently of the other set.

[Claims 6 to 8 not printed in the Gazette.]

1,206,765. TYPE-WRITING MACHINE. JESSE A. B. SMITH, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 4, 1915. Serial No. 53,884. (Cl. 197—126.)



1. In a typewriting machine, a platen, means for effecting a line-space feed to the platen of a work-piece folded on a line extending in the direction of such feed, means for supporting and guiding the work-piece as it is fed to the platen, and means at the line of said fold arranged to sever, one from another, the plies of the work-piece.

2. In a typewriting machine, a platen, means for effecting a line-space feed to the platen of a work-piece folded on a line extending in the direction of such feed, means for supporting and guiding the work-piece as it is fed to the platen, and a knife movable relatively to the work-piece on the line of said fold for severing, one from another, the plies of the work-piece.

3. In a typewriting machine, a platen, means for effecting a line-space feed to the platen of a work-piece folded on a line extending in the direction of such feed, means for supporting and guiding the work-piece as it is fed to the platen, means interposed between the plies of the work-piece for holding the plies apart, and a device carried by said interposed means for splitting the work-piece on the line of its fold.

4. In a typewriting machine, a platen, means for effecting a line-space feed to the platen of a work-piece folded on a line extending in the direction of such feed, means for supporting and guiding the work-piece as it is fed to the platen, and a knife movable backwardly along the work-piece on the line of said fold for severing, one from another, the plies of the work-piece.

5. In a typewriting machine, a platen, means for effecting a line-space feed to the platen of a work-piece folded on a line extending in the direction of such feed, a carriage for holding transfer material between the plies of the work-piece during line-space feed of the transfer material with the work-piece and for shifting the transfer material at intervals backwardly along the work-piece, and means on said carriage for severing, one from another, the plies of the work-piece.

[Claims 6 to 15 not printed in the Gazette.]

1,206,766. HAND-STAMP. MERRDITH G. STANDLEY and CHARLES W. GOSNELL, Cincinnati, Ohio; said Gosnell assignor to said Standley. Filed June 13, 1913. Serial No. 773,455. (Cl. 101—63.)



1. A stamp comprising a box-like casing body and a coextensive platen plate coacting with the said body, a hinged plate forming the bottom of the casing body adjacent the platen and apertured for stamping, a printing-wheel, ink-ribbon rolls, record rolls adapted to support an inking ribbon and a record strip, respectively, and feeding mechanism within the casing body, the wheel periphery projecting through the bottom plate of the casing, enabling the ribbon and record strip to pass over this portion of the wheel within the casing body, wheel positioning and indexing mechanism disposed and operating in the tangential plane of the wheel in the upper portion of the casing body and operatively accessible through the upper side of the casing body, and said wheel, inking ribbon and record strip rolls, being separably mounted on the bottom plate of the casing and within the casing, enabling them to be opened up when said bottom plate is opened relative to the casing body.

2. A stamp comprising a box-like casing body, a printing-wheel therein, the body width and wheel diameter being approximately equal, wheel operating means accessible through the upper portion of the casing and operatively disposed in the tangential plane of the wheel, a hinged plate forming the bottom of the casing body, inking ribbon and record strip rolls adapted to support an inking ribbon and record strip, respectively, said wheel and rolls being separably mounted on the hinged plate and within the casing body, inking ribbon and record strip feed mechanism within the casing, supported by the inner walls thereof, normalizing means for said body and casing, and means enabling a relative movement of said body and platen to actuate said feed mechanism.

3. In a stamp, an orificed plate and frame separably connected to form a housing, a printing wheel, record strip supports on opposite sides of the wheel, enabling a record strip to pass around its supports and over the printing wheel periphery, said members being supported in the frame, rolls bearing an inking ribbon on the plate, a fixed printing surface carried by the plate upon one side of the peripheral printing surface of the wheel projecting through the plate orifice, the inking ribbon passing over the fixed printing surface and over the portion of the record strip directly contacting the adjustable printing surface for simultaneously impressing the fixed and selected printing surfaces on the article to be stamped under the plate, and impressing the selected printing surface on the record strip within the housing.

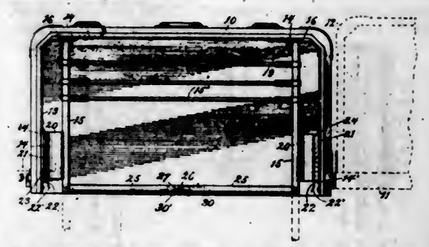
4. In a stamp, an orificed plate and frame separably connected to form a housing, feed rolls forming a support for a record strip, and a printing wheel supported between walls of the frame, a record roll feed mechanism on the outside of one wall of the frame, an inking roll feed mechanism on the outside of the other frame wall, supports for inking ribbon rolls and an inking ribbon on the plate, the rolls and wheel axles being substantially parallel within the housing, ratchet wheels on the ends of the inking roll shafts operatively connected with the ribbon feed and reversing mechanism when the housing is closed, the printing periphery of the wheel, the contacting record strip and the ribbon being serially disposed and projecting through said plate orifice, and means for actuating said feed mechanisms actuated by the stamping.

5. A stamp comprising a box-like casing body, a printing wheel therein, inking ribbon and record strip rolls adapted to support an inking ribbon and a transpicuous record strip respectively in the casing, a separable bottom plate for the casing body, apertured adjacent the wheel, an inking ribbon contacting the record strip, and a platen adjacent the inking ribbon, for simultaneously impressing the printing surface of the printing wheel on the article to be stamped on the platen and the transpicuous record strip between the inking ribbon and printing surface.

[Claims 6 to 10 not printed in the Gazette.]

1,206,767. GARMENT-HANGER DEVICE. GEORGE HENRY WHEARY, Racine, Wis. Filed May 15, 1914. Serial No. 838,665. (Cl. 211—16.)

1. A garment hanger device, comprising a supporting member having a recessed portion formed therein, the inner portion of said recess being of greater width than the outer portion, a removable track member having one end provided with a grooved portion, the part of the track having the grooved portion being of a thickness in one direction corresponding approximately to the width of the inner portion of the recess and being of a thickness in another direction corresponding approximately to the width of the outer portion of the said recess, and means connecting the opposite end portion of the track to the supporting member.



2. A garment hanger device, comprising a supporting member having a recessed portion formed therein, the inner portion of said recess being of greater width than the outer portion, a removable track member having one end provided with a grooved portion, the part of the track having the grooved portion being of a thickness in one direction corresponding approximately to the width of the inner portion of the recess and being of a thickness in another direction corresponding approximately to the width of the outer portion of the said recess, and a hook member projecting from one side portion of the track and engaging a supporting means.

3. A garment hanger device, comprising a supporting means, track members connected thereto, extensible track members hinged to the outer ends of the first mentioned track member and adapted to be swung to open position in longitudinal alinement with the first mentioned tracks and to closed position in longitudinal alinement with each other, the free end portions of the extensible tracks being formed to overlap and interlock with each other, and means for locking the track ends in interlocked position.

4. A garment hanger device, comprising a supporting member having a rear portion and forwardly projecting side portions, the rear portion having recessed parts, the inner portions of said recesses being of greater width than the outer portions, and removable track members having grooved inner end portions and hook shaped projecting side portions, the grooved parts of the tracks being of a thickness in one direction corresponding approximately to the width of the inner portions of the recesses and being of a thickness in another direction corresponding approximately to the width of the outer portions of said recesses, said hook shaped portions engaging the forwardly projecting side portions of the supporting member.

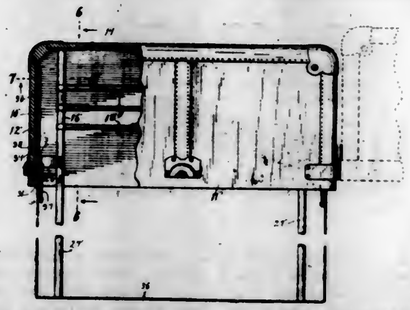
5. A garment hanger device, comprising a supporting member having a rear portion and forwardly projecting side portions, the rear portion having recessed parts, the inner portions of said recesses being of greater width than the outer portions, removable track members having grooved inner end portions and hook shaped projecting side portions, the grooved parts of the tracks being of a thickness in one direction corresponding approximately to the width of the inner portions of the recesses and being of a thickness in another direction corresponding approximately to the width of the outer portions of said recesses, said hook shaped portions engaging the forwardly projecting side portions of the supporting member, and means locking the projecting hook portions to the side portions of the supporting member.

[Claim 6 not printed in the Gazette.]

1,206,768. REMOVABLE GARMENT-HANGER DEVICE. GEORGE HENRY WHEARY, Racine, Wis. Filed July 18, 1914. Serial No. 851,734. (Cl. 211—16.)

1. A garment hanger device, comprising a U-shaped holding member having brackets projecting laterally from

the opposite end portions thereof toward each other, spaced tracks having their rear end portions connected to the rear portion of said member and their front end portions connected to the inner free ends of the brackets, a fixed member freely removably engaged by the rear and side portions of the holding member, and means for locking the holding member to the fixed member.



2. A garment hanger device, comprising a U-shaped holding member having downwardly and upwardly extending brackets projecting laterally from the opposite end portions thereof toward each other, tracks having their rear ends connected to the rear end portion of said member and having their front end portions connected to the free ends of the brackets, a fixed means to which the holding member is freely removably connected, and means for locking the member in connected position.
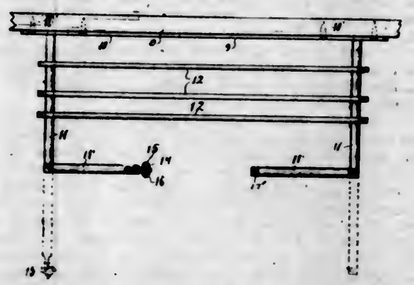
3. A garment hanger device, comprising a U-shaped holding member having recessed attaching portions and downwardly and upwardly extending brackets projecting laterally from the opposite end portions of said bracket toward each other, tracks having their rear ends connected to the rear end portion of said member and having their front end portions connected to the free ends of the brackets, extensible tracks hinged to the outer ends of the first mentioned tracks, a fixed means to which the recessed portions of the holding member are freely removably connected, and means for locking the member in connected position.

4. A garment hanger device, comprising a U-shaped holding member having recessed portions and downwardly and upwardly extending brackets projecting laterally from the opposite end portions thereof toward each other, tracks having their rear ends connected to the rear end portions of said U-shaped member and having their front end portions connected to the free ends of said brackets, extension tracks hinged to the outer ends of the first mentioned tracks, a fixed means having headed projections which are engaged by the recessed portions of the U-shaped member, and means for locking the member together.

5. A garment hanger device, comprising a U-shaped holding member having recessed portions and downwardly and upwardly extending brackets projecting laterally from the opposite end portions thereof toward each other, tracks having their rear ends connected to the rear end portion of said U-shaped member and having their front end portions connected to the free ends of said brackets, extension tracks connected to the outer ends of the first mentioned tracks and arranged to swing to alined position with said first mentioned tracks, brace members engaging the brackets for holding the extension arms in alined positions, a fixed means having headed projections which are engaged by the recessed portions of the U-shaped member, and a means for locking the U-shaped member to the fixed means.

1,206,769. CLOSET-FIXTURE. GEORGE HENRY WHEARY, Racine, Wis. Filed Mar. 5, 1915. Serial No. 12,305. (Cl. 211—15.)

1. A closet fixture, comprising a securing member having tracks in spaced relation projecting outwardly therefrom, garment hangers having eyed portions through which the tracks extend, one of said tracks having means for preventing the removal of hangers therefrom except when the hangers are turned in a certain direction, and locking means at the outer end portion of the other track for preventing the surreptitious removal of the hangers from said last mentioned track.



2. A closet fixture, comprising a securing member having fixed tracks in spaced relation projecting outwardly therefrom, extension tracks hinged to the outer ends of the fixed tracks, garment hangers having eyed portions through which the tracks extend, one of said extension tracks having a stop projection for preventing the removal of the garment hangers therefrom except when turned in a certain direction, and locking means at the outer end portion of the other track extension for preventing the surreptitious removal of the hangers from said last mentioned track extension.

3. A closet fixture, comprising a securing member having tracks in spaced relation projecting outwardly therefrom, one of said tracks provided with a stop projection adjacent its outer end and the outer end of the other track having a lock opening, garment hangers having eyed portions through which the tracks extend, the portions of the hangers mounted on the track with the stop projection having extension openings to permit the removal of the hangers from the tracks when said hangers disengage the other track and are swung to a position away therefrom, and a locking member entering the opening of the said other track for preventing the surreptitious removal of the hangers from the tracks.

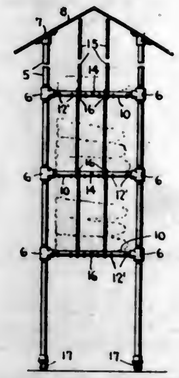
4. A closet fixture, comprising a securing member having fixed tracks in spaced relation projecting therefrom, extension tracks hinged to the outer ends of the fixed tracks, one of said extension tracks provided with a stop projection adjacent its outer end and the outer end of the other extension track having a lock opening, garment hangers having eyed portions through which the tracks extend, the portions of the hangers mounted on the track with the stop projections having extension openings to permit the removal of the hangers from the tracks when said hangers disengage the other track and are swung to a position away therefrom, and a locking member entering the opening of the said other track for preventing the surreptitious removal of the hangers from the track.

1,206,770. SEED-CORN-DRYING RACK. LEE ADAMS, Jacksonville, Ill., assignor of one-half to Thomas Wilkerson, Jacksonville, Ill. Filed May 2, 1916. Serial No. 94,919. (Cl. 34—36.)

1. In a seed corn rack, the combination of a series of standards, side and end rails connecting said standards, shelves supported by said end rails and means for rotating said end rails and stretching said shelves.

2. In a seed corn rack, the combination of a series of standards, immovable side rails connecting said standards, rotatable end rails further connecting said standards, shelves supported by said end rails, guards supported by said end rails and rods engaging said end rails for rotating the same and maintaining said shelves in a horizontal position.

3. In a seed corn rack, the combination of a series of standards, spaced couplings carried by said standards, side rails secured to said couplings, end rails rotatably secured to said couplings at right angles to said side rails, wire-mesh shelves secured to said end rails by their longitudinally extending strands of wire, guards disposed at the ends of said shelves and loosely secured to said end rails, and rods slidably engaging apertures in said end rails and bearing against the adjacent lateral strands of wire of said shelves.



4. In a seed corn drying rack, the combination of a multiplicity of shelves, rotatable end rails supporting said shelves, standards supporting said end rails, and means carried by said end rails for maintaining said shelves in a stretched condition.

5. In a seed corn drying rack, the combination of a multiplicity of shelves, supports therefor, and means for tensioning the shelves between said supports.

1,206,771. FURNACE-LINING MATERIAL AND PROCESS FOR PREPARING SAME. CHARLES J. BABB, Birmingham, Ala., assignor to Allen S. Davison Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 26, 1914. Serial No. 879,146. (Cl. 106—9.)



1. An artificially prepared granular furnace bottom material consisting of grains of non-fluxing refractory material separately coated with a less refractory normally non-cohesive envelop which is sufficiently fusible in furnace heat to set and permanently bond the said grains of refractory material.

2. An artificially prepared granular furnace bottom material consisting of roasting grains of dolomite and coating the roasted grains with an envelop of slag, to set and bond the dolomite.

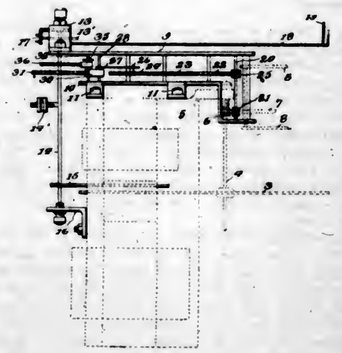
3. The hereindescribed process for manufacturing a furnace bottom material which consists in roasting dolomite grains and coating the hot grains with a less refractory envelop which will fuse and set in the furnace.

4. The hereindescribed process for manufacturing a furnace bottom material which consists in roasting dolomite grains in a rotary kiln, blowing pulverized slag into the discharge end of the kiln, and maintaining a temperature at such discharge end as will cause the pulverized material to fuse and coat separately the grains of highly heated dolomite.

5. As a new material, a body of granules of basic hard burnt material, such granules being coated and sealed with a layer of less refractory material adapted to serve as a bonding agent on exposure to high temperatures.

[Claims 6 to 16 not printed in the Gazette.]

1,206,772. ALTERNATING-CURRENT MAXIMUM-DEMAND WATTMETER. CLARENCE ALEXANDER BODDIE, Boston, Mass. Filed Mar. 30, 1912. Serial No. 687,395. (Cl. 171—34.)



1. An electro-responsive device comprising two movable members, a single means for applying similar actuating forces to the said movable members and means interposed between the two movable members whereby one of the movable members controls the operation of the other.

2. A meter comprising two armature elements, a single means for simultaneously applying similar actuating forces to the said armature elements, an indicator actuated by one of the said elements and means whereby the other element controls the actuation of the said indicator.

3. In a wattmeter, the combination with means for developing a magnetic field, of an integrating mechanism, an element controlled by the said magnetic field for actuating the said integrating mechanism, a maximum-demand mechanism also controlled by the said magnetic field, and an indicator actuated by one mechanism and controlled by the other.

4. In a wattmeter, the combination with means for developing a magnetic field, of an integrating mechanism, an element controlled by the said magnetic field for actuating the said integrating mechanism, a maximum-demand mechanism also controlled by the said magnetic field, an indicator actuated by one mechanism, and means interposed beween the said mechanisms whereby the indicator is controlled by the other mechanism.

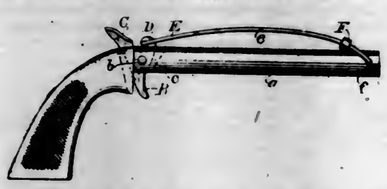
5. A wattmeter comprising two movable members, a single means for applying similar actuating forces to the said movable members and means interposed between the two movable members for causing one movable member to be retarded a time interval in its operation.

[Claims 6 to 25 not printed in the Gazette.]

1,206,773. TOY-PISTOL FLY-SWATTER. HOMER L. BOYLE, Lansing, Mich. Filed June 25, 1915. Serial No. 36,247. (Cl. 43—1.)

1. In a device of the character described, the combination with a handpiece and barrel, of a movable trigger catch, a resilient striking member having one end pivotally connected with the outer end of the barrel, the other end of said striking member being constructed and arranged to engage the said trigger catch, and a fulcrum block connected with the said striking member near the outer end of the said barrel and arranged to bear upon

the barrel when the said striking member is bent rearwardly to engage the said trigger catch.

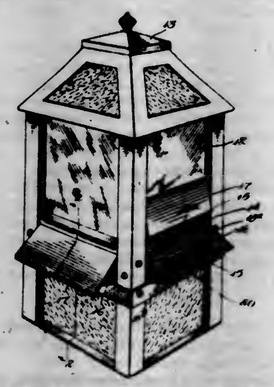


2. In a device of the character described, the combination with a handpiece and barrel, of a movable trigger catch, a resilient striking member made of wire and having two parallel stem pieces, the ends of the said stem pieces being pivotally connected with the outer end of the barrel, the said striking member having its other and inner end constructed to engage the said trigger catch, and a fulcrum block secured to both of the said stem pieces of the striking member near the outer end of the barrel and arranged to bear upon the barrel when the striking member is bent rearwardly to engage the said trigger catch.

3. In a device of the character described, the combination with a handpiece and barrel, of trigger catch movable bodily with respect to the barrel, a resilient striking member made of wire and having two parallel stem pieces, the ends of the said stem pieces being pivotally connected with the outer end of the barrel, the said striking member having its other and inner end constructed and arranged to engage the said trigger catch, and means located near the outer end of the barrel and constructed to form a fulcrum for bending the said striking member rearwardly to engage the said trigger catch.

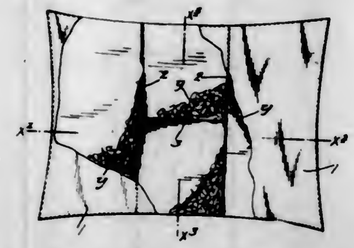
4. In a device of the character described, the combination with a handpiece and barrel, of a resilient striking member having one end connected with the outer end of the barrel, a trigger catch bodily movable with respect to the barrel, the said catch being constructed to engage the end of the said striking member when moved in one direction, and to release the said striking member when moved in another direction.

1,206,774. HOLDER FOR LUMP-SUGAR, &c. THOMAS E. DAVIS, Cambridge, Mass. Filed June 9, 1915. Serial No. 33,047. (Cl. 65—59.)



A lump holder having a substantially flat and horizontal lump-holding grate dividing the interior of said holder into two parts, said holder being provided with elongated horizontal openings above and adjacent opposite edges of said grate, shelves formed to enter said openings and bear on the lower edges thereof, said shelves being provided at their opposite ends with wings formed to bear on the opposite ends of said openings, fastening means maintaining the shelves inclined upwardly from the holder, the members forming said lump-holding grate being attached to the shelves and supported thereby, and a cover hinged to the holder above each of said openings and arranged to cover the same, said holder being formed to permit particles falling through said grate to drop directly into a removable receiver therebeneath.

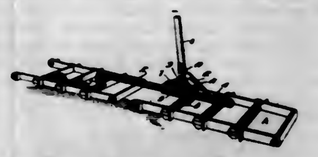
1,206,775. COMPARTMENT-PILLOW. LOURELLE H. EVERTS, Minneapolis, Minn. Filed Apr. 8, 1916. Serial No. 89,786. (Cl. 5—15.)



1. A pillow having flexible longitudinally spaced transverse partitions and a short longitudinal partition connecting the intermediate portions of said transverse partitions.

2. A pillow having flexible longitudinally spaced transverse partitions and a short longitudinal partition connecting the intermediate portions of said transverse partitions, all of the said partitions being stitched at their edges to the pillow case.

1,206,776. TOOL FOR STRETCHING CHAINS. DONALD FRASER, Milwaukee, Wis., assignor to Chain Belt Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 13, 1916. Serial No. 119,886. (Cl. 254—72.)



A tool for engaging with and drawing together the ends of sprocket and conveyer chains consisting of a ratchet bar carrying a hook adapted to engage with one section of the chain, a shoe in which the said bar is seated and slides, from the base of which extends a hook adapted to engage with the other section of the chain, and a hand lever carrying a pair of alternately acting pawls that engage with the ratcheted portion of the hooked bar, the pivot uniting the hand lever and shoe being directly above the hook carried by the shoe.

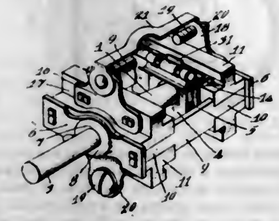
1,206,777. PROCESS OF TREATING VEGETABLE FIBERS. HERMAN G. GREEN, Chicago, Ill. Filed Sept. 17, 1913, Serial No. 790,205. Renewed Apr. 24, 1916. Serial No. 93,305. (Cl. 92—9.)

1. In the manufacture of paper pulp or the like, the preliminary process of treating vegetable fibers, which consists in first breaking up the material to loosen the woody portion from the fiber proper, removing part of said woody portion, moistening the remaining product with approximately 70% of its own weight of water, and promptly subjecting the same at ordinary temperature to the action of chlorin gas.

2. The process of treating vegetable fibers, which consists in first breaking up the material to loosen the woody portion from the fiber proper, removing part of said woody portion, moistening the remaining product, subjecting the same at ordinary temperature to the action of chlorin gas in a chamber, and promptly boiling the product in a suitable solution to disintegrate the remaining woody portion.

3. The process of treating vegetable fibers, which consists in first breaking up the material to loosen the woody portion from the fiber proper, removing part of said woody portion, moistening the remaining product, subjecting the same at ordinary temperature to the action of chlorin gas in a chamber, then promptly boiling in a suitable solution to disintegrate the remaining woody portion, and subsequently washing and bleaching the remaining fiber.

1,206,778. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 17, 1911. Serial No. 633,711. (Cl. 175—284.)



1. In an electric switch, a snap switch mechanism, end members for limiting and guiding the movement of its operating member, tie plates connecting the ends of said end members to form a unitary frame and a plurality of sets of terminal contacts carried between said end members arranged to be engaged by said switch mechanism.

2. In an electric switch, a snap switch mechanism, end members arranged to guide and limit the movement of the operating member thereof, tie plates connecting said end members to form a unitary frame, a plurality of terminal contacts located in opposite ends of said frame, and a conducting strip independent of the switch mechanism connecting certain of said contacts.

3. In an electric switch, a push button snap switch mechanism, end members arranged to support and guide the operating member of the same and limit the movement of the same, tie plates riveted to the ends of said end members and arranged to unite said members to form a unitary frame and terminal contacts carried by said end members.

4. In an electric switch, a push button snap switch mechanism, end members arranged to limit the movement of the operating members of the same, tie plates riveted to said end members to form a unitary frame inclosing said mechanism, insulating members carried in the opposite ends of said frame and arranged to permit the reciprocation of said operating member through the same and terminal contacts carried on said insulating members.

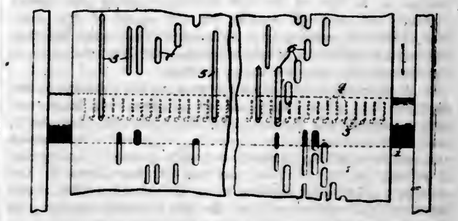
5. In an electric switch, a push button snap switch mechanism, end members arranged to limit the movement of the operating members of the same, tie plates riveted to said end members to form a unitary frame inclosing said mechanism, insulating members carried in the opposite ends of said frame and arranged to permit the reciprocation of said operating member through the same and terminal contacts for a plurality of circuits carried on said insulating members.

[Claims 6 to 13 not printed in the Gazette.]

1,206,779. TRACKER-BOARD AND MUSIC-SHEET. PAUL BROWN KLUGH, Chicago, Ill., assignor to The Cable Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 8, 1910. Serial No. 554,142. (Cl. 84—165.)

1. The combination of a tracker having the usual set of apertures and also having supplemental apertures consisting of long narrow slots or slits located in the rear of and entirely out of alinement with the usual apertures, and a music sheet having narrow and wide perforations arranged to register with the tracker apertures, whereof the narrow perforations open only one aperture of a pair and the wide perforations open both apertures of the same.

2. A tracker having two sets of apertures arranged in pairs, each pair consisting of one front and one rear aperture only, one aperture of each pair being in front of the other and offset therefrom longitudinally of the tracker, the apertures of the front set being circular and on the same side of the corresponding apertures of the rear set and the apertures of the rear set being elongated transversely of the tracker.



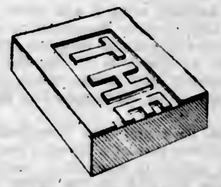
3. A tracker having two sets of apertures arranged in pairs, each pair consisting of one front and one rear aperture only, one aperture of each pair being in front of the other and offset therefrom, the apertures of the front set being circular and on the same side of the corresponding apertures of the rear set and the apertures of the rear set being elongated at and near the top surface of the tracker but circular throughout the remainder of their extent.

4. A tracker having two sets or apertures arranged in pairs, each pair consisting of one front and one rear aperture only, one aperture of each pair being in front of the other and offset therefrom longitudinally of the tracker, the offset of all the front apertures being on the same side of the corresponding apertures of the rear set and the apertures of the rear set being elongated transversely of the tracker.

5. A tracker having front and rear series of apertures arranged in pairs with a front and a rear aperture in each pair, each aperture of the front series being paired with an aperture of the rear series and offset therefrom longitudinally of the tracker and the rear apertures being elongated transversely of the tracker.

[Claim 6 not printed in the Gazette.]

1,206,780. METHOD OF SAND-BLAST CARVING. FRANCIS H. SCANTLEBURY, New York, N. Y. Filed Dec. 4, 1915. Serial No. 65,098. (Cl. 41—38.)



1. A process of sand-blast carving which consists in coating the surface to be carved with a compressible or yielding coating, cutting the design to be carved through the coating, peeling off parts of the coating where the surface is to be sand blasted, sand blasting the surface, and then peeling off the remaining coating to present a clean surface.

2. A process of sand-blasting carving which consists in coating the surface to be carved with a compressible substance of an adhesive nature, applying the design to be carved to the coating, cutting the design to be carved through the coating, peeling off parts of the coating

where the surface is to be sand blasted, sand blasting the surface, and peeling off the remnants of the coating.

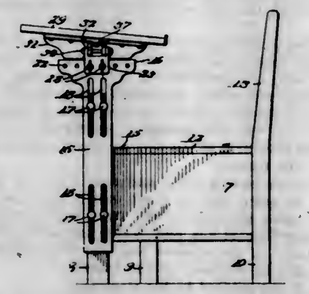
9. A process of sand-blasting carving which consists in coating the surface to be carved with a gelatinous substance adapted to present a compressible mass when set, applying a paper carrying the design to be carved to said coating, cutting the design through the coating, peeling off the parts of the coating where the surface is to be sand blasted, sand blasting said surface, and peeling off the remnants of the coating.

4. A process of sand-blast carving which consists in applying with a brush to the surface to be carved a gelatinous adhesive substance adapted to present a compressible mass when set, securing a sheet carrying the design to be carved to the coating, cutting the design through the coating, peeling off the parts of the coating where the surface is to be sand blasted, sand blasting the entire surface, and then peeling off the remnants of the coating to present a clean surface.

5. A process of sand-blast carving which consists in applying to the surface to be carved an adhesive substance of such a consistency that a brush may be used to apply it, said substance adapted to present a compressible mass when set, which mass can be easily cut with a sharp tool, cutting a design in the coating, peeling off the parts of the coating where the surface is to be sand blasted, sand blasting the entire surface to the desired depth, and then peeling off the coating from the surface.

[Claims 6 and 7 not printed in the Gazette.]

1,206,781. SCHOOL DESK AND SEAT. WILLIAM J VOECKS and EARL N. DYER, Rockford, Ill. Filed Mar. 2, 1916. Serial No. 81,639. (Cl. 155—34.)

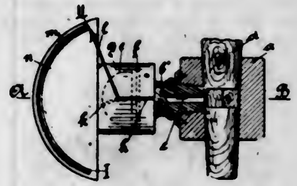


1. The combination of a seat, an upright standard in front and at one side of the seat, a desk-supporting section mounted on said standard with capacity for vertical adjustment thereon and having a cross-head at its upper end, a block mounted on said cross-head and adjustable horizontally thereon toward and away from the seat, and a desk top pivotally connected to said block on a horizontal axis and adapted to swing thereon to an upright position at one side of the seat and to be adjustable vertically and horizontally relatively thereto through adjustment of said supporting section and block, respectively.

2. A school desk and seat comprising a chair seat having at one side thereof a forward projection upon the outer end of which is mounted a vertically adjustable element, means mounted on the upper end of this element and adjustable thereon in a horizontal plane toward and away from the chair seat, and a desk top pivotally mounted on said means on a horizontal axis arranged so that the desk may be swung on its axis from a horizontal to a vertical position, the desk top being adjustable in a vertical plane by adjustment of said means and element, respectively.

3. A school desk and seat comprising a chair seat, a vertically adjustable standard mounted on the seat at one side thereof and provided at its upper end with horizontal ways extending substantially parallel with the adjacent side of the seat and provided also with a series of horizontally spaced holes, a block movable on said standard along said ways and having holes registering with said holes in the standard, bolts adapted to pass through said holes to adjustably secure the block to the standard at any of a plurality of different positions of the former on the latter, a desk top pivotally mounted on the block or a horisontal axis so as to be swingable from a horizontal to a vertical position, and means for limiting pivotal movement of the desk top to said horisontal and vertical positions.

1,206,782. PRESSURE-INDICATING DEVICE. HANS WEBER, Schanzenberg, Zurich, Switzerland. Filed Jan. 12, 1914. Serial No. 811,631. (Cl. 73—110.)



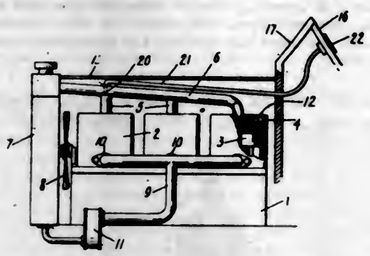
1. A pressure indicator comprising a tap having communicating openings, a plug in each of the openings, one of the plugs adapted to control the flow of fluid through the tap, the other plug having an annular groove in one end thereof, a membrane of expansible material positioned over the end of the plug having the annular groove, means engaging the membrane for holding a portion thereof within the annular groove, a scale rotated by said other plug, an indicator coöperating with the scale, means for connecting the membrane and indicator, whereby movement of the membrane causes a relative movement of the indicator over the scale.

2. A pressure indicator comprising a tap having communicating openings, a fluid controlling plug in one of the openings, a plug in the other opening, an expansible membrance positioned on one end of the second plug to form a chamber therewith, an indicator sensitive to movement of the membrane, a housing carrying a graduated member, and adapted to support the indicator, said housing adapted to substantially house the end of the plug carrying the membrane, said housing having slots for accommodating portions of the indicator to allow the indicator to move longitudinally of the sides of the housing when the openings in the fluid controlling plug are in registry to allow fluid to flow to the membrane, thereby producing a relative movement of the indicator.

3. A pressure indicator comprising a tap having communicating openings, a fluid controlling plug in one of the openings, a plug, a membrane on one end thereof forming a chamber between the plug and membrane, said plug being positioned in the other opening, said fluid controlling plug adapted to control the flow of fluid to the membrane chamber, a casing inclosing a membrane, an indicator in engagement with the membrane, and being supported within slots formed in the casing, whereby the indicator is moved when fluid contacts with and moves the membrane, substantially as described.

1,206,783. TEMPERATURE - INDICATING SYSTEM AND APPARATUS FOR INTERNAL-COMBUSTION ENGINES. HARRISON H. BOYCE, Forest Hills, N. Y. Original application filed June 20, 1914, Serial No. 846,247. Divided and this application filed Aug. 30, 1916. Serial No. 117,596. (Cl. 73—62.)

1. In temperature indicating means for water-cooled internal combustion motors of motor vehicles, the combination with the water circulation cooling system, of a temperature responsive element located in a position to be influenced by the temperature of the cooling liquid on its way to the radiator after it has been affected by the temperature of the combustion chamber of a cylinder, an indicating instrument located in a position to be observed by the driver when operating the vehicle and an operative connection between the temperature responsive element and the indicating instrument.



2. In temperature indicating means for water cooled internal combustion motors of motor vehicles, the combination with a motor and the water circulation cooling system thereof, of a temperature-responsive element located in said system above the level of the hottest part of a motor cylinder, and in a position to be normally in contact with the cooling liquid after it has been heated by such hottest part, and to be subjected to contact with any steam which may be generated in the system due to the heat in the cylinder, and temperature-indicating means observable by the driver when operating the vehicle, said temperature indicating means being controlled by the temperature of said temperature-responsive element.

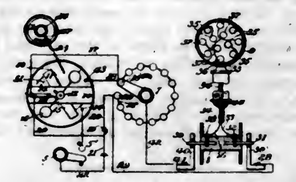
3. In a temperature indicating means for multiple cylinder internal combustion vehicle propelling motors, having a water circulation cooling system including a plurality of cylinder jackets, a radiator, and a return pipe for conveying the heated water from a plurality of said jackets to said radiator, the combination with said return pipe, of a temperature-responsive element located in a part of said return pipe where it will be influenced by the temperature of the water coming from a plurality of said jackets, and means controlled by said element and observable by the driver when operating the vehicle for indicating changes in the temperature of said element.

4. In temperature indicating means for multiple cylinder internal combustion vehicle propelling motors having a water circulation cooling system, including a plurality of cylinder jackets, a radiator, and a return pipe connecting the upper ends of the cylinder jackets with the radiator, the combination with said return pipe, of a temperature responsive element located in said return pipe between said cylinder jackets and said radiator, said temperature-responsive element being at a higher level than the upper ends of said cylinder jackets, and means controlled by said element and observable by the driver when operating the vehicle for indicating changes in the temperature of said element.

5. In temperature indicating means for internal combustion vehicle propelling motors having a water circulation cooling system in which the water circulation is upward in the cylinder jackets and leaves the jackets at the upper ends thereof, the combination with the cooling system, of a bulb immersed in the circulating water in the upper portion of the system where it will be subjected to contact with steam formed in any part of a jacket and to the temperature of the water after it has reached the hottest part of the cylinder, an indicating instrument located on the vehicle dash and comprising a pressure responsive element and an indicating member, a flexible tube connecting the bulb and pressure responsive element, and an expansible fluid filling the bulb and flexible tube.

[Claim 6 not printed in the Gazette.]

1,206,784. ELECTROTHERAPEUTIC APPARATUS. GEORGE W. EUKER, Pittsfield, Mass., assignor to Corinne M. Sanche, New York, N. Y. Filed July 18, 1913. Serial No. 779,792. (Cl. 175—357.)



1. An electrical apparatus comprising positive and negative electrodes, a suitable source of electrical supply, a single field coil winding, an oscillatory armature supported in a closed magnetic circuit, means for regulating the electrical impulses in frequency of operation, and means for regulating the intensity of the electrical impulses.

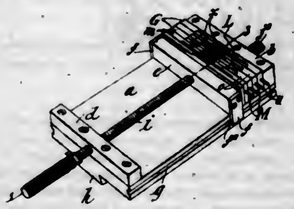
2. An electric apparatus comprising positive and negative electrodes; a suitable source of electrical supply, a single, field-coil winding; an oscillatory motor in a closed-magnetic yoke, and a rheostat for regulating the intensity of the electrical impulses.

3. An electric apparatus comprising positive and negative electrodes; a suitable battery or other electrical supply, a single, field-coil winding; an oscillatory motor in a closed magnetic yoke; a current interrupter, and a voltage-switch for regulating the intensity of the electrical impulses, and a frequency switch for regulating the operations of impulses.

4. An electric apparatus comprising positive and negative electrodes; a suitable source of electric supply and condenser; an induction-coil supported in a yoke of closed magnetic circuit; an oscillatory armature; means for normally holding said armature, a current interrupter, and a voltage and frequency regulator.

5. An electric apparatus comprising positive and negative electrodes; a suitable battery; or supply of electricity, an induction-coil supported in a yoke of closed magnetic circuit, an oscillatory armature; means for normally holding said armature; means for regulating the movement of the armature; a current-interrupter, a voltage-regulator, and condenser.

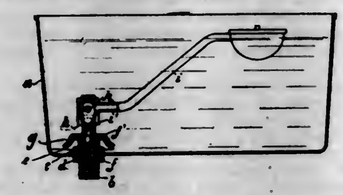
1,206,785. PRINTING APPARATUS. OVILA G. HEBERT, Holyoke, Mass. Filed Apr. 29, 1915. Serial No. 24,693. (Cl. 101—169.)



1. In a printing device, a type-bar carrier comprising the base, and the fixed end abutment bar, and such base having the upper surface thereof clear and open to its opposite edges, a clamping bar slidable on the base having at its opposite ends a rib and groove engagement with the edge portions of the base, a screw, thread-engaged through a part of the carrier, operable on the clamping bar to exert a back and forth sliding movement thereto and having an operating handle at its outer extremity and the said carrier having a handle rigidly connected thereto, and extended oppositely from the handle of the said screw.

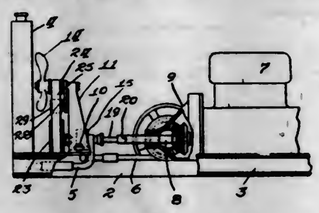
2. In a printing device, a type-bar carrier comprising the base, and the fixed upstanding abutment bar at one end of the base, and another fixed bar upstanding at the opposite end portion of the base, and such base having the upper surface thereof clear and open to its opposite edges, and having grooves in said edges, the clamping bar slidable on the base having lug members at its opposite ends overlapping the edges of the base and having inturned portions extending to within the grooves in the edge portions of the base, a screw, thread-engaged through the second named fixed bar of the base, operable on the clamping bar to exert a back and forth sliding movement thereto, and having an operating handle portion.

1,206,786. VALVE FOR FLUSHING-TANKS. MAX LEONHARDT, Dresden, Germany. Filed May 6, 1914. Serial No. 836,823. (Cl. 137—104.)



A flushing tank of the character described, comprising in combination, a tank, a valve casing in the bottom of said tank, means for securing said casing to said bottom, a long valve of star cross section sliding in said casing and closing against water pressure, a distributing plate secured to said casing, a second distributing plate immediately above said first named plate and secured to said valve, and a forked upper end of the valve engaged by a cam of the float lever.

1,206,787. COMBINED FAN AND PUMP FOR SELF-PROPELLED VEHICLES. LOUIS MAYER and EDWIN A. BYE, Mankato, Minn., assignors to Mayer Brothers Company, Mankato, Minn., a Corporation of Minnesota. Filed Feb. 19, 1916. Serial No. 79,300. (Cl. 21—90.)

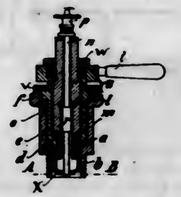


1. Apparatus of the class set forth, comprising, in combination, a vehicle body frame, an engine mounted upon said frame having an extending crank shaft, a radiator mounted upon said frame, a stand secured to said frame having a fan journaled thereon adjacent said radiator and formed with a pump chamber in its body, an impelling element arranged in said pump chamber, a shaft carrying said impelling element journaled in the body of said stand and coupled to said crank shaft and a drive connection between the shaft carrying said impelling element and said fan, said pump chamber being formed with inlet and outlet ducts for the purposes specified.

2. Apparatus of the class set forth, comprising, in combination, an engine having an extending crank shaft, a radiator, a frame upon which said parts are mounted, a stand secured to and reinforcing the strength of said frame having a body formed with a pump chamber and an upwardly extending support, a fan journaled upon said support to impel a current of air through said radiator, an impelling element journaled in said pump chamber and coupled to said shaft to be driven thereby and a drive connection between said fan and said impelling element.

3. In apparatus of the class set forth, a stand having laterally extending arms, a centrally disposed upwardly projecting support and a pump chamber, a drive shaft extending through said chamber and journaled upon said support, an impelling element mounted upon said shaft, a fan journaled upon said support, a drive connection between said shaft and said fan and means for revolving said shaft.

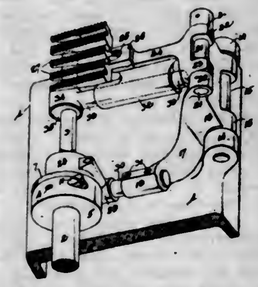
1,206,788. SPARK-PLUG. RENÉ COLIN, Strassburg, Germany. Filed Nov. 1, 1915. Serial No. 59,116. Cl. 123—169.)



A spark plug of the character described comprising in combination, an outer casing, projections on said casing, an inner shell within said casing having a perforated bottom, projecting lugs on said shell, and cam grooves in said outer casing adapted to receive said projections for locking said casing and shell, an inner flange on said shell, an insulator seated upon said flange, a plug screwed into the top of said shell for locking the insulator in its position in said shell, an ignition pin in said insulator extending through the central hole of said perforated bottom, means for securing said pin in its position, a handle secured in the top portion of said shell, and a spring pawl adapted to engage between the projections on said casing for preventing an accidental rotation of the shell.

REISSUES.

14,218. FEEDING MECHANISM FOR SEWING-MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Sept. 9, 1916. Serial No. 119,307. Original application filed Jan. 30, 1911, Serial No. 605,391. Divided and this application filed Jan. 23, 1914, Serial No. 813,841. Original No. 1,148,446, dated July 27, 1915. (Cl. 112—8.)



1. In a sewing machine, the combination with a shaft provided with feed-actuating and feed-lifting elements, adjusting means for varying the effective action of said feed-actuating element, and a rocking frame, of a strap embracing the feed-actuating element, a pin-and-socket connection between and having component elements rigidly attached respectively to said strap and frame, a feed-bar pivotally connected to said frame, a feed-dog mounted thereon, and a connection between said feed-lifting element and the feed-bar.

2. In a sewing machine, the combination with a shaft provided with feed-actuating and feed-lifting elements, adjusting means for varying the effective action of said feed-actuating element, and a rocking frame, of a strap embracing the feed-actuating element and provided with a socket transverse to said shaft, a pin rigidly secured to said frame and slidingly fitted to said socket, a feed-bar pivotally connected to said frame, a feed-dog mounted thereon, and a connection between said feed-lifting element and the feed-bar.

3. In a sewing machine, the combination with a shaft provided with feed-actuating and feed-lifting eccentrics, a rocking frame, a feed-bar pivoted thereto, and a feed-dog mounted upon said feed-bar, of straps embracing the said eccentrics, a pin-and-socket connection between and having component elements rigidly attached respectively to the feed-actuating eccentric strap and rocking frame and a pin-and-socket connection between and having component elements rigidly attached respectively to the feed-lifting eccentric strap and feed-bar.

4. In a sewing machine, the combination with a shaft provided with feed-actuating and feed-lifting eccentrics, a rocking frame, a feed-bar pivoted thereto and provided with a socket transverse to its pivotal connection with said frame, and a feed-dog mounted upon said feed-bar, of a strap embracing the feed-actuating eccentric and provided with a socket transverse to the shaft, a pin rigidly secured to said frame and entering said socket, and a strap embracing the feed-lifting eccentric and provided with a rigid laterally projecting pin and entering the socket of said feed-bar.

5. In a sewing machine, in combination; feed-actuating and feed-lifting eccentrics, a feed-dog, straps embracing said eccentrics, and pin-and-coaxial-socket connections between said straps and said feed-dog whereby a four-motion feed is obtained.

6. In a sewing machine, in combination, feed-actuating and feed-lifting eccentrics, a feed-dog, straps embracing said eccentrics, pin-and-coaxial-socket connections between said straps and said feed-dog, and having component elements fixedly carried respectively by said straps.

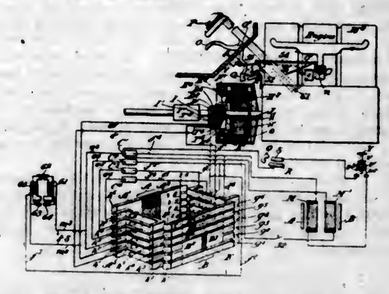
7. In a four-motion feed for sewing machines, in combination, feed-actuating and feed-lifting elements, a feed-dog, means operatively connecting said dog with said feed-lifting element including a pin-and-coaxial-socket connection located beneath and in line with the load carried by said feed-dog, and positive means operatively connecting said dog with said feed-actuating element whereby feeding and lifting movements are imparted to the feed-dog.

14,219. CENTRIFUGALLY-REGULATED POWER-TRANSMISSION SYSTEM. WILLIAM MORRISON, Chicago, Ill., assignor to Nestor Accumulator Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 9, 1916. Serial No. 119,305. Original No. 1,176,396, dated Mar. 21, 1916, Serial No. 82,952, filed June 8, 1915. (Cl. 171—315.)

1. A dynamo-electric clutch having a rotatable armature, a rotatable field, a centrifugally acting clutch between the armature and field, a storage battery in circuit, and an automatic cut-out in the battery circuit.

2. A dynamo-electric clutch having a rotatable armature, a rotatable field, an internal commutator on the armature, centrifugally actuated current-collecting and clutching devices engaging the commutator, a storage battery in circuit, and an automatic cut-out in the battery circuit.

3. A power-transmission system comprising a variable speed engine, a driving shaft connected to the engine, and a driven shaft connected to the load, a dynamo-electric clutch comprising a rotatable armature and a rotatable field magnet, one connected to the driving shaft and the other to the driven shaft, one of the said rotors having movably connected thereto parts adapted to be actuated by centrifugal force and the other rotor having a member with which said parts are adapted to frictionally engage, a storage battery, and automatic means for including the storage battery in circuit at lower speeds and cutting it out at higher speeds.



4. A power transmission system comprising a variable speed engine, a driving shaft connected to the engine, and a driven shaft connected to the load, a dynamo-electric clutch comprising a rotatable armature and a rotatable field magnet, one connected to the driving shaft and the other to the driven shaft, one of the said rotors having movably connected thereto parts adapted to be actuated by centrifugal force and the other rotor having a member with which said parts are adapted to frictionally engage, a storage battery, and an automatic cut-out arranged to exclude the storage battery from the system, whenever the centrifugal action causes the diminution of the generator voltage to a point below the voltage of the battery.

5. A power-transmission system comprising a variable speed engine, a driving shaft connected to the engine, and a driven shaft connected to the load, a dynamo-electric clutch comprising a rotatable armature and a rotatable field magnet, one connected to the driving shaft and the other to the driven shaft, one of the said rotors having movably connected thereto parts adapted to be actuated by centrifugal force and the other rotor having a member with which said parts are adapted to frictionally engage, a storage battery, and an automatic cut-out arranged to cut out the battery when the voltage of the storage battery exceeds that of the dynamo.

6. A power transmission system comprising a variable speed engine, a driving shaft connected to the engine, and a driven shaft connected to the load, a dynamo-electric clutch comprising a rotatable armature and a rotatable field magnet, one connected to the driving shaft and the other to the driven shaft, one of the said rotors having movably connected thereto parts adapted to be actuated by centrifugal force and the other rotor having a member with which said parts are adapted to frictionally engage, a storage battery, a controlling switch arranged to connect the cells of the battery in series or in multiple circuit with the dynamo terminals, and an automatic cut-out for the storage battery in the multiple circuit.

7. A power-transmission system comprising a dynamo-electric current-generating clutch having a rotatable armature and a rotatable field, a storage battery in circuit with said dynamo, and an automatic cut-out for the storage battery located in the clutching circuit.

8. A driving shaft, a driven shaft, clutch mechanism between said shafts comprising electromagnetic means, a storage battery in circuit therewith, and automatic means for removing said battery from circuit when the relative speed between said shafts decreases to a predetermined amount.

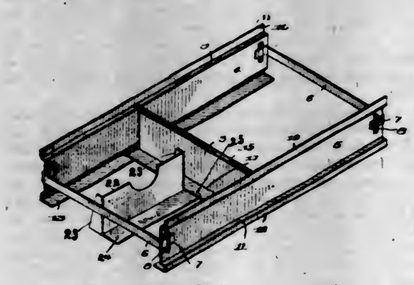
9. A driving shaft, a driven shaft, clutch mechanism between said shafts comprising electromagnetic and centrifugally acting mechanical friction means, a storage battery in circuit, and automatic means for removing the battery from circuit when the relative speed of said shafts decreases to a predetermined amount.

10. A variable speed engine, a driving shaft, a driven shaft, clutch mechanism between said shafts comprising electromagnetic means, a storage battery in circuit with said means, a throttle lever for the gas engine, means controlled by said lever for rendering said electromagnetic means effective and ineffective, and automatic means for removing said battery from circuit.

11. A variable speed engine, a driving shaft, a driven shaft, clutch mechanism between said shafts comprising electromagnetic and centrifugally operated mechanical means, a storage battery in circuit with said clutch mechanism, a throttle lever for the engine, means controlled by said lever for affecting said clutch mechanism, and automatic means for removing said battery from circuit when the relative speed of said shafts decreases to a predetermined amount.

12. A driving shaft, a driven shaft, clutch mechanism between said shafts comprising electromagnetic and centrifugally acting mechanical means, a storage battery in circuit, and automatic means for removing the battery from the circuit.

14,220. FILING DRAWER OR RECEPTACLE. ENOCH OHNSTRAND, Syracuse, N. Y., assignor to U. S. Steel Furniture Company, Syracuse, N. Y., a Corporation of New York. Filed Oct. 23, 1916. Serial No. 127,828. Original application filed Sept. 22, 1913, Serial No. 791,072. Renewed Mar. 7, 1916, Serial No. 82,744. Original No. 1,200,517, dated Oct. 10, 1916. (Cl. 129—26.)



1. A partitioning means comprising two parallel guide members, a partition adjustable on said guide members, and tie pieces connecting the ends of the guide members and holding them in parallel relation.

2. A partitioning means comprising two parallel guide members, a partition guided at its ends on the guide members, loops provided on the outer faces of the guide members near the ends thereof, and tie pieces having laterally-turned ends, said tie pieces connecting the guide pieces to hold the latter parallel and having the laterally-turned ends extending about the ends of the guide pieces through the loops.

3. The combination with a pair of guide pieces each having an upwardly-presented face and a downwardly-presented face, of a partition having two projections at each end, one projection coöperating with the upwardly-presented face on a guide piece and the other projection coöperating with the downwardly-presented face on the same piece, and one of the projections having a spring between it and the face with which it coöperates.

4. The combination with a pair of guide pieces, each formed from a strip of sheet metal vertically arranged and bent to provide an upwardly-presented face and a downwardly-presented face, of a partition formed from sheet metal having a rolled portion at its upper edge and a flange at its lower edge, a rod extending through the rolled portion and projecting at its ends to coöperate with the upwardly-extending faces on the guide pieces, and springs carried by the projecting ends of the bottom flange of the partition and coöperating with the downwardly-presented faces on the guide pieces.

5. The combination with a receptacle, and an upwardly and a downwardly-presented guide face arranged along each side of the receptacle, of a partition formed from sheet metal rolled at its upper edge and turned laterally at its lower edge, the laterally-turned portion projecting at its ends beneath the downwardly-presented guide faces, a rod extending through the rolled portion at the upper edge of the partition and coöperating with the upwardly presented guide faces, and spring arms carried by the projecting portions of the laterally-turned flange at the bottom of the partition, said arms bearing against the downwardly-turned guide faces.

6. The combination with a pair of guide pieces, each formed from sheet metal and provided with a channel, of a partition carrying springs at its ends coöperating with the upper walls of the channels.

7. The combination with two guide pieces, each formed from sheet metal and having its upper portion bent outwardly and upwardly and its lower portion bent outwardly, downwardly and inwardly to provide a channel, of a partition formed from sheet metal and having projections at its ends and near its upper edge to coöperate with the upper outwardly-turned portions of the guide pieces, said partition also having projections at its ends and near its bottom to extend into the channels, and springs carried by the last-named projections for coöperating with the upper walls of the channels.

8. The combination with two guide pieces formed from sheet metal, and tie pieces connecting the ends of the guide pieces to hold them in parallel relation, each guide piece being bent outwardly near its upper edge and outwardly near its lower edge, of a partition having projections at its ends and near its upper edge to coöperate with the upper outwardly-turned portion, and oppositely extending arms carried at the ends of the partitions and near the bottom of the latter to coöperate with the outwardly-turned portions near the lower edges of the guide pieces.

9. The combination with a receptacle having depressed portions in its bottom and near opposite side walls thereof, of two guide pieces each formed from a sheet metal strip bent outwardly near its upper edge and bent outwardly near its lower edge, thence downwardly and thence inwardly, the inwardly-turned portion resting in one of the depressions of the drawer bottom, of a partition having portions at its ends and near its upper edge to coöperate with the upper outwardly-turned portions of the guide pieces, and springs at its ends and near its bottom to coöperate with the outwardly-turned portions near the lower edges of the guide pieces.

10. The combination with a pair of guide pieces, each having a corrugated upwardly-presented face and a downwardly-presented face, of a partition having a projection at each end for coöperation with the corrugated faces, and springs carried by the partition for coöperation with the downwardly-presented faces.

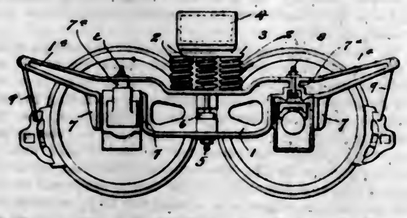
11. A follower formed from sheet metal and having two vertical flanges projecting rearwardly from its opposite vertical edges, and a horizontal flange projecting forwardly from its lower edge, the horizontal flange being provided with a projection beyond one of the vertical flanges.

12. The combination with a receptacle having upwardly and downwardly-presented surfaces extending in parallel relations along opposite sides thereof, of a follower coöperating with the upwardly-presented surfaces to be guided by the latter, and a pair of oppositely extending spring arms at opposite ends of the follower for coöperating with the downwardly-presented surfaces to hold the follower against the upwardly presented surfaces.

13. The combination with a receptacle having channels extending along opposite sides thereof, of a follower arranged in the receptacle and having a laterally-turned portion at its lower edge provided with extensions projecting into the channels, and spring arms carried by said extensions and coöperating with the top walls of the channels.

14. The combination with a receptacle having downwardly-presented guide faces along opposite sides thereof, of a follower arranged in said receptacle and having portions carrying oppositely-extending spring arms for coöperating with the downwardly-presented faces to hold the follower against the bottom of the receptacle.

14,221. CAR-TRUCK. HARRY M. PFLAGER, St. Louis, Mo. Filed June 5, 1916. Serial No. 101,868. Original No. 1,147,430, dated July 20, 1915, Serial No. 851,489, filed July 17, 1914. (Cl. 105—243.)



2. In car construction, an underframe, truck side frames each pivotally connected thereto, said truck frames having two or more journal boxes pivotally connected thereto, and axles mounted in said journal boxes and movable in a horizontal direction therewith, said axles carrying wheels.

2. In car construction, an underframe, truck side frames each having pivotal relation to said underframe, journal boxes pivotally mounted with respect to said truck side frames, axles mounted in said journal boxes and having a horizontal swinging motion therewith whereby horizontal relation between said axles and journal boxes is maintained at all times, and wheels on said axles.

3. In car construction, the combination of a truck side frame having pivotal relation to the underframe of the car, said truck side frame having pedestal jaws whose inner faces are inclined in opposite directions thereby providing vertically disposed apex bearing points, and journal boxes having bearing faces on their upper walls coöperating with the converse bearing faces on the truck side frame, said journal boxes also having means for receiving a swivel bolt, and a swivel bolt for connecting said journal boxes to said truck side frame.

4. In car construction, an underframe, wheels, axles on which said wheels are mounted, journal boxes on the ends of the axles, and truck side frames each pivotally connected to said underframe and each being pivotally supported by a pair of journal boxes through the medium of fixedly located pivots, whereby said truck side frames may each swing horizontally and independently upon the supports furnished by said journal boxes.

5. In car construction, axles, wheels arranged thereon, journal boxes on the ends of the axles, truck side frames pivotally supported at their ends by said journal boxes so as to have a horizontal swinging movement independently of said journal boxes, and each of said truck side frames being independently and pivotally connected to the underframe of the car at about the central portion thereof.

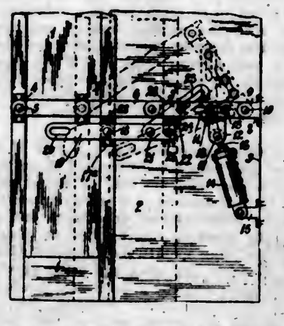
6. In a truck, the combination of a side frame, a journal box, said frame having an aperture in the plane of said box, and a separate vertical bolt carried by said box and adapted to coöperate with said aperture and maintain said box and frame against separation, substantially as described.

7. In a truck, the combination of a cast side frame, a journal box interlocked with said frame, and a separate vertical bolt connecting the frame and box, substantially as described.

8. In combination, a cast side frame having jaws, a journal box mounted between said jaws, a vertical bolt interlocked with said journal box, said bolt extending upwardly through an aperture in said frame, and means carried by said bolt for locking the same in position.

9. In combination a cast side frame having jaws, a journal box mounted between said jaws, said box being provided with an apertured boss, a bolt the head of which is mounted in said boss, said bolt extending upwardly through an aperture in said frame and securing said box and frame against separation, substantially as described.

14,222. DOOR OPERATING AND LOCKING DEVICE. HENRY G. VOIGHT, New Britain, Conn. Filed Aug. 3, 1916. Serial No. 113,024. Original No. 1,112,342, dated Sept. 29, 1914, Serial No. 828,615, filed Mar. 31, 1914. (Cl. 70—102.)



1. Means for opening and closing a sliding door consisting of toggle levers connected at one end to the door and at the other end to a fixed support, an actuating lever mounted to turn on a support carried by the door, a link having pivotal connection with the actuating lever and loosely connected with the toggle lever adjacent the joint in the latter, and automatic means for moving the levers in a direction to close the door.

2. Means for opening and closing a sliding door consisting of toggle levers connected at one end to the door and at the other end to a fixed support, an actuating lever mounted to turn on a support carried by the door and connected with the toggle lever at the rear of the joint, and automatic means for moving the levers in a direction to close the door.

3. Means for opening and closing a sliding door consisting of two connected levers, one longer than the other, the longer lever being connected to the door and the shorter lever to a fixed support, an actuating lever carried by the door and connected with the shorter lever and automatic means for moving the levers in a direction to close the door.

4. Means for opening and closing a sliding door consisting of two connected levers one longer than the other, the longer lever being connected to the front stile of the door and the shorter lever to a fixed support, an actuating lever carried on a support secured to the rear stile of the door and connected with said shorter lever at the rear of the joint and means for moving said levers in a direction to close the door.

5. In a sliding door opening and closing mechanism, the combination of a lever pivoted to a fixed support, mechanism connected with said lever for automatically closing the door, an actuating lever fulcrumed intermediate its ends on a support carried by the door, a link pivoted to said actuating lever adjacent the rear end of the latter provided with an elongated slot and a pin carried by said first mentioned lever and passing through the slot in the link.

6. In sliding door opening and closing mechanism, the combination of toggle levers connected at one end to a door and at the other end to a fixed support, an actuating lever mounted to turn on a support carried by the door and connected with the toggle levers adjacent the

joint in the latter and door closing mechanism adjustably connected with one of said levers.

7. In sliding door opening and closing mechanism, the combination of toggle levers connected at one end to the door and at the other end to a fixed support, a door closing mechanism connected with one of said levers, an actuating lever pivoted to a support on the door, a stop for limiting the turning movement of said actuating lever, a slotted link connected to the rear end of said actuating lever, a pin on one of the toggle levers passing through the slot in the link for operatively connecting the link to the levers, and a shoulder on the actuating lever against which the link normally rests.

8. In a sliding door controller, a pair of toggle links, one end of one of said links being arranged to be pivotally connected to a door and one end of the other link being arranged to be connected to a relatively stationary pivot, an operating member located underneath one of said links and pivotally mounted intermediate its length, one end of said member being operatively connected with said toggle to move the same, the other end being provided with an operating handle whereby a downward strain thereon will operate to buckle said toggles vertically.

9. In a sliding door controller, a pair of toggle links, one end of said links being arranged to be pivotally connected to a door and one end of the other link being arranged to be connected to a relatively stationary pivot, an operating device located underneath one of said links and pivotally mounted intermediate its length, one end of said device being operatively connected with said toggle to move the same, the other end being provided with an operating handle whereby a downward strain thereon will operate to buckle said toggles vertically, part of one toggle being arranged to overlap part of said device to hold said toggle against lateral buckling when the parts are in the door closed position.

10. In a sliding door controller, a pair of toggle links, one end of one of said links being arranged to be pivotally connected to a door and one end of the other link being arranged to be connected to a relatively stationary pivot, an operating bar located underneath one of said links and pivotally mounted intermediate its length, one end of said bar being operatively connected with said toggle to move the same, the other end being provided with an operating handle whereby a downward strain thereon will operate to buckle said toggles vertically, and whereby a reverse strain on said handle will cause said toggles to move into the door closed position.

11. In a sliding door controller, a pair of toggle links, one end of one of said links being arranged to be pivotally connected to a door and one end of the other link being arranged to be connected to a relatively stationary pivot, a manually operable toggle operating member located adjacent to one of said links and pivotally mounted to swing, part of said member coöperating with one of said toggles to move the same by the application of a downward strain on another part of said member.

12. In a sliding door controller, a pair of toggle links pivotally connected to each other, the free end of one of said links being arranged to be pivotally connected to a door, the free end of the other link being arranged to be pivotally connected to a relatively stationary abutment, an operating bar arranged to be pivoted intermediate its length to said door at a position intermediate the length of one of said toggle links, said last mentioned link and said operating bar being substantially parallel when the toggle links are in the door closed position.

13. In a railway car door operating apparatus, a pair of pivotally connected toggle links, means for pivotally connecting the free end of one link to the car door, and means for pivotally connecting the free end of the other link to a car body, and manually operable means for applying an upward strain to said links to buckle the same and open the door upon the application of a downward strain on one part of said means.

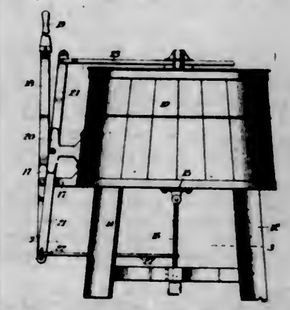
14. In a railway car door operating apparatus, a pair of pivotally connected toggle links, means for pivotally connecting the free end of one link to the car door, and means for pivotally connecting the free end of the other link to a car body, and manually operable means pivotally connected to the door, said manually operable means being parallel to the adjacent link of the toggle when the toggle links are in the door closed position.

15. In an operating device for railway car sliding doors, a pair of pivotally connected toggle links, means for pivotally connecting the free ends of said links to a car and to its sliding door respectively, an operating bar pivoted on said door, one end of said bar being operatively connected to one of said links to lift the same and move it in the door opening direction upon the application of a downward strain on the other end of said bar, said bar being movable into a position during the door opening movement wherein the downward toggle lifting strain on said bar is transformed to a lateral strain in the door opening direction.

16. In an operating device for railway car sliding doors, a pair of pivotally connected toggle links, means for pivotally connecting the free ends of said links to a car and to its sliding door respectively, an operating bar pivoted on said door intermediate the length of the link which is pivotally connected to said door, one end of said bar being operatively connected to one of said links to move the same in the door opening direction upon the application of a downward strain to the other end of said bar, the last mentioned end of said bar being movable into a position during the door opening movement wherein the downward toggle lifting strain is transformed to a lateral strain in the door opening direction to assist in opening the door, the connecting means between the operating bar and its toggle link being such that strain in a reverse direction on the operating member is partially applied directly to the door to move the same in the closing direction and partially to said toggles to straighten the same and assist thereby in closing said door.

17. In a sliding door operating means, a pair of pivotally connected toggle links, means for pivotally connecting the free end of one link to a door and means for pivotally connecting the free end of the other link to a relatively stationary abutment, an operating member with means for pivotally connecting the same to a door adjacent to the link which is pivoted to said door, said operating member overlapping said link in one position, whereby said parts will mutually steady one another, part of said operating member projecting below said link and arranged whereby a downward pull on the last mentioned end of said operating member will operate to buckle said toggle links.

14,223. DRIVING MECHANISM. WILLIAM H. GEORGE, Fairfield, Iowa, assignor to Dexter Manufacturing Company. Filed May 26, 1914. Serial No. 841,080. Original No. 1,030,993, dated July 2, 1912, Serial No. 532,333, filed Dec. 10, 1909. (Cl. 74—39.)



1. A driving mechanism comprising a support, two levers fulcrumed upon said support, a momentum-gatherer on one side of said support, means extending from said momentum-gatherer to one end of each lever, and means connecting the other end of one of said levers with the mechanism to be driven on the other side of said support.

2. A driving mechanism comprising a support, two levers fulcrumed upon said support, a momentum-gatherer on one side of said support, common means extending from said momentum-gatherer to one end of each lever, means connecting the other end of one of said levers with the mechanism to be driven on the other side of said support, and means on one of said levers by which it is oscillated.

3. A driving mechanism comprising a support, two levers fulcrumed upon the support, said levers being connected at one end, a momentum-gatherer, means comprising a rod extending from said momentum gatherer to the joined ends of said levers, a handle on one of said levers, and means connecting one end of the other lever with the mechanism to be driven.

4. A driving mechanism, comprising a suitable support and legs therefor, a hand lever fulcrumed intermediate of its ends on one side of said support, another lever arranged contiguous and parallel to and on the same side of the support with the hand lever and fulcrumed intermediate of its ends to said support, the axis of articulation of the second lever being parallel with and above the axis of articulation of the first lever, pivotal connections between the lower ends of said levers, a pitman pivoted to the upper end of the second lever, means for applying said pitman to a load, a pendulum pivoted to and depending from the central portion of the support, and a pitman forked, embracing and pivoted at one end conjunctively to the lower ends of the levers and pivoted at the other end to and intermediate of the ends of the pendulum.

5. A driving mechanism, comprising a suitable support and legs therefor, a hand lever fulcrumed intermediate of its ends on one side of said support, another lever fulcrumed intermediate of its ends to said support, the axis of articulation of the second lever being parallel with and above the axis of articulation of the first lever, the lower ends of said levers formed with longitudinal registering slots, a pin extending through said slots, a pitman pivoted to the upper end of the second lever, means for applying said pitman to a load, a pendulum pivoted to and depending from the central portion of the support, a pitman pivoted at one end on the pin in and conjunctively to the lower end of the levers and pivoted at the other end to and intermediate of the ends of the pendulum, bars connecting said legs in pairs, parallel guide bars connecting the first bars and arranged on opposite sides of the path of the pendulum, and braces connecting said parallel guide bars to end portions of the first bars.

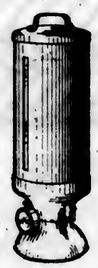
DESIGNS.

49,943. BADGE, BUTTON, PIN, OR SIMILAR ARTICLE. RICHARD H. ALLAN, Charleston, S. C. Filed Sept. 28, 1916. Serial No. 122,770. Term of patent 7 years.



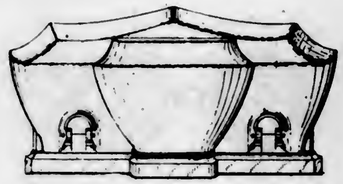
The ornamental design for a badge, button, pin or similar article, as shown.

49,944. CHEMICAL FIRE-EXTINGUISHER. FREDERICK C. BARGAR, Columbus, Ohio, assignor to The Nu-Ex Fire Appliance Company, Columbus, Ohio, a Corporation of Ohio. Filed Sept. 16, 1916. Serial No. 120,575. Term of patent 14 years.



The ornamental design for a chemical fire extinguisher, as shown.

49,945. BURIAL-CASKET PLATE. CHARLES BLESCH, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 1, 1916. Serial No. 118,149. Term of patent 14 years.



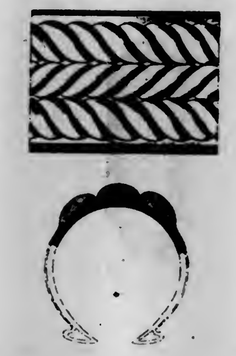
The ornamental design for a burial-casket plate, substantially as shown.

49,946. SLIPPER. PHILIP E. BLUM, Dansville, N. Y. Filed Sept. 18, 1916. Serial No. 120,909. Term of patent 7 years.



The ornamental design for a slipper as shown.

49,947. TIRE-TREAD. SEMUEL J. BOGAN, Torrance, Cal. Filed Jan. 25, 1916. Serial No. 74,273. Term of patent 7 years.



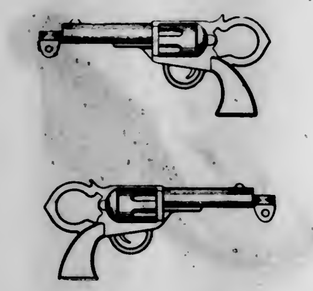
The ornamental design for a tire tread as shown.

49,948. PAIR OF SPECTACLES. ELEAZER GALE BURLINGAME, Detroit, Mich. Filed Aug. 12, 1916. Serial No. 114,650. Term of patent 7 years.



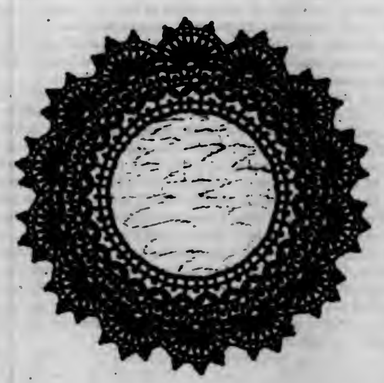
The ornamental design for a pair of spectacles, as shown.

49,949. BIT. WILLIAM F. CODY, Cody, Wyo., assignor to The North & Judd Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 31, 1916. Serial No. 117,946. Term of patent 14 years.



The ornamental design for a bit as shown.

49,950. PAPER DOILY. FRED CONRAD, Milwaukee, Wis., assignor to American Lace Paper Company, a Corporation of Wisconsin. Filed Oct. 12, 1916. Serial No. 125,337. Term of patent 7 years.



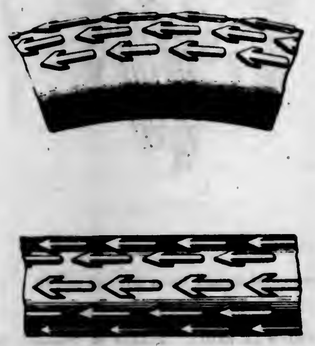
The ornamental design for a paper doily, as shown.

49,951. PAPER DOILY. FRED CONRAD, Milwaukee, Wis., assignor to American Lace Paper Company, a Corporation of Wisconsin. Filed Oct. 12, 1916. Serial No. 125,338. Term of patent 7 years.



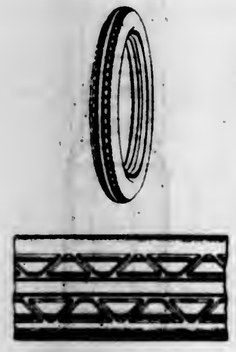
The ornamental design for a paper doily, as shown.

49,952. TIRE. GUY CROWLEY, Hartford, Conn. Filed Sept. 17, 1914. Serial No. 862,242. Term of patent 14 years.



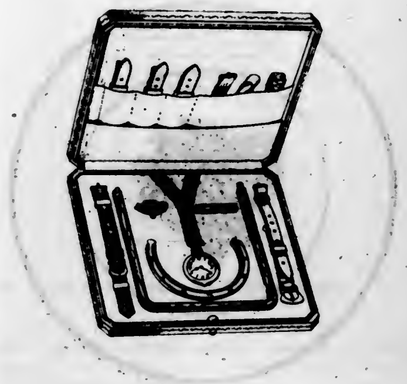
The ornamental design for a tire as shown.

49,953. TIRE-TREAD. WALTER R. DENMAN, Akron, Ohio. Filed Sept. 28, 1916. Serial No. 122,768. Term of patent 14 years.



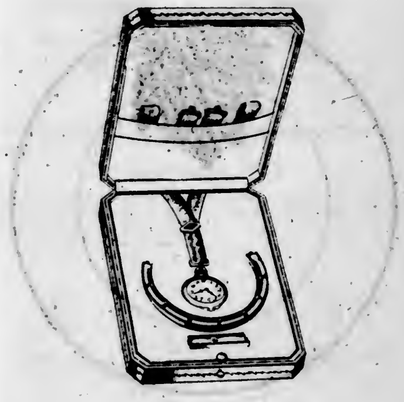
The ornamental design for a tire tread as shown.

49,954. BOX OR CASE CONTAINING ARTICLES OF JEWELRY. CHARLES L. DEPOLLIER, New York, N. Y., assignor to Dubois Watch Case Company, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 7, 1914. Serial No. 865,592. Term of patent 3½ years.



The ornamental design for a box or case containing articles of jewelry, as shown.

49,955. BOX OR CASE CONTAINING ARTICLES OF JEWELRY. CHARLES L. DEPOLLIER, New York, N. Y., assignor to Dubois Watch Case Company, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 7, 1914. Serial No. 865,594. Term of patent 3½ years.



The ornamental design for a box or case containing articles of jewelry, as shown.

49,956. PLATE OR SIMILAR ARTICLE. WALTER DE VILLE, East Liverpool, Ohio, assignor to The Palm Brothers Company, New York, N. Y. Filed Oct. 14, 1916. Serial No. 125,745. Term of patent 3½ years.



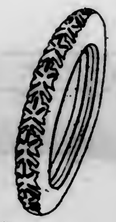
The ornamental design for a plate or similar article, as shown.

49,957. PLATE OR SIMILAR ARTICLE. WALTER DE VILLE, East Liverpool, Ohio, assignor to The Palm Brothers Company, New York, N. Y. Filed Oct. 14, 1916. Serial No. 125,746. Term of patent 3½ years.



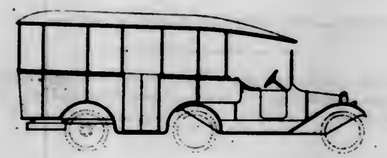
The ornamental design for a plate or similar article, as shown.

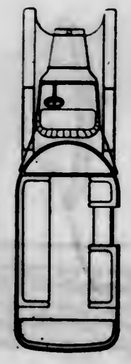
49,958. TIRE. OSCAR WILLIAM DUNHAM and FRANCIS WILLIAM WILLIS, Toronto, Ontario, Canada. Filed Aug. 16, 1916. Serial No. 115,299. Term of patent 3½ years.



The ornamental design for a tire, as shown.

49,959. VEHICLE-BODY. ROLLIE B. FAGBOL, Oakland, Cal. Filed Sept. 12, 1916. Serial No. 119,774. Term of patent 14 years.





The ornamental design for a vehicle body, as shown.

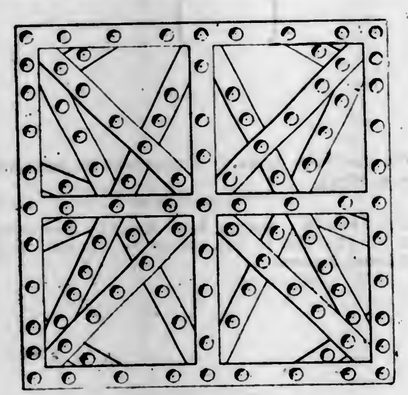
49,960. [WITHDRAWN.]

49,961. DRINKING VESSEL OR SIMILAR ARTICLE. WALTER JAMES GRAHAM, Bellaire, Ohio, assignor to Imperial Glass Company, Bellaire, Ohio, a Corporation of West Virginia. Filed July 13, 1916. Serial No. 109,191. Term of patent 3½ years.



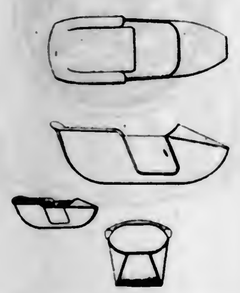
The ornamental design for a drinking vessel or similar article, as shown.

49,962. ELECTRIC SIGN. RICHARD HARGRAVE, Jacksonville, Fla. Filed Oct. 2, 1915. Serial No. 53,850. Term of patent 7 years.



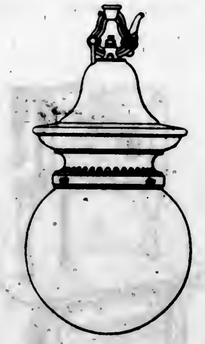
The ornamental design for an electric sign, as shown.

49,963. VEHICLE-BODY. WILLIAM S. HARLEY, Milwaukee, Wis., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Filed Aug. 20, 1915. Serial No. 46,559. Term of patent 14 years.



The ornamental design for a vehicle body, as shown.

49,964. GAS-LAMP. ALFRED H. HUMPHREY, New York, N. Y. Filed Aug. 9, 1915. Serial No. 44,662. Term of patent 7 years.



The ornamental design for a gas lamp, as shown.

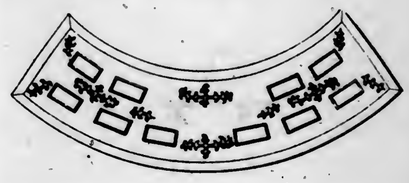
49,965. SPEEDOMETER-CASING. JOSEPH W. JONES, Pelham, N. Y. Filed June 1, 1916. Serial No. 101,189. Term of patent 14 years.





The ornamental design for a speedometer casing, as shown.

49,966. TABLE AND DESK TOP. JOHN L. KAHLES, Oakland, Cal. Filed Sept. 8, 1916. Serial No. 119,119. Term of patent 7 years.



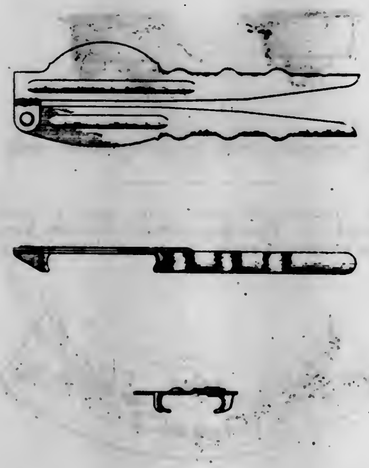
The ornamental design for a desk and table top, as shown.

49,967. STOVE OR RANGE. JOSEPH E. LEONARD, Cedar Rapids, Iowa. Filed Oct. 25, 1915. Serial No. 57,890. Term of patent 14 years.



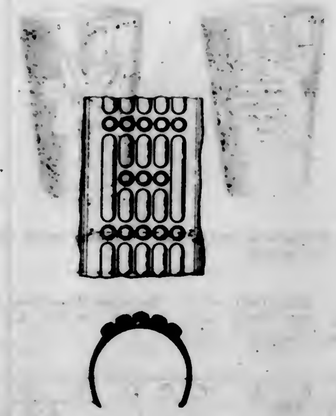
The ornamental design for a stove or range substantially as shown.

49,968. JAR-WRENCH. JOHN L. NEEDHAM, Chicago, Ill., assignor to The Boye Needle Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 8, 1916. Serial No. 119,130. Term of patent 14 years.



The ornamental design for a jar-wrench, as shown.

49,969. TREAD-BAND FOR PNEUMATIC TIRES. VESTOR A. PARKER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Aug. 31, 1916. Serial No. 117,947. Term of patent 14 years.



The ornamental design for a tread band for pneumatic tires as shown.

49,970. PLATE. EDWARD JOHN RIDGWAY, New York, N. Y. Filed Oct. 5, 1916. Serial No. 123,969. Term of patent 7 years.



The ornamental design for a plate, as shown.

49,971. STICK-PIN, LAPEL-BUTTON, OR SIMILAR ARTICLE OF MANUFACTURE. EDMUND C. RIPLEY, Hooper, Wash. Filed May 24, 1916. Serial No. 99,702. Term of patent 7 years.



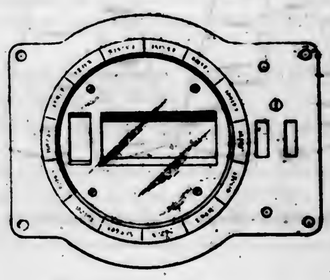
The ornamental design for a stick-pin, lapel button, or similar article of manufacture.

49,972. KNITTED CAP. PAUL H. SCHMIDT, Milwaukee, Wis., assignor to Novelty Knitting Mills, Milwaukee, Wis. Filed Oct. 9, 1916. Serial No. 124,743. Term of patent 3½ years.



The ornamental design for a knitted cap, as shown.

49,973. FACE-PLATE OF MEASURING INSTRUMENTS OR METERS. MARVIN SMITHEY, Lawrenceville, Va., assignor to The Hamilton Corporation, Lancaster, Pa., a Corporation of Pennsylvania. Filed Sept. 18, 1916 Serial No. 120,012. Term of patent 14 years.



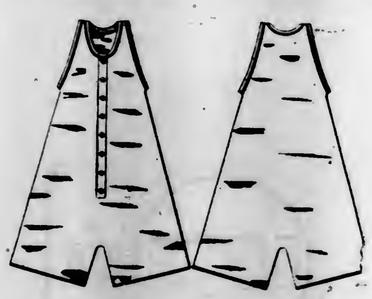
The ornamental design for a face plate of measuring instruments, or meters, as shown.

49,974. FINGER-RING. LEOPOLD R. STRAUS, New York, N. Y. Filed Sept. 13, 1916. Serial No. 119,989. Term of patent 7 years.



The ornamental design for a finger ring, as shown.

49,975. UNDERGARMENT. CHARLES R. WATSON, New York, N. Y. Filed Aug. 29, 1916. Serial No. 117,541. Term of patent 14 years.



The ornamental design for an undergarment, as shown.

49,976. STOVE. ANDREW C. WEISBERG, Brentwood, Pa. Filed Sept. 2, 1916. Serial No. 118,274. Term of patent 14 years.



The ornamental design for a stove, as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 28, 1916.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 86,247. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) HOWARD L. FISCHER, St. Paul, Minn., assignor to Victor H. Roehrich, St. Paul, Minn. Filed Apr. 28, 1915.



Particular description of goods.—A Varnish and Paint Preserver.
Claims use since Oct. 5, 1914.

Ser. No. 87,374. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN THOMPSON & SONS, L'D., Belfast, Ireland. Filed June 17, 1915.



Particular description of goods.—A Cereal of Oats, Corn, or Wheat and Dried and Desiccated Vegetables.
Claims use since the 18th day of February, 1915.

Ser. No. 88,636. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ST. ELMO W. ACOSTA, Jacksonville, Fla. Filed Aug. 16, 1915.

SAINT ELMO

Particular description of goods.—Canned Vegetables, Pickles, Condensed Milk.
Claims use since June 1, 1906.

Ser. No. 88,739. (CLASS 39. CLOTHING.) ISAAC HAMBURGER & SONS, Baltimore, Md. Filed Aug. 21, 1915.



No claim being made to the exclusive use of the word "Original" apart from the mark shown in the drawing.
Particular description of goods.—Men's and Boys' Outer Suits, Coats, Overcoats, and Trousers.
Claims use since Aug. 1, 1915.

Ser. No. 89,123. (CLASS 2. RECEPTACLES.) BOYERTOWN BURIAL CASKET CO., Boyertown and Philadelphia, Pa. Filed Sept. 10, 1915.



Particular description of goods.—Caskets.
Claims use since August, 1915.

Ser. No. 89,188. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) OXFORD-PRINT, Boston, Mass. Filed Sept. 14, 1915.

Joy-toys

The word "Joy." Applicant hereby disclaims exclusive use of the word "Toys."
Particular description of goods.—Cardboard Cut-Out Toys.
Claims use since Aug. 1, 1915.

Ser. No. 89,639. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN H. O'GRADY, Chicago, Ill. Filed Oct. 4, 1915.



The portrait being that of applicant.

Particular description of goods.—An Antiseptic Preparation for Diseases of the Skin.

Claims use since 1887.

Ser. No. 91,283. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ACORN SILK CO. INC., New York, N. Y. Filed Dec. 8, 1915.



No claim being made to the use of the word "Silks" apart from the mark shown in the drawing.

Particular description of goods.—Silk and Velvet Piece Goods.

Claims use since about the 1st day of October, 1915.

Ser. No. 91,284. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ACORN SILK CO. INC., New York, N. Y. Filed Dec. 8, 1915.



No claim being made to the use of the word "Silks" apart from the mark shown in the drawing.

Particular description of goods.—Silk and Velvet Piece Goods.

Claims use since about the 1st of January, 1911.

Ser. No. 92,252. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) E. & G. QUACKENBUSH, New York, N. Y. Filed Jan. 13, 1916.

"TINY TOTS"

Particular description of goods.—Ornamental Heads Adapted to be Applied to Any Article of Manufacture.

Claims use since Aug. 25, 1915.

Ser. No. 92,339. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) DAVID E. HUBBELL, Elgin, Ill. Filed Jan. 22, 1916.

OHO

Particular description of goods.—Metallic Dippers Adapted for Insertion into Milk-Bottles for Skimming Milk Contained Therein.

Claims use since July 29, 1913.

Ser. No. 92,492. (CLASS 12. CONSTRUCTION MATERIALS.) A. M. CASTLE & Co., Chicago, Ill. Filed Jan. 29, 1916.



No claim being made to the words "Iron and Steel, Chicago" apart from the mark shown in the drawing.

Particular description of goods.—Structural Angles, Beams, Bars, Caps, Channels, Columns, Frames, Plates, Pressed Steel, Sheets.

Claims use since Nov. 15, 1915.

Ser. No. 93,416. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LUTELLUS SMITH, Chicago, Ill. Filed Mar. 9, 1916.



Particular description of goods.—Toilet Preparations: Face-Creams; Hair-Tonics; Face-Powders; Talcum Powders; Rouges; Hand-Jellies; Bleaching-Powders; Scalp-Cleansers.

Claims use since June 8, 1914.

Ser. No. 93,734. (CLASS 12. CONSTRUCTION MATERIALS.) BALTIMORE ROOFING AND ASBESTOS MFG. CO., Wilmington, Del., and Asbestos, Md. Filed Mar. 21, 1916.



The word "Roofing" is shown in red. No exclusive claim is made to the word "Roofing" except in connection with the other parts shown in the drawing.

Particular description of goods.—Prepared Asphalt Roofing.

Claims use since Mar. 1, 1915.

Ser. No. 94,187. (CLASS 5. ADHESIVES.) WILLIAM UPHAM COWAN, Chicago, Ill. Filed Apr. 6, 1916.



Particular description of goods.—Vulcanizable Fabric Tire-Repair Material.

Claims use since December, 1915.

Ser. No. 94,284. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE GRASSELLI CHEMICAL COMPANY, Cleveland, Ohio. Filed Apr. 10, 1916.

NOGAS

Particular description of goods.—Metal-Pickling Compounds and Ingredients Thereof.

Claims use since Mar. 11, 1916.

Ser. No. 95,019. (CLASS 11. INKS AND INKING MATERIALS.) THE AMERICAN COTTON OIL COMPANY, Guttenberg, N. J., and New York, N. Y. Filed May 10, 1916.

TECHNO

Particular description of goods.—Cotton-Seed Oil for Use in the Manufacture of Printing-Inks.

Claims use since May 2, 1916.

Ser. No. 95,296. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE F. G. DICKERSON CO., Portland, Me., and Chicago, Ill. Filed May 20, 1916.



Particular description of goods.—Milk-Can Filling, Tipping, Soldering, Feeding, Labeling, and Polishing Machines and Parts Thereof; Can Filling, Feeding, Polishing, Tipping, Soldering, Labeling, and Polishing Machines and Parts Thereof for Canners, Canneries, and Manufacturers of Food Products, Liquids, and Beverages other Than Milk; Conveyers, Chutes, and Conveying, Inspecting, and Patching Tables for Use in Connection with the Machines Aforesaid; Can Washing and Steaming Machines, Bottling-Machines, and Nut-Cracking Machines.

Claims use since on or about the 1st day of December, 1913.

Ser. No. 95,339. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHNSON & MURRAY, INCORPORATED, Utica, N. Y. Filed May 22, 1916.



Particular description of goods.—Teas, Spices—Namely, Cloves, Pimento, Cinnamon, Ginger, Mustard, Pepper, and Prepared Mustard.

Claims use since August, 1900.

Ser. No. 95,556. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MEYER & DEGERDON, New York, N. Y. Filed May 31, 1916.

CUNADO

Particular description of goods.—Apples, Coffee, Oleomargarin, and Jelly.
Claims use since 1911.

Ser. No. 95,557. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MODERN MACHINERY CO., Wilmington, Del. Filed May 31, 1916.

Y&E MODERN

No claim is made to the word "Modern" apart from the mark shown in the drawing.
Particular description of goods.—Bottle-Washing Machines, Bottle-Rinsing Machines, Cork-Cleaning Machines, Labeling-Machines, Hand and Power Bottle-Capping Machines, Tin-Foil-Removing Machines, Tin-Foil-Polishing Machines, Hand and Power Operated Corking-Machines, and Parts of Above Machines.
Claims use since Feb. 1, 1916.

Ser. No. 95,639. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARLOW OIL CO., Houston, Tex. Filed June 6, 1916.

S&S

Particular description of goods.—A Composition Formed of Solid Material Treated with a Combustible Chemical.
Claims use since Oct. 25, 1915.

Ser. No. 95,652. (CLASS 38. PRINTS AND PUBLICATIONS.) SEA POWER PUBLISHING COMPANY, INCORPORATED, Washington, D. C. Filed June 6, 1916.

SEA POWER

Particular description of goods.—Monthly Magazines.
Claims use since June 5, 1916.

Ser. No. 95,670. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ANDREW C. ERICKSON, Los Angeles, Cal. Filed June 7, 1916.

JIFFY SHINE

No claim being made to the word "Shine" apart from the mark shown.
Particular description of goods.—Shoe-Polish.
Claims use since Feb. 10, 1914.

Ser. No. 95,874. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CURT B. MUELLER, Cleveland, Ohio. Filed June 14, 1916.

DIAMOND

Particular description of goods.—Tennis-Rackets.
Claims use since Sept. 2, 1915.

Ser. No. 95,917. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HELEN E. JOHNSON, Toledo, Ohio. Filed June 16, 1916.

BEECHNUT

Particular description of goods.—Coffee.
Claims use since May 24, 1916.

Ser. No. 95,970. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, New York, N. Y., and Kansas City, Mo. Filed June 19, 1916.

Spinner

Particular description of goods.—Cakes of the Kind Known as Cookies.
Claims use since about Nov. 1, 1915.

Ser. No. 96,041. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) YALE NOVELTY COMPANY, Leominster, Mass. Filed June 21, 1916.

YANOCO

Particular description of goods.—French Ivory and Celluloid Combs and Fans.
Claims use since June 1, 1916.

Ser. No. 96,133. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JULIUS E. BROWN, Peekskill, N. Y. Filed June 26, 1916.

FLYETTE

Particular description of goods.—A Toy Consisting of a Bird Upon Wheels, the Turning of the Wheels Imparting Motion to the Bird and the Wings of the Bird.
Claims use since June 13, 1916.

Ser. No. 96,134. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JULIUS E. BROWN, Peekskill, N. Y. Filed June 26, 1916.

PINETTE

Particular description of goods.—A Game Played with a Ball and Cue, as in Billiards.
Claims use since June 13, 1916.

Ser. No. 96,253. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KINGAN & COMPANY, LIMITED, Belfast, Ireland, and Indianapolis, Ind. Filed June 30, 1916. Under ten-year proviso.

KINGAN'S RELIABLE

Particular description of goods.—Fresh Meats, Cured Meats, Cooked Meats, Canned Meats, Salted Meats, Sausages, Lard and Oleomargarin.
Claims use on fresh, cured, cooked, canned, and salted meats, sausages, and lard since 1877, and on oleomargarin since prior to Jan. 1, 1895.

Ser. No. 96,299. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KIBBE BROS. COMPANY, Springfield, Mass. Filed July 3, 1916.

TALLY-HO

Particular description of goods.—Candy, Particularly Chocolates.
Claims use since on or about June 20, 1916.

Ser. No. 96,557. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CHURCH, WEBB & CLOSE, New York, N. Y. Filed July 14, 1916.

ECCO

Particular description of goods.—Neckties and Neckscarfs.
Claims use since Sept. 15, 1911.

Ser. No. 96,615. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BALTIMORE PEARL HOMINY COMPANY, Baltimore, Md. Filed July 17, 1916.

SPRING GARDEN

Particular description of goods.—Horse Feed; Dairy Feed; Stock Feed; Hominy Feed; Corn-Oil Meal; Corn and Oats Feed; Cracked Corn; Flaked Oats; Yellow Chop; Chick-Grits; and Kiln-Dried Yellow Chop.
Claims use since May 6, 1916.

Ser. No. 96,663. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE COLUMBUS PHARMACAL COMPANY, Columbus, Ohio. Filed July 19, 1916.

Loingia

Particular description of goods.—A Medicinal Preparation Used in the Treatment of Coughs, Croup, Whooping-Cough, Bronchial Troubles, and All Laryngeal and Pectoral Affections, a Cough and Croup Mixture Composed of Stillingia and Lobelia with the Oils of Cajuput, Lavender, and Cinnamon.
Claims use since Sept. 1, 1896.

Ser. No. 96,701. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SQUIRE DINGEE COMPANY, Chicago, Ill. Filed July 20, 1916.

SQUIRE

Particular description of goods.—Salad-Dressing, Peanut-Butter, Mustard, Pepper Sauce, and Vinegar.
Claims use since July 1, 1915.

Ser. No. 96,793. (CLASS 2. RECEPTACLES.) DIAMOND INDIVIDUAL TOWEL SYSTEM CO., Spokane, Wash. Filed July 24, 1916.

DIAMOND INDIVIDUAL TOWEL SYSTEM

No claim being made for the word "Individual" and the word "Towel."
Particular description of goods.—Towel-Racks, Follower-Boards, and Lugs.
Claims use since June 30, 1916.

Ser. No. 96,986. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. A. C. DANIELS, INC., Boston, Mass. Filed July 31, 1916.

RENUVA

Particular description of goods.—Hair-Tonic.
Claims use since about May 1, 1916.

Ser. No. 96,989. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. GREENFIELD'S SONS, New York, N. Y. Filed July 31, 1916.

Handy Kandy Kit

No claim being made to the word "Kandy" apart from the mark shown in the drawing.
Particular description of goods.—Candies.
Claims use since the 15th day of July, 1916.

Ser. No. 97,040. (CLASS 10. FERTILIZERS.) SOUTHERN FERTILIZER & CHEMICAL COMPANY, Savannah, Ga. Filed Aug. 2, 1916.

S

Particular description of goods.—Complete Fertilizers and Acid Phosphate.
Claims use since 1906.

Ser. No. 97,065. (CLASS 17. TOBACCO PRODUCTS.) E. M. SCHWARZ & CO., New York, N. Y. Filed Aug. 3, 1916. Under ten-year proviso.

COLON

Particular description of goods.—Cigars, Cheroots, and Little Cigars.
Claims use since prior to 1890.

Ser. No. 97,121. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUST-PARKER COMPANY, Duluth, Minn. Filed Aug. 5, 1916.

OMAR

Particular description of goods.—Canned Tomatoes, Canned Sauer-Kraut, Canned Sweet Potatoes, Canned Beets, Canned Pumpkin, Canned Hominy, Canned Spinach, Canned String-Beans, Canned Sweet Corn, Canned Peas, Canned Wax-Beans, Canned Cut Wax-Beans, Canned Red Pitted Cherries, Canned Red Raspberries, Canned Strawberries, Canned Yellow Cling-Peaches, Canned Yellow Free Peaches, Canned Grapes, Canned Sliced Pineapple, Canned Apricots, Canned Sliced Peaches, Canned White Cherries, Canned Pears, Canned Salmon, Canned Cove-Oysters.
Claims use since about June 1, 1915.

Ser. No. 97,262. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WASHBURN-CROSBY CO., Minneapolis, Minn. Filed Aug. 10, 1916.

WASHBURN-CROSBY CO
WASHBURN'S TRADE MARK
Medalha de Ouro
FARINHA DE TRIGO

No claim being made for the words "Trade Mark" and "Farinha De Trigo."
Particular description of goods.—Wheat-Flour.
Claims use since May 1, 1916.

Ser. No. 97,268. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WASHBURN-CROSBY CO., Minneapolis, Minn. Filed Aug. 10, 1916.

WASHBURN-CROSBY CO
WASHBURN'S TRADE MARK
Medalla de Oro
HARINA DE TRIGO

No claim being made for the words "Trade Mark" and "Harina De Trigo."
Particular description of goods.—Wheat-Flour.
Claims use since May 1, 1916.

Ser. No. 97,356. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) L. G. SPINDLER, New York, N. Y. Filed Aug. 15, 1916.

ELEVATOR

Comprising the word "Elevator."
Particular description of goods.—Wheat-Flour.
Claims use since Feb. 26, 1916.

Ser. No. 97,373. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOS. LOUDENSLAGER ESTATE, Tiffin, Ohio. Filed Aug. 16, 1916.

STRONGHEART

Particular description of goods.—Wheat-Flour.
Claims use since May 2, 1916.

Ser. No. 97,416. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) VICTOR ELECTRICAL EQUIPMENT CO., Boston, Mass. Filed Aug. 17, 1916.

VEECO

Particular description of goods.—Motors and Drives for Talking-Machines.
Claims use since May 4, 1916.

Ser. No. 97,462. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SCHELL MANUFACTURING COMPANY, INC., Chicago, Ill. Filed Aug. 19, 1916.

Pedico

Particular description of goods.—Foot-Soap.
Claims use since 1912.

Ser. No. 97,464. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THOMAS A. EDISON, INCORPORATED, West Orange, N. J. Filed Aug. 21, 1916.

SAFETAE

Particular description of goods.—Sound-Records and Sound-Record Blanks.
Claims use since Aug. 1, 1916.

Ser. No. 97,507. (CLASS 39. CLOTHING.) ELITE GARMENT COMPANY OF SYRACUSE, N. Y., INC., Syracuse, N. Y. Filed Aug. 21, 1916.

Bonnie May
SCHOOL DRESS

No claim being made to the words "School Dress" apart from the mark shown.
Particular description of goods.—Children's Dresses.
Claims use since May 1, 1916.

Ser. No. 97,553. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. R. GRACE & CO., New York, N. Y. Filed Aug. 22, 1916.

VITRIO

Particular description of goods.—A Chemical Preparation to Protect Potato Vines and Tubers.
Claims use since about June 1, 1916.

Ser. No. 97,661. (CLASS 38. PRINTS AND PUBLICATIONS.) EDWIN T. EARL, Los Angeles, Cal. Filed Aug. 28, 1916.

EVENING EXPRESS

No claim being made to the words "Independent, Progressive, City of Los Angeles, Founded 1781, Oldest Los Angeles Daily Newspaper" apart from the mark.
Particular description of goods.—A Newspaper.
Claims use since May 3, 1916.

Ser. No. 27,694. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD OIL COMPANY, Richmond, Cal. Filed Aug. 29, 1916.

ORONITE

Particular description of goods.—Asphaltum.
Claims use since the 6th day of July, 1916.

Ser. No. 97,736. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) NORFOLK WOOLEN CO., Franklin, Mass. Filed Aug. 31, 1916.

RFM

Particular description of goods.—Harness and Saddle Pads.
Claims use since July 1, 1916.

Ser. No. 97,738. (CLASS 39. CLOTHING.) SHAPIRO BROTHERS, New York, N. Y. Filed Aug. 31, 1916.

Admiral Dewey

Particular description of goods.—Middy-Blouses and Middy-Blouse Dresses for Children, Misses, and Ladies.
Claims use since June 5, 1916.

Ser. No. 97,804. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD F. MCKAY, Oklahoma, Okla. Filed Sept. 5, 1916.



Particular description of goods.—Homeopathic Preparations for the Treatment of Colds, Grippe, Fever, and Sore Throat.
Claims use since Aug. 20, 1916.

Ser. No. 97,822. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RIDLEY'S, THE OLD CHAMBERS ST. CANDY MANUFACTORY, New York, N. Y. Filed Sept. 6, 1916. Under ten-year proviso.

Ridley's EST. 1806

Particular description of goods.—Candy.
Claims use since 1806.

Ser. No. 97,851. (CLASS 38. PRINTS AND PUBLICATIONS.) BARRINGTON GRAPHOPRINT COMPANY, INCORPORATED, New York, N. Y. Filed Sept. 8, 1916.

The Little Schoolmaster

Particular description of goods.—Skeleton Drawings for Use as Aids or Helps in Child Instruction.
Claims use since Aug. 1, 1916.

Ser. No. 97,865. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. O'CONNOR AND COMPANY, Indianapolis, Ind. Filed Sept. 8, 1916.

SUN RIPE

M C & CO.

Particular description of goods.—Canned Fruits and Vegetables, Salmon, Hominy, Pork and Beans, and Catsup.
Claims use since about Jan. 1, 1911.

Ser. No. 97,899. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DECATUR EXTRACT CO., Decatur, Ill. Filed Sept. 11, 1916.

DECO

Particular description of goods.—Spices, Tea, Coffee, Cocoa, Gelatin Dessert, Salad-Oil, Rice, Barley, Tapioca, Salad-Dressing, Cocoanut, Corn-Starch, Peanut-Butter, Food-Flavoring Extracts, Cereal Food, and Baking-Chocolate.
Claims use since the year 1900.

Ser. No. 97,941. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WABASH CHEMICAL & BAKING POWDER COMPANY, Wabash, Ind. Filed Sept. 11, 1916.

MAJESTIC



The picture shown being fanciful.
Particular description of goods.—Dessert-Powder.
Claims use since June 30, 1916.

Ser. No. 97,958. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ANDREW H. SCOBLE, New York, N. Y. Filed Sept. 12, 1916.

WHEAT NUGS

"Wheat Nugs," no claim being made to the word "Wheat" apart from the mark shown in the drawing.
Particular description of goods.—A Cereal Breakfast Food and Wheat-Flour.
Claims use since Aug. 28, 1916.

Ser. No. 97,979. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROYAL VALLEY COFFEE CO., Detroit, Mich. Filed Sept. 13, 1916.

NE-RO-MA

Particular description of goods.—Coffee.
Claims use since Sept. 5, 1916.

Ser. No. 98,015. (CLASS 5. ADHESIVES.) THE TIREOID COMPANY, Chicago, Ill. Filed Sept. 15, 1916.

TIREOID

Particular description of goods.—Composition for Healing Punctures in Pneumatic Tires.
Claims use since on or about Sept. 30, 1915.

Ser. No. 98,020. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLUMBIA RIVER PACKERS ASSOCIATION, Astoria, Oreg. Filed Sept. 16, 1916.

SILVER CREST BRAND

No claim being made to the word "Brand" apart from the mark shown in the drawing.
Particular description of goods.—Canned Salmon.
Claims use since 1891.

Ser. No. 98,025. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CASEIN, LIMITED, Battersea, London, England. Filed Sept. 16, 1916.

VI-CASEIN

No claim being made to the word "Casein" apart from the mark shown in the drawing.
Particular description of goods.—A Medicated Tonic Nerve Food.
Claims use since September, 1913.

Ser. No. 98,128. (CLASS 17. TOBACCO PRODUCTS.) A. GONZALES CAMERO, New York, N. Y. Filed Sept. 20, 1916.

A. GONZALEZ CAMERO
NEW YORK HABANA
HABANA CIGARS
EXCLUSIVELY

No claim being made to the words "A. Gonzalez Camero, New York, Habana, Habana Cigars Exclusively" apart from the mark shown on the drawing.
Particular description of goods.—Cigars and Smoking-Tobacco.
Claims use since May 1, 1916.

Ser. No. 98,131. (CLASS 15. OILS AND GREASES.) GEORGE BORGFELDT & CO., New York, N. Y. Filed Sept. 21, 1916.

SANTA LUCIA

Particular description of goods.—Solid, Semisolid, and Liquid Illuminating Materials—Namely, Night-Lights, Candles, and Tapers Utilizing Beeswax, Stearin, Paraffin, Oil, and Kerosene.
Claims use since Sept. 1, 1916.

Ser. No. 98,135. (CLASS 38. PRINTS AND PUBLICATIONS.) EXCHANGE TRUST COMPANY, Boston, Mass. Filed Sept. 21, 1916.



No claim being made to the words "The Christmas Bank" apart from the mark shown in the drawing.
Particular description of goods.—Books Containing Deposit-Slips to be Issued to and Used by Members of a Christmas Savings-Club.
Claims use since June 14, 1916.

Ser. No. 98,145. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SACKS & CLYMAN, Philadelphia, Pa. Filed Sept. 21, 1916.



The representations of the shoes are not claimed apart from the other features of the mark.

Particular description of goods.—A Shoe-Dressing for White Shoes.

Claims use since about Apr. 1, 1916.

Ser. No. 98,146. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CHAS. A. SCHIEREN COMPANY, New York, N. Y. Filed Sept. 21, 1916.



Particular description of goods.—Leather Belting.

Claims use since Aug. 21, 1916.

Ser. No. 98,175. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) H. C. WHITE CO., North Bennington, Vt. Filed Sept. 22, 1916.

KIDDIE-MOBILE

Particular description of goods.—Children's Vehicles.

Claims use since Aug. 1, 1915.

Ser. No. 98,198. (CLASS 12. CONSTRUCTION MATERIALS.) TOMKINS BROTHERS, Newark, N. J. Filed Sept. 23, 1916.

SX

Particular description of goods.—Fiber Used for Plastering Purposes.

Claims use since Sept. 30, 1915.

Ser. No. 98,252. (CLASS 28. PRINTS AND PUBLICATIONS.) ART METAL CONSTRUCTION CO. INC., Jamestown, N. Y. Filed Sept. 27, 1916.

STEEL FILINGS

Particular description of goods.—A Magazine or Journal Issued Monthly.

Claims use since Sept. 2, 1916.

Ser. No. 98,300. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) IRVING W. RICE & CO., New York, N. Y. Filed Sept. 28, 1916.

Jrices

Particular description of goods.—A Preparation for Cleaning Hats, Shoes, and Clothing.

Claims use since March, 1916.

Ser. No. 98,376. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) STEWART-WARNER SPEEDOMETER CORPORATION, Chicago, Ill. Filed Oct. 2, 1916.

Stewart

The trade-mark is a facsimile of the signature of the first president and founder of this corporation.

Particular description of goods.—Spark-Plugs.

Claims use since Sept. 26, 1916.

Ser. No. 98,420. (CLASS 12. CONSTRUCTION MATERIALS.) JULIAN STRZYCZKOWSKI, New York, N. Y. Filed Oct. 4, 1916.

FERROLINE

Particular description of goods.—A Waterproofing Preparation for Incorporating in Cement, Plaster, Bricks, and Stucco.

Claims use since Mar. 1, 1915.

Ser. No. 98,431. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) YERMOLY DEMIANENKO, New York, N. Y. Filed Oct. 5, 1916.



No claim being made to the words "Voroniej" and "Trade Mark Reg. U. S. Pat. Off."

Particular description of goods.—Accordions.

Claims use since Oct. 1, 1914.

Ser. No. 98,435. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GULFPORT GROCERY CO., Gulfport, Miss. Filed Oct. 5, 1916.



The circle being lined for red.

Particular description of goods.—Cotton-Seed Meal.

Claims use since the 1st day of December, 1914.

Ser. No. 98,436. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KELLOGG TOASTED CORN FLAKE Co., Battle Creek, Mich. Filed Oct. 5, 1916.

Kellogg's

The trade-mark is a facsimile of the surname, in the possessive case, of the president of applicant corporation, whose full name is Will K. Kellogg, in his handwriting.

Particular description of goods.—Candies and Confections.

Claims use since about May 1, 1907.

Ser. No. 98,451. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VALLEY CHEMICAL CO., Elkins, W. Va. Filed Oct. 5, 1916.



Particular description of goods.—Liniments Used in the Treatment of Croup, Chest-Colds, Pneumonia, Bruises, Cuts and Burns, Sore Throat, Diphtheria, Toothache, for Sprains, to Keep Mosquitos Away, Bronchitis, Insect-Bites, and Hives.

Claims use since Mar. 1, 1916.

Ser. No. 98,500. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MOTOR PARTS COMPANY, Philadelphia, Pa. Filed Oct. 7, 1916.

MP

Particular description of goods.—Electrical Conductors or Cables.

Claims use since Oct. 9, 1915.

Ser. No. 98,505. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) UNITED DRUG COMPANY, Boston, Mass. Filed Oct. 7, 1916.

Symbol

Particular description of goods.—Rubber Goods—Namely, Water-Bottles, Syringe-Bags, Ice-Bags, Atomisers, Nipples, Air-Pump Atomizers, Operating-Gloves, Douches, Inhalers; Hard-Rubber Pipes and Soft-Rubber Tubing Peculiarly Adapted to Use with Dental, Medical, and Surgical Appliances; Air-Cushions for Surgical Use, Air and Water Cushions for Invalid Use, Bulb-Syringes, Nasal and Ear Syringes, Breast-Pumps, Nipple-Shields, Invalid-Rings, Face-Bottles, Combination Attachment Sets for Use in Converting a Hot-Water Bottle Into a Fountain-Syringe, Medicine-Droppers, and Baby-Comforters.

Claims use since prior to Aug. 1, 1916.

Ser. No. 98,506. (CLASS 17. TOBACCO PRODUCTS.) WELCHER BROTHERS, New York, N. Y., and Chicago, Ill. Filed Oct. 7, 1916.

CYRO

Particular description of goods.—Cigars.
Claims use since Aug. 1, 1913.

Ser. No. 98,511. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) J. WISE BROWN, Tulsa, Okla. Filed Oct. 9, 1916.

Geco

Particular description of goods.—Beverages, Non-Alcoholic, Sold as a Soft Cola Drink.
Claims use since Aug. 24, 1916.

Ser. No. 98,512. (CLASS 12. CONSTRUCTION MATERIALS.) CENTRAL TIMBER EXPORT CO., INC., New York, N. Y. Filed Oct. 9, 1916.



Particular description of goods.—Lumber.
Claims use since Sept. 1, 1916.

Ser. No. 98,516. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM HEYSER, Baltimore, Md. Filed Oct. 9, 1916. Under ten-year proviso.



Particular description of goods.—Canned Raw Oysters.
Claims use since November, 1891.

Ser. No. 98,517. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM HEYSER, Baltimore, Md. Filed Oct. 9, 1916.



No claim being made for the words "Fancy Tomatoes, Big Brand" and the name "Baltimore" except in connection with the other features of the mark.
Particular description of goods.—Raw Fruits and Vegetables Consisting of Tomatoes, Potatoes, Cucumbers, Cabbage, Peas, Beans, Cantaloups, Apples, Peaches, Plums, Pears, Apricots, and Grapes.
Claims use since July, 1904.

Ser. No. 98,539. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES HAHN, Ithaca, N. Y. Filed Oct. 10, 1916.

GASO-BETTA

Particular description of goods.—A Chemical Compound in Powdered, Tablet, or Liquid Form Used as a Gasolene-Intensifier and Carbon-Preventive.
Claims use since Sept. 7, 1916.

Ser. No. 98,547. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WILLIAMS M'F'G CO., Santa Ana, Cal. Filed Oct. 10, 1916.

SILVER BEAM

Particular description of goods.—Electric Search-Lights.
Claims use since Jan. 1, 1915.

Ser. No. 98,550. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J., and New York, N. Y. Filed Oct. 11, 1916.

Dixiano

Particular description of goods.—Sugar for Use as a Food.
Claims use since Oct. 7, 1916.

Ser. No. 98,552. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J., and New York, N. Y. Filed Oct. 11, 1916.

Paragon

Particular description of goods.—Sugar for Use as a Food.
Claims use since Oct. 7, 1916.

Ser. No. 98,569. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEWIS, MEARS COMPANY, Boston, Mass. Filed Oct. 11, 1916.

Lemco

Particular description of goods.—Butter, Cheese, and Eggs.
Claims use since Sept. 1, 1916.

Ser. No. 98,601. (CLASS 38. PRINTS AND PUBLICATIONS.) THE MOTOR PRINT COMPANY, New York, N. Y. Filed Oct. 12, 1916.

MOTOR LIFE
INCLUDING MOTOR PRINT

Particular description of goods.—A Monthly Publication.
Claims use since about the latter part of the year 1906.

Ser. No. 98,661. (CLASS 47. WINES.) FRED KALINA, Pittsburgh, Pa. Filed Oct. 14, 1916.

Sweet Peggy

Applicant disclaims the word "Sweet" apart from the word "Peggy."
Particular description of goods.—Wine.
Claims use since June 22, 1916.

Ser. No. 98,668. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE E. L. PATCH CO., Boston, Mass. Filed Oct. 14, 1916.

HAMELOIDS

The word "Hameloids."
Particular description of goods.—Suppositories for the Relief of Hemorrhoids.
Claims use since Aug. 10, 1916.

Ser. No. 98,671. (CLASS 38. PRINTS AND PUBLICATIONS.) BRAD STEPHENS & CO., Boston, Mass. Filed Oct. 14, 1916.

Direct Advertising

"Direct Advertising."
Particular description of goods.—A Publication Issued Quarterly.
Claims use since June, 1912.

Ser. No. 98,676. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THEO. HAMM BREWING COMPANY, St. Paul, Minn. Filed Oct. 14, 1916.

Excelso

Particular description of goods.—A Non-Alcoholic Cereal Beverage Put Up in Bottles and in Kegs.
Claims use since Jan. 1, 1916.

Ser. No. 98,683. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHAMPION IGNITION CO., Flint, Mich. Filed Oct. 16, 1916.

AC

Particular description of goods.—Spark-Plugs and Spark-Plug Porcelains.
Claims use since 1912.

Ser. No. 98,694. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HORLICK'S MALTED MILK COMPANY, Racine, Wis. Filed Oct. 16, 1916.

COMIL

Particular description of goods.—Food Beverages.
Claims use since Oct. 6, 1916.

Ser. No. 98,756. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RICE BROS., Philadelphia, Pa. Filed Oct. 18, 1916.

SHILLALAH

Particular description of goods.—Tea.
Claims use since Sept. 7, 1916.

Ser. No. 98,793. (CLASS 39. CLOTHING.) JOHN WANAMAKER, PHILADELPHIA, Philadelphia, Pa. Filed Oct. 20, 1916.

Down Stairs and Down Price Store

Particular description of goods.—Clothing for Men's, Women's, Misses', Children's, and Infants' Wear—viz., Overcoats; Suits; Dresses; Coats; Skirts; Knitted and Muslin Underwear; Shirts; Hosiery; Leather, Rubber, and Canvas Shoes; Gloves; Hats; Caps; Bonnets and Bonnet-Frames; Shirt-Waists; Negligées; Wrappers; Tea-Gowns; Undermuslins; Lingerie; Petticoats; Corsets; Collars and Cuffs.
Claims use since about Oct. 9, 1916.

Ser. No. 98,803. (CLASS 39. CLOTHING.) JOSEPH ECKSTEIN, New York, N. Y. Filed Oct. 21, 1916.

Shadow Lawn

Particular description of goods.—Ladies', Misses', and Children's Suits, Consisting of Skirts and Jackets, Coats, Waists, Dresses, and Skirts.
Claims use since Oct. 10, 1916.

Ser. No. 98,842. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JAMES O'CONNOR, New York, N. Y. Filed Oct. 23, 1916.

No-drk

Particular description of goods.—Electric Lamps.
Claims use since Oct. 18, 1916.

Ser. No. 98,850. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SAMSTAG & HILDER BROS., New York, N. Y. Filed Oct. 23, 1916.

Fashionette

Particular description of goods.—Hair-Nets.
Claims use since Oct. 13, 1916.

Ser. No. 98,860. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HUNTER MFG. & COM. CO., New York, N. Y. Filed Oct. 24, 1916.

Explorador

Comprising the word "Explorador."
Particular description of goods.—Cotton Piece Goods.
Claims use since Oct. 10, 1916.

Ser. No. 98,869. (CLASS 48. MALT EXTRACTS AND LIQUORS.) ANHEUSER-BUSCH BREWING ASSOCIATION, St. Louis, Mo. Filed Oct. 25, 1916.



Particular description of goods.—A Non-Intoxicating Malt Beverage.
Claims use since Apr. 25, 1916.

Ser. No. 98,871. (CLASS 15. OILS AND GREASES.) AUGUSTUS CRANE BUZBY, Philadelphia, Pa. Filed Oct. 25, 1916.

KEYSTONE

Particular description of goods.—Lubricants Consisting of Oils and Greases.
Claims use since Oct. 2, 1916.

Ser. No. 98,892. (CLASS 2. RECEPTACLES.) WIREBOUNDS CORPORATION, Portland, Me., and Chicago, Ill. Filed Oct. 25, 1916.

-4-ONE-

Particular description of goods.—Boxes and Packing-Cases.
Claims use since Oct. 17, 1916.

Ser. No. 98,928. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JULIUS A. MIGEL, New York, N. Y. Filed Oct. 27, 1916.

GOLDEN-GLO

Particular description of goods.—Broad Silk in the Piece.
Claims use since Sept. 14, 1916.

Ser. No. 99,008. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HARDWICK & MAGEE CO., Philadelphia, Pa. Filed Oct. 31, 1916.



No claim being made to the words "Wilton Rug" apart from the mark shown in the drawing.
Particular description of goods.—Carpets and Rugs.
Claims use since about Oct. 10, 1916.

TRADE-MARK REGISTRATIONS GRANTED

NOVEMBER 28, 1916.

114,084. DRIED FRUITS, RAISINS, AND CANNED FRUITS. The J. K. Armsby Co., San Francisco, Cal.
Filed August 14, 1916. Serial No. 97,323. PUBLISHED SEPTEMBER 19, 1916.

114,085. SOLID CAKES OF COLORING-MATTER USED FOR STENCILING OR PRINTING BY MEANS OF STENCILS. Arthur J. Bendick, New York, N. Y.
Filed August 28, 1915. Serial No. 88,850. PUBLISHED SEPTEMBER 19, 1916.

114,086. BEER. Burkhardt Brewing Company, Boston, Mass.
Filed August 28, 1916. Serial No. 97,656. PUBLISHED SEPTEMBER 26, 1916.

114,087. CERTAIN NAMED FOODS. Campbell Holton & Co., Bloomington, Ill.
Filed August 15, 1914. Serial No. 80,581. PUBLISHED FEBRUARY 23, 1915.

114,088. REMEDY FOR RHEUMATISM BY EXTERNAL USE. Pasquale R. Capuozzo, Hoboken, N. J.
Filed July 17, 1916. Serial No. 96,622. PUBLISHED SEPTEMBER 19, 1916.

114,089. ANTIPYRETIC AND ANTIPHLOGISTIC PHARMACEUTICAL PREPARATIONS. The Eli Lilly and Company, Indianapolis, Ind.
Filed August 14, 1916. Serial No. 97,331. PUBLISHED SEPTEMBER 12, 1916.

114,090. URIC-ACID SOLVENT. C. B. Fleet Company, Lynchburg, Va.
Filed July 26, 1916. Serial No. 96,867. PUBLISHED SEPTEMBER 19, 1916.

114,091. DYES FOR DYEING FABRICS. Flower City Dye Co., Rochester, N. Y.
Filed July 15, 1916. Serial No. 96,682. PUBLISHED SEPTEMBER 19, 1916.

114,092. MEDICINE, (BLOOD-TONIC.) Ruggiero Fragali, Cliffside, N. J.
Filed July 7, 1916. Serial No. 96,402. PUBLISHED SEPTEMBER 19, 1916.

114,093. HOSIERY. M. A. Friedman & Bro., New York, N. Y.
Filed November 17, 1914. Serial No. 82,642. PUBLISHED DECEMBER 21, 1915.

114,094. CERTAIN NAMED PUMPS, COMBINED TANK AND PUMP OUTFITS FOR HANDLING OILS. Gilbert & Barker Mfg. Co., West Springfield, Mass.
Filed July 3, 1916. Serial No. 96,293. PUBLISHED SEPTEMBER 26, 1916.

114,095. CHAMPAGNE. Louis M. Goldberg, New York, N. Y.
Filed May 20, 1916. Serial No. 95,302. PUBLISHED SEPTEMBER 26, 1916.

114,096. RELIEF FOR TIRED FEET. Homer E. Guffin, Thomas, Okla.
Filed April 12, 1916. Serial No. 94,369. PUBLISHED SEPTEMBER 19, 1916.

114,097. BEARD-SOFTENER IN PASTE FORM. A. J. Krank Manufacturing Company, St. Paul, Minn.
Filed February 7, 1916. Serial No. 92,689. PUBLISHED SEPTEMBER 19, 1916.

114,098. BUTTONS TO BE WORN IN THE CUFFS OF SHIRTS. Larter & Sons, New York, N. Y., and Newark, N. J.
Filed July 21, 1916. Serial No. 96,715. PUBLISHED SEPTEMBER 19, 1916.

114,099. LOOSE-LEAF BINDERS. The Loopost Binder Co., Los Angeles, Cal.
Filed June 30, 1916. Serial No. 96,254. PUBLISHED SEPTEMBER 19, 1916.

114,100. STILL WATER, CHARGED OR SPARKLING TABLE-WATER, AND GINGER-CHAMPAGNE, A NON-ALCOHOLIC BEVERAGE. The Manitou Mineral Water Company, Manitou, Colo.
Filed January 6, 1916. Serial No. 91,970. PUBLISHED SEPTEMBER 26, 1916.

114,101. CERTAIN NON-ALCOHOLIC BEVERAGE. The Manitou Mineral Water Company, Manitou, Colo.
Filed January 6, 1916. Serial No. 91,971. PUBLISHED SEPTEMBER 26, 1916.

114,102. GINGER-CHAMPAGNE, A NON-ALCOHOLIC BEVERAGE. The Manitou Mineral Water Company, Manitou, Colo.
Filed January 6, 1916. Serial No. 91,972. PUBLISHED SEPTEMBER 26, 1916.

114,103. TALKING-MACHINES. The Meyercord Company, Chicago, Ill., assignor to The Vista Phonograph Corporation, a Corporation of Illinois.
Filed June 19, 1916. Serial No. 95,975. PUBLISHED SEPTEMBER 19, 1916.

114,104. MALT NON-INTOXICATING BEVERAGE. The Monumental Brewing Co., Baltimore, Md.
Filed August 23, 1916. Serial No. 97,585. PUBLISHED SEPTEMBER 26, 1916.

114,105. RAT-EXTERMINATOR. Morisrite Mfg. Co., Bloomfield, N. J.
Filed February 25, 1916. Serial No. 93,105. PUBLISHED SEPTEMBER 19, 1916.

114,106. HAND-OPERATED VACUUM-CLEANERS. Mueneen Specialty Co. Inc., New York, N. Y.
Filed July 26, 1916. Serial No. 96,875. PUBLISHED SEPTEMBER 26, 1916.

114,107. APPLE-JUICE, GINGER-ALE, ORANGE-JUICE, LEMON-JUICE, AND GRAPE-FRUIT JUICE. National Fruit Juice Co., La Fayette, Ind.
Filed September 1, 1916. Serial No. 97,757. PUBLISHED SEPTEMBER 26, 1916.

114,108. TOILET-PAPER. National Paper Products Company, San Francisco, Cal., and Carthage, N. Y.
Filed August 8, 1916. Serial No. 97,170. PUBLISHED SEPTEMBER 19, 1916.

114,109. BEER. Old Dutch Brew Company, San Francisco, Cal.
Filed March 20, 1916. Serial No. 93,723. PUBLISHED SEPTEMBER 26, 1916.

114,110. UNDERSHIRTS AND DRAWERS OF KNITTED AND TEXTILE FABRICS. David H. Posner, Boston, Mass.
Filed June 26, 1916. Serial No. 96,161. PUBLISHED SEPTEMBER 26, 1916.

114,111. CLEANING FLUID. Postel Stain-Extracting Corporation, New York, N. Y.
Filed June 20, 1916. Serial No. 96,011. PUBLISHED SEPTEMBER 19, 1916.

114,112. COATS, TROUSERS, VESTS, AND OUTER OR OVER COATS. Ed. V. Price & Company, Chicago, Ill.
Filed August 27, 1906. Serial No. 21,769. PUBLISHED MAY 16, 1916.

114,113. LUBRICATING-OILS. PURE OIL COMPANY, Philadelphia, Pa.
Filed August 7, 1916. Serial No. 97,145. PUBLISHED SEPTEMBER 26, 1916.

114,114. BELTS FOR PERSONAL WEAR, SUSPENDERS, GARTERS, NECKWEAR IN THE NATURE OF NECKTIES AND NECKSCARFS. ROBERT REIS & Co., New York, N. Y.
Filed July 22, 1916. Serial No. 96,761. PUBLISHED SEPTEMBER 19, 1916.

114,115. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed June 10, 1916. Serial No. 95,801. PUBLISHED SEPTEMBER 19, 1916.

114,116. WHEAT-FLOUR. THE SCOTT COUNTY MILLING COMPANY, Sikeston, Mo.
Filed July 22, 1915. Serial No. 88,127. PUBLISHED SEPTEMBER 5, 1916.

114,117. PREPARATION FOR TREATING CERTAIN NAMED AILMENTS AND DISEASES. HERMAN SEIDENFELD, Murray City, Ohio.
Filed December 11, 1915. Serial No. 91,404. PUBLISHED SEPTEMBER 19, 1916.

114,118. MEDICINAL PREPARATION FOR TREATMENT OF MALARIA, CHILLS, AND FEVER. ARTHUR H. SMITH, Sumner, Miss.
Filed July 3, 1916. Serial No. 96,305. PUBLISHED SEPTEMBER 19, 1916.

114,119. NON-ALCOHOLIC CARBONATED TONIC BEVERAGE AND SYRUP FOR MAKING THE SAME. NOEL SMITH, Atlanta, Ga.
Filed August 17, 1916. Serial No. 97,414. PUBLISHED SEPTEMBER 26, 1916.

114,120. LIQUID HEALING AND ANTISEPTIC DRESSING. PRESCOTT L. STEADMAN, Denver, Colo.
Filed February 19, 1915. Serial No. 84,643. PUBLISHED SEPTEMBER 19, 1916.

114,121. LIQUID LEATHER-RESTORATIVE COMPOSITIONS. TANDOP MANUFACTURING COMPANY, Rochester, N. Y.
Filed July 1, 1916. Serial No. 96,281. PUBLISHED SEPTEMBER 19, 1916.

114,122. DRY BATTERIES. THE UNITED STATES GRAPHITE CO., Saginaw, Mich.
Filed August 7, 1916. Serial No. 97,152. PUBLISHED SEPTEMBER 26, 1916.

114,123. SNAP-BUTTONS USED AS GARMENT-FASTENERS. WALDES & Co., Prague-Wrschowitz, Austria-Hungary.
Filed August 4, 1916. Serial No. 97,103. PUBLISHED SEPTEMBER 19, 1916.

114,124. SNAP-BUTTONS USED AS GARMENT-FASTENERS. WALDES & Co., Prague-Wrschowitz, Austria-Hungary.
Filed August 4, 1916. Serial No. 97,104. PUBLISHED SEPTEMBER 19, 1916.

114,125. PAPER TOWELS OR PAPER SUITABLE FOR USE AS TOWELS. WEST DISINFECTING COMPANY, New York, N. Y.
Filed July 24, 1916. Serial No. 96,807. PUBLISHED SEPTEMBER 19, 1916.

114,126. PAPER TOWELS OR PAPER SUITABLE FOR USE AS TOWELS. WEST DISINFECTING COMPANY, New York, N. Y.
Filed July 24, 1916. Serial No. 96,808. PUBLISHED SEPTEMBER 19; 1916.

114,127. CARBONATED SOFT DRINKS AND SYRUP THEREFOR. WILBRAHAM SPRINGS COMPANY, Springfield, Mass.
Filed August 26, 1916. Serial No. 97,654. PUBLISHED SEPTEMBER 26, 1916.

TRADE-MARK REGISTRATIONS CANCELED.

23,485. A WASHING FLUID. ALLEN S. RAND and GEORGE BELL, Cincinnati, Ohio, and Peoria, Ill.
Registered August 15, 1893. Canceled October 6, 1916.

107,564. ENGINE-STARTERS OTHER THAN ELECTRICAL. THE STANDARD STARTER & SPECIALTY COMPANY, Cleveland, Ohio.
Registered December 7, 1915. Canceled November 1, 1916.

TRADE-MARK REGISTRATIONS RENEWED.

14,048. PRESERVATIVE LIQUIDS. AVENARIUS BROTHERS, Gaualgesheim, Germany.
Registered February 8, 1887. Renewed February 8, 1917.

LABELS

REGISTERED NOVEMBER 28, 1916.

19,750.—*Title:* "BEECH-NUT BRAND CLOVES." (For Clove-Flavored Candies and Confections.) BEECH-NUT PACKING COMPANY, Canajoharie, N. Y. Filed August 10, 1916.

19,751.—*Title:* "HERB-TONE." (For Medicine.) A. L. BISSELL, Baltimore, Md. Filed November 10, 1916.

19,752.—*Title:* "ARCADIA FARM PRODUCTS." (For Preserved Fruits and Vegetables.) KIRGAN BROTHERS, Amelia, Ohio. Filed November 13, 1916.

19,753.—*Title:* "COLORADO SUNSHINE." (For Butter.) BRUSH CO-OPERATIVE CREAMERY COMPANY, Brush, Colo. Filed November 16, 1916.

19,754.—*Title:* "THE 'CROSS' CRAYON." (For Soft Wax Crayon.) ANSON KENT CROSS, Ashland, Mass. Filed December 13, 1915.

19,755.—*Title:* "O-CEDAR CLOTH DUSTER COLLECTS AND HOLDS THE DUST." (For O-Cedar Dust-Cloths.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed November 13, 1916.

19,756.—*Title:* "AMERICAN MINTS UNCLE SAM'S CHOICE CONFECTION." (For Mint Tablets.) HARRY RUTHVEN CROWLEY, Philadelphia, Pa. Filed November 15, 1916.

19,757.—*Title:* "AMERICAN CLOVES UNCLE SAM'S CHOICE CONFECTION." (For Clove Tablets.) HARRY RUTHVEN CROWLEY, Philadelphia, Pa. Filed November 15, 1916.

19,758.—*Title:* "AMERICAN WINTERGREEN UNCLE SAM'S CHOICE CONFECTION. (For Wintergreen Tablets.) HARRY RUTHVEN CROWLEY, Philadelphia, Pa. Filed November 15, 1916.

19,759.—*Title:* "OLD ENGLISH." (For Polish for Furniture.) FREDERICK DARVILL, South Berwick, Me. Filed October 19, 1916.

19,760.—*Title:* "NATRIUM COMPOUND (HIGH TENSION, DR. M. C. THRUSH)." (For Pulvoids (Pulverous Tablets) Representing a Compound of Potassium Nitrate, Sodium Nitrite, Sodium Bicarbonate, Nitroglycerin, and Fluid Extract Crataegus Oxyacantha.) THE DRUG PRODUCTS CO., INC., New York, N. Y. Filed November 15, 1916.

19,761.—*Title:* "HADDAD'S FRECKLE CREAM." (For Freckle-Cream. FRED J. HADDAD, San Francisco, Cal. Filed November 16, 1916.

19,762.—*Title:* "MOROSA." (For Cigars.) J. I. MIGLIORRS & Co., St. Louis, Mo. Filed October 2, 1916.

19,763.—*Title:* "SOCIÉTÉ." (For Confectionery.) IMPERIAL CANDY CO., Seattle, Wash. Filed November 10, 1916.

19,764.—*Title:* "THORO—THE DRY CLEANER." (For a Cleaning Preparation.) THE THORO PRODUCTS COMPANY, Denver, Colo. Filed September 29, 1916.

19,765.—*Title:* "IDEAL." (For Ceramic Paint.) FRED L. SLEEPER, Chicago, Ill. Filed November 9, 1916.

19,766.—*Title:* "SODISCO BRAND THREE FIFTY." (For Whisky.) SOUTHERN DISTILLING CO., Baltimore, Md. Filed November 7, 1916.

19,767.—*Title:* "OSTER BOCK." (For Beer.) PIEL BROS., Brooklyn, N. Y. Filed May 2, 1916.

PRINTS

REGISTERED NOVEMBER 28, 1916.

4,570.—*Title:* "CAMPBELL'S VARNISH STAIN." (For Campbell's Varnish-Stain.) CARPENTER-MORTON CO., Boston, Mass. Filed November 11, 1916.

4,571.—*Title:* "CAMPBELL'S VARNISH STAIN." (For Campbell's Varnish-Stain.) CARPENTER-MORTON CO., Boston, Mass. Filed November 11, 1916.

4,572.—*Title:* "CAMPBELL'S VARNISH STAIN." (For Campbell's Varnish-Stain.) CARPENTER-MORTON CO., Boston, Mass. Filed November 11, 1916.

4,573.—*Title:* "CAMPBELL'S VIRGIN WHITE." (For Campbell's Virgin White.) CARPENTER-MORTON CO., Boston, Mass. Filed November 11, 1916.

4,574.—*Title:* "CAMPBELL'S VARNISH STAIN." (For Varnish-Stain.) CARPENTER-MORTON CO., Boston, Mass. Filed November 11, 1916.

4,575.—*Title:* "NEW BEAUTIES." (For O-Cedar Polish.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed November 13, 1916.

4,576.—*Title:* "GORDON SEAT COVERINGS TAILORED TO FIT. TIRE COVERS." (For Seat-Covers and Tire-Covers.) THE J. P. GORDON COMPANY, Columbus, Ohio. Filed October 20, 1916.

4,577.—*Title:* "WORTH SMACKING YOUR LIPS OVER." (For Confectionery.) NORRIS, INC., Atlanta, Ga. Filed July 28, 1916.

4,578.—*Title:* "HEMLOCK." (For Hemlock.) THE NORTHERN HEMLOCK AND HARDWOOD MANUFACTURERS' ASSOCIATION, Oshkosh, Wis. Filed November 13, 1916.

4,579.—*Title:* "BIRCH." (For Birch.) THE NORTHERN HEMLOCK AND HARDWOOD MANUFACTURERS' ASSOCIATION, Oshkosh, Wis. Filed November 13, 1916.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

SIMPLEX ELECTRIC HEATING COMPANY *v.* THE RAMEY COMPANY.

Decided November 4, 1916.

1. TRADE-MARKS—REGISTRABILITY—NAME OF A CORPORATION.

The word "Simplex" as a trade-mark for electric vacuum-cleaners *Held* not barred from registration by reason of its similarity to the name of the Simplex Electric Heating Company. (*Burrell and Co.* v. *Simplex Electric Heating Co.*, 225 O. G., 737, discussed and distinguished.)

2. SAME—SAME—SIMILARITY OF GOODS.

"Simplex" as applied to electric vacuum-cleaners *Held* not deceptively similar to "Simplex Quality" as applied to heating resistances, coffee-pots, cooking utensils, etc.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR ELECTRIC VACUUM CLEANERS AND SWEEPERS.

Messrs. Heard, Smith & Tennant for Simplex Electric Heating Company.

Mr. Chester C. Shepherd and *Mr. Walter E. L. Bock* for The Ramey Company.

CLAY, *Assistant Commissioner:*

The applicant for registry of a trade-mark, The Ramey Company, appeals from the ruling of the Examiner of Interferences in an opposition proceeding sustaining the opposition and refusing registry of the word "Simplex" as a trade-mark for electric vacuum-cleaners on the grounds (1) that the mark consists merely in the name of a corporation—to wit, the opposer, Simplex Electric Heating Company—not distinctively displayed and (2) that it deceptively resembles a mark registered by and in previous use by the opposer on "merchandise of the same descriptive properties." Aside from a general assignment of error for refusal of registry there is also the assignment that the Examiner refused to take notice of certain Patent Office records for lack of proper notice to rely on them.

For decision of the second ground of rejection especially a review of the facts and a careful construction of the law seem necessary.

1. The Ramey Company, a corporation of Ohio, applied on February 20, 1915, for registry of its trade-mark, consisting of the word "Simplex," for vacuum cleaners and sweepers, in Class 23, alleging the use of said mark since August 1, 1913. The classification of goods was required to be changed because the applicant's particular vacuum cleaners and sweepers were electric vacuum cleaners and sweepers, and without this the mark as offered was refused registry on Certificate No. 90,715, of Kendall & Son, for the word "Pneu-Simplex," for vacuum-cleaners. The applicant thereupon specified electric vacuum cleaners and sweepers in Class 21, Electrical apparatus, instead of in Class 23, Cutlery, machinery, etc. Registry being thereupon allowed, opposition to registry was filed on June 29, 1915, by the Simplex Electric Heating Company, a corporation of Massachusetts, on the grounds above mentioned.

2. The parties both took proofs, from which the following facts appeared:

(*a*) That a firm in Boston called The Simplex Electrical Company, A. F. Mason, manager, on October 28, 1890, registered the trade-mark "Simplex" for insulated wire, (Certificate No. 18,552.)

(*b*) That the Simplex Electrical Company was incorporated in Massachusetts March 16, 1895, by five persons named Morss, to manufacture and deal in wire and machinery for electrical purposes, lead, rubber, etc., (Exhibit 1,) and that on July 14, 1902, five persons, including three of the incorporators of the previously-incorporated company, also incorporated the Simplex Electric Heating Company to manufacture and deal in appliances for electric heating and in wire, metal, rubber, etc., (Exhibit 3,) and that on January 21, 1913, The Simplex Electrical Company changed its name to The Simplex Wire and Cable Company, (Exhibit 2.) (There is no sufficient proof that the opposer owns the good-will of the business of the original firm or the right to its trade-mark, there being no assignment or other written evidence of record and the oral proof being the bare and uncertain testimony of one not a party to the transfer.)

(*c*) That on September 11, 1906, the opposer, the Simplex Electric Heating Company, registered the words "Simplex Quality" (Certificate No. 56,315) as a trade-mark for various heating and other resistance devices, claiming use since January 1,

1905. Also on the same date it registered a device with these two words, together with a bracket and monogram, for the same goods, (Certificate No. 56,316,) alleging use since August 21, 1905. Also on September 18, 1906, it registered the same mark as this last (Certificate No. 56,383) for various coffee-pots, cooking utensils, etc., apparently not heated by electric resistances, and alleging use since August 21, 1905.

(*d*) It is alleged that the opposer's business of making resistance-heaters has expanded in some directions; but its latest catalogue of 1914 (Exhibit 8) fails to remotely suggest any goods except heaters and the accessories of heaters. The plug-switches, for example, are said to be a convenience "for electric heating apparatus." The catalogue is entitled "Electric Heating," which is, in fact, the name of the company. Witnesses Morss and Ayer testify that the business may in time include other things, and they "may wish to add" even electric vacuum-cleaners, which they say "is not at all an unreasonable addition to the line;" but the reason given for this prospect is quite illogical, being merely that such goods are operated by taking current from a lamp-socket in the house. This criterion clearly would also include electric lamps, mechanical toys, fans, sewing-machine motors, washing-machines, freezers, churns, and in short all small portable electrical apparatus whatsoever.

(*e*) It appears that various persons have supposed that vacuum-cleaners called "Simplex" were made by the opposer; but there is no evidence of any such mistake by one who took the trouble to look at the mark on the goods. It would not be evidence of confusion even if one *not noticing the mark* had bought the wrong goods by mistake. (*Shull-Day Co.* v. *Levy*, 229 O. G., 1574; — App. D. C., —, May 29, 1916.) A great many people continually are getting other people's mail because they have common names. It is the natural consequence of having a common name.

(*f*) There is no evidence of any damage to the opposer by reason of confusion of the marks. The opposer never made or proposed to make any vacuum-cleaners or any like goods, and it could not be injured by mere use generally of a word which it uses specifically, because that word is a common descriptive word, is part of the name of many other companies, and had long been used as a trade-mark before this corporation came into being.

(*g*) There are shown (Ramey record, pp. 18 to 22) sixty registrations of the word "Simplex" as a trade-mark, seven being registered prior to the incorporation of the opposer on July 14, 1902, one prior to the incorporation of the Simplex Electrical Company on March 16, 1895, and eleven prior to the first use alleged by either of the corporations—*i. e.*, January 1, 1905. Among these registrants there are uses claimed as far back as the year 1859 (Chadwick, No. 56,842) and uses by other companies *whose corporate name* includes "*Simplex*" prior to either use or incorporation of the opposer. (Simplex Railway Appliance Co., Certificate No. 81,752, use since 1897; Simplex Piano Player Co., Certificate No. 56,053, use since 1900.)

3. There are registrations of the word "Simplex" as a trade-mark for electrically-operated goods, such as lamps (No. 66,219) and moving-picture apparatus, (No. 88,633,) and also for vacuum-cleaners, (No. 90,715.) Since the opposer has existed there has been a continuously-swelling stream of registrations of the word for various goods. Not a year has passed without several of them. The applicant raises the question of estoppel by the opposer's fourteen years of silence in the presence of this widespread invasion of what it now claims as its rights. (*Rectanus* v. *United Drug Co.*, 226 Fed. Rep., 545.)

Estoppel being a doctrine against inconsistent conduct, it is also noteworthy that when the opposer registered its own trade-mark it must have done so with the distinct understanding that its mark did not consist merely in its corporate name, for the law as it existed in 1906 did not permit of registry of its name, according to the well-known rulings of the court. (*In re Success Co.*, 152 O. G., 958; 34 App. D. C., 443.)

The records of this Office show that the mark was specific and the goods specific.

4. The opponent upon filing its application for registry, No. 66,315, stated that the mark consisted of the two opposite arms of a Maltese cross, intersected by a rhombus, and the words "Simplex Quality" and the monogram "SEH Co." and that the class of merchandise to which the trade-mark was appropriated was articles for the control of electric currents by means of resistance, naming as particular goods a list of resistance controls. A more definite class of merchandise having been required, the Examiner noted that the original specimens related only to enameled rheostats and called for a revision, and the certificates as finally granted mentioned forty-two forms of heating devices and eight forms of electric resistances. It also erased from the drawing all except the words "Simplex Quality."

In the application for Certificate No. 56,316, made at the same time, there was mentioned originally the same forty-two forms of heaters and eight forms of rheostats. The Examiner objected to two registries for the same purpose and noted that the specimens showed the use of the mark only on electric curling-iron heaters.

In the application for registry of Certificate No. 56,383, which has the identical mark as in No. 56,316, the applicant enumerates some twenty-two cooking and heating vessels, such as teapots and water-heaters, glue-pots, etc. Division was required to get a particular description of goods all in the same class, Metal manufacturing, Class 13.

5. No references were cited against any of these registries, nor did any opposition develop, notwithstanding they had been preceded by some twelve or fifteen registrations of the word "Simplex." Apparently the reason for this is that the word "Simplex" was not considered to be the exclusive property of anybody, even as a trade-mark. It is

a fact that the word "Simplex" has been in such wide and varied use in this country not only as a trade-mark but as part of a firm or corporation name that everybody has heretofore considered something more than the word "Simplex" necessary to identify a corporation. An inspection of the directories of some sixteen of the larger cities of the country makes this clear. It shows over three score of such names without repetition, and in New York alone over twenty. A selected list is appended below.* Among others the Simplex Gas Machine Co. of New York was incorporated October 16, 1884; the Simplex Manufacturing Co. of New York, October 14, 1890; The Simplex Dairy Co. of West Virginia February 5, 1896, and The Simplex Railway Appliance Co. of Illinois July 30, 1897. (Record of *Burrell* v. *Simplex Electric Heating Co.*, 225 O. G., 737, p. 11; opposition file 1453.) All these and others preceded the existence of the opposer herein.

6. Whether or not in view of this fact and of the list below it could reasonably be said that the mark "Simplex" consists merely in the name of that corporation in Massachusetts known as the Simplex Electric Heating Company it is at least clear that one who uses "Simplex" as a mark for a vacuum-cleaner does not use a mark which consists merely in the name of that corporation on goods of the same descriptive properties as the goods to which that corporation has applied the mark—namely, electrical heating devices. It is in effect urged by the opposer that the Commissioner in exercising the limited authority given him by section 5 of the law to refuse registration on certain specific grounds should construe the law so as not only to read out of it the word "*merely*" and not only to virtually insert after the word "*consists*" the words "in part of," but in addition to this rule that as a matter of fact heaters are the same description of goods as vacuum-sweepers merely because both devices are operated by electricity taken from a lamp-socket in the house. On this point of the name incidentally this Office is asked now to rule, in refusing registry to the applicant, exactly what it ruled against in granting registry to the opposer, for the word "Simplex" in 1906 could not have been registered unless on the supposition that it was *not* the name of the applicant, the Simplex Electric Heating Company.

7. Not only the desire to use the term, but the wide use of the word "Simplex" both as a trade-mark and as the name of a corporation, is easily explained by considering the meaning of the word. It is a common English word which has been in use for over thirty-five years and used in connection with electrical apparatus ever since the use of simplex, duplex, triplex, and quadruplex telegraph. One of the witnesses for The Ramey Company says at page 50, answer 41:

> The word "Simplex" to my mind and interpretation means something that is constructed very simply.

A reference to dictionaries shows this exact word "Simplex" to be an ordinary English word directly adopted from the Latin, just as we have adopted "duplex," meaning double, and "triplex," meaning triple. It appears in *Ogilvie's Imperial Dictionary*, published in London in 1882, with the meaning of simple or single; also in *Cassell's Encyclopædic Dictionary*, New York, 1887, and in the *Standard Dictionary*, 1895.

8. The ground of rejection that the applicant's mark deceptively resembles the mark registered by and in previous use by the opposer on merchandise of the same descriptive properties is unsound and is disapproved. This for the double reason that the word "Simplex," standing alone, is in such common use that it is incapable of identifying any goods without further reference to them and on the ground that the goods of the opposer are not of the same descriptive properties as the goods of the applicant.

9. On the other ground of rejection—namely, that the mark consists merely in the name of the Simplex Electric Heating Company—it will be obvious from the foregoing discussion that if the word "Simplex" is the name of a previously-existing corporation it is not any more the name of the previously-existing Simplex Electric Heating Company, incorporated in 1902, than it is the name of the previously-existing Simplex Gas Machine Co., of 1884, or Simplex Manufacturing Co., of 1890, or Simplex Dairy Co., of 1896, or Simplex Railway Appliance Co., of 1897, etc.—that is, the word "Simplex" does not identify any corporation in particular, for the simple reason that it is equally the name of various corporations. In short, if one referred to "the company Simplex," without anything else, it would not be known to what he was referring. This fact is here stated as one of the reasons for concluding that there has been and can be no confusion of the mark of the registrant and name of the opposer which is anything other than the inevitable consequence of the opposer's having chosen as a part of its name a word already in common use as a name and trade-mark. One may not have immunity from all interference in the use of his name when he has deliberately chosen as his name a name which is common property.

10. The opposer urges that the decision of the Commissioner and the court in the case of *Burrell & Co.* v. *Simplex Electric Heating Co.* (225 O. G., 737) conclusively decides the first ground of opposition and is binding in the present case. It is true

* Simplex Arms Mfg. Co., Denver; Simplex Window Co., San Francisco; Simplex Lubricating Co., Boston; Simplex Wire & Cable Co., Boston; Simplex Auto Specialty Co., Detroit; Simplex Concrete Piling Co., Cincinnati; Simplex Machine Co., Atlanta; Simplex Excreting Co., Philadelphia; Simplex Valve & Meter Co., Philadelphia; Simplex Floor Surfacing Co., Baltimore; Simplex Railway Appliance Co., St. Louis; Simplex Air Brake & Mfg. Co., Pittsburgh; Simplex Button Works, New York; Simplex Fire Extinguisher Co., New York; Simplex Golf Practice Machine Corporation, New York; Simplex Ink Co., New York; Simplex Letter Opener Co., New York; Simplex Typewriter Co., New York; Simplex Refrigerating Machine Co., Chicago; Simplex Sand Blast Manufacturing Co., Chicago.

that a clear distinction between the present case and the Burrell case is not obvious; but I think there are distinctions and reasons sufficient to justify me in following what it will be obvious from the foregoing discussion is my own unavoidable conviction—that the particular facts of this case are such that the proffered trade-mark cannot be held to consist merely in the name of the corporation. In the Burrell case, when it was before the Patent Office, Acting Commissioner Newton ruled on several points which were not reviewed by the court in sustaining his general conclusion. In his decision at 117 MS. Dec. (p. 344) he said, in effect, that there might be a question of estoppel against the Heating Company setting up in this second interference the ground of opposition that the applicant used opposer's corporate name, because the opposer had not raised that objection in the first interference, where it could as well have been raised. He mentioned this point only as bearing on the equities respecting the question of estoppel against the applicant itself claiming a modified registry of the mark after the matter had once been decided. He held that the Burrell Company was not estopped, and it is this particular point that the court afterward discussed most and reversed in reviewing the case.

Acting Commissioner Newton next discussed the question of damage and cited the Asbestone case (*Asbestone, Company* v. *Carey*, 41 App. D. C., 507; 200 O. G., 857) to show that damage would be presumed where the applicant sought to register the opposer's name. He remarked that—

> the decision in the Asbestone case seems to be based on the theory that registration of corporate names being prohibited by the statute *because of the common law right of a corporation* to the exclusive use of its name, therefore, the court held:—"it is sufficient that possible damage may be inferred from invading the *property right* which the corporation possesses in its name;"

but neither the Commissioner nor the court appears to have passed upon the present question—whether the opposer had, in fact, any common-law rights in its name, supposing its name to be "Simplex."

The Commissioner also said in the Burrell case:

> Applicant contends in effect that "Simplex" not being opposer's full name, does not fall under the condemnation of sec. 5 of the trade mark statute forbidding among other things the registration of "merely * * * the name of * * * a corporation." But the court has fully indicated what is meant in the statute by "*merely*" *the name*, in such decisions as *Kentucky Distilleries & Warehouse Company* v. *Old Lexington Club Distilling Company*, 135 O. G., 220; 31 App. D. C., 223, and *in re The Success Company*, 152 O. G., 958; 34 App. D. C., 443.

This matter also the court found it unnecessary to discuss in its opinion, whereas it seems necessary in the present case to decide just the question whether the name of a corporation can be construed as *that part of it* to which it has no peculiar rights. So far as the court indicates what is meant by the word "merely" in the Old Lexington Club case it does not apply to the case at bar. The term "Old Lexington Club" was "merely the name of a corporation" in every sense that can possibly be gotten out of that phrase. It was merely the name because it was all that and nothing more. It was the mere name because it had no meaning other than its meaning as a name. It was the name merely of this corporation because this corporation was the only concern having that name.

In the Success case also the peculiar and the only identifying word in the corporation's name was the word "Success." It was the identifying name also because there was no other concern having that name. It was the essence of that decision that the law intended to prevent the registration of a name which belonged to another, and under no possible construction of the law could it be denied that that mark was the corporation's own name and as a name was its own property.

These cases were cited in the Burrell case simply to show that the word "Simplex" was the essential and substantial identifying part of the name of the corporation. This was a finding of fact which, with the record now before me, I am not able to find in this case. There is a new exposition of the meaning of the word, as well as the extent of its use; but even if the same finding of fact could be made in the present case it still seems to me that to decide "Simplex" to be the essential identifying part of the name of the Simplex Electric Heating Company is not deciding the question whether a word which is an essential part of the names of scores of concerns is the name of any one of them nor whether it is the mere name in the sense of belonging to one of them.

If the reason for the prohibition of the statute is the common-law right of the corporation to the exclusive use of its name, then it would seem to follow that where the corporation is shown to have no common-law right to the exclusive use of its name there is no reason for the prohibition. It was clearly stated in the Burrell case that the decision in the Asbestone case was based on this theory. When the case was before the court, nothing whatever was said on this point except that the conclusion that the case was ruled by the Asbestone decision clearly was correct.

It is true it was contended in the Burrell case, in the brief of the applicant, that—

> a holding that "Simplex" and "Simplex Electric Heating Company" are substantially identical is tantamount to holding, in view of the facts of record, that the opposer is without an identifying name.

This point was not ruled upon by either the Commissioner or the court. It is significant that the answer to this argument found in the brief filed for the Simplex Electric Heating Company was the following statement, (p. 23:)

> It can make no difference if, in protecting the name of the Simplex Electric Heating Co., protection is also afforded to the name of other companies, nor can it make any difference whether or not the mark has been used as a valid trade-mark by others upon other lines of goods.

The court in its review and decision of the Burrell case concerned itself entirely with the question of *res adjudicata* and with criticizing the Office practice of allowing a second contest merely because the registrant had slightly altered the class of goods upon which it used its mark. It only casually mentioned the ground of opposition now being discussed, and what it actually said was merely that the conclusion of the Patent Office that the Burrell case was ruled by the Asbestone decision was correct. A broad and radical distinction between the Burrell case and this case is that this opposer could go into court and enjoin the Burrell Company from using the mark "Simplex" on a heater and it clearly could not go into court and enjoin this applicant from using the word "Simplex" on a carpet-sweeper.

The very law and authorities which would protect a corporation in the use of its own name would seem to operate to prevent the corporation from interfering with the use by others of that part of its name which it has merely appropriated from still others and to which it has no more right than they have. I think the record in the present case not only shows that the opposer has no rights whatever in the word "Simplex" except as a mark for heaters, but shows that the effect of allowing it to prevent the registration of any mark for other goods foreign to its own field involving the word "Simplex" would be to grant the opposer the privilege of withdrawing from public use and monopolizing a common English suggestive word which has been much prized and widely employed for many years as a trade-mark and as a name. The opposer clearly shows herein the intention to say to the commercial world: There shall be no further use of this word "Simplex" as part of a registered trade-mark. That widespread and long-established custom is hereby interdicted.

The word involved in this case is one of a large class of words which have for a great many years been much used because of their peculiarly suggestive meaning. For other examples there are the words "Acme," "Anchor," "Champion," "Eureka," "Excelsior," "Ideal," "Jewel," "Liberty," "National," "Pride," "Premier," "Queen," "Royal," "Star," "Sunlight," "Triumph," "Victor." It would be a serious matter if the law actually permitted any one who chose to do so to organize a series of corporations with names containing these words, respectively, and thereupon virtually withdraw these words from public use as trade-marks and monopolize them by preventing their registry as such. Until the court has in unmistakable terms so said I cannot believe that its decisions indicate such a construction of the word "merely" in the trade-mark statute as to allow such a condition, for as it is the policy of the law to allow registry of whatever marks the applicant has a common-law right to exclusively use on a particular kind of goods and as it is the policy of the law to protect for the same reason the owner of a corporate name in its use of its name it would seem that it could not be the policy of law to allow any one by adopting a term belonging to the public to monopolize it and prevent the public using it in a proper case as a registered trade-mark.

On both the grounds alleged the opposition is dismissed and the applicant's mark will be admitted for registry. Reversed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Lederer patent, No. 1,035,610, for an automobile-bumper, *Held* not anticipated, valid, and infringed. *Lederer* v. *Garage Equipment Mfg. Co.*, 235 Fed. Rep., 527.

(U. S. C. C. A.) The Lindgren patent, No. 860,308, for a plowshare, *Held* void for lack of invention. *Moline Plow Co.* v. *Omaha Iron Store Co.*, 235 Fed. Rep., 519.

Patent, Trade-Mark, and Copyright Regulations in Finland.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 20, 1916.

The Office is in receipt of a communication through the State Department to the effect that an error appears in the advices received through that Department under date of July 29, 1916, published in the OFFICIAL GAZETTE of August 8, 1916, (229 O. G., 614,) in that it was there stated that a trade-mark registration in Finland is good for *three* years instead of *ten* years.

The next to the last paragraph on page 614 of the OFFICIAL GAZETTE of that date should therefore read as follows:

> A trade-mark registration is good for ten years unless application has meanwhile been made for its renewal, and such application should be made every ten years thereafter.

THOMAS EWING,
Commissioner.

Disclaimer.

1,133,113.—*Francis W. Dunbar*, Chicago, Ill. TELEPHONE SYSTEM. Patent dated March 23, 1915. Disclaimer filed November 16, 1916, by the assignee, *Kellogg Switchboard & Supply Company.*

Enters its disclaimer—

"To the claims of the patent which read as follows, to wit:

"36. A telephone exchange system comprising a plurality of subscribers' lines, a plurality of associated link-circuits, a plurality of switch mechanism individually operative to establish connection between a calling line and an idle link-circuit, operator's means for extending the circuit of a selected link-circuit to a called line, and means under the absolute control of the operator for rendering the selected link-circuit selectable by other switch mechanisms.

"37. A telephone exchange system comprising a plurality of telephone lines, a plurality of associated link-circuits, a plurality of switch mechanisms individually operative to establish connection between a calling telephone line and an idle link-circuit, and means for rendering the selected link-circuit selectable by other switch mechanisms independently of the return of the operated switch mechanism to normal.

"39. A telephone exchange system comprising a plurality of telephone lines, a plurality of associated link-circuits, a plurality of automatic switches individually operative to establish connection between a calling line and an idle link-circuit, and means independent of the position of the contacts of the operated switch for rendering the selected link-circuit selectable by other switch mechanisms."

Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1916.

George Thompson Robie, his assigns or legal representatives, take notice:

A cancelation proceeding has been instituted by this Office upon the application of The Ironsides Company, of Columbus, Ohio, to effect the cancelation of the trade-

mark registration of George Thompson Robie, of Chicago, Ill., registered July 26, 1906, No. 55,407, and the notice of such proceeding sent by registered mail to said Robie at the said address having been returned by the post-office undeliverable notice is hereby given that unless said George Thompson Robie, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will proceed as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 22, 1916.

Henry Rattermann, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of William Korbach, of 606 Washington street, Hoboken, N. J., for registration of a trade-mark and trade-mark registered June 4, 1895, No. 26,652, to Henry Rattermann, of 577 Elm street, Cincinnati, Ohio, and a notice of such declaration sent by registered mail to said Henry Rattermann at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Henry Rattermann, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

Adverse Decisions in Interference.

PATENT No. 1,138,089.

On October 25, 1916, a decision was rendered that William J. Crumpton was not the first inventor of the subject-matter covered by claims 22, 33, 34, 129, 130, and 131 of his Patent No. 1,138,089, subject, "Methods and means for statistical accounting," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,066,070.

On October 11, 1916, a decision was rendered that Alpheus W. Altorfer was not the first inventor of the subject-matter covered by claims 5, 7, 8, 11, 12, 13, and 14 of his Patent No. 1,066,070, subject, "Driving mechanism," and no appeal having been taken within the time allowed such decision has become final.

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

NOVEMBER, 1916.

[The decisions of the Examiners-in-Chief are indicated by parallel lines (‖).]

TABLE OF CASES.

	Page.
Cady. *Ex parte*	619, 621
‖Cutler. *Ex parte*	939
Litle, Jr., v. Armstrong	935, 938
Simplex Electric Heating Company v. The Ramey Company	1259
United Drug Company. *Ex parte*	319

SUBJECT-MATTER INDEX.

	Page.
Designs, not to be described in specification, though use and application may be explained, but to be shown in the drawings, *ex parte* Cady	619
Reduction to practice of the invention, *ex parte* Cady	621
Statement of scope, *ex parte* Cady	619, 621
Statute requires that design be applied to some particular article; but patent cannot be limited to any one article, though the claim should be simply for the design shown, *ex parte* Cady	619
Design patents, what may be subject of, *ex parte* Cady	619
‖Interference, obtaining broader claim by losing party, *ex parte* Cutler	939
Patentability to winning party of claims broader than issue, prior use and sale shown in former interference to be overcome, Litle, Jr., v. Armstrong	935
‖Prevailing party taking patent for specific features, losing party not barred from broader claims by doctrine of *res adjudicata*, *ex parte* Cutler	939
Res adjudicata, matters to be considered in second interference, Litle, Jr., v. Armstrong	935
Second interference proper under special circumstances, Litle, Jr., v. Armstrong	935
Trade-marks, deceptive similarity of class of goods, Simplex Electric Heating Company v. The Ramey Company	1259
Registration, name of corporation, Simplex Electric Heating Company v. The Ramey Company	1259
Distinction to be drawn between such as are common English words and such as are coined for purposes of the corporation, *ex parte* United Drug Company	319
The word "Simplex," for vacuum-cleaners, registrable, Simplex Electric Heating Company v. The Ramey Company	1259
"Stork," inclosed by a ring composed of seven infants' heads, registrable notwithstanding that the word "Stork" alone had been refused, *ex parte* United Drug Company	319

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

NOVEMBER, 1916.

[The decisions of the Examiners-in-Chief are indicated by parallel lines (‖).]

BROAD AND NARROW CLAIMS.
See Interference, 1, 2, 3, 4.

CLAIMS.
See Designs, 5, 6; Interference.

CONSTRUCTION OF STATUTES.
See Designs, 4.

DESCRIPTION.
See Designs, 2.

DESIGNS.

1. SUBJECT-MATTER.
A design patent may be granted only for a design embodied in a material article, and since the purpose is the promotion of the "useful arts" the thing must have both the attributes of attractive appearance and of utility in commerce, the appearance having the function of enhancing the commercial value of a useful article.
[*Ex parte* Cady, 619.

2. DESCRIPTION OF THE DESIGN UNNECESSARY.
The specification should not describe the appearance of the design, since the illustration of the design is its own best description. [Id.

3. EXPLANATION OF USE OF THE DESIGN.
It is proper and necessary to explain the use or application of the design in the arts. [Id.

4. LIMITS OF THE PROTECTION GRANTED.
While the statute requires the applicant to specify some one particular article of manufacture to which he *has* applied the design, it seemingly cannot be required that his patent be limited to any one article. [Id.

5. CLAIM.
A design claim should be simply for the design shown. The court must decide whether a patented design as a whole is or is not imitated by another design as a whole. [Id.

6. PROPER STATEMENT OF THE SCOPE.
Where the applicant stated that his design "was adapted to be embodied in various articles of manufacture, such as toys, composition figures, etc., or as an ornamentation for any article of manufacture" and claimed it "for articles of manufacture as shown and described," *Held* that the words "or as an ornamentation for any article of manufacture" must be eliminated as either surplusage or misleading and that the claim be amended to read *an article*, etc., or *a manufactured figure*, etc., to remove the indefiniteness. [Id.

7. SCOPE OF THE INVENTION.
When the applicant has shown the design applied to one article he has fulfilled the requirements of reducing the invention to practice, and he may state other articles to which the design is to be applied, if, and only if, the mode and effect of such application have been rendered obvious by the example given.
[*Ex parte* Cady, 621.

8. SAME—EX PARTE FULDA OVERRULED.
In so far as it was held in *ex parte Fulda* (194 O. G., 549) that an applicant need not specify any particular article to which the design has been applied, that decision overruled. [Id.

DRAWINGS.
See Designs 2.

EQUIVALENT.
See Interference, 3.

FORMER DECISION DISTINGUISHED.
See Interference, 4; Registration of Trade-Marks, 3.

FORMER DECISIONS OVERRULED.
See Designs, 8.

GOODS OF THE SAME DESCRIPTIVE PROPERTIES.
See Registration of Trade-Marks, 1.

INDEFINITENESS.
See Designs, 6.

INTERFERENCE.

1. PATENTABILITY TO WINNING PARTY OF CLAIMS BROADER THAN ISSUE—TESTIMONY SHOWING MANUFACTURE AND SALE.
Where there is testimony in a prior interference to the effect that a device was made and marketed by the unsuccessful party therein at a date prior to the filing date of the prevailing party, which device falls within the broader claims now presented by the prevailing party, though found not to conform to the issue of the prior interference, *Held* that the broader claims cannot be allowed to the prevailing party until he has in some way overcome the effect of the testimony as to prior sale and use.
[Litle, Jr., *v.* Armstrong, 935.

2. RES ADJUDICATA—GROUNDS OF JUDGMENT IN FIRST INTERFERENCE AND FACT THAT PREVAILING PARTY IS APPLICANT FOR REISSUE TO BE CONSIDERED.
Where an applicant for reissue, after securing an interference with a pending application having broad and narrow claims standing allowed therein, fails to include the broader claims in the issue and prevails upon the narrower issue upon the ground that the device made and marketed by his opponent did not embody the structure of the limited issue, *Held* that he cannot prevail in a second interference having a count broad enough to cover the marketed device of his opponent upon the ground that the broader count also is *res adjudicata*. [Id.

3. SAME—SAME—SECOND INTERFERENCE PROPER UNDER SPECIAL CIRCUMSTANCES.
Where under the circumstances set forth above it appeared that the prevailing party also had claims in his case during the interference which might be construed as the equivalent of the broad claims now in issue, *Held* that the second interference is proper and should take the usual course. [Id.

4. SAME—BROADER CLAIMS.
Where a party loses an interference upon the ground that he has no right to make the claims, but had standing allowed in his application during the interference claims broad enough to cover common subject-matter, and the prevailing party fails to make such claims either during or after the interference and takes his patent limited to the specific feature which was held to be disclosed by him alone, *Held* that the losing party is not barred from obtaining the broader claims by the doctrine of *res adjudicata*, (*Sutton et al.* v. *Wentworth*, 204 O. G., 320; 41 App. D. C., 592, distinguished.) [*Ex parte* Cutler, 939.

JUDGMENT.

See Interference, 2.

JURISDICTION OF THE COURTS.

See Designs, 5.

LIMITATION OF CLAIMS.

See Interference, 4.

LIMITATION OF PATENT.

See Designs, 4.

NAME OF CORPORATION.

See Registration of Trade-Marks, 1, 2, 3.

PATENTABILITY.

See Interference, 1.

PRIOR INTERFERENCE.

See Interference, 1, 2.

PUBLIC USE AND SALE.

See Interference, 1, 2.

REDUCTION TO PRACTICE.

See Designs, 7.

REGISTRATION OF TRADE-MARKS.

1. NAME OF CORPORATION ASSOCIATED WITH OTHER FEATURES.
A mark consisting of a double circle and a ring of seven infants' heads, inclosing the word "Stork," in heavy script, *Held* registrable, notwithstanding that the word "Stork" alone had previously been refused on the ground that it was the name of a corporation other than the applicant.
[*Ex parte* United Drug Company, 319.

2. SAME.
A distinction should be drawn between names of corporations which are also common English words, and names coined for the purposes of the corporation and which are therefore merely the name of the corporation. [Id.

3. SAME.
The word "Simplex" as a trade-mark for electric vacuum-cleaners *Held* not barred from registration by reason of its similarity to the name of the Simplex Electric Heating Company. (*Burrell and Co.* v. *Simplex Electric Heating Co.*, 225 O. G., 737, discussed and distinguished.)
[Simplex Electric Heating Company v. The Ramey Company, 1259.]

4. SIMILARITY OF GOODS.
"Simplex" as applied to electric vacuum-cleaners *Held* not deceptively similar to "Simplex Quality" as applied to heating resistances, coffee-pots, cooking utensils, etc. [Id.

REISSUE.

See Interference, 2.

RES ADJUDICATA.

See Interference, 2, 3, 4.

RIGHT TO MAKE CLAIMS.

See Interference, 4.

SCOPE OF INVENTION.

See Designs, 5, 6, 7, 8.

SECOND INTERFERENCE.

See Interference, 2, 3.

SIMILARITY OF MARKS.

See Registration of Trade-Marks, 3.

SPECIFICATIONS.

See Designs, 2, 3.

TESTIMONY.

See Interference, 1.

TRADE-MARKS.

See Registration of Trade-Marks.

UTILITY.

See Designs, 1.

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ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF NOVEMBER, 1916.

[Abbreviations: "Gaz."—Official Gazette.]

A. Schrader's Son. (See Bowden, Junius A., assignor.)
A. G. Spalding & Bros. Manf'g Co. (See Schatz, William J., assignor.)
A. H. Elliott & Co. (See Lockwood, Adelbert, assignor.)
A. M. Lockett & Co. (See Nelson, Bernard S., assignor.)
Aaron, Max N., assignor to Friedberger-Aaron Manufacturing Company, Philadelphia, Pa. Lace edging. No. 1,203,561; Nov. 7; Gaz. vol. 232; p. 3.
Aaron, Solomon E., Boston, Mass. Car-truck support. No. 1,205,071; Nov. 14; Gaz. vol. 232; p. 561.
Aasen, Niels W., Copenhagen, Denmark. Propeller for the percussion mechanism of various projectiles. No. 1,204,725; Nov. 14; Gaz. vol. 232; p. 442.
Abbate, Nicholas G., Baltimore, Md. Comb. No. 1,204,230; Nov. 7; Gaz. vol. 232; p. 237.
Abram Cox Stove Company. (See Wood and Epright, assignors.)
Ackermann, Hans, San Francisco, Cal. Label-pasting machine. No. 1,206,641; Nov. 28; Gaz. vol. 232; p. 1174.
Acme Universal Joint Company. (See Rhodes, Bert O., assignor.)
Acomb, F. G., *et al.* (See Lord, Lewis P., assignor.)
Adair, Adolphus G., Seattle, Wash. Rail-spike. No. 1,204,830; Nov. 7; Gaz. vol. 232; p. 270.
Adair, Charles E., Buffalo, N. Y. Hover. No. 1,204,836; Nov. 14; Gaz. vol. 232; p. 479.
Adam Hilger, Limited. (See Twyman, Parker, and Dalladay, assignors.)
Adams, Benjamin D., Galesburg, Ill. Automobile-accelerator pedal. No. 1,203,955; Nov. 7; Gaz. vol. 232; p. 143.
Adams, Frank A., Ilion, N. Y. Shingling-bracket. No. 1,205,139; Nov. 21; Gaz. vol. 232; p. 627.
Adams, George J., New York, N. Y. Carton. No. 1,205,955; Nov. 28; Gaz. vol. 232; p. 943.
Adams, George P. (See Renner and Adams.)
Adams, John M., Orange, Mass. Machine for polishing the heads of screws, bolts, and the like. No. 1,205,314; Nov. 21; Gaz. vol. 232; p. 684.
Adams, John W. (See Lamb, Moss G., assignor.)
Adams, Lee, assignor of one-half to T. Willerton, Jacksonville, Ill. Seed-corn-drying rack. No. 1,206,770; Nov. 28; Gaz. vol. 232; p. 1220.
Adamski, Frank A. (See Goodwin and Adamski.)
Adamson, Lee H., Rogers, Ark. Extensible holder. No. 1,203,562; Nov. 7; Gaz. vol. 232; p. 3.
Adder Machine Company, The. (See Schleicher and Wilgus, assignors.)
Addressograph Company. (See Duncan, Joseph S., assignor.)
Addressograph Company. (See Wright, Walter, assignor.)
Adelmann, Hans, assignor to Ham Boiler Corporation, New York, N. Y. Ham-shaper. No. 1,206,494; Nov. 28; Gaz. vol. 232; p. 1124.
Adkins, Ernest B., Salt Lake City, Utah. Level. No. 1,205,956; Nov. 28; Gaz. vol. 232; p. 943.
Adleberg, Isaac, and M. J. Sindler, Baltimore, Md. Collar. No. 1,204,726; Nov. 14; Gaz. vol. 232; p. 442.
Adrian, Elmer, St. Louis, Mo. Lock. No. 1,204,727; Nov. 14; Gaz. vol. 232; p. 442.
Advance-Rumely Company. (See Wolf, John, assignor.)
Ahlstrom, Carl F., *et al.* (See Kellner, Walter, assignor.)
Ahlstrom, Otto J., *et al.* (See Kellner, Walter, assignor.)
Ahrhart, Charles, Jr. (See Mazur, Samuel, assignor.)
Aird, William, Barrie, Ontario, Canada. Air-valve for internal-combustion engines. No. 1,204,110; Nov. 7; Gaz. vol. 232; p. 196.
Airesman, Samuel E. (See Gilmer, John T., assignor.)
Aisen, Maurice N., Chicago, Ill. Composition of matter for sizing and dyeing. No. 1,206,189; Nov. 28; Gaz. vol. 232; p. 1021.
Aisen, Maurice N., Chicago, Ill. Composition of matter and making the same. No. 1,206,190; Nov. 28; Gaz. vol. 232; p. 1021.
Akana, Walter C., assignor of one-half to J. A. Ryan, Birmingham, Ala. Fire and dust proof record-book. No. 1,204,387; Nov. 14; Gaz. vol. 232; p. 325.
Akins, Randall P., assignor to Colorado Iron Works Co., Denver, Colo. Rotary filter. (Reissue.) No. 14,214; Nov. 14; Gaz. vol. 232; p. 584.
Aktiebolaget Bofors-Gullspång. (See Morén, Hugo, assignor.)
Aktiebolaget Lindéns Hemmaskiner. (See Johansson, Klas H., assignor.)
Aktiebolaget Ljungströms Angturbin. (See Ljungström, Fredrik, assignor.)
Aktiebolaget Princeps. (See Lindström, Gustaf H., assignor.)
Albanese, Giuseppe S., Paris, France, assignor to E. L. Noble, Brooklyn, N. Y. Brake mechanism for vehicles. No. 1,203,956; Nov. 7; Gaz. vol. 232; p. 143.
Albert T Otto & Sons. (See Contal, Camille, assignor.)
Albin, Alonzo E. (See Burford and Albin.)
Albrecht, Julius, Frankfort-on-the-Main, Germany. Preparation for treating teeth. No. 1,205,957; Nov. 28; Gaz. vol. 232; p. 943.
Albright Nell Co., The. (See Stewart, John H., assignor.)
Alchevsky, Naoum, Holborn, England. Machine for cutting crops. No. 1,206,642; Nov. 28; Gaz. vol. 232; p. 1174.
Alderson, Willon P., Timmins, Ontario, Canada. Amalgamator. No. 1,204,231; Nov. 7; Gaz. vol. 232; p. 238.
Aldrich Pump Company, The. (See Aldrich, Roscoe H., assignor.)
Aldrich, Roscoe H., assignor to The Aldrich Pump Company, Allentown, Pa. Buffer for couplings. No. 1,204,925; Nov. 14; Gaz. vol. 232; p. 512.
Aldridge, Robert A., *et al.* (See Hizington, Harry W., assignor.)
Alexander, Albert L., Boston, Mass. Valve. No. 1,204,635; Nov. 14; Gaz. vol. 232; p. 412.
Alexander, Jesse, New York, N. Y. Type-writing machine. No. 1,203,836; Nov. 7; Gaz. vol. 232; p. 99.
Alexander, Jesse, New York, N. Y. Type-writing-machine key and type-bar action. No. 1,203,837; Nov. 7; Gaz. vol. 232; p. 100.
Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Controlling alternating currents. No. 1,206,643; Nov. 28; Gaz. vol. 232; p. 1175.
Alford, H. Carroll, *et al.*, trustees. (See Alford, Harvey C., assignor.)
Alford, Harvey C., assignor to J. M. Walsh, B. Thurley, Mobile, and H. C. Alford, trustees, Baldwin county, Ala. Treating resinous woods. No. 1,206,283; Nov. 28; Gaz. vol. 232; p. 1054.
Algeni, Orazio A., Providence, R. I. Fire-alarm apparatus. No. 1,206,644; Nov. 28; Gaz. vol. 232; p. 1175.
Allen, Charles H. (See Bartholomew and Allen.)
Allen, Claxton E., Pittsburgh, and E. M. Fay, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Maximum-demand meter. No. 1,206,284; Nov. 28; Gaz. vol. 232; p. 1055.
Allen S. Davison Company. (See Barr, Charles J., assignor.)
Allen, William H., assignor to Parker Rust Proof Company of America, Detroit, Mich. Rust-proofing metal. No. 1,206,075; Nov. 28; Gaz. vol. 232; p. 983.
Alley, John F., New York, N. Y. Grocer's cabinet. No. 1,205,695; Nov. 21; Gaz. vol. 232; p. 819.
Allfree, Edwin H., Wilmette, and W. H. England, Chicago, Ill. Derailer. No. 1,204,837; Nov. 14; Gaz. vol. 232; p. 480.
Allis-Chalmers Manufacturing Company. (See Newhouse, Ray C., assignor.)
Allis-Chalmers Manufacturing Company. (See Rude, Henry, assignor.)
Allis-Chalmers Manufacturing Company. (See Steen, Halfdan A., assignor.)
Allis-Chalmers Manufacturing Company. (See Trout, William H., assignor.)
Allison, Fletcher D., Portland, Oreg. Combination seat and ladder. No. 1,206,285; Nov. 28; Gaz. vol. 232; p. 1055.
Allison, Grover C., Canton, Ohio. Demountable tire-rim. No. 1,205,958; Nov. 28; Gaz. vol. 232; p. 943.
Allsteadt, John E., Hastings, Nebr. Storage-bin. No. 1,205,501; Nov. 21; Gaz. vol. 232; p. 749.
Allsteelequip Company. (See Young, Lester J., assignor.)

Altenburger, August. (See End, Schlaepfer, and Altenburger.)
Altgelt, Rudolph J., Buenos Aires, Argentina, assignor to Oliver Chilled Plow Works, South Bend, Ind. Cultivator. No. 1,205,959; Nov. 28; Gaz. vol. 232; p. 944.
Altgelt, Rudolph J., assignor to Oliver Chilled Plow Works, South Bend, Ind. Planter. No. 1,205,960; Nov. 28; Gaz. vol. 232; p. 944.
Altman, Herman, New York, N. Y. Bracket. No. 1,206,645; Nov. 28; Gaz. vol. 232; p. 1176.
Altpeter, Oscar, Milwaukee, Wis. Plastic composition. No. 1,206,076; Nov. 28; Gaz. vol. 232; p. 983.
Alver, Victor, Chicago, Ill. Knife. No. 1,204,388; Nov. 14; Gaz. vol. 232; p. 325.
Alvord, John F., *et al.* (See Grunow, William, Jr., assignor.)
Amalgamated Machinery Corporation. (See Yeomans and Bryant, assignors.)
American Aerocar Holding Corporation. (See Dennis and Bretton, assignors.)
American Air-Liquefying Company. (See Place, James F., assignor.)
American Air-Liquefying Company. (See Van Fleet, Herman, assignor.)
American Aluminum Ware Company. (See Nash, Thomas J., assignor.)
American Brake Shoe & Foundry Company. (See Reid, Andrew H., assignor.)
American Can Company. (See Eberhart, Felix, assignor.)
American Can Company. (See Glotzbach, George J., assignor.)
American Can Company. (See Hodgson, John G., assignor.)
American Can Company. (See Hoffman, Edmund, assignor.)
American Can Company. (See Rudolph, Franklin, assignor.)
American Can Company. (See Snyder, Vernon C., assignor.)
American Can Company. (See Widell, Magnus E., assignor.)
American Can Company. (See Wood, Frederick P., assignor.)
American Ever Ready Company. (See Hitzelberger, Gustave F., assignor.)
American Graphophone Company. (See Hinckley and Larsen, assignors.)
American Graphophone Company. (See Woods, Clinton E., assignor.)
American Hard Rubber Co. (See Weitling, William W., assignor.)
American Hardware Corporation, The. (See Voight, Henry G., assignor.)
American Key Can Company. (See McColl, Francis P., assignor.)
American La France Fire Engine Company. (See McCaslin, Harry M., assignor.)
American Locomotive Company. (See Woodard, William E., assignor.)
American Manganese Steel Company. (See Brinton, Walter, assignor.)
American Multigraph Company, The. (See Neidich, Samuel A., assignor.)
American Optical Company. (See Day, George H., assignor.)
American Ore Reclamation Company. (See Yost, Frederick W., assignor.)
American Ore Reclamation Company. (See Yost and Klugh, assignors.)
American Player Action Company. (See Turney, Eugene T., assignor.)
American Sales Book Company. (See Doughty, George E., assignor.)
American Steam Gauge & Valve Manufacturing Co. (See Collette, Austin B., assignor.)
American Steel Foundries. (See Hedgcock, William C., assignor.)
American Steel Foundries. (See Weinland, Joseph W., assignor.)
American Telephone and Telegraph Company. (See Grisinger, Elwood, assignor.)
American Tool & Machine Company. (See Phillips, Ell W., assignor.)
American Valve & Meter Company, The. (See Anderson, Frank C., assignor.)
American Well Works. (See Sperry, John B., assignor.)
American Wringer Company, The. (See Holaday, Albert E., assignor.)
Ammidon & Company. (See Varian, Horace L., assignor.)
Amrock, Edward S., Mobile, Ala. Can-cover. No. 1,205,835; Nov. 21; Gaz. vol. 232; p. 866.
Andersen, Charles M., Denver, Colo., assignor to Auto Power Generator & Appliance Co. Lock for motor-vehicles. No. 1,204,533; Nov. 14; Gaz. vol. 232; p. 376.
Anderson, Andrew, West Brighton, N. Y. Pneumatic-tire-inflating device. No. 1,204,232; Nov. 7; Gaz. vol. 232; p. 238.
Anderson, Andrew B., and J. L. Petersen, Lake Mills, Iowa. Saw-set. No. 1,205,072; Nov. 14; Gaz. vol. 232; p. 561.
Anderson, Arthur L., Los Angeles, Cal. Malted-milk dispenser. No. 1,204,111; Nov. 7; Gaz. vol. 232; p. 196.
Anderson, Carl. (See Faust, Swenson, and Anderson.)
Anderson, David W. (See Arnold and Anderson.)
Anderson, Ernst G. K. (See Phillips and Anderson.)
Anderson, Frank, Protection, Kans. Dust-guard. No. 1,206,191; Nov. 28; Gaz. vol. 232; p. 1022.
Anderson, Frank C., assignor to The American Valve & Meter Company, Cincinnati, Ohio. Interlocking and target-operating switch-stand. No. 1,204,112; Nov. 7; Gaz. vol. 232; p. 197.
Anderson, Gustaf, Lynn, Mass. Device for converting motion. No. 1,203,563; Nov. 7; Gaz. vol. 232; p. 3.
Anderson, James B., Shaler township, Allegheny county, Pa. Torch. No. 1,204,380; Nov. 14; Gaz. vol. 232; p. 325.
Anderson, John, Portland, Conn. Vehicle-axle. No. 1,203,957; Nov. 7; Gaz. vol. 232; p. 143.
Anderson, Nils H., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,203,683; Nov. 7; Gaz. vol. 232; p. 47.
Anderson, Samuel, Pawtucket, R. I. Snap or catch. No. 1,203,958; Nov. 7; Gaz. vol. 232; p. 143.
Anderson, Thomas, Wheeling, W. Va. Holder for paper napkins. No. 1,205,073; Nov. 14; Gaz. vol. 232; p. 562.
Anderson, William G., Boston, Mass. Rotating heel. No. 1,204,636; Nov. 14; Gaz. vol. 232; p. 412.
Andrews, Edwin N., Fort Dodge, Iowa. Shoe-sewing-machine attachment. No. 1,203,838; Nov. 7; Gaz. vol. 232; p. 100.
Andrews, George C., Minneapolis, Minn. Septic sewage-tank. No. 1,204,534; Nov. 14; Gaz. vol. 232; p. 376.
Andrews, George R., East Saginaw, Mich. Egg-carrier. No. 1,204,233; Nov. 7; Gaz. vol. 232; p. 238.
Andrews, Henry G. (See Jillson and Andrews.)
Andrews, Roger W. (See Clark and Andrews.)
Angle, Edward H., New London, Conn. Orthodontic appliance. No. 1,204,113; Nov. 7; Gaz. vol. 232; p. 197.
Angle, Edward H., New London, Conn. Orthodontic appliance. No. 1,204,114; Nov. 7; Gaz. vol. 232; p. 198.
Annable, George A., assignor, by mesne assignments, to Sweets Catalogue Service Inc., New York, N. Y. Co-operative advertising. No. 1,204,331; Nov. 7; Gaz. vol. 232; p. 270.
Annau, John, Baltimore, Md. Water-heater for bath-tubs. No. 1,206,646; Nov. 28; Gaz. vol. 232; p. 1176.
Ansco Company. (See Polhemus, John F., assignor.)
Anson, Warren J., San Gabriel, assignor of one-half to G. B. Nichols, Los Angeles, Cal. Means for promoting vegetation. No. 1,204,637; Nov. 14; Gaz. vol. 232; p. 412.
Anstice, Josiah. (See Smith, Edward F., assignor.)
Anthenat, Charles V., Sheridan, Ill. Auto-heater. No. 1,205,420; Nov. 21; Gaz. vol. 232; p. 720.
Anthony, Marcus O., and B. H. Flurschelm, assignors to Tagograph Company, New York, N. Y. Printing-press. No. 1,205,315; Nov. 21; Gaz. vol. 232; p. 685.
Antisell, Frank L., Perth Amboy, N. J. Treating copper. No. 1,204,926; Nov. 14; Gaz. vol. 232; p. 513.
Antisell, Frank L., Perth Amboy, N. J. Treating copper. No. 1,204,927; Nov. 14; Gaz. vol. 232; p. 513.
Antiseptol Liquid Soap Co. (See Lesmann, Herman P., assignor.)
App, Oliver O., New York, N. Y. Fluid-pressure-operated tool. No. 1,205,140; Nov. 21; Gaz. vol. 232; p. 627.
Applegate, Miles E., Sugarloaf, Pa. Shoe. No. 1,205,421; Nov. 21; Gaz. vol. 232; p. 721.
Applegate, Robert C. (See Merrill, Dimmitt H., assignor.)
Appleton Machine Company. (See Saecker, Frank E., assignor.)
April, Saul C., Newark, N. J. Base-ball mask. No. 1,203,564; Nov. 7; Gaz. vol. 232; p. 4.
Archambault, Arthur J., Chicago, Ill. Plumber's furnace. No. 1,203,839; Nov. 7; Gaz. vol. 232; p. 101.
Archer, Floyd P., Wilkes-Barre, Pa. Entrenching-tool. No. 1,204,332; Nov. 7; Gaz. vol. 232; p. 270.
Ardner, Frank J., Detroit, Mich. Furnace. No. 1,206,077; Nov. 28; Gaz. vol. 232; p. 983.
Arena, Ernest M., Brooklyn, N. Y. Pipe-coupling. No. 1,204,728; Nov. 14; Gaz. vol. 232; p. 443.
Argo Motor Company. (See Brisco, Benjamin, assignor.)
Armour Fertilizer Works. (See Bishop, Earl S., assignor.)
Armstead, Lucius A., Chicago, Ill. Safety-guard and tray for children. No. 1,204,390; Nov. 14; Gaz. vol. 232; p. 326.
Armstrong, Fred, *et al.* (See Work, Edgar L., assignor.)
Armstrong, George W., Salem, Oreg. Safety oar-lock. No. 1,206,647; Nov. 28; Gaz. vol. 232; p. 1176.
Armstrong, Luther W., and J. J. Frazee, Galesburg, Ill. Folding crate. No. 1,205,961; Nov. 28; Gaz. vol. 232; p. 945.
Arnold, Bryson A., and D. W. Anderson, Woodruff, S. C. Agricultural tool. No. 1,205,836; Nov. 21; Gaz. vol. 232; p. 866.
Arnold, Carl F., Watsonville, Cal. Spark-plug. No. 1,205,422; Nov. 21; Gaz. vol. 232; p. 721.
Arnold, Henry, Chewelah, Wash. Lifting apparatus. No. 1,205,074; Nov. 14; Gaz. vol. 232; p. 562.
Arnott, Robert F., Montclair, N. J., assignor to G. C. St. John, Greenwich, Conn. Recording and integrating instrument. No. 1,204,729; Nov. 14; Gaz. vol. 232; p. 443.
Aronowitz, Zobel, New York, N. Y. Apparatus for refining potable grain spirits. No. 1,206,495; Nov. 28; Gaz. vol. 232; p. 1125.

Arrowsmith, James W., assignor to The Arrowsmith Mfg. Co., Inc., Morristown, N. J. Toe-straightener. No. 1,205,962; Nov. 28; Gaz. vol. 232; p. 945.
Arrowsmith Mfg. Co., The. (See Arrowsmith, James W., assignor.)
Ashby, Harry V., Erie, Pa. Toy moving-picture machine. No. 1,206,286; Nov. 28; Gaz. vol. 232; p. 1056.
Ashcraft, Stanley, Wellington, Kans. Road-scraper. No. 1,205,502; Nov. 21; Gaz. vol. 232; p. 749.
Ashcroft, Edgar A., London, England. Apparatus for the electrolytic manufacture of light metals and reaction products thereof. No. 1,204,234; Nov. 7; Gaz. vol. 232; p. 239.
Ashe, Lauren. (See Kohman, Godfrey, and Ashe.)
Ashton, Hannah, executrix. (See Ashton, Orrell.)
Ashton, Orrell, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Assembling-machine. No. 1,204,928; Nov. 14; Gaz. vol. 232; p. 513.
Ashton, Orrell, deceased; H. Ashton, executrix, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Clicking-machine. No. 1,206,078; Nov. 28; Gaz. vol. 232; p. 983.
Atherton, Joseph. (See Carson and Atherton.)
Atkinson, Edward M., Portland, Oreg. Means for attaching handles to implements. No. 1,203,959; Nov. 7; Gaz. vol. 232; p. 144.
Atwood Machine Company, The. (See Bradley, Edward E., assignor.)
Aubrey, Eugene, *et al.* (See Hodges, Cornelius C., assignor.)
Auerbacher, Louis J., Newark, N. J., assignor to The Federal Screen Corporation, New York, N. Y. Making projection-screens. No. 1,206,287; Nov. 28; Gaz. vol. 232; p. 1056.
Augensen, August M., Maywood, Ill., assignor to Sanitary Can Company, New York, N. Y. Can-feeding mechanism. No. 1,206,398; Nov. 28; Gaz. vol. 232; p. 1092.
Augustine, Benjamin F., Buffalo, N. Y. Compressor, pump, or the like. No. 1,204,535; Nov. 14; Gaz. vol. 232; p. 376.
Austin, Frederick C. (See Bunnell, Morton G., assignor.)
Austin, Henry H. (See Wentworth, Harold A., assignor.)
Autarit-Gesellschaft m. b. H. (See Rechnitzer, Alexander, assignor.)
Auto Power Generator & Appliance Co. (See Andersen, Charles M., assignor.)
Autocall Company, The. (See Littler, Lewis A., assignor.)
Automatic Baseball Co. of Illinois. (See Boardman, Harry G., assignor.)
Automatic Coinwrapping Company. (See Milligan, John F., assignor.)
Automatic Gas Power Company. (See Hardyman, Frank A., assignor.)
Automatic Sprinkler Company of America. (See Hamilton, John R., assignor.)
Automatic Train Control & Signal Company. (See Gray, Gardner B., assignor.)
Autometrograph Részvénytársaság. (See Kolár, Nándor, assignor.)
Avery Company. (See Bartholomew, John B., assignor.)
Avery Company. (See Springer, William N., assignor.)
Axcell, Halge S., assignor to W. A. Schurmann, Chicago, Ill. Machine for making egg-fillers. No. 1,206,496; Nov. 28; Gaz. vol. 232; p. 1125.
Axtell, Frank C., New York, N. Y. Liquid fuel. No. 1,204,638; Nov. 14; Gaz. vol. 232; p. 413.
Ayotte, Joseph R., assignor to René Squeegee Company, Chicago, Ill. Window-cleaner. No. 1,203,684; Nov. 7; Gaz. vol. 232; p. 47.
B & R Rubber Co. (See Burnham, Chester C., assignor.)
B. S. Roy & Son Company. (See Roy, Sylvanus B., assignor.)
Babcock & Wilcox Company, The. (See Bennett and Smith, assignors.)
Babcock & Wilcox Company, The. (See Jacobus, David S., assignor.)
Babcock & Wilcox Company, The. (See Pratt, Arthur D., assignor.)
Babcock & Wilcox Company, The. (See Reynolds, Harold B., assignor.)
Bach, William F., Chicago, Ill. Gate-operating mechanism. No. 1,205,423; Nov. 21; Gaz. vol. 232; p. 722.
Bacharach, Herman, Pittsburgh, Pa. Gas-indicator. No. 1,206,192; Nov. 28; Gaz. vol. 232; p. 1022.
Bache, Leigh S., Middlesex borough, assignor of one-half to Bound Brook Oil-Less Bearing Company, Boundbrook, N. J. Oilless spindle. No. 1,204,115; Nov. 7; Gaz. vol. 232; p. 198.
Bachtel, J Sidney, Higgins, Tex. Harvester. No. 1,204,536; Nov. 14; Gaz. vol. 232; p. 377.
Bacon, Charles, Fresno, Cal. Brace for holding boxes and crates in railway-cars. No. 1,206,648; Nov. 28; Gaz. vol. 232; p. 1176.
Badger Basket & Veneer Co. (See Wegwart, Herman, assignor.)
Badische Anilin & Soda Fabrik. (See Bally and Metzger, assignors.)
Baehr, Hermine, Baltimore, Md. Sterilizer. No. 1,205,075; Nov. 14; Gaz. vol. 232; p. 562.
Baer, Alfred. (See Cartwright and Baer.)
Bahr, Theodore P., San Francisco, Cal. Display-case. No. 1,205,963; Nov. 28; Gaz. vol. 232; p. 945.
Baier, Frederick, Anderson, Ind. Automatic spark control for internal-combustion engines. No. 1,204,730; Nov. 14; Gaz. vol. 232; p. 448.
Bailey, Frank, Muskegon, Mich. Means for arresting the unwinding of awnings and shades. No. 1,203,840; Nov. 7; Gaz. vol. 232; p. 101.
Bailey, George W., Rochester, N. Y. Window-screen. No. 1,204,116; Nov. 7; Gaz. vol. 232; p. 198.
Bailey, Margaret, *et al.* (See Wales, Marie S., assignor.)
Baily, Thaddeus F., and F. T. Cope, Alliance, Ohio. Control-wiring for electric heating devices. No. 1,204,731; Nov. 14; Gaz. vol. 232; p. 444.
Baird, Robert M., assignor of one-half to F. H. Otis, New York, N. Y. Cloth-reel. No. 1,205,141; Nov. 21; Gaz. vol. 232; p. 628.
Bajma-Ilitva, Oreste, Milan, Italy. Wire-connector. No. 1,203,565; Nov. 7; Gaz. vol. 232; p. 4.
Baker, Charles, Bloomsburg, Pa. Reversible ratchet-wrench. No. 1,203,685; Nov. 7; Gaz. vol. 232; p. 48.
Baker Motor Vehicle Company, The. (See Gruenfeldt, Emil, assignor.)
Baker, William E., McCauley, assignor of one-half to W. F. Sonneman, Waco, Tex. Animal-trap. No. 1,206,649; Nov. 28; Gaz. vol. 232; p. 1176.
Baker, William J. (See Schwarz and Baker.)
Balassa, Frederick, assignor to Hungarian Banking and Trading Company, Limited, Budapest, Austria-Hungary. Gas washing, cooling, and drying apparatus. No. 1,206,964; Nov. 28; Gaz. vol. 232; p. 946.
Balch, Clifford A., and A. F. Fevergeon, Pasadena, Cal. Window-pulley. No. 1,205,424; Nov. 21; Gaz. vol. 232; p. 722.
Baldwin, Charles E. (See Smith and Baldwin.)
Baldwin Locomotive Works, The. (See Rushton, Kenneth, assignor.)
Baldwin, William A., Haiku, Hawaii. Device for examining a sample of syrup or masse-cuite. No. 1,205,837; Nov. 21; Gaz. vol. 232; p. 866.
Baldwin, William A., Haiku, Hawaii. Device for taking a sample of syrup or masse-cuite. No. 1,205,838; Nov. 21; Gaz. vol. 232; p. 867.
Balg, Bernhard, Görlitz, Germany. Apparatus for producing hollow articles. No. 1,205,839; Nov. 21; Gaz. vol. 232; p. 867.
Ball, Albert, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Mining-machine. No. 1,205,076; Nov. 14; Gaz. vol. 232; p. 562.
Ball, Albert, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Channeling-machine. No. 1,206,288; Nov. 28; Gaz. vol. 232; p. 1056.
Ball, Henry M., Sr., Daviess county, Ky. Printing-machine for code communication. No. 1,204,929; Nov. 14; Gaz. vol. 232; p. 514.
Bally, Oscar, and R. Metzger, Mannheim, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing vat dyes. No. 1,204,639; Nov. 14; Gaz. vol. 232; p. 413.
Bancel, Paul A., New York, N. Y. Centrifugal air-pump. No. 1,203,841; Nov. 7; Gaz. vol. 232; p. 102.
Bangha, Balambér. (See Behrendt and Bangha.)
Banks, Frederick S., Norwalk, Conn. Window-screen. No. 1,206,497; Nov. 28; Gaz. vol. 232; p. 1126.
Banta, Eugene, W. J. Merritt, and H. J. Lippe, Jr., New York, N. Y. Advertising-clock. No. 1,204,732; Nov. 14; Gaz. vol. 232; p. 445.
Barber, Franklin L. (See Webb and Barber.)
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet-delivery mechanism for printing-machines. No. 1,205,590; Nov. 21; Gaz. vol. 232; p. 782.
Barber, Howard M., Stonington, Conn., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y. Sheet cutting and feeding mechanism for printing-presses. No. 1,205,840; Nov. 21; Gaz. vol. 232; p. 867.
Barber, Lynn W., Hetland, S. D. Concentrator. No. 1,204,333; Nov. 7; Gaz. vol. 232; p. 271.
Barclay, William R., Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating upon the heels of boots and shoes. No. 1,205,142; Nov. 21; Gaz. vol. 232; p. 628.
Bardowick, Martin D. J. G., Deinste, near Stade, Germany. Potato-harvesting machine. No. 1,205,143; Nov. 21; Gaz. vol. 232; p. 628.
Bardsley, Edward E., Westville, N. J. Brace for musical instruments of the banjo type. No. 1,206,650; Nov. 28; Gaz. vol. 232; p. 1177.
Barducci, Pilade, Naples, Italy. Machine for drawing out macaroni or like alimentary pastes. No. 1,206,289; Nov. 28; Gaz. vol. 232; p. 1057.
Barido, Edward M., and A. C. Hartling, Ambridge, Pa. Merry-go-round. No. 1,206,651; Nov. 28; Gaz. vol. 232; p. 1177.
Barker, Charles B., Bradford, Ill. Overshoe-buckle. No. 1,206,290; Nov. 28; Gaz. vol. 232; p. 1057.
Barker, Wayne M., Philadelphia, Pa. Machine for making powder pellets for timing-fuses. No. 1,206,498; Nov. 28; Gaz. vol. 232; p. 1126.
Barnard, Davis, assignor to Barnard Manufacturing Company, Los Angeles, Cal. Closure means for fuel-heating devices and the like. No. 1,205,591; Nov. 21; Gaz. vol. 232; p. 783.

Barnard, Dudley J., East Ham, England. Grab. No. 1,205,425; Nov. 21; Gaz. vol. 232; p. 722.

Barnard Manufacturing Company. (See Barnard, Davis, assignor.)

Barnard, William H., Anguilla, Miss. Surgical-needle holder. No. 1,204,640; Nov. 14; Gaz. vol. 232; p. 413.

Barnett, John B., assignor of two-thirds to H. C. Hermsmeyer, Fort Worth, and one-third to R. D. Irwin, McKinney, Tex. Display advertising-machine. No. 1,205,841; Nov. 21; Gaz. vol. 232; p. 868.

Barnett, Otto R. (See Laas, Edward, assignor.)

Barnett, Otto R. (See Sponenburg, Hiram H., assignor.)

Barnhart, Clarence D., Brooklyn, N. Y., and W. H. Jacobi, East Orange, N. J., assignors to W. S. Rockwell Company, New York, N. Y. Continuous heating-furnace. No. 1,205,503; Nov. 21; Gaz. vol. 232; p. 750.

Barnhill, Edward B., Marion, Ind. Exercising device. No. 1,205,426; Nov. 21; Gaz. vol. 232; p. 723.

Barnum, Paul, San Francisco, Cal. Wall-bed. No. 1,205,316; Nov. 21; Gaz. vol. 232; p. 685.

Baron, Francis E., Hitchin, England. Heat-conducting device for kettles, boilers, or other vessels. No. 1,205,077; Nov. 14; Gaz. vol. 232; p. 563.

Barr, Charles J., Birmingham, Ala., assignor to Allen S. Davison Company, Pittsburgh, Pa. Furnace-lining material and preparing same. No. 1,206,771; Nov. 28; Gaz. vol. 232; p. 1221.

Barr, Chester A., Portland, Oreg., assignor to The Dufur Ventilator Company. Window-ventilator. No. 1,204,391; Nov. 14; Gaz. vol. 232; p. 326.

Barr, Galileo C., Oklahoma, Okla. Tail-lamp. No. 1,203,566; Nov. 7; Gaz. vol. 232; p. 4.

Barr, John U., New York, N. Y. Preparing colored goggles. No. 1,206,291; Nov. 28; Gaz. vol. 232; p. 1057.

Barrett Manufacturing Company. (See Woodley and Perry, assignors.)

Barron, Andrew F., Watervliet, N. Y. Closet-bowl. No. 1,205,078; Nov. 14; Gaz. vol. 232; p. 563.

Barron, William L., New York, N. Y., assignor to The Singer Manufacturing Company. Sewing-machine work-clamp. No. 1,206,317; Nov. 21; Gaz. vol. 232; p. 686.

Barron, William L., New York, N. Y., assignor to The Singer Manufacturing Company. Means for attaching garment-fasteners. No. 1,205,318; Nov. 21; Gaz. vol. 232; p. 686.

Barthelmess, Emil, Neuss, Germany. Method of and apparatus for producing lead oxid. No. 1,204,537; Nov. 14; Gaz. vol. 232; p. 377.

Bartholomew, John B., assignor to Avery Company, Peoria, Ill. Combined fly and starting wheel for internal-combustion engines. No. 1,204,839; Nov. 14; Gaz. vol. 232; p. 480.

Bartholomew, William, and C. H. Allen, assignors to Troy Laundry Machinery Company, Ltd., Chicago, Ill. Electrically-operated centrifugal extractor. No. 1,203,567; Nov. 7; Gaz. vol. 232; p. 4.

Bartlett, Edward C., Middletown, assignor to D. Grant, Middlefield, Conn. Vise. No. 1,206,399; Nov. 28; Gaz. vol. 232; p. 1093.

Bartlett, Frederick W., Caldwell, N. J. Vacuum-jar. No. 1,204,838; Nov. 14; Gaz. vol. 232; p. 480.

Bartlett, William H. (See Freeman, Harry G., assignor.)

Bartlett, Willis N., Porterville, Tex. Operating device for camera-shutters. No. 1,205,079; Nov. 14; Gaz. vol. 232; p. 564.

Bartmess, Meigs W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Centrifugal clutch. No. 1,204,392; Nov. 14; Gaz. vol. 232; p. 326.

Barton, Louis E., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Producing composite titanic-oxid products. No. 1,205,144; Nov. 21; Gaz. vol. 232; p. 629.

Barton, Willett H., San Diego, Cal. Agitating-machine. No. 1,204,733; Nov. 14; Gaz. vol. 232; p. 445.

Barutio, Frank, St. Louis, Mo. Blade-holder. No. 1,206,499; Nov. 28; Gaz. vol. 232; p. 1127.

Basch, David. (See Squires, Arthur C., assignor.)

Basch, David, Schenectady, N. Y., assignor to General Electric Company. Protective system. No. 1,206,652; Nov. 28; Gaz. vol. 232; p. 1177.

Bastian, Charles O., and A. E. Salisbury, London, England, assignors to Cooper Hewitt Electric Company, Hoboken, N. J. Mercury-vapor-arc lamp. No. 1,204,117; Nov. 7; Gaz. vol. 232; p. 198.

Baston, Edward S., Georgetown, Ky. Corn-cultivator. No. 1,204,840; Nov. 14; Gaz. vol. 232; p. 481.

Batdorf, Charles S., Brooklyn, N. Y. Machine for banding bills and the like. No. 1,204,118; Nov. 7; Gaz. vol. 232; p. 199.

Batdorf, Charles S., Brooklyn, N. Y. Dispensing and recording apparatus. No. 1,204,393; Nov. 14; Gaz. vol. 232; p. 326.

Bateman, William H. S. (See Matthews, Freeman, and Bateman.)

Batenburg, Peter J. F., assignor to Four Wheel Drive Auto Co., Clintonville, Wis. Combined driving and steering mechanism for motor-driven vehicles. No. 1,205,965; Nov. 28; Gaz. vol. 232; p. 946.

Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Bag. No. 1,205,145; Nov. 21; Gaz. vol. 232; p. 629.

Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Valve-bag. No. 1,205,146; Nov. 21; Gaz. vol. 232; p. 629.

Bates, Chauncey A., and W. W. Hobby, White Plains, N. Y. Window-screen. No. 1,204,235; Nov. 7; Gaz. vol. 232; p. 239.

Bates, Ralph E., Philadelphia, Pa. Pneumatic power-hammer. No. 1,206,193; Nov. 28; Gaz. vol. 232; p. 1022.

Bates Valve Bag Company. (See Bates, Adelmer M., assignor.)

Batsner, Alexander G., Cincinnati, Ohio. Combined engine-starting and gear-shifting apparatus. No. 1,203,568; Nov. 7; Gaz. vol. 232; p. 5.

Bauchwitz, Richard. (See Schmidt, Reinhold, assignor.)

Baumann, Fritz, assignor to Wolframlampen Aktiengesellschaft, Augsburg, Germany. Manufacturing filaments for incandescent electric lamps. No. 1,205,080; Nov. 14; Gaz. vol. 232; p. 564.

Bausch & Lomb Optical Company. (See Kellner, Gustav A. H., assignor.)

Baxter, Edwin D., assignor to The Baxter Stove Company, Mansfield, Ohio. Burner and oven. No. 1,203,960; Nov. 7; Gaz. vol. 232; p. 144.

Baxter Stove Company, The. (See Baxter, Edwin D., assignor).

Baxter, William J., Nicholasville, Ky. Reclining-seat for automobiles. No. 1,204,394; Nov. 14; Gaz. vol. 232; p. 327.

Bayles, Maynard A., *et al.* (See Maxwell, George S., assignor.)

Bazeley, Arthur J., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,204,119; Nov. 7; Gaz. vol. 232; p. 199.

Bazeley, Arthur J., Cleveland, Ohio, assignor to The National Malleable Castings Company. Car-coupling. No. 1,204,334; Nov. 7; Gaz. vol. 232; p. 271.

Beach, Clarence E., and L. J. Voorhees, Binghamton, N. Y., assignors, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company. Signal-box. No. 1,205,319; Nov. 21; Gaz. vol. 232; p. 687.

Beadle, George W., assignor to The Single Service Package Corporation, New York, N. Y. Paper vessel. No. 1,203,569; Nov. 7; Gaz. vol. 232; p. 5.

Beagle, Florence E., Arlington, Ohio. Ironing-board. No. 1,204,641; Nov. 14; Gaz. vol. 232; p. 413.

Beals, Homer A., Fort Atkinson, Wis. End-gate fastening for wagons. No. 1,206,079; Nov. 28; Gaz. vol. 232; p. 983.

Bean, Andrew W. (See Killinger and Bean.)

Bearce, Wilson R., assignor of one-third to R. J. Jones, Sawtelle, Cal., and one-third to F. Hammond, Casey, Ill. Fluid-tight swivel-joint. No. 1,205,504; Nov. 21; Gaz. vol. 232; p. 750.

Beard, James, Dos Rios, Cal. Tractor. No. 1,206,500; Nov. 28; Gaz. vol. 232; p. 1127.

Beard, William A., Ayer, Mass. Ice-creeper. No. 1,206,653; Nov. 28; Gaz. vol. 232; p. 1178.

Beardsley, Leroy L., Forgan, Okla. Kafir-corn header. No. 1,203,961; Nov. 7; Gaz. vol. 232; p. 144.

Beasley, Harry E., and W. Byrd, Victoria, British Columbia, Canada. Dirigible headlight for locomotives. No. 1,204,930; Nov. 14; Gaz. vol. 232; p. 514.

Beath, John G., Gothenburg, Nebr. Potato-masher. No. 1,205,966; Nov. 28; Gaz. vol. 232; p. 946.

Beaubien, Robert E., Chicago, Ill. Key-top for type-writers. No. 1,203,570; Nov. 7; Gaz. vol. 232; p. 5.

Beausejour Reme A., Brooklyn, assignor to Standard Varnish Works, New York, N. Y. Liquid-coating machine. No. 1,204,120; Nov. 7; Gaz. vol. 232; p. 200.

Beaver Dam Manufacturing Co. (See Offerman, Joseph P., assignor.)

Beck, Henry J., and L. M. Rakestraw, assignors to The United Engineering Company, Toledo, Ohio. Multiple-face finisher. No. 1,205,696; Nov. 21; Gaz. vol. 232; p. 819.

Beck, John F., Grand Rapids, Mich. Flue-calking machine. No. 1,206,080; Nov. 28; Gaz. vol. 232; p. 984.

Beck, William P., Saginaw, Mich. Stovepipe-joint. No. 1,205,131; Nov. 14; Gaz. vol. 232; p. 582.

Becker, Christian, and F. D. Kleinheksel, Holland, Mich. Air-humidifier. No. 1,206,081; Nov. 28; Gaz. vol. 232; p. 984.

Becker, Christopher A., assignor to The Torsion Balance Company, New York, N. Y. Weighing-scale. No. 1,203,686; Nov. 7; Gaz. vol. 232; p. 48.

Becker, Ernest, and P. O. Gissberg, Derry, Iowa. Indoor-croquet game. No. 1,206,194; Nov. 28; Gaz. vol. 232; p. 1023.

Becker, Frederick W., New York, N. Y. Chin-rest for violins. No. 1,204,642; Nov. 14; Gaz. vol. 232; p. 414.

Becker, Friederich W., New Athens, Ill. Washboard-protector. No. 1,204,385; Nov. 7; Gaz. vol. 232; p. 272.

Becker, Martin, Macdona, Tex. Mail-bag catching and delivering device. No. 1,206,654; Nov. 28; Gaz. vol. 232; p. 1178.

Becker, Oscar P. (See Becker, Rudolph P. and O. P.)

Becker, Rudolph P. and O. P., Milwaukee, Wis. Windshield. No. 1,206,082; Nov. 28; Gaz. vol. 232; p. 984.

Bedard, Emile, assignor to Hemphill Manufacturing Co., Pawtucket, R. I. Stocking-knitting machine. No. 1,204,643; Nov. 14; Gaz. vol. 232; p. 414.

Begg, George B., New Orleans, La. Track-cleaner. No. 1,204,236; Nov. 7; Gaz. vol. 232; p. 239.

Behrendt, Jacob W., and B. Bangha, San Francisco, Cal. Automatic merchandise-displayer. No. 1,206,083; Nov. 28; Gaz. vol. 232; p. 985.

Beistel, David O. (See Updegraff, Daniel F., assignor.)

Belcher, John W., Allston, Mass. Mop, broom, and carpet-sweeper holder. No. 1,206,655; Nov. 28; Gaz. vol. 232; p. 1179.

Belding, Warren S., assignor of one-half to F. Warren, Seattle, Wash. Artificial bait. No. 1,204,538; Nov. 14; Gaz. vol. 232; p. 378.

Beler, Adolf, Pittsburgh, Pa. Burner for fluid-heaters and the like. No. 1,206,400; Nov. 28; Gaz. vol. 232; p. 1093.

Beline, Elie, assignor to Beline & Glasser, New York, N. Y. Mesh-bag. No. 1,206,195; Nov. 28; Gaz. vol. 232; p. 1023.

Beline & Glasser. (See Beline, Elie, assignor.)

Belk, Edgar J., *et al.* (See Eddy and McNutt, assignors.)

Bell, Alfred E., assignor to Hale and Kilburn Company, Philadelphia, Pa. Burner-support for gas-ranges. No. 1,205,607; Nov. 21; Gaz. vol. 232; p. 819.

Bell, Edward C., and R. S. Case, Unionville, Conn. Strip of material for forming cartridge-shells. No. 1,206,501; Nov. 28; Gaz. vol. 232; p. 1127.

Bellamore, David H., assignor to The Standard Ordnance Corporation, New York, N. Y. Armored vehicle. No. 1,203,962; Nov. 7; Gaz. vol. 232; p. 144.

Bellinger, Daniel L., Glens Falls, N. Y. Pulp-screen and process. No. 1,206,401; Nov. 28; Gaz. vol. 232; p. 1093.

Bellriveau, Melas A., Lynn, Mass. Combination carriage and sled. No. 1,205,842; Nov. 21; Gaz. vol. 232; p. 868.

Bellusci, Giuseppe, New Haven, Conn. Extensible table. No. 1,204,841; Nov. 14; Gaz. vol. 232; p. 481.

Bemies, James F., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Elevator safety device. No. 1,206,402; Nov. 28; Gaz. vol. 232; p. 1094.

Bemis, William E., assignor to Standard Oil Company of New York, New York, N. Y. Metallic barrel. No. 1,203,687; Nov. 7; Gaz. vol. 232; p. 48.

Bemisderfer, Harvey O. (See Pfeil and Bemisderfer.)

Benedict, Charles P., Montclair, N. J., assignor to The Boye Needle Company, Chicago, Ill. Apple-coring device. No. 1,206,403; Nov. 28; Gaz. vol. 232; p. 1094.

Benedict, James H., Detroit, Mich. Spike. No. 1,206,087; Nov. 28; Gaz. vol. 232; p. 986.

Benedictus, Edouard, Paris, France. Press-plate. No. 1,206,656; Nov. 28; Gaz. vol. 232; p. 1179.

Benefiel, Odus A., Rushville, Mo. Automatic train-stop. No. 1,206,657; Nov. 28; Gaz. vol. 232; p. 1179.

Benford, Edward M., Mount Vernon, N. Y. Gasolene-gage. No. 1,206,196; Nov. 28; Gaz. vol. 232; p. 1023.

Benham, Edgar M., Norwood, assignor to The Nydia Bank Lock Company, Cincinnati, Ohio. Time-lock. No. 1,205,147; Nov. 21; Gaz. vol. 232; p. 630.

Benham, Elijah B., New London, Conn., assignor to T. A. Nevins, East Orange, N. J. Apparatus for employing kerosene and heavier liquid fuels in internal-combustion engines. No. 1,205,505; Nov. 21; Gaz. vol. 232; p. 750.

Benjamin Electric Manufacturing Company. (See Benjamin and Cottrell, assignors.)

Benjamin Electric Manufacturing Company. (See Tregoning, William C., assignor.)

Benjamin Electric Mfg. Company. (See Benjamin, Reuben B., assignor.)

Benjamin Electric Mfg. Company. (See Phillips and Anderson, assignors.)

Benjamin, George H., New York, N. Y. By-product coke-oven. No. 1,205,698; Nov. 21; Gaz. vol. 232; p. 820.

Benjamin, J. P., *et al.* (See Thompson, Lester H., assignor.)

Benjamin, John M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Last-pulling machine. No. 1,203,571; Nov. 7; Gaz. vol. 232; p. 6.

Benjamin, Reuben B., assignor to Benjamin Electric Mfg. Company, Chicago, Ill. Shade-supporting lamp-socket. No. 1,206,084; Nov. 28; Gaz. vol. 232; p. 985.

Benjamin, Reuben B., assignor to Benjamin Electric Mfg. Company, Chicago, Ill. Conductor-grip. No. 1,206,085; Nov. 28; Gaz. vol. 232; p. 985.

Benjamin, Reuben B., and W. Cottrell, assignors to Benjamin Electric Manufacturing Company, Chicago, Ill. Apparatus for delivering an intermittent air-blast. No. 1,206,086; Nov. 28; Gaz. vol. 232; p. 986.

Bennett, Clara D., Cresskill, N. J. Dress-shield. No. 1,205,699; Nov. 21; Gaz. vol. 232; p. 820.

Bennett, Cyril G. M., London, and S. H. Smith, West Ealing, England, assignors to The Babcock & Wilcox Company, Bayonne, N. J. Chain grate. No. 1,206,197; Nov. 28; Gaz. vol. 232; p. 1024.

Bennett, Thomas G., assignor to Winchester Repeating Arms Co., New Haven, Conn. Method of and apparatus for detecting and locating crooks in gun-barrels. No. 1,206,502; Nov. 28; Gaz. vol. 232; p. 1127.

Benn, John H., Providence, R. I. Cigarette-case. No. 1,206,404; Nov. 28; Gaz. vol. 232; p. 1095.

Benson, Albert O., A. A., and G. M., and H. K. Solberg, Seattle, and C. H. Flick, Ellensburg, assignors to Benson, Flick & Solberg, Inc., Seattle, Wash. Automobile speed-signal. No. 1,204,539; Nov. 14; Gaz. vol. 232; p. 378.

Benson, Ary A. (See Benson, Solberg, and Flick.)

Benson, Flick & Solberg. (See Benson, Solberg, and Flick, assignors.)

Benson, Guy M. (See Benson, Solberg, and Flick.)

Benson, John E., assignor to Nye Tool and Machine Works, Chicago, Ill. Post pipe-vise. No. 1,204,734; Nov. 14; Gaz. vol. 232; p. 445.

Benson, Victor E., Dassel, Minn. Pumping-jack. No. 1,206,405; Nov. 28; Gaz. vol. 232; p. 1095.

Bentley, Robert L., Jr., assignor to Mulrson Label Company, San Jose, Cal. Display-package. No. 1,203,963; Nov. 7; Gaz. vol. 232; p. 145.

Bentley, Thomas, Dracut Center, assignor of one-half to G. M. Harrigan, Lowell, Mass. Stop mechanism for roving-machines and the like. No. 1,205,506; Nov. 21; Gaz. vol. 232; p. 751.

Berbecker & Rowland Manufacturing Company. (See Miller, Charles B., assignor.)

Berend, Ludwig, Amöneburg-on-the-Rhine, Germany. Manufacturing phenol-aldehyde resins soluble in oil, and varnishes therefrom. No. 1,205,081; Nov. 14; Gaz. vol. 232; p. 564.

Bergeron, Alexander J., Des Moines, Iowa. Bag and holding and releasing device. No. 1,206,747; Nov. 28; Gaz. vol. 232; p. 1211.

Bergh, Frederick P., H. J. Loebinger, and H. C. Neuberger, assignors, by mesne assignments, to General Reduction Company, New York, N. Y. Apparatus for the evaporation of fluids. No. 1,204,121; Nov. 7; Gaz. vol. 232; p. 200.

Berguer, Carl H. F., Harrington Park, N. J. Automobile-starter. No. 1,205,592; Nov. 21; Gaz. vol. 232; p. 783.

Bernard, William A., assignor to The William Schollhorn Company, New Haven, Conn. Hand-tool. No. 1,206,198; Nov. 28; Gaz. vol. 232; p. 1024.

Bernhardt, Henry F., Westbury, N. Y. Gas-jet stove. No. 1,205,843; Nov. 21; Gaz. vol. 232; p. 868.

Berry, John W., Greenville, S. C. Cold-bottle dispenser. No. 1,205,844; Nov. 21; Gaz. vol. 232; p. 869.

Berryman, William F., Middletown, Ohio. Expansion-union. No. 1,206,658; Nov. 28; Gaz. vol. 232; p. 1180.

Bessemer Gas Engine Company. (See Shepherd, Harold F., assignor.)

Best, William N., New York, N. Y. Fluid-injecting attachment for furnaces. No. 1,206,292; Nov. 28; Gaz. vol. 232; p. 1057.

Bethke, Fred, Visalia, Cal. Pitter. No. 1,206,659; Nov. 28; Gaz. vol. 232; p. 1180.

Betts, Charles F., North Finchley, London, assignor to Dental Manufacturing Co., Ltd., London, England. Dental chair. No. 1,203,572; Nov. 7; Gaz. vol. 232; p. 6.

Betulander Automatic Telephone Company Limited, The. (See Betulander and Palmgren, assignors.)

Betulander, Gotthilf A., Södertörns Villastad, and N. G. Palmgren, Stockholm, Sweden, assignors to The Betulander Automatic Telephone Company Limited, London, England. Selecting device for automatic or semi-automatic telephone systems. No. 1,205,700; Nov. 21; Gaz. vol. 232; p. 820.

Beugler, Edwin F., assignor to E. & B. Holmes Machinery Company, Buffalo, N. Y. Barrel-hoop. No. 1,203,688; Nov. 7; Gaz. vol. 232; p. 49.

Bibb, George F. (See Carter and Bibb.)

Bickford, Ernest A., assignor to The Wiley-Bickford-Sweet Co., Worcester, Mass. Slipper. No. 1,206,748; Nov. 28; Gaz. vol. 232; p. 1212.

Bickley, Everett H., Pittsburgh, Pa. Cap for fountain or other syringes. No. 1,204,237; Nov. 7; Gaz. vol. 232; p. 239.

Bierly, Albert N. and E., Central City, Boggs township, Center county, Pa. Message-hoop. No. 1,206,503; Nov. 28; Gaz. vol. 232; p. 1128.

Bierly, Ellis. (See Bierly, Albert N. and E.)

Biggar, Harry A., Long Beach, Cal. Enameling composition. No. 1,205,845; Nov. 21; Gaz. vol. 232; p. 868.

Biggert, Florence C., Jr., Crafton, assignor to United Engineering & Foundry Company, Pittsburgh, Pa. Clipping-shears. No. 1,203,842; Nov. 7; Gaz. vol. 232; p. 102.

Bilhorn, Peter P. (See Wick, George C., assignor.)

Billings, Frank. (See Greenleaf, Robert P., assignor.)

Billings, John W., Union, Iowa. Descriptive-film attachment and synchronizing mechanism. No. 1,205,427; Nov. 21; Gaz. vol. 232; p. 723.

Billington, Silas A., Havener, N. Mex. Weed-cutter. No. 1,205,967; Nov. 28; Gaz. vol. 232; p. 947.

Binder, Albert E., Detroit, Mich. Locking device for vehicle-tops. No. 1,204,735; Nov. 14; Gaz. vol. 232; p. 446.

Bird, Thos. E., *et al.* (See Hoffman, Robert O., assignor.)

Birkhols, Hans E., *et al.* (See Engelebert, Rudolph H., assignor.)

Birkigt, Marc, Bois-Colombes, France. Carbureter. No. 1,205,846; Nov. 21; Gaz. vol. 232; p. 869.

Birmingham Iron Foundry. (See Gordon, William A., assignor.)

Bishop, Carl E. and I. J., Mitchellville, Iowa. Condenser for steam-engines. No. 1,205,701; Nov. 21; Gaz. vol. 232; p. 821.

Bishop, Earl S., Pittsburgh, Pa., assignor to Armour Fertilizer Works, Chicago, Ill. Treatment of phosphate-rock. No. 1,204,238; Nov. 7; Gaz. vol. 232; p. 240.

Bishop, George E., Cleveland, Ohio. Fastener. No. 1,206,504; Nov. 28; Gaz. vol. 232; p. 1128.

Bishop, Ira J. (See Bishop, Carl E. and I. J.)

Bitner, Charles W., Terre Haute, Ind. Necktie-clasp. No. 1,204,931; Nov. 14; Gaz. vol. 232; p. 515.

Bjelis, Jan, East Akron, Ohio. Collision-preventer. No. 1,204,644; Nov. 14; Gaz. vol. 232; p. 415.

Bjormberg, Victor. (See Jackson, Howard, assignor.)

Black, Alonzo C. and C. H., Des Moines, Iowa; said Alonzo C. Black assignor of his one-half to W. M. Black. Stovepipe-section. No. 1,205,132; Nov. 14; Gaz. vol. 232; p. 582.

Black, Ashley V., assignor to Grain Products Company, St. Louis, Mo. Food product. No. 1,205,320; Nov. 21; Gaz. vol. 232; p. 687.

Black, Charles H. (See Black, Alonzo C. and C. H.)

Black, Walker M. (See Black, Alonzo C. and C. H., assignors.)

Blackshear, Everard, Citra, Fla. Hair-curler. No. 1,203,964; Nov. 7; Gaz. vol. 232; p. 145.

Blair, Adam, Brooklyn, N. Y. Automatic signal and train-stop. No. 1,205,148; Nov. 21; Gaz. vol. 232; p. 630.

Blake, William H., Jersey City, N. J. Pencil. No. 1,204,336; Nov. 7; Gaz. vol. 232; p. 272.

Blankenship, Houston W., Wardner, Idaho. Reversing-gear mechanism. No. 1,205,968; Nov. 28; Gaz. vol. 232; p. 947.

Bliss, Donald M., assignor to Thomas A. Edison Incorporated, West Orange, N. J. Alternating-current rectifier. No. 1,204,395; Nov. 14; Gaz. vol. 232; p. 327.

Block, Alexander E., St. Louis, Mo. Shoe-stretcher. No. 1,205,507; Nov. 21; Gaz. vol. 232; p. 751.

Blocker, Eugene S. (See Cribbs, Luther H., assignor.)

Blodgie, Charles W., Chicago, Ill., assignor to The William Schollhorn Company, New Haven, Conn. Hand-tool. No. 1,206,199; Nov. 28; Gaz. vol. 232; p. 1024.

Blume, George F., Richmond, Ind. Roller-bearing. No. 1,206,505; Nov. 28; Gaz. vol. 232; p. 1128.

Blunt, David W., South Cle Elum, and C. L. Kelso, Cle Elum, Wash. Hydraulic motor. No. 1,203,689; Nov. 7; Gaz. vol. 232; p. 49.

Blyler, L. F., *et al.* (See Lucas, John T., assignor.)

Boardman, Harry G., Los Angeles, Cal., assignor to Automatic Baseball Co. of Illinois, Chicago, Ill. Base-ball apparatus. No. 1,204,645; Nov. 14; Gaz. vol. 222; p. 415.

Boas, Millard F. (See Hanna, William J., assignor.)

Boatright, William L., Glendale, Tenn. Dispensing apparatus. No. 1,206,088; Nov. 28; Gaz. vol. 232; p. 986.

Bock, Richard G. (See Bock, William A. and R. G.)

Bock, William A. and R. G., Chicago, Ill. Rail-anchor. No. 1,205,702; Nov. 21; Gaz. vol. 232; p. 821.

Bode, Joseph, assignor to The Independent Harvester Company, Plano, Ill. Manure-spreader. No. 1,205,050; Nov. 21; Gaz. vol. 232; p. 903.

Boddie, Clarence A., Boston, Mass. Alternating-current maximum-demand wattmeter. No. 1,206,772; Nov. 28; Gaz. vol. 232; p. 1221.

Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical measuring instrument. No. 1,206,293; Nov. 28; Gaz. vol. 232; p. 1058.

Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Maximum-demand meter. No. 1,206,294; Nov. 28; Gaz. vol. 232; p. 1058.

Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical measuring instrument. No. 1,206,295; Nov. 28; Gaz. vol. 232; p. 1059.

Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical measuring instrument. No. 1,206,400; Nov. 28; Gaz. vol. 232; p. 1095.

Bodell, William A., Bluefield, W. Va. Circulating-fitting. No. 1,205,508; Nov. 21; Gaz. vol. 232; p. 752.

Boehringer, Rudolph, Newark, N. J., assignor to Staten Island Chemical Corporation. Silicon compound and making same. No. 1,205,509; Nov. 21; Gaz. vol. 232; p. 752.

Boerner, Emile C. (See Ward, Remsen, and Boerner.)

Bogenberger, John, Milwaukee, Wis. Fire-door. No. 1,203,945; Nov. 7; Gaz. vol. 232; p. 145.

Boggs, Addison E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Alarm device. No. 1,206,296; Nov. 28; Gaz. vol. 232; p. 1059.

Boisseau, Henry J., New Orleans, La. Combined cap and hanger. No. 1,206,660; Nov. 28; Gaz. vol. 232; p. 1180.

Boiens, Harry W., Port Washington, Wis. Chair-base hub. No. 1,204,736; Nov. 14; Gaz. vol. 232; p. 446.

Bolin, Walter R., Brasil, Ind. Bag-holder. No. 1,203,843; Nov. 7; Gaz. vol. 232; p. 103.

Bollman, Henry. (See Tague, John J., assignor.)

Bolus, Glenn H., assignor to The Ohio Brass Company, Mansfield, Ohio. Trolley-wire hanger. No. 1,204,540; Nov. 14; Gaz. vol. 232; p. 379.

Boman, Chess W., Brooklyn, assignor to Eagle Pencil Company, New York, N. Y. Fountain-pen. No. 1,205,847; Nov. 21; Gaz. vol. 232; p. 870.

Bonnet, Joseph. (See Muller, Jean L., assignor.)

Bontrager, Daniel J., Woodburn, Oreg. Mechanism for converting rotary into reciprocatory motion. No. 1,206,200; Nov. 28; Gaz. vol. 232; p. 1025.

Boon, Louis, Van Horn, Iowa. End-gate fastener. No. 1,204,386; Nov. 14; Gaz. vol. 232; p. 328.

Booth, Alba C., Burlington, Vt. Closure for collapsible tubes. No. 1,206,661; Nov. 28; Gaz. vol. 232; p. 1180.

Booth, Clement, Narberth, and A. C. Page, Philadelphia, Pa. Grinding-machine. No. 1,203,844; Nov. 7; Gaz. vol. 232; p. 103.

Borchardt, Max. (See Sourian, Nerses B., assignor.)

Borreesen, Helge A., Marquette, Mich., assignor to M. W. Zabel, trustee, Chicago, Ill. Horological instrument. No. 1,203,600; Nov. 7; Gaz. vol. 232; p. 49.

Borson, Sophus P. C., Salida, Colo. Mining-machine. No. 1,203,573; Nov. 7; Gaz. vol. 232; p. 7.

Bostaph, Harvey P., Detroit, Mich. Retort. No. 1,204,646; Nov. 14; Gaz. vol. 232; p. 415.

Bostaph, Harvey P., Detroit, Mich. Obtaining coke and by-products from coal. No. 1,204,647; Nov. 14; Gaz. vol. 232; p. 416.

Boston Belting Company. (See Forsyth, Thomas A., assignor.

Bosworth, George P., Central Falls, assignor to Hemphill Manufacturing Co., Pawtucket, R. I. Stocking-knitting machine. No. 1,204,397; Nov. 14; Gaz. vol. 232; p. 328.

Bötz, Heinrich W., Ludwigshafen-on-the-Rhine, Germany. Electrodeposition of metal on rotation-bodies. No. 1,204,398; Nov. 14; Gaz. vol. 232; p. 328.

Boucherot, Paul M. J., Paris, France. Transformer of continuous current. No. 1,206,662; Nov. 28; Gaz. vol. 232; p. 1181.

Bound Brook Oil-Less Bearing Company. (See Bache, Leigh S., assignor.)

Bourelle, George E., Elgin, Ill. Window-curtain bracket. No. 1,205,848; Nov. 21; Gaz. vol. 232; p. 870.

Bourn, Augustus O., Bristol, R. I. Vulcanisation. No. 1,203,966; Nov. 7; Gaz. vol. 232; p. 145.

Bousquet, Louis, *et al.* (See Landry, Louis H., assignor.)

Bousquet, Theodore, *et al.* (See Landry, Louis H., assignor.)

Bovee, Ransom Y., Chicago, assignor, by mesne assignments, to Imperial Tool Company, Bloomington, Ill. Wrench. No. 1,205,149; Nov. 21; Gaz. vol., 232; p. 630.

Bowden, Junius A., Los Angeles, Cal., assignor to A. Schrader's Son, Incorporated, New York, N. Y. Tire-valve. No. 1,205,849; Nov. 21; Gaz. vol. 232; p. 870.

Bowden, Junius A., Los Angeles, Cal., assignor to A. Schrader's Son, Inc., Brooklyn, N. Y. Tire-valve and cap therefor. No. 1,205,850; Nov. 21; Gaz. vol. 232; p. 871.

Bowen, George M. (See Steckler and Bowen.)

Bowen, Oliver G. (See Middendorf, Davis, and Bowen.)

Bowers, Benjamin S., Laprairie, Minn. Advertising toy. No. 1,203,967; Nov. 7; Gaz. vol. 232; p. 145.

Bowley, Joseph W., Simpson, Saskatchewan, Canada. Lock-out system for party-line telephones. No. 1,204,399; Nov. 14; Gaz. vol. 232; p. 329.

Bowman, Archibald M. (See Girten and Bowman.)

Bowman, Irwin C., Chicago, Ill. Wind-shield protector. No. 1,204,122; Nov. 7; Gaz. vol. 232; p. 201.

Bowman, John M., New York, N. Y. Heat-radiating unit. No. 1,205,703; Nov. 21; Gaz. vol. 232; p. 821.

Box, Walter, Georgetown, Tex. Engine. No. 1,203,574; Nov. 7; Gaz. vol. 232; p. 7.

Boyce, Harrison H., Forest Hills, N. Y. Temperature-indicating system and apparatus for internal-combustion engines. No. 1,206,783; Nov. 28; Gaz. vol. 232; p. 1224.

Boyce, John E., Peekskill, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Hydraulic-elevator control. No. 1,206,407; Nov. 28; Gaz. vol. 232; p. 1096.

Boyd, Calvin C., Pulaski, Pa. Harrow-tooth and fastener. No. 1,205,321; Nov. 21; Gaz. vol. 232; p. 687.

Boye Needle Company, The. (See Benedict, Charles P., assignor.

Boyer, Fitz Henry. (See Streb, Charles, assignor.)

Boyer, John I. (See Reynolds, John F., assignor.)

Boyle, Homer L., Lansing, Mich. Toy-pistol fly-swatter. No. 1,206,773; Nov. 28; Gaz. vol. 232; p. 1221.

Boynton, William W., St. Louis, Mo. Engineer's storm-window. No. 1,206,506; Nov. 28; Gaz. vol. 232; p. 1129.

Bozard, Harrison B., La Crosse, Wis. Seeding-machine. No. 1,204,239; Nov. 7; Gaz. vol. 232; p. 240.

Bozard, Harrison B., La Crosse, Wis. Scraper for seeding-machines. No. 1,204,240; Nov. 7; Gaz. vol. 232; p. 240.

Bräcker, Karl, Jr., Belleville, N. J. Combination razor-strop hone. No. 1,203,691; Nov. 7; Gaz. vol. 232; p. 50.

Brackenbury, Edward W., assignor to T. L. Smith Company, Milwaukee, Wis. Mounting for drums of concrete-mixers. No. 1,203,575; Nov. 7; Gaz. vol. 232; p. 7.

Braden Manufacturing Company. (See Williams, Marshall B., assignor.)

Bradley, Charles E., Boston, Mass. Collar. No. 1,205,593; Nov. 21; Gaz. vol. 232; p. 783.

Bradley, Charles S., New York, N. Y. Chemical concentration of ore values. No. 1,204,932; Nov. 14; Gaz. vol. 232; p. 515.

Bradley, Charles S., New York, N. Y. Operating filters. No. 1,206,297; Nov. 28; Gaz. vol. 232; p. 1060.

Bradley, Edward E., assignor to The Atwood Machine Company, Stonington, Conn. Take-up mechanism for spinning, winding, or doubling machines. No. 1,204,123; Nov. 7; Gaz. vol. 232; p. 201.

Bradley, Linn. (See Schmidt and Bradley.)

Bradley, Richard C., assignor of one-fourth to L. Kinnebrew, one-fourth to J. M. Eastham, Shreveport, La., and one-fourth to C. F. Ireland, Houston, Tex. Dispensing apparatus. No. 1,204,241; Nov. 7; Gaz. vol. 232; p. 240.

Bradley, Richard C., assignor of one-fourth to L. Kinnebrew, one-fourth to J. M. Eastham, Shreveport, La., and one-fourth to C. F. Ireland, Houston, Tex. Liquid-dispensing apparatus. No. 1,204,242; Nov. 7; Gaz. vol. 232; p. 241.

Bradley, Richard C., assignor of one-fourth to L. Kinnebrew, one-fourth to J. M. Eastham, Shreveport, La., and one-fourth to C. F. Ireland, Houston, Tex. Liquid-dispensing apparatus. No. 1,206,507; Nov. 28; Gaz. vol. 232; p. 1120.

Bradshaw, Clinton H., Prairie Depot, Ohio. Draft-equalizer. No. 1,206,663; Nov. 28; Gaz. vol. 232; p. 1181.

Bradway, Chattin, Brooklyn, assignor to J. H. Bradway, New York, N. Y. Soap-bubble blower. No. 1,205,123; Nov. 14; Gaz. vol. 232; p. 579.

Bradway, Judson H. (See Bradway, Chattin, assignor.)

Brady, Alexander, Newton Lower Falls, Mass. Machine for assembling wafers. No. 1,205,951; Nov. 21; Gaz. vol. 232; p. 904.

Braine, Bancroft G., New York, N. Y., assignor to The Rail Joint Company. Insulated rail-joint. No. 1,204,124; Nov. 7; Gaz. vol. 232; p. 201.

Brand, Adolph, Washington, D. C. Match-box holder. No. 1,205,428; Nov. 21; Gaz. vol. 232; p. 724.

Brand, Herman H. (See Cary and Brand.)

Brandt, Anton, New York, N. Y. Kitchen-cabinet. No. 1,205,429; Nov. 21; Gaz. vol. 232; p. 724.

Branecky, John, Eldred, Pa. Sunken-vessel-locating device. No. 1,204,842; Nov. 14; Gaz. vol. 232; p. 481.

Brasington, Charles N. (See Rivers, George W., assignor.)

Brauchler, Charles A. (See Holbeck, Austin A., assignor.)

Braun, William F. M., Philadelphia, Pa., assignor, by mesne assignments, to Pennsylvania Lawn Mower Works. Lawn-mower. No. 1,206,508; Nov. 28; Gaz. vol. 232; p. 1130.

Braunigen, Emil, Chicago, Ill. Snow-melting machine. No. 1,204,400; Nov. 14; Gaz. vol. 232; p. 329.

Brecht, Charles, assignor to J. S. and W. P. Worth, Coatesville, Pa. Car-roof. No. 1,206,664; Nov. 28; Gaz. vol. 232; p. 1181.

Bredig, Georg, Karlsruhe, Germany, assignor to Rudolph Koepp & Co., Oestrich-on-the-Rhine, Germany. Making formates. No. 1,204,933; Nov. 14; Gaz. vol. 232; p. 515.

Breitenstein, Edward, Newton, Kans. Tongue-support for vehicles. No. 1,204,243; Nov. 7; Gaz. vol. 232; p. 242.

Bretherton, Sidney E., and F. L. Wilson, Berkeley, Cal. Extracting metals from their ores. No. 1,204,843; Nov. 14; Gaz. vol. 232; p. 481.

Bretton, Harry S. (See Dennis and Bretton.)

Breyer, Frank G., Palmerton, Pa., assignor to The New Jersey Zinc Company, New York, N. Y. Continuous gas-calorimeter. No. 1,205,704; Nov. 21; Gaz. vol. 232; p. 822.

Briggs, John R. (See Llewellyn and Briggs.)

Bright, Fred E., Philadelphia, Pa. Gage. No. 1,206,202; Nov. 28; Gaz. vol. 232; p. 1026.

Bright, Fred E., Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company. Lapping device. No. 1,206,201; Nov. 28; Gaz. vol. 232; p. 1025.

Briles, James M., Victoria, Tex. Bench-clamp. No. 1,203,692; Nov. 7; Gaz. vol. 232; p. 50.

Brinton, Walter, Wilmington, Del., assignor to American Manganese Steel Company, Augusta, Me. Dipper-tooth. No. 1,205,969; Nov. 28; Gaz. vol. 232; p. 947.

Brinton, William C., Jr., assignor to Philips-Brinton Company, Kennett Square, Pa. Electric-current distributer. No. 1,203,693; Nov. 7; Gaz. vol. 232; p. 50.

Briscoe, Benjamin, assignor to Argo Motor Company, Inc., Jackson, Mich. Universal joint. No. 1,204,737; Nov. 14; Gaz. vol. 232; p. 446.

Bristol, Cyrus J., assignor of one-half to F. W. Swanson, Des Moines, Iowa. Tractor attachment for automobiles. No. 1,205,430; Nov. 21; Gaz. vol. 232; p. 725.

Bristol, John I. D., Chappaqua, N. Y. Automatic hand-level. No. 1,205,705; Nov. 21; Gaz. vol. 232; p. 822.

Brizey, Austin D., New York, N. Y. Means for producing pictures by projected light. No. 1,204,401; Nov. 14; Gaz. vol. 232; p. 329.

Broadhead, James E., Bay City, Mich. Trainman's flash-light. No. 1,203,576; Nov. 7; Gaz. vol. 232; p. 8.

Brody, Harry W., Bayside, assignor to The Lundin Company, Inc., Long Island City, N. Y. Process and product of treating wood. No. 1,203,577; Nov. 7; Gaz. vol. 232; p. 8.

Brockway, Edwin L., Glenside, Pa. Cable-hanger. No. 1,206,203; Nov. 28; Gaz. vol. 232; p. 1026.

Broderick, Elisabeth F., administratrix. (See Charles and Broderick.)

Broderick, John J. (See Charles and Broderick.)

Brooks, Robert A., Chicago, Ill. Surface discharge apparatus for tanks. No. 1,203,578; Nov. 7; Gaz. vol. 232; p. 8.

Broome, Frederick S. J., Matlock, England. Apparatus for separating and grading fibers. No. 1,206,408; Nov. 28; Gaz. vol. 232; p. 1096.

Brosnan, Edward J., Troy, N. Y. Bottle-stopper and dropper. No. 1,204,125; Nov. 7; Gaz. vol. 232; p. 201.

Brower, Roy F., Syracuse, N. Y. Shoe-ventilator. No. 1,203,694; Nov. 7; Gaz. vol. 232; p. 51.

Brown, Charles F., assignor to Universal Liquid Register Co., New York, N. Y. Liquid dispensing and measuring apparatus. No. 1,206,204; Nov. 28; Gaz. vol. 232; p. 1027.

Brown, Ernest W., Butte, Mont. Match-box. No. 1,205,510; Nov. 21; Gaz. vol. 232; p. 752.

Brown, Frank E., Webster City, Iowa. Roller-skate. No. 1,204,541; Nov. 14; Gaz. vol. 232; p. 379.

Brown, Frank M., and W. Wechter, Salem, Oreg. Machine for surfacing butchers' blocks. No. 1,205,322; Nov. 21; Gaz. vol. 232; p. 688.

Brown Machinery Manufacturing Company. (See Jessen, James, assignor.)

Brown, Thomas E., New York, N. Y. Bascule-bridge. No. 1,203,695; Nov. 7; Gaz. vol. 232; p. 51.

Brown, Winson H., Spokane, Wash. Grand-piano action. No. 1,206,509; Nov. 28; Gaz. vol. 232; p. 1130.

Brownrigg, John J., H. Henderson, and A. E. Case, assignors to Delta Electric Company, Marion, Ind. Coin-collector for telephone systems. No. 1,205,150; Nov. 21; Gaz. vol. 232; p. 631.

Brubaker, Marcus W., Los Angeles, Cal. Hair-drying frame. No. 1,203,696; Nov. 7; Gaz. vol. 232; p. 51.

Bruce, Robert, Tacoma, Wash. Toy. No. 1,205,151; Nov. 21; Gaz. vol. 232; p. 631.

Bruce, William R., Twin Falls, Idaho. Clover-head harvester or picker. No. 1,206,409; Nov. 28; Gaz. vol. 232; p. 1097.

Bruebach, August, Chicago, Ill. Gas-stove. No. 1,205,152; Nov. 21; Gaz. vol. 232; p. 632.

Bruhn, John H., Spirit Lake, Iowa. Thermostat. No. 1,206,298; Nov. 28; Gaz. vol. 232; p. 1060.

Brummett, Howard, and W. H. Colbath, Natick, assignors of one-third to G. A. Spear, Medford, Mass. Inner-sole material and making the same. No. 1,204,844; Nov. 14; Gaz. vol. 232; p. 482.

Brundage, Frank S. (See Hardman, George H., assignor.)

Brüne, Heinrich, Neustadt-on-the-Hardt, Germany. Drying vegetable materials. No. 1,204,845; Nov. 14; Gaz. vol. 232; p. 482.

Bruns, William X., Chicago, Ill. Repair for tubing. No. 1,204,244; Nov. 7; Gaz. vol. 232; p. 242.

Brunst, William M., and E. H. McCloud, assignors to The Kinnear Manufacturing Company, Columbus, Ohio. Fire-resisting shutter or door. No. 1,204,738; Nov. 14; Gaz. vol. 232; p. 447.

Brunswick-Balke-Collender Co. (See Whelan, Michael J., assignor.)

Bryant Electric Company, The. (See Thomas, George B., assignor.)

Bryant, George F. (See Yeomans and Bryant.)

Bryce, James W., Brooklyn, N. Y., assignor, by mesne assignments, to The International Time Recording Company of New York. Recorder. No. 1,205,082; Nov. 14; Gaz. vol. 232; p. 564.

Bryce, James W., Brooklyn, assignor to International Time Recording Company of New York, Endicott, N. Y. Time-recorder. No. 1,206,089; Nov. 28; Gaz. vol. 232; p. 987.

Bryner, William A. (See Zwiener and Bryner.)

Bryson, John M. (See McConnell, Charles D., assignor.)

Buch, Max, Detroit, assignor to H. E. Edwards, Jackson, Mich. Top for vehicles and the like. No. 1,204,837; Nov. 7; Gaz. vol. 232; p. 272.

Buckingham, Benjamin J. (See Macpherson, John A., assignor.)

Buckingham, Roswell H., Moline, assignor to J. E. Porter Company, Ottawa, Ill. Lock for cattle-stanchions. No. 1,205,153; Nov. 21; Gaz. vol. 232; p. 632.

Bucolo, Alfred, Washington, D. C. Presser-foot for shoe-sewing machines. No. 1,205,851; Nov. 21; Gaz. vol. 232; p. 871.

Buedinger, Otto, Birmingham, Ala. Water-purifying apparatus. No. 1,205,154; Nov. 21; Gaz. vol. 232; p. 632.

Buehler, Samuel J., Port Washington, Ohio. Tile-layer. No. 1,205,852; Nov. 21; Gaz. vol. 232; p. 871.

Buehner, William F. A., Newark, N. J. Clamp for row-boat-motors. No. 1,204,739; Nov. 14; Gaz. vol. 232; p. 447.

Buell, William H., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge-casing. No. 1,205,942; Nov. 21; Gaz. vol. 232; p. 901.

Buhl, Carl H., Cleveland, Ohio. Automatic train-stop. No. 1,203,845; Nov. 7; Gaz. vol. 232; p. 103.

Bull, Lionel, Libertyville, Ill., assignor of one-half to G. R. Linn, Chicago, Ill. Pulsator for milking-machines. No. 1,204,542; Nov. 14; Gaz. vol. 232; p. 380.

Bulla, Melbern B., El Paso, Tex. Cab-signal and automatic stop. No. 1,203,968; Nov. 7; Gaz. vol. 232; p. 146.

Bulla, Melbern B., El Paso, Tex. Automatic train-stop. No. 1,203,969; Nov. 7; Gaz. vol. 232; p. 146.

Bulla, Melbern B., El Paso, Tex. Automatic train-stop. No. 1,203,970; Nov. 7; Gaz. vol. 232; p. 146.

Bullock, Arthur R., Cleveland, Ohio, assignor to H. C. Lee, trustee, Los Angeles, Cal. Current-converting device. No. 1,204,740; Nov. 14; Gaz. vol. 232; p. 447.

Bullock, Edward W. (See Gleason, Stewart, and Bullock.)

Bullock Tractor Company. (See Stark, William O., assignor.)

Bump, Alvah J., Cambridge, Ohio. Dust-pan. No. 1,203,697; Nov. 7; Gaz. vol. 232; p. 51.

Bunker, William I., La Grange, Ill. Rotary carpet-beater. No. 1,204,741; Nov. 14; Gaz. vol. 232; p. 448.

Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Automatic window-locking device. No. 1,203,971; Nov. 7; Gaz. vol. 232; p. 147.

Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Rolling-window-screen-attaching device. No. 1,203,973; Nov. 7; Gaz. vol. 232; p. 147.
Bunnell, Morton G., assignor to New Era Mfg. Co., Chicago, Ill. Electrical switch. No. 1,203,972; Nov. 7; Gaz. vol. 232; p. 147.
Burd, David H., Verona, N. J. Device for facilitating the insertion of ringed pistons into cylinders. No. 1,204,402; Nov. 14; Gaz. vol. 232; p. 330.
Burdsall, Ellwood, assignor to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y. Nut-making machine. No. 1,203,698; Nov. 7; Gaz. vol. 232; p. 52.
Burford, William L., and A. E. Albin, New York, N. Y. Advertising medium. No. 1,204,934; Nov. 14; Gaz. vol. 232; p. 515.
Burgess, Edward W., Chicago, Ill., assignor to International Harvester Company of New Jersey. Grain harvester and binder. No. 1,204,403; Nov. 14; Gaz. vol. 232; p. 330.
Burke, William W., assignor to Cooper Manufacturing Company, Bennington, Vt. Electric-circuit-closing device. No. 1,203,699; Nov. 7; Gaz. vol. 232; p. 52.
Burlington Brass Works. (See Zwiebel, Joseph A., assignor.)
Burnham, Chester C., assignor to B & R Rubber Co., North Brookfield, Mass. Shoe. No. 1,206,749; Nov. 28; Gaz. vol. 232; p. 1212.
Burnham, Chester C., assignor to The B & R Rubber Co., North Brookfield, Mass. Making shoes. No. 1,206,750; Nov. 28; Gaz. vol. 232; p. 1212.
Burnham, F. G. (See Cote, Willcord W., assignor.)
Burns, Matt, Twin Valley, Minn. Washing-machine. No. 1,206,299; Nov. 28; Gaz. vol. 232; p. 1060.
Burns, Richard W., Perth, assignor of one-half to S. A. Garrity, Sumner county, Kans. Truck attachment for grain-binders. No. 1,205,155; Nov. 21; Gaz. vol. 232; p. 633.
Burns, William G., New York, N. Y., assignors to Jabez Burns & Sons. Bagging-pipe. No. 1,205,431; Nov. 21; Gaz. vol. 232; p. 725.
Burrell, Edward P., assignor to The Warner and Swasey Company, Cleveland, Ohio. Automatic stop mechanism for turret-lathes. No. 1,205,970; Nov. 28; Gaz. vol. 232; p. 947.
Bursell, Olof H., Umeå, Sweden. Axle and the like bearing. No. 1,205,706; Nov. 21; Gaz. vol. 232; p. 822.
Burton, May W., Armstrong, Mo. Road-scraper. No. 1,205,853; Nov. 21; Gaz. vol. 232; p. 871.
Burtt, Frank, Kalamazoo, assignor of one-half to W. Kromdyke, Jr., Portage township, Mich. Driving or transmission gearing. No. 1,203,846; Nov. 7; Gaz. vol. 232; p. 104.
Busby, Daniel, San Diego, Cal. Terminal or connector for electrical conductors. No. 1,204,935; Nov. 14; Gaz. vol. 232; p. 516.
Buschetti, Claudio, Milan, Italy. Electric insulator. No. 1,205,971; Nov. 28; Gaz. vol. 232; p. 948.
Busek, Edward E., Milwaukee, Wis., assignor, by mesne assignments, to Hemphill Manufacturing Company, Pawtucket, R. I. Knitting-machine. No. 1,204,404; Nov. 14; Gaz. vol. 232; p. 331.
Butcher, Harry E., assignor to The Standard Welding Company, Cleveland, Ohio. Method of and apparatus for welding. No. 1,205,511; Nov. 21; Gaz. vol. 232; p. 753.
Butcher, Harry E., assignor to The Standard Welding Company, Cleveland, Ohio. Method of and apparatus for making tubing. No. 1,205,512; Nov. 21; Gaz. vol. 232; p. 753.
Butler, Erastus H., Knoxville, Miss. Nut-lock. No. 1,206,410; Nov. 28; Gaz. vol. 232; p. 1097.
Butler, William E., Perry, Iowa. Electrical dental engine. No. 1,205,156; Nov. 21; Gaz. vol. 232; p. 633.
Buttonlath Manufacturing Company. (See La Casse and Sexton, assignors.)
Buttonlath Manufacturing Company. (See Sexton, James P., assignor.)
Butzer, Philip F., Boonville, Mo. Wire-fastener for posts. No. 1,204,126; Nov. 7; Gaz. vol. 232; p. 201.
Buxton, Warner R., Springfield, Mass. Foldable shoe-tree. No. 1,203,700; Nov. 7; Gaz. vol. 232; p. 53.
Byars, William R. (See Riley, Joseph J., assignor.)
Bye, Edwin A. (See Mayer and Bye.)
Bygrave, Leonard C., assignor to The Relay Automatic Telephone Company, Limited, London, England. Telephone system. No. 1,204,742; Nov. 14; Gaz. vol. 232; p. 448.
Byrd, Walter. (See Beasley and Byrd.)
Byrnes, Daniel O., *et al.* (See Mundy, Edmund, assignor.)
C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)
C. & L. Machine Company. (See Lev, Frank W., assignor.)
Cable Company, The. (See Klugh, Paul B., assignor.)
Cabot, John A., *et al.* (See Starke, Adolph A., assignor.)
Cadillac Motor Car Company. (See Snell, Lyle K., assignor.) (Reissue.)
Cady, Cerlon R., Detroit, Mich. Restoring molding-sand. No. 1,205,323; Nov. 21; Gaz. vol. 232; p. 688.
Cahill, Edward, New York, N. Y. Thermal-controlled shutter. No. 1,203,847; Nov. 7; Gaz. vol. 232; p. 104.
Cahill, John, Norfolk, Va. Fireproof folding door or shutter. No. 1,205,707; Nov. 21; Gaz. vol. 232; p. 823.
Cahill, Thomas J., Corpus Christi, Tex. Flush-valve. No. 1,204,338; Nov. 7; Gaz. vol. 232; p. 278.
Caldwell, Eugene W., New York, N. Y. Photographic developing apparatus. No. 1,205,708; Nov. 21; Gaz. vol. 232; p. 823.
Callon, Harry A., Indianapolis, Ind. Bath-tub shower and needle bath. No. 1,203,579; Nov. 7; Gaz. vol. 232; p. 9.
Callow, Joseph E., and D. Kroes, Milwaukee, Wis. Window-lock. No. 1,203,974; Nov. 7; Gaz. vol. 232; p. 148.
Calmese, George M., Anderson, Ind. Trunk. No. 1,206,411; Nov. 28; Gaz. vol. 232; p. 1097.
Cammack, Howard D., and E. V. Verheyen, assignors, by mesne assignments, to Universal Auto Supply Co., Minneapolis, Minn. Headlight-adjusting means. No. 1,206,665; Nov. 28; Gaz. vol. 232; p. 1182.
Cammack, Howard D., and E. V. Verheyen, assignors, by mesne assignments, to Universal Auto Supply Co., Minneapolis, Minn. Headlight-adjusting means. No. 1,206,666; Nov. 28; Gaz. vol. 232; p. 1182.
Camp, Ervin M., Denver, Colo. Collapsible hollow form for concrete-construction work. No. 1,204,936; Nov. 14; Gaz. vol. 232; p. 516.
Camp, Joseph E., Eureka, Ill. Combined washing-machine and wringer structure. No. 1,205,324; Nov. 21; Gaz. vol. 232; p. 688.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Dump-car-door-operating mechanism. No. 1,204,543; Nov. 14; Gaz. vol. 232; p. 380.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Door-locking mechanism for dump or plow cars. No. 1,205,157; Nov. 21; Gaz. vol. 232; p. 634.
Campbell, Robert W. (See Hawkins and Campbell.)
Campbell, Sterling H., St. Louis, Mo. Wedge for journal-bearings. No. 1,204,405; Nov. 14; Gaz. vol. 232; p. 331.
Canda, Ferdinand M., Plainfield, N. J. Process of and apparatus for forging balls. No. 1,204,127; Nov. 7; Gaz. vol. 232; p. 202.
Cannan, John J., assignor to Henry Likly & Company, Rochester, N. Y. Wardrobe-trunk. No. 1,205,854; Nov. 21; Gaz. vol. 232; p. 872.
Canniff, Isaac. (See Hickman and Canniff.)
Caplin, John. (See Robin and Caplin.)
Carbone, Mario, New York, N. Y. Internal-combustion engine. No. 1,205,158; Nov. 21; Gaz. vol. 232; p. 634.
Carborundum Company, The. (See Tone, Frank J., assignor.)
Carl, John H., Gilroy, Cal. Safety attachment for firearms. No. 1,203,848; Nov. 7; Gaz. vol. 232; p. 105.
Carle, Harold, assignor to F. N. Burt Company Limited, Buffalo, N. Y. Coating-machine. No. 1,206,205; Nov. 28; Gaz. vol. 232; p. 1027.
Carley, Johanne M., Boston, assignor to G. G. Frost, Newton, Mass. Mechanism for propelling and steadying boats. No. 1,204,937; Nov. 14; Gaz. vol. 232; p. 517.
Carline, Arthur E., Overland, Mo. Concrete post. No. 1,206,300; Nov. 28; Gaz. vol. 232; p. 1060.
Carlson, Albert, Seattle, Wash. Bench-plane guide. No. 1,204,128; Nov. 7; Gaz. vol. 232; p. 202.
Carlson, Arthur F., Edmonton, Alberta, Canada. Folding umbrella. No. 1,206,667; Nov. 28; Gaz. vol. 232; p. 1183.
Carlson, Eric A., Quincy, Mass. Chemical-injector. No. 1,205,513; Nov. 21; Gaz. vol. 232; p. 753.
Carlson, Frederick E., assignor to Landers, Frary & Clark, New Britain, Conn. Electrical heater. No. 1,203,975; Nov. 7; Gaz. vol. 232; p. 148.
Carlsson, Fritiof. (See Evers and Carlsson.)
Carlsson, Fritiof, assignor to Lidgerwood Manufacturing Company, New York, N. Y. Clutch device. No. 1,203,976; Nov. 7; Gaz. vol. 232; p. 148.
Carmer, James R., Wilmington, Del. Uncoupling-lever. No. 1,203,849; Nov. 7; Gaz. vol. 232; p. 105.
Carner, Leonard A., assignor of one-half to L. E. Johnson, Mountain View, Ark. Wrench. No. 1,204,129; Nov. 7; Gaz. vol. 232; p. 202.
Caron, Ludger J., Leominster, Mass. Surface-gage. No. 1,206,668; Nov. 28; Gaz. vol. 232; p. 1183.
Caron, Octave, assignor of one-fourth to E. W. Christopher, Scranton, N. D. Animal-poke. No. 1,203,701; Nov. 7; Gaz. vol. 232; p. 53.
Carow, John J. and J., Washington, D. C. Method and article of decoration for walls and other surfaces. No. 1,204,743; Nov. 14; Gaz. vol. 232; p. 449.
Carow, Julius. (See Carow, John J. and J.)
Carpenter, George D., assignor, by mesne assignments, to The White Motor Company, Cleveland, Ohio. Delivery-truck. No. 1,203,977; Nov. 7; Gaz. vol. 232; p. 149.
Carper, Emmett P., and L. S. Patterson, Fordwick, Va. Folding egg-crate. No. 1,206,090; Nov. 28; Gaz. vol. 232; p. 987.
Carr, Edward G., Oceanside, Cal. Concrete-tamper. No. 1,204,245; Nov. 7; Gaz. vol. 232; p. 242.
Carr, William C., Buffalo, N. Y. Ore-car. No. 1,206,091; Nov. 28; Gaz. vol. 232; p. 987.
Carroll, William, East Ham, England. Life-buoy. No. 1,205,514; Nov. 21; Gaz. vol. 232; p. 754.
Carson, Edward A., Compton, and J. Atherton, Redondo, Cal. Electric flat-iron. No. 1,206,301; Nov. 28; Gaz. vol. 232; p. 1061.
Carson, Joseph P., Richmond, Va. Safety cranking device for motor-vehicles. No. 1,205,709; Nov. 21; Gaz. vol. 232; p. 824.

Carter, Charles D., New York, and G. F. Bibb, Troy, N. Y., assignors to The Floyd-Wells Company, Royersford, Pa. Combined coal and gas stove. No. 1,204,130; Nov. 7; Gaz. vol. 232; p. 203.
Carter, Jesse P., Rochelle, Ga. Swinging chair. No. 1,206,669; Nov. 28; Gaz. vol. 232; p. 1184.
Carter, John F., Grand Rapids, Mich., assignor to Wolverine Starter Company. Starting mechanism for motors. No. 1,204,406; Nov. 14; Gaz. vol. 232; p. 332.
Carter, Russell S., Hewlett, N. Y. Shock-absorber connection. No. 1,203,580; Nov. 7; Gaz. vol. 232; p. 9.
Carter, Walter C., Pittsburgh, Pa. Game-board. No. 1,204,246; Nov. 7; Gaz. vol. 232; p. 242.
Cartwright, Albert D., and A. Baer, Toledo, Ohio. Horse-shoe-calking machine. No. 1,203,978; Nov. 7; Gaz. vol. 232; p. 149.
Cary Manufacturing Co. (See Cary and Brand, assignors.)
Cary, Richard, and G. W. Hewitt, Niagara Falls, N. Y. Dish-washing machine. No. 1,206,206; Nov. 28; Gaz. vol. 232; p. 1028.
Cary, Spencer C., and H. H. Brand, New York, assignors to Cary Manufacturing Co., Brooklyn, N. Y. Corrugated-fastener machine. No. 1,206,302; Nov. 28; Gaz. vol. 232; p. 1061.
Casad, Roland C., Sawtelle, Cal. Oil-burner. No. 1,205,083; Nov. 14; Gaz. vol. 232; p. 565.
Case, Arthur E. (See Brownrigg, Henderson, and Case.)
Case, Raymond S. (See Bell and Case.)
Casey, Frank. (See Maltby and Casey.)
Casgrain, Louis A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Indenting-machine. No. 1,205,159; Nov. 21; Gaz. vol. 232; p. 634.
Cashel, Andrew J., assignor of one-third to W. Cashel and one-third to W. Snare, Casper, Wyo. Level. No. 1,203,702; Nov. 7; Gaz. vol. 232; p. 53.
Cashel, William, *et al.* (See Cashel, Andrew J., assignor.)
Casler, Herman, Canastota, N. Y. Boring-tool. No. 1,204,339; Nov. 7; Gaz. vol. 232; p. 273.
Cassidy, William W., Deadwood, S. D. Condenser. No. 1,203,581; Nov. 7; Gaz. vol. 232; p. 10.
Cavagnaro, John J., Harrison, N. J. Dough-press. No. 1,205,710; Nov. 21; Gaz. vol. 232; p. 824.
Cavaline, Carrie M., assignor of forty one-hundredths to F. B. Morgan, Portland, Oreg. Foldable table. No. 1,204,648; Nov. 14; Gaz. vol. 232; p. 410.
Cavanagh, John F. (See Wilcox and Cavanagh.)
Caverno, Xenophon, Kewanee, Ill. Mounting for private utilities. No. 1,204,544; Nov. 14; Gaz. vol. 232; p. 380.
Cavileer, Ruth L. (See Cavileer, William N. and R. L.)
Cavileer, William N. and R. L., Phoenix, Ariz.; said William N. Cavileer assignor to said R. L. Cavileer. Fishing-reel. No. 1,206,412; Nov. 28; Gaz. vol. 232; p. 1098.
Cecil, Wilson J., *et al.* (See Johnson, Wallace C., assignor.)
Cedarbom, Reinhold, New York, N. Y. Ink-feeding attachment for pens. No. 1,206,413; Nov. 28; Gaz. vol. 232; p. 1098.
Celluloid Company, The. (See Lindsay, William G., assignor.)
Centerwall, George J. D., Stockholm, Sweden. Protective means for transmission-lines. No. 1,204,407; Nov. 14; Gaz. vol. 232; p. 332.
Central Railway Signal Company. (See Dutcher, Frank, assignor.)
Central Railway Signal Company. (See Pfeil and Bemisderfer, assignors.)
Central Railway Signal Company. (See Williams, Walter A., assignor.)
Cernarowski, John, Monessen borough, Pa. Safety mechanism for wire-machines. No. 1,206,092; Nov. 28; Gaz. vol. 232; p. 988.
Chadwick, Claude C. (See Kuehn, Charles P., assignor.)
Chain Belt Company. (See Fraser, Donald, assignor.)
Chamberlin, Frank J., Battle Creek, Mich. Irrigation-union. No. 1,206,670; Nov. 28; Gaz. vol. 232; p. 1184.
Chambley, Alexander, Philadelphia, Pa. Vault-light construction. No. 1,205,160; Nov. 21; Gaz. vol. 232; p. 635.
Chandler, Perry F. (See Farre and Chandler.)
Chandler, William G. (See McCarty, Thomas A., assignor.)
Chaney, Caryl E., Detroit, Mich. Electrical heating unit. No. 1,206,510; Nov. 28; Gaz. vol. 232; p. 1131.
Chaney, Herbert M., Sardinia, Ohio. Tire-rim. No. 1,205,161; Nov. 21; Gaz. vol. 232; p. 635.
Chapek, Joseph C., Michigan, N. D. Manure-carrier. No. 1,205,855; Nov. 21; Gaz. vol. 232; p. 872.
Chapman, Charles H., Winchester, Mass. Ball-bearing. No. 1,204,938; Nov. 14; Gaz. vol. 232; p. 517.
Chapman, Ralph W., assignor of one-half to T. M. Chapman's Sons' Company, Oldtown, Me. Electric pad-heating device. No. 1,206,093; Nov. 28; Gaz. vol. 232; p. 988.
Chapman, Samuel D., Kansas City, Mo. Spring-wheel. No. 1,204,340; Nov. 7; Gaz. vol. 232; p. 274.
Charles L. Seabury & Co. *et al.* (See Millbourn, James, assignor.)
Charles, Patrick F., and J. J. Broderick, deceased, E. F. Broderick, administratrix, assignors of one-tenth to E. A. Kirby, Girard, Ohio, nine-twentieths to said Patrick F. Charles, and nine-twentieths to said E. F. Broderick, individually. Making wrought-iron. No. 1,204,939; Nov. 14; Gaz. vol. 232; p. 518.
Charles R. Hadley Company. (See Hadley, Charles R., assignor.)
Charlton, Thomas F. (See Mayo and Charlton.)
Chase, Charles A., Chicago, Ill. Electric sign. No. 1,203,582; Nov. 7; Gaz. vol. 232; p. 10.
Chavez, Charles E., and F. G. Sanchez, Key West, Fla. Boat-propeller. No. 1,204,940; Nov. 14; Gaz. vol. 232; p. 518.
Cheek, Charles W., East Chattanooga, Tenn. Axle-lubricator. No. 1,205,856; Nov. 21; Gaz. vol. 232; p. 872.
Chemische Fabrik auf Actien (vorm. E. Schering.) (See Dohrn, Max, assignor.) (Reissue.)
Chemische Fabrik Griesheim-Elektron. (See Laska, August L., assignor.)
Cheney, George M., assignor to Litchfield Shuttle Company, Southbridge, Mass. Loom-shuttle. No. 1,206,303; Nov. 28; Gaz. vol. 232; p. 1061.
Cherry, Spencer A., Nashville, Tenn. Spring-wheel. No. 1,205,972; Nov. 28; Gaz. vol. 232; p. 948.
Chevalier, La Rue B., Iola, Kans. Pulverized-coal-feeding apparatus. No. 1,203,703; Nov. 7; Gaz. vol. 232; p. 54.
Chicago Railway Equipment Company. (See Peffers, Andrew R., assignor.)
Chillemi, Paolo, and A. Raneri, Schenectady, N. Y. Washing-machine. No. 1,204,941; Nov. 14; Gaz. vol. 232; p. 518.
Chipman, Ralph N. (See Wilson and Chipman.)
Chisholm, Charles L., Marysville, New Brunswick, Canada, assignor of one-fourth to E. G. Siggers, Washington, D. C. Phonograph attachment. No. 1,204,341; Nov. 7; Gaz. vol. 232; p. 274.
Choate, Roy E., Cedar Rapids, Iowa. Capstan. No. 1,204,408; Nov. 14; Gaz. vol. 232; p. 332.
Chrisman, Horace, Edgewood, Pa., assignor to Pittsburgh Meter Company. Gearing. No. 1,204,251; Nov. 7; Gaz. vol. 232; p. 244.
Christensen, Jakob V. C. T., Wichita Falls, Tex. Brake-shoe. No. 1,204,649; Nov. 14; Gaz. vol. 232; p. 417.
Christenson, Albert C., Bushnell, Nebr. Sash-lock. No. 1,203,850; Nov. 7; Gaz. vol. 232; p. 105.
Christian, Frank F., Kirkland, Tex. Maize cutter or gatherer. No. 1,204,409; Nov. 14; Gaz. vol. 232; p. 333.
Christie, Elizabeth. (See Ortengren, Alfred, assignor.)
Christman, Albert R., assignor of one-half to J. Eisenbrand, Philadelphia, Pa. Shock-absorber. No. 1,205,432; Nov. 21; Gaz. vol. 232; p. 725.
Christman, Albert R., assignor of one-half to J. Eisenbrand, Philadelphia, Pa. Shock-absorber. No. 1,205,433; Nov. 21; Gaz. vol. 232; p. 726.
Christoph, Emil A., assignor to The King Lock Company, Chicago, Ill. Lock. No. 1,204,410; Nov. 14; Gaz. vol. 232; p. 333.
Christoph, Emil A., assignor, by mesne assignments, to The King Lock Company, Chicago, Ill. Lock. No. 1,204,545; Nov. 14; Gaz. vol. 232; p. 381.
Christopher, Ernest W. (See Caron, Octave, assignor.)
Chubb, Lewis W., Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company. Electrical mensuring instrument. No. 1,206,304; Nov. 28; Gaz. vol. 232; p. 1062.
Cigar Vender Sales Company, The, *et al.* (See Hoffman, Robert O., assignor.)
Cincinnati-Bickford Tool Company, The. (See Klausmeyer, David C., assignor.)
Cincinnati-Bickford Tool Company, The. (See Norris, Henry M., assignor.)
Cincinnati Planer Company, The. (See Johannesmeyer and Langen, assignors.)
Claflin, Charles A., Medford, Mass. Hose-coupling. No. 1,204,650; Nov. 14; Gaz. vol. 232; p. 417.
Clanton, William A., and R. K. Cox, Wood, Va. Wire-clamp. No. 1,204,942; Nov. 14; Gaz. vol. 232; p. 518.
Clare, James P., Stratham, N. H. Self-healing composition for the inner tubes of tires. No. 1,206,414; Nov. 28; Gaz. vol. 232; p. 1098.
Clarendon-Yocum Company, The. (See Yocum, John H., assignor.)
Clark, Alfred C., Philadelphia, Pa., assignor to U. S. Safety Appliance Company, Baltimore, Md. Safety appliance for automatic hammers. No. 1,206,511; Nov. 28; Gaz. vol. 232; p. 1131.
Clark, Charles C., New York, N. Y. Weighing device. No. 1,203,583; Nov. 7; Gaz. vol. 232; p. 10.
Clark, Charles H., Cleveland, Ohio. Rail-lubricating device. No. 1,205,711; Nov. 21; Gaz. vol. 232; p. 824.
Clark, Charles M., and R. W. Andrews, Chicago, Ill., assignors, by mesne assignments, to Erie Pump & Equipment Company, Erie, Pa. Boiler-alarm. No. 1,203,979; Nov. 7; Gaz. vol. 232; p. 149.
Clark, Edgar H., New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. System for controlling electrical circuits. No. 1,203,851; Nov. 7; Gaz. vol. 232; p. 106.
Clark, Emerson L., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Pyrometer. No. 1,205,325; Nov. 21; Gaz. vol. 232; p. 689.

Clark, Guy Z., assignor of one-half to L. S. West, Davenport, Wash. Sled-runner attachment for automobiles. No. 1,206,671; Nov. 28; Gaz. vol. 232; p. 1184.
Clark, Norris E., Plainville, Conn. Expanded-metal fabric. No. 1,203,704; Nov. 7; Gaz. vol. 232; p. 54.
Clarke, John Q., Crawfordsville, Ind. Stock-watering device. No. 1,206,672; Nov. 28; Gaz. vol. 232; p. 1185.
Clarke, Matthew, Wilkes-Barre, Pa. Saw-holder. No. 1,203,980; Nov. 7; Gaz. vol. 232; p. 150.
Clarkson, James D., Carthage, Mo. Process of and apparatus for making roads. No. 1,206,751; Nov. 28; Gaz. vol. 232; p. 1213.
Claudel, Charles H., Levallois-Perret, France. Carbureter. No. 1,204,247; Nov. 7; Gaz. vol. 232; p. 243.
Clay, George B., Jenkintown, Pa. Door opener and check. No. 1,204,651; Nov. 14; Gaz. vol. 232; p. 417.
Clemens, John G., Buffalo, N. Y. Soldering apparatus. No. 1,204,131; Nov. 7; Gaz. vol. 232; p. 203.
Clemens, John G., Buffalo, N. Y. Toy. No. 1,204,132; Nov. 7; Gaz. vol. 232; p. 203.
Clement, Hans, New York, N. Y., assignor to General Optical Company, Inc. Ophthalmoscope. No. 1,204,943; Nov. 14; Gaz. vol. 232; p. 519.
Clements, George, assignor to Clements Mfg. Co., Chicago, Ill. Vacuum-cleaner. No. 1,205,162; Nov. 21; Gaz. vol. 232; p. 636.
Clements Mfg. Co. (See Clements, George, assignor.)
Clifford, James S., Weehawken, N. J. Table-lamp attachment. No. 1,203,981; Nov. 7; Gaz. vol. 232; p. 150.
Clorius, Axel V., Frederiksberg, and O. T. Clorius, Hellerup, near Copenhagen, Denmark, assignors to Kentucky Derby Company, Inc., New York, N. Y. Game of skill. No. 1,203,852; Nov. 7; Gaz. vol. 232; p. 106.
Clorius, Oden T. (See Clorius, Axel V. and O. T.)
Close, Edmund E., assignor of one-half to A. L. Sewall and one-half to C. R. Felton, Brockton, Mass. Scaling-ladder. No. 1,205,594; Nov. 21; Gaz. vol. 232; p. 783.
Cobb, Henry Z., Winchester, Mass., assignor to Revere Rubber Company. Machine for wrapping hose and similar articles. No. 1,204,342; Nov. 7; Gaz. vol. 232; p. 274.
Cobb, Norman A., Littell, Wash. Automobile gear-lock. No. 1,206,673; Nov. 28; Gaz. vol. 232; p. 1185.
Cochrane, Samuel B. (See Voitz and Cochrane.)
Codrington, William F., New York, N. Y. Method of and apparatus for producing rolls of adhesive material. No. 1,204,248; Nov. 7; Gaz. vol. 232; p. 243.
Cofield Motor Washer Company, The. (See Cofield, Peter T., assignor.)
Cofield, Peter T., assignor to The Cofield Motor Washer Company, Dayton, Ohio. Water-motor. No. 1,205,857; Nov. 21; Gaz. vol. 232; p. 872.
Cogger, William B., Cleveland, assignor to T. Kundtz, Lakewood, Ohio. Blank for forming standards. No. 1,204,546; Nov. 14; Gaz. vol. 232; p. 381.
Cohn, Max M., Piedmont, Cal. Paper waste-basket. No. 1,204,744; Nov. 14; Gaz. vol. 232; p. 449.
Colbath, William H. (See Brummett and Colbath.)
Cole, David, Tucson, Ariz. Treating slimes. No. 1,205,326; Nov. 21; Gaz. vol. 232; p. 689.
Cole, David, Tucson, Ariz. Apparatus for treating slimes. No. 1,205,327; Nov. 21; Gaz. vol. 232; p. 689.
Cole, Robert C., assignor to The Johns-Pratt Company, Hartford, Conn. Cut-out block. No. 1,203,584; Nov. 7; Gaz. vol. 232; p. 11.
Coleman, Lockett G., Ottawa, Ontario, Canada. Switch-stand. No. 1,206,415; Nov. 28; Gaz. vol. 232; p. 1098.
Colin, René, Strassburg, Germany. Spark-plug. No. 1,206,788; Nov. 28; Gaz. vol. 232; p. 1226.
Coll, Aloysius, Clarksburg, W. Va. Washboard-clamp. No. 1,204,133; Nov. 7; Gaz. vol. 232; p. 204.
Collette, Austin B., Everett, Mass., assignor to American Steam Gauge & Valve Manufacturing Co. Forming springs for pressure or the like gages. No. 1,203,982; Nov. 7; Gaz. vol. 232; p. 151.
Collins, Herbert W., Grand Forks, British Columbia, Canada. Game apparatus. No. 1,204,944; Nov. 14; Gaz. vol. 232; p. 519.
Collinson, Francis E., London, England, assignor of one-half to Taylor Instrument Companies, Rochester, N. Y. Barometer. No. 1,206,094; Nov. 28; Gaz. vol. 232; p. 989.
Collis, George, Clinton, Iowa, assignor, by mesne assignments, to Paramount Hosiery Form Drying Company, Chicago, Ill. Finishing and shaping hosiery. No. 1,204,945; Nov. 14; Gaz. vol. 232; p. 519.
Collom, Charles F., assignor to The National Wharf and Bridge Company, New Orleans, La. Concrete wharf-support. No. 1,204,946; Nov. 14; Gaz. vol. 232; p. 520.
Colonial Trust Company, The, trustee. (See Flanders, Warren B., assignor.)
Colorado Iron Works Co. (See Akins, Randall P., assignor.) (Reissue.)
Colorado Iron Works Company. (See Rothwell and Lowden, assignors.)
Combs, George H., Ithaca, N. Y. Folding crate. No. 1,206,674; Nov. 28; Gaz. vol. 232; p. 1185.
Commercial Camera Company. (See Greene, John S., assignor.)
Comstock, Corry B., New York, N. Y., assignor to Ward Bread Company. Dough-trough. No. 1,203,705; Nov. 7; Gaz. vol. 232; p. 55.
Condon, Edward T., Jr., Morristown, N. J. Collapsible baby-walker. No. 1,204,249; Nov. 7; Gaz. vol. 232; p. 244.
Cone, Benjamin F., Ashland, Nebr. Guard for vehicles. No. 1,203,706; Nov. 7; Gaz. vol. 232; p. 55.
Congdon, George W., assignor of fifty one-hundredths to G. Tucker, Marion, N. D. Ironing-board. No. 1,206,675; Nov. 28; Gaz. vol. 232; p. 1185.
Connecticut Telephone & Electric Company, The. (See Wilcox and Cavanagh, assignors.)
Connell, John W. (See McKinney, Robert, assignor.)
Connell, Roy, Westfield, N. J. Electric-circuit controller. No. 1,206,434; Nov. 21; Gaz. vol. 232; p. 726.
Connolley, John J., Poquonock, Conn. Mixing apparatus. No. 1,204,846; Nov. 14; Gaz. vol. 232; p. 482.
Connolly, Frank A., Pompton Lakes, N. J. Mixing-machine. No. 1,204,343; Nov. 7; Gaz. vol. 232; p. 275.
Connolly, William L., New York, N. Y. Candelabrum. No. 1,204,134; Nov. 7; Gaz. vol. 232; p. 204.
Conrad, Frank, Swissvale, and K. A. Simmon, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Vapor-rectifier. No. 1,204,411; Nov. 14; Gaz. vol. 232; p. 333.
Conrad, Walter, Vienna, Austria-Hungary. Aerial ropeway. No. 1,205,515; Nov. 21; Gaz. vol. 232; p. 754.
Constantinesco, Gogu, London, England. Carbureter. No. 1,206,512; Nov. 28; Gaz. vol. 232; p. 1132.
Contal, Camille, St. Cloud, France, assignor, by mesne assignments, to Albert T. Otto & Sons, New York, N. Y. Extensible tool. No. 1,203,853; Nov. 7; Gaz. vol. 232; p. 107.
Contant, George C., New York, N. Y., assignor of one-half to J. Decker, Jr., Montclair, N. J. Powdered egg product and making the same. No. 1,203,983; Nov. 7; Gaz. vol. 232; p. 151.
Continental Rubber Works. (See Vey, John A., assignor.)
Conwell, Walter L. (See Wampler and Conwell.)
Cook, Frank B., assignor to Frank B. Cook Company, Chicago, Ill. Cable-terminal. No. 1,204,412; Nov. 14; Gaz. vol. 232; p. 334.
Cook, George W., Menomonie, Wis. Changeable exhibitor. No. 1,204,135; Nov. 7; Gaz. vol. 232; p. 204.
Cook, John H., and F. T. Reid, Kansas City, Mo. Automobile-wheel cuff. No. 1,204,847; Nov. 14; Gaz. vol. 232; p. 482.
Coons, Burton C., Rochester, N. Y. Paring-machine. No. 1,204,413; Nov. 14; Gaz. vol. 232; p. 334.
Cooper, Charles J., assignor of one-half to H. W. Cooper Saddlery Hardware Mfg. Company, Moline, Ill. Trace. No. 1,203,854; Nov. 7; Gaz. vol. 232; p. 107.
Cooper Hewitt Electric Company. (See Bastian and Salisbury, assignors.)
Cooper Hewitt Electric Company. (See Keyes, Frederick G., assignor.)
Cooper-Hewitt Electric Company. (See Thomas, Percy H., assignor.)
Cooper, John J., London, England, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine copy-holder. No. 1,203,585; Nov. 7; Gaz. vol. 232; p. 11.
Cooper Manufacturing Company. (See Burke, William W., assignor.)
Cooper, William H., East St. Louis, Ill. Nose-bag for horses. No. 1,204,250; Nov. 7; Gaz. vol. 232; p. 244.
Cope, Frank T. (See Baily and Cope.)
Cope, Joseph H., assignor to The Windsor Manufacturing Company, Windsor, Colo. Sweep-rake. No. 1,206,978; Nov. 28; Gaz. vol. 232; p. 948.
Copony, Alfred, Chicago, Ill. Means for supporting automobiles in freight-cars. No. 1,204,947; Nov. 14; Gaz. vol. 232; p. 520.
Copony, Alfred, assignor to W. H. Miner, Chicago, Ill. Single-center-sill draft-gear. No. 1,205,974; Nov. 28; Gaz. vol. 232; p. 949.
Coppes, Harold F., Nappanee, Ind. Flour-bin. No. 1,206,513; Nov. 28; Gaz. vol. 232; p. 1132.
Corcoran-Victor Company, The. (See Kuen, Eugene A., assignor.)
Corcoran, William, Portland, Oreg. Running-gear for vehicles. No. 1,205,858; Nov. 21; Gaz. vol. 232; p. 873.
Cordle, Hamner J., Littleton, N. C. Carbureter. No. 1,205,859; Nov. 21; Gaz. vol. 232; p. 873.
Corey, Lyle D., Minneapolis, Minn. Fan attachment for sewing-machines. No. 1,203,984; Nov. 7; Gaz. vol. 232; p. 152.
Corrado, Frank, and W. J. Doyle, Evanston, Ill. Torpedo-guard. No. 1,204,547; Nov. 14; Gaz. vol. 232; p. 382.
Cory, Wilbur G., New York, N. Y., assignor to Osgood Bradley Car Company, Worcester, Mass. Car-door mechanism. No. 1,205,435; Nov. 21; Gaz. vol. 232; p. 725.
Cosby, William B., assignor of one-half to D. D. Gross, Kansas City, Mo. Target-trap. No. 1,206,416; Nov. 28; Gaz. vol. 232; p. 1099.
Cospy, Walter, San Francisco, Cal. Explosive containing nitroglycerin. No. 1,205,516; Nov. 21; Gaz. vol. 232; p. 754.
Cote, Willcord W., assignor of one-half to F. G. Burnham, Holyoke, Mass. Fire-escape. No. 1,206,676; Nov. 28; Gaz. vol. 232; p. 1186.
Cotton, Walter H., assignor to Union Draft Gear Company, Chicago, Ill. Draft-gear. No. 1,204,948; Nov. 14; Gaz. vol. 232; p. 521.
Cottrell, Danforth D., Newkirk, Okla. Grain-thresher elevator-boot. No. 1,204,949; Nov. 14; Gaz. vol. 232; p. 521.
Cottrell, William. (See Benjamin and Cottrell.)

Counting Machine Manufacturing Co. (See Garbo, Nils F., assignor.)
Courson, John F., Pitcairn, Pa. Draft-gear. No. 1,205,712; Nov. 21; Gaz. vol. 232; p. 825.
Cowan, Henry W., Toronto, Ontario, Canada. Filter. No. 1,204,414; Nov. 14; Gaz. vol. 232; p. 335.
Cowles, Samuel E., Woronoco, Mass. Lifting device. No. 1,203,586; Nov. 7; Gaz. vol. 232; p. 11.
Cowley, James T., Minot, assignor to The Lamson Company, Boston, Mass. Corner for conveyers. No. 1,206,305; Nov. 28; Gaz. vol. 232; p. 1062.
Cox, Alvin E., Ada, Okla. Incubator-alarm. No. 1,206,207; Nov. 28; Gaz. vol. 232; p. 1028.
Cox, Frank H., Gratton, Va. Vending-machine. No. 1,205,713; Nov. 21; Gaz. vol. 232; p. 825.
Cox, John H., Hot Springs, Ark. Garment-supporting device. No. 1,205,860; Nov. 21; Gaz. vol. 232; p. 873.
Cox, John W., Erie, Pa. Fire-protection system. No. 1,205,517; Nov. 21; Gaz. vol. 232; p. 754.
Cox, Lawrence H. (See Stedler, Henry W., assignor.)
Cox, Robert K. (See Clanton and Cox.)
Coy, Joseph A., Ludlow, Ky. Flash-light mace. No. 1,206,095; Nov. 28; Gaz. vol. 232; p. 989.
Craft, Bert A., Harpersfield township, Ohio. Wheelbarrow. No. 1,204,652; Nov. 14; Gaz. vol. 232; p. 418.
Craft, Edward B., Hackensack, N. J., and J. N. Reynolds, Greenwich, Conn., assignors, by mesne assignments, to Western Electric Company, Incorporated. Telephone-exchange system. No. 1,205,518; Nov. 21; Gaz. vol. 232; p. 755.
Craig, Edward, assignor to Saranac Machine Co., St. Joseph, Mich. Metal-bound-box-blank-stapling machine. No. 1,205,328; Nov. 21; Gaz. vol. 232; p. 690.
Craig, Edward, assignor to Saranac Machine Co., St. Joseph, Mich. Metal-bound-box-end-stapling machine. No. 1,205,329; Nov. 21; Gaz. vol. 232; p. 690.
Craig, Edward, St. Joseph, assignor to Saranac Machine Company, Benton Harbor, Mich. Machine for making receptacles. No. 1,205,330; Nov. 21; Gaz. vol. 232; p. 691.
Craig, Edward, St. Joseph, assignor to Saranac Machine Company, Benton Harbor, Mich. Wire handle. No. 1,205,331; Nov. 21; Gaz. vol. 232; p. 691.
Crandall, Orey W., *et al.* (See Hizington, Harry W., assignor.)
Crane, Henry M., New York, N. Y., assignor to Simplex Automobile Company, Inc., New Brunswick, N. J. Automobile-seat. No. 1,206,208; Nov. 28; Gaz. vol. 232; p. 1028.
Crane, John, assignor to Crane Packing Company, Chicago, Ill. Metallic packing and making the same. No. 1,206,306; Nov. 28; Gaz. vol. 232; p. 1063.
Crane Packing Company. (See Crane, John, assignor.)
Crane, William S., Randolph, Vt. Projectile. No. 1,204,950; Nov. 14; Gaz. vol. 232; p. 521.
Crawford, Charles R. (See Crawford, William H., R. H., C. R., and J. M.)
Crawford, Jerry M. (See Crawford, William H., R. H., C. R., and J. M.)
Crawford, Richard H. (See Crawford, William H., R. H., C. R., and J. M.)
Crawford, William H., R. H., C. R., and J. M., Rosemond, Ill. Hay-gatherer. No. 1,205,975; Nov. 28; Gaz. vol. 232; p. 949.
Creamer, J. Byron, *et al.* (See Doyle, Clarence V., assignor.)
Creech, John S., Aberdeen, Wash. Fountain paint-brush. No. 1,205,714; Nov. 21; Gaz. vol. 232; p. 826.
Creighton, Elmer E. F., Schenectady, N. Y., assignor to General Electric Company. Protective apparatus. No. 1,206,677; Nov. 28; Gaz. vol. 232; p. 1186.
Creveling, John L., New York, N. Y. Telephone appliance. No. 1,204,136; Nov. 7; Gaz. vol. 232; p. 205.
Cribbs, Luther H., assignor of one-half to E. S. Blocker, Blanton, Fla. Hoe. No. 1,206,678; Nov. 28; Gaz. vol. 232; p. 1187.
Cring, George V., Portland, Ind. Inside wind-shield for vehicles. No. 1,203,587; Nov. 7; Gaz. vol. 232; p. 12.
Crisfield, James A. P., assignor to The United Gas Improvement Company, Philadelphia, Pa. Air-valve for water-gas apparatus. No. 1,206,307; Nov. 28; Gaz. vol. 232; p. 1063.
Crompton & Knowles Loom Works. (See Ryon, Eppa H., assignor.)
Crone, Francis G., Buffalo, N. Y. Mixing unit for gases. No. 1,205,436; Nov. 21; Gaz. vol. 232; p. 727.
Cronk, Harrison T., assignor to Cronk-Salter Company, New York, N. Y. Refuse-tank. No. 1,203,707; Nov. 7; Gaz. vol. 232; p. 55.
Cronk-Salter Company. (See Cronk, Harrison T., assignor.)
Cross Paper Feeder Company. (See Hallstream, Henning, assignor.)
Crouch, George G. (See Farber and Crouch.)
Crout, John C., Pelion, S. C. Mop-holder. No. 1,204,848; Nov. 14; Gaz. vol. 232; p. 483.
Crow, Gertrude B. (See Laurie, Donald, assignor.)
Crowley, Andrew J., Folsom, N. Mex. Windmill. No. 1,206,514; Nov. 28; Gaz. vol. 232; p. 1132.
Cruikshank, James W., Pittsburg, Pa. Pot-filling apparatus. No. 1,204,252; Nov. 7; Gaz. vol. 232; p. 245.
Cruse, Amandus H., Brooklyn, assignor to R. Hoe and Co., New York, N. Y. Stereotype-plate-casting box. No. 1,206,209; Nov. 28; Gaz. vol. 232; p. 1029.
Culley, Alfred H., Erdington, Birmingham, assignor of one-half to S. Davies, London, England. Spring-fork for velocipedes. No. 1,206,210; Nov. 28; Gaz. vol. 232; p. 1029.
Culp, Samuel T., Littleton, Colo. Tire-armor. No. 1,203,985; Nov. 7; Gaz. vol. 232; p. 152.
Cummings, Floyd, Oneonta, N. Y. Combination toilet set and case. No. 1,206,679; Nov. 28; Gaz. vol. 232; p. 1187.
Cunkle, Harry K., Wormleysburg, Pa. Reversible mailing-bag. No. 1,206,417; Nov. 28; Gaz. vol. 232; p. 1099.
Curnow, Joseph S., Newark, N. J. Window-lock. No. 1,203,986; Nov. 7; Gaz. vol. 232; p. 152.
Currie, Carleton A., Wonthaggi, Victoria, Australia. Grip for boot and shoe laces. No. 1,205,595; Nov. 21; Gaz. vol. 232; p. 784.
Currie, Jasper J., assignor to G. F. Kearney, Detroit, Mich. Paper-roll holder. No. 1,203,588; Nov. 7; Gaz. vol. 232; p. 12.
Currie, Ronald H., Calgary, Alberta, Canada. Dirigible headlight. No. 1,206,418; Nov. 28; Gaz. vol. 232; p. 1099.
Curtenius, Dwight R., assignor to Kalamazoo Stove Company, Kalamazoo, Mich. Kitchen-cabinet. No. 1,203,589; Nov. 7; Gaz. vol. 232; p. 13.
Curtiss Aeroplane & Motor Corporation. (See Curtiss, Glenn H., assignor.)
Curtiss, Glenn H., Hammondsport, N. Y., assignor to Curtiss Aeroplane & Motor Corporation. Flying-machine. No. 1,204,380; Nov. 7; Gaz. vol. 232; p. 287.
Cushing, William L. B., and G. A. Flood, Los Angeles, Cal. Means for locking steering-heads of automobiles. No. 1,205,861; Nov. 21; Gaz. vol. 232; p. 873.
Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)
Cutler-Hammer Mfg. Co., The. (See Tatum, Lewis L., assignor.)
Cyphers Incubator Company. (See Damon, Charles A., assignor.)
Czarnetzki, Arthur, Gardena, N. D. Attachment for grain-drills. No. 1,205,862; Nov. 21; Gaz. vol. 232; p. 874.
D'Ardenne, Walter H., Philadelphia, Pa. Internal-combustion engine. No. 1,203,855; Nov. 7; Gaz. vol. 232; p. 107.
Dahl-Jensen, Jens P., Copenhagen, Denmark. Pressure-die for insulator-pressing molds. No. 1,204,745; Nov. 14; Gaz. vol. 232; p. 440.
Dahms, Henry T., Walcott, Iowa. Vehicle-brake. No. 1,206,419; Nov. 28; Gaz. vol. 232; p. 1100.
Dain, Joseph, assignor to Dain Manufacturing Company, of Iowa, Ottumwa, Iowa. Hay-press. No. 1,205,163; Nov. 21; Gaz. vol. 232; p. 636.
Dain Manufacturing Company of Iowa. (See Dain, Joseph, assignor.)
Dain Manufacturing Company of Iowa. (See Thomas, James C., assignor.)
Daisley, Roland C. (See Plowman and Daisley.)
Dale, John H., New York, N. Y., assignor to Dale Lighting Fixture Co., Inc. Incandescent lamp. No. 1,204,653; Nov. 14; Gaz. vol. 232; p. 418.
Dale Lighting Fixture Co. (See Dale, John H., assignor.)
Dalladay, Arthur J. (See Twyman, Parker, and Dalladay.)
Dalton, John J., Seattle, Wash. Receptacle for pot-lids. No. 1,204,344; Nov. 7; Gaz. vol. 232; p. 275.
Dalton, William, Schenectady, N. Y. Manufacture of blended powder compounds. No. 1,204,137; Nov. 7; Gaz. vol. 232; p. 205.
Damer, George, U. S. Navy. Projectile. No. 1,205,715; Nov. 21; Gaz. vol. 232; p. 826.
Damon, Charles A., assignor to Cyphers Incubator Company, Buffalo, N. Y. Portable hover. No. 1,205,332; Nov. 21; Gaz. vol. 232; p. 692.
Daniel, David C., Raeford, N. C. Churn. No. 1,204,849; Nov. 14; Gaz. vol. 232; p. 483.
Daniels, John F., assignor of one-half to R. M. Whitman, Providence, R. I. Clasp. No. 1,205,164; Nov. 21; Gaz. vol. 232; p. 636.
Danielson, Harold, Passaic, N. J. Trough for distributing concrete. No. 1,206,515; Nov. 28; Gaz. vol. 232; p. 1132.
Dargento, Louis, Rochester, N. Y. Curbing-block. No. 1,204,951; Nov. 14; Gaz. vol. 232; p. 522.
Daudelin, Felix E., Chicago, Ill. Architectural structure. No. 1,206,516; Nov. 28; Gaz. vol. 232; p. 1133.
Daugherty, Matthew L. (See Gilbert and Daugherty.)
Davey, Daniel, Maribyrnong, and H. Maison, Flemington, Victoria, Australia. Sawing-machine for halving carcasses. No. 1,204,345; Nov. 7; Gaz. vol. 232; p. 275.
Davidson, Robert J., Milwaukee, Wis. Rotary engine. No. 1,205,165; Nov. 21; Gaz. vol. 232; p. 636.
Davies, Francis, Philadelphia, Pa. Milling and routing machine. No. 1,203,708; Nov. 7; Gaz. vol. 232; p. 56.
Davies, Samuel. (See Culley, Alfred H., assignor.)
Davies, William T., assignor to The Patterson-Sargent Company, Cleveland, Ohio. Composition of matter for coating purposes. No. 1,205,976; Nov. 28; Gaz. vol. 232; p. 949.
Davis, Charles H., Rushworth, Victoria, Australia. Pool-board. No. 1,205,596; Nov. 21; Gaz. vol. 232; p. 784.

Davis, Charles H., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Overhead structure for trolley-conductors. No. 1,206,308; Nov. 28; Gaz. vol. 232; p. 1063.

Davis Construction Company. (See Davis, Harold, assignor.)

Davis, Edward E., Chicago, Ill. Locking device for automobiles. No. 1,205,124; Nov. 14; Gaz. vol. 232; p. 579.

Davis, George E., Pittsburgh, Pa., assignor of fifty-five one-hundredths to G. W. Richardson, Chicago, Ill., and forty-five one-hundredths to H. A. Geisert, Jefferson City, Mo. Mechanism for controlling and operating the valves of hydrocarbon-engines. No. 1,204,415; Nov. 14; Gaz. vol. 232; p. 335.

Davis, George M. (See Lawrence and Davis.)

Davis, Harold, Washington, D. C., assignor to Davis Construction Company, Inc. Reinforced concrete construction for floors and ceilings. No. 1,206,752; Nov. 28; Gaz. vol. 232; p. 1213.

Davis, John H. (See Renner, William, assignor.)

Davis, John M. (See Middendorf, Davis, and Bowen.)

Davis, Joseph L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Motor for locomotive gathering-reels. No. 1,206,309; Nov. 28; Gaz. vol. 232; p. 1063.

Davis, Linford J., assignor to Keyes-Davis Company, Inc., Battle Creek, Mich. Receptacle-cover. No. 1,203,987; Nov. 7; Gaz. vol. 232; p. 152.

Davis, Thomas E., Cambridge, Mass. Holder for lump-sugar, &c. No. 1,206,774; Nov. 28; Gaz. vol. 232; p. 1222.

Davison, Gregory C., New London, Conn., assignor to Electric Boat Company, New York, N. Y. Air-starting valve for Diesel engines. No. 1,204,952; Nov. 14; Gaz. vol. 232; p. 522.

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Dawson, Homer E. (See Strain and Dawson.)

Day, Edgar K., assignor to Wheeling Corrugating Company, Wheeling, W. Va. Structural member. No. 1,204,955; Nov. 14; Gaz. vol. 232; p. 523.

Day, Edgar K., assignor to Wheeling Corrugating Company, Wheeling, W. Va. Bridging for joists. No. 1,204,956; Nov. 14; Gaz. vol. 232; p. 524.

Day, George H., assignor to American Optical Company, Southbridge, Mass. Nose-rest. No. 1,205,716; Nov. 21; Gaz. vol. 232; p. 826.

Day, Isaac O., Ottumwa, Iowa. Medicated poultry-band. No. 1,203,590; Nov. 7; Gaz. vol. 232; p. 13.

Day, William P., Cleveland, Ohio. Rail-fastening device. No. 1,205,597; Nov. 21; Gaz. vol. 232; p. 785.

Day, William P., Cleveland, Ohio. Substructure for railway-crossings. No. 1,205,598; Nov. 21; Gaz. vol. 232; p. 785.

De Canio, Victor A., Union Hill, N. J., assignor to Lorillard Refrigerator Co., New York, N. Y. Refrigerator. No. 1,204,347; Nov. 7; Gaz. vol. 232; p. 276.

De Cew, Judson A., Montreal, Quebec, Canada. Making an adhesive from waste sulfite liquor. No. 1,203,856; Nov. 7; Gaz. vol. 232; p. 108.

De Cew, Judson A., Montreal, Quebec, Canada. Rosin sizing composition. No. 1,203,857; Nov. 7; Gaz. vol. 232; p. 108.

De Crescenzo, Umberto, Boston, Mass. Mechanical movement. No. 1,204,747; Nov. 14; Gaz. vol. 232; p. 450.

De Doory, Ladislaus, Allston, Mass. Soap-dispenser. No. 1,205,863; Nov. 21; Gaz. vol. 232; p. 874.

De Escobales, Hilario, New York, N. Y. Wrapping-machine. No. 1,203,592; Nov. 7; Gaz. vol. 232; p. 14.

De Gafferelly, Thomas P. (See Inabinett and De Gafferelly.)

De Lalla, Vincent, Jersey City, N. J. Internal-combustion engine. No. 1,204,958; Nov. 14; Gaz. vol. 232; p. 524.

De Orlow, Stephen O., Akron, Ohio. Fan. No. 1,205,600; Nov. 21; Gaz. vol. 232; p. 786.

De Vine, Michael T., Oakville, Conn. Spool or bobbin holder. No. 1,205,085; Nov. 14; Gaz. vol. 232; p. 565.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,205,333; Nov. 21; Gaz. vol. 232; p. 692.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Feeding mechanism for sewing-machines. (Reissue.) No. 14,218; Nov. 28; Gaz. vol. 232; p. 1226.

De Wolf, Ernest A., Mansfield, assignor, by mesne assignments, to Universal Winding Company, Boston, Mass. Electrical coil and winding same. No. 1,204,749; Nov. 14; Gaz. vol. 232; p. 451.

Deak, Mike, Cuddy, Pa. Rail-joint jack. No. 1,204,850; Nov. 14; Gaz. vol. 232; p. 483.

Dean, Irvine E., Memphis, Tenn. Toy rebounder. No. 1,204,957; Nov. 14; Gaz. vol. 232; p. 524.

Dearborn, Samuel S., Boston, Mass. Rotary spinning-ring. No. 1,204,346; Nov. 7; Gaz. vol. 232; p. 276.

Dearing, David M., assignor of one-half to W. H. Turney, Jackson, Mich. Seat-spring. No. 1,204,746; Nov. 14; Gaz. vol. 232; p. 450.

Debrosky, Frank, Adams, Mass. Lamp. No. 1,205,864; Nov. 21; Gaz. vol. 232; p. 874.

Debuchy, Edmund A., West Hoboken, N. J. Auxiliary sight for firearms. No. 1,206,310; Nov. 28; Gaz. vol. 232; p. 1064.

Decker, Josiah, Jr. (See Contant, George C., assignor.)

Decker, Ward, Owego, N. Y. Shaft keying device. No. 1,205,717; Nov. 21; Gaz. vol. 232; p. 827.

Degener, Gustave O., and E. Saunders, assignors to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,203,988; Nov. 7; Gaz. vol. 232; p. 153.

Delin, George J., Chicago, Ill. Pipe-fitting. No. 1,203,989; Nov. 7; Gaz. vol. 232; p. 154.

Deitz, Burr V., Slingerlands, N. Y. Wave-meter. No. 1,204,748; Nov. 14; Gaz. vol. 232; p. 450.

Delabarre, Frank A., Boston, Mass. Adjustable dental model. No. 1,205,437; Nov. 21; Gaz. vol. 232; p. 727.

Delaney, Joseph. (See Kindel and Delaney.)

Delta Cigar & Vending Machine Company, The. (See Hoffman, Robert O., assignor.)

Delta Electric Company. (See Brownrigg, Henderson, and Case, assignors.)

Dempsey, Thomas F., New York, N. Y. Vulcanising device. No. 1,205,599; Nov. 21; Gaz. vol. 232; p. 785.

Denegre, Charles. (See Denegre, Clarence T., assignor.)

Denegre, Clarence T., New Orleans, La., assignor of one-half to C. Denegre, Birmingham, Ala. Baked-enamel-paint remover. No. 1,204,851; Nov. 14; Gaz. vol. 232; p. 484.

Denman, Walter R., assignor to The Miller Rubber Company, Akron, Ohio. Yarn-coating device. No. 1,206,420; Nov. 28; Gaz. vol. 232; p. 1100.

Denne, Mark T., Rushden, England. Edge-setting machine. No. 1,205,718; Nov. 21; Gaz. vol. 232; p. 827.

Denney, Samuel L., Lincoln University, Pa. Coop. No. 1,206,211; Nov. 28; Gaz. vol. 232; p. 1029.

Dennis, Charles W., assignor to Metal Package Company, Brooklyn, N. Y. Box. No. 1,205,519; Nov. 21; Gaz. vol. 232; p. 755.

Dennis, Charles W., assignor to Metal Package Company, Brooklyn, N. Y. Box. No. 1,205,977; Nov. 28; Gaz. vol. 232; p. 950.

Dennis, Samuel K., Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation. Clutch mechanism for corn-planters. No. 1,203,891; Nov. 7; Gaz. vol. 232; p. 13.

Dennis, William E., Far Rockaway, and H. S. Bretton, Long Island City, assignors, by mesne assignments, to American Aerocar Holding Corporation, Richmond Hill, N. Y. Flying-machine. No. 1,206,680; Nov. 28; Gaz. vol. 232; p. 1187.

Dental, Florence J., *et al.* (See Gilliam, Hugh C., assignor.)

Dental Manufacturing Co. (See Betts, Charles F., assignor.)

Denver Rock Drill Manufacturing Company, The. (See Smith, William A., assignor.)

Desmore, Peter, Seattle, Wash. Artificial hand. No. 1,206,753; Nov. 28; Gaz. vol. 232; p. 1214.

Detroit Can Company. (See Ford, Ben K., assignor.)

Detroit Can Company. (See Harbeck, Jervis R., assignor.)

Detroit Lubricator Company. (See Funderburk, Otis C., assignor.)

Dettra, John C., assignor to John C. Dettra & Company, Inc., Oaks, Pa. Toy or the like. No. 1,205,166; Nov. 21; Gaz. vol. 232; p. 637.

Detwiler, Forest V., Chicago, Ill. Cooking apparatus. No. 1,205,438; Nov. 21; Gaz. vol. 232; p. 727.

Deuel, Pliny W., Melrose Park, assignor of one-half to F. C. Whitmore, Chicago, Ill. Egg-support. No. 1,204,654; Nov. 14; Gaz. vol. 232; p. 418.

Deutsch, Simon, Detroit, Mich. Ignition system. No. 1,205,167; Nov. 21; Gaz. vol. 232; p. 637.

Deutschman, Jacob H., Boston, Mass. Convertible garment. No. 1,204,655; Nov. 14; Gaz. vol. 232; p. 419.

Dewey, Haywood G., Westminster, and O. D. Green, Baltimore, Md. Shade-carrier. No. 1,203,593; Nov. 7; Gaz. vol. 232; p. 14.

Dexter Manufacturing Company. (See George, William H., assignor.) (Reissue.)

Diamond Match Company, The. (See Friede, Samuel M., assignor.)

Diamond Match Company, The. (See Paridon, Michael, assignor.)

Diamond Match Company. (See Shafer, Frank, assignor.)

Dibble, George L. (See Miller and Dibble.)

Dickerson, Eustice E., Fort Worth, Tex. Apparatus for cleaning cotton. No. 1,203,709; Nov. 7; Gaz. vol. 232; p. 56.

Dickerson, Eustice E., Fort Worth, Tex. Cotton-cleaner. No. 1,203,710; Nov. 7; Gaz. vol. 232; p. 56.

Dickey, Adam, Boston, and R. A. Hope, Quincy, Mass. Curtain-hanger. No. 1,206,421; Nov. 28; Gaz. vol. 232; p. 1100.

Dickinson, Frank T., Chicago, Ill. Brake-shoe. No. 1,205,439; Nov. 21; Gaz. vol. 232; p. 728.

Dickinson, Harry S., Moline, Ill., assignor to Moline Plow Company. Draft-pole connection for agricultural implements. No. 1,206,334; Nov. 21; Gaz. vol. 232; p. 692.

Dierckx, Henry F., Algonquin, Ill. Recoil shock-absorber. No. 1,204,203; Nov. 7; Gaz. vol. 232; p. 245.

Dierdorff, Joseph, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Shaft-hanger. No. 1,205,601; Nov. 21; Gaz. vol. 232; p. 786.

Dieringer, John, Tacoma, Wash. Shock-absorber. No. 1,203,711; Nov. 7; Gaz. vol 232; p. 57.

Dies, Charles A., assignor to Mark Manufacturing Company, Chicago, Ill. Mechanism for pipe-cutting. No. 1,206,125; Nov. 14; Gaz. vol. 232; p. 579.

Dieter, William, New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Gyroscopic steering mechanism. No. 1,204,852; Nov. 14; Gaz. vol. 232; p. 484.

Dieterle, Frank, assignor to G. A. Reach, Philadelphia, Pa. Boxing-glove. No. 1,206,422; Nov. 28; Gaz. vol. 232; p. 1101.

Dietsche, Oscar A., Gladstone, N. D. Calculating attachment for type-writers. No. 1,203,858; Nov. 7; Gaz. vol. 232; p. 108.

Dietz, William H., Chicago, Ill. Bulletin-board. No. 1,203,712; Nov. 7; Gaz. vol. 232; p. 57.

Dikeman, Ralph, *et al.* (See Starke, Adolph A., assignor.)

Dilday, Simeon, Marissa, Ill. Sweet-potato digger. No. 1,203,713; Nov. 7; Gaz. vol. 232; p. 57.

Dillinger, Charles E., Orcutt, Cal. Pipe-cutter. No. 1,206,311; Nov. 28; Gaz. vol. 232; p. 1064.

Dillon, John J., West Edmonton, Alberta, Canada. Attachment to switch-stands. No. 1,206,681; Nov. 28; Gaz. vol. 232; p. 1187.

Dillon, John M., Sterling, Ill. Chain-sheave. No. 1,205,335; Nov. 21; Gaz. vol. 232; p. 693.

Dillon, Paul W., assignor to Northwestern Barb Wire Company, Sterling, Ill. Wire-fence stretcher. No. 1,205,336; Nov. 21; Gaz. vol. 232; p. 693.

Dimech, Charles, West Point, N. Y. Rotary stamping device. No. 1,205,168; Nov. 21; Gaz. vol. 232; p. 638.

Dinesen, Laurits, assignor to Perfection Manufacturing Company, Minneapolis, Minn. Milk-pail. No. 1,206,096; Nov. 28; Gaz. vol. 232; p. 989.

Dingley, Otis E., West Farmington, Me. Demountable rim for vehicle-wheels. No. 1,205,866; Nov. 21; Gaz. vol. 232; p. 875.

Disser, Louis J., Ferguson, Mo. Advertising-dart. No. 1,203,714; Nov. 7; Gaz. vol. 232; p. 57.

Disturnal, Thomas J., Belmont, Ireland. Carbureter. No. 1,205,602; Nov. 21; Gaz. vol. 232; p. 786.

Dixon, Harry, Chillicothe, Ohio. Nut-lock structure. No. 1,204,548; Nov. 14; Gaz. vol. 232; p. 382.

Dobbin, Henry F., assignor to Western Electric Company, Incorporated, New York, N. Y. Selector-switch. No. 1,205,520; Nov. 21; Gaz. vol. 232; p. 756.

Doble, William H., assignor of one-fourth to Pneumatic Scale Corporation, Limited, Quincy, Mass. Shipping-case. No. 1,205,521; Nov. 21; Gaz. vol. 232; p. 756.

Dobson, William A., Philadelphia, Pa. Steering apparatus for ships. No. 1,205,169; Nov. 21; Gaz. vol. 232; p. 638.

Dodds, Ethan I., Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Resilient bolt. No. 1,204,254; Nov. 7; Gaz. vol. 232; p. 245.

Dodds, Ethan I., Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Manufacturing bolts. No. 1,204,255; Nov. 7; Gaz. vol. 232; p. 245.

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Bolt. No. 1,205,170; Nov. 21; Gaz. vol. 232; p. 639.

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Making blanks for flexible bolts. No. 1,205,171; Nov. 21; Gaz. vol. 232; p. 639.

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Manufacturing bars from which bolt-blanks are made. No. 1,205,172; Nov. 21; Gaz. vol. 232; p. 639.

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Making blanks for bolts. No. 1,205,173; Nov. 21; Gaz. vol. 232; p. 639.

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Manufacturing bars for bolt-blanks. No. 1,205,174; Nov. 21; Gaz. vol. 232; p. 640.

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Blank for boiler stay-bolts. No. 1,205,175; Nov. 21; Gaz. vol. 232; p. 640.

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Bar from which bolt-blanks are made. No. 1,205,176; Nov. 21; Gaz. vol. 232; p. 640.

Dodge Manufacturing Company. (See Kenyon, Bertram C., assignor.)

Doerr, Albert I., Erie, Pa., G. W. Doerr and F. J. Murray, Milwaukee, Wis. Bake-pan. No. 1,205,522; Nov. 21; Gaz. vol. 232; p. 757.

Doerr, George W. (See Doerr and Murray.)

Doherty, Harry B., assignor of one-half to J. M. McClellon, Everett, Mass. Coal-loading apparatus. No. 1,204,348; Nov. 7; Gaz. vol. 232; p. 276.

Dohm, George S., Toledo, Ohio. Floor-polisher and the like. No. 1,205,979; Nov. 28; Gaz. vol. 232; p. 950.

Dohrn, Max, assignor to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. 2-naphthylquinolin-4-carboxylic acids. (Reissue.) No. 14,216; Nov. 21; Gaz. vol. 232; p. 906.

Dold, John J., *et al.* (See Parker, Pearl E., assignor.)

Domestic Appliances Company. (See Stabel, Joseph M., assignor.)

Donath, Gustav A., Waverly, Iowa. Ice-creeper. No. 1,205,337; Nov. 21; Gaz. vol. 232; p. 693.

Doole, Thomas P., Eagle Lake, Tex. Wheeled stretcher or litter. No. 1,205,867; Nov. 21; Gaz. vol. 232; p. 875.

Doolittle, Edwin W., Des Moines, Iowa. Clinker-remover. No. 1,204,656; Nov. 14; Gaz. vol. 232; p. 419.

Doran, Edward, Winnipeg, Manitoba, Canada. Butter-pick. No. 1,206,682; Nov. 28; Gaz. vol. 232; p. 1188.

Dorsey, Harry O., Charlotte, N. C., assignor to W. C. Gunn, Fort Scott, Kans. Forced-draft hollow grate-bar or burner. No. 1,205,177; Nov. 21; Gaz. vol. 232; p. 640.

Doser, John, Los Angeles, Cal. Baby-hammock. No. 1,204,416; Nov. 14; Gaz. vol. 232; p. 336.

Dottl, Joseph, Madison, Wis. Spring and frame supporter for motor-cars. No. 1,205,603; Nov. 21; Gaz. vol. 232; p. 787.

Doty, Adoren J., Harbor Springs, Mich. Vehicle structure. No. 1,204,549; Nov. 14; Gaz. vol. 232; p. 382.

Doubt, John C., Seattle, Wash. Screw-holding screw-driver. No. 1,206,097; Nov. 28; Gaz. vol. 232; p. 990.

Dougherty, Robert, New York, N. Y. Plumber's fitting. No. 1,206,978; Nov. 28; Gaz. vol. 232; p. 950.

Doughty, George E., New York, N. Y., assignor to American Sales Book Company, Limited, Toronto, Ontario, Canada. Manifolding sales-book. No. 1,204,384; Nov. 7; Gaz. vol. 232; p. 289.

Douglas, Kendall. (See McCarty and Douglas.)

Doust, James C., assignor of three-fourths to J. H. Lumbers, Toronto, Ontario, Canada. Rope-grip. No. 1,203,715; Nov. 7; Gaz. vol. 232; p. 57.

Dövle, Carl O. A., Notodden, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Electric-arc furnace. No. 1,204,349; Nov. 7; Gaz. vol. 232; p. 277.

Dow Chemical Company, The. (See Stroeacker, Charles J., assignor.)

Dowling, John, Powell, Wyo. Plow. No. 1,206,517; Nov. 28; Gaz. vol. 232; p. 1133.

Downing, Ira S., Indianapolis, Ind. Train-operating system. No. 1,206,312; Nov. 28; Gaz. vol. 232; p. 1064.

Downs, B. B. (See Tideman, Henry, assignor.)

Downs, Sherman W. (See Persons and Downs.)

Doyle, Clarence V., New York, assignor of seven thirty-seconds to C. W. Moffitt, Islip, seven thirty-seconds to H. A. Hanigan, New York, and four thirty-seconds to J. B. Creamer, Islip, N. Y. Timepiece. No. 1,204,417; Nov. 14; Gaz. vol. 232; p. 336.

Doyle, Francis A. (See Schwarz, Albert, assignor.)

Doyle, William J. (See Corrado and Doyle.)

Drake, James F., Atlanta, Ga. Pencil. No. 1,206,683; Nov. 28; Gaz. vol. 232; p. 1188.

Draper Company. (See Stimpson, Edward S., assignor.)

Draper Company. (See Widdup, William R., assignor.)

Draper, George H., *et al.* (See Moore, David P., assignor.)

Dreux, Alexander H., Buffalo, N. Y., assignor to F. N. Burt Company, Limited, Toronto, Ontario, Canada. Box. No. 1,203,990; Nov. 7; Gaz. vol. 232; p. 154.

Drew, Frank L., Manhattan Beach, Cal. Pallet for cement-pipe machines. No. 1,204,550; Nov. 14; Gaz. vol. 232; p. 382.

Drucklieb, Paul A., Stapleton, N. Y., and D. Hemming, New Haven, Conn., assignors to New York Cigarette Machine Company, New York, N. Y. Machine for seaming cigarettes. No. 1,204,418; Nov. 14; Gaz. vol. 232; p. 336.

Druschel, Henry, Columbia, Pa. Hay-hoist. No. 1,205,178; Nov. 21; Gaz. vol. 232; p. 640.

Dubert, William F., Fulton, Iowa. Steering-gear. No. 1,204,138; Nov. 7; Gaz. vol. 232; p. 205.

Dudeff, Christo D., Gabrovo, Bulgaria. Spinning-machine spindle. No. 1,204,751; Nov. 14; Gaz. vol. 232; p. 451.

Dudley, Andrew T., assignor of one-tenth to W. L. and J. H. Mitchell and H. E. Werner, Houston, Tex. Hay-press. No. 1,205,980; Nov. 28; Gaz. vol. 232; p. 951.

Dudley, Andrew T., assignor of one-tenth to W. L. and J. H. Mitchell and H. E. Werner, Houston, Tex. Baling-press. No. 1,205,981; Nov. 28; Gaz. vol. 232; p. 951.

Duecker, William, Memphis, Tenn. Belt. No. 1,203,859; Nov. 7; Gaz. vol. 232; p. 109.

Dufur Ventilator Company, The. (See Barr, Chester A., assignor.)

Dugger, Edward E. (See Dugger, Joseph R., J. L., and E. E.)

Dugger, Joseph L. (See Dugger, Joseph R., J. L., and E. E.)

Dugger, Joseph R., J. L., and E. E., Norman, Okla. Folding car-step. No. 1,204,256; Nov. 7; Gaz. vol. 232; p. 246.

Dulle, Joseph J., Kansas City, Mo. Elevator-gate-operating mechanism. No. 1,206,212; Nov. 28; Gaz. vol. 232; p. 1030.

Dumas, Napoléon, Southbridge, Mass. Curtain-rod support. No. 1,204,419; Nov. 14; Gaz. vol. 232; p. 337.

Dummer, David. (See Joseph, Dummer and Holley.)

Dunbar, Harris T., Buffalo, N. Y. Drilling-machine. No. 1,203,860; Nov. 7; Gaz. vol. 232; p. 109.

Dunbar Pattern Company. (See Dunbar, Willard L., assignor.)

Dunbar, Willard L., St. Louis, Mo., assignor to Dunbar Pattern Company, Brockton, Mass. Last-gage. No. 1,206,313; Nov. 28; Gaz. vol. 232; p. 1064.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Curved printing-plate. No. 1,205,716; Nov. 7; Gaz. vol. 232; p. 58.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing-machine. No. 1,203,717; Nov. 7; Gaz. vol. 232; p. 58.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing-form section. No. 1,203,718; Nov. 7; Gaz. vol. 232; p. 58.

Duncan, Sylena A., Neshanic Station, N. J. Pencil-sharpener. No. 1,204,959; Nov. 14; Gaz. vol. 232; p. 524.

Dungan, John E., assignor of one-half to The Thomas-Peter Company, Canton, Ohio. Filing device. No. 1,205,604; Nov. 21; Gaz. vol. 232; p. 787.

Dunham, Bert G., Hawthorne, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,205,523; Nov. 21; Gaz. vol. 232; p. 757.

Dunn, Irwin L. (See Watts and Dunn.)

Dunn, James H. (See Parker, Clark W., assignor.)

Dunn, John C. (See Furlow and Dunn.)

Durant, Félicien, Brussels, Belgium. Brass wind instrument. No. 1,205,808; Nov. 21; Gaz. vol. 232; p. 875.

Durant, George A., Swanson, Saskatchewan, Canada. Grain-shocker. No. 1,204,130; Nov. 7; Gaz. vol. 232; p. 206.

Dusha, Paul F., and A. Feyk, assignors to Holub-Dusha Company, New York, N. Y. Pearl-button-drill sharpener. No. 1,206,518; Nov. 28; Gaz. vol. 232; p. 1134.

Düsterwald, Aegidius, Halle-on-the-Saale, Germany. Elastic support for flat feet. No. 1,206,519; Nov. 28; Gaz. vol. 232; p. 1134.

Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Railway signal-torpedo. No. 1,205,869; Nov. 21; Gaz. vol. 232; p. 875.

Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Fiber railway signal-torpedo. No. 1,205,870; Nov. 21; Gaz. vol. 232; p. 876.

Dutchess Tool Company. (See Van Houten, Frank H., assignor.)

Duvall, James, Camas, Wash. Machine for making cores from a roll of paper. No. 1,206,754; Nov. 28; Gaz. vol. 232; p. 1214.

Dvorak, Frank, Dickinson, N. D. Magazine-hammer. No. 1,204,960; Nov. 14; Gaz. vol. 232; p. 525.

Dwyer, John T., St. Louis, Mo. Alloy. No. 1,203,991; Nov. 7; Gaz. vol. 232; p. 154.

Dwyer, John T., West Philadelphia, Pa. Slicing-knife. No. 1,205,871; Nov. 21; Gaz. vol. 232; p. 876.

Dyer, David A., Jr., Martinsville, Ill. Mold. No. 1,205,440; Nov. 21; Gaz. vol. 232; p. 728.

Dyer, Earl N. (See Voecks and Dyer.)

Dyson, Alfred H., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Automatic telephone system. No. 1,205,943; Nov. 21; Gaz. vol. 232; p. 901.

E. Kirstein Sons Co. (See Jones, Percival W., assignor.)

E. Waldeck & Co. (See Reach, Erwin, assignor.)

E. & B. Holmes Machinery Company. (See Beugler, Edwin F., assignor.)

E. R. Durkee & Co. (See Helson, Gilbert F., assignor.)

E. W. Bliss Company. (See Dieter, William, assignor.)

Eaby, Isaac N., and P. M., assignors of one-half to L. R. Moss, Lancaster, Pa. Tobacco-binder-leaf cutter. No. 1,204,961; Nov. 14; Gaz. vol. 232; p. 525.

Eaby, Paul M. (See Eaby, Isaac N. and P. M.)

Eagle Pencil Company. (See Boman, Claes W., assignor.)

Eaheart, Joseph C. (See McClung and Eaheart.)

Eaid, Clayton T., Portland, Oreg. Packing-case. No. 1,205,872; Nov. 21; Gaz. vol. 232; p. 876.

Earnshaw, Henry P. J., Boston, Mass., assignor to Earnshaw Manufacturing Company, Incorporated, Hartford, Conn. Truck. No. 1,203,861; Nov. 7; Gaz. vol. 232; p. 109.

Earnshaw Manufacturing Company. (See Earnshaw, Henry P. J., assignor.)

Eason, Clarence M., and R. O. Hendrickson, Cleveland, Ohio, assignors to Wallis Tractor Company, Racine, Wis. Tractor-engine. No. 1,205,982; Nov. 28; Gaz. vol. 232; p. 952.

Eastham, J. Mally, *et al.* (See Bradley, Richard C., assignor.)

Eastman, Ernest A. (See Eastman, Harry N., assignor.)

Eastman, Harry N., assignor of one-half to E. A. Eastman, Dayton, Ohio. Spark-plug. No. 1,205,441; Nov. 21; Gaz. vol. 232; p. 728.

Eastman Kodak Company. (See Galsman, Henry J., assignor.)

Eastman Kodak Company. (See Riddell, William A., assignor.)

Eaton, Clark S., Park River, N. D. Grain-car door. No. 1,204,962; Nov. 14; Gaz. vol. 232; p. 526.

Eaton, George F., Wennam, Mass. Combined ticket and statistical card. No. 1,205,719; Nov. 21; Gaz. vol. 232; p. 827.

Eaton, George M., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric locomotive. No. 1,206,314; Nov. 28; Gaz. vol. 232; p. 1065.

Eberhard, George F., Trenton, N. J., assignor to Robt. H. Ingersoll & Bro. Making watch backs and bezels. No. 1,204,267; Nov. 7; Gaz. vol. 232; p. 246.

Eberhart, Felix, Newark, N. J., assignor to American Can Company, New York, N. Y. Combined spraying and seaming machine. No. 1,206,423; Nov. 28; Gaz. vol. 232; p. 1101.

Eberley, George W., Whitesboro, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Cutting and arranging material for collarets. No. 1,203,862; Nov. 7; Gaz. vol. 232; p. 110.

Eberley, George W., Whitesboro, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine and folding attachment therefor. No. 1,204,258; Nov. 7; Gaz. vol. 232; p. 246.

Eckermann, Clas W. H. von, Ljusne, and I. Rennerfelt, Djursholm, Sweden. Electric-arc furnace. No. 1,206,057; Nov. 28; Gaz. vol. 232; p. 977.

Economic Machinery Company. (See Woodland, Frank O., assignor.)

Economy Electrical Specialty Company. (See Graybill, Bird M., assignor.)

Eddy, Gerald A., and J. F. McNutt, assignors of one-third to said Eddy, one-third to E. J. Belk, Los Angeles, Cal., and one-third to J. Hettermann, Louisville, Ky. Change-gear mechanism. No. 1,206,873; Nov. 21; Gaz. vol. 232; p. 877.

Edens, John, assignor to H. F. Brammer Manufacturing Company, Davenport, Iowa. Gearing. No. 1,205,720; Nov. 21; Gaz. vol. 232; p. 827.

Edgerton, George L., Goldsboro, N. C. Medicated salt brick. No. 1,204,551; Nov. 14; Gaz. vol. 232; p. 383.

Edison Storage Battery Company. (See Norton, Charles W., assignor.)

Edison, Thomas A. (See Bliss, Donald M., assignor.)

Edison, Thomas A., Llewellyn Park, assignor to New Jersey Patent Company, West Orange, N. J. Soundbox. No. 1,204,420; Nov. 14; Gaz. vol. 232; p. 337.

Edmunds, John, Waltham, Mass. Cloth stretcher and straightener. No. 1,203,719; Nov. 7; Gaz. vol. 232; p. 58.

Edwards, Henry E. (See Buch, Max, assignor.)

Edwards, Whitfield H., Oakdale, La. Rail-fastener for railways. No. 1,206,098; Nov. 28; Gaz. vol. 232; p. 990.

Edwards, Winfred C., Denver, Colo. Detachable drinking-fountain for faucets. No. 1,206,424; Nov. 28; Gaz. vol. 232; p. 1101.

Egger, Ignaz, and C. Gartenmann, Gossau, Switzerland. Process and means for the manufacture of waterproof and expansive roofing and flooring. No. 1,204,259; Nov. 7; Gaz. vol. 232; p. 247.

Eglinton, Lindsay S., Kent Town, South Australia, Australia. Auxiliary exhaust-valve for internal-combustion engines. No. 1,206,520; Nov. 28; Gaz. vol. 232; p. 1134.

Ehrlich, Leo, assignor to Twinplex Sales Company, St. Louis, Mo. Razor-blade sharpener. No. 1,206,315; Nov. 28; Gaz. vol. 232; p. 1065.

Eide, Ole B., St. Paul, Minn. Portable turn-table. No. 1,205,133; Nov. 14; Gaz. vol. 232; p. 582.

Eisenbrand, Julius. (See Christman, Albert R., assignor.)

Ekama, Gerrit. (See Hay and Ekama.)

Ekholm, Carl A., St. Paul, Minn. Scaffold. No. 1,204,552; Nov. 14; Gaz. vol. 232; p. 383.

Ekman, Erik P., Wausa, Nebr. Storm-window holder. No. 1,204,963; Nov. 14; Gaz. vol. 232; p. 526.

Elder, David G., Chickamauga, Ga. Composition for treating rubber tires, &c. No. 1,203,720; Nov. 7; Gaz. vol. 232; p. 59.

Eldredge, Harold A., Newburyport, Mass. Window-screen. No. 1,204,140; Nov. 7; Gaz. vol. 232; p. 206.

Eldridge, John, Oakland, and C. Michelsen, Piedmont, Cal. Coin-separating device. No. 1,204,752; Nov. 14; Gaz. vol. 232; p. 451.

Electric Boat Company. (See Davison, Gregory C., assignor.)

Electric Time Recorder Company. (See Straub, William F., assignor.)

Electro Dental Manufacturing Company. (See Schramm, Adolph W., assignor.)

Electro Dental Manufacturing Company. (See Schramm and Wilford, assignors.)

Elevator Air Brake Company. (See Meech, Alfred H., assignor.)

Eleyet, Harry A., Lake View, Ohio. Egg-candler. No. 1,205,442; Nov. 21; Gaz. vol. 232; p. 629.

Elger, Joseph, Chicago, Ill. Nut-lock. No. 1,206,099; Nov. 28; Gaz. Vol. 232; p. 990.

Elgh, Charles A., assignor to Long Manufacturing Company, Detroit, Mich. Device for simultaneously performing two operations on an article. No. 1,205,605; Nov. 21; Gaz. vol. 232; p. 787.

Elkin, Warren P., Winchester, Ky. Hemp-breaking machine. No. 1,204,260; Nov. 7; Gaz. vol. 232; p. 247.

Elkins, Arthur W., East Orange, N. J., assignor to General Chemical Company, New York, N. Y. Tank-car vent. No. 1,205,443; Nov. 21; Gaz. vol. 232; p. 729.

Elkins, Otto B., near Abbeville, Ga. Cotton-stalk puller. No. 1,205,721; Nov. 21; Gaz. vol. 232; p. 828.

Ellcon Company, The. (See Wampler and Conwell, assignors.)

Ellerman, Jan. (See Van Calcar, Ellerman, and Martijn.)

Elliott, William E., Grand Rapids, Mich. Shoe-button. No. 1,206,755; Nov. 28; Gaz. vol. 232; p. 1215.

Ellis, Carleton, Montclair, N. J. Color concentrate for edible fats. No. 1,203,594; Nov. 7; Gaz. vol. 232; p. 15.

Ellis, Carleton, Montclair, N. J., assignor to Ellis-Foster Company. Process of making sulfuric anhydrid and catalyzer therefor. No. 1,204,141; Nov. 7; Gaz. vol. 232; p. 206.

Ellis, Carleton, Montclair, N. J., assignor to Ellis-Foster Company. Making sulfuric anhydrid. No. 1,204,142; Nov. 7; Gaz. vol. 232; p. 207.

Ellis, Carleton, Montclair, and H. M. Weber, East Orange, N. J., assignors to Ellis-Foster Company. Contact material. No. 1,204,143; Nov. 7; Gaz. vol, 232; p. 207.

Ellis, Charles S., Ore Hill, N. C. Corn-mill. No. 1,206,316; Nov. 28; Gaz. vol. 232; p. 1065.

Ellis, Edwin J., Aurora, Ill. Internal-combustion engine. No. 1,205,606; Nov. 21; Gaz. vol. 232; p. 788.

Ellis-Foster Company. (See Ellis, Carleton, assignor.

Ellis-Foster Company. (See Ellis and Weber, assignors.)

Ellis, Malcolm, East Orange, N. J. Mechanical calculator. No. 1,203,863; Nov. 7; Gaz. vol. 232; p. 110.

Ellis, James W., Bassett, Nebr. Safety appliance. No. 1,204,144; Nov. 7; Gaz. vol. 232; p. 207.

Ellis, John, Pittsburgh, Pa., assignor to The Hoffman Heater Company, Lorain, Ohio. Water-heater. No. 1,204,853; Nov. 14; Gaz. vol. 232; p. 484.

Ellison, Edward H., assignor to Jamestown Car Parts Manufacturing Company, Jamestown, N. Y. Radiator or cooler. No. 1,205,874; Nov. 21; Gaz. vol. 232; p. 877.

Elmen, George P., *et al.* (See Sharpnack and Nash, assignors.)

Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)

Emmers, Edward, Royersford, Pa. Woman's undervest. No. 1,204,657; Nov. 14; Gaz. vol. 232; p. 419.

Emmert, Stephen C., McAdoo, Pa. Shoe-protector. No. 1,205,983; Nov. 28; Gaz. vol. 232; p. 952.

Emmons, Redmond H., *et al.* (See Wells, Joseph F., assignor.)

Enberg, John C., Skarsatra, Sweden. Calculating-machine, cash-register, and the like. No. 1,205,875; Nov. 21; Gaz. vol. 232; p. 878.

End, Gotthard, A. Schlaepfer, and A. Altenburger, assignors to "Schweizerische Industrie-Gesellschaft," Neuhausen, Switzerland. Apparatus for sharpening the cutters of drawing-pistons serving for manufacturing the grooves of barrels. No. 1,205,876; Nov. 21; Gaz. vol. 232; p. 878.

Engebretson, Christian M., Starbuck, Minn. Combined music stand and case. No. 1,203,864; Nov. 7; Gaz. vol. 232; p. 110.

Engel, Clement, assignor of one-half to T. Otte, New York, N. Y. Educational appliance. No. 1,204,854; Nov. 14; Gaz. vol. 232; p. 484.

Engelebert, Rudolph H., assignor of one-fourth to H. E. Birkholz, Milwaukee, Wis., and one-half to International Harvester Corporation. Locking device for belt-shifters. No. 1,204,421; Nov. 14; Gaz. vol. 232; p. 337.

England, William H. (See Allfree and England.)

Engstrom, Charles J. R. (See Supplee and Engstrom.)

Ennis, Philip W., Factoryville, Pa. Transmission mechanism. No. 1,203,992; Nov. 7; Gaz. vol. 232; p. 154.

Enslin, Herbert E., Malden, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Edge-finishing machine. No. 1,203,993; Nov. 7; Gaz. vol. 232; p. 155.

Enter, Fred F., Cuyahoga Falls, Ohio. Automobile-wheel rim. No. 1,206,756; Nov. 28; Gaz. vol. 232; p. 1215.

Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)

Enterprise Tool and Metal Works. (See Rosengren, George T., assignor.)

Eppley, Charles S., York, Pa., assignor to Self-Acting Switch Co. Switch. No. 1,205,134; Nov. 14; Gaz. vol. 232; p. 583.

Epright, Daniel C. (See Wood and Epright.)

Erfurth, Ottomar O., Teuchern, Germany. Clay-purifier. No. 1,204,261; Nov. 7; Gaz. vol. 232; p. 247.

Erickson, Edward, Cliftondale, assignor to Victor Shoe Machinery Company, Lynn, Mass. Stop-motion. No. 1,205,722; Nov. 21; Gaz. vol. 232; p. 828.

Erie City Iron Works. (See Kaveney, James C., assignor.)

Erie Pump & Equipment Company. (See Clark and Andrews, assignors.)

Euker, George W., Pittsfield, Mass., assignor to C. M. Sanche, New York, N. Y. Electrotherapeutic apparatus. No. 1,206,784; Nov. 28; Gaz. vol. 232; p. 1225.

Evans' Sons, John. (See Evans, William, assignor.)

Evans Stamping & Plating Company. (See Tuttle, Henry A., assignor.)

Evans, William, Oak Lane, assignor to John Evans' Sons, Philadelphia, Pa. Combined trimming and punching machine. No. 1,205,179; Nov. 21; Gaz. vol. 232; p. 641.

Evensen, Christian, Choteau, Mont. Door-catch. No. 1,203,595; Nov. 7; Gaz. vol. 232; p. 15.

Evers, Cyrus, assignor to Lidgerwood Manufacturing Company, New York, N. Y. Locking means for operating-levers. No. 1,205,877; Nov. 21; Gaz. vol. 232; p. 879.

Evers, Cyrus, and F. Carlsson, assignors to Lidgerwood Manufacturing Company, New York, N. Y. Clutch-operating means. No. 1,203,994; Nov. 7; Gaz. vol. 232; p. 155.

Everts, Lourelle H., Minneapolis, Minn. Compartment-pillow. No. 1,206,775; Nov. 28; Gaz. vol. 232; p. 1222.

Eviston, John W., Milwaukee, Wis., assignor to The United States Graphite Company, Saginaw, Mich. Lubricator. No. 1,204,145; Nov. 7; Gaz. vol. 232; p. 207.

Ewald, Arno A., Oakfield, Wis. Foot-accelerator. No. 1,204,553; Nov. 14; Gaz. vol. 232; p. 383.

Eynon, Thomas, Chicago, Ill., assignor to Ribbon Record Company. Producing phonographic records. No. 1,206,684; Nov. 28; Gaz. vol. 232; p. 1188.

Eyton, Adam T., Nelson, and F. J. Henderson, Vancouver, British Columbia, Canada. Apparatus for periodically drenching a material with a liquid and thereafter draining it therefrom. No. 1,206,685; Nov. 28; Gaz. vol. 232; p. 1189.

F. Lewald & Company. (See Kohn and Reiter, assignors.)

F. L. Smidth & Co. (See Fasting, Johan S., assignor.)

F. N. Burt Company Limited. (See Carle, Harold, assignor.)

F. Burt Company. (See Dreux, Alexander H., assignor.)

F. O. Hilliker Co. (See Hilliker, Frederick O., assignor.)

Faber, Frank M., Canton, Ohio. Pneumatic hammer. No. 1,205,607; Nov. 21; Gaz. vol. 232; p. 788.

Fagan, John T., Cleveland, Ohio, assignor to General Electric Company. Uniting wires of different sizes. No. 1,206,686; Nov. 28; Gaz. vol. 232; p. 1189.

Fageol, Rollie B., Philadelphia, Pa. Automobile-bumper. No. 1,205,608; Nov. 21; Gaz. vol. 232; p. 789.

Fahler, Elmer E., Whitten, Iowa. License-display apparatus. No. 1,206,317; Nov. 28; Gaz. vol. 232; p. 1066.

Fair, Andrew A., Sioux City, Iowa. Poultry-feeder. No. 1,203,865; Nov. 7; Gaz. vol. 232; p. 111.

Fairlie, Andrew M., Copperhill, Tenn. Manufacturing sulfuric acid. No. 1,205,723; Nov. 21; Gaz. vol. 232; p. 829.

Fairlie, Andrew M., Copperhill, Tenn. Determining sulfur dioxid. No. 1,205,724; Nov. 21; Gaz. vol. 232; p. 829.

Farber, Samuel, and G. G. Crouch, Atlanta, Ga. Machine for cleaning rugs, &c. No. 1,204,964; Nov. 14; Gaz. vol. 232; p. 526.

Fargo, Arthur H., Poughkeepsie, N. Y. Terminal connector. No. 1,205,878; Nov. 21; Gaz. vol. 232; p. 879.

Fargo, Frank M., Chicago, Ill., and G. L. Thom, Brooklyn, N. Y., said Thom assignor to said Fargo. Alarm. No. 1,203,995; Nov. 7; Gaz. vol. 232; p. 156.

Farley, Joseph O., North Yakima, Wash. Pump. No. 1,205,338; Nov. 21; Gaz. vol. 232; p. 694.

Farley, Michael H., Seattle, Wash. Weighing-machine. No. 1,204,965; Nov. 14; Gaz. vol. 232; p. 526.

Farrar, James W., Buffalo, N. Y. Direction-indicator. No. 1,204,966; Nov. 14; Gaz. vol. 232; p. 527.

Farre, William, Burns, and P. F. Chandler, Canyon City, Oreg. Refrigerator. No. 1,205,609; Nov. 21; Gaz. vol. 232; p. 789

Farrell, Robert C., Kintyre, N. D. Lamp-chimney cleaner. No. 1,206,318; Nov. 28; Gaz. vol. 232; p. 1066.

Farrow, Ernest L., and H. Goodman, Cleveland, Ohio. Spring-mattress. No. 1,205,135; Nov. 14; Gaz. vol. 232; p. 583.

Fasting, Johan S., Frederiksberg, near Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y. Tube-mill. No. 1,204,554; Nov. 14; Gaz. vol. 232; p. 384.

Faurote, Carl H. (See Lehman and Faurote.)

Faust, Casper, Oshkosh, Wis. Logging-car stake-holder. No. 1,206,687; Nov. 28; Gaz. vol. 232; p. 1190.

Faust, Levin, C. E. Swenson, and C. Anderson, Rockford, Ill. Universal joint. No. 1,205,610; Nov. 21; Gaz. vol. 232; p. 789.

Fay, Edward M. (See Allen and Fay.)

Fazakerley, Joseph E., Pittsfield, Mass. Hospital-bed. No. 1,203,721; Nov. 7; Gaz. vol. 232; p. 59.

Feasey, Alfred H., San Francisco, Cal. Staple for window-sashes or the like. No. 1,206,425; Nov. 28; Gaz. vol. 232; p. 1102.

Federal Screen Corporation, The. (See Auerbacher, Louis J., assignor.)

Federal Steel Fixture Company. (See Magee, Chauncey L. C., assignor.)

Fehrenschild, Henry H., Rivervale, N. J. Temperature-control device. No. 1,204,262; Nov. 7; Gaz. vol. 232; p. 247.

Feibelmann, Joseph. (See Purcell and Feibelmann.)

Felten, John D., Marengo, Ill. Tympan-sheet. No. 1,205,879; Nov. 21; Gaz. vol. 232; p. 880.

Felton, Charles R., *et al.* (See Close, Edmund E., assignor.)

Fend, Roland S., assignor to Woods Motor Vehicle Company, Chicago, Ill. Automobile. No. 1,204,146; Nov. 7; Gaz. vol. 232; p. 207.

Feninger, Edward J., and J. O'Neal, Spokane, Wash. Delivery apparatus. No. 1,203,596; Nov. 7; Gaz. vol. 232; p. 15.

Fenkart, Karl. (See Scheffknecht, Isidor, assignor.)

Fenton, John A., Oakland, Cal. Grass floor-covering. No. 1,203,597; Nov. 7; Gaz. vol. 232; p. 16.

Ferber, Karl, Berlin, and Wissmann, Charlottenburg, assignors to Siemens-Schuckertwerke G. m. b. H., Berlin, Germany. Inclosed arc-lamp. No. 1,205,725; Nov. 21; Gaz. vol. 232; p. 829.

Ferguson, Isaac T., Tiptonville, Tenn. Cultivator or harrow. No. 1,204,422; Nov. 14; Gaz. vol. 232; p. 337.

Ferguson, James F., Comanche, Okla. Kafir-corn header. No. 1,205,339; Nov. 21; Gaz. vol. 232; p. 694.

Ferguson, James W., Jacobs Creek, Pa. Tool. No. 1,204,147; Nov. 7; Gaz. vol. 232; p. 208.

Ferguson, Joseph B., New York, N. Y. Clutch. No. 1,205,954; Nov. 21; Gaz. vol. 232; p. 906.

Ferguson, Alan R., Chicago, Ill. Indexing-machine. No. 1,205,180; Nov. 21; Gaz. vol. 232; p. 641.

Ferron, John A., Coatesville, Pa. Sprocket attachment. No. 1,204,555; Nov. 14; Gaz. vol. 232; p. 384.

Fertl, Michael, Schwabach, near Nuremberg, Germany. Pressure-relief apparatus for use in fermentation processes. No. 1,205,086; Nov. 14; Gaz. vol. 232; p. 566.

Fessenden, George R., Jr., Lancaster, N. Y., assignor to Gould Coupler Company. Regulating electrical system. No. 1,205,181; Nov. 21; Gaz. vol. 232; p. 641.

Fevergeon, Armand F. (See Balch and Fevergeon.)

Feyk, Anton. (See Dusha and Feyk.)

Fiddler, George N., Pollock, S. D. Spring-wheel. No. 1,205,087; Nov. 14; Gaz. vol. 232; p. 566.

Fielding, George T., assignor of one-half to W. T. Hornaday, New York, N. Y. Sectional rim. No. 1,203,996; Nov. 7; Gaz. vol. 232; p. 156.

Fieldwick, Robert W., Loudon, England. Micrometer measuring instrument. No. 1,205,726; Nov. 21; Gaz. vol. 232; p. 830.

Fietsch, John F., Forest Park, Ill. Device for measuring materials for tooth-fillings. No. 1,205,088; Nov. 14; Gaz. vol. 232; p. 566.

Filser, Christian G., Erie, Pa. Hydrocarbon-torch. No. 1,204,967; Nov. 14; Gaz. vol. 232; p. 527.

Filzer, Christian G., Erie, Pa. Hydrocarbon-torch. No. 1,204,968; Nov. 14; Gaz. vol. 232; p. 528.

Fioretta, John B., New York, N. Y. Animal-trap. No. 1,203,997; Nov. 7; Gaz. vol. 232; p. 156.

Fischer, Ernest G., and H. C. Weimann, New York, N. Y. Removable hinged cover. No. 1,206,521; Nov. 28; Gaz. vol. 232; p. 1135.

Fitzgerald, Edward, Chicago, Ill. Truck-coupling. No. 1,206,100; Nov. 28; Gaz. vol. 232; p. 990.

Fitzgerald, Jeremiah C., Kilbourn, Wis. Cattle-stanchion. No. 1,205,182; Nov. 21; Gaz. vol. 232; p. 642.

Flagg, Fred F. (See Sherman and Flagg.)

Flanagan, William, Leland, Miss. Flue or tube cutter. No. 1,204,148; Nov. 7; Gaz. vol. 232; p. 208.

Flannery, Howard. (See Haddock, Walter M., assignor.)

Flanders, Warren B., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Motive-fluid-supply controller for turbines. No. 1,206,319; Nov. 28; Gaz. vol. 232; p. 1066.

Flanigan, Joseph H., Town Creek, Ala. Faucet. No. 1,206,420; Nov. 28; Gaz. vol. 232; p. 1102.

Flannery Bolt Company. (See Dodds, Ethan I., assignor.)

Flatow, Henry W., and F. Lickert, Milwaukee, Wis. Tape or ribbon holder. No. 1,205,524; Nov. 21; Gaz. vol. 232; p. 757.

Fleming, Clarence W., Sparland, Ill. Exhibitor. No. 1,205,880; Nov. 21; Gaz. vol. 232; p. 880.

Fleming, John C., Boston, Mass. Ventilating and air-purifying apparatus. No. 1,206,088; Nov. 28; Gaz. vol. 232; p. 1190.

Fleming, Lake G., Tarrytown, N. Y. Demountable rim. No. 1,206,522; Nov. 28; Gaz. vol. 232; p. 1135.

Fletcher, Thomas N., Hamilton, New Zealand. Releaser installation of milking-machines. No. 1,203,998; Nov. 7; Gaz. vol. 232; p. 156.

Flick, Charles H. (See Benson, Solberg, and Flick.)

Flinn, Thomas F., Brooklyn, N. Y. Candlestick. No. 1,205,525; Nov. 21; Gaz. vol. 232; p. 758.

Flood, George A. (See Cushing and Flood.)

Flory, Andrew A., Grand Rapids, Mich., assignor to Grand Rapids Dimmer Company. Auto-light dimmer. No. 1,204,350; Nov. 7; Gaz. vol. 232; p. 277.

Flory, John H., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Electric locomotive. No. 1,203,999; Nov. 7; Gaz. vol. 232; p. 157.

Floyd-Wells Company, The. (See Carter and Bibb, assignors.)

Flurscheim, Bernard H. (See Anthony and Flurscheim.)

Foggan, George, Pleasantville, Pa. Sucker-rod elevator. No. 1,206,523; Nov. 28; Gaz. vol. 232; p. 1135.

Fonde, Hiram C., Birmingham, Ala. Heater. No. 1,206,427; Nov. 28; Gaz. vol. 232; p. 1102.

Fondiller, William, assignor to Western Electric Company, Incorporated, New York, N. Y. Phantom loading-coil. No. 1,206,524; Nov. 28; Gaz. vol. 232; p. 1135.

Foote, Charles B., Jr., assignor of one-half to W. Macleod, Cincinnati, Ohio. Sash-pulley. No. 1,204,556; Nov. 14; Gaz. vol. 232; p. 384.

Foote, W. Burton. (See Rast, Felix Q., assignor.)

Forama, Frank, Washington, D. C. Heel-plate. No. 1,204,069; Nov. 14; Gaz. vol. 232; p. 528.

Force, William R., Philadelphia, Pa. Combined abdominal supporter and suspensory. No. 1,206,525; Nov. 28; Gaz. vol. 232; p. 1136.

Ford, Ben K., assignor to Detroit Can Company, Detroit, Mich. Container. No. 1,203,866; Nov. 7; Gaz. vol. 232; p. 111.

Ford, Bruce, Philadelphia, Pa. Changing the composition of iron and steel. No. 1,205,611; Nov. 21; Gaz. vol. 232; p. 790.

Ford, Bruce, Philadelphia, Pa. Vehicle suspension. No. 1,205,612; Nov. 21; Gaz. vol. 232; p. 790.

Ford, Silas M., St. Paul, Minn. Roofing-strip. No. 1,203,868; Nov. 7; Gaz. vol. 232; p. 16.

Foringer, Thomas M., Cliffside Park, N. J. Prier. No. 1,204,855; Nov. 14; Gaz. vol. 232; p. 485.

Forrest, Robert L. (See McKay, John L., assignor.)

Forster, Hermann von, Frankfort-on-the-Main, Germany. Machine for drawing thin-walled metal tubes. No. 1,204,832; Nov. 14; Gaz. vol. 232; p. 478.

Forster, Hermann von, Frankfort-on-the-Main, Germany. Manufacture of cold-drawn seamless tubes. No. 1,205,292; Nov. 21; Gaz. vol. 232; p. 678.

Forster, Sebastian, Brooklyn, N. Y. Fishing-hook. No. 1,206,689; Nov. 28; Gaz. vol. 232; p. 1190.

Forsyth, Thomas A., assignor to Boston Belting Company, Boston, Mass. Hose. No. 1,205,984; Nov. 28; Gaz. vol. 232; p. 952.

Foss, Leland L., assignor of one-half to M. Leader, Vidalia, Ga. Double-roller cotton-gin. No. 1,205,881; Nov. 21; Gaz. vol. 232; p. 880.

Foster Brothers Manufacturing Co. (See Pietsch, Reinhold, assignor.)

Four Wheel Drive Auto Co. (See Batenburg, Peter J. F., assignor.)

Fourcher, Harry E., Augusta, Ga. Bicycle-lock. No. 1,204,753; Nov. 14; Gaz. vol. 232; p. 452.

Fouts, Earl H., Ellisville, Ill. Bomb. No. 1,205,840; Nov. 21; Gaz. vol. 232; p. 694.

Fowler, Alfred B., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Grinding-machine. No. 1,205,985; Nov. 28; Gaz. vol. 232; p. 952.

Fowler, William, assignor of one-half to C. H. Krippendorf, Cincinnati, Ohio. Machine for making insoles. (Reissue.) No. 14,217; Nov. 21; Gaz. vol. 232; p. 906.

Foxboro Company, The. (See Weymouth, Thomas R., assignor.)

Frail, Alfred L., Wellsville, Ohio. Train-check holder. No. 1,203,599; Nov. 7; Gaz. vol. 232; p. 16.

Francis, Carl and J. F., Portland, Oreg. Vehicle-spring. No. 1,206,428; Nov. 28; Gaz. vol. 232; p. 1102.

Francis, Joe F. (See Francis, Carl and J. F.)

Frank B. Cook Company. (See Cook, Frank B., assignor.)

Frank, Louis, assignor to Greenpoint Metallic Bed Company, Brooklyn, N. Y. Corner-fastening for metal beds and the like. No. 1,205,183; Nov. 21; Gaz. vol. 232; p. 642.

Frank, William. (See Gonsior, Frank, and Schneider.)

Frank, William. (See Gonsior, Opp, and Frank.)

Franke, Emil, Long Island City, N. Y. Pedal attachment. No. 1,204,000; Nov. 7; Gaz. vol. 232; p. 157.

Frankman, Olof, Marieberg, Sweden. Conveyer for beet-harvesters and the like. No. 1,205,089; Nov. 14; Gaz. vol. 232; p. 567.

Franks, Frederick B., Bath, Pa. Pulverizer. No. 1,204,385; Nov. 7; Gaz. vol. 232; p. 289.

Fraser, Donald, assignor to Chain Belt Company, Milwaukee, Wis. Tool for stretching chains. No. 1,206,776; Nov. 28; Gaz. vol. 232; p. 1222.

Fraser, Fred S., Chelsea, Okla. Harvesting machinery. No. 1,204,557; Nov. 14; Gaz. vol. 232; p. 384.

Fraser, George H., New York, N. Y. Crushing, grinding, or pulverizing machinery. No. 1,205,613; Nov. 21; Gaz. vol. 232; p. 790.

Fratt, Harry C., Norristown, Pa. Cabinet. No. 1,204,263; Nov. 7; Gaz. vol. 232; p. 248.

Frazee, Frank D. (See Manning and Frazee.)

Frazee, James J. (See Armstrong and Frazee.)

Freas, Samuel T., Trenton, N. J., assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa. Crosscut-saw tool. No. 1,204,264; Nov. 7; Gaz. vol. 232; p. 248.

Freborg, Charles, Kankakee, Ill., assignor to Schaeffer Piano Mfg. Company, Pneumatic piano-player. No. 1,205,727; Nov. 21; Gaz. vol. 232; p. 830.

Fred Myers Mfg. Co. (See Myers, Frederick, assignor.)

Frederick, John S. (See Laudenschlager and Frederick.)

Frederickson, Clayton E., assignor of one-half to G. C. Stenger, Chicago, Ill. Power-transmitting mechanism. No. 1,205,184; Nov. 21; Gaz. vol. 232; p. 643.

Freeman, Edward W. (See Matthews, Freeman, and Bateman.)

Freeman, Harry G., assignor of one-half to W. H. Bartlett, Atlantic City, N. J. Valve. No. 1,204,265; Nov. 7; Gaz. vol. 232; p. 249.

Freeman, Ladbrook H., assignor to The Guggenheim Laundry Machinery Company, Cleveland, Ohio. Ironing-plate. No. 1,205,185; Nov. 21; Gaz. vol. 232; p. 643.

French, Niles O., Dexter, Iowa. Cherry-pitting device. No. 1,203,600; Nov. 7; Gaz. vol. 232; p. 16.

Fricke, Louis E., executor. (See Manogue and Schroeder.)

Fried. Krupp Aktiengesellschaft. (See Luyken, Wilhelm, assignor.)

Friedberger-Aaron Manufacturing Company. (See Aaron, Max N., assignor.)

Friede, Samuel M., New York, N. Y., assignor to The Diamond Match Company, Chicago, Ill. Match-holder. No. 1,203,867; Nov. 7; Gaz. vol. 232; p. 111.

Friedman, William L., Oakland, Cal. Recording instrument. No. 1,204,558; Nov. 14; Gaz. vol. 232; p. 385.

Friedrich, Alfred, assignor to National Silver Deposit Ware Co., Inc., New York, N. Y. Decorated transparent article and making same. No. 1,205,728; Nov. 21; Gaz. vol. 232; p. 830.

Frink, Robert L., Lancaster, Ohio. Pressure-regulating apparatus. No. 1,205,729; Nov. 21; Gaz. vol. 232; p. 831.

Fripp, Harold C., Walterboro, S. C. Attachment for connecting the frame and axle of an automobile. No. 1,204,001; Nov. 7; Gaz. vol. 232; p. 157.

Frobish, George E., Pontiac, Ill. Means for the protection against ride-fire. No. 1,204,754; Nov. 14; Gaz. vol. 232; p. 452.

Frohnapfel, Henry, Wheeling, W. Va. Snow-shield for moving vehicles. No. 1,205,341; Nov. 21; Gaz. vol. 232; p. 695.

From, Harris, New York, N. Y. Fishing-reel. No. 1,204,856; Nov. 14; Gaz. vol. 232; p. 485.

Frost, George G. (See Carley, Johanne M., assignor.)

Frost, Robert O., Minden, and R. A. Levis, Kinmount, Ontario, Canada. Dirigible automobile-light. No. 1,206,600; Nov. 28; Gaz. vol. 232; p. 1191.

Frustaglio, Frank, South Porcupine, Ontario, Canada. Match-striking surface for pipes. No. 1,206,213; Nov. 28; Gaz. vol. 232; p. 1030.

Frykman, August, Souris, N. D. Piston-ring. No. 1,206,691; Nov. 28; Gaz. vol. 232; p. 1191.

Fuchs, Ernest, assignor to L. Renault, Billancourt, France. Apparatus for controlling the voltage in variable-speed illuminating-dynamos. No. 1,204,857; Nov. 14; Gaz. vol. 232; p. 486.

Fuchs, Nikolaus, Akron, Ohio. Collapsible stretcher. No. 1,205,186; Nov. 21; Gaz. vol. 232; p. 643.

Fuel Saving Company. (See Wood, Walter D., assignor.)

Fulk, George L., assignor to The Postal Supply and Manufacturing Company, Cleveland, Ohio. Folding-machine. No. 1,203,722; Nov. 7; Gaz. vol. 232; p. 60.

Fuller, Charles, Gilbert, assignor of one-fourth to L. B. McFrederick, Mesa, and one-fourth to L. M. Nowell, Gilbert, Ariz. Machine for drawing sharp edges on metallic bodies. No. 1,203,723; Nov. 7; Gaz. vol. 232; p. 60.

Fuller, Charles E., Omaha, Nebr. Car construction. No. 1,206,214; Nov. 28; Gaz. vol. 232; p. 1030.

Fuller, Franz A. Newark, N. J. Safety-razor. No. 1,205,187; Nov. 21; Gaz. vol. 232; p. 644.

Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Bag-fastener. No. 1,206,526; Nov. 28; Gaz. vol. 232; p. 1136.

Fuller, Ida M., New York, N. Y. Wave and water illusion apparatus. No. 1,205,444; Nov. 21; Gaz. vol. 232; p. 729.

Fullington, Roy F., Clifton Hill, Mo. Incubator attachment. No. 1,205,445; Nov. 21; Gaz. vol. 232; p. 730.

Fulname Company, The. (See Lyon, Jesse D., assignor.)

Fulton Company, The. (See Fulton, Weston M., assignor.)

Fulton, Weston M., assignor to The Fulton Company, Knoxville, Tenn. Carbureter. No. 1,203,601; Nov. 7; Gaz. vol. 232; p. 17.

Fulton, Weston M., assignor to The Fulton Company, Knoxville, Tenn. Flush-tank. No. 1,203,602; Nov. 7; Gaz. vol. 232; p. 17.

Funderburk, Otis C., assignor to Detroit Lubricator Company, Detroit, Mich. Carbureter. No. 1,204,423; Nov. 14; Gaz. vol. 232; p. 338.

Furlow, Floyd C., Montclair, N. J. Safety device. No. 1,206,429; Nov. 28; Gaz. vol. 232; p. 1102.

Furlow, William H., and J. C. Dunn, Hampton, Ark. Plow. No. 1,206,757; Nov. 28; Gaz. vol. 232; p. 1215.

G. H. Bass & Company. (See Llewellyn and Briggs, assignors.)

G. S. Blakeslee & Co. (See Schaefer, Frank M., assignor.)

G. & W. Electric Specialty Co. (See Williams, Paul F., assignor.)

Gabell, Albert F., assignor to I. X. L. Pump and Manufacturing Company, Philadelphia, Pa. Valve construction for water-closet apparatus. No. 1,203,724; Nov. 7; Gaz. vol. 232; p. 60.

Gadoux, Eugène, Asnières, France. Vehicle-wheel. No. 1,205,882; Nov. 21; Gaz. vol. 232; p. 881.

Gagnon, Joseph E., Victoriaville, Quebec, Canada. Combined churn and butter-worker. No. 1,205,188; Nov. 21; Gaz. vol. 232; p. 644.

Gaisman, Henry J., New York, assignor to Eastman Kodak Company, Rochester, N. Y. Photographic apparatus. No. 1,203,603; Nov. 7; Gaz. vol. 232; p. 18.

Gaisman, Henry J., Woodmere, N. Y., and E. W. Graef, Caldwell, N. J., said Graef assignor to said Gaisman. Manifold for internal-combustion engines. No. 1,205,614; Nov. 21; Gaz. vol. 232; p. 791.

Gale Manufacturing Company. (See Peterson, Emil J., assignor.

Gall, Adolph F., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Kinetoscope. No. 1,204,424; Nov. 14; Gaz. vol. 232; p. 338.

Gall, Adolph F., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Lens-supporting device. No. 1,204,425; Nov. 14; Gaz. vol. 232; p. 338.

Gamble, Joseph W., assignor to Harrison Safety Boiler Works, Philadelphia, Pa. Metering-heater. No. 1,205,189; Nov. 21; Gaz. vol. 232; p. 644.

Gamewell Fire Alarm Telegraph Company, The. (See Beach and Voorhees, assignors.)

Gamewell Fire Alarm Telegraph Company. (See Suren, Nathan H., assignor.)

Gamewell Fire Alarm Telegraph Company, The. (See Voorhees, Lee J., assignor.)

Gano, Armstrong R., Thayer, Kans. Wheelbarrow-saw. No. 1,203,725; Nov. 7; Gaz. vol. 232; p. 61.

Garbo, Nils F., assignor to Counting Machine Manufacturing Co., Minneapolis, Minn. Recording-sheet. No. 1,205,730; Nov. 21; Gaz. vol. 232; p. 831.

Gardner, John A., Grifton, N. C. Universal seed-planter. No. 1,206,215; Nov. 28; Gaz. vol. 232; p. 1031.

Garfield, James R., trustee. (See Kneisel, Arthur, assignor.)

Garfield, James R., trustee. (See Wright, Joseph L., assignor.)

Garford Manufacturing Company, The. (See Manson, Ray H., assignor.)

Garford Manufacturing Company, The. (See Slough, Frank M., assignor.)

Garrison, Leroy, Chester, Pa. Gas-range top. No. 1,204,266; Nov. 7; Gaz. vol. 232; p. 249.

Garrison, William M., Hebron, Me. Pocket sputum-cup. No. 1,203,604; Nov. 7; Gaz. vol. 232; p. 18.

Garrity, Sarah A. (See Burns, Richard W., assignor.)

Gartenmann, Carl. (See Egger and Gartenmann.)

Gas Engine & Power Co. *et al.* (See Millbourn, James, assignor.)

Gay, Byron. (See Mason, Hugh B., assignor.)

Gay, Donald, Newport News, Va. Fitting-up bolt. No. 1,205,883; Nov. 21; Gaz. vol. 232; p. 881.

Gaylord, Edwin P., Rochester, N. Y. Hose-reel. No. 1,203,605; Nov. 7; Gaz. vol. 232; p. 18.

Gebauer, William H., St. Louis, Mo. Towel-holder. No. 1,205,615; Nov. 21; Gaz. vol. 232; p. 791.

Geisert, Henry A., *et al.* (See Davis, George E., assignor.)

Gelertsen, Otto E., Westfield, N. J., assignor to Greenfield Paper Bottle Company, New York, N. Y. Waterproofing composition. No. 1,204,149; Nov. 7; Gaz. vol. 232; p. 209.

General Chemical Company. (See Elkins, Arthur W., assignor.)

General Electric Company. (See Alexanderson, Ernst F. W., assignor.

General Electric Company. (See Basch, David, assignor.)

General Electric Company. (See Creighton, Elmer E. F., assignor.)

General Electric Company. (See Fagan, John T., assignor.)

General Electric Company. (See Harthan, Charles E., assignor.

General Electric Company. (See Helfgott, Armin, assignor.)

General Electric Company. (See Köchling, Wilhelm, assignor.)

General Electric Company. (See Lumley, Wilfrid, assignor.

General Electric Company. (See Marshall, John T., assignor.)

General Electric Company. (See Moss, Sanford A., assignor.)

General Electric Company. (See Seede, John A., assignor.)

General Electric Company. (See Siegel, August, assignor.)

General Electric Company. (See Templin, Joseph H., assignor.)

General Electric Company. (See Wiedemann and Templin, assignors.)

General Electric Company. (See Wood, James J., assignor.)

General Fireproofing Company. (See White, Herbert E., assignor.)

General Optical Company. (See Clement, Hans, assignor.)

General Reduction Company. (See Bergh, Loebinger, and Neuberger, assignors.)

George, Henry, Brooklyn, N. Y. Window-lock. No. 1,203,606; Nov. 7; Gaz. vol. 232; p. 18.

George, William H., Fairfield, Iowa, assignor to Dexter Manufacturing Company, Driving mechanism. (Reissue.) No. 14,223; Nov. 28; Gaz. vol. 232; p. 1220.

Gerdien, Hans, Berlin-Schmargendorf, assignor to Siemens & Halske A. G., Berlin, Germany. Relay. No. 1,205,731; Nov. 21; Gaz. vol. 232; p. 832.

Gering, Henry R. (See Woolf and Hale, assignors.)

German, Joseph T., assignor of one-fourth to J. P. Hopper, Sloan, Iowa. Headlight-steering mechanism. No. 1,204,002; Nov. 7; Gaz. vol. 232; p. 158.

Gernigan, James, Copperas Cove, Tex. Hay press and baler. No. 1,205,090; Nov. 14; Gaz. vol. 232; p. 567.

Gessner, David, Worcester, Mass. Planetary cloth-napping machine. No. 1,204,150; Nov. 7; Gaz. vol. 232; p. 209.

Gest, Guy M., Noroton, Conn. Cable-bracket. No. 1,204,858; Nov. 14; Gaz. vol. 232; p. 486.

Giba, Piotr, Chicago, Ill. Vehicle-brake. No. 1,204,267; Nov. 7; Gaz. vol. 232; p. 249.

Gibbs, Howard W., Boston, Mass., assignor to J. Spaulding & Sons Co., Rochester, N. H. Insole. No. 1,206,101; Nov. 28; Gaz. vol. 232; p. 991.

Gibson, Hugo C., New York, N. Y. Wheel. No. 1,204,658; Nov. 14; Gaz. vol. 232; p. 420.

Gibson, John C., Akron, Ohio. Glove. No. 1,206,102; Nov. 28; Gaz. vol. 232; p. 991.

Giesecke, Carl, Bad Harzburg, Germany. Sintering fine ores, flue-dust, purple ore, and the like. No. 1,205,944; Nov. 21; Gaz. vol. 232; p. 902.

Gilbert, Earl V., and G. H. Kramer, assignors to The Kramer Brothers Foundry Company, Dayton, Ohio. Dumping-grate. No. 1,205,616; Nov. 21; Gaz. vol. 232; p. 791.
Gilbert, George A., and M. L. Daugherty, Norwood, Ohio. Treating coated material. No. 1,204,151; Nov. 7; Gaz. vol. 232; p. 209.
Giles, Julian A., Derby, Conn. Transmission device. No. 1,204,559; Nov. 14; Gaz. vol. 232; p. 385.
Gill, George, Providence, R. I., Bottle-cap opener. No. 1,206,692; Nov. 28; Gaz. vol. 232; p. 1191.
Gillen, Mark P., San Diego, Cal. Vehicle-spring. No. 1,204,003; Nov. 7; Gaz. vol. 232; p. 158.
Gilleran, Luke, Woonsocket, R. I. Method and apparatus for shrinking sweat-bands of hats. No. 1,204,560; Nov. 14; Gaz. vol. 232; p. 385.
Gilliam, Hugh C., assignor of one-third to F. H. Preble and one-third to F. J. Dental, Philadelphia, Pa. Auxiliary air-supply device for internal-combustion engines. No. 1,204,004; Nov. 7; Gaz. vol. 232; p. 158.
Gillitt, Frederic C., Hastings, Minn. Corn-popping machine. No. 1,206,693; Nov. 28; Gaz. vol. 232; p. 1191.
Gillmor, Horatio G., Washington, D. C. Anticreeper. No. 1,204,659; Nov. 14; Gaz. vol. 232; p. 420.
Gillmor, Horatio G., Washington, D. C. Rail-anchor. No. 1,205,948; Nov. 21; Gaz. vol. 232; p. 902.
Gilman, James N., Berkeley, Cal. Cooler for liquids. No. 1,204,561; Nov. 14; Gaz. vol. 232; p. 386.
Glimer, John T., assignor of one-half to S. E. Airesman, Fulton, Ala. Dirigible headlight. No. 1,204,351; Nov. 7; Gaz. vol. 232; p. 278.
Glison, Henry R., Baden, assignor to National Metal Molding Company, Pittsburgh, Pa. Metal-shaping tool. No. 1,204,970; Nov. 14; Gaz. vol. 232; p. 528.
Giovanna, George, New York, N. Y. Combined range and broiler. No. 1,206,527; Nov. 28; Gaz. vol. 232; p. 1136.
Gipe, Harrison S., Palmyra, and A. M. Kuhns, Union Deposit, Pa. Apparatus for weighing and testing milk. No. 1,205,986; Nov. 28; Gaz. vol. 232; p. 953.
Girten, Charles E., and A. M. Bowman, Houston, Tex. Hose attachment. No. 1,205,987; Nov. 28; Gaz. vol. 232; p. 953.
Gissberg, Per O. (See Becker and Gissberg.)
Gittler, Sidney, Brooklyn, N. Y. Safety-cock for gas-ranges. No. 1,206,320; Nov. 28; Gaz. vol. 232; p. 1067.
Gladding, Jesse G., Providence, R. I. Hose-nozzle. No. 1,203,607; Nov. 7; Gaz. vol. 232; p. 19.
Gladwin, Arthur H., and J. A. Wilson, Alma, Mich. Safety device for firearms. No. 1,204,426; Nov. 14; Gaz. vol. 232; p. 339.
Glass, Charles A., Greensburg, Kans. Cultivator. No. 1,205,342; Nov. 21; Gaz. vol. 232; p. 695.
Gleason, James E., A. L. Stewart, and E. W. Bullock, assignors to Gleason Works, Rochester, N. Y. Gear-cutting machine. No. 1,203,608; Nov. 7; Gaz. vol. 232; p. 19.
Gleason Works. (See Gleason, Stewart, and Bullock, assignors.)
Glenn, John B., Shelby, N. C. Rail-fastener. No. 1,205,190; Nov. 21; Gaz. vol. 232; p. 645.
Glotzbach, George J., Austin, Ill., assignor to American Can Company, New York, N. Y. Ornamenting metal. No. 1,204,005; Nov. 7; Gaz. vol. 232; p. 159.
Goddu, William, Winchester, Mass. Attachment for lathes. No. 1,206,528; Nov. 28; Gaz. vol. 232; p. 1136.
Godfrey, Truman M. (See Kohman, Godfrey, and Ashe.)
Goethel, Alfred C., Milwaukee, Wis. Dust-collector. No. 1,206,103; Nov. 28; Gaz. vol. 232; p. 991.
Goff, Arthur C., Boyne City, Mich. Basket. No. 1,206,480; Nov. 28; Gaz. vol. 232; p. 1103.
Gold, Egbert H., Chicago, Ill. Heating system. No. 1,204,562; Nov. 14; Gaz. vol. 232; p. 386.
Goldberg Calculating Machine Company. (See Goldberg, Hyman E., assignor.)
Goldberg, Hyman E., Chicago, Ill., assignor to Goldberg Calculating Machine Company. Calculating-machine. No. 1,204,755; Nov. 14; Gaz. vol. 232; p. 452.
Goldblatt, Charles I., New York, N. Y. Self-cleaning filter. No. 1,204,756; Nov. 14; Gaz. vol. 232; p. 452.
Golden, George I., Tucson, Ariz. Undergarment. No. 1,205,446; Nov. 21; Gaz. vol. 232; p. 730.
Goldmeratein, Leon, New York, N. Y. Game. No. 1,204,006; Nov. 7; Gaz. vol. 232; p. 159.
Goldstone, Harry, New York, N. Y. Nut-lock. No. 1,205,191; Nov. 21; Gaz. vol. 232; p. 646.
Gonick, Max, New York, N. Y. Safety collar-button. No. 1,206,529; Nov. 28; Gaz. vol. 232; p. 1137.
Gonsior, Joseph, and F. Opp, Medina, N. D. Recoil-mount for ordnance. No. 1,204,757; Nov. 14; Gaz. vol. 232; p. 453.
Gonsior, Joseph, F. Opp, and W. Frank, Medina, N. D. Armored war-automobile. No. 1,204,758; Nov. 14; Gaz. vol. 232; p. 453.
Gonsior, Joseph, W. Frank, and C. Schneider, Medina, N. D. Combined mail-box and milk-bottle holder. No. 1,204,268; Nov. 7; Gaz. vol. 232; p. 250.
Goodell, John H., Marseilles, Ill. Billiard-cue. No. 1,204,152; Nov. 7; Gaz. vol. 232; p. 209.
Goodman, Benedict, Holly, Colo. Lock for automobiles. No. 1,205,988; Nov. 28; Gaz. vol. 232; p. 954.
Goodman, Harry. (See Farrow and Goodman.)
Goodrich, Alonzo C., Chicago, Ill. Golf-club. No. 1,206,104; Nov. 28; Gaz. vol. 232; p. 992.
Goodrich, Alonzo C., Chicago, Ill. Golf-club. No. 1,206,105; Nov. 28; Gaz. vol. 232; p. 992.
Goodrum, Charles L., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,205,617; Nov. 21; Gaz. vol. 232; p. 792.
Goodsell, Byron W., Chicago, Ill. Packing for pump-rods. No. 1,204,007; Nov. 7; Gaz. vol. 232; p. 159.
Goodwin, Joseph H., and F. A. Adamski, Fremont, assignors to National Carbon Company, Cleveland, Ohio. Apparatus for testing dry cells. No. 1,205,343; Nov. 21; Gaz. vol. 232; p. 695.
Goodwin, Oscar J., Rainier, Wash. Cake-cutter. No. 1,204,009; Nov. 7; Gaz. vol. 232; p. 160.
Goodwin, William B., Columbus, Ohio. Vehicle-top. No. 1,204,008; Nov. 7; Gaz. vol. 232; p. 159.
Goodyear's Metallic Rubber Shoe Co., The. (See Lee, Clifford, assignor.)
Goppoldt, Paul R. (See Maguire and Goppoldt.)
Gordon, James A., Barnum, Iowa. Wagon end-gate. No. 1,204,971; Nov. 14; Gaz. vol. 232; p. 528.
Gordon, Samuel C., Richmond, Va. Automobile spring-frame. No. 1,205,526; Nov. 21; Gaz. vol. 232; p. 758.
Gordon, William, Duxbury, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Last. No. 1,203,609; Nov. 7; Gaz. vol. 232; p. 20.
Gordon, William A., Shelton, assignor to Birmingham Iron Foundry, Derby, Conn. Machine for forming strips for automobile-tire treads. No. 1,206,530; Nov. 28; Gaz. vol. 232; p. 1137.
Gore, James H., Washington, D. C. Supporting and exhibiting apparatus. No. 1,204,010; Nov. 7; Gaz. vol. 232; p. 160.
Görlitz, Christian, Altona-Ottensen, Germany. Joiner's bench. No. 1,205,884; Nov. 21; Gaz. vol. 232; p. 882.
Gorman, Thomas J., Jr., Newark, N. J. Fastening for rail-joints. No. 1,204,563; Nov. 14; Gaz. vol. 232; p. 386.
Gosline, Daniel P., Boston, Mass. Automatic fire-alarm. No. 1,206,531; Nov. 28; Gaz. vol. 232; p. 1137.
Gosnell, Charles W. (See Standley and Gosnell.)
Gottlieb, William, Port Jervis, N. Y. Metal tie. No. 1,205,192; Nov. 21; Gaz. vol. 232; p. 646.
Gould Coupler Company. (See Fessenden, George R. Jr., assignor.)
Gould Storage Battery Company. (See Hubbard, Albert S., assignor.)
Gould Storage Battery Company. (See Jepson, John W., assignor.)
Grabler, Peter, and F. H. Kelsey, Cleveland, Ohio, assignors to The Simplex Specialty Company. Valve. No. 1,204,972; Nov. 14; Gaz. vol. 232; p. 529.
Grace, James E., Detroit, Mich. Convertible tent. No. 1,204,427; Nov. 14; Gaz. vol. 232; p. 339.
Graef, Ernest W. (See Gaisman and Graef.)
Grain Products Company. (See Black, Ashley V., assignor.)
Grand Rapids Dimmer Company. (See Flory, Andrew A., assignor.)
Grand Rapids Trust Company. (See Kindel, Charles J., assignor.)
Grandfield, Charles P., Washington, D. C. Mail receiving and delivering apparatus. No. 1,204,428; Nov. 14; Gaz. vol. 232; p. 340.
Granger, Francis, Grunsburg, Pa. Sanitary screen. No. 1,203,868; Nov. 7; Gaz. vol. 232; p. 112.
Grant, David. (See Bartlett, Edward C., assignor.)
Granz, Josef, Plauen, Germany. Embroidering-machine. No. 1,204,269; Nov. 7; Gaz. vol. 232; p. 250.
Graver, William H., Dilsboro, Ind. Vehicle-raiser. No. 1,204,973; Nov. 14; Gaz. vol. 232; p. 529.
Gray, Gardner B., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa. Time-valve and circuit-breaker. No. 1,204,759; Nov. 14; Gaz. vol. 232; p. 453.
Gray, Joseph P., Pittsburg, Kans. Cylinder-cock. No. 1,206,216; Nov. 28; Gaz. vol. 232; p. 1031.
Gray, Lawrence A., Mullan, Idaho. Unloader. No. 1,206,532; Nov. 28; Gaz. vol. 232; p. 1138.
Gray Telephone Pay Station Company, The. (See Long George A., assignor.)
Graybill, Bird M., assignor to Economy Electrical Specialty Company, Chicago, Ill. Electric-wiring fixture. No. 1,206,431; Nov. 28; Gaz. vol. 232; p. 1103.
Great Western Manufacturing Co. (See Loan, Edward J., assignor.)
Greby, Ernest, Issy, France. Starting device. No. 1,205,885; Nov. 21; Gaz. vol. 232; p. 882.
Green, Bertram S. (See Jones and Green.)
Green, Edward B., Jr., Buffalo, N. Y. Folding wheel-chair. No. 1,206,106; Nov. 28; Gaz. vol. 232; p. 993.
Green, Herman G., Chicago, Ill. Treating vegetable fibers. No. 1,206,777; Nov. 28; Gaz. vol. 232; p. 1222.
Green, James, assignor of one-third to R. W. Taylor, Bay St. Louis, Miss. Bottle. No. 1,206,694; Nov. 28; Gaz. vol. 232; p. 1191.
Green, Morris W., Landing, N. J. Mine-sweeper. No. 1,206,432; Nov. 28; Gaz. vol. 232; p. 1103.
Green, Oscar D. (See Dewey and Green.)

Greenamyer, Clarence V., Los Angeles, assignor of one-half to J. McMillan, Glendale, Cal. Trolley-pole controller for electric cars. No. 1,206,758; Nov. 28; Gaz. vol. 232; p. 1215.
Greene, Charles W., deceased, Pittsburgh, Pa.; H. Greene, administratrix. Ingot-mold. No. 1,204,270; Nov. 7; Gaz. vol. 232; p. 251.
Greene, Helen, administratrix. (See Greene, Charles W.)
Greene, John S., Rochester, N. Y., assignor to Commercial Camera Company, Providence, R. I. Photographic roll-holder. No. 1,204,011; Nov. 7; Gaz. vol. 232; p. 160.
Greene, Robert E., Memphis, Tenn. Delivery vehicle-body. No. 1,204,271; Nov. 7; Gaz. vol. 232; p. 251.
Greenfield Paper Bottle Company. (See Gelertsen, Otto E., assignor.)
Greenleaf, Robert P., assignor to F. Billings, Cleveland, Ohio. Loading apparatus. No. 1,204,760; Nov. 14; Gaz. vol. 232; p. 454.
Greenpoint Metallic Bed Company. (See Frank, Louis, assignor.)
Greenwood, Lenia, Jasonville, Ind. Attachment for picks. No. 1,206,695; Nov. 28; Gaz. vol. 232; p. 1192.
Gregg, James R. W. (See Whiteman and Gregg.)
Gressle, Charles W., assignor to The Standard Welding Company, Cleveland, Ohio. Rim for vehicle-wheels. No. 1,205,527; Nov. 21; Gaz. vol. 232; p. 758.
Grieb, Alfred, Elizabeth, N. J., assignor to Singer Manufacturing Company. Sewing-machine. No. 1,206,433; Nov. 28; Gaz. vol. 232; p. 1104.
Griffiths, William U., Philadelphia, Pa. Flush-tank-valve-actuating mechanism. No. 1,203,726; Nov. 7; Gaz. vol. 232; p. 61.
Grip Nut Company. (See Sharp, William E., assignor.)
Grissinger, Elwood, Buffalo, N. Y., assignor to American Telephone and Telegraph Company. Speech-transmitting mechanism. No. 1,205,618; Nov. 21; Gaz. vol. 232; p. 792.
Griswold Manufacturing Company. (See Griswold, Roger W., assignor.)
Griswold, Roger W., assignor to Griswold Manufacturing Company, Erie, Pa. Griddle. No. 1,204,429; Nov. 14; Gaz. vol. 232; p. 340.
Groene, William F. (See Le Blond and Groene.)
Groetchen, Richard, Chicago, Ill. Dental thread-holder. No. 1,205,732; Nov. 21; Gaz. vol. 232; p. 832.
Groff, Clarence B., *et al.* (See Rosen, David, assignor.)
Grondin, Abel X. W., Thetford Mines, Quebec, Canada. Train-stopping apparatus. No. 1,205,193; Nov. 21; Gaz. vol. 232; p. 646.
Gross, D. D. (See Cosby, William B., assignor.)
Gross, Joseph. (See Gross, Solomon and J.)
Gross, Solomon and J., Galesburg, Ill. Combination-pocket. No. 1,206,434; Nov. 28; Gaz. vol. 232; p. 1104.
Gruenfeldt, Emil, assignor to The Baker Motor Vehicle Company, Cleveland, Ohio. Motor-vehicle. No. 1,203,727; Nov. 7; Gaz. vol. 232; p. 61.
Grun, Willibald, Frankfort-on-the-Main, Germany. Fluid-pressure relay-governor. No. 1,204,564; Nov. 14; Gaz. vol. 232; p. 386.
Grunow, William, Jr., New York, N. Y., assignor to J. F. Alvord, Torrington, Conn., and W. B. Thompson, New York, N. Y. Igniting mechanism for internal-combustion engines. No. 1,205,194; Nov. 21; Gaz. vol. 232; p. 647.
Grunwald, Martin, Temesvár, Austria-Hungary. Device for making hollow sugar articles. No. 1,205,886; Nov. 21; Gaz. vol. 232; p. 883.
Grupe, William F., North Bergen, N. J. Brake for talking-machines and the like. No. 1,204,861; Nov. 14; Gaz. vol. 232; p. 487.
Grupe, William F., Jersey City, N. J., assignor to Vanophone Company, Inc. Brake for talking-machines. No. 1,204,859; Nov. 14; Gaz. vol. 232; p. 486.
Grupe, William F., Jersey City, N. J., assignor, by mesne assignments, to Van-O-Phone Company, New York, N. Y. Universally-flexible brake. No. 1,204,860; Nov. 14; Gaz. vol. 232; p. 487.
Gudmundson, Niels W., Salt Lake City, Utah. Elevator-brake. No. 1,205,989; Nov. 28; Gaz. vol. 232; p. 954.
Guett, Monroe, assignor to Hart & Hegeman Manufacturing Company, Hartford, Conn. Snap-switch. No. 1,204,012; Nov. 7; Gaz. vol. 232; p. 161.
Guggenheim Laundry Machinery Company, The. (See Freeman, Ladbrook H., assignor.)
Guiberson, Samuel A., Jr. (See Richard, Leroy L., assignor.)
Guignard, Christopher G., Columbia, S. C. Drying of clayware and the like. No. 1,204,430; Nov. 14; Gaz. vol. 232; p. 340.
Gulbrandsen, Michael A., New Orleans, La., assignor of one-half to Pneumatic Surf Coaster Amusement Co., Inc., New York, N. Y., and one-half to J. Rotily, New Orleans, La. Surf-coaster. No. 1,206,696; Nov. 28; Gaz. vol. 232; p. 1192.
Gums, Herman H., Newark, N. J. Adjustable combined welding and cutting torch. No. 1,205,195; Nov. 21; Gaz. vol. 232; p. 647.
Gundermann, Georg, Brooklyn, N. Y. Faucet. No. 1,206,533; Nov. 28; Gaz. vol. 232; p. 1138.
Gunn, William C. (See Dorsey, Harry O., assignor.)
Gustafson, John C. (See Rahn, John F., assignor.)
Gutenkunst, William, Milwaukee, Wis. Division member for stanchions. No. 1,204,862; Nov. 14; Gaz. vol. 232; p. 488.
Gutenkunst, William, Milwaukee, Wis. Joint-lock. No. 1,205,733; Nov. 21; Gaz. vol. 232; p. 832.
Guth, Edwin F., St. Louis, Mo. Lighting-fixture. No. 1,205,196; Nov. 21; Gaz. vol. 232; p. 647.
Guthrie, Herbert T., New York, N. Y. Automatic and semi-automatic key-lever actuator. No. 1,206,534; Nov. 28; Gaz. vol. 232; p. 1138.
Guthrie, Tracy W., assignor to The Standard Welding Company, Cleveland, Ohio. Vehicle-wheel. No. 1,205,528; Nov. 21; Gaz. vol. 232; p. 759.
Güttner, Max, Schmölln, Germany. Stuffing-box. No. 1,205,887; Nov. 21; Gaz. vol. 232; p. 883.
Gyro Motor Company. (See Moore, Robert S., assignor.)
H. F. Brammer Manufacturing Company. (See Edens, John, assignor.)
H. W. Cooper Saddlery Hardware Mfg. Company. (See Cooper, Charles J., assignor.)
H. W. Johns-Manville Company. (See Sabine, Wallace C., assignor.)
H. W. Schwimmer Company. (See Schwimmer, Henry W., assignor.)
Haaga, Emil, Chemnitz, Germany. Circular-knitting machine. No. 1,206,217; Nov. 28; Gaz. vol. 232; p. 1031.
Haage, Hugo, Bernau, near Berlin, assignor to Siemens-Schuckert-Werke G. m. b. H., Berlin, Germany. Commutator. No. 1,205,197; Nov. 21; Gaz. vol. 232; p. 648.
Haas, Hermann, Duesseldorf, Germany. Tool for taking samples. No. 1,205,888; Nov. 21; Gaz. vol. 232; p. 883.
Habinski, Michael, Fenwood, Saskatchewan, Canada. Folding umbrella. No. 1,204,565; Nov. 14; Gaz. vol. 232; p. 387.
Hachmann, Frederick, assignor of one-fourth to F. C. Schoenthaler, St. Louis, Mo. Hose-coupling. No. 1,204,352; Nov. 7; Gaz. vol. 232; p. 278.
Hachmann, Frederick, assignor of one-fourth to F. C. Schoenthaler, St. Louis, Mo. Bottle-closure. No. 1,205,091; Nov. 14; Gaz. vol. 232; p. 567.
Haddock, Walter M., assignor of one-half to H. Flanary, Brooklyn, N. Y. Combined chair-seat and commode. No. 1,204,431; Nov. 14; Gaz. vol. 232; p. 341.
Hadley, Charles R., assignor to Charles R. Hadley Company, Los Angeles, Cal. Hotel-register. No. 1,205,447; Nov. 21; Gaz. vol. 232; p. 730.
Hafer, William M., Cambridge, Ohio. Rail joint or coupling. No. 1,205,529; Nov. 21; Gaz. vol. 232; p. 759.
Hafner, Edward P., and J. T. Roberts, St. Louis, Mo. Antiskid device. No. 1,204,863; Nov. 14; Gaz. vol. 232; p. 488.
Haggard, Dixie L., *et al.* (See Johnson, Wallace C., assignor.)
Haggard, Joe E., *et al.* (See Johnson, Wallace C., assignor.)
Haines, Harry V., Farrell, Pa. Wrench. No. 1,203,728; Nov. 7; Gaz. vol. 232; p. 61.
Halbleib, Edward A., assignor to North East Electric Company, Rochester, N. Y. Test-bench. No. 1,205,448; Nov. 21; Gaz. vol. 232; p. 730.
Hale, Barry E., Greenfield, Mass. Corn and callus remover. No. 1,203,869; Nov. 7; Gaz. vol. 232; p. 112.
Hale, Daniel R. (See Therio, James, assignor.)
Hale, Fred E. (See Woolf and Hale.)
Hale, Howard B., Alliance, Nebr. Mower-truck. No. 1,204,975; Nov. 14; Gaz. vol. 232; p. 529.
Hale and Kilburn Company. (See Bell, Alfred B., assignor.)
Hale, William F., *et al.* (See Maxwell, George S., assignor.)
Hall, Alfred, Winthrop, assignor to H. C. Kendall, Boston, Mass. Gummed-strip-affixing device. No. 1,204,761; Nov. 14; Gaz. vol. 232; p. 454.
Hall, Arthur J., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system and apparatus. No. 1,203,610; Nov. 7; Gaz. vol. 232; p. 20.
Hall, Arthur J., and L. G. Riley, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Control system for electric motors. No. 1,204,432; Nov. 14; Gaz. vol. 232; p. 341.
Hall, Elias S., Millstone, N. J. Aeroplane. No. 1,206,435; Nov. 28; Gaz. vol. 232; p. 1104.
Hall, Fred, Newark, Ohio. Constructing endless belts and mold therefor. No. 1,204,976; Nov. 14; Gaz. vol. 232; p. 530.
Hall, Ray E., assignor of one-half to C. A. Robertson, Portland, Oreg. Method of and means for translating sounds. No. 1,206,530; Nov. 21; Gaz. vol. 232; p. 759.
Hallam, Samuel W., and A. T. Houldsworth, New York, N. Y. Combined hood and scarf. No. 1,203,870; Nov. 7; Gaz. vol 232; p. 112.
Hallinger, Franz X., Hamburg, Germany. Method and means for draining the ground for subaqueous excavations. No. 1,204,977; Nov. 14; Gaz. vol. 232; p. 530.
Hallstream, Henning, Brockton, Mass., assignor to Cross Paper Feeder Company. Registering mechanism for sheet-feeders. No. 1,206,218; Nov. 28; Gaz. vol. 232; p. 1032.
Halsey, Edward S., Philadephia, Pa. Individual thermostatic controller for radiators. No. 1,204,886; Nov. 7; Gaz. vol. 232; p. 290.
Halton, Thomas H., assignor to Thomas Halton's Sons, Philadelphia, Pa. Jacquard-machine. No. 1,204,864; Nov. 14; Gaz. vol. 232; p. 488.
Halverson, Halbert L., Whitewater, Wis. Grease-cup. No. 1,205,734; Nov. 21; Gaz. vol. 232; p. 833.

Halvorson, Julius, Rexburg, Idaho. Clothes-pin. No. 1,205,889; Nov. 21; Gaz. vol. 232; p. 883.
Ham Boiler Corporation. (See Adelmann, Hans, assignor.)
Hamer, William D. (See Mueller, Otto, assignor.)
Hamilton, John R., Yonkers, assignor to Automatic Sprinkler Company of America, New York, N. Y. Machine for assembling automatic sprinkler-heads. No. 1,206,107; Nov. 28; Gaz. vol. 232; p. 993.
Hamilton, Lemon W., Ross, Tex. Plow attachment. No. 1,204,586; Nov. 14; Gaz. vol. 232; p. 387.
Hammalian, Paul M. (See Smith, John J. C., assignor.)
Hammar, Park G. (See Mahla, Charles A., assignor.)
Hammer, Martin S., Modesto, Cal. Opener for gates. No. 1,206,219; Nov. 28; Gaz. vol. 232; p. 1032.
Hammers, Morgan J., Detroit, Mich. Auxiliary seat for vehicles. No. 1,203,729; Nov. 7; Gaz. vol. 232; p. 62.
Hammesfahr, Charles, New York, N. Y. Tooth-brush holder. No. 1,206,321; Nov. 28; Gaz. vol. 232; p. 1067.
Hammond, Francesco, *et al.* (See Bearce, Wilson R., assignor.)
Hanauer, Andreas, New York, N. Y. Carpet anchor-clip. No. 1,206,759; Nov. 28; Gaz. vol. 232; p. 1216.
Hancock, Frederick P., Kemmerer, Wyo. Shipping-crate. No. 1,204,978; Nov. 14; Gaz. vol. 232; p. 530.
Hanel, William, Jersey City, N. J. Measuring apparatus. No. 1,204,865; Nov. 14; Gaz. vol. 232; p. 489.
Haney, David M., Sykesville, Pa. Retaining device. No. 1,204,866; Nov. 14; Gaz. vol. 232; p. 489.
Haney, Oliver C., Los Angeles, Cal. Rotary tooth-brush. No. 1,204,762; Nov. 14; Gaz. vol. 232; p. 455.
Hanigan, Harry A., *et al.* (See Doyl, Clarence V., assignor.)
Hanna, Micheal, Jr., Earlington, Ky. Adjustable shaft-hanger. No. 1,203,890; Nov. 21; Gaz. vol. 232; p. 883.
Hanna, William E. (See Rott and Hanna.)
Hanna, William J., Geneseo, assignor of one-half to M. F. Boas, Rochester, N. Y. Wrench. No. 1,204,433; Nov. 14; Gaz. vol. 232; p. 341.
Hanna, William T., assignor, by mesne assignments, to The Mechanical Construction Company, Cincinnati, Ohio. Mechanical stoker. No. 1,203,871; Nov. 7; Gaz. vol. 232; p. 113.
Hanni, Ernest, San Francisco, Cal. Spark-plug pressure indicator. No. 1,204,013; Nov. 7; Gaz. vol. 232; p. 161.
Hansen, Asmus M. H., and M. C. J. Neve, Hamburg, Germany. Water-tight cement and producing the same. No. 1,205,735; Nov. 21; Gaz. vol. 232; p. 833.
Hansen, Bjarne, Notodden, assignor to Norsk Hydro-elektrisk Kvaelstofaktieselskab, Christiania, Norway. Receptacle for chemical purposes. No. 1,205,619; Nov. 21; Gaz. vol. 232; p. 798.
Hansen, Carl C., Frederiksberg, Denmark. Shoe-stitching machine. No. 1,204,807; Nov. 14; Gaz. vol. 232; p. 489.
Hansen, Christian H. and T., Bethany, Cal. Kitchen appliance. No. 1,206,108; Nov. 28; Gaz. vol. 232; p. 994.
Hansen, Thomas. (See Hansen, Christian H. and T.)
Hanus, Ewald, Tegel, near Berlin, Germany. Ball-grinding machine. No. 1,205,531; Nov. 21; Gaz. vol. 232; p. 760.
Hapgood, Clarence H., assignor, by mesne assignments, to The Toledo Scale Company, Toledo, Ohio. Scale. No. 1,203,611; Nov. 7; Gaz. vol. 232; p. 20.
Harbeck, Jervis R., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich. Dredging-can. No. 1,203,872; Nov. 7; Gaz. vol. 232; p. 113.
Hardcastle, John H., Edenwold, Tenn. Milk-can. No. 1,203,730; Nov. 7; Gaz. vol. 232; p. 62.
Hardegger, Hans, assignor to W. Stellmacher, Arbon, Switzerland. Embroidery-frame for embroidery-machines. No. 1,204,434; Nov. 14; Gaz. vol. 232; p. 342.
Hardman, George H., assignor of one-half to F. S. Brundage, Fall River, Mass. Machine for manufacturing sanitary napkins. No. 1,204,153; Nov. 7; Gaz. vol. 232; p. 210.
Hardwig, Mathew, St. Joseph, Minn. Automatic-seal check safety-valve for radiators. No. 1,204,979; Nov. 14; Gaz. vol. 232; p. 531.
Hardyman, Frank A., assignor to Automatic Gas Power Company, Quincy, Ill. Light-projecting apparatus. No. 1,204,272; Nov. 21; Gaz. vol. 232; p. 251.
Hargis, Robert, *et al.* (See Luther, Clevia J., assignor.)
Hargis, Thomas L., Woodburn, Ky. Wire-stretching means. No. 1,203,617; Nov. 7; Gaz. vol. 232; p. 23.
Haring, Garrett E. (See Mamel, William W., Sr., assignor.)
Harley-Davidson Motor Co. (See Harley, William S., assignor.)
Harley, William S., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Interchangeable wheel-hub. No. 1,203,612; Nov. 7; Gaz. vol. 232; p. 21.
Harlow, George. (See Schaanning and Harlow.)
Harmon, Walter J., St. Louis, Mo. Tire-protector. No. 1,205,736; Nov. 21; Gaz. vol. 232; p. 833.
Harnesberger, Jabez D., Atlanta, Ga. File-cabinet. No. 1,204,567; Nov. 14; Gaz. vol. 232; p. 388.
Harnesberger, Jabez D., Atlanta, Ga. Drawer. No. 1,204,568; Nov. 14; Gaz. vol. 232; p. 388.
Harper, Walter, Webster, Pa. Nut-lock. No. 1,206,322; Nov. 28; Gaz. vol. 232; p. 1067.
Harper, William P., Abilene, Kans. Device for marking ears of animals. No. 1,206,323; Nov. 28; Gaz. vol. 232; p. 1067.
Harpster, Bert, Burchard, Nebr. Playing-cards. No. 1,204,763; Nov. 14; Gaz. vol. 232; p. 455.
Harrah, James C., Bowles, Cal. Vine-tying device. No. 1,204,868; Nov. 14; Gaz. vol. 232; p. 489.
Harrigan, George M. (See Bentley, Thomas, assignor.)
Harrington, Charles G. (See Leach and Harrington.)
Harrington, Grover C. (See Hevel, Harrington, and Hevel.)
Harris, Carl C., assignor to Riveto Manufacturing Company, Orange, Mass. Structural toy. No. 1,206,760; Nov. 28; Gaz. vol. 232; p. 1216.
Harris, Edward W. (See Snyder and Harris.)
Harris, John, Sheffield, England. Ore-roasting furnace. No. 1,203,613; Nov. 7; Gaz. vol. 232; p. 21.
Harris, John, Sheffield, England, and D. H. Thomas, Morriston, Wales. Evaporator. No. 1,203,614; Nov. 7; Gaz. vol. 232; p. 22.
Harris, John Sheffield, England, and D. H. Thomas, Morriston, Wales. Sulfuric-acid chamber. No. 1,203,615; Nov. 7; Gaz. vol. 232; p. 22.
Harris, Varian M., assignor to H. S. Hawley, trustee, Chicago, Ill. Charging storage batteries. No. 1,205,620; Nov. 21; Gaz. vol. 232; p. 793.
Harrison, Francis and F. L., Prestwick, Scotland. Incandescent electric lamp. No. 1,205,737; Nov. 21; Gaz. vol. 232; p. 833.
Harrison, Francis L. (See Harrison, Francis and F. L.)
Harrison, Harris, Stoughton, Wis. Shock-arrester. No. 1,206,697; Nov. 28; Gaz. vol. 232; p. 1192.
Harrison, James F., St. Louis, Mo. Garter. No. 1,205,092; Nov. 14; Gaz. vol. 232; p. 568.
Harrison, Percy, Baltimore, Md., assignor to Harrison Specialty Company. Plug for boiler-tubes. No. 1,205,891; Nov. 21; Gaz. vol. 232; p. 884.
Harrison Safety Boiler Works. (See Gamble, Joseph W., assignor.)
Harrison Safety Boiler Works. (See Wallem, Axel B., assignor.)
Harrison Specialty Company. (See Harrison, Percy, assignor.)
Hart, Harold L., Chicago, Ill. Rail-chair. No. 1,204,660; Nov. 14; Gaz. vol. 232; p. 420.
Hart & Hegeman Manufacturing Company. (See Guett, Monroe, assignor.)
Hart & Hegeman Manufacturing Company, The. (See Sachs, Joseph, assignor.)
Hart, Homer V., Hagerstown, Md., and C. F. Massey, Winchester, Va. Lime-sulfur machine. No. 1,205,738; Nov. 21; Gaz. vol. 232; p. 833.
Hart, Hubert C., Unionville, Conn. Making polygonal nuts. No. 1,206,698; Nov. 28; Gaz. vol. 232; p. 1193.
Hart, Lewis B., Plaquemine, La. Surgical appliance. No. 1,206,324; Nov. 28; Gaz. vol. 232; p. 1067.
Hart, Orlando W., Fall River, Mass. Roller-bearing. No. 1,205,449; Nov. 21; Gaz. vol. 232; p. 731.
Hartfield, Helen A. (See Hartfield, Otto J., assignor.)
Hartfield, Otto J., Oakland, assignor to H. A. Hartfield, Los Angeles, Cal. Radiator. No. 1,203,731; Nov. 7; Gaz. vol. 232; p. 62.
Harthan, Charles E., Lynn, Mass., assignor to General Electric Company. Relay. No. 1,206,699; Nov. 28; Gaz. vol. 232; p. 1193.
Hartley Steel Crated Box Company, The. (See McLaughlin, Thomas, assignor.)
Hartley, Wm. J. (See Tate, Robert L., assignor.)
Hartling, Alfred C. (See Barido and Hartling.)
Hartman, Frank O., Mansfield, Ohio. Combined circuit-breaker and switch. No. 1,204,435; Nov. 14; Gaz. vol. 232; p. 342.
Hartman, George E. (See Moss, George A., assignor.)
Hartman, Jacob. (See Teague and Hartman.)
Hartray, William C. (See Hoffman, William, assignor.)
Harvey, Thomas C., San Francisco, Cal. Headlight-dimmer. No. 1,205,093; Nov. 14; Gaz. vol. 232; p. 568.
Haskins, George F., Sinton, Tex. Holder-slide. No. 1,206,700; Nov. 28; Gaz. vol. 232; p. 1193.
Hasleu, William S., Montevideo, Minn. Stoker. No. 1,206,701; Nov. 28; Gaz. vol. 232; p. 1193.
Hasselbring, August W., Barnum, Iowa. End-gate. No. 1,203,732; Nov. 7; Gaz. vol. 232; p. 62.
Hassell, William R. (See Siddall and Hassell.)
Hastings, Matthew E., New York Mills, N. Y. Sheet-metal-folding machine. No. 1,205,621; Nov. 21; Gaz. vol. 232; p. 793.
Hastings, Reuben C. M., assignor to International Telephone Co., Columbus, Ohio. Telephone system. No. 1,206,761; Nov. 28; Gaz. vol. 232; p. 1216.
Hatch, Arthur G., and F. Waldorf, Duluth, Minn. Time-controlled apparatus. No. 1,203,873; Nov. 7; Gaz. vol. 232; p. 113.
Hatfield, Andrew L., Hillside, N. J. Reinforced vulcanisable article and producing the same. No. 1,205,845; Nov. 21; Gaz. vol. 232; p. 696.
Hatfield, Orland C., Richmond, Ind. Seed and grain cleaner. No. 1,205,739; Nov. 21; Gaz. vol. 232; p. 834.
Haugaard, Peder, Luverne, N. D. Automatic release for tie-ropes. No. 1,205,740; Nov. 21; Gaz. vol. 232; p. 834.
Hauger, Edward, Shelburn, Ind. Automobile-wheel. No. 1,206,109; Nov. 28; Gaz. vol. 232; p. 994.
Hawes, Richard L., New Rockford, N. D. Shipping-crate for bread and the like. No. 1,206,702; Nov. 28; Gaz. vol. 232; p. 1194.
Hawkins, Bert H., assignor to McCord Manufacturing Company, Detroit, Mich. Draw-press. No. 1,205,622; Nov. 21; Gaz. vol. 232; p. 794.

Hawkins, Clarence I., and R. W. Campbell, Baileyton, Tenn. Wrench. No. 1,204,980; Nov. 14; Gaz. vol. 232; p. 531.
Hawkins, Edgar M., assignor to M. D. Knowlton Company, Rochester, N. Y. Joint for corrugated paper-board. No. 1,203,616; Nov. 7; Gaz. vol. 232; p. 22.
Hawkinson, Axel W., assignor to Topliff-Ely Company, Washington, Pa. Child's sulky. No. 1,205,198; Nov. 21; Gaz. vol. 232; p. 648.
Hawley, Frank L., Blanchard, Wash. Window-screen. No. 1,204,436; Nov. 14; Gaz. vol. 232; p. 343.
Hawley, Henry S., trustee. (See Harris, Varian M., assignor.)
Hawthorne, David H., Anthon, Iowa. Computing device. No. 1,206,703; Nov. 28; Gaz. vol. 232; p. 1194.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp. No. 1,203,618; Nov. 7; Gaz. vol. 232; p. 23.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp. No. 1,205,623; Nov. 21; Gaz. vol. 232; p. 794.
Hawthorne, Ellsworth A., Bridgeport, Conn. Switch. No. 1,205,624; Nov. 21; Gaz. vol. 232; p. 794.
Hawthorne, Ellsworth A., Bridgeport, Conn. Vehicle-lamp. No. 1,206,625; Nov. 21; Gaz. vol. 232; p. 794.
Hay, Marley F., and G. Ekama, The Hague, Netherlands. Torpedo-tube for submarines or the like. No. 1,204,353; Nov. 7; Gaz. vol. 232; p. 278.
Hayes, Emmett O., *et al.* (See Mundy, Edmund, assignor.)
Hayes, Richard S., Commerce, Tex. Bolster-bearing. No. 1,205,582; Nov. 21; Gaz. vol. 232; p. 760.
Head, Edward F., Winnipeg, Canada. Vehicle-signal. No. 1,204,981; Nov. 14; Gaz. vol. 232; p. 531.
Heady, Louis B., Houston, Tex. Sweat-band. No. 1,205,090; Nov. 28; Gaz. vol. 232; p. 954.
Healy, Edmund T., St. Paul, Minn. Backwater-valve. No. 1,205,199; Nov. 21; Gaz. vol. 232; p. 648.
Heap, Robert B., Burnley, England. Beam-clamping device. No. 1,203,733; Nov. 7; Gaz. vol. 232; p. 63.
Heape, Warren W., and W. Thackeray, Kewanee, Ill. Polishing-machine. No. 1,205,533; Nov. 21; Gaz. vol. 232; p. 761.
Hearn, George E., assignor to R. L. Moorhead & Co., Providence, R. I. Fastening device. No. 1,206,110; Nov. 28; Gaz. vol. 232; p. 995.
Heath, Clyde B., Brooksburg, Ind. Resilient tire. No. 1,206,325; Nov. 28; Gaz. vol. 232; p. 1068.
Hebert, Ovila G., Holyoke, Mass. Printing apparatus. No. 1,206,785; Nov. 28; Gaz. vol. 232; p. 1225.
Hecht, Isidor, Budapest, Austria-Hungary. Container for loose sheets. No. 1,205,892; Nov. 21; Gaz. vol. 232; p. 884.
Hecht, Julius L., Evanston, assignor of one-half to E. O. Schweitzer, Chicago, Ill. Controlling device for automobiles. No. 1,204,014; Nov. 7; Gaz. vol. 232; p. 161.
Hedgcock, William C., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Emergency-brake-beam support. No. 1,205,991; Nov. 28; Gaz. vol. 232; p. 954.
Heflin, Richard, Sandoval, Ill. Drilling-machine. No. 1,205,626; Nov. 21; Gaz. vol. 232; p. 795.
Heggem, Oliver E. (See Morgan, Dennis M., assignor.)
Heidland, Ernest and H., St. Louis, Mo. Dough-punching machine. No. 1,203,734; Nov. 7; Gaz. vol. 232; p. 63.
Heidland, Herman. (See Heidland, Ernest and H.)
Heilrath, Christian, Sacramento, Cal. Tong-wrench. No. 1,206,346; Nov. 21; Gaz. vol. 232; p. 696.
Heinen, Theodor, Solingen, Germany. Apparatus for developing photographic plates by daylight. No. 1,205,893; Nov. 21; Gaz. vol. 232; p. 884.
Heinze, Victor, Chicago, Ill. Means for correcting the human hand for musical purposes. No. 1,204,437; Nov. 14; Gaz. vol. 232; p. 343.
Heifgott, Armin, Uj-Pest, Austria-Hungary, assignor to General Electric Company. Producing malleable tungsten. No. 1,206,704; Nov. 28; Gaz. vol. 232; p. 1194.
Helmich, Daniel A., Birmingham, Ala. Culinary utensil. No. 1,204,764; Nov. 14; Gaz. vol. 232; p. 455.
Helson, Gilbert F., assignor to E. R. Durkee & Co., New York, N. Y. Receptacle for spices and like substances. No. 1,206,535; Nov. 28; Gaz. vol. 232; p. 1139.
Hemenway, John F., New York, N. Y. Clothes-wringer. No. 1,205,200; Nov. 21; Gaz. vol. 232; p. 648.
Hemenway, John F., New York, N. Y. Clothes-wringer. No. 1,206,201; Nov. 21; Gaz. vol. 232; p. 649.
Hemenway, John F., New York, N. Y., and F. C. Speer, Madison, N. J.; said Speer assignor to said Hemenway. Clothes-wringer. No. 1,206,326; Nov. 28; Gaz. vol. 232; p. 1068.
Hemm, Frank J., Piqua, Ohio. Clutch. No. 1,204,438; Nov. 14; Gaz. vol. 232; p. 343.
Hemming, Daniel. (See Drucklieb and Hemming.)
Hemphill Manufacturing Co. (See Bedard, Emile, assignor.)
Hemphill Manufacturing Co. (See Bosworth, George P., assignor.)
Hemphill Manufacturing Company. (See Busek, Edward E., assignor.)
Henderson, Frederick J. (See Eyton and Henderson.)
Henderson, Harry. (See Brownrigg, Henderson, and Case.)
Hendricks, Le Roy O., Minneapolis, Minn. Luggage-carrier. No. 1,205,741; Nov. 21; Gaz. vol. 232; p. 834.
Hendrickson, Robert O. (See Eason and Hendrickson.)
Heninger, John T., Welling, Alberta, Canada. Hay-cocker. No. 1,204,661; Nov. 14; Gaz. vol. 232; p. 421.
Henry Conolly Company. (See Magin, John G., assignor.)
Henry Disston & Sons. (See Freas, Samuel T., assignor.)
Henry Likly & Company. (See Cannan, John J., assignor.)
Henry, William W., Wollaston, assignor to S. H. Couch Company, Inc., Atlantic, Mass. Hand-micro telephone. No. 1,204,765; Nov. 14; Gaz. vol. 232; p. 456.
Henry, William W., Wollaston, and A. E. Stevens, assignors to S. H. Couch Company, Inc., Atlantic, Mass. Selective signaling device. No. 1,204,766; Nov. 14; Gaz. vol. 232; p. 456.
Hensley, Hubert A., New Rochelle, N. Y. Calculating-machine. No. 1,204,439; Nov. 14; Gaz. vol. 232; p. 343.
Hensley, Joseph D., Kenesaw, Nebr. Wagon-tongue support. No. 1,206,436; Nov. 28; Gaz. vol. 232; p. 1105.
Henwood, Horace E., New York, N. Y. Acetylene-gas generator and device for feeding carbids. No. 1,204,015; Nov. 7; Gaz. vol. 232; p. 162.
Henwood, Horace E., New York, N. Y. Acetylene-gas-generator-feeding mechanism. No. 1,204,016; Nov. 7; Gaz. vol. 232; p. 162.
Hepler, Carmon F., Phillipston, Pa. Rail-tie. No. 1,205,992; Nov. 28; Gaz. vol. 232; p. 954.
Herby, Frederick C. (See Herby, John and F. C.)
Herby, John and F. C., Jamestown, N. Y. Hub-attaching device. No. 1,205,534; Nov. 21; Gaz. vol. 232; p. 761.
Herby, John and F. C., Jamestown, N. Y. Wagon-axle. No. 1,205,535; Nov. 21; Gaz. vol. 232; p. 761.
Herman, Jacob W. (See Hyle and Herman.)
Hermsmeyer, Henry C., *et al.* (See Barnett, John B., assignor.)
Herr, Herbert T., Pittsburgh, assignor, by mesne assignments, to the Westinghouse Machine Company, East Pittsburgh, Pa. Speed-governor. No. 1,205,126; Nov. 14; Gaz. vol. 232; p. 580.
Herr, Herbert T., Pittsburgh, assignor, by mesne assignments, to The Westinghouse Machine Company, East Pittsburgh, Pa. Speed-governor. No. 1,205,127; Nov. 14; Gaz. vol. 232; p. 580.
Herron, William J., Wilkinsburg, Pa. Locking throttle-handle for pneumatic tools. No. 1,203,735; Nov. 7; Gaz. vol. 232; p. 63.
Herschede Hall Clock Company, The. (See Herschede, Walter J., assignor.)
Herschede, Walter J., assignor to The Herschede Hall Clock Company, Cincinnati, Ohio. Chime-striking hammer. No. 1,205,202; Nov. 21; Gaz. vol. 232; p. 649.
Hess-Bright Manufacturing Company, The. (See Bright, Fred E., assignor.)
Hesse Envelope Company, The. (See Otey, George S., assignor.)
Hettermann, John, *et al.* (See Eddy and McNutt, assignors.)
Heuser, Herman, Chicago, Ill. Manufacturing unfermented beverages. No. 1,204,869; Nov. 14; Gaz. vol. 232; p. 490.
Hevel, Frank, G. C. Harrington, and W. Hevel, McCune, Kans. Corn-planter. No. 1,206,705; Nov. 28; Gaz. vol. 232; p. 1194.
Hevel, William. (See Hevel, Harrington, and Hevel.)
Hewitt, George W. (See Cary and Hewitt.)
Hewitt, Herbert H., Buffalo, N. Y. Casting apparatus. No. 1,203,619; Nov. 7; Gaz. vol. 232; p. 23.
Heydt, George H., assignor to Western Electric Company, Incorporated, New York, N. Y. Automatic switch. No. 1,205,536; Nov. 21; Gaz. vol. 232; p. 761.
Hezler, Julius, Poughkeepsie, N. Y. Folding box. No. 1,204,870; Nov. 14; Gaz. vol. 232; p. 490.
Hi-Lo Jack Company. (See Johnson, Alvin L., assignor.)
Hibner, John M., Detroit, Mich., assignor to Morgan & Wright. Tire-cementing machine. No. 1,205,203; Nov. 21; Gaz. vol. 232; p. 650.
Hickman, Wilbur M., and I. Canniff, Battle Creek, Mich. Block-mold. No. 1,204,354; Nov. 7; Gaz. vol. 234; p. 279.
Hickman, William A., Boston, Mass. Motor-boat. No. 1,204,355; Nov. 7; Gaz. vol. 232; p. 279.
Hickson, Edwin J., Butler, Pa. Manufacture of steel-sheathed tubing. No. 1,205,742; Nov. 21; Gaz. vol. 232; p. 835.
Hidden, Charles P., Brookline, assignor to The Lamson Company, Boston, Mass. Automatic despatching and selective delivery apparatus. No. 1,203,736; Nov. 7; Gaz. vol. 232; p. 64.
Higert, Henry H., Indianapolis, Ind. Combined nut serving and cracking device. No. 1,205,993; Nov. 28; Gaz. vol. 232; p. 955.
Higgins, William H., Chicago, Ill. Coat-hanger. No. 1,205,204; Nov. 21; Gaz. vol. 232; p. 650.
Hildebrandt, Albert, and W. E. Moffett, Baltimore, Md. Caster. No. 1,204,440; Nov. 14; Gaz. vol. 232; p. 344.
Hilfiker, Frederick O., Rochester, N. Y. Bath appliance. No. 1,203,874; Nov. 7; Gaz. vol. 232; p. 114.
Hilfiker, Frederick O., assignor to F. O. Hilfiker Co., Syracuse, N. Y. Toilet implement. No. 1,205,894; Nov. 21; Gaz. vol. 232; p. 884.
Hill, Fred W., Lyndonville, N. Y. Bed-spring. No. 1,206,536; Nov. 28; Gaz. vol. 232; p. 1140.
Hills, Sidney C., assignor to The Turner & Seymour Manufacturing Co., Torrington, Conn. Curtain-rod. No. 1,204,662; Nov. 14; Gaz. vol. 232; p. 421.
Hills, Sidney C., assignor to The Turner & Seymour Manufacturing Co., Torrington, Conn. Gear-wheel. No. 1,206,827; Nov. 28; Gaz. vol. 232; p. 1060.

Hilpert, Helen, Glenside, Pa. Flower-holder. No. 1,205,537; Nov. 21; Gas. vol. 232; p. 762.

Hilsinger, Alburtis C., East Orange, N. J. Draft-regulator for domestic furnaces. No. 1,206,537; Nov. 28; Gas. vol. 232; p. 1140.

Hilton, Roland C., Boston, Mass., assignor to West Side Foundry Company, Colonie, N. Y. Air-pump. No. 1,204,273; Nov. 7; Gas. vol. 232; p. 251.

Hinckley, Frank C., and L. G. Larsen, assignors to American Graphophone Company, Bridgeport, Conn. Tone-arm mounting for talking-machines. No. 1,205,627; Nov. 21; Gas. vol. 232; p. 795.

Hincz, Hipolit M., Chicago, Ill., assignor, by mesne assignments, to Patented Devices Company, Portland, Me. Reinforced concrete construction. No. 1,205,347; Nov. 21; Gaz. vol. 232; p. 696.

Hinkey, Frank A., New Haven, Conn. Tackling-dummy. No. 1,204,017; Nov. 7; Gaz. vol. 232; p. 163.

Hinrichsen, Edward E., East Orange, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Telephone system. No. 1,205,538; Nov. 21; Gas. vol. 232; p. 762.

Hirsh, Allan M., Montclair, N. J. Joint for concrete pipes. No. 1,206,111; Nov. 28; Gas. vol. 232; p. 995.

Hirth, Carl A., Cannstatt-Stuttgart, Germany. Bearing. No. 1,205,539; Nov. 21; Gas. vol. 232; p. 763.

Hitch, Emmet F., Alton, assignor to Western Cartridge Company, East Alton, Ill. Pickling. No. 1,206,220; Nov. 28; Gas. vol. 232; p. 1032.

Hitchcock, George E., Flint, Mich. Stopper for non-refillable bottles. No. 1,204,569; Nov. 14; Gas. vol. 232; p. 388.

Hitzelberger, Gustave F., London, England, assignor to American Ever Ready Company. Portable electric light. No. 1,205,628; Nov. 21; Gas. vol. 232; p. 795.

Hitzelberger, Gustave F., London, England, assignor to National Carbon Company. Circuit-controller for portable electric lights. No. 1,205,629; Nov. 21; Gas. vol. 232; p. 796.

Hives, Ernest W., Derby, England. Device for priming the induction-pipes of internal-combustion engines. No. 1,206,221; Nov. 28; Gas. vol. 232; p. 1033.

Hizington, Harry W., assignor of two-thirds to O. W. Crandall, East Syracuse, and R. A. Aldridge, Syracuse, N. Y. Combined intake and exhaust manifold. No. 1,205,540; Nov. 21; Gaz. vol. 232; p. 763.

Hoag, Frank J., Cortland, N. Y. Clothes-bar. No. 1,205,205; Nov. 21; Gas. vol. 232; p. 650.

Hoar, Guy W., Bonesteel, S. D. Cultivator-disk mounting. No. 1,203,737; Nov. 7; Gaz. vol. 232; p. 65.

Hoar, Samuel, Virginia, Minn. Tunneling-machine. No. 1,206,437; Nov. 28; Gas. vol. 232; p. 1105.

Hobby, Walter W. (See Bates and Hobby.)

Hockenhull, Ralph, Currie, Minn. Corn-husking implement. No. 1,204,663; Nov. 14; Gas. vol. 232; p. 421.

Hodges, Cornelius C., assignor of one-fourth to G. H. Whitney, one-fourth to A. Raymond, and one-fourth to E. Aubrey, Watertown, Mass. Molding-machine. No. 1,204,871; Nov. 14; Gaz. vol. 232; p. 490.

Hodgman, Willis K., Taunton, Mass. Combined water-heating and sprinkler system. No. 1,203,738; Nov. 7; Gaz. vol. 232; p. 65.

Hodgson, John G., Maywood, Ill., assignor to American Can Company, New York, N. Y. Food-preserving container. No. 1,203,875; Nov. 7; Gaz. vol. 232; p. 114.

Hodo, Wesley A. J., Cleburne, Tex. Cotton ginning, cleaning, and bleaching mechanism. No. 1,203,739; Nov. 7; Gaz. vol. 232; p. 65.

Hoehn, Charles A., Wilkinsburg, Pa. Motor-cycle-seat back. No. 1,205,541; Nov. 21; Gas. vol. 232; p. 763.

Hoeneman, William A., Brooklyn, N. Y. Circuit maker and breaker. No. 1,205,348; Nov. 21; Gas. vol. 232; p. 696.

Hoffman, Edmund, Brooklyn, assignor to American Can Company, New York, N. Y. Sifter-top container. No. 1,206,438; Nov. 28; Gas. vol. 232; p. 1105.

Hoffman, Edmund, Brooklyn, assignor to American Can Company, New York, N. Y. Sifter-top container. No. 1,206,439; Nov. 28; Gas. vol. 232; p. 1106.

Hoffman, Edmund, Brooklyn, assignor to American Can Company, New York, N. Y. Sifter container. No. 1,206,440; Nov. 28; Gaz. vol. 232; p. 1106.

Hoffman Heater Company, The. (See Ellis, John, assignor.)

Hoffman, Robert O., Jackson, Miss., assignor of one-twelfth to T. E. Bird, Pensacola, Fla., two-sixths to M. Iralson, Chicago, Ill., one-twelfth to The Delta Cigar & Vending Machine Company, Delta, Ohio, and one-half to The Cigar Vender Sales Company, Pensacola, Fla. Cigar-vending machine. No. 1,205,094; Nov. 14; Gas. vol. 232; p. [illegible].

Hoffman, W[illegible], assignor of one-half to W. C. Hartray, Chicago, Ill. Water-heater. No. 1,204,872; Nov. 14; Gas. vol. 232; p. 491.

Hofmeister, Charles, Chicago, Ill. Foot-protector. No. 1,205,206; Nov. 21; Gas. vol. 232; p. 650.

Hoglund, William P., Hartford, Conn. Making cutters. No. 1,205,630; Nov. 21; Gas. vol. 232; p. 797.

Hohmann, Richard K., San Diego, Cal. Feed mechanism for sewing-machines. No. 1,204,873; Nov. 14; Gas. vol. 232; p. 491.

Hoke, Uriah, Cornwall, Pa. Filter. No. 1,205,743; Nov. 21; Gas. vol. 232; p. 835.

Holaday, Albert E., Naugatuck, Conn., assignor to The American Wringer Company, Woonsocket, R. I. Pressure-roll release for wringers. No. 1,204,874; Nov. 14; Gas. vol. 232; p. 491.

Holaday, Albert E., Naugatuck, Conn., assignor to The American Wringer Company, Woonsocket, R. I. Pressure-roll release for wringers. No. 1,204,875; Nov. 14; Gas. vol. 232; p. 492.

Holbeck, Austin A., Cleveland, assignor to C. A. Brauchler, Canton, Ohio. Fuel-feeder. No. 1,206,112; Nov. 28; Gaz. vol. 232; p. 995.

Holland, Charles E., New York, N. Y., assignor to Metals Electro-Recovery Company. Process and apparatus for recovering metals from liquids. No. 1,205,207; Nov. 21; Gas. vol. 232; p. 651.

Holland, Frank G., assignor to Mutual Specialty Manufacturing Company, Cleveland, Ohio. Combined coin and ticket holder. No. 1,204,018; Nov. 7; Gaz. vol. 232; p. 163.

Holland, Harry. (See Morgan, Evan, assignor.)

Holland-Letz, Lud, Oak Park, Ill., assignor to International Harvester Company of New Jersey. Grain-lifter for harvesters. No. 1,204,441; Nov. 14; Gas. vol. 232; p. 344.

Holland, William S., Bedford, Va. Farm-gate. No. 1,205,208; Nov. 21; Gaz. vol. 232; p. 651.

Hollenbeck, George A., Levering, Mich. Heating-stove. No. 1,205,209; Nov. 21; Gaz. vol. 232; p. 652.

Holley, Evan J. (See Joseph, Dummer, and Holley.)

Holman, John A. and L. O., St. Paul, Minn. Curtain-rod. No. 1,204,570; Nov. 14; Gas. vol. 232; p. 389.

Holmen, Lilian O. (See Holman, John A. and L. O.)

Holmes, Clifton R., California, Mich. Timer for internal-combustion engines. No. 1,205,130; Nov. 14; Gaz. vol. 232; p. 583.

Holmes, Edgar A., Kansas City, Kans. Autographic register. No. 1,204,571; Nov. 14; Gaz. vol. 232; p. 389.

Holmes, George R., assignor to The Lansing Mower Company, Lansing, Mich. Power-mower. No. 1,204,767; Nov. 14; Gas. vol. 232; p. 456.

Holmes, James T. (See Spencer and Holmes.)

Holmes, John R., Jr., Pasadena, Cal. Gas-burner heater. No. 1,206,328; Nov. 28; Gas. vol. 232; p. 1069.

Holmes, Robert E. L., Beaver Falls, Pa. Pump structure. No. 1,206,706; Nov. 28; Gas. vol. 232; p. 1195.

Holmquist, Sven A. (See Youngquist and Holmquist.)

Holst, Lodewyk J. R., assignor to Lubin Film Company, Philadelphia, Pa. Photographic-printing machine. No. 1,205,632; Nov. 21; Gaz. vol. 232; p. 797.

Holt, Andrew J., Maryville, Mo. Unloading apparatus. No. 1,202,620; Nov. 7; Gaz. vol. 232; p. 24.

Holter, Alfred, Rjukan, assignor to Norsk Hydro-elektrisk Kvaelerfaktieselskab, Christiania, Norway. Granulating nitrate of lime and similar substances without dephlegmation and dust. No. 1,203,740; Nov. 7; Gas. vol. 232; p. 66.

Holub-Dusha Company. (See Dusha and Feyk, assignors.)

Holzapfel, Gustav A., Leipsig, Germany. Meat-cutting machine. No. 1,205,542; Nov. 21; Gas. vol. 232; p. 764.

Hommel, Richard F., San Francisco, Cal. Two-in-one level. No. 1,204,768; Nov. 14; Gas. vol. 232; p. 457.

Hood, Earl W., Charleston, W. Va. Can and knife holder. No. 1,204,442; Nov. 14; Gas. vol. 232; p. 344.

Hood, Edward O., Wellesley Hills, Mass. Welting. No. 1,204,769; Nov. 14; Gas. vol. 232; p. 457.

Hope-Jones, Robert, assignor to Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Key mechanism for organs. No. 1,203,621; Nov. 7; Gas. vol. 232; p. 24.

Hope, Robert A. (See Dickey and Hope.)

Hope, William H., Providence, R. I. Pantograph engraving-machine. No. 1,206,329; Nov. 28; Gas. vol. 232; p. 1069.

Hopke, Franz E. W., and L. S. Sharpe, New York, N. Y. Return mailing-envelop. No. 1,205,543; Nov. 21; Gaz. vol. 232; p. 764.

Hopkins, Hubert, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Calculating-machine. No. 1,206,113; Nov. 28; Gaz. vol. 232; p. 995.

Hopkins, John A., Jr., Burns, Kans. Insect-trap. No. 1,204,770; Nov. 14; Gaz. vol. 232; p. 457.

Hopkins, Marcus C., Jersey City, N. J. Moving-picture apparatus. No. 1,204,771; Nov. 14; Gaz. vol. 232; p. 458.

Hopkins, Winfield S., Selma, Cal. Leaf-spring. No. 1,204,876; Nov. 14; Gas. vol. 232; p. 492.

Hopkinson, Alfred, Chester, England. Braiding-machine. No. 1,204,982; Nov. 14; Gaz. vol. 232; p. 531.

Hopkinson, Ernest, East Orange, N. J. Tire-carrying rim. No. 1,204,019; Nov. 7; Gaz. vol. 232; p. 163.

Hopper, John P. (See German, Joseph T., assignor.)

Hopping, Charles L. (See Tutleman, Elizabeth S., assignor.)

Horn, Edith, Wandsworth, England. Focal-plane shutter and roller-blind shutter. No. 1,204,154; Nov. 7; Gas. vol. 232; p. 210.

Hori, Tatsuo, Inglewood, Cal. Automobile-signal. No. 1,204,020; Nov. 7; Gaz. vol. 232; p. 164.

Hornaday, William T. (See Fielding, George T., assignor.)

Hornburg, Charles A., Devine, Tex. Shock-absorber. No. 1,205,994; Nov. 28; Gas. vol. 232; p. 955.

Hornecker, Thomas, La Fayette, Cal. Weed cutter and sprayer. No. 1,204,772; Nov. 14; Gas. vol. 232; p. 458.

Hornor, Levi, Wichita, Kans. Back-stop brake for automobiles. No. 1,203,876; Nov. 7; Gaz. vol. 232; p. 114.

Horsey, Edgar T., Cleveland, Ohio. Portable vulcanizer. No. 1,204,021; Nov. 7; Gaz. vol. 232; p. 164.

Horton, Allen A., Detroit, Mich. Driving apparatus for phonographs. No. 1,205,631; Nov. 21; Gaz. vol. 232; p. 797.

Horton, Ellsworth A., New York, N. Y. Binder. No. 1,204,443; Nov. 14; Gaz. vol. 232; p. 344.

Horton, Horace R. (See Sanborn and Wilson, assignors.)

Hough, Arthur, Lavigne, Quebec, Canada. Production of ethylene glycol. No. 1,206,222; Nov. 28; Gas. vol. 232; p. 1033.

Hough, Arthur, Choisy, Quebec, Canada. Making glycol dinitrate for explosive uses. No. 1,206,223; Nov. 28; Gas. vol. 232; p. 1033.

Hough, J. Lewis. (See Thorne, Robert H., assignor.)

Houlden, Charles, Creek View, Victoria, Australia. Harvesting-machine. No. 1,204,356; Nov. 7; Gaz. vol. 232; p. 279.

Houldsworth, Ambrose T. (See Hallam and Houldsworth.)

House, Henry A., Bridgeport, Conn. Flexible sheet-metal belting. No. 1,205,210; Nov. 21; Gas. vol. 232; p. 652.

Houseman, Harold E., assignor to Standard Machine Company, Philadelphia, Pa. Circular-knitting machine. No. 1,204,444; Nov. 14; Gaz. vol. 232; p. 345.

Houseman, Harry A., assignor to Standard Machine Company, Philadelphia, Pa. Circular-knitting-machine mechanism for controlling yarn in plating. No. 1,204,445; Nov. 14; Gaz. vol. 232; p. 345.

Howard, Ernest F., Ansonia, Ohio. Resilient tire. No. 1,205,995; Nov. 28; Gaz. vol. 232; p. 956.

Howard, Henry. (See Reed, James A., assignor.)

Howard, John W., Valley Falls, R. I. Bag-filling machine. No. 1,204,274; Nov. 7; Gaz. vol. 232; p. 252.

Howe, John C., Indianapolis, Ind. Adjustable transmission mechanism. No. 1,206,588; Nov. 28; Gas. vol. 232; p. 1140.

Howell, George W., Greensburg, Pa. Bolt and nut lock. No. 1,206,330; Nov. 28; Gas. vol. 232; p. 1070.

Howie, James F., Seattle, Wash. Motor-driven car. No. 1,203,741; Nov. 7; Gaz. vol. 232; p. 66.

Hoyt, Gabriel P. B., New York, N. Y. Engine-crank movement. No. 1,205,895; Nov. 21; Gas. vol. 232; p. 885.

Hruby, John O., *et al.* (See Mueller, August E., assignor.)

Hruby, Thomas J., *et al.* (See Mueller, August E., assignor.)

Hubbard, Albert S., Belleville, N. J., assignor to Gould Storage Battery Company. Electrical system of distribution. No. 1,204,155; Nov. 7; Gas. vol. 232; p. 210.

Hubbell, George M., Los Gatos, Cal. Water-distributing system. No. 1,204,156; Nov. 7; Gas. vol. 232; p. 211.

Hubert, Conrad, New York, N. Y. Portable electric light. No. 1,205,633; Nov. 21; Gaz. vol. 232; p. 798.

Hübsch, Hubert P., Hamburg, Germany. Staple-setting implement. No. 1,205,634; Nov. 21; Gaz. vol. 232; p. 798.

Huettner, George, New York, N. Y. Lock-nut. No. 1,204,275; Nov. 7; Gaz. vol. 232; p. 252.

Huffman, Estil J., assignor to Sears, Roebuck and Company, Chicago, Ill. Folding standard for vehicles. No. 1,203,622; Nov. 7; Gaz. vol. 232; p. 24.

Hughes Electric Heating Company. (See Ruckle, Edward H., assignor.)

Hughes, Howard R., assignor to Hughes Tool Company, Houston, Tex. Rotary boring-drill. No. 1,204,022; Nov. 7; Gaz. vol. 232; p. 164.

Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Disk drill. No. 1,204,157; Nov. 7; Gaz. vol. 232; p. 211.

Hughes, Richard C., Calamus, and J. C. Zemlo, Beaver Dam, Wis. Deflecting-damper arrangement for stoves. No. 1,204,773; Nov. 14; Gas. vol. 232; p. 458.

Hughes, Robert R., Jr., Utica, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Seam for sewed articles. No. 1,205,744; Nov. 21; Gaz. vol. 232; p. 835.

Hughes Tool Company. (See Hughes, Howard R., assignor.)

Hummel, Herman L., Telluride, Colo. Clamp. No. 1,205,635; Nov. 21; Gaz. vol. 232; p. 799.

Humphrey, Edward R., assignor to Safety First Air Brake Company (Canada) Limited, Victoria, British Columbia, Canada. Electromagnetic air-brake. No. 1,203,877; Nov. 7; Gaz. vol. 232; p. 115.

Hungarian Banking and Trading Company. (See Balassa, Frederick, assignor.)

Hunn, Robert E., Oakland, Cal. Tile-press. No. 1,205,636; Nov. 21; Gaz. vol. 232; p. 799.

Hunsicker, Abram R., Williamson School, Pa. Jointer-guard. No. 1,206,539; Nov. 28; Gas. vol. 232; p. 1141.

Hunt, John R., Monlton, Iowa. Wrench. No. 1,204,983; Nov. 14; Gaz. vol. 232; p. 532.

Hunter, David E., assignor to The Shaw-Walker Company, Muskegon, Mich. Metal-cabinet construction. No. 1,206,381; Nov. 28; Gas. vol. 232; p. 1070.

Hunter, Lytle G., Flushing, N. Y. Destination-sign. No. 1,205,637; Nov. 21; Gaz. vol. 232; p. 799.

Hunter, Smith H., Memphis, Tenn. Power-actuated valve-gear-operating mechanism. No. 1,206,707; Nov. 28; Gaz. vol. 232; p. 1195.

Hupp, Albert, Washington, D. C. Railway mail-exchange apparatus. No. 1,203,623; Nov. 7; Gas. vol. 232; p. 25.

Hupp Motor Car Corporation. (See Watts and Neerken, assignors.)

Hurst, Oliver P., Mutual, Okla. Gearing for windmills. No. 1,205,896; Nov. 21; Gaz. vol. 232; p. 885.

Hurwitz, Benjamin A., Kingston, assignor of one-half to J. H. Rosen, New York, N. Y. Keyless lock. No. 1,206,540; Nov. 28; Gaz. vol. 232; p. 1141.

Huson, Winfield S., Derby, and C. R. Kaddeland, Shelton, assignors to The Whitlock Printing Press Mfg. Co., Derby, Conn. Delivery mechanism for printing-presses. No. 1,203,878; Nov. 7; Gas. vol. 232; p. 115.

Hutchins, Charles A., Lakewood, Ohio. Flower-pot. No. 1,206,108; Nov. 28; Gas. vol. 232; p. 1196.

Hyde, John H., Tacoma, Wash. Ship-brake. No. 1,205,638; Nov. 21; Gaz. vol. 232; p. 800.

Hyle, Jacob A., and J. W. Herman, Harrisburg, Pa., assignors to The Railway Tie Corporation, Chicago, Ill. Metallic railway-tie and rail-fastening. No. 1,205,897; Nov. 21; Gaz. vol. 232; p. 885.

Hymer, Curtis W., assignor to Larned, Carter & Company, Detroit, Mich. Overall-pocket construction. No. 1,205,639; Nov. 21; Gaz. vol. 232; p. 800.

Hytrek, Stanislaus W., Stuart, Nebr. Scraper. No. 1,206,709; Nov. 28; Gas. vol. 232; p. 1196.

I. X. L. Pump and Manufacturing Company. (See Gabell, Albert F., assignor.)

Illinois Iron & Bolt Company. (See Rainbow, Frederick L., assignor.)

Imperial Tool Company. (See Bovee, Ransom Y., assignor.)

Inabinett, Arthur W., and T. P. De Gafferelly, Charleston, S. C. Deflector for oil-heaters. No. 1,204,984; Nov. 14; Gaz. vol. 232; p. 532.

Independent Harvester Company, The. (See Boda, Joseph, assignor.)

Industrial Service Company. (See Jaeger, Otto, assignor.)

Ingalls, Sumner L., Oldtown, Me. Mail-bag-transferring apparatus. No. 1,204,985; Nov. 14; Gaz. vol. 232; p. 532.

Ingle, Isaac B., Bloomington, Ill. Window-ventilator. No. 1,204,158; Nov. 7; Gaz. vol. 232; p. 211.

Ingold, Carl F., assignor to Milwaukee Optical Manufacturing Company, Milwaukee, Wis. Eyeglass-frame. No. 1,203,624; Nov. 7; Gaz. vol. 232; p. 25.

Ingram, Lewis J., Angus, Tex. Hames-fastener. No. 1,204,774; Nov. 14; Gas. vol. 232; p. 458.

International Couplers Company. (See White, Walter C., assignor.)

International Dental Appliance Co., The. (See Lyon, William T., assignor.)

International Harvester Company of New Jersey. (See Burgess, Edward W., assignor.)

International Harvester Company of New Jersey. (See Holland-Letz, Lud, assignor.)

International Harvester Company of New Jersey. (See Latimer, John W., assignor.)

International Harvester Company of New Jersey. (See Mowry, Edward, assignor.)

International Harvester Company of New Jersey. (See Pearson, Charles, assignor.)

International Harvester Company of New Jersey. (See Raney, Clemma R., assignor.)

International Harvester Company of New Jersey. (See Widgren, Nels, assignor.)

International Harvester Corporation. (See Dennis, Samuel K., assignor.)

International Harvester Corporation *et al.* (See Engelebert, Rudolph H., assignor.)

International Harvester Corporation. (See Tuttle, Charles S., assignor.)

International Precipitation Company. (See Schmidt, Walter A., assignor.)

International Sanitary Cesspool Company. (See Lawrence, Edwin O., assignor.)

International Telephone Co. (See Hastings, Reuben C. M., assignor.)

International Time Recording Company of New York. (See Bryce, James W., assignor.)

Interstate Electric Novelty Co. (See Wachtel, Charles, assignor.)

Iralson, Moses, *et al.* (See Hoffman, Robert O., assignor.)

Ireland, C. Frank *et al.* (See Bradley, Richard C., assignor.)

Irving-Pitt Manufacturing Company. (See Pitt, William P., assignor.)

Irwin, Edgar D., Johnstown, Pa. Internal-combustion engine. No. 1,204,986; Nov. 14; Gas. vol. 232; p. 533.

Irwin, George H., and D. D. Swem, Chicago, Ill., assignors to Make-A-Motor Truck Company, Wilmington, Del. Truck attachment for motor-vehicles. No. 1,204,572; Nov. 14; Gaz. vol. 232; p. 389.

Irwin, R. D., *et al.* (See Barnett, John B., assignor.)

Isaacson, Morris, New York, N. Y. Antifalling device for horses. No. 1,204,446; Nov. 14; Gaz. vol. 232; p. 345.

Isbell, Edward L., Jr. (See Stewart, Tira S., assignor.)

Isidor, Joseph S., Newark, N. J., assignor to The R. Neumann Hardware Co. Handle-cap for dress-suit cases, traveling-bags, and the like. No. 1,204,877; Nov. 14; Gaz. vol. 232; p. 492.

Ivatts, Ernest A., assignor to Society Compagnie Generale de Phonographes, Cinematographes et Apparells de Precision, Paris, France. Cinematographic projecting apparatus. No. 1,205,996; Nov. 28; Gaz. vol. 232; p. 956.

J. & C. G. Bolinders Mekaniska Verkstads Aktiebolag. (See Limander, Johan O., assignor.)

J. E. Mergott Company, The. (See Fuller, Frans A., assignor.)

J. E. Porter Company. (See Buckingham, Roswell H., assignor.)

Jabez Burns & Sons. (See Burns, William G., assignor.)

Jackson, Howard, assignor of one-fourth to V. Bjornberg, Omaha, Nebr. Train-stopping apparatus. No. 1,205,211; Nov. 21; Gaz. vol. 232; p. 653.

Jackson, Lynwood E., Asheville, N. C. Bottle-tester. No. 1,204,664; Nov. 14; Gaz. vol. 232; p. 422.

Jackson, Maxey, Toppenish, Wash. Rail-joint. No. 1,206,710; Nov. 28; Gaz. vol. 232; p. 1196.

Jackson, Maxey, Toppenish, Wash. Railway-crossing. No. 1,206,711; Nov. 28; Gaz. vol. 232; p. 1196.

Jacobi, William H. (See Barnhart and Jacobi.)

Jacobs, Hannah and H., New York, N. Y. Hair waving and curling apparatus. No. 1,204,987; Nov. 14; Gaz. vol. 232; p. 533.

Jacobs, Harry. (See Jacobs, Hannah and H.)

Jacobsson, Axel T., Milwaukee, Wis. Motion-picture screen and making the same. No. 1,204,775; Nov. 14; Gaz. vol. 232; p. 459.

Jacobus, David S., Jersey City, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-boiler superheater. No. 1,205,626; Nov. 7; Gaz. vol. 232; p. 26.

Jaeger, Otto, Elkins Park, Pa., assignor, by mesne assignments, to Industrial Service Company, Philadelphia, Pa. Coin-controlled apparatus. No. 1,204,776; Nov. 14; Gaz. vol. 232; p. 459.

Jaffe, Edward I. and E., New York, N. Y. Releasable self-fastening button. No. 1,204,15[illegible] 7; Gaz. vol. 232; p. 212.

Jaffe, Elias. (See Jaffe, Edward I. and E.)

Jahnke, Christian J., Bancroft, Nebr. Internal-combustion engine. No. 1,204,447; Nov. 14; Gaz. vol. 232; p. 346.

Jahr, Henry, Ardmore, Pa. Insect-destroyer. No. 1,204,777; Nov. 14; Gaz. vol. 232; p. 459.

James, Daniel V., Texarkana, Tex., Automobile-signal. No. 1,204,988; Nov. 14; Gaz. vol. 232; p. 533.

Jamestown Car Parts Manufacturing Company. (See Ellison, Edward H., assignor.)

Jameton, Adrian O., San Antonio, Tex. Bar-bending appliance. No. 1,206,114; Nov. 28; Gaz. vol. 232; p. 998.

Jane Gray Company. (See Stokes, Jane G., assignor.)

Janesville Machine Company. (See Krotz, Alvaro S., assignor.)

Janowski, Anthony, Hazleton, Pa. Aeroplane construction. No. 1,204,989; Nov. 14; Gaz. vol. 232; p. 533.

Jansz, Dirk A. L. (See Verhey and Jansz.)

Jansen, Frans, assignor of one-third to E. T. Malloy and one-third to G. J. Kalberer, Hamilton, Ohio. Caster. No. 1,203,879; Nov. 7; Gaz. vol. 232; p. 116.

Jarvi, Kalle, and K. Makinen, Ishpeming, Mich. Railway appliance. No. 1,206,712; Nov. 28; Gaz. vol. 232; p. 1197.

Jefferies, Frederick L., Riverside, Ill. Perforated-bottom metal tray. No. 1,205,745; Nov. 21; Gaz. vol. 232; p. 856.

Jefferson, Eugene D., Boston, Mass. Apparatus for treating fibrous materials. No. 1,204,857; Nov. 7; Gaz. vol. 232; p. 280.

Jeffrey Manufacturing Company, The. (See Dierdorff, Joseph, assignor.)

Jeffrey Manufacturing Company, The. (See Flory, John H., assignor.)

Jenkins, Arthur L., Methuen, and W. E. Wingate, Lawrence, Mass. Heddle. No. 1,205,349; Nov. 21; Gaz. vol. 232; p. 607.

Jennings, Emerson P., Jr., Lehighton, Pa. Platen for printing-presses and the like. No. 1,206,115; Nov. 28; Gaz. vol. 232; p. 996.

Jensen, Jens T., Hjörring, Denmark. Self-catching screw-coupling for railway-cars. No. 1,204,778; Nov. 14; Gaz. vol. 232; p. 460.

Jepson, John W., Depew, N. Y., assignor to Gould Storage Battery Company. Electrical system of distribution. No. 1,204,160; Nov. 7; Gaz. vol. 232; p. 213.

Jessen, James, Minneapolis, assignor to Brown Machinery Manufacturing Company, St. Paul, Minn. Box-flanging machine. No. 1,206,441; Nov. 28; Gaz. vol. 232; p. 1106.

Jillson, George A., and H. G. Andrews, Sacramento, assignors to H. P. Andrews and J. J. Worthington Sacramento county, Cal. Single-wire trolley. No. 1,205,350; Nov. 21; Gaz. vol. 232; p. 697.

Johannesmeyer, Charles G., and G. Langen, Oakley, assignors to The Cincinnati Planer Company, Cincinnati, Ohio., Metal-planer. No. 1,205,640; Nov. 21; Gaz. vol. 232; p. 800.

Johansson, Emil G., Chicago, Ill. Light-rays refractor. No. 1,204,023; Nov. 7; Gaz. vol. 232; p. 165.

Johansson, Klas H., Säfsjö, assignor to Aktiebolaget Lindéns Hemmaskiner, Näsajö, Sweden. Combined clutch and bearing. No. 1,205,544; Nov. 21; Gaz. vol. 232; p. 764.

John C. Dettra & Company. (See Dettra, John C., assignor.)

John Hall & Sons (Bristol & London) Limited. (See Speight, Alfred, assignor.)

John W. Brown Manufacturing Company, The. (See Pfeifer, Leo L., assignor.)

Johns-Pratt Company, The. (See Cole, Robert C., assignor.)

Johnson, Alfred C., Winters, Cal. Automatic adjustable draw-bar for traction-engines. No. 1,205,351; Nov. 21; Gaz. vol. 232; p. 698.

Johnson, Alvin L., assignor, by mesne assignments, to Hi-Lo Jack Company, Worcester, Mass. Jack. No. 1,204,276; Nov. 7; Gaz. vol. 232; p. 253.

Johnson, Charles E., Muskegon, Mich. Piston-ring. No. 1,204,024; Nov. 7; Gaz. vol. 232; p. 165.

Johnson, Charles E., Muskegon, Mich. Chuck. No. 1,204,025; Nov. 7; Gaz. vol. 232; p. 165.

Johnson, Charles E., Muskegon, Mich. Ring-slot-testing device. No. 1,204,026; Nov. 7; Gaz. vol. 232; p. 166.

Johnson, Charles E., Muskegon, Mich. Rough-ring-testing appliance. No. 1,204,027; Nov. 7; Gaz. vol. 232; p. 166.

Johnson, Charles E., Muskegon, Mich. Machine for assembling piston-rings and pistons. No. 1,204,028; Nov. 7; Gaz. vol. 232; p. 167.

Johnson, Charles E., New York, N. Y. Cigar-holder. No. 1,204,990; Nov. 14; Gaz. vol. 232; p. 534.

Johnson, Charles G., Sault Ste. Marie, Mich. Signal for locating sunken vessels. No. 1,206,713; Nov. 28; Gaz. vol. 232; p. 1197.

Johnson, Charles L., Morrisville, Pa. Sash-lock. No. 1,205,212; Nov. 21; Gaz. vol. 232; p. 653.

Johnson, Edwin W. (See Johnson, Herbert L. and E. W.)

Johnson, Franklin H., assignor to Lyon Metallic Manufacturing Company, Aurora, Ill. Filing-envelop. No. 1,206,442; Nov. 28; Gaz. vol. 232; p. 1106.

Johnson, George A., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Car-underframe. No. 1,205,552; Nov. 21; Gaz. vol. 232; p. 608.

Johnson, George A., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Railway-car draft-rigging. No. 1,205,997; Nov. 28; Gaz. vol. 232; p. 956.

Johnson, Harold F., Concord, N. H. Picture-frame and door clamp. No. 1,203,626; Nov. 7; Gaz. vol. 232; p. 26.

Johnson, Herbert L., Fairfield, and E. W. Johnson, Bridgeport, Conn., assignors to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,206,714; Nov. 28; Gaz. vol. 232; p. 1198.

Johnson, John J., Carrollton, Wash. Mail assorting rack and carrier. No. 1,205,213; Nov. 21; Gaz. vol. 232; p. 653.

Johnson, John R., Los Angeles, Cal. Carbureter. No. 1,204,029; Nov. 7; Gaz. vol. 232; p. 167.

Johnson, Lewis E. (See Carner, Leonard A., assignor.)

Johnson, Lewis H., Bloomfield, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,203,742; Nov. 7; Gaz. vol. 232; p. 67.

Johnson, Nathan C., Englewood, N. J., assignor to Raymond Concrete Pile Company, New York, N. Y. Applying reinforcement to concrete-piling shells and the like. No. 1,206,541; Nov. 28; Gaz. vol. 232; p. 1142.

Johnson, Nels C., Racine, Wis. Garbage-disposal apparatus. No. 1,203,743; Nov. 7; Gaz. vol. 232; p. 67.

Johnson, Oliver J., Wheeling, W. Va. Machine for removing superfluous solder from sheet-metal cans. No. 1,206,443; Nov. 28; Gaz. vol. 232; p. 1107.

Johnson, Peter J., Shelley, Idaho. Shoe and glove eyelet. No. 1,203,627; Nov. 7; Gaz. vol. 232; p. 26.

Johnson, Wallace C., Nevada, assignor of one-fourth to D. L. Haggard, one-fourth to J. E. Haggard, Kansas City, and one-fourth to W. J. Cecil, Nevada, Mo. Slide-presenting machine. No. 1,203,744; Nov. 7; Gaz. vol. 232; p. 68.

Johnston, Clarence S., Glendive, Mont. Plow. No. 1,206,224; Nov. 28; Gaz. vol. 232; p. 1033.

Johnstone, Joseph C., Butte, Mont. Painting apparatus. No. 1,205,450; Nov. 21; Gaz. vol. 232; p. 731.

Joleen, Nels, Chicago, Ill. Electric control system. No. 1,205,451; Nov. 21; Gaz. vol. 232; p. 731.

Joly, George F., Jr., Atlantic City, N. J. Blanket-fastener. No. 1,206,225; Nov. 28; Gaz. vol. 232; p. 1034.

Jones, Benjamin L., and B. S. Green, Syracuse, N. Y. Track-sanding device. No. 1,204,665; Nov. 14; Gaz. vol. 232; p. 422.

Jones, Burrell D., Chicago, Ill. Cleaner for carpets and the like. No. 1,204,448; Nov. 14; Gaz. vol. 232; p. 346.

Jones, Charles A. (See Reynolds, Milford M., assignor.)

Jones, Charles P. and I. M., Cleveland, Ohio. Signal-chime for automobiles. No. 1,205,452; Nov. 21; Gaz. vol. 232; p. 732.

Jones, David N., Minneapolis, Minn. Engine. No. 1,206,715; Nov. 28; Gaz. vol. 232; p. 1198.

Jones, Ebbert A., Danville, Va. Spinning-machine. No. 1,206,542; Nov. 28; Gaz. vol. 232; p. 1142.

Jones, Ida M. (See Jones, Charles P. and I. M.)

Jones, Joseph W., New York, assignor to The Jones Speedometer, Brooklyn, N. Y. Travel-recorder. No. 1,205,853; Nov. 21; Gaz. vol. 232; p. 698.

Jones, Owen M., New York, N. Y. Valve. No. 1,205,898; Nov. 21; Gaz. vol. 232; p. 886.

Jones, Percival W., Lakewood, R. I., assignor to B. Kirstein Sons Co., Rochester, N. Y. Eyeglass-mounting. No. 1,204,449; Nov. 14; Gaz. vol. 232; p. 346.

Jones, Rees J., *et al.* (See Bearce, Wilson R., assignor.)

Jones Speedometer, The. (See Jones, Joseph W., assignor.)

Jones, William B., Streator, Ill. Aligning device for concrete-forms. No. 1,205,746; Nov. 21; Gaz. vol. 232; p. 836.

Jones, William K., Wichita, Kans. Union-suit. No. 1,206,543; Nov. 28; Gaz. vol. 232; p. 1143.

Jordan, Bessie Q., Camden, N. J. Wheel-controlling device for vehicles. No. 1,204,991; Nov. 14; Gaz. vol. 232; p. 534.

Jordan, George L., Minden, Nebr. Safety-razor-blade holder. No. 1,205,641; Nov. 21; Gaz. vol. 232; p. 801.

Joseph, David G., Martins Ferry, Ohio, D. Dummer, Wheeling, W. Va., and E. J. Holley, Martins Ferry, Ohio. Roll-polishing apparatus. No. 1,204,450; Nov. 14; Gaz. vol. 232; p. 347.

Josephy's Erben, G. (See Schorsch, Ludwig, assignor.)

Josselyn, Elmer H., Baltimore, Md. Display-box. No. 1,205,214; Nov. 21; Gaz. vol. 232; p. 653.

Jousset, Frances E., New York, N. Y. Overshoe. No. 1,205,215; Nov. 21; Gaz. vol. 232; p. 654.

Julien, William L., Dayton, Ohio. Molder's flask. No. 1,206,226; Nov. 28; Gaz. vol. 232; p. 1034.

Jung, Karl, assignor to The Samsonwerk, Gesellschaft mit Beschrankter Haftung, Berlin, Germany. Shaping-machine. No. 1,205,590; Nov. 21; Gaz. vol. 232; p. 687.

Junger Bernhard, New York, N. Y., assignor, by mesne assignments, to U. S. O. Bed Co., Inc. Cot. No. 1,205,216; Nov. 21; Gaz. vol. 232; p. 654.

Junkers, Hugo, Aix-la-Chapelle, Germany. Water-heating apparatus. No. 1,204,779; Nov. 14; Gaz. vol. 232; p. 460.

Kaddeland, Christen R. (See Huson and Kaddeland.)

Kadow, August, assignor to The Westlake Machine Company, Toledo, Ohio. Gathering mechanism for glass-working apparatus. No. 1,204,878; Nov. 14; Gaz. vol. 232; p. 493.

Kadow, August, assignor to The Westlake Machine Company, Toledo, Ohio. Automatic valve mechanism. No. 1,205,354; Nov. 21; Gaz. vol. 232; p. 699.

Kalamazoo Stove Company. (See Curtenius, Dwight R., assignor.)

Kalberer, George J., *et al.* (See Jansen, Frans, assignor.)

Kane, Edmund J., Chicago, Ill., assignor to Webster Electric Company, Racine, Wis. Electric igniter for explosive-engines. No. 1,204,573; Nov. 14; Gaz. vol. 232; p. 390.

Kane, Meyer M., Chicago, Ill. Steam-pressing machine. No. 1,203,880; Nov. 7; Gaz. vol. 232; p. 116.

Kaplan, Benjamin, New York, N. Y. Valve. No. 1,206,544; Nov. 28; Gaz. vol. 232; p. 1143.

Karl, Joseph M., assignor to Roslyn Specialty Co. Inc., Roslyn Heights, N. Y. Ironing-board. No. 1,204,780; Nov. 14; Gaz. vol. 232; p. 461.

Karr, Francis, Holland, Mich. Bed-spring. No. 1,205,900; Nov. 21; Gaz. vol. 232; p. 887.

Karr, Francis, Holland, Mich. Spring bed-bottom. No. 1,205,901; Nov. 21; Gaz. vol. 232; p. 887.

Kasprzyk, Leon, Kosciusko, Tex. Wire-stretcher. No. 1,204,277; Nov. 7; Gaz. vol. 232; p. 252.

Kast, Edward R., Baltimore, Md., assignor to Kast Inspetting & Gathering Machine Company, New York, N. Y. Signature-handling mechanism. No. 1,206,227; Nov. 28; Gaz. vol. 232; p. 1034.

Kast Inspetting & Gathering Machine Company. (See Kast, Edward R., assignor.)

Kauffman, Abbott A., Brooklyn, N. Y. Lacing-hook. No. 1,205,902; Nov. 21; Gaz. vol. 232; p. 888.

Kaufman, Frank M. (See Pearson and Kaufman.)

Kaufman, Harry. (See Pearson and Kaufman.)

Kaufman, Joseph, New York, N. Y., assignor of one-half to J. Wolfson. Lock. No. 1,204,781; Nov. 14; Gaz. vol. 232; p. 461.

Kaufman, Solomon, New York, N. Y. Wrist-watch container. No. 1,205,217; Nov. 21; Gaz. vol. 232; p. 654.

Kaveney, James C., assignor to Erie City Iron Works, Erie, Pa. Turning device for boiler-shells and the like. No. 1,204,451; Nov. 14; Gaz. vol. 232; p. 347.

Kawate, Hiyoso, assignor of one-third to O. Shintani and one-third to O. Ota, Seattle, Wash. Bag holder and opener. No. 1,205,747; Nov. 21; Gaz. vol. 232; p. 836.

Kearney, George F. (See Currie, Jasper J., assignor.)

Kearney, George F. (See Scofield and Kearney.)

Keating, Robert M., Springfield, Mass. Wheel-rim. No. 1,205,903; Nov. 21; Gaz. vol. 232; p. 888.

Keating, Robert M., Springfield, Mass. Spring-wheel. No. 1,205,904; Nov. 21; Gaz. vol. 232; p. 888.

Keefe, Edward, Jersey City, N. J. Backing apparatus. No. 1,205,952; Nov. 21; Gaz. vol. 232; p. 905.

Kello, Albert F., Muscatine, Iowa. Grinding attachment for automatic button-machines. No. 1,205,453; Nov. 21; Gaz. vol. 232; p. 732.

Kelner, Henry A., and E. Plancon, New York, N. Y., assignors to said Henry A. Kelner. Closure for containers. No. 1,205,454; Nov. 21; Gaz. vol. 232; p. 733.

Keister, John A., St. Louis, Mo. Valve. No. 1,205,748; Nov. 21; Gaz. vol. 232; p. 837.

Keller, Ernest G., assignor of one-half to R. Biedmann, Beacon, N. Y. Can-opener. No. 1,204,992; Nov. 14; Gaz. vol. 232; p. 535.

Keller, James C., and W. L. Reece; said Keller assignor of one-fourth to J. E. Reece, Butler, Tenn. Mill. No. 1,206,716; Nov. 28; Gaz. vol. 232; p. 1199.

Keller, John F., Philadelphia, Pa. Fish-cleaning machine. No. 1,204,993; Nov. 14; Gaz. vol. 232; p. 535.

Keller, Peter, Chicago, Ill. Tip for gas-burners. No. 1,204,278; Nov. 7; Gaz. vol. 232; p. 253.

Kellerman, Ellsworth D., Montesano, Wash. Attachment for burners. No. 1,204,782; Nov. 14; Gaz. vol. 232; p. 461.

Kelley, Arthur F., *et al.*, administrators. (See Woodland, Frank O.)

Kelley, Elias H., New York, N. Y. Fraud-preventive device for vending-machines. No. 1,204,452; Nov. 14; Gaz. vol. 232; p. 348.

Kelley, Elias H., New York, N. Y. Check-exhibiting device for vending-machines. No. 1,204,453; Nov. 14; Gaz. vol. 232; p. 348.

Kelley, Elias H., New York, N. Y. Coin conveying and receiving mechanism for vending-machines. No. 1,204,454; Nov. 14; Gaz. vol. 232; p. 348.

Kellner, Gustav A. H., assignor to Bausch & Lomb Optical Company, Rochester, N. Y. Lens centering and measuring instrument. No. 1,204,030; Nov. 7; Gaz. vol. 232; p. 168.

Kellner, Walter, Barmen-Wechlinghausen, Germany, assignor to C. F. and O. J. Ahlstrom, New York, N. Y. Braiding-machine. No. 1,206,228; Nov. 28; Gaz. vol. 232; p. 1035.

Kellogg, James L., New York, N. Y. Surprise and alarm device. No. 1,204,031; Nov. 7; Gaz. vol. 232; p. 168.

Kellogg, John H., Battle Creek, Mich. Abdominal support. No. 1,205,740; Nov. 21; Gaz. vol. 232; p. 837.

Kellogg, John L., assignor to Kellogg Toasted Corn Flake Company, Battle Creek, Mich. Manufacture of beverage extracts. No. 1,204,032; Nov. 7; Gaz. vol. 232; p. 168.

Kellogg, John L., assignor to Kellogg Toasted Corn Flake Co., Battle Creek, Mich. Manufacture of beverage extracts. No. 1,204,358; Nov. 7; Gaz. vol. 232; p. 280.

Kellogg, Leroy D., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone-exchange system. No. 1,204,783; Nov. 14; Gaz. vol. 232; p. 461.

Kellogg Switchboard & Supply Company. (See Dyson, Alfred H., assignor.)

Kellogg Switchboard & Supply Company. (See Kellogg, Leroy D., assignor.)

Kellogg Switchboard and Supply Company. (See Winston, Charles S., assignor.)

Kellogg Toasted Corn Flake Company. (See Kellogg, John L., assignor.)

Kelly, John, Chicago, Ill. Demountable wheel. No. 1,204,879; Nov. 14; Gaz. vol. 232; p. 493.

Kelly, John F., assignor to Thomas Maddock's Sons Company, Trenton, N. J. Lavatory. No. 1,204,033; Nov. 7; Gaz. vol. 232; p. 169.

Kelly, William, assignor to Maxwell Motor Company, Incorporated, Detroit, Mich. Internal-combustion engine. No. 1,205,095; Nov. 14; Gaz. vol. 232; p. 569.

Kelsey, Edgar A., Mount Vernon, N. Y. Water-gage for steam-boilers and similar apparatus. No. 1,204,034; Nov. 7; Gaz. vol. 232; p. 169.

Kelsey, Fred H. (See Grabler and Kelsey.)

Kelso, Charles L. (See Blunt and Kelso.)

Kemp, William W., and W. H. Van Horn, Baltimore, Md. Multiple blast-burner. No. 1,204,359; Nov. 7; Gaz. vol. 232; p. 280.

Kendall, Harry B., Chicago, Ill. Compound tool. No. 1,204,994; Nov. 14; Gaz. vol. 232; p. 535.

Kendall, Hazel C. (See Hall, Alfred, assignor.)

Kendall, William G., Newark, N. J. Spout for receptacles. No. 1,205,545; Nov. 21; Gaz. vol. 232; p. 765.

Kendall, William G., Newark, N. J. Vanity-box. No. 1,205,546; Nov. 21; Gaz. vol. 232; p. 765.

Kennedy, Bartholomew M., Springfield, Mass. Artificial leg. No. 1,205,218; Nov. 21; Gaz. vol. 232; p. 654.

Kennedy, Frederick A., Danielson, Conn. Clip-affixing device. No. 1,205,219; Nov. 21; Gaz. vol. 232; p. 655.

Kennedy, Peter B., and E. L. Morrow, Santa Monica, Cal. Land and water vehicle. No. 1,206,229; Nov. 28; Gaz. vol. 232; p. 1035.

Kennedy, William P., New York, N. Y. Correspondence-pad. No. 1,205,355; Nov. 21; Gaz. vol. 232; p. 699.

Kenney, Edward F., Westmont borough, Pa. Treating rails. No. 1,205,998; Nov. 28; Gaz. vol. 232; p. 957.

Kentucky Derby Company. (See Clorius, Axel V. and O. T., assignors.)

Kenyon, Bertram C., assignor of one-half to Dodge Manufacturing Company, Mishawaka, Ind. Four-cycle supplementary-port gas-engine. No. 1,205,356; Nov. 21; Gaz. vol. 232; p. 699.

Kephart, Harry C., and J. P. Miller, Denver, Colo. Combined insurance-contract and hotel-guest receipt. No. 1,204,455; Nov. 14; Gaz. vol. 232; p. 349.

Kerlin, William I., assignor to E. R. Welles, New York, N. Y. Screw-thread-rolling machine. No. 1,204,035; Nov. 7; Gaz. vol. 232; p. 169.

Kern, Carl A., Mill Valley, Cal. Preserving fruit juices. No. 1,204,880; Nov. 14; Gaz. vol. 232; p. 494.

Kern, Carl A., Mill Valley, Cal. Fruit-juice product. No. 1,204,881; Nov. 14; Gaz. vol. 232; p. 494.

Kern, Joseph M., Oswego, N. Y. Piston-valve. No. 1,204,666; Nov. 14; Gaz. vol. 232; p. 422.

Kern, Ludwig, Hamburg, Germany. Artificial building material and producing the same. No. 1,206,545; Nov. 28; Gaz. vol. 232; p. 1144.

Kern, Ludwig, Hamburg, Germany. Producing articles from diatomaceous earth. No. 1,206,546; Nov. 28; Gaz. vol. 232; p. 1144.

Kern, Ludwig, Hamburg, Germany. Kiln or oven. No. 1,206,547; Nov. 28; Gaz. vol. 232; p. 1144.

Kerner Manufacturing Company. (See Dodds, Ethan I., assignor.)

Kersteter, John H., State College, Pa. Staple-setting implement. No. 1,205,547; Nov. 21; Gaz. vol. 232; p. 766.

Kerze, Peter, Ely, Minn. Metal tie. No. 1,204,279; Nov. 7; Gaz. vol. 232; p. 253.

Kessler, Justus, Hackensack, N. J. Horseshoe-calk. No. 1,206,332; Nov. 28; Gaz. vol. 232; p. 1070.

Keyboard Compositor Corporation. (See MacFarland, Allison M., assignor.)

Keyes-Davis Company. (See Davis, Linford J., assignor.)

Keyes, Frederick G., East Orange, assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Electric lamp. No. 1,206,333; Nov. 28; Gaz. vol. 232; p. 1071.

Kidder, Arthur B., Canton, Ohio. Toy car. No. 1,204,882; Nov. 14; Gaz. vol. 232; p. 494.

Kidder, William E., Kalamazoo, Mich. Wheel-attachment for sleighs or sleds. No. 1,205,220; Nov. 21; Gaz. vol. 232; p. 655.

Kiesel, William F., Jr., Altoona, Pa. Locomotive. No. 1,204,036; Nov. 7; Gaz. vol. 232; p. 170.

Kiesler, Fritz, Berlin-Charlottenburg, assignor to Siemens-Schuckertwerke G. m. b. H., Berlin, Germany. Motor arc-lamp. No. 1,205,750; Nov. 21; Gaz. vol. 232; p. 838.

Kiewicz, John, Hyde Park, assignor to The Reece Button Hole Machine Company, Boston, Mass. Thread holding and cutting means for sewing-machines. No. 1,204,784; Nov. 14; Gaz. vol. 232; p. 462.

Kilgore, Frederick O., Somerville, Mass. Fluid transmission. No. 1,203,745; Nov. 7; Gaz. vol. 232; p. 68.

Killen, W. H., *et al.* (See Lord, Lewis P., assignor.)

Killinger, Joseph A., and A. W. Bean, Washington, D. C. Ammunition-hoist. No. 1,204,360; Nov. 7; Gaz. vol. 232; p. 280.

Kilner, William R., Greenville, Pa. Railway foot-guard. No. 1,204,574; Nov. 14; Gaz. vol. 232; p. 390.

Kimmel, Joel, New York, N. Y. Bathing-shoe. No. 1,206,548; Nov. 28; Gaz. vol. 232; p. 1144.

Kimmell, Herbert L., Los Angeles, Cal. Shock-absorber. No. 1,204,361; Nov. 7; Gaz. vol. 232; p. 281.

Kincaid, William W., Meadville, Pa. Rubber hose. No. 1,206,230; Nov. 28; Gaz. vol. 232; p. 1035.

Kindel, Charles J., assignor to Grand Rapids Trust Company, Grand Rapids, Mich. Reclining-chair. No. 1,204,785; Nov. 14; Gaz. vol. 232; p. 462.

Kindel, Charles J., Grand Rapids, Mich., and J. Delaney, Brooklyn, N. Y. Bed-bottom wire fabric. No. 1,205,642; Nov. 21; Gaz. vol. 232; p. 801.

King, Clifford G., Providence, R. I. Brooch. No. 1,203,882; Nov. 7; Gaz. vol. 232; p. 117.

King, Frederick W., Cleveland, Ohio. Spectacles. No. 1,204,161; Nov. 7; Gaz. vol. 232; p. 213.

King, John G., Burlington, N. C. Ash-sifter. No. 1,203,881; Nov. 7; Gaz. vol. 232; p. 117.

King, John J., Frankfort, Ky. Cigarette-case and humidor therefor. No. 1,205,751; Nov. 21; Gaz. vol. 232; p. 838.

King, Joshua R., New Haven, and W. O. King, Sidney, N. Y. Spreader for dry materials. No. 1,205,221; Nov. 21; Gaz. vol. 232; p. 655.

King, Leach, Newark, N. J. Sash-fastener. No. 1,204,667; Nov. 14; Gaz. vol. 232; p. 423.

King Lock Company, The. (See Christoph, Emil A., assignor.)

King, Ulysses S., Tulsa, Okla. Hydrocarbon-motor. No. 1,204,995; Nov. 14; Gaz. vol. 232; p. 536.

King, William O. (See King, Joshua R. and W. O.)

Kinnear Manufacturing Company, The. (See Brunst and McCloud, assignors.)

Kinnear Manufacturing Company, The. (See McCloud, Edward H., assignor.)

Kinnebrew, Lee, *et al.* (See Bradley, Richard C., assignor.)

Kipniss, Abraham, New York, N. Y. Device for adjusting the jaws of revolving lathe-chucks. No. 1,203,628; Nov. 7; Gaz. vol. 232; p. 26.

Kirby, Edward A. (See Charles and Broderick, assignors.)

Kirby, James B., Cleveland, Ohio. Pneumatic cleaner. No. 1,206,116; Nov. 28; Gaz. vol. 232; p. 997.

Kirby, James B., Cleveland, Ohio. Pneumatic cleaner. No. 1,206,117; Nov. 28; Gaz. vol. 232; p. 997.

Kirkwood, John, Lenox, Mass. Drain-trap. No. 1,204,786; Nov. 14; Gaz. vol. 232; p. 463.

Kirkwood, John, Lenox, Mass. Non-skid chain. No. 1,205,752; Nov. 21; Gaz. vol. 232; p. 838.

Kirmsee, Bruno, Fremont, Ohio. Scissors. No. 1,205,999; Nov. 28; Gaz. vol. 232; p. 957.

Kirstaetter, Xavier, Basel, Switzerland. Lifting-jack. No. 1,204,162; Nov. 7; Gaz. vol. 232; p. 213.

Kitsee, Isidor, Philadelphia, Pa. Color photography. No. 1,206,000; Nov. 28; Gaz. vol. 232; p. 957.

Klanke, Elmer E., Muskogee, Okla. Adjustable socket-wrench. No. 1,204,787; Nov. 14; Gaz. vol. 232; p. 463.

Klausmeyer, David C., assignor to The Cincinnati-Bickford Tool Company, Oakley, Ohio. Machine-tool gearing. No. 1,204,668; Nov. 14; Gaz. vol. 232; p. 423.

Kleckner, William R., Cowell, Cal. Dynamometer. No. 1,204,883; Nov. 14; Gaz. vol. 232; p. 494.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,203,746; Nov. 7; Gaz. vol. 232; p. 69.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,206,778; Nov. 28; Gaz. vol. 232; p. 1223.

Kleinhekel, Frank D. (See Becker and Kleinhekel.)

Kline, Everett C., Norwood, assignor to The Victor Safe & Lock Company, Cincinnati, Ohio. Vault construction. No. 1,205,455; Nov. 21; Gaz. vol. 232; p. 733.

Kloneck, August J., New York, N. Y. Speedometer. No. 1,205,357; Nov. 21; Gaz. vol. 232; p. 700.

Klopsch, Paul J., Bayonne, N. J. Composition bowling-ball. No. 1,203,747; Nov. 7; Gaz. vol. 232; p. 69.

Klugh, Bethune G. (See Yost and Klugh.)

Klugh, Paul B., assignor to The Cable Company, Chicago, Ill. Tracker-board and music-sheet. No. 1,205,456; Nov. 21; Gaz. vol. 232; p. 733.

Klugh, Paul B., assignor to The Cable Company, Chicago, Ill. Tracker-board and music-sheet. No. 1,206,779; Nov. 28; Gaz. vol. 232; p. 1223.

Knapp Brothers Manufacturing Company of Chicago, Ill. (See Knapp, George S., assignor.)

Knapp, Frederick H., Westminster, Md. Shade-carrier. No. 1,203,629; Nov. 7; Gaz. vol. 232; p. 27.

Knapp, George S., La Grange, assignor to Knapp Brothers Manufacturing Company of Chicago, Ill., Chicago, Ill. Metal base-board. No. 1,205,358; Nov. 21; Gaz. vol. 232; p. 700.

Kneisel, Arthur, Chicago, Ill., assignor, by mesne assignments, to J. R. Garfield, trustee, Cleveland, Ohio. Semi-automatic telephone-exchange system. No. 1,204,884; Nov. 14; Gaz. vol. 232; p. 495.

Knezik, Joseph, Madison, Ill. Safety locking mechanism for elevators. No. 1,204,362; Nov. 7; Gaz. vol. 232; p. 281.

Knieriem, Einar G., Westchester, N. Y. Cloth-stretching roller. No. 1,205,905; Nov. 21; Gaz. vol. 232; p. 889.

Knight, Arthur S., Newark, N. J., assignor to Westinghouse Lamp Company. Incandescent lamp. No. 1,204,456; Nov. 14; Gaz. vol. 232; p. 349.

Knight, Francis M., Chicago, Ill. Soap-package. No. 1,205,643; Nov. 21; Gaz. vol. 232; p. 801.

Knight, William H. H., Philadelphia, Pa. Motion-picture machine. No. 1,205,548; Nov. 21; Gaz. vol. 232; p. 766.

Knisley, Ira J., Cosmopolis, Wash. Stove-lifter. No. 1,205,222; Nov. 21; Gaz. vol. 232; p. 656.

Knobel, Abraham, San Diego, Cal. Egg-beater, cream-whip, and mixer. No. 1,204,363; Nov. 7; Gaz. vol. 232; p. 281.

Knox, Luther L., Avalon, assignor to Knox Pressed & Welded Steel Company, Pittsburgh, Pa. Flue and valve arrangement for reversing regenerator-furnaces. No. 1,203,748; Nov. 7; Gaz. vol. 232; p. 69.

Knox Pressed & Welded Steel Company. (See Knox, Luther L., assignor.)

Köchling, Wilhelm, Berlin, Germany, assignor to General Electric Company. Corrugated vessel. No. 1,206,717; Nov. 28; Gaz. vol. 232; p. 1199.

Kock, Henry E., Cincinnati, Ohio. Coating apparatus. No. 1,205,223; Nov. 21; Gaz. vol. 232; p. 656.

Koechlein, William B., assignor of one-third to A. Morecraft and one-third to T. T. Staats, Boundbrook, N. J. Antiflare device. No. 1,205,224; Nov. 21; Gaz. vol. 232; p. 656.

Koenig, Harry A., Philadelphia, Pa. Coupling device for tubes. No. 1,203,630; Nov. 7; Gaz. vol. 232; p. 27.

Koerner, Herman W., Wauwatosa, Wis. Metallic shingle. No. 1,204,885; Nov. 14; Gaz. vol. 232; p. 495.

Kohler, Ernest, Alameda, Cal. Game. No. 1,206,334; Nov. 28; Gaz. vol. 232; p. 1071.

Kohler, Ernest, Alameda, Cal. Game. No. 1,206,718; Nov. 28; Gaz. vol. 232; p. 1199.

Kohman, Henry A., T. M. Godfrey, and L. H. Ashe, Pittsburgh, Pa. Leavened bread. No. 1,204,281; Nov. 7; Gaz. vol. 232; p. 253.

Kohman, Henry A., T. M. Godfrey, and L. Ashe, Pittsburgh, Pa., assignors to Ward Baking Company, New York, N. Y. Manufacture of bread. No. 1,204,280; Nov. 7; Gaz. vol. 232; p. 253.

Kohn, Monroe and G. J. Reiter, assignors to F. Lewald & Company, Chicago, Ill. Garment-hanger. No. 1,205,644; Nov. 21; Gaz. vol. 232; p. 801.

Kolár, Nándor, assignor to Autometrograph Részvénytársaság, Budapest, Austria-Hungary. Prepayment-meter. No. 1,205,457; Nov. 21; Gaz. vol. 232; p. 734.

Kolstad, Ole O., Duluth, Minn. Bottle. No. 1,206,335; Nov. 28; Gaz. vol. 232; p. 1071.

Kopf, Henry B., New Haven, Conn. Fastener for crates. No. 1,206,336; Nov. 28; Gaz. vol. 232; p. 1071.

Koren Manufacturing Company. (See Woods, Edward D., assignor.)

Kowal, Jan, Linoleumville, N. Y. Bell-ringing device. No. 1,206,231; Nov. 28; Gaz. vol. 232; p. 1036.

Kraepelin, Edward O., Botsford, Conn. Egg-carrier. No. 1,205,753; Nov. 21; Gaz. vol. 232; p. 839.

Kramer Brothers Foundry Company, The. (See Gilbert and Kramer, assignors.)

Kramer, George H. (See Gilbert and Kramer.)

Kreeft, Archibald L., West Orange, N. J. Electric binding-post. No. 1,204,457; Nov. 14; Gaz. vol. 232; p. 349.

Kreid, Edward, Detroit, Mich. Life-saving device. No. 1,203,631; Nov. 7; Gaz. vol. 232; p. 27.

Kreuer, Joseph, Jr., Pittsburgh, Pa. Sanitary connecting device. No. 1,206,444; Nov. 28; Gaz. vol. 232; p. 1107.

Kricke, Herman A., Crows Landing, Cal. Vacuum-control valve for milking apparatus. No. 1,204,458; Nov. 14; Gaz. vol. 232; p. 349.

Krippendorf, Charles H. (See Fowler, William, assignor.) (Reissue.)

Kroes, Dirk. (See Callow and Kroes.)

Kromdyke, Will, Jr. (See Burtt, Frank, assignor.)

Krotz, Alvaro S., assignor to Janesville Machine Company, Janesville, Wis. Wheeled implement. No. 1,205,754; Nov. 21; Gaz. vol. 232; p. 839.

Kruesheld, Henry, Irvington, N. J. Electric switch. No. 1,205,549; Nov. 21; Gaz. vol. 232; p. 766.

Kruse, Robert P., Rushville, Ill. End-gate fastener. No. 1,205,550; Nov. 21; Gaz. vol. 232; p. 767.

Kucera, Joseph F., Warrensburg, Mo. Match-box. No. 1,206,337; Nov. 28; Gaz. vol. 232; p. 1071.

Kuehn, Charles P., assignor of one-half to C. C. Chadwick, Chicago, Ill. Reel. No. 1,205,906; Nov. 21; Gaz. vol. 232; p. 889.

Kuen, Eugene A., assignor, by mesne assignments, to The Corcoran-Victor Company, Cincinnati, Ohio. Securing means for electric sockets. No. 1,204,381; Nov. 7; Gaz. vol. 232; p. 288.

Kuennen, Julius J., assignor to Yawman & Erbe Manufacturing Company, Rochester, N. Y. Sectional cabinet. No. 1,204,788; Nov. 14; Gaz. vol. 232; p. 463.

Kuhl, Philip C., Landusky, Mont. Gas-turbine. No. 1,206,001; Nov. 28; Gaz. vol. 232; p. 957.

Kuhn, Harry A., Pittsburgh, Pa. Method and apparatus for low-temperature distillation of coal. No. 1,204,789; Nov. 14; Gaz. vol. 232; p. 464.

Kuhns, Amos M. (See Gipe and Kuhns.)

Kundtz, Theodor. (See Cogger, William B., assignor.)

Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,203,632; Nov. 7; Gaz. vol. 232; p. 28.

Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,203,633; Nov. 7; Gaz. vol. 232; p. 28.

Kuruncsi, Andrew, assignor of one-half to J. Molnar, Detroit, Mich. Dirigible headlight for vehicles. No. 1,204,886; Nov. 14; Gaz. vol. 232; p. 496.

Kusebauch, Anton K., Pittsburgh, Pa. Powder-blending machine. No. 1,204,163; Nov. 7; Gaz. vol. 232; p. 214.

Kusel, Isidor J., assignor to Stronghart Company, Chicago, Ill. Pocket savings-bank. No. 1,204,790; Nov. 14; Gaz. vol. 232; p. 464.

Kuznor, Peter, New Castle, Pa. Automatic catch and carrying machine. No. 1,203,749; Nov. 7; Gaz. vol. 232; p. 70.

Kyle, Joseph W., Chicago, Ill. Child's folding crib. No. 1,204,791; Nov. 14; Gaz. vol. 232; p. 464.

Kyle, Joseph W., Chicago, Ill. Folding or collapsible bed. No. 1,204,792; Nov. 14; Gaz. vol. 232; p. 465.

L. Frank and Company. (See Williams, Dick B., assignor.)

La Casse, Henry, and J. P. Sexton, assignors to Buttonlath Manufacturing Company, Los Angeles, Cal. Plaster lath. No. 1,205,360; Nov. 21; Gaz. vol. 232; p. 701.

La Fleur, Charles E., Philadelphia, Pa. Traction device for pneumatic tires. No. 1,204,887; Nov. 14; Gaz. vol. 232; p. 496.

La Rue, George W., Kansas City, Mo., assignor to United Gas Iron Company, Chicago, Ill. Handle. No. 1,206,004; Nov. 28; Gaz. vol. 232; p. 958.

Lass, Edward, assignor, by mesne assignments, to O. R. Barnett, Chicago, Ill. Rail-anchor. No. 1,205,359; Nov. 21; Gaz. vol. 232; p. 701.

Lacene Manufacturing Company. (See Nichols, Elmer P., assignor.)

Lachman, Arthur, Berkeley, Cal. Aging wine. No. 1,204,669; Nov. 14; Gaz. vol. 232; p. 424.

Lafleche, Hermenegilde J. H., Casselman, Ontario, Canada. Ironing-table. No. 1,204,575; Nov. 14; Gaz. vol. 232; p. 391.

Laher, Frank J., Portland, Oreg. Laminated spring. No. 1,204,037; Nov. 7; Gaz. vol. 232; p. 170.

Lake, Robert H., U. S. Navy. Disk-throwing gun. No. 1,204,282; Nov. 7; Gaz. vol. 232; p. 254.

Lakin, Allan R., New York, N. Y. Outlet-box. No. 1,206,549; Nov. 28; Gaz. vol. 232; p. 1145.

Lakin, Harry W., Medford, Mass. Non-glaring headlight. No. 1,205,361; Nov. 21; Gaz. vol. 232; p. 701.

Lamb, Mose G., assignor to J. W. Adams, Sikeston, Mo. Boring-machine. No. 1,204,576; Nov. 14; Gaz. vol. 232; p. 391.

Lamb & Nash Company. (See Nash, Russell K., assignor.)

Lambel, Andrew J., Clements, Kans. Clothes-boiler drainer. No. 1,206,338; Nov. 28; Gaz. vol. 232; p. 1072.

Lamothe, George. (See Lamothe, Ovide and G.)

Lamothe, Ovide and G., Montreal, Quebec, Canada. Sanitary toothpick-holder. No. 1,204,364; Nov. 7; Gaz. vol. 232; p. 282.

Lamp, Ira F., Griffithsville, W. Va. Folding crate. No. 1,206,719; Nov. 28; Gaz. vol. 232; p. 1200.

Lamson Company, The. (See Cowley, James T., assignor.)

Lamson Company, The. (See Hidden, Charles P., assignor.)

Lanahan, James J., Buffalo, N. Y. Signal device for vehicles. No. 1,206,002; Nov. 28; Gaz. vol. 232; p. 958.

Lancaster, Thomas M., Pasadena, Cal. Hammock and canopy therefor. No. 1,204,283; Nov. 7; Gaz. vol. 232; p. 254.

Landers, Frary & Clark. (See Carlson, Frederick E., assignor.)

Landry, Louis H., assignor of one-half to S. B. Taft, one-eighth to U. Larocque, Uxbridge, Mass., and one-eighth to L. and T. Bousquet, Burrillville, R. I. Driving mechanism for looms. No. 1,206,003; Nov. 28; Gaz. vol. 232; p. 958.

Lane, Michael E., Chicago, Ill. Folding mirror. No. 1,206,720; Nov. 28; Gaz. vol. 232; p. 1200.

Lane, William E., Kansas City, Mo. Safety-razor. No. 1,204,670; Nov. 14; Gaz. vol. 232; p. 424.

Lanes, Herman, Brooklyn, N. Y., and P. F. W. Muller, West Hoboken, N. J. Non-refillable container. No. 1,205,458; Nov. 21; Gaz. vol. 232; p. 734.

Lang, George H., Boston, Mass. Speed-indicator. No. 1,204,459; Nov. 14; Gaz. vol. 232; p. 350.

Lang, James S., Boston, Mass. Egg-case. No. 1,205,362; Nov. 21; Gaz. vol. 232; p. 701.

Langen, George. (See Johannesmeyer and Langen.)

Lansing Mower Company, The. (See Holmes, George R., assignor.)

Large, William L., New York, N. Y. Headlight-shutter. No. 1,204,888; Nov. 14; Gaz. vol. 232; p. 496.

Larmore, Nelson W., Mechanicsville, N. Y. Metal cutter or shears. No. 1,205,755; Nov. 21; Gaz. vol. 232; p. 840.

Larned, Carter & Company. (See Hymer, Curtis W., assignor.)

Larocque, Udgle, *et al.* (See Landry, Louis H., assignor.)

Larraburu, John, San Francisco, Cal. Baking-oven. No. 1,206,118; Nov. 28; Gaz. vol. 232; p. 998.

Larsen, Louis G. (See Hinckley and Larsen.)

Larson, Iver A., Gatzke, Minn. Wrench. No. 1,203,750; Nov. 7; Gaz. vol. 232; p. 70.

Laska, August L., Offenbach-on-the-Main, assignor to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Azo dyestuffs and producing the same. No. 1,206,232; Nov. 28; Gaz. vol. 232; p. 1036.

Latimer, John W., Chicago, Ill., assignor to International Harvester Company of New Jersey. Hay-rake. No. 1,204,460; Nov. 14; Gaz. vol. 232; p. 350.

Laube, John. (See Task, Henry, assignor.)

Lauchin, George Y., assignor of one-third to E. H. Sensiba, Crystal Falls, Mich. Gas-engine starter. No. 1,204,164; Nov. 7; Gaz. vol. 232; p. 214.

Laudenschlager, Benjamin F., and J. S. Frederick, Emaus, Pa. Window-screen. No. 1,203,634; Nov. 7; Gaz. vol. 232; p. 28.

Laughlin, Sara E., Philadelphia, Pa. Lady's hat-bag. No. 1,205,225; Nov. 21; Gaz. vol. 232; p. 657.

Laurence, R. L. (See Peterson, William, assignor.)

Laurie, Donald, assignor of one-half to G. B. Crow, Bickleton, Wash. Heel-protector for hosiery. No. 1,206,721; Nov. 28; Gaz. vol. 232; p. 1200.

Lautenschlager, William F., Cincinnati, Ohio, assignor to L. Muther, Newton, Mass. Fold-presser for folding-machines. No. 1,206,762; Nov. 28; Gaz. vol. 232; p. 1217.

Law, Sheridan E., Toledo, Ohio. Unloading device. No. 1,204,461; Nov. 14; Gaz. vol. 232; p. 351.

Lawhead, James W., Wilmington, Ohio. Electric-battery lamp. No. 1,205,645; Nov. 21; Gaz. vol. 232; p. 802.

Lawler, John J., Medford, Mass. Dimmer for headlights. No. 1,206,339; Nov. 28; Gaz. vol. 232; p. 1072.

Lawrence, Arthur W., New York, N. Y. Adding-machine. No. 1,204,284; Nov. 7; Gaz. vol. 232; p. 254.

Lawrence, Edward E., Jamaica, assignor to Loose-Wiles Biscuit Company, Long Island City, N. Y. Dough-product-cutting machine. No. 1,204,671; Nov. 14; Gaz. vol. 232; p. 424.

Lawrence, Edwin O., assignor to International Sanitary Cesspool Company, Port Jefferson, N. Y. Cesspool. No. 1,204,462; Nov. 14; Gaz. vol. 232; p. 351.

Lawrence, Harry V., Boston, Mass. Means for raising and lowering window-sashes. No. 1,206,340; Nov. 28; Gaz. vol. 232; p. 1072.

Lawrence, Samuel E., and G. M. Davis, West Point, Ky. Lubricating device. No. 1,205,226; Nov. 21; Gaz. vol. 232; p. 657.

Layton, William, Sea Girt, N. J. Weather-strip. No. 1,204,285; Nov. 7; Gaz. vol. 232; p. 255.

Le Baron, David A., Mesa, Ariz. Gun-sight. No. 1,205,756; Nov. 21; Gaz. vol. 232; p. 840.

Le Blond, Richard K., and W. F. Groene, assignors to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio. Gearing. No. 1,203,751; Nov. 7; Gaz. vol. 232; p. 70.

Le Claire, Eugene J., St. Paul, Minn. Supplemental table-top. No. 1,203,752; Nov. 7; Gaz. vol. 232; p. 71.

Leach, David H., Sacramento, Cal. Trousers hanger and stretcher. No. 1,205,561; Nov. 21; Gaz. vol. 232; p. 767.

Leach, William J., and C. G. Harrington, Grand Rapids, Mich. Rummy-board. No. 1,206,550; Nov. 28; Gaz. vol. 232; p. 1145.

Leader, Moses. (See Foss, Leland L., assignor.)

Leatherman, Richard B., Washington, Ga. Wire-fence tie. No. 1,205,227; Nov. 21; Gaz. vol. 232; p. 657.

Leavitt, James A., Lompoc, Cal. Safety-alarm for steam-boilers. No. 1,206,341; Nov. 28; Gaz. vol. 232; p. 1072.

Leberecht, Fredrick W., New York, N. Y. Necktie-retainer. No. 1,206,445; Nov. 28; Gaz. vol. 232; p. 1108.

Leblanc, Maurice, Val Sur Seine par Croisy, assignor to Société Anonyme pour l'Exploitation des Procédés Westinghouse-Leblanc, Paris, France. Driving-belt. No. 1,205,363; Nov. 21; Gaz. vol. 232; p. 702.

Lederer, Anton, Atzgersdorf, near Vienna, Austria-Hungary. Support for metallic glow-filaments. No. 1,203,635; Nov. 7; Gaz. vol. 232; p. 29.

Lederer, Louis, Farmingdale, N. J. Package-fastening device. No. 1,206,551; Nov. 28; Gaz. vol. 232; p. 1145.

Lee, Clifford, Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Co. Rubber boot. No. 1,204,365; Nov. 7; Gaz. vol. 232; p. 282.

Lee, Henry C., trustee. (See Bullock, Arthur R., assignor.)

Lee, Thomas J., Minneapolis, Minn. Device for removing ice from railway-rails. No. 1,205,757; Nov. 21; Gaz. vol. 232; p. 840.

Leece, Bennett M., assignor to The Leece-Neville Company, Cleveland, Ohio. Electric switch. No. 1,206,552; Nov. 28; Gaz. vol. 232; p. 1145.

Leece-Neville Company, The. (See Leece, Bennett M., assignor.)

Leeman, Jeanne, San Francisco, Cal. Brassière. No. 1,205,758; Nov. 21; Gaz. vol. 232; p. 840.

Leffler, Anna A., administratrix. (See Leffler, Paul W.)

Leffler, Paul W., deceased, Chicago, Ill.; A. A. Leffler, administratrix. Electric-railway system. No. 1,204,463; Nov. 14; Gaz. vol. 232; p. 352.

Legg, Samuel F., Sylvia, W. Va. Tool. No. 1,204,165; Nov. 7; Gaz. vol. 232; p. 215.

Lehman, Arthur J., and C. H. Faurote, Slater, Iowa. Draft-equalising neck-yoke. No. 1,206,446; Nov. 28; Gaz. vol. 232; p. 1108.

Leibinger, Charles C., and P. T. Logan, Rochester, N. Y. Machine for washing containers. No. 1,206,447; Nov. 28; Gaz. vol. 232; p. 1108.

Leidecker, Frank W., assignor to Leidecker Lawn Mower Sharpening Company, Muskogee, Okla. Sharpener. No. 1,206,554; Nov. 28; Gaz. vol. 232; p. 1146.

Leidecker Lawn Mower Sharpening Company. (See Leidecker, Frank W., assignor.)

Leigh, George H. and V. R., Drewryville, Va. Receiving-board for burial-caskets. No. 1,204,672; Nov. 14; Gaz. vol. 232; p. 425.

Leigh, Vernie R. (See Leigh, George H. and V. R.)

Lekas, Peter S., Portland, Oreg. Butter-cutter. No. 1,206,233; Nov. 28; Gaz. vol. 232; p. 1036.

Lemb, William, Brooklyn, N. Y. Boiler-furnace. No. 1,205,228; Nov. 21; Gaz. vol. 232; p. 658.

Lengquist, Frederick, and J. P. Wiles, Joplin, Mo. Display-rack. No. 1,204,286; Nov. 7; Gaz. vol. 232; p. 255.

Leonhardt, Max, Dresden, Germany. Valve for flushing-tanks. No. 1,206,786; Nov. 28; Gaz. vol. 232; p. 1226.

Lepel, Egbert von, Berlin-Wilmersdorf, Germany. Circuit arrangement for wireless transmitters. No. 1,204,720; Nov. 14; Gaz. vol. 232; p. 441.

Leppert, Adolph, Brooklyn, N. Y. Wave and wind power generator. No. 1,204,366; Nov. 7; Gaz. vol. 232; p. 282.

Lesmann, Herman P., assignor to Antiseptol Liquid Soap Co., Chicago, Ill. Screw-cap lock. No. 1,205,907; Nov. 21; Gaz. vol. 232; p. 889.

Letin, Chris, San Francisco, Cal. Splitting-machine. No. 1,203,753; Nov. 7; Gaz. vol. 232; p. 71.

Leupold, Voelpel & Co. (See Stevens, John C., assignor.)

Lev, Frank W., New York, assignor to C. & L. Machine Company, Astoria, N. Y. Paper-feeding mechanism. No. 1,206,005; Nov. 28; Gaz. vol. 232; p. 959.

Levasseur, Louis J., Bay City, Mich. Cuff-holder. No. 1,204,577; Nov. 14; Gaz. vol. 232; p. 391.

Leveque-Petit, Joseph, Brussels, Belgium. Electric switch. No. 1,206,244; Nov. 28; Gaz. vol. 232; p. 1040.

Levia, Robert A. (See Frost and Levia.)

Levin, Isaac, Brooklyn, N. Y. Collapsible garment-form stand. No. 1,204,038; Nov. 7; Gaz. vol. 232; p. 170.

Levin, Samuel A., Chicago, Ill. Apparatus for making artificial tooth-crowns. No. 1,204,166; Nov. 7; Gaz. vol. 232; p. 215.

Levy, Louis S., New York, N. Y. Tablet. No. 1,204,793; Nov. 14; Gaz. vol. 232; p. 465.

Levy, Louis S., New York, N. Y. Poison-deterrent. No. 1,204,794; Nov. 14; Gaz. vol. 232; p. 465.

Lewis, Anson F., assignor of one-half to W. E. Mouck, Santa Barbara, Cal. Molding tiles. No. 1,206,553; Nov. 28; Gaz. vol. 232; p. 1146.

Lewis, Charles A., Carnegie, Pa. Toy ship. No. 1,205,759; Nov. 21; Gaz. vol. 232; p. 841.

Lewis, George C., Cedar, Kans. Cultivator. No. 1,204,287; Nov. 7; Gaz. vol. 232; p. 255.

Lewis, George W., Grinnell, Iowa. Gearing device for washing-machines. No. 1,203,883; Nov. 7; Gaz. vol. 232; p. 117.

Lewis, Rollin C., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Collapsible tap or die. No. 1,203,884; Nov. 7; Gaz. vol. 232; p. 117.

Lickert, Fred. (See Flatow and Lickert.)

Lidgerwood Manufacturing Company. (See Carlsson, Fritiof, assignor.)

Lidgerwood Manufacturing Company. (See Evers and Carlsson, assignors.)

Liefbroer, John, and J. Tendollen, Oostburg, Wis. Safety-valve for tire-pumps and the like. No. 1,203,754; Nov. 7; Gaz. vol. 232; p. 72.

Lienemann, Alfred A. (See Pauly, Peter, assignor.)

Liffiander, Johan O., assignor to J. & C. G. Bollinders Mekaniska Verkstads Aktiebolag, Stockholm, Sweden. Dividing apparatus. No. 1,206,006; Nov. 28; Gaz. vol. 232; p. 959.

Ligon, Arthur L., Pecos, Tex. Combination tool set. No. 1,205,760; Nov. 21; Gaz. vol. 232; p. 841.

Like, Wayne, Plainwell, Mich. Ice-cream-cone filler. No. 1,204,167; Nov. 7; Gaz. vol. 232; p. 215.

Lilly, William J., Butte, Mont. Pump-plunger. No. 1,204,889; Nov. 14; Gaz. vol. 232; p. 497.

Linborg, Christina O., Olean, N. Y. Sash-lock. No. 1,206,342; Nov. 28; Gaz. vol. 232; p. 1073.

Lindeburg, Charles F., Newark, N. J. Glass-cutting machine. No. 1,204,039; Nov. 7; Gaz. vol. 232; p. 171.

Lindell, August and E. C., Rockford, Ill. Nut-lock. No. 1,203,755; Nov. 7; Gaz. vol. 232; p. 72.

Lindell, Elmer C. (See Lindell, August and E. C.)

Linden, Joseph P., Milwaukee, Wis. Reinforced cloth glove. No. 1,206,229; Nov. 21; Gaz. vol. 232; p. 659.

Lindley, William M., Lawrence, Kans. Antikicking safety attachment for internal-combustion engines. No. 1,205,864; Nov. 21; Gaz. vol. 232; p. 702.

Lindquist, David L., Yonkers, assignor to Otis Elevator Company, New York, N. Y. Elevator. No. 1,206,448; Nov. 28; Gaz. vol. 232; p. 1109.

Lindsay, Frank S., *et al.* (See Wells, Joseph F., assignor.)

Lindsay, William G., Caldwell, assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastic compounds. No. 1,203,756; Nov. 7; Gaz. vol. 232; p. 72.

Lindsey, Eddie B., Buffalo, Ala. Wire-stretcher. No. 1,204,168; Nov. 7; Gaz. vol. 232; p. 216.

Lindstrom, Frank R., Milaca, Minn. Harpoon hay-fork. No. 1,205,761; Nov. 21; Gaz. vol. 232; p. 841.

Lindström, Gustaf H., assignor to Aktiebolaget Principen, Gottenborg, Sweden. Printing-press with automatic feeding of the pile of sheets. No. 1,204,795; Nov. 14; Gaz. vol. 232; p. 465.

Link-Belt Company. (See Piez, Charles, assignor.)

Link-Belt Company. See Pratt, Howell D., assignor.)

Link, Oliver L., St. Charles, Mo. Cooler. No. 1,205,096; Nov. 14; Gaz. vol. 232; p. 569.

Linkletter, Robert, assignor of one-third to himself and two-thirds to G. W. Muttart, Jersey City, N. J. Base for concrete structures. No. 1,203,757; Nov. 7; Gaz. vol. 232; p. 72.

Linn, George R. (See Bull, Lionel, assignor.)

Linquist, Jesse W., Portland, Oreg. Appliance for bending or folding sheet metal. No. 1,206,449; Nov. 28; Gaz. vol. 232; p. 1100.

Linquist, Otto W., Paskin, Wis. Tatting-shuttle. No. 1,206,555; Nov. 28; Gaz. vol. 232; p. 1146.

Lippe, Henry J., Jr. (See Banta, Merritt, and Lippe.)

Lipps, Emory J. and L. H., Fountain Hill borough, Lehigh county, Pa., assignors of fifty-one one-hundredths to said Emory J. Lipps and forty-nine one-hundredths to said L. H. Lipps. Uniting textile strands. No. 1,206,556; Nov. 28; Gaz. vol. 232; p. 1147.

Lipps, Lloyd H. (See Lipps, Emory J. and L. H.)

Litchfield Shuttle Company. (See Cheney, George M., assignor.)

Litle, Thomas J., Jr., Woodbury, assignor to Welsbach Light Company, Gloucester City, N. J. Pilot-lighting device. No. 1,204,996; Nov. 14; Gaz. vol. 232; p. 536.

Littler, Lewis A., assignor to The Autocall Company, Shelby, Ohio. Electromagnetic bell. No. 1,205,646; Nov. 21; Gaz. vol. 232; p. 802.

Ljungström, Fredrik, assignor to Aktiebolaget Ljungströms Angturbin, Finspong, Sweden. Ship-turbine. No. 1,205,459; Nov. 21; Gaz. vol. 232; p. 734.

Llewellyn, Ernest A., and J. R. Briggs, assignors to G. H. Bass & Company, Wilton, Me. Moccasin. No. 1,206,119; Nov. 28; Gaz. vol. 232; p. 998.

Lobdell, Dice R. (See Maupin and Lobdell.)

Locke, Albert R., Chicago, Ill. Boring apparatus. No. 1,204,673; Nov. 14; Gaz. vol. 232; p. 426.

Lockhart, Joseph C., Attica, Kans. Liquid-fuel burner. No. 1,204,288; Nov. 7; Gaz. vol. 232; p. 255.

"Locomobile" Company of America, The. (See Riker, Andrew L., assignor.)

Locomobile Company of America, The. (See Schuls, Albert C., assignor.)

Locomotive Superheater Company. (See Stenning, Harry A., assignor.)

Lockwood, Adelbert, assignor to A. H. Elliott & Co., Philadelphia, Pa. Cork-shoe attachment. No. 1,204,796; Nov. 14; Gaz. vol. 232; p. 466.

Loeb, Rudolf, Camden, N. J. Embroidery-trimming machine. No. 1,204,997; Nov. 14; Gaz. vol. 232; p. 537.

Loebinger, Hugo J. (See Bergh, Loebinger, and Neuberger.)

Loewenthal, Ben, *et al.* (See Wilhelm, Oliver P., assignor.)

Lofton, Herbert M., Chattanooga, Tenn. Meter-box. No. 1,204,464; Nov. 14; Gaz. vol. 232; p. 352.

Logan, Patrick T. (See Leibinger and Logan.)

Logsdon, Joseph G., Post Falls, Idaho. Ditch-packer. No. 1,204,890; Nov. 14; Gaz. vol. 232; p. 497.

Lohner, Thomas, Warren, Minn. Cylinder-bushing. No. 1,204,674; Nov. 14; Gaz. vol. 232; p. 426.

Lohr, Carl A., New York, N. Y. Synchronizing. No. 1,204,169; Nov. 7; Gaz. vol. 232; p. 216.

Lombard, Charles E., East Wilton, Me. Fastening device. No. 1,203,885; Nov. 7; Gaz. vol. 232; p. 118.

London, Jacob, Tunnelton, Pa., assignor to Sullivan Machinery Company, Claremont, N. H. Mining-machine and truck. No. 1,205,007; Nov. 14; Gaz. vol. 232; p. 570.

London, Oliver, and S. A. Nelson, Patton, Pa. Combination curtain and sash-support. No. 1,205,552; Nov. 21; Gaz. vol. 232; p. 767.

Long, Arthur D., Fairfield, Iowa. Brush and broom handle. No. 1,203,886; Nov. 7; Gaz. vol. 232; p. 118.

Long, George A., assignor to The Gray Telephone Pay Station Company, Hartford, Conn. Chute structure for telephone pay-stations. No. 1,206,557; Nov. 28; Gaz. vol. 232; p. 1147.

Long Manufacturing Company. (See Eligh, Charles A., assignor.)

Lonn, Edward J., assignor to Great Western Manufacturing Co., Laporte, Ind. Seat-post. No. 1,204,797; Nov. 14; Gaz. vol. 232; p. 466.

Loomis, Allen, assignor to Packard Motor Car Company, Detroit, Mich. Controlling mechanism for motor-vehicles. No. 1,205,908; Nov. 21; Gaz. vol. 232; p. 889.

Loose-Wiles Biscuit Company. (See Lawrence, Edward L., assignor.)

Lord, Lewis P., assignor of one-third to F. G. Acomb, Minneapolis, Minn., and one-third to W. H. Killen, Appleton, Wis. Berry-box. No. 1,204,367; Nov. 7; Gaz. vol. 232; p. 283.

Lorillard Refrigerator Co. (See De Canio, Victor A., assignor.)

Lotz, William A., Newark, N. J., assignor to The R. Neumann Hardware Co. Sheet-metal handle for bag-frames and the like. No. 1,204,891; Nov. 14; Gaz. vol. 232; p. 498.

Louis, Isidore, Kansas City, Mo. Rotary tooth-brush. No. 1,203,636; Nov. 7; Gaz. vol. 232; p. 29.

Lovell, Albert K., New Haven, Conn. Metal stock and receiver for firearms. No. 1,206,234; Nov. 28; Gaz. vol. 232; p. 1036.

Lowden, Hugh B. (See Rothwell and Lowden.)

Lowe, Arthur R., assignor to The Western Shade Cloth Company, Chicago, Ill. Treating shades and the like. No. 1,203,758; Nov. 7; Gaz. vol. 232; p. 73.

Lowe, Eugene F., Delevan, N. Y. Nut-lock. No. 1,204,798; Nov. 14; Gaz. vol. 232; p. 466.

Lowe, Nathan C., Lebanon, Oreg. Device for filling graves. No. 1,206,558; Nov. 28; Gaz. vol. 232; p. 1147.

Lowy, Alexander, New York, N. Y. Analytical pipette. No. 1,204,368; Nov. 7; Gaz. vol. 232; p. 283.

Lubin Film Company. (See Holst, Lodewyk J. R., assignor.)

Lubin Film Company. (See Tessier, Julien, assignor.)

Lubin Manufacturing Company. (See Tessier, Julien, assignor.)

Lucas, John T., assignor of one-third to L. F. Blyler and one-third to A. H. Rand, Minneapolis, Minn. Washboiler. No. 1,204,369; Nov. 7; Gaz. vol. 232; p. 283.

Luce, Moses, Ellington, assignor of one-tenth to J. E. Noble, Sinclairville, N. Y. Propelling mechanism for vehicles. No. 1,204,799; Nov. 14; Gaz. vol. 232; p. 467.

Luckett, William S., Philadelphia, Pa. Combined cigar-cutter and lid-holder. No. 1,204,289; Nov. 7; Gaz. vol. 232; p. 256.

Luckhurst, Allen E. J., Ridgewood, N. J. Flexible boat-launching device. No. 1,205,762; Nov. 21; Gaz. vol. 232; p. 841.

Luckhurst, Allen E. J., Ridgewood, N. J. Boat-launching device. No. 1,205,763; Nov. 21; Gaz. vol. 232; p. 842.

Luckhurst, Allen E. J., Ridgewood, N. J. Davit-gearing and casing. No. 1,205,764; Nov. 21; Gaz. vol. 232; p. 842.

Luckhurst, Allen E. J., Ridgewood, N. J. Hoist for boat-launching devices. No. 1,205,765; Nov. 21; Gaz. vol. 232; p. 842.

Luckhurst, Allen E. J., Ridgewood, N. J. Boat-launching device. No. 1,205,766; Nov. 21; Gaz. vol. 232; p. 843.

Lucas, Frederick H. C., Chico, Cal. Tire-inflating device. No. 1,206,560; Nov. 28; Gaz. vol. 232; p. 1148.

Lucus, Eppe M., Van Alystyne, Tex. Hydrocarbon-burner. No. 1,206,559; Nov. 28; Gaz. vol. 232; p. 1148.

Lufkin, George A., Revere, Mass. Boiler-tube cleaner. No. 1,205,230; Nov. 21; Gaz. vol. 232; p. 659.

Lumbers, James H. (See Doust, James C., assignor.)

Lumley, Wilfrid, Conneaut, Ohio, assignor to General Electric Company. Lighting-fixture. No. 1,206,561; Nov. 28; Gaz. vol. 232; p. 1148.

Lundell, Alben E., New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Machine-switching telephone-exchange system. No. 1,203,887; Nov. 7; Gaz. vol. 232; p. 118.

Lundin Company, The. (See Brandy, Harry W., assignor.)

Lush, Charles H., Freeport, N. Y. Knockdown electric sign. No. 1,205,767; Nov. 21; Gaz. vol. 232; p. 843.

Luther, Clevis J., Wasson, assignor of one-third to L. N. Parish and one-third to R. Hargis, Harrisburg, Ill. Shovel. No. 1,206,235; Nov. 28; Gaz. vol. 232; p. 1037.

Lutz, William F., Brooklyn, N. Y. Butcher's knife. No. 1,203,637; Nov. 7; Gaz. vol. 232; p. 29.

Luxmore, William, Chicago, Ill. Vehicle-driving mechanism. No. 1,203,638; Nov. 7; Gaz. vol. 232; p. 29.

Luyken, Wilhelm, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Electric motor. No. 1,204,290; Nov. 7; Gaz. vol. 232; p. 256.

Lynch, James J., and H. Pfluger, St. Paul, Minn. Upsetting-tool. No. 1,206,007; Nov. 28; Gaz. vol. 232; p. 960.

Lynn, William K., and W. T. Weaver, Gulfport, Miss. Lining for journal-boxes. No. 1,204,465; Nov. 14; Gaz. vol. 232; p. 352.

Lyon, Jesse D., assignor to The Fulname Company, Cincinnati, Ohio. Golf-ball marker. No. 1,204,578; Nov. 14; Gaz. vol. 232; p. 391.

Lyon Metallic Manufacturing Company. (See Johnson, Franklin H., assignor.)

Lyon, William T., assignor to The International Dental Appliance Co., Portland, Oreg. Rheostat. No. 1,204,675; Nov. 14; Gaz. vol. 232; p. 426.

Lyon, William T., assignor to The International Dental Appliance Co., Portland, Oreg. Handpiece for dental machines. No. 1,204,800; Nov. 14; Gaz. vol. 232; p. 467.

Lyon, William T., Portland, Oreg. Handpiece for dental machines. No. 1,205,553; Nov. 21; Gaz. vol. 232; p. 768.

Lyons, George W., Orange, assignor of three-fourths to A. L., J. A., and M. A. Notkins, New Haven, Conn. Level. No. 1,205,946; Nov. 21; Gaz. vol. 232; p. 902.

Lyons, William J., Dublin, Ireland. Receiving apparatus for electric telegraphs and electric selective systems. No. 1,205,460; Nov. 21; Gaz. vol. 232; p. 735.

M. D. Knowlton Company. (See Hawkins, Edgar M., assignor.)

MacBride, James A., Arlington, N. J. Moving-picture film. No. 1,205,367; Nov. 21; Gaz. vol. 232; p. 703.

MacDonald, Cathrine, *et al.* (See MacDonald, Joseph D., assignor.)

MacDonald, Charles, Wollaston, assignor to Tubular Rivet & Stud Company, Boston, Mass. Cap-feeding mechanism. No. 1,206,236; Nov. 28; Gaz. vol. 232; p. 1037.

MacDonald, Frank C., administrator. (See MacDonald, Joseph D.)

MacDonald, Howard G., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Circuit-interrupter. No. 1,206,347; Nov. 28; Gaz. vol. 232; p. 1074.

MacDonald, Joseph D., deceased, Seattle, Wash.; F. C. MacDonald, administrator, assignor of one-half to C. MacDonald and one-half to F. C. MacDonald, San Francisco, Cal. Drill. No. 1,204,805; Nov. 14; Gaz. vol. 232; p. 468.

MacFarland, Allison M., assignor to Keyboard Compositor Corporation, Buffalo, N. Y. Type setting and distributing machine. No. 1,206,451; Nov. 28; Gaz. vol. 232; p. 1110.

MacFarland, Allison M., assignor to Keyboard Compositor Corporation, Buffalo, N. Y. Type setting and distributing machine. No. 1,206,452; Nov. 28; Gaz. vol. 232; p. 1110.

MacFarland, William J., Boston, Mass. Last. No. 1,205,648; Nov. 21; Gaz. vol. 232; p. 803.

MacGahan, Paul. (See Smith and MacGahan.)

MacGregor, John B. (See Schaeffer and MacGregor.)

MacLean, Archibald J., Stamford, Conn. Dish-washing apparatus. No. 1,204,806; Nov. 14; Gaz. vol. 232; p. 469.

MacWilliams, Charles W., Geneva, Nebr. Overshoe. No. 1,204,293; Nov. 7; Gaz. vol. 232; p. 258.

Macdonald, Harry P., Montclair, assignor to The Snead & Co. Iron Works, Jersey City, N. J. Sand-handling apparatus. No. 1,204,467; Nov. 14; Gaz. vol. 232; p. 353.

Machac, Henry, Crowell, Tex. Automatic crossing-signal. No. 1,205,554; Nov. 21; Gaz. vol. 232; p. 768.

Machuga, Stefan, Denver, Colo. Combination pocket article. No. 1,204,676; Nov. 14; Gaz. vol. 232; p. 426.

Machuga, Stefan, Denver, Colo. Combination-weapon. No. 1,204,677; Nov. 14; Gaz. vol. 232; p. 426.

Mack, Frank J., Chicago, Ill. Variable-speed-transmission gearing. No. 1,205,464; Nov. 21; Gaz. vol. 232; p. 736.

Mackeever, Edwin F., Eddington, Me. Suspending attachment for brush-handles. No. 1,206,010; Nov. 28; Gaz. vol. 232; p. 961.

Mackintosh, Edward D., assignor of one-half to S. S. Hopworth Company, New York, N. Y. Centrifugal-machine unloader. No. 1,205,128; Nov. 14; Gaz. vol. 232; p. 580.

Macleod, Walter. (See Foote, Charles B., Jr., assignor.)

Macomber Motors Company. (See Macomber, Walter G. assignor.)

Macomber, Walter G., assignor to Macomber Motors Company, Los Angeles, Cal. Rotary engine. No. 1,204,892; Nov. 14; Gaz. vol. 232; p. 498.

Macpherson, John A., assignor to B. J. Buckingham, Chicago, Ill. Garment-hanger. No. 1,206,348; Nov. 28; Gaz. vol. 232; p. 1075.

Macy, Fred, Montpelier, Vt. Automobile sled. No. 1,204,807; Nov. 14; Gaz. vol. 232; p. 469.

Madden, Edward, Amsterdam, N. Y. Mixing-valve. No. 1,204,047; Nov. 7; Gaz. vol. 232; p. 174.
Maddock, Harold S., assignor to Thomas Maddock's Sons Company, Trenton, N. J. Water-closet. No. 1,204,048; Nov. 7; Gaz. vol. 232; p. 174.
Magee, Chauncey L. C., assignor to Federal Steel Fixture Company, Chicago, Ill. Metal shelving. No. 1,204,174; Nov. 7; Gaz. vol. 232; p. 218.
Magin, August, Rochester, N. Y. Shock-absorber. No. 1,205,368; Nov. 21; Gaz. vol. 232; p. 703.
Magin, John G., assignor to Henry Conolly Company, Rochester, N. Y. Loose-leaf binder. No. 1,205,369; Nov. 21; Gaz. vol. 232; p. 704.
Magne, Henry C., Garces, Ariz. Cooling means for internal-combustion engines. No. 1,204,893; Nov. 14; Gaz. vol. 232; p. 498.
Magnuson, Alfred V., assignor to E. M. and H. A. Pridmore, Chicago, Ill. Molding-machine. No. 1,204,581; Nov. 14; Gaz. vol. 232; p. 392.
Maguire, Patrick J., and P. R. Goppoldt, Los Angeles, Cal. Reinforced-concrete building construction. No. 1,205,465; Nov. 21; Gaz. vol. 232; p. 737.
Maher, Solomon, North Adams, Mass. Elevator safety-stop. No. 1,206,566; Nov. 28; Gaz. vol. 232; p. 1150.
Mahla, Charles A., Jersey City, N. J., assignor to P. G. Hammar, New York, N. Y. Alarm for boxes and other receptacles. No. 1,206,011; Nov. 28; Gaz. vol. 232; p. 961.
Mail-o-meter Company. (See Straight, Bennett D., assignor.)
Mailhot, Joseph H., Detroit, Mich. Steam-trap. No. 1,203,639; Nov. 7; Gaz. vol. 232; p. 30.
Maison, Harry. (See Davey and Maison.)
Make-A-Motor Truck Company. (See Irwin and Swem, assignors.)
Makinen, Karl. (See Jarvi and Makinen.)
Malcik, John A., Cistern, Tex. Hay-rack. No. 1,204,372; Nov. 7; Gaz. vol. 232; p. 285.
Malich, Frank T., Akron, Ohio. Rail-joint. No. 1,205,236; Nov. 21; Gaz. vol. 232; p. 661.
Malicki, John, Amsterdam, N. Y. Combined cigarette and match box. No. 1,203,640; Nov. 7; Gaz. vol. 232; p. 31.
Malina, Frank J., Wilmington, Del. Trigger-locking device for automatic tools. No. 1,205,237; Nov. 21; Gaz. vol. 232; p. 661.
Malinak, Jan, Perth Amboy, N. J. Car-starter. No. 1,203,889; Nov. 7; Gaz. vol. 232; p. 119.
Malloch, Sidney R. M., Philadelphia, Pa. Non-refillable bottle. No. 1,205,912; Nov. 21; Gaz. vol. 232; p. 891.
Malloy, Edward T., *et al.* (See Janzen, Franz, assignor.)
Malm, John A., Diamond, S. D. Vibratory straw-carrier. No. 1,203,760; Nov. 7; Gaz. vol. 232; p. 73.
Maltby, Lewis C., and F. Casey, assignors to The Stone Straw Company, Washington, D. C. Cut-off for straw-making machines. No. 1,205,913; Nov. 21; Gaz. vol. 232; p. 891.
Maltby, Lewis C., assignor to The Stone Straw Company, Washington, D. C. Machine for making artificial straws. No. 1,205,914; Nov. 21; Gaz. vol. 232; p. 892.
Mamel, William W., Sr., assignor to G. E. Haring, New York, N. Y. Machine for pitting fruit. No. 1,204,175; Nov. 7; Gaz. vol. 232; p. 218.
Manaresi, Francesco, Florence, Italy. Sugar-dispensing cabinet. No. 1,206,012; Nov. 28; Gaz. vol. 232; p. 961.
Manges, Burton, Imler, Pa. Mail-box. No. 1,206,340; Nov. 28; Gaz. vol. 232; p. 1075.
Manly, Charles M., Freeport, N. Y. Variable-speed power-transmitting mechanism. No. 1,206,453; Nov. 28; Gaz. vol. 232; p. 1111.
Manning, Frederick A., and F. D. Frazee, Springfield, Ill. Awning-arm. No. 1,204,582; Nov. 14; Gaz. vol. 232; p. 393.
Mannon, Francis S., Newport, Oreg. Mowing-machine. No. 1,203,890; Nov. 7; Gaz. vol. 232; p. 120.
Manogue, William T., and C. F. Schroeder, deceased; L. E. Fricke, executor, assignors to Schroeder Headlight Company, Evansville, Ind. Regulator for lighting systems. No. 1,206,567; Nov. 28; Gaz. vol. 232; p. 1150.
Manser, Harry. (See Poirier, Arthur F., assignor.)
Manson, Donald M., Hamilton, Ontario, Canada. Phonograph. No. 1,206,013; Nov. 28; Gaz. vol. 232; p. 962.
Manson, Ray H., assignor to The Garford Manufacturing Company, Elyria, Ohio. Circuit-controller. No. 1,203,641; Nov. 7; Gaz. vol. 232; p. 31.
Manson, Ray H., assignor to The Garford Manufacturing Company, Elyria, Ohio. Push-button circuit-controller. No. 1,206,454; Nov. 28; Gaz. vol. 232; p. 1111.
Marchetti, Ivo, Boston, Mass. Stove. No. 1,206,455; Nov. 28; Gaz. vol. 232; p. 1112.
Marcroft, William, Cranston, R. I., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass. Thread-guide for textile-machines. No. 1,204,294; Nov. 7; Gaz. vol. 232; p. 258.
Marcus, Israel, Winthrop, Mass. Ground-connectgr. No. 1,205,374; Nov. 21; Gaz. vol. 232; p. 706.
Marden Orth & Hastings Co. (See Peacock, Samuel, assignor.)
Margetts, William H., Toronto, Ontario, Canada. Shading-machine. No. 1,203,761; Nov. 7; Gaz. vol. 232; p. 74.
Marin, Alexandre J., Laeken, (near Brussels,) Belgium. Making a detonating explosive. No. 1,206,456; Nov. 28; Gaz. vol. 232; p. 1112.
Marinier, Gilbert P., Pontiac, Mich. Farm implement. No. 1,206,568; Nov. 28; Gaz. vol. 232; p. 1151.
Mark Manufacturing Company. (See Dies, Charles A., assignor.)
Marko, John J., Detroit, Mich. Pump for pneumatic carpet-cleaners. No. 1,205,001; Nov. 14; Gaz. vol. 232; p. 539.
Markowitz, Samuel, New York, N. Y. Device for opening eggs. No. 1,203,891; Nov. 7; Gaz. vol. 232; p. 120.
Markwort, Louis W. (See Tucker and Markwort.)
Marlatt, Lester, Atchison, Kans. Combination can-cover loosener and dope-paddle. No. 1,205,466; Nov. 21; Gaz. vol. 232; p. 737.
Marsh, Clarence S. (See Marsh, Roy S., assignor.)
Marsh, Elizabeth H., Reedville, Va. Cake-plate. No. 1,206,569; Nov. 28; Gaz. vol. 232; p. 1151.
Marsh, Francis M., Atlanta, Ga. Removable brace-bar for type-writer tables. No. 1,206,570; Nov. 28; Gaz. vol. 232; p. 1151.
Marsh, Roy S., Chicago, assignor of one-fourth to C. S. Marsh, Evanston, Ill. Lock. No. 1,205,370; Nov. 21; Gaz. vol. 232; p. 704.
Marshall, Eliza T., executrix. (See Marshall, John T.)
Marshall, George, Fresno, Cal. Nail-stripper. No. 1,204,678; Nov. 14; Gaz. vol. 232; p. 427.
Marshall, George, Waupun, Wis., assignor to Paramount Knitting Company, Chicago, Ill. Singeing-machine. No. 1,205,099; Nov. 14; Gaz. vol. 232; p. 570.
Marshall, Gordon E., San Francisco, Cal. Siren. No. 1,205,371; Nov. 21; Gaz. vol. 232; p. 705.
Marshall, Holmes, East Cleveland, Ohio. Seal-lock for safety-deposit boxes. No. 1,205,238; Nov. 21; Gaz. vol. 232; p. 662.
Marshall, John T., deceased; E. T. Marshall, executrix, Metuchen, N. J., assignor to General Electric Company. Exhausting lamps. No. 1,205,002; Nov. 14; Gaz. vol. 232; p. 539.
Marston, Howard F., and J. J. O'Connell, Dayton, Ohio. Window-envelop. No. 1,205,100; Nov. 14; Gaz. vol. 232; p. 571.
Martijn, Hendrikus J. (See Van Calcar, Ellerman, and Martijn.)
Martin, Elizabeth M., Sterling, Ill. Curtain hanging and adjusting device. No. 1,205,372; Nov. 21; Gaz. vol. 232; p. 705.
Martin, William E., Stamford, England. Means for driving agricultural implements. No. 1,204,808; Nov. 14; Gaz. vol. 232; p. 469.
Martinson, Alfred, Rock Island, Ill. Sickle-bar holder. No. 1,204,295; Nov. 7; Gaz. vol. 232; p. 258.
Marty, Bartley N., Lakewood, Ohio. Automatic base-ball-pitching machine. No. 1,204,468; Nov. 14; Gaz. vol. 232; p. 353.
Martz, Benjamin F. and J., Indianapolis, Ind. Shock-absorber. No. 1,205,373; Nov. 21; Gaz. vol. 232; p. 705.
Martz, Joseph. (See Martz, Benjamin F. and J.)
Marvel Carbureter Company. (See Redmond, Albert G., assignor.)
Marvin, Joseph B., Malcom, Iowa. Valve for internal-combustion engines. No. 1,206,237; Nov. 28; Gaz. vol. 232; p. 1037.
Mason, Charles T., Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J. Ignition-dynamo. No. 1,205,770; Nov. 21; Gaz. vol. 232; p. 844.
Mason, Hugh B., assignor of one-half to B. Gay, San Bernardino, Cal. Extension running-board for automobiles. No. 1,206,571; Nov. 28; Gaz. vol. 232; p. 1151.
Mason, Robert G., Brooklyn, N. Y. Automobile-radiator. No. 1,205,771; Nov. 21; Gaz. vol. 232; p. 844.
Massey, Carl F. (See Hart and Massey.)
Massicotte, Louis G., Providence, R. I. Screw-driver. No. 1,206,014; Nov. 28; Gaz. vol. 232; p. 962.
Mastin, Charles I. E., Midland Park, N. J. Gasket. No. 1,203,762; Nov. 7; Gaz. vol. 232; p. 74.
Maszczyk, Alexander, Milwaukee, Wis. Awl. No. 1,205,003; Nov. 14; Gaz. vol. 232; p. 539.
Matheny, John F., Valley Park, Mo. Check-row planter. No. 1,204,800; Nov. 14; Gaz. vol. 232; p. 470.
Matheson, Archibald J, Virgelle, Mont. Transmission-gearing. No. 1,203,892; Nov. 7; Gaz. vol. 232; p. 120.
Matsui, Tashiro, Wenatchee, Wash. Fountain-pen. No. 1,205,004; Nov. 14; Gaz. vol. 232; p. 540.
Matthews, David J., Seattle, Wash. Dispensing device. No. 1,203,763; Nov. 7; Gaz. vol. 232; p. 74.
Matthews, Joseph, E. W. Freeman, and W. H. S. Bateman, Philadelphia, Pa. Sash construction. No. 1,205,239; Nov. 21; Gaz. vol. 232; p. 662.
Maupin, William H., and D. R. Lobdell, Lemmon, S. D. Internal-combustion engine. No. 1,204,296; Nov. 7; Gaz. vol. 232; p. 258.
Maxson, Urva D., Portland, Oreg. Convertible front tractor guide-wheel. No. 1,206,572; Nov. 28; Gaz. vol. 232; p. 1152.
Maxwell, George S., assignor of one-half to M. A. Bayles, Washington, D. C., and W. F. Hale, Nokesville, Va. Automobile-wheel traction device. No. 1,203,764; Nov. 7; Gaz. vol. 232; p. 75.
Maxwell Motor Company. (See Kelly, William, assignor.)
Maxwell, Ralph S., assignor of one-half to J. M. Parker, Portland, Oreg. Automobile-truck. No. 1,204,049; Nov. 7; Gaz. vol. 232; p. 175.
May, Jacob, Richmond Hill, N. Y. Skirt-measure. No. 1,205,240; Nov. 21; Gaz. vol. 232; p. 662.

Mayer, Augustine, Tiffin, Ohio. Tone-controller. No. 1,205,915; Nov. 21; Gaz. vol. 232; p. 892.
Mayer Brothers Company. (See Mayer and Bye, assignors.)
Mayer, Louis, and E. A. Bye, assignors to Mayer Brothers Company, Mankato, Minn. Combined fan and pump for self-propelled vehicles. No. 1,206,787; Nov. 28; Gaz. vol. 232; p. 1226.
Mayer, Waldemar F. (See Sundh and Mayer.)
Mayo, Benjamin F., Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Splitting-machine. No. 1,206,015; Nov. 28; Gaz. vol. 232; p. 962.
Mayo, Junius E., assignor to The Spirella Company, Meadville, Pa. Apparatus for bending wire. No. 1,205,005; Nov. 14; Gaz. vol. 232; p. 540.
Mayo, Junius E., and T. F. Charlton, assignors to The Spirella Company, Meadville, Pa. Wire-bending machine. No. 1,205,006; Nov. 14; Gaz. vol. 232; p. 540.
Mayzel, John B., Passaic, N. J. Boltless rail-joint connection. No. 1,205,129; Nov. 14; Gaz. vol. 232; p. 581.
Masur, Samuel, assignor to C. Ahrhart, Jr., Buffalo, N. Y. Electric-circuit controller. No. 1,205,467; Nov. 21; Gaz. vol. 232; p. 737.
McArthur, Warren, Chicago, Ill. Lantern. No. 1,204,801; Nov. 14; Gaz. vol. 232; p. 467.
McCabe, Ira E., Lexington, Nebr. Rope-fastener. No. 1,206,008; Nov. 28; Gaz. vol. 232; p. 960.
McCallum, Minnie E. (See Raffel, Adolph, assignor.)
McCamus, Samuel, Spokane, Wash. Rail-tie. No. 1,206,450; Nov. 28; Gaz. vol. 232; p. 1109.
McCann, Ronald A., New Brunswick, N. J., assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling. No. 1,204,998; Nov. 14; Gaz. vol. 232; p. 537.
McCarty, John P., Oakland, and K. Douglas, San Francisco, assignors, by mesne assignments, to Universal Wireless Telephone and Telegraph Company, Los Angeles, Cal. Method and apparatus for wireless telephony. No. 1,205,365; Nov. 21; Gaz. vol. 232; p. 702.
McCarty, Thomas A., assignor of one-half to W. G. Chandler, Washington, D. C. Rolling-pin. No. 1,206,562; Nov. 28; Gaz. vol. 232; p. 1148.
McCaskey, John L., assignor to Pittsburgh Game & Novelty Company, Pittsburgh, Pa. Game apparatus. No. 1,204,291; Nov. 7; Gaz. vol. 232; p. 257.
McCaslin, Harry M., assignor to American La France Fire Engine Company, Inc., Elmira, N. Y. Fire-extinguisher. No. 1,204,040; Nov. 7; Gaz. vol. 232; p. 171.
McCaslin, Harry M., assignor to American La France Fire Engine Company, Inc., Elmira, N. Y. Hand fire-extinguisher. No. 1,204,041; Nov. 7; Gaz. vol. 232; p. 171.
McCaulley, Charles G., Washington, D. C. Splice-bar for rail-joints. No. 1,205,647; Nov. 21; Gaz. vol. 232; p. 803.
McClellon, James M. (See Doherty, Harry B., assignor.)
McCloud, Edward H. (See Brunst and McCloud.)
McCloud, Edward H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Fire-shutter. No. 1,204,802; Nov. 14; Gaz. vol. 232; p. 467.
McClung, Hubert W., and J. C. Eaheart, Richmond, Va. Switch-operating mechanism. No. 1,205,909; Nov. 21; Gaz. vol. 232; p. 890.
McClure, Fred C. (See McClure, John H., assignor.)
McClure, John H., assignor of one-half to F. C. McClure, Detroit, Mich. Combined switch and box lock. No. 1,204,042; Nov. 7; Gaz. vol. 232; p. 172.
McColl, Francis P., St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill. Apparatus for soldering cans. No. 1,204,170; Nov. 7; Gaz. vol. 232; p. 216.
McComb, William E., Cameron, Mo. Feed-water purifier. No. 1,204,370; Nov. 7; Gaz. vol. 232; p. 284.
McCord, Arthur W., Washington, D. C. Rapid adjustable wrench. No. 1,204,999; Nov. 14; Gaz. vol. 232; p. 538.
McCord Manufacturing Company. (See Hawkins, Bert H., assignor.)
McCormick, Edmund B., Manhattan, Kans. Torsion-dynamometer. No. 1,204,292; Nov. 7; Gaz. vol. 232; p. 257.
McCormick, Frank L., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Tracker-board. No. 1,205,231; Nov. 21; Gaz. vol. 232; p. 659.
McCourt, John J., Bloomfield, Nebr. Stock drinking-fountain. No. 1,205,232; Nov. 21; Gaz. vol. 232; p. 659.
McCracken, Willie R. (See Wilson and McCracken.)
McCrudden, Joseph E., Providence, R. I. Automatic bead stringing and linking machine. No. 1,205,233; Nov. 21; Gaz. vol. 232; p. 660.
McCulloch, Harry G., assignor to Stover Manufacturing Company, Freeport, Ill. Ensilage-cutter. No. 1,204,579; Nov. 14; Gaz. vol. 232; p. 392.
McCulloch, Josie M., Chula Vista, Cal. Cooking utensil. No. 1,205,461; Nov. 21; Gaz. vol. 232; p. 735.
McCullouch, William H. (See Zarth, Otto, assignor.)
McCullough, Peter A., Pittsburgh, Pa. Fluid-pressure gun. No. 1,204,803; Nov. 14; Gaz. vol. 232; p. 468.
McCurry, Roy A., Pensacola, N. C. Automatic air-coupling. No. 1,205,000; Nov. 14; Gaz. vol. 232; p. 538.
McConnaughy, Walter H., Pittsburgh, Pa. Crumb-collector. No. 1,206,343; Nov. 28; Gaz. vol. 232; p. 1073.
McConnell, Charles D., assignor of one-half to J. M. Bryson, Oskaloosa, Iowa. Automatic hose-reel. No. 1,206,563; Nov. 28; Gaz. vol. 232; p. 1149.
McCue, Peter H., and J. B. Nichols, Seattle, Wash. Can-washing machine. No. 1,206,120; Nov. 28; Gaz. vol. 232; p. 998.
McCulley, William S., Huntsville, Ala. Combined railway-tie and rail-clamp. No. 1,206,344; Nov. 28; Gaz. vol. 232; p. 1073.
McDermott, Albert H. (See Stearns and McDermott.)
McDonald, John C., New York, N. Y. Railway-train-control system. No. 1,205,462; Nov. 21; Gaz. vol. 232; p. 735.
McDonald, John C., New York, N. Y. Railway-train-control system. No. 1,205,463; Nov. 21; Gaz. vol. 232; p. 736.
McDonald, Neil, Jr., Coleman, Mich. Mail-box. No. 1,204,580; Nov. 14; Gaz. vol. 232; p. 392.
McDonough, James, Montclair, N. J. Horseshoe-calk. No. 1,204,043; Nov. 7; Gaz. vol. 232; p. 172.
McDonough, Peter, Braddock, Pa. Fire-alarm apparatus. No. 1,206,564; Nov. 28; Gaz. vol. 232; p. 1149.
McElroy Engine Company. (See McElroy, George E., assignor.)
McElroy, George E., assignor to McElroy Engine Company, Newark, N. J. Slide-valve. No. 1,206,121; Nov. 28; Gaz. vol. 232; p. 998.
McEwen, Willard M. (See Phelps, Edwin P., assignor.)
McFaddin, Harrison D., East Orange, N. J. Lighting-fixture. No. 1,204,044; Nov. 7; Gaz. vol. 232; p. 172.
McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Belt-controlling device. No. 1,204,371; Nov. 7; Gaz. vol. 232; p. 284.
McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Support. No. 1,205,234; Nov. 21; Gaz. vol. 232; p. 660.
McFrederick, L. B., *et al.* (See Fuller, Charles, assignor.)
McGarvey, Edward, Beaver Falls, assignor to The Standard Scale & Supply Company, Pittsburgh, Pa. Automatic scale. No. 1,205,768; Nov. 21; Gaz. vol. 232; p. 843.
McGill, Thurston, Minneapolis, Minn. Dish-basket. No. 1,205,769; Nov. 21; Gaz. vol. 232; p. 844.
McGowan, John W., Cincinnati, Ohio. Umbrella. No. 1,204,804; Nov. 14; Gaz. vol. 232; p. 468.
McGowan, William L., Galt, Mo. Hog-ringer. No. 1,204,045; Nov. 7; Gaz. vol. 232; p. 173.
McGuire, Harold B., Fort Wayne, Ind. Signal for automobiles. No. 1,205,098; Nov. 14; Gaz. vol. 232; p. 570.
McIntyre, William J., Hartford, Conn. Caster. No. 1,206,009; Nov. 28; Gaz. vol. 232; p. 960.
McKay, John L., assignor of one-half to R. L. Forrest, Minneapolis, Minn. Extension-table. No. 1,206,123; Nov. 28; Gaz. vol. 232; p. 999.
McKay, Nelson L., Walden, N. Y. Sanitary drinking-tube. No. 1,204,171; Nov. 7; Gaz. vol. 232; p. 217.
McKechnie, James, Barrow-in-Furness, assignor to Vickers Limited, London, England. Construction of internal-combustion engines. No. 1,206,722; Nov. 28; Gaz. vol. 232; p. 1201.
McKechnie, James, Barrow-in-Furness, assignor to Vickers Limited, London, England. Means for cooling piston-rods and pistons. No. 1,206,723; Nov. 28; Gaz. vol. 232; p. 1201.
McKibbin, John B., Crafton, assignor of three-eighths to E. J. Sugden, Pittsburgh, Pa. Continuous rolling-mill. No. 1,203,888; Nov. 7; Gaz. vol. 232; p. 119.
McKinney, Robert, assignor of one-half to J. W. Connell, Victoria, British Columbia, Canada. Air-cooled storage-cabinet. No. 1,205,910; Nov. 21; Gaz. vol. 232; p. 890.
McLaughlin, John E., Utica, N. Y. Seam. No. 1,204,046; Nov. 7; Gaz. vol. 232; p. 173.
McLaughlin, Thomas, assignor of one-half to The Hartley Steel Crated Box Company, Saginaw, Mich. Egg tester and delivery box. No. 1,204,172; Nov. 7; Gaz. vol. 232; p. 217.
McLay, Charles, Melville, Saskatchewan, Canada. Wrench. No. 1,205,911; Nov. 21; Gaz. vol. 232; p. 891.
McMeekin, Thomas J., Jacksonville, Fla. Curtain-fastener. No. 1,204,173; Nov. 7; Gaz. vol. 232; p. 217.
McMichiel, Thomas, Purvis, Miss. Bumper-block. No. 1,206,565; Nov. 28; Gaz. vol. 232; p. 1149.
McMillan, Joseph. (See Greenamyer, Clarence V., assignor.)
McMillan, Levi, Wilmington, N. C. Addressing-machine. No. 1,206,345; Nov. 28; Gaz. vol. 232; p. 1074.
McNutt, John F. (See Eddy and McNutt.)
McQuarrie, James L., Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Switch-actuating mechanism. No. 1,204,466; Nov. 14; Gaz. vol. 232; p. 353.
McQuillin, Howard, Chicago, Ill. Dynamo-electric machine. No. 1,203,759; Nov. 7; Gaz. vol. 232; p. 73.
McTernen, Andrew, Andover, Mass. Rubber tread for footwear. No. 1,206,346; Nov. 28; Gaz. vol. 232; p. 1074.
McVey, Samuel J., Belleville, W. Va. Grinding-plate for feed-mills. No. 1,205,366; Nov. 21; Gaz. vol. 232; p. 703.
Meador, Eugene F., Danville, Va. Illuminating apparatus. No. 1,205,916; Nov. 21; Gaz. vol. 232; p. 892.
Meahl, Philip J., Bayonne, N. J. Automatic player-piano. No. 1,204,679; Nov. 14; Gaz. vol. 232; p. 428.
Mechanical Construction Company, The. (See Hanna, William T., assignor.)

Meckbach, Ernst, Opladen, near Cologne, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y. Color-lakes fast to light. No. 1,203,642; Nov. 7; Gaz. vol. 232; p. 31.

Meech, Alfred H., Chatham, N. Y., assignor to Elevator Air Brake Company. Elevator-brake. No. 1,206,350; Nov. 28; Gaz. vol. 232; p. 1076.

Meeder, Herbert L., assignor of one-half to A. Stocker, Denver, Colo. Internal-combustion engine. No. 1,206,016; Nov. 28; Gaz. vol. 232; p. 963.

Mehlfeider, Anton, New York, N. Y., assignor to E. M. Uebelmesser, Bayside, Long Island. Intermittent-motion mechanism. No. 1,205,772; Nov. 21; Gaz. vol. 232; p. 845.

Mehlhope, Clarence E., Chicago, assignor to G. Plamondon, Wheaton, Ill. Clasp. No. 1,206,017; Nov. 28; Gaz. vol. 232; p. 963.

Meinhardt, Frederick A. B. (See Well, Hugo C., assignor.)

Meisel, Francis, assignor to Meisel Press & Manufacturing Company, Boston, Mass. Plate-holding device. No. 1,204,894; Nov. 14; Gaz. vol. 232; p. 499.

Meisel Press & Manufacturing Company. (See Meisel, Francis, assignor.)

Melhardt, Camillo, Starnberg-Munich, Germany. Treating lignite. No. 1,205,007; Nov. 14; Gaz. vol. 232; p. 540.

Mellor, Norman, Philadelphia, Pa. Washer for wall-anchors. No. 1,206,573; Nov. 28; Gaz. vol. 232; p. 1152.

Mercer, Henry H. (See Officer and Mercer.)

Mercer, Joseph E., Indianapolis, Ind. Toilet-paper holder. No. 1,204,810; Nov. 14; Gaz. vol. 232; p. 470.

Merrill, Dimmitt H., Buffalo, assignor of one-half to R. O. Applegate, Sr., Tyler, Tex. Umbrella-support. No. 1,205,917; Nov. 21; Gaz. vol. 232; p. 803.

Merrill, Jesse S., *et al.* (See Moore, David P., assignor.)

Merritt, William J. (See Banta, Merritt, and Lippe.)

Mershon, Frank A., Red Hill, Va. Spring-wheel. No. 1,205,555; Nov. 21; Gaz. vol. 232; p. 768.

Mesinger, Frederick, New York, N. Y. Saddle-top. No. 1,205,241; Nov. 21; Gaz. vol. 232; p. 662.

Messinger, George M., Mechanicsburg, Pa. Shock-support. No. 1,205,556; Nov. 21; Gaz. vol. 232; p. 769.

Metal Package Company. (See Dennis, Charles W., assignor.)

Metals Electro-Recovery Company. (See Holland, Charles E., assignor.)

Metallurgical Engineering & Process Corporation. (See Robinson, Cyrus, assignor.)

Metzger, John, Los Angeles, assignor of one-half to O. G. Norquist, Huntington Park, Los Angeles, Cal. Feed-hopper. No. 1,205,557; Nov. 21; Gaz. vol. 232; p. 769.

Metzger, Richard. (See Bally and Metzger.)

Meyer, John W., Wilmette, Ill. Metal toy. No. 1,205,101; Nov. 14; Gaz. vol. 232; p. 571.

Meyer, Oswald, Jersey City, N. J. Embroidery-machine fabric-holder. No. 1,205,468; Nov. 21; Gaz. vol. 232; p. 738.

Meyers, Albert J., assignor to E. V. Meyers, Kansas City, Kans. Contents-ejector for boxes. No. 1,206,124; Nov. 28; Gaz. vol. 232; p. 999.

Meyers, Charles L., Jersey City, N. J. Envelop. No. 1,206,351; Nov. 28; Gaz. vol. 232; p. 1076.

Meyers, Edith V. (See Meyers, Albert J., assignor.)

Meyers, Hoy A., Edon, Ohio. Container. No. 1,204,050; Nov. 7; Gaz. vol. 232; p. 175.

Meyers, John H., Grand Island, Nebr. Spool-holder. No. 1,204,680; Nov. 14; Gaz. vol. 232; p. 428.

Michaels, Frank L., Covington, Ky. Vehicle-light-controlling mechanism. No. 1,205,102; Nov. 14; Gaz. vol. 232; p. 571.

Michaud, John C., Springfield, Mass. Clothes-drier. No. 1,205,773; Nov. 21; Gaz. vol. 232; p. 845.

Michel, Walter H., Passaic, N. J. Propeller-lifter. No. 1,204,895; Nov. 14; Gaz. vol. 232; p. 499.

Michelsen, Charles. (See Eldridge and Michelsen.)

Middendorf, Karl H., J. M. Davis, Omaha, Nebr., and O. G. Bowen, Kansas City, Mo. Method of and apparatus for concrete construction. No. 1,206,242; Nov. 21; Gaz. vol. 232; p. 663.

Middlekauff, Victor E., assignor to W. H. Reisner Manufacturing Company, Hagerstown, Md. Electromagnetic relay. No. 1,204,469; Nov. 14; Gaz. vol. 232; p. 354.

Mieden, Adam, Reno, Nev. Clip. No. 1,204,373; Nov. 7; Gaz. vol. 232; p. 285.

Miles, Charles H., assignor to Motor Equipment Company, Fort Worth, Tex. Piston-packing. No. 1,205,558; Nov. 21; Gaz. vol. 232; p. 770.

Millbourn, James, assignor to Gas Engine & Power Co. and Charles L. Seabury & Co., Consolidated, New York, N. Y. Hydrocarbon-burner. No. 1,204,051; Nov. 7; Gaz. vol. 232; p. 175.

Millener, Frederick H., Omaha, Nebr. Apparatus for space transmission of energy. No. 1,205,409; Nov. 21; Gaz. vol. 232; p. 738.

Millener, Frederick H., Omaha, Nebr. Apparatus for wireless transmission of energy. No. 1,206,352; Nov. 28; Gaz. vol. 232; p. 1076.

Millener, Frederick H., Omaha, Nebr. Antenna and support therefor for use in wireless telegraph or telephone systems. No. 1,206,353; Nov. 28; Gaz. vol. 232; p. 1076.

Miller, Charles B., Meriden, assignor to Berbecker & Rowland Manufacturing Company, Waterville, Conn. Curtain-rod bracket. No. 1,203,765; Nov. 7; Gaz. vol. 232; p. 75.

Miller, Daniel L., Monroeton, Pa. Hoist. No. 1,204,470; Nov. 14; Gaz. vol. 232; p. 354.

Miller, Edward J., Jennings, assignor to St. Louis Screw Company, St. Louis, Mo. Electroplating-machine. No. 1,206,122; Nov. 28; Gaz. vol. 232; p. 999.

Miller, Ellis D., Berkeley, assignor to National Paper Products Company, San Francisco, Cal. Lock for paper-containers. No. 1,204,811; Nov. 14; Gaz. vol. 232; p. 470.

Miller, Ferdinand, Seattle, Wash. Tree-scaffold. No. 1,206,574; Nov. 28; Gaz. vol. 232; p. 1152.

Miller, George O., North Tonawanda, N. Y. Valve. No. 1,203,766; Nov. 7; Gaz. vol. 232; p. 75.

Miller, Harvey L., assignor to C. W. Parker, Leavenworth, Kans. Sectional platform for carousels. No. 1,204,681; Nov. 14; Gaz. vol. 232; p. 428.

Miller, Henry, Washington, Pa. Fulcrum-shifting device for glass-ladles. No. 1,204,583; Nov. 14; Gaz. vol. 232; p. 393.

Miller, James P. (See Kephart and Miller.)

Miller, Joseph J., Duluth, Minn. Lawn-sprinkler. No. 1,204,297; Nov. 7; Gaz. vol. 232; p. 259.

Miller, Mark R., Charleston, and G. L. Dibble, Florence, S. C. Track-sanding apparatus for locomotives. No. 1,205,018; Nov. 21; Gaz. vol. 232; p. 893.

Miller, Otis A., Lawton, Okla. Automatic hydraulic treating-table. No. 1,205,649; Nov. 21; Gaz. vol. 232; p. 803.

Miller Rubber Company, The. (See Denman, Walter R., assignor.)

Miller, William G., Toronto, Ontario, Canada. Sink. No. 1,205,650; Nov. 21; Gaz. vol. 232; p. 803.

Millet, Charles W., New Hartford, N. Y. Caster-wheel. No. 1,205,559; Nov. 21; Gaz. vol. 232; p. 770.

Millican, Claude E., Rome, Ga. Picture-frame. No. 1,203,893; Nov. 7; Gaz. vol. 232; p. 120.

Milligan, John F., New York, N. Y., assignor to Automatic Coinwrapping Company. Feed-roll clutch. No. 1,203,804; Nov. 7; Gaz. vol. 232; p. 121.

Mills, Chester B., East McKeesport, and J. P. Nikonow, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company. Wheel-brake. No. 1,204,471; Nov. 14; Gaz. vol. 232; p. 354.

Mills, Samuel, Cleveland, Ohio. Rodent-trap. No. 1,204,472; Nov. 14; Gaz. vol. 232; p. 355.

Mills, Silas B., Baltimore, Md. Spectacles or other vision-glass. No. 1,206,457; Nov. 28; Gaz. vol. 232; p. 1112.

Milutin, John, Alta Loma, Tex. Envelop. No. 1,206,125; Nov. 28; Gaz. vol. 232; p. 1000.

Milwaukee Dairy Supply Manufacturing Company. (See Strandt, Gustav, assignor.)

Milwaukee Optical Manufacturing Company. (See Ingold, Carl F., assignor.)

Minar, David Q., Upland, Cal. Fireless cooking utensil. No. 1,205,919; Nov. 21; Gaz. vol. 232; p. 894.

Miner, William H. (See Copony, Alfred, assignor.)

Miner, William H. (See Johnson, George A., assignor.)

Miner, William H. (See O'Connor, John F., assignor.)

Mingle, William J., Lancaster, Pa., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio. Weighing-scale. No. 1,205,248; Nov. 21; Gaz. vol. 232; p. 663.

Mircs Fuel Oil Equipment Company. (See Scrimgeour, William, assignor.)

Mire, Joseph C., Dreyfus, La. Attachment for cultivators. No. 1,204,298; Nov. 7; Gaz. vol. 232; p. 259.

Mischonsniky, Simon. (See Zollinger and Mischonsniky.)

Mitchell, Alexander I., assignor to National Toy Company, Boston, Mass. Puzzle. No. 1,204,382; Nov. 7; Gaz. vol. 232; p. 288.

Mitchell, Avery A. (See Smith and Mitchell.)

Mitchell, Charles E., Stockton, Cal. Signal apparatus. No. 1,205,244; Nov. 21; Gaz. vol. 232; p. 664.

Mitchell, David C., Pittsburgh, Pa. Train-pipe valve. No. 1,204,176; Nov. 7; Gaz. vol. 232; p. 219.

Mitchell, Edwin C., De Quincy, La. Cattle-guard for railways. No. 1,205,470; Nov. 21; Gaz. vol. 232; p. 739.

Mitchell, Harrison J., assignor to P. B. Yates Machine Company, Beloit, Wis. Side-head hold-over and chip-breaker-lift structure. No. 1,205,651; Nov. 21; Gaz. vol. 232; p. 804.

Mitchell, J. H., *et al.* (See Dudley, Andrew T., assignor.)

Mitchell, Samuel A., Spokane, Wash. Supporting device. No. 1,205,774; Nov. 21; Gaz. vol. 232; p. 846.

Mitchell, Thomas, Melcher, Iowa. Wheel-fender. No. 1,205,471; Nov. 21; Gaz. vol. 232; p. 739.

Mitchell, W. L., *et al.* (See Dudley, Andrew T., assignor.)

Mitsch, John A., Boston, Mass. Vacuum-generator. No. 1,206,126; Nov. 28; Gaz. vol. 232; p. 1000.

Miura, Tomiji, Seattle, Wash. Stylograph. No. 1,205,920; Nov. 21; Gaz. vol. 232; p. 894.

Modlin, Joseph L., Handsom, Va. Water-heater. No. 1,206,127; Nov. 28; Gaz. vol. 232; p. 1000.

Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Needle-clamp for sewing-machines. No. 1,203,895; Nov. 7; Gaz. vol. 232; p. 121.

Moffett, William E. (See Hildebrandt and Moffett.)

Moffitt, Charles W., *et al.* (See Doyle, Clarence V., assignor.)

Mohr, George W., Jersey City, N. J. Feed-water apparatus. No. 1,204,052; Nov. 7; Gaz. vol. 232; p. 176.

Moline Plow Company. (See Dickinson, Harry S., assignor.)

Molloy, Charles L., Chicago, Ill. Suspenders. No. 1,203,643; Nov. 7; Gaz. vol. 232; p. 32.

Molnar, John. (See Kurunczi, Andrew, assignor.)

Moloney, Michael J., Rochester, N. Y. Making welt-shoes. No. 1,206,018; Nov. 28; Gaz. vol. 232; p. 964.

Monnier, Edmond, New York, N. Y. Box-fastener. No. 1,206,458; Nov. 28; Gaz. vol. 232; p. 1113.

Moody, James N., Waynesboro, Va. Tractor. No. 1,204,299; Nov. 7; Gaz. vol. 232; p. 259.

Moody, Slomon W., Mulberry, Fla. Rotary irrigator. No. 1,205,375; Nov. 21; Gaz. vol. 232; p. 706.

Moon-Hopkins Billing Machine Company. (See Hopkins, Hubert, assignor.)

Moon-Hopkins Billing Machine Company. (See Thieme, Otto, assignor.)

Mooney, Edward L., Minneapolis, and Z. E. Russell, assignors to C. W. Warren, Sauk Rapids, Minn. Porch-curtain-weaving machine. No. 1,204,896; Nov. 14; Gaz. vol. 232; p. 500.

Moore, David P., assignor of one-half to J. S. Merrill, Washington, D. C., and one-half to G. H. Draper, District of Columbia. Triple purification-still. No. 1,204,300; Nov. 7; Gaz. vol. 232; p. 260.

Moore, Edward B., Newark, Ohio. Power-pulley. No. 1,206,019; Nov. 28; Gaz. vol. 232; p. 964.

Moore, Edwin R., St. Paul, Minn. Sleeping-car berth. No. 1,205,775; Nov. 21; Gaz. vol. 232; p. 846.

Moore, Frederick H., Melrose, Mass. Toilet-paper package. No. 1,205,472; Nov. 21; Gaz. vol. 232; p. 739.

Moore, George A., Los Angeles, Cal. Gas water-heater. No. 1,205,652; Nov. 21; Gaz. vol. 232; p. 804.

Moore, James A., New York, N. Y. Safety-guard for cutting-machines. No. 1,204,473; Nov. 14; Gaz. vol. 232; p. 355.

Moore, John H., Marsden, Okla., assignor of one-half to E. G. Siggers, Washington, D. C. Hammer. No. 1,206,575; Nov. 28; Gaz. vol. 232; p. 1153.

Moore, Robert S., assignor to Gyro Motor Company, Washington, D. C. Gas-engine. No. 1,203,767; Nov. 7; Gaz. vol. 232; p. 76.

Moore, Samuel E., Williamsville, Ill. Culvert. No. 1,203,768; Nov. 7; Gaz. vol. 232; p. 76.

Moore, William E., Janesville, Wis. Clip for fountain-pens. No. 1,204,053; Nov. 7; Gaz. vol. 232; p. 176.

Morecraft, Alexander, *et al.* (See Koechlein, William B., assignor.)

Moreland, Bertram E., Chicago, Ill. Advertising device. No. 1,204,584; Nov. 14; Gaz. vol. 232; p. 393.

Morén, Hugo, assignor to Aktiebolaget Bofors-Gullspång, Bofors, Sweden. Safety device for shell-fuses. No. 1,205,921; Nov. 21; Gaz. vol. 232; p. 894.

Morgan, Dennis M., Hawarden, Iowa, assignor of one-half to O. E. Hegrem, Minneapolis, Minn. Toilet-paper holder. No. 1,205,245; Nov. 21; Gaz. vol. 232; p. 664.

Morgan, Evan, Loon Lake, assignor of one-half to H. Holland, Spokane, Wash. Boat-motor support. No. 1,205,776; Nov. 21; Gaz. vol. 232; p. 846.

Morgan, Fred B. (See Cavaline, Carrie M., assignor.)

Morgan, Neil E., Hermon, N. Y. Spraying device. No. 1,206,128; Nov. 28; Gaz. vol. 232; p. 1001.

Morgan, Wallace M. (See Wheeler and Morgan.)

Morgan, William H., Alliance, Ohio. Railway-track construction. No. 1,204,474; Nov. 14; Gaz. vol. 232; p. 355.

Morgan & Wright. (See Hibner, John M., assignor.)

Morie, Joseph T. (See Tims and Morie.)

Morrill, Alfred R., Beverly, Mass., assignor to United Shoe Machinery Company. Machine for preparing welting. No. 1,204,897; Nov. 14; Gaz. vol. 232; p. 500.

Morrill, Milton D., Washington, D. C., assignor to Read & Morrill, Inc. Sectional mold for concrete walls, floors, ceilings, &c. No. 1,204,177; Nov. 7; Gaz. vol. 232; p. 219.

Morris, Harold B., Glendale, Cal. Covering material for furniture, &c., and making same. No. 1,203,896; Nov. 7; Gaz. vol. 232; p. 121.

Morris, Harold B., Glendale, Cal. Material for covering furniture, &c., and making it. No. 1,205,376; Nov. 21; Gaz. vol. 232; p. 707.

Morrison, Joseph O., Anderson, Ind. Mechanical counter. No. 1,203,644; Nov. 7; Gaz. vol. 232; p. 32.

Morrison, William, assignor to Vesta Accumulator Company, Chicago, Ill. Centrifugally-regulated power-transmission system. (Reissue.) No. 14,219; Nov. 28; Gaz. vol. 232; p. 1227.

Morrow, Elmer L. (See Kennedy and Morrow.)

Morton, Harry E., Boston, Mass. Vacuum-breaker. No. 1,204,301; Nov. 7; Gaz. vol. 232; p. 260.

Morton, Harry E., Boston, Mass. Vacuum-breaker. No. 1,204,302; Nov. 7; Gaz. vol. 232; p. 261.

Morton, Harry E., Boston, Mass. Combined vacuum-breaker and non-return valve. No. 1,204,303; Nov. 7; Gaz. vol. 232; p. 261.

Moses, Charles, Philadelphia, Pa. Stretcher. No. 1,206,020; Nov. 28; Gaz. vol. 232; p. 964.

Moss, George A., assignor of one-half to G. E. Hartman, Chicago, Ill. Safety-first device. No. 1,204,475; Nov. 14; Gaz. vol. 232; p. 356.

Moss, Lestre R. (See Raby, Isaac N. and P. M., assignors.)

Moss, Louis K., Birmingham, Ala. Draft appliance for plows, &c. No. 1,206,576; Nov. 28; Gaz. vol. 232; p. 1153.

Moss, Sanford A., Lynn, Mass., assignor to General Electric Company. Centrifugal compressor. No. 1,206,577; Nov. 28; Gaz. vol. 232; p. 1153.

Motor Equipment Company. (See Miles, Charles H., assignor.)

Mott, James W., Cresco, Iowa. Headlight-turning mechanism for vehicles. No. 1,203,769; Nov. 7; Gaz. vol. 232; p. 77.

Mott, William R., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Electrode for arc-lamps. No. 1,205,377; Nov. 21; Gaz. vol. 232; p. 707.

Mouck, William E. (See Lewis, Anson F., assignor.)

Mowry, Edward, Sterling, Ill., assignor to International Harvester Company of New Jersey. Shipping-package. No. 1,205,246; Nov. 21; Gaz. vol. 232; p. 664.

Moxham, Arthur J., Wilmington, Del. Gravity liquid separation of iron ores. No. 1,203,897; Nov. 7; Gaz. vol. 232; p. 122.

Moyer, Fredellia H., Euclid Heights Village, Ohio. Mechanical horn. No. 1,204,304; Nov. 7; Gaz. vol. 232; p. 262.

Mueller, August E., assignor of one-third to T. J. Hruby and one-third to J. O. Hruby, Chicago, Ill. Vehicle-wheel tread. No. 1,205,653; Nov. 21; Gaz. vol. 232; p. 804.

Mueller, Otto, Chicago, Ill., assignor of one-half to W. D. Hamer, Indianapolis, Ind. Wire clamp and hanger. No. 1,206,021; Nov. 28; Gaz. vol. 232; p. 965.

Mulrson Label Company. (See Bentley, Robert L., Jr., assignor.)

Muller, Jean L., Sannois, assignor to himself, and J. Bonnet, Paris, France. Machine for manufacturing mantles employed in incandescent lighting. No. 1,206,022; Nov. 28; Gaz. vol. 232; p. 965.

Muller, Paul F. W. (See Lanes, Herman, assignor.)

Mumford, Arthur G., Colchester, England. Feed-water regulator for steam-generators. No. 1,206,238; Nov. 28; Gaz. vol. 232; p. 1038.

Mumm, Bernard J., St. Paul, Minn. Sausage-casing and producing same. No. 1,204,812; Nov. 14; Gaz. vol. 232; p. 470.

Mundy, Edmund, Denton, assignor of one-third to E. O. Hayes and one-third to D. O. Byrnes, Krum, Tex. Power clothes-press. No. 1,205,654; Nov. 21; Gaz. vol. 232; p. 805.

Munroe, Luishes H., Bellingham, Wash. Shoe-fastener. No. 1,205,247; Nov. 21; Gaz. vol. 232; p. 664.

Murdock, Harold R., Naugatuck, Conn., assignor to Rubber Regenerating Company, Vulcanizing. No. 1,204,374; Nov. 7; Gaz. vol. 232; p. 285.

Murphey, Frank P., Decatur, Ill. Supporting and attaching means for railway-rails. No. 1,206,459; Nov. 28; Gaz. vol. 232; p. 1113.

Murphy, Walter P. (See Truman, Percival H., assignor.)

Murray, Chauncey A., Superior, Wyo. Identification-tag. No. 1,205,103; Nov. 14; Gaz. vol. 232; p. 572.

Murray, Francis T., Chicago, Ill. Jar-wrench. No. 1,206,129; Nov. 28; Gaz. vol. 232; p. 1001.

Murray, Francisco J. (See Doerr and Murray.)

Murray, Roland J., Fredericton, New Brunswick, Canada. Locking-rack for Indian clubs and the like. No. 1,204,813; Nov. 14; Gaz. vol. 232; p. 471.

Murray, William A., and W. A. Murray, Jr., assignors to The William A. Murray Spring Company, Cincinnati, Ohio. Spring-seat construction. No. 1,205,777; Nov. 21; Gaz. vol. 232; p. 846.

Mussinan, Oscar, New York, N. Y. Pneumatic-cushion heel. No. 1,203,898; Nov. 7; Gaz. vol. 232; p. 122.

Muther, Lorens. (See Lautenschlager, William F., assignor.)

Mattart, George W. (See Linkletter, Robert, assignor.)

Mutual Specialty Manufacturing Company. (See Holland, Frank G., assignor.)

Myers, Frederick, assignor to Fred Myers Mfg. Co., New York, N. Y. Mixer. No. 1,203,899; Nov. 7; Gaz. vol. 232; p. 122.

Myers, Laura M., Chicago, Ill. Receptacle for lighted cigars. No. 1,204,178; Nov. 7; Gaz. vol. 232; p. 220.

Myers, Laura M., Chicago, Ill. Fruit-peeler. No. 1,204,179; Nov. 7; Gaz. vol. 232; p. 220.

Myers, Louis, New York, N. Y., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn. Machine for sharpening pencils. No. 1,206,460; Nov. 28; Gaz. vol. 232; p. 1114.

Myerson, Simon, Cambridge, Mass. Artificial tooth. No. 1,205,922; Nov. 21; Gaz. vol. 232; p. 895.

Nagy, Michael, Cincinnati, Ohio. Bottle-opening device. No. 1,204,305; Nov. 7; Gaz. vol. 232; p. 262.

Nahabedian, Lucy, New York, N. Y. Combined vest and petticoat. No. 1,204,054; Nov. 7; Gaz. vol. 232; p. 177.

Nash Manufacturing Company. (See Nash, Thomas J., assignor.)

Nash, Russell K., Somerville, assignor to Lamb & Nash Company, Boston, Mass. Corner-bead. No. 1,206,130; Nov. 28; Gaz. vol. 232; p. 1001.

Nash, Thomas J., assignor to Nash Manufacturing Company, Lincoln, Nebr. Steering mechanism. No. 1,206,023; Nov. 28; Gaz. vol. 232; p. 966.

Nash, Thomas J. (See Sharpnack and Nash.)

Nash, Thomas J., assignor to American Aluminum Ware Company, Lincoln, Nebr. Steering-gear attachment. No. 1,203,900; Nov. 7; Gaz. vol. 232; p. 123.
Nash, Thomas J., assignor to Nash Manufacturing Company, Lincoln, Nebr. High-pressure steam-cooker. No. 1,204,055; Nov. 7; Gaz. vol. 232; p. 177.
Nash, Thomas J., assignor to American Aluminum Ware Company, Lincoln, Nebr. Griddle. No. 1,204,682; Nov. 14; Gaz. vol. 232; p. 429.
Nash, Thomas J., assignor to Nash Manufacturing Company, Lincoln, Nebr. Steering-gear attachment. No. 1,204,683; Nov. 14; Gaz. vol. 232; p. 429.
Nathan Manufacturing Company, The. (See Wood, Robert, assignor.)
National Brake & Electric Company. (See Richards, Walter J., assignor.)
National Carbon Company. (See Clark, Emerson L., assignor.)
National Carbon Company. (See Goodwin and Adamski, assignors.)
National Carbon Company. (See Hitzelberger, Gustave F., assignor.)
National Carbon Company. (See Mott, William R., assignor.)
National Carbon Company. (See Rhoades, Lloyd R., assignor.)
National Cash Register Company, The. (See Werner, John A., assignor.)
National Electric Bulletin Corporation. (See Staahlgren, Karl A. A., assignor.)
National Fire Proofing Company. (See Naylor, Harry B., assignor.)
National Lock Company. (See Thulander and Nelson, assignors.)
National Malleable Castings Company, The. (See Baxeley, Arthur J., assignor.)
National Metal Molding Company. (See Gilson, Henry R., assignor.)
National Metal Molding Company. (See Robinson, William C., assignor.)
National Paper Products Company. (See Miller, Ellis D., assignor.)
National Safety Appliance Company, The. (See Sedgwick, Hiram G., assignor.)
National Silver Deposit Ware Co. (See Friedrich, Alfred, assignor.)
National Toy Company. (See Mitchell, Alexander I., assignor.)
National Tube Company. (See Speller, Frank N., assignor.)
National Wharf and Bridge Company, The. (See Collom, Charles F., assignor.)
Naylor, Harry B., assignor to National Fire Proofing Company, Pittsburgh, Pa. Constructing hollow cylindrical tile conduits. No. 1,206,578; Nov. 28; Gaz. vol. 232; p. 1154.
Naylor, Henry A., Valparaiso, Chile. Adjustable fly-wheel. No. 1,204,180; Nov. 7; Gaz. vol. 232; p. 220.
Neal, James H., Cambridge, Mass. Safety device for automobiles. No. 1,204,375; Nov. 7; Gaz. vol. 232; p. 286.
Nebelmesser, Elizabeth M. (See Mehlfelder, Anton, assignor.)
Neely, Samuel L., Longton, Kans. Signaling mechanism for railway-switches. No. 1,205,008; Nov. 14; Gaz. vol. 232; p. 541.
Neeper, Alexander M. (See Whiteside, Robert A., assignor.)
Neerken, Adrian J. (See Watts and Neerken.)
Negstad, Albert L., Arlington, S. D. Automobile-brake. No. 1,205,378; Nov. 21; Gaz. vol. 232; p. 707.
Neidich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Lithographic plate. No. 1,203,770; Nov. 7; Gaz. vol. 232; p. 77.
Nelson, Albert, New York, N. Y. Device for suspending milk-bottles. No. 1,205,655; Nov. 21; Gaz. vol. 232; p. 805.
Nelson, Bernard S., assignor to A. M. Lockett & Co., Ltd., New Orleans, La. Combined strainer and regulating-valve for oil-burners. No. 1,206,354; Nov. 28; Gaz. vol. 232; p. 1077.
Nelson, Carl E., Wilkinsburg, assignor to The Union Switch & Signal Company, Swissvale Pa. Printing-telegraph apparatus. No. 1,205,248; Nov. 21; Gaz. vol. 232; p. 665.
Nelson, Charles E., Los Angeles, Cal. Mechanical movement. No. 1,204,476; Nov. 14; Gaz. vol. 232; p. 356.
Nelson, Charles H., Vulcan, Alberta, Canada. Machine for treating or pickling grain. No. 1,206,239; Nov. 28; Gaz. vol. 232; p. 1039.
Nelson, Ollie T., Seattle, Wash. Boiler. No. 1,205,473; Nov. 21; Gaz. vol. 232; p. 739.
Nelson, Oscar E., Oakland, Nebr. System for indicating the condition of internal-combustion engines. No. 1,205,379; Nov. 21; Gaz. vol. 232; p. 707.
Nelson, Swan A. (See London and Nelson.)
Nelson, Victor B. (See Thulander and Nelson.)
Neuberger, Henry C. (See Bergh, Loebinger, and Neuberger.)
Neve, Martin C. J. (See Hansen and Neve.)
Nevins, Thomas A. (See Benham, Elijah B., assignor.)
New Era Mfg. Co. (See Bunnell, Morton G. assignor.)
New Haven Clock Co. (See Porter, Wilson E., assignor.)
New Idea Spreader Co. (See Synck and Rollman, assignors.)
New Jersey Patent Company. (See Edison, Thomas A., assignor.)
New Jersey Patent Company. (See Gall, Adolph F., assignor.)
New Jersey Zinc Company, The. (See Breyer, Frank G., assignor.)
New Process Specialty Company. (See Wheelock, Carl M., assignor.)
New York Cigarette Machine Company. (See Druckleb and Hemming, assignors.)
Newbigin, Henry T., Newcastle-upon-Tyne, England. Thrust and like bearing. No. 1,205,923; Nov. 21; Gaz. vol. 232; p. 895.
Newcome, Robert B., Amarillo, Tex. Door-locking device. No. 1,205,249; Nov. 21; Gaz. vol. 232; p. 665.
Newhouse, Ray C., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Crushing-roll. No. 1,203,901; Nov. 7; Gaz. vol. 232; p. 123.
Newhouse, Ray C., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Crushing-roll. No. 1,205,474; Nov. 21; Gaz. vol. 232; p. 740.
Newkirk, Nettie A., Roberts, Mont. Hose-supporter. No. 1,204,376; Nov. 7; Gaz. vol. 232; p. 286.
Niagara Alkali Company. (See Walker, James R., assignor.)
Nichols, Elmer H. (See Nichols, Lester R. and E. H.)
Nichols, Elmer P., assignor to Lacene Manufacturing Company, Manchester, N. H. Skiving-machine. No. 1,205,104; Nov. 14; Gaz. vol. 232; p. 572.
Nichols, Emory D., Chicago, Ill. Clasp. No. 1,203,771; Nov. 7; Gaz. vol. 232; p. 77.
Nichols, Ervin L., Roundup, Mont. Clevis. No. 1,206,579; Nov. 28; Gaz. vol. 232; p. 1154.
Nichols, Fredrick Y., Chicago, Ill. Valve. No. 1,204,898; Nov. 14; Gaz. vol. 232; p. 500.
Nichols, George B. (See Gibson, Warren J., assignor.)
Nichols, Joseph R. (See McCue and Nichols.)
Nichols, Lester R. and E. H., Strawberry Point, Iowa. Package-envelop. No. 1,205,250; Nov. 21; Gaz. vol. 232; p. 665.
Nichols, Reefy M., San Francisco, Cal. Shipping-tag. No. 1,203,902; Nov. 7; Gaz. vol. 232; p. 124.
Nichols, Thomas W., Gateshead, England. Valve-actuating mechanism for fluid-pressure motors. No. 1,203,645; Nov. 7; Gaz. vol. 232; p. 32.
Nicholson, John U., Steubenville, Ohio. Manufacturing rough-faced brick. No. 1,204,477; Nov. 14; Gaz. vol. 232; p. 356.
Nickelson, Wilbert, Chicago, Ill. Wood-cutting tool. No. 1,206,461; Nov. 28; Gaz. vol. 232; p. 1114.
Nicoll, Norman G., Newark, N. J., assignor to Rubes Electric Devices Inc. Combination electric lamp and stove. No. 1,205,380; Nov. 21; Gaz. vol. 232; p. 708.
Niebling, Joseph, Woodcliffe Lake, N. J. Filing instrument. No. 1,204,809; Nov. 14; Gaz. vol. 232; p. 501.
Nikonow, John P. (See Mills and Nikonow.)
Nikonow, John P., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Starting and gear-shifting mechanism. No. 1,206,024; Nov. 28; Gaz. vol. 232; p. 966.
Nikonow, John P., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Starting and gear-shifting mechanism. No. 1,206,355; Nov. 28; Gaz. vol. 232; p. 1077.
Noakes, Edward W. and E. W., Jr., Riverside, Ill. Floor-scrubbing machine. No. 1,204,478; Nov. 14; Gaz. vol. 232; p. 356.
Noble, Ethel L. (See Albanese, Giuseppe S., assignor.)
Noble, Jay E. (See Luce, Moses, assignor.)
Noerdlinger, Hugo, Flörsheim-on-the-Main, Germany. Improving the antiseptic, fungicidal, and insecticidal action of tar-oils. No. 1,205,924; Nov. 21; Gaz. vol. 232; p. 895.
Nöhring, Richard C. W., Koswig, Germany. Therapeutically-active substance. No. 1,204,479; Nov. 14; Gaz. vol. 232; p. 357.
Noiseless Typewriter Company, The. (See Anderson, Nils H., assignor.)
Norling, Peter J., Ellensburg, Wash. Ditching-machine. No. 1,205,251; Nov. 21; Gaz. vol. 232; p. 666.
Norman, William W., Hunterville, Mo. Knockdown box. No. 1,205,925; Nov. 21; Gaz. vol. 232; p. 896.
Norquist, Olaf G. (See Metzger, John, assignor.)
Norrid, Abraham D., Hanson, Okla. Washboard. No. 1,205,252; Nov. 21; Gaz. vol. 232; p. 666.
Norris, Henry M., assignor to The Cincinnati-Bickford Tool Company, Cincinnati, Ohio. Gearing. No. 1,204,684; Nov. 14; Gaz. vol. 232; p. 430.
Norris, Marion G., Pond Creek, Okla. Wrench. No. 1,204,480; Nov. 14; Gaz. vol. 232; p. 357.
Norsk Hydro-Elektrisk Kvaelstofaktieselskab. (See Dovle, Carl O. A., assignor.)
Norsk Hydro-elektrisk Kvaelstofaktieselskab. (See Hansen, Bjarne, assignor.)
Norsk Hydro-elektrisk Kvaelstofaktieselskab. (See Holter, Alfred, assignor.)
Norstrand, Hans P. G., assignor to Rathbone, Sard & Company, Albany, N. Y. Stove. No. 1,203,772; Nov. 7; Gaz. vol. 232; p. 78.
Norte, H., Francisco, El Paso, Tex. Projection apparatus. No. 1,204,585; Nov. 14; Gaz. vol. 232; p. 394.
North East Electric Company. (See Halbleib, Edward A., assignor.)
North & Judd Manufacturing Company, The. (See Troop, George W., assignor.)

North, Oliver D., Chelsea, England. Cantaliver-spring such as is used on motor-vehicles. No. 1,205,560; Nov. 21; Gaz. vol. 232; p. 770.
Northway, Morris E., Hartsburg, Mo. Check-row and fertilizing attachment for corn-planting machines. No. 1,204,586; Nov. 14; Gaz. vol. 232; p. 394.
Northwestern Barb Wire Company. (See Dillon, Paul W., assignor.)
Norton, Charles H., New York, N. Y. Fireman's helmet. No. 1,206,356; Nov. 28; Gaz. vol. 232; p. 1078.
Norton, Charles W., assignor to Edison Storage Battery Company, West Orange, N. J. Secondary or storage battery. No. 1,204,481; Nov. 14; Gaz. vol. 232; p. 357.
Norton, Moses G., Los Angeles, Cal. Key-fastener. No. 1,205,009; Nov. 14; Gaz. vol. 232; p. 541.
Norton, Samuel H., assignor to The Spirella Company, Meadville, Pa. Machine for making garment-stays. No. 1,206,240; Nov. 28; Gaz. vol. 232; p. 1039.
Norton, Thomas J., assignor, by mesne assignments, to S. J. Sloan, New York, N. Y. Extensible tablet. No. 1,204,181; Nov. 7; Gaz. vol. 232; p. 221.
Notkins, Abraham L., *et al.* (See Lyons, George W., assignor.)
Notkins, James A., *et al.* (See Lyons, George W., assignor.)
Notkins, Matthew A., *et al.* (See Lyons, George W., assignor.)
Nott, Sydney C., La Grange, Ill. Automatic alarm for dictating-machines. No. 1,206,402; Nov. 28; Gaz. vol. 232; p. 1114.
Nowell, L. M., *et al.* (See Fuller, Charles, assignor.)
Nowosielsky, Stanislaw, New York, N. Y. Lock. No. 1,206,724; Nov. 28; Gaz. vol. 232; p. 1201.
Nuckles, Frank P., Indianapolis, Ind. Automobile-radiator cover. No. 1,206,025; Nov. 28; Gaz. vol. 232; p. 966.
Nusbaum, George W., Takoma Park, Md. Means for preventing the generation of static electricity in moving-picture apparatus. No. 1,206,357; Nov. 28; Gaz. vol. 232; p. 1078.
Nydia Bank Lock Company, The. (See Benham, Edgar M., assignor.)
Nye Tool and Machine Works. (See Benson, John E., assignor.)
Nystrand, Julia, Seattle, Wash. Silverware-polish. No. 1,203,903; Nov. 7; Gaz. vol. 232; p. 124.
O'Brien, John F. (See Simon and O'Brien.)
O'Brien, John J., and J. P. Waggoner, Roanoke, Va. Rail-joint. No. 1,206,253; Nov. 21; Gaz. vol. 232; p. 666.
O'Brien, Michael, assignor to United Railways Company of St. Louis, St. Louis, Mo. Railway appliance. No. 1,206,131; Nov. 28; Gaz. vol. 232; p. 1002.
O'Brien, William S., Kirkland, Wash. Fireplace. No. 1,203,773; Nov. 7; Gaz. vol. 232; p. 78.
O'Connell, John J. (See Marston and O'Connell.)
O'Conner, Fred L., Dorchester, Mass. Drum. No. 1,204,182; Nov. 7; Gaz. vol. 232; p. 221.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Side bearing for railway-cars. No. 1,206,026; Nov. 28; Gaz. vol. 232; p. 967.
O'Leary, Michael, Syracuse, N. Y. Floor connection for closet-bowls and soil-pipes. No. 1,206,580; Nov. 28; Gaz. vol. 232; p. 1154.
O'Neal, John. (See Feninger and O'Neal.)
Oeschger, Walter L., assignor to Retlaw Manufacturing Company, Detroit, Mich. Indicator. No. 1,205,105; Nov. 14; Gaz. vol. 232; p. 572.
Offerman, Joseph P., assignor to Beaver Dam Manufacturing Co., Beaver Dam, Wis. Supporting mechanism for scraping-blades. No. 1,204,306; Nov. 7; Gaz. vol. 232; p. 262.
Officer, Thomas, and H. H. Mercer, Claremont, N. H., assignors, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Stoneworking-machine. No. 1,206,358; Nov. 28; Gaz. vol. 232; p. 1078.
Ogden, James L., Jr., Nauvoo, Ill. Dinner-pail. No. 1,203,774; Nov. 7; Gaz. vol. 232; p. 78.
Ohio Brass Company, The. (See Bolus, Glenn H., assignor.)
Ohlsson, Olof, Södertelje, Sweden. Means for regulating ignition in internal-combustion engines. No. 1,206,359; Nov. 28; Gaz. vol. 232; p. 1079.
Ohnstrand, Enoch, assignor to U. S. Steel Furniture Company, Syracuse, N. Y. Filing drawer or receptacle. (Reissue.) No. 14,220; Nov. 28; Gaz. vol. 232; p. 1228.
Okey, Perry, Columbus, Ohio. Self-starter for automobiles. No. 1,204,814; Nov. 14; Gaz. vol. 232; p. 471.
Oleson, Charles J. (See Tank, August F., assignor.)
Oliver Chilled Plow Works. (See Altgelt, Rudolph J., assignor.)
Oliver, David T., New York, N. Y. Humidor. No. 1,203,646; Nov. 7; Gaz. vol. 232; p. 33.
Oliver, William B., Collingswood, N. J. Device for determining relative geographical locations and the like. No. 1,206,027; Nov. 28; Gaz. vol. 232; p. 967.
Olsen, Robert E., Seattle, Wash. Vehicle. No. 1,206,360; Nov. 28; Gaz. vol. 232; p. 1079.
Olsen, Roy H., assignor to Straube Piano Company, Hammond, Ind. Tone-modulating device for pianos. No. 1,205,561; Nov. 21; Gaz. vol. 232; p. 770.
Omealey, George H., Lake Providence, La. Grain-shocker. No. 1,204,183; Nov. 7; Gaz. vol. 232; p. 221.
Opp, Friedrich. (See Gonsior and Opp.)
Opp, Friedrich. (See Gonsior, Opp, and Frank.)
Opsal, Andrew, Vancouver, British Columbia, Canada. Logging-wire-rope carriage. No. 1,205,778; Nov. 21; Gaz. vol. 232; p. 847.
Opsal, Andrew, assignor to S. Opsal, Vancouver, British Columbia, Canada. Overhead-carrier track-line. No. 1,206,581; Nov. 28; Gaz. vol. 232; p. 1154.
Opsal, Sophy. (See Opsal, Andrew, assignor.)
Orewiler, Ray W., Portland, Oreg. Alarm-augmenting means. No. 1,206,725; Nov. 28; Gaz. vol. 232; p. 1202.
Orner, Frank M., Chaseley, N. D. Plow attachment. No. 1,204,184; Nov. 7; Gaz. vol. 232; p. 221.
Orofino, Domenico, New York, N. Y. Folding table. No. 1,206,582; Nov. 28; Gaz. vol. 232; p. 1155.
Ortengren, Alfred, Brooklyn, N. Y., assignor to E. Christie, Weehawken, N. J. Tractor driving-gear. No. 1,203,647; Nov. 7; Gaz. vol. 232; p. 33.
Orton, Elizabeth T., New York, N. Y. Fender for automobiles. No. 1,205,381; Nov. 21; Gaz. vol. 232; p. 708.
Osgood Bradley Car Company. (See Cory, Wilbur G., assignor.)
Osgood Bradley Car Company. (See Turner, Charles H., assignor.)
Ota, Otomatsu. (See Kawate, Hiyozo, assignor.)
Otey, George S., assignor to The Hesse Envelope Company, Dallas, Tex. Envelop-machine. No. 1,203,904; Nov. 7; Gaz. vol. 232; p. 124.
Otis Elevator Company. (See Bemles, James F., assignor.)
Otis Elevator Company. (See Boyce, John E., assignor.)
Otis Elevator Company. (See Lindquist, David L., assignor.)
Otis Elevator Company. (See Sundh, August, assignor.)
Otis Elevator Company. (See Sundh and Mayer, assignors.)
Otis, Frank H. (See Baird, Robert M., assignor.)
Otte, Otho M., Jamestown, N. Y. Goggles. No. 1,206,132; Nov. 28; Gaz. vol. 232; p. 1002.
Otte, Otho M., Jamestown, N. Y. Goggles. No. 1,206,133; Nov. 28; Gaz. vol. 232; p. 1002.
Otte, Otho M., Jamestown, N. Y. Goggle-frame. No. 1,206,134; Nov. 28; Gaz. vol. 232; p. 1002.
Otte, Otho M., Jamestown, N. Y. Goggle-frame. No. 1,206,135; Nov. 28; Gaz. vol. 232; p. 1003.
Otte, Theo. (See Engel, Clement, assignor.)
Ottenheimer Brothers. (See Peterson, George L., assignor.)
Otto, Frank L., *et al.* (See Piazze, Theodore, assignor.)
Overman, Max C., New York, N. Y. Securing means for vehicle-tires. No. 1,203,648; Nov. 7; Gaz. vol. 232; p. 33.
Oxnard, Henry E., New Bedford, Mass. Expansible chamber. No. 1,205,106; Nov. 14; Gaz. vol. 232; p. 573.
P. B. Yates Machine Company. (See Mitchell, Harrison J., assignor.)
Packard Motor Car Company. (See Loomis, Allen, assignor.)
Paessler, Robert T., Wilkes-Barre, Pa. Shortening composition. No. 1,203,905; Nov. 7; Gaz. vol. 232; p. 125.
Page, Alfred C. (See Booth and Page.)
Page, Arthur A., Albany, N. Y. Pallet for air-operated musical instruments. No. 1,203,775; Nov. 7; Gaz. vol. 232; p. 79.
Palley, John, Springvalley, Ill. Car-axle. No. 1,206,583; Nov. 28; Gaz. vol. 232; p. 1155.
Palmer, James A., Cranston, assignor to Parks Bros. & Rogers, Providence, R. I. Necklace. No. 1,206,584; Nov. 28; Gaz. vol. 232; p. 1155.
Palmer, Lafayette, and A. L. Taylor, Harrisburg, Pa. Hose-clamp. No. 1,205,926; Nov. 21; Gaz. vol. 232; p. 896.
Palmgren, Nils G. (See Betulander and Palmgren.)
Papuga, Vasilj, South Omaha, Nebr. Multiple cartridge. No. 1,203,649; Nov. 7; Gaz. vol. 232; p. 34.
Paramount Hosiery Form Drying Company. (See Collins, George, assignor.)
Paramount Knitting Company. (See Marshall, George, assignor.)
Paramount Knitting Company. (See Randall, Edison E., assignor.)
Parcel Post Scale Co., The. (See Priddy, Emerson B., assignor.)
Parda, Stanley, North Adams, Mass. Bicycle construction. No. 1,205,382; Nov. 21; Gaz. vol. 232; p. 706.
Parent, Charles, Medford, Mass. Elevator-lock. No. 1,204,815; Nov. 14; Gaz. vol. 232; p. 471.
Paridon, Michael, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Automatic stopping and starting mechanism for match-packing machines. No. 1,203,906; Nov. 7; Gaz. vol. 232; p. 125.
Parish, Louis N., *et al.* (See Luther, Clevia J., assignor.)
Park, Henry B., Lagrange, Ga. Sanitary attachment for mouthpieces. No. 1,204,307; Nov. 7; Gaz. vol. 232; p. 262.
Parker, C. W. (See Miller, Harvey L., assignor.)
Parker, Charles W. (See Wittliff and Parker.)
Parker, Charles W., St. Louis, Mo., assignor, by mesne assignments, to F. M. Wittliff, Waco, Tex. Jack for automobiles. No. 1,206,361; Nov. 28; Gaz. vol. 232; p. 1080.
Parker, Clark W., Fulton, N. Y., assignor, by mesne assignments, to J. H. Dunn, Springfield, Mass. Transmission-gearing. No. 1,206,383; Nov. 21; Gaz. vol. 232; p. 709.
Parker, John C., Bala, Pa. Steam-generator. No. 1,205,650; Nov. 21; Gaz. vol. 232; p. 806.

Parker, Julia M. (See Maxwell, Ralph S., assignor.)
Parker, Orrel A., New York, N. Y. Means for securing resilient tires to vehicle-wheels. No. 1,205,657; Nov. 21; Gaz. vol. 232; p. 806.
Parker, Pearl E., Winchester, assignor of one-fourth to H. G. Sickel, Leavenworth county, and one-fourth to J. J. Dold, Johnson county, Kans. Shocker. No. 1,206,726; Nov. 28; Gaz. vol. 232; p. 1202.
Parker, Reginald G. (See Twyman, Parker, and Dalladay.)
Parker, Russell, New York, assignor to Parker, Stearns & Company, Brooklyn, N. Y. Pistol. No. 1,206,727; Nov. 28; Gaz. vol. 232; p. 1203.
Parker Rust Proof Company of America. (See Allen, William H., assignor.)
Parker, Stearns & Company. (See Parker, Russell, assignor.)
Parker, Walter W., Wichita, Kans. Cutting device. No. 1,204,482; Nov. 14; Gaz. vol. 232; p. 858.
Parkes, Edgar L., Busbey, England. Ceiling-rose. No. 1,203,650; Nov. 7; Gaz. vol. 232; p. 34.
Parkinson, Emily, Evanston, Ill. Remedial appliance. No. 1,206,463; Nov. 28; Gaz. vol. 232; p. 1115.
Parks Bros. & Rogers. (See Palmer, James A., assignor.)
Parliman, Frank C., assignor to Yawman & Erbe Mfg. Co., Rochester, N. Y. Filing device for finger-print records. No. 1,206,362; Nov. 28; Gaz. vol. 232; p. 1080.
Parrahm, James N., Kansas City, Mo. Tool for shoemakers. No. 1,206,585; Nov. 28; Gaz. vol. 232; p. 1156.
Parsons, John A., Philadelphia, Pa. Switch. No. 1,206,136; Nov. 28; Gaz. vol. 232; p. 1003.
Parvin, Edward G., Roselle Park, N. J. Electric traction-elevator. No. 1,206,586; Nov. 28; Gaz. vol. 232; p. 1156.
Paschal, Thomas M., San Antonio, Tex. Chemical heater and composition of matter therefor. No. 1,203,776; Nov. 7; Gaz. vol. 232; p. 79.
Passauer, John G., Tionesta, Pa. Expansible bit. No. 1,206,363; Nov. 28; Gaz. vol. 232; p. 1080.
Patented Devices Company. (See Hincz, Hipolit M., assignor.)
Pattee, Edgar, Santa Cruz, Cal. Belt. No. 1,204,816; Nov. 14; Gaz. vol. 232; p. 472.
Patterson, Alexander E., Scranton, Pa. Spring-fitting tool. No. 1,206,187; Nov. 28; Gaz. vol. 232; p. 1004.
Patterson, Lane S. (See Carper and Patterson.)
Patterson-Sargent Company, The. (See Davies, William T., assignor.)
Pattison, Thomas, Santa Clara, Cal. Car-ventilator. No. 1,205,475; Nov. 21; Gaz. vol. 232; p. 740.
Paul, Andrew, and J. A. Smith, Philadelphia, Pa. Foldable stand. No. 1,206,364; Nov. 28; Gaz. vol. 232; p. 1081.
Pauly, Peter, assignor of one-half to A. A. Lienemann, Milwaukee, Wis. Emergency attachment for driving-axles of automobiles and the like. No. 1,206,728; Nov. 28; Gaz. vol. 232; p. 1203.
Payne, Frank H., Erie, Pa. Gas-meter. No. 1,206,365; Nov. 28; Gaz. vol. 232; p. 1081.
Pazandak, Louis A., Minneapolis, Minn. Carbureter. No. 1,205,658; Nov. 21; Gaz. vol. 232; p. 806.
Peacock, Samuel, Philadelphia, Pa., assignor, by mesne assignments, to Marden, Orth & Hastings Co., Inc., New York, N. Y. Producing magnesium compounds. No. 1,205,659; Nov. 21; Gaz. vol. 232; p. 807.
Pearson, Carl E., Lansing, Mich. Ignition apparatus. No. 1,205,010; Nov. 14; Gaz. vol. 232; p. 542.
Pearson, Charles, Chicago, Ill., assignor to International Harvester Company of New Jersey. Pitman connection. No. 1,205,254; Nov. 21; Gaz. vol. 232; p. 666.
Pearson, Charles, Chicago, Ill., assignor to International Harvester Company of New Jersey. Mowing-machine. No. 1,205,255; Nov. 21; Gaz. vol. 232; p. 667.
Pearson, Charles, Chicago, Ill., assignor to International Harvester Company of New Jersey. Nut-lock. No. 1,205,256; Nov. 21; Gaz. vol. 232; p. 667.
Pearson, Fred, Downingtown, and F. M. and H. Kaufman, Philadelphia, Pa. Loom. No. 1,205,963; Nov. 21; Gaz. vol. 232; p. 905.
Peck, Joseph R., assignor to The Platt and Peck Co., New York, N. Y. Child's painting outfit. No. 1,205,779; Nov. 21; Gaz. vol. 232; p. 848.
Peck, Ruth, Minneapolis, Minn. Baby-holder. No. 1,205,584; Nov. 21; Gaz. vol. 232; p. 709.
Peck, Selmeier & Peck. (See Selmeier, John F., assignor.)
Peck, William W. (See White and Peck.)
Peed, Joseph W. (See Sale, Robert A., assignor.)
Peerless Flask and Molding Machine Company, The. (See Wood and Epright, assignors.)
Peffers, Andrew B., Aurora, assignor to Chicago Railway Equipment Company, Chicago, Ill. Brake-head trunnion. No. 1,205,385; Nov. 21; Gaz. vol. 232; p. 710.
Penfield, Raymond C., New York, N. Y. Apparatus for handling bricks in stacked units. No. 1,205,562; Nov. 21; Gaz. vol. 232; p. 771.
Pennsylvania Lawn Mower Works. (See Braun, William P. M., assignor.)
Pepper, Chester L., Chelsea, Mass., assignor to Schutte & Koerting Company, Philadelphia, Pa. Spray-nozzle. No. 1,205,563; Nov. 21; Gaz. vol. 232; p. 771.
Perdayi, Desider E. and W. M., Jersey City, N. J. Cut-out picture. No. 1,205,386; Nov. 21; Gaz. vol. 232; p. 710.
Perdayi, William M. (See Perdayi, Desider E. and W. M.)
Perfect Window Regulator Company. (See Ternstedt, Alvar K., assignor.)
Perfection Manufacturing Company. (See Dinesen, Laurits, assignor.)
Perkins, Julius A., New York, N. Y. Roller-bearing cage. No. 1,205,387; Nov. 21; Gaz. vol. 232; p. 710.
Perlman, Henry, Philadelphia, Pa. Electric pack. No. 1,204,185; Nov. 7; Gaz. vol. 232; p. 222.
Perlman, Louis H., New York, N. Y. Wheel. No. 1,206,138; Nov. 28; Gaz. vol. 232; p. 1004.
Perry, Arthur S., Los Angeles, Cal. Vehicle-signal. No. 1,204,186; Nov. 7; Gaz. vol. 232; p. 222.
Perry, Ray P. (See Woodley and Perry.)
Persons, Gustave C., and S. W. Downs, Greene, Iowa. Stock-waterer. No. 1,205,927; Nov. 21; Gaz. vol. 232; p. 896.
Persons, James O., Norfolk, Va. Non-inflammable waterproofing composition. No. 1,204,056; Nov. 7; Gaz. vol. 232; p. 177.
Peter, John W., Fostoria, Ohio. Wire-holding stand. No. 1,204,308; Nov. 7; Gaz. vol. 232; p. 203.
Peterman, Charles C. and H. L., Stony Brook, N. Y. Disinfectant device. No. 1,206,866; Nov. 28; Gaz. vol. 232; p. 1081.
Peterman, Henry L. (See Peterman, Charles C. and H. L.)
Peters, Albert N., Galena, Mo. Water cooling and distributing apparatus. No. 1,206,241; Nov. 28; Gaz. vol. 232; p. 1039.
Peters, John F., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Polyphase-current-limiting reactance-coil. No. 1,204,377; Nov. 7; Gaz. vol. 232; p. 286.
Peters, John F., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Polyphase reactance-coil. No. 1,204,817; Nov. 14; Gaz. vol. 232; p. 472.
Petersen, Hans, Davenport, Iowa. Burner attachment for linotype-machines. No. 1,205,780; Nov. 21; Gaz. vol. 232; p. 848.
Petersen, Heriuf A. F., Washington, D. C. Antiskidding device for automobiles. No. 1,206,242; Nov. 28; Gaz. vol. 232; p. 1039.
Petersen, John L. (See Anderson and Petersen.)
Peterson, Carl M., Chester, Mont. Muffler. No. 1,203,777; Nov. 7; Gaz. vol. 232; p. 79.
Peterson, Emil J., assignor to Gale Manufacturing Company, Albion, Mich. Marker for planters. No. 1,206,028; Nov. 28; Gaz. vol. 232; p. 968.
Peterson, George L., assignor to Ottenheimer Brothers, Baltimore, Md. Refrigerator show-case. No. 1,206,464; Nov. 28; Gaz. vol. 232; p. 1115.
Peterson, John, Saratoga Springs, N. Y. Irrigating device. No. 1,204,309; Nov. 7; Gaz. vol. 232; p. 263.
Peterson, Lars, Colman, S. D. Wild-oats separator and grain cleaner and grader. No. 1,206,367; Nov. 28; Gaz. vol. 232; p. 1082.
Peterson, Lewis, Madrid, Iowa. Adjustable ladder. No. 1,206,243; Nov. 28; Gaz. vol. 232; p. 1040.
Peterson, Lewis, Madrid, Iowa. Bicycle-boat. No. 1,206,587; Nov. 28; Gaz. vol. 232; p. 1156.
Peterson, William, assignor of one-half to R. L. Laurence, Prairie City, Oreg. Valve. No. 1,205,660; Nov. 21; Gaz. vol. 232; p. 807.
Petrovitch, Joseph, Toronto, Ontario, Canada. Milk-bottle retainer. No. 1,204,818; Nov. 14; Gaz. vol. 232; p. 472.
Pewther, Judson C., Oswego, Oreg. Animal-trap. No. 1,205,388; Nov. 21; Gaz. vol. 232; p. 711.
Pfeifer, Leo L., assignor to The John W. Brown Manufacturing Company, Columbus, Ohio. Lamp construction. No. 1,204,057; Nov. 7; Gaz. vol. 232; p. 178.
Pfeiffer, Carl A., New York, N. Y. Boat-hull. No. 1,204,058; Nov. 7; Gaz. vol. 232; p. 178.
Pfeil, Elmer C., Fostoria, Ohio, and H. O. Bemisderfer, Hammond, Ind., assignors to Central Railway Signal Company, Pittsburgh, Pa. Time-burning railway signal-fusee. No. 1,205,928; Nov. 21; Gaz. vol. 232; p. 897.
Pfister, Jacob, Rochelle Park, N. J. Pipe-cleaner. No. 1,204,587; Nov. 14; Gaz. vol. 232; p. 395.
Pfluger, Harry M., St. Louis, Mo. Car-truck. (Reissue.) No. 14,221; Nov. 28; Gaz. vol. 232; p. 1229.
Pfluger, Henry. (See Lynch and Pfluger.)
Pflum, Henry P., New York, N. Y. Vehicle. No. 1,205,478; Nov. 21; Gaz. vol. 232; p. 740.
Phelps, Edwin P., Wilmette, assignor to W. M. McEwen, Chicago, Ill. Oscillating fan. No. 1,206,139; Nov. 28; Gaz. vol. 232; p. 1004.
Phenice, Esther A., executrix. (See Phenice, William H.)
Phenice, William H., deceased; E. A. Phenice, executrix, White Hall, Ill. Kitchen-cabinet. No. 1,204,059; Nov. 7; Gaz. vol. 232; p. 178.
Philadelphia Textile Machinery Company, The. (See Ribl, William H., assignor.)
Philippe, August and O., Frankfort-on-the-Main, Germany. Pneumatic variable-tension regulators for musical instruments. No. 1,204,310; Nov. 7; Gaz. vol. 232; p. 263.
Philippe, Oswald. (See Philippe, August and O.)
Phillips-Brinton Company. (See Brinton, William C., Jr., assignor.)

Phillips, Charles E., Indianapolis, Ind. Lawn-mower attachment. No. 1,206,465; Nov. 28; Gaz. vol. 232; p. 1115.
Phillips, Eli W., assignor to American Tool & Machine Company, Boston, Mass. Safety shipping device for work-tables. No. 1,205,947; Nov. 21; Gaz. vol. 232; p. 902.
Phillips, Harry J., Grand Junction, Colo. Fruit grader and packing bench. No. 1,204,685; Nov. 14; Gaz. vol. 232; p. 430.
Phillips, Paul D., and E. G. K. Anderson, assignors to Benjamin Electric Mfg. Company, Chicago, Ill. Lamp-guard. No. 1,205,011; Nov. 14; Gaz. vol. 232; p. 542.
Phillips, Walter M., Portsmouth, Ohio. Attachment for wind instruments. No. 1,204,060; Nov. 7; Gaz. vol. 232; p. 179.
Phoenix Knitting Works. (See Thierfelder, Richard, assignor.)
Piazze, Theodore, New York, assignor of one-fourth to F. L. Otto and one-fourth to E. H. Ruestow, Brooklyn, N. Y. Rudder. No. 1,206,368; Nov. 28; Gaz. vol. 232; p. 1082.
Picher Lead Company. (See Schaeffer and MacGregor, assignors.)
Picken, Mary B., Scranton, Pa. Garment-maker's square. No. 1,204,900; Nov. 14; Gaz. vol. 232; p. 501.
Pickrell, John, Louisville, Ky. Fence-post. No. 1,204,187; Nov. 7; Gaz. vol. 232; p. 222.
Pickup, George E., assignor to The Wehrle Company, Newark, Ohio. Gas-plate. No. 1,203,907; Nov. 7; Gaz. vol. 232; p. 125.
Pieper, Alphonse F. (See Pieper, Oscar H. and A. F.)
Pieper, Oscar H. and A. F., Rochester, N. Y. Fluid-pump. No. 1,203,651; Nov. 7; Gaz. vol. 232; p. 34.
Pietsch, Reinhold, assignor to Foster Brothers Manufacturing Company, Utica, N. Y. Mattress-holder. No. 1,206,369; Nov. 28; Gaz. vol. 232; p. 1082.
Piez, Charles, assignor to Link-Belt Company, Chicago, Ill. Apparatus for quenching, screening, and loading coke. No. 1,206,588; Nov. 28; Gaz. vol. 232; p. 1156.
Pike, Robert D., San Francisco, Cal. Apparatus for bundling carbons. No. 1,206,370; Nov. 28; Gaz. vol. 232; p. 1083.
Pilling, Charles J., Philadelphia, Pa. Pressure-gage. No. 1,204,483; Nov. 14; Gaz. vol. 232; p. 358.
Pinkerman, Ira H. (See Plymale, Howard, assignor.)
Pipahik, Valentine, New York, N. Y. Valve-grinder. No. 1,206,589; Nov. 28; Gaz. vol. 232; p. 1157.
Piqua Machine and Boiler Co., The. (See Simon and O'Brien, assignors.)
Pirog, Stanislaw A., Milwaukee, Wis. Permutation-padlock. No. 1,205,781; Nov. 21; Gaz. vol. 232; p. 848.
Pitt, William P., Independence, assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo. Punching device. No. 1,205,257; Nov. 21; Gaz. vol. 232; p. 667.
Pittsburgh Game & Novelty Company. (See McCaskey, John L., assignor.)
Pittsburgh Meter Company. (See Chrisman, Horace, assignor.)
Place, James F., Glen Ridge, N. J., assignor to American Air-Liquefying Company, New York, N. Y. Separating the gases of air. No. 1,205,477; Nov. 21; Gaz. vol. 232; p. 741.
Place, James F., Glen Ridge, N. J., assignor to American Air-Liquefying Company, New York, N. Y. Apparatus for the separation of the constituents of air. No. 1,205,478; Nov. 21; Gaz. vol. 232; p. 741.
Plamondon, George. (See Mehlhope, Clarence E., assignor.)
Plancon, Emile. (See Keiner and Plancon.)
Plansoen, Louis M., Garfield, N. J. Controlling and alarm device. No. 1,205,661; Nov. 21; Gaz. vol. 232; p. 807.
Platt and Peck Co., The. (See Peck, Joseph R., assignor.)
Plant, Antoine P., assignor of one-half to R. B. Sheridan, Cleveland, Ohio. Carbureter. No. 1,204,901; Nov. 14; Gaz. vol. 232; p. 502.
Plekenpol, Bernard and J. B., Cleveland, Ohio. Refrigerating apparatus. No. 1,204,061; Nov. 7; Gaz. vol. 232; p. 179.
Plekenpol, John B. (See Plekenpol, Bernard and J. B.)
Plowman, Arthur S., Riverdale, and R. C. Daisley, Brooklyn, N. Y. Illuminating-lens. No. 1,205,258; Nov. 21; Gaz. vol. 232; p. 668.
Plunge, Anthony L. W., Grand Rapids, Mich. Signal device. No. 1,204,311; Nov. 7; Gaz. vol. 232; p. 264.
Plymale, Howard, assignor of one-half to I. H. Pinkerman, West Huntington, W. Va. Automatic circuit-closer. No. 1,205,259; Nov. 21; Gaz. vol. 232; p. 668.
Pneumatic Scale Corporation. (See Doble, William H., assignor.)
Pneumatic Scale Corporation Limited. (See Robinson, George A., assignor.)
Pneumatic Surf Coaster Amusement Co. *et al.* (See Gulbrandsen, Michael A., assignor.)
Poage, James F., Kirksville, Mo. Key for pianos, organs, and the like. No. 1,206,729; Nov. 28; Gaz. vol. 232; p. 1204.
Pocock, Augustine J., Dayton, Ohio. Nozzle-valve. No. 1,204,588; Nov. 14; Gaz. vol. 232; p. 395.
Pogue, George D., St. Louis, Mo. Variable-feed pump. No. 1,204,062; Nov. 7; Gaz. vol. 232; p. 179.
Pogue, George D., St. Louis, Mo. Method and apparatus for lubricating machine-cylinders. No. 1,205,662; Nov. 21; Gaz. vol. 232; p. 808.
Pogue, George D., St. Louis, Mo. Speed-governing mechanism for pumping apparatus. No. 1,206,371; Nov. 28; Gaz. vol. 232; p. 1083.
Poirier, Arthur F., Lewiston, assignor of one-half to H. Manser, Auburn, Me. Bearing protector and lubricator. No. 1,205,012; Nov. 14; Gaz. vol. 232; p. 542.
Polhemus, John F., Johnson City, assignor to Ansco Company, Binghamton, N. Y. Finder for cameras. No. 1,206,372; Nov. 28; Gaz. vol. 232; p. 1084.
Poltock, John A., Woodridge, N. J. Holder for wrist-watches. No. 1,204,902; Nov. 14; Gaz. vol. 232; p. 502.
Poore, Fred M. (See Zimmerer, Joseph, assignor.)
Poore, John F., Waco, Tex. Alarm for incubators. No. 1,205,929; Nov. 21; Gaz. vol. 232; p. 897.
Popkess, Michael A., Kansas City, Mo. Machine for treating earthy material with a binder. No. 1,205,948; Nov. 21; Gaz. vol. 232; p. 903.
Porges, Phillip. (See Strache and Porges.)
Porowski, Wladyslaw J., assignor to A. Solomon, New York, N. Y. Glass-beveling machine. No. 1,205,260; Nov. 21; Gaz. vol. 232; p. 668.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Eight-day alarm-clock. No. 1,206,373; Nov. 28; Gaz. vol. 232; p. 1084.
Portheim, Emil von, Prague, Austria-Hungary. Producing oxalic acid. No. 1,205,493; Nov. 21; Gaz. vol. 232; p. 747.
Post, Charles B., New London, Ohio. Automatic controller for steering-gear. No. 1,204,819; Nov. 14; Gaz. vol. 232; p. 473.
Postal Supply and Manufacturing Company, The. (See Fulk, George L., assignor.)
Potter, Joseph C., Indianapolis, Ind. Excavating and conveying apparatus. No. 1,206,374; Nov. 28; Gaz. vol. 232; p. 1084.
Powell, Arthur L., Colorado Springs, Colo. Extension-plug for electric lights, &c. No. 1,206,245; Nov. 28; Gaz. vol. 232; p. 1040.
Powell, Ira A., St. Louis, Mo. Gasket-making machine. No. 1,205,782; Nov. 21; Gaz. vol. 232; p. 849.
Pratt, Arthur D., New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Superheater-boiler. No. 1,206,246; Nov. 28; Gaz. vol. 232; p. 1040.
Pratt, Charles E., Chicago, Ill. Telephone pay-station. No. 1,205,783; Nov. 21; Gaz. vol. 232; p. 849.
Pratt, George L., Atlanta, Ga. Bearing for shafts, spindles, and the like. No. 1,204,063; Nov. 7; Gaz. vol. 232; p. 180.
Pratt, George W., Oakland, Cal. Policeman's nippers and handcuffs combined. No. 1,203,778; Nov. 7; Gaz. vol. 232; p. 79.
Pratt, Howell D., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Means for breaking floating ice into blocks. No. 1,205,013; Nov. 14; Gaz. vol. 232; p. 543.
Preble, Frank H., *et al.* (See Gilliam, Hugh C., assignor.)
Pressler, Joe M., Jacksonville, Tex. Pistonless pump. No. 1,205,014; Nov. 14; Gaz. vol. 232; p. 543.
Preston, James H., Medicine Hat, Alberta, Canada. Tire. No. 1,205,930; Nov. 21; Gaz. vol. 232; p. 897.
Preston, Percy, Denison, Tex. Reed-organ. No. 1,204,064; Nov. 7; Gaz. vol. 232; p. 180.
Preston, Walter G., Omaha, Nebr. Oil-burner. No. 1,205,389; Nov. 21; Gaz. vol. 232; p. 711.
Price, William P., Monte Vista, Colo. Cattle-stanchion. No. 1,205,479; Nov. 21; Gaz. vol. 232; p. 742.
Priddy, Emerson B., Chicago, Ill., assignor to The Parcel Post Scale Co., Logansport, Ind. Parcel-post scale. No. 1,205,564; Nov. 21; Gaz. vol. 232; p. 772.
Pridmore, Emily M., *et al.* (See Magnuson, Alfred V., assignor.)
Pridmore, Henry A., *et al.* (See Magnuson, Alfred V., assignor.)
Priesnits, Joseph, Olmitz, Kans. Rail-joint. No. 1,205,931; Nov. 21; Gaz. vol. 232; p. 898.
Prifold, George, Linwood, Pa., assignor, by mesne assignments, to United Roofing & Manufacturing Company Wilmington, Del. Block-printing machine. No. 1,204,312; Nov. 7; Gaz. vol. 232; p. 264.
Projectophone Company Inc. (See Von Madaler, Katharina, assignor.)
Prumm, Harry, Peabody, Ind. Mouse-proof seed-corn rack. No. 1,205,015; Nov. 14; Gaz. vol. 232; p. 544.
Pullar, James. (See Watson, James, assignor.)
Purcell, John A., and J. Felbelmann, Scranton, Pa. Signaling device. No. 1,204,589; Nov. 14; Gaz. vol. 232; p. 395.
Purdue, Rudolph, Daytona, Fla. Cooling apparatus. No. 1,206,590; Nov. 28; Gaz. vol. 232; p. 1157.
Putnam, Fred A., Melrose, Mass. Printing composition. No. 1,203,779; Nov. 7; Gaz. vol. 232; p. 80.
Pye, Alfred L., assignor to Rochester Folding Box Company, Rochester, N. Y. Feed mechanism. No. 1,204,188; Nov. 7; Gaz. vol. 232; p. 223.
Pyle, Eben W., Wichita Falls, Tex. Dry closet. No. 1,206,591; Nov. 28; Gaz. vol. 232; p. 1157.
Quigg, Charles H., Conshohocken, Pa. Guide for rolling-mills. No. 1,205,932; Nov. 21; Gaz. vol. 232; p. 898.
Quinn, Loraine J., Brantford, Ontario, Canada, assignor to Scott & Williams, Incorporated, Camden, N. J. Knitting-machine. No. 1,204,590; Nov. 14; Gaz. vol. 232; p. 395.
R. Hoe and Co. (See Cruse, Amandus H., assignor.)

R. Neumann Hardware Co., The. (See Isidor, Joseph S., assignor.)
R. Neumann Hardware Co., The. (See Lotz, William A., assignor.)
R. E. Diets Company. (See Throne, Robert P., assignor.)
R. K. Le Blond Machine Tool Company, The. (See Le Blond and Groene, assignors.)
R. L. Moorhead & Co. (See Hearn, George E., assignor.)
R. U. V. Company, The. (See Recklinghausen, Max von, assignor.)
Radiguer, Charles, assignor to The Société Anonyme des Établissements Delaunay-Belleville, St. Denis, France. Internal-combustion engine. No. 1,205,480; Nov. 21; Gaz. vol. 232; p. 742.
Radke, Theodore J., Oak Park, Ill. Automatic water-heater. No. 1,204,313; Nov. 7; Gaz. vol. 232; p. 204.
Radach, Oscar P. G., Milwaukee, Wis. Vegetable-parer. No. 1,205,784; Nov. 21; Gaz. vol. 232; p. 854.
Raffel, Adolph, assignor of one-half to M. E. McCallum, Louisville, Ky. Bed. No. 1,205,933; Nov. 21; Gaz. vol. 232; p. 898.
Rahm, Robert C., and T. V. Wilson, Wyomissing Borough, assignors to Textile Machine Works, Wyomissing, Pa. Braiding and coating mechanism. No. 1,204,065; Nov. 7; Gaz. vol. 232; p. 181.
Rahn, John F., Thornton, assignor of one-half to J. C. Gustafson, Chicago, Ill. Railway-tie. No. 1,206,875; Nov. 28; Gaz. vol. 232; p. 1085.
Rail Joint Company, The. (See Braine, Bancroft G., assignor.)
Railway Tie Corporation, The. (See Hyle and Herman, assignors.)
Rainbow, Frederick L., Dundee, assignor to Illinois Iron & Bolt Company, Carpentersville, Ill. Drill. No. 1,203,780; Nov. 7; Gaz. vol. 232; p. 80.
Rakestraw, Lawrence M. (See Beck and Rakestraw.)
Ramsay, William A., Honolulu, Hawaii. Means for conveying macerated bagasse between sugar-mills. No. 1,204,314; Nov. 7; Gaz. vol. 232; p. 266.
Ramsey, Joseph R., Lykens, Pa. Turbine-blower. No. 1,205,016; Nov. 14; Gaz. vol. 232; p. 544.
Rand, A. H., et al. (See Lucas, John T., assignor.)
Rand, Festus S., Providence, and G. N. Taylor, East Providence, R. I., assignors to Universal Winding Company, Portland, Me. Winding-machine. No. 1,206,565; Nov. 21; Gaz. vol. 232; p. 772.
Randall, Edison E., Kankakee, assignor to Paramount Knitting Company, Chicago, Ill. Machine for sewing looped fabrics. No. 1,205,107; Nov. 14; Gaz. vol. 232; p. 573.
Randall, Edison E., Kankakee, assignor to Paramount Knitting Company, Chicago, Ill. Machine for sewing looped fabrics. No. 1,205,108; Nov. 14; Gaz. vol. 232; p. 574.
Randall, Karl C., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,204,485; Nov. 14; Gaz. vol. 232; p. 358.
Randall, Karl C., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,204,486; Nov. 14; Gaz. vol. 232; p. 359.
Randall, Karl C., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Binding-post. No. 1,206,376; Nov. 28; Gaz. vol. 232; p. 1085.
Randall, Leadore I., Lincoln, Nebr. Signaling device. No. 1,204,591; Nov. 14; Gaz. vol. 232; p. 396.
Randall, Paul D., Fresno, Cal. Combination vehicle suspension-spring. No. 1,205,390; Nov. 21; Gaz. vol. 232; p. 711.
Randall, William H., Kansas City, Kans. Steering-wheel lock. No. 1,206,592; Nov. 28; Gaz. vol. 232; p. 1158.
Raneri, Antonio. (See Chillemi and Raneri.)
Raney, Clemma R., Chicago, Ill., assignor to International Harvester Company of New Jersey. Binding mechanism. No. 1,205,261; Nov. 21; Gaz. vol. 232; p. 669.
Rapid Button Attaching Machine Co. (See Richardson, Charles F., assignor.)
Rassmann, Hugo E., Beaver Dam, Wis. Watering device for cattle. No. 1,204,066; Nov. 7; Gaz. vol. 232; p. 181.
Rast, Felix Q., assignor of one-half to W. R. Foote, New York, N. Y. Vending-machine. No. 1,205,262; Nov. 21; Gaz. vol. 232; p. 669.
Ratekin, Chester A., Kansas City, Mo. Lacing structure. No. 1,205,109; Nov. 14; Gaz. vol. 232; p. 574.
Rathbone, Sard & Company. (See Norstrand, Hans P. G., assignor.)
Rathke, Louis H., Milwaukee, Wis. Bottle-stopper. No. 1,206,017; Nov. 14; Gaz. vol. 232; p. 545.
Ratner, Jerome, New Brunswick, N. J. Support for pressing-irons. No. 1,206,466; Nov. 28; Gaz. vol. 232; p. 1115.
Ratycia, Harry, New York N. Y. Novelty device. No. 1,203,781; Nov. 7; Gaz. vol. 232; p. 81.
Rau, John, Indianapolis, Ind. Charging molds with glass. No. 1,205,018; Nov. 14; Gaz. vol. 232; p. 545.
Ravic, Franz, Osnabrück-Schinkel, Germany. Railway-buffer construction. No. 1,204,189; Nov. 7; Gaz. vol. 232; p. 223.
Raydure, Charles F., Philadelphia, Pa. Burial-vaulting system. No. 1,204,686; Nov. 14; Gaz. vol. 232; p. 430.
Raymond, Augustus, et al. (See Hodges, Cornelius C., assignor.)
Raymond Concrete Pile Company. (See Johnson, Nathan C., assignor.)
Raymond, Frederic M., Cleveland, Ohio. Cable-clamp. No. 1,203,782; Nov. 7; Gaz. vol. 232; p. 81.
Raymond, Samuel W., Adrian, Mich. Service-station equipment. No. 1,204,487; Nov. 14; Gaz. vol. 232; p. 359.
Raymond, Samuel W., Adrian, Mich. Door-operating mechanism. No. 1,204,488; Nov. 14; Gaz. vol. 232; p. 360.
Reach, Erwin, assignor to E. Waldeck & Co., Jersey City, N. J. Picture or sign frame. No. 1,205,785; Nov. 21; Gaz. vol. 232; p. 850.
Reach, George A. (See Dieterle, Frank, assignor.)
Read & Morrill. (See Morrill, Milton D., assignor.)
Ream, John, Jacksonville, Fla. Spar-propeller. No. 1,206,247; Nov. 28; Gaz. vol. 232; p. 1041.
Rechnitzer, Alexander, assignor to Autarit-Gesellschaft m. b. H., Vienna, Austria-Hungary. Calculating-machine. No. 1,205,481; Nov. 21; Gaz. vol. 232; p. 742.
Recklinghausen, Max von, Paris, France, assignor, by mesne assignments, to The R. U. V. Company, Inc. Apparatus for sterilizing liquids by means of ultra-violet rays. No. 1,204,721; Nov. 14; Gaz. vol. 232; p. 441.
Reddell, William, Denver, Colo. Folding-bed attachment for motor-vehicles. No. 1,204,592; Nov. 14; Gaz. vol. 232; p. 396.
Redfield, Casper L., Chicago, Ill. Pneumatic pump. No. 1,205,391; Nov. 21; Gaz. vol. 232; p. 712.
Redmond, Albert G., assignor to Marvel Carbureter Company, Flint, Mich. Carbureter. No. 1,205,263; Nov. 21; Gaz. vol. 232; p. 669.
Reece Button Hole Machine Company, The. (See Klewics, John, assignor.)
Reece, John E. (See Keller and Reece, assignors.)
Reece, Wilson L. (See Keller and Reece.)
Reed, James A., assignor of one-half to H. Howard, Henryetta, Okla. Excavating apparatus. No. 1,206,246; Nov. 28; Gaz. vol. 232; p. 1041.
Reed, Rainier F., Des Moines, Iowa. Level. No. 1,206,593; Nov. 28; Gaz. vol. 232; p. 1159.
Reed, Robert B., Benton Harbor, Mich. Brake-clutch. No. 1,205,019; Nov. 14; Gaz. vol. 232; p. 545.
Reichert, Carl E. (See Veeck and Reichert.)
Reid, Andrew H., Toronto, Ontario, Canada, assignor to American Brake Shoe & Foundry Company, Mahwah, N. J. Brake-shoe. No. 1,205,482; Nov. 21; Gaz. vol. 232; p. 743.
Reid, Frank T. (See Cook and Reid.)
Reid, Robert M., Colorado Springs, Colo. Collar-fastening. No. 1,205,663; Nov. 21; Gaz. vol. 232; p. 808.
Reid, William A., Spring Grove, Ind. Chewing-gum. No. 1,206,467; Nov. 28; Gaz. vol. 232; p. 1116.
Reimers, Wilhelm, Kiel, Germany. Expansible pulley. No. 1,205,020; Nov. 14; Gaz. vol. 232; p. 545.
Reischmann, Henry R., New York, N. Y. Folding table. No. 1,203,783; Nov. 7; Gaz. vol. 232; p. 81.
Reiter, Caspar, Bayrischzell-Hochkreut, Germany. Making practically alcohol-free beers. No. 1,204,315; Nov. 7; Gaz. vol. 232; p. 265.
Reiter, George J. (See Kohn and Reiter.)
Relay Automatic Telephone Company, The. (See Bygrave, Leonard C., assignor.)
Remington Typewriter Company. (See Johnson, Herbert L. and E. W., assignors.)
Remington Typewriter Company. (See Seib, George A., assignor.)
Remsen, Herbert D. (See Ward, Remsen, and Boerner.)
Remsen, Herbert D., assignor to Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, N. Y. Machine for making nut-blanks. No. 1,206,249; Nov. 28; Gaz. vol. 232; p. 1042.
Renault, Louis. (See Fuchs, Ernest, assignor.)
René Squeegee Company. (See Ayotte, Joseph R., assignor.)
Renner, Samuel, and G. P. Adams, Western, Nebr. Anti-skid device. No. 1,205,021; Nov. 14; Gaz. vol. 232; p. 546.
Renner, William, assignor of one-half to J. H. Davis, Columbus, Ohio. Stop-valve. No. 1,204,316; Nov. 7; Gaz. vol. 232; p. 266.
Rennerfelt, Ivar. (See Eckermann and Rennerfelt.)
Rensch, Georg, Berlin, Germany. Flexible-shaft connection. No. 1,206,029; Nov. 28; Gaz. vol. 232; p. 968.
Republic Structural Iron Works Company, The. (See Tuteur, Julius, assignor.)
Research Corporation. (See Schmidt and Bradley, assignors.)
Retlaw Manufacturing Company. (See Oeschger, Walter I., assignor.)
Revere Rubber Company. (See Cobb, Henry Z., assignor.)
Reynolds, Harold B., Renfrew, Scotland, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Hydraulic press. No. 1,206,250; Nov. 28; Gaz. vol. 232; p. 1042.
Reynolds, John D., Niobrara, Nebr. Ironing-board. No. 1,206,140; Nov. 28; Gaz. vol. 232; p. 1005.
Reynolds, John F., assignor of one-half to J. I. Boyer, Los Angeles, Cal. Novelty wind-wheel. No. 1,206,251; Nov. 28; Gaz. vol. 232; p. 1043.
Reynolds, John N. (See Craft and Reynolds.)

Reynolds, John N., Greenwich, Conn., assignor, by mesne assignments, to Western Electric Company, Incorporated. Machine-switching telephone-exchange system. No. 1,203,908; Nov. 7; Gaz. vol. 232; p. 126.
Reynolds, Milford M., assignor of forty-five one-hundredths to C. A. Jones, Van Wert, Ohio. Roller-screen. No. 1,206,141; Nov. 28; Gaz. vol. 232; p. 1005.
Rhoades, Lloyd R., Fremont, Ohio, assignor to National Carbon Company, Electric battery. No. 1,205,392; Nov. 21; Gaz. vol. 232; p. 712.
Rhodes, Bert O., assignor to Acme Universal Joint Company, Kalamazoo, Mich. Universal joint. No. 1,203,190; Nov. 7; Gaz. vol. 232; p. 223.
Ribbon Record Company. (See Eynon, Thomas, assignor.)
Rice, Arlo E., Sheffield, Iowa. Trousers presser and hanger. No. 1,204,593; Nov. 14; Gaz. vol. 232; p. 397.
Richard, Leroy L., Coalinga, assignor of one-half to S. A. Guiberson, Jr., San Francisco, Cal. Sand-pump for wells. No. 1,203,784; Nov. 7; Gaz. vol. 232; p. 82.
Richards, Walter J., assignor to National Brake & Electric Company, Milwaukee, Wis. Fluid-compressor. No. 1,206,030; Nov. 28; Gaz. vol. 232; p. 968.
Richardson, Charles F., Woonsocket, R. I., assignor to Rapid Button Attaching Machine Co., New York, N. Y. Button-feeding mechanism. No. 1,204,067; Nov. 7; Gaz. vol. 232; p. 181.
Richardson, George W., et al. (See Davis, George E., assignor.)
Richter, Hubert A., J. E., L., and O. L., Utica, N. Y. Dust-germicide-spraying apparatus. No. 1,204,903; Nov. 14; Gaz. vol. 232; p. 503.
Richter, Joseph E. (See Richter, Hubert A., J. E., L., and O. L.)
Richter, Louis. (See Richter, Hubert A., J. E., L., and O. L.)
Richter, Otto L. (See Richter, Hubert A., J. E., L., and O. L.)
Rickards, Burt R., Melrose, Mass. Eye-shield. No. 1,203,785; Nov. 7; Gaz. vol. 232; p. 82.
Rickert, Emma, Aurora, Ill. Infant's diaper. No. 1,206,142; Nov. 28; Gaz. vol. 232; p. 1005.
Ricords, Frederick, Brooklyn, N. Y. Case for tennis-racket frames. No. 1,203,786; Nov. 7; Gaz. vol. 232; p. 82.
Riddell, William A., assignor to Eastman Kodak Company, Rochester, N. Y. View-finder. No. 1,205,393; Nov. 21; Gaz. vol. 232; p. 712.
Rideout, Thomas H., Cambridge, Mass., assignor to T. H. Rideout Manufacturing Company. Oven-shelf. No. 1,206,730; Nov. 28; Gaz. vol. 232; p. 1204.
Rider, William E., Mansfield, Mass. Grate. No. 1,205,664; Nov. 21; Gaz. vol. 232; p. 808.
Riebe, August, Weissensee, near Berlin, Germany. Ball-bearing cage. No. 1,205,934; Nov. 21; Gaz. vol. 232; p. 899.
Riedmann, Rudolph. (See Keller, Ernest G., assignor.)
Rietveld, Gideon, Knoxville, Iowa. Match-box. No. 1,203,787; Nov. 7; Gaz. vol. 232; p. 82.
Rigdon, Henry, et al. (See Rogers, Walter K., assignor.)
Rigney, Meakin, assignor of one-half to N. C. Taliaferro, Detroit, Mich. Mail-bag catcher. No. 1,203,652; Nov. 7; Gaz. vol. 232; p. 35.
Rigney, William D., assignor to Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, N. Y. Machine for making nut-blanks. No. 1,206,252; Nov. 28; Gaz. vol. 232; p. 1043.
Ribl, William H., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa. Drying leather and other composition boards. No. 1,206,594; Nov. 28; Gaz. vol. 232; p. 1159.
Riker, Andrew L., Short Hills, N. J., assignor to The "Locomobile" Company of America, New York, N. Y. Sparking connection for automobiles. No. 1,206,731; Nov. 28; Gaz. vol. 232; p. 1205.
Riley, Joseph J., assignor of one-half to W. R. Byars, San Diego, Cal. Steam-generating attachment for internal-combustion engines. No. 1,205,483; Nov. 21; Gaz. vol. 232; p. 743.
Riley, Lynn G. (See Hall and Riley.)
Ringsmith, Elijah, Morenci, Ariz. Wheel structure. No. 1,206,377; Nov. 28; Gaz. vol. 232; p. 1085.
Ritter, Franz, Sr., and F., Jr., Munich, Germany. Brush. No. 1,206,031; Nov. 28; Gaz. vol. 232; p. 969.
Rivers, George W., Aberdeen, N. C., assignor to C. N. Brasington, Bennettsville, S. C. Threshing-machine. No. 1,204,191; Nov. 7; Gaz. vol. 232; p. 224.
Riveto Manufacturing Company. (See Harris, Carl C., assignor.)
Roan, John B., St. Petersburg, Fla. Lantern-slide. No. 1,206,253; Nov. 28; Gaz. vol. 232; p. 1044.
Robbins, Burton W., St. Petersburg, Fla. Automatic wagon-brake. No. 1,205,022; Nov. 14; Gaz. vol. 232; p. 546.
Roberts, Eugene, assignor to Sugar Centrifugal Discharger Company, Salt Lake City, Utah. Spray-nozzle for washing sugar and the like. No. 1,205,394; Nov. 21; Gaz. vol. 232; p. 713.
Roberts, Henry P., Roxbury, Mass. Apparatus for freezing liquids. No. 1,204,317; Nov. 7; Gaz. vol. 232; p. 266.
Roberts, Horace L., Brooklyn, N. Y. Pamphlet-coverer. No. 1,205,023; Nov. 14; Gaz. vol. 232; p. 546.
Roberts, Horace L., Brooklyn, N. Y. Tape-fastener. No. 1,205,024; Nov. 14; Gaz. vol. 232; p. 546.
Roberts, John T. (See Hafner and Roberts.)
Roberts, Lyman R., Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,204,192; Nov. 7; Gaz. vol. 232; p. 224.
Roberts, Walter W., Seattle, Wash. Heating and cooking apparatus. No. 1,205,665; Nov. 21; Gaz. vol. 232; p. 809.
Robertson, C. A. (See Hall, Ray E., assignor.)
Robin, Benjamin, and J. Caplin, Washington, D. C. Cash-purse or tobacco-bag. No. 1,204,068; Nov. 7; Gaz. vol. 232; p. 182.
Robinson, Abraham, New York, N. Y. Strap-stretcher. No. 1,206,468; Nov. 28; Gaz. vol. 232; p. 1116.
Robinson, Cyrus, Mount Vernon, N. Y., assignor to Metallurgical Engineering & Process Corporation. Agitator for ore treatment. No. 1,204,069; Nov. 7; Gaz. vol. 232; p. 182.
Robinson, Cyrus, Mount Vernon, N. Y., assignor to Metallurgical Engineering & Process Corporation. Dehydrater. No. 1,204,070; Nov. 7; Gaz. vol. 232; p. 183.
Robinson, George A., Boston, assignor to Pneumatic Scale Corporation Limited, Quincy, Mass. Machine for forming cartons. No. 1,205,566; Nov. 21; Gaz. vol. 232; p. 773.
Robinson, William C., assignor to National Metal Molding Company, Pittsburgh, Pa. Flexible electrical conduit. No. 1,203,788; Nov. 7; Gaz. vol. 232; p. 83.
Robt. H. Ingersoll & Bro. (See Eberhard, George F., assignor.)
Roby, Luther E., Peoria, Ill. Broadcast seeder. No. 1,205,786; Nov. 21; Gaz. vol. 232; p. 850.
Rochel, Ken E., Galveston, Tex. Coal-transferring apparatus. No. 1,204,594; Nov. 14; Gaz. vol. 232; p. 397.
Rochester Folding Box Company. (See Pye, Alfred L., assignor.)
Rockhoff, Bert E., Detroit, assignor to L. A. Young, Highland Park, Mich. Rim for seat-springs. No. 1,205,567; Nov. 21; Gaz. vol. 232; p. 773.
Rockstroh, Max, Klein-Sedlitz, near Pirna, Germany. Dynamometer. No. 1,205,035; Nov. 21; Gaz. vol. 232; p. 899.
Rockwell, Byrd C., Camden, Ark. Collapsible crate. No. 1,205,025; Nov. 14; Gaz. vol. 232; p. 547.
Rockwell, Walter S., assignor to W. S. Rockwell Company, New York, N. Y. Blast-gate. No. 1,206,469; Nov. 28; Gaz. vol. 232; p. 1116.
Röder, Karl, Mülheim-on-the-Ruhr, Germany. Quick-closing throttle-valve for turbines. No. 1,204,687; Nov. 14; Gaz. vol. 232; p. 431.
Rodgers, Mary E., Chicago, Ill. Frying utensil. No. 1,205,026; Nov. 14; Gaz. vol. 232; p. 547.
Roebuck, Alvah C., assignor to Woodstock Typewriter Company, Woodstock, Ill. Type-writer. No. 1,204,595; Nov. 14; Gaz. vol. 232; p. 397.
Roebuck, Alvah C., assignor to Woodstock Typewriter Company, Woodstock, Ill. Type-writer. No. 1,206,032; Nov. 28; Gaz. vol. 232; p. 969.
Roellig, Martin, Bremen, Germany. Subsidiary plant for driving propeller-shafts when not under load. No. 1,206,254; Nov. 28; Gaz. vol. 232; p. 1044.
Roesler, Joseph H. P. J. (See Weins and Roesler.)
Roever, August E., Brooklyn, N. Y. Power-transmitting device. No. 1,203,653; Nov. 7; Gaz. vol. 232; p. 35.
Rogers, Edwin, Aurora, Ill. Concrete-wood combination railway-tie. No. 1,204,904; Nov. 14; Gaz. vol. 232; p. 503.
Rogers, Orville D., Shoals, Ind. Mop. No. 1,206,595; Nov. 28; Gaz. vol. 232; p. 1159.
Rogers, Walter K., assignor of two-ninths to W. E. Tucker, two-ninths to H. Rigdon, Forest Hill, Md., and one-third to C. B. Whitaker, San Francisco, Cal. Removing carbon from gas-engine cylinders. No. 1,205,264; Nov. 21; Gaz. vol. 232; p. 670.
Rogowski, Walter, Berlin-Charlottenburg, assignor to Siemens & Halske A. G., Berlin, Germany. Measuring magnetic properties of materials and apparatus therefor. No. 1,204,480; Nov. 14; Gaz. vol. 232; p. 360.
Rokahr, Charles, El Paso, Tex. Arch and instep support for boots and shoes. No. 1,204,490; Nov. 14; Gaz. vol. 232; p. 361.
Rollman, Bruce B. (See Synck and Rollman.)
Romano, Nichlas, Brattleboro, Vt. Cabinet-grater. No. 1,206,596; Nov. 28; Gaz. vol. 232; p. 1159.
Romines, J. L. (See Williams, Osker, assignor.)
Roof, Charles R., Los Angeles, Cal. Manufacturing grip-nuts. No. 1,204,401; Nov. 14; Gaz. vol. 232; p. 361.
Roper, Walter F., Hopedale, Mass. Air-controlling device for internal-combustion engines. No. 1,205,484; Nov. 21; Gaz. vol. 232; p. 743.
Rose, Edward E., Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrically-heated vulcanizer. No. 1,206,255; Nov. 28; Gaz. vol. 232; p. 1044.
Rose, Elmer N. (See Wood, Henry O., assignor.)
Rosen, David, Camden, assignor of one-fourth to C. B. Groff, Haddon Heights, and one-fourth to J. Taylor, Camden, N. J. Garment-supporter. No. 1,206,470; Nov. 28; Gaz. vol. 232; p. 1116.
Rosen, Jacob H. (See Hurwitz, Benjamin A., assignor.)
Rosenberg, George R., White Cloud, Mich. Steering-gear for motor-vehicles. No. 1,204,193; Nov. 7; Gaz. vol. 232; p. 225.
Rosencrants, Fay H., Corvallis, Oreg. Flow-meter. No. 1,205,787; Nov. 21; Gaz. vol. 232; p. 851.

Rosenfeld, Sidney, Cleveland, Ohio. Combined bung and faucet. No. 1,205,666; Nov. 21; Gaz. vol. 232; p. 809.

Rosengren, George T., assignor to Enterprise Tool and Metal Works, Chicago, Ill. Sad-iron. No. 1,205,265; Nov. 21; Gaz. vol. 232; p. 670.

Rosenthal, August, West Allis, Wis. Filter. No. 1,204,071; Nov. 7; Gaz. vol. 232; p. 183.

Rosenthal, Samuel, New York, N. Y. Cuff for trousers. No. 1,204,820; Nov. 14; Gaz. vol. 232; p. 473.

Roslyn Specialty Co. Inc. (See Karl, Joseph M., assignor.)

Rosner, George A., Buffalo, N. Y. Work-holder. No. 1,204,821; Nov. 14; Gaz. vol. 232; p. 474.

Ross, Frank A., Evanston, assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Transmission-drive for speedometers. No. 1,205,027; Nov. 14; Gaz. vol. 232; p. 547.

Ross, James A., Altoona, Pa. Electrical switch-throwing mechanism. No. 1,205,266; Nov. 21; Gaz. vol. 232; p. 670.

Ross, James L. (See Spencer and Ross.)

Ross, Sidney J., and H. Schofield, London, England. Apparatus for the distillation of oils. No. 1,204,492; Nov. 14; Gaz. vol. 232; p. 361.

Ross, Walter D., Jr., Anniston, Ala. Twyer. No. 1,205,568; Nov. 21; Gaz. vol. 232; p. 773.

Ross, William, Troy, N. Y. Hydrant-head. No. 1,205,395; Nov. 21; Gaz. vol. 232; p. 713.

Ross, William, Troy, N. Y. Ice-cream disher. No. 1,205,396; Nov. 21; Gaz. vol. 232; p. 713.

Rossi, Auguste J., Niagara Falls, N. Y., and C. M. E. Schroeder, Rutherford, N. J., assignors to The Titanium Alloy Manufacturing Company, New York, N. Y. Paint. No. 1,205,267; Nov. 21; Gaz. vol. 232; p. 671.

Rossi, Auguste J., Niagara Falls, N. Y., and C. M. E. Schroeder, Rutherford, N. J., assignors to The Titanium Alloy Manufacturing Company, New York, N. Y. Paint. No. 1,205,268; Nov. 21; Gaz. vol. 232; p. 671.

Rossi, Auguste J., Niagara Falls, N. Y., and C. M. E. Schroeder, Rutherford, N. J., assignors to The Titanium Alloy Manufacturing Company, New York, N. Y. Paint. No. 1,205,269; Nov. 21; Gaz. vol. 232; p. 671.

Rossi, Dominick, New York, N. Y. Artificial flower-stem. No. 1,204,905; Nov. 14; Gaz. vol. 232; p. 504.

Roswell, Anna M., Elmsford, N. Y. Strainer. No. 1,206,471; Nov. 28; Gaz. vol. 232; p. 1117.

Rothfeld, Max, Philadelphia, Pa. Automatic player-piano. No. 1,206,143; Nov. 28; Gaz. vol. 232; p. 1005.

Rothwell, John E., and H. B. Lowden, assignors to Colorado Iron Works Company, Denver, Colo. Leaching ores and other products. No. 1,205,936; Nov. 21; Gaz. vol. 232; p. 899.

Rott, Robert J., and W. E. Hanna, Webster Groves, Mo. Plow-tongs. No. 1,204,493; Nov. 14; Gaz. vol. 232; p. 361.

Rotti, Frederick, Elizabethport, N. J. Device for cleaning buttons. No. 1,206,378; Nov. 28; Gaz. vol. 232; p. 1086.

Rouset, Lucien, Levallois-Perret, France. Synchronous motor. No. 1,205,937; Nov. 21; Gaz. vol. 232; p. 899.

Rover, Adolph B., Binghamton, N. Y. Control mechanism for elevators. No. 1,206,763; Nov. 28; Gaz. vol. 232; p. 1217.

Rover, Adolph B., Binghamton, N. Y. Control mechanism for elevators. No. 1,206,764; Nov. 28; Gaz. vol. 232; p. 1218.

Roy, Serena L., administratrix. (See Roy, Sylvanus B.)

Roy, Sylvanus B., deceased, Worcester, Mass.; S. L. Roy, administratrix, assignor to R. S. Roy & Son Company. Automatic door-operating device. No. 1,204,818; Nov. 7; Gaz. vol. 232; p. 266.

Roy, William, Edinburgh, Scotland. Postal card or packet. No. 1,206,256; Nov. 28; Gaz. vol. 232; p. 1044.

Royack, Nathan, Brooklyn, N. Y. Door-opening device. No. 1,204,072; Nov. 7; Gaz. vol. 232; p. 184.

Roylance, Leon E., San Francisco, Cal. Ball-bearing gimbal. No. 1,204,822; Nov. 14; Gaz. vol. 232; p. 474.

Rubber Regenerating Company. (See Murdock, Harold R., assignor.)

Rubens, Lee, Chicago, Ill. Combination-suit. No. 1,205,137; Nov. 14; Gaz. vol. 232; p. 584.

Rubenstein, Nathan, New York, N. Y. Life-raft. No. 1,205,667; Nov. 21; Gaz. vol. 232; p. 809.

Rubes Electric Devices Inc. (See Nicoll, Norman G., assignor.)

Ruckle, Edward H., assignor to Hughes Electric Heating Company, Chicago, Ill. Electric baker's oven. No. 1,203,909; Nov. 7; Gaz. vol. 232; p. 126.

Rudd, Otto, assignor to Simmons Manufacturing Company, Kenosha, Wis. Furniture construction. No. 1,206,267; Nov. 28; Gaz. vol. 232; p. 1045.

Rude, Henry, West Allis, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Water-jacket. No. 1,204,688; Nov. 14; Gaz. vol. 232; p. 431.

Rudolph, Franklin, Chicago, Ill., assignor to American Can Company, New York, N. Y. Sheet-metal container for the preservation of food. No. 1,206,379; Nov. 28; Gaz. vol. 232; p. 1086.

Rudolph, Jean H., Essex Fells, N. J. Knockdown plant-tub. No. 1,205,023; Nov. 14; Gaz. vol. 232; p. 547.

Rudolph Koepp & Co. (See Brodig, Georg, assignor.)

Rudolph Wurlitzer Manufacturing Company. (See Hope-Jones, Robert, assignor.)

Rudolph Wurlitzer Manufacturing Company, The. (See McCormick, Frank L., assignor.)

Ruestow, Edward H., *et al.* (See Piazze, Theodore, assignor.)

Ruester, Henry A., Jamaica Plain, Mass. Combined search and finder light for automobiles. No. 1,204,823; Nov. 14; Gaz. vol. 232; p. 474.

Ruggles, Emma F., New York, N. Y. Toilet-scissors. No. 1,205,029; Nov. 14; Gaz. vol. 232; p. 548.

Runge, William H., assignor to The Seneca Falls Manufacturing Company, Seneca Falls, N. Y. Safety device for carriage-feed mechanism for lathes or the like. No. 1,204,824; Nov. 14; Gaz. vol. 232; p. 475.

Rupert, Frederick J., Salem, Oreg. Savings-bank. No. 1,206,380; Nov. 28; Gaz. vol. 232; p. 1086.

Rushton, Kenneth, assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Means for lubricating clutches. No. 1,204,194; Nov. 7; Gaz. vol. 232; p. 225.

Rushton, Kenneth, assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Center-bearing for trucks. No. 1,205,788; Nov. 21; Gaz. vol. 232; p. 851.

Russell, Burdsall & Ward Bolt and Nut Co. (See Burdsall, Ellwood, assignor.)

Russell, Burdsall & Ward Bolt and Nut Company. (See Remsen, Herbert D., assignor.)

Russell, Burdsall & Ward Bolt and Nut Company. (See Rigney, William D., assignor.)

Russell, Burdsall & Ward Bolt and Nut Co. (See Ward, Remsen, and Boerner, assignors.)

Russell, Ernestine, Almira, Wash. Shoe cushion-sole. No. 1,206,597; Nov. 28; Gaz. vol. 232; p. 1160.

Russell, Leon L., Livermore Falls, Me. Car-brake. No. 1,206,732; Nov. 28; Gaz. vol. 232; p. 1205.

Russell, Nelson J., Chicago, Ill. Fuel-saving attachment for furnaces. No. 1,205,789; Nov. 21; Gaz. vol. 232; p. 852.

Russell, Zachary E. (See Mooney and Russell.)

Rutherfurd, Robert A., Lyme, Conn. Automatic railway signal device. No. 1,204,689; Nov. 14; Gaz. vol. 232; p. 431.

Rutily, Joseph, *et al.* (See Gulbrandsen, Michael A., assignor.)

Ryan, James A. (See Akans, Walter C., assignor.)

Ryan, Thomas A., Yonkers, N. Y. Vehicle-wheel. No. 1,205,790; Nov. 21; Gaz. vol. 232; p. 852.

Ryden, Claes, Cranston, R. I., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass. Electrical coil and winding same. No. 1,203,789; Nov. 7; Gaz. vol. 232; p. 83.

Ryden, Claes, Cranston, R. I., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass. Winding-machine. No. 1,203,790; Nov. 7; Gaz. vol. 232; p. 83.

Ryden, Claes, Cranston, R. I., assignor, by mesne assignments, to Universal Winding Company, Boston, Mass. Winding-machine. No. 1,205,270; Nov. 21; Gaz. vol. 232; p. 671.

Ryer, Elmer L., Hawthorne, N. Y. Eye-testing device. No. 1,204,690; Nov. 14; Gaz. vol. 232; p. 432.

Ryon, Eppa H., Waltham, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Weft-detecting mechanism for looms. No. 1,205,791; Nov. 21; Gaz. vol. 232; p. 853.

Ryon, Eppa H., Waltham, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Weft-detecting mechanism. No. 1,205,792; Nov. 21; Gaz. vol. 232; p. 853.

S. H. Couch Company. (See Henry and Stevens, assignors.)

S. H. Couch Company. (See Henry, William W., assignor.)

S. R. White's Sons. (See White, Arthur M., assignor.)

S. S. Hepworth Company. (See Mackintosh, Edward D., assignor.)

Sabine, Wallace C., Boston, Mass., assignor to H. W. Johns-Manville Company. Sound-absorbing wall or ceiling. No. 1,205,938; Nov. 21; Gaz. vol. 232; p. 900.

Sabine, Wallace C., Boston, Mass., assignor to H. W. Johns-Manville Company. Sound-absorbing wall or ceiling. No. 1,205,939; Nov. 21; Gaz. vol. 232; p. 900.

Sachs, Joseph, Hartford, Conn. Clip. No. 1,204,691; Nov. 14; Gaz. vol. 232; p. 432.

Sachs, Joseph, assignor, by mesne assignments, to The Hart & Hegeman Manufacturing Company, Hartford, Conn. Double-service electric generator and supply system. No. 1,204,825; Nov. 14; Gaz. vol. 232; p. 476.

Sackett, Franklin P., Boston, Mass. Reflector. No. 1,206,033; Nov. 28; Gaz. vol. 232; p. 969.

Saecker, Frank E., assignor to Appleton Machine Company, Appleton, Wis. Wood-barking machine. No. 1,206,472; Nov. 28; Gaz. vol. 232; p. 1117.

Safety First Air Brake Company (Canada) Limited. (See Humphrey, Edward R., assignor.)

Safford, John H., Brooklyn, N. Y. Safety-chest. No. 1,205,271; Nov. 21; Gaz. vol. 232; p. 672.

Sage, Ralph V., Philadelphia, and R. E. Wilder, Johnstown, Pa. Car-door. No. 1,204,692; Nov. 14; Gaz. vol. 232; p. 432.

Sager, Otto, Rochester, N. Y. Concrete-wall mold. No. 1,206,598; Nov. 28; Gaz. vol. 232; p. 1160.

Saino, Felix L., Memphis, Tenn. Fire door or shutter. No. 1,204,074; Nov. 7; Gaz. vol. 232; p. 184.

Saidin, Esther. (See Saidin, Max, assignor.)

Saidin, Max, New York, N. Y., assignor to E. Saidin. Union-suit. No. 1,205,793; Nov. 21; Gaz. vol. 232; p. 854.

Sale, Robert A., assignor of one-half to J. W. Peed, Washington, D. C. Toy cart. No. 1,204,693; Nov. 14; Gaz. vol. 232; p. 433.

Salisbury, Albert E. (See Bastian and Salisbury.)

Salisbury, Stephen O., *et al.* (See Sharpnack and Nash, assignors.)

Salomon, Felix, assignor to United Fig & Date Company, Chicago, Ill. Blanching peanuts. No. 1,206,258; Nov. 28; Gaz. vol. 232; p. 1045.

Salter, William A., Kansas City, Mo. Rolling-mill. No. 1,206,381; Nov. 28; Gaz. vol. 232; p. 1087.

Samish, Otto G., Yonkers, assignor to Weiss & Samish, New York, N. Y. Hat-frame. No. 1,206,473; Nov. 28; Gaz. vol. 232; p. 1117.

Samsonwerk, Gesellschaft mit Beschrankter Haftung. (See Jung, Karl, assignor.)

Sanborn, Arthur F., and R. C. Wilson, Ossining, assignors of one-third to H. R. Horton, Haymount, Briarcliff Manor, N. Y. Automatic train-stop. No. 1,205,794; Nov. 21; Gaz. vol. 232; p. 854.

Sanche, Corinne M. (See Euker, George W., assignor.)

Sanchez, Federico G. (See Chavez and Sanchez.)

Sandage, Jacob R., assignor to Upton Machine Company, St. Joseph, Mich. Air-pistol. No. 1,205,668; Nov. 21; Gaz. vol. 232; p. 810.

Sanders, Joseph, Washington, D. C. Producing disk sound-records. No. 1,206,034; Nov. 28; Gaz. vol. 232; p. 969.

Sandgeroth, Theodore, Anoka, Nebr. Non-refillable bottle. No. 1,204,073; Nov. 7; Gaz. vol. 232; p. 184.

Sandmeyer, John H., Jr., Chenoa, Ill. Sling. No. 1,205,030; Nov. 14; Gaz. vol. 232; p. 548.

Sanitary Can Company. (See Augensen, August M., assignor.)

Sapper, Charles H., Norfolk, Va. Chuck or vise. No. 1,205,795; Nov. 21; Gaz. vol. 232; p. 854.

Saranac Machine Co. (See Craig, Edward, assignor.)

Sare, Ira H., Sentinel, Okla. Mail-box. No. 1,204,494; Nov. 14; Gaz. vol. 232; p. 361.

Sarphie, Joseph E., Hattiesburg, Miss. Tie-clasp. No. 1,204,075; Nov. 7; Gaz. vol. 232; p. 185.

Saunders, Elias. (See Degener and Saunders.)

Savage, Arthur J., assignor to The Savage Tire Company, San Diego, Cal. Vehicle-tire. No. 1,203,910; Nov. 7; Gaz. vol. 232; p. 126.

Savage Tire Company, The. (See Savage, Arthur J., assignor.)

Sawyer, Harry B., Ogden, Utah. Trolley finder or catcher. No. 1,206,382; Nov. 28; Gaz. vol. 232; p. 1087.

Saylor, Earl E., Campbell, Nebr. Attachment for grain-binders. No. 1,204,319; Nov. 7; Gaz. vol. 232; p. 266.

Scantlebury, Francis H., New York, N. Y. Sand-blast carving. No. 1,206,780; Nov. 28; Gaz. vol. 232; p. 1223.

Schaake, William, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Splicer for trolley-conductors. No. 1,206,259; Nov. 28; Gaz. vol. 232; p. 1045.

Schaanning, Alf, Manchester, and G. Harlow, Altrincham, England, assignors to Westinghouse Electric and Manufacturing Company. Electrical transformer. No. 1,206,260; Nov. 28; Gaz. vol. 232; p. 1046.

Schaap, Leigh R., Longmont, Colo. Inner tube for pneumatic tires. No. 1,203,654; Nov. 7; Gaz. vol. 232; p. 35.

Schaefer, Frank M., Chicago, Ill., assignor to G. S. Blakeslee & Co. Intermittent feed mechanism for slicing-machines. No. 1,205,397; Nov. 21; Gaz. vol. 232; p. 714.

Schaefer, William J., Ontario, Cal. Peeling fruit. No. 1,205,110; Nov. 14; Gaz. vol. 232; p. 574.

Schaeffer, John A., Joplin, Mo., and J. R. MacGregor, Chicago, Ill., assignors to Picher Lead Company, Joplin, Mo. Manufacturing lead carbonates. No. 1,203,911; Nov. 7; Gaz. vol. 232; p. 127.

Schaeffer Piano Mfg. Company. (See Freborg, Charles, assignor.)

Schafer, Frank, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Feed mechanism for box-shuck machines. No. 1,203,912; Nov. 7; Gaz. vol. 232; p. 127.

Schafer, Frank, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Mechanical movement. No. 1,203,913; Nov. 7; Gaz. vol. 232; p. 127.

Schafer, Frank, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Mechanical movement. No. 1,203,914; Nov. 7; Gaz. vol. 232; p. 127.

Schaff, Schuyler R., Louisville, Ky. Transit attachment. No. 1,204,804; Nov. 14; Gaz. vol. 232; p. 433.

Scharmann, Henry C. J., St. Louis, Mo. Nut-lock. No. 1,204,695; Nov. 14; Gaz. vol. 232; p. 433.

Schatz, William J., Philadelphia, Pa., assignor to A. G. Spalding & Bros. Manf'g Co. Conformateur or apparatus for making charts of surface conformations. No. 1,206,144; Nov. 28; Gaz. vol. 232; p. 1006.

Scheer, George F. (See Scheer, John and G. F.)

Scheer, John, Atlanta, Ga., and G. F. Scheer, Richmond, Va. Engraver's block. No. 1,204,696; Nov. 14; Gaz. vol. 232; p. 433.

Scheffknecht, Isidor, Lustenau, Austria-Hungary, assignor to K. Feurkart, Rorschach, Switzerland. Device for embellishing embroidery. No. 1,204,195; Nov. 7; Gaz. vol. 232; p. 225.

Scherber, Alois and G., New York, N. Y. Heater for curling-irons. No. 1,205,272; Nov. 21; Gaz. vol. 232; p. 672.

Scherber, George. (See Scherber, Alois and G.)

Schermerhorn, Walter, Omaha, Nebr. Protective coating composition. No. 1,204,697; Nov. 14; Gaz. vol. 232; p. 434.

Schetti, Louis J., Manitowoc, Wis. Hydrocarbon-burner. No. 1,206,261; Nov. 28; Gaz. vol. 232; p. 1046.

Schickel, Norbert H., Stamford, Conn. Charge-treating devices for internal combustion engines. No. 1,203,791; Nov. 7; Gaz. vol. 232; p. 84.

Schiessler, Josef, Baden, near Vienna, Austria-Hungary. Submarine signaling apparatus. No. 1,204,826; Nov. 14; Gaz. vol. 232; p. 475.

Schilling, Werner, Duisburg, Germany. Coupling for wagons. No. 1,204,698; Nov. 14; Gaz. vol. 232; p. 434.

Schlaepfer, Arnold. (See End, Schlaepfer, and Altenburger.)

Schleicher, John A., Wilkes-Barre, and C. V. Wilgus, Kingston, assignors to The Adder Machine Company, Wilkes-Barre, Pa. Keyboard. No. 1,203,655; Nov. 7; Gaz. vol. 232; p. 35.

Schlelt, Willis A. (See Skinner, Alba A. and F. B., assignors.) (Reissue.)

Schlueter, Henry W., Venice, Cal. Concrete sea-wall. No. 1,205,810; Nov. 21; Gaz. vol. 232; p. 858.

Schlumpf, Jakob, Seebach, Switzerland. Device for pressing rollers, particularly for lacing-eyelets. No. 1,205,796; Nov. 21; Gaz. vol. 232; p. 854.

Schmeh, John W., Buffalo, N. Y. Storm-curtain for vehicles. No. 1,204,495; Nov. 14; Gaz. vol. 232; p. 362.

Schmid-Roost, Jakob, Oerlikon, Switzerland. Ball-guide for ball-bearings. No. 1,205,797; Nov. 21; Gaz. vol. 232; p. 855.

Schmidt, Fred, South Milwaukee, Wis. Mail-bag catching and delivering apparatus. No. 1,203,792; Nov. 7; Gaz. vol. 232; p. 84.

Schmidt, Joseph L., Utica, N. Y. Rail-brace. No. 1,206,474; Nov. 28; Gaz. vol. 232; p. 1117.

Schmidt, Karl, Lansing, Mich. Tie supporting and attaching device. No. 1,205,273; Nov. 21; Gaz. vol. 232; p. 672.

Schmidt, Reinbold, assignor to R. Bauchwitz, Berlin, Germany. Indicating and recording mechanism. No. 1,206,035; Nov. 28; Gaz. vol. 232; p. 970.

Schmidt, Walter A., assignor to International Precipitation Company, Los Angeles, Cal. Means for producing discharge of electricity into gases. No. 1,204,907; Nov. 14; Gaz. vol. 232; p. 504.

Schmidt, Walter A., Los Angeles, Cal., and L. Bradley, East Orange, N. J., assignors to Research Corporation, New York, N. Y. Method and means for recovering certain constituents from gaseous bodies. No. 1,204,906; Nov. 14; Gaz. vol. 232; p. 504.

Schmitt, Charles, Oakley, Ohio. Faucet. No. 1,205,031; Nov. 14; Gaz. vol. 232; p. 548.

Schmitt, Eugene, New York, N. Y. Vehicle-wheel tire. No. 1,203,915; Nov. 7; Gaz. vol. 232; p. 128.

Schmoeger, William, Russellville, Mo. Wire-stretcher. No. 1,204,076; Nov. 7; Gaz. vol. 232; p. 185.

Schnebelin, Charles F., assignor to Stuber & Kuck Co., Peoria, Ill. Can. No. 1,205,111; Nov. 14; Gaz. vol. 232; p. 575.

Schnebelin, Charles F., assignor to Stuber & Kuck Co., Peoria, Ill. Can. No. 1,205,112; Nov. 14; Gaz. vol. 232; p. 575.

Schneider, Christian. (See Gonsior, Frank, and Schneider.)

Schneider, Henry, Chicago, Ill. Window-cleaner. No. 1,205,808; Nov. 21; Gaz. vol. 232; p. 714.

Schneider, Richard F., Chicago, Ill. Hand-lantern. No. 1,203,793; Nov. 7; Gaz. vol. 232; p. 84.

Schoenthaler, Fred C. (See Hachmann, Frederick, assignor.)

Schofield, Arthur M., Amherst, Ohio. Hydrating lime. No. 1,204,699; Nov. 14; Gaz. vol. 232; p. 434.

Schofield, Arthur M., Amherst, Ohio. Apparatus for hydrating lime. No. 1,204,700; Nov. 14; Gaz. vol. 232; p. 434.

Schofield, Harry. (See Ross and Schofield.)

Scholder, Maurice, New York, N. Y. Distress-signal. No. 1,205,798; Nov. 21; Gaz. vol. 232; p. 855.

Scholl Manufacturing Company, The. (See Wilms, Lee W. V., assignor.)

Schorsch, Ludwig, Binia, assignor to G. Josephy's Erben, Bislitz, Austria-Hungary. Variable-speed driving mechanism. No. 1,206,599; Nov. 28; Gaz. vol. 232; p. 1160.

Schrader, Richard, Utica, N. Y. Trolley. No. 1,206,145; Nov. 28; Gaz. vol. 232; p. 1007.

Schram, Alexander L., Hillsboro, Ill., assignor to Schram Glass Manufacturing Company, St. Louis, Mo. Lubricator for sheet metal. No. 1,206,146; Nov. 28; Gaz. vol. 232; p. 1007.

Schram Glass Manufacturing Company. (See Schram, Alexander L., assignor.)

Schramm, Adolph W., Riverton, N. J., and E. B. Wilford, Merion, assignors to Electro Dental Manufacturing Company, Philadelphia, Pa. Coupling device. No. 1,206,600; Nov. 28; Gaz. vol. 232; p. 1161.

Schramm, Adolph W., Riverton, N. J., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa. Hanger. No. 1,206,601; Nov. 28; Gaz. vol. 232; p. 1161.

Schreck, Henry, St. Louis, Mo. Fuel-pump. No. 1,205,669; Nov. 21; Gaz. vol. 232; p. 810.

Schreiner, Sigurd, Chicago, Ill. Clothes-holder. No. 1,205,274; Nov. 21; Gaz. vol. 232; p. 672.

Schroeder, Albert F., Cleveland, Ohio. Clamping appliance. No. 1,204,827; Nov. 14; Gaz. vol. 232; p. 476.

Schroeder, Charles F. (See Manogue and Schroeder.)

Schroeder, Christian M. E. (See Rossi and Schroeder.)

Schroeder Headlight Company. (See Manogue and Schroeder, assignors.)

Schroeder, Jacob A., assignor to M. Schroeder, Piqua, Ohio. Street-sweeping machine. No. 1,204,320; Nov. 7; Gaz. vol. 232; p. 267.

Schroeder, Mary. (See Schroeder, Jacob A., assignor.)

Schroeder, William A., Everett, Wash. Pianissimo device for grand-piano actions. No. 1,204,077; Nov. 7; Gaz. vol. 232; p. 185.

Schubert & Salzer, Maschinenfabrik, Aktiengesellschaft. (See Wagner, Friedrich, assignor.)

Schultz, Emil H., Everett, Wash. Automatic train-stop. No. 1,205,790; Nov. 21; Gaz. vol. 232; p. 855.

Schulz, Albert C., assignor to The Locomobile Company of America, Bridgeport, Conn. Foot-pedal. No. 1,204,701; Nov. 14; Gaz. vol. 232; p. 435.

Schulz, Rudolph W., Waterloo, Iowa. Adjustable support for insulators. No. 1,204,196; Nov. 7; Gaz. vol. 232; p. 226.

Schumacher, Henry, Denver, Colo. Pneumatic hammer-drill. No. 1,205,485; Nov. 21; Gaz. vol. 232; p. 744.

Schuman Company, The. (See Schuman, James B., assignor.)

Schuman, James B., assignor to The Schuman Company, Indianapolis, Ind. Shock-handling attachment for corn husking and shredding machines. No. 1,205,670; Nov. 21; Gaz. vol. 232; p. 810.

Schupp, Ferdinand F., Louisville, Ky. Ventilator. No. 1,204,702; Nov. 14; Gaz. vol. 232; p. 435.

Schurmann, William A. (See Axcell, Hnige S., assignor.)

Schutte & Koerting Company. (See Pepper, Chester L., assignor.)

Schuyler, Frank B., Berkeley, Cal. Gas-heating furnace. No. 1,204,703; Nov. 14; Gaz. vol. 232; p. 435.

Schwartzberg, Alter L., Shreveport, La. Sign-holder. No. 1,205,800; Nov. 21; Gaz. vol. 232; p. 856.

Schwarz, Albert, assignor of one-tenth to F. A. Doyle, Chicago, Ill. Bullet-proof shield. No. 1,203,916; Nov. 7; Gaz. vol. 232; p. 128.

Schwarz, Otto C., New Chicago, Ind. Toy building. No. 1,204,908; Nov. 14; Gaz. vol. 232; p. 505.

Schwarz, Philip, and W. J. Baker, Oklahoma, Okla. Sub-irrigation device. No. 1,203,794; Nov. 7; Gaz. vol. 232; p. 85.

Schweitzer, Edmund O. (See Hecht, Julius L., assignor.)

"Schweizerische Industrie-Gesellschaft." (See End, Schlaepfer, and Altenburger, assignors.)

Schwier, Henry F., Detroit, Mich. Floor-mat. No. 1,205,032; Nov. 14; Gaz. vol. 232; p. 548.

Schwimmer, Henry W., assignor to H. W. Schwimmer Company, Indianapolis, Ind. Electrically-heated chocolate-table. No. 1,205,569; Nov. 21; Gaz. vol. 232; p. 774.

Scofield, Charles D., and G. F. Kearney, Gorham, N. Y. Kettle-cover. No. 1,204,704; Nov. 14; Gaz. vol. 232; p. 436.

Scotford, Louis K., Chicago, Ill. Sound-box. No. 1,204,197; Nov. 7; Gaz. vol. 232; p. 226.

Scott, Abner L. (See Scott, Harvey E. and A. L.)

Scott, Frederick C., Hornby Island, British Columbia, Canada. Revolving toy. No. 1,206,602; Nov. 28; Gaz. vol. 232; p. 1161.

Scott, Frederick H., Leeds, England. Cuspidor. No. 1,204,705; Nov. 14; Gaz. vol. 232; p. 436.

Scott, Floyd L., Buffalo, N. Y. Camera-operating device. No. 1,205,486; Nov. 21; Gaz. vol. 232; p. 744.

Scott, Harvey E. and A. L., Alleene, Ark. Railway-track construction. No. 1,204,198; Nov. 7; Gaz. vol. 232; p. 226.

Scott, Marion, Okmulgee, Okla. Apparatus for and method of drawing continuous sheets of glass. No. 1,204,496; Nov. 14; Gaz. vol. 232; p. 362.

Scott, Robert W., Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J. Stocking. No. 1,205,671; Nov. 21; Gaz. vol. 232; p. 811.

Scott & Williams. (See Quinn, Loraine J., assignor.)

Scott & Williams. (See Scott, Robert W., assignor.)

Scrimgeour, William, Lancaster, Pa., assignor to Mirca Fuel-Oil Equipment Company, Incorporated, Norfolk, Va. Gas-heated forging or welding furnace. No. 1,206,036; Nov. 28; Gaz. vol. 232; p. 970.

Scrimgeour, William, assignor to Mirca Fuel Oil Equipment Company, Lancaster, Pa. Tank-heating furnace. No. 1,206,383; Nov. 28; Gaz. vol. 232; p. 1087.

Scudder, Ernest C., Farmington, Ill. Photographic-printing frame. No. 1,203,917; Nov. 7; Gaz. vol. 232; p. 128.

Seamans, Edward W., Grand Rapids, Mich. Oil-burner. No. 1,206,037; Nov. 28; Gaz. vol. 232; p. 971.

Sears, Roebuck and Company. (See Huffman, Estil J., assignor.)

Sedgwick, Hiram G., Mill Valley, Cal., assignor to The National Safety Appliance Company. Automatic train-stop. No. 1,204,497; Nov. 14; Gaz. vol. 232; p. 362.

See, De Witt C., Rochester, N. Y. Locking device for automobiles. No. 1,206,038; Nov. 28; Gaz. vol. 232; p. 971.

Seede, John A., Schenectady, N. Y., assignor to General Electric Company. Electric-furnace control apparatus. No. 1,206,603; Nov. 28; Gaz. vol. 232; p. 1162.

Seely, Benjamin W., Pensacola, Fla. Life-raft. No. 1,205,033; Nov. 14; Gaz. vol. 232; p. 548.

Seetin, Buswell, Sweet, Idaho. Treadmill. No. 1,206,604; Nov. 28; Gaz. vol. 232; p. 1162.

Segrave, John W., Plattsmouth, Nebr. Dish-washing machine. No. 1,204,498; Nov. 14; Gaz. vol. 232; p. 363.

Seib, George A., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,203,795; Nov. 7; Gaz. vol. 232; p. 85.

Seib, George A., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,206,030; Nov. 28; Gaz. vol. 232; p. 971.

Seitz, James P., Walla Walla, Wash. Attachment for automobile-pedals. No. 1,204,499; Nov. 14; Gaz. vol. 232; p. 363.

Self-Acting Switch Co. (See Eppley, Charles S., assignor.)

Self, Edward D., Florence, Italy. Automobile. No. 1,203,796; Nov. 7; Gaz. vol. 232; p. 85.

Selmeier, John F., Norwood, assignor to Peck, Selmeier & Peck, Cincinnati, Ohio. Setting for precious stones. No. 1,205,113; Nov. 14; Gaz. vol. 232; p. 576.

Seltzer, Hyman, New York, N. Y. Supporting-belt. No. 1,205,034; Nov. 14; Gaz. vol. 232; p. 549.

Sendelbeck, Leo V. F., Waterloo, Ill. Folding-crate. No. 1,205,035; Nov. 14; Gaz. vol. 232; p. 549.

Seneca Falls Manufacturing Company, The. (See Runge, William H., assignor.)

Seng Company, The. See Seng, Wendelin P., assignor.)

Seng, Wendelin P., assignor to The Seng Company, Chicago, Ill. Combined piano and player-piano bench. No. 1,204,706; Nov. 14; Gaz. vol. 232; p. 436.

Sensiba, Edward H. (See Lauchin, George Y., assignor.)

Senum, Otto J., Karluk, Saskatchewan, Canada. Transmission-gearing. No. 1,206,147; Nov. 28; Gaz. vol. 232; p. 1007.

Sessions, Frank L., Lakewood, assignor to The Standard Welding Company, Cleveland, Ohio. Method of and apparatus for electric welding. No. 1,205,570; Nov. 21; Gaz. vol. 232; p. 774.

Settevig, Nels A., Kloten, N. D. Plant-eradicator. No. 1,205,036; Nov. 14; Gaz. vol. 232; p. 549.

Sewall, Adelbert L., *et al.* (See Close, Edmund E., assignor.)

Sewall, Alfred C., Wilmington, Del. Tobacco-pipe. No. 1,205,487; Nov. 21; Gaz. vol. 232; p. 745.

Sexton, Isaac E., West Medford, Mass. Can for gasolene, &c. No. 1,203,797; Nov. 7; Gaz. vol. 232; p. 86.

Sexton, James P. (See La Casse and Sexton.)

Sexton, James P., Los Angeles, Cal., assignor to Button-lath Manufacturing Company. Plaster-lath. No. 1,205,399; Nov. 21; Gaz. vol. 232; p. 714.

Seybold, Christian, Düren, Germany. Couching-press for paper-machines. No. 1,205,672; Nov. 21; Gaz. vol. 232; p. 811.

Seymour, Allen H., Bainbridge, Ohio. Acetylene-gas apparatus. No. 1,205,275; Nov. 21; Gaz. vol. 232; p. 672.

Shahan, Everett R., St. Paul, Minn. Concentrator. No. 1,205,673; Nov. 21; Gaz. vol. 232; p. 811.

Shalita, Morris and P., New York, N. Y. Friction-top can. No. 1,206,475; Nov. 28; Gaz. vol. 232; p. 1118.

Shalita, Pincus. (See Shalita, Morris and P.)

Shannon, William T., Cincinnati, Ohio. Metal culvert. No. 1,203,656; Nov. 7; Gaz. vol. 232; p. 36.

Shapiro, David H., Montreal, Quebec, Canada. Garment-form. No. 1,205,801; Nov. 21; Gaz. vol. 232; p. 856.

Sharp-Hughes Tool Company. (See Hughes, Howard R., assignor.)

Sharp, William E., assignor to Grip Nut Company, Chicago, Ill. Swaging-mandrel for forming grip-nuts. No. 1,204,500; Nov. 14; Gaz. vol. 232; p. 363.

Sharpe, Edward C. (See Sharpe, Robert C. and E. C.)

Sharpe, Robert C. and E. C., Youngstown, Ohio. Machine or instrument for cracking nuts. No. 1,206,276; Nov. 21; Gaz. vol. 232; p. 673.

Sharpnack, George, and T. J. Nash, assignors of one-half to G. P. Elmen, one-fourth to S. O. Salisbury, and one-fourth to A. R. Talbot Lincoln, Nebr. Electric heater. (electrolytic type.) No. 1,205,571; Nov. 21; Gaz. vol. 232; p. 775.

Sharpe, Leon S. (See Hopke and Sharpe.)

Shaw, Frank T., Lordsburg, Cal. Compressed-air water-elevator. No. 1,205,114; Nov. 14; Gaz. vol. 232; p. 576.

Shaw, Thomas C., Atlanta, Ga. Bulletin-board. No. 1,206,148; Nov. 28; Gaz. vol. 232; p. 1007.

Shaw-Walker Company, The. (See Hunter, David E., assignor.)

Shaw, Walter, Dedham, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Fastener-setting machine. No. 1,206,277; Nov. 21; Gaz. vol. 232; p. 673.

Sheckler, John H., Chicago, Ill., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,203,657; Nov. 7; Gaz. vol. 232; p. 36.

Sheffield, James R., Carthage, N. C. Mail-transferring apparatus. No. 1,204,596; Nov. 14; Gaz. vol. 232; p. 393.

Shellenberger, Spurgeon T., Bridgeport, Conn. Nut-lock. No. 1,206,262; Nov. 28; Gaz. vol. 232; p. 1046.

Shelton Adjustable Double Deck Car Co., The. (See Shelton, John B., assignor.)

Shelton, John B., assignor to The Shelton Adjustable Double Deck Car Co., San Francisco, Cal. Combined freight and stock car. No. 1,205,674; Nov. 21; Gaz. vol. 232; p. 812.

Shelton, William G., New York, N. Y. Winder for spring-motors. No. 1,205,572; Nov. 21; Gaz. vol. 232; p. 775.

Shepard, Noah B., Cypress Inn, Tenn. Boiler-head. No. 1,205,037; Nov. 14; Gaz. vol. 232; p. 550.

Shepherd, Harold F., assignor to Bessemer Gas Engine Company, Grove City, Pa. Internal-combustion engine. No. 1,205,573; Nov. 21; Gaz. vol. 232; p. 776.

Sheridan, Richard B. (See Plaut, Antoine P., assignor.)

Sherman, James M., Houston, Tex. Ratchet-drill. No. 1,204,199; Nov. 7; Gaz. vol. 232; p. 227.

Sherman, John A., and F. F. Flagg, Worcester, Mass.; said Flagg assignor to said Sherman. Patch-applying mechanism. No. 1,205,400; Nov. 21; Gaz. vol 232; p. 714.

Shintani, Otozo, *et al.* (See Kawate, Hiyoso, assignor.)

Shipley, Grant B., Pittsburgh, Pa. Spike-driving machine. No. 1,204,501; Nov. 14; Gaz. vol. 232; p. 363.

Shipp, Clarence C., Indianapolis, Ind. Wall-ventilating duct. No. 1,204,321; Nov. 7; Gaz. vol. 232; p. 267.

Shipp, Nicholas W., Salem, Oreg. Lamp-support. No. 1,206,263; Nov. 28; Gaz. vol. 232; p. 1046.

Short, Albert E. (See Short, Horace L., A. E., and H. O.)

Short, Horace L., A. E., and H. O., Battersea Park, England. Folding-wing aeroplane. No. 1,205,676; Nov. 21; Gaz. vol. 232; p. 813.

Short, Hugh O. (See Short, Horace L., A. E., and H. O.)

Shotto, Theodore W., Scranton, Pa. Lock for elevator hoisting-engines. No. 1,204,322; Nov. 7; Gaz. vol. 232; p. 267.

Shrauger, Darius E., Atlantic, Iowa. Sheet-metal board-roof batten. No. 1,204,200; Nov. 7; Gaz. vol. 232; p. 227.

Shuman, Frank G., Chicago, Ill. Envelop attachment. No. 1,204,502; Nov. 14; Gaz. vol. 232; p. 364.

Shuman, Frank G., Chicago, Ill. Tag-hook. No. 1,204,503; Nov. 14; Gaz. vol. 232; p. 364.

Shuman, Frank G., Chicago, Ill. Two-part envelop. No. 1,204,504; Nov. 14; Gaz. vol. 232; p. 364.

Sibley, Nettie E., Springfield, Mass. Flesh-file. No. 1,203,918; Nov. 7; Gaz. vol. 232; p. 129.

Sickel, Henry G., *et al.* (See Parker, Pearl E., assignor.)

Siddall, Willie D., and W. R. Hassell, Alvarado, Tex. Poultry-house. No. 1,206,149; Nov. 28; Gaz. vol. 232; p. 1008.

Sidney, William E., assignor of one-half to Union Iron Works, Minneapolis, Minn. Gearless driving mechanism. No. 1,205,115; Nov. 14; Gaz. vol. 232; p. 576.

Sieber, Ernest J., Ross township, Allegheny, assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Mixing-valve. No. 1,203,798; Nov. 7; Gaz. vol. 232; p. 86.

Siegel, August, Charlottenburg, Germany, assignor to General Electric Company. Surface condenser. No. 1,206,605; Nov. 28; Gaz. vol. 232; p. 1162.

Siegfried, Robert, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Bearing. No. 1,204,505; Nov. 14; Gaz. vol. 232; p. 365.

Siemens & Halske A. G. (See Gerdien, Hans, assignor.)

Siemens & Halske A. G. (See Rogowski, Walter, assignor.)

Siemens-Schuckert Werke G. m. b. H. (See Ferber and Wiesmann, assignors.)

Siemens-Schuckertwerke G. m. b. H. (See Haage, Hugo, assignor.)

Siemens-Schuckertwerke G. m. b. H. (See Kiesler, Fritz, assignor.)

Sievers, Rose M. *et al.* (See Wales, Marie S., assignor.)

Siggers, Edward G. (See Chisholm, Charles L., assignor.)

Siggers, Edward G. (See Moore, John H., assignor.)

Silbert, August, Fort Stanton, N. Mex. Rest. No. 1,205,802; Nov. 21; Gaz. vol. 232; p. 856.

Simmon, Karl A. (See Conrad and Simmon.)

Simmons Manufacturing Company. (See Rudd, Otto, assignor.)

Simon, Forrest C., and J. F. O'Brien, assignors to The Piqua Machine and Boiler Co., Piqua, Ohio. Box topping and taping machine. No. 1,204,079; Nov. 7; Gaz. vol. 232; p. 186.

Simplex Automobile Company. (See Crane, Henry M., assignor.)

Simplex Specialty Company, The. (See Grabler and Kelsey, assignors.)

Simpson, Charles A., Boston, Mass. Bottle-stopper and pipette. No. 1,203,919; Nov. 7; Gaz. vol. 232; p. 129.

Simpson, Isaac, Edgewood, Pa. Recording device. No. 1,206,040; Nov. 28; Gaz. vol. 232; p. 971.

Simpson, Phy, Airlie, Oreg. Logging system. No. 1,206,264; Nov. 28; Gaz. vol. 232; p. 1047.

Sindler, Max J. (See Adleberg and Sindler.)

Singer, Alfred B., Philadelphia, Pa. Check-valve. No. 1,205,038; Nov. 14; Gaz. vol. 232; p. 550.

Singer Manufacturing Company, The. (See Barron, William L., assignor.)

Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)

Singer Manufacturing Company. (See Grieb, Alfred, assignor.)

Single Service Package Corporation, The. (See Beadle, George W., assignor.)

Singleton, James E., and S. T. White, Greenville, N. C. Film-cleaner. No. 1,205,039; Nov. 14; Gaz. vol. 232; p. 550.

Sirard, Ovila, Cobalt, Ontario, Canada. Fish-hook. No. 1,206,733; Nov. 28; Gaz. vol. 232; p. 1206.

Skall, Max A., New York, N. Y. Display-cabinet. No. 1,205,040; Nov. 14; Gaz. vol. 232; p. 551.

Skalla, Frank, Niles, Mich. Bowling-pin. No. 1,205,278; Nov. 21; Gaz. vol. 232; p. 674.

Skidd, Charles, Kenosha, Wis. Holding apparatus. No. 1,204,078; Nov. 7; Gaz. vol. 232; p. 185.

Skinner, Alba A., deceased, and F. B. Skinner, Greene, N. Y., assignors by mesne assignments, to W. A. Schleit, Syracuse, N. Y. Combined incubator and brooder. (Reissue.) No. 14,212; Nov. 7; Gaz. vol. 232; p. 290.

Skinner, Fred B. (See Skinner, Alba A. and F. B. (Reissue.)

Skjonhaug, Edward A., Buffalo, S. D. Wire-reeling device for wagons. No. 1,205,803; Nov. 21; Gaz. vol. 232; p. 856.

Skofarud, Anton, Chicago, Ill. Reel or winding-machine. No. 1,204,507; Nov. 14; Gaz. vol. 232; p. 393.

Skofarud, Anton, Chicago, Ill. Governor for reels or winding-machines. No. 1,204,508; Nov. 14; Gaz. vol. 232; p. 393.

Slataper, Alice L., Houston, Tex. Protective covering for ice-bags. No. 1,206,041; Nov. 28; Gaz. vol. 232; p. 972.

Slater, Stephen, Middletown, N. Y. Music-leaf turner. No. 1,204,080; Nov. 7; Gaz. vol. 232; p. 186.

Slavik, John F., Poughkeepsie, N. Y. Tool-holder. No. 1,203,799; Nov. 7; Gaz. vol. 232; p. 87.

Slazenger, Frank L., New York, N. Y. Uniting and reinforcing joints. No. 1,205,116; Nov. 14; Gaz. vol. 232; p. 577.

Slick, Edwin E., Westmont borough, Pa. Mine-car wheel. No. 1,203,800; Nov. 7; Gaz. vol. 232; p. 87.

Slick, Edwin E., Westmont borough, Pa. Car-body. No. 1,203,801; Nov. 7; Gaz. vol. 232; p. 87.

Slick, Edwin E., Westmont borough, Pa. Mine-car. No. 1,206,042; Nov. 28; Gaz. vol. 232; p. 972.

Slick, Edwin E., Westmont borough, Pa. Method and apparatus for stripping ingots. No. 1,206,150; Nov. 28; Gaz. vol. 232; p. 1008.

Slick, Edwin E., Westmont borough, Pa. Mine-car body. No. 1,206,151; Nov. 28; Gaz. vol. 232; p. 1008.

Slick, Edwin E., Westmont, Pa. Rolling rails. No. 1,206,606; Nov. 28; Gaz. vol. 232; p. 1163.

Sloan & Company. (See Tesoroni, Angelo, assignor.)

Sloan, Samuel J. (See Norton, Thomas J., assignor.)

Slonecker, Abiram J., Trenton, Mo. Transmission mechanism. No. 1,206,043; Nov. 28; Gaz. vol. 232; p. 972.

Slough, Frank M., assignor to The Garford Manufacturing Company, Elyria, Ohio. Electric system. No. 1,204,599; Nov. 14; Gaz. vol. 232; p. 390.

Slough, Frank M., assignor to The Garford Manufacturing Company, Elyria, Ohio. Electric system. No. 1,204,600; Nov. 14; Gaz. vol. 232; p. 399.

Slough, Frank M., assignor to The Garford Manufacturing Company, Elyria, Ohio. Electric system. No. 1,204,601; Nov. 14; Gaz. vol. 232; p. 400.

Slyfield, Charles, Chaseville, Fla. Fence-post. No. 1,203,920; Nov. 7; Gaz. vol. 232; p. 129.

Small, John F., assignor of one-half to W. A. Thompson, Jefferson, N. H. Carpenter's house-bracket. No. 1,205,279; Nov. 21; Gaz. vol. 232; p. 674.

Smart, Donald G., Grand Rapids, Wis. Rope-clamp. No. 1,206,044; Nov. 28; Gaz. vol. 232; p. 973.

Smielinski, Anthony J., Cleveland, Ohio. Tie-pin retainer. No. 1,205,488; Nov. 21; Gaz. vol. 232; p. 745.

Smising, Frederick W., Detroit, Mich. Automatic camera-trip. No. 1,204,506; Nov. 14; Gaz. vol. 232; p. 365.

Smith, Andrew B., Mason City, Iowa, assignor of one-half to L. E. Touff, Chicago, Ill. Beet and potato harvester. No. 1,206,152; Nov. 28; Gaz. vol. 232; p. 1009.

Smith, Arch G., Mapleton, Iowa. Hog-oiler. No. 1,204,707; Nov. 14; Gaz. vol. 232; p. 436.

Smith, Arthur E., Cleveland, Ohio. Nasal inhaler. No. 1,206,045; Nov. 28; Gaz. vol. 232; p. 973.

Smith, Benjamin H., Turtle Creek, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,204,508; Nov. 14; Gaz. vol. 232; p. 366.

Smith, Benjamin H., Turtle Creek, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical relay. No. 1,204,509; Nov. 14; Gaz. vol. 232; p. 366.

Smith, Benjamin H., Turtle Creek, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,204,510; Nov. 14; Gaz. vol. 232; p. 366.

Smith, Benjamin H., Turtle Creek, and P. MacGahan, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,204,507; Nov. 14; Gaz. vol. 232; p. 365.

Smith, Chester J., and C. E. Baldwin, Jamestown, N. Y. Measuring-machine. No. 1,204,511; Nov. 14; Gaz. vol. 232; p. 367.

Smith, Clarence C., Carthage, N. Y. Motor-sleigh. No. 1,205,041; Nov. 14; Gaz. vol. 232; p. 551.

Smith, Don F., Corry, Pa. Internal-combustion engine. No. 1,206,608; Nov. 28; Gaz. vol. 232; p. 1163.
Smith, Edward F., assignor to J. Anstice, Rochester, N. Y. Lock for paper-towel holders and the like. No. 1,206,609; Nov. 28; Gaz. vol. 232; p. 1164.
Smith, Eric M., Okanogan, Wash. Tool-holder. No. 1,203,921; Nov. 7; Gaz. vol. 232; p. 130.
Smith, Franklin E., assignor to Vickers Limited, Westminster, London, England. Charging or replenishing receptacles with gases under pressure. No. 1,203,922; Nov. 7; Gaz. vol. 232; p. 130.
Smith, Frederick L., and A. A. Mitchell, Indianapolis, Ind. Route-map and indicator. No. 1,205,401; Nov. 21; Gaz. vol. 232; p. 715.
Smith, George A., South Hill, Va. Box-stuff-trimming mechanism for planing-machines. No. 1,204,512; Nov. 14; Gaz. vol. 232; p. 367.
Smith, George W., Pittsburg, Kans. Safety air-brake appliance. No. 1,205,402; Nov. 21; Gaz. vol. 232; p. 715.
Smith, Henry P., London, England. Air-director for use in burning liquid fuel. No. 1,206,153; Nov. 28; Gaz. vol. 232; p. 1009.
Smith, James W., Brooklyn, N. Y. Burglar-alarm. No. 1,204,513; Nov. 14; Gaz. vol. 232; p. 368.
Smith, James W., Brooklyn, N. Y. Burglar-alarm. No. 1,204,514; Nov. 14; Gaz. vol. 232; p. 368.
Smith, Jesse A. B., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,206,765; Nov. 28; Gaz. vol. 232; p. 1218.
Smith, John A. (See Paul and Smith.)
Smith, John J. C., Passaic, assignor to P. M. Hammalian, Hackensack, N. J. Apparatus for etching plates in photo-engraving. No. 1,203,802; Nov. 7; Gaz. vol. 232; p. 87.
Smith, Karl D., assignor to Union Steam Pump Company, Battle Creek, Mich. Sanitary milk-pump. No. 1,203,923; Nov. 7; Gaz. vol. 232; p. 130.
Smith, Louie W., Des Moines, Iowa. Wrench. No. 1,204,515; Nov. 14; Gaz. vol. 232; p. 368.
Smith, Maurice A., Jeannette, Pa. Apparatus for fire-polishing and reheating glass. No. 1,205,675; Nov. 21; Gaz. vol. 232; p. 812.
Smith, Milton E., Spokane, Wash. Rail-tie structure. No. 1,206,265; Nov. 28; Gaz. vol. 232; p. 1047.
Smith, Patrick, Wrangell, Alaska. Barrel. No. 1,205,804; Nov. 21; Gaz. vol. 232; p. 857.
Smith, Stephen T., Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Copy-holder. No. 1,203,659; Nov. 7; Gaz. vol. 232; p. 37.
Smith, Sydney H. (See Bennett and Smith.)
Smith, William A., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo. Rock-drill. No. 1,204,708; Nov. 14; Gaz. vol. 232; p. 437.
Smith, William J., assignor to Waterbury Clock Co., Waterbury, Conn. Warning-action for clock-movements. No. 1,205,042; Nov. 14; Gaz. vol. 232; p. 551.
Smolin, Nat C., New York, N. Y. Scarf-hat. No. 1,205,403; Nov. 21; Gaz. vol. 232; p. 715.
Snare, William, *et al.* (See Casbel, Andrew J., assignor.)
Snead & Co. Iron Works, The. (See Macdonald, Harry P., assignor.)
Snell, Lyle K., assignor to Cadillac Motor Car Company, Detroit, Mich. Support for extra tires. (Reissue.) No. 14,215; Nov. 14; Gaz. vol. 232; p. 585.
Snelling, Walter O., Pittsburgh, Pa. Coating process. No. 1,204,709; Nov. 14; Gaz. vol. 232; p. 437.
Snitleman, Frank A., South Haven, Mich. Oil-burner attachment for wood or coal stoves. No. 1,205,043; Nov. 14; Gaz. vol. 232; p. 552.
Snyder, Eugene E., and E. W. Harris, Raymond, Alberta, Canada. Lifting device. No. 1,204,710; Nov. 14; Gaz. vol. 232; p. 437.
Snyder, George C., New York, N. Y. Fastening device. No. 1,204,711; Nov. 14; Gaz. vol. 232; p. 438.
Snyder, George C., New York, N. Y. Fastening device. No. 1,205,044; Nov. 14; Gaz. vol. 232; p. 552.
Snyder, George C., New York, N. Y. Apparatus for securing buttons and like fastenings to fabrics. No. 1,205,045; Nov. 14; Gaz. vol. 232; p. 552.
Snyder, George C., New York, N. Y. Fastening device. No. 1,205,046; Nov. 14; Gaz. vol. 232; p. 553.
Snyder, George C., New York, N. Y. Fastening device. No. 1,205,047; Nov. 14; Gaz. vol. 232; p. 553.
Snyder, George C., New York, N. Y. Stud member for snap-fasteners. No. 1,205,049; Nov. 14; Gaz. vol. 232; p. 554.
Snyder, George C., New York, N. Y. Decorative button for garments and the like. No. 1,205,050; Nov. 14; Gaz. vol. 232; p. 554.
Snyder, George C., New York, N. Y., assignor to The Threadless Button Company. Snap-fastener. No. 1,205,048; Nov. 14; Gaz. vol. 232; p. 553.
Snyder, Parke T., Chicago, Ill. Apparatus for gaging the position of vehicle-wheels. No. 1,206,476; Nov. 28; Gaz. vol. 232; p. 1118.
Snyder, Vernon C., Chicago, Ill., assignor to American Can Company, New York, N. Y. Folding carton. No. 1,203,924; Nov. 7; Gaz. vol. 232; p. 132.
Snyder, Vernon C., Chicago, Ill., assignor to American Can Company, New York, N. Y. Container. No. 1,206,384; Nov. 28; Gaz. vol. 232; p. 1088.
Société Anonyme des Établissements Delaunay-Belleville. (See Radiguer, Charles, assignor.)
Société Anonyme pour l'Exploitation des Procédés Westinghouse-Leblanc. (See Leblanc, Maurice, assignor.)
Society Compagnie Generale de Phonographes, Cinematographes et Apparells de Precision. (See Ivatts, Ernest A., assignor.)
Sohn, Jerome V., Saybrook, Ill. Farm implement. No. 1,204,323; Nov. 7; Gaz. vol. 232; p. 267.
Solberg, Haldor K. (See Benson, Solberg, and Flick.)
Solomon, Abraham. (See Porowski, Wladyslaw J., assignor.)
Sommer, Louis C., Sr., Jersey City, N. J. Tool-handle. No. 1,205,280; Nov. 21; Gaz. vol. 232; p. 674.
Sonneman, William F. (See Baker, William E., assignor.)
Sorensen, Arvid C., Webster, N. D. Compensating device for line-wires. No. 1,205,281; Nov. 21; Gaz. vol. 232; p. 674.
Souder, Howell W. and R. H., Tamaqua, Pa. Thermostatic heat-regulator. No. 1,204,909; Nov. 14; Gaz. vol. 232; p. 505.
Souder, Robert H. (See Souder, Howell W. and R. H.)
Soulliere, Leon, Detroit, Mich. Automobile-lock. No. 1,205,051; Nov. 14; Gaz. vol. 232; p. 554.
Sourian, Nerses B., assignor of one-half to M. Borchardt, Chicago, Ill. Scrubbing or cleaning machine. No. 1,205,574; Nov. 21; Gaz. vol. 232; p. 776.
South, Jerome J., Memphis, Tenn. Resilient wheel. No. 1,205,575; Nov. 21; Gaz. vol. 232; p. 777.
Sower, James H. (See Zang and Sower.)
Spalding, William A., Los Angeles, Cal. Switch. No. 1,206,734; Nov. 28; Gaz. vol. 232; p. 1206.
Spanier, Waldemar H., Grand Harbor, N. D. Wrench. No. 1,204,383; Nov. 7; Gaz. vol. 232; p. 288.
Sparks, Le Grand, Montgomery, N. Y. Elevating-jack. No. 1,203,925; Nov. 7; Gaz. vol. 232; p. 132.
Spaulding & Sons Co., J. (See Gibbs, Howard W., assignor.)
Spear, George A. (See Brummett and Colbath, assignors.)
Speck, Henry F., Des Moines, Iowa. Sliding door. No. 1,206,607; Nov. 28; Gaz. vol. 232; p. 1163.
Speer, Fitzhugh C. (See Hemenway and Speer.)
Speers, Louise T., Rochester, N. Y. Vaginal syringe. No. 1,203,803; Nov. 7; Gaz. vol. 232; p. 88.
Speight, Alfred, Wimbledon Park, assignor of one-half to John Hall & Sons (Bristol & London) Limited, Bristol, England. Means for raising and lowering vehicle and other windows. No. 1,204,201; Nov. 7; Gaz. vol. 232; p. 227.
Speller, Frank N., assignor to National Tube Company, Pittsburgh, Pa. Apparatus for deoxidizing and filtering heated water. No. 1,204,602; Nov. 14; Gaz. vol. 232; p. 400.
Spelling, Thomas C., New York, N. Y. Stopper. No. 1,204,712; Nov. 14; Gaz. vol. 232; p. 438.
Spence, John J., Greenville, Tex. Armor unit for gunners. No. 1,206,154; Nov. 28; Gaz. vol. 232; p. 1009.
Spencer, Frank, Louisville, Ky. Marbleizing cement. No. 1,204,378; Nov. 7; Gaz. vol. 232; p. 287.
Spencer, George F. (See Spencer and Holmes, assignors.)
Spencer, George F., Thompson, Pa. Furnace-grate. No. 1,206,046; Nov. 28; Gaz. vol. 232; p. 973.
Spencer, John R., and J. L. Ross, Bartow, Fla. Slicer, grater, and shredder. No. 1,205,052; Nov. 14; Gaz. vol. 232; p. 555.
Spencer, Ray L., Peoples township, Boone county, Iowa. Depth-equalizing shovel-beam attachment for cultivators. No. 1,204,903; Nov. 14; Gaz. vol. 232; p. 401.
Spencer, William H., New York, and J. T. Holmes, Brooklyn, assignors to G. F. Spencer, New York, N. Y. Electric lamp. No. 1,206,477; Nov. 28; Gaz. vol. 232; p. 1118.
Spengler Brothers Company. (See Spengler, Charles C., assignor.)
Spengler, Charles C., Rockford, assignor to Spengler Brothers Company, Chicago, Ill. Pencil-sharpener. No. 1,204,604; Nov. 14; Gaz. vol. 232; p. 401.
Sperry, John B., assignor to The American Well Works, Aurora, Ill. Pump. No. 1,206,385; Nov. 28; Gaz. vol. 232; p. 1088.
Spiess, Georg, Leipzig-Reudnitz, Germany. Mechanism for producing assorted piles of paper sheets. No. 1,205,282; Nov. 21; Gaz. vol. 232; p. 675.
Spirella Company, The. (See Mayo, Junius E., assignor.)
Spirella Company, The. (See Mayo and Charlton, assignors.)
Spirella Company, The. (See Norton, Samuel H., assignor.)
Spirella Company, The. (See Welsh, James M., assignor.)
Splitdorf Electrical Company. (See Mason, Charles T., assignor.)
Sponenburg, Hiram H., Gurnee, assignor, by mesne assignments, to O. R. Barnett, Chicago Ill. Anti-creeper. No. 1,205,404; Nov. 21; Gaz. vol. 232; p. 716.
Sprague, Parker B., Denver, Colo. Liquid-measuring device. No. 1,204,324; Nov. 7; Gaz. vol. 232; p. 268.
Spratling, Roper C., Opelika, Ala. Inner tube for pneumatic tires. No. 1,206,386; Nov. 28; Gaz. vol. 232; p. 1088.
Sprinehorn, Ulrich, Jamestown, N. Y. Curtain-support. No. 1,206,805; Nov. 21; Gaz. vol. 232; p. 857.
Spring, Thomas E., Pittsburgh, Pa. Lid-raising device. No. 1,204,325; Nov. 7; Gaz. vol. 232; p. 268.
Springer, William N., South Bend, Ind., assignor to Avery Company. Plow. No. 1,204,828; Nov. 14; Gaz. vol. 232; p. 477.

Sprinkle, Lake H., Brooklyn, N. Y. Apparatus for making plates for artificial teeth. No. 1,206,478; Nov. 28; Gaz. vol. 232; p. 1119.
Squires, Arthur C., Keyport, N. J., assignor of one-half to D. Basch, New York, N. Y. Bathing-cap and making same. No. 1,206,047; Nov. 28; Gaz. vol. 232; p. 973.
St. John, Gamaliel C. (See Arnott, Robert F., assignor.)
St. Louis Screw Company. (See Miller, Edward J., assignor.)
St. Marie, Arthur J. M., Oldtown, Me. Automatic railway-gate. No. 1,205,405; Nov. 21; Gaz. vol. 232; p. 716.
Staahlgren, Karl A. A., New York, N. Y., assignor to National Electric Bulletin Corporation. Inking mechanism for bulletin-printing machines. No. 1,205,677; Nov. 21; Gaz. vol. 232; p. 813.
Staats, Theodore T., *et al.* (See Koechlein, William B., assignor.)
Stabel, Joseph M., assignor to Domestic Appliances Company, Rochester, N. Y. Safety appliance for gas apparatus. No. 1,204,081; Nov. 7; Gaz. vol. 232; p. 187.
Staby, Wilhelm, Ludwigshafen-on-the-Rhine, Germany. Car-heater. No. 1,206,479; Nov. 28; Gaz. vol. 232; p. 1119.
Stafford, James M., Washington, Ind. Water-elevator. No. 1,203,926; Nov. 7; Gaz. vol. 232; p. 132.
Stafford, James M., Washington, Ind. Device for locating and raising sunken vessels. No. 1,204,605; Nov. 14; Gaz. vol. 232; p. 401.
Stafford, James M., Washington, Ind. Wood-sawing machine. No. 1,205,806; Nov. 21; Gaz. vol. 232; p. 857.
Stagg, Katherine, New York, N. Y. Waist. No. 1,206,480; Nov. 28; Gaz. vol. 232; p. 1119.
Stagni, Giuseppe, Turin, Italy. Motor fore-carriage for bicycles and similar vehicles. No. 1,203,927; Nov. 7; Gaz. vol. 232; p. 133.
Stamatson, Thomas, Brooklyn, N. Y. Automatic signaling device. No. 1,205,283; Nov. 21; Gaz. vol. 232; p. 675.
Stamm, George T., Upland, Cal. Machine for washing fruit. No. 1,205,117; Nov. 14; Gaz. vol. 232; p. 577.
Stamper, Dan W. (See Watts, Jesse G., assignor.)
Standard Car Truck Company. (See Webb and Barber, assignors.)
Standard Machine Company. (See Houseman, Harold E., assignor.)
Standard Machine Company. (See Housema- Harry A., assignor.)
Standard Oil Company. (See Starke, Paul A. and E. A., assignors.)
Standard Oil Company of New York. (See Bemis, William E., assignor.)
Standard Ordnance Corporation, The. (See Bellamore, David H., assignor.)
Standard Sanitary Manufacturing Company. (See Sieber, Ernest J., assignor.)
Standard Scale & Supply Company, The. (See McGarvey, Edward, assignor.)
Standard Varnish Works. (See Beausejour, Reme A., assignor.)
Standard Welding Company, The. (See Butcher, Harry E., assignor.)
Standard Welding Company, The. (See Gressle, Charles W., assignor.)
Standard Welding Company, The. (See Guthrie, Tracy W., assignor.)
Standard Welding Company, The. (See Sessions, Frank L., assignor.)
Standley, Meredith G., Cincinnati, Ohio. Stamp. No. 1,206,735; Nov. 28; Gaz. vol. 232; p. 1207.
Standley, Meredith G., and C. W. Gosnell, Cincinnati, Ohio; said Gosnell assignor to said Standley. Hand-stamp. No. 1,206,766; Nov. 28; Gaz. vol. 232; p. 1218.
Stanworth, Charles S., Norfolk, Va. Speed and range finder. No. 1,206,481; Nov. 28; Gaz. vol. 232; p. 1120.
Starin, Frank, Springfield, Mass. Cage for ball-bearings. No. 1,203,928; Nov. 7; Gaz. vol. 232; p. 133.
Starin, Frank, Springfield, Mass. Ball-bearing. No. 1,206,482; Nov. 28; Gaz. vol. 232; p. 1120.
Stark, Abraham S., New York, N. Y. Watchcase. No. 1,204,082; Nov. 7; Gaz. vol. 232; p. 187.
Stark, William O., assignor to Bullock Tractor Company, Chicago, Ill. Tractor of the endless-track type. No. 1,204,516; Nov. 14; Gaz. vol. 232; p. 369.
Starke, Adolph A., assignor of four-tenths to J. A. Cabot and one-tenth to R. Dikeman, New York, N. Y. Automatic train-control system. No. 1,204,910; Nov. 14; Gaz. vol. 232; p. 506.
Starke, Augusta G. (See Starke, Frederick W. and A. G.)
Starke, Eric A. (See Starke, Paul A. and E. A.)
Starke, Frederick W. and A. G., West Orange, N. J. Garment gage and marker. No. 1,203,929; Nov. 7; Gaz. vol. 232; p. 133.
Starke, Paul A. and E. A., Berkeley, assignors to Standard Oil Company, Richmond, Cal. Synthetic production of nitrogen compounds. No. 1,206,155; Nov. 28; Gaz. vol. 232; p. 1010.
Starke, Paul A. and E. A., Berkeley, Cal., assignors to Standard Oil Company, Richmond, Cal. Purifying and improving hydrocarbon gases. No. 1,206,156; Nov. 28; Gaz. vol. 232; p. 1010.
Starr, Alden B., New York, N. Y. Apparatus for manufacturing cement boards. No. 1,204,083; Nov. 7; Gaz. vol. 232; p. 187.
Staten Island Chemical Corporation. (See Boehringer, Rudolph, assignor.)
Stearns, Jason C., Worcester, Mass. Steering-column switch. No. 1,204,606; Nov. 14; Gaz. vol. 232; p. 402.
Stearns, Leo B. (See Stearns, Marco B. and L. B.)
Stearns, Marco B., Huntington Beach, Cal., and L. B. Stearns, Yuma, Ariz. Safety-razor. No. 1,205,576; Nov. 21; Gaz. vol. 232; p. 777.
Stearns, Worth R., and A. H. McDermott, Spokane, Wash. Label-affixer. No. 1,203,660; Nov. 7; Gaz. vol. 232; p. 38.
Stebler, Fred, Riverside, Cal. Fruit-washing machine. No. 1,205,118; Nov. 14; Gaz. vol. 232; p. 577.
Stebler, Fred, Riverside, Cal. Fruit-washing machine. No. 1,205,119; Nov. 14; Gaz. vol. 232; p. 578.
Steckler, George W., and G. M. Bowen, Brooklyn, N. Y. Container for lard and butter. No. 1,205,807; Nov. 21; Gaz. vol. 232; p. 857.
Stedler, Henry W., Boston, assignor of one-fourth to L. H. Cox, Winthrop, Mass. Machine for marking button-holes. No. 1,206,610; Nov. 28; Gaz. vol. 232; p. 1164.
Steele, Earl E., Toledo, Ohio. Rope-fastener. No. 1,205,808; Nov. 21; Gaz. vol. 232; p. 858.
Steele, George R., Newtonville, Mass. Ledger-sheet. No. 1,203,804; Nov. 7; Gaz. vol. 232; p. 88.
Steele, James K., Chicago, Ill. Umbrella. No. 1,205,809; Nov. 21; Gaz. vol. 232; p. 858.
Steen, Halfdan A., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Overload protective device. No. 1,206,157; Nov. 28; Gaz. vol. 232; p. 1010.
Steglich, William H., King City, Cal. Pedal-lock. No. 1,205,577; Nov. 21; Gaz. vol. 232; p. 778.
Steinacker, Frank W., Cleveland, Ohio. Bobbin for spinning-machines. No. 1,204,517; Nov. 14; Gaz. vol. 232; p. 369.
Steinberger, Louis, Brooklyn, N. Y. Strain-insulator. No. 1,205,812; Nov. 21; Gaz. vol. 232; p. 859.
Steinberger, Louis, New York, N. Y. Safety strain disk insulator. No. 1,206,159; Nov. 28; Gaz. vol. 232; p. 1011.
Steinberger, Louis, New York, N. Y. Safety strain-insulator. No. 1,206,158; Nov. 28; Gaz. vol. 232; p. 1011.
Steinberger, Louis, New York, N. Y. High-potential insulator. No. 1,206,160; Nov. 28; Gaz. vol. 232; p. 1012.
Steinberger, Louis, Brooklyn, N. Y. Spark-plug. No. 1,206,736; Nov. 28; Gaz. vol. 232; p. 1207.
Steinberger, Louis, Brooklyn, N. Y. Binding-post. No. 1,206,737; Nov. 28; Gaz. vol. 232; p. 1207.
Steinberger, Louis, Brooklyn, N. Y. Connecting device for electrical conductors. No. 1,206,738; Nov. 28; Gaz. vol. 232; p. 1208.
Steiner, Bernhard, Brooklyn, N. Y. Fastener. No. 1,205,053; Nov. 14; Gaz. vol. 232; p. 555.
Steinmetz, Herman, Rochester, N. Y. Sheet-lifting mechanism. No. 1,203,930; Nov. 7; Gaz. vol. 232; p. 134.
Stellmacher, Wilhelm. (See Hardegger, Hans, assignor.)
Stengel, Earl W., near Beresford, S. D. Railway-spike. No. 1,206,161. Nov. 28; Gaz. vol. 232; p. 1012.
Stenger, Grace C. (See Frederickson, Clayton E., assignor.)
Stenning, Harry A., London, England, assignor to Locomotive Superheater Company, New York, N. Y. Combined by-pass valve and controlling device for engine-cylinders. No. 1,206,266; Nov. 28; Gaz. vol. 232; p. 1048.
Stephan, Jacob F., New York, N. Y. Game device. No. 1,203,805; Nov. 7; Gaz. vol. 232; p. 88.
Steudel, Erich, Chicago, Ill. Folding paper box. No. 1,206,678; Nov. 21; Gaz. vol. 232; p. 813.
Stevens, Alton E. (See Henry and Stevens.)
Stevens, John C., assignor to Leupold, Voelpel & Co., Portland, Oreg. Differential-water-stage recorder. No. 1,205,679; Nov. 21; Gaz. vol. 232; p. 814.
Stewart, Arthur L. (See Gleason, Stewart, and Bullock.)
Stewart, Benjamin F., Chicago, Ill. Gas-engine. No. 1,206,162; Nov. 28; Gaz. vol. 232; p. 1012.
Stewart, Charles F., Nashville, Kans. Brace for vehicle-gear and shaft housings. No. 1,205,284; Nov. 21; Gaz. vol. 232; p. 675.
Stewart Elevator Safety Latch Co. (See Stewart, John H., assignor.)
Stewart, John H., Jamaica, assignor to Stewart Elevator Safety Latch Co., Queens county, N. Y. Safety-latch for elevator-doors. No. 1,203,931; Nov. 7; Gaz. vol. 232; p. 134.
Stewart, John H., Waterloo, Iowa, assignor to The Albright Nell Co., Chicago, Ill. Bristle-removing machine. No. 1,204,518; Nov. 14; Gaz. vol. 232; p. 370.
Stewart, John K., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Steering-wheel drive for automobile-carried instruments. No. 1,205,054; Nov. 14; Gaz. vol. 232; p. 555.
Stewart, John K., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Air-starter for automobile-engines. No. 1,205,055; Nov. 14; Gaz. vol. 232; p. 556.
Stewart, Tira S., assignor of one-half to E. L. Isbell, Jr., Terre Haute, Ind. Car-fender. No. 1,206,163; Nov. 28; Gaz. vol. 232; p. 1012.

Stewart-Warner Speedometer Corporation. (See Ross, Frank A., assignor.)
Stewart-Warner Speedometer Corporation. (See Stewart, John K., assignor.)
Stickney, Burnham C., Elisabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,204,202; Nov. 7; Gaz. vol. 232; p. 228.
Stickney, Burnham C., Elisabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,204,326; Nov. 7; Gaz. vol. 232; p. 268.
Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Shuttle for weft-replenishing looms. No. 1,204,084; Nov. 7; Gaz. vol. 232; p. 188.
Stimpson, Walter F., Detroit, Mich. Mill. No. 1,205,285; Nov 21; Gaz. vol. 232; p. 676.
Stock, Henry F., Waukesha, Wis. Pasteurising-machine. No. 1,203,806; Nov. 7; Gaz. vol. 232; p. 89.
Stocker, Allison. (See Meeder, Herbert L., assignor.)
Stokes, Jane G., assignor to Jane Gray Company, New York, N. Y. Doll. No. 1,206,483; Nov. 28; Gaz. vol. 232; p. 1120.
Stoll, Frank M., Denver, Colo. Shock-absorbing motor cycle rear seat. No. 1,205,489; Nov. 21; Gaz. vol. 232; p. 745.
Stolz, Harry C., Franklin, Pa. Cylinder for gas-engines. No. 1,203,807; Nov. 7; Gaz. vol. 232; p. 89.
Stone Straw Company, The. (See Maltby and Casey, assignors.)
Stone Straw Company, The. (See Maltby, Lewis C., assignor.)
Stoneburner, Thomas R., Alexandria, Va. Portable shield for soldiers. No. 1,205,680; Nov. 21; Gaz. vol. 232; p. 814.
Stover Manufacturing Company. (See McCulloch, Harry G., assignor.)
Stowe, Charles B., Lakewood, Ohio. Making refractory materials. No. 1,205,056; Nov. 14; Gaz. vol. 232; p. 556.
Strache, Hugo, and P. Porges, Vienna, Austria-Hungary. Converting heavy hydrocarbons into light hydrocarbons. No. 1,205,578; Nov. 21; Gaz. vol. 232; p. 778.
Straight, Bennett D., assignor to Mail-om-eter Company, Detroit, Mich. Stamp-affixing machine. No. 1,203,932; Nov. 7; Gaz. vol. 232; p. 135.
Straight, Halver R., Adel, Iowa. Self-supporting-tile roof. No. 1,203,933; Nov. 7; Gaz. vol. 232; p. 135.
Straight, Halver R., Adel, Iowa. Ventilated building-block. No. 1,203,934; Nov. 7; Gaz. vol. 232; p. 136.
Strain, Kenneth E., and H. E. Dawson, Reynoldsburg, Ohio. Auto-heater. No. 1,204,713; Nov. 14; Gaz. vol. 232; p. 438.
Strandt, Gustav, assignor to Milwaukee Dairy Supply Manufacturing Company, Milwaukee, Wis. Bottle-filling machine. No. 1,204,607; Nov. 14; Gaz. vol. 232; p. 402.
Straub, William F., assignor to Electric Time Recorder Company, Chicago, Ill. Time-stamp. No. 1,204,714; Nov. 14; Gaz. vol. 232; p. 438.
Straube Piano Company. (See Olsen, Roy H., assignor.)
Strauch, Myrle, Vanderbilt, Pa. Table. No. 1,205,286; Nov. 21; Gaz. vol. 232; p. 676.
Streb, Charles, assignor of one-half to F. Boyer, Rochester, N. Y. Footwear. No. 1,205,579; Nov. 21; Gaz. vol. 232; p. 778.
Stretch, Eugene, Shelbyville, Ill. Automobile-hoist. No. 1,205,490; Nov. 21; Gaz. vol. 232; p. 745.
Stringham, Thomas W., Lodi, Cal. Distributer for liquids. No. 1,203,935; Nov. 7; Gaz. vol. 232; p. 136.
Strode, George H., Columbus, Ohio. Switch-lock. No. 1,206,611; Nov. 28; Gaz. vol. 232; p. 1165.
Stronghart Company. (See Kusel, Isidor J., assignor.)
Strosacker, Charles J., assignor to The Dow Chemical Company, Midland, Mich. Making carbon tetrachlorid. No. 1,204,608; Nov. 14; Gaz. vol. 231; p. 402.
Stroud, David H., Philadelphia, Pa. Finishing cut-pile rug or carpet fabrics. No. 1,206,048; Nov. 28; Gaz. vol. 232; p. 974.
Strubbar, Valentine, Washington, Ill. Scraper. No. 1,203,936; Nov. 7; Gaz. vol. 232; p. 136.
Strube, George F., Chicago, Ill. Artificial bait. No. 1,204,204; Nov. 7; Gaz. vol. 232; p. 229.
Stryhal, Joseph M., Washington, D. C. Valve-grinding tool. No. 1,206,164; Nov. 28; Gaz. vol. 232; p. 1013.
Stuart, Francis L., Baltimore, Md. Conveying and loading apparatus. No. 1,204,208; Nov. 7; Gaz. vol. 232; p. 228.
Stuart, George W., Bay Minette, Ala. Insect-exterminator. No. 1,206,612; Nov. 28; Gaz. vol. 232; p. 1165.
Stuber & Kuck Co. (See Schnebelin, Charles F., assignor.)
Sturm, John S., Hayti, Mo. Collapsible coop or crate. No. 1,206,739; Nov. 28; Gaz. vol. 232; p. 1208.
Suekoff, Louis A., Chicago, Ill. Spring structure for use in upholstering. No. 1,205,406; Nov. 21; Gaz. vol. 232; p. 716.
Sugar Centrifugal Discharger Company. (See Roberts, Eugene, assignor.)
Sugden, Edmonds J. (See McKibbin, John B., assignor.)
Suggs, Buck. (See Suggs, Willis, assignor.)
Suggs, Willis, assignor of one-half to B. Suggs, Holly Springs, Miss. Bouquet-holder. No. 1,206,165; Nov. 28; Gaz. vol. 232; p. 1013.
Sulenski, Frank, Brooklyn, N. Y. Stool. No. 1,205,067; Nov. 14; Gaz. vol. 232; p. 557.
Sullivan Machinery Company. (See Ball, Albert, assignor.)
Sullivan Machinery Company. (See London, Jacob, assignor.)
Sullivan Machinery Company. (See Officer and Mercer, assignors.)
Sullivan, Maurice, New York, N. Y. Insulation-forming machine. No. 1,203,808; Nov. 7; Gaz. vol. 232; p. 89.
Sullivan, Woodruff T., Norwich, Conn. Attachment for talking-machines. No. 1,205,407; Nov. 21; Gaz. vol. 232; p. 716.
Summers, Robert A., Lemoncove, Cal. Mud-guard for automobiles. No. 1,206,166; Nov. 28; Gaz. vol. 232; p. 1013.
Sundh, August, Hastings-upon-Hudson, N. Y. Gate-hinge. No. 1,205,491; Nov. 21; Gaz. vol. 232; p. 746.
Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Hydraulic variable and differential speed gear. No. 1,206,387; Nov. 28; Gaz. vol. 232; p. 1088.
Sundh, August, Hastings-upon-Hudson, N. Y., and W. F. Mayer, Hoboken, N. J., assignors to Otis Elevator Company. Elevator system. No. 1,206,388; Nov. 28; Gaz. vol. 232; p. 1089.
Sundstrand, Carl A., Rockford, Ill. Fountain-brush. No. 1,205,681; Nov. 21; Gaz. vol. 232; p. 814.
Supplee, Samuel G., East Orange, N. J., and C. J. E. Engstrom, Los Angeles, Cal. Dental rubber composition and manufacture of same. No. 1,204,609; Nov. 14; Gaz. vol. 232; p. 403.
Suren, Nathan H., Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Alarm-controlling means for sprinkler systems. No. 1,204,327; Nov. 7; Gaz. vol. 232; p. 269.
Suren, Nathan H., Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Automatic valve. No. 1,205,408; Nov. 21; Gaz. vol. 232; p. 717.
Surface, Taylor K., Merna, Nebr. Flag-holder for automobiles. No. 1,203,937; Nov. 7; Gaz. vol. 232; p. 136.
Sutcliffe, Edgar R., Leigh, England. Manufacture of tiles, roof-sheets, and the like. No. 1,204,085; Nov. 7; Gaz. vol. 232; p. 188.
Sutcliffe, Edgar R., Leigh, England. Tiles, roof-sheets, and the like. No. 1,204,086; Nov. 7; Gaz. vol. 232; p. 189.
Sutherlin, Robert M., Kansas City, Mo. Spark-intensifier. No. 1,205,682; Nov. 21; Gaz. vol. 232; p. 815.
Swan, Charles H., Cassopolis, Mich. Silo construction. No. 1,206,484; Nov. 28; Gaz. vol. 232; p. 1121.
Swanson, Fred W. (See Bristol, Cyrus J., assignor.)
Swanson, Sven, Chicago, Ill. Blackboard-eraser. No. 1,206,267; Nov. 28; Gaz. vol. 232; p. 1048.
Sweetland, Ernest J., Montclair, N. J. Pressure-filter. (Reissue.) No. 14,213; Nov. 7; Gaz. vol. 232; p. 291.
Sweets Catalogue Service Inc. (See Annable, George A., assignor.)
Swem, Daniel D. (See Irwin and Swem.)
Swenson, Carl E. (See Faust, Swenson, and Anderson.)
Swetzel, Amanda D., Philadelphia, Pa. Diaper. No. 1,206,167; Nov. 28; Gaz. vol. 232; p. 1014.
Swift, Earl R., Nebraska City, Nebr. Buckle. No. 1,205,492; Nov. 21; Gaz. vol. 232; p. 746.
Swikard, Edward L., Chicago, Ill. Robe-holder. No. 1,203,809; Nov. 7; Gaz. vol. 232; p. 90.
Swink, Arthur, Bluff City, Kans. Key-remover. No. 1,205,409; Nov. 21; Gaz. vol. 232; p. 717.
Symons, Wilson E., Chicago, Ill. Car-roof. No. 1,206,268; Nov. 28; Gaz. vol. 232; p. 1048.
Synck, Henry, and B. B. Rollman, assignors to New Idea Spreader Co., Coldwater, Ohio. Feeding mechanism for manure-spreaders. No. 1,205,813; Nov. 21; Gaz. vol. 232; p. 850.
Synthetic Patents Co. (See Meckbach, Ernst, assignor.)
Sypho-Chemical Sprinkler Corporation. (See Thompson, Everett L., Jr., assignor.)
T. H. Rideout Manufacturing Company. (See Rideout, Thomas H., assignor.)
T. L. Smith Company. (See Brackenbury, Edward W., assignor.)
T. M. Chapman's Sons' Company. (See Chapman, Ralph W., assignor.)
Tackmann, Carl E., Columbus, Ohio. Reproducer attachment. No. 1,206,168; Nov. 28; Gaz. vol. 232; p. 1014.
Taft, Augustus H., Fair Haven, Vt. Bolt or railway spike. No. 1,205,580; Nov. 21; Gaz. vol. 232; p. 779.
Taft, Samuel B., *et al.* (See Landry, Louis H., assignor.)
Tagograph Company. (See Anthony and Flurscheim, assignors.)
Tague, John J., New York, assignor of one-half to H. Bollman, Brooklyn, N. Y. Valve. No. 1,206,485; Nov. 28; Gaz. vol. 232; p. 1121.
Talbot, Adolphus R., *et al.* (See Sharpnack and Nash, assignors.)
Talbot, Charles L., Chicago, Ill. Delivery-vehicle. No. 1,206,169; Nov. 28; Gaz. vol. 232; p. 1014.
Taliaferro, Nathan C. (See Rigney, Meakin, assignor.)
Tallyn, Arthur H., Benson, Ill. Cutting-tool. No. 1,205,068; Nov. 14; Gaz. vol. 232; p. 557.
Tank, August F., Suover, assignor of one-half to C. J. Oleson, Sandusky, Mich. Ladder. No. 1,206,049; Nov. 28; Gaz. vol. 232; p. 974.

Task, Henry, assignor of one-half to J. Laube, Detroit, Mich. Coffee-percolator. No. 1,203,661; Nov. 7; Gaz. vol. 232; p. 38.
Tate, Robert L., assignor of one-half to W. J. Hartley, Atlanta, Ga. Illuminating device for musical instruments. No. 1,204,205; Nov. 7; Gaz. vol. 232; p. 229.
Tatum, Jeptha C., Richland, Ga. Shoe-heel. No. 1,206,050; Nov. 28; Gaz. vol. 232; p. 974.
Tatum, Jeptha C., Richland, Ga. Shoe-heel. No. 1,206,051; Nov. 28; Gaz. vol. 232; p. 974.
Tatum, Lewis L., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Rheostat. No. 1,203,810; Nov. 7; Gaz. vol. 232; p. 90.
Taurman, Alphonso, Richmond, Va. Automatic car-stop. No. 1,205,814; Nov. 21; Gaz. vol. 232; p. 860.
Taylor, Abram L. (See Palmer and Taylor.)
Taylor, Alva R., Vernon, Tex. Automobile-jack. No. 1,203,811; Nov. 7; Gaz. vol. 232; p. 90.
Taylor, Gardner A., Salinas, Cal. Draft attachment for vehicles. No. 1,206,269; Nov. 28; Gaz. vol. 232; p. 1049.
Taylor, George H., Wakefield, Mass. Mat-holder. No. 1,205,581; Nov. 21; Gaz. vol. 232; p. 779.
Taylor, George N. (See Rand and Taylor.)
Taylor, Harry T., Hattiesburg, Miss. Woodworking-machine. No. 1,204,829; Nov. 14; Gaz. vol. 232; p. 477.
Taylor, Herbert B., Columbus, Ohio. Computing-toll-rate map. No. 1,205,811; Nov. 21; Gaz. vol. 232; p. 858.
Taylor Instrument Companies. (See Collinson, Francis E., assignor.)
Taylor, John S., London, England. Closing means for jars and other vessels. No. 1,204,715; Nov. 14; Gaz. vol. 232; p. 439.
Taylor, Joseph, *et al.* (See Rosen, David, assignor.)
Taylor, Ralph H., Butte, Mont. Match-striking attachment for garments. No. 1,206,170; Nov. 28; Gaz. vol. 232; p. 1015.
Taylor, Robert W. (See Green, James, assignor.)
Taylor, William J., Boise, Idaho. Automatic automobile-lifter. No. 1,205,815; Nov. 21; Gaz. vol. 232; p. 860.
Teague, Joseph W., and J. Hartman, Salt Lake City, Utah. Coin-controlled mechanism. No. 1,205,816; Nov. 21; Gaz. vol. 232; p. 860.
Teeling, John F., Wayville, N. Y. Fishing-line holder. No. 1,206,613; Nov. 28; Gaz. vol. 232; p. 1165.
Templin, Joseph H. (See Wiedemann and Templin.)
Templin, Joseph H., Philadelphia, Pa., assignor, by mesne assignments, to General Electric Company. Apparatus for unloading vacuum-pumps. No. 1,206,614; Nov. 28; Gaz. vol. 232; p. 1165.
Templin, Joseph H., Philadelphia, Pa., assignor, by mesne assignments, to General Electric Company. Duplex pumping apparatus. No. 1,206,615; Nov. 28; Gaz. vol. 232; p. 1166.
Tendollen, John. (See Liefbroer and Tendollen.)
Tengdin, Charles G., Kankakee, Ill. Tool for setting boiler-tubes. No. 1,205,817; Nov. 21; Gaz. vol. 232; p. 861.
Tenney, Alonzo C., Chicago, Ill. Injection apparatus. No. 1,205,410; Nov. 21; Gaz. vol. 232; p. 717.
Tenney, Harry O. (See Thomas, Edwin E., assignor.)
Ternstedt, Alvar K., assignor to Perfect Window Regulator Company, New York, N. Y. Window-operating device. No. 1,206,052; Nov. 28; Gaz. vol. 232; p. 975.
Terrio, Joseph A., Ogdensburg, Wis. Egg-handling device. No. 1,203,938; Nov. 7; Gaz. vol. 232; p. 137.
Terwilliger, Byron, Grants Pass, Oreg. Rake. No. 1,206,486; Nov. 28; Gaz. vol. 232; p. 1121.
Tesoroni, Angelo, assignor to Sloan & Company, Newark, N. J. Bracelet. No. 1,205,287; Nov. 21; Gaz. vol. 232; p. 670.
Tessler, Julien, assignor to Lubin Film Company, Philadelphia, Pa. Motion-picture-printing machine. No. 1,205,582; Nov. 21; Gaz. vol. 232; p. 779.
Tessler, Julien, assignor to Lubin Manufacturing Company, Philadelphia, Pa. Film cleaning and polishing mechanism. No. 1,205,583; Nov. 21; Gaz. vol. 232; p. 780.
Tewell, Martin L., Pittsburg, Kans. Screen-fastener. No. 1,206,616; Nov. 28; Gaz. vol. 232; p. 1166.
Textile Machine Works. (See Rahm and Wilson, assignors.)
Thackeray, William. (See Heaps and Thackeray.)
Thaw, Benjamin, Jr., Pittsburg, Pa. Internal-combustion engine. No. 1,204,610; Nov. 14; Gaz. vol. 232; p. 403.
Thaxton, William L., Baltimore, Md. Measuring-pump attachment. No. 1,206,740; Nov. 28; Gaz. vol. 232; p. 1209.
Therio, James, Summit Lake, assignor of one-half to D. R. Hale, Antigo, Wis. Folding box or crate. No. 1,204,611; Nov. 14; Gaz. vol. 232; p. 403.
Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Back-spacing mechanism. No. 1,204,612; Nov. 14; Gaz. vol. 232; p. 404.
Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Totalizer-controlling mechanism for calculating-machines. No. 1,206,270; Nov. 28; Gaz. vol. 232; p. 1049.
Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Paper-support for writing-machines. No. 1,206,271; Nov. 28; Gaz. vol. 232; p. 1049.
Thierfelder, Richard, assignor to Phoenix Knitting Works, Milwaukee, Wis. Wearing-apparel. No. 1,206,171; Nov. 28; Gaz. vol. 232; p. 1015.
Thom, George L. (See Fargo and Thom.)
Thomas, David H. (See Harris, John, assignor.)
Thomas, George B., assignor to The Bryant Electric Company, Bridgeport, Conn. Electric-lamp socket. No. 1,206,617; Nov. 28; Gaz. vol. 232; p. 1166.
Thomas, Edwin E., assignor to H. O. Tenney, Portland, Oreg. Dash-pot. No. 1,205,818; Nov. 21; Gaz. vol. 232; p. 861.
Thomas, Edwin E., assignor to H. O. Tenney, Portland, Oreg. Resilient wheel-rim. No. 1,205,819; Nov. 21; Gaz. vol. 232; p. 862.
Thomas Foreign Patents Limited. (See Thomas, John G. P., assignor.)
Thomas, George B., assignor to The Bryant Electric Company, Bridgeport, Conn. Attachment-plug and receptacle. No. 1,205,683; Nov. 21; Gaz. vol. 232; p. 815.
Thomas Halton's Sons. (See Halton, Thomas H., assignor.)
Thomas, Horace T., Lansing, Mich. Engine-starter. No. 1,205,059; Nov. 14; Gaz. vol. 232; p. 557.
Thomas, James C., assignor to Dain Manufacturing Company of Iowa, Ottumwa, Iowa. Press. No. 1,205,949; Nov. 21; Gaz. vol. 232; p. 903.
Thomas, John G. P., Chiswick, assignor to Thomas Foreign Patents Limited, London, England. Gearing. No. 1,203,662; Nov. 7; Gaz. vol. 232; p. 38.
Thomas, John G. P., Chiswick, assignor to Thomas Foreign Patents Limited, Kensington, London, England. Driving of road-vehicles. No. 1,203,663; Nov. 7; Gaz. vol. 232; p. 39.
Thomas, John G. P., Kensington, assignor to Thomas Foreign Patents Limited, London, England. Driving of road and rail vehicles. No. 1,203,664; Nov. 7; Gaz. vol. 232; p. 39.
Thomas, John L., Scandia, Kans. Beet-harvester. No. 1,205,060; Nov. 14; Gaz. vol. 232; p. 557.
Thomas Maddock's Sons Company. (See Kelly, John F., assignor.)
Thomas Maddock's Sons Company. (See Maddock, Harold S., assignor.)
Thomas, Nicholas, Burlington, Wis. Power-transmitting device. No. 1,205,288; Nov. 21; Gaz. vol. 232; p. 676.
Thomas, Percy H., East Orange, assignor, by mesne assignments, to Cooper-Hewitt Electric Company, Hoboken, N. J. Mercury-vapor apparatus. No. 1,203,812; Nov. 7; Gaz. vol. 232; p. 91.
Thomas-Peter Company, The. (See Dungan, John E., assignor.)
Thomas, Robert E., Coplay, Pa. Sprocket and gear wheel. No. 1,206,172; Nov. 28; Gaz. vol. 232; p. 1015.
Thomas, Samuel F., Philadelphia, Pa. Plastic sign. No. 1,204,613; Nov. 14; Gaz. vol. 232; p. 404.
Thomason, William P., Ellersle, Ga. Hoe. No. 1,204,206; Nov. 7; Gaz. vol. 232; p. 229.
Thompson, Allen L., Salt Lake City, Utah. Combined flue-thimble and stovepipe-fastener. No. 1,204,614; Nov. 14; Gaz. vol. 232; p. 404.
Thompson, Daniel W., Wilmington, Ohio. Railway-tie. No. 1,205,820; Nov. 21; Gaz. vol. 232; p. 862.
Thompson, Everett L., Dover, N. J., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y. Telephonic fire-alarm apparatus. No. 1,206,053; Nov. 28; Gaz. vol. 232; p. 975.
Thompson, Everett L., Jr., Dover, N. J., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y. Chemical fire-extinguishing apparatus. No. 1,206,173; Nov. 28; Gaz. vol. 232; p. 1016.
Thompson, Frank E., Edmonton, Alberta, Canada. Box. No. 1,205,821; Nov. 21; Gaz. vol. 232; p. 862.
Thompson, George W., Springfield, Mo. Resilient wheel. No. 1,203,939; Nov. 7; Gaz. vol. 232; p. 137.
Thompson, Lester H., Brooklyn, N. Y., assignor of one-third to J. P. Benjamin, Chicago, Ill., and one-third to A. P. Williams, West Upton, Mass. Change-making apparatus. No. 1,204,911; Nov. 14; Gaz. vol. 232; p. 506.
Thompson, Percy W., Tuscaloosa, Ala. Transmission-gearing for bicycles. No. 1,204,519; Nov. 14; Gaz. vol. 232; p. 370.
Thompson, Samuel A., New York, N. Y. Type-writer. No. 1,204,012; Nov. 14; Gaz. vol. 232; p. 507.
Thompson, William B., *et al.* (See Grunow, William, Jr., assignor.)
Thompson, Winfred A. (See Small, John F., assignor.)
Thorne, Robert H., assignor of one-half to J. L. Hough, Williamsport, Pa. Valve. No. 1,204,087; Nov. 7; Gaz. vol. 232; p. 189.
Thorp, Lewis W., Springfield, Mo. Vehicle-wheel. No. 1,203,813; Nov. 7; Gaz. vol. 232; p. 91.
Thorssell, Carl T., Gottenborg, Sweden. Evaporation and distillation of liquids. No. 1,204,716; Nov. 14; Gaz. vol. 232; p. 439.
Thrasher, Catherine I. (See Thrasher, Franklin J. and C. I.)
Thrasher, Franklin J. and C. I., Hallowell, Me. Parcel-post and merchandise protector. No. 1,206,618; Nov. 28; Gaz. vol. 232; p. 1167.
Threadless Button Company, The. (See Snyder, George C., assignor.)
Throne, Robert P., Syracuse, assignor to R. E. Dietz Company, New York, N. Y. Guard for lanterns. No. 1,204,207; Nov. 7; Gaz. vol. 232; p. 229.
Thull, Joseph J., Boyd, Wis. Door-latch. No. 1,205,061; Nov. 14; Gaz. vol. 232; p. 558.
Thull, Joseph J., Boyd, Wis. Adjustable set-wrench. No. 1,204,208; Nov. 7; Gaz. vol. 232; p. 229.

Thull, Joseph J., Boyd, Wis. Bolt-keeper. No. 1,204,209; Nov. 7; Gaz. vol. 232; p. 230.
Thurber, Guy P., Pittsburgh, Pa. Train-control system. No. 1,204,717; Nov. 14; Gaz. vol. 232; p. 439.
Thuriander, Konstantine and V. B. Nelson, assignors to National Lock Company, Rockford, Ill. Desk-fall support. No. 1,205,411; Nov. 21; Gaz. vol. 232; p. 718.
Thurley, Benjamin, *et al.*, trustees. (See Alford, Harvey C., assignor.)
Tideman, Henry, Menominee, Mich., assignor of one-half to B. B. Downs, St. Paul, Minn. Suction cleaning device. No. 1,205,412; Nov. 21; Gaz. vol. 232; p. 718.
Tielkemeyer, Henry, St. Louis, Mo. Convertible updraft and downdraft boiler. No. 1,206,272; Nov. 28; Gaz. vol. 232; p. 1050.
Tims, Elmer W., and J. T. Morie, Youngstown, Ohio. Lever-locking device. No. 1,204,210; Nov. 7; Gaz. vol. 232; p. 230.
Tinsley, Addison B., Ansted, W. Va. Combined mold and shipping-box. No. 1,205,413; Nov. 21; Gaz. vol. 232; p. 718.
Titanium Alloy Manufacturing Company, The. (See Barton, Louis E., assignor.)
Titanium Alloy Manufacturing Company, The. (See Rossi and Schroeder, assignors.)
Titus, Richard, Bowling Green, Ohio. Device for pulling beets, thistles, and the like. No. 1,205,414; Nov. 21; Gaz. vol. 232; p. 719.
Toledo Scale Company, The. (See Hapgood, Clarence H., assignor.)
Toledo Scale Company. (See Mingle, William J., assignor.)
Toledo Scale Company. (See Wetzel, Lewis C., assignor.)
Tolley, Charles H., Ilion, N. Y. Wave motor. No. 1,204,088; Nov. 7; Gaz. vol. 232; p. 189.
Tomkinson, Arthur, Grindrod, British Columbia, Canada. Planer-knife-setting gage. No. 1,203,814; Nov. 7; Gaz. vol. 232; p. 91.
Tone, Frank J., assignor to The Carborundum Company, Niagara Falls, N. Y. Silicon-carbid refractory article. No. 1,204,211; Nov. 7; Gaz. vol. 232; p. 230.
Topliff-Ely Company. (See Hawkinson, Axel W., assignor.)
Torrison, Aaron J., Manitowoc, Wis. Form for displaying clothing. No. 1,203,815; Nov. 7; Gaz. vol. 232; p. 92.
Torsion Balance Company, The. (See Becker, Christopher A., assignor.)
Tothill, William S., Chicago, Ill. Supporting means for inclined ladders. No. 1,205,684; Nov. 21; Gaz. vol. 232; p. 815.
Touff, Louis E. (See Smith, Andrew B., assignor.)
Trau, Francis H., St. Louis, Mo. Washing-machine. No. 1,206,174; Nov. 28; Gaz. vol. 232; p. 1016.
Traube, Abraham, New York, N. Y. Washing-machine. No. 1,205,415; Nov. 21; Gaz. vol. 232; p. 719.
Traut & Hine Manufacturing Company, The. (See Myers, Louis, assignor.)
Tregoning, William C., Cleveland, Ohio, assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill. Electrical connection. No. 1,203,816; Nov. 7; Gaz. vol. 232; p. 92.
Treleaven, Peter, San Diego, Cal. Bag-holder. No. 1,206,619; Nov. 28; Gaz. vol. 232; p. 1167.
Triner, James M., Chicago, Ill. Scale. No. 1,203,817; Nov. 7; Gaz. vol. 232; p. 93.
Trinkl, Sam D., Huntington, Tex. Combined rotatable table, book-shelf, and lamp-support. No. 1,203,818; Nov. 7; Gaz. vol. 232; p. 93.
Trivelli, Adriaan P. H., The Hague, Netherlands. Renovated cinematograph-film. No. 1,205,822; Nov. 21; Gaz. vol. 232; p. 863.
Troop, George W., assignor to The North & Judd Manufacturing Company, New Britain, Conn. Snap-hook. No. 1,206,620; Nov. 28; Gaz. vol. 232; p. 1167.
Trosky, Bernhard, New York, N. Y. Safety-razor stropper. No. 1,205,685; Nov. 21; Gaz. vol. 232; p. 816.
Trout, Calvin L., Wellington, Tex. Plow-point attachment. No. 1,205,416; Nov. 21; Gaz. vol. 232; p. 719.
Trout, William H., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Edging-machine for lumber. No. 1,203,940; Nov. 7; Gaz. vol. 232; p. 137.
Troy Laundry Machinery Company. (See Bartholomew and Allen, assignors.)
Trull, Clarence A., Waco, Tex. Puzzle. No. 1,206,064; Nov. 28; Gaz. vol. 232; p. 976.
Truman, Percival H., Evanston, assignor to W. P. Murphy, Chicago, Ill. End structure for railway-cars. No. 1,206,175; Nov. 28; Gaz. vol. 232; p. 1017.
Tubular Rivet & Stud Company. (See MacDonald, Charles, assignor.)
Tucker, Gusta. (See Congdon, George W., assignor.)
Tucker, James Z., and L. W. Markwort, St. Louis, Mo. Sparking plug. No. 1,205,289; Nov. 21; Gaz. vol. 232; p. 677.
Tucker, Walter E., *et al.* (See Rogers, Walter K., assignor.)
Tucker, William P., Brooklyn, N. Y. Sanding device. No. 1,205,823; Nov. 21; Gaz. vol. 232; p. 863.
Tuckey, Edson N., Syracuse, N. Y. Educational appliance. No. 1,204,089; Nov. 7; Gaz. vol. 232; p. 189.
Turner, Avery S., Butte, Mont. Bottle-washing brush. No. 1,205,290; Nov. 21; Gaz. vol. 232; p. 677.
Turner, Charles A., Utica, N. Y. One-button union suit. No. 1,204,615; Nov. 14; Gaz. vol. 232; p. 405.
Turner, Charles H., assignor to Osgood Bradley Car Company, Worcester, Mass. Passenger-car. No. 1,205,417; Nov. 21; Gaz. vol. 232; p. 720.
Turner & Seymour Manufacturing Company, The. (See Hills, Sidney C., assignor.)
Turney, Eugene T., assignor, by mesne assignments, to American Player Action Company, New York, N. Y. Pneumatic player. No. 1,206,176; Nov. 28; Gaz. vol. 232; p. 1017.
Turney, William H. (See Dearing, David M., assignor.)
Tuteur, Julius, assignor, by mesne assignments, to The Republic Structural Iron Works Company, Cleveland, Ohio. Supporting member for concrete structures. No. 1,206,621; Nov. 28; Gaz. vol. 232; p. 1168.
Tutleman, Elizabeth S., assignor of one-half to C. L. Hopping, Cincinnati, Ohio. Heat-neutralizing compound. No. 1,204,830; Nov. 14; Gaz. vol. 232; p. 477.
Tuttle, Charles S., Milwaukee, Wis., assignor to International Harvester Corporation. Internal-combustion engine. No. 1,204,520; Nov. 14; Gaz. vol. 232; p. 370.
Tuttle, Henry A., assignor to Evans Stamping & Plating Company, Taunton, Mass. Reversing-gearing. No. 1,204,379; Nov. 7; Gaz. vol. 232; p. 287.
Twinplex Sales Company. (See Ehrlich, Leo, assignor.)
Twyman, Frank, R. G. Parker, and A. J. Dalladay, assignors to Adam Hilger, Limited, London, England. Joining together glass surfaces. No. 1,206,177; Nov. 28; Gaz. vol. 232; p. 1018.
U. S. O. Bed Co. (See Junger, Bernhard, assignor.)
U. S. Safety Appliance Company. (See Clark, Alfred C., assignor.)
U. S. Steel Furniture Company. (See Ohnstrand, Enoch, assignor.) (Reissue.)
Udell, Perry J., Decatur, Mich. Fishing-reel. No. 1,206,178; Nov. 28; Gaz. vol. 232; p. 1018.
Uhl, Henry, Albany, Oreg. Automatic train-pipe coupling valve. No. 1,204,686; Nov. 21; Gaz. vol. 232; p. 816.
Ulrich, Charles F., Holbrook, N. Y. Lamp for motor-vehicles. No. 1,205,824; Nov. 21; Gaz. vol. 232; p. 863.
Underwood Computing Machine Company. (See Degener and Saunders, assignors.)
Underwood Computing Machine Company. (See Wright, Walter, assignor.)
Underwood Typewriter Company. (See Cooper, John J., assignor.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood Typewriter Company. (See Roberts, Lyman R., assignor.)
Underwood Typewriter Company. (See Sheckler, John H., assignor.)
Underwood Typewriter Company. (See Smith, Jesse A. B., assignor.)
Underwood Typewriter Company. (See Smith, Stephen T., assignor.)
Underwood Typewriter Company. See Stickney, Burnham C., assignor.)
Underwood Typewriter Company. (See Yanagiwara, Sukeshige, assignor.)
Union Draft Gear Company. (See Cotton, Walter H., assignor.)
Union Iron Works. (See Sidney, William E., assignor.)
Union Special Machine Company. (See Eberley, George W., assignor.)
Union Special Machine Company. (See Hughes, Robert R., Jr., assignor.)
Union Special Machine Company. (See Moffatt, James R., assignor.)
Union Steam Pump Company. (See Smith, Karl D., assignor.)
Union Switch & Signal Company, The. (See McCann, Ronald A., assignor.)
Union Switch & Signal Company. (See Nelson, Carl E., assignor.)
United Engineering Company, The. (See Beck and Rakestraw, assignors.)
United Engineering & Foundry Company. (See Biggert, Florence C., Jr., assignor.)
United Fig & Date Company. (See Salomon, Felix, assignor.)
United Gas Improvement Company, The. (See Crisfield, James A. P., assignor.)
United Gas Improvement Company, The. (See Wood, William M., assignor.)
United Gas Iron Company. (See La Rue, George W., assignor.)
United Railway Company of St. Louis. (See O'Brien, Michael, assignor.)
United Roofing & Manufacturing Company. (See Prifold, George, assignor.)
United Shoe Machinery Company. (See Ashton, Orrell, assignor.)
United Shoe Machinery Company. (See Barclay, William E., assignor.)
United Shoe Machinery Company. (See Benjamin, John M., assignor.)
United Shoe Machinery Company. (See Casgrain, Louis A., assignor.)
United Shoe Machinery Company. (See Enslin, Herbert E., assignor.)
United Shoe Machinery Company. (See Fowler, Alfred B., assignor.)
United Shoe Machinery Company. (See Gordon, William, assignor.)
United Shoe Machinery Company. (See Mayo, Benjamin F., assignor.)
United Shoe Machinery Company. (See McFeely, Ronald F., assignor.)

United Shoe Machinery Company. (See Morrill, Alfred R., assignor.)
United Shoe Machinery Company. (See Shaw, Walter, assignor.)
United States Graphite Company, The. (See Eviston, John W., assignor.)
Universal Auto Supply Co. (See Cammack and Verheyen, assignors.)
Universal Liquid Register Co. (See Brown, Charles F., assignor.)
Universal Winding Company. (See De Wolf, Ernest A., assignor.)
Universal Winding Company. (See Marcroft, William, assignor.)
Universal Winding Company. (See Rand and Taylor, assignors.)
Universal Winding Company. (See Ryden, Claes, assignor.)
Universal Wireless Telephone and Telegraph Company. (See McCarty and Douglas, assignors.)
Updegraff, Daniel F., assignor to D. O. Beistel, Hunkers, Pa. Metallic tie and rail-fastener. No. 1,206,055; Nov. 28; Gaz. vol. 232; p. 976.
Upton, Albert B., Highland Park, Mich. Portable frame for tents. No. 1,204,616; Nov. 14; Gaz. vol. 232; p. 405.
Upton Machine Company., (See Sandage, Jacob R., assignor.)
Urquhart, Alexander F., Sacramento, Cal. Shoe-lace fastener. No. 1,204,212; Nov. 7; Gaz. vol. 232; p. 231.
Vail, James G., Chester, Pa. Preparing a plastic binding composition. No. 1,206,056; Nov. 28; Gaz. vol. 232; p. 977.
Vallez, Henry A., Bay City, Mich. Recovering sugar from masse-cuite. No. 1,204,617; Nov. 14; Gaz. vol. 232; p. 405.
Valpey, Fred L., Swampscott, Mass. Machine for trimming the overflow from molded articles. No. 1,205,120; Nov. 14; Gaz. vol. 232; p. 578.
Van Buren, Jafew S., Albany, N. Y. Stove. No. 1,205,291; Nov. 21; Gaz. vol. 232; p. 677.
Van Calcar, Reinder P., Oegstgeest, J. Ellerman and H. J. Martijn, The Hague, Netherlands. Drying and sterilizing air. No. 1,203,941; Nov. 7; Gaz. vol. 232; p. 138.
Van Dorn, William T., Chicago, Ill. Metal wall for railway-cars. No. 1,203,819; Nov. 7; Gaz. vol. 232; p. 93.
Van Fleet, Herman, Ardmore, Pa., assignor to American Air-Liquefying Company, New York, N. Y. Apparatus for the separation of gaseous mixtures. No. 1,204,521; Nov. 14; Gaz. vol. 232; p. 370.
Van Heusen, John M., Jamaica Plain, Mass. Two-part suit. No. 1,204,719; Nov. 14; Gaz. vol. 232; p. 440.
Van Horn, William H. (See Kemp and Van Horn.)
Van Houten, Frank H., assignor to Dutchess Tool Company, Beacon, N. Y. Roller and bearing therefor. No. 1,205,063; Nov. 14; Gaz. vol. 232; p. 558.
Van-O-Phone Company. (See Grupe, William F., assignor.)
Van Treese, Lemuel E., Letts, Ind. Pneumatic horse-collar. No. 1,206,624; Nov. 28; Gaz. vol. 232; p. 1169.
Vander Putten, John R., New Philadelphia, Ohio. Suction carpet-sweeper. No. 1,204,718; Nov. 14; Gaz. vol. 232; p. 440.
Van der Sluys, Matthew, Paterson, N. J. Treadle starting mechanism for machines. No. 1,203,658; Nov. 7; Gaz. vol. 232; p. 37.
Vandemark, Lee, Stevenson, Wash. Cross-head connection for piston-rods. No. 1,206,622; Nov. 28; Gaz. vol. 232; p. 1168.
Vanophone Company. (See Grupe, William F., assignor.)
Vanorman, Bud, Mason City, Ill. Dirigible headlight mechanism. No. 1,206,623; Nov. 28; Gaz. vol. 232; p. 1168.
Varian, Horace L., assignor to Ammidon & Company, Baltimore, Md. Household garbage-receptacle. No. 1,205,064; Nov. 14; Gaz. vol. 232; p. 559.
Veeck, Max, and C. E. Reichert, Philadelphia, Pa. Bottle cleaning or washing brush. No. 1,206,273; Nov. 28; Gaz. vol. 232; p. 1050.
Verhey, James, and D. A. L. Jansz, Pella, Iowa. Measuring instrument. No. 1,205,687; Nov. 21; Gaz. vol. 232; p. 816.
Verheyen, Edward V. (See Cammack and Verheyen.)
Verkler, Enos C., Chicago, Ill. Garment-hanger. No. 1,204,618; Nov. 14; Gaz. vol. 232; p. 406.
Verkler, Enos C., Chicago, Ill. Garment-hanger. No. 1,204,619; Nov. 14; Gaz. vol. 232; p. 406.
Vesta Accumulator Company. (See Morrison, William, assignor.) (Reissue.)
Vetter, Walter G., Alva, Okla. Auxiliary air-intake for internal-combustion engines. No. 1,206,625; Nov. 28; Gaz. vol. 232; p. 1169.
Vey, John A., assignor to Continental Rubber Works, Erie, Pa. Tube-wrapping machine. No. 1,204,213; Nov. 7; Gaz. vol. 232; p. 231.
Vickers Limited. (See McKechnie, James, assignor.)
Vickers Limited. (See Smith, Franklin E., assignor.)
Victor Safe & Lock Company, The. (See Kline, Everett C., assignor.)
Victor Shoe Machinery Company. (See Erickson, Edward, assignor.)
Vilar, Luis J., Barcelona, Spain. Pneumatic sound-regulating mechanism for mechanical pianos and the like. No. 1,204,831; Nov. 14; Gaz. vol. 232; p. 477.
Voecks, William J., and E. N. Dyer, Rockford, Ill. School desk and seat. No. 1,206,781; Nov. 28; Gaz. vol. 232; p. 1224.
Vogel, William, New York, N. Y. Griddle-cake turner. No. 1,203,665; Nov. 7; Gaz. vol. 232; p. 39.
Voight, Henry G., New Britain, Conn. Door operating and locking device. (Reissue.) No. 14,222; Nov. 28; Gaz. vol. 232; p. 1220.
Voight, Henry G., assignor to The American Hardware Corporation, New Britain, Conn. Controlling means for sliding closures. No. 1,204,913; Nov. 14; Gaz. vol. 232; p. 507.
Voleske, John, Portland, Oreg. Power-cutter. No. 1,204,090; Nov. 7; Gaz. vol. 232; p. 189.
Volkenborn, Paul, Cologne-Ehrenfeld, Germany. Double-skip or kibble for automatically receiving loose material. No. 1,205,688; Nov. 21; Gaz. vol. 232; p. 816.
Voltz, Charles, and S. B. Cochrane, New York, N. Y. Forming chimes on metal barrels. No. 1,206,487; Nov. 28; Gaz. vol. 232; p. 1122.
Von Madaler, Katharina, West Drayton, England, assignor to Projectophone Company Inc. Apparatus for preparing combined cinematographic and phonographic records. No. 1,204,091; Nov. 7; Gaz. vol. 232; p. 190.
Voorhees, Lee J. (See Beach and Voorhees.)
Voorhees, Lee J., Binghamton, N. Y., assignor, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company. Signal-recorder. No. 1,204,214; Nov. 7; Gaz. vol. 232; p. 231.
Voorhees, Lee J., Binghamton, N. Y., assignor, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company. Signal-box. No. 1,204,215; Nov. 7; Gaz. vol. 232; p. 232.
Voss, Carl, assignor of one-half to M. J. C. Walter, Newark, N. J. Leather rolling and embossing machine. No. 1,204,092; Nov. 7; Gaz. vol. 232; p. 190.
Vulgamott, James T., Woolstock, Iowa. Conveyer. No. 1,204,620; Nov. 14; Gaz. vol. 232; p. 406.
W. H. Reisner Manufacturing Company. (See Middlekauff, Victor E., assignor.)
W. S. Rockwell Company. (See Barnhart and Jacobi, assignors.)
W. S. Rockwell Company. (See Rockwell, Walter S., assignor.)
Wachtel, Charles, Brooklyn, assignor to Interstate Electric Novelty Co., New York, N. Y. Portable electric light. No. 1,206,274; Nov. 28; Gaz. vol. 232; p. 1051.
Wachtel, Charles, Brooklyn, assignor to Interstate Electric Novelty Company, New York, N. Y. Portable electric light. No. 1,206,275; Nov. 28; Gaz. vol. 232; p. 1051.
Waggoner, John P. (See O'Brien and Waggoner.)
Wagner, Friedrich, Russdorf, assignor to Schubert & Salzer Maschinenfabrik, Aktiengesellschaft, Chemnitz, Germany. Warp-knitting frame. No. 1,206,179; Nov. 28; Gaz. vol. 232; p. 1018.
Wagner, John, Long Island City, N. Y. Closure for receptacles. No. 1,204,093; Nov. 7; Gaz. vol. 232; p. 191.
Walta, John M., Eldorado, Ill. Pulley or sheave journal and mount. No. 1,204,094; Nov. 7; Gaz. vol. 232; p. 191.
Wakefield, Albert, Washington, D. C. Propeller. No. 1,206,058; Nov. 28; Gaz. vol. 232; p. 977.
Waldorf, Fred. (See Hatch and Waldorf.)
Waldschmidt, Jacob, Fond du Lac, Wis. Tool for expanding and contracting tire-rims. No. 1,204,621; Nov. 14; Gaz. vol. 232; p. 407.
Wales, Charles, assignor to The White Adding Machine Company, New Haven, Conn. Calculating-machine. No. 1,206,059; Nov. 28; Gaz. vol. 232; p. 977.
Wales, Marie S., assignor of one-fourth to M. Bailey and one-fourth to R. M. Sievers, Oak Creek, Colo. Colander. No. 1,203,820; Nov. 7; Gaz. vol. 232; p. 94.
Walker, Asa, Sourlake, Tex. Rail-joint. No. 1,205,292; Nov. 21; Gaz. vol. 232; p. 678.
Walker, Edwin, Erie, Pa. Phonograph. No. 1,203,666; Nov. 7; Gaz. vol. 232; p. 40.
Walker, Edwin, Erie, Pa. Phonograph. No. 1,203,667; Nov. 7; Gaz. vol. 232; p. 40.
Walker, James O., Pensacola, Fla. Sap-cup holder. No. 1,203,942; Nov. 7; Gaz. vol. 232; p. 138.
Walker, James R., assignor to Niagara Alkali Company, Niagara Falls, N. Y. Self-dumping hoist. No. 1,204,216; Nov. 7; Gaz. vol. 232; p. 232.
Wall, Enos A., Salt Lake City, Utah. Mechanical stoker. No. 1,204,522; Nov. 14; Gaz. vol. 232; p. 871.
Wallace, Harry E., Redwood City, Cal. Tool-handle. No. 1,204,622; Nov. 14; Gaz. vol. 232; p. 407.
Wallach, Samuel H., New York, N. Y. Traveling-bag. No. 1,206,276; Nov. 28; Gaz. vol. 232; p. 1052.
Wallem, Axel B., Cynwyd, assignor to Harrison Safety Boiler Works, Philadelphia, Pa. Liquid-measuring apparatus. No. 1,205,294; Nov. 21; Gaz. vol. 232; p. 678.
Wallen, Charles J., Cleveland, Ohio, Ratchet-wrench. No. 1,204,095; Nov. 7; Gaz. vol. 232; p. 191.
Waller, Carl R. (See Waller, Per A., assignor.)
Waller, Charles V., Chicago, Ill. Locking-nut. No. 1,204,623; Nov. 14; Gaz. vol. 232; p. 407.
Waller, Per A., Stockholm, Sweden, assignor to C. R. Waller, Trenton, N. J. Metal sheet for acoustic purposes and making same. No. 1,204,096; Nov. 7; Gaz. vol. 232; p. 191.
Wallis Tractor Company. (See Eason and Hendrickson, assignors.)

Walls, Marion C., Clayton, Ind. Pump. No. 1,206,626; Nov. 28; Gaz. vol. 232; p. 1169.
Walrath, Mont C., North Tonawanda, N. Y. Meter-box. No. 1,206,627; Nov. 28; Gaz. vol. 232; p. 1169.
Walsh, Joseph M. *et al.*, trustees. (See Alford, Harvey C., assignor.)
Walter, Melchior J. C. (See Voss, Carl, assignor.)
Walter, Richard F., New York, N. Y. Vehicle-brake. No. 1,204,097; Nov. 7; Gaz. vol. 232; p. 191.
Wals, Julius A., Jersey City, N. J. Window-seat. No. 1,206,277; Nov. 28; Gaz. vol. 232; p. 1052.
Wampler, William M., New York, N. Y., and W. L. Conwell, Upper Montclair, N. J., assignors to The Elicon Company, New York, N. Y. Grab-handle for stanchions. No. 1,203,821; Nov. 7; Gaz. vol. 232; p. 94.
Ward, Alexander L., New York, N. Y. Collapsible container. No. 1,205,418; Nov. 21; Gaz. vol. 232; p. 720.
Ward Baking Company. (See Kohman, Godfrey, and Ashe, assignors.)
Ward Bread Company. (See Comstock, Corry B., assignor.)
Ward, Ella A., Profitt, Va. Overshoe-retainer. No. 1,206,180; Nov. 28; Gaz. vol. 232; p. 1019.
Ward, William L., H. D. Remsen, and E. C. Boerner, assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y. Nut-making machine. No. 1,203,822; Nov. 7; Gaz. vol. 232; p. 95.
Ward, William L., H. D. Remsen, and E. C. Boerner, assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y. Nut-making machine. No. 1,203,823; Nov. 7; Gaz. vol. 232; p. 95.
Ward, William L., H. D. Remsen, and E. C. Boerner, assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y. Nut-making machine. No. 1,203,824; Nov. 7; Gaz. vol. 232; p. 96.
Ward, William L., H. D. Remsen, and E. C. Boerner, assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y. Nut-making machine. No. 1,206,181; Nov. 28; Gaz. vol. 232; p. 1019.
Ware, Elmer G., Bisbee, Ariz. Spark-plug protector and cleaner. No. 1,203,943; Nov. 7; Gaz. vol. 232; p. 138.
Warfel, Henry C., Philipsburg, Pa. Door-screen. No. 1,204,833; Nov. 14; Gaz. vol. 232; p. 478.
Warner Gear Company. (See White and Peck, assignors.)
Warner, George A., Springwells, Mich. Vehicle-axle. No. 1,204,722; Nov. 14; Gaz. vol. 232; p. 441.
Warner, Robert L., Concord, Mass. Sight for firearms. No. 1,206,060; Nov. 28; Gaz. vol. 232; p. 978.
Warner and Swasey Company, The. (See Burrell, Edward P., assignor.)
Warner, William F., Davenport, Iowa. Current-rectifier. No. 1,206,001; Nov. 28; Gaz. vol. 232; p. 978.
Warren, Clarence A., Le Roy, Mich. Baling-press. No. 1,206,182; Nov. 28; Gaz. vol. 232; p. 1019.
Warren, Clyde W. (See Mooney and Russell, assignors.)
Warren, Frank. (See Belding, Warren S., assignor.)
Warren, Henry E., Ashland, Mass. Circuit-controlling device. No. 1,203,825; Nov. 7; Gaz. vol. 232; p. 96.
Washburn, Frank S., New York, N. Y. Making nitric acid and other products. No. 1,206,062; Nov. 28; Gaz. vol. 232; p. 978.
Washburn, Frank S., New York, N. Y. Making nitric acid and other products. No. 1,206,063; Nov. 28; Gaz. vol. 232; p. 979.
Watanabe, Ryusuke, Granger, Wyo. Tie-plate. No. 1,206,389; Nov. 28; Gaz. vol. 232; p. 1069.
Waterbury Clock Co. (See Smith, William J., assignor.)
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Corn-planter. No. 1,205,296; Nov. 21; Gaz. vol. 232; p. 679.
Waters, Minor, New Albany, Ind. Tire-handling tool. No. 1,206,064; Nov. 28; Gaz. vol. 232; p. 979.
Watson, Eugene L., Deming, Wash. Cattle-guard. No. 1,206,390; Nov. 28; Gaz. vol. 232; p. 1069.
Watson, George R., Portland, Oreg. Photographic duplicating and enlarging apparatus. No. 1,204,098; Nov. 7; Gaz. vol. 232; p. 192.
Watson, George R., Waterloo, Iowa. Well-drilling device. No. 1,204,099; Nov. 7; Gaz. vol. 232; p. 192.
Watson, James, Manchester, assignor of one-half to J. Pullar, Hartford, Conn. Horseshoe. No. 1,206,183; Nov. 28; Gaz. vol. 232; p. 1020.
Watts, Elmer A., Springfield, and I. L. Dunn, Marietta, Ohio. Displacement-pump. No. 1,206,065; Nov. 28; Gaz. vol. 232; p. 979.
Watts, Frank E., and A. J. Neerken, Detroit, Mich., assignors, by mesne assignments, to Hupp Motor Car Corporation, Richmond, Va. Vehicle-body. No. 1,204,523; Nov. 14; Gaz. vol. 232; p. 371.
Watts, Jesse G., assignor of thirty one-hundredths to D. W. Stamper, Mayfield, Ky. Store-cabinet. No. 1,205,494; Nov. 21; Gaz. vol. 232; p. 747.
Wayland, Frank, Salem, Mass. Skin, hide, and leather working machine. No. 1,204,914; Nov. 14; Gaz. vol. 232; p. 508.
Weathers, John D., Shelby, N. C. Rural-mail carrier. No. 1,205,065; Nov. 14; Gaz. vol. 232; p. 559.
Weathersby, Fred R., Houston, Tex. Drill. No. 1,206,488; Nov. 28; Gaz. vol. 232; p. 1122.
Weaver, Henry P., Belleville, Ill. Soap-dish. No. 1,205,066; Nov. 14; Gaz. vol. 232; p. 559.
Weaver, John P., Terre Haute, Ind. Reel-holder. No. 1,204,217; Nov. 7; Gaz. vol. 232; p. 233.
Weaver, Walter T. (See Lynn and Weaver.)
Webb, Edwin W., and F. L. Barber, assignors to Standard Car Truck Company, Chicago, Ill. Roller-seat for lateral-motion trucks. No. 1,206,391; Nov. 28; Gaz. vol. 232; p. 1090.
Weber, Charles, Bloomington, Ill. Resilient wheel. No. 1,205,825; Nov. 21; Gaz. vol. 232; p. 863.
Weber, Hans, Schanzenberg, Zurich, Switzerland. Pressure-indicating device. No. 1,206,782; Nov. 28; Gaz. vol. 232; p. 1224.
Weber, Harry M. (See Ellis and Weber.)
Weber, Josef, Essen-on-the-Ruhr, Germany. Means for heating gases. No. 1,203,944; Nov. 7; Gaz. vol. 232; p. 138.
Webster, Earl. (See Webster, Evelyn F. and E.)
Webster Electric Company. (See Kane, Edmund J., assignor.)
Webster, Evelyn F. and E., Portland, Oreg. Combined step-ladder and ironing-board. No. 1,206,628; Nov. 28; Gaz. vol. 232; p. 1170.
Wechter, William. (See Brown and Wechter.)
Weger, Charles J., assignor to The Weger Motor Company, Cleveland, Ohio. Internal-combustion engine. No. 1,206,741; Nov. 28; Gaz. vol. 232; p. 1209.
Weger Motor Company, The. (See Weger, Charles J., assignor.)
Wegwart, Herman, assignor to Badger Basket & Veneer Co., Burlington, Wis. Reversible-cover fastening. No. 1,205,297; Nov. 21; Gaz. vol. 232; p. 679.
Wehmann, Heinrich C. (See Fischer and Wehmann.)
Wehrle Company, The. (See Pickup, George E., assignor.)
Weinland, Joseph W., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Brake-beam support. No. 1,206,066; Nov. 28; Gaz. vol. 232; p. 980.
Weins, Arthur, and J. H. P. J. Roesler, Milwaukee, Wis. Machine-guard. No. 1,203,668; Nov. 7; Gaz. vol. 232; p. 41.
Weiss, Isidur, New York, N. Y. Drapery-support. No. 1,206,489; Nov. 28; Gaz. vol. 232; p. 1122.
Weiss & Samish. (See Samish, Otto G., assignor.)
Weitling, William W., College Point, assignor to American Hard Rubber Co., New York, N. Y. Machine for making battery-jars. No. 1,205,940; Nov. 21; Gaz. vol. 232; p. 900.
Welch, John L., Trenton, Mo., and W. A. Welch, Minneapolis, Minn. Shocking-machine. No. 1,205,495; Nov. 21; Gaz. vol. 232; p. 747.
Welch, William A. (See Welch, John L. and W. A.)
Well, Hugo C., assignor of fifty one-hundredths to Frederick A. B. Meinhardt, New York, N. Y. Valve-operating mechanism for internal-combustion engines. No. 1,205,680; Nov. 21; Gaz. vol. 232; p. 817.
Well, Hugo C., assignor of fifty one-hundredths to F. A. B. Meinhardt, New York, N. Y. Valve mechanism for internal-combustion engines. No. 1,206,067; Nov. 28; Gaz. vol. 232; p. 980.
Welles, Edward R. (See Kerlin, William L., assignor.)
Wells, Joseph F., assignor of one-sixth to F. S. Lindsay and one-sixth to B. H. Emmons, Pinkstaff, Ill. Clutch and brake mechanism for baling-presses. No. 1,205,419; Nov. 21; Gaz. vol. 232; p. 720.
Welsbach Light Company. (See Litle, Thomas J., Jr., assignor.)
Welsh, James M., deceased, by M. E. K. Welsh, administratrix, assignor to The Spirella Company, Meadville, Pa. Wire-straightening machine. No. 1,206,184; Nov. 28; Gaz. vol. 232; p. 1020.
Welsh, Mary E. K., administratrix. (See Welsh, James M.)
Wendell, Herman E., Gulfport, Fla. Collapsible box. No. 1,205,067; Nov. 14; Gaz. vol. 232; p. 560.
Wenk, Henry L. C., Jr., New York, N. Y. Nail. No. 1,206,068; Nov. 28; Gaz. vol. 232; p. 980.
Wentworth, Harold A., Natick, assignor of one-half to H. H. Austin, Wellesley, Mass. Thoracometer. No. 1,205,826; Nov. 21; Gaz. vol. 232; p. 863.
Wentworth, John F., Rochester, N. H. Internal-combustion engine. No. 1,205,584; Nov. 21; Gaz. vol. 232; p. 780.
Wentz, William T., Leon, Kans. Kafir-corn harvester and binder. No. 1,204,328; Nov. 7; Gaz. vol. 232; p. 269.
Werden, Henrietta T., New York, N. Y. Thread-guide for sewing-machines. No. 1,203,945; Nov. 7; Gaz. vol. 232; p. 139.
Werner, Ernest E., St. Louis, Mo. Apparatus for indicating the volumetric flow of a gas. No. 1,206,490; Nov. 28; Gaz. vol. 232; p. 1122.
Werner, H. E., *et al.* (See Dudley, Andrew T., assignor.)
Werner, John; T. Werner, representative in trust, Rochester, N. Y. Candy-forming machine. No. 1,206,069; Nov. 28; Gaz. vol. 232; p. 980.
Werner, John A., assignor to The National Cash Register Company, Dayton, Ohio. Cash and credit accounting machine. No. 1,205,298; Nov. 21; Gaz. vol. 232; p. 679.
Werner, Theodore, representative in trust. (See Werner, John.)
West, James A., Bellwood, Nebr. Attachment for paper-stands. No. 1,205,827; Nov. 21; Gaz. vol. 232; p. 864.
West, Lausen S. (See Clark, Guy Z., assignor.)
West Side Foundry Company. (See Hilton, Roland C., assignor.)
Westbury, William, Okmulgee, Okla. Glass-cylinder-capping apparatus. No. 1,203,826; Nov. 7; Gaz. vol. 232; p. 97.
Westenhiser, Oscar F., St. Louis, Mo. Press. No. 1,203,946; Nov. 7; Gaz. vol. 232; p. 139.

Western Cartridge Company. (See Hitch, Emmet F., assignor.)
Western Electric Company. (See Clark, Edgar H., assignor.)
Western Electric Company. (See Craft and Reynolds, assignors.)
Western Electric Company. (See Dobbin, Henry F., assignor.)
Western Electric Company. (See Dunham, Bert G., assignor.)
Western Electric Company. (See Fondieler, William, assignor.)
Western Electric Company. (See Goodrum, Charles L., assignor.)
Western Electric Company. (See Heydt, George H., assignor.)
Western Electric Company. (See Hinrichsen, Edward E., assignor.)
Western Electric Company. (See Johnson, Lewis H., assignor.)
Western Electric Company. (See Lundell, Alben E., assignor.)
Western Electric Company. (See McQuarrie, James L. assignor.)
Western Electric Company. (See Reynolds, John N., assignor.)
Western Electric Company. (See Williams, Samuel B., Jr., assignor.)
Western Shade Cloth Company, The. (See Lowe, Arthur R., assignor.)
Westinghouse Electric and Manufacturing Company. (See Allen and Fay, assignors.)
Westinghouse Electric and Manufacturing Company. (See Bartmess, Meigs W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Boddie, Clarence A., assignor.)
Westinghouse Electric and Manufacturing Company. (See Boggs, Addison E., assignor.)
Westinghouse Electric & Manufacturing Company. (See Chubb, Lewis W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Conrad and Simmon, assignors.)
Westinghouse Electric & Manufacturing Company. (See Davis, Charles H., assignor.)
Westinghouse Electric and Manufacturing Company. (See Davis, Joseph L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Eaton, George M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hall, Arthur J., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hall and Riley, assignors.)
Westinghouse Electric and Manufacturing Company. (See MacDonald, Howard G., assignor.)
Westinghouse Electric and Manufacturing Company. (See Mills and Nikonow, assignors.)
Westinghouse Electric and Manufacturing Company. (See Nikonow, John P., assignor.)
Westinghouse Electric and Manufacturing Company. (See Peters, John F., assignor.)
Westinghouse Electric and Manufacturing Company. (See Randall, Karl C., assignor.)
Westinghouse Electric and Manufacturing Company. (See Rose, Edward E., assignor.)
Westinghouse Electric and Manufacturing Company. (See Schaake, William, assignor.)
Westinghouse Electric and Manufacturing Company. (See Schaanning and Harlow, assignors.)
Westinghouse Electric and Manufacturing Company. (See Siegfried, Robert, assignor.)
Westinghouse Electric and Manufacturing Company. (See Smith, Benjamin H., assignor.)
Westinghouse Electric and Manufacturing Company. (See Smith and MacGahan, assignors.)
Westinghouse, George, Pittsburgh, assignor to The Westinghouse Machine Company, East Pittsburgh, Pa. Turbine-valve mechanism. No. 1,205,130; Nov. 14; Gaz. vol. 232; p. 581.
Westinghouse Lamp Company. (See Knight, Arthur S., assignor.)
Westinghouse Machine Company, The. (See Herr, Herbert T., assignor.)
Westinghouse Machine Company, The. (See Westinghouse, George, assignor.)
Westlake Machine Company, The. (See Kadow, August, assignor.)
Westlin, Carl T., Arlington, N. J. Endless conveyer-belt. No. 1,203,827; Nov. 7; Gaz. vol. 232; p. 97.
Wetcke, Johann M., Duisburg, Germany. Movable charging device for a furnace. No. 1,205,690; Nov. 21; Gaz. vol. 232; p. 817.
Wetmore Adding Machine Co. (See Wetmore, Charles P., assignor.)
Wetmore, Charles P., assignor, by mesne assignments, to Wetmore Adding Machine Co., Milwaukee, Wis. Computing-machine. No. 1,204,524; Nov. 14; Gaz. vol. 232; p. 372.
Wetzel, Lewis C., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio. Weighing-scale. No. 1,205,691; Nov. 21; Gaz. vol. 232; p. 817.
Weymouth, Thomas R., Oil City, Pa. Calculator. No. 1,205,068; Nov. 14; Gaz. vol. 232; p. 560.
Weymouth, Thomas R., Oil City, Pa., assignor to The Foxboro Company, Foxboro, Mass. Orifice-plate for fluid-flow meters. No. 1,206,185; Nov. 28; Gaz. vol. 232; p. 1020.
Whaley, Russell, Beaux Arts, Wash. Bicycle saddle-support. No. 1,205,828; Nov. 21; Gaz. vol. 232; p. 864.
Wheary, George H., Racine, Wis. Garment-hanger device. No. 1,206,767; Nov. 28; Gaz. vol. 232; p. 1219.
Wheary, George H., Racine, Wis. Removable garment-hanger device. No. 1,206,768; Nov. 28; Gaz. vol. 232; p. 1219.
Wheary, George H., Racine, Wis. Closet-fixture. No. 1,206,769; Nov. 28; Gaz. vol. 232; p. 1220.
Wheeler, Earl A., and W. M. Morgan, Bakersfield, Cal. Broom. No. 1,204,624; Nov. 14; Gaz. vol. 232; p. 407.
Wheeler, John S., Dunsmuir, Cal. Pipe-bending machine. No. 1,206,742; Nov. 28; Gaz. vol. 232; p. 1210.
Wheeler, John S., Dunsmuir, Cal. Pipe-bending machine. No. 1,206,743; Nov. 28; Gaz. vol. 232; p. 1210.
Wheeling Corrugating Company. (See Day, Edgar K., assignor.)
Wheelock, Carl M., Milwaukee, Wis., assignor to New Process Specialty Company. Bushing for electric tubular insulation. No. 1,204,625; Nov. 14; Gaz. vol. 232; p. 408.
Wheelock, Jesse F., Dobbins, Cal. Electric water-heater. No. 1,206,392; Nov. 28; Gaz. vol. 232; p. 1090.
Whelan, Michael J., Muskegon, Mich., assignor to Brunswick-Balke-Collender Co. Closet-seat and the like. No. 1,206,186; Nov. 28; Gaz. vol. 232; p. 1021.
Whinyates, Robert C., Camden, N. J. Combined cuspidor cleaner and carrier. No. 1,204,626; Nov. 14; Gaz. vol. 232; p. 408.
Whitaker, Clarence B., *et al.* (See Rogers, Walter K., assignor.)
Whitaker, William R., Winston, Mo. Attachment for cultivators. No. 1,206,278; Nov. 28; Gaz. vol. 232; p. 1052.
White Adding Machine Company, The. (See Wales, Charles, assignor.)
White, Arthur M., assignor to S. R. White's Sons, Inc., Norfolk, Va. Plow-rudder. No. 1,206,279; Nov. 28; Gaz. vol. 232; p. 1053.
White, Clarence W. and L. R., North Bennington, Vt. Projector. No. 1,204,100; Nov. 7; Gaz. vol. 232; p. 193.
White, Harry P., Albany, Oreg. Combined ironing-board and step-ladder. No. 1,204,218; Nov. 7; Gaz. vol. 232; p. 233.
White, Herbert E., Youngstown, Ohio, assignor to General Fireproofing Company. Feed mechanism for expanded-metal machines. No. 1,205,299; Nov. 21; Gaz. vol. 232; p. 680.
White, Joseph, Pittsburg, Kans. Railway-spike. No. 1,206,629; Nov. 28; Gaz. vol. 232; p. 1170.
White, Louis R. (See White, Clarence W. and L. R.)
White Motor Company, The. (See Carpenter, George D., assignor.)
White, Percy E., Mansfield, Mass. Display-mount for botanical or other specimens. No. 1,204,723; Nov. 14; Gaz. vol. 232; p. 442.
White, Roger S., Washington, D. C. Meter test-block. No. 1,206,393; Nov. 28; Gaz. vol. 232; p. 1090.
White, Roger S., Washington, D. C. Meter test-block. No. 1,206,394; Nov. 28; Gaz. vol. 232; p. 1091.
White, Samuel O., and W. W. Peck, assignors to Warner Gear Company, Muncie, Ind. Steering-wheel. No. 1,204,724; Nov. 14; Gaz. vol. 232; p. 442.
White, Samuel T. (See Singleton and White.)
White, Walter C., assignor to International Couplers Company, Los Angeles, Cal. Train-pipe coupling. No. 1,204,219; Nov. 7; Gaz. vol. 232; p. 233.
White, William R., Troy, Ala. Cotton-boll-weevil destroyer. No. 1,204,101; Nov. 7; Gaz. vol. 232; p. 193.
Whitehead, Reuben J., Harrison, N. J. Rope-holder. No. 1,205,496; Nov. 21; Gaz. vol. 232; p. 748.
Whitehouse, John N., Newark, N. J. Machine for making seamless celluloid articles. No. 1,203,947; Nov. 7; Gaz. vol. 232; p. 139.
Whitehouse, Joseph C., Covington, Ky. Setting for precious stones. No. 1,204,915; Nov. 14; Gaz. vol. 232; p. 508.
Whitehouse, Joseph C., Covington, Ky. Setting for precious stones. No. 1,204,916; Nov. 14; Gaz. vol. 232; p. 509.
Whitehouse, Joseph C., Covington, Ky. Setting for precious stones. No. 1,204,917; Nov. 14; Gaz. vol. 232; p. 509.
Whitehurst, Calvin A., Clyde, Miss. Sliding-door fastener. No. 1,205,497; Nov. 21; Gaz. vol. 232; p. 748.
Whiteman, Clarence E., and J. R. W. Gregg, Medford, Oreg. Metallic piston-packing. No. 1,205,941; Nov. 21; Gaz. vol. 232; p. 901.
Whiteside, Robert A., Beaver Falls, assignor of one-half to A. M. Neeper, Pittsburgh, Pa. Fastening device. No. 1,203,669; Nov. 7; Gaz. vol. 232; p. 41.
Whitfield, William, Justin, Tex. Gravel-conveyer and roller. No. 1,206,187; Nov. 28; Gaz. vol. 232; p. 1021.
Whitford, Willis, Vawn, Saskatchewan, Canada. Rotary grinding and polishing tool. No. 1,204,102; Nov. 7; Gaz. vol. 232; p. 193.
Whiting, Arthur E., Louisville, Ky. Revolving lawn-rake. No. 1,204,220; Nov. 7; Gaz. vol. 232; p. 234.
Whiting, Horatio, New York, N. Y. Lifting-jack. No. 1,205,300; Nov. 21; Gaz. vol. 232; p. 680.

Whitlock Printing Press Mfg. Co. (See Huson and Kaddeland, assignors.)
Whitman, Ralph M. (See Daniels, John F., assignor.)
Whitmore, Frederick C. (See Deuel, Pliny W., assignor.)
Whitney, George H., *et al.* (See Hodges, Cornelius C., assignor.)
Whitsett, James W., Berkeley, Cal. Tire-armor. No. 1,206,630; Nov. 28; Gaz. vol. 232; p. 1170.
Wick, George C., assignor to P. P. Bilhorn, Chicago, Ill. Organ-bellows. No. 1,204,103; Nov. 7; Gaz. vol. 232; p. 194.
Widdup, William R., Spartanburg, S. C., assignor to Draper Company, Hopedale, Mass. Thread-cutting temple for looms. No. 1,203,828; Nov. 7; Gaz. vol. 232; p. 97.
Widell, Magnus E., Maywood, Ill., assignor to American Can Company, New York, N. Y. Can-body-making machine. No. 1,206,395; Nov. 28; Gaz. vol. 232; p. 1091.
Widgren, Nels A., Chicago, Ill., assignor to International Harvester Company of New Jersey. Clutch-controller. No. 1,204,525; Nov. 14; Gaz. vol. 232; p. 372.
Wiedemann, Theodore, and J. H. Templin, Philadelphia, Pa., assignors, by mesne assignments, to General Electric Company. Pumping apparatus. No. 1,206,631; Nov. 28; Gaz. vol. 232; p. 1171.
Wiemann, William P., Pittsburgh, Pa. Refrigerating-machine. No. 1,204,918; Nov. 14; Gaz. vol. 232; p. 510.
Wiemer, John, San Jose, Ill. Grain-car door. No. 1,203,948; Nov. 7; Gaz. vol. 232; p. 140.
Wiesenborn, George, Abernathy, Tex. Portable silo. No. 1,206,744; Nov. 28; Gaz. vol. 232; p. 1210.
Wightman, George E., Portland, Oreg. Tire-chain tightener. No. 1,204,919; Nov. 14; Gaz. vol. 232; p. 510.
Wilcox, Ernest C., and J. P. Cavanagh, assignors to The Connecticut Telephone & Electric Company, Meriden, Conn. Ignition mechanism for internal-combustion engines. No. 1,204,104; Nov. 7; Gaz. vol. 232; p. 194.
Wilcox, John L., Seattle, Wash. Hand-scraper. No. 1,205,121; Nov. 14; Gaz. vol. 232; p. 578.
Wilder, Ralph E. (See Sage and Wilder.)
Wiles, James P. (See Lengquist and Wiles.)
Wiley-Bickford-Sweet Co., The. (See Bickford, Ernest A., assignor.)
Wiley, Clarence A., Tulsa, Okla. Sand-trap for oil-wells. No. 1,204,105; Nov. 7; Gaz. vol. 232; p. 194.
Wilford, Edward B. (See Schramm and Wilford.)
Wilgus, Charles V. (See Schleicher and Wilgus.)
Wilhelm, Lane, *et al.* (See Wilhelm, Oliver P., assignor.)
Wilhelm, Oliver P., assignor of twenty-five one-hundredths to S. S. Wilhelm, seventeen and one-half one-hundredths to L. Wilhelm, Michigan City, Ind., and twenty-five one-hundredths to B. Loewenthal, Chicago, Ill. Slack-adjuster. No. 1,204,526; Nov. 14; Gaz. vol. 232; p. 373.
Wilhelm, Sanford S., *et al.* (See Wilhelm, Oliver P., assignor.)
Wilkening, Ludwig, Hanover, Germany. Producing a stable fertilizer. No. 1,205,829; Nov. 21; Gaz. vol. 232; p. 864.
Wilkins, John E., Kansas City, Mo. Collapsible tent-frame. No. 1,204,329; Nov. 7; Gaz. vol. 232; p. 270.
Wilkins, Leslie T., Laurel, Mont. Sugar-beet blocker. No. 1,205,830; Nov. 21; Gaz. vol. 232; p. 865.
Willerton, Thomas. (See Adams, Lee, assignor.)
Willett, Byron P., Detroit, Mich. Toy pistol. No. 1,205,498; Nov. 21; Gaz. vol. 232; p. 748.
William A. Murray Spring Company, The. (See Murray, William A. and W. A., Jr., assignors.)
William Schollhorn Company, The. (See Bernard, William A., assignor.)
William Schollhorn Company, The. (See Blodgie, Charles W., assignor.)
Williams, A. P., *et al.* (See Thompson, Lester H., assignor.)
Williams, Dick B., assignor to L. Frank and Company, New Orleans, La. Cover for the mutilated portions of poultry. No. 1,206,280; Nov. 28; Gaz. vol. 232; p. 1053.
Williams, Frank E., South Pasadena, Cal. Playing-cards. No. 1,204,834; Nov. 14; Gaz. vol. 232; p. 476.
Williams, F. J., *et al.* (See Work, Edgar L., assignor.)
Williams, Henry D., New York, N. Y. Safety locking device for batch-doors. No. 1,204,221; Nov. 7; Gaz. vol. 232; p. 234.
Williams, Henry P., Malvern East, Victoria, Australia. Parcel and bag carrier and handle. No. 1,205,122; Nov. 14; Gaz. vol. 232; p. 578.
Williams, James E., Congress Heights, D. C. Making bands for shells or projectiles. No. 1,205,301; Nov. 21; Gaz. vol. 232; p. 680.
Williams, Lacey Y., Toledo, Ohio. Dust-guard. No. 1,203,670; Nov. 7; Gaz. vol. 232; p. 41.
Williams, Louis N. D., Oconto, Pa. Stitch transferring and doubling device. No. 1,203,949; Nov. 7; Gaz. vol. 232; p. 140.
Williams, Marshall R., Terre Haute, Ind., assignor to Braden Manufacturing Company. Miter-joint for gutters. No. 1,206,802; Nov. 21; Gaz. vol. 232; p. 681.
Williams, Oaker, assignor of one-half to J. L. Romines, Forestburg, Tex. Animal-poke. No. 1,206,652; Nov. 28; Gaz. vol. 232; p. 1171.
Williams, Paul F., assignor to G. & W. Electric Specialty Co., Chicago, Ill. Multiple pothead. No. 1,206,896; Nov. 28; Gaz. vol. 232; p. 1091.
Williams, Roger A., San Marcos, Tex. Insulator. No. 1,205,069; Nov. 14; Gaz. vol. 232; p. 560.
Williams, Samuel, Elk City, Okla. Cotton-cleaner. No. 1,205,585; Nov. 21; Gaz. vol. 232; p. 780.
Williams, Samuel B., Jr., Brooklyn, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Telephone-exchange system. No. 1,203,671; Nov. 7; Gaz. vol. 232; p. 42.
Williams, Samuel B., Jr., Brooklyn, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Telephone-exchange system. No. 1,203,829; Nov. 7; Gaz. vol. 232; p. 97.
Williams, Walter A., Washington, D. C., assignor to Central Railway Signal Company, Pittsburgh, Pa. Railway-torpedo. No. 1,205,831; Nov. 21; Gaz. vol. 232; p. 865.
Williams, William, Chester, Cal. Wire tightening and splicing tool. No. 1,205,832; Nov. 21; Gaz. vol. 232; p. 865.
Williams, William H., Mitchell, Nebr. Beet topper and digger. No. 1,204,627; Nov. 14; Gaz. vol. 232; p. 408.
Williamson, Charles S., Chicago, Ill. Coal-handling plant. No. 1,206,303; Nov. 21; Gaz. vol. 232; p. 681.
Williamson, Joseph H., Chicago, Ill. Folding display-easel. No. 1,204,920; Nov. 14; Gaz. vol. 232; p. 511.
Wills, Silas D., Fort Payne, Ala. Life-preserving suit. No. 1,204,921; Nov. 14; Gaz. vol. 232; p. 511.
Willstätter, Richard, Berlin, Germany. Phosphorus and oxygen containing organic compounds. No. 1,205,138; Nov. 14; Gaz. vol. 232; p. 584.
Wilms, Lee W. V., assignor to The Scholl Manufacturing Company, Chicago, Ill. Felt-skiving machine. No. 1,204,922; Nov. 14; Gaz. vol. 232; p. 511.
Wilson, Charles H., Glens Falls, N. Y. Fruit-pitter. No. 1,203,830; Nov. 7; Gaz. vol. 232; p. 98.
Wilson, Frank L. (See Bretherton and Wilson.)
Wilson, John A. (See Gladwin and Wilson.)
Wilson, Robert H., Tacoma, Wash. Car-fender. No. 1,204,222; Nov. 7; Gaz. vol. 232; p. 234.
Wilson, Roy C. (See Sanborn and Wilson.)
Wilson, Thomas V. (See Rahm and Wilson.)
Wilson, Wilber M., and W. R. McCracken, Bryson City, N. C. Lightning-arrester. No. 1,204,628; Nov. 14; Gaz. vol. 232; p. 409.
Wilson, William, Newark, N. J. Straw hat. No. 1,203,672; Nov. 7; Gaz. vol. 232; p. 42.
Wilson, Wylie G., and R. N. Chipman, New York, N. Y. Weed-killing train. No. 1,205,070; Nov. 14; Gaz. vol. 232; p. 561.
Wilton van Reede, Adrianus A., Czn., Schiedam, Netherlands. Axial-flow turbine. No. 1,205,062; Nov. 14; Gaz. vol. 232; p. 558.
Winans, Milton E., Long Island City, N. Y. Current-motor. No. 1,204,629; Nov. 14; Gaz. vol. 232; p. 409.
Winchester Repeating Arms Co. (See Bennett, Thomas G., assignor.)
Winchester Repeating Arms Company. (See Buell, William H., assignor.)
Windsor Manufacturing Company, The. (See Cope, Joseph H., assignor.)
Wing, John J., Yonkers, N. Y. Tender-tank valve. No. 1,204,106; Nov. 7; Gaz. vol. 232; p. 195.
Wingate, Wilbur E. (See Jenkins and Wingate.)
Winkler, Carl, Bern, Switzerland. Production of stereotypic printing-plates. No. 1,204,107; Nov. 7; Gaz. vol. 232; p. 195.
Winkler, Joseph F., Philadelphia, Pa. Refrigerating apparatus. No. 1,206,633; Nov. 28; Gaz. vol. 232; p. 1171.
Winston, Charles S., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Toll-trunk circuit. No. 1,203,950; Nov. 7; Gaz. vol. 232; p. 140.
Winter, Charles G., Webster, Mass. Means for listing checks. No. 1,206,745; Nov. 28; Gaz. vol. 232; p. 1211.
Wissler, Adolph, St. Louis, Mo. Temporary binder. No. 1,205,304; Nov. 21; Gaz. vol. 232; p. 681.
Wissmann, Wilhelm. (See Ferber and Wissmann.)
Wittliff, Fannie M. (See Parker, Charles W., assignor.)
Wittliff, Fannie M. (See Wittliff and Parker, assignors.)
Wittliff, Theodore H., and C. W. Parker, Dayton, Ohio., assignors to F. M. Wittliff, Waco, Tex. Lifting-jack. No. 1,203,673; Nov. 7; Gaz. vol. 232; p. 42.
Wittman, John H., Toledo, Ohio. Convertible box and coaster body for vehicles. No. 1,203,831; Nov. 7; Gaz. vol. 232; p. 98.
Wohlgemuth, Joseph S., Pittsburgh, Pa. Belt. No. 1,206,070; Nov. 28; Gaz. vol. 232; p. 981.
Wolf, Albert, Brooklyn, N. Y. Overflow-alarm for ice-boxes. No. 1,205,692; Nov. 21; Gaz. vol. 232; p. 818.
Wolf, John, assignor, by mesne assignments, to Advance-Rumely Company, Laporte, Ind. Plow-lift. No. 1,206,491; Nov. 28; Gaz. vol. 232; p. 1123.
Wolfe, Clinton L., Brooklyn, N. Y. Resilient wheel. No. 1,203,674; Nov. 7; Gaz. vol. 232; p. 43.
Wolfe, Samuel H., Lodgepole, Nebr. Lifting device. No. 1,205,305; Nov. 21; Gaz. vol. 232; p. 682.
Wolframlampen Aktiengesellschaft. (See Baumann, Fritz, assignor.)
Wolfson, Jacob. (See Kaufman, Joseph, assignor.)
Wolny, Joseph, Carneyville, Wyo. Car-door operator. No. 1,204,630; Nov. 14; Gaz. vol. 232; p. 410.
Wolverine Starter Company. (See Carter, John F., assignor.)
Wood, Alexander H., Petros, Tenn. Railway-tipple. No. 1,204,527; Nov. 14; Gaz. vol. 232; p. 373.

Wood, Frederick E., Flushing, N. Y. Stock-watering fountain. No. 1,206,281; Nov. 28; Gaz. vol. 232; p. 1053.
Wood, Frederick P., Detroit, Mich., assignor to American Can Company, New York, N. Y. Coffee-container. No. 1,203,832; Nov. 7; Gaz. vol. 232; p. 98.
Wood, George P., Peekskill, N. Y. Beehive. No. 1,203,675; Nov. 7; Gaz. vol. 232; p. 43.
Wood, George W., Camden, N. J. Automatic stoker. No. 1,206,071; Nov. 28; Gaz. vol. 232; p. 981.
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Braking mechanism for presses. No. 1,203,951; Nov. 7; Gaz. vol. 232; p. 141.
Wood, Henry O., assignor of one-half to E. N. Rose, Mainesburg, Pa. Speed-indicator. No. 1,204,923; Nov. 14; Gaz. vol. 232; p. 512.
Wood, James J., Fort Wayne, Ind., assignor to General Electric Company. Motor-drive. No. 1,206,634; Nov. 28; Gaz. vol. 232; p. 1172.
Wood, John R., Newark, N. J., and D. C. Epright, Spring City, assignors, by mesne assignments, to Abram Cox Stove Company, Philadelphia, Pa. Mold-shell. No. 1,204,528; Nov. 14; Gaz. vol. 232; p. 374.
Wood, John R., Newark, N. J., and D. C. Epright, Spring City, Pa., assignors to The Peerless Flask and Molding Machine Company, Newark, N. J. Molding-machine. No. 1,204,529; Nov. 14; Gaz. vol. 232; p. 374.
Wood, Lawrence M., Fairfield, Conn. Automobile-lamp. No. 1,206,492; Nov. 28; Gaz. vol. 232; p. 1123.
Wood Newspaper Machinery Corporation. (See Wood, Henry A. W., assignor.)
Wood, Robert, Brooklyn, assignor to The Nathan Manufacturing Company, New York, N. Y. Flange-lubricator. No. 1,205,306; Nov. 21; Gaz. vol. 232; p. 682.
Wood, Walter D., New York, N. Y., assignor to Fuel Saving Company, Allentown, Pa. Feeding and burning fine fuel. No. 1,204,631; Nov. 14; Gaz. vol. 232; p. 410.
Wood, William M., assignor to The United Gas Improvement Company, Philadelphia, Pa. Gas-governor. No. 1,206,282; Nov. 28; Gaz. vol. 232; p. 1053.
Woodard, William E., Schenectady, assignor to American Locomotive Company, New York, N. Y. Tender-tank valve. No. 1,204,108; Nov. 7; Gaz. vol. 232; p. 195.
Woodland, Frank O., deceased; F. S. Woodland and A. F. Kelley, administrators, assignors to Economic Machinery Company, Worcester, Mass. Automatic bottle-feed mechanism for labeling-machines. No. 1,203,676; Nov. 7; Gaz. vol. 232; p. 44.
Woodland, Francis S., *et al.*, administrators. (See Woodland, Frank O.)
Woodley, James C., Evanston, Ill., and R. P. Perry, Montclair, N. J.; said Perry assignor to Barrett Manufacturing Company. Manufacture of composition roofing-sheets. No. 1,204,632; Nov. 14; Gaz. vol. 232; p. 411.
Woods, Albert H., New York, N. Y. Columnar bill-board and refuse-container. No. 1,203,952; Nov. 7; Gaz. vol. 232; p. 141.
Woods, Clinton E., assignor to American Graphophone Company, Bridgeport, Conn. Sound-box for talking-machines. No. 1,206,635; Nov. 28; Gaz. vol. 232; p. 1172.
Woods, Edward D., assignor to Koren Manufacturing Company, Cleveland, Ohio. Tool-holder. No. 1,205,307; Nov. 21; Gaz. vol. 232; p. 682.
Woods Motor Vehicle Company. (See Fend, Roland S., assignor.)
Woods, William S., Newcastle, Ind. Cushion-tire. No. 1,205,833; Nov. 21; Gaz. vol. 232; p. 865.
Woodstock Typewriter Company. (See Roebuck, Alvah C., assignor.)
Woodward, Willard A., Fairbanks, Wash. Power governor and clutch. No. 1,203,833; Nov. 7; Gaz. vol. 232; p. 98.
Woolf, Sidney, Lynch, and F. E. Hale, South Omaha, assignors to H. R. Gering, Omaha, Nebr. Carbureter. No. 1,205,693; Nov. 21; Gaz. vol. 232; p. 818.
Work, Edgar L., assignor of one-third to F. J. Williams and one-third to F. Armstrong, Columbus, Ohio. Face-shield. No. 1,205,308; Nov. 21; Gaz. vol. 232; p. 683.
Worley, Robert C., Owens Cross Roads, Ala. Air-compression gun. No. 1,205,586; Nov. 21; Gaz. vol. 232; p. 780.
Worth, John S., *et al.* (See Brecht, Charles, assignor.)
Worth, John S., assignor to himself and W. P. Worth, Coatesville, Pa. Rolling-mill. No. 1,206,636; Nov. 28; Gaz. vol. 232; p. 1172.
Worth, John S., assignor to himself and W. P. Worth, Coatesville, Pa. Rolling-mill. No. 1,206,637; Nov. 28; Gaz. vol. 232; p. 1173.
Worth, John S., assignor to himself and W. P. Worth, Coatesville, Pa. Rolling-mill. No. 1,206,746; Nov. 28; Gaz. vol. 232; p. 1211.
Worth, William P., *et al.* (See Brecht, Charles, assignor.)
Worth, William P. (See Worth, John S., assignor.)
Worthington, John J. (See Jillson and Andrews, assignors.)
Wren, Thomas B., Mahanoy City, Pa. Hacksaw and frame therefor. No. 1,206,638; Nov. 28; Gaz. vol. 232; p. 1173.
Wright, Ira O., Baltimore, Md. Draft-yoke. No. 1,203,834; Nov. 7; Gaz. vol. 232; p. 99.
Wright, Joseph L., Washington, D. C., assignor, by mesne assignments, to J. R. Garfield, trustee, Cleveland, Ohio. Telephone-exchange system. No. 1,205,499; Nov. 21; Gaz. vol. 232; p. 748.
Wright, Paul D., Wilkinsburg, Pa. Casting-machine. No. 1,205,809; Nov. 21; Gaz. vol. 232; p. 683.
Wright, Walter, San Francisco, Cal. Type-setting machine. No. 1,203,677; Nov. 7; Gaz. vol. 232; p. 44.
Wright, Walter, New York, N. Y. Type-setting machine. No. 1,203,679; Nov. 7; Gaz. vol. 232; p. 45.
Wright, Walter, New York, N. Y. Type-setting machine. No. 1,203,680; Nov. 7; Gaz. vol. 232; p. 46.
Wright, Walter, New York, N. Y., assignor to Addressograph Company, Chicago, Ill. Printing-machine. No. 1,203,678; Nov. 7; Gaz. vol. 232; p. 46.
Wright, Walter, assignor to Underwood Computing Machine Company, New York, N. Y. Type-writing machine. No. 1,203,953; Nov. 7; Gaz. vol. 232; p. 142.
Wright, Walter B., Chicago, Ill. Incinerating-furnace. No. 1,204,530; Nov. 14; Gaz. vol. 232; p. 374.
Wright, Walter B., Chicago, Ill. Incinerating-furnace. No. 1,205,310; Nov. 21; Gaz. vol. 232; p. 683.
Wright, Walter E., Cleveland, Ohio. Brush-holder. No. 1,204,531; Nov. 14; Gaz. vol. 232; p. 375.
Wulferding, Otto, Hacienda Aragon, Turrialba, Costa Rica. Arrangement for the service on railways. No. 1,206,493; Nov. 28; Gaz. vol. 232; p. 1124.
Wurm, Max, Brooklyn, N. Y. Extension-table. No. 1,205,500; Nov. 21; Gaz. vol. 232; p. 749.
Wybaillie, Francis M. A. and L., New York, N. Y. Sanitary tooth-brush holder. No. 1,205,311; Nov. 21; Gaz. vol. 232; p. 684.
Wybaillie, Lena. (See Wybaillie, Francis M. A. and L.)
Wyckoff, Herbert B., Centerville, Iowa. Corn-harvester. No. 1,203,954; Nov. 7; Gaz. vol. 232; p. 142.
Wyles, Albert, Jr., Evesham, England. Self-contained motor-driven agricultural implement. No. 1,204,223; Nov. 7; Gaz. vol. 232; p. 235.
Wyles, Albert, Jr., Leeds, England. Agricultural implement. No. 1,204,224; Nov. 7; Gaz. vol. 232; p. 235.
Wyles, Albert, Jr., Leeds, England. Self-propelled agricultural implement. No. 1,204,225; Nov. 7; Gaz. vol. 232; p. 236.
Wyles, Albert, Jr., Manchester, England. Self-propelled agricultural implement. No. 1,204,226; Nov. 7; Gaz. vol. 232; p. 236.
Yale & Towne Manufacturing Company, The. (See Lewis, Rollin C., assignor.)
Yanagiwara, Sukeshige, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,206,072; Nov. 28; Gaz. vol. 232; p. 982.
Yarnall, David R., assignor to Yarnall-Waring Company, Philadelphia, Pa. Meter-gland. No. 1,205,587; Nov. 21; Gaz. vol. 232; p. 781.
Yarnall-Waring Company. (See Yarnall, David R., assignor.)
Yawman & Erbe Mfg. Co. (See Parliman, Frank C., assignor.)
Yawman & Erbe Manufacturing Company. (See Kuennen, Julius J., assignor.)
Yeomans, Lucien I., Chicago, Ill., and G. F. Bryant, Providence, R. I., assignors to Amalgamated Machinery Corporation, Chicago, Ill. Machine-tool. No. 1,205,588; Nov. 21; Gaz. vol. 232; p. 781.
Yocum, John H., East Orange, assignor to The Clarendon-Yocum Company, Newark, N. J. Composition for treating hides. No. 1,205,694; Nov. 21; Gaz. vol. 232; p. 819.
York, James E., New York, N. Y. Making ingots. No. 1,206,188; Nov. 28; Gaz. vol. 232; p. 1021.
Yost, Frederick W., assignor to American Ore Reclamation Company, New York, N. Y. Sintering-machine. No. 1,204,533; Nov. 14; Gaz. vol. 232; p. 411.
Yost, Frederick W., New York, N. Y., and B. G. Klugh, Cleveland, Ohio, assignors to American Ore Reclamation Company, New York, N. Y. Ignition-furnace for sintering-machines. No. 1,206,397; Nov. 28; Gaz. vol. 232; p. 1092.
Young, Hugo H., Mansfield, Ohio. Side-car wheel for motor-cycles. No. 1,204,924; Nov. 14; Gaz. vol. 232; p. 512.
Young, Leonard A. (See Rockhoff, Bert E., assignor.)
Young, Leonard A., Highland Park, Mich. Seat-spring. No. 1,206,073; Nov. 28; Gaz. vol. 232; p. 982.
Young, Lester J., Oswego, assignor to Allsteelequip Company, Aurora, Ill. Sectional outlet-box for electric conduits or wires. No. 1,205,589; Nov. 21; Gaz. vol. 232; p. 782.
Young, May E., New Milford, Conn. Fastening device. No. 1,204,227; Nov. 7; Gaz. vol. 232; p. 236.
Youngquist, William E., and S. A. Holmquist, Minneapolis, Minn.; said Youngquist assignor to said Holmquist. Cabinet-maker's clamp. No. 1,206,639; Nov. 28; Gaz. vol. 232; p. 1173.
Yovich, Milich D., Burnham, Ill. Face-shield. No. 1,205,834; Nov. 21; Gaz. vol. 232; p. 866.
Zabel, Max W., trustee. (See Borresen, Helge A., assignor.)
Zahm, Edward, assignor to Zahm Manufacturing Company, Buffalo, N. Y. Filter. No. 1,203,835; Nov. 7; Gaz. vol. 232; p. 99.
Zahm Manufacturing Company. (See Zahm, Edward, assignor.)

Zanders, Louis H., Malvern, Iowa. Gate-latch. No. 1,204,228; Nov. 7; Gaz. vol. 232; p. 237.
Zang, Carl, and J. H. Sower, Louisville, Ky. Bung-seal. No. 1,205,312; Nov. 21; Gaz. vol. 232; p. 684.
Zarth, Otto, assignor of one-half to W. H. McCullouch, Aurora, Ill. Replaceable-tread vehicle-tire. No. 1,204,109; Nov. 7; Gaz. vol. 232; p. 195.
Zemlo, John C. (See Hughes and Zemlo.)
Ziegler, Alfred A., Boston, Mass. Relay. No. 1,204,835; Nov. 14; Gaz. vol. 232; p. 479.
Zim, Charles E., Luzerne, Pa. Toy. No. 1,205,313; Nov. 21; Gaz. vol. 232; p. 684.
Zimmerer, Joseph, assignor to F. M. Poore, Seattle, Wash. Acetylene-gas generator. No. 1,204,634; Nov. 14; Gaz. vol. 232; p. 411.
Zipay, John J., Sandcoulee, Mont. Horseshoe. No. 1,206,640; Nov. 28; Gaz. vol. 232; p. 1174.
Zollinger, Ernest, and S. Mischonsnitky, Turin, Italy. Motion-picture color-filter. No. 1,203,681; Nov. 7; Gaz. vol. 232; p. 46.
Zwicky, Jakob, Langgass, St. Gall, Switzerland. Telescope-telemeter. No. 1,204,229; Nov. 7; Gaz. vol. 232; p. 237.
Zwicky, Jean, South Tottenham, England. Pump, engine, and the like. No. 1,203,682; Nov. 7; Gaz. vol. 232; p. 46.
Zwiebel, Joseph A., assignor to Burlington Brass Works, Burlington, Wis. Cock. No. 1,204,532; Nov. 14; Gaz. vol. 232; p. 376.
Zwiener, Alois, and W. A. Bryner, Pittsburgh, Pa. Key-hook. No. 1,206,074; Nov. 28; Gaz. vol. 232; p. 962.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

A. F. Ward Machinery Co., The. (See Ward, Ashley F., assignor.)
Abrams, William, assignor to The Meyercord Company, Chicago, Ill. Plate or similar article. No. 49,841; Nov. 7; Gaz. vol. 232; p. 292.
Adelmann, Hans, assignor to Ham Boiler Corp., New York, N. Y. Ham-mold. No. 49,915; Nov. 21; Gaz. vol. 232; p. 907.
Allan, Richard H., Charleston, S. C. Badge, button, pin, or similar article. No. 49,943; Nov. 28; Gaz. vol. 232; p. 1231.
Allison, Estelle, New York, N. Y. Toy figure. No. 49,916; Nov. 21; Gaz. vol. 232; p. 907.
Amason Tire & Rubber Company, The. (See Kuhlke, Otto J., assignor.)
American Lace Paper Company. (See Conrad, Fred, assignor.)
Aulicino, Eugene, and J. P. Fragetta, Utica, N. Y. Table-receptacle for holding a salt-celler, pepper-shaker, knives, forks, spoons, and toothpicks. No. 49,875; Nov. 14; Gaz. vol. 232; p. 587.
B. F. Goodrich Company, The. (See Parker, Victor A., assignor.)
Bailey, George R., assignor to Sterling Casket Hardware Company, Brooklyn, N. Y. Name-plate for caskets. No. 49,876; Nov. 14; Gaz. vol. 232; p. 587.
Bargar, Frederick C., assignor to The Nu-Ex Fire Appliance Company, Columbus, Ohio. Chemical fire-extinguisher. No. 49,944; Nov. 28; Gaz. vol. 232; p. 1231.
Bednarowicz, John, Herkimer, N. Y. Weapon. No. 49,917; Nov. 21; Gaz. vol. 232; p. 907.
Bleech, Charles, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Burial-casket plate. No. 49,945; Nov. 28; Gaz. vol. 232; p. 1231.
Blum, Philip E., Dansville, N. Y. Slipper. No. 49,918; Nov. 21; Gaz. vol. 232; p. 907.
Blum, Philip E., Dansville, N. Y. Slipper. No. 49,946; Nov. 28; Gaz. vol. 232; p. 1231.
Bogan, Samuel J., Torrance, Cal. Tire-tread. No. 49,947; Nov. 28; Gaz. vol. 232; p. 1232.
Bosworth, Percy B., assignor to The Victor Rubber Company, Springfield, Ohio. Pneumatic-tire tread. No. 49,877; Nov. 14; Gaz. vol. 232; p. 587.
Boye Needle Company, The. (See Needham, John L., assignor.)
Brewster & Co. (See Brewster, William, assignor.)
Brewster & Co. (See Campbell, Alfred L., assignor.)
Brewster, William, New York, N. Y., assignor to Brewster & Co. Radiator-casing for motor-cars. No. 49,878; Nov. 14; Gaz. vol. 232; p. 587.
Burlingame, Eleazer G., Detroit, Mich. Pair of spectacles. No. 49,948; Nov. 28; Gaz. vol. 232; p. 1232.
Caldwell & Co., J. E. (See Sickels, William H., assignor.)
Campbell, Alfred L., Elmhurst, N. Y., assignor to Brewster & Co. Throttle and spark control bracket for motor-cars. No. 49,919; Nov. 21; Gaz. vol. 232; p. 907.
Chace, William W., New York, N. Y. Netted fabric. No. 49,842; Nov. 7; Gaz. vol. 232; p. 292.
Chase, Ambrose P., West Somerville, Mass. Game apparatus. No. 49,843; Nov. 7; Gaz. vol. 232; p. 292.
Cody, William F., Cody, Wyo., assignor to The North & Judd Manufacturing Company, New Britain, Conn. Bit. No. 49,949; Nov. 28; Gaz. vol. 232; p. 1232.
Conrad, Fred, Milwaukee, Wis., assignor to American Lace Paper Company. Paper doily. Nos. 49,950–1; Nov. 28; Gaz. vol. 232; p. 1232.
Cove, George H., assignor to Steiner Novelty Works, Whitestone, N. Y. Toy windmill and seesaw. No. 49,879; Nov. 14; Gaz. vol. 232; p. 588.
Crane & Breed Manufacturing Company, The. (See Bleech, Charles, assignor.)
Crowley, Guy, Hartford, Conn. Tire. No. 49,952; Nov. 28; Gaz. vol. 232; p. 1233.
Crusellas y Alvares, Alberto. (See Dunnock, John L., assignor.)
Curtis & Co. Mfg. Co. (See Steedman, George F., assignor.)
De Doory, Ladislaus, Allston, Mass. Soap-dispenser. No. 49,920; Nov. 21; Gaz. vol. 232; p. 908.
De Ville, Walter, East Liverpool, Ohio, assignor to The Palm Brothers Company, New York, N. Y. Plate or similar article. Nos. 49,956–7; Nov. 28; Gaz. vol. 232; p. 1234.
Denman, Walter R., Akron, Ohio. Tire-tread. No. 49,953; Nov. 28; Gaz. vol. 232; p. 1233.
Depollier, Charles L., New York, N. Y., assignor to Dubois Watch Case Company, Brooklyn, N. Y. Box or case containing articles of jewelry. Nos. 49,954–5; Nov. 28; Gaz. vol. 232; p. 1233.
Dow, Homer A., Salem, Ohio. Hat and coat hook. No. 49,921; Nov. 21; Gaz. vol. 232; p. 908.
Dubois Watch Case Company. (See Depollier, Charles L., assignor.)
Dudek, Wladyslaw, Windsor Locks, Conn. Clock-casing. No. 49,880; Nov. 14; Gaz. vol. 232; p. 588.
Dunham, Oscar W., and F. W. Willis, Toronto, Ontario, Canada. Tire. No. 49,958; Nov. 28; Gaz. vol. 232; p. 1234.
Dunnock, John L., Baltimore, Md., assignor to A. Crusellas y Alvarez, Habana, Cuba. Bottle. No. 49,881; Nov. 14; Gaz. vol. 232; p. 588.
Easley, Frank L. (See Easley, Robert M. and F. L.)
Easley, Robert M. and F. L., Kenton, Ohio. Cinder-guard for railway-car windows. No. 49,882; Nov. 14; Gaz. vol. 232; p. 588.
Eriebach, Robert, Brooklyn, assignor to The Palm Brothers Company, New York, N. Y. Plate or similar article. Nos. 49,883–5; Nov. 14; Gaz. vol. 232; p. 589.
Fageol, Rollie B., Oakland, Cal. Vehicle-body. No. 49,959; Nov. 28; Gaz. vol. 232; p. 1234.
Feldman-Garfield Co. Inc. (See Finegold, Harold, assignor.)
Finegold, Harold, assignor to Feldman-Garfield Co. Inc., New York, N. Y. Lace. Nos. 49,922–8; Nov. 21; Gaz. vol. 232; p. 908.
Fragetta, James P. (See Aulicine and Fragetta.)
German-American Button Company. (See Monaghan, John S., assignor.)
German-American Button Company. (See Siebert, Rudolph, assignor.)
Gorham Manufacturing Company. (See Jenks, Barton P., assignor.)
Gorham Manufacturing Company. (See Staf, Axel H., assignor.)
Graham, Ray A., Evansville, Ind. Bottle. No. 49,924; Nov. 21; Gaz. vol. 232; p. 908.
Graham, Walter J., assignor to Imperial Glass Company, Bellaire, Ohio. Drinking vessel or similar article. No. 49,961; Nov. 28; Gaz. vol. 232; p. 1235.
H. B. Smith Company, The. (See Reed, William B., assignor.)
H. C. Fry Glass Company. (See Parsons, Solon L., assignor.)
H. L. Judd Company. (See Lathrop, Frank L., assignor.)
Ham Boiler Corp. (See Adelmann, Hans, assignor.)
Hamilton Corporation, The. (See Smithey, Marvin, assignor.)
Hargrave, Richard, Jacksonville, Fla. Electric sign. No. 49,962; Nov. 28; Gaz. vol. 232; p. 1235.
Harley-Davidson Motor Co. (See Harley, William S., assignor.)
Harley, William S., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Vehicle-body. No. 49,963; Nov. 28; Gaz. vol. 232; p. 1235.
Harman, Austin J., Custer, Okla. Tombstone. No. 49,886; Nov. 14; Gaz. vol. 232; p. 589.
Hawks, Arthur B. (See Laberee and Hawks.)
Heidelsheimer, Irving, New York, N. Y. Shank for cuff-links. No. 49,887; Nov. 14; Gaz. vol. 232; p. 589.
Hoover, Harry J., Norwood, Ohio. Gas-range. No. 49,888; Nov. 14; Gaz. vol. 232; p. 590.
Horn & Brannen Manufacturing Company. (See Horn, William, assignor.)
Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Chandelier-body. No. 49,889; Nov. 14; Gaz. vol. 232; p. 590.
Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Chandelier-body ring. No. 49,890; Nov. 14; Gaz. vol. 232; p. 590.
Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Bracket wall-plate. No. 49,891; Nov. 14; Gaz. vol. 232; p. 590.
Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Wall-bracket arm for lighting-fixtures. No. 49,892; Nov. 14; Gaz. vol. 232; p. 590.
Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Chandelier-chain support. No. 49,893; Nov. 14; Gaz. vol. 232; p. 591.
Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Chandelier-canopy ring. No. 49,894; Nov. 14; Gaz. vol. 232; p. 591.
Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Chandelier-body ring. Nos. 49,895–6; Nov. 14; Gaz. vol. 232; p. 591.
Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Chandelier-body. No. 49,897; Nov. 14; Gaz. vol. 232; p. 592.

Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Bracket wall-plate for lighting-fixtures. No. 49,898; Nov. 14; Gaz. vol. 232; p. 592.

Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Wall-bracket arm for lighting-fixtures. No. 49,899; Nov. 14; Gaz. vol. 232; p. 592.

Horn, William, Glenside, Pa., assignor to Horn & Brannen Manufacturing Company. Chandelier-chain support. No. 49,925; Nov. 21; Gaz. vol. 232; p. 908.

Humphrey, Alfred H., New York, N. Y. Gas-lamp. No. 49,964; Nov. 28; Gaz. vol. 232; p. 1235.

Imperial Glass Company. (See Graham, Walter J., assignor.)

Jenks, Barton P., assignor to Gorham Manufacturing Company, Providence, R. I. Liquid-server or similar article. No. 49,844; Nov. 7; Gaz. vol. 232; p. 292.

Jenks, Barton P., assignor to Gorham Manufacturing Company, Providence, R. I. Liquid-server or similar article. No. 49,845; Nov. 7; Gaz. vol. 232; p. 293.

Jones, Joseph W., Pelham, N. Y. Speedometer-casing. No. 49,965; Nov. 28; Gaz. vol. 232; p. 1235.

Kahles, John L., Oakland, Cal. Table and desk top. No. 49,966; Nov. 28; Gaz. vol. 232; p. 1235.

Karpeles, Maurice J., Providence, R. I. Display-cabinet. No. 49,926; Nov. 21; Gaz. vol. 232; p. 908.

Kenton, Robert H., San Francisco, Cal. Automobile-tire. No. 49,927; Nov. 21; Gaz. vol. 232; p. 909.

Kelly, John F., assignor to Thomas Maddock's Sons Company, Trenton, N. J. Lavatory. No. 49,928; Nov. 21; Gaz. vol. 232; p. 909.

Kimpton, Haupt & Co. (See Riley, James T., assignor.)

Klein, Benjamin F., St. Paul, Minn. Cabinet. No. 49,929; Nov. 21; Gaz. vol. 232; p. 909.

Klein, Louis, Des Moines, Iowa. Picture-frame. No. 49,846; Nov. 7; Gaz. vol. 232; p. 293.

Knight, Richard D., Providence, R. I. Combination paper-cutter and book-mark. No. 49,900; Nov. 14; Gaz. vol. 232; p. 592.

Kuhlke, Otto J., assignor to The Amazon Tire & Rubber Company, Akron, Ohio. Elastic vehicle-tire. No. 49,901; Nov. 14; Gaz. vol. 232; p. 592.

Laberee, Allison E., and A. B. Hawks, Olympia, Wash. Egg-beating bowl. No. 49,902; Nov. 14; Gaz. vol. 232; p. 593.

Lathrop, Frank L., Wallingford, Conn., assignor to H. L. Judd Company, New York, N. Y. Curtain-rod. No. 49,903; Nov. 14; Gaz. vol. 232; p. 593.

Leonard, Joseph E., Cedar Rapids, Iowa. Stove or range. No. 49,967; Nov. 28; Gaz. vol. 232; p. 1236.

Lighter, Jacob, Montreal, Quebec, Canada. Catch-hook. No. 49,930; Nov. 21; Gaz. vol. 232; p. 909.

Loose, Kenneth D., assignor to Loose-Wiles Biscuit Company, New York, N. Y. Cooky. No. 49,904; Nov. 14; Gaz. vol. 232; p. 593.

Loose-Wiles Biscuit Company. (See Loose, Kenneth D., assignor.)

Martin, Patrick A., Birmingham, England. Golf-ball. No. 49,905; Nov. 14; Gaz. vol. 232; p. 593.

McKoy, William J., San Antonio, Tex. Puzzle-box. No. 49,847; Nov. 7; Gaz. vol. 232; p. 293.

Meyer, Martin, Omaha, Nebr. Clinker-tongs. No. 49,906; Nov. 14; Gaz. vol. 232; p. 593.

Meyercord Company, The. (See Abrams, William, assignor.)

Monaghan, John S., assignor to German-American Button Company, Rochester, N. Y. Button. Nos. 49,848–50; Nov. 7; Gaz. vol. 232; pp. 293–4.

Muchow, William M., Evanston, Ill. Tooth-cleaner. No. 49,907; Nov. 14; Gaz. vol. 232; p. 593.

Mueller, Curt B., Lakewood, Ohio. Automobile-body. No. 49,851; Nov. 7; Gaz. vol. 232; p. 294.

Needham, John L., assignor to The Boye Needle Company, Chicago, Ill. Jar-wrench. No. 49,968; Nov. 28; Gaz. vol. 232; p. 1236.

New York Gas & Electric Appliance Company. (See Schwartzman, Benjamin, assignor.)

North & Judd Manufacturing Company, The. (See Cody, William F., assignor.)

Northwood, Harry, Wheeling, W. Va. Tube-receiving pedestal for flower-stands. No. 49,852; Nov. 7; Gaz. vol. 232; p. 294.

Novelty Knitting Mills. (See Schmidt, Paul H., assignor.)

Nu-Ex Fire Appliance Company, The. (See Bargar, Frederick C., assignor.)

Olive, Walter A., Indianola, Iowa. Pencil-holder. No. 49,931; Nov. 21; Gaz. vol. 232; p. 909.

Palm Brothers Company, The. (See De Ville, Walter, assignor.)

Palm Brothers Company, The. (See Erlebach, Robert, assignor.)

Parker, Victor A., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Tread-band for pneumatic tires. No. 49,969; Nov. 28; Gaz. vol. 232; p. 1236.

Parkes, Samuel R., Willenhall, England. Sliding-door bolt. No. 49,932; Nov. 21; Gaz. vol. 232; p. 909.

Parsons, Solon L., assignor to H. C. Fry Glass Company, Rochester, Pa. Glass dish. No. 49,908; Nov. 14; Gaz. vol. 232; p. 594.

Rabijak, Stanislaw, Chicago Heights, Ill. Pocket article. No. 49,933; Nov. 21; Gaz. vol. 232; p. 910.

Reed, William B., assignor to The H. B. Smith Company, Westfield, Mass. Radiator-section. Nos. 49,934–5; Nov. 21; Gaz. vol. 232; p. 910.

Reynolds, John, Blakely, Olyphant, Pa. Drinking-glass. No. 49,936; Nov. 21; Gaz. vol. 232; p. 910.

Ridgway, Edward J., New York, N. Y. Plate. No. 49,970; Nov. 28; Gaz. vol. 232; p. 1236.

Riegel, Edwin C., New York, N. Y. Cane. No. 49,909; Nov. 14; Gaz. vol. 232; p. 594.

Riley, James T., Brooklyn, assignor to Kimpton, Haupt & Co., New York, N. Y. Inkstand. Nos. 49,853–7; Nov. 7; Gaz. vol. 232; pp. 294–5.

Ripley, Edmund C., Hooper, Wash. Stick-pin, lapel-button, or similar article of manufacture. No. 49,971; Nov. 28; Gaz. vol. 232; p. 1237.

Schmidt, Paul H., assignor to Novelty Knitting Mills, Milwaukee, Wis. Knitted cap. No. 49,972; Nov. 28; Gaz. vol. 232; p. 1237.

Schwartzman, Benjamin, assignor to New York Gas & Electric Appliance Company, New York, N. Y. Arm for lighting-fixtures. No. 49,858; Nov. 7; Gaz. vol. 232; p. 295.

Schwartzman, Benjamin, assignor to New York Gas & Electric Appliance Company, New York, N. Y. Bowl-hanger and outside-light support. No. 49,859; Nov. 7; Gaz. vol. 232; p. 295.

Schwartzman, Benjamin, assignor to New York Gas & Electric Appliance Company, New York, N. Y. Ornament for lighting-fixtures. No. 49,860; Nov. 7; Gaz. vol. 232; p. 296.

Schwartzman, Benjamin, assignor to New York Gas & Electric Appliance Company, New York, N. Y. Bowl-hanger for lighting-fixtures. No. 49,861; Nov. 7; Gaz. vol. 232; p. 296.

Schwartzman, Benjamin, assignor to New York Gas & Electric Appliance Company, New York, N. Y. Arm for lighting-fixtures. No. 49,862; Nov. 7; Gaz. vol. 232; p. 296.

Seaman, Charles W., Newburgh, N. Y. Tongs. No. 49,863; Nov. 7; Gaz. vol. 232; p. 296.

Sebree, Wyatt T., Louisville, Ky. Advertising-board. No. 49,937; Nov. 21; Gaz. vol. 232; p. 910.

Shefler, Ira L., Detroit, Mich. Vacuum-cleaner case. No. 49,864; Nov. 7; Gaz. vol. 232; p. 296.

Sickels, William H., Newtown Square, assignor to J. E. Caldwell & Co., Philadelphia, Pa. Badge or insignia. No. 49,865; Nov. 7; Gaz. vol. 232; p. 296.

Siebert, Rudolph, assignor to German-American Button Company, Rochester, N. Y. Button. Nos. 49,866–7; Nov. 7; Gaz. vol. 232; p. 297.

Siebert, Rudolph, assignor to German-American Button Company, Rochester, N. Y. Button. No. 49,938; Nov. 21; Gaz. vol. 232; p. 910.

Smithey, Marvin, Lawrenceville, Va., assignor to The Hamilton Corporation, Lancaster, Pa. Face-plate of measuring instruments or meters. No. 49,973; Nov. 28; Gaz. vol. 232; p. 1237.

Staf, Axel H., assignor to Gorham Manufacturing Company, Providence, R. I. Handle for spoons, forks, or similar articles. No. 49,868; Nov. 7; Gaz. vol. 232; p. 297.

Steedman, George F., St. Louis, Mo., assignor to Curtis & Co. Mfg. Co., Wellston, Mo. Air-compressor casing. No. 49,910; Nov. 14; Gaz. vol. 232; p. 594.

Steiner Novelty Works. (See Cove, George H., assignor.)

Sterling Casket Hardware Company. (See Bailey, George R., assignor.)

Stern, Louis J., Boston, Mass. Water-cooler. Nos. 49,939–40; Nov. 21; Gaz. vol. 232; p. 911.

Straus, Leopold R., New York, N. Y. Finger-ring. No. 49,974; Nov. 28; Gaz. vol. 232; p. 1237.

Strubler, Charles G., Naperville, Ill. Scale-standard. No. 49,911; Nov. 14; Gaz. vol. 232; p. 594.

Thomas Maddock's Sons Company. (See Kelly, John F., assignor.)

Van Houten, Frank H., Beacon, N. Y. Loaf of biscuit or rolls. No. 49,941; Nov. 21; Gaz. vol. 232; p. 911.

Victor Rubber Company, The. (See Bosworth, Percy B., assignor.)

Virzi, John, New York, N. Y. Cabinet. No. 49,912; Nov. 14; Gaz. vol. 232; p. 594.

Ward, Ashley F., assignor to The A. F. Ward Machinery Co., Boston, Mass. Loaf of biscuit. No. 49,942; Nov. 21; Gaz. vol. 232; p. 911.

Watson, Charles R., New York, N. Y. Undergarment. No. 49,975; Nov. 28; Gaz. vol. 232; p. 1238.

Wearne, Harry, New York, N. Y. Printed fabric. Nos. 49,869–73; Nov. 7; Gaz. vol. 232; pp. 297–8.

Wearne, Harry, New York, N. Y. Printed fabric. No. 49,913; Nov. 14; Gaz. vol. 232; p. 595.

Weisberg, Andrew C., Brentwood, Pa. Stove. No. 49,976; Nov. 28; Gaz. vol. 232; p. 1238.

Wertheim, Ludwig, New York, N. Y. Hand-bag. No. 49,914; Nov. 14; Gaz. vol. 232; p. 595.

Willis, Francis W. (See Dunham and Willis.)

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. J. Krank Manufacturing Company, St. Paul, Minn. Beard-softener in paste form. No. 114,097; Nov. 28; Gaz. vol. 232; p. 1255.

A. J. Reach Company, Philadelphia, Pa. Base-ball gloves. No. 113,909; Nov. 7; Gaz. vol. 232; p. 316.

Abdomastor Support Co., Inc., The, Watertown, N. Y. Body-brace. No. 113,851; Nov. 7; Gaz. vol. 232; p. 315.

Aetna Extinguisher Co., New York, N. Y. Fire-extinguisher. No. 113,931; Nov. 14; Gaz. vol. 232; p. 613.

Agasote Millboard Co., The, Trenton, N. J., and New York, N. Y. Homogeneous waterproof and fire-resisting wood substitutes made from pulp. No. 113,852; Nov. 7; Gaz. vol. 232; p. 315.

Albany Perforated Wrapping Paper Company, Albany, N. Y. Toilet-paper. No. 114,052; Nov. 21; Gaz. vol. 232; p. 941.

Alexander Drug Co., Oklahoma, Okla. Ointment for relief of skin eruption. No. 113,853; Nov. 7; Gaz. vol. 232; p. 315.

Alward-Anderson-Southard Co., Chicago, Ill. Coats, trousers, vests, leggings, hats, and caps. No. 113,932; Nov. 14; Gaz. vol. 232; p. 613.

American Ingenuities Corporation, Brooklyn, N. Y. Edible containers for creams, ice-creams, liquid and semiliquid foods and confections. No. 113,854; Nov. 7; Gaz. vol. 232; p. 315.

Aston Motor Accessories Co. Ld., Birmingham, England. Carbureters and parts thereof for internal-combustion engines. No. 113,856; Nov. 7; Gaz. vol. 232; p. 315.

Avakian, Vosgan A., Rossville, Ga. Medicine used as a blood-builder, general tonic, and reconstructive. No. 113,933; Nov. 14; Gaz. vol. 232; p. 613.

B. F. Moomaw Co., Inc., Cloverdale, Va. Canned vegetables. No. 114,002; Nov. 14; Gaz. vol. 232; p. 615.

Badanes, Samuel E., New York, N. Y. Dresses and waists. No. 113,934; Nov. 14; Gaz. vol. 232; p. 613.

Bartholomay Brewery Company, Rochester, N. Y. Malt tonic. No. 114,053; Nov. 21; Gaz. vol. 232; p. 931.

Base-Hueter Paint Co., San Francisco, Cal. Stains. No. 113,935; Nov. 14; Gaz. vol. 232; p. 613.

Behymer & Allen, Indianapolis, Ind. Remedy for the treatment of certain named diseases. No. 113,937; Nov. 14; Gaz. vol. 232; p. 613.

Bendick, Arthur J., New York, N. Y. Solid cakes of coloring-matter used for stenciling. No. 114,085; Nov. 28; Gaz. vol. 232; p. 1255.

Bishop, James S., Glenmora, La. Liniment. No. 113,857; Nov. 7; Gaz. vol. 232; p. 315.

Blogg & Littauer, New York, N. Y. Ladies' outer garments. No. 113,938; Nov. 14; Gaz. vol. 232; p. 613.

Blum & Koch, Inc., New York, N. Y. Hats. No. 113,939; Nov. 14; Gaz. vol. 232; p. 613.

Boss Manufacturing Company, The, Kewanee, Ill. Corn-husking implements. No. 113,936; Nov. 14; Gaz. vol. 232; p. 613.

Bourjois & Co., Inc., A., New York, N. Y. Toilet powder. No. 113,858; Nov. 7; Gaz. vol. 232; p. 315.

Braden Manufacturing Company, Terre Haute, Ind. Sheet-metal roofing. No. 113,859; Nov. 7; Gaz. vol. 232; p. 315.

Braun & Sons, John, Philadelphia, Pa. Lawn-mowers. Nos. 113,940–1; Nov. 14; Gaz. vol. 232; p. 613.

Broderick & Bascom Rope Company, St. Louis, Mo. Monthly periodical. No. 113,942; Nov. 14; Gaz. vol. 232; p. 613.

Browning, King & Co., Norfolk, Va.; New York, Brooklyn, and Buffalo, N. Y.; Chicago, Ill.; St. Louis and Kansas City, Mo.; Milwaukee, Wis.; Cincinnati and Cleveland, Ohio; Philadelphia, Pa.; St. Paul and Minneapolis, Minn.; Omaha, Nebr.; Boston, Mass., and Providence, R. I. Certain named clothing for children, boys, youths, and men. No. 113,943; Nov. 14; Gaz. vol. 232; p. 613.

Buckeye Cotton Oil Company, The, Cincinnati, Ohio. Cotton-seed feed. No. 114,049; Nov. 14; Gaz. vol. 232; p. 616.

Buck's Stove & Range Company, The, St. Louis, Mo. Wood, coal, gas, vapor, and oil stoves and ranges. No. 114,050; Nov. 14; Gaz. vol. 232; p. 616.

Bugbee, Clinton H., Kansas City, Mo. Hog-cholera serum. No. 113,944; Nov. 14; Gaz. vol. 232; p. 613.

Burd, Lemuel, New York, N. Y. Face-cream. No. 113,860; Nov. 7; Gaz. vol. 232; p. 315.

Burkhardt Brewing Company, Boston, Mass. Beer. Nos. 114,055–6; Nov. 21; Gaz. vol. 232; p. 931.

Burkhardt Brewing Company, Boston, Mass. Beer. No. 114,086; Nov. 28; Gaz. vol. 232; p. 1255.

C. B. Fleet Company, Lynchburg, Va. Uric-acid solvent. No. 114,090; Nov. 28; Gaz. vol. 232; p. 1255.

California Central Creameries, San Francisco, Cal. Butter, cheese, sweet cream, dry, whole, skim, and butter milks, eggs. No. 113,861; Nov. 7; Gaz. vol. 232; p. 315.

Campbell, George C., New York, N. Y. Certain pharmaceutical preparations for toilet purposes. No. 114,057; Nov. 21; Gaz. vol. 232; p. 931.

Campbell Holton & Co., Bloomington, Ill. Certain named foods. No. 114,087; Nov. 28; Gaz. vol. 232; p. 1255.

Campbell, Metzger & Jacobson, New York, N. Y. Fancy materials for hand-embroidery work. No. 113,862; Nov. 7; Gaz. vol. 232; p. 315.

Canadian Mill & Elevator Co., El Reno, Okla. Self-rising wheat-flour. No. 114,051; Nov. 14; Gaz. vol. 232; p. 616.

Cape Girardeau Portland Cement Co., Cape Girardeau, Mo. Portland cement for structural purposes. No. 113,863; Nov. 7; Gaz. vol. 232; p. 315.

Capital City Milling & Grain Company, The, St. Paul, Minn. Wheat-flour. No. 113,945; Nov. 14; Gaz. vol. 232; p. 613.

Capuozzo, Pasquale R., Hoboken, N. J. Remedy for rheumatism by external use. No. 114,088; Nov. 28; Gaz. vol. 232; p. 1255.

Celro-Kola Company, Portland, Oreg. Syrup for soda-water. No. 113,864; Nov. 7; Gaz. vol. 232; p. 315.

Charles H. Brown Paint Company, The, New York, N. Y. Certain named painters' materials. No. 114,054; Nov. 21; Gaz. vol. 232; p. 931.

Charles Herendeen Milling Company, Chicago, Ill. Bread. No. 113,975; Nov. 14; Gaz. vol. 232; p. 614.

City Music Company, Detroit, Mich. Furniture-polish. No. 113,865; Nov. 7; Gaz. vol. 232; p. 315.

Columbia Salmon Co., Seattle, Wash. Canned salmon. No. 113,946; Nov. 14; Gaz. vol. 232; p. 613.

Commonwealth Shoe and Leather Company, The, Portland, Me., and Boston, Mass. Leather boots and shoes. No. 113,867; Nov. 7; Gaz. vol. 232; p. 315.

Crocker Pen Company, Boston, Mass. Fountain-pens. No. 114,060; Nov. 21; Gaz. vol. 232; p. 931.

Crystal Percolator Co. Inc., New York, N. Y. Meat, fruit, and vegetable slicers. No. 113,868; Nov. 7; Gaz. vol. 232; p. 315.

Dahl & Son, H. A. C., New York, N. Y. Bread, muffins, wheat-flour, &c. No. 113,947; Nov. 14; Gaz. vol. 232; p. 613.

Dalrymple, Eunice K., New York, N. Y. Nurses' blank charts for recording the treatment and condition of patients. No. 114,061; Nov. 21; Gaz. vol. 232; p. 931.

Darwin & Milner, Inc., New York, N. Y. Certain named cutlery-tools. No. 113,869; Nov. 7; Gaz. vol. 232; p. 315.

De Grauw, Aymar & Company, New York, N. Y. Oars. No. 113,870; Nov. 7; Gaz. vol. 232; p. 315.

Debevoise Company, The, New York, N. Y. Certain named paints and painters' materials. No. 113,949; Nov. 14; Gaz. vol. 232; p. 613.

Diamond Power Specialty Company, Detroit, Mich. Appliances for cleaning boilers. No. 113,950; Nov. 14; Gaz. vol. 232; p. 613.

Domestic Talking Machine Corporation, Philadelphia, Pa. Talking-machines, parts thereof, and cabinets therefor. No. 114,062; Nov. 21; Gaz. vol. 232; p. 931.

Donnelly, Charles J., Chicago, Ill. Grape-flavored beverages and syrups for making same. No. 113,871; Nov. 7; Gaz. vol. 232; p. 315.

Dow, Fred F., Los Angeles, Cal. Pharmaceutical preparations for rheumatism, lumbago, and sciatica. No. 113,872; Nov. 7; Gaz. vol. 232; p. 315.

Dr. B. J. Kendall Company, Enosburg Falls, Vt. Liniment for treating certain named diseases of man and horse. No. 113,986; Nov. 14; Gaz. vol. 232; p. 614.

E. M. Co., Cincinnati, Ohio. Medicine for stomach, liver, kidneys, bowels, and purification of the blood. No. 113,876; Nov. 7; Gaz. vol. 232; p. 315.

Eatonic Remedy Co., Chicago, Ill. Medicinal tablet for stomach ailments. Nos. 113,873–4; Nov. 7; Gaz. vol. 232; p. 315.

Ed. V. Price & Co., Chicago, Ill. Coats, trousers, vests, overcoats. No. 114,112; Nov. 28; Gaz. vol. 232; p. 1255.

Edwards Laboratories Company, Cleveland, Ohio. Medicinal preparation for rheumatic pains, headaches, and colds. No. 113,875; Nov. 7; Gaz. vol. 232; p. 315.

Elder Manufacturing Company, St. Louis, Mo. Overalls, pants or trousers, coats, jackets, and jumpers. Nos. 113,951–2; Nov. 14; Gaz. vol. 232; p. 613.

Eli Lilly and Company, The, Indianapolis, Ind. Antipyretic and antiphlogistic pharmaceutical preparations. No. 114,089; Nov. 28; Gaz. vol. 232; p. 1255.

Eman Manufacturing Company, The, Denver, Colo. Medicinal water used where antiseptic or disinfecting agent is required. No. 113,877; Nov. 7; Gaz. vol. 232; p. 315.

Empire Chemical Company, Dallas, Tex. Mulsified and saponified cocoanut-oil. No. 113,878; Nov. 7; Gaz. vol. 232; p. 315.

Essig, Lester C., Kansas City, Mo. Beauty-spots, sachets, perfume, and face-powders. No. 113,953; Nov. 14; Gaz. vol. 232; p. 613.

Excell Company, The, Baltimore, Md. Soft drinks. No. 113,954; Nov. 14; Gaz. vol. 232; p. 613.

F. B. Chamberlain Co., St. Louis, Mo. Self-rising flour. No. 114,058; Nov. 21; Gaz. vol. 232; p. 931.

Ferro Machine & Foundry Co., The, Cleveland, Ohio. Gasolene-engine. No. 112,769; Sept. 26; Gaz. vol. 230; p. 1170. (Canceled.)

Ferro Machine & Foundry Co., The, Cleveland, Ohio. Gasolene-engines. No. 113,955; Nov. 14; Gaz. vol. 232; p. 613.

Flower City Dye Co., Rochester, N. Y. Dyes for dyeing fabrics. No. 114,091; Nov. 28; Gaz. vol. 232; p. 1255.

Ford Trube Co., Chicago, Ill. Continuous-web-operating advertising apparatuses. No. 113,956; Nov. 14; Gaz. vol. 232; p. 613.

Fragali Ruggiero, Cliffside, N. J. Medicine, (blood-tonic.) No. 114,092; Nov. 28; Gaz. vol. 232; p. 1255.

Frazsle Laboratories, Tomahawk, Wis. Polish for automobiles, furniture, hardwood floors, &c. No. 114,063; Nov. 21; Gaz. vol. 232; p. 931.

Frederick Stearns & Co., Detroit, Mich. Remedy for constipation. No. 114,036; Nov. 14; Gaz. vol. 232; p. 616.

Freund & Brother, Henry, New York, N. Y. Watches, watchcases, watch-movements, and parts thereof. No. 113,957; Nov. 14; Gaz. vol. 232; p. 613.

Freund & Brother, Henry, New York, N. Y. Finger, key, and jump rings, bracelets, scarf-pins, brooches. No. 113,958; Nov. 14; Gaz. vol. 232; p. 614.

Friedman & Bro. M. A., New York, N. Y. Hosiery. No. 114,093; Nov. 28; Gaz. vol. 232; p. 1255.

Fuhrmann, Albert W., Chicago, Ill. Eye lotion or wash. No. 113,879; Nov. 7; Gaz. vol. 232; p. 316.

Fulford-Hickman Co., Bel Air, Md. Bottled ginger-ale and sarsaparilla. No. 113,959; Nov. 14; Gaz. vol. 232; p. 614.

Galinsky, Abraham L., Sioux City, Iowa. Cheese. No. 113,960; Nov. 14; Gaz. vol. 232; p. 614.

General Aluminum & Brass Mfg. Co., Detroit, Mich. Bearings and bushings. No. 114,064; Nov. 21; Gaz. vol. 232; p. 931.

Geo. H. Lee Company, Omaha, Nebr. Strengthening application for eggs during incubation. No. 113,890; Nov. 7; Gaz. vol. 232; p. 316.

Gerber & Co., Thoune, Switzerland. Cheese. No. 113,880; Nov. 7; Gaz. vol. 232; p. 316.

Gilbert & Barker Mfg. Co., West Springfield, Mass. Certain named pumps and combined tank and pump outfits for handling oils. No. 114,094; Nov. 28; Gaz. vol. 232; p. 1255.

Glick, Henry J., Cumberland, Md. Medicine for treatment of the effects of inebriety. No. 113,882; Nov. 7; Gaz. vol. 232; p. 316.

Goldberg, Louis M., New York, N. Y. Champagne. No. 114,095; Nov. 28; Gaz. vol. 232; p. 1255.

Goldenbergs, Washington, D. C. Coats, vests, and trousers. No. 113,961; Nov. 14; Gaz. vol. 232; p. 614.

Goodyear's Metallic Rubber Shoe Co., The, Naugatuck, Conn. Boots and shoes made of certain materials and combinations. No. 113,962; Nov. 14; Gaz. vol. 232; p. 614.

Grahamoline Products Company, Wilkes-Barre, Pa. Rust, dirt, and grease dissolving and removing liquid product. No. 113,964; Nov. 14; Gaz. vol. 232; p. 614.

Grand Union Tea Company, Brooklyn, N. Y. Coffee. No. No. 113,965; Nov. 14; Gaz. vol. 232; p. 614.

Greenbaum, Joseph L., New York, N. Y. Gum tooth-wash. No. 113,966; Nov. 14; Gaz. vol. 232; p. 614.

Grimes, Mary, Hutchinson, Kans. Salve preparation for the treatment of tuberculosis. No. 113,967; Nov. 14; Gaz. vol. 232; p. 614.

Guffin, Homer E., Thomas, Okla. Relief for tired feet. No. 114,096; Nov. 28; Gaz. vol. 232; p. 1255.

Gund Brewing Co., The, Cleveland, Ohio. Beer. No. 113,968; Nov. 14; Gaz. vol. 232; p. 614.

H. B. Claflin Corporation, The, New York, N. Y. Fancy braids, feather-stitching, embroideries, and edgings. No. 114,059; Nov. 21; Gaz. vol. 232; p. 931.

Haas-Lieber Grocery Company, St. Louis, Mo. Certain named foods. No. 113,973; Nov. 14; Gaz. vol. 232; p. 614.

Hammel, William F., Pittsburgh, Pa. Whisky. No. 113,969; Nov. 14; Gaz. vol. 232; p. 614.

Hampden Watch Company, The, Canton, Ohio. Watchcases and watch-movements. No. 113,971; Nov. 14; Gaz. vol. 232; p. 614.

Hansen, Chr. A., New York, N. Y. Paint-oil. No. 113,970; Nov. 14; Gaz. vol. 232; p. 614.

Harris, Nathan N., Buffalo, N. Y. Dress, negligée, or work shirts. No. 113,972; Nov. 14; Gaz. vol. 232; p. 614.

Heilmann M'f'g Co. Inc., New York, N. Y. Certain named clothing. No. 113,974; Nov. 14; Gaz. vol. 232; p. 614.

Hiens, Louis, Baltimore, Md. Certain named cutlery, tools, and parts thereof. No. 114,065; Nov. 21; Gaz. vol. 232; p. 931.

Himmelberger-Harrison Lumber Co., Cape Girardeau, Mo. Gum headings for barrels and casks. No. 113,881; Nov. 7; Gaz. vol. 232; p. 316.

Holihan, J. H., Bismarck, N. D. Medical preparation in the nature of a tonic for treating the tobacco habit. No. 113,883; Nov. 7; Gaz. vol. 232; p. 316.

Hommel, William H., Sandusky, Ohio. Certain named non-alcoholic beverage. No. 113,976; Nov. 14; Gaz. vol. 232; p. 614.

Hood River Apple Vinegar Co., Hood River, Oreg. Certain named non-alcoholic beverages. No. 113,977; Nov. 14; Gaz. vol. 232; p. 614.

Hopkins & Son, Ferd. T., New York, N. Y. Certain named pharmaceutical preparations for toilet purposes. No. 113,884; Nov. 7; Gaz. vol. 232; p. 316.

Hudson Mfg. Co., The, Chicago, Ill. Flavoring extracts for foods. No. 113,978; Nov. 14; Gaz. vol. 232; p. 614.

Hunt, Dennis H., Johnson City, Tenn. Medicinal preparation, a tonic and blood-purifier. No. 113,885; Nov. 7; Gaz. vol. 232; p. 316.

Hussman, George J., St. Louis, Mo. Epsom salts and compounds thereof. No. 113,979; Nov. 14; Gaz. vol. 232; p. 614.

Imperial Rubber Co., New York, N. Y. Certain named belting, hose, and machinery packing. No. 113,886; Nov. 7; Gaz. vol. 232; p. 316.

Inderrieden Canning Co., Chicago, Ill. Canned vegetables. No. 113,980; Nov. 14; Gaz. vol. 232; p. 614.

J. K. Armsby Co., The, San Francisco, Cal. Dried and canned fruits, raisins. No. 114,084; Nov. 28; Gaz. vol. 232; p. 1255.

James B. Clow & Sons, Chicago, Ill. Catalogues, price-lists, and other publications. No. 113,866; Nov. 7; Gaz. vol. 232; p. 315.

James H. Rhodes & Company, Chicago, Ill. Putty-powder. No. 114,019; Nov. 14; Gaz. vol. 232; p. 615.

Johnson Educator Food Co., Boston, Mass. Crackers and biscuits. No. 113,981; Nov. 14; Gaz. vol. 232; p. 614.

Johnson, Ida E., Peru, Ind. Preparation for the treatment of hog-cholera. No. 113,887; Nov. 7; Gaz. vol. 232; p. 316.

Juliette Milling Co., Macon, Ga. Cornmeal. No. 113,982; Nov. 14; Gaz. vol. 232; p. 614.

Jung, Fratelli, Firm of, Palermo, Italy. Nuts and fruits, canned, dried, prepared, and greened, particularly almonds. No. 113,983; Nov. 14; Gaz. vol. 232; p. 614.

Jung, Fratelli, Firm of, Palermo, Italy. Essential oils of citrus fruits for use in foods. No. 113,984; Nov. 14; Gaz. vol. 232; p. 614.

Kelly, Richard, New York, N. Y. Certain named belting, hose, and machinery packing. No. 113,985; Nov. 14; Gaz. vol. 232; p. 614.

Kerros, George A., Chicago, Ill. Certain named pharmaceutical preparations. No. 113,888; Nov. 7; Gaz. vol. 232; p. 316.

Krainin, Theodore, New York, N. Y. Certain named foods. No. 114,067; Nov. 21; Gaz. vol. 232; p. 931.

Kress, John, Fort Wayne, Ind. Remedy for piles. No. No. 113,987; Nov. 14; Gaz. vol. 232; p. 614.

Kuehnrich, P. Max, Los Angeles, Cal. Calcium salts. Nos. 113,988–9; Nov. 14; Gaz. vol. 232; p. 614.

Kugel, Benjamin, New York, N. Y. Finished needlework. No. 114,068; Nov. 21; Gaz. vol. 232; p. 931.

Kurrle Packing Company, Baltimore, Md. Hams, bacon, lard, and lard compound. No. 113,990; Nov. 14; Gaz. vol. 232; p. 614.

Landers, Frary & Clark, New Britain, Conn. Certain named measuring and scientific appliances. No. 113,889; Nov. 7; Gaz. vol. 232; p. 316.

Landers, Frary & Clark, New Britain, Conn. Pocket-knives. No. 113,991; Nov. 14; Gaz. vol. 232; p. 614.

Larter & Sons, New York, N. Y., and Newark, N. J. Buttons to be worn in the cuffs of shirts. No. 114,098; Nov. 28; Gaz. vol. 232; p. 1255.

Lattimore, Florence L., Forest Hills, N. Y. Caps. No. 113,992; Nov. 14; Gaz. vol. 232; p. 615.

Lehigh Paper Mills, Inc., New York, N. Y. Diapers. No. 113,891; Nov. 7; Gaz. vol. 232; p. 316.

Levy, Maurice, New York, N. Y. Powder-puffs. Nos. 113,892–3; Nov. 7; Gaz. vol. 232; p. 316.

Linck, Paul, New York, N. Y. Woolen and cotton piece goods. No. 113,994; Nov. 14; Gaz. vol. 232; p. 615.

Loertz, Carl E., Seymour, Ind. Tablets and medicines for constipation, biliousness, sick headache, &c. No. 113,995; Nov. 14; Gaz. vol. 232; p. 615.

Loopost Binder Co., The, Los Angeles, Cal. Loose-leaf binders. No. 114,099; Nov. 28; Gaz. vol. 232; p. 1255.

Magnus Hessberg, Inc., Richmond, Va. Sole and harness leathers and sole-leather strips. No. 114,066; Nov. 21; Gaz. vol. 232; p. 931.

Manitou Mineral Water Company, The, Manitou, Colo. Still and charged or sparkling table-waters, ginger-champagne, a non-alcoholic beverage. No. 114,100; Nov. 28; Gaz. vol. 232; p. 1255.

Manitou Mineral Water Company, Manitou, Colo. Certain non-alcoholic beverages. No. 114,10 Nov. 28; Gaz. vol 232; p 12[illegible]

Manitou Mineral Water Company, Manitou, Colo. Ginger-champagne, a non-alcoholic beverage. No. 114,102; Nov. 28; Gaz. vol. 232; p. 1255.

Matthews & Lively Co., Atlanta, Ga. Massage-cream to soften and whiten the skin. No. 113,894; Nov. 7; Gaz. vol. 232; p. 316.

May, Isaac, Chicago, Ill. Non-alcoholic non-intoxicating beverages or soft drinks. No. 114,069; Nov. 21; Gaz vol. 232; p. 931.

McCampbell, James A., Knoxville, Tenn. Medicine for use in treating certain named diseases. No. 113,996; Nov. 14; Gaz. vol. 232; p. 615.

McManness Milling & Grain Co., The, Findlay, Ohio. Wheat-flour. No. 113,997; Nov. 14; Gaz. vol. 232; p. 615.

Mentor Knitting Mills Co., The, Erie, Pa. Knitted union suits, vests, pants, corset-covers, bodices. No. 113,998; Nov. 14; Gaz. vol. 232; p. 615.

Mercury Mfg. Co., The, Rochester, N. Y. Carbon-papers and type-writer ribbons. No. 113,999; Nov. 14; Gaz. vol. 232; p. 615.

Meyercord Company, The, Chicago, Ill., assignor to The Victa Phonograph Corporation. Talking-machines. No. 114,103; Nov. 28; Gaz. vol. 232; p. 1255.

Middle States Oil Company, The, Cleveland, Ohio. Lubricating oils, greases, and cutting compounds. No. 114,000; Nov. 14; Gaz. vol. 232; p. 615.

Migel, Julius A., New York, N. Y. Broad silks in the piece. No. 113,895; Nov. 7; Gaz. vol. 232; p. 316.

Miller Rubber Company, Akron, Ohio. Toy balloons. No. 113,896; Nov. 7; Gaz. vol. 232; p. 316.

Monarch Governor Co., Detroit, Mich. Engine-governor. No. 114,001; Nov. 14; Gaz. vol. 232; p. 615.

Monumental Brewing Co., The, Baltimore, Md. Beer containing less than two per cent. alcohol. No. 114,070; Nov. 21; Gaz. vol. 232; p. 931.

Monumental Brewing Co., The, Baltimore, Md. Malt non-intoxicating beverage. No. 114,104; Nov. 28; Gaz. vol. 232; p. 1255.

Moriarite Mfg. Co., Bloomfield, N. J. Rat-exterminator. No. 114,105; Nov. 28; Gaz. vol. 232; p. 1255.

Muenzen Specialty Co., Inc., New York, N. Y. Hand-operated vacuum-cleaners. No. 114,106; Nov. 28; Gaz. vol. 232; p. 1255.

Mutual Ice Co., Alexandria, Va. Water. No. 114,003; Nov. 14; Gaz. vol. 232; p. 615.

National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. No. 114,004; Nov. 14; Gaz. vol. 232; p. 615.

National Fruit Juice Co., La Fayette, Ind. Apple, orange, lemon, and grape-fruit juices, ginger-ale. No. 114,107; Nov. 28; Gaz. vol. 232; p. 1255.

National Paper Products Company, San Francisco, Cal., and Carthage, N. Y. Toilet-paper. No. 114,108; Nov. 28; Gaz. vol. 232; p. 1255.

National Print Cutters Association of America, Lodi, N. J. Print blocks and rollers. No. 114,071; Nov. 21; Gaz. vol. 232; p. 931.

National X-Ray Reflector Company, Chicago, Ill. Certain named electric illuminating apparatus. No. 113,897; Nov. 7; Gaz. vol. 232; p. 316.

National X-Ray Reflector Company, Chicago, Ill. Porcelain reflectors for lighting-fixtures. No. 113,898; Nov. 7; Gaz. vol. 232; p. 316.

Neenah Paper Company, Neenah, Wis. Bond-paper. No. 114,072; Nov. 21; Gaz. vol. 232; p. 931.

New-Knapp Powder Co., Pittsburgh, Pa. Saponaceous liquid for cleaning fabrics. No. 114,005; Nov. 14; Gaz. vol. 232; p. 615.

Newark Ohio Furniture Co., The, Newark, Ohio. Certain named dining-room furniture. No. 113,899; Nov. 7; Gaz. vol. 232; p. 316.

Newspaper Enterprise Association, The, Cleveland, Ohio. Monthly magazine publication. No. 114,006; Nov. 14; Gaz. vol. 232; p. 615.

Nichols Manufacturing Company, Providence, R. I. Back, side, and dressing combs, barrettes, and hair-pins. No. 114,073; Nov. 21; Gaz. vol. 232; p. 931.

North American Brewing Company, New York and Brooklyn, N. Y. Beer. No. 113,900; Nov. 7; Gaz. vol. 232; p. 316.

North American Smelting Co. Inc., Philadelphia, Pa. Certain formula of solder known as brazing and spelter solder and brasing-spelter. No. 113,901; Nov. 7; Gaz. vol. 232; p. 316.

Nowak Milling Corporation, Buffalo, N. Y. Horse, dairy, and poultry feed. No. 114,074; Nov. 21; Gaz. vol. 232; p. 931.

Oklahoma City Mill & Elevator Co., Oklahoma, Okla. Wheat-flour. Nos. 114,007–8; Nov. 14; Gaz. vol. 232; p. 615.

Old Dominion Peanut Corporation, Norfolk, Va. Candies. No. 114,009; Nov. 14; Gaz. vol. 232; p. 615.

Old Dutch Brew Company, San Francisco, Cal. Beer. No. 114,109; Nov. 28; Gaz. vol. 232; p. 1255.

Orange Crush Co., Chicago, Ill. Carbonated non-alcoholic beverage and syrups for making same. No. 113,902; Nov. 7; Gaz. vol. 232; p. 316.

Osro Chemical Co., The, Chicago, Ill. Calcimine. No. 114,010; Nov. 14; Gaz. vol. 232; p. 615.

Owensboro Ditcher & Grader Co., Owensboro, Ky. Ditchers and graders. No. 113,903; Nov. 7; Gaz. vol. 232; p. 316.

P. David Company, San Francisco Cal. Iron and steel castings. No. 113,948; Nov. 14; Gaz. vol. 232; p. 613.

Park, James D., Duluth, Minn. Ointments, tonic, and antiseptic solutions for diseases of and injuries to the skin. No. 113,904; Nov. 7; Gaz. vol. 232; p. 316.

Parsons Paper Company, Holyoke, Mass. Writing and printing paper. No. 113,905; Nov. 7; Gaz. vol. 232; p. 316.

Paterson-Leitch Company, Cleveland, Ohio. Elevator-gates. No. 114,011; Nov. 14; Gaz. vol. 232; p. 615.

Patton Paint Company, Milwaukee, Wis. Liquid chemical preparation for use as a hardener of cement surfaces. No. 113,906; Nov. 7; Gaz. vol. 232; p. 316.

Perides, John S., New York, N. Y. Olive-oil and olives. No. 114,012; Nov. 14; Gaz. vol. 232; p. 615.

Perron Laboratory, Inc., The, Newark, N. J. Physiologic therapeutic agent for the treatment of errors of metabolism in women, ovarian disorders, neurasthenia. No. 114,013; Nov. 14; Gaz. vol. 232; p. 615.

Perron Laboratory, Inc., The, Newark, N. J. Physiologic therapeutic agent for treating certain named conditions. No. 114,014; Nov. 14; Gaz. vol. 232; p. 615.

Pilsener Brewing Company, The, Cleveland, Ohio. Beverages made of malt, hops, and other ingredients. No. 113,908; Nov. 7; Gaz. vol. 232; p. 316.

Pintado, Nilo C., Key West, Fla. Dyspepsia and stomach troubles. No. 114,016; Nov. 14; Gaz. vol. 232; p. 615.

Pioneer Suspender Company Philadelphia, Pa. Suspenders, belts, and armbands. No. 114,075; Nov. 21; Gaz. vol. 232; p 931.

Posner, David H., Boston, Mass. Undershirts and drawers of knitted and textile fabrics. No. 114,110; Nov. 28; Gaz. vol. 232; p. 1255.

Postel Stain-Extracting Corporation, New York, N. Y. Cleaning fluid. No. 114,111; Nov. 28; Gaz. vol. 232; p. 1255.

Pure Oil Company, Philadelphia, Pa. Lubricating-oils. No. 114,113; Nov. 28; Gaz. vol. 232; p. 1256.

Purity Biscuit Company, The, Salt Lake City, Utah. Biscuits and crackers. No. 114,017; Nov. 14; Gaz. vol. 232; p. 615.

Red Star Gasoline Vaporizer Co., The, Columbus, Ohio. Gasolene-vaporizer attachments for internal-combustion engines. No. 114,018; Nov. 14; Gaz. vol. 232; p. 615.

Robert Reis & Co., New York, N. Y. Certain named wearing-apparel and furnishings for men, women, and children. No. 113,910; Nov. 7; Gaz. vol. 232; p. 316.

Robert Reis & Co., New York, N. Y. Belts, suspenders, garters, neckties, and neckscarfs. No. 114,114; Nov. 28; Gaz. vol. 232; p. 1256.

Robinson, Mary A., Detroit, Mich. Facial lotion. No. 113,911; Nov. 7; Gaz. vol. 232; p. 317.

Romano, Anthony, Troy and Buffalo, N. Y. Rheumatism remedy. No. 113,912; Nov. 7; Gaz. vol. 232; p. 317.

Rose Knit Goods Company, The, Cleveland, Ohio. Certain named clothing. No. 114,020; Nov. 14; Gaz. vol. 232; p. 615.

Royal Remedies Company, Waukegan, Ill. Pharmaceutical preparation for eczematous and allied skin afflictions. No. 113,913; Nov. 7; Gaz. vol. 232; p. 317.

Royal Remedies Company, Waukegan, Ill. Hygienic dentifrice to prevent disease and infection of the gums and teeth. No. 114,021; Nov. 14; Gaz. vol. 232; p. 615.

Rubber Products Company, The, Barberton, Ohio. Seamless fountain-syringes and water-bottles. No. 113,914; Nov. 7; Gaz. vol. 232; p. 317.

Rudy, Mathias H., York, Pa. Headache remedy. No. 114,022; Nov. 14; Gaz. vol. 232; p. 615.

S. Pfeiffer Manufacturing Company, St. Louis, Mo. Medicinal preparation for diseases and disorders of certain organs and analogous ailments. No. 113,907; Nov. 7; Gaz. vol. 232; p. 316.

S. & S. Water Company, The, Philadelphia, Pa. Certain named soft drinks. No. 114,023; Nov. 14; Gaz. vol. 232; p. 615.

Salter, John A., Vicksburg, Miss. Pills for biliousness, torpid liver, constipation, &c. No. 113,915; Nov. 7; Gaz. vol. 232; p. 317.

Sarasota Citrus Growers Assn., Sarasota, Fla. Citrus fruits. No. 114,024; Nov. 14; Gaz. vol. 232; p. 615.

Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. No. 114,115; Nov. 28; Gaz. vol. 232; p. 1256.

Savage Tire Company, The, San Diego, Cal. Inner or air tubes for vehicle-tires. No. 114,025; Nov. 14; Gaz. vol. 232; p. 615.

Scandinavian-American Trading Co., New York, N. Y. Cream-separators. No. 114,026; Nov. 14; Gaz. vol. 232; p. 616.

Scheffer & Rossum Company, St. Paul, Minn. Horse-collars, harness, and riding-saddles. No. 113,916; Nov. 7; Gaz. vol. 232; p. 317.

Schmachtenberg Bros. Inc., New York, N. Y. Pen and pocket knives. No. 113,917; Nov. 7; Gaz. vol. 232; p. 317.

Schmachtenberg Bros. Inc., New York, N. Y. Pocket-knives and scissors. No. 113,918; Nov. 7; Gaz. vol. 232; p. 317.

Schuster Company, The, Cleveland, Ohio. Certain non-alcoholic carbonated beverages sold as soft drinks and syrups for making same. No. 114,077; Nov. 21; Gaz. vol. 232; p. 931.

Scott County Milling Company, The, Sikeston, Mo. Wheat-flour. No. 114,116; Nov. 28; Gaz. vol. 232; p. 1256.

Sears & Nichols Co., The, Chillicothe, Ohio. Certain named food. No. 114,027; Nov. 14; Gaz. vol. 232; p. 616.

Seidenfeld, Herman, Murray City, Ohio. Preparation for treating certain named ailments and diseases. No. 114,117; Nov. 28; Gaz. vol. 232; p. 1256.

Sherman, Roger I., Boston, Mass. Certain named foods. No. 114,028; Nov. 14; Gaz. vol. 232; p. 616.

Simi, William, San Francisco, Cal. Olive-oil. No. 114,029; Nov. 14; Gaz. vol. 232; p. 616.

Simmons Hardware Company, St. Louis, Mo. Certain named cutlery, machinery, tools and parts thereof. No. 113,153; Oct. 10; Gaz. vol. 231; p. 598. (Canceled.)
Simmons Hardware Company, St. Louis, Mo. Certain named cutlery, machinery, tools, and parts thereof. No. 114,030; Nov. 14; Gaz. vol. 232; p. 616.
Simon Levi Company, Los Angeles, Cal. Certain named spices, canned goods, and dried fruits. No. 113,993; Nov. 14; Gaz. vol. 232; p. 615.
Smith, Arthur H., Sumner, Miss. Medicinal preparation for treatment of malaria, chills, and fever. No. 114,118; Nov. 28; Gaz. vol. 232; p. 1256.
Smith, Noel, Atlanta, Ga. Non-alcoholic carbonated tonic beverage and syrup for making same. No. 114,119; Nov. 28; Gaz. vol. 232; p. 1256.
Societe Anonyme Du Carburateur Aris, Lyon, France. Carbureters. No. 114,031; Nov. 14; Gaz. vol. 232; p. 616.
Society of Chemical Industry in Basle, Basel, Switzerland. Pharmaceutical product. No. 113,919; Nov. 7; Gaz. vol. 232; p. 317.
Sonora Phonograph Corporation, New York, N. Y. Talking-machines, phonographs, records, gramophones, &c. Nos. 114,078–9; Nov. 21; Gaz. vol. 232; p. 932.
Southern Bedding Manufacturing Co., Austin, Tex. Mattresses. No. 113,920; Nov. 7; Gaz. vol. 232; p. 317.
Southwestern Milling Company, Inc., The, New York, N. Y., and Kansas City, Mo. Wheat-flour. No. 114,032; Nov. 14; Gaz. vol. 232; p. 616.
Speight, Richard H., Blackpool, England. Remedy for the relief of certain named diseases or disorders. No. 114,033; Nov. 14; Gaz. vol. 232; p. 616.
Sprague Roller Mills, Sprague, Wash. Wheat-flour. No. 114,034; Nov. 14; Gaz. vol. 232; p. 616.
Stachnik & Greenfield, New York, N. Y. Salad-dressing. No. 114,035; Nov. 14; Gaz. vol. 232; p. 616.
Star Products Co., Chicago, Ill. Ready-mixed paint. No. 113,921; Nov. 7; Gaz. vol. 232; p. 317.
Steadman, Prescott L., Denver, Colo. Liquid healing and antiseptic dressing. No. 114,120; Nov. 28; Gaz. vol. 232; p. 1256.
Stephen F. Whitman & Son, Incorporated, Philadelphia, Pa. Chocolates and candy. No. 114,943; Nov. 14; Gaz. vol. 232; p. 616.
Superior Spring Bottling Co., Excelsior Springs, Mo. Soft drinks. No. 114,080; Nov. 21; Gaz. vol. 232; p. 932.
Swartley, Harry M., Charleston, S. C. Eczema remedies. No. 113,922; Nov. 7; Gaz. vol. 232; p. 317.
Sweet, Ralph A., Binghamton, N. Y. Toilet creams. No. 113,923; Nov. 7; Gaz. vol. 232; p. 317.
Tandop Manufacturing Company, Rochester, N. Y. Liquid leather-restorative compositions. No. 114,121; Nov. 28; Gaz. vol. 232; p. 1256.
Tillmann & Bendel, San Francisco, Cal. Roasted coffee. No. 113,924; Nov. 7; Gaz. vol. 232; p. 317.
Troll, Frederick J., Baltimore, Md. Load-indicating mechanisms for vehicles. No. 113,925; Nov. 7; Gaz. vol. 232; p. 317.
Union Paper and Twine Company, The, Cleveland, Ohio. Paper towels and napkins. No. 114,081; Nov. 21; Gaz. vol. 232; p. 932.
United States Graphite Co., The, Saginaw, Mich. Dry batteries. No. 114,122; Nov. 28; Gaz. vol. 232; p. 1256.
Van Vechten Milling Co. Inc., Rochester, N. Y. Certain named foods. No. 114,037; Nov. 14; Gaz. vol. 232; p. 616.
Vant Woud Rubber Co., The, Brooklyn, N. Y. Nursing-nipples. No. 113,926; Nov. 7; Gaz. vol. 232; p. 317.
Vista Phonograph Corporation. (See Meyercord Company, The, assignor.)
Vital Remedies Company, Houston, Tex. Mineral fluid tonic. No. 113,927; Nov. 7; Gaz. vol. 232; p. 317.
W. C. Ross Manufacturing Co., Little Rock, Ark., and St. Louis, Mo. Automobile and furniture polish. No. 114,076; Nov. 21; Gaz. vol. 232; p. 931.
W. R. Grace & Co., New York, N. Y. Printing-ink. No. 113,963; Nov. 14; Gaz. vol. 232; p. 614.
Wabash Chemical & Baking Powder Company, The, Wabash, Ind. Dessert-powder. No. 114,038; Nov. 14; Gaz. vol. 232; p. 616.
Wadsworth, Chester J., Painesville, Ohio. Certain named furniture. No. 113,928; Nov. 7; Gaz. vol. 232; p. 317.
Waldes & Co., Prague-Wrschowitz, Austria-Hungary. Snap-buttons used as garment-fasteners. Nos. 114,123–4; Nov. 28; Gaz. vol. 232; p. 1256.
Walsh, Eugene W., New York, N. Y. Talking-machines. No. 114,082; Nov. 21; Gaz. vol. 232; p. 932.
Ward Baking Company, New York, N. Y. Bread and cake. No. 114,039; Nov. 14; Gaz. vol. 232; p. 616.
Washington Grain and Milling Co., Reardan, Wash. Self-rising flour. Nos. 114,040–1; Nov. 14; Gaz. vol. 232; p. 616.
Welty, William A., Waterloo, Iowa. Fountain-pens. No. 114,083; Nov. 21; Gaz. vol. 232; p. 932.
Wenatchee Milling Co., Wenatchee, Wash. Self-rising wheat-flour. No. 114,042; Nov. 14; Gaz. vol. 232; p. 616.
West Disinfecting Company, New York, N. Y. Paper towels or paper suitable for use as towels. Nos. 114,125–6; Nov. 28; Gaz. vol. 232; p. 1256.
Wilbraham Springs Company, Springfield, Mass. Carbonated soft drinks and syrup therefor. No. 114,127; Nov. 28; Gaz. vol. 232; p. 1256.
Wilcox & Gibbs Sewing Machine Co., New York, N. Y. Certain named clothing for men, women, and children. No. 114,044; Nov. 14; Gaz. vol. 232; p. 616.
William Peterman Inc., Passaic, N. J., and New York, N. Y. Disinfectant and antiseptic. No. 114,015; Nov. 14; Gaz. vol. 232; p. 615.
Williams-Davis-Brooks & Hinchman Sons, Detroit, Mich. Preparations to exterminate vermin and insects. No. 114,045; Nov. 14; Gaz. vol. 232; p. 616.
Willowcraft Shops, The, Cambridge, Mass. Certain named furniture. No. 113,929; Nov. 7; Gaz. vol. 232; p. 317.
Wolff-Wilson Drug Co., St. Louis, Mo. Witch-hazel, vanishing and cleansing creams, rice powders. No. 114,046; Nov. 14; Gaz. vol. 232; p. 616.
Womack Bros., Fort Worth, Tex. Whisky. No. 113,930; Nov. 7; Gaz. vol. 232; p. 317.
Yesteriaid Egg Farms Company, Pacific, Mo. Eggs. Nos. 114,047–8; Nov. 14; Gaz. vol. 232; p. 616.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

American Pure Food Products Company, The, Chicago, Ill. "Peter's Pep." (For Chilli-Con-Carne.) No. 19,735; Nov. 14; Gaz. vol. 232; p. 617.
Argyle Co., The, New York, N. Y. "Uncle Sam." (For Union-Suits.) No. 19,718; Nov. 7; Gaz. vol. 232; p. 318.
Asch, Leonard C., New York, N. Y. "Annette Kellermann Chill-Off Beach Cape." (For Bathing-Capes.) No. 19,719; Nov. 7; Gaz. vol. 232; p. 318.
Bauer & Bauer, Bridgeport, Conn. "Scarab." (For Corn-Starch.) No. 19,736; Nov. 14; Gaz. vol. 232; p. 617.
Beech-Nut Packing Company, Canajoharie, N. Y. "Beech-Nut Brand Mints." (For Candies and Confections.) No. 19,720; Nov. 7; Gaz. vol. 232; p. 318.
Beech-Nut Packing Company, Canajoharie, N. Y. "Beech-Nut Brand Wintergreens." (For Wintergreen-Flavored Candies and Confections.) No. 19,721; Nov. 7; Gaz. vol. 232; p. 318.
Beech-Nut Packing Company, Canajoharie, N. Y. "Beech-Nut Brand Chewing Gum." (For Chewing-Gum.) Nos. 19,722–3; Nov. 7; Gaz. vol. 232; p. 318.
Beech-Nut Packing Company, Canajoharie, N. Y. "Beech-Nut Brand Cloves." (For Clove-Flavored Candies and Confections.) No. 19,750; Nov. 28; Gaz. vol. 232; p. 1257.
Bissell, A. L., Baltimore, Md. "Herb-Tone." (For Medicine.) No. 19,751; Nov. 28; Gaz. vol. 232; p. 1257.
Brush Co-operative Creamery Company, Brush, Colo. "Colorado Sunshine." (For Butter.) No. 19,753; Nov. 28; Gaz. vol. 232; p. 1257.
C. B. Henschel Mfg. Co., Milwaukee, Wis. "Dolora." (For Cigars.) No. 19,729; Nov. 7; Gaz. vol. 232; p. 318.
Carpenter-Morton Co., Boston, Mass. "Campbell's Virgin White." (For Campbell's Virgin White.) No. 19,737; Nov. 14; Gaz. vol. 232; p. 617.
Channell Chemical Company, Chicago, Ill. "O-Cedar Cloth Duster Collects and Holds The Dust." (For O-Cedar Dust-Cloths.) No. 19,755; Nov. 28; Gaz. vol. 232; p. 1257.
Cross, Anson K., Ashland, Mass. "The 'Cross' Crayon." (For Soft Wax Crayon.) No. 19,754; Nov. 28; Gaz. vol. 232; p. 1257.
Crowley, Harry R., Philadelphia, Pa. "American Mints Uncle Sam's Choice Confection." (For Mint Tablets.) No. 19,756; Nov. 28; Gaz. vol. 232; p. 1257.
Crowley, Harry R., Philadelphia, Pa. "American Cloves Uncle Sam's Choice Confection." (For Clove Tablets.) No. 19,757; Nov. 28; Gaz. vol. 232; p. 1257.
Crowley, Harry R., Philadelphia, Pa. "American Wintergreen Uncle Sam's Choice Confection." (For Wintergreen Tablets.) No. 19,758; Nov. 28; Gaz. vol. 232; p. 1257.
Darrill, Frederick, South Berwick, Me. "Old English." (For Polish for Furniture.) No. 19,759; Nov. 28; Gaz. vol. 232; p. 1257.
Drug Products Co., Inc., The, New York, N. Y. "Natrium Compound (High Tension Dr. M. C. Thrush)." (For Pulvoids (Pulverous Tablets) Representing a Compound of Potassium Nitrate, Sodium Nitrite, Sodium Bicarbonate, Nitroglycerin, and Fluid Extract Crataegus Oxyacantha.) No. 19,760; Nov. 28; Gaz. vol. 232; p. 1257.
Fischer & Co., B., New York, N. Y. "Coffee." (For Coffee.) No. 19,725; Nov. 7; Gaz. vol. 232; p. 318.
Fisher, Frank E., Detroit, Mich. "Fisher (2 unit) Starter for Ford Cars." (For Starters.) No. 19,738; Nov. 14; Gaz. vol. 232; p. 617.
Geo. Haas & Sons, San Francisco, Cal. "Tafmalta." (For Candy.) No. 19,727; Nov. 7; Gaz. vol. 232; p. 318.
Greene, Bertha, Sheepshead Bay, N. Y. "Excellent Hair Grower." (For a Hair-Grower.) No. 19,726; Nov. 7; Gaz. vol. 232; p. 318.
Grunbaum, Adolf, New York, N. Y. "A G." (For Goldwasser.) No. 19,724; Nov. 7; Gaz. vol. 232; p. 318.
Haddad, Fred J., San Francisco, Cal. "Haddad's Freckle Cream." (For Freckle-Cream.) No. 19,761; Nov. 28; Gaz. vol. 232; p. 1257.
Hannah & Lay Company, Traverse City, Mich. "Turkey Red." (For Hard-Wheat Flour.) No. 19,728; Nov. 7; Gaz. vol. 232; p. 318.
Horrovitz, Isidore, Savannah, Ga. "The Scientific Tonic Reconstructor." (For a Tonic.) No. 19,747; Nov. 21; Gaz. vol. 232; p. 933.
Imperial Candy Co., Seattle, Wash. "Société." (For Confectionery.) No. 19,763; Nov. 28; Gaz. vol. 232; p. 1257.
Josselson Bros., Catlettsburg, Ky. "88 Special." (For Whisky.) No. 19,730; Nov. 7; Gaz. vol. 232; p. 318.
Kirgan Brothers, Amelia, Ohio. "Arcadia Farm Products." (For Preserved Fruits and Vegetables.) No. 19,752; Nov. 28; Gaz. vol. 232; p. 1257.
Koenig Candy Company, Seattle, Wash. "Great Big Baked Potato." (For Packages of Candy.) No. 19,731; Nov. 7; Gaz. vol. 232; p. 318.
McQuay-Norris Mfg. Co., St. Louis, Mo. "McQuay-Norris Leak-Proof Piston Rings." (For Piston-Rings.) No. 19,732; Nov. 7; Gaz. vol. 232; p. 318.
Mitchlores & Co., J. L., St. Louis, Mo. "Morosa." (For Cigars.) No. 19,762; Nov. 28; Gaz. vol. 232; p. 1257.
Moehle Lithographic Company, The, New York, N. Y. "Priscus." (For Cigars.) No. 19,739; Nov. 14; Gaz. vol. 232; p. 617.
New York Beverage Company, Inc., New York, N. Y. "New York Beverage Company, Inc." (For a Concentrated Extract of Malt, Barley, Hops, and Sugar.) No. 19,748; Nov. 21; Gaz. vol. 232; p. 933.
Piel Bros., Brooklyn, N. Y. "Oster Bock." (For Beer.) No. 19,767; Nov. 28; Gaz. vol. 232; p. 1257.
Pitchford Chemical Laboratories, The, Tacoma, Wash. "Casaid." (For a Substance to be Mixed with Gasolene.) No. 19,733; Nov. 7; Gaz. vol. 232; p. 318.
Salada Tea Company Incorporated, The, Portland, Me., and Boston, Mass. "Salada." (For Tea.) Nos. 19,740–1; Nov. 14; Gaz. vol. 232; p. 617.
Samuels, John J., Chicago, Ill. "Trents Eucalyptol Comp." (For a Cough Remedy.) No. 19,742; Nov. 14; Gaz. vol. 232; p. 617.
Skookum Packers Association, Cashmere, Wash. "Yum Yum." (For Fresh Apples.) No. 19,743; Nov. 14; Gaz. vol. 232; p. 617.
Sleeper, Fred L., Chicago, Ill. "Ideal." (For Ceramic Paint.) No. 19,765; Nov. 28; Gaz. vol. 232; p. 1257.
Southern Distilling Co., Baltimore, Md. "Sodisco Brand Three Fifty." (For Whisky.) No. 19,766; Nov. 28; Gaz. vol. 232; p. 1257.
Spring Hope Pine Oil Works, The, Spring Hope, N. C. "Pine Oil." (For a Medicine.) No. 19,744; Nov. 14; Gaz. vol. 232; p. 617.
Thoro Products Company, The, Denver, Colo. "Thoro The Dry Cleaner." (For a Cleaning Preparation.) No. 19,764; Nov. 28; Gaz. vol. 232; p. 1257.
Tokalon, Inc., New York, N. Y. "Creme Tokalon." (For Cold-Cream.) No. 19,745; Nov. 14; Gaz. vol. 232; p. 617.
Twin City-Varnish Co., St. Paul, Minn. "Blax Shine." (For Enamel.) No. 19,746; Nov. 14; Gaz. vol. 232; p. 617.
Weicher Brothers, New York, N. Y., and Chicago, Ill. "Cyro." (For Cigars.) No. 19,749; Nov. 21; Gaz. vol. 232; p. 933.
Wetzel, Paul, New Rochelle, N. Y. "The Wonder Corn Shield." (For Corn-Shields.) No. 19,734; Nov. 7; Gaz. vol. 232; p. 318.

PRINTS.

Alexander Sheppard & Sons, Inc., Philadelphia, Pa. "Have You Had Your Morning Sip?" (For Coffee.) No. 4,550; Nov. 7; Gaz. vol. 232; p. 318.

Carnation Milk Products Company, Seattle, Wash. "Make delicious ice cream and frosen dainties with Carnation Milk." (For Milk.) No. 4,546; Nov. 7; Gaz. vol. 232; p. 318.

Carpenter-Morton Co., Boston, Mass. "Campbell's Varnish Stain." (For Campbell's Varnish-Stain.) Nos. 4,570–2; Nov. 28; Gaz. vol. 232; p. 1257.

Carpenter-Morton Co., Boston, Mass. "Campbell's Virgin White." (For Campbell's Virgin White.) No. 4,573; Nov. 28; Gaz. vol. 232; p. 1257.

Carpenter-Morton Co., Boston, Mass. "Campbell's Varnish Stain." (For Varnish-Stain.) No. 4,574; Nov. 28; Gaz. vol. 232; p. 1257.

Channell Chemical Company, Chicago, Ill. "O-Cedar Polish—Cleans as it Polishes." (For O-Cedar Polish.) No. 4,552; Nov. 14; Gaz. vol. 232; p. 617.

Channell Chemical Company, Chicago, Ill. "Cleans as it Polishes—O-Cedar Polish." (For O-Cedar Polish.) No. 4,553; Nov. 14; Gaz. vol. 232; p. 617.

Channell Chemical Company, Chicago, Ill. "O-Cedar Polish—Cleans as it Polishes." (For O-Cedar Polish.) No. 4,554; Nov. 14; Gaz. vol. 232; p. 617.

Channell Chemical Company, Chicago, Ill. "Cleans as it Polishes—O-Cedar Polish." (For O-Cedar Polish.) No. 4,555; Nov. 14; Gaz. vol. 232; p. 617.

Channell Chemical Company, Chicago, Ill. "O-Cedar Polish—Cleans as it Polishes." (For O-Cedar Polish.) Nos. 4,556–7; Nov. 14; Gaz. vol. 232; p. 617.

Channell Chemical Company, Chicago, Ill. "New Beauties." (For O-Cedar Polish.) No. 4,575; Nov. 28; Gaz. vol. 232; p. 1257.

Cream of Wheat Co., Minneapolis, Minn. "Ah've always said, and now repeat—Ma health am due to Cream O'Wheat." (For Wheat Breakfast Food.) No. 4,547; Nov. 7; Gaz. vol. 232; p. 318.

General Fireproofing Company, The, Youngstown, Ohio. "Allsteel Document Files." (For Filing-Cabinets.) No. 4,558; Nov. 14; Gaz. vol. 232; p. 617.

General Fireproofing Company, The, Youngstown, Ohio. "Allsteel Wydesteels." (For Filing-Cabinets.) No. 4,559; Nov. 14; Gaz. vol. 232; p. 617.

General Fireproofing Company, The, Youngstown, Ohio. "Allsteel Uprights." (For Filing-Cabinets.) No. 4,560; Nov. 14; Gaz. vol. 232; p. 617.

General Fireproofing Company, The, Youngstown, Ohio. "Allsteel Safe." (For Safes.) No. 4,561; Nov. 14; Gaz. vol. 232; p. 617.

General Fireproofing Company, The, Youngstown, Ohio. "Allsteel U-Nettes." (For Filing-Cabinets.) No. No. 4,562; Nov. 14; Gaz. vol. 232; p. 617.

General Fireproofing Company, The, Youngstown, Ohio. "Allsteel Counter Height Sections." (For Counters.) No. 4,563; Nov. 14; Gaz. vol. 232; p. 617.

General Fireproofing Company, The, Youngstown, Ohio. "Allsteel Sectional Transfer Cases." (For Filing-Cabinets.) No. 4,564; Nov. 14; Gaz. vol. 232; p. 617.

Indian Refining Company, Augusta, Me., and New York, N. Y. "It Makes a Difference." (For Oil.) No. 4,549; Nov. 7; Gaz. vol. 232; p. 318.

J. P. Gordon Company, The, Columbus, Ohio. "Gordon Convertible Winter and Summer Top, Gordon Seat Coverings, Gordon Tire Covers, Gordon Radiator and Engine Robe." (For Gordon Convertible Winter and Summer Tops, Gordon Seat-Coverings, Gordon Tire-Covers, and Gordon Radiator and Engine Robes.) No. 4,545; Nov. 7; Gaz. vol. 232; p. 318.

J. P. Gordon Company, The, Columbus, Ohio. "Gordon Seat Coverings Tailored To Fit. Tire Covers." (For Seat-Covers and Tire-Covers.) No. 4,576; Nov. 28; Gaz. vol. 232; p. 1257.

Miller, William F., New York, N. Y. "Bright Gems of Killarney." (For a New Irish Badge.) No. 4,567; Nov. 21; Gaz. vol. 232; p. 933.

Norris, Inc., Atlanta, Ga. "Worth Smacking Your Lips Over." (For Confectionery.) No. 4,577; Nov. 28; Gaz. vol. 232; p. 1257.

Northern Hemlock and Hardwood Manufacturers' Association, The, Oshkosh, Wis. "Hemlock." (For Hemlock.) No. 4,578; Nov. 28; Gaz. vol. 232; p. 1257.

Northern Hemlock and Hardwood Manufacturers' Association, Oshkosh, Wis. "Birch." (For Birch.) No. 4,579; Nov. 28; Gaz. vol. 232; p. 1257.

Olds, Edward A., New York, N. Y. "Packer's Tar Soap." (For Tar Soap.) No. 4,569; Nov. 21; Gaz. vol. 232; p. 933.

Olschewsky, Henry F., Montesano, Wash. "Eat Puritan Maid Bread." (For Bread.) No. 4,568; Nov. 21; Gaz. vol. 232; p. 933.

Richardson Corporation, Rochester, N. Y. "Maid of Honor Crushed Fruit & Syrups." (For Crushed Fruit and Syrup.) No. 4,566; Nov. 14; Gaz. vol. 232; p. 617.

Smith, Joe H., Upper Sandusky, Ohio. "Gold Nuggets." (For Popcorn Confections.) No. 4,551; Nov. 7; Gaz. vol. 232; p. 318.

Troutman, Ray, Minneapolis, Minn. "Automatic Knee Control." (For Artificial Legs.) No. 4,565; Nov. 14; Gaz. vol. 232; p. 617.

DISCLAIMERS.

Dunbar, Francis W., Chicago, Ill.; disclaimer filed by assignee, Kellogg Switchboard & Supply Company. Telephone system. No. 1,133,113; disclaimer filed Nov. 16, 1916; Gaz. vol. 232; p. 1263.

Gammeter, John R., and W. H. Allen, Akron, Ohio; disclaimer filed by assignee, The B. F. Goodrich Company. Making tires. No. 1,133,551; disclaimer filed Nov. 7, 1916; Gaz. vol. 232; p. 939.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF NOVEMBER, 1916.

[Abbreviations: "Gaz."—Official Gazette.]

Abdominal support. J. H. Kellogg. No. 1,205,749; Nov. 21; Gaz. vol. 232; p. 837.

Abdominal supporter and suspensory, Combined. W. R. Force. No. 1,206,525; Nov. 28; Gaz. vol. 232; p. 1186.

Acetyl-cellulose plastic compounds, Making. W. G. Lindsay. No. 1,203,756; Nov. 7; Gaz. vol. 232; p. 72.

Adding-machine. A. W. Lawrence. No. 1,204,284; Nov. 7; Gaz. vol. 232; p. 254.

Addressing-machine. L. McMillan. No. 1,206,345; Nov. 28; Gaz. vol. 232; p. 1074.

Adhesive from waste sulfite liquor, Making an. J. A. De Cew. No. 1,203,856; Nov. 7; Gaz. vol. 232; p. 108.

Adhesive material, Method of and apparatus for producing rolls of. W. F. Codrington. No. 1,204,248; Nov. 7; Gaz. vol. 232; p. 243.

Adjustable set-wrench. J. J. Thull. No. 1,204,208; Nov. 7; Gaz. vol. 232; p. 229.

Adjustable wrench, Rapid-. A. W. McCord. No. 1,204,999; Nov. 14; Gaz. vol. 232; p. 538.

Advertising, Coöperative. G. A. Annable. No. 1,204,331; Nov. 7; Gaz. vol. 232; p. 270.

Advertising-dart. L. J. Disser. No. 1,203,714; Nov. 7; Gaz. vol. 232; p. 57.

Advertising device. B. E. Moreland. No. 1,204,584; Nov. 14; Gaz. vol. 232; p. 393.

Advertising-machine, Display. J. B. Barnett. No. 1,205,841; Nov. 21; Gaz. vol. 232; p. 668.

Advertising medium. W. L. Burford and A. E. Albin. No. 1,204,934; Nov. 14; Gaz. vol. 232; p. 515.

Aerial ropeway. W. Conrad. No. 1,205,515; Nov. 21; Gaz. vol. 232; p. 754.

Aeroplane. E. S. Hall. No. 1,206,435; Nov. 28; Gaz. vol. 232; p. 1104.

Aeroplane construction. A. Janowski. No. 1,204,989; Nov. 14; Gaz. vol. 232; p. 533.

Aeroplane, Folding-wing. H. L., A. E., and H. O. Short. No. 1,205,676; Nov. 21; Gaz. vol. 232; p. 813.

Agitating-machine. W. H. Barton. No. 1,204,733; Nov. 14; Gaz. vol. 232; p. 445.

Agricultural implement. A. Wyles, Jr. No. 1,204,224; Nov. 7; Gaz. vol. 232; p. 235.

Agricultural implement, Self-contained motor-driven. A. Wyles, Jr. No. 1,204,223; Nov. 7; Gaz. vol. 232; p. 235.

Agricultural implement, Self-propelled. A. Wyles, Jr. No. 1,204,225; Nov. 7; Gaz. vol. 232; p. 236.

Agricultural implement, Self-propelled. A. Wyles, Jr. No. 1,204,226; Nov. 7; Gaz. vol. 232; p. 236.

Agricultural implements, Draft-pole for. H. S. Dickinson. No. 1,205,334; Nov. 21; Gaz. vol. 232; p. 692.

Agricultural implements, Means for driving. W. E. Martin. No. 1,204,808; Nov. 14; Gaz. vol. 232; p. 469.

Agricultural tool. B. A. Arnold and D. W. Anderson. No. 1,205,836; Nov. 21; Gaz. vol. 232; p. 866.

Air, Apparatus for the separation of the constituents of. J. F. Place. No. 1,205,478; Nov. 21; Gaz. vol. 232; p. 741.

Air-blast, Apparatus for delivering an intermittent. R. B. Benjamin and W. Cottrell. No. 1,206,086; Nov. 28; Gaz. vol. 232; p. 986.

Air-brake appliance, Safety. G. W. Smith. No. 1,205,402; Nov. 21; Gaz. vol. 232; p. 715.

Air-brake, Electromagnetic. E. R. Humphrey. No. 1,203,677; Nov. 7; Gaz. vol. 232; p. 115.

Air-coupling, Automatic. R. A. McCurry. No. 1,205,000; Nov. 14; Gaz. vol. 232; p. 538.

Air, Drying and sterilizing. R. P. Van Calcar, J. Ellerman, and H. J. Martijn. No. 1,203,941; Nov. 7; Gaz. vol. 232; p. 138.

Air-humidifier. C. Becker and F. D. Kleinheksel. No. 1,206,081; Nov. 28; Gaz. vol. 232; p. 984.

Air, Separating the gases of. J. F. Place. No. 1,205,477; Nov. 21; Gaz. vol. 232; p. 741.

Alarm; *See*—
- Boiler-alarm.
- Boiler safety-alarm.
- Burglar-alarm.
- Fire-alarm.
- Ice-box overflow-alarm.
- Incubator-alarm.

Alarm. F. M. Fargo and G. L. Thom. No. 1,203,995; Nov. 7; Gaz. vol. 232; p. 156.

Alarm-augmenting means. R. W. Orewiler. No. 1,206,725; Nov. 28; Gaz. vol. 232; p. 1202.

Alarm device. A. E. Boggs. No. 1,206,296; Nov. 28; Gaz. vol. 232; p. 1059.

Alarm for boxes and other receptacles. C. A. Mahla. No. 1,206,011; Nov. 28; Gaz. vol. 232; p. 961.

Alloy. J. T. Dwyer. No. 1,203,991; Nov. 7; Gaz. vol. 232; p. 154.

Amalgamator. W. P. Alderson. No. 1,204,231; Nov. 7; Gaz. vol. 232; p. 238.

Ammunition-hoist. J. A. Killinger and A. W. Bean. No. 1,204,360; Nov. 7; Gaz. vol. 232; p. 280.

Animal-trap. W. E. Baker. No. 1,206,649; Nov. 28; Gaz. vol. 232; p. 1176.

Animal-trap. J. B. Fioretta. No. 1,203,997; Nov. 7; Gaz. vol. 232; p. 156.

Animal-trap. J. C. Pewther. No. 1,205,388; Nov. 21; Gaz. vol. 232; p. 711.

Anticreeper. H. G. Gillmor. No. 1,204,659; Nov. 14; Gaz. vol. 232; p. 420.

Anticreeper. H. H. Sponenburg. No. 1,205,404; Nov. 21; Gaz. vol. 232; p. 716.

Antiflare device. W. B. Koechlein. No. 1,205,224; Nov. 21; Gaz. vol. 232; p. 656.

Antiskid device. E. P. Hafner and J. T. Roberts. No. 1,204,863; Nov. 14; Gaz. vol. 232; p. 488.

Antiskid device. S. Renner and G. P. Adams. No. 1,205,021; Nov. 14; Gaz. vol. 232; p. 546.

Antiskidding device for automobiles. H. A. F. Petersen. No. 1,206,242; Nov. 28; Gaz. vol. 232; p. 1039.

Apparel, Wearing-. R. Thierfelder. No. 1,206,171; Nov. 28; Gaz. vol. 232; p. 1015.

Apple-coring device. C. P. Benedict. No. 1,206,403; Nov. 28; Gaz. vol. 232; p. 1094.

Architectural structure. F. E. Daudelin. No. 1,206,516; Nov. 28; Gaz. vol. 232; p. 1133.

Armor unit for gunners. J. J. Spence. No. 1,206,154; Nov. 28; Gaz. vol. 232; p. 1009.

Assembling-machine. O. Ashton. No. 1,204,928; Nov. 14; Gaz. vol. 232; p. 513.

Auto-heater. C. V. Anthenat. No. 1,205,420; Nov. 21; Gaz. vol. 232; p. 720.

Auto-heater. K. E. Strain and H. E. Dawson. No. 1,204,713; Nov. 14; Gaz. vol. 232; p. 438.

Auto-light dimmer. A. A. Flory. No. 1,204,350; Nov. 7; Gaz. vol. 232; p. 277.

Autographic register. E. A. Holmes. No. 1,204,571; Nov. 14; Gaz. vol. 232; p. 389.

Automatic signal and train-stop. A. Blair. No. 1,205,148; Nov. 21; Gaz. vol. 232; p. 630.

Automatic switch. G. H. Heydt. No. 1,205,536; Nov. 21; Gaz. vol. 232; p. 761.

Automobile. R. S. Fend. No. 1,204,146; Nov. 7; Gaz. vol. 232; p. 207.

Automobile. E. D. Self. No. 1,203,796; Nov. 7; Gaz. vol. 232; p. 85.

Automobile-accelerator pedal. B. D. Adams. No. 1,203,955; Nov. 7; Gaz. vol. 232; p. 143.

Automobile, Armored war-. J. Gonsior, F. Opp, and W. Frank. No. 1,204,758; Nov. 14; Gaz. vol. 232; p. 453.

Automobile, Attachment for connecting the frame and axle of an. H. C. Fripp. No. 1,204,001; Nov. 7; Gaz. vol. 232; p. 157.

Automobile back-stop brake. L. Hornor. No. 1,203,876; Nov. 7; Gaz. vol. 232; p. 114.

Automobile-brake. A. L. Negstad. No. 1,205,378; Nov. 21; Gaz. vol. 232; p. 707.

Automobile-bumper. R. B. Fageol. No. 1,205,608; Nov. 21; Gaz. vol. 232; p. 789.

Automobile-carried instruments, Steering-wheel drive for. J. K. Stewart. No. 1,205,054; Nov. 14; Gaz. vol. 232; p. 555.

Automobile-controlling device. J. L. Hecht. No. 1,204,014; Nov. 7; Gaz. vol. 232; p. 161.

Automobile-fender. E. T. Orton. No. 1,205,381; Nov. 21; Gaz. vol. 232; p. 708.

Automobile gear-lock. N. A. Cobb. No. 1,206,673; Nov. 28; Gaz. vol. 232; p. 1185.

Automobile-hoist. E. Stretch. No. 1,205,490; Nov. 21; Gaz. vol. 232; p. 745.

Automobile-jack. C. W. Parker. No. 1,206,361; Nov. 28; Gaz. vol. 232; p. 1080.

Automobile-jack. A. R. Taylor. No. 1,203,811; Nov. 7; Gaz. vol. 232; p. 90.

Automobile-lifter, Automatic. W. J. Taylor. No. 1,205,815; Nov. 21; Gaz. vol. 232; p. 860.
Automobile-light, Dirigible. R. O. Frost and R. A. Levia. No. 1,206,690; Nov. 28; Gaz. vol. 232; p. 1191.
Automobile-lock. B. Goodman. No. 1,205,988; Nov. 28; Gaz. vol. 232; p. 954.
Automobile-lock. L. Soulliere. No. 1,205,051; Nov. 14; Gaz. vol. 232; p. 554.
Automobile-locking device. E. E. Davis. No. 1,205,124; Nov. 14; Gaz. vol. 232; p. 579.
Automobile-locking device. D. C. See. No. 1,206,038; Nov. 28; Gaz. vol. 232; p. 971.
Automobile mud-guard. R. A. Summers. No. 1,206,166; Nov. 28; Gaz. vol. 232; p. 1013.
Automobile-pedal attachment. J. P. Seitz. No. 1,204,499; Nov. 14; Gaz. vol. 232; p. 363.
Automobile-radiator. R. G. Mason. No. 1,205,771; Nov. 21; Gaz. vol. 232; p. 844.
Automobile-radiator cover. F. P. Nuckles. No. 1,206,025; Nov. 28; Gaz. vol. 232; p. 966.
Automobile running-board, Extension. H. B. Mason. No. 1,206,571; Nov. 28; Gaz. vol. 232; p. 1151.
Automobile safety device. J. H. Neal. No. 1,204,375; Nov. 7; Gaz. vol. 232; p. 286.
Automobile-seat. H. M. Crane. No. 1,206,208; Nov. 28; Gaz. vol. 232; p. 1028.
Automobile self-starter. P. Okey. No. 1,204,814; Nov. 14; Gaz. vol. 232; p. 471.
Automobile-signal. T. Hori. No. 1,204,020; Nov. 7; Gaz. vol. 232; p. 164.
Automobile-signal. D. V. James. No. 1,204,988; Nov. 14; Gaz. vol. 232; p. 533.
Automobile-signal. H. B. McGuire. No. 1,205,098; Nov. 14; Gaz. vol. 232; p. 570.
Automobile speed-signal. A. O., A. A., and G. M. Benson, H. K. Solberg, and C. H. Flick. No. 1,204,539; Nov. 14; Gaz. vol. 232; p. 378.
Automobile spring-frame. S. C. Gordon. No. 1,205,526; Nov. 21; Gaz. vol. 232; p. 758.
Automobile-starter. C. H. F. Bergner. No. 1,205,592; Nov. 21; Gaz. vol. 232; p. 783.
Automobile-wheel. E. Hauger. No. 1,206,109; Nov. 28; Gaz. vol. 232; p. 994.
Automobile-wheel cuff. J. H. Cook and F. T. Reid. No. 1,204,847; Nov. 14; Gaz. vol. 232; p. 482.
Automobile-wheel traction device. G. S. Maxwell. No. 1,203,764; Nov. 7; Gaz. vol. 232; p. 75.
Automobiles and the like, Emergency attachment for driving-axles of. P. Pauly. No. 1,206,728; Nov. 28; Gaz. vol. 232; p. 1203.
Automobiles, Combined search and finder light for. H. A. Rueter. No. 1,204,823; Nov. 14; Gaz. vol. 232; p. 474.
Automobiles, Flag-holder for. T. K. Surface. No. 1,203,937; Nov. 7; Gaz. vol. 232; p. 136.
Automobiles, Means for locking steering-heads of. W. L. B. Cushing and G. A. Flood. No. 1,205,861; Nov. 21; Gaz. vol. 232; p. 873.
Automobiles, Reclining-seat for. W. J. Baxter. No. 1,204,394; Nov. 14; Gaz. vol. 232; p. 327.
Automobiles, Signal-chime for. C. P. and I. M. Jones. No. 1,205,452; Nov. 21; Gaz. vol. 232; p. 732.
Automobiles, Sled-runner attachment for. G. Z. Clark. No. 1,206,671; Nov. 28; Gaz. vol. 232; p. 1184.
Automobiles, Sparking connection for. A. L. Biker. No. 1,206,731; Nov. 28; Gaz. vol. 232; p. 1205.
Automobiles, Tractor attachment for. C. J. Bristol. No. 1,205,439; Nov. 21; Gaz. vol. 232; p. 725.
Awl. A. Maszczyk. No. 1,206,003; Nov. 14; Gaz. vol. 232; p. 539.
Awning-arm. F. A. Manning and F. D. Frazee. No. 1,204,582; Nov. 14; Gaz. vol. 232; p. 393.
Awnings and shades, Means for arresting the unwinding of. F. Bailey. No. 1,203,840; Nov. 7; Gaz. vol. 232; p. 101.
Axle, Car-. J. Palley. No. 1,206,583; Nov. 28; Gaz. vol. 232; p. 1155.
Axle-lubricator. C. W. Cheek. No. 1,205,856; Nov. 21; Gaz. vol. 232; p. 872.
Axle, Vehicle-. J. Anderson. No. 1,203,957; Nov. 7; Gaz. vol. 232; p. 143.
Axle, Vehicle-. G. A. Warner. No. 1,204,722; Nov. 14; Gaz. vol. 232; p. 441.
Axle, Wagon-. J. and F. C. Herby. No. 1,205,535; Nov. 21; Gaz. vol. 232; p. 761.
Baby-holder. R. Peck. No. 1,205,384; Nov. 21; Gaz. vol. 232; p. 709.
Baby-walker, Collapsible. E. T. Condon, Jr. No. 1,204,249; Nov. 7; Gaz. vol. 232; p. 244.
Back-spacing mechanism. O. Thieme. No. 1,204,612; Nov. 14; Gaz. vol. 232; p. 404.
Backing apparatus. E. Keefe. No. 1,205,952; Nov. 21; Gaz. vol. 232; p. 905.
Bag: *See*—
Hat-bag. Nose-bag.
Mail-bag. Traveling-bag.
Mailing-bag. Valve-bag.
Bag. A. M. Bates. No. 1,205,145; Nov. 21; Gaz. vol. 232; p. 629.
Bag and holding and releasing device. A. J. Bergeron. No. 1,206,747; Nov. 28; Gaz. vol. 232; p. 1211.
Bag-fastener. F. A. Fuller. No. 1,206,526; Nov. 28; Gaz. vol. 232; p. 1136.
Bag-filling machine. J. W. Howard. No. 1,204,274; Nov. 7; Gaz. vol. 232; p. 252.
Bag-holder. W. R. Bolin. No. 1,203,843; Nov. 7; Gaz. vol. 232; p. 103.
Bag-holder. P. Treleaven. No. 1,206,619; Nov. 28; Gaz. vol. 232; p. 1167.
Bag holder and opener. H. Kawate. No. 1,205,747; Nov. 21; Gaz. vol. 232; p. 836.
Bagging-pipe. W. G. Burns. No. 1,205,431; Nov. 21; Gaz. vol. 232; p. 725.
Bait, Artificial. W. S. Belding. No. 1,204,538; Nov. 14; Gaz. vol. 232; p. 378.
Bait, Artificial. G. F. Strube. No. 1,204,204; Nov. 7; Gaz. vol. 232; p. 229.
Bake-pan. A. L. and G. W. Doerr and F. J. Murray. No. 1,205,522; Nov. 21; Gaz. vol. 232; p. 757.
Baling-press. A. T. Dudley. No. 1,205,981; Nov. 28; Gaz. vol. 232; p. 951.
Baling-press. C. A. Warren. No. 1,206,182; Nov. 28; Gaz. vol. 232; p. 1019.
Baling-presses, Clutch and brake mechanism for. J. F. Wells. No. 1,205,419; Nov. 21; Gaz. vol. 232; p. 720.
Ball: *See*—
Bowling-ball.
Ball-grinding machine. E. Hanus. No. 1,205,531; Nov. 21; Gaz. vol. 232; p. 760.
Banding bills and the like, Machine for. C. S. Batdorf. No. 1,204,118; Nov. 7; Gaz. vol. 232; p. 199.
Bank, Pocket savings-. I. J. Kusel. No. 1,204,790; Nov. 14; Gaz. vol. 232; p. 464.
Bank, Savings-. F. J. Rupert. No. 1,206,380; Nov. 28; Gaz. vol. 232; p. 1086.
Bar: *See*—
Clothes-bar. Grate-bar.
Bar-bending appliance. A. O. Jameton. No. 1,206,114; Nov. 28; Gaz. vol. 232; p. 996.
Barometer. F. E. Collinson. No. 1,206,094; Nov. 28; Gaz. vol. 232; p. 989.
Barrel. P. Smith. No. 1,205,804; Nov. 21; Gaz. vol. 232; p. 857.
Barrel-hoop. E. F. Beugler. No. 1,203,688; Nov. 7; Gaz. vol. 232; p. 49.
Barrel, Metallic. W. E. Bemis. No. 1,203,687; Nov. 7; Gaz. vol. 232; p. 48.
Barrels, Forming chimes on metal. C. Voltz and S. B. Cochrane. No. 1,206,487; Nov. 28; Gaz. vol. 232; p. 1122.
Base-ball apparatus. H. G. Boardman. No. 1,204,645; Nov. 14; Gaz. vol. 232; p. 415.
Base-ball-pitching machine, Automatic. B. N. Marty. No. 1,204,468; Nov. 14; Gaz. vol. 232; p. 353.
Base-board, Metal. G. S. Knapp. No. 1,205,358; Nov. 21; Gaz. vol. 232; p. 700.
Basket. A. C. Goff. No. 1,206,480; Nov. 28; Gaz. vol. 232; p. 1103.
Basket, Dish-. T. McGill. No. 1,205,769; Nov. 21; Gaz. vol. 232; p. 844.
Basket, Waste-paper. M. M. Cohn. No. 1,204,744; Nov. 14; Gaz. vol. 232; p. 449.
Bath appliance. F. O. Hilliker. No. 1,203,874; Nov. 7; Gaz. vol. 232; p. 114.
Bath-tub shower and needle bath. H. A. Callon. No. 1,203,579; Nov. 7; Gaz. vol. 232; p. 9.
Bathing-cap and making same. A. C. Squires. No. 1,206,047; Nov. 28; Gaz. vol. 232; p. 973.
Batteries, Charging storage. V. M. Harris. No. 1,205,620; Nov. 21; Gaz. vol. 232; p. 793.
Battery: *See*—
Electric battery.
Secondary or storage battery.
Battery-jar-making machine. W. W. Weltling. No. 1,205,940; Nov. 21; Gaz. vol. 232; p. 900.
Bead stringing and linking machine, Automatic. J. E. McCrudden. No. 1,205,233; Nov. 21; Gaz. vol. 232; p. 660.
Beam-clamping device. R. S. Heap. No. 1,203,733; Nov. 7; Gaz. vol. 232; p. 63.
Bearing. C. A. Hirth. No. 1,205,539; Nov. 21; Gaz. vol. 232; p. 763.
Bearing. R. Siegfried. No. 1,204,505; Nov. 14; Gaz. vol. 232; p. 365.
Bearing, Axle and the like. O. H. Bursell. No. 1,205,706; Nov. 21; Gaz. vol. 232; p. 822.
Bearing, Ball-. C. H. Chapman. No. 1,204,938; Nov. 14; Gaz. vol. 232; p. 517.
Bearing, Ball-. F. Starin. No. 1,206,482; Nov. 28; Gaz. vol. 232; p. 1120.
Bearing, Bolster-. R. S. Hayes. No. 1,205,532; Nov. 21; Gaz. vol. 232; p. 760.
Bearing cage, Ball-. A. Riebe. No. 1,205,934; Nov. 21; Gaz. vol. 232; p. 899.
Bearing cage, Roller-. J. A. Perkins. No. 1,205,887; Nov. 21; Gaz. vol. 232; p. 710.
Bearing for shafts, spindles, and the like. G. L. Pratt. No. 1,204,063; Nov. 7; Gaz. vol. 232; p. 180.
Bearing gland, Ball-. L. Roylance. No. 1,204,822; Nov. 14; Gaz. vol. 232; p. 474.
Bearing protector and lubricator. A. F. Poirier. No. 1,205,012; Nov. 14; Gaz. vol. 232; p. 542.
Bearing, Roller-. G. F. Blume. No. 1,206,505; Nov. 28; Gaz. vol. 232; p. 1128.
Bearing, Roller-. O. W. Hart. No. 1,205,449; Nov. 21; Gaz. vol. 232; p. 731.
Bearing, Thrust and like. H. T. Newbigin. No. 1,205,928; Nov. 21; Gaz. vol. 232; p. 895.
Bearings, Ball-guide for ball-. J. Schmid-Roost. No. 1,205,797; Nov. 21; Gaz. vol. 232; p. 855.

Bearings, Cage for ball-. F. Starin. No. 1,203,928; Nov. 7; Gaz. vol. 232; p. 633.
Bed attachment for motor-vehicles, Folding-. W. Reddell. No. 1,204,592; Nov. 14; Gaz. vol. 232; p. 396.
Bed-bottom, Spring. F. Karr. No. 1,205,901; Nov. 21; Gaz. vol. 232; p. 887.
Bed-bottom wire fabric. C. J. Kindel and J. Delaney. No. 1,205,642; Nov. 21; Gaz. vol. 232; p. 801.
Bed, Folding or collapsible. J. W. Kyle. No. 1,204,792; Nov. 14; Gaz. vol. 232; p. 465.
Bed, Hospital-. J. E. Fazakerley. No. 1,203,721; Nov. 7; Gaz. vol. 232; p. 59.
Bed-spring. F. W. Hill. No. 1,206,536; Nov. 28; Gaz. vol. 232; p. 1140.
Bed-spring. F. Karr. No. 1,205,900; Nov. 21; Gaz. vol. 232; p. 887.
Bed, Wall-. P. Barnum. No. 1,205,316; Nov. 21; Gaz. vol. 232; p. 685.
Beds and the like, Corner-fastening for metal. L. Frank. No. 1,205,183; Nov. 21; Gaz. vol. 232; p. 642.
Beehive. G. P. Wood. No. 1,203,675; Nov. 7; Gaz. vol. 232; p. 43.
Beers, Making practically alcohol-free. C. Reiter. No. 1,204,315; Nov. 7; Gaz. vol. 232; p. 265.
Beet blocker, Sugar-. L. T. Wilkins. No. 1,205,830; Nov. 21; Gaz. vol. 232; p. 865.
Beet topper and digger. W. H. Williams. No. 1,204,627; Nov. 14; Gaz. vol. 232; p. 408.
Beets, thistles, &c., Device for pulling. R. Titus. No. 1,205,414; Nov. 21; Gaz. vol. 232; p. 719.
Bell, Electromagnetic. L. A. Littler. No. 1,205,646; Nov. 21; Gaz. vol. 232; p. 802.
Bell-ringing device. J. Kowal. No. 1,206,231; Nov. 28; Gaz. vol. 232; p. 1036.
Belt. W. Duecker. No. 1,203,859; Nov. 7; Gaz. vol. 232; p. 109.
Belt. E. Pattee. No. 1,204,816; Nov. 14; Gaz. vol. 232; p. 472.
Belt. A. Raffel. No. 1,205,933; Nov. 21; Gaz. vol. 232; p. 898.
Belt. J. S. Wohlgemuth. No. 1,206,070; Nov. 28; Gaz. vol. 232; p. 981.
Belt-controlling device. R. F. McFeely. No. 1,204,371; Nov. 7; Gaz. vol. 232; p. 284.
Belt, Driving-. M. Leblanc. No. 1,205,363; Nov. 21; Gaz. vol. 232; p. 702.
Belt, Endless conveyer-. C. T. Westlin. No. 1,203,827; Nov. 7; Gaz. vol. 232; p. 97.
Belt-shifters, Locking device for. R. H. Engelbert. No. 1,204,421; Nov. 14; Gaz. vol. 232; p. 337.
Belt, Supporting-. H. Seltzer. No. 1,205,034; Nov. 14; Gaz. vol. 232; p. 549.
Belts and mold therefor, Constructing endless. F. Hall. No. 1,204,976; Nov. 14; Gaz. vol. 232; p. 530.
Belting, Flexible sheet-metal. H. A. House. No. 1,205,210; Nov. 21; Gaz. vol. 232; p. 652.
Bench: *See*—
Jeweler's bench. Test-bench.
Piano and player-piano bench.
Bench-clamp. J. M. Briles. No. 1,203,692; Nov. 7; Gaz. vol. 232; p. 50.
Berry-box. L. P. Lord. No. 1,204,367; Nov. 7; Gaz. vol. 232; p. 283.
Berth, Sleeping-car. E. R. Moore. No. 1,205,775; Nov. 21; Gaz. vol. 232; p. 846.
Beverage extracts, Manufacture of. J. L. Kellogg. No. 1,204,032; Nov. 7; Gaz. vol. 232; p. 168.
Beverage extracts, Manufacture of. J. L. Kellogg. No. 1,204,358; Nov. 7; Gaz. vol. 232; p. 280.
Beverages, Manufacturing unfermented. H. Heuser. No. 1,204,869; Nov. 14; Gaz. vol. 232; p. 490.
Bicycle-boat. L. Peterson. No. 1,206,587; Nov. 28; Gaz. vol. 232; p. 1156.
Bicycle construction. S. Parda. No. 1,205,382; Nov. 21; Gaz. vol. 232; p. 708.
Bicycle-lock. H. E. Fourcher. No. 1,204,753; Nov. 14; Gaz. vol. 232; p. 452.
Bicycle saddle-support. R. Whaley. No. 1,205,828; Nov. 21; Gaz. vol. 232; p. 864.
Bicycles and similar vehicles, Motor fore-carriage for. G. Stagni. No. 1,203,927; Nov. 7; Gaz. vol. 232; p. 133.
Bicycles, Transmission-gearing for. P. W. Thompson. No. 1,204,519; Nov. 14; Gaz. vol. 232; p. 370.
Bill-board and refuse-container, Columnar. A. H. Woods. No. 1,203,052; Nov. 7; Gaz. vol. 232; p. 141.
Billiard-cue. J. H. Goodell. No. 1,204,152; Nov. 7; Gaz. vol. 232; p. 209.
Bin: *See*—
Flour-bin. Storage-bin.
Binder. E. A. Horton. No. 1,204,443; Nov. 14; Gaz. vol. 232; p. 344.
Binder, Loose-leaf. J. G. Magin. No. 1,205,869; Nov. 21; Gaz. vol. 232; p. 704.
Binder, Temporary. A. Wissler. No. 1,205,304; Nov. 21; Gaz. vol. 232; p. 681.
Binding composition, Preparing a plastic. J. G. Vail. No. 1,206,056; Nov. 28; Gaz. vol. 232; p. 977.
Binding mechanism. C. R. Raney. No. 1,205,261; Nov. 21; Gaz. vol. 232; p. 669.
Binding-post. K. C. Randall. No. 1,206,376; Nov. 28; Gaz. vol. 232; p. 1085.
Binding-post. L. Steinberger. No. 1,206,737; Nov. 28; Gaz. vol. 232; p. 1207.
Bit: *See*—
Expansible bit.
Blade-holder. F. Barutio. No. 1,206,499; Nov. 28; Gaz. vol. 232; p. 1127.
Blanket-fastener. G. F. Joly, Jr. No. 1,206,225; Nov. 28; Gaz. vol. 232; p. 1034.
Blast-gate. W. S. Rockwell. No. 1,206,469; Nov. 28; Gaz. vol. 232; p. 1116.
Block: *See*—
Building-block. Cut-out block.
Bumper-block. Engraver's block.
Curbing-block. Meter test-block.
Block-mold. W. M. Hickman and I. Canniff. No. 1,204,354; Nov. 7; Gaz. vol. 232; p. 279.
Board: *See*—
Automobile running-board. Ironing-board.
Base-board. Pool-board.
Bill-board. Rummy-board.
Bulletin-board. Tracker-board.
Game-board. Washboard.
Boat-hull. C. A. Pfeiffer. No. 1,204,058; Nov. 7; Gaz. vol. 232; p. 178.
Boat-launching device. A. E. J. Luckhurst. No. 1,205,763; Nov. 21; Gaz. vol. 232; p. 842.
Boat-launching device. A. E. J. Luckhurst. No. 1,205,766; Nov. 21; Gaz. vol. 232; p. 843.
Boat-launching device, Flexible. A. E. J. Luckhurst. No. 1,205,762; Nov. 21; Gaz. vol. 232; p. 841.
Boat-launching devices, Hoist for. A. E. J. Luckhurst. No. 1,205,765; Nov. 21; Gaz. vol. 232; p. 842.
Boat, Motor-. W. A. Hickman. No. 1,204,355; Nov. 7; Gaz. vol. 232; p. 279.
Boat-motor support. E. Morgan. No. 1,205,776; Nov. 21; Gaz. vol. 232; p. 846.
Boiler: *See*—
Superheater-boiler. Washboiler.
Boiler. O. T. Nelson. No. 1,205,473; Nov. 21; Gaz. vol. 232; p. 739.
Boiler-alarm. C. M. Clark and R. W. Andrews. No. 1,203,979; Nov. 7; Gaz. vol. 232; p. 149.
Boiler drainer, Clothes-. A. J. Lambel. No. 1,206,388; Nov. 28; Gaz. vol. 232; p. 1072.
Boiler-furnace. W. Lemb. No. 1,205,228; Nov. 21; Gaz. vol. 232; p. 658.
Boiler-head. N. B. Shepard. No. 1,205,037; Nov. 14; Gaz. vol. 232; p. 550.
Boiler safety-alarm, Steam-. J. A. Leavitt. No. 1,206,341; Nov. 28; Gaz. vol. 232; p. 1072.
Boiler-shells and the like, Turning device for. J. C. Kaveney. No. 1,204,451; Nov. 14; Gaz. vol. 232; p. 347.
Boiler-tube cleaner. G. A. Lufkin. No. 1,205,230; Nov. 21; Gaz. vol. 232; p. 659.
Boiler-tube plug. P. Harrison. No. 1,205,891; Nov. 21; Gaz. vol. 232; p. 884.
Boiler-tube-setting tool. C. G. Tengdin. No. 1,205,817; Nov. 21; Gaz. vol. 232; p. 861.
Boll-weevil destroyer, Cotton-. W. B. White. No. 1,204,101; Nov. 7; Gaz. vol. 232; p. 193.
Bolt: *See*—
Fitting-up bolt. Resilient bolt.
Bolt. E. I. Dodds. No. 1,205,170; Nov. 21; Gaz. vol. 232; p. 639.
Bolt and nut-lock. G. W. Howell. No. 1,206,330; Nov. 28; Gaz. vol. 232; p. 1070.
Bolt blank, Boiler-stay-. E. I. Dodds. No. 1,205,175; Nov. 21; Gaz. vol. 232; p. 640.
Bolt-blanks are made, Manufacturing bars from which. E. I. Dodds. No. 1,205,172; Nov. 21; Gaz. vol. 232; p. 639.
Bolt-blanks are made, Bar from which. E. I. Dodds. No. 1,205,176; Nov. 21; Gaz. vol. 232; p. 640.
Bolt-blanks, Manufacturing bars for. E. I. Dodds. No. 1,205,174; Nov. 21; Gaz. vol. 232; p. 640.
Bolt-keeper. J. J. Thull. No. 1,204,209; Nov. 7; Gaz. vol. 232; p. 230.
Bolt or railway-spike. A. H. Taft. No. 1,205,580; Nov. 21; Gaz. vol. 232; p. 779.
Bolts, Making blanks for. E. I. Dodds. No. 1,205,173; Nov. 21; Gaz. vol. 232; p. 639.
Bolts, Making blanks for flexible. E. I. Dodds. No. 1,205,171; Nov. 21; Gaz. vol. 232; p. 639.
Bolts, Manufacturing. E. I. Dodds. No. 1,204,255; Nov. 7; Gaz. vol. 232; p. 245.
Bomb. E. H. Fouts. No. 1,205,340; Nov. 21; Gaz. vol. 232; p. 694.
Book, Fire and dust proof record-. W. C. Akans. No. 1,204,387; Nov. 14; Gaz. vol. 232; p. 325.
Boot, Rubber. C. Lee. No. 1,204,365; Nov. 7; Gaz. vol. 232; p. 282.
Boots and shoes, Arch and instep support for. C. Rokahr. No. 1,204,490; Nov. 14; Gaz. vol. 232; p. 361.
Boring apparatus. A. R. Locke. No. 1,204,673; Nov. 14; Gaz. vol. 232; p. 425.
Boring-drill, Rotary. H. R. Hughes. No. 1,204,022; Nov. 7; Gaz. vol. 232; p. 164.
Boring-machine. M. G. Lamb. No. 1,204,576; Nov. 14; Gaz. vol. 232; p. 391.
Boring-tool. H. Casler. No. 1,204,339; Nov. 7; Gaz. vol. 232; p. 273.
Bottle. J. Green. No. 1,206,694; Nov. 28; Gaz. vol. 232; p. 1191.
Bottle. O. O. Kolstad. No. 1,206,335; Nov. 28; Gaz. vol. 232; p. 1071.
Bottle-cap opener. G. Gill. No. 1,206,692; Nov. 28; Gaz. vol. 232; p. 1191.

Bottle-closure. F. Hachmann. No. 1,205,091; Nov. 14; Gaz. vol. 232; p. 567.
Bottle dispenser, Cold-. J. W. Berry. No. 1,205,844; Nov. 21; Gaz. vol. 232; p. 869.
Bottle-filling machine. G. Strandt. No. 1,204,607; Nov. 14; Gaz. vol. 232; p. 402.
Bottle, Non-refillable. S. R. M. Malloch. No. 1,205,912; Nov. 21; Gaz. vol. 232; p. 891.
Bottle, Non-refillable. T. Sandgeroth. No. 1,204,073; Nov. 7; Gaz. vol. 232; p. 184.
Bottle-opening device. M. Nagy. No. 1,204,305; Nov. 7; Gaz. vol. 232; p. 262.
Bottle retainer, Milk-. J. Petrovitch. No. 1,204,818; Nov. 14; Gaz. vol. 232; p. 472.
Bottle-stopper. L. H. Rathke. No. 1,205,017; Nov. 14; Gaz. vol. 232; p. 545.
Bottle-stopper and dropper. E. J. Brosnan. No. 1,204,125; Nov. 7; Gaz. vol. 232; p. 201.
Bottle-stopper and pipette. C. A. Simpson. No. 1,203,919; Nov. 7; Gaz. vol. 232; p. 129.
Bottle stopper, Non-refillable-. G. E. Hitchcock. No. 1,204,569; Nov. 14; Gaz. vol. 232; p. 388.
Bottle-suspending device, Milk-. A. Nelson. No. 1,205,655; Nov. 21; Gaz. vol. 232; p. 805.
Bottle-tester. L. B. Jackson. No. 1,204,664; Nov. 14; Gaz. vol. 232; p. 422.
Bouquet-holder. W. Suggs. No. 1,206,165; Nov. 28; Gaz. vol. 232; p. 1013.
Bowling-ball, Composition. P. J. Klopsch. No. 1,203,747; Nov. 7; Gaz. vol. 232; p. 69.
Bowling-pin. F. Skalla. No. 1,205,278; Nov. 21; Gaz. vol. 232; p. 674.
Box: *See*—
Berry-box.
Collapsible box.
Display-box.
Folding box.
Knockdown box.
Mail-box.
Match-box.
Meter-box.
Outlet-box.
Paper box.
Signal-box.
Sound-box.
Stuffing-box.
Talking-machine sound-box.
Vanity-box.
Box. C. W. Dennis. No. 1,205,519; Nov. 21; Gaz. vol. 232; p. 755.
Box. C. W. Dennis. No. 1,205,977; Nov. 28; Gaz. vol. 232; p. 950.
Box. A. H. Dreux. No. 1,203,990; Nov. 7; Gaz. vol. 232; p. 154.
Box. F. E. Thompson. No. 1,205,821; Nov. 21; Gaz. vol. 232; p. 862.
Box-fastener. E. Monnier. No. 1,206,458; Nov. 28; Gaz. vol. 232; p. 1113.
Box-flanging machine. J. Jessen. No. 1,206,441; Nov. 28; Gaz. vol. 232; p. 1106.
Box-shuck machines, Feed mechanism for. F. Schafer. No. 1,203,912; Nov. 7; Gaz. vol. 232; p. 127.
Box topping and taping machine. F. C. Simon and J. F. O'Brien. No. 1,204,079; Nov. 7; Gaz. vol. 232; p. 186.
Boxes, Contents-ejector for. A. J. Meyers. No. 1,206,124; Nov. 28; Gaz. vol. 232; p. 999.
Brace: *See*—
Rail-brace.
Bracelet. A. Tesoroni. No. 1,205,287; Nov. 21; Gaz. vol. 232; p. 676.
Bracket: *See*—
Cable-bracket.
Curtain-bracket.
Curtain-rod bracket.
House-bracket.
Shingling-bracket.
Bracket. H. Altman. No. 1,206,645; Nov. 28; Gaz. vol. 232; p. 1176.
Braiding and coating mechanism. R. C. Rahm and T. V. Wilson. No. 1,204,065; Nov. 7; Gaz. vol. 232; p. 181.
Braiding-machine. A. Hopkinson. No. 1,204,982; Nov. 14; Gaz. vol. 232; p. 531.
Braiding-machine. W. Kellner. No. 1,206,228; Nov. 28; Gaz. vol. 232; p. 1035.
Brake: *See*—
Air-brake.
Automobile-brake.
Automobile back-stop brake.
Car-brake.
Elevator-brake.
Flexible brake.
Ship-brake.
Talking-machine brake.
Vehicle-brake.
Wagon-brake.
Wheel-brake.
Brake-beam support. J. W. Weinland. No. 1,206,066; Nov. 28; Gaz. vol. 232; p. 980.
Brake-beam support, Emergency-. W. C. Hedgcock. No. 1,205,991; Nov. 28; Gaz. vol. 232; p. 954.
Brake-head trunnion. A. R. Peffers. No. 1,205,885; Nov. 21; Gaz. vol. 232; p. 710.
Brake mechanism for vehicles. G. S. Albanese. No. 1,203,956; Nov. 7; Gaz. vol. 232; p. 143.
Brake-shoe. J. V. C. T. Christensen. No. 1,204,649; Nov. 14; Gaz. vol. 232; p. 417.
Brake-shoe. F. T. Dickinson. No. 1,205,439; Nov. 21; Gaz. vol. 232; p. 728.
Brake-shoe. A. H. Reid. No. 1,205,482; Nov. 21; Gaz. vol. 232; p. 743.
Brassière. J. Leeman. No. 1,205,758; Nov. 21; Gaz. vol. 232; p. 840.
Bread, Leavened. H. A. Kohman, T. M. Godfrey, and L. H. Ashe. No. 1,204,281; Nov. 7; Gaz. vol. 232; p. 253.
Bread, Manufacture of. H. A. Kohman, T. M. Godfrey, and L. Ashe. No. 1,204,280; Nov. 7; Gaz. vol. 232; p. 253.
Brick, Manufacturing rough-faced. J. U. Nicholson. No. 1,204,477; Nov. 14; Gaz. vol. 232; p. 356.
Bricks in stacked units, Apparatus for handling. R. C. Penfield. No. 1,205,562; Nov. 21; Gaz. vol. 232; p. 771.
Bridge, Bascule-. T. E. Brown. No. 1,203,695; Nov. 7; Gaz. vol. 232; p. 51.
Bridging for joists. F. K. Day. No. 1,204,956; Nov. 14; Gaz. vol. 232; p. 524.
Bristle-removing machine. J. H. Stewart. No. 1,204,518; Nov. 14; Gaz. vol. 232; p. 370.
Brooch. C. G. King. No. 1,203,882; Nov. 7; Gaz. vol. 232; p. 117.
Broom. E. A. Wheeler and W. M. Morgan. No. 1,204,624; Nov. 14; Gaz. vol. 232; p. 407.
Brush. F. Ritter, Sr., and F. Ritter, Jr. No. 1,206,031; Nov. 28; Gaz. vol. 232; p. 969.
Brush and broom handle. A. D. Long. No. 1,203,886; Nov. 7; Gaz. vol. 232; p. 118.
Brush, Bottle cleaning or washing. M. Veeck and C. E. Reichert. No. 1,206,273; Nov. 28; Gaz. vol. 232; p. 1050.
Brush, Bottle-washing. A. S. Turner. No. 1,205,290; Nov. 21; Gaz. vol. 232; p. 677.
Brush, Fountain-. C. A. Sundstrand. No. 1,205,681; Nov. 21; Gaz. vol. 232; p. 814.
Brush, Fountain paint-. J. S. Creech. No. 1,205,714; Nov. 21; Gaz. vol. 232; p. 826.
Brush-handles, Suspending attachment for. E. F. Mackeever. No. 1,206,010; Nov. 28; Gaz. vol. 232; p. 961.
Brush-holder. W. E. Wright. No. 1,204,531; Nov. 14; Gaz. vol. 232; p. 375.
Brush holder, Sanitary tooth-. F. M. A. and L. Wybaillie. No. 1,205,311; Nov. 21; Gaz. vol. 232; p. 684.
Brush holder, Tooth-. C. Hammesfahr. No. 1,206,321; Nov. 28; Gaz. vol. 232; p. 1067.
Brush, Rotary tooth-. O. C. Haney. No. 1,204,762; Nov. 14; Gaz. vol. 232; p. 455.
Brush, Rotary tooth-. I. Louis. No. 1,203,636; Nov. 7; Gaz. vol. 232; p. 29.
Bubble blower, Soap-. C. Bradway. No. 1,205,123; Nov. 14; Gaz. vol. 232; p. 579.
Buckle. E. R. Swift. No. 1,205,492; Nov. 21; Gaz. vol. 232; p. 746.
Buckle, Overshoe-. C. B. Barker. No. 1,206,290; Nov. 28; Gaz. vol. 232; p. 1057.
Building-block, Ventilated. H. R. Straight. No. 1,203,934; Nov. 7; Gaz. vol. 232; p. 136.
Building material and producing the same, Artificial. L. Kern. No. 1,206,545; Nov. 28; Gaz. vol. 232; p. 1144.
Bulletin-board. W. H. Dietz. No. 1,203,712; Nov. 7; Gaz. vol. 232; p. 57.
Bulletin-board. T. C. Shaw. No. 1,206,148; Nov. 28; Gaz. vol. 232; p. 1007.
Bumper-block. T. McMichiel. No. 1,206,565; Nov. 28; Gaz. vol. 232; p. 1149.
Bung and faucet, Combined. S. Rosenfeld. No. 1,205,666; Nov. 21; Gaz. vol. 232; p. 809.
Burglar-alarm. J. W. Smith. No. 1,204,513; Nov. 14; Gaz. vol. 232; p. 368.
Burglar-alarm. J. W. Smith. No. 1,204,514; Nov. 14; Gaz. vol. 232; p. 368.
Burial-vaulting system. C. F. Raydure. No. 1,204,686; Nov. 14; Gaz. vol. 232; p. 430.
Burner: *See*—
Hydrocarbon-burner.
Liquid-fuel burner.
Multiple blast-burner.
Oil-burner.
Burner and oven. E. D. Baxter. No. 1,203,960; Nov. 7; Gaz. vol. 232; p. 144.
Burner attachment. E. D. Kellerman. No. 1,204,782; Nov. 14; Gaz. vol. 232; p. 461.
Burner for fluid-heaters and the like. A. Beler. No. 1,206,400; Nov. 28; Gaz. vol. 232; p. 1093.
Burning liquid fuel, Air-director for use in. H. P. Smith. No. 1,206,153; Nov. 28; Gaz. vol. 232; p. 1009.
Bushing, Cylinder-. T. Lobner. No. 1,204,674; Nov. 14; Gaz. vol. 232; p. 426.
Butchers' blocks, Machine for surfacing. F. M. Brown and W. Wechter. No. 1,205,322; Nov. 21; Gaz. vol. 232; p. 688.
Butcher's knife. W. F. Lutz. No. 1,203,637; Nov. 7; Gaz. vol. 232; p. 29.
Butter-cutter. P. S. Lekas. No. 1,206,233; Nov. 28; Gaz. vol. 232; p. 1036.
Butter-pick. E. Doran. No. 1,206,682; Nov. 28; Gaz. vol. 232; p. 1188.
Button-cleaning device. F. Rotti. No. 1,206,378; Nov. 28; Gaz. vol. 232; p. 1086.
Button-feeding mechanism. C. F. Richardson. No. 1,204,067; Nov. 7; Gaz. vol. 232; p. 181.
Button for garments and the like, Decorative. G. C. Snyder. No. 1,205,050; Nov. 14; Gaz. vol. 232; p. 554.
Button-machines, Grinding attachment for automatic. A. F. Kemo. No. 1,205,453; Nov. 21; Gaz. vol. 232; p. 732.
Button, Releasable self-fastening. E. I. and E. Jaffe. No. 1,204,159; Nov. 7; Gaz. vol. 232; p. 212.
Button, Safety collar-. M. Gonick. No. 1,206,529; Nov. 28; Gaz. vol. 232; p. 1137.
Button, Shoe-. W. E. Elliott. No. 1,206,755; Nov. 28; Gaz. vol. 232; p. 1215.
Buttons and like fastenings to fabrics, Apparatus for securing. G. C. Snyder. No. 1,205,045; Nov. 14; Gaz. vol. 232; p. 552.
Buttonhole-marking machine. H. W. Stedler. No. 1,206,610; Nov. 28; Gaz. vol. 232; p. 1164.

Cab-signal and automatic stop. M. B. Bulla. No. 1,203,968; Nov. 7; Gaz. vol. 232; p. 146.
Cabinet. H. C. Fratt. No. 1,204,263; Nov. 7; Gaz. vol. 232; p. 248.
Cabinet, Air-cooled storage-. R. McKinney. No. 1,205,910; Nov. 21; Gaz. vol. 232; p. 890.
Cabinet construction, Metal. D. E. Hunter. No. 1,206,331; Nov. 28; Gaz. vol. 232; p. 1070.
Cabinet, Display-. M. A. Skall. No. 1,205,040; Nov. 14; Gaz. vol. 232; p. 551.
Cabinet, Grocer's. J. F. Alley. No. 1,205,695; Nov. 21; Gaz. vol. 232; p. 819.
Cabinet, Kitchen-. A. Brandt. No. 1,205,429; Nov. 21; Gaz. vol. 232; p. 724.
Cabinet, Kitchen-. D. R. Curtenius. No. 1,203,589; Nov. 7; Gaz. vol. 232; p. 13.
Cabinet, Kitchen-. W. H. Phenice. No. 1,204,059; Nov. 7; Gaz. vol. 232; p. 178.
Cabinet-maker's clamp. W. E. Youngquist and S. A. Holmquist. No. 1,206,639; Nov. 28; Gaz. vol. 232; p. 1173.
Cabinet, Sectional. J. J. Kuennen. No. 1,204,788; Nov. 14; Gaz. vol. 232; p. 463.
Cabinet, Store-. J. G. Watts. No. 1,205,494; Nov. 21; Gaz. vol. 232; p. 747.
Cabinet, Sugar-dispensing. F. Manaresi. No. 1,206,012; Nov. 28; Gaz. vol. 232; p. 961.
Cable-bracket. G. M. Gest. No. 1,204,858; Nov. 14; Gaz. vol. 232; p. 486.
Cable-clamp. F. M. Raymond. No. 1,203,782; Nov. 7; Gaz. vol. 232; p. 81.
Cable-hanger. E. L. Brockway. No. 1,206,203; Nov. 28; Gaz. vol. 232; p. 1026.
Cable-terminal. F. B. Cook. No. 1,204,412; Nov. 14; Gaz. vol. 232; p. 334.
Cake-cutter. O. J. Goodwin. No. 1,204,009; Nov. 7; Gaz. vol. 232; p. 160.
Cake turner, Griddle-. W. Vogel. No. 1,203,665; Nov. 7; Gaz. vol. 232; p. 39.
Calculating-machine. H. E. Goldberg. No. 1,204,755; Nov. 14; Gaz. vol. 232; p. 452.
Calculating-machine. H. A. Hensley. No. 1,204,430; Nov. 14; Gaz. vol. 232; p. 343.
Calculating-machine. H. Hopkins. No. 1,206,113; Nov. 28; Gaz. vol. 232; p. 995.
Calculating-machine. A. Rechnitzer. No. 1,205,481; Nov. 21; Gaz. vol. 232; p. 742.
Calculating-machine. C. Wales. No. 1,206,059; Nov. 28; Gaz. vol. 232; p. 977.
Calculating-machine, cash-register, and the like. J. C. Enberg. No. 1,205,875; Nov. 21; Gaz. vol. 232; p. 878.
Calculating-machines, Totalizer-controlling mechanism for. O. Thieme. No. 1,206,270; Nov. 28; Gaz. vol. 232; p. 1049.
Calculator. T. R. Weymouth. No. 1,205,068; Nov. 14; Gaz. vol. 232; p. 560.
Calculator, Mechanical. H. Ellis. No. 1,203,863; Nov. 7; Gaz. vol. 232; p. 110.
Camera-operating device. F. L. Scott. No. 1,205,486; Nov. 21; Gaz. vol. 232; p. 744.
Camera-shutters, Operating device for. W. N. Bartlett. No. 1,205,079; Nov. 14; Gaz. vol. 232; p. 564.
Camera-trip, Automatic. F. W. Smising. No. 1,204,506; Nov. 14; Gaz. vol. 232; p. 365.
Cameras, Finder for. J. F. Polhemus. No. 1,206,372; Nov. 28; Gaz. vol. 232; p. 1084.
Can: *See*—
Dredging-can.
Friction-top can.
Gasolene, &c., can.
Milk-can.
Can. C. F. Schnebelin. No. 1,205,111; Nov. 14; Gaz. vol. 232; p. 575.
Can. C. F. Schnebelin. No. 1,205,112; Nov. 14; Gaz. vol. 232; p. 575.
Can and knife holder. E. W. Hood. No. 1,204,442; Nov. 14; Gaz. vol. 232; p. 344.
Can-body-making machine. M. E. Widell. No. 1,206,395; Nov. 28; Gaz. vol. 232; p. 1091.
Can-cover. E. S. Amrock. No. 1,205,835; Nov. 21; Gaz. vol. 232; p. 866.
Can-cover loosener and dope-paddle, Combination. L. Mariatt. No. 1,205,466; Nov. 21; Gaz. vol. 232; p. 737.
Can-feeding mechanism. A. M. Augensen. No. 1,206,398; Nov. 28; Gaz. vol. 232; p. 1092.
Can-opener. E. G. Keller. No. 1,204,992; Nov. 14; Gaz. vol. 232; p. 535.
Can-washing machine. P. H. McCue and J. R. Nichols. No. 1,206,120; Nov. 28; Gaz. vol. 232; p. 998.
Cans, Machine for removing superfluous solder from sheet-metal. O. J. Johnson. No. 1,206,443; Nov. 28; Gaz. vol. 232; p. 1107.
Candelabrum. W. L. Connolly. No. 1,204,134; Nov. 7; Gaz. vol. 232; p. 204.
Candlestick. T. F. Flinn. No. 1,205,525; Nov. 21; Gaz. vol. 232; p. 758.
Candy-forming machine. J. Werner. No. 1,206,069; Nov. 28; Gaz. vol. 232; p. 980.
Cantilever-spring such as is used on motor-vehicles. O. D. North. No. 1,205,560; Nov. 21; Gaz. vol. 232; p. 770.
Cap and hanger, Combined. H. J. Boisseau. No. 1,206,660; Nov. 28; Gaz. vol. 232; p. 1180.
Cap-feeding mechanism. C. MacDonald. No. 1,206,236; Nov. 28; Gaz. vol. 232; p. 1037.
Capstan. R. E. Choate. No. 1,204,408; Nov. 14; Gaz. vol. 232; p. 337.
Car-body. E. E. Slick. No. 1,203,801; Nov. 7; Gaz. vol. 232; p. 87.
Car body, Mine-. E. E. Slick. No. 1,206,151; Nov. 28; Gaz. vol. 232; p. 1008.
Car-brake. L. L. Russell. No. 1,206,732; Nov. 28; Gaz. vol. 232; p. 1205.
Car, Combined freight and stock. J. B. Shelton. No. 1,205,674; Nov. 21; Gaz. vol. 232; p. 812.
Car construction. C. E. Fuller. No. 1,206,214; Nov. 28; Gaz. vol. 232; p. 1030.
Car-coupling. A. J. Bazeley. No. 1,204,119; Nov. 7; Gaz. vol. 232; p. 199.
Car-coupling. A. J. Bazeley. No. 1,204,334; Nov. 7; Gaz. vol. 232; p. 271.
Car-door. R. V. Sage and R. E. Wilder. No. 1,204,692; Nov. 14; Gaz. vol. 232; p. 432.
Car door, Grain-. C. S. Eaton. No. 1,204,962; Nov. 14; Gaz. vol. 232; p. 526.
Car door, Grain-. J. Wiemer. No. 1,203,948; Nov. 7; Gaz. vol. 232; p. 140.
Car-door-locking mechanism, Dump or plow. A. Campbell. No. 1,205,157; Nov. 21; Gaz. vol. 232; p. 634.
Car-door mechanism. W. G. Cory. No. 1,205,435; Nov. 21; Gaz. vol. 232; p. 727.
Car-door-operating mechanism, Dump-. A. Campbell. No. 1,204,543; Nov. 14; Gaz. vol. 232; p. 380.
Car-door operator. J. Wolny. No. 1,204,630; Nov. 14; Gaz. vol. 232; p. 410.
Car end structure. Railway-. P. H. Truman. No. 1,206,175; Nov. 28; Gaz. vol. 232; p. 1017.
Car-fender. T. S. Stewart. No. 1,206,163; Nov. 28; Gaz. vol. 232; p. 1012.
Car-fender. R. H. Wilson. No. 1,204,222; Nov. 7; Gaz. vol. 232; p. 234.
Car-heater. W. Staby. No. 1,206,479; Nov. 28; Gaz. vol. 232; p. 1119.
Car, Mine-. E. E. Slick. No. 1,206,042; Nov. 28; Gaz. vol. 232; p. 972.
Car, Motor-driven. J. F. Howie. No. 1,203,741; Nov. 7; Gaz. vol. 232; p. 66.
Car, Ore-. W. C. Carr. No. 1,206,091; Nov. 28; Gaz. vol. 232; p. 987.
Car, Passenger-. C. H. Turner. No. 1,205,417; Nov. 21; Gaz. vol. 232; p. 720.
Car-roof. C. Brecht. No. 1,206,664; Nov. 28; Gaz. vol. 232; p. 1181.
Car-roof. W. E. Symons. No. 1,206,268; Nov. 28; Gaz. vol. 232; p. 1048.
Car side bearing, Railway-. J. F. O'Connor. No. 1,206,026; Nov. 28; Gaz. vol. 232; p. 967.
Car-starter. J. Maliniak. No. 1,203,889; Nov. 7; Gaz. vol. 232; p. 119.
Car-step, Folding. J. R., J. L., and E. E. Dugger. No. 1,204,256; Nov. 7; Gaz. vol. 232; p. 246.
Car-stop, Automatic. A. Taurman. No. 1,205,814; Nov. 21; Gaz. vol. 232; p. 860.
Car-underframe. O. A. Johnson. No. 1,205,352; Nov. 21; Gaz. vol. 232; p. 698.
Car vent, Tank-. A. W. Elkins. No. 1,205,443; Nov. 21; Gaz. vol. 232; p. 729.
Car-ventilator. T. Pattison. No. 1,205,475; Nov. 21; Gaz. vol. 232; p. 740.
Car wheel, Mine-. E. E. Slick. No. 1,203,800; Nov. 7; Gaz. vol. 232; p. 87.
Cars, Brace for holding boxes and crates in railway-. C. Bacon. No. 1,206,648; Nov. 28; Gaz. vol. 232; p. 1176.
Cars, Means for supporting automobiles in freight-. A. Copony. No. 1,204,947; Nov. 14; Gaz. vol. 232; p. 520.
Cars, Metal wall for railway-. W. T. Van Dorn. No. 1,203,819; Nov. 7; Gaz. vol. 232; p. 93.
Cars, Self-catching screw-coupling for railway-. J. T. Jensen. No. 1,204,778; Nov. 14; Gaz. vol. 232; p. 460.
Cars, Spring and frame supporter for motor-. J. Dottl. No. 1,205,603; Nov. 21; Gaz. vol. 232; p. 787.
Carbon-bundling apparatus. R. D. Pike. No. 1,206,370; Nov. 28; Gaz. vol. 232; p. 1083.
Carbon tetrachlorid, Making. C. J. Strosacker. No. 1,204,608; Nov. 14; Gaz. vol. 232; p. 402.
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Carbureter. A. G. Redmond. No. 1,205,263; Nov. 21; Gaz. vol. 232; p. 669.
Carbureter. S. Woolf and F. E. Hale. No. 1,205,693; Nov. 21; Gaz. vol. 232; p. 818.
Cards, Playing-. B. Harpster. No. 1,204,763; Nov. 14; Gaz. vol. 232; p. 455.

Cards, Playing. F. E. Williams. No. 1,204,834; Nov. 14; Gaz. vol. 232; p. 478.
Carousels, Sectional platform for. H. L. Miller. No. 1,204,681; Nov. 14; Gaz. vol. 232; p. 428.
Carpet anchor-clip. A. Hanauer. No. 1,206,759; Nov. 28; Gaz. vol. 232; p. 1216.
Carpet and the like cleaner. B. D. Jones. No. 1,204,448; Nov. 14; Gaz. vol. 232; p. 346.
Carpet-beater, Rotary. W. I. Bunker. No. 1,204,741; Nov. 14; Gaz. vol. 232; p. 448.
Carpet-sweeper, Suction. J. B. Vander Putten. No. 1,204,718; Nov. 14; Gaz. vol. 232; p. 440.
Carriage and sled, Combination. M. A. Bellivеau. No. 1,205,842; Nov. 21; Gaz. vol. 232; p. 868.
Carrier: *See*—
Egg-carrier.
Luggage-carrier.
Mail-carrier.
Manure-carrier.
Parcel and bag carrier.
Shade-carrier.
Straw-carrier.
Carton. G. J. Adams. No. 1,205,965; Nov. 28; Gaz. vol. 232; p. 943.
Carton, Folding. V. C. Snyder. No. 1,203,924; Nov. 7; Gaz. vol. 232; p. 132.
Carton-forming machine. G. A. Robinson. No. 1,205,566; Nov. 21; Gaz. vol. 232; p. 773.
Cartridge-casing. W. H. Buell. No. 1,205,942; Nov. 21; Gaz. vol. 232; p. 901.
Cartridge, Multiple. V. Papuga. No. 1,203,649; Nov. 7; Gaz. vol. 232; p. 34.
Cartridge-shells, Strip of material for forming. E. C. Bell and R. S. Case. No. 1,206,501; Nov. 28; Gaz. vol. 232; p. 1127.
Carving, Sand-blast. F. H. Scantlebury. No. 1,206,780; Nov. 28; Gaz. vol. 232; p. 1223.
Case: *See*—
Cigarette-case.
Display-case.
Egg-case.
Packing-case.
Refrigerator show-case.
Shipping-case.
Tennis-racket-frame case.
Cash and credit accounting machine. J. A. Werner. No. 1,205,298; Nov. 21; Gaz. vol. 232; p. 679.
Caskets, Receiving-board for burial-. G. H. and V. R. Leigh. No. 1,204,672; Nov. 14; Gaz. vol. 232; p. 425.
Caster. A. Hildebrandt and W. E. Moffett. No. 1,204,440; Nov. 14; Gaz. vol. 232; p. 344.
Caster. F. Jansen. No. 1,203,879; Nov. 7; Gaz. vol. 232; p. 116.
Caster. W. J. McIntyre. No. 1,206,009; Nov. 28; Gaz. vol. 232; p. 960.
Caster-wheel. C. W. Millet. No. 1,205,559; Nov. 21; Gaz. vol. 232; p. 770.
Casting apparatus. H. H. Hewitt. No. 1,203,619; Nov. 7; Gaz. vol. 232; p. 23.
Casting-machine. P. D. Wright. No. 1,206,309; Nov. 21; Gaz. vol. 232; p. 683.
Catch and carrying machine, Automatic. P. Kusnor. No. 1,203,749; Nov. 7; Gaz. vol. 232; p. 70.
Cattle-guard. E. L. Watson. No. 1,206,390; Nov. 28; Gaz. vol. 232; p. 1089.
Ceiling-rose. E. I. Parkes. No. 1,203,650; Nov. 7; Gaz. vol. 232; p. 34.
Celluloid articles, Machine for making seamless. J. N. Whitehouse. No. 1,203,947; Nov. 7; Gaz. vol. 232; p. 139.
Cement and producing the same, Water-tight. A. M. H. Hansen and M. C. J. Neve. No. 1,205,735; Nov. 21; Gaz. vol. 232; p. 833.
Cement boards, Apparatus for manufacturing. A. B. Starr. No. 1,204,083; Nov. 7; Gaz. vol. 232; p. 187.
Cement, Marbleizing. F. Spencer. No. 1,204,378; Nov. 7; Gaz. vol. 232; p. 287.
Centrifugal compressor. S. A. Moss. No. 1,206,577; Nov. 28; Gaz. vol. 232; p. 1153.
Centrifugal extractor, Electrically-operated. W. Bartholomew and C. H. Allen. No. 1,203,567; Nov. 7; Gaz. vol. 232; p. 4.
Centrifugal-machine unloader. E. D. Mackintosh. No. 1,205,128; Nov. 14; Gaz. vol. 232; p. 580.
Cesspool. E. O. Lawrence. No. 1,204,462; Nov. 14; Gaz. vol. 232; p. 351.
Chain, Non-skid. J. Kirkwood. No. 1,205,752; Nov. 21; Gaz. vol. 232; p. 838.
Chain-sheave. J. M. Dillon. No. 1,205,335; Nov. 21; Gaz. vol. 232; p. 693.
Chain-stretching tool. D. Fraser. No. 1,206,776; Nov. 28; Gaz. vol. 232; p. 1222.
Chair: *See*—
Dental chair.
Rail-chair.
Reclining-chair.
Swinging chair.
Wheel-chair.
Chair-base hub. H. W. Bolens. No. 1,204,736; Nov. 14; Gaz. vol. 232; p. 446.
Chair-seat and commode, Combined. W. M. Haddock. No. 1,204,431; Nov. 14; Gaz. vol. 232; p. 341.
Chamber, Expansible. H. E. Oxnard. No. 1,205,106; Nov. 14; Gaz. vol. 232; p. 573.
Change-making apparatus. L. H. Thompson. No. 1,204,911; Nov. 14; Gaz. vol. 232; p. 506.
Channeling-machine. A. Ball. No. 1,206,288; Nov. 28; Gaz. vol. 232; p. 1056.
Check-listing means. C. G. Winter. No. 1,206,745; Nov. 28; Gaz. vol. 232; p. 1211.
Chemical heater and composition of matter therefor. T. M. Paschal. No. 1,203,776; Nov. 7; Gaz. vol. 232; p. 79.
Cherry-pitting device. N. O. French. No. 1,203,609; Nov. 7; Gaz. vol. 232; p. 16.
Chest: *See*—
Safety-chest.
Chocolate-table, Electrically-heated. H. W. Schwimmer. No. 1,205,569; Nov. 21; Gaz. vol. 232; p. 774.
Chuck. C. E. Johnson. No. 1,204,025; Nov. 7; Gaz. vol. 232; p. 165.
Chuck or vise. C. H. Sapper. No. 1,205,795; Nov. 21; Gaz. vol. 232; p. 854.
Chucks, Device for adjusting the jaws of revolving lathe-. A. Kipniss. No. 1,203,628; Nov. 7; Gaz. vol. 232; p. 26.
Churn. D. C. Daniel. No. 1,204,849; Nov. 14; Gaz. vol. 232; p. 483.
Churn and butter-worker, Combined. J. E. Gagnon. No. 1,205,188; Nov. 21; Gaz. vol. 232; p. 644.
Cigar-cutter and lid-holder, Combined. W. S. Luckett. No. 1,204,289; Nov. 7; Gaz. vol. 232; p. 256.
Cigar-holder. C. E. Johnson. No. 1,204,990; Nov. 14; Gaz. vol. 232; p. 534.
Cigar receptacle, Lighted-. L. M. Myers. No. 1,204,178; Nov. 7; Gaz. vol. 232; p. 220.
Cigarette and match box, Combined. J. Malicki. No. 1,203,640; Nov. 7; Gaz. vol. 232; p. 31.
Cigarette-case. J. H. Bens. No. 1,206,404; Nov. 28; Gaz. vol. 232; p. 1095.
Cigarette-case and humidor therefor. J. J. King. No. 1,205,751; Nov. 21; Gaz. vol. 232; p. 838.
Cigarette-seaming machine. P. A. Druckliteb and D. Hemming. No. 1,204,418; Nov. 14; Gaz. vol. 232; p. 336.
Cinematograph-film, Renovated. A. P. H. Trivelli. No. 1,205,822; Nov. 21; Gaz. vol. 232; p. 863.
Cinematographic and phonographic records, Apparatus for preparing combined. K. Von Madaler. No. 1,204,091; Nov. 7; Gaz. vol. 232; p. 190.
Cinematographic projecting apparatus. E. A. Ivatts. No. 1,205,906; Nov. 28; Gaz. vol. 232; p. 956.
Circuit-breaker and switch, Combined. F. O. Hartman. No. 1,204,435; Nov. 14; Gaz. vol. 232; p. 342.
Circuit-closer, Automatic. H. Plymale. No. 1,205,280; Nov. 21; Gaz. vol. 232; p. 668.
Circuit-controller. R. H. Manson. No. 1,203,641; Nov. 7; Gaz. vol. 232; p. 31.
Circuit-controlling device. H. E. Warren. No. 1,203,825; Nov. 7; Gaz. vol. 232; p. 96.
Circuit-interrupter. H. G. MacDonald. No. 1,206,347; Nov. 28; Gaz. vol. 232; p. 1074.
Circuit maker and breaker. W. A. Heeneman. No. 1,205,348; Nov. 21; Gaz. vol. 232; p. 696.
Circulating-fitting. W. A. Bodell. No. 1,205,506; Nov. 21; Gaz. vol. 232; p. 752.
Clamp: *See*—
Bench-clamp.
Cabinet-maker's clamp.
Cable-clamp.
Hose-clamp.
Motor-clamp.
Rope-clamp.
Sewing-machine needle-clamp.
Sewing-machine work-clamp.
Washboard-clamp.
Wire-clamp.
Clamp. H. L. Hummel. No. 1,205,635; Nov. 21; Gaz. vol. 232; p. 799.
Clamping appliance. A. F. Schroeder. No. 1,204,837; Nov. 14; Gaz. vol. 232; p. 476.
Clasp: *See*—
Necktie-clasp.
Tie-clasp.
Clasp. J. F. Daniels. No. 1,205,164; Nov. 21; Gaz. vol. 232; p. 636.
Clasp. C. E. Mehlhope. No. 1,206,017; Nov. 28; Gaz. vol. 232; p. 963.
Clasp. E. D. Nichols. No. 1,203,771; Nov. 7; Gaz. vol. 232; p. 77.
Clay-purifier. O. O. Erfurth. No. 1,204,261; Nov. 7; Gaz. vol. 232; p. 247.
Clayware and the like, Drying of. C. G. Guignard. No. 1,204,430; Nov. 14; Gaz. vol. 232; p. 340.
Cleaner: *See*—
Boiler-tube cleaner.
Carpet and the like cleaner.
Cotton-cleaner.
Cuspidor-cleaner.
Film-cleaner.
Lamp-chimney cleaner.
Pipe-cleaner.
Pneumatic cleaner.
Seed and grain cleaner.
Track-cleaner.
Vacuum-cleaner.
Window-cleaner.
Cleaning device, Suction. H. Tideman. No. 1,205,412; Nov. 21; Gaz. vol. 232; p. 718.
Clevis. E. L. Nichols. No. 1,206,579; Nov. 28; Gaz. vol. 232; p. 1154.
Clicking-machine. O. Ashton. No. 1,206,078; Nov. 28; Gaz. vol. 232; p. 983.
Clinker-remover. E. W. Doolittle. No. 1,204,656; Nov. 14; Gaz. vol. 232; p. 419.
Clip: *See*—
Carpet anchor-clip.
Pen-clip.
Clip. A. Mieden. No. 1,204,373; Nov. 7; Gaz. vol. 232; p. 285.
Clip. J. Sachs. No. 1,204,691; Nov. 14; Gaz. vol. 232; p. 429.
Clip-affixing device. F. A. Kennedy. No. 1,205,219; Nov. 21; Gaz. vol. 232; p. 655.
Clipping-shears. F. C. Biggert, Jr. No. 1,203,842; Nov. 7; Gaz. vol. 232; p. 102.
Clock, Advertising-. E. Banta, W. J. Merritt, and H. J. Lippe, Jr. No. 1,204,732; Nov. 14; Gaz. vol. 232; p. 445.
Clock, Eight-day alarm-. W. E. Porter. No. 1,206,378; Nov. 28; Gaz. vol. 232; p. 1084.

Clock-movements, Warning-action for. W. J. Smith. No. 1,205,042; Nov. 14; Gaz. vol. 232; p. 551.
Closet: *See*—
Dry closet.
Water-closet.
Closet-bowl. A. F. Barron. No. 1,205,078; Nov. 14; Gaz. vol. 232; p. 563.
Closet-bowls and soil-pipes, Floor connection for. M. O'Leary. No. 1,206,580; Nov. 28; Gaz. vol. 232; p. 1154.
Closet-fixture. G. H. Wheary. No. 1,206,769; Nov. 28; Gaz. vol. 232; p. 1220.
Closet-seat and the like. M. J. Whelan. No. 1,206,186; Nov. 28; Gaz. vol. 232; p. 1021.
Closures, Controlling means for sliding. H. C. Voight. No. 1,204,913; Nov. 14; Gaz. vol. 232; p. 507.
Cloth-napping machine, Planetary. D. Gessner. No. 1,204,150; Nov. 7; Gaz. vol. 232; p. 209.
Cloth-reel. R. M. Baird. No. 1,205,141; Nov. 21; Gaz. vol. 232; p. 628.
Cloth stretcher and straightener. J. Edmunds. No. 1,203,710; Nov. 7; Gaz. vol. 232; p. 58.
Cloth-stretching roller. E. G. Knierlem. No. 1,205,905; Nov. 21; Gaz. vol. 232; p. 889.
Clothes-bar. F. J. Hoag. No. 1,205,205; Nov. 21; Gaz. vol. 232; p. 650.
Clothes-drier. J. C. Michaud. No. 1,205,773; Nov. 21; Gaz. vol. 232; p. 845.
Clothes-holder. S. Schreiner. No. 1,205,274; Nov. 21; Gaz. vol. 232; p. 672.
Clothes-pin. J. Halvorson. No. 1,205,889; Nov. 21; Gaz. vol. 232; p. 888.
Clothes-press, Power. E. Mundy. No. 1,205,654; Nov. 21; Gaz. vol. 232; p. 805.
Clothes-wringer. J. F. Hemenway. No. 1,205,200; Nov. 21; Gaz. vol. 232; p. 648.
Clothes-wringer. J. F. Hemenway. No. 1,205,201; Nov. 21; Gaz. vol. 232; p. 649.
Clothes-wringer. J. F. Hemenway and F. C. Speer. No. 1,206,326; Nov. 28; Gaz. vol. 232; p. 1068.
Clutch. J. B. Ferguson. No. 1,205,954; Nov. 21; Gaz. vol. 232; p. 906.
Clutch. F. J. Hemm. No. 1,204,438; Nov. 14; Gaz. vol. 232; p. 343.
Clutch and bearing, Combined. K. H. Johansson. No. 1,205,544; Nov. 21; Gaz. vol. 232; p. 764.
Clutch, Brake-. E. B. Reed. No. 1,205,019; Nov. 14; Gaz. vol. 232; p. 545.
Clutch, Centrifugal. M. W. Bartmess. No. 1,204,892; Nov. 14; Gaz. vol. 232; p. 326.
Clutch-controller. N. A. Widgren. No. 1,204,525; Nov. 14; Gaz. vol. 232; p. 372.
Clutch device. F. Carlsson. No. 1,203,976; Nov. 7; Gaz. vol. 232; p. 148.
Clutch, Feed-roll. J. F. Milligan. No. 1,203,694; Nov. 7; Gaz. vol. 232; p. 121.
Clutch-lubricating means. K. Rushton. No. 1,204,194; Nov. 7; Gaz. vol. 232; p. 225.
Clutch-operating means. C. Evers and F. Carlsson. No. 1,203,994; Nov. 7; Gaz. vol. 232; p. 155.
Coal-feeding apparatus, Pulverized-. L. B. Chevalier. No. 1,203,703; Nov. 7; Gaz. vol. 232; p. 54.
Coal-handling plant. C. S. Williamson. No. 1,205,868; Nov. 21; Gaz. vol. 232; p. 681.
Coal-loading apparatus. H. B. Doherty. No. 1,204,845; Nov. 7; Gaz. vol. 232; p. 276.
Coal-transferring apparatus. K. E. Rochel. No. 1,204,594; Nov. 14; Gaz. vol. 232; p. 397.
Coaster, Surf-. M. A. Gulbrandsen. No. 1,206,696; Nov. 28; Gaz. vol. 232; p. 1192.
Coat-hanger. W. H. Higgins. No. 1,205,204; Nov. 21; Gaz. vol. 232; p. 650.
Coated material, Treating. G. A. Gilbert and M. L. Daugherty. No. 1,204,151; Nov. 7; Gaz. vol. 232; p. 209.
Coating apparatus, H. E. Kock. No. 1,205,223; Nov. 21; Gaz. vol. 232; p. 656.
Coating. W. O. Snelling. No. 1,204,709; Nov. 14; Gaz. vol. 232; p. 437.
Coating composition, Protective. W. Schermerhorn. No. 1,204,697; Nov. 14; Gaz. vol. 232; p. 434.
Coating-machine. H. Carle. No. 1,206,205; Nov. 28; Gaz. vol. 232; p. 1027.
Coating purposes, Composition of matter for. W. T. Davies. No. 1,205,076; Nov. 28; Gaz. vol. 232; p. 949.
Cock. J. A. Ewiebel. No. 1,204,532; Nov. 14; Gaz. vol. 232; p. 376.
Cock, Cylinder-. J. P. Gray. No. 1,206,216; Nov. 28; Gaz. vol. 232; p. 1031.
Cock for gas-ranges, Safety-. S. Gittler. No. 1,206,320; Nov. 28; Gaz. vol. 232; p. 1067.
Coffee-container. F. P. Wood. No. 1,203,832; Nov. 7; Gaz. vol. 232; p. 98.
Coin and ticket holder, Combined. F. G. Holland. No. 1,204,018; Nov. 7; Gaz. vol. 232; p. 163.
Coin-controlled apparatus. O. Jaeger. No. 1,204,776; Nov. 14; Gaz. vol. 232; p. 459.
Coin-controlled mechanism. J. W. Teague and J. Hartman. No. 1,205,816; Nov. 21; Gaz. vol. 232; p. 860.
Coin-separating device. J. Eldridge and C. Michelsen. No. 1,204,752; Nov. 14; Gaz. vol. 232; p. 451.
Coke and by-products from coal, Obtaining. H. P. Bostaph. No. 1,204,647; Nov. 14; Gaz. vol. 232; p. 416.
Coke-oven, By-product. G. H. Benjamin. No. 1,205,698; Nov. 21; Gaz. vol. 232; p. 820.
Coke quenching, screening, and loading apparatus. C. Piez. No. 1,206,588; Nov. 28; Gaz. vol. 232; p. 1156.
Colander. M. S. Wales. No. 1,203,820; Nov. 7; Gaz. vol. 232; p. 94.
Collapsible box. H. E. Wendell. No. 1,205,067; Nov. 14; Gaz. vol. 232; p. 560.
Collar. I. Adleberg and M. J. Sindler. No. 1,204,726; Nov. 14; Gaz. vol. 232; p. 442.
Collar. C. R. Bradley. No. 1,205,593; Nov. 21; Gaz. vol. 232; p. 783.
Collar-fastening. R. M. Reid. No. 1,205,663; Nov. 21; Gaz. vol. 232; p. 808.
Collar, Pneumatic horse-. L. Van Treese. No. 1,206,624; Nov. 28; Gaz. vol. 232; p. 1169.
Collarets, Cutting and arranging material for. G. W. Eberley. No. 1,203,862; Nov. 7; Gaz. vol. 232; p. 110.
Collision-preventer. J. Bjelis. No. 1,204,644; Nov. 14; Gaz. vol. 232; p. 415.
Color-lakes fast to light. E. Meckbach. No. 1,203,642; Nov. 7; Gaz. vol. 232; p. 31.
Comb. N. G. Abbate. No. 1,204,230; Nov. 7; Gaz. vol. 232; p. 237.
Commutator. H. Haage. No. 1,205,197; Nov. 21; Gaz. vol. 232; p. 648.
Composition of matter and making the same. M. N. Alsen. No. 1,206,190; Nov. 28; Gaz. vol. 232; p. 1021.
Compressor, pump, or the like. B. F. Augustine. No. 1,204,535; Nov. 14; Gaz. vol. 232; p. 376.
Computing device. D. H. Hawthorne. No. 1,206,703; Nov. 28; Gaz. vol. 232; p. 1194.
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Concentrator. E. R. Shahan. No. 1,205,673; Nov. 21; Gaz. vol. 232; p. 811.
Concrete building construction, Reinforced-. P. J. Maguire and P. R. Goppoldt. No. 1,205,466; Nov. 21; Gaz. vol. 232; p. 737.
Concrete construction for floors and ceilings, Reinforced. H. Davis. No. 1,206,752; Nov. 28; Gaz. vol. 232; p. 1213.
Concrete construction, Method of and apparatus for. K. H. Middendorf, J. M. Davis, and O. G. Bowen. No. 1,206,242; Nov. 21; Gaz. vol. 232; p. 643.
Concrete construction, Reinforced. H. M. Hincs. No. 1,203,347; Nov. 21; Gaz. vol. 232; p. 696.
Concrete-construction work, Collapsible hollow form for. E. M. Camp. No. 1,204,936; Nov. 14; Gaz. vol. 232; p. 516.
Concrete-distributing trough. H. Danielson. No. 1,206,515; Nov. 28; Gaz. vol. 232; p. 1132.
Concrete-forms, Aligning device for. W. B. Jones. No. 1,206,746; Nov. 21; Gaz. vol. 232; p. 836.
Concrete-mixers, Mounting for drums of. E. W. Brachenbury. No. 1,203,575; Nov. 7; Gaz. vol. 232; p. 7.
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Concrete post. A. E. Carline. No. 1,206,800; Nov. 28; Gaz. vol. 232; p. 1060.
Concrete sea-wall. H. W. Schlueter. No. 1,205,810; Nov. 21; Gaz. vol. 232; p. 856.
Concrete-structure base. R. Linkletter. No. 1,203,787; Nov. 7; Gaz. vol. 232; p. 72.
Concrete structures, Supporting member for. J. Tuteur. No. 1,206,621; Nov. 28; Gaz. vol. 232; p. 1168.
Concrete-tamper. E. G. Carr. No. 1,204,245; Nov. 7; Gaz. vol. 232; p. 242.
Concrete-wall mold. O. Sager. No. 1,206,598; Nov. 28; Gaz. vol. 232; p. 1160.
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Concrete wharf-support. C. F. Collom. No. 1,204,946; Nov. 14; Gaz. vol. 232; p. 520.
Condenser. W. W. Cassidy. No. 1,203,581; Nov. 7; Gaz. vol. 232; p. 10.
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Condenser, Surface. A. Siegel. No. 1,206,605; Nov. 28; Gaz. vol. 232; p. 1162.
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Conduits, Constructing hollow cylindrical tile. H. B. Naylor. No. 1,206,578; Nov. 28; Gaz. vol. 232; p. 1154.
Conformateur or apparatus for making charts of surface conformations. W. J. Schatz. No. 1,206,144; Nov. 28; Gaz. vol. 232; p. 1006.
Contact material. C. Ellis and H. M. Weber. No. 1,204,143; Nov. 7; Gaz. vol. 232; p. 207.
Container. B. K. Ford. No. 1,203,886; Nov. 7; Gaz. vol. 232; p. 111.
Container. H. A. Meyers. No. 1,204,050; Nov. 7; Gaz. vol. 232; p. 175.
Container. V. C. Snyder. No. 1,206,384; Nov. 28; Gaz. vol. 232; p. 1088.
Container-closure. H. A. Keiner and E. Plançon. No. 1,205,454; Nov. 21; Gaz. vol. 232; p. 733.
Container, Collapsible. A. L. Ward. No. 1,205,418; Nov. 21; Gaz. vol. 232; p. 720.
Container for the preservation of food, Sheet-metal. F. Rudolph. No. 1,206,379; Nov. 28; Gaz. vol. 232; p. 1086.

Container, Non-refillable. H. Lanes and P. F. W. Muller. No. 1,205,458; Nov. 21; Gaz. vol. 232; p. 734.
Container, Sifter-. E. Hoffman. No. 1,206,440; Nov. 28; Gaz. vol. 232; p. 1106.
Container, Sifter-top. E. Hoffman. No. 1,206,438; Nov. 28; Gaz. vol. 232; p. 1105.
Container, Sifter-top. E. Hoffman. No. 1,206,439; Nov. 28; Gaz. vol. 232; p. 1106.
Control system and apparatus. A. J. Hall. No. 1,203,610; Nov. 7; Gaz. vol. 232; p. 20.
Controlling and alarm device. L. M. Plansoen. No. 1,205,661; Nov. 21; Gaz. vol. 232; p. 807.
Conveyer. J. T. Vulgamott. No. 1,204,620; Nov. 14; Gaz. vol. 232; p. 406.
Conveyer-corner. J. T. Cowley. No. 1,206,305; Nov. 28; Gaz. vol. 232; p. 1062.
Conveying and loading apparatus. F. L. Stuart. No. 1,204,203; Nov. 7; Gaz. vol. 232; p. 228.
Cooker, High-pressure steam-. T. J. Nash. No. 1,204,055; Nov. 7; Gaz. vol. 232; p. 177.
Cooking apparatus. F. V. Detwiler. No. 1,205,438; Nov. 21; Gaz. vol. 232; p. 727.
Cooking utensil. J. M. McCulloch. No. 1,205,461; Nov. 21; Gaz. vol. 232; p. 735.
Cooking utensil, Fireless. D. Q. Minar. No. 1,205,919; Nov. 21; Gaz. vol. 232; p. 894.
Cooler: *See*—
Liquid-cooler.
Cooler. O. L. Link. No. 1,205,096; Nov. 14; Gaz. vol. 232; p. 569.
Cooling apparatus. R. Purdue. No. 1,206,570; Nov. 28; Gaz. vol. 232; p. 1157.
Coop. S. L. Denney. No. 1,206,211; Nov. 28; Gaz. vol. 232; p. 1029.
Coop or crate, Collapsible. J. S. Sturm. No. 1,206,739; Nov. 28; Gaz. vol. 232; p. 1208.
Copper, Treating. F. L. Antisell. No. 1,204,926; Nov. 14; Gaz. vol. 232; p. 513.
Copper, Treating. F. L. Antisell. No. 1,204,927; Nov. 14; Gaz. vol. 232; p. 513.
Copy-holder. S. T. Smith. No. 1,203,659; Nov. 7; Gaz. vol. 232; p. 37.
Cores from a roll of paper, Machine for making. J. Duvall. No. 1,206,754; Nov. 28; Gaz. vol. 232; p. 1214.
Corn and callous remover. B. E. Hale. No. 1,203,869; Nov. 7; Gaz. vol. 232; p. 112.
Corn-drying rack, Seed-. L. Adams. No. 1,206,770; Nov. 28; Gaz. vol. 232; p. 1220.
Corn header, Kafir-. L. L. Beardsley. No. 1,203,961; Nov. 7; Gaz. vol. 232; p. 144.
Corn header, Kafir-. J. F. Ferguson. No. 1,205,330; Nov. 21; Gaz. vol. 232; p. 694.
Corn husking and shredding machines, Shock-handling attachment for. J. B. Schuman. No. 1,205,670; Nov. 21; Gaz. vol. 232; p. 810.
Corn-husking implement. R. Hockenhull. No. 1,204,663; Nov. 14; Gaz. vol. 232; p. 421.
Corn-mill. C. S. Ellis. No. 1,206,316; Nov. 28; Gaz. vol. 232; p. 1065.
Corn-popping machine. F. C. Gillett. No. 1,206,693; Nov. 28; Gaz. vol. 232; p. 1191.
Corn rack, Mouse-proof seed-. H. Prumm. No. 1,205,015; Nov. 14; Gaz. vol. 232; p. 544.
Corner-bead. R. K. Nash. No. 1,206,130; Nov. 28; Gaz. vol. 232; p. 1001.
Correspondence-pad. W. P. Kennedy. No. 1,205,355; Nov. 21; Gaz. vol. 232; p. 699.
Cot. B. Junger. No. 1,205,216; Nov. 21; Gaz. vol. 232; p. 654.
Cotton-cleaner. E. E. Dickerson. No. 1,203,710; Nov. 7; Gaz. vol. 232; p. 56.
Cotton-cleaner. S. Williams. No. 1,205,585; Nov. 21; Gaz. vol. 232; p. 780.
Cotton-cleaning apparatus. E. E. Dickerson. No. 1,203,709; Nov. 7; Gaz. vol. 232; p. 56.
Cotton-gin, Double-roller. L. L. Foss. No. 1,205,881; Nov. 21; Gaz. vol. 232; p. 880.
Cotton ginning, cleaning, and bleaching mechanism. W. A. J. Hodo. No. 1,203,739; Nov. 7; Gaz. vol. 232; p. 65.
Counter, Mechanical. J. O. Morrison. No. 1,203,644; Nov. 7; Gaz. vol. 232; p. 32.
Coupling: *See*—
Air-coupling.
Car-coupling.
Hose-coupling.
Pipe-coupling.
Truck-coupling.
Wagon-coupling.
Coupling device. A. W. Schramm and E. B. Wilford. No. 1,206,600; Nov. 28; Gaz. vol. 232; p. 1161.
Couplings, Buffer for. R. H. Aldrich. No. 1,204,925; Nov. 14; Gaz. vol. 232; p. 512.
Cover fastening, Reversible-. H. Wegwart. No. 1,205,297; Nov. 21; Gaz. vol. 232; p. 679.
Cover, Removable hinged. E. G. Fischer and H. C. Wehmann. No. 1,206,521; Nov. 28; Gaz. vol. 232; p. 1135.
Crate, Collapsible. B. C. Rockwell. No. 1,205,025; Nov. 14; Gaz. vol. 232; p. 547.
Crate-fastener. H. B. Kopf. No. 1,206,336; Nov. 28; Gaz. vol. 232; p. 1071.
Crate, Folding. L. W. Armstrong and J. J. Frazee. No. 1,205,961; Nov. 28; Gaz. vol. 232; p. 945.
Crate, Folding. G. H. Combs. No. 1,206,674; Nov. 28; Gaz. vol. 232; p. 1185.
Crate, Folding. I. F. Lamp. No. 1,206,719; Nov. 28; Gaz. vol. 232; p. 1200.
Crate, Folding. L. V. F. Sendelbeck. No. 1,205,035; Nov. 14; Gaz. vol. 232; p. 549.
Crate, Folding egg-. E. P. Carper and L. S. Patterson. No. 1,206,060; Nov. 28; Gaz. vol. 232; p. 987.
Crate for bread and the like, Shipping-. R. L. Hawes. No. 1,206,702; Nov. 28; Gaz. vol. 232; p. 1194.
Crate, Shipping-. F. P. Hancey. No. 1,204,978; Nov. 14; Gaz. vol. 232; p. 530.
Crib, Child's folding. J. W. Kyle. No. 1,204,791; Nov. 14; Gaz. vol. 232; p. 464.
Crop-cutting machine. N. Aichevsky. No. 1,206,642; Nov. 28; Gaz. vol. 232; p. 1174.
Crossing-signal, Automatic. H. Machac. No. 1,205,554; Nov. 21; Gaz. vol. 232; p. 768.
Crumb-collector. W. H. McConnaughy. No. 1,206,343; Nov. 28; Gaz. vol. 232; p. 1073.
Crushing, grinding, or pulverising machinery. G. H. Fraser. No. 1,206,613; Nov. 21; Gaz. vol. 232; p. 790.
Crushing-roll. R. C. Newhouse. No. 1,203,901; Nov. 7; Gaz. vol. 232; p. 123.
Crushing-roll. R. C. Newhouse. No. 1,205,474; Nov. 21; Gaz. vol. 232; p. 740.
Cuff-holder. L. J. Levasseur. No. 1,204,577; Nov. 14; Gaz. vol. 232; p. 391.
Culinary utensil. D. A. Helmich. No. 1,204,764; Nov. 14; Gaz. vol. 232; p. 455.
Cultivator. R. J. Altgelt. No. 1,205,959; Nov. 28; Gaz. vol. 232; p. 944.
Cultivator. C. A. Glass. No. 1,205,342; Nov. 21; Gaz. vol. 232; p. 695.
Cultivator. G. C. Lewis. No. 1,204,287; Nov. 7; Gaz. vol. 232; p. 255.
Cultivator attachment. J. C. Mire. No. 1,204,298; Nov. 7; Gaz. vol. 232; p. 259.
Cultivator attachment. W. R. Whitaker. No. 1,206,278; Nov. 28; Gaz. vol. 232; p. 1052.
Cultivator, Corn-. E. S. Baston. No. 1,204,840; Nov. 14; Gaz. vol. 232; p. 481.
Cultivator-disk mounting. G. W. Hoar. No. 1,203,737; Nov. 7; Gaz. vol. 232; p. 65.
Cultivator or harrow. I. T. Ferguson. No. 1,204,422; Nov. 14; Gaz. vol. 232; p. 337.
Cultivators, Depth-equalizing shovel-beam attachment for. R. L. Spencer. No. 1,204,603; Nov. 14; Gaz. vol. 232; p. 401.
Culvert. S. E. Moore. No. 1,203,768; Nov. 7; Gaz. vol. 232; p. 76.
Culvert, Metal. W. T. Shannon. No. 1,203,656; Nov. 7; Gaz. vol. 232; p. 36.
Cup: *See*—
Grease-cup.
Cup holder, Sap-. J. O. Walker. No. 1,203,942; Nov. 7; Gaz. vol. 232; p. 138.
Curbing-block. L. Dargento. No. 1,204,951; Nov. 14; Gaz. vol. 232; p. 522.
Curling-iron heater. A. and G. Scherber. No. 1,205,272; Nov. 21; Gaz. vol. 232; p. 672.
Current-converting device. A. R. Bullock. No. 1,204,740; Nov. 14; Gaz. vol. 232; p. 447.
Current-limiting reactance-coil, Polyphase-. J. F. Peters. No. 1,204,377; Nov. 7; Gaz. vol. 232; p. 286.
Current-motor. M. E. Winans. No. 1,204,629; Nov. 14; Gaz. vol. 232; p. 409.
Current-rectifier. W. F. Warner. No. 1,206,061; Nov. 28; Gaz. vol. 232; p. 978.
Current rectifier, Alternating-. D. M. Bliss. No. 1,204,895; Nov. 14; Gaz. vol. 232; p. 327.
Current transformer, Continuous-. P. M. J. Boucherot. No. 1,206,662; Nov. 28; Gaz. vol. 232; p. 1181.
Currents, Controlling alternating. E. F. W. Alexanderson. No. 1,206,643; Nov. 28; Gaz. vol. 232; p. 1175.
Curtain and sash-support, Combination. O. Loudon and S. A. Nelson. No. 1,205,552; Nov. 21; Gaz. vol. 232; p. 767.
Curtain bracket, Window-. G. E. Bourelle. No. 1,205,848; Nov. 21; Gaz. vol. 232; p. 870.
Curtain-fastener. T. J. McMeekin. No. 1,204,173; Nov. 7; Gaz. vol. 232; p. 217.
Curtain-hanger. A. Dickey and R. A. Hope. No. 1,206,421; Nov. 28; Gaz. vol. 232; p. 1100.
Curtain hanging and adjusting device. E. M. Martin. No. 1,205,372; Nov. 21; Gaz. vol. 232; p. 705.
Curtain-rod. S. C. Hills. No. 1,204,662; Nov. 14; Gaz. vol. 232; p. 421.
Curtain-rod. J. A. and L. O. Holmen. No. 1,204,570; Nov. 14; Gaz. vol. 232; p. 389.
Curtain-rod bracket. C. B. Miller. No. 1,203,765; Nov. 7; Gaz. vol. 232; p. 75.
Curtain-rod support. N. Dumas. No. 1,204,419; Nov. 14; Gaz. vol. 232; p. 337.
Curtain-support. U. Sprinchorn. No. 1,205,805; Nov. 21; Gaz. vol. 232; p. 857.
Cuspidor. F. H. Scott. No. 1,204,705; Nov. 14; Gaz. vol. 232; p. 436.
Cuspidor cleaner and carrier, Combined. R. C. Whinyates. No. 1,204,626; Nov. 14; Gaz. vol. 232; p. 408.
Cut-out block. R. C. Cole. No. 1,203,584; Nov. 7; Gaz. vol. 232; p. 11.
Cutter: *See*—
Butter-cutter.
Cake-cutter.
Ensilage-cutter.
Flue or tube cutter.
Maize-cutter.
Metal-cutter.
Pipe-cutter.
Power-cutter.
Tobacco-binder-leaf cutter.
Weed-cutter.

Cutters, Making. W. P. Hoglund. No. 1,205,630; Nov. 21; Gaz. vol. 232; p. 797.
Cutting device. W. W. Parker. No. 1,204,482; Nov. 14; Gaz. vol. 232; p. 358.
Cutting-machine safety-guard. J. A. Moore. No. 1,204,473; Nov. 14; Gaz. vol. 232; p. 355.
Cutting-tool. A. H. Tallyn. No. 1,205,058; Nov. 14; Gaz. vol. 232; p. 557.
Cycle rear seat, Shock-absorbing motor-. F. M. Stoll. No. 1,205,489; Nov. 21; Gaz. vol. 232; p. 745.
Cycle-seat back, Motor-. C. A. Hoehn. No. 1,205,541; Nov. 21; Gaz. vol. 232; p. 763.
Cycles, Side-car wheel for motor-. H. H. Young. No. 1,204,924; Nov. 14; Gaz. vol. 232; p. 512.
Damper arrangement for stoves, Deflecting-. R. C. Hughes and J. C. Zemio. No. 1,204,773; Nov. 14; Gaz. vol. 232; p. 458.
Dash-pot. E. E. Thomas. No. 1,205,818; Nov. 21; Gaz. vol. 232; p. 861.
Davit-gearing and casing. A. E. J. Luckhurst. No. 1,205,764; Nov. 21; Gaz. vol. 232; p. 842.
Decoration of walls and other surfaces, Method and article of. J. J. and J. Carow. No. 1,204,743; Nov. 14; Gaz. vol. 232; p. 449.
Dehydrater. C. Robinson. No. 1,204,070; Nov. 7; Gaz. vol. 232; p. 183.
Delivery apparatus. E. J. Feninger and J. O'Neal. No. 1,203,596; Nov. 7; Gaz. vol. 232; p. 15.
Delivery apparatus, Automatic despatching and selective. C. P. Hidden. No. 1,203,736; Nov. 7; Gaz. vol. 232; p. 64.
Demountable wheel. J. Kelly. No. 1,204,879; Nov. 14; Gaz. vol. 232; p. 493.
Dental chair. C. F. Betts. No. 1,203,572; Nov. 7; Gaz. vol. 232; p. 6.
Dental engine, Electrical. W. E. Butler. No. 1,205,156; Nov. 21; Gaz. vol. 232; p. 633.
Dental-machine handpiece. W. T. Lyon. No. 1,204,800; Nov. 14; Gaz. vol. 232; p. 467.
Dental machines, Handpiece for. W. T. Lyon. No. 1,205,553; Nov. 21; Gaz. vol. 232; p. 768.
Dental model, Adjustable. F. A. Delabarre. No. 1,205,437; Nov. 21; Gaz. vol. 232; p. 727.
Dental rubber composition and manufacture of same. S. G. Supplee and C. J. R. Engstrom. No. 1,204,609; Nov. 14; Gaz. vol. 232; p. 403.
Dental thread-holder. R. Groetchen. No. 1,205,732; Nov. 21; Gaz. vol. 232; p. 832.
Deoxidizing and filtering heated water, Apparatus for. F. N. Speller. No. 1,204,602; Nov. 14; Gaz. vol. 232; p. 400.
Derailer. E. H. Allfree and W. H. England. No. 1,204,837; Nov. 14; Gaz. vol. 232; p. 480.
Desk and seat, School. W. J. Voecks and E. N. Dyer. No. 1,206,781; Nov. 28; Gaz. vol. 232; p. 1224.
Desk-fall support. K. Thulander and V. B. Nelson. No. 1,205,411; Nov. 21; Gaz. vol. 232; p. 718.
Diaper. A. D. Swetzel. No. 1,206,167; Nov. 28; Gaz. vol. 232; p. 1014.
Diaper, Infant's. E. Rickert. No. 1,206,142; Nov. 28; Gaz. vol. 232; p. 1005.
Diatomaceous earth, Producing articles from. L. Kern. No. 1,206,546; Nov. 28; Gaz. vol. 232; p. 1144.
Dictating-machines, Automatic alarm for. S. C. Nott. No. 1,206,462; Nov. 28; Gaz. vol. 232; p. 1114.
Digger: *See*—
Potato-digger.
Dipper-tooth. W. Brinton. No. 1,205,969; Nov. 28; Gaz. vol. 232; p. 947.
Direction-indicator. J. W. Farrar. No. 1,204,966; Nov. 14; Gaz. vol. 232; p. 527.
Dish, Soap-. H. P. Weaver. No. 1,205,066; Nov. 14; Gaz. vol. 232; p. 559.
Dish-washing apparatus. A. J. MacLean. No. 1,204,806; Nov. 14; Gaz. vol. 232; p. 969.
Dish-washing machine. R. Cary and G. W. Hewitt. No. 1,206,206; Nov. 28; Gaz. vol. 232; p. 1028.
Dish-washing machine. J. W. Segrave. No. 1,204,498; Nov. 14; Gaz. vol. 232; p. 363.
Disinfectant device. C. C. and H. L. Peterman. No. 1,206,366; Nov. 28; Gaz. vol. 232; p. 1081.
Disk drill. H. R. Hughes. No. 1,204,157; Nov. 7; Gaz. vol. 232; p. 211.
Dispensing and recording apparatus. C. S. Batdorf. No. 1,204,393; Nov. 14; Gaz. vol. 232; p. 326.
Dispensing apparatus. W. L. Boatright. No. 1,206,088; Nov. 28; Gaz. vol. 232; p. 986.
Dispensing apparatus. R. C. Bradley. No. 1,204,241; Nov. 7; Gaz. vol. 232; p. 241.
Dispensing device. D. J. Matthews. No. 1,203,763; Nov. 7; Gaz. vol. 232; p. 74.
Display apparatus, License-. E. E. Fahler. No. 1,206,317; Nov. 28; Gaz. vol. 232; p. 1060.
Display-box. E. H. Josselyn. No. 1,205,214; Nov. 21; Gaz. vol. 232; p. 653.
Display-case. T. P. Bahr. No. 1,205,963; Nov. 28; Gaz. vol. 232; p. 945.
Display-easel, Folding. J. H. Williamson. No. 1,204,920; Nov. 14; Gaz. vol. 232; p. 511.
Display-mount for botanical or other specimens. P. E. White. No. 1,204,723; Nov. 14; Gaz. vol. 232; p. 442.
Display-package. R. I. Bentley, Jr. No. 1,203,963; Nov. 7; Gaz. vol. 232; p. 145.
Display-rack. F. Lenquist and J. P. Wiles. No. 1,204,286; Nov. 7; Gaz. vol. 232; p. 255.
Displayer, Automatic merchandise-. J. W. Behrendt and B. Bangha. No. 1,206,083; Nov. 28; Gaz. vol. 232; p. 985.
Distillation of coal, Method and apparatus for low-temperature. H. A. Kuhn. No. 1,204,789; Nov. 14; Gaz. vol. 232; p. 464.
Distillation of oils, Apparatus for the. S. J. Ross and H. Schofield. No. 1,204,492; Nov. 14; Gaz. vol. 232; p. 361.
Distress-signal. M. Scholder. No. 1,205,798; Nov. 21; Gaz. vol. 232; p. 855.
Ditch-packer. J. G. Logsdon. No. 1,204,890; Nov. 14; Gaz. vol. 232; p. 497.
Ditching-machine. P. J. Norling. No. 1,205,251; Nov. 21; Gaz. vol. 232; p. 666.
Dividing apparatus. J. O. Liffander. No. 1,206,006; Nov. 28; Gaz. vol. 232; p. 959.
Doll. J. G. Stokes. No. 1,206,483; Nov. 28; Gaz. vol. 232; p. 1120.
Door-catch. C. Evensen. No. 1,203,595; Nov. 7; Gaz. vol. 232; p. 15.
Door fastener, Sliding-. C. A. Whitehurst. No. 1,205,497; Nov. 21; Gaz. vol. 232; p. 748.
Door-locking device. R. B. Newcome. No. 1,205,249; Nov. 21; Gaz. vol. 232; p. 665.
Door opener and check. G. B. Clay. No. 1,204,651; Nov. 14; Gaz. vol. 232; p. 417.
Door-opening device. N. Royack. No. 1,204,072; Nov. 7; Gaz. vol. 232; p. 184.
Door operating and locking device. H. G. Voight. (Reissue.) No. 14,222; Nov. 28; Gaz. vol. 232; p. 1220.
Door-operating device, Automatic. S. B. Roy. No. 1,204,318; Nov. 7; Gaz. vol. 232; p. 266.
Door-operating mechanism. S. W. Raymond. No. 1,204,488; Nov. 14; Gaz. vol. 232; p. 360.
Door-screen. H. C. Warfel. No. 1,204,833; Nov. 14; Gaz. vol. 232; p. 478.
Door, Sliding. H. E. Speck. No. 1,206,607; Nov. 28; Gaz. vol. 232; p. 1163.
Doors, Safety locking device for hatch-. H. D. Williams. No. 1,204,221; Nov. 7; Gaz. vol. 232; p. 234.
Dough-press. J. J. Gavagnaro. No. 1,205,710; Nov. 21; Gaz. vol. 232; p. 824.
Dough-product-cutting machine. E. E. Lawrence. No. 1,204,671; Nov. 14; Gaz. vol. 232; p. 424.
Dough-punching machine. E. and H. Heidland. No. 1,203,734; Nov. 7; Gaz. vol. 232; p. 63.
Dough-trough. C. B. Comstock. No. 1,203,705; Nov. 7; Gaz. vol. 232; p. 55.
Draft-equalizer. C. H. Bradshaw. No. 1,206,663; Nov. 28; Gaz. vol. 232; p. 1181.
Draft-gear. W. H. Cotton. No. 1,204,948; Nov. 14; Gaz. vol. 232; p. 521.
Draft-gear. J. F. Courson. No. 1,205,712; Nov. 21; Gaz. vol. 232; p. 825.
Draft-gear, Single-center-sill. A. Copony. No. 1,205,974; Nov. 28; Gaz. vol. 232; p. 949.
Draft-rigging, Railway-car. G. A. Johnson. No. 1,205,997; Nov. 28; Gaz. vol. 232; p. 956.
Drain-trap. J. Kirkwood. No. 1,204,786; Nov. 14; Gaz. vol. 232; p. 463.
Drapery-support. I. Weiss. No. 1,206,489; Nov. 28; Gaz. vol. 232; p. 1122.
Draw-press. B. H. Hawkins. No. 1,205,622; Nov. 21; Gaz. vol. 232; p. 794.
Drawer. J. D. Harnesberger. No. 1,204,568; Nov. 14; Gaz. vol. 232; p. 388.
Drawing sharp edges on metallic bodies, Machine for. C. Fuller. No. 1,203,723; Nov. 7; Gaz. vol. 232; p. 60.
Dredging-can. J. R. Harbeck. No. 1,203,872; Nov. 7; Gaz. vol. 232; p. 113.
Drenching a material with a liquid and thereafter draining it therefrom, Apparatus for periodically. A. T. Eyton and F. J. Henderson. No. 1,206,685; Nov. 28; Gaz. vol. 232; p. 1189.
Dress-shield. C. D. Bennett. No. 1,205,699; Nov. 21; Gaz. vol. 232; p. 820.
Dress-suit cases, traveling-bags, and the like, Handle-cap for. J. S. Isidor. No. 1,204,877; Nov. 14; Gaz. vol. 232; p. 492.
Drier: *See*—
Clothes-drier.
Dry-cell-testing apparatus. J. H. Goodwin and F. A. Adamski. No. 1,205,343; Nov. 21; Gaz. vol. 232; p. 695.
Dry closet. E. W. Pyle. No. 1,206,591; Nov. 28; Gaz. vol. 232; p. 1157.
Drying vegetable materials. H. Brüne. No. 1,204,845; Nov. 14; Gaz. vol. 232; p. 482.
Drill: *See*—
Boring-drill.
Disk drill.
Hammer-drill.
Ratchet-drill.
Rock-drill.
Drill. J. D. MacDonald. No. 1,204,805; Nov. 14; Gaz. vol. 232; p. 468.
Drill. F. L. Ralubow. No. 1,203,780; Nov. 7; Gaz. vol. 232; p. 80.
Drill. F. R. Weathersby. No. 1,206,488; Nov. 28; Gaz. vol. 232; p. 1122.
Drilling-machine. H. T. Dunbar. No. 1,203,800; Nov. 7; Gaz. vol. 232; p. 100.
Drilling-machine. R. Heflin. No. 1,205,626; Nov. 21; Gaz. vol. 232; p. 795.

Drinking-fountain, Stock. J. J. McCourt. No. 1,205,232; Nov. 21; Gaz. vol. 232; p. 659.
Drinking-tube, Sanitary. N. L. McKay. No. 1,204,171; Nov. 7; Gaz. vol. 232; p. 217.
Driving-gear, Tractor. A. Ortengren. No. 1,203,647; Nov. 7; Gaz. vol. 232; p. 33.
Driving mechanism. W. H. George. (Reissue.) No. 14,223; Nov. 28; Gaz. vol. 232; p. 1230.
Driving mechanism, Gearless. W. E. Sidney. No. 1,205,115; Nov. 14; Gaz. vol. 232; p. 576.
Driving mechanism, Variable-speed. L. Schorsch. No. 1,206,599; Nov. 28; Gaz. vol. 232; p. 1160.
Drum. P. L. O'Conner. No. 1,204,182; Nov. 7; Gaz. vol. 232; p. 221.
Dust-collector. A. C. Goethel. No. 1,206,103; Nov. 28; Gaz. vol. 232; p. 991.
Dust-guard. F. Anderson. No. 1,206,191; Nov. 28; Gaz. vol. 232; p. 1022.
Dust-guard. L. Y. Williams. No. 1,203,670; Nov. 7; Gaz. vol. 232; p. 41.
Dust-pan. A. J. Bump. No. 1,203,697; Nov. 7; Gaz. vol. 232; p. 51.
Dyes, Producing vat. O. Bally and R. Metzger. No. 1,204,639; Nov. 14; Gaz. vol. 232; p. 413.
Dyestuffs and producing the same, Azo. A. L. Laska. No. 1,206,292; Nov. 28; Gaz. vol. 232; p. 1036.
Dynamometer. W. R. Kleckner. No. 1,204,583; Nov. 14; Gaz. vol. 232; p. 494.
Dynamometer. M. Rockstroh. No. 1,205,985; Nov. 21; Gaz. vol. 232; p. 899.
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Earthy material with a binder, Machine for treating. M. A. Popkess. No. 1,205,948; Nov. 21; Gaz. vol. 232; p. 903.
Edge-finishing machine. H. E. Enslin. No. 1,203,993; Nov. 7; Gaz. vol. 232; p. 155.
Edge-setting machine. M. T. Denne. No. 1,205,718; Nov. 21; Gaz. vol. 232; p. 827.
Educational appliance. C. Engel. No. 1,204,854; Nov. 14; Gaz. vol. 232; p. 484.
Educational appliance. E. N. Tuckey. No. 1,204,089; Nov. 7; Gaz. vol. 232; p. 189.
Egg-beater, cream-whip, and mixer. A. Knobel. No. 1,204,363; Nov. 7; Gaz. vol. 232; p. 281.
Egg-candler. H. A. Eleyet. No. 1,205,442; Nov. 21; Gaz. vol. 232; p. 729.
Egg-carrier. G. R. Andrews. No. 1,204,233; Nov. 7; Gaz. vol. 232; p. 238.
Egg-carrier. E. O. Kraepelin. No. 1,206,753; Nov. 21; Gaz. vol. 232; p. 839.
Egg-case. J. S. Lang. No. 1,205,362; Nov. 21; Gaz. vol. 232; p. 701.
Egg-fillers, Machine for making. H. S. Axcell. No. 1,206,496; Nov. 28; Gaz. vol. 232; p. 1125.
Egg-handling device. J. A. Terrio. No. 1,203,938; Nov. 7; Gaz. vol. 232; p. 137.
Egg-opening device. S. Markowitz. No. 1,203,891; Nov. 7; Gaz. vol. 232; p. 120.
Egg product and making same, Powdered-. G. C. Contant. No. 1,203,983; Nov. 7; Gaz. vol. 232; p. 151.
Egg-support. P. W. Deuel. No. 1,204,654; Nov. 14; Gaz. vol. 232; p. 418.
Egg tester and delivery box. T. McLaughlin. No. 1,204,172; Nov. 7; Gaz. vol. 232; p. 217.
Electric-arc furnace. C. O. A. Dovle. No. 1,204,349; Nov. 7; Gaz. vol. 232; p. 277.
Electric-arc furnace. C. W. H. von Eckermann and I. Rennerfelt. No. 1,206,057; Nov. 28; Gaz. vol. 232; p. 977.
Electric battery. L. R. Rhoades. No. 1,205,392; Nov. 21; Gaz. vol. 232; p. 712.
Electric binding-post. A. L. Kreeft. No. 1,204,457; Nov. 14; Gaz. vol. 232; p. 849.
Electric-circuit-closing device. W. W. Burke. No. 1,203,699; Nov. 7; Gaz. vol. 232; p. 52.
Electric-circuit controller. R. Connell. No. 1,205,434; Nov. 21; Gaz. vol. 232; p. 726.
Electric-circuit controller. S. Mazur. No. 1,205,467; Nov. 21; Gaz. vol. 232; p. 737.
Electric conduits or wires, Sectional outlet-box for. L. J. Young. No. 1,205,589; Nov. 21; Gaz. vol. 232; p. 782.
Electric control system. N. Joleen. No. 1,205,451; Nov. 21; Gaz. vol. 232; p. 731.
Electric-current distributer. W. C. Brinton, Jr. No. 1,203,693; Nov. 7; Gaz. vol. 232; p. 50.
Electric generator and supply system, Double-service. J. Sachs. No. 1,204,825; Nov. 14; Gaz. vol. 232; p. 475.
Electric heater, (electrolytic type.) G. Sharpnack and T. J. Nash. No. 1,205,571; Nov. 21; Gaz. vol. 232; p. 775.
Electric light, Portable. G. F. Hitzelberger. No. 1,205,628; Nov. 21; Gaz. vol. 232; p. 795.
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Electric lights, Circuit-controller for portable. G. F. Hitzelberger. No. 1,205,629; Nov. 21; Gaz. vol. 232; p. 796.
Electric lights, &c., Extension-plug for. A. L. Powell. No. 1,206,245; Nov. 28; Gaz. vol. 232; p. 1040.
Electric machine, Dynamo-. H. McQuillin. No. 1,203,759; Nov. 7; Gaz. vol. 232; p. 73.
Electric motor. W. Luyken. No. 1,204,290; Nov. 7; Gaz. vol. 232; p. 256.
Electric pack. H. Perlman. No. 1,204,185; Nov. 7; Gaz. vol. 232; p. 222.
Electric pad-heating device. R. W. Chapman. No. 1,206,093; Nov. 28; Gaz. vol. 232; p. 988.
Electric sockets, Securing means for. E. A. Kuen. No. 1,204,381; Nov. 7; Gaz. vol. 232; p. 288.
Electric switch. C. J. Klein. No. 1,203,746; Nov. 7; Gaz. vol. 232; p. 69.
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Electric traction-elevator. E. G. Parvin. No. 1,206,586; Nov. 28; Gaz. vol. 232; p. 1156.
Electric-wiring fixture. B. M. Graybill. No. 1,206,431; Nov. 28; Gaz. vol. 232; p. 1103.
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Electrical coil and winding same. C. Ryden. No. 1,203,789; Nov. 7; Gaz. vol. 232; p. 83.
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Electrical conductors, Terminal or connector for. D. Busby. No. 1,204,935; Nov. 14; Gaz. vol. 232; p. 516.
Electrical conduit, Flexible. W. C. Robinson. No. 1,203,788; Nov. 7; Gaz. vol. 232; p. 83.
Electrical connection. W. C. Tregoning. No. 1,203,816; Nov. 7; Gaz. vol. 232; p. 92.
Electrical distribution system. A. S. Hubbard. No. 1,204,155; Nov. 7; Gaz. vol. 232; p. 210.
Electrical distribution system. J. W. Jepson. No. 1,204,160; Nov. 7; Gaz. vol. 232; p. 213.
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Electrical systems, Regulating. G. R. Fessenden, Jr. No. 1,205,181; Nov. 21; Gaz. vol. 232; p. 641.
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Electricity into gases, Means for producing discharge of. W. A. Schmidt. No. 1,204,907; Nov. 14; Gaz. vol. 232; p. 504.
Electrode for arc-lamps. W. R. Mott. No. 1,205,377; Nov. 21; Gaz. vol. 232; p. 707.
Electroplating-machine. E. J. Miller. No. 1,206,122; Nov. 28; Gaz. vol. 232; p. 999.
Electrotherapeutic apparatus. G. W. Euker. No. 1,206,784; Nov. 28; Gaz. vol. 232; p. 1225.
Elevating-jack. L. Sparks. No. 1,203,925; Nov. 7; Gaz. vol. 232; p. 132.
Elevator: *See*—
Electric traction-elevator. Water-elevator.
Sucker-rod elevator.
Elevator. D. L. Lindquist. No. 1,206,448; Nov. 28; Gaz. vol. 232; p. 1109.
Elevator-brake. N. W. Gudmundson. No. 1,205,989; Nov. 28; Gaz. vol. 232; p. 954.
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Elevator control mechanism. A. B. Rover. No. 1,206,763; Nov. 28; Gaz. vol. 232; p. 1217.
Elevator control mechanism. A. B. Rover. No. 1,206,764; Nov. 28; Gaz. vol. 232; p. 1218.
Elevator-gate-operating mechanism. J. J. Dulle. No. 1,206,212; Nov. 28; Gaz. vol. 232; p. 1030.
Elevator-lock. C. Parent. No. 1,204,815; Nov. 14; Gaz. vol. 232; p. 471.
Elevator safety device. J. F. Bemies. No. 1,206,402; Nov. 28; Gaz. vol. 232; p. 1094.
Elevator safety locking mechanism. J. Knezik. No. 1,204,362; Nov. 7; Gaz. vol. 232; p. 281.

Elevator safety-stop. S. Maher. No. 1,206,566; Nov. 28; Gaz. vol. 232; p. 1150.
Elevator system. A. Sundh and W. F. Mayer. No. 1,206,388; Nov. 28; Gaz. vol. 232; p. 1089.
Embroidering-machine. J. Granz. No. 1,204,269; Nov. 7; Gaz. vol. 232; p. 250.
Embroidery-embellishing device. I. Scheffknecht. No. 1,204,195; Nov. 7; Gaz. vol. 232; p. 225.
Embroidery-frame for embroidery-machines. H. Hardegger. No. 1,204,434; Nov. 14; Gaz. vol. 232; p. 342.
Embroidery-machine fabric-holder. O. Meyer. No. 1,205,468; Nov. 21; Gaz. vol. 232; p. 738.
Embroidery-trimming device. R. Loeb. No. 1,204,997; Nov. 14; Gaz. vol. 232; p. 537.
Enameling composition. H. A. Biggar. No. 1,205,845; Nov. 21; Gaz. vol. 232; p. 869.
End-gate. A. W. Hasselbring. No. 1,203,732; Nov. 7; Gaz. vol. 232; p. 62.
End-gate fastener. L. Boon. No. 1,204,396; Nov. 14; Gaz. vol. 232; p. 328.
End-gate fastener. E. P. Kruse. No. 1,206,550; Nov. 21; Gaz. vol. 232; p. 767.
End-gate fastening for wagons. H. A. Beals. No. 1,206,079; Nov. 28; Gaz. vol. 232; p. 983.
End-gate, Wagon. J. A. Gordon. No. 1,204,971; Nov. 14; Gaz. vol. 232; p. 528.
Energy, Apparatus for space transmission of. F. H. Millener. No. 1,205,460; Nov. 21; Gaz. vol. 232; p. 738.
Engine: *See*—
Dental engine. Rotary engine.
Gas-engine. Tractor-engine.
Internal-combustion engine.
Engine. W. Box. No. 1,203,574; Nov. 7; Gaz. vol. 232; p. 7.
Engine. D. N. Jones. No. 1,206,715; Nov. 28; Gaz. vol. 232; p. 1198.
Engine-cooling means, Internal-combustion-. H. C. Magne. No. 1,204,893; Nov. 14; Gaz. vol. 232; p. 498.
Engine crank-movement. G. P. B. Hoyt. No. 1,205,895; Nov. 21; Gaz. vol. 232; p. 885.
Engine cylinder, Gas-. H. C. Stols. No. 1,203,907; Nov. 7; Gaz. vol. 232; p. 89.
Engine cylinders, Removing carbon from gas-. W. K. Rogers. No. 1,205,264; Nov. 21; Gaz. vol. 232; p. 670.
Engine igniting mechanism, Internal-combustion-. W. Grunow, Jr. No. 1,205,194; Nov. 21; Gaz. vol. 232; p. 647.
Engine ignition mechanism, Internal-combustion-. E. C. Wilcox and J. F. Cavanagh. No. 1,204,104; Nov. 7; Gaz. vol. 232; p. 194.
Engine-starter. H. T. Thomas. No. 1,205,059; Nov. 14; Gaz. vol. 232; p. 557.
Engine starter, Gas-. G. Y. Lauchin. No. 1,204,164; Nov. 7; Gaz. vol. 232; p. 214.
Engine-starting and gear-shifting device. A. G. Batsner. No 1,203,568; Nov. 7; Gaz. vol. 232; p. 5.
Engine timer, Internal-combustion-. C. R. Holmes. No. 1,205,136; Nov. 14; Gaz. vol. 232; p. 563.
Engines, Air-controlling device for internal-combustion. W. F. Roper. No. 1,205,484; Nov. 21; Gaz. vol. 232; p. 743.
Engines, Air-starter for automobile-. J. K. Stewart. No. 1,205,055; Nov. 14; Gaz. vol. 232; p. 556.
Engines, Antikicking safety attachment for internal-combustion. W. M. Lindley. No. 1,205,364; Nov. 21; Gaz. vol. 232; p. 702.
Engines, Apparatus for employing kerosene and heavier liquid fuels in internal-combustion. E. B. Benham. No. 1,205,505; Nov. 21; Gaz. vol. 232; p. 750.
Engines, Automatic adjustable draw-bar for traction-. A. C. Johnson. No. 1,205,351; Nov. 21; Gaz. vol. 232; p. 698.
Engines, Automatic spark control for internal-combustion. F. Baier. No. 1,204,730; Nov. 14; Gaz. vol. 232; p. 443.
Engines, Auxiliary air-intake for internal-combustion. W. G. Vetter. No. 1,206,625; Nov. 28; Gaz. vol. 232; p. 1169.
Engines, Auxiliary air-supply device for internal-combustion. H. C. Gilliam. No. 1,204,004; Nov. 7; Gaz. vol. 232; p. 158.
Engines, Charge-treating device for internal-combustion. N. H. Schickel. No. 1,203,701; Nov. 7; Gaz. vol. 232; p. 64.
Engines, Combined fly and starting wheel for internal-combustion. J. B. Bartholomew. No. 1,204,839; Nov. 14; Gaz. vol. 232; p. 480.
Engines, Construction of internal-combustion. J. McKechnie. No. 1,206,722; Nov. 28; Gaz. vol. 232; p. 1201.
Engines, Device for priming the induction-pipes of internal-combustion. E. W. Hives. No. 1,206,221; Nov. 28; Gaz. vol. 232; p. 1033.
Engines, Electric igniter for explosive-. E. J. Kane. No. 1,204,573; Nov. 14; Gaz. vol. 232; p. 390.
Engines, Lock for elevator hoisting-. T. W. Shotto. No. 1,204,322; Nov. 7; Gaz. vol. 232; p. 267.
Engines, Manifold for internal-combustion. H. J. Gaisman and E. W. Graef. No. 1,205,614; Nov. 21; Gaz. vol. 232; p. 791.
Engines, Means for regulating ignition in internal-combustion. O. Ohlsson. No. 1,206,359; Nov. 28; Gaz. vol. 232; p. 1079.
Engines, Steam-generating attachment for internal-combustion. J. J. Riley. No. 1,205,483; Nov. 21; Gaz. vol. 232; p. 743.
Engines, System for indicating the condition of internal-combustion. O. E. Nelson. No. 1,205,379; Nov. 21; Gaz. vol. 232; p. 707.
Engines, Temperature-indicating system and apparatus for internal-combustion. H. H. Boyce. No. 1,206,783; Nov. 28; Gaz. vol. 232; p. 1224.
Engraver's block. J. and G. F. Scheer. No. 1,204,696; Nov. 14; Gaz. vol. 232; p. 433.
Engraving-machine, Pantograph. W. H. Hope. No. 1,206,329; Nov. 28; Gaz. vol. 232; p. 1069.
Ensilage-cutter. H. G. McCulloch. No. 1,204,579; Nov. 14; Gaz. vol. 232; p. 392.
Entrenching-tool. F. P. Archer. No. 1,204,332; Nov. 7; Gaz. vol. 232; p. 271.
Envelop. C. L. Meyers. No. 1,206,351; Nov. 28; Gaz. vol. 232; p. 1076.
Envelop. J. Milutin. No. 1,206,125; Nov. 28; Gaz. vol. 232; p. 1000.
Envelop attachment. F. G. Shuman. No. 1,204,502; Nov. 14; Gaz. vol. 232; p. 364.
Envelop, Filing-. F. H. Johnson. No. 1,206,442; Nov. 28; Gaz. vol. 232; p. 1106.
Envelop-machine. G. S. Otey. No. 1,203,904; Nov. 7; Gaz. vol. 232; p. 124.
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Ethylene glycol, Production of. A. Hough. No. 1,206,222; Nov. 28; Gaz. vol. 232; p. 1033.
Eraser, Blackboard-. S. Swanson. No. 1,206,267; Nov. 28; Gaz. vol. 232; p. 1048.
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Evaporator. J. Harris and D. H. Thomas. No. 1,203,614; Nov. 7; Gaz. vol. 232; p. 22.
Excavating and conveying apparatus. J. L. Potter. No. 1,206,374; Nov. 28; Gaz. vol. 232; p. 1084.
Excavating apparatus. J. A. Reed. No. 1,206,248; Nov. 28; Gaz. vol. 232; p. 1041.
Excavations, Method and means for draining the ground for subaqueous. F. X. Hallinger. No. 1,204,977; Nov. 14; Gaz. vol. 232; p. 530.
Exercising device. E. B. Barnhill. No. 1,205,426; Nov. 21; Gaz. vol. 232; p. 723.
Exhibitor. C. W. Fleming. No. 1,205,880; Nov. 21; Gaz. vol. 232; p. 880.
Exhibitor, Changeable. G. W. Cook. No. 1,204,135; Nov. 7; Gaz. vol. 232; p. 204.
Expansible bit. J. G. Passauer. No. 1,206,363; Nov. 28; Gaz. vol. 232; p. 1080.
Expansion-union. W. F. Berryman. No. 1,206,658; Nov. 28; Gaz. vol. 232; p. 1180.
Explosive containing nitroglycerin. W. Cospy. No. 1,205,516; Nov. 21; Gaz. vol. 232; p. 754.
Explosive, Making a detonating. A. J. Marin. No. 1,206,456; Nov. 28; Gaz. vol. 232; p. 1112.
Extensible holder. L. H. Adamson. No. 1,203,562; Nov. 7; Gaz. vol. 232; p. 3.
Extensible table. G. Bellusci. No. 1,204,841; Nov. 14; Gaz. vol. 232; p. 481.
Extension-table. J. L. McKay. No. 1,206,123; Nov. 28; Gaz. vol. 232; p. 999.
Extension-table. M. Wurm. No. 1,205,500; Nov. 21; Gaz. vol. 232; p. 749.
Extractor: *See*—
Centrifugal extractor.
Eye-shield. B. R. Rickards. No. 1,203,785; Nov. 7; Gaz. vol. 232; p. 82.
Eye-testing device. E. L. Ryer. No. 1,204,690; Nov. 14; Gaz. vol. 232; p. 432.
Eyeglass-frame. C. F. Ingold. No. 1,203,624; Nov. 7; Gaz. vol. 232; p. 25.
Eyeglass-mounting. P. W. Jones. No. 1,204,449; Nov. 14; Gaz. vol. 232; p. 346.
Eyelet, Shoe and glove. P. J. Johnson. No. 1,203,627; Nov. 7; Gaz. vol. 232; p. 26.
Fabric: *See*—
Bed-bottom wire fabric. Metal fabric.
Face-shield. E. L. Work. No. 1,205,308; Nov. 21; Gaz. vol. 232; p. 683.
Face-shield. M. D. Yovich. No. 1,205,834; Nov. 21; Gaz. vol. 232; p. 866.
Fan. S. O. De Orlow. No. 1,205,600; Nov. 21; Gaz. vol. 232; p. 786.
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Fan, Oscillating. E. P. Phelps. No. 1,206,139; Nov. 28; Gaz. vol. 232; p. 1004.
Farm-gate. W. S. Holland. No. 1,205,208; Nov. 21; Gaz. vol. 232; p. 651.
Farm implement. G. P. Marinier. No. 1,206,568; Nov. 28; Gaz. vol. 232; p. 1151.
Farm implement. J. V. Sohn. No. 1,204,323; Nov. 7; Gaz. vol. 232; p. 267.
Fastener. G. E. Bishop. No. 1,206,504; Nov. 28; Gaz. vol. 232; p. 1128.

Fastener. B. Steiner. No. 1,205,053; Nov. 14; Gaz. vol. 232; p. 555.
Fastener machine, Corrugated-. S. C. Cary and H. H. Brand. No. 1,206,302; Nov. 28; Gaz. vol. 232; p. 1061.
Fastener-setting machine. W. Shaw. No. 1,205,277; Nov. 21; Gaz. vol. 232; p. 673.
Fastener, Snap-. G. C. Snyder. No. 1,205,048; Nov. 14; Gaz. vol. 232; p. 553.
Fasteners, Stud member for snap-. G. C. Snyder. No. 1,205,049; Nov. 14; Gaz. vol. 232; p. 554.
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Fastening device. R. A. Whiteside. No. 1,203,669; Nov. 7; Gaz. vol. 232; p. 41.
Fastening device. M. E. Young. No. 1,204,227; Nov. 7; Gaz. vol. 232; p. 236.
Fats, Color concentrate for edible. C. Ellis. No. 1,203,594; Nov. 7; Gaz. vol. 232; p. 15.
Faucet. J. H. Flanigan. No. 1,206,426; Nov. 28; Gaz. vol. 232; p. 1102.
Faucet. G. Gundermann. No. 1,206,533; Nov. 28; Gaz. vol. 232; p. 1188.
Faucet. C. Schmitt. No. 1,205,031; Nov. 14; Gaz. vol. 232; p. 548.
Faucets, Detachable drinking-fountain for. W. C. Edwards. No. 1,206,424; Nov. 28; Gaz. vol. 232; p. 1101.
Feed mechanism. A. L. Pye. No. 1,204,188; Nov. 7; Gaz. vol. 232; p. 223.
Feed-mills, Grinding-plate for. S. J. McVey. No. 1,205,366; Nov. 21; Gaz. vol. 232; p. 703.
Feed-water apparatus. G. W. Mohr. No. 1,204,052; Nov. 7; Gaz. vol. 232; p. 176.
Feed-water purifier. W. E. McComb. No. 1,204,370; Nov. 7; Gaz. vol. 232; p. 284.
Feed-water regulator for steam-generators. A. G. Mumford. No. 1,206,238; Nov. 28; Gaz. vol. 232; p. 1038.
Feeder, Poultry-. A. A. Fair. No. 1,203,865; Nov. 7; Gaz. vol. 232; p. 111.
Feet, Elastic support for flat. A. Düsterwald. No. 1,206,519; Nov. 28; Gaz. vol. 232; p. 1134.
Fence-post. J. Pickrell. No. 1,204,187; Nov. 7; Gaz. vol. 232; p. 222.
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Fence tie, Wire-. R. B. Leatherman. No. 1,205,227; Nov. 21; Gaz. vol. 232; p. 657.
Fender: *See*—
Automobile-fender. Wheel-fender.
Car-fender.
Fermentation processes, Pressure-relief apparatus for use in. M. Ferti. No. 1,205,086; Nov. 14; Gaz. vol. 232; p. 566.
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Molder's flask.
Flat-iron, Electric. E. A. Carson and J. Atherton. No. 1,206,301; Nov. 28; Gaz. vol. 232; p. 1061.
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Folding box or crate. J. Therlo. No. 1,204,611; Nov. 14; Gaz. vol. 232; p. 403.
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Fork: *See*—
Hay-fork. Velocipede spring-fork.
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Form, Garment-. D. H. Shapiro. No. 1,205,801; Nov. 21; Gaz. vol. 232; p. 856.
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Fountain: *See*—
Drinking-fountain. Watering-fountain.
Frame: *See*—
Automobile spring-frame. Hat-frame.
Embroidery-frame. Knitting-frame.
Eyeglass-frame. Picture-frame.
Goggle-frame. Picture or sign frame.
Hair-drying frame. Tent-frame.
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Friction-top can. M. and P. Shalita. No. 1,206,475; Nov. 28; Gaz. vol. 232; p. 1118.
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Fruit-pitting machine. W. W. Mamel, Sr. No. 1,204,175; Nov. 7; Gaz. vol. 232; p. 218.
Fruit-washing machine. G. T. Stamm. No. 1,205,117; Nov. 14; Gaz. vol. 232; p. 577.
Fruit-washing machine. F. Stebler. No. 1,205,118; Nov. 14; Gaz. vol. 232; p. 577.
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Frying utensil. M. E. Rodgers. No. 1,205,026; Nov. 14; Gaz. vol. 232; p. 547.
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Fuel, Feeding and burning fine. W. D. Wood. No. 1,204,631; Nov. 14; Gaz. vol. 232; p. 410.
Fuel-heating devices and the like, Closure means for. D. Barnard. No. 1,205,591; Nov. 21; Gaz. vol. 232; p. 783.
Furnace: *See*—
Boiler-furnace. Incinerating-furnace.
Electric-arc furnace. Ore-roasting furnace.
Heating-furnace. Plumber's furnace.
Ignition-furnace. Tank-heating furnace.
Furnace, F. J. Ardner. No. 1,206,077; Nov. 28; Gaz. vol. 232; p. 983.
Furnace control apparatus, Electric-. J. A. Seede. No. 1,206,603; Nov. 28; Gaz. vol. 232; p. 1162.
Furnace draft-regulator, Domestic-. A. C. Hilsinger. No. 1,206,537; Nov. 28; Gaz. vol. 232; p. 1140.
Furnace-grate. G. F. Spencer. No. 1,206,046; Nov. 28; Gaz. vol. 232; p. 973.
Furnace-lining material and preparing same. C. J. Barr. No. 1,206,771; Nov. 28; Gaz. vol. 232; p. 1221.
Furnace, Movable charging device for a. J. M. Wetcke. No. 1,205,690; Nov. 21; Gaz. vol. 232; p. 817.
Furnaces, Flue and valve arrangement for reversing regenerator-. L. L. Knox. No. 1,203,748; Nov. 7; Gaz. vol. 232; p. 69.
Furnaces, Fluid-injecting attachment for. W. N. Best. No. 1,206,292; Nov. 28; Gaz. vol. 232; p. 1057.
Furnaces, Fuel-saving attachment for. N. J. Russell. No. 1,205,789; Nov. 21; Gaz. vol. 232; p. 852.
Furniture, &c., and making it, Covering material for. H. B. Morris. No. 1,203,896; Nov. 7; Gaz. vol. 232; p. 121.
Furniture construction. O. Rudd. No. 1,206,257; Nov. 28; Gaz. vol. 232; p. 1045.
Furniture, &c., covering material and making it. H. B. Morris. No. 1,205,376; Nov. 21; Gaz. vol. 232; p. 707.
Fusee, Time-burning railway signal-. E. C. Pfeil and H. O. Bemisderfer. No. 1,205,928; Nov. 21; Gaz. vol. 232; p. 897.
Fuses, Machine for making powder pellets for timing-. W. M. Barker. No. 1,206,498; Nov. 28; Gaz. vol. 232; p. 1126.
Fuses, Safety device for shell-. H. Morén. No. 1,205,921; Nov. 21; Gaz. vol. 232; p. 894.
Gage: *See*—
Garment-gage. Pressure-gage.
Gasolene-gage. Surface-gage.
Last-gage. Water-gage.
Gage, F. E. Bright. No. 1,206,202; Nov. 28; Gaz. vol. 232; p. 1026.
Game, L. Goldmerstein. No. 1,204,006; Nov. 7; Gaz. vol. 232; p. 159.
Game, E. Kohler. No. 1,206,334; Nov. 28; Gaz. vol. 232; p. 1071.
Game, E. Kohler. No. 1,206,718; Nov. 28; Gaz. vol. 232; p. 1190.
Game apparatus, H. W. Collins. No. 1,204,944; Nov. 14; Gaz. vol. 232; p. 519.
Game apparatus, J. L. McCaskey. No. 1,204,291; Nov. 7; Gaz. vol. 232; p. 257.
Game-board. W. C. Carter. No. 1,204,246; Nov. 7; Gaz. vol. 232; p. 242.
Game device. J. F. Stephan. No. 1,203,805; Nov. 7; Gaz. vol. 232; p. 88.
Game, Indoor-croquet. E. Becker and P. O. Glasberg. No. 1,206,194; Nov. 28; Gaz. vol. 232; p. 1023.
Game of skill. A. V. and O. T. Clorius. No. 1,203,852; Nov. 7; Gaz. vol. 232; p. 106.
Garbage-disposal apparatus. N. C. Johnson. No. 1,203,743; Nov. 7; Gaz. vol. 232; p. 67.
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Garment, Convertible. J. H. Deutschman. No. 1,204,655; Nov. 14; Gaz. vol. 232; p. 419.
Garment-fasteners, Means for attaching. W. L. Barron. No. 1,205,318; Nov. 21; Gaz. vol. 232; p. 686.
Garment gage and marker. F. W. and A. G. Starke. No. 1,203,929; Nov. 7; Gaz. vol. 232; p. 133.
Garment-hanger. M. Kohn and G. J. Reiter. No. 1,205,644; Nov. 21; Gaz. vol. 232; p. 801.
Garment-hanger. J. A. Macpherson. No. 1,206,348; Nov. 28; Gaz. vol. 232; p. 1075.
Garment-hanger. E. C. Verkler. No. 1,204,618; Nov. 14; Gaz. vol. 232; p. 406.
Garment-hanger. E. C. Verkler. No. 1,204,619; Nov. 14; Gaz. vol. 232; p. 406.
Garment-hanger device. G. H. Wheary. No. 1,206,767; Nov. 28; Gaz. vol. 232; p. 1219.
Garment-hanger, Removable. G. H. Wheary. No. 1,206,768; Nov. 28; Gaz. vol. 232; p. 1219.
Garment-supporter. D. Rosen. No. 1,206,470; Nov. 28; Gaz. vol. 232; p. 1116.
Garment-supporting device. J. H. Cox. No. 1,205,860; Nov. 21; Gaz. vol. 232; p. 873.
Garter. J. F. Harrison. No. 1,205,092; Nov. 14; Gaz. vol. 232; p. 568.
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Gas, Apparatus for indicating the volumetric flow of a. E. E. Werner. No. 1,206,490; Nov. 28; Gaz. vol. 232; p. 1122.
Gas-apparatus safety appliance. J. M. Stabel. No. 1,204,081; Nov. 7; Gaz. vol. 232; p. 187.
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Gas-burner tip. P. Keller. No. 1,204,278; Nov. 7; Gaz. vol. 232; p. 253.
Gas-calorimeter, Continuous. F. G. Breyer. No. 1,205,704; Nov. 21; Gaz. vol. 232; p. 822.
Gas-engine. R. S. Moore. No. 1,203,767; Nov. 7; Gaz. vol. 232; p. 76.
Gas-engine. B. F. Stewart. No. 1,206,162; Nov. 28; Gaz. vol. 232; p. 1012.
Gas-engine, Four-cycle supplementary-port. B. C. Kenyon. No. 1,205,356; Nov. 21; Gaz. vol. 232; p. 699.
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Gas generator and device for feeding carbid, Acetylene-. H. E. Henwood. No. 1,204,015; Nov. 7; Gaz. vol. 232; p. 162.
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Gas-governor. W. M. Wood. No. 1,206,282; Nov. 28; Gaz. vol. 232; p. 1054.
Gas-indicator. H. Bacharach. No. 1,206,192; Nov. 28; Gaz. vol. 232; p. 1022.
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Gas washing, cooling, and drying apparatus. F. Balassa. No. 1,205,964; Nov. 28; Gaz. vol. 232; p. 946.
Gases, Means for heating. J. Weber. No. 1,203,944; Nov. 7; Gaz. vol. 232; p. 138.
Gases, Mixing unit for. F. G. Crone. No. 1,205,436; Nov. 21; Gaz. vol. 232; p. 727.
Gases, Purifying and improving hydrocarbon. P. A. and E. A. Starke. No. 1,206,156; Nov. 28; Gaz. vol. 232; p. 1010.
Gases under pressure, Charging or replenishing receptacles with. F. E. Smith. No. 1,203,922; Nov. 7; Gaz. vol. 232; p. 130.
Gaseous bodies, Method and means for recovering certain constituents from. W. A. Schmidt and L. Bradley. No. 1,204,906; Nov. 14; Gaz. vol. 232; p. 504.
Gaseous mixtures, Apparatus for the separation of. H. Van Fleet. No. 1,204,521; Nov. 14; Gaz. vol. 232; p. 370.
Gasket. C. I. E. Mastin. No. 1,203,762; Nov. 7; Gaz. vol. 232; p. 74.
Gasket-making machine. I. A. Powell. No. 1,205,782; Nov. 21; Gaz. vol. 232; p. 849.
Gasolene, &c., can. J. E. Sexton. No. 1,203,797; Nov. 7; Gaz. vol. 232; p. 86.
Gasolene-gage. E. M. Benford. No. 1,206,196; Nov. 28; Gaz. vol. 232; p. 1023.
Gate: *See*—
Blast-gate. Farm-gate.
End-gate. Railway-gate.
Gate-opener. M. S. Hammer. No. 1,206,219; Nov. 28; Gaz. vol. 232; p. 1032.
Gate-operating mechanism. W. F. Bach. No. 1,205,423; Nov. 21; Gaz. vol. 232; p. 722.
Gear-cutting machine. J. E. Gleason, A. L. Stewart, and E. W. Bullock. No. 1,203,608; Nov. 7; Gaz. vol. 232; p. 19.
Gear, Hydraulic variable and differential speed. A. Sundh. No. 1,206,387; Nov. 28; Gaz. vol. 232; p. 1088.
Gear mechanism, Change-. G. A. Eddy and J. F. McNutt. No. 1,205,873; Nov. 21; Gaz. vol. 232; p. 877.
Gear mechanism, Reversing-. H. W. Blankenship. No. 1,205,968; Nov. 28; Gaz. vol. 232; p. 947.
Gear-wheel. S. C. Hills. No. 1,206,327; Nov. 28; Gaz. vol. 232; p. 1069.
Gearing. H. Chrisman. No. 1,204,251; Nov. 7; Gaz. vol. 232; p. 244.
Gearing. J. Edens. No. 1,205,720; Nov. 21; Gaz. vol. 232; p. 827.
Gearing. R. K. Le Blond and W. F. Groene. No. 1,203,751; Nov. 7; Gaz. vol. 232; p. 70.
Gearing. H. M. Norris. No. 1,204,684; Nov. 14; Gaz. vol. 232; p. 430.
Gearing. J. G. P. Thomas. No. 1,203,662; Nov. 7; Gaz. vol. 232; p. 38.
Gearing, Driving or transmission. F. Burtt. No. 1,203,846; Nov. 7; Gaz. vol. 232; p. 104.
Gearing, Machine-tool. D. C. Klausmeyer. No. 1,204,668; Nov. 14; Gaz. vol. 232; p. 423.
Gearing, Reversing-. H. A. Tuttle. No. 1,204,379; Nov. 7; Gaz. vol. 232; p. 287.
Gearing, Transmission-. A. J. Matheson. No. 1,203,892; Nov. 7; Gaz. vol. 232; p. 120.
Gearing, Transmission-. C. W. Parker. No. 1,205,883; Nov. 21; Gaz. vol. 232; p. 709.
Gearing, Transmission-. O. J. Senum. No. 1,206,147; Nov. 28; Gaz. vol. 232; p. 1007.
Gearing, Variable-speed transmission-. F. J. Mack. No. 1,205,464; Nov. 21; Gaz. vol. 232; p. 736.
Generator: *See*—
Electric generator. Steam-generator.
Feed-water generator. Vacuum-generator.
Gas-generator.
Geographical locations, &c., Device for determining relative. W. B. Oliver. No. 1,206,027; Nov. 28; Gaz. vol. 232; p. 967.
Glass, Apparatus for and method of drawing continuous sheets of. M. Scott. No. 1,204,496; Nov. 14; Gaz. vol. 232; p. 362.
Glass, Apparatus for fire-polishing and reheating. M. A. Smith. No. 1,205,675; Nov. 21; Gaz. vol. 232; p. 812.
Glass-beveling machine. W. J. Porowski. No. 1,205,260; Nov. 21; Gaz. vol. 232; p. 668.
Glass, Charging molds with. J. Rau. No. 1,205,018; Nov. 14; Gaz. vol. 232; p. 545.
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Hacksaw and frame therefor. T. B. Wren. No. 1,206,638; Nov. 28; Gaz. vol. 232; p. 1173.
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Brush and broom handle. Tool-handle.
Sheet-metal handle. Wire handle.
Handle. G. W. La Bue. No. 1,206,004; Nov. 28; Gaz. vol. 232; p. 958.
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Cable-hanger. Shaft-hanger.
Coat-hanger. Trolley-wire hanger.
Curtain-hanger. Trousers-hanger.
Garment-hanger.
Hanger. A. W. Schramm. No. 1,206,601; Nov. 28; Gaz. vol. 232; p. 1161.
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Hay-gatherer. W. H., R. H., C. R., and J. M. Crawford. No. 1,205,975; Nov. 28; Gaz. vol. 232; p. 949.
Hay-press. J. Dain. No. 1,205,163; Nov. 21; Gaz. vol. 232; p. 636.
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Headlight-turning mechanism for vehicles. J. W. Mott. No. 1,203,769; Nov. 7; Gaz. vol. 232; p. 77.
Heat-conducting device for kettles, boilers, or other vessels. F. E. Baron. No. 1,205,077; Nov. 14; Gaz. vol. 232; p. 563.
Heat-neutralizing compound. E. S. Tutleman. No. 1,204,830; Nov. 14; Gaz. vol. 232; p. 477.
Heat-radiating unit. J. M. Bowman. No. 1,205,703; Nov. 21; Gaz. vol. 232; p. 821.
Heat-regulator, Thermostatic. H. W. and R. H. Souder. No. 1,204,909; Nov. 14; Gaz. vol. 232; p. 505.
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Auto-heater. Electrical heater.
Car-heater. Gas-burner heater.
Chemical heater. Metering-heater.
Curling-iron heater. Water-heater.
Electric heater.
Heater. H. C. Fonde. No. 1,206,427; Nov. 28; Gaz. vol. 232; p. 1102.
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Hook: *See*—
Fish-hook. Lacing-hook.
Fishing-hook. Snap-hook.
Key-hook. Tag-hook.
Hoop: *See*—
Barrel-hoop. Message-hoop.
Hopper, Feed-. J. Metzger. No. 1,205,557; Nov. 21; Gaz. vol. 232; p. 769.
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Horseshoe. J. Watson. No. 1,206,183; Nov. 28; Gaz. vol. 232; p. 1020.
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Hose-reel, Automatic. C. D. McConnell. No. 1,206,563; Nov. 28; Gaz. vol. 232; p. 1149.
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House: *See*—
Poultry-house.
House-bracket, Carpenter's. J. F. Small. No. 1,205,279; Nov. 21; Gaz. vol. 232; p. 674.
Hover. C. E. Adair. No. 1,204,836; Nov. 14; Gaz. vol. 232; p. 479.
Hover, Portable. C. A. Damon. No. 1,205,332; Nov. 21; Gaz. vol. 232; p. 692.
Hub-attaching device. J. and F. C. Herby. No. 1,205,534; Nov. 21; Gaz. vol. 232; p. 761.
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Humidor. D. T. Oliver. No. 1,203,646; Nov. 7; Gaz. vol. 232; p. 33.
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Ice-box overflow-alarm. A. Wolf. No. 1,205,692; Nov. 21; Gaz. vol. 232; p. 818.
Ice-cream-cone filler. W. Like. No. 1,204,167; Nov. 7; Gaz. vol. 232; p. 215.
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Ice from railway-rails, Device for removing. T. J. Lee. No. 1,205,757; Nov. 21; Gaz. vol. 232; p. 840.
Ice into blocks, Means for breaking floating. H. D. Pratt. No. 1,205,013; Nov. 14; Gaz. vol. 232; p. 543.
Ignition apparatus. C. E. Pearson. No. 1,205,010; Nov. 14; Gaz. vol. 232; p. 542.
Ignition-dynamo. C. T. Mason. No. 1,205,770; Nov. 21; Gaz. vol. 232; p. 844.
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Implement, Wheeled. A. S. Krotz. No. 1,205,754; Nov. 21; Gaz. vol. 232; p. 839.
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Incubator-alarm. J. F. Poore. No. 1,205,929; Nov. 21; Gaz. vol. 232; p. 897.
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Indicator: *See*—
Direction-indicator. Speed-indicator.
Gas-indicator.
Spark-plug pressure-indicator.
Indicator. W. I. Oeschger. No. 1,205,105; Nov. 14; Gaz. vol. 232; p. 572.
Ingot-mold. C. W. Greene. No. 1,204,270; Nov. 7; Gaz. vol. 232; p. 251.
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Insulation, Bushing for electric tubular. C. M. Wheelock. No. 1,204,625; Nov. 14; Gaz. vol. 232; p. 408.
Insulation-forming machine. M. Sullivan. No. 1,203,808; Nov. 7; Gaz. vol. 232; p. 89.
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Insulator, High-potential. L. Steinberger. No. 1,206,160; Nov. 28; Gaz. vol. 232; p. 1012.
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Insulator, Safety strain-. L. Steinberger. No. 1,206,158; Nov. 28; Gaz. vol. 232; p. 1011.
Insulator, Safety strain disk. L. Steinberger. No. 1,206,159; Nov. 28; Gaz. vol. 232; p. 1011.
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Intake and exhaust manifold, Combined. H. W. Hisington. No. 1,206,540; Nov. 21; Gaz. vol. 232; p. 763.
Internal-combustion engine. M. Carbone. No. 1,205,158; Nov. 21; Gaz. vol. 232; p. 634.
Internal-combustion engine. W. H. D'Ardenne. No. 1,203,855; Nov. 7; Gaz. vol. 232; p. 107.
Internal-combustion engine. E. J. Ellis. No. 1,205,606; Nov. 21; Gaz. vol. 232; p. 788.
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Internal-combustion engine. V. De Lalla. No. 1,204,958; Nov. 14; Gaz. vol. 232; p. 524.
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Internal-combustion engine. H. L. Meeder. No. 1,206,016; Nov. 28; Gaz. vol. 232; p. 963.
Internal-combustion engine. C. Radiguer. No. 1,205,480; Nov. 21; Gaz. vol. 232; p. 742.
Internal-combustion engine. H. F. Shepherd. No. 1,205,573; Nov. 21; Gaz. vol. 232; p. 776.
Internal-combustion engine. D. F. Smith. No. 1,206,608; Nov. 28; Gaz. vol. 232; p. 1163.
Internal-combustion engine. B. Thaw, Jr. No. 1,204,610; Nov. 14; Gaz. vol. 232; p. 403.
Internal-combustion engine. C. S. Tuttle. No. 1,204,520; Nov. 14; Gaz. vol. 232; p. 370.
Internal-combustion engine. C. J. Weger. No. 1,206,741; Nov. 28; Gaz. vol. 232; p. 1209.
Internal-combustion engine. J. F. Wentworth. No. 1,205,584; Nov. 21; Gaz. vol. 232; p. 780.
Iron: *See*—
Flat-iron. Sad-iron.
Iron and steel, Changing the composition of. B. Ford. No. 1,205,611; Nov. 21; Gaz. vol. 232; p. 790.
Iron, Making wrought-. F. F. Charles and J. J. Broderick. No. 1,204,939; Nov. 14; Gaz. vol. 232; p. 518.
Iron ores, Gravity liquid separation of. A. J. Moxham. No. 1,203,897; Nov. 7; Gaz. vol. 232; p. 122.
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Ironing-board and step-ladder, Combined. H. P. White. No. 1,204,218; Nov. 7; Gaz. vol. 232; p. 233.
Ironing-plate. L. H. Freeman. No. 1,205,185; Nov. 21; Gaz. vol. 232; p. 643.
Ironing-table. H. J. H. Lafleche. No. 1,204,575; Nov. 14; Gaz. vol. 232; p. 391.
Irrigating device. J. Peterson. No. 1,204,809; Nov. 7; Gaz. vol. 232; p. 263.
Irrigation-union. F. J. Chamberlin. No. 1,206,670; Nov. 28; Gaz. vol. 232; p. 1184.
Irrigator, Rotary. S. W. Moody. No. 1,205,875; Nov. 21; Gaz. vol. 232; p. 706.
Jack: *See*—
Automobile-jack. Pumping-jack.
Elevating-jack. Rail-joint jack.
Lifting-jack.
Jack. A. L. Johnson. No. 1,204,276; Nov. 7; Gaz. vol. 232; p. 252.
Jacquard-machine. T. H. Halton. No. 1,204,864; Nov. 14; Gaz. vol. 232; p. 488.
Jar: *See*—
Vacuum-jar.
Jar-wrench. F. T. Murray. No. 1,206,129; Nov. 28; Gaz. vol. 232; p. 1001.
Jars and other vessels, Closing means for. J. S. Taylor. No. 1,204,715; Nov. 14; Gaz. vol. 232; p. 439.
Joiner's bench. C. Göritz. No. 1,205,884; Nov. 21; Gaz. vol. 232; p. 882.
Joint: *See*—
Miter-joint. Swivel-joint.
Pipe-joint. Universal joint.
Rail-joint.
Joint-lock. W. Gutenkunst. No. 1,205,733; Nov. 21; Gaz. vol. 232; p. 832.
Joints, Uniting and reinforcing. F. L. Slazenger. No. 1,205,116; Nov. 14; Gaz. vol. 232; p. 577.
Jointer-guard. A. R. Hunsicker. No. 1,206,539; Nov. 28; Gaz. vol. 232; p. 1141.
Journal-bearings, Wedge for. S. H. Campbell. No. 1,204,405; Nov. 14; Gaz. vol. 232; p. 331.
Journal-box lining. W. K. Lynn and W. T. Weaver. No. 1,204,465; Nov. 14; Gaz. vol. 232; p. 352.
Juice product, Fruit-. C. A. Kern. No. 1,204,881; Nov. 14; Gaz. vol. 232; p. 494.
Kettle-cover. C. D. Scofield and G. F. Kearney. No. 1,204,704; Nov. 14; Gaz. vol. 232; p. 436.
Key-fastener. M. G. Norton. No. 1,205,009; Nov. 14; Gaz. vol. 232; p. 541.
Key-hook. A. Zwiener and W. A. Bryner. No. 1,206,074; Nov. 28; Gaz. vol. 232; p. 983.
Key-lever actuator, Automatic and semi-automatic. H. T. Guthrie. No. 1,206,534; Nov. 28; Gaz. vol. 232; p. 1138.
Key-remover. A. Swink. No. 1,205,409; Nov. 21; Gaz. vol. 232; p. 717.
Keyboard. J. A. Schleicher and C. V. Wilgus. No. 1,203,655; Nov. 7; Gaz. vol. 232; p. 35.
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Kiln or oven. L. Kern. No. 1,206,547; Nov. 28; Gaz. vol. 232; p. 1144.
Kinetoscope. A. F. Gall. No. 1,204,424; Nov. 14; Gaz. vol. 232; p. 338.
Kitchen appliance. C. H. and T. Hansen. No. 1,206,108; Nov. 28; Gaz. vol. 232; p. 994.
Knife: *See*—
Butcher's knife. Slicing-knife.
Knife. V. Alver. No. 1,204,388; Nov. 14; Gaz. vol. 232; p. 325.
Knife-setting gage, Planer-. A. Tomkinson. No. 1,203,814; Nov. 7; Gaz. vol. 232; p. 91.
Knitting frame, Warp-. F. Wagner. No. 1,206,179; Nov. 28; Gaz. vol. 232; p. 1018.
Knitting-machine. E. E. Busek. No. 1,204,404; Nov. 14; Gaz. vol. 232; p. 331.
Knitting-machine. L. J. Quinn. No. 1,204,590; Nov. 14; Gaz. vol. 232; p. 395.
Knitting machine, Circular-. E. Haaga. No. 1,206,217; Nov. 28; Gaz. vol. 232; p. 1031.
Knitting machine, Circular-. H. E. Houseman. No. 1,204,444; Nov. 14; Gaz. vol. 232; p. 345.
Knitting-machine mechanism for controlling yarn in plating, Circular-. H. A. Houseman. No. 1,204,445; Nov. 14; Gaz. vol. 232; p. 345.
Knitting machine, Stocking-. E. Bedard. No. 1,204,643; Nov. 14; Gaz. vol. 232; p. 414.
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Knockdown box. W. W. Norman. No. 1,205,925; Nov. 21; Gaz. vol. 232; p. 896.
Label-affixer. W. R. Stearns and A. H. McDermott. No. 1,203,660; Nov. 7; Gaz. vol. 232; p. 38.
Labeling-machines, Automatic bottle-feed mechanism for. F. O. Woodland. No. 1,203,676; Nov. 7; Gaz. vol. 232; p. 44.
Lace edging. M. N. Aaron. No. 1,203,561; Nov. 7; Gaz. vol. 232; p. 3.
Lace fastener, Shoe-. A. F. Urquhart. No. 1,204,212; Nov. 7; Gaz. vol. 232; p. 231.
Laces, Grip for boot and shoe. C. A. Currie. No. 1,205,595; Nov. 21; Gaz. vol. 232; p. 784.
Lacing-hook. A. A. Kauffman. No. 1,205,902; Nov. 21; Gaz. vol. 232; p. 888.
Lacing structure. C. A. Ratekin. No. 1,205,109; Nov. 14; Gaz. vol. 232; p. 574.
Ladder. A. F. Tank. No. 1,206,049; Nov. 28; Gaz. vol. 232; p. 974.
Ladder, Adjustable. L. Peterson. No. 1,206,243; Nov. 28; Gaz. vol. 232; p. 1040.
Ladder and ironing-board, Combined step-. E. F. and E. Webster. No. 1,206,628; Nov. 28; Gaz. vol. 232; p. 1170.
Ladder, Scaling-. E. E. Close. No. 1,205,594; Nov. 21; Gaz. vol. 232; p. 783.
Ladders, Supporting means for inclined. W. S. Tothill. No. 1,205,684; Nov. 21; Gaz. vol. 232; p. 815.
Laminated spring. F. J. Laher. No. 1,204,037; Nov. 7; Gaz. vol. 232; p. 170.
Lamp. F. Debrosky. No. 1,205,864; Nov. 21; Gaz. vol. 232; p. 874.
Lamp. E. A. Hawthorne. No. 1,203,618; Nov. 7; Gaz. vol. 232; p. 23.
Lamp. E. A. Hawthorne. No. 1,205,623; Nov. 21; Gaz. vol. 232; p. 794.
Lamp and stove, Combination electric. N. G. Nicoll. No. 1,205,380; Nov. 21; Gaz. vol. 232; p. 708.
Lamp attachment, Table-. J. S. Clifford. No. 1,203,981; Nov. 7; Gaz. vol. 232; p. 150.
Lamp, Automobile-. L. M. Wood. No. 1,206,492; Nov. 28; Gaz. vol. 232; p. 1123.
Lamp-chimney cleaner. R. C. Farrell. No. 1,206,318; Nov. 28; Gaz. vol. 232; p. 1066.
Lamp construction. L. L. Pfeifer. No. 1,204,057; Nov. 7; Gaz. vol. 232; p. 178.
Lamp, Electric. F. G. Keyes. No. 1,206,333; Nov. 28; Gaz. vol. 232; p. 1071.
Lamp, Electric. W. H. Spencer and J. T. Holmes. No. 1,206,477; Nov. 28; Gaz. vol. 232; p. 1118.
Lamp, Electric-battery. J. W. Lawhead. No. 1,205,645; Nov. 21; Gaz. vol. 232; p. 802.
Lamp for motor-vehicles. C. F. Ulrich. No. 1,205,824; Nov. 21; Gaz. vol. 232; p. 863.
Lamp-guard. P. D. Phillips and E. G. K. Anderson. No. 1,205,011; Nov. 14; Gaz. vol. 232; p. 542.
Lamp, Incandescent. J. H. Dale. No. 1,204,653; Nov. 14; Gaz. vol. 232; p. 418.
Lamp, Incandescent. A. S. Knight. No. 1,204,456; Nov. 14; Gaz. vol. 232; p. 349.
Lamp, Incandescent electric. F. and F. L. Harrison. No. 1,205,737; Nov. 21; Gaz. vol. 232; p. 833.
Lamp, Inclosed-arc. K. Ferber and W. Wissmann. No. 1,205,725; Nov. 21; Gaz. vol. 232; p. 829.
Lamp, Mercury-vapor-arc. C. O. Bastian and A. E. Salisbury. No. 1,204,117; Nov. 7; Gaz. vol. 232; p. 198.
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Lamp-socket, Shade-supporting. R. B. Benjamin. No. 1,206,084; Nov. 28; Gaz. vol. 232; p. 985.
Lamp-support. N. W. Shipp. No. 1,206,263; Nov. 28; Gaz. vol. 232; p. 1046.
Lamp, Tail-. G. C. Barr. No. 1,203,566; Nov. 7; Gaz. vol. 232; p. 4.
Lamp, Vehicle-. E. A. Hawthorne. No. 1,205,625; Nov. 21; Gaz. vol. 232; p. 794.
Lamps, Exhausting. J. T. Marshall. No. 1,205,602; Nov. 14; Gaz. vol. 232; p. 539.
Lantern. W. McArthur. No. 1,204,801; Nov. 14; Gaz. vol. 232; p. 467.
Lantern-guard. R. P. Throne. No. 1,204,207; Nov. 7; Gaz. vol. 232; p. 229.
Lantern, Hand-. B. F. Schneider. No. 1,203,793; Nov. 7; Gaz. vol. 232; p. 84.
Lantern-slide. J. B. Roan. No. 1,206,253; Nov. 28; Gaz. vol. 232; p. 1044.
Lapping device. F. E. Bright. No. 1,206,201; Nov. 28; Gaz. vol. 232; p. 1025.
Lard and butter container. G. W. Steckler and G. M. Bowen. No. 1,205,807; Nov. 21; Gaz. vol. 232; p. 857.
Last. W. Gordon. No. 1,203,609; Nov. 7; Gaz. vol. 232; p. 20.
Last. W. J. MacFarland. No. 1,205,648; Nov. 21; Gaz. vol. 232; p. 803.
Last-gage. W. L. Dunbar. No. 1,206,313; Nov. 28; Gaz. vol. 232; p. 1064.
Last-pulling machine. J. M. Benjamin. No. 1,203,571; Nov. 7; Gaz. vol. 232; p. 6.
Latch, Door-. J. J. Thull. No. 1,205,061; Nov. 14; Gaz. vol. 232; p. 558.
Latch for elevator-doors, Safety-. J. H. Stewart. No. 1,203,931; Nov. 7; Gaz. vol. 232; p. 134.
Latch, Gate-. L. H. Zanders. No. 1,204,228; Nov. 7; Gaz. vol. 232; p. 237.
Lath, Plaster-. H. La Casse and J. P. Sexton. No. 1,205,360; Nov. 21; Gaz. vol. 232; p. 701.
Lath, Plaster-. J. P. Sexton. No. 1,205,399; Nov. 21; Gaz. vol. 232; p. 714.
Lathe attachment. W. Goddu. No. 1,206,528; Nov. 28; Gaz. vol. 232; p. 1136.
Lathes, Automatic stop mechanism for turret-. E. P. Burrell. No. 1,205,970; Nov. 28; Gaz. vol. 232; p. 947.
Lathes or the like, Safety device for carriage-feed mechanisms for. W. H. Runge. No. 1,204,824; Nov. 14; Gaz. vol. 232; p. 475.

Lavatory. J. F. Kelly. No. 1,204,033; Nov. 7; Gaz. vol. 232; p. 169.
Lawn-rake, Revolving. A. E. Whiting. No. 1,204,220; Nov. 7; Gaz. vol. 232; p. 234.
Lawn-sprinkler. J. J. Miller. No. 1,204,297; Nov. 7; Gaz. vol. 232; p. 259.
Lead carbonates, Manufacturing. J. A. Schaeffer and J. R. MacGregor. No. 1,203,911; Nov. 7; Gaz. vol. 232; p. 127.
Lead oxid, Method of and apparatus for producing. E. Barthelmess. No. 1,204,537; Nov. 14; Gaz. vol. 232; p. 377.
Leaf-spring. W. S. Hopkins. No. 1,204,876; Nov. 14; Gaz. vol. 232; p. 492.
Leather and other composition boards, Drying. W. H. Rihl. No. 1,204,594; Nov. 28; Gaz. vol. 232; p. 1159.
Leather rolling and embossing machine. C. Voss. No. 1,204,092; Nov. 7; Gaz. vol. 232; p. 190.
Ledger-sheet. G. R. Steele. No. 1,203,804; Nov. 7; Gaz. vol. 232; p. 88.
Leg, Artificial. B. M. Kennedy. No. 1,205,218; Nov. 21; Gaz. vol. 232; p. 654.
Lens centering and measuring instrument. G. A. H. Kellner. No. 1,204,030; Nov. 7; Gaz. vol. 232; p. 168.
Lens, Illuminating-. A. S. Plowman and R. C. Daisley. No. 1,205,258; Nov. 21; Gaz. vol. 232; p. 668.
Lens-supporting device. A. F. Gall. No. 1,204,425; Nov. 14; Gaz. vol. 232; p. 338.
Level. E. B. Adkins. No. 1,205,956; Nov. 28; Gaz. vol. 232; p. 943.
Level. A. J. Canbel. No. 1,203,702; Nov. 7; Gaz. vol. 232; p. 53.
Level. G. W. Lyons. No. 1,205,946; Nov. 21; Gaz. vol. 232; p. 902.
Level. R. F. Reed. No. 1,206,593; Nov. 28; Gaz. vol. 232; p. 1159.
Level, Automatic hand-. J. I. D. Bristol. No. 1,205,705; Nov. 21; Gaz. vol. 232; p. 822.
Level, Two-in-one. R. F. Hommel. No. 1,204,768; Nov. 14; Gaz. vol. 232; p. 457.
Lever-locking device. E. W. Tims and J. T. Morle. No. 1,204,210; Nov. 7; Gaz. vol. 232; p. 230.
Lever, Uncoupling-. J. R. Carmer. No. 1,203,849; Nov. 7; Gaz. vol. 232; p. 105.
Levers, Locking means for operating-. C. Evers. No. 1,205,877; Nov. 21; Gaz. vol. 232; p. 879.
Lid-raising device. T. E. Spring. No. 1,204,325; Nov. 7; Gaz. vol. 232; p. 268.
Life-buoy. W. Carroll. No. 1,205,514; Nov. 21; Gaz. vol. 232; p. 754.
Life-preserving suit. S. D. Wills. No. 1,204,921; Nov. 14; Gaz. vol. 232; p. 511.
Life-raft. N. Rubenstein. No. 1,205,667; Nov. 21; Gaz. vol. 232; p. 809.
Life-raft. H. W. Seely. No. 1,205,033; Nov. 14; Gaz. vol. 232; p. 548.
Life-saving device. E. Kreid. No. 1,203,631; Nov. 7; Gaz. vol. 232; p. 27.
Lift structure, Side-head hold-over and chip-breaker-. H. J. Mitchell. No. 1,205,651; Nov. 21; Gaz. vol. 232; p. 804.
Lifter: *See*—
Automobile-lifter. Propeller-lifter.
Harvester grain-lifter. Stove-lifter.
Lifting apparatus. H. Arnold. No. 1,205,074; Nov. 14; Gaz. vol. 232; p. 562.
Lifting device. S. E. Cowles. No. 1,203,586; Nov. 7; Gaz. vol. 232; p. 11.
Lifting device. E. E. Snyder and E. W. Harris. No. 1,204,710; Nov. 14; Gaz. vol. 232; p. 437.
Lifting-jack. X. Kirstaetter. No. 1,204,162; Nov. 7; Gaz. vol. 232; p. 213.
Lifting-jack. H. Whiting. No. 1,205,300; Nov. 21; Gaz. vol. 232; p. 680.
Lifting-jack. T. H. Wittliff and C. W. Parker. No. 1,203,673; Nov. 7; Gaz. vol. 232; p. 42.
Lifting-jack. S. H. Wolfe. No. 1,205,305; Nov. 21; Gaz. vol. 232; p. 682.
Light: *See*—
Automobile-light. Flash-light.
Electric light.
Light-projecting apparatus. F. A. Hardyman. No. 1,204,272; Nov. 7; Gaz. vol. 232; p. 251.
Light-rays refractor. E. G. Johanson. No. 1,204,023; Nov. 7; Gaz. vol. 232; p. 165.
Lighting-fixture. E. F. Guth. No. 1,205,196; Nov. 21; Gaz. vol. 232; p. 647.
Lighting-fixture. W. Lumley. No. 1,206,561; Nov. 28; Gaz. vol. 232; p. 1148.
Lighting-fixture. H. D. McFaddin. No. 1,204,044; Nov. 7; Gaz. vol. 232; p. 172.
Lighting-system regulator. W. T. Manogue and C. F. Schroeder. No. 1,206,567; Nov. 28; Gaz. vol. 232; p. 1150.
Lightning-arrester. W. M. Wilson and W. R. McCracken. No. 1,204,628; Nov. 14; Gaz. vol. 232; p. 409.
Lignite, Treating. C. Melhardt. No. 1,205,007; Nov. 14; Gaz. vol. 232; p. 540.
Lime, Hydrating. A. M. Schofield. No. 1,204,699; Nov. 14; Gaz. vol. 232; p. 434.
Lime-hydrating apparatus. A. M. Schofield. No. 1,204,700; Nov. 14; Gaz. vol. 232; p. 434.
Lime-sulfur machine. H. V. Hart and C. F. Massey. No. 1,205,738; Nov. 21; Gaz. vol. 232; p. 838.
Line-wires, Compensating device for. A. C. Sorensen. No. 1,205,281; Nov. 21; Gaz. vol. 232; p. 674.
Linotype-machines, Burner attachment for. H. Petersen. No. 1,205,780; Nov. 21; Gaz. vol. 232; p. 848.
Liquid-coating machine. R. A. Beausejour. No. 1,204,120; Nov. 7; Gaz. vol. 232; p. 200.
Liquid-cooler. J. N. Gilman. No. 1,204,561; Nov. 14; Gaz. vol. 232; p. 386.
Liquid dispensing and measuring apparatus. C. F. Brown. No. 1,206,204; Nov. 28; Gaz. vol. 232; p. 1027.
Liquid-dispensing apparatus. R. C. Bradley. No. 1,204,242; Nov. 7; Gaz. vol. 232; p. 241.
Liquid-dispensing apparatus. R. C. Bradley. No. 1,206,507; Nov. 28; Gaz. vol. 232; p. 1129.
Liquid-distributer. T. W. Stringham. No. 1,203,933; Nov. 7; Gaz. vol. 232; p. 136.
Liquid fuel. F. C. Axtell. No. 1,204,638; Nov. 14; Gaz. vol. 232; p. 413.
Liquid-fuel burner. J. C. Lockhart. No. 1,204,288; Nov. 7; Gaz. vol. 232; p. 255.
Lithographic plate. S. A. Neidich. No. 1,203,770; Nov. 7; Gaz. vol. 232; p. 77.
Loading apparatus. R. P. Greenleaf. No. 1,204,760; Nov. 14; Gaz. vol. 232; p. 454.
Loading-coil, Phantom. W. Fondiller. No. 1,206,524; Nov. 28; Gaz. vol. 232; p. 1135.
Lock: *See*—
Automobile-lock. Pedal-lock.
Automobile gear-lock. Sash-lock.
Bicycle-lock. Screw-cap lock.
Bolt and nut lock. Seal-lock.
Elevator-lock. Stanchion-lock.
Joint-lock. Switch and box lock.
Keyless lock. Switch-lock.
Nut-lock. Time-lock.
Oar-lock. Wheel-lock.
Paper-container lock. Window-lock.
Lock. E. Adrian. No. 1,204,727; Nov. 14; Gaz. vol. 232; p. 442.
Lock. E. A. Christoph. No. 1,204,410; Nov. 14; Gaz. vol. 232; p. 333.
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Lock. J. Kaufman. No. 1,204,781; Nov. 14; Gaz. vol. 232; p. 461.
Lock. R. S. Marsh. No. 1,205,370; Nov. 21; Gaz. vol. 232; p. 704.
Lock. S. Nowosielsky. No. 1,206,724; Nov. 28; Gaz. vol. 232; p. 1201.
Locomotive. W. F. Kiesel, Jr. No. 1,204,036; Nov. 7; Gaz. vol. 232; p. 170.
Locomotive, Electric. G. M. Eaton. No. 1,206,314; Nov. 28; Gaz. vol. 232; p. 1065.
Locomotive, Electric. J. H. Flory. No. 1,203,999; Nov. 7; Gaz. vol. 232; p. 157.
Locomotive track-sanding apparatus. M. R. Miller and G. L. Dibble. No. 1,205,018; Nov. 21; Gaz. vol. 232; p. 893.
Logging-car stake-holder. C. Faust. No. 1,206,687; Nov. 28; Gaz. vol. 232; p. 1190.
Logging system. P. Simpson. No. 1,206,264; Nov. 28; Gaz. vol. 232; p. 1047.
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Axle-lubricator. Sheet-metal lubricator.
Flange-lubricator.
Lubricator. W. Eviston. No. 1,204,145; Nov. 7; Gaz. vol. 232; p. 207.
Luggage-carrier. L. O. Hendricks. No. 1,205,741; Nov. 21; Gaz. vol. 232; p. 834.
Lumber-edging machine. W. H. Trout. No. 1,203,940; Nov. 7; Gaz. vol. 232; p. 137.
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Mail-bag catching and delivering apparatus. F. Schmidt. No. 1,205,792; Nov. 7; Gaz. vol. 232; p. 84.
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Mail-bag-transferring apparatus. S. L. Ingalls. No. 1,204,985; Nov. 14; Gaz. vol. 232; p. 532.
Mail-box. B. Manges. No. 1,206,349; Nov. 28; Gaz. vol. 232; p. 1075.
Mail-box. N. McDonald, Jr. No. 1,204,580; Nov. 14; Gaz. vol. 232; p. 392.
Mail-box. I. H. Sare. No. 1,204,494; Nov. 14; Gaz. vol. 232; p. 361.
Mail-box and milk-bottle holder, Combined. J. Gonsior, W. Frank, and C. Schneider. No. 1,204,268; Nov. 7; Gaz. vol. 232; p. 250.
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Mask, Base-ball. S. C. April. No. 1,203,564; Nov. 7; Gaz. vol. 232; p. 4.
Mat: *See*—
Floor-mat.
Mat-holder. G. H. Taylor. No. 1,205,681; Nov. 21; Gaz. vol. 232; p. 779.
Match-box. E. W. Brown. No. 1,205,510; Nov. 21; Gaz. vol. 232; p. 752.
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Match-box holder. A. Brand. No. 1,205,428; Nov. 21; Gaz. vol. 232; p. 724.
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Measuring apparatus. W. Hanel. No. 1,204,865; Nov. 14; Gaz. vol. 232; p. 489.
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Mesh-bag. E. Belline. No. 1,206,195; Nov. 28; Gaz. vol. 232; p. 1023.
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Metals from liquids, Process and apparatus for recovering. C. E. Holland. No. 1,205,207; Nov. 21; Gaz. vol. 232; p. 651.
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Flow-meter. Prepayment-meter.
Gas-meter. Wave-meter.
Maximum-demand meter.
Meter-box. H. M. Lofton. No. 1,204,464; Nov. 14; Gaz. vol. 232; p. 352.
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Micrometer-measuring instrument. R. W. Fieldwick. No. 1,205,726; Nov. 21; Gaz. vol. 232; p. 830.
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Milk weighing and testing apparatus. H. S. Gips and A. M. Kuhns. No. 1,205,986; Nov. 28; Gaz. vol. 232; p. 953.
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Corn-mill. Tube-mill.
Rolling-mill. Windmill.
Mill. J. C. Keller and W. L. Reece. No. 1,206,716; Nov. 28; Gaz. vol. 232; p. 1199.
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Mine-sweeper. M. W. Green. No. 1,206,432; Nov. 28; Gaz. vol. 232; p. 1103.
Mining-machine. A. Ball. No. 1,205,076; Nov. 14; Gaz. vol. 232; p. 562.
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Mining-machine and truck. J. London. No. 1,205,097; Nov. 14; Gaz. vol. 232; p. 570.
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Mixer. F. Myers. No. 1,203,809; Nov. 7; Gaz. vol. 232; p. 122.
Mixing apparatus. J. J. Connolley. No. 1,204,846; Nov. 14; Gaz. vol. 232; p. 482.
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Moccasin. E. A. Llewellyn and J. R. Briggs. No. 1,206,119; Nov. 28; Gaz. vol. 232; p. 998.
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Block-mold. Ingot-mold.
Concrete-wall mold.
Mold. D. A. Dyer, Jr. No. 1,205,440; Nov. 21; Gaz. vol. 232; p. 728.

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Mop. O. D. Rogers. No. 1,206,595; Nov. 28; Gaz. vol. 232; p. 1159.
Mop, broom, and carpet-sweeper holder. J. W. Belcher. No. 1,206,655; Nov. 28; Gaz. vol. 232; p. 1179.
Mop-holder. J. C. Crout. No. 1,204,848; Nov. 14; Gaz. vol. 232; p. 488.
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Current-motor.
Electric motor.
Hydraulic motor.
Hydrocarbon-motor.
Synchronous motor.
Water-motor.
Wave-motor.
Motor clamp, Rowboat-. W. F. A. Buehner. No. 1,204,739; Nov. 14; Gaz. vol. 232; p. 447.
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Music stand and case, Combined. C. M. Engebretson. No. 1,203,864; Nov. 7; Gaz. vol. 232; p. 110.
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Nail-stripper. G. Marshall. No. 1,204,678; Nov. 14; Gaz. vol. 232; p. 427.
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Nut-blank-making machine. W. L. Rigney. No. 1,206,252; Nov. 28; Gaz. vol. 232; p. 1043.
Nut-cracking machine or instrument. R. C. and E. C. Sharpe. No. 1,205,276; Nov. 21; Gaz. vol. 232; p. 673.
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Ordnance, Recoil-mount for. J. Gonsior and F. Opp. No. 1,204,757; Nov. 14; Gaz. vol. 232; p. 453.
Ore-roasting furnace. J. Harris. No. 1,203,613; Nov. 7; Gaz. vol. 232; p. 21.
Ore treatment, Agitator for. C. Robinson. No. 1,204,069; Nov. 7; Gaz. vol. 232; p. 182.
Ore values, Chemical concentration of. C. S. Bradley. No. 1,204,932; Nov. 14; Gaz. vol. 232; p. 515.
Ores and other products, Leaching. J. E. Rothwell and H. B. Lowden. No. 1,205,936; Nov. 21; Gaz. vol. 232; p. 899.
Ores, flue-dust, purple ore, and the like, Sintering fine. C. Gieseeke. No. 1,205,944; Nov. 21; Gaz. vol. 232; p. 902.

Organ-bellows. G. C. Wick. No. 1,204,103; Nov. 7; Gaz. vol. 232; p. 194.
Organ key mechanism. R. Hope-Jones. No. 1,203,621; Nov. 7; Gaz. vol. 232; p. 24.
Organ, Reed-. P. Preston. No. 1,204,064; Nov. 7; Gaz. vol. 232; p. 180.
Orthodontic appliance. E. H. Angle. No. 1,204,113; Nov. 7; Gaz. vol. 232; p. 197.
Orthodontic appliance. E. H. Angle. No. 1,204,114; Nov. 7; Gaz. vol. 232; p. 198.
Outlet-box. A. R. Lakin. No. 1,206,549; Nov. 28; Gaz. vol. 232; p. 1145.
Oven, Baking-. J. Larraburn. No. 1,206,118; Nov. 28; Gaz. vol. 232; p. 998.
Oven, Electric baker's. E. H. Ruckle. No. 1,203,909; Nov. 7; Gaz. vol. 232; p. 126.
Oven-shelf. T. H. Rideout. No. 1,206,730; Nov. 28; Gaz. vol. 232; p. 1204.
Overload protective device. H. A. Steen. No. 1,206,157; Nov. 28; Gaz. vol. 232; p. 1010.
Overshoe. F. E. Jousset. No. 1,205,215; Nov. 21; Gaz. vol. 232; p. 654.
Overshoe. C. W. MacWilliams. No. 1,204,293; Nov. 7; Gaz. vol. 232; p. 258.
Overshoe-retainer. E. A. Ward. No. 1,206,180; Nov. 28; Gaz. vol. 232; p. 1019.
Oxalic acid, Producing. E. von Portheim. No. 1,205,493; Nov. 21; Gaz. vol. 232; p. 747.
Package-fastening device. L. Lederer. No. 1,206,551; Nov. 28; Gaz. vol. 232; p. 1145.
Packing and making the same, Metallic. J. Crane. No. 1,206,306; Nov. 28; Gaz. vol. 232; p. 1063.
Packing-case. C. T. Enid. No. 1,205,872; Nov. 21; Gaz. vol. 232; p. 876.
Packing, Metallic piston-. C. E. Whiteman and J. R. W. Gregg. No. 1,205,941; Nov. 21; Gaz. vol. 232; p. 901.
Packing, Piston-. C. H. Miles. No. 1,205,558; Nov. 21; Gaz. vol. 232; p. 770.
Pad: *See*—
Correspondence-pad.
Padlock, Permutation-. S. A. Pirog. No. 1,205,781; Nov. 21; Gaz. vol. 232; p. 848.
Pail, Dinner-. J. L. Ogden, Jr. No. 1,203,774; Nov. 7; Gaz. vol. 232; p. 78.
Pail, Milk-. L. Dinesen. No. 1,206,096; Nov. 28; Gaz. vol. 232; p. 989.
Paint. A. J. Rossi and C. M. E. Schroeder. No. 1,205,267; Nov. 21; Gaz. vol. 232; p. 671.
Paint. A. J. Rossi and C. M. E. Schroeder. No. 1,205,268; Nov. 21; Gaz. vol. 232; p. 671.
Paint. A. J. Rossi and C. M. E. Schroeder. No. 1,205,269; Nov. 21; Gaz. vol. 232; p. 671.
Paint remover, Baked-enamel-. C. T. Denegre. No. 1,204,851; Nov. 14; Gaz. vol. 232; p. 484.
Painting apparatus. J. C. Johnstone. No. 1,205,450; Nov. 21; Gaz. vol. 232; p. 731.
Painting outfit, Child's. J. R. Peck. No. 1,205,779; Nov. 21; Gaz. vol. 232; p. 848.
Pamphlet-coverer. H. L. Roberts. No. 1,205,023; Nov. 14; Gaz. vol. 232; p. 546.
Pan: *See*—
Bake-pan.
Dust-pan.
Paper-board, Joint for corrugated. E. M. Hawkins. No. 1,203,616; Nov. 7; Gaz. vol. 232; p. 22.
Paper box, Folding. E. Steudel. No. 1,205,678; Nov. 21; Gaz. vol. 232; p. 813.
Paper-container lock. E. D. Miller. No. 1,204,811; Nov. 14; Gaz. vol. 232; p. 470.
Paper-feeding mechanism. F. W. Lev. No. 1,206,005; Nov. 28; Gaz. vol. 232; p. 959.
Paper holder, Toilet-. J. E. Mercer. No. 1,204,810; Nov. 14; Gaz. vol. 232; p. 470.
Paper holder, Toilet-. D. M. Morgan. No. 1,205,245; Nov. 21; Gaz. vol. 232; p. 664.
Paper-machines, Couching-press for. C. Seybold. No. 1,205,672; Nov. 21; Gaz. vol. 232; p. 811.
Paper-napkin holder. T. Anderson. No. 1,205,078; Nov. 14; Gaz. vol. 232; p. 562.
Paper package, Toilet-. F. H. Moore. No. 1,205,472; Nov. 21; Gaz. vol. 232; p. 739.
Paper-roll holder. J. J. Currie. No. 1,203,588; Nov. 7; Gaz. vol. 232; p. 12.
Paper sheets, Mechanism for producing assorted piles of. G. Spiess. No. 1,205,282; Nov. 21; Gaz. vol. 232; p. 675.
Paper-stand attachment. J. A. West. No. 1,205,827; Nov. 21; Gaz. vol. 232; p. 864.
Paper vessel. G. W. Beadle. No. 1,203,569; Nov. 7; Gaz. vol. 232; p. 5.
Parcel and bag carrier and handle. H. P. Williams. No. 1,205,122; Nov. 14; Gaz. vol. 232; p. 578.
Parcel-post and merchandise protector. F. J. and C. I. Thrasher. No. 1,206,618; Nov. 28; Gaz. vol. 232; p. 1167.
Parer, Vegetable-. O. P. G. Radsch. No. 1,205,784; Nov. 21; Gaz. vol. 232; p. 850.
Paring-machine. B. C. Coons. No. 1,204,413; Nov. 14; Gaz. vol. 232; p. 334.
Pasteurizing-machine. H. F. Stock. No. 1,203,806; Nov. 7; Gaz. vol. 232; p. 89.
Pasting machine, Label-. H. Ackermann. No. 1,206,641; Nov. 28; Gaz. vol. 232; p. 1174.
Patch-applying mechanism. J. A. Sherman and F. F. Flagg. No. 1,205,400; Nov. 21; Gaz. vol. 232; p. 714.
Peanuts, Blanching. F. Salomon. No. 1,206,258; Nov. 28; Gaz. vol. 232; p. 1045.
Pedal attachment. E. Franke. No. 1,204,000; Nov. 7; Gaz. vol. 232; p. 157.
Pedal, Foot-. A. C. Schulz. No. 1,204,701; Nov. 14; Gaz. vol. 232; p. 435.
Pedal-lock. W. H. Steglich. No. 1,205,577; Nov. 21; Gaz. vol. 232; p. 778.
Peeler, Fruit-. L. M. Myers. No. 1,204,179; Nov. 7; Gaz. vol. 232; p. 220.
Peeling fruit. W. J. Schaefer. No. 1,205,110; Nov. 14; Gaz. vol. 232; p. 574.
Pen clip, Fountain-. W. E. Moore. No. 1,204,053; Nov. 7; Gaz. vol. 232; p. 176.
Pen, Fountain-. C. W. Boman. No. 1,205,847; Nov. 21; Gaz. vol. 232; p. 870.
Pen, Fountain-. T. Matsui. No. 1,205,004; Nov. 14; Gaz. vol. 232; p. 540.
Pens, Ink-feeding attachment for. R. Cedarbom. No. 1,206,413; Nov. 28; Gaz. vol. 232; p. 1098.
Pencil. W. H. Blake. No. 1,204,336; Nov. 7; Gaz. vol. 232; p. 272.
Pencil. J. F. Drake. No. 1,206,683; Nov. 28; Gaz. vol. 232; p. 1188.
Pencil-sharpener. S. A. Duncan. No. 1,204,959; Nov. 14; Gaz. vol. 232; p. 524.
Pencil-sharpener. C. C. Spengler. No. 1,204,604; Nov. 14; Gaz. vol. 232; p. 401.
Pencil-sharpening machine. L. Myers. No. 1,206,460; Nov. 28; Gaz. vol. 232; p. 1114.
Percolator, Coffee-. H. Task. No. 1,203,661; Nov. 7; Gaz. vol. 232; p. 38.
Phenolaldehyde resins soluble in oil and varnishes therefrom, Manufacturing. L. Berend. No. 1,205,081; Nov. 14; Gaz. vol. 232; p. 564.
Phonograph. D. M. Manson. No. 1,206,013; Nov. 28; Gaz. vol. 232; p. 962.
Phonograph. E. Walker. No. 1,203,666; Nov. 7; Gaz. vol. 232; p. 40.
Phonograph. E. Walker. No. 1,203,667; Nov. 7; Gaz. vol. 232; p. 40.
Phonograph attachment. C. L. Chisholm. No. 1,204,341; Nov. 7; Gaz. vol. 232; p. 274.
Phonograph driving apparatus. A. A. Horton. No. 1,205,631; Nov. 21; Gaz. vol. 232; p. 797.
Phonographic records, Producing. T. Eynon. No. 1,206,684; Nov. 28; Gaz. vol. 232; p. 1188.
Phosphate-rock, Treatment of. E. S. Bishop. No. 1,204,238; Nov. 7; Gaz. vol. 232; p. 240.
Phosphorus and oxygen containing organic compounds. R. Willstätter. No. 1,205,138; Nov. 14; Gaz. vol. 232; p. 584.
Photographic apparatus. H. J. Gaisman. No. 1,203,603; Nov. 7; Gaz. vol. 232; p. 18.
Photographic developing apparatus. E. W. Caldwell. No. 1,205,708; Nov. 21; Gaz. vol. 232; p. 828.
Photographic duplicating and enlarging apparatus. G. R. Watson. No. 1,204,098; Nov. 7; Gaz. vol. 232; p. 192.
Photographic plates by daylight, Apparatus for developing. T. Heinen. No. 1,205,893; Nov. 21; Gaz. vol. 232; p. 884.
Photographic-printing machine. L. J. R. Holst. No. 1,205,632; Nov. 21; Gaz. vol. 232; p. 797.
Photographic-printing press. E. C. Scudder. No. 1,203,917; Nov. 7; Gaz. vol. 232; p. 128.
Photographic-roll holder. J. S. Greene. No. 1,204,011; Nov. 7; Gaz. vol. 232; p. 160.
Photography, Color. I. Kitsee. No. 1,206,000; Nov. 28; Gaz. vol. 232; p. 957.
Piano action, Grand-. V. H. Brown. No. 1,206,569; Nov. 28; Gaz. vol. 232; p. 1130.
Piano actions, Pianissimo device for grand-. W. A. Schroeder. No. 1,204,077; Nov. 7; Gaz. vol. 232; p. 185.
Piano and player-piano bench, Combined. W. P. Seng. No. 1,204,706; Nov. 14; Gaz. vol. 232; p. 436.
Piano, Automatic player-. P. J. Meahl. No. 1,204,679; Nov. 14; Gaz. vol. 232; p. 428.
Piano, Automatic player-. M. Rothfeld. No. 1,206,143; Nov. 28; Gaz. vol. 232; p. 1005.
Piano-player, Pneumatic. C. Freborg. No. 1,205,727; Nov. 21; Gaz. vol. 232; p. 830.
Piano-tone-modulating device. R. H. Olsen. No. 1,205,561; Nov. 21; Gaz. vol. 232; p. 770.
Pianos and the like, Pneumatic sound-regulating mechanism for mechanical. L. J. Villar. No. 1,204,631; Nov. 14; Gaz. vol. 232; p. 477.
Pianos, organs, and the like, Key for. J. F. Poage. No. 1,206,729; Nov. 28; Gaz. vol. 232; p. 1204.
Pick attachment. L. Greenwood. No. 1,206,695; Nov. 28; Gaz. vol. 232; p. 1192.
Pickling. E. F. Hitch. No. 1,206,220; Nov. 28; Gaz. vol. 232; p. 1032.
Picture apparatus, Moving-. M. C. Hopkins. No. 1,204,771; Nov. 14; Gaz. vol. 232; p. 458.
Picture, Cut-out. D. E. and W. M. Perenyi. No. 1,205,386; Nov. 21; Gaz. vol. 232; p. 710.
Picture film, Moving-. J. A. MacBride. No. 1,205,867; Nov. 21; Gaz. vol. 232; p. 703.
Picture-frame. C. E. Millican. No. 1,203,893; Nov. 7; Gaz. vol. 232; p. 120.
Picture-frame and door clamp. H. P. Johnson. No. 1,203,626; Nov. 7; Gaz. vol. 232; p. 26.

Picture machine, Motion-. W. H. H. Knight. No. 1,205,548; Nov. 21; Gaz. vol. 232; p. 766.
Picture or sign frame. E. Reach. No. 1,205,785; Nov. 21; Gaz. vol. 232; p. 850.
Picture-printing machine, Motion-. J. Tessler. No. 1,205,582; Nov. 21; Gaz. vol. 232; p. 779.
Picture screen and making the same, Motion-. A. T. Jacobsson. No. 1,204,775; Nov. 14; Gaz. vol. 232; p. 459.
Pictures by projected light, Means for producing. A. D. Brixey. No. 1,204,401; Nov. 14; Gaz. vol. 232; p. 329.
Pillow, Compartment-. L. H. Everts. No. 1,206,775; Nov. 28; Gaz. vol. 232; p. 1222.
Pilot-lighting device. T. J. Litle, Jr. No. 1,204,996; Nov. 14; Gaz. vol. 232; p. 536.
Pin: *See*—
Bowling-pin. Rolling-pin.
Clothes-pin.
Pipe: *See*—
Bagging-pipe. Tobacco-pipe.
Pipe-bending machine. J. S. Wheeler. No. 1,206,742; Nov. 28; Gaz. vol. 232; p. 1210.
Pipe-bending machine. J. S. Wheeler. No. 1,206,743; Nov. 28; Gaz. vol. 232; p. 1210.
Pipe-cleaner. J. Pister. No. 1,204,567; Nov. 14; Gaz. vol. 232; p. 395.
Pipe-coupling. E. M. Arena. No. 1,204,728; Nov. 14; Gaz. vol. 232; p. 443.
Pipe coupling, Train-. W. C. White. No. 1,204,219; Nov. 7; Gaz. vol. 232; p. 233.
Pipe-cutter. C. E. Dillinger. No. 1,206,311; Nov. 28; Gaz. vol. 232; p. 1064.
Pipe-cutting mechanism. C. A. Dies. No. 1,205,125; Nov. 14; Gaz. vol. 232; p. 579.
Pipe-fitting. G. J. Debur. No. 1,203,989; Nov. 7; Gaz. vol. 232; p. 154.
Pipe joint, Concrete-. A. M. Hirsh. No. 1,206,111; Nov. 28; Gaz. vol. 232; p. 995.
Pipe machines, Pallet for cement-. F. L. Drew. No. 1,204,550; Nov. 14; Gaz. vol. 232; p. 382.
Pipes, Match-striking surface for. F. Frustaglio. No. 1,206,213; Nov. 28; Gaz. vol. 232; p. 1030.
Pipette, Analytical. A. Lowy. No. 1,204,568; Nov. 7; Gaz. vol. 232; p. 283.
Pistol. E. Parker. No. 1,206,727; Nov. 28; Gaz. vol. 232; p. 1208.
Pistol, Air-. J. R. Sandage. No. 1,205,668; Nov. 21; Gaz. vol. 232; p. 810.
Piston-ring. A. Frykman. No. 1,206,691; Nov. 28; Gaz. vol. 232; p. 1191.
Piston-ring. C. E. Johnson. No. 1,204,024; Nov. 7; Gaz. vol. 232; p. 165.
Piston-rings and pistons, Machine for assembling. C. E. Johnson. No. 1,204,028; Nov. 7; Gaz. vol. 232; p. 167.
Piston-rod cross-head connection. L. Vandermark. No. 1,206,622; Nov. 28; Gaz. vol. 232; p. 1168.
Piston-rods and pistons, Means for cooling. J. McKechnie. No. 1,206,723; Nov. 28; Gaz. vol. 232; p. 1201.
Pistons into cylinders, Device for facilitating the insertion of ringed. D. H. Burd. No. 1,204,402; Nov. 14; Gaz. vol. 232; p. 330.
Pitman connection. C. Pearson. No. 1,205,254; Nov. 21; Gaz. vol. 232; p. 666.
Pitter. F. Bethke. No. 1,206,659; Nov. 28; Gaz. vol. 232; p. 1180.
Plane guide, Bench-. A. Carlson. No. 1,204,128; Nov. 7; Gaz. vol. 232; p. 202.
Planer, Metal-. C. G. Johannesmeyer and G. Langen. No. 1,205,640; Nov. 21; Gaz. vol. 232; p. 800.
Planing-machines, Box-stuff-trimming mechanism for. G. A. Smith. No. 1,204,512; Nov. 14; Gaz. vol. 232; p. 367.
Plant-eradicator. N. A. Settevig. No. 1,205,036; Nov. 14; Gaz. vol. 232; p. 549.
Plant-tub, Knockdown. J. H. Rudolph. No. 1,205,028; Nov. 14; Gaz. vol. 232; p. 547.
Planter. R. J. Altgelt. No. 1,205,960; Nov. 28; Gaz. vol. 232; p. 944.
Planter, Check-row corn-. J. F. Matheny. No. 1,204,809; Nov. 14; Gaz. vol. 232; p. 470.
Planter, Corn-. F. Hevel, G. C. Harrington, and W. Hevel. No. 1,206,705; Nov. 28; Gaz. vol. 232; p. 1194.
Planter, Corn-. L. E. Waterman. No. 1,205,296; Nov. 21; Gaz. vol. 232; p. 679.
Planter-marker. E. J. Peterson. No. 1,206,028; Nov. 28; Gaz. vol. 232; p. 968.
Planter, Universal seed-. J. A. Gardner. No. 1,206,215; Nov. 28; Gaz. vol. 232; p. 1031.
Planters, Clutch mechanism for corn-. S. K. Dennis. No. 1,203,591; Nov. 7; Gaz. vol. 232; p. 13.
Planting machines, Check-row and fertilising attachment for corn-. M. E. Northway. No. 1,204,586; Nov. 14; Gaz. vol. 232; p. 394.
Plastic composition. O. Altpeter. No. 1,206,076; Nov. 28; Gaz. vol. 232; p. 983.
Plate, Cake-. H. H. Marsh. No. 1,206,569; Nov. 28; Gaz. vol. 232; p. 1151.
Plate-holding device. F. Meisel. No. 1,204,894; Nov. 14; Gaz. vol. 232; p. 499.
Player, Pneumatic. E. T. Turney. No. 1,206,176; Nov. 28; Gaz. vol. 232; p. 1017.
Plow. J. Dowling. No. 1,206,517; Nov. 28; Gaz. vol. 232; p. 1133.
Plow. W. H. Furlow and J. C. Dunn. No. 1,206,757; Nov. 28; Gaz. vol. 232; p. 1215.
Plow. C. S. Johnston. No. 1,206,224; Nov. 28; Gaz. vol. 232; p. 1033.
Plow. W. N. Springer. No. 1,204,828; Nov. 14; Gaz. vol. 232; p. 477.
Plow attachment. L. W. Hamilton. No. 1,204,566; Nov. 14; Gaz. vol. 232; p. 887.
Plow attachment. F. M. Orner. No. 1,204,184; Nov. 7; Gaz. vol. 232; p. 221.
Plow-lift. J. Wolf. No. 1,206,491; Nov. 28; Gaz. vol. 232; p. 1123.
Plow-point attachment. C. L. Trout. No. 1,205,416; Nov. 21; Gaz. vol. 232; p. 719.
Plow-rudder. A. M. White. No. 1,206,279; Nov. 28; Gaz. vol. 232; p. 1053.
Plows, &c., Draft appliance for. L. K. Moss. No. 1,206,576; Nov. 28; Gaz. vol. 232; p. 1153.
Plug and receptacle, Attachment. G. B. Thomas. No. 1,205,683; Nov. 21; Gaz. vol. 232; p. 815.
Plumber's fitting. R. Dougherty. No. 1,205,978; Nov. 28; Gaz. vol. 232; p. 950.
Plumber's furnace. A. J. Archambault. No. 1,203,839; Nov. 7; Gaz. vol. 232; p. 101.
Pneumatic cleaner. J. B. Kirby. No. 1,206,116; Nov. 28; Gaz. vol. 232; p. 997.
Pneumatic cleaner. J. B. Kirby. No. 1,206,117; Nov. 28; Gaz. vol. 232; p. 997.
Pneumatic tools, Locking throttle-handle for. W. J. Herron. No. 1,203,735; Nov. 7; Gaz. vol. 232; p. 63.
Pocket article, Combination. S. Machuga. No. 1,204,676; Nov. 14; Gaz. vol. 232; p. 426.
Pocket, Combination-. S. and J. Gross. No. 1,206,434; Nov. 28; Gaz. vol. 232; p. 1104.
Pocket construction, Overall-. C. W. Hymer. No. 1,205,639; Nov. 21; Gaz. vol. 232; p. 800.
Poison-deterrent. L. S. Levy. No. 1,204,794; Nov. 14; Gaz. vol. 232; p. 465.
Poke, Animal-. O. Caron. No. 1,203,701; Nov. 7; Gaz. vol. 232; p. 53.
Poke, Animal-. O. Williams. No. 1,206,632; Nov. 28; Gaz. vol. 232; p. 1171.
Polishing-machine. W. T. Heape and W. Thackeray. No. 1,205,533; Nov. 21; Gaz. vol. 232; p. 761.
Pool-board. C. H. Davis. No. 1,205,596; Nov. 21; Gaz. vol. 232; p. 784.
Post: *See*—
Binding-post. Fence-post.
Concrete post. Seat-post.
Electric binding-post.
Posts, Wire-fastener for. P. F. Butzer. No. 1,204,126; Nov. 7; Gaz. vol. 232; p. 201.
Postal card or packet. W. Roy. No. 1,206,256; Nov. 28; Gaz. vol. 232; p. 1044.
Pot: *See*—
Dash-pot. Flower-pot.
Pot-filling apparatus. J. W. Cruikshank. No. 1,204,252; Nov. 7; Gaz. vol. 232; p. 245.
Pot-lid receptacle. J. J. Dalton. No. 1,204,344; Nov. 7; Gaz. vol. 232; p. 275.
Potato digger, Sweet-. S. Dilday. No. 1,203,713; Nov. 7; Gaz. vol. 232; p. 57.
Potato-masher. J. G. Beath. No. 1,205,966; Nov. 28; Gaz. vol. 232; p. 946.
Pothead, Multiple. P. F. Williams. No. 1,206,396; Nov. 28; Gaz. vol. 232; p. 1091.
Poultry, Cover for the mutilated portions of. D. B. Williams. No. 1,206,280; Nov. 28; Gaz. vol. 232; p. 1053.
Poultry-house. W. D. Siddall and W. R. Hassell. No. 1,206,149; Nov. 28; Gaz. vol. 232; p. 1008.
Powder-blending machine. A. K. Kusebauch. No. 1,204,163; Nov. 7; Gaz. vol. 232; p. 214.
Powder compounds, Manufacture of blended. W. Dalton. No. 1,204,137; Nov. 7; Gaz. vol. 232; p. 205.
Power-cutter. J. Voleske. No. 1,204,090; Nov. 7; Gaz. vol. 232; p. 189.
Power governor and clutch. W. A. Woodward. No. 1,203,833; Nov. 7; Gaz. vol. 232; p. 98.
Power-transmission system, Centrifugally-regulated. W. Morrison. (Reissue.) No. 14,219; Nov. 28; Gaz. vol. 232; p. 1227.
Power-transmitting device. A. E. Roever. No. 1,203,663; Nov. 7; Gaz. vol. 232; p. 35.
Power-transmitting device. N. Thomas. No. 1,205,288; Nov. 21; Gaz. vol. 232; p. 676.
Power-transmitting mechanism. C. E. Frederickson. No. 1,205,184; Nov. 21; Gaz. vol. 232; p. 643.
Power-transmitting mechanism, Variable-speed. C. M. Manly. No. 1,206,453; Nov. 28; Gaz. vol. 232; p. 1111.
Precious stones, Setting for. J. F. Selmeier. No. 1,206,113; Nov. 14; Gaz. vol. 232; p. 576.
Precious stones, Setting for. J. C. Whitehouse. No. 1,204,915; Nov. 14; Gaz. vol. 232; p. 508.
Precious stones, Setting for. J. C. Whitehouse. No. 1,204,916; Nov. 14; Gaz. vol. 232; p. 509.
Precious stones, Setting for. J. C. Whitehouse. No. 1,204,917; Nov. 14; Gaz. vol. 232; p. 509.
Prepayment-meter. N. Kolář. No. 1,205,457; Nov. 21; Gaz. vol. 232; p. 734.
Preserving container, Food-. J. G. Hodgson. No. 1,203,875; Nov. 7; Gaz. vol. 232; p. 114.
Preserving fruit-juices. C. A. Kern. No. 1,204,880; Nov. 14; Gaz. vol. 232; p. 494.

Press: *See*—
Baling-press. Hydraulic press.
Clothes-press. Photographic-printing press.
Dough-press.
Draw-press. Printing-press.
Hay-press. Tile-press.
Press. J. C. Thomas. No. 1,205,949; Nov. 21; Gaz. vol. 232; p. 903.
Press. O. F. Westenhiser. No. 1,203,946; Nov. 7; Gaz. vol. 232; p. 139.
Press-plate. E. Benedictus. No. 1,206,656; Nov. 28; Gaz. vol. 232; p. 1179.
Presses, Braking mechanism for. H. A. W. Wood. No. 1,203,951; Nov. 7; Gaz. vol. 232; p. 141.
Pressing-iron support. J. Ratner. No. 1,206,466; Nov. 28; Gaz. vol. 232; p. 1115.
Pressing machine, Steam-. M. M. Kane. No. 1,203,880; Nov. 7; Gaz. vol. 232; p. 116.
Pressing rollers, particularly for lacing-eyelets, Device for. J. Schlumpf. No. 1,205,796; Nov. 21; Gaz. vol. 232; p. 854.
Pressure-gage. C. J. Pilling. No. 1,204,483; Nov. 14; Gaz. vol. 232; p. 358.
Pressure-indicating device. H. Weber. No. 1,206,782; Nov. 28; Gaz. vol. 232; p. 1224.
Pressure-regulating apparatus. R. L. Frink. No. 1,205,729; Nov. 21; Gaz. vol. 232; p. 831.
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Printing-presses and the like, Platen for. E. P. Jennings, Jr. No. 1,206,115; Nov. 28; Gaz. vol. 232; p. 996.
Printing-presses, Sheet cutting and feeding mechanism for. H. M. Barber. No. 1,205,840; Nov. 21; Gaz. vol. 232; p. 867.
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Protective system. D. Basch. No. 1,206,652; Nov. 28; Gaz. vol. 232; p. 1177.
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Stalk-puller.
Pulley, Expansible. W. Reimers. No. 1,205,020; Nov. 14; Gaz. vol. 232; p. 545.
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Pulverizer. F. B. Franks. No. 1,204,885; Nov. 7; Gaz. vol. 232; p. 289.
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Pump, Pneumatic. C. L. Redfield. No. 1,205,391; Nov. 21; Gaz. vol. 232; p. 712.
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Pump, Variable-feed. G. D. Pogue. No. 1,204,062; Nov. 7; Gaz. vol. 232; p. 179.
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Pumping apparatus. T. Wiedemann and J. H. Templin. No. 1,206,631; Nov. 28; Gaz. vol. 232; p. 1171.
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Puzzle. C. A. Trull. No. 1,206,054; Nov. 28; Gaz. vol. 232; p. 976.
Pyrometer. E. L. Clark. No. 1,205,325; Nov. 21; Gaz. vol. 232; p. 689.
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Corn-rack. Hay-rack.
Display-rack. Mail-assorting rack.
Radiator. O. J. Hartfield. No. 1,203,731; Nov. 7; Gaz. vol. 232; p. 62.
Radiator or cooler. E. H. Ellison. No. 1,205,874; Nov. 21; Gaz. vol. 232; p. 877.
Radiators, Individual thermostatic controller for. E. S. Halsey. No. 1,204,386; Nov. 7; Gaz. vol. 232; p. 290.
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Rail-anchor. E. Laas. No. 1,205,359; Nov. 21; Gaz. vol. 232; p. 701.
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Rail-chair. H. L. Hart. No. 1,204,660; Nov. 14; Gaz. vol. 232; p. 420.
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Rail-joint. M. Jackson. No. 1,206,710; Nov. 28; Gaz. vol. 232; p. 1196.
Rail-joint. F. T. Malich. No. 1,205,236; Nov. 21; Gaz. vol. 232; p. 661.
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Rail-joint fastening. T. J. Gorman, Jr. No. 1,204,563; Nov. 14; Gaz. vol. 232; p. 386.
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Rail-spike. A. G. Adair. No. 1,204,330; Nov. 7; Gaz. vol. 232; p. 270.
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Railway appliance. M. O'Brien. No. 1,206,131; Nov. 28; Gaz. vol. 232; p. 1002.
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Railway cattle-guard. E. C. Mitchell. No. 1,205,470; Nov. 21; Gaz. vol. 232; p. 739.
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Railway-crossings, Substructure for. W. P. Day. No. 1,205,598; Nov. 21; Gaz. vol. 232; p. 785.
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Railway signal device, Automatic. R. A. Rutherford. No. 1,204,689; Nov. 14; Gaz. vol. 232; p. 431.
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Railway-tie. J. F. Rahn. No. 1,206,375; Nov. 28; Gaz. vol. 232; p. 1085.
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Railway-tipple. A. H. Wood. No. 1,204,527; Nov. 14; Gaz. vol. 232; p. 373.
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Railways, Arrangement for the service on. O. Wulferding. No. 1,206,493; Nov. 28; Gaz. vol. 232; p. 1124.
Rake: *See*—
Hay-rake. Sweep-rake.
Rake. B. Terwilliger. No. 1,206,486; Nov. 28; Gaz. vol. 232; p. 1121.
Range and broiler, Combined. G. Giovanna. No. 1,206,527; Nov. 28; Gaz. vol. 232; p. 1136.
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Signal-recorder. Travel-recorder.
Time-recorder. Water-stage recorder.
Recorder. J. W. Bryce. No. 1,205,082; Nov. 14; Gaz. vol. 232; p. 564.
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Recording device. I. Simpson. No. 1,206,040; Nov. 28; Gaz. vol. 232; p. 971.
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Reel: *See*—
Cloth-reel. Hose-reel.
Fishing-reel.
Reel. C. P. Kuehn. No. 1,205,906; Nov. 21; Gaz. vol. 232; p. 889.
Reel-holder. J. P. Weaver. No. 1,204,217; Nov. 7; Gaz. vol. 232; p. 233.
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Reflector. F. P. Sackett. No. 1,206,033; Nov. 28; Gaz. vol. 232; p. 969.
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Autographic register. Hotel-register.
Regulator: *See*—
Furnace draft-regulator. Heat-regulator.
Relay. H. Gerdien. No. 1,205,731; Nov. 21; Gaz. vol. 232; p. 832.
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Relay, Electromagnetic. V. E. Middlekauff. No. 1,204,469; Nov. 14; Gaz. vol. 232; p. 354.
Remedial appliance. E. Parkinson. No. 1,206,463; Nov. 28; Gaz. vol. 232; p. 1115.
Reproducer attachment. C. E. Tackmann. No. 1,206,168; Nov. 28; Gaz. vol. 232; p. 1014.
Resilient bolt. E. I. Dodds. No. 1,204,254; Nov. 7; Gaz. vol. 232; p. 245.
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Rim, Sectional. G. T. Fielding. No. 1,203,996; Nov. 7; Gaz. vol. 232; p. 156.
Ring: *See*—
Piston-ring. Spinning-ring.
Ring-slot-testing device. C. E. Johnson. No. 1,204,026; Nov. 7; Gaz. vol. 232; p. 166.
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Rod: *See*—
Curtain-rod.
Rodent-trap. S. Mills. No. 1,204,472; Nov. 14; Gaz. vol. 232; p. 355.
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Roller: *See*—
Cloth-stretching roller.
Roller and bearings therefor. F. H. Van Houten. No. 1,205,063; Nov. 14; Gaz. vol. 232; p. 558.
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Rope-fastener. E. E. Steele. No. 1,205,808; Nov. 21; Gaz. vol. 232; p. 858.
Rope-grip. J. C. Donat. No. 1,203,715; Nov. 7; Gaz. vol. 232; p. 57.
Rope-holder. R. J. Whitehead. No. 1,205,496; Nov. 21; Gaz. vol. 232; p. 748.
Rosin sizing composition. J. A. De Cew. No. 1,203,857; Nov. 7; Gaz. vol. 232; p. 108.
Rotary engine. R. J. Davidson. No. 1,205,165; Nov. 21; Gaz. vol. 232; p. 636.
Rotary engine. W. G. Macomber. No. 1,204,892; Nov. 14; Gaz. vol. 232; p. 498.
Rotatable table, book-shelf, and lamp-support, Combined. S. D. Trinkl. No. 1,203,818; Nov. 7; Gaz. vol. 232; p. 93.
Rough-ring-testing appliance. C. E. Johnson. No. 1,204,027; Nov. 7; Gaz. vol. 232; p. 166.
Roving-machines and the like, Stop mechanism for. T. Bentley. No. 1,205,506; Nov. 21; Gaz. vol. 232; p. 751.
Rudder. T. Piazze. No. 1,206,368; Nov. 28; Gaz. vol. 232; p. 1082.
Rug or carpet fabrics, Finishing cut-pile. D. H. Stroud. No. 1,206,048; Nov. 28; Gaz. vol. 232; p. 974.
Rugs, &c., Machine for cleaning. S. Farber and G. G. Crouch. No. 1,204,964; Nov. 14; Gaz. vol. 232; p. 526.
Rummy-board. W. J. Leach and C. G. Harrington. No. 1,206,550; Nov. 28; Gaz. vol. 232; p. 1145.
Sad-iron. G. T. Rosengren. No. 1,205,265; Nov. 21; Gaz. vol. 232; p. 670.
Saddle-top. F. Mesingir. No. 1,205,241; Nov. 21; Gaz. vol. 232; p. 662.
Safety appliance. J. W. Ellis. No. 1,204,144; Nov. 7; Gaz. vol. 232; p. 207.
Safety-chest. J. H. Safford. No. 1,205,271; Nov. 21; Gaz. vol. 232; p. 672.
Safety device. F. C. Furlow. No. 1,206,429; Nov. 28; Gaz. vol. 232; p. 1102.
Safety-first device. G. A. Moss. No. 1,204,475; Nov. 14; Gaz. vol. 232; p. 356.
Sales-book, Manifolding. G. E. Doughty. No. 1,204,384; Nov. 7; Gaz. vol. 232; p. 280.
Salt brick, Medicated. G. L. Edgerton. No. 1,204,551; Nov. 14; Gaz. vol. 232; p. 383.
Sample-taking tool. H. Haas. No. 1,205,888; Nov. 21; Gaz. vol. 232; p. 883.
Sand-handling apparatus. H. P. Macdonald. No. 1,204,467; Nov. 14; Gaz. vol. 232; p. 353.
Sanding device. W. P. Tucker. No. 1,205,823; Nov. 21; Gaz. vol. 232; p. 863.
Sanitary connecting device. J. Kreuer, Jr.. No. 1,206,444; Nov. 28; Gaz. vol. 232; p. 1107.
Sanitary screen. F. Granger. No. 1,203,868; Nov. 7; Gaz. vol. 232; p. 112.
Sash construction. J. Matthews, E. W. Freeman, and W. H. S. Bateman. No. 1,205,239; Nov. 21; Gaz. vol. 232; p. 662.
Sash-fastener. L. King. No. 1,204,667; Nov. 14; Gaz. vol. 232; p. 423.
Sash-lock. A. C. Christenson. No. 1,203,850; Nov. 7; Gaz. vol. 232; p. 105.
Sash-lock. C. L. Johnson. No. 1,205,212; Nov. 21; Gaz. vol. 232; p. 653.
Sash-lock. C. O. Linborg. No. 1,206,342; Nov. 28; Gaz. vol. 232; p. 1073.
Sash-pulley. C. B. Foote, Jr. No. 1,204,556; Nov. 14; Gaz. vol. 232; p. 384.
Sashes, Means for raising and lowering window-. H. V. Lawrence. No. 1,206,340; Nov. 28; Gaz. vol. 232; p. 1072.
Sausage-casing and producing same. B. J. Mumm. No. 1,204,812; Nov. 14; Gaz. vol. 232; p. 470.
Saw-holder. M. Clarke. No. 1,203,980; Nov. 7; Gaz. vol. 232; p. 150.
Saw-set. A. B. Anderson and J. L. Petersen. No. 1,205,072; Nov. 14; Gaz. vol. 232; p. 561.
Saw tool, Crosscut-. S. T. Freas. No. 1,204,264; Nov. 7; Gaz. vol. 232; p. 248.
Saw, Wheelbarrow-. A. B. Gano. No. 1,203,725; Nov. 7; Gaz. vol. 231; p. 61.
Sawing-machine for halving carcasses. D. Davey and H. Maison. No. 1,204,345; Nov. 7; Gaz. vol. 232; p. 275.
Sawing machine, Wood-. J. M. Stafford. No. 1,205,806; Nov. 21; Gaz. vol. 232; p. 857.
Scaffold. C. A. Ekholm. No. 1,204,552; Nov. 14; Gaz. vol. 232; p. 383.
Scaffold, Tree-. F. Miller. No. 1,206,574; Nov. 28; Gaz. vol. 232; p. 1152.
Scale. C. H. Hapgood. No. 1,203,611; Nov. 7; Gaz. vol. 232; p. 20.
Scale. J. M. Triner. No. 1,203,817; Nov. 7; Gaz. vol. 232; p. 93.
Scale, Automatic. E. McGarvey. No. 1,205,768; Nov. 21; Gaz. vol. 232; p. 843.
Scale, Parcel-post. E. B. Priddy. No. 1,205,564; Nov. 21; Gaz. vol. 232; p. 772.
Scale, Weighing-. C. A. Becker. No. 1,203,686; Nov. 7; Gaz. vol. 232; p. 48.
Scale, Weighing-. W. J. Mingle. No. 1,205,243; Nov. 21; Gaz. vol. 232; p. 663.
Scale, Weighing-. L. C. Wetzel. No. 1,205,691; Nov. 21; Gaz. vol. 232; p. 817.
Scissors. B. Kirmsee. No. 1,205,909; Nov. 28; Gaz. vol. 232; p. 957.
Scissors, Toilet-. E. F. Ruggles. No. 1,205,029; Nov. 14; Gaz. vol. 232; p. 548.
Scraper. S. W. Hytrek. No. 1,206,709; Nov. 28; Gaz. vol. 232; p. 1196.
Scraper. V. Strubbar. No. 1,203,936; Nov. 7; Gaz. vol. 232; p. 136.
Scraper, Hand-. J. L. Wilcox. No. 1,205,121; Nov. 14; Gaz. vol. 232; p. 578.
Scraper, Road-. S. Ashcraft. No. 1,205,502; Nov. 21; Gaz. vol. 232; p. 749.
Scraper, Road-. M. W. Burton. No. 1,205,853; Nov. 21; Gaz. vol. 232; p. 871.
Scraping-blades, Supporting mechanism for. J. P. Offerman. No. 1,204,306; Nov. 7; Gaz. vol. 232; p. 262.
Screen: *See*—
Door-screen. Roller-screen.
Picture-screen. Sanitary screen.
Pulp-screen. Window-screen.
Screen-attaching device, Rolling-window-. M. G. Bunnell. No. 1,203,973; Nov. 7; Gaz. vol. 232; p. 147.
Screen-fastener. M. L. Tewell. No. 1,206,616; Nov. 28; Gaz. vol. 232; p. 1166.
Screens, Making projection-. L. J. Auerbacher. No. 1,206,287; Nov. 28; Gaz. vol. 232; p. 1056.
Screw-cap lock. H. P. Lesmann. No. 1,205,907; Nov. 21; Gaz. vol. 232; p. 889.
Screw-driver. L. G. Massicotte. No. 1,206,014; Nov. 28; Gaz. vol. 232; p. 962.
Screw-driver, Screw-holding. J. C. Doubt. No. 1,206,097; Nov. 28; Gaz. vol. 232; p. 990.
Screw-thread-rolling machine. W. L. Kerlin. No. 1,204,035; Nov. 7; Gaz. vol. 232; p. 169.
Screws, bolts, and the like, Machine for polishing the heads of. J. M. Adams. No. 1,205,314; Nov. 21; Gaz. vol. 232; p. 684.
Scrubbing machine, Floor-. E. W. and E. W. Noakes, Jr. No. 1,204,478; Nov. 14; Gaz. vol. 232; p. 356.
Scrubbing or cleaning machine. N. B. Sourian. No. 1,205,574; Nov. 21; Gaz. vol. 232; p. 776.
Seal, Bung-. C. Zang and J. H. Sower. No. 1,205,312; Nov. 21; Gaz. vol. 232; p. 684.
Seal-lock for safety-deposit boxes. H. Marshall. No. 1,205,238; Nov. 21; Gaz. vol. 232; p. 662.

Seam. J. E. McLaughlin. No. 1,204,046; Nov. 7; Gaz. vol. 232; p. 173.
Seat: *See*—
Automobile-seat.
Chair-seat.
Closet-seat.
Cycle rear seat.
Vehicle auxiliary seat.
Window-seat.
Seat and ladder, Combination. F. D. Allison. No. 1,206,285; Nov. 28; Gaz. vol. 232; p. 1055.
Seat-post. E. J. Lonn. No. 1,204,797; Nov. 14; Gaz. vol. 232; p. 466.
Seat-spring. D. M. Dearing. No. 1,204,746; Nov. 14; Gaz. vol. 232; p. 450.
Seat-spring. L. A. Young. No. 1,206,073; Nov. 28; Gaz. vol. 232; p. 982.
Secondary or storage battery. C. W. Norton. No. 1,204,481; Nov. 14; Gaz. vol. 232; p. 357.
Seed and grain cleaner. O. C. Hatfield. No. 1,205,759; Nov. 21; Gaz. vol. 232; p. 834.
Seeder, Broadcast. L. E. Roby. No. 1,205,786; Nov. 21; Gaz. vol. 232; p. 850.
Seeding-machine. H. B. Bozard. No. 1,204,239; Nov. 7; Gaz. vol. 232; p. 240.
Seeding-machine scraper. H. B. Bozard. No. 1,204,240; Nov. 7; Gaz. vol. 232; p. 240.
Selector-switch. H. F. Dobbin. No. 1,205,520; Nov. 21; Gaz. vol. 232; p. 756.
Separator: *See*—
Oats-separator.
Service-station equipment. S. W. Raymond. No. 1,204,487; Nov. 14; Gaz. vol. 232; p. 359.
Sewage-tank, Septic. C. C. Andrews. No. 1,204,584; Nov. 14; Gaz. vol. 232; p. 376.
Sewed articles, Seam for. R. R. Hughes, Jr. No. 1,205,744; Nov. 21; Gaz. vol. 232; p. 835.
Sewing looped fabrics, Machine for. E. E. Randall. No. 1,205,107; Nov. 14; Gaz. vol. 232; p. 573.
Sewing looped fabrics, Machine for. E. E. Randall. No. 1,205,108; Nov. 14; Gaz. vol. 232; p. 574.
Sewing-machine. A. H. De Voe. No. 1,205,333; Nov. 21; Gaz. vol. 232; p. 692.
Sewing-machine. A. Grieb. No. 1,206,433; Nov. 28; Gaz. vol. 232; p. 1104.
Sewing-machine and folding attachment therefor. G. W. Eberley. No. 1,204,258; Nov. 7; Gaz. vol. 232; p. 246.
Sewing-machine attachment, Shoe. E. N. Andrews. No. 1,203,838; Nov. 7; Gaz. vol. 232; p. 100.
Sewing-machine fan attachment. L. D. Corey. No. 1,203,984; Nov. 7; Gaz. vol. 232; p. 152.
Sewing-machine feed mechanism. R. K. Hohmann. No. 1,204,873; Nov. 14; Gaz. vol. 232; p. 491.
Sewing-machine feeding mechanism. A. H. De Voe. (Reissue.) No. 14,218; Nov. 28; Gaz. vol. 232; p. 1226.
Sewing-machine needle-clamp. J. R. Moffatt. No. 1,203,895; Nov. 7; Gaz. vol. 232; p. 121.
Sewing-machine presser-foot Shoe-. A. Bucolo. No. 1,205,851; Nov. 21; Gaz. vol. 232; p. 871.
Sewing-machine thread-guide. H. T. Werden. No. 1,203,945; Nov. 7; Gaz. vol. 232; p. 139.
Sewing-machine thread holding and cutting means. J. Kiewicz No. 1,204,784; Nov. 14; Gaz. vol. 232; p. 462.
Sewing-machine work-clamp. W. L. Barron. No. 1,205,317; Nov. 21; Gaz. vol. 232; p. 686.
Shade-carrier. H. G. Dewey and O. D. Green. No. 1,203,593; Nov. 7; Gaz. vol. 232; p. 14.
Shade-carrier. F. H. Knapp. No. 1,203,629; Nov. 7; Gaz. vol. 232; p. 27.
Shades and the like, Treating. A. R. Lowe. No. 1,203,758; Nov. 7; Gaz. vol. 232; p. 73.
Shading-machine. W. H. Margetts. No. 1,203,761; Nov. 7; Gaz. vol. 232; p. 74.
Shaft connection, Flexible-. G. Rensch. No. 1,206,029; Nov. 28; Gaz. vol. 232; p. 968.
Shaft-hanger. J. Dierdorff. No. 1,205,601; Nov. 21; Gaz. vol. 232; p. 786.
Shaft-hanger, Adjustable. M. Hanna, Jr. No. 1,205,890; Nov. 21; Gaz. vol. 232; p. 883.
Shaft keying device. W. Decker. No. 1,205,717; Nov. 21; Gaz. vol. 232; p. 827.
Shaping-machine. K. Jung. No. 1,205,899; Nov. 21; Gaz. vol. 232; p. 887.
Sharpener. F. W. Leidecker. No. 1,206,554; Nov. 28; Gaz. vol. 232; p. 1146.
Sharpener, Pearl-button-drill. P. F. Dusha and A. Feyk. No. 1,206,518; Nov. 28; Gaz. vol. 232; p. 1134.
Sharpener, Razor-blade. L. Ehrlich. No. 1,206,315; Nov. 28; Gaz. vol. 232; p. 1065.
Sharpening the cutters of drawing-pistons serving for manufacturing the grooves of barrels, Apparatus for. G. End, A. Schlaepfer, and A. Altenburger. No. 1,205,876; Nov. 21; Gaz. vol. 232; p. 878.
Shears: *See*—
Clipping-shears.
Sheet-feeder-registering mechanism. H. Hallstream. No. 1,206,218; Nov. 28; Gaz. vol. 232; p. 1032.
Sheet-lifting mechanism. H. Steinmetz. No. 1,203,930; Nov. 7; Gaz. vol. 232; p. 134.
Sheet-metal bending or folding appliance. J. W. Linquist. No. 1,206,449; Nov. 28; Gaz. vol. 232; p. 1100.
Sheet-metal-folding machine. M. E. Hastings. No. 1,205,621; Nov. 21; Gaz. vol. 232; p. 793.
Sheet-metal handle for bag-frames and the like. W. A. Lotz. No. 1,204,891; Nov. 14; Gaz. vol. 232; p. 498.
Sheet-metal lubricator. A. L. Schram. No. 1,206,146; Nov. 28; Gaz. vol. 232; p. 1007.
Shells or projectiles, Making bands for. J. E. Williams. No. 1,205,301; Nov. 21; Gaz. vol. 232; p. 680.
Shelving, Metal. C. L. C. Magee. No. 1,204,174; Nov. 7; Gaz. vol. 232; p. 218.
Shield, Bullet-proof. A. Schwarz. No. 1,203,916; Nov. 7; Gaz. vol. 232; p. 128.
Shield for soldiers, Portable. T. R. Stoneburner. No. 1,205,680; Nov. 21; Gaz. vol. 232; p. 814.
Shingle, Metallic. H. W. Koerner. No. 1,204,885; Nov. 14; Gaz. vol. 232; p. 495.
Shingling-bracket. F. A. Adams. No. 1,205,139; Nov. 21; Gaz. vol. 232; p. 627.
Ship-brake. J. H. Hyde. No. 1,205,638; Nov. 21; Gaz. vol. 232; p. 800.
Shipping-case. W. H. Doble. No. 1,205,521; Nov. 21; Gaz. vol. 232; p. 756.
Shipping-package. E. Mowry. No. 1,205,246; Nov. 21; Gaz. vol. 232; p. 664.
Shock-absorber. A. R. Christman. No. 1,205,432; Nov. 21; Gaz. vol. 232; p. 725.
Shock-absorber. A. R. Christman. No. 1,205,433; Nov. 21; Gaz. vol. 232; p. 726.
Shock-absorber. J. Dieringer. No. 1,203,711; Nov. 7; Gaz. vol. 232; p. 57.
Shock-absorber. C. A. Hornburg. No. 1,205,994; Nov. 28; Gaz. vol. 232; p. 955.
Shock-absorber. H. L. Kimmell. No. 1,204,361; Nov. 7; Gaz. vol. 232; p. 281.
Shock-absorber. A. Magin. No. 1,205,868; Nov. 21; Gaz. vol. 232; p. 703.
Shock-absorber. B. F. and J. Martz. No. 1,205,373; Nov. 21; Gaz. vol. 232; p. 705.
Shock-absorber connection. R. S. Carter. No. 1,203,580; Nov. 7; Gaz. vol. 232; p. 9.
Shock-absorber, Recoil. H. F. Diercks. No. 1,204,253; Nov. 7; Gaz. vol. 232; p. 245.
Shock-arrester. H. Harrison. No. 1,206,697; Nov. 28; Gaz. vol. 232; p. 1102.
Shock-support. G. M. Messinger. No. 1,205,556; Nov. 21; Gaz. vol. 232; p. 769.
Shocker. P. E. Parker. No. 1,206,726; Nov. 28; Gaz. vol. 232; p. 1202.
Shocking-machine. J. L. and W. A. Welch. No. 1,205,495; Nov. 21; Gaz. vol. 232; p. 747.
Shoe. M. E. Applegate. No. 1,205,421; Nov. 21; Gaz. vol. 232; p. 721.
Shoe. C. C. Burnham. No. 1,206,749; Nov. 28; Gaz. vol. 232; p. 1212.
Shoe attachment, Cork. A. Lockwood. No. 1,204,796; Nov. 14; Gaz. vol. 232; p. 466.
Shoe, Bathing-. J. Kimmel, No. 1,206,548; Nov. 28; Gaz. vol. 232; p. 1144.
Shoe-fastener. L. H. Munroe. No. 1,205,247; Nov. 21; Gaz. vol. 232; p. 664.
Shoe-protector. S. C. Emmerth. No. 1,205,983; Nov. 28; Gaz. vol. 232; p. 952.
Shoe-stretcher. A. E. Block. No. 1,205,507; Nov. 21; Gaz. vol. 232; p. 751.
Shoe-tree, Foldable. W. R. Buxton. No. 1,203,700; Nov 7; Gaz. vol. 232; p. 52.
Shoe-ventilator. R. F. Brower. No. 1,203,694; Nov. 7; Gaz. vol. 232; p. 51.
Shoes, Making. C. C. Burnham. No. 1,206,750; Nov. 28; Gaz. vol. 232; p. 1212.
Shoes, Making welt-. M. J. Moloney. No. 1,206,018; Nov. 28; Gaz. vol. 232; p. 964.
Shoemaker's tool. J. N. Farrahm. No. 1,206,585; Nov. 28; Gaz. vol. 232; p. 1156.
Shortening composition. R. T. Paessler. No. 1,203,905; Nov. 7; Gaz. vol. 232; p. 125.
Shovel. C. J. Luther. No. 1,206,235; Nov. 28; Gaz. vol. 232; p. 1037.
Shutter and roller-blind shutter, Focal-plane. E. Horn. No. 1,204,154; Nov. 7; Gaz. vol. 232; p. 210.
Shutter, Thermal-controlled. E. Cahill. No. 1,203,847; Nov. 7; Gaz. vol. 232; p. 104.
Sickle-bar holder. A. Martinson. No. 1,204,295; Nov. 7; Gaz. vol. 232; p. 258.
Sifter, Ash-. J. G. King. No. 1,203,881; Nov. 7; Gaz. vol. 232; p. 117.
Sign, Destination-. L. G. Hunter. No. 1,205,637; Nov. 21; Gaz. vol. 232; p. 799.
Sign, Electric. C. A. Chase. No. 1,203,582; Nov. 7; Gaz. vol. 232; p. 10.
Sign-holder. A. L. Schwartzberg. No. 1,205,800; Nov. 21; Gaz. vol. 232; p. 856.
Sign, Knockdown electric. C. H. Lush. No. 1,206,767; Nov. 21; Gaz. vol. 232; p. 843.
Sign, Plastic. S. F. Thomas. No. 1,204,613; Nov. 14; Gaz. vol. 232; p. 404.
Signal: *See*—
Automatic signal.
Automobile-signal.
Automobile speed-signal.
Cab-signal.
Crossing-signal.
Distress-signal.
Vehicle-signal.
Vessel-locating signal.
Signal apparatus. C. E. Mitchell. No. 1,206,244; Nov. 21; Gaz. vol. 232; p. 664.
Signal-box. C. E. Beach and L. J. Voorhees. No. 1,205,319; Nov. 21; Gaz. vol. 232; p. 687.
Signal-box. L. J. Voorhees. No. 1,204,215; Nov. 7; Gaz. vol. 232; p. 232.
Signal device. A. L. W. Plugge. No. 1,204,311; Nov. 7; Gaz. vol. 232; p. 264.

Signal-recorder. L. J. Voorhees. No. 1,204,214; Nov. 7; Gaz. vol. 232; p. 231.
Signaling apparatus, Submarine. J. Schiessler. No. 1,204,826; Nov. 14; Gaz. vol. 232; p. 475.
Signaling device. J. A. Purcell and J. Feibelmann. No. 1,204,589; Nov. 14; Gaz. vol. 232; p. 395.
Signaling device. L. I. Randall. No. 1,204,591; Nov. 14; Gaz. vol. 232; p. 396.
Signaling device, Automatic. T. Stamatson. No. 1,205,283; Nov. 21; Gaz. vol. 232; p. 675.
Signaling device, Selective. W. W. Henry and A. E. Stevens. No. 1,204,766; Nov. 14; Gaz. vol. 232; p. 456.
Signature-handling mechanism. E. R. Kast. No. 1,206,227; Nov. 28; Gaz. vol. 232; p. 1034.
Silicon-carbid refractory article. F. J. Tone. No. 1,204,211; Nov. 7; Gaz. vol. 232; p. 230.
Silicon compound and making same. R. Boehringer. No. 1,205,509; Nov. 21; Gaz. vol. 232; p. 752.
Silo construction. C. H. Swan. No. 1,206,484; Nov. 28; Gaz. vol. 232; p. 1121.
Silo, Portable. G. Wiesenborn. No. 1,206,744; Nov. 28; Gaz. vol. 232; p. 1210.
Silverware-polisher. J. Nystrand. No. 1,203,903; Nov. 7; Gaz. vol. 232; p. 124.
Simultaneously performing two operations on an article, Device for. C. A. Eligh. No. 1,205,605; Nov. 21; Gaz. vol. 232; p. 787.
Singeing-machine. G. Marshall. No. 1,205,099; Nov. 14; Gaz. vol. 232; p. 570.
Sink. W. C. Miller. No. 1,205,650; Nov. 21; Gaz. vol. 232; p. 803.
Sintering-machine. F. W. Yost. No. 1,204,633; Nov. 14; Gaz. vol. 232; p. 411.
Siren. G. E. Marshall. No. 1,205,871; Nov. 21; Gaz. vol. 232; p. 705.
Sizing and dyeing, Composition of matter for. M. N. Aisen. No. 1,206,189; Nov. 28; Gaz. vol. 232; p. 1021.
Skate, Roller-. F. E. Brown. No. 1,204,541; Nov. 14; Gaz. vol. 232; p. 379.
Skin, hide, and leather working machine. F. Wayland. No. 1,204,914; Nov. 14; Gaz. vol. 232; p. 508.
Skip or kibble for automatically receiving loose material, Double. P. Volkenborn. No. 1,205,688; Nov. 21; Gaz. vol. 232; p. 816.
Skirt-measure. J. May. No. 1,205,240; Nov. 21; Gaz. vol. 232; p. 662.
Skiving-machine. E. P. Nichols. No. 1,205,104; Nov. 14; Gaz. vol. 232; p. 572.
Skiving machine, Felt-. L. W. V. Wilms. No. 1,204,922; Nov. 14; Gaz. vol. 232; p. 511.
Slack-adjuster. O. P. Wilhelm. No. 1,204,526; Nov. 14; Gaz. vol. 232; p. 373.
Sled, Automobile. F. Macy. No. 1,204,807; Nov. 14; Gaz. vol. 232; p. 469.
Sleigh, Motor-. C. C. Smith. No. 1,205,041; Nov. 14; Gaz. vol. 232; p. 551.
Sleighs or sleds, Wheel attachment for. W. E. Kidder. No. 1,205,220; Nov. 21; Gaz. vol. 232; p. 655.
Slicer, grater, and shredder. J. R. Spencer and J. L. Ross. No. 1,205,052; Nov. 14; Gaz. vol. 232; p. 555.
Slicing-knife. J. T. Dwyer. No. 1,205,871; Nov. 21; Gaz. vol. 232; p. 876.
Slicing-machines, Intermittent feed mechanism for. F. M. Schaefer. No. 1,205,897; Nov. 21; Gaz. vol. 232; p. 714.
Slide, Holder-. G. F. Haskins. No. 1,206,700; Nov. 28; Gaz. vol. 232; p. 1193.
Slide-presenting machine. W. C. Johnson. No. 1,203,744; Nov. 7; Gaz. vol. 232; p. 68.
Slimes, Apparatus for treating. D. Cole. No. 1,205,327; Nov. 21; Gaz. vol. 232; p. 689.
Slimes, Treating. D. Cole. No. 1,205,326; Nov. 21; Gaz. vol. 232; p. 689.
Sling. J. H. Sandmeyer, Jr. No. 1,205,030; Nov. 14; Gaz. vol. 232; p. 548.
Slipper. E. A. Bickford. No. 1,206,748; Nov. 28; Gaz. vol. 232; p. 1212.
Snap-hook. G. W. Troop. No. 1,206,620; Nov. 28; Gaz. vol. 232; p. 1167.
Snap or catch. S. Anderson. No. 1,203,958; Nov. 7; Gaz. vol. 232; p. 143.
Snap-switch. M. Guett. No. 1,204,012; Nov. 7; Gaz. vol. 232; p. 161.
Snow-melting machine. E. Branninger. No. 1,204,400; Nov. 14; Gaz. vol. 232; p. 320.
Snow-shield for moving vehicles. H. Frohnapfel. No. 1,205,341; Nov. 21; Gaz. vol. 232; p. 695.
Soap-dispenser. L. De Doory. No. 1,205,863; Nov. 21; Gaz. vol. 232; p. 874.
Soap-package. F. M. Knight. No. 1,205,643; Nov. 21; Gaz. vol. 232; p. 801.
Socket-wrench, Adjustable. E. E. Klanke. No. 1,204,787; Nov. 14; Gaz. vol. 232; p. 463.
Soldering apparatus. J. G. Clemens. No. 1,204,131; Nov. 7; Gaz. vol. 232; p. 203.
Soldering apparatus, Can-. F. P. McColl. No. 1,204,170; Nov. 7; Gaz. vol. 232; p. 216.
Sole, Shoe cushion-. E. Russell. No. 1,206,597; Nov. 28; Gaz. vol. 232; p. 1160.
Sound-box. T. A. Edison. No. 1,204,420; Nov. 14; Gaz. vol. 232; p. 337.
Sound-box. L. K. Scotford. No. 1,204,197; Nov. 7; Gaz. vol. 232; p. 226.
Sound-records, Producing disk. J. Sanders. No. 1,206,034; Nov. 28; Gaz. vol. 232; p. 969.
Sound-translating method and means. R. E. Hall. No. 1,205,530; Nov. 21; Gaz. vol. 232; p. 759.
Spark-intensifier. R. M. Sutherlin. No. 1,205,682; Nov. 21; Gaz. vol. 232; p. 815.
Spark-plug. C. F. Arnold. No. 1,205,422; Nov. 21; Gaz. vol. 232; p. 721.
Spark-plug. R. Colin. No. 1,206,788; Nov. 28; Gaz. vol. 232; p. 1226.
Spark-plug. H. N. Eastman. No. 1,205,441; Nov. 21; Gaz. vol. 232; p. 728.
Spark-plug. L. Steinberger. No. 1,206,736; Nov. 28; Gaz. vol. 232; p. 1207.
Spark-plug pressure-indicator. E. Hanni. No. 1,204,013; Nov. 7; Gaz. vol. 232; p. 161.
Spark-plug protector and cleaner. E. G. Ware. No. 1,203,943; Nov. 7; Gaz. vol. 232; p. 138.
Sparking plug. J. Z. Tucker and L. W. Markwort. No. 1,205,289; Nov. 21; Gaz. vol. 232; p. 677.
Spectacles. F. W. King. No. 1,204,161; Nov. 7; Gaz. vol. 232; p. 213.
Spectacles or other vision-glass. S. B. Mills. No. 1,206,457; Nov. 28; Gaz. vol. 232; p. 1112.
Speech-transmitting mechanism. E. Grissinger. No. 1,205,618; Nov. 21; Gaz. vol. 232; p. 792.
Speed and range finder. C. S. Stanworth. No. 1,206,481; Nov. 28; Gaz. vol. 232; p. 1120.
Speed-governor. H. T. Herr. No. 1,205,126; Nov. 14; Gaz. vol. 232; p. 580.
Speed-governor. H. T. Herr. No. 1,205,127; Nov. 14; Gaz. vol. 232; p. 580.
Speed-indicator. G. H. Lang. No. 1,204,459; Nov. 14; Gaz. vol. 232; p. 350.
Speed-indicator. H. O. Wood. No. 1,204,923; Nov. 14; Gaz. vol. 232; p. 512.
Speedometer. A. J. Kloneck. No. 1,205,857; Nov. 21; Gaz. vol. 232; p. 700.
Speedometers, Transmission-drive for. F. A. Ross. No. 1,205,027; Nov. 14; Gaz. vol. 232; p. 547.
Spices and like substances, Receptacle for. G. F. Helson. No. 1,206,535; Nov. 28; Gaz. vol. 232; p. 1139.
Spike. J. H. Benedict. No. 1,206,087; Nov. 28; Gaz. vol. 232; p. 986.
Spike-driving machine. G. B. Shipley. No. 1,204,501; Nov. 14; Gaz. vol. 232; p. 363.
Spindle: *See*—
Oiliess spindle.
Spinning-machine. E. A. Jones. No. 1,206,542; Nov. 28; Gaz. vol. 232; p. 1142.
Spinning-machine bobbin. F. W. Steinacker. No. 1,204,517; Nov. 14; Gaz. vol. 232; p. 369.
Spinning-machine spindle. C. D. Dudeff. No. 1,204,751; Nov. 14; Gaz. vol. 232; p. 451.
Spinning-ring, Rotary. S. S. Dearborn. No. 1,204,846; Nov. 7; Gaz. vol. 232; p. 276.
Spinning, winding, or doubling machines, Take-up mechanism for. E. E. Bradley. No. 1,204,123; Nov. 7; Gaz. vol. 232; p. 201.
Splitting-machine. C. Letin. No. 1,203,753; Nov. 7; Gaz. vol. 232; p. 71.
Splitting-machine. B. F. Mayo. No. 1,206,015; Nov. 28; Gaz. vol. 232; p. 962.
Spool-holder. J. H. Meyers. No. 1,204,680; Nov. 14; Gaz. vol. 232; p. 426.
Spool or bobbin holder. M. T. De Vine. No. 1,205,085; Nov. 14; Gaz. vol. 232; p. 565.
Spout for receptacles. W. G. Kendall. No. 1,205,545; Nov. 21; Gaz. vol. 232; p. 765.
Spraying and seaming machine, Combined. F. Eberhart. No. 1,206,423; Nov. 28; Gaz. vol. 232; p. 1101.
Spraying apparatus, Dust-germicide-. H. A., J. E., L., and O. L. Richter. No. 1,204,903; Nov. 14; Gaz. vol. 232; p. 503.
Spraying device. N. E. Morgan. No. 1,206,128; Nov. 28; Gaz. vol. 232; p. 1001.
Spreader for dry materials. J. P. and W. O. King. No. 1,205,221; Nov. 21; Gaz. vol. 232; p. 655.
Spring: *See*—
Bed-spring.
Cantaliver-spring.
Laminated spring.
Seat-spring.
Vehicle-spring.
Vehicle suspension-spring.
Spring-fitting tool. A. E. Patterson. No. 1,206,137; Nov. 28; Gaz. vol. 232; p. 1004.
Spring rim, Seat-. B. E. Rockhoff. No. 1,205,567; Nov. 21; Gaz. vol. 232; p. 773.
Spring-seat construction. W. A. and W. A. Murray, Jr. No. 1,205,777; Nov. 21; Gaz. vol. 232; p. 846.
Spring structure for use in upholstering. L. A. Suekoff. No. 1,205,406; Nov. 21; Gaz. vol. 232; p. 716.
Spring-wheel. S. D. Chapman. No. 1,204,840; Nov. 7; Gaz. vol. 232; p. 274.
Spring-wheel. S. A. Cherry. No. 1,205,972; Nov. 28; Gaz. vol. 232; p. 948.
Spring-wheel. G. N. Fiddler. No. 1,205,087; Nov. 14; Gaz. vol. 232; p. 566.
Spring-wheel. R. M. Keating. No. 1,205,904; Nov. 21; Gaz. vol. 232; p. 888.
Spring-wheel. F. A. Mershon. No. 1,205,555; Nov. 21; Gaz. vol. 232; p. 768.
Springs for pressure or the like gages, Forming. A. B. Collette. No. 1,203,982; Nov. 7; Gaz. vol. 232; p. 151.
Sprinkler: *See*—
Lawn-sprinkler.

Sprinkler-heads, Machine for assembling automatic. J. R. Hamilton. No. 1,206,107; Nov. 28; Gaz. vol. 232; p. 993.

Sprinkler systems, Alarm-controlling means for. N. H. Suren. No. 1,204,327; Nov. 7; Gaz. vol. 232; p. 269.

Sprocket and gear wheel. R. E. Thomas. No. 1,206,172; Nov. 28; Gaz. vol. 232; p. 1015.

Sprocket attachment. J. A. Ferron. No. 1,204,555; Nov. 14; Gaz. vol. 232; p. 384.

Sputum-cup, Pocket. W. M. Garrison. No. 1,203,604; Nov. 7; Gaz. vol. 232; p. 18.

Square, Garment-maker's. M. B. Picken. No. 1,204,900; Nov. 14; Gaz. vol. 232; p. 501.

Stalk puller, Cotton-. O. B. Elkins. No. 1,205,721; Nov. 21; Gaz. vol. 232; p. 828.

Stamp. M. G. Standley. No. 1,206,735; Nov. 28; Gaz. vol. 232; p. 1207.

Stamp-affixing machine. B. D. Straight. No. 1,203,932; Nov. 7; Gaz. vol. 232; p. 135.

Stamp, Hand-. M. G. Standley and C. W. Gosnell. No. 1,206,766; Nov. 28; Gaz. vol. 232; p. 1218.

Stamp, Time-. W. F. Straub. No. 1,204,714; Nov. 14; Gaz. vol. 232; p. 438.

Stamping device, Rotary. C. Dimech. No. 1,205,168; Nov. 21; Gaz. vol. 232; p. 638.

Stanchion, Cattle-. J. C. Fitzgerald. No. 1,205,182; Nov. 21; Gaz. vol. 232; p. 642.

Stanchion, Cattle-. W. P. Price. No. 1,205,479; Nov. 21; Gaz. vol. 232; p. 742.

Stanchion lock, Cattle-. R. H. Buckingham. No. 1,205,153; Nov. 21; Gaz. vol. 232; p. 632.

Stanchions, Division member for. W. Gutenkunst. No. 1,204,862; Nov. 14; Gaz. vol. 232; p. 488.

Stanchions, Grab-handle for. W. M. Wampler and W. L. Conwell. No. 1,203,821; Nov. 7; Gaz. vol. 232; p. 94.

Stand: *See*—
Foldable stand. Switch-stand.
Form-stand. Wire-holding stand.
Music-stand.

Standard-forming blank. W. B. Cogger. No. 1,204,546; Nov. 14; Gaz. vol. 232; p. 381.

Staple for window-sashes or the like. A. H. Feasey. No. 1,206,425; Nov. 28; Gaz. vol. 232; p. 1102.

Staple-setting implement. H. P. Hübsch. No. 1,205,634; Nov. 21; Gaz. vol. 232; p. 798.

Staple-setting implement. J. H. Kersteter. No. 1,205,547; Nov. 21; Gaz. vol. 232; p. 766.

Stapling machine, Metal-bound-box-blank-. E. Craig. No. 1,205,328; Nov. 21; Gaz. vol. 232; p. 690.

Stapling machine, Metal-bound-box-end-. E. Craig. No. 1,205,329; Nov. 21; Gaz. vol. 232; p. 690.

Starting and gear-shifting mechanism. J. P. Nikonow. No. 1,206,024; Nov. 28; Gaz. vol. 232; p. 966.

Starting and gear-shifting mechanism. J. P. Nikonow. No. 1,206,355; Nov. 28; Gaz. vol. 232; p. 1077.

Starting device. E. Gréby. No. 1,205,885; Nov. 21; Gaz. vol. 232; p. 882.

Stay-making machine, Garment-. S. H. Norton. No. 1,206,240; Nov. 28; Gaz. vol. 232; p. 1039.

Steam-generator. J. C. Parker. No. 1,205,656; Nov. 21; Gaz. vol. 232; p. 806.

Steam-trap. J. H. Mailhot. No. 1,203,639; Nov. 7; Gaz. vol. 232; p. 30.

Steering apparatus for ships. W. A. Dobson. No. 1,205,160; Nov. 21; Gaz. vol. 232; p. 638.

Steering-column switch. J. C. Stearns. No. 1,204,606; Nov. 14; Gaz. vol. 232; p. 402.

Steering-gear. W. F. Dubert. No. 1,204,138; Nov. 7; Gaz. vol. 232; p. 205.

Steering-gear attachment. T. J. Nash. No. 1,203,900; Nov. 7; Gaz. vol. 232; p. 123.

Steering-gear attachment. T. J. Nash. No. 1,204,683; Nov. 14; Gaz. vol. 232; p. 420.

Steering-gear, Automatic controller for. C. B. Post. No. 1,204,819; Nov. 14; Gaz. vol. 232; p. 473.

Steering mechanism. T. J. Nash. No. 1,206,023; Nov. 28; Gaz. vol. 232; p. 966.

Steering mechanism, Gyroscopic. W. Dieter. No. 1,204,852; Nov. 14; Gaz. vol. 232; p. 484.

Steering-wheel. S. O. White and W. W. Peck. No. 1,204,724; Nov. 14; Gaz. vol. 232; p. 442.

Stereotype-plate-casting box. A. H. Cruse. No. 1,206,200; Nov. 28; Gaz. vol. 232; p. 1029.

Sterilizer. H. Baehr. No. 1,205,075; Nov. 14; Gaz. vol. 232; p. 562.

Sterilizing liquids by means of ultra-violet rays, Apparatus for. M. von Recklinghausen. No. 1,204,721; Nov. 14; Gaz. vol. 232; p. 441.

Still, Triple purification-. D. P. Moore. No. 1,203,300; Nov. 7; Gaz. vol. 232; p. 260.

Stitch transferring and doubling device. L. N. D. Williams. No. 1,203,949; Nov. 7; Gaz. vol. 232; p. 140.

Stitching machine, Shoe-. C. C. Hansen. No. 1,204,867; Nov. 14; Gaz. vol. 232; p. 489.

Stocking. R. W. Scott. No. 1,205,671; Nov. 21; Gaz. vol. 232; p. 811.

Stoker. W. S. Hasleu. No. 1,206,701; Nov. 28; Gaz. vol. 232; p. 1193.

Stoker, Automatic. G. W. Wood. No. 1,206,071; Nov. 28; Gaz. vol. 232; p. 981.

Stoker, Mechanical. W. T. Hanna. No. 1,203,871; Nov. 7; Gaz. vol. 232; p. 113.

Stoker, Mechanical. E. A. Wall. No. 1,204,522; Nov. 14; Gaz. vol. 232; p. 371.

Stoneworking-machine. T. Officer and H. H. Mercer. No. 1,206,358; Nov. 28; Gaz. vol. 232; p. 1078.

Stool. F. Sulenski. No. 1,205,057; Nov. 14; Gaz. vol. 232; p. 557.

Stop-motion. E. Erickson. No. 1,205,722; Nov. 21; Gaz. vol. 232; p. 828.

Stopper: *See*—
Bottle-stopper.

Stopper. T. C. Spelling. No. 1,204,712; Nov. 14; Gaz. vol. 232; p. 438.

Storage-bin. J. E. Allsteadt. No. 1,205,501; Nov. 21; Gaz. vol. 232; p. 749.

Stove. I. Marchetti. No. 1,206,455; Nov. 28; Gaz. vol. 232; p. 1112.

Stove. H. P. G. Norstrand. No. 1,203,772; Nov. 7; Gaz. vol. 232; p. 76.

Stove. J. S. Van Buren. No. 1,205,291; Nov. 21; Gaz. vol. 232; p. 677.

Stove, Combined coal and gas. C. D. Carter and G. F. Bibb. No. 1,204,130; Nov. 7; Gaz. vol. 232; p. 203.

Stove, Gas-. A. Bruebach. No. 1,205,152; Nov. 21; Gaz. vol. 232; p. 632.

Stove, Gas-jet. H. F. Bernhardt. No. 1,205,843; Nov. 21; Gaz. vol. 232; p. 868.

Stove, Heating-. G. A. Hollenbeck. No. 1,205,209; Nov. 21; Gaz. vol. 232; p. 652.

Stove-lifter. I. J. Knisley. No. 1,205,222; Nov. 21; Gaz. vol. 232; p. 656.

Stoves, Oil-burner attachment for wood or coal. F. A. Snideman. No. 1,205,043; Nov. 14; Gaz. vol. 232; p. 552.

Stovepipe-joint. W. P. Beck. No. 1,205,131; Nov. 14; Gaz. vol. 232; p. 582.

Stovepipe-section. A. C. and C. H. Black. No. 1,205,132; Nov. 14; Gaz. vol. 232; p. 582.

Strainer. A. M. Roswell. No. 1,206,471; Nov. 28; Gaz. vol. 232; p. 1117.

Strap-stretcher. A. Robinson. No. 1,206,468; Nov. 28; Gaz. vol. 232; p. 1116.

Straw-carrier, Vibratory. J. A. Malm. No. 1,203,760; Nov. 7; Gaz. vol. 232; p. 73.

Straw-making machines, Cut-off for. L. C. Maltby and F. Casey. No. 1,205,913; Nov. 21; Gaz. vol. 232; p. 891.

Straws, Machine for making artificial. L. C. Maltby. No. 1,205,914; Nov. 21; Gaz. vol. 232; p. 892.

Street-sweeping machine. J. A. Schroeder. No. 1,204,320; Nov. 7; Gaz. vol. 232; p. 267.

Stretcher. C. Moses. No. 1,206,020; Nov. 28; Gaz. vol. 232; p. 964.

Stretcher, Collapsible. N. Fuchs. No. 1,205,186; Nov. 21; Gaz. vol. 232; p. 643.

Stretcher or litter, Wheeled. T. P. Doole. No. 1,205,867; Nov. 21; Gaz. vol. 232; p. 875.

Structural member. E. K. Day. No. 1,204,955; Nov. 14; Gaz. vol. 232; p. 523.

Stuffing-box. M. Güttner. No. 1,205,887; Nov. 21; Gaz. vol. 232; p. 883.

Stylograph. T. Miura. No. 1,205,920; Nov. 21; Gaz. vol. 232; p. 894.

Subirrigation device. P. Schwarz and W. J. Baker. No. 1,203,794; Nov. 7; Gaz. vol. 232; p. 85.

Sucker-rod elevator. G. Foggan. No. 1,206,523; Nov. 28; Gaz. vol. 232; p. 1135.

Sugar articles, Device for making hollow. M. Grünwald. No. 1,205,886; Nov. 21; Gaz. vol. 232; p. 883.

Sugar from masse-cuite, Recovering. H. A. Vallez. No. 1,204,617; Nov. 14; Gaz. vol. 232; p. 405.

Sugar, &c., Holder for lump-. T. E. Davis. No. 1,206,774; Nov. 28; Gaz. vol. 232; p. 1222.

Sugar-mills, Means for conveying macerated bagasse between. W. A. Ramsay. No. 1,204,314; Nov. 7; Gaz. vol. 232; p. 265.

Suit, Combination-. L. Rubens. No. 1,205,137; Nov. 14; Gaz. vol. 232; p. 584.

Suit, Two-part. J. M. Van Heusen. No. 1,204,719; Nov. 14; Gaz. vol. 232; p. 440.

Sulfur dioxid, Determining. A. M. Fairlie. No. 1,205,724; Nov. 21; Gaz. vol. 232; p. 829.

Sulfuric-acid chamber. J. Harris and D. H. Thomas. No. 1,203,615; Nov. 7; Gaz. vol. 232; p. 22.

Sulfuric acid, Manufacturing. A. M. Fairlie. No. 1,205,723; Nov. 21; Gaz. vol. 232; p. 829.

Sulfuric anhydrid and catalyzer therefor, Making. C. Ellis. No. 1,204,141; Nov. 7; Gaz. vol. 232; p. 206.

Sulfuric anhydrid, Making. C. Ellis. No. 1,204,142; Nov. 7; Gaz. vol. 232; p. 207.

Sulky, Child's. A. W. Hawkinson. No. 1,205,198; Nov. 21; Gaz. vol. 232; p. 648.

Superheater-boiler. A. D. Pratt. No. 1,206,246; Nov. 28; Gaz. vol. 232; p. 1040.

Superheater, Steam-boiler. D. S. Jacobus. No. 1,203,625; Nov. 7; Gaz. vol. 232; p. 25.

Support. R. F. McFeely. No. 1,205,234; Nov. 21; Gaz. vol. 232; p. 660.

Supporting and exhibiting apparatus. J. H. Gore. No. 1,204,010; Nov. 7; Gaz. vol. 232; p. 160.

Supporting device. S. A. Mitchell. No. 1,205,774; Nov. 21; Gaz. vol. 232; p. 846.

Surface-gage. L. J. Caron. No. 1,206,668; Nov. 28; Gaz. vol. 232; p. 1183.

Surgical appliance. L. B. Hart. No. 1,206,324; Nov. 28; Gaz. vol. 232; p. 1067.

Surgical-needle holder. W. H. Barnard. No. 1,204,640; Nov. 14; Gaz. vol. 232; p. 413.

Surprise and alarm device. J. L. Kellogg. No. 1,204,031; Nov. 7; Gaz. vol. 232; p. 168.

Suspenders. C. L. Molloy. No. 1,203,643; Nov. 7; Gaz. vol. 232; p. 32.

Sweat-band. L. B. Heady. No. 1,205,990; Nov. 28; Gaz. vol. 232; p. 954.

Sweep-rake. J. H. Cope. No. 1,205,973; Nov. 28; Gaz. vol. 232; p. 946.

Swinging chair. J. P. Carter. No. 1,206,669; Nov. 28; Gaz. vol. 232; p. 1184.

Switch: *See*—
Automatic switch. Selector-switch.
Electric switch. Snap-switch.
Electrical switch. Steering-column switch.

Switch. C. S. Eppley. No. 1,205,134; Nov. 14; Gaz. vol. 232; p. 583.

Switch. E. A. Hawthorne. No. 1,205,624; Nov. 21; Gaz. vol. 232; p. 794.

Switch. J. A. Parsons. No. 1,206,136; Nov. 28; Gaz. vol. 232; p. 1003.

Switch. W. A. Spalding. No. 1,206,734; Nov. 28; Gaz. vol. 232; p. 1206.

Switch-actuating mechanism. J. L. McQuarrie. No. 1,204,466; Nov. 14; Gaz. vol. 232; p. 353.

Switch and box lock, Combined. J. M. McClure. No. 1,204,042; Nov. 7; Gaz. vol. 232; p. 172.

Switch-lock. G. H. Strode. No. 1,206,611; Nov. 28; Gaz. vol. 232; p. 1165.

Switch-operating mechanism. H. W. McClung and J. C. Eaheart. No. 1,205,909; Nov. 21; Gaz. vol. 232; p. 890.

Switch-stand. L. G. Coleman. No. 1,206,415; Nov. 28; Gaz. vol. 232; p. 1098.

Switch-stand attachment. J. J. Dillon. No. 1,206,681; Nov. 28; Gaz. vol. 232; p. 1187.

Switch-stand, Interlocking and target-operating. F. C. Anderson. No. 1,204,112; Nov. 7; Gaz. vol. 232; p. 197.

Switch-throwing mechanism, Electrical. J. A. Ross. No. 1,205,266; Nov. 21; Gaz. vol. 232; p. 670.

Swivel-joint, Fluid-tight. W. R. Bearce. No. 1,205,504; Nov. 21; Gaz. vol. 232; p. 750.

Synchronising. C. A. Lohr. No. 1,204,169; Nov. 7; Gaz. vol. 232; p. 216.

Synchronous motor. L. Rouzet. No. 1,205,037; Nov. 21; Gaz. vol. 232; p. 899.

Syringe, Vaginal. L. T. Speers. No. 1,203,803; Nov. 7; Gaz. vol. 232; p. 88.

Syringes, Cap for fountain or other. E. H. Bickley. No. 1,204,237; Nov. 7; Gaz. vol. 232; p. 239.

Syrup or masse-cuite, Device for examining a sample of. W. A. Baldwin. No. 1,205,837; Nov. 21; Gaz. vol. 232; p. 866.

Syrup or masse-cuite, Device for taking a sample of. W. A. Baldwin. No. 1,205,838; Nov. 21; Gaz. vol. 232; p. 867.

Table: *See*—
Chocolate-table. Folding table.
Extensible table. Ironing-table.
Extension-table. Rotatable table.
Foldable table. Treating-table.

Table. M. Strauch. No. 1,205,286; Nov. 21; Gaz. vol. 232; p. 676.

Table-top, Supplemental. E. J. Le Claire. No. 1,203,752; Nov. 7; Gaz. vol. 232; p. 71.

Tablet. L. S. Levy. No. 1,204,793; Nov. 14; Gaz. vol. 232; p. 465.

Tablet, Extensible. T. J. Norton. No. 1,204,181; Nov. 7; Gaz. vol. 232; p. 221.

Tackling-dummy. F. A. Hinkey. No. 1,204,017; Nov. 7; Gaz. vol. 232; p. 163.

Tag-hook. F. G. Shuman. No. 1,204,503; Nov. 14; Gaz. vol. 232; p. 364.

Tag, Identification-. C. A. Murray. No. 1,205,103; Nov. 14; Gaz. vol. 232; p. 572.

Tag, Shipping-. R. M. Nichols. No. 1,203,902; Nov. 7; Gaz. vol. 232; p. 124.

Talking-machine and the like brake. W. F. Grupe. No. 1,204,861; Nov. 14; Gaz. vol. 232; p. 487.

Talking-machine attachment. W. T. Sullivan. No. 1,205,407; Nov. 21; Gaz. vol. 232; p. 716.

Talking-machine brake. W. F. Grupe. No. 1,204,859; Nov. 14; Gaz. vol. 232; p. 486.

Talking-machine sound-box. C. E. Woods. No. 1,206,635; Nov. 28; Gaz. vol. 232; p. 1172.

Talking-machines, Tone-arm mounting for. F. C. Hinckley and L. G. Larsen. No. 1,205,627; Nov. 21; Gaz. vol. 232; p. 795.

Tank: *See*—
Flush-tank. Sewage-tank.
Refuse-tank.

Tank-heating furnace. W. Scrimgeour. No. 1,206,383; Nov. 28; Gaz. vol. 232; p. 1087.

Tanks, Surface discharge apparatus for. R. A. Brooks. No. 1,203,578; Nov. 7; Gaz. vol. 232; p. 8.

Tap or die, Collapsible. R. C. Lewis. No. 1,203,884; Nov. 7; Gaz. vol. 232; p. 117.

Tape-fastener. H. L. Roberts. No. 1,205,024; Nov. 14; Gaz. vol. 232; p. 546.

Tape or ribbon holder. H. W. Flatow and F. Lickert. No. 1,205,524; Nov. 21; Gaz. vol. 232; p. 757.

Target-trap. W. B. Cosby. No. 1,206,416; Nov. 28; Gaz. vol. 232; p. 1099.

Tatting-shuttle. O. W. Linquist. No. 1,206,555; Nov. 28; Gaz. vol. 232; p. 1146.

Teeth, Apparatus for making plates for artificial. L. H. Sprinkle. No. 1,206,478; Nov. 28; Gaz. vol. 232; p. 1119.

Teeth, Preparation for treating. J. Albrecht. No. 1,205,957; Nov. 28; Gaz. vol. 232; p. 943.

Telegraph apparatus, Printing-. C. E. Nelson. No. 1,205,248; Nov. 21; Gaz. vol. 232; p. 665.

Telegraph or telephone systems, Antenna and support therefor for use in wireless. F. H. Millener. No. 1,206,383; Nov. 28; Gaz. vol. 232; p. 1076.

Telegraphs and electric selective systems, Receiving apparatus for electric. W. J. Lyons. No. 1,205,460; Nov. 21; Gaz. vol. 232; p. 735.

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Animal-trap. Rodent-trap.
Drain-trap. Steam-trap.
Insect-trap. Target-trap.
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Shoe-tree.
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Concrete-distributing trough. Dough-trough.
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Trucks, Roller-seat for lateral-motion. E. W. Webb and F. L. Barber. No. 1,206,391; Nov. 28; Gaz. vol. 232; p. 1090.
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Tub: *See*—
Plant-tub.
Tube: *See*—
Drinking-tube. Torpedo-tube.
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Shoe-ventilator.
Window-ventilator.
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Washing-machine. F. H. Trau. No. 1,206,174; Nov. 28; Gaz. vol. 232; p. 1016.
Washing-machine and wringer structure, Combined. J. E. Camp. No. 1,205,324; Nov. 21; Gaz. vol. 232; p. 688.
Washing machine, Container-. C. C. Leibinger and P. T. Logan. No. 1,206,447; Nov. 28; Gaz. vol. 232; p. 1108.
Washing-machine gearing device. G. W. Lewis. No. 1,203,883; Nov. 7; Gaz. vol. 232; p. 117.
Watch backs and bezels, Making. G. F. Eberhard. No. 1,204,257; Nov. 7; Gaz. vol. 232; p. 246.
Watch container, Wrist-. S. Kaufman. No. 1,205,217; Nov. 21; Gaz. vol. 232; p. 654.
Watch holder, Wrist-. J. A. Poltock. No. 1,204,902; Nov. 14; Gaz. vol. 232; p. 502.
Watchcase. A. S. Stark. No. 1,204,082; Nov. 7; Gaz. vol. 232; p. 187.
Water-closet. H. S. Maddock. No. 1,204,048; Nov. 7; Gaz. vol. 232; p. 174.
Water-closet apparatus, Valve construction for. A. F. Gabell. No. 1,203,724; Nov. 7; Gaz. vol. 232; p. 60.
Water cooling and distributing apparatus. A. N. Peters. No. 1,206,241; Nov. 28; Gaz. vol. 232; p. 1039.
Water-distributing system. G. M. Hubbell. No. 1,204,156; Nov. 7; Gaz. vol. 232; p. 211.
Water-elevator. J. M. Stafford. No. 1,203,926; Nov. 7; Gaz. vol. 232; p. 132.
Water-elevator. Compressed-air. F. T. Shaw. No. 1,205,114; Nov. 14; Gaz. vol. 232; p. 576.
Water-gage for steam-boilers and similar apparatus. E. A. Kelsey. No. 1,204,034; Nov. 7; Gaz. vol. 232; p. 169.
Water-heater. J. Ellis. No. 1,204,853; Nov. 14; Gaz. vol. 232; p. 484.
Water-heater. W. Hoffman. No. 1,204,872; Nov. 14; Gaz. vol. 232; p. 491.
Water-heater. J. L. Modlin. No. 1,206,127; Nov. 28; Gaz. vol. 232; p. 1000.
Water-heater, Automatic. T. J. Radke. No. 1,204,818; Nov. 7; Gaz. vol. 232; p. 264.
Water-heater, Electric. J. F. Wheelock. No. 1,206,893; Nov. 28; Gaz. vol. 232; p. 1090.
Water-heater for bath-tubs. J. Annau. No. 1,206,646; Nov. 28; Gaz. vol. 232; p. 1176.
Water-heater, Gas. G. A. Moore. No. 1,205,652; Nov. 21; Gaz. vol. 232; p. 804.
Water-heating and sprinkler system, Combined. W. K. Hodgman. No. 1,203,738; Nov. 7; Gaz. vol. 232; p. 65.
Water-heating apparatus. H. Junkers. No. 1,204,779; Nov. 14; Gaz. vol. 232; p. 460.
Water-jacket. H. Rude. No. 1,204,688; Nov. 14; Gaz. vol. 232; p. 431.

Water-motor. P. T. Coffield. No. 1,205,857; Nov. 21; Gaz. vol. 232; p. 872.
Water-purifying apparatus. O. Buedinger. No. 1,205,154; Nov. 21; Gaz. vol. 232; p. 632.
Water-stage recorder, Differential-. J. C. Stevens. No. 1,205,679; Nov. 21; Gaz. vol. 232; p. 814.
Waterer, Stock-. G. C. Persons and S. W. Downs. No. 1,205,927; Nov. 21; Gaz. vol. 232; p. 896.
Watering device for cattle. H. C. Rasmann. No. 1,204,066; Nov. 7; Gaz. vol. 232; p. 181.
Watering device, Stock-. J. Q. Clarke. No. 1,206,672; Nov. 28; Gaz. vol. 232; p. 1185.
Watering fountain, Stock-. F. E. Wood. No. 1,206,281; Nov. 28; Gaz. vol. 232; p. 1053.
Waterproofing composition. O. E. Gelertsen. No. 1,204,149; Nov. 7; Gaz. vol. 232; p. 209.
Waterproofing composition, Non-inflammable. J. O. Persons. No. 1,204,056; Nov. 7; Gaz. vol. 232; p. 177.
Wattmeter, Alternating-current maximum-demand. C. A. Boddie. No. 1,206,772; Nov. 28; Gaz. vol. 232; p. 1221.
Wave and water illusion apparatus. I. M. Fuller. No. 1,205,444; Nov. 21; Gaz. vol. 232; p. 729.
Wave and wind power generator. A. Leppert. No. 1,204,366; Nov. 7; Gaz. vol. 232; p. 282.
Wave-meter. B. V. Deits. No. 1,204,748; Nov. 14; Gaz. vol. 232; p. 450.
Wave-motor. C. H. Tolley. No. 1,204,068; Nov. 7; Gaz. vol. 232; p. 189.
Weapon, Combination-. S. Machuga. No. 1,204,677; Nov. 14; Gaz. vol. 232; p. 426.
Weather-strip. W. Layton. No. 1,204,285; Nov. 7; Gaz. vol. 232; p. 255.
Weaving machine, Porch-curtain-. E. L. Mooney and Z. E. Russell. No. 1,204,896; Nov. 14; Gaz. vol. 232; p. 500.
Weed-cutter. S. A. Billington. No. 1,205,967; Nov. 28; Gaz. vol. 232; p. 947.
Weed cutter and sprayer. T. Hornecker. No. 1,204,772; Nov. 14; Gaz. vol. 232; p. 459.
Weft-detecting mechanism. E. H. Ryon. No. 1,205,792; Nov. 21; Gaz. vol. 232; p. 853.
Weighing device. C. C. Clark. No. 1,203,583; Nov. 7; Gaz. vol. 232; p. 10.
Weighing-machine. M. H. Farley. No. 1,204,965; Nov. 14; Gaz. vol. 232; p. 526.
Welding method and apparatus. H. E. Butcher. No. 1,205,511; Nov. 21; Gaz. vol. 232; p. 753.
Welding method and apparatus, Electric-. F. L. Sessions. No. 1,205,570; Nov. 21; Gaz. vol. 232; p. 774.
Well-drilling device. G. R. Watson. No. 1,204,099; Nov. 7; Gaz. vol. 232; p. 192.
Wells, Sand-trap for oil-. C. A. Wiley. No. 1,204,105; Nov. 7; Gaz. vol. 232; p. 194.
Welting. E. O. Hood. No. 1,204,769; Nov. 14; Gaz. vol. 232; p. 457.
Welting-preparing machine. A. R. Morrill. No. 1,204,897; Nov. 14; Gaz. vol. 232; p. 500.
Wheel: *See*—
Automobile-wheel.
Car-wheel.
Caster-wheel.
Demountable wheel.
Fly-wheel.
Gear-wheel.
Resilient wheel.
Spring-wheel.
Sprocket and gear wheel.
Steering-wheel.
Tractor guide-wheel.
Vehicle-wheel.
Wind-wheel.
Wheel. H. C. Gibson. No. 1,204,658; Nov. 14; Gaz. vol. 232; p. 420.
Wheel. L. H. Perlman. No. 1,206,138; Nov. 28; Gaz. vol. 232; p. 1004.
Wheel-brake. C. B. Mills and J. P. Nikonow. No. 1,204,471; Nov. 14; Gaz. vol. 232; p. 354.
Wheel-chair, Folding. E. B. Green, Jr. No. 1,206,106; Nov. 28; Gaz. vol. 232; p. 993.
Wheel-controlling device, Vehicle-. B. Q. Jordan. No. 1,204,991; Nov. 14; Gaz. vol. 232; p. 534.
Wheel demountable rim, Vehicle-. O. E. Dingley. No. 1,205,866; Nov. 21; Gaz. vol. 232; p. 875.
Wheel-fender. T. Mitchell. No. 1,205,471; Nov. 21; Gaz. vol. 232; p. 739.
Wheel lock, Steering-. W. H. Randall. No. 1,206,592; Nov. 28; Gaz. vol. 232; p. 1158.
Wheel-rim. R. M. Keating. No. 1,205,903; Nov. 21; Gaz. vol. 232; p. 888.
Wheel rim, Automobile-. F. F. Enter. No. 1,206,756; Nov. 28; Gaz. vol. 232; p. 1215.
Wheel-rim, Resilient. E. E. Thomas. No. 1,205,819; Nov. 21; Gaz. vol. 232; p. 862.
Wheel rim, Vehicle-. C. W. Gressle. No. 1,205,527; Nov. 21; Gaz. vol. 232; p. 758.
Wheel tread, Vehicle-. A. E. Mueller. No. 1,205,658; Nov. 21; Gaz. vol. 232; p. 804.
Wheel structure. E. Ringsmith. No. 1,206,377; Nov. 28; Gaz. vol. 232; p. 1085.
Wheels, Apparatus for gaging the position of vehicle-. P. T. Snyder. No. 1,206,476; Nov. 28; Gaz. vol. 232; p. 1118.
Wheelbarrow. B. A. Craft. No. 1,204,652; Nov. 14; Gaz. vol. 232; p. 418.
Wind instrument, Brass. F. Durant. No. 1,205,868; Nov. 21; Gaz. vol. 232; p. 875.
Wind instruments, Attachment for. W. M. Phillips. No. 1,204,060; Nov. 7; Gaz. vol. 232; p. 179.
Wind-shield. R. P. and O. P. Becker. No. 1,206,062; Nov. 28; Gaz. vol. 232; p. 984.
Wind-shield for vehicles, Inside. G. V. Cring. No. 1,203,587; Nov. 7; Gaz. vol. 232; p. 12.
Wind-shield protector. I. C. Bowman. No. 1,204,122; Nov. 7; Gaz. vol. 232; p. 201.
Wind-wheel, Novelty. J. F. Reynolds. No. 1,206,251; Nov. 28; Gaz. vol. 232; p. 1043.
Winding-machine. F. S. Rand and G. N. Taylor. No. 1,205,565; Nov. 21; Gaz. vol. 232; p. 772.
Winding-machine. C. Ryden. No. 1,205,270; Nov. 21; Gaz. vol. 232; p. 671.
Winding-machine. C. Ryden. No. 1,206,790; Nov. 7; Gaz. vol. 232; p. 83.
Windmill. A. J. Crowley. No. 1,206,514; Nov. 28; Gaz. vol. 232; p. 1132.
Windmill-gearing. O. P. Hurst. No. 1,205,896; Nov. 21; Gaz. vol. 232; p. 885.
Window-cleaner. J. R. Ayotte. No. 1,203,684; Nov. 7; Gaz. vol. 232; p. 47.
Window-cleaner. H. Schneider. No. 1,205,898; Nov. 21; Gaz. vol. 232; p. 714.
Window, Engineer's storm-. W. W. Boynton. No. 1,206,506; Nov. 28; Gaz. vol. 232; p. 1129.
Window-envelop. H. F. Marston and J. J. O'Connell. No. 1,205,100; Nov. 14; Gaz. vol. 232; p. 571.
Window holder, Storm-. E. P. Ekman. No. 1,204,963; Nov. 14; Gaz. vol. 232; p. 526.
Window-lock. J. E. Callow and D. Kroes. No. 1,203,974; Nov. 7; Gaz. vol. 232; p. 148.
Window-lock. J. S. Curnow. No. 1,203,986; Nov. 7; Gaz. vol. 232; p. 152.
Window-lock. H. George. No. 1,203,606; Nov. 7; Gaz. vol. 232; p. 18.
Window-locking device, Automatic. M. G. Bunnell. No. 1,203,971; Nov. 7; Gaz. vol. 232; p. 147.
Window-operating device. A. K. Ternstedt. No. 1,206,052; Nov. 28; Gaz. vol. 232; p. 975.
Window-screen. G. W. Bailey. No. 1,204,116; Nov. 7; Gaz. vol. 232; p. 198.
Window-screen. F. S. Banks. No. 1,206,497; Nov. 28; Gaz. vol. 232; p. 1126.
Window-screen. C. A. Bates and W. W. Hobby. No. 1,204,235; Nov. 7; Gaz. vol. 232; p. 239.
Window-screen. H. A. Eldredge. No. 1,204,140; Nov. 7; Gaz. vol. 232; p. 206.
Window-screen. F. L. Hawley. No. 1,204,436; Nov. 14; Gaz. vol. 232; p. 343.
Window-screen. B. F. Laudenschlager and J. S. Frederick. No. 1,203,634; Nov. 7; Gaz. vol. 232; p. 28.
Window-seat. J. A. Wals. No. 1,206,277; Nov. 28; Gaz. vol. 232; p. 1052.
Window-ventilator. C. A. Barr. No. 1,204,391; Nov. 14; Gaz. vol. 232; p. 326.
Window-ventilator. I. B. Ingle. No. 1,204,158; Nov. 7; Gaz. vol. 232; p. 211.
Windows, Means for raising and lowering vehicle and other. A. Speight. No. 1,204,201; Nov. 7; Gaz. vol. 232; p. 227.
Wine, Aging. A. Lachman. No. 1,204,669; Nov. 14; Gaz. vol. 232; p. 424.
Wire-bending apparatus. J. E. Mayo. No. 1,205,005; Nov. 14; Gaz. vol. 232; p. 540.
Wire-bending machine. J. E. Mayo and T. F. Charlton. No. 1,205,006; Nov. 14; Gaz. vol. 232; p. 540.
Wire-clamp. W. A. Clanton and R. K. Cox. No. 1,204,942; Nov. 14; Gaz. vol. 232; p. 518.
Wire clamp and hanger. O. Mueller. No. 1,206,021; Nov. 28; Gaz. vol. 232; p. 965.
Wire-connector. O. Bajma-Riva. No. 1,203,565; Nov. 7; Gaz. vol. 232; p. 4.
Wire handle. M. Craig. No. 1,205,331; Nov. 21; Gaz. vol. 232; p. 691.
Wire-holding stand. J. W. Peter. No. 1,204,808; Nov. 7; Gaz. vol. 232; p. 263.
Wire-machines, Safety mechanism for. J. Cetnarowski. No. 1,206,092; Nov. 28; Gaz. vol. 232; p. 988.
Wire-straightening machine. J. M. Welsh. No. 1,206,184; Nov. 28; Gaz. vol. 232; p. 1020.
Wire-stretcher. L. Kaspryk. No. 1,204,277; Nov. 7; Gaz. vol. 232; p. 252.
Wire-stretcher. E. B. Lindsey. No. 1,204,168; Nov. 7; Gaz. vol. 232; p. 216.
Wire-stretcher. W. Schmoeger. No. 1,204,076; Nov. 7; Gaz. vol. 232; p. 185.
Wire-stretching means. T. L. Hargis. No. 1,203,617; Nov. 7; Gaz. vol. 232; p. 23.
Wire tightening and splicing tool. W. Williams. No. 1,205,832; Nov. 21; Gaz. vol. 232; p. 865.
Wires of different sizes, Uniting. J. T. Fagan. No. 1,206,686; Nov. 28; Gaz. vol. 232; p. 1189.
Wireless transmission of energy, Apparatus for. F. H. Millener. No. 1,206,352; Nov. 28; Gaz. vol. 232; p. 1076.
Wireless transmitters, Circuit arrangement for. E. von Lepel. No. 1,204,720; Nov. 14; Gaz. vol. 232; p. 441.
Wood-barking machine. F. E. Saecker. No. 1,206,472; Nov. 28; Gaz. vol. 232; p. 1117.
Wood-cutting tool. W. Nickelson. No. 1,206,461; Nov. 28; Gaz. vol. 232; p. 1114.
Wood, Process and product of treating. H. W. Broady. No. 1,203,577; Nov. 7; Gaz. vol. 232; p. 8.

Woodworking-machine. H. T. Taylor. No. 1,204,829; Nov. 14; Gaz. vol. 232; p. 477.
Work-holder. G. A. Rosner. No. 1,204,521; Nov. 14; Gaz. vol. 232; p. 474.
Work-tables, Safety shipping device for. E. W. Phillips. No. 1,205,947; Nov. 21; Gaz. vol. 232; p. 902.
Wrapping hose and similar articles, Machine for. H. Z. Cobb. No. 1,204,342; Nov. 7; Gaz. vol. 232; p. 274.
Wrapping-machine. H. De Escobales. No. 1,203,592; Nov. 7; Gaz. vol. 232; p. 14.
Wrench: *See*—
Adjustable wrench.
Adjustable set-wrench.
Jar-wrench.
Ratchet-wrench.
Socket-wrench.
Tong-wrench.
Wrench. R. Y. Bovee. No. 1,205,149; Nov. 21; Gaz. vol. 232; p. 630.
Wrench. L. A. Carner. No. 1,204,129; Nov. 7; Gaz. vol. 232; p. 202.
Wrench. H. V. Haines. No 1,203,728; Nov. 7; Gaz. vol. 232; p. 61.
Wrench. W. J. Hanna. No. 1,204,433; Nov. 14; Gaz. vol. 232; p. 341.
Wrench. C. I. Hawkins and R. W. Campbell. No. 1,204,980; Nov. 14; Gaz. vol. 232; p. 531.
Wrench. J. R. Hunt. No. 1,204,983; Nov. 14; Gaz. vol. 232; p. 532.
Wrench. I. A. Larson. No. 1,203,750; Nov. 7; Gaz. vol. 232; p. 70.
Wrench. C. McLay. No. 1,205,911; Nov. 21; Gaz. vol. 232; p. 891.
Wrench. M. G. Norris. No. 1,204,480; Nov. 14; Gaz. vol. 232; p. 357.
Wrench. L. W. Smith. No. 1,204,515; Nov. 14; Gaz. vol. 232; p. 368.
Wrench. W. H. Spanier. No. 1,204,383; Nov. 7; Gaz. vol. 232; p. 288.
Wringer: *See*—
Clothes-wringer.
Wringers, Pressure-roll release for. A. E. Holaday. No. 1,204,874; Nov. 14; Gaz. vol. 232; p. 491.
Wringers, Pressure-roll release for. A. E. Holaday. No. 1,204,875; Nov. 14; Gaz. vol. 232; p. 492.
Writing-machines, Paper-support for. O. Thieme. No. 1,206,271; Nov. 28; Gaz. vol. 232; p. 1049.
Yarn-coating device. W. R. Denman. No. 1,206,420; Nov. 28; Gaz. vol. 232; p. 1100.
Yoke, Draft-. I. O. Wright. No. 1,203,834; Nov. 7; Gaz. vol. 232; p. 99.
Yoke, Draft-equalizing neck-. A. J. Lehman and C. H. Faurote. No. 1,206,446; Nov. 28; Gaz. vol. 232; p. 1108.

ALPHABETICAL LIST OF DESIGNS.

Advertising-board. W. T. Sebree. No. 49,937; Nov. 21; Gaz. vol. 232; p. 910.
Air-compressor casing. G. F. Steedman. No. 49,910; Nov. 14; Gaz. vol. 232; p. 594.
Automobile-body. C. B. Mueller. No. 49,851; Nov. 7; Gaz. vol. 232; p. 294.
Badge, button, pin, or similar article. R. H. Allan. No. 49,943; Nov. 28; Gaz. vol. 232; p. 1231.
Badge or insignia. W. H. Sickels. No. 49,865; Nov. 7; Gaz. vol. 232; p. 296.
Biscuit, Loaf of. A. F. Ward. No. 49,942; Nov. 21; Gaz. vol. 232; p. 911.
Biscuit or rolls, Loaf of. F. H. Van Houten. No. 49,941; Nov. 21; Gaz. vol. 232; p. 911.
Bit. W. F. Cody. No. 49,949; Nov. 28; Gaz. vol. 232; p. 1232.
Bottle. J. L. Dunnock. No. 49,881; Nov. 14; Gaz. vol. 232; p. 588.
Bottle. R. A. Graham. No. 49,924; Nov. 21; Gaz. vol. 232; p. 908.
Bowl, Egg-beating. A. E. Laberee and A. B. Hawks. No. 49,902; Nov. 14; Gaz. vol. 232; p. 593.
Bowl-hanger and outside-light support. B. Schwartzman. No. 49,859; Nov. 7; Gaz. vol. 232; p. 295.
Bracket wall-plate. W. Horn. No. 49,891; Nov. 14; Gaz. vol. 232; p. 590.
Button. J. S. Monaghan. Nos. 49,848–50; Nov. 7; Gaz. vol. 232; pp. 293–4.
Button. R. Siebert. Nos. 49,866–7; Nov. 7; Gaz. vol. 232; p. 297.
Button. R. Siebert. No. 49,938; Nov. 21; Gaz. vol. 232; p. 910.
Cabinet. B. F. Klein. No. 49,929; Nov. 21; Gaz. vol. 232; p. 909.
Cabinet. J. Virzi. No. 49,912; Nov. 14; Gaz. vol. 232; p. 594.
Cabinet, Display-. M. J. Karpeles. No. 49,926; Nov. 21; Gaz. vol. 232; p. 908.
Cane. E. C. Riegel. No. 49,909; Nov. 14; Gaz. vol. 232; p. 594.
Cap, Knitted. P. H. Schmidt. No. 49,972; Nov. 28; Gaz. vol. 232; p. 1237.
Car windows, Cinder-guard for railway-. R. M. and F. L. Easley. No. 49,882; Nov. 14; Gaz. vol. 232; p. 588.
Cars, Throttle and spark control bracket for motor-. A. L. Campbell. No. 49,919; Nov. 21; Gaz. vol. 232; p. 907.
Casket plate, Burial-. C. Blesch. No. 49,945; Nov. 28; Gaz. vol. 232; p. 1231.
Caskets, Name-plate for. G. R. Bailey. No. 49,876; Nov. 14; Gaz. vol. 232; p. 587.
Catch-hook. J. Lighter. No. 49,930; Nov. 21; Gaz. vol. 232; p. 909.
Chandelier-body. W. Horn. No. 49,889; Nov. 14; Gaz. vol. 232; p. 590.
Chandelier-body. W. Horn. No. 49,897; Nov. 14; Gaz. vol. 232; p. 592.
Chandelier-body ring. W. Horn. No. 49,890; Nov. 14; Gaz. vol. 232; p. 590.
Chandelier-body ring. W. Horn. Nos. 49,895–6; Nov. 14; Gaz. vol. 232; p. 591.
Chandelier-canopy ring. W. Horn. No. 49,894; Nov. 14; Gaz. vol. 232; p. 591.
Chandelier-chain support. W. Horn. No. 49,893; Nov 14; Gaz. vol. 232; p. 591.
Chandelier-chain support. W. Horn. No. 49,925; Nov. 21; Gaz. vol. 232; p. 908.
Clock-casing. W. Dudek. No. 49,880; Nov. 14; Gaz. vol 232; p. 588.
Cooky. K. D. Loose. No. 49,904; Nov. 14; Gaz. vol. 232; p. 593.
Cuff-links, Shank for. I. Heidelsheimer. No. 49,887; Nov. 14; Gaz. vol. 232; p. 589.
Curtain-rod. F. L. Lathrop. No. 49,903; Nov. 14; Gaz. vol. 232; p. 593.
Door bolt, Sliding-. S. R. Parkes. No. 49,932; Nov. 21; Gaz. vol. 232; p. 909.
Drinking vessel or similar article. W. J. Graham. No. 49,961; Nov. 28; Gaz. vol. 232; p. 1235.
Fabric, Netted. W. W. Chace. No. 49,842; Nov. 7; Gaz. vol. 232; p. 292.
Fabric, Printed. H. Wearne. Nos. 49,869–73; Nov. 7; Gaz. vol. 232; pp. 297–8.
Fabric, Printed. H. Wearne. No. 49,913; Nov. 14; Gaz. vol. 232; p. 595.
Finger-ring. L. R. Straus. No. 49,974; Nov. 28; Gaz. vol. 232; p. 1237.
Fire-extinguisher, Chemical. F. C. Bargar. No. 49,944; Nov. 28; Gaz. vol. 232; p. 1231.
Flower-stands, Tube-receiving pedestal for. H. Northwood. No. 49,852; Nov. 7; Gaz. vol. 232; p. 294.
Game apparatus. A. P. Chase. No. 49,843; Nov. 7; Gaz. vol. 232; p. 292.
Glass dish. S. L. Parsons. No. 49,908; Nov. 14; Gaz. vol. 232; p. 594.
Glass, Drinking-. J. Reynolds. No. 49,936; Nov. 21; Gaz. vol. 232; p. 910.
Golf-ball. P. A. Martin. No. 49,905; Nov. 14; Gaz. vol. 232; p. 593.
Ham-mold. H. Adelmann. No. 49,915; Nov. 21; Gaz. vol. 232; p. 907.
Hand-bag. L. Wertheim. No. 49,914; Nov. 14; Gaz. vol. 232; p. 595.
Hat and coat hook. H. A. Dow. No. 49,921; Nov. 21; Gaz. vol. 232; p. 908.
Inkstand. J. T. Riley. Nos. 49,853–7; Nov. 7; Gaz. vol. 232; pp. 294–5.
Jar-wrench. J. L. Needham. No. 49,968; Nov. 28; Gaz. vol. 232; p. 1236.
Jewelry-containing box or case. C. L. Depollier. Nos. 49,954–5; Nov. 28; Gaz. vol. 232; p. 1233.
Lace. H. Finegold. Nos. 49,922–3; Nov. 21; Gaz. vol. 232; p. 908.
Lamp, Gas-. A. H. Humphrey. No. 49,964; Nov. 28; Gaz. vol. 232; p. 1235.
Lavatory. J. F. Kelly. No. 49,928; Nov. 21; Gaz. vol. 232; p. 909.
Lighting-fixture arm. B. Schwartzman. No. 49,858; Nov. 7; Gaz. vol. 232; p. 295.
Lighting-fixture arm. B. Schwartzman. No. 49,862; Nov. 7; Gaz. vol. 232; p. 296.
Lighting-fixture bowl-hanger. B. Schwartzman. No. 49,861; Nov. 7; Gaz. vol. 232; p. 296.
Lighting-fixture ornament. B. Schwartzman. No. 49,860; Nov. 7; Gaz. vol. 232; p. 296.
Lighting-fixtures, Bracket wall-plate for. W. Horn. No. 49,898; Nov. 14; Gaz. vol. 232; p. 592.
Lighting-fixtures, Wall-bracket arm for. W. Horn. No. 49,892; Nov. 14; Gaz. vol. 232; p. 590.
Lighting-fixtures, Wall-bracket arm for. W. Horn. No. 49,899; Nov. 14; Gaz. vol. 232; p. 592.
Liquid-server or similar article. H. P. Jenks. No. 49,845; Nov. 7; Gaz. vol. 232; p. 293.
Measuring instruments or meters, Face-plate of. M. Smithey. No. 49,973; Nov. 28; Gaz. vol. 232; p. 1237.
Paper-cutter and book-mark, Combination. R. D. Knight. No. 49,900; Nov. 14; Gaz. vol. 232; p. 592.
Paper doily. F. Conrad. Nos. 49,950–1; Nov. 28; Gaz. vol. 232; p. 1232.
Pencil-holder. W. A. Olive. No. 49,931; Nov. 21; Gaz. vol. 232; p. 909.
Picture-frame. L. Klein. No. 49,846; Nov. 7; Gaz. vol. 232; p. 293.
Plate. E. J. Ridgway. No. 49,970; Nov. 28; Gaz. vol. 232; p. 1236.
Plate or similar article. W. Abrams. No. 49,841; Nov. 7; Gaz. vol. 232; p. 292.
Plate or similar article. W. De Ville. Nos. 49,956–7; Nov. 28; Gaz. vol. 232; p. 1234.
Plate or similar article. R. Erlebach. Nos. 49,888–5; Nov. 14; Gaz. vol. 232; p. 589.
Pocket article. S. Rabijak. No. 49,933; Nov. 21; Gaz. vol. 232; p. 910.
Puzzle-box. W. J. McKoy. No. 49,847; Nov. 7; Gaz. vol. 232; p. 293.
Radiator-casing for motor-cars. W. Brewster. No. 49,878; Nov. 14; Gaz. vol. 232; p. 587.
Radiator-section. W. B. Reed. Nos. 49,934–5; Nov. 21; Gaz. vol. 232; p. 910.
Range, Gas-. H. J. Hoover. No. 49,888; Nov. 14; Gaz. vol. 232; p. 590.
Receptacle for holding a salt-cellar, pepper-shaker, knives, forks, spoons, and toothpicks, Table-. E. Aulicino and J. P. Fragetta. No. 49,875; Nov. 14; Gaz. vol. 232; p. 587.
Scale-standard. C. G. Strubler. No. 49,911; Nov. 14; Gaz. vol. 232; p. 594.
Sign, Electric. R. Hargrave. No. 49,962; Nov. 28; Gaz. vol. 232; p. 1235.
Slipper. P. E. Blum. No. 49,918; Nov. 21; Gaz. vol. 232; p. 907.
Slipper. P. E. Blum. No. 49,946; Nov. 28; Gaz. vol. 232; p. 1231.
Soap-dispenser. L. De Doory. No. 49,920; Nov. 21; Gaz. vol. 232; p. 908.
Spectacles, Pair of. E. G. Burlingame. No. 49,948; Nov. 28; Gaz. vol. 232; p. 1232.
Speedometer-casing. J. W. Jones. No. 49,965; Nov. 28; Gaz. vol. 232; p. 1235.

Spoons, forks, or similar articles, Handle for. B. P. Jenks. No. 49,844; Nov. 7; Gaz. vol. 232; p. 292.
Spoons, forks, or similar articles, Handle for. A. H. Staf. No. 49,868; Nov. 7; Gaz. vol. 232; p. 297.
Stick-pin, lapel-button, or similar article of manufacture. E. C. Ripley. No. 49,971; Nov. 28; Gaz. vol. 232; p. 1237.
Stove. A. C. Weisberg. No. 49,976; Nov. 28; Gaz. vol. 232; p. 1238.
Stove or range. J. E. Leonard. No. 49,967; Nov. 28; Gaz. vol. 232; p. 1236.
Table and desk top. J. L. Kahles. No. 49,966; Nov. 28; Gaz. vol. 232; p. 1235.
Tire. G. Crowley. No. 49,952; Nov. 28; Gaz. vol. 232; p. 1233.
Tire. O. W. Dunham and F. W. Willis. No. 49,958; Nov. 28; Gaz. vol. 232; p. 1234.
Tire, Automobile-. R. H. Keaton. No. 49,927; Nov. 21; Gaz. vol. 232; p. 900.
Tire, Elastic vehicle-. O. J. Kuhlke. No. 49,901; Nov. 14; Gaz. vol. 232; p. 592.
Tire-tread. S. J. Bogan. No. 49,947; Nov. 28; Gaz. vol. 232; p. 1232.
Tire-tread. W. R. Denman. No. 49,953; Nov. 28; Gaz. vol. 232; p. 1233.
Tire tread, Pneumatic-. P. B. Bosworth. No. 49,877; Nov. 14; Gaz. vol. 232; p. 587.
Tires, Tread-band for pneumatic. V. A. Parker. No. 49,969; Nov. 28; Gaz. vol. 232; p. 1236.
Tombstone. A. J. Harman. No. 49,886; Nov. 14; Gaz. vol. 232; p. 589.
Tongs. C. W. Seaman. No. 49,863; Nov. 7; Gaz. vol. 232; p. 296.
Tongs, Clinker-. M. Meyer. No. 49,906; Nov. 14; Gaz. vol. 232; p. 593.
Tooth-cleaner. W. M. Muchow. No. 49,907; Nov. 14; Gaz. vol. 232; p. 593.
Toy figure. E. Allison. No. 49,916; Nov. 21; Gaz. vol. 232; p. 907.
Toy windmill and seesaw. G. H. Cove. No. 49,879; Nov. 14; Gaz. vol. 232; p. 588.
Undergarment. C. R. Watson. No. 49,975; Nov. 28; Gaz. vol. 232; p. 1238.
Vacuum-cleaner case. I. L. Sheffer. No. 49,864; Nov. 7; Gaz. vol. 232; p. 296.
Vehicle-body. R. B. Fageol. No. 49,959; Nov. 28; Gaz. vol. 232; p. 1234.
Vehicle-body. W. S. Harley. No. 49,963; Nov. 28; Gaz. vol. 232; p. 1235.
Water-cooler. L. J. Stern. Nos. 49,939–40; Nov. 21; Gaz. vol. 232; p. 911.
Weapon. J. Bednarowics. No. 49,917; Nov. 21; Gaz. vol. 232; p. 907.

ALPHABETICAL LIST OF TRADE-MARKS.

Advertising apparatuses, Continuous-web-operating. Ford Trube Co. No. 113,956; Nov. 14; Gaz. vol. 232; p. 613.
Apparel and furnishings, Wearing-. Robert Reis & Co. No. 113,910; Nov. 7; Gaz. vol. 232; p. 310.
Apple, orange, lemon, and grape-fruit juices, ginger-ale. National Fruit Juice Co. No. 114,107; Nov. 28; Gaz. vol. 232; p. 1255.
Automobile and furniture polish. W. C. Ross Manufacturing Co. No. 114,076; Nov. 21; Gaz. vol. 232; p. 931.
Automobile, furniture, hardwood-floor, &c., polish. Frazsle Laboratories. No. 114,063; Nov. 21; Gaz. vol. 232; p. 931.
Balances and scales. Landers, Frary & Clark. No. 113,889; Nov. 7; Gaz. vol. 232; p. 316.
Barrels and casks, Gum headings for. Himmelberger-Harrison Lumber Co. No. 113,881; Nov. 7; Gaz. vol. 232; p. 316.
Batteries, Dry. The United States Graphite Co. No. 114,122; Nov. 28; Gaz. vol. 232; p. 1256.
Beard-softener in paste form. A. J. Krank Manufacturing Company. No. 114,097; Nov. 28; Gaz. vol. 232; p. 1255.
Bearings and bushings. General Aluminum & Brass Mfg. Co. No. 114,064; Nov. 21; Gaz. vol. 232; p. 930.
Beauty-spots, sachets, perfume, and face-powders. L. C. Essig. No. 113,953; Nov. 14; Gaz. vol. 232; p. 613.
Beer. Burkhardt Brewing Company. Nos. 114,055–6; Nov. 21; Gaz. vol. 232; p. 931.
Beer. Burkhardt Brewing Company. No. 114,086; Nov. 28; Gaz. vol. 232; p. 1255.
Beer. The Gund Brewing Co. No. 113,968; Nov. 14; Gaz. vol. 232; p. 614.
Beer. North American Brewing Company. No. 113,900; Nov. 7; Gaz. vol. 232; p. 316.
Beer. Old Dutch Brew Company. No. 114,109; Nov. 28; Gaz. vol. 232; p. 1255.
Beer containing less than two per cent. alcohol. The Monumental Brewing Co. No. 114,070; Nov. 21; Gaz. vol. 232; p. 931.
Belting, hose, and machinery packing, Certain named. R. Kelly. No. 113,985; Nov. 14; Gaz. vol. 232; p. 614.
Belts, suspenders, garters, neckties, and neckscarfs. Robert Reis & Co. No. 114,114; Nov. 28; Gaz. vol. 232; p. 1256.
Beverage and syrup for making same, Non-alcoholic. N. Smith. No. 114,119; Nov. 28; Gaz. vol. 232; p. 1256.
Beverage and syrups for making same, Carbonated non-alcoholic. Orange Crush Co. No. 113,902; Nov. 7; Gaz. vol. 232; p. 316.
Beverage, Certain named non-alcoholic. W. H. Hommel. No. 113,976; Nov. 14; Gaz. vol. 232; p. 614.
Beverage, Certain non-alcoholic. The Manitou Mineral Water Company. No. 114,101; Nov. 28; Gaz. vol. 232; p. 1256.
Beverage, Malt non-intoxicating. The Monumental Brewing Co. No. 114,104; Nov. 28; Gaz. vol. 232; p. 1255.
Beverages and syrups for making same, fruit syrups, &c., Non-alcoholic carbonated. The Schuster Company. No. 114,077; Nov. 21; Gaz. vol. 232; p. 931.
Beverages and syrups for making same, Grape-flavored. C. J. Donnelly. No. 113,871; Nov. 7; Gaz. vol. 232; p. 315.
Beverages, Certain named non-alcoholic. Hood River Apple Vinegar Co. No. 113,977; Nov. 14; Gaz. vol. 232; p. 614.
Beverages made of malt, hops, &c. The Pilsener Brewing Company. No. 113,908; Nov. 7; Gaz. vol. 232; p. 316.
Beverages or soft drinks, Non-alcoholic non-intoxicating. I. May. No. 114,069; Nov. 21; Gaz. vol. 232; p. 931.
Binders, Loose-leaf. The Loopost Binder Co. No. 114,099; Nov. 28; Gaz. vol. 232; p. 1255.
Biscuit. National Biscuit Company. No. 114,004; Nov. 14; Gaz. vol. 232; p. 615.
Biscuits and crackers. The Purity Biscuit Company. No. 114,017; Nov. 14; Gaz. vol. 232; p. 615.
Boiler-cleaning appliances. Diamond Power Specialty Company. No. 113,950; Nov. 14; Gaz. vol. 232; p. 613.
Boots and shoes, Leather. The Commonwealth Shoe and Leather Company. No. 113,867; Nov. 7; Gaz. vol. 232; p. 315.
Boots and shoes made of certain materials and combinations. The Goodyear's Metallic Rubber Shoe Co. No. 113,962; Nov. 14; Gaz. vol. 232; p. 614.
Brace, Body-. The Abformator Support Co. No. 113,851; Nov. 7; Gaz. vol. 232; p. 315.
Braids, feather-stitching, &c., Fancy. The H. B. Claflin Corporation. No. 114,059; Nov. 21; Gaz. vol. 232; p. 931.
Bread. Charles Herendeen Milling Company. No. 113,975; Nov. 14; Gaz. vol. 232; p. 614.
Bread and cake. Ward Baking Company. No. 114,039; Nov. 14; Gaz. vol. 232; p. 616.
Bread, muffins, wheat-flour, &c. H. A. C. Dahl & Son. No. 113,947; Nov. 14; Gaz. vol. 232; p. 613.
Butter, cheese, cream, milk, &c. California Central Creameries. No. 113,861; Nov. 7; Gaz. vol. 232; p. 315.
Buttons to be worn in the cuffs of shirts. Larter & Sons. No. 114,098; Nov. 28; Gaz. vol. 232; p. 1255.
Buttons used as garment-fasteners, Snap-. Waldes & Co. Nos. 114,123–4; Nov. 28; Gaz. vol. 232; p. 1256.
Calcimine. The Osro Chemical Co. No. 114,010; Nov. 14; Gaz. vol. 232; p. 613.
Candies. Old Dominion Peanut Corporation. No. 114,009; Nov. 14; Gaz. vol. 232; p. 615.
Canned, dried, prepared, and greened nuts and fruits, particularly almonds. Jung Fratelli. No. 113,983; Nov. 14; Gaz. vol. 232; p. 614.
Canned salmon. Columbia Salmon Co. No. 113,946; Nov. 14; Gaz. vol. 232; p. 613.
Canned vegetables. Inderrieden Canning Co. No. 113,980; Nov. 14; Gaz. vol. 232; p. 614.
Canned vegetables. B. F. Moomaw Co. No. 114,002; Nov. 14; Gaz. vol. 232; p. 615.
Caps. F. L. Lattimore. No. 113,992; Nov. 14; Gaz. vol. 232; p. 615.
Carbon-papers and type-writer ribbons. The Mercury Mfg. Co. No. 113,999; Nov. 14; Gaz. vol. 232; p. 615.
Carbureters. Societe Anonyme Du Carburateur Aris. No. 114,031; Nov. 14; Gaz. vol. 232; p. 616.
Carbureters and parts thereof for internal-combustion engines. The Aston Motor Accessories Co. No. 113,856; Nov. 7; Gaz. vol. 232; p. 315.
Castings, Iron and steel. P. David Company. No. 113,948; Nov. 14; Gaz. vol. 232; p. 613.
Catalogues, price-lists, &c. James B. Clow & Sons. No. 113,866; Nov. 7; Gaz. vol. 232; p. 315.
Cement, Portland. Cape Girardeau Portland Cement Co. No. 113,863; Nov. 7; Gaz. vol. 232; p. 315.
Cement-surface hardener, Liquid preparation for use as a. Patton Paint Company. No. 113,906; Nov. 7; Gaz. vol. 232; p. 316.
Champagne. L. M. Goldberg. No. 114,095; Nov. 28; Gaz. vol. 232; p. 1255.
Charts, Nurses' blank. E. K. Dalrymple. No. 114,061; Nov. 21; Gaz. vol. 232; p. 931.
Cheese. A. L. Galinsky. No. 113,960; Nov. 14; Gaz. vol. 232; p. 614.
Cheese. Gerber & Co. No. 113,880; Nov. 7; Gaz. vol. 232; p. 316.
Chocolates and candy. Stephen F. Whitman & Son. No. 114,043; Nov. 14; Gaz. vol. 232; p. 616.
Cleaners, Hand-operated vacuum-. Muenzen Specialty Co. No. 114,106; Nov. 28; Gaz. vol. 232; p. 1255.
Cleaning fluid. Postel Stain-Extracting Corporation. No. 114,111; Nov. 28; Gaz. vol. 232; p. 1255.
Cleaning liquid for fabrics, Saponaceous. New-Knapp Powder Co. No. 114,005; Nov. 14; Gaz. vol. 232; p. 615.
Clothing, Certain named. Browning, King & Co. No. 113,943; Nov. 14; Gaz. vol. 232; p. 613.
Clothing, Certain named. The Rose Knit Goods Company. No. 114,020; Nov. 14; Gaz. vol. 232; p. 615.
Clothing, Certain named. Willcox & Gibbs Sewing Machine Co. No. 114,044; Nov. 14; Gaz. vol. 232; p. 616.
Coats, trousers, vests, and outer or over coats. Ed. V. Price & Company. No. 114,112; Nov. 28; Gaz. vol. 232; p. 1255.
Coats, trousers, vests, leggings, hats, caps. Alward-Anderson-Southard Co. No. 113,932; Nov. 14; Gaz. vol. 232; p. 613.
Coats, vests, and trousers. Goldenbergs. No. 113,961; Nov. 14; Gaz. vol. 232; p. 614.
Coffee. Grand Union Tea Company. No. 113,965; Nov. 14; Gaz. vol. 232; p. 614.
Coffee, Roasted. Tillmann & Bendel. No. 113,924; Nov. 7; Gaz. vol. 232; p. 317.
Collars, harness, and riding-saddles, Horse-. Scheffer & Rossaun Company. No. 113,916; Nov. 7; Gaz. vol. 232; p. 317.
Combs, barrettes, and hair-pins. Nichols Manufacturing Company. No. 114,073; Nov. 21; Gaz. vol. 232; p. 931.
Containers for creams, ice-creams, liquid foods, &c., Edible. American Ingenuities Corporation. No. 113,854; Nov. 7; Gaz. vol. 232; p. 315.
Cornmeal. Juliette Milling Co. No. 113,982; Nov. 14; Gaz. vol. 232; p. 614.
Crackers and biscuits. Johnson Educator Food Co. No. 113,981; Nov. 14; Gaz. vol. 232; p. 614.
Cream, Face-. L. Burd. No. 113,860; Nov. 7; Gaz. vol. 232; p. 315.

Cream-separators. Scandinavian-American Trading Co. No. 114,026; Nov. 14; Gaz. vol. 232; p. 616.
Cream to soften and whiten the skin, Massage-. Matthews & Lively Co. No. 113,894; Nov. 7; Gaz. vol. 232; p. 316.
Creams, cleansing-creams, and rice powders, Witch-hazel vanishing. Wolff-Wilson Drug Co. No. 114,046; Nov. 14; Gaz. vol. 232; p. 616.
Creams, Toilet. R. A. Sweet. No. 113,923; Nov. 7; Gaz. vol. 232; p. 317.
Cutlery and tools, Certain named. Darwin & Milner. No. 113,869; Nov. 7; Gaz. vol. 232; p. 315.
Cutlery, machinery, tools, and parts thereof, Certain named. Simmons Hardware Company. No. 113,153; Oct. 10; Gaz. vol. 231; p. 508. (Canceled.)
Cutlery, machinery, tools, and parts thereof, Certain named. Simmons Hardware Company. No. 114,030; Nov. 14; Gaz. vol. 232; p. 616.
Cutlery, tools, and parts thereof, Certain named. L. Hens. No. 114,065; Nov. 21; Gaz. vol. 232; p. 931.
Dentifrice to prevent disease and infection of the gums and teeth, Hygienic. Royal Remedies Company. No. 114,021; Nov. 14; Gaz. vol. 232; p. 615.
Diapers. Lehigh Paper Mills. No. 113,891; Nov. 7; Gaz vol. 232; p. 316.
Disinfectant and antiseptic. William Peterman Inc. No. 114,015; Nov. 14; Gaz. vol. 232; p. 615.
Ditchers and graders. Owensboro Ditcher & Grader Co. No. 113,903; Nov. 7; Gaz. vol. 232; p. 316.
Dresses and waists. S. E. Badanes. No. 113,934; Nov. 14; Gaz. vol. 232; p. 613.
Drinks and syrup therefor, Carbonated soft. Wilbraham Springs Company. No. 114,127; Nov. 28; Gaz. vol. 232; p. 1256.
Drinks, Soft. The Excell Company. No. 113,954; Nov. 14; Gaz. vol. 232; p. 613.
Drinks, Soft. The S. & S. Water Company. No. 114,023; Nov. 14; Gaz. vol. 232; p. 615.
Drinks, Soft. Superior Spring Bottling Co. No. 114,080; Nov. 21; Gaz. vol. 232; p. 932.
Dyes for dyeing fabrics. Flower City Dye Co. No. 114,091; Nov. 28; Gaz. vol. 232; p. 1255.
Dyspepsia and stomach troubles. N. C. Pintado. No. 114,016; Nov. 14; Gaz. vol. 232; p. 615.
Eggs. Yesterlaid Egg Farms Company. Nos. 114,047–8; Nov. 14; Gaz. vol. 232; p. 616.
Eggs during incubation, Strengthening application for. Geo. H. Lee Company. No. 113,890; Nov. 7; Gaz. vol. 232; p. 316.
Electric illuminating apparatus, Certain named. National X-Ray Reflector Company. No. 113,897; Nov. 7; Gaz. vol. 232; p. 316.
Elevator-gates. Paterson-Leitch Company. No. 114,011; Nov. 14; Gaz. vol. 232; p. 615.
Embroidery work, Fancy materials for hand-. Campbell, Metzger & Jacobson. No. 113,862; Nov. 7; Gaz. vol. 232; p. 315.
Engine-governors. Monarch Governor Co. No. 114,001; Nov. 14; Gaz. vol. 232; p. 615.
Engines, Gasolene-vaporizer attachments for internal-combustion. The Red Star Gasoline Vaporizer Co. No 114,018; Nov. 14; Gaz. vol. 232; p. 615.
Feed, Cotton-seed. The Buckeye Cotton Oil Company. No. 114,040; Nov. 14; Gaz. vol. 232; p. 616.
Feed, Horse, dairy, and poultry. Nowak Milling Corporation. No. 114,074; Nov. 21; Gaz. vol. 232; p. 931.
Fire-extinguisher. Aetna Extinguisher Co. No. 113,931; Nov. 14; Gaz. vol. 232; p. 613.
Flavoring extracts for foods. The Hudson Mfg. Co. No. 113,978; Nov. 14; Gaz. vol. 232; p. 614.
Flour, Self-rising. F. B. Chamberlain Co. No. 114,058; Nov. 21; Gaz. vol. 232; p. 931.
Flour, Self-rising. Washington Grain and Milling Co. Nos. 114,040–1; Nov. 14; Gaz. vol. 232; p. 616.
Flour, Self-rising wheat-. Canadian Mill & Elevator Co. No. 114,051; Nov. 14; Gaz. vol. 232; p. 616.
Flour, Self-rising wheat-. Wenatchee Milling Co. No. 114,042; Nov. 14; Gaz. vol. 232; p. 616.
Flour, Wheat-. The Capital City Milling & Grain Company. No. 113,945; Nov. 14; Gaz. vol. 232; p. 613.
Flour, Wheat-. The McManness Milling & Grain Co. No. 113,907; Nov. 14; Gaz. vol. 232; p. 615.
Flour, Wheat-. Oklahoma City Mill & Elevator Co. Nos. 114,007–8; Nov. 14; Gaz. vol. 232; p. 615.
Flour, Wheat-. The Scott County Milling Company. No. 114,116; Nov. 28; Gaz. vol. 232; p. 1256.
Flour, Wheat-. The Southwestern Milling Company. No. 114,032; Nov. 14; Gaz. vol. 232; p. 616.
Flour, Wheat-. Sprague Roller Mills. No. 114,034; Nov. 14; Gaz. vol. 232; p. 616.
Food, Certain named. The Sears & Nichols Co. No. 114,027; Nov. 14; Gaz. vol. 232; p. 616.
Foods, Certain named. Campbell Holton & Co. No. 114,087; Nov. 28; Gaz. vol. 232; p. 1255.
Foods, Certain named. Haas-Lieber Grocery Company. No. 113,973; Nov. 14; Gaz. vol. 232; p. 614.
Foods, Certain named. T. Krainin. No. 114,067; Nov. 21; Gaz. vol. 232; p. 931.
Foods, Certain named. R. I. Sherman. No. 114,028; Nov. 14; Gaz. vol. 232; p. 616.
Foods, Certain named. Van Vechten Milling Co. No. 114,037; Nov. 14; Gaz. vol. 232; p. 616.
Fruits, Citrus. Sarasota Citrus Growers Assn. No. 114,024; Nov. 14; Gaz. vol. 232; p. 615.
Fruits, raisins, Dried and canned. The J. K. Armsby Co. No. 114,084; Nov. 28; Gaz. vol. 232; p. 1255.
Furniture, Certain named. C. J. Wadsworth. No. 113,928; Nov. 7; Gaz. vol. 232; p. 317.
Furniture, Certain named. Willowcraft Shops. No. 113,929; Nov. 7; Gaz. vol. 232; p. 317.
Furniture, Dining-room. The Newark Ohio Furniture Co. No. 113,899; Nov. 7; Gaz. vol. 232; p. 316.
Furniture-polish. City Music Company. No. 113,865; Nov. 7; Gaz. vol. 232; p. 315.
Garments, Ladies' outer. Blogg & Littauer. No. 113,938; Nov. 14; Gaz. vol. 232; p. 613.
Gasolene-engine. The Ferro Machinery & Foundry Co. No. 112,709; Sept. 26; Gaz. vol. 230; p. 1180. (Canceled.)
Gasolene-engines. The Ferro Machine & Foundry Co. No. 113,955; Nov. 14; Gaz. vol. 232; p. 613.
Ginger-ale and sarsaparilla, Bottled. Fulford-Hickman Co. No. 113,959; Nov. 14; Gaz. vol. 232; p. 614.
Ginger-champagne. The Manitou Mineral Water Company. No. 114,102; Nov. 28; Gaz. vol. 232; p. 1255.
Gloves, Base-ball. A. J. Reach Company. No. 113,909; Nov. 7; Gaz. vol. 232; p. 316.
Hams, bacon, lard, and lard compound. Kurrie Packing Company. No. 113,990; Nov. 14; Gaz. vol. 232; p. 614.
Hats. Blum & Koch. No. 113,930; Nov. 14; Gaz. vol. 232; p. 613.
Healing and antiseptic dressing, Liquid. P. L. Steadman. No. 114,120; Nov. 28; Gaz. vol. 232; p. 1256.
Hog-cholera, Preparation for treatment of. I. E. Johnson. No. 113,887; Nov. 7; Gaz. vol. 232; p. 316.
Hog-cholera serum. C. H. Bugbee. No. 113,944; Nov. 14; Gaz. vol. 232; p. 613.
Hose, tubing, belting, gaskets, valves, and machinery packing. Imperial Rubber Co. No. 113,886; Nov. 7; Gaz. vol. 232; p. 316.
Hosiery. M. A. Friedman & Bro. No. 114,093; Nov. 28; Gaz. vol. 232; p. 1255.
Husking implements, Corn-. The Boss Manufacturing Company. No. 113,936; Nov. 14; Gaz. vol. 232; p. 613.
Ink, Printing-. W. R. Grace & Co. No. 113,963; Nov. 14; Gaz. vol. 232; p. 614.
Knitted union suits, vests, pants, corset-covers, bodices. The Mentor Knitting Mills Co. No. 113,998; Nov. 14; Gaz. vol. 232; p. 615.
Knives and scissors, Pocket-. Schmachtenberg Bros. No. 113,918; Nov. 7; Gaz. vol. 232; p. 317.
Knives, Pen and pocket. Schmachtenberg Bros. No. 113,917; Nov. 7; Gaz. vol. 232; p. 317.
Knives, Pocket-. Landers, Frary & Clark. No. 113,991; Nov. 14; Gaz. vol. 232; p. 614.
Leather-restorative compositions, Liquid. Tandop Manufacturing Company. No. 114,121; Nov. 28; Gaz. vol. 232; p. 1256.
Leathers and leather strips, Sole and harness. Magnus Hessberg, Inc. No. 114,066; Nov. 21; Gaz. vol. 232; p. 931.
Liniment. J. S. Bishop. No. 113,857; Nov. 7; Gaz. vol. 232; p. 315.
Liniment for spavin, curb, &c., in horses and rheumatism, neuralgia, &c., in man. Dr. B. J. Kendall Company. No. 113,986; Nov. 14; Gaz. vol. 232; p. 614.
Lotion, Facial. M. A. Robinson. No. 113,911; Nov. 7; Gaz. vol. 232; p. 317.
Lotion or wash, Eye. A. W. Fuhrmann. No. 113,879; Nov. 7; Gaz. vol. 232; p. 316.
Magazine, Monthly. The Newspaper Enterprise Association. No. 114,006; Nov. 14; Gaz. vol. 232; p. 615.
Mattresses. Southern Bedding Manufacturing Co. No. 113,920; Nov. 7; Gaz. vol. 232; p. 317.
Medical preparation for treating the tobacco habit. J. H. Hollhan. No. 113,883; Nov. 7; Gaz. vol. 232; p. 316.
Medicinal preparation, a tonic and blood-purifier. D. H. Hunt. No. 113,885; Nov. 7; Gaz. vol. 232; p. 316.
Medicinal preparation for diseases of the kidneys and liver and analogous ailments. S. Pfeiffer Manufacturing Company. No. 113,907; Nov. 7; Gaz. vol. 232; p. 316.
Medicinal preparation for malaria, chills, and fever. A. H. Smith. No. 114,118; Nov. 28; Gaz. vol. 232; p. 1256.
Medicinal preparation for rheumatic pains, headaches, and colds. The Edwards Laboratories Company. No. 113,875; Nov. 7; Gaz. vol. 232; p. 315.
Medicinal tablet for stomach ailments. Eatonic Remedy Co. Nos. 113,873–4; Nov. 7; Gaz. vol. 232; p. 315.
Medicinal water, being an antiseptic for the mouth, throat, stomach, &c. The Eman Manufacturing Company. No. 113,877; Nov. 7; Gaz. vol. 232; p. 315.
Medicine, (blood-tonic.) R. Fragall. No. 114,092; Nov. 28; Gaz. vol. 232; p. 1255.
Medicine for colds, sore throat, hay-fever, &c. Behymer & Allen. No. 113,937; Nov. 14; Gaz. vol. 232; p. 613.
Medicine for stomach, liver, kidneys, &c. E. M. Co. No. 113,876; Nov. 7; Gaz. vol. 232; p. 315.
Medicine for treating certain named diseases. J. A. McCampbell. No. 113,996; Nov. 14; Gaz. vol. 232; p. 615.
Medicine for treatment of the effects of inebriety. H. J. Glick. No. 113,882; Nov. 7; Gaz. vol. 232; p. 316.
Medicine used as a blood-builder, general tonic, &c. V. A. Avaklan. No. 113,933; Nov. 14; Gaz. vol. 232; p. 613.
Mowers, Lawn-. J. Braun & Sons. Nos. 113,940–1; Nov. 14; Gaz. vol. 232; p. 613.
Needlework, Finished. B. Kugel. No. 114,068; Nov. 21; Gaz. vol. 232; p. 931.

Nipples, Nursing-. The Vant Woud Rubber Co. No. 113,926; Nov. 7; Gaz. vol. 232; p. 317.
Oars. De Grauw, Aymar & Company. No. 113,870; Nov. 7; Gaz. vol. 232; p. 315.
Oil and olives, Olive-. J. S. Perides. No. 114,012; Nov. 14; Gaz. vol. 232; p. 615.
Oil, Mulsified and saponified coconnut-. Empire Chemical Company. No. 113,878; Nov. 7; Gaz. vol. 232; p. 315.
Oil, Olive-. W. Simi. No. 114,029; Nov. 14; Gaz. vol. 232; p. 616.
Oil, Paint-. C. A. Hansen. No. 113,970; Nov. 14; Gaz. vol. 232; p. 614.
Oils, greases, and cutting compounds, Lubricating. The Middle States Oil Company. No. 114,000; Nov. 14; Gaz. vol. 232; p. 615.
Oils, Lubricating-. Pure Oil Company. No. 114,118; Nov. 28; Gaz. vol. 232; p. 1256.
Oils of citrus fruits for use in foods, Essential. Jung Fratelli. No. 113,984; Nov. 14; Gaz. vol. 232; p. 614.
Ointment for the relief of skin eruptions. Alexander Drug Co. No. 113,853; Nov. 7; Gaz. vol. 232; p. 315.
Ointments, tonic and antiseptic solutions for diseases of and injuries to the skin. J. D. Park. No. 113,904; Nov. 7; Gaz. vol. 232; p. 316.
Overalls, pants or trousers, coats, jackets, and jumpers. Elder Manufacturing Company. Nos. 113,951–2; Nov. 14; Gaz. vol. 232; p. 613.
Paint, Ready-mixed. Star Products Co. No. 113,921; Nov. 7; Gaz. vol. 232; p. 317.
Paints and painters' materials, Certain named. The Debevoise Company. No. 113,949; Nov. 14; Gaz. vol. 232; p. 613.
Painters' materials, Certain named. The Charles H. Brown Paint Company. No. 114,054; Nov. 21; Gaz. vol. 232; p. 931.
Paper, Bond-. Neenah Paper Company. No. 114,072; Nov. 21; Gaz. vol. 232; p. 931.
Paper, Toilet-. Albany Perforated Wrapping Paper Company. No. 114,052; Nov. 21; Gaz. vol. 232; p. 931.
Paper, Toilet-. National Paper Products Company. No. 114,108; Nov. 28; Gaz. vol. 232; p. 1255.
Paper, Toilet-. Sauquoit Toilet Paper Co. No. 114,115; Nov. 28; Gaz. vol. 232; p. 1256.
Paper towels and napkins. The Union Paper & Twine Company. No. 114,081; Nov. 21; Gaz. vol. 232; p. 932.
Paper towels or paper suitable for use as towels. West Disinfecting Company. Nos. 114,125–6; Nov. 28; Gaz. vol. 232; p. 1256.
Papers, Writing and printing. Parsons Paper Company. No. 113,905; Nov. 7; Gaz. vol. 232; p. 316.
Pens, Fountain-. Crocker Pen Company. No. 114,060; Nov. 21; Gaz. vol. 232; p. 931.
Pens, Fountain-. W. A. Welty. No. 114,083; Nov. 21; Gaz. vol. 232; p. 932.
Periodical, Monthly. Broderick & Bascom Rope Company. No. 113,942; Nov. 14; Gaz. vol. 232; p. 613.
Pharmaceutical preparation for eczematous and allied skin afflictions. Royal Remedies Company. No. 113,913; Nov. 7; Gaz. vol. 232; p. 317.
Pharmaceutical preparations, Antipyretic and antiphlogistic. The Eli Lilly and Company. No. 114,089; Nov. 28; Gaz. vol. 232; p. 1255.
Pharmaceutical preparations, Certain named. G. A. Kerros. No. 113,888; Nov. 7; Gaz. vol. 232; p. 316.
Pharmaceutical preparations for rheumatism, lumbago, and sciatica. F. F. Dow. No. 113,872; Nov. 7; Gaz. vol. 232; p. 315.
Pharmaceutical preparations for toilet purposes, Certain named. F. T. Hopkins & Son. No. 113,884; Nov. 7; Gaz. vol. 232; p. 316.
Pharmaceutical preparations for toilet use, Certain. G. C. Campbell. No. 114,057; Nov. 21; Gaz. vol. 232; p. 931.
Pharmaceutical product. Society of Chemical Industry in Basle. No. 113,910; Nov. 7; Gaz. vol. 232; p. 317.
Pills for biliousness, torpid liver, constipation, &c. J. A. Salter. No. 113,915; Nov. 7; Gaz. vol. 232; p. 317.
Powder, Dessert-. The Wabash Chemical & Baking Powder Company. No. 114,038; Nov. 14; Gaz. vol. 232; p. 616.
Powder-puffs. M. Levy. Nos. 113,892–3; Nov. 7; Gaz. vol. 232; p. 316.
Powder, Toilet. A. Bourjois & Co. No. 113,858; Nov. 7; Gaz. vol. 232; p. 315.
Preparation for treating certain named ailments and diseases. H. Seidenfeld. No. 114,117; Nov. 28; Gaz. vol. 232; p. 1256.
Print blocks and rollers. National Print Cutters Association of America. No. 114,071; Nov. 21; Gaz. vol. 232; p. 931.
Pumps and combined tank and pump outfits for handling oils, &c. Gilbert & Barker Mfg. Co. No. 114,094; Nov. 28; Gaz. vol. 232; p. 1255.
Putty-powder. James H. Rhodes & Company. No. 114,019; Nov. 14; Gaz. vol. 232; p. 615.
Rat-exterminator. Morsrite Mfg. Co. No. 114,105; Nov. 28; Gaz. vol. 232; p. 1255.
Reflectors for lighting-fixtures, Porcelain. National X-Ray Reflector Company. No. 113,898; Nov. 7; Gaz. vol. 232; p. 316.
Relief for tired feet. H. E. Guffin. No. 114,096; Nov. 28; Gaz. vol. 232; p. 1255.
Remedies, Eczema. H. M. Swartley. No. 113,922; Nov. 7; Gaz. vol. 232; p. 317.
Remedy for constipation. Frederick Stearns & Co. No. 114,036; Nov. 14; Gaz. vol. 232; p. 616.
Remedy for piles. J. Kress. No. 113,987; Nov. 14; Gaz. vol. 232; p. 614.
Remedy for rheumatism, External. P. B. Capuozzo. No. 114,088; Nov. 28; Gaz. vol. 232; p. 1255.
Remedy for the relief of certain named diseases or disorders. R. H. Speight. No. 114,033; Nov. 14; Gaz. vol. 232; p. 616.
Remedy, Headache. M. H. Rudy. No. 114,022; Nov. 14; Gaz. vol. 232; p. 615.
Remedy, Rheumatism. A. Romano. No. 113,912; Nov. 7; Gaz. vol. 232; p. 317.
Rings, bracelets, scarf-pins, &c., Finger, key, and jump. H. Freund & Brother. No. 113,958; Nov. 14; Gaz. vol. 232; p. 614.
Roofing, Sheet-metal. Braden Manufacturing Company. No. 113,859; Nov. 7; Gaz. vol. 232; p. 315.
Rust dirt, and grease dissolving and removing liquid product. Grahamoline Products Company. No. 113,964; Nov. 14; Gaz. vol. 232; p. 614.
Salad-dressing. Stachnik & Greenfield. No. 114,035; Nov. 14; Gaz. vol. 232; p. 616.
Salts and compounds thereof, Epsom. G. J. Hussman. No. 113,979; Nov. 14; Gaz. vol. 232; p. 614.
Salts, Calcium. P. M. Kuehnrich. Nos. 113,988–9; Nov. 14; Gaz. vol. 232; p. 614.
Salve preparation for treatment of tuberculosis. M. Grimes. No. 113,967; Nov. 14; Gaz. vol. 232; p. 614.
Shirts, blouses, middy-blouses, rompers, &c. Hallmann M'f'g Co. No. 113,974; Nov. 14; Gaz. vol. 232; p. 614.
Shirts, Dress, negligée, or work. N. N. Harris. No. 113,972; Nov. 14; Gaz. vol. 232; p. 614.
Silks in the piece, Broad. J. A. Migel. No. 113,895; Nov. 7; Gaz. vol. 232; p. 316.
Slicers, Meat, fruit, and vegetable. Crystal Percolator Co. No. 113,868; Nov. 7; Gaz. vol. 232; p. 315.
Solder known as brazing and spelter solder and brazing-spelter. North American Smelting Co. No. 113,901; Nov. 7; Gaz. vol. 232; p. 316.
Spices, canned goods, coffee, honey, &c. Simon Levi Company. No. 113,993; Nov. 14; Gaz. vol. 232; p. 615.
Stains. Bass-Hueter Paint Co. No. 113,935; Nov. 14; Gaz. vol. 232; p. 613.
Stenciling, Solid cakes of coloring-matter used for. A. J. Bendick. No. 114,085; Nov. 28; Gaz. vol. 232; p. 1255.
Stoves and ranges, Wood, coal, gas, vapor, and oil. The Buck's Stove & Range Company. No. 114,050; Nov. 14; Gaz. vol. 232; p. 616.
Suspenders, belts, armbands. Pioneer Suspender Company. No. 114,075; Nov. 21; Gaz. vol. 232; p. 931.
Syringes and water-bottles, Seamless fountain-. The Rubber Products Company. No. 113,914; Nov. 7; Gaz. vol. 232; p. 317.
Syrup for soda-water. Celro-Kola Company. No. 113,864; Nov. 7; Gaz. vol. 232; p. 315.
Tablets and medicines for constipation, biliousness, &c. C. E. Loertz. No. 113,995; Nov. 14; Gaz. vol. 232; p. 615.
Talking-machines. The Meyercord Company. No. 114,103; Nov. 28; Gaz. vol. 232; p. 1255.
Talking-machines. E. W. Walsh. No. 114,082; Nov. 21; Gaz. vol. 232; p. 932.
Talking-machines, parts thereof, and cabinets therefor. Domestic Talking Machine Corporation. No. 114,062; Nov. 21; Gaz. vol. 232; p. 931.
Talking-machines, phonographs, records, gramophones, &c. Sonora Phonograph Corporation. Nos. 114,078–9; Nov. 21; Gaz. vol. 232; p. 932.
Therapeutic agent for treatment of errors of metabolism in women, ovarian disorders, neurasthenia. The Perron Laboratory. Nos. 114,013–14; Nov. 14; Gaz. vol. 232; p. 615.
Tires, Inner or air tubes for vehicle-. The Savage Tire Company. No. 114,025; Nov. 14; Gaz. vol. 232; p. 615.
Tonic, Malt. Bartholomay Brewery Company. No. 114,053; Nov. 21; Gaz. vol. 232; p. 931.
Tonic, Mineral fluid. Vital Remedies Company. No. 113,927; Nov. 7; Gaz. vol. 232; p. 317.
Tooth-wash, Gum. J. L. Greenbaum. No. 113,966; Nov. 14; Gaz. vol. 232; p. 614.
Toy balloons. The Miller Rubber Company. No. 113,896; Nov. 7; Gaz. vol. 232; p. 316.
Undershirts and drawers, Knitted and textile. D. H. Posner. No. 114,110; Nov. 28; Gaz. vol. 232; p. 1255.
Uric-acid solvent. C. B. Fleet Company. No. 114,090; Nov. 28; Gaz. vol. 232; p. 1255.
Vehicle load-indicating mechanisms. F. J. Troll. No. 113,925; Nov. 7; Gaz. vol. 232; p. 317.
Vermin, insects, Preparations to exterminate. Williams-Davis-Brooks & Hinchman Sons. No. 114,045; Nov. 14; Gaz. vol. 232; p. 616.
Watchcases and watch-movements. The Hampden Watch Company. No. 113,971; Nov. 14; Gaz. vol. 232; p. 614.
Watches, watchcases, watch-movements, and parts thereof. H. Freund & Brother. No. 113,957; Nov. 14; Gaz. vol. 232; p. 613.
Water. Mutual Ice Co. No. 114,008; Nov. 14; Gaz. vol. 232; p. 615.
Waters, ginger-champagne, Still and charged or sparkling table-. The Manitou Mineral Water Company. No. 114,100; Nov. 28; Gaz. vol. 232; p. 1255.

Whisky. W. F. Hammel. No. 113,960; Nov. 14; Gaz. vol. 232; p. 614.
Whisky. Womack Bros. No. 113,930; Nov. 7; Gaz. vol. 232; p. 317.
Wood substitutes made from pulp. The Agasote Millboard Co. No. 113,852; Nov. 7; Gaz. vol. 232; p. 315.
Woolen and cotton piece goods. P. Linck. No. 113,994; Nov. 14; Gaz. vol. 232; p. 615.

ALPHABETICAL LIST OF LABELS.

"A G." (For Goldwasser.) A. Grunbaum. No. 19,724; Nov. 7; Gaz. vol. 232; p. 318.
"American Cloves Uncle Sam's Choice Confection." (For Clove Tablets.) H. R. Crowley. No. 19,757; Nov. 28; Gaz. vol. 232; p. 1257.
"American Mints Uncle Sam's Choice Confection." (For Mint Tablets.) H. R. Crowley. No. 19,756; Nov. 28; Gaz. vol. 232; p. 1257.
"American Wintergreen Uncle Sam's Choice Confection." (For Wintergreen Tablets.) H. R. Crowley. No. 19,758; Nov. 28; Gaz. vol. 232; p. 1257.
"Annette Kellermann Chili-Off Beach Cape." (For Bathing-Capes.) L. C. Asch. No. 19,719; Nov. 7; Gaz. vol. 232; p. 318.
"Arcadia Farm Products." (For Preserved Fruits and Vegetables.) Kirgan Brothers. No. 19,752; Nov. 28; Gaz. vol. 232; p. 1257.
"Beech-Nut Brand Chewing Gum." (For Chewing-Gum.) Beech-Nut Packing Company. Nos. 19,722–3; Nov. 7; Gaz. vol. 232; p. 318.
"Beech-Nut Brand Cloves." (For Clove-Flavored Candies and Confections.) Beech-Nut Packing Company. No. 19,750; Nov. 28; Gaz. vol. 232; p. 1257.
"Beech-Nut Brand Mints." (For Candies and Confections.) Beech-Nut Packing Company. No. 19,720; Nov. 7; Gaz. vol. 232; p. 318.
"Beech-Nut Brand Wintergreens." (For Wintergreen-Flavored Candies and Confections.) Beech-Nut Packing Company. No. 19,721; Nov. 7; Gaz. vol. 232; p. 318.
"Blax Shine." (For Enamel.) Twin City Varnish Co. No. 19,746; Nov. 14; Gaz. vol. 232; p. 617.
"Campbells Virgin White." (For Campbell's Virgin White.) Carpenter-Morton Co. No. 19,737; Nov. 14; Gaz. vol. 232; p. 617.
"Coffee." (For Coffee.) B. Fischer & Co. No. 19,725; Nov. 7; Gaz. vol. 232; p. 318.
"Colorado Sunshine." (For Butter.) Brush Co-operative Creamery Company. No. 19,753; Nov. 28; Gaz. vol. 232; p. 1257.
"Creme Tokalon." (For Cold-Cream.) Tokalon, Inc. No. 19,745; Nov. 14; Gaz. vol. 232; p. 617.
"Cyro." (For Cigars.) Welcher Brothers. No. 19,749; Nov. 21; Gaz. vol. 232; p. 933.
"Delora." (For Cigars.) C. B. Herschel Mfg. Co. No. 19,729; Nov. 7; Gaz. vol. 232; p. 318.
"88 Special." (For Whisky.) Josselson Bros. No. 19,730; Nov. 7; Gaz. vol. 232; p. 318.
"Excellent Hair Grower." (For a Hair-Grower.) B. Greene. No. 19,726; Nov. 7; Gaz. vol. 232; p. 318.
"Fisher (2 unit) Starter for Ford Cars." (For Starters.) F. E. Fisher. No. 19,738; Nov. 14; Gaz. vol. 232; p. 617.
"Gasaid." (For a Substance to be Mixed with Gasolene.) The Pitchford Chemical Laboratories. No. 19,733; Nov. 7; Gaz. vol. 232; p. 318.
"Great Big Baked Potato." (For Packages of Candy.) Koenig Candy Company. No. 19,731; Nov. 7; Gaz. vol. 232; p. 318.
"Haddad's Freckle Cream." (For Freckle-Cream.) F. J. Haddad. No. 19,761; Nov. 28; Gaz. vol. 232; p. 1257.
"Herb-Tone." (For Medicine.) A. L. Bissell. No. 19,751; Nov. 28; Gaz. vol. 232; p. 1257.
"Ideal." (For Ceramic Paint.) F. L. Sleeper. No. 19,765; Nov. 28; Gaz. vol. 232; p. 1257.
"McQuay-Norris Leak-Proof Piston Rings." (For Piston-Rings.) McQuay-Norris Mfg. Co. No. 19,732; Nov. 7; Gaz. vol. 232; p. 318.
"Morosa." (For Cigars.) J. I. Migliores & Co. No. 19,762; Nov. 28; Gaz. vol. 232; p. 1257.
"Natrium Compound (High Tension Dr. M. C. Thrush)." (For Pulvoids (Pulverous Tablets) Representing a Compound of Potassium Nitrate, Sodium Nitrite, Sodium Bicarbonate, Nitroglycerin, and Fluid Extract Crataegus Oxyacantha.) The Drug Products Co. No. 19,760; Nov. 28; Gaz. vol. 232; p. 1257.
"New York Beverage Company, Inc." (For Concentrated Extract of Malt, Barley, Hops, and Sugar.) New York Beverage Company. No. 19,748; Nov. 21; Gaz. vol. 232; p. 933.
"O-Cedar Cloth Duster Collects and Holds The Dust." (For O-Cedar Dust-Cloths.) Channell Chemical Company. No. 19,755; Nov. 28; Gaz. vol. 232; p. 1257.
"Old English." (For Polish for Furniture.) F. Darvill. No. 19,759; Nov. 28; Gaz. vol. 232; p. 1257.
"Oster Bock." (For Beer.) Piel Bros. No. 19,767; Nov. 28; Gaz. vol. 232; p. 1257.
"Peter's Pep." (For Chilli-Con-Carne.) The American Pure Food Products Co. No. 19,735; Nov. 14; Gaz. vol. 232; p. 617.
"Pine Oil." (For a Medicine.) The Spring Hope Pine Oil Works. No. 19,744; Nov. 14; Gaz. vol. 232; p. 617.
"Priscus." (For Cigars.) The Moehle Lithographic Company. No. 19,739; Nov. 14; Gaz. vol. 232; p. 617.
"Salada." (For Tea.) The Salada Tea Company Incorporated. Nos. 19,740–1; Nov. 14; Gaz. vol. 232; p. 617.
"Scarab." (For Corn-Starch.) Bauer & Bauer. No. 19,736; Nov. 14; Gaz. vol. 232; p. 617.
"Societa." (For Confectionery.) Imperial Candy Co. No. 19,763; Nov. 28; Gaz. vol. 232; p. 1257.
"Sodisco Brand Three Fifty." (For Whisky.) Southern Distilling Co. No. 19,766; Nov. 28; Gaz. vol. 232; p. 1257.
"Tanmalts." (For Candy.) Geo. Haas & Sons. No. 19,727; Nov. 7; Gaz. vol. 232; p. 318.
"The 'Cross' Crayon." (For Soft Wax Crayon.) A. K. Cross. No. 19,754; Nov. 28; Gaz. vol. 232; p. 1257.
"The Scientific Tonic Reconstructor." (For a Tonic.) I. Horrovitz. No. 19,747; Nov. 21; Gaz. vol. 232; p. 933.
"The Wonder Corn Shields." (For Corn-Shields.) P. Wetzel. No. 19,734; Nov. 7; Gaz. vol. 232; p. 318.
"Thoro The Dry Cleaner." (For a Cleaning Preparation.) The Thoro Products Company. No. 19,764; Nov. 28; Gaz. vol. 232; p. 1257.
"Trents Eucalyptol Comp." (For a Cough Remedy.) J. J. Samuels. No. 19,742; Nov. 14; Gaz. vol. 232; p. 617.
"Turkey Red." (For Hard-Wheat Flour.) Hannah & Lay Company. No. 19,728; Nov. 7; Gaz. vol. 232; p. 318.
"Uncle Sam." (For Union-Suits.) The Argyle Co. No. 19,718; Nov. 7; Gaz. vol. 232; p. 318.
"Yum Yum." (For Fresh Apples.) Skookum Packers Association. No. 19,743; Nov. 14; Gaz. vol. 232; p. 617.

PRINTS.

"Ah've always said and now repeat—Ma health am due to Cream O' Wheat!" (For Wheat Breakfast Food.) Cream of Wheat Co. No. 4,547; Nov. 7; Gaz. vol. 232; p. 318.
"Allsteel Counter Height Sections." (For Counters.) The General Fireproofing Company. No. 4,563; Nov. 14; Gaz. vol. 232; p. 617.
"Allsteel Document Files." (For Filing-Cabinets.) The General Fireproofing Company. No. 4,558; Nov. 14; Gaz. vol. 232; p. 617.
"Allsteel Wydesteels." (For Filing-Cabinets.) The General Fireproofing Company. No. 4,559; Nov. 14; Gaz. vol. 232; p. 617.
"Allsteel Safe." (For Safes.) The General Fireproofing Company. No. 4,561; Nov. 14; Gaz. vol. 232; p. 617.
"Allsteel Sectional Transfer Cases." (For Filing-Cabinets.) The General Fireproofing Company. No. 4,564; Nov. 14; Gaz. vol. 232; p. 617.
"Allsteel U-Nettes." (For Filing-Cabinets.) The General Fireproofing Company. No. 4,562; Nov. 14; Gaz. vol. 232; p. 617.
"Allsteel Uprights." (For Filing-Cabinets.) The General Fireproofing Company. No. 4,560; Nov. 14; Gaz. vol. 232; p. 617.
"Automatic Knee Control." (For Artificial Legs.) R. Troutman. No. 4,565; Nov. 14; Gaz. vol. 232; p. 617.
"Birch." (For Birch.) The Northern Hemlock and Hardwood Manufacturers' Association. No. 4,570; Nov. 28; Gaz. vol. 232; p. 1257.
"Bright Gems of Killarney." (For a New Irish Badge.) W. F. Miller. No. 4,567; Nov. 21; Gaz. vol. 232; p. 933.
"Campbell's Varnish Stain." (For Campbell's Varnish-Stain.) Carpenter-Morton Co. Nos. 4,570–2; Nov. 28; Gaz. vol. 232; p. 1257.
"Campbell's Varnish Stain." (For Varnish-Stain.) Carpenter-Morton Co. No. 4,574; Nov. 28; Gaz. vol. 232; p. 1257.
"Campbell's Virgin White." (For Campbell's Virgin White.) Carpenter-Morton Co. No. 4,573; Nov. 28; Gaz. vol. 232; p. 1257.
"Cleans as it Polishes—O-Cedar Polish." (For O-Cedar Polish.) Channell Chemical Company. No. 4,553; Nov. 14; Gaz. vol. 232; p. 617.
"Cleans as it Polishes—O-Cedar Polish." (For O-Cedar Polish.) Channell Chemical Company. No. 4,555; Nov. 14; Gaz. vol. 232; p. 617.
"Eat Puritan Maid Bread." (For Bread.) H. F. Olschewsky. No. 4,568; Nov. 21; Gaz. vol. 232; p. 933.
"Gold Nuggets." (For Popcorn Confections.) J. H. Smith. No. 4,551; Nov. 7; Gaz. vol. 232; p. 318.
"Gordon Convertible Winter and Summer Top, Gordon Seat Coverings, Gordon Tire Covers, Gordon Radiator and Engine Robe." (For Gordon Convertible Winter and Summer Tops, Gordon Seat-Coverings, Gordon Tire-Covers, and Gordon Radiator and Engine Robes.) The J. P. Gordon Company. No. 4,548; Nov. 7; Gaz. vol. 232; p. 318.
"Gordon Seat Coverings Tailored To Fit. Tire Covers." (For Seat-Covers and Tire-Covers.) The J. P. Gordon Company. No. 4,576; Nov. 28; Gaz. vol. 232; p. 1257.
"Have You Had Your Morning Sip?" (For Coffee.) Alexander Sheppard & Sons. No. 4,550; Nov. 7; Gaz. vol. 232; p. 318.
"Hemlock." (For Hemlock.) The Northern Hemlock and Hardwood Manufacturers' Association. No. 4,578; Nov. 28; Gaz. vol. 232; p. 1257.
"It Makes a Difference." (For Oil.) Indian Refining Company. No. 4,549; Nov. 7; Gaz. vol. 232; p. 318.
"Maid of Honor Crushed Fruit & Syrups." (For Crushed Fruit and Syrup.) Richardson Corporation. No. 4,566; Nov. 14; Gaz. vol. 232; p. 617.
"Make delicious ice cream and frozen dainties with Carnation Milk." (For Milk.) Carnation Milk Products' Company. No. 4,546; Nov. 7; Gaz. vol. 232; p. 318.
"New Beauties." (For O-Cedar Polish.) Channell Chemical Company. No. 4,575; Nov. 28; Gaz. vol. 232; p. 1257.
"O-Cedar Polish—Cleans as it Polishes." (For O-Cedar Polish.) Channell Chemical Company. No. 4,552; Nov. 14; Gaz. vol. 232; p. 617.
"O-Cedar Polish—Cleans as it Polishes." (For O-Cedar Polish.) Channell Chemical Company. No. 4,554; Nov. 14; Gaz. vol. 232; p. 617.
"O-Cedar Polish—Cleans as it Polishes." (For O-Cedar Polish.) Channell Chemical Company. Nos. 4,556–7; Nov. 14; Gaz. vol. 232; p. 617.
"Packer's Tar Soap." (For Tar Soap.) E. A. Olds. No. 4,569; Nov. 21; Gaz. vol. 232; p. 933.
"Worth Smacking Your Lips Over." (For Confectionery.) Norris, Inc. No. 4,577; Nov. 28; Gaz. vol. 232; p. 1257.

DISCLAIMERS.

Telephone system. F. W. Dunbar. No. 1,133,113; date of patent Mar. 23, 1915; disclaimer filed Nov. 16, 1916; Gaz. vol. 232; p. 1263.
Tires, Making. J. R. Gammeter and W. H. Allen. No. 1,183,551; date of patent May 16, 1916; disclaimer filed Nov. 7, 1916; Gaz. vol. 232; p. 939.

CLASSIFICATION OF PATENTS

NOVEMBER, 1916.

NOTE.—First number—class, second number—subclass, third number—patent number.

1— 6: 1,204,678
11: 1,205,238
1,205,239
45: 1,204,960
49: 1,205,547
1,205,634
2— 9: 1,205,229
1,206,102
15: 1,205,639
1,206,170
1,206,434
23: 1,206,171
32: 1,205,990
34: 1,205,699
41: 1,204,657
53: 1,205,204
60: 1,204,655
66: 1,203,862
69: 1,204,726
71: 1,205,963
84: 1,205,273
87: 1,205,788
98: 1,206,480
106: 1,206,047
108: 1,203,672
1,206,473
117: 1,205,308
1,205,834
118: 1,203,570
1,205,403
122: 1,204,820
131: 1,206,142
1,206,167
143: 1,204,719
144: 1,204,615
1,205,137
1,205,446
1,205,793
1,206,543
145: 1,204,054
146: 1,203,561
149: 1,203,785
1,204,161
1,206,132
1,206,133
193: 1,203,564
196: 1,206,422
3— 3: 1,205,218
12: 1,206,753
4— 1: 1,204,033
5: 1,203,602
1,203,726
1,204,338
18: 1,205,078
1,206,195
20: 1,203,707
1,206,591
21: 1,205,978
22: 1,204,048
26: 1,203,579
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253— 4: 1,204,366
11: 1,204,088
63: 1,205,062
88: 1,205,165
254— 35: 1,203,889
43: 1,204,850
52: 1,205,463
65: 1,204,919
66: 1,204,165
67: 1,204,168
72: 1,203,617
1,204,076
1,205,776
83: 1,204,942
88: 1,205,300
95: 1,204,162
98: 1,204,973
99: 1,205,361
91: 1,203,811
1,205,815
98: 1,203,673
103: 1,203,925
112: 1,204,710
126: 1,204,276
135: 1,205,964

264— 144: 1,204,420
1,205,074
157: 1,205,676
161: 1,205,832
162: 1,204,277
164: 1,205,336
1,205,019
182: 1,204,408
188: 1,205,178
265— 16: 1,204,099
38: 1,203,860
46: 1,205,628
61: 1,205,488
63: 1,204,805
71: 1,204,922
1,204,157
78: 1,204,284
266— 16: 1,205,390
18: 1,205,470
49: 1,204,126
1,204,187
51: 1,205,300
57: 1,205,237
257— 43: 1,203,581
75: 1,204,317
119: 1,203,613
122: 1,205,241
134: 1,205,703

267— 128: 1,205,771
130: 1,205,574
132: 1,205,026
181: 1,204,561
240: 1,205,605
263: 1,205,077
268— 3: 1,205,503
17: 1,204,596
20: 1,205,623
22: 1,205,654
23: 1,203,792
26: 1,203,596
1,203,652
1,204,945
269— 91: 1,204,849
96: 1,204,733
144: 1,204,353
261— 2: 1,204,301
1,204,302
1,204,303
3: 1,205,590
4: 1,205,701
12: 1,205,603
39: 1,203,661
40: 1,205,546
41: 1,205,263
1,205,602
44: 1,204,247

291— 51: 1,204,089
53: 1,205,859
69: 1,204,423
98: 1,205,964
194: 1,205,512
269— 8: 1,205,803
9: 1,204,703
15: 1,205,036
22: 1,204,989
35: 1,205,077
264— 7: 1,205,126
1,205,127
13: 1,205,357
266— 6: 1,205,137
31: 1,204,633
1,205,397
30: 1,205,568
267— 8: 1,204,003
1,205,380
9: 1,205,360
19: 1,205,373
1,205,603
1,205,697
24: 1,204,253
27: 1,204,746
1,205,994
31: 1,205,560
33: 1,204,876

287— 33: 1,205,439
35: 1,204,087
38: 1,205,612
42: 1,205,711
1,205,388
50: 1,205,108
53: 1,204,681
268— 6: 1,204,699
8: 1,204,318
1,205,435
9: 1,204,498
1,204,651
269— 3: 1,205,405
273— 1,205,115
274— 1: 1,205,188
3: 1,204,081
13: 1,205,666
14: 1,205,013
17: 1,204,241
1,205,462
20: 1,205,667
23: 1,205,627
24: 1,205,407
29: 1,204,420
35: 1,204,197
37: 1,205,915
1,205,625
276— 20: 1,205,889

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VOLUME CCXXXIII.

DECEMBER,

1916.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1917.

ERRATA.

1,208,763, page 777, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

1,208,839, page 805, in heading, assignment, name of assignee, for the word "Piano" read *Plano*.

50,684, (design,) page 1089, in heading, assignment, name of assignee, for the word "Manufacturing" read *Manufacturers*.

VOL. 233.

CONTENTS.

	Page.
PATENTS AND DESIGNS GRANTED, December 5, 12, 19, 26	3, 357, 761, 1113
TRADE-MARKS PUBLISHED AND REGISTERED, December 5, 12, 19, 26	329, 735, 1091, 1381
LABELS AND PRINTS REGISTERED, December 5, 12, 19, 26	754, 1402
DECISIONS OF THE COMMISSIONER OF PATENTS, December 5, 12, 19, 26	351, 755, 1107, 1403
INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS	1407
ALPHABETICAL LIST OF PATENTEES AND INVENTIONS	1

ANNOUNCEMENTS.

	Page.
ADVERSE DECISIONS IN INTERFERENCE—	
Mathies, No. 996,800	757
Meguyer, No. 1,169,667	757
Norwood, No. 1,191,029	1111
Roberts, No. 1,143,998	757
Robinson, No. 1,008,068	757
APPLICATIONS—	
Condition of pending	2, 356, 760, 1112
CLASSIFICATION OF INVENTIONS—	
Changes in—*Order 2295*	756
Order 2296	756
DISCLAIMERS—	
Christensen, Martin	759
Fuller, Louis E. (three cases)	756
DRAWINGS—	
Rules 38 and 52	355
Rule 52	759
EXAMINATION—	
Civil Service, for Assistant Examiners	1111
FOREIGN PATENT LAWS—	
England	1406
INTERFERENCE NOTICES—	
Doty, John F	1406
Marshall, James	354, 757, 1109
McHugh, Joseph H	1109, 1406
Rattermann, Henry	354, 757
PATENTS—	
Date of Issue—Rule 207	355
Delayed issue—Young, John W., No. 1,209,920, issue December 26, 1916	1111
Instructions relative to ordering copies	1
List of adjudicated	354, 756, 1108, 1405
REMITTANCES TO THE PATENT OFFICE	759
TRADE-MARKS, NOTICE OF CANCELATION—	
Robie, George Thompson	354, 757

10423

Patents Nos. 1,206,789 to 1,207,694.

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CONTENTS.

	Page.
Issue of December 5, 1916	1
Important Information	1
Applications Under Examination	2
Patents Granted	3
Reissues	318
Designs	321
Trade-Marks—Registration Applied for	329
Trade-Mark Registrations Granted	345
Labels and Prints	None
Commissioner's Decisions—	
Ex parte Durant	351
Ex parte Engberg	351
Ex parte Fisher	351
Ex parte Foley and Baker	352
Ex parte Jung	352
Ex parte Ravier	352
Ex parte Schlumpf	353
Ex parte Victoreen	353
Ex parte Heehl	353
Adjudicated Patents	354
Notice of Cancelation	354
Interference Notices	354

ISSUE OF DECEMBER 5, 1916.

Patents	906—No.	1,206,789 to No.	1,207,694, inclusive.
Designs	31—No.	49,977 to No.	50,007, inclusive.
Trade-Marks	196—No.	114,128 to No.	114,313, inclusive.
Labels	None.		
Prints	None.		
Reissues	2—No.	14,224 to No.	14,226, inclusive.
Total	1136		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	.....	North Carolina	5	1
Arizona	2	.....	North Dakota	2	.....
Arkansas	5	.....	Ohio	74	12
California	46	6	Oklahoma	7	3
Colorado	6	.....	Oregon	9	5
Connecticut	25	4	Pennsylvania	77	11
Delaware	2	.....	Rhode Island	3	2
Florida	.....	1	South Carolina	1	.....
Georgia	8	2	South Dakota	7	.....
Idaho	2	.....	Tennessee	3	3
Illinois	82	13	Texas	15	3
Indiana	16	9	Utah	4	.....
Iowa	20	3	Vermont	2	1
Kansas	6	1	Virginia	7	1
Kentucky	7	1	Washington	3	3
Louisiana	3	.....	West Virginia	7	.....
Maine	3	3	Wisconsin	21	1
Maryland	4	.....	Wyoming	3	.....
Massachusetts	54	14			
Michigan	30	5	Alaska, District of	.....	.....
Minnesota	16	2	Canal Zone	.....	.....
Mississippi	2	.....	District of Columbia	4	1
Missouri	33	6	Hawaii Territory	.....	1
Montana	2	.....	Philippine Islands	.....	.....
Nebraska	3	3	Porto Rico	1	.....
Nevada	4	.....	U. S. Army	.....	.....
New Hampshire	3	1	U. S. Navy	.....	.....
New Jersey	46	5			
New Mexico	1	.....	Total to residents of the United States	803	182
New York	136	55			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	.....	.....
Austria-Hungary	1	.....	New South Wales	.....	.....
Belgium	.....	.....	New Zealand	.....	.....
British India	.....	.....	Norway	.....	.....
British West Indies	.....	.....	Peru	1	.....
Canada	19	1	Portugal	.....	1
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	1	.....	Scotland	.....	.....
Denmark	1	.....	South Australia	.....	.....
England	24	.....	Spain	.....	.....
Finland	.....	.....	Sweden	2	.....
France	5	.....	Switzerland	2	1
Germany	12	.....	Tunis	.....	.....
Greece	.....	.....	Victoria	2	.....
India	.....	.....	Western Australia	.....	.....
Ireland	.....	.....			
Italy	1	1	Total to residents of foreign countries	71	4
Japan	.....	.....			
Mexico	.....	.....			

Important Information.

In ordering manuscript copies much time will be saved if the order states specifically what is desired, viz:

Application as originally filed. (Petition, specification, oath, and drawings as received.) Application as amended. (Petition, specification, oath, and drawings with amendments entered.)

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Original application. (Facsimile petition, specification, oath, and drawings at present time.)

Specification as originally filed. (As received in Office.)

Specification as amended. (With amendments entered.)

Specification as allowed. (As passed by the Examiner for issue.)

Original specification. (Facsimile at present time.)

File-wrapper. (File-wrapper only.)

File-wrapper and contents. (File-wrapper, contents of record, including photoprints of any tracings or of prints within file-wrapper. In patented cases, printed copy of the specification and drawings of the patent is furnished.)

File-wrapper, contents, and drawings. (File-wrapper and all of the contents of record, including photoprints of any tracings, exhibits, or prints within the file-wrapper. In pending cases, photoprints of the pending drawings only, omitting any canceled. If patented, copy of the specification and drawings of the patent being furnished, photoprints are not made of the original drawings unless specially ordered. If canceled drawings are wanted, they must also be specially ordered.)

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Printed publications in possession of the Office. (Give title and date of publication, also page and exact portion to be copied.)

Orders for copies of any other records not mentioned above must state specifically the exact paper to be copied.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 1, 1916.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 12	Sept. 29	393
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 17	Oct. 16	663
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Nov. 14	Nov. 7	114
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Devices; Railway Mail Delivery; Store-Service; Traversing Hoists.	Oct. 17	Nov. 8	227
167	5. Bookbinding; Harvesters; Jewelry; Music	Aug. 19	Nov. 4	208
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Aug. 19	Oct. 31	200
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	July 24	Sept. 20	526
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 24	Aug. 21	1266
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps	June 5	Aug. 6	548
235	10. Carriages and Wagons; Spring Devices	June 9	Nov. 1	515
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 2	Nov. 21	88
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements	Aug. 2	Oct. 23	578
330	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 5	Oct. 31	474
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 28	Nov. 2	276
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 2	Nov. 15	230
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	June 8	Sept. 26	561
303	17. Matrix-Making; Ornamentation; Paper Manufactures; Printing; Type-Bar Making	Aug. 3	Nov. 16	177
327	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 23	Nov. 1	165
220	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces: Domestic Cooking Vessels	July 15	Sept. 1	440
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 8	Nov. 8	126
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Aug. 16	Nov. 3	230
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	June 16	Sept. 28	477
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 12	July 20	447
144	24. Apparel; Apparel Apparatus; Sewing-Machines	May 25	Oct. 4	400
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers. Gas Separation.	Oct. 10	Oct. 18	210
106	26. Electricity, Generation; Motive Power	Mar. 27	July 18	644
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Oct. 25	Oct. 19	312
65	28. Internal-Combustion Engines	June 28	Sept. 20	536
147	29. Cooperage; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 5	Oct. 21	343
158	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 25	Nov. 14	202
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gums; Sugar and Salt.	June 2	Sept. 22	346
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	May 1	Oct. 17	353
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 21	Oct. 9	353
304	34. Railways: Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	May 9	Aug. 22	339
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet	May 2	Sept. 25	676
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography	July 25	Oct. 31	802
107	37. Electric Lamps: Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Apr. 17	Oct. 5	777
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Oct. 24	Nov. 3	145
221	39. Water Distribution	May 9	Oct. 14	311
220	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 14	Nov. 6	681
126	41. Railway Draft Appliances; Resilient Tires and Wheels	Aug. 8	Oct. 13	507
244	42. Electricity, Conductors; Railway Signaling; Signals; Electricity-Transmission to Vehicles	May 23	Sept. 21	344
362	43. Baths and Closets, Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 30	Sept. 27	111

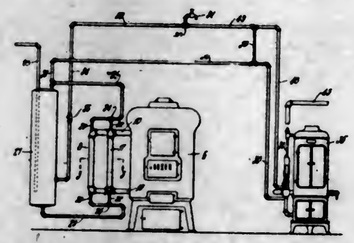
Oldest new case, Mar. 27; oldest amended, July 18.
Total number of applications awaiting action..... 18,186

161	TRADE MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Oct. 28	Nov. 14	647
	Designs	Oct. 19	Oct. 20	311
	Labels and Prints	Nov. 17	Nov. 17	89

PATENTS

GRANTED DECEMBER 5, 1916.

1,206,789. WATER-CIRCULATING SYSTEM. HERBERT M. ADAMS, Pawtucket, R. I. Filed Mar. 6, 1916. Serial No. 82,316. (Cl. 126—362.)



1. In a water circulating system, a main heater, an auxiliary heater connected therewith, a hot water tank, a connection between the upper end of the tank and the auxiliary heater, a connection between the lower portion of the tank and the auxiliary heater, a by-pass of reduced area between said connections, tubes connected with the main heater, and pipes extended through said tubes and connected with the tank at the top and bottom thereof.

2. In a water circulating system, a main heater, an auxiliary heater connected therewith, a hot water tank, a connection between the upper end of the tank and the auxiliary heater, a connection between the lower portion of the tank and the auxiliary heater, a by-pass of reduced area between said connections, tubes connected with the main heater, pipes extended through said tubes and connected with the tank at the top and bottom thereof, and means in one of said connections between the tank and the auxiliary heater for withdrawing the water without its traversing the by-pass.

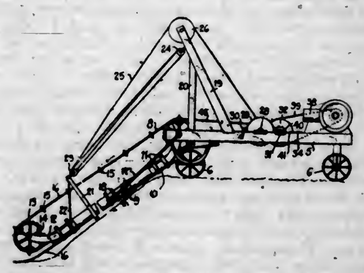
3. In a hot water circulating system, a main heater, an auxiliary heater, a hot water tank, two independent connections between said tank and auxiliary heater, a bottle embodying tubes in direct communication with each other and with the main heater, water circulating pipes extended through said tubes and connected with opposite ends of said tank, and a by-pass of reduced area between the two connections between the tank and auxiliary heater.

4. In a hot water circulating system, a main heater, an auxiliary heater, a hot water tank, two independent connections between said tank and auxiliary heater, a bottle embodying tubes in direct communication with each other and with the main heater, water circulating pipes extended through said tubes and connected with opposite ends of said tank, a by-pass of reduced area between the two connections between the tank and auxiliary heater, and a spigot in one of said connections.

5. In a hot water circulating system, a main heater, an auxiliary heater, a hot water tank, two independent connections between said tank and auxiliary heater, a bottle embodying tubes in direct communication with each other and with the main heater, water circulating pipes extended through said tubes and connected with opposite ends of said tank, a by-pass of reduced area between the two connections between the tank and auxiliary heater, a spigot in one of said connections, and a check valve in said connection between said spigot and the tank.

1,206,790. PORTABLE IRRIGATING-MACHINE. AL ANDREWS, Moorcroft, Wyo., assignor to Portable Pull and Push Irrigating Pump Company, of Wyoming. Filed May 8, 1915. Serial No. 26,840. (Cl. 103—6.)

1. The combination with a wheel supported frame, of a pipe pivotally mounted in one end of the frame for



vertical swinging movement, means mounted upon the frame and operatively connected to the pipe for raising or lowering the same, braces pivotally mounted at one of their ends in the frame in co-axial relation with the pivot of said pipe and fixed at their other ends to the pipe, an endless water elevator provided with spaced pistons, one stretch of the elevator being movable through the pipe, a guard plate fixed to the free end of the pipe and projecting longitudinally therefrom beneath the water elevator for contact with the bed of a stream, and means mounted upon the frame for operating the water elevator.

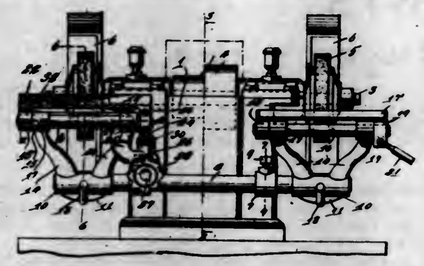
2. The combination with a wheel supported frame, of a pipe pivotally mounted at one of its ends in said frame for vertical swinging movement, brace rods pivoted on the frame at one of their ends, means clamping the other ends of said rods to opposite sides of said pipe, a sprocket wheel mounted upon the free end of the pipe, a driving sprocket mounted in the frame, an endless elevator trained over said sprocket and provided at intervals with water receiving pistons, one stretch of the elevator extending through said pipe, a longitudinally extending curved guard plate fixed to the free end of the pipe to protect said elevator against injury, means for raising or lowering the pipe and said water elevator, and means mounted on the frame for operating said elevator.

3. The combination with a wheel supported frame, of a pipe mounted in said frame at one of its ends for vertical swinging movement, an endless water elevator having one stretch thereof movable through said pipe, a supporting sprocket wheel for said elevator detachably mounted upon the other end of the pipe, an elongated, longitudinally extending guard plate fixed at one of its ends to the under side of the latter end of the pipe and having a curved portion projecting beneath and beyond

said sprocket wheel for contact with the bed of a stream, and means mounted upon the frame for operating said elevator.

1,206,791. TOOL-REST FOR GRINDING-MACHINES. CARL A. ANDERSON and ANDREW A. ANDERSON, Worcester, Mass. Filed Mar. 6, 1916. Serial No. 82,455. (Cl. 51—7.)

1. In a tool rest for grinding machines, the combination of a support, lugs carried upon said support, a bar carried by said lugs, means for holding said bar in engagement with said lugs, said bar extending beyond said lugs, frames carried upon the projecting ends of said bar, means for holding said frames in an adjusted set position, tables adjustably mounted upon the upper portions of said frames, said frames being capable of being swung for moving said tables and said tables being capable of moving independent of said frames, whereby said tables may be moved to desired positions when in use.



2. In a tool rest for grinding machines, the combination of a support, a bar carried by said support, a frame carried by said bar, said frame comprising a sleeve, said sleeve being split and having outwardly extending flanges extending from points adjacent its split portion, means for drawing said flanges together for binding said sleeve upon said bar, upwardly extending fingers carried by said sleeve, and a table adjustably mounted upon the upper end of said fingers, said table being capable of being moved independent of the movement of said frame, and said frame also being capable of being moved to accommodate said table for permitting the table to be swung to a desired position when in use.

3. In a tool rest for grinding machines, the combination of a support, a bar carried by said support, a frame carried by said bar, said frame comprising a sleeve, said sleeve being split and having outwardly extending flanges extending from points adjacent its split portion, means for drawing said flanges together for binding said sleeve upon said bar, upwardly extending fingers carried by said sleeve, collars formed upon the upper ends of said fingers, a rod carried by said collars, said rod extending beyond the side portions of said collars, a table pivotally mounted upon said bar, means for holding said table in an adjusted set position, said frame being capable of being moved in unison with said table, said table being capable of being moved independent of said frame, whereby the table may be moved to a desired position when in use.

4. In a tool rest for grinding machines, the combination of a support, a frame adjustably mounted upon said support, a neck carried by said frame, a stem carried by said neck, a worm gear carried upon said stem, a grip wheel carried by said stem, whereby said stem may be rotated for turning said worm gear, a table pivotally mounted upon the upper portions of said frame, a body formed upon said table having a rack formed upon its periphery, said rack engaging said worm gear, whereby as said worm gear is rotated by said grip wheel, said table may be swung to assume different positions, and said frame also being capable of being moved in unison with said table.

5. In a tool rest for grinding machines, the combination of a support having lugs formed thereon, a bar carried by said lugs, a split sleeve carried by said bar, means for drawing said sleeve together for binding upon said bar, outwardly extending fingers carried by said sleeve, a neck extending from one of said fingers, a stem carried by said neck, a worm gear carried upon said stem, collars formed upon the upper ends of said fingers, a rod carried upon said collars, a table having a depending lug carried upon one end of said rod, a body formed upon the opposite end of said table and engaging the opposite end of said rod, whereby said table will be pivotally supported, a rack formed upon the periphery of said body and engaging said worm gear, whereby said sleeve may be loosened so as to permit said frame to move to an adjusted position after which said sleeve may be clamped upon said bar, after which the grip wheel will cause said worm gear to cause said body to move said table independent of said frame so as to cause the table to assume a desired position when in use.

[Claims 6 and 7 not printed in the Gazette.]

1,206,792. BOTTLE-INDICATOR. OTTO J. AUMULLER, Brooklyn, N. Y., assignor of fifty one-hundredths to Linford S. Stiles, Kings county, N. Y. Filed Feb. 2, 1916. Serial No. 75,776. (Cl. 215—112.)



1. The combination with a bottle, of a hollow cylinder mounted therein, said cylinder having a spiral slot formed therein, said slot having its upper wall provided with teeth and its lower wall unobstructed, a float slidable on the cylinder and having a pin adapted to travel in the slot when the bottle is in one position and to engage the teeth when the bottle is in another position.

2. The combination with a bottle, of a hollow cylinder mounted therein, a float slidably engaged with the cylinder, said cylinder having a spiral slot formed therein, and means carried by the float to engage the slot to limit the movement of the float longitudinally of the cylinder when the bottle is tilted, while permitting movement when the bottle is in its normal or vertical position.

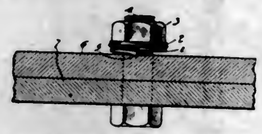
3. The combination with a bottle, of a hollow cylinder mounted therein and having a spiral slot formed therein, a float slidably mounted on the cylinder and having means carried thereby for engaging the slot, said means serving to hold the float in interlocked positions with the cylinder.

4. The combination with a bottle, a hollow cylinder mounted therein and having a spiral slot formed therein, a float slidably mounted on the cylinder, a pin carried by the float and extending into the slot, and a ball movable in the cylinder for engaging the pin to positively interlock the same with the cylinder.

1,206,793. NUT-LOCK. ERNEST CHARLES AUSTIN, Chicago, Ill. Filed Nov. 1, 1915. Serial No. 59,043. (Cl. 151—53.)

1. A nut lock, comprising a washer for insertion between a nut and the part which is held thereby and having a shoulder bendable into and out of position to engage a flat side of the nut, and a spring mounted shoulder having a cutting edge for penetrating the surface of said part.

2. A nut lock, comprising a spring washer provided with a shoulder for engaging the surface to which it is applied, and a member secured to said washer and adapted to be bent to engage the side of a nut.



3. A nut lock, comprising a spring washer and a cup washer, said spring washer being provided with a shoulder for engaging the surface to which it is applied, said cup washer being provided with a flange which may be bent to coact with the side of a nut to prevent rotation thereof relative to the washers, and means for preventing rotation of said washers relatively to each other.

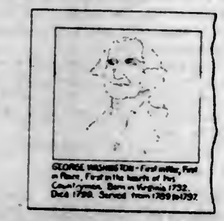
1,206,794. SPARK-PLUG. JOHN W. BAIRD, Chicago, Ill. Filed Oct. 23, 1915. Serial No. 57,460. (Cl. 123—169.)



1. A spark plug for explosive engines comprising an outer tubular body forming one pole of the plug; an inner concentric longitudinally extending member arranged in said body and forming the other pole of the plug, there being an annular space formed between the inner end portions of said body and member; and a fan wheel mounted for free rotary movement on the inner end of said member and adapted, when rotated, to force a current of air or gases into said space, there being a laterally opening continuously open passage provided in said body leading from said space and adapted to communicate with the combustion chamber in conjunction with which the plug is used, substantially as described.

2. A spark plug for explosive engines comprising an outer tubular body forming one pole of the plug; an inner concentric longitudinally extending member arranged in said body and forming the other pole of the plug, there being an annular space formed between the inner end portions of said body and member; and a fan wheel mounted for free rotary movement on the inner end of said member and adapted, when rotated, to force a current of air or gases into said space, there being an annular laterally opening continuously open passage provided in the inner portion of said body leading from said space adapted to communicate with the combustion chamber in conjunction with which the plug is used, substantially as described.

1,206,795. EDUCATIONAL APPLIANCE. HORACE G. J. BARRINGTON, New York, N. Y. Filed May 29, 1916. Serial No. 100,608. (Cl. 35—12.)



1. An educational appliance, comprising a sheet having an outline representation of an object or subject done in incomplete lines and adapted to be fully developed in full lines by the learner following the incomplete lines, and appropriate reading matter arranged in convenient proximity to the representation and descriptive thereof and serving conjointly with the representation to aid in fixing in the learner's mind the facts thereby objectively presented.

2. An educational appliance for self-instruction, comprising a series of sheets containing pictorial representations of series of objects forming subjects of learning, said representations being delineated in incomplete lines, the pictures thus incompletely shown being adapted to be developed fully by the learner transforming the incomplete lines into full lines, each object accompanied by permanently juxtaposed reading matter descriptive thereof so that the learner's interest is quickened.

3. An educational appliance for self-instruction, comprising a series of sheets containing pictorial representations of a series of related or classified objects forming subjects of learning, said representations being delineated in incomplete lines and adapted to be fully developed in full lines by the learner following the incomplete lines with a suitable delineating instrument, each object having placed adjacent to it reading matter more or less completely defining it and designed to be mentally absorbed by the learner while engaged in fully developing the picture.

1,206,796. METHOD OF OBTAINING TITANIC OXID. LOUIS E. BARTON, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Mar. 7, 1916. Serial No. 82,557. (Cl. 23—13.)

1. In the treatment of a titaniferous-ferruginous material, the step which consists in heating said material in presence of sulfid of an alkali metal, at temperatures below that of fusion of the charge but sufficiently high to insure formation of ferro-sodium sulfid and titanate of the alkali metal.

2. In the treatment of a titaniferous-ferruginous material, the step which consists in heating together said material, a carbonaceous substance, and sulfate of an alkali metal, at temperatures below that of fusion of the charge, but sufficiently high to insure formation of ferro sodium sulfid and titanate of the alkali metal.

3. The method of obtaining titanic oxid from material containing it and iron oxid, which comprises heating said material in presence of sulfid of an alkali metal at temperatures below that of fusion of the charge, but sufficiently high to insure formation of ferro-sodium sulfid and titanate of the alkali metal, and treating the resulting sintered product in an acid solvent of the iron compounds present, but so diluted as to dissolve such iron compounds rather than those of titanium.

4. The method of obtaining titanic oxid from material containing it and iron oxid, which comprises heating said material in presence of a carbonaceous material and sulfate of an alkali metal, at temperatures below that of fusion of the charge, but sufficiently high to insure formation of ferro-sodium sulfid and titanate of the alkali metal, and treating the resulting sintered product in an acid solvent of the iron compounds present, but so diluted as to dissolve such iron compounds rather than those of titanium.

5. In the treatment of a titaniferous material, the steps which consist in preliminarily mixing said material with melted niter cake, digesting the mixture at from about 175° to 250° C. until acid of said niter cake has reacted with said material, intimately incorporating therewith a reducing agent, and thereafter heating the charge at temperatures below that of its fusion, but sufficiently high to insure formation of ferro-sodium sulfid.

1,206,797. METHOD OF OBTAINING TITANIC OXID. LOUIS E. BARTON, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Mar. 7, 1916. Serial No. 82,559. (Cl. 23—13.)

1. The method of obtaining titanic oxid from a substance containing it and iron oxid, which comprises heating said substance in presence of sulfid of an alkali metal

until formation of iron sulfid or ferro-sodium sulfid and treating the resulting product in a bath containing sulfurous acid so diluted as to dissolve therein iron compounds rather than those of titanium.

2. The method of obtaining titanic oxid from a substance containing it and iron oxid, which comprises heating said substance in presence of an oxid reducing agent and sulfate of an alkali metal until formation of iron sulfid or ferro-sodium sulfid and treating the resulting product in a bath containing sulfurous acid so diluted as to dissolve therein iron compounds rather than those of titanium.

3. The method of obtaining titanic oxid from a substance containing it and iron oxid, which comprises heating said substance in presence of sulfid of an alkali metal until formation of iron sulfid or ferro-sodium sulfid, maintaining the resulting product in water, and meanwhile injecting sulfur dioxid gas into the bath.

4. In the treatment of a bath the solids of which comprise titanic oxid, titanate of an alkali metal, and ferro-sodium sulfids, the step which consists in adding to such bath sulfurous acid in such quantity and so diluted as to decompose and dissolve such sulfids rather than the compounds of titanium present.

1,206,798. METHOD OF OBTAINING TITANIC OXID. LOUIS E. BARTON, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Mar. 7, 1916. Serial No. 82,560. (Cl. 23—13.)

1. The method of obtaining titanic oxid from a substance containing it and iron oxid, which comprises heating said substance in presence of sulfid of an alkali metal until formation of ferro sodium sulfid and titanate of the alkali metal, and separating the melt into two parts, the one containing more of the titanium and less of the iron compounds than the other.

2. The method of obtaining titanic oxid from a substance containing it and iron oxid, which comprises heating said substance in presence of sulfid of an alkali metal until formation of ferro sodium sulfid and titanate of the alkali metal; segregating respective constituents of the melt by aid of gravity into two vertically-in-sequence layers, or zones, the lowermost containing more of the titanium and less of the iron compounds than the uppermost; and separating of such layers from the remainder of the melt.

3. The method of obtaining titanic oxid from a substance containing it and iron oxid, which comprises heating said substance in presence of sulfid of an alkali metal until formation of ferro sodium sulfid and titanate of the alkali metal; pouring the resulting melt into a mold, cooling it at such rate as, by aid of gravity, to, before solidification, segregate respective constituents of the casting into two, vertically-in-sequence, layers, or zones, the lowermost containing more of the titanium and less of the iron compounds than the uppermost, and, after solidification, separating of such layers from the remainder of the casting.

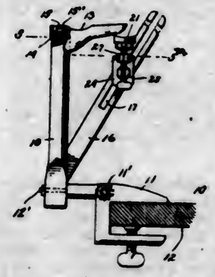
1,206,799. VULCANIZING DEVICE. HENRY E. BAST, Lawler, Iowa. Filed Mar. 28, 1916. Serial No. 87,325. (Cl. 18—17.)

1. A vulcanizing apparatus for boots comprising an adjustably rotatable lasting jack for supporting a boot, and a movably adjustable vulcanizing former member carried by the jack.

2. A vulcanizing apparatus for boots comprising an adjustably rotatable lasting jack, an arm rotatably adjustable on the jack and a vulcanizing former block slidably and rotatably adjustable on the arm.

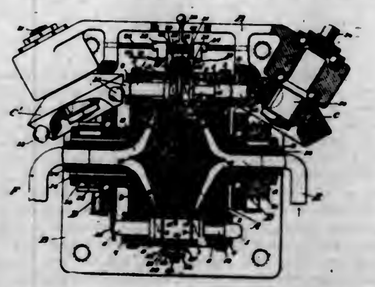
3. A vulcanizing apparatus for boots comprising an adjustably rotatable lasting jack, a longitudinally slotted arm rotatably and adjustably mounted on the jack, and a vulcanizing former block slidably and rotatably adjustable in the slotted arm.

4. A vulcanizing apparatus for boots comprising an adjustably rotatable lasting jack, a longitudinally slotted arm rotatably and adjustably mounted on the jack, a slotted angle member slidably and rotatably adjustable in the



slot of the arm, a vulcanizing former block slidably and rotatably adjustable in the angle member, and means for forcing the block against the rubber to be vulcanized.

1,206,800. ENGINE. CHARLES F. BATT, New York, N. Y. Filed Dec. 21, 1910. Serial No. 598,662. (Cl. 123—43.)



1. A motor consisting of a magazine of cylinders with floating pistons and rods, supports for said magazine, revolving reaction idlers having supports in rigid relation with the supports of the magazine of cylinders, whereby engagement between the piston rods and the reaction idlers is afforded and said rods engage the reaction idlers in sequence.

2. A motor having a plurality of cylinders, with floating pistons and rods assembled to revolve on a fixed axis, in combination with a separate base arranged to carry a revolving reaction means for said pistons.

3. A motor having a plurality of cylinders with pistons and rods assembled to revolve on a fixed axis, in combination with a base carrying revolving reaction idlers against which said rods react upon engagement during a portion of each revolution.

4. A motor having a plurality of cylinders with pistons and rods assembled, the axis of said cylinders arranged parallel to a fixed axis around which the engine revolves, in combination with a base carrying revolving reaction idlers against which said rods react by engagement during a portion of each revolution.

5. A motor having a plurality of cylinders with pistons and rods assembled to revolve on a fixed axis, in combination with a base carrying reaction idlers, said idlers having pins against which said rods react by engagement during a part revolution only.

[Claims 6 to 17 not printed in the Gazette.]

1,206,801. NON-RAVELING BANDAGE. PERRY S. BAUER, Chicago, Ill., assignor to Bauer & Black, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1916. Serial No. 95,464. (Cl. 128—8.)

1. A method of making fabric bandages which comprises stitching the complete fabric in pairs of contiguous parallel lines, the distance between the pairs of contiguous lines of stitching being substantially equal to the desired width of the bandage, and subsequently cutting the fabric between the contiguous lines of stitching.

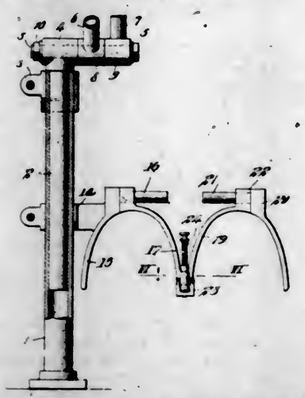


2. A method of making fabric bandages which comprises stitching the complete fabric in pairs of contiguous parallel lines, varying the distance between the pairs of contiguous lines of stitching to conform substantially to the desired width of the bandages, and subsequently cutting the fabric between the contiguous lines of stitching.

3. As an article of manufacture, a surgical bandage having a thread stitched to the fabric in spaced relation with its lateral edges, whereby raveling is prevented.

4. As an article of manufacture, a surgical bandage cloth having a plurality of pairs of contiguously disposed threads stitched to the complete fabric, the distance between the pairs of contiguously disposed threads being substantially equal to the desired width of individual bandages.

1,206,802. TIRE-CARRIER FOR AUTOMOBILES. CHARLES W. BECK, Rockville Center, N. Y., assignor, by mesne assignments, to The Beck-Frost Corporation, Detroit, Mich., a Corporation of Michigan. Filed Dec. 19, 1910. Serial No. 598,160. (Cl. 224—29.)



1. A tire carrier comprising a support, a holding yoke connected thereto and formed of two receiving members arranged side by side and hinged together at the adjoining ends of contacting yoke arms, whereby said members may be brought together to form one open yoke or swung outwardly away from each other to form two open yokes, a two-arm locking cam carried by said members at the pivotal point thereof and arranged to engage said members on opposite sides of the pivotal point both when said members are arranged to form a one-tire carrier and when they are arranged to form a two-tire carrier.

2. A tire carrier comprising a support, a holding yoke connected thereto and formed of two receiving members arranged side by side and hinged together at the adjoining ends of contacting yoke arms, whereby said members may be brought together to form one open yoke or swung outwardly away from each other to form two open yokes, a two-arm locking cam carried by said members at the pivotal point thereof and arranged to engage said members on opposite sides of the pivotal point both when said members are arranged to form a one-tire carrier and when they are arranged to form a two-tire carrier, and a spring to hold said cam in its locking position.

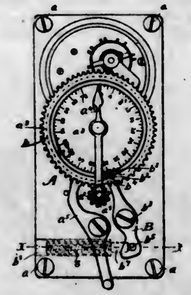
3. A tire carrier comprising a support, a holding yoke connected thereto and formed of two receiving members arranged side by side and hinged together at the adjoining ends of contacting yoke arms, whereby said members may be brought together to form one open yoke or swung outwardly away from each other to form two open yokes, a two-arm locking cam carried by the pivot of said members, said pivot being longitudinally movable to free the cam from said members, and a spring surrounding said pivot and acting to hold the cam in its locking position, said cam being arranged to engage the members on opposite sides of the pivot, both when said members are arranged as a one-tire carrier and when they are arranged as a two-tire carrier.

4. A tire carrier comprising a support, a holding yoke connected thereto and formed of two receiving members arranged side by side and hinged together at the adjoining ends of contacting yoke arms, whereby said members may be brought together to form one open yoke or swung outwardly away from each other to form two open yokes, each of said yokes being formed of two parts adjustable toward and from each other to adapt said yokes to receive tires of different diameters.

5. A tire carrier comprising a standard, an inverted yoke vertically adjustable on the said standard and adapted to fit down over the inner side of a tire, two radially arranged tire carrying arms pivoted to the upper end of the standard and adapted to swing upwardly in opposite directions, a tire holding yoke secured to the outer end of each of said arms, said yokes being adapted to engage the inner side of the tire and to support it on opposite sides of the standard and to extend partially around it, whereby the tire may be dropped into the yokes carried by the swinging arms and the yoke carried by the standard then lowered to lock the tire in place.

[Claims 6 to 15 not printed in the Gazette.]

1,206,803. AUXILIARY MOTOR FOR TIME-LOCKS. EDGAR M. BENHAM, Norwood, Ohio, assignor to The Nydia Bank Lock Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 20, 1916. Serial No. 98,858. (Cl. 70—26.)



1. In a time lock, in combination with the ordinary time movements and bolt connections, an independent auxiliary normally inactive motor spring suitably connected with the time movements as a relay to be brought into action when the time movement springs have operated to a point where the normal power is weakened, and insure the withdrawal of the bolt at the proper time.

2. In a time lock, in combination with the ordinary time movements and bolt connections, an independent auxiliary normally inactive motor spring suitably connected with the time movements as a relay to be brought into action when the time movement springs have operated to a point where the normal power is weakened and a dial actuated from said point to throwing position by

said relay with or without the aid of the time movement motors.

3. In combination with a time lock mechanism, a winding dial with a track having a notch with a sloping side, a rocker arm bearing a roller adapted to run on said track and enter upon the sloping side of the notch when the dial nears throwing position, and means for exerting pressure on said rocker arm to insure the pressing of said roller upon said track.

4. In combination with a time lock mechanism a winding dial with a track having a notch with a sloping side, a rocker arm bearing a roller adapted to run on said track and enter upon the sloping side of the notch when the dial nears throwing position, a plunger adapted to so press on said rocker arm as to cause the roller to bear upon the track, a spring adapted to press said plunger against said rocker arm, and a screw to hold said spring in position, and fix the tension.

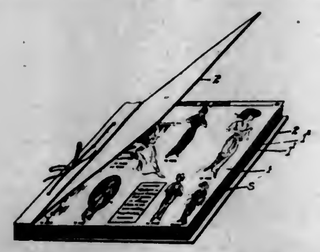
1,206,804. FOOD PRODUCT. ASHLEY V. BLACK, St. Louis, Mo., assignor to Grain Products Company, St. Louis, Mo., a Corporation of Delaware. Filed Aug. 18, 1916. Serial No. 115,591. (Cl. 99—11.)

1. As a new article of manufacture, the edible biscuit or cake herein described, the same being made from, and including only as its original elements, bran, a raw cereal, and a syrup, intimately mixed together, compactly molded into biscuit or cake form, and baked.

2. As a new article of manufacture, the edible biscuit or cake herein described, the same being made from, and including only as its original elements, bran, a finely divided raw cereal, and a sweet laxative syrup, intimately mixed together, compactly molded into biscuit or cake form, and baked.

3. As a new article of manufacture, the edible biscuit or cake herein described, the same being made from, and including only as its original elements, bran, a finely divided raw cereal, and a sweet laxative syrup, intimately mixed together in the proportions approximately of thirty-seven and one-half per cent. bran, twenty-five per cent. cereal, and thirty-seven and one-half per cent. syrup, compactly molded into biscuit or cake form, and baked.

1,206,805. MEANS FOR SUPPLYING DESIGNS FOR ADVERTISING PURPOSES OR THE LIKE. ARTHUR BONNET, Chicago, Ill., assignor to Bonnet-Brown Sales Service Co., Chicago, Ill., a Corporation of Maine. Filed Sept. 8, 1913. Serial No. 788,635. (Cl. 11—19.)

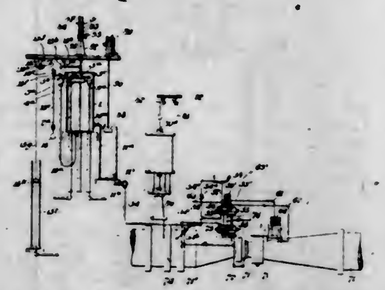


1. The herein described combination of a loose leaf book made of sheets of numbered designs, of which reproducing devices are prepared, coupon books composed of detachable sheets, each sheet having on the front surface thereof the name and address of the dealer and provided on the same surface with appropriately designated spaces for the character of the design desired, said sheet also having an appropriately designated space for the name and address of the purchaser, and said sheet having on the reverse side thereof a serial number and an appropriately designated space for the insertion of the date of expiration of the sheet, and a separable stub extension for said sheet having on the front face thereof appropriately designated spaces for the character of the design ordered, and the date ordered.

2. A coupon book as and for the purpose described, comprising a series of sheets, each sheet having on the front surface thereof the name and address of the dealer, and provided on the same surface with appropriately designated spaces for the character of the article desired, and the name and address of the purchaser, and said sheet having on the reverse side thereof a serial number and an appropriately designated space for the insertion of the date of expiration of the sheet, and a separable stub extension for said sheet having on the front face thereof appropriately designated spaces for the character of the article ordered, the date ordered, and the purpose for which the design was ordered.

3. A coupon book as and for the purpose described, comprising a series of sheets, each sheet having on the front surface thereof the name and address of the dealer, and provided on the same surface with appropriately designated spaces for the character of the article desired, and the name and address of the purchaser, and said sheet having on the reverse side thereof a serial number and an appropriately designated space for the insertion of the date of expiration of the sheet, and a separable stub extension for said sheet having on the front face thereof appropriately designated spaces for the character of the article ordered, the date ordered, the purpose for which the design was ordered, and said sheet having at the side thereof opposite the stub-extension an apertured extension whereby the sheet may serve as a shipping tag.

1,206,806. LIQUID-RATE CONTROLLER. MORO M. BORDEN, Collingswood, N. J., assignor to Simplex Valve & Meter Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Mar. 3, 1915. Serial No. 11,799. (Cl. 137—78.)



1. In a rate controller, the combination of a conduit, means for obtaining differential pressures of a fluid flowing therein, a valve in said conduit, means controlled by said differential pressures for regulating the position of said valve, and fluid pressure mechanism for regulating the action of said means last named.

2. In a rate controller, the combination of a plurality of conduits, valves for controlling the respective conduits, means controlled by fluid flowing in the respective conduits for regulating the positions of the respective valves, and liquid pressure mechanism for regulating the actions of the respective means.

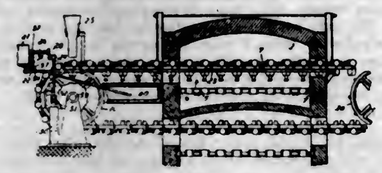
3. In a rate controller, the combination of a plurality of conduits having means for differentiating the pressures of fluid flowing therein, valves for controlling the flow through said conduits, mechanism comprising fluid pressure devices connected with means for operating said valves, and fluid pressure mechanisms for regulating the action of said devices.

4. In a rate controller, the combination of conduits, means for differentiating the pressures of fluid flowing therein, mechanism connected with said means and comprising devices adapted to be reciprocated by variations in said pressures, valves for controlling the flow in said conduits, mechanism controlled by said devices for operating said valves to maintain a desired rate of flow in said conduits, and fluid pressure mechanisms for regulating the movements of said devices from a distant point.

5. In a rate controller, the combination of a plurality of conduits, valves for the respective conduits, mechanisms for regulating the respective valves, a liquid container, and mechanisms whereby pressure is communicated from liquid in said container for regulating the actions of said mechanisms first named.

[Claims 6 to 29 not printed in the Gazette.]

1,206,807. FEEDING DEVICE FOR LEERS. THOMAS A. BRAGG, Toledo, Ohio, assignor to The Toledo Glass Company, Toledo, Ohio, a Corporation of Ohio. Filed Jan. 21, 1909. Serial No. 473,483. (Cl. 49—47.)



1. The combination with a leer, of its carrier having sockets to retain and support the articles thereon, and a feed device for feeding the articles transversely into the leer and depositing them in the sockets.

2. The combination with a leer of its carrier having a series of transverse rows of sockets, and a feed device for feeding in a row of articles and depositing them simultaneously in the sockets.

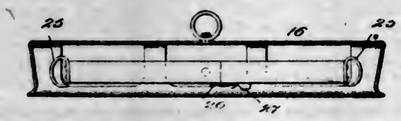
3. The combination with a leer of its carrier, a feed device for feeding a row of articles across and above the carrier, and means for dropping the articles in a row on the carrier.

4. The combination with a leer, of its carrier having retaining sockets for the articles arranged in transverse rows, a feed carrier moving transversely above the leer-carrier, and mechanism for depositing a row of articles from the feed carrier into the sockets of the leer-carrier.

5. The combination with a leer of its carrier, a transverse feed carrier across and above the leer carrier, sockets for holding the articles in said feed-carrier, and means for opening and closing the sockets.

[Claims 6 to 16 not printed in the Gazette.]

1,206,808. MEANS FOR SUPPORTING BED-COVERINGS. JAMES A. BRENT, New York, N. Y., assignor to The Brent Company, Inc., a Corporation of New York. Filed May 3, 1913. Serial No. 765,182. (Cl. 24—243.)

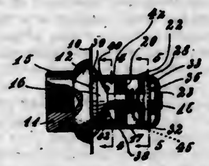


1. In a means for clasping bed coverings, an upper member having spring ends and a core having mutually movable parts adapted to be pressed apart between said ends from beneath said coverings, substantially as described.

2. In a means for clasping bed coverings, an upper member and a two part core adapted to have its ends spread apart to fit into and be clasped by said upper member, substantially as described.

1,206,809. RECORD-DISK CLAMP. JOSEF BRÜCKNER, Brooklyn, N. Y. Filed Mar. 15, 1916. Serial No. 84,391. (Cl. 234—1.)

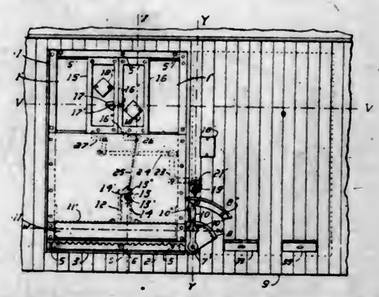
1. In a device of the class described, a support and a backing therefor, a sleeve mounted revolubly at its front end, a plurality of smoothly rounded clamp elements adapted to contact with said backing, means for projecting said clamps outwardly against said backing and means for retracting said clamps within said sleeve.



2. In a device of the class described, the combination with a rigid cylindrical support having a clamping seat, of a conical frustum formed with said support, a stem engaged therewith, a sleeve revolubly mounted on said stem, oppositely disposed, wire clamps pivoted on said conical frustums at their inner ends, their outer looped ends extending through openings in the end of said sleeve, a collar rotatable on said stem within said sleeve, a spring interposed between said collar and said sleeve, means combined with said stem adapted to increase the pressure on said spring when said sleeve is revolved and means carried by said sleeve for operating said clamps.

3. In a device of the class described, the combination with a shouldered support, a beveled extension formed with said support, a stem leading from said extension, a sleeve revoluble on said stem, the diameter of said sleeve and said support being uniform, a plurality of clamp elements pivotally mounted on said beveled extension, and means combined with said support whereby said clamps may be extended or retracted.

1,206,810. FASTENER FOR GRAIN-DOORS. THOMAS R. BRUMBACK, St. Joseph, Mo. Filed Feb. 17, 1916. Serial No. 78,861. (Cl. 70—102.)

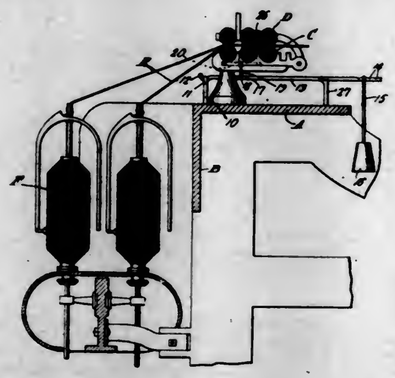


1. The combination with a freight car door having a plurality of smaller doors movably mounted therein and also having door holding means for detachably holding said smaller doors in closed position; of a bolt housing secured on the outer side of said freight car adjacent to the rear edge of said car door said housing having seal strap slots formed through the outer end portion thereof; a bolt slidably and rotatably mounted in said housing said bolt having another seal strap slot formed therethrough said other slot being adapted to be moved from and into register with the first mentioned slots positioned therebetween; a spring in said housing whereby said bolt is moved inward projecting the inner end portion of said bolt behind said rear edge of said car door for locking the same in closed position; bolt holding means whereby said bolt is detachably held in its outward position against the action of said spring said bolt holding means being released by rotation of said bolt; and moving means operated by the inner end of said bolt whereby all of said door holding means are simultaneously moved into operative position when said bolt is moved inward; the whole forming spring actuated sealable locking means whereby all of said doors are simultaneously locked.

2. The combination with a freight car door having a plurality of smaller doors movably mounted therein and having door holding means therein for detachably holding said smaller doors in closed position; of bolt mounting means secured on the outer side of said car adjacent to the rear edge of said car door; a bolt slidably mounted in said mounting means; a spring for actuating said bolt to move inward projecting the inner end portion of said bolt behind the rear edge of said car door; moving means actuated by the inner end portion of said bolt for moving all of said door holding means into operative position when said bolt is moved inward said door holding means being adapted to be reversely moved by gravitation thereof when said bolt is moved outward; and car sealing means formed in said bolt and said mounting means for the reception of the strap of an ordinary car seal.

3. The combination with a movably mounted freight car door; of a bolt housing secured on the outer side of said freight car adjacent to the rear edge of said door said housing having a bifurcated outer end portion formed therewith and seal strap slots formed through said bifurcations said housing also having an aperture formed through its inner end said aperture being adapted to loosely fit around a splined bolt; a lock bolt slidably and rotatably mounted in said housing; a spline formed on the inner end portion of said bolt; a spring in said housing for at all times actuating said bolt to move inward said bolt having a seal strap slot formed through its outer end portion adapted to be brought into register with the first mentioned slots by said movement; and shielding means for shielding said slots from the action of the elements.

1,206,811. WEIGHTING SYSTEM FOR TEXTILE FLY-FRAMES. WILLIAM H. BYRD and RENIER BYRD, Pelham, Ga. Filed Dec. 11, 1915. Serial No. 66,311. (Cl. 19—33.)



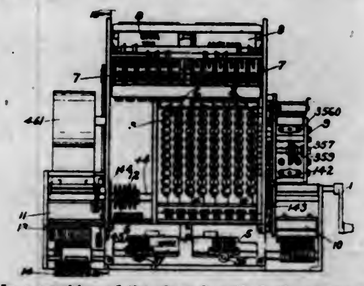
A weighting attachment for spinning machines comprising a stationary jack mounted upon the table of said machine and having an upper eye terminal, a straight weight beam formed with a hook end fulcrumed in the eye terminal and having a series of transverse holes spaced from each other intermediate its ends, a weight adjustably suspended upon the end of the beam remote from the fulcrum end thereof, an equaliser bar having hook ends and also provided with spaced notches in its upper edge, an inverted substantially U-shaped fulcrum yoke straddling said equaliser bar and engageable in any one of the notches thereof, a pivot pin mounted in the yoke and engageable in any one of the holes in the weight beam, a saddle adapted to act upon the journals of two of the uppermost drawing rolls of the machine, and a pair of stirrups detachably engaged with the hook ends of the equaliser bar and with the saddle and the journal of the remaining uppermost drawing roll respectively.

1,206,812. WIRE-HOLDING CLIP. WILLIAM CALLAWAY, Wichita, Kans. Filed Feb. 25, 1914. Serial No. 821,032. (Cl. 256—50.)



A clip for supporting a strand of wire formed from a sheet metal blank comprising a body portion having means for connecting the clip with a post, and upper and lower resilient tongues extending from said body portion, the upper tongue being bent downwardly in spaced relation to the body portion and having its free end portion bent inwardly to form a wire supporting hook extending in close proximity to said body portion, the lower tongue being bent upwardly outside the upper tongue and extending in overlapping relation to the same.

1,206,813. CASH AND CREDIT REGISTER. EDMUND S. CHURCH, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, incorporated 1906. Filed Jan. 17, 1910. Serial No. 538,470. (Cl. 235—3.)



1. In a machine of the class described, the combination with a differentially movable plunger, of a detachable total retaining device comprising a differentially adjustable element, a carriage on which said retaining device may be manually placed, positioned in the line of said plunger, and means for moving said carriage and thereby engaging said retaining element with said plunger.

2. In a machine of the class described, the combination with a differentially movable plunger, of a detachable total retaining device comprising a differentially adjustable element, a carriage on which said retaining device may be manually placed, means carried by said carriage for locking said retaining device thereon, and means for moving said carriage and thereby engaging said retaining element with said plunger.

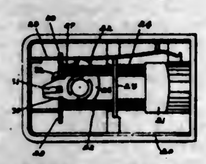
3. In a machine of the class described, the combination with a detachable total retaining device and a carriage on which said retaining device may be manually placed, of means for locking said retaining device on said carriage, a bank of keys, having devices normally preventing actuation thereof, and connections from said retaining device locking means for disabling said preventing devices.

4. In a machine of the class described, the combination with a detachably total retaining device manually insertible into the machine, of a bank of transaction keys, a plate operated by said keys, devices normally latching said plate, a latch for said retaining device, moved to latching position by the insertion of said retaining device into the machine, and connections whereby said retaining device latch releases said plate latching device.

5. In a machine of the class described, the combination with a detachable total retaining device manually insertible into the machine, of a bank of transaction keys, a device for blocking movement of one key of said bank, and connections actuated by insertion of said retaining device for moving said blocking device to blocking position.

[Claims 6 to 71 not printed in the Gazette.]

1,206,814. NIGHT-LATCH. HERBERT G. COLLINS, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 27, 1913. Serial No. 744,500. (Cl. 70—29.)



1. In a rim night latch, the combination of a case, a latch bolt, a spring urging the latch bolt outward beyond the normal latching position, a member engaged by said bolt to hold the latter in the normal latching position in opposition to said spring, said member adapted to be moved for releasing the bolt so that it may be protracted by said spring, a knob, and means for moving said member out of blocking relation to said bolt as said knob is turned; substantially as described.

2. In a lock, the combination of a latch bolt, a spring urging the same outward beyond the usual latching position, a hub for retracting said bolt, and yielding stop means for said hub; substantially as described.

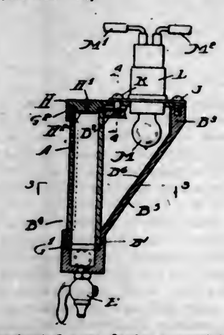
3. In a lock, the combination of a latch bolt, a spring urging the same outward beyond the usual latching position, a hub for retracting said bolt, and a spring acting on said hub and counteracting the action of said first spring to a certain extent so as to hold said bolt in latching position; substantially as described.

4. In a lock, the combination of a latch bolt, means normally projecting it beyond the usual latching position, retracting means for said latch bolt, and a yielding stop acting on said retracting means and normally holding said bolt in latching position in opposition to said first means; substantially as described.

5. In a lock, the combination of a latch bolt, means normally projecting said bolt beyond the usual latching position, a retracting hub for said latch bolt having a lug, and a flat spring bearing against said lug and holding said bolt in the latching position in opposition to said first means; substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

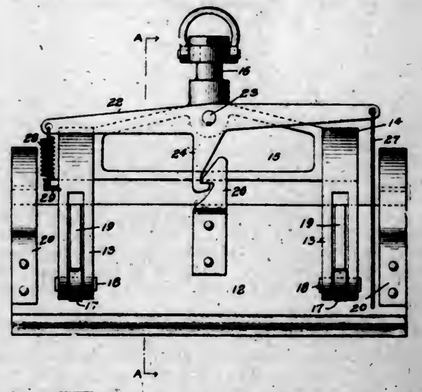
1,206,815. ILLUMINATED OIL-GAGE. MARTIN L. CRANMER, Chicago, Ill. Filed Jan. 6, 1916. Serial No. 70,565. (Cl. 240—2.)



1. An illuminated gage device comprising a glass tube; a housing formed with a pocket in which the lower end of said tube is lodged; an inlet pipe leading into said pocket; a gasket on which the end of the tube is seated in the pocket; the housing extending divergently from the tube at said pocket; a cap resting at one end on the edge of the housing at a distance from the other end of the tube, the other end of said cap bearing upon the other end of said tube, and a clamp screw extending through the cap intermediate said supported parts, and engaging the housing for securing said cap and to hold the tube in position.

2. An illuminated gage device comprising a glass tube; a housing formed with a pocket in which the lower end of said tube is lodged; an inlet pipe leading into said pocket; a gasket on which the end of the tube is seated in the pocket; the housing extending divergently from the tube at said pocket; a cap resting at one end on the edge of the housing at a distance from the other end of the tube, the other end of said cap bearing upon the other end of said tube, and a clamp screw extending through the cap intermediate said supported parts, and engaging the housing for securing said cap and to hold the tube in position, together with an electric lamp suspended in the housing from said cap.

1,206,816. APPARATUS FOR CARRYING GLASS SHEETS. JAMES W. CRUIKSHANK, Pittsburgh, Pa. Filed Mar. 10, 1916. Serial No. 83,296. (Cl. 57—9.)



1. In a clamp for carrying a sheet of glass, the combination of a pair of flexibly connected gripping members having a relatively fixed vertical position to the sheet of glass; a frame free to move vertically, comprising a supporting member carrying U shaped members having the ends of their downwardly extending oppositely placed arms relatively immovable to each other embracing the gripping members and engaging with them, means for imparting a horizontal movement to the gripping members for gripping and releasing when the frame is raised and lowered.

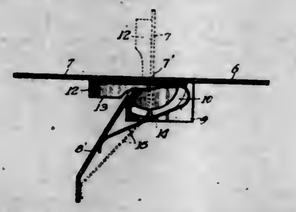
2. In a clamp for carrying a sheet of glass, the combination of a pair of flexibly connected gripping members having a relatively fixed vertical position to the sheet of glass; a frame free to move vertically, comprising a supporting member carrying U shaped members having the ends of their downwardly extending oppositely placed arms relatively immovable to each other embracing the gripping members and engaging with them, means for imparting a horizontal movement to the gripping members for gripping and releasing when the frame is raised and lowered; means for suspending the gripping members to the frame, and means for disengaging them from it.

3. In a clamp for carrying a sheet of glass, the combination of a pair of flexibly connected free gripping members and a frame with rigid arms embracing the free gripping members; means for suspending the gripping members on the rigid frame and holding them out of con-

tact with the glass; means for disengaging the gripping members from the frame, wedge mechanism engaging the arms of the rigid frame and free gripping members by which means and the action of gravity gripping members are brought toward each other and in contact with the sheet.

4. In a clamp for carrying a sheet of glass, the combination of a pair of free gripping members connected by flexible supporting bails; a frame with rigid arms embracing the free gripping members; wedge mechanism engaging the arms of the rigid frame and free gripping members arranged to move the gripping members inwardly and engage the sheet; feet on the flexible supporting bails to engage the edge of the sheet and support the gripping members; means to give the gripping members horizontal movement to disengage them from the sheet; means for suspending the gripping members on the rigid frame when the gripping members are not in contact with the sheet.

1,206,817. HINGE CONSTRUCTION. JOHN CUTHBERT, Chicago, Ill. Filed Oct. 12, 1915. Serial No. 55,403. (Cl. 16—104.)



1. A closure hinge for a receptacle comprising a jamb plate secured to the inner side of the receptacle wall and having a groove parallel with and bridging the joint between said wall and receptacle closure at the hinged side; a closure, flush with the wall when closed, with its hinged edge overlying said groove; a hinge member extending from the closure beyond adjoining edges and a stationary hinge member secured to the inside of the wall, serving as a guide when the edge of the closure is within said groove.

2. A closure hinge for a receptacle comprising a jamb plate secured to the inner side of the receptacle wall and having a groove bridging the joint between said wall and receptacle closure at the hinge side, and parallel with said joint; a closure, flush with the wall when closed; with its hinged edge overlying said groove; a hinged member extending from the closure beyond adjoining edges and a hinge member comprising two confronting stationary plates secured to the inside of the wall serving as guides for the coöperating closure member when the edge of the closure is within said groove.

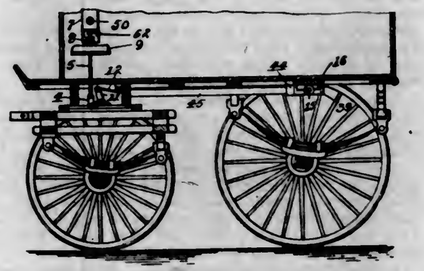
3. A closure hinge for a receptacle, comprising a jamb plate secured to the inner side of the receptacle wall and having a groove bridging the joint between said wall and receptacle closure at the hinged side and parallel with said joint; a closure flush with the wall when closed, with the hinged edge partially overlying said groove; a hinge plate member having lateral projections secured to the closure and extending beyond adjoining edges and a fixed hinge member comprising two confronting parallel plates secured to the inside of the wall and having segment shaped perforations into which the projections of the coöperating hinge member extend, serving as guides therefor when the edge of the closure is within said groove.

4. A closure hinge for a receptacle opening comprising a wall, to an edge of which a closure is to be hinged; a jamb plate secured to the inner side of the wall and extending into the closure opening beyond the meeting edge of said closure and wall to bridge the joint by thereby providing a rabbet; a closure, flush with the wall on the outside, when closed; a part projecting into the receptacle from the inner edge of said plate; and hinge members secured respectively to said closure and wall on the inside of said receptacle and lying at all times inside of the rabbet.

5. A closure hinge for a receptacle opening comprising a wall, to an edge of which a closure is to be hinged; a jamb plate secured to the inner side of the wall and extending into the opening beyond the meeting edge of the closure and wall; a closure flush with the wall on the outside when closed and adapted to swing about its edge bearing on the jamb plate as an axis; a projecting hinge member carried on the inner side of the closure adjacent said edge; and an arcuate guide carried on the inner face of the wall and engaged by said projecting hinge member.

[Claims 6 to 9 not printed in the Gazette.]

1,206,818. LOCK FOR VEHICLES. PETER DAMM, New York, N. Y., assignor of one-third to Selman Liss, New York, N. Y., and one-third to Leopold Tropp and one-third to Morris M. Turitz, Brooklyn, N. Y. Filed Sept. 17, 1915. Serial No. 51,205. (Cl. 21—8.)



1. In combination with a vehicle, an automatic locking device having independent self-acting plungers for locking the wheels against turning, means connected to the driver's seat for withdrawing the plungers, means for locking the driver's seat in the raised position and the plungers from being withdrawn, and means for independently locking the plungers in their outer position.

2. In combination with a vehicle, an automatic locking device having independent self-acting plungers for locking the wheels against turning, means connected to the driver's seat for withdrawing the plungers, means for locking the driver's seat in the raised position and the plungers from being withdrawn, means for independently locking the plungers in their outer position, and means for allowing one part of the locking mechanism to fully operate and lock when one or more of the other parts are prevented from fully operating.

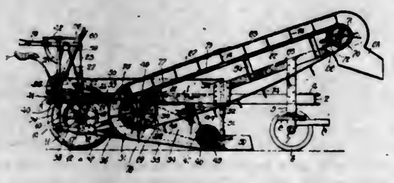
3. In combination with a vehicle, an automatic locking device having independent self-acting plungers for locking the wheels against turning, means connected to the driver's seat for withdrawing the plungers, means for locking the driver's seat in the raised position and the plungers from being withdrawn, means for independently locking the plungers in their outer position, means for allowing one part of the locking mechanism to fully operate and lock when one or more of the other parts are prevented from fully operating, and means for unlocking the plungers and returning them to their normal position.

4. In combination with a vehicle, a pair of spring-actuated plungers connected to a rock shaft by cable, the said rock shaft connected to the spring-actuated driver's seat and caused to be rocked by the said seat and said operation of the rock shaft in one direction allowing the plungers to pass between the spokes of the wheels and the rocking of the shaft in the opposite direction causing the plungers to be withdrawn from between the spokes, and spring-actuated latches within the casing of the plungers for locking the plungers in their outer position and said latches can be unlocked only by the operating rods of the plungers.

5. In combination with a vehicle, a pair of spring-actuated plungers connected to a rock shaft by cable, the said rock shaft connected to the spring-actuated driver's seat and caused to be rocked by the said seat and said operation of the rock shaft in one direction allowing the plungers to pass between the spokes of the wheels and the rocking of the shaft in the opposite direction causing the plungers to be withdrawn from between the spokes, and a spring-actuated mechanism for locking the said seat in a position for preventing the plungers from being withdrawn, and spring-actuated latches within the casing of the plungers for locking the plungers in their outer position and said latches can be unlocked only by the operating rods of the plungers.

[Claims 6 to 8 not printed in the Gazette.]

1,206,819. DIRT-MACHINE. HUGH DAVIS, Melvin, Mich. Filed Apr. 9, 1915. Serial No. 20,109. (Cl. 37—82.)

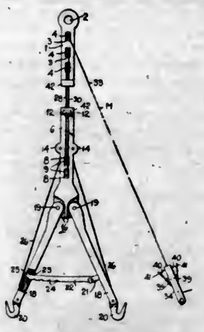


1. In a dirt machine, a main frame, a seat at the rear end of said frame, a bearing at the rear end of said frame, a driven shaft supported by said frame, a scoop supported by said driven shaft, rearwardly extending frames secured to said scoop and loose on said shaft, a yoke connecting said frames and extending below the bearing of said frames, a conveyer casing in communication with said scoop, an endless conveyer movable in said casing and said scoop and driven by said shaft, and a rod connected by said yoke in screwthreaded engagement with said bearing and extending upwardly in front of said seat.

2. In a dirt machine, a main frame, a seat support at the rear end of said frame, a single bearing on the rear end of said frame at the base of said seat support, a driven shaft supported by said main frame, a scoop supported by said driven shaft, rearwardly extending triangular shaped frames secured to the sides of said scoop loose on said shaft, a yoke connecting said frames and extending below the bearing on said frame, a conveyer casing in communication with said scoop, an endless conveyer movable in said casing and said scoop and driven by said shaft, and a vertically disposed rod rotatably connected to said yoke in screw-threaded engagement with said bearing and extending upwardly in front of said seat.

1,206,820. GAMBREL. JOSEPH C. DOAY, Grand Valley, Colo. Filed May 6, 1916. Serial No. 95,857. (Cl. 17—30.)

1. A device of the character described including a block having an end portion thereof provided with a bore and with openings in its sides in communication with the bore, spreading arms pivotally engaged with the opposite end portion of the block, flexible members secured to the outer end portions of the spreading arms and extending within the bore of the block through the openings in the side thereof, a lifting means for the block including a flexible member extending within the bore of the block and secured to the first named flexible member, and a member engageable with the block when elevated a predetermined distance whereby a continued operation of the lifting means causes an upward movement of the spreading arms through the medium of the first mentioned flexible members and the second named flexible member.



2. A device of the character described including a block having an end portion thereof provided with a bore and with openings in its sides in communication with the bore, spreading arms pivotally engaged with the opposite end portion of the block, flexible members secured to the outer end portions of the spreading arms and extending within the bore of the block through the openings in the side thereof, a lifting means for the block including a flexible member extending within the bore of the block and secured to the first named flexible member, a member engageable with the block when elevated a predetermined distance whereby a continued operation of the lifting means causes an upward movement of the spreading arms through the medium of the first mentioned flexible members and the second named flexible member, and guide pulleys positioned above the inner end of the bore of the block above the openings therein and beneath which the first named flexible members are directed.

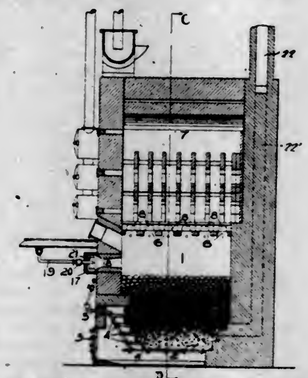
3. A device of the character described including a block having an end portion thereof provided with a bore and with openings in its sides in communication with the bore, spreading arms pivotally engaged with the opposite end portion of the block, flexible members secured to the outer end portions of the spreading arms and extending within the bore of the block through the openings in the side thereof, a lifting means for the block including a flexible member extending within the bore of the block and secured to the first named flexible member, a member engageable with the block when elevated a predetermined distance whereby a continued operation of the lifting means causes an upward movement of the spreading arms through the medium of the first mentioned flexible members and the second named flexible member, and pulleys rotatably supported by the block at opposite sides of the bore and adjacent the outer end of the bore.

4. A device of the class described comprising a block provided with securing means, a second block, spreading arms pivotally supported by the second block, flexible members secured to the outer portions of the spreading arms, guiding members carried by the second block and beneath which the flexible members are disposed, a second flexible member operatively engaged with the first named flexible member and comprising returned portions operatively engaged with both of the blocks whereby pull upon said flexible member elevates the second named block relative to the first named block and elevates the spreading arms upon contact of the second named block with the first named block.

1,206,821. PROCESS FOR PRODUCING A DIFFUSED FLAME WITH PRODUCER-GAS. HENRY L. DOHERTY, New York, N. Y. Filed May 15, 1911, Serial No. 627,134. Renewed Mar. 11, 1916. Serial No. 83,675. (Cl. 158—117.5.)

1. In the heating of furnace chambers, the process of regulating flame temperatures which comprises diluting

producer gas with a proportion of non-combustible gas, introducing said mixture into a furnace chamber and burning said mixture in said chamber by means of a current of air.



2. The method of regulating the temperature of combustion of producer gas which comprises, diluting the said producer gas with gases of substantially complete combustion, adding air to the resulting diluted gas, and burning the resulting mixture in such manner as to produce a diffused combustion.

3. The method of securing a substantially uniform flame temperature in a producer-gas-fired-furnace which comprises diluting the producer gas with non-combustible gases to give a gas of relatively low calorific value, introducing the resulting diluted gas into said furnace, and introducing air into said furnace, to burn the said diluted gas with the production of a slow-burning flame of moderate temperature.

4. The method of securing a uniform heating effect in a furnace chamber which is maintained at an igniting temperature which comprises, generating a producer gas, mixing non-combustible gases with the said producer gas, introducing the resulting mixture into the said furnace chamber, and introducing air into the said chamber, whereby the said gas is caused to burn with a voluminous, slow-burning flame that substantially fills the said chamber.

5. The process of securing a uniform heating effect in a furnace chamber which comprises generating a producer gas, mixing with said gas a volume of combustion gases to the extent of between 5 to 100 per cent. of the volume of said gas, introducing the resulting weak combustible gas into the said furnace chamber, preheating air, and introducing said preheated air into said furnace chamber, whereby the said weak gas is caused to burn with a slow-burning voluminous flame which substantially fills said chamber.

[Claims 6 to 9 not printed in the Gazette.]

1,206,822. NUT-LOCK. GEORGE M. DONALDSON, Boston, Mass., assignor, by mesne assignments, to Floating Wedge Lock Nut Co. Inc., a Corporation of New York. Filed May 22, 1915. Serial No. 29,739. (Cl. 151—25.)



1. In a nut lock, the combination with a nut having a threaded bore, there being a V-shaped recess extending axially therethrough, the diverging ends of which recess terminate in the wall of the bore of said nut, of a wedge in said recess having threads along one of its edges to register with the threads of said bore, there being a notch in each end of said wedge, and pins rolled into said nut to cross the ends of said recess and to extend into the notches of said wedge, the depths of said notches relative to the positions of such pins being such that the wedge has an axial movement equal in distance at least to the length of one-half a pitch of said threads.

2. In a nut lock, the combination with a nut having a threaded bore, there being a V-shaped recess extending axially therethrough, the diverging ends of which recess terminate in the wall of the bore of said nut, of a wedge in said recess having threads along one of its edges to register with the threads of said bore, there being a notch in each end of said wedge, and pins rolled into said nut to cross the ends of said recess and to extend into the notches of said wedge.

3. In a nut lock, the combination with a nut having a threaded bore, there being a recess extending axially therethrough, the ends of which terminate in the wall of the bore of said nut, of a wedge in said recess having threads along one of its edges to register with the threads of said bore, and pins rolled into said nut to cross the ends of said recess and to anchor said wedge in said recess.

4. In a nut lock, the combination with a nut having a threaded bore, there being a recess extending axially therethrough, the ends of which terminate in the wall of the bore of said nut, of a wedge in said recess having threads along one of its edges to register with the threads of said bore, pins rolled into said nuts to cross the ends of said recess, and conformations on said wedge to cooperate with said pins to anchor said wedge in said recess.

5. In a nut lock, the combination with a nut having a threaded bore, there being a recess extending axially therethrough, the ends of which recess terminate in the wall of the bore of said nut, of a wedge in said recess having threads along one of its edges to register with the threads of said bore, pins secured in said nut across the ends of said recess, and conformations on said wedge cooperating with said pins to anchor said wedge in said recess.

[Claims 6 and 7 not printed in the Gazette.]

1,206,823. FEED MECHANISM FOR MATCH-PACKING MACHINES. JOSEPH C. DONNELLY, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 28, 1914. Serial No. 834,905. (Cl. 144—61.)



1. In match-feeding mechanism, an elongated trough to one end of which the matches are delivered in mass, said trough comprising a body, a vibratory bottom section therefor having transverse rack teeth or projections arranged to engage the lowermost patches and progressively feed them with a direct thrust longitudinally of the trough, and stop devices adjacent said section to engage the matches and prevent their retrograde movement during the operation of said section.

2. In match-feeding mechanism, an elongated trough to one end of which the matches are delivered in mass, said trough comprising a body and juxtaposed longitudinal bottom members having rack teeth transversely thereof, in combination with means for effecting longitudinal movement of said members relatively to each other and progressively impelling the lowermost matches with a direct thrust longitudinally of the trough.

3. In match-feeding mechanism, an elongated trough to one end of which the matches are delivered in mass, said trough comprising a body and juxtaposed longitudinal bottom members having rack teeth transversely thereof, one of said members being longitudinally movable, and the others stationary, in combination with means for vibrating said movable member whereby its teeth engage the lowermost matches and progressively impel them with a direct thrust longitudinally of the trough.

4. In match-feeding mechanism, an elongated trough to one end of which the matches are delivered in mass, said trough comprising a body and juxtaposed longitudinal bottom members having rack teeth transversely thereof, two of said members being stationary and the middle member being longitudinally movable, in combination with means for vibrating said movable member whereby its teeth engage the lowermost matches and progressively impel them with a direct thrust longitudinally of the trough.

5. In mechanism of the character described, a match-feeding trough arranged alongside of the discharge end of a match machine, and into which the matches are discharged in rows directly from the match machine, a longitudinally reciprocating bottom section for said trough, having on its upper surface transverse rack teeth arranged to engage the lowermost matches and progressively feed them with a direct thrust longitudinally of the trough, means for vibrating said section, and stop devices within the trough and adjacent said section to prevent retrograde movement of the matches during the operation of said bottom section.

[Claims 6 to 17 not printed in the Gazette.]

1,206,824. REVOLVING DOOR. HARRY W. DYER, New York, N. Y., assignor to Van Kannel Revolving Door Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 1, 1912. Serial No. 674,639. (Cl. 20—18.)



1. A revolving door having in combination, an axial supporting member, a plurality of one part wings, arranged to swing independently about the supporting member, a vertically movable yielding locking spider at the top of the door, and in engagement with the wings thereof, whereby, upon the application of abnormal pressure to the wings, the spider will yield to permit the wings to fold.

2. A revolving door having in combination, an axial supporting-member, a plurality of one part wings arranged to swing about the supporting-member, a sectional spider and an engaging connection, yieldable under abnormal pressure, between each arm of the spider and the upper edge of each wing, each section of the spider being vertically-movable, so that each wing may be independently movable of the others.

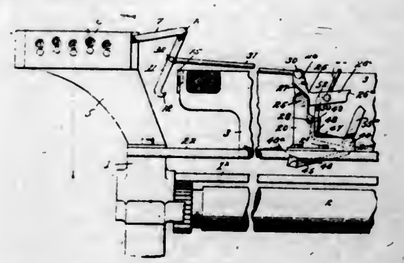
3. A revolving-door having in combination, an axial supporting-member, a plurality of wings arranged to swing about the supporting-member, a vertically-movable locking-spider carried by said supporting-member, engaging means, yielding under abnormal pressure, between the upper edges of the wings and the arms of the spider, means for exerting a constant pressure to hold the wings into engagement with the spider arms, and means for releasing such pressure.

4. A revolving-door having in combination, an axial supporting-member, a plurality of wings arranged to swing about the supporting-member, a sectional spider, an engaging connection, yieldable under abnormal pressure, between the upper edges of the wings and the arms of the spider, means for exerting a constant pressure to hold the wings into engagement with the spider sections, and means for releasing such pressure.

5. A revolving door having in combination an axial supporting member, a plurality of wings arranged to swing about the supporting member, yielding means engaging the upper and lower portions of the wings to hold them in radial position with respect to the supporting member, but adapted to be forced apart by the application of abnormal pressure, so that the wings may be released and folded to make a passageway, upon the application of abnormal pressure.

[Claims 6 to 11 not printed in the Gazette.]

1,206,825. COUNTER-OPERATING ATTACHMENT. HARRY EHLIG, Pearl River, N. Y., assignor to Dexter Folder Company, Pearl River, N. Y., a Corporation of New York. Filed Jan. 18, 1915. Serial No. 2,897. (Cl. 235—91.)



1. The combination with a machine and a counting device having a member suitably mounted to be moved into and out of position to be operated by a part of said machine, of means for moving said member, and a stop movable into and out of position to block the movement of said member-moving means, said stop being suitably mounted to be held out of position in which it blocks the movement of said member-moving means, by the presence of an article fed by said machine.

2. The combination with a machine for operating upon articles passing through it, and a counting device adapted to be operated by said machine, said machine and counting device having parts movable into and out of position to engage each other, of means for moving one of said parts to adapt the moving part of the machine to drive said counting device, and a member arranged to be operated by said articles and adapted to arrest the operation of said means.

3. The combination with a machine, and a counting device therefor, of a counter-actuating arm adapted to be moved into and out of the path of a moving part of said machine, a spring-actuated operating arm connected with said counter-actuating arm, an operative connection between said operating arm and a moving part of said machine, a detector arm having lost-motion connection with said operating arm, and a stop arm connected with said detector arm and adapted to be moved thereby into engagement with said operating arm to arrest its movement.

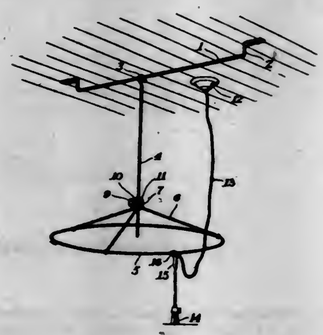
4. A counter-operating attachment for machinery comprising a supporting member adapted to be attached to

a machine, an operating member movably mounted upon said supporting member and adapted to be operated by a moving part of the machine to which it is applied, a counter-actuating member connected with said operating member and adapted to be shifted thereby into and out of position to be engaged by a moving part of the machine, a detector member having operative connection with said operating member, and means controlled by said detector member for arresting the operation of said operating member.

5. A counter-operating attachment for machinery comprising a supporting member adapted to be attached to a machine, a spring-actuated lever movably mounted upon said supporting member and adapted to be operated by a moving part of the machine to which it is applied, a counter-operating hook-arm connected with said spring-actuated lever and adapted to be shifted thereby into and out of position to be engaged by a moving part of the machine, a detector member having operative connection with said spring-actuated lever, and means controlled by said detector member for arresting the operation of said spring-actuated lever.

[Claims 6 to 10 not printed in the Gazette.]

1,206,826. LAMP-BRACKET. CHARLES ENGLERT, Rochester, N. Y. Filed Mar. 8, 1916. Serial No. 82,845. (Cl. 248—30.)



1. A light holder comprising a horizontally arranged guide, a horizontally arranged ring suspended from said guide and adjustable along the said guide, and a cable clamp having means for detachably engaging said ring at various points on the periphery of the latter.

2. A light holder comprising a rod having a hook at the upper end thereof, a ring at the lower end of the rod arranged in a plane at a right angle to the rod, and a cable clamp having a hook for detachably engaging said ring at various points on the periphery of the latter.

3. A light holder comprising a suspension rod, a ring, supporting arms for the ring having their ends turned laterally in the same direction, a head formed by a U-shaped piece, two arms of which are provided with alined openings, some of which have the laterally turned ends of the supporting arms secured therein and the other of which have the suspension rod extending therethrough, and a clamping member supported by the connecting portion between the arms and engaging the suspension rod.

4. A light holder comprising a horizontally arranged rod having laterally extending supports at its ends, a suspension rod having a hook engaging said horizontally arranged rod to move longitudinally of said rod, a head clamped to said suspension rod, supporting arms extending from said head, a ring supported by said supporting arms, and a cable clamp having a hook engaging said ring.

1,206,827. MATCH-IGNITION MATERIAL. WILLIAM A. FAIRBURN, Short Hills, N. J., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 6, 1915. Serial No. 19,552. (Cl. 52—5.)

The herein described match ignition material composed of resin, dextrin, plaster of Paris, antimony sulfid and amorphous phosphorus, combined in about the proportions specified.

1,206,828. PROCESS OF DRYING THE COMPOSITION HEADS OF MATCHES. WILLIAM A. FAIRBURN, Short Hills, N. J., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed July 28, 1915. Serial No. 42,309. (Cl. 52—5.)

1. In the manufacture of matches upon a continuous match machine, a process which consists in applying to the match splints composition heads or bulbs containing an oxidizing agent as an ingredient; and then transporting the splints thus treated through a series of drying zones, wherein they are subjected first to air currents of successively increasing temperatures and then to air currents of successively decreasing temperatures.

2. In the manufacture of matches upon a continuous match machine, a process which consists in applying to the match splints composition heads or bulbs containing an oxidizing agent as an ingredient; then transporting the splints thus treated through a series of drying zones, wherein they are subjected first to air currents of successively increasing temperatures and then to air currents of successively decreasing temperatures, and then applying sensitive igniting composition to the said heads or bulbs.

3. In the manufacture of matches upon a continuous match machine, a process which consists in applying to the match splints composition heads or bulbs containing an oxidizing agent as an ingredient; then transporting the splints thus treated through a series of drying zones and therein subjecting them to air currents of high velocity, predetermined relative humidity, and successively increasing and decreasing temperatures; and then applying sensitive ignition composition to said heads or bulbs.

4. In the manufacture of matches upon a continuous match machine, a process which consists in applying to the match splints composition heads or bulbs containing an oxidizing agent as an ingredient; then transporting the splints thus treated through a series of drying zones and therein subjecting them to air currents of high velocity and relatively low humidity, the temperature in several of such zones increasing successively from moderate to about 120° F., and in the remaining zones decreasing successively to about 80° F.; and then applying sensitive ignition tips to said heads or bulbs.

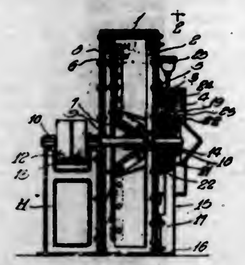
1,206,829. SHOE-FASTENER. HENRY ANDREW FAUTEUX, Ottawa, Ontario, Canada. Filed June 3, 1916. Serial No. 101,650. (Cl. 24—217.)



A fastener of the class described comprising a male member having an ellipsoidal projection, a female member having curvilinear overhanging walls adapted to engage the said projection, a hollow button, a rivet integral with the inner wall of the button adapted to secure the same to the female member and means for securing the said fastener to a boot as and for the purpose specified.

1,206,830. CENTER-SUCTION FAN. FRANKLIN A. FLECK, Middletown, Pa. Filed Oct. 25, 1915. Serial No. 57,863. (Cl. 230—11.)

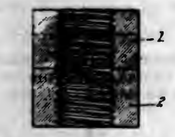
1. In combination with a suction fan, a casing surrounding said fan, and a shaft upon which said fan is mounted, said casing having an inlet opening on one side surrounding said shaft; of a plate on said shaft within said opening, an angle iron secured thereto, a bearing secured to said plate, a support for said bearing and plate, and a substantially air tight shield covering said bearing and attached to said angle iron to prevent the lubricant from being drawn therefrom and to prevent dust from entering.



2. In combination with a suction fan, a casing surrounding said fan, and a shaft upon which said fan is mounted, said casing having an inlet opening on one side surrounding said shaft; of a plate on said shaft within said opening, a bearing secured to said plate, a bracket support for said bearing comprising an attaching foot adapted to be secured to said casing, a body portion, a head to receive said bearing, and a substantially air tight shield covering said bearing to prevent the lubricant from being drawn therefrom and to prevent dust from entering.

3. In combination with a suction fan, a casing surrounding said fan, and a shaft upon which said fan is mounted, said casing having an inlet opening on one side surrounding said shaft; of a plate on said shaft within said opening, a bearing secured to said plate, a bracket support for said bearing comprising an attaching foot adapted to be secured to said casing, a body portion, a head to receive said bearing, a substantially air tight cylindrical shield having a conical shaped outer end, and a flange surrounding said opening.

1,206,831. GRIP-NUT. LOUIS J. FLINT, Detroit, Mich., assignor to Grip Nut Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 11, 1913. Serial No. 805,931. (Cl. 151—21.)

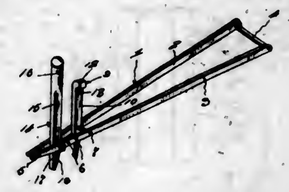


1. An integral grip nut comprising two sections superimposed one on the other, the bolt threads in the two sections being substantially the same form, size, pitch and helix, but having the thread in one section slightly advanced axially in relation to that of the other.

2. A grip nut comprising two sections superimposed one on the other and operably secured together, the bolt threads in the two sections being substantially the same form, size, pitch and helix, but having the thread in one section slightly advanced axially in relation to that of the other.

1,206,832. FLOOR-LAYING TOOL. JACOB B. FORD, Bordelonville, La. Filed Dec. 14, 1915. Serial No. 66,801. (Cl. 254—17.)

1. A floor laying tool comprising a triangular frame, a stake mounted in the frame near its apex, a lever pivoted in front of the stake, means to adjust the pivot point of the lever, the lower end of said lever being adapted to engage the floor board upon the rearward movement of the upper end of the lever to force said floor board into engagement with the next adjacent board and means to lock the lever in its operated position.



2. A floor laying tool comprising a triangular frame, a stake pivoted near the apex of the frame, said stake being adapted to hold the device against accidental movement, a lever pivoted forwardly of the apex, means to adjust the position of the lever, the lower end of said lever being adapted to engage the floor boards to move the same into proper position with relation to the next adjacent floor board and a head on the stake forming a shoulder, said shoulder holding the lever in its operated position.

1,206,833. TOOL-STEEL ALLOY. RADCLYFFE FURNESS, Jenkintown, and RICHARD H. PATCH, Philadelphia, Pa., assignors to The Midvale Steel Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 14, 1915. Serial No. 66,840. (Cl. 75—1.)

1. A high speed tool steel containing chromium, molybdenum between four and eleven per cent. and cobalt.

2. A high speed tool steel containing the following ingredients in the proportion specified: chromium 2.5 to 5 per cent., molybdenum 4 to 11 per cent., and cobalt 2 to 20 per cent.

3. A high speed tool steel containing the following ingredients in the proportions specified: carbon less than one per cent., chromium 2.5 to 5 per cent., molybdenum 4 to 11 per cent., and cobalt 2 to 20 per cent.

4. A high speed tool steel containing the following ingredients in approximately the proportions specified: carbon less than one per cent., chromium about 4 per cent., molybdenum about 8 per cent., and cobalt about 5 per cent.

1,206,834. TOOL-STEEL ALLOY. RADCLYFFE FURNESS, Jenkintown, and RICHARD H. PATCH, Philadelphia, Pa., assignors to The Midvale Steel Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 19, 1916. Serial No. 72,901. (Cl. 75—1.)

1. A high speed tool steel containing chromium 2 to 6%, tungsten 9 to 15%, and cobalt 5 to 20%.

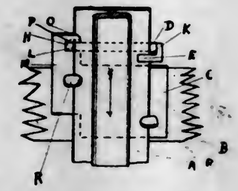
2. A high speed tool steel containing from 2 to 6% chromium, less than 15% of tungsten, and not less than 10% of cobalt.

1,206,835. SHOE-TREE. JOHN G. GARDNER, New York, N. Y. Filed Jan. 29, 1916. Serial No. 75,017. (Cl. 12—128.)



A shoe tree comprising a flat spring adjuster having a bend therein forming a sloping heel plate, a heel member secured to the free end of said heel plate, a fore part having a vertical slot formed therein and a connector having a vertical front end hinged in said slot and a horizontal rear end to which the front end of the spring adjuster is secured, substantially as described.

1,206,836. RAIL-ANCHOR. HORATIO G. GILLMOR, Washington, D. C. Filed Apr. 30, 1915. Serial No. 24,968. (Cl. 238—4.)



1. A device for preventing the creeping of rails comprising a bar extending transversely under the rail having the ends thereof provided with rigid abutments bearing against opposite edges of the rail base and at one end an arm adapted to engage and bear upon the upper surface of the rail base in longitudinal spaced relation to the transverse portion of said bar and means engaging the other end of said bar for holding the same in spaced relation to a tie.

2. A cross bar for rail stays having one end overturned to form with said bar a jaw adapted to grip the base of a rail at one side and the other end turned at approximately right angles to the body of said bar said jaw end and said right angle turned end being so related to the body of the bar that when the jaw engages the rail base at one side the right angled end may be brought into engagement with the edge of the rail base at the other side of the rail by rotation of said bar about an axis transverse to the rail.

3. A cross bar for rail anchors constructed of a rectangular bar having one end overturned in the plane of the diagonal of the section of said bar to form a jaw adapted to grip the rail base and the other end turned at approximately right angles to a face of said bar.

4. A cross bar for rail stays having at one end a jaw presenting a plurality of faces adapted to engage the upper surface of the rail base and at the other end an arm at approximately right angles to said bar.

5. A rail anchor comprising a cross bar constructed with a jaw at one end adapted to engage the rail base at one side of the rail and at the other end thereof an arm adapted to engage the edge of the rail base at the opposite side of the rail and a tie plate so engaging said arm as to maintain torsional stress in said bar.

[Claims 6 to 17 not printed in the Gazette.]

1,206,837. ROCKET APPARATUS. ROBERT H. GODDARD, Worcester, Mass. Filed June 28, 1916. Serial No. 106,507. (Cl. 102—23.)

1. A rocket apparatus having, in combination, a casing, a fixed breech block, a combustion chamber movably mounted in said casing, a cartridge supporting device actuated by downward movement of said chamber to present a cartridge in definite and exact loading position while the chamber and breech block are separated, and means independent of said moving member effective to hold said cartridge in loading position during the return movement of said chamber.

2. A rocket apparatus having, in combination, a casing, a fixed breech block, a combustion chamber movably mounted in said casing, a cartridge supporting device operable by downward movement of said chamber to present a cartridge in definite and exact loading position while the chamber and breech block are separated, means to return said device to normal position as the chamber rises, and means independent of said chamber to retain said cartridge in loading position as the supporting device is withdrawn.

3. A rocket apparatus having, in combination, a casing, a breech block fixed in said casing, a combustion chamber mounted for movement in said casing, and a cartridge-replenishing mechanism comprising a supporting device mounted on said casing and having a portion positioned for engagement by said chamber as it descends, by which engagement the cartridge is moved to exact loading position.

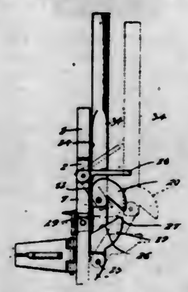


4. A rocket apparatus having, in combination, a casing, a breech block fixed in said casing, a combustion chamber mounted for movement in said casing, a cartridge-replenishing mechanism comprising a supporting device mounted on said casing and having a portion positioned for engagement by said chamber as it descends, by which engagement the cartridge is moved to loading position, and retaining devices yieldingly movable into position to hold said cartridge in loading position as the chamber re-approaches the breech block.

5. A rocket apparatus having, in combination, a casing, a breech block fixed in said casing, a combustion chamber mounted for movement in said casing, a cartridge-replenishing mechanism comprising a supporting device mounted on said casing and having a portion positioned for engagement by said chamber as it descends, by which engagement the cartridge is moved to loading position, and retaining devices normally rendered inoperative by said breech block and yieldingly movable, as the chamber descends, into position to engage said cartridge and to retain said cartridge in loading position during the return of the chamber and the withdrawal of said supporting device.

[Claims 6 to 20 not printed in the Gazette.]

1,206,838. WIRE-STRETCHER. DELPHA H. GROVES and LESTER P. GROVES, Terra Alta, W. Va. Filed Dec. 8, 1915. Serial No. 65,740. (Cl. 254—73.)



1. In a wire stretcher structure, the combination, of a body plate having a pair of oppositely disposed recesses cut in its side edges, wire stretching means carried by said body plate, corrugated wire guiding rollers rotatably supported in said recesses for guiding the wire during stretching, automatic acting means for clamping the wire in engagement with said rollers, said clamping means being constructed to permit a stretching movement and prevent a back or loosening movement of the wire, and metallic plates secured to said body plate and having their edges flared for guiding wire to said rollers.

2. In a wire stretcher structure, the combination, of a body plate having a pair of oppositely disposed recesses cut in its side edges, wire stretching means carried by said body plate, corrugated wire guiding rollers rotatably supported in said recesses for guiding the wire during stretching, a pair of pawls pivotally connected to said body plate and positioned within said recesses, said pawls having their lower edges angled and corrugated for clamping the wire in engagement with said rollers, flat springs carried by said body plate and engaging said pawls for holding said pawls in a wire clamping position, said springs adapted to permit of a stretching movement and prevent a back or loosening movement of the wire when passing over said corrugated rollers.

3. In a wire stretcher structure, the combination, of a body plate having a pair of oppositely disposed recesses cut in its side edges, wire stretching means carried by said body plate, corrugated wire guiding rollers rotatably supported in said recesses for guiding the wire during stretching, a pair of pawls pivotally connected to said body plate and positioned within said recesses, said pawls having their lower edges angled and corrugated for clamping the wire in engagement with said rollers, flat springs carried by said body plate and engaging said pawls for holding said pawls in a wire clamping position, said springs adapted to permit of a stretching movement and prevent a back or loosening movement of the wire when passing over the corrugated rollers, handles secured to and extending outwardly from the upper ends of said pawls for permitting of the manual pivotal movement of the pawls against the tension of said spring for feeding wire through the stretcher structure.

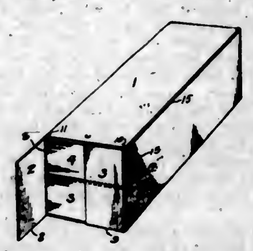
4. In a wire stretcher structure, the combination, of a body plate having a pair of oppositely disposed recesses cut in its side edges, wire stretching means carried by said body plate, corrugated wire guiding rollers rotatably supported in said recesses for guiding the wire during stretching, a pair of pawls pivotally connected to said body plate and positioned within said recesses, said pawls having their lower edges angled and corrugated for clamping wire in engagement with said rollers, flat springs carried by said body plate and engaging said pawls for holding said pawls in a wire clamping position, said springs adapted to permit of a stretching movement and prevent a back or loosening movement of the wire when passing over the corrugated rollers, handles secured to and extending outwardly from the upper ends of said pawls for permitting of the manual pivotal movement of the pawls against the tension of said spring for feeding wire through the stretcher structure, and metallic plates secured to said body plate and having their edges flared for guiding wire to said rollers.

1,206,839. FIBER SHIPPING-CASE. RAOUL J. GRUENBERG, San Francisco, Cal. Filed Apr. 19, 1915. Serial No. 22,337. (Cl. 229—37.)

1. A fiber shipping box comprising a sheet of material having corner creases formed therein wider than the thickness of the material of which the box is made, and having end flaps of two different dimensions, the cuts between the end flaps being so curved at their ends extend diagonally across said longitudinally extending corner creases.

2. A fiber shipping box comprising a sheet of fiber scored to produce the sides of a box and having flaps folded over its ends, the two inner flaps at each end being of greater dimensions parallel to their folding line than the inner dimensions of the shipping box and the two outer flaps being of less dimensions parallel to the folding line than the corresponding dimensions of the ends of the box.

3. A fiber shipping case comprising a sheet of material having scores wider than the thickness of the material and having four straight cuts with curved ends at each end of said sheet, said cuts being so placed as to extend at their inner ends diagonally across the longitudinally extending folding scores, the dimensions of each end tab parallel to its folding line being different from the corresponding dimension of the box side to which it is attached.



4. A paper box having folding scores between the side wall members and the end wall members and provided with slits to produce inner and outer closure flaps joined to the side wall members, the outer closure flaps being narrower than the side wall members to which they are joined, and the inner closure flaps being of greater dimensions parallel to their line of folding than the corresponding inner dimensions of the box and adapted to be folded entirely within the body of the box and to lie in close engagement with each of the hinges of the outer closure flaps.

5. A paper box comprising side wall sections forming the box body, said box having scores at the junctions of the side wall sections and having two sets of offset scores at right angles to the latter scores to form inner and outer flaps, the blank forming said box being slitted to produce the end closure flaps, said slits being offset from the box corner scores so that the inner flaps will lie in close engagement with the hinges of the outer closure flaps, and the outer closure flaps will be of less length parallel to their folding lines than the sides of the box to which they are joined.

[Claim 6 not printed in the Gazette.]

1,206,840. REFRIGERATOR-DRAIN. HERBERT J. GWYER, New York, N. Y. Filed Nov. 19, 1915. Serial No. 62,283. (Cl. 182—13.)



1. In a refrigerator, a bottom lining having a passage, an outlet pipe located in line with said passage, an annular wall projecting outwardly and upwardly from said outlet pipe from a point near to, but below the upper end thereof, to a point above the upper end thereof, with means for securing said annular wall to said lining around the opening therein, to form a water tight joint, a bell trap overstanding the upper end of said outlet pipe, the lower edge of the bell extending below the upper end of said pipe and being free therefrom and from the surrounding wall, and means for suspending said bell in said position, a drain pipe leading from above down to said outlet and communicating therewith above said bell, said bell

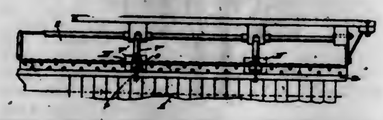
suspending means having passages in line with said drain pipe to allow water to flow from the latter to the outlet pipe.

2. In a refrigerator, a bottom lining having a passage, an outlet pipe located in line with said passage, an annular wall projecting outwardly and upwardly from said outlet pipe from a point below the upper end thereof to a point above the upper end thereof, clamping means for securing said annular wall to said lining around the opening therein to form a water-tight joint, a bell trap overstanding the upper end of said outlet pipe, the lower edge of said bell extending below the upper end of said pipe, but being free therefrom and from the surrounding wall, and means for suspending said bell in said position, said suspending means being mounted upon but independently removable from said clamping means, and a drain pipe leading from above down to said outlet and communicating therewith above said bell, said bell suspending means having passages in line with said drain pipe to allow water to flow from the latter to the outlet pipe.

3. In a refrigerator, a bottom lining having a passage, an outlet pipe located in line with said passage, an annular wall projecting outwardly and upwardly from said outlet pipe from a point below the upper end thereof to a point above the upper end thereof, with means for securing said annular wall to said lining around the opening therein to form a water-tight joint, an annular recess in the upper part of said securing means around the opening therein, a perforated plate removably mounted in said recess, a bell trap carried by said plate, the lower edge of the same extending down to and around the upper end of said outlet pipe and separated therefrom and from the surrounding annular wall, said perforated plate having an upwardly projecting annular wall around the perforations therein, and a drain pipe fitting said annular wall.

4. In a refrigerator, a bottom lining having a passage, an outlet pipe located in line with said passage, an annular wall projecting outwardly and upwardly from said outlet pipe from a point below the upper end thereof to a point above the upper end thereof, the inner surface of said annular wall near its upper end being threaded, an annular clamping member threaded on its outside to engage the threaded part of the annular wall, said annular member having an outwardly projecting flange, whereby said annular wall and annular member may clamp said lining between them, a perforated plate supported on said annular member and a bell trap suspended from said perforated plate, said perforated plate being detachable from said annular member.

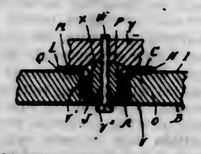
1,206,841. OUTSIDE CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 13, 1913. Serial No. 794,963. (Cl. 108—5.)



1. In an outside car roof, the combination with roof boards and fascia arranged to form a longitudinally-extending rabbet, of roofing sheets supported on said roof boards having spiral eave flanges engaging said rabbet, securing strips having complementary spiral flanges telescopically engaging said eave flanges and attached to said fascia, said strips and flanges being cut away at their ends, stop members arranged in the cut-away portion of said flanges, weather-proofing angle strips overlapping the adjacent ends of said securing strips and beneath said stops, and a bolt for securing said stop to said fascia, engaging a recess in the former and passing through the latter and overlying said angle strips.

2. In an outside car roof, the combination with roof boards and a fascia, of roofing sheets supported upon said roof boards provided with flanges extending over said fascia, securing strips having complementary flanges and attached to said fascia, and combined weather-proofing caps and stops bridging the joints between adjacent securing strips and arranged between the ends of said flanges of adjacent sheets, said combined weather-proofing caps and stops being secured to said fascia by a means extending substantially vertically through said fascia and within said other member.

1,206,842. CAR-ROOF. SAMUEL HERBERT, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed June 8, 1912, Serial No. 702,467. Renewed May 3, 1916. Serial No. 95,254. (Cl. 105—5.4.)

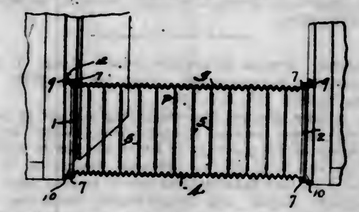


1. The combination of an upturned channel carline having an apertured web portion, securing devices passing through the apertures in said web, a roofing plate having a down turned flange engaging the channel, and a trough-shaped liner for said channel covering said securing device.

2. In a car roof, the combination of an apertured channel carline, headed bolts passing through apertures in the web of said carline, a roofing plate having a down curved flange engaging the channel of said carline, a cap for said channel and a trough-shaped liner for said channel bent upward to provide clearance for said headed bolts and forming a drainage channel to the eave of the car.

3. In a car roof, the combination with a carline formed of an upturned channel beam having laterally-extending flanges, of a purlin formed of an upturned channel beam intersecting said carline, the tops of the flanges of said purlin being in substantially the same plane as the laterally-extending flanges, a roofing plate adjacent to said carline having a down-turned flange entering the channel thereof, and a waterproof trough-shaped liner for said channel within the same and overlapped by the down-turned flange of said plate.

1,206,843. NURSERY-GATE AND WINDOW OR APERTURE GUARD. MEIER GEO. HILPERT, Harrisburg, Pa. Filed Mar. 23, 1916. Serial No. 86,204. (Cl. 20—71.)



1. A safety gate construction comprising a frame including end bars and helical spring members connecting the same.

2. A safety gate construction comprising a frame including rigid end bars and helical spring side members connecting the same.

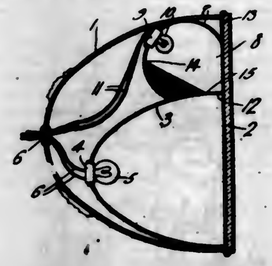
3. A safety gate construction comprising a frame including rigid end bars, resilient frame members connecting the same, and a collapsible filler construction carried by the frame.

4. A safety gate construction comprising a frame including rigid end bars, expansible and contractible side frame members connecting the same, and filler bars connected with said side frame members.

5. A safety gate construction comprising a frame including rigid end bars, resilient side frame members, intermediate filler bars, and means for connecting said bars to the resilient side frame members.

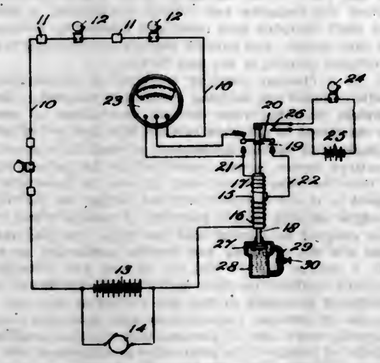
[Claims 6 to 14 not printed in the Gazette.]

1,206,844. ELECTRIC HEADLIGHT. HARRY JEFFERS HOAG, Gloversville, N. Y. Filed May 27, 1916. Serial No. 100,332. (Cl. 240—41.)



A device of the character described, comprising a main parabolic reflector, a secondary parti-spherical reflector above and secured upon the top of the main reflector adjacent to the mouth thereof, the edges of said reflectors being in the same plane, and a plate surrounding and attached to the edges of said reflectors adapted to be applied to the casing of an ordinary head light to support the reflectors therein, the top of the main reflector having a recess enlarging the mouth of the secondary reflector, the upper forward portion of the secondary reflector being curved downwardly toward said recess.

1,206,845. FIRE-ALARM SYSTEM. GEORGE W. HOCHSPRUNG, Brooklyn, N. Y., assignor, by mesne assignments, to Jacob Kothe, Jersey City, N. J. Filed Nov. 28, 1914, Serial No. 878,437. Renewed Apr. 20, 1916. Serial No. 92,531. (Cl. 177—360.)



1. In an alarm system an automatic make and break alarm box, an electric alarm, a single main circuit uniting said box and alarm, an electro-magnet having its coils normally in series in said main circuit, a switch, an armature in the magnetic field of said coils adapted to control said switch, a shunt around a portion of said coils, said shunt being controlled by said switch to close the same on failure of current in said main circuit, the coils remaining permanently in series being so proportioned as to operate said switch to open it when the remainder of the coils are shunted.

2. In an alarm system, an automatic make and break alarm box, an electric alarm, a single main circuit uniting said box and alarm, an electro-magnetic switch comprising a high and a low resistance coil in series with each other and with said main circuit and having a single armature in the magnetic field of said coils, and a shunt around said high resistance coil, said shunt being controlled by said switch to close the same on failure of current in said main circuit.

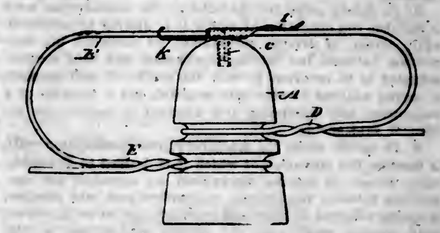
3. In an alarm system, an automatic make and break alarm box, an electric alarm, a single main circuit uniting said box and alarm, an electro-magnet having its coils in said circuit, an armature controlled by said magnet adapted to cut resistance out of said circuit without cutting said magnet coils entirely out of circuit when the circuit is opened at said alarm box, and also adapted to restore said resistance when circuit is closed at said alarm box and said electro-magnet thereby energized, and a retarding device for said armature adapted to oppose its rapid movement when attracted by said magnet on closure of circuit at the alarm box.

4. In an alarm system, an automatic make and break alarm box, an electric alarm, a single main circuit uniting said box and alarm, an electro-magnetic switch comprising two sets of coils in series and an armature adapted to shunt one of said sets of coils when the magnet is de-energized, and a retarding means for said armature adapted to oppose its rapid movement when attracted by said magnet, substantially as described.

5. In an alarm system, an automatic make and break alarm box, an electric alarm, a single main circuit uniting said box and alarm, a solenoid having its coils connected normally in said main circuit, a switch normally held open by the core of said solenoid, and a shunt around a portion of the coils of said solenoid controlled by said switch, the coils remaining permanently in series being so proportioned as to operate said switch to open it when the remainder of the coils are shunted, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

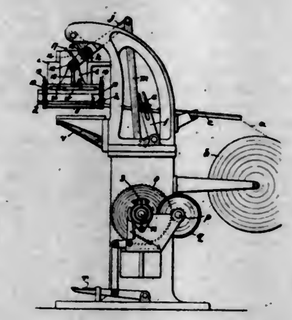
1,206,846. INSULATOR. ROY S. HOPKINS, Fairmont, W. Va. Filed Jan. 14, 1916. Serial No. 72,099. (Cl. 173—28.)



1. The combination with an insulator having a cavity in its top of line wires having bent ends adapted to extend into said cavity, and a holding device adjustable on but permanently connected to one of the line wires, the holding device and the insulator being provided with coöperating means for holding the ends of the line wires in the cavity.

2. The combination with an insulator having a cavity in its top of a cup secured in said cavity and having a flange at its top spaced from the top of the insulator, and a holding device comprising a body portion having inwardly-turned flanges adapted for engagement with the flange on the cup, said body portion having an extension provided with means for securing the body portion slidably on a wire.

1,206,847. SAFETY DEVICE FOR BOX-STAYING MACHINES. JOHN O. HORTON, Montrose, Pa., assignor to National Metal Edge Box Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 3, 1916. Serial No. 95,056. (Cl. 164—107.)



1. In safety stops for machinery, the combination with a member the operation of which it is desired to automatically render ineffective, of driving mechanism and connections between the same allowing the retraction of said member relative to the driving mechanism, a spring adapted to effect the retraction of said member, a tripping arm adapted to normally maintain said spring inoperative, a guard, and a device normally holding said tripping arm in position to render said spring inoperative, but adapted to be actuated by the guard to release the tripping arm and render the spring operative.

2. In safety stops for machinery, the combination with a member the operation of which it is desired to automatically render ineffective, of driving mechanism and connections between the same allowing the retraction of said member relative to the driving mechanism, a spring adapted to effect the retraction of said member, a tripping arm adapted to control said spring, a guard, a device normally holding said tripping arm in position to render said spring inoperative, but adapted to be actuated by the guard to release the tripping arm and render the spring operative, and a stop restraining the released tripping arm from overriding a position relative to the extreme retraction of said member.

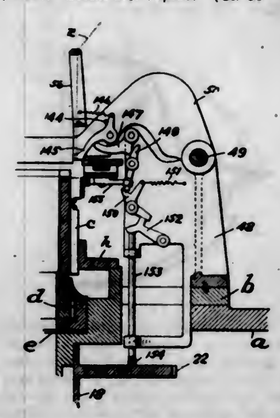
3. In safety stops for machinery, the combination with a member the operation of which it is desired to automatically arrest, of driving mechanism, an eccentric pin connection between the driving mechanism and said member adapted to be revolved to vary the stroke of said member, a spring adapted to turn said eccentric pin a fraction of a revolution and a tripping arm adapted to control the action of said spring.

4. In safety stops for machinery, the combination with a member the operation of which it is desired to automatically arrest, of driving mechanism, an eccentric pin connection between the driving mechanism and said member, a spring adapted to turn said eccentric pin so as to retract said member relative to the driving connections, a tripping arm carried by said pin, a guard, and a device normally restraining any movement of the tripping arm but adapted to be actuated by the guard to release said tripping arm.

5. In safety stops for machinery, the combination with a member the operation of which it is desired to automatically arrest, of driving mechanism and connections between the same allowing the retraction of said member relative to the driving mechanism, a tripping arm, a spring tending to move said tripping arm into position to so retract said member, a guard frame carried by, and movable relatively to, said member, a pair of levers fulcrumed to said member and movably connected together, pins connecting said levers to the guard frame, one of said levers adapted to engage the tripping arm and hold it from operation by its spring but adapted, when the guard frame is retracted relatively to said member, to turn on its fulcrum and release the tripping arm.

[Claim 6 not printed in the Gazette.]

1,206,848. CIRCULAR-KNITTING MACHINE. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Sept. 22, 1915, Serial No. 51,939. Divided and this application filed Feb. 19, 1916. Serial No. 79,240. (Cl. 66—12.)



1. In a circular knitting machine, in combination, a needle cylinder, yarn carriers, mechanism adapted to be first positioned and then operated to change the carriers, a cam disk turning on a vertical axis, yarn carrier positioning cams and yarn carrier changing cams on the disk adapted to operate said mechanism, a pattern chain, and means controlled by the pattern chain to turn the cam disk step by step.

2. In a circular knitting machine, in combination, yarn carriers, mechanism adapted to be first positioned and then operated to change the carriers, clamping and cutting mechanism, a rotatable cam carrier, yarn carrier positioning and yarn carrier changing cams, a cam adapted to control the clamping and cutting mechanism, a unitary cam block carrying said cams and detachably secured to the cam carrier, and pattern mechanism dictating the intermittent turning of the cam carrier.

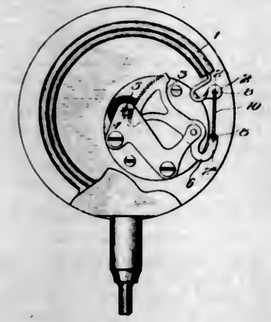
3. In a circular knitting machine, in combination, a needle cylinder and knitting mechanism adapted to knit a complete stocking, yarn carriers, mechanism to control the movement of the yarn carriers into and out of action, clamping and cutting mechanism, a rotatable cam carrier, a pattern device, means controlled by the pattern device to turn the cam carrier step by step at intervals and impart to it one complete rotation during the knitting of a single stocking, and a plurality of cam-carrying blocks each adapted to control both the yarn changing mechanism and the clamping and cutting mechanism to effect both a change of yarn and the cutting and clamping of the yarn rendered inactive, each of said cam blocks being detachably securable to the cam carrier at any one of a number of different radial points and extending along a relatively small arc of the cam carrier, thus enabling a number of blocks to be arbitrarily positioned on the cam carrier at different radii thereof, whereby each of said blocks dictates both any desired change of yarn and the operation of the clamping and cutting mechanism at any selected stage in the knitting of a single stocking.

4. In a circular knitting machine, in combination, a needle cylinder, yarn carriers, mechanism adapted to effect any predetermined change of carriers, said mechanism including means, independent of the cams hereinafter mentioned, to maintain the several yarn carriers in the respective positions to which they have been operated, sets of cams, each set adapted to control the operation of said mechanism to effect a change of yarn carriers, a rotatable cam carrier, and a plurality of independent cam blocks each carrying a set of cans, said blocks being detachably securable to the cam carrier at any one of a number of different radial points, whereby the provision of means to maintain the yarn carriers in the position to which they are shifted permits the employment of cam blocks carrying cams of minimum number and length.

5. In a circular knitting machine, in combination, a needle cylinder, yarn carriers, mechanism adapted to effect any predetermined change of carriers, said mechanism including means, independent of the cams hereinafter mentioned, to maintain the several yarn carriers in the respective positions to which they have been operated, clamping and cutting mechanism, sets of cams, each set adapted to control the operation of said mechanism to effect a change of yarn carriers and the cutting and clamping of the yarn rendered inactive, a rotatable cam carrier, and a plurality of independent cam blocks each carrying one of said sets of cams, said blocks being detachably securable to the cam carrier at any one of a number of different radial points.

[Claims 6 to 21 not printed in the Gazette.]

1,206,849. CONNECTING DEVICE. JAMES A. HOWE, Rochester, N. Y., assignor to Taylor Instrument Companies, Rochester, N. Y., a Corporation of New York. Filed Sept. 20, 1916. Serial No. 121,111. (Cl. 74—17.)



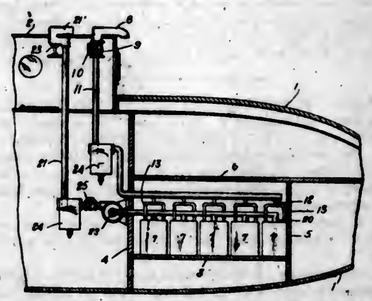
1. The combination with a pair of movable members, each having an opening therethrough defined by an edge intermediate the opposite faces of the member, of an integral connector having its ends extending through said openings and bent toward each other.

2. The combination with a pair of movable members, each having an opening therethrough defined by a circular edge, beveled from the center toward opposite faces of the member, of an integral connector having its ends extending through said openings and bent toward each other.

3. The combination with a pair of movable members, each having an opening therethrough defined by a circular beveled edge, of an integral connector having its ends extending through said openings and bent toward each other.

4. The combination with a pair of movable members, each having an opening therethrough and undercut on opposite sides aljacent said opening, affording a circular edge intermediate opposite faces of the member, of an integral connector of cylindrical cross section having its ends extending through said openings of the members and bent toward each other.

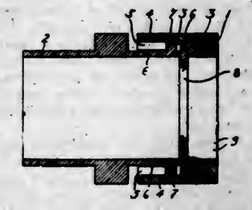
1,206,850. VENTILATION SYSTEM FOR STORAGE-BATTERY CELLS. ALBERT S. HUBBARD, New York, N. Y., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Dec. 31, 1914. Serial No. 879,854. (Cl. 204—53.)



1. In a cooling and ventilating system for electric battery cells, a closed compartment for containing the battery, sealed battery cell casings in said compartment, an inlet pipe leading from a point outside of said compartment into said compartment, and comprising branches having sealed connections with said sealed casings, to provide communication with that portion of the interior of said sealed casings above the level of the electrolyte therein, an outlet pipe comprising branches having sealed connections with that portion of said sealed casings above the level of the electrolyte therein, to provide communication with the interior of the said sealed casings, and extending to a point outside of said compartment, and an exhaust pump attached to said outlet pipe.

2. In a cooling and ventilating system for electric battery cells, a closed compartment containing the battery, battery cells having covers sealed thereon to provide sealed casings, plates within the casings, an air inlet pipe leading from a point outside of the battery compartment and having sealed connections with said sealed casings at each end thereof, to provide communication with that portion of the interior of the sealed casings above the level of the electrolyte therein, an outlet pipe having sealed connections with the sealed casings at the center of the cover thereof, to provide communication with that portion of the interior of the casings above the level of the electrolyte therein and leading to a point outside of the battery compartment, terminals leading from the plates and extending through the covers at points between the points where the inlet pipe connects with and the point where the outlet pipe connects with the casings, and an exhaust pump attached to the outlet pipe.

1,206,851. WASHER. JOHN ISHERWOOD, New Bedford, Mass. Filed Mar. 19, 1913. Serial No. 755,417. (Cl. 137—28.)



1. In combination with a coupling comprising a pair of loosely interlocking members having abutting ends, a packing washer comprising an annular web disposed between said abutting ends and having on each side of said annular web a flexible portion disposed wholly within said

coupling and adapted to be pressed against the inner wall thereof by the pressure of the fluid in passing through the coupling.

2. In combination with a coupling comprising a pair of members having abutting ends, an uncompressed packing washer comprising an annular web having lateral flexible portions overlapping said abutting ends and adapted to be expanded radially into fluid-tight relation thereto by the pressure of the fluid passing through the coupling.

1,206,852. HEALTH FOOD AND PROCESS OF MAKING SAME. ELIZABETH A. JOHNSTON, Providence, R. I. Filed Aug. 4, 1916. Serial No. 113,129. (Cl. 99—11.)

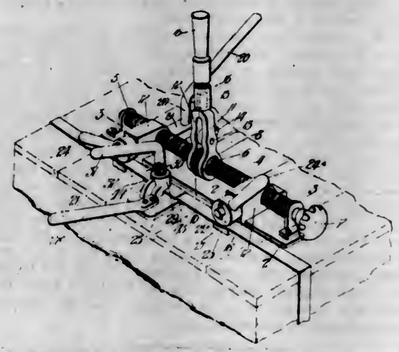
1. The process of preparing a coffe substitute, consisting in boiling a cereal in a syrup until the cereal is steamed through, incorporating eggs in the mass, baking this mixture, and grinding.

2. A coffe substitute comprising a cooked and baked mixture of syrup, cereal, and eggs, reduced to a granular form.

3. The process of producing a food or coffee substitute as described consisting in melting sugar in boiling water to produce a syrup, introducing cracked Indian corn therein, next mixing beaten eggs with the mass, next baking the mixture thus produced, and finally reducing the baked mass to particles.

4. A coffee substitute comprising a baked mixture of syrup, cereal, and eggs, reduced to a granular form.

1,206,853. APPARATUS FOR TIGHTENING AND FASTENING BANDS AROUND CASES AND THE LIKE. HYMAN JONES, Melbourne, Victoria, Australia. Filed Feb. 21, 1916. Serial No. 79,714. (Cl. 100—15.)



1. Improved apparatus for tightening and fastening bands around cases and the like, consisting in the combination of a base plate, a tightening screw mounted above said plate, said screw having a right hand thread and a left hand thread between which is a plain part, a toothed sleeve secured to said plain part, a split yoke having a pawl engaging the teeth of the sleeve, a removable socket handle engaging the yoke, a slide block for each thread of the tightening screw, an extension protruding from one of the blocks, an upraised control handle secured to the extension, a foot outstanding from each block and a cam disposed above each foot.

2. Improved apparatus for tightening and fastening bands around cases and the like, consisting in the combination of a base plate, a tightening screw mounted above said plate, a hand wheel secured to one end of the screw, said screw having a right hand thread and a left hand thread between which is a plain part, a toothed sleeve secured to said plain part, a split yoke having a pawl engaging the teeth of the sleeve, a removable socket handle engaging the yoke, a slide block for each thread of the tightening screw, an extension protruding from one of the blocks, an upraised bridge carried by the slide block extension, said bridge forming a socket, a control handle having a foot for insertion in the socket, a foot outstanding from each slide block and a cam disposed above each foot.

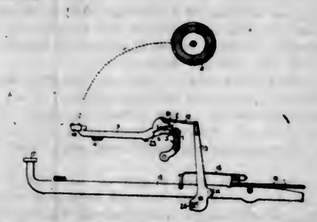
3. Improved apparatus for tightening and fastening bands around cases and the like, consisting in the combination of a base plate, a bearing at each end thereof, a tightening screw mounted in the bearings, said screw having a right hand thread and a left hand thread and a central plain part between said threads, a hand wheel secured to one end of the screw, a sleeve mounted on the plain part, a locking pin holding said sleeve to said plain part, teeth protruding from said sleeve, a split yoke having a right leg and a left leg embracing the sleeve, a pivoted pawl disposed between the legs and engaging the teeth of the sleeve, said yoke having a socket pin at its upper end, a removable socket handle engaging the socket pin, a slide block for each thread of the tightening screw, a guide lip at each side of each block engaging the base plate, an extension protruding from one of the slide blocks, an upraised bridge carried by the extension, said bridge forming a socket, a handle having a foot passing into the socket, a foot outstanding from each slide block, a cam pin above the outstanding foot, a cam mounted upon the cam pin, and a lever for operating the cam.

4. In a band-tightener, the combination, with a rotatable tightening screw having a right-hand thread, a left-hand thread and an intermediate plain portion; of a pair of sliding clamps, one for each end of the band, mounted on said screw for movement toward each other when the screw is rotated; and an operating device for said screw, comprising a split yoke lever loosely mounted on the screw and having a split pin protruding from its upper end, a member fixed to the plain portion of said screw and disposed between the legs of the lever, an actuating member carried by said lever to engage and rotate said fixed member, and a socket handle removably fitted on said pin.

5. In a band-tightener, the combination, with a rotatable tightening screw having a right-hand thread, a left-hand thread and an intermediate plain portion; of a pair of sliding clamps, one for each end of the band, mounted on said screw for movement toward each other when the screw is rotated; and an operating device for said screw, comprising a split yoke lever loosely mounted on the screw, a member fixed to the plain portion of said screw and disposed between the legs of the lever, and an actuating member carried by said lever to engage and rotate said fixed member.

[Claims 6 to 8 not printed in the Gazette.]

1,206,854. TYPE-WRITING MACHINE. HUBBARD N. JOSLEYN and JOHN W. KOERNER, Syracuse, N. Y., assignors, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Apr. 6, 1915. Serial No. 19,470. (Cl. 197—38.)



1. In a typewriting machine, the combination of a fulcrum wire, individual type bars fulcrumed thereon, key controlled actuating devices for said type bars, and means for providing a bearing for the type bar that completely surrounds the pivot wire and for affording a separate removal of said type bars from said wire without disturbing the other type bars or the fulcrum wire.

2. In a typewriting machine, the combination of a round fulcrum, a plurality of members rotatable thereon, and key operated type bars each frictionally held on one of said members.

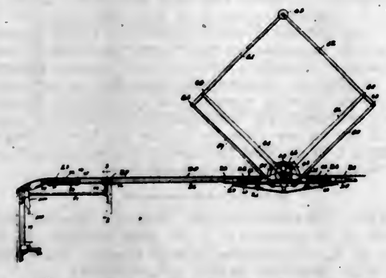
3. In a typewriting machine, the combination of a pivot device, a sleeve rotatable thereon, a type bar sprung on said sleeve, and means for actuating said type bar.

4. In a typewriting machine, the combination of a pivot device, a slotted guide by which said device is mounted, a sleeve rotatable on said pivot device but held by the slot in said guide from lateral movement, a type bar sprung on said sleeve, said type bar being guided by said slot and having a fixed relation with said sleeve during printing movements, and means for actuating said type bar.

5. In a typewriting machine, the combination of a type bar support provided with radial slots, a pivot wire secured to said support, sleeves rotatable on said wire and each engaged in one of said slots, a set of type bars each sprung on one of said sleeves, and means for actuating said type bars.

[Claims 6 to 14 not printed in the Gazette.]

1,206,855. TROLLEY-SUPPORTING MECHANISM. CARL KASPAR, Chicago, Ill. Filed Nov. 1, 1915. Serial No. 58,966. (Cl. 191—65.)



1. The combination of a car body, a trolley arm supporting member mounted on said car body to swing transversely about a longitudinal axis, a trolley arm mounted on said support, a spring for elevating said arm, a shaft extending longitudinally of the car from said support, and means connecting said support and said shaft for effecting a transverse swinging movement of said support and said arm around said longitudinal axis.

2. The combination of a car body, a trolley arm supporting member journaled on said car body so as to swing about a longitudinal axis, a trolley arm carried by said support, a spring normally tending to elevate said arm, a shaft substantially co-axial with and journaled in said support and extending therefrom, and means connecting said support and said shaft whereby rotary movement of said shaft will effect rotary movement of said support about its longitudinal axis.

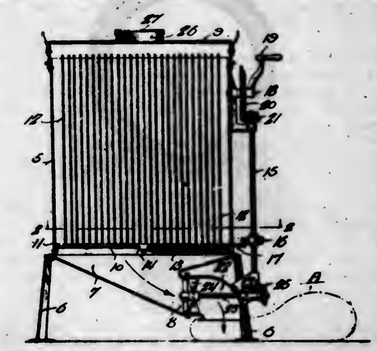
3. The combination of a car body, a trolley arm supporting member journaled on said car body so as to swing about a longitudinal axis, a trolley arm carried by said support, a spring normally tending to elevate said arm, a shaft substantially co-axial with and journaled in said support and extending therefrom, and gearing connecting said support and said shaft whereby rotary movement of said shaft will effect rotary movement of said support about its longitudinal axis.

4. The combination with a car body, a trolley arm, a spring for elevating said arm, a support for said arm mounted to swing transversely about a longitudinal axis extending lengthwise of the car, and a shaft extending from said support and revoluble on its own axis to effect transverse swinging movements of said support about said longitudinal axis.

5. The combination of a car body, axially alined fore and aft journal bearings carried by said car body, a longitudinal frame journaled in said bearings, a trolley arm transversely pivoted on said frame, a spring tending to elevate said arm, and a shaft extending through said frame and said bearings to each end of the car body for effecting rotary movement of said frame for swinging the trolley arm transversely.

[Claims 6 to 28 not printed in the Gazette.]

1,206,856. BAG-CLEANING APPARATUS. JOHN M. KELLY, Manitowoc, Wis. Filed Aug. 28, 1916. Serial No. 117,179. (Cl. 15—8.)



1. A bag cleaning apparatus comprising an oscillatory frame, means for oscillating said frame and bag supports carried by the frame and comprising coils of wire bent to form bag holding frames.

2. A bag cleaning apparatus comprising an oscillatory frame, bag supports comprising lengths of coiled wire bent in inverted U shape, upstanding projections on the frame engageable in the free ends of the arms of said lengths of coiled wire, and means for oscillating the frame.

3. A bag cleaning apparatus comprising a casing, an oscillatory frame mounted in the lower portion of the casing, a vertical shaft journaled on the casing, a stub-shaft, a crank handle on the stub shaft, intermeshing gears on said shafts, and means associated with the vertical shaft for oscillating the frame.

4. A bag cleaning apparatus comprising a casing having an inclined bottom merging into a discharge spout, a fan shaft extending into the discharge spout, a fan on the shaft, an oscillatory bag carrying frame in the casing, a vertical shaft journaled at the side of the casing, a stub-shaft journaled on the casing, a crank handle on the stub-shaft, intermeshing gears on all the shafts and means carried by the vertical shaft for oscillating the frame.

1,206,857. COMBINED SPACING AND CLAMPING DEVICE. JOHN KELSEY, Detroit, Mich. Filed June 8, 1914, Serial No. 843,672. Renewed May 8, 1916. Serial No. 96,249. (Cl. 152—21.)

1. A clamp for use with interchangeable rims, comprising a body having an upwardly extending flange, and a horizontally extending flange, the upwardly extending flange provided with spaced rim seats on its inner face, and the horizontally extending flange having a reduced extremity and parallel faces, said body portion provided with a bolt opening, and with an enlarged recess thereabout having a conical inner face, and a projecting heel at the inner and lower edge of said body portion.

2. The combination with the felly band having a vertical flange and the felly of a wheel, and a demountable rim thereon, of a series of clamps spaced about said band and rim, each clamp provided with a horizontal inwardly extending flange, having parallel faces, and extending between the rim and band, and also having a vertical flange engaging the outer edge of said rim, and provided with spaced bearing recesses for interchangeable rims, and each clamp provided with a horizontal bolt hole, and an enlarged recess thereabout, a heel for each clamp engaging the vertical flange of said felly band, a bolt pass-

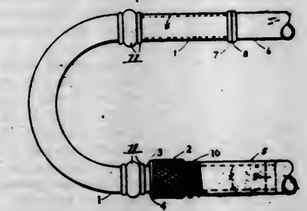
ing through the opening in said clamp, and through said flange on said felly band and felly, and a nut upon said bolt, said nut having an annular flange on its inner face, and inclosed in said enlarged recess, the said flange on said nut and inner face of said recess provided with corresponding conical surfaces, and an annular bearing ring inclosed in said nut.



3. A combined clamping and spacing device, comprising a body portion, a flattened tongue extending inwardly at right angles thereto at one edge thereof, and an inwardly extending fulcrum projection upon the other edge, said tongue having a wedge shaped extremity and level main portion, a nut non-detachably secured within said clamp and said clamp having a rocking movement therein, and a flange on said body portion, the inner surface of which is in continuation with the outer surface of said tongue, said flange having spaced seats therein.

4. In a combined clamping and spacing device for the purpose specified, a clamp body, a nut non-detachably secured therein, and having longitudinal and rocking movement therein, a fulcrum heel at one side of said clamp body, a tongue upon the other side having parallel engaging faces, and a wedge shaped extremity, and a rim engaging flange provided with spaced rim seats at different levels, substantially as described.

1,206,858. BRASS WIND INSTRUMENT. WILLIAM C. KIDDER, Town Line, N. Y., assignor to Henderson N. White, Cleveland, Ohio. Filed Mar. 24, 1913, Serial No. 756,452. Renewed June 1, 1915. Serial No. 31,620. (Cl. 84—8.)



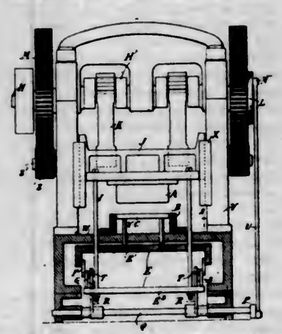
1. A brass wind instrument having fixed tubes and a U-shaped quick-change slide having its parallel members telescopically connected with said tubes, one only of said slide-members and the corresponding fixed tube having a pair of coöperating stops which limit the inward movement of the slide and the other slide-member and the corresponding fixed tube having a pair of coöperating stops which limit the outward movement of the slide, a stop of one of said pairs surrounding the adjacent tube-member and being longitudinally adjustable thereon.

2. A brass wind instrument having fixed tubes and a U-shaped quick-change slide having its parallel members telescopically connected with said fixed tubes, one only of said slide-members and the corresponding fixed tube having coöperating stops to determine the inner position of the slide, the other slide-member and the corresponding fixed tube being provided with stop-means to determine the outer position of the slide, said stop-means comprising a shoulder on one of the two last-named telescopic parts and an adjustable nut surrounding and engaging the other of said parts and having a flange cooperating with said shoulder.

3. A brass wind instrument having fixed tubes and a U-shaped quick-change slide having its parallel members telescopically connected with said fixed tubes, one only of said slide-members and the corresponding fixed tube having coöperating stops to determine the inner position of the slide, the other slide-member having a shoulder, and an adjustable nut surrounding and engaging the fixed receiving tube of the last-named slide-member and having a flange coöperating with said shoulder to determine the outer position of the slide.

4. A brass wind instrument having fixed tubes and a U-shaped quick-change slide having its parallel members telescopically connected with said fixed tubes, means to limit the inward movement of said slide relatively to said tubes, and one of said slide members having a stocking and its corresponding tube having an elongated stop in telescopic connection with said slide member opposite said stocking and longitudinally adjustable on said tube to limit the outward movement of said slide in variable degree and permit the instrument to be accurately tuned to the desired low pitch by moving the stop backward or forward on the fixed tube and at the same time keeping the stocking tightly against said stop.

1,206,859. DRAWING-PRESS. WILLIAM KLOCKE, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Mar. 8, 1916. Serial No. 82,850. (Cl. 113—38.)



1. In a drawing press, a plunger, operating means therefor, a blank-holder frame, a blank-holder adapted to clamp the work against the plunger, said blank-holder mounted in said frame and movable relative thereto, a connection to said operating means for moving said blank-holder and frame together, and means for moving said blank-holder relative to its frame.

2. In a drawing press, a plunger, operating means therefor, a blank-holder frame, a blank-holder adapted to clamp the work against the plunger, said blank-holder mounted in said frame and movable relative thereto, a connection between said operating means and said blank-holder frame, and means between said operating means and said blank-holder for moving said blank-holder relative to its frame.

3. In a drawing press, a punch, a die, a blank-holder adapted to clamp the blank against the punch in its working stroke and to be moved as the punch moves, and means for moving the blank-holder to discharge the work from the die after the punch is withdrawn from frictional contact with the stamping.

4. In a drawing press, a punch, a stationary die, a blank-holder within said die, means for causing the blank-holder to clamp the blank against the punch in its working stroke, said means permitting the blank-holder to move as the punch moves, and means for moving the blank-holder to discharge the work from the die after the punch is withdrawn from frictional contact with the stamping.

5. In a drawing press, a plunger, a shaft therefor, a blank-holding frame connected to said plunger, a blank-holder, toggles between said frame and blank-holder, a rocking arm mounted in a fixed part of the press and rocked from said shaft, and having a slotted connection with said toggles.

[Claims 6 to 15 not printed in the Gazette.]

1,206,860. SANITARY CARTON FOR THE DISPLAY AND SALE OF FANCY FRUIT. HENRY B. KOPF, New Haven, Conn. Filed Dec. 27, 1915. Serial No. 68,726. (Cl. 229—15.)



1. A sanitary package for the symmetrical arrangement, display and sale of fancy fruit, characterized by a tray open at the top, a shuck or cover adapted to receive the tray and furnished in its top with a glazed opening through which the contents of the tray may be inspected, and by hollow positioning members made of yielding material and arranged lengthwise in the top and bottom of the tray for spacing and positioning the several pieces of fruit therein with respect to each other and for reinforcing the tray against thrusts in the direction of the said positioning members, but yielding laterally to prevent the fruit from being marred in case of undue pressure, the upper members being removable to permit them to be introduced into the tray after the symmetrical arrangement of the fruit therein and prior to the application to the tray of the shuck or cover.

2. In a sanitary package for the display and sale of fancy fruit, the combination with a tray open at the top, of a shuck or cover to receive the tray and furnished in its top with a glazed opening through which the contents of the tray may be inspected, and reinforcing and positioning bars arranged lengthwise within the tray, the upper bars being removable and furnished at their ends with means whereby they are suspended from the upper edges of the ends of the tray.

3. In a sanitary package for the display and sale of fancy fruit, the combination with a tray open at the top for the symmetrical arrangement of the fruit in it, of a tubular cover or shuck adapted to receive the tray and provided with a glazed opening, and reinforcing bars arranged lengthwise in the tray, the upper bars being removable and provided at their ends with integral suspension fingers by means of which they are engaged with the ends of the tray for holding them in place therein.

1,206,861. METHOD OF PREPARING IRON FOR CASTINGS. WILLIAM G. KRANZ, Sharon, Pa., assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 17, 1915. Serial No. 61,884. (Cl. 75—27.)

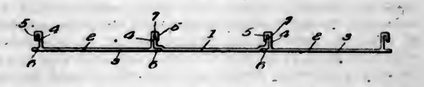
1. That improvement in the art of preparing iron for castings, which consists in treating iron high in carbon, manganese and silicon, by taking a charge of iron from a furnace, transferring a portion of the charge to a Bessemer converter and treating it therein for the reduction of the carbon, manganese and silicon, and then combining the molten metal thus treated with the remainder of the molten charge in another vessel, whereby the carbon, manganese and silicon in the complete charge are reduced and equalized.

2. That improvement in the treatment of iron which consists in taking molten high carbon iron and treating it in a Bessemer converter to reduce the carbon, and then transferring it to and combining it while molten in another vessel with a larger portion of molten high carbon iron, whereby the percentage of carbon in the complete charge is reduced and equalized.

3. That improvement in the treatment of iron which consists in treating iron high in carbon, by taking a portion of such iron in a molten state and treating it in a Bessemer converter to reduce the carbon, and then transferring the treated metal and combining it while molten with a larger portion of molten iron also high in carbon, and treating it in an electric furnace, whereby the percentage of carbon in the complete charge is reduced and equalized.

4. The process of preparing iron for castings which consists in melting iron in a melting furnace, tapping a portion of such molten iron from said furnace and substantially removing its carbon in a Bessemer converter, adding said molten decarbonized metal to a larger portion of the molten iron from said melting furnace whereby the carbon in the combined charge is reduced and equalized, but remains above 1.50 of carbon, and finally treating the combined charge in a refining furnace without further substantial reduction of carbon.

1,206,862. SHEET-PILING. WILLIAM A. KREIDLER, Lake Bluff, Ill., assignor, by mesne assignments, to Lackawanna Steel Company, New York, N. Y., a Corporation of New York. Original application filed July 17, 1905, Serial No. 269,927. Divided and this application filed June 4, 1906, Serial No. 320,045. Renewed Feb. 23, 1916. Serial No. 80,093. (Cl. 189—22.5.)

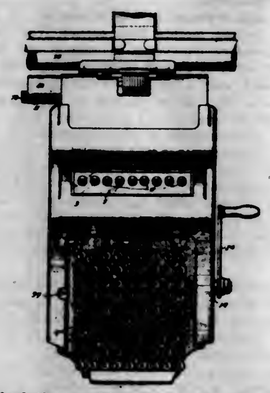


1. In a sheet piling wall, a section consisting of a web provided at each end with a lateral extension terminating in a hook and a longitudinal extension below each hook forming a continuation of the web of the section, and an adjacent section having a web provided at each end with a straight lateral projection for engaging within the hook and longitudinal projection of the first section, a section of the web of the second section opposite the straight lateral projection being offset the thickness of the longitudinal projection of the first section to form a recess for receiving said longitudinal projection whereby the wall presents a plane unbroken face.

2. A sheet piling wall composed of main sections having lateral extensions with hooked ends extending from the web adjacent to but a short distance within the lateral edges of the web, and angle beams adapted to engage with the hooks and having the ends of their webs offset about to correspond to the thickness of the main section web.

3. A sheet piling wall composed of main sections and of intermediate sections, both of said sections consisting of substantially straight webs with interlocking elements at both edges of the web, the interlocking elements of the main section consisting of lateral extensions having hooked ends and of longitudinal extensions below each hook, and the interlocking elements of the intermediate sections consisting of straight lateral extensions adapted to engage in the recesses formed by the hooked extensions and the longitudinal extensions of the main sections, the ends of one of said sections being offset so that the webs of both the main and the intermediate sections shall be in the same plane when the sections are assembled in the wall.

1,206,863. ITEM-INDICATOR. HENRY KÜNTZELER, Luzerne, Pa., assignor to The Adder Machine Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1912. Serial No. 730,680. (Cl. 235—60.)



1. In a calculating machine, the combination with registering and printing mechanisms, means to connect said mechanisms, a drive mechanism therefor, and an item indicator, of actuating devices for said indicator set for effective operation by said connecting means, and means to drive said actuating devices.

2. In a calculating machine, the combination with a series of counters, a series of type carriers bearing types, means to drive said counters and position said types, and an item indicator, of actuating devices for said indicator set for effective operation by said driving and positioning means, and means to operate said actuating devices.

3. In a calculating machine, the combination with a series of counters, means with which said counters are connected, to drive said counters, and detaining members to hold the drive means inoperative on an idle stroke of the machine, of an item indicator and actuating means therefor adapted to be set and operated by said driving means.

4. In a calculating machine, the combination with registering mechanism, and drive means therefor, of an item indicating mechanism including an indicator, normally disabled draft mechanism to operate the indicator, and setting devices controlled by the drive means to render the draft mechanism effective.

5. In a calculating machine, the combination with registering and printing mechanisms, and means to connect the same for contemporaneous operation, of an item indicator, normally-disabled draft mechanism therefor, a part of which operates at each stroke of the machine, and devices controlled by said connecting means to adjust the draft mechanism for effective operation.

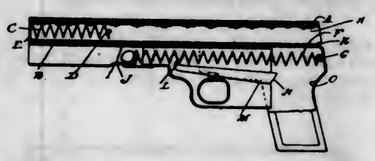
[Claims 6 to 30 not printed in the Gazette.]

1,206,864. ICE-SKATE. AUGUST LANGE, Milwaukee, Wis. Filed May 5, 1915. Serial No. 26,025. (Cl. 46—50.)



A skate including a frame, a sole engaging element pivoted on one side of the toe portion of the frame, a lateral extension projecting from the opposite side of said portion and having an elongated slot, a substantially L-shaped member slidably fitted on said extension, a bolt passed through one limb of said member and through said slot for guiding said member in its movements and holding the parts associated, a sole engaging element pivoted on said member and adjustable therewith toward and away from the first mentioned sole engaging element, an adjustable strap connecting said elements and holding the latter in operative position, and means for securing the heel portion of the skate to the shoe.

1,206,865. SPRING-GUN. CHARLES F. LEFEVRE, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Apr. 7, 1916. Serial No. 89,605. (Cl. 124—13.)



1. In a gun, the combination of telescopically-engaged sections, one constituting a true barrel and trigger and the other a handle, frame and false barrel, the false barrel being parallel to and above the true barrel, and a spring arranged in the forward portion of said false barrel for yieldably holding said true barrel section in extended position and the portion of said false barrel in rear of said spring constituting a magazine.

2. In a gun, the combination of telescopically-engaged sections, one constituting a handle, frame and false barrel and the other a trigger section and true barrel, the true barrel being arranged below the top of the false barrel to leave a channel therebetween open at its rear end and forming a magazine, a spring in said true barrel, and a sear mounted on said trigger section for engaging said spring and compressing the same in the rearward movement of said trigger section, said magazine communicating with said true barrel in advance of the spring.

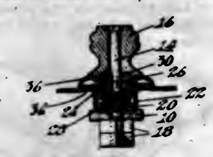
3. In a gun, the combination of telescopically-engaged sections, one constituting the handle, frame and false barrel and the other a true barrel and trigger section, said false barrel extending above said true barrel to form a channel open at its rear end and constituting a magazine, a spring in the true barrel having its forward end in rear of an aperture between said magazine and true barrel, and an indentation in said true barrel in advance of said aperture forming a temporary retainer for the projectile.

4. In a gun, the combination of telescopically-engaged sections, one constituting the handle, frame and false barrel and the other a true barrel and trigger section, said false barrel extending above said true barrel to form a channel open at its rear end and also communicating with said true barrel to form a magazine, a spring in said true barrel in rear of the communicating aperture with said magazine, and detents in said true barrel in advance of said aperture and at the rear end of said magazine for retaining resilient compressible projectiles.

5. In a gun, the combination with telescopically-engaged sections, one constituting the handle, frame and false barrel and the other the true barrel and trigger section, said false barrel extending above said true barrel to form a channel open at its rear end and communicating with the true barrel intermediate its end, a spring in said true barrel in rear of said communicating aperture, means for compressing and releasing said spring upon the telescopic collapsing movement of said trigger and true barrel section, and a spring in said false barrel in advance of said communicating aperture forming a means for returning said true barrel and trigger section.

[Claim 6 not printed in the Gazette.]

1,206,866. FASTENING DEVICE. WILLIAM H. LEDOO, Ansonia, Conn., assignor to The S. O. & C. Co., Ansonia, Conn., a Corporation of Connecticut. Filed Apr. 15, 1915. Serial No. 21,567. (Cl. 24—221.)



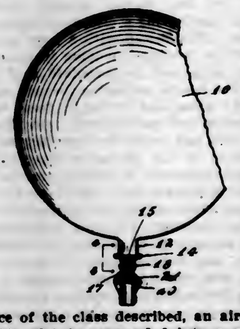
1. A fastening device having, in combination, a rotatable locking head shaped to be passed through an oval gromet, a sleeve having a tapering shoulder shaped to center the gromet, and means for yieldingly pressing the sleeve toward the head.

2. A fastening device having, in combination, a locking head shaped to receive an oval gromet, and a member disposed beneath the head and arranged to be pressed yieldingly toward the head, said member having means for centering the gromet and holding it against the head.

3. A fastening device, having, in combination, means for yieldingly supporting an oval gromet, a rotatable head shaped to be passed through the gromet and to depress the gromet when turned into a position at right angles to the major axis of the gromet, and means for temporarily maintaining the head in such position.

4. A fastening device, having, in combination, a stationary base, a rotatable stud mounted therein and having a locking head with sockets formed in its lower face, a sleeve having a curtain engaging surface and retaining projections shaped to fit the sockets in the locking head, and a spring for pressing the sleeve yieldingly toward the locking head, whereby the retaining projections are entered in the sockets in the head and the curtain is held under yielding pressure.

1,206,867. EDUCATIONAL TOY. JEWEL LEWIS, Brooklyn, N. Y. Filed Mar. 28, 1916. Serial No. 87,174. (Cl. 35—5.)



In a device of the class described, an air-tight, flexible casing capable of being expanded into a globular shape having a surface adapted to receive cartographical inscriptions, a flexible stem formed with said casing having an enlarged annulus in its neck midway in its length, an imperforate disk loosely contained therein, and a mouth piece engaged with said stem, said mouth-piece having an opening normally covered by said disk whereby air is prevented from escaping from said casing.

1,206,868. MEANS FOR STEMMING TOBACCO. BERNARD LIEBERMAN, Philadelphia, Pa. Filed Aug. 2, 1913. Serial No. 782,587. (Cl. 131—57.)

1. In a device for stripping the main stem or rib from the tobacco leaf, the combination of flanking means for clamping the leaf on each side of the stem progressively at points of severance of the stem therefrom and means for then pulling the stem through the leaf and away therefrom.



2. In a device for stripping the main stem or rib from the tobacco leaf, the combination of flanking means for clamping the leaf on each side of the stem progressively at points of severance of the stem therefrom and means for then pulling the stem through the leaf from the small end toward the butt.

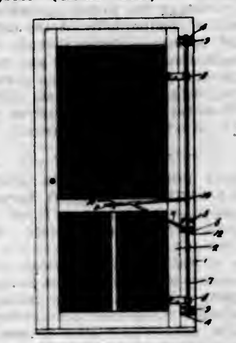
3. In a device for stripping the main stem or rib from the tobacco leaf, the combination of flanking means for clamping the leaf on each side of the stem progressively at points of severance of the stem therefrom and means for then pulling the stem through the leaf from the underside thereof.

4. In a device for stripping the main stem or rib from the tobacco leaf, the combination of flanking means for clamping the leaf on each side of the stem and means for then pulling the stem through the leaf and away therefrom while clamping the sides of the leaf adjacent said stem progressively at points of severance of the leaf from the stem.

5. In a device for stripping the main stem or rib from the tobacco leaf, the combination of flanking means for clamping the leaf on both sides of the stem, means for severing a portion of the stem from the leaf at the small end thereof, and means for gripping said stem portion and carrying the stem and leaf in different paths of travel so that the stem will be pulled through and clear of said leaf.

[Claims 6 to 11 not printed in the Gazette.]

1,206,869. GRAVITY-HINGE. GEORGE W. LILLY, Center, Mo., assignor of one-fifth to H. B. Norton, one-fifth to H. L. Smith, one-fifth to J. S. Cupp, and one-fifth to A. W. Sapp, Center, Mo. Filed Sept. 21, 1916. Serial No. 121,467. (Cl. 16—163.)



In a gravity hinge, the combination of a door frame having a substantially vertical rod mounted thereto, a door having strap members slidably engaging the aforesaid rod, a bifurcated lever having a looped arm slidably engaging the rod and having a second arm engaging a

member attached to the door frame at a point substantially beyond the rod, the aforesaid member affixed to the door frame, and a member affixed to the door through which the end of the bifurcated lever projects.

1,206,870. TENSION DEVICE. EMORY J. LIPPS, Fountain Hill borough, Pa. Filed Mar. 21, 1916. Serial No. 85,554. (Cl. 242—147.)



1. In combination, means to support a wound package while the thread is withdrawn therefrom longitudinally of the axis of winding, and a thread resistance device having a fibrous thread-contact surface extending around and facing away from said axis and tapering oppositely to the direction of draft on the thread.

2. In combination, means to support a wound package while the thread is withdrawn therefrom longitudinally of the axis of winding, and a thread resistance device having a thread-contact surface extending around and facing away from said axis and tapering oppositely to the direction of draft on the thread, a part of said surface being fibrous and another part thereof hard.

3. In combination, means to support a wound package while the thread is withdrawn therefrom longitudinally of the axis of winding, and a thread resistance device having a thread-contact surface extending around and facing away from said axis and tapering oppositely to the direction of draft on the thread, a part of said surface being pile-like and another part thereof hard.

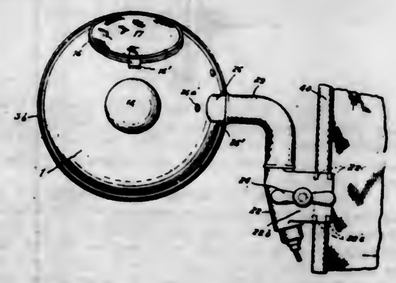
4. In combination, means to support a wound package while the thread is withdrawn therefrom longitudinally of the axis of winding, and a thread resistance device having a thread-contact surface extending around and facing away from said axis and tapering oppositely to the direction of draft on the thread, a part of said surface being pile-like and other parts thereof both sides of the pile-like part hard.

5. In combination, means to support in an upright position a wound package having its coils progressing up and down, means to withdraw the thread upwardly from the package substantially longitudinally of the latter, and a removable thread resistance device having a pile-like thread-contact surface extending around and facing away from the package axis and receiving the contact of the part of the thread being withdrawn, said surface being tapered oppositely to the direction of draft on the thread.

[Claims 6 and 7 not printed in the Gazette.]

1,206,871. MEANS FOR SUPPORTING AND CARRYING SEARCH-LIGHTS. SYLVANUS D. LOCKE, Bridgeport, Conn., assignor of one-half to D. W. Haggerty, Bridgeport, Conn. Filed Oct. 21, 1915. Serial No. 57,027. (Cl. 240—57.)

1. In a device of the character described, a tube bent to provide a vertical portion and a horizontal portion, a bracket plate rigidly secured to a lamp casing and partaking of all movements thereof and having integral therewith a hollow boss, adjustable friction devices extending within said horizontal portion and boss for pivotally connecting said boss to said portion and for imposing more or less friction on the pivotal movements of said boss, whereby said casing may at all times be swung about a horizontal axis, a plate secured to a windshield of an automobile and having integral therewith a hollow bracket piece, and adjustable friction devices extending within said bracket piece and the vertical portion of said tube for pivotally connecting said tube to said piece and for imposing more or less friction on the pivotal movements of said tube, whereby said tube may at all times me swung about a vertical axis.



2. In a device of the character described, a bent tube, a bracket plate adapted to be secured to a lamp casing and having a hollow boss, a plate adapted to be secured to a windshield of an automobile and having a hollow bracket piece, the ends of said tube having swiveled joint relation with said boss and bracket piece respectively, hollow resilient split sections within each joint, and hollow tapering plugs capable of adjustment within said sections, said joints provided with lateral openings whereby access is had to said plugs.

3. In a device of the character described, a casing and a reflector disposed to form between them a receptacle for an emergency cord, the casing having a door to permit access to said receptacle, a mirror in said door, and means for normally securing said casing to a windshield of an automobile with a universal joint between said casing and windshield.

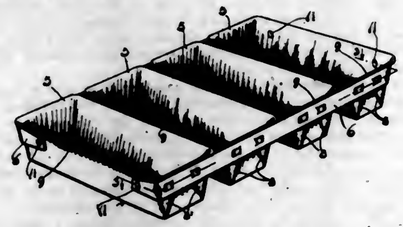
4. In a device of the character described, the attaching bracket including a laterally extending plate having projecting from one face thereof opposite pairs of alined spaced isolated lugs having a clearance therearound in all directions, said plate formed with a boss having an open elongated circular bearing extending in a plane at right angles to the plate and intermediate said bracket and lugs, a clamp bar loosely extending through said plate and housed in said bearing and having its front end extending at right angles to and spaced from said plate and overhanging said lugs, and means for operating said clamp bar.

5. In a device of the character described, a tubular member formed to provide a vertical portion and a horizontal portion; a bracket plate rigidly secured to a lamp-casing and partaking of all the movements thereof and having integral therewith a hollow, horizontally-disposed boss; a plate adapted to be secured to a fixed portion of an automobile and having integral therewith a hollow bracket piece, said tubular member having a swivel connection at its horizontal and vertical extremities to said boss and bracket piece, respectively; means associated with said swivel connections for imposing friction thereon to hold the parts in any rotative position; and means for securing adjustment of said friction means.

1,206,872. BAKING-PAN. EDWIN F. LOCKWOOD and HARRY A. LOCKWOOD, Bellevue, Ky. Filed June 28, 1912. Serial No. 706,321. (Cl. 53—6.)

1. In combination, a series of pans located side by side, each pan having end folds formed thereon and strips extending along the opposite ends of the pans of the series and having lugs projecting under the end-folds of the pans.

2. In combination, a series of baking pans having integrally formed end-folds, a strip for locking the pans of the series together and having a series of pairs of oppositely extending lugs formed thereon for engaging the end-folds of the pans.



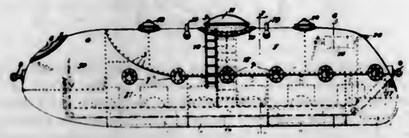
3. A frame of baking pans comprising a series of pans having integrally formed end folds and located side by side, end strips having lugs stamped thereon and projecting beneath the end-folds of the pans, the end-folds being distorted to positively lock the lugs in place.

4. A series of pans located side by side, strips engaging the ends of the pans, and lugs formed on the strips, with portions of said pans pressed and distorted to lockingly engage the lugs.

5. The combination of a series of pans having integrally formed end folds, and a strip having locking lugs formed thereon adapted to coöperate with the end folds in locking the pans of the series together.

[Claims 6 and 7 not printed in the Gazette.]

1,206,873. LIFE-BOAT. PETER LOEWEN, Reinland, Manitoba, Canada. Filed May 6, 1916. Serial No. 95,926. (Cl. 114—165.)



1. A life-boat comprising a normally closed shell, a casing formed in the stern portion of said shell and opening outward, a rudder shaft journaled in said casing, a rudder carried by said rudder shaft and movable with relation thereto, said rudder being normally disposed entirely within said casing, means connecting said casing and rudder for moving the latter with relation to the former, and means carried by said casing and rudder for limiting the extent of said movement.

2. A life-boat comprising a normally closed shell, a casing formed in the stern portion of said shell and opening outward, a rudder shaft journaled in said casing, a rudder carried by said shaft, a lever carried by said casing and connected to said rudder for moving the same longitudinally of said casing, and means carried by said casing and rudder for limiting their relative movement.

3. A life-boat comprising a normally closed shell, a casing formed in the stern portion of said shell and opening outward, lugs carried by said casing and projected into the open portion thereof, a rudder shaft journaled in said casing, a rudder carried by said shaft, a plate hinged to the inner edge of said rudder for engagement with the said lugs to limit the outward movement of said rudder, and a lever carried by said casing and connected to said rudder for moving the same longitudinally of said casing.

4. A rudder for ships, including in combination with a ship's hull having the chamber at the stern thereof open to the seat, a rudder section, a rudder-post, said section being pivotally connected to said post, means for rotating the post, at times, means pivotally associated with said rudder and extending within the hull to swing the rudder into and out of said chamber, and stop means associated with said rudder.

1,206,874. UTILIZATION OF ALUMINUM-CHLORID RESIDUES. ALMER MCDUFFIE MCAFEE, New York, N. Y., assignor to Gulf Refining Company, Pittsburgh, Pa., a Corporation of Texas. Filed Mar. 2, 1915. Serial No. 11,549. (Cl. 204—20.)

1. In the utilization of coky residues from oil refining containing aluminum chlorid, the process which comprises roasting a portion of said residues with limited access of air to form alumina, adding said alumina and a further portion of said coky residue to an electrolyzing bath and electrolyzing to produce aluminum.

2. In the utilization of coky residues from oil refining containing aluminum chlorid, the process which comprises electrolyzing said coky residues in a fused bath to produce metallic aluminum.

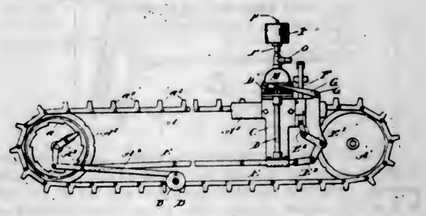
3. In the utilization of coky residues from oil refining containing aluminum chlorid, the process which comprises electrolyzing said coky residues in a fused bath in the presence of an oxidant in such manner as to produce metallic aluminum.

4. In the utilization of coky residues from oil refining containing aluminum chlorid, the process which comprises electrolysing such coky residues in a fused bath with additions of alumina in amount sufficient to oxidise the carbon of said residues.

5. In the utilization of coky residues from oil refining containing aluminum chlorid, the process which comprises roasting said coky residues in the presence of a limited amount of air to produce aluminum chlorid and alumina, recovering said alumina and electrolysing the same in a fused bath.

[Claim 6 not printed in the Gazette.]

1,206,875. OIL-FEEDING MACHINE. FRANCIS P. MCCOLL, St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill., a Corporation of New Jersey. Filed Sept. 15, 1910. Serial No. 582,174. (Cl. 226—9.)



1. In an oil feeding apparatus, two parallel horizontal plates, a disk fitting between and revolubly supported on said plates, said disk having an open-ended chamber therein, said plates having openings therein in position to register with said chamber in one angular position of said disk, a housing arranged above the upper plate and forming therewith an oil container, the upper plate having a second opening therethrough below said housing in position to register with said chamber in a second angular position of said disk, said disk having gear teeth about its periphery, and a driving pinion meshing with said teeth for actuating the disk.

2. In an oil feeding apparatus, two parallel horizontal plates, a disk fitting between and revolubly supported on said plates, said disk having four openings therethrough forming oil-measuring chambers, said chambers being arranged ninety degrees apart, each of said plates having two openings therein which are adapted to register with one set of diametrically opposed chambers in one angular position of said disk and with the other set of chambers in a second position of the disk, a housing arranged above the upper plate between the openings therein and forming with the plate an oil container, the upper plate having oil outlets therethrough at points beneath the housing which are so located that the outlets register with one of said sets of chambers when the other set

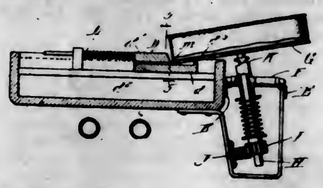
registers with the aforesaid openings in the plates, and means for rotating said disk.

3. In combination, a can carrier, an oil feeding device arranged adjacent to the carrier, means for moving said carrier step by step to bring cans therein successively into operative receiving position relative to said device and hold them stationary for a short time in such position, actuating means for said device working in synchronism with said carrier, a clutch between said device and said actuating mechanism, and means in the path of a can in the carrier one step removed from the receiving position for controlling said clutch.

4. In an oil feeding apparatus, a can carrier, actuating means for said carrier, an oil feeding apparatus arranged to deliver oil to a can in said carrier, said oil feeding apparatus including a driven gear and a driving pinion, a clutch between said pinion and said actuating means, and a clutch-actuating member lying in the path of movement of said can.

5. In combination, a can carrier, an oil feeding device arranged adjacent to said carrier, means for moving said carrier step by step to bring cans therein successively into operative receiving positions relative to said device and holding them stationary for a short time in such positions, a plunger arranged to be moved into a can in the carrier prior to the time the can moves into the oil receiving position, and means moving in synchronism with said carrier for controlling said oil feeding device and actuating said plunger.

1,206,876. SOLDERING-MACHINE. FRANCIS P. MCCOLL, St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill., a Corporation of New Jersey. Filed Sept. 28, 1910. Serial No. 584,166. (Cl. 113—68.)



1. In a soldering machine, a solder bath, a member movably mounted in said bath and having a restricted passage extending therethrough from a point in the bath to a point outside of the bath, a can holder located adjacent to said bath and arranged to rotate a can with the joint between a head and the can body lying in proximity to the outlet end of said passage, and means for moving said member so as to maintain the outlet end of the passage in operative relation to the joint in the can.

2. In a soldering machine, a solder bath, a table movably mounted in the bath with its upper surface extending into the vicinity of the upper surface of the solder, said table having an upwardly extending wall along one edge there being a restricted passage through said wall from a point in the bath to a point adjacent to the top of the table, a can holder located adjacent to the bath and arranged to support a can with the joint between a head and the can body extending across the outlet end of said passage, means for rotating said holder, and means for yieldingly pressing said table so as to maintain said wall in engagement with the can.

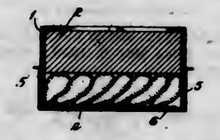
3. In a soldering machine, a solder bath, stationary tracks extending across the bath below the surface of the solder, a member slidably mounted on said tracks and having a portion depressed to about the level of the solder, said member having a raised portion between the depressed portion and the solder, there being a restricted passage through said raised portion from a point within the bath to said depressed portion, a can holder located adjacent to said bath and constructed and arranged to hold a can with the joint between a head and the can body in said depressed portion and in proximity to the adjacent end of said passage, means for rotating said holder to bring different portions of the joint progressively into operative relation to said passage, and a tension device for moving said member along the tracks to maintain a constant relation between said member and the can as the can is rotated.

4. In a soldering apparatus, a solder bath and a member engaging with the solder and having a restricted open passage therethrough from a point in the bath to a point outside of and below the upper surface of the bath, said passage being of considerable length and of such transverse dimension as to retard the flow of solder therethrough and permit the solder in the passage to be held by surface tension from flowing out of the passage.

5. In a soldering machine, a solder bath, a member movably mounted in said bath and having a restricted passage extending therethrough from a point in the bath to a point outside of the bath, a can holder located adjacent to said bath and arranged to rotate a can with a joint in proximity to the outlet end of said passage, and means for yieldingly pressing said member toward said holder.

[Claim 6 not printed in the Gazette.]

1,206,877. METHOD OF PACKING AND FRYING FISH. FRANCIS P. MCCOLL, St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill., a Corporation of New Jersey. Filed Nov. 24, 1913. Serial No. 802,805. (Cl. 99—8.)



1. The process which consists in placing fish in an open container conforming in cross section to the shape of a receptacle in which the fish are to be packaged, the fish being arranged on edge and inclined slightly to the plane of the bottom of the container, inverting the container in the receptacle, compressing the fish so as to partially roll them over and bring their sides more nearly parallel with the bottom of the receptacle and lifting out the container.

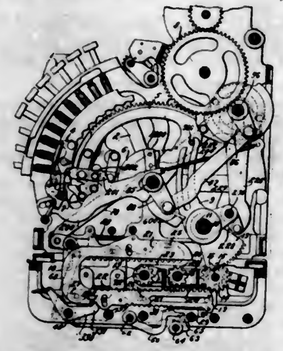
2. The process which consists in placing fish in an open container having a bottom constructed to permit liquid to flow out through the same, frying the fish by passing them through an oil bath while in the container, inverting the container into the receptacle in which the fish are to be packaged and lifting out the container and leaving the fish in the receptacle.

3. The process which consists in placing fish in an extended open container made extensible from a rise conforming in cross section to the shape of a receptacle in which the fish are to be packaged to a larger size, frying the fish in the container, collapsing the container, inverting the container in the receptacle and lifting the container out of the receptacle and leaving the fish in the receptacle.

4. The process which consists in placing fish in an open container, frying the fish by passing them through an oil bath while in the container, draining the oil from the fish, inverting the container into the receptacle in which the fish are to be packaged, and lifting out the container and leaving the fish in the receptacle.

1,206,878. CASH-REGISTER. HAAKON A. MARTIN, Dayton, Ohio, assignor to The National Cash Register Company, incorporated in 1906, Dayton, Ohio, a Corporation of Ohio. Filed Mar. 6, 1912. Serial No. 681,922. (Cl. 235—3.)

1. In a machine of the class described, the combination with a totaliser, and two connected racks on opposite sides of said totaliser constructed to operate it in opposite directions, devices for connecting said totaliser to one of said racks, a key having connections to shift an element of said devices whereby the totaliser may be connected to the other rack, a total lever, and means controlled thereby for shifting another element of said connecting devices whereby said totaliser may be connected to said other rack.



2. In a machine of the class described, the combination with a totaliser, and two connected racks on opposite sides of said totaliser, constructed to operate it in opposite directions, means for moving said racks differentially, devices for moving said totaliser into connection with either rack and normally adjusted to cause connection of the totaliser with one of the racks, a key having connections to adjust an element of said moving means to cause the totaliser to be connected to the other of said racks, and a lever constructed to adjust another element of said moving means so as also to cause connection of said totaliser with said other rack.

3. In a machine of the class described, the combination with a totaliser and adding and subtracting racks therefor, of means for moving said totaliser into connection with either of said racks, normally set to move the totaliser into connection with said adding racks, a key having connections to adjust an element of said moving means to cause said totaliser to engage said subtracting racks, a total lever, and connections to shift another element of said moving means whereby also to cause movement of said totaliser into connection with said subtracting rack.

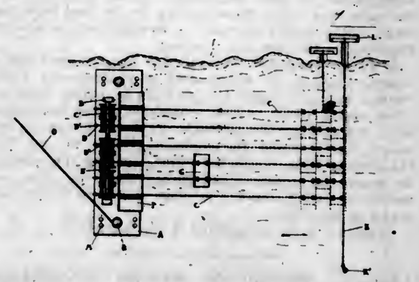
4. In a machine of the class described, the combination with a totaliser, and adding and subtracting racks therefor, of a pitman constructed to move said totaliser into connection with either rack, a bifurcated element having one bifurcation normally connected to drive said pitman, a key having connections to shift said bifurcated element to cause the other bifurcation to drive said pitman, a centrally pivoted lever to one end of which said pitman is normally connected, a total lever, and means controlled by said lever for shifting said pitman to connect it to the other end of said lever.

5. In a machine of the class described, the combination with a totaliser and adding and subtracting racks therefor, of a pitman constructed to move said totaliser into connection with either of said racks, a centrally pivoted lever operating said pitman, a bifurcated element having one of its bifurcations normally connected to said pitman, a key having connections to shift said element whereby to engage its other bifurcation with said pitman, and means for giving said element movements of invariable extent.

[Claims 6 to 32 not printed in the Gazette.]

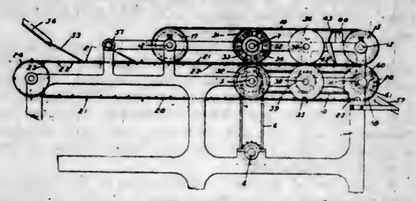
1,206,879. PERMANENT RIVER-BANK PAVEMENT. VIVIAN A. MATTINGLEY and WILLIAM T. RIDLEY, St. Joseph, Mo. Filed Sept. 7, 1916. Serial No. 118,849. (Cl. 61—30.)

1. The combination in a device of the kind described comprising a builder barge provided with an apron, of a cable having connection with a plurality of concrete blocks and a plurality of cables spaced at equal distances apart, reinforcing rods through said block loops near the end of each block and bolts therethrough to engage the cables, a line, an anchor at one end and a dead man at the opposite end, a wedge with teeth on the top thereof, said teeth being adapted to engage with the cable, a pin serving as a fastener to hold the wedge in position, a bumper to drive said wedge between the block and cable and a line to draw said bumper back toward the barge.



2. In a permanent pavement for protecing the banks of streams, the combination with a builder barge, of a plurality of concrete blocks, a plurality of cables spaced apart, reinforcing rods to engage each block and bolts to engage the cables, a line with an anchor at one end and a dead man at the opposite end, a toothed wedge to engage the cable, a fastener, a bumper and a line to draw the bumper back.

1,206,880. MACHINE FOR TREATING ENVELOPS OR PAPER. ALBERTUS B. MATTINGLY, New York, N. Y., assignor to Raymond A. Merrill, New York, N. Y. Filed Mar. 3, 1916. Serial No. 81,869. (Cl. 164—99.)



1. In an organized machine for treating envelops or sheets of paper, the combination of continuously driven feeding belts to receive the envelops or papers from another source, means for evenly spacing the envelops or papers at predetermined spaces upon the belts, and means for perforating the envelops or papers during their travel on the belts.

2. In an organized machine for treating envelops or sheets of paper, the combination of continuously driven feeding belts to receive the envelops or papers from another source, means for evenly spacing the envelops or papers at predetermined spaces upon the belt, means for perforating the envelops or papers during their travel on the belts, and means for adjusting the feeding belts relatively to the perforators so as to properly register the perforations on the envelops or papers.

3. In an organized machine for treating envelops or sheets of paper, the combination of continuously driven feeding belts to receive the envelops or papers from another source, belts arranged above the feeding belts and driven with the feeding belts with means for adjusting the upper belts and the feeding belts to and from each other, means for evenly spacing the envelops or papers at predetermined spaces upon the belts, and means for

perforating the envelops or papers during their travel on the belts.

4. In an organized machine for treating envelops or sheets of paper, the combination of continuously driven feeding belts to receive the envelops or papers from another source, belts arranged above the feeding belts and driven with the feeding belts with means for adjusting the upper belts and the feeding belts to and from each other, means for evenly spacing the envelops or papers at predetermined spaces upon the belts, means for perforating the envelops or papers during their travel on the belts, and means for adjusting the feeding belts relatively to the perforators so as to properly register the perforations on the envelops or papers.

5. In an organized machine for treating envelops or sheets of paper, the combination of continuously driven feeding belts to receive the envelops or papers from another source, slides or guides arranged above the feeding belts for guiding the envelops or sheets of paper with means for adjusting the slides or guides to and from the feeding belts, means for evenly spacing the envelops or papers at predetermined spaces upon the belts, and means for perforating the envelops or papers during their travel on the belts.

[Claims 6 to 24 not printed in the Gazette.]

1,206,881. METHOD OF MAKING DIAPHRAGMS. HENRY C. MILLER, Waterford, N. Y. Filed June 2, 1913. Serial No. 771,357. (Cl. 204—1.)



1. The art of making a diaphragm, consisting in providing a piece of yielding material, making an impression of a diaphragm in said material, then coating the impression with conducting material, then depositing a thin layer of copper on said conducting material to form a diaphragm base, the said base being below the standard resiliency of a diaphragm, and finally depositing nickel on the diaphragm base by electro-plating for forming a resilient standard diaphragm.

2. The art of making diaphragms, consisting in providing a form corresponding to the shape of a diaphragm, coating said form with conducting material, depositing a layer of metal on said form by electro-plating to produce a diaphragm base below a standard, removing said diaphragm base from the form and then adding a layer of resilient metal to the base by electro-plating to form a standard diaphragm.

3. The art of making a diaphragm of predetermined form consisting in providing a base to form a diaphragm below a standard, then depositing resilient metal on said base by an electro-plating process to form a resilient standard diaphragm.

4. The art of making a diaphragm of predetermined form, consisting in providing a base of non-resilient metal to form a diaphragm below a standard, then depositing nickel on said base by an electro-plating process to form a resilient standard diaphragm.

5. The herein described method of making diaphragms consisting in forming a non-resilient diaphragm base below a standard in a form, and subsequently treating the diaphragm base in a bath to deposit a layer of resilient metal thereon to increase the thickness of said base and form thereby a standard resilient diaphragm.

1,206,882. INSULATING-TUBE. CARL T. MORENE, Nixon, Tex. Filed Aug. 21, 1916. Serial No. 115,981. (Cl. 173—311.)

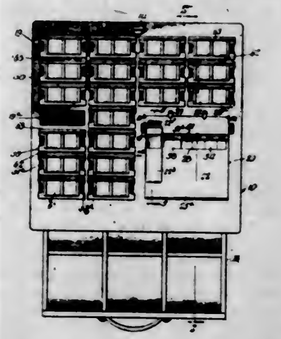
1. An insulator embodying a tube one end of which has an enlarged head, a plurality of oblong wedge shaped projections carried by the body of the insulator, the ends of said projections, toward said head, forming abrupt shoulders, and being arranged in staggered relation.

2. An insulator embodying a tubular member, an enlarged head carried by one end thereof, wedge shaped projections carried by said member presenting flat outer



surfaces, the ends of said projections toward the head, being abrupt and arranged in staggered relation and the opposite end tapering to the surface of said member.

1,206,883. APPARATUS FOR CREDIT AND ACCOUNT SYSTEMS. JOSHUA L. MORRIS, Council Bluffs, Iowa, assignor to Morris Cash and Credit Register Company, Omaha, Nebr., a Corporation of Maine. Filed Apr. 1, 1914. Serial No. 828,760. (Cl. 11—22.)



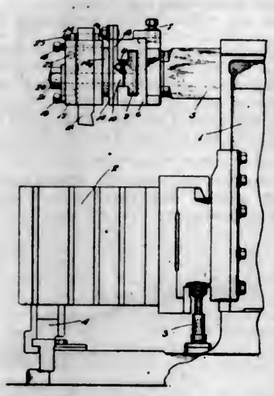
1. A credit and account system apparatus comprising a cabinet, and a plurality of units supported in said cabinet and separably removable therefrom, one of said units being larger and being adapted for cash and general account, said larger unit containing record strips for cash and for general account, and means for supporting and means for feeding said strips, and the remainder of said units being smaller and adapted for individual accounts, each of said individual units containing an account strip and including means for separately feeding said account strip, and all of said units being provided with suitable platens over which the respective strips contained by them are fed.

2. A credit and account system apparatus, comprising a cabinet, and a plurality of units supported in said cabinet and separably removable therefrom, each unit consisting of a box supported from the top wall of said cabinet, one of said units being larger and being adapted for cash and general account, said larger unit containing a record strip for items of general account, and a record strip for cash, and containing means for feeding said cash and general record strips independently, the remainder of said units consisting of smaller boxes, each supported from the top of said cabinet, each containing one or more record strips, each of said record strips being for an individual account, and means for independently feeding each individual record strip in said box, an individual name card associated with each individual record strip and attached to the box in which it is contained and all of said units being provided with suitable platens over which the respective strips contained by them are fed.

3. A credit and account system apparatus, comprising a cabinet, and a plurality of units supported in said cabinet and separably removable therefrom, each of said units including a box supported from the top wall of said cabinet, one of said boxes being larger and containing supply and rewind rolls for cash items and for general account, a top for said record box provided with a slot and a platen supported in said box beneath said slot, the record strips in said box being fed over said platen, means for independently feeding said cash and general record strips, and the remainder of said boxes being smaller and containing one or more individual record account strips, a platen in each of said individual account boxes over which the record strip or record strips contained therein are fed, a name plate associated with each individual record strip and fixed to the top of its box and each unit being provided with means for preventing the several record strips contained therein from being wound in a reverse direction.

4. A credit and account system apparatus, comprising a cabinet, and a plurality of units supported in said cabinet and separably removable therefrom, each of said units including a box supported from the top wall of said cabinet, one of said boxes being larger and containing supply and rewind rolls for cash items and for general account, means for feeding the strips on said rolls independently, a top wall for said box provided with a slot and a platen supported in said box beneath said slot, over which the record strips in said box are fed, the remainder of said boxes being smaller and each containing two individual record account strips, a platen on top of each individual record box over which the two record strips contained by it are fed, said record boxes inclosing the two strips except at the part of the strip which is on the platen, means for feeding each of said individual record strips independently of the other in the same box, and means acting to prevent back feed of each individual record strip.

1,206,884. DRAW-CUT SHAPER-HEAD. HENRY E. MORTON, Muskegon Heights, Mich. Filed Oct. 11, 1915. Serial No. 55,224. (Cl. 90—52.)



1. In combination, a supporting head having a T-slot in a face thereof, a pair of bolt heads positioned in the slot, a saddle in front of each bolt head, a swiveling block located in front of each saddle having a slot in its upper portion, a bolt passing from the saddle through the slot, a nut on the bolt, a tool holding support on the swiveling block and mounted on a horizontal pin extending through the block, said tool holder having a vertical groove in the side thereof adapted to receive a cutting tool, and a bolt extending through each bolt head, saddle, swiveling block and tool holder and provided with a nut at its forward end for securing said elements together in fixed relation to each other and the supporting head.

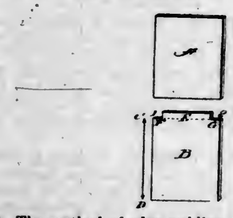
2. In combination, a supporting head, a plurality of bolt heads carried by the supporting heads, a saddle in front of each bolt head, an adjusting device extending through each saddle and connecting with the adjusting device of the adjacent saddle, a swiveling block positioned in front of each saddle having a slot in its upper portion, a bolt extending through said slot and carried by the saddle, a nut on the bolt, a tool holder carried by each swiveling block having a vertical groove in a side thereof to receive a cutting tool, a bolt extending through each bolt head, saddle, swiveling block and tool holder about which the swiveling block and attached tool holder may have limited pivotal movement, and a nut on the front end of each bolt for binding said bolt head, saddle, swiveling block and tool holder together and fixing them in rigid relation to the supporting head.

3. In combination, a supporting head, a pair of bolt heads supported by the supporting head and movable lengthwise of or removable from the supporting head, a bolt projecting forward from each bolt head, a saddle in front of each bolt head, adjusting screws extending horizontally through each saddle, a connection between the meeting ends of the adjusting screws, a swiveling block in front of each saddle adapted to turn about the bolt, means for limiting the turning movement of the swiveling block and for binding the swiveling block against the saddle, a tool holder mounted in front of the swiveling block on the bolt, and a nut on the forward end of the bolt for binding the parts together, substantially as described.

4. In combination, a supporting head, a pair of tool holders carried by the supporting head in front thereof, each tool holder having a vertical groove in each side edge thereof adapted to receive a cutting tool, means for adjusting the tool holders toward or away from each other, means for adjusting each tool holder at angles to the vertical and means for securing the tool holders in rigid relation to the supporting head and to each other, substantially as described.

5. In combination, a supporting head, having a horizontal slot cut in the front face thereof, a pair of bolt heads in the slot, bolts projecting through and in front of said bolt heads, a saddle having a part extending into the slot in front of each bolt head, an upward extension to the saddle, a bolt projecting forwardly from the extension, a swiveling block carried on the first bolt and having a slot in its upper portion through which the second bolt extends, a nut for binding the swiveling block against the saddle, means for adjusting the saddles toward or from each other, a tool holder having vertical grooves in either side thereof mounted on the swiveling block, means for securing a tool in a groove, and a nut on the forward ends of each of the first mentioned bolts for binding the parts together in rigid relation to each other, substantially as described.

1,206,885. METHOD OF ELECTRICAL EDGE-WELDING. THOMAS E. MURRAY, New York, N. Y. Filed Mar. 2, 1916. Serial No. 81,589. (Cl. 219—10.)

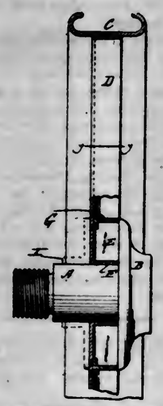


1. The method of edge welding two members of a structure formed of metal sheets or plates, which consists in, first, forming on the edge of one of said members an extension beyond the designed length which said member is to have after welding measured outwardly from the joint and physically determining the inner limit of said extension, and, second, placing said extension in contact with the opposite member and subjecting the joint to pressure and a welding current until said extension is fused and substantially extruded from said joint and the said bodies are moved together and united to form a single body of predetermined length measured at right angles to the joint.

2. The method of edge welding two members of a structure formed of metal sheets or plates, which consists in, first, forming on the edge of each of said members a predetermined extension beyond the designed length which said member is to have after welding measured outwardly from the joint, and, second, placing said extensions in contact and subjecting the joint to pressure and a welding current until said extensions are fused and substantially extruded from the joint and said bodies are moved together and united to form a single body of predetermined length measured at right angles to the joint.

3. The method of edge welding two members of a structure formed of metal sheets or plates, which consists in forming on the edge of one of said members a predetermined extension beyond the designed length which said member is to have after welding measured outwardly from the joint, the cross sectional area of said extension being less than the cross sectional area of said body at the end from which said extension protrudes, placing said extension in contact with the opposite members, and subjecting the joint to pressure and a welding current until said extension is fused and substantially extruded from said joint and the said bodies are moved together and united to form a single body of predetermined length measured at right angles to the joint.

1,206,886. METAL VEHICLE-WHEEL. THOMAS E. MURRAY, New York, N. Y. Filed Apr. 24, 1916. Serial No. 98,140. (Cl. 21—69.)



1. A spoke for metal vehicle wheels of channel-shaped cross section and closed at its inner end, and a transverse partition in said spoke in proximity to said inner end.

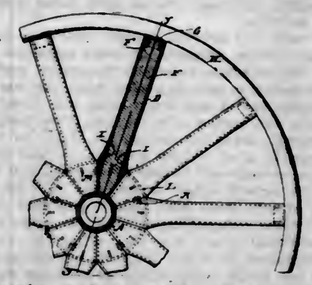
2. A metal vehicle wheel, comprising an annular nave, spokes of channel-shaped cross section radiating from said nave, and transverse partitions in said spokes unitedly forming the outer circumferential wall of said nave.

3. A metal vehicle wheel formed of a plurality of radiating metal spokes, each of channel-shaped cross section and approximated at their inner portions to form an annular nave, and a transverse partition in each of said spokes, the said partitions unitedly forming a circumferential wall for said nave.

4. A metal vehicle wheel formed of a plurality of radiating metal spokes, each of channel-shaped cross section and having its inner portion enlarged and of frusto-wedge form, the said inner portions being approximated to form an annular nave, walls closing the inner extremities of said spokes and forming the inner circumferential wall of said nave, and transverse partitions in said spokes unitedly forming the outer circumferential wall of said nave.

5. A spoke for metal vehicle wheels, consisting of a metal plate having its body portion of channel-shaped cross section and its inner portion of a cross section different from that of said body portion, and a transverse partition in said spoke dividing said body portion from said inner portion.

1,206,887. VEHICLE-WHEEL. THOMAS E. MURRAY, New York, N. Y. Filed May 9, 1916. Serial No. 96,276. (Cl. 21—69.)



1. A wooden spoke for vehicle wheels, and a metal armor plate on said spoke; the said plate covering a portion of the surface of said spoke, and the remainder of said spoke surface being exposed.

2. A wooden spoke for vehicle wheels, having one face convex and the other face flat, and metal armor covering said convex face.

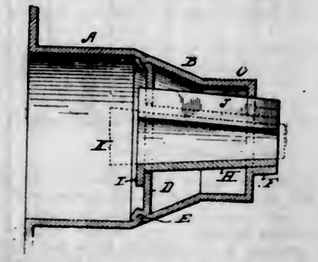
3. A spoke for vehicle wheels, comprising a shell of metal, and a filling therein; the said shell having a longitudinal opening exposing said filling.

4. A spoke for vehicle wheels, comprising a shell of metal, and a filling of wood therein; the said shell having a longitudinal opening exposing said filling.

5. A spoke for vehicle wheels, comprising a shell of metal, a filling therein, the said shell having a longitudinal opening exposing said filling, and means for preventing longitudinal displacement of said filling in said shell.

[Claims 6 to 13 not printed in the Gazette.]

1,206,888. HUB FOR METAL VEHICLE-WHEELS. THOMAS E. MURRAY, New York, N. Y. Filed May 29, 1916. Serial No. 100,576. (Cl. 21—69.)



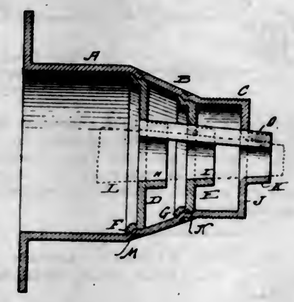
1. A metal hub for vehicle wheels, comprising a shell having a cylindrical wheel-receiving portion, an outwardly tapered portion and an outer end wall having an opening, a flat annular disk seated in said tapered portion, and a cylindrical axle-receiving sleeve secured to and extending between the opening in said disk and said wall opening.

2. A metal hub for vehicle wheels, comprising a shell having a cylindrical wheel-receiving portion, an outwardly tapered portion and an outer end wall having an opening, a flat annular disk seated in said tapered portion, an axle-receiving sleeve seated in said disk and wall openings, and a flange on said sleeve seated upon the inner face of said disk.

3. A metal hub for vehicle wheels, comprising a shell having a cylindrical wheel-receiving portion, an outwardly tapered portion and on outer end wall having an opening, a flat annular disk, a circumferential flange on said disk seated in said tapered portion, an axle-receiving sleeve seated in said disk and wall openings, and a flange on said sleeve seated upon the inner face of said disk.

4. A metal hub for vehicle wheels, comprising a shell having a cylindrical wheel-receiving portion, an outwardly tapered portion and an outer end wall having an opening, a flat annular disk seated in said tapered portion, and a cylindrical axle-receiving sleeve secured to and extending between the opening in said disk and said wall opening; there being a key-way formed in the inner peripheries of said disk and wall opening and in said sleeve adapted to receive a key for securing an axle in said openings.

1,206,889. HUB FOR METAL VEHICLE-WHEELS. THOMAS E. MURRAY, New York, N. Y. Filed May 29, 1916. Serial No. 100,577. (Cl. 21—69.)



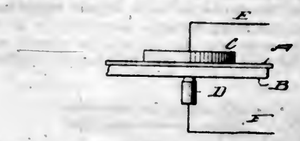
1. A metal hub for vehicle wheels, comprising a shell having a cylindrical wheel-receiving portion, an outwardly tapered portion and an end wall having an opening, and an outwardly turned flange surrounding said opening, a plurality of annular disks of different diameters seated in said tapered hub portion, and outwardly turned flanges on said disks surrounding the openings therein, the said disk and wall flanges being in line.

2. A metal hub for vehicle wheels, comprising a shell having a cylindrical wheel-receiving portion, an outwardly tapered portion and an end wall having an opening, and a tapered flange surrounding said opening, a plurality of annular disks of different diameters seated in said tapered hub portion, and outwardly tapered flanges on said disks surrounding the openings therein, the said disk and wall flanges being in line and of successively diminishing diameters.

3. A metal hub for vehicle wheels, comprising a shell having a cylindrical wheel-receiving portion, an outwardly tapered portion and an end wall having an opening, and an outwardly turned flange surrounding said opening, a plurality of annular disks of different diameters seated in said tapered hub portion, and outwardly turned flanges on said disks surrounding the openings therein, the said disk and wall flanges being in line; there being a key-way formed in said disk and wall flanges adapted to receive a key for securing an axle in said flanges.

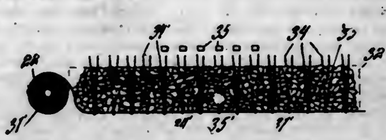
1,206,890. METHOD OF ELECTRIC SPOT-WELDING. THOMAS E. MURRAY and LE ROY H. HOFFER, New York, N. Y.; said Hoffer assignor to said Murray. Filed June 28, 1916. Serial No. 106,321. (Cl. 219—4.)

1. The method of electrically spot welding two plates, one of which is relatively thinner than the other, which consists in subjecting said plates disposed in face contact to the action of a welding current while held between electrodes of different contact areas, the electrode of relatively greater contact area being disposed in contact with the thinner plate.



2. The method of electrically spot welding two plates, one of which is relatively thinner than the other, which consists in subjecting said plates disposed in face contact to the action of a welding current while held between electrodes of different masses and contact areas, the electrode of relatively greater mass and contact area being disposed in contact with the thinner plate.

1,206,891. COVERING OR MATTRESS FOR BANKS OR THE LIKE. ARCHY M. NELSON, Salt Lake City, Utah. Filed July 12, 1915. Serial No. 39,323. (Cl. 61—36.)



1. The herein described method of constructing a covering or mattress for a bank or the like, which consists in laying a lower section of wire fabric upon a support, securing upstanding tie wires to the lower section of wire fabric, arranging substantially horisontal holding rods above the section of wire fabric and adjacent the upper ends of the upstanding tie wires, bending the upper ends of the tie wires about the holding rods so that they are straightened out when the holding rods are elevated with relation thereto, placing a filler upon the lower section of wire fabric whereby the tie wires are embedded therein, elevating the holding rods whereby the upper ends of the tie wires are straightened out, placing an upper section of wire fabric upon the filler, whereby the ends of the tie wires project through openings in the upper section of wire fabric, and securing the upper ends of the tie wires to portions of the upper section of wire fabric.

2. The herein described method of constructing a covering or mattress for a bank or the like, which consists in partly unrolling a roll of wire fabric upon a support by moving the roll longitudinally of the support in one direction, securing upstanding tie wires to the lower section of wire fabric thus laid upon the support, supporting substantially horizontal holding rods above the lower section of wire fabric in proximity to the upper ends of the tie wires, bending the upper ends of the tie wires about the holding rods so that they are straightened out when the holding rods are elevated with relation thereto, placing a filler upon the lower section of wire fabric, rolling the roll of wire fabric in an opposite direction upon the filler and longitudinally of the support whereby the ends of the tie wires project through openings in the upper section of wire fabric thus laid, securing the upper ends of the tie wire to portions of the upper sections of wire fabric, and securing the upper ends of the upper and lower sections of wire fabric together.

1,206,892. FIREARM. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Company, Utica, N. Y., a Corporation of New York. Filed Oct. 6, 1914. Serial No. 865,264. (Cl. 42—3.)

1. A gun having a frame, barrel and breech-closing members one of which is movable on the frame back and

forth, a cockable striker, and dogging means for the striker movable to release the same and thereby discharge the gun including an actuating member and an actuated member, the latter having a slip-off engagement with the former and being movable longitudinally of the gun to clear the same and having such movement controlled by the movable one of said first-named members.



2. A gun having a frame, barrel and breech-closing members one of which is movable on the frame back and forth, a cockable striker, and dogging means for the striker movable to release the same and thereby discharge the gun including coupled actuating and actuated members uncouplable on their striker-releasing movement by the movable one of the first-named members, the actuated member being shiftable longitudinally of the gun.

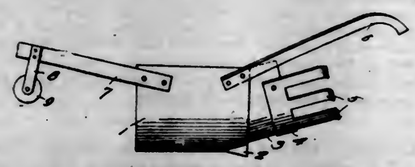
3. In a striker dogging means for a gun, an actuating member pivoted on a horizontal axis and normally spring pressed downwardly and movable forwardly of the gun relatively to its pivot, and an actuated member normally held in forward position and overlapping the actuating member and movable backwardly to clear the same, the overlapping portions of said members having means to cam the actuating member forwardly under downward pressure of its spring following compression thereof on the actuated member resuming its forward position following backward movement thereof.

4. A gun having a frame, a barrel, a breech-closing structure movable on the frame back and forth, a cockable striker carried by said structure, and dogging means for the striker arranged in the frame and movable to release the striker and thereby discharge the gun including a tilting sear and a sear tilting member, said sear and member having a slip-off engagement with each other and the sear being shiftable longitudinally of the gun to clear said member and being so shifted by the moving breech-closing structure.

5. A gun having a frame, a barrel, a breech-closing structure movable on the frame back and forth, a cockable striker carried by said structure, and dogging means for the striker arranged in the frame and movable to release the striker and thereby discharge the gun including a tilting longitudinally shiftable sear and a pivoted longitudinally shiftable trigger having a slip-off engagement with each other, the sear being rearwardly shiftable by the breech-closing structure to clear the trigger.

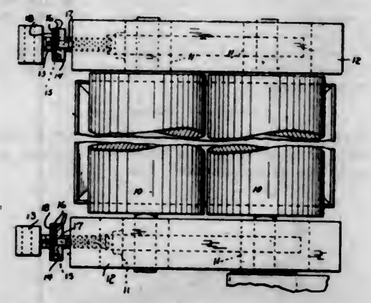
[Claims 6 to 11 not printed in the Gazette.]

1,206,893. PEANUT-DIGGER. WILLIE L. NELSON, Iconium, Okla. Filed June 1, 1916. Serial No. 101,076. (Cl. 55—139.)



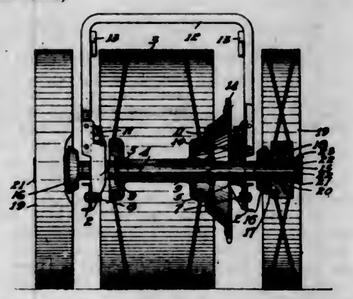
A peanut digger comprising a shovel, an inclined plate secured to the shovel and extending rearwardly therefrom, a plurality of downwardly curved spaced fingers associated with the rear edge of the plate, said shovel being curved transversely and provided with a heel, beams connected to the forward ends of the shovel and having brackets carried thereby, wheels carried by the brackets, and handles secured to the rear end of the shovel.

1,206,894. INDICATOR FOR RUBBER-MILLS. GEORGE E. NETTLETON, Hartford, Conn., assignor to The Hartford Rubber Works Company, a Corporation of Connecticut. Filed May 6, 1916. Serial No. 95,772. (Cl. 18—2.)



A mill embodying a frame, rolls adjustable relatively to each other thereon, screws for adjusting the rolls, a collar formed in sections removably secured together and adjustable longitudinally of each screw and having a peripheral scale, and pointers on the frame registering with the scales on the collars.

1,206,895. TRACTION-MACHINE. LEONARD NILSON, Wayzata, Minn. Filed Feb. 9, 1915. Serial No. 7,033. (Cl. 21—114.)



1. The combination, with a frame, of a traction wheel mounted therein and an axle therefor, supplementary wheels disposed upon opposite sides of said traction wheel and concentric therewith and having means for clamping them to revolve with said traction wheel, said means allowing said wheels to slip to compensate for the difference in travel in turning.

2. The combination, with a frame and a traction wheel mounted therein and having an axle projecting outwardly on each side of said wheel, sleeves secured on the projecting ends of said axle and having friction surfaces, supplementary wheels having hubs loosely mounted on said sleeves and means for clamping said hubs against said friction surfaces.

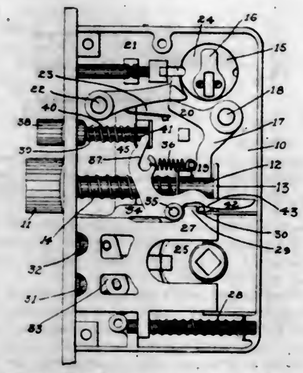
3. The combination, with a frame, of a traction wheel and a supplementary wheel disposed upon each side of said traction wheel and having frictional driving means for rendering said supplementary wheels active or inactive.

4. The combination, with a frame and a traction wheel, of an axle projecting outwardly beyond said wheel, a sleeve secured to the projecting portion of said axle and having a friction surface, a supplementary wheel having a hub for engaging said friction surface, and means for clamping said hub against said friction surface with a yielding pressure.

5. The combination, with a frame, of a traction wheel mounted therein and a supplementary wheel disposed at one side of said traction wheel and having frictional driving means for rendering said supplementary wheel active or inactive.

[Claims 6 to 8 not printed in the Gazette.]

1,206,896. LOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 21, 1913. Serial No. 802,276. (Cl. 70—29.)



1. In a lock, a latch bolt, inner and outer manual retracting devices therefor, manually operable stop work or night latch-mechanism associated with the outer retracting device, key mechanism for retracting said bolt, and means to lock said stop work or night latch mechanism against manual operation releasable only when said key mechanism is operated to retract said latch bolt; substantially as described.

2. In a lock, a latch bolt, inner and outer manual retracting devices therefor, stop work for dogging the outer retracting device, key mechanism for retracting the latch bolt, means normally locking said stop work against movement, and means to release said stop work when the latch bolt is withdrawn by the key; substantially as described.

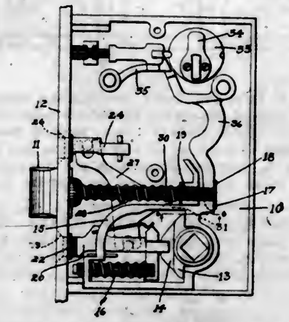
3. In a lock, a latch bolt, means including a hub for retracting said bolt manually from the outside of the door, key-actuated mechanism for retracting said bolt, manual retracting mechanism for retracting said bolt from the inside of the door, means for dogging and releasing said hub, means for deadlocking said dogging and releasing means, and means for preventing the release of said deadlocking means and means to release said preventing means when one only of said retracting mechanisms is operated to retract said latch bolt; substantially as described.

4. In a lock, a latch bolt, key actuated retracting mechanism therefor, manually operable inner and outer retracting devices for said latch bolt, means to dog the outer manually operable retracting device, means for deadlocking said dogging means, and locking means for preventing the release of said deadlocking means, said locking means being so constructed and arranged that it is released only during the time that the latch bolt is retracted by said key mechanism; substantially as described.

5. In a lock, the combination of a latch bolt, manual retracting mechanism therefor, including inner and outer hubs, stop work for dogging the outer hub, said latch bolt and said stop work being reversible to adjust the lock to either hand, key-actuated mechanism for retracting said bolt, and means for preventing release of the stop work when the lock is adjusted to either hand, and means for releasing said preventing means when one of said retracting mechanisms is actuated; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,206,897. LOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Mar. 4, 1914. Serial No. 822,423. (Cl. 70—46.)



1. In a lock, a latch bolt, a retracting yoke therefor, inside and outside hubs to actuate said yoke, manually operable stop work to dog and release the outside hub, and stop work controlling means coöperating directly with said yoke; substantially as described.

2. In a lock, a latch bolt, inside and outside retracting hubs therefor, manually operable stop work to dog and release the outside hub, and a retracting yoke for said latch bolt arranged for actuation by said hubs, and coöperating with said stop work to prevent the latter from being thrown off; substantially as described.

3. In a lock, a latch bolt, inside and outside retracting hubs therefor, stop work to dog and release the outside hub, including slides projecting through the face of the lock, and a retracting yoke for the latch bolt adapted for actuation by said hubs, and coöperating with said stop work to prevent the latter from being thrown off; substantially as described.

4. In a lock, a latch bolt, inside and outside retracting hubs therefor, stop work to dog and release the outside hub, including slides accessible at the face of the lock, and a sliding retracting yoke for said bolt arranged for actuation by said hubs, and having a normal position in which it coöperates directly with said stop work to prevent a releasing movement thereof; substantially as described.

5. In a lock, a latch bolt, hubs to retract the same, manually operable stop work to dog one of said hubs, and a yoke adapted to coöperate with said hubs to retract the latch bolt and arranged to block a releasing movement of said stop work; substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,206,898. PROCESS OF MAKING REINFORCED BOXES. MICHAEL PARIDON, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed June 15, 1915. Serial No. 34,141. Renewed Aug. 5, 1916. Serial No. 113,383. (Cl. 93—36.)

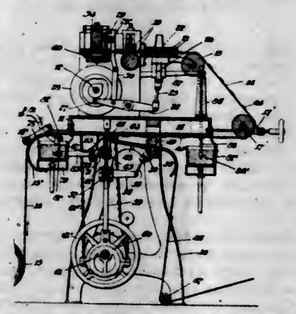
1. A process of making reinforced boxes, which consists in securing at regular intervals apart to a strip of box material transverse reinforcing sections of material of less length than the width of the strip, cutting the strip on transverse lines medially of the sections to form successive box blanks having reinforced end portions; bending the longitudinal margins of each of the blanks beyond its reinforced portions to form the side walls of a box, and bending up the reinforced end portions of the blank to form the end walls of the box.

2. A process of making reinforced boxes, which consists in securing at regular intervals apart to a strip of box material transverse reinforcing sections of material of less length than the width of the strip; slitting the strip longitudinally thereof adjacent the ends of the sections; cutting the strip on transverse lines medially of



the sections to form box blanks; bending the longitudinal margins of each of the blanks beyond its reinforced portions to form the side walls of a box; bending inward the slitted portions at the ends of said margins, and bending and securing to said slitted portions the reinforced portions of the blank to form the end walls of the box.

1,206,899. MACHINE FOR MAKING BOXES. MICHAEL PARIDON, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed June 15, 1915. Serial No. 34,142. (Cl. 93—55.)



1. The combination of means for feeding box material, means for applying sections of reinforcing material thereto in spaced relation to each other, and means for severing the box material through the said sections to produce box blanks having reinforced end portions.

2. The combination of means for feeding box material, means for feeding reinforcing material, means for severing sections from the latter material and securing them in spaced relation to each other on the box material, and means for severing the box material through the said sections to produce box blanks having reinforced end portions.

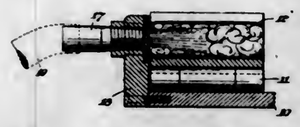
3. The combination of means for progressively feeding a strip of box material, means for progressively feeding a strip of reinforcing material, means, including a reciprocative head, for severing successive sections from the latter strip and applying them in spaced relation to each other on the strip of box material, and means for severing the strip of box material through the said sections to produce box blanks having reinforced end portions.

4. The combination of means for progressively feeding a strip of box material, means for progressively feeding a strip of reinforcing material, a guide member through which the leading end of the latter strip is intermittently projected, a head reciprocative at intervals across the plane of the successive projecting end portions of the strip and toward and from the strip of box material, said head co-acting with the said member to sever such end portions from the strip of reinforcing material and apply the sections thus produced to the strip of box material in spaced relation to each other, and means for severing the strip of box material through the end portions thus applied thereto.

5. The combination of means for feeding a strip of box material, means for applying sections of reinforcing material thereto in spaced relation to each other, said sections being of less length than the width of the strip, means for slitting the strip at the ends of the sections, and means for severing the strip through the said sections to produce box blanks each comprising a body portion, reinforced end wall portions, side wall portions, and side corner portions at the ends of such reinforced portions.

[Claims 6 to 16 not printed in the Gazette.]

1,206,900. PROCESS OF TREATING WOODEN BOX-SHUCKS. MICHAEL PARIDON, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 14, 1916. Serial No. 84,021. (Cl. 93—6.)



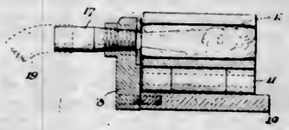
1. A process of treating wooden box-shucks preparatory to their association with trays, which process comprises moistening that end of the shuck into which the tray is to be entered.

2. A process of treating wooden box-shucks for the purpose of straightening the ends thereof preparatory to their association with trays, which process comprises moistening the interior of the shucks.

3. A process of treating wooden box-shucks for the purpose of straightening the ends thereof preparatory to their association with trays, which process comprises introducing steam or vapor into the interior of the shucks.

4. A process of treating wooden box-shucks for the purpose of straightening the ends thereof preparatory to their association with trays, which process comprises moving the said shucks consecutively to and across the path of a jet of steam or vapor which enters the progressing shucks.

1,206,901. BOX-FILLING MACHINE. MICHAEL PARIDON, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 14, 1916. Serial No. 84,022. (Cl. 93—6.)



1. The combination with means for supporting a box-shuck, of a steam or vapor discharging member positioned to inject steam or vapor into the interior of the shuck.

2. The combination with means for supporting a series of box-shucks, of a steam or vapor discharging member, and means for effecting a relative movement between the said shucks and the said member, whereby the interior of the shucks are subjected progressively to the action of the steam.

3. The combination with a steam or vapor discharging member, of means for feeding box-shucks in a path adjacent said member, whereby steam or vapor is discharged directly into the open ends of the progressing shucks.

4. The combination with a shuck carrying chain, of a steam or vapor discharging member adjacent thereto directed toward the path of the open ends of the shucks in said chain.

5. In a machine of the kind described, the combination with means for feeding box-shucks and trays in endwise

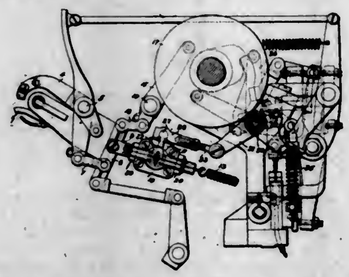
relation to each other, and means for associating the shucks and trays, of means for moistening the ends of the shucks before the trays are associated therewith.

1,206,902. TOOL-STEEL ALLOY. RICHARD H. PATCH, Philadelphia, and RADCLYFFE FURNESS, Jenkintown, Pa., assignors to The Midvale Steel Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 16, 1915. Serial No. 50,960. (Cl. 75—1.)

1. A tool steel containing between 15 and 20 per cent. of chromium and between 1 and 2 per cent. of carbon.

2. A tool steel containing the following ingredients in approximately the proportions specified: steel about 79 per cent.; chromium about 19.5 per cent. and carbon about 1.35 per cent.

1,206,903. PRESSER-FOOT MECHANISM. FRANK M. PECK, Millis, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 15, 1915. Serial No. 56,149. (Cl. 112—20.)



1. A presser foot mechanism for sewing machines, having in combination, a presser foot, a controlling bar connected with the presser foot, a block through which the bar passes, a clamping head supported upon the block, a cam member operatively connected with the head, and mechanism for oscillating the cam member during each cycle of operations of the machine to actuate the clamping head.

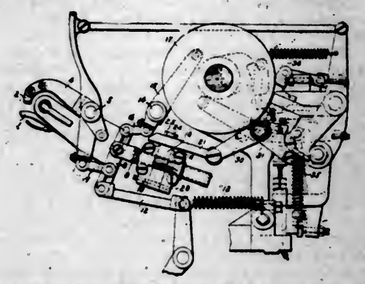
2. A presser foot mechanism for sewing machines, having in combination, a presser foot, a controlling bar connected with the presser foot, a block through which the bar passes, a clamping head supported upon the block, an oscillatory cam member journaled in the block, a coöperating cam plate secured in the head, and means for oscillating the cam member during each cycle of operations of the machine.

3. A presser foot mechanism for sewing machines, having in combination, a presser foot, a controlling bar connected with the presser foot, a block through which the bar passes, a clamping head having apertured arms through which the bar passes, a cam member journaled in the block and operatively connected with the head, and means for oscillating the cam member during each cycle of operations of the machine to actuate the clamping jaw.

4. A presser foot mechanism for sewing machines, having in combination, a presser foot, a controlling bar connected with the presser foot, a block through which the bar passes, a clamping head supported upon the block, a stud secured in the head, a cam member journaled upon the stud, a coöperating cam plate secured to the head, and means for oscillating the cam member during each cycle of operations of the machine.

5. A presser foot mechanism for sewing machines, having in combination, a presser foot, a controlling bar connected with the presser foot, a block through which the bar passes, a clamping head, a cam for actuating the head, an upstanding arm connected to the cam, a sliding head connected to the upper end of the arm, and means for actuating the head during each cycle of operations of the machine.

1,206,904. PRESSER-FOOT MECHANISM. FRANK M. PECK, Millis, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 15, 1915. Serial No. 56,150. (Cl. 112—20.)



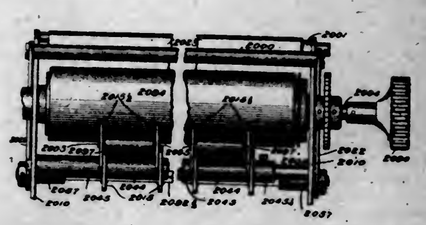
1. A presser foot mechanism for sewing machines, having in combination, a presser foot, a controlling bar connected with the presser foot, a block through which the bar passes, a clamping jaw supported upon the block, a sliding plate provided with a cam slot engaging the jaw, and means for reciprocating the plate during each cycle of operations of the machine to actuate the clamping jaw.

2. A presser foot mechanism for sewing machines, having in combination, a presser foot, a controlling bar connected with the presser foot, a block through which the bar passes, a clamping jaw pivoted upon the block, a sliding plate for moving the clamping jaw toward and from the controlling bar, and means for reciprocating the plate during each cycle of operations of the machine.

3. A presser foot mechanism for sewing machines, having in combination, a presser foot, a controlling bar connected with the presser foot, a block through which the bar passes, a clamping jaw supported upon the block, a sliding plate provided with a cam slot engaging the jaw, connections between the block and plate for guiding the plate in a rectilinear path, and means for reciprocating the plate during each cycle of operations of the machine.

4. A presser foot mechanism for sewing machines, having in combination, a presser foot, a threaded controlling bar connected with the presser foot, a block through which the bar passes, a clamping jaw pivoted upon the block and having a toothed surface arranged to engage with the threaded portion of the bar, and mechanism for moving the clamping jaw toward and from the bar during each cycle of operations of the machine.

1,206,905. PAPER-CARRIAGE. ARTHUR PENTECOST, East Orange, N. J., assignor to The Adder Machine Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed Apr. 30, 1915. Serial No. 24,897. (Cl. 197—138.)



1. The combination with end frames; a platen; and a support extending beneath the platen; of independent groups of compression rolls arranged along the support, each group comprising a pair of front compression roll-supporting members independent of each other and separately journaled on the support for independent rocking,

and a pair of rear compression roll-supporting members independent of each other and separately journaled on the support adjacent the corresponding front roll-supporting members; compression rolls journaled in the upper arms of the respective pairs of members; means connected with the respective members to press the rolls yieldingly against the platen; and means operatively connected to the members to rock the latter and cast off the rolls.

2. The combination with end frames; a platen; and a support extending beneath the platen; of independent groups of compression rolls arranged along the support, each group comprising a pair of front compression roll-supporting members independent of each other and separately journaled on the support for independent rocking, and a pair of rear compression roll-supporting members independent of each other and separately journaled on the support adjacent the corresponding front roll-supporting members; compression rolls journaled in the upper arms of the respective pairs of members; the lower arms of the respective pairs of members lying substantially parallel with and spaced apart from each other; springs connecting the lower arm of each front roll-supporting member with the adjacent lower arm of the corresponding rear roll-supporting member to press the rolls yieldingly against the platen; a flattened bar journaled in the end frames of the platen and extending between the lower arms of the front and rear members; upwardly projecting cranks on the bar; and a universal release rod above the platen to connect the cranks.

3. The combination with a paper carriage; and a platen journaled in the end frames thereof; of a compression feed roll and release mechanism, comprising suitably journaled pairs of front roll-supporting members, and of rear roll-supporting members; compression rolls journaled in the upper arms of the respective pairs of front and rear roll-supporting members; the lower arms of said pairs of front roll-supporting members lying substantially parallel with and spaced part from the lower arms of the pairs of rear roll-supporting members; a flattened bar journaled in the end frames and interposed between the series of lower arms of the respective front and rear compression roll-supporting members; cranks secured to the flattened bar at opposite ends of the carriage; and a universal release rod lying above and parallel with the platen, to connect the cranks.

4. The combination with a paper carriage having a paper throat adapted to accommodate work sheets; a platen journaled in the end frames of the carriage; and compression feed rolls yieldingly pressed against the platen; of a universal compression roll release mechanism including a rod extending across the paper throat; a paper web holder adapted to be shifted into and out of the paper throat; and adapted to rest upon the universal rod, when in operative position in the paper throat; and means on the paper web holder to lock the compression roll release mechanism against operation when the paper web holder is in operative position.

5. The combination with a paper carriage; a platen journaled in the end frames thereof; and compression feed rolls yieldingly pressed against the platen: of a release mechanism for the compression rolls; including a universal rod lying above and parallel with the platen; and means to restrain the bar against effective operation.

[Claims 6 to 9 not printed in the Gazette.]

1,206,906. FOLDING SCALING-LADDER. FRANS PERSSON, Brooklyn, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed May 10, 1916. Serial No. 96,588. (Cl. 228—20.)

1. A supporting member for a ladder, comprising two sections, each section consisting of a metal strip with wooden strips attached to each side thereof, the metal strip of each section extending beyond the ends of the wooden strips, and hinge members connecting the extensions.

2. A ladder comprising a main supporting member consisting of a central metal strip and a pair of wooden strips lying on each side thereof and means for securing the parts of the supporting member together, consisting of foot pieces clamped about the supporting member.



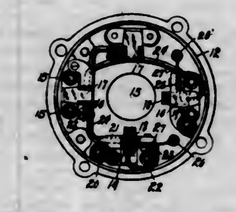
3. A supporting member for a ladder formed in sections, hinges connecting sections together, an elongated sleeve slidably mounted upon the supporting member, and adapted to be arranged over the hinged ends of the sections to hold the same in fixed relation, and a foot piece carried by the sleeve.

4. A ladder comprising a supporting member formed in sections, hinges for connecting the sections together, foot pieces arranged at intervals along said supporting member, a sleeve of a length greater than the distance between two adjacent foot pieces slidably mounted upon the supporting member, and adapted to be arranged over the hinged ends of the sections to hold the same in fixed relation and a foot piece carried by said sleeve.

5. A ladder comprising a single main supporting member formed of a metal strip with wooden strips secured to each side thereof, foot pieces secured at intervals thereto, hooks having extensions engaging the bar and secured to the bar by securing means extending through said extensions and the strips of which the bar is composed, said hooks being separated laterally to steady the ladder when suspended from above.

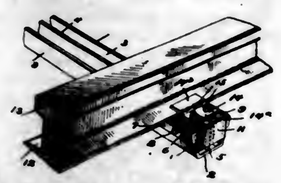
[Claim 6 not printed in the Gazette.]

1,206,907. CARBON-BRUSH HOLDER. JOHN B. PETERS, Toledo, Ohio, assignor to The Electric Auto-Lite Company, Toledo, Ohio, a Corporation of Ohio. Filed Jan. 20, 1913. Serial No. 743,076. (Cl. 200—24.)



In a brush holder for a motor, a plate, brush frames, each brush frame secured to the plate at one end of the brush frame, flexible connectors, the flexible connectors secured to the sides of the frames, carbon block brushes slidingly mounted in the frames and connected to the flexible connectors, the frames having laterally extending arms, pins extending transversely through the arms, coiled springs connected at the centers of the coils to the pins on each side of the arms and having arms which press upon the outer ends of the brushes and on opposite sides of the point of connection of the flexible connectors with the carbon block brushes.

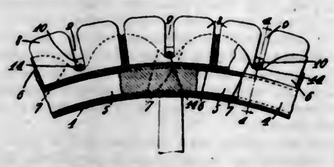
1,206,908. RAILROAD-TIE AND RAIL-FASTENER. CARL E. PETERSON, Kerhoven, Minn. Filed Aug. 10, 1916. Serial No. 114,186. (Cl. 238—5.)



1. The combination with a metallic railway tie having upwardly extending longitudinal sides, of a vertical bracing plate resting on the base of the tie intermediate of the sides, a plate resting on the upper edges of said sides and bracing plate and secured to the sides, a rail plate carried on said rail rest plate having an upturned hook on its edge adjacent to the end of the tie adapted to engage the base of a rail and a downturned flange on its opposite end adapted to engage the edge of the rest plate, a clamping plate engaging the inner side of the rail base, and means for locking said clamping plate, rail plate and rail rest in assembled positions.

2. The combination with a metallic railway tie having upwardly extending longitudinal sides, of a vertical bracing plate resting on the base of the tie intermediate of the sides, a plate resting on the upper edges of said sides and bracing plate having downturned flanges secured to the sides of the tie, a rail plate carried on said rail rest plate having an upturned hook on its edge adjacent to the end of the tie adapted to engage the base of a rail and a downturned flange on its opposite end adapted to abut against the edge of the sides and said bracing plate, a clamping plate engaging the outer side of the rail base, and means for locking said clamping plate, rail plate and rail rest in assembled positions.

1,206,909. TIRE. FRED BROWN PFEIFFER, Akron, Ohio. Filed Feb. 15, 1916. Serial No. 78,451. (Cl. 152—9.)

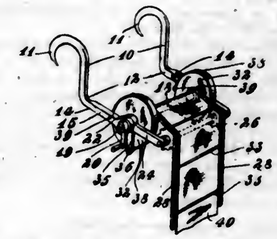


1. In a device of the class described, a rim embodying side walls having openings in their outer edges; a cushion carried by the rim; tread blocks supported by the cushion and provided with notches; side plates coacting with the rim; and cross bars carried by the side plates, the cross bars being lodged in the notches and in the openings.

2. In a device of the class described, a rim; a cushion carried by the rim; cup-shaped casings carried by the cushion and provided with depressions in its side walls; tread blocks located in the casings and provided with notches; and cross bars engaged in the notches and in the depressions and assembled terminally with the rim.

3. In a device of the class described, a rim; a cushion carried by the rim; cup-shaped casings supported on the cushion and provided with depressions in their side walls; tread blocks located in the casings and provided with notches; side plates applied to the rim; and cross bars connecting the side plates, the cross bars being lodged in the depressions and in the notches, and the rim having peripheral notches in which the cross bars are received.

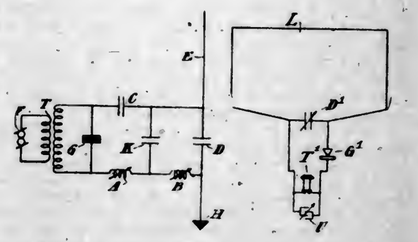
1,206,910. FIRE-ESCAPE. FRANK PFEIL, Staunton, Ill. Filed Mar. 8, 1916. Serial No. 82,797. (Cl. 228—7.)



1. In a folding fire escape, a pair of hooks adapted to fold laterally inward toward each other, a frame to which said hooks are pivoted, a shaft revolubly mounted in said frame, brake disks rigidly engaged on said shaft, a pair of chains adapted to be wound upon said shaft, a pair of bell-crank levers freely pivoted upon said shaft exteriorly of said disks, said levers having normally horizontal and vertical arms, and means enpaged with the vertical arms of said levers for making frictional contact with said brake disks relatively variable according to the weight carried by said chains.

2. In a folding fire escape, the combination with a pair of sharply pointed hooks, a frame hingedly engaged with said hooks, a shaft mounted in said frame, disks rigidly engaged on said shaft, a braking means for said disks, a pair of chains adapted to wind upon said shaft, brackets pivotally mounted on said shaft, and sprockets for guiding said chains, said sprockets being revolubly mounted in said brackets, said braking means being operatively engaged with said brake, and actuated by said brackets under the influence of said chains.

1,206,911. SYSTEM OF RADIO COMMUNICATION. GREENLEAF WHITTIER PICKARD, Amesbury, Mass., assignor to Wireless Specialty Apparatus Company, Boston, Mass., a Corporation of New York. Filed Oct. 28, 1914. Serial No. 869,089. (Cl. 250—17.)



1. In a transmitter of electromagnetic waves, the combination with an exciter, of a reservoir adjusted thereto and charged thereby, and a radiator having a substantially shorter period than the reservoir, and thereby prolonging the action of the latter; said exciter being of the quenching impact type, and thereby preventing reaction on the exciter by energy held back in the reservoir by the radiator, substantially as and for the purpose described.

2. In a transmitter of electromagnetic waves, the combination with an exciter, of a reservoir having a period which is that of the radiated waves, and a radiator having a substantially shorter period than that of the reservoir and waves, and thereby prolonging the action of the reservoir and consequent wave-radiation; said exciter being of the quenching impact type and thereby preventing reaction on the exciter by the radiator and reservoir, substantially as and for the purpose described.

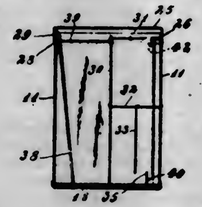
3. In a transmitter of electromagnetic waves, the combination with a quenching impact-exciter, of a reservoir linked thereto by a condenser, and a radiator linked to the reservoir by a condenser, and having a substantially shorter period than the reservoir.

4. In a transmitter of electromagnetic waves, the combination with a quenching impact-exciter, of a reservoir linked thereto by a condenser, and a radiator having a substantially shorter period than the reservoir.

5. In a transmitter of electromagnetic waves, the combination with a quenching impact-exciter, of a reservoir having the same period as that of the transmitted waves, and a radiator linked to the reservoir by a condenser and having a substantially shorter period than the reservoir.

[Claim 6 not printed in the Gazette.]

1,206,912. NOVELTY-CASE ADAPTED TO CONTAIN AND DISPENSE MATCHES. ADOLF PILGER, Marshwood, Pa. Filed Feb. 19, 1916. Serial No. 79,269. (Cl. 206—26.)



1. In a device of the class described, the combination with a box having two compartments, a bottom in said box having an opening adapted to deliver matches contained therein singly, a slide normally covering the mentioned opening, a cover hinged to the top of said box, a lever fulcrumed on the hinge of said cover, said lever having an arm engaged in said slide and operable thereby, and a second arm formed with said lever adapted to force a single match through the mentioned opening when said slide is actuated.

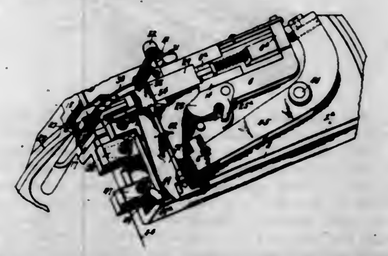
2. In a device of the class described, the combination with a rectangular box having two vertical compartments, one adapted to contain matches, means for discharging a single match through the bottom of the box, a cover plate slidably engaged with the bottom, means for actuating said cover plate, means for preventing the discharge by gravity of a match from said box, and an audible signal means in the other of said compartments adapted to be actuated by operation of said sliding cover plate.

3. In a device of the class described, the combination with a rectangular receptacle having a division plate vertically arranged therein forming two compartments of different areas, a sound-box in the lesser compartment formed by said division plate, a musical reed enaged with said sound box, a bottom having a corner opening communicating with the larger compartment in said box, a slide operable over said bottom having a depressed portion registerable with the mentioned opening, means combined with said slide for forcing a match through the opening coincidentally with actuating said reed, and means for frictionally retarding a match as it is expelled.

4. In a device of the class described, the combination with a rectangular receptacle having an opening in its bottom, a cover slidable over said bottom, said cover having a depressed surface registerable with the mentioned opening, a sound-box formed in said receptacle, a musical reed rigidly engaged with said sound-box, and means combined with said sliding cover whereby said reed is set in vibration upon actuation of said cover.

5. In a device of the class described, the combination with a rectangular box having two vertical compartments, one adapted to contain matches, means for discharging a single match through the bottom of the box, a cover plate slidably engaged with the bottom, means for actuating said cover plate, means for preventing the discharge by gravity of a match from said box, means for igniting a match immediately prior to its full release, and means for audibly announcing the operation of said cover plate.

1,206,913. WIRE-FEED STOP MECHANISM FOR BUTTON-SETTING MACHINES. LE DRU R. POMEROY, Chicago, Ill., assignor, by mesne assignments, to The Toledo Button Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Dec. 27, 1915. Serial No. 68,868. (Cl. 218—8.)



1. In a machine of the class described, a button placing finger, means for successively feeding a wire to button engaging position and having a releasable wire feed part, and means operable by said finger to move said wire feed part to released position when the finger fails to engage and feed a button forward to wire receiving position.

2. In a machine of the class described, the combination of a button placing finger, wire feed means having a releasable wire gripping part and a cam member movable by said finger upon a button placing movement thereof when not in engagement with a button to act on said feed part and move it from wire engaging position.

3. In a machine of the class described, a button placing finger, a movable cam member normally standing in one position of its movement, a wire feed member having a wire engaging part which is movable by movements of said cam member from normal position to release an engaged wire, and means operable to move said cam member from normal position upon the failure of said finger to feed a button to wire receiving position.

4. In a machine of the class described, a button placing member which, when not in engagement with a button during a button placing movement thereof, has an abnormal movement, wire feed means having a releasable wire gripping part, and means operable by said placing member, during an abnormal button feeding movement thereof, to move the gripping part of said wire feed means to released position.

5. In a machine of the class described, a member operable to successively engage and move articles from one position to another and adapted, when not in engagement with an article during a positioning movement, to have an abnormal movement, wire feed means having a releasable wire gripping jaw movable to successively feed wire lengths to a predetermined position, and means operable by said member, during an abnormal positioning movement thereof, to effect a wire releasing movement of said jaw.

[Claims 6 to 9 not printed in the Gazette.]

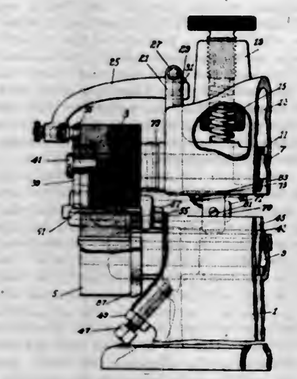
1,206,914. PROCESS OF MANUFACTURING RUBBER BOOTS. RAYMOND B. PRICE, New York, N. Y., assignor to Rubber Regenerating Company, a Corporation of Indiana. Filed Apr. 24, 1915. Serial No. 23,574. (Cl. 12—142.)

The process of manufacturing rubber boots consisting of separately vulcanizing a rubber sole and a rubber upper while maintaining each in contact with a respective layer of rubber having approximately no sulfur or other vulcanising agent, and subsequently uniting the parts by



moistening said layers with sulfur chlorid, and then pressing them together.

1,206,915. SKIVING-MACHINE. FRED RICKS and ROBERT GOW REID, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 14, 1914. Serial No. 831,843. (Cl. 69—13.)



1. A machine of the class described having, in combination, a plurality of feed rolls capable of relative movement to permit the passage of a piece of stock, the thickness of which is not uniform, a knife inclined transversely to the path of the stock and adapted to split said stock on an angle, a pivot for said knife the extended axis of which passes through the central point of the edge of said knife, and yielding means for turning said knife about said axis as the feed rolls recede from each other.

2. A machine of the class described having, in combination, a knife mounted for movement about an axis, a pair of feed rolls for advancing a piece of stock to said knife, a stationary support for one side of said knife, a support for the other side of said knife movable at all times with one of the feed rolls transversely of the direction of feed of the stock, and yielding means tending at all times to move said knife angularly about its axis into contact with said supports.

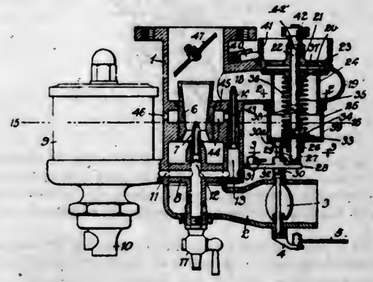
3. A machine of the class described having, in combination, a knife mounted for movement about an axis, a pair of feed rolls for advancing a piece of stock to said knife, a stationary support for one side of said knife, a support for the other side of said knife movable at all times with one of the feed rolls transversely of the direction of feed of the stock, means whereby said stationary support may be adjusted to vary the inclination of the knife, and yielding means tending at all times to move said knife angularly about its axis into contact with said supports.

4. A machine of the class described having, in combination, a knife mounted for movement about an axis, a pair of feed rolls for advancing a piece of stock to said knife, a stationary support for one side of said knife, a support for the other side of said knife movable at all times with one of the feed rolls transversely of the direction of feed of the stock, said stationary support being adjustable with the other of said rolls to vary the angular inclination of the knife, and yielding means tending at all times to move said knife angularly about its axis into contact with said supports.

5. A machine of the class described having, in combination, a pair of feed rolls for advancing a piece of stock, a knife inclined transversely to the plane of the direction of feed, a holder for said knife, resilient means tending continually to move said holder angularly about its axis, stops to limit said angular movement, and a pivot for said knife holder arranged to permit raising and lowering of one corner of said knife to change the inclination of its cutting edge.

[Claims 6 to 10 not printed in the Gazette.]

1,206,916. CARBURETER. GEORGE F. RITTER, Chicago, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 12, 1914. Serial No. 811,533. (Cl. 261—63.)



1. In a carbureter, the combination of a casing, said casing containing a mixing chamber and having a main and an auxiliary air passage for supplying air thereto, and a valve for said auxiliary passage having a part of one of its surfaces subject to the pressure in said auxiliary passage and the remainder of the same surface subjected to substantially atmospheric pressure.

2. In a carbureter, the combination of a casing, said casing containing a mixing chamber and having a main and an auxiliary air passage for supplying air thereto, a valve for said auxiliary passage having a part of one of its surfaces subject to the pressure in said auxiliary passage and the remainder of the same surface subjected to substantially atmospheric pressure, and a spring for normally holding said valve in its closed position.

3. In a carbureter, the combination of a casing, said casing containing a mixing chamber and having a main and an auxiliary air passage for supplying air thereto, a valve for said auxiliary passage having a part of one of its surfaces subject to the pressure in said auxiliary passage and the remainder of the same surface subjected to substantially atmospheric pressure, a spring for normally holding said valve in its closed position, and devices for holding said valve in its closed position when desired.

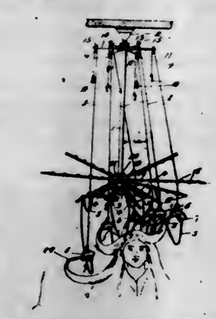
4. In a carbureter, the combination of a casing, said casing containing a mixing chamber and having a main and an auxiliary air passage for supplying air thereto, a valve for said auxiliary passage having a part of one of its surfaces subject to the pressure in said auxiliary passage and the remainder of the same surface subjected to substantially atmospheric pressure, and two independently adjustable springs for opposing the opening of the valve.

5. In a carbureter, the combination of a casing, said casing containing a mixing chamber and having a main and an auxiliary air passage for supplying air thereto, and a valve for said auxiliary passage having a cylindrical extension from one of its faces through said auxiliary passage to coöperate with a bore in the casing for freely receiving said extension whereby the cylindrical

surface of the extension and the adjacent surface of the valve outside of said extension are subjected to the pressure in the auxiliary passage and the portion of the valve within the cylindrical extension is subjected to substantially atmospheric pressure.

[Claims 6 to 20 not printed in the Gazette.]

1,206,917. HAIR-CURLING APPARATUS. PIERRE ROOS, New York, N. Y. Filed Sept. 18, 1913. Serial No. 790,448. (Cl. 132—19.)



1. In a hair curling apparatus, a plurality of independent heating devices, means whereby said heating devices are adjustable relatively to each other, and means whereby said heating devices are collectively adjustable as an entity.

2. In a hair curling apparatus, a plurality of independent heating devices, a plurality of counterweighted cables one for supporting each of said heating devices, and a single adjustable support for said counterweighted cables whereby said heating devices are collectively adjustable as an entity.

3. In a hair curling apparatus, a standard, a plurality of independent heating devices, a support, means independently adjustably connecting said heating devices with said support, and means whereby said support is adjustable upon said standard so as to adjust said heating devices collectively as an entity.

4. In a hair curling apparatus, a plurality of independent heating devices, a support therefor, a plurality of cables depending from said support one for connecting each of said heating devices to said support, means whereby the said cables adjustably connect said heating devices with said support to independently adjust the elevation of said heating devices with respect to each other, means whereby said support is adjustable to adjust the elevation of said heating devices collectively as an entity, and means for independently laterally adjusting said heating devices.

5. In a hair curling apparatus, a plurality of independent heating devices, a support therefor, a plurality of cables depending from said support one for connecting each of said heating devices to said support, means whereby the said cables adjustably connect said heating devices with said support to independently adjust the elevation of said heating devices with respect to each other, means whereby said support is adjustable to adjust the elevation of said heating devices collectively as an entity, a bracket comprising means whereby said heating devices may be independently laterally adjusted relatively to each other, and means whereby said bracket is adjustable with respect to said support.

[Claims 6 to 12 not printed in the Gazette.]

1,206,918. MACHINE FOR MAKING ASPHALTIC OR OTHER MIXTURES. NILS M. ROSENDAHL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Jan. 22, 1913. Serial No. 743,430. (Cl. 94—6.)

1. A machine for the purpose set forth, comprising means for feeding the materials, instrumentalities for separating the relatively fine portions of said materials from the relatively coarse portions thereof, mechanism for proportioning the said relatively fine and coarse materials, apparatus for delivering the materials from said instrumentalities to said mechanism, means for then mixing the said fine and coarse materials in the proportion determined by said mechanism, and means for heating the materials while they are being separated.



2. A machine for the purpose set forth, comprising means for feeding the materials, instrumentalities for separating the relatively fine portions of said materials from the relatively coarse portions thereof, mechanism for proportioning the said relatively fine and coarse materials, apparatus for delivering the materials from said instrumentalities to said mechanism, means for then mixing the said fine and coarse materials in the proportion determined by said mechanism, said mechanism including a plurality of movable receptacles, a counter-balance for each receptacle, and means for dumping said receptacles.

3. A machine for the purpose set forth, comprising means for feeding the materials, instrumentalities for separating the relatively fine portions of said materials from the relatively coarse portions thereof, mechanism for proportioning the said relatively fine and coarse materials, apparatus for delivering the materials from said instrumentalities to said mechanism, means for then mixing the said fine and coarse materials in the proportion determined by said mechanism, and means controlled by said mechanism for automatically stopping said apparatus.

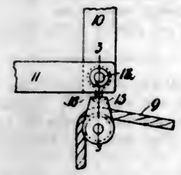
4. A machine for the purpose set forth, comprising means for feeding the materials, instrumentalities for separating the relatively fine portions of said materials from the relatively coarse portions thereof, mechanism for proportioning the said relatively fine and coarse materials, apparatus for delivering the materials from said instrumentalities to said mechanism, means for then mixing the said fine and coarse materials in the proportion determined by said mechanism, and means for heating the mixture.

5. A machine for the purpose set forth, comprising means for feeding the materials, instrumentalities for separating the relatively fine portions of said materials from the relatively coarse portions thereof, mechanism for proportioning the said relatively fine and coarse materials, apparatus for delivering the materials from said instrumentalities to said mechanism, means for then mixing the said fine and coarse materials in the proportion determined by said mechanism, said mechanism including a weighing device for each grade of material, and said apparatus including an elevator for each said device, said devices being operable independently of each other, to weigh the materials, and means for causing said devices to discharge in unison.

[Claims 6 to 11 not printed in the Gazette.]

1,206,919. BAG AND SUPPORTING APPLIANCE THEREFOR. WILLIAM H. ROSS, Holyoke, Mass. Filed June 15, 1914. Serial No. 845,041. (Cl. 119—66.)

In a device of the character described, in combination, a feed bag, a looped cable having its ends secured to the bag at opposite sides thereof, a head strap, and a forehead strap the ends of which are adjoined to the head strap, and rivets movably connecting such adjoined strap ends, a sheave at each side of the head piece, and a stirrup shaped carrying frame therefor, having associated therewith a supporting member comprising a swivel eye engaged with the straps and connecting rivet, and a depending shank loosely passed through a perforation therefor in the back or uniting portion of the carrying frame,



and having its end below such uniting portion upset to constitute a shoulder for sustaining said carrying frame,—intermediate portions of the cable having running engagements around the sheaves.

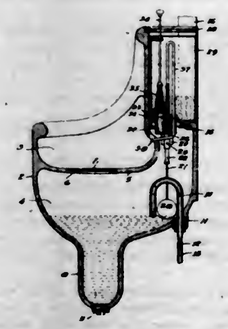
1,206,920. PLASTIC COMPOSITION. JOSEPH R. SANFORD, Salisbury, Conn. Filed Nov. 27, 1915. Serial No. 63,872. (Cl. 106—23.)

1. A plastic composition comprising a mass of vulcanizable material and a multitude of short untwisted textile fibers, said fibers being uniformly distributed throughout the entire mass and extending in every direction therein and being interlocked therewith, and being relatively short but of sufficient length to effectively reinforce said vulcanizable material to increase the tensile strength of said composition in all directions.

2. A plastic composition comprising a mass of rubber and a multitude of short untwisted textile fibers, said fibers being uniformly distributed throughout the entire mass and extending in every direction therein and being interlocked therewith and being relatively short but of sufficient length to effectively reinforce said mass of rubber to increase the tensile strength of said composition in all directions.

3. The process of manufacturing a new rubber compound comprising, working a mass of vulcanizable material into a substantially plastic state, then feeding into said substantially plastic mass a multitude of untwisted textile fibers, then mixing said fibers uniformly and in all directions throughout said mass by passing said mass with the fibers therein through mixing rolls by repeating diagonal and cross lap folds, whereby the longer fibers will be broken in length, and will be evenly distributed in all directions throughout said mass and will be interlocked with the vulcanizable material.

1,206,921. URINAL. HARRY Y. SCARBOROUGH, Minneapolis, Minn. Filed Nov. 29, 1915. Serial No. 64,066. (Cl. 4—12.)



1. A urinal comprising a bowl and a siphonic discharge pipe therefor, a receptacle for a chemical solution and means controlled by the rise and fall of the liquid in said bowl for delivering the chemical solution thereto.

2. A urinal comprising a bowl divided interiorly into an upper and a lower chamber with a communicating passage between them, said lower chamber having a siphonic discharge opening.

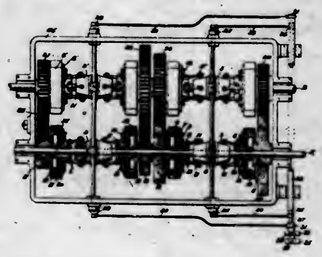
3. A urinal comprising a bowl having a wall therein dividing it interiorly into an upper and a lower chamber with a communicating passage between them, and a screen for said passage, means for delivering a chemical solution to said lower chamber and a siphonic discharge pipe communicating with said lower chamber.

4. A urinal comprising a bowl having a wall intermediate to the top and bottom of the bowl and dividing it into an upper and lower chamber, said wall having perforations therein, a tank mounted in said bowl in the rear of said upper chamber and having means for delivering a deodorizing solution to said upper chamber.

5. A urinal comprising a bowl having an upper and a lower chamber formed therein, with a perforated wall between them, a siphonic discharge pipe communicating with said lower chamber and means controlled by the rise and fall of the liquid in said lower chamber for delivering a chemical solution thereto.

[Claim 6 not printed in the Gazette.]

1,206,922. CLUTCH. PETER J. SCHARBACH, San Francisco, Cal. Original application filed Feb. 9, 1910, Serial No. 542,918. Divided and this application filed Aug. 5, 1911. Serial No. 642,546. (Cl. 192—11.)



1. A clutch mechanism, including a rotary member, a shaft-carried sleeve having a disk or annular member, a shoe slidable upon said annular member and having an angular flange frictionally engaging the outer periphery of said rotary member for transmitting motion, a conical member applied to and rotatable with the shaft carrying said sleeve, and a resiliently-controlled lever fulcrumed upon said sleeve, said lever controlling said shoe and itself controlled by said conical member.

2. A clutch mechanism, including a rotary member, a shaft-carried sleeve having an annular member, a shoe adapted to extend beyond the periphery of said annular member and provided with an angular flange adapted to frictionally engage the outer periphery of the rotary member, said shoe having a slidable connection with said annular member, a conical member actuated by the shaft carrying said sleeve, and a resiliently controlled lever fulcrumed upon a part of said sleeve nearest to said conical member, said lever controlling said shoe and having one end engaging said conical member.

3. A clutch mechanism, including a rotary member having a V-shaped groove in its outer periphery, a shaft-carried sleeve having an annular member, a shoe having a peripheral flange equipped with a corresponding rib arranged to be received within said groove to serve as a guide against the lateral displacement of the shoe with relation to the rotary member, a conical member actuated by the shaft carrying said sleeve, and a resiliently-controlled lever fulcrumed upon said sleeve, said lever having connection with said slidable shoe at one end and engagement with said conical member at its other end.

1,206,923. RAZOR-STROP. PHILIP P. SCHENK, Utica, S. D. Filed Dec. 31, 1915. Serial No. 69,638. (Cl. 51—16.)

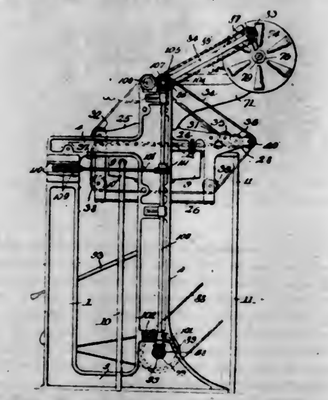


1. A strop composed of superposed strips of paper, the ends of each strip being folded back and pasted to the face of the strip, and the folded ends of each strip being pasted to the succeeding strip so as to form cross heads at each end of the strop.

2. An article of manufacture comprising a strop formed of a plurality of strips of paper lying flat, one above another, the ends of each of said strips being folded over and secured to the face of the respective strip, the folded ends of said strips being secured together throughout the area of the folded over portions, the strips between the folded over ends being free from each other.

3. A razor strop comprising a plurality of strips of paper, one above another, the ends of each of said strips being folded over and secured to the face of the respective strip, the folded ends of said strip being secured together throughout the area of their ends the distance of the folded over portions to form cross heads, the remainder of said strips being separated from each other, and means to engage said cross heads for suspending said strop.

1,206,924. DAMPENING DEVICE FOR PAPER-TWINE MACHINES. THEODORE SCHERF, Cleveland, Ohio, assignor to The Cleveland-Akron Bag Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 26, 1913. Serial No. 781,408. (Cl. 91—54.)



1. A device of the character set forth comprising, in combination, a moisture absorber, a pair of engaging conveyer-strips of absorbent material which travel across and in contact with said absorber, and a device for separating the conveyer-strips from the absorber.

2. A device of the character set forth comprising, in combination, a moisture absorber, a conveyer strip of absorbent material which normally travels across and in contact with said absorber, and a device for separating the conveyer strip from the absorber.

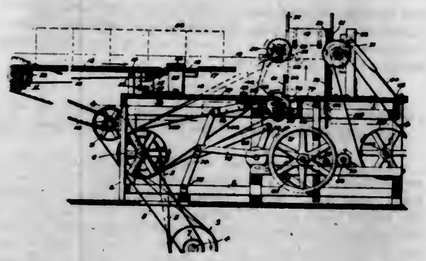
3. A device of the character set forth comprising, in combination, a wick, a conveyer strip of absorbent material which normally travels across and in contact with said wick, means for supplying moisture to the wick, and a device for separating the conveyer strip from the wick.

4. A device of the character set forth comprising, in combination, a wick, a pair of engaging conveyer-strips of absorbent material which travel across and in contact with said wick, a device for separating the conveyer-strips from the wick, and means for supplying moisture to the wick.

5. A device of the character set forth comprising, in combination, a pair of engaging conveyer-strips of absorbent material, a wick for supplying moisture to each of the conveyer-strips, means for supplying moisture to said wicks, and a device for moving the strips beyond the moistening effect of said wicks.

[Claims 6 to 16 not printed in the Gazette.]

1,206,925. MACHINE FOR CUTTING BOXES. JOHN W. SCHLEICHER and FRANK M. BOYER, St. Louis, Mo., assignors to Mengel Box Company, Louisville, Ky., a Corporation of New Jersey. Filed July 19, 1915. Serial No. 40,711. (Cl. 143—48.)



1. In a machine of the character specified, the combination of three saws; means for passing a box between two of said saws and thereby cutting two opposite sides of the box; and means for then passing the box between one saw of said pair and the third saw, for cutting the remaining sides of the box.

2. In a machine of the character specified, the combination of three saws arranged in pairs, with one saw common to each pair; means for forcing a box between one pair of saws; and means, acting at right angles to said first means, for forcing the partially-severed box between the second pair of saws.

3. In a machine of the character specified, the combination of three saws arranged in pairs, with one saw common to each pair; means for securing lateral adjustment of said saws; means for forcing a box between one pair of saws; and means for then forcing the box between the second pair.

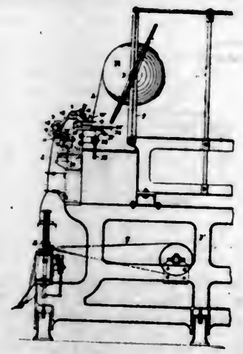
4. In a machine of the character specified, the combination of three saws arranged in pairs, with one saw common to each pair; means for forcing a box between one pair of saws; an elevator lying in the path of movement of the box and beyond said saws and adapted to receive the partially-severed box; and means for actuating said elevator to carry the box between the second pair of saws.

5. In a machine of the character specified, the combination of a plurality of saws all moving and cutting in a common plane and arranged in related pairs; means for forcing a box between one pair of saws; and means acting at right angles to said first-named means for forcing the box between a second pair of saws.

[Claims 6 to 10 not printed in the Gazette.]

1,206,926. MACHINE FOR SPINNING PAPER. EDWARD SCHMIDT, WALTER STEFFENS, and FRANK F. REINKE, Cleveland, Ohio, assignors to The Cleveland-Akron Bag Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 15, 1915. Serial No. 14,604. (Cl. 28—21.)

1. A machine for spinning paper strips having a main frame and a platform slidably mounted on the main frame, and slack take-up means for the strip mounted thereon comprising a loose weight to bear on the strip and an idler over which the strip is adapted to pass from said weight, in combination with a dampening roller and a roll loosely supported in gravity-seating relations therewith for tensioning and dampening the paper strip carried forward from said idler.



2. A machine for spinning paper strips having a dampening roller, in combination with a slidable frame on the top and front of the machine having forwardly projecting arms and a tensioning roll thereon in gravity seating relations with the said dampening roller and an idler removably supported on said arms at different elevations, a friction device to tension the strip rearwardly of said idler, and an axial support for a roll of paper located on a relatively higher plane than said friction device.

3. A machine to spin paper strips comprising spinning mechanism and dampening rolls in advance thereof, in combination with a table and rack mechanism therewith adapted to slide the table, inclined arms fixed on said table, feed rolls slidably mounted on said arms and adapted to contact with said dampening rolls, idlers mounted on the base of said arms and weights on said table in advance of said idlers and adapted to tension the paper strip.

1,206,927. INSOLE AND PROCESS OF MAKING THE SAME. AUGUST R. SCHOENKY, Somerville, Mass., assignor to Reece Shoe Machinery Company, Boston, Mass., a Corporation of Maine. Filed Sept. 23, 1916. Serial No. 121,875. (Cl. 36—22.)



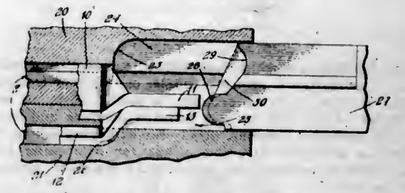
1. The method of making a composite insole comprising an inner and an outer member which consists in folding the edge portion of the blank for the inner member over onto the body thereof, placing said folded blank onto the blank for the outer member with the edge of the latter blank projecting beyond the edge of the folded blank and then folding said projecting portion of said latter blank back onto the body thereof and forming the peripheral edge into a lip.

2. The method of making a composite insole comprising an inner and an outer member which consists in folding the edge portion of a blank for the inner member over onto the body thereof, placing said folded blank onto the blank for the outer member with the edge of said latter blank projecting beyond the edge of the folded blank and then folding back on itself the portion of said projecting edge immediately circumjacent the edge of the folded blank and forming the peripheral portion of said projecting edge portion into a lip.

3. The method of making a composite insole comprising the edge portion of a blank over onto the body thereof, attaching said folded blank to another blank with the edges of said other blank projecting beyond the edge of the folded blank and then folding the portion of said projecting edge immediately circumjacent the edge of the folded blank back on itself and into contact with the periphery of said folded blank and forming the peripheral edge of said projecting portion into a lip.

4. A composite insole comprising an inner member having the edge portion thereof folded back onto the body thereof and an outer member having the edge thereof projecting beyond the periphery of the inner member and formed by folding back on itself the portion of the outer member directly circumjacent the inner member, the peripheral edge of said outer member being free and forming a lip.

1,206,928. PROCESS FOR MANUFACTURING BRAKE-BEAM FULCRUMS HAVING INTEGRAL THIRD-POINT SUPPORT. FREDERICK J. SCHROEDER, Cleveland, Ohio, assignor, by mesne assignments, to The Damascus Brake Beam Co., Cleveland, Ohio, a Corporation of Ohio, incorporated Feb. 25, 1916. Filed Nov. 15, 1915. Serial No. 61,662. (Cl. 29—164.)



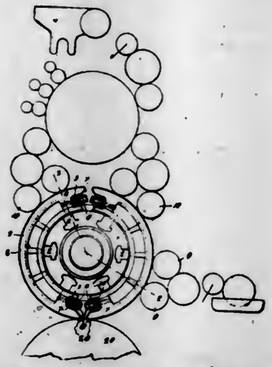
1. Process of manufacturing brake beam fulcrums consisting in first bending and twisting the blanks and cutting them to proper length, thereupon partly upsetting, welding, and deflecting the ends of the blanks in the direction of the center of mass of the completed fulcrum end, and lastly completely upsetting the ends to form a solid seat and projecting lugs out of said ends on the fulcrum.

2. Process of manufacturing brake beam fulcrums consisting in first bending, twisting and cutting the blanks to proper length, thereupon partly upsetting, welding, and deflecting the ends of the blanks in the direction of the center of mass of the completed fulcrum end, and lastly completely upsetting and welding the ends to form a solid seat and projecting lugs out of said ends on the fulcrum, the second and third steps being performed while the fulcrum is held in dies, the contour of which corresponds to the completed fulcrum.

3. Process of forming a third point bearing and a seat on the end of a slotted brake fulcrum; which consists in providing a fulcrum blank of suitable length and angularity, clamping the slotted portion of said blank in dies having a chamber for the end of the blank to be operated upon, upsetting and deflecting in the direction of the "third point" support said end of the blank while at welding heat in said chamber and simultaneously forming the end into a seat and a "third point" support integral with said slotted portion.

4. Process of forming a third point bearing and a seat on the end of a slotted brake fulcrum; which consists in providing a fulcrum blank of suitable length and angularity, clamping the slotted portion of said blank in dies having a chamber for the end of the blank to be operated upon, subjecting said end of the blank while at welding heat to action of a deflecting plunger in order to deflect said end toward the center of mass of the completed fulcrum end, and finally subjecting the same end to the action of a second upsetting and forming die in said chamber in order to finish the seat and the "third point" support.

1,206,929. PLATE-PRINTING MACHINE. WALTER CHARLES SCOTT, Plainfield, N. J., assignor to Isabella Scott and David J. Scott, executors of Walter Scott, deceased, Plainfield, N. J. Original application filed July 30, 1914, Serial No. 854,081. Divided and this application filed Nov. 20, 1915. Serial No. 62,447. (Cl. 101—100.)



1. A printing machine comprising: a plurality of members constituting a printing couple, one of said members being a form carrying cylinder, a flexible form on said cylinder having side by side printing portions and intervening marginal portions, means for supplying ink to the printing portions only, and means for dampening both the printing portions and intervening marginal portions of the form.

2. A printing machine comprising: a plurality of members constituting a printing couple, one of said members being a form carrying cylinder, a flexible form on said cylinder consisting of side by side plates having printing portions with intervening marginal portions, means for supplying ink to the printing portions only of the plates, and means for dampening both the printing portions and intervening marginal portions of the plates.

3. A printing machine comprising: a plurality of members constituting a printing couple, one of said members being a form carrying cylinder, a flexible form on said cylinder, a plurality of flexible plates, means for removably securing said plates side by side on the form carrying cylinder, each plate having a printing portion and a marginal portion, means for supplying ink to the printing portions only, and means for dampening both the printing and marginal portions.

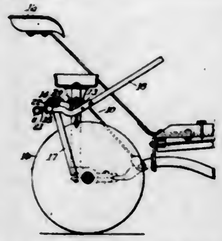
4. A printing machine comprising: a plurality of members constituting a printing couple, one of said members being a form carrying cylinder, a flexible form on said cylinder having side by side printing portions and intervening marginal portions, a support adjacent to said form carrying cylinder, a plurality of inking surfaces on said support registering with the printing portions of the form, and means for dampening the printing and marginal portions of the form.

5. A printing machine comprising: a plurality of members constituting a printing couple, one of said members being a form carrying cylinder, a flexible form on said cylinder consisting of side by side plates having printing portions with intervening marginal portions, a support adjacent to said form carrying cylinder, a plurality of inking surfaces on said support registering with the printing portions of the plate, and means for dampening the printing and marginal portions of the plates.

[Claims 6 to 9 not printed in the Gazette.]

1,206,930. DISK HARROW. CHARLES S. SHARP, Auburn, N. Y., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Mar. 17, 1915. Serial No. 14,906. (Cl. 97—80.)

1. In a disk harrow, a frame, oppositely directed disk gangs carried by said frame, a seat on said frame between the disk gangs, a rocking scraper bar for each of said gangs, scrapers on said bars to engage with the disks, yielding means on each of the bars for maintaining the scrapers normally in inoperative position, and means accessible from the driver's seat for adjusting the tension of said yielding means.



2. In a disk harrow, a frame, oppositely directed disk gangs carried by said frame, a seat on said frame between the disk gangs, a rocking scraper bar for each of said gangs, scrapers on said bars to engage with the disks, positive means for rocking said bars in one direction, a spring on each of said bars for returning the scrapers to normal position, said springs being located near the inner ends of the rocker bars, and means for adjusting the torsion of said springs, said means being operable from the driver's seat.

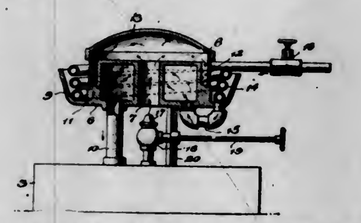
3. In a disk harrow, a disk gang, a rocker bar carried in bearings on said disk gang, means on said bar for adjusting it longitudinally in its bearings, foot pressure means for rocking said bar, a coiled spring on said bar for maintaining it normally in position where the scrapers are inoperative, and means carried by the bar for adjusting the torsion of said spring.

4. In a disk harrow, a rocker bar, scrapers carried by said bar to engage with the disks, a coiled spring on said bar having one end anchored to a portion of the harrow frame, and a notched arm carried by said bar to receive the opposite end of said coiled spring and whereby the torsion of the spring may be adjusted.

5. In a disk harrow, a frame carrying a plurality of disks, a rocker bar on said frame, scrapers on said rocker bar to engage with the disks, foot pressure means for rocking said bar to move said scrapers toward the peripheries of the disks, a coiled spring for returning said scrapers carried on said bar with one end engaging the frame, and a notched arm carried by said bar to receive the opposite end of said spring, said last mentioned end of the spring being provided with a hand grip whereby it may be moved to various positions on the notched bar for adjusting the torsion of the spring.

[Claims 6 to 8 not printed in the Gazette.]

1,206,931. GAS GENERATOR AND BURNER. CHARLES SICKERT, Davenport, Iowa. Filed June 27, 1916. Serial No. 106,137. (Cl. 158—69.)

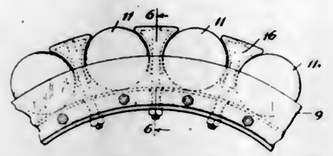


1. A gas generator and burner, comprising a casing having a central vertical opening passing through it, and a superheating chamber surrounding said opening, an annular perforated ring surrounding said casing, a cap fitting over said ring, a pipe coil around said casing exterior to said perforated ring, and opening into said superheating chamber, an annular baffle on the opposite side of said coil from said casing, a nozzle arranged to direct a jet of gas into the central passage through said casing, and means forming a connection for conducting gas from said superheating chamber to said nozzle.

2. A gas generator and burner, comprising a casing forming a superheating chamber, a pipe coil around said casing and opening into the superheating chamber thereof, a burner between said casing and said coil, an annular baffle on the opposite side of said coil from said casing, a gas receiver, a pipe leading from said superheating chamber to said receiver, a gas nozzle arranged to deliver gas past the exterior of said casing to said burner, and means to deliver gas from said receiver to said nozzle.

3. A gas generator and burner, comprising a casing forming a superheating chamber, a pipe coil around said casing and opening into the superheating chamber thereof, a burner between said casing and said coil, an annular baffle on the opposite side of said coil from said casing, a pipe leading from said superheating chamber, a gas nozzle arranged to deliver gas past the exterior of said casing to said burner, and means to deliver gas from said pipe leading from the superheating chamber to said nozzle.

1,206,932. TIRE. CHARLES A. SIMMONS, Albany, N. Y. Filed Jan. 21, 1914. Serial No. 813,411. (Cl. 152—9.)



1. A vehicle tire comprising an annular channel with side walls, a series of spaced resilient blocks located in said channel, a series of radially movable rigid retaining and separating members arranged in alternation with said blocks and extending inwardly between the side walls of the channel and having engaging surfaces in separating contact with adjacent blocks at the region of their greatest circumferential extent under pressure, and connections between the said members and the channel structure so limiting the outward movement of the said members as always to maintain the blocks under circumferential pressure.

2. A vehicle tire comprising an annular channel with side walls, a series of spaced resilient blocks located in said channel, a series of radially movable rigid retaining and separating members arranged in alternation with said blocks and extending inwardly between the side walls of the channel and having engaging surfaces in separating contact with adjacent blocks at the region of their greatest circumferential extent under pressure, and connections between the said members and the channel structure so limiting the outward movement of the said members as always to maintain the blocks under circumferential pressure, said connections permitting a circumferential swinging movement of the said members.

3. A vehicle tire comprising an annular channel with side walls, a series of spaced resilient blocks located in said channel, a series of radially movable rigid retaining and separating members arranged in alternation with said blocks and extending inwardly between the side walls of the channel and having engaging surfaces in separating contact with adjacent blocks at the region of their greatest circumferential extent under pressure, and connections between the said members and the channel structure so limiting the outward movement of the said members as always to maintain the blocks under circumferential pressure, said connections being adjustable to permit variation of the said circumferential pressure.

4. A vehicle tire comprising an annular channel with side walls, a series of spaced transversely extending cylinders of resilient material located in said channels, a series of radially movable rigid retaining and separating members between and having surfaces in contact with adjacent cylinders and extending inwardly between the side walls of the channel and within a circle drawn through the centers of cross-section of said cylinders, and connections between the said members and the channel structure so limiting the outward movement of the members as always to maintain the cylinders under circumferential pressure.

5. A vehicle tire comprising an annular channel with side walls, a series of spaced transversely extending cylinders of resilient material located in said channels, a series of radially movable rigid retaining and separating members between and having surfaces in contact with adjacent cylinders and extending inwardly between the side walls of the channel and within a circle drawn through the centers of cross-section of said cylinders, and connections between the said members and the channel structure so limiting the outward movement of the members as always to maintain the cylinders under circumferential pressure, said connections permitting a circumferential swinging movement of said members.

[Claim 6 not printed in the Gazette.]

1,206,933. AMUSEMENT DEVICE. CHARLES G. SIMONDS, Milwaukee, Wis., and GEORGE W. DOERR, Chicago, Ill. Filed June 15, 1916. Serial No. 103,750. (Cl. 46—46.)



1. An amusement device consisting of a concavo-convex picture card or plate adapted to snap on reversing its concavo-convexity and thereby produce a sound to voice the picture thereon.

2. An amusement device consisting of a concavo-convex picture plate adapted to snap on reversing its concavo-convexity and thereby product a sound to voice the picture thereon, and means for supporting the device as a badge or pendant.

3. An amusement device consisting of a picture card or plate having a reversible bulge adapted to snap and produce a sound to imitate sounds made by the thing pictured thereon.

4. In an amusement device, a plate having pictures on the faces thereof and having a reversible bulge therein adapted to snap and produce a sound to attract attention to the pictures.

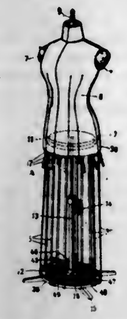
5. In an amusement device, a plate having faces representing a gun and having a reversible bulge therein adapted to snap and produce a sound to imitate a gun's report.

1,206,934. GARMENT-FORM. ANNESLEY DE LOS SMITH, New York, N. Y. Filed Dec. 22, 1914. Serial No. 878,597. (Cl. 223—18.)

1. In a garment form, a rigid base, an elastic inflatable form on said base, a jacket inclosing said form and relatively inelastic to thereby mold said form to the requisite shape, said jacket having portions dependent below the lower end of the inflatable form, outwardly adjustable brackets on the base and a shaping band carried by said brackets and connected with the dependent portions of the jacket.

2. In a garment form, a rigid base, an elastic inflatable form on said base, a jacket inclosing said form and relatively inelastic to thereby mold said form to the requisite shape, said jacket having portions dependent below the lower end of the inflatable form, a stand for supporting

the device and flexible connections between the said stand and the dependent portions of the jacket.



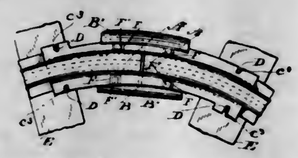
3. In a garment form, a rigid base, an elastic inflatable form on said base, a jacket inclosing said form and relatively inelastic to thereby mold said form to the requisite shape, said jacket having portions dependent below the lower end of the inflatable form, a stand for supporting the device and flexible tapes connected between the stand and the dependent portions of the jacket, adjustable to vary the tension on the jacket.

4. In a garment form, a base, a standard, an elastic inflatable waist form carried by the upper part of said standard, a jacket inclosing said form and relatively inelastic to thereby mold said form to the requisite shape and a series of adjustable tapes constituting a skirt form and connecting the lower edge of said jacket with said base at various points around the sides whereby the inclination of the waist form may be varied relative to the skirt form by adjusting the length of said tapes to apply greater or less tension on said jacket at the necessary points.

5. In a garment form, an elastic inflatable bust form, a rigid base supporting said bust form, a band substantially conforming to the maximum hip measurements supported below the base in a plane corresponding to that of the maximum hip measurements and a relatively inelastic jacket of the requisite configuration inclosing the elastic bust form and extending down below the base to the hip band aforesaid.

[Claims 6 to 21 not printed in the Gazette.]

1,206,935. JOINT SAFETY-LOCK. CHRISTOPHER J. SMITH, Cleveland, Ohio. Filed Aug. 2, 1915. Serial No. 43,062. (Cl. 239—6.)



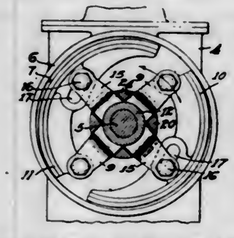
1. In a locking device for the extremities of rails upon a curved road bed, the combination therewith of a curved base plate corresponding in curvature to the curvature of the road bed, said bed plate overlapping said extremities and provided with rail engaging means at its circumferential edges, and reversely positioned curved tapering members arranged parallel with said rails and interposed between said engaging means in said bed plate and said rails, substantially as and for the purpose set forth.

2. In a safety lock for the extremities of rails upon a curved road bed, the combination therewith of a curved base plate overlapping said rail extremities and provided with engaging means upon its circumferential edges, curved reversely placed tapered members interposed between said engaging means and said rail extremities, and securing means for said bed plate and said tapered members.

3. In a rail joint, in combination with an arc shaped base plate of curved rail extremities resting thereon and engaging means upon the outer and inner circumferential edges of said bed plate, and curved tapering members interposed between said engaging members on said base plate and the sides of said rails, said tapering members having radii for their rail engaging faces equal to the radii of curvature of said rail extremities, and different radii for their opposite faces.

4. Curved rail extremities, in combination with a base plate having its circumferential edges raised and concentric and curved to correspond to the curvature of the said rails, said rail extremities mounted upon said base plate and spaced from said raised edges, and curved tapering members interposable between said rail extremities and said circumferential edges of said base plate, said tapering members having each the radius of its outer face of a different length than the radius of its inner face.

1,206,936. SPEED-CONTROLLING DEVICE FOR SELF-PROPELLED VEHICLES. EDWIN GUSTAVE STAUDE, Minneapolis, Minn. Filed Jan. 15, 1915. Serial No. 2,371. (Cl. 74—13.)



1. The combination, with a driving shaft, of a driven shaft, brake shoes and a friction surface therefor, means secured on said driving shaft and connected with said shoes, means loosely connected with said driven shaft and having a sliding cam bearing on said shoes, said means maintaining their normal relative position when the speed of said driving shaft equals or exceeds the speed of said driven shaft, and the relative position of said means being changed to engage said shoes with said friction surface when the speed of said driven shaft exceeds that of said driving shaft.

2. The combination, with a driving member and a driven member, of a brake device having means operatively connecting it with said driving member for simultaneous operation therewith, means connecting said driven member with said brake device and having a sliding engagement therewith and connected through said brake device with said driving member to be operated thereby, the sliding connection of said driven member with said brake device allowing the setting of said brake when the speed of said driven member exceeds that of said driving member.

3. The combination, with a driving member, of a driven member, brake shoes and a friction surface therefor, means operatively connecting said brake shoes with said driving member and said driven member, the connection of said driven member with said shoes having a sliding cam surface bearing thereon and the revolution of said driving member operating said driven member through said shoes, said shoes being normally inactive and out of contact with said friction surface but becoming seated thereon by the movement of said driven member connections on said cam surfaces when the speed of said driven member exceeds that of said driving member.

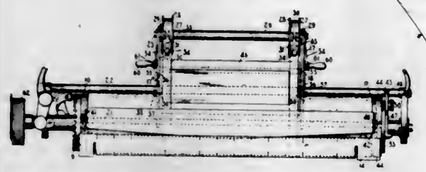
4. The combination, with a driving shaft and gear casing having a friction surface, of a sleeve secured on said shaft, arms radiating from said sleeve, shoes pivotally connected to said arms to engage said friction surface, a driven shaft, a sleeve connected therewith and loosely

mounted on said driving shaft, arms projecting from said loosely mounted sleeve and having a pin and cam slot connection with said shoes, said driven shaft being normally revolved with said driving shaft through said arms and shoes and said shoes being forced into engagement with said friction surface through said arms and slots should the speed of said driven shaft exceed that of said driving shaft.

5. The combination, with a driving shaft and a driven shaft, of a brake device, arms having pivotal connections with said brake device, some of said arms being secured to said driving shaft and others of said arms being connected with said driven shaft, said driven shaft arms having sliding cam bearings on said brake device for seating it when the speed of said driven shaft exceeds that of said driving shaft, and means for engaging said arms to hold them in their relative position and prevent movement of said driven shaft arms on said braking device, for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,206,937. TYPE-WRITING MACHINE. HERBERT H. STEELE, Marcellus, N. Y., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Mar. 29, 1911. Serial No. 617,685. (Cl. 197—135.)



1. In a typewriting machine, the combination with a cylindrical platen, of a flexible element fastened to and normally completely surrounding the platen and constantly coöperative with the platen in the vicinity of the printing line to cause the work sheet to conform to the surface of the platen at the printing line during the printing of said work sheet.

2. In a typewriting machine, the combination with a cylindrical rotary platen, of a band having a fixed point of connection with the platen and coöperative with the platen constantly in the vicinity of the printing line, said band operating during rotary movements thereof to cause a work sheet to conform to the surface of the platen in the vicinity of the printing point.

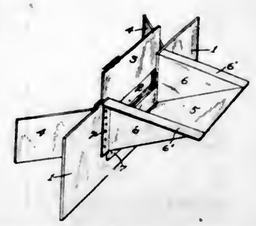
3. In a typewriting machine, the combination of a cylindrical platen, and a flexible band engaging the side edge portion of the work sheet, said band being positively connected at a fixed point to the platen and coöperating with the platen constantly in the vicinity of the printing line, said band operating to cause the work sheet to conform to the surface of the platen in the vicinity of the printing line.

4. In a typewriting machine, the combination with a cylindrical platen, of a plurality of flexible bands spaced apart and engageable with the side edge portions of the work sheet, said bands having each a fixed point of connection with the platen and coöperating with the platen constantly in the vicinity of the printing line to cause said work sheet to conform to the surface of the platen in the vicinity of the printing line.

5. In a typewriting machine, the combination of a cylindrical platen, of a flexible band secured to the platen and coöperative constantly with the platen in the vicinity of the printing line, said band engaging with the side edge portion of the work sheet to cause the work sheet to conform to the platen surface in the vicinity of the printing line.

[Claims 6 to 38 not printed in the Gazette.]

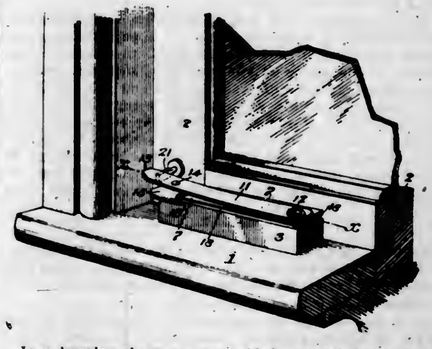
1,206,938. CHURNING-PIT FOR IRRIGATION CANALS, DITCHES, AND OTHER WATERCOURSES. WILLIAM G. STIMMEL, San Francisco, and JAMES B. THOMPSON, Vina, Cal. Filed Jan. 3, 1916. Serial No. 69,758. (Cl. 61—9.)



1. A churning-pit for canals, water ditches and the like, comprising a controlling structure having a delivery opening; and a pit-member fitted to said structure on its down-stream side and in communication with its delivery opening, said pit member having a bottom, which from its junction with the controlling structure below its delivery opening, gradually slopes upwardly to substantially the bottom grade of the canal or ditch or the surface of the field to which it delivers the water.

2. A churning-pit for canals, water ditches and the like, comprising a controlling structure having a delivery opening; and a pit-member fitted to said structure on its down-stream side and in communication with its delivery opening, said pit member having a bottom, which from its junction with the controlling structure below its delivery opening, gradually slopes upwardly to substantially the bottom grade of the canal or ditch or the surface of the field to which it delivers the water, and said pit-member having also side walls which gradually incline downwardly from their junction with the controlling structure, the inclined top edges of said walls fitting closely to and merging into the banks of the canal or ditch or the soil of the field.

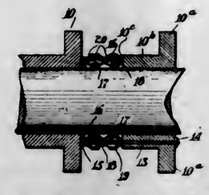
1,206,939. ALARM. ORRIE C. STROHM, Philadelphia, Pa., assignor to Mortimer W. Smith, Camden, N. J. Filed Aug. 26, 1915. Serial No. 47,392. (Cl. 116—42.)



In a burglar alarm, an open-sided casing adapted to be connected with a suitable support with its open side normally closed by a coacting movable member, and having an opening in the outer face to receive and support a cartridge, a safety cap slidingly connected with the casing and having a recess in which the head of the cartridge is seated and having an opening in line with the head when the cap is in operative position, a stop for locating the cap in operative position, means for holding the cap

and casing in proper relation, a resilient member mounted on the casing and a firing pin carried by the member and to be actuated thereby to enter the cap-opening and discharge the cartridge.

1,206,940. PACKING. OLE M. STUVE, Brooklyn, N. Y. Filed Aug. 19, 1914. Serial No. 857,450. (Cl. 137—115.)



1. A packing for the purpose specified, comprising a body of compacted fibrous material, an expansible metal member secured to the inner face of said body and presenting a continuous surface to the article to be packed, and additional metal members secured to the outer faces of said body.

2. A packing for the purpose specified, comprising an annular body of compacted asbestos, a nickel ring secured to the inner periphery of said body, and brass rings secured, respectively, to the outer periphery and to the top and bottom faces of said body.

3. A packing for the purpose specified, comprising the neck bushing of a cylinder and an oppositely disposed gland, packing rings therebetween, each said packing ring consisting of a compacted body of fibrous material and a metallic framework to which said body is secured said framework presenting a continuous metallic surface to the article to be packed, and means for securing said packing rings between said gland and said bushing.

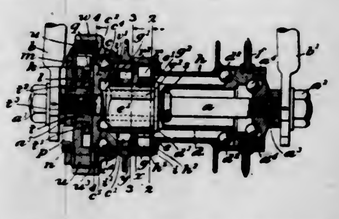
4. A packing for the purpose specified, comprising the neck bushing of a cylinder and an oppositely disposed gland, rods secured to said gland, sectional packing rings between said gland and said neck bushing; certain of said packing rings being held by said rods and others of said packing rings having the contiguous ends of their sections grooved and taking against the peripheries of said rods, and means for securing said packing rings between said gland and said neck bushing.

5. A packing for the purpose specified, comprising the neck bushing of a cylinder and an oppositely disposed gland, rods passing through said gland, an annular collar carried at one of the ends of said rods, sectional packing rings abutting said collar at one end and said gland at the other end, certain of said rings being held by said rods and others of said rings having the contiguous ends of their sections grooved and taking against the peripheries of said rods, said packing rings being arranged to break joints, means for adjustably securing said rods to the gland and means for securing the gland to the neck bushing.

1,206,941. BICYCLE DRIVING AND BRAKE MECHANISM. GEORGE B. SWAINSON, Scranton, Pa. Filed Dec. 17, 1914, Serial No. 877,766. Renewed Apr. 22, 1916. Serial No. 93,022. (Cl. 208—57.)

1. A mechanism as characterized comprising, a plurality of driven members, each having a clutch socket concentrically disposed; a rotary driving member having a cam surface disposed in said sockets; a plurality of loose grip members between said driving member and said clutch sockets, said grip members being progressively disposed; means for maintaining the progressive arrangement of said grip members; a brake, embodying a drum member mounted on one of said driven members and an expansible brake ring mounted within said drum member; and means operatively engaging said ring and the other of said driven members for expanding the said ring.

2. A mechanism as characterized comprising, a plurality of driven members, each having a clutch socket concentrically disposed; a rotary driving member having a cam surface disposed in said sockets; a plurality of grip members between said driving member and said clutch sockets, said grip members being progressively disposed; means for maintaining the progressive arrangement of said grip members; a brake, embodying a drum member mounted on one of said driven members and an expansible brake ring mounted within said drum member; means operatively engaging said ring and the other of said driven members for expanding the said ring; and means for holding said ring against rotation.



3. A mechanism as characterized comprising, a plurality of driven members, each having a clutch socket concentrically disposed; a rotary driving member having a cam surface disposed within said sockets; a plurality of grip members between said driving member and said clutch sockets, said grip members being progressively disposed; means for maintaining the progressive arrangement of said grip members; a brake, embodying a drum member mounted on one of said driven members and an expansible brake ring mounted within said drum member; a plurality of pivotally mounted levers operatively engaging said ring; means operatively connecting said levers for moving the same in relatively opposite directions, to expand said ring; and means operatively connecting one of said levers and the other of said driven members.

4. A mechanism as characterized comprising, a plurality of driven members, each having a clutch socket concentrically disposed; a rotary driving member having a cam surface disposed in said sockets; a plurality of grip members between said driving member and said clutch sockets, said grip members being progressively disposed; means for maintaining the progressive arrangement of said grip members; a brake, embodying a drum member mounted on one of said driven members and an expansible brake ring mounted within said drum member; a plurality of interacting levers, each operatively connecting a section of said ring for movement thereof in relatively opposite directions; means operatively connecting said interacting levers for separating the ends thereof engaged with said ring; and means operatively connecting one of said levers and the other of said driven members.

5. A mechanism as characterized comprising, a plurality of driven members, each having a clutch socket concentrically disposed; a rotary driving member having a cam surface disposed in said sockets; a plurality of grip members between said driving member and said sockets, said grip members being progressively disposed; means for maintaining the progressive arrangement of said grip members; a brake, embodying a drum member mounted on one of said driven members and a freely expansible brake ring mounted within said drum member; a plurality of interacting levers, each operatively connecting a section of said ring for movement thereof in relatively opposite directions; a plurality of cam surfaced members, one formed on each of said levers coöperative to move in opposite directions the portion of said levers connected with said ring; and means operatively connecting one of said levers and the other of said driven members.

[Claims 6 to 14 not printed in the Gazette.]

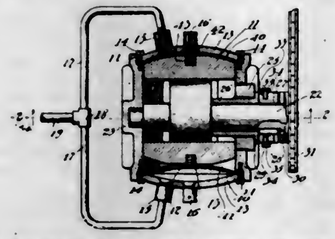
1,206,942. SPINNING-TOP. ERIC S. SWANSTROM, Brooklyn, N. Y. Filed Sept. 12, 1916. Serial No. 119,660. (Cl. 46—32.)



1. A spinning top comprising a conical-shaped portion, a pintle secured to said conical-shaped portion, screw threads formed on the conical-shaped portion for receiving a cord, and means formed on the conical-shaped portion for coöperation with the screw threads for gripping the cord to prevent it from unwinding.

2. A spinning top comprising a conical-shaped portion, a pintle secured to said conical-shaped portion, screw threads formed on said conical-shaped portion, and a flange formed on the upper end of the conical-shaped portion and having a beveled face for coöperation with the upper run of the screw threads to prevent a cord from slipping from the screw threads.

1,206,943. PUMP. CLARENCE W. TARBET, Chicago, Ill. Filed Dec. 31, 1914. Serial No. 879,843. (Cl. 230—5.)

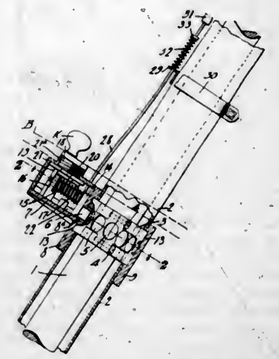


In a double-acting diaphragm pump, the combination of a relatively stationary cylinder provided with a closed head and suitable intake and outlet valves at either end, a cylindrical piston of sufficient length to prevent cramping, adapted to reciprocate in said cylinder between said heads and provided with an aperture extending diametrically through the piston intermediate the ends of the latter, a shaft diametrically arranged to rotate within said cylinder extending through the aperture of said piston and provided with an eccentric adapted to engage said piston; said piston having comparatively loose fitting engagement with said cylinder, and flexible diaphragms interposed between the ends of said cylinder and said piston.

1,206,944. AUTOMOBILE-LOCK. SAMUEL L. TERRY, Chicago, Ill. Filed Mar. 2, 1916. Serial No. 81,700. (Cl. 70—90.)

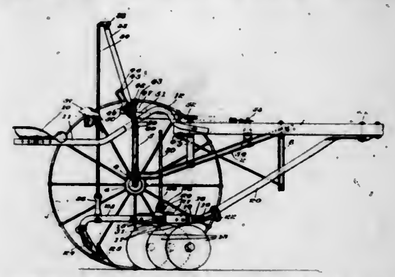
1. A lock comprising a rotatable collar to be secured upon a steering shaft, a clamp to embrace a steering column and having an inner annular channel for receiving said collar, and a latch member movable through the clamp and engageable with the collar.

2. A lock comprising a clamp composed of sections, means for securing the sections together, one section having an outstanding bracket, a cap disposed on said bracket and having one end fitting said section, means for securing said cap and bracket together, said cap and bracket providing a casing, said bracket having a guide, a latch bolt slidable through said section and having a shank slidable through said guide, the latch bolt having a head, an expansion spring between said guide and head to project the latch bolt, a heel piece carried by the end of said shank, a detent pivoted to said section and swingable in front of said head to hold the latch bolt retracted, an operating member connected to said detent and projecting through the cap, and a key controlled device carried by the cap and having a cam engageable with the heel piece to retract the latch bolt.



3. A lock comprising a clamp composed of sections, one section having an outstanding bracket, a cap upon said bracket and having one end adjacent said section, said bracket and cap having apertured portions, pins inserted in said portions to secure the cap and bracket together, said pins being slidable through and being removable from the inner side of said clamp section, the cap and bracket providing a casing, a latch bolt within the casing slidable through said clamp section, and means for controlling the latch bolt.

1,206,945. TILLAGE IMPLEMENT. SAMUEL H. TINSMAN, Morris, Ill., assignor, by mesne assignments, to International Harvester Corporation, a Corporation of New Jersey. Filed Mar. 5, 1913. Serial No. 752,170. (Cl. 97—37.)



1. In a cultivator, a frame, draft links carried on said frame, a diagonally disposed unit gang member secured to each of said draft links, a plurality of independently adjustable disks carried on said gang member, and a shovel associated with each of said gang members and carried in the rear thereof.

2. In a cultivator, a frame, draft links thereon, parallel bars spaced apart and carrying a plurality of bearing blocks therebetween secured to each of said draft links, a disk shank carried in each of said blocks, and a rearwardly extending tooth cartying bar connected with one of said parallel bars.

1,206,946. APPARATUS FOR CUTTING WASTE FROM EMBROIDERIES. ALOIS TSCHERNE, Rorschach, Switzerland, assignor to the Firm of Henri Levy, Rorschach, Switzerland. Filed Mar. 7, 1910. Serial No. 547,891. (Cl. 164—48.)

1. In a cutting apparatus for removing waste from embroidered fabric, an opposing member to support the

fabric, a knife support rigidly connected to the opposing member, a knife on the support inclined to and in such relation with the opposing member as to obtain a shaving action on the fabric, said knife and opposing member forming a slot of sufficient width to permit only the passage of the unembroidered part of the fabric.



2. In a cutting apparatus for removing the waste from embroidery, a straight blade, and a guard mounted longitudinally of the blade parallel therewith, and inclined thereto and projecting somewhat above the edge of the blade whereby a narrow longitudinal slit is formed between the cutter and blade.

3. In a cutting apparatus for removing the waste from embroidery, a holder comprising longitudinal members connected at one end, a knife blade mounted longitudinally on one of said members, means to laterally adjust the blade on its member, a longitudinal guard mounted on the other member at an angle to the blade, and means to laterally adjust the guard.

4. In a cutting apparatus for removing the waste from embroideries, a straight-blade, and a guard located parallel therewith in a plane directed at an angle thereto, and projecting somewhat above the edge of the blade, whereby a narrow slit is presented between cutter and blade, and a flat spring which is located below the slit and acts in the direction of the guard, substantially as described.

5. In a cutting apparatus for removing the waste from embroideries, a handled holder, a cutter mounted longitudinally of the holder, and a guard secured to the latter at an inclination to the cutter and presenting between them a slit which admits passage only of the unembroidered part of the fabric, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,206,947. WRENCH. WILBUR S. UPSON, Mansfield, Ohio. Filed Mar. 2, 1916. Serial No. 81,723. (Cl. 81—138.)



1. In a wrench, a stationary jaw having a body portion provided with a recess and a shank, a guideway formed in the body portion, a movable jaw carrying a shoe having ratchet teeth provided thereon slidably fitted in the guideway, a lever handle having one end pivoted to swing within the recess, a pivoted ratchet pawl interposed between the pivoted end of the lever handle and the shoe of the movable jaw which is adapted to contact with the end of the lever handle and be forced thereby, to mesh with the teeth provided on the shoe of the movable jaw to rigidly maintain same in its adjusted position when the handle and shank are grasped by the user and pressed toward each other.

2. In a wrench, a stationary jaw having a body portion provided with a recess and a shank, a guideway formed in the body portion, a movable jaw carrying a shoe having ratchet teeth provided thereon, slidably fitted in the guideway, a lever handle having one end pivoted to swing within the recess, a pivoted ratchet pawl interposed between the pivoted end of the lever handle and the shoe of the movable jaw which is adapted to contact with the end of the lever handle and be forced thereby, to mesh with the teeth provided on the shoe of the movable jaw thereby rigidly maintaining same in any adjusted position when the handle and shank are grasped by the user and pressed toward each other, and pins arranged to engage at right angles to each other to stop the inward swing of the lever handle at a pre-determined point with respect to the shank.

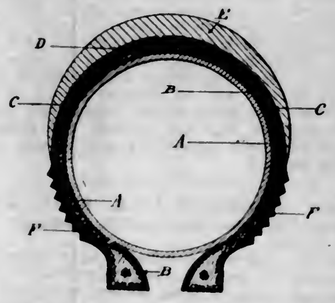
3. In a wrench, a stationary jaw having an integral recessed body portion and a shank, a lever pivoted in said recess, an angularly related guideway formed in the body portion, communicating with said recess, a movable jaw having a shoe slidably fitted in said guideway, and pivotally mounted means interposed between the end of the lever handle and shoe which contacts with and is operable by the end of the lever handle only, to hold and maintain the movable jaw at any point of its adjustment.

4. In a wrench, a stationary jaw and a shank, a cooperative movable jaw, a pivoted lever handle, pivotally mounted means interposed between the movable jaw and the end of the lever handle adapted to contact with the movable jaw and the end of the lever handle, and which is operable by pressing the shank and lever handle toward each other to maintain the movable jaw at any point of its adjustment.

5. In a wrench, a stationary jaw and a shank, a cooperative movable jaw provided with a shoe, a pivoted lever handle, pivotally mounted means interposed between the shoe of the movable jaw and the end of the lever handle which contacts with the lever handle and is operable by pressing the shank and lever handle toward each other to maintain the movable jaw through the medium of the pivoted means only at any point of its adjustment, and right angularly related pins to yieldingly interlock the shank and lever handle at a pre-determined point of their movement toward each other.

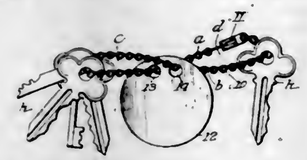
[Claims 6 and 7 not printed in the Gazette.]

1,206,948. PNEUMATIC TIRE. GARRAT B. VAN WAGENEN, Alstead Center, N. H. Filed Mar. 18, 1913. Serial No. 755,169. (Cl. 152—18.)



A pneumatic tire, comprising an inner heat insulating layer of closely woven asbestos fabric containing a small percentage of cotton and impregnated with rubber, a carcass formed of a plurality of alternate layers of woven bronze wire cloth cut on the bias, and layers of sheet rubber vulcanized into one coherent mass under pressure, whereby the vulcanized rubber fills the interstices of the wire cloth and locks the whole mass together, a cover of rubber extending entirely around the outer surface of the carcass, a tread, and a heat insulating breaker strip formed of loosely woven cotton and asbestos fabric impregnated with rubber arranged between the central portion of the tread and the rubber cover, the ends of the rubber cover extending beyond the tread.

1,206,949. KEY-HOLDER. HARRY L. VAUGHAN, Chicago, Ill. Filed June 26, 1916. Serial No. 105,947. (Cl. 59—97.)



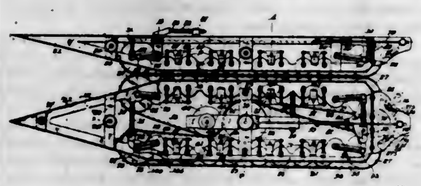
1. A key holder comprising an endless ring, and a plate having passageway therethrough for receiving the opposite sides of the ring and acting as a barrier between keys in the end loops of the ring.

2. In a keyholder, the combination with a plate having a plurality of holes, of a length of flexible material extending serially through said holes and connected together at its ends whereby to form a plurality of separated key receiving loops.

3. In a keyholder, the combination of a plurality of disks hinged together and having holes adapted to form passageways when the disks are brought into registration, a length of chain passing freely and serially through said passageways and having its ends detachably connected together whereby to form a loop at each side of the disks for the reception of keys.

4. In a key holder, the combination of a plurality of disks hinged together and having holes adapted to form passageways when the disks are brought into registration, a length of chain passing freely and serially through said passageways and having its ends detachably connected together whereby to form a loop at each side of the disks for the receptiotn of keys, and an identification plate concealed between the disks when said disks are in place on said chain.

1,206,950. FLAX-PULLING MACHINE. SAMUEL VESSOT, Joliette, Quebec, Canada. Filed Sept. 4, 1912. Serial No. 718,572. (Cl. 55—66.)



1. In a flax puller, a shoe frame of substantially rectangular shape, a set of rollers journaled along each side of said shoe frame, a drive roller centrally arranged in said frame, a tension roller adjustably arranged alongside of the said drive roller, and a pair of belts each extending around one set of side rollers and between the drive roller and tension roller, the said belts contacting frictionally as they pass between the said drive and tension rollers.

2. In a flax puller, a shoe frame of substantially rectangular shape, a set of rollers resiliently journaled along each side of the said shoe frame, a drive roller centrally arranged on said frame, a tension roller resiliently arranged along side the said drive roller and in longitudinal alinement with the frame of said shoe, and a pair of belts each extending around one set of side rollers and between the said drive roller and said tension roller, the said belts contacting frictionally as they pass between the said drive and tension rollers.

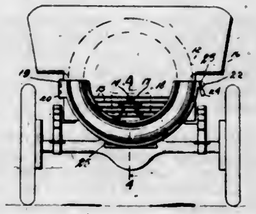
3. In a flax puller, a shoe frame of substantially rectangular form, a plurality of rollers resiliently journaled along each side of said shoe frame, a drive roller centrally mounted in said shoe frame, a belt tightener frame axially adjustable about said drive roller, a tension roller journaled in said belt tightener frame, means for exerting an axial spring tension on said belt tightener frame and a pair of endless belts each extending around the rollers on a side of said frame and between said drive roller and said tension roller.

4. In a machine of the class described, the combination with a drive roller, a drive shaft extending through said drive roller, an outer frame of rectangular shape having a pair of slots in the side-pieces thereof through which said drive shaft extends and a pair of journal orifices in the side-pieces thereof and a threaded orifice through one end thereof, a tension roller, a tension roller shaft extending through the journal orifices in said outer frame, an inner frame of rectangular shape and having a pair of slots in the sides thereof through which the tension roller shaft extends and a pair of journal orifices in the sides thereof through which said drive shaft extends and a rod extending from one end thereof through the orifice in the end-piece of said outer frame, a sleeve fitting said rod and adjustably threaded in said threaded orifice and a spiral spring encircling said rod between the end-piece of said inner frame and the inner end of said sleeve.

5. In a flax puller, a shoe having a frame of substantially skeleton rectangular form and having laterally extending slots in the side-bars thereof, bearing blocks slidably arranged in said slots, shafts set in said bearing blocks, rollers mounted on said shafts, means for exerting a resilient outward pressure on said bearing blocks, a rack-bar slidably arranged on the side-bar of said shoe frame and having cam-shaped notches into which said bearing blocks extend and teeth formed toward one end thereof and a pinion rotatably mounted in said shoe frame and meshing with the teeth of said rack-bar

[Claim 6 not printed in the Gazette.]

1,206,951. TIRE-HOLDER. RAYMOND VICK, Seymour, Ind. Filed Nov. 29, 1915. Serial No. 64,106. (Cl. 224—29.)

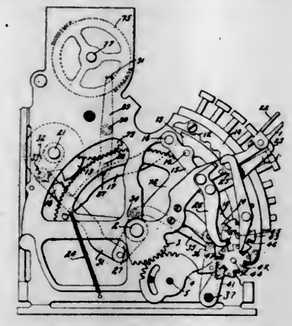


A tie holder for an automobile comprising a hollow semi-toric casing divided throughout its length, the divisions being hinged together at one end and detachably connected together at the other end, brackets carried by the rear of the body of the automobile, a triangular frame secured to the brackets in a vertical position, the lower or base portion of the triangular frame being secured to the lower portion of one of the divisions of the casing, the upper end of the triangular frame being extended outwardly and formed with a transverse opening, and a transverse bar secured to the upper ends of the said division and disposed through said opening.

1,206,952. MULTIPLE CASH-REGISTER. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, incorporated in 1906. Filed May 22, 1913. Serial No. 769,126. (Cl. 235—6.)

1. In a machine of the class described, the combination with a reel, of a plurality of totalizers carried thereby; a single set of actuators for said totalizers; manipulative means for rotating the reel to position any desired totalizer in operative relation to the actuators; and means, automatically rendered effective by the operation of a certain

one of the totalizers, compelling the positioning of the totalizers in a certain predetermined sequence.



2. In a machine of the class described, the combination with a main operating mechanism and a plurality of totalizers, of a common set of actuators for said totalizers, manipulative means for selectively bringing the totalizers into operative relation with the actuators, and means normally permitting the actuation of all but one of the totalizers, this means being constructed to require an operation thereof before each operation of the normally inoperable totalizer to render the latter operable.

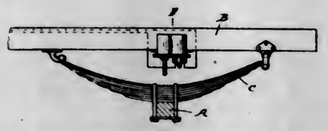
3. In a machine of the class described, the combination with a main operating mechanism and a plurality of totalizers, of a single set of actuators for said totalizers, manipulative means for selectively bringing the totalizers into operative relation with the actuators, and means rendered effective by the actuation of a certain one of the totalizers for locking the main operating mechanism against operation except when a certain other one of the totalizers has been positioned in operative relation to the actuators.

4. In a machine of the class described, the combination with means for retaining a segregated analysis of transactions, of manipulative means for determining under what classification transactions shall be entered, and means for compelling the entry of certain correlated items in the aforesaid retaining means in a predetermined sequence.

5. In a machine of the class described, the combination with a main operating mechanism, of a plurality of totalizers for segregating and registering different classes of transactions, a common set of actuators for said totalizers, manipulative means for selectively positioning the totalizers in operative relation to the actuators, and means compelling the segregation and entry of successive and correlative transactions in separate totalizers.

[Claims 6 to 39 not printed in the Gazette.]

1,206,953. DEVICE FOR PREVENTING OVERLOADING OF TRUCKS. NATHANIEL B. WALES, Saginaw, Mich., assignor, by mesne assignments, to Selaw Products Company, Saginaw, Mich., a Corporation of Michigan. Filed June 15, 1914. Serial No. 845,221. (Cl. 21—90.)



1. In a motor vehicle, the combination with the axle and the frame resiliently, yieldably supported thereby, of means nonresponsive to oscillations of the frame and operated by the relative movement of said frame and said axle under overload, for rendering the motor inoperative.

2. In a motor vehicle, the combination with the axle and the frame and a resiliently yieldable support for said frame upon said axle, of air compression means operated by an abnormal depression of said frame under overload, a pneumatically operated motor control, and a connection between said air compression means and pneumatic operating means restricted to prevent operation by oscillations of the frame.

3. In a motor vehicle, the combination with the axle and frame, and a yieldably resilient support for the frame upon said axle, of an air compression cylinder, a piston in said cylinder operated by the abnormal depression of said frame through overload, a second cylinder and piston constituting a pneumatic motor for operating a motor control, and a connection between said cylinders for the passage of air from one to the other, said connection being restricted to prevent operation of the piston in the second cylinder by oscillations of the piston in the first cylinder.

4. A device for preventing overloading of vehicles, comprising a pair of cylinders, pistons therein, a rod for operating the piston in one cylinder actuated by the relative movement of the motor frame and axle, an electric switch operated by the piston in the second cylinder, and a restricted air passage connecting said cylinders.

5. A device for preventing overloading of vehicles, comprising a pair of cylinders having a restricted air passage connecting the same, pistons in said cylinders, a rod for actuating the piston in one of said cylinders operated by a relative movement of the vehicle frame and its supporting axle, and an electric switch for controlling the vehicle motor, operated by the movement of the piston in the second cylinder.

[Claims 6 to 9 not printed in the Gazette.]

1,206,954. PROCESS OF MAKING FOOD PRODUCTS. THOMAS BAILEY WALKER, Austin, Tex. Filed Dec. 16, 1914. Serial No. 877,584. (Cl. 99—13.)

1. The process consisting in subjecting an edible fatty material to hydrogenization to produce a product containing stearin amounting to about twenty-two per cent. of the material treated and then incorporating therewith a different edible fatty material to impart to the product a consistency and flavor simulating that of a predetermined natural edible fat.

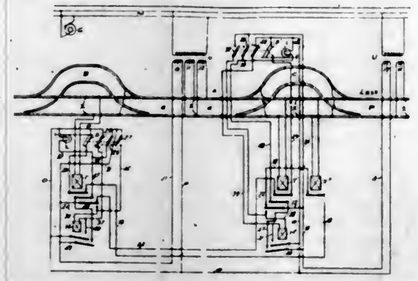
2. The process consisting in subjecting cotton-seed oil to hydrogenization to produce a product containing about twenty-two per cent. stearin and incorporating therewith oily lard in quantity sufficient to simulate natural lard in consistency and flavor.

3. An edible fatty food product simulating in consistency and flavor a natural fatty food product consisting of hydrogenized fatty material containing about twenty-two per cent. of stearin and an unhydrogenized and different fatty edible material for imparting to the product the consistency and flavor characteristic of the simulated product.

4. An edible fatty product simulating natural lard comprising hydrogenized cotton-seed oil containing about twenty-two per cent. of stearin and oily lard in quantity sufficient to impart to the product the consistency and flavor of natural lard.

1,206,955. RAILWAY SIGNALING. HERBERT A. WALLACE, New York, N. Y., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,550. (Cl. 246—30.)

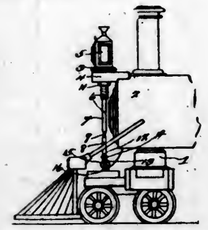
1. In combination, a stretch of railway track, a signaling device adjacent one end of the stretch which device comprises a semaphore and an auxiliary signal, a circuit controller operatively connected with the semaphore and arranged to be closed when the semaphore is in clear position and open when the semaphore is in danger position, a second circuit controller operatively connected with the semaphore and closed only when the semaphore is in danger position, a track relay connected with the stretch and normally closed but opened by the presence of a car or train on the stretch adjacent the said end, a circuit for the semaphore which circuit is controlled by the said track relay, a signal relay for the control of the auxiliary signal, an energizing circuit for said signal relay which includes a back contact of the track relay and the first named circuit controller whereby when a car or train enters the stretch from the said end the signal relay is closed during the interval between the opening of the track relay and the opening of the first named circuit controller, and a holding circuit for the said signal relay including a front contact of the signal relay and the second named circuit controller.



2. In combination, a stretch of railway track, a signaling device adjacent one end of the stretch which device comprises a semaphore and an auxiliary signal, a circuit controller operatively connected with the semaphore and arranged to be closed when the semaphore is in clear position and open when the semaphore is in danger position, a second circuit controller operatively connected with the semaphore and closed only when the semaphore is in danger position, a track relay connected with the stretch and normally closed but opened by the presence of a car or train on the stretch adjacent the said end, a circuit for the semaphore which circuit is controlled by the said track relay, means controlled by the entrance of a car or train upon the stretch from the opposite end for opening the semaphore circuit before the car or train reaches the point at which it opens the said track relay, a signal relay for the control of the auxiliary signal, an energizing circuit for said signal relay which includes a back contact of the track relay and the first named circuit controller whereby when a car or train enters the stretch from the end at which the signaling device is located the signal relay is closed during the interval between the opening of the track relay and the opening of the first named circuit controller, and a holding circuit for the signal relay including a front contact of the signal relay and the second named circuit controller.

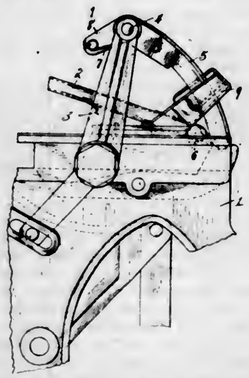
3. In combination, a stretch of railway track, a signaling device adjacent one end of the stretch which device comprises a semaphore and an auxiliary signal, a circuit controller operatively connected with the semaphore and arranged to be closed when the semaphore is in clear position and open when the semaphore is in danger position, a second circuit controller operatively connected with the semaphore and closed only when the semaphore is in danger position, a plurality of track relays connected with the stretch and arranged to be operated successively during the passage of a car or train through the stretch, a circuit for the semaphore which circuit is controlled by each of the said track relays, a signal relay for the control of the auxiliary signal, an energizing circuit for said signal relay which includes a back contact of the track relay adjacent the signaling device and the first mentioned circuit controller whereby when a car or train enters the stretch from the said end the signal relay is closed during the interval between the opening of the first track relay and the first named circuit controller, and whereby when a car or train enters the stretch from the opposite end and passes through the stretch the signal relay is not energized, and a holding circuit for the signal relay including a front contact of the signal relay and the second named circuit controller for holding the signal relay closed as long as the semaphore remains in the danger position.

1,206,956. DIRIGIBLE LIGHT FOR LOCOMOTIVES. WILLIAM FRANK WALTON, Springfield, Tenn. Filed Mar. 22, 1916. Serial No. 85,890. (Cl. 240—62.)



In a dirigible headlight mechanism for locomotives, the combination of a locomotive and a headlight having a base, of a platform fastened to the boiler of the locomotive, a stem projecting downwardly from the base of the headlight, and swivelly extending through the platform, a nut on the stem adjacent the under face of the platform, said stem consisting of two sections rectangular in cross section, one of the adjacent ends of the sections having a rectangular socket, the adjacent end of the other section having a rectangular extension for fitting the socket telescopically, the lower end of the last mentioned section being bifurcated, a bracket having a lug pivoted in said bifurcation, whereby the stem may pivot laterally on the lug, said bracket having opposite angular ends provided with eyes, and eye bolts carried by the truck of the locomotive pivoted in the eyes of the angular ends of the bracket, so that the bracket may pivot forwardly and rearwardly.

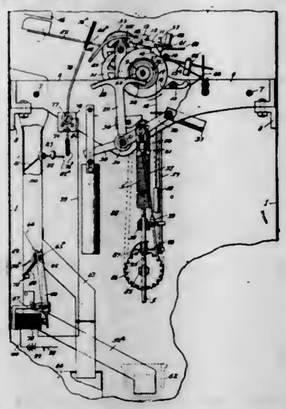
1,206,957. BUTTON-PLACING FINGER-GUIDE FOR SHOE-BUTTON-FASTENING MACHINES. FRANK G. WALTZ, Toledo, Ohio, assignor, by mesne assignments, to The Toledo Button Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Jan. 14, 1916. Serial No. 72,060. (Cl. 218—12.)



In a machine of the class described, a frame, a rocker-arm carried by said frame and having a shaft projecting transversely from its free end, a finger carried by said shaft in transversely spaced relation to the rocker arm and for rocking movements relative thereto, the free end portion of said finger being transversely offset from its inner end portion, and a guide finger extending upward and forward from the frame and having its upper portion disposed in the vertical plane of movement

of the free end portion of said placing finger and doubled over to form a guide through which the free end portion of the placing finger projects.

1,206,958. COIN-CONTROLLED MACHINE. JOHN B. WATLING, Chicago, Ill. Filed Feb. 8, 1916. Serial No. 76,974. (Cl. 194—47.)



1. In a coin-controlled weighing machine, the combination with weight indicating and weight estimating devices, of a deflector controlled by said devices for determining the retention or return of the coin, and a lock for said deflector adapted to be released by the coin.

2. In a coin-controlled weighing machine, the combination with weight indicating and weight estimating devices, of a deflector for determining the retention or return of the coin, means controlled by said indicating and estimating devices for setting said deflector to return the coin, and a lock for holding said deflector in set position arranged to be released by the returned coin.

3. In a coin-controlled weighing machine, the combination with weight indicating and weight estimating devices, a deflector normally in position to retain the coin, devices controlled by said indicating and estimating devices for shifting said deflector to return the coin, and a lock for holding said deflector in shifted position, said lock being arranged to be released by the passage of the coin past said deflector to thereby effect the return of the latter to normal position.

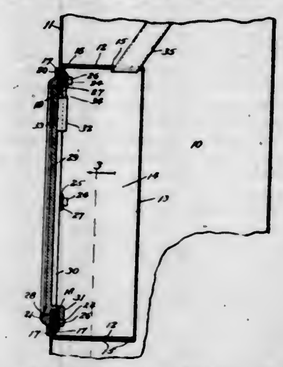
4. In a coin-controlled machine, the combination with indicating and estimating devices, of a chute for returning the coin to the exterior of the machine, a deflector normally preventing the passage of the coin through said return chute, means controlled by said indicating and estimating devices for shifting said deflector, and a lock for holding said deflector in shifted position arranged to be released by a coin passing through said return chute.

5. In a coin-controlled machine, the combination with indicating and estimating devices, of a chute for returning the coin to the exterior of the machine, a deflector normally preventing the passage of the coin through said return chute, an electro-magnet controlled by said indicating and estimating devices, means actuated by said magnet for shifting said deflector, and a lock for holding said deflector in shifted position arranged to be released by the passage of a coin past said deflector.

[Claims 6 to 14 not printed in the Gazette.]

1,206,959. SAFETY-BOX. JOHN B. WATLING, Chicago, Ill. Filed June 15, 1916. Serial No. 103,799. (Cl. 232—12.)

1. In safety boxes, the combination of a box, a supporting plate therefor, said box and said plate having registering openings, fastening devices accessible only through said openings for securing said box to said plate, and a cover for said openings, substantially as described.



2. In safety boxes the combination of a supporting plate having an opening therein, a box having an opening in its front wall registering with the opening in said plate, fastening devices extending through the front wall of the box about the opening therein for securing said box to said plate, said fastening devices being accessible only through the interior of said box, and a cover for said openings, substantially as described.

3. In safety boxes, the combination of a supporting plate having an opening therein, a box on the inner side of said plate and having an opening in its front wall registering with the opening in said plate, a frame on the outer side of said plate extending about the opening therein, fastening devices accessible only from the inner side of said plate for securing said box and said frame to said plate and a cover fitting within said frame and extending over said opening, substantially as described.

4. In a safety box, the combination with a supporting plate having an opening therein, a sheet metal box on the inner side of said plate opposite the opening therein, said box being open at its front and having flanges at its front edges abutting against the inner face of said plate, a frame abutting against the outer face of said plate and extending about said opening, fastening devices extending through said flanges and said plate and accessible only from the inner side of the latter for clamping said frame and said flanges to said plate, a cover fitting within said frame and extending over said opening, and a lock for holding said cover in position, substantially as described.

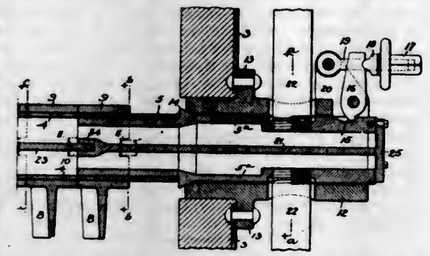
5. In safety boxes, the combination of a supporting plate having an opening therein, a sheet metal box on the inner side of said plate open at its front opposite said opening, said box having flanges at its front edge abutting against the inner face of said plate, a frame abutting against the outer face of said plate and extending about said opening, said frame having integral bosses on its inner face, and said plate and said flanges having holes through which said bosses extend, and tap-bolts and washers coöperating with said bosses for clamping said flanges and said frame to said plate, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,206,960. RABBLE-ARM AND RABBLE FOR METALLURGICAL FURNACES. UTLEY WEDGE, Ardmore, Pa. Filed Jan. 7, 1915, Serial No. 958. Renewed Apr. 27, 1916. Serial No. 94,056. (Cl. 257—119.)

1. The combination, in a metallurgical furnace, of a central shaft, a sleeve carried thereby, a stub end structure carried by said sleeve and projecting into the furnace chamber, and an arm detachably mounted upon that portion of the stub end structure which projects into the furnace chamber.

2. The combination, in a metallurgical furnace, of a central shaft, a sleeve carried thereby, a stub end structure mounted in said sleeve and projecting therefrom into the furnace chamber, said stub end structure being detachable from said sleeve, and an arm detachably mounted upon that portion of the stub end structure which projects into the furnace chamber.



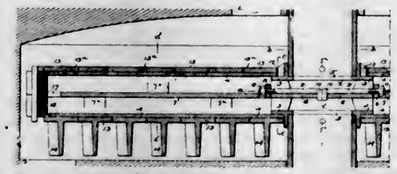
3. The combination, in a metallurgical furnace, of a central shaft, a sleeve carried thereby, a stub end structure projecting from said sleeve into the furnace chamber, clamping means for detachably securing said stub end structure to said sleeve, and an arm detachably mounted upon that portion of the stub end structure which projects into the furnace chamber.

4. The combination, in a metallurgical furnace, of a central shaft, a hollow stub end structure carried thereby and projecting into the working chamber of the furnace, a hollow rabble arm mounted on said projecting portion of the stub end structure, a central longitudinal partition in said stub end structure, and a corresponding central longitudinal partition in the rabble arm, the latter partition being separate from the rabble arm and longitudinally removable therefrom.

5. The combination, in a metallurgical furnace, of a central shaft, a hollow stub end structure carried thereby and projecting into the working chamber of the furnace, a hollow rabble arm mounted on said projecting portion of the stub end structure, a central longitudinal partition in said stub end structure, and a corresponding central longitudinal partition in the rabble arm, the latter partition being separate from the rabble arm and longitudinally removable therefrom, but in interlocking engagement with the central partition of the stub end structure.

[Claim 6 not printed in the Gazette.]

1,206,961. RABBLE-ARM MOUNTING FOR METALLURGICAL FURNACES. UTLEY WEDGE, Ardmore, Pa. Filed Mar. 1, 1915, Serial No. 11,333. Renewed Apr. 27, 1916. Serial No. 94,058. (Cl. 257—119.)



1. The combination, in a metallurgical furnace, of a central shaft, a rabble arm detachably mounted upon and projecting from said shaft, a securing bolt projecting from said shaft and into the rabble arm, and a bearing within said rabble arm and adjacent to the inner end of the same for engaging the projecting portion of said bolt.

2. The combination, in a metallurgical furnace, of a central shaft, a rabble arm detachably mounted upon and projecting from said shaft, a securing bolt projecting from said shaft into the rabble arm, a bearing in said shaft for the inner end of said bolt, and a bearing for the outer end of the bolt located within the rabble arm and adjacent to the inner end of the same.

3. The combination, in a metallurgical furnace, of a central hollow shaft, a hollow rabble arm detachably mounted thereon, partition plates in said shaft and arm which serve to deflect into and through the arm cooling fluid flowing through the shaft, and a securing bolt for said rabble arm in engagement with said partition plate in the shaft.

4. The combination, in a metallurgical furnace, of a central hollow shaft, a hollow rabble arm detachably mounted thereon, partition plates in said shaft and arm which serve to deflect into and through the arm cooling fluid flowing through the shaft, and a securing bolt for said rabble arm in engagement with said partition plate in the shaft but detachable therefrom.

5. The combination, in a metallurgical furnace, of a central hollow shaft, a hollow rabble arm mounted thereon, a partition plate in said rabble arm, and a corresponding partition plate in said hollow shaft, both of said partition plates being removable.

1,206,962. PROCESS OF IMPROVING THE COLOR AND ODOR OF CRUDE AROMATIC HYDROCARBONS. JOHN M. WEISS, New York, N. Y., assignor to The Barrett Company, New York, N. Y., a Corporation of West Virginia. Filed Jan. 22, 1913. Serial No. 743,438. (Cl. 196—26.)

1. The process of purifying aromatic hydrocarbons containing the benzene ring which consists in causing an aqueous solution of a metallic sulfate to react therewith at a temperature below the point at which distillation of the volatile ingredients of the mixture occurs.

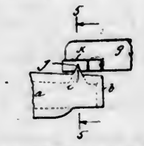
2. The process of purifying aromatic hydrocarbons containing the benzene ring which consists in causing an aqueous solution of a copper salt to react therewith at a temperature below the point at which distillation of the volatile ingredients of the mixture occurs.

3. The process of purifying aromatic hydrocarbons containing the benzene ring which consists in causing a solution of copper sulfate to react therewith at a temperature below the point at which distillation of the volatile ingredients of the mixture occurs.

4. The process of purifying aromatic hydrocarbons containing the benzene ring which consists in intimately mixing the oil to be purified with an aqueous solution of copper sulfate in the proportions of 1 to 3 pounds of the hydrous salt to about 100 gallons of oil, allowing the mixture to settle, and drawing off the aqueous layer, and then distilling the remaining oil to remove its non-volatile residue.

5. The process of purifying crude aromatic hydrocarbons containing the benzene ring, which consists in subjecting such hydrocarbons to the action of an aqueous solution of a salt of a metal capable of forming salts of different degrees of oxidation.

1,206,963. ELECTROLYTIC APPARATUS. ROBERT L. WHITEHEAD, Perth Amboy, N. J., assignor to American Smelting and Refining Company, Maurer, N. J., a Corporation of New Jersey. Filed Feb. 10, 1913. Serial No. 747,253. (Cl. 204—5.)



1. An electrode for electrolytic apparatus, in combination with a coöperating conductor, the contact between the two consisting of a projection on the one and a recess in the other, the walls of the recess coming in wedging contact with the sides of the projection and clearance

being provided beyond the contacting surfaces; substantially as described.

2. An electrode for electrolytic apparatus, in combination with a coöperating conductor, the contact between the two consisting of a ridge on the one and a recess in the other, the walls of the recess coming in wedging contact with the sides of the ridge; substantially as described.

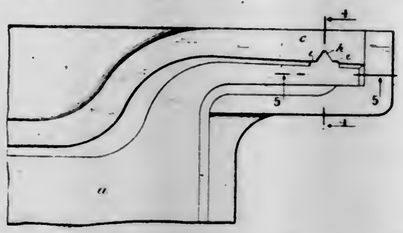
3. An electrode for electrolytic apparatus, provided with a ridge or projection, in combination with a corresponding electrode having a recess engaging said ridge or projection; substantially as described.

4. An electrode for electrolytic apparatus, having a supporting lug provided on its upper or top surface with a projecting ridge, in combination with a corresponding electrode supported upon said lug by means of a recess engaging therewith; substantially as described.

5. A cathode supporting bar consisting of a bar of conducting material adapted to extend across an electrolytic refining vat and to have a cathode suspended therefrom and a member forming a support for one end of the bar, said member and said end of the bar being provided one with a recess and the other with a pair of converging walls and the said converging walls and the walls of the recess being adapted to engage with a wedging contact.

[Claims 6 to 8 not printed in the Gazette.]

1,206,964. CASTING ELECTRODES. ROBERT L. WHITEHEAD, Perth Amboy, N. J., assignor to American Smelting & Refining Company, Maurer, N. J., a Corporation of New Jersey. Filed June 26, 1914. Serial No. 847,372. (Cl. 22—200.)



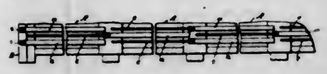
1. A mold for casting a contact ridge or projection upon the supporting lug of an electrode, said mold being provided with a lug-casting wing having inclined sides for its casting cavity thereby facilitating the drawing of the lug, and being further provided with a recess having vertical walls and within which the contact ridge or projection is to be cast and with supplemental fillet-forming recesses at opposite sides of the contact ridge recess, whereby on cooling of the casting with resultant shrinkage, the presence of the fillets formed by the fillet-forming recesses will cause the walls of the contact ridge or projection to remain vertical.

2. A mold for casting a contact ridge or projection upon the supporting lug of an electrode, said mold being provided with a lug-casting wing having inclined sides for its casting cavity thereby facilitating the drawing of the lug, and being further provided with a recess having vertical walls and within which the contact ridge or projection is to be cast and with supplemental fillet-forming recesses at opposite sides of the contact ridge recess, said supplemental fillet-forming recesses increasing in area in cross-section from above downwardly, whereby on cooling of the casting with resultant shrinkage, the presence of the fillets formed by the fillet-forming recesses will cause the walls of the contact ridge or projection to remain vertical.

3. The method of casting a substantially flat article such as a copper anode for use in electrolytic refining, having its edges inclined relatively to the general plane of the casting to facilitate removal of the casting from the mold and having a contact ridge or projection thereon, the walls of which are transverse to the general plane of the casting, including the casting of fillets at opposite sides of the base of the said contact ridge or projection, whereby on cooling of the casting with resultant shrinkage, the presence of the metal of the said fillets will maintain the walls of the contact ridge or projection transverse to the general plane of the casting.

4. The method of casting a substantially flat article, such as a copper anode for use in electrolytic refining, having its edges inclined relatively to the general plane of the casting to facilitate removal of the casting from the mold and having a contact ridge or projection thereon, the walls of which are transverse to the general plane of the casting, including the casting of fillets at opposite sides of the base of the said contact ridge or projection, which fillets are increased in cross-section throughout their length in correspondence with the inclination of the edges of the casting, whereby on cooling of the casting with resultant shrinkage, the presence of the metal of the said fillets will maintain the walls of the contact ridge or projection transverse to the general plane of the casting.

1,206,965. ELECTROLYTIC APPARATUS. ROBERT L. WHITEHEAD, Perth Amboy, N. J., assignor to American Smelting & Refining Company, Maurer, N. J., a Corporation of New Jersey. Original application filed Feb. 10, 1913, Serial No. 747,253. Divided and this application filed Apr. 17, 1916. Serial No. 91,585. (Cl. 204—5.)



1. Electrolytic apparatus, comprising the combination of a plurality of electrolytic vats provided with electrodes consisting of anodes and cathodes, the electrodes of one of the two sets having lateral projections thereon overlying portions of the electrodes of the other set in the adjacent vat and bearing directly thereon by gravity to support the electrodes of the first named set and effect electrical connection between the two sets of electrodes, whereby the electrodes of the first named set may be raised vertically out of their vat and are electrically disconnected from the other electrodes by so raising them; substantially as described.

2. Electrolytic apparatus, comprising the combination of a plurality of electrolytic vats, a plurality of anodes in each vat having lateral projections by which they are sustained upon the walls of the vat, and a plurality of cathodes in each vat, each provided with a lateral projection extending beyond the wall of the vat and making contact directly with an anode in an adjacent vat by bearing thereon by gravity; substantially as described.

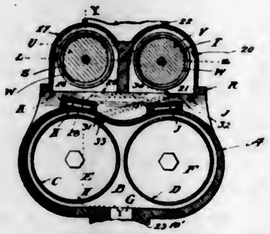
3. Electrolytic apparatus, comprising the combination of two electrolytic vats, a plurality of anodes in each vat having laterally projecting lugs bearing upon the walls of the vat to sustain the anodes in the vat, and a plurality of cathodes in each vat, the cathodes in one vat having lateral projections which extend over and rest by gravity upon the lugs of the anodes in the other vat; substantially as described.

4. Electrolytic apparatus, comprising the combination of a plurality of electrolytic vats, a plurality of anodes in the vats each having a contact member formed integral therewith, and a plurality of cathodes in the vats each provided with a lateral extension which overlies the anode of the next adjacent vat and directly engages the contact on that anode; substantially as described.

5. Electrolytic apparatus, comprising the combination of a plurality of electrolytic vats having anodes and cathodes therein, and a plurality of cathode bars extending across the vats, and each having a cathode suspended therefrom, each of the cathode bars being extended so that its end will rest upon and make contact directly with an anode in a vat adjacent to the vat in which the cathode suspended from the bar lies; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,206,966. DUPLEX MOTOR. CHARLES L. WILKINS, Peoria, Ill. Filed Apr. 12, 1913. Serial No. 760,745. (Cl. 138—2.)



1. A duplex motor comprising in its construction a pair of driving cylinders, a separate valve for each cylinder, there being included a pair of passages connecting each valve with its respective cylinder, a pair of conduits connecting one of the cylinders with one of the valves, and a second pair of conduits connecting one of said valves with the other.

2. A duplex motor comprising in its construction a pair of driving cylinders, a pair of valves separately communicating with their respective cylinders, there being included a pair of passages connecting each valve with its respective cylinder, a pair of conduits connecting opposite ends of one of the cylinders with one of the valves, and a second pair of conduits connecting one of said valves with the other.

3. A duplex motor comprising in its construction a pair of driving cylinders, a separate valve for each cylinder, there being included a pair of passages connecting each valve with its respective cylinder, a pair of conduits connecting one of the cylinders with opposite ends of one of the valves, and a second pair of conduits connecting one of said valves with the other valve.

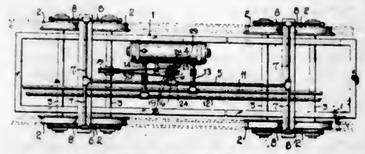
4. A duplex motor comprising in its construction a pair of driving cylinders, a separate valve for each cylinder, there being included a pair of passages connecting each valve with its respective cylinder, a pair of conduits connecting opposite ends of one of the cylinders with opposite ends of one of the valves, and a second pair of conduits connecting one of said valves with the opposite ends of the other.

5. A duplex motor comprising in its construction a pair of cylinders, a pair of valve inclosures, each having two separate inlet ports for pressure-water, the structure including a pair of passages connecting the opposite ends of each cylinder with one of the valve inclosures, a valve for each inclosure for directing the said pressure-water through said passages, there being a pair of passages communicating at one of their ends with one of the inclosures, said ends arranged to receive the pressure-water in said inclosures, their other ends terminating in opposite ends of the other inclosure, there also being a pair of passages each communicating with one end of the first named inclosure and terminating at their other ends in the cylinder having connection with the second described inclosure.

[Claims 6 to 13 not printed in the Gazette.]

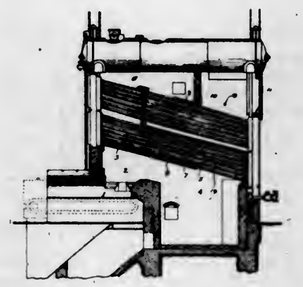
1,206,967. OILING SYSTEM FOR RAILWAY-CAR JOURNALS. JAMES POLICK WILLIAMS, Covington, Ky. Filed July 20, 1916. Serial No. 110,330. (Cl. 184—6.)

1. In an oiling system for railway car axle journals, an oil tank mounted beneath the car, oil distributing pipes, including a lateral branch pipe connected with the oil tank, between the oil tank and the axle journals, a valve in the lateral branch pipe for cutting off the supply of oil from the tank when the car is not in motion, means for maintaining the oil in the tank under pressure and a governor geared with one of the car axles for lifting the valve from its seat to a greater or less extent as the speed of the car increases or decreases, and thus regulate the amount of oil allowed to flow through the valve opening to the distributing pipes.



2. In an oiling system for railway car axle journals, an oil tank mounted beneath the car and connected with the air brake pipe and main steam pipe of the car whereby the oil in the tank is maintained under a constant pressure, oil distributing pipes, including a lateral branch pipe communicating with the oil tank, for conducting the oil to the axle journals, a valve in the lateral branch pipe for cutting off the supply of oil from the tank when the car is not in motion and a governor geared with one of the car axles for lifting the valve from its seat to a greater or less extent in accordance with the speed of the car and thus regulate the amount of oil allowed to flow through the valve opening to the axle journals via the distributing pipes.

1,206,968. APPARATUS FOR INDICATING HEAT RATIOS. IRVEN H. WILSEY, Chicago, Ill., assignor of one-half to Walter H. Green and one-half to Frank A. Adkins, Chicago, Ill. Original application filed Dec. 11, 1912, Serial No. 736,073. Divided and this application filed May 17, 1915. Serial No. 28,556. (Cl. 73—32.)



1. The combination of a furnace with a plurality of heat susceptible electric conductors, positioned a material distance apart along the hot gas passages of said furnace, means for indicating simultaneous relative resistances of two of the conductors, and means electrically connecting said conductors to said former means.

2. The combination of a furnace with a plurality of heat susceptible electric conductors, positioned a material distance apart along the hot gas passages of said furnace, means for indicating simultaneous relative resistances, means electrically connecting said conductors to said means, and a resistance in series with one of said conductors.

3. The combination of a furnace and an efficiency indicating apparatus, said apparatus comprising two heat susceptible electric conductors positioned in the hot gas a material distance apart along the heat interchanging passageway of said furnace; a Wheatstone bridge, and wires connecting each of said conductors respectively with two adjacent arms of said bridge.

4. An efficiency-indicating apparatus comprising a Wheatstone bridge, heat-susceptible electric conductors electrically connected respectively with two adjacent arms of said bridge, said conductors being placed in the hot gas passageway of a furnace, means for varying the current flowing through said apparatus, and means for

adjusting the amount of current flowing through the bridge of said Wheatstone bridge.

5. The combination of a furnace with a plurality of heat susceptible electric conductors positioned a material distance apart along the hot gas passages of said furnace, means for recording variations in the ratios of the temperatures of said conductors, and means electrically connecting said conductors to said recording means.

[Claims 6 to 15 not printed in the Gazette.]

1,206,969. BUTTON. OLIVER A. WYCKOFF, Asbury Park, N. J. Filed Feb. 9, 1916. Serial No. 77,207. (Cl. 24—113.)



1. In a button, the combination of a base member, a cap member, a covering for said cap member, the opposing faces of said members having interfitting parts to stretch said covering when said members are pressed together, and means for holding said members together.

2. In a button, the combination of a base member, a cap member, a covering for one of said members, the opposing faces of said members each having a ridge and a depression, the ridge on one member fitting within the depression on the other, whereby said covering is stretched when said members are pressed together, and means for holding said members together.

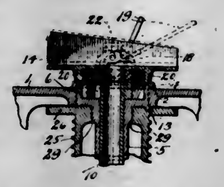
3. In a button, a body member, a back-plate, said body member having a recess therein, and a locking member cooperating with said plate to hold it against the rear face of said body member and adapted to be inserted by longitudinal movement into said recess, the interior of said recess having means to engage said locking member and hold it in said recess.

4. In a button, a body member, an attaching member, one of said members having a closed recess and the other a projection, the walls of said recess and said attaching member having projections and depressions to permit the insertion of said projection into said recess by translatory movement and the locking of said parts together upon relative rotation.

5. In a button, a body member, an attaching member, one of said members having a recess and the other a projection, said projection and recess being formed to permit the insertion of said projection into said recess by translatory movement and the locking and drawing together of said parts upon relative rotation.

[Claims 6 to 12 not printed in the Gazette.]

1,206,970. STUMP-PULLING APPARATUS. HENRY L. ZIMMERMAN and FREDERICK W. ZIMMERMAN, Lone Tree, Iowa. Filed Jan. 15, 1915. Serial No. 2,409. (Cl. 254—182.)

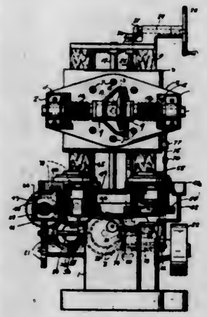


1. In stump pulling apparatus, the combination, with a frame, of nested shafts journaled therein, a drum carried by the outer shaft, a sweep box connected to the inner shaft, flanges pendent therefrom in position to engage the upper end of the outer shaft, and means for detachably connecting the inner and outer shafts.

2. In a stump pulling apparatus, the combination, with a frame, of nested shafts journaled therein, a drum carried by the outer shaft, a sweep box connected to the inner shaft, flanges pendent therefrom and alined in the plane of the longitudinal axis of the box and depending in position to engage the outer shaft, and means for detachably connecting the inner and outer shafts.

3. In a stump pulling apparatus, the combination, with a frame, of nested shafts journaled therein, a drum carried by the outer shaft, a sweep box connected to the inner shaft, flanges pendent therefrom and alined in the plane of the longitudinal axis of the box and depending in position to engage the outer shaft, means for detachably connecting the inner and outer shafts, and an annular flange on the frame surrounding and substantially snugly receiving the depending flanges.

1,206,971. GEAR-CUTTING MACHINE. WILLIAM F. ZIMMERMANN, Newark, N. J., assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed June 7, 1915. Serial No. 32,487. (Cl. 90—4.)



1. In a gear cutting machine, the combination of a cutter carriage, a rotatable cutter spindle pivotally arranged upon said cutter carriage, a helical cutter secured to said spindle on each side of the pivotal center, a work carriage, two revoluble work spindles arranged in said work carriage, connections between said cutter and work spindles to rotate same synchronously, and a feeding means to feed said cutters relatively to said work spindles.

2. In a gear cutting machine, the combination of a cutter carriage, a rotatable cutter spindle pivotally arranged upon said cutter carriage, a helical cutter secured to said spindle on each side of the pivotal center, a work carriage, two revoluble work spindles arranged in said work carriage, said work spindles arranged to be adjusted toward and from said cutter spindle, connections between said cutter and work spindles to rotate same synchronously, and a feeding means to feed said cutters relatively to said work spindles.

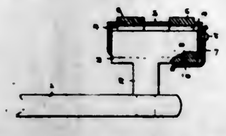
3. In a gear cutting machine, the combination of a cutter carriage, a rotatable cutter spindle pivotally arranged upon said cutter carriage, a helical cutter secured to said spindle on each side of the pivotal center, a work carriage, arranged to be adjusted toward and from said cutters, two work spindles rotatably mounted in said work carriage, one of said work spindles arranged to be adjusted in said work carriage toward and from said cutter spindle, connections between said cutter and work spindles to rotate same synchronously, and a feeding means to feed said cutters relatively to said work spindles.

4. In a gear cutting machine, the combination of a cutter carriage, a rotatable cutter spindle pivotally arranged upon said cutter carriage, a helical cutter secured to said spindle on each side of the pivotal center, a work carriage arranged to be adjusted toward and from said cutter spindle, two revoluble work spindles mounted in said work carriage, said spindles adjustable relative to each other toward and from said cutter spindle, connections between said cutter and work spindles to rotate same synchronously, and a feeding means to feed said cutters relatively to said work spindles.

6. In a gear cutting machine, the combination of a cutter carriage, a rotatable cutter spindle pivotally arranged upon said cutter carriage, a helical cutter secured to said spindle on each side of the pivotal center, two work spindles arranged to be adjustable toward and from said cutter spindle and relatively to each other, connections between said cutter and work spindles to rotate same synchronously and a feeding means to feed said cutters relatively to said work spindles.

Claims 6 to 12 not printed in the Gazette.]

1,206,972. DETACHABLE TYPE. OLIVER PERRY ANDERSON, Nashville, Tenn. Filed Mar. 30, 1916. Serial No. 87,779. (Cl. 197—86.)

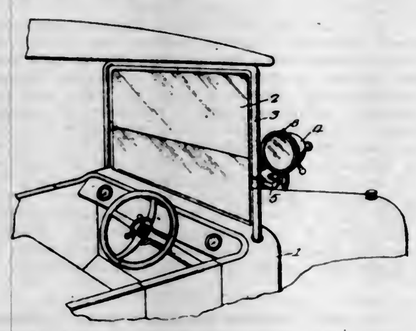


1. The combination with a type bar and the type carrying head thereon, of a housing having type thereon, and an angle shaped spring pivoted to the housing having a projection thereon adapted to interlock with the type carrying head.

2. The combination with a type bar and a head therefor, having a recess, of a housing having type attached thereto, and an angle shaped spring having a projection adapted to enter said recess and secure the housing to said head.

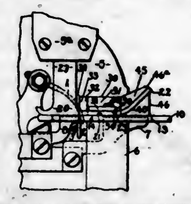
3. The combination with a type-bar and a head therefor, having a recess, of a housing having type attached thereto, and an angle shaped spring pivotally secured to the end of the housing and adapted to swing laterally thereon, said spring having a projection adapted to enter said recess and secure the housing to said head.

1,206,973. MIRROR ATTACHMENT FOR DIRIGIBLE AUTOMOBILE SPOT-LIGHTS. JAMES F. J. ARCHIBALD, New York, N. Y. Filed June 7, 1916. Serial No. 102,172. (Cl. 88—87.)



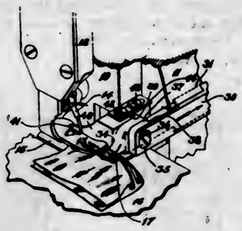
A mirror attachment for dirigible automobile spot lights comprising in combination a mirror, a frame therefor, and means connected to said frame to secure said mirror in readily detachable relation to the casing of the spot light with said mirror positioned in front of the glass of said spot light.

1,206,974. FABRIC-GUIDE. SAMUEL W. AVIS, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Filed Aug. 1, 1914. Serial No. 854,515. (Cl. 112—9.)



In an overseaming machine including a throat plate and a presserfoot, the combination of a fabric engaging element adjustably supported by the presserfoot and provided with an edge inclined to the line of feed, a fabric edge engaging element adjustably secured to the throat plate and having a fabric engaging surface extending in parallelism with the inclined edge of the presserfoot supported element, an edge guide adjustably secured to the throat plate and means for positively maintaining parallelism of the said adjustable elements throughout their respective ranges of adjustment.

1,206,975. FABRIC-UNCURLING DEVICE FOR SEWING-MACHINES. SAMUEL W. AVIS, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Filed Dec. 12, 1914. Serial No. 876,916. (Cl. 112—9.)



1. In a sewing machine, in combination, an uncurling finger, an edge guide adapted to regulate the position of the edge of the fabric after the uncurling operation, means for permitting adjustment of the uncurling finger vertically, means for permitting its withdrawal from action and a stop between the uncurling finger and the edge guide whereby the adjustment of one of them limits the range of movement for the adjustment of the other.

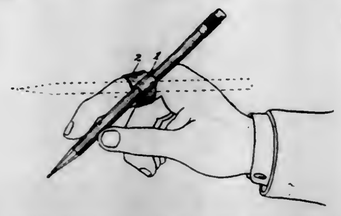
2. In a sewing machine, in combination, an edge guide, a slide, an uncurling finger secured to the slide, and means for permitting adjustment of the edge guide and uncurling finger in respective planes disposed at substantially right angles, the edge guide and uncurling finger having stop surfaces therebetween extending substantially in parallelism to the direction in which the uncurling finger is adjustable.

1,206,976. FINGER-SUPPORT FOR WRITING INSTRUMENTS. JOHN F. BARTH, Cleveland, Ohio. Filed July 29, 1915. Serial No. 42,467. (Cl. 120—103.)

1. A finger support for a writing instrument comprising two looped portions, one looped portion being adapted to receive a writing instrument, the other looped portion being adapted to encircle a finger of the user, said looped portions being flexibly connected with each other for purposes described.

2. A finger support for a writing instrument comprising two looped portions, one looped portion being adapted to receive a writing instrument, the other looped por-

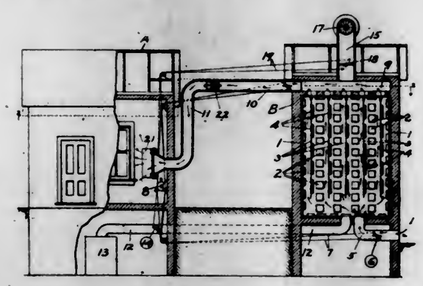
tion being adapted to encircle a finger of the user, the looped portion which receives the writing instrument being inclined with respect to the loop adapted to encircle the finger, said looped portions being flexibly connected together.



3. A finger support for a writing instrument comprising a strip of flexible material, the said strip being folded upon itself and adjacent portions of the strip secured to each other to form two loops, one of said loops being adapted to receive a writing instrument, the other loop being adapted to encircle a finger of the user.

4. A finger support for a writing instrument comprising a strip of flexible material, said strip being folded upon itself and adjacent portions of the strip secured to each other on a bias, the free ends of the strips being provided with means whereby they may be secured together, thereby forming two looped portions, one of which is adapted to receive a writing instrument, the other of which is adapted to encircle a finger of the user.

1,206,977. PROCESS OF CONTROLLING THE HUMIDITY OF THE ATMOSPHERE. FRANK BATTER, Linnton, Oreg. Filed Mar. 12, 1913. Serial No. 753,854. (Cl. 34—24.)



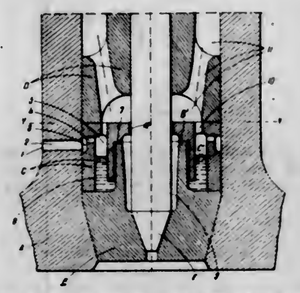
1. The process of controlling the humidity of the atmosphere which consists in passing atmospheric air at its normal temperature and humidity both of which vary from time to time through a heat insulated inclosure and in contact with non-heat-conducting, hygrometric and moisture exchanging substance of fibrous character, insulating said air against change in temperature, and regulating the speed thereof to determine the percentage of moisture exchanged by said air and hygrometric substance.

2. The process of controlling the humidity of the atmosphere which consists in passing atmospheric air at its normal temperature slowly through a heat insulated inclosure and in contact with non-heat-conducting, hygrometric substance, composed of magnesium carbonate mixed with asbestos fibers and left in open or porous condition, and periodically drying said substance.

3. The process of controlling the humidity of the atmosphere which consists in passing atmospheric air at its normal temperature slowly and evenly through an inclosure, lined and filled with a non-heat-conducting, dried hygrometric substance, composed of magnesium carbonate mixed with asbestos fibers and saturated with a solution of sodium chlorid, and periodically drying said substance and the air contained in its fibers.

4. The process of controlling the humidity of the atmosphere which consists in passing the air at atmospheric temperature and while maintaining a constancy of said temperature, slowly and evenly through an inclosure whose inner space is filled with an open fibrous, hygrometric substance, impregnated with sodium chlorid to increase its affinity for moisture, and in regulating the speed of the air therethrough to determine the percentage of moisture to be extracted, and in periodically drying said substance, substantially as shown and described.

1,206,978. FUEL-ATOMIZER. ROBERT DELAUNAY-BELLEVILLE, St. Denis, France, assignor to Société Anonyme des Etablissements Delaunay-Belleville, St. Denis, France, a Corporation of France. Filed Mar. 31, 1913. Serial No. 758,004. (Cl. 123—131.)



1. A fuel atomizer comprising a casing, a nozzle associated therewith, a valve to control said nozzle, said casing provided with a fuel inlet and an inlet for a pressure medium, a carburation chamber, and a fuel reservoir disposed between said fuel inlet and said carburation chamber, said fuel reservoir adapted to contain and reserve a quantity of fuel, and said fuel reservoir being in communication with the carburation chamber by means of a plurality of tangential openings arranged in a plane above the normal level of the fuel in the reservoir, said chamber and reservoir being in communication with the inlet for the pressure medium whereby when said valve is unseated fuel is forced from the fuel reservoir into the carburation chamber where it is atomized by the pressure medium and forced through said nozzle.

2. A fuel atomizer, comprising a casing, a nozzle associated therewith, a valve to control said nozzle, said casing provided with a fuel inlet and an inlet for a pressure medium, an elongated conical carburation chamber surrounding the valve stem above the valve seat and converging toward said seat, a fuel reservoir adjacent thereto, tangential openings in the upper portion of said carburation chamber establishing communication between the carburation chamber and fuel reservoir, said chamber and reservoir being in communication with the inlet for the pressure medium, whereby when said valve is unseated, fuel is forced from the fuel reservoir onto the inner surface of the carburation chamber with a whirling formation where it is atomized and completely mixed as it passes down said chamber on its way to said nozzle.

1,206,979. NETHER GARMENT. JOHN D. BELTON, Crowley, La., assignor of one-half to Jack Frankel, Crowley, La. Filed Aug. 13, 1915. Serial No. 45,375. (Cl. 2—122.)

1. Drawers having an inner closure flap with a marginal edge extending from one side of the front vertical median line at the top to the crotch, an outer or second closure flap, fastening means for the closure flaps, a pocket carried by the inner closure flap open at its top to receive the genitals, the specific formation of closure flaps avoiding the usual vertical opening and thereby preventing danger of penetration of the genitals through the drawers when displaced from the pocket, said pocket lying in the path of movement of and serving as an abutment for the inner closure flap to prevent undue movement across and relatively to the pocket and thereby preventing rubbing and "cutting" of the genitals by the second mentioned closure flap.

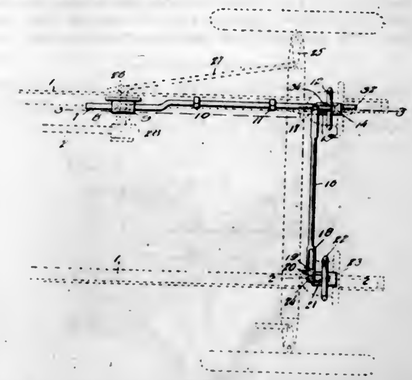


2. Drawers having a closure flap with a marginal edge extending from one side of the front vertical median line at the top to the crotch, a second closure flap, said second closure flap having a marginal edge extending from the opposite side of said front vertical median line to the crotch, said closure flaps overlapping and forming an abdominal support, fastening means for the closure flaps, a sheet made separate from the drawers, means to secure the sheet to the inner face of the first mentioned closure flap adjacent and to one side of the crotch, said sheet forming a pocket open at its top to receive the genitals, the specific formation of closure flaps avoiding the usual vertical opening and thereby preventing danger of penetration of the genitals through the drawers when displaced from the pocket, said pocket lying in the path of movement of and serving as an abutment for the second mentioned closure flap to prevent undue movement across and relatively to the pocket and thereby prevent rubbing and "cutting" of the genitals by the second mentioned closure flap.

3. Drawers having a closure flap with a marginal edge extending from one side of the front vertical median line at the top to the crotch, a second closure flap, said second closure flap having a marginal edge extending from the opposite side of said front vertical median line to the crotch, said closure flaps overlapping and forming an abdominal support, fastening means for the closure flaps adjacent the top of the garment permitting detachment of the flaps, a sheet made separate from the garment, said sheet being disposed against the inner face of the first mentioned closure flap so that it will form half of a pocket and the garment opposite it will form the other half of the pocket to receive genitals, means to removably fasten the pocket to the first mentioned closure flap, said pocket being open at its top, the specific formation of closure flaps avoiding the usual vertical opening and thereby preventing the danger of penetration of the genitals through the drawers when displaced from the pocket, and said pocket extending upwardly at its upper edge, and said edge lying in the path of movement of and serving as an abutment for the second mentioned closure flap to prevent undue movement across and relatively to the pocket and thereby preventing rubbing and "cutting" of the genitals by the second mentioned closure flap.

1,206,980. AUTOMOBILE-LAMP DEFLECTOR. ERLING C. BENSON, Albuquerque, N. Mex. Filed May 18, 1915. Serial No. 28,983. (Cl. 240—62.)

1. The combination with the steering mechanism of a vehicle, of lamp supports located adjacent opposite sides of said vehicle and mounted to turn, a spindle fitting a bore within the left hand lamp support, said spindle having an angular arm passing through a slot in said support having a cut-away portion, a rod having one end pivotally connected to said arm and provided at its other end with a slot, an angular arm carried by the right hand lamp support, a pivot connecting said arm and slot, a block removably clamped within the slot and bearing against said pivot, and sliding stops arranged for movement into and out of operative relation to slots carried by said lamp supports.



2. The combination with the steering mechanism of a vehicle, of a pinion operated by said mechanism, a bar having at one end teeth engaging said pinion and at its opposite end having teeth engaging a second pinion, lamp supports located adjacent opposite sides of said vehicle and supported for axial rotation thereon, a rod fitting a bore in the left hand lamp support, said rod carrying at its lower end the last named pinion, and at its upper end provided with a crank arm, a rod pivotally connected with said arm at one end and at its other end formed with a slot, a crank arm carried by the right hand lamp support, a pivot connecting said crank arm with said slot, a block removably clamped in said slot and bearing against said pivot, and sliding stops arranged to be moved into and out of operative relation with slots formed in said lamp supports.

1,206,981. AUTOMATIC SWITCH-THROWING APPARATUS. FRANK BIDA, Thurber, Tex. Filed Dec. 2, 1915. Serial No. 64,750. (Cl. 104—24.)



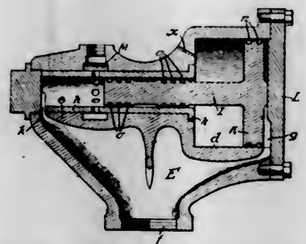
1. A device of the class described comprising in combination with a straight away track and a side track communicating therewith, a V-shaped switch shiftably mounted at the connection of the tracks, switch levers pivotally attached thereto and extending in opposite directions substantially centrally of the rails of the main track and pivoted to the roadbed thereof, pivoted locking bars for the switch, and trip actuating means operatively attached to the free ends of the levers and the locking bars.

2. A device of the class described comprising in combination, with a straight away track and a side track communicating therewith, a V-shaped switch shiftably mounted at the connection of the tracks, switch levers pivotally attached thereto and extending in opposite directions substantially centrally of the rails of the main track and pivoted to the road bed thereof, pivoted locking bars for the switch, pairs of depressible trips positioned opposite the free ends of the levers, flexible connectors between

the trips and lever ends, and releasing means for the locking bars operatively connected to each of the trips.

3. In a trip device for switches comprising a normally arched resilient trip plate, a casing beneath the said plate, a leaf spring secured at one end within the said casing, a pin carried substantially centrally by the said spring and attached to the said plate, a normally positioned expansion spring for the said plate, a switch locking means, connections between the said locking means and the free end of the said leaf spring, and operative connections between the said switch and leaf spring at a point adjacent the secured end thereof.

1,206,982. DRIFTING-VALVE FOR LOCOMOTIVES. OWEN BIGELOW, Momence, Ill. Filed July 27, 1914. Serial No. 853,485. (Cl. 137—53.)



1. In a locomotive boiler, a drifting-valve comprising a suitable housing, a portion of which is formed into a cylinder one end of which is less in diameter than the other and has an annular chamber communicating with the bore of said cylinder at each end thereof, and said housing has a chamber that has a discharge port which is separated from but has unobstructed communication with the open ends of said cylinder, a pipe connecting the annular chamber to the boiler the bore of the discharge end of which is less than said discharge port, and a solid piston the head of which is reciprocable in the enlarged end of said cylinder and the stem of which is reciprocable in the smaller end of the cylinder and regulates the ingress of steam from said annular chamber.

2. In a locomotive boiler, a drifting-valve comprising a suitable housing having a horizontal cylindrical upper chamber which enlarges at one end, and a lower steam chamber which communicates with the opposite ends of the cylindrical upper chamber, and a reciprocating valve and its stem mounted in the cylindrical upper chamber.

3. In a locomotive boiler, a drifting-valve comprising a solid reciprocating valve and its stem, a suitable housing having a stepped cylindrical portion about a third of the length of which constitutes a chamber for the valve and is greater in diameter than the remainder thereof which latter constitutes a chamber in which the stem of said valve is reciprocable, and the side-wall of said housing being bulged laterally away from the lower part of the cylindrical portion to form a lower chamber which communicates respectively with the opposite ends of the chambers in the cylindrical portion.

1,206,983. SEPARATOR FOR STORAGE BATTERIES. WILLIAM L. BLISS, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light and Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Mar. 27, 1914. Serial No. 827,755. (Cl. 204—29.)

1. A storage battery separator the body of which contains a phenolic condensation product.

2. A storage battery separator formed of a finely divided mass of acid resisting material incorporated with bakelite as a binder.

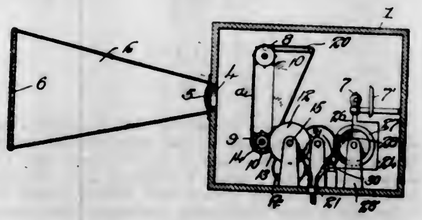
3. A composition for the manufacture of storage battery separators formed of finely divided, acid-resisting material incorporated with one of the phenol condensation products as a binder.

4. A composition for the manufacture of storage battery separators formed of asbestos fibers incorporated with one of the phenol condensation products as a binder.

5. The process of forming a storage battery separator which includes mixing an acid resisting material and a finely divided soluble material with a phenolic condensation product as a binder, molding and hardening the mass under the combined action of heat and pressure, and treating the hardened separator to dissolve the soluble material.

[Claims 6 and 7 not printed in the Gazette.]

1,206,984. PROJECTING APPARATUS. ADOLPH CLIFFORD R. BLOOM, Des Moines, Iowa. Filed May 8, 1916. Serial No. 96,179. (Cl. 88—18.7.)



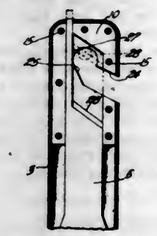
1. A projecting apparatus, comprising in combination, a projecting lens and light source, a power source, upper and lower reels for supporting an endless film in front of said projecting lens, means driven by said power source for actuating one of said reels to move the film the space of one picture at predetermined intervals, and a circuit breaker also actuated by said power source for interrupting the current of said light source synchronously with the movement of the film.

2. A projecting apparatus, comprising in combination, a projecting lens, a light source, means for supporting the endless film in projecting position in front of said lens, means for supporting the slack portion of said film out of the line of the rays passing from said light source to the lens, means for advancing said film step by step at predetermined intervals, means for extinguishing said light source simultaneously with the advance of said film, said film advancing means and light extinguishing means including radial elements of like diameter and having the same radial rotating speed, and a common driving means for said rotating elements.

3. A projecting apparatus comprising in combination, a projecting lens, a light source, means for supporting an endless film between said light source and said lens, a power source, a segmental gear interposed between said power source, and said film supporting means for advancing said film at predetermined intervals, an electric circuit including said power source, and a circuit breaker in said circuit, said circuit breaker being also actuated from said power source and including a radial element whose movement is synchronous with the movement of said segmental gear, to interrupt said circuit during the period that said film is being advanced.

4. A projecting apparatus, comprising in combination, a projecting lens, a light source, a translucent screen supported in fixed relation to said lens for receiving pictures projected by the latter, means for supporting an endless film between said lens and said light source, said supporting means consisting of upper and lower reels and a guide rod disposed at one side of said reels to guide the slack portion of the film out of the path of light rays from said light source to the lens, means for advancing said film intermittently at predetermined periods, and means synchronous with said advancing means for extinguishing said light source simultaneously with the advance of said film.

1,206,985. SAFETY HOT-WIRE CUTTER. HAZEL BURTON BUSH, Redlands, Cal. Filed Mar. 15, 1916. Serial No. 84,461. (Cl. 81—204.)



1. A tool for cutting charged electric wires, comprising a beam, a rest for the wire to be cut, a cutter slide mounted to reciprocate on said beam, means for reciprocating said cutter slide, and a blade mounted on said slide adapted to coöperate with said rest to cut the wire on the operation of said means.

2. A tool for gripping and cutting wires comprising a frame, a rest in said frame for the wire, a blade reciprocatively mounted in said frame and adapted to co-act with said rest to cut the wire thereon, means for gripping the wire while being cut, means for actuating said blade to cut the wire and means for automatically withdrawing said blade and returning it to its normal inoperative position after it has cut the wire.

3. A tool for gripping and cutting charged electric wires comprising an insulating beam, a rest for the wire, a blade, insulated means on said insulating beam for moving said blade toward said rest to cut the wire and means in conjunction with said blade-actuating means for gripping the wire while being cut and for gripping one end of the wire after it is cut.

4. A tool for gripping and cutting wires comprising a frame, a rest for the wire on said frame, a blade, means for moving said blade toward said rest to cut the wire, a lug on said blade provided with an eye, a jaw mounted to reciprocate in said frame, a bolt secured to said jaw and reciprocatively mounted in the eye in said lug, a pin extending through said bolt, a spring surrounding said bolt between said lug and said pin, and a second jaw adapted to co-act with said first jaw for gripping the wire as said blade is moved forward.

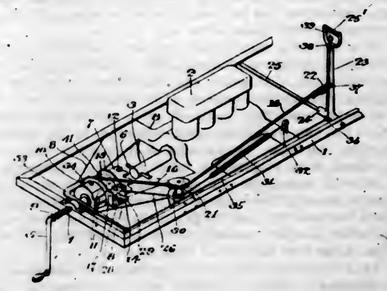
5. A tool for gripping and cutting wires, comprising a beam, a cutter slide mounted to reciprocate in said beam, an operating lever fulcrumed on said beam, a link connecting said lever and said cutter slide, a blade secured to said cutter slide, a rest with which said blade is adapted to co-act to cut the wire, a movable jaw, a bolt secured to said jaw, a lug provided with an eye through which said bolt is adapted to reciprocate, a pin on said bolt, a spring surrounding said bolt between said lug and said pin, and a second jaw adapted to co-act with said first jaw for gripping the wire as said blade is moved forward.

[Claims 6 to 8 not printed in the Gazette.]

1,206,986. INTERNAL-COMBUSTION-ENGINE STARTER. CLARK CARSON, Los Angeles, Cal. Filed Dec. 17, 1915. Serial No. 67,440. (Cl. 123—185.)

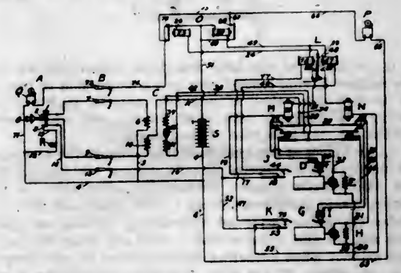
1. In a starting device for internal combustion engines, in combination with an engine shaft, a separate cranking shaft, normally disengaged clutch members on the adjacent ends of said shafts, means including an actuating member for moving the cranking shaft in the direction of its length to bring said clutch members into engagement, a ratchet on said cranking shaft, a flexible member carrying a pawl at one end operatively associated with said ratchet, an operating lever to which the opposite end of said flexible member is connected, said actuating member being directly mounted on said operating lever whereby the cranking shaft may be moved longitudinally and rotated by a single operation.

2. In a starting device for internal combustion engines, in combination with an engine shaft, a cranking shaft substantially co-axial therewith, coöperative clutch members associated with the adjacent ends of the cranking shaft and engine shaft, adapted to be moved into engagement, a ratchet mounted upon the cranking shaft, a pawl adapted to coact therewith, a member connected with the pawl adapted to cause it to engage said ratchet to rotate the shaft, an operating member from which motion is transmitted to said pawl, and means mounted on said operating member adapted to transmit motion to the cranking shaft to move the same longitudinally and cause a gripping engagement between said co-active clutch members.



3. In a starting device for internal combustion engines, in combination with an engine shaft, a cranking shaft, coöperative clutch members on the adjacent ends of said shafts normally in disengaged position, and means operable from a single point adapted to move said cranking shaft longitudinally to bring the clutch members into operative engagement and also to rotate said cranking shaft to start the engine, said means including a ratchet mounted on the cranking shaft, a pawl adapted to coact with said ratchet, an operating member from which motion is transmitted to said pawl, a flexible connection between said pawl and operating member, and a second flexible connection between said pawl and a relatively fixed part adapted normally to hold said pawl out of engagement with said ratchet and to aid in returning the parts to normal position after the actuation of said device.

1,206,987. DICTATING PHONOGRAPH SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Nov. 14, 1914. Serial No. 872,107. (Cl. 179—6.)



1. In a dictating phonograph system, a dictator's transmitter set, a group of phonographic recording apparatus, and means including a slow-acting relay for automatically establishing a connection between said transmitter and said apparatus in succession.

2. In a dictating phonograph system, a dictator's transmitter set, a group of phonographic recording apparatus,

and means including a slow-acting relay for automatically shifting the connection between said transmitter and one of said apparatus to another, said relay being associated with one of said apparatus and arranged to control the connection between its associated apparatus and the transmitter.

3. In a dictating phonograph system, a dictator's transmitter set, a group of phonographic recording apparatus, a plurality of slow-acting relays, one provided for each apparatus, means including said relays for establishing a connection between said transmitter and any one of said apparatus, each of said relays being arranged to momentarily maintain the connection between the transmitter set and the apparatus associated with said relay, after a connection has been established between said transmitter and another apparatus.

4. In a dictating phonograph system, a dictator's transmitter set, a group of phonographic recording apparatus, means including a plurality of slow-acting relays for establishing connection between said transmitter and any one of said apparatus, each of such relays being associated with one apparatus and arranged to maintain a connection between its associated apparatus and said transmitter, means operative upon complete operation of one of said apparatus for causing a relay associated therewith to sever the connection between the said apparatus and transmitter, and means including the relay associated with another apparatus for transferring the connection to the last mentioned apparatus.

5. In a dictating phonograph system, the combination of a dictator's station provided with a transmitter set, an attendant's station provided with a group of phonographic recording devices, a circuit connecting said dictator's station with said attendant's station, an electromagnetically-operated contact device for placing said recording devices one at a time in an operative relation with said transmitter set, and means automatically operated upon the completion of the operation of one of said recording devices for operating the contact device to place another one of said recording devices in an operative position with said transmitter set.

[Claims 6 to 10 not printed in the Gazette.]

1,206,988. ELECTRICAL ALARM. JOHN G. CLEMENS, Buffalo, N. Y. Filed June 3, 1913. Serial No. 771,891. (Cl. 177—7.)



1. An alarm of the kind described, comprising an electro-magnet having a solid core and a depression in one end of its core and a shell of magnetic material in which said magnet is confined, said shell having one wall thereof within the magnetic field of said magnet.

2. An alarm of the kind described, comprising a support, an electro-magnet carried by said support and an inclosure for said electro-magnet frictionally adjustable on said support, said inclosure having a wall capable of vibrating under the influence of an alternating current energizing said magnet and being moved toward and from one end of said magnet when adjusting said inclosure on said support.

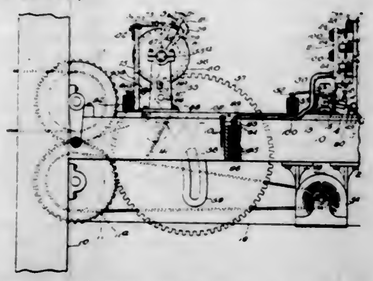
3. An alarm of the kind described, comprising a support having segmental wings, a cylindrical shell of magnetic material having its peripheral wall frictionally engaging said wings, and an electro-magnet carried by said support and arranged centrally within said shell in operative relation to one wall thereof.

4. An alarm of the kind described, comprising a support having a cross bar and segmental wings at opposite ends of said cross bar standing at right angles thereto, a cylindrical shell open at one end fitting frictionally onto said wings, and an electro-magnet carried by said support and arranged axially within said shell and in electrically spaced relation to the end wall thereof, said end wall being of magnetic material.

5. An alarm of the kind described, comprising an electro-magnet, a shell placed over said magnet and having a cylindrical body portion provided with a tapering flange at its outer end, and a disk fitting into said shell and bearing against said flange with its edge, said disk being arranged to vibrate when said magnet is energized and said shell being frictionally adjustable over said magnet.

[Claim 6 not printed in the Gazette.]

1,206,989. RULING-MACHINE. SYLVANUS H. COBB, Boston, Mass. Filed Oct. 4, 1913. Serial No. 793,497. (Cl. 33—39.)



1. The combination with a plurality of ruling devices, of plural electromechanisms each adapted to actuate a ruling device, a source of current, and means common to different electromechanisms for controlling the application of current thereto.

2. A ruling machine comprising a series of ruling devices, electromechanical means for imparting independent movement to each of a plurality of the ruling devices of the series, and independent electromechanical means for simultaneously imparting movement to all the ruling devices of the series.

3. The combination with a plurality of ruling devices, of plural electromechanisms each adapted to actuate a ruling device, a source of current, and common controlling means for different electromechanisms, said controlling means having elements for determining the application of current to the electromechanisms in groups.

4. A ruling machine comprising a series of ruling devices, an electromechanism individual to each of a plurality of ruling devices for moving the same, means for controlling the energization of said electromechanisms in groups, and a separate electromechanism acting on a plurality of the groups.

5. A ruling machine comprising a series of ruling devices, an electromechanism individual to each of a plurality of ruling devices for moving the same, means for controlling the energization of said electromechanisms in groups, and means for connecting any of the electromechanisms to any of the group-controlling means.

[Claims 6 to 46 not printed in the Gazette.]

1,206,990. RESILIENT TIRE FOR VEHICLE-WHEELS. CLYDE C. COLLINS, South Lebanon, Ohio, assignor, by mesne assignments, to The Superior Tire & Rubber Company, Augusta, Me., a Corporation of Maine. Filed Mar. 30, 1914. Serial No. 828,286. (Cl. 152—8.)

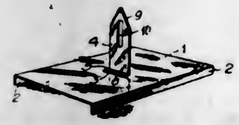
1. In a resilient tire, a casing, inner and outer rings within the casing, the outer ring being provided with overlapping ends rendering it collapsible, a coil spring circumferentially disposed between the inner and outer rings, with its convolutions inclined to the radius of the wheel, and means for anchoring said spring to said rings.

2. In a resilient tire, in combination with the outer flexible tire casing, of an outer ring or hoop, and an inner ring or hoop, each having overlapping, mutually guiding ends, whereby each one of said rings or hoops is materially collapsible, said outer ring or hoop lying outward against the interior of said tire casing and by its collapsibility yielding with the casing, and a series of cir-



cumferentially extending coiled spring sections interposed between and supporting apart said inner and outer rings or hoops, with their convolutions so disposed toward said hoops as to include and yield in their support under pressure on the tire, and means anchoring said spring sections in said tire, but allowing play of a material proportion of their convolutions in their bearing against one of said hoops or rings, whereby said yielding is permitted.
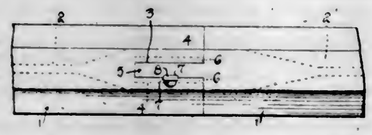
1,206,991. RAG-TYING DEVICE. FREDERICK H. COOPER, Walkerville, Ontario, Canada. Filed May 4, 1916. Serial No. 95,311. (Cl. 139—5.)



1. A rag tying device comprising a plate, side supporting flanges carried thereby to elevate the plate from its support, said plate having a slotted opening therein, a slotted blade having the inner end thereof angularly bent with the bent end projecting inwardly through said opening, and a flat spring secured to the bottom side of said plate and having a V-shaped recess in the free end thereof underlying the plate opening to receive the inner end of the blade, the inner end of the blade and the spring remaining at all times within the lower extremities of the flanges.

2. A rag tying device comprising a plate having an opening therein, means carried thereby to hold the plate elevated, a piercing blade carried by the plate and projecting through said opening at opposite sides of the plate, and a spring element carried by the bottom of the plate in engagement with one projecting end of the blade, the inner end of the blade and the spring remaining at all times within the lower extremities of the plate elevating means.

1,206,992. RAIL-JOINT. CHARLES B. COUNTS, Hampton, Ark., assignor of one-half to Walter B. Wooldridge, Hampton, Ark. Filed Sept. 2, 1916. Serial No. 118,232. (Cl. 289—8.)



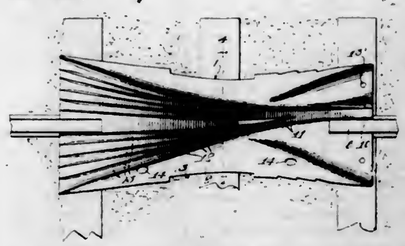
1. A rail joint including the meeting ends of rails, one of said ends being provided with a vertically disposed recess extending over the flange portion thereof and open at its top and outer end and provided with longitudinally disposed channels in its side walls, an extension carried by the second meeting end and snugly fitting within the recess of the first named meeting end, said extension being provided at its opposite sides with beads fitting within the channels of the first named meeting end, a side wall of the recess and the opposed face of the extension being provided with vertically directed grooves adapted to register, and a key insertible within said last named grooves when in register.

2. A rail joint including the meeting ends of rails, one of said ends being provided with a vertically disposed recess extending over the flange portion thereof and open at its top and outer end and provided with longitudinally disposed channels in its side walls, an extension carried by the second meeting end and snugly fitting within the recess of the first named meeting end, said extension being provided at its opposite sides with beads fitting within the channels of the first named meeting end, a side wall of the recess and the opposed face of the extension being provided with vertically directed grooves adapted to register, and a key insertible within said last named grooves when in register, one of the channels and its coacting bead being of greater width than the other.

3. A rail joint including the meeting ends of rails, one of said ends being provided with a vertically disposed recess extending over the flange portion thereof and open at its top and outer end and provided with longitudinally disposed channels in its side walls, an extension carried by the second meeting end and snugly fitting within the recess of the first named meeting end, said extension being provided at its opposite sides with beads fitting within the channels of the first named meeting end, a side wall of the recess and the opposed face of the extension being provided with vertically directed grooves adapted to register, and a key insertible within said last named grooves when in register, the channel and coacting bead at the outer side of the rails being of greater width than the others.

4. A rail joint including the meeting ends of rails, one of said ends being provided with a vertically disposed recess extending over the flange portion thereof and open at its top and outer end and provided with longitudinally disposed channels in its side walls, and extension carried by the second meeting end and snugly fitting within the recess of the first named meeting end, said extension being provided at its opposite sides with beads fitting within the channels of the first named meeting end, a side wall of the recess and the opposed face of the extension being provided with vertically directed grooves adapted to register, and a key insertible within said last named grooves when in register, said key being provided with an opening to facilitate its removal.

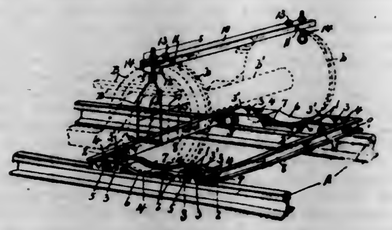
1,206,993. CAR-REPLACER. JOHN H. COX, Hot Springs, Ark. Filed Mar. 10, 1915. Serial No. 13,408. (Cl. 104—163.)



A car replacer comprising a casting of arched formation, having a longitudinal groove in its under face adapted to receive the rail, and inwardly extending recesses at the ends of the groove through which the head of the rail is exposed, said casting also having a longitudinal major groove in its upper face extended across the entire width

of the casting at one end and converging toward the other end to a groove having approximately the width of the rail head, said narrow portion being disposed to one side of the recess, a ridge formed centrally of the groove at the widened portion and converging toward the narrow portion, and a plurality of ridges formed between the central ridge and the sides of the groove to define a plurality of minor grooves merging into the narrow portion of the major groove.

1,206,994. EMERGENCY-CARRIAGE FOR BROKEN RAILWAY-TRUCKS. CHARLES I. CRAIGMILE, North Syracuse, N. Y. Filed Aug. 14, 1916. Serial No. 114,793. (Cl. 104—64.)



1. In a device of the character described, a "pony truck" having tandem wheels flanged to guide them upon a rail, said truck having a concave seat between the wheels for receiving and supporting a car wheel edgewise vertically clear of such rail.

2. In a device of the character described, a "pony truck" having tandem wheels and an intermediate saddle in line with the wheels for receiving and supporting a car wheel edgewise vertically.

3. In a device of the character described, a "pony truck" having tandem wheels and a frame connecting said wheels and holding them with their axes in parallelism, said frame having a longitudinally concave seat provided with a lengthwise groove for receiving and supporting the rim and flange of a railway car wheel.

4. In a device of the character described, a "pony truck" comprising a frame and tandem wheels journaled thereon some distance apart and flanged to guide them along one of the rails of a railway track, the portion of the frame between the wheels being provided with a longitudinally concave seat and a lengthwise groove therein alined with the flanges of said wheels for receiving and supporting the rim and flange of a railway car wheel.

5. In a device of the character described, a pair of "pony trucks" in spaced relation corresponding to the spacing of the rails of a railway track and each provided with tandem wheels for rolling contact with said rails and spaced some distance apart longitudinally, the intermediate portions of the trucks being provided with saddles longitudinally alined with the corresponding wheels for receiving and supporting a pair of railway car wheels edgewise vertically, and connections between the "pony trucks" for holding them in fixed relation.

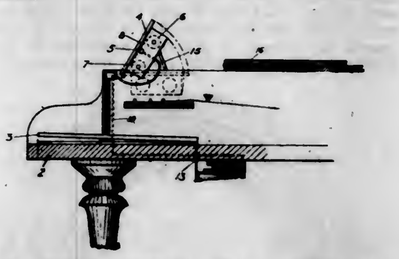
[Claims 6 to 8 not printed in the Gazette.]

1,206,995. MUSICAL APPARATUS. WALTER R. CRIPPEN, New York, N. Y., assignor to The Crippen Company, New York, N. Y., a Corporation of New York. Filed May 22, 1914. Serial No. 840,142. (Cl. 84—233.)

1. In a musical instrument having a keyboard and a case, the combination with a shiftable music leaf support, of a tracker-bar mechanism carried by and movable with said support.

2. In a musical instrument having a keyboard and a case, the combination with a hinged music sheet support, of a tracker-bar mechanism carried by and movable with said support.

3. In a musical instrument having a keyboard and a case, the combination with a shiftable music leaf support located at the top of said case, of a tracker-bar mechanism carried by said support at the rear thereof and movable therewith.

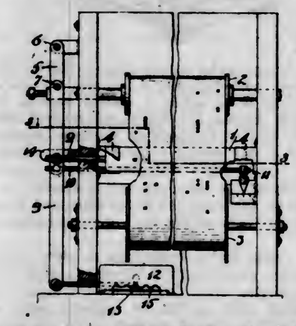


4. In a musical instrument having a keyboard and a case, the combination with a hinged music leaf support hinged at the top of said case, of a tracker-bar mechanism carried by said support at the rear thereof and movable with said support.

5. In a musical instrument having a keyboard and a case, the combination with a shiftable music leaf support, of a tracker-bar mechanism carried by said support at the rear thereof and movable therewith, said support having shiftable means for exposing the tracker-bar mechanism.

[Claims 6 and 7 not printed in the Gazette.]

1,206,996. TRACKER ADJUSTMENT AND TRANSPOSING APPARATUS. WALTER R. CRIPPEN, New York, N. Y., assignor to The Crippen Company, Inc., New York, N. Y., a Corporation of New York. Filed June 21, 1916. Serial No. 104,891. (Cl. 84—161.)



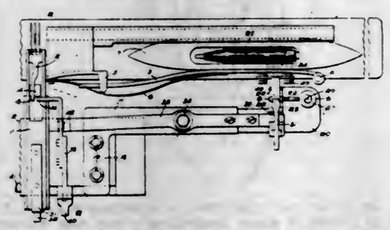
1. In an apparatus of the character described, a tracker mechanism, music roll mechanism parallel thereto, one of said mechanisms being longitudinally adjustable relatively to the other, adjusting means therefor comprising two coöperating manually controllable elements, one of said elements being shiftable to variable degrees, the other being shiftable to predetermined degrees without shifting the first element.

2. In an apparatus of the character described, a tracker mechanism, music roll mechanism parallel thereto, one of said mechanisms being longitudinally adjustable relatively to the other, adjusting means therefor comprising two coöperating manually controllable elements, one of said elements being shiftable to variable degrees, the other being shiftable to predetermined degrees without shifting the first element, the movement of said first element automatically varying the starting position of said second element.

3. In an apparatus of the character described, a tracker mechanism, music roll mechanism parallel thereto, one of said mechanisms being longitudinally adjustable relatively to the other, adjusting means therefor comprising two coöperating manually controllable elements, one of said elements being adjustable to variable degrees, the other being adjustable to predetermined degrees and independently of the first, the movement of the first automatically varying the starting position of the second, said adjusting means including two overlapping levers with a relatively stationary fulcrum for one, the second lever being fulcrumed on the first lever.

4. In an apparatus of the character described, a tracker mechanism, music roll mechanism parallel therewith, one of said mechanisms being longitudinally adjustable relatively to the other, adjusting means comprising a lever fulcrumed on a relatively stationary support, and another lever fulcrumed on the first lever, manually operable means for swinging the first lever to variable degrees within its range of movement, a connection between the second lever and the part to be moved, and manually operable means for swinging the second lever to certain predetermined fixed positions and arranged to hold the same in any one of said fixed positions.

1,206,997. FILLING-FEELER MECHANISM FOR REPLENISHING LOOMS. EDWARD A. CUNNIFF, New Bedford, and JOHN V. CUNNIFF, Fall River, Mass., assignors to James K. Lanning, Boston, Mass. Filed Dec. 12, 1912. Serial No. 736,285. (Cl. 139—85.)



1. Filling feeler mechanism for replenishing looms comprising in combination, shuttle actuating mechanism, a filling feeler, a strain remover for the feeler mounted in the path of movement of and adapted to be directly engaged by said filling feeler, coöperating means to move said strain remover upon thread fault and filling replenishment connections operatively connected to said strain remover.

2. Filling feeler mechanism for replenishing looms comprising in combination, shuttle actuating mechanism, weft hammer mechanism, a filling feeler to contact with the filling of the running shuttle, a strain remover for the feeler mounted in the path of movement of and adapted to be directly engaged by said filling feeler and coöperating means to move said strain remover upon thread fault.

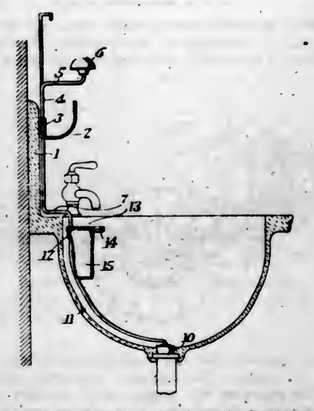
3. Filling feeler mechanism for replenishing looms comprising in combination, shuttle actuating mechanism, a filling feeler to contact with the filling of the running shuttle, a pivoted strain remover for the feeler mounted in the path of movement of and adapted to be directly engaged by said filling feeler and controlled thereby, coöperating means to move said strain remover upon thread fault, and filling replenishment connections operatively connected to said strain remover.

4. Filling feeler mechanism for replenishing looms comprising in combination, shuttle actuating mechanism, a filling feeler to contact with the filling of the running shuttle, a strain remover for the feeler mounted in the path of movement of and adapted to be directly engaged by said filling feeler, coöperating means to move said strain remover upon thread fault, and filling replenishment connections operatively connected to said strain remover.

5. Filling feeler mechanism for replenishing looms comprising in combination, shuttle actuating mechanism, a filling feeler to contact with the filling of the running shuttle, a strain remover for the feeler mounted in the path of movement of and adapted to be directly engaged by said filling feeler, said strain remover being adapted to contact with the shuttle box upon substantial exhaustion of the filling and adapted to be moved in non-actuating positon by engagement therewith of the filling feeler, and filling replenishment connections operatively connected to said strain remover.

[Claims 6 to 21 not printed in the Gazette.]

1,206,998. SOAP-HOLDER. ALEXANDER D. CURRY, Hawkinsville, Ga. Filed Sept. 10, 1915. Serial No. 50,042. (Cl. 45—28.)



1. The combination with a wash basin having a waste opening therein, of means for closing said opening including a valve rod, a soap holder having a side adapted to be rigidly connected with the wash basin and provided with a vertically extending sleeve in which said valve rod is mounted to turn and slide, and a shoulder between the ends of the valve rod adapted to contact with the soap holder and limit the sliding movement of the valve rod in one direction.

2. In a device of the class described, the combination with a valve rod, of a collar secured to said rod, a strip of material bent between its ends to provide an eye receiving said rod above the collar, arms formed by the portions of the strip of material in advance of said eye, a flexible soap receptacle supported on said arms, and inter-engaging loops formed from the ends of the arms.

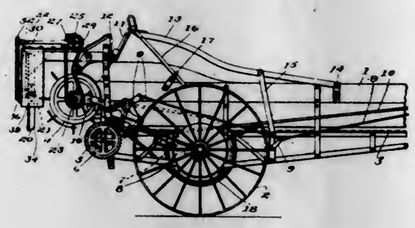
1,206,999. TAMPING-TOOL. CLAUDE A. DE LAMATER, Kansas City, Mo., assignor of one-half to Howard K. Webb, Kansas City, Mo. Filed Dec. 8, 1913. Serial No. 805,258. (Cl. 72—128.)



A concrete tamping tool comprising a head 8, a handle secured at one end to and lying in the same vertical plane

as said head, a blade 12 paralleling and offset with respect to the plane of the head, and curved parallel tines 6 extending from the head to the blade and of oval shape in cross section, said blade being offset with respect to the head and handle and the tines being curved to permit the tool when reciprocated vertically with the blade bearing flatly against a wall of a form, to tamp coarse particles of concrete away from the said wall to produce a smooth finish on the face of the work abutting said wall.

1,207,000. MANURE-SPREADER. SAMUEL K. DENNIS, Chicago, Ill., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed Mar. 13, 1913. Serial No. 753,930. (Cl. 111—40.)



1. In a machine for distributing manure and the like, a body to contain the material, delivering means, and means for engaging the manure as it emerges in a horizontal stream and deflecting it vertically downward with a positive force.

2. In a machine for distributing manure and the like, a body to contain the material, delivering means, and means for engaging the manure as it emerges in a horizontal stream and deflecting it vertically downward with a positive force throughout a path extending beyond the sides of the body.

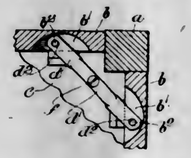
3. In a manure spreader, distributing mechanism, supplemental distributing means for positively ejecting the material delivered therefrom vertically downward in a thin sheet through an extended path, and means for varying the width of spread thereof.

4. In a manure spreader, beater mechanism, and mechanism coöperating therewith delivering the material discharged therefrom vertically to the ground over a path extending beyond either side of the spreader.

5. In a manure spreader, feeding mechanism, distributing mechanism, and supplemental distributing mechanism coöperating therewith to discharge the material fed thereto directly downward to the ground with a positive impetus through a path of relatively greater width.

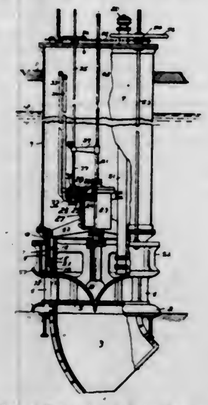
[Claims 6 to 9 not printed in the Gazette.]

1,207,001. CORNER-JOINT. ASHTON P. DERBY, Gardner, Mass., assignor to P. Derby & Company, Inc., Gardner, Mass., a Corporation of Massachusetts. Filed June 21, 1915. Serial No. 35,490. (Cl. 45—48.)



A corner joint for chairs comprising a leg; a pair of side frames connected to the leg and each formed with a narrow opposing slot in its inner face and a hole extending upwardly and partly through the frame and intersecting said slot; a substantially flat narrow strip of metal serving as a tie member and extending between said side frames with its ends in said slots and having a hole at each of its ends, the distance between the holes in the side frame when assembled and in normal position being slightly greater than the distance between said holes in the tie member; and locking pins having tapering ends adapted when inserted in said holes to bind and hold said angle members together.

1,207,002. INTAKE-VALVE. WILLIAM A. DOBLE, San Francisco, Cal. Original application filed May 12, 1913, Serial No. 766,947. Divided and this application filed Sept. 7, 1915. Serial No. 49,242. (Cl. 137—4.)



1. An intake valve adapted to be arranged below the level of a body of water comprising a base ring, an open structure mounted on said base ring, a cylindrical structure arranged on said open structure and adapted to extend above the surface of the water, a needle arranged within said open structure adapted to control the flow of water through said base ring, a cylindrical gate adapted to control the flow of water through said open structure, and means for suspending said gate from the top of said cylindrical structure.

2. An intake valve comprising a base ring, an open structure mounted on said ring, a cylindrical structure arranged above said open structure, a needle arranged within said cylindrical structure adapted to be moved to control the opening in said base ring, a cylindrical gate of larger diameter than said needle adapted to control the flow of water through said open structure, and suspension rods for supporting and operating said gate.

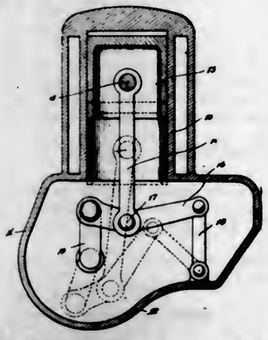
3. An intake valve comprising a base ring, an open structure mounted on said ring, a cylindrical structure arranged above said open structure, a needle valve adapted to be raised and lowered to control the flow of water through said base ring, and a cylindrical gate valve surrounding said cylindrical structure and adapted to be raised and lowered to control the flow of water through said open structure, the lower face of said gate valve being formed with an upwardly flaring flange to form an extension of the lower face of the needle when both are raised.

4. An intake valve comprising a base ring, a cylindrical structure arranged above said base ring, a plurality of columns arranged between said base ring and said structure, a needle valve adapted to control the flow of water through said base ring, a gate valve adapted to control the flow of the water through the spaces between said columns, and means exterior of said cylindrical structure for supporting and operating said gate valve.

5. An intake valve adapted to be arranged below the level of a body of water comprising a base ring, an open structure mounted on said base ring, a cylindrical structure mounted on said open structure and adapted to extend above the level of the water, a needle arranged at the lower end of said cylindrical structure, means for moving said needle to control the flow of water through said base ring, a gate valve, surrounding said cylindrical structure, means for suspending said gate valve from the upper portion of said cylindrical structure, and means for varying the length of said suspending means to control the flow of water through said open structure.

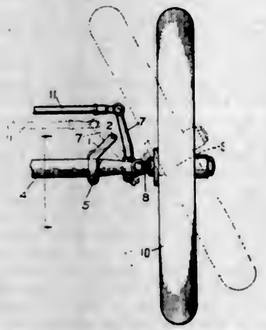
[Claims 6 to 12 not printed in the Gazette.]

1,207,003. CRANK-SHAFT CONNECTION. MILTON ELLIOTT, Mossyrock, Wash. Filed Dec. 30, 1915. Serial No. 69,434. (Cl. 74—5.)



In an engine a crank casing, a cylinder positioned above said crank casing and communicating with the same, a piston slidably mounted in said cylinder, a crank shaft extending into said crank casing to one side of said cylinder and provided with a crank arm, a rocker arm pivotally mounted in said crank casing upon the opposite side of said cylinder, a rocker link pivotally connected to the crank arm of said crank shaft and to the rocker arm and having its end portions extending in converging relation from the rocker arm and the arm of said crank shaft to a point between the same and beneath the level of the free end of the rocker arm and the arm of said crank shaft when the rocker arm is in a substantially vertical position, and a piston rod extending from said piston and pivotally connected with the rocker link at the junction of the converging end portions thereof.

1,207,004. AUTOMOBILE-LOCK. HOWARD D. ESHELMAN, Woodbine, Iowa. Filed Aug. 24, 1916. Serial No. 116,601. (Cl. 70—90.)



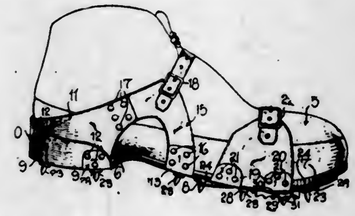
1. An automobile lock of the specified class, comprising a bracket affixed rigidly to the front axle of the vehicle and having spaced arms, one above the other, adapted to admit the associated knuckle arm between them whenever the latter is turned pivotally to a predetermined position, and removable means connecting the spaced arms and retaining the knuckle arm in that position.

2. An automobile lock of the specified class, comprising a pair of spaced arms secured to the front axle of the vehicle and horizontally positioned to admit the associated knuckle arm between them, and means for retaining that arm when so admitted.

3. An automobile lock of the specified class, comprising a bracket having a pair of spaced horizontal arms adapted to admit between them the associated steering arm of the vehicle when that arm is turned pivotally to a predetermined position, means for clamping the bracket to an axle of the vehicle, and a removable stop bolt spanning the arms of the bracket to retain the steering arm between them.

4. An automobile lock of the specified class, comprising a bracket having two horizontal spaced arms to accommodate the associated steering-knuckle arm between them, and having two vertical legs to accommodate the associated vehicle axle between them; a transverse clamping plate on the legs below the axle; nuts on the legs for clamping the bracket to the axle; a removable bolt through the arms to retain the steering-knuckle arm between them; and means for securing the bolt in the retaining position.

1,207,005. SAFETY DEVICE FOR OVERSHOES. HARVEY A. FACHE, Thornton, Iowa. Filed Apr. 22, 1916. Serial No. 92,998. (Cl. 36—63.)



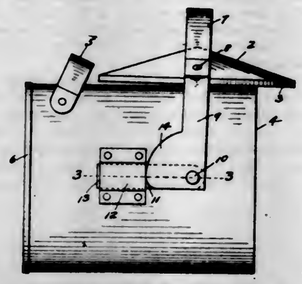
A safety attachment for shoes, including a body plate consisting of a heel portion and an instep portion, a toe plate, and a transverse hinge connecting the toe plate to the forward edge of the body plate and adapted to extend obliquely across the sole of the shoe when the device is applied in substantially parallel relation to the toe joints of the wearer's foot, the heel portion of said body section being provided upon its edge with spaced upstanding tongues, a plate conforming to the contour of the heel engaging against the inner faces of said tongues, a heavy leather heel strap engaged against the inner face of said plate, rivets connecting the plate and heel strap to said tongues, fastening means connected to the ends of the heel strap, and fastening means connected to said toe section whereby the device may be fastened upon the shoe.

1,207,006. GARBAGE-CAN. CHARLES FAERBER and JOHN HAMPTON SMITH, Alexandria, La. Filed Oct. 21, 1915. Serial No. 57,153. (Cl. 220—47.)

1. A can or receptacle, including a top or cover, a handle thereon, a pair of arms depending therefrom and straddling the can, a pair of slidable links to which said depending arms are pivoted, a guide on the can for each slidable link, a stop on each slidable link for limiting the upward movement thereof and a cam-shaped portion on each of said depending arms for engagement with each of said slides to maintain the said slidable links in their extended positions upon movement of the said top into position for uncovering the can.

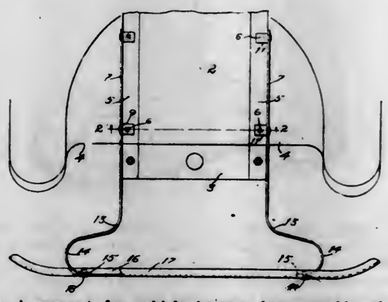
2. A can or receptacle, including a top or cover, a handle thereon, a pair of arms depending from said top or cover and straddling the can, slidable connections on the can to which said depending arms are pivoted and means on said depending arms for retaining said slidable

connections in their extended positions when said top or cover is moved into position for uncovering the can.



8. A can or receptacle, including a top or cover, a handle thereon, a pair of arms depending from said top or cover to straddle the can and slidable connections on the can to which said depending arms are pivoted, substantially as described.

1,207,007. SUPPORT FOR BUMPER-BARS. ROLLIE B. FAGEOL, Oakland, Cal. Filed Nov. 27, 1915. Serial No. 63,727. (Cl. 213—39.)



1. A support for vehicle bumper bars capable of reversing for attachment to either side of a vehicle frame, comprising a substantially flat bar, the base portion of which is adapted for lying in a plane parallel with the outer side face of the vehicle side frame member, a lug extending at right angles from one face of the base member intermediate of the side edges thereof and adapted for projecting inwardly over the main body portion of the vehicle side frame member to provide a support for the base portion of said bar.

2. A support for vehicle bumper bars capable of reversing for attachment to either side of a vehicle frame, comprising a substantially flat bar, the base portion of which is adapted for lying in a plane parallel with the outer side face of the vehicle side frame member, a lug extending at right angles from one face of the base member intermediate of the side edges thereof with its side faces in parallel spaced relation to the longitudinal side edges of said base portion, and adapted for projecting inwardly over the main body portion of the vehicle side frame member to provide a support for the base portion of said bar.

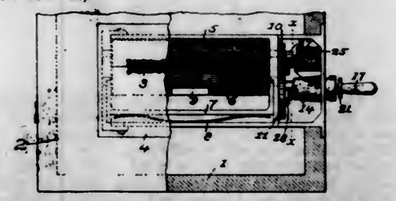
3. A support for vehicle bumper bars capable of reversing for attachment to either side of a vehicle frame, comprising a substantially flat bar, a portion of which is adapted for extending parallel with the outer side face of the vehicle side frame member, said bar being substantially T-shape in cross section at certain portions, providing a web projecting inwardly and adapted to overlie the vehicle side frame member to provide a support for said bar.

4. A support for vehicle bumper bars capable of attachment to either side of a vehicle frame, comprising a flat bar of spring metal adapted for a portion of its length to lie in a plane parallel to and in contact with the outer side face of a vehicle side frame member, and provided on one face with a laterally extending portion adapted when the support is positioned in coöperative relation with either vehicle side frame member for projecting inwardly beyond the side face of the vehicle side frame member to provide a support for said bar.

5. As an article of manufacture, an integral, reversible, yielding support for attachment of a bumper bar to a vehicle frame, comprising a bar having an angularly disposed forward extension member, its terminal adapted to lie in a plane parallel with the inner face of a bumper bar, and said bar provided with a rearward extension adapted for a portion of its length to lie in a plane parallel with the face of a vehicle side member and such portion of the bar formed with a laterally extended member adapted to project inwardly beyond the side of the vehicle side member to provide a support for said bar relative thereto.

[Claim 6 not printed in the Gazette.]

1,207,008. BALLOT-BOX. JOSEPH B. FISCHER, Chicago, Ill., assignor of one-fourth to Adam P. D. Meyer, Chicago, Ill. Filed Feb. 26, 1916. Serial No. 80,598. (Cl. 232—2.)



1. A ballot box formed with an inlet slit for the ballots, a pair of feeding rollers associated with said inlet slit, a pinion associated with one of said rollers, a gear wheel operatively engaging said pinion and provided with a clutch member, a removable hand crank provided with a clutch member, adapted for engagement with the aforesaid clutch member of the gear wheel, means for stopping said hand crank after a complete revolution, the same comprising a stop pin movable laterally to and from said hand crank and a lateral stop on said hand crank adapted for engagement with said stop pin, and manually actuated means for moving said stop pin out of the path of said lateral stop, substantially as set forth.

2. A ballot box formed with an inlet slit for the ballots, a pair of feeding rollers associated with said inlet slit, a pinion associated with one of said rollers, a gear wheel operatively engaging said pinion and having a bearing trunnion the outer end of which has a clutch formation, a removable hand crank having a lateral trunnion one end of which has a clutch formation adapted for engagement with the clutch formation of the trunnion of the gear wheel aforesaid, and means for stopping said hand crank after a complete revolution, the same comprising a lateral stop member on the hand crank, a stop member on the supporting frame and manually actuated means carried by the hand crank for effecting a separation of said stop members, substantially as set forth.

3. A ballot box formed with an inlet slit for ballots, a pair of feeding rollers associated with said inlet slit, a pinion associated with one of said rollers, a gear wheel operatively engaging said pinion and having a bearing trunnion the outer end of which has a clutch formation, a removable hand crank having a lateral trunnion, one end of which has a clutch formation adapted for engagement with the clutch formation of the trunnion of the gear wheel aforesaid, means for stopping said hand crank after a complete revolution, and manually actuated means for releasing said stopping means slidingly mounted on said hand crank, substantially as set forth.

4. A ballot box formed with an inlet slit for the ballots, a pair of feeding rollers associated with said inlet slit, a pinion associated with one of said rollers, a gear wheel operatively engaging said pinion and provided with a clutch member, a removable hand crank provided with a clutch member adapted for engagement with the aforesaid clutch member of the gear wheel, means for stopping said hand crank after a complete revolution, the same comprising a stop pin movable to and from said hand crank and a curved stop recess in said hand crank, and manually actuated means for moving said stop pin to a release position, substantially as set forth.

5. A ballot box formed with an inlet slit for ballots, a pair of feeding rollers associated with said inlet slit, a pinion associated with one of said rollers, a gear wheel operatively engaging said pinion and provided with a clutch member, a removable hand crank provided with a clutch member adapted for engagement with the aforesaid clutch member of the gear wheel, means for stopping said hand crank after a complete revolution, the same comprising a stop pin movable to and from said hand crank and a curved stop recess in said hand crank, and a head movable on said hand crank and having an operating stem in alinement with the stop pin aforesaid and adapted to move the same into a release position, substantially as set forth.

1,207,009. TARGET. MICHAEL J. FITZGERALD, Richmond, Cal. Filed May 3, 1915. Serial No. 25,445. (Cl. 124—15.)



1. In combination, a target composed of sections, an indicating device arranged in front of the target and composed of similar sections, and wires respectively moved by the former sections when moved rearwardly and arranged to move the latter sections rearwardly.

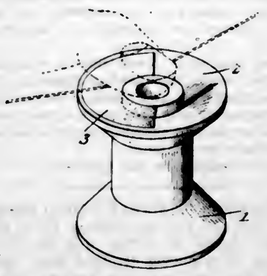
2. In combination, a target composed of sections, an indicating device arranged in front of the target and composed of similar sections, and wires respectively moved by the former sections when moved rearwardly and arranged to move the latter sections rearwardly, said wires being also arranged to move the former sections forwardly when the latter sections are moved forwardly.

3. In combination, a target composed of sections, an indicating device arranged in front of the target and composed of similar sections, wires respectively moved by the former sections when moved rearwardly and arranged to move the latter sections rearwardly, said wires being also arranged to move the former sections forwardly when the latter sections are moved forwardly, and means for moving forwardly all of said latter sections simultaneously.

4. In combination, a target composed of sections, an indicating device arranged in front of the target and composed of similar sections, means for retarding the rearward movements of the former sections while permitting them to move quickly forward, and wires respectively moved by the former sections when moved rearwardly and arranged to move the latter sections rearwardly.

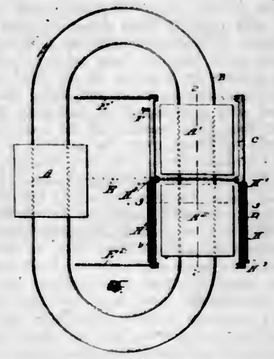
5. In combination, a target composed of sections, an indicating device composed of similarly arranged sections, a stem connected to each of the former sections, a plunger connected to each stem, a cylinder in which said plunger can slide and closed at the end opposite to said sections, said end having a vent hole and an air inlet hole, a valve closing said latter hole against outward movement of the air, a lever against which the rear end of said stem abuts, a wire connected to said lever, an operative connection between said wire and the corresponding one of the latter sections, a plate for resetting all of said latter sections, and a device attached to said plate and extending in front of said latter sections.

1,207,010. SPOOL. JOSEPH FLAX, Chicago, Ill. Filed Feb. 8, 1916. Serial No. 76,997. (Cl. 242—118.)



As an improved article of manufacture, a spool having at one end, surrounding the opening therein, an annular wax-receiving chamber, the bottom wall of which is inclined from its outer edge inward toward the center.

1,207,011. HYGIENIC DRIER. JOHN C. FLEMING, Norwood, Mass. Filed May 20, 1914. Serial No. 839,838. (Cl. 34—46.)



1. The method of drying and sterilizing material which consists in subjecting the material, in a closed chamber, to the action of drying sterilized air at a temperature widely different from that of the atmosphere and subsequently protecting it from the free atmosphere until its temperature is restored approximately to that of the atmosphere, in a chamber having vapor and gas absorbing walls.

2. The method of drying materials and rendering them aseptic which consists in subjecting portions of the same to the action of drying sterilized air at a temperature far from normal atmospheric temperature, and then holding them in a relatively small closed chamber in the presence of material adapted to absorb aeroform emanations, until the temperature becomes approximately that of surrounding free atmosphere.

3. The combination with a closed chamber adapted to receive material to be operated upon, of means for creating a current of air through the chamber until the interior of the chamber differs widely in temperature from the free surrounding air, means for at will heating the entering air current, means for supporting material in the chamber and whereon the material may be removed

from said chamber, and means for protecting the material from free air during such removal and until it assumes substantially the temperature of the surrounding free atmosphere.

4. In apparatus of the class described, the combination with a closed chamber and means for washing the air to be used in drying the material, a conduit delivering the washed air into said chamber, means for at will heating the air passing in the conduit, and means for subjecting the air in the conduit to the action of strong electric sparks.

5. A drying apparatus comprising a normally closed drying chamber, means for washing, chemically purifying, electrically sterilizing by high tension electric discharges, and at will heating atmospheric air, a conduit for delivering the heated air in said chamber, and means for forcibly ejecting air from the chamber.

[Claim 6 not printed in the Gazette.]

1,207,012. PROCESS OF MAKING FOOD FROM SPENT YEAST. PAUL E. FLOARE, Kansas City, Mo. Filed July 7, 1915. Serial No. 38,498. (Cl. 99—11.)

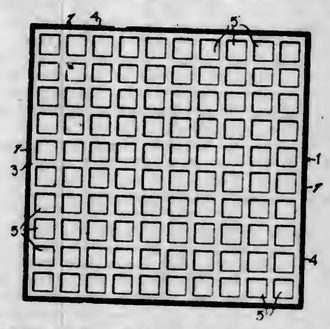
1. A method of producing artificial food consisting in taking spent yeast resulting from brewery and distillery operations, placing the same in an air tight vessel, adding thereto a quantity of water and filling the remainder of the vessel with compressed air, agitating the contents a prescribed time and permitting the same to settle for a prescribed time, then drawing off the water and repeating the above operation until the product is free of all ferment and inherent impurities, then removing the product from the vessel and draining or filtering the same while exposed to the air, then subjecting the same to pressure and mixing therewith comminuted particles of corn meal, said products being mixed in equal quantities.

2. A method of producing artificial food consisting in taking spent yeast resulting from brewery and distillery operations, placing the same in an air tight vessel, adding thereto a quantity of water and filling the remainder of the vessel with compressed air, agitating the contents a prescribed time, then drawing off the water and repeating the above operation until the product is free of all ferment and inherent impurities, then removing the product from the vessel and draining or filtering the same while exposed to the air, then subjecting the same to pressure and mixing therewith comminuted particles of corn meal, said products being mixed in equal quantities, and adding thereto finely ground cocoa hulls or shells.

3. A method of producing artificial food consisting in taking spent yeast resulting from brewery and distillery operations, placing the same in an air tight vessel, adding thereto a quantity of water and filling the remainder of the vessel with compressed air, agitating the contents a prescribed time and permitting the same to settle for a prescribed time, then drawing off the water and repeating the above operation until the product is free of all ferment and inherent impurities, then removing the product from the vessel and draining or filtering the same while exposed to the air, then subjecting the same to pressure and mixing therewith comminuted particles of corn meal, said products being mixed in equal quantities, and adding thereto a saccharine material when served as human food.

4. A method of producing artificial food consisting in taking spent yeast resulting from brewery and distillery operations, placing the same in an air tight vessel, adding thereto a quantity of water and filling the remainder of the vessel with compressed air, agitating the contents a prescribed time and permitting the same to settle, then drawing off the water and air and repeating the above operation until the product is free of all ferment and inherent impurities, then removing the product from the vessel and draining or filtering the same while exposed to the air, then subjecting the same to pressure and mixing therewith comminuted particles of corn meal, cocoa hulls or shells, and a saccharine material, when served as food.

1,207,013. SEED-TESTER. SIEGWART A. FLOREN, Bismarck, N. D., assignor to Caruguss Manufacturing Co., Bismarck, N. D., a Corporation of Arizona. Filed Nov. 6, 1915. Serial No. 60,014. (Cl. 47—30.)



A seed tester comprising a receptacle impervious to moisture, a stand positioned within the receptacle and having its marginal portions downturned to afford supporting flanges, each of said flanges being independent of the other and adapted to contact with the bottom and side walls of the receptacle, said flanges being resilient, an absorbent pad positioned upon the upper face of the stand and provided in its top face with a plurality of depressions affording pockets adapted to contain seeds, and a movable cover for the container.

1,207,014. GRAPE-JUICE AND PROCESS OF PREPARING SAME. ALADAR FONTÓ, Chicago, Ill. Filed Mar. 25, 1916. Serial No. 86,590. (Cl. 99—11.)

1. A process of preparing grape juice including the step of artificially increasing the acid content of the juice by a proportion of a palatable acid.

2. A process of preparing grape juice including the step of increasing the acid content of the juice by a proportion of lactic acid.

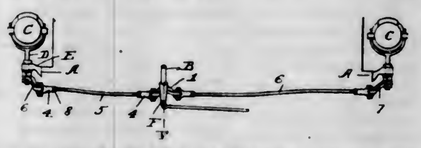
3. A process of preparing grape juice including the step of increasing the acid content of the juice by lactic acid in the proportion of between 0.1 and 1.0 per cent. approximately of the total quantity of juice.

4. A process of preparing grape juice including the step of increasing the acid content of the juice by lactic fermentation thereof, whereby a proportion of lactic acid is formed therein.

5. A process of preparing grape juice including the step of converting a portion of the sugar content into lactic acid by lactic fermentation.

[Claims 6 to 18 not printed in the Gazette.]

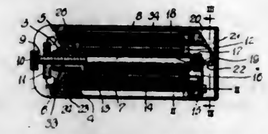
1,207,015. ADJUSTABLE HEADLIGHT. ALEXANDER FRAKES, Trenton, Mo. Filed June 28, 1916. Serial No. 106,370. (Cl. 240—62.)



1. In combination with the headlights and the steering post of an automobile, a V-shaped member directly and rigidly secured at its apex to said steering post to turn with the latter, arms connected to the headlights so as to turn the latter, and a pair of rods pivotally connected at their inner ends to the respective free outer ends of the V-shaped member and at their outer ends being pivotally connected to said arms.

2. In combination with the steering mechanism and headlights of an automobile, a bifurcated member secured to the lower end of the steering post and having two arms of different lengths, two arms of different lengths secured to the headlight supports, a connecting rod connecting the longest of the last-mentioned arms to the longest arm of the bifurcated member, and another connecting rod operably connecting the other arm to the shortest arm of said bifurcated member, substantially as described.

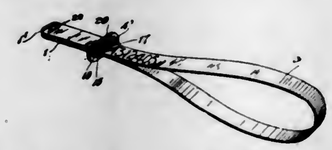
1,207,016. CIRCUIT-BREAKING RELAY. ROY C. FRYER, Detroit, Mich. Filed June 7, 1915. Serial No. 32,491. (Cl. 175—268.)



1. A circuit breaking relay comprising a bracket, a barrel carried thereby, a core casing having a stem at one end thereof extending into said barrel, a core in said casing, adjustable means in the stem of said casing for moving said core, a main line coil on said casing and insulated therefrom, a shunt coil on said main line coil and insulated therefrom and connected to one end of said main line coil, a resilient armature arm at the opposite end of said core casing and connected to said main line coil, a fixed arm opposing said armature arm and connected to said shunt coil, a contact carried by said fixed arm, and an armature on said armature arm normally engaging said contact and adapted to be moved out of engagement with said contact when said armature is attracted by said core.

2. A circuit breaking relay comprising a core casing; a core in said casing, a resilient armature arm at one end of said casing; an armature carried thereby and adapted to be connected to said core; an arm opposing said armature arm; a head on said arm normally engaged by said armature; an insulated main line coil on said core casing in circuit with said armature, and an insulated shunt coil on said main line coil as a continuation of the main line coil and wound in the same direction back to the starting point of said main line coil and adapted with said main line coil for energizing said core sufficiently to attract said armature and magnetize said core to hold said armature against vibration.

1,207,017. CAR-SEAL. LEE SAMUEL GIBSON, Winnipeg, Manitoba, Canada. Filed June 8, 1915. Serial No. 32,895. (Cl. 70—99.)



1. In a car seal the combination with an open ended hollow box and a locking member having one end permanently fastened within the box and the other end formed into a catch insertible within the box, of a guard mounted on the inserted end of the locking member adjacent the open end of the box and constructed to admit of the entrance of the catch into the box.

2. In a car seal the combination with an open ended hollow box and a locking member having one end permanently fastened within the box and the other end formed into a catch insertible within the box, of a slotted guard located at the open end of the box and having the slot therein admitting of entrance of the locking member to the interior of the box.

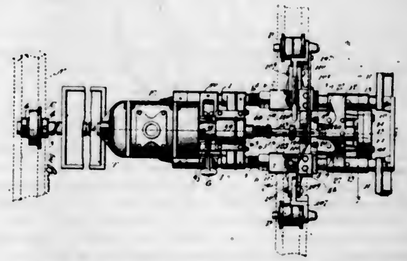
3. In a car seal the combination with an open ended hollow box and a locking member having one end permanently fastened within the box and the other end formed into a catch insertible within the box, of a slotted guard located at the open end of the box and having the slot therein of a length equal to the width of the entrance opening to the box and of a width equal to twice the thickness of the material of the locking member.

4. In a car seal the combination with an open ended substantially rectangular receiving box, of a locking member having one end bent backwardly on itself and the extremity thereof bent upwardly and the other end formed into a catch, both ends of the locking member being received within the box with the upstanding extremity of the backwardly turned end adjacent the open end of the box and a guard fitted with a slot, receiving the locking member and located between the upstanding end of the locking member and the adjacent open end of the box.

5. The combination comprising, an open ended receiving box, a locking member having one end permanently fastened within the box and the other end formed into a catch contracted in respect to the body of the member to form side shoulders and insertible in the box and having a cross rib constructed between the shoulders to effect the weakening of the material of the catch and having relatively large indexing characters thereon adjacent the rib and a guard inserted on the catch between the shoulders thereof and the open end of the box.

[Claim 6 not printed in the Gazette.]

1,207,018. TRACK-DRILLING MACHINE. CHARLES E. GIERDING, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Mar. 19, 1914. Serial No. 825,746. (Cl. 77—8.)



1. In a track drilling machine adapted to span the rails of a track, the combination with a movable drill frame extending over the rails at one side of the track, drills carried thereby to operate on the outer side of the adjacent rail, and means for bodily raising and lowering that side of the track drilling machine on which the drill frame is carried about the opposite rail as an axis.

2. In a track drilling machine, the combination with a frame adapted to span the rails of a track, a single supporting wheel at one end of the frame, a pair of supporting wheels at the other end of the frame, a movable drill frame extending beyond the rails at the last named end of the frame, drills carried thereby for operating on the outer side only of the adjacent rail, and means connecting the said frame and the two wheels at one side thereof for bodily lifting the frame and the said drill frame to clear the rail at this side of the track only.

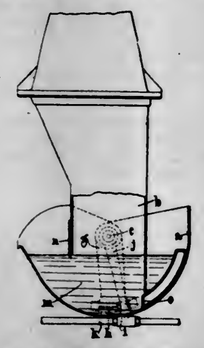
3. In a track drilling machine, the combination with a frame adapted to span the rails of a track, of a drill frame movable therein extending beyond the rails at one side of the track and movable bodily up and down with the first mentioned frame and laterally toward and from the adjacent rail, and drills carried thereby adapted to operate on the outer side of the said adjacent rails.

4. In a track drilling machine, the combination with a wheel-supported frame spanning the rails of a track; of a drill frame movably supported on the other frame and extending over the rail at one side of the frame, a block secured to the said frame adapted when the frame is moved to be moved into engagement with the outer side of the rail to be drilled, a movable bearing member adapted to engage the inner side of the rail to be drilled, and drills carried by the drill frame operative to penetrate the rail to be drilled at the outer side thereof.

5. In a track drilling machine, the combination with a vertically movable wheel-supported frame terminating at one end with members adapted to be bodily moved therewith into engagement with the outer side of one of the rails, clamping members movable on the frame to engage the inside of said rail, a drill frame supported by and movable on the first said frame extending over and beyond the rail to be drilled, and drills carried thereby to operate in the outer face of the rail.

[Claims 6 to 16 not printed in the Gazette.]

1,207,019. DISCHARGING APPARATUS FOR VERTICAL RETORTS. SAMUEL GLOVER, St. Helens, and JOHN WEST, Southport, England. Filed Aug. 8, 1916. Serial No. 113,797. (Cl. 202—5.)



1. In discharging apparatus for vertical retorts, the combination with the open lower end of a retort, one side of which also is open, of a receptacle disposed beneath said lower end, means imparting back and forth movement to said receptacle, a water seal for the retort, and pusher-like means upon the receptacle for positively forcing material from the retort discharging mouth, as set forth.

2. In discharging apparatus for vertical retorts, the combination with the lower end of a retort, the bottom and one side of which are open, of a receptacle disposed beneath said lower end, means imparting back and forth movement to said receptacle, means for varying the amplitude of such back and forth movements, the said receptacle having an extended pusher-like portion thereon, and a water seal for the retort, as set forth.

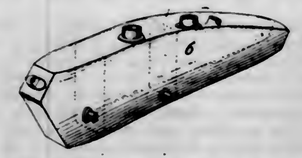
3. In discharging apparatus for vertical retorts, the combination with the lower end of a retort, the bottom and one side of which are open, of means for adjusting said side opening, a receptacle beneath the retort, means imparting back and forth movement to said receptacle, means for varying the amplitude of said back and forth movements, a pusher-like part upon said receptacle the front end of which acts to push material from beneath the retort while its rearward part prevents material falling behind said front end, and a water seal for the retort, as set forth.

4. In discharging apparatus for vertical retorts, the combination with the discharging portion of the retort having its bottom and one side open, of a receptacle disposed beneath said discharging portion so that the material in the latter rests thereon, a trough disposed around said receptacle and providing a water seal for the open portion of the lower end of the retort, means imparting back and forth movement to said receptacle, and pusher-like means upon the receptacle for positively forcing material from the retort discharging mouth, as set forth.

5. In discharging apparatus for vertical retorts, the combination with the discharging portion of a retort having its bottom and one side open, of a receptacle disposed beneath and fulcrumed upon said discharging portion so that the material in the latter rests thereon, a trough disposed around said receptacle and providing a water seal for the mouth of the discharging portion of the retort, the said trough being fulcrumed upon the latter, means imparting back and forth movement to said receptacle, and pusher-like means upon the receptacle for positively forcing material from the retort discharging mouth, as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,207,020. MOTOR-CYCLE FUEL-TANK. JACOB N. GOLD and HERMAN SEGAL, Philadelphia, Pa. Filed Sept. 27, 1916. Serial No. 122,466. (Cl. 113—116.)



The herein described method of manufacturing motorcycle fuel tanks which consists in stamping and bending a sheet metal blank to form the side and bottom walls of the tank, then stamping and bending a second sheet metal blank to form the top and end walls of the tank, and finally fitting said top and end walls between the edges of the side walls and soldering said top and end walls along their edges to the side and bottom walls of the first named blank.

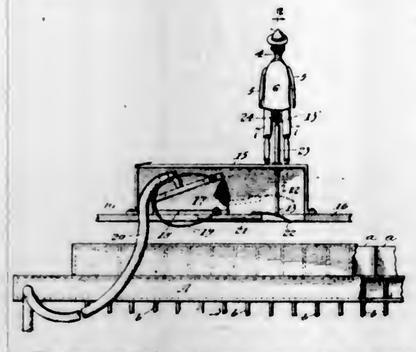
1,207,021. FENCE-POST. JONATHAN R. GOSSETT, Marmaduke, Ark. Filed Mar. 25, 1916. Serial No. 86,717. (Cl. 256—52.)



1. The combination with the post having a traverse aperture, of a holding member having an eye at one end adapted to engage a fence strand at one edge of the post and extending across the rear of the post and looped around the strand at the opposite side of the post and thence passed through the aperture of the post and engaged with the strand intermediate the edges of the post.

2. The combination with a fence including a post having a plurality of traverse apertures spaced apart and a plurality of strand members spaced apart and corresponding to the apertures, of a holding member having an eye at one end to engage the upper strand member at one edge of the post and extending across the rear of the post and looped around the upper strand member at the opposite edge of the post and thence passed through an aperture of the post and around the upper strand member and thence extended and passed in zigzag order around the remaining strand members and through the apertures and connected at its terminal to the lower strand member.

1,207,022. DANCING TOY. CLIFFORD H. GREEN, Grand Rapids, Mich., assignor to National Piano Manufacturing Company, Grand Rapids, Mich., a Corporation of Illinois. Filed Feb. 21, 1916. Serial No. 79,583. (Cl. 46—40.)



1. The combination in a player piano with the pneumatic system thereof, of an articulated dacing toy, a bellows, means for connecting and imparting the fluctuations of the air pressure in said pneumatic system to said bellows, and vibratory mechanism for imparting the movements of said bellows to said toy.

2. The combination with bellows connected with the air exhaust-mechanism of a player piano, means for automatically restoring said bellows to its expanded position of an articulated dancing toy, and vibratory mechanism for imparting the movements of said bellows to said toy.

3. The combination with bellows connected with the air exhaust-mechanism of a player piano, means for automatically restoring said bellows to its expanded position one of the leaves of which is stationary and the other hinged to one end of said stationary leaf, and an arm extending from the free edge of said hinged leaf, of a vertical vibratory rod vibrated by said arm, and an articulated dancing toy mounted upon the upper end of said rod.

4. The combination with bellows connected with the air exhaust-mechanism of a player piano, means for automatically restoring said bellows to its expanded position one of the leaves of which is stationary and the other hinged to one end of said stationary leaf, an arm extending fram the free end of said hinged leaf, and a leaf-spring extending from said arm, of a vertical vibratory rod supported by said spring and vibrated by said arm, and an articulated dancing toy mounted upon the upper end of said rod.

5. The combination with the main-chamber of the exhaust stack of a player piano, a tube extending from said chamber, a bellows to which the other end of said tube is connected, means for automatically restoring said bellows to its expanded position, of an articulated dancing toy, and vibratory mechanism for imparting the movements of said bellows to said toy.

1,207,023. TOY OR AMUSEMENT DEVICE. JOSEPH C. GRELLNER, St. Louis, Mo. Filed Mar. 17, 1916. Serial No. 84,821. (Cl. 155—35.)

1. In a toy or amusement device, a base comprising a pair of parallel spaced apart rails provided upon their upper face with pairs of connected segmental bearing surfaces, a seat-frame similarly comprising a pair of spaced apart parallel rails provided upon their under face with pairs of connected segmental gearing surfaces, the bearing-surfaces of said frame being oppositely disposed to the bearing-surfaces of said base, a platform interposed between said base and frame, rollers journaled for rotation on said platform, said rollers being positioned, and adapted to roll with their said platform back and forth relatively to the base, upon the bearing-surfaces of the base and said frame loosely resting at its said bearing-surfaces upon said rollers and being adapted to travel back and forth with said platform relatively to the base, and means convenient to the seat of said frame for imparting movement to both said platform and frame relatively to said base, said means including a lever pivoted upon the platform and slotted adjacent its upper end, and a roller journaled upon the frame and working in the slot of said lever.



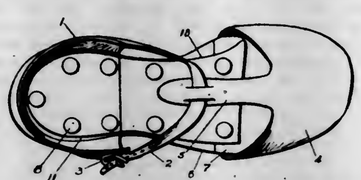
2. In a toy or amusement device, a base comprising a pair of parallel spaced apart rails provided upon their upper faces with pairs of connected segmental bearing-surfaces, rollers adapted to travel back and forth relatively to the base upon said surfaces, an upper frame similarly comprising a pair of parallel spaced apart rails provided upon their under faces with like pairs of connected segmental bearing-surfaces, said frame loosely resting at its said surfaces upon said rollers and being adapted to travel back and forth with said rollers relatively to the base, and means adapted to prevent lateral displacement of said frame relatively to said base, said means including rigid brackets mounted upon and upstanding from the rails of said base, segmental tracks fixed upon the rails of said frame, and rollers on said brackets adapted to engage with said tracks and roll thereupon in the movement of said frame relatively to said base.

3. In a toy or amusement device, a base comprising a pair of parallel spaced apart rails provided upon their upper faces with pairs of connected segmental bearing-surfaces, rollers adapted to travel back and forth upon the upper faces of said rails, an upper frame similarly comprising a pair of parallel spaced apart rails provided upon their under faces with like pairs of connected segmental bearing-surfaces; said frame loosely resting at its said rails upon said rollers and being adapted to travel back and forth with said rollers relatively to the base, a platform interposed between said frame and base and upon which said rollers are journaled, and means for imparting movement to both said platform and frame relatively to said base, said means including levers pivoted upon said platform and slotted adjacent their upper ends, rollers journaled upon said frame and working in the slots of said levers, and a hand-rail connecting said levers.

1,207,024. SHOE-PROTECTOR. OSCAR B. GRIFFIN, Blasdell, N. Y. Filed Apr. 17, 1913. Serial No. 761,793. (Cl. 36—72.)

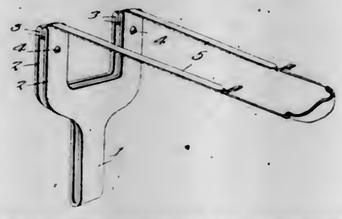
1. In a heat resisting shoe protector for furnace workers and the like, the combination of a non slipping, non metallic and non inflammable sole and heel, a flexible metal shank shaped to form a heel plate, a partial sole plate and arranged to conform to the arch of a shoe, said non inflammable heel attached to and covering said heel plate, and said non inflammable sole attached to and covering said partial sole plate and the part of the shank conforming to the arch of the shoe, respectively, a filler composed of material which is a non conductor of heat in the sole and heel, a toe cap attached to said sole, a

counter attached to said heel and a strap connecting said counter and said toe cap for holding said protector to a shoe.



2. In a shoe protector, the combination of a sole and heel of non inflammable and non slipping material, a permanent elastic metal arch securely fastened to said sole and heel and connecting them by a vertical portion of said arch which is uncovered and arranged to allow of free movement of the said sole and heel relative to each other to make contact with the ground to prevent slipping, a non heat conducting inner sole in said heel and a non heat conducting inner sole above the portion of said sole which makes contact with the ground, and separate uppers attached to said heel and said sole to protect the heel and toe of a shoe, said uppers connected to retain the protector on a shoe.

1,207,025. FORK FOR SLING-SHOTS. WILLIAM W. GRIGSBY, Winnfield, La. Filed Mar. 3, 1916. Serial No. 81,909. (Cl. 124—2.)



1. A catapult fork embodying a pair of crotch portions disposed side by side and adapted to clamp rubbers or elastics between their ends, and means for clamping said portions together.

2. A catapult fork having a crotch portion, each arm of which embodies two parts having coöperating reflexed ends for receiving a rubber or elastic therebetween, and a clamping element engaged through the parts of each arm adjacent the said reflexed ends.

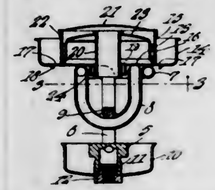
3. A catapult device having an arm composed of two parts having coöperating reflexed ends for receiving a rubber or an elastic therebetween, and means for clamping said parts together adjacent said ends.

4. A catapult fork embodying a pair of crotch portions disposed side by side and having their ends formed to clamp rubbers or elastics therebetween, and clamping elements connecting said portions adjacent the ends thereof.

1,207,026. VAPOR-BURNER. MANNIN GROSS, Council Grove, Kans. Filed Sept. 5, 1916. Serial No. 118,541. (Cl. 158—69.)

1. A burner including upwardly extending tubes merging into a coil, said coil having a hanger, a nozzle extending from the lower portion of the hanger, means for supplying fuel to the tubes, a base plate mounted upon the coil and having depressions interposed between portions of the coil, an annular flange upstanding from the plate, a foraminous flange upstanding from said plate, a tube extending through the plate and forming a mixing chamber adapted to receive fuel from the nozzle, and a cap on the foraminous flange and extending over the tube.

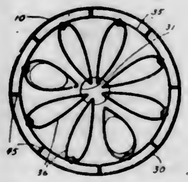
2. A burner including upwardly diverging tubes merging into a coil, said coil having a central U-shaped hanger, a nozzle extending from the center of the hanger, means for supplying fuel to the tubes, a base plate mounted upon the coil and having depressions interposed between portions of the coil, there being drain openings within the depressions and within the plate adjacent the periphery thereof, an annular flange upstanding from the marginal portion of the plate, a foraminous flange upstanding from the plate and concentric therewith, a tube extending through the plate and forming a mixing chamber adapted to receive fuel from the nozzle, and a cap detachably mounted on the foraminous flange and extending over the tube.



3. A burner including upwardly diverging tubes merging into a coil, said coil having a central U-shaped hanger, a nozzle extending from the center of the hanger, means for supplying fuel to the tubes, a base plate mounted upon the coil and having depressions interposed between portions of the coil, there being drain openings within the depressions and within the plate adjacent the periphery thereof, an annular flange upstanding from the marginal portion of the plate, a foraminous flange upstanding from the plate and concentric therewith, a tube extending through the plate and forming a mixing chamber adapted to receive fuel from the nozzle, a cap detachably mounted on the foraminous flange and extending over the tube, and a spreading element surrounding the tube and within the space surrounded by the foraminous flange.

4. A burner including upwardly diverging tubes merging into a coil, said coil having a central U-shaped hanger, a nozzle extending from the center of the hanger, means for supplying fuel to the tubes, a base plate mounted upon the coil and having depressions interposed between portions of the coil, there being drain openings within the depressions and within the plate adjacent the periphery thereof, an annular flange upstanding from the marginal portion of the plate, a foraminous flange upstanding from the plate and concentric therewith, a tube extending through the plate and forming a mixing chamber adapted to receive fuel from the nozzle, a cap detachably mounted on the foraminous flange and extending over the tube, a spreading element surrounding the tube and within the space surrounded by the foraminous flange, and a drip cup supported below the coil for the reception of fuel draining from the plate.

1,207,027. EGG-CARRIER. WILLIE H. GRUENHAGEN, St. Paul, Minn. Filed Feb. 20, 1915. Serial No. 9,558. (Cl. 217—35.)



1. An egg carrier comprising a cylindrical case having a fixed bottom and a removable cover, spacer disks within the case, bands upon the spacer disks and separated egg-holding loops each secured to the bands, and means for securing the cover upon the casing.

2. An egg carrier comprising a cylindrical case having a fixed bottom and a removable cover, spacer disks within the case, cylindrical bands upon the spacer disks, a plurality of separated egg-holding loops each secured to the bands at a single point of said loops, and means for securing the cover upon the casing.

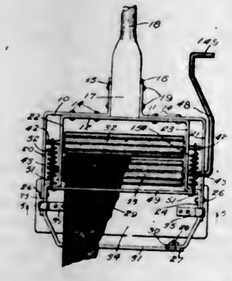
3. An egg carrier comprising a cylindrical case having a fixed bottom and a removable cover, spacer disks within the case, cylindrical bands upon the spacer disks, a plurality of egg-holding loops each secured to the bands at a single point of said loops, said loops being of flattened egg shape with the most pointed portion at the center and all of said loops extending radially toward the center, and means for securing the cover upon the casing.

4. An egg carrier comprising a cylindrical case having a fixed bottom and a removable cover, spacer disks within the case, circular bands of less diameter than the case resting loosely upon the spacer disks, a plurality of egg-holding loops secured to the bands, and extension members on the outside of the bands for engagement with the inner wall of the case to hold the bands and egg-holding loops positioned and to receive any shock taking place on the outside of the case.

5. An egg carrier comprising a cylindrical case having a fixed bottom and a removable cover, spacer disks within the case, circular bands of less diameter than the case resting loosely upon the spacer disks, a plurality of egg-holding loops secured to the bands, and extension members on the outside of the bands for engagement with the inner wall of the case to hold the bands and egg-holding loops positioned and to receive any shock taking place on the outside of the case, said extension members being positioned on the bands at points midway between the points of attachment of adjacent pairs of egg-holding loops.

[Claims 6 to 8 not printed in the Gazette.]

1,207,028. MOP. WILLIE H. GRUENHAGEN, St. Paul, Minn. Filed July 23, 1915. Serial No. 41,506. (Cl. 15—48.)



1. In combination with an endless band mop, a holder therefor comprising a normally-closed frame and a pair of rollers for receiving said band between said rollers, one of said rollers and a crossbar of said frame comprising bearing points for engaging the mop between said points and the surface to be mopped, said last-named roller being removable from said frame for introduction within the band, and said crossbar being made separable to permit the introduction and removal of the band.

2. In combination with an endless band mop, a holder therefor comprising a frame and a pair of rollers for receiving said band between the same, one of said rollers being within the band, and a water table positioned to engage the mop band adjacent said roller and strip the water therefrom as the band is run between the rollers for wringing.

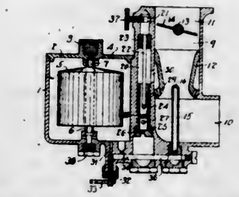
3. In combination with an endless band mop, a holder therefor comprising a frame and a pair of rollers for receiving said band between the same, one of said rollers being within the band, and a bar extending across said frame with one edge in engagement with said band between the sides of the frame and adjacent said roller for carrying the water away from the band when the band is run through the rollers for wringing.

4. In combination with an endless band mop, a holder therefor comprising an outer substantially rectangular frame, an inner frame also substantially rectangular having transverse members and rigidly secured to said outer frame with one of its transverse members positioned to act as a water table, and a pair of rollers journaled in said inner frame, one of said rollers being removable for insertion within the band.

5. In combination with an endless band mop, a holder therefor comprising an outer substantially rectangular frame, an inner frame also substantially rectangular having transverse members and rigidly secured to said outer frame with one of its transverse members positioned to act as a water table, a pair of rollers journaled in said inner frame, one of said rollers being removable for insertion within the band, the other of said rollers being slidable within said inner frame, and springs operable between one of said transverse members and engaging said slidable roller to hold the same yieldingly in contact with the band.

[Claims 6 and 7 not printed in the Gazette.]

1,207,029. CARBURETER. WILLIAM S. GUTHRIE, Detroit, Mich. Filed Apr. 3, 1914. Serial No. 829,181. (Cl. 261—41.)



1. In a carbureter for internal cobustion engines, in combination, a mixing chamber having a fuel jet therein, a supply reservoir, a fuel passage having restricted connection with the supply reservoir and supplying fuel to said jet, an auxiliary fuel tube for conveying fuel to the mixing chamber, an auxiliary fuel container having restricted connection with said fuel passage, an additional fuel container within said auxiliary fuel container, and from which additional fuel container the said auxiliary fuel tube sucks, means for varying the air pressure in said auxiliary fuel container during the operation of the carbureter.

2. In a carbureter, a mixing chamber having a fuel opening communicating therewith, a main supply reservoir, a fuel passage having restricted connection with said supply reservoir and feeding said fuel opening, an auxiliary fuel reservoir having restricted connection with said fuel passage, an auxiliary fuel passage for conveying fuel from said auxiliary reservoir to the mixing chamber, and means whereby the air pressure in said auxiliary reservoir is caused to vary from atmospheric to sub-atmospheric during the operation of the carbureter.

3. In a carbureter, the combination of a body having a mixing chamber therein, a throttle for controlling the flow of fluids through said chamber, a main fuel feed passage, restricted means for supplying fuel to said fuel passage, an auxiliary reservoir having restricted connection with said fuel passage, means for discharging fuel from said fuel passage into the mixing chamber, so that the said discharge includes initially liquid fuel and finally air from the auxiliary reservoir and means for discharging fuel into said mixing chamber on the exit side of the throttle valve from the said auxiliary reservoir when the engine is normally running at a low rate of speed.

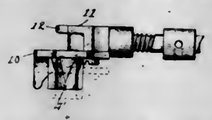
4. In a carbureter, the combination of a body having a mixing chamber therein, a throttle for controlling the flow of fluids through said chamber, a main fuel passage, restricted means for supplying fuel to said passage, an auxiliary reservoir having restricted connection with said passage, means whereby the fuel in the auxiliary reser-

voir may be discharged into the fuel passage, means for discharging fuel into said chamber from said passage so that the said discharge includes initially liquid fuel and finally air from the said auxiliary reservoir, and means for discharging fuel from said auxiliary reservoir into said chamber in advance of said throttle, when the engine is normally running at a low rate of speed.

5. In a carbureter for internal combustion engines, the combination of a body having an air inlet passage, a mixing chamber having connection with the air inlet passage, a supply reservoir, a fuel passage having restricted connection with the supply reservoir, an additional reservoir having restricted connection with the fuel passage, means for supplying air to the additional reservoir from the said air inlet passage, means for supplying liquid fuel from the additional reservoir when the engine is normally running at a low rate of speed, and means for discharging fuel into the mixing chamber so that the said discharge includes initially liquid fuel and finally air from the said additional reservoir.

[Claims 6 to 11 not printed in the Gazette.]

1,207,030. DETACHABLE HORSESHOE-CALK. MICHAEL HALLANAN, New York, N. Y. Filed Oct. 8, 1915. Serial No. 54,778. (Cl. 168—30.)



1. A detachable horseshoe calk comprising a pair of oppositely disposed plates, each plate composed of two superimposed members, calks carried by one of said members, a socket in the other member, means for securing the two members of a plate together and an expansion bolt engaging the sockets whereby the plates may be forced into locking engagement with the inside edges of a shoe.

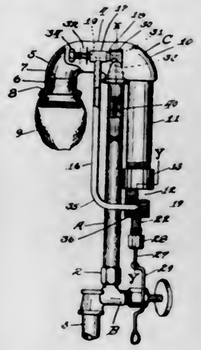
2. A detachable horseshoe calk comprising a pair of oppositely disposed plates, each plate composed of two members, a positioning pin on one member, the other being apertured to receive it, calks carried by one member, a socket in the other member, means for securing the two members of a plate together and an expansion bolt engaging the sockets whereby the plates may be forced into locking engagement with the inside edges of a horseshoe.

1,207,031. VAPOR-BURNER. HANS C. HANSON, Albert Lea, Minn. Filed Mar. 20, 1916. Serial No. 85,339. (Cl. 67—50.)

1. A vapor burner, comprising, in combination, a main vapor generator extending upwardly, a burner head mounted upon said generator having its ends extending downwardly and formed with a longitudinal passage, one of said ends having a mantle holder and its other end having a depending Bunsen tube, an auxiliary vapor generator extending downwardly from said head having a passage connected with the upper end of said main generator and with the lower end of said Bunsen tube, said auxiliary generator being removably mounted upon said head and Bunsen tube, and said generators being arranged in close proximity to said mantle support.

2. A vapor burner, comprising, in combination, a main vapor generating tube extending upwardly, a burner head mounted upon said tube having its ends extending downwardly and formed with a longitudinal passage, one of said ends having a mantle support and its other end having a depending Bunsen tube, an auxiliary vapor generating tube extending downwardly from said head having its passage connected with the upper end of said main generating tube and with the lower end of said Bunsen tube, said auxiliary tube being removably seated in said Bunsen tube, and a coupling removably securing the auxiliary tube to said head, said tubes being arranged adjacent to each other and to said mantle support.

3. A vapor burner, comprising, in combination, a main vapor generator extending upwardly, a burner head mounted upon said generator having its ends extending downwardly and formed with a longitudinal passage, one of said ends having a mantle holder and its other end having a depending Bunsen tube, an auxiliary vapor generator extending downwardly from said head having a coupling member on its upper end removably socketed in said burner head and connected with the upper end of said main generator and a gland member on its lower end removably socketed in the lower end of said Bunsen tube and having an orifice from said auxiliary generator entering said Bunsen tube, and means for holding the head of said auxiliary generator socketed in said burner head, said generators being arranged in close proximity to the mantle carried by said mantle support.



4. A vapor burner, comprising, in combination, a main vapor generator extending upwardly, a burner head mounted upon said generator having its ends extending downwardly and formed with a longitudinal passage, one of said ends having a mantle holder and its other end having a depending Bunsen tube, said Bunsen tube having an upward opening into its lower end, a laterally extending socket seat in said tube adjacent said upward opening and a slot opposite said socket seat, and an auxiliary vapor generator extending downwardly from said head having a coupling member on its upper end removably attached to said burner head and connected with the upper end of said main generator and a gland member on its lower end entering said upward opening and formed with an orifice from said auxiliary generator entering said Bunsen tube, the lower end of said auxiliary generator being held in said slot and said socket seat adjacent to said upward opening and said generators being arranged in close proximity to said mantle support.

5. In combination with a vapor burner having a Bunsen tube, an auxiliary vapor generating tube associated with said burner to be heated thereby, having a coupling on its upper end for detachably connecting it with said burner and having its lower end shaped to form a removable socket connection with the lower end of and having a nozzle entering said Bunsen tube, and means carried by said auxiliary tube for cleaning the orifice in said nozzle.

[Claims 6 and 7 not printed in the Gazette.]

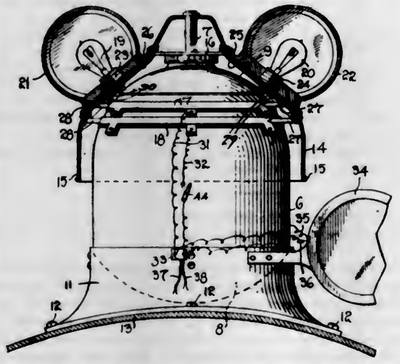
1,207,032. RAILWAY-SWITCH. THEODORE HARDMAN, Lonaconing, Md. Filed May 13, 1916. Serial No. 97,392. (Cl. 104—119.)

1. A railway switch comprising main line rails, supporting members therefor, a stationary plate bridging the space between a pair of members, one of said members being provided with a recess in its upper face, said plate having depending lugs extending within said recess and positioned adjacent the opposite ends thereof, movable rails coacting with the main line rails, a plate secured to the under surface of said rails adjacent corresponding ends thereof, said ends of the rail overlying and resting upon the stationary plate, said second named plate being provided with an extension disposed within the recess of the supporting member and underlying the stationary plate, and means for imparting movement to said movable rail.



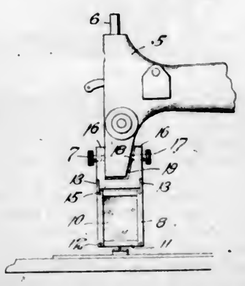
2. A railway switch comprising main line rails, supporting members therefor, a stationary plate bridging the space between a pair of members, one of said members being provided with a recess in its upper face, said plate having depending lugs extending within said recess and positioned adjacent the opposite ends thereof, movable rails coacting with the main line rails, a plate secured to the under surface of said rails adjacent corresponding ends thereof, said ends of the rail overlying and resting upon the stationary plate, said second named plate being provided with an extension disposed within the recess of the supporting member and underlying the stationary plate, a spacing block interposed between said ends of the rails, and means for imparting movement to said movable rail.

1,207,033. AUTOMOBILE-SIGNAL. EUGENE CLAIR HARDWICK, Galena, Kans. Filed Apr. 29, 1916. Serial No. 94,477. (Cl. 40—126.)



An automobile signal comprising a source of electric energy and circuits therefor, a vertically positioned electric motor, a substantially hemispherically-shaped cover secured to the shaft of the motor for rotation therewith and spaced from the frame of the motor, electric contacts mounted on the cover to coöperate with contacts carried on the frame, light emitting elements spaced on and carried by the cover, a base support for the motor, an audible signal mechanism mounted on the support, and means to connect and disconnect said motor, said lights, said audible signal to and from the source of energy through the circuits, so that the motor may be rotated, the lights lit and the audible signal mechanism operated to give warning to a vehicle.

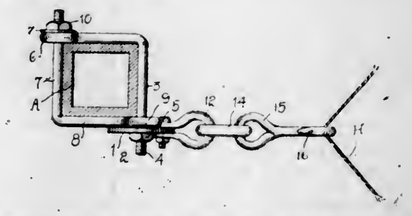
1,207,034. FINGER-GUARD FOR SEWING-MACHINES. MAYBELLE J. HARSANT, Selby, Cal. Filed May 11, 1916. Serial No. 96,858. (Cl. 112—29.)



1. In combination with a machine of the class described, of a block, arms projecting upwardly from said block, screw members securing said arms to a machine head, pintles projecting from the ends of said blocks, shoulders above said pintles, stops on said ends to the rear of said pintles, a frame, means projecting from one end of said frame and being provided with longitudinally disposed apertures for engagement with said pintles, and a diaphanous member in said frame, substantially as described.

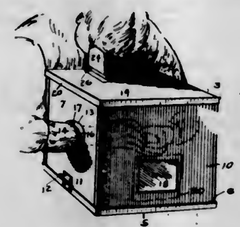
2. In a device of the class described, a block, arms projecting from said block, inwardly extending screw members on said arms, the end of said block being equipped with shoulders and stops, a frame, ears projecting from said frame and pivotally connected to said block ends, the said frame being provided upon its inner edges with longitudinally disposed grooves, a pane in said grooves, and a gate closing the lower end of said frame, substantially as described.

1,207,035. DRAFT APPLIANCE. CASPAR HENNES, Scottsville, Kans. Filed Mar. 29, 1916. Serial No. 87,564. (Cl. 21—189.)



In combination with an axle of a vehicle, a draft appliance comprising an elongated plate, a longitudinal marginal portion of which underlies the axle, means coacting with the inner portions of the plate for holding the same in applied position relative to the axle, a clip pivotally engaged with the opposite longitudinal marginal portion of the plate at substantially midway the length thereof, said clip being movable about an axis at right angles to the plate, an annular member loosely directed through the clip, and a hook member provided with an eye through which the annular member is also loosely directed, the annular member and the returned portion of the hook member being substantially horizontal when under strain.

1,207,036. PHOTO-FILM DEVELOPING OR CHANGING BOX. HENRY K. HENNIGH, Newcastle, Ind. Filed Sept. 30, 1915. Serial No. 53,368. (Cl. 95—91.)



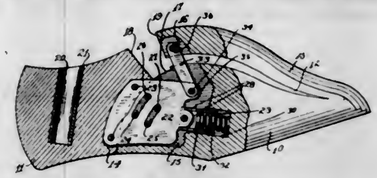
1. A film-box having sides, top and bottom all in separable members, means for making the joints between the members impervious to light, said box having a sight opening in the top and a window in one side both covered with suitably colored material, screen-holding means on opposite sides of the sight opening, a screen section hinged to the box close to an edge of the sight opening which is at right angles to those near which the screen holding means are located, a pair of screen sections hinged to said first section and adapted to be held in operative position by said screen holding means, said box having hand-holes in two of its sides which are at right angles to the one with the window, and flexible light-proof sleeves surrounding the hand-holes and extending externally of the box to envelop the operator's arms with a light-excluding fit.

2. A film-box having sides, top and bottom all in members which are separable from each other, sliding lock joints connecting said side members with each other, formed by bending the vertical edges of one member outwardly against itself, thence out at right angles, thence back at right angles and thence at right angles across the first bend, and by bending the vertical edge of the mating member at right angles to form a hook which is slid endwise into a hook shaped bend of the first member, said top and bottom members having marginal flanges which telescopically receive said sides in the assembled condition of the latter, packing means to exclude the passage of light through the joints between the sides and the top and bottom of the box, said box having a window opening and a sight opening and means for permitting the introduction of the operator's hands into the box without admitting light.

3. A knock-down film-box having sides, top and bottom all in members which are separable from each other, means for admitting an operator's hands to the interior of the box without admitting light, said box having a window and a sight-opening and a screen adapted to be raised around the sight opening while the box is in use and to be lowered flat against the top of the box at other times, said screen being in a plurality of sections hinged to each other, one of which sections is hinged to the box.

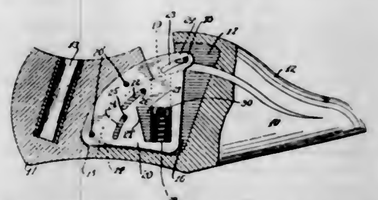
1,207,037. LAST. PATRICK H. HICKMAN, Irvington, N. J., assignor of one-half to Thomas Aloysius Hickman, Irvington, N. J. Filed Feb. 2, 1915. Serial No. 5,745. (Cl. 12—136.)

A last including a toe portion, a heel portion, the toe portion having an expansible and contractible section, said toe and heel portions meeting upon a curve, a plate fixed to the heel portion and entering a recess formed in the toe portion, said plate being formed with arcuate slots, pins carried by the toe portion and extending through said slots, the edge of said plate which is disposed within the recess of the toe portion being formed with spaced apertured projections, one of said projections being disposed at substantially the center of the plate and the other at the upper edge of the plate, a link connecting the last mentioned projection with the expansible section of the toe portion, a barrel, one terminal of which is bifurcated, said barrel extending within the toe portion, the projection arranged substantially centrally of the plate extending between the bifurcations of said barrel, a pivot pin passing through said bifurcations and said extensions and a spring



housed by the barrel and contacting with the same, said spring exerting pressure on said plate through the medium of the barrel to maintain the heel and toe portions in their extended position and the expansible section of the toe portion in its expanded position.

1,207,038. LAST. PATRICK H. HICKMAN, Irvington, N. J., assignor of one-half to Thomas Aloysius Hickman, Irvington, N. J. Filed Feb. 5, 1915. Serial No. 6,335. (Cl. 12—136.)



1. In a last, a toe portion, a heel portion, a plate rigidly supported by the heel portion and having a sliding connection with the toe portion, said toe portion including an expansible and contractible section, said plate having a sliding connection with said section, there being an opening formed in said plate and a spring housed within said opening and interposed between the toe section and the plate for normally maintaining the heel and toe portions in extended position.

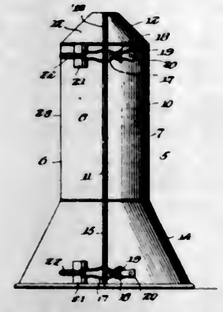
2. In a last, a toe portion, a heel portion, a plate rigidly secured to the heel portion and having sliding connection with the toe portion, said toe portion including an expansible and contractible section, said plate having a sliding connection with said section, there being an opening formed in said plate, a lug projecting from the plate into said opening, and a coiled spring having one of its terminal convolutions embracing said lug, the other terminal of said spring being connected to the toe portion, the normal tendency of the spring being to maintain the toe and heel portions in extended position.

1,207,039. PLANT-PROTECTOR. CHARLES HILDRETH and JOHN T. RABUS, Staunton, Ill. Filed July 19, 1916. Serial No. 110,166. (Cl. 47—22.)

1. A plant protector comprising a hollow tubular cylinder, said cylinder comprising a pair of hingedly connected sections, each provided along their vertical edges with laterally extending flanges, a cap for each of said sections, and means pivotally mounted on each of said sections for interlocking engagement with one another, for holding the flanges of one section in contact with the flanges of the opposite section, substantially as and for the purpose specified.

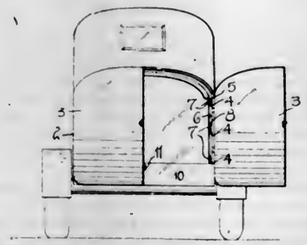
2. A plant protector embodying a cylindrical casing including a pair of semi-cylindrical hingedly connected sections, each of said sections having outer and inner walls, means for spacing the walls from one another, each of the said inner and outer walls of the section being provided

with a contracted upper end, and a flared base formed contiguous with and on the lower end of the outer wall of said sections, and means for locking the sections together.



3. A device of the class described embodying a casing formed from a pair of hingedly connected sections, each of said sections being provided with inner and outer spaced side and top walls, a packing interposed between the side and top walls of said section, and means for locking said sections in abutting relation one to the other.

1,207,040. REMOVABLE AUTOMOBILE-SEAT. CLYDE H. HILL, Independence, Oreg. Filed July 31, 1915. Serial No. 42,930. (Cl. 21—43.)



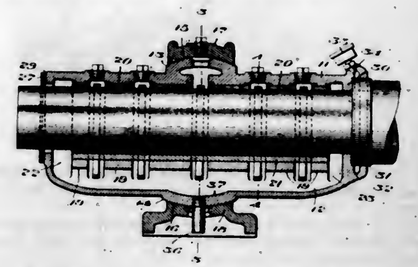
1. The combination with an automobile body having rear doors, the side walls of the body being formed with supporting U-shaped channel irons, of a seat having outwardly projecting ribs on each side engaging the said channel irons, and means for detachably locking one of said ribs to its corresponding channel iron.

2. The combination with an automobile body having rear doors, the side walls of the body being formed with supporting guide U-shaped channel irons, of a seat having outwardly projecting ribs on each side engaging said channel irons, and means for locking one of said ribs to its corresponding channel iron, said means including a spring pressed bolt mounted on the channel iron and projectable into a perforation in the rib.

3. The combination with an automobile body having rear alterally opening doors, the side walls of the body being formed with supporting guide channels, of a seat having outwardly projecting ribs on each side engaging said channels, the seat having a bottom and being supported with its bottom above the floor of the body, and a door closing the space between the bottom of the seat and the floor of the body.

4. The combination with an automobile body having rear laterally opening doors, the side walls of the body being formed with supporting guide channels, of a seat having outwardly projecting ribs on each side engaging between said channels, and a door so hinged to the floor of the body at its rear end that it may be turned downward upon the floor, or upward to close the space between the seat and the floor, or shifted outward to permit access to the space between the seat and floor, and means for latching the door in its vertical position.

1,207,041. BEARING. JOSEPH L. HILLER, Mattapoisett, Mass. Original application filed Jan. 25, 1911, Serial No. 604,621. Divided and this application filed Sept. 25, 1915. Serial No. 52,664. (Cl. 64—24.)



1. A bearing comprising a journal box, a plurality of transverse supports in the lower part of said journal box spaced apart throughout substantially the entire length of the same, a continuous liner adapted to be supported by said supports, and a continuous unbroken oil well extending from end to end of the bearing and located beneath said liner and supports.

2. A bearing comprising a body portion having a plurality of spaced-apart supports in the lower part thereof, and provided with a continuous unbroken oil-well beneath said supports extending from end to end of the bearing, and means for draining the oil from said well.

3. A bearing comprising an upper part, a relatively larger lower part, and a liner carried in the lower part and adapted for engagement with the upper part to retain the liner from rotation, said liner being rotatable through substantially 180 degrees upon the removal of the upper part whereby said liner may be removed from the bearing without disturbing the relation between the shaft and the lower part.

4. A bearing comprising an upper part, a relatively large lower part, and a continuous liner extending from end to end in the lower part and being of semi-circular cross-section, said upper part being adapted to engage the edges of the liner whereby to hold the same from rotation in the lower part, said liner being rotatable through substantially 180 degrees upon the removal of the upper part whereby to admit of the removal of the liner without disturbing the relation between the shaft and the lower part of the bearing.

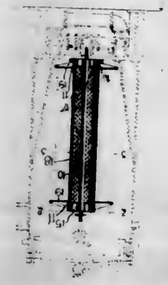
5. A bearing comprising an upper part, a relatively large lower part, and an unbroken liner supported within the lower part and extending from end to end thereof and adapted for rotation to a position above the shaft, said upper part being adapted to engage said liner whereby to hold the same from rotation when in position in the lower part, said upper part being without a liner and having a bearing surface engaging directly with the shaft, said liner being rotatable above the shaft upon the removal of the upper part.

[Claims 6 to 12 not printed in the Gazette.]

1,207,042. COMPOSITION OF MATTER FOR DEVELOPING AND FIXING PHOTOGRAPHIC EXPOSURES. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., a Corporation of New York. Filed Oct. 7, 1913. Serial No. 793,891. (Cl. 95—88.)

The herein described developing and fixing composition containing a developing agent, sodium sulfite, an alkali carbonate, sodium hyposulfite, glycerin and citric acid.

1,207,043. LEAD-LINED YARN-BEAM. EUGENE HOLT and LAFAYETTE HOLT, Burlington, N. C. Filed Sept. 10, 1914. Serial No. 861,078. (Cl. 8—17.)



1. A yarn beam having a body portion of base metal and provided with a yarn-bearing surface of non-corrosive metal.

2. A yarn beam having a body portion of base metal and provided with a sheath of non-corrosive metal forming a yarn-bearing surface.

3. A yarn beam having a body portion of base metal provided with a yarn-bearing surface of lead.

4. A yarn beam having a hollow barrel and terminal heads provided on their yarn-bearing surfaces with a sheath of substantially impervious non-corrosive material.

5. A yarn beam having a perforated barrel closed at one end and having an inlet at the other end and fitted with terminal heads, and a sheath of non-corrosive metal arranged upon the exterior surface of the barrel and the facing surfaces of the heads, the barrel covering portion thereof being perforated in registration with the perforations of the barrel.

[Claims 6 to 9 not printed in the Gazette.]

1,207,044. LOCKING-CLOSURE FOR CONTAINERS. AUGUST HOLTZ, Grant Park, Ill. Filed Jan. 21, 1916. Serial No. 73,376. (Cl. 220—28.)



1. The combination with a container having a neck extending therefrom, of a closure having marginally arranged projecting arms, said neck having a ball thereon and receiving recesses for said arms, said ball having cam portions for engagement with the arms to maintain the closure on the container.

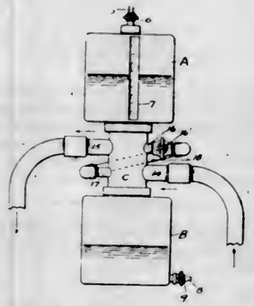
2. The combination with a container having a neck thereon, provided with a flange, of a closure for said container having a flange for engagement with first said flange, a ball on said neck, a plurality of arms extending from the closure and seats therefor on said neck, said ball being formed with cam portions for engagement with said arms, and locking means associated with the ball.

3. The combination with a container having a neck provided with an annular flange, of a closure having a pair of arms extending therefrom, a pair of lugs on the neck, and a ball pivoted therein and having bearing and cam portions on its extremities, said cam portions being engageable with the arms to clamp the closure on the container.

4. The combination with a container having a neck provided with an annular flange, of a closure, said closure having a collar, a pair of ears mounted on the said collar in diametrically opposite relation, the said ears being provided with transverse openings, a strip, arm members formed on the opposite ends of said strip, the said arms extending through the openings in the ear members, a pair of lugs mounted on the neck, said lugs being adapted to form seats for the arms, a ball mounted on said lugs, said ball being formed with cammed portions for engagement with said arms, and locking means associated with the ball.

5. The combination with a container having a neck thereon, provided with a flange, of a closure for said container having a flange for engagement with first said flange, a plurality of arms extending from the closure, a pair of lugs mounted on the said neck, tongue members formed on the sides of said lugs and bent upwardly forming seats to receive the said arms, a ball mounted on the said lugs, said ball being formed with cam portions for engagement with said arms, and locking means associated with the ball.

1,207,045. VOLUMETER. ERNEST G. HOPSON, Portland, Oreg. Filed July 13, 1915. Serial No. 39,595. (Cl. 73—167.)



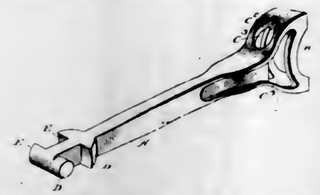
1. A volumeter of the character described, comprising an upper container, a lower container, a vertical connection C between the containers, said connection having a diaphragm therein provided with an orifice the area of which is determined and fixed with relation to the size of said containers and period of operation, an influent pipe entering the connection C below its diaphragm, and an effluent pipe discharging from the said connection above the diaphragm, substantially as described.

2. A volumeter of the character described, comprising an upper container, a lower container, a vertical connection C between the containers, said connection having a diaphragm therein provided with an orifice, an influent pipe provided with an orifice entering the connection C below its diaphragm, an effluent pipe provided with an orifice discharging from the said connection above the diaphragm, one of the orifices mentioned having an area which is determined and fixed by the size of the containers and period of operation, one or both of the others having an area not less than that of the one so determined, and a gage on one of the containers, substantially as described.

3. A volumeter of the character described, comprising an upper container, a lower container, a vertical connection C between the containers, said connection having a diaphragm therein, a vertically movable pipe within the connection C passing through the diaphragm, said pipe having an orifice therein the area of which is determined with relation to the size of the said containers and period of operation, an influent pipe entering the connection C below its diaphragm, and an effluent pipe discharging from said connection above the diaphragm, substantially as described.

4. A volumeter of the character described, comprising an upper container, a lower container, a vertical connection C between the containers, said connection having a diaphragm therein, a vertically movable pipe within the connection C passing through the diaphragm, said pipe being provided with an orifice, an influent pipe provided with an orifice, entering the connection C below its diaphragm, an effluent pipe proyided with an orifice discharging from said connection above the diaphragm, one of the orifices mentioned having an area which is determined and fixed by the size of the containers and period of operation, one or both of the others having an area not less than that of the one so determined, and a gage on one of the containers, substantially as described.

1,207,046. SPANNER FOR HOSE-PIPE COUPLINGS. HENRY J. M. HOWARD, Washington, D. C. Filed May 18, 1916. Serial No. 98,382. (Cl. 81—90.)



1. A spanner for hose pipe couplings embodying a handle, a head integral therewith, the intermediate portion of the face of the head being recessed transversely of the axis of the handle, said head having an elongated central aperture merging into side and edge openings, the end walls of the recess intersecting the end portions of the face of the head at an acute angle and one end of said recess being provided with converging walls whereby hose pipe coupling lugs of different diameters may be gripped.

2. A spanner for hose pipe couplings, embodying a handle, a head integral therewith at one end and having a curved recess extending transversely of the axis of the handle, said recess having a central elongated opening with converging walls at one end for the reception of and coöperation with the lugs or projections on a hose pipe coupling.

3. A spanner for hose pipe couplings, embodying an elongated handle having a head at one end integral therewith, said head having its end face provided with a curved recess arranged transversely of the axis of the handle, said recess having an elongated central aperture merging into side and edge openings, the end walls of the recess being radial to the center of the curved recess and one end of said recess being provided with converging walls for gripping hose pipe coupling lugs of differing diameters.

1,207,047. FINGER-RING. ALFRED T. HUNT, New York, N. Y. Filed Sept. 1, 1915. Serial No. 48,405. (Cl. 63—15.)

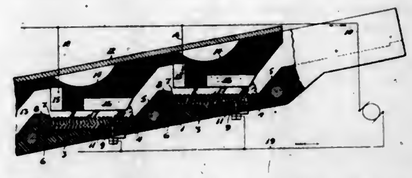


1. A finger ring comprising a ring body containing base metal and having a thick wall; and an endless band upon which said ring body fits tightly, said endless band being thin as compared with said wall of said body member, forming an inner lining for said ring body.

2. A finger ring comprising a ring body containing a base metal, and an endless band made of a substance incapable of discoloring the finger, said band forming an inner lining for said ring body and being so thin that when the ring is fitted upon the finger said band is concealed by the skin immediately adjacent the ring.

3. A finger ring comprising a ring body made of material liable to discolor the finger of the wearer by contact therewith, and an endless band of protecting material covering the inner surface of said ring body in order to prevent contact between said surface and the finger of the wearer, said band being sufficiently thin to be concealed by the skin of the finger when the ring is worn thereupon.

1,207,048. METHOD OF ELECTROLYTICALLY RECOVERING METALS. WILLIAM A. HUSSEY, Oakland, Cal., assignor, by mesne assignments, of one-half to James H. Alling and one-half to Francis M. Wright, San Francisco, Cal. Original application filed June 26, 1912, Serial No. 705,947. Divided and this application filed Apr. 15, 1913. Serial No. 761,247. (Cl. 204—15.)



1. The method of recovering metal from metalliferous pulp which consists in passing the pulp with an electrolyte over mercury in a cell, passing a current of electricity through one portion of the cell to decompose the electrolyte, continually changing the path of said electric current through said cell, and continually removing the electricity generated in another portion of said cell by the chemical action of the components of the electrolyte.

2. The method of treating metalliferous pulp, which consists in mixing it with an aqueous solution of common salt, passing the mixture over a mercury cathode, electrolyzing the mixture to generate nascent chlorin and sodium, separating from one another the sodium and the current electrons to permit the sodium to form, with water, caustic soda and hydrogen, causing the nascent chlorin and the caustic soda to act upon the metalliferous particles, reuniting the uncombined caustic soda and chlorin to form common salt and assisting this reunion by conducting off the current of electricity generated thereby.

3. The method of treating metalliferous pulp which consists in mixing it with an aqueous solution of common salt, passing the mixture over a mercury cathode, electrolyzing the mixture to generate nascent chlorin and sodium, separating from one another sodium and the current electrons to permit the sodium to form, with water, caustic soda and hydrogen, causing the caustic soda to act upon the metalliferous particles, reuniting the uncombined caustic soda and chlorin to form common salt, and assisting this reunion by conducting off the current of electricity generated thereby.

4. The method of treating metalliferous pulp which consists in mixing it with an aqueous solution of common salt, passing the mixture over a mercury cathode, electrolyzing the mixture to generate nascent chlorin and sodium, separating from one another sodium and the current electrons to permit the sodium to form, with water, caustic soda and hydrogen, causing the nascent chlorin to act upon the metalliferous particles, reuniting the uncombined chlorin and caustic soda to form common salt, and assisting this reunion by conducting off the current of electricity generated thereby.

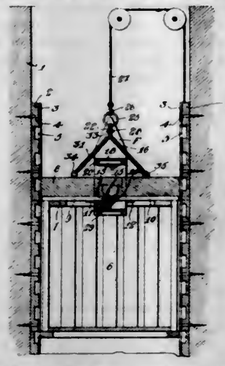
5. The method of recovering metal from metalliferous pulp, which consists in mixing the pulp with an aqueous electrolyte passing an electric current to the electrode therethrough to decompose the electrolyte, separating the current electrons and the cathion component of the electrolyte and acting upon the pulp by an agent produced by the chemical action of the cathion on the water of the electrolyte.

[Claims 6 to 13 not printed in the Gazette.]

1,207,049. ELEVATOR SAFETY ATTACHMENT. JAMES JACKSON, Gregory, Mich. Filed Sept. 16, 1915. Serial No. 51,033. (Cl. 187—84.)

1. A safety attachment for elevators, including a plurality of laterally slidable locking bars, a frame comprising spaced side members, operating means connected with said frame, and cams carried upon said side members and

engageable with said bars whereby the same will be moved to locking positions upon failure of the cable.



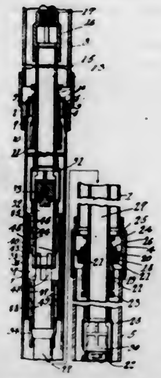
2. A safety attachment for elevators, including a plurality of laterally slidable yieldably connected locking bars, pins on said bars, a frame comprising spaced side members, spacing means therefor, spring actuating means connected with said frame, and cams carried upon said sides and engageable with said pins to move said bars to locking position.

3. A safety attachment for elevators, including, in combination with an elevator shaft having apertured guides therein and a cage, laterally slidable locking bars for engagement in said apertured guides, means for normally maintaining said bars in retracted positions, a frame comprising spaced side members, spacing means therefor, spring actuated means connected with said frame, and cams carried upon said side members and engageable with said locking bars whereby to move the same to locking positions upon failure of the cable.

4. A safety attachment for elevators, including, in combination with an elevator shaft having apertured guides therein and a cage, a plurality of laterally slidable yieldably connected locking bars carried by the cage, pins on said bars, a frame comprising spaced side members arranged upon said cage and movable with relation thereto, spacing means therefor, a top bar secured to said side members to facilitate connection with a cable, spring actuating means connected to said top bar and said cage for moving the frame and sides, and cams carried upon said side members engageable with said pins to move the locking bars into engagement with the apertured guides upon failure of the cable.

1,207,050. DOUBLE-ACTION WELL-PUMP. ERNST AUGUST H. JACOB, San Antonio, Tex. Filed Feb. 19, 1916. Serial No. 79,365. (Cl. 103—70.)

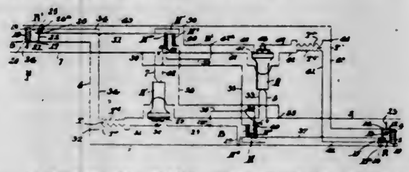
1. A pump embodying a vertical barrel, a reciprocatory tubular member therein provided between its ends with an enlargement, said member extending through the enlargement and having a partition between the ends of the enlargement, said enlargement having longitudinal partitions therein providing passages and the enlargement having openings at its opposite ends registering with alternate passages, said member having openings between said partition and the ends of the enlargement establishing communication between the alternate passages and the upper and lower portions of said member above and below said partition, one set of passages establishing communication between the lower portion of said member and the space above the enlargement and the other set of passages establishing communication between the upper portion of said member and the space below the enlargement, there being a plurality of passages in each set, said passages being in annular arrangement around said member, check valves for the upper and lower portions of said member, and check valves at the upper and lower ends of the barrel past which the terminals of said member extend.



2. A pump embodying a vertical barrel, a vertical tubular member therein provided between its ends with an enlargement, said enlargement having openings at its ends, and the enlargement and said member having passages establishing communication between the lower portion of said member and the upper openings and between the upper portion of said member and the lower openings, collars upon said member above and below and adjacent to said enlargement and having passages communicating with said openings, packing cups upon said members extending away from said enlargement, check valves for the upper and lower portions of said member, and check valves at the upper and lower ends of the barrel past which the terminals of said member extend.

3. A pump embodying a vertical barrel, a vertical tubular member therein provided between its ends with an enlargement, said enlargement having openings in its upper and lower ends and passages establishing communication between the lower portion of said member and the upper openings and between the upper portion of said member and the lower openings, collars fitted upon the member above and below and adjacent to said enlargement and having passages communicating with said openings, packing cups upon said collars and clamped between said collars and enlargement, the packing cups projecting away from the enlargement, check valves for the upper and lower portions of the member, and check valves at the upper and lower ends of the barrel past which the terminals of said member extend.

1,207,051. TELEPHONE REPEATER OR RELAY. ARCY H. JOHNSON, Pulaski, Tenn., assignor of one-half to Cyrus C. Houston, Lewisburg, Tenn. Filed Feb. 12, 1916. Serial No. 77,959. (Cl. 179—171.)



1. In a telephone repeater, the combination of a main line divided into line sections, each section comprising a normally closed talking circuit, a coacting transmitter and receiver connecting adjacent line sections, and automatic means for opening and closing the local circuits when signaling and voice impulses are impressed on the main line.

2. In a telephone repeater, the combination with a main line comprising a plurality of local talking circuits, a combined receiver and transmitter connecting adjacent line sections, a relay interposed in one of the main lines and normally maintaining the talking circuits closed, said relay operating to open the talking circuits when a signaling current is impressed on the main lines, the relay serving to direct the local circuit through a coil when the talking circuits are open, said coil having its secondary winding electrically connected with the main line of an adjacent line section.

3. In a telephone repeater, the combination with a main line comprising a plurality of local talking circuits, a combined receiver and transmitter connecting adjacent line sections, a relay interposed in one of the main lines and normally maintaining the talking circuits closed, said relay operating to open the talking circuits upon a signaling current being directed through the main lines, said relay when the talking circuits are open serving to direct the local circuit through a coil, said coil having its secondary winding electrically connected with the main line of an adjacent line section, the primary winding and circuit therefor including a vibrator of low frequency and a source of electric energy.

4. In a telephone repeater, the combination with a main line comprising a plurality of local talking circuits, a combined receiver and transmitter connecting adjacent line sections, a relay interposed in one of the main lines and normally maintaining the talking circuits closed, said relay operating to open the talking circuits upon a signaling current being directed through the main lines, and when the talking circuits are open the relay serving to direct the local circuit through a coil, said coil having its secondary winding in electrical connection with the main line of an adjacent line section whereby, when the talking circuit is open, the relay will close the circuit through the secondary winding of the coil to the main line of the adjacent line section to relay the signaling current from one line section to another.

5. In a telephone repeater, the combination with a main line divided into line sections, each section comprising a plurality of local talking circuits, a combined receiver and transmitter connecting adjacent line sections, a relay interposed in one of the main lines and normally maintaining the talking circuits closed, and electrical connections coacting with the battery of the local circuits and the relay when the talking circuit is open for relaying the signaling current from one line section to another.

[Claim 6 not printed in the Gazette.]

1,207,052. SUCKLING DEVICE. CHARLES E. JOHNSON, Fond du Lac, Wis. Filed Nov. 23, 1915. Serial No. 63,033. (Cl. 119—71.)

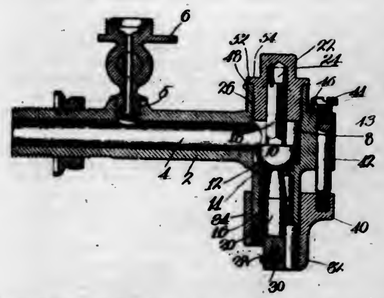


1. A suckling device comprising a supply for the liquid, a tube leading therefrom, and a feeding-valve composed of two longitudinal parts loosely connected and fulcrumed so as to rock one upon the other, a short tube passing into one of the parts and terminating between the parts of the valve, and a spring for clamping the parts together at one side of the fulcrum, substantially as shown and described.

2. A suckling device comprising a receptacle for the liquid, a tube leading therefrom, and a valve or nipple into which the outer end of the tube projects, the valve consisting of two longitudinal sections spaced apart and fulcrumed intermediate their ends to rock one upon the other and having longitudinal grooves at their inner sides extending to the outer end of the nipple, and means for normally pressing the inner ends of the sections of the valve or nipple together on the tube to close the same.

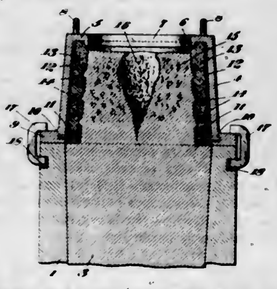
3. A suckling device for feeding and watering stock, the combination with a receptacle for the liquid and a flexible tube leading therefrom, of a valve or nipple consisting of two longitudinal sections spaced apart and fulcrumed intermediate their ends to rock one upon the other, grooves extending longitudinally along the inner side of said sections and in which the outer end portion of the tube lies, bosses at the inner ends of the sections to pinch the tube and cut off the flow of liquid to the nipple when said inner ends are brought together, and a spring for normally closing the inner ends of the valve or nipple.

1,207,053. FAUCET. HENRY D. KELLY, Kansas City, Mo. Filed Jan. 8, 1914. Serial No. 811,106. (Cl. 137—4.)



A faucet having a receiving passage and a valve chamber, a valve operating within said chamber, a downwardly directed discharge nozzle communicating at its upper end with said valve chamber, said valve being provided with a stem projecting downwardly through said nozzle, a sleeve slidingly mounted on the nozzle and connected to the lower end of said stem, a handle carried by said sleeve and adapted for engagement by receptacles presented to the discharge nozzle for intermittently operating the valve, a vertically guided stem connected to said sleeve and provided with a head at its upper end, and a cam mounted on said faucet and operable to engage said head and lift said vertically guided stem to maintain the valve open.

1,207,054. INGOT-MOLD TOP. EDWARD F. KENNEY, Westmont borough, Pa. Filed Sept. 23, 1915. Serial No. 52,168. (Cl. 22—147.)



1. An ingot mold top comprising a casing seated on and above the upper part of a mold, said casing being provided with openings at the top and bottom portions thereof, and a non-conducting lining therein and adapted to be removed substantially intact therefrom.

2. An ingot mold top comprising a casing mounted on and above the upper portion of an ingot mold, said casing being open at the upper and lower portions thereof a comparatively thick non-conducting lining extending around the inner side of the said casing and adapted to be removed substantially intact therefrom.

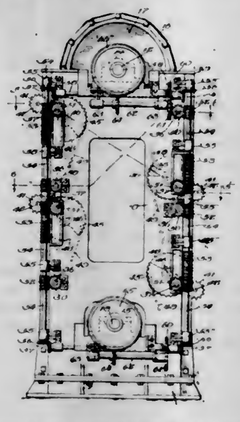
3. An ingot mold top comprising a casing or box-like structure with open top and bottom, the lower portion of which is above and rests upon the top of the ingot mold, the inner side surfaces of the same being provided with a covering of refractory lubricating material on which is a non-conducting lining temporarily held in position by means destructible by heat.

4. An ingot mold top comprising a flask, open top and bottom, a non-conducting lining temporarily secured therein, the lower edge of the lining being substantially coincident with the lower surface of the mold top and adapted to be removed substantially intact therefrom.

5. An ingot mold top comprising a metallic casing, the lower portion of which is fitted within the upper end of the ingot mold, an outwardly extending flange near the lower edge of the casing adapted to be seated on top of the ingot mold and a non-conducting lining having a roughened inner surface temporarily secured to the inner side surface of said casing by means destructible by heat.

[Claims 6 and 7 not printed in the Gazette.]

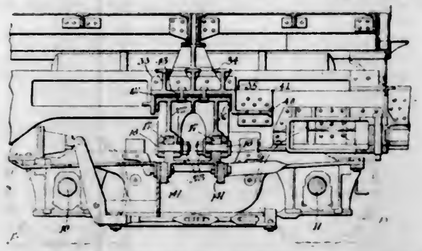
1,207,055. SHREDDING-MACHINE. JOHN W. KEOGH, Chicago, Ill. Filed Apr. 17, 1916. Serial No. 91,552. (Cl. 144—187.)



In a machine of the class described, a frame, a plurality of independently supported shafts carried by the frame, an endless carrier mounted on said shafts, work engaging tools spaced apart on said carrier and engaging work in one direction on one side of the frame and engaging work in another direction on another side of the frame, work feeding mechanism for a plurality of pieces of work on different sides of the frame and arranged in independent sets, the members of a set being on opposite sides of the frame, one set of work feeding mechanism being operated by one of the shafts to feed while the work of the other set of feeding mechanism is being cut, and the other set of work feeding mechanism being operated by another of said shafts to feed while the work fed by the other set of feeding mechanism is being cut.

1,207,056. LOCOMOTIVE. WILLIAM F. KIESEL, Jr., Altoona, Pa. Filed Mar. 20, 1916. Serial No. 85,429. (Cl. 105—17.)

1. In a railway vehicle the combination of a truck having a frame thereon, a body frame, and a rocker pivoted on the truck frame and swingable on its pivot transversely of the truck and body to pivotally support the body frame on the truck frame in such a manner that the truck may have side motion with respect to the body, said rocker being largest at its upper end and tapering inwardly and downwardly from its upper end to its pivot and cooperating with means on the body frame for connecting the latter to the truck frame so that the truck may swivel.



2. In a railway vehicle the combination of a two-axle truck having a transom mounted between the axles, a body frame, a rocker pivotally mounted on the transom centrally of the truck and having an upper end swingable in a plane transversely of the body and truck, a center plate forming a bearing on the under side of the body frame and having a bearing surface surrounded by a rim to form a cavity to receive the upper end of the rocker, said rocker having a flat bearing part on its upper side, the connection between the rocker and the cavity on the center plate being arranged to permit the truck to swivel.

3. In a railway vehicle, the combination of a truck, having a transom, a fulcrum casting mounted on the transom, a body frame, and a rocker pivoted on the fulcrum casting and supporting said body frame on the truck.

4. In a railway vehicle, the combination of a truck having a frame supported thereby, a fulcrum casting secured to said frame substantially centrally of the truck, a body frame, and a rocker pivoted on said fulcrum casting so as to swing transversely of the truck and having swivel supporting connection with the frame.

5. In a railway vehicle, the combination of a two-axle truck having a transom supported between the axles, a fulcrum casting mounted on the transom centrally of the truck, a body frame, a frame supporting casting secured to the body frame, and a rocker pivoted on the fulcrum casting and meshing with the frame supporting casting.

[Claims 6 to 13 not printed in the Gazette.]

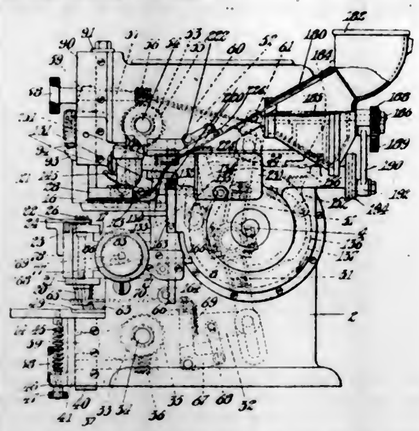
1,207,057. MACHINE FOR SETTING LACING-HOOKS AND THE LIKE. ALBERT LATHAM, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 13, 1909. Serial No. 527,869. (Cl. 218—0.5.)

1. A machine for setting fasteners in sheet material, having, in combination, gang setting devices, power operated fastener supplying mechanism, a clutch for starting and stopping said supplying mechanism, and a cam for automatically engaging and disengaging said clutch.

2. A machine for setting fasteners in sheet material, comprising fastener-setting mechanism, mechanism for supplying said setting mechanism with fasteners ready for insertion in the work, automatic means for stopping the setting mechanism, a normally stationary actuator for the fastener supplying mechanism, and means for automatically throwing the actuator into action when the setting mechanism is stopped.

3. A machine of the class described, having, in combination, a frame, a punch and upsetting die maintained on opposite sides thereof in vertical alinement, and means located on opposite sides of the frame and movable relatively thereto to coöperate with said punch and die for punching the work and setting a fastener.

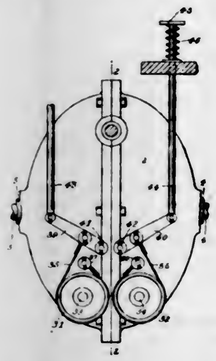
4. A machine of the class described, having, in combination, a frame, a spindle mounted therein, a punch carried by one end of said spindle, an upsetting die carried by the other end thereof, and means located respectively beyond the opposite ends of the spindle and coöperating with said punch and die for punching the work and setting a fastener.



5. A machine of the class described having, in combination, a frame having upper and lower horizontal faces, a punch projecting from one face, a die projecting from the other face, a power driven actuator, and separate members for coöperating respectively with the punch and with the die arranged to be moved by said actuator toward the upper and lower faces of the frame for effecting first the punching operation and then the setting operation.

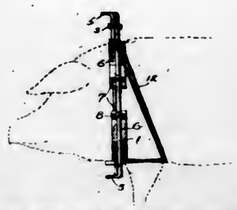
[Claims 6 to 166 not printed in the Gazette.]

1,207,058. POWER STEERING-GEAR. ALBERT O. LEEDY, Bellville, Ohio. Filed Feb. 24, 1916. Serial No. 80,191. (Cl. 21—114.)



A power steering gear comprising two axle shafts mounted in a line, two driven bevel gears fixed upon the inner end portions of said shafts; two bevel pinion carriers rotatably mounted between the bevel gears, bevel pinions mounted in the carriers and meshing with the bevel gears, driving bevel gears rotatably mounted between the bevel pinion carriers and meshing with the bevel pinions, means for operating the driving bevel gears, and means for intermittently holding or releasing either or both of the bevel pinion carriers from rotating, so as to transmit power to either or both axle shafts as desired to go straight ahead or backward, or turn in either direction.

1,207,059. NECK-YOKE. CICERO F. MCCLURE, Angleton, Tex. Filed June 7, 1915. Serial No. 32,673. (Cl. 119—138.)

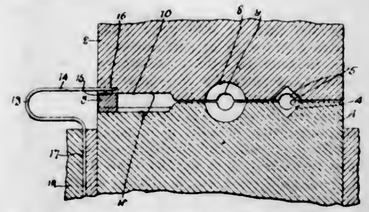


1. A neck yoke including a plurality of tubular members of uniformly spaced openings adjacent the ends thereof, fastening means engaging the openings for adjustably clamping the members in a triangular formation about the neck of an animal, guarding hooks formed by flattening and bending the terminals of said members, and protecting means removably and adjustably mounted on the members.

2. A neck yoke including a plurality of tubular members adjustably clamped in a triangular formation about the neck of an animal, guarding means formed on the ends of the members, and the lower of said members being flattened and bent into a curved formation intermediate its ends to provide a throat receiving recess.

3. A neck yoke including a plurality of members having a plurality of openings adjacent the respective terminals thereof, fastening means passing through the openings for adjustably maintaining the sections in a triangular formation, guarding hooks formed on the terminals of the side members, the lower of said members being flattened and bent intermediate its ends to provide a throat receiving recess, protecting strips adjustably associated with said members, and means for fastening the lower of the fastening strips in the recess to prevent accidental displacement of the strips.

1,207,060. MARKING DEVICE. ELMER T. MCPHERSON, Wilmington, Ohio, assignor to The Irwin Auger Bit Company, Wilmington, Ohio, a Corporation of Ohio. Original application filed May 20, 1915, Serial No. 29,284. Divided and this application filed May 19, 1916. Serial No. 98,521. (Cl. 101—13.)



1. In a device of the character described, an anvil die, a resilient bar having a vertical portion fixed at one side of said anvil die, and an intermediate portion looped with the end thereof extending horizontally over the die, a marker on said end, and a hammer die.

2. In a device of the character described, a hammer die and an anvil die, a recess in the hammer die extending from one side thereof inwardly, a resilient bar mounted at said side of the anvil die and having an end projecting into said recess, and a marker on said end.

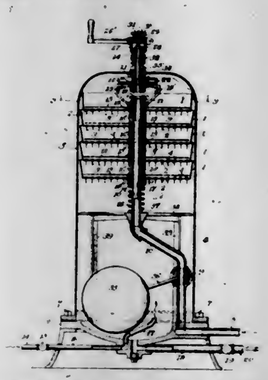
3. In a device for forging auger bits, a lower die and an upper die, said dies having portions sunken therein,

extending from one side inwardly, and a marking device mounted at said side and extending into the space between said portions.

4. In a device for forging auger bits, a lower die and an upper die, said dies having portions sunken therein extending from one side inwardly, a resilient marking device mounted at said side and extending into the space between said portions and the portion of the upper die being recessed to receive the end of said marking device.

5. In a device of the character described, hammer and anvil dies provided with sunken portions extending from one side inwardly, a recess in the sunken portion of the hammer die extending from said side inwardly, a resilient bar mounted at said side of the anvil die and having its end extending into said recess and a marker on said end projecting outside of the recess.

1,207,061. CARBONATOR AND THE LIKE. GEORGE H. MAAS, Milwaukee, Wis. Filed Aug. 19, 1914. Serial No. 857,446. (Cl. 261—19.)



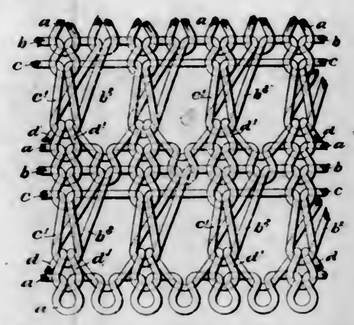
1. In a device of the described class, the combination of a suitable reservoir, a tubular member centrally located in said reservoir, a plurality of pans supported from said tubular member, located in a vertical series in and supported independently of the vertical walls of said reservoir, each of said pans being provided in its bottom with a plurality of perforations, a tapered member suspended in each of said perforations, a perforated plate located above said tapered members, and means for leading a liquid to and from said reservoir.

2. The combination of a suitable reservoir, a plurality of pans located in a vertical series one above another in said reservoir, each of said pans being provided in its bottom with a plurality of perforations, tapered members suspended in each of said perforations, and means for communicating a vibratory movement to said pans.

3. The combination of a suitable reservoir, a plurality of pans located in a vertical series one above another in said reservoir, each of said pans being provided in its bottom with a plurality of perforations, tapered members suspended in each of said perforations, a revoluble crank located above said reservoir, a vertical shaft connected at one end with said crank and extending through the upper end of said reservoir, and means for communicating a vibratory movement from said shaft to said pans as said crank is revolved, all substantially as and for the purpose specified.

1,207,062. OPEN-MESH FABRIC AND METHOD OF KNITTING THE SAME. WILLIAM H. MAGILL and OLIVIER LAROCHE, Hamilton, Ontario, Canada. Filed May 7, 1915. Serial No. 26,505. (Cl. 66—4.)

1. The method of knitting open mesh fabric consisting in forming a course of loops on a series of needles, forming a succeeding course on alternate needles and floating the yarn across the intermediate needles, the intermediate needles holding and thus lengthening their loops, transferring the loops from the intermediate needles to the alternate needles, forming a course of loops on the alternate needles and delivering yarn to the intermediate needles, and forming a course of loops on all the needles.



2. The method of knitting open mesh fabric consisting in forming a course of long loops on all the needles, forming a succeeding course of long loops on alternate needles and floating the yarn across the intermediate needles, the intermediate needles holding and thus lengthening their loops, transferring the loops from the intermediate needles to the alternate needles, forming a course of short loops on the alternate needles and delivering yarn to the intermediate needles, and forming a course of short loops on all the needles.

3. An open mesh knit fabric having a course of loops in alternate needle wales intermeshed with the loops of the first preceding course and with loops of the second preceding course transferred from the intermediate needle wales, the yarn between the loops of said first preceding course floating across the intermediate needle wales, and the yarn between the loops of said first mentioned course being intermeshed with the loops of the succeeding course in the intermediate needle wales.

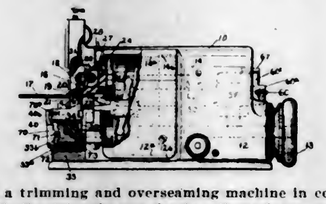
4. An open mesh knit fabric having the loops of every fourth course intermeshed in alternate needle wales with the loops of the first preceding course and with the loops of the second preceding course transferred from the intermediate needle wales, the yarn between the loops of the said first preceding course floating across the intermediate needle wales, and the yarn between the loops of said first mentioned courses being intermeshed with the loops of the succeeding course in the intermediate needle wales.

5. An open mesh knit fabric having a course of short loops intermeshed in alternate needle wales with the long loops of the preceding course and with long loops of the second preceding course transferred from the intermediate needle wales, the yarn between the loops of the first preceding course floating across the intermediate needle wales, and the yarn between the loops of said first mentioned course being intermeshed with the short loops of the succeeding course in the intermediate needle wales.

1,207,063. TRIMMER-SHIFTING MECHANISM FOR SEWING-MACHINES. JOSEPH M. MERROW, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 7, 1913. Serial No. 759,456. (Cl. 112—16.)

1. The combination, in a trimming mechanism of an operating cutter and a carrier therefor, a stationary cutter and a sliding carriage for the same, a support for the carriage, a spring and a lever to press the stationary cutter yieldingly against the operating cutter, a rock shaft upon which the said operating cutter carrier is mounted, a cam, a coupling for connecting the cam to the rock shaft, and means for partially rotating the cam whereby the operating cutter is positively shifted from side to side.

2. In a trimming and overseaming machine in combination with the trimming mechanism thereof, a moving cutter, a carrier for the same, a coöperating stationary cutter yieldingly pressed against the first named cutter, a rock shaft upon which the said carrier is mounted and means, including a cam positively connected to the said rock shaft, whereby the operating cutter may be positively moved toward and away from the line of sewing.



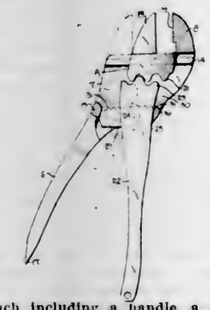
3. In a trimming and overseaming machine in combination with the trimming mechanism thereof, an operating cutter and a carrier therefor, a stationary cutter yieldingly pressed against the first named cutter, a rock shaft upon which the said cutter carrier is mounted, and a cam positively connected to the said rock shaft whereby the operating cutter may be positively moved toward and away from the line of sewing.

4. In combination in a trimming mechanism, a pair of cutters, a carrier for one of the cutters, a rock shaft to which the said carrier is secured, a cam operatively connected with the rock shaft and means for partially rotating the cam whereby the cutter carrier and its cutter may be positively moved by the cam toward and away from the line of trimming.

5. In a machine of the class described and in combination with the trimming mechanism thereof, a pair of coöperating cutters, means for holding and supporting the cutters, shifting mechanism, such as described, for effecting the lateral adjustment thereof, a stop plate, a spring pressed pawl coöperating therewith, and means, comprising a spring pressed shoe, coöperating with the said pawl to retain the shifting mechanism in its adjusted position.

[Claims 6 to 11 not printed in the Gazette.]

1,207,064. PLIER-WRENCH. ARTHUR S. E. METCALF, Driscoll, N. D. Filed June 13, 1916. Serial No. 103,514. (Cl. 81—126.)



1. A wrench including a handle, a side plate rigidly connected to the handle and a jaw rigidly connected to the side plate, a movable jaw slidingly mounted on the side plate and having teeth at its inner end, a movable handle having teeth at its inner end engaging the teeth on the movable jaw, and a rack on the side plate, the last named handle having a rocker thereon formed with a seat for the rack teeth, the handle being movable to disengage the seat from said rack teeth.

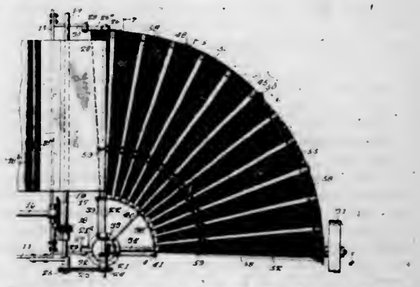
2. A wrench including a handle, a side plate rigidly connected to the handle, a jaw rigidly connected to the side plate, a movable jaw slidingly mounted on the side plate and having teeth at its inner end, a movable handle having teeth at its inner end engaging the teeth on the movable jaw, and a rack attached to the side plate and having a series of teeth extending parallel to the upper edge of the side plate, the movable handle at its end adjacent to the movable jaw being provided with a rocker having a curved face adapted to rock upon the upper edge of the rack teeth, and said curved face terminating at its lower end in teeth adapted to engage with the rack teeth.

3. A wrench including a handle, oppositely disposed side plates rigidly connected to the handle, and a jaw rigidly connected to the side plates, a movable jaw slidingly mounted on the upper edges of the side plates and movable toward or from the fixed jaw, said movable jaw having a shank extending into the space between the side plates, the lower edge of the shank being toothed, a rack formed upon one of said side plates and extending parallel to the upper edge thereof, the spaces between the teeth of said rack constituting pivot seats, and a movable handle having one end extending into the space between the side plates, the upper end of the movable handle having teeth engaging the teeth on the lower end of the movable jaw, said movable handle adjacent to its lower end and on one side being formed with a rocker having a curved face confronting the toothed face of the rack, and one end of the curved face being formed with teeth adapted to engage with the teeth of the rack and form rocking pivots for said handle.

4. A wrench including a handle, a frame to which the handle is connected, a rigid jaw mounted on the frame, a jaw mounted upon the frame for movement toward and from the rigid jaw, and a movable handle having its upper end disposed within said frame and operatively engaging the movable jaw, said handle and movable jaw being unitarily shiftable toward or from the fixed jaw, the handle being independently shiftable with relation to the frame and engageable for pivotal movement at a plurality of points with said frame.

5. A wrench including a handle, a frame to which the handle is connected, a rigid jaw mounted on the frame, a jaw mounted upon the frame for movement toward and from the rigid jaw, and a movable handle having its upper end disposed within said frame and operatively engaging the movable jaw, said handle and movable jaw being unitarily shiftable toward or from the fixed jaw, the handle being independently shiftable with relation to the frame and engageable for pivotal movement at a plurality of points with said frame.

1,207,065. SWATHING ATTACHMENT FOR HARVESTING-MACHINES. STANLEY G. MILLER, St. Paul, Minn. Filed Oct. 8, 1913. Serial No. 793,985. (Cl. 56—89.)



1. The combination with a harvesting machine having a frame and a delivery deck mounted on the frame and extending over one side of the latter, of a quadrantal conveyer frame pivotally mounted at one of its straight edges to said machine frame and extending under said deck; an endless conveyer belt mounted in the conveyer frame and adapted to receive grain dropped from said deck; means operatively connecting the conveyer belt with the machine; and means for supporting the corner

of the quadrantal frame which is disposed remotely from the machine frame.

2. A swathing attachment for harvesting machines comprising a quadrantal frame made up of an annular center casting, two concentric arcual portions and rods disposed radially of the frame and securing the center casting and arcual portions in spaced relations; two shafts disposed at substantially a right angle to each other, journaled in said center casting and the outer of said concentric portions; sprocket wheels on said shafts; a curved endless conveyer disposed around said shafts; sprocket chains secured to said conveyer and mounted on said sprocket wheels; and bevel gears connecting said shafts and disposed within the annular center casting.

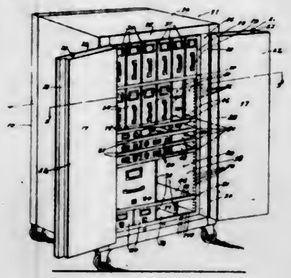
3. A swathing attachment for harvesting machines comprising a frame made up of an annular center casting and two concentric portions all secured together in spaced relations; two shafts disposed at substantially a right angle to each other, journaled in said center casting and the outer of said concentric portions; sprocket wheels on said shafts; a curved endless conveyer disposed around said shafts; sprocket chains secured to said conveyer and mounted on said sprocket wheels; bevel gears connecting said shafts and disposed within the annular center casting; and two guides on each of said concentric portions supporting the edges of the upper and lower runs of the conveyer between the sprocket wheels.

4. A swathing attachment comprising a frame quadrantal in form and having two concentric portions therein; rods secured to and spacing the concentric portions apart; two guides on each concentric portion; two shafts radiating from the center of said concentric portions and journaled at the ends of the latter; sprocket wheels fixed on said shafts; a curved endless conveyer extending around said shafts and disposed between the guides; slats secured to the conveyer with their ends extending beyond the edges of said conveyer and resting on said guides to support the conveyer; a sprocket chain secured to the ends of the slats at one edge of the conveyer, said sprocket chain being mounted on certain of the sprocket wheels; and a sprocket chain substantially concentric with the first mentioned sprocket chain and secured to the slats and conveyer at a distance from the inner edge of said conveyer, said second sprocket chain being mounted on other of the sprocket wheels.

5. In a swathing attachment for harvesting machines, the combination of a center casting; two shafts radiating from the center casting and each having one end journaled in the latter; a curved endless conveyer substantially concentric with said center casting and passing around said shafts; guides at each edge of the conveyer supporting the latter between said shafts, the other end portions of said shafts being journaled in one of said guides, and one of said shafts being extended through its journal in said guide; and a ground wheel journaled on the extended end of said last mentioned shaft.

1,207,066. FILE-CONTAINER. PAUL S. MILLICE, Miamisburg, Ohio, assignor to Fire-Proof Furniture and Construction Company, New York, N. Y., a Corporation of New York. Filed Nov. 18, 1911. Serial No. 661,085. (Cl. 45—2.)

1. In combination, a file-container, and shelves and partitions arranged to be received in said file-container, the inside of said file-container and said shelves and partitions provided with adjusting means for vertically adjusting said shelves and laterally adjusting said partitions, the said adjusting means dividing the interior of said file-container in height and width cross-sectionally into divisions each of which is a prime-unit of space for selectively forming compartments of various cross-sectional dimensions which are multiples of said prime-unit in various and selective parts of the interior of said file-container by means of said shelves and partitions, and filing elements of various cross-sectional dimentions which are multiples of said prime-unit so as to be received in and to cross-sectionally fill said compartments of various cross-sectional dimensions so selectively formed, for the purpose described.



2. In combination, a file-container, and shelves and partitions arranged to be received in said file-container, the inside of said file-container and said shelves and partitions provided with adjusting means for vertically adjusting said shelves and laterally adjusting said partitions, the said adjusting means dividing the interior of said file-container in height and width cross-sectionally into divisions each of which is a prime-unit of space for selectively forming compartments of various cross-sectional dimensions which are multiples of said prime-unit in selective parts of the interior of said file-container by means of said shelves and partitions, and filing elements made in various cross-sectional sizes which are multiples of said prime-unit so as to be received in and to cross-sectionally fill said compartments of various cross-sectional dimensions so selectively formed, the lateral, rear, top and bottom inclosing walls for said filing elements being formed solely by the walls of said file-container and said shelves and partitions when said filing elements are located in said compartments, for the purpose described.

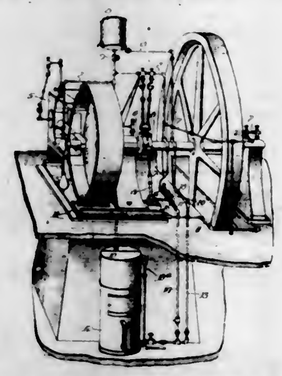
3. In combination, a file-container, and shelves and partitions arranged to be received in said file-container, the upright walls and the top and bottom walls of said file-container and said shelves and partitions provided with adjusting means for vertically adjusting said shelves and laterally adjusting said partitions, the centers of adjacent ones of said adjusting means on the upright walls and on the top and bottom walls of said file-container being respectively equal distances apart, and the end ones of said adjusting means having their centers distanced from the end of the wall on which they are respectively located, said equal distance plus one-half the thickness of the shelf or partition respectively coacting with said adjusting means, said adjusting means dividing the interior of said file-container in height and width cross-sectionally between said walls into divisions representing a prime-unit of space for selectively forming compartments of various cross-sectional dimensions which are multiples of said prime-unit in selective parts of the interior of said file-container by means of said shelves and partitions, and filing elements which are made cross-sectionally in sizes which are multiples of said prime-unit for being received in and cross-sectionally filling said compartments so formed, for the purpose described.

4. In combination, a file-container comprising side walls connected together and having a file-containing space therebetween, said file-container having a door-opening formed with a door-receiving rabbet in front of said side walls, shelves and partitions received in said file-containing space between said side walls, means between said side walls of said file-container and said shelves for adjusting said shelves to height in said file-container, said means comprising openings in said side walls, sad means for adjusting extending through said openings in said side walls and provided with outer ends outside said side walls, means covering said openings and said outer ends, said outer ends being located within the longitudinal projection of said rabbet of said door-opening, and means between said shelves and partitions for adjusting said partitions laterally between adjacent shelves.

5. In combination, a file-container comprising side walls connected together and having a file-containing space therebetween, said file-container having a door-opening formed with a door-receiving rabbet in front of said side walls, shelves and partitions received in said file-containing space between said side walls, means between said side walls of said file-container and shelves for adjusting said shelves to height in said container, said means for adjusting extending through said side walls and provided with outer ends outside said side walls, said outer ends being located within the longitudinal projection of said rabbet of said door-opening, and channel-strips secured at the outer faces of said side walls covering said outer ends, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,207,067. CONTINUOUS OILING AND FILTRATION APPARATUS. WILLIAM W. NUGENT, Chicago, Ill. Filed Nov. 28, 1913. Serial No. 803,431. (Cl. 184—6.)



1. In an oil filtration and circulation apparatus, the combination with oil circulation mains, oil drip return mains, a continuous filter in connection with the oil drip return mains, a gravity feed reservoir in connection with and above the circulation mains, an overflow pipe connected from the top of the reservoir to the bottom of the filter, a pump connected with the filter and with the oil circulation mains, check valves to cause the pump to discharge oil from the filter into the circulation mains, and a relief valve and by-pass connected around the check valves to limit the pressure of oil in the circulation mains.

2. In an engine oil filtration and circulation system, the combination with oil circulation mains, of drip return mains, a continuous filter in connection with the drip retur mains, a reservoir in connection with the oil circulation mains, an overflow pipe in the reservoir connected to the bottom of the filter, a reciprocating pump in connection with the moving part of the engine, a pipe connection between the filter and the oil circulation mains, a single tubular connection from the pump to the said pipe, a check valve in the pipe on both sides of the tubular connection whereby the reciprocating action of the pump will cause the pump to draw oil from the filter and to discharge it into the circulation mains, a relief valve and by-pass connected around the check valves, the relief valve being on the side adjacent the oil circulation mains, and a manually operable valve controlling the passage of oil to said reservoir whereby the pressure in the circulation system can be varied at will.

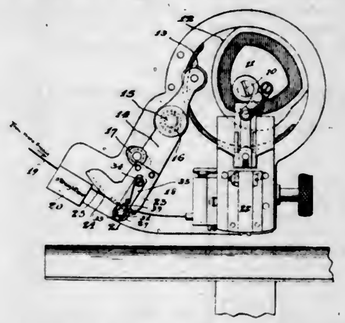
3. In an apparatus of the class described, the combination with a suction main, of a circulation main, a single pump suction and discharge pipe, check valves connecting the pump suction and discharge pipe with each of said mains, and both permitting the motion of the fluid pumped in the same direction, an overflow tank connected with said circulation main, a manually operable valve-controlling the passage of fluid into said overflow tank, and a relief valve and overflow pipe connected from the circulation main forming a shunt around the check valves.

4. In an apparatus of the class described, the combination with a single acting pump, of a double check valve inlet and discharge connection therefor, a fluid circulation main in connection with the pump, a gravity feed supply reservoir also in connection with the circulation main, a manually operable valve to control the discharge of fluid from the main into the reservoir and thereby to control the pressure of fluid in the circulation main, and an overflow discharge connection for the reservoir.

5. In an engine oil circulation and filtration apparatus, the combination with oil circulation mains, of a gravity reservoir at the highest point of the system connected to the mains, a manually operable valve to control the oil flowing into the reservoir, oil drip return pipes, a continuous filter in connection therewith having a clean oil receptacle, an overflow connection from the gravity reservoir to the clean oil reservoir, a suction pipe in connection with the clean oil receptacle, a single acting pump connection to the engine eccentric, check valves connecting the pump with the oil suction pipe and with the oil circulation mains, and a relief valve connected to the oil circulation mains with an overflow connection to the suction pipe whereby the pressure in the circulation mains will not exceed a predetermined amount.

[Claims 6 to 28 not printed in the Gazette.]

1,207,068. CLUTCH FOR WIRE-FEEDING MECHANISMS. JOSEPH PAGLIARUL, Chicago, Ill., assignor to Joseph E. Smyth, Chicago, Ill. Filed June 21, 1915. Serial No. 35,250. (Cl. 140—180.)



1. In a device of the class described, the combination of a reciprocatory member having a gripping surface, a gripping wheel having a central concentric headed projecting pin and pivoted eccentrically upon said reciprocatory member and adjacent said gripping surface, a finger engaging said pin between said wheel and the head, and a spring engaging said finger for forcing the gripping wheel toward said gripping surface and operating in a direction opposed to the direction of feed, whereby said gripping wheel constitutes a toggle to grip the wire.

2. In a device of the class described, the combination of a reciprocatory member having a gripping surface, a circular member having a plurality of bearing apertures eccentrically disposed in said member, a pivot for said circular member mounted on said reciprocatory member adjacent said gripping surface and adapted to enter any one of said apertures, and spring means adapted to force the circular member toward said gripping surface, operat-

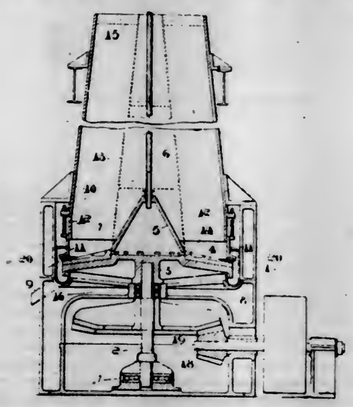
ing in a direction opposed to the direction of feed, whereby the wire is gripped between said gripping surface and said circular member.

3. In a wire-feeding mechanism of the class described, the combination of a reciprocatory member provided with a gripping surface, a cylindrical toothed ratchet wheel provided with a plurality of eccentrically arranged bearing apertures, a pivot for said wheel mounted on said reciprocatory member adjacent said gripping surface and adapted to enter any one of said apertures, and a spring-pressed finger pivoted on said reciprocatory member and engaging said wheel to force the latter toward said gripping surface in a direction contrary to the direction of the wire-feed whereby the wire is gripped between the wheel and the gripping surface.

4. In a wire-feeding device of the class described, the combination of a reciprocatory member having a gripping surface, a cylindrical gripping wheel provided with peripheral ratchet teeth having a central projection and provided with a plurality of eccentrically disposed bearing apertures, a pivot for said wheel mounted on said reciprocatory member adjacent to and opposite said gripping surface and entering any one of said apertures whereby said gripper wheel may swing in a plane at right angles to its axis, and a spring-pressed finger engaging said wheel tending to force the same toward said gripping surface in a direction contrary to the direction of wire feed whereby the wire is gripped between the wheel and the gripping surface.

5. In a wire-feeding device of the class described, the combination of a reciprocatory member having a gripping surface, a fixed pin mounted on said reciprocatory member having its axis at right angles to the direction of wire feed, a gripper wheel having ratchet teeth on its periphery, having a central projection and provided with a plurality of bearing holes eccentrically arranged, with their axes parallel to the axis of the wheel, any one of said apertures being adapted to form with said pivot a pivotal mounting for said wheel whereby the latter may swing in a plane parallel to the direction of wire feed, and a spring-pressed finger pivoted on said reciprocatory member, engaging said projection and tending to force the wheel toward said gripping surface and in a direction contrary to the direction of wire feed whereby the wire is gripped between the wheel and the gripping surface.

1,207,069. PULPER FOR WASTE WOOD AND WASTE PAPER. MILES E. PARK, Toronto, Ontario, Canada. Filed Feb. 12, 1916. Serial No. 78,038. (Cl. 92—26.)



1. In a machine for pulping vegetable fiber the combination of an annular rotary grinding surface; a tubular hopper supported above and with its lower end spaced from said surface; and a central cone extending up within the inner boundary of the grinding surface and forming with the hopper an annular feeding space having its horizontal cross sectional area decreasing from top to bottom.

2. In a machine for pulping vegetable fiber the combination of an annular rotary grinding surface; a tubular hopper supported above and with its lower end spaced from said surface; and a hollow central cone extending up within the inner boundary of the grinding surface and provided with an inlet at its apex and a series of outlets adjacent the grinding surface.

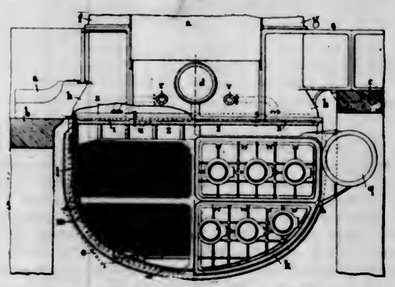
3. In a machine for pulping vegetable fiber the combination of a frusto-conical, annular, rotary grinding surface; a tubular frusto-conical hopper supported above and with its lower end spaced from said surface; and a central cone extending up within the inner boundary of the grinding surface and forming with the hopper an annular feeding space having its horizontal cross sectional area decreasing from top to bottom.

4. In a machine for pulping vegetable fiber the combination of an annular rotary grinding surface; a tubular hopper supported above and with its lower end spaced from said surface; a central cone extending up within the inner boundary of the grinding surface; and a central tube adapted to rest on the cone and extending up within the hopper.

5. In a machine for pulping vegetable fiber the combination of an annular rotary grinding surface; a tubular hopper supported above and with its lower end spaced from said surface; a central cone extending up within the inner boundary of the grinding surface; and a skirt adjustably secured to the hopper whereby the space aforesaid may be varied.

[Claims 6 to 10 not printed in the Gazette.]

1,207,070. TURBINE INSTALLATION. CHARLES ALGERNON PARSONS, Newcastle-upon-Tyne, England. Filed Dec. 16, 1912. Serial No. 737,025. (Cl. 121—58.)



1. An elastic fluid operated plant comprising in combination a low pressure turbine, supporting means separated by a space which is bridged by the casing of said turbine, a condenser receiving the working fluid discharged from the turbine, said condenser being situated in the space below the turbine, means by which the condenser is suspended from the turbine casing, and preheating means partly within said turbine casing adapted to be impinged upon by the working fluid passing from the turbine to the condenser.

2. An elastic fluid operated plant comprising in combination a low pressure turbine, supporting means separated by a space which is bridged by the casing of said turbine, an outlet to said casing, a condenser, an inlet to said condenser receiving the working fluid discharged from the turbine, said condenser being situated in the space below the turbine, means by which the condenser is suspended from the turbine casing, the outlet of said casing being in close proximity to said condenser inlet, and a system of tubes arranged across the inlet to the condenser, said tubes conveying fluid which is preheated on account of the tubes being impinged upon by the working fluid entering the condenser.

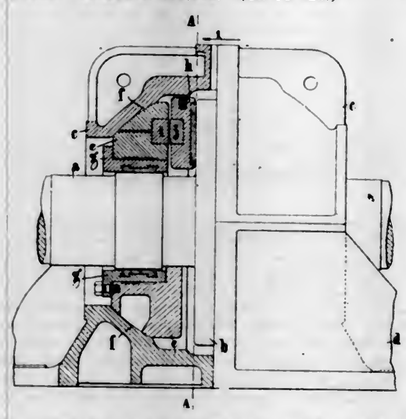
3. In a turbine installation in combination, a turbine casing, a condenser rigidly attached to and forming part of said casing structure and feed preheating means situated at the junction of said casing and said condenser.

4. In a turbine installation in combination, a turbine casing, a condenser rigidly attached to and supported by said casing and means whereby the kinetic energy of the exhaust working fluid passing to said condenser is converted into heat, said means being situated substantially in the plane of junction of said casing and said condenser.

5. In a turbine installation in combination with a turbine casing, eduction means in said casing, feed preheating means adapted to simultaneously conduct to the feed heat from the exhaust working fluid of the turbine and convert the kinetic energy of the exhaust fluid into heat and conduct it to the feed, said preheating means being situated partly within said eduction means and comprising two conduits, inlet and outlet means to said conduits, and tubes passing from one of said conduits to the other of said conduits and across substantially the whole area of said eduction means.

[Claims 6 and 7 not printed in the Gazette.]

1,207,071. THRUST-BEARING. CHARLES ALGERNON PARSONS, Newcastle-upon-Tyne, England. Filed June 2, 1913. Serial No. 771,362. (Cl. 64—25.)

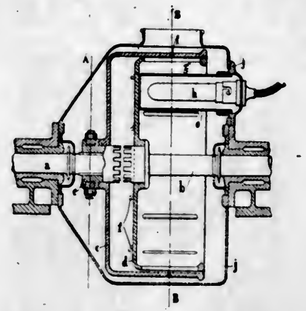


In combination a non-rotating element having a flat face and a spherical surface upon its back, said flat face being adapted to support a member in sliding contact therewith, a second element having a flat surface, said flat surface co-acting with said spherical surface to form a fulcrum about which said element can rock.

1,207,072. MEANS FOR DETERMINING THE RELATIVE ANGULAR VELOCITY AND PHASE OF REVOLVING BODIES. CHARLES ALGERNON PARSONS, STANLEY SMITH COOK, and LOUIS MORTIMER DOUGLAS, Wallsend, England; said Cook and Douglas assignors to said Parsons. Filed Dec. 13, 1915. Serial No. 66,668. (Cl. 88—14.)

1. Means for determining the relative angular velocity and phase of two revolving bodies comprising two concentric cylinders provided with elongated apertures and rotated in the same direction, each by one of the bodies, the said apertures in the respective cylinders being relatively inclined, making different angles to the axis of rotation in the two cylinders, in combination with a source of light so arranged that light can pass through the intersections of the said apertures.

2. In means for determining the relative angular velocity and phase of two revolving bodies, in combination, two rotatable adjacent concentric cylinders, axial slots in one of said cylinders, slots in the other of said cylinders inclined to the axial direction, and means for causing light to pass through the intersections of said slots.



3. In means for determining the relative angular velocity and phase of two co-axial rotating shafts in combination, two concentric cylinders, elongated apertures in said cylinders so arranged that they progressively intersect on relative rotation of the cylinders, a source of light so arranged that light can pass through the intersections of said apertures, clutch means on the adjacent end of each of said shafts, means conveying rotary motion from one of said shafts to one of said cylinders and from the other of said shafts to the other of said cylinders.

4. In means for determining the relative angular velocity and phase of two co-axial shafts in combination, two concentric cylinders co-axial with said shafts, elongated apertures in each of said cylinders, the apertures in the respective cylinders being relatively inclined, a source of light so arranged that light can pass through the intersections of said apertures, clutch means on the adjacent ends of each of said shafts and in proximity to said cylinders, a sliding member adapted to connect and disconnect said clutch means, means adapted to connect one of said cylinders with one of said shafts and means adapted to connect the other of said cylinders with said sliding member.

5. Means for determining the relative angular velocity and phase of two revolving bodies comprising two concentric cylinders, provided with elongated apertures and rotated in the same direction, each by one of the bodies, the said apertures in the respective cylinders being relatively inclined, making different angles to the axis of rotation in the two cylinders, in combination with a source of light so arranged that light can pass through the intersections of the said apertures, means conveying rotary motion from one of said bodies to one of said cylinders and from the other of said bodies to the other of said cylinders, said means comprising trains of toothed gearing.

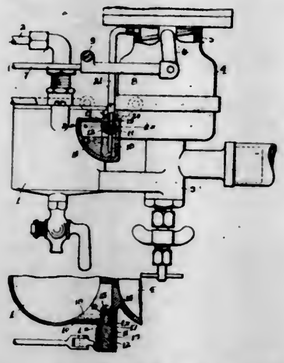
[Claim 6 not printed in the Gazette.]

1,207,073. PRIMER. CHARLES J. PEMBROKE, Rochester, N. Y. Filed June 22, 1914. Serial No. 846,527. (Cl. 261—41.)

1. In a carbureter the combination of a float chamber and a mixing chamber, a throttle valve in the mixing chamber, a tube extending from the top of the float chamber into the mixing chamber above the throttle valve, a valve at the top of the float chamber opening and closing said tube, said valve having a tubular extension thereon that dips into the gasolene when the valve is open and is raised from the gasolene when the valve is closed.

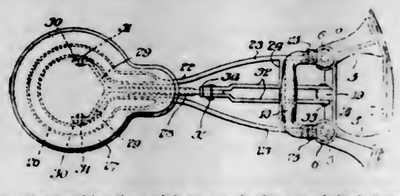
2. In a carbureter the combination of a float chamber, a tube extending up from said chamber, a valve in said chamber normally closing said tube, a tube on said valve normally held above the gasolene in the chamber when the valve closes the tube, the end of said tube being immersed in the gasolene when the valve opens said tube.

3. In a carbureter the combination of a float chamber, a tube extending up from said chamber, a valve in said chamber normally closing said tube, a tube on said valve normally held above the gasolene in the chamber when the valve closes the tube, the end of said tube being immersed in the gasolene when the valve opens said tube, a mixing chamber, a throttle valve therein, said tube opening into said mixing chamber above the throttle valve.



4. In a carbureter the combination of a float chamber, a tube extending up from said chamber, a valve in said chamber normally closing said tube, a tube on said valve normally held above the gasolene in the chamber when the valve closes the tube, the end of said tube being immersed in the gasolene when the valve opens said tube, a mixing chamber, a throttle valve therein, said tube opening into said mixing chamber above the throttle valve, said mixing chamber when closed by the throttle sucking gasolene through the tube 21 and discharging it on the throttle.

1,207,074. MOTORMAN'S CAR-SEAT. LORENZO H. PIKE, Philadelphia, Pa., assignor to Electric Service Supplies Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 6, 1915. Serial No. 38,115. (Cl. 155—22.)



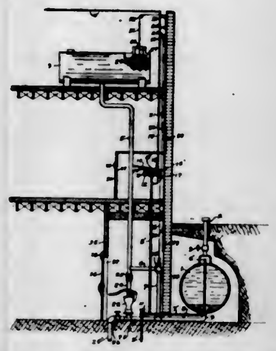
1. The combination with a car platform and dash board, of step bearings fixed to said platform, bearings having lateral openings fixed to said dash board, means comprising posts adapted to be entered in and removed from said bearings, said posts having means whereby they are engaged with and disengaged from said bearings second named, and means comprising a folding seat and strut supported by said posts.

2. The combination with alined step and laterally open bearings, of posts having feet adapted for entry in said step bearings and sections adapted for lateral entry into said laterally open bearings, said posts having top thimbles adapted to enter and engage them to said laterally open bearings, a cross piece connecting said thimbles, and means comprising a folding seat and strut supported by said posts.

3. The combination with step bearings and bearings containing lateral openings of posts detachably supported by said bearings, a handle connecting said posts, a brace supported by said posts, and means comprising a collapsible seat and strut supported by said brace.

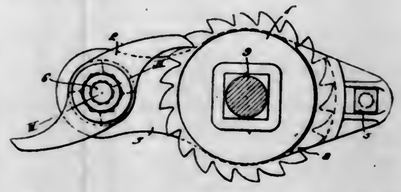
4. The combination with bearings, of supporting means detachably connected therewith, laterally separated top bearings connected with said supporting means, a central bottom bearing connected with said supporting means, an arm having bifurcations pivotally connected with said top bearings, a seat on said arm, a bifurcated strut section pivotally connected with said bottom bearing, and a strut section pivotally connected between the bifurcations of said section first named and having bifurcations pivotally connected with said arm.

1,207,075. APPARATUS FOR STORING AND DISPENSING COMBUSTIBLE LIQUIDS. GILBERT H. POOR, Milwaukee, Wis. Filed May 8, 1912. Serial No. 695,977. (Cl. 221—67.)



In a device of the described class, the combination of a water tank, a gasolene tank located on a lower plane than said water tank, a pump, a water duct connecting the bottom of said water tank with the bottom of said gasolene tank both outside of and through said pump, a valve located in said last named duct, means for manually closing said valve, a check valve for preventing the return of water from said water tank to said pump, means for withdrawing gasolene from said gasolene tank under pressure of the water from said water tank, and means for supplying said tanks respectively with water and gasolene.

1,207,076. PAWL-AND-RATCHET MECHANISM. HENRY M. RAMSAY, Altoona, and JUSTUS A. RICKABAUGH, Pittsburgh, Pa. Filed July 5, 1916. Serial No. 107,495. (Cl. 74—16.)



1. The combination with a substantially horizontal ratchet wheel, of a pawl working around a substantially vertical axis and having a limited amount of play in a vertical direction, a support for the pawl, and coacting cam surfaces on the underside of the pawl and the support on which it turns arranged so that the weight of the pawl tends to cause it to rotate about its axis and give engagement between its end and the teeth of the ratchet wheel.

2. The combination with a ratchet wheel, of a pawl mounted for rotation about an upright axis and for movement longitudinally of such axis, a support on which the pawl turns, and coacting inclined surfaces on the underside of the pawl and on the said support arranged to cam the pawl in a vertical direction when it is rotated to disengaged position, and to cause the pawl to rotate automatically in the reverse direction when it is released from such position.

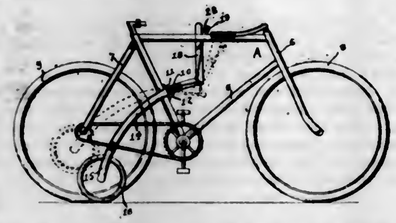
3. The combination with a ratchet wheel, of a pawl mounted for rotation about an upright axis and for movement longitudinally of such axis, a support on which the pawl turns, and coacting surfaces on the underside of the pawl and the said support and having such a relative inclination that the pawl is caused to move in a vertical direction, when it is rotated to disengaged position.

4. In combination, a ratchet wheel member and a pawl member, one of which works about a substantially vertical axis and has a limited amount of movement in a vertical direction, and coacting cam surfaces on the underside of such last member and the support on which it turns, arranged so that the weight of such last member causes it to rotate about its axis and give engagement between the two members.

5. In combination, an operating member mounted for rotation about an upright axis and having an end which swings toward and from operating position, a support on which the member turns, and coacting inclined surfaces on the underside of the member and on said support arranged to cam the member in a vertical direction when it is rotated to inoperative position, and to cause the member to rotate automatically in the reverse direction when released.

[Claim 6 not printed in the Gazette.]

1,207,077. BICYCLE-SUPPORT. STANLEY A. RESSEGUIE, Aberdeen, S. D. Filed June 15, 1915. Serial No. 34,224. (Cl. 208—78.)

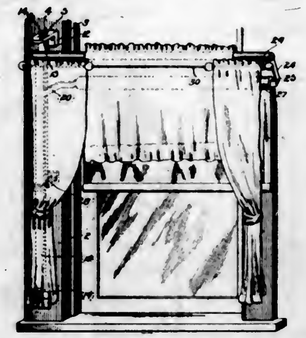


The combination with a bicycle, of a toothed sector secured to the frame of the bicycle, a yoke pivoted to said sector, rods continuing said yoke, a fork carried by each rod, a balance wheel journaled in each fork, a stem for the yoke, an operating handle connected to the stem to control movement of the wheels into contact with or removal from the ground, and means normally engaged with said sector and operable to lock the yoke and wheels in a set position.

1,207,078. SHADE OR CURTAIN HOLDER. THOMAS W. ROBERTSON, Kansas City, Mo. Filed Aug. 6, 1915. Serial No. 44,024. (Cl. 156—27.)

1. A device of the character described, comprising spaced brackets, one having an aperture provided with a slot, a base member pivotally mounted in the brackets, an adjustable member slidably mounted in the slotted bracket and adapted for removal through the slot, means on the adjustable member for gripping the base, means on the adjustable member for supporting a shade or curtain, a keeper for confining the adjustable member in the slotted bracket, and a spring on the slotted bracket for urging the adjustable member to locked position.

2. A device of the character described, comprising spaced brackets, a base pivotally mounted in said brackets, an adjustable member slidably mounted in one of the brackets, an arm on said adjustable member overlying one edge of the base, a hook on the adjustable member spaced on the arm and overlying the opposite edge of said base, and means on said adjustable member and on said arm for supporting a shade and curtain.



3. In a device of the character described, the combination with spaced brackets, each having an aperture and one having a slot opening from the aperture, a base member revolubly mounted in the bracket aperture, an adjustable member slidably mounted in the slotted bracket and adapted for projection through said slot, a keeper pivotally mounted on the slotted bracket and having an inner notch for closely confining the base member and an outer notch for permitting limited lateral movement of the adjustable member and for confining both members within the bracket aperture, and means on the adjustable member for supporting a shade or curtain.

1,207,079. SPRING-HOOK COLLAR-BUTTON. MIGUEL RUELAS, Los Angeles, Cal. Filed Sept. 1, 1915. Serial No. 48,546. (Cl. 24—97.)



A collar button, including a sheet metal base, two upstanding spaced lugs carried by the base and projecting from one side thereof, a flat spring carried by the base end extending between the lugs, the upper ends of said lugs being provided with alined apertures, a piece of flat metal formed to provide a substantially C-shaped body portion having a short pointed terminal and a long knobbed terminal, the body of said member nearer to the pointed terminal being provided with an opening, and a pin piercing the openings of the lug and C-shaped member for pivotally supporting said member so that the pointed end thereof may engage and release the spring, as and for the purpose set forth.

1,207,080. SHEET-METAL DOOR. JOHN F. RUTH, St. Louis, Mo. Filed Jan. 22, 1912. Serial No. 672,737. (Cl. 189—53.)

1. In a sheet metal structure, spaced members having lateral flanges at their ends, a second pair of spaced members having lateral flanges at their ends, abutting the first mentioned flanges, and grooves outside of and at right angles to their flanges, and a key having at each end a right angled flange for engagement in said outside grooves to prevent spreading of the spaced members and grooves to surround said abutting flanges and prevent separation of the first and second mentioned pairs of members.

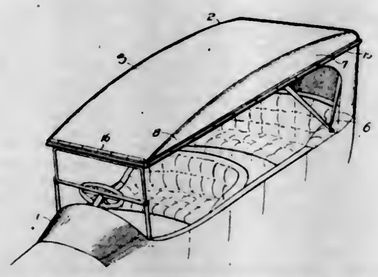
2. In a sheet metal structure, a pair of spaced elements of a single member having at their ends a lateral flange and outside the flange a groove, a second pair of spaced elements of a second member having their ends overlapping the grooves of the first mentioned elements and flanges abutting the first mentioned flanges, and a key having at each edge a continuous flange for insertion in said grooves and having a continuous groove at each edge to surround said abutting flanges.



3. In combination with a single sheet metal element having two laterally spaced ends there being a channel formed in each of said ends and a flange at each end at right angles to said channels, a second sheet metal element having spaced ends and there being a flange at each of said ends paralleling the flanges of the first mentioned element and a single element grooved along its side margins to embrace both flanges of both of said sheet metal elements said last mentioned single element having a flange at each of its side margins at right angles to its grooves for insertion in the grooves of the said first mentioned element whereby to lock the first and second elements against relative movements either toward or away from each other as well as to lock the said elements against relative movements at their ends to hold them in fixed spaced relationship.

1,207,081. [WITHDRAWN.]

1,207,082. VEHICLE-TOP. DANIEL G. SAUNDERS, Jr., Kansas City, Mo. Filed Oct. 25, 1915. Serial No. 57,705. (Cl. 21—62.)



1. A vehicle top comprising a foldable cover, having downturned sides, drain members at the lower portions of said sides and foldable with the top, and spacers carried by the sides of the cover and connected with the outer portions of the drain members to hold the drain members in channel form and permit their folding with the cover.

2. A vehicle top comprising a foldable cover, having downturned sides, drain members at the lower portions of said sides, and studs for holding the outer walls of said drain members from the sides of the top.

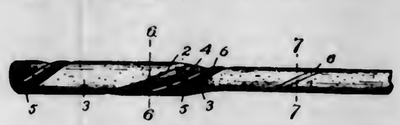
3. A vehicle top comprising a cloth cover having downturned sides, drain members at the lower portions of said sides, and studs carried by the sides of said cover and connected with the outer walls of said drain members to hold said walls from the sides of the top.

4. A vehicle top comprising a cloth cover having downturned sides, drain members at the lower edges of said sides, and studs carried by the sides of said cover and tending through the upturned edges of the drain members for holding said upturned edges from the sides of the top, for the purpose set forth.

5. In a vehicle top, a foldable cover having a trough along its side; said trough being foldable with the cover, spacers in the trough; said spacers having shoulders, and means for binding the side walls of the trough to or against the shoulders of the spacers to maintain the trough in channel form when the top is in functional position.

[Claims 6 to 11 not printed in the Gazette.]

1,207,083. ROUND BELTING. CHARLES ALAN SAWYER, Worcester, Mass., assignor to Graton and Knight Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 16, 1915. Serial No. 45,692. (Cl. 74—66.)



1. As a new article of manufacture, a round twisted belt formed from a strip folded longitudinally upon itself along its center to bring its opposite free edges together and subsequently folded and twisted to bring one of its free edges between the doubled edge and the other free edge.

2. As an article of manufacture, a round twisted belt formed from a strip folded longitudinally substantially at its center and twisted to bring its free edges toward its doubled edge, with each of its free edges exposed.

3. As an article of manufacture, a round twisted belt formed from a single strip having one of its edges beveled and folded upon itself longitudinally along its center to bring its free edges together, and subsequently folded and twisted to bring its free edges toward its doubled edge, with said beveled edge outermost.

1,207,084. INSULATED RAIL-JOINT. EDWARDS F. SCHERMERHORN, Brooklyn, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed June 30, 1916. Serial No. 106,861. (Cl. 239—5.)



1. A rail joint including a rail having a bearing face disposed at an angle, and a splice bar having a bearing face disposed at a lesser angle to the vertical axis of the bar than said bearing face of the rail is disposed to the vertical axis of the latter.

2. A rail joint including a rail having a head, the underside of which is disposed at an angle, and a splice bar having a top bearing face disposed at a lesser angle to the vertical axis of the bar than the angle of the underside of the rail head to the vertical axis of the rail.

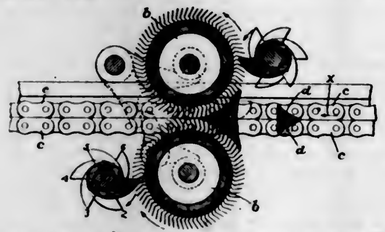
3. An insulated rail joint including a rail having an inclined face, an insulation plate fitting said face, and a splice bar having an inclined bearing face outwardly diverging from said inclined face of the rail prior to the tightening of the bolts.

4. An insulated rail joint including a rail, having an inclined face, an insulation plate fitting said face, and a splice bar having a flat inclined bearing face outwardly diverging from said inclined face of the rail prior to the tightening of the bolts.

5. An insulated rail joint including a rail, an insulation plate, and a splice bar having a head whose bearing face is disposed at non-uniform distance from the adjacent bearing face of the underside of the rail head, the maximum distance between said bearing faces of the splice bar head and rail head being adjacent the outer side of the latter prior to the tightening of the bolts.

[Claims 6 and 7 not printed in the Gazette.]

1,207,085. TOBACCO-STEMMING MACHINE. FREDERICK C. SCHOFIELD, Washington, D. C., assignor to The Tobacco Stemming Machine Company, Baltimore, Md., a Corporation of Delaware. Filed Jan. 29, 1914, Serial No. 815,294. Renewed May 12, 1916. Serial No. 97,181. (Cl. 131—57.)



1. In combination in a tobacco stemming machine, card clothed stemming rolls, and clearer rolls consisting of a series of thin blades to enter between the card teeth, said blades being laterally flexible, substantially as described.

2. In combination in a tobacco stemming machine, card clothed stemming rolls, and clearer rolls consisting of thin laterally flexible blades having portions entering between the card teeth, and yielding spacing means for the said blades arranged between said blades, substantially as described.

3. In combination in a tobacco stemming machine, card clothed stemming rolls, and clearer rolls consisting of a shaft, thin blades strung thereon and spacing washers interposed between the blades, substantially as described.

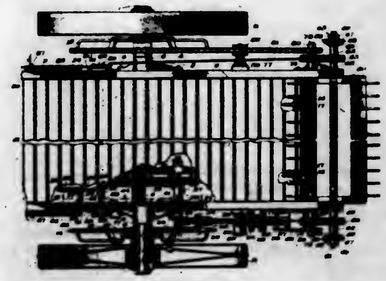
4. In combination in a tobacco stemming machine, card clothed stemming rolls, and clearer rolls consisting of a shaft, thin blades strung thereon and spacing washers interposed between the blades, said shaft having a plurality of seats to permit the blades to be faced in different directions, substantially as described.

5. In combination in a tobacco stemming machine, card clothed stemming rolls and clearer rolls comprising thin blades entering between the teeth of the card clothing, said blades having a bearing edge eccentric to the center of rotation, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,207,086. MANURE-SPREADER. JAMES A. SHARP and ELMER F. GROVE, Springfield, Ohio, assignors to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Mar. 28, 1912. Serial No. 686,856. (Cl. 111—40.)

1. In a manure spreader, a frame, a distributing cylinder mounted at one end thereof, means for rotating the same, clutch mechanism carried at the ends of said cylinder and controlling the connection thereof, an end-gate pivotally connected to said frame, links pivotally connected thereto at points at one side of the pivots and protruding downward on opposite sides of the frame, means for moving said links in an up and down direction, and means transmitting the lateral movement of said links directly to said clutch mechanism.



2. In a manure spreader, a frame, transport wheels therefor, a distributing cylinder carried at one end thereof, an end-gate pivotally connected to said frame, a rock shaft disposed transversely of said frame, links pivotally connecting the same to said end-gate, means for rotating said cylinder, a clutch controlling the connection thereof to said cylinder, and a longitudinally disposed link connection intermediate said links and said controlling means transmitting the movement of said links to said controlling means.

3. In a manure spreader, a frame, a distributing cylinder rotatably mounted at the rear thereof, means for rotating the same, clutch mechanism controlling the connection thereof to said cylinder, an end-gate movable with respect to said cylinder, a transverse rock shaft extending beneath said frame, link connections extending on opposite sides of said frame connecting said shaft to said end-gate, means for rocking said shaft, and clutch actuating connections attached to said clutch mechanism and said links intermediate the ends thereof and movable longitudinally of said frame to actuate said clutch mechanism upon movement of said end-gate.

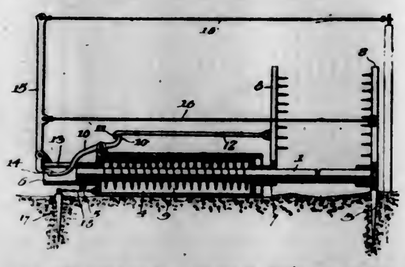
4. A manure spreader having, in combination, supporting stub axles, traction wheels journaled upon said axles, a receptacle carried by said axles, a distributing cylinder rotatably mounted at the rear end of said receptacle, power transmitting means connecting said cylinder with said traction wheels, said means including clutch mechanisms, an end-gate, means for raising and lowering said end-gate, said means including supporting arms pivotally connected with said receptacle, a transversely arranged rock shaft journaled upon said receptacle, lever arms secured to opposite ends thereof, links connecting said lever arms with said end-gate supporting arms, and means for shipping said clutch mechanisms into and out of engagement with said cylinder, said means being controlled by a swinging movement of said links.

5. A manure spreader having, in combination, supporting stub axles, traction wheels journaled upon said axles, a receptacle carried by said axles, a distributing cylinder rotatably mounted at the rear end of said receptacle, power transmitting means connecting said cylinder with said traction wheels, said means including clutch mechanism, an end-gate, means for raising and lowering said end-gate, said means including supporting arms having the front ends thereof pivotally connected with the side walls of said receptacle, a transversely arranged rock shaft journaled in bearings carried by said receptacle, means for rocking said shaft, lever arms secured to opposite ends of said rock shaft, links connecting said lever arms with said end-gate supporting arms, means for shipping said clutch mechanism into and out of engagement with said cylinder, said means including blocks slidably

mounted upon the side walls of said receptacle, said blocks engaging with said links in a slidable manner and having a connection with said clutch shipping mechanism whereby a swinging movement of said links controls the operation of said clutch shipping means.

[Claims 6 and 7 not printed in the Gazette.]

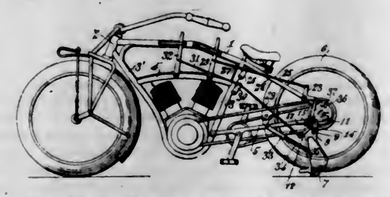
1,207,087. ANIMAL-TRAP. JOHN W. SHARP, Swifton, Ark. Filed Sept. 11, 1916. Serial No. 119,486. (Cl. 43—21.)



1. A trap comprising a horizontal guide rod having at one end a fixed jaw, a tubular casing in which the other end of said rod is received and secured, means for anchoring said casing on the ground, a slide mounted on said rod and carrying another jaw, a spring surrounding the rod and confined normally in the casing for forcing said slide toward the fixed jaw, means for holding the slide retracted against the tension of the spring, said means including a trigger, and a trip member extending from said trigger to the fixed jaw.

2. A trap comprising a horizontal guide rod having at one end a fixed jaw, a tubular casing in which the other end of said rod is received and secured, a slide mounted on said rod and carrying another jaw, a spring in the casing for forcing said slide toward the fixed jaw, a catch lever fulcrumed on the end of the casing remote from the jaws, said lever having a nose, a link pivotally connected with the second named jaw and having a hook to engage said nose, a trigger fulcrumed to said end of the casing and having a portion to normally hold the catch lever in set position, and a trip member leading from said trigger to the fixed jaw.

1,207,088. MOTOR-CYCLE SUPPORT. HARVEY E. SIFFERMAN, Dayton, Ohio. Filed Feb. 29, 1916. Serial No. 81,124. (Cl. 208—78.)



1. The combination with a motorcycle, of a stand connected to the rear frame thereof having upper plates provided with slots the upper terminals of which are rectangular, means for locking said plates in a position to maintain said stand in a non-supporting position said means coöperating with the rectangular parts of said slots, means for disconnecting said locking means from said slots, and means for moving said stand relative to said locking means whereby the weight of the motorcycle will dislodge the same from said stand.

2. The combination with a motorcycle, of a stand the upper ends of which terminate in plates provided with slots which terminate at their upper ends in rectangular openings, trunnions projecting from the motorcycle frame and penetrating said slots said trunnions having square portions which are adapted to interlock with the rectangular portions of said slots and to hold the stand in a non-supporting position, cam members adapted to effect a disengagement between the square portions of the trunnions and the rectangular portions of said slots, means for operating said cam members to change the relative position between said trunnions and the plate portions of the stand, whereby said trunnions are permitted to enter the vertical parts of said slots.

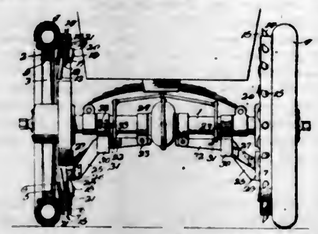
3. The combination with a motorcycle, of a stand the upper portions of which terminate in plates provided with slots which terminate in rectangular openings, trunnions mounted on the rear portion of the motorcycle frame and having cylindrical and square portions the square portions being adapted to lock the stand in a nonsupporting position by engaging with said rectangular openings, means for spreading the plate portions of said stand to move the rectangular slot portions thereof away from the rectangular portions of said trunnions, and levers fulcrumed on said plate portions of the stand and adapted to engage said trunnions when the plate portions are so spread whereby the said stand is moved and the trunnions are permitted to drop by gravity into the perpendicular portions of the slots thereby permitting the rear wheel of the motor cycle to engage the ground when the stand is elevated.

4. The combination with a motor cycle, of a stand the upper portion of which terminates in plates provided with slots terminating at their upper ends in rectangular openings, trunnions projecting from the motorcycle frame having cylindrical and square portions, cam members movable on the inner sides of said plates and through which the trunnions project before penetrating the slots in the plates, the rectangular terminals of the slots being engaged with the rectangular portions of the trunnions when the stand is in a non-supporting position, levers connected to said cam members whereby said cam members are actuated to spread the plate portions of the stand to remove the rectangular portions of the slots away from the square portions of the trunnions and to permit the cylindrical portions of said trunnions to lie within the slots of said plate portions, levers fulcrumed on said plate portions in positions to engage said trunnions and to move the stand to a position wherein the trunnions and therewith the motorcycle will drop by gravity to an engagement with the ground.

5. The combination with a motorcycle, of a stand the upper portion of which terminates in plates having vertical slots terminating at the upper end in lateral rectangular openings, trunnions extending from the frame of the motorcycle and penetrating said slots, said trunnions having their inner portions of rectangular form adapted to engage the rectangular portions of said slots to lock the stand in a non-supporting position, cam members having openings therein which receive the square portions of said trunnions, and connections with said cam members whereby they are elevated to spread said plate portions and thereby remove the rectangular openings therein away from the rectangular portions of the trunnions.

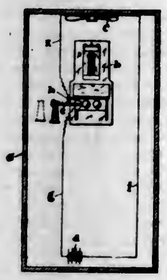
1,207,089. ANTISKID DEVICE FOR VEHICLE-WHEELS. CHARLES P. SMITH, Louisville, Ky. Filed Oct. 28, 1915. Serial No. 58,449. (Cl. 21—210.)

1. In an anti-skid device of the class described, a casing designed to be secured to a vehicle wheel and having a concave inwardly presented side provided with radial slots, anti-skid members mounted for radial movement through the inner and outer peripheral walls of the casing, means yieldably holding the members retracted, a spindle projecting from each of the members and working in the respective slots, a roller carried by each spindle, a shoe movable into and out of coöperative relation to the said rollers, the said shoe having an arcuate engaging face describing the arc of a circle of less diameter than the circle described by the series of rollers, the said face of the shoe being provided with a flange for preventing relative displacement of the rollers and the shoe, and means for moving the shoe into and out of coöperative relation to the said rollers.



2. In an anti-skid device of the class described, a casing designed to be secured to a vehicle wheel and having a concave inwardly presented side provided with radial slots, anti-skid members mounted for radial movement through the inner and outer peripheral walls of the casing, means yieldably holding the members retracted, a spindle projecting from each of the members and working in the respective slots, a roller carried by each spindle, a shoe movable into and out of coöperative relation to the said rollers, the said shoe having an arcuate engaging face describing an arc of a circle of less diameter than the circle described by the series of rollers.

1,207,090. MEANS FOR VENTILATING TELEPHONE-BOOTHS. EBEN J. STEVENSON, Boston, Mass. Filed June 14, 1915. Serial No. 33,902. (Cl. 179—1.)

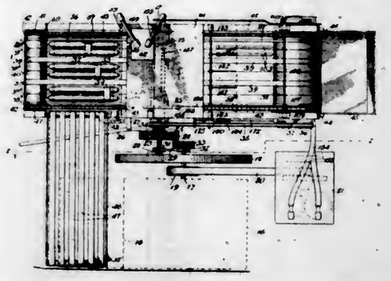


A device of the type described, including a telephone, an electric circuit, a motor-controlled fan, with a source of electric energy, a resiliently actuated pivoted hook for the receiver, a contact-point wired to one pole of the fan-motor, said contact-point being arranged to be automatically engaged by said hook upon the removal of said receiver from the hook, said fan-controlled motor and receiver hook being included in the said electric circuit.

1,207,091. EMBOSSING-MACHINE. ORA E. STRAWN, Boise, Idaho. Filed Mar. 4, 1915. Serial No. 12,156. (Cl. 41—1.)

1. An embossing machine comprising a frame, a conveyer journaled upon said frame and adapted to rest partly upon the feed board of a printing press, means for removing a printed sheet from said conveyer and for causing said sheet to travel along after leaving said conveyer, means for changing the direction of said sheet while in the act of being thus carried along, a powder container, mechanism coacting with movements of the sheet for causing the fusible powder to adhere to printed letters upon the sheet, heating mechanism for raising the temperature of said sheet in order to affect said fusible powder, and means for turning said sheet in order to expose the lettering thereof to the direct action of the heat.

2. In an embossing machine, the combination of means for causing a printed sheet to travel bodily along, a powder container disposed adjacent to the path of travel of said sheet, a slide for opening and closing said powder container, means for periodically actuating said slide in order to discharge measured quantities of powder from said container upon said sheet, means for directing an air current upon said sheet in order to remove therefrom any excess of said powder, and heating means for said sheet.



3. In an embossing machine, the combination of means for supporting a printed sheet and for carrying said sheet bodily along a predetermined path, a powder container located adjacent said path and provided with an opening for discharging a powder, a slide movable relatively to said container and provided with an opening for discharging quantities of powder passing through said opening of said container, means for periodically actuating said slide in order to cause a periodical discharge of powder upon the sheet, pneumatic mechanism for blowing a current of air upon said sheet in order to remove any excess of powder resting thereon, and vacuum mechanism connected with said container for transferring thereinto the excess of powder thus removed from said sheet.

4. In an embossing machine, the combination of means for carrying a printed sheet along a predetermined path, a powder container disposed adjacent to said path and provided with an upper compartment and with a lower compartment, means for periodically opening and closing said lower compartment in order to control the discharge of powder therefrom upon said sheet, means for removing excess of powder from said sheet and for transferring said excess of powder into said upper compartment of said powder container, and means controllable at the will of the operator for transferring powder from said upper compartment of said container into said lower compartment thereof.

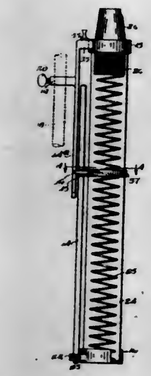
5. In an embossing machine, the combination, with means for supporting and moving a printed sheet along a predetermined path of travel, of a powder container with an upper compartment and with a lower compartment, a slide extending between said upper compartment and said lower compartment and serving as a partition for separating said compartments, the lower compartment having an automatically self-closing lower end, said slide being movable at the will of the operator for the purpose of discharging powder from said upper compartment into said lower compartment, and means for periodically discharging powder from said lower compartment.

[Claims 6 to 10 not printed in the Gazette.]

1,207,092. CUP-HOLDER. JOSEPH E. SULLIVAN, Melrose, Mass. Filed Feb. 17, 1916. Serial No. 78,899. (Cl. 211—8.)

1. A dispensing holder for inverted cups, comprising an ear provided with support-engaging means whereby said ear may be fixedly supported, a separately formed ring separably associated with said ear and provided with yielding cup-engaging means, said ear and ring forming one end of an elongated frame, a step fixedly spaced from said ear and forming the opposite end of the frame,

a spring seated on said step and adapted to press a nest of cups toward said ring, a tubular casing extending from the step to the ring, and laterally confining the spring, and means for detachably securing the ring to the fixed ear to permit the charging of the holder with cups, the said holder being formed to stand vertically beside a dentist's chair, and adapted to yieldingly hold the upper cup of a nest in position for removal by the occupant of the chair.



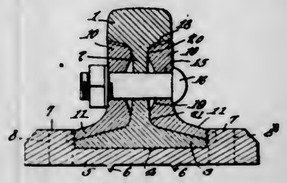
2. A dispensing holder for inverted cups, comprising a vertically elongated frame including a head forming the upper end of the frame, and provided with support-engaging means, and with means for embracing and yieldingly opposing upward movement of a nest of inverted cups, said means permitting the upper cup to project above the head, and a step fixedly spaced from said head, and forming the lower end of the frame, a spring seated on said step and adapted to exert upward pressure on the nest of cups, and a tubular casing extending between said step and head to laterally confine the spring and cups, a portion of the head being independently removable to permit the charging of the holder, and means being provided to prevent lateral displacement of the casing and spring when said portion is removed.

3. A dispensing holder for inverted cups, comprising a two-part head including an ear provided with supporting-engaging means, and a downwardly facing holding-down ring formed separately from said ear, and adapted to surround a nest of inverted cups, said ear and ring being provided with complemental coupling members permitting the quick attachment and detachment of the ring, a yielding washer held down by the ring for engaging the upper cup and yieldingly opposing upward movement of the nest of cups, a step located below and fixedly spaced from said head, a spring seated on said step and adapted to exert upward pressure on the cups, and a tubular casing extending from the step to the head to prevent lateral displacement of the spring, the removal of the ring and washer permitting the insertion of a charge of cups and the compression of the spring thereby, means being provided for laterally supporting the casing when the ring and washer are removed.

4. A cup holder for dental chairs, comprising an elongated back bar having means whereby it may be secured in a substantially vertical position to a fixture on a chair, a step attached to the lower end of said bar, a ring attached to the upper end of the bar, an elongated tube seated at its lower end on said step and embraced at its upper end by said ring, said bar being composed of two members, one adapted to slide relatively to the other to vary the length of the bar and the distance between the said step and ring, and provided with means for securing the members at various adjustments, and a spring supported by said step within the tube and adapted to exert upward pressure on a nest of inverted tapering cups inserted in the tube, the ring being provided with means yieldingly confining the nest against the upward pressure of the spring, and permitting the upward withdrawal of the upper cup from the nest.

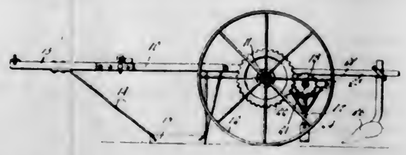
5. In a cup holder of the character described, a yielding cup-engaging device comprising an annular sheet metal washer holder provided with integral flexible hooks, and an annular elastic washer wider than said holder and slitted to receive said hooks, the inner edge of the washer being within the inner edge of the holder and adapted to engage the mouth portion of a tapered cup, and the washer being detachably connected with the holder by said flexible hooks.

1,207,093. RAIL-JOINT. BYRON R. SWORDS, La Junta, Colo. Filed July 10, 1916. Serial No. 108,426. (Cl. 239—6.)



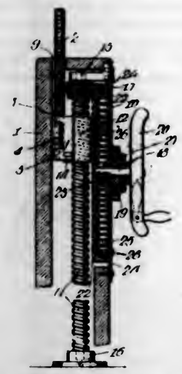
In a device of the class described, a chair provided with a transverse seat defining upstanding ribs extended unbrokenly from one edge of the chair to the opposite edge thereof; meeting rails each including a ball, a web and a flange, the flanges of the rails being received in the seat between the ribs, the ribs projecting upwardly above the upper faces of the flanges; splice bars applied to opposite sides of the webs of the rails and including flanges resting on the flanges of the rails, the flanges of the splice bars being provided in their outer edges with notches receiving the inner edges of the ribs, the notches defining abutments engaging the ends of the ribs; the chair being of greater dimension measured transversely of the rails than longitudinally of the rails, to permit the chair to be supported solely on a joint tie, the ends of the splice bars projecting longitudinally of the rails beyond the chair, the upper edges of said ends of the splice bars being cut away to space the same from the under faces of the balls of the rails, thereby to permit a vertical yielding of the rails on opposite sides of the chair, and on opposite sides of the joint tie which supports the chair, the cutting away of said ends of the splice bars serving to form intermediate upstanding lugs which bear against the under faces of the balls of the rails at the meeting ends of the rails.

1,207,094. COTTON SCRAPER, CHOPPER, AND CULTIVATOR. WILLIAM H. TIPTON, New Site, Miss. Filed Mar. 5, 1914. Serial No. 822,714. (Cl. 97—47.)



In a cotton chopping machine, the combination with a frame and an axle carried thereby, of a rearwardly extending substantially U-shaped bracket formed from a continuous metal strip having its ends secured to the axle, a blank extending from said axle to the transverse portion of the bracket, a rotary shaft suspended from said block and having its upper end journaled therein, gear connections between said axle and said shaft, said gear connections being also carried by said bracket, a transversely extending bar mounted at the lower end of said rotary shaft, and cotton chopping implements secured to the ends of said transverse bar.

1,207,095. WINDOW-ADJUSTING DEVICE. FRANK TOMSAK, Chicago, Ill. Filed Apr. 19, 1916. Serial No. 92,096. (Cl. 16—53.)



1. In a device of the class described, a window having a frame, pivotal locking leaves secured to said frame, a screw bar an adjustment block on said screw bar having projecting parts adapted to engage the locking leaves, and means for rotating the screw bar.

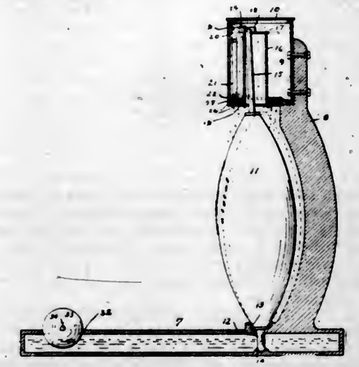
2. In a device of the class described, a window having a frame, pivotal locking leaves secured to said frame, a screw bar, an adjustment block on said screw bar having projecting parts adapted to engage the locking leaves, and gear means for rotating the screw bar.

3. In a device of the class described, a hollow frame, a window slidably mounted in said hollow frame, movable locking devices secured to said frame, an adjustment block connected to said window detachably engaged by the locking devices, a vertical screw bar upon which the adjustment block is threaded, a gear wheel on said screw bar, a large miter gear wheel meshing with the gear wheel and arranged in the hollow frame on one side of the path of travel of the window, a short horizontal shaft upon which the miter gear wheel is mounted and a hand crank also mounted on said horizontal shaft.

4. In a device of the class described, a hollow frame, a window slidably mounted in said hollow frame, locking devices secured to the frame, an adjustment block connected to said window and detachably engaged by the locking devices, a vertical screw bar upon which the adjustment block is threaded, a gear wheel on said screw bar, a large miter gear wheel meshing with the gear wheel and arranged in the hollow frame on one side of the path of travel of the window; said large miter gear wheel being dished, a spiral counterbalancing spring located in the space between the miter gear wheel and the side wall of the hollow frame and connected at its respective ends to the miter gear wheel and the hollow frame, a short horizontal shaft upon which the miter gear wheel is mounted and a hand crank also mounted on said horizontal shaft.

5. In a device of the class described, a hollow frame, a window slidably mounted in said hollow frame, pivotal locking leaves secured to said frame, an adjustment block connected to said window, and having projecting parts adapted to be detachably engaged by the pivotal locking leaves, a vertical screw bar upon which the adjustment block is threaded, a gear wheel on said screw bar, a large miter gear wheel meshing with the gear wheel and arranged in the hollow frame on one side of the path of travel of the window, a short horizontal shaft upon which the miter gear wheel is mounted and a hand crank also mounted on said horizontal shaft.

1,207,096. HOG-OILER. LEWIS TREELAND, Moville, Iowa, assignor of one-third to Fred Parke, Woodbury county, Iowa. Filed Mar. 4, 1916. Serial No. 82,085. (Cl. 119—157.)



1. A hog-oiler comprising a base, an upright rotatable roller having its lower end supported by the base, an oil receptacle supported above the roller by the base, and having openings adapted to eject oil on the roller, the upper end of the roller being extended into the receptacle and yieldable laterally, and valve mechanism within the receptacle normally closing the openings and opened by lateral movement of the roller.

2. A hog-oiler including a base having a post thereon, an oil receptacle having one side secured to the post and an inner vertical tube, an upright roller supported by the base and having its upper end inclosed by and movable laterally of the tube, said receptacle having valved means controlled by lateral movement of the roller to eject oil upon the roller.

3. A hog-oiler comprising a hollow base having an opening in the top thereof, an upright rotatable roller journaled in said opening and movable laterally by a pressure of the animals' bodies, an oil receptacle supported above and adapted to eject oil upon said roller and valve controlled means governed by the movement of said roller for controlling the ejection of the oil upon said roller.

4. A hog oiler comprising a hollow base having an opening in the top thereof, an upright rotatable roller having its lower portion freely inclosed by the opening and supported on the bottom of the base, said roller being movable laterally, an oil receptacle supported above the roller and having outlet openings through which oil is ejected on the roller, and valve mechanism for opening and closing said openings, and controlled by lateral movement of the roller.

5. A hog-oiler comprising a base, an oil receptacle supported above the base, an upright roller rotatably supported by the base, the upper end of the roller being extended into the receptacle and movable laterally, said receptacle having openings adapted to eject oil on the roller, and a valve normally closing said openings and controlled by lateral movement of the roller.

1,207,097. SNAP-SWITCH FOR ELECTRIC USES. WILLIAM C. TREGONING, Cleveland, Ohio. Filed Oct. 26, 1914. Serial No. 868,613. (Cl. 175—284.)

1. An electric switch comprising a body and electric terminals supported thereby, an actuating member slidable within fixed limits in said body and having an enlarged middle portion, a band sleeved over the said middle portion and a spring compressible longitudinally of its axis extending through the said band into engaging relations with said device at its ends and opposite stops on said body for said band.

2. A switch as described, comprising a sectional body and a pair of terminals in one of said sections, an actuat-

ing bar therein having a transverse opening, a rectangular contact device slidably mounted upon said bar and a spring through said opening having fulcrum engaging relations at its ends with the ends of said device and adapted to throw the same into and out of contact position on said terminals.



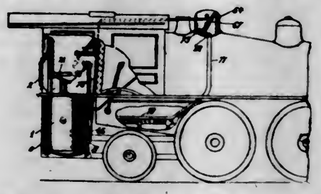
3. An electric switch comprising a sectional body provided with an internal recess, electric terminals oppositely in said recess, an actuating member having a transverse opening at its middle, a band sleeved over said member having lugs and a spiral spring extending through said opening into engaging relations with said lugs at its ends and adapted to shift said band into and out of contact with said terminals.

4. In a switch, a body, a reciprocable bar having a transverse opening and an enlargement at its middle provided with channeled sides, a box-shaped member mounted over said enlargement and a coil spring extending through said opening in the bar and engaged at its ends with said member and confined within said channeled sides.

5. In a switch, a body and an actuating part slidable therein and having a transverse opening at its middle and channeled sides oppositely at said opening, in combination with a band about said actuating part and a coiled spring loosely mounted within said opening and loosely engaged at its ends in fulcrum relations with said band.

[Claim 6 and 7 not printed in the Gazette.]

1,207,098. LIFE-SAVING ATTACHMENT FOR LOCOMOTIVE-CABS. WILLIAM A. UTTZ, Fort Worth, Tex. Filed Feb. 21, 1916. Serial No. 79,720. (Cl. 104—205.)



1. A life saving attachment for the cabs of locomotives and means for mounting said attachment in the cabs of locomotives consisting of a locking bar slidably mounted and hangers pivotally mounted on said attachment and having openings in their upper ends to receive said bar.

2. A life saving attachment for the cabs of locomotives comprising a carrier and means for mounting said carrier in the cabs of locomotives consisting of a slidable locking bar, bearings attached to the cab for said bar, and hangers pivotally connected to said carrier and having perforations in their upper ends to receive said bar.

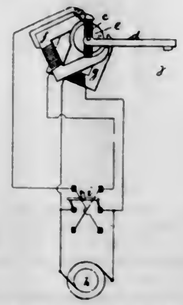
3. A life saving attachment for the cabs of locomotives comprising a carrier and means for mounting said carrier in the cabs of locomotives consisting of a slidable locking bar, bearings attached to the cab for said bar, hangers pivotally connected with said carrier and having perforations to receive said bar, and means operatively connected with said bar and with said carrier whereby said bar is removed from said hangers by the operation of the carrier.

4. A life saving attachment for the cabs of locomotives comprising a carrier provided with a hinged lid and means for mounting said carrier in the cabs of locomotives consisting of a slidable bar, bearings attached to the cab for said bar, hangers pivotally attached to said carrier and having perforations to receive said bar, a trip rigid with said bar, and an arm rigid with said lid for actuating said bar to discharge said carrier.

5. A life saving attachment for the cabs of locomotives comprising a carrier provided with a hinged lid and means for mounting said carrier in the cab consisting of bearings attached to the cab, a locking bar slidable in said bearings, hangers pivotally connected with said carrier and engaged by said bar, a trip having two shoulders attached to said bar, and an arm rigid with said lid and normally engaging one of said shoulders to hold the carrier in its normal position and adapted when said lid falls to engage the other shoulder to move said bar.

[Claims 6 to 21 not printed in the Gazette.]

1,207,099. INDICATOR. THOMAS W. VARLEY, New York, N. Y. Filed Apr. 28, 1913. Serial No. 764,115. (Cl. 177—327.)



1. In an indicator a signal arm and means for imparting a continuous-direction three-position movement thereto including a plurality of magnets and an armature, the windings of one of said magnets and of the armature being in the same electrical circuit and under the influence of a reversible current, another of said magnets being in another circuit and under the influence of a single direction current.

2. In an indicator a signal arm and means for imparting a continuous-direction three-position movement thereto including a plurality of magnets angularly displaced with reference to each other, and an armature, the windings of one of said magnets and of the armature being in the same electrical circuit and under the influence of a reversible current, another of said magnets being in another circuit and under the influence of a single direction current, the armature being capable of moving from the field of one of said magnets into the field of the other of said magnets.

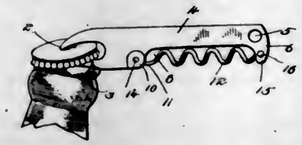
3. In an indicator a signal arm and means for imparting a continuous-direction three-position movement thereto including a plurality of magnets angularly displaced with reference to each other, and an armature, the windings of one of said magnets and of the armature being in the same electrical circuit and under the influence of a reversible current, another of said magnets being in another circuit and under the influence of a single direction current, the armature being arranged to come serially under the influence of said magnets.

4. In an indicator a signal arm and means for imparting a continuous-direction three-position movement thereto including a plurality of magnets angularly displaced with reference to each other, and an armature, the windings of one of said magnets and of the armature being in the same electrical circuit and under the influence of a reversible current, another of said magnets being in another circuit and under the influence of a single direction current, the armature being arranged to come serially under the influence of said magnets and to have a continuous motion in one direction imparted thereto.

5. In an indicator a moving member comprising an armature and a signal arm controlled thereby, and means for magnetically controlling the movement of said armature comprising a plurality of magnets, the windings of one of said magnets and of said moving member being in the same electrical circuit and under the influence of a reversible, current, another of said magnets being in another circuit and under the influence of a single direction current, so that the moving member begins its motion under the influence of one of said magnets and passes under the influence of the other of said magnets.

[Claims 6 to 12 not printed in the Gazette.]

1,207,100. BOTTLE-OPENER. HARRY L. VAUGHAN, Chicago, Ill. Filed Aug. 21, 1915. Serial No. 46,731. (Cl. 65—46.)



A bottle cap remover consisting of a metal blank member terminating in a point for engaging the cap of a bottle and an upwardly curved claw, a cork-screw pivoted to said blank member intermediate its ends and having its longitudinal axis at an angle to the longitudinal axis of said blank and a recess formed in the side and near one end of said blank, whereby the free end of said cork-screw is normally out of alinement with said recess, said cork-screw serving as the bearing portion of the handle when in closed position.

1,207,101. MAIL-BOX. HAROLD F. WADE, Opportunity, Wash. Filed Feb. 20, 1915. Serial No. 9,622. (Cl. 232—34.)

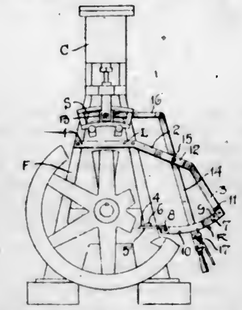


1. A mailing receptacle having a closed upper end and an open lower end, retaining means mounted in the lower end for removably holding packages insertible in the receptacle, an indicator pivotally mounted on the upper edge of the receptacle and normally arranged over the closed end, and actuating means slidably mounted in the receptacle and positioned between the retaining means and the indicator for raising the indicator simultaneously with the insertion of a package in the retaining means.

2. A mailing receptacle having a closed upper end and an open lower end, resilient retaining means mounted with the receptacle, an indicator pivotally mounted on the upper edge of the receptacle and normally resting on the closed upper end thereof, actuating means slidably mounted in the upper end and normally supported on the retaining means for raising the indicator simultaneously with the insertion of a package within the receptacle and for holding the indicating means in an operative position while a package remains in the retaining means, and the actuating means owing to its weight being adapted to return to its normal position upon the removal of a package to consequently permit of the indicator returning to its normal position.

3. A mailing receptacle having a closed upper end and an open lower end, a spring mounted within the receptacle adjacent the lower end, an indicating flag pivotally mounted on the receptacle and normally arranged over the closed upper end thereof, a slide mounted in the receptacle and normally resting on the spring, a rod mounted on the slide and slidably mounted in the closed upper end of the receptacle so as to raise the flag simultaneously with the insertion of a package and maintain the flag in a raised position, and the slide being maintained in position by a package insertible beneath the spring and adapted to return to its lowermost position owing to the weight thereof and consequently permit of the return of the flag to its lowermost position.

1,207,102. REVERSING MECHANISM FOR ENGINES. WARREN WAGNER, Strawn, Tex. Filed Apr. 26, 1916. Serial No. 93,707. (Cl. 74—39.)



In combination with a vertical frame and a movable body carried thereby, a link secured to one face of the frame and extending therebeyond, the extended portion of the link comprising two downwardly disposed and angularly related portions, said link being secured to the frame at a point below the movable member, an arcuate rack secured at one end portion to the frame and at its opposite end portion to the outer end of the link, a lever pivotally engaged intermediate its length with the inner extended portion of the link, the upper end of said lever being operatively engaged with the movable member, said link extending below the rack, a latch mechanism carried by the lever below the rack immediately adjacent thereto and coacting with the rack, and means carried by the rack and coacting with the lever for holding said lever against movement in a direction away from the rack.

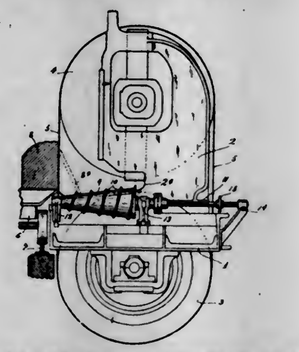
1,207,103. BAND-SAW MILL. FLETCHER L. WALKER and HERMANN G. DITTBENNER, Minneapolis, Minn. Filed Jan. 10, 1916. Serial No. 71,207. (Cl. 143—157.)

1. In a band saw mill, the combination with upper and lower saw wheels, and a band saw arranged to run over the same, of haul-off rollers with spiral threads in position to receive boards cut from the log by the said saw and operative to simultaneously move said board endwise and to move the lower edge thereof laterally inward away from the saw, thereby turning the said board into an approximately horizontal position.

2. In a band saw mill, the combination with the saw wheels and a band saw working thereon, of approximately horizontal conical haul-off rollers having spiral threads operative on the board cut from the log to move the same endwise and turn the same laterally into a horizontal position.

3. In a band saw mill, the combination with upper and lower saw wheels and a band saw working thereon, of a pair of approximately horizontal haul-off rollers, one on each side of said saw, having spiral threads operative on the boards cut from the log, and means for rotating the said two haul-off rollers in the same direction.

4. In a band saw mill, the combination with upper and lower saw wheels and a band saw arranged to run thereon, of a haul-off roller having a spiral thread, the upper portion of which works in an inclined plane slightly above the upper portion of said lower saw wheel.



5. In a band saw mill, the combination with a bed frame and pedestals, of lower and upper saw wheels having journals connected, respectively, to the said bed frame and pedestals, said pedestals having notches extending back beyond the vertical line intersecting the axis of said wheel journals, a band saw working on said upper and lower wheels, and a conical haul-off roller having a spiral thread, the upper portion of which works in an inclined plane extended slightly above the upper portion of said lower saw wheel.

1,207,104. CORSET-STAY. SHELLIE V. WALLACE, Cambridge Springs, Pa. Filed Feb. 1, 1916. Serial No. 75,566. (Cl. 2—76.)

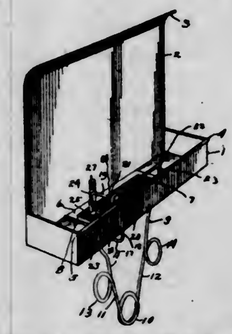


1. A corset stay formed from a blank of flat resilient material stamped to form loops at opposite sides of the middle of the stay, said blank being transversely curved at the longitudinal middle of the stay and having inclines on the outer edges of the walls of the loops to form a clearance between adjacent loops at the opposite longitudinal edges of the stay.

2. A corset stay formed from a blank of flat resilient material, said stay being of sinusoidal form throughout its length and transversely curved at the longitudinal middle of the stay, the outer edges of the walls of the loops of the stay being curved to provide a clearance between adjacent loops at the opposite longitudinal edges of the stay, the stay at its ends being provided with flat sided head portions.

1,207,105. FLASH-LIGHT IGNITER. EDWARD R. WEISHAUPT, Rochester, N. Y. Filed Jan. 21, 1916. Serial No. 73,483. (Cl. 67—28.)

In a device of the class described, the combination with a pan, of a handle consisting of yieldably connected arms, one of said arms being fixed to the pan, the other arm having a shaft carried thereby, rollers carried by the shaft, a yoke fixed to one wall of the pan for engaging one of the rollers, the other of said rollers being engaged with the upper edge of one wall of the pan, a striking plate on the bottom of the pan, a tube supported by the



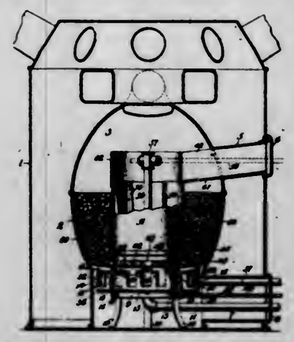
shaft, a cylinder of pyrophoric material mounted in the tube for engaging the striking plate when the loosely connected arm is moved toward the fixed arm of the handle.

1,207,106. BREAD HOLDER OR STAND. MARIE LOUISE WELSH, Richmond, Va. Filed Sept. 24, 1915. Serial No. 52,442. (Cl. 65—53.)



A hot bread or cake holder comprising a foraminous supporting fabric, and supports for said supporting fabric to space the same above a table or the like, said supports being feet, adapted to bear directly on a table or the like and provided on their inner sides at points above their lower ends with bends adapted to receive and permit the removal of the edge of a plate.

1,207,107. GARBAGE-INCINERATOR FOR FURNACES. GEORGE F. WENTZ, Lakewood, Ohio. Filed Sept. 1, 1915. Serial No. 48,444. (Cl. 126—225.)



1. A heating furnace provided with an interior incinerating chamber for garbage or other material, a burner for fluid fuel within the incinerating chamber, and another burner for fluid fuel exterior to the incinerating chamber in position to act upon heat distributing material in the furnace.

2. A combination heating and incinerating furnace provided with a fire pot, an incinerating chamber, for garbage or other material, within the fire pot, a burner for fluid fuel within the incinerating chamber, a burner for fluid fuel exterior to the incinerating chamber for directing burning fuel to the fire pot, a grate carried by the incinerating chamber exterior thereto and constituting the bottom of the fire pot, and a mass of refractory material on the grate within the fire pot in surrounding relation to the incinerating chamber.

3. A heating furnace provided with an incinerating chamber, for garbage or other material, located within the fire pot of the heating furnace, a burner for fluid fuel within the incinerating chamber, a shaker grate within the incinerating chamber above the burner, and a tubular stem carried by the shaker grate and extending above the incinerating chamber.

4. A heating furnace provided with an incinerating chamber, for garbage or other material, interior to the fire pot of the heating furnace with the incinerating chamber having interior and exterior grates, the exterior grate constituting a grate for the fire pot of the furnace in surrounding reintion to the incinerating chamber, a shaking grate associated with the interior grate of the incinerating chamber, and burners for fluid fuel within and exterior to the incinerating chamber.

5. A heating furnace provided with a fire pot, fire chamber, and ash pit, and with entrance passages to the fire chamber and ash pit, an incinerating chamber, for garbage or other material, within the fire chamber, means for directing material through the entrance of the fire chamber to the upper end of the incinerating chamber, burners for fluid fuel located within the incinerating chamber and exterior thereto with pipes leading to the burners through the entrance to the ash pit, a grate within the incinerating chamber, and another grate exterior thereto and constituting the bottom of the fire pot.

[Claims 6 to 12 not printed in the Gazette.]

1,207,108. NAIL-CUTTING IMPLEMENT. FRANK L. WHITE, Jackson, Miss. Filed Apr. 15, 1914. Serial No. 832,065. (Cl. 30—23.)



1. A nail cutting implement of the character described, comprising in combination, a handle, a pair of guards mounted on said handle and spaced apart from each other and provided with apertures, a knife blade having its ends disposed in said apertures and provided with cutting edges disposed at right angles to the planes of said guards and extending therebetween, and means carried by the handle for forcing said blades into anchored engagement with said openings, substantially as described.

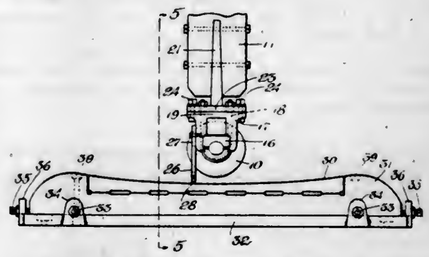
2. A nail cutting implement of the character described, comprising in combination, a blade holder having bifurcated portions provided with blade holding openings therein disposed inwardly of the end and side margins of said bifurcated portions, a blade spanning the space between said bifurcated portions and having its ends disposed in said openings and provided with oppositely disposed cutting edges, and means disposed in the openings of said bifurcated portions and lying in the planes of said portions for clamping said blade in position, substantially as described.

3. A nail cutting implement of the character described, comprising in combination, a handle having a threaded shank, a blade holder rotatable on said shank and provided with bifurcated portions having blade receiving openings, within the embrasure thereof, a blade in said openings, and a bifurcated blade clamping element having bifurcated portions extending into the openings in the holder portions and adapted for longitudinal displacement to grip or release the blade upon rotative adjustment of said holder with respect to said handle, substantially as described.

4. A nail cutting implement of the character described, comprising in combination, a bifurcated blade holder having blade receiving portions and guard ends projecting longitudinally and laterally beyond said blade receiving portions, a blade in said portions, and means for clamping the blade in place in said portions, substantially as described.

5. A nail cutting implement, including a handle, a blade holder thereon comprising a body bifurcated to provide a pair of spaced apart guards having complementally formed openings therein, a clamping block movable in said openings relative to said body, spaced apart arms in said clamping block providing jaws, a blade having its respective extremities engageable by the said guards and clamping block, and means for moving said block into clamped position.

1,207,109. MACHINE FOR ROLLING LEATHER. WILLIAM W. WHITING, Nashua, N. H. Filed Dec. 27, 1915. Serial No. 68,831. (Cl. 149—18.)



1. A machine for rolling leather having, in combination, a roller, a bed plate beam, a bed plate carrier support secured thereto, a bed plate carrier mounted on the support, means for positively adjusting the carrier laterally and longitudinally on the support, and a bed plate on the carrier.

2. A machine for rolling leather having in combination, a bed plate beam, a bed plate carrier support thereon, a bed plate carrier mounted on the support, means for positively adjusting the carrier laterally and longitudinally with respect to the support, a bed plate mounted on the carrier, a roller, means for supporting the roller comprising a roller beam, an inverted T-shaped roller support carrier secured thereto and a roller support mounted on the carrier, and means for actuating the roller beam.

3. A machine for rolling leather having in combination, a roller, actuating means therefor, a bed plate movable toward and from the roller, a support for the bed plate, pneumatic devices for moving the bed plate toward the roller located under the bed plate support in a position normal to the path of the roller, and means for controlling the pneumatic devices.

4. An adjustment gage for use on machines for rolling leather, provided with a roller, a roller support, and means for moving the roller, said gage being adapted for attachment to the roller support and having provision by virtue of which the angular position of the roller with relation to its path of motion may be ascertained.

5. A U-shaped adjustment gage for use on machines for rolling leather, provided with a roller, a roller support, and means for moving the roller, said gage being adapted for attachment to the roller support and having a straight edge by which the perpendicularity of the roller to its path of motion may be determined.

1,207,110. CAR-ROOF. FREDERICK M. WHYTE, Tarrytown, N. Y., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 13, 1913. Serial No. 794,978. (Cl. 108—5.4.)

1. A car roof, comprising a series of roofing plates, carlines to which said plates are rigidly secured, and weather-proofing connection between adjacent plates permitting freedom of relative movement.

2. A car roof, comprising a series of carlines, roofing plates rigidly supported upon said carlines and otherwise free from the car and from each other, and weather proofing means between said plates.

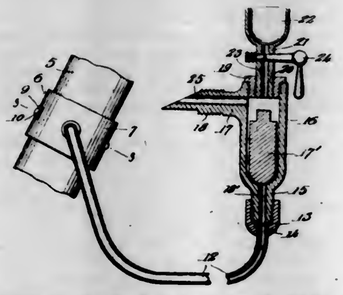


3. A car roof, comprising a series of carlines, roofing plates rigidly supported intermediate their edges upon the respective carlines and having upstanding marginal flanges free from each other, a running board supported upon said plates above said carlines, and a weather-proofing cap for said upstanding flanges extending from eave to eave and beneath said running board.

4. A car roof, comprising a series of intermediately trussed and intermediately, rigidly supported roofing plates extending from eave to eave, and flexible weather-proofing means between adjacent edges of said plates.

5. In a car roof, the combination with intermediately supported adjacent roofing plates extending from eave to eave, upstanding flanges at the adjacent edges of said plates, caps embracing said flanges extending from eave to eave, and securing means for said caps extending between said flanges.

1,207,111. AUXILIARY-AIR-INLET DEVICE FOR INTERNAL-COMBUSTION ENGINES. STERLING E. WILBERGER, Julian, Nebr. Filed Mar. 28, 1914. Serial No. 827,998. (Cl. 48—180.)

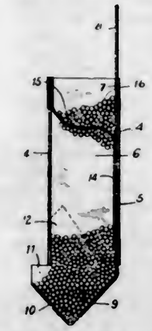


In a controlling valve construction, a casing, an air intake, a priming cup having a bore open to said casing, an outlet for said casing open to the intake manifold of a combustion engine, a valve member in said casing of less diameter than the interior diameter thereof, said valve member normally closing the air intake of said casing, a reduced extension on said valve to close the bore of said priming cup when the valve is unseated from its normal position and said valve being of less diameter than the interior diameter of said casing to permit air to be drawn thereabout to said outlet when in such unseated position; in combination with means to heat the air drawn into said casing through intimacy with the exhaust of the combustion engine.

1,207,112. MATCH-BOX. ROBERT W. WILKES, Yonkers, N. Y. Filed May 4, 1915. Serial No. 25,672. (Cl. 206—31.)

1. The combination of a match-box, an open-ended cover adapted to receive the box therein, a tray at one end of the box adapted to be moved to the open position when the box is moved partially from within the cover, and a receptacle for used matches at the other end of the box, which receptacle includes a flexible member adapted to be supported upon the unused matches in the box; substantially as described.

2. The combination of a match-box, a cover therefor, a foldable tray consisting of a bottom and sides, the bottom of the tray having one of its edges connected to one end of the bottom of the box, and a receptacle for used matches at the other end of the box, which receptacle includes a flexible member adapted to be supported upon the unused matches in the box; substantially as described.

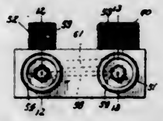


3. The combination of a match-box, a cover therefor, a foldable tray at one end of the box, and a flexible strip constituting the other end of the box when the box is in an upright open position, and forming a receptacle for used matches above it and within the upper end of the cover of the box; substantially as described.

4. The combination of a match-box, a cover therefor, a foldable tray at one end of the box, and a flexible strip secured at one end to the bottom of the box and adapted to have its other end secured to the cover of the box; substantially as described.

5. The combination of a match-box, a cover therefor, a foldable tray consisting of a bottom and sides, the bottom of the tray having one of its edges connected to one end of the bottom of the box, and a flexible strip secured at one end to the inner surface of the bottom of the box and adapted to have its other end secured to the cover; substantially as described.

1,207,113. APPARATUS FOR REMOVING SCALE FROM BOILERS. WILBUR B. WILKINSON, New York, N. Y., assignor to Perotin Company of America, Chicago, Ill. Filed Apr. 3, 1915. Serial No. 18,997. (Cl. 158—27.4.)



An apparatus for removing scale from boilers comprising in combination, a solid base having a longitudinal passage therein and having also an inlet to said passage and a plurality of outlets therefrom, said base having means associated therewith for forming mixing chambers, oxygen tips associated with said outlet passages and projecting into said mixing chambers, said base having a second longitudinal passage therein connecting with said mixing chambers and having a passage leading into said second longitudinal passage, and means for delivering mixed gases away from said mixing chambers.

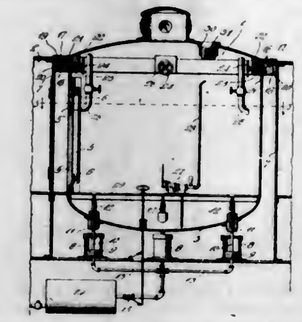
1,207,114. MINE-CAR COUPLING. DAVID J. WILLIAMS, Herrin, Ill., assignor of one-third to George H. Williams, Herrin, Ill. Filed Feb. 24, 1916. Serial No. 80,209. (Cl. 213—50.)

In a coupling device, a vertically longitudinally slotted socket member, a pair of substantially rectangular upwardly extending ears centrally disposed on the top of said member, one on each side of the slot thereof, said ears having V-shaped notches therein to form seats, the front wall of each seat being vertical, said seats being alined, said socket member having additional alined seats in the top of the walls of said slot between said ears and the front end of the member, a locking ring disposed in said slot, a pin extending across said slot to retain the



ring therein, a suspending link loosely connected to said ring, said link resting in the last-named alined seats when the device is operative, said link when placed in the seats in said ears, being adapted to hold said ring in an inoperative position.

1,207,115. LIFE-SAVING APPARATUS FOR SUBMARINES. RALPH A. WILLISON, Portland, Oreg. Filed Nov. 8, 1915. Serial No. 60,304. (Cl. 114—16.7.)



1. The combination with a vessel, of a floatable chamber disposed therein, a fluid pressure cylinder arranged beneath said chamber, a piston disposed therein, a compressed fluid supply connected with said cylinder whereby when the compressed fluid is allowed to enter the cylinder the piston will project the chamber out of the vessel, and means for normally holding said chamber within the vessel.

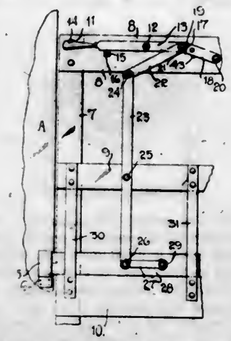
2. The combination with a vessel, of a floatable chamber disposed therein, a plurality of circumferentially spaced fluid pressure cylinders arranged beneath said chamber, pistons disposed therein, a compressed fluid supply connected with said cylinders, whereby when the compressed fluid is allowed to enter the cylinders the pistons will project the chamber out of the vessel, and means for normally holding said chamber within the vessel.

3. The combination with a vessel, of a floatable chamber disposed therein, a plurality of jack screws threaded through the bottom of said chamber, supporting feet on the lower ends of said jack screws, a fluid pressure cylinder arranged beneath each of said screws, pistons disposed therein, the outer end contacting with the feet of the jack screws, a compressed fluid supply connected with said cylinders, whereby when the compressed fluid is allowed to enter the cylinders the pistons will project the chamber out of the vessel, means for turning the jack screws for manually projecting the chamber, and means for normally holding said chamber within the vessel.

4. The combination with a vessel, of a floatable chamber disposed therein, a door for said chamber, and having a water tight connection therewith, said door being formed in two sections having a water tight joint therebetween, whereby the lower section may be closed to prevent the entrance of water into the chamber while allowing persons to enter through the upper section, means for normally holding said chamber within the vessel, and means for projecting the chamber from the vessel.

5. The combination with a vessel, of a floatable chamber disposed therein, a water tight connection between said chamber and the deck of the vessel, a removable plug in the top of said chamber, a sleeve adapted to be threaded into the opening occupied by the plug, an air inlet tube adapted to extend through said sleeve and above the top of the chamber, said tube being threaded on its lower end to coact with the threads in the sleeve, and means for holding said chamber within the vessel.

1,207,116. GATE-LATCH. FREDERICK W. WINNER, Carmi, Ill. Filed June 10, 1916. Serial No. 102,957. (Cl. 70—28.)



1. A gate latch comprising an operating lever provided with an arcuate end, a pivotally mounted dog formed with an arcuate end to engage with the end of the lever to lock the same, an actuating lever, a link connecting the lever, a plunger latch, a link connecting one end of the actuating lever with the plunger, means to limit the movement of the operating lever in one direction, and means to limit the movement of the dog.

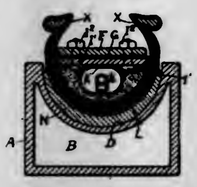
2. A gate latch comprising a pivotally mounted operating lever horizontally disposed on a gate, said lever having an arcuate end, a pivotally mounted dog angularly positioned with reference to the lever, said dog having an arcuate end adapted to coöperate with the arcuate end formed on the lever, a substantially vertically disposed actuating bar or lever, a link to connect the lever and bar, said link being angularly disposed toward the lever and bar, a movable latch bar horizontally positioned on the gate and between two panels thereof, a link to connect the lower end of the actuating bar with the latch bar, means to restrict and confine the movement of the latch bar, and means to limit the movements of the operating lever and the dog.

3. A gate latch including an operating lever pivoted intermediate its ends, a stop limiting the movement of the lever in one direction but permitting its free movement in the other direction, a dog pivoted adjacent one end of the operating lever, the distance between the pivotal axis of the dog and the pivotal axis of the lever being less than the combined length of said dog and of the lever between its dog engaging end and its axis, said dog when engaged with the adjacent end of the lever binding thereon upon a movement of the lever in one direction and prevent its further movement in this direction.

4. A gate latch including a normally horizontal latch operating lever pivoted intermediate its ends, a stop for limiting the movement of the lever in one direction but permitting its movement in the other direction, a dog pivoted adjacent one end of the lever, the free end of the dog being adapted to engage the extremity of the lever and abut against it, and a stop acting to support the dog from downward movement and support the free end of the dog in the path of movement of the adjacent end of the lever, but permitting the lever to move upward.

5. A gate latching mechanism including a bolt, an actuating lever therefor operatively connected to the bolt, the lever being normally disposed in a horizontal position, a dog pivoted adjacent to one end of the lever, the distance between the pivotal axes of the dog and lever being less than the combined length of the dog and the lever, between its extremity and its pivotal axis, a stop preventing rotation of the lever to carry its dog engaging end upward, and a stop upon which the dog normally rests supporting the dog at an inclination upward and toward the free end of the lever and with its end in the path of movement of the lever.

1,207,117. VULCANIZING DEVICE FOR TIRE-CASINGS. CHARLES S. WOOD, Chicago, Ill. Filed Apr. 3, 1916. Serial No. 88,647. (Cl. 18—45.)

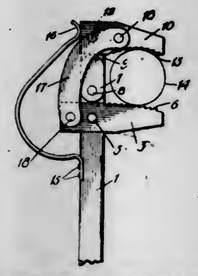


1. A pad for vulcanizing tire casings, comprising an external base adapted to resist pressure, means to apply pressure to said base, a flexible casing, and means to attach said casing to said base, in combination with a steam chamber and granular filling surrounding said chamber in said casing, said chamber provided with an aperture at its ends, and means to close said apertures, said base, steam chamber and casing curved longitudinally, and said casing curved laterally.

2. A pad for vulcanizing tire casings comprising a base curved longitudinally, a flexible casing, curved laterally, a sub-base, means to attach said sub-base to said base with the sides of said casing interposed between said base and sub-base, a steam chamber in said casing, and a granular filling between the walls of said steam chamber and said casing.

3. A pad for vulcanizing tire casings, consisting of a base and a casing made of fabric, in combination with a sub-base, means to attach said base and sub-base together with the casing interposed between them, a walled chamber in said casing, said chamber provided with an inlet, said casing adapted to form the laterally curved wall of an additional chamber, and a filling in said additional chamber, to embed said walled chamber therein.

1,207,118. WRENCH. JAMES E. WORTMAN, Kalispell, Mont. Filed Jan. 18, 1916. Serial No. 72,772. (Cl. 81—99.)



1. A wrench including a shank, a rigid inner jaw thereon, a connecting link pivotally mounted on the projecting outer end of the shank, an outer jaw pivotally connected to the free end of the link, means for guiding and limiting the movement of the outer jaw, and a curved leaf spring having one end connected to the shank adjacent the rigid jaw and the outer end thereof exerting its tension on the outer movable jaw whereby the movable jaw will coöperate with the rigid jaw and maintain an object therebetween.

2. A wrench including a shank having a reduced end, a rigid inner jaw on the reduced end, a connecting link pivotally associated with the projecting reduced end, an outer jaw pivotally connected to the free end of the link, arcuate links pivotally connected at their respective extremities to said jaws upon opposite sides thereof for guiding and limiting the movement of the movable jaw, and a leaf spring connected to the shank and bearing against the movable jaw whereby the movable jaw will coöperate with the rigid jaw and maintain an object therebetween.

1,207,119. UNDERREAMING-BIT. WALTER L. YOUNG, Newport, Cal. Filed Jan. 16, 1915. Serial No. 2,756. (Cl. 255—73.)



1. In a casing, a tool body having a cutting edge and non-resilient wedging means to force the tool body laterally beneath the casing wall.

2. In a casing, a tool body having a cutting edge on one side and non-resilient wedging means on the opposite side to force the tool body laterally beneath the casing wall.

3. In a casing, a vertically rotating tool body forming a cutting edge, and non-resilient wedging means to force the tool body laterally beneath the casing wall to drill a hole of larger diameter than said body, said means operating against the wall of the hole.

4. In a casing, a vertically rotating tool body forming a cutting edge, and a non-resilient shifter wedge to force the tool body laterally beneath the casing wall to drill a hole of larger diameter than said body, said shifter operating against the wall of the hole.

5. In combination, a vertically rotating tool body having a cutting edge for drilling a hole, and non-resilient wedging means shiftable by the pressure between the tool body and the material loosened by the cutting edge to force said means outward against the wall of the hole.

[Claims 6 to 34 not printed in the Gazette.]

1,207,120. NIPPLE AND COMFORTER FOR INFANTS. HARRY H. YOUNKER, New York, N. Y. Filed Sept. 27, 1915. Serial No. 52,871. (Cl. 128—18.)

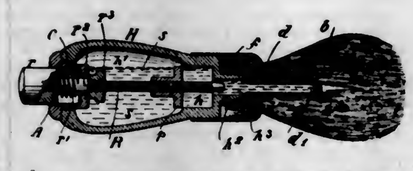


1. In a nipple and comforter, a substantially elliptic flat resilient mouthpiece adapted to be disposed in the mouth of an infant, and the mouthpiece being provided with two recesses one in each of its flat surfaces for reception of the lips of the infant, one of said recesses being formed to conform with the shape of the lower lip of the infant and the other being formed to conform with the upper lip of the infant whereby the lips of the infant will be symmetrically formed.

2. In a nipple and comforter for infants, a resilient mouthpiece with a cup-shaped head having a duct therethrough and leading through the mouthpiece, the said mouthpiece being adapted to be disposed in the mouth of an infant, and the mouthpiece being provided with two recesses in opposite parts thereof for reception of the upper and lower lips of the infant, and said recesses being shaped to conform to the lips of the infant, and a ridge projecting from the head for engaging the indentation between the upper lip and the nose of the infant whereby the lips of the infant will be developed into symmetrical form by the use of the nipple and comforter.

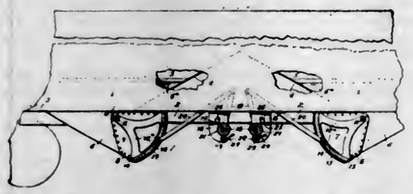
3. In a nipple and comforter, a resilient mouthpiece with a cup-shaped head, the mouthpiece being adapted to be disposed in the mouth of an infant, and the mouthpiece being provided with two curved recesses in opposite parts thereof of a shape to conform with the shape of the upper and the lower lips of an infant, the mouthpiece having two additional curved recesses, for receiving the upper and lower gums of the infant, and having a ridge adjacent the recess for the upper lip so as to engage the indentation between the nose and the upper lip of the infant and the mouthpiece having a duct therethrough, substantially as and for the purposes set forth.

1,207,121. SHAVING-BRUSH. FREDERICK W. ZEIDLER, Jersey City, N. J. Filed Feb. 9, 1916. Serial No. 77,133. (Cl. 15—50.)



A shaving brush of the character designated, comprising a hollow reservoir handle formed with a contracted cylindrical ejection chamber communicating with a flexible elastic resilient discharge tube protruding among the brush bristles, said flexible elastic resilient discharge tube being slitted at its outer extremity the edges of the slit being made in the form of flat contacting lips of greater width and thickness than the walls of the tube for the purpose set forth, and a spring push rod formed with a piston fitting into said cylindrical ejection chamber.

1,207,122. DUMPING-CAR. CHARLES H. ANDRUS and CHARLES A. PLANK, Harrisburg, Pa. Filed Feb. 1, 1916. Serial No. 75,526. (Cl. 105—185.)



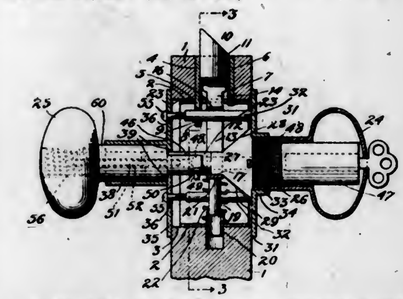
1. The combination with a car body and a chute depending therefrom and having an outwardly curved outer end, of an outwardly curved convex sliding gate for closing the outlet end of the chute, pivoted brackets carrying said gate, said brackets being curved to conform to the curved outlet end of the chute and having grooves near their connection with the gate, and said chute provided with curved flanges entering said grooves.

2. The combination with a hopper body provided with an outlet chute at its bottom, said chute having a curved outlet end, of plates secured to the sides of said chute, brackets pivoted to said plates and having curved lower edges, said gate secured to said brackets and connecting the same, said brackets having grooves near their free curved edges, and said plates having curved flanges to enter and move in said grooves.

3. The combination with a hopper body and an inclined chute depending therefrom, of plates secured to the sides of the chute, brackets pivoted to said plates and having convex free ends, said convex portions of the brackets having grooves, a convex gate secured to the convex portions of said brackets, and curved flanges projecting from said plates and entering the grooves in the curved free ends of said brackets.

4. The combination with a hopper body having an outlet chute, the latter provided with a curved outlet end, of an outwardly curved convex sliding gate for said chute, said gate and chute provided with intermeshing portions having sliding connection with each other, an operating shaft, arms on said shaft, rods connecting said arms with the gate at respective ends of the latter, and means for manually actuating said operating shaft.

1,207,123. DOOR LOCK AND LATCH. THOMAS P. ARSNEAU, Portland, Oreg., assignor of one-third to Clive S. Acker, Leola, S. D. Filed Dec. 17, 1915. Serial No. 67,443. (Cl. 70—91.)



1. A device of the class described comprising a casing, a draw latch having a rectangular aperture therein, a knob spindle adapted to have a sliding movement and passing through said aperture, knobs on said spindle, a cam on said spindle, said cam being adapted to contact with the ends of said aperture to operate said latch, a rotary plug of a tumbler controlled lock mounted in one end of said spindle, a projection on said plug extending through a slot in said spindle, and means for locking said spindle against movement, said means comprising a catch pivoted in a slot in said spindle, a balance and finger engaging portion formed on said catch, said portions extending out from said casing and adapted to be raised to lock said spindle and to be held in said position by one of said knobs, means for releasing said catch, said means comprising said projection on said rotary plug, said projection being adapted to engage said last mentioned knob forcing it to release said catch.

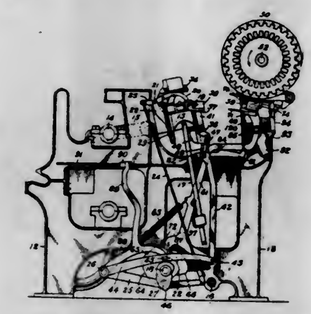
2. A push and pull lock comprising a casing, a draw latch having an aperture therein, and a knob spindle passing through said aperture, knobs on said spindle, one of said knobs being revolubly mounted and the other of said knobs being stationary on said spindle, a catch pivoted in a slot in said spindle adjacent said revolubly mounted knob, said catch being adapted to lock said spindle against movement when raised to engage a flange formed in said lock and said revoluble knob turned to hold said catch in position, and means for releasing said catch, said means comprising a tumbler controlled lock having its plug revolubly mounted in said spindle, a lug on the end

of said plug extending through said spindle and adapted to engage a lug on said revoluble knob and revolve it to release said catch.

3. A lock comprising a casing, a draw latch, a knob spindle adapted to operate said draw latch, knobs on said spindle, one of said knobs being revolubly mounted, and means for locking said spindle against movement, said means comprising a catch pivoted in said spindle adjacent one end and adapted to be held in locked position by said revoluble knob, and means for releasing said catch, said means comprising a tumbler controlled lock having its plug revolubly mounted within said spindle, a lug on the end of said plug extending through said spindle and adapted to engage said revoluble knob and return it to its normal position releasing said catch.

4. In combination with a latch comprising a casing, a draw latch, a knob spindle adapted to operate said draw latch, knobs on said spindle, one of said knobs being revolubly mounted, a catch pivoted in one end of said spindle and adapted to lock it against movement and adapted to be held in said position by said revoluble knob, means for releasing said catch, said means comprising a cylinder controlled lock having its plug revolubly mounted in said spindle, a lug on said plug projecting through said spindle, and adapted to revolve said revoluble knob to release said catch.

1,207,124. LOOM. WILLIAM L. BARRELL, Lawrence, Mass. Filed Dec. 21, 1912. Serial No. 737,967. (Cl. 139—85.)



1. The combination with the weaving mechanism of a loom, of a bobbin magazine, means adapted to transfer a spent shuttle from said weaving mechanism to a bobbin-receiving position while said weaving mechanism is at rest, and means arranged to transfer a bobbin from said magazine to the shuttle in said position.

2. The combination with the weaving mechanism of a loom, of a bobbin magazine, means arranged to transfer a bobbin from said magazine to a shuttle outside said weaving mechanism, and means adapted to transfer the loaded shuttle from bobbin-receiving position to said weaving mechanism while the latter is at rest.

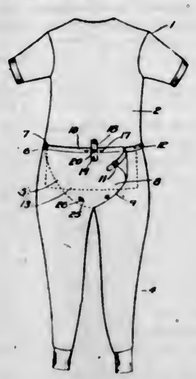
3. The combination with the shuttle box of a loom, of a bobbin magazine, means for transferring a bobbin from said magazine to a shuttle outside said shuttle box, and means for interchanging said shuttle and a shuttle in said shuttle box while the shuttle box is at rest.

4. The combination with the shuttle box of a loom, and a crank shaft for reciprocating the same, of a bobbin magazine, means for transferring a bobbin from said magazine to a shuttle outside said shuttle box, and means operable while said crank shaft is at rest for interchanging a spent shuttle in said shuttle box and a loaded shuttle outside the shuttle box.

5. The combination with the shuttle box of a loom, of a bobbin magazine, a shuttle carrier movable back and forth from the magazine to the shuttle box, means for actuating said carrier to carry a loaded shuttle from the magazine to the shuttle box, means for actuating the carrier to carry an empty shuttle to the magazine, and means for transferring a bobbin from the magazine to the empty shuttle.

[Claims 6 to 32 not printed in the Gazette.]

1,207,125. UNDERGARMENT. EDWIN T. BASKIN, Independence, Mo. Filed Nov. 29, 1915. Serial No. 63,955. (Cl. 2—144.)



1. An undergarment comprising separate upper and lower garments, the lower garment having inner and outer seat flaps running from the crotch to the side of the garment when closed, means on the upper garment and inner seat flap for connecting said parts, and means for connecting the end of the outer flap to the side of said upper garment at the waist band position.

2. An undergarment comprising upper and lower members, the lower member having inner and outer flap members, each provided with a waist band section, the inner waist band section of the inner flap having a button above the crotch position and the outer flap member having button holes in its waist band section through which said button is adapted for projection, and a strap extended from the upper garment and having a button hole for connecting the strap with the button on the inner flap member when the latter is projected through the outer flap member.

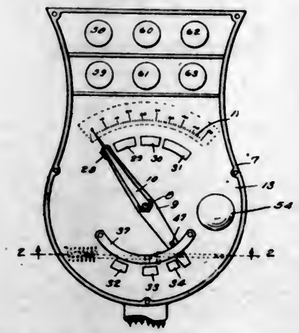
3. An undergarment comprising upper and lower members, the lower member having inner and outer flaps, the inner flap having a button thereon and the outer flap having a plurality of button holes through which said button is adapted for projection, and a strap depending from the upper garment and having a plurality of button holes through which said button may be projected for the purpose set forth.

1,207,126. SPEED-INDICATING DEVICE FOR MOTOR-VEHICLES. ART A. BENSON, Seattle, Wash., assignor to Benson, Flick & Solberg, Inc., Seattle, Wash., a Corporation of Washington. Filed Feb. 23, 1916. Serial No. 79,865. (Cl. 175—355.)

1. A device of the class described, comprising a speed indicator for motor cars, locking devices associated therewith, and means disposed on the front end of a motor car for locking said speed indicator when said motor car collides with an object.

2. A device of the class described, comprising a speed indicator for motor vehicles, devices for locking said speed indicator in any position, a collision bar disposed on the forward end of said motor vehicle, and means connected with said collision bar for operating said locking devices in response to a pressure against said collision bar.

3. A device of the class described, comprising a speed indicator for motor vehicles, devices for locking said speed indicator in any position, a collision bar disposed on the forward end of said motor vehicle, electrically-controlled apparatus for actuating said locking devices, and switch mechanism connected with said collision bar and with said electrically-controlled apparatus and adapted to be closed by a pressure exerted on said collision bar.

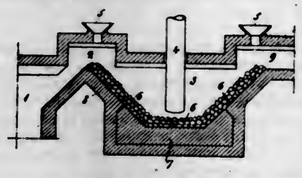


4. A device of the class described, comprising a signal box for a motor vehicle, a pointer provided therein, means for locking said pointer in any desired position, electrically controlled devices for actuating said locking means, switches, a collision bar on the forward end of said motor vehicle, and means connected with said collision bar for closing said switches.

5. A device of the class described, comprising a signal box for a motor car, a dial provided therein, a pointer movable over said dial, a plate disposed above said pointer and adapted to engage and lock said pointer, a bar supporting said plate, a solenoid to withdraw said bar, an electric circuit, a collision bar disposed on the forward end of a motor car, and switch mechanism associated with said collision bar and adapted to be closed by a pressure on said collision bar.

[Claims 6 to 10 not printed in the Gazette.]

1,207,127. METHOD OF AND APPARATUS FOR OBTAINING ZINC. EDWARD S. BERGLUND, Trollhättan, Sweden, assignor to Trollhättans Elektrothermiska Aktiebolag, Trollhättan, Sweden. Filed Sept. 15, 1914. Serial No. 861,758. (Cl. 204—64.)



1. In extracting zinc in an electric furnace the method of reducing and purifying the metallic vapors developed in the furnace, consisting in passing said vapors after leaving the furnace and on their way to the condenser, over a layer of reducing material, without passing them through such material and heating them above the condensing temperature.

2. In extracting zinc in an electric furnace the method of reducing and purifying the metallic vapors, consisting in passing said vapors, after leaving the furnace and on their way to the condenser, over a layer of reducing material, without condensing them by such material.

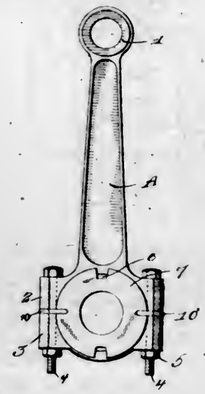
3. In extracting zinc in an electric furnace the method of reducing and purifying the metallic vapors, consisting in passing said vapors, after leaving the furnace and on their way to the condenser, over a layer of reducing material, without passing them through such material, and heating them above the condensing temperature, while diminishing the velocity of their passage over said layer.

4. In extracting zinc in an electric furnace the method of reducing and purifying the metallic vapors, consisting in passing said vapors, after leaving the furnace and on their way to the condenser, over a layer of reducing material, without passing them through such material, and heating them above the condensing temperature while precipitating solid particles carried by said vapors.

5. In an electric furnace for extracting zinc the combination of a furnace chamber, gas channels, a condenser communicating with said furnace chamber, a chamber placed between the furnace chamber and the condenser, said chamber having larger sectional area than the gas channels, a layer of carbon on the bottom wall of said chamber, and means for heating said carbon.

[Claim 6 not printed in the Gazette.]

1,207,128. BABBITTING-JIG FOR JOURNAL-BOXES. MARK G. BIRD, Regina, Saskatchewan, Canada. Filed Jan. 5, 1916. Serial No. 70,546. (Cl. 22—123.)



1. A babbitting jig for bearing boxes including, in combination with the journal box, an arbor provided with flanges arranged to engage and lie adjacent the cheeks of said box and connected by a body portion having an external diameter substantially equal to the size of the shaft to be journaled in the bearing, and means to flow molten metal between said box and body portion to form bearing bushings.

2. A babbitting jig for journal boxes including, in combination with a journal box, an arbor provided with flanges arranged to engage and lie adjacent the cheeks of said box and connected by a body portion substantially equal in external diameter to the size of the shaft to be journaled in said box, means for centering said arbor relative to said box, and means to flow molten metal between the box and body portion of said arbor to form bearing bushings.

3. A babbitting jig for journal boxes including, in combination with a journal box, an arbor provided with flanges arranged to engage and lie adjacent the cheeks of said box and connected by a body portion substantially equal in external diameter to the size of the shaft to be journaled in said box, means for centering said arbor relative to said box, means for maintaining said bushing in an adjusted position, and means to flow molten metal between the box and body portion of said arbor to form bearing bushings.

4. A babbitting jig for journal boxes including, in combination with a journal box, an arbor provided with

flanges arranged to engage and lie adjacent the cheeks of said box and connected by a body portion substantially equal in external diameter to the size of the shaft to be journaled in said box, means for centering said arbor relative to said box, means for maintaining said arbor in an adjusted position and dividing the space between said arbor and box into upper and lower halves, and means for flowing molten metal into the upper and lower spaces between said box and body portion to form bearing bushings.

5. A babbitting jig for bearing boxes including, in combination with a journal box, an arbor provided with flanges arranged to lie adjacent the cheeks of said box, and means for running molten metal between said box and arbor.

[Claims 6 to 8 not printed in the Gazette.]

1,207,129. TOY. GEORGE W. BONTE, New York, N. Y. Filed Sept. 16, 1916. Serial No. 120,456. (Cl. 46—40.)



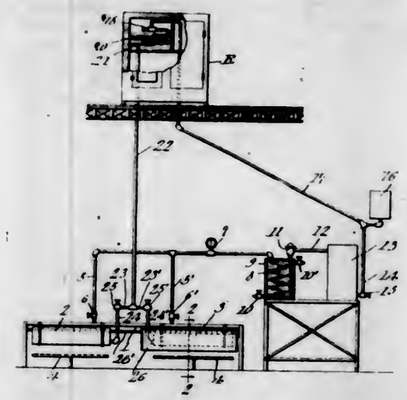
1. A toy comprising a block formed with a portion resembling a body and separated supports resembling legs, said legs having flat bases, the front and back of the body being flat and providing spaces for display of letters and figures, and the sides being flat for a substantial portion of the length, providing spaces for display of figures, said block presenting a semblance to a human figure, and adapted to be stacked.

2. A toy comprising a block formed with a portion resembling a body and separated supports resembling legs, and the body having a top part resembling a head, having its edge flattened and rounded from side to side, the front and back of the body being flat and providing spaces for display of letters and figures, and the sides being flat for a substantial portion of the length, providing spaces for display of figures, said block presenting a semblance to a human figure, and adapted to be stacked.

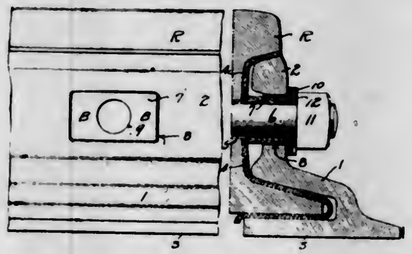
3. A toy comprising a block having a head portion, a body portion and leg portions, said portions formed integral, said block having flat front and back sides and flattened edges whereby said sides and edges are adapted to receive letters and figures and the block may be built or stood up, or stacked or laid on its side edges, or front or back.

1,207,130. REFRIGERATING-MACHINE. MOODY BOYD, Louisville, Ky. Filed Jan. 13, 1915. Serial No. 2,020. (Cl. 62—118.)

A refrigerating apparatus including a supporting structure, two tanks suspended therefrom and adapted to be swung into and out of position, a heater below each of the tanks, a cooling trough shiftable to position to receive either of the tanks, said trough being mounted to swing relative to the tanks, a refrigerating coil, a pipe leading from said coil to the two tanks, valves for controlling the flow of gas from said pipe to the respective tanks, a condensing coil, a valved pipe leading from each tank to the condensing coil, a relief valve adjacent the condenser, liquid storage tanks, a pipe extending from the relief valve to the tanks and from said tanks to the refrigerating coil, and an expansion valve interposed between said pipe and the refrigerating coil.



1,207,131. INSULATED RAIL-JOINT. BANCROFT G. BRAINE, New York, N. Y., assignor to The Rail Joint Company, a Corporation of New York. Filed July 10, 1916. Serial No. 108,433. (Cl. 239—5.)



1. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having an opening, and an insulation unit fitting said opening and having buffer reinforcements at the sides thereof.

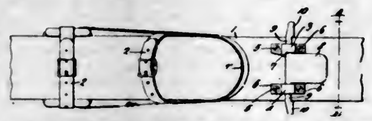
2. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having an opening, and an insulation unit fitting said opening and having lateral buffer portions of insulation.

3. An insulated rail joint including in combination with the rails and the joint bolts, a splice bar having an oblong opening, an insulation unit fitting said opening and having a bolt receiving opening and enlarged buffer sections of insulation at the opposite ends thereof.

4. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having a rectangular opening, an insulating unit fitting in said opening and having a central bolt hole, said insulating unit having its greatest thickness at opposite ends thereof.

5. An insulated rail joint including in combination with the rails and joint bolts, a splice bar having an opening, and an insulating unit fitting in said opening, said unit comprising an insulating ferrule, and separate duplicate blocks of insulation adapted to be interposed between the sides of said ferrule and the sides of said opening.

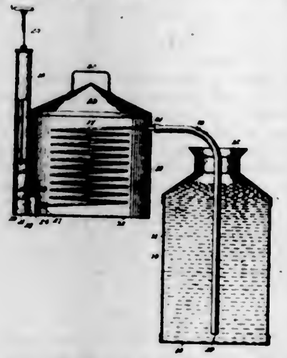
1,207,132. SKEE ATTACHMENT. WILLIAM J. BRENNAN, Dannemora, N. Y. Filed Mar. 4, 1916. Serial No. 82,179. (Cl. 46—67.)



1. A skee attachment including spaced bearing members, a weight extending therebetween, trunnions at the forward end of the weight and extending through the bearing members, and blades depending from the trunnions.

2. A skee attachment including spaced bearing members, a weight extending therebetween, trunnions at the forward end of the weight and extending through the bearing members, blades depending from the trunnions, and means upon one of the bearing members and coöperating with the weight for limiting the swinging movement of the blades in one direction.

1,207,133. MILK COOLER AND AERATOR. CHARLES BYARD, Oneonta, N. Y. Filed June 13, 1916. Serial No. 103,376. (Cl. 31—90.)

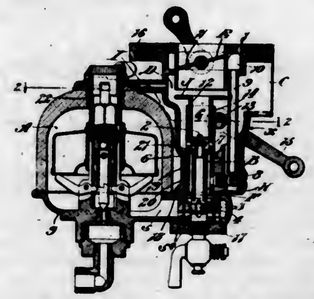


A milk aerator comprising in combination with a refrigerating coil having an outlet member adapted for submersion in milk, a pump adapted for supplying air to said coil, a trap pocket between said coil and pump having a communicating port between said pocket and pump, the said coil having a flared inlet end detachably secured to said pocket opposite the said port and communicating with the interior of the pocket, a swinging valve for said port arranged within said pocket, and straining material within said pocket adjacent one side thereof within the limiting path of movement of said valve and projecting within the flared end of the coil.

1,207,134. CARBURETER. WILLIAM C. CARTER, St. Louis, Mo., assignor to Carter Carburetor Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 16, 1914. Serial No. 825,129. (Cl. 261—41.)

1. A carbureter provided with a mixture passageway through which the mixture travels to the intake of the motor, a fuel supply port in the wall of said passageway, and a throttle valve arranged in said passageway in such a manner that one portion of said port will be subjected to atmospheric pressure and the remainder of said port will be subjected to a high suction created by the motor when the throttle valve is nearly closed, or, in other words, set in such a position that only sufficient mixture to keep the motor in operation will travel through said passageway.

2. A carbureter provided with a mixture passageway through which the mixture travels to the intake of the motor, a main air passageway, an accelerating reservoir that communicates with said main air passageway, a starting reservoir that receives its supply of liquid fuel from said accelerating reservoir, a liquid fuel supply duct leading from said starting reservoir and discharging into said mixture passageway, and a throttle valve arranged in said mixture passageway in such a position that one portion of the discharge end of said fuel duct will be subjected to atmospheric pressure and the remainder will be subjected to a high suction when only sufficient mixture to keep the motor in operation is traveling through the mixture passageway.



3. A carbureter provided with a passageway through which the mixture travels to the intake of the engine, a throttle valve for said passageway, and a fuel-supply port extending transversely through the side wall of said passageway adjacent the axis of oscillation of the throttle valve and at such a point that the throttle valve will vary the effective area of said port which is subjected to the suction above the throttle valve when said valve is closed and partly closed.

4. A carbureter provided with a main air passageway, an accelerating reservoir in which the liquid fuel collects at slow engine speeds, said accelerating reservoir communicating with the main air passageway of the carbureter, a starting reservoir formed by a recess or chamber separate and distinct from that constituting the accelerating reservoir and receiving its supply of fuel from said accelerating reservoir, a fuel-supply duct through which the fuel is drawn from said starting reservoir at slow engine speeds, and a nozzle through which the fuel is drawn from said accelerating reservoir at intermediate engine speeds.

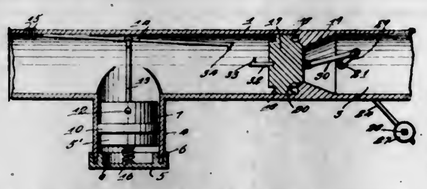
5. A carbureter provided with an accelerating reservoir in which the liquid fuel collects at slow engine speeds, a starting reservoir which receives its supply of fuel from said accelerating reservoir, a fuel-supply duct through which the fuel is drawn from said starting reservoir at slow engine speeds, a nozzle through which the fuel is drawn from said accelerating reservoir at intermediate engine speeds, a liquid fuel-supply port for said nozzle of sufficient capacity to supply a relatively great quantity of fuel at slow engine speeds, and means for creating a variable restraining force on the liquid fuel being admitted to said port so as to prevent said port from supplying proportionately the same quantity of fuel at high engine speeds that it does at slow engine speeds.

[Claims 6 to 19 not printed in the Gazette.]

1,207,135. AUTOMATIC GAS-VALVE. SYLVESTER J. CHISM, Krum, Tex., assignor of one-half to Lawson M. Hayes, Slidell, Tex. Filed May 3, 1916. Serial No. 95,178. (Cl. 67—115.)

1. A gas valve of the class described comprising a casing, said casing provided with a reduced valve seat, a valve slidably mounted within said casing comprising a substantially circular body having laterally extending shoe portions adapted to slide upon the inner face of said casing and at the same time permit the passage of

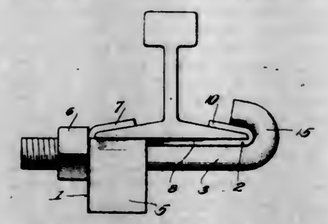
gas around said valve, said valve provided with a tapering forward end, said valve seat provided with a tapering portion upon which said tapering end of said valve is adapted to closely seat, means for holding said valve in an open position, a weighted arm, a link connected to said arm and to the forward end of said valve at the central portion thereof and adapted to pull said valve forwardly into close engagement with said valve seat when the pressure of gas within said casing falls below a predetermined pressure.



2. A gas valve of the class described comprising a casing, a valve seat, a valve member provided with radiating shoes upon the periphery thereof, said radiating shoes adapted to slide upon the inner face of said casing for directing said valve upon said valve seat, means engaging said valve for holding said valve in an open position and being controlled by the pressure of the gas passing through said casing, a weighted arm carried by said casing, a link connected to said weighted arm and to the central forward portion of said valve for exerting a direct forward pull upon said valve when said valve is released and the pressure within said casing falls below a predetermined point.

3. A gas controlled mechanism of the class described comprising a casing, a valve seat carried within said casing, a valve slidably mounted within said casing, said valve provided with a rearwardly extending arm, a spring arm engaging said rearwardly extending arm of said valve, said casing provided with a depending portion, a cap threaded upon said depending portion, a plunger working in said depending portion and engaging said spring arm, means for yieldingly urging said plunger upwardly and causing said spring arm to engage said arm carried by said valve, and means coöperating with said valve for automatically bringing said valve to a closed position when said spring arm is released therefrom.

1,207,136. ANTICREEPING-RAIL CLAMP. CHARLES F. CLAWSON, Mount Pleasant, Iowa. Filed Aug. 14, 1916. Serial No. 114,895. (Cl. 238—4.)

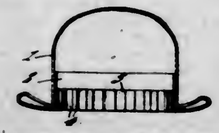


1. A rail clamp of the class described comprising a jaw member to engage one edge of the base of a rail, said member having a pair of vertically disposed flanges located below its rail engaging portion and having a bolt hole between said flanges, a second jaw member having at one end a hook to engage the other edge of the rail base, the other end of said second jaw member being received slidably but non-rotatably between the aforesaid flanges, and a bolt extending beneath said second jaw member and having one end projecting through the aforesaid bolt hole and provided with a nut, the other end of said bolt having thereon a hook, the hook of said second jaw member having a seat receiving said hook of the bolt to prevent rotation of the latter when tightening or loosening the nut.

2. A rail clamp of the class described comprising a clamping member having means to engage one edge of the base of a rail, said member being provided below its rail engaging means with a pair of upstanding flanges and having a bolt hole between said flanges, a second clamping member formed of a single metal plate adapted to underlie the rail base, one end of said plate being bent downwardly to form an upright flange received slidably between the aforesaid flanges and having a bolt hole alined with the aforesaid hole, the other end of said plate being bent upwardly to form a hook to receive the edge of the rail base opposite that engaged by the first named member, a clamping bolt extending beneath the aforesaid plate and through the alined bolt holes a nut threaded on one end of said bolt adjacent said first named clamping member, and a hook on the other end of said bolt, the hook on the aforesaid plate having a seat receiving the hook of said bolt to prevent rotation of the latter when its nut is being tightened or loosened.

3. A rail clamp of the class described comprising a clamping member having means to engage one edge of the base of a rail, said member being provided below its rail engaging means with a pair of upstanding flanges and having a bolt hole between said flanges, a clamping bolt passing through said bolt hole and having on one end a hook, the other end of said bolt being provided with a clamping nut for engagement with the clamping member, and a second clamping member formed of a single metal plate to extend beneath the base of the rail, one end of said plate being bent downwardly to form a flange which is received slidably between the flanges on the first named clamping member, the other end of the plate being bent upwardly to form a hook for engagement with the edge of the rail base opposite that received by the first named clamping member, the aforesaid flange having a bolt hole receiving the bolt while the body of the aforesaid plate is formed with a longitudinal slot which opens into said bolt hole at one end and extends along the hook at its other end to partially receive the hook of the clamping bolt to prevent rotation of the latter when the nut thereof is being tightened or loosened.

1,207,137. SWEAT-BAND FOR HATS. JOHNSON CLORE, Crawfordsville, Ind. Filed May 20, 1915. Serial No. 29,393. (Cl. 2—32.)

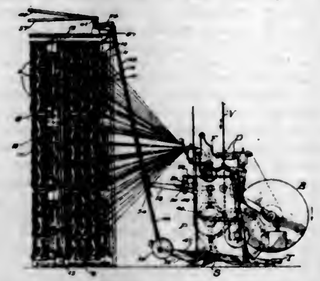


A one-part attachment for sweatbands, comprising a thin strip of soft rubber adapted to be cut to length so as to be co-extensive in length with a sweatband of a hat, and adapted to be cemented to the inner side of the sweatband, said strip having throughout its length a longitudinal series of integral compressible lugs projecting from one side and arranged transversely of the strip.

1,207,138. WARPING APPARATUS. HOWARD D. COLMAN, Rockford, Ill., assignor to himself, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Filed May 10, 1915. Serial No. 27,093. (Cl. 242—131.)

1. A creel-braking mechanism having a brake-controlling lever, thread-controlled means for holding said lever in brake-released position, said lever tending to move into brake-applied position, means for moving said lever into brake-released position, a starting and stopping device controlling said lever-moving means, and means connected to move with the lever for actuating the starting and stopping device.

2. A creel-braking mechanism having a brake-controlling lever, thread-controlled means for holding said lever in brake-released position, said lever tending to move into brake-applied position, means for moving said lever into brake-released position, a starting and stopping device controlling said lever-moving means, means connected to move with the lever for actuating the starting and stopping device, and means for locking the starting and stopping device in starting position.



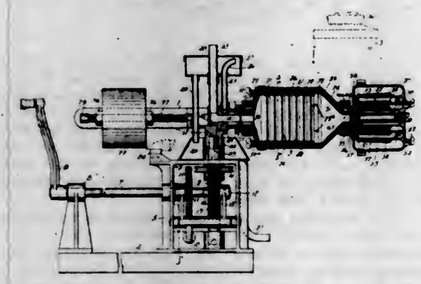
3. A creel-braking mechanism having a brake-controlling lever, thread-controlled means for holding said lever in brake-released position, said lever tending to move into brake-applied position, means for moving said lever into brake-released position, a starting and stopping device controlling said lever-moving means, means connected to move with the lever for actuating the starting and stopping device, means for locking the starting and stopping device in starting position, and means moving with the lever-moving means for operating the lock to release the starting and stopping means.

4. In a creel-braking apparatus, a brake-controlling lever having an "applied" and a "released" position, thread-controlled means for holding said lever in released position, said lever tending to move into applied position, power means for moving said lever into released position, and means connected to the said thread-controlled means for throwing the power means into operation.

5. In a creel-braking apparatus, a brake-controlling lever having a brake-applied and a brake-released position, thread-controlled means for holding said lever in brake-released position, said lever tending to move into brake-applied position, power means for moving said lever into brake-released position, and means connected to the said thread-controlled means for throwing the power means into operation.

[Claims 6 to 13 not printed in the Gazette.]

1,207,139. SIFTING OR SCREENING MECHANISM. ROBERT A. CUMMINGS, Pittsburgh, Pa. Filed Sept. 9, 1915. Serial No. 49,745. (Cl. 83—56.)



1. Apparatus for classifying solid materials comprising a rotatably mounted frame, a receptacle mounted on said frame, and an inner shell in said receptacle containing a plurality of screen of varying mesh whose planes are parallel to the axis of rotation of said frame.

2. Apparatus for classifying solid materials comprising a rotatably mounted frame, a receptacle mounted on said frame, and a plurality of screen members so mounted in said frame as to form an inner shell therein with a passage surrounding said members.

3. Apparatus for classifying solid materials comprising a rotatably mounted frame, a receptacle mounted on said frame, and a plurality of screens of varying mesh having interlocking peripheral portions forming an inner shell in said receptacle and spaced from said receptacle to form a passage surrounding said screens.

4. Apparatus for classifying solid materials comprising a rotatably mounted frame, a receptacle mounted thereon, a removable cap on said receptacle, and a plurality of screens of varying mesh having interlocking peripheral portions held together by said cap to form an inner shell in said receptacle.

5. Apparatus for classifying solid materials comprising a rotatably mounted frame, a receptacle mounted thereon, a removable cap on said receptacle, and a plurality of screens in said receptacle with their planes parallel to the axis of rotation of said frame, the screen nearest said cap being of the coarsest mesh and each succeeding screen being of finer mesh than the preceding screen.

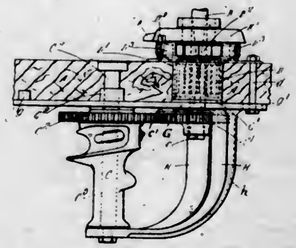
[Claims 6 to 36 not printed in the Gazette.]

1,207,140. TRACK-BRACE FOR RAILROADS. PERCY E. CUNNINGHAM, Waverly, Tenn. Filed June 29, 1916. Serial No. 106,660. (Cl. 238—5.)



A railroad track brace comprising two arms overlapped at their inner ends and having rail receiving recesses in their outer ends, a pivot pin engaged through the overlapped portions of the two arms adjacent to the inner end of one of the arms, and a laterally extending plate carried by the other arm between the pivot pin and the inner end of said arm, the first mentioned arm having a recess for the reception of the laterally extending plate.

1,207,141. WINDING MECHANISM. ERNEST EDGAR DAGLISH and WALTER LEONARD LORKIN, London, England. Filed Feb. 16, 1914. Serial No. 819,038. (Cl. 188—54.)



1. In winding mechanism, the combination with a stop carried by a moving part of said mechanism, a loosely mounted plate having a slot to receive said stop, a projection on said loosely mounted plate, a member that covers said plate, a fixed stop, and two projections on said member for coöperating respectively with the fixed stop and with the projection on the loosely mounted plate.

2. In winding mechanism, the combination with a stop carried by a moving part of said mechanism, a loosely mounted plate having a slot to receive said stop, a projection on said loosely mounted plate, a member that covers said plate, a fixed stop whose position can be readily adjusted, and two projections on said member for cooperating respectively with the fixed stop and with the projection on the loosely mounted plate.

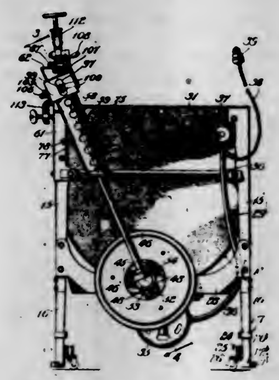
3. In brake mechanism, the combination with the ratchet wheel, of a stop carried thereby, a loosely mounted plate having a slot to receive said stop, a projection on said loosely mounted plate, a member that covers said plate, a fixed stop, and two projections on said member for cooperating respectively with the fixed stop and with the projection on the loosely mounted plate.

4. In brake mechanism, the combination with the ratchet wheel of a stop carried thereby, a loosely mounted plate having a slot to receive said stop, a projection on said loosely mounted plate, a member that covers said plate, a fixed plate upon which said member rests, a stop on said fixed plate, and two projections on said member for coöperating respectively with the stop on the fixed plate and with the projection on the loosely mounted plate.

5. In brake mechanism, the combination with the operating shaft, of a ratchet wheel moved by said shaft, a fixed member in which said ratchet wheel is rotatably mounted, a pawl for coöperating with said ratchet wheel, means for mounting said pawl on said member, a stop carrier by said ratchet wheel, a loosely mounted plate having a slot to receive said stop, a projection on said loosely mounted plate, a member that covers said plate, a stop on said fixed member, and two projections on the member that covers said plate for coöperating respectively with the stop on the fixed member and with the projection on said plate.

[Claims 6 to 11 not printed in the Gazette.]

1,207,142. DRIVING MECHANISM FOR WASHING-MACHINES. HENRY WARD DARROW, Chicago, Ill., assignor, by mesne assignments, to Fritz Muser, New York, N. Y. Filed Dec. 7, 1908. Serial No. 466,337. (Cl. 68—18.)



1. In a washing machine, corner posts, a horizontal brace connecting the two corner posts at one end of the machine, said brace having a portion thereof in the form of a horizontal plate, a drip flange around the edge of said plate, a motor attached on the under side of the plate, washing mechanism, and driving connections from the motor to said washing mechanism.

2. In a washing machine, corner posts, a substantially horizontal brace connecting two corner posts at one end, said brace having a right angle cross section with one flange horizontal and the other flange vertical, a motor attached to the underside of the horizontal flange, a gear wheel rotatably supported on the vertical flange, driving connections from the motor to the said gear wheel, washing mechanism, and driving connections from said gear wheel to said washing mechanism.

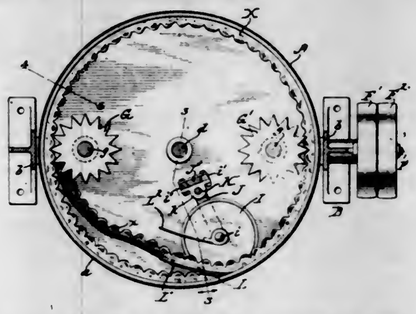
3. In a washing machine, the combination of a supporting frame, a tank in the frame, and a cylinder rotatably mounted therein; an upwardly extending driving shaft journaled upon the supporting frame; a gear mounted thereon; means for rotating the cylinder adapted to be actuated by the gear on the driving shaft; manually operatable means controlling the operative connection between the gear on the driving shaft and the means for rotating the cylinder, a motor mounted beneath the machine upon the supporting frame, and operative connections between the motor and the driving shaft.

4. In a washing machine, corner posts, a horizontal brace supported by two corner posts at one end, a motor mounted on the under side of said brace, a stud projecting horizontally from the side of the brace, an intermediate gear wheel mounted on said stud having a beveled gear pinion integral therewith, a block attached to the extremity of the stud, a shaft having one end journaled in said block, a beveled gear pinion fixed on said shaft in engagement with the first mentioned beveled gear pinion, washing mechanism, and connections from the said shaft to drive the said washing mechanism.

5. In a washing machine, corner posts, a horizontal brace attached to two end corner posts, a motor attached to the brace on the under side thereof, a stud projecting horizontally from the side of the brace, a block attached to the end of the stud by means of set screws, a shaft having its end journaled in the said block, a gear pinion on said shaft, a projecting flange on the block around said gear pinion, intermediate gearing between the said motor and the said gear pinion, washing mechanism, and driving connections from the said shaft to the said washing mechanism.

[Claims 6 to 15 not printed in the Gazette.]

1,207,143. DOUGH-KNEADING MACHINE. IGNAZIO DE FRANCISCI, New York, N. Y. Filed May 7, 1915. Serial No. 26,461. (Cl. 107—33.)



1. In a kneading machine, the combination with a frame, and a rotatory vessel, of a supporting member carried by the frame and positioned diametrically across the vessel, vertically positioned kneading rolls, means for mounting said rolls in parallel relation to an upstanding wall of the vessel, and means carried by the supporting member for adjusting the position of said rolls to vary the kneading space between the rolls and the upstanding wall of the vessel.

2. In a kneading machine, the combination with a rotatory vessel having a vertically positioned wall, of idle kneading rolls, a support for slidably mounting said kneading rolls so as to vertically position the rolls within the vessel, and means for adjusting the kneading rolls diametrically across the vessel and thereby vary the kneading space between said rolls and the vertical wall of the vessel.

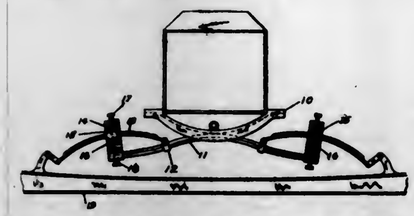
3. In a kneading machine, the combination with a rotatory vessel, of a kneading roll coöperating therewith, and cutting mechanism positioned for cutting a slice of definite width from a layer of material in contact with a vertical wall of said vessel.

4. In a kneading machine, the combination with a vessel and kneading mechanism one being rotatable with respect to the other for working the material so as to produce a layer in contact with a vertical wall of said vessel, and cutting mechanism positioned at an angle to the vertical of the vessel for severing a slice continuously from the layer of material which is distributed over said wall by the kneading mechanism.

5. In a kneading machine, the combination with a vessel and kneading mechanism one being rotatable with respect to the other for working the material so as to produce a layer in contact with the wall of said vessel, cutting mechanism positioned for severing a slice continuously from the layer of material, and means whereby the slice so severed is fed to the kneading mechanism so as to be incorporated by the action thereof into the material of the layer.

[Claims 6 to 14 not printed in the Gazette.]

1,207,144. SPRING SUSPENSION. MICHAEL P. DELORY, Concord, Mass. Filed Mar. 23, 1916. Serial No. 86,103. (Cl. 267—19.)



1. A spring suspension for vehicles comprising, in combination, a leaf spring, supported intermediate its ends, two other leaf springs, each mounted at one end thereof to the first named spring and at the other end thereof to the vehicle, helical springs, one pair for each of the two other springs and between which said other springs are mounted, whereby light shocks are absorbed by the helical springs and heavy shocks absorbed by the leaf springs.

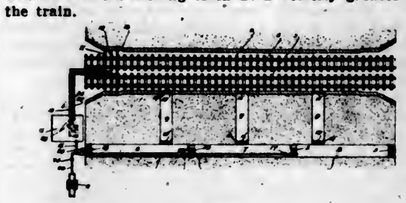
2. In a spring suspension for vehicles, the combination of a main spring, mounted intermediate its ends on the frame of the vehicle, a second spring mounted, one end on the main spring and the other end on the axle of the vehicle, a pair of helical springs mounted one on each side of said second spring, intermediate the ends thereof, and on the end of said main spring.

3. In a spring suspension for vehicles, the combination of a main spring, a bearing and a spring carrier mounted thereon, a second spring mounted one end in the bearing and the other end on the axle of the vehicle, and a pair of helical springs mounted in the spring carrier on either side of the said second spring.

4. In a spring suspension for vehicles, the combination of a main leaf spring mounted on the frame of the vehicle, a pair of bearing members carried by said main spring, a pair of leaf springs, each mounted one end in a bearing member and the other end on the axle of the vehicle, helical springs, one pair for each of the pair of leaf springs, and between which said leaf springs are mounted, whereby light shocks are absorbed by the leaf springs.

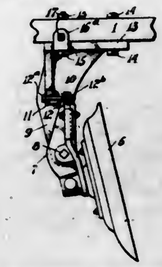
1,207,145. METHOD OF VENTILATING TUNNELS. ARTHUR CHESFIELD DENNIS, Glacier, British Columbia, Canada. Filed Oct. 18, 1915. Serial No. 56,586. (Cl. 98—28.)

1. A method of ventilating train tunnels which consists in maintaining a current of air flowing in the direction of the moving train at a velocity greater than the train.



2. A method of ventilating train tunnels which consists in producing a relatively small current of air flowing at high velocity in the direction of the train whereby the entire air content of the tunnel is moved in the same direction at a velocity greater than the train.

1,207,146. TILLAGE IMPLEMENT. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Filed Jan. 4, 1916. Serial No. 70,105. (Cl. 97—29.)



1. In a tillage implement the combination of a frame provided with an upright frame member, a tillage tool, a support for said tool pivoted to the frame member to swing back and forth in the line of advance of the implement, horizontal openings in the support and frame member respectively, extending in the direction of swinging movement of the support and arranged above the pivotal axis of the support, said openings adapted to register with each other when the support is in position to present the tool in active position for work, and a horizontal pin extending through said openings and acting to normally sustain the support to hold the tool to its work, said pin being of a predetermined strength to become ruptured by a tensional pull thereon when the tool is subjected to undue strain.

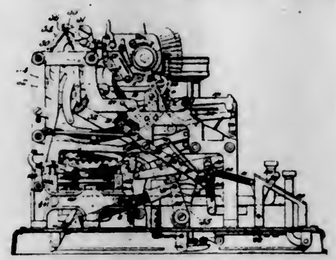
2. In a tillage implement, the combination of a frame provided with a depending frame member having a lug projecting laterally therefrom and formed with a fore and aft extending opening therethrough, a tillage tool, a support for said tool pivoted to the frame member on a horizontal transverse axis and provided with a laterally extending lug having a fore and aft opening therethrough, which lugs are adapted to face each other with the openings in registry when the support is swung rearwardly to sustain the tool in an active position, and a fastening bolt extending in a fore and aft direction through said openings and provided at one end with a head and at the other end with a nut bearing respectively against the outer faces of the lugs, said bolt acting to normally sustain the support to hold the tool to its work and being adapted to be fractured by a tensional strain thereon when the tool is subjected to excessive strain.

3. In a tillage implement, the combination of a frame provided with a depending frame member, a plowing disk, a disk support in which said plowing disk is rotatably mounted, said support being mounted on the frame member to swing in a fore and aft direction to carry the

lower portion of the disk rearwardly, and a fastening member engaging the frame member and support respectively and acting to normally sustain the support to hold the plowing disk to its work, said fastening member being adapted to be ruptured by a tensional strain thereon when the disk is subjected to excessive strain.

4. In a tillage implement, the combination of a frame provided with a depending frame member, a plowing disk, a disk support in which said plowing disk is rotatably mounted, said support being mounted on the frame member to swing in a fore and aft direction about an axis located in rear of the disk and adjacent the axis of rotation of the disk, and a fastening member engaging the disk and support respectively and acting to normally sustain the support to hold the disk to its work, said member being adapted to be ruptured by a tensional strain thereon when the disk is subjected to excessive strain.

1,207,147. RECORDING-MACHINE. SAMUEL G. DORMAN and JOHN H. MAGNUS, Poplar Bluff, Mo., assignors by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 25, 1908. Serial No. 434,769. (Cl. 197—176.)



1. The combination with a paper carriage movable to different lateral positions, means for moving said paper carriage to its different lateral positions, and devices for holding said paper carriage in its different lateral positions, of a shaft, means for actuating said shaft, connections operated by said shaft for releasing said holding means to enable said carriage to be moved laterally, and a device adjustable to hold said connections in position to enable said shaft to operate independently of any operation of said connections.

2. The combination with a laterally movable paper carriage, and means for holding said paper carriage in different lateral positions, of a shaft, means for actuating said shaft, devices operated by said shaft for releasing said holding means to enable said carriage to be moved laterally, an optionally operable device for moving a part of said connections to position so that said shaft may operate independently of any operation of said connections, and means for holding said optionally operable device in position to hold said part of said connections in position to enable said shaft to operate independently thereof as aforesaid.

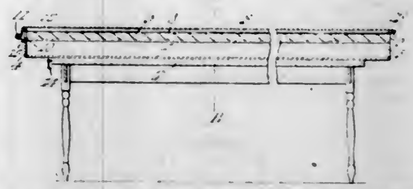
3. The combination with a paper carriage movable to different lateral positions, means for holding said carriage in its different lateral positions, and paper feed mechanism mounted in said carriage, of a shaft, means for actuating said shaft, means controlled by said shaft for operating said paper feed mechanism in any position of said carriage, means for preventing effective operation of said paper feed mechanism, connections operated by said shaft for releasing said holding means to enable said carriage to be moved laterally, an optionally operable device movable to position to prevent operation of said connections by said shaft, and means for holding said optionally operable device in position to prevent operation of said connections by said shaft.

4. The combination with a paper carriage, a bar in said carriage, shoulders on said bar, and an actuator for moving said carriage laterally, of a lever, means for moving said lever into engagement with said shoulders to stop lateral movement of said carriage, means for disengaging said lever from said shoulders, and a second lever arranged to engage with said shoulders to hold said carriage in its different lateral positions.

5. In a machine of the character described, the combination with a laterally movable paper carriage, devices for holding said carriage in its different lateral positions, and a motor device for moving said carriage, of a shaft, connections operated by said shaft to release said holding devices to enable said paper carriage to be moved laterally, means for moving a part of said connections to an inoperative position, and a device for holding said connection inoperative.

[Claims 6 to 15 not printed in the Gazette.]

1,207,148. CANDY-COOLING PAN. JAMES C. DREW, New Orleans, La. Filed Sept. 8, 1916. Serial No. 119,100. (Cl. 107—7.)



1. Apparatus for cooling candy, comprising a bottom, walls upstanding therefrom and having openings above the surface of the candy on the bottom, and a flexible cover movable into position over the walls and the contents of the apparatus, said openings constituting the sole means for the escape of heated air, when the cover is in position.

2. Apparatus for cooling candy, including a pan made up of a bottom and apertured walls, the apertures being located above the surface of the contents of the pan, and a curtain connected to one of the walls and shiftable to position over the pan and its contents to retard the escape of heat from the pan.

3. Apparatus for cooling candy, including a pan made up of a bottom and hinged walls, means for securing the walls together when in upstanding positions, each of said walls having apertures therein above the level of the contents of the pan, and flexible means movable to position over the pan for retarding the escape of heat therefrom.

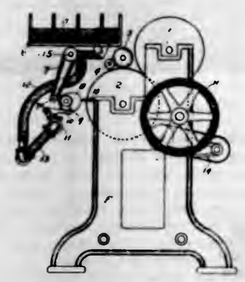
4. Apparatus for cooling candy, including a pan made up of a bottom and hinged walls, said walls having openings therein adjacent the tops thereof, means for connecting the walls together when in upstanding positions, all of said walls being movable to position below the bottom of the pan, a flexible curtain connected to one of the walls and movable to position over the pan and its contents, said curtain constituting means for retarding the escape of heat from the pan.

5. Apparatus for cooling candy, including a pan made up of a bottom and hinged walls, said walls having openings therein adjacent the tops thereof, means for connecting the walls together when in upstanding positions, all of said walls being movable to position below the bottom of the pan, a flexible curtain connected to one of the walls and movable to position over the pan and its contents, said curtain constituting means for retarding the escape of heat from the pan, and guide ledges upon the inner surfaces of opposed walls and below the openings.

[Claim 6 not printed in the Gazette.]

1,207,149. PNEUMATIC PRESS-FEEDING MEANS. JAMES DUVALL, Camas, Wash. Filed Dec. 27, 1915. Serial No. 68,743. (Cl. 101—41.)

1. In a pneumatic feed for presses with the usual plate and impression cylinders and an adjustable rack to hold a pile of material so that it can be fed to the press from underneath, a suction element whose orifice is directly under the forward end of the feed rack, means to swing the mouth of the suction element vertically toward and away from the bottom of the feed rack, a cut-off air valve controlling the suction and means for opening and closing same at proper intervals, a hollow, slotted feeder roll whose periphery is wholly outside of the path of the suction element, but is in contact with the impression cylinder, and which engages, when the suction element pulls it downward, the entire forward end of the undermost unit of the pile of material that is being fed to the press and an idler roll in contact with the rotating slotted feeder roll which coöperates with it when the suction releases, to forward the material between the plate and impression cylinders.



2. In a pneumatic feed for presses with the usual plate and impression cylinders and an adjustable rack to hold a pile of material so that it can be fed to the press from underneath, a suction element whose orifice is directly under the forward end of the feed rack, means to swing the mouth of the suction element vertically toward and away from the bottom of the feed rack, a cut-off air valve controlling the suction and means for opening and closing same at proper intervals, a hollow, slotted feeder roll whose periphery is wholly outside of the path of the suction element, but is in contact with the impression cylinder, and which engages, when the suction element pulls it downward, the entire forward end of the undermost unit of the pile of material that is being fed to the press causing same to enter the nip between it and the impression cylinder and be passed to the printing cylinders.

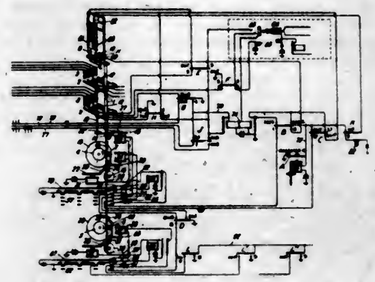
3. In a pneumatic feed for presses with the usual type and impression cylinders, a hollow, longitudinally slotted feeder roll in contact with the impression cylinder, located just forward of the pinch between the plate and impression cylinders.

4. In a pneumatic feed for presses of the type described, a hollow, longitudinally slotted feeder roll whose periphery is wholly outside of the path of the suction element, but is in contact with the impression cylinder, located just forward of the pinch between the plate and impression cylinders and an idler feeder roll in contact with the slotted feeder roll just forward of the pinch between it and the impression cylinder.

5. In a press comprising a plate or type cylinder and an impression cylinder, a suction element attached to a rocker shaft, with the mouth of the suction box directly underneath the feed rack, a lever or arm affixed to said rocker shaft, a cam which actuates said lever and said suction element, a spring attached to lever which tends to bring it and the suction box into their original position, an air valve, a lever on air valve, a cam which engages said air valve lever to open and close the valve at the proper intervals, a rotating longitudinally slotted feeder roll whose periphery is wholly outside of the path of the suction element, but is in contact with the impression cylinder and an idler feeder roll in contact with the slotted feeder roll.

[Claim 6 not printed in the Gazette.]

1,207,150. AUTOMATIC TELEPHONE SWITCHING SYSTEM. ALFRED H. DYSON, Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Mar. 8, 1915. Serial No. 12,810. (Cl. 179—18.)



1. In a telephone system, telephone lines divided into groups, a series of relays, one being common to all the lines of each group, an automatic switch, means automatically actuated incident to taking one of said lines for use for causing the movement of said switch, positions for said switch corresponding to said line groups, means for actuating one of said relays as said switch moves to each group position, and means for arresting the movement of said switch when the relay associated with the group of the selected line is actuated.

2. In a telephone system, telephone lines having terminals divided into groups, a series of relays, one being common to all the lines of each group, an automatic switch, means automatically actuated incident to taking one of said lines for use for causing the movement of said switch, group selecting positions for said switch corresponding to said line groups respectively, means for actuating one of said relays as said switch moves to each group selecting position, and means for operatively associating said switch with the terminals of the group of the line taken when the relay corresponding to said group is actuated.

3. In a telephone system, telephone lines having terminals divided into groups, a series of pairs of relays, a pair being common to the lines of each group, an automatic switch, means automatically actuated when one of said lines is taken for use for causing the movement of said switch, positions for said switch corresponding to said line groups respectively, means for actuating a pair of said relays as said switch moves to each position, and means for operatively associating said switch with the terminals of the group of the line taken when the last relay of the pair corresponding to said group is actuated.

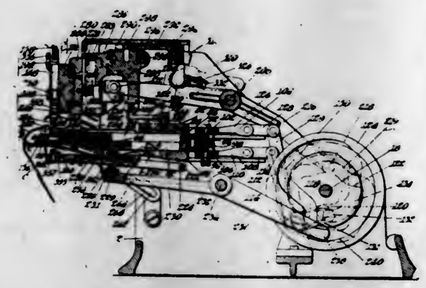
4. In a telephone system, telephone lines having terminals divided into groups, pairs of counting relays, a pair being common to the lines of each group, an automatic switch, means automatically actuated when one of said lines is taken for use for causing the movement of said switch, normally inoperative multiple brushes on said switch, one for each group of terminals, brush selecting positions for said switch corresponding to said groups of terminals respectively, means for energizing and locking up a pair of said relays as said switch moves to each brush selecting position, and means for operatively associating a brush with the terminals of the group of the line taken when the pair of relays corresponding to said group is actunted.

5. In a telephone system, subscribers' lines divided into groups, a series of relays, one being common to all the lines of each group, an automatic switch, means for causing the movement of said switch upon the initiation of a call on any of said lines, positions for said switch corresponding to said line groups, means for actuating one of said relays as said switch moves to each group

position, and means for arresting the movement of said switch when the relay associated with the group of a calling line is actuated.

[Claims 6 to 19 not printed in the Gazette.]

1,207,151. BUTTONING-MACHINE. HERBERT E. ENSLIN, Malden, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 12, 1912. Serial No. 719,979. (Cl. 12—1.)



1. In a machine of the class described, means for positioning a button constructed and arranged to position a buttonhole also, buttonhole fly engaging means, and mechanism for relatively moving said means to effect a buttoning operation.

2. In a machine of the class described, means for positioning a button constructed and arranged to enter and position a buttonhole also, buttonhole fly engaging means, and operating mechanism for relatively moving said means to effect a buttoning operation.

3. In a machine of the class described, means for positioning a button constructed and arranged to enter and position a buttonhole also, buttonhole fly engaging means, and mechanism for operating said fly engaging means to effect a buttoning operation.

4. In a machine of the class described, buttonhole fly engaging means, means for positioning a button, said button positioning means being constructed and arranged to position a buttonhole over the head of the button, and operating mechanism for relatively moving said means to effect a buttoning operation.

5. In a buttoning machine, means for engaging a buttonhole fly adjacent to a buttonhole, button holding means constructed to support a button and to enter a buttonhole to position the buttonhole fly between the button and said fly engaging means, and mechanism for relatively moving said means to effect a buttoning operation.

[Claims 6 to 240 not printed in the Gazette.]

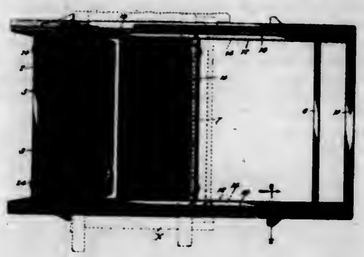
1,207,152. PLATEN FOR BILLING-MACHINES. HARRY ARTHUR FOOTHORAP, Harrisburg, Pa., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed Dec. 14, 1914. Serial No. 877,217. (Cl. 197—3.)

1. The combination with a platen frame and a depressible platen, of a swinging member mounted in the platen frame and a variable connection between the swinging member and the platen.

2. The combination with a platen frame and a depressible platen therein, of a series of inter-dependent swinging members mounted in the platen frame, and a variable connection between each of said members and the platen.

3. The combination with a platen frame and a platen mounted therein, of a pair of arms mounted to swing from their outer ends and connected to compel their uniform movement, and a variable connection between each of the arms and the platen.

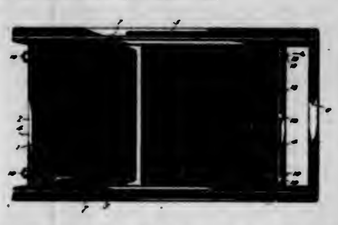
4. The combination with a platen frame and a depressible platen therein, of a pair of parallel rock shafts mounted in the frame below the platen, arms extended from each of said shafts and connected with the arms of the other shaft to compel uniform movement of all of said arms, and independent devices connecting the platen at different points to the arms, said devices being individually adjustable to accurately position the platen.



5. The combination with a platen frame and a depressible platen mounted therein, of reactive supporting means for the platen, swinging arms connected to each other for movement in unison and a variable connection between each arm and platen, said variable connections accommodating the rectilinear movement of the platen to the swinging movement of the arms and being adjustable to accurately position the platen.

[Claims 6 to 8 not printed in the Gazette.]

1,207,153. WORK-HOLDING DEVICE FOR FLAT PLATENS. HARRY ARTHUR FOOTHORAP, Harrisburg, Pa., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed Dec. 14, 1914. Serial No. 877,218. (Cl. 197—3.)



1. The combination with a platen and work holding members, said platen and holding members being relatively movable to separate the same, of means whereby the separation of the platen and the respective work holders will be effected in succession.

2. The combination with a depressible platen, of work holding devices operative in succession by the depression of the platen to release successive work elements.

3. The combination with a platen depressible from its normal position, of separate work holding devices coacting with the platen in the normal position thereof to retain the work elements, the depression of said platen effecting the release of work elements held by one of said work holding devices and another of said work holding devices being operative to continue the retention of the sheet or sheets held thereby.

4. The combination with a depressible platen, of work holding devices coacting therewith rendered ineffective by different degrees of movement of said platen from its normal position.

5. The combination with a depressible platen, of a work clamp retained in relatively stationary relation to the platen and a second work clamp having limited movement with the platen.

[Claims 6 to 10 not printed in the Gazette.]

1,207,154. SUPPORTING APPARATUS. ROSALIE A. W. FOX, Seattle, Wash. Filed Jan. 17, 1916. Serial No. 72,377. (Cl. 224—5.)



1. In supporting apparatus, a rigid frame adapted to be worn about the body of a person, and means to support the frame about said body, said frame having a trackway formed therein, and hanger-members adapted to be retained in said trackway.

2. In supporting apparatus, a rigid frame adapted to be worn about the body of a person, and means to support the frame about said body, said frame having a continuous trackway formed therein, and hanger-members associated with said trackway and movable to any desired position therein.

3. In supporting apparatus, a pair of hinged hollow frame-members adapted to be positioned about the body of a person to afford a continuous chamber therein, said frame having a slot formed therein, a ledge associated with said slot to support a plurality of hanger-members, said hanger-members, and means to suspend said frame from said body.

4. In supporting apparatus, a hinged hollow frame, adapted to be positioned about the body of a person, said frame having a continuous chamber and an open slot in its lower portion affording a trackway upon each side thereof, a plurality of hanger-members supported upon said trackways and movable to any position about said frame, and means to suspend said frame from said body.

5. In supporting apparatus, a pair of opposed frame-members hingedly connected at one of their ends and detachably connected at their other ends to afford a continuous frame-structure adapted to be worn about the body of a person, means to support the frame about said body, said frame when in operative condition affording a continuous trackway, and devices adjustably retained in said trackway for the attachment and support of various articles.

[Claim 6 not printed in the Gazette.]

1,207,155. ATTACHMENT FOR ELECTRIC-LIGHT SWITCHES. MAXWELL C. FRANK, Piedmont, Cal. Filed Nov. 29, 1915. Serial No. 63,916. (Cl. 240—1.)



1. An attachment for electric light switches, comprising a collapsible vacuum cup, a luminous top of hemispherical shape, centrally secured upon the outer surface of said vacuum cup, and forming a part thereof.

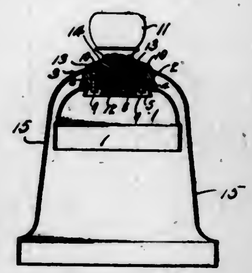
2. An attachment for electric light switches, comprising a rubber vacuum cup, provided with a central stud portion, a transparent hemispheric top secured to said stud portion, having luminous lining on its inner surface, and a hole in its apex adapted for the insertion of means for collapsing said vacuum cup.

3. An attachment for electric light switches, comprising a collapsible cup, a luminous hemispheric top mounted upon said collapsible cup, and means for securing said top thereon, a central hole on said top, and means inserted in said hole adapted to collapse said cup.

4. An attachment for electric light switches, comprising a rubber vacuum cup, provided with a stud portion, a central integrally formed post projecting therefrom, and adapted to collapse said vacuum cup, a luminous top secured to said stud portion, and provided with a central hole for said post.

5. As a new article of manufacture, an attachment of the character described comprising a vacuum cup provided with an adhesive applied to the bearing side thereof, a luminous top surmounted and secured to the opposite side of said cup, and said top having a central hole adapted for central direct application means for securing said cup in position.

1,207,156. LAMP-SOCKET FIXTURE. EDGAR H. FREEMAN, Trenton, N. J. Filed June 29, 1915. Serial No. 37,058. (Cl. 173—362.)



1. A lamp socket mounting, including in combination, a fixture member, a socket cap having a fixture engaging portion, a socket cover having a portion thereof interposed between the fixture member and the fixture engaging portion of the cap, and locking elements movable in and through the fixture engaging portion of the cap to lock the cap and cover to the fixture member.

2. A lamp socket mounting, including in combination, a fixture member, a socket cap having a fixture engaging portion, a socket cover having a portion thereof interposed between the fixture member and the fixture engaging portion of the cap, and locking elements movable in and through the fixture engaging portion of the cap in a plane substantially parallel to the longitudinal axis of the fixture member to lock the cap and cover thereto.

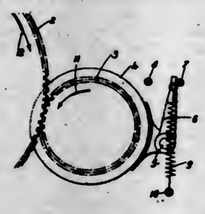
3. A lamp socket mounting, including in combination, a fixture member, a socket cap having a fixture engaging portion, a socket cover having a portion thereof interposed between the fixture member and the fixture engaging portion of the cap, and separate removable locking elements carried by and projecting through the fixture engaging portion of the cap to lock the cap and cover to the fixture member, said separate removable locking elements being accessible from the interior of the socket cap.

4. A lamp socket mounting, including in combination, a fixture member, a socket cap carrying therewith a nut member engaging the fixture member, a socket cover having a portion thereof interposed between the nut and fixture member, and locking elements projecting longitudinally through said nut member and arranged to force said cover into positive locking engagement with the fixture member and also secure the cap against rotary movement.

5. A lamp socket mounting, including in combination, a fixture member, a socket cap having means rigid therewith for detachably engaging the fixture member, a socket cover, and a fastener carried by said means for forcing said cover into positive engagement with the fixture member, and to secure the cap against rotary movement.

[Claims 6 and 7 not printed in the Gazette.]

1,207,157. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. ERNEST FUCHS, Billancourt, France, assignor to Louis Renault, Billancourt, France. Filed Feb. 1, 1915. Serial No. 5,568. (Cl. 172—239.)



1. The combination with a rotary part of an internal combustion engine, of an electric starting motor for the engine, a support upon which said motor is pivotally mounted to swing into and out of operative position with respect to said rotary part of the engine, said support being so positioned that when the engine is started the motor will be automatically shifted toward its inoperative position, and means tending to yieldingly retain the motor in either of its positions.

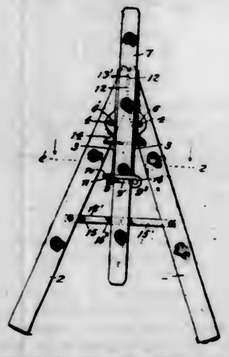
2. The combination with a rotary part of an internal combustion engine, of an electric starting motor for the engine, a support upon which said motor is pivotally mounted to swing into and out of operative position with respect to said rotary part of the engine, said support being so positioned that when the engine is started the motor will be automatically shifted toward its inoperative position, a pair of stops against one of which a part of the motor abuts in either of its positions, and means tending to yieldingly retain the motor in either of its positions against the corresponding stop.

3. The combination with a rotary part of an internal combustion engine, of an electric starting motor for the engine, a support upon which said motor is pivotally mounted to swing into and out of operative position with respect to said rotary part of the engine, said support being so positioned that when the engine is started the motor will be automatically shifted toward its inoperative position, an arm mounted to move with the motor, a pair of stops against one of which said arm abuts in either position of the motor, and means tending to yieldingly retain the motor in either of its positions with said arm against the corresponding stop.

4. The combination with a rotary part of an internal combustion engine, of an electric starting motor for the engine, a support upon which said motor is pivotally mounted to swing into and out of operative position with respect to said rotary part of the engine, said support being so positioned that when the engine is started the motor will be automatically shifted toward its inoperative position, an arm projecting upwardly from the motor and mounted to swing therewith, a pair of stops against one of which said arm abuts in either position of the motor, and a spring acting on said arm and secured at a fixed point between said stops and below the axis of oscillation of said arm whereby said spring tends to yieldingly retain the motor in either of its positions.

5. The combination with a rotary part of an internal combustion engine, of an electric starting motor for the engine, a support upon which said motor is pivotally mounted to swing into and out of operative position with respect to said rotary part of the engine, said support being so positioned that when the engine is started the motor will be automatically shifted toward its inoperative position, an arm projecting upwardly from the motor and mounted to swing therewith, a pair of stops against one of which said arm abuts in either position of the motor, a spring acting on said arm and secured at a fixed point between said stops and below the axis of oscillation of said arm whereby said spring tends to yieldingly retain the motor in either of its positions, an electric switch controlled by the movement of said arm, and an electric circuit in which said motor is connected, said circuit being closed by said switch when the motor moves to its operative position and opened by said switch when the motor moves to its inoperative position.

1,207,158. COMBINED EXTENSION-LADDER AND TRESTLE. HERMAN B. GAFFERS, Watervliet, N. Y., assignor to The John S. Tilley Ladders Company, Inc., Watervliet, N. Y., a Corporation of New York. Filed Apr. 2, 1915. Serial No. 18,735. (Cl. 228—19.)



1. In a device of the class described, the combination of oppositely disposed sections, connecting plates at opposite sides of the sections to which the sections are pivoted near their upper ends, vertical guides on the connecting plates, an extension section slidably engaging the guides, each of said connecting plates having a pair of arms formed integrally therewith and extending inwardly therefrom at opposite sides of the guides, and a latch pivotally mounted on the arms located at one side of the guides and adapted to rest upon the arms at the other side of the guides, said latch being adapted to be engaged by a rung of the extension section and to form a support therefor.

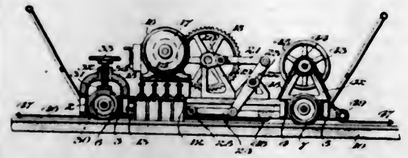
2. In a device of the class described, the combination of oppositely disposed sections, connecting plates at opposite sides of the sections to which the sections are pivoted near their upper ends, vertical guides on the connecting plates, an extension section slidably engaging the guides, each of said plates having a pair of arms formed integral therewith and extending inwardly therefrom at each side of the vertical guides, the arms at one side of the vertical guides being provided with transverse recesses in their upper faces, and a latch comprising side bars and a cross bar rigidly connecting the side bars together, each of the side bars being pivotally connected at one end with one of the arms at one side of the guides, and the free ends of the bars being adapted to fit within the recesses of the arms at the other side of the guides in interlocking engagement therewith, said latch being adapted to be engaged by a rung of the extension section and to form a support therefor.

3. In a device of the class described, the combination of oppositely disposed sections, connecting plates at opposite sides of the sections to which the sections are pivoted near their upper ends, vertical guides on the connecting plates, an extension section slidably engaging the guides, each of said connecting plates having a pair of arms formed integral therewith and extending inwardly therefrom at each side of the vertical guides, the arms at one side of the vertical guides being provided with transverse recesses in their upper faces, and a latch comprising a substantially U-shaped bail, the side portions of the bail being provided with bearing sleeves at their free ends loosely engaging the inner portions of the arms at one side of the vertical guides, and means detachably connected with the said arms for retaining the bearing sleeves in position thereon, the side portions of the bail being adapted to fit within the recesses in the arms at the other side of the guides in interlocking engagement therewith, the latch being adapted to be engaged by a rung of the extension section and to form a support therefor.

4. In a device of the class described, the combination with oppositely disposed ladder sections, the rails of the respective sections being arranged to extend from their lower ends at an inward inclination to each other, connecting plates at opposite sides of the sections, bolts pivotally connecting the sections near their upper ends with the said plates, and separate plates interposed between the connecting plates and the upper portions of the inclined side faces of the rails of the sections, said plates having outer inclined bearing faces corresponding to the inclination of the upper ends of the sections and fitting against the same.

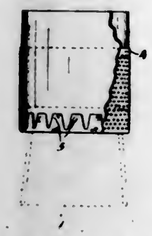
5. In a device of the class described, the combination of oppositely disposed sections, connecting plates at opposite sides of the sections to which the sections are pivotally connected near their upper ends, said connecting plates being provided with ribs at their outer sides extending longitudinally of the plates, said ribs being of substantial length and having flat side faces, the upper ends of the sections having inclined end faces adapted to engage and bear against the side faces of the said ribs when the sections are adjusted to open position.

1,207,159. METHOD OF GRINDING. WILLIAM D. GIERKY, Philadelphia, Pa. Original application filed Feb. 2, 1910, Serial No. 541,422. Divided and this application filed Feb. 9, 1911. Serial No. 607,545. (Cl. 51—12.)



The method of variably dressing rail heads by means of an abrasive or grinding element of relatively small mass, which consists in reciprocating said element so as to cause a primary abrasive surface of greater extent than any single corrugation or depression to travel back and forth through a determinate and limited path over and in constant contact with the surface of the rail, and exposing said element throughout its entire travel to weight or pressure through an interposed resilient medium adjustable as to its resiliency, whereby with a light and invariable mass the rate of cut and the degree of abrasion may be closely and efficiently regulated, and successive cuts with overlapping ends may be effectively tapered off.

1,207,160. INDESTRUCTIBLE WICK. THOMAS W. GLINES, Waseca, Minn. Filed May 25, 1916. Serial No. 99,768. (Cl. 67—69.)

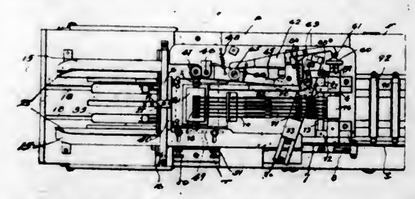


1. A wick made up of inner and outer cylindrical sheets of non-combustible material and a relatively thick porous sheet of combustible wicking interposed between said inner and outer sheets, said wicking being evenly carbonized throughout and having finely divided mineral evenly distributed therethrough.

2. A wick made up of inner and outer cylindrical sheets of asbestos and a relatively thick porous interposed fabric body of cotton wicking, the latter being carbonized and projecting at its lower edge below the lower edges of said asbestos sheets, and a perforated cylindrical metal carrier surrounding said wick and having an inturned lower edge portion that embraces the depending portion of said interposed wicking.

3. A wick made up of inner and outer cylindrical sheets of asbestos and a thick porous interposed fabric body of cotton wicking the latter being carbonized, and projecting at its lower edge below the lower edges of said inner and outer asbestos sheets, and a perforated cylindrical metal carrier surrounding said wick and having inwardly and upwardly bent clenching lips securely connecting the same at their lower edges.

1,207,161. TILE-MEASURING MACHINE. FREDERICK ERNST GOLDSMITH, Hamilton, Ohio, assignor to Ceramic Machinery Company, Hamilton, Ohio, a Corporation of Ohio. Filed Oct. 17, 1911. Serial No. 655,159. (Cl. 101—83.)



1. In a machine for measuring tiles and similar objects, the combination of a cam shaft, driving means, a feed box, feeding hooks thereunder, means operated by said shaft for reciprocating said hooks to feed tiles successively from said box to measuring position, a measuring lever having a tile engaging part, a cam on said shaft for bringing said lever in measuring engagement with each tile when in measuring position, printing devices, a cam on said shaft for moving said devices toward and from the tile, and a controlling slide to restrain the movement of one of said printing devices, said slide being connected with and operated by said lever.

2. In a machine for measuring tiles and similar objects, the combination of a feed box, intermittent feeding means for forwarding objects from the box, a measuring device, means for moving the measuring device into measuring contact with the objects when they are in stationary position, means controlled by said measuring device for imprinting a character upon the object, said means including printing type, and means for inking the type when they are retracted from the object.

3. In a machine for measuring tiles and the like, the combination of a stationary measuring member, a movable measuring member normally in retracted position, a feed box, means for forwarding tiles intermittently from the feed box and passing them between said measuring members, and means for moving the movable member against the tiles for measuring while they are stationary, printing means comprising a plurality of distinctive characters to be placed upon the tiles to indicate measurement thereof and selective means actuated by the movable measuring device to effect the actuation of said printing means so that a single distinctive printing character will be impressed upon each tile to indicate its measurement.

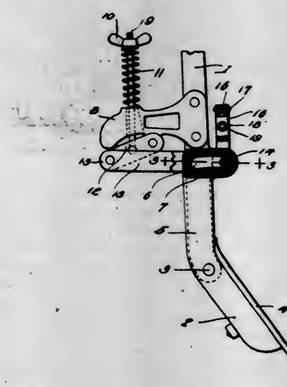
4. In a machine for measuring tiles and the like, the combination of an adjustable stationary measuring member, a movable measuring member normally retracted from the path of the tiles, a feed box, means for forwarding tiles intermittently from the feed box and passing them between said measuring members, and means for yieldingly moving the movable member against the

tiles to effect measuring while they are stationary, printing means comprising a plurality of distinctive characters to be placed upon the tiles to indicate measurement thereof and selective means actuated by the movable measuring device to effect the actuation of said printing means so that a single distinctive printing character will be impressed upon each tile to indicate its measurement.

5. In a machine for measuring tiles and the like, the combination of a feed box, a fixed measuring member, a normally retracted movable measuring member in opposition thereto, intermittent feeding means for forwarding tiles from the box between said measuring members, and means for urging the movable member against the tiles for measuring when they are stationary between said measuring members, printing means comprising a plurality of distinctive characters to be placed upon the tiles to indicate measurement thereof and selective means actuated by the movable measuring device to effect the actuation of said printing means so that a single distinctive printing character will be impressed upon each tile to indicate its measurement.

[Claims 6 to 9 not printed in the Gazette.]

1,207,162. SPRING-FOOT-CULTIVATOR ATTACHMENT. WILBER D. GRAYSON, Bogata, Tex. Filed Aug. 24, 1916. Serial No. 116,680. (Cl. 97—11.)



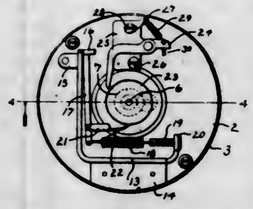
1. The combination with a swinging cultivator foot having a transverse slot and teeth adjacent said slot, a spring device, links leading from said device to the foot adjacent the slotted portion thereof, and a bolt passing through said links and through the slot; of washers on the bolt between the links and foot, said washers having teeth engaging those of said foot, and means for disengaging the two sets of teeth when the bolt is loosened.

2. A link spreader for spring foot cultivators comprising a pair of alined washers having teeth on their inner opposed faces, a pair of arms projecting from said washers and hingedly connected, and a spring for forcing said arms apart.

3. A link spreader for spring foot cultivators comprising a pair of alined washers having teeth on their inner faces, and means connecting said washers and serving to force the same outwardly away from each other.

1,207,163. TIME-CONTROLLED DEVICE. WILLIAM H. GREENLEAF, Hartford, Conn. Filed Nov. 18, 1915. Serial No. 62,210. (Cl. 58—26.)

1. The combination of a ratchet wheel, a pawl for feeding the ratchet wheel, a detent coöperative with the ratchet wheel, a magnet and its armature, and a spring connected with the armature, the armature when attracted by the magnet serving to tension the spring and the spring when the magnet is deënergized serving to impart a feed movement to the pawl and to retract the armature, the armature on its retractive movement engaging the detent to cause said detent to stop the motion of the ratchet wheel.



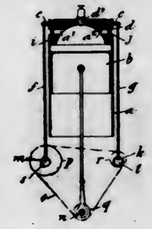
2. The combination of a ratchet wheel, a pawl for feeding the ratchet wheel, a detent coöperative with the ratchet wheel, a magnet and its armature, and a spring connected with the armature, the armature when attracted by the magnet serving to tension the spring and the spring when the magnet is deënergized serving to impart a feed movement to the pawl and to retract the armature, the armature on its retractive movement engaging the detent to cause said detent to stop the motion of the ratchet wheel and the detent constituting a stop to limit the retractive movement of the armature.

3. The combination of an arbor, a ratchet wheel connected with the arbor, a minute hand rigid with the arbor, a second hand loose on the arbor, a train of gears between the two hands, a pawl for feeding the ratchet wheel, a detent coöperative with the ratchet wheel, and automatic means for imparting pressure to the detent at about the completion of the feed of the pawl and in a direction to cause said detent to stop the motion of the ratchet wheel.

4. The combination of a ratchet wheel, a pawl for feeding the ratchet wheel, a detent coöperative with the ratchet wheel, and means operative at approximately defined intervals, for imparting pressure to the detent at about the completion of a feed of the pawl and in a direction to cause said detent to stop the motion of the ratchet wheel.

5. The combination of the arbor of a time-piece, a ratchet wheel connected with said arbor, a pawl for intermittently feeding the ratchet wheel, a detent coöperative with the ratchet wheel, and automatically active means, movable with the pawl, for imparting pressure to the detent at approximately the conclusion of each feed of the pawl, in a direction to cause the detent to stop the motion of the ratchet wheel.

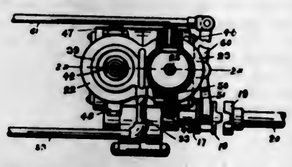
1,207,164. DISTRIBUTION MECHANISM OF INTERNAL-COMBUSTION MOTORS. LOUIS GUICHARD, Paris, France. Filed Dec. 23, 1913. Serial No. 808,394. (Cl. 123—75.)



In an internal combustion engine, the combination with the working cylinder and the reciprocating piston, of an oscillating frame comprising two rods, a cylindrical sleeve mounted to move relative to said working cylinder and having openings adapted to register with openings in said working cylinder and pivotally suspended from said two rods intermediate between their ends, and connecting rods

pivotally connected with the ends of said two rods, so as to impart a conjugated movement thereto, thereby actuating said sleeve.

1,207,165. AIR-COMPRESSOR. CHESTER A. HERLE, Rochester, N. Y. Filed Dec. 29, 1913. Serial No. 809,378. (Cl. 230—27.)



1. In an air compressor the combination of a compressing device, means for driving said compressing device, a clutch for controlling said driving means, an outlet for the air compressed by said compressor, a device normally closing said outlet when the compressor is idle, means for connecting said device to said controlling means, said device being movable to uncover the outlet for the compressed air and move the controlling device to start the compressor.

2. In an air compressor the combination of a compressing device, means for driving said compressing device, a clutch for controlling said driving means, an outlet for the air compressed by said compressor, a device normally closing said outlet when the compressor is idle, means for connecting said device to said controlling means, said device being movable to uncover the outlet for the compressed air and move the controlling device to start the compressor, a coupling capable of attaching to said outlet, said coupling being held in place by said closing device.

3. In an air compressor the combination of a compressing device, means for driving said compressing device, a clutch for controlling said driving means, an outlet for the air compressed by said compressor, a device normally closing said outlet when the compressor is idle, means for connecting said device to said controlling means, said device being movable to uncover the outlet for the compressed air and move the controlling device to start the compressor, a coupling capable of attaching to said outlet, said coupling being held in place by said closing device, said coupling serving to hold the controlling device in operative position.

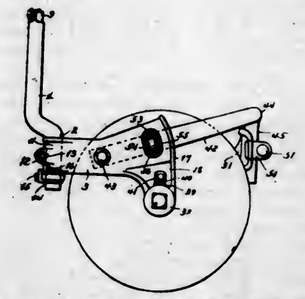
4. In an air compressor the combination of a crank case divided vertically into two symmetrical parts, a bearing in each of said parts, a crank disk mounted in said bearings, said crank disk having a gear placed centrally therein between said bearings, a power shaft mounted at the side of said gear and having a pinion thereon meshing with said gear, said power shaft being parallel to the axis of said crank disk, openings at the opposite ends of said crank case, plates covering said openings, guides mounted on said cover plates.

5. In an air compressor the combination of a crank case divided vertically into two symmetrical parts, a bearing in each of said parts, a crank disk mounted in said bearings, said crank disk having a gear placed centrally therein between said bearings, a power shaft mounted at the side of said gear and having a pinion thereon meshing with said gear, said power shaft being parallel to the axis of said crank disk, openings at the opposite ends of said crank case, plates covering said openings, guides mounted on said cover plates, a cross head placed between each guide and the crank disk and having sliding engagement with both guide and crank disk.

[Claims 6 and 7 not printed in the Gazette.]

1,207,166. COLTER AND JOINTER ATTACHMENT FOR PLOWS. EDWARD M. HEYLMAN, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed Feb. 2, 1915. Serial No. 5,672. (Cl. 97—43.)

1. The combination with supporting means and a rolling colter, of a jointer, means supporting the jointer in rear of the axis of the colter with the point of the jointer share disposed under and approximately in vertical alinement with the axis of the colter and closer to the face of the colter than is the butt of said share, said jointer having its rear portion projecting above the plane of the colter axis.



2. The combination with a standard, an arm attached thereto, and a colter carried by said arm, of an arm having vertically adjustable connection with said first-mentioned arm, and a jointer adjustably supported by said adjustable arm and disposed below and in rear of the axis of the colter, said jointer being so disposed that the point of its share will be closer to the face of the colter than is the butt of said share.

3. The combination with a support, and a rolling colter having a mounting on said support, of an arm pivoted to said support and terminating in an upright member at the opposite side of the colter from said support, means for holding said arm at different vertical adjustments, and a jointer carried by the upright member of said arm, said jointer having the point of its share nearer to the face of the colter than is the butt portion of said share.

4. The combination with a support, and a rolling colter having a mounting on said support, of an arm pivotally attached to said support and terminating in an upright member at the opposite side of the colter from said support, means for holding said arm at different adjustments, a jointer adjacent to the face of said colter, and means adjustably connecting said jointer with the upright member of said pivoted adjustable arm.

5. The combination with a support and a rolling colter having a mounting thereon, of a jointer disposed in rear of the axis of said colter and having the point of its share approximately under the axis of the colter and normally out of contact therewith, the point of the share being nearer to the face of said colter than is the butt portion of said share.

[Claims 6 to 8 not printed in the Gazette.]

1,207,167. JACK. CASPER J. HORN and WILLIAM E. SIMMONS, Hicksville, Ohio. Filed Apr. 9, 1915. Serial No. 20,164. (Cl. 254—89.)



1. A vehicle jack comprising a runway, a tipping member pivotally supported adjacent the runway and having its upper part adapted to receive and hold an axle, the said member when rearwardly tilted being adapted to be moved forwardly on its pivot by the axle of a vehicle which is driven against it, a trap in the runway adjacent the tipping member and means adapted to be abutted and actuated by the moving tipping member to release the trap whereby the trap drops by gravity from under the wheel on the axle when the tipping member is in a substantially vertical position.

2. A vehicle jack comprising a runway, a trap pivotally mounted in the runway, a lock to retain the trap

in horizontal position, a tipping member pivotally mounted adjacent the trap and adapted when tilted rearwardly to be moved forwardly on its pivot by the vehicle and having its upper part adapted to receive and hold an axle when the member is in a substantially vertical position, and means adapted to be abutted and actuated by the tipping member for releasing the lock when the tipping member has, in its forward movement, reached a vertical position whereby the trap drops by gravity from under the wheel of the vehicle which is supported on the axle.

3. A vehicle jack comprising a runway, a trap pivotally mounted in the runway, a lock to retain the trap in horizontal position, a tipping member pivotally mounted adjacent the trap and adapted, when tilted rearwardly, to be moved forwardly on its pivot by the moving vehicle and having its upper part adapted to receive and hold an axle when the member is in a substantially vertical position, means to releasably lock the tipping member in vertical position and means adapted to be abutted and actuated by the tipping member for releasing the trap lock when the tipping member has in its forward movement reached a vertical position whereby the trap drops away from the wheel of the vehicle which is supported on the axle, the trap being restored to normal position by the wheel in the rearward movement of the vehicle.

4. A vehicle wheel comprising a runway, a trap pivotally mounted on the runway and having a rearwardly extending tongue, movable means to support the trap in horizontal position, a tipping support pivotally and adjustably mounted adjacent the trap and adapted to be moved on its pivot by a vehicle in motion, the upper part of the support being adapted to receive and hold the axle of the vehicle when the rearwardly tipped support has been moved by the vehicle to a vertical position, the tipping support in its forward movement being adapted to abut and actuate the said movable means for releasing the trap when the support is in a vertical position whereupon the trap drops by gravity from under the vehicle wheel supported on the axle.

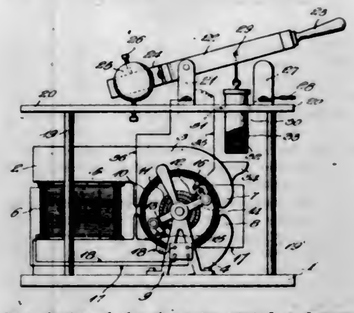
5. A vehicle jack comprising two runways, two traps pivotally mounted in each runway, those in one runway being in alinement transversely with those in the other runway, hinged bars to support the traps in horizontal position and having upwardly projecting fingers, tipping members between the runways and adjustably pivoted adjacent the traps respectively, means connecting the opposite members in pairs, links adjustably connecting the forward pair of members to the rear pair, said pairs of tipping members when tipped rearwardly being adapted to be moved forwardly by a moving vehicle and having at their upper ends adjustably supported caps adapted to receive and hold the axle of the vehicle when the members are moved in unison to the vertical position, means to releasably lock the tipping members in vertical position and movable means to abut the fingers on the hinged bars for causing the bars to release the traps when the moving tipping members reach the perpendicular whereby the traps are caused to drop away from the wheels on the axles.

[Claims 6 and 7 not printed in the Gazette.]

1,207,168. **AUTOMATIC SWITCH.** ALFRED W. HOUCHIN, Greensboro, Md., assignor to Shockless Electric Manufacturing Co., of New Jersey. Filed June 7, 1912. Serial No. 702,218. (Cl. 175—281.)

1. In a device of the character stated, a dynamo comprising an armature, field magnets and a magnetic anvil carried by one of said magnets, a switch pivotally supported and controlling the dynamo terminals, an armature depending from said switch and in vertical alinement with said anvil, and a counter-weight carried by said switch, the latter having its fulcrum located intermediate of said armature and counter-weight, whereby said switch is automatically controlled in one direction by the magnetic flux and in the opposite direction by said counter-weight.

2. In a device of the character stated, a supporting plate having an opening therein, a double pole switch pivotally mounted thereon, a counter-weight carried upon one end of said switch at one side of the pivotal support thereof, means for adjusting the position of said counter-weight with respect to said switch, terminal bars carried by said supporting plate, a pendant armature supported by said switch at the end opposite to said counter-weight, said armature passing through the opening in said supporting plate, and a field magnet having a portion thereof located in vertical alinement with said armature, whereby said switch is automatically controlled in one direction by the magnetic flux and in the opposite direction by said counter-weight.



3. In a device of the character stated, a dynamo comprising an armature, a pair of field magnets and a magnetic anvil carried by one of said magnets, a plate located above said anvil and having an opening therethrough, a switch controlling the dynamo terminals, said switch being pivotally mounted on said plate, a counter-weight mounted upon one end of said switch, and a pendant armature secured to said switch on the side of its pivotal support opposite to said counter-weight, said armature being suspended in said opening and being in alinement with said anvil, whereby said switch is automatically controlled in one direction by the magnetic flux, and in the opposite direction by said counter-weight.

4. In a device of the character stated, a supporting plate, terminal bars on said plate, brackets carried by said plate, a double pole switch pivotally supported on said brackets and controlling the dynamo terminals, a counter-weight on one end of said switch, a pendant armature supported from the other end of said switch, a dynamo located below said plate and having an armature and field magnets, a portion of one of the latter being extended and in alinement with said armature, whereby said switch is automatically controlled in one direction by the magnetic flux and in the opposite direction by said counter-weight.

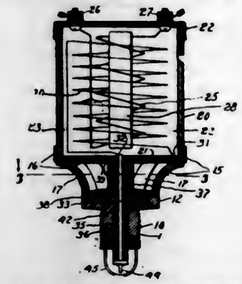
1,207,169. **SPARKING DEVICE FOR HYDROCARBON-ENGINES.** HARRY HOVGARD, Brookline, Mass., assignor to Star Instrument Company, a Corporation of Maine. Filed Sept. 3, 1914. Serial No. 860,088. (Cl. 123—148.)

1. In a sparking device, a casing containing an induction coil, a screw threaded body, and radial arms connecting said casing and said screw threaded body.

2. In a sparking device, a casing containing an induction coil, a screw threaded body, and a plurality of bowed radial arms connecting said casing and said screw threaded body.

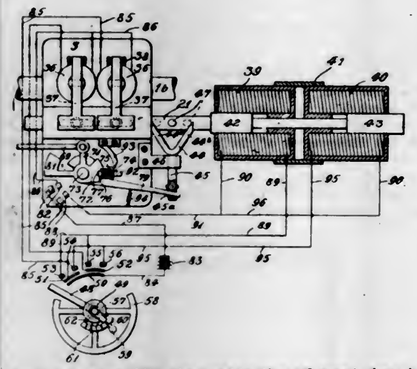
3. In a sparking device, a casing containing an induction coil, a screw threaded body, and a plurality of radiating arms separating said casing and said body and connected to each.

4. In a sparking device, a coil casing, a screw threaded body, a plurality of substantially radial arms disposed angularly in the transverse direction between said casing and said body and separating them one from the other, and an insulated electrode extending axially of said casing and said body and extending from one to the other.



5. In a sparking device a casing containing an induction coil, a screw threaded body, a plurality of substantially radial arms between said casing and said body and connecting them one to the other, and an insulated electrode extending through the said body and abutting said casing, said electrode being in circuit with one side of the secondary of the induction coil.

1,207,170. **SPEED-CONTROLLING MECHANISM FOR AUTOMOBILES.** MERION J. HUGGINS, New York, N. Y. Filed June 1, 1916. Serial No. 101,058. (Cl. 74—58.)



1. In an automobile, the combination of speed changing gears, a movable member, means to lock any one of said gears to said member, means to move said member away from a neutral position, means to move said member away from neutral position in an opposite direction, and means to restore said member to neutral position from any one of said moved positions.

2. In an automobile, the combination of speed changing gears, a movable member, means to lock any one of said gears to said member, means to move said member to positions in opposite directions from a neutral position, and means to retsore said member to neutral position from any one of said moved positions.

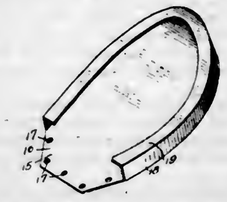
3. In an automobile, the combination of a plurality of speed changing gears, a shifting device for each of said gears, a movable member, a locking means for each of said devices to lock it to said member, means to move said member to positions in opposite directions from a neutral position, and means to restore said member to neutral position from any one of said moved positions.

4. In an automobile, the combination of a plurality of speed changing gears, a shifting device for each of said gears, a movable member, means to lock any one of said devices to said member at points therealong, means to move said member to positions in opposite directions from a neutral position, and means to restore said member to neutral position from any one of said moved positions.

5. In an automobile, the combination of a plurality of speed changing gears, a shifting device for each of said gears, a member movable in a direction parallel to the axes of said gears, a locking means for each of said devices to lock it to said member, means to move said member to positions in opposite directions from a neutral position, and means to restore said member to neutral position from any one of said moved positions.

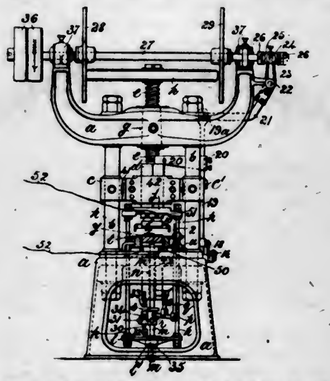
[Claims 6 to 28 not printed in the Gazette.]

1,207,171. **ATTACHMENT FOR SHOE-SOLES.** FRANK A. HUTCHINSON, Grayslake, Ill. Filed Feb. 8, 1915, Serial No. 6,824. Renewed Apr. 13, 1916. Serial No. 90,975. (Cl. 36—73.)



The herein described attachment for the soles of shoes and the like, the same comprising a sheet of iron conforming in contour with the sole and having its rear end flat and its sides and front end upturned and then inturned into over-hanging flanges, and a plating of lead on both sides and all edges of the iron, for the purpose set forth.

1,207,172. **PRESS.** EDWARD JOHNSON, Burslem, England. Filed July 11, 1916. Serial No. 108,712. (Cl. 25—83.)



In a press, a main frame, a plunger slidable in the main frame and provided with an upper die, a mold carried by the main frame and provided with a slidable lower die, an auxiliary frame secured to the plunger and extending below the lower die, a lifting rod for the lower die slidable in the two said frames, a disengageable lifting connection between the said rod and the auxiliary frame, a lever pivoted to the main frame and actuated by the lifting rod, a retaining rod connected with the said lever, a spring-controlled bracket pivoted to the main frame, and a disengageable retaining lever pivoted to the said bracket and provided with means for placing it automatically in line with the said retaining rod, the said retaining rod being operated without jar when raised into contact with the retaining lever to hold the lower die in its raised position.

1,207,173. MILL-LINER. FRANK E. JOHNSON, Salt Lake City, Utah, assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed May 26, 1916. Serial No. 99,942. (Cl. 83—9.)



1. A liner comprising lining plates with ribs at the side edges thereof, retaining flanges carried by said ribs, and bridged holding bars spanning the space between adjacent lining plates and embracing adjacent retaining flanges therebetween.

2. A liner consisting of lining plates with thickened ribs at the side edges thereof, said ribs projecting above the working faces of said plates and forming retaining flanges, and holding bars provided with spaced sides receiving the retaining flanges of adjacent plates therebetween, and means projecting between the lining plates and engaging said holding bars and securing them in place.

3. A lining plate formed with thickened ribs at the side edges thereof, retaining flanges carried at the side edges of said plate projecting above the working surface thereof, and projecting above a portion only of the said thickened ribs.

4. A liner consisting of a lining plate with ribs at the side edges thereof, retaining flanges of relatively less width than the said ribs located at the side edges of said plates and projecting above the working faces thereof, and holding bars with spaced sides receiving the retaining flanges therebetween and bearing down on said ribs, and means for securing said holding bars in place.

1,207,174. MILL-LINER. FRANK E. JOHNSON, Salt Lake City, Utah, assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed May 27, 1916. Serial No. 100,218. (Cl. 83—9.)



1. A liner comprising lining plates, lifting bars interposed therebetween, said lifting bars formed with base sections and with wear sections, said lining plates and lifting bars completely housing said base sections.

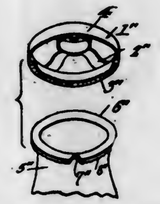
2. A mill liner comprising lining plates, lifting bars interposed therebetween, said lifting bars formed with base sections spaced from the edges of the adjacent lining plates, and wear sections, mounted upon said base sections, secured thereto and projecting to opposite sides thereof.

3. A mill liner comprising lining plates, lifting bars interposed therebetween, said lifting bars formed with base sections with beveled outer edges, and wear sections with inclined sides mounted upon said base sections, extending down to, and contacting with, the adjacent lining plates and means for holding said bars in place.

4. A mill liner consisting of lining plates, lifting bars interposed therebetween and formed with base sections, and wear sections detachably mounted thereon and provided with spaced walls receiving the said base sections therebetween, and means for securing said lining plates and lifting bars in place.

5. A mill liner comprising lining plates, lifting bars interposed therebetween, said lifting bars consisting of base sections, wear sections mounted upon said base sections and projecting thereabove, said wear sections provided with spaced sides projecting to both sides of said base sections and embracing the same therebetween, adapted to protect both sides of said base sections, and allow the mill to be operated in both directions, and means for anchoring said lining plates and lifting bars in place.

1,207,175. LIGHT-FIXTURE. JACOB T. JOHNSON, Atlanta, Ga. Filed Jan. 8, 1916. Serial No. 70,999. (Cl. 240—115.)

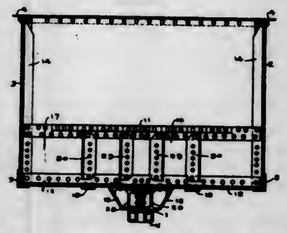


1. A shade holder including an annular gallery having a relatively long arcuate flange and an opposite relatively narrow ear, and a shade having an annular flange adapted to be shifted transversely onto the first mentioned flange, the shade flange having a single notch for the passage of said ear.

2. A holder including an annular gallery having an arcuate flange and an opposite ear, and a shade having an annular flange adapted to be shifted transversely onto the first mentioned flange, the shade flange having a single notch for the passage of said ear, the shade flange having means at opposite sides of and adjacent its notch engageable with said ear for limiting the rotation of the shade relative to the holder.

3. A holder including an annular gallery having a relatively long arcuate portion and an opposite relatively narrow portion, and a shade having an annular flange adapted to be shifted transversely onto the first mentioned portion, the shade flange having a single notch for the passage of the second mentioned portion, said flange being corrugated, one of said portions being corrugated for the engagement of the corrugations of said flange.

1,207,176. RAILWAY-CAR. BYRAM W. KADEL, Roanoke, Va. Filed Aug. 28, 1915. Serial No. 47,785. (Cl. 105—76.)



1. In a car structure, a car body having a flat bottom and vertical walls, a centrally-disposed longitudinal center sill below the floor of the car body, a single transverse girder near each end of the car and above the car floor and adapted to transfer loads from the car sides to the said center sill, the said girders extending continuously across the car from side to side thereof and resting at the center on the said center sill, center-bearing plates attached to the under side of the said center sill immediately beneath the said transverse girders, and lateral brackets attached to said center sills and said girders adapted to form braces laterally of the car for the said center sill at the points of attachment of the said center-bearing plates.

2. In a car structure, a car body having a flat bottom and vertical walls, a single, centrally-disposed longitudinal center sill below the floor of the car body, a single transverse girder near each end of the car and above the car floor and adapted to transfer loads from the car sides to the said center sill, the said girders extending continuously across the car from side to side thereof and connected at the center to the said center sill and car floor, center-bearing plates attached to the under side of the said center sill immediately beneath the said transverse girders, and lateral brackets attached to said center sills and said girders adapted to form braces laterally of the car for the said center sill at the points of attachment of the said center-bearing plates.

3. A car body having a floor, a centrally disposed longitudinal center sill beneath the same adapted to receive draft forces, car sides, a body bolster extending from car side to car side over the said center sill and car floor and within the cavity of the car body, a center bearing plate, the same being disposed on the under face of the said center sill and immediately beneath the said body bolster, the said bolster, the floor and the center sill being fixedly connected together at the top of the said sill and the center bearing plate and center sill being fixedly connected together at the bottom thereof.

4. A car body having a floor, a centrally disposed, longitudinal center sill beneath the said floor adapted to receive the draft forces, the said sill having top and bottom horizontal flanges, car sides, a body bolster extending from car side to car side over the said center sill and car floor and within the cavity of the car body, the said floor being secured to the upper flanges of the center sill, and the body bolster, floor and upper flanges of the center sill being secured together at the point where the bolster and center sill cross, a center bearing plate, the same being disposed on the under face of the said center sill immediately beneath the body bolster and being secured to the bottom flanges of the center sill.

5. A car body having a floor and sides, a centrally disposed, longitudinal center sill beneath the said floor and adapted to receive the draft forces, the said sill having horizontal top and bottom flanges, a body bolster extending from car side to car side over the said center sill and car floor and within the cavity of the car body and having a vertical web and top and bottom flanges, the said floor being secured to the upper flanges of the said center sill and to the bottom flanges of the said body bolster, the bottom flanges of the body bolster, the floor and the top flanges of the center sill being secured together where the bolster crosses the said center sill.

[Claims 6 to 12 not printed in the Gazette.]

1,207,177. PROCESS OF MAKING SOLUBLE STARCH. JULIUS KANTOROWICZ, Breslau, Germany. Filed Oct. 19, 1914. Serial No. 867,511. (Cl. 127—23.)

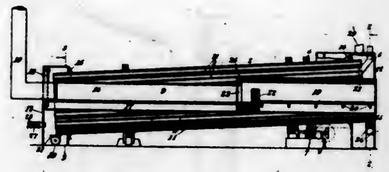
1. The process for making soluble starch, the solutions of which do not solidify or gelatinize at ordinary temperature which consists in causing to act on starch dilute organic acids together with substances converting starch into soluble starch.

2. The process for making soluble starch, the solutions of which do not solidify or gelatinize at ordinary temperature which consists in causing to act organic acids together with persalts on starch.

3. The process for making soluble starch, the solutions of which do not solidify or gelatinize at ordinary temperature which consists in causing to act organic acids together with persalts and mineral acids on starch.

1,207,178. APPARATUS FOR REVIVIFYING CHAR. ROBERT S. KENT, Brooklyn, N. Y. Filed June 25, 1913. Serial No. 775,643. (Cl. 127—2.)

1. In an apparatus for revivifying char, the combination with a rotary char-conveying drum of means including a furnace located entirely within the drum for passing a heating medium from the furnace through the drum, said means serving to retain the heating medium out of contact with the char in the drum, closures for the ends of the drum serving to completely inclose the furnace in the drum, and means associated with at least one of said closures to admit gaseous medium to the interior of the drum to alter the carbon content of the char.



2. In an apparatus for revivifying char, the combination with a rotary char-conveying drum of means including a furnace located entirely within the drum at the receiving end thereof for passing a heating medium from the furnace through the drum, said means serving to retain the heating medium out of contact with the char in the drum, closures for the ends of the drum serving to completely inclose the furnace in the drum, and means associated with at least one of said closures to admit gaseous medium to the interior of the drum to alter the carbon content of the char.

3. In an apparatus for revivifying char, the combination with a rotary char-conveying drum of means including a furnace located entirely within the drum at the receiving end thereof for passing a heating medium from the furnace through the drum, said means serving to retain the heating medium out of contact with the char in the drum, closures for the ends of the drum serving to completely inclose the furnace in the drum, and means associated with the closure at the discharge end of the drum for passing a gaseous medium through the drum in a direction opposite to the flow of said heating medium to alter the carbon content of the char.

4. In an apparatus for revivifying char, the combination with a rotary char-conveying drum mounted to turn about an axis disposed at an angle to the horizontal, of flights within the drum for lifting and showering said char in said drum, means including a furnace located entirely within the drum for passing a heating medium from the furnace through the drum, closures for the ends of the drum serving to completely inclose the furnace in the drum, and means associated with at least one of said closures for admitting a gaseous medium to the interior of the drum to alter the carbon content of the char.

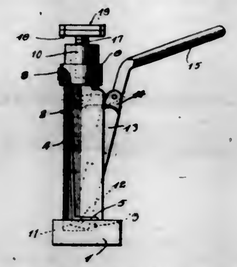
5. In an apparatus for revivifying char, the combination with a rotary char-conveying drum mounted to turn about an axis disposed at an angle to the horizontal, of flights within the drum for lifting and showering the char in said drum, means including a stationary furnace located entirely within the drum for passing a heating medium from the furnace through the drum, closures for the ends of the drum serving to completely inclose the furnace in the drum, and means associated with at least one of said closures to admit gaseous medium to the interior of the drum to alter the carbon content of the char.

[Claims 6 to 8 not printed in the Gazette.]

1,207,179. TIRE-SAVING JACK. JOHN C KISTLER, Clinton, Mo. Filed Feb. 17, 1916. Serial No. 78,938. (Cl. 254—116.)

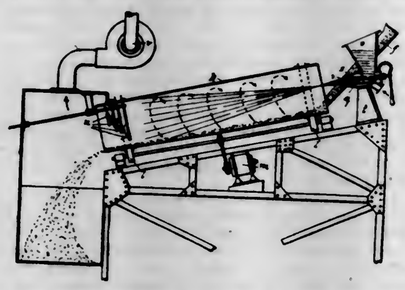
A device of the class described comprising a base having a circular recess in the upper side thereof, a circular collar of flat sheet metal arranged horizontally above said base and invertical alinement with said recess, a pair of upwardly converging flat metal braces having means for attachment at their lower ends to said base at the ends thereof, said braces being integrally united at their upper ends and being firmly secured to one side of said collar, an upright standard made from a single piece of sheet metal and being substantially U-shaped in cross section and having tubular extensions at the upper and lower ends thereof, the extension at the lower end of said standard being disposed and journaled in the recess in said base.

the extension at the upper end of said standard extending through and being journaled in said collar, a lifting



plunger slidable in the last referred to extension, and jack means for raising and lowering said plunger.

1,207,180. MANUFACTURE OF BRIQUETS OF COAL, COKE, TURF, IRON, OR OTHER ORES, OR THE LIKE. EMIL KLEINSCHMIDT, Frankfort-on-the-Main, Germany. Filed Oct. 3, 1916. Serial No. 123,483. (Cl. 44—1.)



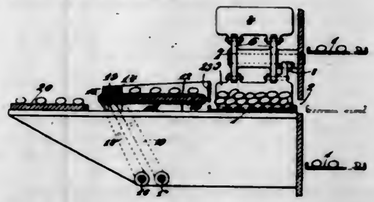
1. The herein described method of manufacturing briquets, which consists in feeding briquet material into a container, moving said container to give the briquet material therein a rotary rising and falling motion, whereby said material is loosened and agitated without stirring the same and spraying a binding material into said briquet material in a direction substantially at right angles to the falling motion of the briquet material.

2. In an apparatus for the admixture of briquet material with binding material, the combination with an inclined drum open at both ends, of means for moving said drum to give its contents a rotary rising and falling motion, means at one end of the drum for spraying thereinto a binding medium in a direction substantially at right angles to that in which the contents of the drum fall, and a series of staggered baffle plates at the opposite end of the drum.

1,207,181. CHARGING AND EMPTYING DEVICE FOR BAKING-OVENS AND THE LIKE. FRIEDRICH KÜHTZ, Stuttgart-Cannstatt, Germany. Filed Aug. 14, 1914. Serial No. 856,822. (Cl. 107—56.)

1. The combination with a baking oven adapted to receive trays and having supporting means for said trays, of a reciprocable carrier for charging the trays, and an endless carrier for discharging said trays, said carriers being operable transversely and longitudinally respectively of the trays, substantially as described.

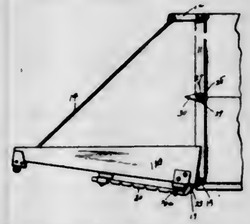
2. The combination with a baking oven adapted to receive trays and having supporting means for said trays, of apparatus for charging the trays comprising a suitable frame, a reciprocable plate mounted on the frame, a flexible covering on said plate adapted to have the articles to be baked deposited thereon, and levers for actuating said plate and covering respectively, said levers adapted to be operated together to move said plate and covering to carry the articles to a position above the tray, said plate levers then adapted to be operated to move the plate relatively to the covering whereby to deposit the articles in position on the tray, and said covering levers adapted to be operated to move the covering relatively to the plate to restore the parts to receive another charge for the oven tray, substantially as described.



3. The combination with a baking oven adapted to receive trays and having supporting means for said trays, of apparatus for discharging the trays comprising an endless flexible member adapted to travel, a pivotally mounted plate carried by said member adapted to remove articles from a portion of the tray during its travel thereover, a cam track fixed adjacent the path of said plate and arranged to hold the plate out of operative position with relation to the tray during its travel over a second portion of the tray, and a second plate rigidly mounted on said endless carrier adapted to remove the articles from the remaining portion of the tray, substantially as described.

4. The combination with a baking oven adapted to receive trays and having supporting means for said trays, of apparatus for discharging the trays comprising an endless flexible member adapted to travel, a pivotally mounted plate carried by said member, a track adapted to engage with said pivotally mounted plate and hold the same inactive during a part of its travel and then release the same to remove articles from a portion of the tray, and a second plate rigidly mounted on said endless carrier adapted to remove the articles from the remaining portion of the tray, substantially as described.

1,207,182. COMBINED GRAIN-DUMP AND SHOVELING-BOARD. PHILIP J. LAWTON, Jamaica, Iowa. Filed Nov. 26, 1915. Serial No. 63,520. (Cl. 21—21.)



1. In an end gate member means for securing said end gate member at its upper end to a wagon bed, means for adjustably securing said end gate member at its lower end to a wagon bed, said last named means comprising notched bars on the outside of said end gate member, having portions at their lower ends extending inwardly and to the wagon bed and designed to be pivoted thereto, means for locking the upper ends of said bars to the end gate member, said end gate member having slotted members through which said bars are extended.

2. In a device of the class described, an end gate member, means for pivotally securing said end gate member at its upper end to a wagon bed, means for adjustably securing said end gate member at its lower end to a wagon bed, said last named means comprising bars having portions at their lower ends extending away from the bodies of said bars at angles with relation thereto, said extensions being designed to be pivotally supported with relation to the wagon bed, said bars having a plurality of notches, plates on the lower end of said end gate member, said bars being extended through the respective plates, and adapted to slide therein, means for locking the upper ends of said bars to the end gate member.

3. In a device of the class described, an end gate member, plates at the lower corners of said end gate member extending below the body thereof, having openings, members adapted to be secured to a wagon bed and to extend through said openings, comprising bars having angular extensions at their lower ends designed to be secured to the wagon bed, said bars having notches in their rear edges to coact with said plates, lock devices on the end gate member for securing the upper ends of the bars to the end gate member when the end gate member is in closed position, guide devices on said end gate member for receiving the said last described bars near their lower ends, and means for securing the upper end of said end gate member to the wagon bed.

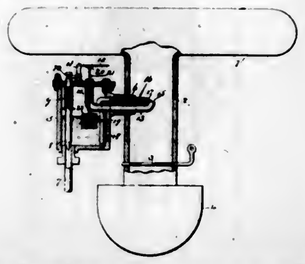
1,207,183. DUST-GUARD FOR JOURNAL-BOXES. BENJAMIN F. LIVELY, Lenoir City, Tenn., assignor to Railway Supply and Equipment Company, Atlanta, Ga. Filed Mar. 7, 1916. Serial No. 82,715. (Cl. 64—22.)



1. A dust guard for journal boxes comprising a plate stamped from a sheet of metal and having one end edge thereof bent at right angles to itself and then bent outwardly to form a gripping member and the opposite end edge rounded, a curved flange formed on said rounded edge and the contiguous side edges of said plate and terminating short of said right angular portion, the upper side portions of said flange being formed with wings bent into tubular form, a pressure device carried by said wings, said plate being formed with an opening, a flange on the wall of the opening projecting laterally therefrom, and a washer disposed concentrically of the opening in said plate and secured to the face of the plate opposite from said last-named flange.

2. A dust guard for journal boxes comprising a plate stamped from a single sheet of metal and formed centrally with an opening, a laterally extending flange integral with the edge wall of said opening, a radially extending flange integral with the outer end of the first-named flange and cooperating with the first-named flange to form an annular depression, a washer seated in said depression, gripping fingers stamped from said laterally and radially projecting flanges and adapted to engage said washer to hold the latter in the depression formed by said flanges, and a laterally projecting circular flange integral with the inner edge of said radially projecting flange.

1,207,184. PRIMING MEANS FOR INTERNAL-COMBUSTION ENGINES. WILLIAM B. LONGEST, Louisville, Ky. Filed Dec. 30, 1915. Serial No. 69,426. (Cl. 123—180.)



1. The combination with the intake of an internal combustion engine, of priming means comprising a liquid fuel reservoir, a liquid fuel tube projecting from said reservoir so as to discharge into said intake, and an air tube having a nozzle opening adjacent to the discharge end of the liquid fuel tube, whereby an atomizer is formed, said liquid fuel tube having a hole somewhat below the normal liquid fuel level in the reservoir.

2. The combination with the intake of an internal combustion engine, of a liquid fuel reservoir having a nipple to enter the intake, two tubes extending through said nipple and having their discharge ends arranged in permanent and unobstructed atomizer relation to each other, the other end of one of said tubes adapted to enter liquid fuel in the reservoir, and the other end of the other tube being open to the atmosphere.

3. In priming means for an internal combustion engine, the combination with a liquid fuel reservoir, a liquid fuel tube having one end terminating within said reservoir and having its discharge end projecting from said reservoir, an air pipe open at one end to the atmosphere and having a nozzle outlet at its other end disposed at right angles to the discharge end of the liquid fuel tube, forming a permanent, unobstructed atomizer, and means for temporarily closing the inlet end of the air tube.

4. In a priming device for an internal combustion engine, the combination with a liquid fuel reservoir adapted for attachment to the intake of the engine, of a liquid fuel tube and an air tube projecting from said reservoir and having their discharge ends arranged in atomizer relation to each other, the inlet end of the air tube being open to the atmosphere, a valve for closing the inlet end of the air tube, and a float within said reservoir and connected with said valve.

5. In priming means for internal combustion engines, the combination with a liquid fuel reservoir adapted for attachment to the intake of the engine, an inlet pipe for liquid fuel communicating with said reservoir, a spring actuated valve for said inlet pipe, manually operable means for opening said valve, a liquid fuel tube and an air tube projecting from the reservoir and having their discharge ends arranged in atomizer relation to each other, the inlet end of the air tube being open to the atmosphere, a valve for closing said air tube and a float in the reservoir and connected with said valve.

1,207,185. VEHICLE-TIRE. FRANKLIN LOTTER, Elkton, Mich. Filed July 24, 1916. Serial No. 111,023. (Cl. 152—8.)

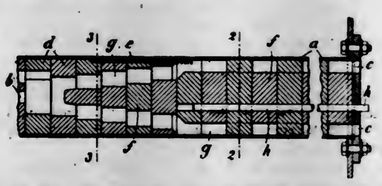
1. In a device of the class described, a vehicle wheel, a pair of annular plates, one secured to each side of the felly of said wheel and extending beyond the periphery thereof, a plurality of outwardly extending undercut ears formed on the outer edges of said plates, said ears being transversely alined, a plurality of transversely extending springs, an eye formed on each end of each spring, said eyes being secured in the undercut portions of said ears,

and a tire disposed around said springs and in engagement therewith.



2. In a device of the class described, a vehicle wheel, a pair of annular plates, one secured to each side of the felly of said wheel and extending beyond the periphery thereof, a plurality of radially extending ears formed on the periphery of each of said plates, a plurality of transversely extending springs, an eye formed on each end of each spring, said eyes being disposed over said ears, threaded studs projecting outwardly from said plates beyond the periphery of said wheel, a tire disposed around said springs in engagement therewith, a plurality of arcuate hooked tire retaining plates disposed on said studs, the hooked portions of the plates engaging said tire on opposite sides thereof, and retaining nuts on said threaded studs.

1,207,186. HEAT-ACCUMULATOR. ARTHUR HENRY LYMN, Westminster, England. Filed May 23, 1914. Serial No. 840,580. (Cl. 122—367.)



1. A heat accumulator comprising in combination a container having in its interior a passage-way for a heating medium, a core of refractory material therein, and a filling of refractory material at least partly comprising shaped pieces interposed between said core and the walls of the container.

2. A heat accumulator comprising in combination a container having in its interior a passage-way for a heating medium, a core of refractory material therein, and a filling of refractory material at least partly comprising shaped pieces interposed between said core and the walls of the container, at least a portion of said shaped pieces being integral with said core.

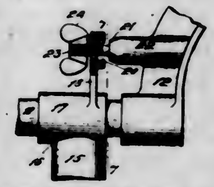
3. A heat accumulator comprising in combination a container having in its interior a passage-way for a heating medium, and a hollow refractory body therein formed around a solid refractory core adapted to serve as a passage-way for a medium that is to be heated.

4. A heat accumulator comprising in combination a container having in its interior a passage-way for a heating medium, a hollow refractory body therein formed around a solid refractory core adapted to serve as a passage-way for a medium that is to be heated and a filling of refractory material between said core and the walls of the container.

5. A heat accumulator comprising in combination a container having in its interior a passage-way for a heating medium, a hollow refractory body therein formed around a solid refractory core adapted to serve as a passage-way for a medium that is to be heated and a filling of refractory material between said core and the walls of the container said filling at least partly comprising shaped pieces lockingly fitted into place within said container and filling up the space between said core and the walls of the container so far as is compatible with allowing the heating medium to pass therethrough.

[Claim 6 not printed in the Gazette.]

1,207,187. BEDSTEAD. JUDSON L. MCKELLAR, Brooklyn, N. Y., asignor to Gasau-Thompson Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Feb. 2, 1916. Serial No. 75,671. (Cl. 5—9.)



1. In a bed of the character described having side rails, and corner-arms secured to the ends thereof and extending upwardly therefrom, in combination, supporting legs for the bed, T-couplings rotatable on said side rails and having their vertical members secured to the upper ends of said legs, plates rigid on the horizontal members of said couplings and having segmental slots, hubs on said arms having longitudinally extending screws passing through said slots, and nuts on said screws for binding said plates against said hubs.

2. In a bed of the character described having side rails, and corner-arms secured to the ends thereof and extending upwardly therefrom, in combination, supporting legs for the bed, T-couplings rotatable on said side rails and having their vertical members secured to the upper ends of said legs, plates rigid on the horizontal members of said couplings and having segmental slots, hubs on said arms having longitudinally extending screws passing through said slots, and nuts on said screws for binding said plates against said hubs, said plates at the ends of the slots therein having recesses to receive and interlock with the outer ends of said hubs on the tightening of said nuts.

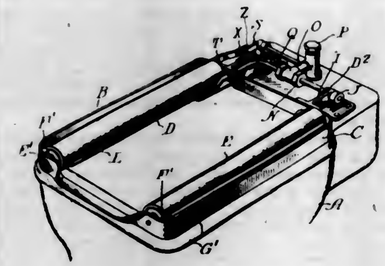
3. In a bed of the character described having side rails, and corner-arms secured to the ends thereof and extending upwardly therefrom, in combination, supporting legs for the bed, T-couplings rotatable on said side rails and having their vertical members secured to the upper ends of said legs, plates rigid on the horizontal members of said couplings and having segmental slots, hubs on said arms having longitudinally extending screws passing through said slots, and nuts on said screws for binding said plates against said hubs, said plates at the ends of the slots therein having inwardly tapered recesses to receive and interlock with tapered outer ends of said hubs on the tightening of said nuts.

4. In a bed of the character described having side rails, and corner-arms secured to the ends thereof and extending upwardly therefrom, in combination, supporting legs for the bed, T-couplings rotatable on said side rails and having their vertical members secured to the upper ends of said legs, plates rigid on the horizontal members of said couplings and having segmental slots, hubs on said arms having longitudinally extending screws passing through said slots, and nuts on said screws for binding said plates against said hubs, each of said plates at the end of its slot having a recess to receive and interlock with the outer end of the adjacent hub on the tightening of the nut therefor.

5. In a bed of the character described having side rails, and corner-arms secured to the ends thereof and extending upwardly therefrom, in combination, supporting legs for the bed, T-couplings rotatable on said side rails and having their vertical members secured to the upper ends of said legs, plates rigid on the horizontal members of said couplings and having segmental slots, hubs on said arms having longitudinally extending screws passing through said slots, and nuts on said screws for binding said plates at the ends of their slots and the outer ends of said hubs being adapted to interlock with each other on the tightening of the nuts, to resist rotary movement of said couplings and legs.

[Claim 6 not printed in the Gazette.]

1,207,188. SANITARY CLOSET. HILLIARD N. A. MCLEAN, Detroit, Mich. Filed Feb. 8, 1915. Serial No. 6,731. (Cl. 4—18.)



1. In a closet, the combination with a seat proper composed of rotating portions, of means for subjecting the rotating portions to a cleaning fluid, and wipers extending longitudinally of said rotating portions and yieldably held in engagement therewith.

2. In a closet, the combination with a bowl, of a seat comprising a frame, spaced members mounted in said frame to turn, means for subjecting said members to a cleaning fluid, wipers extending longitudinally of said members and yieldably held in engagement therewith, pinions carried by said rolls and stationary racks upon the bowl engaging said pinions, and means for connecting the pinions to their respective members in one direction of movement of the pinions only.

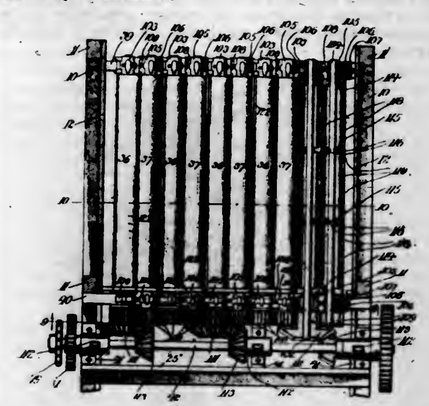
3. In a closet, the combination with a bowl, of a seat proper composed of coacting rotating portions, of means intimately associated with each of said portions above said bowl for spraying the same.

4. In a closet, the combination with a seat proper mounted to undergo a slight up and down movement and including rotating portions, of means for moistening said portions, and means for automatically rotating said portions during its slight upward movement, said portions being stationary during the downward movement.

5. In a closet, the combination with a seat comprising a frame mounted to undergo a slight up and down movement and a pair of parallel rollers mounted in said seat, of a mechanism utilizing said movement of said frame to actuate a simultaneous rotation of the rollers, means for discharging a liquid upon said rollers, and a valve controlling the supply of liquid to said discharge means, normally closed, automatically opened by a displacement of said frame and automatically closing as said displacement is completed.

1,207,189. CORN HUSKING AND SHREDDING MACHINE. WALLACE F. MACGREGOR, Racine, Wis., assignor to J. I. Case Threshing Machine Company, Racine, Wis., a Corporation. Filed Oct. 30, 1905. Serial No. 285,202. (Cl. 130—5.)

1. In husking machines, the combination with shredding cylinder, a shaft therefor, and snapping rolls in front of said cylinder, one of said snapping rolls being spring-held in position and vertically movable and the other roll fixed, of a cross-shaft held against lateral movement, gears on one side of the machine connecting said cylinder shaft to the fixed roll and to said cross-shaft, a large intermediate gear loosely mounted on the opposite end of said cylinder shaft and gears on said yielding roll and cross-shaft meshing with said intermediate gear, substantially as described.



2. In husking machines, the combination with a shredding cylinder, cylinder shaft, snapping rolls and husking rolls, of a transverse shaft geared to said husking rolls, gears on one side of the machine connecting said cylinder shaft with one of said snapping rolls and with said transverse shaft, and gears on the opposite side of the machine connecting the other of said snapping rolls to said transverse shaft, substantially as described.

3. In husking machines, the combination with the shredding cylinder, snapping rolls, one of which is spring-held in position and vertically movable, and with the husking rolls, of a power shaft whereon said shredding cylinder is mounted, a transverse shaft geared to said husking rolls, gears on one side of the machine connecting said power or cylinder shaft to said fixed roll and to said transverse shaft, a large intermediate gear loosely mounted on the opposite end of said cylinder shaft and gears on said yielding roll and said transverse shaft meshing with said intermediate gear, substantially as described.

4. In husking machines, a husking bed comprising a number of sets of rolls, all of said rolls being arranged in the same plane and one roll of each set being held against lateral movement and the other spring-held in position and movable laterally in the plane of the husking bed to and from the fixed roll, said fixed and yielding rolls being alternately arranged across the husking bed, a train of intermeshing gears, one on each of said rolls, a drive shaft and gears connecting said drive shaft with a number of said fixed rolls, substantially as described.

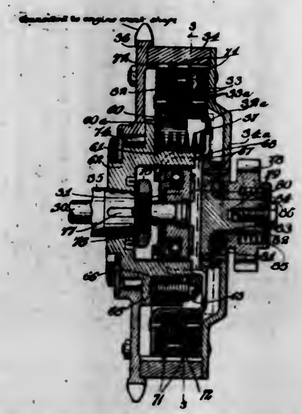
5. In a husking machine, the combination with a husking bed comprising a series of husking rolls arranged in pairs, a pair of supporting cross-bars, fixed and sliding bearings alternately mounted on said cross-bars, adjustable stop screws between the sliding and the fixed bearings of each pair of rolls, springs between the sliding bearings of each pair of rolls and the fixed bearings of the next adjacent pair, a train of intermeshing gears connecting said rolls, and means for directly driving a number of said fixed rolls, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,207,190. CLUTCH. FRANK J. MACK, Chicago, Ill. Filed Dec. 7, 1915. Serial No. 65,538. (Cl. 192—10.)

1. A clutch comprising driving and driven elements, friction disks connected to the driving and the driven elements in alternate order, springs for effecting the frictional engagement of the disks, a member carried by one of the elements and engaging the friction disks, said member being pressed by the springs, a ring carried by the element which carries the member, the springs being interposed between said member and the ring, and screws threaded through the ring and engaging the ele-

ment which carries the ring, said screws being rotatable to force the ring outward from said element to increase the tension of the spring, the member engageable by the springs having openings which are in alinement with the screws.



2. In a clutch, a shaft having an axial opening, a hub fast on one end of the shaft, a rod slidably seating in the shaft opening and projecting from the aforesaid end thereof, an element rotatably mounted on the hub, a spring-actuated member slidably carried by the hub and turning therewith, friction disks connected to said element and to the spring-actuated member in alternate order, and a thrust collar carried by the aforesaid rod and engageable with the aforesaid member for moving the same in a direction to disengage the friction disks.

3. The combination of a driving element, a driven element, coöperating clutch members connected to said elements, a housing carried by the driving element and inclosing the clutch members, a controlling device for the clutch members entering the housing at one end, a starting element at the opposite end of the housing, and a ratchet driving connection between said element and the housing.

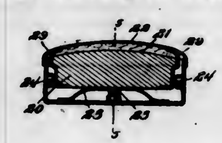
4. The combination of a shaft, a hub fast on one end of the shaft, a driving element mounted on the hub, cooperating clutch members connected to the hub and to the driving element, a housing carried by the driving element and inclosing the clutch members, a controlling device for the clutch members entering the housing at one end, a shaft fixed to the opposite end of the housing in line with the first-mentioned shaft, a starting element loosely mounted on the second-mentioned shaft, and a ratchet driving connection between said element and the housing.

5. In a clutch, a shaft having an axial opening, a hub fast on one end of the shaft, a rod slidably seating in the shaft opening and projecting from the aforesaid end thereof, an element rotatably mounted on the hub, a spring-actuated member slidably carried by the hub and turning therewith, friction disks connected to said element and to the spring-actuated member in alternate order, a thrust collar carried by the aforesaid rod and engageable with the aforesaid member for moving the same in a direction to disengage the friction disks, and a housing carried by the aforesaid element and inclosing the friction disks and the thrust collar.

[Claims 6 to 9 not printed in the Gazette.]

1,207,191. BASE-BALL SIGNALING AND INDICATING SYSTEM. SAMUEL L. MADDEN, Chattanooga, Tenn. Filed Feb. 16, 1916. Serial No. 78,699. (Cl. 200—27.)

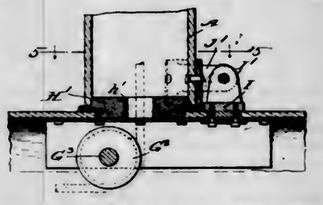
1. In an electrical baseball signaling system, a base marker comprising an angular box-like receptacle, contacts upon a plurality of the surfaces of said receptacle, a movable member within said receptacle, capable of universal motion for coöperation with said contacts, and means for yieldingly sustaining said movable member.



2. In an electrical baseball signaling apparatus, a base marker comprising a rectangular box-like receptacle, contacts upon the bottom and sides of said receptacle, and a movable member within the receptacle, said movable member being universally movable for coöperation with said contacts, and means for yieldingly sustaining said movable member.

3. In an electrical baseball signaling and indicating system, a base marker comprising a box-like receptacle, circuit closing contacts upon the bottom and sides of said receptacle, a movable member universally movable within the receptacle for coöperation with said contacts, means for yieldingly supporting said movable member, and means carried by said movable member for closing the space between the same and the receptacle.

1,207,192. SPAR-POLE FOR LOG-SKIDDING MACHINES. DUFF GERARD MANGES, Tellico Plains, Tenn. Filed Mar. 11, 1915. Serial No. 13,666. (Cl. 212—76.)

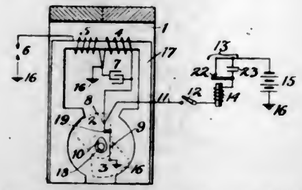


1. The combination of a spar pole, a base support upon which the lower end of the spar pole rests, having an opening at one side of the said lower end of the spar pole, and a hinge connecting the lower end of the spar pole with the said base support, one of the members of which hinge is swivelly held in the opening of the base support, for the purpose described.

2. The combination of a spar pole, a base support having a seat block upon which the lower end of the spar pole rests, and having an opening at one side of the said seat block, and a hinge connecting the lower end of the spar pole with the said base support, one of the members of which hinge is swivelly held in the said opening of the base support whereby the mast may be turned with respect to the base support when disengaged from the said seat block.

1,207,193. IGNITION SYSTEM. CHARLES THOMAS MASON, Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 7, 1915. Serial No. 19,758. (Cl. 123—148.)

1. An ignition system for internal combustion engines comprising in combination the following instrumentalities: a magneto having a permanent magnet field structure with rotatable pole pieces of constant polarity carried on an operating shaft, a normally stationary armature core having pole pieces extending into operative relation with said rotatable pole pieces and adjustable about the axis of rotation thereof, a pair of interrupter contacts operated by a cam connected to the shaft, one of said contacts being stationary in relation to the armature core and insulated from the magneto parts and the other of said contacts being operated by the cam and normally grounded, a casing for the said cam and interrupter contacts, said casing and contacts being adjustable as a whole with the said armature core during operation, a circuit coupling device carried on the outside of the casing and electrically connected with the said insulated contact, a primary winding on the armature having one terminal connected to ground and the other terminal connected to the said insulated contact, a secondary winding on the armature core having one terminal grounded and the other terminal connected to the insulated electrode of a spark plug, a condenser bridged across the terminals of the primary winding, an electromagnetic interrupter, an electric battery having one terminal grounded and the other terminal connected with one terminal of said interrupter, a circuit connecting the other terminal of the interrupter with the said circuit coupling device and a switch included in said circuit.



2. An ignition system for internal combustion engines, comprising in combination the following instrumentalities: a magneto having a permanent magnet filled structure with rotating pole pieces of constant polarity, an operating shaft therefor, a normally stationary armature core having pole pieces extending into operative relation with said rotatable pole pieces and adjustable about the axis of rotation of the said rotatable pole pieces, a primary winding on the armature core having one terminal grounded and the other terminal connected to a normally stationary insulated contact, a grounded movable contact adapted to coöperate with said insulated contact and to be moved into and out of contact therewith by a cam connected to the operating shaft, said contacts being adjustable as a whole at any time with the armature core, a casing for said cam and contacts fixed to the armature core so that adjustment of said armature core and contacts may be effected by movement of the casing, an insulated circuit coupling device carried on the outside of said casing and electrically connected with the said insulated contact, a secondary winding on the armature core having one terminal grounded and the other terminal connected to a translating device, an electromagnetic current varying mechanism operative independently of the magneto, a source of current supply independent of the magneto and circuit connections connecting the said source of current through the current varying device to the said circuit coupling device.

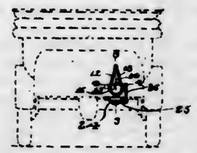
3. An ignition system for internal combustion engines comprising in combination the following instrumentalities: a magneto having a permanent magnet filled structure with rotating pole pieces of constant polarity, an operating shaft therefor, a normally stationary armature core having pole pieces extending into operative relation with said rotatable pole pieces and adjustable about the axis of rotation of the said rotatable pole pieces, a primary winding on the armature core having one terminal grounded and the other terminal connected to a normally stationary insulated contact, a grounded movable contact adapted to coöperate with said insulated contact and to be moved into and out of contact therewith by a cam connected to the operating shaft, said contacts being adjustable as a whole at any time with the armature core, a casing for said cam and contacts fixed to the armature core so that adjustment of said armature core and contacts may be effected by movement of the casing, an insulated circuit coupling device carried on the outside of said casing and electrically connected with the said insulated contact, a secondary winding on the armature core having one terminal grounded and the other terminal connected to a translating device, an independent source of variable current supply connected to said circuit coupling device and a switch included in the circuit of said source of supply for opening and closing the same.

4. An ignition system for internal combustion engines comprising in combination the following instrumentalities: a magneto having rotatable field pole pieces of constant polarity, an operating shaft therefor, a normally stationary armature core structure having pole pieces extending into operative relation with the rotatable field pole pieces and adjustable about the axis of rotation thereof, make and break contacts operated by a cam connected to the operating shaft, a primary winding on the armature core having its terminals connected across the contacts so that its circuit will be opened and closed by the opening and closing of the contacts, a casing for said contacts rigidly connected with the armature core so that the casing contacts and armature core will be adjustable as a whole about the axis of rotation of the rotatable pole pieces for timing purposes, a secondary winding on the armature core inductively connected with the primary winding and electrically connected with a translating device, a curcuit coupling device carried by the said movable casing, a source of current and a current varying device operative independently of the magneto connected in series across said contacts and the terminals of the primary coil and an electrical switching device controlling said connection.

5. An ignition system for internal combustion engines comprising in combination the following instrumentalities: a magneto having rotatable field pole pieces of constant polarity, an operating shaft therefor, a normally stationary armature core structure having pole pieces extending into operative relation with the rotatable field pole pieces and adjustable about the axis of rotation thereof, make and break contacts operated by a cam connected to the operating shaft, said contacts being adjustable as a whole with the armature core for timing purposes, a primary winding on the armature core having its terminals connected across said interrupter contacts, a secondary winding on the armature core in inductive relation to the primary winding and connected in circuit with the translating device, an electromagnetic vibrator operated independently of the magnetic circuit of the magneto, an independent source of current supply, an electrical switch and an electrical circuit connecting said source of current supply vibrator and switch in series across the terminals of the primary winding.

[Claims 6 to 8 not printed in the Gazette.]

1,207,194. INDICATOR FOR AUTOMOBILES. CLARENCE M. MICHENER and ARTHUR C. BAUMANN, New York, N. Y. Filed June 25, 1915. Serial No. 36,308 (Cl. 177—311.)

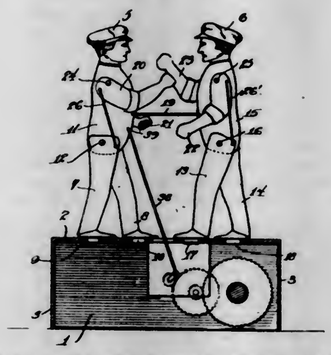


1. An indicator device comprising an attaching member including a tubular bearing member provided with a transverse slot, a tubular supporting member disposed in the bearing member, an operating arm mounted upon the tubular supporting member to extend through said slot, a bearing sleeve mounted on the outer end of the tubular supporting member within the bearing member, an indicator arm carried by the outer free end of the supporting member, and means connected to the operating arm for operating the same.

2. In an indicator device of the class described, the combination with an attaching member including a tubular

bearing member provided with a transverse slot, a tubular supporting member disposed in the bearing member, an indicator arm carried by the outer free end of the supporting member, an operating arm mounted upon the tubular supporting member and extending through said slot, and means for operating said arm, of a push button mounted in the attaching member and extending out into the path of movement of the operating arm and adapted to be operated by the said arm during its indicating movement, and an auxiliary indicator connected to said push button and adapted to be operated simultaneously upon the operation of the indicator arm.

1,207,195. FIGURE TOY. CALVIN C. MILLER, Summithill, Pa. Filed May 5, 1915. Serial No. 26,013. (Cl. 46—40.)



1. A toy of the class described, including a base and a plurality of objects thereon representing human figures, an operating means in said base connected with one of said figures, arms on said figures movable by operation of the figures, and a connecting rod interposed between said figures, as and for the purpose set forth.

2. A toy of the class described, including a base and a plurality of objects thereon representing human figures, an operating means in the base, connecting means between said operating means and one of said figures, means for connecting the figures, and arms on said figures adapted for movement upon movement of the figures.

3. A toy of the class described, including a base, an operating means in said base, a plurality of figures on said base including pivoted body portions, connecting means between said figures, arms on said figures having permanent connection with a stationary object whereby movement of the figures will cause swinging of the arms.

1,207,196. FOWL-BOOT. MATHIAS G. MUELLER, Colome, S. D. Filed Apr. 12, 1916. Serial No. 90,725. (Cl. 119—97.)

1. In a device of this character comprising a shank boot, means for securing the shank boot to the leg of the fowl, and a thigh boot hingedly mounted on the upper end of said shank boot, said shank boot and said thigh boot each provided with a cut-out portion adjacent the meeting ends thereof whereby the said shank boot and said thigh boot will contact at a pre-determined point of movement.

2. In a device of the character described comprising a shank boot, means for securing the shank boot to the leg of the fowl, a thigh boot hingedly mounted on the upper end of said shank boot, said shank boot and said thigh boot each provided with a cut-out portion adjacent the meeting ends thereof whereby said shank boot and said thigh boot will contact at a pre-determined point of movement, and means for extending the length of said shank boot.

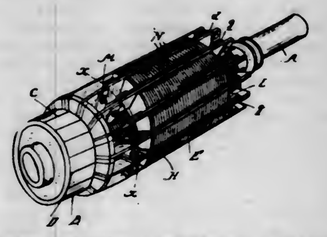
3. In a device of the character described comprising a shank boot, means for securing the shank boot to the leg of the fowl, a thigh boot hingedly mounted on the upper end of said shank boot, said shank boot and said thigh boot each provided with a cut-out portion adjacent the meeting ends thereof whereby the said shank boot and said thigh boot will contact at a pre-determined point of movement, and an extension sleeve mounted on the lower end of said shank boot and provided with a plurality of struck-out portions, the lower end of said shank boot also provided with struck-out portions adapted to register with one of the struck-out portions on said sleeve.



4. In a device of the character described comprising a shank boot, means for securing the shank boot to the leg of the fowl, a thigh boot hingedly mounted on the upper end of said shank boot, said shank boot and said thigh boot each provided with a cut-out portion adjacent the meeting ends thereof whereby said shank boot and said thigh boot will contact at a pre-determined point of movement, an extension sleeve mounted on the lower end of said shank boot and provided with a plurality of struck-out portions, the lower end of said shank boot also provided with struck-out portions adapted to register with one of the struck-out portions on said sleeve, and fastening straps carried by the shank boot and the thigh boot whereby the boot may be fastened to the leg of the fowl.

5. In a device of the character described comprising a shank boot, a fastening element for securing the shank boot in position, a thigh boot hingedly mounted on the upper end of the shank boot, the said shank boot and the said thigh boot being provided with a cut-out portion adjacent their meeting ends whereby the said boots will contact when pivotally moved at a pre-determined point for restricting the relative movement of the said boots, flanges carried by the shank boot and adapted to embrace the corresponding portion of the thigh boot.

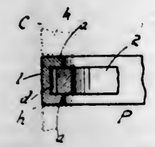
1,207,197. ARMATURE-WINDING. THEODOR M. MUELLER, Detroit, Mich., assignor to Maximum Electrical Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 8, 1913. Serial No. 788,776. (Cl. 171—206.)



1. A rotor, comprising a commutator, a slotted core, and a winding comprising a pair of bars side by side in each slot and a plurality of disks forming end connections between the bars at each side of the core, the disks being formed with lugs twisted to engage with the bars, each pair of bars including a long and a short bar, and each long bar having direct connection with the commutator.

2. A rotor, comprising a commutator, a slotted core, and a winding comprising bars mounted in the slots of said core, and disks forming end connections between the bars at each side of the core, the disks being formed with outwardly-projecting lugs twisted into planes transverse to the disks, said lugs having slots opening toward the core, and headed members passing through the slots of the lugs securing the same to the bars.

1,207,198. PACKING-RING. ARDEN J. MUMMERT, St. Louis, Mo. Filed Mar. 18, 1915. Serial No. 15,321. (Cl. 121—108.)



1. A packing ring comprising an inner band and an outer band enveloping the inner band, the adjacent faces of the respective bands tending to separate one from the other under normal operating conditions of the ring.

2. A packing ring comprising an inner contracting split member, and an outer expanding split member, one of the members being grooved or channeled to receive the other member.

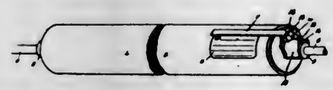
3. A packing ring comprising an outer resilient expanding split band, and an inner resilient contracting split band, one of the bands being provided with flanges overlapping the other band.

4. A packing ring comprising an outer resilient expanding split channel band, and an inner resilient contracting split band embraced by said outer band and lying within the channel thereof.

5. A packing ring comprising an outer resilient expanding split band provided with inwardly directed flanges along its opposite edges, and an inner resilient contracting split band confined between the flanges of the outer band.

[Claims 6 to 9 not printed in the Gazette.]

1,207,199. LABEL-CLIP FOR TYPE-WRITING MACHINES. LEWIS C. MYERS, New York, N. Y., assignor to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Sept. 24, 1914. Serial No. 863,259. (Cl. 197—136.)



1. A label clip for typewriting machines, comprising a thin metal plate adapted to lie close to the periphery of the platen and to extend part-way across it from one end, and means for pivotally mounting the plate at one end of the platen to move about an axis parallel with that of the platen and for detachably connecting it therewith.

2. A label clip for typewriting machines, comprising a thin metal plate adapted to extend part-way across the platen at one end, a bracket to which the plate is pivotally connected to move about an axis parallel with that of the platen, and means for detachably connecting the bracket to the platen at one end thereof.

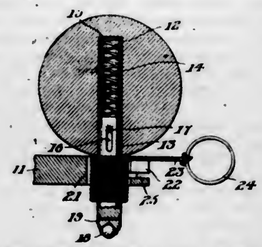
3. A label clip for typewriting machines, comprising a thin metal plate, a bracket, a lever to which the plate is attached and which is pivotally connected with the bracket to move about an axis parallel with that of the platen, and means for securing the bracket to the platen.

4. A label clip for typewriting machines, comprising a thin metal plate, a lever to which it is secured, a bracket to which the lever is pivotally connected to move about an axis parallel with that of the platen, and means for detachably connecting the bracket with the hub of a platen.

5. The combination with the platen of a typewriting machine of a label clip, comprising a thin metal plate, a lever to which it is attached, a bracket at the end of the platen to which the lever is pivotally connected, and a spring clip attached to the bracket and engaging a hub of the platen.

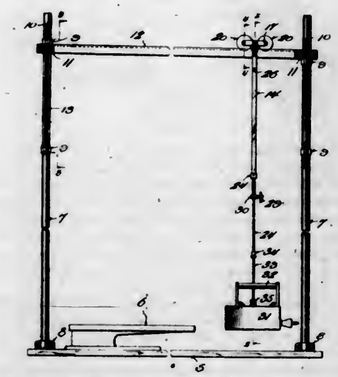
[Claims 6 to 8 not printed in the Gazette.]

1,207,200. SPINNING TOY. JOSEPH NOVÁK, Palmerton, Pa. Filed Sept. 1, 1916. Serial No. 118,051. (Cl. 46—32.)



A toy comprising a globe having a diametrically arranged bore closed at one end, a cylindrical leg slidably arranged within the said bore, a cushioning spring for the said leg arranged within the said bore and pin and slot connections between the said leg and globe adapted for limiting the longitudinal movement of the leg.

1,207,201. IRONING-MACHINE. WILLIAM H. OLVER, Oshkosh, Wis. Filed Apr. 12, 1916. Serial No. 90,558. (Cl. 68—9.)

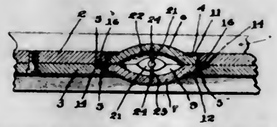


1. An ironing machine comprising a track rail, means affording a pivotal fixed support for the rail at one end, means resiliently supporting the rail at its other end in a position inclined upwardly toward said end, a suspension carriage mounted on the track rail, an iron carrying suspension bar resiliently connected with and depending from the carriage and means limiting the downward movement of the bar with respect to the carriage.

2. In an ironing machine, the combination of a track rail, a suspension carriage mounted on the rail, a sleeve

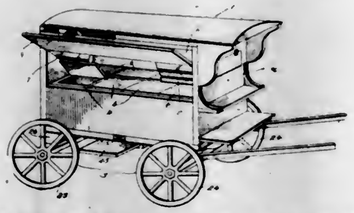
slidably connected with the carriage, a retractile coil spring secured to the sleeve and to the carriage, a bar slidably adjustable in the sleeve and extensible into the spring and means carried by the said bar for attachment of an iron thereto.

1,207,202. LEVEL. DAVID C. OWENS, Clio, Ala. Filed Dec. 31, 1915. Serial No. 69,635. (Cl. 33—215.)



In a pendulum structure, the combination with a body, of a pendulum including a body, an indicating finger formed integrally with said body and projecting outwardly from the center of the upper surface of the body, a pair of pivot pins formed integrally with the upper surface of said body and projecting transversely therefrom with respect to said indicating finger, the sides of said body merging into each other and forming an indicating point formed upon the lower end of said body, said indicating point being positioned in alinement with the point of said indicating finger, a pair of semi-housings carried by said body and being constructed of transparent material, said semi-housings provided with recesses formed in their inner faces at the center thereof, said recesses forming bearings for the ends of said pivot pin for pivotally supporting said pendulum, annular rings formed about the edges of said semi-housings, and metallic facing rings encompassing said rings and being connected for connecting said semi-housings.

1,207,203. VEHICLE. GEORGE PATTERSON, Manchester, N. H. Filed July 15, 1914. Serial No. 851,096. (Cl. 21—7.)



1. The described device consisting of a vehicle having a body provided with two rows of compartments on the opposing sides thereof, side gates on said wagon whereby said compartments may be readily reached, a longitudinal ice compartment mounted above said other compartments, the upper wall of said last compartment being inclined, and two rows of compartments provided in the space formed by said inclined walls, a rear gate whereby access may be had to said ice compartment.

2. The described device consisting of a vehicle having a body provided with two rows of compartments on the opposing sides thereof, side gates on said wagon whereby said compartments may be readily reached, a longitudinal ice compartment mounted above said other compartments, the upper wall of said last compartment being inclined, and two rows of compartments provided in the space formed by said inclined walls, a rear gate whereby access may be had to said ice compartment, and downwardly swinging gates whereby access may be had to said compartments above said ice compartment.

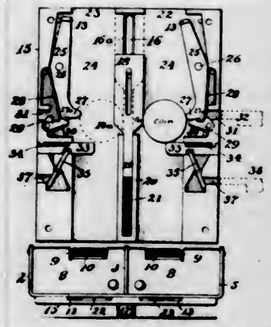
3. The described device consisting of a vehicle having a body provided with two rows of compartments on the opposing sides thereof, side gates on said wagon whereby said compartment may be readily reached, a longitudinal ice compartment mounted above said other compartments, the upper wall of said last compartment being inclined, and two rows of compartments provided in the space formed by said inclined wall, a rear gate whereby access may be had to said ice compartment, and downwardly swinging gates whereby access may be had to said compartments above said ice compartment, and milk carrying compartments adjacent said ice compartment.

4. The described device consisting of a vehicle body, a longitudinal ice box centrally suspended in the upper part of said body, and a plurality of compartments formed above said box, the walls of said box forming a wall for each of said compartments, other compartments having hinged lids formed under said box, said box being diamond shape in cross section.

5. The described device consisting of a vehicle body, a longitudinal ice box centrally suspended in the upper part of said body, and a plurality of compartments formed above said box, the walls of said box forming a wall for each of said compartments, other compartments having hinged lids formed under said box, said box being diamond shape in cross section, and having centrally arranged vertically opposing corners.

[Claim 6 not printed in the Gazette.]

1,207,204. VENDING-MACHINE. JAMES W. PATTERSON, Bronxville, N. Y., assignor to Autosales Gum and Chocolate Company, New York, N. Y., a Corporation of New York. Filed May 2, 1911. Serial No. 624,592. (Cl. 194—39.)



1. In a vending machine, a casing having two compartments, for independently supporting ventible articles, a movable lid for each compartment, means for independently locking the lids in closed position, a single hand-operable device for actuating the deposited coin to operate either of said locking means, a separate coin-slot for each compartment to guide the coin between said device and the respective locking means, whereby the lid of either compartment may be released by said common device through the medium of the deposited coin, a member independent of said locking means extending into each coin-slot to support the deposited coin in operative position between said device and the respective locking means, and means for operating said member to release the coin.

2. In a vending machine, a case having two compartments for independently supporting vendible articles, combined with a movable lid for each of the compartments, locking means for independently locking the lids in closed position, coin actuating hand operated means for operating the locking means, separate coin slots for each of the compartments for locating the coin between the coin actuating hand operated device and the respective locking devices, whereby the lid of either compartment may be released by the common hand operated device after depositing the coin in the proper coin slot, a member extending into each coin-slot to support the deposited coin in operative position between said hand-operated means and the respective locking means, means for operating said member to release the deposited coin, and engaging devices for engaging the locking mechanism in position to obstruct the entrance to the corresponding coin slot, whereby a second coin cannot be deposited in the same slot until its engaging device has been manually released from engagement with the locking device.

3. In a vending machine, a case having two compartments for independently supporting vendible articles, combined with a movable lid for each of the compartments, locking means for independently locking the lids in closed position, springs to normally throw the locking devices into locking position for the lids, coin actuating hand operated means for operating the locking means, separate coin slots for each of the compartments for locating the coin between the coin actuating hand operated device and the respective locking devices, whereby the lid of either compartment may be released by the common hand operated device after depositing the coin in the proper coin slot, a member extending into each coin-slot to support the deposited coin in operative position between said hand-operated means and the respective locking means, means for operating said member to release the deposited coin, engaging devices for engaging the locking mechanism in position to obstruct the entrance to the corresponding coin slot whereby a second coin cannot be deposited in the same slot until its engaging device has been manually released from engagement with the locking device, and a key for coacting with the engaging devices for causing them to release the locking devices.

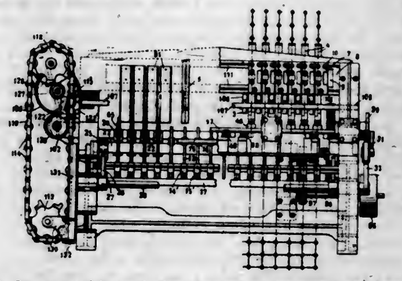
4. In a vending machine, the combination of a box having a plurality of compartments and separate coin slots for each of the compartments, separate lids for each of the lids for locking the said lids in closed position and also for obstructing the deposition of coins in the coin slots, springs for normally throwing the pivoted locking levers into locking position, hand operated means common to all of the coin slots for actuating the pivoted locking levers by means of the coin to release the lids, horizontal retaining means independent of said locking levers for limiting the downward movement of the coin whereby its direction of movement is horizontal against the pivoted locking levers under the action of the hand operated devices, and manually controlled means for operating the retaining devices to release the coins from engagement with the locking levers.

5. In a vending machine, the combination of a box having a plurality of compartments and separate coin slots for each of the compartments, separate lids for each of the compartments, a pivoted locking lever for each of the lids for locking the said lids in closed position and also for obstructing the deposition of coins in the coin slots, springs for normally throwing the pivoted locking levers into locking position, means engaging the locking levers when moved into their unlocking positions by the coin to hold them in locking position and obstruct the coin slots, a manually operated key for releasing the engaging devices from the locking levers, hand operated means common to all of the coin slots for actuating the pivoted locking levers by means of the coin to release the lids, retaining means for limiting the downward movement of the coin whereby its direction of movement is against the pivoted locking levers under the action of the hand operated devices, and manually controlled means for operating the retaining devices to release the coins from engagement with the locking levers.

[Claims 6 to 16 not printed in the Gazette.]

1,207,205. FABRIC-MAKING MACHINE. CHARLES W. PECK, Waterbury, Conn., assignor to The Mattatuck Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Nov. 30, 1914. Serial No. 874,595. (Cl. 140—3.)

1. In a machine of the character described, vertical strand guides having grooves for the links and grooves for the plates, curved introductory guides extending over the top of the machine for straightening out the links and plates of strands and leading to said vertical guides, means for connecting said strands by cross links, and means for pulling down the product.



2. In a machine of the character described, a frame having bars grooved at the back and with an open space between said bars extending across the machine, carrier blocks adjustably mounted in said space and secured by bolts in said grooved bars, and strand guides secured to said blocks at the front of the machine and adjustable with said carrier blocks.

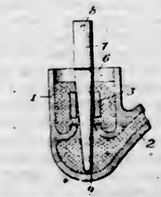
3. In a machine of the character described, lower strand guides, a grooved bar extending across the machine, brackets bolted to said bar and supporting said guides and adjustable as desired across the machine, and means for connecting the strands by cross links.

4. In a machine of the character described, a plurality of strand feeding pawls, supports therefor, a cross bar having a continuous groove throughout its length, means for securing said supports in the groove of said bar whereby said supports and their feeding pawls may all be adjusted longitudinally of said bar to any desired extent, and means for moving said bar to operate said pawls.

5. In a machine of the character described, a strand guide, a reciprocating member, a forked pawl hinged to said member and embracing said guide to engage a strand guided therein, and means for reciprocating said member.

[Claims 6 to 40 not printed in the Gazette.]

1,207,206. APPARATUS FOR THE RELIEVING OF PRESSURE IN MELTING-POTS, &c. HANS PETERSEN, Davenport, Iowa. Filed July 12, 1915. Serial No. 39,360. (Cl. 22—1.)



1. The combination with a melting pot provided with a pump cylinder open at its top and bottom of a device consisting of a bar of steel, said bar having a grip at one end and being adapted to be inserted into a molten charge of metal in the melting pot and permitted to set or freeze in the charge and to be withdrawn from the charge after the same has cooled to provide an opening in the chilled mass, said bar being of a size in cross section to permit the insertion thereof through the pump cylinder and to rest against the pump cylinder when in place in the melting pot, the pump cylinder serving as a guide and supporting means for the bar while in the melting pot.

2. The combination with a melting pot provided with a pump cylinder open at its top and bottom and disposed centrally of the melting pot, of a device consisting of a

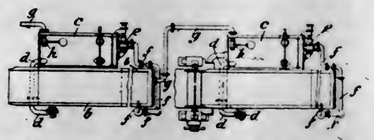
smooth bar of steel adapted to be inserted into a molten charge of metal in the melting pot and permitted to set or freeze in the charge and to be withdrawn from the charge after the same has cooled to provide an opening in the chilled mass extending centrally from the top to near the bottom thereof, the bar being of a size in cross section to permit the insertion of the same through the pump cylinder and to be engaged by a portion of the pump cylinder when in place in the melting pot, the pump cylinder serving as a guide and support for said bar.

3. The combination with a melting pot provided with a pump cylinder open at its top and bottom, of a plug adapted to be inserted into a molten charge of metal in the melting pot, and permitted to set or freeze in the charge, said plug being of a size in cross section to permit the insertion thereof through the pump cylinder and to rest against the pump cylinder when in place in the melting pot, the pump cylinder serving as a guide and supporting means for the plug while in the melting pot.

4. The combination with a melting pot provided with a pump cylinder open at its top and bottom, of a plug adapted to be inserted into a molten charge of metal in the melting pot and permitted to set or freeze in the charge, said plug being of a size in cross section to permit the insertion thereof through the pump cylinder.

5. The combination with a melting pot provided with a pump cylinder open at its top and bottom, of a plug adapted to be inserted into a molten charge of metal in the melting pot and permitted to set or freeze in the charge and to be withdrawn from the charge after the mass has cooled to provide an opening in the chilled mass, said plug being of a size in cross section to permit the insertion thereof through the pump cylinder and to rest against the pump cylinder when in place in the melting pot, the pump cylinder serving as a guide and supporting means for the plug while in the melting pot.

1,207,207. WOOL AND THE LIKE WASHING MACHINE. FREDERICK BURFORD PETRIE, Rochdale, England. Filed Nov. 23, 1915. Serial No. 63,128. (Cl. 141—5.)

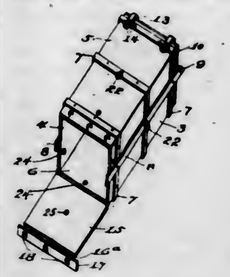


1. In a wool and the like washing machine of the type hereinbefore referred to, means for holding a reserve of liquor, means between the said means and the liquor bowls for continuously forcing the said reserve of liquor into the said liquor bowls, overflows in the liquor bowls for removing excess of liquor from the liquor bowls, connections between the said overflows and the first named means for returning excess liquor to the first named means, and automatic means in the first named means for admitting liquor to replace any liquor failing to return to the first named means after the removal of foreign matter and liquor from the liquor bowls, for the hereinbefore specified purpose.

2. In a wool and the like washing machine of the type hereinbefore referred to, means for holding a reserve of liquor below the liquor level of the liquor bowls, means for continuously forcing the reserve of liquor into the liquor bowls, means for conducting any excess of liquor in the liquor bowls back into the first named means, and means for automatically replacing liquor failing to return to the first named means by reason of the removal of foreign matter and liquor from the washing bowls, for the hereinbefore specified purpose.

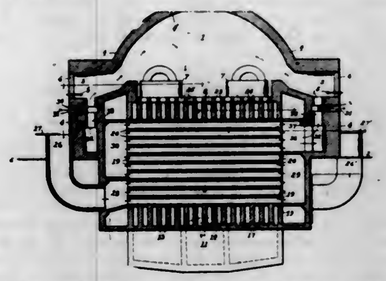
3. In a wool and the like washing machine of the type hereinbefore referred to, a reserve tank for each liquor bowl situated below the level of the liquor in the respective liquor bowl, an overflow outlet in each liquor bowl in communication with the respective reserve tank, a conduit connecting the liquor in each reserve tank with the respective liquor bowl, means in the said conduit for forcing the liquor from each reserve tank into its liquor bowl, a conduit between each reserve tank and the following washing bowl connecting the liquor in each washing bowl with the reserve tank of the preceding liquor bowl, and automatic means in each reserve tank for opening the last named conduit when the level of liquor in the reserve tank falls, for the hereinbefore specified purpose.

1,207,208. COAL-CONTAINING BUCKET FOR COAL-BARGES. HOMER PHILLIPS, Viropa, W. Va. Filed Feb. 11, 1916. Serial No. 77,598. (Cl. 220—5.)



A coal transporting bucket comprising stationary side walls, catch brackets projecting from and above one of the side walls, a removable top closure fitting the brackets and having an inner lug engaging the inner face of the wall opposite the bracketed wall, grapple-engaging rings secured to the top and to the sides, and means for locking the top in closed position.

1,207,209. RECUPERATIVE KILN. ROBERT D. PIKE, Richmond, Cal. Filed June 1, 1915. Serial No. 31,342. (Cl. 25—145.)



1. The combination with a heating chamber, provided with openings in the floor thereof, of a recuperator situated immediately beneath said floor, a plurality of vertical flues in said recuperator having their upper ends in registry with the openings in the floor of said chamber, an exhaust flue in communication with the lower ends of said flues, a plurality of horizontal passages in said recuperator independent from but adjacent to said vertical flues, and chambers with which the ends of said horizontal passages register connections between said chambers and the heating chamber so that air entering the lowermost of said horizontal passages is constrained to pass successively through a number of said horizontal passages on succeedingly higher levels before passing from the uppermost of said horizontal passages into said heating chamber.

2. The combination with a heating chamber, of a recuperator having vertical flues for conducting the exhaust gases out of said heating chamber, adjacent independent horizontal passages for conducting air into said heating chamber, and a central vertical partition dividing the recuperator into two similar independent units symmetrically disposed with respect to the vertical axis of the entire structure.

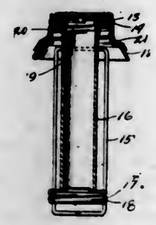
3. The combination with a heating chamber, of a recuperator situated beneath the floor thereof, said recuperator having vertical flues for conducting the exhaust gases out of said heating chamber, and adjacent independent horizontal passages for conducting air into said heating chamber, and said recuperator being divided by a central vertical partition into two similar independent units symmetrically disposed with respect to the vertical axis of the entire structure, said units having independent inlet and outlet openings communicating with said horizontal air passages.

4. The combination with a heating chamber having a plurality of burners symmetrically disposed in a horizontal plane about its periphery, a horizontal annular flue within the wall of said heating chamber, and passages connecting said annular flue with said burners, of a recuperator situated beneath the floor of said heating chamber, flues within the recuperator for conducting the exhaust gases away from said kiln, and passages adjacent to said flues for conducting air into said annular flue of said heating chamber, said recuperator being divided by a vertical central partition into two similar units symmetrically disposed with respect to the vertical axis of the entire structure, said units having their respective air outlets into said annular flue at diametrically opposite points therein.

5. The combination with a recuperator having independent adjacent passages for relatively hot exhaust gases and relatively cold incoming air, of a heating chamber situated above the recuperator, and communicating with the recuperator, a plurality of burners symmetrically disposed in a horizontal plane about the wall of said heating chamber, a horizontal annular flue within said wall, passages connecting said annular flue with said burners, air inlet ports within the kiln wall for supplying air to the burners, and slide dampers within said ports arranged to regulate the flow of air through said connecting passages.

[Claims 6 to 12 not printed in the Gazette.]

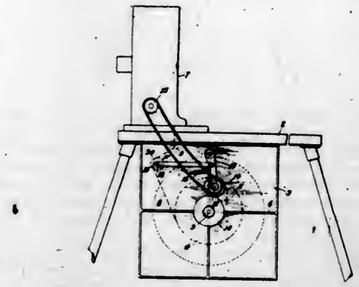
1,207,210. CAN-NOZZLE. HENRY W. POMEROY, Northampton, Mass. Filed Feb. 8, 1915. Serial No. 6,870. (Cl. 221—27.)



1. The combination with an oil can, of a collet carried by the can and formed with interior and exterior threads, a cap engaged on the exterior threads of the collet, a nozzle tube slidable through the collet, a threaded socket formed interiorly of the cap, the outer end of the nozzle tube being provided with threads for engagement in the said socket, and an exteriorly threaded flange on the inner end of the nozzle tube adapted for engagement with the interior threads of the collet whereby an unscrewing motion of the cap will release the cap from the collet and a continuous motion in the same direction will engage the inner flange of the tube with the collet and disengage the cap from the outer end of the tube.

2. The combination with an oil can; of a collet carried by the can and formed with interior and exterior threads, a cap engaged on the collet, a combined washer and wiper fixed within the collet, a nozzle tube slidable through the collet and having the washer and wiper bearing against the exterior thereof, a threaded socket formed interiorly of and spaced from the walls of the cap, the outer end of the nozzle tube being provided with threads for engagement in the said socket, and an exteriorly threaded flange on the inner end of the nozzle tube adapted for engagement with the interior threads of the collet.

1,207,211. FILM-WINDING DEVICE FOR MOTION-PICTURE MACHINES. NICHOLAS POWER, New York, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed June 8, 1914. Serial No. 843,789. (Cl. 242—75.)



1. In a motion picture machine, the combination of a receiving reel for the film, a magazine inclosing the same, means for driving the same comprising driving and driven members, and means for connecting and disconnecting said members consisting of a film guiding spool having its axle projecting through a slot in the wall of the magazine and a link without the magazine connected to said spool and operating to disconnect said members upon movement of the spool produced by the tension on the film.

2. In a moving picture machine, the combination of a winding reel for the film, a magazine inclosing the same, means for driving the reel comprising a positively driven continuously rotatable friction disk, a second friction disk connected to said reel to drive the same, said disks being relatively movable, a spring for holding the disks in driving engagement, and means for separating said disks against the tension of the spring, comprising a link operatively connected to the movable disk, a film guiding spool movably mounted on the side wall of said magazine, and connected to said link to shift the link when the tension on the film exceeds the tension of the spring.

3. In a moving picture machine, the combination of a receiving reel for the film, a magazine inclosing the same, a shaft on which the reel is mounted projecting through the wall of the magazine, a disk mounted on said shaft having a peripheral friction driving surface, a similar disk mounted for movement toward and from said first mentioned disk, means for positively driving said second disk, a spring for holding the peripheries of said disks in frictional driving engagement, and means controlled by the tension of the film within the magazine for radially separating said disks.

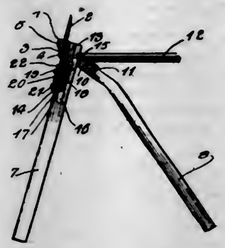
1,207,212. HOE-CLAMP. FRANK L. PURCELL, Frederick, Okla. Filed Apr. 3, 1916. Serial No. 88,542. (Cl. 76—82.)

1. A hoe clamp comprising a one piece rest having a channel to receive therein the upper edge of a hoe blade, and means for holding said blade rigidly in said channel.

2. A hoe clamp comprising a horizontal one piece rest channel iron bar to receive therein the upper edge of a hoe blade, a pair of legs secured at their upper ends to the ends of said bar, and means for holding the blade rigidly in the channel of said bar.

3. A hoe clamp comprising a pair of legs having at their upper ends a rest to support thereon a hoe blade in

inverted position, a horizontal lever pivoted to one of said legs, a hook extending upwardly from said lever to engage the shank of the hoe, and means for locking said lever against movement.

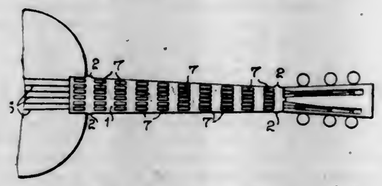


4. A hoe clamp comprising a pair of legs having at their upper ends a support upon which a hoe in inverted position is adapted to rest, one of said legs having a vertical slot and ratchet teeth at one edge of said slot, a horizontal lever extending through the slot in the aforesaid leg and fulcrumed to the other leg, said lever having means to engage said ratchet teeth, and a hook rising from the lever to engage the shank of the hoe.

5. A hoe clamp comprising a support upon which a hoe blade is adapted to rest in inverted position, a second support spaced laterally from the first named support and adapted to receive thereon the handle of the hoe adjacent the shank thereof, and means for exerting a downward force on said shank.

[Claims 6 and 7 not printed in the Gazette.]

1,207,213. KEYBOARD FOR GUITARS OR SIMILAR INSTRUMENTS. ENRICO RE, Camden, N. J. Filed Apr. 12, 1916. Serial No. 90,684. (Cl. 84—83.)

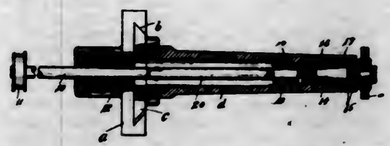


1. A keyboard attachment for string instruments including an elongated plate provided with means whereby it may be detachably applied in operative position and having a plurality of openings, a button freely movable within each of the openings, said button being provided with substantially diametrically opposed recesses, and coil springs seated within said recesses and coacting with the wall of the opening for normally maintaining the button in a raised position.

2. A keyboard attachment for string instruments including an elongated plate provided with means whereby it may be detachably applied in operative position and having a plurality of openings, a button freely movable within each of the openings, said button being provided with substantially diametrically opposed recesses, and coil springs seated within said recesses and coacting with the wall of the opening for normally maintaining the button in a raised position, the walls of the openings being provided with recesses in which the outer extremities of the springs are seated.

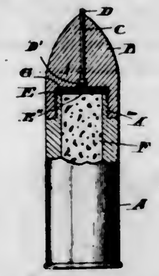
3. In combination with a finger-board of a string instrument provided with frets, a keyboard adapted to overlie the finger-board, blocks depending from the keyboard and having their under surfaces grooved so that said blocks may straddle the frets, and movable buttons carried by and disposed through the keyboard.

1,207,214. BORING AND GRINDING ATTACHMENT FOR HOLLOW-SPINDLE LATHES. FRED T. REID, Hartford, Conn. Filed Jan. 22, 1915. Serial No. 3,732. (Cl. 51—4.)



The combination with a lathe provided with a hollow spindle, of a grinding attachment adapted to be secured to said hollow spindle, comprising a base mounted upon and for rotation with said spindle, the outer face of the base having parallel dove-tailed flanges, a block having parallel dove-tailed walls slidably mounted beneath the base flanges for transverse movement in a plane at right angles to the longitudinal axis of the hollow spindle, a screw journaled on the base plate with the end thereof in engagement with the sliding block for holding the block in adjusted positions, a hollow arm secured at one of its ends to the front of said sliding block, a shaft extending through said arm and spindle, a universal joint forming a portion of that part of said shaft within said hollow arm dividing the same into three sections, removable bearings for said shaft adjacent each end thereof, a tool mounted on said shaft beyond the end of said hollow arm, and driving means mounted on said shaft beyond the end of said hollow spindle.

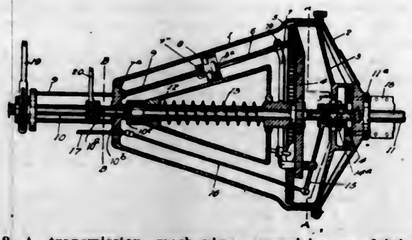
1,207,215. EXPLOSIVE PROJECTILE. ERNESTO RICCIO, New York, N. Y. Filed May 20, 1916. Serial No. 98,771. (Cl. 102—29.)



A projectile comprising a shell containing an explosive charge, a cap detachably secured thereto and having an axial opening, a disk held between the cap and shell and having a central opening aligning with the axial opening in the cap, said opening in the disk having a filling of exploding material, a covering of readily pierceable material on the faces of said disk for retaining the charge therein, and a firing pin slidably fitted in the axial opening of the cap with its outer end extending beyond the cap and having a conical head on its inner end for piercing the disk covering when the pin is driven inward and for holding the pin against outward movement.

1,207,216. POWER-TRANSMISSION MECHANISM. ERVIN E. ROBERTS, San Diego, Cal. Filed Mar. 23, 1914. Serial No. 826,593. (Cl. 74—34.)

1. A transmission mechanism comprising a driving shaft, a driven shaft, a friction cone secured to the driving shaft, a friction cone rotatable and longitudinally movable on the driven shaft, shafts between the cones and parallel thereto, friction wheels longitudinally movable and non-rotatable on the shafts, means to shift the friction wheels, pinions on the extended ends of the shafts, gears engaging said pinions, clutch elements on the driving shaft and gears and a movable clutch element splined to the driven shaft adapted to engage either of said clutch elements.



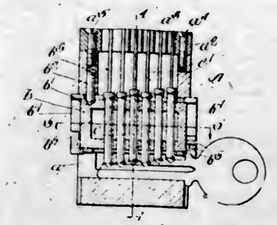
2. A transmission mechanism comprising a driving shaft, a driven shaft, a casing rigidly secured to said driving shaft, a cone mounted on said driven shaft adapted to be shifted longitudinally thereon, a plurality of shafts revolubly mounted between said cone and said casing, gears mounted on the extended ends of said shafts, friction rollers engaging with said cone and said casing adapted to be revolved by said casing and to revolve said cone in the opposite direction, a gear revolubly mounted on said driven shaft, a gear revolubly mounted on said driving shaft, both engaging with said first mentioned gears on said shafts, clutch elements on said driving shaft and gears and a movable clutch element splined to the driven shaft adapted to engage either of said clutch elements.

3. A transmission mechanism comprising a driving shaft, a driven shaft, a casing rigidly secured to said driving shaft, a cone mounted on said driven shaft adapted to be shifted longitudinally thereon, a plurality of shafts revolubly mounted between said casing and said cone, gears mounted on the extended ends of said shafts, friction rollers mounted on said shaft engaging with said cone and said casing adapted to be revolved by said casing and to revolve said cone, a gear revolubly mounted on said driven shaft, a gear revolubly mounted on said driving shaft, both engaging with the gears on said shafts, means for shifting said cone, clutch elements on the driving shaft and gears and a movable clutch element splined to the driven shaft adapted to engage either of said clutch elements.

4. A transmission mechanism comprising a driving shaft, a driven shaft, a casing rigidly secured to said driving shaft, a cone mounted on said driven shaft adapted to be shifted longitudinally thereon, shafts revolubly mounted between said cone and said casing, friction rollers mounted on said shafts engaging with the said cone and said casing adapted to be revolved by said casing and to revolve said cone in the opposite direction, a gear revolubly mounted on said driven shaft, a gear revolubly mounted on said driving shaft, gears mounted on said revolubly mounted shafts engaging with both the gears on said driving shaft and said driven shaft, a clutch element for engaging said driven shaft with said driving shaft, clutch elements on said revolubly mounted gears adapted to engage the clutch element on said driven shaft, means for shifting said clutch element and means for shifting said cone.

5. A transmission mechanism comprising a driving shaft, a driven shaft, a casing rigidly secured to said driving shaft, a cone mounted on said driven shaft adapted to be shifted longitudinally thereon, a plurality of shafts revolubly mounted between said casing and said cone, gears rigidly mounted on the extended ends of said shafts, friction rollers mounted on shafts engaging with said cone and said casing adapted to be revolved by said casing and to revolve said cone, a gear revolubly mounted on said driving shaft, engaging with the gears on said shafts mounted between the casing and said cone, a clutch for connecting said driving shaft with said driven shaft and with the gear revolubly mounted on said driving shaft, means for shifting said clutch, means for shifting said cone, and means for shifting said frictional rollers, whereby the speed of the driven shaft is changed relatively to that of the driving shaft.

1,207,217. ADJUSTABLE KEY-GAGE. JOHN C. ROSS, Boston, Mass. Filed Dec. 24, 1915. Serial No. 68,524. (Cl. 33—174.)



1. A key gage comprising a frame having a key-way and a gage surface, a number of extensible and contractile gage members movably mounted in said frame adapted to make contact with a key in the key-ways and coöperating with the gage surface to indicate in relation to the gage surface the contour of a key in the key-way, and means to vary the relative spacing of said gage members one from another.

2. A key gage comprising a frame having a key-way and a gage surface, a number of extensible and contractile gage members movably mounted in said frame adapted to make contact with a key in the key-way and coöperating with the gage surface to indicate in relation to the gage surface the contour of a key in the key-way, and means to shift some at least of said gage members in a direction lengthwise of the key-way to vary the relative spacing of said gage members one from another.

3. A key gage comprising a frame having a key-way and a gage surface, a number of extensible and contractile gage members movably mounted in said frame adapted to make contact with a key in the key-way and coöperating with the gage surface to indicate in relation to the gage surface the contour of a key in the key-way, and means to shift some at least of said gage members in a direction lengthwise of said key-way progressively varying distances, to vary the relative spacing of said gage members one from another, said means being adapted to maintain substantially equal spaces between the several gage members in all positions thereof.

4. A key gage comprising a frame having a key-way and a gage surface, a number of extensible and contractile gage members movably mounted in said frame adapted to make contact with a key in the key-way and coöperating with the gage surface to indicate in relation to the gage surface the contour of a key in the key-way, and a movable slotted grid adapted to vary the relative spacing of said gage members one from another.

5. A key gage comprising a frame having a key-way and a gage surface, a number of extensible and contractile gage members movably mounted in said frame adapted to make contact with a key in the key-way and coöperating with the gage surface to indicate in relation to the gage surface the contour of a key in the key-way, and a movable slotted grid adapted to shift some at least of said gage members in a direction lengthwise of the key-way to vary the relative spacing of said gage members one from another.

[Claims 6 to 13 not printed in the Gazette.]

1,207,218. PROCESS OF PRODUCING METALLIC DEPOSITS. FRANÇOIS AUGUSTE ROUX, Paris, France, assignor to Société L'Aluminium Francais, Paris, France. Filed Jan. 19, 1914. Serial No. 813,064. (Cl. 91—68.3.)

1. The herein-described process of producing metallic deposits, which consists in subjecting the articles to be

coated, until sufficiently metallized, to the action of a bath containing a solution of a salt of the metal to be deposited and an alkaline hypophosphite.

2. The herein-described process of producing metallic deposits, which consists in subjecting the articles to be coated, until sufficiently metallized, to the action of a bath containing a solution of a salt of the metal to be deposited, and alkaline hyphophosphite and ammonia.

3. The herein-described process of producing metallic deposits, which consists in steeping the articles to be treated, until sufficiently metallized, in a hot bath containing a solution of citrate of nickel, an alkaline hypophosphite and ammonia.

4. The herein-described process of producing metallic deposits upon aluminum-surfaced articles, which consists in subjecting the articles to the action of a bath containing a solution of a salt of the metal to be deposited treated with an alkaline hypophosphite.

5. The herein-described process of producing metallic deposits upon aluminum-surfaced articles, which consists in subjecting the articles to the action of a bath containing a solution of citrate of nickel treated with an alkaline hypophosphite.

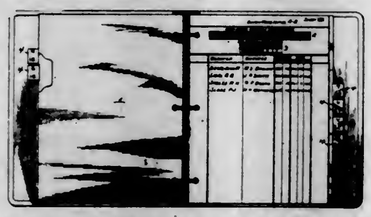
[Claim 6 not printed in the Gazette.]

1,207,219. RAIL-CLAMP. FRED O. RUSH, Wilmington, Del., assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed Apr. 20, 1916. Serial No. 92,553. (Cl. 57—9.)



A rail clamp comprising confronting grappling arms with lower hooked extremities and with confronting rocking surfaces at their upper extremities, a bolt member extending through the upper extremities of said grappling arms and in the plane of the lower hooked extremities, an attaching member carried by said bolt member, and a locking ring slidably embracing the shanks of said grappling arms, and provided with a spreading member located beneath said ring and extending between the said grappling arms.

1,207,220. INDEX. ROBERT C. RUSSELL, Pittsburgh, Pa. Filed Sept. 30, 1915. Serial No. 53,392. (Cl. 11—7.)

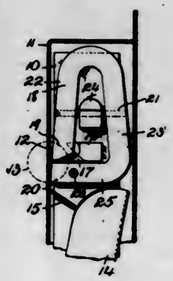


1. An index comprising a group of index elements provided with an initial letter designation and a number corresponding to the same according to the position of the letter in the alphabet, said series of index elements divided into sub-groups according to key letters L—M—N—R—T, and a key comprising the said key letters and numbers corresponding to their position in the key,—the initial letter number and the key letter number being readable together to designate the position in the index where a name being searched may be found.

2. An index comprising a series of index elements provided with a guide having a tab designated to represent the initial letter of sur-names and the number of said letter according to its position in the alphabet, said series of index elements divided into sub-groups provided respectively with guides having tabs designated to represent successively key letters L, M, N, R, T, and numbers corresponding to said key letters.

3. An index comprising a series of index elements provided with a guide having a tab designated to represent the initial letter of sur-names and the number of said letter according to its position in the alphabet, said series of index elements divided into sub-groups provided respectively with guides having tabs designated to represent successively key letters L, M, N, R, T, and numbers corresponding to said key letters, the insert elements of each sub-group being notched successively to expose names on several index elements simultaneously.

1,207,221. FRAUD-PREVENTIVE DEVICE. ÓDO RUZSICSKA, Newark, N. J., assignor of one-sixth to Henry Lieferant and one-sixth to Sam Busch, Newark, N. J. Original application filed Dec. 6, 1915, Serial No. 65,190. Divided and this application filed May 3, 1916. Serial No. 95,265. (Cl. 194—101.)

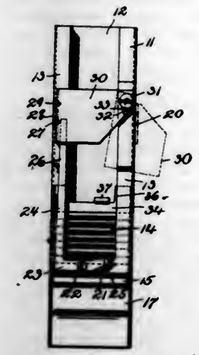


1. A fraud-preventive device comprising a casing with a coin slot in it and having a coin passage with which the said slot communicates, a magnet suspended from a pivot above the coin passage, the lower portion of the magnet forming a wall of the coin passage, and a projection on the side of the magnet adapted to be swung across the coin passage when the magnet is swung on its pivot.

2. A fraud-preventive device comprising a structure having a wall in which there is a coin slot, a triangular magnet having its poles at one of its angles, means for suspending the magnet so that it hangs substantially vertical with its poles just in rear of the coin slot, said poles forming one of the walls of the coin passage, and a stop projecting from the magnet and adapted to lie in the coin passage when the magnet is swung.

3. A fraud-preventive device comprising a goods-chute, a casing with one wall having a coin slot therein, the coin slot being disposed so that the goods-chute forms one side of the coin passage, a triangular magnet having its poles arranged at one of its angles, means for pivotally suspending the magnet so that the major portion of its weight is below the pivot, the pivot being disposed so that the poles of the magnet form the wall of the coin passage opposite the goods-chute, and a stop in the bottom arm of the triangular magnet.

1,207,222. SLOT-CLOSING DEVICE FOR COIN-CONTROLLED MACHINES. ÓDO RUZSICSKA, Newark, N. J., assignor of one-sixth to Henry Lieferant and one-sixth ot Sam Busch, Newark, N. J. Original application filed Dec. 6, 1915, Serial No. 65,190. Divided and this application filed May 10, 1916. Serial No. 96,476. (Cl. 194—1.)



1. A slot closing device comprising a goods-chute adapted to hold articles to be ejected from the bottom thereof, a plate swinging on the goods-chute, tripping means for supporting the plate in its inoperative position, and a follower resting on the articles in the chute and adapted to actuate the tripping means and to withdraw the support from the plate when the last article is expelled from the chute, the parts being so disposed that when its support is withdrawn the plate swings in front of a slot in the machine.

2. A slot closing device comprising a goods-chute, the goods-chute being adapted to support articles ejected from the bottom thereof, a right-angled lever mounted on the chute, a pivot for the lever intermediate of the ends of one of its arms, a plate adapted to be supported and tripped by said right-angled lever, and a follower on the goods in the chute and adapted to trip the lever as the last article is expelled from the chute and to thereby withdraw the support from the plate.

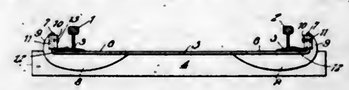
3. A slot closing device comprising a goods-chute having an opening down the front, the chute being adapted to contain goods ejected from the bottom thereof, a follower on the goods with a lip extending through the opening in the front, a plate adapted to swing so as to close a slot in the machine and also to be swung to an inoperative position, and tripping means for supporting the plate in its inoperative position, said tripping means being actuated by the follower to withdraw the support from the plate as the last article is ejected from the chute.

4. A slot closing device comprising a goods-chute adapted to contain articles dispensed from the bottom thereof, the chute having a vertically arranged opening, a follower on the goods, a lip on the follower extending through the opening in the chute, a right-angled lever having a horizontal arm and an upright arm, the horizontal arm being pivoted intermediate of its length, a plate pivoted at one end to the chute, and coacting means on the upright arm and on the plate for supporting the plate in an inoperative position against the action of gravity, the lip of the follower being adapted to engage the horizontal arm of the lever to withdraw the support from the plate.

5. A slot closing device comprising a goods-chute adapted to contain articles ejected from the bottom of the chute, the chute having a vertically arranged opening, a follower on the goods with a lip projecting through said opening, a right-angled lever with a horizontal arm and an upright arm, the horizontal arm being pivoted with its end in the path of the lip on the follower, a pin on the upright arm, and a closing plate pivoted near one end and having a flange on its other end, the flange having an opening to receive the pin of the upright arm and to normally support the plate against the action of gravity.

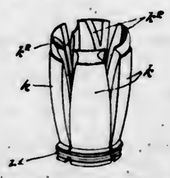
[Claim 6 not printed in the Gazette.]

1,207,223. ANTISPREADING DEVICE FOR RAILS. ELMER SAUVAIN, Agenda, Kans. Filed Mar. 10, 1916. Serial No. 83,301. (Cl. 238—5.)



An anti-spreader for rails, comprising a body, the ends of said body portion being upturned to provide shoulder portions, a detachable rail member slidably mounted on the said shoulder comprising, a body portion, a section of the body extending laterally and slightly upward to conform to the slanting upper surface of a rail base, the marginal edges of the body being flexed to provide means for engaging the said shoulders and means for locking said clamping member to the shoulder for a purpose specified.

1,207,224. CARBURETER. CHARLES SCHLAYER, New York, N. Y., assignor of one-half to Charles W. Jacob, New York, N. Y. Filed Dec. 26, 1912. Serial No. 738,553. (Cl. 261—44.)



1. A carbureter embodying therein a spraying nozzle, means delivering liquid hydrocarbon thereto, a mixing chamber having an offtake port leading therefrom, an air intake communicating therewith, means adjacent the wall of said chamber and the discharge end of said air intake whereby the mixture has a whirling motion in one direction imparted thereto, and means adjacent said offtake arranged adjacent the walls of said chamber, whereby said mixture has a whirling motion in the opposite direction imparted thereto, the central portion of said chamber being unobstructed by said means.

2. A carbureter embodying therein a spraying nozzle, means delivering liquid hydrocarbon thereto, a mixing chamber having an offtake port leading therefrom, an air intake communicating therewith, a plurality of helical or curved tongues adjacent the wall of said chamber and the discharge end of said air intake, whereby the mixture has a swirling motion in one direction imparted thereto, and a plurality of helical or curved tongues adjacent the wall of said chamber and within the said offtake, said last named tongues being pitched reversely to said first named tongue whereby the mixture has a swirling motion in the opposite direction imparted thereto, the central portion of said chamber being unobstructed by said tongues.

3. A carbureter embodying therein a spraying nozzle, means delivering liquid hydrocarbon thereto, a mixing chamber having an offtake port leading therefrom, a mixing tube surrounding said nozzle, means whereby said tube may be expanded and contracted to vary the volume of air delivered to said mixing chamber, and means carried by said tube whereby a swirling motion is imparted to the air passing therethrough.

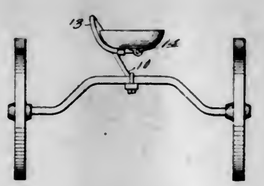
4. A carbureter embodying therein a mixing tube comprising a plurality of movable shutters, pivotally supported adjacent the intake end thereof, a spring acting

thereon having a normal tendency to separate the other end thereof, a cam adapted to engage and close said shutters against the tension of said spring, and means whereby the relative position of said shutters and said cam may be varied to control the capacity of said tube.

5. A carbureter embodying therein a spraying nozzle having a discharge port of fixed capacity, a mixing chamber having an offtake port leading therefrom, an adjustable valve controlling the rate of flow of the mixture through said mixing chamber and the pressure about said nozzle, a reciprocatory, expansible mixing tube having a fixed intake capacity, means adapted with the reciprocation of said tube to vary its capacity adjacent said nozzle whereby the volume of air passing through said tube and the pressure about said nozzle may be simultaneously and inversely varied to cause a proportionate increase or decrease in the volume of air and hydrocarbon entering said mixing chamber, and connections between said valve and said tube whereby they are simultaneously actuated to proportion the capacity of said tube to the rate of flow of the mixture.

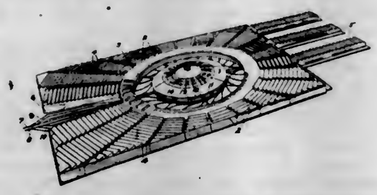
[Claims 6 to 16 not printed in the Gazette.]

1,207,225. RIDING ATTACHMENT FOR AGRICULTURAL MACHINES. ROBERT SCHLEUSENER, Bancroft, Nebr. Filed Mar. 1, 1916. Serial No. 81,458. (Cl. 155—25.)



A riding attachment for an agricultural machine comprising a resilient bar detachably carried by the machine and extending rearwardly therefrom, said bar having its rear portion curved laterally and upwardly and again in a lateral direction, and a seat member secured to the last-named laterally directed portion of the bar.

1,207,226. TERMINAL WAREHOUSE. AUGUST SCHILLING, Woodside, Cal. Filed Aug. 21, 1916. Serial No. 116,211. (Cl. 104—62.)



1. A warehouse comprising a central assembling and re-distributing court, a plurality of independent storage warehouses radiating therefrom and communicating at one end therewith, and railway trackage leading from said court to a distant point and providing a means for intercommunication between said respective storage warehouses and between said warehouses and said court.

2. A warehouse comprising a central assembling and re-distributing court, a plurality of independent storage warehouses radiating therefrom and communicating at one end therewith, ship docking piers communicating with said court and storage warehouses, and railway trackage leading from said court to a distant point, and providing a means for intercommunication between said court, piers, and storage warehouses.

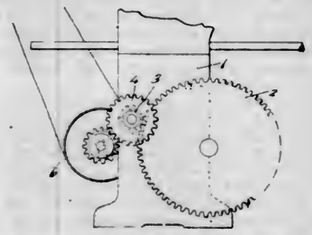
3. A warehouse comprising a central assembling and re-distributing court provided with a turn-table in the center thereof, a plurality of segmental platforms radiating therefrom and each separated by a passageway, a plurality of independent storage warehouses radiating from said court and communicating therewith at one end, and railway trackage leading from said court to a distant point and providing through said turn-table and also independently thereof intercommunication between said independent storage warehouses and said platforms, and between said respective storage warehouses.

4. A warehouse comprising a central assembling and re-distributing court, a plurality of independent storage warehouses radiating therefrom and communicating at one end therewith, railway trackage leading from said court to a distant point, railway trackage in said storage warehouses and communicating with the trackage in said court, and loading and distributing platforms in said storage warehouses adjacent the trackage therein.

5. A warehouse comprising a central assembling and re-distributing court, a plurality of independent storage warehouses radiating therefrom and communicating at one end therewith, a telpher system connecting said storage warehouses, and railway trackage leading from said court to a distant point and providing a means of intercommunication between said respective storage warehouses and between said warehouses and court.

[Claims 6 to 12 not printed in the Gazette.]

1,207,227. MACHINE ELEMENT. CHARLES SEYBOLD, Dayton, Ohio. Filed Aug. 3, 1914. Serial No. 854,651. Cl. 74—8.)



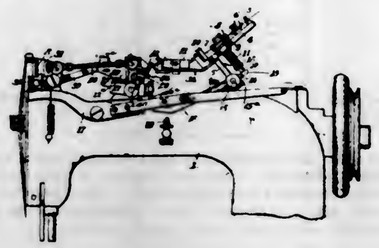
1. In a power driven machine, a shaft, provided with an elongated lug on the end thereof, a gear for transmitting power to said shaft mounted on the shaft, the gear provided with lugs on the face thereof, said lugs being in line with each other, and a breakable washer having a single groove to engage the gear lugs and the shaft lug, and means for securing the washer against the end of the shaft.

2. In a power driven machine, a shaft, a gear revoluble on the shaft, said shaft at its end provided with a transverse lug, the gear having lugs on the face thereof of a shape and length to form a continuation from both ends of the shaft lug when the gear is at the end of the shaft, and a washer having a single slot to engage said lugs, and having means for mounting it against the end of the shaft.

1,207,228. THREAD-CONTROLLING DEVICE FOR SEWING-MACHINES. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 4, 1911. Serial No. 658,554. (Cl. 112—39.)

1. A sewing machine including in combination an overhanging arm, a supporting plate, a plurality of separate tensions carried by said plate each including a supporting stud extending through the plate, a spring surrounding said supporting stud, tension disks carried by each stud and held yieldingly in contact by the spring, a bar common to all of said studs, and means for moving the bar to actuate said studs to simultaneously release the tensions.

2. A sewing machine including in combination an overhanging arm, a supporting plate attached to said arm, a plurality of independent tensions arranged in a line across the overhanging arm, each of said tensions including a supporting stud, tension disks carried thereby, a spring for each stud for yieldingly pressing said tension disks together, a bar common to all of said studs to actuate the same, a shaft, arms carried by the shaft and supporting said bar, and means connected to said shaft for oscillating the same to simultaneously release the tensions.



3. A sewing machine including in combination, an overhanging arm, a bracket mounted thereon, a supporting plate carried by the bracket, a plurality of separate tensions carried by said plate and arranged in a line extending across said plate, each of said tensions including a supporting stud extending through the plate, tension disks carried by each stud, a spring for holding said tension disk yieldingly in contact, a bar common to all the studs, means for moving the bar to actuate the studs to simultaneously release the tensions, a plurality of thread controlling devices arranged centrally over said arm, and guiding devices for bringing the thread passing through the tension devices together and guiding the same to the said controlling devices.

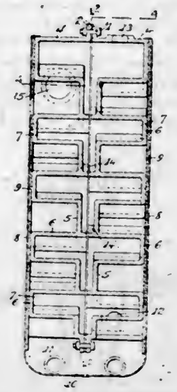
4. A sewing machine including in combination, an overhanging arm, a needle bar having needle guides at the upper end, and tension devices for a plurality of needle threads carried by said overhanging arm, and symmetrically disposed on each side of a center line passing through the arm, a pull-off device, thread clamps, a slack thread controller, and guides located substantially in a line passing through the guides at the upper end of the needle bar and centrally between said tension devices, whereby the needle threads passing through the tension devices may be brought together centrally over the arm and led directly through the controlling devices through the needle bar.

5. A sewing machine including in combination, an overhanging arm, a presser bar, a lever for lifting said presser bar, tension devices, a supporting plate for said tension devices, a bracket carried by the overhanging arm on which said supporting plate is mounted, a bar for releasing simultaneously said tensions, means for swinging said bar including an arm adapted to be engaged by the presser foot lifting lever, whereby when the presser foot is raised the tension would be released.

[Claim 6 not printed in the Gazette.]

1,207,229. WATER-HEATER. SAMUEL J. SHARP, Wheeling, W. Va. Filed Dec. 2, 1915. Serial No. 64,694. (Cl. 122—210.)

1. A water heating unit comprising a pair of similar sections: each section consisting of side walls, a division wall extending from one side wall to the other and located adjacent to the front edges of said side walls, an inclosing cover fixed over the rear edges of said side walls, and a plurality of receptacles extending rearward from said division wall and opening outward through the latter to constitute pockets; said receptacles being directed laterally from opposite side walls and being of less length than the distance between the latter; said division wall, cover and receptacles being relatively disposed to form a tortuous passage for heat, and said sections being connected face to face to form a central passage for water defined by the opposing division walls and pockets.



2. A water heating unit comprising a pair of similar sections; each section consisting of side walls, a division wall extending from one side wall to the other and located adjacent to the front edges of said side walls, an inclosing cover fixed over the rear edges of said side walls, and a plurality of receptacles extending rearward from said division wall and opening outward through the latter to constitute pockets; said receptacles being directed laterally from opposite side walls and being of less length than the distance between the latter; said division wall, cover and receptacles being relatively disposed to form a tortuous passage for heat, and sections being connected face to face to form a central passage for water defined by the opposing division walls and pockets.

3. A water heating unit comprisisg a pair of similar sections; each section consisting of side walls, a division wall extending from one side wall to the other and located adjacent to the front edges of said side walls, an inclosing cover fixed over the rear edges of said side walls, and a plurality of receptacles extending rearward from said division wall and opening outward through the latter to constitute pockets, said receptacles being directed laterally from opposite side walls and being of less length than the distance between the latter; said division wall, cover and receptacles being relatively disposed to form a tortuous passage for heat, said sections being connected face to face to form a central passage for water defined by the opposing division walls and pockets, and deflecting ribs formed on the front faces of the division walls whereby said water passage is rendered tortuous.

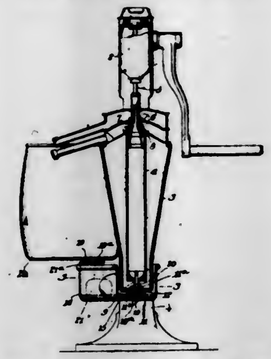
4. A water heating unit comprising a pair of similar sections; each section consisting of side walls, a division wall extending from one side wall to the other and located adjacent to the front edges of said side walls, an inclosing cover fixed over the rear edges of said side walls, and a plurality of receptacles extending rearward from said division wall and opening outward through the latter to constitute pockets, said pockets being disposed in staggered relation; said division wall, cover and receptacles being relatively disposed to form a tortuous passage for heat, and said sections being connected face to face to form a central passage for water defined by the opposing division walls and pockets.

5. A water heating unit comprising a pair of similar sections; each section consisting of side walls, a division wall extending from one side wall to the other and located adjacent to the front edges of said side walls, an inclosing cover fixed over the rear edges of said side walls, and a plurality of receptacles extending rearward from said division wall and opening outward through the latter to constitute pockets, said pockets being disposed in staggered relation and having an in-

clined disposition; said division wall, cover and receptacles being relatively disposed to form a tortuous passage for heat, and said sections being connected face to face to form a central passage for water defined by the opposing division walls and pockets.

[Claims 6 to 9 not printed in the Gazette.]

1,207,230. CENTRIFUGAL MACHINE AND METHOD. LAURENCE P. SHARPLES, West Chester, Pa. Filed Apr. 27, 1915. Serial No. 24,208. (Cl. 233—21.)



1. In a centrifuge machine, a revoluble bowl having an outlet adapted for exhausting it and an inlet through which feeding is effected by the exhausting action, in combination with a guard for said inlet, and means for holding a supply of liquid in communication with said inlet.

2. In a centrifugal machine, a revoluble bowl having an outlet adapted for exhausting it and an inlet through which feeding is effected by the exhausting action, in combination with means for lessening the agitation of liquid in proximity to said inlet and facilitating the suction of said liquid through said inlet.

3. In a centrifugal machine, liquid supply means, in combination with a revoluble bowl having a bottom inlet and higher outlets adapted for sucking liquid from said supply means through said inlet, and means (in addition to said supply means) providing a passageway communicating with said inlet and adapted to be sealed by the liquid supply.

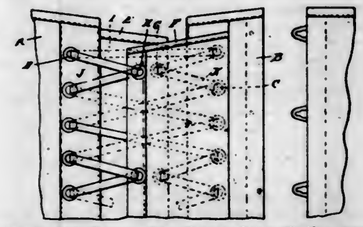
4. In a centrifugal machine, liquid supply means, a revoluble bowl having a bottom inlet and higher outlets adapted for exhausting the revolving bowl and sucking liquid from said supply means through said inlet, in combination with means for both steadying the bottom of the bowl and conveying liquid from said means to said inlet.

5. In a centrifugal machine, a suspended revoluble bowl having an axial bottom boss containing an inlet and higher discharge passages adapted for exhausting the revolving bowl, so that liquid adjacent to said inlet will be sucked therethrough, a liquid supply means with which said inlet communicates and from which liquid is sucked into said bowl, and a steadying device engaging said boss and opposing frictional resistance to lateral movement of the revolving bowl.

[Claims 6 to 10 not printed in the Gazette.]

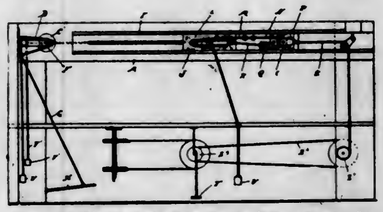
1,207,231. CORSET. JOSEPH SIEGEL, Detroit, Mich., assignor to American Lady Corset Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 6, 1914. Serial No. 829,063. (Cl. 2—74.)

In a corset, the combination with adjacent sections each provided with a series of eyelets for connection by a lacing, of lacing protecting flaps secured to the respective sections and adapted to overlap each other, each of said flaps being provided with eyelets along its outer edge, and a lacing comprising long loops for connecting the eyelets of said sections and short loops for connecting the



eyelets of said flaps with the eyelets of the opposite section.

1,207,232. MACHINE FOR MEASURING AND TESTING CORSETS. HERBERT CUSHING SMITH, Detroit, Mich., assignor to American Lady Corset Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 1, 1915. Serial No. 5,404. (Cl. 73—51.)



1. A corset testing machine, comprising means for engaging alined edges of the complementary sections, and means for individually engaging the opposite edges of said sections and for simultaneously placing an equal tension thereupon.

2. A corset testing machine, comprising means for engaging alined edges of complementary corset sections, means for individually engaging the opposite edges of said sections, tensioning means, and means for equalizing the tension upon the complementary sections.

3. A corset testing machine, comprising means for engaging alined edges of complementary corset sections, means for individually engaging the opposite edges of said sections, a pedal-controlled member for relatively moving the engaging means for the opposite edges of the sections, and an equalizing connection between the individual engaging means for said sections.

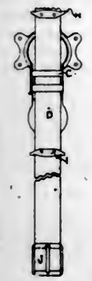
4. A machine for testing corsets, comprising a frame, a pedal-operated clamp upon said frame for engaging alined edges of complementary corset sections, a slidable member mounted on said frame, engaging devices upon said slidable member for individually engaging the opposite edges of said complementary sections, an equalizing connection between said individual engaging devices, and a pedal for operating said slide and for placing an equal tension upon said sections.

5. A corset testing machine, comprising a frame, a clamp mounted on said frame for engaging alined edges of the complementary corset sections, a pedal for tightening said clamp, a pair of devices for individually engaging the opposite edges of said sections, pedal-actuated means for drawing upon said individual engaging devices, and equalizing means for the tension thereon.

[Claims 6 to 10 not printed in the Gazette.]

1,207,233. STRAP-LOCKING DEVICE. OBBELIN SMITH, Bridgeton, N. J., and MILES G. NIXON, Chicago, Ill. Filed July 22, 1916. Serial No. 110,768. (Cl. 70—115.)

1. The combination of a trunk lock having a hasp, a trunk strap, and a strap engaging element extending over the hasp and strap and having stops to limit sliding movement of the strap and prevent its separation from said element.



2. A device of the class described having means for attachment to the hasp of a lock, and a strap engaging element adapted to lie over the outer side of the hasp and serving to slidably confine a strap over the hasp.

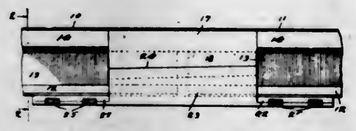
3. A device of the class described comprising a member that extends on all four sides of the lock hasp, a portion on one side of the hasp being pivoted, and having a strap guide through which the strap has a limited sliding movement.

4. A device of the class described comprising a member that extends on all four sides of the lock hasp, a portion on one side of the hasp being pivoted and having a strap guide through which the strap has a limited sliding movement, said guide being formed by offsetting a portion of the member.

5. The combination with a lock having a hasp, a strap-securing device detachably connected with the hasp, and having on the outer side of the hasp an element that overlies the strap and allows sliding movement of the strap.

[Claim 6 not printed in the Gazette.]

1,207,234. RAIL JOINT AND CHAIR. KARL RAYMOND SNYDER, Connellsville, Pa. Filed June 3, 1915. Serial No. 31,908. (Cl. 239—6.)



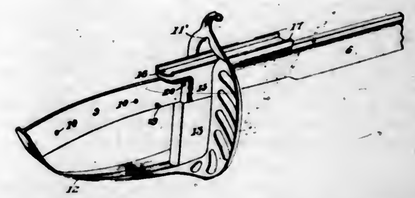
The combination with a pair of rails having the ball portion thereof cut away to form extensions at adjacent ends thereof, of a saddle seated on said extensions, plates depending from said saddle in contact with the sides of said extensions, lateral flanges on said plates fitting the upper face of the base flanges of the rails, the upper faces of said flanges slanting longitudinally toward one end, a chair portion fitting beneath said rails, standards on said chair portions projecting upwardly on each side of said rails, inwardly directed blocks carried by said standards and fitting the upper faces of said first named flanges, the under faces of said blocks slanting longitudinally toward one end whereby a wedging action is formed between the slanting faces thereof and the slanting of the face of said first named flanges such as will draw said saddle firmly upon said extensions and bind the base flanges of said rails and said chair against relative movement.

1,207,235. PISTOL-SWORD. ANTON SOLMAN and ALBIN SLIWINSKI, Pittsburgh, Pa. Filed Sept. 7, 1916. Serial No. 118,840. (Cl. 42—53.)

1. In combination with the sliding barrel of an automatic pistol, an integral sword structure including a saber, a hilt, a cartridge casing, and a cradle for supporting the pistol barrel.

2. In combination with the barrel of an automatic pistol, a sword structure including a saber and a cradle formed integral with the saber for supporting the barrel.

3. In combination with the barrel of an automatic pistol, a sword structure including a saber, a cartridge casing, and a cradle formed integral with the saber and casing and centrally disposed relative thereto, the said barrel adapted to be slidably mounted within the cradle for automatic operation.

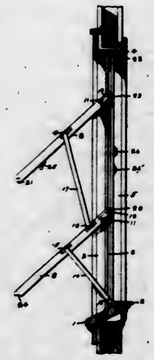


4. A pistol sword comprising a sword element including an integrally formed hilt, a cartridge casing, a saber, a cradle superposed upon said cartridge casing and saber, and an automatic sliding pistol barrel mounted in said cradle.

5. A pistol sword comprising a cartridge casing carried by the sword element, and a cradle formed integral with said sword and extending forwardly thereover, and an automatic sliding pistol barrel mounted in said cradle.

[Claim 6 not printed in the Gazette.]

1,207,236. DOUBLE-SASH-WINDOW MOUNTING. ARTHUR C. SOULE, San Francisco, Cal., assignor to Simplex Window Company, San Francisco, Cal., a Corporation of California. Filed Apr. 14, 1915. Serial No. 21,380. (Cl. 20—42.)



1. A window sash mounting comprising a frame, a sash having one end slidably pivoted in said frame, the other end being free, rigid supporting means movably connecting said sash and said frame, a superposed sash also having one end slidably pivoted in said frame, the other end being free, and rigid means movably connecting said sashes between the ends thereof.

2. A window sash mounting comprising a frame, a sash having one end slidably pivoted in said frame, the other end being free, a support mounting between said sash and said frame, a superposed sash also having one end slidably pivoted in said frame, and arms pivoted to both sashes between the ends thereof.

3. A window sash mounting comprising a frame, a sash having one end slidably pivoted in said frame, the other end being free, arms pivoted to said sash and also to said window frame, a superposed sash also having one end
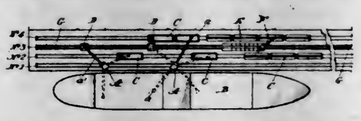
slidably pivoted in said frame, the other end being free, and rigid means movably connecting said sashes between the ends thereof.

4. A window sash mounting comprising a frame, a sash having one end provided with frictional pivots slidably engaging said frame, the other end being free, a support mounting between said sash and said frame, a superposed sash also having one end provided with frictional pivots slidably engaging said frame, the other end of the sash being free, and rigid means movably connecting said sashes between the ends thereof.

5. A window sash mounting comprising a frame having guide grooves, friction shoes slidable in said grooves, a sash pivotally attached at one end to said shoes, supporting means between the sash and the frame, a superposed sash slidably pivoted in said frame, control arms each attached at one end to said superposed sash, the other ends of said arms being in slidable engagement with said shoes.

[Claim 6 not printed in the Gazette.]

1,207,237. APPARATUS FOR LOADING AND UNLOADING. FRANCIS LEE STUART, Baltimore, Md. Filed Apr. 3, 1916. Serial No. 88,666. (Cl. 214—1.)



1. The combination with two parallel tracks for cars, of a third track between and parallel with those first mentioned and a fourth track also parallel with the other tracks, a movable crane supported on said last mentioned track, a movable hopper on the track between the car supporting tracks and to which the crane delivers, and loading apparatus comprising a conveyer belt receiving material from the hopper, and a boom conveyer to which the belt delivers mounted to swing in a vertical plane and to turn in a horizontal plane, substantially as hereinbefore described.

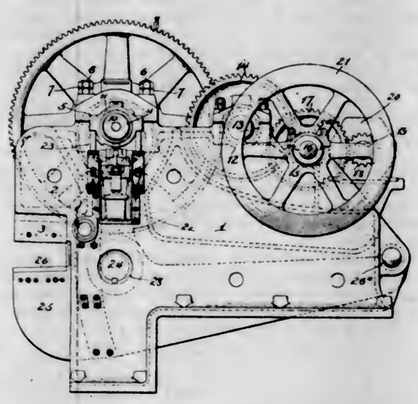
2. The combination of parallel car supporting tracks, a conveyer belt between said tracks, a tripper reeved with said belt, a track between the car supporting tracks on which said tripper is supported and on which it is movable to any desired extent while still maintaining its operative relation with the conveyer belt, a conveyer to which said tripper delivers and which is mounted to move about a vertical axis to extend to a box or gondola car on either side of the tripper, a hopper delivering to the main conveyer belt, and a crane mounted to move in a direction parallel with that of the conveyer belt and to deliver to said hopper or to cars on said car supporting tracks.

3. The combination of two tracks for supporting cars to be loaded, an intermediate track arranged between said first mentioned tracks, a hopper adapted to move over said intermediate track, another track arranged parallel with said intermediate track, hoisting and delivering apparatus movable on said track and delivering to cars to be loaded or to said hopper, a conveyer belt receiving material from the hopper, and loading apparatus connected with said belt movable on said intermediate track and provided with means for delivering to box, gondola or other cars or carriers on either side of said conveyer belt.

4. The combination of a series of tracks placed side by side, some of which are adapted to support cars to be loaded, a movable crane supported on one of said tracks and adapted to deliver directly to the cars, a movable hopper supported by another of said tracks between the car supporting tracks, a conveyer belt beneath said hopper, a tripper associated with said conveyer belt supported on the same track with the hopper and movable on said track to any desired position between the car supporting tracks, and a conveyer associated with the tripper and movable about a vertical axis to deliver to either box or gondola cars on either side of the tracks.

5. The combination with four parallel tracks, two of which support cars, of a crane supported by and movable on another of said tracks and provided with a boom conveyer delivering to cars on either of the car supporting tracks, a hopper supported by and movable on a track located between the car supporting tracks and to which the crane also delivers, a conveyer belt receiving material from the hopper, and a delivery conveyer receiving material from said conveyer belt, which is mounted to turn about a vertical axis and is adapted to deliver to cars on either of the two car supporting tracks.

1,207,238. BLOOM-SHEARS. CLARENCE L. TAYLOR, Alliance, Ohio, assignor to The Morgan Engineering Company, Alliance, Ohio. Filed Mar. 16, 1916. Serial No. 84,627. (Cl. 164—41.)

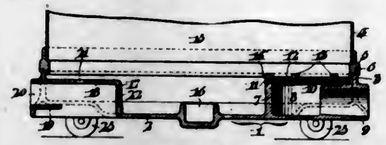


1. In bloom shears, the combination of a frame having bearings for the main and driving shafts and a projecting nose carrying a knife, main and driving shafts mounted in said bearings, a knife carrying lever pivoted at its rear end to said frame and projecting at the front beyond the frame and carrying a knife coacting with the knife of the projecting nose, and lifting means carried and actuated by the said main shaft and connected with the knife carrying lever.

2. In bloom shears, the combination of an integral frame having bearings for the main and driving shafts and a projecting nose at its front end, a knife secured to said nose and constituting the upper cutter, main and driving shafts mounted in said bearings, the main shaft having a crank, a knife carrying lever pivoted at its rear end to said frame and projecting at the front end beyond the frame and carrying a knife coacting with the knife on the projecting nose and a link carried by the crank on the main shaft and connected with the knife carrying lever nearer the free end of the latter.

3. In bloom shears, the combination with an integral frame having a projecting integral nose at it sfront end, a main crank shaft mounted on said frame, driving mechanism and a motor also mounted on the frame, a knife secured to said projecting nose and constituting the upper cutter of the shear, a lever located within the opening at the front below the nose, the said lever being pivoted at its rear end to the frame, removable wearing plates secured within the opening through which the lever projects at the front, a knife secured to the lever and coacting with the knife secured to the nose, and a link connecting the crank and lever for lifting the free end of the latter.

1,207,239. VACUUM-CLEANER MUFFLER. JOSEPH H. TEMPLIN, Philadelphia, Pa., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Jan. 5, 1912. Serial No. 669,539. (Cl. 230—5.)

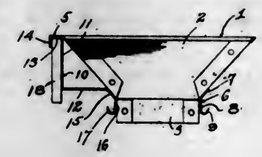


1. A vacuum cleaner having a suitable outlet passage and a muffler composed of permeable material extending across the passage leading to the outlet, and means for supporting said muffler.

2. A vacuum cleaner comprising a supporting base having an outlet at one side thereof, a flange carried by said base, and forming a chamber in proximity to the outlet, and a muffler composed of permeable material for closing one end of said chamber.

3. A vacuum cleaner comprising a supporting base, having an outlet at one side thereof, a flange carried by said base and forming a chamber in proximity to the outlet, a plurality of spaced perforated plates, extending across the opening leading to the chamber and a layer of felt between the perforated plates, and also extending across the opening leading to the chamber.

1,207,240. SACK-HOLDER. MARK W. THOMPSON, Vassar, Mich. Filed Jan. 7, 1916. Serial No. 70,870. (Cl. 83—26.)

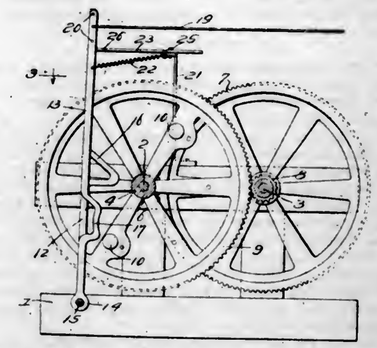


A bag holder comprising a hollow inverted frusto-pyramidal body, a spout at the lower end thereof, an outwardly extending flange formed on the upper edge of the rear wall of said body, brackets comprising vertical arms, horizontal arms in the upper end of the vertical arms, means for securing the horizontal arms to the under sides of the flange, a downturned flange on the rear end of the horizontal arms, said flange engaging a support for holding the body in a horizontal position, horizontal brace arms at the lower terminals of the vertical arms of the brackets, and attaching elements at the forward end of the brace arms, means securing the attaching elements to the body, a depending portion at the lower end of the attaching elements, said depending portions terminating into hooks adapted to support a bag around the spout of the body, said vertical arms of the brackets forming a support for holding the body against displacement.

1,207,241. MECHANICAL MOVEMENT. ROGER V. TUCKER, Byers, Tex. Filed May 5, 1916. Serial No. 95,647. (Cl. 74—1.)

1. A mechanism of the character described embodying a rotatable wheel having an outstanding member, a pair of levers with which said member is engageable in succession to be swung thereby, and means adapted to be carried by the wheel for holding one lever in displaced position when moved by said member.

2. A mechanism of the character described embodying a frame, a rotatable wheel carried thereby having an outstanding member, a pair of levers fulcrumed to the frame and adapted to be operated in succession by said member, a stop carried by the frame against which said levers are adapted to rest, and springs for moving said levers against said stop.



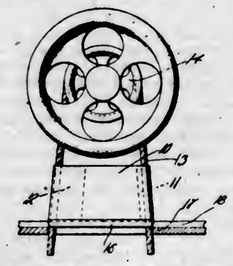
3. A mechanism of the character described, comprising a frame, a rotatable wheel carried thereby having an outstanding member at one side, a lever having a cam disposed in the path of said member to be moved thereby, said lever being fulcrumed to the frame, an adjustable stop carried by the frame against which said lever rests when in normal position, and a spring for moving the lever against said stop.

4. A mechanism of the character described, comprising a frame, a rotatable wheel carried thereby having an outstanding member, a pair of levers fulcrumed to the frame to be operated in succession by said member, an arch carried by the frame, springs connecting said levers and arch, and an adjustable bar carried by said arch having a T-head against which said levers are moved by the springs.

5. A mechanism of the character described comprising a rotatable wheel having an outstanding member, a pair of levers adapted to be engaged in succession by said member, and an arcuate track carried by said wheel in rear of said member for holding one lever in displaced position.

[Claim 6 not printed in the Gazette.]

1,207,242. BELT-GUIDE FOR SEWING-MACHINES. DANIEL TURNER, Peekskill, N. Y. Filed Feb. 25, 1916. Serial No. 80,457. (Cl. 74—56.)



1. A supporting table, a machine resting upon said table and including a pulley wheel and provided with a base, a driving belt passing through said table and the base of said machine and around said pulley wheel, and a guide provided with a lower tongue fitting upon the base and terminating in a depending flange engaging the edge face of the base to hold said guide in place, said guide having end tongues bent to engage said belt to prevent transverse movement of the belt when in motion.

2. A guide of the character described formed from a plate and having its end portions provided with tongues bent back to extend in spaced relation to the body por-

tion of the plate and provide belt receiving channels, the body portion beneath said tongues being bent outwardly to provide a supporting tongue having its free edge portion bent downwardly to provide an anchoring flange.

1,207,243. PROCESS FOR THE RECOVERY OF METALS FROM ORES AND THE LIKE. CHARLES S. VADNER, Butte, Mont. Filed May 23, 1916. Serial No. 99,465. (Cl. 75—18.)

1. In the art of recovering copper and other metals from mineral matter and the like consisting in treating the naturally oxidized or sufficiently roasted sulfid ore with sulfurous gases and the like in the presence of heat and a solution containing at least one of the common chlorids that can react, for the purpose of effecting the desired reactions, leaching out the metals from the mineral matter eliminating excess acidity of solution, passing air through same thereby precipitating iron as ferric oxid, eliminating same, further eliminating excess acidity of solution and sufficiently heating same whereby copper is precipitated as cuprous chlorid.

2. In the art of recovering copper and other metals from mineral matter and the like consisting in treating the naturally oxidized or sufficiently roasted sulfid ore with sulfurous gases and the like in the presence of heat and a solution containing at least one of the common chlorids that can react, for the purpose of effecting the desired reactions, leaching out the metals from the mineral matter eliminating excess acidity of solution by suitable means, sufficiently heating the solution to precipitate the copper as cuprous chlorid, eliminating the cuprous chlorid and recovering the copper.

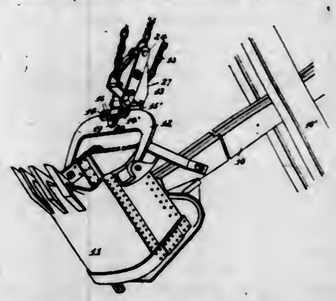
3. In the art of recovering copper and other metals from mineral matter and the like consisting in treating the naturally oxidized or sufficiently roasted sulfid ore with sulfurous gases and the like in the presence of heat and a solution containing at least one of the common chlorids that can react, for the purpose of effecting the desired reactions, leaching out the metals from the mineral matter eliminating excess of SO_2 gas, sufficiently oxidizing the solution and treating same with the carbonate of a metal whereby the ferric hydrate formed reacts with any arsenic present eliminating same from the solution, sufficiently heating the solution to precipitate and recover the copper as cuprous chlorid.

4. In the art of recovering copper and other metals from mineral matter and the like consisting in treating the naturally oxidized or sufficiently roasted sulfid ore with sulfurous gases and the like in the presence of heat and a solution containing at least one of the common chlorids that can react, for the purpose of effecting the desired reactions, leaching out the metals from the mineral matter eliminating excess acidity of solution, passing air through same thereby precipitating iron, eliminating same, adding sufficient additional neutralizing agent whereby the passage of more air through the solution completely precipitates the iron as ferric oxid, eliminating the ferric oxid and sufficiently heating the solution meanwhile neutralizing any excess acidity of solution, whereby copper is precipitated as cuprous chlorid, eliminating the cuprous chlorid and recovering the copper.

5. In the art of recovering copper and other metals from mineral matter and the like consisting in treating the naturally oxidized or sufficiently roasted sulfid ore with sulfurous gases and the like in the presence of heat and a solution containing at least one of the common chlorids that can react, for the purpose of effecting the desired reactions, leaching out the metals from the mineral matter eliminating excess acidity of solution, passing air through same thereby precipitating iron as ferric oxid, eliminating same, further eliminating excess acidity of solution, sufficiently heating same whereby copper is precipitated as cuprous chlorid, cooling the solution and recovering the sodium sulfate.

[Claims 6 and 7 not printed in the Gazette.]

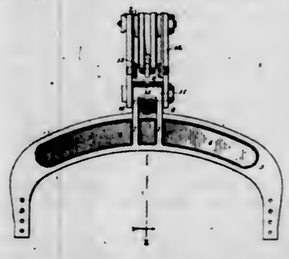
1,207,244. PULLEY-BLOCK AND CONNECTION FOR DIPPER-BUCKETS. ELLISON EDWARD VANDERHOEF, Ruth, Nev., assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed June 19, 1915. Serial No. 35,012. (Cl. 37—16.)



1. An apparatus of the class described, comprising a dipper bail and a pulley block with a cylindrical attaching pin, a pair of spaced blocks located on each side of said bail, a cover plate connecting each pair of blocks and extending across the space therebetween, and a U-shape yoke with a cylindrical opening at its closed end pivotally receiving the attaching pin of the pulley block therethrough, the arms of said yoke projecting through the openings defined by the bail, spaced blocks and cover plates, and means at the ends of said arms and projecting therefrom, preventing the yoke from becoming withdrawn from said openings.

2. An apparatus of the class described, comprising a dipper bail and a pulley block with a cylindrical attaching pin, a pair of spaced blocks located on each side of said bail, a cover plate connecting each pair of blocks and extending across the space therebetween, and a U-shape yoke with a cylindrical opening at its closed end pivotally receiving the attaching pin of the pulley block therethrough, the arms of said yoke projecting through the openings defined by the bail, spaced blocks and cover plates, and abutment blocks carried at the ends of said arms of the yoke and adapted to contact with the adjacent edges of said cover plates.

1,207,245. BAIL FOR DIPPER-BUCKETS. ELLISON EDWARD VANDERHOEF, Ruth, Nev., assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed May 18, 1916. Serial No. 98,289. (Cl. 37—16.)



1. A bail comprising a bail body, an attaching member formed integral with, and projecting above, said body, said attaching member including a head with a bore extending therethrough, said head provided with a slot extending through the top portion thereof and communicating with said bore.

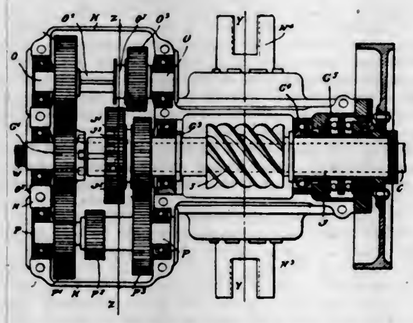
2. The combination of a bail body, an attaching member carried thereby and including a bored head, a pulley

block frame, an attaching member pin carried thereby and extending through the opening in said attaching member head, a hoisting member extending around said pulley block, said attaching member head provided with an opening therein located adjacent said hoisting member and communicating with the bearing between said attaching member head and said pin.

3. The combination of a dipper bail, an attaching member rigidly carried thereby, said attaching member provided with an opening extending therethrough, a slot extending through the top of said attaching member and communicating with said opening, and a pulley block pivotally secured to said attaching member and located in close proximity to the slot in the attaching member and adapted to supply a lubricant thereto.

4. In combination, a pulley block with spaced attaching arms projecting therebelow, a dipper bail with an upwardly projecting attaching member formed integral therewith, said attaching member including a cylindrical head substantially equal in length to the spacing of the attaching arms of said pulley block and fitting therebetween, said attaching member and attaching arms of the pulley blocks provided with alined cylindrical openings, and a pin extending therethrough for the pivotal securement of the two.

1,207,246. MOTOR-VEHICLE. ROBERT WILLOUGHBY VINING, London, England. Filed June 17, 1912. Serial No. 704,180. (Cl. 74—58.)



1. In combination with a driven axle and change speed gear box of a front drive motor vehicle, a drive shaft, a sleeve adapted to rotate on the drive shaft, or be clutched with same at will, said sleeve having a worm integral therewith, a gear casing, said worm engaging the teeth of a worm wheel mounted in bearings in the gear casing, and spur wheels slidably mounted upon said worm sleeve adapted to drive the sleeve.

2. In combination with a driven axle of a front drive motor vehicle, a drive shaft in alinement with the engine, a worm integrally formed with a sleeve, adapted to rotate freely upon the drive shaft, means for clutching the shaft and sleeve together, spur wheels adapted to slide on said sleeve to drive said sleeve, a spur wheel secured to said drive shaft and adapted to be clutched to one of the first mentioned wheels, and a worm wheel mounted on the differential gear of the drive axle, said worm wheel being in engagement with the first mentioned worm.

3. In combination with a driven axle and change speed gear box of a front drive motor vehicle, a drive shaft extending into the gear box, a sleeve supported on the drive shaft, means on the forward end of the sleeve for clutching the sleeve to the shaft, a worm integral with the sleeve, a gear casing having a worm wheel in mesh with the worm of the sleeve, differential gearing in the casing, and means for connecting the said gearing with the drive axle substantially as described.

4. In combination with a driven axle and change speed gear box, a drive shaft, a sleeve rotatably mounted on the drive shaft, said sleeve carrying a worm, means for moving the sleeve into and out of clutch relation with the drive shaft, a differential gear casing carrying a worm wheel which meshes with the worm on the sleeve, and spur wheels mounted in the said box adapted by selective engagement to coöperate with said worm and worm wheel for driving the said axle at varying speed.

5. In combination with a driven axle and change speed gear box, a drive shaft extending through the gear box, a sleeve mounted on the drive shaft, a worm on the sleeve, a worm wheel in mesh with said worm, a differential gear operating in conjunction with the worm wheel, drive axle parts extending into the differential casing, a rod carrying gear engaging means, said gear engaging means adapted to embrace one of the wheels of the gear box, a cam disk associated with the gear engaging means, whereby movement of the cam disk moves the wheel engaged by the gear engaging means into operation for changing speed.

1,207,247. SAFETY-RAZOR. ALONZO A. WARNER, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Apr. 13, 1916. Serial No. 90,800. (Cl. 30—12.)



1. In an article of the character described, a handle, a base secured to the end thereof, a flat spring supported centrally in said handle and arranged underneath and extending longitudinally of said base, the plane of the spring being at substantially right angles to the plane of the base, and a clamp plate having engagement with said spring and by it held in open or closed position.

2. In an article of the character described, a handle, a base secured to the end thereof, a flat spring supported centrally in said handle and arranged underneath and extending longitudinally of said base, the plane of the spring being at substantially right angles to the plane of the base, and a clamp plate fulcrumed on said base and having depending ears engaging the side of said spring.

3. In an article of the character described, a handle, a base secured to the end thereof, a flat spring supported centrally in said handle and arranged underneath and extending longitudinally of said base, the plane of the spring being at substantially right angles to the plane of the base, and a clamp plate fulcrumed on the base and provided at its ends with depending ears having angularly arranged faces engaging said spring in the open and closed position of said clamp plate.

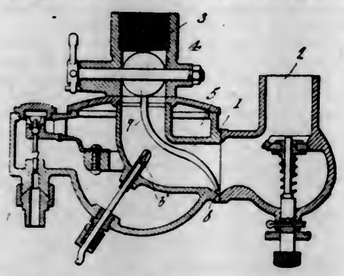
4. In an article of the character described, a handle, a base secured to the end thereof, a pair of spring plates arranged side by side supported centrally in said handle and arranged underneath and longitudinally of said base, the plane of said spring plates being at an angle to the plane of said base, and a clamp plate fulcrumed on said base engaging one of said plates and acted upon by both of said plates.

5. In an article of the character described, a handle, a base secured to its end, a spring plate centrally mounted in the handle and arranged underneath and longitudinally of the base, upstanding projections at the ends of said spring, a clamp plate fulcrumed on said base and engaging said upstanding projections.

1,207,248. CARBURETER. ALEXANDER WEBER, Lincoln, Nebr., assignor to Cushman Motor Works, Lincoln, Nebr. Filed Aug. 20, 1912. Serial No. 716,086. (Cl. 261—41.)

A carbureter embodying a casing having an L-shaped air passage, a fuel nozzle projecting into the elbow por-

tion of said passage, a throttle valve within the upwardly projecting arm of said passage, an air intake member attached to the casing in communication with the lower arm of said passage, the adjacent portions of said member and



casing having complementing depressions providing a well at the bottom of said lower arm for receiving fuel, and a tube within said passage having its lower end curved downwardly into said well and having its upper end terminating above said valve.

1,207,249. APPARATUS FOR SEPARATING THE FOREMOST THREAD IN THE LEASE OF TEXTILE WARPS. MAX WENZEL, Spremberg, Germany. Filed Jan. 27, 1915. Serial No. 4,760. (Cl. 139—93.)



1. In a machine for separating the foremost thread in the lease of textile warps, the combination, of means for seizing and holding the thread adapted to reciprocate vertically and horizontally along the lease rods, means whereby said first named means engage, in their intial position and during their forward movement, with the corresponding threads in such a manner that one of said first named means holds back the threads held thereby, while the other of said first named means carries forward the foremost of its threads, a gripping device, and a conveying device, substantially as hereinbefore described and for the purpose specified.

2. In a machine for separating the foremost thread in the lease of textile warps, the combination of combs adapted to reciprocate vertically, and horizontally along the lease rods, means whereby said combs engage, in their initial position and during their forward movement, with the corresponding threads in such a manner that the one comb holds back the threads held thereby, while the other comb carries forward the foremost of its threads, the foremost prong of each of said combs being longer than the remaining combs, means whereby said combs are moved only to such an extent upward or downward during the return movement into the initial position, that the foremost prong engages with the threads which have sprung back under their own tension, a gripping device and a conveying device, substantially as described and for the purpose specified.

3. In a machine for separating the foremost thread in the lease of textile warps, the combination of combs adapted to reciprocate vertically, and horizontally along the lease rods, means whereby said combs engage, in their initial position and during their forward movement, with the corresponding threads in such a manner that the one comb holds back the threads held thereby, while the other comb carries forward the foremost of its threads, the foremost prong of each of said combs being longer than the remaining combs, means whereby said combs are moved only to such an extent upward or downward during the return movement into the initial position, that the foremost prong engages with the threads which have sprung back under their own tension, means for resiliently forcing said combs into engaging position, means for raising or lowering said combs in their front end position, means for arresting said combs in a middle position, means for releasing said arresting means, air suction nozzles, air pressure nozzles, means whereby the foremost comb brings the separated thread into the range of the air currents of said nozzles, a gripping device for engaging said thread, and a conveying device, substantially as described and for the purpose specified.

5. In a machine for separating the foremost thread in the lease of textile warps, the combination of combs adapted to reciprocate vertically, and horizontally along the lease rods, means whereby said combs engage, in their initial position and during their forward movement, with the corresponding threads in such a manner that the one comb holds back the threads held thereby, while the other comb carries forward the foremost of its threads, the foremost prong of each of said combs being longer than the remaining combs, means whereby said combs are moved only to such an extent upward or downward, during the return movement into the initial position, that the foremost prong engages with the threads which have sprung back under their own tension, means for resiliently forcing said combs into engaging position, means for raising or lowering said combs in their front end position, means for arresting said combs in a middle position, and means for releasing said arresting means, substantially as described and for the purpose specified.

4. In a machine for separating the foremost thread in the lease of textile warps, the combination of combs adapted to reciprocate vertically, and horizontally along the lease rods, means whereby said combs engage, in their initial position and during their forward movement, with the corresponding threads in such a manner that the one comb holds back the threads held thereby, while the other comb carries forward the foremost of its threads, the foremost prong of each of said combs being longer than the remaining combs, means whereby said combs are moved only to such an extent upward or downward during the return movement into the initial position, that the foremost prong engages with the threads which have sprung back under their own tension, means for resiliently forcing said combs into engaging position, means for raising or lowering said combs in their front end position, means for arresting said combs in a middle position, means for releasing said arresting means, air suction nozzles, air pressure nozzles, means whereby the foremost comb brings the separated thread into the range of the air currents of said nozzles, a gripping device for engaging said thread, and a conveying device, substantially as described and for the purpose specified.

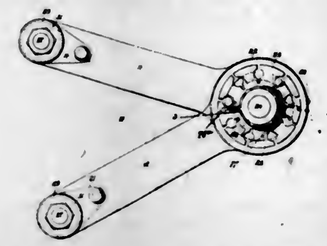
5. In a machine for separating the foremost thread in the lease of textile warps, the combination of combs adapted to reciprocate vertically, and horizontally along the lease rods, means whereby said combs engage, in their initial position and during their forward movement, with the corresponding threads in such a manner that the one comb holds back the threads held thereby, while the other comb carries forward the foremost of its threads, the foremost prong of each of said combs being longer than the remaining combs, means whereby said combs are moved only to such an extent upward or downward during the return movement into the initial position, that the foremost prong engages with the threads which have sprung back under their own tension, a gripping device and a conveying device, means for resiliently forcing said combs into engaging position, means for raising or lowering said combs in their front end position, means for arresting said combs in a middle position, and means for releasing said arresting means, substantially as described and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,207,250. SHOCK-ABSORBER. CHRISTIAN H. WESTEN, West Hoboken, N. J., assignor, by mesne assignments, to Hartford Suspension Company, Jersey City, N. J., a Corporation of New York. Filed Apr. 10, 1909. Serial No. 489,122. (Cl. 21—105.)

1. A shock absorber comprising a plurality of pivotally connected members, friction means for retarding the movement of said members; one of said members consisting of a plurality of parts, of which one part severally by its engagement with a portion of said friction means is adapted to retard the movement of said members for a part of their movement, and several of said parts jointly in combination with said friction means serving to render the whole of another part of said friction means

operative to retard the movement of said members for the remainder of their movement, substantially as specified.



2. A shock absorber comprising a plurality of pivotally connected members, and friction means for retarding the movement of said members for a part of their movement by the engagement of a certain part thereof with a portion of one side of said friction means, and for retarding the movement of said members for the remainder of their movement by the engagement thereof with the entire surface of another side of said friction means, substantially as specified.

3. A shock absorber comprising a plurality of pivotally connected members, and friction means for retarding the movement of said members for a part of their movement by the engagement of a certain part thereof with a portion of one side of said friction means to produce one degree of frictional resistance, and for retarding the movement of said members for the remainder of their movement by the engagement thereof with the entire surface of another side of said friction means to produce a different degree of frictional resistance, substantially as specified.

4. A shock absorber comprising a plurality of pivotally connected members, and friction means for retarding the movement of said members for a part of their movement by the engagement of a part thereof with a portion of one side of said friction means to produce a relatively small degree of frictional resistance, and for retarding the movement thereof for the remainder of their movement by the engagement thereof with the entire surface of another side of said friction means to produce a greater degree of frictional resistance, substantially as specified.

5. A shock absorber comprising a plurality of pivotally connected members, and friction means for retarding the movement of said members for a part of their movement by the engagement of a part thereof with one side of said friction means, and for retarding the movement thereof for the remainder of their movement by the engagement thereof with another side of said friction means, substantially as specified.

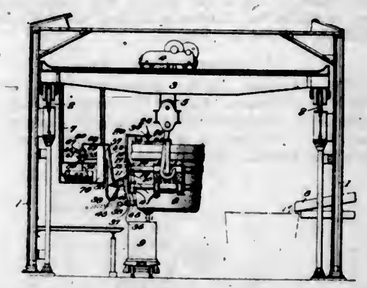
[Claims 6 to 17 not printed in the Gazette.]

1,207,251. LADLE-STOPPER-OPERATING MECHANISM. GEORGE ALEXANDER WETTENGEL, St. Louis, Mo. Filed Oct. 20, 1915. Serial No. 56,905. (Cl. 22—85.)

1. The combination with a portable ladle having a nozzle and a stopper for closing said nozzle, of fluid pressure operated means carried by said ladle for actuating said stopper.

2. The combination with a ladle having a nozzle and a stopper for closing said nozzle, of a fluid cylinder provided on the ladle, a piston having a head arranged in said cylinder, means connecting said cylinder and said stopper, and means for introducing fluid to said cylinder above and below said piston head for raising and lowering said stopper.

3. The combination with a ladle having a nozzle and a stopper for closing said nozzle, of a guide plate provided on said ladle, a sliding plate mounted in said guide plate, means connecting said sliding plate and said stopper, and fluid pressure operated means carried by said ladle for raising and lowering said sliding plate and said stopper.

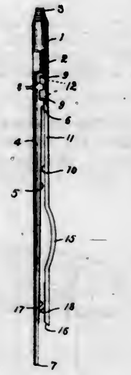


4. The combination with a ladle having a nozzle and a stopper for closing said nozzle, of a sliding plate arranged on said ladle, an angular rod connecting said plate and said stopper, and mechanical power operated means carried by said ladle for raising and lowering said plate and said stopper.

5. The combination with a ladle having a nozzle and a stopper for closing said nozzle, of a guide plate provided on said ladle, a sliding plate mounted in said guide plate, an adjustable stop arranged on one of said plates and adapted to abut against the other plate for regulating the extent of travel of the stopper in one direction, means connecting said sliding plate and said stopper, and means for raising and lowering said stopper.

[Claims 6 to 10 not printed in the Gazette.]

1,207,252. FISHING-TOOL. ROBERT B. WHITESIDE, Duluth, Minn. Filed Aug. 5, 1916. Serial No. 113,290. (Cl. 57—9.)



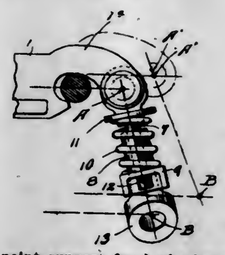
1. A fishing tool of the character described, comprising a shank portion, a rigid tapered finger, a resilient finger and means upon the resilient finger for maintaining axial alinement of the tool within the hole.

2. The combination with a fishing tool having two cooperating gripping members, one being considerably longer than the other, of means upon the shorter member for keeping the longer member snugly against the wall of the hole.

3. A tool of the character described comprising a shank portion having formed integral therewith a long tapered gripping and upending finger, a shorter gripping spring finger rigidly fixed to the tapered finger, gripping surfaces upon each of the fingers opposite each other and means upon the shorter finger for keeping the tool in proper alinement within the hole.

4. The combination with a fishing tool having a shank portion and two coöperating gripping members, one being rigidly fixed to the shank portion and longer than the other, of means for resiliently keeping the rigid member against one side of the hole.

1,207,253. THIRD-POINT SUPPORT FOR BRAKE-BEAMS. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed May 8, 1916. Serial No. 96,093. (Cl. 188—70.)



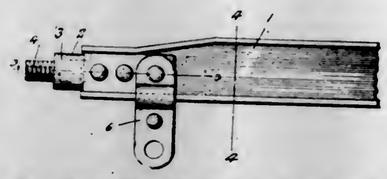
1. In a third point support for brake beams, the combination of a brake beam strut, a flexible third point support connected to said strut, and non-flexible means constituting part of the brake rigging for supporting said third point support.

2. In a third point support for brake beams, the combination of a strut of a beam, a flexible third point support pivotally connected thereto, and a connecting rod to which the opposite end of said third point support is connected.

3. A third point support for brake beams comprising the combination of a brake beam strut, a connecting rod, and a yielding third point support connected to and carried by said strut and said rod.

4. A third point support for brake beams comprising the combination of a brake beam strut, a connecting rod, and a flat spring pivotally connected to said strut and said rod, said spring having a reverse bend in its length.

1,207,254. CLASP-BRAKE BEAM. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed July 13, 1916. Serial No. 109,137. (Cl. 188—22.)

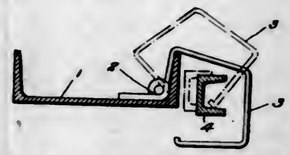


1. In a brake beam the combination of a main beam member, reinforcing elements arranged on each end thereof and carrying mounts for the brake heads, and separate or independent struts or posts connected to said reinforcing elements.

2. In a brake beam the combination of a commercially rolled flange member, reinforcing elements arranged on each side thereof at the ends of the beam, said reinforcing elements providing mounts for the brake heads, and struts or posts connected to said reinforcing elements.

3. In a brake beam the combination of a main member and end members divided to receive said main member and reinforcing the same at the ends of the beam, said end members providing mounts for the brake heads, and struts or posts connected to the inner ends of said divided reinforcing members.

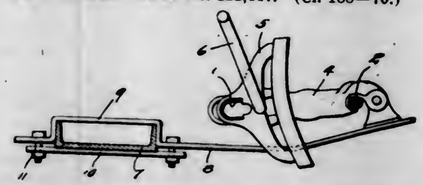
1,207,255. SAFETY-HANGER FOR BRAKE-BEAMS. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed July 13, 1916. Serial No. 109,140. (Cl. 188—70.)



1. A safety hanger for brake beams comprising a member bent to embrace the brake beam, or a part thereof, said member being movably mounted with relation to the part of the car truck by which it is supported whereby the brake beam may be released.

2. A combination with a part of a car truck and a safety hanger comprising a member bent to embrace the brake beam, or a part thereof, said member being movably mounted upon the car truck whereby the brake beam may be released.

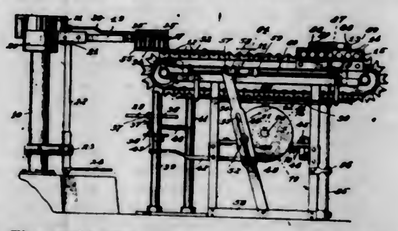
1,207,256. SPRING-PLANK CONNECTION FOR BEAM-SUPPORT SPRINGS. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 27, 1916. Serial No. 122,447. (Cl. 188—70.)



1. In a truck, the combination with a spring plank, a brake beam supporting spring or track associated therewith, devices adjustable lengthwise the spring plank for clamping said spring or clamp in operative position on the plank.

2. In a truck, the combination of a spring plank, a brake beam supporting spring or track carried thereby, and fastening devices to secure said spring or track in position on the plank, said fastening devices being arranged externally the plank.

1,207,257. NESTING MACHINERY. SAMUEL E. WINDER, Chicago, Ill., assignor to Consolidated Wafer Company, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 3, 1915. Serial No. 18,886. (Cl. 107—4.)



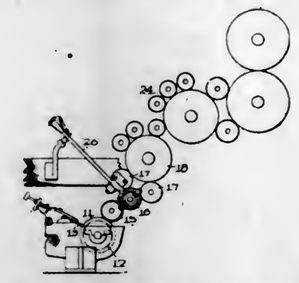
1. The combination of means for receiving blocks of cones, means for trimming the edges of said blocks, means for separating the cones of said blocks, and means for nesting said cones.

2. In an ice cream cone machine, means for separating and trimming cones, comprising a die, said die having apertures therethrough; means for delivering in a horizontal position a block of cones adjacent said die; means for elevating the small ends of said cones; and means for forcing said cones through said apertures.

3. In an ice cream cone machine, means for separating and trimming cones, comprising a die, said die having apertures therethrough; means for delivering in a horizontal position a block of cones adjacent said die; means for elevating the small ends of said cones; means for forcing said cones through said apertures, and means for depressing said elevating means.

4. The combination of means for receiving blocks of cones, means for trimming the edges of said blocks, and means for holding said blocks against said trimming means.

1,207,258. METHOD OF DISTRIBUTING INK. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Sept. 24, 1910. Serial No. 583,553. (Cl. 101—71.)



1. A method of distributing ink which consists in applying to one roller from another, a series of patches of ink of definite size, and transferring regulated portions of ink from said patches to a third roller or cylinder along a plurality of courses, those being transferred along one course being applied to the third roller or cylinder in intermediate positions between those transferred thereto along another course.

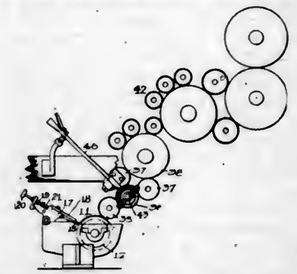
2. The method of distributing ink which consists in transferring from a roller a series of patches of ink, regulating the width of said patches during their course of travel, transferring these patches to two separate movable members, and transferring the patches from said members alternately to an ink cylinder.

3. A method of distributing ink which consists in applying to a roller a series of patches of ink and transferring ink from said patches to a cylinder along a plurality of courses, those being transferred along one course being applied to the cylinder in intermediate positions between those transferred thereto along another course.

4. The method of distributing ink which consists in bringing into contact two rolls each having interrupted coöperating surfaces, supplying with ink all of the coöperating surface of one of said rollers, constantly rotating said rollers while in contact to take the ink therefrom on the other of said rollers, and regulating the area of contact of said surfaces to vary the amount of ink transferred by the second roll.

1,207,259. INKING DEVICE FOR PRINTING-PRESSES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Continuation in part of application Serial No. 583,553, filed Sept. 24, 1910. This application filed Oct. 11, 1910. Serial No. 586,455. (Cl. 101—71.)

1. An inking mechanism comprising two coöperating transferring rolls each provided with interrupted coöperating surfaces similarly arranged on the two rolls, adapted to come into contact and transfer ink from one to another, means for covering with ink all the coöperating surface of one roll, said rolls being relatively adjustable to regulate the area of contact of said surfaces.



2. In an inking mechanism, the combination of a pair of transferring rolls each provided with interrupted longitudinal surfaces adapted to come into contact with those of the other roll whereby ink may be transferred from one to the other, and means for relatively adjusting said rolls circumferentially to regulate the area of contact of said surfaces.

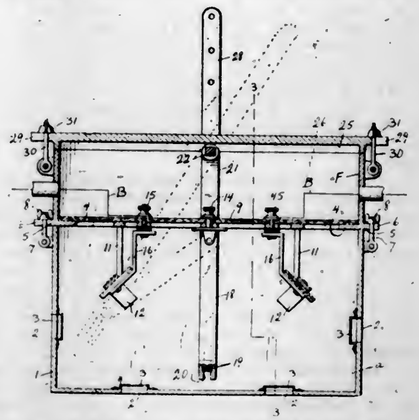
3. In an inking device, the combination with a fountain roll and a distributing roll, of rotatable means movable at the same surface speed as said rolls for conveying ink from one to the other in a series of longitudinal patches, and means for regulating the width of said patches.

4. In an inking device, the combination with a fountain roll and a distributing roll, of means for conveying ink from one to the other in a series of longitudinal parallel stripes and means for regulating the width of said stripes.

5. In an inking device, the combination with a fountain roll and means for distributing an even coating of ink throughout the surface of the fountain roll and regulating the thickness thereof, of a pair of ductor rollers in contact with each other, both having grooves, means whereby one of said ductor rolls takes constant sized patches of ink from said fountain roll, and a distributing cylinder, the other ductor roll constituting means for taking a portion of the ink from each patch on the first named ductor roll and transferring it to the cylinder.

[Claims 6 to 14 not printed in the Gazette.]

1,207,260. ELECTRICAL SWITCH. HERBERT A. YEARICK, Sunbury, Pa. Filed Feb. 2, 1916. Serial No. 75,799. (Cl. 175—282.)



A switch of the character described comprising a container with one face open, a frame detachably engaged

with the open-face portion of the container and having its engaging end and the opposite end open, a closure member for the outer end of the frame detachably engaged with the frame, said closure member being provided with inturned flanges directly engageable with the outer end of the frame, said flanges and frame being provided with registering recesses, stationary contacts carried by the frame and extending within the container, switch blades pivotally supported by the frame and coacting with the stationary contacts, a member connecting said blades whereby the same are caused to move in unison and in the same general direction, a shaft rotatably supported by the frame and extending through the registering recesses of the frame and closure member whereby said shaft may be readily removed upon removal of the closure member, means for rocking the shaft, and a lever fixed to the shaft and extending within the container and having its free end provided with an open slot to receive the connecting member for the blades whereby said lever may be readily disengaged from the connecting member upon removal of the shaft.

1,207,261. PROCESS OF RECOVERING GOLD. JAMES H. ALLING, Columbia, Cal., assignor of one-half to Francis M. Wright, San Francisco, Cal. Filed Oct. 18, 1910, Serial No. 587,676. Renewed Aug. 18, 1911. Serial No. 644,889. (Cl. 204—15.)



1. The process of recovering gold from auriferous pulp, which consists in mixing the pulp with an aqueous solution of common salt, passing said mixture once only in a continuous stream through a series of pairs of regions, the first region of each pair being electrolytic and the second non-electrolytic, continuously supplying the mixture to the beginning of said stream, continuously removing the worthless gangue from the end thereof, and collecting the gold from the negative electrodes of said electrolytic regions, substantially as described.

2. The process of recovering gold from auriferous pulp, which consists in mixing the pulp with an aqueous solution of common salt, causing said mixture to flow in a continuous stream, repeatedly subjecting the mixture while flowing in said stream to the electrolytic action of an electric current at intervals sufficiently long to permit chemical combination of the liberated nascent chlorin and gold in the mixture, continuously supplying the mixture to the beginning of said stream, continuously removing the worthless gangue from the end thereof, and collecting the gold from the cathode region, substantially as described.

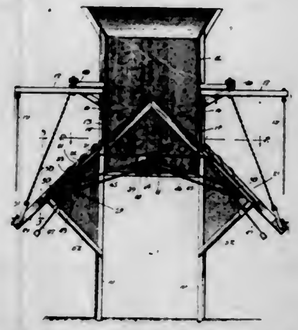
3. The process of recovering gold from auriferous pulp, which consists in mixing the pulp with a solution of a chlorin compound decomposable by an electric current, passing said mixture once only in a continuous stream through a series of pairs of regions, the first region of each pair being electrolytic and the second non-electrolytic, continuously supplying the mixture to the beginning of said stream, continuously removing the worthless gangue from the end thereof, and collecting the gold from the negative electrodes of said electrolytic regions, substantially as described.

4. The process of recovering gold from auriferous pulp, which consists in mixing the pulp with a solution of a chlorin compound decomposable by an electric current, causing said mixture to flow in a continuous stream, repeatedly subjecting the mixture while flowing in said stream to the electrolytic action of an electric current at intervals sufficiently long to permit chemical combination of the liberated nascent chlorin and gold in the mixture, continuously supplying the mixture to the beginning of said stream, continuously removing the worthless gangue from the end thereof, and collecting the gold from the cathode region, substantially as described.

5. The process of recovering gold from auriferous pulp, which consists in mixing the pulp with an aqueous solution of common salt, passing said mixture once only in a stream through a series of alternate electrolytic and non-electrolytic regions so that the whole of said mixture has free access to the cathodes in the electrolytic regions, supplying the mixture to the beginning of said stream, removing the worthless gangue from the end thereof, and collecting the gold from the negative electrodes of said electrolytic regions.

[Claims 6 to 19 not printed in the Gazette.]

1,207,262. COAL-SCREEN. PAUL J. ALWART, Chicago, Ill. Filed June 7, 1916. Serial No. 102,128. (Cl. 83—56.)



1. Screening apparatus, comprising a hopper having a discharge opening, a steeply inclined screen extending away from said opening, means for vibrating said screen, stationarily supported side frame members extending along the sides of said screen, and a plurality of transversely extending material retarding and arresting gates formed of inflexible material hingedly supported on said side frame members above the screen with their lower edges adapted to rest on said screen, said gates operating to retard the flow of material while the screen is being vibrated, but operating to arrest the flow when the vibrating means are stopped.

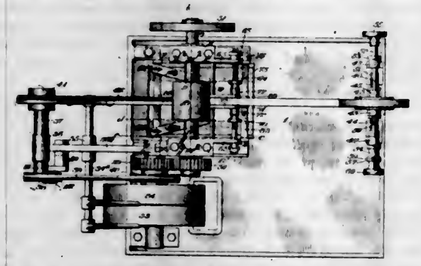
2. Screening apparatus, comprising a hopper having an inclined bottom, a discharge opening at the lower end of said bottom, a door for regulating the size of said opening, a steeply inclined vibratory screen, projecting from said opening, power driven means for vibrating said screen, stationarily supported side frame members extending along the sides of said screen, and a plurality of transverse material retarding and arresting gates formed of inflexible material hingedly supported on said side frame members above said screen with their lower edges resting thereon, said gates being adapted to hold back the material to be screened, when the screen is stationary.

3. Screening mechanism, comprising a steeply inclined screen hingedly supported at its upper end, a cam adjacent its lower end for vibrating said screen, a power driven shaft for the cam, stationarily supported side frame members extending along the sides of said screen, and a transversely extending gate formed of inflexible material hingedly supported on said side frame members above the screen with its lower edge resting on the screen, said gate being arranged to arrest the coal when the screen is stationary.

4. Screening mechanism, comprising a hopper having an inclined bottom and a discharge opening at the lower end of said bottom, an inclined screen hingedly secured at its upper end, a power driven shaft under the lower end of said screen, cams on said shaft supporting said screen and adapted to vibrate it, stationary side members for said screen, and transversely extending material retarding and arresting gates formed of inflexible material hingedly secured to said side members with their lower edges resting on said screen, the lowermost gate being weighted.

5. Screening mechanism, comprising a hopper having an inclined bottom and a discharge opening at the lower end of said bottom, an inclined screen hingedly secured at its upper end, a power driven shaft under the lower end of said screen, cams on said shaft supporting said screen and adapted to vibrate it, stationary side members for said screen, transversely extending material retarding and arresting gates formed of inflexible material hingedly secured to said side members with their lower edges resting on said screen, and an adjustably mounted weight on the lowermost gate.

1,207,263. MACHINE FOR INKING RIBBONS. CHARLES E. ARCHBALD, New Brunswick, N. J. Filed Mar. 25, 1916. Serial No. 86,671. (Cl. 91—51.)



1. In a ribbon inking machine, the combination with a tray for holding inking materials of a plurality of colors, a pair of upper and lower rollers the latter of which is divided and adapted to rotate within the tray and to supply inking material to adjacent surfaces of a ribbon adapted to be fed between the pair of rollers, means for operating the rollers, and a dividing partition extending from the tray upwardly between the parts of the lower roller to their point of contact with the ribbon to prevent the mixing of the inking materials upon said adjacent surfaces of the ribbon.

2. In a ribbon inking machine, the combination with means for holding a plurality of separated inking materials, of a pair of coöperating rollers between which a ribbon is adapted to move, one of the rollers comprising separated contiguous portions arranged to receive the separate inking materials carried by said holding means and to discharge the same upon contiguous adjacent surfaces of the ribbon, means for actuating the rollers, and means operating between the portions of the divided roller for preventing the mixing of the inking materials at the adjoining edges of said surfaces where they contact with the ribbon.

3. In a ribbon inking machine, the combination with means for holding a plurality of separated inking materials, of coöperating rollers between which a ribbon is adapted to move, one of the rollers arranged to receive the separated inking materials carried by said holding means and to discharge the same upon adjacent surfaces of the ribbon, means dividing the surface of the inking roller at its point of contact with the ribbon to prevent the mixing of the inking materials at the adjoining edges of said surfaces of the ribbon and means for actuating the rollers.

4. In a ribbon inking machine, the combination with means for holding a plurality of separated inking materials, of coöperating rollers between which a ribbon is adapted to be moved, one of the rollers being arranged to receive the inking materials carried by said holding means and to discharge the same upon adjacent surfaces of the ribbon, means operating on the ribbon between the inked surfaces thereon to press it against the non-inking roller.

5. In a ribbon inking machine, the combination with means for holding a plurality of separated inking materials, of coöperating rollers between which a ribbon is adapted to be moved, one of the rollers being arranged to receive the inking materials carried by said holding means and to discharge the same upon adjacent surfaces of the ribbon, adjustable means engaging the ribbon on a line coinciding with the adjoining edges of the inking material applied to the ribbon and pressing it against the non-inking roller, and means for actuating the roller.

[Claims 6 to 19 not printed in the Gazette.]

1,207,264. SILENCER FOR FIREARMS. OLIVER J. BAILEY, Florence, Mass. Filed July 20, 1916. Serial No. 110,393. (Cl. 89—31.)



1. A silencer for fire-arms including a casing comprising superposed cylindrical portions having their interiors communicating to provide a silencing chamber and an ejecting chamber, and a plurality of frusto-conical diaphragms arranged independently of each other and secured within the silencing chamber and having heir lower edges disposed above said ejecting chamber.

2. A silencer for fire-arms including a casing comprising superposed cylindrical portions having their interiors communicating to provide a silencing chamber and an ejecting chamber, and a plurality of frusto-conical diaphragms arranged independently of each other and secured within the silencing chamber and having their lower edges disposed above said ejecting chamber, the said silencing chamber opening into the atmosphere at the front end of the casing and the said ejecting chamber opening into the atmosphere at the rear of said casing.

3. A silencer for fire-arms including a casing comprising superposed cylindrical portions having their interiors communicating to provide a silencing chamber and an ejecting chamber, and a plurality of frusto-conical diaphragms arranged independently of each other and secured within the silencing chamber and having their lower edges disposed above said ejecting chamber, and a lip formed on each diaphragm and extending into said ejecting chamber.

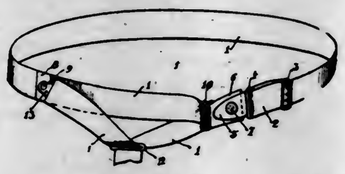
4. A silencer for fire-arms including a casing comprising superposed cylindrical portions having hollow interiors to provide a silencing chamber and an ejecting chamber, a plurality of frusto-conical diaphragms arranged within the casing, each diaphragm being provided with a plurality of flanges secured to the interior of the silencing chamber, each end of the casing and the center of each diaphragm being provided with a circular opening in alinement with the longitudinal center of the silencing chamber, and a rearwardly curved lip formed on each diaphragm and having its edge disposed at the longitudinal center line of the ejecting chamber, the said casing being provided with an exit in its rear wall in alinement with the center line of the ejecting chamber.

5. A silencer for fire-arms including a casing comprising superposed cylindrical portions having hollow interiors to provide a silencing chamber and an ejecting chamber, a plurality of frusto-conical diaphragms arranged within the casing, each diaphragm being provided with a plurality of flanges secured to the interior of the silencing chamber, each end of the casing and the center of each diaphragm being provided with a circular opening in alinement with the longitudinal center of the silencing chamber, a rearwardly curved lip formed on each diaphragm and having its edges disposed at the longitudinal center line of the ejecting chamber, the said casing being provided with an exit in its rear wall in alinement with the center line of the ejecting chamber, and an ejecting tube

integrally formed with the casing at the rear wall thereof and having its interior communicating with the said exit from the ejecting chamber.

[Claims 6 to 15 not printed in the Gazette.]

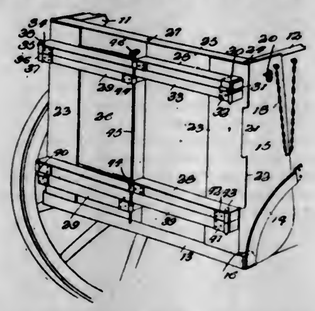
1,207,265. GARTER. ERNEST OCTAVE BARETTE, Montreal, Quebec, Canada. Filed Feb. 12, 1915. Serial No. 7,741. (Cl. 241—6.)



1. In a garter, a main belt having an eye at one end and a knob on which said eye fits detachably and pivotally, forming a loop, in combination with an eyelet, through which said loop freely slides, at the end of said loop remote from said knob and eye, a flap attached to this eyelet, a two-legged eyelet and a three-legged eyelet engaging the other end of said belt for tightening or loosening the latter, a flap connected to one of these two eyelets, a snap-button detachably and pivotally connecting these two flaps together, an eye on the lower part of said loop, through which the latter freely passes and hose supporting means suspended from this latter loop, said knob and snap-button permitting pivotal motion of the parts connected thereby as set forth.

2. The main belt of a garter having one end detachably and pivotally connected to a point on said belt to form a loop, the other end being provided with means for taking up and expanding said belt, an eyelet through which said loop passes freely, detachable and pivotal means for connecting said expansible means to said eyelet, another eyelet through which the lower part of said loop passes freely and hose suspending means depending from this latter eyelet, the said freedom of movement of the loop of the belt through the latter two eyelets and the pivotal attachments at two points as above stated permitting said loop to take the form of a triangle having automatically adjustable sides and being adapted to descend and assume more acute angles when the belt is tightened.

1,207,266. COMBINED DUMP END-GATE AND SCOOP-BOARD. BERT E. BARTHOLOMEW, Algona, Iowa. Filed Jan. 8, 1916. Serial No. 71,043. (Cl. 21—21.)



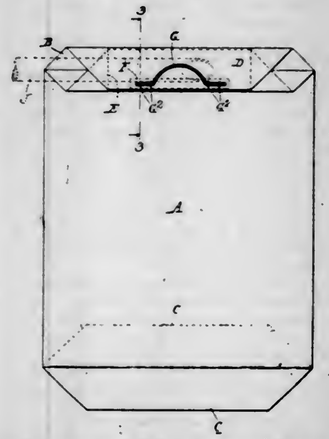
1. A gate for wagons including shields adapted to be swingingly supported by the sides of a wagon, means for holding the shields against swinging movement, gate sections hinged at their outer edges to the shields, braces extending transversely of the gate sections, the brace of one section being vertically spaced above that of another, locking braces hinged to certain of the braces and extending transversely of both sections, and means for securing the free ends of the locking braces to the adjacent ends of other braces.

2. A gate for wagons including shields adapted to be swingingly supported by the sides of a wagon, means for holding the shields against swinging movement, gate sections hinged at their outer edges to the shields, braces extending transversely of the gate sections, the brace of one section being vertically spaced above that of another, a locking brace hinged to one of the braces and extending transversely of both sections, and means for securing the free end of the locking brace to the adjacent end of other braces, the locking brace being disposed between vertically spaced braces to engage against opposed faces thereof.

3. A wagon gate including co-acting gate sections hingedly supported at their outer edges, braces extending transversely of each section adjacent their ends, the braces of one section being disposed at a slightly higher level than the corresponding braces of the other section, locking braces hinged one to the outer end of the upper brace of one section and the other to the outer end of the lower brace of the other section and adapted to be swung to lie between the upper and lower braces of both sections and to extend entirely across the gate, the free ends of certain of the braces and of the locking braces being formed with eyes which aline when the locking braces are in place and the inner ends of the gate section braces being formed with similar eyes, and locking rods insertible through the alined eyes to secure the gate sections in place.

4. A gate for wagons including gate sections adapted to be hingedly secured to the sides of a wagon, braces extending transversely of the gate sections, the brace of one section being spaced above that of the other, a locking brace adapted to be positioned transversely of both sections and to lie between the braces, a vertically disposed eye formed upon one end of the locking section, a horizontally disposed eye formed upon the adjacent end of one of the brace sections, and L-shaped pintle pin engaging through the eyes, and means for detachably securing the free end of the locking brace to the adjacent end of the other transverse brace.

1,207,267. VALVE-BAG. ADELMER M. BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed Aug. 18, 1915. Serial No. 46,099. (Cl. 150—9.)



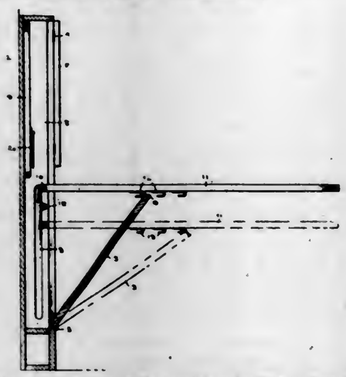
1. A handled bag consisting of a bag closed at both ends, but provided with a valve opening at one corner of one end, and a handle comprising a longitudinally extended inner portion in line with but at one side of the axis of the valve opening, a flexible exterior portion, and staples whereby the two portions are secured together through the fabric of the bag, the exterior portion bowed in the middle with ends projecting outwardly in each direction substantially parallel with the interior portion.

2. A handled bag consisting of a bag closed at both ends but provided with a valve opening at one corner of one end, and a handle comprising a longitudinally extended inner portion in line with but at one side of the axis of the valve opening, a flexible exterior portion in the form of a loop whose ends lie parallel with the inner portion, and staples which pass through the fabric of the bag and secure the inner and outer handle portions together, the exterior portion bowed in the middle with ends projecting outwardly in each direction substantially parallel with the interior portion.

3. A handled bag consisting of a bag closed at both ends, but provided with a valve opening at one corner of one end, and a handle comprising a longitudinally extended inner portion in line with but at one side of the axis of the valve opening, an exterior portion, and means whereby the two portions are secured together through the fabric of the bag.

4. The combination with a valve bag and filling tube adapted to enter the bag through the valve, of a handle comprising a longitudinally extended inner portion in line with the valve opening located at one side of its axis and below the line of contact between the tube and bag, an exterior handle portion and means whereby the two portions are secured together through the fabric of the bag.

1,207,268. COMBINED IRONING-BOARD AND CABINET. EDWIN A. BLANCHARD, San Diego, Cal. Filed May 16, 1916. Serial No. 97,833. (Cl. 68—10.)



1. The combination with a cabinet having a door hinged at one edge to the cabinet and a second door hinged at one end to said cabinet, the side walls of said cabinet having vertically extending slots and notches communicating with the slots, of an ironing board, trunnions at one end of the board adapted to coöperate with said slots and notches, hooks on the under face of said board and a bar carried by the upper end of said second door adapted to engage said hooks and hold the board in horizontal position.

2. The combination with a cabinet having a vertical swinging door hinged thereto, of an ironing board, adjustable means in said cabinet to support the inner end of said board at different heights, a plurality of hooks carried by the board, said hooks bearing a coöperative relation with said adjustable means for the inner end of the board, a plate attached to the upper end of said door, and a bar carried by the plate adapted to be engaged by one of said hooks when the ironing board is in operative position, said door forming a support for the board.

1,207,269. BALING-PRESS. JESSE M. BONDURANT, Figsboro, Va. Filed Aug. 14, 1915. Serial No. 45,605. (Cl. 100—21.)

1. A baling press having a reciprocating ram, means for actuating said ram, a brake acting on a moving part of the said actuating means, and means acting in timed relationship with the reciprocations of the said ram for the application of the said brake during the entire return stroke of the said ram and for the release of the said brake during the forward stroke of the said ram.



2. A baling press having a reciprocating ram, means for actuating said ram, a brake acting on a moving part of the said actuating means, and means acting in timed relationship with the reciprocations of the said ram for the application of the said brake during the entire return stroke of the said ram and for the gradual release of the said brake during the forward stroke of the said ram.

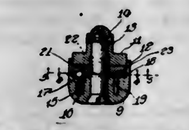
3. A baling press having a reciprocating ram, means for actuating said ram, a brake acting on a moving part of the said actuating means, and means acting in timed relationship with the reciprocations of the said ram for the application of the said brake during the return stroke of the said ram and for the gradual release of the said brake during the forward stroke of the said ram, said means comprising a shaft, a train of gears adapted to impart rotary movement to the said shaft from the ram-actuating mechanism, a cam on the said shaft, a rotating brake wheel, a band having one end thereof affixed to the said baler, said band encircling the said brake wheel, a lever pivoted at one end to the said baler, the other end of the said lever being adjacent to and being adapted to bear upon the said cam, a projection on the said lever, a spring extending between the projection on the said lever and a fixed point on the said baler, the free end of the said brake band being disposed between the said spring and the projection on the said lever, the said spring being so disposed with respect to the said lever that the action thereof will force the free end of the said lever against the said cam, and the said spring being so disposed with respect to the said brake band that the action thereof will tend to apply the said brake band to the said brake wheel.

4. A baling press having a reciprocating ram, means for actuating said ram, a brake acting on a moving part of the said actuating means, and means acting in timed relationship with the reciprocations of the said ram for the application of the said brake during the return stroke of the said ram and for the gradual release of the said brake during the forward stroke of the said ram, said means comprising a shaft, a train of gears adapted to impart rotary movement to the said shaft from the ram-actuating mechanism, a cam on the said shaft, a rotating brake wheel, a band having one end thereof affixed to the said baler, said band encircling the said brake wheel, a lever pivoted at one end to the said baler, the other end of the said lever being adjacent to and being adapted to bear upon the said cam, a projection on the said lever, a spring extending between the said lever and a fixed point on the said baler, the free end of the said brake band being disposed between the said spring and the projection on the said lever, the said spring being so disposed with respect to the said lever that the action thereof will force the free end of the said lever against the said cam, and the said spring being so disposed with respect to the said brake band that the action thereof will tend to apply the said brake band to the said brake wheel, and means for adjusting the tension of the said spring.

1,207,270. HINGE. CHARLES M. BRAITHWAITE, Chicago, Ill. Filed May 11, 1916. Serial No. 96,741. (Cl. 16—111.)

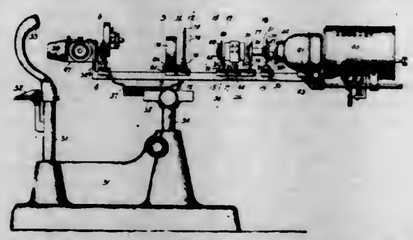
A hinge comprising a pair of relatively rotatable members, one member being provided with a concentric series of depressions and the other with a plurality of correspondingly arranged sockets, a ball-retainer plate rigidly connected to the socket member and having openings alined with but of less diameter than those in the socket member,

balls in the sockets and larger than the plate openings and projecting therethrough, and springs between the balls and



the ends of the sockets to maintain the balls in yieldable engagement with the plate and projecting through the openings.

1,207,271. OPTICAL INSTRUMENT. EARL J. BROWN, Chicago, Ill. Filed Mar. 16, 1916. Serial No. 84,531. (Cl. 88—20.)



1. In an instrument for testing eyes, the combination of means for projecting a pencil of light into an eye under observation, means for progressively eclipsing the lighted area in the eye in different meridians, means in the emergent pencil of light for deflecting an image of the lighted area of the observed eye, and means for viewing said image.

2. In an instrument for testing eyes, the combination of means for projecting a pencil of light into an eye under observation, means for progressively eclipsing the lighted area in the eye in different meridians, a prism in the emergent pencil of light for deflecting an image of the lighted area in the observed eye, and means at one side of the light for viewing said image.

3. In an instrument for testing eyes, the combination of means for projecting a pencil of light into an eye under observation, means for progressively eclipsing the lighted area in the eye in different meridians, means in the emergent pencil of light for deflecting an image of the lighted area in the observed eye, and means for viewing said image, said eclipsing-means being removable from the light path.

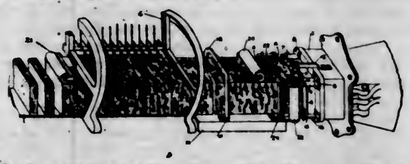
4. In an instrument for testing eyes, the combination of means for projecting a pencil of light into an eye under observation, means for eclipsing the lighted area of the eye in different meridians, means in the emergent pencil of light for deflecting an image of the lighted area in the observed eye, means for holding a corrective lens in the path of the projected pencil of light, and means for viewing said image.

5. In an instrument for testing eyes, the combination of means for projecting a pencil of light into an eye under observation, means for eclipsing the lighted area in the eye in different meridians, means in the emergent pencil of light for deflecting an image of the lighted area in the observed eye, means for holding a corrective lens in the path of the projected pencil of light, and means at one side of the light for viewing said image.

[Claims 6 to 21 not printed in the Gazette.]

1,207,272. BRICK-MACHINE. JOSEPH L. BUCKLEY, Davenport, Iowa. Filed Nov. 8, 1915. Serial No. 60,259. (Cl. 25—1.)

1. In a brick-making machine, the combination of means for continuously forming a plastic bar or column of clay, and a device behind the same so located as to sever a thin slice from one face of the column and simultaneously break the slice into irregularly-shaped fragments and allow the fragments to be deposited back upon the face from which they were severed in irregularly-spaced relation, means for pressing these irregularly-spaced fragments against said face to cause them to unite thereto, and means for severing the column into blocks.



2. In a brick machine, the combination of a die plate for continuously forming a plastic column of clay, a wire stretched behind the same in such position as to sever a thin slice from one face of the column and simultaneously break the slice into irregularly-shaped fragments and allow the fragments to be immediately deposited back upon the face from which they were severed in irregularly-spaced relation, a device for rigidly supporting the wire at a point between its ends, means for pressing said irregularly-spaced fragments against said face to cause them to unite thereto, and means for severing the column into blocks.

1,207,273. ABSORBENT MEDIUM FOR CARBONIC-ACID GAS. JOHN CADMAN, Edgbaston, England. Filed July 17, 1914. Serial No. 851,667. (Cl. 167—3.)

1. A regenerative medium comprising a vehicle consisting of a porous substance such as coke, charcoal or the like, having an exterior and interior coating, film or skin of a carbonic acid gas absorbent.

2. An absorbent for carbonic acid gas, which consists of a porous vehicle having its entire surface exteriorly and interiorly covered by a coating or film of caustic soda.

3. An absorbent for carbonic acid gas, comprising a vehicle consisting of a porous substance such as coke, charcoal or the like, having an exterior and interior coating, film or skin of an absorbent material, to which has been added a substance having greater affinity for moisture and less heat of solution than the absorbent material.

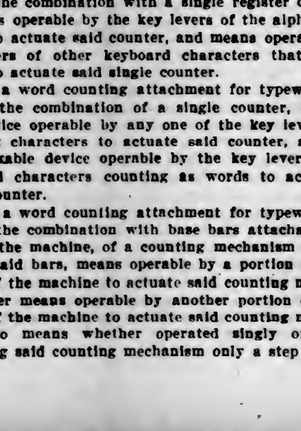
4. An absorbent for carbonic acid gas, comprising a vehicle which consists of a porous substance, having exteriorly and interiorly a coating of a carbonic acid gas absorbent, to which has been added calcium chlorid.

1,207,274. SPRAYING OR ATOMIZING DEVICE. WILLIAM C. CARTER, St. Louis, Mo. Filed Apr. 7, 1916. Serial No. 89,667. (Cl. 91—45.)

1. A spraying or atomizing device, comprising a nozzle provided with a liquid passageway and an air passageway arranged concentric with respect to said liquid passageway and having a restricted discharge opening, an air chamber in said nozzle, a piston in said air chamber, an air valve connected to said piston and arranged inside of the air passageway of the nozzle so that it will tend to move toward its seat when the pressure of the air in said air passageway builds up, a liquid supply pipe communicating with the liquid passageway in the nozzle, an air supply pipe communicating with said air chamber, and a device on said piston for moving it so as to unseat said air valve.

2. A spraying or atomizing device provided with a nozzle to which air under pressure is admitted, means for causing a liquid to be atomized or converted into a spray by the air admitted to said nozzle, and a manually-operable valve for admitting air to the nozzle and for automatically diminishing the supply of air to the nozzle when the air escapes from the nozzle at a slower rate than the air is being admitted to the nozzle.

3. A spraying or atomizing device provided with a nozzle to which air under pressure is admitted, said nozzle having an air passageway provided with a restricted discharge opening, means for causing a liquid to be atomized or converted into a spray by the air admitted to said nozzle, and a valve for controlling the supply of air to the nozzle, said valve being arranged inside of said air passageway so that when the pressure in the air passageway of the nozzle increases, said increased pressure will tend to cause said valve to move toward its closed position, and thus automatically diminish the supply of air to the nozzle.



4. A spraying or atomizing device provided with a nozzle to which air under pressure is admitted, said nozzle having an air passageway whose discharge end is restricted, means for causing a liquid to be atomized or converted into a spray by the air admitted to said nozzle, and a manually-operable valve for controlling the supply of air to the nozzle and for automatically diminishing the supply of air to the nozzle when the pressure inside of the nozzle builds up or increases.

5. A spraying or atomizing device, comprising a nozzle provided with a liquid passageway, an air passageway arranged concentric with respect to said liquid passageway, and a manually-operable valve for governing the admission of air to said air passageway and provided with a restricted discharge opening, said valve being arranged inside of said air passageway so that it will tend to move toward its seat when the pressure of the air in said air passageway builds up.

[Claims 6 to 18 not printed in the Gazette.]

1,207,275. WORD-COUNTING ATTACHMENT FOR TYPE-WRITING MACHINES. HENRY B. CARY, Los Angeles, Cal., assignor of one-half to Arba W. Frost, Los Angeles, Cal. Filed May 28, 1914. Serial No. 841,514. (Cl. 235—102.)

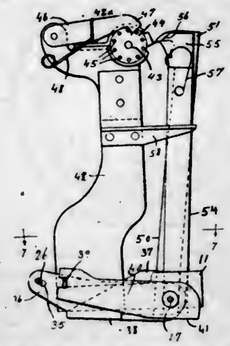
1. In a word counting attachment for typewriting machines, the combination with a single register or counter, of means operable by the key levers of the alphabet characters to actuate said counter, and means operable by the key levers of other keyboard characters that count as words to actuate said single counter.

2. In a word counting attachment for typewriting machines, the combination of a single counter, of a rockable device operable by any one of the key levers of the alphabet characters to actuate said counter, and a second rockable device operable by the key levers of other keyboard characters counting as words to actuate said single counter.

3. In a word counting attachment for typewriting machines, the combination with base bars attachable to the base of the machine, of a counting mechanism secured to one of said bars, means operable by a portion of the key levers of the machine to actuate said counting mechanism, and other means operable by another portion of the key levers of the machine to actuate said counting mechanism, said two means whether operated singly or together actuating said counting mechanism only a step at a time.

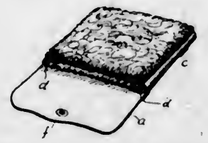
4. In a word counting attachment for typewriting machines, the combination with counting mechanism, of means operable by a portion of the key levers of the writing machine to actuate said counting mechanism, said means comprising a series of cams engageable by said levers, a rockable cam shaft carrying said cams, a crank arm connected to said cam shaft, a compound lever connected to said crank arm, and a link connected to the compound lever, said link being attachable to the lower-to-upper-case shifting mechanism of the machine whereby said cams are adjusted when the shifting mechanism is operated.

5. In a word counting attachment for typewriting machines, the combination with counting mechanism, of means operable by a portion of the key levers of the writing machine to actuate said counting mechanism, said means comprising a series of cams engageable by said lever, a rockable cam shaft carrying said cams, a crank arm connected to said cam shaft, a compound lever comprising two elements connected together by a pin-and-slot connection, one of the elements being pivoted at one end and having its free end connected to said crank arm by a pin-and-slot connection, the other of said elements being pivoted between its ends, and a link connected to one end of said other element, said link being attachable to the lower-to-upper-case shifting mechanism of the machine whereby said cams are adjusted when the shifting mechanism is operated.



[Claims 6 to 16 not printed in the Gazette.]

1,207,276. SHOE-POLISHER. ARTHUR C. COGSWELL, Detroit, Mich. Filed Jan. 24, 1916. Serial No. 73,765. (Cl. 15—16.)



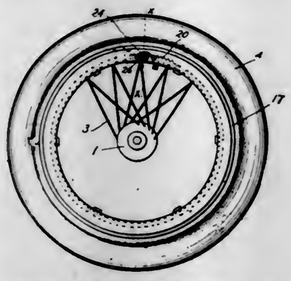
1. A shoe polisher, comprising a backing provided with parts of snap fasteners along its edge, and a detachable and reversible pad having along some of its edges a hinging tape provided with parts of detachable fasteners capable of use from either side of the tape, the said hinging tape adapted to be turned under the pad whichever side is exposed for use and engage with the backing by means of the detachable fasteners.

2. A shoe polisher, comprising a flexible web backing provided with parts of fasteners, a two-sided detachable and reversible pad having along three of its edges a hinging tape provided with complementary parts of the said fasteners, and one or more straps on the outside of the flexible backing.

3. A shoe polisher, comprising a flexible web backing provided with fasteners along three of its edges and a

two-sided pad both detachable and reversible, having along three of its edges a tape provided with parts of fastener devices complementary to the aforementioned parts, and means on the back of the flexible web under which the hand may be inserted to hold the polisher.

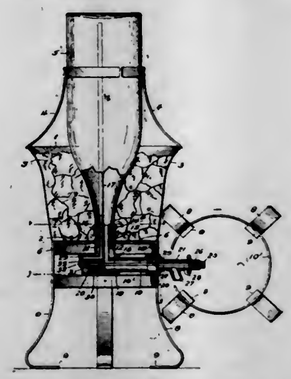
1,207,277. RIM FOR PNEUMATIC TIRES. WALTER E. COPITHORN, Natick, Mass. Filed July 28, 1914. Serial No. 853,707. (Cl. 152—21.)



1. In a wheel, the combination with a wheel body having a felly band provided with openings adjacent one edge, of a demountable rim encircling said wheel body, an expansible locking ring having inclined fingers occupying said openings and adapted to engage one edge of the demountable rim and retain the latter in place, said ring having a rack at one end, and a pinion journaled on the wheel body and engaging said rack and by which the ring can be expanded or contracted.

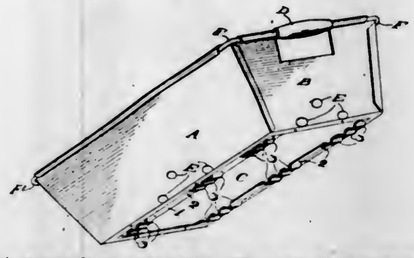
2. In a wheel, the combination with a wheel body having a felly band provided with openings adjacent one edge, of a demountable rim encircling said wheel body, an expansible locking ring encircling the felly band and having inwardly-directed inclined fingers extending into said openings, said locking ring being constructed to engage one edge of the demountable rim and retain the latter in place, and means acting on one end of said locking ring for moving it circumferentially of the felly band, said inclined fingers causing said ring to expand when the latter is moved in one direction and to contract when moved in the opposite direction.

1,207,278. DISPENSING-STAND. HENRY G. CORDLEY, Glen Ridge, N. J. Filed Jan. 14, 1915. Serial No. 2,159. (Cl. 225—40.)



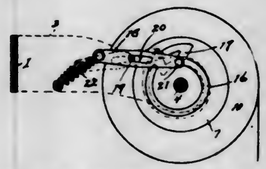
A dispensing stand for inverted bottles comprising a bowl adapted to contain ice, having a flat bottom, a hollow plug extending upward through the bottom of the bowl, a draw off faucet connected to the hollow plug below the bottom of the bowl, supporting legs having their upper ends bent inward and secured to the bottom of the bowl, resilient arms extending upward from the upper edge of the bowl and a horizontal strip secured to the upper ends of said resilient arms, bent into the shape of a ring and having its ends separated to inclose an inverted bottle extending into the bowl and into engagement with said hollow plug.

1,207,279. BASKET-RUNNER. WINFIELD S. CRUM, La Fayette, Ind. Filed Feb. 7, 1916. Serial No. 76,766. (Cl. 220—135.)



A receptacle, in combination with a pair of transversely corrugated runners and means for attaching the respective runners to the bottom of said receptacle on the lower face, and adjacent the sides, thereof, the middle part of said bottom being left smooth, the corrugations of said runners being so spaced as to receive between any two of them the upper edge of a similar receptacle.

1,207,280. PAPER-ROLL HOLDER. OTIS C. CURRIE, Detroit, Mich., assignor to Edward N. Hayes, Detroit, Mich. Filed Feb. 19, 1915. Serial No. 9,240. (Cl. 211—81.)



1. A paper roll holder comprising a bracket having a fixed and a pivoted arm, a non-rotatable shaft having one end secured to the fixed arm and adapted to support the paper roll, the opposite end of the shaft being adapted to be releasably secured to the pivoted arm, a controller freely rotatable on the shaft by rotation of the roll, said controller having a cam groove substantially of the form of an involute curve with connected ends forming a continuous channel, an automatic stop traveling in said groove, adapted to periodically check forward rotation of the controller upon engaging said connecting portion of the groove, and a spring adapted to automatically force the stop out of said connecting portion of the groove.

2. A paper roll holder comprising a bracket having a fixed and a pivoted arm, a non-rotatable shaft adapted to support the paper roll and having one end secured to the fixed arm, the opposite end of the shaft being adapted to be releasably secured to the pivoted arm, a controller free to rotate by rotation of the roll, said controller having a cam groove substantially of the form of an involute curve, the ends of which are connected with a straight portion providing a continuous channel, a lever pivotally supported on the bracket, said lever being slotted to allow movement thereof relative to the pivot point, a spring tending to draw the lever backward on the pivot and also tending to force the pin to follow the groove during rotation of the controller.

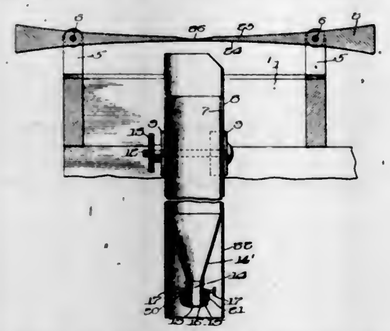
3. In a paper roll holder, means for controlling rotation of the roll comprising a control member provided with a cam groove having substantially the form of an involute curve, the ends of which are connected by a substantially straight portion, a pivotally supported lever having a cam engaging portion, and a spring tending to force the cam engaging portion to follow the groove, the said straight portion providing a means to periodically check the forward rotation of the controller and enabling a portion of the paper roll to be severed therefrom.

4. In a paper roll holder, means for controlling rotation of the roll comprising a rotatable cam member having a high and low part, the rise between the two parts being substantially on a straight line, and a spring controlled cam engaging member adapted to check the forward rotation of the cam member upon engaging said rise to allow a strip to be severed from the roll.

5. In a paper roll holder, means for controlling rotation of the roll comprising a rotatable cam member having a high and low part, the rise between the two parts being substantially on a straight line, a pivotally supported lever having a portion engaging the cam and being adapted to move longitudinally upon engaging the said rise between the high and low parts, and a spring adapted to return the lever to normal position and continuously hold the cam engaging portion in engagement with the cam.

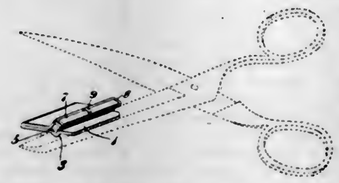
[Claim 6 not printed in the Gazette.]

1,207,281. MUSICAL INSTRUMENT OF XYLOPHONE TYPE. JOHN C. DEAGAN, Chicago, Ill., assignor to J. C. Deagan Musical Bells, Chicago, Ill., a Corporation of Illinois. Filed Feb. 14, 1914. Serial No. 818,773. (Cl. 84—31.)



A musical instrument including a resonating tube; a funnel shaped extension for the tube; a vibrant diaphragm closing the outer end of the funnel shaped extension; and means for adjusting the tension of the diaphragm.

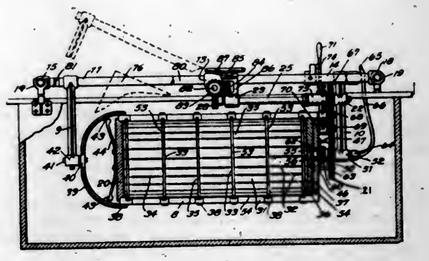
1,207,282. SHARPENING-TOOL. FRANK EMMINGER, Cincinnati, Ohio. Filed Dec. 30, 1915. Serial No. 69,480. (Cl. 76—88.)



1. In a scissors sharpener, a metal clip having return bend and a recess in the lower portion, a file seated in the recess with its face at an acute angle to the said lower portion, and means on the upper portion to hold the file in said recess.

2. In a scissors sharpener, a metal clip having return bend and a recess in the lower portion, a file seated in the recess with its face at an acute angle to the said lower portion, and means on the upper portion to hold the file in said recess comprising an angling bend to lie along the back of the file and bendable tongues to engage over the forward edge thereof.

1,207,283. CLEANING, PLATING, DRYING, AND BURNISHING MACHINE. WINFORD L. ENGHAUSER, Winslow Park, Ohio. Filed Mar. 1, 1916. Serial No. 81,338. (Cl. 204—11.)



1. In a combined cleaning, plating, drying and burnishing machine the combination of a perforated receptacle having a removable cover and a fixed bottom, a frame adapted to mount the receptacle rotatively, and a second frame adapted to mount the first mentioned frame pivotally transversely of the axis of rotation of the receptacle.

2. In a combined cleaning, plating, drying and burnishing machine the combination of a perforated work receptacle having a removable cover and a fixed bottom, a frame having depending brackets adapted to mount the receptacle rotatively beneath the frame, with its cover and bottom axially alined with the axis of rotation of the receptacle, and a second frame adapted to mount the first mentioned frame pivotally transversely of the axis of rotation of the receptacle.

3. In combination in a combined cleaning, plating, drying and burnishing machine, a work receptacle having elongated perforations formed therein, a frame adapted to mount the receptacle rotatively with the perforations extending transversely to the direction of rotation of the receptacle, and a second frame adapted to mount the first mentioned frame pivotally transversely of the axis of rotation of the receptacle.

4. A combined cleaning, plating, drying and burnishing machine consisting of a work receptacle having a series of elongated perforations formed therein, said receptacle having a removable cover and a fixed bottom, a frame adapted to mount the receptacle rotatively with the axes of the cover and bottom in alinement with the axis of rotation of the receptacle and the perforations extending parallel therewith, and a second frame adapted to mount the first mentioned frame pivotally transversely of the axis of rotation of the receptacle.

5. A combined cleaning, plating, drying and burnishing machine consisting of a work receptacle, a frame having brackets located thereon and adapted to mount the receptacle rotatively beneath the frame, a second frame adapted to mount the first mentioned frame pivotally transversely of the receptacle, and means adapted to move the first mentioned frame with relation to the second mentioned frame.

[Claims 6 to 34 not printed in the Gazette.]

1,207,284. AUROMERCAPTOBENZENES AND PROCESS OF MAKING SAME. ADOLF FELDT, Frankfort-on-the-Main, and PAUL FRITZSCHE, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Oct. 17, 1916. Serial No. 126,218. (Cl. 23—24.)

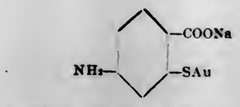
1. The process of preparing auromercaptobenzenes, which consists in causing gold double-halids to act upon mercaptobenzenes.

2. As new products, auromercaptobenzenes corresponding to the general formula:

X—S.Au

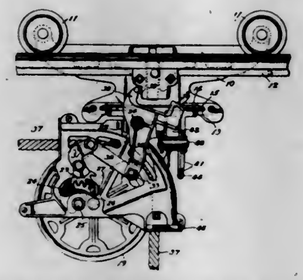
wherein "X" stands for any benzene nucleus, being solid bodies of a yellowish color.

3. As a new product, the sodium salt of the 4-amino-2-auromercaptobenzene-1-carboxylic acid having the formula:



being a yellowish powder, readily soluble in water, insoluble in organic solvents.

1,207,285. HAY-CARRIER. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed May 4, 1916. Serial No. 95,435. (Cl. 212—114.)



1. In a hay-carrier, a traveler adapted to run upon a supporting track, a sheave hung from the traveler, a clamp adapted to engage the line upon the sheave, a trip-device, means for attaching the bight of the line thereto, and connections between the trip-device and the clamp for simultaneous operation of the two under the pull of the line.

2. In a hay-carrier, a traveler adapted to run upon a supporting track, a sheave hung from the traveler, a line clamp pivoted eccentrically of the sheave to wedge the line against the latter, a trip-device pivoted in the traveler, means for attaching the bight of the line to the trip-device eccentrically thereof, and link connections between the trip-device and the clamp for simultaneous operation of the two under the pull of the line bight.

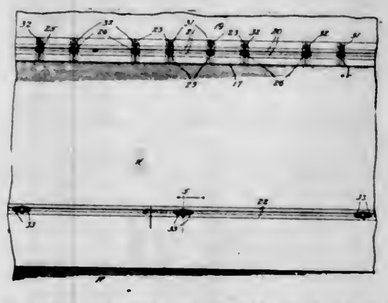
3. In a hay-carrier including a track and a trip-block carried thereby, the combination with a traveler adapted to run upon the track, carrier mechanism carried by and swiveled to the carrier to rotate horizontally thereon and including gripping mechanism, a trip member carried by the carrier mechanism and arranged to engage the trip-block to release the gripping mechanism when engaged with the trip-block, said trip member being provided with upwardly projecting arms to engage opposite sides of the trip-block and being located substantially at the center of rotation of the carrier mechanism, whereby when the carrier mechanism is turned 90° on the traveler the trip-block may pass between the upwardly extending arms of the trip member.

4. In a sling carrier adapted to run upon a track, a trip member pivoted upon the axis transverse of the line of the track, rope-locking means operated by the movement of the trip member, a locking dog adapted to hold the trip member in the position in which the rope is released, the locking dog being pivoted upon an axis at right-angles to the pivot of the trip member.

5. In a sling carrier adapted to run upon a track, a trip member pivoted on an axis transverse to the track, rope-clamping means operated by the movement of the trip member, means carried by the trip member on one side of the line of the track for supporting one end of a rope, and a sheave parallel to the line of the track carried an equal distance on the opposite side of the line of the track whereby the load is balanced laterally on the track, a bight is formed transverse to the track and a part of the load is carried by the trip member to operate the rope lock.

[Claims 6 to 10 not printed in the Gazette.]

1,207,286. STALL CONSTRUCTION. HOWARD J. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed Mar. 27, 1914, Serial No. 827,646. Renewed Aug. 15, 1916. Serial No. 115,087. (Cl. 119—27.)



1. In stable equipment, in combination, a stationary concrete curb, stall frame parts adapted to be mounted thereon, a fastening way permanently embedded in said curb substantially flush with the surface thereof and longitudinally disposed relative thereto, and clamping devices associated with said stall frame parts and having means engaging with and adjustable longitudinally of said fastening way.

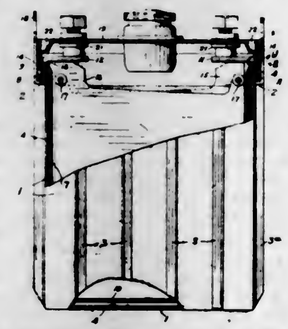
2. In stable equipment, in combination, a stationary concrete curb, a longitudinally disposed metallic way permanently embedded in said curb substantially flush with the surface thereof, stall frame parts of stock size adapted to be mounted on said curb, a second longitudinally disposed metallic way embedded in the concrete floor of the stable in the rear of said curb and substantially flush with the floor surface, and clamping means associated with said stall frame parts adapted to engage said longitudinally disposed ways and clamp the frame parts in any desired adjusted position therealong.

3. In stable equipment, in combination, a stationary concrete curb, stall frame parts adapted to be mounted thereon, a fastening way carried by said curb and longitudinally disposed relative thereto, transverse ways mounted on the longitudinal way, connecting means between said longitudinal and transverse ways whereby the latter may be adjusted along the former, and clamping devices connecting the stall frame parts with said transverse ways, whereby said parts may be adjusted longitudinally and transversely of the curb.

4. In stable equipment, in combination, a concrete floor and curb, a plurality of stanchion supports adapted to be mounted upon said curb, ways permanently embedded in the concrete curb substantially flush with the surface thereof, co-acting members adjustably mounted in said ways for clamping the stanchion supports at any desired point along said curb, a second way embedded in the concrete floor in the rear of said curb and co-acting members adjustably mounted in said ways for supporting partitions between said stanchion supports.

5. In stable equipment, the combination with stall frame parts, of longitudinal and transverse ways having inturned flanges spaced apart at their opposed edges to form an opening restricted at its top, means for adjustably connecting the transverse ways to the longitudinal ways, and means for adjustably connecting the stall frame parts to the transverse ways.

1,207,287. STORAGE BATTERY. BRUCE FORD, Philadelphia, Pa. Filed May 19, 1915. Serial No. 29,028. (Cl. 204—53.)



1. In a storage battery the combination of a metal container having an outward offset in and near the top of two of its opposed side walls, a rubber jar stopping short of the bottom of the metal container and having offsets similar and conforming to the first mentioned offsets and provided on top thereof with seats, and a plate structure seated on the seats and of which the weight is carried by the outward offsets of the metal container.

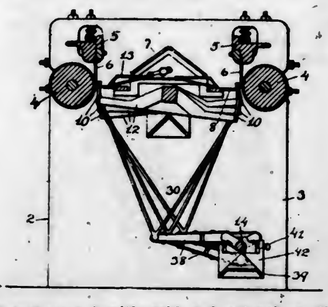
2. In a storage battery the combination of a metal container having an outward offset in and near the top of two of its opposed side walls, a rubber jar stopping short of the bottom of the metal container and having offsets similar and conforming to the first mentioned offsets and provided on top thereof with seats, bus bars each of one polarity seated on the seats, and plates of like polarity connected to the bus bars whereby the weight of the plate structure is carried by the outward offsets of the metal container.

3. In a storage battery the combination of a metal container having an outward offset in and near the top of two of its opposed side walls, a rubber jar having offsets conforming to the first mentioned offsets, and a plate structure seated on said offsets and of which the weight is carried by the outward offsets of the metal container, substantially as described.

1,207,288. COTTON-GIN. LELAND L. FOSS, Vidalia, Ga. Filed May 22, 1916. Serial No. 99,176. (Cl. 13—7.)

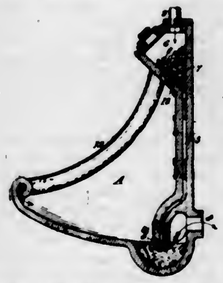
1. In a cotton gin, the combination with ginning rollers, breasts carrying ginning blades and a hacker frame having blades coöperating with the ginning blades, of means for operating said hacker frame comprising a cranked power shaft, a V-form frame having a lower transverse rod and upwardly extending diverging branches integral with said rod, said branches having each at its upper end an integral perforated lug, and a securing bolt engaging said perforation and securing said lug to the hacker blade, and a crank leg connecting said transverse rod with the crank of the power shaft.

2. In a cotton gin, end frames having vertical and horizontal flanges, a ginning roller, a breast provided with overlying end extensions and vertical bolt extensions engaging the slots of said horizontal flanges, a ginning blade carried by each breast and adapted to contact tangentially with said roller, upper and lower oppositely extending horizontal bolts having at their adjacent ends



pivotal engagement with said end extensions, the lower of said bolts having at their outer ends engagement with the slots of said vertical flanges and nuts bearing against said flanges, turnbuckles connecting the approximated ends of said upper bolts, and coiled springs surrounding said vertical bolts and bearing at their upper ends against said horizontal flanges, and at their lower ends against said breast.

1,207,289. SANITARY TOILET AND URINAL. ALEXANDER D. GRANT, San Jose, Cal. Filed Mar. 7, 1916. Serial No. 82,579. (Cl. 4—30.)

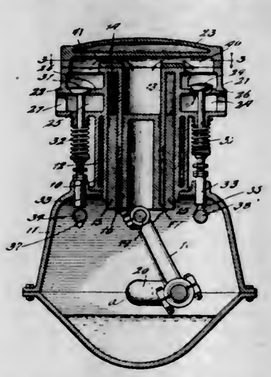


1. In a device of the character described, a bowl, a disinfectant chamber arranged at the top of the bowl to hold a disinfectant directly in the path of the inflowing water and provided in its front wall with a refilling opening, an inlet for the bowl leading into the top of the chamber, an outlet provided in the bottom portion of the bowl, a passage leading from the chamber to conduct away the liquid not passing through the disinfectant for flushing the bowl, a drain passage leading from the bottom of the chamber to conduct the disinfectant in solution to the bottom of the bowl, the inlet and drain passage being arranged so that the inflowing water must pass through the disinfectant in the chamber prior to flowing into the drain passage, and a removable closure for the refilling opening of the bowl.

2. In a device of the character described, a bowl having a rear wall, a disinfectant chamber provided at the upper edge of the rear wall of the bowl, an inlet for the chamber, said bowl having discharge passages leading from the opposite sides of the chamber and extending about the forward edge of said bowl, a wall of said disinfectant chamber having a series of passages leading from the interior of the chamber and directed toward the exterior surface of the rear wall of said bowl, a disinfectant-con-

ducting passage in the rear wall of the bowl leading from the chamber, the bottom of said bowl being formed with a depression and the rear wall of the bowl having an outlet opening spaced upwardly from the depression, and a nipple extending outwardly from the rear wall above the outlet opening and leading from the disinfectant-conducting passage down into the depression.

1,207,290. INTERNAL-COMBUSTION ENGINE. WILLIAM W. GREEN and HARRY C. RICHARDS, Niles, Mich. Filed June 14, 1915. Serial No. 33,882. (Cl. 123—52.)



1. In an internal combustion engine an inner internal combustion cylinder and an outer internal combustion cylinder surrounding the same, a common inlet chamber for both cylinders and a common exhaust chamber for both cylinders, separate valve controlled inlet passageways leading from said inlet chamber to both cylinders and separate valve controlled exhaust passageways leading from the cylinders to the exhaust chamber, pistons, one in each cylinder and both traveling in unison and cams for actuating the valves, said cams being set so that on the intake strokes of one piston the other piston is on the explosion strokes.

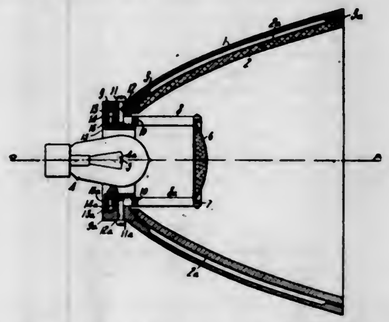
2. In an internal combustion engine, an inner internal combustion cylinder, an outer combustion cylinder of annular form surrounding said inner cylinder, a common inlet chamber for both cylinders and a common exhaust chamber for both cylinders, separate inlet passageways leading from the inlet chamber to both cylinders and separate exhaust passageways leading from the cylinders to the exhaust chamber, valve controlled inlet and exhaust ports for each cylinder located between the passageways and chambers, a cylindrical piston in the inner cylinder, a piston of annular form in the outer cylinder, said pistons being connected to travel in unison, a crank and crank shaft, and a connecting rod connecting said pistons with said crank.

1,207,291. SIGNAL. CLINTON O. HARRINGTON, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1913. Serial No. 793,511. (Cl. 240—41.)

1. A signal comprising a source of light, a fixed reflector for projecting a beam in one direction from said source, and a lens for projecting another beam from said source, said lens being mounted to swing about said source of light as a center.

2. A signal comprising a source of light, a reflector for projecting a beam of light from said source, a lens for projecting another beam of light from said source, and means for pivoting said lens on an axis passing substantially through said source of light.

3. A signal comprising a source of light, a reflector for projecting a beam from said source, a lens for projecting another beam from said source, and means for mounting said lens to swing relatively to the reflector, the axis of the lens being co-incident with the axis of the reflector when the lens occupies one position in its path, said means comprising a pin and slot trunnion and guides for drawing the lens closer to the source of light as the lens is swung away from said coincident position.

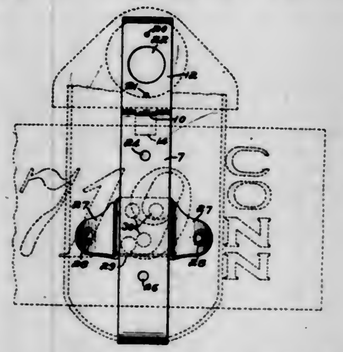


4. A signal comprising a source of light, a reflector for projecting a beam from said source, a lens for projecting another beam from said source, means for mounting said lens to swing in a curved path around the said source of light, said means also permitting the lens to move longitudinally with respect to the said source, and guides for constraining the lens to move in said longitudinal path when it is swung in the curved path, the said longitudinal movement being such that when the optical axis of the lens coincides with the axis of the reflector the principal focus of the lens substantially coincides with said source of light, and that as the optical axis of the lens moves away from the axis of the reflector the principal focus of the lens moves back of the source of light.

5. The combination with a signal comprising a reflector, a source of light, and a lens, of means for pivoting said lens about an axis passing substantially through said source of light, and means for varying the distance between said source and said lens when said lens is swung about said axis.

[Claims 6 to 8 not printed in the Gazette.]

1,207,292. LAMP AND NUMBER-PLATE BRACKET. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Aug. 2, 1913. Serial No. 782,568. (Cl. 248—30.)



1. A bracket of the class described comprising, in combination, two parts one of which is generally L-shaped in form and is provided adjacent its apex with a perforation, and the other of which has two terminal portions one of which is in the form of a tongue having an offset extending through said perforation, and means to secure the remaining terminal portion to the other of said parts.

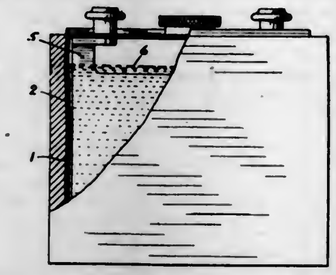
2. A bracket of the class described comprising, in combination, two parts one of which is generally L-shaped in form and is provided with a perforation, and the other of which is generally U-shaped in form and has two arms one having a tongue offset substantially parallel to its arm and extending through said perforation, and means to secure the other arm to the other of said parts.

3. A bracket of the class described comprising, in combination, two parts one of which is provided with a perforation, and the other of which is generally U-shaped in form and has two arms one having a tongue offset substantially parallel to its arm and extending through said perforation, and a bolt passing through the other arm and the other of said parts.

4. A bracket of the class described comprising, in combination, two parts one of which is provided with a perforation, and the other of which is generally U-shaped in form and has two perforated arms one having a tongue offset substantially parallel to its arm and extending through said perforation, and a bolt passing through the other arm and the other of said parts.

5. A bracket of the class described comprising, in combination, two parts one of which is generally L-shaped in form and has two arms provided with perforated terminal portions and is provided with a perforation adjacent the juncture of said arms, and the other of which is generally U-shaped in form and has two arms one of which is provided with a tongue offset and extending through said perforation, the remaining arm of each of said parts being provided with a perforation, one registering with the other, and a bolt passing through said registering perforations.

1,207,293. STORAGE BATTERY. CARROLL HODGE, Radnor, Pa. Filed May 25, 1915. Serial No. 30,300. (Cl. 204—53.)

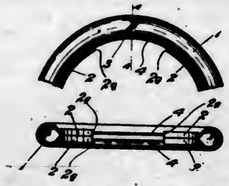


1. The process of fitting hard rubber jars to their boxes which consists in assembling the hard rubber jars and boxes in nested relation with the jars full of warm liquid which softens the hard rubber jar walls and forces them, while soft, into intimate contact with all points of the box walls which thereafter support them, substantially as described.

2. The process of fitting hard rubber jars to their boxes which consists in assembling the hard rubber jars and boxes in nested relation with the jars full of warm liquid which softens the hard rubber jar walls and forces them, while soft, into intimate contact with all points of the box walls which thereafter support them, removing the water, and mounting the electrolyte and plate structure in the jar, substantially as described.

1,207,294. METHOD OF REPAIRING TIRES. OLIVER F. HUNGERFORD, Middleville, Mich., assignor, by direct and mesne assignments, of one-fourth to Charles E. Crookston, Middleville, Mich., and three-fourths to Bell M. Soule, Grand Rapids, Mich. Filed Apr. 18, 1916. Serial No. 91,884. (Cl. 154—14.)

1. The method of repairing tire casings of the clencher type which consists in removing the clencher beads from the casing a distance to each side of the place to be repaired, then providing a boot to pass around the casing, said boot having clencher beads entering the spaces left in the casing made by said removal of the beads from the casing, and then placing the casing and boot on a wheel and inflating the tire, substantially as described.

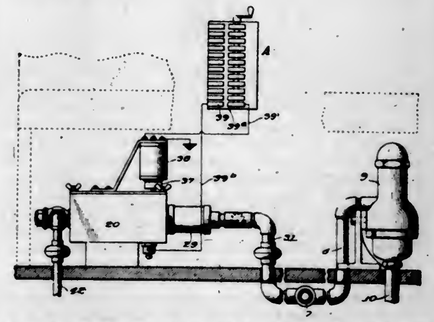


2. The method of repairing tire casings of the clencher type which consists in cutting away the clencher beads from the casing a distance to each side of the place to be repaired, then taking a section of tire casing of the same type and diameter as the casing to be repaired and placing it around the casing with the clencher beads thereof seating in the spaces provided by cutting away the beads from the casing, then placing the casing and boot on a wheel and inflating the tire substantially as described.

3. The method of repairing tire casings of the clencher type which consists in removing the clencher beads from the casing a distance to each side of the place to be repaired, then taking a section of a tire casing of the same type and diameter as the casing to be repaired and having length slightly longer than the length of the beads removed from the casing, then placing said section of casing around the casing to be repaired with the beads on said section entering the spaces left by removal of said beads from the casing to be repaired, substantially as described.

4. The method of repairing tire casings of the clencher type which consists in placing a section of tire casing of the same type and diameter as the casing to be repaired around said casing and interlocking the beads of said casing to be repaired and section of casing around it by removing portions of the bead on the casing adjacent the section to be repaired and inserting corresponding beads on said section of casing in the spaces left by removal of beads on the casing and then placing both casing and section of casing on a clencher rim and inflating the tire, substantially as described.

1,207,295. MEANS FOR CONTROLLING ELECTRICALLY-PROPELLED VEHICLES. OSCAR JOHNSON, Chicago, Ill. Filed Jan. 27, 1913. Serial No. 744,804. (Cl. 188—4.)



1. The combination of a brake cylinder, a train line arranged to communicate with said brake cylinder, a source of high-pressure supply, two motorman's brake valves communicating with the opposite ends of the train line, for connecting said source to said train line, auxiliary manually actuated means for connecting said source to said brake cylinder, and means for interrupting com-

munication between the train line and the brake cylinder when said auxiliary means is operated.

2. The combination of a brake cylinder, a train line arranged to communicate with said brake cylinder, a source of high-pressure supply, two motorman's brake valves communicating with the opposite ends of the train line, for connecting said source to said train line, another manually actuated valve controlling communication between said source and the brake cylinder, and a valve operable by pressure fluid flowing through the said manually actuated valve for interrupting communication between the train line and the brake cylinder.

3. The combination of a valve casing, a brake cylinder, a pipe connecting said valve casing to said brake cylinder, a train line connected to said valve casing, two motorman's brake valves communicating with the opposite ends of the train line, a pressure pipe also connected to said valve casing, a valve member in said casing arranged to be moved by the pressure in said pressure pipe into position to close communication between the train line and the brake-cylinder pipe, said valve casing having therein a by-pass arranged to establish communication between the pressure pipe and the brake-cylinder pipe, said valve member being arranged to close said by-pass when not in position to interrupt communication between the train line and the brake-cylinder pipe, and means independent of the motorman's brake valve for controlling the supply of pressure fluid to said pressure pipe.

4. In an electrically-propelled vehicle, the combination of an air brake, a motor-circuit breaker, track-sanding means, means for simultaneously operating said air brake, circuit-breaker and track-sanding means, and means for simultaneously operating said air brake and said circuit breaker only.

5. In an electrically-propelled vehicle, the combination of an air brake, a motor-circuit breaker, an alarm, means for simultaneously operating the same, and means for simultaneously operating said air brake and said circuit breaker only.

[Claims 6 to 19 not printed in the Gazette.]

1,207,296. COMBINED WATCHCASE AND VANITY-BOX. ARTHUR G. KASTOR, St. Louis, Mo. Filed Mar. 24, 1913. Serial No. 756,407. (Cl. 132—11.)

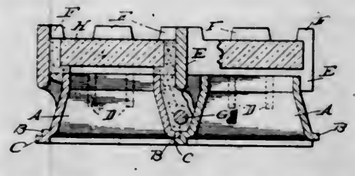


The combination with a common open-faced watch-case having the usual watch-movement therein, a winding-stem, a crown, and a back which may be opened to afford access to the said watch-movement; of a vanity-box hingedly connected to the back of said case; and a locking-device operable by movement of the said winding-stem, for holding said vanity-box closed against the back of said case.

1,207,297. PAVING. FREDERICK L. KEPPLER, Berlin, Germany. Filed Nov. 6, 1912. Serial No. 729,763. (Cl. 94—7.)

1. A translucent pavement consisting of a grid made up of separate intersecting cross members, stools separate from but supported by said cross members, and having each a central opening and a surrounding elevated rim and translucent panels mounted upon said stools and within but beneath the surface of said rim and means for holding the parts together.

2. A translucent pavement consisting of a grid made up of separate intersecting cross members, stools separate from but supported by cross members, and having each a central opening and a surrounding elevated rim and translucent panels mounted upon said stools and within but beneath the surface of said rim, and a plastic material inclosing the grid, surrounding the stools and in which the panels and the protecting cleats are embedded.



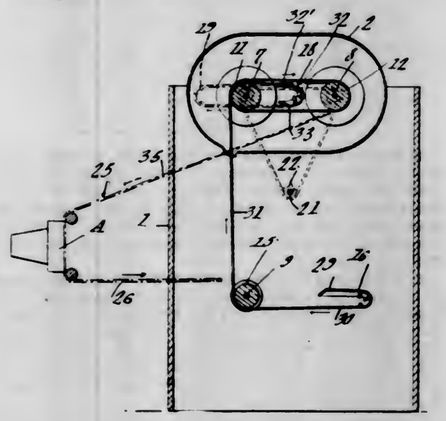
3. A pavement consisting of assembled units of metal and glass comprising separate grid-forming cross members, stools supported thereby, translucent panels mounted above said stools, a rim surrounding and projecting above each of said panels, and a plastic material inclosing the grid, surrounding the stools, and in which the panels are embedded.

4. A pavement consisting of assembled units of metal and glass, comprising separate grid-forming members, truncated pyramidal stools open at both ends and supported thereby, ribs projecting outwardly from the upper portion of the walls of said stools on two adjacent sides and carrying rectangular cleat members, glass panels mounted above said pyramidal stools, and a plastic mass in which the stools and the panels are embedded.

5. A translucent pavement structure comprising a series of separate hollow stools, projecting rims surrounding and projecting above them in part integral with each other, translucent panels supported above the stools and within but lower than the surface of the rims, a grid of concrete and reinforcing rods whose members connect and support the several parts.

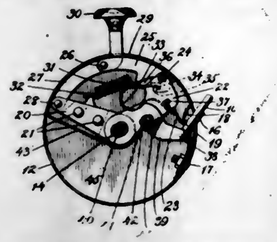
[Claim 6 not printed in the Gazette.]

1,207,298. MOTION-PICTURE-FILM HOLDER. WILMER W. KISCHER, Peoria, Ill. Filed June 23, 1915. Serial No. 35,918. (Cl. 88—18.7.)



A motion picture film holder comprising upper and lower pairs of reels arranged in spaced vertical planes; a film having upper and lower windings upon the upper and lower pairs of reels, respectively; means for guiding the film from the interior of the upper winding out between the upper reels into the vertical plane of the lower reels, then to a projecting apparatus and then to the lower winding; and means for guiding the film from the interior of the lower winding out between the lower reels into the vertical plane of the upper reels and thence to the upper winding.

1,207,299. FIBER-NEEDLE CUTTER. THOMAS W. KIRKMAN, New York, N. Y., assignor, by mesne assignments, to Kirkman Engineering Corporation, New York, N. Y., a Corporation of New York. Filed Aug. 19, 1913. Serial No. 785,461. (Cl. 144—146.)



1. A cutter comprising a support, a work-holder stationarily mounted thereon for presenting the work to the knife, a knife-holder pivoted to said support, a pair of toggle-links for actuating said knife-holder, said links being pivotally connected to each other and one of them pivoted to the free end of the knife-holder, while the other is pivoted on said support, the said knife-holder and links being so arranged that straight lines connecting their pivots would form a substantially diamond-shaped figure, means for applying pressure to the pivotal connecting point of said links toward the pivot of the knife-holder to elongate said figure and produce the cutting stroke of the knife-holder, and means for yieldingly retracting the knife-holder.

2. A cutter comprising a pivoted knife-holder having a knife, a pair of toggle-links spanning the pivot of said holder for operating the latter, a casing inclosing the aforesaid mechanism and having a space for the reception of chips, a handle extending from the knuckle of the toggle to the outside of the casing for operating said toggle, and a work-holder on said casing.

3. A cutter comprising a circular casing having a removable cover, a knife-holder pivoted substantially centrally of said casing and having a knife, a work-holder, and knife-operating mechanism on one side of the pivot of said knife-holder, the casing-space on the opposite side of said pivot constituting a receptacle for chips.

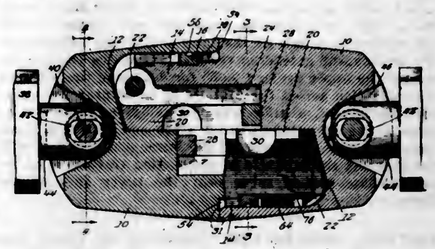
4. A cutter comprising a circular casing, one side of which forms a removable cover, the other side having a central stud to which said cover is attached, said casing having a space for the reception of chips, a work-holder, a knife having a holder pivoted on said stud, and mechanism for oscillating said knife-holder.

5. A cutter comprising a casing, a knife-holder pivoted therein and having a knife, mechanism on one side of the pivot of said knife-holder for operating the latter, and a partition plate mounted in said casing and having one end located back of the cutting edge of the knife and movable with the knife-holder, for dividing the casing into a space containing the operating mechanism and a space for the reception of chips.

(Claims 6 to 12 not printed in the Gazette.]

1,207,300. CAR-COUPLING. WILLIAM S. KNISELY, Chicago Heights, Ill. Filed Jan. 2, 1913. Serial No. 739,582. (Cl. 213—40.)

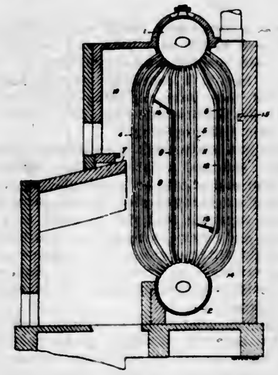
1. In a device of the class described, the combination of two members to be coupled, one of them having an opening therein within which the opposite member may enter, a lug 54 on the inside of the first mentioned member movable in a recess 74 in said second mentioned member, a locking pin of greater width than the lug 54 movable through the recess in the first member of the coupler and into engagement with the lug 54, and a lug 62 on the entering member of substantially the same width as the locking member and having formed therewith a cam track 64—74 adapted to, as the parts are brought together, elevate the locking pin from its locked position behind the lug 54 to a position where it can drop into a slot 70 back of the lug 62 and thence to locked position, for the purposes set forth.



2. In a coupler, a body member and a lug projecting from said body, there being a notch in said lug adapted to receive another coupler and hold it away from the body of the coupler, for the purposes set forth.

3. In a coupler, a body member and a lug projecting from the forward end of the body member toward another coupler to be attached thereto, there being a notch in said lug intermediate between its end and said body member adapted to receive a portion of an opposing coupler and hold it away from the body of the coupler for the purposes set forth.

1,207,301. WATER-TUBE BOILER. GEORGE T. LADD, Pittsburgh, Pa. Filed Aug. 11, 1915. Serial No. 45,031. (Cl. 122—336.)



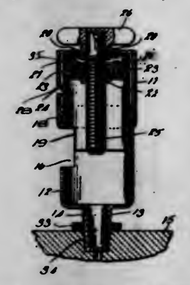
1. A boiler having in combination an upper and a lower drum, three sets of tubes connecting said drum; a baffle arranged at an angle to the first set of tubes and adapted to cause products of combustion from the fire box to flow across the lower ends of the first set of tubes; a baffle arranged between the first and second sets of tubes adjacent to their upper ends and adapted to cause products of combustion to flow transverse of the first set of tubes; a baffle for preventing products of combustion from flowing from between the space between the first and second sets of tubes across the second set of tubes; a baffle arranged between the second and third sets of tubes adjacent to their lower ends and adapted to cause products of combustion to flow transverse of the second or intermediate set of tubes, and a vertically arranged baffle adapted to

prevent the flow of products of combustion transverse of the upper portions of the third set of tubes.

2. A boiler having in combination an upper and a lower drum, three sets of tubes connecting said drums, a baffle arranged on the side of the intermediate set adjacent to the fire-box and a second baffle arranged along the inner row of tubes of the set adjacent to the stack, said baffle extending down from the upper toward the lower drum.

3. A boiler having in combination an upper and a lower drum, three sets of tubes connecting said drum, a baffle arranged on the side of the intermediate set adjacent to the fire box and extending vertically from the lower drum toward the upper drum, a baffle for deflecting the products of combustion across the first set of tubes near the upper portions thereof, a baffle arranged along the inner row of tubes of the set adjacent to the stack and extending down from the upper drum toward the lower drum, and a baffle for directing the products of combustion transverse of the intermediate set of tubes near the lower ends of the latter.

1,207,302. GREASE-CUP. KENNETH F. LEBS, New Haven, Conn. Filed Apr. 3, 1916. Serial No. 88,499. (Cl. 184—38.)



1. A grease cup comprising a body having a lateral filling opening, a sleeve within said body and movable to cover and uncover said opening, and a cap fitted to the end of said body and having a depending portion inclosing the exterior of said body, said cap being longitudinally movable on said body to cause said depending portion to cover and uncover said filling opening.

2. A grease cup comprising a cylindrical body having an open outer end and a lateral filling opening, a cap closing the outer end of said body, movably mounted thereon, and having an inclined slot, a stud projecting from said body and engaging said slot to guide said cap in a combined axial and rotary movement on said body to cover and uncover said filling opening, and a sleeve within said body and operatively connected with said cap, said sleeve having an opening movable into and out of register with said filling opening.

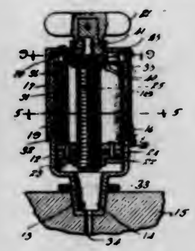
3. A grease cup comprising a cylindrical body having an open outer end and a lateral filling opening, a cap mounted on the exterior of said body, closing the outer end thereof, and movably mounted thereon, said cap having an inclined slot cut therethrough, and a stud projecting from said body and engaging said slot to guide said cap in a combined axial and rotary movement on said body to cover and uncover said filling opening, said slot being so located in said cap as always to lie at one side of said filling opening in all positions of said cap.

4. A grease cup comprising a body having an open outer end and a lateral filling opening, a cap closing the outer end of said body and movable thereon in one direction to cover and in the opposite direction to uncover said opening, and means for locking said cap against movement in the direction to uncover said opening, said means being rendered operative by incipient movement of said cap in said last named direction.

5. A grease cup comprising a body having an open outer end and a lateral filling opening, a cap closing the outer end of said body and movable thereon to cover and uncover said opening, said cap having a slot, and a stud projecting from said body and engaging said slot to guide said cap in its movements, there being a notch at the lateral edge of said slot adjacent one end thereof to receive said stud and lock said cap in position to cover said opening.

[Claims 6 to 14 not printed in the Gazette.]

1,207,303. GREASE-CUP. KENNETH F. LEBS, New Haven, Conn. Filed June 7, 1916. Serial No. 102,225. (Cl. 184—38.)



1. A grease cup comprising a body having a lateral filling opening, a cap on the exterior of said body, and means for guiding said cap for successive axial and rotary movements, said axial movement serving to carry the edge of said cap over or away from said opening to cover or uncover the same, and said rotary movement serving to lock said cap against axial movement or to unlock the same.

2. A grease cup comprising a body having a lateral filling opening, a cap movable on said body to cover and uncover said opening and having an angular slot closed at both ends, and a stud projecting from said body and engaging said slot.

3. A grease cup comprising a body having a lateral filling opening, a cap movable on said body to cover and uncover said opening, said cap having a slot comprising a longitudinal portion and a circumferential portion communicating at one end with said longitudinal portion, and a stud projecting from said body and engaging said slot, there being a notch communicating with the circumferential portion of said slot to receive said stud and lock said cap in position to cover said opening.

4. A grease cup comprising a body having a lateral opening, a sleeve within said body having an opening, said sleeve being movable to bring the opening therein into and out of register with the opening in said body, a cap movably mounted on the exterior of said body and operatively connected with said sleeve, and means for retaining said sleeve within said body.

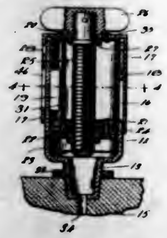
5. A grease cup comprising a body having a lateral opening, a sleeve within said body having a lateral opening, said sleeve being rotatable in said body to bring the opening therein into and out of register with the opening in said body, and inwardly projecting lugs on the outer end of said body engaging the outer end of said sleeve to retain said sleeve within said body.

[Claims 6 to 19 not printed in the Gazette.]

1,207,304. GREASE-CUP. KENNETH F. LEBS, New Haven, Conn. Filed June 7, 1916. Serial No. 102,226. (Cl. 184—38.)

1. A grease cup comprising a cylindrical body having a lateral filling opening, a member movably mounted on said body and having a lateral opening and a circumferential slot, and a stud projecting from said body and engaging said slot to guide said member for rotary movement on said body to bring said openings into and out of registration, there being a notch adjacent one end of said slot to receive said stud and lock the said member with the opening therein out of register with the opening in said body.

2. A grease cup comprising a body having a filling opening, a sleeve within said body and having an opening, and a member on the exterior of said body and having an opening, said sleeve and member being movable on said body to bring the openings therein into and out of register with said filling opening.

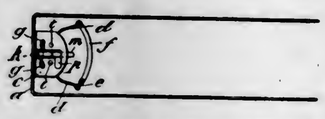


3. A grease cup comprising a cylindrical body having a lateral filling opening, a sleeve within said body having a lateral opening, said sleeve being rotatable to bring the opening therein into and out of register with the opening in said body, and a cap rotatably mounted on said body and operatively connected with said sleeve, said cap having a lateral opening opposite the opening in said sleeve.

4. A grease cup comprising a cylindrical body having an open outer end and a lateral filling opening, a sleeve rotatable within said body and having a lateral opening, a cap rotatably mounted on the exterior of said body and closing the outer end thereof, said cap having a lateral opening and a circumferential slot and being rigidly connected with said sleeve, and a stud projecting from said body and engaging said slot.

5. A grease cup comprising a body having a filling opening, an expansible sleeve within said body and having an opening, and a member on the exterior of said body and having an opening, said sleeve and member being movable on said body to bring the openings therein into and out of register with said filling opening.

1,207,305. LETTER-FILE. LOUIS LEITZ, Stuttgart, Germany. Filed Mar. 5, 1914. Serial No. 822,693. (Cl. 129—24.)



1. In a letter file, a back, a pair of inwardly projecting parallel plates secured to the back, each plate being adjacent one end of the back and having a perpendicular slot, a hinge having a hinge pin extending into each of said slots, and a handle for the hinge pin for pulling it back and forth perpendicularly in the slots to open and close the hinge wings, curved prongs mounted on the hinge wings, the handle and slots being arranged to form cooperating means for limiting the outward perpendicular movement of the hinge pin and holding the hinge wings and curved prongs in a partially open condition.

2. In a letter file, a back, a pair of inwardly projecting parallel plates secured to the back, each plate being adjacent one end of the back and provided with an angular slot having a perpendicular branch, a hinge having a hinge pin extending into each of said slots, a handle for the hinge pin for pulling it back and forth perpendicularly in the slots to open and close the hinge-wings, and curved prongs mounted on the hinge-wings, said handle and slots forming means for limiting the outward perpendicular movement of the hinge pin and holding the hinge wings and curved prongs in a partially open condition and for permitting movement of the hinge wings and curved prongs into the fully opened condition.

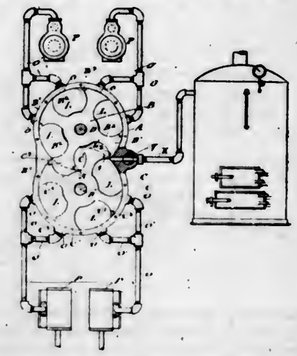
3. In a letter file, a back, a hinge, side plates supporting said hinge, means for moving the hinge joint vertically away from and toward the back to open and close the hinge-wings respectively, said side plates having angular slots forming guides for the hinge joint and its moving means, stops on the hinge-joint-moving means located in said slots and curved prongs mounted on the hinge-wings.

4. In a letter file, a back, a hinge, side plates supporting said hinge, means for moving the hinge-joint vertically away from and toward the back to open and close the hinge-wings respectively, said side plates having T shaped slots forming guides for the hinge joint and its moving means, stops on the hinge-joint-moving means located in said slots and curved prongs mounted on the hinge wings.

5. In a letter file, a back, a hinge, side plates supporting said hinge, means for moving the hinge-joint vertically away from and toward the back to open and close the hinge-wings respectively, said side plates having angular slots forming guides for the hinge joint and its moving means and stops on the hinge-joint moving means slidably secured in the said slots.

[Claim 6 not printed in the Gazette.]

1,207,306. MOTOR AND PRESSURE-DISTRIBUTER. STEVEN T. LESTAK, East Bakersfield, Cal. Filed July 20, 1914. Serial No. 852,062. (Cl. 121—54.)



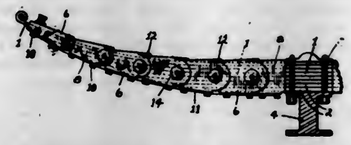
In a combined motor and pressure distributer, a pair of rotatable wheels and shafts, said wheels being provided with inter-engaging blades, making constant contact with each other, a casing surrounding said wheels having means for making air tight joints between said blades to form chambers between the blades, a series of separate pressure driven engines supplied from said casing, and exhaust pipes connecting said casing with said engines, each of said exhaust pipes being connected with a single one of said separate engines at one end and being branched at the other end and both branches of each side connecting with a portion of said casing which is associated with a single one of said wheels at separated points around the periphery thereof.

1,207,307. SPRING ATTACHMENT. THEODORE LINDENBERG, Grandview Heights, Ohio. Filed Aug. 16, 1915. Serial No. 45,808. (Cl. 267—28.)

1. The combination with a leaf spring, a layer of felt or the like mounted in coöperative relation with the leaves of said spring, and a protector covering for said felt formed of a plurality of plate members each bent to have a top and two side faces to form an inclosure and the various members pivoted together.

2. In combination with a leaf spring, a layer of felt or the like mounted in coöperative relation with the leaves of said spring, a protector covering for said felt formed of a plurality of plate members pivotally connected and bent to have a top and two side faces with the edge portions

bent inwardly to form the bottom, studs on said inwardly bent portions, and lacing means for drawing the sides of said members together.



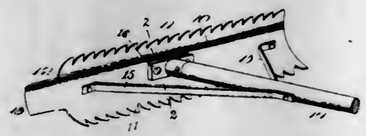
3. In combination with a leaf spring, a layer of felt or the like mounted in coöperative relation with the leaves of said spring, a protector covering for said felt formed of a plurality of plate members, and friction shock absorber pivot connections between said plate sections.

4. The combination with a leaf spring, a layer of felt or the like mounted in coöperative relation with the leaves of said spring, means for holding said felt in applied position and a shock absorber structure carried by said means and actuated when said spring is flexed.

5. In combination with a leaf spring, a layer of felt or the like mounted in coöperative relation with the leaves of said spring, a protector covering for said felt formed of a plurality of plate members bent to form an inclosure and pivoted together, the pivot connections being arranged to form shock absorber structures, and means for holding said covering in its applied position.

[Claim 6 not printed in the Gazette.]

1,207,308. COMBINED WEED-EXTRACTOR AND LAWN-RAKE. DON A. MCCOY, Miller, S. D. Filed Feb. 15, 1916. Serial No. 78,513. (Cl. 55—39.)

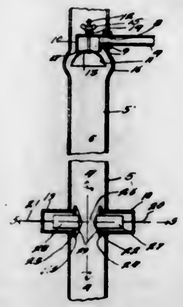


An implement of the class described comprising an elongated body portion concaved transversely and having teeth in its longitudinal edges and with a projection extending in alinement with the longitudinal axis of the body and of less width than the body, the side edges of the projection extending in parallel relation and with the outer end sharpened, and a handle extending from the body, the center line of the cutting extension being in alinement with the longitudinal axial alinement of the body and of the handle.

1,207,309. APPARATUS FOR PURIFYING WATER. HUGH YOUNGS MCINTYRE, Milwaukee, Wis. Filed Aug. 13, 1915. Serial No. 45,380. (Cl. 210—1.)

1. In an ozonating or purifying device, a glass tubular member having tubular extensions extending laterally from said member at diametrically opposite points, sparking terminals arranged axially with each other with their inner ends spaced apart and mounted in said extensions and to be connected to an electric circuit for creating a spark across the gap between the two terminals, said tubular member having an ozone chamber, and means for causing a thin sheet of water to descend down the inner surface of said chamber to be ozonated or purified by the gaseous discharges from the electric spark across said gap.

2. In an ozonating or purifying device, the combination of a glass tubular member having an ozonating chamber and means for causing a sheet of water to descend down upon the inner surface of said chamber, of a pair of sparking electrode terminals axially arranged and mounted diametrically opposite each other in the wall of said member with their inner ends spaced apart, whereby the gaseous discharges from the spark across said gap will impregnate the sheet of water for ozonating or purifying the same, the inner surface of said chamber having diametrically opposite circular flanges surrounding the electrode terminals to prevent the sheet of water from contacting with the electrodes.



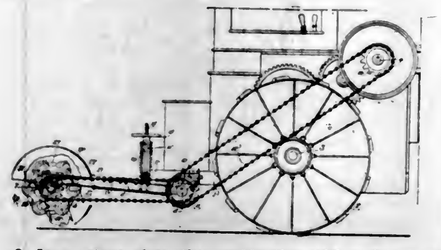
3. In an ozonating and purifying device, the combination of a glass tubular member having an ozonating chamber and means for causing a sheet of water to descend down upon the inner surface of said member, of a pair of diametric axially opposite extensions protruding outwardly from the member, inwardly protruding diametric opposite extensions axial with each other and with the first extension, said inward extensions having diametrically opposite disposed circular plates, which together with the inwardly protruding extensions prevents the sheet of water from contacting with electrode terminals, and a pair of electrode sparking terminals arranged axially and having their inner ends spaced apart and mounted in said circular plates, whereby the gaseous discharges generated from the spark across said gap will impregnate the sheet of water to ozonate or purify the same, said circular plates being larger in diameter than the inner protruding extensions, thereby forming flanges to guard the electrode terminal from the sheet of water.

4. In an ozonating or purifying device, the combination of a glass tubular member having an ozonating chamber and means in said chamber for ozonating or purifying a sheet of water, of means for causing a sheet of water to descend down the wall of said chamber, and means at diametrically opposite points of said chamber and adjoining said ozonating or purifying means to guard the same against contact by the sheet of water.

5. In an ozonating or purifying device, the combination of a glass tubular member having an ozonating chamber and means in said chamber for ozonating or purifying a sheet of water, of means for causing a sheet of water to descend down the wall of said chamber, said member having an outwardly extending annular bulge, said last named means comprising an inlet pipe terminating in a circular head in the upper part of said tubular member, said head having a downwardly extending annular flange, the lower inner edge portion of which is beveled, a hanger rod, a bell shaped fluid spreading member swiveled upon the lower end of said hanger, and means for adjusting the hanger, whereby the convexed surface of the spreader may be adjusted toward and from the inner beveled edge portion of the flange to increase or decrease the sheet of water to be directed toward the inner surface of the annular bulge by said spreader.

1,207,310. ROTARY PLOW. WALLACE F. MACGREGOR, Racine, Wis., assignor to J. I. Case Threshing Machine Company, Racine, Wis., a Corporation. Filed June 27, 1914. Serial No. 847,619. (Cl. 97—62.)

1. In a rotary plow, the combination with a frame, of a power operated, rotary, soil milling tool mounted on said frame and comprising heads in a circular series of supporting shafts journaled in said heads, holders loosely mounted on said shafts, soil cutting teeth rigidly mounted on said holders, springs connecting said shafts and said holders to yieldingly maintain the same and said teeth in working position, and feathering mechanism connected to said shafts to positively rotate the same in said heads as said tool is rotated, substantially as described.



2. In a rotary plow, the combination with a frame, of a power operated soil milling tool rotatably mounted in said frame and comprising a shaft, two heads thereon, a circular series of supporting shafts journaled in said heads, holders loosely mounted on said shafts, soil cutting teeth on said holders, springs connected to said shafts and said holders for yieldingly maintaining the same and said teeth in working position, a stationary controlling member, and connections between said member and said supporting shafts for positively rotating the latter as said tool is rotated, substantially as described.

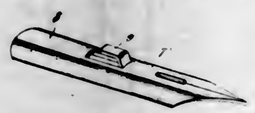
3. In a rotary plow, the combination with a frame, of a power-operated soil-milling tool rotatably mounted on sand frame and comprising a circular series of supporting bars, sleeves loosely mounted on said bars and provided with laterally projecting clamps, soil-cutting teeth adjustably secured in said clamps and springs coiled about said bars and connected thereto and to said sleeves for maintaining the latter and said teeth in working position, substantially as described.

4. In a rotary plow, t[illegible] combination with a frame, of a power-operated soil-milling tool rotatably mounted on said frame and comprising a series of supporting bars, sleeves loosely mounted on said bars and provided with projecting clamps, soil cutting teeth adjustably secured in said clamps, coiled springs yieldingly connecting said sleeves to said bars, and mechanism for feathering said bars as the tool is rotated.

5. In a rotary plow, the combination with a frame, of a soil-milling tool rotatably mounted in said frame and comprising a circular series of supporting bars, soil-cutting teeth yieldingly mounted on said bars, mechanism for rotating said tool in forward direction, and feathering mechanism connected to said tooth-supporting bars for maintaining said teeth at a downwardly and forwardly inclined angle to the ground, substantially as described.

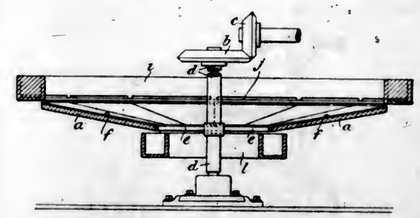
[Claim 6 not printed in the Gazette.]

1,207,311. PEN. IDA M. MARTIN, St. Louis, Mo. Filed May 17, 1913, Serial No. 768,317. Renewed Oct. 16, 1916. Serial No. 126,040. (Cl. 120—109.)



A pen having a tongue stamped out of the back part of its body, said tongue being bent upwardly in a vertical plane then rearwardly in a plane parallel with the longitudinal axis of said pen, the vertical portion of said tongue forming an abutment to limit the inward movement of said pen, and the parallel portion of said tongue being sufficiently spaced from the body portion of said pen, to snugly engage the outer periphery of the penholder when the said vertical portion is in engagement with the end of said penholder.

1,207,312. APPARATUS FOR THE WATER CONCENTRATION OF ORES, SLIMES, AND THE LIKE. WILLIAM MORLEY MARTIN, Cornwall, England. Filed June 22, 1915. Serial No. 35,645. (Cl. 83—87.)



1. In an apparatus for concentrating ores, an acting surface consisting of frosted vitreous material which causes little resistance to the movement of the gangue but the regular frostings of which form a series of pits which are adapted to cause great hindrance to the values in combination with means for delivering material to be concentrated suspended in water to said surface.

2. In an apparatus for concentrating ores, an acting surface consisting of vitreous material which causes little resistance to the movement of the gangue but which has upon it a plurality of regular frostings containing a multiplicity of pits of different sizes adapted to cause great hindrance to the values in combination with means for delivering material to be concentrated suspended in water to said surface.

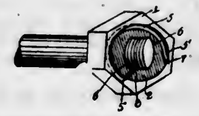
3. In an apparatus for concentrating ores, an acting surface consisting of glass having upon it a plurality of regular frostings having a multiplicity of pits of different sizes in combination with means for delivering material to be concentrated suspended in water to said surface.

4. In an apparatus for concentrating ores, an acting surface consisting of frosted glass which causes little hindrance to the movement of the gangue but the regular frostings of which are adapted to cause great hindrance to the values in combination with means for delivering material to be concentrated suspended in water to said surface.

5. In an apparatus for concentrating ores, an acting surface consisting of sand-blasted glass the regular frostings of which form a series of pits which are adapted to cause great hindrance to the values in combination with means for delivering material to be concentrated suspended in water to said surface.

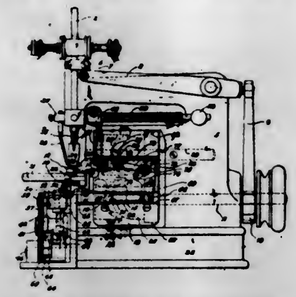
[Claims 6 to 10 not printed in the Gazette.]

1,207,313. SAFETY LOCK-NUT. VICTORINO MARTINEZ, Habana, Cuba. Filed Feb. 5, 1916. Serial No. 76,386. (Cl. 151—25.)



A safety lock nut, comprising in combination with the bolt to be locked, a nut and a wire spring, the nut having in one of its end surfaces a circular cavity centrally disposed with respect to the bolt hole of the nut, the wire spring being seated in said cavity and engaging at one end the wall of the cavity while the other end is bent inwardly to engage the thread of the bolt, the wire spring being free of engagement with the wall of the cavity between the end of the spring engaging the wall of the cavity and that point of the spring at which the latter is bent to project a portion of the wire in direction toward the nut, the portion of the spring adjacent the last named end being in engagement with the wall of the cavity.

1,207,314. CROCHET-MACHINE. JOSEPH M. MERROW, Hartford, Conn., assignor to The Merrow Machine Company, a Corporation of Connecticut. Filed Nov. 2, 1914. Serial No. 869,936. (Cl. 112—24.)



1. In a crochet machine, and in combination with the stitch forming mechanism and feeding mechanism thereof, a plurality of cams and a lever operatively associated with the feeding mechanism and movable into the path of one or more of said cams whereby the fabric may be advanced accordingly after a greater or lesser number of stitches have been formed.

2. In a crochet machine, and in combination with the stitch forming mechanism and feeding mechanism thereof, including two or more cams, a lever, laterally movable into and out of the respective paths of some of said cams, an operative connection between said lever and the feeding devices whereby the lateral movement of the said lever will vary the number of feeding operations in relation to the number of stitch forming operations, means for supporting the said laterally movable lever and means for moving it laterally.

3. In a crochet machine, and in combination with the stitch forming mechanism and feeding mechanism, two dissimilar feed raising cams, an element which may be moved alternately into the path of both of said feed raising cams or into the path of only one of them, the said movable element having operative connection with the feed whereby the fabric may be advanced at variable times in relation to the operations of the stitch forming mechanism.

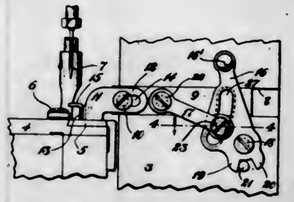
4. In a crochet machine, and in combination with the stitch forming devices thereof, a longitudinally reciprocating feed dog, a gear rotating once for several cycles of stitching, a plurality of cams secured to said gear, and a feed raising lever movable to interpose the swinging end thereof into the path of one or more of said cams whereby the feed may be affected at times variable in relation to the stitching.

5. In a crochet machine, and in combination with the stitch forming and feeding mechanism, means for varying the times of the feeding relative to that of the stitching operations, a movable fabric edge guide with means for its support, and a coöperating connection between the fabric guide and the means for varying the feeding operations.

[Claims 6 to 8 not printed in the Gazette.]

1,207,315. GUIDE-ADJUSTING MECHANISM FOR SEWING-MACHINES. JOSEPH M. MERROW, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Original application filed Nov. 2, 1914, Serial No. 869,936. Divided and this application filed May 17, 1916. Serial No. 98,191. (Cl. 112—9.)

1. In a sewing machine, in combination, a pair of elements comprising a movable edge guide and a lever, a stop for limiting the movement in opposite directions of one of the elements, a stud associated with the edge guide, a second stud associated with the lever, and a link connecting the studs, one of the latter being mounted for adjustment in an arc concentric to the axis of the other when the stop is engaged by the element with which it is effective.



2. In a sewing machine, in combination, a pair of elements comprising a movable edge guide and a lever, a stop for limiting the movement in opposite directions of the lever, a stud associated with the edge guide, a second stud associated with the lever, and a link connecting the studs, one of the studs being mounted for adjustment in an arc concentric to the axis of the other stud when the lever is in one of its stop engaging positions.

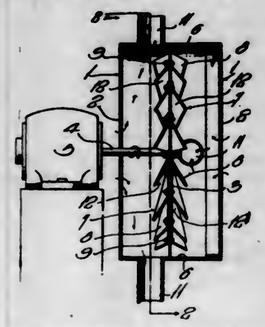
3. In a sewing machine, in combination, an edge guide movable from a predetermined position, a lever, a stud associated with the edge guide, a second stud associated with the lever, and a link connecting the studs, one of the latter being mounted for adjustment in an arc concentric to the axis of the other when the edge guide occupies its predetermined position.

4. In a sewing machine, in combination, a movable edge guide, a stud carried by the edge guide, a lever, a second stud carried by the lever and adjustable relatively thereto in a path which in one position of the lever is concentric to the axis of the stud carried by the edge guide, and a link connecting the studs.

5. In a sewing machine, in combination, a movable edge guide, a stud carried by the edge guide, a lever having an arcuate slot and movable to locate the slot in concentricity to the stud carried by the edge guide, a stud adjustably secured in the slot, and a link connecting the studs.

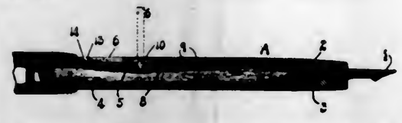
[Claims 6 to 10 not printed in the Gazette.]

1,207,316. AIR-CIRCULATING APPARATUS. MOSBY MONTAGUE, Christiansburg, Va., assignor to Wilmont Ventilating Company, Inc., Roanoke, Va. Filed Jan. 17, 1916. Serial No. 72,559. (Cl. 230—11.)



An air circulator comprising a cylindrical casing having central air inlet openings in its two ends, a one-piece circular partition plate disposed centrally between said ends of the casing and having its edge in close proximity to the curved wall of said casing, a drive shaft at the axis of the casing on which said partition plate is secured, said shaft extending outwardly through one of the aforesaid air inlet openings, a plurality of flat radially disposed fan blades disposed on opposite sides of said partition plate and having straight front and rear edges, the latter being secured in contact with the partition plate, said blades diverging in respect to the partition plate in their direction of travel and toward the periphery of said plate to form air pockets, said pockets being open at their front sides and outer ends, and a pair of air outlets from the curved wall of said casing on each side of the partition plate, said outlets being disposed adjacent the outer delivery ends of the air pockets and being positioned at diametrically opposed points.

1,207,317. FOUNTAIN-PEN. FREDERICK W. OLIVE, St. Louis, Mo., assignor to Joseph Lipic, St. Louis, Mo. Filed June 12, 1914. Serial No. 844,643. (Cl. 120—46.)



1. A fountain pen comprising a casing provided with a discharge duct and having an opening in its wall, a collapsible ink well in said casing communicating with said duct, a presser bar seated against said collapsible well, a presser finger slidable transversely of the casing in the opening in the wall of said casing, and a spring attached to said presser bar and to which the said presser finger is pivoted intermediate the ends of the said spring holding the inner end of the presser finger in engagement with said presser bar when the presser finger is arranged at a right angle to the presser bar, whereby the presser finger is held from pivotal movement during inward movement thereof to operate said presser bar.

2. A fountain pen comprising a casing provided with a discharge duct and having an opening in its wall, a collapsible ink well in said casing communicating with said duct, a presser bar seated against said collapsible well, a presser finger operable through the opening in the wall of said casing, and a spring attached to said presser bar at its side next said collapsible well and having a member extending through the presser bar, the said presser finger being pivoted to said spring member to be held against the presser bar by the spring.

3. A fountain pen comprising a pen, a casing having a duct leading to said pen, a collapsible ink well in said casing communicating with said duct, a presser bar in said casing, a leaf spring fitted to the inner face of said presser bar, the presser bar being punched to provide tongues serving as rivets for connecting the presser bar to said spring, and the free end of said spring being cut and bent outwardly to provide a pivot ear which extends through said presser bar, a presser finger straddling said pivot ear and provided with a flat end face adapted to engage the outer face of said presser bar, and a pivot pin connecting said pivot ear to said presser finger.

4. In combination with a fountain pen casing having a slot therein, of a compressor-bar movable laterally in said casing, a lever movable in said slot, a spring mounted on one face of said bar and having means connected with the lever on the other face of the bar.

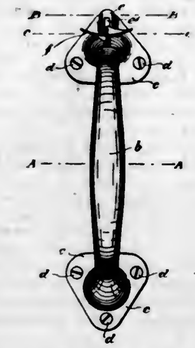
5. In combination with a fountain pen casing having a slot therein, of a compressor-bar movable laterally in said casing, a lever movable in said slot, a resilient strip secured at one end to the inner face of said bar and having means at its other end extending to the outer face of said bar, said means being pivotally connected with one end of the lever.

[Claims 6 to 9 not printed in the Gazette.]

1,207,318. HANDLE FOR LATCHES. SAMUEL ROWLAND PARKES, Willenhall, England. Filed Apr. 4, 1916. Serial No. 88,882. (Cl. 70—16.)

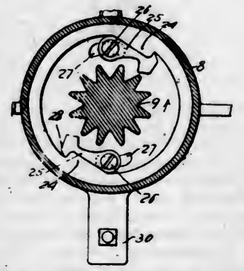
1. In a handle for latches of the type specified and pressed from a sheet metal blank, a thumb bit supporting part pressed from the blank to a channel section, for the purpose specified and substantially as set forth.

2. In a handle for latches of the type specified and pressed from a sheet metal blank, the combination of a handle portion proper; attachment portions for mounting the handle, a thumb bit supporting member pressed up from one attachment member to a channel section, and a thumb bit supported by said member, for the purpose specified and substantially as set forth.



3. In a handle for latches of the type specified and pressed from a sheet metal blank, a means for pivotally supporting the thumb bit comprising a pair of side wings or members and a connecting bridge piece or tie between said wings; all pressed from the sheet metal blank and substantially as set forth.

1,207,319. SAFETY CRANKING DEVICE. FRANK L. PARKMAN, Hartland, Me., assignor to Michael St. Ledger, Skowhegan, Me. Filed May 1, 1916. Serial No. 94,639. (Cl. 123—185.)



1. In a safety cranking device for explosive engines, a shaft provided with a ratchet, a relatively fixed drum, a member rotatable with relation to said drum, a dog rotatable with said member for coöperation with the ratchet, and a cam-shaped member bearing directly against and coöperating with said dog to hold the same in engagement with the ratchet during the movement of said member in one direction.

2. In a safety cranking device for explosive engines, a shaft for coöperation with an engine shaft and provided with a ratchet, a relatively fixed drum, a member rotatable with relation to the drum, oppositely disposed pivoted dogs carried by said member for coöperation with said ratchet in one direction of rotation and oppositely disposed cam blocks for coöperation with said dogs to hold them in contact with said ratchet in said direction of rotation, and automatically rendered inoperative for such purpose upon reverse movement.

3. In a safety cranking device for explosive engines, a shaft for coöperation with the engine shaft and provided with a ratchet, a relatively fixed drum, a member rotatable with relation to the drum, diametrically oppo-

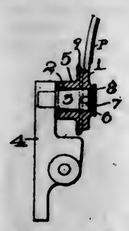
sitely disposed dogs pivotally carried by said member, cam-shaped blocks for coöperation with said dogs, and a spring peripherally disposed between said rotatable member and the drum to hold said rotatable member from backward rotation and release the dogs from the ratchet upon retrograde movement of the engine shaft.

4. In a safety cranking device for explosive engines, a shaft for coöperation with the engine shaft and having a ratchet, a relatively fixed drum, a rotatable part within the drum, oppositely disposed pivoted dogs movable with said rotatable part, the pivots of said dogs having limited movement in the direction of rotation of said rotatable part and blocks for coöperation with said dogs to hold them in contact with the ratchet in one direction of rotation and automatically rendered inoperative upon reverse movement of the shaft.

5. In a safety cranking device for explosive engines, a shaft for coöperation with the engine shaft and having a ratchet, a relatively fixed drum, a rotatable part within the drum, oppositely disposed pivoted dogs movable with said rotatable part, the pivots of said dogs having limited movement in the direction of rotation of said rotatable part, blocks for coöperation with said dogs to hold them in contact with the ratchet in one direction of rotation and auomatically rendered inoperative upon retrograde movement of the shaft, said rotatable member having a peripheral channel, and a tension spring within said channel.

[Claim 6 not printed in the Gazette.]

1,207,320. MACHINE FOR FINISHING AND COOLING CURVED STEREOTYPE-PLATES. HERBERT PEARCE, Broadheath, England, assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Aug. 3, 1910. Serial No. 575,304. (Cl. 29—21.)



1. A stereotype supporting roller and axle for guiding a stereotype printing plate constructed so that the roller can vary its position on the axle, so that its axis can be either co-axial with or at an angle to that of the axle.

2. A stereotype supporting roller and axle for guiding a stereotype printing plate, the bore of the roller being cylindrical, and the axle being larger at one point than at another so that the roller can vary its position on the axle.

3. A runway for stereotype plates having rollers for supporting the edges of the plates and axles for the rollers, the rollers each having an interior bore fitting its respective axle at a point near the outer end thereof but provided with a gradually increasing clearance from that point to the inner end.

4. In a stereotype plate runway, the combination with a bracket and a headed axle thereon, of a roller on the axle loosely fitting between the bracket and head so as to be immovable as a whole, axially, and having a flange at the outer end and a boss extending from the flange to the inner end of the roller, said roller being rockable longitudinally on the axle.

5. In a stereotype plate finishing machine, the combination with a shaving arch, of a lever pivoted to the arch in a position for one end to engage the plate as the plate enters the arch, and yielding means for holding the lever in engagement with the plate, said lever having an arm for engaging the arch and positively limiting the motion of the lever in one direction.

[Claims 6 and 7 not printed in the Gazette.]

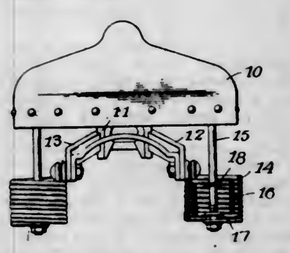
1,207,321. INSULATOR-SUPPORT. CHARLES L. PEIRCE, Jr., Pittsburgh, Pa., assignor of one-half to Hubbard & Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 15, 1915. Serial No. 56,005. (Cl. 173—321.)



1. The combination with a supporting pin having a threaded end, an insulator structure having a threaded bore for receiving said threaded pin end, the threaded engagement being slightly loose, and resilient material between the bore end and the pin top.

2. In combination, a metal pin having threads at its upper end, an insulator, a sheet metal thimble secured in the bore of said insulator and having interior threads, said thimble threads being adapted for loose engagement with the pin threads, and a disk of resilient material adapted to be compressed between the thimble and the pin top.

1,207,322. SPRING-SADDLE. CHARLES A. PERSONS, Worcester, Mass. Filed Mar. 10, 1913. Serial No. 753,183. (Cl. 208—15.)



1. In a device of the class described, a seat, a supporting frame therefor, and resilient supports connecting said seat with said frame each comprising an extension spring interposed between said seat and said frame to support said seat under normal conditions, and a second extension spring adapted to coact with the first spring after said first spring has been partially extended to support said seat under abnormal conditions.

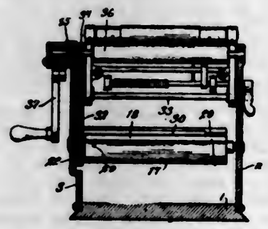
2. In a device of the class described, a seat, a supporting frame therefor, and resilient supports connecting said seat with said frame each comprising an extension spring interposed between said seat and said frame to support said seat under normal conditions, and a second extension spring enveloped by the coils of the first spring and normally inactive but adapted to coact with the first spring after said first spring has been partially extended to support said seat under abnormal conditions.

3. In a device of the class described, a seat, a supporting frame therefor, and resilient supports connecting said seat with said frame each comprising an extension spring suspended by its upper extremity from said frame, an upright rod having its lower extremity secured to the lower extremity of said spring and its upper extremity connected to said seat adapted to support said seat under normal conditions, and a second extension spring likewise suspended from said frame adapted to coact with the first extension spring after said first spring has been partially extended to support said seat under abnormal conditions.

4. In a device of the class described, a seat, a supporting frame therefor, and resilient supports interposed between said seat and said frame each comprising an extension spring suspended by its upper extremity from said frame, an upright rod connecting the lower extremity of said spring with said seat, and a second extension spring adapted to have its lower extremity engaged by a projection on said rod when this rod is sufficiently depressed and to then coact with the first spring in supporting said seat while said rod is thus depressed.

5. In a device of the class described, a seat, a supporting frame therefor, and resilient supports interposed between said seat and said frame each comprising, an extension spring suspended by its upper extremity from said frame, an upright rod connecting the lower extremity of said spring with the under side of the cantle portion of said seat, a second extension spring also suspended by its upper extremity from said frame and extending downwardly within the coils of the first spring, an eyelet upon the lower extremity of said second spring looseiy enveloping said rod and free to slide thereon, and a projection on said rod normally at an interval above said eyelet but adapted to coact therewith when said rod is sufficiently depressed to cause said second spring to be extended and to act in conjunction with the first spring to support said seat.

1,207,323. ROLL-SUPPORT. ALBERT P. F. PICO, Kansas City, Mo. Filed Feb. 1, 1915. Serial No. 5,556. (Cl. 211—31.)



1. The combination of a core comprising a channeled body member, having a slot opening from the channel through the side of the body, a sleeve slidably mounted in the channeled body, a stop in said slot, a pin carried by the sleeve and adapted for engaging the slot, and a rod connected with the sleeve and adapted for lying in said slot, for the purpose set forth.

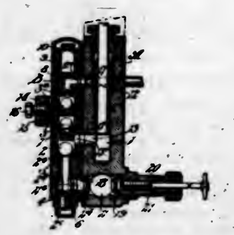
2. A core comprising a body member, and a slide adapted for travel in the body member and for projection longitudinally therefrom; said body member having a recessed portion, and the slide having a keeper adapted for anchoring a record strip in the recessed portion of the body.

3. A core comprising a body member, a slide adapted for travel in the body member and for projection longitudinally therefrom; said body member having a recessed portion, and the slide having a keeper adapted for anchoring a record strip in the recessed portion of the body, and stop members on the body and slide for limiting the travel of the parts relative to each other.

4. A core comprising a body member, a slide adapted for travel in the body member and for projection longitudinally therefrom; said body member having a recessed portion, and the slide having a keeper adapted for anchoring a record strip in the recessed portion of the body, and means on the slide for revolving the core.

5. A core comprising a channeled body member having a flattened face and a slot opening from the slotted face to the channel, a slotted sleeve adapted for travel in the channel, a rod connected with the sleeve and adapted for travel in the slot, a trunnion slidably mounted in the sleeve, and having a stop member projected through the sleeve slot, a spring for urging the trunnion to projected position, and a stop on the core body, for the purpose set forth.

1,207,324. FUEL-PUMP. GEORGE D. POGUE, St. Louis, Mo. Filed Dec. 21, 1915. Serial No. 68,035. (Cl. 103—77.)



1. A pump, comprising a member in which a cylinder is formed, said member having a supply duct and a discharge duct, a port in one side of said cylinder, a removable valve unit combined with said member and provided at one side with ports that register with the ducts in said member and with the port in said cylinder, and gaskets arranged between said valve units and said member, one of said gaskets being formed of material that has a greater degree of resiliency than the material from which the other gaskets are formed.

2. A pump, comprising a cylinder and a removable valve unit equipped with valves that govern the admission and discharge of the medium into and out of said cylinder, and a means for closing the passageway through which the medium being pumped is supplied whenever said valve unit is removed.

3. A pump, comprising a cylinder provided with a port, a removable valve unit provided with inlet and discharge valves arranged on opposite sides of said port, a supply passageway leading to said valve unit, and a valve that is adapted to be actuated to close said passageway when said valve unit is removed.

4. A pump, comprising a member in which a cylinder is formed, said member having a discharge duct and a supply passageway, a removable valve unit equipped with inlet and discharge valves and provided on one side with ports that register with the ports in said cylinder and with the discharge duct and supply passageway in said member, and means for preventing the medium being pumped from escaping from the supply passageway in said member when said valve unit is removed.

5. A pump, comprising a member in which a cylinder is formed, a removable valve unit arranged at one side of said member, a portion on said member that receives said valve unit, and an adjustable device in said portion for clamping said valve unit in position.

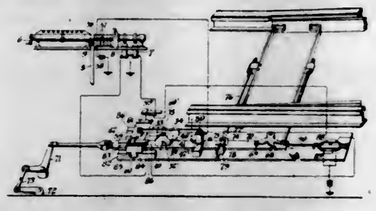
[Claims 6 to 15 not printed in the Gazette.]

1,207,325. SWITCH-LOCK. ERNEST K. POST, Altoona, Pa. Filed Apr. 16, 1915. Serial No. 21,846. (Cl. 246—53.)

1. In a device of the character stated, a switch-throwing mechanism, a lock therefor, a lever pivoted in the lock at an intermediate point, a second pivot for the lever on one side of the pivot in the lock and connections between the lever and throwing mechanism on the other side of the pivot in the lock to shift the lever.

2. In a device of the character stated, a switch-throwing mechanism, a lock therefor, a lever pivoted in the lock at an intermediate point, a movable second pivot for the lever on one side of the pivot in the lock, connections between the lever and throwing mechanism on the other side of the pivot in the lock to shift the lever and dis-

tant operated control for the second pivot, fixing it or permitting its movement.



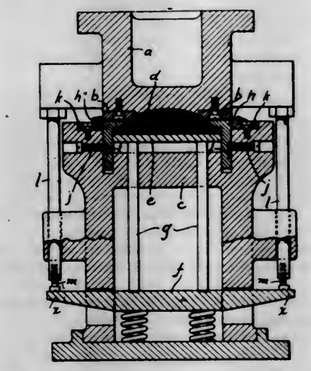
3. In a device of the character stated, a switch-throwing movement, a lever and connections for throwing the same, a normally set lock for the movement, a normally inoperative release for the lock moved by the switch-throwing mechanism and separate distant-operated means for rendering the release operative as it is moved by the switch-throwing mechanism.

4. In a device of the character stated, a switch-throwing mechanism, a stop in the path of the throwing mechanism, a cam movable with the throwing mechanism, an arm connected with the stop and engaged by the cam and electro-magnetic means for controlling the path of movement of the arm to cause it to lift the stop.

5. In a device of the character stated, a switch-throwing mechanism, a lock therefor, a release for the lock mechanically moved by the switch-throwing mechanism, but normally inoperative, when moved, to release the lock and an electrical control for said release located close to the release and rendering it operative when energized.

[Claims 6 to 23 not printed in the Gazette.]

1,207,326. PRESS. CONRAD REHBEIN, Detroit, Mich., assignor to Hayes Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 29, 1916. Serial No. 94,448. (Cl. 113—44.)



1. In a press, the combination of a bolster provided with a cutting strip, forming means included within the figure formed by the cutting strip, and a punch provided with a cutting strip, said punch serving to first grip the metal inclosed within the cutting strip, then cause the forming means to emboss the metal, and upon further descent arranged to shear the metal.

2. In a press, the combination of a punch provided with a cutting strip along the outer edge thereof and having a forming concavity, a bolster having a cutting strip along the opening into which the punch descends, and a distortable pad located in said opening.

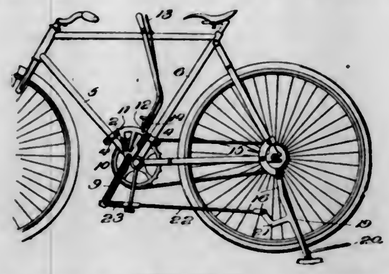
3. In a press, the combination of a punch provided with a shaping concavity, a bolster, a distortable pad carried by the bolster, and a draw ring capable of vertical reciprocation in the bolster and engaging over the edge of the pad.

4. In a press, the combination of a punch provided with a shaping concavity, a bolster, a distortable pad supported by the bolster, and a metal draw ring about and over the edge of the distortable pad.

5. In a press, the combination of a punch provided with a shaping concavity, a bolster, a distortable pad carried by the bolster, and a draw ring guided in the bolster for vertical reciprocation and having an ell cross section.

[Claims 6 to 11 not printed in the Gazette.]

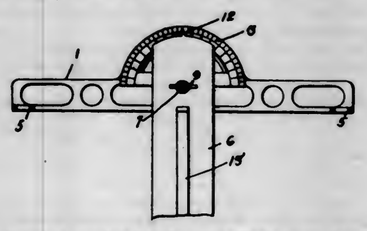
1,207,327. BICYCYE-STAND. HARRY REID, Clinton, Ind. Filed Aug. 14. 1915. Serial No. 45,521. (Cl. 208—78.)



1. A device for the purpose set forth comprising a segmental frame consisting of mating members having central elongated offset portions together forming a lever-receiving slot and semi-circular portions near their ends to fit around the members of a cycle frame, a lever fulcrumed upon the lower end of said frame and extending upwardly through said slot therein, means for locking the lever to the frame in a set position, hangers mounted for swinging movement in rear of the lever, and a connection between the lever and the hangers.

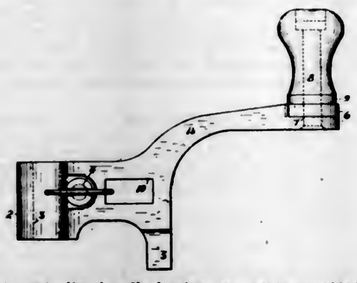
2. A device for the purpose set forth comprising hangers pivotally connected at their upper ends with a cycle frame, ground-engaging shoes secured to the lower ends of the hangers, forwardly projecting arms on said hangers between the upper and lower ends of the same, a lever mounted on the cycle frame in advance of the hangers, and a fork adapted to pass around a cycle wheel and having its rear end pivoted to the said forwardly projecting arms on the hangers and its front end pivoted to the lower end of the lever.

1,207,328. COMBINED PROTRACTOR AND T-SQUARE. RALPH A. ROHRICH, Cleveland, Ohio. Filed May 28, 1915. Serial No. 31,013. (Cl. 33—100.)



A T-square provided with a relatively wide blade and a relatively narrow rib extending upward from the upper surface of the blade and parallel spaced relation to the drawing edge of said blade, the side of the rib facing the drawing edge of the blade being at right angles to the upper face of the blade whereby said rib side forms a guide and said blade face a rest for the base of a draftsman's triangle.

1,207,329. CONTROLLER-HANDLE. SQUIRE ROUSH, San Francisco, Cal. Filed Feb. 7, 1916. Serial No. 76,821. (Cl. 74—33.)

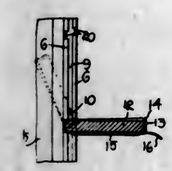


1. A controller handle having two parts provided with means for holding them together at one end and wholly separated from each other for the remainder of their lengths on opposite sides of a central longitudinal plane, their inner sides having near the other end recesses to fit around the controller stem, and a screw passing through one of said parts and screwed into the other part adjacent to said recesses and on the sides thereof remote from said other ends for drawing the parts together around said stem.

2. A controller handle comprising two parts pivoted together at one end and separated from each other for the remainder of their lengths on opposite sides of a central longitudinal plane, their inner sides having near the other end recesses to fit around the controller stem, a screw passing through one of said parts and screwed into the other part adjacent to said recesses and on the sides thereof remote from said other ends for drawing the parts together around said stem, the pivot pin extending upwardly, and a rotary handle on said pivot pin.

3. A controller handle comprising two parts separated from each other on opposite sides of a central longitudinal plane, their inner sides having near one end recesses to fit around the controller stem, a screw passing through one of said parts and screwed into the other part for drawing the parts together around said stem, said parts at their other ends being held in contact with each other at two points spaced longitudinally from each other.

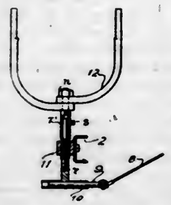
1,207,330. WINDOW ATTACHMENT. WILLIAM H. SAMMONS, Ely, Nev. Filed Apr. 5, 1916. Serial No. 89,225. (Cl. 155—10.)



1. A device of the character described including spaced guides adapted to be secured to a window frame each including a pair of channel bars, the inner edges of said bars being spaced apart, a support, a lug fixed to each end of the support to travel between the spaced inner edges of the guide bars, a slide block movable in the channels of each pair of guide bars, each of said lugs being provided with a pivot stud mounted in the slide bar, said bars having their inner edges notched to receive the lugs on the support whereby the support may be disposed in various angular positions with respect to the guide bars, said lugs engaging in the notches of the guide bars.

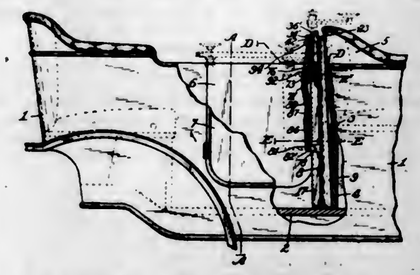
2. A device of the character described including spaced guides adapted to be secured upon a window frame, each of said guides including a pair of channeled guide bars having their inner edges spaced and provided at intervals with notches therein and the corresponding notches being disalined, a support, a rectangular bracket lug fixed to each end of the support at one of its longitudinal edges and movable between the spaced inner edges of the guide bars, and a slide block mounted in the channel of each guide, said lugs each being provided with a pivot stud rotatably mounted in one of the slide blocks whereby said support may be moved to various angular positions with respect to the guides, the lugs moving into the corresponding recesses in each pair of guide bars and being adapted to engage the relatively opposite ends of said recesses when the support is disposed in a horizontal position.

1,207,331. MEANS FOR CONTROLLING HEADLIGHTS FOR AUTOMOBILES, &c. SAMUEL N. SCHWARTZ, Cleveland, Ohio. Filed Aug. 31, 1914. Serial No. 859,283. (Cl. 240—62.)



In a lighting attachment for vehicles, a lamp support comprising an upper tubular section having a lamp bracket thereon and a T-shaped lower section having a stem extending into said upper section and on which said upper section is adjustable as to elevation and rotation and said lower section having a tubular head, a fixed nut in which said stem is rotatably supported and a plunger in said tubular head having linked connection with the steering mechanism of the vehicle.

1,207,332. AUTOMOBILE DINING-TABLE AND ACCESSORIES. THOMAS H. SELMAN, Greenfield, Ind. Filed Dec. 21, 1914. Serial No. 878,362. (Cl. 45—51.)



1. An automobile dining table including a base, a table connected to the base in horizontal arrangement and provided on the normal under side thereof with a plurality of arms having each a screw-threaded hole therein, the arms being adjustably secured to the table to be projected therefrom, a plurality of standards having screw-threaded end portions to be removably secured in the holes of the arms in upright position, and an extension section for the table to be supported upon the arms in either horizontal or edgewise arrangement between the standards and the adjacent edge of the table.

2. An automobile dining table including a base, a table connected to the base in horizontal arrangement and provided on the normal under side thereof with a plurality of binding bolts, a plurality of arms on the under side of the table having slots receiving the respective bolts, the arms being longitudinally projectable and having each

a socket in its outer portion, a plurality of standards insertible in the sockets, an extension section for the table to be supported horizontally upon the arms against the adjacent edge of the table and having holes therein to receive the standards, and nuts on the binding bolts for securing the arms to the table in adjusted position to hold the extension tightly to the table.

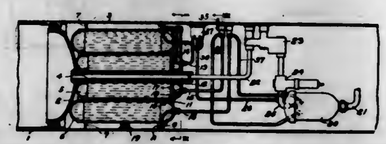
3. An automobile dining table including a base normally supported uprightly and having a plurality of vertical guide slots therein, the back of the base having reinforcing blocks thereon at the upper ends of the slots, two frame plates secured to the front of the base adjacent to the outer portions of the slots and having guide bars thereon that extend each toward the other and opposite to the slots, the guide bars being constructed to constitute supporting legs for a table, and a table having arms thereon that extend movably into the slots, the arms being provided with lugs for engaging the reinforcing blocks when the table is in horizontal position, the table being movable either onto the tops of the guide bars for horizontal support or into vertical position behind the guide bars and between the frame plates.

4. An automobile dining table and accessories including a base, a table connected to the base in horizontal arrangement and provided with a plurality of bolts, a plurality of horizontal arms having slots receiving the respective bolts and adjustably arranged against the table, each arm having a screw-threaded hole therein, a plurality of nuts on the bolts respectively, a plurality of standards provided on opposite end portions thereof with screw threads, one end portion of the standards being adapted to be inserted in the screw-threaded hole for support, each standard being insertible in the slot of either one of the arms, a plurality of washers on the respective bolts between the arm and the nut and having each a tongue thereon for holding the standard in the slot and against the table, and a plurality of plates adapted to be screwed onto the opposite end of either one of the standards.

5. An automobile dining table including a base normally supported uprightly and having a plurality of vertical slots therein, the front of the base having a pair of vertical guide bars thereon and constructed to constitute supporting legs, a table movable horizontally onto the supporting legs and having arms thereon that are insertible into the slots and provided with lugs for engagement with the base at the tops of the slots, the table being portable to be moved away from the bars.

[Claims 6 to 9 not printed in the Gazette.]

1,207,333. TORPEDO CONSTRUCTION. HAROLD W. SHONNARD, Upper Montclair, N. J., assignor to Crucible Steel Company of America, Pittsburgh, Pa., a Corporation of New Jersey. Filed Jan. 5, 1916. Serial No. 70,480. (Cl. 114—20.)



1. In a torpedo, the combination of a compressed gas flask, a water-tight compartment having one wall formed by, the end of said flask, and independent annular concentric liquid-containing reservoirs within said compartment.

2. In a torpedo, the combination of a compressed gas flask, a water-tight compartment having one wall formed by the end of said flask, and annular concentric liquid-containing reservoirs within said compartment, the walls of said reservoirs being independent of said end wall of the flask.

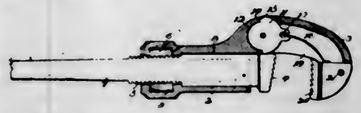
3. In a torpedo, the combination of a compressed gas flask, a water-tight compartment having one wall formed by the end of said flask, and annular concentric liquid-containing reservoirs within said compartment, the walls of said reservoirs being independent of each other and of said end wall of the flask.

4. In a torpedo, the combination of a compressed gas flask, a water-tight compartment having one wall formed by the end of said flask, and fuel and water reservoirs within said compartment, the walls of said reservoirs being independent of each other and of said end wall of the flask.

5. In a torpedo, the combination of a compressed gas flask, a water-tight compartment having one end wall formed by the end of said flask, and independent annular concentric fuel and water reservoirs within said compartment, said reservoirs forming a part of the other end wall of said compartment.

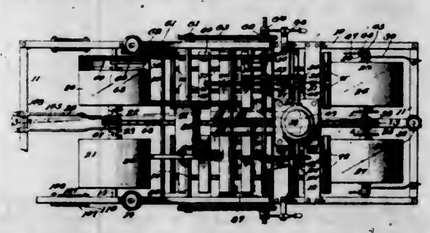
[Claims 6 to 11 not printed in the Gazette.]

1,207,334. PIPE-WRENCH. JOHN SHOSTROM, Tacoma, Wash. Filed June 19, 1915. Serial No. 35,037. (Cl. 81—107.)



A tool of the character described comprising a handle having a jaw at one end, a slide mounted upon the handle and formed at its outer forward corner with a rounded projection having concave shoulders at opposite sides of the rounded projection, such concave shoulders terminating in opposed stop shoulders, a hollow jaw formed with spaced half round projections to embrace opposite sides of the rounded projection of the slide and having opposed stop shoulders at the ends of the half round projections to coact with the stop shoulders of the slide, said hollow jaw extending from the said projections beyond the end of the handle and into the plane of the same and provided at its free end with a bit opposed to the handle, and a spring attached at one end to the rounded projection of the slide and housed within the hollow jaw and having its outer end bearing upon the bit to normally hold said jaw in a given position.

1,207,335. FOUR-WHEEL DRIVE FOR TRACTORS. OTTO W. SIEBENHAAR, Rosendale, Wis. Filed Mar. 23, 1915. Serial No. 16,514. (Cl. 21—114.)



1. A traction engine including a frame, front and rear axles journaled in the frame, a pair of traction wheels on the front axle, a pair of traction wheels on the rear axle, a pair of caterpillar drive mechanisms carried by the frame, means for raising and lowering the front and rear axles with respect to the frame to bring the caterpillar mechanisms into or out of engagement with the ground and the traction wheels out of or into engagement with the ground, a drive shaft, a motor shaft, means for transmitting power from the motor shaft to the drive shaft to turn the latter in either direction, and means for transmitting power from the drive shaft to the caterpillar mechanisms and to the axles.

2. A traction engine including a frame, front and rear axles journaled in the frame, a pair of traction wheels on the front axle, a pair of traction wheels on the rear axle, a pair of caterpillar drive mechanisms carried by the frame, means for raising and lowering the front and rear axles with respect to the frame to bring the caterpillar mechanisms into or out of engagement with the ground and the traction wheels out of or into engagement with the ground, a drive shaft, a motor shaft, means for transmitting power from the motor shaft to the drive shaft to turn the latter in either direction, and means for transmitting power from the drive shaft to the caterpillar mechanisms and to the axles, said power transmitting means including means for selectively and independently driving the traction wheels and caterpillar mechanisms.

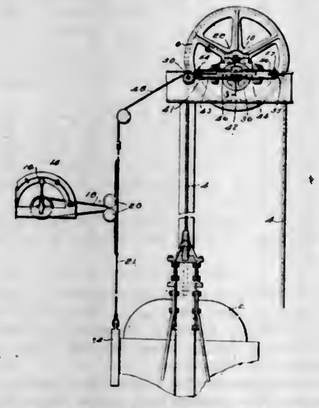
3. A traction engine including a frame, front and rear axles, traction wheels carried by the axles, caterpillar drive mechanisms, means for raising and lowering the axles to bring the caterpillar drive mechanisms into and out of engagement with the ground, a drive shaft, a motor shaft, means for transmitting power from the motor shaft to the drive shaft, means for transmitting power from the drive shaft to the traction wheels, means for transmitting power from the drive shaft to the caterpillar drive mechanisms, a winding drum, and means for transmitting power from the drive shaft to the winding drum.

4. A traction engine including a frame, front and rear axles, traction wheels carried by the axles, right and left caterpillar drive mechanisms, a winding drum, a drive shaft, means for transmitting power from the drive shaft to the rear axle to drive such axle in either direction, means for transmitting power from the rear axle to the front axle, means for transmitting power from the drive shaft to the caterpillar mechanisms to drive such mechanisms in either direction, means for transmitting power from the drive shaft to the winding drum to drive it in either direction, and a plurality of clutches arranged to cut out any one of such drive transmission mechanisms independently of the others.

5. A traction engine including a frame, a caterpillar drive mechanism carried by the frame, front and rear traction wheels carried by the frame in longitudinal alinement with each other and the caterpillar mechanism whereby the front traction wheels may press down the ground in front of the caterpillar mechanism, and means for transmitting power to the traction wheels and the caterpillar mechanism.

[Claims 6 to 8 not printed in the Gazette.]

1,207,336. ACTUATING DEVICE FOR ELEVATOR-INDICATORS. WILLIAM S. SMITH, Cambridge, Mass. Filed Feb. 20, 1913. Serial No. 749,592. (Cl. 116—64.)

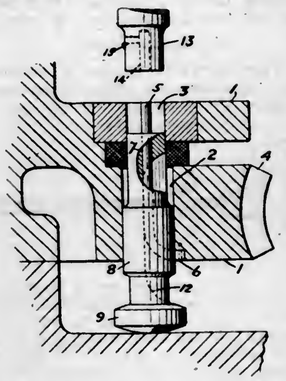


1. An actuating device for elevator indicators having a sheave rotatable with the rise and fall of the elevator car, a gear, a frictional connection between the gear and the sheave, a rack operated by the gear, an abutment to engage the rack at one end of its movement and connections between the indicators and the rack by which the indicators are actuated.

2. An actuating device for elevator indicators having a sheave rotatable with the rise and fall of the elevator car, a gear, a frictional connection between the sheave and the gear, a rack in operative relation with the gear, connections between the rack and the indicators by which they are operated, a bearing for the rack, and an abutment for the rack at one end of the bearing and a pulley mounted to be adjusted about the longitudinal axis of the rack to guide said connecting means.

3. An actuating device for indicators comprising a shaft, a gear frictionally mounted thereon, a rack, means operated by said gear to cause said rack to have a longitudinal reciprocating movement, abutments to limit the movement of said rack indicators, and means connecting said rack with said indicators, so that said indicators will move in accord with the movement of said rack.

1,207,337. ROTARY COMPRESSOR FOR MAKING PERFORATED TABLETS. FRANCIS J. STOKES, Philadelphia, Pa. Filed June 3, 1916. Serial No. 101,599. (Cl. 107—17.)



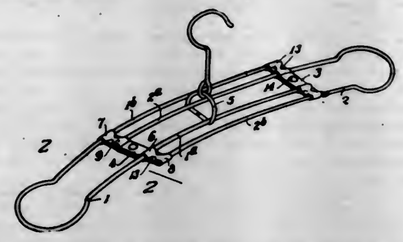
1. In a rotary compressor the combination of a punch consisting of a single piece perforated in the direction of its length and provided between its ends with a radial slot communicating with said perforation, and a core-bar one end of which may project from said perforation and the other end of which projects through said slot and constitutes a support for the core-bar, substantially as described.

2. In a rotary compressor the combination of a rotary head provided with molds, bottom punches the upper ends of which constitute mold bottoms and the lower ends of which are adapted to receive force applied in the direction of the axis of the punches, core-bars projecting from the punches and out at the sides of the punches between the tops and bottoms thereof, means for preventing endwise movement of the core-bars, and provisions for applying force axially to the lower ends of the punches.

3. A compressor punch comprising the combination of a bottom punch, the top end of which constitutes a mold bottom and the bottom end of which is adapted to receive compressive force and which is perforated for a part of its length and provided intermediate of its ends with a slot communicating with the perforation, and a core-bar arranged in the perforation and projecting from the slot which affords relative movement of the parts.

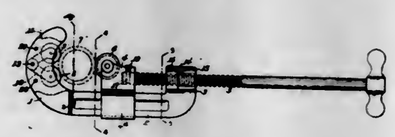
4. In a compressor punch the combination of a core-bar provided with a lateral extension, and a punch provided with an opening for the reception of the core-bar for the accommodation of the lateral projection and the bottom of the punch extending below the lateral projection.

1,207,338. COAT-HANGER. GEORGE A. C. STONE, Somerville, Mass. Filed Nov. 20, 1915. Serial No. 62,542. (Cl. 211—13.)



A coat hanger comprising two U-shaped members connected together to slide longitudinally side by side, one leg of each member lying between the legs of the other member, and the legs of each member being bent at the ends; and fasteners consisting of strips of sheet metal folded over the four legs of the two U-shaped members, and overlapping at the middle, the folded over ends of each strip being pressed against the members and the body of the strip, thereby connecting it with the ends of one member and forming sleeves over the other member.

1,207,339. PIPE-CUTTER. HARPER E. STRATTON, Empire, Ohio. Filed Dec. 30, 1915. Serial No. 69,304. (Cl. 81—192.)



1. In a pipe cutter, a recessed jaw, a V-yoke pivoted at its apex in the jaw recess, a cutting disk journaled on each of the other ends of the yoke, the side walls of the recess extending over the ends of the disk-journals and nearly to the extremities of the yoke, so that they substantially cover and shield the yoke-arms from injurious impacts, a pair of pins in the recess of the jaw to engage the yoke at its opposite sides to limit the swinging movement thereof, and means to hold a pipe in engagement with said disks.

2. In a pipe cutter, a jaw having a shank and a heel, cutters borne by the jaw, said heel having a dovetailed recess opening through the front thereof, a dovetailed block removably fitted in the recess, said block and heel having registering threaded openings, a screw in said threaded openings, means operated by the screw to hold a pipe in engagement with the cutters, and means to hold the block against movement.

3. In a pipe cutter, a jaw having a shank and a heel, cutters borne by the jaw, said heel having a recess, a block removably fitted in the recess, means to hold the block in the recess, said block and heel having registering threaded openings, a screw in said threaded openings, and means operated by the screw to hold a pipe in engagement with the cutters.

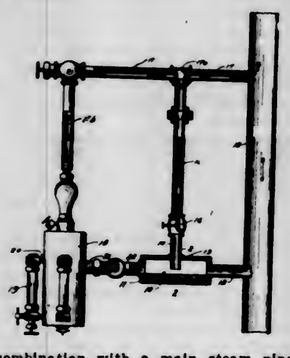
1,207,340. VEHICLE-WHEEL. HARPER E. STRATTON, Empire, Ohio. Filed Dec. 30, 1915. Serial No. 69,305. (Cl. 152—50.)

In a vehicle wheel, a hub body provided with spaced recesses separated by radially disposed ribs, said recesses opening outward through the front face of said body, resilient spokes having their inner ends received in said recesses, said spokes being arranged in pairs, the inner ends of the spokes composing a pair being disposed in adjacent recesses against the opposite sides of the intervening rib, bow-shaped wedge-blocks mounted in said recesses between adjacent pairs of spokes, each of said blocks being disposed with its terminals directed inwardly and being adapted to permit bending of the spokes over



the curved end thereof, and a face-plate removably mounted in closing relation to the outer ends of said recesses, said face-plate maintaining said spokes locked against withdrawal from said recesses.

1,207,341. OIL-ATOMIZER. JOHN C. SWOYER, Columbus, Ohio. Filed Oct. 26, 1914. Serial No. 868,692. (Cl. 184—50.)



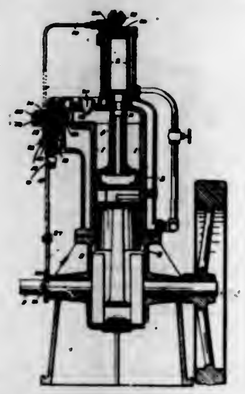
1. In combination with a main steam pipe, a receptacle having its end portions provided with an inlet and an outlet positioned above the bottom of the receptacle to provide a water holding space, the upper portion of the receptacle being provided intermediate its length with an opening, a steam conducting pipe from said main pipe communicating with the interior of the receptacle, an oil supply device in communication with said receptacle, and a second connection between said receptacle and said main steam pipe.

2. The combination with a main steam pipe, a receptacle provided with an inlet and an outlet arranged to form a water holding space in its bottom, a steam conducting pipe from said main pipe communicating with the interior of said receptacle and arranged to direct steam at an angle on to the top surface of the water therein, an oil supply device in communication with said receptacle, and a second connection between said receptacle and said steam pipe.

3. The combination with a main steam pipe, a receptacle provided with an inlet and an outlet arranged to form a water holding space in its bottom, a steam conducting pipe from said main pipe projecting through the top of said receptacle at substantially a right angle to the plane of the surface of the water therein, an oil supply device in communication with said receptacle, and a second connection between said receptacle and said main steam pipe.

1,207,342. TWO-STROKE GAS-ENGINE. CHARLES HAROLD TAYLOR, Mere, England, assignor of one-half to Richard Wilson Courtice, Bloemfontein, Orange Free State, South Africa. Filed Aug. 13, 1914. Serial No. 856,698. (Cl. 123—33.)

1. The combination in a two-stroke internal combustion engine, of a crank-case, a hollow piston compressing the contents of the crank case, a hollow extension of the said piston having ports at one end so as to form a passage from the crank case to the opposite side of the piston, an auxiliary injection air cylinder embracing same with ingress and egress valves thereto, an ingress valve for a working air supply on the crank case, a valve casing attached to the compression space of the engine having an air passage and a fuel passage connecting to a common inlet passage, a pipe connecting the said air passage with the egress valve of the air cylinder, a valve controlling the supply of air in the air passage, valves and a plunger controlling the supply of fuel in the fuel passage, and means for operating the said plunger at predetermined intervals substantially as and for the purpose set forth.



2. The combination in a two-stroke internal combustion engine, of a crank case, a hollow piston compressing the contents of the crank case, a hollow extension of the said piston having ports at one end so as to form a passage from the crank case to the opposite side of the piston, an auxiliary injection air cylinder embracing same with ingress and egress valves thereto, an ingress valve for a working air supply on the crank case, a valve casing attached to the compression space of the engine having an air passage and a fuel passage connecting to a common inlet passage, a pipe connecting the said air passage with the egress valve of the air cylinder, a valve controlling the supply of air in the air passage, a retracting spring thereon, valves and a plunger controlling the supply of fuel in the fuel passage, a retracting spring on the said plunger, a pivoted lever, means for oscillating same, an arm on the said lever operating the plunger against the action of its spring, and an arm on the said lever operating the air valve against the action of its spring, all substantially as and for the purpose set forth.

3. The combination in a two-stroke internal combustion engine, of a crank case, a hollow piston compressing the contents of the crank case, a hollow extension of the said piston having ports at one end so as to form a passage from the crank case to the opposite side of the piston, an auxiliary injection air cylinder embracing same with ingress and egress valves thereto, a valve casing attached to the compression space of the engine having an air passage and a fuel passage connecting to a common inlet passage, a pipe connecting the said air passage with the egress valve of the air cylinder, a plunger, a retracting spring thereon, a suction valve and a delivery valve controlling the supply of fuel in the fuel passage, a valve and a retracting spring thereon controlling the supply of air in the air passage, a pivoted lever, a cam on the crank shaft oscillating same against the action of a spring, an arm on the said lever operating the plunger against the action of a spring, and an arm on the said lever opening the air valve shortly after the fuel delivery valve and before the end of the compression stroke of the piston, all substantially as and for the purpose set forth.

1,207,343. AUTOMATIC VEHICLE-BODY-ADJUSTING MEANS. DANIEL L. TAYLOR, Malden, Mass. Filed Aug. 23, 1915. Serial No. 46,818. (Cl. 21—12.)



1. Vehicle body positioning means comprising a body bolster, a support therefor and movable connections between the bolster and support permitting longitudinal movement and automatic positioning of the bolster and body relative to the support.

2. Vehicle body positioning means comprising a body bolster, supporting means therefor and on which it is adapted to travel longitudinally and anti-friction means operatively connecting the bolster and bolster supporting means.

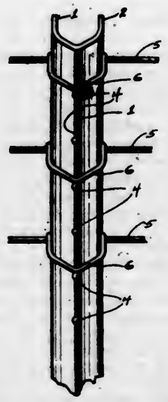
3. Vehicle body positioning means comprising a plurality of longitudinally positioned rails, a body bolster thereon, and revoluble members on the bolster and rails.

4. Vehicle body positioning means comprising a body bolster, longitudinally positioned rails therefor, rollers engaging the bolster and rails and providing relative positioning means therefor.

5. Vehicle body positioning means comprising a body bolster, longitudinally positioned inclined rail members therefor, slidable connections between the bolster and rails permitting relative positioning of the bolster and rails.

[Claims 6 to 10 not printed in the Gazette.]

1,207,344. COMBINED POST AND WIRE-CLAMP FOR ERECTING WIRE FENCES. ERICH A. THIELE, Marion, Ohio. Filed June 9, 1916. Serial No. 102,705. (Cl. 256—57.)



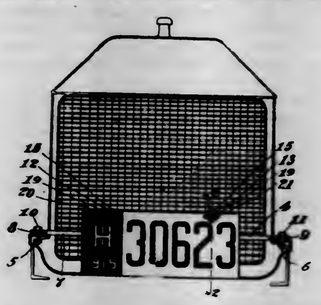
1. The combination of a metal post and wire fence tie for clamping a fence wire thereto, comprising a hollow post angular in cross section having a series of teats formed on the apex thereof, said post also having straight spaced apart side members, said clamp being provided

with an open loop to engage the fence wire and also arranged to engage a teat on the post so as to leave a portion thereof lapping the fence wire preparatory to twisting it around said fence wire.

2. The combination of a metal fence post and a wire fence tie for clamping a fence wire thereto, comprising a post having a series of spaced apart integral teats formed on its exterior and a wire fence tie which is adapted to be supported on one of said teats, said ties having one of its free ends provided with an open loop to engage the fence wire leaving the other free end lapping the fence wire and positioned preparatory to being twisted around the fence wire so as to tie the fence wire to the post.

3. The combination of a metal post and a wire fence tie for clamping a fence wire thereto comprising a post formed hollow and angular in cross section with contiguous spaced apart side members and provided with series of teats on the exterior thereof, and a wire fence tie that is constructed with an open loop to engage the fence wire and adapted to be supported by one of the teats and said loop, leaving one part lapping the fence wire.

1,207,345. LICENSE-TAG HOLDER FOR AUTOMOBILES. WILLIAM TOMARIN, Cincinnati, Ohio. Filed May 27, 1915. Serial No. 30,710. (Cl. 40—125.)



1. A license tag holder adapted to be secured to the mounting bolts of an automobile radiator, comprising a bar having its ends bent at an angle to the main portion thereof, and loops formed on the bent ends, said loops being adapted to be engaged by the automobile radiator mounting bolts to secure the bar transversely of and in spaced relation to the radiator, and a clamp adjustably mounted on the bar, adapted to secure a license tag thereto.

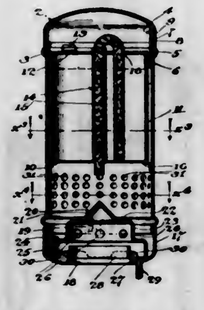
2. A license tag holder comprising a bar adapted to be mounted transversely of and in spaced relation to the radiator of an automobile, and a clamp adjustably mounted on the bar, adapted to secure a tag thereto, said clamp consisting of two members, one of said members having a recess formed therein receiving the bar, and a loop formed thereon below the recess, the other of said members consisting of a plate having a hook formed at its lower end and engaging the loop of the coöperating member, and means mounted on the upper ends of the members, adapted to clamp the members together and to secure a tag thereto.

3. A license tag holder adapted to be secured to the mounting bolts of an automobile radiator, comprising a bar having its ends bent at an angle to the main portion thereof, and loops formed on the bent ends, said loops being adapted to be engaged by the automobile radiator mounting bolts to secure the bar transversely of and in spaced relation to the radiator, and a clamp adjustably mounted on the bar, adapted to secure a license tag thereto, said clamp consisting of two members, one of said members having a recess formed therein receiving the bar, and a loop formed thereon below the recess, the other of said members consisting of a plate having a hook formed at its lower end and engaging the loop of the coöperating member, and means mounted on the upper ends of the members, adapted to clamp the members together and to secure a tag thereto.

4. A radiator reinforcement for the purpose described consisting of a transverse tie rod, arms extending therefrom to embrace the sides of the radiator, and means for securing the ends of said arms to the radiator supports.

5. A radiator reinforcement for the purpose described consisting of a transverse tie rod, integrally formed arms extending angularly therefrom to embrace the sides of the radiator, and means for securing the ends of said arms to the radiator supports.

1,207,346. DISINFECTANT-DISTRIBUTER. HARRY TOPLITZKY, Los Angeles, Cal. Filed Dec. 8, 1915. Serial No. 65,806. (Cl. 167—3.)



1. A distributer for disinfectants and deodorizers comprising a casing, a container for liquid disinfectants and deodorizers mounted within the casing, a deflector and spreader member mounted in the casing below the container and being of hollow construction, said member having openings in the sides thereof, means to feed the liquid from the container onto the deflector, said casing having openings in the sides thereof above the deflector and provided with an air entrance opening at the lower end thereof below and communiacting with the interior of the deflector member.

2. A distributer of the character described comprising a casing, a container for a liquid disinfectant or deodorizer mounted in the casing, a deflecting and spreading member mounted within the casing below the container, means to feed the liquid onto the deflector and spreader, said deflector and spreader being of substantially conical outline and hollow, said casing having outlet openings therein above the deflector, said deflector having openings therein, and a liquid outlet in the bottom of said casing, said casing having a relatively large air inlet in the bottom thereof communicating with the interior of the deflector.

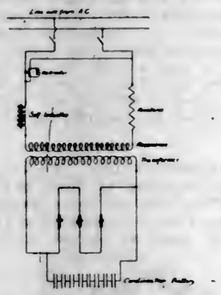
3. A distributer of the character described comprising a shell, a container for a disinfectant or deodorizer mounted within the shell, a cap removably mounted upon and closing the lower end of said shell, said cap having a relatively large air inlet opening therein, a hollow substantially conical deflector and spreader mounted within the casing upon said cap, said spreader having openings in its sides communicating with the opening in the cap, said casing having openings therein above the spreader, and means to feed the liquid from the container onto the deflector.

4. A distributer of the character described comprising a casing being open at both ends, a lid hinged to and adapted to close the upper end of the casing, a container for a liquid disinfectant or deodorizer mounted within the casing, a cap closing the lower end of said casing, and having an air inlet opening centrally thereof, a liquid outlet tube communicating with said casing extending through the cap, a substantially conical deflector and spreader mounted within the casing and supported by the cap, said spreader having openings therein communicating with the opening in the cap, and means to feed the liquid upon the spreader.

5. A distributer of the character described comprising a casing, a container for a liquid disinfectant or deodorizer mounted within the casing, said casing having outlet openings therein below the container and an inlet opening in its lower end below the outlet opening, a hollow spreader member interposed between the container and lower end of the casing, said member having openings therein communicating with the openings in the bottom of the container, means to feed the contents of the container upon the spreader member, and a nozzle projecting upwardly from the opening in the bottom of the container into the hollow spreader member.

[Claims 6 to 13 not printed in the Gazette.]

1,207,347. METHOD OF OBTAINING ULTRA-VIOLET RAYS BY SPARK DISCHARGE. JOSEPH VON KOWALSKI-WIERUSZ, Fribourg, Switzerland. Filed Apr. 10, 1914. Serial No. 831,060. (Cl. 250—34.)



1. The method of obtaining ultra-violet rays from an oscillatory spark which consists in considerably damping the spark, employing a high current amplitude and employing spark oscillations whose wave-length is less than 3000 meters.

2. The method of obtaining ultra-violet rays from an oscillatory spark which consists in considerably damping the spark, employing a high current amplitude by suitable selection of the electric constants of the oscillatory circuit in which the spark is generated, and employing spark oscillations whose wave-length is less than 3000 meters.

3. The method of obtaining ultra-violet rays from an oscillatory spark which consists in the use of metal electrodes adapted to considerably damp the spark, employing a high current amplitude and employing spark oscillations whose wave-length is less than 3000 meters.

4. The method of obtaining ultra-violet rays from an oscillatory spark which consists in the use of electrodes of an alloy adapted to considerably damp the spark, employing a high current amplitude and employing spark oscillations whose wave-length is less than 3000 meters.

5. The method of obtaining ultra-violet rays from an oscillatory spark which consists in the use of electrodes adapted to considerably damp the spark, employing a high current amplitude by suitable selection of the electric constants of the oscillatory circuit in which the spark is generated and employing spark oscillations whose wave-lengths is less than 3000 meters.

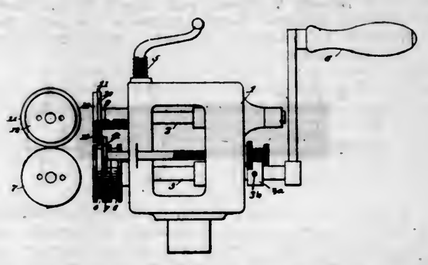
1,207,348. FLUID-DELIVERY DEVICE FOR RECEPTACLES. GEORGE E. WACK, Waterloo, Iowa. Filed Oct. 25, 1915. Serial No. 57,842. (Cl. 221—31.)

In combination, an inverted container having a basal delivery-opening, a closure detachably secured across said opening and having a delivery-nipple, a U-shaped tube, one limb of which is passed through said closure and sealed therein, extending upwardly into the container to afford communication between the atmosphere and the upper part of the container, the other limb of said tube having terminal engaging means whereby it may be detachably suspended upon a support, an elastic bar fixed transversely upon said tube to contact at relatively



widely separated places with said support and prevent rocking of said device, the ends of said bar being bent forwardly to form opposed clips adapted to releasably embrace said container.

1,207,349. SHEET-METAL-FORMING MACHINE. CLINTON DE WITT WAGNER, Cedar Rapids, Iowa. Filed Apr. 28, 1916. Serial No. 94,137. (Cl. 153—30.)



1. In a sheet metal turning machine, a pair of beading rolls, the female roll having a rectangular peripheral groove, and the male roll having an inclined edge, and mandrels carrying said rolls, one of the mandrels having an unobstructed endwise movement.

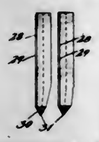
2. In a sheet metal turning machine, the combination of a male roll having an inclined edge, a mandrel therefor, a female roll having a peripheral rectangular groove to coöperate with the male roll, and a mandrel therefor having a limited and unobstructed endwise movement, substantially as and for the purpose set forth.

3. In a sheet metal turning machine, the combination of a male roll having an inclined edge, a mandrel therefor, a coöperating female roll having a peripheral rectangular groove to receive said inclined edge, and a mandrel therefor, one of said mandrels having unobstructed end-play in the direction to bring the inclined face of the male roll toward the adjacent flange of the female roll.

1,207,350. REPRODUCING-NEEDLE. ALVIN B. WAHLQUIST and FREDERICK D. HALL, Chicago, Ill.; said Wahlquist assignor to said Hall. Filed Nov. 25, 1914. Serial No. 873,886. (Cl. 274—38.)

1. A fiber reproducing needle having a thin hard shell on one side thereof, having a triangular cross section, and having one end beveled so as to form a point on the shell portion, and having that one of the soft sides of the

needle which runs down to the point of the needle beveled off adjacent the point of the needle.



2. The method of repointing a fiber reproducing needle having a thin hard shell on one side thereof, having a triangular cross section, and having one end beveled so as to form a point on the shell portion, which method consists in removing a thin slice off of that one of the soft sides of the needle which is adjacent the point of the needle together with the extreme point of the needle.

3. The method of repointing a fiber reproducing needle having a thin hard shell on one side thereof, having an angular cross section, and having one end beveled so as to form a point on the shell portion, which method consists in removing a thin slice off of that one of the soft sides of the needle which is adjacent the point of the needle together with the extreme point of the needle.

4. A fiber reproducing needle having a thin hard shell on one side thereof, having an angular cross section, and having one end beveled so as to form a point on the shell portion, and having that one of the soft sides of the needle which runs down to the point of the needle beveled off adjacent the point of the needle.

1,207,351. ELECTRIC FUSE. FREDERICK N. WAKE, New York, N. Y., assignor to Sterett R. Prevost, J. Maxwell Coote, Edward F. Fisher, and himself, trading under name of Electrical Safety Appliance Company, New York, N. Y. Filed Mar. 22, 1915. Serial No. 16,178. (Cl. 175—273.)



1. In a fuse, a casing having transverse end notches, a fusible element, removable terminals frictionally connected to said fusible element and having transverse end slots in alinement with said notches and removable keys in said notches and slots for locking the parts in the casing.

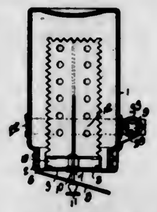
2. In a fuse, a casing having transverse end notches, removable end caps for said casing, a fusible element, removable terminals frictionally connected to said fusible element and having transverse end slots in alinement with said notches and removable keys in said notches and slots for locking the parts in said casing.

3. In a fuse, a casing having transverse end notches, a fusible element, removable terminals connected to said fusible element and having transverse end slots in alinement with said notches and removable keys in said notches and slots for locking the parts in the casing.

4. A fuse, a casing having transverse end notches, removable end caps for said casing, a fusible element, removable terminals connected to said fusible element and having transverse end slots in alinement with said notches and removable keys in said notches and slots for locking the parts in said casing.

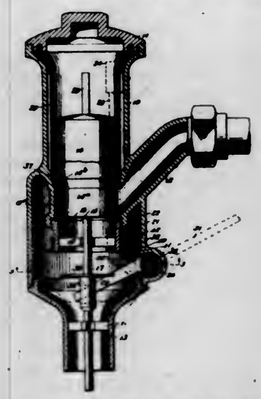
1,207,352. SIFTER. GEORGE BERNARD WHEELER, New York, N. Y. Filed Dec. 8, 1915. Serial No. 65,718. (Cl. 221—61.)

1. In a sifter of the character described, a container provided with an open end, a cap removably fixed to said open end, said cap having apertures therein, a lid for covering said apertures, a shaft extending through said lid for holding the lid in position, said shaft being sufficiently long to allow a movement of the lid from the cap, and a stirring member connected to the inner end of said shaft, whereby the shaft acts in the double capacity as means for holding the lid in position and as a power shaft for the stirring member.



2. In a sifter of the character described, a container provided with an open end, a cap removably connected with said open end, said cap having perforations, a stirring member arranged in said container, said stirring member being provided with a transverse plate at the upper end, said transverse plate being formed with upstanding portions or legs whereby the stirring member is spaced from the cap when the sifter is inverted, and a power shaft extending through said cap and engaging said stirring member for operating the same.

1,207,353. FLUSHING-VALVE. WILLIAM SEARS WHITE, Denver, Colo., assignor, by direct and mesne assignments, to White Flushing Valve Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed June 4, 1914. Serial No. 842,898. (Cl. 137—93.)



1. A flushing valve having an inlet for water, a water outlet, a float chamber in communication with said inlet and outlet, a float valve in the float chamber controlling communication between the inlet and the float chamber and between the float chamber and the outlet, an air chamber normally closed from communication with the float chamber, and means whereby to raise the float valve and to establish communication between the top of the float chamber and air chamber with the raising of the float valve.

2. A flushing valve having a water inlet, a water outlet, a float chamber, a float valve in said chamber commanding communication between the inlet and said chamber and between the said chamber and the said outlet, a normally closed by-pass between the top of the float chamber and the outlet, and means for raising the float valve and opening the by-pass.

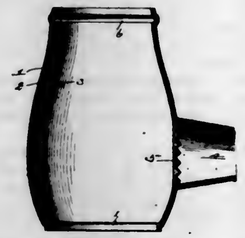
3. A flushing valve having a water inlet, a water outlet, a float chamber in communication with the inlet, a manually controlled float valve in the float chamber commanding the inlet, an air chamber in communication at the bottom thereof with the outlet, a by-pass conduit connecting the top of the float chamber with the air chamber, valve means associated with the by-pass to permit overflow of water from the float chamber and permit inflow of air from the air chamber, and means to open the valve means of the by-pass when the float valve is to be raised, the said air chamber being closed except for the said open lower end and the said by-pass.

4. A flushing valve having a water inlet, a discharge outlet, a float chamber to which the inlet leads, said chamber being open at its lower end in the direction of the discharge outlet, a float valve in the chamber commanding the inlet and commanding the discharge from the said chamber, means for raising the float valve, and valve means operable with the raising of the float valve for venting the float chamber.

5. A flushing valve having a water inlet, a discharge outlet, a float chamber in communication with the said inlet for the admission of water thereto, and in communication with the said outlet for the discharge of water, a float valve in said chamber commanding the inlet, an air chamber subjacent the float chamber, a passage connecting the air chamber with the float chamber near the top of the latter, and means for regulating the size of the inlet of the passage to vary the flushing period by controlling the descent of the float valve, the air chamber being closed except at its lower end.

[Claims 6 to 10 not printed in the Gazette.]

1,207,354. EGG-TESTING GLOBE. PAUL EDWIN WOOLFOLK, Waco, Tex. Filed July 7, 1916. Serial No. 107,978. (Cl. 99—6.)

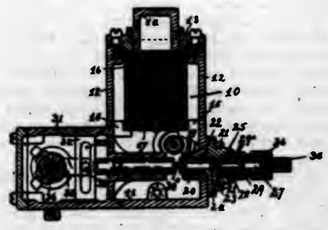


An egg testing globe having a lateral extension, a piece of corrugated glass in said extension, a white opaque coating on the interior of the globe, a bead near the top of the globe and a flange at the bottom of the globe, thereby adapting the globe to be inserted in the frame of an ordinary hand lantern.

1,207,355. LUBRICATING DEVICE. ROBERT WOOD, Brooklyn, N. Y., assignor to Nathan Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Nov. 26, 1915. Serial No. 63,421. (Cl. 184—27.)

1. A lubricating device comprising an oil reservoir, a supplemental housing secured thereto, a partition between the reservoir and housing, a cylinder secured to the partition and extending into the reservoir, a cylinder in the reservoir opposite the partition cylinder, a rod mounted in the partition cylinder and having a ram for the cylinder opposite the partition cylinder, a slotted cross head secured to and carried by the rod, guideways in the housing for the cross head, a pin in the slot and a crank for moving the pin in the slot to reciprocate the cross head and rod and thereby alternately force the ram into and withdraw it from its cylinder.

2. A lubricating device comprising an oil reservoir, said reservoir having a pair of oppositely disposed cylinders formed on its inner walls and arranged in spaced relation, the diameter of each cylinder being the same, a removable barrel in one of said cylinders, a rod movable in the cylinder opposite the barrel, said rod having a ram at its end adapted to be alternately forced into and withdrawn from the barrel.



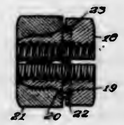
3. A lubricating device comprising an oil reservoir, a supplemental housing secured thereto at its lower end, a partition between the reservoir and housing, a cylinder secured to the partition and extending into the reservoir, a cylinder in the reservoir opposite the partition cylinder, a removable barrel in the cylinder opposite the partition cylinder and a rod movable within the partition cylinder and operated by means located within the housing and adapted to be alternately forced into and withdrawn from the barrel.

4. A lubricating device comprising an oil reservoir, said reservoir having a pair of oppositely disposed cylinders formed on its inner wall and arranged in spaced relation, a barrel adjustably mounted within one of the cylinders, a rod movable in the opposite cylinder, said rod having a ram at its end adapted to be alternately forced into and withdrawn from the barrel.

5. A lubricating device comprising an oil reservoir, said reservoir having a pair of oppositely disposed cylinders formed on its inner wall and arranged in spaced relation, a barrel in one of said cylinders, a movable rod in the opposite cylinder, said rod having a ram at its end adapted to be alternately forced into and withdrawn from the barrel and means for varying the amount of entrance of said rod within the barrel.

[Claim 6 not printed in the Gazette.]

1,207,356. LOCK-NUT. HERBERT B. WRIGHT, Chicago, Ill. Filed Mar. 13, 1916. Serial No. 83,947. (Cl. 151—19.)



1. A lock nut comprising a nut having a central threaded bore and having a single longitudinal slot through the wall thereof, said nut having a taper at one end terminating in a cylindrical threaded portion, and a second tapered portion terminating in an enlarged turning or body portion of the nut, and a sleeve having threads to engage the last mentioned threaded portion, and having tapered walls for engaging the two tapered portions of the nut.

2. In a lock nut, the combination of a nut having interior threads for engagement with a bolt, and having a longitudinal extension terminating with an exteriorly beveled end, said extension having a cylindrical threaded portion with threads of finer pitch than those of the nut, a second beveled portion of larger diameter than the first-named portion, said nut also having a longi-

tudinal slot through one side thereof, and a locking member having threads for engagement with said threaded portion of the extension, and beveled portions for engagement with the beveled portions of the extension.

3. A lock nut comprising a nut having interior threads for engagement with a bolt, and a longitudinal slot through one side thereof, the outer periphery of said nut being shaped to form an angular turning portion, an adjacent beveled portion terminating in a reduced cylindrical threaded portion having threads of finer pitch than the threads of the nut, said threaded portion terminating in a second beveled portion of smaller diameter than the first-named beveled portion, and a locking member having threads for engagement with the last-named threads, and having annular engaging portions for engaging with the beveled portions of the nut, to compress the nut when the locking portion is tightened.

4. In a lock nut, the combination of a nut having an exterior thread at one end thereof, terminating in beveled portions, an inwardly projecting groove between the larger beveled portion and the head of the nut, and a locking member having threads for engagement with said exterior threads, and having beveled portions for engagement with the beveled portions of the nut, said locking portion also having an annular member adapted to be forced into said groove and bent inwardly when the locking member is tightened.

5. In a lock nut, the combination of a nut having an interior thread for engagement with a bolt, and having an enlarged end at one end thereof, adapted to be engaged by a wrench, and a cylindrical extension, said cylindrical extension having threads in the middle thereof, and terminating in beveled portions, one of said beveled portions having a groove therein, and a locking sleeve having an interior thread, and means for engaging the beveled portions of the nut, and having a projection adapted to engage with the groove in said beveled portion.

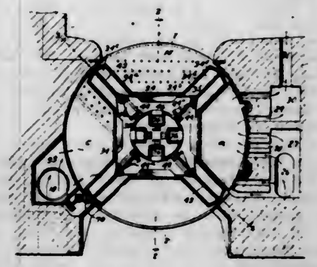
1,207,357. CARPENTER'S PLANE. GEORGE D. YOUNG, New York, N. Y. Original application filed Sept. 30, 1915, Serial No. 53,205. Divided and this application filed July 12, 1916. Serial No. 108,792. (Cl. 145—19.)



1. A plane provided with a handle, and means for detachably connecting said handle with the stock of the plane, comprising a part secured to the stock and provided with a raised front end portion at the base of which is a transverse aperture above which is a screw-hole, and a part secured to the handle and adapted to slidably engage the part secured to the stock and the front end of which is adapted to pass through said aperture, and a screw adapted to be passed through said hole and to engage the front end of the part which is secured to the handle after it has been passed through said aperture, the rear end portion of the part which is secured to the handle being also provided with a hook adapted to engage the rear end of the part which is secured to the stock.

2. A plane provided with a handle and means for detachably connecting said handle with the stock of the plane, comprising a part secured to the stock and provided with an upwardly curved front end portion at the base of which is a transverse aperture above which is a screw hole and a part secured to the handle and adapted to slidably engage the part secured to the stock and the front end of which is adapted to pass through said aperture, and a screw adapted to be passed through said hole and to engage the front end portion of the part which is secured to the handle after it has been passed through said aperture.

1,207,358. ROTARY GRATE. THOMAS W. ATTERBURY, Dansville, N. Y., and PERCY W. MATTHEWS, Scottdale, Pa., assignors, by direct and mesne assignments, of five-twelfths to said Matthews, five-twelfths to Frederick Emmet Bedale, Scottdale, Pa., and one-sixth to Joseph Franklin Brandenburg, Mahwah, N. J. Original application filed July 5, 1912, Serial No. 707,697. Divided and this application filed Nov. 10, 1915. Serial No. 60,761. (Cl. 110—35.)



1. A rotary horizontal axis grate having solid walls forming a series of compartments, grate bars therein forming receptacles, and means for opening and closing draft communication within the grate between the grate receptacles.

2. A rotary horizontal axis grate comprising a central drum, a series of separate grate compartments around the outside of the drum, said compartments adapted to be substantially non-communicating, and grate bars lining said compartments and forming receptacles for the charges.

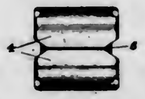
3. A rotary horizontal axis grate having a central drum with wings projecting outward therefrom to form a series of grate compartments, and grate bars lining the walls of said compartments.

4. In a rotary horizontal axis grate, the combination of a central drum provided with wings, and receptacles constituted of grate bars mounted in the compartments thus formed.

5. A rotary grate structure, comprising a support mounted to rotate about a horizontal axis and having walls forming a series of grate compartments, and grate receptacles mounted in said compartments.

[Claims 6 to 25 not printed in the Gazette.]

1,207,359. COMMUTATOR. MICHAEL AUFIERO, Brooklyn, N. Y. Filed Apr. 5, 1915. Serial No. 19,147. (Cl. 200—12.)



1. In a commutator, the combination of a core, a plurality of separate contact sections surrounding said core, separate and detachable insulating strips of sheet material between each contact section and the core, said insulating strips having extensions projecting between the adjacent edges of the several contact sections, said contact sections having their ends crimped over the ends of said core to thereby hold said insulating strips in assembled position.

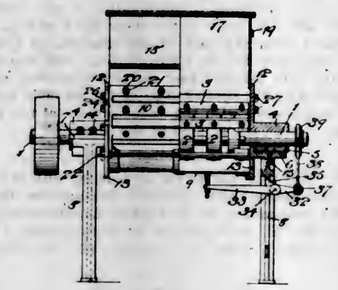
2. In a commutator, the combination of a core, a plurality of contact sections surrounding said core and extending longitudinally thereof, insulating material interposed between said contact sections and said core with integral projections between said adjacent contact sections, said contact sections and insulating material being crimped over the ends of said core to hold said sections in place thereon.

3. In a commutator, the combination of a core, a plurality of separate contact sections extending longitudinally thereof, separate insulating strips for each contact section, said strips comprising a main portion of a length and width substantially equal to the length and width of the contact section lying between said sections and said core, and a tongue along one longitudinal edge of said strips projecting between the adjacent edges of said contact sections, said contact sections and insulating strips being crimped over the ends of said core to hold the sections in position thereon.

4. In a commutator, the combination of a core, a plurality of contact strips surrounding said core and extending longitudinally thereof, each contact strip comprising a middle portion of a length equal to the length of the core and reduced end portions projecting beyond said core at each end, insulating strips between each contact section and the core and having portions between the adjacent edges of the contact strips, the projecting ends of said contact sections and insulating strips being crimped over the ends of said core.

5. In a commutator, the combination of a cylindrical core having a longitudinal extending annular flange at each end, a plurality of contact strips surrounding said core and extending longitudinally thereof, each contact strip comprising a middle portion of a length equal to the length of the core, and reduced end portions projecting beyond said core at each end, insulating strips between each contact section and the core and having portions between the adjacent edges of the contact strips, the projecting ends of said contact sections and insulating strips being crimped over said flange.

1,207,360. ROTARY CUTTER. CHARLES F. BALL, New York, N. Y., assignor to Ball & Jewell, Brooklyn, N. Y., a Firm. Filed July 17, 1915. Serial No. 40,513. (Cl. 83—6.)



1. A rotary cutter having a drive shaft, a bottom screen, and a vertically movable plunger operated from the drive shaft for intermittently striking the screen for dislodging the particles thereon.

2. A rotary cutter having a drive shaft, a bottom screen, and a vertically movable yielding plunger operated from the drive shaft for intermittently striking the screen for dislodging the particles thereon.

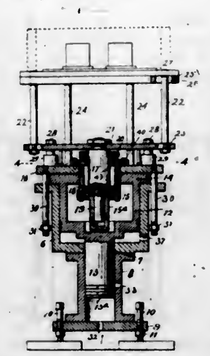
3. A rotary cutter having a drive shaft, a bottom screen, an oscillating lever, a plunger adapted to be moved vertically in and by said lever, and means operated from the shaft for rocking said lever.

4. A rotary cutter having a drive shaft, a bottom screen, an oscillating lever, a yielding plunger adapted to be moved vertically in and by said lever, and means operated from the shaft for rocking said lever.

5. A rotary cutter having a drive shaft, a bottom screen, a vertically oscillating lever, an adjustable plunger adapted to be moved vertically in and by said lever, and means operated from the shaft for rocking said lever.

[Claims 6 and 7 not printed in the Gazette.]

1,207,361. MOLDING-MACHINE. JOHN N. BATTENFELD, Cleveland, Ohio. Filed July 27, 1914. Serial No. 853,336. (Cl. 22—25.)



1. In a molding machine, the combination with a base, a back portion extending from said base, a cylinder supported by the back portion, and adjustable rods carried by the cylinder and engaging the base.

2. In a molding machine, the combination with a base, a back portion supported by said base, a cylinder supported by the back portion, a plurality of threaded rods adapted to engage threaded openings upon a portion of the cylinder, the said rods engaging the base.

3. In a molding machine, the combination with a cylinder, an extending cylinder of smaller diameter communicating with the first mentioned cylinder, a piston in each cylinder, said pistons being in axial alinement, means for admitting compressed fluid between each of said cylinders and its piston.

4. In a molding machine, the combination with a cylinder, an extending cylinder of smaller diameter communicating with the first mentioned cylinder, a piston in each cylinder, said pistons being in axial alinement, independent means for admitting compressed fluid between each of said cylinders and its piston, one of said cylinders having an exhaust port which is uncovered by the movement of its piston.

5. In a molding machine, the combination with a cylinder, an extending cylinder of smaller diameter communicating with the first mentioned cylinder, pistons in each of said cylinders, which pistons operate together, a port for the entrance and exit of compressed fluid in the larger cylinder near the bottom portion thereof, an inlet port for compressed fluid communicating with the lower portion of the smaller cylinder, and an exhaust port for the smaller cylinder, said exhaust port being opened and closed by the movement of the piston in the smaller cylinder.

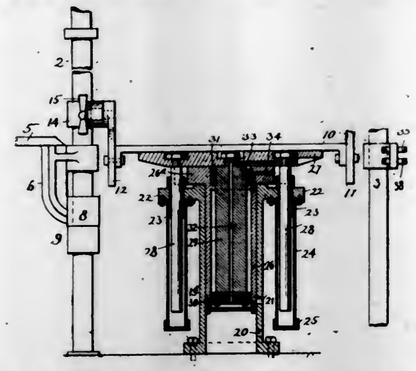
[Claims 6 to 18 not printed in the Gazette.]

1,207,362. MOLDING-MACHINE. JOHN N. BATTENFELD, Cleveland, Ohio. Filed July 27, 1914. Serial No. 853,337. (Cl. 22—32.)

1. In a molding machine, the combination with a molding table, means adapted to raise and lower the same, a swinging table pivotally and slidably supported at one side of the molding table, said swinging table being adapted to be swung above the raising and lowering means when the same is in lowered position, and adapted to be raised with the molding table.

2. In a molding machine, the combination with a molding table, means adapted to raise and lower the same, a guide rod adjacent the molding table, a swinging table, a bracket supporting said table, said bracket being provided with spaced collars which engage with the said guide rod, said collars being adapted to turn upon the guide rod and to slide upon the same, the said table being adapted to swing above the raising and lowering means when the

same is in lowered position, and adapted to be raised with the table as it is raised.



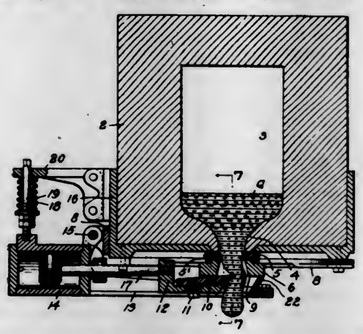
3. In a molding machine, the combination with a molding table, a jarring, raising and lowering means adapted to engage the table, stationary guide rods adjacent the molding table, brackets slidably mounted upon the guide rods, means for securing said brackets upon the guide rods in any desired position, said molding table being adapted to rest upon the raising and lowering means and to reciprocate upon the said guide rods as the jarring means is operated.

4. In a molding machine, the combination with a base and side guide rods, a molding table, a jarring piston member, and a jarring cylinder member, one of said members being mounted upon the base, the other supporting said molding table, coöperating means between the molding table and guide rods to guide the said table as it moves, guiding devices supported beneath the molding table, and rods depending from the table and coöperating with the guiding devices, thereby to guide the molding table.

5. In a molding machine, the combination with a molding table, a pivoted pattern plate, means for supporting said pattern plate, said pattern plate being adjustable with respect to its supporting means.

[Claims 6 to 11 not printed in the Gazette.]

1,207,363. APPARATUS FOR SEVERING MOLTEN GLASS. ORVILLE A. BRIDGES, Zanesville, Ohio, assignor of one-half to The Kearns-Gorsuch Bottle Company, Zanesville, Ohio, a Corporation of Ohio. Filed June 28, 1915. Serial No. 36,599. (Cl. 49—55.)



1. The combination of a molten glass receptacle having a discharge opening, a shear block fixed relatively to said opening and formed with a passage for the glass and with a flat shearing face intersecting said opening, a movable shear part having a curved cutting edge adapted to engage said shearing surface and traverse said passage, and means for maintaining the movable shear part at an angle to the shearing surface of the shear block with its curved cutting edge bearing against said surface and with the intermediate portion of said curved edge bulging upwardly above the plane of said surface and into said passage, substantially as described.

2. The combination of a molten glass receptacle having a discharge opening, a shear part fixed relatively to said opening, a movable shear part having a cutting edge adapted to coöperate with said fixed part, a pivoted support for the movable shear part, comprising a guideway in which said movable shear part is confined to reciprocate, a baffle at the end of the guideway, and means for exerting force on the pivoted support to maintain the cutting edge of the movable shear part in shearing engagement with the fixed part.

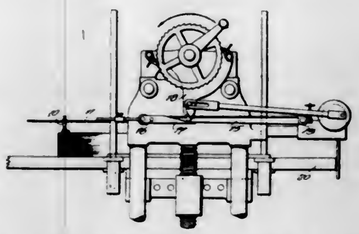
3. The combination of a molten glass receptacle having a discharge opening, a shear part fixed relatively to said opening, and having a bottom shearing surface and a vertical passage alined with said opening and enlarging downwardly therefrom and having its wall spaced from the normal path of the discharging glass, a movable shear part, a movable support for the movable shear part, and a tension device connected to the support and adapted to maintain only the cutting edge of the movable shear part in engagement with the fixed part.

4. The combination of a molten glass receptacle having a discharge opening, a shear part fixed relatively to the opening and having a shearing surface, a movable shear part, a pivoted support for the movable part and a tension device acting on the support to hold the movable part in shearing engagement with the fixed part, and an actuating cylinder and piston mounted on the support and operatively connected to the movable shear part.

5. The combination of a molten glass receptacle having a bottom discharge opening, a shear block having fixed position beneath the receptacle and formed with a vertical passage which constitutes a continuation of the container outlet and with the walls of the shear block passage normally spaced from the path of the discharging glass, a movable shear part having a cutting edge, and means for maintaining said movable part inclined relatively to the shear block with the cutting edge of the movable part in shearing engagement with the under surface of the block.

[Claims 6 to 18 not printed in the Gazette.]

1,207,364. PAPER-ENGAGING ELEMENT FOR PAPER-FEEDING MACHINES. ALBERT BROADMEYER, Harrisburg, Pa., assignor to W. O. Hickok Manufacturing Co., Harrisburg, Pa., a Corporation of Pennsylvania. Filed Sept. 16, 1916. Serial No. 120,542. (Cl. 101—36.)



1. In a paper feeding machine, including a vertically adjustable feed table, the combination with the controlling rod controlling the vertical adjustment of the table, of a paper engaging element including a vertical tubular body having a horizontal side bore through which the controlling rod extends, a set screw threaded through the body at one side and engaging the said controlling rod to adjustably lock the body of the paper engaging element upon the controlling rod, a stem projecting upwardly into the lower end of the tubular body and having a paper engaging blade at its lower end and a threaded axial bore at its upper end, an adjusting screw depending within the upper end of the tubular body and extending within the threaded bore of the stem, said adjusting screw having an upper head for rotation thereof, means to prevent vertical movement of the adjusting screw with respect to the body, and means to prevent rotation of the said stem with respect to the body.

2. In a paper feeding machine, including a vertically adjustable feed table, the combination with the controlling rod controlling vertical adjustment of the table, of a paper engaging element including a vertical tubular body having a horizontal side bore through which the controlling rod extends, a set screw threaded through the body at one side and engaging the said controlling rod to adjustably lock the body of the paper engaging element upon the controlling rod, a stem projecting upwardly into the lower end of the tubular body and having a paper engaging blade at its lower end and a threaded axial bore in its upper end, an adjusting screw depending within the upper end of the tubular body and extending within the threaded bore of the stem, said adjusting screw having an upper head for rotation thereof, means to prevent vertical movement of the adjusting screw with respect to the body, and means to prevent rotation of the said stem with respect to the body.

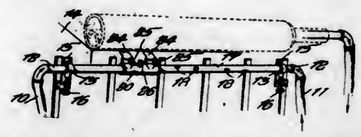
2. In a paper feeding machine, including a vertically adjustable feed table, the combination with the controlling rod controlling vertical adjustment of the table, of a paper engaging element including a vertical tubular body having a horizontal side bore through which the controlling rod extends, a set screw threaded through the body at one side and engaging the said controlling rod to adjustably lock the body of the paper engaging element upon the controlling rod, a stem projecting upwardly into the lower end of the tubular body and having a paper engaging blade at its lower end and a threaded axial bore in its upper end, an adjusting screw depending within the upper end of the tubular body and adapted to extend within the threaded bore of the stem, and having an annular groove within the tubular body, a screw threaded laterally through the body adjacent the upper end thereof and having its inner end extending within the groove of the adjusting screw to prevent vertical movement of the latter with respect to the body, and means to prevent rotation of the stem with respect to the tubular body.

3. In a paper feeding machine, including a vertically adjustable feed table, the combination with the controlling rod controlling vertical adjustment of the table, of a paper engaging element including a vertical tubular body having a horizontal side bore through which the controlling rod extends, a set screw threaded through the body at one side and engaging the said controlling rod to adjustably lock the body of the paper engaging element upon the controlling rod, a stem projecting upwardly into the lower end of the tubular body and having a paper engaging blade at its lower end and a threaded axial bore in its upper end, an adjusting screw depending within the upper end of the tubular body and extending within the threaded bore of the stem, having an annular groove within the tubular body, a screw threaded laterally through the body adjacent the upper end thereof and having its inner end extending within the groove of the adjusting screw to prevent vertical movement of the latter with respect to the body, said stem having a longitudinal slot in its upper portion, and a screw threaded laterally through the lower portion of the tubular body and having its inner end extending within the slot of the said stem to prevent rotation of the latter with respect to the tubular body.

4. In a paper feeding machine including a vertically adjustable feed table, the combination with the controlling rod controlling vertical adjustment of the table, of a paper engaging element adjustably mounted upon the rear portion of the controlling rod and including a vertical tubular body, a non-rotatable stem extending upwardly into the lower portion of the body and having a threaded bore at its upper end, a paper engaging blade carried by the lower end of the said stem, and a rotatable adjusting screw depending within the upper end of the tubular body and extending within the bore of the said stem whereby to adjust the latter with its paper engaging blade vertically with respect to the body.

5. In a paper feeding machine including a vertically adjustable feed table, the combination with the controlling rod controlling vertical adjustment of the table, of a paper engaging element adjustably mounted upon the rear portion of the controlling rod and including a vertical tubular body, a non-rotatable stem extending upwardly into the lower portion of the body and having a threaded bore at its upper end, a paper engaging blade carried by the lower end of the said stem, a rotatable adjusting screw depending within the upper end of the tubular body and extending within the bore of the said stem whereby to adjust the latter with its paper engaging blade vertically with respect to the body, said stem having a slot in its lower end receiving the said blade, and a clamping screw threaded laterally through the lower portion of the stem and engaging the blade to removably lock the latter in position.

1,207,365. PAPER-STACK-AGITATING MEANS FOR PAPER-FEEDING MACHINES. ALBERT BROADMEYER, Harrisburg, Pa., assignor to W. O. Hickok Manufacturing Co., Harrisburg, Pa., a Corporation of Pennsylvania. Filed Sept. 16, 1916. Serial No. 120,543. (Cl. 101—41.)



1. In a paper sheet feeding machine, the combination with a slotted blast pipe extending transversely in front of the stack of paper being fed, and a blast tube rotatable on said blast pipe and provided with spaced pairs of apertures in a spiral series therearound, of a nozzle supporting tube adjustable longitudinally of, and rotatable on, the said blast tube, and provided with nipples extending therefrom for registry with the apertures of the said pairs of apertures of the blast tube, and nozzles rotatable on the said nipples.

2. In a paper sheet feeding machine, the combination with a slotted blast pipe extending transversely in front of the stack of paper being fed, and a blast tube rotatable on said blast pipe and provided with spaced pairs of apertures in a spiral series therearound, of a nozzle supporting tube adjustable longitudinally of, and rotatable on, the said blast tube, and provided with nipples extending therefrom for registry with the apertures of the said pairs of apertures of the blast tube, each of said nipples having a reduced threaded end and an annular groove in its said reduced end, and a nozzle on each of said nipples having an enlarged inner end telescoping the reduced end of the respective nipple, and a clamping screw threaded therethrough and the inner end of which extends within the groove of the nipple.

3. In a paper sheet feeding machine, the combination with concentric blast pipes, one of which is slotted and the other of which is provided with apertures spirally therearound, the latter being rotatable on the former, of a pair of blast nozzles independently shiftable in a direction parallel to the axes of the said blast pipes, and a nozzle supporting member mounted on said blast pipes and with which the said nozzles are simultaneously adjustable in a direction at right angles to the axes of the said blast tubes and lengthwise of the blast tubes.

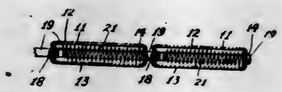
4. In a paper sheet feeding machine, the combination with relatively adjustably concentric blast tubes, the inner tube of which is slotted and the outer tube of which is provided with a series of apertures spirally therearound, of a nozzle supporting tube adjustable longitudinally of and rotatable upon the said blast pipes, and blast nozzles independently adjustable on the said supporting tube.

5. In a paper sheet feeding machine, the combination with relatively adjustable concentric blast pipes, the inner tube of which is slotted and the outer tube of which is provided with a series of apertures spirally therearound, of a nozzle supporting tube adjustable longitudinally of and rotatably upon the said blast pipes, and having nozzle supporting nipples, and nozzles independently rotatable on the said nipples in a direction parallel to the longitudinal axes of the said blast pipes.

1,207,366. EXPANSIBLE BRACELET. SIMON BRUNER, New York, N. Y. Filed Mar. 9, 1916. Serial No. 83,066. (Cl. 59—79.)

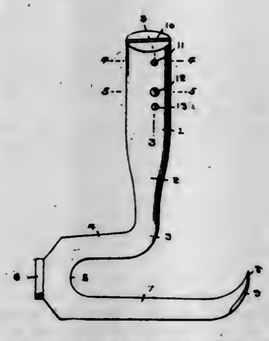
A bracelet comprising a series of connected two-part links, one of the link-parts including substantially trough-

shaped side portions connected at one end by a bridge and at the other end by a hooked extension of one of said side portions passing through a correspondingly-shaped



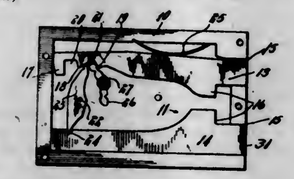
aperture in the opposite side portion, the other link-part being located between said side portions which form slide bearings therefor, and a spring to normally retain said link-parts in retracted positions.

1,207,367. REPAIRING-TOOL FOR BARB-WIRE FENCES. FRED A. BUSWELL, Chattanooga, Okla. Filed Nov. 9, 1915, Serial No. 60,524. Renewed Sept. 27, 1916. Serial No. 122,560. (Cl. 140—117.)



A repairing tool for wire fences, comprising a straight shank provided with an enlarged portion at one end, and a U-shaped portion projecting laterally from its opposite end and disposed right angularly to the longitudinal axis of the shank, one of the arms of said U-shaped portion being substantially twice the length of the complemental arm and extending transversely across the line of the longitudinal axis of the shank to provide a hand hold for manipulating the shank, the enlarged end of the shank being provided with a plurality of bores to provide means for manipulating the ends of the wire during the repairing operation.

1,207,368. LOCK. CLINT P. CAMERON, Mount Vernon, Ind. Filed Oct. 13, 1915. Serial No. 55,720. (Cl. 70—74.)



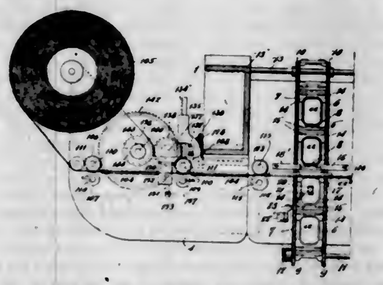
A lock comprising a casing, main and auxiliary lock bolts mounted in the casing, spaced projections on the main bolt providing notches therebetween, a lever pivoted to the casing and connected at one end to the auxiliary bolt with its other end interchangeably engageable in the notches, means yieldably maintaining the main bolt in engagement with the lever and key means engageable with a projection and said lever to extend and retract the main and auxiliary bolts.

1,207,369. GARMENT-HANGER. MARK J. CASEY, New Richmond, Wis. Filed Feb. 26, 1916. Serial No. 80,636. (Cl. 211—16.)



The combination with a cabinet, of a plurality of brackets arranged in rectangular relationship with each other, a vertical member rotatable in each braket, a horizontal member carried by each vertical member, toggle levers pivoted to the ends of each pair of horizontal members and to each other, a ring carried by each of said last named pivots, a rod carried by both rings, and a set screw in each ring bearing against said rod, said rod being adapted to have garments suspended therefrom.

1,207,370. CAN-SEALING MACHINE. HANS CHRISTIANSEN, Bedford, and JOHN P. GUPPEY, Boston, Mass., assignors, by mesne assignments, to The Bowers Can Seal Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 23, 1913. Serial No. 796,961. (Cl. 113—1.)



1. A can sealing machine for applying a sealing strip to the laterally-projecting and overlapping edges of a can body and cover, the same comprising a carrier for the cans having a progressive movement, strip holding members between which the can passes as it is borne by the carrier during the advance movement thereof whereby a strip held by said members in the path of said laterally-projecting and overlapping edges of the can body and cover may, by the advance movement of the carrier, become bent around and applied to said edges, other movable members assisting in the application of the sealing strip to said edges, and means for operating said carrier and strip applying members with a proper relative sequence of operation.

2. A can sealing machine for applying a sealing strip to the laterally-projecting and overlapping edges of a can body and cover, the same comprising a carrier having a progressive movement with intermittent periods of dwell, strip holding members oppositely arranged and between which the can passes as it is borne by the carrier during the advance movement thereof whereby a strip held by said members in the path of the laterally-projecting and overlapping edges of the can body and cover may, by the advance movement of the carrier, become bent around and applied to said overlapping edges, other movable members assisting in the application of the strip to said overlapping edges, means for operating said carrier to have a progressive and intermittent movement as aforesaid, and means for operating said movable members to assist in the application of said strip during a dwell of the carrier following an advance movement thereof.

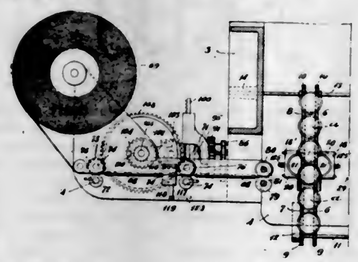
3. A can sealing machine for applying a sealing strip to the laterally projecting and overlapping edges of a can body and cover, the same comprising a carrier having a progressive movement with intermittent periods of dwell, strip holding members oppositely arranged and between which the can passes as it is borne by the carrier during the advance movement thereof whereby a strip held by said members in the path of the laterally-projecting and overlapping edges of the can body and cover may, by the advance movement of the carrier, become bent around and applied to said overlapping edges, movable strip applying members assisting in holding and applying the ends of said strip to said overlapping edges, means for operating said carrier to have a progressive and intermittent movement as aforesaid, and means for operating said movable strip applying members during the dwell of the carrier following an advance movement thereof, to have a variable motion, whereby they may bend and apply the ends of said strip to said edges to overlap thereon.

4. A can sealing machine for applying a sealing strip to the laterally-projecting and overlapping edges of a can body and cover, the same comprising a carrier having a progressive movement with intermittent periods of dwell, strip holding members oppositely arranged and between which the can passes as it is borne by the carrier during the advance movement thereof whereby a strip held by said members in the path of the laterally-projecting and overlapping edges of the can body and cover may, by the advance movement of the carrier, become bent around and applied to said overlapping edges, movable strip applying members assisting in the application of the strip to said edges, a press for pinching said strip onto said edges after its initial application thereto, and means for operating said carrier, strip applying members and press with a proper relative sequence of operation.

5. A can sealing machine for applying a sealing strip to the laterally-projecting and overlapping edges of a can body and cover, the same comprising a carrier having a progressive movement with intermittent periods of dwell, strip holding members oppositely arranged and between which the can passes as it is borne by the carrier during the advance movement thereof whereby a strip held by said members in the path of the laterally-projecting and overlapping edges of the can body and cover may, by the advance movement of the carrier, become bent around and applied to said overlapping edges, a strip feeding mechanism for feeding the strips to said strip holding members to lie between the same and a can borne by said carrier to lie in the path of the can during the advance movement of the carrier, and means whereby said strip feeding mechanism and said carrier may be operated to have a proper relative sequence of operation.

[Claims 6 to 24 not printed in the Gazette.]

1,207,371. CAN-SEALING MACHINE. HANS CHRISTIANSEN, Bedford, and JOHN P. GUPPEY, Boston, Mass., assignors, by mesne assignments, to The Bowers Can Seal Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 23, 1913. Serial No. 796,962. (Cl. 113—7.)



1. A can sealing machine for applying a sealing strip to the laterally-projecting and overlapping edges of a can body and cover, the same comprising a carrier for the cans having a progressive movement, movable strip holding members between which the can passes as it is borne by said carrier during the advance movement thereof whereby a strip held by said members in the path of said laterally-projecting and overlapping edges of the can body and cover may become bent and applied to said overlapping edges around a portion of said can during the advance movement thereof on said carrier, and means for operating said members to engage and assist in the bending of said strip and complete the wrapping thereof around said overlapping edges.

2. A can sealing machine for applying a sealing strip to the laterally-projecting and overlapping edges of a can body and cover, the same comprising a carrier for the cans having a progressive movement, movable strip holding members between which the can passes as it is borne by said carrier during the advance movement thereof whereby a strip held by said members in the path of said laterally-projecting and overlapping edges of the can body and cover may become bent and applied to said overlapping edges around a portion of said can during the advance movement thereof on said carrier, and means for producing a relative progressive movement between said carrier and strip holding members, whereby said can may be moved to pass between said members and said members follow around the overlapping edges of said can body and cover and assist in the application of the strip thereto as the can is borne by the carrier to pass between the members.

3. A can sealing machine for applying a sealing strip to the laterally-projecting and overlapping edges of a can body and cover, the same comprising a carrier for the cans having a progressive movement with intermittent periods of dwell, movable strip holding members oppositely arranged and between which the can passes as it is borne by said carrier during the advance movement thereof whereby a strip held by said members in the path of the laterally-projecting and overlapping edges of the can body and cover may become bent by the operation of said members and applied to said overlapping edges around a portion of said can during the advance movement of said carrier, and means for relatively operating said carrier and strip holding members whereby a can may be borne to pass between said members and the sealing strip bent and applied to said overlapping edges around a portion thereof by the operation of said members during the advance movement of the carrier, and said members complete their operation for applying the sealing strip to the can during the following dwell of the carrier.

4. A can sealing machine for applying a sealing strip to the laterally projecting and overlapping edges of a can body and cover, the same comprising a carrier for the cans having a progressive movement with intermittent periods of dwell, movable strip holding members oppositely arranged and between which the can passes as it is borne by said carrier during the advance movement thereof whereby a strip held by said members in the path of said laterally-projecting and overlapping edges of the can body and cover may become bent by the advance movement of the can and applied by the operation of said members to said overlapping edges around a portion of the can during the advance movement of the carrier, and means for producing a relative movement between said carrier and strip holding members whereby said can may be moved to pass between said members for bending said strip and said members follow around said overlapping edges for applying the sealing strip thereto around a portion of the can during the advance movement of the carrier, and said members complete their operation of applying the sealing strip to said overlapping edges during the following dwell of the carrier.

5. A can sealing machine for applying a sealing strip to the laterally-projecting and overlapping edges of a can body and cover, the same comprising a carrier for the cans having a progressive movement with intermittent periods of dwell, movable strip holding members between which the can passes as it is borne by said carrier during the advance movement thereof whereby a strip held by said members in the path of said laterally-projecting and overlapping edges of the can body and cover

may become bent by the advance movement of the can and applied to said overlapping edges around a portion of the can by the operation of said members during the advance movement of said carrier, and means for obtaining a relative movement between said carrier and members whereby said carrier may be moved to carry the can between said members and said members be simultaneously operated to engage said sealing strip and follow around said overlapping edges for applying the sealing strip thereto around a portion of the can during the advance movement of the carrier and said members then operate with a variable movement during the following dwell of the carrier for applying the ends of the sealing strip to said overlapping edges.

[Claims 6 to 22 not printed in the Gazette.]

1,207,372. PROCESS OF MAKING RUBBER WATER-BOTTLES. MARCELLUS B. CLARKE, Canton, Ohio. Filed Oct. 20, 1915. Serial No. 56,976. (Cl. 18—56.)

1. The method of making a bottle of vulcanizable gum compound comprising forming the body and neck portions over a core, the neck portion being formed with a slit in at least one side joining with a slit in the shoulder of the body portion, then withdrawing the core, and uniting the edges of such parts at the shoulder and neck.

2. The method of making a bottle of vulcanizable gum compound comprising molding the body and neck portions over a core, the neck portion being formed with a slit in at least one side joining with a slit in the shoulder, and there being flanges projecting from the neck and shoulder on opposite sides of such communicating slits, then withdrawing the core and uniting the flanges at the shoulder and neck.

3. The method of making a water bottle or similar article of a vulcanizable gum compound comprising making the body portion with two side walls, a split filling funnel, and a split neck, the neck portion or portions uniting the funnel portion or portions with the side walls, and there being one or more pairs of upwardly extending flanges, each flange being integral with one of the walls and with the neck and with the filling funnel, the flanges of such pair or pairs being separated when the parts are molded, whereby a slit is provided communicating with the neck opening, removing the core through such slit and opening, and thereafter intimately uniting the flanges together to close the opening or openings through the shoulder or shoulders of the bottle.

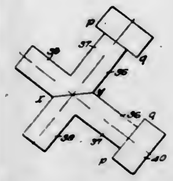
4. The method of making a rubber bottle or similar vessel comprising molding the body and neck portions over a core, the neck portion having an up and down slit through it communicating with a slit at the shoulder of the bottle between the body portions, semi-curing the parts in this condition, removing the core, placing cement on the edges at the slits, and then completing the curing to intimately unite the portions of the neck and shoulder which were on opposite sides of the slit.

5. The method of making a rubber bottle or similar vessel comprising molding the body and neck portions over a core, the neck portion being formed with a slit in its side and there being a communicating slit through the shoulder of the bottle, and the neck and sides being formed with flanges or ears adjacent to the slits, there being a flange extending from the shoulder and neck on the diametrically opposite side of the bottle, then removing the core through the opening provided, then intimately uniting the flanges adjacent to the slits, and then trimming off the flanges on both sides of the bottle to present a symmetrical appearance.

[Claims 6 to 16 not printed in the Gazette.]

1,207,373. AEROPLANE. HENRY L. COAKLEY, New York, N. Y. Filed June 24, 1915. Serial No. 36,087. (Cl. 244—12.)

1. In an aeroplane, a plurality of tail planes, one of which is substantially in a vertical plane and the others transverse thereof at each side of said vertical plane, all of said planes having the transverse axes thereof at an angle to the longitudinal axis of the aeroplane, and means for actuating said planes simultaneously or for moving the transverse planes only while the vertical plane remains substantially undisturbed.



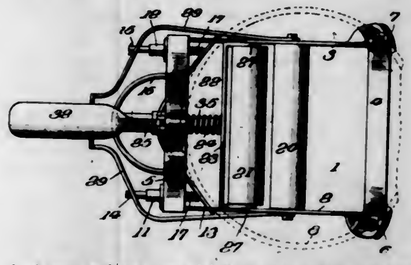
2. In an aeroplane, three fixed planes, a similar plurality of movable planes forming the tail of the aeroplane, each of the fixed planes having a corresponding movable plane, the axes of the corresponding fixed and movable planes having a common center lying in the longitudinal axis of the aeroplane, said corresponding fixed and movable planes being on opposite sides of the common center, and means for controlling the movable planes.

3. In an aeroplane V shaped planes intersecting near their vertices on a line in a plane with the axis of the aeroplane to form a flat V therebetween, tail planes secured to the rear branches of said V planes and means for moving said tail planes relative to said fixed planes.

4. In an aeroplane V shaped fixed planes forming dihedral angles the vertices of which lie in a plane with the axis of the aeroplane, tail planes associated with each of the rearward branches of the V planes and movable on an axis at right angles to the corresponding branch, and means for actuating said tail planes.

5. In a biplane, upper main planes intersecting on a line lying in the vertical plane of the longitudinal axis of the biplane, said intersecting planes forming therebetween a flat V, and lower main planes similarly intersecting and also forming a flat V therebetween, the upper and lower main planes disposed on opposite sides of the vertical plane of the biplane being parallel, tail planes secured to the rear of the main planes, and means for moving said tail planes relative to said main planes.

1,207,374. MOP-WRINGER. JENNIE R. COCHRAN, Jacksonville, Ill. Filed Feb. 21, 1916. Serial No. 79,793. (Cl. 15—12.)



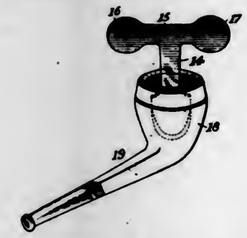
1. A mop wringer comprising a substantially rectangular frame comprising side and end bars, means for clamping said frame to a pail, each of said side bars being provided with a pair of slots, a roller having a shaft the ends of which engage in one of said slots, a second roller and shaft the ends of which engage in the other of said slots, means for resiliently holding said first mentioned roller in its forwardmost position, a lever pivoted to one of said end bars and means connecting said lever and said second roller whereby said second roller may be moved toward and away from said first mentioned roller.

2. A mop wringer comprising a substantially rectangular frame, comprising side and end bars, means for clamping said frame to a pail, each of said side bars being slotted, a pair of rollers having shafts seated in said slots, a lever pivoted to one of said end bars and having a pair of bail members connected thereto at one end and at the other end to the shaft of one of said rollers whereby when said lever is elevated said roller will be moved forwardly and when said lever is moved to horizontal position said roller will be moved rearwardly into locked position.

3. A mop wringer comprising a substantially rectangular frame, comprising side and end bars, means for clamping said frame to a pail, each of said side bars being slotted, a pair of rollers having shafts seated in said slots, a lever carried to one of said end bars, a pair of bail members connected to said lever and to the shaft of one of said rollers whereby when said lever is actuated said shaft is caused to slide in said slot, the pivotal point of said lever being so arranged that when said lever is moved to horizontal position said roller will be locked against movement in said slot.

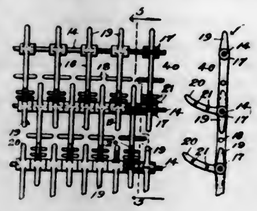
4. In a mop wringer a rectangular frame comprising side bars and end bars, the forward ends of said side bars being bent at an angle and the extremities thereof curved, the opposite ends of said side bars being bent downwardly and inwardly forming lugs, sleeves carried by said lugs, an arcuate pail engaging member having posts slidably mounted in said sleeves, springs on said posts normally forcing said plate forwardly, means for moving said plate against the tension of said springs, and a pair of rollers mounted in said side bars.

1,207,375. TOBACCO-PIPE CLEANER. ANTHON W. PUTMAN CRAMER, Westfield, N. J. Filed July 17, 1915. Serial No. 40,380. (Cl. 131—13.)



As a new article of manufacture, a tobacco pipe cleaner comprising a flat cutter head having a round sharpened edge at one end and parallel noncutting sides, a shank extending therefrom, and a cross piece associated with said shank and being appreciably longer than the width of the cutter head so as to serve as a grip in the use of the article.

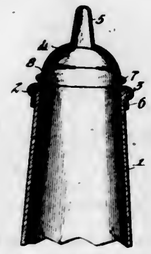
1,207,376. SCREEN. CHARLES L. DAVIDSON, New York, N. Y. Filed Aug. 5, 1915. Serial No. 43,744. (Cl. 210—16.)



1. In a screen structure for water intakes, a screen frame, shafts journaled at the upper and lower ends of said frame, an endless screen member arranged to operate over said shafts, said screen member comprising transverse rods and connecting links connecting said rods, adjacent links being connected at opposite ends to the same rod, said links being provided with a curved portion and two projections at right angles thereto, and the curved portion thereof being provided with laterally extending pins.

2. In a screen structure for water intakes, a movable endless screen member consisting of transverse rods and connecting links, each link being loosely connected at its ends to adjacent rods, adjacent links being connected at opposite ends to the same rod, said links having outwardly extending hooks at their lower ends, said hooks having laterally extending pins.

1,207,377. NURSING-BOTTLE. WILLIAM MORE DECKER, Buffalo, N. Y. Filed Dec. 28, 1915. Serial No. 68,992. (Cl. 128—18.)



1. A cover for a nursing bottle, comprising a base-portion, an elastic dome-shaped breast surmounted by a nipple and a stop located on the outer side of the cover between said base-portion and the breast and arranged to seat against the base-portion when the breast is depressed.

2. A cover for a nursing bottle, comprising a base-portion, an elastic dome-shaped breast surmounted by a nipple, and an annular stop-bead located on the outer side of the cover between said base-portion and the breast and arranged to seat against the base-portion when the breast is depressed.

3. A cover for a nursing-bottle, comprising a base-portion, an elastic dome-shaped breast surmounted by a nipple and a stop located between said base-portion and the breast, the portion of the breast adjacent to said stop being more pliable than the remainder of the breast.

4. A cover for a nursing bottle, comprising a base-portion, an elastic dome-shaped breast having a nipple, and a stop-bead located on the outer side of the cover between said base-portion and the breast, said base-portion and the portion of the breast immediately above said stop-bead being thinner than the remaining portion of the breast.

5. In a nursing device, the combination of a receptacle having substantially an uncontracted mouth, and an elastic cover having its base-portion stretched over said mouth, the cover being provided with a dome-shaped breast surmounted by a nipple and between its base-portion and said breast with an external stop arranged to seat against said base-portion to resist depression of the breast into the receptacle.

[Claim 6 not printed in the Gazette.]

1,207,378. PAPER-BOX-TAPING MACHINE. MOSES B. DISKIN, New York, N. Y. Filed Jan. 14, 1916. Serial No. 72,071. (Cl. 93—36.)

1. A paper box taping machine comprising a frame, spaced brackets in the frame, means for varying the distance between the brackets, a needle carrier mounted to be adjusted longitudinally and transversely in each of said brackets, a needle connected to the carrier, each of said needles being in the shape of a cutting blade having a piercing point and a bayonetlike slot in proximity with the piercing point, said bayonetlike slot opening into one of the cutting edges.

2. A paper box taping machine comprising a U-shaped frame having means at the bottom of the U for securing the frame to a suitable support, parallelly-spaced guide rods connecting the sides of the U frame, a pair of brackets slidably mounted on said guide rods, a left and a right screw bearing in the sides of the frame and engaging said brackets whereby the distance between the brackets may be varied, each of said brackets having an apertured head the axis of which is disposed transversely of the U frame, a needle carrier in each of said heads adjustable longitudinally and angularly thereof, and a needle detachably secured to each of the carriers longitudinally thereof, each of said needles having the shape of a cutting blade terminating with a piercing end and having a bayonetlike slot opening into one of the cutting edges.



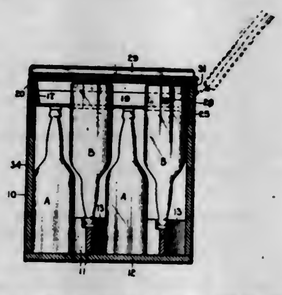
3. A paper box taping machine comprising a frame, spaced brackets in the frame, means for varying the distance between the brackets, an extension adjustably secured to the brackets, needle carriers adapted to be mounted adjustably in the brackets and the extension, and a needle carried by each of said carriers.

4. A paper box taping machine comprising a bracket having an apertured head, a lateral arm extending from the bracket at the head, said lateral arm having also an apertured head, the axes of said apertures of the bracket and arm being parallel, a rod mounted to slide in the arm, means for clamping the rod to the arm, a head carried by said rod, said head having parallelly-spaced apertures disposed parallel to the apertured heads of the bracket and arm, one of said apertures alining with the apertured head of the bracket and the other with the apertured head of the arm.

5. A paper box taping machine comprising a frame, spaced brackets in the frame, means for varying the distance between the brackets, a needle carrier in each of said brackets mounted to be adjusted angularly and longitudinally of said bracket, and a needle associated with each of said carriers.

[Claim 6 not printed in the Gazette.]

1,207,379. BOTTLE-CASE. FRANK DISTLER, O'Fallon, Ill. Filed Jan. 5, 1916. Serial No. 70,446. (Cl. 217—22.)



1. A bottle case including a body having crossed partitions at the bottom thereof forming pockets adapted to receive bottles in an upright position, there being depressions in the upper edges of the said partitions at the intersections thereof, and the said depressions being adapted to receive the tops of inverted bottles, an inner cover for the upright bottles, said inner cover being hinged to the body at one side to swing in a vertical plane and adapted to lie, when in the closed position, in a plane to cover and lie close to the tops of the necks of the bottles in the said pockets, there being openings in the cover adapted to permit the protrusion of the bottoms of the inverted bottles, and an upper lid disposed at the top of the body above said inner cover, the said body extending at such a height above the partitions as to dispose the bottoms of the inverted bottles adjacent to the inside of the said lid to be held by the latter against vertical displacement from the depressions.

2. A bottle case including a body, having an open top, crossed partitions in the body at the bottom constituting pockets to hold bottles in an upright position, the said partitions having depressions in the upper edges thereof at their intersections, a depressed cover hinged to the body at the back to swing in a vertical plane and adapted to cover and retain bottles when disposed in said pockets, the said cover having upwardly extending flanges adapted to lie against the inner walls of the body and having a laterally extending terminal flange on one of said upwardly extending flanges, to rest on the upper edge of the body, there being openings in the said cover in vertical alinement with and larger than the depressions in the partitions and the cover being at a height above the bottoms of the depressions to permit the protrusion of inverted bottles through the said openings with the tops of the inverted bottles in the said depressions, and a lid on the body at a height above the depressed inner cover for the said lid, when closed, to lie adjacent to the bottoms of the protruding bottles.

3. A bottle case including a body, crossed partitions in the body at the bottom, forming pockets to receive upright bottles, said partitions having depressions in the upper edges thereof in the intersection, a depressed inner cover in position to lie above and adjacent to the tops of upright bottles and formed with openings therein in line with the said depressions, the said depressions being adapted to receive the tops of inverted bottles and the openings in the said inner cover permitting the protrusion of the bottoms of the inverted bottles above the said cover, and a lid above the inner cover and adapted, when closed, to lie adjacent to the bottoms of the inverted bottles.

4. A bottle case adapted to receive a series of upright bottles and a series of inverted bottles between the upright bottles, crossed partitions in the body at the bottom forming pockets to receive the upright bottles and having depressions in the upper edges thereof at the intersections to receive the tops of inverted bottles, a hinged inner cover disposed in a plane to lie adjacent to the tops of the upright bottles and having openings for the protrusion therethrough of the bottoms of the inverted bottles, the said depressions being adapted to receive the tops of the inverted bottles, a lid above the inner cover, and lying, when closed, adjacent to the bottoms of the inverted bottles, corner irons rigidly secured to the interior of the body at the corners and hingedly connected with the inner cover, straps at the outside of the body and hingedly connected with the said lid, and fastening means extending through the said corner irons, through the back of the body, and through the said straps.

1,207,380. SHOWER-BATH APPARATUS. PATRICK J. DUFFY, Massillon, Ohio. Filed Oct. 26, 1916. Serial No. 127,816. (Cl. 4—26.)

1. The combination with a tub, of a shower bath attachment for faucets comprising an upright pipe having means for connection with the nozzle of the faucet, means for clamping the pipe to the body portion of the faucet, a mixing tank located at the upper extremity of said pipe, a horizontally disposed pipe connected to said upright pipe intermediate the extremities thereof, a pipe pivotally connected to said horizontally disposed pipe and spray nozzles carried by said pivotally connected pipe and directed to throw sprays within said tub.

2. The combination with a tub, of a shower bath attachment for faucets comprising an upright pipe having means for connection with the nozzle of the faucet, means for clamping the pipe to the body portion of the faucet, a mixing tank located at the upper extremity of said pipe, a horizontally disposed pipe connected to said upright pipe intermediate the extremities thereof, a pipe pivotally connected to said horizontally disposed pipe and spray nozzles carried by said pivotally connected pipe and directed to throw sprays within the tub, said pipe pivotally connected to said upright pipe intermediate the extremities thereof, and located around the upper edge of the tub, a pipe pivotally connected to said horizontally disposed pipe adjacent each end of the tub and spray nozzles carried by each of said pivotally connected pipes and directed to throw sprays within the tub.



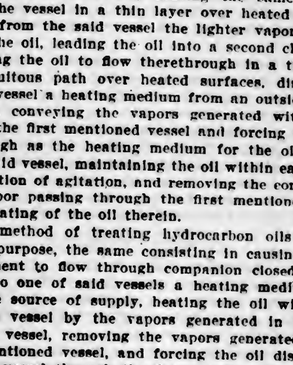
3. The combination with a tub, of a shower bath attachment for faucets comprising an upright pipe having means for connection with the nozzle of the faucet, means for clamping the pipe to the body portion of the faucet, a mixing tank located at the upper extremity of said pipe, a horizontally disposed pipe connected to said upright pipe intermediate the extremities thereof, a pipe pivotally connected to said horizontally disposed pipe and spray nozzles pivotally connected to said pivotally connected pipe and directed to throw sprays within said tub.

4. The combination with a tub of a shower bath attachment for faucets comprising an upright pipe having means for connection with the nozzle of the faucet, means for clamping the pipe to the body portion of the faucet, a mixing tank located at the upper extremity of said pipe, an angularly disposed pipe connected to said upright pipe intermediate the extremities thereof and located around the upper edge of the tub, said pipe inclined toward the rear of the tub, a pipe pivotally connected to said inclined pipe adjacent each end of the tub, spray nozzles carried by each of said pivoted pipes and a drain valve located at the lowest point upon said inclined pipe.

5. The combination with a tub, of a shower bath attachment for faucets comprising an upright pipe having means for connection with the nozzle of the faucet, a mixing tank located at the upper extremity of said pipe, an auxiliary heating device connected to said pipe, an angularly disposed pipe connected to said upright pipe below said heating device, a pipe pivotally connected to said angularly disposed pipe and spray nozzles carried by said pivoted pipe and directed to throw sprays within the tub.

1,207,381. METHOD OF DEHYDRATING AND REFINING HYDROCARBON-OILS. ERNEST I. DYER, Oakland, Cal. Filed Mar. 5, 1913. Serial No. 752,093. (Cl. 196—13.)

1. The method of treating hydrocarbon oils for the described purpose, the same consisting in causing the oil to flow in relatively small streams in a circuitous path through companion closed vessels, applying to one of said vessels a heating medium from an outside source of supply, heating the oil within the companion vessel by the vapors generated in the first mentioned vessel, removing the vapors generated in the second mentioned vessel and forcing the oil discharged from said vessel through the first mentioned vessel and maintaining the pressure and temperature in said vessel considerably higher than that of the second vessel whereby the temperature of the flowing body of oil is gradually raised while passing through said vessel.



2. The method of treating hydrocarbon oils for the described purpose, the same consisting in causing the oil for treatment to flow in relatively small streams in a circuitous path over heated surfaces companion closed vessels, the temperature of the second vessel through which the oil flows being considerable higher than that of the first vessel, forcing through said vessel the vapors from the oil in the second vessel and utilizing the same as a heating medium for the oil in the first vessel, withdrawing the condensate of each vessel, and leading from the first vessel to a suitable place of deposit the vapors generated therein from the oil passing therethrough.

3. The method of treating hydrocarbon oils for the described purpose, the same consisting in subjecting the oil in a closed vessel to a temperature which at normal pressure will drive off the lighter distillates, causing the oil to flow through said vessel in a thin layer in a circuitous path, removing the separated lighter distillates from within the vessel, thence without permitting the oil to cool passing the same into a second closed vessel where it is subjected to a higher temperature and pressure above normal atmospheric pressure, causing the oil to flow through said vessel in a thin layer in a circuitous path, and forcing the vapors generated from said oil into and through the first mentioned vessel and there utilizing the same as the heating medium for the oil flowing therethrough.

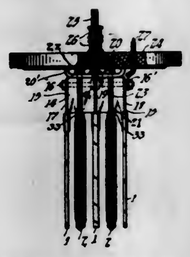
4. The method of treating hydrocarbon oils for the described purpose, the same consisting in delivering the oil within a closed vessel, causing the same to flow through the vessel in a thin layer over heated surfaces, removing from the said vessel the lighter vaporized portions of the oil, leading the oil into a second closed vessel, causing the oil to flow therethrough in a thin layer in a circuitous path over heated surfaces, discharging into said vessel a heating medium from an outside source of supply, conveying the vapors generated within said vessel to the first mentioned vessel and forcing the same therethrough as the heating medium for the oil flowing through said vessel, maintaining the oil within each vessel in a condition of agitation, and removing the condensates of the vapor passing through the first mentioned vessel for the heating of the oil therein.

5. The method of treating hydrocarbon oils for the described purpose, the same consisting in causing the oil for treatment to flow through companion closed vessels, applying to one of said vessels a heating medium from an outside source of supply, heating the oil within the companion vessel by the vapors generated in the first mentioned vessel, removing the vapors generated in the second mentioned vessel, and forcing the oil discharging from said vessel through the first mentioned vessel, the pressure and temperature in said vessel being considerably higher than that of the second mentioned vessel,

whereby the temperature of the flowing body of oil is gradually raised as passed through the said vessels.

[Claim 6 not printed in the Gazette.]

1,207,382. PRIMARY BATTERY. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed May 24, 1910. Serial No. 563,043. (Cl. 204—38.)



1. As a new article of manufacture, a negative electrode plate for primary batteries comprising a perforated metallic container having a mass of copper oxid agglomerated *in situ* therein and in intimate contact with the walls thereof, substantially as described.

2. As a new article of manufacture, a negative electrode for primary batteries comprising a perforated metallic container having in intimate contact with the walls thereof and agglomerated *in situ* therein a dried mass of copper oxid and binding material, substantially as described.

3. As a new article of manufacture, a negative electrode for primary batteries, comprising a flat perforated metallic container of substantially rectangular cross section and with corrugated walls, having tightly packed therein under pressure and in intimate contact with the walls thereof a dried mass of copper oxid and binding material agglomerated *in situ* in said container, substantially as described.

4. In a primary battery, the combination of a battery jar cover, an insulator, a conducting member supported from the cover below the same and mounted above the insulator, supporting means for said conducting member, an electrode plate below the insulator, a metallic frame surrounding said plate and having end portions engaging opposite sides of said insulator, connected directly to said conducting member and suspending said electrode plate therefrom, a second electrode of opposite polarity to said first named electrode, and a conducting member supported by said insulator to which said electrode is connected and from which it is suspended, substantially as described.

5. In a primary battery, the combination of a plurality of positive electrode plates, conducting connectors extending upwardly therefrom, a conducting rod upon which the upper ends of said connectors are removably secured, a negative electrode plate, means insulating said plates of opposite polarity from each other, a battery jar cover, and means for suspending said plates from said cover, including a member having upturned lugs in engagement with the under side thereof, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,207,383. SOUND-RECORD TABLET. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Jan. 30, 1913. Serial No. 745,232. (Cl. 154—43.)

1. As a new article of manufacture, a sound record tablet having a body composed of a thermo-plastic binder and a fibrous filler in the proportion of one part by weight of binder to at least three and a half parts by weight of filler, and a surface veneer for said body composed of a final phenolic condensation product which is sufficiently plastic at elevated temperatures to be molded, substantially as described.

2. As a new article of manufacture, a sound record tablet having a body composed of a binder of thermo-plastic condensation product and a fibrous filler in the proportion of one part by weight of binder to at least three and a half parts by weight of filler, and a surface veneer for said body composed of a final phenolic condensation product which is sufficiently plastic at elevated temperatures to be molded, substantially as described.

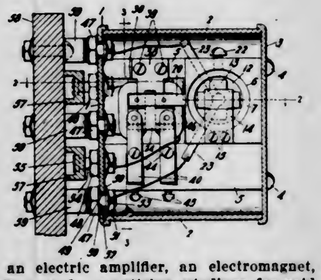
3. As a new article of manufacture, a sound record tablet having a body composed of a thermo-plastic phenolic binder and a fibrous filler in the proportion of one part by weight of binder to at least three and a half parts by weight of filler, and a surface veneer for said body composed of a final phenolic condensation product which is sufficiently plastic at elevated temperatures to be molded, substantially as described.

4. As a new article of manufacture, a sound record tablet having a body composed of a thermo-plastic binder of condensation product and a fibrous filler in the proportion of one part by weight of binder to at least three and a half parts by weight of filler, substantially as described.

5. As a new article of manufacture, a sound record tablet having a body composed of a thermo-plastic phenolic binder and a fibrous filler in the proportion of one part by weight of binder to at least three and a half parts by weight of filler, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,207,384. ELECTRIC AMPLIFIER. HENRY C. EGERTON, Passaic, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Aug. 15, 1914. Serial No. 856,971. (Cl. 179—171.)



1. In an electric amplifier, an electromagnet, actuating windings and magnetizing windings for said electromagnet, said magnetizing windings being non-inductively connected with respect to said actuating windings, and a transmitter element in circuit with said magnetizing windings.

2. In an electric amplifier, an electromagnet with a central pole and two lateral poles, an armature pivotally resting on said central pole, means for maintaining normally equal air-gaps between the two said lateral poles and said armature, and a transmitter element operated by said armature.

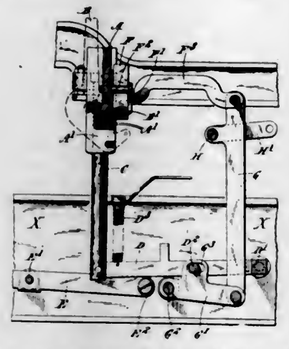
3. In an electric amplifier, an electromagnet having a central pole and two lateral poles, an armature with a central transverse ridge, said ridge resting on said central pole and acting as a pivot for said armature, and a transmitter element operated by said armature.

4. In an electric amplifier, an electromagnet, actuating windings and magnetizing windings for said electromagnet, a transmitter element in circuit with said magnetizing windings, an armature for said electromagnet responsive to currents in said actuating windings and non-responsive to transmitter currents flowing through said magnetizing windings.

5. In an electric amplifier a receiver element comprising an electromagnet, actuating windings and a plurality of magnetizing windings therefor, said magnetizing winding being non-inductively connected with respect to said actuating windings, and a differential transmitter element comprising a plurality of transmitter buttons, each of said transmitter buttons being in circuit with one of said magnetizing windings.

[Claims 6 to 19 not printed in the Gazette.]

1,207,385. SHIFT-KEY MECHANISM OF TYPEWRITERS. HERBERT ETHERIDGE, Ealing, London, England, assignor to The Bar-Lock Typewriter Company Limited, London, England. Filed Mar. 22, 1916. Serial No. 85,803. (Cl. 197—74.)



1. In a typewriter shift-key mechanism, the combination of, a type-bar segment movable bodily in a vertical plane, type-bars pivoted thereon and movable bodily with the frame, a plurality of type-characters on each bar, a shift-key operatively connected to the frame to move it to bring the different type on the type-bars into writing position, a bail carried by the segment to move bodily therewith and guided to move in a horizontal path thereon when struck by each type-bar, the said bail having rearwardly-extending arms, long links depending from said arms, and operative connection between the said links and the shift-key such that when the segment is raised and lowered the rear-ends of the bail-arms are correspondingly raised and lowered, substantially as and for the purpose set forth.

2. In a typewriter shift-key mechanism, the combination of, a type-bar segment movable bodily in a vertical plane, type-bars pivoted thereon and movable bodily with the segment, a plurality of type characters on each bar, a shift-key operatively connected to the segment to move it to bring the different type on the type-bars into writing position, a bail having two horizontal pins whereby its forward end is slidingly carried on the segment to move backward and forward relatively to the same under the action of the type-bars but bodily with the vertical movements of the segment under the action of its shift-key, the said bail having rearwardly-extending arms, links depending from said arms, and operative connection between the said links and the shift-key such that when the segment is raised and lowered the rear-ends of the bail arms are correspondingly raised and lowered, substantially as set forth.

3. In a typewriter shift-key mechanism, the combination of, a type-bar segment movable bodily in a vertical plane, type-bars pivoted thereon and movable with the segment, a plurality of type-characters on each bar, a lifting-member having approximately horizontal arms pivoted near the base and toward the back of the machine and extending forward, vertical rods secured at their upper ends to the type-bar segment and at their lower ends pivoted one to each arm of the lifting-member, a shift-key pivoted between its ends and having that end remote from the key operatively engaged with one of the arms of the lifting-member to raise the same when the key is depressed for the purpose of raising the type-bar segment to bring the different type-characters on the type-bars into writing position, a bail movable bodily with the type-bar segment and carried at its forward end by guides which enable it to slide on a horizontal path backward and forward under the action of the type-bars, the said bail having rearwardly-extending arms, long links depending from said arms, an approximately horizontal arm pivoted to the lower end of each depending link and extending forward to a fulcrum point, means for operatively connecting both of the horizontal arms with the shift-key so that they are raised therewith to raise the rear ends of the arms of the bail when the forward end is raised with the type-bar segment, substantially, as set forth.

4. In a typewriter shift-key mechanism, the combination of, a type-bar segment movable bodily in a vertical plane, type-bars pivoted thereon and movable with the segment, a plurality of type characters on each bar, a lifting-member having approximately horizontal arms pivoted near the base and toward the back of the machine and extending forward, vertical rods secured at their upper ends to the type-bar segment and at their lower ends pivoted one to each arm of the lifting-member, a shift-key pivoted between its ends and having that end remote from the key operatively engaged with one of the arms of the lifting-member to raise the same when the key is depressed for the purpose of raising the type-bar segment to bring the different type characters on the type-bars into writing position, a bail movable bodily with the type-segment and carried at its forward end by guides which enable it to slide in a horizontal path backward and forward under the action of the type-bars, the said bail having rearwardly-extending arms, long links depending from said arms, an approximately horizontal arm pivoted to the lower end of each depending link and extending forward to a fulcrum point, one of the said horizontal arms being slotted, and having operative engagement with the other, the said slot having sliding engagement with a member operatively engaged with the shift-key so that the horizontal arms are raised thereby when the shift-key is operated, substantially as set forth.

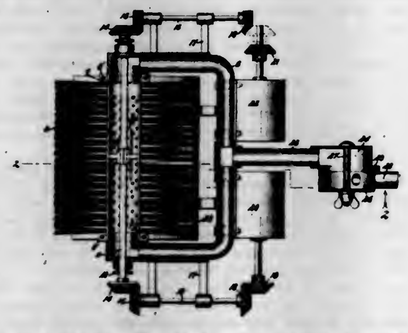
5. In a typewriter shift-key mechanism, the combination of, a type-bar segment movable bodily in a vertical plane, type-bars pivoted thereon and movable with the segment, a plurality of type characters on each bar, a lifting-member having approximately horizontal arms pivoted near the base and toward the back of the machine and extending forward, vertical rods secured at their upper ends to the type-bar segment and at their lower ends pivoted one to each arm of the lifting-member, a shift-key pivoted between its ends and having that end remote from the key operatively engaged with one of the arms of the lifting-member to raise the same when the key is depressed for the purpose of raising the type-bar segment to bring the different type characters on the type-bars into writing position, a bail movable bodily with the type-bar segment and carried at its forward end by guides which enable it to slide in a horizontal path backward and forward under the action of the type-bars, the said bail having rearwardly-extending arms, long links depending from said arm, an approximately horizontal arm pivoted to the lower end of each depending link and extending forward to a fulcrum point, the said horizontal arms being slotted and each of the said slots being engaged by a stiffening-rod which connects the arms of the lifting-member so that the horizontal arms are raised when the lifting-member is raised, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,207,386. PAINTING-MACHINE. MAXIME FERRER, New York, N. Y., assignor of one-half to Tollef Tollefsen, Brooklyn, N. Y. Filed Apr. 25, 1916. Serial No. 93,399. (Cl. 91—39.)

1. In a painting machine, a U-shaped tubular frame having inwardly directed bearing portions at the ex-

tremities thereof, a brush having a tubular core revolubly mounted on said bearing portions, a shaft revolubly mounted in the extremities of said frame, means securing the middle of the core of the brush to the shaft, means for revolving the shaft, and means for supplying paint to the U-shaped frame, said core having distributing openings forming an outlet for the paint.



2. In a painting machine, a tubular handle, a tubular U-shaped frame, a swivel joint connecting the frame to the handle, a tubular brush core engaging the extremities of the U-shaped frame and mounted to revolve thereon, a shaft co-axial with the core and revolubly mounted in the frame, said core having means coupling it to the middle of the shaft, means for revolving the shaft, and means for supplying paint to the handle whereby the same is directed to the frame and core, said core having slots forming an outlet for the paint.

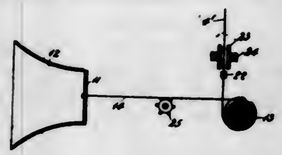
3. In a painting machine, a U-shaped tubular frame having inwardly directed bearing portions at the extremities thereof, a brush having a tubular core revolubly mounted on said bearing portions, a shaft revolubly mounted in the extremities of said frame coaxially with the tubular core, means securing the middle of the core of the brush to the shaft, means for revolving the shaft carried by the frame, a tubular handle for the frame, a swivel joint connecting the handle to the frame, and means for supplying a liquid to the handle whereby the same is distributed through the frame to the tubular core, said core having a slot forming an outlet for the liquid.

4. In a painting machine, a U-shaped tubular frame having inwardly directed bearing portions at the extremities thereof, a brush having a tubular core revolubly mounted on said bearing members, a shaft revolubly mounted in the extremities of said frame disposed coaxially with the core, said core having means engaging the shaft substantially in the central part to rotate with the shaft, a motor secured to the bottom of the U-shaped frame, motion transmission means provided on the side of the frame coupling the motor to the shaft, a tubular handle, a swivel joint connecting the handle to the frame, said joint having serrated portions whereby the angularity between the handle and frame may be varied, means for supplying liquid to the core of the brush through the handle, swivle joint and tubular frame, said core having slots constituting outlets for the liquid, and a guard for said brush secured to the frame.

1,207,387. APPARATUS AND METHOD FOR PRODUCING VIBRATORY MOTIONS. REGINALD A. FESSENDEN, Brookline, Mass., assignor to Submarine Signal Company, Waterville, Me., a Corporation of Maine. Filed Jan. 2, 1913. Serial No. 739,630. (Cl. 116—18.)

1. The method of producing vibratory motion of a spring-controlled member which consists in frictionally engaging said member to cause an increasing stress thereon until said stress becomes greater than and overcomes the frictional component when said member will release itself to be frictionally engaged again and automatically governing the periodicity of vibration of said member.

2. In a device of the kind described, the combination with a rotary member turning on its axis, of a wire wrapped around said rotary member, a spring member with which said wire is connected, and an automatic governing element to govern the frequency of vibration of said spring member.



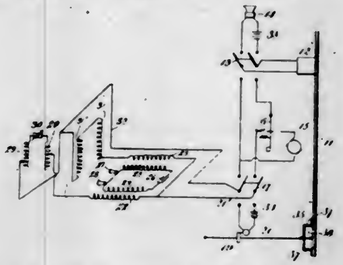
3. In a device of the kind described, the combination with a rotary member turning on its axis, of a wire wrapped around said rotary member, a spring-controlled means to which one end of said wire is connected, and an automatically governing element to govern the frequency of vibration of said spring-member.

4. In a device of the kind described, the combination with a rotary member turning on its axis, of a wire wrapped around said rotary member, a vibratory device mounted in fixed position and to which one end of said wire is connected, and means for automatically governing the periodicity of vibration of said vibratory member.

5. In a device of the kind described, the combination with a rotary member turning on its axis, of a wire wrapped around said rotary member, a vibratory device with which said wire is connected, and means engaging said wire whereby its frequency of vibration may be automatically governed.

[Claims 6 to 8 not printed in the Gazette.]

1,207,388. METHOD AND APPARATUS FOR SUBMARINE SIGNALING. REGINALD A. FESSENDEN, Brookline, Mass., assignor to Submarine Signal Company, Waterville, Me., a Corporation of Maine. Filed Jan. 29, 1913. Serial No. 744,793. (Cl. 177—352.)



1. The method of selecting and utilizing periodic impulses which consists in first transforming the energy of the impulses received into the energy of fluctuating currents comprising periodic and non-periodic impulses, impressing all the impulses both periodic and non-periodic upon a circuit tuned to the periodic impulses to be detected and also upon a circuit untuned to any frequency within the range of said impulses and thereby neutralizing the effect on an indicating apparatus of one portion of the non-periodic impulses by the other portion thereof, whereby the indicating apparatus will be affected by the periodic impulses.

2. The method of selecting and utilizing periodic impulses which consists in first transforming the energy of the impulses received into the energy of fluctuating currents comprising periodic and non-periodic impulses, impressing all the impulses both periodic and non-periodic upon a circuit tuned to the periodic impulses to be detected and also upon a circuit untuned to any frequency within the range of said impulses and thereby neutralizing the effect on an indicating apparatus of one portion of the non-periodic impulses by the other portion thereof, whereby the indicating apparatus will be affected practically by the periodic impulses only, and maintaining the effect on the indicating apparatus of said periodic impulses at practically full strength.

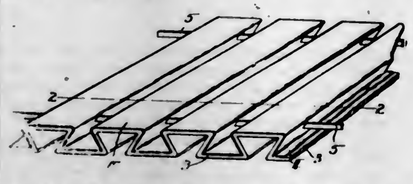
3. The method of selecting and utilizing periodic impulses which consists in first transforming the energy of the impulses received into the energy of fluctuating currents comprising periodic and non-periodic impulses, impressing all the impulses both periodic and non-periodic upon a circuit tuned to the periodic impulses to be detected and also upon a circuit untuned to any frequency within the range of said impulses and utilizing said fluctuating currents so separated to energize a secondary circuit containing an indicating apparatus and neutralizing the effect of one portion of the non-periodic impulses upon said secondary circuit by the other portion thereof, whereby the indicating apparatus will be affected practically by the periodic impulses only.

4. The method of selecting and utilizing periodic impulses which consists in first transforming the energy of the impulses received into the energy of fluctuating currents comprising periodic and non-periodic impulses, impressing all the impulses both periodic and non-periodic upon a circuit tuned to the periodic impulses to be detected and also upon a circuit untuned to any frequency within the range of said impulses and utilizing said fluctuating currents so separated to energize a secondary circuit containing an indicating apparatus and neutralizing the effect of one portion of the non-periodic impulses upon said secondary circuit by the other portion thereof, whereby the indicating apparatus will be affected practically by the periodic impulses only, and maintaining the effect on the indicating apparatus of said periodic impulses at practically full strength.

5. The method of selecting periodic impulses by causing the impulses received to excite fluctuating electric currents comprising periodic and non-periodic impulses, impressing all the impulses both periodic and non-periodic upon a circuit tuned to the periodic impulses to be detached and also upon a circuit untuned to any frequency within the range of said impulses and thereby neutralizing the effect on an indicating apparatus of a portion of the non-periodic impulses by the other portion thereof whereby the indicating apparatus will practically not be affected thereby.

[Claims 6 to 9 not printed in the Gazette.]

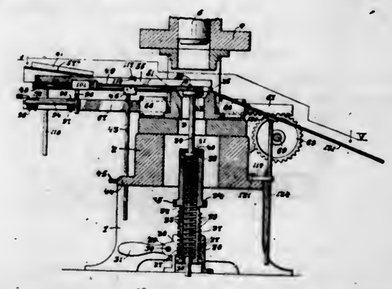
1,207,389. CORRUGATED LATH-BOARD. SILAS M. FORD, St. Paul, Minn. Filed May 25, 1916. Serial No. 99,819. (Cl. 20—13.)



1. A lath board consisting of a plurality of superposed sheets of fibrous material corrugated to form lath projections and intermediate depressions, said sheets including a body sheet to give the board the requisite stiffness and a thin waterproofed facing sheet overlying said body sheet upon the plastering face of the board.

2. A lath board consisting of a plurality of superposed sheets of fibrous material corrugated to form lath projections and intermediate depressions, said sheets including a comparatively thick, non-waterproofed body sheet to give the board the requisite stiffness and a thin waterproofed facing sheet overlying said body sheet upon the plastering face of the board.

1,207,390. FEEDING DEVICE FOR PRESSES. CARL A. FRAHM, Canton, Ohio, assignor to The Republic Stamping & Enameling Company, Canton, Ohio, a Corporation of Ohio. Filed Nov. 15, 1915. Serial No. 61,678. (Cl. 113—113.)



1. An automatic feeding device for metal-working presses, comprising the combination with a feed-table; of means operating in connection with the latter for engaging blanks thereon; said feed-table being adjustable in a direction transverse with respect to the direction of feed movement.

2. An automatic feeding device for metal-working presses, comprising the combination with a feed-table; of means operating in connection with the latter for engaging blanks placed thereon; said feed-table being adjustable in the direction of feeding movement.

3. An automatic feeding device for metal-working presses, comprising the combination with a feed-table; of means operating in connection with the latter for engaging blanks placed thereon; said feed-table being adjustable in the direction of feeding movement and also in a direction transverse with respect to said direction of feeding movement.

4. An automatic feeding device for metal-working presses, comprising the combination with a feed-table; of means operating in connection with the latter for engaging blanks placed thereon; said feed-table being provided with laterally adjustable guide-members and being adjustable in a direction transverse with respect to the direction of feeding movement.

5. An automatic feeding device for metal-working presses, comprising the combination with a feed-table; of means operating in connection with the latter for engaging blanks placed thereon; said feed-table being provided with laterally adjustable guide-members and being adjustable in a direction transverse with respect to the direction of feeding movement; said feed-table also being adjustable in the direction of feeding movement.

[Claims 6 to 30 not printed in the Gazette.]

1,207,391. STAY-BOLT. JOSEPH A. FRAUENHEIM, Zelienople, Pa. Filed Nov. 13, 1915. Serial No. 61,277. (Cl. 85—1.5.)



1. A bolt having a body formed of two members twisted about the longitudinal axis of the bolt and a head removably connected to one end of the body members, the other end of said body members being provided with screw threads; substantially as described.

2. A stay bolt having a body portion formed of two members twisted about the longitudinal axis of the bolt, a head connected to each end of the body members by screw

threaded connections, said heads having screw threads on the periphery thereof; substantially as described.

3. A stay bolt having a body member and externally threaded heads of larger diameter connected to the ends of the body, said body portion being formed of a plurality of semicylindrical members twisted about the longitudinal axis of the bolt, and having screw threaded connections with the heads; substantially as described.

1,207,392. HOSE CONNECTION. JAMES W. FRAZIER and FRED E. HANSEN, Cleveland, Ohio. Filed Dec. 13, 1915. Serial No. 66,415. (Cl. 137—28.)



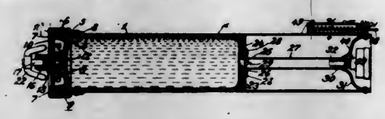
1. In a hose connection, the combination with a casing having an air inlet in communication with an air supply pipe, of a valve arranged in said casing, said valve comprising a flexible member having its outer edges connected with the casing, and a second member arranged in said first named member and having an air opening and passage, said second member having its outer end adapted for engagement with the tire valve stem, said second member being movable with reference to the first named member and adapted to flex said first named member when the second member is brought into contact with a tire valve stem.

2. In a hose connection the combination with a casing having an air inlet and a valve seat, said air inlet communicating with an air supply pipe, of a valve and a nut, said valve comprising a stem provided with an air inlet and passage, and a disk surrounding the air inlet portion of said stem, said disk being held between the nut and valve seat, the central portion thereof being movable with reference to the stem, the outer end of said stem being adapted for engagement with a tire valve stem, as set forth.

3. In a hose connection the combination with a casing, of a valve and nut for securing said valve, said valve comprising a movable stem provided with an air inlet and passage, a disk positioned within the casing and upon the stem and adapted to open and close the inlet of said stem, and an elastic cushion arranged at the outer end of the stem surrounding the passage of said stem, said outer end being within the nut as set forth.

4. A device of the kind described comprising a case having an air inlet, an apertured disk arranged within said case, a stem arranged in said case and within the disk, said stem having an air inlet and passage, that portion of the stem within the disk being reduced and having the air inlet, said disk being of a thickness to normally close said inlet, said stem being movable with reference to said disk whereby said inlet is opened.

1,207,393. FIRE-EXTINGUISHER. JOHN R. GAMMETER, Akron, Ohio. Filed Oct. 24, 1914. Serial No. 868,355. (Cl. 221—60.)



1. In a fire extinguisher, the combination of a fluid-container of compressible metal having a valved head, an inclosing rigid casing therefor, one end of said casing being adapted to permit the insertion of said container therethrough and to be closed by said head.

2. In a fire-extinguisher, the combination of a fluid-container of compressible metal having a valved head, an inclosing rigid casing therefor, one end of said casing being adapted to permit the insertion of said container therethrough and to be closed by said head, and a removable ring surrounding said head and engaging said casing.

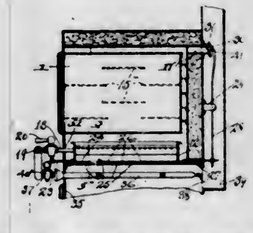
3. In a fire extinguisher, the combination of a fluid-container of compressible metal having a valved head, an inclosing rigid casing therefor, one end of said casing being adapted to permit the insertion of said container therethrough and to be closed by said head, a removable ring surrounding said head and engaging said casing, and a seat in said casing for said container.

4. In a fire extinguisher, the combination of a fluid-container of compressible metal having a valved head, an inclosing rigid casing therefor, one end of said casing being adapted to permit the insertion of said container therethrough and to be closed by said head, a removable ring surrounding said head and engaging said casing, a seat in said casing for said container, and a closure at the opposite end of said casing having a valve therein adapted to permit the storage of air under pressure within said casing.

5. In a fire extinguisher, the combination of a fluid-container of compressible metal having a valved head, an inclosing rigid casing therefor, one end of said casing being adapted to permit the insertion of said container therethrough and to be closed by said head, a removable ring surrounding said head and engaging said casing, a seat in said casing for said container, a closure at the opposite end of said casing having a valve therein adapted to permit the storage of air under pressure within said casing, and a passageway through said seat adapted to permit the stored air to continuously compress the container upon the opening of the valve in its head until the fluid therein is expelled.

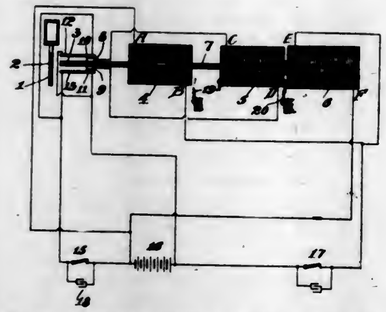
[Claims 6 to 10 not printed in the Gazette.]

1,207,394. COMBINED FIRELESS COOKER AND GAS-RANGE. BERNARD A. GEURINK, East Cleveland, Ohio, assignor to The Trenkamp Stove and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 19, 1913. Serial No. 807,659. (Cl. 126—39.)



In a stove, the combination of an outer casing; a heating chamber partially inclosed therein and spaced therefrom, said casing having a vent in the back of the same adjacent to the top; a valve controlling such vent; an auxiliary casing open at its top and mounted in said first-named casing, said auxiliary casing extending from front to back across said first-named casing and having a plurality of spaced apertures in its bottom for the admission of air; a burner mounted in said auxiliary casing; a gas supply conduit connected to said burner; a valve controlling said conduit; a shutter slidably mounted upon the bottom of said auxiliary casing and adapted to control such apertures; connections between said shutter and said valve in said conduit; and other connections between the rear end of said shutter and said valve controlling such vent, said last-named connections including pivotally connected rods, one of such rods being connected to said shutter and the other being pivotally and slidably connected to said valve controlling such vent; said connections being adapted to effect simultaneous opening and closing of said valves and said shutter.

1,207,395. BRAKE-LOCK FOR AUTOMOBILES. LEON GOLDMERSTEIN, New York, N. Y. Filed Dec. 8, 1915. Serial No. 65,858. (Cl. 70—50.)



1. In an automobile having a brake, a bolt movable into and out of engagement with said brake when the latter is applied in service, mechanical means to releasably detain said bolt, and electro-magnetic means for moving said bolt into and out of engagement with said brake against the resistance of said detaining means.

2. In an automobile having a brake, the combination of a bolt movable into and out of engagement with said brake when the latter is applied in service, a movable solenoid, a projecting core for said solenoid, said core carrying said bolt, a stationary solenoid, a commutator, a source of electrical energy, and electrical circuits including said solenoids, commutator, and source of electrical energy, whereby said solenoid is reciprocated to alternately move said bolt into and out of engagement with said brake.

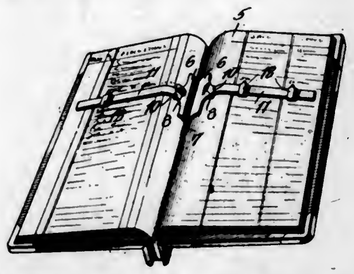
3. In an automobile having a brake, the combination of a bolt movable into and out of engagement with said brake when the latter is applied in service, a movable solenoid, a core for said solenoid, said core carrying said bolt, a stationary solenoid, a commutator composed of movable and stationary members, the movable members carried by said core, a source of electrical energy; and electrical circuits including said solenoids, commutator, and source of electrical energy, whereby said movable solenoid is reciprocated to alternately move said bolt into and out of engagement with said brake; together with a switch, the relative arrangement between said commutator and switch being such that in the interruption of the circuit, the commutator members maintain contact for a fraction of a second after the switch opens, to prevent sparking at the commutator, and a condenser for said switch.

4. In an automobile having a brake, the combination of a bolt movable into and out of engagement with said brake when the latter is applied in service, a movable solenoid, a projecting core for said solenoid, said core carrying said bolt, a stationary solenoid at each end of said movable solenoid, a commutator, a source of electrical energy, electrical circuits including said solenoids, commutator, and source of electrical energy, whereby said movable solenoid is reciprocated to alternately move said bolt into and out of engagement with said brake, and a spring catch to retain said movable solenoid in a position to which moved.

5. In an automobile having a brake, the combination of a bolt movable into and out of engagement with said brake when the latter is applied in service, a movable solenoid, a projecting core for said solenoid, said core carrying said bolt, a stationary solenoid at each end of said movable solenoid, said core movable through one of said stationary solenoids, and said other stationary solenoid having a steel core, a commutator, a source of electrical energy, and electrical circuits including said solenoids, commutator, and source of electrical energy, whereby said movable solenoid is reciprocated to alternately move said bolt into and out of engagement with said brake.

[Claims 6 to 8 not printed in the Gazette.]

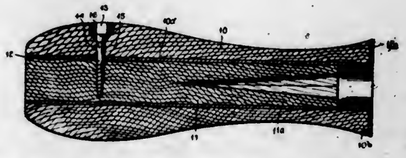
1,207,396. BOOKKEEPER'S POSTING-GUIDE. PRESTON POND GORDON, Sorrento, La. Filed Apr. 20, 1916. Serial No. 92,384. (Cl. 11—12.)



1. A device of the character described, comprising a pair of hingedly connected base plates bowed transversely and adapted to engage in the groove formed between opposite pages of a book, flexible elongated indicator supporting arms hingedly connected at one end to the free longitudinal edges of said base plates, and indicators slidably mounted on said supporting arms.

2. A device of the character described, comprising a pair of hingedly connected base plates bowed transversely and adapted to engage in the groove formed between opposite pages of a book, flexible elongated indicator supporting arms hingedly conected at one end to the free longitudinal edges of said base plates, indicators slidably mounted on said supporting arms, and outwardly projecting finger grips formed upon said base plates.

1,207,397. TOOL-HANDLE. BERNARD A. GREENGOOD, New York, N. Y. Filed July 21, 1916. Serial No. 110,470. (Cl. 145—61.)

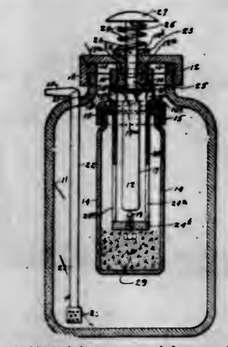


The herein described tool handle comprising a wooden grip having a longitudinal bore entirely through the same from one end to the other, a metal reinforcement sleeve fitted in said bore throughout the length of the grip and having a flange at the tool end constituting a heat guard and protector for the end of the grip, a cylindrical wooden core fitted removably in the sleeve, the rear end of the core being flush with the adjacent end of the grip and sleeve while the tool end of the core is spaced inwardly from the flange aforesaid, and a locking member extending through one side of the grip and sleeve into the core preventing accidental relative endwise movement of any of the parts.

1,207,398. FIRE-EXTINGUISHER. BURTON P. HALL, Fanwood, N. J. Filed May 20, 1916. Serial No. 98,920. (Cl. 169—7.)

1. A fire extinguisher comprising a tank adapted to contain a fire extinguishing liquid under pressure of a gas, a means for keeping two or more chemicals out of contact with each other inclosed by said tank, a tapered seat on said tank, a tapered member adapted to fit said seat, the taper of said member and said seat being so small as to cause said member to remain in position when brought home to said seat, against the pressure of said gas, said tapered member being normally off said seat and adapted to be moved toward said seat, and means for coöperating with said member to bring said chemicals

into contact with each other by the motion of said member toward said seat, thereby producing said gas.



2. A fire extinguisher comprising a tank adapted to contain a fire extinguishing liquid under pressure of a gas, a means for keeping two or more chemicals out of contact with each other inclosed by said tank, a tapered opening in said tank, a tapered push rod adapted to fit said opening, the taper of said push rod and said opening being so small as to cause said push rod to remain in position, when driven home into said opening, against the pressure of said gas, said push rod being normally off said opening and adapted to be moved into it, and means for coöperating with said push rod to bring said chemicals into contact with each other by the motion of said push rod into said opening, thereby producing said gas.

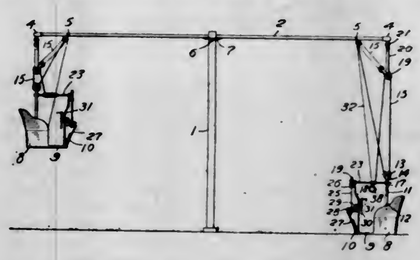
3. In a fire extinguisher a tank, adapted to contain a fire extinguishing liquid under pressure of a gas, a means for keeping two or more chemicals out of contact with each other inclosed by said tank, a tapered seat on said tank, a member having a tapered surface adapted to fit said seat, the taper of said surface and said seat being so small as to cause said member to remain in position, when brought home to said seat, against the pressure of said gas, said member being normally off said seat and adapted to be moved toward said seat, a means for cooperating with said member to bring said chemicals into contact with each other by the motion of said member toward said seat, thereby producing said gas, and a spring adapted to keep said member normally off said seat and to allow the moving of said member toward said seat.

4. In a fire extinguisher the combination of a tank adapted to contain a fire extinguishing liquid under pressure of a gas, a receptacle, adapted to contain one or more chemicals, inclosed by said tank, a bottle, adapted to contain a suitable reagent, inclosed by said receptacle, said receptacle having one or more orifices, adapted to communicate with the inside of said tank, a suitable covering for said orifice or orifices, adapted to prevent the ingress of said liquid into said receptacle, said covering being adapted to be ruptured by the pressure of said gas, a tapered opening in said tank, a member having a tapered surface, adapted to fit said opening, the taper of said surface and said opening being so small as to cause said member to remain in position when brought home into said opening, against the pressure of said gas, said member being normally off said opening and adapted to be moved into it, and means for coöperating with said member to bring said reagent into contact with said chemical or chemicals by the motion of said member into said opening, thereby producing said gas.

5. In a fire extinguisher a tank adapted to contain a fire extinguishing liquid under pressure of a gas, a means for containing a chemical inclosed by said tank, a suitable bottle inclosed by said means, said bottle being adapted to contain a chemical reagent, thereby separating it from said first named chemical, a suitable cage for supporting said bottle in position, a screw passing through the bottom of said cage and abutting against the lower end of said bottle, a washer placed against the upper end of said bottle, a tapered opening in said tank opposite said washer, a tapered member adapted to fit said opening, the taper of said member and said opening being small, thereby causing said member to remain in position, when brought home into said opening, against the pressure of said gas, said member being normally off said opening and adapted to be moved into it, and to strike said washer when moved into said opening, thereby causing the lower end of said bottle to be broken, thereby bringing said reagent into contact with said chemical or chemicals, and thereby producing said gas.

[Claims 6 and 7 not printed in the Gazette.]

1,207,399. SEESAW. EDWARD HARDY, Canton, Mo. Filed Mar. 2, 1916. Serial No. 81,748. (Cl. 46—22.)



1. In combination, a standard and a swinging frame mounted to swing on the standard, said frame being substantially rectangular, and having a transverse shaft intermediate its ends journaled on the standard, said frame having a cross bar near each end and spaced apart inwardly from the end, a seat for each end of the support, a bail connected with each seat and provided with a pulley at its center, a link pivoted to the end of each frame and depending therefrom and provided with a pulley, a flexible member connected at one end with the cross bar and passing beneath the pulley of the bail and over the pulley of the link, a shaft journaled transversely of the bail and supported by the bail at one end, a support for the other end of the shaft, the other end of the flexible member winding on the shaft, and means for rotating the shaft, said means comprising a vertical shaft supported by the seat and having a worm gear connection with the first named shaft, a stub-shaft provided with a hand-wheel journaled on the seat at the lower end of the vertical shaft, and having a geared connection therewith, and means for shifting the weight of each seat with respect to the swinging frame.

2. In combination, a standard and a swinging frame mounted to swing on the standard, said frame being substantially rectangular, and having a transverse shaft intermediate its ends journaled on the standard, said frame having a cross bar near each end and spaced apart inwardly from the end, a seat for each end of the frame, a bail connected with each seat and provided with a pulley at its center, a link pivoted to the end of each frame and depending therefrom and provided with a pulley, a flexible member connected at one end with the cross bar and passing beneath the pulley of the bail and over the pulley of the link, a shaft journaled transversely of the bail and supported by the bail at one end, a support for the other end of the shaft, the other end of the flexible member winding on the shaft, and means for rotating the shaft, said means comprising a vertical shaft supported by the seat and having a worm gear connection with the first named shaft, a stub-shaft provided with a hand-wheel journaled on the seat at the lower end of the vertical shaft and having a geared connection therewith.

3. In combination, a standard and a swinging frame mounted to swing on the standard, said frame being substantially rectangular, and having a transverse shaft intermediate its ends journaled on the standard, said frame having a cross bar near each end and spaced apart inwardly from the end, a seat for each end of the frame, a bail connected with each seat and provided with a pulley at its center, a link pivoted to the end of each frame and depending therefrom and provided with a pulley, a flexible member connected at one end with the cross bar and passing beneath the pulley of the bail and over the pulley of the link, a shaft journaled transversely of the bail and supported by the bail at one end, a support for the other end of the shaft, the other end of the flexible member winding on the shaft, and means for rotating the shaft.

[Claims 6 and 7 not printed in the Gazette.]

4. In combination, a standard and a swinging frame mounted to swing on the standard, said frame being substantially rectangular, and having a transverse shaft intermediate its ends journaled on the standard, said frame having a cross bar near each end and spaced apart inwardly from the end, a seat for each end of the frame, a bail connected with each seat and provided with a pulley at its center, a link pivoted to the end of each frame and depending therefrom and provided with a pulley, a flexible member connected at one end with the cross bar and passing beneath the pulley of the bail and over the pulley of the link, a shaft journaled transversely of the bail and supported by the bail at one end, a support for the other end of the shaft, the other end of the flexible member winding on the shaft, means for rotating the shaft, and means operable by the occupant of each seat for swinging the supporting frame, said means comprising a flexible member connected at one end of the cross bar, a pulley journaled at the lower end of the link over which the flexible member passes, and a pulley journaled on the cross bar, said flexible member passing over the pulley and depending toward the seat.

4. In combination, a standard and a swinging frame mounted to swing on the standard, said frame being substantially rectangular, and having a transverse shaft intermediate its ends journaled on the standard, said frame having a cross bar near each end and spaced apart inwardly from the end, a seat for each end of the frame, a bail connected with each seat and provided with a pulley at its center, a link pivoted to the end of each frame and depending therefrom and provided with a pulley, a flexible member connected at one end with the cross bar and passing beneath the pulley of the bail and over the pulley of the link, a shaft journaled transversely of the bail and supported by the bail at one end, a support for the other end of the shaft, the other end of the flexible member winding on the shaft, means for rotating the shaft, and means operable by the occupant of each seat for swinging the supporting frame.

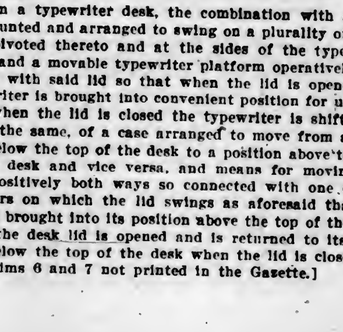
5. In combination, a standard and a swinging frame mounted to swing on the standard, said frame being substantially rectangular, and having a transverse shaft intermediate its ends journaled on the standard, said frame having a cross bar near each end and spaced apart inwardly from the end, a seat for each end of the frame, a bail connected with each seat and provided with a pulley at its center, a link pivoted to the end of each frame and depending therefrom and provided with a pulley, a flexible member connected at one end with the cross bar and passing beneath the pulley of the bail and over the pulley of the link, a shaft journaled transversely of the bail and supported by the bail at one end, a support for the other end of the shaft, the other end of the flexible member winding on the shaft, and means for rotating the shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,207,400. TYPE-WRITER DESK AND THE LIKE. FREDERICK P. HARRIS, Cleveland, Ohio. Filed May 2, 1913. Serial No. 765,062. (Cl. 45—52.)

1. In a typewriter desk, the combination of typewriter cabinet means adapted to inclose the typewriter in the ceiling the typewriter when in the desk and a typewriter platform shiftable to bring the typewriter from within the desk into convenient position for use and vice versa, a laterally opening case separate from the aforesaid movable parts arranged to move up and down outside their range of movement from a position below the top of the desk to a position above the top of the desk and vice versa, and means for raising and lowering said case so connected with one of the aforesaid moving parts of the typewriter cabinet means that the case rises when said part is moved to open up the typewriter and descends when said part is moved for closing the typewriter.

2. In a typewriter desk, the combination of typewriter cabinet means comprising a movable desk lid and a movable typewriter platform operatively connected together so that when the lid is opened the typewriter is brought into convenient position for use and that when the lid is closed the typewriter is shifted and inclosed within the desk, a laterally opening case separate from the aforesaid movable part, arranged to move up and down outside their range of movement from a position within the desk to a position above the top of the desk and vice versa, and means for raising and lowering said case so connected with a moving part of the typewriter cabinet means that the case rises when said part is moved to open up the typewriter and descends when said part is moved for closing the typewriter.



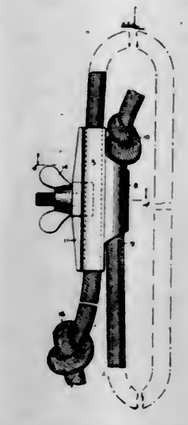
3. In a typewriter desk having in its top a typewriter space opening and another opening, the combination of typewriter cabinet means adapted to inclose the typewriter in the desk when not in use and to open up and expose the typewriter for use, said means including a movable lid for the typewriter space opening; a laterally opening case arranged to move up and down through said other opening in the desk top from a position below the top where it closes said opening to a position above the top, and vice versa; and means for moving said case so connected with a movable part of the typewriter cabinet means that the case is brought into its first mentioned position when said part is moved to open up the typewriter and into its last mentioned position when said part is moved for closing the typewriter.

4. In a typewriter desk having in its top a typewriter space opening and another opening, the combination of typewriter cabinet means comprising a movable lid for the typewriter space opening and a movable typewriter platform operatively connected together so that when the lid is opened the typewriter is brought into convenient position for use and that when the lid is closed the typewriter is shifted and inclosed within the desk; a laterally opening case arranged to move up and down through said other opening in the top of the desk from a position within the same substantially flush with its top surface to a position above the same, and vice versa; and means for raising and lowering said case so connected with a movable part of the typewriter cabinet means that the case rises when said part is moved to open up the typewriter and descends when said part is moved for closing the typewriter.

5. In a typewriter desk, the combination with a desk lid mounted and arranged to swing on a plurality of members pivoted thereto and at the sides of the typewriter space and a movable typewriter platform operatively connected with said lid so that when the lid is opened the typewriter is brought into convenient position for use and that when the lid is closed the typewriter is shifted beneath the same, of a case arranged to move from a position below the top of the desk to a position above the top of the desk and vice versa, and means for moving the case positively both ways so connected with one of the members on which the lid swings as aforesaid that the case is brought into its position above the top of the desk when the desk lid is opened and is returned to its position below the top of the desk when the lid is closed.

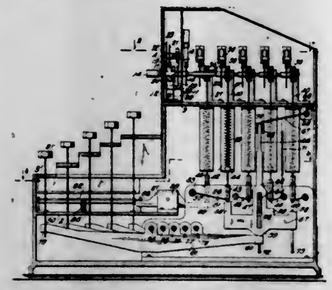
[Claims 6 and 7 not printed in the Gazette.]

1,207,401. ROPE-CLAMP. EDWARD HELLER, North Bergen, N. J. Filed Apr. 14, 1916. Serial No. 91,059. (Cl. 24—125.)



In a clothes-line clamp, a main section having a sinuous, longitudinal groove in the top thereof for receiving a line, the width of said groove increasing from the middle toward the end of the section, a threaded stud rising from the middle of the main section at one side of the groove, a top section having an aperture for engaging the stud, a sinuous projection of substantially uniform width on said top section for entering the sinuous groove, a flange depending from the top section to engage the side of the main section to maintain the sinuous projection in a predetermined position within the sinuous groove, and a tubular socket depending from the main section longitudinally of said section.

1,207,402. MONEY-SEGREGATING DEVICE. HENRY HERDEN, Wellsboro, Pa. Filed Nov. 26, 1915. Serial No. 63,486. (Cl. 235—91.)



1. In a device of the character described, a counting mechanism, actuating means for said counting mechanism, said mechanism including movable members, segregators for actuating said movable members, each of said segregators being formed with raised portions of different heights, a guiding slot and a central projection arranged on the opposite edge to said raised portions, and a key for each of said segregators acting on the projections thereof for raising the segregators.

2. In a device of the character described, a register, a counting device for operating said register, a transmitter for transmitting motion to the counting device, lifting rods for operating the transmitting device, sliding plates acting as segregators for operating the lifting rods, and means including keys for operating the segregators.

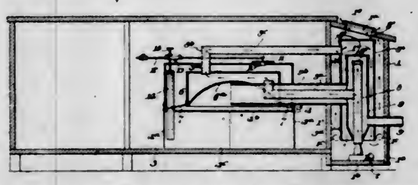
3. In a device of the character described, a counting device, and means for actuating said counting device, said means including a set of keys provided with numbers thereon and a segregator for each key, each of said segregators comprising a body formed with a rider thereon, a guiding slot and a supporting member acting as a cam through which the movement is conveyed to the body, the segregator for a given key being provided with a different number of riders than the segregator for the next adjacent key, and so on for all the keys.

4. In a device of the character described, a counting device, transmitting means for transmitting coin to the counting device, reciprocating bars for moving said transmitting means, distributing members engaging said reciprocating bars, said distributing members being pivotally mounted and formed with a bead engaging said reciprocating bars, a plurality of segregators engaging said beads, and means for raising any of said segregators, said means including levers acting on the segregators and keys acting on the levers.

5. In a device of the character described, a counting device, a coin transmitting structure for operating the counting device, reciprocating bars for operating the transmitting structure, segregators, means for actuating said segregators, and distributing members arranged between said segregators and said reciprocating bars, said distributing members comprising a longitudinally arranged bead adapted to be raised by any of the segregators, a pivotally mounted shaft and arms for connecting the shaft with said bead whereby the bead is always held in position to be operated by the segregators.

[Claims 6 to 10 not printed in the Gazette.]

1,207,403. BROODER. WILLIAM E. HILL, Philadelphia, Pa. Filed June 29, 1916. Serial No. 106,570. (Cl. 119—34.)



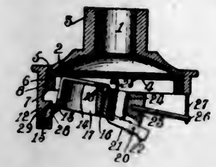
1. A brooder comprising a lamp chamber, a chick chamber, a hover in said chick chamber having a heating chamber connected therewith, a spreader in said heating chamber, a flue extending from an inlet in said lamp chamber through said chick chamber and heating chamber to an outlet in said lamp chamber, and a fresh air conduit extending through said lamp chamber and chick chamber into said heating chamber under said spreader.

2. A brooder comprising a lamp chamber and a chick chamber, a hover provided with a heating chamber in said chick chamber, a heating flue extending from an inlet in said lamp chamber through said chick chamber and heating chamber to an outlet in said lamp chamber, and a fresh air conduit surrounding said flue and extending through said lamp chamber into said hover.

3. A brooder comprising a heating flue having an upright inlet section open at the bottom, an upright outlet section with a bottom opening surrounding said inlet section, and a section in the form of a loop connecting said inlet and outlet sections; in combination with a fresh air conduit having an upright section surrounding said inlet section within said outlet section and a section surrounding part of said third named flue section; and a hover provided with a chamber and a hood in said chamber through which said flue extends and within which said conduit discharges.

4. A brooder comprising a chick chamber, a lamp chamber connected with said chick chamber, said lamp chamber provided with a fresh air inlet and a waste gas outlet; a flue having a vertical section with a closed top and an open bottom in said lamp chamber, a second vertical section having a closed top and an open bottom surrounding said section first named, and a section connecting the inner and outer sections aforesaid; in combination with a fresh air duct having a section in said lamp chamber surrounding the interior and surrounded by the exterior sections of said flue; a duct connecting said duct first named with the atmosphere; a duct connected with said duct first named and surrounding part of the third named section of said flue; and a heating chamber through which said flue section third named extends and into which said duct third named discharges.

1,207,404. PHONOGRAPH-REPRODUCER. NEWMAN H. HOLLAND, West Orange, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed June 30, 1913. Serial No. 776,463. (Cl. 274—34.)



1. In a device of the class described, the combination of vibratory means, a symmetrical weight, means for pivoting said weight for movement about an axis parallel to said vibratory means and also for lateral oscillation about its axis of symmetry, a stylus lever supported by said weight and connected with said vibratory means, and a stylus carried by said lever, the pivot of said lever being spaced from the axis of symmetry of said weight and being located between said stylus and said axis of symmetry, substantially as described.

2. In a device of the class described, the combination of vibratory means, a symmetrical weight, means for pivoting said weight for movement about an axis parallel to said vibratory means and also for lateral oscillation about its axis of symmetry, resilient means for maintaining said pivoting means and said weight in proper relative position, a stylus lever supported by said weight and connected with said vibratory means, and a stylus carried by said lever, the pivot of said lever being spaced from the axis of symmetry of said weight and being located between said stylus and said axis of symmetry, substantially as described.

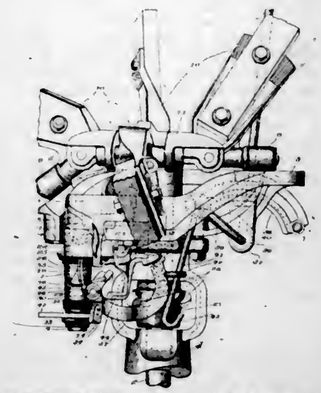
3. In a device of the class described, the combination of vibratory means, a symmetrical weight, means for pivoting said weight for movement about an axis parallel with said vibratory means and also for lateral oscillation about its axis of symmetry, a stylus lever supported by said weight, and means arranged at the side of said axis of symmetry and connecting said stylus lever to said vibratory means, substantially as described.

4. In a device of the class described, the combination of vibratory means, a symmetrical weight, means for pivoting said weight for movement about an axis parallel to said vibratory means, and also for lateral oscillation about its axis of symmetry, said means permitting movement of said weight along its said axis of symmetry, a stylus lever supported by said weight, and means connecting said stylus lever to said vibratory means, substantially as described.

5. In a device of the class described, the combination of vibratory means, a symmetrical weight, means for pivoting said weight for movement about an axis parallel to said vibratory means and also for lateral oscillation about its axis of symmetry, said means permitting movement of said weight along its said axis of symmetry, resilient means tending to maintain said pivoting means and said weight in proper relative positions, a stylus lever supported by said weight, and means connecting said stylus lever to said vibratory means, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,207,405. SWITCH-CONTROLLING MECHANISM FOR SELF-RAKE REAPERS. LUD HOLLAND-LETZ, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed May 24, 1913. Serial No. 769,710. (Cl. 56—94.)



1. In a reaper switch, a cam track, a pivoted switch forming a part thereof and having a heel portion engageable by a roller passing through the switch, the heel portion of the switch terminating in a locking member, and a switch latch for engaging said locking member.

2. In a reaper switch, a cam track, a pivoted switch forming a part thereof and having a heel portion engageable by a roller passing through the switch, and a switch latch engaging the heel portion of said switch.

3. In a reaper switch, a cam track, a pivoted switch forming a part thereof and having a heel engageable by a roller passing through the switch and terminating in a depending portion, and a switch latch engageable with the depending portion of said heel.

4. In a reaper switch, a cam track, a pivoted switch forming a part thereof and having a depending spindle, a switch latch pivoted on said cam engaging said switch at a point at one side of its pivot, and means carried on said spindle for controlling said latch.

5. In a reaper switch, a cam track, a pivoted switch forming a part thereof and having a heel terminating in a depending portion, and a cooperating switch latch member mounted beneath said cam having a shoulder portion engageable with the depending portion of the switch when the latter is in closed position.

[Claims 6 to 20 not printed in the Gazette.]

1,207,406. ATTACHMENT FOR STEERING DEVICES FOR VEHICLES. WILLIAM HENRY HOUSMAN, Chatham, N. Y. Filed July 8, 1915. Serial No. 38,742. (Cl. 21—200.)



1. In steering apparatus, the combination with an axle, a pair of torsion rods secured rigidly thereto in spaced relation to each other, a pair of steering knuckles connected to the axle, and a rigid tie rod connecting said knuckles parallel to the axle, of resilient connections between the tie rod and the torsion rods, said connections comprising a single coil spring, an anchor plate having apertures for threading the plate to the spring at its middle portion the anchor plate being adjustable longitudinally of the axis of the spring, said anchor plate having parallel flanges at its side edges, the said flanges hav-

ing concave seats for the tie rod, and gripping means to secure the anchor plate rigidly to the tie rod, and means to anchor the ends of the spring to the torsion rods adjacent the axle.

2. In a device of the character set forth, the combination of an anchor plate having at one end a tongue provided with a pair of holes, a line joining the holes being transverse to the longer axis of the plate, the said anchor plate having parallel flanges formed at its edges, the flanges having concave seats for engaging a fixed member, means to clamp the plate to said fixed member, and a single coil spring having two adjacent coils threaded through said tongue holes of the anchor plate.

3. In a steering device, the combination with a pair of spaced fixed anchor members, and a tie rod movable laterally with respect to the anchor members, of resilient connections between the tie rod and the anchor members, said connections comprising a single coil spring, means for anchoring the ends of the spring to the fixed anchor members, and an anchor plate having apertures for threading the plate to the spring and for moving the plate on the spring to the middle portion of the latter, the said anchor plate having seats for the tie rod, and means for securing the anchor plate rigidly to the middle portion of the tie rod.

1,207,407. FRAME FOR WOMEN'S HATS. JACOB HUTTER, New York, N. Y. Filed June 28, 1916. Serial No. 106,347. (Cl. 2—108.)



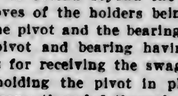
As a new article of manufacture a lady's hat, comprising a crown and a brim formed of two annular sections, the sections being secured together and the inner section secured to the crown, the crown and inner section of the brim being of relatively stiff open mesh material, and the outer section of the brim being of flexible close mesh material, whereby provision is made for giving a fixed shape to the inner brim section and a variable shape to the outer section.

1,207,408. DUST-CAP FOR AIR-VALVES FOR AUTO-TIRES. ANDREW J. INGERSOLL, Bridgeton, N. J. Filed Feb. 11, 1916. Serial No. 77,582. (Cl. 152—12.)



In a dust cap for an air valve, a valve casing, a collar-like member adapted to be fitted over said casing and secured thereto, a resilient clip extending from the side edge of said collar and inwardly overhanging the latter with a space between them, said clip having a detent on its under face extending downwardly therefrom, and a dust cap adapted to be fitted over said casing, said cap having on its lower end a flange which is adapted to rest on said collar and having a side cut-away, allowing the flange to pass primarily the inner end of said clip and adapting said flange next to enter the space between said clip and collar and engage said detent to raise the clip, said flange having in its upper face a recess into which said detent is adapted to spring and be lockingly seated thus locking said cap with said collar and consequently with said valve casing.

1,207,409. MACHINE FOR MAKING SOLES. ALBERT E. JOHNSON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 9, 1916. Serial No. 83,053. (Cl. 12—27.)



1. A machine for making soles, having, in combination, a sole support, an edge gage, a chamfer knife projecting through the operative end of said gage, and means for preventing the edge of a sole being drawn under the edge of the gage where it overhangs the knife.

2. An edge gage for sole fitting machines, having a rabbeted out portion at its operative end, a chamfer knife extending through said rabbet and projecting beyond the operative end of the gage, and a bearing block forming a continuation of the operative end of the edge gage and held in contact with the knife.

3. An edge gage for sole fitting machines, having a rabbeted out portion at its operative end, a chamfer knife and a bearing block adjustably supported by said chamfer knife block and extending into said rabbet, said knife projecting beyond the operative end of the edge gage and said bearing block forming a continuation of the operative end of the gage.

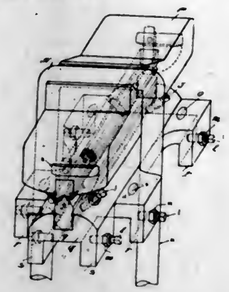
4. A machine for making soles, having, in combination, a sole support, an edge gage, sole feeding means, a thin, tapered foot carried by said gage arranged to rest on the sole engaging face of said support beneath the margin of the sole, and means to take up the thrust on said foot as the sole is fed through the machine.

5. A machine for making soles, having, in combination, a sole support, an edge gage, sole feeding means, a thin, tapered foot carried by said gage arranged to rest on the sole engaging face of said support beneath the margin of the sole, means for detachably securing said foot to the under side of said gage, and a depending shoulder on said gage against which the rear edge of said foot, in the line of feed, abuts.

[Claims 6 to 11 not printed in the Gazette.]

1,207,410. SCALE. GEORGE H. KAISER, Portland, Oreg. Filed Sept. 25, 1915. Serial No. 52,581. (Cl. 73—152.)

1. In a scale, removable pivots and bearings, each bearing having a groove in its under face and each pivot having a knife edge for engaging the groove of the bearing, a holder for the bearing having a groove in its under face, the bearing fitting the groove and being of a depth to extend beyond the groove, the pivot holder having a longitudinally extending groove in its upper face, and the pivot being of a depth to extend beyond the groove, the side walls of the grooves of the holders being adapted to be swaged against the pivot and the bearing to hold them in place, and said pivot and bearing having longitudinally extending grooves for receiving the swaged walls, releasable means for holding the pivot in place, said means comprising set screws threaded through the walls of the groove, and the pivot having grooves in its side walls for engagement by the set screws, the holder for the pivot having means for engaging the scale lever, and being adjustable laterally with respect to the lever, said adjusting means comprising depending lugs on the holder for engaging the opposite sides of the lever, and set screws threaded through the lugs.



2. In a scale, removable pivots and bearings, each bearing having a groove in its under face and each pivot having a knife edge for engaging the groove of the bearing, a holder for the bearing having a groove in its under face, the bearing fitting the groove and being of a depth to extend beyond the groove, the pivot holder having a longitudinally extending groove in its upper face, and the pivot being of a depth to extend beyond the groove, the side walls of the grooves of the holders being adapted to be swaged against the pivot and the bearing to hold them in place, and said pivot and bearing having longitudinally extending grooves for receiving the swaged walls, releasable means for holding the pivot in place, said means comprising set screws threaded through the walls of the groove, and the pivot having grooves in its side walls, for engagement by the set screws.

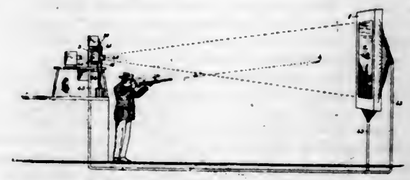
3. In a scale, removable pivots and bearings, each bearing having a groove in its under face and each pivot having a knife edge for engaging the groove of the bearing, a holder for the bearing having a groove in its under face, the bearing fitting the groove and being of a depth to extend beyond the groove, the pivot holder having a longitudinally extending groove in its upper face, and the pivot being of a depth to extend beyond the groove, the side walls of the grooves of the holders being adapted to be swaged against the pivot and the bearing to hold them in place, and said pivot and bearing having longitudinally extending grooves for receiving the swaged walls, and releasable means for holding the pivot in place.

4. In a scale, removable pivots and bearings, each bearing having a groove in its under face and each pivot having a knife edge for engaging the groove of the bearing, a holder for the bearing having a groove in its under face, the bearing fitting the groove and being of a depth to extend beyond the groove, the pivot holder having a longitudinally extending groove in its upper face, and the pivot being of a depth to extend beyond the groove, the side walls of the grooves of the holders being adapted to be swaged against the pivot and the bearing to hold them in place, and said pivot and bearing having longitudinally extending grooves for receiving the swaged walls.

5. In a scale, removable pivots and bearings, a holder for each pivot and bearing, the holders having grooves in which the pivots and bearings are releasably held to permit said pivots and bearings to be removed and replaced, the side walls of the grooves of the holders being adapted to be swaged against the pivot and the bearing to hold them in place, said pivot and bearing having longitudinally extending grooves for receiving the swaged walls.

1,207,411. SHOOTING-GALLERY. ELIOT KEEN, New York, N. Y. Filed Apr. 16, 1912. Serial No. 691,096. (Cl. 124—15.)

1. In combination a moving picture apparatus comprising a projecting machine, a film and a target screen, and means operatively connected with said film to identify the position of the image of the moving object of the projected picture upon said target screen.



2. In combination a moving picture apparatus comprising a projecting machine, a film and a screen, means operatively connected with said film to identify the position of the image of the moving object of the projected picture upon the screen, and signaling means to indicate when said position of the image upon the screen is struck from an outside source.

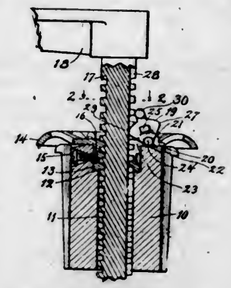
3. In combination a moving picture device comprising a projecting machine, a film and a target screen, and means to identify the position of a moving object of the film upon the target screen, said means comprising irregularly disposed elements operatively associated with the film so as to move therewith, and fixed elements disposed to coact with said irregularly disposed elements.

4. In combination a moving picture device comprising a projecting machine, a film and a target screen, and means comprising irregularly spaced perforations through the film to identify the position of the image of the moving object of the projected picture upon the target screen.

5. In combination a moving picture device comprising a projecting machine, a film and a target screen, and means to identify the position of the moving object of the film upon the screen, said means comprising irregularities in the film, and electrical devices adapted to coact with said irregularities so as to be operatively controlled thereby.

[Claims 6 to 16 not printed in the Gazette.]

1,207,412. CHAIR-IRON. CHARLES H. KEENEY, Milwaukee, Wis., assignor of one-half to Arthur L. Morsell, Milwaukee, Wis. Filed Sept. 28, 1912. Serial No. 722,824. (Cl. 155—41.)



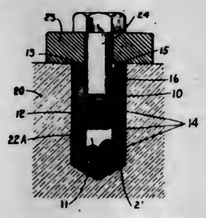
1. A locking means for adjustable chair irons, comprising a spindle, a revoluble member provided with an opening through which the spindle passes, said revoluble member also provided with a slot, said slot having an opening leading thereto, a locking means freely turnable in the slot of the revoluble member, and adapted, under one adjustment thereof, to lock the spindle to the revoluble member so that the spindle and revoluble member will rotate together, and a fixed member with which the locking means is thrown into engagement, under another adjustment of said locking means, said revoluble member having means coacting with one or the other of said members for raising or lowering the spindle, and said locking means and

revoluble member being, respectively, so constructed as to non-removably maintain the pivotal connection of the locking member to the revoluble member, when the revoluble member is surrounding the spindle, and permitting the locking member to be freely withdrawn through the opening of the revoluble member which leads to the slot of said revoluble member, only when said revoluble member is separated from the spindle.

2. A locking means for an adjustable chair iron, having a hub portion and a grooved spindle, comprising a revoluble member provided with a bore through which the chair spindle is adapted to extend, said revoluble member provided with an elongated slot communicating with the bore and with upstanding projections forming sockets communicating with the slot, the said slot having its greater width between the sockets and the bore of the revoluble member, and the upper portions of the upstanding projections being curved approximately concentrically with relation to the sockets, and a locking dog extending into the elongated slot of the revoluble member and having trunnions which enter the sockets of said member to pivotally connect the dog to the revoluble member, said dog adapted to be swung to a position in vertical alinement with the bore of said revoluble member to lock the said member to the spindle, said dog also provided with projections which ride on the curved portions of the upstanding projections of the revoluble member.

3. A locking means for adjustable chair irons, comprising a longitudinally grooved spindle, a revoluble member with which said spindle has threaded engagement, said revoluble member provided with a slot having one end open, and which open end extends to and communicates with the spindle opening of the revoluble member, a locking means freely turnable in the slot of the revoluble member and adapted, under one adjustment thereof, to engage the groove of the spindle so that the revoluble member and spindle will rotate together, and a hub member surrounding the revoluble member and spindle, and provided with means for engagement therewith of the locking means, said locking means when thrown into engagement with the hub member, permitting the spindle to be raised or lowered on its threaded engagement with the revoluble member, and said locking means and revoluble member, respectively, being so constructed as to non-removably maintain the pivotal connection of the locking member to the revoluble member, when the revoluble member is surrounding the spindle, and permitting the locking member to be freely withdrawn through the open end of the slot of the revoluble member, only when said revoluble member is separated from the spindle.

1,207,413. SOCKET. JOSEPH KENNEDY, New York, N. Y., assignor to The Clements Company, a Corporation of New York. Filed Aug. 14, 1913. Serial No. 784,671. (Cl. 72—105.)



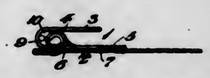
1. A socket comprising an annularly continuous integral shell of hard metal, means within the shell for receiving the threads of a bolt, the outer surface of said shell being so constructed to form a series of truncated cones of progressively larger diameter in axial alinement with one another, the sizes thereof increasing toward the outer end of the socket, with the major bases of all but one of the cones coincident with and overlapping the minor base of the adjacent cone, an annular flange at the end of the shell toward which the major bases of the cones lie, and a restricted neck-like portion between said annular flange and the base of the largest cone, combined with a separate hollow cylindrical sleeve of soft metal into which said socket may be driven with a cumulative wedging effect to force a part of soft metal into said restricted neck-like portion.

2. A socket comprising an annularly continuous integral shell of hard metal having an internal bore extending inwardly from either end and an intermediate threaded portion of smaller bore, the outer surface of said shell being constructed to form a series of truncated cones of progressively larger diameter in axial alinement with one another, the sizes thereof increasing toward the outer end of the socket, with the major bases of all but one of the cones coincident with and overlapping the minor base of the adjacent cone, an annular flange at the end of the shell toward which the major bases of the cones lie, and a cylindrical neck-like portion betwen said annular flange and the base of the largest cone of smaller outside diameter than that of any other part of the socket, combined with a separate hollow cylindrical sleeve of soft metal into which said socket may be driven with a cumulative wedging effect to force a part of said soft metal into said restricted neck-like portion.

1,207,414. PROCESS OF FINISHING MATERIALS DYED WITH VAT COLORS. ADOLF KERTESZ, Mainkur, near Frankfort-on-the-Main, Germany, and EMANUEL KER, Manchester, England. Filed Mar. 18, 1915. Serial No. 15,295. (Cl. 8—5.)

The herein described process of finishing fabrics dyed with a vat color by preparing a finishing paste with dextrin, adding an oxidizing salt, and applying the mixture to the dyed fabric.

1,207,415. GARMENT OR OTHER HOOK. ELIZABETH W. KITE, Philadelphia, Pa., assignor of one-half to Sallie J. Wood, Philadelphia, Pa. Filed Apr. 18, 1916. Serial No. 91,953. (Cl. 24—228.)



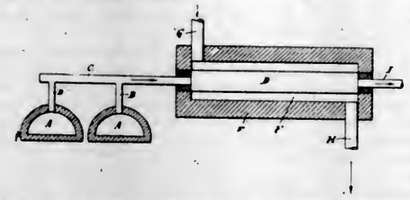
1. In a hook having a hump of the character stated, means on the body for attachment thereof to the place of service at opposite ends of said body, the means at one end comprising an eye which is continuous of said hump and located back of the same, said eye extending around said hump under the crown thereof toward the portion of the hump adjacent to the bend of the bill and the back of the hook.

2. In a hook having a hump of the character stated, means on the body for attachment thereof to the place of service at the bill end of said body comprising an eye which is continuous inwardly from said hump on the back of the latter and removed from the adjacent bend of the bill, said eye extending from the said hump around the interior opposite sides of the crown portion of said hump and under said crown terminating on the side of the hump adjacent to said bend.

1,207,416. PROCESS FOR MANUFACTURING NITROGEN COMPOUNDS. ERNST KOCHENDOERFER, Frankfort-on-the-Main, Germany. Filed Mar. 26, 1913. Serial No. 756,864. (Cl. 23—13.)

1. In the process of manufacturing nitrogen compounds from the gases generated by the carbonization of distiller's wash and the like nitrogenous substances, carbonizing said substance, superheating the resulting gases and reducing the time of contact of said gases with the superheating surface by increasing the speed of said gases over said surface.

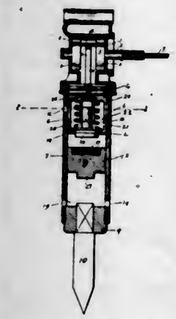
2. In the process of manufacturing nitrogen compounds from the gases generated by the carbonization of distiller's wash and the like nitrogenous substances, carbonizing said substance, superheating the resulting gases, reducing the time of contact of said gases with the superheating surface by increasing the speed of said gases over said surface and varying said increased speed according to the composition of said gases.



3. In the process of manufacturing nitrogen compounds from the gases generated by the carbonization of distiller's wash and the like nitrogenous substances, carbonizing the substance, superheating the resulting gases and controlling the time of contact of said gases with the superheating surface by varying the ratio between the superheating area and the speed of the gases passing over the same.

4. In the process of manufacturing nitrogen compounds from the gases generated by the carbonization of distiller's wash and the like nitrogenous substances, carbonizing the substance, superheating the resulting gases, controlling the time of contact of said gases with the superheating surface by varying the ratio between the superheating area and the speed of the gases passing over the same and varying said speed according to the composition of said gases.

1,207,417. MECHANICAL HAMMER. KARL KUTSCHKA, Youngstown, Ohio. Filed Feb. 21, 1916. Serial No. 79,661. (Cl. 125—6.)



1. In a mechanical hammer, a cylinder having air ports communicating with the atmosphere, and also internal air ports formed in the wall thereof; a piston mounted within said cylinder, said piston having a counter-bore, and a valve seat at the open end of said counter-bore; a valve seated upon said valve seat; a ram mounted within said cylinder; and means for reciprocating said piston.

2. In a mechanical hammer, a cylinder having air ports communicating with the atmosphere, and also internal air ports formed in the wall thereof; a piston mounted within said cylinder, said piston having a counter-bore, and a valve seat at the open end of said counter-bore, and also internal air ports; a valve seated upon said valve seat; a ram mounted within said cylinder; and means for reciprocating said piston.

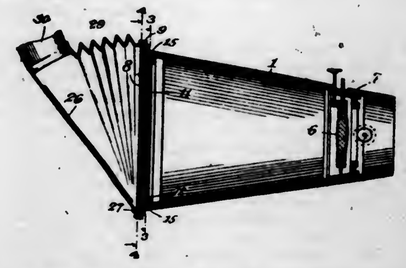
3. In a mechanical hammer, a cylinder having air ports communicating with the atmosphere, and also internal air ports formed in the wall thereof; a piston mounted within said cylinder, said piston having a counter-bore, and a valve seat at the open end of said counter-bore, and also internal air ports; a valve seated upon said valve seat and provided with a projection or striking head; a ram mounted within said cylinder; and means for reciprocating said piston.

4. In a mechanical hammer, a cylinder having air ports communicating with the atmosphere, and also air ports establishing communication between points, respectively, above and below the piston at its most inner point of travel; a piston mounted within said cylinder, said piston having a counter-bore, and a valve seat at the open end of said counter-bore; a valve seated upon said valve seat; a ram mounted within said cylinder; and means for reciprocating said piston.

5. In a mechanical hammer, a cylinder having air ports communicating with the atmosphere, and also air ports establishing communication between points, respectively, above and below the piston at its most inner point of travel; a piston mounted within said cylinder, said piston having a counter-bore, and a valve seat at the open end of said counter-bore, and also internal air ports; a valve seated upon said valve seat; a ram mounted within said cylinder; and means for reciprocating said piston.

[Claim 6 not printed in the Gazette.]

1,207,418. SIGHTING AND AIMING ATTACHMENT FOR GUNS AND OTHER PIECES OF ORDNANCE. ENRIQUE LAZARTE, Lima, Peru, assignor to Aeroplane Destroyer Company, Lima, Peru. Filed Jan. 5, 1916. Serial No. 70,344. (Cl. 88—24.)



1. A sighting and aiming device of the class described comprising a camera obscura having a lens and a member provided with an image-receiving surface movably associated with the lens, the said camera being adapted to be applied to a piece of ordnance with the optical axis of its lens substantially fixed with relation to the axis of the barrel bore, the image-receiving surface of the movable member of the camera being provided with an indicating mark related to the position of the optical axis of the camera lens, and means for adjusting the said member during angular adjustment of the gun barrel.

2. A sighting and aiming device of the class described comprising a camera obscura having a lens and a member provided with an image-receiving surface movably associated with the lens, the said camera being adapted to be applied to a piece of ordnance with the optical axis of its lens substantially fixed with relation to the axis of the barrel bore, the image-receiving surface of the movable member of the camera being provided with an indicating mark related to the position of the optical axis of the camera lens, and means for automatically adjusting the said member during, and with reference to, the angular adjustment of the gun barrel.

3. A sighting and aiming device of the class described comprising a camera obscura having a lens and a member provided with an image-receiving surface associated with the lens, the said camera being adapted to be applied to a piece of ordnance with the optical axis of its lens substantially fixed with relation to the axis of the barrel bore, a second member positioned contiguous to the first member of the camera, one of the said members being movably mounted and the other stationary, and means for adjusting the first member during angular adjustment of the gun barrel, one of the said members being

provided with a sighting line established by successive points located in proper relation to the optical axis of the camera lens for sighting at a given range for varying normal angles of elevation of the gun barrel and the other member being provided with a base line intersecting the sighting line of the last-mentioned member and being disposed so that the point of intersection of both lines will be the proper sighting point for the range represented.

4. A sighting and aiming device of the class described comprising a camera obscura having a lens and a member provided with an image-receiving surface associated with the lens, the said camera being adapted to be applied to a piece of ordnance with the optical axis of its lens substantially fixed with relation to the axis of the barrel bore, a second member positioned contiguous to the first member of the camera, one of the said members being movably mounted and the other stationary, and means for adjusting the movable member during angular vertical adjustment of the gun barrel, one of the said members being provided with a series of sighting lines for respective successive ranges, each of said sighting lines being established by successive points located in proper relation to the optical axis of the camera lens for sighting at a given range for varying normal angles of elevation of the gun barrel, and the other member being provided with a base line intersecting the sighting lines of the last-mentioned member and being disposed so that the point of intersection of the same with either of the sighting lines will be the proper sighting point for the range represented.

5. A sighting and aiming device of the class described comprising a camera obscura having a lens and a member provided with an image-receiving surface associated with the lens, the said camera being adapted to be applied to a piece of ordnance with the optical axis of its lens substantially fixed with relation to the axis of the barrel bore, a second member positioned contiguous to the first member of the camera, one of the said members being stationary and the other being mounted for partial rotation upon the optical axis of the camera lens as a pivotal axis, and means for adjusting the said movable member angularly during corresponding angular adjustment of the gun barrel, one of the said members being provided with a sighting line established by successive points located in proper relation to the optical axis of the camera lens for sighting at a given range for varying normal angles of elevation of the gun barrel and the other member being provided with a base line intersecting the sighting line of the last-mentioned member and being disposed so that the point of intersection of both lines will be the proper sighting point for the range represented.

[Claims 6 to 11 not printed in the Gazette.]

1,207,419. RECEIVER. OSCAR M. LEICH and ALEXANDER C. REID, Genoa, Ill. Filed Jan. 27, 1916. Serial No. 74,699. (Cl. 179—114.)



1. A head receiver comprising a ring of magnetic material, a diaphragm circumferentially engaging said ring, a permanent magnet arranged substantially parallel to said ring and backwardly thereof, a centrally located pole piece extending forwardly from said permanent magnet, and a distance piece of magnetic material extending from said ring to said permanent magnet.

2. A head receiver comprising a ring of magnetic material, a diaphragm circumferentially engaging said ring, a permanent magnet arranged substantially parallel to said ring and backwardly thereof, and a distance piece of magnetic material extending from said ring to said permanent magnet.

3. A head receiver comprising a ring of magnetic material, a diaphragm circumferentially engaging said ring, a permanent magnet arranged substantially parallel to said ring and backwardly thereof, a centrally located pole piece extending forwardly from said permanent magnet, a distance piece of magnetic material extending from said ring to said permanent magnet, an actuating coil encircling said pole piece, and connecting terminals electrically associated with the terminals of said coil mounted between said ring and said permanent magnet.

4. A head receiver comprising a ring of magnetic material, a diaphragm circumferentially engaging said ring, a permanent magnet arranged substantially parallel to said ring and backwardly thereof, a pole piece extending forwardly from said permanent magnet interiorly of said ring and toward said diaphragm, a distance piece of magnetic material extending from said ring to said permanent magnet, an actuating coil encircling said pole piece, and connecting terminals electrically associated with the terminals of said coil mounted between said ring and said permanent magnet.

5. A head receiver comprising a ring of magnetic material, a diaphragm circumferentially engaging said ring, a permanent magnet arranged substantially parallel to said ring and backwardly thereof, a centrally located pole piece extending forwardly from said permanent magnet, a distance piece of magnetic material extending from said ring to said permanent magnet, an actuating coil encircling said pole piece, connecting terminals electrically associated with the terminals of said coil mounted between said ring and said permanent magnet, and insulating material between said connecting terminals and said ring and said permanent magnet, said connecting terminals serving as distance pieces between said ring and said permanent magnet.

[Claims 6 to 14 not printed in the Gazette.]

1,207,420. HAT AND CAP. ABRAHAM O. LEVINSON, Chicago, Ill. Filed Feb. 29, 1916. Serial No. 81,115. (Cl. 2—107.)



1. In a hat or cap, a flexing lining capable of being turned down out of the hat or cap to provide additional head covering, a flexible conduit circumferentially joining the lining to the hat or cap at the head fitting part thereof, and an adjusting cord in said conduit.

2. In a cap having a flexible head-receiving part, an ear covering flap normally lying within the cap, the base of the ear flap having a circumferential conduit, and an adjusting tape extending around the cap in said conduit as and for the purpose specified.

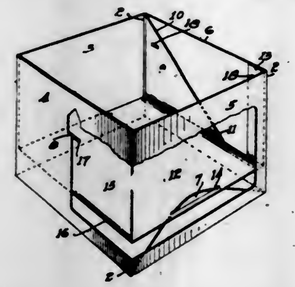
3. In a cap having a flexible head-receiving part, an ear covering flap normally lying within the cap and joined at its lower edge to said head-receiving part by a circumferentially extending flexible tubular hinge-like member, an adjusting tape in said tubular member, said ear flap serving to hold said tubular member in vertical relation both when within the cap and when extended.

4. In a cap having a head fitting lower edge, a substantially rigid visor, the inner edge thereof forming one part of the head fitting part of the cap, a flexible tubular band extending around and joined at one edge to the head fitting part, an ear flap joined to the free edge of the tubular member, and adapted to hold said tubular member in vertical relation to the cap, and an adjusting tape in said tubular member.

5. In a cap having a head fitting lower edge, a substantially rigid vizor, the inner edge thereof forming one part of the head fitting part of the cap, a flexible tubular band extending around and joined at one edge to the head fitting part, an ear flap joined to the free edge of the tubular member, and adapted to hold said tubular member in vertical relation to the cap, an adjusting tape in said tubular member, and an opening in one wall of the latter through which the ends of said tape project as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,207,421. BERRY-BOX. LEWIS P. LORD, Minneapolis, Minn., assignor of one-third to F. G. Acomb, Minneapolis, Minn., and one-third to W. H. Killen, Appleton, Wis. Filed Apr. 20, 1914. Serial No. 833,060. (Cl. 229—16.)



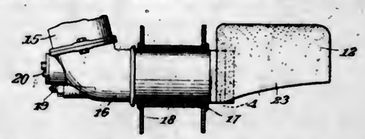
1. A folding box formed of a single sheet of flexible material scored transversely at intervals to form a bottom and a series of wall panels, one of said wall panels being scored diagonally for folding the bottom panel to a position at right angles substantially to the other panels, said bottom panel having a projection thereon and the end wall panel having means for securing it to said projection and to said diagonally scored panel, the bottom and remaining wall panels having means for interlocking to support said bottom between them.

2. A one piece folding box comprising a blank of flexible material having parallel transverse score lines thereon at intervals to form a series of panels constituting the side walls and bottom of the box, one of said panels being scored diagonally for folding the bottom panel to a position at right angles substantially to the remaining panels, said bottom panel and a portion of said side wall panels having slots and tongues for interlocking to support the bottom panel between the wall panels.

3. A folding box formed of a single sheet of flexible material scored transversely at intervals to form a bottom and a series of wall panels, one of said wall panels being scored diagonally for folding the bottom panel to a position at right angles substantially to the other panels, said bottom panel having a tongue thereon adjacent the lower edge of said diagonally scored panel, the wall panels being folded on their score lines to encircle the bottom panel and the end wall panel having means for securing it to said tongue and to said diagonally scored panel, said bottom and the remaining wall panels having means for interlocking to support said bottom between them.

4. A one piece berry box comprising a blank scored transversely at intervals to form a bottom and a series of wall panels, said bottom and wall panels being arranged end to end, with the longitudinal edges on one side in alinement with one another, said bottom panel having a projection thereon and an end wall panel having means for securing it to said projection, the bottom and remaining wall panels having means for interlocking to support said bottom between them.

1,207,422. FUEL-DISTRIBUTER. NATHAN M. LOWER, Schenectady, N. Y., assignor to Locomotive Stoker Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed July 1, 1915. Serial No. 37,443. (Cl. 110—104.)



1. In a mechanical stoker for boiler furnaces, the combination with a fuel discharge pipe extending through an opening in the furnace wall, of a distributer hood connected to the end of said pipe within the furnace, said hood comprising a casting having a substantially flat top wall, side walls, and a depending curved flange extending from the middle portion of said hood around to the side and beyond the end of the side wall for discharging a portion of the fuel laterally toward the side of the furnace.

2. In a mechanical stoker for boiler furnaces, the combination with a fuel discharge pipe extending through an opening in the furnace wall, of a distributer hood detachably connected to the end of said pipe within the furnace, said hood comprising a casting having a substantially flat top wall, side walls, and a curved vertical flange projecting downward from the under surface of said top wall and extending around to the side of the casting and beyond the end of the side wall for deflecting a portion of the fuel laterally toward the side of the furnace.

3. A fuel distributer for furnaces comprising a hood adapted to be detachably connected with a fuel pipe within the furnace, and formed with side walls and a flat top wall having a depending curved flange extending from the middle portion thereof around to one side and beyond the end of the side wall for deflecting a portion of the fuel laterally toward the side of the furnace.

4. A fuel distributer for furnaces comprising a hood adapted to be detachably connected with a fuel pipe within the furnace, and formed with two vertical side walls and a flat top wall having two depending curved flanges extending from the middle portion of said hood around to the opposite sides thereof and beyond the side walls for deflecting a portion of the fuel laterally over the grate at both sides of the hood.

5. A fuel distributer for furnaces comprising a hood adapted to be detachably connected with a fuel pipe within the furnace, and formed with a flat top wall having two depending curved flanges extending from the middle portion of said hood around to the opposite sides thereof for deflecting a portion of the fuel laterally over the grate at both sides of the hood, one of said deflecting flanges being of less vertical height than the other.

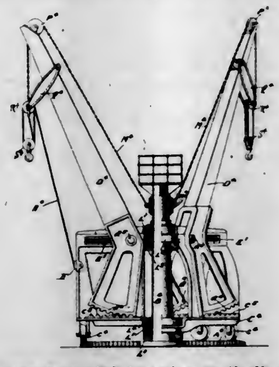
[Claim 6 not printed in the Gazette.]

1,207,423. CRANE OR DERRICK. ANDREAS P. LUNDIN, New York, N. Y., assignor to Welin Marine Equipment Company, a Corporation of New York. Filed Dec. 29, 1911. Serial No. 668,476. (Cl. 212—47.)

1. A crane construction embodying therein a suitable base, a pivot, a circular track around said pivot, a plurality of cranes each having an independent connection with the pivot and an independent bearing on said track, a crane arm in each of the frames supported to swing vertically, means for swinging each of the crane-arms vertically independently of the other and means for independently sluing each of the frames.

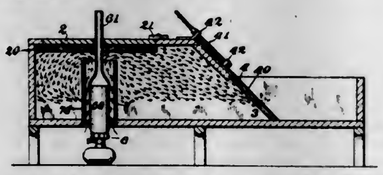
2. A crane construction embodying therein a pivotal column, a base, a circular track around said pivotal column, a plurality of frames each having an independent

anti-friction connection with said column and an independent anti-friction bearing on said track, a crane arm



in each frame supported to swing vertically, means for swinging the crane arm vertically and means for independently sluing the frames.

1,207,424. BROODER. HUGHBERT W. MCCRABBE and HOMER F. NORTON, Seattle, Wash. Filed July 3, 1915. Serial No. 37,884. (Cl. 119—32.)



A brooder having a hover chamber and an adjoining open top exercising compartment, a passing opening in the bottom part of the wall between said compartments; a door controlling said passing opening said door being movable to raise and lower its lower edge, the exercising compartment having walls fitting closely the ends of said door, and means for delivering heated air to the upper part of the hover compartment.

1,207,425. HONEY-BEE QUEEN-YARD. AARON MCELVEEN, Stilson, Ga. Filed Mar. 17, 1916. Serial No. 84,940. (Cl. 6—2.)



1. A device of the character described, comprising a cage formed of open material; and means for holding one side of said cage in engagement with a section of brood comb.

2. A device of the character described, comprising a cage formed of reticulated material and open at one side; and means for holding said opening in engagement with a section of brood-comb to cause the comb to form a closure for the opening.

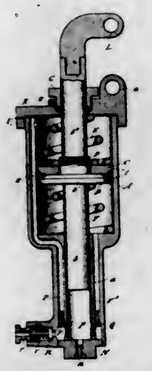
3. A device of the character described, comprising an open-sided cage formed of reticulated material; and provided at its open side with means for engaging a section of brood-comb to hold the open side of the cage in engagement therewith, whereby to cause the comb to form a closure for said open side.

4. A device of the character described comprising an open-sided cage formed of reticulated material; and provided at its open side with means for removably engaging a section of brood comb to hold the open side of the cage in removable engagement therewith, whereby to cause the comb to form a closure for said open side, and to give the bees inclosed in the cage access to the comb.

5. A device of the character described, comprising an open-sided cage formed of reticulated material, and provided around its open side with securing pins projecting beyond said open side and adapted to penetrate a section of comb to hold the open side of the cage in removable engagement therewith, to cause the comb to form a removable side for the cage and to give the bees in the cage free access to the comb.

[Claims 6 and 7 not printed in the Gazette.]

1,207,426. SHOCK-ABSORBER. WILLIAM F. MCNABB, Carthage, Mo. Filed Mar. 11, 1916. Serial No. 83,522. (Cl. 267—24.)



1. A combined shock absorber and air compressor comprising a cylinder, a piston therein having a stem, spring means between the piston and cylinder to yieldingly resist motion in both directions, a cylinder connected with the first cylinder and into which the stem of the piston extends to form an air compressor, valve-controlled passages leading from the air compressor to the opposite ends of the first-mentioned cylinder for supplying air thereto, and a valve-controlled inlet for the second-mentioned cylinder.

2. A combined shock absorber and air compressor comprising a cylinder, a piston therein having a stem, spring means between the piston and cylinder to yieldingly resist motion in both directions, a cylinder connected with the first cylinder and into which the stem of the piston extends to form an air compressor, valve-controlled passages leading from the air compressor to the opposite ends of the first-mentioned cylinder for supplying air thereto, a valve-controlled inlet for the second-mentioned cylinder, and a relief valve connected with the second cylinder.

3. As a new article of manufacture, a combined shock absorber and air compressor in the form of a unitary structure comprising a cylinder, a piston therein, springs interposed between each end of the cylinder and the piston, passages leading to both ends of the cylinder, valves in the passages and opening toward the cylinder, a compressor actuated by the relative movement of the piston and cylinder for supplying air to the passages, and a valve-controlled inlet for the compressor.

4. As a new article of manufacture, a combined shock absorber and air compressor in the form of a unitary structure comprising a cylinder, a piston therein, springs interposed between each end of the cylinder and the piston, passages leading to both ends of the cylinder, valves in the passages and opening toward the cylinder, a compressor actuated by the relative movement of the piston and cylinder for supplying air to the passages, a valve-controlled inlet for the compressor, and a relief valve common to the said passages and compressor.

5. A device of the class described comprising a cylinder having a reduced tubular extension, a piston movable in the cylinder and having stems extending in opposite directions, one out of the cylinder and the other into the tubular extension to form therewith an air pump, passages leading from the bore of the extension to the opposite ends of the cylinder for supplying air from the pump to the latter, valves in the said passages, and a valve-controlled inlet for admitting air to the said tubular extension.

1,207,427. TIRE-PUMP. HENRY F. MOLKENBUR, St. Paul, Minn. Filed Feb. 29, 1916. Serial No. 81,209. (Cl. 152—11.)



1. A pump for pneumatic tires, comprising a block of resilient material interposed between the inner tube and its casing and having an internal incision adapted to be expanded to form an air chamber when said block is compressed by tire compression and adapted to close to eliminate said chamber when said compression is released, means for admitting air to said chamber from the exterior of said block, and means for leading air therefrom to said inner tube.

2. A pump for pneumatic tires, comprising a block of resilient material interposed between the inner tube and its casing and having an internal incision adapted to be expanded to form an air chamber when said block is compressed by tire compression and adapted to close to eliminate said chamber when said compression is released, means for admitting air to said chamber from the exterior of said block, means for leading air from said chamber to said inner tube, and means for preventing backward movement of air through said air conducting means.

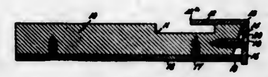
3. A pump for pneumatic tires, comprising a block of resilient material interposed between the inner tube and its casing and having an internal incision adapted to be expanded to form an air chamber when said block is compressed by tire compression and adapted to close to eliminate said chamber when said compression is released, having a passage leading to said chamber from the exterior of said block, and having a passage leading from said chamber to said inner tube, a valve in said first named passage preventing outward air movement from said chamber, and a valve in said last named passage preventing air from reëntering said chamber from said inner tube.

4. A pump for pneumatic tires, comprising a block of resilient material interposed between the inner tube and its casing and having an internal incision adapted to be expanded to form an air chamber when said block is compressed by tire compression and adapted to close to eliminate said chamber when said compression is released, a valved air passage leading to said chamber and a valved passage leading from said chamber, said inner tube being punctured adjacent the outer end of said last named passage.

5. A pump for pneumatic tires, comprising a block of resilient material interposed between the inner tube and its casing and having an internal incision adapted to be expanded to form an air chamber when said block is compressed by tire compression and adapted to close to eliminate said chamber when said compression is released, having a passage leading to said chamber and having a passage leading from said chamber, said inner tube being punctured adjacent the outer end of said last named passage, a tongue formed of the block material at the inner end of said first named passage and a tongue formed of said block material at the outer end of said last named passage, said tongues serving as valves for the respective passages.

[Claims 6 to 10 not printed in the Gazette.]

1,207,428. STRAIGHT-EDGE. DOTT J. MORGAN, Indianapolis, Ind. Filed May 5, 1916. Serial No. 95,568. (Cl. 33—107.)



1. In a straight edge, a body having an edge, a bottom plate secured to the bottom of the body adjacent the edge thereof and having an edge projecting beyond the said edge of the body, an angle member disposed at the top and at the said edge of the body and normally engaging the said edge of the bottom plate, and means for pressing the angle member against the bottom plate.

2. In a straight edge, a body having an edge, an angle member having a portion disposed at the top of the body adjacent the said edge and with its other portion extending downwardly and engaging the top of the body and spaced from the bottom of the body, a bottom plate secured to the bottom of the body with an edge extending beyond the said edge of the body and substantially to the second mentioned portion of the angle member, and means for pressing the second mentioned portion of the angle member against the said edge of the bottom plate.

3. In a straight edge, a body having a beveled edge, an angle member having a portion disposed against one face of the body adjacent the acute angle formed by the beveled edge and with its other portion extending downwardly adjacent the beveled edge, a bottom plate secured to the other face of the body and extending beyond the obtuse angle formed by the beveled edge, and means for pressing the second mentioned portion of the angle member against the projection portion of the bottom plate.

4. In a straight edge, a body having an edge, a bottom plate secured to the bottom of the body adjacent the edge thereof and having an edge projecting beyond the said edge of the body, an angle member disposed at the top and at the said edge of the body and normally engaging the said edge of the bottom plate, and means for pressing the angle member against the bottom plate, there being a longitudinal groove in the top of the body from one side of which an edge of the angle member extends.

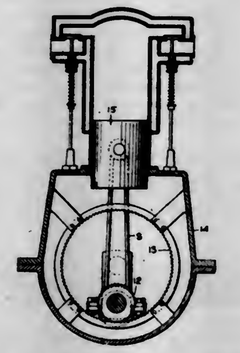
5. In a straight edge, a body having an edge, an angle member having a portion disposed at the top of the body adjacent the said edge and with its other portion extending downwardly and spaced from the bottom of the body at the said edge, a bottom plate secured to the bottom of the body and with an edge extending beyond the said edge of the body and substantially to the second mentioned portion of the angle member, and means for pressing the second mentioned portion of the angle member against the said edge of the bottom plate, there being a longitudinal groove in the top of the body from one side of which the edge of the first portion of the angle member extends.

[Claim 6 not printed in the Gazette.]

1,207,429. MEANS FOR EQUALIZING PISTON DISPLACEMENT. JAMES CURRIE MORISON, Memphis, Tenn. Filed Jan. 4, 1916. Serial No. 70,223. (Cl. 74—38.)

1. Means for equalizing piston displacement in engines, comprising, in combination, a piston, a crank shaft, and

an oscillating connecting rod connecting the piston to the shaft, with eccentric means interposed between the crank and rod to compensate for the variation in distance between the crank shaft and piston by the oscillation of the rod.

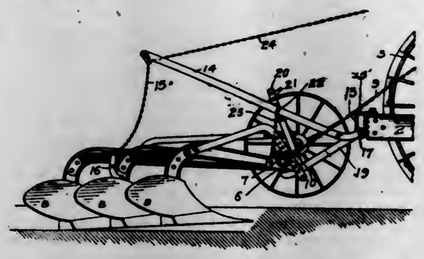


2. Means for equalizing piston displacement in engines, comprising, in combination, a piston, a crank shaft, and an oscillating connecting rod from the shaft to the piston, with an eccentric interposed between the shaft and rod, and means for revolving the eccentric through an angle twice that of the shaft.

3. Means for equalizing piston displacement in engines, comprising, in combination, a piston, a crank shaft, an oscillating connecting rod from the shaft to the piston, with an eccentric interposed between the shaft and rod, a pinion revoluble with said eccentric, and a stationary gear meshing with said pinion, whereby said eccentric is caused to revolve during the revolution of the shaft, the ratio of said pinion and gear being such that said eccentric is caused to revolve twice during a single revolution of the shaft.

4. Means for equalizing piston displacement in engines, comprising, in combination, a crank shaft, oscillating connecting rods from the shaft, pistons associated with said connecting rods, with an eccentric interposed between each crank of the shaft and the connecting rod, and means for revolving the eccentrics of the adjacent cranks in opposite directions and through two revolutions for each revolution of the crank shaft.

1,207,430. PLOW-LIFT. HAROLD NILSON, Wayzata, Minn. Filed Nov. 2, 1914. Serial No. 869,952. (Cl. 97—30.)



1. The combination, with a traction machine having a rear traction wheel, of a plow frame and a series of plows, a lifting and tilting device interposed between said plow frame and said traction machine and having a non-draft bearing on the latter and when raised, engaging the forward portion of said plow frame to lift the same, and draft connections extending from said plow frame to said traction machine.

2. The combination, with a traction machine frame and a rear traction wheel, of a plow frame and a series of plows, draft connections between said plow frame and said traction wheel frame, a lifting device loosely supported on the rear end of said traction wheel frame and having downwardly and backwardly extending arms to engage and tilt said plow frame when said lifting device is raised, and flexible means connecting said lifting device with said traction wheel frame.

3. The combination, with a traction machine frame and a rear traction wheel mounted therein, of a plow frame and plows, and draft means connecting said plow frame with said traction machine frame, a lifting and tilting device comprising a V-shaped frame, pivotally supported on the rear of said traction machine frame, and having arms depending downwardly and rearwardly from said V-shaped frame in position to engage and tilt said plow frame when said V-shaped frame is lifted, flexible means connecting said V-shaped frame with said plows, and flexible lifting means connecting said V-shaped frame with said traction machine frame.

4. The combination, with a traction machine frame and a rear traction wheel, of a plow frame and plows connected therewith, draft connections between said plow frame and said traction machine frame, a lifting and tilting device pivotally supported on the rear of said traction machine frame and comprising a rearwardly projecting frame having a flexible connection with the plow beams, bars projecting rearwardly and downwardly from the forward portion of said rearwardly projecting frame in position to engage said plow frame when said lifting device is raised, means for adjusting said bars to vary their time of engagement with said plow frame, and flexible lifting means connecting said machine frame with said rearwardly projecting frame.

5. The combination, with a traction machine frame and a rear traction wheel, of a plow frame and a series of plows, draft connections between said plow frame and said traction wheel frame, a tilting device supported on the rear portion of said traction wheel frame and having means extending downwardly and rearwardly beneath the forward portion of said plow frame, elevating means connecting said tilting device with said traction machine frame, and means for varying the time of engagement of said tilting device with said plow frame.

[Claims 6 and 7 not printed in the Gazette.]

1,207,431. DISPLAY-CASE. JOSEPH A. NONES, New York, N. Y. Filed Apr. 10, 1915. Serial No. 20,418. (Cl. 217—58.)



1. The combination with a container having a hinged lid; of a transparent cover for said container, a frame beneath said cover, corner clips for holding cover and frame together, and means for engagement with the edges of said lid whereby said lid is held in desired raised position, and lid and cover move simultaneously.

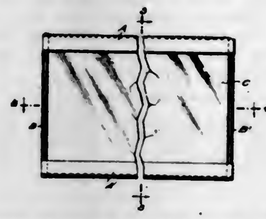
2. The combination with a container having a hinged lid; of a transparent cover for said container, a frame beneath said cover and composed of a yoke-shaped wire length, the ends of which are bent to form lid engaging means, and corner clips for holding said frame and cover together.

3. The combination with a container having a hinged lid; of a transparent cover for said container, a frame beneath said cover and composed of a yoke-shaped length of wire, means for detachably holding said frame to said lid and thus hold said lid in raised position, and corner clips comprising, each, two gutter-shaped members at a right angle to each other adapted to receive and hold said

frame, and an extension on each member bent upwardly around said cover.

4. The combination with a container having a hinged lid; of a cover formed of transparent material, a guard at the rear edge thereof, a yoke-shaped frame beneath the same and secured to said guard, corner clips for holding said cover and frame together, and means for clamping said cover and lid together to hold said lid in raised position.

1,207,432. FRAME. JOSEPH A. NONES, New York, N. Y. Filed June 5, 1915. Serial No. 32,435. (Cl. 189—77.)



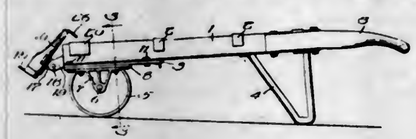
1. A frame having its members formed of alternating channel bars and rods, each channel bar straddling one edge of the article to be framed and each rod fitting onto an adjacent edge of the article, the abutting ends of the said bar and rod being fastened together.

2. A frame, comprising channel bars straddling opposite edges of the article to be framed, and rods alternating with the said channel bars and fitting against the other edges of the article, the abutting ends of the bars and rods being fastened together.

3. A frame, comprising a channel bar straddling an edge of the article to be framed and projecting at its ends beyond the said edge, and a rod fitting onto an adjacent edge of the article and having its end extending into the corresponding projecting end of the channel bar, and means for fastening the said abutting ends of the bar and rod together.

4. A glass frame, comprising a pane of glass, channel bars straddling opposite edges of the said glass pane and projecting beyond the said edges, and rods fitting onto the other edges of the glass pane and having their ends projecting into the said projecting ends of the channel bars, and solder fastening the ends of the said channel bars and rods together.

1,207,433. TRUCK. WILLIAM A. NORMAN, Chicago, Ill. Filed Nov. 20, 1915. Serial No. 62,460. (Cl. 21—65.)

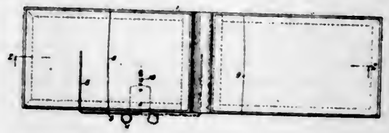


1. A truck having a body provided with a cradle, pivotally mounted at the forward end, truck wheels, and means for varying the distance between the axis of the cradle and the axis of the truck wheels.

2. A truck having a body, a cradle having a sole plate and a back wall rising therefrom, a hinge connecting the cradle with the body whereby the cradle may be tilted about its corner as a center while resting upon the floor, truck wheels mounted upon an axis located behind the cradle hinge, and means for shifting the truck wheels longitudinally of the truck body to thereby increase or decrease the distance between the truck wheel axis and the said cradle corner or point where the sole plate joins the back wall of the cradle.

3. A truck having a body, truck wheels, mounted near the forward end thereof, a cradle pivoted to the truck body in advance of the axis of the wheels, a check arm for limiting the rotary movement of the cradle, and an adjustable stop for arresting the check arm at a predetermined point.

1,207,434. BOOK-HOLDER. DANIEL P. O'BRIEN, West Hoboken, N. J. Filed Dec. 6, 1915. Serial No. 65,299. (Cl. 11—18.)



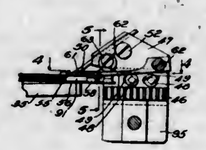
1. A book holder comprising a holding member formed with a pair of sides, one of said sides being formed with a slot, a plate covering said slot formed with pressed-out portions extending into said slot, and a substantially U-shaped place-finding member having one arm thereof engaged by said pressed-out portions, said arm being arranged in said slot and the other arm extending substantially parallel to the first mentioned arm.

2. A book holder comprising a holding member formed with a pair of sides, flexible means for connecting said sides together, and a place-finding member formed with an end section pivotally engaging one of said sides, an arm substantially parallel with said end section and a central section connecting said arm and said end section, said central section being formed with a resilient loop adjacent the end section whereby said arm is resiliently held in position and a handle is provided for quickly moving said arm from one position to another so as to open the holding member at any time and the book arranged therein.

3. A book holder comprising a holding member provided with a pair of sides, one of said sides being provided with a slot and a book-mark or place-finder, said book mark or place finder comprising a plate having pressed-out portions extending into said slot, means for securing said plate over the slot, and a pivotally mounted member having one end extending through the pressed-out portions of said plate and into said slot and the opposite end extending transversely of the holding member.

4. A place finder for book holders comprising a substantially U-shaped member, and a plate formed with pressed-out portions for receiving one of the arms of said U-shaped member, said pressed-out portions pinching said arm so as to frictionally resist swinging movement of the U-shaped member.

1,207,435. MACHINE FOR MAKING SOLES. EDWARD E. ORR, Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 9, 1916. Serial No. 83,044. (Cl. 12—27.)



1. A machine for making soles, having, in combination, a sole support, an edge gage, a thin, tapered foot carried by said gage arranged to rest on the sole engaging surface of said support beneath the margin of the sole, and a chamfer knife coöperating with said foot arranged to act on the edge of the sole contacting with the support.

2. A machine for making soles, having, in combination, a sole support, an edge gage, means for operating on the margin of the sole, and a presser finger mounted on said gage having a portion extending beyond the operative end of said gage to engage the upper face of the sole and hold its margin in contact with the work support for the operation of said means thereon.

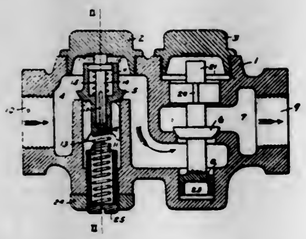
3. A machine for making soles, having, in combination, a sole support, an edge gage, means for operating on the margin of the sole, a presser finger mounted on said gage having a portion extending beyond the operative end of said gage to engage the upper face of the sole and hold its margin in contact with the work support for the operation of said means thereon, and means to vary the height of said finger above the work support.

4. A machine for making soles, having, in combination, a sole support, an edge gage, means for operating on the margin of the sole, a spring presser finger carried by said gage for engaging the upper face of the sole, and an eccentrically mounted disk in engagement with said finger for varying its height above the work support.

5. An edge gage for a sole fitting machine, having mounted thereon, a knife block provided with a knife holding slot extending forwardly and downwardly at an acute angle to the sole engaging end of the gage, a chamfer knife in said slot, and means for holding the chamfer knife in said slot.

[Claims 6 to 8 not printed in the Gazette.]

1,207,436. UNLOADING DEVICE. WILLIAM OHLSEN, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Jan. 8, 1916. Serial No. 71,346. (Cl. 230—24.)



1. In combination, a compressor, a receiver, a connection between said compressor and said receiver, and pressure relief means for said connection comprising a chamber communicating by a port with atmosphere, a piston in said chamber having one face subjected to connection pressure and having its opposite face subjected to the pressure on the port side of said chamber, leakage means past said piston, a valve connected to said piston and controlling said port, and means for urging said valve away from said port, the pressure exerted by said means being in excess of the maximum pressure holding said valve shut when said compressor is not operating.

2. In combination, a compressor, a receiver, a connection between said compressor and said receiver, a pressure relief means for said connection comprising a chamber having a bore and communicating by a port with atmosphere, a piston loosely fitting said bore, said piston having one face subjected to connection pressure and having its opposite face subjected to the pressure on the port side of said chamber, a valve connected to said piston and controlling said port, and a spring for urging said valve away from said port, the pressure exerted by said spring being in excess of the maximum pressure holding said valve shut when said compressor is not operating.

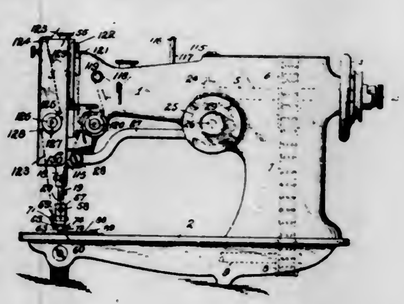
3. In combination, a compressor, a receiver, a connection between said compressor and said receiver, the passage through said connection communicating with atmosphere by a plurality of ports, and spring-opened valves controlling said ports, one of said valves being carried by another of said valves.

4. In combination, a compressor, a receiver, a connection between said compressor and said receiver, a passage through said connection communicating with atmosphere by a plurality of ports, and valves operable by static pressure in said connection for controlling said ports.

5. In combination, a compressor, a receiver, a connection between said compressor and said receiver, a valve in said connection, the passage through said connection communicating with atmosphere by a plurality of ports, a second valve for controlling one of said ports, a third valve controlling another of said ports, said valve being operable by pressure to close the same, and means for opening said third valve against maximum pressure in said connection when said compressor is not operating.

[Claim 6 not printed in the Gazette.]

1,207,437. SEWING-MACHINE. WILLIAM N. PARKES, Brooklyn, N. Y. Filed Aug. 7, 1914. Serial No. 855,598. (Cl. 112—7.)



1. In a sewing machine, a vertically reciprocating and laterally vibrating needle, a needle plate provided with a needle slot, said needle plate provided with a feed dog slot which extends into said needle slot and a feed dog acting in said feed dog slot.

2. In a sewing machine, a vertically reciprocating and laterally vibrating needle, a needle plate provided with a needle slot, said needle plate provided with a feed dog slot which extends in the direction of the feed of the work and opens into the needle slot, and a feed dog operating in said feed slot.

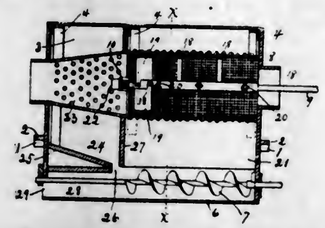
3. In a sewing machine, a vertically reciprocating and laterally vibrating needle, a feeding mechanism provided with a work engaging part which operates between the reciprocating paths of the needle, and a guide for the work which guides it so that the needle reciprocates in one of its reciprocating paths outside the edge of the work.

4. In a sewing machine, a vertically reciprocating and laterally vibrating needle, a needle plate provided with a needle slot, a feeding mechanism comprising a feed dog, said feed dog comprising two work engaging parts, one of said parts located to operate in the rear of the needle, the other of said parts located to operate in the front of the needle and between the reciprocating paths of the same, and a guide against which the edge of the work abuts.

5. In a sewing machine, a vertically reciprocating and laterally vibrating needle, a feeding mechanism comprising a feed dog which operates between the reciprocating paths of the needle, a guide for the work, a presser foot provided with a needle slot having an open end, said guide provided with a slot which is coincident with the open end of said needle slot.

[Claims 6 to 22 not printed in the Gazette.]

1,207,438. BOLL-BREAKER AND COTTON-CLEANER. TONEY S. PETERMAN, Kennedale, Tex. Filed Mar. 27, 1916. Serial No. 86,876. (Cl. 19—9.)



1. A boll breaking and cotton cleaning apparatus comprising a casing, a cylindrical screen chamber stationary therein, a shaft journaled in said chamber, fan blades rigid with said shaft, combined channeled boll breaking and cleaning blades rigid with said shaft coöperating with said fan blades to draw the cotton from the supply source and to force the same through said chamber, said screen chamber being open at both ends, means for driving said shaft, and means for directing cotton to said screen chamber.

2. A boll breaking and cotton cleaning apparatus comprising a casing, a cylindrical screen chamber open at both ends and stationary therein and spaced from said casing, said casing having an outlet below said screen chamber, a shaft journaled in said casing, boll breaking and cleaning channeled blades rigid with said shaft, means for driving said shaft, and means for directing cotton to said screen chamber, said blades serving to remove the cotton from the supply source and to force the same through said chamber.

3. A boll breaking and cotton cleaning apparatus comprising a casing open at both ends and having an opening in the lower side thereof, a cylindrical screen chamber within said casing open at both ends and spaced from said casing, a shaft journaled in said casing, combined boll breaking and draft making channeled blades rigid with said shaft for removing the cotton from the supply source and forcing the same through said chamber and for cleaning the cotton, and means for directing cotton to said screen chamber.

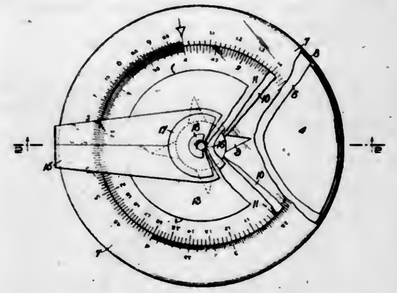
4. A boll breaking and cotton cleaning apparatus comprising a casing open at both ends and having an opening in the lower side thereof, a cylindrical screen chamber within said casing, rigid therewith and spaced therefrom, a shaft within said screen chamber journaled in said casing, combined boll breaking and draft creating blades rigid with said shaft and having channels therein for throwing dust and trash through said screen chamber, means for driving said shaft, and means for directing cotton into said screen chamber.

5. A boll breaking and cotton cleaning apparatus comprising a casing open at both ends and having an extension at the lower side, a screen chamber within said casing and spaced therefrom and open at both ends, a shaft within said screen chamber and journaled in said casing, channeled boll breaking blades rigid with said shaft for creating a blast through said chamber and for driving the dust through the screen, means for driving said shaft, and means for directing cotton into said screen chamber.

[Claims 6 to 9 not printed in the Gazette.]

1,207,439. CALCULATOR. LUCIEN EMILE PICOLET, Philadelphia, Pa. Filed July 11, 1916. Serial No. 108,540. (Cl. 235—84.)

1. In a disk calculator of the class described, a central metallic disk presenting white surfaces, a transparent disk on each side of the metallic disk and of a diameter larger than said metallic disk, means binding the margins of said transparent disks whereby the metallic disk is sealed therein, said transparent disks having a translucent back or lower surface, scale divisions formed on said translucent surfaces, a core on which said disks are mounted to rotate, a transparent disk on each of the first mentioned transparent disks and mounted to revolve with the core, said second mentioned transparent disk being of smaller diameter than the first mentioned, and each having a translucent back or lower surface, scale divisions on said translucent surfaces for coöperating with the scale divisions of the first mentioned transparent disks, means backing the second mentioned transparent disks to prevent injury to the scale divisions thereon by the relative movement of the disks, an arm embracing all of said disks, and means securing said arm to the core to revolve with the core or relative thereto when the core is prevented from turning, substantially as and for the purpose set forth.



2. In a pocket calculator of the class described, a central metallic disk presenting white surfaces, transparent disks sealing the metallic disk at the margin, said transparent disks having a translucent back or lower surface, scale divisions upon said translucent surfaces of the disk, a core on which said transparent and metallic disks are mounted to rotate, said transparent disks having triangular radial notches at the core, the apex of each notch being remote from the center of the disk, transparent disks of a smaller diameter on each of the first mentioned transparent disks, means securing said second mentioned transparent disks to the core to revolve therewith, each of said second mentioned transparent disks having scale divisions on the lower surface thereof, means backing the lower surface of each of the second mentioned transparent disks, an arm, and means securing the arm to the core to revolve therewith and relative thereto when the core is prevented from rotation.

3. In a pocket calculator of the class described, a metallic disk, a reflector disk supported on each surface of the metallic disk, transparent disks sealing the reflector and metallic disks at the margin, each of said transparent disks presenting a translucent back surface, scale divisions formed on the translucent surfaces of the disk, all of above mentioned disks having a central opening, said transparent disks having radial triangular notches at the opening, a core fitting snugly into the central opening of the disks and on which said disks are free to turn in a unit, a transparent disk of smaller diameter mounted to revolve on each of the first mentioned transparent disks, means securing the second mentioned transparent disks to the core whereby they are bound to participate in the movement of the core, each of said second mentioned transparent disks having a translucent back surface, scale divisions on said translucent surfaces, means backing the translucent surfaces of said second mentioned transparent disks whereby the divisions thereupon are protected from injury and wear, an indicating arm, and means securing the indicating arm to the core to revolve therewith and relative to the core when the core is prevented from rotation.

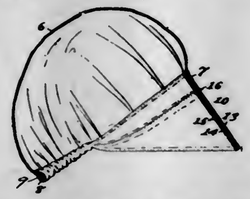
4. In a disk calculator of the class described, a central disk having scale divisions, a core on which said disk is mounted to rotate, a transparent disk on each side of the

central disk, means binding the transparent disks to the core, scale divisions on the under side of the transparent disks coöperating with the divisions of the central disk, means backing the under side of the transparent disks, a metallic disk for each transparent disk and secured to the adjacent end of the core, an indicating arm embracing all of the above mentioned disks, and means for securing frictionally the ends of the arms to the metallic disks so that said arm revolves with the metallic disks or relative thereto when said metallic disks are prevented from revolving.

5. In a disk calculator of the class described, a pair of transparent relatively-movable members, scale divisions on said members adapted to coöperate, each of said transparent members having the lower surface thereof translucent, said scale divisions being formed on said translucent surfaces whereby the divisions are rendered more prominent and are protected from injury or contact during the manipulation of the calculator.

[Claims 6 to 8 not printed in the Gazette.]

1,207,440. AUTOMOBILE-CAP. FRANK RAUDNITZ, New York, N. Y. Filed Aug. 18, 1915. Serial No. 46,080. (Cl. 2—106.)



A cap, comprising a body portion, a band at the forward half thereof, a vizor held to said band, the line of connection therebetween being weakened to permit bending said visor upwardly or downwardly, and an elastic cord at the rear of said body portion and connected with the ends of both band and vizor for holding said band in curved form to hold said vizor in either upper or lower position, said elastic cord exerting a strain on said band perpendicular to the plane of the central portion thereof.

1,207,441. IGNITER-TORCH FOR GAS-STOVES. ARNOLD O. BUTZ, Milwaukee, Wis., assignor to Milwaukee Gas Specialty Company, Milwaukee, Wis. Filed Sept. 13, 1915. Serial No. 50,511. (Cl. 158—115.)



1. A flash igniter comprising the combination with a gas stove having a series of burners and a supporting grid above the burners of an igniter tube having a vertically disposed torch head provided with lateral jet apertures and a shield member carried by and depending from the grid and receiving the torch head, with the lower portion of said shield member disposed below the plane of the jet apertures.

2. A flash igniter comprising the combination with a gas stove having a series of burners and a supporting grid above the burners of an igniter tube having a vertically disposed torch head provided with lateral jet apertures, and a depending shield member formed integrally with the grid and receiving the torch head with the lower portion of said shield member disposed below the plane of the jet apertures.

3. A flash igniter comprising the combination with a gas stove having a series of burners and a supporting grid above the burners of an igniter tube having a vertically disposed torch head provided with jet apertures, a shield member carried by and depending from the grid, with the lower portion of said shield member disposed below the plane of the jet apertures, and means associated with the shield and torch head for holding the torch head centered within the shield.

4. A flash igniter comprising the combination with a gas stove having a series of burners and a supporting grid above the burners of an igniter tube having a vertically disposed torch head, a shield member adapted to receive the torch head, and carried by and depending from the grid, an apertured plate adjustably carried by the torch head and a peripheral flange on the plate adapted to embrace the mouth of the shield to hold said head centered with respect thereto.

5. A flash igniter comprising the combination with a gas stove having a series of burners and a supporting grid above the burners of an igniter tube having a vertically disposed torch head, provided with horizontal firing ports and a shield member for the torch head comprising a pair of vertically slined frusto-conical wall portions, a closure at the top of the upper wall portion, arms connecting the wall portions, and the firing ports of the torch head being disposed between the planes of the adjacent ends of the wall portions.

1,207,442. WINDOW-JACK. OSCAR W. SANDHOLM, Rockaway Beach, N. Y. Filed Nov. 23, 1915. Serial No. 62,959. (Cl. 20—87.)

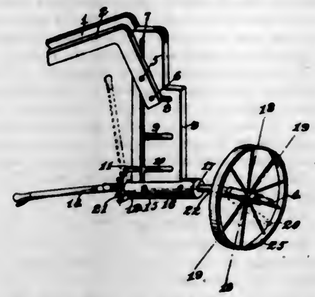


1. In a window cleaning seat of the character described, a body provided with a pair of slots therein, a support therefor having a runner engaging the sill adjacent the window frame for supporting the outer part of the body, a pair of slidable bars arranged beneath said body and overlapping part of the window sill, a bolt extending through each of said bars and through the slots of said body whereby the bars may be clamped at any desired position, and a hook member arranged on the free end of each of said bars, said hook members being adapted to be hooked over the stool of the window, and an adjustable member arranged on said runner and acting against said runner and the window sill for holding said hook tightly against said sill whereby the hooks will hold the entire seat in position.

2. In a window cleaning seat of the character described, a body provided with a pair of slots therein, a support therefor comprising an inner comparatively low runner for supporting one edge of the body, and an outer comparatively high runner engaging the sill adjacent the window frame for supporting the outer part of the body, a pair of slidable bars arranged beneath said body, a bolt extending through each of said bars and through the slots of said body, whereby said bars may be clamped at any desired position, and a hook member arranged on the free end of each of said bars, said hook members being adapted to be hooked over the stool of the window, and an adjusting member arranged on said outer runner, said adjustable means acting against said outer runner and the window sill for holding said hooks tightly against said sill.

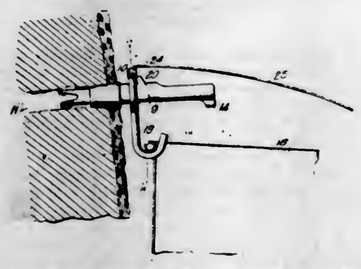
1,207,443. PLOW ATTACHMENT. FLETCHER SMITH, Dallas, Tex. Filed Nov. 1, 1911. Serial No. 658,058. (Cl. 97—36.)

1. An attachment for sulky plows comprising spaced parallel bars, an elongated member having a series of spaced cross slots, said member mounted between the spaced bars, adjustable clamping bolts for the parallel bars passing respectively through the longitudinal slot and either one of the cross slots, an axle at the lower end of the member and a ground wheel on the axle.



2. An attachment for sulky plows comprising spaced parallel bars, an elongated member having a series of spaced cross slots and a longitudinal slot at substantially right angles to the cross slots, the longitudinal slot connecting the cross slots, said member mounted between the spaced bars, adjustable clamping bolts for the parallel bars passing respectively through the longitudinal slot and either one of the cross slots, an axle at the lower end of the member and a ground wheel on the axle.

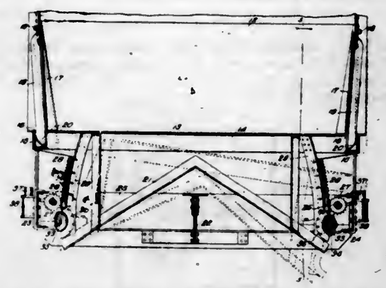
1,207,444. SAP-SPOUT. GEORGE H. SOULE, Fairfield, Vt. Filed Nov. 11, 1915. Serial No. 60,860. (Cl. 47—29.)



As an article of manufacture, a sap spout comprising an open-ended tubular body portion having integrally formed thereon at the driving end thereof, a relatively long barb, the back edge whereof tapers toward said driving end of said body portion; a relatively short rocking member disposed at the opposite side of said body portion and at the driving end thereof, the bearing portion of said rocking member being disposed in closer relation to said driving end than the spur of said barb, said body portion and said rocking member having the same over-all dimension as that of the body portion back of the rocking member with the spur of said barb; and a tapered plug portion disposed in spaced relation to said barb and adapted to level said body portion when in service in a sap bore and to elevate said barb to force the spur thereof into the wall of the sap bore into which said spout is driven.

1,207,445. DUMPING FREIGHT-CAR. HARRY A. STURNI, New York, N. Y. Filed Oct. 27, 1915. Serial No. 58,141. (Cl. 105—14.)

1. In a dumping freight car, a rigid bottom, a series of rigid members secured at their upper ends to the rigid bottom and extending downwardly therefrom adjacent the opposite sides of said bottom, rotary means coöperating with said rigid members to elevate the bottom to closing position, and other rotary means adjacent the first mentioned rotary means coöperating with said rigid members to hold the bottom in closed position.



2. In a dumping freight car, the combination with a rigid frame and a car body supported thereon, of a movable bottom for the car body, rotary devices journaled in the frame adjacent the opposite sides thereof, arc shaped racks connected to the sides of the bottom and extending downwardly therefrom into coöperation with said rotary members to control the position of said bottom, said rotary means and racks being duplicated on opposite sides of the car to provide for the downward tilting movement of the bottom for dumping on either side of the car, a bearing socket connected to the lower end of each rack and curved reversely to the rack, the center of curvature of the socket coinciding with the center of movement of the opposite edge of the bottom, and a rotary lug located normally in said socket to sustain the adjacent edge of the bottom.

3. In a dumping freight car, the combination with a rigid frame and a car body supported thereon, of a rigid movable bottom for the body above the frame, arc-shaped rigid supports connected to the opposite sides of the bottom and extending downwardly therefrom with their convexities opposite each other, bracing means connected to the lower ends of said supports to maintain them in fixed position with respect to the bottom, rotary controlling means journaled in the frame and coöperating with said rigid supports to control the position of the bottom, said rotary controlling means providing on either side of the car a substantially fixed support for that side of the bottom and providing for the rigid support on the opposite side of the car to move downwardly in an arc of a circle concentric with the stationary controlling means upon the releasing of the controlling means on the opening side of the car.

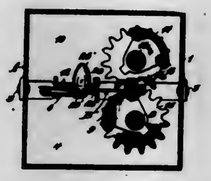
4. In a dumping freight car, the combination with a rigid frame and a car body supported above the same, of a bottom movably arranged between the body and the frame, a series of racks connected at their upper ends of the bottom and extending downwardly therefrom on opposite sides of the car, bracing and supporting means coöperating with said racks to hold them in rigid position with respect to the bottom, a series of power pinions meshing with the respective racks for elevating the bottom to closed position, a series of lugs journaled in the frame adjacent the pinions, said supporting means being provided with arc-shaped bearings adapted to receive the lugs for the main supporting means for the bottom, and means to rotate all of the lugs on either side of the car simultaneously to permit that side of the bottom to swing downwardly around the other series of lugs as an axis.

5. In a dumping freight car, the combination with a body having an open bottom and a movable door on each side of the body, each door being hinged along its upper edge and adapted to swing inwardly and outwardly with respect to the body at its lower edge, of a bottom movable upwardly into interlocking engagement with the lower edges of both doors in closed position, and means controlling the position of the bottom and providing for the

bottom to swing open downwardly at either side, permitting the body door on that side to swing outwardly and causing the body door on the closed side to swing inwardly.

[Claim 6 not printed in the Gazette.]

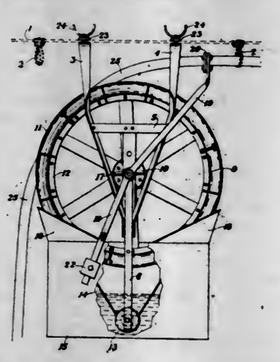
1,207,446. RAZOR-STROPPER. BERNHARD TROSKY, New York, N. Y., assignor to The Novelty Stropper Co., Inc., New York, N. Y., a Corporation. Filed June 23, 1916. Serial No. 105,333. (Cl. 51—16.)



1. A razor stropper including a supporting structure, stropping means therein, and a razor holder on the structure and composed of relatively movable bars, one of the bars having apertures, and studs having eccentric portions fastened in the apertures, said studs coöperating with the other bar for clamping a razor blade in coöperative relation with the stropping means.

2. A razor stropper comprising a casing formed of hingedly connected sections, stropping means in the casing, and a razor blade holder mounted in the casing and composed of coacting bars mounted on the respective sections of the casing, and studs removably mounted on one bar and adapted to extend through the other bar for holding a blade in coöperative relation with the stropping means, said studs having attaching portions removably engaged with the associated bar, and the said attaching portions being eccentric to the axis of the studs.

1,207,447. CABLE-LUBRICATING WHEEL. WALLACE M. VAN DEUSEN and FRANS PERSSON, Brooklyn, N. Y., assignors to American Telephone and Telegraph Company, a Corporation of New York. Filed May 10, 1916. Serial No. 96,612. (Cl. 184—17.)



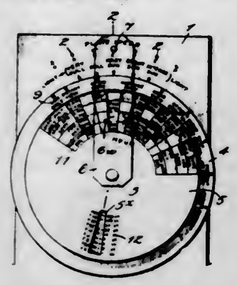
1. A cable lubricating apparatus, comprising a main frame, a lubricant container attached to the main frame, a wheel pivotally mounted upon the main frame, said wheel being rotated by the cable to carry lubricant from the container and deposit it upon the cable, and means pivotally mounted upon the frame to spread the lubricant over the cable and wipe off the excess.

2. A cable lubricating apparatus, comprising a main frame, a lubricant container pivotally suspended from said frame, a wheel pivotally mounted upon the frame at a point external to said container, said container being provided with flared extensions to partially inclose said wheel.

3. A cable lubricating apparatus, comprising a main frame, a lubricant container attached to the main frame, a wheel pivotally mounted on the main frame, said wheel being rotated by the cable to carry lubricant from the container and deposit it upon the cable, and an arm pivotally mounted on the container and bearing against the cable to spread the lubricant and remove the excess.

4. A cable lubricating apparatus, comprising a main frame, a lubricant container attached to the main frame, a wheel pivotally mounted on the main frame, said wheel being rotated by the cable to carry lubricant from the container and deposit it upon the cable, an arm carrying a wiper pivotally mounted on the container and means to hold said wiper against the cable to spread the lubricant and remove the excess.

1,207,448. EXPOSURE-METER. WILLIAM WALTON VENABLE, Charleston, W. Va. Filed Feb. 16, 1916. Serial No. 78,632. (Cl. 235—88.)



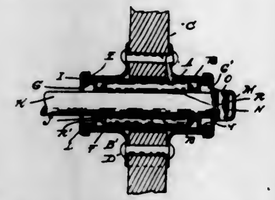
1. A time exposure meter for photographic purposes, which consists of a flat base, a circular disk mounted for rotation on said base, a second disk mounted for rotation on the face of said first named circular disk, a rotatable arm mounted on the face of said second named circular disk, said disks and said arm having a common pivot and said arm projecting beyond the edge of said first named disk, said base having a series of holes disposed in arc-shaped arrangement concentric with said disks, said arm being provided with an opening arranged to register with any of said holes and being provided with a window, said first named disk having a series of radially extending tables, said second named disk being provided with an opening arranged to register with said tables and having a series of radially extending tables arranged to register with the window in said arm.

2. A time exposure meter for photographic purposes, consisting of a base portion having a series of indicating marks arranged in arc-shaped form, and a series of data indicating the kind of light arranged in arc-shaped form, a rotatable disk having on its edge a series of data indicating the kind of views, a second rotatable disk mounted on said first named rotatable disk, a pivoted arm mounted on said second-named rotatable disk, said disk and said arm having a common pivotal point and each of said disks being provided with certain data, said arm having a window arranged to expose to view the data on said second named disk, and said second named disk having a window for exposing to view certain data on said first named disk.

3. In an exposure meter, a base member having a plurality of sets of indicating marks arranged in arc-shaped form thereon, a rotatable disk mounted on said base member and having indicating marks arranged to register with one of said sets of indicating marks and being provided with a series of radially extending indicating tables, a second rotatable disk mounted on the face of the first rotatable disk, a rotatable arm having an indicating mark arranged to register with another set of indicating marks on said base, each of said disks being provided with indicating tables on the surface thereof, said arm having a window arranged to expose the tables on said second named disk, and said second named disk having a window arranged to expose the tables on said first named disk.

4. In an exposure meter, a base member having a plurality of sets of indicating marks arranged in arc-shaped form thereon, a rotatable disk mounted on said base member and having indicating marks arranged to register with one of said sets of indicating marks and being provided with a series of radially extending indicating tables, a second rotatable disk mounted on the face of the first rotatable disk, a rotatable arm having an indicating mark arranged to register with another set of indicating marks on said base, each of said disks being provided with indicating tables on the surface thereof, said arm having a window arranged to expose the tables on said second named disk, and said second named disk having a window arranged to expose the tables on said first named disk, said second named disk also being provided with a series of stop value indicating marks on the edges of the window, each of said marks corresponding to one of the exposure time value marks on said first named disk.

1,207,449. HUB CONSTRUCTION. JOSHUA F. VOGEL, Toledo, Ohio, assignor to Gendron Wheel Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 7, 1916. Serial No. 76,707. (Cl. 64—39.)



1. A wheel hub, comprising a barrel, a series of rolls therein, retainers for said rolls at opposite ends of the barrel, each of the retainers having a portion fitting within the barrel, a flange overlapping the end of the barrel and an inwardly-extending flange underlapping the ends of the rolls, the underlapped ends of the rolls being tapered.

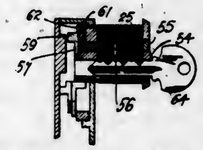
2. A wheel hub, comprising a barrel, a series of rolls therein, a retainer for said rolls at one end of the barrel, said retainer having a portion fitting within the barrel, a flange overlapping the end of the barrel, and an inwardly-extending flange underlapping the end of the rolls, the underlapped ends of the rolls being tapered.

3. A wheel hub, comprising a barrel, a series of rolls therein, a retainer for said rolls at one end of the barrel, said retainer having a portion fitting within the barrel, a portion exterior to the barrel engaging the adjacent end thereof, and an inwardly extending flange underlapping the ends of the rolls, the underlapped ends of the rolls being tapered.

1,207,450. LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Original application filed Mar. 13, 1915, Serial No. 14,124. Divided and this application filed Dec. 4, 1915. Serial No. 65,058. (Cl. 70—93.)

1. The combination with a cylinder lock and a plurality of keys therefor, of a plurality of rollbacks on said cylinder lock all rotatable by all of said keys, one of said rollbacks being movable radially of the other by a short key which is of less length than the keyway and means to prevent movement of said first roll-back radially of such other rollback by another of said keys; substantially as described.

2. A cylinder lock having a plurality of rollbacks permanently secured to the rear end thereof and a plurality of keys, one of said rollbacks being located at the rear of the other and having a rearwardly directed bolt-operating projection, and means for moving said last-named rollback radially of the other rollback by one of said keys said rollbacks being immovable relatively to each other by another of said keys; substantially as described.



3. The combination with a cylinder lock and a plurality of keys therefor, of two rollbacks on the rear end of said cylinder lock, both rotatable by all of said keys, one of said rollbacks located rearwardly of the other and having a rearwardly directed bolt-operating projection, the other rollback projecting radially beyond the first-named rollback, and the first rollback being movable radially of the second rollback by a short key which is of less length than the keyway; substantially as described.

4. A cylinder lock having a rollback with a radial guide-way, a rollback projection engaging said guide-way, and a key for positively moving said rollback projection outwardly and inwardly in said guide-way; substantially as described.

5. A cylinder lock having a rollback with a radial guide groove, a second rollback at the rear of the first having an arm engaging said groove, and a rearwardly directed bolt-operating projection on said arm, and a key for moving said bolt-operating projection inward as well as outward in said groove; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,207,451. PAPER-MAKING APPARATUS. SOLOMON R. WAGG, Appleton, Wis.; James B. Wagg, administrator of said Solomon R. Wagg, deceased. Filed Nov. 20, 1913. Serial No. 802,148. (Cl. 91—31.)



1. In an apparatus for winding wet paper web, the combination of a hollow winding drum over which the web passes having its peripheral wall formed with perforations to permit the air to escape from under the web; means for driving said drum; a reel whereon the web is wound; and means for holding said reel against said drum, to cause the latter to drive the former.

2. The combination with means for sizing a paper web, and size expressing means, of a winding drum and coöperative reel driven from the periphery of the drum for winding the wet web into a roll, and automatic tension regulating means coöperative with the web at a point between the size expressing means and the winding drum and embodying a member in engagement with the web and movable in a direction toward and from the winding drum.

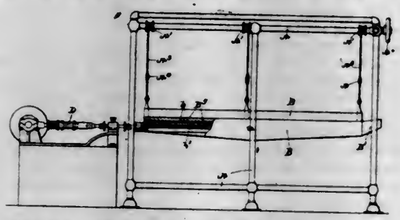
3. In a machine of the class described, the combination with means for sizing a paper web, and size expressing means, of a winding drum and coöperative reel driven peripherally by said drum for winding the wet sized web into a roll, a roller coöperative with the web at a point between the size expressing means and the winding drum and capable of movement in a direction toward and from the winding drum, and means operative to yieldingly resist movement of said roll toward the winding drum.

4. The combination of means for sizing a paper web, means for winding the wet web into a roll, and means for smoothing the wet sized web prior to winding, comprising rolls arranged to engage the wet web in advance of the winding means and set at reversely inclined positions to the direction of movement of the web.

5. In a machine of the class described, the combination of means for sizing a paper web, coöperative rolls between which the wet sized paper web is adapted to pass and operative to remove the excess size therefrom, and means for winding the wet web, of a polished revoluble cylinder arranged to receive the wet sized paper web from said rolls and operative to smooth the same and to deliver it to said winding means.

[Claims 6 to 9 not printed in the Gazette.]

1,207,452. TABULAR ORE WASHER OR CONCENTRATOR. ENOS A. WALL, Salt Lake City, Utah. Filed July 11, 1916. Serial No. 108,687. (Cl. 83—88.)

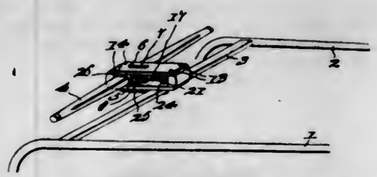


1. An ore concentrator constructed substantially in tabular form, having its mineral and waste discharge portions upwardly inclined, and its feed intake portion in tubular form, and extending above the horizontal portion of the surface of the table, and connected with a cover superimposed and secured in position slightly above the surface of the table and joined with the outer walls of the tubular intake or feed portion in such manner as to provide a closed chamber between the lower wall or surface of the cover and the upper surface of the table, within which separation of the mineral ores from the waste is effected and through which the waste material is transported by hydrostatic pressure across the surface of the table and discharged at an elevation above the lower surface of the cover, as shown and specified, and means for discharging the concentrated mineral at another portion of the table substantially as specified and shown in the drawings.

2. An ore concentrator constructed substantially in tabular form, having its mineral and waste discharge portions upwardly inclined, and its feed intake portion in tubular form, and extending above the horizontal portion of the surface of the table, and connected with a cover, superimposed and secured in position slightly above the surface of the table and joined with the outer walls of the tubular intake or feed portion in such manner as to provide a closed chamber between the lower wall or surface of the cover and the upper surface of the table, within which separation of the mineral ores from the waste is effected and through which the waste material is transported by hydrostatic pressure across the surface of the table and discharged at an elevation above the lower surface of the cover, as shown and specified, and means for discharging the concentrated mineral at another portion of the table substantially as specified and shown in the drawings; and having the under surface of the cover provided with narrow strips, extending transversely upon and across the inner side of the cover, for the purpose of producing shock waves, to facilitate settling of the heavier particles to the surface of the table.

3. An ore concentrator constructed substantially in tabular form, having its mineral and waste discharge portions upwardly inclined, and its feed intake portion in tubular form, and extending above the horizontal portion of the surface of the table, and connected with a cover, superimposed and secured in position slightly above the surface of the table and joined with the outer walls of the tubular intake or feed portion in such manner as to provide a closed chamber between the lower wall or surface of the cover and the upper surface of the table, within which separation of the mineral ores from the waste is effected and through which the waste material is transported by hydrostatic pressure across the surface of the table and discharged at an elevation above the lower surface of the cover, as shown and specified, and means for discharging the concentrated mineral at another portion of the table substantially as specified and shown in the drawings; and having the under surface of the cover provided with narrow strips, extending transversely upon and across the inner side of the cover, for the purpose of producing shock waves, to facilitate settling of the heavier particles to the surface of the table; having its waste and mineral discharge portions upwardly inclined, substantially as shown and specified and for the uses and purposes therein stated, together with any suitable reciprocating operating mechanism.

1,207,453. CUSHION DEVICE FOR SWINGLETREES. HUGH A. WEEKS, Whitakers, N. C. Filed Mar. 1, 1916. Serial No. 81,438. (Cl. 21—78.)

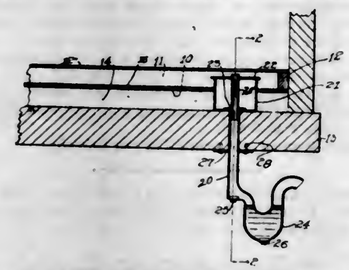


1. The combination with vehicle shafts, and a cross bar extending therebetween, of a frame carried by said cross bar, a whiffle-tree mounted in said frame, cushioning means for said whiffle-tree also mounted in said frame, said frame including a lower plate having a T-shaped opening with inclined walls in the head thereof, a T-shaped bolt fitted through said cross bar and provided with a flat head adapted to be inserted through the T-shaped opening in said plate and with inclined side faces for snugly fitting the inclined walls of the head of said opening, a rigid brace extending between said cross bar and the rear end of said plate and being mounted at its forward end over said bolt, and means for securing said brace to said plate, substantially as described.

2. The combination with vehicle shafts and a cross bar connecting said shafts and having a perforation therein, of a frame comprising a lower plate having a slot and a T-shaped opening with inclined walls therein, a transverse rib projecting beneath said plate and having a forwardly abrupt shoulder adapted to fit against said cross bar, a bolt fitted in the perforation in said cross bar and having a T-shaped head with inclined side faces adapted to be received through the T-shaped opening in said plate and to snugly fit against said inclined walls, a rigid brace extending between said cross bar and the rear end of said plate being secured over said bolt, blocks secured at the ends of said plate, an upper plate resting on said blocks and provided with a slot therein, fastening means passing through said plates and blocks and through the rear end of said brace, a slide fitted to move in the space between said blocks, a whiffle-tree carried in said slide, a bolt passing through said slide and whiffle-tree and slidable in the slots in said plates, and spring means interposed between said slide and forward block, substantially as described.

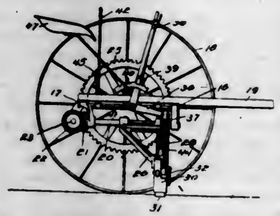
1,207,454. WATER-DRAIN FOR REFRIGERATOR-CARS. VICTOR C. WELLER, St. Louis, Mo. Filed July 11, 1913. Serial No. 778,600. (Cl. 62—19.)

The combination with a refrigerator car including a floor, a drip pan positioned in said car and held at spaced distance from said floor, said drip pan comprising end and side walls, a plurality of splash strips secured longitudinally and transversely within said drip pan at spaced distance apart, a sediment trap substantially rectangular in shape positioned in said drip pan between the transverse and longitudinally extending strips and secured to the floor, the side walls of said sediment trap being imperforate, a top provided with a central opening, a drain pipe positioned through the floor of the car and through the central portion of the bottom of the sediment trap, a strainer pipe positioned through the central opening of



the cover of the sediment trap, said strainer pipe having a collar formed thereon adjacent its lower end, said lower end of the strainer pipe extending downwardly into the drain pipe, and the collar limiting the downward movement of the same, said strainer pipe extending upwardly beyond the cover of the sediment trap, mold boards secured to the upper edges of the drip pan for forming a liquid-tight joint, a sediment pipe secured to the lower end of the drain pipe, cleaning plugs in said drain pipe and sediment pipes to facilitate the cleaning of the same.

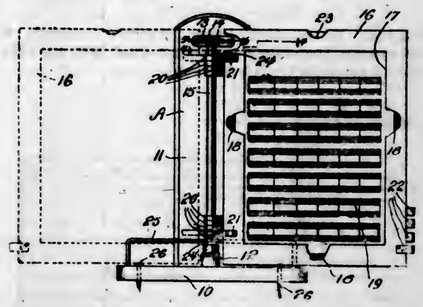
1,207,455. COTTON-CHOPPER. GEORGE J. WESTPHAL, Oklahoma, Okla. Filed June 22, 1915. Serial No. 35,609. (Cl. 97—45.)



1. In a cotton chopper, a wheeled frame having a longitudinal shaft situated about midway between the sides of the frame and deriving motion from one of the transporting wheels, a bracket pivoted on said shaft and extending in the direction of one side of the frame, a guide member pivoted on the free end of the bracket and extending in the direction of the medial portion of the frame, a reciprocating cutting member mounted on the guide member, means for adjusting and supporting the bracket and the cutting member, and means for driving the cutting member including a driven wheel supported at the angle between the bracket and the guide member, and a pitman connecting said wheel with the cutting member.

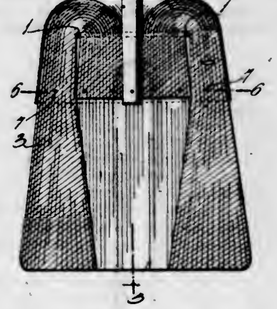
2. In a cotton chopper, a wheeled frame having a longitudinal shaft deriving motion from one of the transporting wheels, a bracket pivoted on the longitudinal shaft, and having a spindle at its free end, sprocket wheels on the spindle and on the longitudinal shaft, a chain connecting said sprocket wheels, a guide member pivoted on the spindle and having a reciprocatory cutting member, and a pitman connecting the sprocket mounted on the spindle with the cutting member for reciprocating the latter.

1,207,456. LEAF-HOLDER. BARTHOLOMEW H. WHELAN, Roslindale, Mass. Filed Oct. 25, 1915. Serial No. 57,845. (Cl. 40—102.)



A leaf holder comprising a board-like base having an upright rising therefrom, a socketed boss upon the base forwardly of the upright, a pair of spaced resilient clip fingers mounted upon the upright near the top thereof, a shaft detachably engaged in the socketed boss and between the fingers a plurality of leaf supports, loop members, each formed from a single strap having their ends fixed to the supports and loosely embracing the shaft, and cross pins engaged transversely in the shaft at the points beyond the outermost loop members to form bearings therefor.

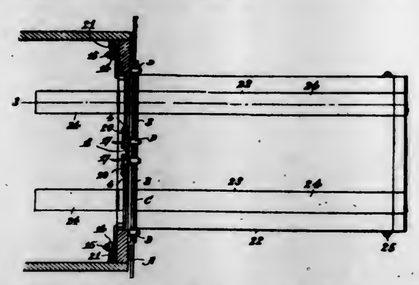
1,207,457. BROOM. FRANK M. WILLIAMS, Wilkes-Barre, Pa., assignor to William Bullock, trading under the name Wyoming Broom Company, Wilkes-Barre, Pa. Filed Apr. 6, 1916. Serial No. 89,449. (Cl. 15—20.)



A broom comprising a handle, a bunch of brush material surrounding one end of said handle and one end thereof extended in the same direction as said handle end, an oval shaped wire retaining band encircling said material and handle, staples straddling said band and engaged with said handle at diametrically opposite points, said bunched material being bent outwardly and forwardly over and inclosing said band and the ends of the material and of the handle mounted in said band, whereby both ends of the bunched material extend in the same direction, a protective hood incasing the handle connected end of the brush and having a neck fitting the handle at the rear of the brush, fasteners passing through said neck and engaging said handle, fasteners extended through both side walls of said hood and the brush material with the ends of said fasteners extended inwardly through said

hood walls at points spaced from the entrance of the body portion of the fasteners, and headed fasteners extending through opposite sides of said hood into said handle.

1,207,458. DOOR-OPERATING DEVICE. GEORGE R. WIMBERLY, Mountain Park, Okla. Filed Nov. 15, 1915. Serial No. 61,615. (Cl. 268—9.)



The combination with a gangboard having depressible sections forming a trackway, of a door frame, a pair of sliding doors mounted for opening and closing the doorway, depressible sections mounted at one side of the doorway and alining with the depressible sections of the gangboard, a vertically movable bar supporting the free ends of the sections at one side of the doorway and also the sections in the gangboard, resilient means connected with said bar to normally hold the same elevated, levers pivoted to the doorway and also having connection with the doors and operated upon by movement of the bar, latch devices normally locking the doors closed and operated upon by the levers for releasing the same, and guide cheeks on the doors and having pins for contact by the levers.

1,207,459. CATENARY HANGER. HENRY R. WOLFE, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Nov. 10, 1915. Serial No. 60,627. (Cl. 191—43.)



1. In a catenary hanger, the combination with a trolley wire holder comprising separate jaws, and a suspension member having parallel arms with upset ends, one of which is rigidly attachable to each jaw, the upset ends holding the jaws parallel.

2. The combination with coöperating wire clamping jaws, of a suspension member having parallel arms with upset ends one of which is rigidly attached to each jaw, and a clamping device for the jaws to hold them engaging a wire, the upset ends holding the jaws parallel.

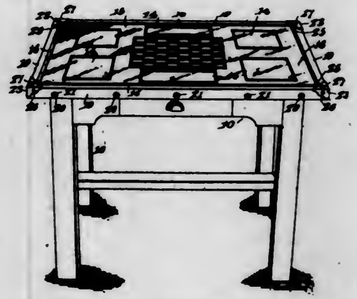
3. A catenary hanger comprising a suspension member having parallel spaced arms, wire clamping jaws each having integral lugs adapted to engage and hold one of the arms affixed thereto, and a bolt and nut to clamp the jaws in engagement with a wire.

4. A catenary hanger comprising a resilient suspension member having parallel spaced arms each formed with a T head, wire clamping jaws each formed with a groove with bendable integral lugs adapted to be bent about one arm with the head seated below the lugs, and a fastening bolt and nut to clamp the jaws to engage a wire.

5. A catenary hanger comprising a metal U-shaped member with an enlarged head on each extremity, and a wire clamp having separate jaw members each secured to one extremity of the U-shaped member and both held in alinement by the said heads.

[Claims 6 and 7 not printed in the Gazette.]

1,207,460. ADVERTISING ATTACHMENT FOR TABLES. PHILIP A. ZINDEL, Lock Haven, Pa. Filed Feb. 14, 1916. Serial No. 78,243. (Cl. 45—31.)

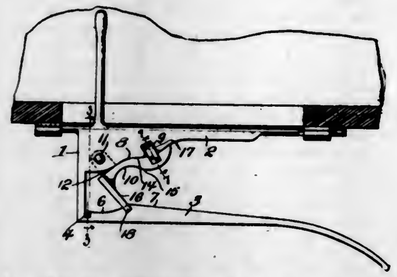


The combination with a rectangular table top having its upper face provided with a game board and spaces to receive advertisements, marginal strips secured about the edges of the table top and projecting above the same, cushion strips arranged upon the upper face of the table top against the inner sides of said marginal strips, a transparent rectangular panel beveled along its marginal edges and seated upon the cushion strips within the marginal strips, irons applied to the meeting ends of the marginal strips and rigidly embracing the sides and tops of said strips at the corners of the table top, said corner irons having flexible lips located diagonally thereof and extending inwardly beyond the marginal strips and engaging the beveled marginal edges of the panel at the corners thereof, and means for securing the corner irons to said marginal strips.

1,207,461. MAIL-BAG CATCHER. CHARLES ACKELS and BENJAMIN F. THOMAS, Cody, Wyo. Filed Feb. 29, 1916. Serial No. 81,234. (Cl. 258—13.)

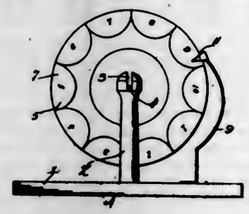
1. A mail bag catcher comprising a frame, spaced arms mounted upon the frame, a bag retaining member pivotally connected with one arm and having a portion slidably engaging the other arm, spring clips mounted upon the bag retaining member and engageable with that arm to which the bag retaining member is pivoted, to hold the said retaining member in one position, the other arm having a notch and a lug provided upon the bag retaining member and adapted to gravitate into the notch when the bag is caught and retain the bag in the catcher.

2. A mail bag catcher comprising a frame, spaced arms mounted thereon, one of the said arms having at its inner portion an ogee-shaped edge, the other arm having a curved inner edge, a notch provided in the last mentioned arm at the end of the curved edge thereof, a bag retaining member pivotally connected with the arm which is provided with the ogee-shaped edge and having a shank provided with opposite ogee-shaped edges, one of which is adapted to engage the ogee-shaped edge of the said arm, spring clips mounted upon the shank of the bag retaining member and engageable with one of the arms to hold the bag retaining member in one position, and a lug carried by the bag retaining member and adapted to enter the notch whereby the bag is retained in the catcher.



3. A mail bag catcher comprising a frame, spaced arms mounted upon the frame, one of the said arms provided at its inner portion with an ogee-shaped edge, the other arm having at its inner portion a curved edge, a notch provided at the last mentioned arm at the end of the curved edge thereof, the last mentioned arm being thicker transversely at the end of the curved edge opposite that end from the said notch, a bag retaining member pivotally connected with the arm which is provided with an ogee-shaped edge, said bag retaining member having a shank portion provided at its opposite sides with ogee-shaped edges, one of which is adapted to encounter the ogee-shaped edge provided upon the said arm, spring clips carried by the shank of the bag retaining member and engageable with the arm having the ogee-shaped edge to hold the bag retaining member in one position, the said bag retaining member having an end portion which is engageable with the intermediate part of the frame when the device receives a bag, the said portion of the bag retaining member having a lug adapted to gravitate into the notch when the bag retaining member is swung to a position to hold a bag.

1,207,462. GAME APPARATUS. CARL G. AHLENIUS, Zim, Minn. Filed Aug. 16, 1916. Serial No. 115,283. (Cl. 46—56.)



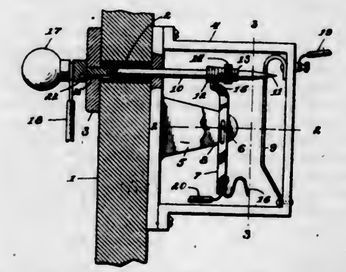
1. A game apparatus comprising a rotatable drum, each circular end of which is provided with a plurality of numbers, indicator fingers adapted to register with the numerals on each end of said drum, one end of the drum having a plurality of instructive phrases inscribed for use in conjunction with certain of the said numerals.

2. A game apparatus comprising a supporting structure, a rotatable drum having oppositely extending trunnions engaged with the said supporting structure, each end of the drum provided with a plurality of numbers, indicator fingers adapted to register with the numerals on each end of said drum, one end of the drum having a plurality of instructive phrases inscribed for use in conjunction with certain of the said numerals.

3. A game apparatus comprising a supporting structure, including a pair of uprights having vertical slots provided in their upper ends, a rotatable drum provided with trunnions extending from the center of each end of the drum and disposed in the said slots, an indicator arm carried by the supporting structure, indicator fingers formed on the terminal of the indicator arm, one indicator finger being adapted to register with the edge of each circular end of the drum, and a plurality of numerals inscribed upon each end of the drum.

4. A game apparatus comprising a supporting structure, including a pair of uprights having vertical slots provided in their upper ends, a rotatable drum provided with trunnions extending from the center of each end of the drum and disposed in the said slots, an indicator arm carried by the supporting structure, indicator fingers formed on the terminal of the indicator arm, one indicator finger being adapted to register with the edge of each circular end of the drum, a plurality of numerals inscribed upon each end of the drum, the numerals on one end being arranged in numerical order while the numerals on the opposite end are chosen and inscribed at random, the last mentioned end of the drum being also provided with a plurality of instructive phrases inscribed for use in conjunction with the said numerals.

1,207,463. DISCONNECTING DEVICE FOR TELEPHONES. CHARLES H. ALGER, Manchester, Okla. Filed Feb. 2, 1916. Serial No. 75,820. (Cl. 175—282.)



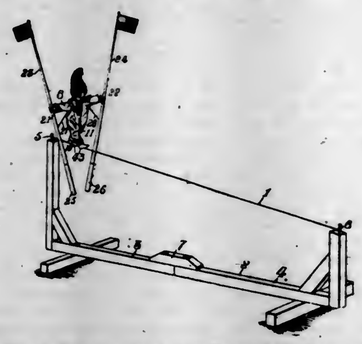
1. A device of the class described comprising a contact strip adapted for connection to a telephone line wire, a movable rod normally engaging said strip and adapted to be connected to a telephone set and capable of movement out of engagement with said strip, a lever pivoted for swinging movement and having one end connected to said rod and the remaining end connected to the ground and adapted to be swung into engagement with said strip in the movement of said rod out of engagement with said strip.

2. A device of the class described, comprising a contact strip adapted for connection to a telephone line wire, a movable rod normally engaging said strip and adapted to be connected to a telephone set and capable of movement out of engagement with said strip, a lever pivoted for swinging movement and having one end connected to said rod and the remaining end connected to the ground and adapted to be swung into engagement with said strip in the movement of said rod out of engagement with said strip, and an adjustable connection between said lever and rod.

1,207,464. TOY. HARVEY ALLISON, West Orange, N. J. Filed Mar. 18, 1914. Serial No. 825,444. (Cl. 46—40.)

1. In combination with a path, of a manikin arranged to travel along said path, said manikin having a plurality of supporting points for engagement with said path and comprising a figure, means for lowering the center of gravity of the manikin to a point below the contact of

the supporting points with said path, and positive means for transmitting the pull of the force of gravity as exerted on said manikin so as to advance said supporting points in alternation along said path.



2. A manikin comprising a body portion, a pair of legs, each universally connected to said body portion, means for alternately swinging said legs one directly in advance of the other, and means for preventing the contacting with each other of said legs in passing.

3. A manikin comprising a body portion, a pair of legs, each having a universal connection with said body portion so as to be capable of swinging in a variety of directions, and an intervening means from leg to leg for transmitting a gyratory movement to each of said legs so as to advance each leg in alternation the one past the other.

4. A manikin comprising a body portion, a pair of legs pivotally connected to said body portion, a gravity tensioned spring means intervening between said legs and acting to shift each alternately past the other so as to effect a walking movement.

5. A manikin comprising a body portion, a pair of legs for said body portion, a pivot on said body portion, and a member for each of said legs secured thereto, each of said members including a flange having a loose connection with said pivot, a flange having a slotted connection with said pivot so as to enable a universal movement of each leg relative to said body portion, and means for actuating said legs.

[Claims 6 to 18 not printed in the Gazette.]

1,207,465. MEANS FOR ATTACHING A LOCK-CYLINDER TO A PLATE OR OTHER SIMILAR ARTICLE. PETER F. AUGENBRAUN, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed July 13, 1916. Serial No. 109,074. (Cl. 70—46.)



1. In a lock, the combination of a lock casing having an opening, a cylinder the end of which passes through said opening, the cylinder and opening being so shaped as to prevent any rotary movement of the cylinder in the opening, the said cylinder being provided with a lug, and a fastening strip engaging the front face of the lug and the rear face of the lock casing for locking the cylinder to the casing.

2. In a lock, the combination of a plate having an opening therein, a cylinder the inner end of which passes through said opening, the said cylinder being provided with side lugs, and spring strips engaging said lugs and the rear face of the plate for locking the cylinder to the plate.

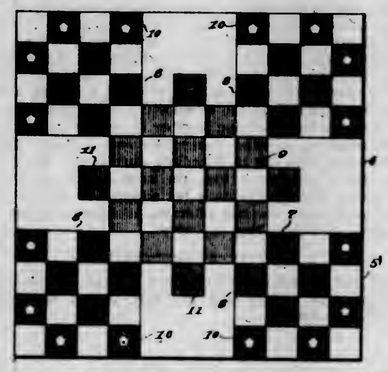
3. In a lock, the combination of a plate having an opening therein and a flange around said opening, a cylinder having side lugs, seated on said flange with its inner end and lugs passing through the said opening, the cylinder and opening being so shaped as to prevent any rotary movement of the cylinder relative to the plate, and fastening strips engaging said lugs and the inner face of the plate for locking the cylinder against endwise movement.

4. In a lock, the combination of a plate having an opening, a flange surrounding said opening, a cylinder having side lugs, and seated on said flange with its inner end and side lugs passed through said opening, pins engaging said cylinder and plate for preventing rotary movement of the cylinder, and strips engaging the side lugs and rear face of the plate for locking the cylinder against endwise movement.

5. In a lock, the combination with a plate having an opening therein and provided on its rear face with a series of shoulders, a cylinder having side lugs, the rear end and side lugs of said cylinder passing through the opening in the plate, and spring fastening strips engaging said side lugs and rear face of the plate, the said strips being held against displacement by the shoulders on the plate.

[Claims 6 and 7 not printed in the Gazette.]

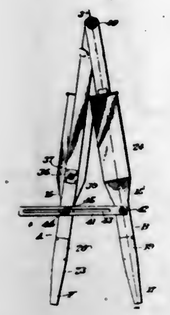
1,207,466. GAME-BOARD. JOSEPH B. BAINES, Berryville, Ark. Filed Jan. 22, 1916. Serial No. 73,640. (Cl. 46—64.)



1. A game apparatus comprising a board having squares marked thereon, the said squares being arranged in corner and center groups, the squares of the corner groups being colored differently from the squares of the center group, a plurality of game pieces divided into sets, the game pieces of the respective sets being adapted to be moved from certain of the squares to others, said sets being distinguishable from each other, certain of the game pieces bearing indicia indicative of higher rank than the remaining game pieces, and symbols marked on certain of the squares of the corner groups and also marked on certain of the squares of the center group to indicate goals.

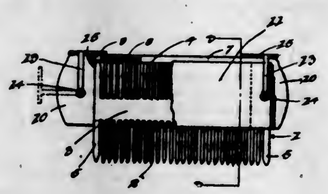
2. A game apparatus comprising a board having squares marked thereon, the said squares being arranged in corner and center groups, the squares of the corner groups being colored differently from the squares of the center group, a plurality of game pieces divided into sets, the game pieces of the respective sets being adapted to be moved from certain of the squares to others, said sets being distinguishable from each other, certain of the game pieces bearing indicia indicative of higher rank than the remaining game pieces, and symbols marked on certain of the squares of the corner groups and also marked on certain of the squares of the center group to indicate goals, the symbols on the center group being arranged in pairs distinguishable from each other.

1,207,467. SEED-PLANTER. MINOR M. BALLENGER, Clayton, W. Va. Filed Nov. 19, 1915. Serial No. 62,367. (Cl. 111—22.)



A hand planter comprising two similar units each including pivotally connected limbs having ground engaging blades at their lower ends, said limbs being overlapped at their upper ends, and handles with which the limbs of each unit are pivotally connected to enable the limbs of the two units to be simultaneously actuated.

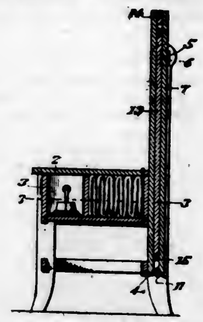
1,207,468. DOUBLE-COMB CLEANER. THOMAS C. BAMFIELD and GEORGE RECHTER, Angel Island, Cal. Filed Apr. 28, 1914. Serial No. 835,039. (Cl. 132—17.)



A double comb cleaner comprising an elongated substantially rectangular casing having its side members perforated to receive the opposite set of teeth of a double comb therethrough, L-shaped latches pivoted at the ends of their longer arms to the casing intermediate the side members thereof, said shorter arms of the latches adapted to be swung into engagement with one side member, and prevent the casing from moving downwardly over one set of the teeth of the comb, said latches being reversible to engage the opposite side member to permit the other set of teeth of the comb to be used and to hold one set of teeth completely inclosed within the casing while the opposite set of teeth is extended for use.

1,207,469. COMBINED CHAIR AND IRONING-BOARD. STANLEY BANAS, Buffalo, N. Y. Filed Feb. 7, 1916. Serial No. 76,698. (Cl. 155—6.)

The combination with a chair, of a plurality of hingedly connected board members normally providing a back for the chair, one of the sections having trunnions engaging in bearing openings in the rear stiles of the chair, a bolt extending beyond the hinged end of one of the sections, a spring catch upon the chair adapted to engage with the bolt to hold the sections vertically between the mentioned rear stiles of the chair, and a leg member hingedly secured to the other section.



1,207,470. ATTACHMENT FOR FORKS AND THE LIKE. CHARLES E. BANKS, Pittsburgh, Pa. Filed May 16, 1916. Serial No. 97,912. (Cl. 30—5.)



1. The combination with an ordinary fork having tines and a handle, of a clearing and cleaning attachment removably applied thereto and comprising a clip fitted over and embracing the greater portion of the handle and having an angular guide projecting upwardly at the front end thereof adjacent to the tines and provided with an opening therethrough, and a shank movably mounted and shiftable in said guide, the shank carrying a scraper movably extending across and loosely engaging the tines, the handle engaging clip carrying all of the parts of the attachment.

2. The combination with an ordinary fork having tines and a handle, of a clearing and cleaning attachment removably applied thereto and comprising a clip fitted over and embracing the greater portion of the handle and having an angular guide projecting upwardly at the front end thereof adjacent to the tines, the rear end of the clip having a flange engaging the end of the fork handle and a curved shank freely movable through said guide and having a scraper at the forward end provided with a slot near its lower edge and extending across the tines, the tines projecting through the slot of the scraper, the rear end of the shank having a pressure head.

3. The combination with an ordinary fork having tines and a handle, of a clearing and cleaning attachment removably applied thereto and comprising a clip fitted over and embracing the greater portion of the handle and having an angular guide at the end thereof adjacent to the tines, the rear end of the clip having a flange engaging the end of the fork handle, a curved shank freely movable through said guide and having a scraper at the forward end provided with a slot near its lower edge and extending across the tines, the tines projecting through the slot of the scraper, the rear end of the shank having a pressure head, and a spring engaging the shank between the said guide and pressure head.

4. A clearing and cleaning attachment for forks comprising an attaching member formed of bendable sheet metal and shaped to embrace the handle of an ordinary fork and embodying side tongues, an end abutment flange for engaging the end of the fork handle, and an angularly bent front terminal with an opening therein, a curved rod freely slidable in the opening of the said angularly bent

front terminal and having a rear head and a spring surrounding the same between the head and said angular terminal, and a scraper fixed to the front end of the rod and having an elongated slot near one edge thereof for passage therethrough of the fork tines.

1,207,471. HANGER FOR STORM-WINDOWS. HENRY B. BARDEN and CLIFFORD A. BARDEN, Wallingford, Vt. Filed Aug. 18, 1915. Serial No. 46,027. (Cl. 16—48.)



1. A device of the class described having, in combination, a fixed member having a base plate formed of sheet material, a pair of supporting members formed upon said base plate, a hood formed integral with said base plate above said supporting members and protruding therebeyond, said hood being constructed and arranged to protect said supporting members from the weather, and a movable member having oppositely disposed projections constructed and arranged to engage and rest upon the supporting members on said fixed member.

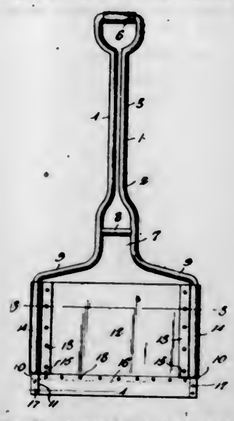
2. A device of the class described having, in combination, a fixed member having a base plate formed of sheet material, a pair of opposed ledges formed integral with said base plate, a hood formed integral with said base plate above said ledges and protruding therebeyond, said hood being constructed and arranged to protect said ledges from the weather, and a movable member having oppositely disposed projections constructed and arranged to engage and rest upon the ledges formed on said fixed member.

3. A device of the class described having, in combination, a fixed member having a base plate formed of sheet material, a pair of opposed outwardly and upwardly curved ledges formed integral with said base plate, an outward and downwardly curved hood formed integral with said base plate above said ledges and protruding therebeyond, said hood being constructed and arranged to protect said ledges from the weather, and a movable member constructed of sheet material and having outward oppositely disposed projections at the upper end thereof adapted to engage and rest upon said ledges.

4. A device of the class described having, in combination, a fixed member having a base formed of sheet material, a pair of opposed outward and upwardly curved ledges formed integral with said base, an outward and downwardly curved hood formed integral with said base above said ledges, said hood being constructed and arranged to protect said ledges from the weather, the upper edges of said ledges terminating at a distance from the lower edge of said hood and forming a transverse slot in said fixed member, and a movable member constructed of sheet material and having outward oppositely disposed projections at the upper end thereof adapted to be inserted through said slot and to rest upon said ledges.

1,207,472. SHOVEL. THEODORE P. BARTON, Keene, N. H. Filed July 1, 1916. Serial No. 107,106. (Cl. 55—14.)

A shovel comprising a length of tubing folded upon itself between its ends to provide a shovel frame having spaced parallel sides terminating at one end in a handle loop, offset portions between the ends of the sides forming spaced arms on the shovel frame having slits therein, a blade having extensions forming sleeves thereon and receiving said arms above said slits, a plate secured to said



blade and extending beyond the same, said plate having a cutting edge thereon, and ends on said plate received in said slits and connected with said arms.

1,207,473. CORN-PLANTER HARROW. FRITZ O. BECKMAN, Grundy Center, Iowa. Filed July 14, 1916. Serial No. 109,297. (Cl. 55—19.)



1. A harrow attachment for planters comprising removably mounted hooks and operating rods, a harrow formed of two sections linked to the said rods, draft connections between the said harrow sections and hooks, and adjustable tilting means for the said rods.

2. A harrow attachment comprising in combination with a planter frame, depending hooks removably clamped to the said frame, oppositely arranged mounting rods pivoted to the said frame in substantially the same plane as the said hooks, rigidly connected separated harrow sections linked to the said rods, flexible connections between the said hooks and sections, and tilting means for the said rods.

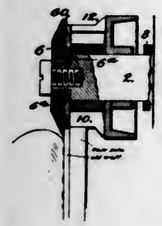
3. A device of the class described comprising a planter frame having an axle and ground wheels mounted upon the said axle, a shaft journaled transversely of the said frame, mounting rods rigidly attached to the said shaft having curved forward ends and extending rearwardly beneath the said axle, a harrow having opposite sections positioned rearwardly of the said wheels, and link supporting connections between the said harrow sections and rods.

4. A harrow of the class described comprising a planter frame having an axle and ground wheels mounted upon the said axle, a shaft journaled transversely of the said frame, mounting rods rigidly attached to the said shaft having curved forward ends and extending rearwardly beneath the said axle, a harrow having opposite sections positioned rearwardly of the said wheels, link supporting connections between the said harrow sections and rods, depending hooks removably attached to the said frame in substantially the same plane as the said rods, draft

chains between the lower ends of the said hooks and the forward ends of each harrow section, the said chains being arranged beneath the said curved portions of the rods, an operating lever extension carried by one of the said rods, and adjustable retaining means carried by the said lever.

5. A device of the class described comprising in combination with a planter having a rear axle and ground wheels mounted thereon, forwardly projecting frame bars carried by the said axle, depending hooks removably carried by the inner faces of the said bars, a shaft journaled through the said bars between the said hooks and axle, mounting rods secured to the said shaft and extending rearwardly beneath the said axle, spaced harrow sections freely linked to the said rods rearwardly of the said wheels, draft chains connecting the said hooks and sections, and adjustable elevating means for the sections carried by one of the said rods at a point adjacent the driver's seat of the planter.

1,207,474. EDGE-TRIMMING ROTARY CUTTER. LUDGER J. BEDARD, Minneapolis, Minn. Filed Mar. 20, 1916. Serial No. 85,402. (Cl. 12—91.)



1. In an edge trimming rotary cutter for trimming edges of soles, the combination of a rotary cutter body, a collar of approximately the same diameter as the cutting edges of the cutter body, at one end of the said cutter body, the edge of the said collar forming a smooth surface for engaging the edge of the welt and a shield of larger diameter than the cutter body and the collar, the said shield being adapted to act as a guide for riding on the upper face of the welt.

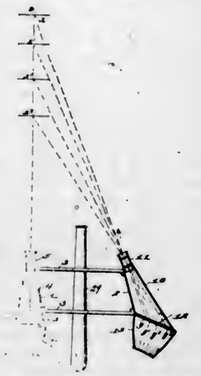
2. In an edge trimming rotary cutter for trimming edges of soles, a cutter body having a series of cutting edges that extend across the body a width at least equal the width of the edge of the sole to be trimmed and a solid annular portion that joins the said cutting edges, said portion being of the same diameter as the body of the cutter and forming a smooth surface for engaging the edge of the welt.

3. A rotary cutter for trimming sole edges, that comprises a body having an annular upwardly inclined guard at the inner end, a series of parallel cutting edges that extend through the said annular guard and across the body of the cutter, said cutter also including a smooth portion at the outer end of the cutter body, the said smooth portion being of the same diameter as that of the cutter body and adapted to form a smooth surface for engaging the welt edge as the cutting edges trim the sole edge, and an annular rim at the outer end of the said smooth portion adapted to act as a guide for riding on the top face of the welt and for holding the cutter to its sole edge trimming position.

4. As a new article; sole edge trimming rotary cutter for shoe repairing machines, comprising a body portion having a central bore and a series of independent cutting edges that extend from one end across the body portion, an annular smooth portion at said end, the other end of the body through which the cutting edges extend terminating in an upwardly inclined guard flange, said annular smooth portion being adapted to engage the shoe welt as the sole is being trimmed by the cutting edges and an annular rim flange portion normal to the smooth portion of the cutter that forms a guide to ride upon the upper face of the welt.

5. In a rotary cutter for trimming shoe sole edges, the combination of a driven shaft that includes an extended hub, a cutter body mounted on the shaft to turn therewith, said body having a series of cutter edges that extend entirely across it, a disk of greater diameter than the cutter body on the extended hub of the driven shaft and which forms an annular guide rim, the said disk having an axial hub extending from its inner face, a collar mounted on the said hub, said collar being of the same diameter as the cutter body, and forming a solid bearing portion to engage the edge of the welt when the cutter trims the sole edge, the said guide rim being arranged to ride on the top face of the welt, and means for causing the said disk and collar to turn the cutter.

1,207,475. RANGE-FINDER. ROBERT BENNETT, New York, N. Y., and ROBERT E. COX, Annapolis, Md. Filed Jan. 26, 1916. Serial No. 74,447. (Cl. 88—2.3.)



1. A range finder comprising a pair of optical elements, means to receive and to render visible thereon images of a distant object from the respective optical elements, an index mark coöperative with one of said means and with which one of the images is to be maintained in coincidence, and a graduated scale coöperative with the other of said means and with the other image to indicate directly the range of the object.

2. A range finder comprising a pair of surfaces capable of receiving and rendering visible images thereon, and means for projecting images of a distant object, taken simultaneously from different view points, onto the respective image-receiving surfaces.

3. A range finder comprising a pair of surfaces capable of receiving and rendering visible images thereon, one of said surfaces having a range-indicating scale coöperative therewith, and means embodying lenses for projecting images of a distant object, taken from relatively laterally displaced points, onto the respective image-receiving surfaces.

4. A range finder comprising a pair of screens capable of receiving and rendering visible images thereon, one screen having an index mark and the other screen having a range-indicating scale, means for projecting an image of a distant object onto the first-mentioned screen in register with said index mark therefor, and means for projecting an image of the distant object, as viewed from a relatively laterally displaced point, onto the second-mentioned screen to coöperate with the range-indicating scale.

5. A range finder comprising a pair of optical elements having their axes relatively displaced laterally, screens capable of receiving and rendering visible thereon images of a distant object from the respective optical elements, said screens having reference lines in alinement thereon,

an index mark on one of the screens, and a range-indicating scale on the other screen, said screens being adapted to receive images of a distant object as viewed from relatively laterally displaced points, the image visible on one screen coöperating with the index mark thereon while the image visible on the other screen coöperates with the range-indicating scale thereon.

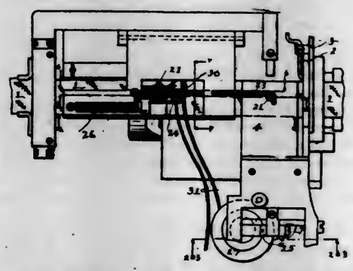
1,207,476. COMBINED CLIPPER AND HAIR-CUTTING SCISSORS. VICTOR E. BERGSTROM, New York, N. Y. Filed Aug. 4, 1915. Serial No. 43,653. (Cl. 30—1.)



1. A combined clipper and scissors including a main plate formed with a recess, and provided beyond the recess with a handle portion, one edge of the plate being formed with clipper teeth, the opposite edge of the teeth being formed with a shearing edge, a clipper plate slidably mounted in the recess of the main plate and having clipper teeth to coöperate with the clipper teeth of the main plate, a finger lever pivotally mounted in the main plate and connected with the clipper plate, and an auxiliary member pivotally mounted in the main plate and having a shearing edge portion to coöperate with the shearing edge of the main plate.

2. A combined clipper and scissors including a main plate formed with a recess, and provided beyond the recess with a handle portion, one edge of the plate being formed with clipper teeth, the opposite edge of the teeth being formed with a shearing edge, a clipper plate slidably mounted in the recess of the main plate and having clipper teeth to coöperate with the clipper teeth of the main plate, a finger lever pivotally mounted in the main plate and connected with the clipper plate, and an auxiliary member pivotally mounted is the main plate and having a shearing edge portion to coöperate with the shearing edge of the main plate, and means to hold the finger lever inoperative when desired.

1,207,477. LABEL-CUTTING MACHINE. JAMES R. BIGNELL, Grand Rapids, Mich., assignor to The Fabric Patch Company, Grand Rapids, Mich., a Corporation of Michigan. Filed July 14, 1916. Serial No. 109,250. (Cl. 164—48.)



1. In a machine of the character described; label-strip feeding jaws; means for closing the jaws on the label-strip; a releasable member for holding the jaws open; an electric circuit; electro-magnetic apparatus in the circuit for releasing said member to permit the jaws to close; and means, operable by its movement relatively to, and its engagement with, a raised portion of the label-strip, for closing the circuit.

2. In a machine of the character described; label-strip feeding jaws; means for closing the jaws on the label-strip; a releasable member for holding the jaws open; an electric circuit; electro-magnetic apparatus in the circuit for releasing said member to permit the jaws to close; a carriage movable relatively to the label-strip; means for moving the carriage by the movement of the jaws; and a circuit closer comprising a member, mounted on the carriage and adapted to engage, by the carriage's movement, with a raised portion of the label-strip, to close the circuit.

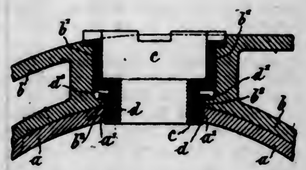
3. In a machine of the character described; label-strip feeding jaws; means for closing the jaws on the label-strip; a releasable member for holding the jaws open; an electric circuit; electro-magnetic apparatus in the circuit for releasing said member to permit the jaws to close; a carriage movable relatively to the label-strip; means for moving the carriage by the movement of the jaws; and a circuit closer comprising a member pivotally mounted on the carriage and having a roller adapted to contact with and ride on a raised portion of the label-strip by the carriage's movement, to close the circuit.

4. In a machine of the character described; label-strip feeding jaws, spring-pressed toward each other; a member pivoted on one jaw and adapted to engage the other jaw to hold the jaws open; an electric circuit; a solenoid in the circuit having a plunger adapted to trip said member to permit the jaws to close; a carriage movable relatively to the label-strip; means for moving the carriage by the movement of the jaws in their feeding direction and comprising mutually engaging members carried respectively by the carriage and one jaw; and a circuit closer comprising a member, pivoted on the carriage and adapted to engage by the carriage's movement with a raised portion of the label-strip.

5. In a machine of the character described; label-strip feeding jaws; means for closing the jaws on the label-strip; a releasable member for holding the jaws open; means for releasing said member to permit the jaws to close; and means operable by its movement relatively to and its engagement with a raised portion of the label-strip, for actuating the operation of the means for releasing said member.

[Claim 6 not printed in the Gazette.]

1,207,478. JOINT. MARC BIRKIGT, Bois-Colombes, France. Filed Jan. 8, 1916. Serial No. 71,084. (Cl. 137—98.)



1. As a new article of manufacture, a joint connection for two juxtaposed parts having registering apertures therein forming an opening enlarged and threaded at a point beyond the joint of said two parts, said connection comprising a member having a tapering bore therein and adapted to cover the joint of said parts, a plug to be threaded in the enlarged portion of said opening and having an extension to engage with the wall of tapering bore of said member, whereby the latter is forced against the wall of said opening to seal said joint as the plug is screwed in position.

2. In a joint, the combination of two substantially juxtaposed parts, each having an aperture registering with the other to form an opening through said parts, said opening being enlarged and threaded at one end thereof and at a point beyond the joint of said two parts, a sleeve disposed in said opening and arranged to cover the joint of said two parts, a projection on said sleeve to engage with the shoulder in the opening formed by the enlargement of the latter, and a plug threaded in the enlarged portion of the opening and having an extension adapted to project through and engage said sleeve for pressing the same against the wall of said opening to seal said joint as the plug is screwed in position.

3. In a joint, the combination of two substantially juxtaposed parts each having an aperture registering with the other to form an opening through said parts, said opening being enlarged and threaded at one end thereof and at a point beyond the joint of said two parts, a member having a tapering bore therein and arranged to cover the joint of said two parts, a plug threaded in the enlarged portion of the opening and having an extension to engage with the walls of the tapering bore of said member, whereby the latter is forced against the wall of said opening to seal said joint as the plug is screwed in position.

4. In a joint, the combination of two substantially juxtaposed parts each having an aperture therein of different diameters and arranged to register with each other, an internal annular flange formed on the part having the larger aperture and adapted to overlie in juxtaposition the shoulder provided by the part having the smaller aperture, a ring member disposed in the reduced portion of the opening formed by said apertures to cover the joint between said two parts, a projection extending from the ring to engage with said flange for retaining the ring in position, and a plug threaded in the larger aperture and having an extension adapted to project through and engage said ring for forcing the latter against the wall of said opening to seal said joint as the plug is screwed in position.

1,207,479. SELF-RETAINING CATHETER. HOLGER BISGAARD, Glamsbjerg, Denmark. Filed Mar. 5, 1915. Serial No. 12,384. (Cl. 128—28.)

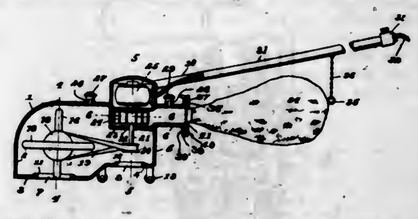


A hollow flexible catheter having an opening near its end, a flexible tension member secured to its anterior end and passing through said opening and the interior thereof to the opposite end, whereby when said member is drawn tight a self-retaining loop will be formed at the anterior portion of the catheter.

1,207,480. COMBINED SUCTION-CLEANER, BLOWER, AND POLISHING DEVICE. BENJAMIN F. BLAKE, Marion, Ohio. Filed Feb. 29, 1916. Serial No. 81,257. (Cl. 15—60.)

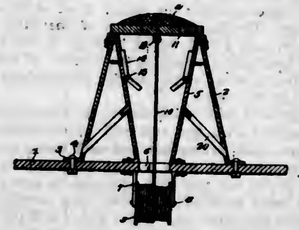
1. A cleaner including a casing having a suction chamber and an elongated duct having a restricted inlet communicating with said chamber, said duct being provided with a dust discharge outlet, blast outlet and air inlet nipples communicating respectively with the suction chamber and the duct, said nipples being provided with suitable closures, a fan arranged within the duct, means for driving the fan, and means for closing the outlet of the duct.

2. A suction cleaner including a casing having a suction chamber in its bottom and provided with superposed fan and motor chambers arranged at the upper rear portion thereof, and an elongated dust discharge duct communicating with the suction and fan chambers, said casing being further provided with air discharge and air inlet nipples communicating respectively with the suction



chamber and the duct, said nipples being provided with suitable closures, a closure for the duct, a fan arranged within the fan chamber, a motor arranged within the motor chamber, and a driving connection between the motor and fan.

1,207,481. APPARATUS FOR RAISING SUBMERGED VESSELS. WILLIAM A. BLAKESLEY, Baker, Oreg. Filed Nov. 12, 1915. Serial No. 61,184. (Cl. 114—51.)



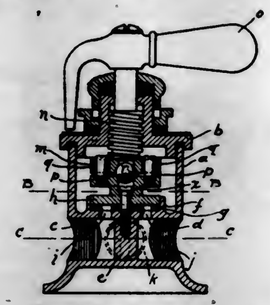
1. In apparatus for raising sunken vessels, a tube secured to the deck of the vessel, dogs pivoted to the inner surface of said tube adjacent to the upper end thereof and spaced apart, a lifting device adapted to enter said tube and pass the dogs therein whereby the dogs will hold the device within the tube, a lifting cable connected to said device, a frusto-conical casing surrounding said tube and secured thereto, and connections between the lower end of said casing and the deck of the vessel, said tube and casing being formed with alining openings through which sediment may be expelled under the action of said lifting device when the latter enters the tube.

2. In apparatus for raising sunken vessels, a tube secured to the deck of the vessel, holding means in said tube, a lifting device adapted to enter said tube and engage said holding means, a lifting cable connected to said device, a casing surrounding said tube and secured thereto, and connections between the lower end of said casing and the deck of the vessel, said tube and casing being formed with alining openings through which sediment, etc., may be expelled under the action of said lifting device when the latter enters the tube.

1,207,482. HOT AND COLD WATER MIXER. EDGAR J. BLOOM, Tiffin, Ohio. Filed Oct. 25, 1915. Serial No. 57,646. (Cl. 137—26.)

1. In a hot and cold water mixer, the combination with a shell provided with hot and cold water inlets and a circular valve seat provided with a hot and a cold water port, of a spool-shaped valve having at its center an annular groove and provided with a port leading through the inner end of the valve to said annular groove, the said port being arranged to register with each of the hot and cold water ports in the valve seat and also with both in combination, a screw for operating the valve provided with an actuating head, and a lost motion connection between the outer end of the valve and the actuating head of the

screw adapted for allowing a slight lift of the valve before opening the same.



2. In a hot and cold water mixer, the combination with a shell provided with hot and cold water inlets and a circular valve seat having hot and cold water ports, of a rotary valve provided with a port adapted to register with each of the hot and cold water ports and also with both these ports together, a screw for actuating the valve, means for communicating the rotary effort of the screw to the valve but allowing side shifting of the valve relative to the screw, and a ball thrust bearing at the center of the screw arranged to engage the center of the rotary valve and independent of the driving connections between the screw and the valve.

3. In a hot and cold water mixer, the combination with a shell provided with hot and cold water intakes and a circular valve seat having hot and cold water ports, of a rotary valve provided with a port arranged to register with each of the hot and cold water ports and also with both these ports together, a screw, loose driving connections between the screw and valve, and a ball thrust bearing between the screw and the rotary valve for communicating the thrust of the screw to the valve independently of the said driving connections.

4. In a hot and cold water mixer, the combination with a shell provided with hot and cold water inlets and having a circular valve seat provided with hot and cold water ports, of a rotary valve provided with a port arranged to register with each of the hot and cold water ports and also with both these ports together, a screw for actuating the same, lost motion connections between the screw and the valve for allowing a slight lift of the valve before turning to open, and a ball thrust bearing connecting the screw and the rotary valve at their centers.

5. In a hot and cold water mixer, the combination with a shell having hot and cold water inlets and provided with a circular valve seat having hot and cold water ports, of a spool-shaped valve having an annular recess forming an inner and an outer head for the valve on each end, the said inner head being provided with a port arranged to register with the hot and cold water ports and also with both these ports together, a screw provided with an actuating head having a perforation, a pin on the outer head of the valve arranged to protrude through the perforation in the actuating head but of smaller diameter, and means for allowing only a slight lift of the valve in opening.

[Claims 6 to 16 not printed in the Gazette.]

1,207,483. CATENARY HANGER. GLENN HENRY BOLUS, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Nov. 10, 1915. Serial No. 60,641. (Cl. 191—43.)

1. In combination, a trolley wire holder; and a freely hung suspension member for said holder having depending extremities with projections at the ends engaged directly by the holder when it is in engagement with the wire.

2. The combination of a trolley wire holder comprising wire clamping members, and a suspension member having depending arms each with a head engaged directly between and by both clamping members.



3. The combination of a trolley wire holder comprising wire clamping members, and a suspension member having depending extremities with heads releasably engaged between the clamping members and insertible and removable therefrom without entirely disengaging the clamping members from their wire engaging position.

4. The combination of a trolley wire holder, comprising wire clamping members, and means for holding them in wire clamping position; and a suspension member having depending extremities each having a head for engagement between the clamping members and insertible and removable therefrom by loosening the holding means without disengaging the members from the wire.

5. The combination of a trolley wire holder comprising wire clamping members, and a fastening bolt and nut for holding the members in wire clamping position; and a suspension member having depending extremities with enlarged ends adapted to be engaged between the clamping members but insertible and removable therefrom by loosening the nut on the bolt and without actually disengaging the nut or displacing the members from wire clamping position.

[Claims 6 to 12 not printed in the Gazette.]

1,207,484. CATENARY HANGER. GLENN HENRY BOLUS, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Nov. 10, 1915, Serial No. 60,642. Renewed Oct. 16, 1916. Serial No. 126,038. (Cl. 191—41.)

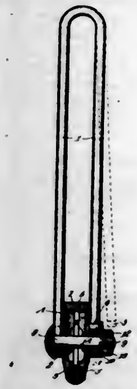
1. The combination with a trolley wire holder, of a suspension member for said holder having an eye at one end for permanent engagement and a projection at the other end for displaceable engagement with the holder.

2. The combination with a trolley wire holder, of a suspension member for said holder having two suspension arms one of which is formed with an eye and the other with a projection, and means for securing the holder and the arms of the suspension member together but adjustable to permit the separation of the arm with the projection from the holder.

3. The combination with a trolley wire holder, of a suspension member for said holder having two suspension arms one of which is formed with an eye and the other with a projection, and a bolt insertible through the eye member to secure the holder and the arms of the suspension member together.

4. The combination with a trolley wire holder, of a suspension member therefor having parallel arms one formed with an eye and the other with a projection, a bolt inserted through the eye and a nut coöperating therewith to fasten this arm and the wire holder together, and a separate member to releasably engage the other arm of the suspension member.

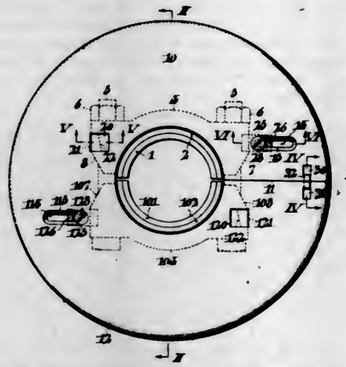
5. The combination with a trolley wire holder, of a suspension member therefor having parallel arms one formed with an eye and the other with a projection, a bolt inserted through the eye and a nut coöperating therewith



to fasten this arm and the wire holder together, and a separate member also engaged and fastened by the nut and bolt to releasably engage the arm of the suspension member which has the projection.

[Claims 6 to 13 not printed in the Gazette.]

1,207,485. GUARD FOR PULLEYS. RUSSELL H. BOWEN, Philadelphia, Pa., assignor to The American Pulley Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 7, 1916. Serial No. 124,230. (Cl. 64—17.)

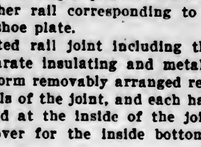


1. The hereinbefore described improvement in pulley guards, comprising, in combination, a split annulus of sheet metal, adapted to fit upon the pulley hub; means for securing the edges of the split together, and means for securing the body of the annulus to the pulley at a plurality of points, said securing means being substantially non-projecting beyond the external surface of the annulus.

2. The hereinbefore described improvement in pulley guards, comprising, in combination, a split annulus of sheet metal, adapted to fit upon the pulley hub, and having an elongated slot; a clip adapted to slide longitudinally in said slot in engagement with the edges thereof, said clip being adapted to embrace the edge of a member of the pulley, and being provided with a securing screw; said clip and said screw being substantially non-projecting beyond the external surface of the annulus; and means for securing the edges of the split together.

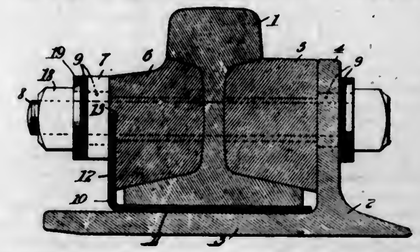
3. The hereinbefore described improvement in pulley guards, comprising, in combination, a split annulus adapted to fit upon the pulley hub, said annulus being provided with an internally projecting tongue adapted to engage rotatively with a member of the pulley; means for securing the edges of the split together; and means for securing the annulus against rotation relatively to the pulley-hub.

1,207,486. CLOTHES-PIN. JACOB A. BRADLEY, Wabeno, Wis., assignor of two-thirds to John G. Harter and Oscar S. Tenley, Wabeno, Wis. Filed Dec. 11, 1915. Serial No. 66,307. (Cl. 24—139.)



A clothes pin comprising a plurality of closely arranged parallel convolutions formed from a single length of resilient wire, and a pair of substantially U-shape fingers bent from the ends of the wire and disposed transversely of and between convolutions adjacent to each other with the ends of the fingers disposed in outward divergent relation to each other beyond said coils, said fingers gradually increasing in width from the inner ends to the outer ends thereof and lying in flat planes parallel with each other within the coils.

1,207,487. INSULATED RAIL-JOINT. LAWRENCE F. BRAINE, New York, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Aug. 17, 1914. Serial No. 857,171. (Cl. 238—5.)



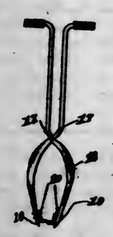
1. An insulated rail joint including the rails, a shoe angle, an insulating shoe plate arranged under the one rail and having an upright member disposed at the side of the joint opposite the upright member of the shoe angle, said insulating shoe plate having an apron extension overlapping the joint at the meeting ends of the rails, and a metal shoe plate having a position within the shoe angle beneath the other rail corresponding to the position of the insulating shoe plate.

2. An insulated rail joint including the rails, a shoe angle, and separate insulating and metal shoe plates of corresponding form removably arranged respectively under the separate rails of the joint, and each having its upright member disposed at the inside of the joint and forming a protecting cover for the inside bottom corner of the joint.

1,207,488. ROOT-PULLER. JAMES H. BROCK, Jarvis, Ontario, Canada. Filed Feb. 23, 1916. Serial No. 80,005. (Cl. 55—148.)

1. A puller of the character described, comprising a pair of members pivotally connected to each other each member being formed with a shank having an operating

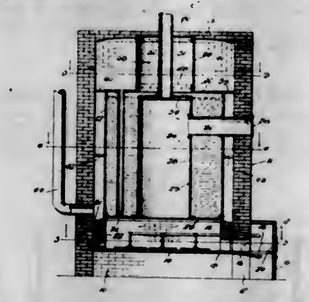
handle at one end, a clod embracing and earth cutting plate carried by each member, and a cutter detachably mounted upon each plate.



2. A puller of the character described, comprising a pair of members movably connected to each other and having clod embracing and earth cutting means thereon, and top cutters carried by the respective members.

3. A puller of the character described, comprising a pair of members movably connected to each other and having clod embracing and earth cutting means thereon, top cutters carried by the respective members, and means for detachably connecting the top cutters to the members.

1,207,489. STEAM OR HOT-WATER BOILER. JAMES M. BROHERD, Oskaloosa, Iowa. Filed Mar. 22, 1916. Serial No. 85,928. (Cl. 122—117.)



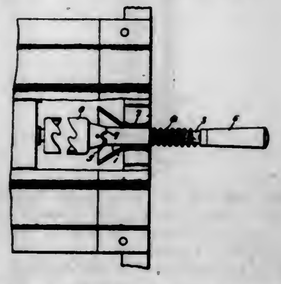
1. In boilers, a furnace having a fire pit lined with fire bricks, an annular boiler mounted within the furnace and resting upon the fire pit and providing a vertical fuel reservoir above the fire pit, means establishing communication with the reservoir through the wall of the furnace and through the boiler, a steam dome closing the top of the boiler, and an air supply pipe leading downwardly through the steam dome into the chamber within the boiler.

2. In a boiler, inner and outer cylindrical walls terminating at their lower ends in a common plane, a bottom wall connecting the lower ends of the walls, the upper ends of the walls terminating in slightly spaced planes, a top member connected to the upper end of the outer wall and spaced above the upper end of the inner wall, a steam dome connected to the top member, the top member being formed with an opening communicating with the steam dome, a top member connected to the upper end of the inner wall, and an air supply pipe leading through the steam dome and through the top member which is connected to the inner wall.

3. In a boiler, a substantially cylindrical body closed at its ends, a substantially cylindrical steam dome of less diameter than the boiler mounted upon the upper end thereof and communicating with the boiler, a substantially cylindrical chamber formed within the boiler and opening through its lower end, the upper end of the chamber being spaced slightly below the top of the boiler, a fuel supply chute extending through the boiler into the upper portion of the chamber, and an air passage extending through the steam dome into the upper end of the chamber.

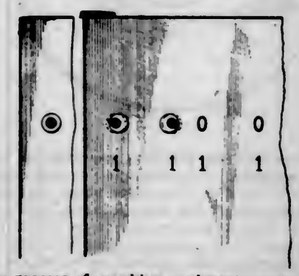
4. In boilers, a furnace, a grate having its edge embedded in the wall of the furnace, a metallic ring supported upon and encircling the grate, a fire brick lining for the ring providing a fire pit, an annular boiler mounted within the furnace and resting upon the fire brick lining, fire tubes extending through the boiler, means for supplying air downwardly through the boiler to the fire, a flue extending from the lower portion of the furnace, and means for directing the products of combustion from the upper portion of the furnace after their escape from the fire tubes downwardly and around the boiler to the flue.

1,207,490. ATTACHMENT FOR STARTING-CRANKS. FITZHUGH LEE BROOKS, Moffitt, N. C. Filed Jan. 21, 1916. Serial No. 73,490. (Cl. 21—90.)



The combination with an automobile frame having a bearing for the journal portion of an engine starting crank, of an engine starting crank, a clutch member fast on the end of the journal portion of said starting crank, a fixed crank bearing and locking sleeve extending through and fitted tightly in the first named bearing in the frame and having the journal portion of the crank slidable longitudinally therein, a spring on said journal portion acting to yieldingly hold said clutch member in abutting relation to the inner end of said sleeve, and interlocking means on the abutting faces of said clutch member and sleeve serving to sustain the crank in an upstanding position.

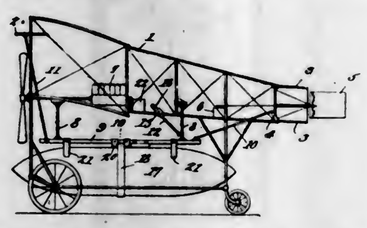
1,207,491. METHOD OF PUNCHING WORKMEN'S CARDS. JAMES WARES BRYCE, Bloomfield, N. J., assignor to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed Aug. 3, 1915. Serial No. 43,374. (Cl. 234—41.)



1. The process of punching workmen's cards to indicate by the position of the punched holes different periods of time, and of calculating from such punched holes the elapsed time between such periods, which consists in introducing into the time punching machine, and into the calculating machine respectively, the said cards lengthwise and sidewise, whereby the liability to misplacement of the perforations is limited to one direction so that the pins of the calculating machine will more nearly register with the punched holes.

2. The process of punching workmen's cards to indicate by the position of the punched holes different periods of time, and of calculating from such punched holes the elapsed time between such periods which consists in introducing into the vertically extended chute of the time punching machine the cards with their sides in contact with the sides of the chute, and introducing the same cards into the horizontally extended chute of the calculating machine with their ends in contact with the sides of said chute whereby the tendency to misplacement of the perforations is limited to one direction so that the pins of the calculating machine will more readily register with the punched holes.

1,207,492. AUTOMATIC GRAVITY-STABILIZER FOR AERIAL TORPEDOES AND AEROPLANES. FREDRICK W. BUCK, Flagler, Colo. Filed May 12, 1916. Serial No. 97,077. (Cl. 244—1.)



1. The combination with an aeroplane structure, of a combined torpedo and stabilizing pendulum connected to said structure, and means for automatically releasing the same from the aeroplane structure.

2. The combination with an aeroplane structure, of stabilizing means including a combined torpedo and pendulum, and means for rendering the stabilizing means inactive by releasing the combined torpedo and pendulum from the aeroplane structure.

3. The combination with an aeroplane structure, of stabilizing means including a combined torpedo and pendulum, and timed means for rendering the stabilizing means inactive by releasing the combined torpedo and pendulum from the aeroplane structure.

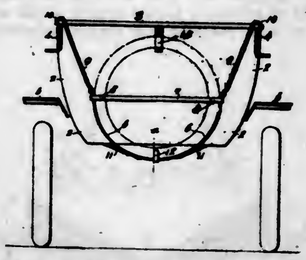
4. The combination with an aeroplane structure, of a body suspended below the lower sustaining plane of said structure and adapted to swing laterally relative to the structure, propelling and steering mechanism, means operated by the lateral swinging of the body relative to the sustaining plane for restoring the lateral balance of the machine, and timed means for uncoupling said body from the aeroplane structure.

5. A machine of the class described including a sustaining plane, a torpedo suspended therebelow and adapted to swing laterally and longitudinally relative thereto, means operated by the swinging of the torpedo for maintaining the lateral and longitudinal balance of the sustaining plane, means for holding the torpedo against longitudinal swinging movement, and time controlled means for successively releasing said holding means from the torpedo and detaching the torpedo from the sustaining plane.

[Claims 6 and 7 not printed in the Gazette.]

1,207,493. SPARE-TIRE CARRIER FOR AUTOMOBILES. HAROLD BURNET, Port Haney, British Columbia, Canada. Filed Aug. 17, 1915. Serial No. 45,891. (Cl. 224—29.)

1. A spare tire carrier for an auto-vehicle, said carrier comprising a half hoop bent from thin metal, means cooperative with the rest brackets for the top for suspending the ends of this half hoop from the upper part of the body of the vehicle on each side of the back, and means for bracing the lower part of the hoop from the underside of the body.



2. A spare tire carrier for an auto-vehicle, said carrier comprising a half hoop bent from thin metal, means cooperative with the rest brackets for the top for suspending the ends of this half hoop from the upper part of the body of the vehicle on each side of the back, and a brace from the lower part of the hoop on each side of the middle to the underside of the vehicle, said braces being laterally angled outward.

3. A spare tire carrier for an auto-vehicle, said carrier comprising a half hoop bent from thin metal the ends of which are connected by a cross tie, a suspension rod secured to each end of the half hoop each rod being angled outward and provided with a washer eye to fit under the nut of the cover rest of the vehicle, and means for bracing the lower part of the half hoop to the underside of the vehicle, said braces being angled outward to their attachment to the vehicle.

4. A spare tire carrier for an auto-vehicle, said carrier comprising a half hoop bent from thin metal, means for suspending this half hoop from the upper edge of the body of the vehicle, and means for bracing the lower part of it from the underside of the body, said braces being angled outward to afford lateral support, and a tire attachment secured to and projecting downward from the upper edge of the body.

5. A spare tire carrier for an auto-vehicle, said carrier comprising a half hoop bent from thin metal, a tie across the back between the ends of this half hoop the ends of which tie after attachment to the hoop are bent around the front of it to form tire retaining clips, a tire retaining clip secured to the middle of the half hoop and projecting radially inward from it, a suspension rod secured to each end of the half hoop and angled outward therefrom and provided with a washer eye to pass under the nut of a cover rest of the vehicle, a brace secured to the underside of the half hoop on each side of the middle and angled upward and outward for attachment to the underside of the body of the car and an upper tire guard secured to and projecting vertically downward from the upper lip of the body, said guard having provision for attachment of the tire thereto.

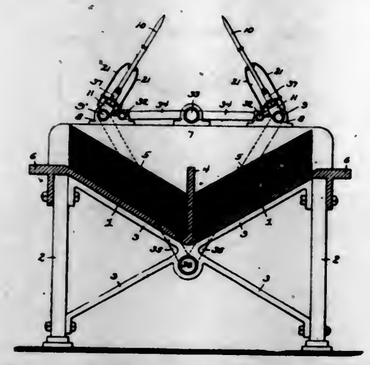
[Claim 6 not printed in the Gazette.]

1,207,494. APPARATUS FOR DRYING AND SHAPING STOCKINGS. WALTER D. BUTZ, Norristown, Pa., assignor, by mesne assignments, to Paramount Hosiery Form Drying Co., Chicago, Ill., a Corporation of Illinois. Filed May 2, 1913. Serial No. 765,044. (Cl. 223—17.)

1. The combination, in stocking drying and shaping apparatus, of a storage table provided with a hosiery-receiving trough entirely open at its top, a longitudinally extending steam pipe at a higher level than said table, and a series of internally heated metallic forms communicating therewith and projecting upwardly therefrom whereby, while the supply of stockings is readily accessible to the attendant, there is no interference with the free application of the stockings to the forms or the free removal of the same therefrom.

2. The combination, in stocking drying and shaping apparatus, of a storage table having a central hosiery-

receiving trough and a longitudinal partition therein, and a plurality of longitudinally extending steam pipes mounted at a higher level than said table and each carrying a series of internally heated metallic forms which receive steam from the pipe and project upwardly therefrom.



3. The combination, in stocking drying and shaping apparatus, of a table having a central longitudinal hosiery-receiving trough and a horizontally projecting shelf at the upper edge thereof, and a longitudinally extending steam pipe mounted above the table and at a higher level than said shelf, said pipe carrying a series of internally heated metallic forms communicating with and projecting upwardly from the pipe.

4. Hosiery drying and shaping apparatus including in combination a table having a central longitudinal hosiery-receiving trough open at its top, a series of internally-heated metallic forms projecting upwardly therefrom and inclined to the horizontal, and a steam pipe extending longitudinally of the table and common to each form of the series.

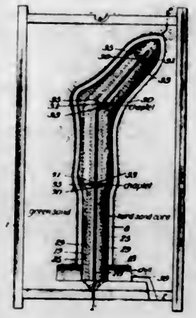
5. Hosiery drying and shaping apparatus including in combination a table comprising two horizontal, longitudinally-extending surfaces, two inclined downwardly-extending surfaces interposed between the horizontal surfaces and forming a hosiery-receiving trough, a plurality of series of hosiery drying and shaping forms supported at a higher level than said horizontal surfaces, steam pipes extending longitudinally of the table and each common to its corresponding series of forms, and means carried by the table for supplying steam to said longitudinally-extending steam pipes.

[Claims 6 to 45 not printed in the Gazette.]

1,207,495. ART OF CASTING METALS. WALTER D. BUTZ, Norristown, Pa., assignor, by mesne assignments, to Paramount Hosiery Form Drying Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 30, 1914. Serial No. 869,401. (Cl. 22—190.)

1. The method of making castings which consists in forming in a mass of molding material a print of the structure to be cast, effecting registering recesses in the material within the limits of the print thus formed, disposing in said recesses preformed fusible chaplet-receiving instrumentalities, preforming in a core of destructible material, disposing therein a series of spaced-apart chaplets of fusible material which extend through the core and beyond its exterior surfaces, positioning the preformed core and its contained chaplets as an entity in said instrumentalities and in spaced relation to the surface of said molding material, pouring metal into the space between said core and molding material and around said chaplets to fuse and amalgamate the same with the poured metal and thereby anchor said chaplets in the metal mass thus cast, and disintegrating and removing the core from within the casting without disturbing the chaplets.

2. The method of making castings which consists in preforming a core and providing the same with gas channels, forming in a mass of molding material the outline of the structure to be cast, recessing said material at predetermined spaced-apart points, within the limits of the outline disposing in said recesses preformed chaplet-receiving registering cores, mounted in said first-named core a series of preformed chaplets of fusible material, the ends of the chaplets extending beyond the exterior surface of the core, positioning the core and its contained chaplets as an entity in said chaplet-receiving cores and spaced from the molding material, pouring metal similar to that of the chaplets into the mold and around the chaplets to fuse the same, and disintegrating and removing the core.



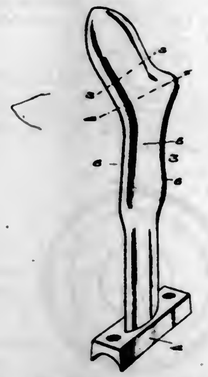
3. The method of making castings which consists in forming in a mass of molding material a print of the device to be cast, effecting registering recesses in said material within the limits of the print thus formed, disposing in said recesses preformed infusible chaplet-receiving instrumentalities, preforming a core, disposing therein a series of spaced-apart chaplets of fusible material which extend through the core and beyond its exterior surfaces, positioning the preformed core and its contained chaplets as an entity in said instrumentalities and in spaced relation to the surface of said molding material, disposing at one end of said core a chill-instrumentality, pouring metal into the space between said core and molding material and around said chaplets to fuse and amalgamate the same with the poured metal and thereby anchor said chaplets in the metal mass thus cast, and disintegrating and removing the core.

4. The method of making castings which consists in forming in a mass of molding material an intaglio outline of the device to be cast, effecting registering recesses in said material, disposing in said recesses preformed chaplet-receiving core-instrumentalities, preforming a core, disposing in the core a series of fusible, metallic chaplets so as to extend through and beyond the exterior surfaces thereof, positioning this preformed core and its contained chaplets as an entity in said core-instrumentalities and in spaced relation to the surface of said material, disposing at one end of said core a chill-instrumentality, pouring metal into the space between said core and molding material and around said chaplets to fuse the same and thereby anchor the chaplets in the metal mass, and disintegrating and removing the core.

5. The method of making castings which consists in preforming a hard sand-core provided with an elongated slot and with gas channels and vents, forming in a mass of molding material the outline of the article to be cast, recessing said material at predetermined spaced-apart points, disposing in said recesses preformed chaplet-receiving and registering cores, mounting in said hard sand-core a series of preformed chaplets of fusible metal, the ends of the chaplets extending beyond the exterior surfaces of the core, positioning said sand core and its contained chaplets as an entity in said chaplet-receiving cores and spaced from the molding material, and pouring metal similar to that of the chaplet into the mold and around said chaplets to melt the same.

[Claims 6 to 17 not printed in the Gazette.]

1,207,496. HOSIERY SHAPING AND DRYING APPARATUS, WALTER D. BUTZ, Norristown, Pa., assignor to Paramount Hosiery Form Drying Co., Chicago, Ill., a Corporation of Illinois. Original application filed May 2, 1913, Serial No. 765,044. Divided and this application filed Sept. 11, 1916. Serial No. 119,473. (Cl. 223—17.)



1. A hosiery drying form, relatively thin in cross-section and hollow to contain a heating medium, and having its sides beveled to present relatively reduced edges and expanded intermediate such edges to provide oppositely-curved fabric-shaping surfaces.

2. A hosiery-drying form relatively thin in cross-section, its exterior comprising two surfaces disposed in angular relation to each other and terminating in a relatively reduced crease-producing edge, each of said surfaces tapering from adjacent a medial line thereof toward the crease-producing edge.

3. A hosiery drying form relatively thin in cross-section, its exterior comprising two arcuate surfaces terminating in a relatively reduced crease-producing edge.

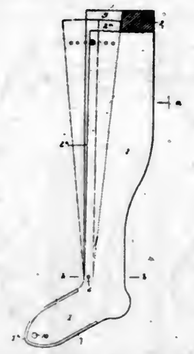
4. A metallic, hosiery drying and shaping form, hollow to contain a heating medium, and relatively thin in cross-section, and having its sides formed of two surfaces disposed in angular relation to each other and which intersect to present crease-producing edges; the form being thickest adjacent its medial line to present oppositely-disposed fabric-stretching surfaces, and the sides thereof tapering from said medial line toward the crease-producing edges.

5. A metallic, hosiery drying and shaping form, hollow to contain a heating medium, and relatively thin in cross-section, and having its sides formed of two arcs which intersect to present crease-producing edges; the form being thickest adjacent its medial line to present oppositely-disposed fabric-stretching surfaces.

[Claims 6 to 12 not printed in the Gazette.]

1,207,497. STOCKING-DRYING FORM. WALTER D. BUTZ, Norristown, Pa., assignor to Paramount Hosiery Form Drying Co., Chicago, Ill., a Corporation of Illinois. Filed July 10, 1915. Serial No. 39,123. (Cl. 223—17.)

1. The combination of the foot portion of a stocking drying form, with an extensible toe member slidably mounted in respect to said foot portion and adjustable in the axial line thereof, said toe member having its top and bottom edges in line with the corresponding edges of the foot portion in the different positions of adjustment of said toe member, and means acting on the toe member to effect its movement on the foot-portion.



2. The combination of the foot-portion of a stocking drying form, an extensible toe-member slidably mounted in respect to the foot-portion and having a projecting wing, the foot-portion being provided with a slot for the reception of said wing, and elastic means distinct from but associated with the foot-portion and the toe-member for resisting a compressing action thereon of hosiery stretched thereover.

3. The combination of the foot-portion of a stocking drying form, an extensible toe-member slidably mounted in respect to the foot-portion and having a projecting wing formed with a mortise therein, the foot member being provided with a slot and a projecting tenon for entering the mortise in the wing, and means normally active on the toe-member and tending to effect a sliding of it in respect to the foot-portion.

4. The combination of the foot portion of a stocking drying form with an extensible toe member slidably mounted in respect to said foot portion, said toe member having top and bottom wings and the foot portion of the form having top and bottom slots for the reception of said wings, and means normally active on the toe-member to resist an inherent compressing action thereon of hosiery stretched thereover.

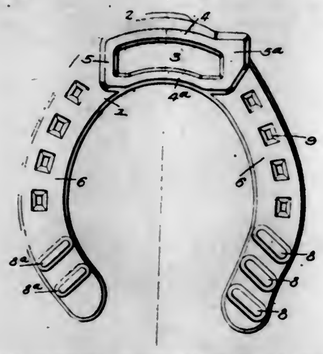
5. The combination of the foot portion of a stocking drying form, with an extensible toe member slidably mounted in respect to said foot portion, said toe member having top and bottom wings and the foot portion of the form having top and bottom slots for the reception of said wings, and said slots having forwardly projecting central tenons therein and the wings of the toe member having central mortises for the reception of said tenons.

[Claims 6 to 24 not printed in the Gazette.]

1,207,498. HORSESHOE. CHARLES A. CAMPBELL, Philadelphia, Pa. Original application filed Mar. 12, 1915. Serial No. 13,905. Divided and this application filed Apr. 20, 1915. Serial No. 22,698. (Cl. 168—28.)

1. In a horseshoe, the combination with a toe calk forming a continuous annular frame around a recess adapted to receive and hold grit from the road, and having an auxiliary wearing surface of said frame extending laterally upon one side thereof projecting laterally beyond the normal contour of the shoe; of a calk upon the heel of the shoe, upon the side opposite said lateral projection; said heel calk being out of longitudinal alinement with the edge of the toe calk upon that side; whereby the shoe has a tendency to roll upon that side of the toe, opposite to the side, which is caused to roll, by the action of the horse, so that the tendency to maximum wear upon one side of the toe of the shoe, by the rolling action of the horse, is counteracted both by the construction and arrangement of the toe calk and by the construction

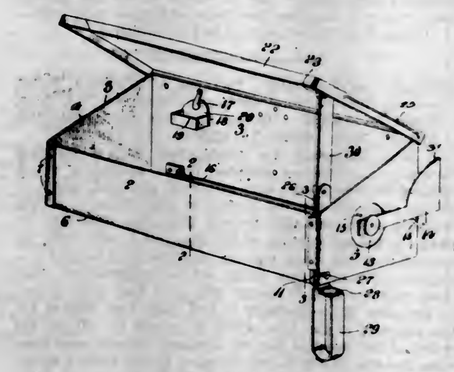
and arrangement of the heel calk in coöperative relation therewith.



2. In a horseshoe, the combination with a toe calk forming a continuous annular frame around a recess adapted to receive and hold grit from the road, and having an auxiliary wearing surface of said frame extending laterally upon one side thereof projecting laterally beyond the normal contour of the shoe; of a calk upon the heel of the shoe, at that side, in longitudinal alinement with said lateral wearing surface; and a calk upon the opposite heel of the shoe; the latter calk being out of longitudinal alinement with the edge of the front calk upon that side; whereby the shoe has a tendency to roll upon that side of the toe opposite to the side which is caused to roll by the action of the horse, so that the tendency to maximum wear upon one side of the toe of the shoe, by the rolling action of the horse, is counteracted both by the construction and arrangement of the toe calk and by the construction and arrangement of the heel calks in coöperative relation therewith.

3. In a horseshoe, the combination with a toe calk forming a continuous annular frame around a recess adapted to receive and hold grit from the road, and having an auxiliary wearing surface of said frame extending laterally upon one side thereof so as to afford a wearing surface, at that side, approximately double the width of the narrower portions of the frame and projecting laterally beyond the normal contour of the shoe, of heel calks carried by the quarters of said shoe; the calks on one side being out of alinement with the toe calk of said shoe.

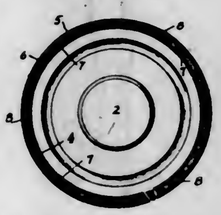
1,207,499. MAIL-BOX. FRED W. CARPENTER, Linden Heights, Ohio. Filed Jan. 29, 1916. Serial No. 75,155. (Cl. 232—34.)



1. A mail box having a hinged cover, an end wall on the box provided with a circular depression forming a boss, a visual signal pivotally connected with the boss, a U-shaped guide member upon the cover adapted to contact with the signal when the signal is in raised position, and lid raising mechanism manually operable to raise the box cover and lower the signal.

2. A mail box having a bottom provided with a slot extending into the side wall of the box, a partition disposed within the box and providing a compartment adjacent the slot, a cover hingedly connected with the box, a link connected with the cover, a strip of material bent between its ends to provide a lever pivotally mounted within the compartment and having one end extending beyond the same, through said slot, said lever being connected with the link, and an offset portion in the extending end of the lever exteriorly of the box body to provide a handle.

1,207,500. LINED END FOR SANITARY CANS. JOSEPH CERRGHINO, Los Angeles, Cal., assignor to American Can Company, San Francisco, Cal., a Corporation of New Jersey. Filed Feb. 23, 1916. Serial No. 79,913. (Cl. 220—58.)



1. A can end for the closure of sanitary cans, having an outwardly projecting flange for the seaming of the can end to the flanged end of a can body, and formed with a shoulder for entering a can body and engaging the walls thereof, and a can end liner resting on the shoulder side of said outwardly projecting flange of the can end, and having a portion of its inner edge spaced from said shoulder, and a portion of its inner edge contacting with said shoulder, whereby the liner is held concentric with said shoulder.

2. A can end for the closure of sanitary cans, having an outwardly projecting flange for the seaming of the can end to the flanged end of a can body, and formed with a shoulder for entering a can body and engaging the walls thereof, and a can end liner resting on the shoulder side of said outwardly projecting flange of the can end, and having three or more points arranged around its inner edge, said points contacting with the said shoulder of the can end whereby the said liner is held concentric with said shoulder.

3. A can end for the closure of sanitary cans, having an outwardly projecting flange for the seaming of the can end to the flanged end of a can body, and formed with a shoulder for entering a can body and engaging the walls thereof, and a can end liner resting on the shouldered side of said outwardly projecting flange of the can end, and having an outer edge of unbroken contour, and an inner edge of broken contour, whereby portions of said liner engage the said shoulder of the can end, and the liner is thereby held concentric with the said shoulder.

4. The combination with a can end for the closure of sanitary cans, of a cut ring liner applied thereto and having an outer edge of unbroken contour and an inner edge of broken contour.

5. The combination with a can end for the closure of sanitary cans, having an outwardly projected flange and provided with an interior shoulder portion for entering a can body and engaging the walls thereof, of a liner applied to said flange of the can end, said liner having portions thereof of greater interior diameter than the diameter of the shouldered portion of the can end to provide clearance spaces, and spaced centering projections extended from the inner edge of the liner and adapted to engage the outer walls of the shouldered portion of the can end.

1,207,501. AUTOMATIC COMPENSATING MECHANISM FOR DIFFERENTIAL DRIVING SYSTEMS OF AUTOMOBILES. CLARENCE CHARLES CLAYBERG, Mill City, Oreg. Filed Jan. 13, 1916. Serial No. 71,940. (Cl. 74—34.)



1. In an automatic compensating differential driving system, the combination with a primary self-contained, rotary differential and axles driven thereby, of a secondary self-contained, rotary differential and operative connections between the secondary differential and the axles and a controlling device between said differentials, whereby the secondary differential is adapted to automatically coöperate with the primary differential for driving purposes either forward or backward when the axles of the primary ddifferential tend to rotate at a greater variation of speed than what is required in the turning radius of car.

2. In an automatic compensating differential driving system, the combination with driving means therefor, of a primary self-contained, rotary differential and axles driven thereby, of a secondary self-contained, rotary differential and operative connections between the secondary differential and the axles, and means controlled by the driving means of the system adapted to automatically render the secondary differential active for driving purposes either forward or backward when the axles of the primary differential tend to rotate at a greater variation of speed than what is required in the turning radius of car.

3. In an automatic compensating differential driving system, the combination with driving means therefor, of a primary differential and axles driven thereby, of a secondary differential and operative connections between the secondary differential and the axles, and a two-way escapement lever and wheel controlled by the driving means of the system adapted to govern the coöperation of the primary and secondary differentials.

4. In an automatic compensating differential driving system, the combination with a primary rotary differential and axles driven thereby, of a secondary rotary differential, axles therefor, a controlling device for the secondary rotary differential, and gearing connecting the respective axles of the primary differential with the respective axles of the secondary differential adapted to cause the axles of the secondary differential to be driven in opposite directions to each other, thereby controlling the rotation of the secondary differential.

5. In an automatic compensating differential driving system, the combination with driving means therefor, of a primary self-contained, rotary differential and axles driven thereby, of a secondary self-contained, rotary differential, axles therefor, gearing connecting the respective axles of the primary differential with the respective axles of the secondary differential adapted to cause the axles of the secondary differential to be driven in opposite directions to each other, and means controlled by the driving means of the system adapted to govern the operation of the secondary differential.

[Claims 6 to 8 not printed in the Gazette.]

1,207,502. GAS-GENERATOR. J. WEED CONNELL, Nashville, Ga. Filed June 25, 1915. Serial No. 36,342. (Cl. 48—4.)



1. A gas generator comprising a tank restricted near one end to provide an upstanding flange forming a neck, a water reservoir removably connected with said flange and having a centrally arranged opening in the bottom thereof, a bar having an end removably mounted in said opening, a pin extending transversely of said bar between its ends, a carbid holder having an axially arranged sleeve receiving said rod, and arms on said sleeve engaging said pin.

2. A gas generator comprising a tank restricted near one end to provide an upstanding flange forming a neck, a water reservoir supported by said flange and having a rounded bottom provided with a centrally arranged opening therein, a rod having an end threadedly mounted in said opening, a pin extending transversely of said rod between its ends, a carbid holder having an axially arranged sleeve therein receiving said rod, said sleeve being recessed to form arms engaging said pin, and an expansion spring disposed in said sleeve and arranged between the other end of said rod and the bottom of the carbid holder.

3. The combination with a gas generator having a water reservoir, of a rod for connection with the bottom of the water reservoir and to extend below the same, a pin carried by the rod and having ends extending beyond the sides thereof, a cylindrical carbid holder having an open end and provided with an axially arranged sleeve receiving said rod, an expansion spring disposed in said sleeve and arranged between an end on said rod and the bottom of the carbid holder, and arms on said sleeve slotted to provide hooks engageable with the extending ends on the pin.

1,207,503. METHOD OF RECOVERING CLAY AND SLAG FROM USED RETORTS. CAIRY CLYDE CONOVER and ALFRED NICKS DETWEILER, Springfield, Ill. Filed June 27, 1916. Serial No. 106,225. (Cl. 83—71.)

1. The method of treating old clay retorts to separate the clay from the slag, which consists in crushing the retort and the adhering slag, and magnetically separating the slag from the retort clay.

2. The method of treating old clay retorts to separate the clay from the slag, which consists in crushing the retort and the adhering slag, and magnetically separating the slag from the retort clay before the magnetic properties of the slag constituents have been materially altered through oxidation.

3. The method of treating old clay retorts to separate the clay from the slag, which consists in crushing the

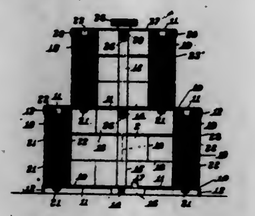
retort and the adhering slag, and magnetically separating the slag from the retort clay before the slag constituents have materially oxidized.

4. The method of treating old clay retorts to separate the clay from the slag, which consists in crushing the retort and the adhering slag, subjecting the crushed mass to magnetic influence of a predetermined strength to separate some of the slag, further crushing the remaining mass, and then subjecting the same to a greater magnetic influence to separate more of the slag, for the purpose described.

5. The method of treating clay retorts which have been used in the distillation of zinc, to separate the clay from the slag, which consists in crushing the retort and adhering slag and magnetically removing the metal values of the slag of greater magnetic permeability, and then removing the metal values of the slag of lesser magnetic permeability.

[Claims 6 and 7 not printed in the Gazette.]

1,207,504. SET OF TOY BUILDING-BLOCKS. ATHERTON D. CONVERSE, Winchendon, Mass. Filed Apr. 12, 1916. Serial No. 91,253. (Cl. 46—35.)



1. A set of toy building blocks consisting of a plurality of blocks provided with projections adapted to enter depressions in other blocks and thin connectors adapted to be interposed between two layers of blocks and provided with a plurality of holes through which said projections may extend.

2. A set of toy building blocks consisting of a plurality of blocks provided with projections adapted to enter depressions in other blocks and form parallel walls and means interposed between two layers of blocks and adapted to prevent lateral separation of said walls.

3. A set of toy building blocks consisting of a plurality of blocks provided with projections adapted to enter depressions in other blocks and form parallel walls and thin metal strips interposed between two layers of blocks and adapted to prevent lateral separation of said walls.

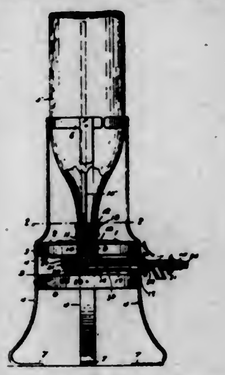
4. A set of toy building blocks consisting of a plurality of blocks provided with projections adapted to enter depressions in other blocks and a base plate provided with openings to receive the projections of a plurality of blocks superimposed thereon.

5. A set of toy building blocks consisting of a plurality of blocks provided with projections adapted to enter depressions in other blocks and a flanged base plate provided with openings to receive the projections of a plurality of blocks superimposed thereon.

[Claim 6 not printed in the Gazette.]

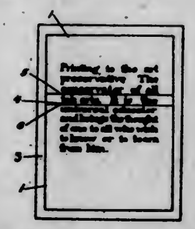
1,207,505. DISPENSING-STAND FOR INVERTED BOTTLES. HENRY G. CORDLEY, Glen Ridge, N. J. Filed Jan. 14, 1915. Serial No. 2,158. (Cl. 225—22.)

A dispensing stand for inverted bottles comprising vertically arranged strips having their lower ends bent to form supporting feet and having at their upper ends a horizontal strip bent into circular form with its ends separated to inclose an inverted bottle, a horizontal plate secured to the vertical strips above their lower ends and a bracing ring secured to them below the horizontal plate, the horizontal plate being provided at its center with a hollow plug adapted to make closed contact with the mouth of the inverted bottle having an outlet passage



through it for liquid and an inlet passage for air, and means for simultaneously controlling the liquid outlet and air inlet passages.

1,207,506. PROCESS OF MAKING PRINTING-PLATES. GEORGE R. CORNWALL, Rye, N. Y. Filed Nov. 30, 1914. Serial No. 874,929. (Cl. 95—73.)



1. The process of making a printing plate which comprises imprinting a plurality of lines of characters upon a sheet in page or column alinement, rendering said sheet adhesive, causing it to adhere to a support and impressing the lines of characters upon the sensitised surface of a printing plate by the action of light.

2. The process of making a printing plate which comprises imprinting a plurality of lines of characters upon a sheet in page or column alinement, rendering said sheet adhesive, causing it to adhere to a support and impressing the lines of characters upon the sensitised surface of a printing plate by the action of light transmitted through said sheet.

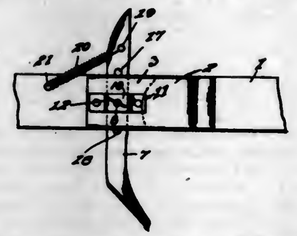
3. The process of making a printing plate which comprises imprinting a plurality of lines of characters upon a sheet in page or column alinement, applying an agent to said sheet to render it light transmitting, and impressing the lines of characters upon the sensitised surface of a printing plate by the action of light transmitted through the sheet.

4. The process of making a printing plate which comprises imprinting a plurality of lines of characters upon a sheet in page or column alinement, rendering said sheet adhesive and light transmitting, causing it to adhere to a support and impressing the lines of characters upon the sensitised surface of a printing plate by the action of light transmitted through said sheet.

5. The process of making a printing plate which comprises imprinting a plurality of lines of characters upon a sheet in page or column alinement, rendering said sheet adhesive, causing it to adhere to a support, severing and removing a part of the sheet containing a line or lines of characters, substituting another sheet or strip containing a line or lines of characters upon the support, and impressing the revised page of lines of characters upon the sensitized surface of a printing plate by the action of light.

[Claims 6 to 8 not printed in the Gazette.]

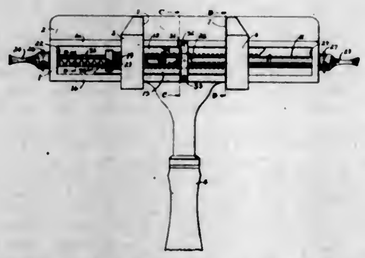
1,207,507. HARROW-TOOTH AND PIVOTAL PIN THEREFOR. RAYMOND R. CRAWFORD, Clio, La., assignor of one-half to Joseph Weiderman, Clio, La. Filed May 24, 1915. Serial No. 30,190. (Cl. 55—7.)



1. In a harrow construction, the combination with a harrow frame, of a block secured to said frame, a plate formed upon and extending outwardly from one end of said block and being spaced from said frame, a harrow tooth positioned between said plate and said frame, a pin extending through said plate, said frame and said harrow tooth, for pivotally connecting the harrow tooth to the frame, and a spiral spring connected to said harrow tooth and said frame for yieldably holding said tooth in a substantially vertical harrowing position.

2. In a harrow construction, the combination with a harrow frame, of a block secured to said frame, a plate formed upon and extending outwardly from one end of said block and being spaced from said frame, a harrow tooth positioned between said plate and said frame, a pin extending through said plate, said frame and said harrow tooth for pivotally connecting the harrow tooth to the frame, a spiral spring connected to said harrow tooth and said frame for yieldingly holding said tooth in a substantially vertcial harrowing position, said harrow tooth being provided with a plurality of break pin receiving openings formed therein.

1,207,508. TYPE-PALLET. ALLEN B. CREEK, San Jose, Cal. Filed May 18, 1916. Serial No. 98,372. (Cl. 101—[illegible].)



1. A type pallet comprising a case, a pair of opposed, coöperating clamp members slidably mounted thereon, a rod revolubly mounted in said case and passing through said clamp members, one of said clamp members being tapped to receive a threaded sleeve, and a sleeve slidably mounted on said rod and threaded to engage said tapped clamp member and means for revolubly engaging said rod and said sleeve.

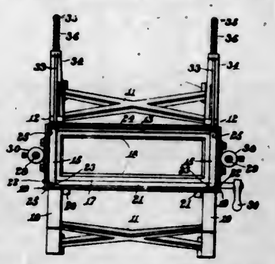
2. A type pallet comprising a case, a pair of opposed, coöperating clamp members slidably mounted thereon, a rod revolubly mounted in said case and passing through said clamp members, and means operatively connected to said rod for imparting motion to said clamp members, said means comprising a sleeve threaded into one of said clamp members and slidably mounted on said rod, and a key attached to the bore of said sleeve, said rod having a groove formed therein adapted to engage said key, and one or more notches formed in the side of said groove adapted to receive said key.

3. A type pallet comprising a case, a pair of opposed, coöperating clamp members slidably mounted thereon, a rod revolubly mounted in said case and passing through said calmp members, one of said clamp members being tapped with a triple thread to receive a threaded sleeve, and a sleeve slidably mounted on said rod and threaded with a triple thread to engage said tapped clamp member and means for revolubly engaging said rod and said sleeve.

4. A type pallet comprising a case, a pair of opposed coöperating clamp members slidably mounted thereon, a rod revolubly mounted in said case and passing through said clamp members, and means operatively connected to said rod for imparting motion to said clamp members, said means comprising a sleeve threaded into one of said clamp members and slidably mounted on said rod, and an inwardly projecting member attached to said sleeve, said rod having a groove formed therein adapted to engage said projecting member.

5. A type pallet comprising a case, a pair of opposed coöperating clamp members slidably mounted thereon, a rod revolubly mounted in said case and passing through said clamp members, and means operatively connected to said rod for imparting motion to said clamp members, said means comprising a sleeve threaded into one of said clamp members and slidably mounted on said rod, and an inwardly projecting member attached to said sleeve, said rod having a groove formed therein adapted to engage said projecting member and one or more notches formed in the side of said groove adapted to receive said projecting member and extending below the bottom of said groove.

1,207,509. MACHINE FOR MAKING CONCRETE BLOCKS. CASPAR S. DAVIDIAN, Lawrence, Mass. Filed June 30, 1915. Serial No. 37,779. (Cl. 25—41.)



1. In a device of the class described, the combination of a frame having a vertical plate; end plates pivoted to the ends of said vertical plate; a face plate pivotally mounted upon said frame and provided with lugs perpendicular to the face thereof; a pallet adapted to be positioned by said lugs; a rectangular frame for retaining said vertical plate, end plates, and pallet in normal position to form a mold; brackets secured to the rear of said frame; rods secured to said rectangular frame and extending through said brackets; springs surrounding said rods; and adjustable members on said rods for regulating the tension of said springs.

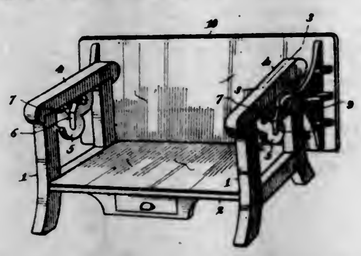
2. A device of the class described, comprising a frame having a vertical plate, end walls pivoted to the ends of said vertical plate, a spaced plate pivotally mounted upon the said frame and provided with lugs perpendicular to the face thereof, a pallet adapted to be positioned by the said lugs, a rectangular frame for retaining said ver-

tical plate, end plates and pallet in normal position to form a mold, and resilient automatic retracting means for the said frame when released, the path of movement of said frame being in the plane of the top edge of the mold.

3. A block molding machine comprising a frame having inclined supporting faces and a vertical plate, end plates pivoted to the said vertical plate, a face plate pivotally mounted upon the said frame adjacent said faces and provided with perpendicular lugs, a pallet adapted to be positioned by said lugs and arranged upon said inclined faces when the mold is open, a rectangular frame for receiving said vertical plate, end plates and pallet in normal position to form a mold, and automatic means for moving said rectangular frame to the rear of the machine when disengaged from said plates and pallet.

4. A block molding machine comprising a frame having a vertical plate, end plates pivoted to the end of said vertical plate, a face plate pivotally mounted upon said frame and provided with lugs perpendicular to the face thereof, a pallet adapted to be positioned by the said lugs, a removable rectangular frame adapted to fit over the upper edges of said vertical plate, end plates and pallet to form a mold, interior corner members upon said rectangular frame seated upon said mold with the side and end walls of the rectangular frame extending above the upper edges of said mold, and automatic shifting means for said rectangular frame when released from the mold.

1,207,510. COMBINED TABLE AND SETTEE. WILLIAM A. DECKER, Hastings, Nebr. Filed Jan. 18, 1916. Serial No. 72,821. (Cl. 155—6.)



1. A combined article of furniture including side members having Y-shaped alining slots, and a flat member having spaced side members provided each with an inturned lug adapted to be received in the said slots.

2. A convertible article of furniture as herein described comprising a frame including sides having each a registering substantially Y-shaped slot, the ends of the branches of the said slots being continued horizontally to provide pockets, a flat member adapted to rest on the sides when in one position and against the sides when in another position, said member having spaced plates each provided with a lug and one of the lugs received in each of the slots, as and for the purpose set forth.

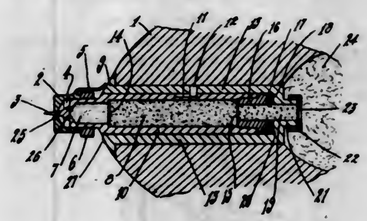
1,207,511. DETONATING FUSE. JOHN B. DES ROSIERS, Providence, R. I. Filed Feb. 26, 1916. Serial No. 80,566. (Cl. 102—36.)

1. In a detonating fuse, a body, an inner body slidably mounted therein, a chamber in said inner body, means for admitting minute quantities of liquid to said chamber and means for controlling flow of such liquid.

2. In a detonating fuse, a body, an inner body slidably mounted therein, a chamber in said inner body, a valve on the end of said chamber and means for regulating the admission of water to said chamber by said valve.

3. In a detonating fuse, a body, an inner body slidably mounted therein, a chamber in said inner body, a head on said inner body, a valve in said head and means to regulate the operation of said valve.

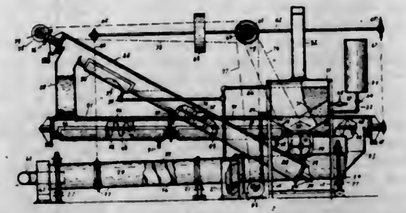
4. In a detonating fuse, a body, an inner body slidably mounted therein, means to control the sliding motion of said inner body, a chamber in said inner body and means to control the admission of minute quantities of liquid to said chamber.



5. In a detonating fuse, a body, an inner body slidably mounted therein, means for controlling the motion of said inner body, a chamber in said inner body, means for controlling the admission of liquid to said chamber, an interior seat on said outer body adapted to receive the thrust of said inner body and a chamber connected to said interior seat.

[Claims 6 and 7 not printed in the Gazette.]

1,207,512. APPARATUS FOR CLEANING GRAIN. FRANCIS C. DICKSON, Louisville, Ky., assignor of one-half to Garnett S. Zorn, Louisville, Ky. Filed Jan. 26, 1916. Serial No. 74,323. (Cl. 83—28.)



1. In apparatus for desmutting and deodorising smutted grain, a tank for containing cleansing fluid, a filter, an overflow pipe leading from the tank to the filter, means for returning the fluid to the tank after filtration, an inclined tube containing a conveyer which leads from a point directly below the tank to a point above the same, a fluid tight connection between the tank and the tube whereby the fluid stands at the same level in both tank and pipe, a horizontal tube containing a conveyer, a connection leading from the upper end of the inclined tube to said horizontal tube, a second horizontal tube into which the aforesaid horizontal tube discharges, and means for directing a current of air through the last named tube.

2. In apparatus for desmutting and deodorising smutted grain, a tank for containing cleansing fluid, a filter, an overflow pipe, leading from the tank to said filter, means for returning the fluid to the tank after filtration, an inclined tube which extends from a point below the tank to a point above the same, a fluid tight connection between the tank and said tube, a second tube, and a connection leading from the upper end of the inclined tube to the second named tube.

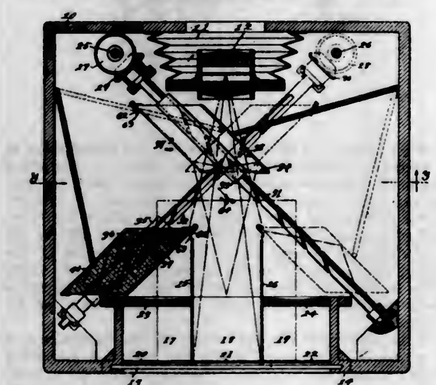
3. In apparatus for desmutting and deodorising smutted grain, a tank for containing cleansing fluid, a filter, an overflow pipe, leading from the tank to said filter, means for returning the fluid, to the tank after filtration, an inclined tube which extends from a point below the tank to a point above the same, a fluid tight connection between the tank and said tube, a second tube, a connection leading from the upper end of the inclined tube to the second named tube, a third tube into which the second named tube discharges, means for introducing grain into the tank, means positioned respectively in the tank, and tubes for moving the grain therethrough, the floor of the upper portion of the inclined tube being perforated whereby the grain is drained as it is passed over the same, and means for conducting the drainage to the filter.

4. In apparatus for desmutting and deodorising smutted grain, a tank for containing cleansing fluid, a filter, an overflow pipe, leading from the tank to said filter, means for returning the fluid to the tank after filtration, an inclined tube which extends from a point below the tank, to a point above the same, a fluid tight connection between the tank and said tube, a second tube, a connection leading from the upper end of the inclined tube to the second named tube, a third tube into which the second named tube discharges, means for introducing grain into the tank, means positioned respectively in the tank, and tubes for moving the grain therethrough, the floor of the upper portion of the inclined tube being perforated whereby the grain is drained as it is passed over the same, means for conducting the drainage to the filter and a spray pipe, within the second named tube for rinsing the grain.

5. In apparatus for deodorising and desmutting smutted grain, a tank, baffle plates positioned therein, semi-circular depressions in the bottom of said tank, a shaft revolubly mounted therein, a plurality of flights on said shaft, an inclined tube which extends from a point below the tank to a point above the same, a fluid tight connection between the tank and said tube, a helical conveyer in said tube, a second tube, a helical conveyer therein, a spray pipe disposed in said second tube, and an Archimedean conveyer into which the second tube discharges.

[Claim 6 not printed in the Gazette.]

1,207,513. COLOR-PHOTOGRAPHING APPARATUS. WILLIAM HENRY DOHERTY, Charlestown, Mass. Filed June 17, 1914. Serial No. 845,580. (Cl. 95—2.)

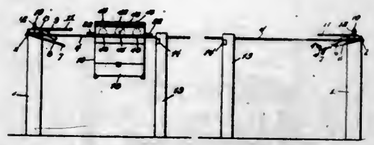


1. A camera, comprising a casing, a lens, a plurality of light reflecting elements, and means for sliding said elements obliquely across the axis of said lens to direct light rays to different portions of a plane perpendicular to the axis of said lens.

2. A camera, comprising a casing, a lens, a plurality of light reflecting elements, and means for sliding said elements obliquely at different periods across the axis of said lens to direct light rays to different portions of a plane perpendicular to the axis of said lens.

3. A camera, comprising a casing, a lens, a plurality of light reflecting elements, and means for sliding said elements obliquely at different periods across the axis of said lens with an interval therebetween to direct light rays to different portions of a plane and to expose another portion of said plane to direct light rays from said lens.

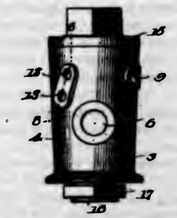
1,207,514. TELPHERAGE APPARATUS. ITHAMAR B. DRINKARD, Mart, Tex. Filed May 16, 1916. Serial No. 97,910. (Cl. 104—146.)



1. In telpherage apparatus, a horizontal track, a carrier suspended from said track and adapted to traverse the same, a motor on said carrier, a drive wheel on the carrier, driving connections between said wheel and motor including a reversible clutch, a lever connected to said clutch and capable of vertical swinging movement to operate the clutch to reverse the connections between the motor and the drive wheel, and a rod at each end of the track having an inclined end adapted to engage said lever and swing the latter and operate said clutch.

2. In telpherage apparatus, a horizontal track, a carrier suspended from said track and adapted to traverse the same, a motor on said carrier, a drive wheel on the carrier, driving connections between said wheel and motor including a reversible clutch, a lever connected to said clutch and capable of vertical swinging movement to operate the clutch to reverse the connections between the motor and the drive wheel, a rod at each end of the track having an inclined end adapted to engage said lever and swing the latter and operate said clutch, and a spring tensioned starting rod pivoted at each end of said track and adapted to be engaged by the carrier to place the spring under tension whereby initial movement may be imparted to the carrier so that the latter may travel in the opposite direction along the track.

1,207,515. TRAIN-STOPPING APPARATUS. JEREMIAH L. DUGGAN and JOHN D. MAYNARD, New London, Conn. Filed Sept. 15, 1914. Serial No. 861,870. (Cl. 137—26.)

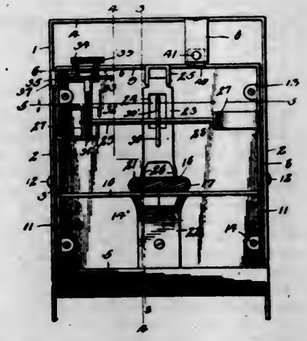


A valve of the class described comprising a casing having diametrically opposed inlet and outlet ports, and spaced horizontally arranged ports disposed in a plane above the first mentioned ports, a plug rotatably mounted within the casing and having a bore adapted to register with the first mentioned ports, and a transverse groove adapted to register with the second mentioned ports in one position of the plug, said casing being further provided with spaced superimposed ports, and said plug having an additional groove adapted to register with the last mentioned ports when the above mentioned ports of the respective parts are out of registration.

1,207,516. WASHBOARD. PERREY MILTON DURDEN, Lufkin, Tex. Filed Apr. 5, 1916. Serial No. 89,242. (Cl. 68—29.)

1. A washboard comprising a supporting frame, a rubbing board mounted within said frame to turn when articles are rubbed thereon, a housing carried by the supporting frame and received in an opening in the rubbing board, a follower within said housing, a link connected with the rubbing board for swinging movement, and

mechanism carried by the supporting frame and rubbing board and operable through the turning movement of said board to impart swinging movement to the link.



2. A washboard comprising a supporting frame, a rubbing board mounted within said frame to turn when articles are rubbed thereon, a housing having an end received in an opening in the rubbing board and provided with a slotted top wall, a follower loosely mounted in the housing, a link connected with the rubbing board for swinging movement, spaced fingers on said link passing through the slotted top wall of the housing and engaged with the follower, and mechanism carried by the supporting frame and the rubbing board and operable through the turning movement of the rubbing board to impart movement to the follower within the housing.

3. A washboard comprising a supporting frame, a rubbing board frame pivotally connected with the supporting frame, a rubbing board carried by the rubbing board frame to impart swinging movement thereto when articles are rubbed on the rubbing board, a soap housing having an end received in an opening in the rubbing board, a follower disposed within said housing, means for imparting sliding movement to the follower, a shaft carried by the rubbing board frame and provided with a cam-wheel, and mechanism connected with the supporting frame and rubbing board frame and operable through the rocking movement of the rubbing board frame to rotate said shaft and cause the cam-wheel thereon to contact with said means.

4. A washboard comprising a supporting frame, a rubbing board frame pivotally connected with the supporting frame, a rubbing board removably connected with the last mentioned frame and adapted to impart rocking movement to the rubbing board frame when articles are rubbed on the rubbing board, a housing carried by the rubbing board frame and having an end received in an opening in the rubbing board, a follower in said housing, means for imparting sliding movement to the follower including a shaft having a worm-wheel thereon, and mechanism carried by the supporting frame and rubbing board frame and operable through the rocking movement of the rubbing board frame to rotate said worm-wheel.

5. A washboard comprising a supporting frame, a rubbing board frame mounted to turn within said supporting frame, a rubbing board having a transversely extending slot therein and connected with the rubbing board frame to impart swinging movement thereto when articles are rubbed thereon, a housing carried by the rubbing board frame and having an end received in the opening in the rubbing board, said housing being adapted to receive a cake of soap, means for imparting movement to the soap within the housing including a worm-shaft having a ratchet wheel thereon, and a spring pressed pawl adapted to be operably engaged with the ratchet wheel by the turning movement of the rubbing board supporting frame.

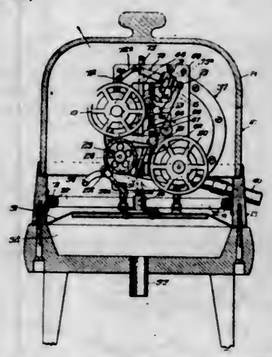
1,207,517. METHOD OF MAKING SCYTHES. HERBERT EBNER, Vienna, Austria-Hungary. Filed Apr. 1, 1916. Serial No. 88,391. (Cl. 76—101.)



1. The method of making scythes which consists in making the part of the back piece which forms the point of the scythe broader, forming the point by cutting, twisting the back thus formed some distance from the point through an angle of about 90°, and in welding said twisted piece to the blade proper, substantially as, and for the purpose, set forth.

2. The method of making scythes which consists in making the scythe blade proper and back piece in two different parts, twisting the back piece some distance from its point so as to bring a wider surface in contact with said blade proper, and in welding the two parts together, substantially as, and for the purpose, set forth.

1,207,518. RECORDING APPARATUS. RAY L. EDDY, Chicago, Ill. Filed July 31, 1914. Serial No. 854,327. (Cl. 234—1.)



1. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet, for projecting thereon gas under test means operatively connected for moving said record sheet past said nozzle, said moving mechanism being actuated when certain relative air conditions are brought about between the inside of the casing and a chamber outside of said casing, the air conditions in the latter being furnished from a source separate from the source of gas under test, substantially as described.

2. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet for projecting thereon gas under test, and means operatively connected for moving said record sheet past said nozzle, said operating mechanism being actuated when certain relative air conditions are brought about between the inside of the casing and a chamber outside of said casing, the air conditions in the latter being furnished from a source separate from the source of gas under test, substantially as described.

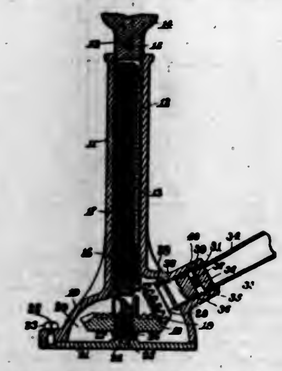
3. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet for projecting a gas under test onto said sheet, means operatively connected for moving said record sheet past said nozzle, a shiftable member for actuating said means, said shiftable member being moved by a creation of air conditions supplied from a source other than the source of gas under test, substantially as described.

4. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet, means operatively connected for moving said record sheet past said nozzle, and a shiftable member operatively connected to said operating means, said shiftable member being operated by air conditions above and below the same, the air conditions on one side thereof being supplied from a source other than the source of gas under test, substantially as described.

5. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet, means operatively connected for moving said record sheet past the nozzle, a shiftable division wall within the casing, means for shifting said wall controlled by air conditions supplied from a source other than the source of gas under test, and an operative connection between said record sheet moving means and said shiftable wall, substantially as described.

[Claims 6 to 34 not printed in the Gazette.]

1,207,519. LIFTING-JACK. EDWARD ERICKSON, Cliftondale, and PETER SJOSTROM, Maplewood, Mass. Filed Feb. 4, 1916. Serial No. 76,486. (Cl. 254—103.)



1. In a device of the class described, the combination of a standard; a reciprocating tubular member therein; a nut in the lower end thereof; a screw threaded member extending through said nut; a bevel gear secured to the lower end of said threaded member; a bevel pinion meshing therewith; means for rotating said pinion; a base plate secured to the bottom of said standard provided with a conical seat in axial alinement with said threaded member; and a stud adjustably mounted in the end of said threaded member and having a conical end positioned in said seat.

2. In a device of the class described, the combination of a standard; a reciprocating tubular member therein; a nut in the lower end thereof; a screw threaded member extending through said nut; a bevel gear secured to the lower end of said threaded member; a bevel pinion meshing therewith; means for rotating said pinion; a base plate secured to the bottom of said standard provided with a conical seat in axial alinement with said threaded member; a stud screwed into the end of said threaded member and having a conical end positioned in said seat; and means for locking said stud in adjusted position.

3. In a device of the class described, the combination of a standard having a chambered base and a cylindrical boss extending from said base; lifting mechanism in said base and standard including a revoluble member having a hub mounted in said cylindrical boss and provided with a reduced shank extending outwardly therefrom; a lateral projection from said shank; a spring pressed locking member in said shank adapted to extend beyond the periphery thereof; and a rotatable tubular member provided at one end with a slot to receive said projection and a recess to receive said locking member when said end has been positioned between the periphery of said shank and the wall of said boss.

4. In a device of the class described, the combination of a standard having a chambered base and a cylindrical boss extending from said base; lifting mechanism in said base and standard including a revoluble member having a hub mounted in said cylindrical boss and provided with a reduced shank extending outwardly therefrom; a rotatable member having a cylindrical portion adapted to be positioned between said shank and the inner wall of said boss; and means for locking said rotatable member to said shank.

5. In a device of the class described, the combination of a standard having a chambered base and a cylindrical boss extending from said base; a reciprocating tubular member in said standard; a nut in the lower end of said tubular member; a threaded member extending through said nut; a bevel gear secured to the lower end of said threaded member; a bevel pinion meshing with said gear and provided with a hub mounted in said cylindrical boss; a rotatable member having one end adapted for insertion in the outer end of said boss; and means within said boss for locking said inserted end to the hub of said pinion.

[Claims 6 to 11 not printed in the Gazette.]

1,207,520. PERCUSSION-SHELL. PIETRO FABIANI and CARLO AGNELLI, Genoa, Italy. Filed Apr. 21, 1913. Serial No. 762,716. (Cl. 102—2.)



1. An aerial percussion shell comprising in combination, a hammer, primer and shock receiver, a parachute device, and means coacting with said shock receiver and parachute device for allowing said hammer and primer gradually to come into contact during the descent of the shell, and to keep such position until impact explodes the bomb.

2. An aerial percussion shell comprising in combination, a hammer, a primer, parachute devices, and means coacting with said parachute devices for allowing said hammer and primer to gradually come into contact during the descent of the shell and to keep such position until impact explodes the bomb.

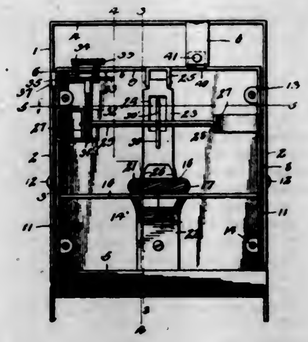
3. An aerial percussion shell comprising in combination, a hammer, a primer, parachute devices, and means coacting with said parachute devices for allowing said hammer and primer to gradually come into contact during the descent of the shell, and means for locking the mechanism by means of which the hammer is gradually brought into contact with the primer, said locking means being adapted to be withdrawn by the action of said parachutes during the flight of the bomb, substantially as described.

4. An aerial percussion shell comprising in combination, a hammer, a primer, a parachute device, a shock receiver, and a means arranged within the rear portion of the shell adapted to allow by its outward movement, the hammer to gradually approach the primer and come into contact with it, said means comprising a rod and retaining springs for normally holding said rod immovable, said springs being released by the pressure of air upon the parachute device.

5. An aerial percussion shell comprising in combination, a hammer, a primer, a parachute device, a shock receiver, and means arranged within the rear portion of the shell adapted to allow by its outward movement, the hammer to gradually approach the primer and come into contact with it, said means comprising a rod, retaining springs for normally holding said rod immovable, said springs being released by pressure of air upon the parachute device, and a ring, a cross member on said ring operated by the pressure of the air upon the parachute devices for raising said ring and for releasing said retaining springs, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

mechanism carried by the supporting frame and rubbing board and operable through the turning movement of said board to impart swinging movement to the link.



2. A washboard comprising a supporting frame, a rubbing board mounted within said frame to turn when articles are rubbed thereon, a housing having an end received in an opening in the rubbing board and provided with a slotted top wall, a follower loosely mounted in the housing, a link connected with the rubbing board for swinging movement, spaced fingers on said link passing through the slotted top wall of the housing and engaged with the follower, and mechanism carried by the supporting frame and the rubbing board and operable through the turning movement of the rubbing board to impart movement to the follower within the housing.

3. A washboard comprising a supporting frame, a rubbing board frame pivotally connected with the supporting frame, a rubbing board carried by the rubbing board frame to impart swinging movement thereto when articles are rubbed on the rubbing board, a soap housing having an end received in an opening in the rubbing board, a follower disposed within said housing, means for imparting sliding movement to the follower, a shaft carried by the rubbing board frame and provided with a cam-wheel, and mechanism connected with the supporting frame and rubbing board frame and operable through the rocking movement of the rubbing board frame to rotate said shaft and cause the cam-wheel thereon to contact with said means.

4. A washboard comprising a supporting frame, a rubbing board frame pivotally connected with the supporting frame, a rubbing board removably connected with the last mentioned frame and adapted to impart rocking movement to the rubbing board frame when articles are rubbed on the rubbing board, a housing carried by the rubbing board frame and having an end received in an opening in the rubbing board, a follower in said housing, means for imparting sliding movement to the follower including a shaft having a worm-wheel thereon, and mechanism carried by the supporting frame and rubbing board frame and operable through the rocking movement of the rubbing board frame to rotate said worm-wheel.

5. A washboard comprising a supporting frame, a rubbing board frame mounted to turn within said supporting frame, a rubbing board having a transversely extending slot therein and connected with the rubbing board frame to impart swinging movement thereto when articles are rubbed thereon, a housing carried by the rubbing board frame and having an end received in the opening in the rubbing board, said housing being adapted to receive a cake of soap, means for imparting movement to the soap within the housing including a worm-shaft having a ratchet wheel thereon, and a spring pressed pawl adapted to be operably engaged with the ratchet wheel by the turning movement of the rubbing board supporting frame.

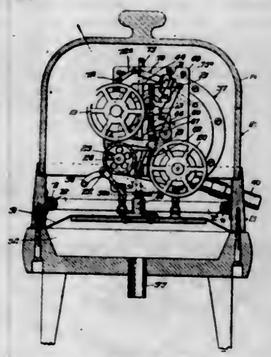
1,207,517. METHOD OF MAKING SCYTHES. HERBERT ERNER, Vienna, Austria-Hungary. Filed Apr. 1, 1916. Serial No. 88,391. (Cl. 76—101.)



1. The method of making scythes which consists in making the part of the back piece which forms the point of the scythe broader, forming the point by cutting, twisting the back thus formed some distance from the point through an angle of about 90°, and in welding said twisted piece to the blade proper, substantially as, and for the purpose, set forth.

2. The method of making scythes which consists in making the scythe blade proper and back piece in two different parts, twisting the back piece some distance from its point so as to bring a wider surface in contact with said blade proper, and in welding the two parts together, substantially as, and for the purpose, set forth.

1,207,518. RECORDING APPARATUS. RAY L. EDDY, Chicago, Ill. Filed July 31, 1914. Serial No. 854,327. (Cl. 234—1.)



1. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet, for projecting thereon gas under test means operatively connected for moving said record sheet past said nozzle, said moving mechanism being actuated when certain relative air conditions are brought about between the inside of the casing and a chamber outside of said casing, the air conditions in the latter being furnished from a source separate from the source of gas under test, substantially as described.

2. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet for projecting thereon gas under test, and means operatively connected for moving said record sheet past said nozzle, said operating mechanism being actuated when certain relative air conditions are brought about between the inside of the casing and a chamber outside of said casing, the air conditions in the latter being furnished from a source separate from the source of gas under test, substantially as described.

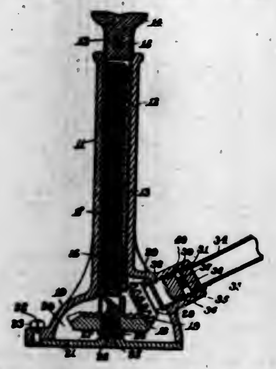
3. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet for projecting a gas under test onto said sheet, means operatively connected for moving said record sheet past said nozzle, a shiftable member for actuating said means, said shiftable member being moved by a creation of air conditions supplied from a source other than the source of gas under test, substantially as described.

4. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet, means operatively connected for moving said record sheet past said nozzle, and a shiftable member operatively connected to said operating means, said shiftable member being operated by air conditions above and below the same, the air conditions on one side thereof being supplied from a source other than the source of gas under test, substantially as described.

5. In a device of the class described, the combination of a casing, a record sheet within the casing, a projecting nozzle in operative relation to the record sheet, means operatively connected for moving said record sheet past the nozzle, a shiftable division wall within the casing, means for shifting said wall controlled by air conditions supplied from a source other than the source of gas under test, and an operative connection between said record sheet moving means and said shiftable wall, substantially as described.

[Claims 6 to 34 not printed in the Gazette.]

1,207,519. LIFTING-JACK. EDWARD ERICKSON, Cliftondale, and PETER SJOSTROM, Maplewood, Mass. Filed Feb. 4, 1916. Serial No. 76,486. (Cl. 254—103.)



1. In a device of the class described, the combination of a standard; a reciprocating tubular member therein; a nut in the lower end thereof; a screw threaded member extending through said nut; a bevel gear secured to the lower end of said threaded member; a bevel pinion meshing therewith; means for rotating said pinion; a base plate secured to the bottom of said standard provided with a conical seat in axial alinement with said threaded member; and a stud adjustably mounted in the end of said threaded member and having a conical end positioned in said seat.

2. In a device of the class described, the combination of a standard; a reciprocating tubular member therein; a nut in the lower end thereof; a screw threaded member extending through said nut; a bevel gear secured to the lower end of said threaded member; a bevel pinion meshing therewith; means for rotating said pinion; a base plate secured to the bottom of said standard provided with a conical seat in axial alinement with said threaded member; a stud screwed into the end of said threaded member and having a conical end positioned in said seat; and means for locking said stud in adjusted position.

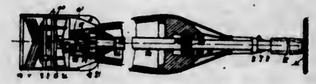
3. In a device of the class described, the combination of a standard having a chambered base and a cylindrical boss extending from said base; lifting mechanism in said base and standard including a revoluble member having a hub mounted in said cylindrical boss and provided with a reduced shank extending outwardly therefrom; a lateral projection from said shank; a spring pressed locking member in said shank adapted to extend beyond the periphery thereof; and a rotatable tubular member provided at one end with a slot to receive said projection and a recess to receive said locking member when said end has been positioned between the periphery of said shank and the wall of said boss.

4. In a device of the class described, the combination of a standard having a chambered base and a cylindrical boss extending from said base; lifting mechanism in said base and standard including a revoluble member having a hub mounted in said cylindrical boss and provided with a reduced shank extending outwardly therefrom; a rotatable member having a cylindrical portion adapted to be positioned between said shank and the inner wall of said boss; and means for locking said rotatable member to said shank.

5. In a device of the class described, the combination of a standard having a chambered base and a cylindrical boss extending from said base; a reciprocating tubular member in said standard; a nut in the lower end of said tubular member; a threaded member extending through said nut; a bevel gear secured to the lower end of said threaded member; a bevel pinion meshing with said gear and provided with a hub mounted in said cylindrical boss; a rotatable member having one end adapted for insertion in the outer end of said boss; and means within said boss for locking said inserted end to the hub of said pinion.

[Claims 6 to 11 not printed in the Gazette.]

1,207,520. PERCUSSION-SHELL. PIETRO FABIANI and CARLO AGNELLI, Genoa, Italy. Filed Apr. 21, 1913. Serial No. 762,716. (Cl. 102—2.)



1. An aerial percussion shell comprising in combination, a hammer, primer and shock receiver, a parachute device, and means coacting with said shock receiver and parachute device for allowing said hammer and primer gradually to come into contact during the descent of the shell, and to keep such position until impact explodes the bomb.

2. An aerial percussion shell comprising in combination, a hammer, a primer, parachute devices, and means coacting with said parachute devices for allowing said hammer and primer to gradually come into contact during the descent of the shell and to keep such position until impact explodes the bomb.

3. An aerial percussion shell comprising in combination, a hammer, a primer, parachute devices, and means coacting with said parachute devices for allowing said hammer and primer to gradually come into contact during the descent of the shell, and means for locking the mechanism by means of which the hammer is gradually brought into contact with the primer, said locking means being adapted to be withdrawn by the action of said parachutes during the flight of the bomb, substantially as described.

4. An aerial percussion shell comprising in combination, a hammer, a primer, a parachute device, a shock receiver, and a means arranged within the rear portion of the shell adapted to allow by its outward movement, the hammer to gradually approach the primer and come into contact with it, said means comprising a rod and retaining springs for normally holding said rod immovable, said springs being released by the pressure of air upon the parachute device.

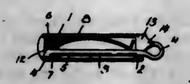
5. An aerial percussion shell comprising in combination, a hammer, a primer, a parachute device, a shock receiver, and means arranged within the rear portion of the shell adapted to allow by its outward movement, the hammer to gradually approach the primer and come into contact with it, said means comprising a rod, retaining springs for normally holding said rod immovable, said springs being released by pressure of air upon the parachute device, and a ring, a cross member on said ring operated by the pressure of the air upon the parachute devices for raising said ring and for releasing said retaining springs, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,207,521. STORAGE-BATTERY COMPOUND. NATHAN FALLER, Denver, Colo., assignor to Cook Railway Signal Company, Denver, Colo., a Corporation of Colorado. Filed Mar. 23, 1914. Serial No. 826,765. (Cl. 204—29.)

A storage battery compound composed of asbestos, dilute sulfuric acid and dilute sodium silicate, the said ingredients in the proportion of one pound of asbestos, sixteen pounds of sulfuric acid and two ounces of sodium silicate.

1,207,522. BUTTON-HOOK. CUTLER S. FEWELL, Canton, Ohio. Filed Nov. 30, 1914. Serial No. 874,815. (Cl. 24—40.)



A device of the class described including a casing, a shank slidable in said casing, said shank having its inner end enlarged providing laterally projecting lugs, on opposite sides thereof, a curved spring located in said casing, the medial portion of said spring abutting one wall of the casing, said spring having its opposite ends bent transversely to the body thereof, transversely extending lugs formed upon said bent ends, said one side wall of said casing being provided with openings at opposite ends thereof, through which said transversely extending lugs of the spring extend for holding said spring properly positioned within the casing, said upwardly bent ends of said spring adapted for engagement with the enlarged head of the shank holding the same in an extended or closed position with relation to the casing, the outer end of said shank having a hook formed thereon adapted to engage an abutment on said casing extending longitudinally therefrom, said hook end of the shank forming an eye for attaching said casing to a ring.

1,207,523. SHINGLE-STRIP. SILAS M. FORD, St. Paul, Minn. Filed Mar. 11, 1916. Serial No. 83,505. (Cl. 108—7.)



1. A roofing strip having shingle-like tabs formed throughout the lower portion thereof, the side edges of said tabs being thickened to reinforce the tab, and forming a channel or gutter between the thickened portions.

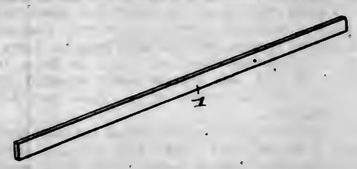
2. A roofing strip having shingle-like tabs formed throughout the lower portion thereof by a T-shaped slit, the side edges of the tabs being reinforced by bending the portions described by the slitting, back upon the tab.

3. A roofing strip having shingle-like tabs formed throughout the lower portion thereof by a T-shaped slit, the side edges of the tabs being reinforced by bending the portions described by the slitting, back upon the upper surface of the tab forming a gutter, and the upper end of said turned back portion forming a gage line for laying the superimposed strip.

4. As an article of manufacture a roofing strip having shingle-like tabs formed throughout the lower portion thereof, and reinforcing means extending along the side edges of said tabs so formed.

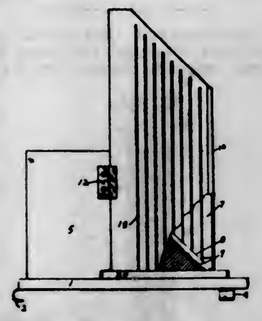
1,207,524. ELASTIC BITUMINOUS SPACING-PLANK FOR PAVEMENTS. CHARLES N. FORREST, Rahway, N. J., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa., a Corporation of West Virginia. Filed June 6, 1913. Serial No. 772,039. (Cl. 106—31.)

A transportable bituminous spacing plank, for use in the formation of joints of pavements comprising a hard native bitumen, petroleum residuum and a heavy viscous bitumen, combined in such proportions as to produce a substance having moderate penetration, a melting point



over 190° F. and that absence of stickiness upon its surface which renders the article capable of transportation and placing without any container.

1,207,525. BREAD-CUTTER. THOMAS W. FORSTER, San Bruno, Cal. Filed Oct. 26, 1914. Serial No. 868,787. (Cl. 146—12.)



1. A cutting device comprising a support, a slotted guide detachably secured to the support, said guide carrying supports in the same plane as the first support, and stops for determining the position of the object to be cut when it is placed on the supports.

2. A cutting device comprising a support, a plurality of guide bars detachably secured to the support, a plurality of other supports connecting the guide bars and level with the first support, said guide bars extending above the several supports, and stops for determining the position of the object to be cut when placed upon the supports.

3. In a cutting device, a support having an inclined run-way, a plurality of guide bars detachably secured to the support over the inclined run-way, a plurality of additional supports carried by the guide bars in substantially the same plane as the top of the support, and stops for determining the position of the object when placed on the supports.

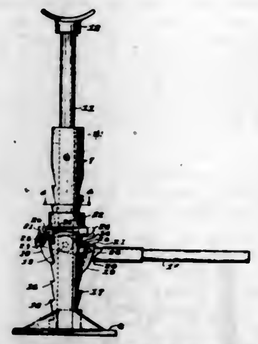
4. In a cutting device, a support having an inclined runway, a plurality of guide bars detachably secured to the support on each side thereof, and a plurality of other supports over the inclined runway spaced away from each other and connected at their ends with the several guide bars one support for each pair of guide bars.

5. In a cutting device, a support having an inclined run-way, a plurality of guide bars detachably secured to the support on each side thereof adjacent the inclined run-way, other supports carried by the guide bars over the inclined run-way, and stops for determining the position of the object to be cut when placed on the supports.

[Claims 6 to 10 not printed in the Gazette.]

1,207,526. JACK. CHARLES V. FOWLER, Los Angeles, Cal. Filed May 22, 1916. Serial No. 99,036. (Cl. 254—110.)

1. In a lifting jack, the combination of a notched standard, a reciprocable lifting member mounted thereon, a lever pivotally secured to said lifting member, a pair of oppositely disposed pawls pivotally mounted intermediate their ends on said lever and adapted to engage the notches on said standard, a pawl block disposed upon said pawls, said block mounted for rotation, and means thereon tending to force said pawls out of said notches when in engagement with a pawl, and other means on said block tending to force said pawls into said notches when in engagement with a pawl.



2. In a lifting jack, the combination of a notched standard, a reciprocable lifting member mounted thereon, a lever pivotally secured to said lifting member, a pair of oppositely disposed pawls pivotally mounted intermediate their ends on said lever and adapted to engage the notches on said standard, a pawl block disposed upon said pawls, said block having oppositely disposed surfaces for engaging the pawls on adjacent sides of their pivotal point and oppositely disposed surfaces for engaging the pawls upon the opposite sides of their pivotal points.

3. In a lifting jack, the combination of a notched standard, a reciprocable lifting member mounted thereon, a lever pivotally secured to said lifting member, a pair of oppositely disposed pawls pivotally mounted intermediate their ends on said lever and adapted to engage the notches on said standard, each of said pawls provided on its upper end with abutments, one abutment disposed on each side of the pivotal point, a pawl block disposed upon said pawls having two oppositely disposed faces for engagement with the complementary abutments on said pawls, and another pair of oppositely disposed faces for engagement with the other abutments on said pawls.

4. In a lifting jack, the combination of a notched standard, a reciprocable lifting member mounted thereon, a lever pivotally secured to said lifting member, a pair of oppositely disposed pawls pivotally mounted intermediate their ends on said lever and adapted to engage the notches on said standard, each of said pawls provided on its upper end with abutments, one abutment disposed on each side of the pivotal point, a weighted pawl block having dimensions in transverse directions such that when resting upon said pawls in one position it will engage the inner abutments and when rotated to another position it will engage the outer abutments.

1,207,527. PHOTOGRAPHIC PROCESS. WILLIAM FRANCIS FOX, New York, N. Y., assignor to Kinemacolor Company of America, New York, N. Y., a Corporation of Delaware. Filed June 23, 1914. Serial No. 846,738. (Cl. 95—2.)

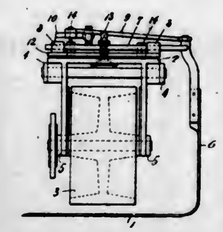


1. A photographic process comprising the production of two negative images, one taken through a green filter and one through a red filter, imprinting one of said images upon light transmitting material, coated with a sensitive emulsion, toning the print to a color complementary to that of the screen through which the corresponding negative was taken, imprinting the other of said images on said material in registry with the first image imprinted thereon, and coloring the second image a color complementary to that of the screen through which its negative was taken, substantially as set forth.

2. A photographic process comprising the production of two negative images, one taken through a green filter and one through a red filter, imprinting one of said images upon light transmitting material, coated with a sensitive emulsion, toning the print to a color complementary to that of the screen through which the corresponding negative was taken, imprinting the other of said images on said material in registry with the first image imprinted thereon, mordanting the second image and dyeing the same with a suitable dye, which will impart to the image a color complementary to that of the screen through which its negative was taken, substantially as set forth.

3. A photographic process comprising the production of two negative images, from one of which certain color sensations have been omitted and from the other of which complementary color sensations have been omitted, imprinting one of said images upon light transmitting material, having a suitable sensitive surface, coloring the print with a color corresponding to the sensations omitted from the corresponding negative, imprinting the other of said images on said material in registry with the first image imprinted thereon, and coloring said image with a color corresponding to the sensations omitted from the corresponding negative, one of said images being colored by toning the same in an appropriate toning bath, and the other of said images being colored by mordanting the same and dyeing the same with an appropriate dye, substantially as set forth.

1,207,528. MACHINE FOR CUTTING OFF THE TOPS OF BEETS AND THE LIKE. OLOF FRANKMAN, Marieberg, Sweden. Filed Mar. 27, 1916. Serial No. 87,083. (Cl. 55—107.)



1. In a beet topping machine, the combination of a frame, a roller, a knife support, vertical guides for the knife support, means for vertically adjusting the knife support on the guides independently of the roller, a knife having a stem, said knife extending across the path of movement of the roller, a slide mounted on the knife support and to which the stem is attached, and means including a bell crank lever for reciprocating the slide to operate the knife across the path of movement of the roller.

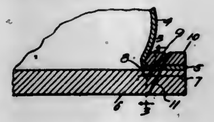
2. In a beet topping machine, the combination of a frame, a cutting device, a regulating member in advance of the cutting device adapted to engage and spread the beet tops, a holder for supporting the cutting device and the regulating member, means for mounting the holder to permit same to be vertically moved in relation to the frame, and means for raising and lowering the cutting device independently of the regulating member.

3. In a beet topping machine, the combination of a frame, a regulating member adapted to engage and spread the beet tops, a support, a cutting device mounted on the support and extending across the path of movement of the regulating member, means for vertically guiding the sup-

port, and a screw for vertically adjusting the support independently of the regulating member.

4. In a beet topping machine, the combination of a frame, a regulating member mounted in the frame, a support mounted on the frame, vertical guides between the frame and the support, a screw between the support and the frame to vertically adjust the support on the frame, a slide mounted on the support, a knife extending across the path of movement of the regulating member and provided with a vertical stem attached to the slide, and means for reciprocating the slide.

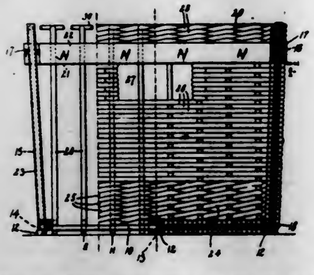
1,207,529. METHOD OF MAKING SHOES. WARREN FRASIER, Harrisburg, Pa. Filed Dec. 22, 1915. Serial No. 68,266. (Cl. 12—142.)



1. A method of making shoes including the joining of a sole and an outwardly lasted upper comprising the slitting of the sole inwardly from its edge at a point above where the lower part of the sole will flex and stapling the upper to the sole, clenching the staples at the slit of the sole and in securing a welt to the outwardly extending portion of the upper.

2. A method of making shoes including the joining of a sole and an outwardly lasted upper, comprising the slitting of the sole inwardly from its edge at a point where when slit part of the sole below the slit will not flex; stapling the upper to the sole, and clenching the staples at the slit of the sole.

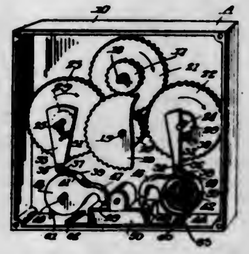
1,207,530. BASKET. EDWARD FREYER, New York, N. Y. Filed Apr. 27, 1915. Serial No. 24,262. (Cl. 217—122.)



1. A wicker basket, comprising a bottom and a body portion, said bottom being formed of two sets of interwoven wickers, one of said sets extending in one direction and being bent out of the plane of said bottom upwardly to form the stakes of part of said body portion, and the other set running in a direction at an angle to said first named set, some of the second set being also bent out of the plane of the bottom upwardly to form the stakes of the remainder of said body portion, reinforcing bars provided with apertures through which said stakes extend, wickers interwoven with said stakes below and above said reinforcing bars, said stakes, reinforcing bars and said last named wickers forming the body portion of the basket, and reinforcing bars upon said bottom provided with apertures through which said first named set of the bottom wickers extends, two of said last named reinforcing bars forming two of the boundary lines of the bottom and having in their outer faces longitudinal recesses in which the bends of said first named set of bottom wickers are disposed.

2. A wicker basket, comprising a bottom and a body portion, said bottom being formed of two sets of interwoven wickers, one of said sets extending in one direction and being bent out of the plane of said bottom upwardly to form the stakes of part of said body portion, and the other set running in a direction at an angle to said first named set, some of the second set being also bent out of the plane of the bottom upwardly to form the stakes of the remainder of said body portion, wickers interwoven with said stakes, said stakes and said last named wickers forming the body portion of the basket, and reinforcing bars upon said bottom provided with apertures through which said first named set of the bottom wickers extends, two of said reinforcing bars forming two of the boundary lines of the bottom and having in their outer faces longitudinal recesses in which the bends of said first named set of bottom wickers are disposed.

1,207,531. AUTOMATIC SWITCH-CONTROLLER. GEORGE ARTHUR FRITACH, Renfrew, Ontario, Canada. Filed Nov. 11, 1915. Serial No. 60,925. (Cl. 74—46.)



1. An electric switch controller, comprising a rotatably supported casing provided with an offset arm carrying a plunger, resilient means housed in the casing designed to control the rotation of the same, a pivotally mounted pawl provided with a locking tip coacting with the casing, and means adapted to automatically engage with the pawl and release the locking tip.

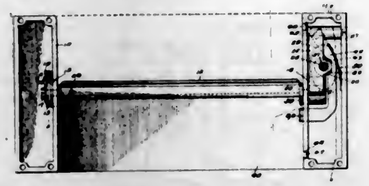
2. An electric switch controller comprising a rotatably supported casing, a plunger carried by the casing, locking means coacting with the casing to retain the same in a non-operative position, a pivotally mounted lever coacting with the locking means designed to release the casing, means for rotating the casing to permit of the plunger closing an electric circuit and means for limiting the rotation of the casing.

3. An electric switch controller comprising a rotatably supported casing, a plunger carried by the casing, locking means coacting with the casing, a lever designed to automatically engage with the locking means and release the casing, means for rotating the casing to permit of the plunger closing an electric circuit, a peripheral projection on the casing and a stop member coacting with the projection.

4. An electric switch controller comprising a rotatably supported casing, a plunger carried by the casing, resilient means for rotating the casing to permit of the plunger closing an electric circuit, a pivotally mounted pawl provided with a locking tip coacting with the casing and retaining the same in a non-operative position, a pivotally mounted lever adapted to automatically engage with the pawl and release the locking tip and a spring actuated pawl controlling the action of the said lever.

1,207,532. DEAL-PLATE. CLARENCE A. FULLERTON, New York, N. Y. Filed Mar. 3, 1915. Serial No. 11,897. (Cl. 211—12.)

1. In a deal plate of the class described, a swiveled plate, trunnions formed on said swiveled plate, housings to receive said trunnions, one of said trunnions having portions of its periphery recessed, a pawl carried by one of said housings to engage in any one of said recessed portions of said trunnions, a stem slidably and rotatably carried by said housing, an enlargement formed on said stem to disengage said pawl from the recessed portion of said trunnion, an angular projection from one end of said stem, and said housing having a slotted socket formed therein to receive said stem and its angular projection in a portion of the longitudinal movement of said stem.



2. In a deal plate of the class described, a swiveled plate, trunnions formed thereon, one of said trunnions having portions thereof recessed, housings to receive said trunnions, a spring pressed pawl carried in said housing to engage the recessed portion of said trunnion, a swinging leaf carried by said swiveled plate, a second pawl carried by said housing to limit the movement of said swinging leaf, and a stem carried by said housing having a longitudinally and rotatable movement to actuate the pawls for releasing the trunnion and swinging leaf.

3. In a deal plate of the class described, a swiveled plate, trunnions formed thereon, a swinging leaf carried by said swiveled plate, lugs formed on said swinging leaf to engage said swiveled plate, and limiting a swinging motion of said leaf in one direction, said swiveled plate being capable of being swung from horizontal to vertical or inverted position, said swinging leaf forming a closure for a portion of the opening when said swiveled plate is in horizontal or inverted position and locking pawls for engaging one of said trunnions of said swiveled plate, and said swinging leaf in certain positions thereof.

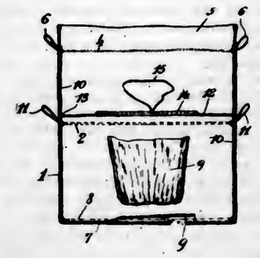
4. In a deal plate of the class described, a swiveled plate, trunnions formed thereon, housings adapted to receive said trunnions, one of said trunnions having recessed portions thereon, a pawl carried by one of said housings adapted to engage the recessed portions of said trunnions, a rotatable and longitudinally movable stem carried by said housing, a swinging leaf having lugs formed thereon pivotally secured to said swiveled plate having limited swinging motion in one direction, a second pawl carried by said housing to engage said swinging leaf in one position thereof, a cam formed on said stem carried by said housing, said stem having a limited rotary movement, a locking means for said stem against longitudinal movement of said stem except in one position thereof, and said stem releasing said pawls by longitudinal and rotary motion to free said swiveled plate and swinging leaf for adjustment.

5. In a deal plate of the class described, a swiveled plate, trunnions formed thereon, housing to receive said trunnions, locking means carried by said housings for said trunnions, a swinging leaf carried by said swiveled plate, locking means carried by said housing for said swinging leaf in one position, and stops carried by said housing for said swinging leaf in the limit of its swing in each direction.

1,207,533. COLLAPSIBLE TRAVELING-BAG. HELEN C. GAMBLE, New York, N. Y. Filed Jan. 12, 1916. Serial No. 71,641. (Cl. 150—1.)

1. The combination with fabric formed into a container and having a top and a bottom, of means for closing the top and lateral stiffening means disposed intermediate said top and said bottom variable at will comprising a portion thereof displaceable relatively to another portion thereof and extending peripherally along the sides of the container.

2. The combination with fabric formed into a container and having a bottom, of lateral stiffening means variable



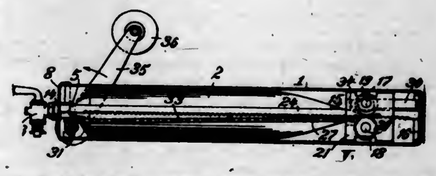
at will comprising a portion thereof displaceable relatively to another portion thereof, collapsible stiffening means for said bottom and means for suspending the container.

3. The combination with fabric formed into a container and having a top and a bottom, of means for closing the top and lateral stiffening means disposed below the top and variable at will formed of a plurality of spaced members carried by the fabric, each member comprising a portion thereof displaceable relatively to another portion thereof and extending peripherally along the sides of the container.

4. The combination with fabric formed into a container and having a bottom, of lateral stiffening means variable at will formed of a plurality of spaced members carried by the fabric, each member comprising a portion thereof displaceable relatively to another portion thereof and extending peripherally along the sides of the container, collapsible stiffening means for said bottom and means suspending the container.

5. The combination with fabric formed into a container and having a top and a bottom, of means for closing the top and lateral stiffening means intermediate the top and the bottom comprising an elongated rod of pliable material extending peripherally along and carried by the sides of the container, said rod having each end provided with a loop embracing another portion of said rod.

1,207,534. FIRE-EXTINGUISHER. JOHN B. GAMMETER, Akron, Ohio. Filed June 15, 1915. Serial No. 34,134. (Cl. 221—60.)



1. In a fire extinguisher, in combination, a collapsible container for a fire extinguishing substance, a pair of compression rollers, said container resting between said rollers, and mechanism, independent of said container for rotating said rollers, adapted to be manually operated from the discharge end of said container.

2. In a fire extinguisher, in combination, a collapsible container for a fire extinguishing substance, a pair of compression rollers adapted to squeeze material from said container, one end of said container resting between said rollers, and mechanism independent of said container for rotating said rollers comprising a rotatable shaft and gears positioned on said rollers, adapted to be actuated manually by means located at the other end of said container.

3. In a fire extinguisher, in combination, a container for a fire extinguishing substance, a casing therefor, a

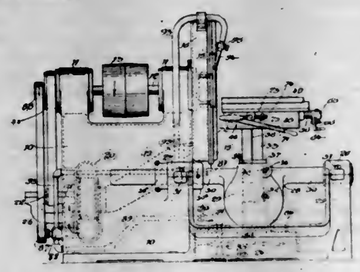
pair of compression rollers, said container resting between said rollers, mechanism independent of said container manually operable from a point remote from said roller for rotating said rollers in opposite directions comprising teeth formed on said rollers and rack members mounted in said casing to coact therewith, said rack members being oppositely disposed.

4. In a fire extinguisher, in combination, a container for a fire extinguishing substance, a pair of rollers, one end of said container being adapted to seat between said rollers, said rollers being provided with teeth, racks adapted to coact with said teeth to rotate said rollers, and means to move said rollers along the surface of said container to thereby cause simultaneously the rotation thereof, said means being manually operable by means located at the other end of said container.

5. In a fire extinguisher, in combination, a container for a fire extinguishing substance, compression rollers in contact with the upper and lower surfaces of said container, means to permit the insertion of the end of said container between said rollers, comprising an eccentrically mounted rotatable support, said support upon rotation being adapted to raise one of said rollers from the other, and manually operable means located near the opposite end of said container for rotating said support.

[Claims 6 to 11 not printed in the Gazette.]

1,207,535. DISK GRINDER. FREDERIC E. GARDNER, Beloit, Wis., assignor of one-half to Louis Waldo Thompson, Beloit, Wis. Filed May 7, 1915. Serial No. 26,475. (Cl. 51—12.)



1. A disk grinder having, in combination, a base, a grinding wheel mounted therein, two bearings located a substantial distance apart, a rocker member comprising a shaft having its ends mounted in said bearings and a central depending counterweight located between the bearings and below the axis of the shaft, a work-table positioned in front of said driving wheel, and a pedestal supporting the work-table at its upper end and vertically adjustably mounted in said rocker member.

2. A grinding machine, having, in combination, a rotary grinding wheel, a work-table located in front of the wheel and comprising a base, a top slidable on the base toward and away from the wheel, a spring tending to move the top toward the wheel, and means for moving the top away from the wheel against the action of said spring.

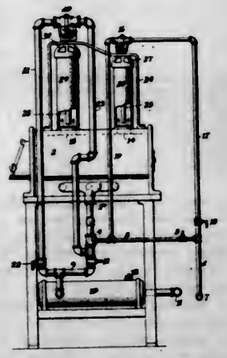
3. A grinding machine having, in combination, a grinding wheel, a work-table comprising a base, a member slidable with relation to the base toward and away from said wheel, means tending to move said member toward the wheel, and means for moving the member away from the wheel in opposition to the first mentioned means.

4. A grinding machine having, in combination, a rotary grinding wheel, a work-table mounted in front of the wheel and comprising a base, a work support slidable thereon toward and away from said wheel, and a coiled compression spring tending to move said work support toward the grinding wheel.

5. A grinding machine having, in combination, a work table comprising a base, a top slidable thereon and having a depending lug, and a coiled compression spring mounted within the base and beneath said top and bearing at one end against said lug, the other end of said spring bearing against a part on the base.

[Claims 6 to 12 not printed in the Gazette.]

1,207,536. MEANS FOR CONTROLLING TEMPERATURES. HARRY E. GILBERT, Conshohocken, Pa. Filed Sept. 10, 1913. Serial No. 789,025. (Cl. 236—5.)



1. In apparatus of the character stated, the furnace or oven, combined with a pipe to supply fuel to the furnace, a pipe to supply air to the furnace, a separate control valve in each of said pipes for separately controlling the supply of fuel and of air to the furnace, a by-pass about each of the valves whereby the larger portion of the fuel and air required may be fed through the respective pipes to the furnace or oven without passing through the regulating valves, and thermostatic means actuated by the temperature conditions of the furnace or oven for operating the separate control valves for fuel and air whereby the said fuel and air may be automatically supplied in independently regulated quantities.

2. In apparatus of the character stated, the furnace or oven, combined with a pipe to supply fuel to the furnace, a pipe to supply air to the furnace, a separate control valve in each of said pipes for separately controlling the supply of fuel and of air to the furnace, a by-pass about each of the valves whereby the larger portion of the fuel and air required may be fed through the respective pipes to the furnace or oven without passing through the regulating valves, hand adjustable means for said by-passes whereby definite static orifices may be provided to provide constant flow of fuel and air, and thermostatic means actuated by the temperature conditions of the furnace or oven for operating the separate control valves for fuel and air whereby the said fuel and air may be automatically supplied in independently regulated quantities.

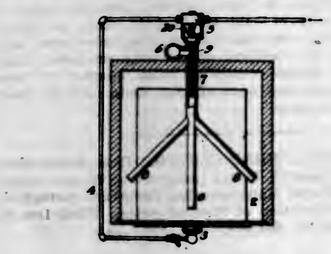
3. In apparatus of the character stated, a furnace or oven having outlets for products of combustion, combined with a pipe to supply fuel to the furnace, a pipe to supply air to the furnace, a separate control valve in each of said pipes for separately controlling the supply of fuel and air to the furnace, and thermostatic means actuated by the temperature conditions of the furnace or oven for operating the separate control valves for fuel and air whereby said fuel and air may be independently and automatically supplied in regulated quantities, said means comprising thermostatic members having connection with the valves for operating them, casings respectively supported above the outlets from the furnace or oven and open at the bottom both to the outlets of the furnace and to the atmosphere and also having an outlet at the top, said casings arranged for receiving and directing heated products of combustion passing from the furnace or oven to and over the expansible members, whereby moving currents of heated products may be permitted to pass toward and act upon the thermostatic members within the casings.

4. In apparatus of the character stated, a furnace or oven, combined with means for supplying air and fuel to the furnace or oven, separately operating thermostatically controlled valve devices for independently controlling the supply of air and fuel to the furnace or oven in accordance with the temperature requirements thereof, and separate hand controlled means for by-passing air and fuel to the furnace or oven about the thermostatically controlled valves but without affecting their normal operation.

5. In apparatus of the character stated, the combination of the furnace or oven, with hand controlled means for supplying fuel and air to the furnace or oven having therein separate automatic valves for separately measuring the fuel and air supplied automatically to the furnace or oven, and thermostatic devices energized by the temperature conditions of the furnace or oven for automatically operating the said automatic fuel and air valves, whereby the temperature of the furnace or oven may be quickly raised to the maximum temperature under hand control and then be automatically maintained.

[Claims 6 and 7 not printed in the Gazette.]

1,207,537. METHOD FOR REGULATING TEMPERATURES. HARRY E. GILBERT, Conshohocken, Pa. Filed Mar. 9, 1915. Serial No. 13,297. (Cl. 236—5.)

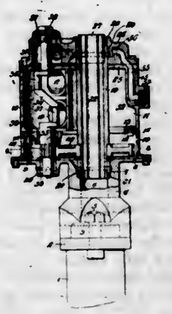


1. The hereindescribed method of controlling the temperature of furnaces, which consists of supplying fuel to the furnace heating the contents of a unitary space thereby, collecting a plurality of separate currents of the heated contents previously brought to a heated condition by the furnace and providing thereby an average heated mixture therefrom, thermostatically controlling the supply of fuel to the furnace inversely in accordance with the variations in temperature of the average heated mixture, and varying the thermostatic action in controlling the supply of fuel by manual regulation to predetermine the normal average temperature to be maintained in the unitary space by the furnace.

2. The herein described method of controlling temperatures of a unitary heated chambered space, which consists in supplying fuel to the furnace, heating thereby the contents of the unitary space, collecting a plurality of currents of the heated contents from distant places in the unitary space and mixing them to provide an average heated mixture, regulating the supply of fuel to the furnace by a valve device, thermostatically controlling the operation of the valve device by a thermostatically operated means to regulate the supply of fuel, energizing the thermostatically operated means by varying temperatures of the average mixture, and diverting a portion of the current of the average mixture away from the thermostatically operated means to retard the flow of the remaining portion of the current of said mixture in contact with said means.

3. The herein described method of controlling temperatures of a unitary heated chambered space, which consists in supplying fuel to the furnace, heating thereby the contents of the unitary space, collecting a plurality of currents of the heated contents from distant places in the unitary space and mixing them to provide an average heated mixture, regulating the supply of fuel to the furnace by a valve device, thermostatically controlling the operation of the valve device by a thermostatically operated means to regulate the supply of fuel, energizing the thermostatically operated means by varying temperatures of the average mixture, diverting a portion of the current of the average mixture away from the thermostatically operated means to retard the flow of the remaining portion of the current of said mixture in contact with said means, and manually adjusting the extent of the diverted portion of the current to predetermine the temperature to be provided and maintained by the furnace.

1,207,538. ATTACHMENT FOR DRILLS. JOHN J. GILL, Mullan, Idaho, assignor of one-half to Henry Billberg, Mullan, Idaho. Filed Aug. 23, 1915. Serial No. 46,888. (Cl. 121—10.)



1. An attachment for pneumatic drills of the reciprocating hammer type, comprising a casing having means for its attachment to the tool end of the drilling machine and also provided with means to be traversed by the drilling tool, and a plurality of single-acting pneumatic engines lodged within the casing and each having positive connections to the means to be traversed by the drilling tool for rotating said means together with the tool, said engines being related to the means to be traversed by the tool for positively rotating the tool always in the same direction at each power stroke of the respective engine.

2. An attachment for pneumatic drills of the reciprocating hammer type, comprising a casing adapted to the tool end of the pneumatic drill, said casing having a rotatable sleeve therethrough shaped to be traversed by and fit the drill tool for rotating said tool, a plurality of pairs of divergent cylinders within the casing, pistons and piston rods in the cylinders, a crank shaft having cranks each engaged by the piston rods of a corresponding pair of pistons, slide valves connected to the crank shaft for directing air in order to the cylinders, and gearing connections between the crank shaft and the sleeve surrounding the drill tool.

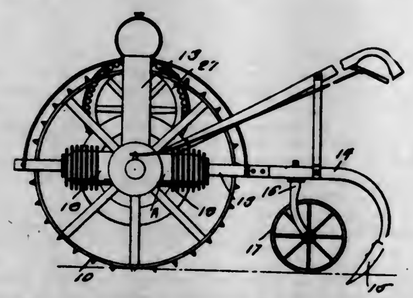
3. An attachment for pneumatic rock drills of the reciprocating hammer type comprising a crown member having means for attachment to the tool end of the pneumatic drill and bored to be traversed by said tool, a casing carried by the crown member, a rotatable sleeve extending through the casing and journaled at the ends in the crown member and in the end of the casing remote from the crown member, and adapted to surround the tool in engagement therewith, a gear wheel within the casing carried by the sleeve, a crank shaft journaled in the casing and having gear teeth engaging the gear wheel, said casing being provided with pairs of cylinders in operative relation to the crank shaft, single-acting pistons within the cylinders and each connected to a respective crank of the crank shaft, a head applied to the casing, slide valves in the head provided with air pas-

sages for feeding air to them, and other passages leading to respective cylinders, and connections between the crank shaft and the slide valves with the slide valves and pistons in the cylinders timed in operation to provide substantially constant power to the crank shaft and through the latter and the gearing to the sleeve receiving the tool, whereby to cause rotation of said tool while at work.

4. An attachment for pneumatic drills of the reciprocating hammer type, comprising a casing adapted to be attached to the drill in surrounding relation to the drill tool, said casing having convergent cylinders within it with a crank shaft located at the apex of the convergent cylinders, single-acting pistons within the cylinders connected to the crank shaft, convergent slide valves mounted on the casing and communicating with the cylinders for supplying compressed air thereto, the cylinders and slide valves being arranged on opposite sides of the portion of the casing traversed by the drill tool, a sleeve surrounding the drill tool mounted for rotation in the casing, and gearing connections between the crank shaft and sleeve with the latter constantly engaging the tool, whereby rotation of the sleeve by the pistons acting through the gearing imparts rotative movement to the drill tool irrespective of the movements imparted thereto by the drilling machine.

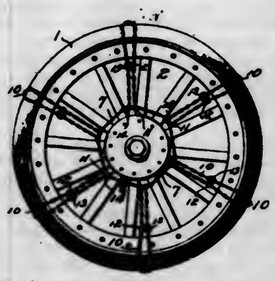
5. An attachment for drilling machines of the reciprocating hammer type, comprising a casing with a sleeve extending therethrough in a line approximating the longitudinal center line of the casing, said casing having pairs of circumferential cylinders therein and itself formed into a cylinder extending transversely of the first-named cylinders at the angle of convergence of the first-named cylinders, a head for the casing having cylindrical bores therein converging into another cylindrical portion aligning with the second-named cylindrical portion of the casing, the head having passages and ports communicating with the cylinders therein, slide valves in the cylinders and the head, single-acting pistons in the first-named cylinders, a crank shaft mounted on the casing in the longitudinal center line of the cylindrical portions of the casing and head at the apex of the approaching cylinders therein, and gearing connections between the crank shaft and sleeve, whereby a drill tool extending through the sleeve is rotated by compressed air supplied through the slide valves to the cylinders.

1,207,539. MOTOR-PLOW. BENJAMIN F. GRAVELY, Jr., Charleston, W. Va. Filed Sept. 8, 1915. Serial No. 49,574. (Cl. 21—114.)



In a motor plow, the combination of a tubular axle, a traction wheel rotatably mounted on the axle, a frame fixed on the axle, an explosive motor mounted on the frame and including a pair of cylinders disposed diametrically opposite with respect to the longitudinal axis of the axle, a crank shaft in said motor and extending through the bore of said axle, and connections between said crank shaft and the traction wheel for rotating the latter, said connections being disposed on the opposite side of the frame from the motor.

1,207,540. ANTISKID TIRE-CHAIN. WILLIAM GRIBS, Newark, N. J. Filed Nov. 12, 1914. Serial No. 871,773. (Cl. 152—14.)



1. An anti-skid tire chain comprising a common flexible retaining chain, a plurality of tread chain units adapted to form a noose and each having a retaining ring at each end, and an intermediate noose ring for receiving one of said retaining rings, said common flexible retaining chain adapted to pass through the retaining rings of each chain unit for holding the same in place.

2. An anti-skid tire chain comprising a common flexible retaining chain, and a plurality of individual tread chain units each adapted to form a noose, retaining rings at the ends of each of said tread chain units, an intermediate coupling ring, and a noose ring linked with said coupling ring for receiving one of said retaining rings, said common flexible retaining chain adapted to pass through the retaining rings of each chain unit for holding the same in place.

1,207,541. FREE-ENGINE CLUTCH. CARL JOHAN GUSTAFSON, Springfield, Mass., assignor, by mesne assignments, to Hendee Manufacturing Company, Springfield, Mass., a Corporation of Massachusetts. Filed Dec. 9, 1911. Serial No. 664,901. (Cl. 192—10.)



1. The combination with a driving member and a driven member, of means for frictionally connecting said members including clamping plates on one member, the other of said members having a part extending between the clamping plates, roller studs carried by one of the clamping plates, roller bearings mounted on said studs, the part of said member extending between the clamping plates being adapted to engage said roller bearings, springs for moving one of the plates toward the other, and means for separating the plates.

2. The combination with a driving member and a driven member, of means for frictionally connecting said members including clamping plates on one member, the other of said members having a part extending between the clamping plates, said part at its inner face having a groove formed therein, a hardened steel wire seated in said groove, roller bearings adapted to engage said hardened steel wire for supporting said parts, and means for moving one of said clamping plates toward and from the other to grip and release the part between the same.

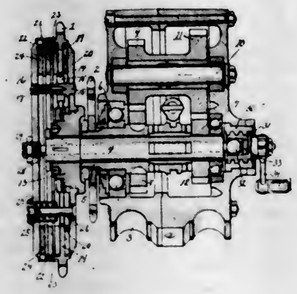
3. The combination with a driving member and a driven member, of means for frictionally connecting said members including clamping plates on one member, the other of said members having a part extending between the clamping plates, said part at its inner face having a groove formed therein, a hardened steel wire seated in said groove, roller bearings adapted to engage said hardened steel wire for supporting said part, springs for moving one of said clamping plates toward the other, and means for separating the plates.

4. The combination with a driving member and a driven member, of means for frictionally connecting said members including clamping plates on one member, the other of said members having a part extending between the clamping plates, said part at its inner face having a groove formed therein, a hardened steel wire seated in said groove, roller bearings adapted to engage said hardened steel wire for supporting said part, springs for moving one of said clamping plates toward the other, a sleeve for separating said plates, said sleeve having a thread and a member coöperating with the threaded sleeve for moving the sleeve endwise when said sleeve is turned.

5. The combination with a driving member and a driven member, of means for frictionally connecting said members including clamping plates on one member, the other of said members having a part extending between the clamping plates, said part at its inner face having a groove formed therein, a hardened steel wire seated in said groove, roller bearings adapted to engage said hardened steel wire for supporting said part, springs for moving one of said clamping plates toward the other, a sleeve for separating said plates, said sleeve having a thread and a member coöperating with the threaded sleeve for moving the sleeve endwise when said sleeve is turned, said thread being so constructed as to hold the sleeve in various adjutsed positions.

[Claims 6 to 9 not printed in the Gazette.]

1,207,542. CLUTCH FOR MOTOR-CYCLES. CARL J. GUSTAFSON, Springfield, Mass., assignor to Hendee Manufacturing Company, Springfield, Mass., a Corporation of Massachusetts. Filed Apr. 4, 1912. Serial No. 688,469. (Cl. 192—10.)



1. The combination with a driving member and a driven member, of means for frictionally connecting said members including clamping plates on one of said members, the other member having a part extending between the clamping plates, anti-friction bearings for supporting the part extending between the clamping plates, springs for moving one of the clamping plates toward the other, and means for separating the plates including an axially arranged thrust rod adapted to engage one of said end plates and a revoluble cam for moving said thrust rod endwise to release the plates.

2. The combination of a rotatable member, a driven sprocket adapted to be connected to said rotatable member, a driving sprocket mounted on said rotatable member, clamping plates supported by said rotatable member, said driving sprocket having an inwardly projecting part extending between the clamping plates, springs for forcing one of said clamping plates toward the other for causing the plates to grip the driving sprocket, an axially arranged thrust rod for engaging the movable clamping plate for compressing the springs to release the driving sprocket, a revoluble threaded sleeve having a recess formed therein, a ball in said recess engaging the end of the thrust rod, and a fixed threaded sleeve coöperating with said revoluble threaded sleeve for forcing said rod endwise.

3. The combination of a rotatable member, a driven sprocket adapted to be connected to said rotatable member, a driving sprocket mounted on said rotatable member, clamping plates supported by said rotatable member, said driving sprocket having an inwardly projecting part extending between the clamping plates, springs for forcing one of said clamping plates toward the other for causing the plates to grip the driving sprocket, an axially arranged thrust rod for engaging the movable clamping plate for compressing the springs to release the driving sprocket, a revoluble threaded sleeve having a recess formed therein, a ball in said recess engaging the end of the thrust rod, a fixed threaded sleeve coöperating with said revoluble threaded sleeve for forcing said rod endwise, and an adjustable screw carried by the clamping plate against which the thrust rod bears.

1,207,543. FASTENING DEVICE FOR WIRE GATES. BRANDT O. HAGELIN, Aurora, Nebr. Filed Nov. 23, 1915. Serial No. 62,984. (Cl. 70—121.)



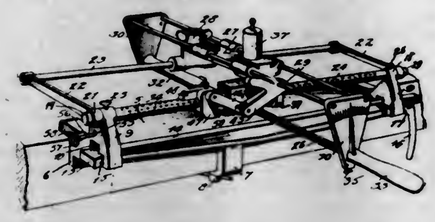
1. The combination with a post and the end bar of a wire gate, of a keeper mounted on the post, an operating lever having spaced sides and arranged to swing over the top of the bar, and links or members having resilient sides provided with laterally extending pivots adapted to be sprung into and out of engagement with the sides of the lever, one of the links or members receiving the bar and the other engaging the said keeper and also the pivots of the link or member that receives the said bar.

2. The combination with a post and the end bar of a wire gate, of a keeper mounted on the post, an operating lever having spaced sides and provided with perforations, and approximately U-shaped links or members having resilient sides located between the sides of the lever and provided with laterally extending pivots adapted to be sprung into and out of engagement with the perforations of the lever, one of the links or members being provided with a loop receiving the said bar and the other link or member engaging the said keeper and supported at an intermediate point upon the laterally projecting pivot of the link or member which is provided with the said loop.

3. The combination with a post and the end bar of a wire gate, of a keeper mounted on the post, a substantially U-shaped connecting link forming a loop and receiving and fitting against the bar of the gate and provided at the terminals of its sides with laterally projecting pivots, a substantially U-shaped operating lever arranged to swing over the upper end of the bar and connected at the terminals of its sides with the pivots of the said link, and a substantially U-shaped engaging member having laterally extending pivots connected with the sides of the operating

lever at a point intermediate of the ends thereof and extending outwardly therefrom and engaging the said keeper, said engaging member being supported at an intermediate point upon the pivots of the connecting link, said engaging member being also angularly bent to permit the operating lever to drop below the horizontal plane of the pivots of the connecting link to form a perfect lock.

1,207,544. SAW-FILING MACHINE. HJALMAR I. HANSON, Summit, S. D. Filed Apr. 8, 1916. Serial No. 89,994. (Cl. 76—33.)



1. In a saw filing machine, the combination of a file holder supporting plate, a feed rod having a series of indentations extending longitudinally thereof, a traveler slidably mounted on the rod and having a hollow upwardly extending stem, a collar carried by the supporting plate and slidably engaging on the stem, a pin slidably arranged in the stem having engagement with the collar whereby the pin may be lifted when the plate is raised, spring means normally maintaining the pin in engagement with one of the series of indentations, a spring engaging with the traveler, and means movable step by step along the rod and actuable by the plate when the latter moves downwardly for placing the spring under tension.

2. In a saw filing machine, the combination of a file holder supporting plate, a feed rod having a series of indentations extending longitudinally thereof, a traveler slidably mounted on the rod, a pin slidably mounted on the traveler having engagement with the plate whereby the pin may be lifted when the plate is raised, spring means normally maintaining the pin in engagement with one of the series of indentations, a spring engaging with the traveler, and means movable step by step along the rod and actuable by the plate when the latter is moved downwardly for placing the spring under tension.

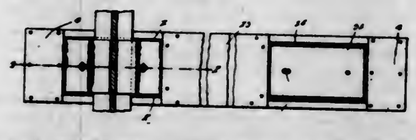
3. In a saw filing machine, the combination of a file holder supporting frame, a rod having a series of indentations extending longitudinally thereof, a traveler slidably mounted on the rod and being provided with a movable pin, means whereby the pin may be lifted when the plate is raised, resilient means tending to maintain the pin in engagement with one of the indentations, and means operable by the plate in moving downwardly for placing the traveler under tension whereby when the pin is lifted, said traveler will be moved along the rod.

4. In a saw filing machine, the combination of a file holder supporting frame, a rod having a series of indentations extending longitudinally thereof, a traveler slidably mounted on the rod and being provided with a movable pin, means whereby the pin may be lifted when the plate is raised, resilient means tending to maintain the pin in engagement with one of the series of indentations, a spring engaging with the traveler, and means operable by the plate when the latter is moved downwardly for placing the spring under tension.

5. In a saw filing machine, the combination of a file holder supporting frame, a rod having a series of indentations extending longitudinally thereof, a traveler slidably mounted on the rod and being provided with a movable pin, means whereby the pin may be lifted when the plate is raised, resilient means tending to maintain the pin in engagement with one of the indentations, and means automatically operating to place the traveler under tension when the plate moves downwardly.

[Claims 6 to 20 not printed in the Gazette.]

1,207,545. RAILROAD-TIE. PETER O. HANSON and EUGENE SWEENEY, Oregon, Wis. Filed Feb. 11, 1916. Serial No. 77,707. (Cl. 238—5.)



1. A railroad tie comprising a body having chambers near opposite ends, cushioning blocks positioned in said chambers, rail plates resting on said blocks, rail securing elements within the chambers laterally of the blocks, bolts extending through the chambers and engaging the rail securing elements for holding the same in place and retaining means within the chambers for holding the bolts against accidental movement.

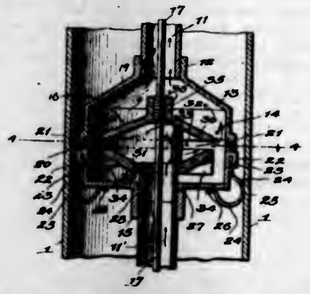
2. A railroad tie comprising a body having chambers near opposite ends, transverse partition walls within the chambers, cushioning blocks within the chambers between the partition walls, bolts extending upwardly through the chambers on the outer sides of the partition walls, bolt retaining elements secured to the bottom of the tie for holding the bolts in position, the upper ends of the bolts extending through the rail securing elements and means carried by the rail securing elements to hold the bolts firmly in place within the bolt retaining elements.

3. A railroad tie comprising a pair of parallel spaced side walls, a bottom comprising two separate sections secured to the side walls in spaced relation and holding said walls against movement, a top plate secured centrally of the side walls on their upper edges, top plates secured at opposite ends of the side walls on their upper edges, partition walls at the adjacent edges of the top walls, said side walls and partition walls forming chambers, cushioning blocks within the chambers and means extending through the chambers to retain railroad rails in place on the cushioning blocks.

4. A railroad tie comprising a pair of spaced parallel side walls, bottom walls formed of two separate sections secured to the lower edges of the side walls, a central top plate secured to the side walls, end plates secured to the upper edges of the side walls in spaced relation to the central plate, partitions extending transversely of the tie at the adjacent edges of the top and end plates, said partitions forming chambers in the tie opening upwardly through the top thereof, the upper edges of the side walls being recessed centrally of the chambers and of a width sufficient to receive the bases of railroad rails, cushioning blocks secured within the chambers, bolts extending vertically on opposite sides of the chambers, slotted U-shaped retaining elements for holding the bolts, the heads of the bolts being slipped within the bight portion of the U-shaped elements, rail clamps comprising top plates, tongues on the top plates for overlying the rail bases, vertical walls on the plates and means to retain the bolts in place in the U-shaped bolt retainer.

1,207,546. CENTRIFUGAL PUMP. EDWARD HARDS, Phoenix, Ariz., assignor to Edward Merle Hards. Filed Aug. 26, 1915. Serial No. 47,524. (Cl. 103—43.)

1. The combination with a well casing, of a pipe disposed within said casing, enlarged chambers formed at intervals in said pipe, each of said chambers having a conical shaped top and a flat bottom with an opening therethrough, means for centering said chambers in the casing, a pipe extension projecting within said chamber, a pump head rotatable on said extension in each of said chambers, a shaft connecting said pump heads, and means for rotating said shaft.



2. The combination with a well casing, of chambers disposed at intervals throughout the length of said casing, each of said chambers being formed of upper and lower separable sections, pipe sections connecting the outer ends of said chambers, a pipe extension projecting within each of said chambers, means formed on the lower section of each of said chambers for centering the same, a pump head rotatable on each of said extensions, a shaft connecting said pump heads, and means for rotating said shaft.

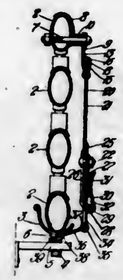
3. The combination with a well casing, of chambers disposed at intervals throughout the length of said casing, each of said chambers being formed in two separable sections, the upper section having a conical shaped top with a threaded sleeve extending from its apex, the lower section having a threaded sleeve depending from its bottom, pipe sections connecting said sleeves, a pipe extension projecting into each of said chambers, means formed in the lower section of each of said chambers for centering the same, a pump head rotatable on each of said extensions, a shaft connecting said pump heads, and means for rotating said shaft.

4. The combination with a well casing, chambers disposed at intervals throughout the length of said casing, pipe sections connecting the outer ends of said chambers, lugs formed on the outer sides of said chambers adjacent their bottoms, hook-shaped springs secured by their shanks in said lugs, their outwardly bowed portions contacting with the well casing and having their free ends underlying the bottoms of said chambers and contacting therewith, the free end portions of said springs sliding beneath said chambers when the same move toward the well casing, a pump head rotatable in each of said casings, a shaft connecting said pump heads, and means for rotating said shaft.

5. The combination with a well casing, of two piece separable chambers disposed at intervals throughout the length thereof, pipe sections connecting the ends of said chambers, spring means for centering said chambers in said casing, a pipe extension projecting within each of said chambers, a disk shaped pump head disposed for rotation in each of said chambers, a circular bearing opening in the bottom of each of said heads and adapted to receive said pipe extensions, a threaded sleeve formed integrally with the top of each of said heads, a shaft connecting said pump heads and having its ends threaded into said sleeve, and means for rotating said shaft.

1,207,547. HOOD-FASTENER. THEODORE M. HARRISON, Hawthorn, Victoria, Australia. Filed May 10, 1916. Serial No. 96,564. (Cl. 21—61.)

1. In a hood fastener, the combination, with a hood frame and a cradle; of a swivel pin carried by the hood frame; a hinge-member mounted on said pin; a depending hinge member having its upper end pivotally connected to the first hinge member; an extension piece adjustably connected to the second hinge member; a cam-lever pivotally connected with said extension piece; a catch plate connected to be operated by said lever and adapted to engage said cradle, to lock the hood in closed position; and a retaining pin carried by said hood frame for engagement by said catch plate when the hood is opened.



2. In a hood fastener, the combination of a swivel pin; a forked hinged member mounted thereon; a pivot pin mounted in the fork of said hinge member; a depending hinge member pivoted at its upper end on said pivot pin, the latter and the said end of the hinge member having an elastic cushion interposed therebetween; an extension piece adjustably connected to the second hinge member; a cam-lever pivotally connected with said extension piece; and a catch plate connected to be operated by said lever.

3. In a fastener for the hoods of motor vehicles and like purposes, a swivel pin, a hinge member mounted on said swivel pin, a pivot pin carried by said hinge member, a strap around the pivot pin, cushioning means between the strap and the pivot pin, a hinge member carried by the strap, an extension piece carried by the second hinge member, guide lips to said extension piece, adjusting means carried by the extension piece and the second hinge member, a second pivot pin carried by the extension piece, a thumb lever mounted on the second pivot pin, crank webs to said thumb lever, a link mounted in said crank webs, a perforated catch plate carried by the link and a hook on said catch plate.

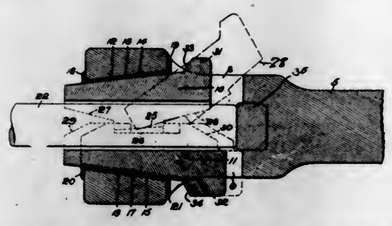
4. In a fastener for hoods of motor vehicles and like purposes, a swivel pin, a saddle carried by the swivel pin, a hinge member mounted on said swivel pin, a distance piece between said saddle and said hinge member, arms on said hinge member, a pivot pin carried by said arms, a strap mounted on the pivot pin between said arms, a bowed portion to said strap, cushioning means within the bowed portion, a hinge member carried by the strap, a slotted extension piece carried by the second hinge member, guide lips to said extension piece, an adjusting screw locking said extension piece to the second hinge member, a pivot pin carried by said extension piece, a thumb lever pivoted to the second pivot pin, crank webs and a pressure portion on said thumb lever, a link pivotally mounted in said crank webs, a perforated catch plate pivoted to said link and a hooked end on said catch plate.

1,207,548. ROCK-DRILL CHUCK. BENJAMIN HASTINGS, Cleveland, Ohio, assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 1, 1912. Serial No. 687,568. (Cl. 255—57.)

1. A drill chuck having, in combination, a holder provided with a longitudinally tapered recess and a plurality of lateral apertures leading therefrom, and a plurality of externally tapered chuck blocks located in said recess and mounted to rock one upon the other.

2. In a drill chuck, a holder provided with a longitudinally tapered recess and a plurality of lateral apertures leading therefrom, and a plurality of externally tapered chuck blocks non-rotatably mounted in said recess and having mutually interlocking means for limiting relative longitudinal movement thereof.

3. A drill chuck having, in combination, a holder having a head provided with a longitudinally tapered recess opening out of one end thereof and having a reduced portion provided with lateral apertures leading outward from the inner end of said recess, and a plurality of interlocking longitudinally tapered chuck blocks located in said recess.

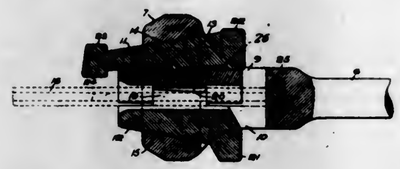


4. A drill chuck having, in combination, a holder having a head provided with a longitudinally tapered recess opening out of one end thereof and having a reduced portion provided with lateral apertures leading outward from the inner end of said recess, and a plurality of interlocking longitudinally tapered chuck blocks located in said recess and provided with lugs projecting into said apertures respectively.

5. A drill chuck having, in combination, a holder having a head provided with a longitudinally tapered recess opening out of one end thereof and having a reduced portion provided with lateral apertures leading outward from the inner end of said recess, and a plurality of interlocking longitudinally tapered chuck blocks located in said recess and provided with lugs projecting outwardly through said apertures respectively.

[Claims 6 to 12 not printed in the Gazette.]

1,207,549. SELF-CENTERING CHUCK FOR ROCK-DRILLS. GEORGE H. GILMAN, Claremont, N. H., assignor, by mesne assignments, to The Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 6, 1913. Serial No. 740,270. (Cl. 255—57.)



1. A chuck having, in combination, means for utilizing the blow of the drill upon the work for centering and maintaining the drill in centered position, and means for clamping said first mentioned means.

2. The combination, with a drill, of a chuck having means for utilizing the blow of the drill upon the work to maintain the drill in centered position, and means for producing a drill clamping action of said first mentioned means.

3. A chuck having, in combination, a holder, means cooperating therewith including a plurality of blocks having forwardly converging surfaces for utilizing the blow of the drill upon the work for maintaining the drill in centered position, and means for producing a drill clamping action of said blocks.

4. A self-centering chuck having, in combination, a holder inertia-controlled means coöperating therewith including a plurality of longitudinally slidable clamping members for utilizing the blow of the drill upon the work for maintaining the drill in centered and clamped position by their longitudinal sliding action, and a wedge interposed between one of said clamping members and a relatively fixed surface of said holder.

5. A chuck having, in combination, a holder provided with a recess opening out of its forward end, a plurality of members located in said recess and having their outer surfaces converging toward the forward end, one of said members being engageable with a drill and another drill engaging member interposed between the first-mentioned members.

[Claims 6 to 17 not printed in the Gazette.]

1,207,550. RAILROAD-BRIDGE WARNING. BENJAMIN J. HASTINGS, Taunton, Mass. Filed Apr. 13, 1916. Serial No. 90,821. (Cl. 246—1.)



1. A holder for a tell-tale wire for a bridge warning having a body formed with a vertical slot to receive the eye of a tell-tale wire, a latch lever pivoted to said body and having one arm which normally extends crosswise of said slot, said lever being movable on its pivot to swing said arm up out of the slot so as to admit the eye of the wire therein by the upward pressure of the eye against the under side of said lever, said lever being so constructed and weighted that when the eye is moved upward far enough to ride past the said lever arm, said lever arm will swing back crosswise of the slot through the eye and thereby form a support for the wire, the upper edge of said lever arm being downwardly inclined crosswise of the slot when it extends across the slot in its normal position in such manner that when said lever arm is tilted upward to move it out of the slot, the said eye of the wire will automatically slide off of the said lever arm by gravity and be disengaged from the holder.

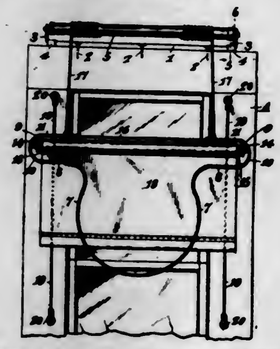
2. A holder for a tell-tale wire for a bridge warning having a body formed with a vertical slot to receive the eye of a tell-tale wire, and having a second vertical slot through one of the walls of said first slot and extending at right angles to said first slot, a latch lever pivoted within said second slot and having one arm which normally extends crosswise of said first slot, said lever having a second arm which protrudes out of said second slot, said first arm overbalancing said second arm so as to normally retain said first arm crosswise of said slot, the upper edge of the first arm of said lever sloping downwardly in a direction toward its swinging end in such manner that when the said lever arm is tilted upward it will ride up under the eye, leaving the wire free to drop by gravity.

3. A holder for a tell-tale wire for a bridge warning having a body formed with a vertical slot to receive the eye of a tell-tale wire, the transverse width of the slot being but slightly in excess of the diameter of the wire of which the eye is composed, and having a second vertical slot through one of the walls of said first slot and extending at right angles to said first slot, a latch lever pivoted within said second slot and having one arm which normally extends crosswise of said first slot, said lever having a second arm which protrudes out of said second slot, said first arm overbalancing said second arm so as to normally retain said first arm crosswise of said slot, the upper edge of the first arm of said lever sloping downwardly in a direction toward its swinging end in such manner that when the said lever is tilted upward it will ride up from under the eye of the wire leaving the wire free to drop by gravity.

4. A holder for a tell-tale wire for a bridge warning having a body provided with means at its upper end for a rigid connection with a support, said body being formed with a vertical slot between two flange portions to receive the eye of a tell-tale wire, the space between said

two flanges being but slightly in excess of the diameter of the wire of which the eye is composed and having a second vertical slot through one of the flange walls of said first slot and at right angles to said first slot, said slotted flange wall having a slotted lateral extension forming ears, the slot between said ears in said extension connecting with the slot through said flange wall and forming thereinto a single continuous slot, a latch lever pivoted within said last slot and having one arm which normally extends crosswise of said first slot, said lever having a second arm which protrudes out of said second slot, said first arm overbalancing said second arm so as to normally retain said second arm crosswise of said slot, said second slot being of sufficient depth to permit said first arm to be tilted up therein entirely out of said first slot, and the upper end of the slot between said ears forming a stop to limit the downward swing of the latch end of said lever.

1,207,551. ADJUSTABLE WINDOW-SHADE. GEORGE DANIEL HAYES, Hillsboro, Tex. Filed Nov. 11, 1915. Serial No. 60,915. (Cl. 156—27.)



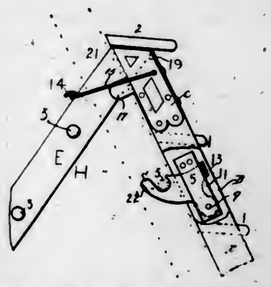
1. A support for window shades comprising a carrier constructed of a single length of wire arched at its intermediate portion, and provided with bearing brackets at its opposite ends which are adapted to receive and support the ends of a shade roller, the arched portion of said carrier serving to yieldingly hold the brackets in predetermined spaced relation, and means for drawing the free ends of the wire toward each other to hold said brackets over the opposite ends of the shade roller, the arched portion being of a material length and width, so as to depend downwardly below the brackets in front of the shade hanging from said roller and prevent it from being blown and torn.

2. A support for shade rollers comprising a single length of wire arched at its intermediate portion and having lengths extending outwardly and oppositely from the ends of the arch, the ends of the wire being curved upwardly and extended inwardly toward each other and being then curved forwardly and returned upon themselves to provide horizontal bends at the top of the carrier, the returned portions terminating in downwardly extending bracket arms adapted to be sprung over the opposite ends of a shade roller, and securing means joining said bends to hold the brackets from spreading away from the shade roller after their engagement with the latter.

3. A shade support comprising a carrier made from a single piece of material bent at its center to form an inverted arch, the terminals of the carrier extending laterally from the arched portion and then upwardly and inwardly, then bent outwardly from the inner terminals of the inwardly extending portions, and then downwardly at right angles from the outwardly extending portion, so as to form brackets for a shade roller, said arched portion being of a material width and length to depend downwardly below the brackets alongside of the shade hanging from the shade roller, so as to maintain the shade in position.

4. A window shade support comprising a carrier made from a single piece of material bent at its center to form an arched portion, the terminals of said carrier having brackets formed therein for the reception of a shade roller, said arched portion being of a material length and width to depend downwardly below the brackets along side of the shade hanging from the shade roller, so as to maintain the shade in position.

1,207,552. COMBINATION LADDER AND TRESTLE. ARTHUR HILL, Colorado Springs, Col. Filed Mar. 6, 1915. Serial No. 12,522. (Cl. 228—18.)



1. In a combination ladder and trestle of the class described, adapted to be used as a step ladder and a trestle, a step member and a ladder prop member detachably secured together at the top, metallic connecting members rigidly secured to the tops of the stiles of the step member and secured to the under side of the top step, projecting flanges integral with the inner surface sides of said metallic connecting members and adapted to receive the top ends of the two stiles of the prop member, which said stiles abut against the said flanges, an anti-spreading bail clevis having its ends pivoted on said step member and extending around said prop member, outwardly projecting hook pins on the outer edges of the stiles of said prop member and engaging said anti-spreading bail clevis to prevent the two members of the ladder from spreading, substantially as set forth and for the purposes specified.

2. In a combination ladder and trestle of the class described, adapted to be used as a step ladder and as a trestle, a step member and a ladder prop member detachably secured together at their top ends, metallic connecting members rigidly secured to the tops of the stiles of the step member and forming extensions of said stiles and rigidly secured to the under side of the top step of said member, projecting flanges on the inner surface sides of said metallic connecting members and forming sockets for the top ends of the stiles of the step member and the stiles of the ladder prop member, which said stiles enter said sockets and abut against said flanges, an anti-spreading bail clevis having its ends pivoted on the said metallic connecting members and extending around said ladder prop member, outwardly projecting hook pins projecting from the outer edges of the stiles of said ladder prop member and engaging the upper side of said anti-spreading bail clevis to prevent the two members of the ladder from spreading, substantially as set forth and for the purposes specified.

3. In a combination ladder and trestle of the class described adapted to be used as a step ladder, a trestle and as an extension ladder, a step ladder member and a ladder prop member of approximately the same length and width and adapted to fold together and means for detachably securing them together at their top ends, metallic locking hooks pivotally secured to the inner surfaces of the stiles of said step member, detention lugs

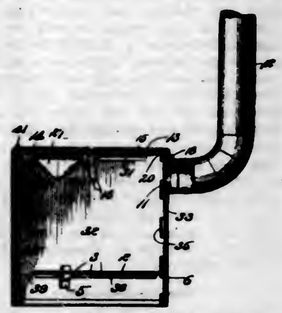
integral with the swing edge of said locking hooks, detention blocks rigidly secured to the inner surfaces of the stiles of said step member and adapted to be engaged by said detention lugs, hook-fingers integral with the swing edge of said locking hooks and nearly opposite the said detention lugs, and engaging the rounds of the said ladder prop member when said ladder prop member is folded against the said step member and parallel with it and adapted to hold the two members against each other in a parallel position and to prevent them from slipping on each other longitudinally when used as an extension ladder and to prevent them from separating from each other when desired to hold them in a more compact position for storage or transportation, substantially as set forth and for the purposes specified.

4. A combination ladder and trestle of the class described adapted to be used as a step ladder, an extension ladder and a trestle, and comprising a step member and a ladder prop member having rounds for steps, and having means for locking said members together parallel with the prop member under the step member for an extension ladder and in a manner to prevent them sliding on each other, in combination with two metallic extensions to the stiles of the step member, which extensions are rigidly secured to the top ends of said stiles and to the under side of the top step of the step member, projecting flanges on the inner surface sides of said metallic extensions forming sockets adapted to receive the top ends of the stiles of said prop member, downward projecting lugs on the lower edges of said metallic extensions adapted to engage the outer sides of the stiles of said prop member to prevent it slipping transversely on said step member, substantially as set forth and for the purposes specified.

5. In a combination ladder and trestle of the class described adapted to be used as a step ladder, trestle and extension ladder, and comprising a step member and a ladder prop member adapted to be detachably secured together at their top ends by the prop member entering a socket at the top of the step member and having an anti-spreading bail securing said members below said socket, and having means for securing said members together with the step member above the prop member so that they cannot slide on each other longitudinally, the combination of an extension of the stiles of the step member by means of a metallic plate secured to the outer side of the top of each of said stiles and to the under side of the top step of the step member, projecting flanges on the inner side surface of each of said metallic plates forming sockets adapted to receive and hold the top ends of the stiles of the prop member securing them to the stiles of the step member, downward projecting lugs integral with the lower edge of each of said metallic plates and adapted to engage the outer surface of the stiles of the prop member to keep them from slipping sidewise from the stiles of the said step members when used as an extension ladder, substantially as set forth and for the purposes specified.

1,207,553. CAMP-STOVE. NORFLEET HILL, St. Louis, Mo. Filed July 19, 1915. Serial No. 40,550. (Cl. 126—29.)

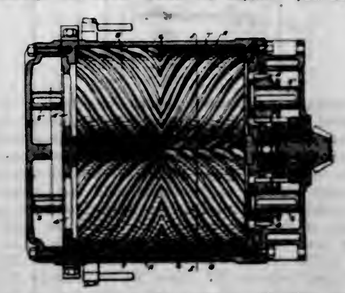
1. In a device of the character described, the combination with a collapsible portable stove formed of three rectangular metal sheets, two of which are hinged to the third at their meeting edges, of a flange carried by the free edge of one of said sheets and adapted to overlap the free edge of the opposite sheet, a bail, there being openings through said flange and said opposite sheet adjacent to the top and outer edge thereof and adapted to receive therethrough the end of said bail, a grate having one edge hinged to the inner wall of one of said sheets and having openings adjacent to its other edges, and upstanding pins borne by the inner walls of the other two of said sheets adjacent to their lower ends, said pins being adapted to enter said openings in said grate for coöperating with said end of the bail inserted through the openings through said flange and said opposite sheet to hold said flange in overlapped relation with the free edge of said opposite sheet.



2. In a device of the character described, the combination with a collapsible portable stove formed of three rectangular metal sheets, two of which are hinged to the third at their meeting edges, of a flange carried by the free edge of one of said sheets and adapted to overlap the free edge of the opposite sheet, a bail, and openings through said flange and said opposite sheet adjacent to the top and outer edge thereof and adapted to receive therethrough the end of said bail.

1,207,554. [WITHDRAWN.]

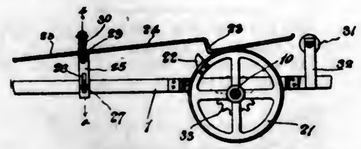
1,207,555. ROTARY ENGINE. MORRIS P. HOLMES, Claremont, N. H., assignor to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 21, 1915. Serial No. 22,950. (Cl. 121—54.)



A rotary engine comprising, in combination, a pair of intermeshing rotors, and a casing therefor having internal walls at least partially encircling said rotors and formed eccentrically with relation to the peripheries thereof to provide gradually increasing clearances from the intermeshing portion of their peripheries toward diametrically opposite points in their peripheries.

1,207,556. CORN-PLANTER ATTACHMENT. WILLIAM G. JIBBEN, Davis, S. D. Filed July 18, 1914. Serial No. 851,752. (Cl. 111—6.)

1. In a corn planter structure, the combination, of a supporting frame, a seed dispensing mechanism carried by the forward end of said frame and including an operating shaft, an axle rotatably supported by said frame, an auxiliary shaft rotatably supported by said frame, power transmitting means operatively connecting said auxiliary shaft and said axle, means for controlling the rotation of said auxiliary shaft by the rotation of said axle, a drum mounted upon said auxiliary shaft, a tooth detachably connected to said drum and extending radially from the periphery thereof, a bar yieldably connected to said frame and having a shoulder formed thereon intermediate its ends, said bar being connected to said seed dispensing mechanism operating shaft, means to permit the limited vertical movement of said bar with respect to said shaft, said tooth adapted to engage said shoulder during the rotation of said drum for moving said bar longitudinally for rotating said operating shaft, a stub shaft rotatably supported by said frame, a crank handle connected to said stub shaft, means connecting said stub shaft to said auxiliary shaft for rotating said auxiliary shaft upon rotation of the stub shaft.



2. In a corn planter structure, the combination, of a supporting frame, a seed dispensing mechanism carried by the forward end of said frame and including an operating shaft, an axle rotatably supported by said frame, an auxiliary shaft rotatably supported by said frame, power transmitting means operatively connecting said auxiliary shaft and said axle, means for controlling the rotation of said auxiliary shaft by the rotation of said axle, a drum mounted upon said auxiliary shaft, a tooth detachably connected to said drum and extending radially from the periphery thereof, a bar yieldably connected to said frame and having a shoulder formed thereon intermediate its ends, said bar being connected to said seed dispensing mechanism operating shaft, means to permit the limited vertical movement of said bar with respect to said shaft, said tooth adapted to engage said shoulder during the rotation of said drum for moving said bar longitudinally for rotating said operating shaft, a stub shaft rotatably supported by said frame, a crank handle connected to said stub shaft, means connecting said stub shaft to said auxiliary shaft for rotating said auxiliary shaft upon rotation of the stub shaft, a buffeting roller carried by said frame in the path of said bar for receiving the bar when released by said tooth.

1,207,557. MARKER FOR CORN-PLANTERS. WILLIAM G. JIBBEN, Bruce, S. D. Filed Apr. 8, 1916. Serial No. 89,802. (Cl. 111—24.)



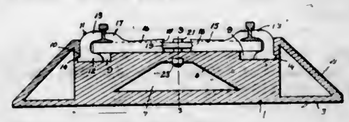
1. In a marker bar structure for attachment to corn planters, a pivotally mounted marker bar, yieldable means connected to one end of said marker bar for permitting of a limited downward movement of the end, a substantially S-shaped bar pivotally connected to the outer end of said marker bar remote from said yieldable means, a marking disk carried by one end of said substantially S-shaped bar, and a spiral spring connecting said S-shaped bar to said marker bar.

2. In a marker bar structure for attachment to corn planters, a pivotally mounted marker bar, yieldable means connected to one end of said marker bar for permitting of a limited downward movement of the end, a substantially S-shaped bar pivotally connected to the outer end of said marker bar remote from said yieldable means, a marking disk carried by one end of said substantially S-shaped bar, and a spiral spring connecting said S-shaped bar to said marker bar, a flexible member connected to the end of said substantially S-shaped bar remote from said disk, said flexible means adapted for connection with the seed dispensing shaft of an ordinary corn planter for pivotally moving the S-shaped bar upon operation of the seed dispensing shaft.

3. The combination with a corn planter structure including a seed dispensing mechanism operating shaft, and a supporting frame, of a marker arm pivotally connected to said supporting frame, yieldable means connected to said frame and to one end of said marker bar for permitting of a limited pivotal movement of the marker bar, a substantially S-shaped arm pivotally connected to the end of said marker arm remote from said yieldable means, a marker disk mounted upon one end of said substantially S-shaped arm, a flexible member connected to said substantially S-shaped bar and to said operating shaft for moving said S-shaped arm pivotally upon operation of said shaft for causing said disk to make a mark in the ground, and a spring connected to said S-shaped bar and said marker bar for automatically returning said S-shaped bar into an inoperative position.

4. The combination with a corn planter structure including a seed dispensing mechanism operating shaft, and a supporting frame, of a marker arm pivotally connected to said supporting frame, yieldable means connected to said frame and to one end of said marker bar for permitting of a limited pivotal movement of the marker bar, a substantially S-shaped arm pivotally connected to the end of said marker arm remote from said yieldable means, a marker disk mounted upon one end of said substantially S-shaped arm, a flexible member connected to said substantially S-shaped bar and to said operating shaft for moving said S-shaped arm pivotally upon operation of said shaft for causing said disk to make a mark in the ground, and a spring connected to said S-shaped bar and said marker bar for automatically returning said S-shaped bar into an inoperative position, and a bracket carried by said corn planter frame and adapted for limiting the upward pivotal movement of the end of said marker bar to which said yieldable means is connected.

1,207,558. RAIL-TIE. JAMES E. JONES, Columbus, Ohio. Filed Sept. 3, 1915, Serial No. 48,826. Renewed May 18, 1916. Serial No. 98,441. (Cl. 238—5.)



1. A rail tie consisting of a metallic body portion having a longitudinal slot in its upper face and recesses in the ends on the upper face communicating with the slot of angular stationary rail clamping members mounted within the recesses, movable rail clamping members mounted within the slot and consisting of elongated shanks arranged within the slot and angular rail clamping portions formed on the shanks to engage the rails, the outer ends of said shanks extending within the recesses and engaging upon the stationary rail clamping members, and means carried by the body portion and arranged between the opposed ends of the shanks to move the shanks into adjusted clamping position.

2. A rail tie consisting of a metallic body portion having a longitudinal slot in its upper face and recesses in the ends on the upper face communicating with the slot of angular stationary rail clamping members mounted within the recesses, movable rail clamping members mounted within the slot and consisting of elongated shanks arranged within the slot and angular rail clamping portions formed on the shanks to engage the rails, the outer ends of said shanks extending within the recesses and engaging upon the stationary rail clamping members, means carried by the body portion and arranged between the opposed ends of the shanks to move the shanks into adjusted clamping position, and means to secure the stationary clamping members against upward movement consisting of lugs carried on the lower ends thereof and said recesses

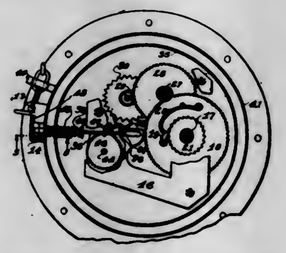
having the inner faces of the outer walls provided with relatively small recesses to receive the said lugs.

3. A rail tie consisting of a body portion having a longitudinal slot in the top thereof and recesses in the ends at the top communicating with the slot, an angular stationary rail clamping jaw mounted within each recess and consisting of a base and an upstanding curved rail engaging portion, rail clamping jaws mounted within the slots consisting of shanks having integral upstanding curved rail clamping portions thereon, the outer ends of said shanks engaging upon the faces of the stationary clamping members, the inner ends of the shanks being spaced and a wedge plate adjustingly mounted between the inner ends of the shanks.

4. A rail tie consisting of a body portion having a longitudinal slot in the top thereof and recesses in the ends at the top communicating with the slot, an angular stationary rail clamping jaw mounted within each recess and consisting of a base and an upstanding curved rail engaging portion, rail clamping jaws mounted within the slots consisting of shanks having integral upstanding curved rail clamping portions thereon, the outer ends of said shanks engaging upon the faces of the stationary clamping members, the inner ends of the shanks being spaced, a wedge plate adjustingly mounted between the inner ends of the shanks, and means to hold the wedge plate in adjusted position.

5. A rail tie consisting of a body portion having a longitudinal slot in the top thereof and recesses in the ends at the top communicating with the slot, an angular stationary rail clamping jaw mounted within each recess and consisting of a base and an upstanding curved rail engaging portion, rail clamping jaws mounted within the slots consisting of shanks having integral upstanding curved roll clamping portions thereon, the outer ends of said shanks engaging upon the faces of the stationary clamping members, the inner ends of the shanks being spaced, a wedge plate adjustingly mounted between the inner ends of the shanks, and means to hold the wedge plate in adjusted position, said shanks having their inner opposed ends concaved to receive the sides of the wedge plate and the outer ends of said shanks arranged to be engaged by the bases of the rails and to have the rails rest thereon.

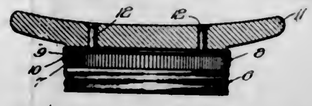
1,207,559. BURGLAR-ALARM. FRANK R. KAWAHARA, Los Angeles, Cal. Filed July 3, 1915. Serial No. 38,032. (Cl. 116—44.)



1. In a burglar alarm, the combination of an alarm mechanism comprising a source of power, a shaft driven therefrom, an escapement wheel on said shaft, an anchor pivotally mounted to engage said escapement wheel, an alarm controlled by said anchor, a stop for locking said anchor provided with a rack, resilient means engaging said stop for moving it out of locking position, a pinion engaging said rack and provided with an arbor; a casing inclosing said alarm mechanism having an aperture through which said stop may be projected, and a latch disposed outside of said casing detachably engaging said stop

2. In a burglar alarm, the combination of an alarm mechanism, comprising a source of power, a shaft driven therefrom, an escapement wheel on said shaft, an anchor pivotally mounted to engage said escapement wheel, an alarm controlled by said anchor, a stop for said anchor having a keeper at the end thereof and a rack at the opposite end, resilient means engaging said stop for moving it out of locking position, a pinion engaging said rack provided with an arbor; a casing inclosing said alarm mechanism having an aperture through which said stop may be projected, a shield for said aperture; and a latch disposed outside of said casing having a tongue for engagement with the keeper on said stop rod.

1,207,560. APPLIANCE FOR RECEPTACLE CAPS OR COVERS. CHARLES R. KEERAN, Chicago, Ill. Filed Sept. 14, 1914, Serial No. 861,606. Renewed May 8, 1916. Serial No. 96,248. (Cl. 81—1.)



1. An appliance for removing and affixing jar caps, comprising an engaging member formed of a single piece of metal of cup-shaped formation embodying a continuous depending flange extending in a downward direction only, said depending flange being formed with a corrugated surface adapted to engage with the sides of a jar cap, and a handle attached to the top portion of said engaging member, substantially as described.

2. An appliance for removing and affixing jar caps, comprising a cup-shaped engaging member formed with a depending flange therearound, the inner side of the flange being corrugated to engage and interlock with a similarly corrugated exterior surface on the jar cap, and a handle attached to the engaging member for manipulating the same, substantially as described.

3. An appliance for removing and affixing jar caps, comprising an engaging member formed with a depending flange therearound, the inner side of the flange being corrugated to engage and interlock with a similarly corrugated exterior surface on the jar cap, and a handle attached to the engaging member for manipulating the same, substantially as described.

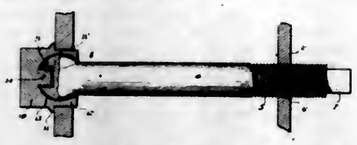
4. An appliance for removing and affixing circular jar caps having corrugations on the periphery thereof, comprising a member formed to engage with the cap at substantially every point in its periphery, the engaging surfaces of the member being substantially equidistant from a central point therein, and having corrugations to engage and interlock with the corrugations on the cap, and a handle attached to the engaging member for manipulating the same, substantially as described.

1,207,561. FISH-TROUGH. EUGENE L. KELLEY, McKinley, Me. Filed Aug. 1, 1916. Serial No. 112,567. (Cl. 17—10.)



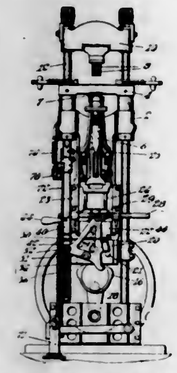
A fish trough comprising a runway of foraminous material having a body portion adapted to be positioned horizontally and an end section inclined with relation to the body portion, a casing receiving the body portion of the runway and means for introducing water into the horizontal portion of the runway through the casing at different points along the same.

1,207,562. BOLT. DANIEL P. KELLOGG, Los Angeles, and CHARLES M. ECKLAND, Stockton, Cal. Filed Sept. 4, 1915. Serial No. 49,038. (Cl. 85—1.5.)



In combination with the inner and outer sheets for a boiler or the like, of connecting means for the said sheets, said means including a bolt that has a threaded portion engaging a threaded opening in the inner sheet, and a squared end extending beyond the said threaded portion, the other end of the bolt being provided with a spherical head which projects through a threaded opening in the outer sheet and which has its major portion extending beyond the center of the said outer sheet, the said head being centrally formed with a substantially square depression, a cap having a spherical socket receiving the head, and the inner wall of the said socket being spaced from the head, said socket being formed with a projecting square lug which is received within the depression in the bolt head but which is spaced from the walls provided by the said depression, and the said cap having an exterior flange which contacts with the outer face of the outer sheet, all as and for the purpose set forth.

1,207,563. MACHINE FOR OPERATING ON HEELS. HERBERT W. KENWAY, Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Continuation in part of application Serial No. 709,695, filed July 16, 1912. This application filed Sept. 3, 1914. Serial No. 860,046. (Cl. 1—36.)



1. A machine for operating on heels having, in combination, relatively movable die plate and jack, mechanically actuated means for moving the jack to measure the work, power operated means for applying pressure to the measured work, and a single controlling device for both of said means constructed and arranged to prevent the power operated means from being started before the measuring operation has taken place.

2. A machine for operating on heels having, in combination, relatively movable die plate and work support, spring actuated mechanism for moving the support to measure the work with a predetermined degree of pressure, power driven means for applying pressure to the measured work, and a controlling device for the power driven means constructed and arranged to be locked against starting movement until the measuring operation has been completed.

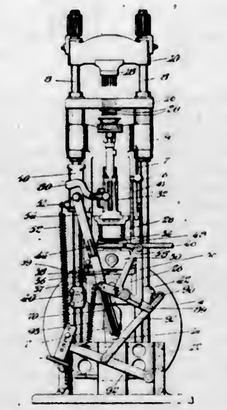
3. A machine for operating on heels, having in combination, relatively movable die plate and work support, power driven means for applying pressure to work between the die plate and support, a starting device therefor, and automatically acting measuring mechanism constructed and arranged to be set in operation by said starting device and having a movable part for preventing movement thereof for starting the power driven means prior to the measuring operation.

4. A machine for operating on heels having, in combination, a die plate, a work support movable relatively thereto, first yieldingly and then positively, independent sources of motive power for automatically effecting each of said movements, and a single controlling device for successively initiating both of said movements.

5. A machine for operating on heels having, in combination, a die plate, a work support, independent sources of motive power, one for moving the support yieldingly and the other for moving the support positively, and a single controlling device for rendering effective first one and then the other source of power.

[Claims 6 to 36 not printed in the Gazette.]

1,207,564. HEELING-MACHINE. HERBERT W. KENWAY, Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 16, 1912, Serial No. 709,695. Renewed Sept. 14, 1916. Serial No. 120,193. (Cl. 1—36.)



1. A machine for operating on heels having, in combination, power driven tools, a pair of coöperating pressing members movable relatively to each other in a horizontal direction and also movable toward each other in a vertical path, and means including spring actuated mechanism for causing the latter movement to take place automatically when the two members are brought into vertical alinement before the power actuation of the machine.

2. A machine for operating on heels having, in combination, power driven tools, a pair of coöperating pressing members one of which is arranged above the other, said members being relatively movable into or out of vertical alinement with each other, and means including spring actuated mechanism for automatically moving one of said members toward the other when brought into vertical alinement therewith before the power actuation of the machine.

3. A machine for operating on heels having, in combination, power driven tools, coöperating pressing members, one of which is normally stationary and the other of which is movable in a horizontal path into vertical alinement therewith, and means acting independently of the tools for automatically bringing about the movement of said horizontally movable member in a vertical path when it is
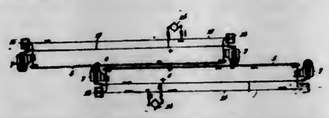
moved into vertical alinement with said normally stationary member.

4. A machine for operating on heels having, in combination, nailing mechanism, coöperating work pressing members one of which is located normally in alinement with said mechanism and the other of which is movable horizontally into or out of alinement with said mechanism, and means responsive to the horizontal movement of said member for causing said member automatically to approach the coöperating work pressing member by a substantially vertical movement when moved into vertical alinement with the nailing mechanism, said means operating independently of the nailing mechanism.

5. A machine for operating on heels having, in combination, nailing mechanism, coöperating work pressing members one of which is normally arranged in alinement with said nailing mechanism and the other of which is movable horizontally preparatory to the nailing operation into alinement with the nailing mechanism, and mechanically actuated measuring mechanism responsive to the movement of the latter member into alinement with the nailing mechanism for causing said movable member to move vertically toward the other work pressing members.

[Claims 6 to 33 not printed in the Gazette.]

1,207,565. INDICATING SYSTEM. ADOLPH KERN, Jersey City, N. J. Filed Mar. 21, 1916. Serial No. 85,684. (Cl. 246—28.)



1. An electric indicating system for passing cars comprising an electric generator for each car, a signaling device for each car normally out of circuit with said generator and means carried by both cars coöperating for connecting the generators in series for rendering said signaling devices active, said means including a contact rail extending the length of the car.

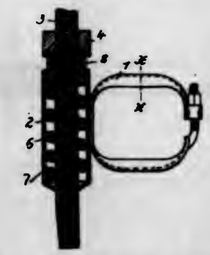
2. An electric indicating system for cars traveling on parallel tracks, a contact rail for each car secured to the side thereof, a shoe for each car and arranged to have slidable engagement with the track of a passing car and a circuit for each car including a source of current and a signal, and connected to its associated contact rail and shoe.

3. An electric indicating system for cars traveling on parallel tracks, a contact rail secured to the side of each car, a pair of shoes supporting at opposite ends of each car a circuit including said brushes and contact rail and a source of current connected to said circuit in such a manner as to be arranged in series with the source of current of another car upon engagement between the brushes and rail of one car with the brushes and rail of another car.

4. An electric indicating system for cars traveling on parallel tracks, a contact rail secured to the side of each car, a pair of shoes supporting at opposite ends of each car a circuit including said brushes and contact rail and a source of current connected to said circuit in such a manner as to be arranged in series with the source of current of another car upon engagement between the brushes and rail of one car with the brushes and rail of another car, each of said brushes being so formed as to yieldably engage with the contact rail and compensate for oscillatory movement.

5. An electric indicating system for passing cars comprising car carried mechanism including a contact rail extending the length of the car, a pair of signaling devices one at each end of the car and connecting in series with each other and with said contact rail a pair of brushes electrically connected together and supported one at each end of the car and a generator having one pole connected to the brushes and its other pole connected to said signaling devices.

1,207,566. ORTHODONTIC APPLIANCE. ALFRED KÖNITZ, Partenkirchen, Germany. Filed July 7, 1916. Serial No. 38,618. (Cl. 32—19.)

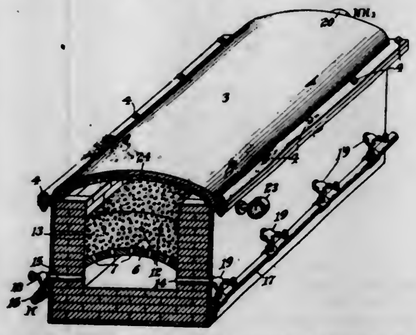


1. In an orthodontic appliance, in combination with an arch band and an anchor band, a buccal tube on said anchor band, spring means in said tube, and means for controlling the relative tension of said spring means.

2. In an orthodontic appliance in combination with an arch band and an anchor band, a buccal tube on said anchor band loosely surrounding said arch band, means in connection with said arch band for retaining said tube in its relative position, a helical spring within said buccal tube encircling said arch band, a projection inwardly extending from said tube for operatively retaining said spring, and an annular closure for said buccal tube, partly entering the latter and its enlarged upper end normally coöperating with said tube retaining means.

3. In an orthodontic appliance, a clamp band of substantially square shape with rounded-off corners, whose buccal and lingual portions are practically straight across their height and whose cross portions are contracted inwardly toward the upper and lower edges respectively, with a straight middle zone between said contracted zones, the height of the band being practically uniform throughout.

1,207,567. PROCESS OF MAKING AMMONIA AND COMPOUNDS THEREOF. HENRY WHITING LAMB, Portsmouth, Va. Filed Sept. 17, 1913. Serial No. 790,182. (Cl. 23—21.)



1. The process of making ammonia, which comprises heating solid metal carbid and exposing it to the alternating action of nitrogen and hydrogen during corresponding changes in the affinity of the carbid for nitrogen.

3. The process of making ammonia, which comprises heating solid metal carbid and exposing it to the action of nitrogen and hydrogen under alternately higher and lower temperatures which differ sufficiently to materially vary the affinity of the carbid for nitrogen.

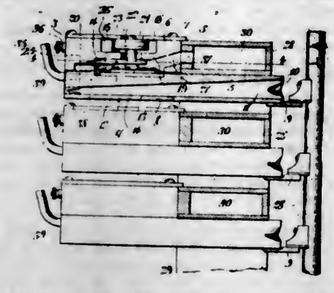
3. The process of making ammonia, which comprises internally heating a substance containing calcium carbid under conditions which alternately vary the affinity of such substance for nitrogen, and exposing it to the alternate action of nitrogen and hydrogen while under superatmospheric pressure.

4. The process of making ammonia, which comprises internally heating a substance containing calcium carbid, and exposing it to the action of nitrogen and hydrogen under alternately higher and lower temperatures which differ sufficiently to materially alter the affinity of said substance for nitrogen while under superatmospheric pressure.

5. The process of making ammonia, which comprises heating solid metal carbid and exposing it to the action of nitrogen and hydrogen under temperatures which differ sufficiently to cause a material variation in the affinity of the carbid for nitrogen.

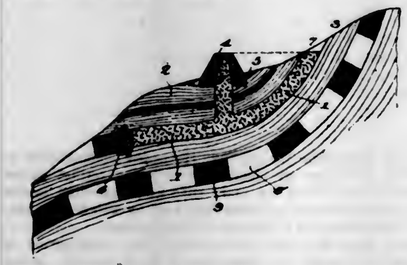
[Claims 6 to 12 not printed in the Gazette.]

1,207,568. PNEUMATIC ACTION. FREDERICK A. LANDGREN, Sycamore, Ill. Filed June 28, 1913. Serial No. 776,348. (Cl. 84—178.)



In a device of the class described, in combination, a suction chamber, a channel unit consisting of a main support block and a valve block mounted at one end upon said main block, said valve block adapted to engage one side of said suction chamber flush with its top and bottom and said main supporting block projecting in advance of said valve block and secured to the bottom of said suction chamber, a top plate secured upon said valve block and having a portion overlapping the upper part of said suction chamber, said valve block and suction chamber being formed with registerable ports, said valve block being provided with a pair of longitudinal side grooves, a pair of suspension rods threaded into said suction chamber snugly embedded in said grooves and having threaded portions projecting beyond the valve block, and nuts engaging the threaded ends of said ports and clamping said valve block against said suction chamber.

1,207,569. MINING AND SURFACE SUPPORT. ARTHUR LANGENFELD, Scranton, Pa. Filed Mar. 11, 1913. Serial No. 753,639. (Cl. 37—51.)



1. The filling of mines, tunnels, or cavities in the earth with ice, and confining it therein in such a manner that it can not flow out when any of the overlying or adjoining parts of the earth rest upon, or press against the ice.

2. The filling of mines, tunnels, or cavities in the earth with ice, confining it therein, and subjecting it to pressure.

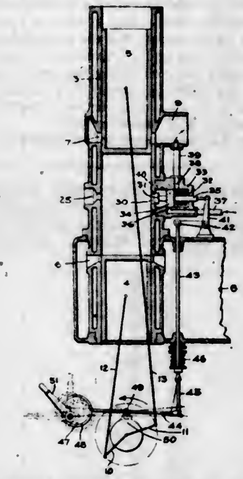
3. The filling of mines, tunnels, or cavities in the earth with ice and subjecting the ice to pressure by means of a head.

4. The filling of mines or other similar cavities in the earth with ice, and subjecting the ice to pressure by means of a head produced by material capable of flowing and contained in a stand pipe or equivalent hollow structure internally communicating with the ice.

5. The art of adding to an ice filling in mines and similar cavities when the uppermost level of the ice has gone down, by adding water thereto and freezing this water by means of very cold pieces of ice weighted with material heavier than ice and sunk into the water.

[Claims 6 to 11 not printed in the Gazette.]

1,207,570. INTERNAL-COMBUSTION ENGINE. OSKAR LASCHE, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed July 8, 1914. Serial No. 849,685. (Cl. 123—41.)



1. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust port leads the piston controlling the inlet port, and means for relieving the pressure in the cylinder prior to the opening of the inlet port when the engine is reversed.

2. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust ports lead the piston controlling the inlet port, an auxiliary exhaust port, a valve controlling the same, and means for opening said valve prior to the uncovering of the inlet port when the engine is reversed.

3. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly

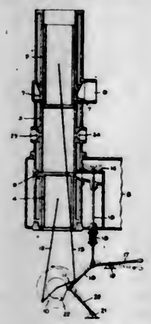
displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust port leads the piston controlling the inlet port, an auxiliary exhaust port, an exhaust conduit, a conduit connecting the auxiliary exhaust port with the exhaust conduit, valve means controlling the auxiliary exhaust port, and means for opening said valve means prior to the uncovering of the inlet ports when the engine is reversed.

4. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust ports leads the piston controlling the inlet ports, an auxiliary exhaust port, a valve controlling the same, a lever through which the valve is operated, an operating cam, and means for moving the lever into and out of operative position with relation to the cam.

5. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust ports leads the piston controlling the inlet ports, and a combined air starting and auxiliary exhaust valve mechanism therefor comprising a port in the cylinder, a valve casing, a valve therein for the port, said casing having an exhaust opening and an opening for admitting starting air, and means for connecting the port to the exhaust opening when the valve is opened to a certain extent and for connecting it to the opening for admitting starting air when opened to a different extent.

[Claims 6 to 11 not printed in the Gazette.]

1,207,571. INTERNAL-COMBUSTION ENGINE. OSKAR LASCHE, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed July 8, 1914. Serial No. 849,686. (Cl. 123—41.)



1. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust ports leads the piston controlling the inlet ports, and means for shutting off the supply of air to the inlet ports until the exhaust ports are uncovered when the engine is reversed.

2. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust ports leads the piston controlling the inlet ports, valve means controlling the supply of air to the inlet ports, and means for holding said valve closed until after the exhaust ports begin to be uncovered when the engine is reversed.

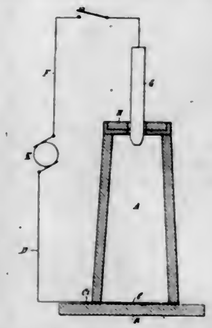
3. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust ports leads the piston controlling the inlet ports, and means for shutting off the supply of air to the inlet ports during the period between the time when the inlet ports begin to open and the time when the exhaust ports begin to open when the engine is reversed.

4. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust ports leads the piston controlling the inlet ports, valve means for shutting off the supply of air to the inlet ports until after the exhaust ports begin to uncover, a lever through which said valve means is operated, a cam, and means for moving the lever into and out of operative relation to the cam.

5. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons therein, inlet and exhaust ports which are covered and uncovered by the pistons, cranks for the pistons which are angularly displaced relative to each other by an angle other than 180° whereby upon forward operation the piston controlling the exhaust ports leads the piston controlling the inlet ports, valve means for shutting off the supply of air to the inlet ports until after the exhaust ports begin to uncover, a lever through which said valve means is operated, a cam, and means for simultaneously moving the valve to closed position and the lever into operative relation to the cam.

[Claims 6 and 7 not printed in the Gazette.]

1,207,572. APPARATUS FOR CASTING STEEL. EDWARD FULTON LAW, Manchester, and CHRISTER PETER SANDBERG, Westminster, London, England, assignors of one-third to Sir W. G. Armstrong, Whitworth and Company, Limited, Newcastle-upon-Tyne, England. Filed Apr. 17, 1916. Serial No. 91,685. (Cl. 22—74.)

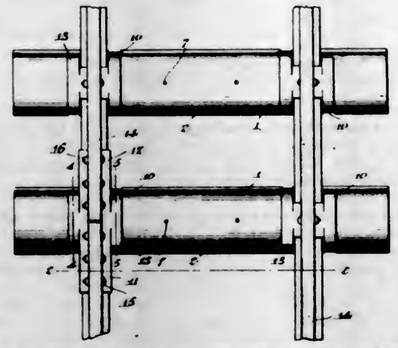


1. In apparatus for casting steel, the combination of a mold, a source of electricity, a loose contact device situated close above the mold base and connected to one pole of the source of electricity and an electrode above the mold connected to the other pole thereof.

2. In apparatus for casting steel, the combination of a mold, a source of electricity, a loose contact device situated close above the mold base and connected to one pole of the source of electricity, an electrode above the mold connected to the other pole thereof and a cover adapted to be placed over the top of the mold.

3. In apparatus for casting steel, the combination of a mold, a source of electricity, a loose metal plate situated close above the mold base and connected to one pole of the source of electricity, an electrode above the mold connected to the other pole thereof and a cover adapted to be placed over the top of the mold and having in it an aperture through which the electrode may be passed.

1,207,573. METALLIC TIE. CHARLES P. LAWRENCE, Cheyenne, Wyo. Filed May 27, 1916. Serial No. 100,286. (Cl. 238—5.)



1. A metal tie which is approximately half round in cross section and which has its edges beaded, its top formed with horizontally straight depressions providing rail seats, partition members connecting the sides of the tie at the ends and at the center thereof, said partitions being spaced from the top of the tie, fish plates for connecting rails seated upon the tie, and said fish plates having integral spring members engaging with the tie to hold the same upon the tie.

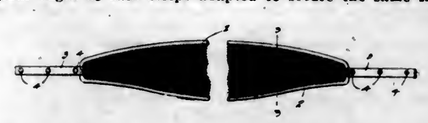
2. A metal tie which is approximately semi-circular in cross section and having its edges beaded and having interior partitions connecting the sides but spaced from the top of the tie, the top of the tie having depressions providing horizontally straight lower walls and vertical side walls and said side walls being spaced to engage with the edges of the base flanges of the rails, fish plates for connecting the rails, a spring band integrally formed with each of the fish plates, and one of the arms of each of the said bands having its end hooked to engage with the lower edge of the tie.

3. In combination with a metal tie which is approximately semi-circular in cross section and which has its top depressed to provide seats for rails, said tie having its edges beaded, and the said beads, and the lower portion of the tie, at diagonally opposite points with respect to the seats being cut away, fish plates secured to the rails, spring bands centrally formed with the horizontal member of each of the fish plates, each of said bands including two arms extending from its connection with the fish plate, one of the bands being longer than the other, and the said longer band having its end hooked adapted to be received in the cut away portion of the beaded edges of the tie and to engage with the said tie.

1,207,574. HAIR-BAND. JOSEPHINE D. LEWIS, Spring Lake Beach, N. J. Filed Sept. 19, 1914. Serial No. 862,539. (Cl. 132—23.)

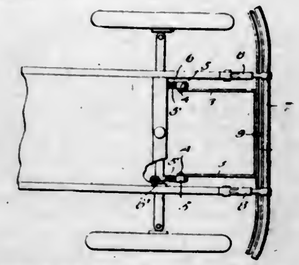
1. In a device for holding the hair off of the forehead comprising a body having a wide central portion and narrow ends, said body portion consists of layers of cloth netting, flexible means for holding the layers in position, and means for holding said body portion on the hair for the purpose specified.

2. In a device for holding the hair off of the forehead comprising a plurality of substantially elliptical strips of cloth netting, a flexible binding tape secured to the marginal edges of said strips adapted to secure the same in



place, said body portion adapted to encircle the front hair of the user, and means secured to the ends of said strips to engage the back of the head thereby holding the device in place.

1,207,575. FENDER. JOHN T. LIVINGSTON, Stanford, Ky. Filed May 23, 1916. Serial No. 99,372. (Cl. 105—130.)



The combination with the front axle of an automobile, and a bumper bar supported by the frame of the machine and adapted to yield rearwardly, of a fender body, extending transversely across the front of the machine, arms extending rearwardly from said body and having a fixed relation thereto, supporting rods extending forwardly from the axle, runners slidingly mounted on said rods and provided with laterally projecting pins on which the rear extremities of the fender body arms are journaled, cushioning springs arranged between said runners and axle, and a catch located centrally of said bumper bar for supporting the body of the fender, the latter being formed with a hole to receive the extremity of said catch when the fender body is in its elevated position, said catch being moved out of engagement with the body of the fender when the bumper bar yields rearwardly.

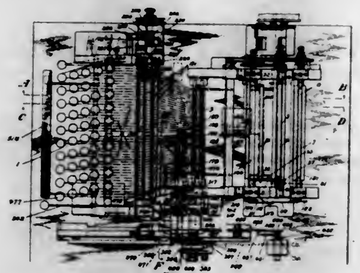
1,207,576. MACHINE FOR PRODUCING CONTROLLERS FOR TYPOGRAPHIC MACHINES. WILLIAM H. LONG, New York, N. Y., assignor, by mesne assignments, to James G. Cobn, trustee. Filed Dec. 2, 1911. Serial No. 663,580. (Cl. 164—112.)

1. A machine for producing controllers for typographic machines including in combination means for feeding the controller independently of the actuation of the punches, a key lever, a punch, a punch actuating device and an interponent movable by the key lever into position to cause the punch actuating device to actuate the punch.

2. A machine for producing controllers for typographic machines including in combination means for feeding the controller independently of the actuation of the punches, a key lever, a punch, a punch actuating device and an interponent movable into position between the head of the punch and the punch actuating device to communicate the movement of the actuating device to the punch.

3. A machine for producing controllers for typographic machines including in combination means for feeding the controller independently of the actuation of the punches, a key lever, a spring restored punch, a punch actuating device and an interponent movable into position between the head of the punch and the punch actuating device to communicate the movement of the actuating device to the

punch, said interponent being adapted to move sidewise off the head of the punch to permit the punch to return under the impulsion of its spring independently of the further movement of said interponent.

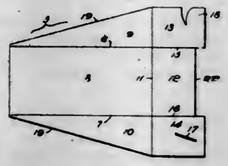


4. A machine for producing controllers for typographic machings including in combination a key lever, a spring restored punch, a punch actuating device and an interponent movable into position between the head of the punch and the punch actuating device to communicate the movement of the actuating device to the punch, and a spring pressed contact member mounted on said interponent for contacting with the head of said punch and being adapted to slide from the head of the punch after it has been actuated to permit the punch to return independently of the movement of said interponent.

5. A machine for producing controllers for typographic machines including in combination a die, a punch coöperating therewith to perforate the controller, spring restoring means for said punch, a pivoted member movable to cause the punch to perforate the controller and a pivoted spring pressed contact piece mounted on said member and snapping into operative position behind said punch during the movement of said member in one direction and also permitting the punch to slip past and be restored after the controller has been perforated independently of the further movement of said member.

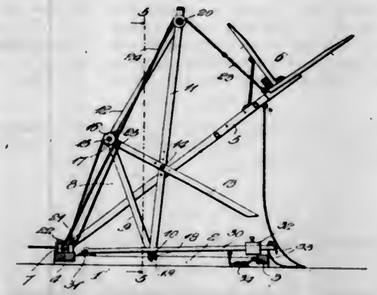
[Claims 6 to 214 not printed in the Gazette.]

1,207,577. BISCUIT-BOX-DISPLAY DEVICE. KENNETH D. LOOSE, Boston, Mass., assignor to Loose-Wiles Biscuit Company, Kansas City, Mo., a Corporation of Missouri. Filed May 15, 1914. Serial No. 838,862. (Cl. 211—24.)



A receptacle or like supporting device, consisting of a sheet of relatively stiff material folded along longitudinal and transverse lines, and having an upper inclined elongated and relatively narrow supporting face, opposite depending lateral triangular supporting walls, each of the same length as said face; a depending rectangular supporting end wall of a lateral extent equaling the width of said supporting face; and substantially oblong flaps extending from said lateral walls, superimposed on said end wall and having interengaging portions, whereby a supporting end wall of substantially triple thickness and having parallel upper and lower edges is provided, thereby to maintain said parts in assembled supporting relation and effectively to support the receptacle positioned upon said device.

1,207,578. HAY-STACKER. EDWARD LOOSBROCK and JOHN P. KLOSTER, Jr., Petersburg, Nebr. Filed June 8, 1916. Serial No. 102,532. (Cl. 57—53.)



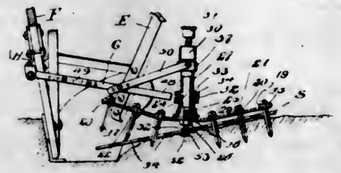
1. A hay stacker comprising a base, a fork including a pair of vertically swinging arms mounted on said base and a fork head carried by said arms, an upstanding swinging derrick frame mounted on said base and carrying a cable guide, a fork raising cable passing over said guide and connected with the fork, a second cable guide on the rear end of the base through which the free end of said cable passes, and a rigid leg secured to and extending forwardly from said derrick frame to rest on the base and limit the forward movement of said frame.

2. A hay stacker comprising a base, a fork including a pair of vertically swinging arms mounted on said base and a fork head carried by said arms, a derrick frame including a pair of substantially vertical upwardly converging bars pivoted at their lower ends to said base upon a transverse axis, a pair of longer bars inclining upwardly and forwardly from the lower ends of the other bars and converging upwardly, braces extending between the upper ends of the two pairs of bars, and a pair of downwardly and forwardly inclined legs secured at their upper ends to the upper ends of the first named bars, said legs diverging downwardly, being secured between their ends to the intermediate portions of said second named bars and being adapted to rest on the base to limit the forward movement of the derrick frame, a cable guide at the upper end of said second named bars, a second cable guide on the rear end of the base, and a cable connected to the fork and extending over the first named guide, the free end of said cable extending from the other guide.

3. A hay stacker comprising a base, a fork including a pair of vertically swinging arms mounted on the base and a fork head carried by said arms, a swinging derrick frame mounted on the base and having a pair of cable guides, one guide being spaced above and in rear of the fork head and the other being in rear of and below the first guide, a pair of cable guides on the rear end of the base, a cable secured to the fork and extending therefrom over the two guides of the derrick frame and through one of the guides on the base, and an additional cable guide secured on said cable between said guides of the derrick frame, said cable being carried forwardly from the last named guide on the base and passed through said additional guide, the free end of said cable being passed through the remaining guide on the base.

4. A hay stacker comprising a base, a fork including a pair of vertically swinging arms mounted on said bars and a fork head carried by said arms, a derrick frame including a pair of substantially vertical upwardly converging bars pivoted at their lower ends to said base upon a transverse axis, a pair of longer bars inclining upwardly and forwardly from the lower ends of the other bars and converging upwardly, braces extending between the upper ends of the two pairs of bars, and a pair of downwardly and forwardly inclining legs secured at their upper ends to the upper ends of the first named bars, said legs diverging downwardly, being secured between their ends to intermediate portions of said second named bars and being adapted to rest on the base to limit the forward movement of the derrick frame, a cable guide at the upper end of said second named bars, a second cable guide at the upper ends of said first named bars and a pair of cable guides on the rear end of the base, a cable secured at one end to the fork and passed over said first and second guides and through one guide on the base, and an additional cable guide secured on said cable between the first and second guides, said cable being extended forwardly from said guide on the base, passed through said additional guide and having its free end extended through the remaining guide on the base.

1,207,579. ROTARY HARROW. JOHN D. LOWRY, Wilmington, N. C. Filed Apr. 3, 1916. Serial No. 88,545. (Cl. 97—44.)



1. A rotary harrow consisting of a dished disk having circumferentially disposed rows of teeth connected therewith, said disk being provided with sifting apertures between the teeth.

2. A rotary harrow consisting of a dished disk having circumferentially disposed rows of teeth connected therewith, said disk being provided with sifting apertures between the teeth, and said teeth being angularly disposed with respect to the axis of the disk.

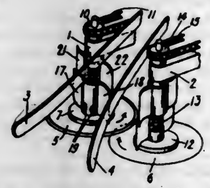
3. A rotary harrow unit consisting of a dished disk having circumferentially disposed rows of upwardly extending apertured bosses, and teeth having shanks fixed in said bosses.

4. A rotary harrow unit consisting of a dished disk having circumferentially disposed rows of upwardly extending apertured bosses, and teeth having shanks fixed in said bosses, said disk being provided with sifting apertures intermediate the bosses with which the teeth are connected.

5. A rotary harrow unit consisting of a dished disk having circumferential rows of angularly disposed teeth, said disk being provided with an axially disposed hub with which a spindle is connected.

[Claims 6 to 13 not printed in the Gazette.]

1,207,580. TRASH-IMPELLER. GEORGE D. LUCE, New Orleans, La. Filed July 8, 1916. Serial No. 108,176. (Cl. 56—132.)



1. In combination, in a machine designed to be operated in a region containing refuse or trash, an exposed shaft and a two-part horizontally divided trash impeller therefor.

2. In combination, in a machine designed to be operated in a region containing refuse or trash, an exposed shaft, and a trash impeller therefor including overlapping fins or blades mounted on said shaft.

3. In combination, in a machine designed to be operated in a region containing refuse or trash, an exposed shaft and a trash impeller therefor including telescoping fins or blades mounted on said shaft.

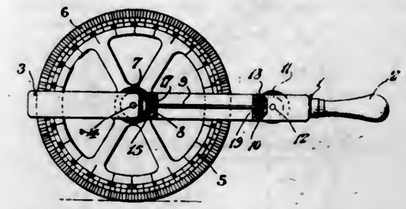
4. In combination, in a machine designed to be operated in a region containing refuse or trash, an exposed shaft and a plural-part trash impeller therefor mounted on said shaft, said parts being relatively adjustable.

5. In combination, in a machine designed to be operated in a region containing refuse or trash, an exposed shaft and a plural-part trash impeller therefor, a fin or blade on one of said parts and a fin or blade on the other of said parts overlapping that on the first.

[Claims 6 to 19 not printed in the Gazette.]

1,207,581. [WITHDRAWN.]

1,207,582. MEASURING INSTRUMENT FOR CURVED SURFACES. ELNATHAN J. MCKINNEY, Ozona, Tex. Filed Jan. 19, 1916. Serial No. 73,019. (Cl. 33—141.)



1. In a measuring instrument, the combination, of a handle structure including a hand grip and a supporting portion, said supporting portion being formed of sheet metal and having spaced sections, a disk rotatably supported by said supporting portion of said handle, a beveled gear connected to said disk, a recorder carried by said supporting portion, a beveled gear operatively connected to said recorder, a shaft and beveled pinions mounted upon said shaft and operatively connected to said beveled gears for operatively connecting the recorder and said disk, said disk having graduations formed thereupon about its periphery.

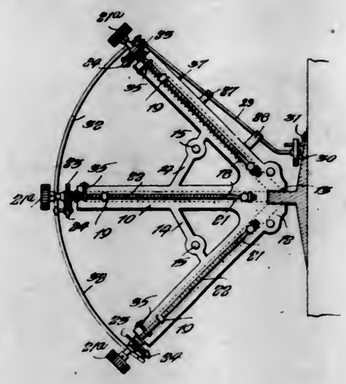
2. In a measuring instrument, the combination, of a handle structure including a hand grip and a supporting portion, said supporting portion being formed of sheet metal and having spaced sections, a disk rotatably supported by said supporting portion of said handle, a beveled gear connected to said disk, a recorder carried by said supporting portion, a beveled gear operatively connected to said recorder, a shaft, beveled pinions mounted upon said shaft and operatively connected to said beveled gears for operatively connecting the recorder and said disk, said disk having graduations formed thereupon about its periphery, portions of said supporting portion of said handle being shaped to form housings for said beveled pinions.

3. In a recording instrument, the combination, of a handle including a hand grip and a supporting portion, said supporting portion being constructed of flat metal and including a pair of spaced sections, a disk rotatably supported by said supporting portion, a beveled gear connected to said disk for rotation therewith, a recorder carried by said handle, a beveled gear operatively connected to said recorder, a shaft, beveled pinions mounted upon the ends of said shaft and meshing with said beveled gears for operatively connecting said disk and said recorder, portions of one section of the supporting portion of said handle being bent outwardly for forming housings for said beveled pinions and bearings for said shaft.

1,207,583. AUTOMATIC LUBRICATOR. EDWARD R. MCKINZIE, Memphis, Tenn., assignor of one-half to Joseph A. Fowler, Memphis, Tenn. Filed Feb. 15, 1916. Serial No. 78,508. (Cl. 184—1.)

1. An automatic lubricator of the character described comprising a frame having converging guide grooves for

lubricating sticks, and having longitudinal slots communicating with the said grooves, a follower movable in each of the guide grooves for advancing the stick therein in step by step movements, having a portion projecting outwardly through the adjacent slot, a screw shaft mounted on the frame adjacent each of the said slots and upon which the projecting portion of the respective follower is threaded, having a handle for its manual rotation at one end, a connecting rod extending between the several screw shafts, ratchet mechanisms connecting said rod and said screw shafts, a lever mounted at one side of the frame and connected to said rod at one end for moving the latter in one direction, a spring for moving the connecting rod in the opposite direction, and means arranged in the line of movement of the frame in operation for engagement with said lever to actuate the same.



2. An automatic lubricator of the character described, comprising a frame having converging guides for lubricating sticks, a follower movable in each of the said guides for advancing the lubricating sticks in step by step movements, a screw shaft on which the follower works, a connecting rod extending between the several screw shafts, ratchet mechanisms connecting said rod and said screw shafts, a lever mounted at one side of the frame and connected to said rod for moving the same in one direction, a spring for moving the rod in the opposite direction, and means arranged in the line of movement of the frame in operation for engagement with said lever to actuate the same.

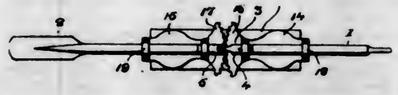
3. An automatic lubricator of the character described comprising a frame having converging guides for lubricating sticks, a follower movable in each of the said guides for advancing the sticks, means adjacent each of the guides on the frame for actuating the said follower in step by step movements, a connecting rod between the several actuating means, a spring for moving the connecting rod in one direction, a lever connected to the rod for moving the latter in the opposite direction, and means arranged in the line of movement of the frame in operation for engagement with said lever to actuate the latter.

4. An automatic lubricator of the character described comprising a frame having converging guides for lubricating sticks, a follower movable in each of the said guides for advancing the sticks, means for simultaneously actuating the several followers in step by step movements during operation, and springs interposed between the followers and the lubricating sticks.

5. An automatic lubricator of the character described comprising a frame having converging guides for lubricating sticks, a follower movable in each of the said guides for advancing the sticks, and means for simultaneously actuating the several followers in step by step movements during operation.

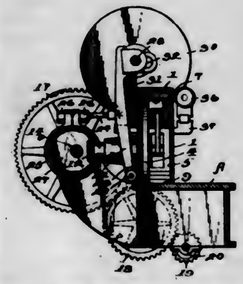
[Claims 6 and 7 not printed in the Gazette.]

1,207,584. BOW-FACING OAR. JOSEPH MAHEU, Waterville, Me., assignor of one-half to Napoleon O. Maheu, Waterville, Me. Filed Jan. 17, 1916. Serial No. 72,588. (Cl. 9—25.)



A bow facing oar comprising a connecting element, inner and outer oar members connected together at their opposing ends for universal angular movement but against relative longitudinal movement, and a pair of intergeared members pivotally mounted on the connecting member and having a pair of bearings spaced from opposite sides of its pivot and in which said oar members are mounted for turning movement, one of said oar members being also longitudinally movable in its bearings and the other being provided with means to prevent longitudinal movement thereof in its bearings.

1,207,585. CUT-OFF MECHANISM FOR MACHINES FOR MAKING ARTIFICIAL STRAWS. LEWIS C. MALTBY, Washington, D. C., assignor to The Stone Straw Company, Washington, D. C., a Corporation of New Jersey. Filed Feb. 12, 1916. Serial No. 78,058. (Cl. 164—60.)

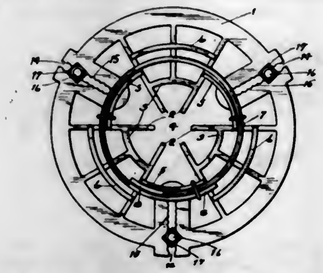


1. The combination of a machine-bed or frame, a reciprocating cross-head having arms which extend in opposite directions through slots in the frame, one arm carrying a straw guide and the other arm extending upward having a horizontally disposed elongated slot, a rocking frame, and a disk cutter shaft slidably mounted in said frame and extending through the elongated slot of the arm on the cross-head, said slidable shaft having a disk cutter secured thereon on one side of said arm, a collar secured on the shaft, on the other side of the arm, whereby the shaft is reciprocated with the cross-head, and means for actuating these several parts.

2. The combination of a machine-bed or frame, a cross-head guide formed therein, a cross-head fitted thereto, a plate adjustably secured to the cross-head and located between one side of the guide and the cross-head for taking up the wear of the cross-head, arms extending in opposite directions from the cross-head, one carrying a straw guide and the other a slotted arm, a rocking frame and shaft slidably mounted in said frame and carrying a disk cutter, said shaft passed through the slot of the arm with the disk cutter adjacent thereto, a collar secured on the shaft on the other side of the slotted arm, means for reciprocating the cross-head, straw guide and slidable shaft, and means for rocking the rocking frame with the sliding shaft and disk cutter.

3. The combination with a machine-bed or frame, a rocking frame pivotally connected therewith, a reciprocating plunger or cross-head, a main drive-shaft, a countershaft driven thereby, said countershaft having a miter gear and an eccentric thereon, a cross-shaft having a miter gear intermeshed with the miter gear on the countershaft, a crank disk carried on said cross-shaft, a connecting rod extending from the crank-disk to the plunger or cross-head, an eccentric strap around the eccentric and connecting-rod extending therefrom to the rocking-frame, two arms extending from the cross-head or plunger, one having an elongated slot, and the other carrying a straw guide, and a shaft rotatably and slidably supported by the rocking frame and extending through the slot in the slotted arm on the plunger or cross-head, said shaft carrying a disk cutter which is adapted to travel with and cross the path of the straw to be cut.

1,207,586. SKELETON LID. CHARLES G. MANZ, New Kensington, Pa. Filed Oct. 15, 1915. Serial No. 55,924. (Cl. 126—214.)



1. In a skeleton lid for gas burners, a general ribbed framework, and adjustable means carried by said framework to fit it to the desired stove opening.

2. In a skeleton lid for gas burners, a general ribbed framework, said framework being provided with a plurality of radially arranged slots whose radial walls are serrated, and a bolt and nut in each of said slots, said bolts fitting said serrations and forming the means for adjusting the lid to make it fit the desired stove opening.

3. In a skeleton lid for gas burners, a general ribbed framework, a collar depending from the underside of said framework designed to encircle a gas burner, and adjustable means carried by said framework to fit it to the desired stove opening and at the same time locate said collar concentrically with the gas burner whether the burner is concentric with the stove opening or not.

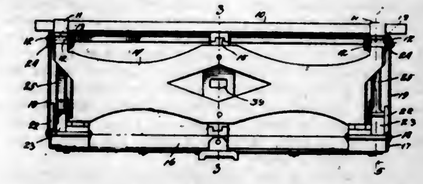
4. In a skeleton lid for gas burners, a general ribbed framework, a plurality of flanges depending from the underside of said framework, an attachable expansible depending collar designed to encircle the gas burner and be attached to assume various sizes by means of said flanges, and means for attaching said collar to any of said flanges.

5. In a skeleton lid for gas burners, a general ribbed framework, a plurality of flanges depending from the underside of said framework, an attachable expansible depending collar designed to encircle the gas burner and be attached to assume various sizes by means of said flanges, means for attaching said collar to any of said flanges said framework being provided with a series of radially arranged slots, and a bolt and nut in each of said slots adjustable to assume any desired position to fit the lid to the desired stove opening.

[Claims 6 and 7 not printed in the Gazette.]

1,207,587. FOLDING CAR-STEP. ERIC MASTBERG, Nelson, British Columbia, Canada. Filed Aug. 23, 1916. Serial No. 116,542. (Cl. 105—86.)

1. The combination with a fixed step; of a member hinged to the forward edge of said step, a foldable step hinged to the lower end of said member, jointed links connecting the forward edges of the steps, guide members at the sides of the foldable step and projecting rearwardly and upwardly thereof to form strut sections, and upper strut sections pivoted to the rear of the fixed strip and having their free ends engaged by the guide members, said upper and lower strut sections being provided with coacting locking means arranged to hold the struts against collapse.

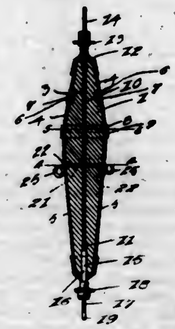


2. The combination with a fixed step; of a member hinged to the forward edge of said step, a foldable step hinged to the lower end of said member, jointed links connecting the forward edges of the steps, guide members at the sides of the foldable step and projecting rearwardly and upwardly thereof to form lower strut sections, and upper strut sections pivoted to the rear of the fixed strip and having their free ends engaged by the guide members, said upper and lower strut sections being provided with coacting locking means arranged to hold the struts against collapse, and a releasing device for said locking means.

3. The combination with a fixed step; of a member hinged to the forward end of said step, a foldable step hinged to the lower end of said member, jointed links connecting the forward edges of the steps, guide members at the sides of the foldable step and projecting rearwardly and upwardly thereof to form lower strut sections, upper strut sections pivoted to the rear of the fixed strip and having their free ends engaged by the guide members, and lugs on the free ends of the upper struts engageable with the upper ends of the lower strut sections to hold the struts with their sections in extended position.

4. The combination with a fixed step; of a member hinged to the forward edge of said step, a foldable step hinged to the lower end of said member, jointed links connecting the forward edges of the steps, guide members at the sides of the foldable step and projecting rearwardly and upwardly thereof to form lower strut sections, upper strut sections pivoted to the rear of the fixed strip and having their free ends engaged by the guide members, and means to move the free ends of the upper struts simultaneously into position to disengage the lugs.

1,207,588. ARTIFICIAL BAIT. EDWARD J. MAUS, Joliet, Ill. Filed Apr. 8, 1916. Serial No. 89,807. (Cl. 43—30.)



1. In a device of the class described, a body, a shell comprising a head and tail piece, said head and tail piece being adapted to be slipped over the body to entirely inclose the same, a rod extending longitudinally through the body, caps mounted at opposite ends of the rod, one end

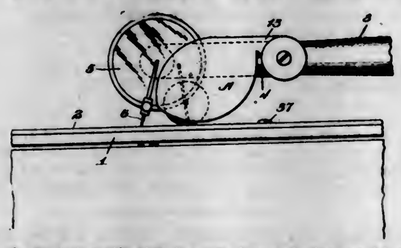
of the rod being threaded into one of the caps to permit the rod to be removed and allow the shells to be taken off the body, and spinners and hooks carried by the rod.

2. In a device of the class described, a body provided with a longitudinal bore, a rod adapted to extend through said bore, said rod being provided at one end with threads, the opposite end of the rod being provided with a loop, spinners rotatably mounted on the loop end of the rod, a cap intermediate the spinner and the opposite end of the rod, said cap being adapted to engage the body, a sectional shell being adapted to surround the body, the said cap acting to hold the shell in place, and a cap at the opposite end of the body, said cap holding the opposite section of the shell in place.

3. In a device of the class described, a body provided with a longitudinal bore, a sectional shell adapted to fit over and inclose the body, a rod extending through the bore, a cap on one end of said rod to engage one section of shell and hold the same in place, a cap at the opposite end of the body to hold the opposite section of the shell in place.

4. In an artificial bait, a body, said body being provided with a longitudinal bore and having a transverse bore communicating therewith, hook attaching means at opposite ends of the body, a rod extending through the longitudinal bore and adapted to hold the hook attaching means in place, a yoke comprising a pair of arms, hook attaching means at the outer ends of the arms, and a U-shaped stem at the inner ends of the arms, said yoke being adapted to fit over the body so that the U-shaped stem extends through the transverse bore and is engaged by the longitudinal rod and hooks on the hook attaching means.

1,207,589. AUTOMATIC STOP FOR SOUND-REPRODUCING MACHINES. RALPH OLIVER MAY, Salem, Ind. Filed Feb. 23, 1916. Serial No. 79,979. (Cl. 74—46.)

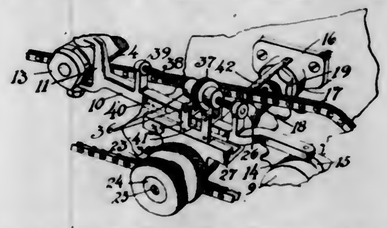


1. In an automatic stop for sound reproducing machines of the disk type, the combination with the goose neck of the tone arm, of a frame, a loose connection between said frame and the goose neck whereby the frame may adapt itself to needles of various lengths, means supporting said frame upon the record, a cam carried by said frame and normally out of engagement with the record, and record controlled means for swinging said cam downwardly into engagement with the record whereby the cam will be acted upon to elevate said frame and goose neck and bear upon the record to lift the needle out of engagement with the record and stop the rotation of the record.

2. In an automatic stop for sound reproducing machines of the disk type, the combination with the goose neck of the tone arm, of a frame, a loose connection between said frame and the goose neck whereby the frame may adapt itself to needles of various lengths, means supporting said frame upon the record, a cam carried by said frame and normally out of engagement with the record, record controlled means for swinging said cam downwardly into engagement with the record whereby the cam will be acted upon to elevate said frame and goose neck and bear upon the record to lift the needle out of engagement with the record and stop the rotation of the record, and a spring holding said cam normally in said frame.

3. In an automatic stop for sound reproducing machines, the combination with the goose neck of the tone arm, of a frame, a loose connection between said frame and the goose neck whereby the frame may adapt itself to needles of various lengths, means carried by said frame and normally out of engagement with the record, and capable of movement to engage the record to stop the rotation of the latter and elevate said frame, and means for actuating said means into engagement with the record whereby said first means will act to elevate said frame and goose neck and bear upon the record to elevate the needle out of engagement with the record and stop the rotation of the record.

1,207,590. EDGING-MACHINE. ALBERT E. MAYNARD, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association. Filed Sept. 25, 1916. Serial No. 122,114. (Cl. 51—3.)



1. In an edging machine, the combination with a longitudinally shiftable stone shaft, of an intermediately pivoted lever having one end engaging the stone shaft and the other end engaging shifting mechanism, and means for laterally shifting the pivot of the lever.

2. In a lens edging machine, the combination with a longitudinally shiftable stone shaft, of a pivoted rock lever for shifting the shaft, and means for laterally and longitudinally shifting the pivot to vary the path and amount of movement of the lever and thus of the stone.

3. In a machine of the character described, the combination with a shiftable grind stone shaft, of a pivoted rock lever for shifting the shaft, a pivot for the lever shiftable longitudinally of the lever, and means for longitudinally shifting said pivot.

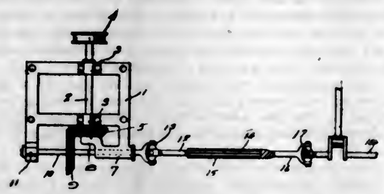
4. In a machine of the character described, the combination with a shiftable grind stone shaft, of a pivoted rock lever for shifting the shaft, a pivot for the lever shiftable longitudinally of the lever, means for longitudinally shifting said pivot, and means for indicating the amount of shift of the pivot.

5. In a machine of the character described, the combination with a support and a transversely shiftable grind stone mounted on the support, of a rock lever for shifting the stone, a pivot about which the lever rocks, and means for shifting the pivot in a path parallel to the axis of the stone shaft, substantially as and for the purpose described.

[Claims 6 to 11 not printed in the Gazette.]

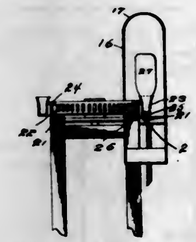
1,207,591. POWER-TRANSMISSION MECHANISM. ALBERT G. MELROSE, Carmen, Okla. Filed Oct. 2, 1915. Serial No. 53,794. (Cl. 74—7.)

In a power transmitting mechanism, the combination with a harvesting machine driving shaft, of a substantially rectangular frame adapted for attachment to a tractor, one end of said frame being extended and having a bearing formed thereon, an arm formed upon one end of said bearing and positioned outwardly therefrom, said arm provided with a bearing opening formed therein which is positioned transversely to said bearing extension, a shaft rotatably supported by said bearing extension, a second shaft having one end rotatably seated in the bearing opening formed in said arm, said second named shaft extending transversely to said first named shaft, bevel gears carried by said first and second named shafts and meshing for rotating the second named shaft upon rotation of said first named shaft, a shaft connected to said first named shaft by means of a universal connection, said



last named shaft being adjustable throughout its length, and a power shaft connected to said adjustable shaft through the medium of a universal connection.

1,207,592. BOTTLE RINSING AND CONVEYING MACHINE. CHARLES ALVIN MILLER, Bainbridge, Ga., assignor to Miller Manufacturing Company, Bainbridge, Ga., a Corporation of Georgia. Filed Aug. 4, 1913. Serial No. 782,939. (Cl. 141—7.)



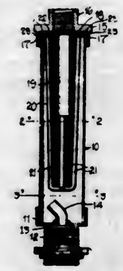
In a bottle rinsing machine, the combination with a frame having side bars of L-iron, each with one leaf upright and the other leaf horizontal and projecting inward from the lower edge of said upright leaf, a water pipe at one point outside the L-iron and having perforations in its top, a housing surrounding the side bar and pipe, and a drip pan beneath the perforated portion of such pipe; of a chain carrier moving around the frame and through said housing with its links standing on edge above the horizontal leaves and traveling inside and in contact with the upright leaves of said side bars, studs carried by certain links and passing over the upper edges of said upright leaves whereby the chain is supported, and tubular bottle holders carried rigidly by said studs wholly outside the upright leaves and traveling over said perforated pipe, for the purpose set forth.

1,207,593. VALVE PROTECTOR AND STRAINER. CHARLES T. MILLER, Macon, Ga. Filed Apr. 8, 1916. Serial No. 89,900. (Cl. 210—16.)

1. A valve protector of the character described comprising a casing having an outlet and an inlet opening, a cone supporting base mounted in the outlet opening, a wire gauze cone mounted on said base and extending toward the inlet opening, and a tubular member disposed in said base and extending into the center of the cone and discharging at the outlet opening of the casing.

2. In a protector of the character described, a tubular casing, a base mounted in one end of the casing and having a tubular member projecting into the casing, said base at its margins having water-tight engagement with the casing, a gauze screen surrounding the tubular member and extending into the casing, and an inlet tube mounted on the other end of the casing and having its outlet end directed away from the adjacent extremity of the screen.

3. In a protector of the character described, a tubular casing, caps detachably engaging the ends of the casing, a base mounted in one end of the casing and having a tubular member projecting into the casing, a gauze screen surrounding the tubular member, and extending into the casing, and an inlet tube mounted in the other cap and having its outlet end directed away from the adjacent extremity of the gauze screen.

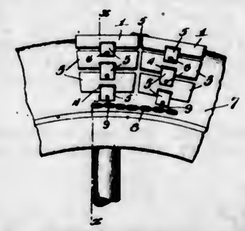


4. A protector of the character described comprising a tubular body exteriorly screw-threaded at its ends, caps engaging the ends of the body and having outwardly directed screw-threaded flanges, an annular cone supporting base detachably disposed at one end of the body having a central tubular member entering in the casing, a wire gauze cone mounted upon said base and extending into the casing and beyond the tubular member, a wire gauze disk having a circumferential gasket disposed across the base and between the base and the adjacent cap, the opposite cap being provided at its center with an inlet pipe, the extremity of which is laterally deflected.

5. A valve protector of the character described comprising a casing, a substantially conical wire gauze strainer disposed within the casing, the base of said conical strainer being disposed at the outlet opening of the casing and an inlet pipe projecting inward from the other end of the casing and toward the extremity of the cone, said inlet pipe being laterally deflected to thereby prevent the impact of fluid on the extremity of the cone.

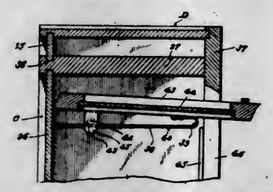
[Claim 6 not printed in the Gazette.]

1,207,594. PNEUMATIC-TIRE PROTECTOR. EMERY E. MILLER, Lewisburg, Pa. Filed Dec. 6, 1913. Serial No. 805,137. (Cl. 152—16.)



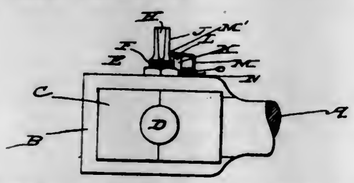
In combination a wheel having a tire, a tire protector consisting of a number of curved plates adapted to extend around the tread and sides of said tire transversely thereof, some of said plates being formed at opposite ends with substantially rectangular openings, a series of strap links each consisting of a doubled member having two arms curved to the configuration of said tire, each of said links having its looped portion linked loosely through the rectangular opening of one of said plates and straddling one marginal edge thereof and also the marginal edge of an adjacent plate, pins passing through the arms of some of said links and serving as a means of separating the confronting edges of adjacent plates for relative movement, and means adapted to hold said plates against displacement from the tire.

1,207,595. COLLAPSIBLE BOOKCASE. OLE C. MILLER, Chicago, Ill., assignor, by mesne assignments, to Alberts & Meyer Manufacturing Company, Two Rivers, Wis., a Corporation of Wisconsin. Filed Oct. 14, 1913. Serial No. 795,127. (Cl. 45—78.)



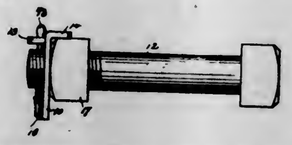
In a cabinet, in combination, a pair of tracks secured upon the opposite side walls thereof, each of said tracks consisting of a longitudinal strip curved upwardly and rearwardly to form a loop, a door, a pair of L-shaped brackets each having one arm secured upon said door at opposite sides and edges but at the ends of the door, a roller journaled upon the other arm of each of said brackets and adapted to ride upon said brackets with the last named arms projecting below the strips and against the side edges of the latter, said brackets adapted to support said door at an inclination so that its forward end and weight may rest upon the loops of the tracks and make said loops serve as a fulcrum for lifting the rollers above the loops of the tracks to release the door from the tracks.

1,207,596. GREASE-BOX-PLUG LOCK. JOHN W. MINDERFER, Lincoln, Nebr. Filed Jan. 26, 1916. Serial No. 74,334. (Cl. 184—48.)



A grease box plug lock, consisting of a double threaded socket, a pair of spaced ears rising therefrom, a threaded plug engaging the socket and formed with an angular portion, a finger operated lever pivoted in said ears and engaging the angular portion of the plug, an elongated opening in said finger operated lever, a pin secured in said socket and engaging said opening, and a spiral spring coiled around said pin and bearing against said lever.

1,207,597. NUT-LOCK. WILLIAM E. MOELLER, Chicago, Ill. Filed Sept. 27, 1915. Serial No. 52,911. (Cl. 151—29.)



1. The combination with a bolt and its nut; of a lock for the nut, said lock comprising a plate opposite the outer face of the nut and having an aperture to receive the bolt, said plate also having an outstanding flange engageable with the side of the nut, and an outstanding apertured flange extending in the opposite direction from said nut-engaging flange, and the face of the plate on the same side as the second-mentioned flange having a lug the sides of which diverge outwardly, and a split pin passing transversely through the bolt and through the aperture of the second-mentioned flange and engageable with the lug to spread its legs.

2. The combination with a bolt and its nut; of a split pin passing transversely through the bolt ahead of the nut, and a member mounted on the bolt between the nut and the pin and anchored to the latter, said member having means for spreading the legs of the pin.

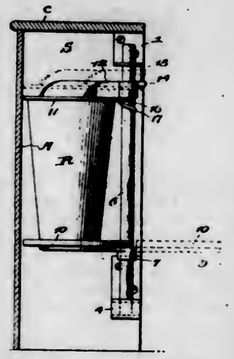
3. The combination with a bolt and its nut; of a split pin passing transversely through the bolt, a locking plate anchored to the pin and having a flange engaging the side of the nut, and means on the plate for spreading the legs of the pin.

4. The combination with a bolt and its nut; of a split pin passing transversely through the bolt, a member mounted on the bolt and anchored to the pin, said member having means for spreading the legs of the pin, and means on said member for coupling the same and the nut together.

5. The combination with a bolt and an element carried thereby; of a split pin passing transversely through the bolt, and a member mounted on the bolt and anchored to the pin, said member having means for spreading the legs of the pin, and means for coupling the aforesaid element and the member together.

[Claims 6 to 8 not printed in the Gazette.]

1,207,598. RECEPTACLE SUPPORT AND COVER. CHARLES T. MOON, Scottsville, Va. Filed Nov. 1, 1915. Serial No. 59,093. (Cl. 211—9.)



1. The combination with a horizontally swinging receptacle support, and a receptacle cover above said support, of a cam operable by movement of said support for raising said cover automatically when the support is swung laterally.

2. In combination, an upright rotatable shaft, a receptacle support secured to and projecting laterally therefrom, a receptacle cover above the support, and a cam on the shaft for raising the cover when the shaft is rotated by lateral swinging of the support.

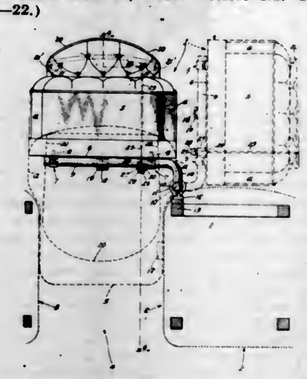
3. In combination, an upright rotatable shaft, a receptacle support secured to and projecting laterally therefrom, a receptacle cover above the support and having a slide mounted on the shaft, a cam on the shaft for raising the cover, and means for preventing rotation of the slide with the shaft.

4. In combination, an upright rotatable shaft, a receptacle support secured to and projecting laterally therefrom, a receptacle cover above the support and having a slide mounted on the shaft, means for preventing rotation of said slide with the shaft, a pin depending from the cover, and a cam passing partially around the shaft and having an inclined upper surface on which the lower end of the pin rests.

5. In combination, upper and lower bearings, an upright shaft rotatably mounted therein, a receptacle support secured to and extending laterally from said shaft,

a receptacle cover above the support and having a slide mounted on the shaft, a stop depending from the upper bearing adjacent the outer side of the slide, an additional stop on said slide abutting the aforesaid stop to prevent lateral movement of the cover, and a cam on the shaft for raising said cover when said shaft is turned by swinging the support laterally.

1,207,599. SEAT. FRANKLYN J. MORGAN, Los Angeles, Cal. Filed Jan. 23, 1915. Serial No. 4,065. (Cl. 155—22.)



1. The combination with two seat units spaced apart to form a passageway, of a support in fixed relation thereto, a seat bottom resting upon the support, said seat bottom partly fitting in the space between said seat units and partly extending back thereof, a horizontal swinging axle terminating at one end in a vertical bar which is mounted to swing the axle across the passageway between said seats behind said support, and journal bearings in transverse alinement near the rear end of said seat bottom and connecting the seat bottom with said axle whereby the seat bottom may be tilted up from said support, and then swung from said passageway.

2. The combination with two seat units spaced apart to form a passageway, of a support in fixed relation thereto, a seat bottom resting upon the support, said seat bottom partly fitting in the space between said seat units and partly extending back thereof, a horizontal swinging axle terminating at one end in a vertical bar which is mounted to swing the axle across the passageway between said seat units behind said support, journal bearings in transverse alinement near the rear end of said bottom and connecting the seat bottom with said axle whereby the seat bottom may be tilted up from said support and then swung from said passageway, and a back hinged to the seat bottom behind said axle, and foldable toward the seat bottom to stand up out of the way when the seat bottom is tilted and swung out of the passageway.

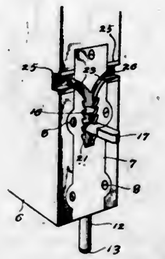
3. The combination with a stationary seat unit, of a horizontally swinging axle terminating at one end in a vertical bar which is rotatably mounted at the rear thereof, a support on said seat unit, and a seat bottom transversely journaled to the axle to rest on said support and tiltable on the axle for removal from said support and swinging with said axle to open a passageway alongside said seat unit.

4. The combination with a stationary seat unit, of a swinging axle terminating at one end in a vertical bar which is rotatably mounted at the rear thereof, a support on said unit, a seat bottom transversely journaled to the axle to rest on said support and tiltable on the axle for removal from said support and swinging with said axle to open a passageway alongside said seat unit, and a latch carried by said seat bottom to latch the seat bottom in horizontal position.

5. The combination with a support, of a horizontal swinging axle terminating at one end in a vertical bar which is rotatably mounted rearwardly of said support, a seat bottom transversely journaled to said axle and resting on said support, and a seat back hinged to the seat bottom rearwardly of said axle to fold forward toward the seat bottom.

[Claims 6 to 24 not printed in the Gazette.]

1,207,600. DOOR-CHECK. THOMAS L. MORGAN, New Castle, Pa. Filed May 5, 1916. Serial No. 95,600. (Cl. 16—83.)

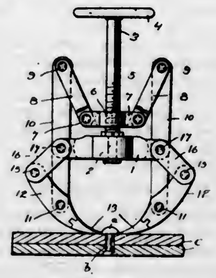


1. In a door check, the combination of a casing having a slot at opposite sides thereof, a plunger slidable in the casing, a bolt operated by the plunger, and an operating device connected to the plunger and adapted to project through either of the slots.

2. In a door check, the combination of a casing having a slot in opposite sides thereof, the casing being reversible to attach either side thereof to a door, a bolt in the casing, and an operating plunger for the bolt, provided with a handle interchangeable to project through either slot.

3. In a door check, the combination of a casing having a longitudinal slot provided with notches at the opposite sides thereof and terminating in two opposite curved branch slots, a bolt working in the casing, a plunger in the casing behind the bolt and adapted to advance the latter, and a handle extending through the slot and having a beveled catch part, the handle being attached to the plunger and adjustable to engage the catch part with either set of notches and adapted to enter either of the branch slots and swing laterally therein.

1,207,601. BOLT AND RIVET CUTTER. FREDERICK B. MOUDY, Portage, Pa. Filed Jan. 5, 1914, Serial No. 810,447. Renewed Oct. 21, 1916. Serial No. 127,038. (Cl. 81—199.)

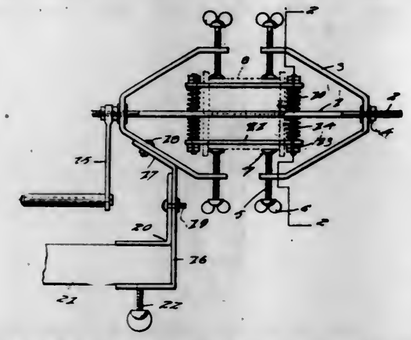


1. A rivet and bolt cutter comprising an operating screw, a crosshead and a traveler mounted on said screw, a pair of cutters, links connected to said cutters and to said crosshead, links pivoted to said traveler, and connections between said last mentioned links and said cutters.

2. A rivet and bolt cutter comprising a screw having a hand lever thereon, a cross head mounted on said screw, a traveler mounted on said screw, oppositely disposed cut-

ters, links pivoted to said crosshead and to said cutters, links pivoted to said traveler, and levers pivoted to said links, said levers being pivoted to said cutters.

1,207,602. DEVICE FOR SETTING UP BEARINGS. RALPH E. MONROE, Camp Verde, Ariz. Filed July 25, 1916. Serial No. 111,263. (Cl. 77—2.)



1. A device of the character set forth comprising a rod, substantially V-shaped members adjustably secured to each end of the rod, means for rotating the rod, means carried by the substantially V-shaped members for clamping a bearing thereto, and means carried by the rod for cutting the bearing to a desired dimension.

2. A device of the character set forth comprising a rod, substantially V-shaped members adjustably secured to each end of the rod, adjusting bolts carried by the ends of the substantially V-shaped members for clamping a bearing thereto, and means carried by the rod for cutting the bearing to a desired dimension.

3. A device of the character set forth comprising a rod, substantially V-shaped members adjustably secured to each end of the rod, means for clamping a bearing to the substantially V-shaped members, a pair of cutting knives carried by the rod for cutting the bearing to a desired dimension, and means for rotating the knives.

4. A device of the character set forth comprising a rod, a pair of substantially V-shaped members adjustably secured to each end of the rod, means for clamping a bearing to the substantially V-shaped members, adjustable knives carried by the rod for cutting the bearing to a desired dimension, and means for rotating the knives.

5. A device of the character set forth comprising a rod, substantially V-shaped members carried by the rod, means for clamping a bearing to the members, knife supporting rods carried by the rod, cutting knives mounted upon the knife supporting rods for an engagement with the inner wall of a bearing, adjusting nuts carried by the knife supporting rods for adjusting the dimension of the knives, and springs mounted upon the knife supporting rods for urging the knives into an engagement with the adjusting nuts.

[Claim 6 not printed in the Gazette.]

1,207,603. ELECTRIC SWITCH. HARRY J. MOREY and FAY A. BROGDEN, Syracuse, N. Y. Filed Apr. 21, 1913. Serial No. 762,640. (Cl. 173—351.)

1. In an electric switch, the combination of a porcelain body having a cavity therein, switch contacts mounted on a wall of said cavity, a rotatable spindle supported by said body between said contacts and having one or more projections thereon, a switch member mounted on and movable lengthwise of the spindle, a cam for operating said switch member and having an opening therein to receive the projection or projections on the spindle but permitting said cam to slide freely along said spindle toward said wall and the contacts thereon, and a spring pressing said cam and switch member toward said contacts and the wall on which they are mounted and causing the switch to engage the porcelain wall of said cavity immediately after said switch member is moved out of engagement with said switch contacts, the immediate engagement of said porcelain wall by said switch member serving to chill and extinguish the arc formed when the circuit is broken.



2. In an electric switch, the combination of a porcelain body having a cavity therein, switch contacts mounted on a wall of said cavity, a rotatable spindle supported by said body between said contacts and having one or more projections thereon, an insulating disk mounted on and movable lengthwise of the spindle, a switch member mounted on the side of said insulating disk facing said contacts, a cam having means adapted to engage said disk to turn it on the spindle, said cam being mounted on the spindle and having an opening therein to receive the spindle and one or more projections thereon but being adapted to slide freely along the spindle without being limited by projections on the spindle, and a spring mounted on the spindle for snapping said cam and also pressing the cam, insulating disk and switch member toward said contacts and the wall on which the latter are mounted, said spring causing the switch to engage the porcelain wall of the cavity immediately after the switch member is moved out of engagement with said switch contacts, the immediate engagement of said porcelain wall by said switch member serving to chill and extinguish the arc formed when the circuit is broken.

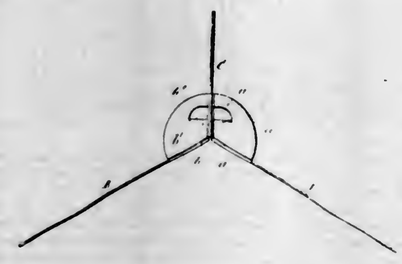
3. In an electric switch, the combination of a supporting body of porcelain or similar material having a cavity therein, switch contacts on a wall of said cavity, a rotatable spindle mounted on said body, a switch member mounted on said spindle in said cavity, a cam on said spindle engaging said switch member, a spring element engaging said cam and pressing it and said switch member along the spindle, and means whereby said cam and the switch member have a free and unlimited movement along said spindle in the direction in which they are pressed by said spring and in the direction of said switch contacts whereby said switch is positively pressed against said switch contacts when the circuit is closed and whereby said switch is positively and immediately pressed against the porcelain wall of said cavity when the circuit is opened, said porcelain wall serving to chill and extinguish the arc formed when the circuit between said contacts is broken and when said switch is forced into engagement with said wall.

4. In an electric switch for lamp sockets, the combination of a porcelain body having an elongated cavity therein provided with a narrow portion intermediate its ends, switch contacts mounted on an end wall of said cavity, a rotatable spindle mounted on said body and extending longitudinally across the cavity and between said contacts, said spindle having projections thereon spaced apart lengthwise of the spindle, an insulating disk mounted on said spindle and free to move both rotarily and lengthwise of the spindle, a switch member mounted on the side of said disk facing said contacts and insulated from said spindle, a cam mounted on said spindle on the other side of said disk and having projections adapted to engage and turn the disk and switch member, said cam also having an opening to receive the spindle and one or more projections on the spindle by means of which the cam is turned, said opening in the cam permitting the cam to move unlimited by projections on the spindle toward the contacts on the end wall of the cavity, and a U-shaped spring mounted on the spindle and having its movement in one direction limited by one or more projections on the spindle, the outer faces of the limbs of said spring engaging the walls of said cavity at the narrow portion thereof to hold the spindle in place in the cavity, and the ends of said limbs engaging said cam and being adapted to snap the cam and switch member when the spindle is turned and also pressing said cam, insulating disk and switch member toward said contacts and the wall on which they are mounted and causing the switch to engage the porcelain wall of the cavity immediately after said switch member is moved out of engagement with said switch contacts, the immediate engagement of said porcelain wall by said switch member serving to chill and extinguish the arc formed when the circuit is broken.

5. In an electric switch for lamp sockets, the combination of a porcelain body having an elongated cavity therein, switch contacts mounted on an end wall of said cavity, a rotatable spindle mounted on said body and extending longitudinally across the cavity and between said contacts, said spindle having one or more projections thereon, an insulating disk mounted on said spindle and free to move both rotarily and lengthwise of the spindle, a switch member mounted on the side of said disk facing said contacts and insulated from said spindle, a cam mounted on said spindle on the other side of said disk and adapted to turn the disk and switch member, said cam also having an opening to receive the spindle and one or more projections on the spindle by means of which the cam is actuated when the spindle is turned, said opening in the cam permitting the cam to move unlimited by projections on the spindle toward the contacts on the end wall of the cavity, and a substantially U-shaped spring mounted on the spindle, parts of the outer faces of the limbs of said spring engaging the walls of said cavity and the ends of said limbs engaging said cam and being adapted to snap the cam when the spindle is turned and also pressing said cam, insulating disk and switch member toward said contacts and the wall on which they are mounted and causing the switch to engage the porcelain wall of the cavity immediately after said switch member is moved out of engagement with said switch contacts, the immediate engagement of said porcelain wall by said switch member serving to chill and extinguish the arc formed when the circuit is broken.

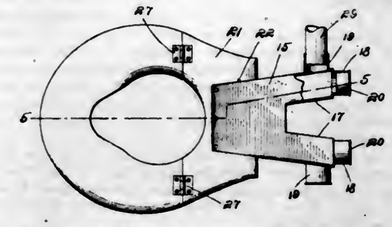
[Claims 6 to 8 not printed in the Gazette.]

1,207,604. DISPLAY-EASEL. HUBERT S. MORGAN, Boston, Mass., assignor to The Forbes Lithograph Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 29, 1912. Serial No. 687,043. (Cl. 211—24.)



A display easel the body of which is formed of cardboard and which consists of two wings and a central supporting member loosely hinged together so as to be adapted to be folded flat when in knock-down condition, said parts having, at their hinged edges, openings or cut-out portions shaped to fit the contour of an article to be displayed, said central supporting member being provided on its opposite sides with hinged braces for holding the parts in opened position, said braces being each provided with a hinged ear to hold its brace in working position.

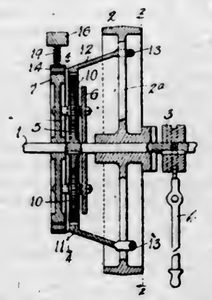
1,207,605. VENTILATOR FOR TOILETS. CHARLEY MORTON, Warrensburg, Mo. Filed July 21, 1916. Serial No. 110,593. (Cl. 4—21.)



1. A toilet seat having a recess in the rearward portion thereof, a ventilator casing fitted in said recess and having flanges secured on the under face of the seat, and an outlet duct with which the ventilator casing is connected, said seat being transversely bisected, and hinges whereby the front and rear parts of the seat are connected together.

2. A toilet seat having a recess in the rearward portion thereof, a ventilator casing fitted in said recess and having flanges secured on the under face of the seat, an outlet duct with which the ventilator casing is connected, cleats on the underside of the seat, and packing material mounted on said cleats to engage the top edge of a bowl with which the seat is connected, said seat, cleats and packing material being transversely bisected, and hinges whereby the front and rear parts of the seat are connected together.

1,207,606. REVERSIBLE GEAR MECHANISM. WILLIAM CHESTER MUNDAY, Carterville, Mo. Filed Mar. 11, 1916. Serial No. 83,573. (Cl. 74—34.)



1. A device of the character described including a slidably mounted drive shaft, a pulley loose thereon, a direct drive clutch on one side of the pulley, a reversing gear on the opposite side of the pulley, and means for moving the members of the reversing gear out of mesh with each other when the direct drive clutch is closed.

2. A device of the character described including a slidably mounted drive shaft, a pulley loose thereon, a direct drive clutch on one side of the pulley, the drive shaft being moved longitudinally as the clutch is opened and closed, a reversing gear arranged on the opposite side of the pulley and including gears carried by the shaft and pulley respectively, said members being automatically moved out of mesh with each other when the direct drive clutch is closed.

3. A device of the character described including a slidably mounted drive shaft, a pulley loose thereon, a direct drive clutch including a member rigid with the shaft so that the shaft is moved longitudinally as the clutch is opened and closed, a pinion rigid with the shaft, a disk loose on the shaft and slidable therewith, gear wheels journaled upon the disk and meshing with the pinion, a

large internal gear carried by the pulley, the gear wheels being moved out of mesh with the large internal gear when the direct drive clutch is closed, and a brake band for the disk.

4. A device of the character described including a slidably mounted drive shaft, a pulley loose upon the drive shaft, a direct drive clutch including a sliding member rigid with the shaft, a shifting lever controlling the direct drive clutch and also moving the shaft, a pinion rigid with the shaft, a disk loose on the shaft and slidable therewith, a series of gear wheels journaled upon the disk and meshing with the pinion, a large internal gear carried by the pulley and adapted to mesh with the gear wheels, and a brake band for the disk, the gear wheels being out of mesh with the large internal gear at all times except when the shifting lever is moved into a predetermined position.

1,207,607. MELTING AND POURING LADLE. TURNER HUNT NANCE, Birmingham, Ala. Filed Oct. 29, 1915. Serial No. 58,640. (Cl. 22—86.)



1. In a ladle, a bowl, a handle extending from one side of the bowl, a fixed hand grip on the outer end of the handle, a movable hand grip slidable longitudinally upon the handle, means for normally holding the movable hand grip at the outer end of the handle, and means on the inner end of the handle engaging the movable hand grip for holding the same from rotation upon the handle.

2. In a ladle, a bowl, a rod extending outwardly from one side of the bowl, a fixed hand grip on the outer end of the rod, a movable hand grip slidable on the rod, a spring on the outer end of the rod for frictional engagement with the movable hand grip for yieldingly holding the same in its outermost position, and a finger upon the inner end of the rod, said movable hand grip having a notch in its inner end adapted to receive said finger whereby to hold the movable hand grip from turning on the rod, when the movable hand grip is moved inwardly.

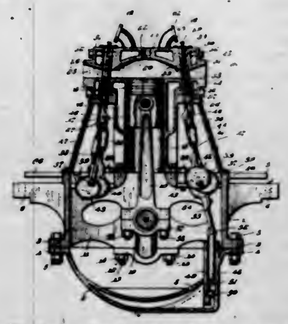
3. In a ladle, a bowl provided in its opposite sides with pouring lips and having reinforcing and fluid directing flanges rising from the upper edge of the bowl and merging into said pouring lips, said bowl also having an integral lug at one side thereof provided with a threaded aperture therethrough radiating from the bowl, a stem threaded at its inner end for engagement in the aperture in the lug, a pin passing through the lug and the inner end of the stem to lock the same together, said pin being overturned at its outer end against the side of the stem to provide a locking finger, a hand grip slidable upon the stem, and having a notch in its inner end to receive said finger to hold the hand grip from turning when moved inwardly, a fixed hand grip on the outer end of the stem, and a spring carried by the fixed hand grip and extending longitudinally of the stem for engagement in the outer end of the movable hand grip to hold the latter yieldingly in position when moved outwardly on the stem.

4. In a ladle, a bowl provided with a lug having an aperture therethrough, a handle engaging at one end in the aperture, a pin traversing the lug and the adjacent end of the handle, the outer end of said pin being overturned upon the handle to provide a locking finger, and a movable hand grip on the handle having a finger engaging portion thereon adapted for interlocking engagement with the finger to hold the hand grip from rotation upon the handle.

5. In a ladle, a bowl, a hand grip mounted on the bowl for adjustment outwardly therefrom to prevent the heating and burning of the hand grip, and means for interlocking the hand grip to the bowl when the hand grip is moved inwardly.

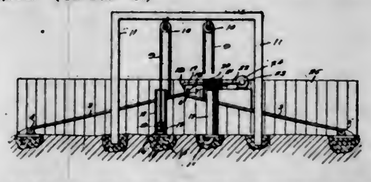
[Claim 6 not printed in the Gazette.]

1,207,608. ENGINE. TILLFRED ELMO NEEDLES, Mobile, Ala. Filed Dec. 3, 1913. Serial No. 804,497. (Cl. 123—86.)



In an internal combustion engine, a cylinder of the T head type comprising diametrically opposite intake and exhaust chambers at the same elevation, an upwardly and inwardly inclined slide valve in each of said chambers comprising two plate like valve members mounted for reciprocatory movement, one of said valve members being formed with a port and the other member being portless but adapted to cover and uncover the engine port, a plate partition between said valve members, a crank case having openings through the top wall thereof, valve operating shafts intersecting said openings, valve operating eccentrics on said shafts, longitudinally adjustable connections between said eccentrics and valve members, upwardly and inwardly sloping housing plates inclosing said openings in the top of the crank case, and driving means between said valve operating shafts and the engine crank shaft.

1,207,609. COLLAPSIBLE BRIDGE-GATE. SAMUEL L. NEELY, Longton, Kans. Filed May 7, 1915. Serial No. 26,604. (Cl. 269—6.)



1. A gate of the class described including oppositely inclined platform sections hinged at their lower ends and having their upper ends arranged adjacent to each other, means for yieldably supporting the same in an elevated position, means for connecting the adjacent ends of the platform sections to cause the said sections to be depressed simultaneously when one of the sections is depressed, and means for disconnecting the sections to permit one of the sections to remain elevated when the other section is depressed.

2. A gate of the class described including oppositely inclined platform sections having contiguous upper ends and hinged at their lower or outer ends, electrically controlled means carried by one of the sections for engaging the other to cause the sections to move downwardly simultaneously when one of the sections is subjected to pressure, and means for disconnecting the sections to permit one of the sections to remain in an elevated position when the other section is moved downwardly.

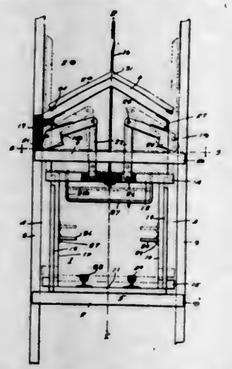
3. A gate of the class described including oppositely inclined depressible platform sections hinged at their lower ends and having contiguous upper ends, one of the sections being extended beneath the other to enable it to be depressed by the latter when the same is subjected to pressure, and means carried by the extended platform section for detachably engaging it with the other section.

4. A gate of the class described including inner and outer oppositely inclined depressible platform sections having contiguous upper ends, means for mounting the sections to permit the same to swing upwardly and downwardly, means for yieldably supporting the sections in an elevated position, and electrically controlled means carried by the outer platform section and movable inwardly and outwardly to project over the inner platform section and to be withdrawn from such projecting engaging position.

5. A gate of the class described including oppositely inclined depressible platform sections, a slidable bar mounted on one of the sections and movable inwardly and outwardly to and from a position for engaging the other section and means for operating the said bar.

[Claims 6 to 11 not printed in the Gazette.]

1,207,610. AUTOMATIC SAFETY MINING-CAGE. GEORGE J. NEWELL, Goldfield, Nev., assignor of one-half to Johnathan H. Frisby, Tonopah, Nev. Filed Nov. 20, 1915. Serial No. 62,545. (Cl. 187—85.)

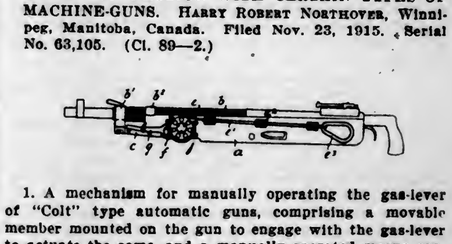


The combination of an outer frame, a mining cage slidably mounted within the outer frame and capable of a limited upward and downward movement independently thereof, a hoisting cable connected with the mining cage for holding the same normally in engagement with the outer frame, clutch levers pivotally mounted on the outer frame at opposite sides thereof and having outer engaging portions and means for connecting the clutch levers with the mining cage and springs interposed between the clutch levers and the outer frame for effecting a sudden movement of the mining cage.

1,207,611. MULTISPINDLE MACHINE. FREDERICK K. NORTH, Boston, Mass. Filed June 3, 1916. Serial No. 101,612. (Cl. 29—38.)

1. A machine of the class described comprising a turret having a closed casing forming a chamber for a body of lubricant, means for intermittently rotating the same, a plurality of spindles journaled in said turret and means within said turret for actuating said spindles whereby the spindle actuating means will run in lubricant during a portion of each revolution of the turret.

2. A machine of the class described comprising a turret having a closed casing forming a chamber for a body of lubricant, means for intermittently rotating the same, a plurality of spindles journaled in said turret, independent means within said turret for rotating said spindles in either direction, and clutch mechanism within said turret for controlling the direction of rotation of said spindle, said spindles and clutch mechanism being adapted to run in lubricant during a portion of each revolution of the turret.



3. In a multi-spindle machine comprising a turret having a closed casing forming a chamber for a body of lubricant, and means for intermittently rotating the same and a plurality of spindles journaled in said turret, gearing within said turret for rotating said spindles in either direction, means for controlling the direction of rotation of said spindles, and means extending through the end of said turret for actuating said controlling means, whereby the spindle rotating means and said controlling means may be immersed in lubricant during a portion of each revolution without loss of lubricant from the casing.

4. In a multi-spindle machine comprising a frame having stands provided with alined bosses forming journals, a driving shaft mounted in said bosses, a turret mounted upon said bosses and rotatable about the axis of said driving shaft, a plurality of work carrying spindles journaled in said turret, independent means within said turret operable from said driving shaft for rotating said spindles in either direction and means for controlling the direction of rotation of each spindle.

5. In a multi-spindle machine comprising a frame having stands provided with alined bosses, a driving shaft mounted in said bosses, a turret having a hub mounted on said bosses and rotatable about the axis of said driving shaft, means for intermittently rotating said turret, a plurality of work carrying spindles journaled in said turret, means for rotating said spindles, tool spindles arranged in coöperative relation to said work carrying spindles and means for reciprocating said tool spindles.

[Claims 6 to 19 not printed in the Gazette.]

1,207,612. GAS-LEVER-OPERATING MECHANISM FOR USE IN CONNECTION WITH CERTAIN TYPES OF MACHINE-GUNS. HARRY ROBERT NORTHOVER, Winnipeg, Manitoba, Canada. Filed Nov. 23, 1915. Serial No. 63,105. (Cl. 89—2.)

1. A mechanism for manually operating the gas-lever of "Colt" type automatic guns, comprising a movable member mounted on the gun to engage with the gas-lever to actuate the same, and a manually operated means connected to said member for actuating the same from the rear end of the gun.

2. A mechanism for manually operating the gas-lever of automatic guns, comprising a movable member mounted on the gun to engage with the gas-lever to actuate the same, and a manually operated means connected to said member for actuating the same from the rear end of the gun, said member being arranged to remain stationary during the automatic operations of said gas-lever.

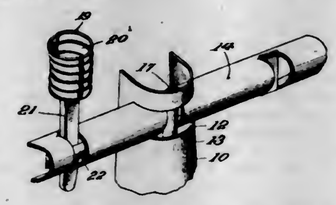
3. A mechanism for manually operating the gas-lever of automatic guns, comprising an arm pivotally mounted on the gun to engage with the gas-lever to actuate the same, a gearing operably connected with said arm for actuating the same, and a manually actuated member situated at the rear end of the gun and having an operative connection with said gearing, said arm being arranged to normally lie out of the path of movement of the gas-lever whereby said arm remains stationary during the automatic operations of said gas-lever.

4. A mechanism for manually operating the gas-lever of automatic guns, comprising an arm pivotally mounted adjacent the muzzle end of the gun and adapted to engage with said gas-lever when actuated, a toothed sector provided on one end of said arm, a pinion mounted on said gun to mesh with said sector, and manually actuated means for actuating said pinion and extending to the breech end of the gun whereby said arm is actuated.

5. A mechanism for manually operating the gas-lever of automatic guns, comprising an arm pivotally mounted on the gun adjacent its muzzle end and adapted to engage with said gas-lever when actuated, a toothed sector provided on one end of said arm, a pinion mounted on said gun to mesh with said sector, a grooved pulley associated with said pinion, an operating cable having one end secured to the pulley and adapted to pass over the groove therein, and guide means extending to the breech end of the gun and through which said cable extends.

[Claim 6 not printed in the Gazette.]

1,207,613. FASTENING. CHARLES OHAVEN, Galesburg, Ill. Filed Apr. 23, 1915. Serial No. 23,447. (Cl. 189—33.)



1. A device of the character described including a body portion provided with a bridge piece, an element having a tongue struck therefrom adapted to seat against the bridge piece, and a locking member adapted to engage between the body portion and the said tongue for urging the tongue into engagement with the bridge piece.

2. A fastening including a body portion provided with a bridge piece, an element having a bracket mounted thereon seating against the bridge piece, and a locking member engaging between the body portion and the bracket for urging the bracket into engagement with the bridge piece and connecting the said element with the body portion.

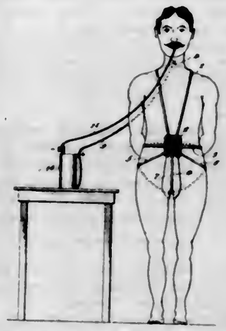
3. A device of the character described including a body portion provided with a bridge piece, an element mounted upon the body portion and engaging opposite edges of the bridge piece for holding the said element against rocking movement relative thereto, and a locking member engaging between the body portion and said element and coacting with the bridge piece to connect the said element with the body portion.

4. A device of the character described including a body portion having a bridge piece formed therefrom and provided with an opening, an element disposed in said opening and engaging opposite longitudinal edges of the bridge piece, and a locking member engaging between the body portion and said element and coacting with the bridge piece in connecting the element with the body portion.

5. A device of the character described including a body portion provided with a bridge piece and having notches formed therein at the extremities of the bridge piece, an element embracing the bridge piece with opposite margins thereof disposed in said notches, and a locking member engaging between the body portion and said element and coacting with the bridge piece in connecting the element with the body portion.

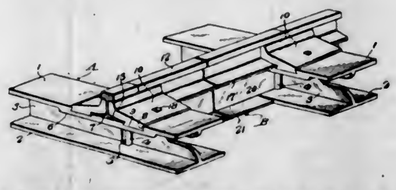
[Claims 6 to 9 not printed in the Gazette.]

1,207,614. ELECTRICAL-TREATMENT APPARATUS. WILSON A. OLDS, Medical Lake, Wash. Filed Aug. 17, 1914. Serial No. 857,219. (Cl. 174—88.)



An electric treatment device for application to the human body including a zinc plate and means for supporting such plate adjacent the abdomen of the patient, such means comprising a conducting band attached at each end to the top of said zinc plate and looped around the neck, a conducting band attached to the bottom of said plate and passed backwardly between the legs divided into two parts passing upwardly over the thighs in opposite directions and brought in toward each other and attached to the sides of said zinc plate to hold the latter in a fixed location against the abdomen.

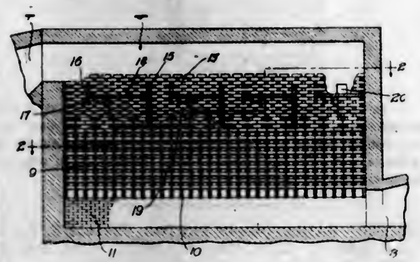
1,207,615. RAILWAY CONSTRUCTION. LAVAN OLIVER, TILDEN B. OLIVER, and GORGE W. WEST, North Pleasanton, Tex. Filed May 5, 1916. Serial No. 95,665. (Cl. 238—5.)



In a railway construction, metal ties including each a flat head, a flat base, a central web connecting the head and base, rails resting upon the ties, means for securing the rails to the ties, vertically disposed brace members arranged in pairs upon the outer faces of each of the webs, a shoulder between each pair of brace members, members having head portions and angular webs which project beyond the head, the ends of the said members being notched and adapted to be received between each pair of brace members of adjacent ties and to engage with the shoulders in the said brace members whereby the heads of the said members are retained flush with the tops of the ties to underlie and support the rails between the ties.

1,207,616. REGENERATOR CONSTRUCTION. FRANK ORTH, Indiana Harbor, Ind. Filed Oct. 4, 1915, Serial No. 54,051. Renewed Oct. 21, 1916. Serial No. 127,037. (Cl. 263—19.)

1. In a regenerator the combination with an inclosing chamber, of a suitable heat absorbing structure within the same, a plurality of cross walls on the upper portion of said structure, the central portions of said cross walls being of lesser elevation than their side portions to provide a longitudinally extending channel through said cross walls, a suitable pavement on the lower portion of said channel, other pavements on the side portions of the cross walls, and partitions supported by said last named pavements.



2. In a regenerator the combination with a chamber, of a suitable heat absorbing structure within the same, a plurality of cross walls on the upper portion of said structure, the central portions of said cross walls being of lesser elevation than their side portions to provide a longitudinally extending channel through said cross walls, a suitable pavement on the lower portion of said channel, other pavements on the side portions of the cross walls, and partitions supported by said last named pavements.

3. In a regenerator the combination with an inclosing chamber, of a suitable heat absorbing structure within the lower portion of the same, and a plurality of cross walls mounted on the upper portion of said heat absorbing structure, the central portions of said cross walls being of lesser elevation than their side portions to thereby provide a longitudinally extending channel through the cross walls, and the adjacent cross walls being separated from each other to provide continuous open slots leading from said channel to all portions of the said heat absorbing structure, and each cross wall having a maximum thickness not greater than one dimension of the blocks from which it is constructed.

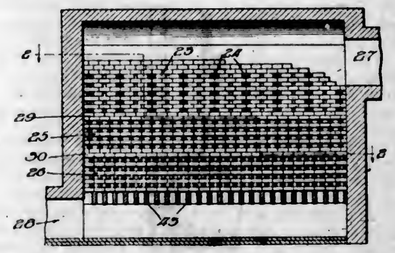
4. In a regenerator the combination with an inclosing chamber, of a suitable heat absorbing structure within the same, a plurality of parallel walls mounted on the upper portion of said structure and serving to provide between them a plurality of parallel vertically extending passages for the travel of gas into or away from the lower portion of the heat absorbing structure, and cross partitions between said walls located below the upper edges of the walls, the walls above said cross partitions being unconnected.

5. In a regenerator the combination with an inclosing chamber, of a suitable heat absorbing structure within the same, a plurality of substantially parallel vertical walls mounted on the upper portion of said structure and serving to provide between them a plurality of substantially parallel vertically extending passages, having their lower ends in communication with the lower portion of the heat absorbing structure, and cross partitions between said walls located below the upper edges of the walls, the walls above said cross partitions being unconnected.

[Claim 6 not printed in the Gazette.]

1,207,617. REGENERATOR. FRANK ORTH, Indiana Harbor, Ind. Filed Mar. 7, 1916. Serial No. 82,536. (Cl. 263—19.)

1. In a regenerator, the combination with an inclosing chamber, of a heat absorbing structure comprising a checkerwork of blocks within the same, said structure being provided with a plurality of substantially vertical draft openings between the blocks leading in the direction of gas travel, each of said openings being of relatively large cross sectional area on the incoming side as compared to its cross sectional area on the outgoing side, and each of said passages being periodically reduced in size between its incoming and outgoing sides, the regenerator sections with the passages of different sizes being in vertical alinement, for the purpose specified.



2. In a regenerator, the combination with an inclosing chamber, of a heat absorbing structure comprising a checkerwork of blocks within the same, said structure being provided with a plurality of gas passages between the blocks leading in the direction of gas travel, selected ones of said passages being periodically reduced in cross sectional area in the direction of gas flow, the regenerator sections with the passages of different sizes being in vertical alinement, for the purpose specified.

3. In a regenerator, a heat absorbing structure comprising a checkerwork of blocks having gas passages extending between the blocks and through its body, said pasages diminishing in size from the incoming toward the outgoing side of the regenerator substantially according to the probable amount of obstruction occasioned by flue dust collecting on the surfaces of the passages during the usual run of the regenerator, the regenerator sections with the passages of different sizes being in vertical alinemest, for the purpose specified.

4. In a regenerator, a heat absorbing structure formed of blocks of substantially uniform size, each block being thinner than its width, all of said blocks being laid up in courses extending in alternate directions, and the blocks in the upper courses being laid on edge, while the blocks in the lower courses are laid on their flat sides, for the purpose of thereby diminishing the area of the gas passages from the upper to the lower portion of the regenerator.

5. In a regenerator, a heat absorbing structure formed of blocks, all of the blocks being of substantially the same size, each block being of greater dimension in one direction than in another direction, all of the blocks being laid in courses extending alternately in different directions, and the blocks in the upper courses being laid on edge, while the blocks in the lower courses are laid on their flat sides, to thereby provide a reduction in size of gas passages from the upper to the lower portion of the structure.

[Claims 6 to 16 not printed in the Gazette.]

1,207,618. THERMOSTAT FOR ELECTRIC HEAT-REGULATING SYSTEMS AND THE LIKE. JOHN F. OTIS, Oswego, N. Y., assignor, by mesne assignments, to Minneapolis Heat Regulator Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Feb. 16, 1916. Serial No. 78,606. (Cl. 236—7.)

1. The combination of a thermostat, and its adjusting mechanism, of a clock, a mounting for said clock comprising a clock supporting plate secured to the rear end of the clock and spaced from the rear face thereof, and a hinged supporting connection between said plate and said thermostat, said clock having alarm mechanism provided at the rear end of the clock with a rotary winding head, a cross bar carried by and longitudinally adjustable through said head and forming the handle for rotating the same to wind said mechanism, said bar having one end

projected rearwardly, means actuated by said rearwardly projected end to shift said adjusting mechanism, said supporting plate having a projecting stop, and a radial stop arm rigid with said head and movable beside said plate to engage said stop.



2. The combination with a thermostat, and its adjusting mechanism, of a clock, means actuated by the clock for shifting said adjusting mechanism, and a mounting for said clock comprising a clock supporting plate secured to the rear end thereof and whereby said clock is supported solely from its rear end and supporting hinge leaves for said clock extending forwardly and longitudinally of and exteriorly with respect to said clock and pivotally united at their outer ends to form the axis on which said plate is swingable in carrying the clock to and from reversed and operative positions.

3. The combination with a thermostat, and its adjusting mechanism, of a clock, means actuated by the clock for shifting said adjusting mechanism, and a mounting for said clock on which the clock is swingable on an axis arranged in advance of its rear end in moving to and from reversed and operative positions, said mounting comprising a support, a clock supporting plate fixed to the rear end thereof, and elongated plate carrying arms rigid with and projecting forwardly from said support and said plate longitudinally and exteriorly of the clock and at their front ends pivotally joined together.

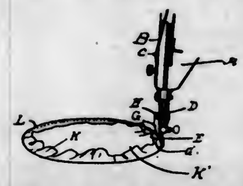
4. The combination with a thermostat, and its adjusting mechanism, of a clock, means actuated by the clock for shifting said adjusting mechanism, and a mounting for said clock having an axis arranged in advance of the rear end of the clock and on which the clock is swingable to and from reversed and operative positions, said mounting comprising an arm projecting forwardly exteriorly of the clock and provided with a support, a corresponding arm projecting forwardly exteriorly of the clock and at its rear end fixed thereto, and a transverse pivot coupling the outer ends of said arms together and constituting said axis.

5. A thermostat case having a downward plate extension provided with an elongated forwardly projecting arm, in combination with a horizontally arranged forwardly projecting clock adapted to be swung to and from said normal operative position and reversed position, and a clock supporting plate arranged at and secured to the rear end of the clock and provided with an elongated arm extending forwardly at the exterior of the clock and at the inner side of said first mentioned arm and at its outer end pivoted to the outer end of said first mentioned arm.

[Claims 6 and 7 not printed in the Gazette.]

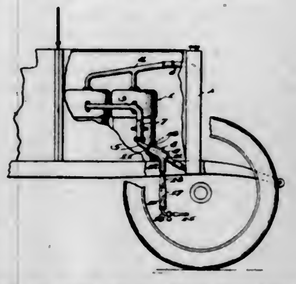
1,207,619. SEWING-MACHINE ATTACHMENT. LULA PENNY, Wilson, N. C. Filed Aug. 16, 1915. Serial No. 45,681. (Cl. 112—13.)

1. An attachment consisting of an adjustable presser foot adapted for stitching on right or left of said foot, means for adjusting said presser foot consisting of a binding screw on the presser foot bar and slots in the presser foot to be engaged by the binding screws on said presser foot bar.



2. In combination with the presser foot bar of a sewing machine, of an attachment secured to the presser foot bar, consisting of a foot portion having needle guides on opposite sides thereof, and an arm having slots near its upper end for adjustment to the presser foot.

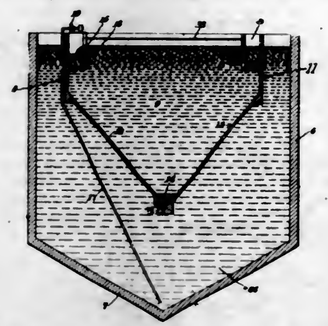
1,207,620. RADIATOR-PROTECTOR. TALBOT E. PIERCE and JESSE J. KERR, Cleveland, Ohio. Filed Jan. 21, 1913. Serial No. 743,407. (Cl. 123—170.)



1. A device for protecting the water circulating system of internal combustion engines, consisting of a substantially cylindrical shell or jacket adapted to be mounted on one of the water circulating pipes of such system and to inclose a portion of such pipe, and comprising, in its entirety, a plurality of counterpart, longitudinal sections having continuous marginal flanges adapted to be fastened together; said jacket having a diameter greater than that of the pipe, so as to provide an elongated annular heating chamber between said pipe and the wall of the jacket, and being constricted at its ends so as to fit tightly around said pipe and thereby close the ends of such chamber, the flanges on the aforesaid jacket ends uniting to form collars which tightly encircle the pipe; and means for supplying a heating agent from an exterior source to the interior of said chamber, to directly heat the inclosed portion of said pipe, and to thereby heat and induce a circulation of water in the system.

2. A device for protecting the water circulating system of internal combustion engines, consisting of a substantially cylindrical shell or jacket adapted to be mounted on one of the water circulating pipes of such system and to inclose a portion of such pipe, and comprising, in its entirety, a plurality of counterpart, longitudinal sections having continuous marginal flanges adapted to be fastened together: said jacket having a diameter greater than that of the pipe, so as to provide an elongated annular heating chamber between said pipe and the wall of the jacket, and being constricted at its ends so as to fit tightly around said pipe and thereby close the ends of such chamber, the flanges on the aforesaid jacket ends uniting to form collars which tightly encircle the pipe; and an electrical resistance coil disposed within said jacket to directly encircle the inclosed portion of said pipe, said coil having means for connecting it to a source of electrical current, so as to directly heat the said inclosed portion of the pipe, and to thereby heat and induce a circulation of water in the system.

1,207,621. PROCESS OF DISPOSING OF SEWAGE. ALEXANDER POTTER, New York, N. Y. Filed Oct. 18, 1913. Serial No. 795,844. (Cl. 210—18.)



1. The process of sewage disposal consisting in separating the sludge from the water, retaining the sludge to bring about digestion substantially by natural action, and discharging digested sludge substantially uniformly and continuously.

2. The process of sewage disposal which consists in holding a body of sewage substantially quiet to facilitate settling of the sludge, digesting the sludge and raising the digested sludge, and permitting it to flow back through such body of sewage.

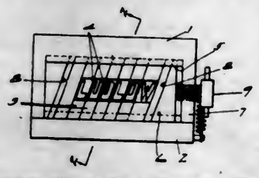
3. The process of sewage disposal consisting in holding a body of sewage substantially quiet, settling the sludge therefrom, digesting the sludge, raising digested sludge and causing a portion thereof to flow away and a portion thereof to pass downward again through said body of sewage.

4. The process of sewage disposal consisting in causing a body of sewage to move at a very low rate of flow, so as to facilitate settling the sewage therefrom, permitting the substantially clear water to flow away, digesting the settled sludge, raising such digested sludge and permitting a portion to flow away with the said water and a portion to return downward through the said sewage.

5. The process of sewage disposal which consists in holding a body of sewage substantially quiet to facilitate settling of the sludge, digesting the sludge, raising a portion of the digested sludge and permitting part to flow away and part to return to the mass of settled sludge.

[Claims 6 and 7 not printed in the Gazette.]

1,207,622. TYPOGRAPH MECHANISM. WILLIAM A. READE, Cleveland, Ohio, assignor to The Ludlow Typograph Company, Cleveland, Ohio, a Corporation of Maine. Filed May 19, 1911, Serial No. 628,260. Renewed Feb. 28, 1916. Serial No. 81,058. (Cl. 199—10.)



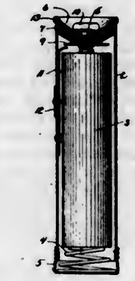
1. In mechanism for casting type-bars, the combination with a holder having parallel sides; of matrix bars adapted to fit transversely in said holder, said bars having their sides parallel throughout and having their ends formed at an angle to their sides other than a right angle, whereby said bars slant at an angle to the sides of said holder, the matrices on said bars lying parallel with, and being wholly contained between, the sides of said bars, substantially as described.

2. In mechanism for casting type-bars, the combination with a holder having parallel sides, the ends of said holder being parallel with each other but inclined to such sides; of matrix bars adapted to fit transversely in said holder, said bars having their sides parallel throughout and having their ends formed at an angle to their sides corresponding with the angle of said ends to such sides, the matrices on said bars lying parallel with and being wholly contained between the sides of said bars.

3. In mechanism for casting type-bars, the combination with a holder having parallel sides, the ends of said holder being parallel with each other but inclined to such sides and one such end being movable along said holder; of detached matrix bars adapted to fit transversely in said holder, said bars having their sides parallel throughout and having their ends formed at an angle to their sides corresponding with the angle of said ends to such sides, the matrices on said bars lying parallel with and being wholly contained between the sides of said bars; and means for pressing said movable holder-end inwardly against the adjacent bar.

4. In mechanism for casting type-bars, the combination with a holder having parallel sides, the ends of said holder being parallel with each other but inclined to such sides, and such ends being furthermore movable along said holder; of detached matrix bars adapted to fit transversely in said holder, said bars having their sides parallel throughout and having their ends formed at an angle to their sides corresponding with the angle of said ends to such sides, the matrices on said bars lying parallel with and being wholly contained between the sides of said bars.

1,207,623. PORTABLE ELECTRIC LAMP. ADOLPH C. RECKER, Oakville, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed Apr. 10, 1916. Serial No. 90,243. (Cl. 240—8.5.)

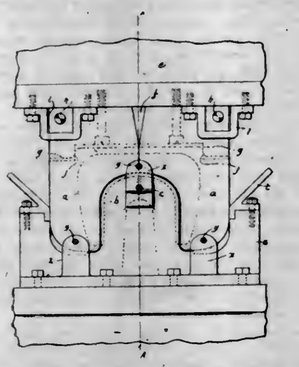


In a portable electric lamp, the combination with a cylindrical metal case, of a battery located therein, a lamp-holder of insulating material mounted in the outer end of the said case, the outer end of the said lamp-holder being concaved to provide a reflecting surface, and its outer edge being formed with a bead to rest upon the adjacent edge of the case, a lamp-socket located in the center of the said lamp-holder and provided at its inner end with a circuit-closing member, an incandescent-lamp bulb mounted in the said socket, and a movable switch mounted in the case and adapted at its outer end to be moved into and out of contact with the said circuit-closing member for closing and breaking the circuit from the battery through the lamp.

1,207,624. FLUID-PRESS. CONRAD REHBEIN, Detroit, Mich., assignor to Hayes Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 29, 1916. Serial No. 94,449. (Cl. 113—44.)

1. In a press, the combination of a bolster, a ram, a male die provided with a water distributing chamber, and a two-part female die arranged to automatically open and

close as the ram and bolster are separated and brought together.



2. In a press, the combination of a ram, a bolster, a male die provided with a water distributing chamber and attached to the bolster, a female die having two parts tending to separate and each of which is hung on the ram and provided with a shaping concavity, and means for guiding the two female die parts into closed position when the ram approaches the bolster and the die is closed together.

3. In a press, the combination of a ram, a pair of female die parts tending to part and provided with shaping concavities and loosely pivoted to the ram, a bolster, a male die part provided with a chamber to hold a pressure conveying element, and guiding means for automatically causing the female die parts to close about the male die as the ram approaches the bolster.

4. In a fluid press, the combination of a ram provided with U-like brackets, a pair of female die parts each provided with a shaping concavity, a pair of trunnions loosely pivoted in the said U-like brackets, a bolster, a male die secured to the bolster and provided with a water distributing chamber, and guiding means for throwing the female die parts inwardly toward the male die as the ram and bolster come toward each other.

5. In a fluid press, the combination of a ram, a pair of female die parts pivoted to the ram and normally tending to swing apart, a bolster, a male die secured thereto and provided with a water distributing chamber, and guiding means on the bolster for throwing the female die parts in toward the male die upon the approach of the ram to the bolster.

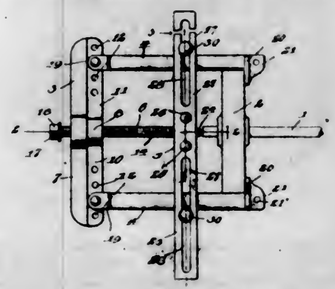
[Claims 6 to 11 not printed in the Gazette.]

1,207,625. MILK-PAIL. HARRY RITCHEY, Dwight, Ill. Filed Oct. 17, 1914. Serial No. 867,152. (Cl. 210—16.)

1. A straining device adapted for detachable connection with a milk pail, said straining device comprising a tubular member carrying a straining element, and an inlet funnel, the latter being in threaded engagement with the tubular member, said inlet funnel being provided with overlapping baffle members having upstanding flanges.

2. A straining device adapted for detachable connection with a milk pail, said straining device comprising a tubular member carrying a straining element, and an inlet funnel, the latter being in threaded engagement with the tubular member, said inlet funnel having baffle members hingedly supported therein and adapted to be raised to a nonobstructing position.

1,207,626. TOOL FOR REMOVING WHEELS FROM SHAFTS. FRANK J. RITZDORF, Dodge, Nebr. Filed May 10, 1916. Serial No. 96,688. (Cl. 29—85.)



1. A device of the class described comprising a head, arms adjustably connected with the head, a screw mounted to turn in said head and extending below the same between the arms, and a follower mounted to slide on said arms and adapted to contact with said screw.

2. A device of the class described comprising a head rabbeted to provide a tongue, arms pivotally connected with said tongue, a screw mounted to turn in said head and reduced for a portion of its length near one end to provide a stud, and a follower mounted to slide on said arms and having a recess to receive said stud.

3. A device of the class described comprising a head rabbeted upon opposite sides to provide a tongue, arms pivotally connected with said tongue and substantially triangular in shape in cross section for the greater portion of their length, a screw mounted to turn in said head and reduced for a portion of its length near one end to provide a shoulder, a follower mounted to slide on said arms and including a block for contact with said shoulder, and a bearing stud on the under-face of said block for contact with a shaft.

4. A device of the class described comprising a head, a screw mounted to turn in said head, a block for contact with an end on said screw and having a bearing stud for engagement with a shaft, plates arranged upon opposite sides of said block and having slots therein, arms connected with said head and received between said plates for engagement with a wheel upon a shaft, sleeves interposed between said plates in advance of said arms, bolts passing through the slots in the plates and sleeves, and thumbnuts adjustably mounted upon said bolts and bearing against said plates.

1,207,627. EXPANSIBLE BRACELET-LINK. MEYER L. ROBBINS, New York, N. Y. Filed June 23, 1915. Serial No. 35,737. (Cl. 59—79.)



1. A guide-link, comprising spaced trough-shaped members connected at both ends by integral bridges.

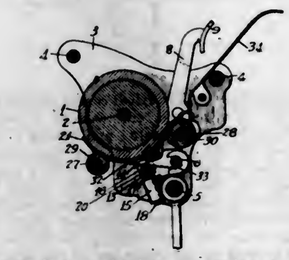
2. An article of the class described comprising trough-shaped members, bridges extending between the ends thereof and formed integral therewith, and holding the same in spaced relation, and a loop-shaped member with resiliently spaced ends, the sides of said loop-shaped member embracing one of the said bridges therebetween, and with the ends thereof held in forced contact with the walls of said trough-shaped members.

3. An extensible link comprising a guide-link with spaced trough-shaped members, a slide link with resiliently spaced oppositely disposed and headed ends, said heads fitting within the trough-shaped members and held in forced contact with the side walls thereof.

4. A slide link comprising spaced sides, an integral bridge connecting the one ends thereof, the remote ends of said sides provided with enlarged and transversely extending and oppositely disposed heads, said heads held resiliently spaced apart by said integral bridge.

5. A guide link comprising spaced confronting trough-shape members, and bridges at the ends thereof extending therebetween, formed integral therewith, and maintaining the same in spaced relation.

1,207,628. PAPER-FEED MECHANISM. ALVAH C. ROEBUCK, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed Mar. 30, 1914. Serial No. 828,165. (Cl. 197—127.)



1. Paper feed mechanism comprising a paper apron and a spring intermediate the front and rear thereof to press the apron in one direction, and an additional spring tending to press the front of the apron in the same direction independently of the other spring.

2. Paper feed mechanism embodying a platen, a paper feed apron and a spring to press the entire apron toward the platen, and an additional spring bearing yieldingly against one portion of the apron tending to press that portion in the direction of the platen.

3. Paper feed mechanism embodying a platen, a paper apron, a spring intermediate of the front and rear thereof to press the apron yieldingly in the direction of the platen, and an additional spring bearing directly against and tending to press the front end only of the paper apron against the platen.

4. In paper feeding mechanism, the combination with a platen, of a paper apron extending thereunder, a support for the paper apron, springs tending to press the support and the apron toward the platen, means for adjusting the tension of each of the springs separately, and additional springs bearing directly on the front of the apron to press it against the platen.

5. In paper feeding mechanism comprising a platen, an apron disposed beneath the platen, a movable support for the apron, an adjustable spring at each end of the paper apron for urging the support in the direction of the platen intermediate of the front and rear thereof, and an additional spring to engage the front of the paper apron tending to force it toward the platen.

[Claims 6 to 19 not printed in the Gazette.]

1,207,629. PAPER-FEED MECHANISM. ALVAH C. ROEBUCK, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed Oct. 26, 1914. Serial No. 868,561. (Cl. 197—138.)

1. A typewriter platen, a paper apron having sets of perforated depending ears about one side of which the apron is movable, the other sets being formed with slots to permit the rotation of the apron about the axis of the first named set to a limited extent, and means to press the apron toward the platen.



2. A typewriter paper feeding mechanism comprising a loosely mounted spring pressed paper apron with depending perforated ears, means for moving the apron bodily, an oscillatable frame connected with the apron upon which one side of the apron is pivotally connected, and a lost motion connection between the frame and the apron at the other side of the latter whereby an oscillation of the apron with respect to the frame is possible.

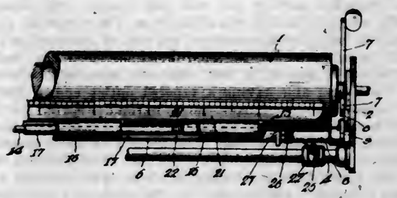
3. Typewriter paper feed mechanism comprising a platen, a paper apron movable toward and from the platen having sets of depending perforated ears one set of which is slotted and curved upon a radius extending from the axis of another set of ears, a movable frame pivotally connected to the last named set of ears, and a lost motion connection between the frame and the slotted ears whereby an oscillating movement of the apron is permitted with respect to the frame.

4. Typewriter paper feed mechanism comprising a platen, a paper apron movable toward and from the platen with sets of perforated ears extending therefrom, one set of which is slotted, a friction roller shaft pivotally mounted in one set of ears, another friction roller loosely mounted in the slotted ears, and rigid means forming a fixed bearing for both of said shafts.

5. Typewriter paper feed mechanism comprising a platen, a paper apron movable toward and from the platen with sets of perforated ears extending therefrom, one set of which is slotted, a friction roller shaft pivotally mounted in one set of ears, another friction roller loosely mounted in the slotted ears, rigid means forming a fixed bearing for both of said shafts, and resilient means for tending to press the rigid means and the roller shafts in the direction of the platen.

[Claims 6 to 21 not printed in the Gazette.]

1,207,630. PAPER-FEED MECHANISM. ALVAH C. ROEBUCK, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed June 1, 1915. Serial No. 31,333. (Cl. 197—138.)



1. In a typewriter, a platen, a paper apron extending thereunder, a movable support for the apron comprising a rock shaft loosely connected with the apron, a fixed abutment, and a spring extending around the said shaft having one end in engagement with the abutment and the other end bearing directly upon the paper apron.

2. In a typewriter, a platen, a paper apron extending thereunder, a movable support for the apron comprising a rock shaft and arms on the shaft loosely connected with the apron, a fixed abutment, and a spring having one end supported by the abutment and the other end bearing directly upon the apron to press it toward the platen.

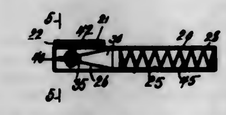
3. In a typewriter, a platen, a paper apron extending thereunder, a movable support for the apron comprising a rock shaft and arms secured to the rock shaft having a loose connection with the apron, an abutment adjacent each end of the apron, and a spring having one end supported by the abutment and the other bearing directly against the under side of the apron.

4. In a typewriter, a platen, a paper apron extending thereunder, a movable support for the apron comprising a rock shaft and arms secured thereto loosely connected with the apron, an abutment adjacent each end of the apron, an adjusting screw threaded in the abutment, and springs one at each end of the apron having one looped end in engagement with the adjusting screw and the other end bearing against the paper apron.

5. In a typewriter, a platen, a paper apron extending thereunder, a support for the apron comprising a rock shaft, arms secured to the rock shaft having a loose connection with the paper apron adjacent the ends, a fixed abutment and adjacent each end of the paper apron, an adjusting screw threaded in the abutment, a spring wound about the shaft at each end having one extremity engaged by the adjusting screw in the abutment and having the other end extending along one of the said arms and bearing directly upon the under side of the apron, a pivoted finger lever, and a link connecting the finger lever to oscillate the rock shaft whereby the apron may be moved yieldingly away from the platen against the tension of the said spring when the loose connection is taken up.

[Claims 6 to 9 not printed in the Gazette.]

1,207,631. CIGAR-LIGHTER. EUGENE J. ROKBACH, New York, N. Y. Filed Jan. 12, 1916. Serial No. 71,668. (Cl. 67—7.1.)



1. In a lighter of the character described the combination of a fuel reservoir, a spring actuated plunger valve in the reservoir, a pin carried by the plunger valve, a scratch pin carried by said pin and a cord around the former.

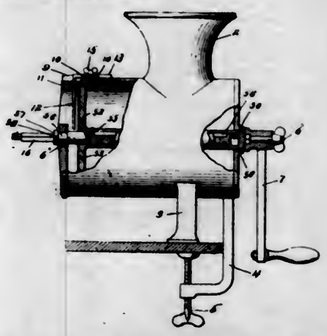
2. In a lighter of the character described the combination of a fuel reservoir with a tapered end a spring actuated plunger valve in the reservoir having a threaded portion at its outer end, a pin extending from the threaded portion, a stop disk on the threaded portion and normally distant from the tapered end of the reservoir, a scratch pin carried by the other pin and a cord wound around the threaded portion and the pin thereof, the plunger valve adapted to be separated from the reservoir upon pressure being brought against the end of the scratch pin.

3. In a lighter of the character described the combination of a barrel, a fuel reservoir detachably carried in the barrel and having a tapered outlet end, a spring actuated tapered plunger valve normally seated in the said tapered outlet end and having a threaded portion extending therefrom, a stop disk carried by said threaded portion normally separated from its accompanying end of the reservoir, a pin extending from said threaded portion, a scratch pin carried by the other pin and pyrophoric block carried on the barrel.

4. In a lighter of the character described the combination, of a fuel reservoir, a spring actuated plunger in the reservoir, a scratch pin for said plunger and an absorbent material on the said plunger to absorb the fuel from said reservoir.

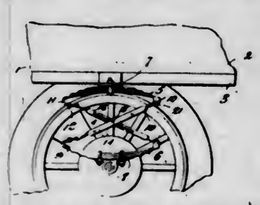
1,207,632. MEAT-CHOPPER. ANNA E. ROSE, Geneva, N. Y. Filed June 22, 1915. Serial No. 35,591. (Cl. 17—20.)

1. A food chopper including a cylindrical casing, a knife arranged radially in the casing at the discharge mouth thereof, a longitudinally extending shaft journaled in a bearing in the said discharge end of the casing and held thereby against longitudinal movement, a hollow shaft journaled upon the first mentioned shaft, the closed end of the casing having a bearing opening through which the said hollow shaft extends, a head on one end of the hollow shaft disposed opposite the knife, said head having integral fingers upon its outer face, and an operating handle for the hollow shaft.



2. In a food chopper, a cylindrical casing having a bearing opening in the discharge end thereof, a shaft arranged longitudinally in the casing and having a reduced portion received in the bearing opening, said shaft for the major portion thereof being formed with a longitudinally extending slot, the closed end of the casing having a bearing opening, a hollow shaft arranged within said opening and receiving the first mentioned shaft, an operating handle upon the outer end of the hollow shaft, a round head formed on the inner end of the said hollow shaft, said head having its face provided with radially disposed fingers, a knife member adjustably connected with the casing and disposed adjacent the said head of the hollow shaft, and a lug member upon the hollow shaft and received in the referred to groove in the first mentioned shaft to permit the sliding movement of the hollow shaft upon the first mentioned shaft and to connect the shafts.

1,207,633. VEHICLE-SPRING. ELMER ROY, Malden, Mass. Filed July 10, 1916. Serial No. 108,488. (Cl. 267—17.)

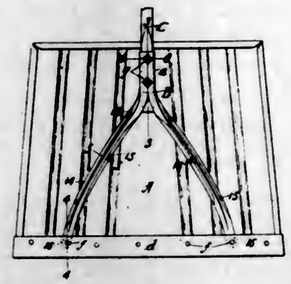


1. A spring comprising a pair of spring sections arranged in spaced relation, pivotally connected and crossed links interposed between the spring sections and terminally connected therewith, and springs arranged between the links and having arms connected therewith.

2. A spring comprising a pair of spring sections arranged in spaced relation, an arm at one end of each spring section, yokes carried by said arms, a spacing member, crossed links mounted to turn on the spacing member and terminally connected with the spring sections and yokes, and springs carried by the spacing member and having spaced arms terminally connected with the respective links.

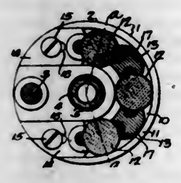
3. A spring comprising a pair of spring sections arranged in spaced relation, a curved arm at one end of each spring section, yokes mounted to turn in said arms, a spacing member, trunnions on the ends of the spacing member, crossed links mounted to turn on said trunnions and pivotally connected with the spring sections and yokes, and springs coiled about said spacing member and having spaced arms terminally connected with the respective links.

1,207,634. SHOVEL. FRANK D. RUGG, Greenfield, Mass. Filed July 26, 1915. Serial No. 41,036. (Cl. 55—14.)



In a shovel, a blade, a socket piece comprising an integrally formed back and opposite side members, to form an upwardly open socket, and said socket piece being continued in integral downwardly divergent prongs made cross sectionally of trough form of downwardly decreasing depth, the handle inserted in the socket piece, fastenings extending through the socket piece, the handle and the blade, and fastenings extending through and connecting the prongs and the blade.

1,207,635. WATER-GAGE. KENNETH RUSHTON, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 10, 1915. Serial No. 66,129. (Cl. 73—54.)



1. The combination in a water gage, of two cap plates spaced apart; a gage glass secured to the two cap plates; a semicircular guard consisting of alternate transparent and opaque sections located in front of the glass; and means on the cap plates pressing against the edges of the guard and holding the guard sections in close contact, one with another.

2. The combination in a water gage, of two recessed cap plates spaced apart; a gage glass mounted with one end in each cap plate; a series of transparent and opaque guards arranged alternately and having their ends extending into the recesses of the cap plates; and clamps on the cap plates for holding the guards in position.

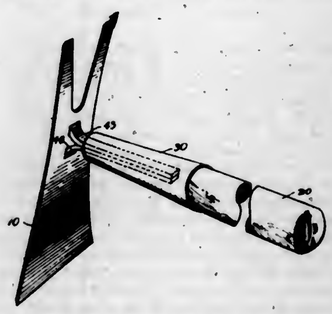
3. The combination in a water gage, of two cap plates; a gage glass extending from one cap plate to the other; a series of cylindrical glass rods extending from one cap plate to the other; spacing members located between the rods, each spacing member having a longitudinal groove therein; packing in each groove bearing against the surface of the glass rods; clamps on the cap plates for holding the rods and spacing members in close contact, said rods and spacing members forming a guard for the gage glass.

4. The combination in a water gage, of an upper and a lower cap plate; each cap plate having a segmental recess therein; a gage glass extending between the cap plates; alternate series of transparent and opaque sections extending from one cap plate to the other in front of the glass and mounted in the recesses; packing between the sections; slotted retaining plates mounted on the cap plates at each side and shaped to fit the transparent guards; and a screw passing through the slot of each plate and into the cap plates holding the said retaining plates in position and locking the guard members in the closed position.

5. The combination in a water gage, of two cap plates spaced apart; a post extending from one cap plate to the other and rigidly connecting said cap plates; a gage glass mounted in the cap plates and located in front of the post, a series of alternate transparent and opaque sections located in front of the gage glass; and guard clamps on each side of the gage glass, extending from one cap plate to the other and filling the space between the front guards and the post.

[Claim 6 not printed in the Gazette.]

1,207,636. HOE. THOMAS H. RUSSELL, Geneva, Ohio, assignor to The American Fork and Hoe Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 7, 1916. Serial No. 102,209. (Cl. 55—5.)



1. The combination with a blade, of a two-legged staple extending through it, said staple having at least one of its legs bent on the inner side of the blade to engage its inner face, the two legs then extending alongside of each other away from the blade.

2. In an agricultural tool of the character described, the combination of a blade, a staple having its intermediate portion on the outer side of the blade and extending through said blade and having its legs brought substantially together on the inner side of the blade, the blade being thus firmly grasped by the staple both on its inner and outer face, and a handle which the legs of the staple occupy.

3. In an agricultural tool of the character described, the combination, with a blade having two holes through it, of a staple extending through said holes and having its legs bent toward each other immediately on the inner side of the blade, said legs then projecting substantially parallel with each other to form a shank rigid with the blade.

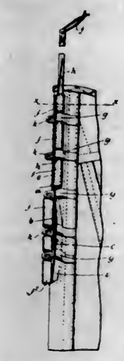
4. In an agricultural tool of the character described, the combination of a blade having two rectangular holes through it, and a staple made of flat metal having its intermediate portion on the outer side of the blade and its legs passing through said holes, said legs being bent inwardly on the inner side of the blade immediately adjacent to the face thereof.

5. As a new article of manufacture, a hoe provided with a rigid shank consisting of a staple passed through openings in the hoe blade, the intermediate portion of the staple contacting with the outer face of the blade, and the legs of the staple being bent toward each other im-

mediately adjacent to the inner face of the blade to pinch the blade between said inwardly bent portions and intermediate portion of the staple.

[Claims 6 to 12 not printed in the Gazette.]

1,207,637. CORSET OR THE LIKE. EUGEN SANDOW, London, England. Filed May 4, 1916. Serial No. 95,503. (Cl. 2—74.)



In a corset, and in combination, a buck, a series of long loops attached to an edge of the material of the corset, a pocket having its side open to the meeting edge of the corset formed in the material of the corset at the rear of such loops and from which such loops project, a busk located in such pocket, the series of loops being sufficiently long when folded, to lie directly upon the top of the pocket and embrace the front edge of the busk to inclose it therein, a second series of loops attached to the material of the upper side of the pocket and directly superposed on same and located to lie in line with the first series of loops when the latter are folded to inclose the busk and a strip of flexible material adapted to be threaded through the two series of loops and to be superposed upon the busk so that the strip and busk are face to face and at the free or meeting edge of the corset.

1,207,638. SUSPENDED BAG. FRANK X. SANDT, Kenosha, Wis. Filed Feb. 23, 1916. Serial No. 79,885. (Cl. 150—12.)

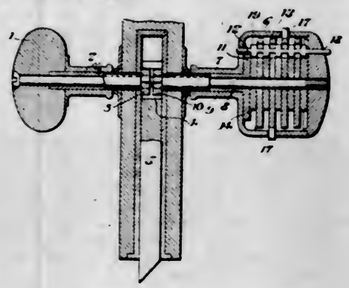


1. A bag having, in combination, a pocket having two hems at opposite sides of the mouth, and two triangular supporting members, each member comprising a triangular loop, a straight pocket-engaging rod integral with one end of and extending across said loop and threaded through one of the hems, and a hook integral with the other end of said loop and adapted to removably support the free end of said rod.

2. A bag having, in combination, a pocket having two hems at opposite sides of the mouth, and two supporting members each comprising a loop, a pocket-engaging rod, and a catch adapted to removably support said pocket-engaging rod, said rods being threaded through said hems.

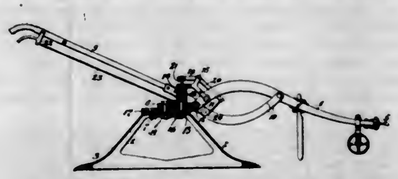
3. A bag having, in combination, a pocket having an open end and provided with devices along opposite edge portions at said end adapted to be engaged by supporting members, and two wholly separate and independent supporting members, each comprising a suspending loop adapted to engage and depend from a support, and a straight rod attached at one end to said suspending loop and supported at its other end by means of a hook on the opposite side of said loop, the two rods passing through said devices at opposite edge portions of the bag and the bag being arranged to be opened by removing only one of said supporting members from its support and drawing said member away from the other supporting member.

1,207,639. COMBINATION DOOR-LOCK. RALPH V. SAVAGE, Windsor, Mo. Filed Feb. 9, 1916. Serial No. 77,199. (Cl. 70—53.)



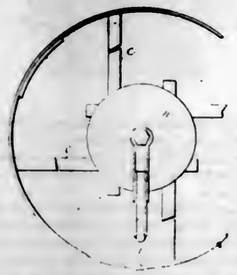
In combination with a lock having a movable bolt provided with an opening, a sleeve having a lug received in the opening in the bolt, a disk mounted upon the sleeve and having a notch, a casing inclosing the disk and having an extension disposed along the sleeve, tumblers turnably mounted in the casing and having arcuate openings provided at their sides with notches, spacing disks located between the tumblers, lugs carried by the tumblers and projecting beyond the sides of the casing, a bar movably mounted in the casing and spaced lugs carried by the bar and adapted to enter the notches of the tumblers and the disk when the said notches are brought into alinement with each other.

1,207,640. PLOW. SALVATORE SEDITA, Brant, N. Y. Filed July 1, 1914. Serial No. 848,411. (Cl. 97—27.)



A plow comprising a standard having plow shares at its opposite ends and a head which is provided with a central pivot opening extending vertically from the upper to the lower side of the head and also with locking openings extending downwardly from the top of the head on opposite sides of said pivot opening, a draft beam having its rear part resting on the top of said head and provided with an integral hollow pivot sleeve or arbor which projects downwardly from said beam and is journaled in said pivot opening, a coupling bolt extending through said hollow pivot sleeve or arbor and having a head and nut one of which bears against the top of said beam and the other against the underside of said standard head, a bracket mounted on said beam on one side of said pivot sleeve, and a spring pressed catch mounted on said bracket and adapted to engage with one or the other of said locking openings.

1,207,641. TIRE REMOVING AND REPLACING DEVICE. CHARLES P. SEEGER, St. Louis, Mo. Filed Mar. 4, 1915. Serial No. 12,115. (Cl. 157—1.)



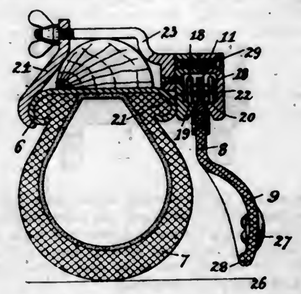
1. In a device of the character described, a central body, a pinion rotatably mounted in said body, rack arms fitted to said pinion, said rack arms being movable in response to movements of said pinion, an operating handle for turning said pinion, and a locking device for locking the rack arms in the positions to which they are adjusted by said pinion, said locking device being under the control of said operating handle.

2. A combined expanding and contracting device comprising a central body, a shaft rotatably mounted in said central body, a pinion secured to said shaft, rack arms fitted to said pinion, said rack arms being movable in response to movements of said pinion so as to expand or contract the member to which the rack arms are applied, said shaft and pinion being adapted to turn in one direction when the device is used as an expander and in the opposite direction when used as a contracting device, reversely arranged latches one of which is arranged to lock said rack arms to prevent them from moving inwardly when the device is used as an expander, the other latch being adapted to lock said rack arms to prevent them from moving outwardly when the device is used as a contracting device, one of said latches being adapted to lock said rack arms in response to a longitudinal movement of said shaft in one direction and the other latch being adapted to lock the rack arms in response to a longitudinal movement of the shaft in the opposite direction, and an operating handle secured to said shaft, said pinion and reversely arranged latches being under the control of said operating handle.

3. In a device of the character described, a body provided with a central pinion receiving opening and a series of channels tangential to said central opening, a pinion in said opening, a shaft fixed to said pinion, rack arms arranged in said channels and engaging said pinion, and reversely arranged ratchet clutches on the ends of the pinion coöperating with corresponding clutches on the interior of said body when the shaft is moved longitudinally to bring one or the other of the ratchet clutches into engagement with the corresponding clutch.

1,207,642. MUD-GUARD. WILLIAM JOSEPH SHERRINGTON, London, England. Filed Feb. 28, 1916. Serial No. 81,014. (Cl. 21—23.)

1. An antisplash guard for a vehicle wheel comprising, in combination, two rings connected at their smaller peripheral parts and adapted to form a rigid structure with the wheel rim and spaced apart at their larger peripheral parts, races in the spaced parts of the rings, a sectional carrier depending radially between the spaced parts of the rings and between the races on both sides, antifriction bearings resting in the races and supporting the carrier, and a sectoral apron depending from the carrier.



2. An antisplash guard for a vehicle wheel comprising, in combination, two rings connected at their smaller peripheral parts and adapted to form a rigid structure with the wheel rim and spaced apart at their larger peripheral parts, races in the spaced parts of the rings, a sectoral carrier depending radially between the spaced parts of the rings and between the races on both sides, antifriction bearings resting in the races and supporting the carrier, and a sectoral apron dished in sectional plan as well as in vertical section depending from the carrier.

3. An antisplash guard for a vehicle wheel comprising, in combination, two rings connected at their smaller peripheral parts and adapted to form a rigid structure with the wheel rim and spaced apart at their larger peripheral parts, races in the spaced parts of the rings, a sectoral carrier depending radially between the spaced parts of the rings and between the races on both sides, antifriction bearings resting in the races and supporting the carrier, and a flexible sectoral apron depending from the carrier, said apron being dished in sectional plan as well as in vertical section and having its edges inturned and beaded.

4. An antisplash guard for a vehicle wheel comprising, in combination, two rings connected at their smaller peripheral parts and adapted to form a rigid structure with the wheel rim and spaced apart at their larger peripheral parts, races in the spaced parts of the rings, a sectoral carrier depending radially between the spaced parts of the rings and between the races on both sides, antifriction bearings resting in the races and supporting the carrier, and a flexible sectoral apron depending from the carrier, said apron being dished in sectional plan as well as in vertical section and furnished with studs to take the wear when contacting with a curb or the like.

5. An antisplash guard for a vehicle wheel comprising, in combination, two rings connected at their smaller peripheral parts and adapted to form a rigid structure with the wheel rim and spaced apart and having inward projections at their larger peripheral parts, races in the inward projections, a sectoral carrier depending radially between the spaced parts of the rings and between the races on both sides, antifriction wheels resting in the races and supporting the carrier without contact with the connected smaller peripheral parts of the rings, and a sectoral apron depending from the carrier.

[Claim 6 not printed in the Gazette.]

1,207,643. MANUFACTURE OF GLASS. ARNO SHUMAN, Philadelphia, Pa., assignor to Pennsylvania Wire Glass Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Apr. 23, 1915. Serial No. 23,303. (Cl. 49—34.)

1. The method of producing sheet glass having a flat upper surface, which consists in rolling the glass into a sheet and maintaining portions of the surfaces of the sheet and roller out of contact to air vent the surfaces and permit the glass to remain flat on the table, and maintaining the temperature of the sheet after rolling sufficiently high to permit any ridges or marks formed by

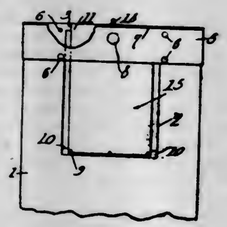
the air venting to subside or flatten by the action of gravity before the glass solidifies, substantially as described.



2. Apparatus for producing sheet glass having a flat upper surface which comprises the combination of a table and a roller having its surface provided with minute cavities constituting vents and of such depth and extent that glass will not entirely fill them during the rolling operation, substantially as described.

3. Apparatus for producing sheet glass having a flat upper surface which comprises the combination of a table and a roller having its active surface impressed with annular ribs or corrugations constituting vents and of such a degree of fineness that the glass will not entirely fill the grooves during the rolling operation, substantially as described.

1,207,644. SAMPLE-PIECE-GOODS HOLDER. CHARLES M. SILKNITTER, Centerville, Iowa. Filed Sept. 7, 1915. Serial No. 49,344. (Cl. 206—50.)



1. In a device of the class described, a core having a recess; a strip on the core and extended across the recess, the strip being distorted to form a seat; and a receptacle mounted to reciprocate in the recess, the receptacle having a projection adapted to be received in the seat to hold the receptacle in a closed position, the strip being provided with an upstanding flange constituting a reinforcement for the strip adjacent the seat, and constituting also a means for preventing the material on the core from overriding the end of the core and coming into the path of the receptacle as the latter is reciprocated.

2. In a device of the class described, a core having a recess extended therethrough; a plate applied to one side of the core and constituting a closure for one side of the recess; a band extended around the core and engaging the plate to hold the same on the core; and a receptacle slidable in the recess, within the contour of the band.

3. In a device of the class described, a core having a recess and provided with a stop adjacent the outer end of the recess; a receptacle slidable in the recess and provided with a stop coacting with the stop of the core to prevent a complete withdrawal of the receptacle; and a band circumscribing the end of the core and extended across the recess and coacting with the receptacle when the stops are in mutual engagement, to prevent a tilting of the receptacle and a disengagement of the stops.

1,207,645. INGOT-MOLD. EDWIN E. SLICK, Westmont borough, Pa. Filed May 10, 1916. Serial No. 96,473. (Cl. 22—147.)

1. A mold top comprising a removable casing, a removable retaining plate mounted below and projecting inwardly from said casing, a refractory lining within said casing supported by the retaining plate aforesaid.



2. A mold top comprising a casing open top and bottom, a removable retaining plate mounted below and projecting inwardly from said casing, and a non-conducting lining composed of bricks of uniform thickness, supported by the retaining plate.

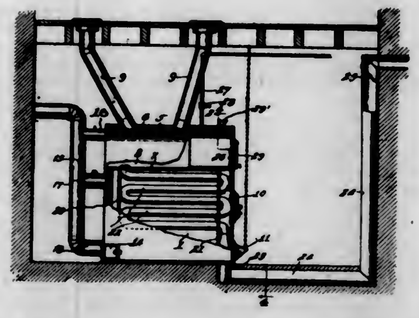
3. A mold top comprising a casing open top and bottom, a retaining plate mounted below and projecting inwardly from said casing and adapted to project downwardly into the mold, and a non-conducting lining composed of bricks of uniform thickness, supported by the retaining plate.

4. A mold top comprising a casing larger at its lower end, a removable retaining plate mounted below said casing and projecting inwardly thereof and supporting a refractory lining mounted within said casing.

5. A mold top comprising a casing, a retaining plate mounted below said casing and projecting inwardly thereof, a plurality of non-conducting bricks of substantially uniform thickness mounted within said casing and supported by the retaining plate, said retaining plate being provided with a flange or projection adapted to extend within the upper portion of the ingot mold.

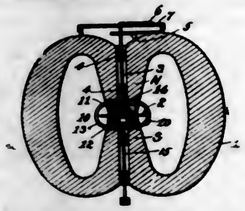
[Claims 6 and 7 not printed in the Gazette.]

1,207,646. HOT-AIR FURNACE. ANDREW D. SMITH, Marion, Ind. Filed Oct. 9, 1914. Serial No. 865,875. (Cl. 126—109.)



A furnace comprising a casing, an air chamber within the upper part of the casing, a smoke chamber within the lower part of the casing, a fire box within said casing and spaced from said air chamber and the rear wall of the smoke chamber, air pipes arranged upon opposite sides of the fire box and communicating with the air chamber at the rear end thereof, a smoke pipe in the rear of said casing and having its lower end communicating with the lower portion of the smoke chamber in the rear of the fire box, a branch pipe connecting said smoke pipe with the upper portion of the smoke chamber, a second branch pipe connecting the air chamber with the smoke pipe, dampers arranged within each of the smoke pipes, and distributing pipes communicating with said air chamber.

1,207,647. SPEEDOMETER. CHARLES G. SMITH, Cambridge, Mass., assignor of one-half to Charles F. MacGill, Cambridge, Mass. Filed Dec. 15, 1915. Serial No. 67,085. (Cl. 264—13.)



1. A magnetic speedometer comprising a field magnet, an eddy current conductor located in the field of the magnet, and an armature relatively movable with respect to the conductor and magnetized by the field magnet at or above saturation.

2. A magnetic speedometer comprising a field magnet, an eddy current conductor located in the field of the magnet, and an armature relatively movable with respect to the conductor and of magnetic material having a comparatively low saturation point and magnetized at or above its saturation point by the field magnet.

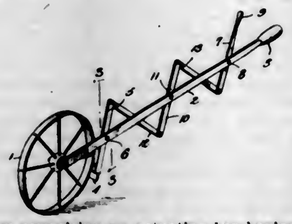
3. A magnetic speedometer comprising a field magnet, an eddy current conductor located in the field of the magnet, and an armature relatively movable with respect to the conductor and comprised of magnetic material magnetized by the field magnet and having a substantially constant intensity of magnetization.

4. A magnetic speedometer comprising a field magnet, an eddy current conductor located in the field of the magnet, and an armature relatively movable with respect to the conductor composed of magnetic material magnetized by the field magnet to such a point as to have a substantially constant intensity of magnetization for moderate variations in the strength of the field magnet.

5. A magnetic speedometer, comprising a field magnet, an eddy current conductor located in the field of the magnet, and an armature having a series of poles composed of a medium magnetized at or above the saturation point and separated from one another by a medium having a constant intensity of magnetization.

[Claims 6 to 8 not printed in the Gazette.]

1,207,648. WHEELED TOY. WILLIAM DAVIS SMITH, Cynwyd, Pa. Filed July 14, 1916. Serial No. 109,334. (Cl. 46—48.)

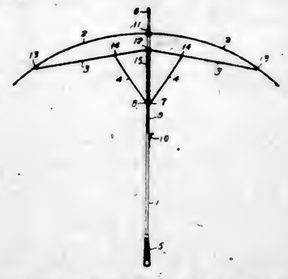


1. A toy comprising an actuating bar having a handle at one end thereof, a trundle wheel journaled upon the opposite end of the bar, a brake member supported by the bar in position to engage the trundle wheel, a brake operating lever mounted upon the bar in proximity to the handle, and connections between said lever and the brake member for actuating the latter.

2. A toy comprising a trundle wheel, an actuating bar or lever, a brake shoe mounted upon the bar, and a system of levers for operating said shoe, arranged to be actuated from a point adjacent to the handle of the bar.

3. A toy comprising a trundle wheel, an actuating bar or lever therefor, provided at its rear end with an operating handle, a lever pivotally mounted on the bar, a brake shoe carried by said lever, an operating lever mounted upon the bar adjacent to the handle thereof, and link and lever connections between said brake and actuating levers, whereby the brake shoe may be thrown into and out of action from a point in proximity to the handle of the bar.

1,207,649. UMBRELLA. RICHARD MARTIN SOUTH, Palmyra, Mo. Filed Apr. 3, 1916. Serial No. 88,649. (Cl. 135—22.)



1. A self opening umbrella, parasol or the like comprising a hollow stick, a rod slidable within the outer portion of said stick and projecting therefrom, a runner slidable upon the stick and having connection with the rod, a spring applied to the stick exteriorly and normally exerting a force upon the rod and runner to move the same outward, and a folding frame comprising ribs, stretchers and braces, the latter having connection with the runner.

2. A self opening umbrella, parasol or the like comprising a hollow stick, a rod slidable within the stick and adapted to have an end portion projecting beyond the extremity of such stick, a runner slidably mounted upon the stick and having connection with the inner end of the said rod, a helical spring mounted upon the stick and normally exerting an outward force upon the runner and rod, a folding frame comprising ribs, stretchers and braces, the latter having connection with the runner, and a catch for engaging the runner to normally hold the umbrella closed against the force exerted by the said spring.

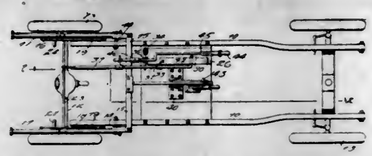
3. An umbrella comprising a stick, ribs having pivotal connection at their inner ends with the stick, stretchers having pivotal connection at their inner ends with the stick at a point distant from the connection of the ribs with such stick, means slidably connecting the outer ends of the stretchers with the outer portions of the ribs, a runner mounted upon the stick and braces connecting such runner with the stretchers.

4. A self opening umbrella comprising a hollow stick having a longitudinal slot in a side thereof, a rod slidable within an end portion of the stick and adapted to have an end portion projecting beyond the outer extremity of such stick, a runner mounted upon the stick, connecting means between the runner and rod and operating in the slot of the stick, ribs having pivotal connection at their inner ends with the stick, stretchers having sliding engagement at their outer ends with the ribs, and pivotal connection at their inner ends with the stick, braces having pivotal connection with the stretchers and runner, and a contractile spring mounted upon the stick and connected at one end with the runner, and normally exerting a pull upon such runner to move the same outward upon the stick.

1,207,650. BRAKE FOR AUTOMOBILES. ANDREW JACKSON SPEAKE, Westplains, Mo. Filed Mar. 6, 1916. Serial No. 82,470. (Cl. 21—8.)

1. In a braking mechanism, the combination with the chassis of a vehicle, and a running gear therefor; adjustable braking elements associated with said chassis and normally retained out of contact with the ground, means

for releasing said braking elements to permit the same to move to braking position whereby certain wheels of the running gear are raised, a frame pivoted in said chassis and connected to a portion of said running gear, and means for tilting said frame about its pivot whereby the raised wheels of the running gear are lowered into contact with the ground and the braking elements elevated while in braking position.



2. In a braking mechanism, the combination with the chassis of a vehicle, and a running gear therefor; adjustable braking elements associated with said chassis and normally retained out of contact with the ground, means for releasing said braking elements to permit the same to move to braking position whereby certain wheels of the running gear are raised, a frame pivoted in said chassis and connected to a portion of said running gear, means for tilting said frame about its pivot whereby the raised wheels of the running gear are lowered into contact with the ground and the braking elements elevated while in braking position, and means for adjusting said braking elements to normal position.

3. In a braking mechanism, the combination with the chassis of a vehicle, and a running gear therefor; adjustable braking elements associated with said chassis and normally retained out of contact with the ground, means for releasing said braking elements to permit the same to move to braking position whereby certain wheels of the running gear are raised, a frame pivoted in said chassis and connected to a portion of said running gear, and means for tilting said frame to initially lower said raised wheels into contact with the ground and then upon further movement of the frame raise a portion of said chassis to elevate the braking elements, while in braking position, in contact with the ground.

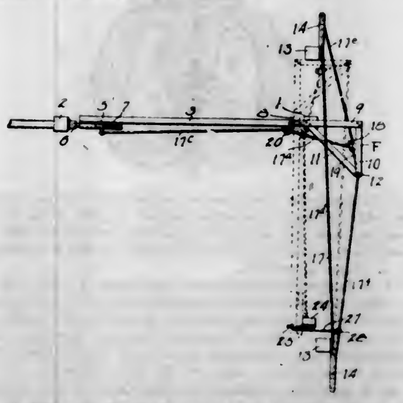
4. In a braking mechanism, the combination with the chassis of a vehicle, and a running gear therefor; of adjustable braking elements normally out of contact with the ground, means for permitting the adjustment of said braking elements into contact with the ground whereby certain wheels of the running gear are raised, and means for lowering said wheels into contact with the ground while the braking elements are in braking position.

5. In a braking mechanism, the combination with the chassis of a vehicle, and a running gear therefor; of adjustable braking elements normally out of contact with the ground, means for permitting the adjustment of said braking elements into contact with the ground whereby certain wheels of the running gear are raised, and means for lowering said wheels into contact with the ground and at the same time raising the braking elements while the latter are in braking position.

[Claims 6 to 13 not printed in the Gazette.]

1,207,651. GATE-OPENER. JAMES M. STAFFORD and JAMES A. STAFFORD, Washington, Ind. Filed July 9, 1915. Serial No. 39,009. Renewed Oct. 16, 1916. Serial No. 126,041. (Cl. 39—36.)

1. A device of the character described, including a gate post, a latch post, a swinging gate hinged to the gate post, a latch upon the gate, a triangular frame member rigid with the hinged end of the gate and projecting rearwardly and laterally therefrom, a pulley, a link member connecting the pulley to the laterally projecting corner of the triangular frame, posts at each side of the gate, superposed lateral arms projecting from each of the posts, corresponding pulleys upon the said arms, a cable passing around the pulleys of the arms and having one end thereof connected to the laterally projecting corner of the triangular frame while the opposite end thereof passes around the pulley of the triangular frame, and pulleys upon the gate, the second mentioned end of the cable passing around the pulleys of the gate and being connected to the latch to automatically release the same preparatory to opening the gate.



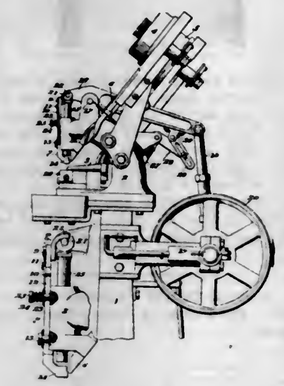
2. A device of the character described including a gate post, a main latch post, a second latch post, a gate hinged to the gate post, a latch upon the gate for engagement with the main latch post, a frame member rigid with the gate and projecting laterally from the hinged end thereof, a pulley connected to the end of the rigid frame member posts at each side of the gate, guide pulleys carried by the posts, a cable passing around the guide pulleys and having one end thereof connected to the end of the rigid frame member while the opposite end thereof passes around the pulley of the rigid frame member, an operative connection between the said end of the cable and the latch member of the gate, a latch member upon the second latch post, a ring receiving the cable, and a link member connecting the ring to the latch member of the second post for releasing the said latch member when the slack is taken up in the cable preparatory to closing the gate.

1,207,652. BUTTON SETTING AND RIVETING MACHINE. FREDERICK E. STANLEY, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed May 1, 1916. Serial No. 94,636. (Cl. 218—6.)

1. In a button setting and riveting machine having feeding and setting mechanisms, a holder adapted to receive from the feeding mechanism the article to be set and to present it to the setting mechanism, means to reciprocate said holder, a separable connection between the holder and its reciprocating means operating during the setting movement of the machine to temporarily separate the holder from its reciprocating means, and a friction device applied to the holder for retaining said holder against accidental movement when separated from its reciprocating means and thereby preventing the displacement or dislocation of the article in the holder.

2. In a button setting and riveting machine having feeding and setting mechanisms, a reciprocating holder adapted to receive from the feeding mechanism the article to be set and to present it to the setting mechanism, a head on which said holder is mounted, a reciprocating plunger in said head, a lever for operating said plunger, means for partingly suspending the holder from said lever, and a spring friction device engaging the head and acting against the holder to prevent it from falling when parted from the lever prior to the engagement of the setting mechanism with the article in said holder.

3. In a button setting and riveting machine having feeding and setting mechanisms, a reciprocating holder adapted to receive from the feeding mechanism the article to be set and to present it to the setting mechanism, and a friction device for retaining said holder against accidental displacement and movement during the operation of the machine, combined with a reciprocating plunger whose active end is in line with the holder, a reciprocating lever for actuating the plunger to cause it to come into contact with the article in the holder, and means for suspending the holder from said lever during its reverse movement and permitting its parting therefrom in its setting stroke, said holder being supported by the friction device when parted from the lever, and movement of said holder being prevented by the friction device until such contact occurs.



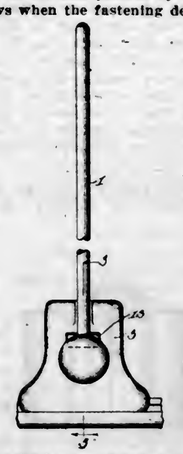
4. In a button setting and riveting machine having feeding and setting mechanisms, a head supporting the button feeding mechanism, a reciprocating holder applied to said head and adapted to receive from the feeding mechanism the button to be set and to present it to the setting mechanism, and a friction device engaging the head and holder for retaining said holder against accidental displacement and movement during the operation of the machine and comprising a washer applied to the holder, a spring bearing upon said washer and a headed screw engaging the machine head and holder and retaining the spring in place and tensioning the spring against said washer and holder, combined with a reciprocating plunger whose active end is in line with the holder, a reciprocating lever for actuating the plunger to cause it to come into contact with the article in the holder and having a transverse pin in its leading end, and fingers on the holder engaging said pin and adapted to part from it as the lever descends on its stroke and leave the holder unsupported save for the friction device which then actively holds the holder steady and prevents the accidental displacement of the button then in the holder.

1,207,653. CATENARY HANGER. WILLIAM C. STARKEY, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Sept. 22, 1915. Serial No. 51,927. (Cl. 191—43.)

1. In a trolley wire hanger, a wire clamp having separate clamping jaws; a fastening device; and a suspension member with parallel arms each of which is separately held by and in engagement with one of the jaws by the said device.

2. A catenary wire hanger comprising a wire clamp having separate clamping members; a fastening device for said clamping members; and a suspension member for loosely hanging the wire clamp from a support having parallel arms each of which is held in engagement with one of the clamping members when the fastening device presses the clamping members against a wire.

3. In a trolley wire hanger, a wire clamp having a pair of clamping jaws; a fastening device for said jaws; and a suspension member with parallel arms each of which has a projection at the end separately engaged by the fastening device and pressed by it against one of the clamping jaws when the fastening device is tightened.

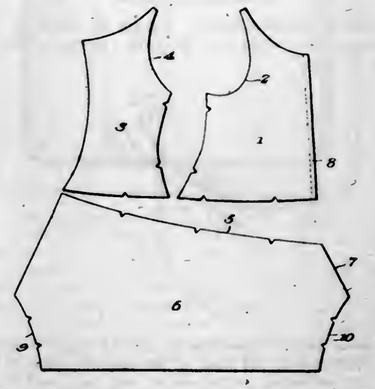


4. In a trolley wire hanger, a pair of perforated clamping jaws having a recess adjacent the perforation; a fastening device extending through the perforations of the jaws; and a suspension member having parallel arms with enlarged extremities both of which are pressed by the fastening device into the recesses of the clamping jaws when the fastening device is tightened against them.

5. In a trolley wire hanger, a pair of perforated clamping jaws having engageable portions adjacent the perforations; a fastening device for pressing the clamping jaws together; and a suspension member with parallel arms and projections at the ends adapted to be held against the engageable portions of the jaws by the engagement of said fastening device when it is tightened upon the jaws.

[Claims 6 and 7 not printed in the Gazette.]

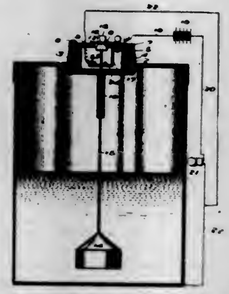
1,207,654. COMBINATION-SUIT FOR WOMEN. IDA M. STEPHENSON, Milwaukee, Wis. Filed Feb. 19, 1915. Serial No. 9,398. (Cl. 2—144.)



In a garment, in combination with a plurality of intersecured body sections, a pair of drawers sections, each drawers section being of the same shape and consisting of a piece of material cut to provide a straight longi-

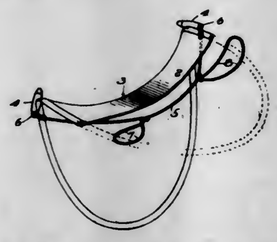
tudinal bottom edge, two oppositely inclined and coextensive lower side edges and two side edges of unequal lengths joining the first-named side edges but inclined in an opposite direction with respect thereto thereby making the top edge of each drawers section incline longitudinally, each of said drawers sections being folded so that their lower side edges may be secured together in the same direction of inclination so that the upper side edges may also be secured together in the same direction of inclination thereby forming leg portions and leaving portions of the longer of said upper side edges of both drawers sections free to be secured together so as to connect the leg portions together by a seam and to give said leg portions greater fullness at their upper ends.

1,207,655. ANNUNCIATOR. HARVEY A. STEVENS, Buffalo, N. Y. Filed Jan. 3, 1916. Serial No. 69,900. (Cl. 73—82.)



The combination of a tank having an aperture in its top, a plug having a marginal flange and also having a chambered portion depending from said flange and seated in said aperture and further having an aperture in the bottom of the chambered portion, a plate secured over the chambered portion of the plug, horizontally-movable means attached to the plate and normally resting over and closing said aperture, a terminal in the chamber of the plug, and a float movable in the tank and having a stem extending through the aperture in the bottom of the plug and adapted to move through the aperture in the plate when the horizontally-movable means is displaced and also having means on the stem and movable in the chamber of the plug and adapted to contact with said terminal.

1,207,656. DRESS-SHIELD. CARRIE M. STEWART, Los Angeles, Cal. Filed Mar. 15, 1916. Serial No. 84,428. (Cl. 2—34.)



A dress shield comprising a pair of flaps, a flexible wire connected to the ends of the common joint of said flaps and extending across one of said flaps, and a pair of spaced loops formed on said wire of sufficient extent so that they may be bent around the arm of the wearer and thereby grip the arm and hold said flap properly in position, against the arm.

1,207,657. CLOSURE FOR PAPER PACKAGES. CHARLES C. STUTZ, Norwood, Ohio, and ROBERT F. ARNOTT, Upper Montclair, N. J., assignors to I. L. Myers, New York, N. Y. Filed May 3, 1913, Serial No. 765,224. Renewed Oct. 12, 1916. Serial No. 125,289. (Cl. 229—12.)



A paper carton having a body portion, a cap having an outwardly extending flange seated in the end of said body portion, said cap having an annular opening therein, a hollow plug seated within said opening, said plug having an annular flange arranged to engage the outer face of the cap, and a flat disk seated within the end of the body portion on the flange of the cap, the end of the body portion being turned upon itself and forced into engagement with the disk, so that the disk is retained between the flange of the cap and said turned portion; substantially as described.

1,207,658. MOTOR-TRUCK. HADWEN SWAIN, San Francisco, Cal. Filed June 4, 1914. Serial No. 843,045. (Cl. 21—90.)



1. In an electrically driven vehicle in combination a motor; a shaft driven thereby; a worm on said shaft; a worm gear engaged by the worm; a driven wheel; a connection between said driven wheel and said worm gear; a second shaft operatively connected to and operated by said first shaft; and a worm on said second shaft operatively engaging said worm gear and oppositely disposed as to the first worm.

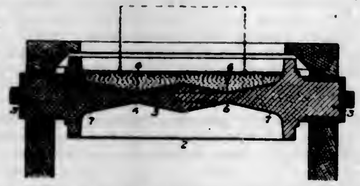
2. In a vehicle, a running gear comprising wheels and front and rear axles; a body; a spring connection between said body and running gear; cases pivotally mounted on the rear axle and pivotally connected to the body, one on each side, said cases forming radius or distance rods; and independent driving means for each rear wheel mounted on said radius rods.

3. In a vehicle, front and rear axles and wheels mounted thereon; a spring supported body; cases having one end pivotally mounted on the rear axle and the other end pivotally connected to the body, said cases forming radius rods, there being a case on each side of the body; and means to drive the rear wheels thereof mounted on said radius rods, each wheel being driven independently of the other wheel.

4. In a vehicle having a spring supported body and two independently driven rear wheels, a case pivotally mounted on the rear axle at one end and pivotally connected at the other end to the body, said case forming a distance or radius rod and being adapted to receive and support the driving mechanism of a rear wheel.

5. In an electric vehicle a driving and a driven ring; and an intermediate ring operatively but loosely engaged by both the driving and driven rings, said intermediate ring forming a part of the connection between the driven wheel and the driving mechanism whereby portions of the shock on the driven wheel will be prevented from being transmitted to the driving mechanism.

1,207,659. GLASS-DRAWING POT. JOHN A. SWEET, New Kensington, Pa., assignor to Window Glass Machine Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed July 30, 1915. Serial No. 42,751. (Cl. 49—53.)



1. An invertible glass drawing pot, having a central cone portion on the bottom of its pot cavity, the inclined surfaces of the cone being without any substantial curvature in the direction of their inclination, substantially as described.

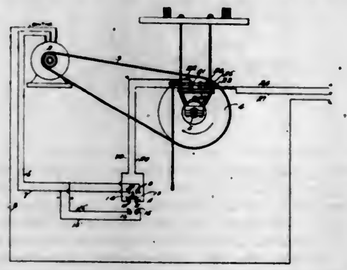
2. An invertible glass drawing pot having a pot cavity whose bottom wall is inclined downwardly in all directions from its center and also in all directions from the base of its outer wall, the inclined surfaces of said bottom wall being without substantial curvature in the direction of their slope, substantially as described.

3. An invertible glass drawing pot having a pot cavity whose bottom wall is inclined downwardly in all directions from its center and also in all directions from the base of its outer wall, the two inclined surfaces meeting each other without curvature at an abrupt obtuse angle, substantially as described.

4. An invertible glass drawing pot having a pot cavity whose bottom wall is inclined downwardly in all directions from its center and also in all directions from the base of its outer wall, the inclined surfaces of said bottom wall being without substantial curvature in the direction of their slope, and the bottom of the pot being thinnest at the annular zone where the two inclined surfaces meet each other, substantially as described.

5. A reversible glass drawing pot, having two opposite pot cavities with a common bottom wall, each of said cavities having its bottom wall inclined downwardly in all directions from the center and also inclined downwardly in all directions from the sides, the inclined surfaces being substantially free from curvature in the direction of their slope, substantially as described.

1,207,660. AUTOMATIC SAFETY-STOP FOR LINE-SHAFTS. CASWELL D. SWETT, Redwood City, Cal. Filed June 6, 1914. Serial No. 843,466. (Cl. 172—239.)



1. The combination of an electric motor, a motor circuit, a shaft operated from the motor, means for reversing the motor torque to hasten the stoppage of said shaft, a switch for controlling the normal motor circuit, means for holding said switch in closed position and means for effecting the opening of said switch simultaneously with the initial reverse movement of said shaft.

2. The combination of an electric motor, a motor circuit, a shaft operated from the motor, means for reversing the motor torque to hasten the stoppage of said shaft, a self-opening switch for controlling the normal motor circuit, and means for retaining said switch in closed position and operated by the initial reverse movement of said shaft to permit the switch to open.

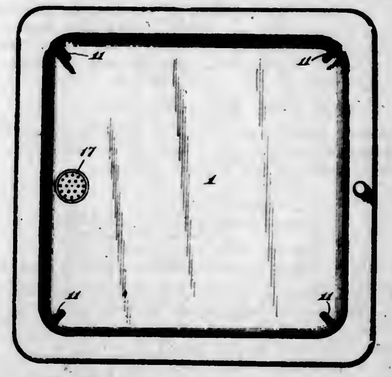
3. The combination of an electric motor, a motor circuit, a shaft operated from the motor, means for reversing the motor torque to hasten the stoppage of said shaft, a self-opening switch for controlling the motor circuit, and means for locking said switch in closed position and operated by the initial reverse movement of said shaft to permit the switch to open.

4. The combination of an electric motor, a shaft driven thereby, means for reversing the motor torque to hasten the stoppage of the shaft, a self-opening switch to control the motor circuit, a latch for holding said switch normally closed, and means carried by said shaft and operable on an initial reverse movement thereof to trip the latch and permit said switch to open.

5. A safety control apparatus for line-shafting driven by a motor, comprising in combination with the motor and the shaft, a main feed wire system connected to the motor, a switch interposed in the feed wire system for reversing the direction of rotation of said motor and through it the shafting, a main switch between which and the motor the reversing switch is interposed, means for automatically opening the main switch, and a device for locking the switch in closed position and controlled by he direction of rotation of the line-shaft for releasing the main switch so that the circuit to the motor is broken.

[Claims 6 to 10 not printed in the Gazette.]

1,207,661. SANITARY DRINKING-FOUNTAIN. ALFRED D. TAYLOR, Athol, Mass. Filed Mar. 25, 1916. Serial No. 86,629. (Cl. 137—109.)



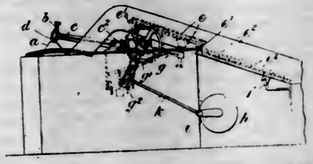
1. A drinking fountain comprising a basin, a supply pipe, branch pipes formed in said supply pipe, discharge nozzles mounted on each of said branch pipes and disposed at remote points upon said basin, said nozzles being arranged to direct their respective streams of water to a common point above the basin to form a vertical stream, means for adjusting the nozzles to vary the inclination of the streams, and valves mounted in each of the branch pipes for controlling the flow of water independently of each other.

2. A drinking fountain comprising a basin, a supply pipe, a plurality of discharge nozzles mounted upon the supply pipe and arranged to direct their respective streams of water to a common point above the basin to

form a vertical stream, and means for adjusting the nozzles to vary the height of the vertical stream.

3. A drinking fountain comprising a basin, a supply pipe, branch pipes formed in said supply pipe, discharge nozzles mounted on each of said branch pipes and disposed at remote points upon said basin to direct their streams of water to a common point above the basin to form a vertical stream, means for adjusting the nozzles to vary the inclination of the stream, valves mounted in each of the branch pipes for controlling the flow of water independently of each other, and a valve within said supply pipe and controliable from the top of the basin.

1,207,662. METHOD OF MANIPULATING METAL ARTICLES. RICHARD BEAUMONT THOMAS, London, England, and HUBERT SPENCE THOMAS, Llandaff, and WILLIAM ROBERT DAVIES, Whitchurch, Wales. Original application filed June 20, 1914, Serial No. 846,305. Divided and this application filed Mar. 7, 1916. Serial No. 82,754. (Cl. 113—113.)



1. The method of manipulating metal articles having conforming surfaces tending to be held together by suction when in contact, which consists in stacking said articles with separating means between said conforming surfaces so as to prevent suction between them, and moving said stacked articles in sequence.

2. The method of manipulating metal sheets which consists in stacking said sheets in separated relation so as to permit the entrance of air between them and moving said stacked plates in sequence by the application of suction to exposed faces thereof.

3. The method of manipulating metal sheets which consists in stacking said sheets with sand between them so as to prevent suction between adjacent sheets and moving said sheets in sequence by the application of suction to the exposed surfaces of the outer sheets.

1,207,663. GENERAL-UTILITY POWER-MACHINE. HJALMAR THOMASON, Los Angeles, Cal. Filed Dec. 20, 1915. Serial No. 67,930. (Cl. 21—90.)



1. Two vehicles each having traction wheels; the traction wheels of one being geared to lower speed than the traction wheels of the other; means connecting the vehicle frames together; a motor mounted on one of said vehicles; a worm shaft connected to and driven by the motor; means detachably connecting the worm shaft to drive the traction wheels of the vehicle on which said motor is mounted and means for detachably connecting said worm shaft with the traction wheels of the second vehicle.

2. A general utility power machine comprising a frame; traction wheels for said frame; a worm shaft; differential gearing; means to connect the worm shaft to drive the differential gearing; means to detachably connect the differential gearing with said traction wheels to alternately drive and free the same; means to apply power to one end of said worm shaft to rotate the same; power transmission means; and means to detachably connect the other end of said shaft to said power transmission means, whereby, when said traction wheels are free from the differential gearing, said traction wheels simply serve as a support for the worm shaft and the power may be transmitted to operate other machinery.

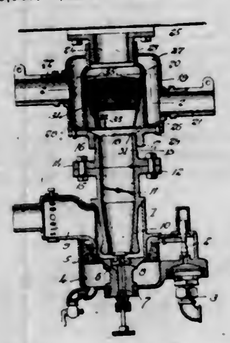
3. A general utility machine comprising a wheel carried frame, said frame having a traction wheel; a shaft; differential gearing; means to connect the shaft with the differential gearing to drive the same; means for detachably conflecting the differential gearing with said traction wheel to alternately drive and free the same; a motor on said frame; means to apply power from the motor to one end of said shaft to rotate the same; power transmission means and means to detachably connect the other end of said shaft to said transmission means, whereby, when said traction wheel is disconnected from the differential gearing said traction wheel simply serves as a support for the shaft, and power may be applied through said transmission means from said shaft to operate other machinery.

4. A general utility machine comprising a wheel carried frame having traction wheels; a worm drive shaft; means to detachably connect the force of the shaft through a differential with said traction wheels to drive and to free the same; transmission means; means to apply power to one end of said shaft to rotate the same; and means to detachably connect the other end of said shaft to said transmission means, whereby, when one of said traction wheels is disconnected from the differential gearing said traction wheels simply serve as a support for the shaft.

5. A general utility machine comprising a frame; a motor on the frame; traction wheels for said frame; a worm shaft; means to connect the motor with the shaft; means for detachably connecting the shaft with the traction wheels to alternately drive and to free the same; transmission means; means to apply power to one end of said shaft to rotate the same; and means to detachably connect the other end of said shaft to said transmission means; whereby, when said traction wheels are disconnected from the shaft, said traction wheels simply serve as a support for the shaft, and power from the motor may be transmitted through the shaft to said power transmitting means to drive other machinery.

[Claims 6 to 9 not printed in the Gazette.]

1,207,664. GASEOUS HEATER. FRED W. THURSTON, San Francisco, Cal., assignor, by mesne assignments, to Thurston Motor Fuel Gasifier Company of California, a Corporation of California. Filed Sept. 3, 1914. Serial No. 860,030. (Cl. 257—241.)



1. In a fuel heater for explosive engines, a chamber through which the fuel passes to the engine, a heating surface therein, longitudinally disposed imperforate deflecting means extending obliquely toward the said heating surface in the direction of flow of the fuel current to positively maintain the fuel in proximity to the heated surface for a substantial distance and a foraminous surface extending obliquely from the outer portion of said imperforate deflecting means into proximity to the heating surface.

2. In a fuel heater for explosive engines, a chamber through which the fuel passes to the engine, a heating surface therein, a deflecting plate disposed substantially transversely to the direction of flow of the fuel through the chamber, longitudinally disposed imperforate deflecting means extending obliquely from adjacent the outer portion of the deflecting plate toward the said heating surface in the direction of flow of the fuel current to positively maintain the fuel in proximity to the heating surface and a foraminous surface extending obliquely from the outer portion of said imperforate deflecting means into proximity to the heating surface.

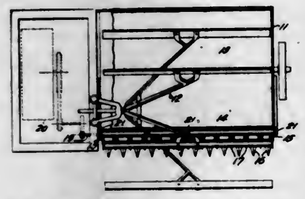
3. In a fuel heater for explosive engines, a substantially cylindrical chamber through which the fuel passes to the engine, means to heat the walls of such chamber, a frusto-conical imperforate plate disposed longitudinally of the chamber and extending obliquely outwardly in the direction of flow of the fuel current and a foraminous continuation of such deflecting plate extending therefrom to close proximity to the heated walls of the cylindrical chamber.

4. In a fuel heater for explosive engines, a substantially cylindrical chamber through which the fuel passes to the engine, means to heat the walls of such chamber, an imperforate deflecting plate disposed substantially transversely to the direction of flow of the fuel through the chamber, a frusto-conical imperforate deflecting plate disposed longitudinally of the chamber and extending obliquely outwardly in the direction of the flow of the fuel from the outer portion of the transversely disposed deflecting plate and a foraminous continuation of such obliquely disposed deflecting plate extending from the outer portion of such plate to close proximity to the walls of the cylindrical chamber.

5. In a heater for previously carbureted fuel for explosive engines, the combination with a primary heating surface arranged at an angle to the direction of flow of the gaseous fuel for initial engagement by the latter to heat said fuel and partially gasify and break up the beads or particles carried thereby, means for directly applying heat to said primary surface, and a fine screen disposed in such close relation to said primary heating surface as to be heated to substantially the temperature of the latter and arranged at such an angle to the direction of flow of fuel leaving said primary heating surface that fuel particles or beads will strike against said screen and be broken up before passing through said screen, and means for delivering a partially gasified or carbureted fuel to said heater, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,207,665. FLAX-HARVESTING MACHINE. THOMAS H. TOMBELL, Montreal, Quebec, Canada. Filed Apr. 18, 1914. Serial No. 832,989. (Cl. 56—17.)



1. In a harvesting machine, the combination with a table of a main roll at the front edge parallel thereto, a plurality of short spaced rolls in yielding engagement with said first roll and parallel thereto, and means for directing stalks to be pulled into the spaces between the short rolls and between the short rolls and the long roll.

2. In a harvesting machine, the combination with a table, of a roll at the front edge thereof extending from side to side of the table, a plurality of short spaced rolls above and in advance of said long roll, means for directing stalks to be pulled into the space between said short rolls, and means for directing stalks from the space between the short rolls between the short and long rolls.

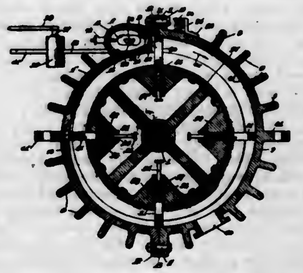
3. In a harvesting machine, the combination with a table of a roll at the front edge extending from side to side thereof, a plurality of short spaced rolls mounted in advance of said long roll, means for directing stalks to be pulled between the short and long rolls, and a resilient mounting for the short rolls holding the same toward the long roll, whereby stalks will be gripped between the short and long rolls and uprooted.

4. In a harvesting machine, the combination with a table of a roll at the front edge thereof extending from side to side, a plurality of short spaced rolls in advance of said long roll, brackets extending forwardly from the table under said short rolls, levers pivoted to the brackets and supporting said short rolls, springs holding the short and long rolls in frictional engagement, plow shaped stalk guides carried by said brackets in advance of the short rolls, smaller brackets projecting forwardly from the table between and below the short rolls, and further plow shaped guides carried by said brackets.

5. In a harvesting machine, the combination with a table of a long roll at the front edge thereof, a plurality of short rolls in advance of said long roll, brackets projecting forwardly from the table, supporting means for said short rolls mounted on the brackets, adjustable levers mounted on the brackets, plow shaped guides mounted on said adjustable levers in advance of the short rolls, said guides extending at their rear ends from side to side of the short rolls, further brackets projecting from the table between and below the short rolls, and secondary plow shaped guides mounted on said brackets having at the rear laterally extending wings adapted to direct grain stalks between the short and long rolls.

[Claims 6 to 9 not printed in the Gazette.]

1,207,666. ROTARY INTERNAL-COMBUSTION ENGINE. WILLIS M. TOMPKINS, Lonoak, Cal. Filed Nov. 14, 1913. Serial No. 801,078. (Cl. 123—16.)



1. In a rotary internal combustion engine, a casing, a power shaft extending therethrough, said casing provided with a spiral recess formed therein, said recess having its origin at a definite point within said casing and gradually increasing in size radially and in a direction opposite that of rotation until it terminates abruptly in a shoulder, a projection formed upon said casing adjacent said shoulder, said projection provided with a recess formed therein, said recess communicating with said first named recess by means of an opening extending through said casing, a flap valve forming a closure for said opening, an inlet port for the gas or fuel by which the engine is operated communicating with said second named recess, an inlet valve for said port, a second shaft paralleling said power shaft, cams mounted upon said second shaft and pivoted means interposed in the path of said cams for operating said valves.

2. In a rotary internal combustion engine, a casing, a power shaft extending through said casing, a rotary piston mounted upon said shaft and disposed within said casing, a plurality of spring-pressed plungers carried by

said piston, said casing provided with a spiral recess formed therein having its origin at a definite point upon the casing and gradually increases in size radially and in a direction opposite that of rotation until it terminates abruptly in a shoulder, a projection formed upon said casing adjacent said shoulder, said projection provided with a recess formed therein, said recess communicating with said first-named recess by means of an opening extending through said casing, a flap valve forming a closure for said opening, an inlet port for the gas or fuel by which the engine is operated communicating with said second named recess, an inlet valve for said port, a second shaft paralleling said power shaft, driving connections between said shafts, and cam means carried by said second shaft to operate said valves.

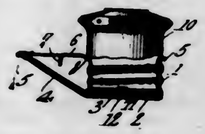
3. In a rotary internal combustion engine, a casing, a power shaft extending through said casing, a rotary piston mounted upon said shaft and disposed within said casing, a plurality of spring-pressed plungers carried by said piston, said casing provided with a spiral recess formed therein which begins at a definite point of origin upon the casing and gradually increases in size radially and in a direction opposite that of rotation until it terminates abruptly in a shoulder, a projection formed upon said casing adjacent said shoulder, said projection provided with a recess formed therein, said recess communicating with said first-named recess by means of an opening extending through said casing, a flap valve forming a closure for said opening, an inlet port for the gas or fuel by which the engine is operated communicating with said second named recess, an inlet valve for said port, a second shaft paralleling said power shaft, driving connections between said shafts, cam means carried by said second shaft to operate said valves through a pivoted member, and means for regulating the inflow of gas into said second named recess.

4. In a rotary internal combustion engine, a casing, a power shaft extending through said casing, a rotary piston mounted upon said shaft and disposed within said casing, a plurality of spring-pressed plungers carried by said piston, said casing provided with a spiral recess formed therein which begins at a definite point of origin upon the casing and gradually increases in size radially and in a direction opposite that of rotation until it terminates abruptly in a shoulder, a projection formed upon said casing adjacent said shoulder, said projection provided with a recess formed therein, said recess communicating with said first named recess by means of an opening extending through said casing, a flap valve forming a closure for said opening, an inlet port for the gas or fuel by which the engine is operated communicating with said second named recess, an inlet valve for said port, a shaft paralleling said power shaft, driving connections between said shafts, a pivoted member contacting with said valve, and cam means carried by said second shaft to alternately contact with said pivoted member in regulating the number of movements of said valve to one revolution of said piston.

5. In a rotary internal combustion engine, a casing, a power shaft extending through said casing, a rotary piston mounted upon said shaft and disposed within said casing, a plurality of spring-pressed plungers carried by said piston, said casing provided with a spiral recess formed therein which begins at a definite point of origin upon the casing and gradually increases in size radially and in a direction opposite that of rotation until it terminates abruptly in a shoulder, a projection formed upon said casing adjacent said shoulder, said projection provided with a recess formed therein, said recess communicating with said first named recess by means of an opening extending through said casing, a flap valve forming a closure for said opening, an inlet port for the gas or fuel by which the engine is operated communicating with said second named recess, an inlet for said port, a second shaft paralleling said power shaft, a pivoted member therebetween and in contact with said valve, and double cam means oppositely positioned on said second shaft to determine alternately the fixed number of movements of said valve for each revolution of said piston according to a desired number of explosions and change in power of the engine.

[Claims 6 to 9 not printed in the Gazette.]

1,207,667. POURING-NOZZLE. RICHARD TRETHAWAY, Parsons, Pa. Filed July 10, 1912. Serial No. 708,745. (Cl. 221—22.)



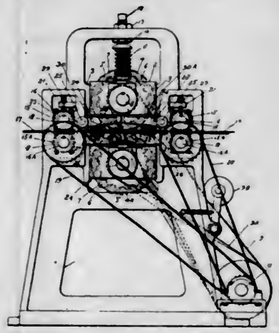
1. A pouring nozzle including a plug engaging socket and a spout both stamped in a single piece of metal, said spout extending outwardly from the socket, the continuity of the wall of the socket being interrupted throughout the height of the wall by the space at the inner end of the spout.

2. A pouring nozzle including a plug engaging socket and a spout both stamped in a single piece of metal, said spout extending outwardly from the socket, the continuity of the wall of the socket being interrupted throughout the height of the wall by the space at the inner end of the spout, and a tie device bridging the inner end of the spout.

3. A pouring nozzle including a plug engaging socket and a spout both stamped in a single piece of metal, said spout extending outwardly from the socket, the continuity of the wall of the socket being interrupted throughout the height of the wall by the space at the inner end of the spout, and a tie device bridging the inner end of the spout, said tie device having means projecting into the spout for holding the walls of the spout spaced apart.

4. A pouring nozzle including an interiorly threaded socket and a spout extending from the socket and intersecting the threads, said spout and socket being stamped in a single piece of metal, and means formed from a separate piece bridging the spout adjacent the socket for holding the walls of the spout against movement toward or from each other.

1,207,668. MACHINE FOR SEPARATING METAL SHEETS. SAMUEL TROOD, New Castle, Pa., assignor to The Industrial Development Company, New Castle, Pa., a Corporation of Pennsylvania. Filed July 18, 1914. Serial No. 851,797. (Cl. 29—17.)



1. A machine for separating metal sheets, comprising a frame, resilient hammer members supported thereon, guides, and connecting members for transmitting the motion of the guides to the hammer members.

2. A machine for separating metal sheets containing a frame, a resilient hammer member supported thereby, and an automatic device for adjusting the position of the hammer member.

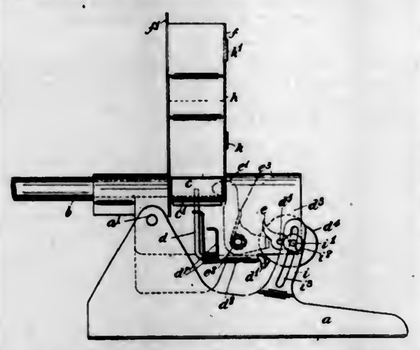
3. A machine for separating metal sheets, comprising a resilient hammer member, a support for said resilient hammer member, and an automatic spacing device arranged to regulate the force of the blow of the said hammer member.

4. A machine for separating metal sheets, comprising a frame, supporting a resilient hammer member, driving members for moving the sheets in contact with the hammer member and guides for automatically adjusting the position of the hammer member.

5. A machine for separating metal sheets, comprising a resilient hammer member, a frame, a support for the sheets to be separated, and an adjustment for controlling the distance between said support and said hammer member.

[Claims 6 to 8 not printed in the Gazette.]

1,207,669. TOY MACHINE-GUN. JAMES LEWIS TROUBRIDGE, London, England. Filed Apr. 5, 1916. Serial No. 89,026. (Cl. 124—13.)



1. A toy machine-gun comprising in combination a barrel, a magazine positioned adjacent the breech of the barrel and having a plurality of channels adapted to receive missiles in single file, a missile-carrier reciprocatable transversely to the axis of the barrel adapted to receive missiles from the magazine channels in turn and convey them in turn to the breech of the barrel, means for reciprocating said carrier, and means for discharging the missiles through the barrel when brought into the breech position by the carrier aforesaid.

2. A toy machine-gun comprising in combination a barrel, a magazine positioned adjacent the breech of the barrel having a plurality of channels whose discharge apertures approximately correspond in width to the diameter of the missiles, a missile-carrier reciprocatable transversely to the axis of the barrel, having grooves adapted to receive missiles from the magazine channels in turn and convey said missiles in turn to the breech of the barrel, means for reciprocating said carrier, a spring-loaded striker adapted to project the missiles through the barrel, and means for operating said striker in timed relation with the movement of the missile carrier.

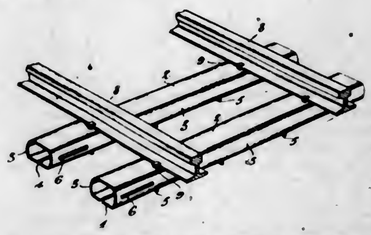
3. A toy machine-gun comprising in combination a base, a barrel supported thereby, a magazine positioned adjacent the breech of the barrel and having a plurality of channels whose discharge apertures approximately correspond in width to the diameter of the missiles, a missile-carrier reciprocatable transversely to the axis of the barrel having grooves adapted to receive missiles from the magazine channels in turn and convey them in turn to the breech of the barrel, a cam for reciprocating said carrier, a spring-loaded striker adapted to project the missiles through the barrel, a multiple tappet for operating said striker in timed relation with the movement of the missile-carrier and means for manually actuating said cam and multiple tappet.

4. A toy machine-gun comprising in combination a barrel, a magazine positioned adjacent the breech of the barrel and having an upper portion constituting a hopper of considerable capacity the lateral walls of said magazine being each sloped at two angles, the lowermost portion of considerably greater inclination than that preceding it, said lower portions being formed into a plurality of channels whose discharge aperture approximately corresponds in width to the diameter of the missiles, a missile-carrier reciprocatable transversely to the axis of the barrel adapted to receive missiles from the magazine channels in turn and convey them in turn to the breech of the barrel, means for reciprocating said carrier, and means for discharging the missiles through the barrel when brought into the breech position by the carrier aforesaid.

5. A toy machine-gun comprising in combination a base, a barrel supported thereby, a magazine positioned adjacent the breech of the barrel and having an upper portion constituting a hopper of considerable capacity the lateral walls of said magazine being each sloped at two angles, the lowermost portion of considerably greater inclination than that preceding it, the lower portions being formed into a plurality of channels whose discharge aperture approximately corresponds in width to the diameter of the missiles, a rear wall for the magazine formed of a transparent or translucent material, a missile-carrier reciprocatable transversely to the axis of the barrel having grooves adapted to receive missiles from the magazine channels in turn and convey them in turn to the breech of the barrel, means for reciprocating said carrier, a spring-loaded striker adapted to project the missiles through the barrel, and means for operating said striker in timed relation with the movement of the missile-carrier.

[Claim 6 not printed in the Gazette.]

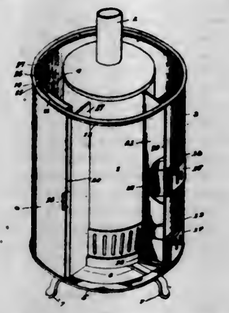
1,207,670. RAILWAY-TIE. RUDOLPH J. UPDIKE, Strasburg, Va. Filed Apr. 28, 1916. Serial No. 94,172. (Cl. 238—5.)



1. A railway tie formed from a sheet of resilient metal having its sides bulged outwardly, its corners rounded, and its meeting edges disposed centrally of its base, angular cleats arranged transversely of the tie and connecting the meeting edges thereof, blocks loosely positioned in the tie, means for securing rails upon the tie, said means adapted to retain the blocks in the tie, and the sides of the ties being slotted at its ends in a line with the sides of the blocks, as and for the purpose set forth.

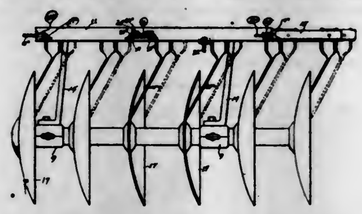
2. A railway tie formed from a sheet of resilient metal having its sides bulged outwardly and its meeting edges disposed centrally of its base, angular cleats arranged transversely of the tie and secured thereto for connecting the meeting edges of the tie, blocks loosely positioned in the tie adjacent the ends thereof, each of said blocks having a central opening, a spring disposed in each of the openings and exerting a tension between the top and bottom of the tie, said blocks adapted to receive the rail securing spikes which are passed through the top of the ties when the rails are arranged on the tie.

1,207,671. HEATER. WILLIAM HANDLEY VAN VICKLE, Craig, Mo. Filed Feb. 25, 1916. Serial No. 80,495. (Cl. 126—67.)



A stove or furnace, a shield around the same and spaced therefrom and having an opening in one side to expose a portion of the stove or furnace, a partition wall at one side of said opening and extending from the shield to the stove or furnace and a door to close saaid opening, slidably mounted, and provided also with a partition wall extending inwardly to the stove or furnace to close the space between said door and the stove or furnace.

1,207,672. DISK HARROW. FREDERICK C. WARNE, Mansfield, Ohio, assignor to Roderick Lean Manufacturing Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Mar. 3, 1915. Serial No. 11,661. (Cl. 97—80.)



1. In a disk harrow, the combination with a disk frame and gang, and a spring resisted longitudinally and circumferentially movable scraper carrying bar mounted thereon; of means for circumferentially moving said scraper carrying bar, and a combined tension spring and shifting lever for longitudinally moving adjusting and locking said scraper carrying bar.

2. In a disk harrow, the combination with a disk frame and gang, and a spring resisted longitudinally and circumferentially movable scraper carrying bar carried by said frame; of means for circumferentially moving and means for circumferentially adjusting said scraper carrying bar, and a tension spring and shifting lever for longitudinally moving and adjusting said scraper carrying bar independently of said circumferentially moving and adjusting means.

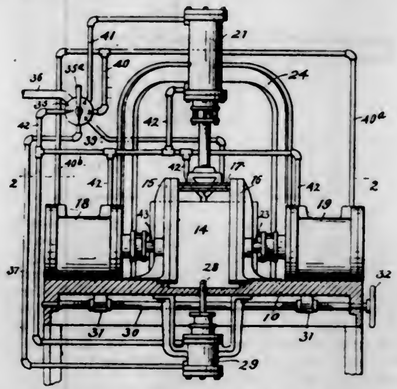
3. In a disk harrow, disk gangs and frames therefor, scraper bars circumferentially and longitudinally movable on said disk gang frames and provided with depending scraper blades at the concaved sides of the disks of said disk gangs, combined tension springs and levers carried by said scraper bars, said levers being longitudinally movable whereby said scraper blades may be thrown into and out of contact with said disks, means on said disk frames for securing said levers in their respective shifted positions, and means for circumferentially moving said scraper bars against the resistance of said combined tension springs and levers whereby said scraper blades may be moved toward and from the peripheries of said disks.

4. In a disk harrow, the combination of a disk frame and disk gang, said disk frame being provided with bearing clips, scrapers for the disks of said disk gang, a scraper carrying bar provided with pintles movable in said bearing clips, yielding means tending to hold said scrapers in contact with said disks, means for locking said scrapers in adjusted position relative to the peripheries of said disks, means for moving said scrapers toward and from the peripheries of said disks, and a lever by a stroke of which in one direction said scrapers are adapted to be moved laterally and locked out of contact with said disks against the action of said yielding means and by a stroke of which in the other direction the scrapers are adapted to be returned to operative position and held by said yielding means but free to be moved circumferentially.

5. In a disk harrow, disk gangs and frames therefor, scraper bars circumferentially and longitudinally movable on said frames and provided with depending scraper blades at the concaved sides of the disks of said disk gangs, means for circumferentially moving and adjusting said scraper bars whereby said scraper blades may be moved and adjusted along said disks relative to the peripheries thereof, and combined spring and lever mechanism for moving and locking said scraper bars longitudinally whereby to move said scraper blades laterally into and out of contact with said disks and for resiliently resisting the circumferential movements of said scraper bars through said circumferentially moving and adjusting means.

[Claims 6 to 9 not printed in the Gazette.]

1,207,673. MACHINE FOR MAKING STORAGE-BATTERY JARS AND THE LIKE. THEODORE A. WILLARD, Cleveland, Ohio. Filed Jan. 13, 1916. Serial No. 71,823. (Cl. 18—19.)



1. In a machine of the character described, a plurality of rams adapted to compress material on the faces of the mandrel, one of said rams having a forwardly projecting tongue adapted to form a base for the mandrel.

2. In a machine of the character described, a plurality of power operated rams and a manually movable ram adapted to compress material against the faces of a mandrel when supported between the rams, the manually movable ram having a mandrel supporting portion.

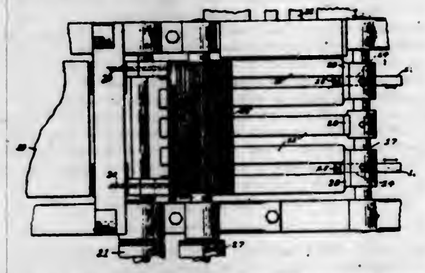
3. In a machine of the character described, a plurality of power operated rams and a manually movable ram adapted to compress material against the faces of a mandrel when supported between the rams, the manually movable ram having a mandrel supporting portion, and means for locking and unlocking the manually movable ram in operative position for compression.

4. In a machine of the character described, a plurality of rams adapted to compress material against the faces of a mandrel, power operated means for shifting the rams, and means for adjusting the normal positions of said power operative means.

5. In a machine of the character described, a bed, a plurality of rams adapted to compress material against the faces of a mandrel and movable toward and from the mandrel, fluid pressure motive means for operating part or all of the rams and including cylinders supported by the bed and adapted to be supplied with motive fluid, said cylinders being normally stationary and capable of adjustment toward and from the faces of the mandrel.

[Claims 6 to 22 not printed in the Gazette.]

1,207,674. MACHINE FOR MAKING STEREOTYPE PRINTING-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Aug 11, 1910. Serial No. 576,721. (Cl. 90—11.)



1. In a machine for finishing stereotype printing plates, the combination with a support and a shaving device located in position to shave the plate as it is moved on the support, of a set of pushers arranged to move transversely to remove the plate from the support in a line at right angles to its direction of motion past the rotary shaving device.

2. In a machine for finishing stereotype printing plates, the combination of a rotary shaving device in position to shave one side of a plate while it is being moved along in a plane, and reciprocable spring-pressed hooks for engaging the other side of the plate near its forward edge and drawing it past said shaving device.

3. In a machine for finishing stereotype printing plates, the combination of means for supporting a wide thin stereotype plate in the position in which it is discharged from a holding means, edge beveling saws located at the receiving side of said supporting means, a rotary shaving device located above said supporting means in position to shave the plate as it is moved thereon, and means located beyond the shaving device adapted to extend under the shaving device for engaging the plate and drawing it under the shaving device.

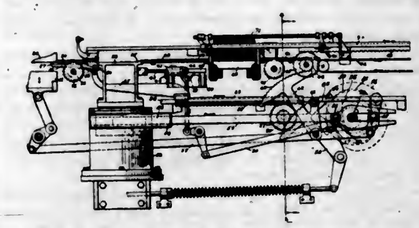
4. In a machine for finishing stereotype printing plates, the combination with a support and a rotary shaving device located above said support in position to shave the plate as it is moved on the support, of means at one side of said support on a level therewith for moving the plate laterally from said support.

5. In a machine for finishing stereotype printing plates, the combination with a support and a rotary shaving device located above said support in position to shave the plate as it is moved thereon, of a set of pushers arranged to move transversely over said support to remove the plate therefrom in a line at right angles to its direction of motion under the rotary shaving device, and means at the side of said support for receiving the plate.

[Claim 6 not printed in the Gazette.]

1,207,675. MACHINE FOR FINISHING STEREOTYPE PRINTING-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne asiguments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Aug. 11, 1910. Serial No. 576,723. (Cl. 29—21.)

1. In a machine of the character described, the combination with means for moving stereotype printing plates, of two sets of trimming cutters arranged substantially in alinement with each other and with the moving means, and means for feeding the plates substantially in a straight line from the moving means to the two sets of trimming cutters and presenting different edges of the plates to the two sets of cutters.



2. In a machine of the character described, the combination, of two sets of trimming cutters arranged substantially in alinement with each other and with a plate support, a shaving device between the two sets of trimming cutters, and means for feeding the plates substantially in a straight line to the two sets of trimming cutters.

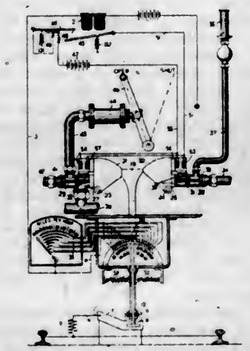
3. In a machine of the character described, the combination with a plate support, of a trimming device, a shaving device arranged between the plate support and the trimming device, and means for feeding plates in substantially a straight line, through the shaving device to the trimming device.

4. In a machine of the character described, the combination of means for feeding cast plates substantially in a straight line, means for trimming two edges of the plates, and means for thereafter trimming the other two edges while they travel along.

5. In a machine of the character described, the combination of means for moving cast plates, means for trimming two opposite edges of the plates, means for giving each plate substantially a quarter turn, and means for thereafter trimming the other two edges.

[Claims 6 to 38 not printed in the Gazette.]

1,207,676. RAILWAY SAFE-RUNNING DEVICE. ARTHUR REGINALD ANGUS, Minehead, England. Filed July 15, 1913. Serial No. 779,081. (Cl. 246—58.)



1. Railway safe-running apparatus comprising a speed-selecting device located on a train, a track device located on the track and adapted to give the aforesaid device a displacement corresponding to a predetermined maximum speed or a displacement corresponding to an unlimited speed according to the adjustment of a movable part of said track device, means located on said train and adapted to change its position according to the speed of said

train and adapted, when said speed-selecting device is given the first mentioned displacement by the said track device, to cause the production of a danger indication on said train when said means is in a position corresponding to a speed exceeding said maximum speed, and means located on said train and adapted, when said speed-selecting device is given the second mentioned displacement by said track device, to prevent the production of said danger indication.

2. Railway safe-running apparatus comprising a speed-selecting device located on a train and a track device located on the track and adapted to give the aforesaid device a displacement corresponding to one speed when said train is traveling in one direction past said track device and a displacement corresponding to another speed when said train is traveling in the opposite direction past said track device.

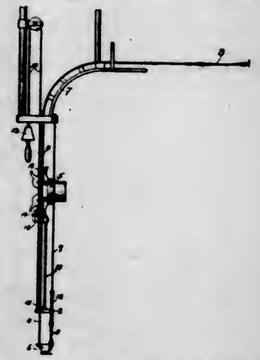
3. Railway safe-running apparatus comprising a speed-selecting device located on a train, a track device located on the track and adapted to give the aforesaid device a displacement corresponding to a predetermined maximum speed when said train is traveling in one direction past said track device and a displacement corresponding to an unlimited speed when said train is traveling in the opposite direction past said track device, means located on said train and adapted to change its position according to the speed of said train and adapted, when said speed-selecting device is given by said track device said displacement corresponding to said predetermined maximum speed, to cause the production of a danger indication on said train when said means is in a position corresponding to a speed exceeding said maximum speed, and means located on said train and adapted, when said speed-selecting device is given said displacement corresponding to an unlimited speed, to prevent the production of the danger indication.

4. Railway safe-running apparatus comprising an indicating device located on a train, a restraining device located on said train and adapted normally to prevent the operation of said indicating device, two restraint-removing devices located on the track and adapted to displace said restraining device so as to cause it to lose its restraining influence on said indicating device, a speed-selecting device located on said train, a speed-determining track device located on said track and adapted to give said speed-selecting device a displacement corresponding to a predetermined maximum speed when said train is at one of said restraint-removing devices, speed-responsive means located on said train and adapted to change its position according to the speed of said train and adapted, when said speed-selecting device is given said displacement by said speed-determining track device, to prevent the operation of said indicating device when said means is in a position corresponding to a speed not exceeding said maximum speed, a special speed-determining track device adapted to give said speed-selecting device a displacement corresponding to an unlimited speed when said train is at the other of said restraint-removing devices, means adapted, when said speed-selecting device is given said displacement by said special speed-determining track device, to prevent the operation of said indicating device, and means partly on said train and partly on said track for enabling a signalman to allow the operation of said indicating device if, when said train is at said special speed-determining track device, said speed-responsive means is in a position corresponding to a speed exceeding a predetermined limit.

5. Railway safe-running apparatus comprising an indicating device located on a train, a restraining device located on said train and adapted normally to prevent the operation of said indicating device, two restraint-removing devices located on the track and adapted to displace said restraining device so as to cause it to lose its restraining influence on said indicating device, an electromagnetic system located on said train and adapted, when energized, to restrain the operation of said indicating device, a speed-selecting device located on said train, a speed-determining track device located on said track and adapted to give said speed-selecting device a displacement corresponding to a predetermined maximum speed when said train is at one of said restraint-removing devices, speed-responsive means located on said train and adapted to change its position according to the speed of said train and adapted, when said speed-selecting device is given said displacement by said speed-determining track device, to close an electrical circuit of said electromagnetic system when said means is in a position corresponding to a speed not exceeding said maximum speed, a special speed-determining track device adapted to give said speed-selecting device a displacement corresponding to an unlimited speed when said train is at the other of said restraint-removing devices, circuit-closing means adapted, when said speed-selecting device is given said displacement by said special speed-determining track device, to close an electrical circuit of said electromagnetic system, and means partly on said train and partly on said track for enabling a signalman to prevent the aforesaid closing by said circuit-closing means of a circuit of said electromagnetic system and to permit an electrical circuit of said electromagnetic system to be closed by said speed-responsive means when said speed-selecting device is given said displacement by said special speed-determining track device if said speed-responsive means is in a position corresponding to a speed not exceeding a predetermined limit.

[Claims 6 to 8 not printed in the Gazette.]

1,207,677. TRAVELING AND ELEVATING PARCEL-CARRIER. JAMES L. BALDWIN, Chicago, Ill. Filed Sept. 3, 1914. Serial No. 860,102. (Cl. 186—8.)



1. In a device of the class described, a track comprising a horizontal section, a vertical section at one end of and below the horizontal section, and a curved section connecting said horizontal section and said vertical section, a car to travel on said track, a thrower for the car guided to move parallel to the track, a pull cord to operate said thrower and push the car upward and around said curved section of track and a hook on the thrower arranged to be locked to the car when the car is on the vertical section.

2. In a device of the class described, a track comprising a horizontal section, a vertical section and a curved section connecting the horizontal section with the vertical section, a car to travel on said track a thrower for the car mounted to travel on said track, a pull cord to operate said thrower and push the car upward and around said curved section of track and a hook on the thrower arranged to be locked to the car when the car is on the vertical section of track.

3. In a device of the class described, a track comprising a horizontal section, a vertical section and a curved section connecting said horizontal section to the vertical section, a car to travel on said track, a thrower for the car mounted to slide on said track, a guide for the thrower parallel to the track to retain the thrower in proper position, a pull cord to operate the thrower and push the car upward and around the curved section of track and a means on the thrower arranged to lock the thrower to the car when the car is on the vertical section of track.

4. In a device of the class described, two straight sections of track arranged at an angle to one another, a curved section connecting said two straight sections, a car to travel on said track, a thrower for said car, means to operate the thrower and push the car along one straight section and around the curved section and a hook on the thrower arranged to be locked to the car when the car is on the straight section and unlocked from the car when the car has been pushed around the curved section of track.

5. In a device of the class described, a track comprising a horizontal section, a vertical section at one end of and below the horizontal section, and a curved section connecting said horizontal section and said vertical section, a car to travel on said track, a thrower for the car guided to move parallel to said vertical section, a pull cord to operate said thrower, an extension rod on said thrower to engage said car and push the same upward and around said curved section of track and an integral hook on the upper end of said extension rod arranged to be locked to the car when the car is on the vertical section of track and unlocked from the car when the car is on the horizontal section of track.

1,207,678. TONE-REFLECTOR FOR MUSICAL INSTRUMENTS. JOHN A. BOLANDER, San Francisco, Cal. Filed Dec. 2, 1912. Serial No. 734,487. (Cl. 84—44.)



1. In combination with the back end of a violin and the tail-piece thereof, a forwardly projecting and expanding removable sound reflector covering said back end and tail-piece.

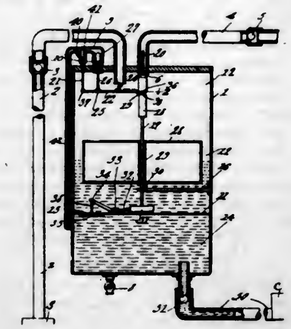
2. In combination with a violin, a sound reflector comprising upper and lower curved plates of reflecting material, removably fitted over the back end of the violin and gradually projecting and expanding forwardly, and a flexible surrounding side member, securing said plates.

3. A sound reflector for violins, comprising an upper and lower forwardly projecting and expanding plate, and a flexible member adapted to secure said plates around the surrounding edges of the back portion of said musical instrument.

4. A sound reflector for a musical instrument, comprising an upper and lower plate covering the back end of said instrument and forwardly projecting and expanding therefrom, said lower plate being longer than said upper plate, and a flexible side member for securing the edges of said plates together around the surrounding back edges of said musical instrument.

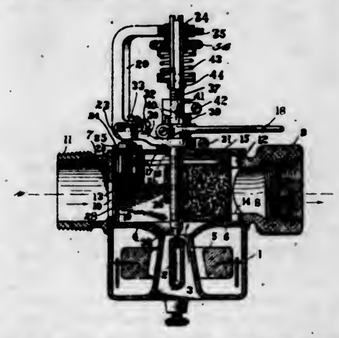
1,207,679. SUPPLY-RESERVOIR. AARON F. BOYLAN, Denison, Iowa. Filed Apr. 6, 1915. Serial No. 19,585. (Cl. 158—36.)

In a device of the class described, a tank; a partition extended entirely across the tank and having an opening; a lower outlet pipe entering the bottom of the tank; a check valve in the lower outlet pipe and closing toward the tank; a supply pipe entering the top of the tank; a check valve in the supply pipe and opening toward the tank; an upper outlet pipe entering the top of the tank; a check valve in the upper outlet pipe and closing toward the tank; a fourth pipe opening at its lower end into the side wall of the tank below the partition and provided at its upper end with a depending seat opening through the top of the tank and communicating with the tank above the partition, the fourth pipe having a depending air inlet; a gravity check valve controlling the inlet; a lever fulcrumed intermediate its ends on the partition and provided at its inner end with a counterweight; a valve constituting a closure for the opening in the partition and engaging the lower face of the partition, to limit the upward movement of the valve under the action of the counterweight; a lost motion connection between the outer end of the lever and the valve; a bracket projecting from the side wall of the tank above the partition; a stem slidable in the bracket and resting at its lower end on the counterweight, the stem being provided at its upper end



with a valve coöperating with the upper outlet pipe and responsive to suction therein; a second lever located within the tank above the partition; a tank carried fulcrum for the outer end of the second lever, the inner end of the second lever being loosely assembled with the stem; a valve coöperating with the seat of the fourth pipe; a connection between the last specified valve and the intermediate portion of the second lever; a float in the tank above the partition and slidably mounted on the stem; and a support for the float mounted on the stem above the bracket.

1,207,680. CARBURETER. ERNEST N. BRODERICK, Detroit, Mich., assignor to Detroit Carbureter Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 9, 1908, Serial No. 452,225. Renewed Mar. 1, 1916. Serial No. 81,549. (Cl. 261—45.)



1. In a carbureter, a vaporizing chamber having an air supply intake opening, an auxiliary air inlet and a mixture outlet, means controlling the auxiliary air inlet and mixture outlet, and means having an oblique lower edge adjustably supported on the casing independent of the controlling means for varying the auxiliary inlet.

2. In a carbureter, a vaporizing chamber having an air supply intake opening, an auxiliary air inlet and a mixture outlet, means controlling the auxiliary air inlet and mixture outlet, a gate for the auxiliary inlet movable independent of the controlling means for varying the aux-

iliary inlet and means for securing the gate in any of its adjusted positions independent of the controlling means.

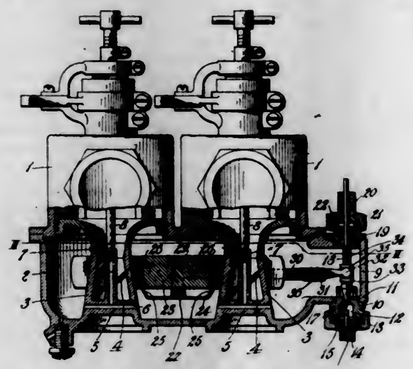
3. In a carbureter, a vaporizing chamber having an air supply intake opening, an auxiliary rectangular inlet and a mixture outlet, a gate reciprocable across the inlet and having an oblique edge, an adjusting screw operating the gate, and a spring clamping plate engaging the screw.

4. In a carbureter, a vaporizing chamber having air supply and fuel intake openings, an auxiliary air inlet and a mixture outlet, a deflector adapted to direct air entering the inlet past the fuel intake opening, a gate for the auxiliary air inlet opening reciprocable across said opening, an adjusting screw rotatably secured in the chamber operating the gate, and a spring plate on the chamber engaging the screw.

5. In a carbureter, a vaporizing chamber having air supply and fuel intake openings, an auxiliary air inlet, a mixture outlet, a deflector adapted to direct air entering the inlet past the fuel intake opening, a gate for the auxiliary air inlet opening reciprocable across said opening, an adjusting screw rotatably secured in the chamber operating the gate, a spring plate on the chamber engaging the screw, and a foraminous distributing screen on the deflector between the mixture outlet and the intakes.

[Claims 6 to 16 not printed in the Gazette.]

1,207,681. CARBURETER. ERNEST N. BRODERICK, Detroit, Mich. Filed Oct. 29, 1912, Serial No. 728,469. Renewed Mar. 1, 1916. Serial No. 81,550. (Cl. 261—41.)



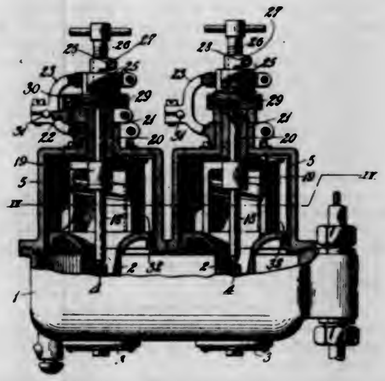
1. A multiple float feed carbureter comprising mixing chambers, a base supporting the chambers, a plurality of air tubes extending through the base each opening into a mixing chamber, spiral deflectors on the interior of each tube, a fuel nipple in each tube having a bore in communication with the interior of the base, a fuel inlet valve for the bore, a float conforming to the base, a fuel inlet valve for the base having a needle closure, a gimbal yoke pivoted on the base operatively connected to the closure, a gimbal plate pivoted to the yoke parallel to the axis of oscillation of the latter and swiveled to the float transversely to the axis of oscillation to the yoke, and manually operable means for regulating the float through the nipples.

2. A multiple float feed carbureter comprising a base, mixing chambers supported on the base, air tubes extending through the base each opening into a chamber, a float in the base substantially surrounding the air tubes, a lateral extension on the base, a bushing in the base of the extension having an annular valve seat above the level of the bottom of the base, a guide bushing in the upper part of the extension, a closure for the seat having a stem reciprocatable through the guide bushing, a safety block on the stem for checking the upward movement of the closure, and gimbal connections between the float and closure for operating the latter.

3. A multiple float feed carbureter comprising a base, mixing chambers supported on the base, air tubes extending through the base each opening into a chamber, a float in the base substantially surrounding the air tubes, a lateral extension on the base, a bushing in the base of the extension having an annular valve seat above the level of the bottom of the base, a guide bushing in the upper part of the extension, a closure for the seat having a stem reciprocable through the guide bushing, a safety block on the stem for checking the upward movement of the closure, gimbal connections between the float and closure for operating the latter, a transversely disposed pivot pin in the extension, a gimbal yoke fulcrumed on the pin and operatively connected at its outer end to the closure, and a gimbal plate having arms pivoted to the extremities of the yoke and transversely disposed arms pivoted to the float.

4. A multiple float feed carbureter comprising a base, mixing chambers supported on the base, air tubes extending through the base each opening into a chamber, a float in the base substantially surrounding the air tubes, a lateral extension on the base, a bushing in the base of the extension having an annular valve seat above the level of the bottom of the base, a guide bushing in the upper part of the extension, a closure for the seat having a stem reciprocable through the guide bushing, a safety block on the stem for checking the upward movement of the closure, gimbal connections between the float and closure for operating the latter, a transversely disposed pivot pin in the extension, a gimbal yoke fulcrumed on the pin and operatively connected at its outer end to the closure, a gimbal plate having arms pivoted to the extremities of the yoke and transversely disposed arms pivoted to the float, and spiral deflectors on the walls of the air tubes.

1,207,682. CARBURETER. ERNEST N. BRODERICK, Detroit, Mich. Filed Oct. 29, 1912, Serial No. 728,470. Renewed Mar. 1, 1916. Serial No. 81,551. (Cl. 261—41.)



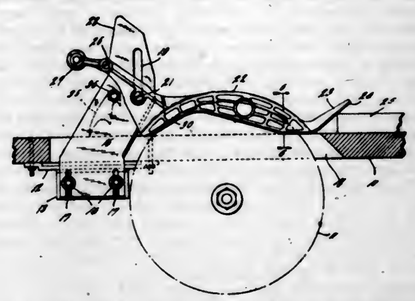
1. In a multiple float feed carbureter having a common fuel supply chamber provided with air inlet tubes therethrough and a fuel inlet nozzle in each tube with a casing on the base having mixing chambers each in communication through its lower end with an air tube, a boss on the top of each chamber in substantial alinement with the nozzle, a cylindrical closure rotatable in the casing provided with an air inlet port and a mixture outlet port, lateral nipples on the casing with openings therethrough adapted severally to register with the closure ports, a stem on the closure rotatable in the casing boss, a throttle lever on the stem for rotating the closure, a needle closure controlling the mouth of the fuel nozzle and having a stem rotatable in an opening through the stem of the closure, a yoke whose lower end is adjustably secured on the boss of the casing and whose upper arm has a guide opening, a bushing non-rotatable and longitudinally reciprocable in the guide opening in screwthreaded engagement with the needle stem closure, means for securing the bushing and stem in adjusted position, a collar bearing against the throttle lever in screwthreaded engagement with the bushing, means interlocking the lever and collar to turn together, and a stop on the yoke for limiting the movement of the companion throttle lever.

2. In a multiple float feed carbureter having a common fuel supply chamber provided with air inlet tubes therethrough and a fuel inlet nozzle in each tube with a casing on the base having mixing chambers each in communication through its lower end with an air tube, a boss on the top of each chamber in substantial alinement with the nozzle, a cylindrical closure rotatable in the casing provided with an air inlet port and a mixture outlet port, lateral nipples on the casing with openings therethrough adapted severally to register with the closure ports, a stem on the closure rotatable in the casing boss, a throttle lever on the stem for rotating the closure, a needle closure controlling the mouth of the fuel nozzle and having a stem rotatable in an opening through the stem of the closure, a yoke whose lower end is adjustably secured on the boss of the casing and whose upper arm has a guide opening, a bushing non-rotatable and longitudinally reciprocable in the guide opening in screwthreaded engagement with the needle stem closure, means for securing the bushing and stem in adjusted position, a collar bearing against the throttle lever in screwthreaded engagement with the bushing, means interlocking the lever and collar to turn together, a stop on the yoke for limiting the movement of the companion throttle lever, and gates having regulatable openings for controlling the air inlet tubes.

3. In a multiple float feed carbureter having a common fuel supply chamber provided with air inlet tubes therethrough and a fuel inlet nozzle in each tube with a casing on the base having mixing chambers each in communication through its lower end with an air tube, a boss on the top of each chamber in substantial alinement with the nozzle, a cylindrical closure rotatable in the casing provided with an air inlet port and a mixture outlet port, lateral nipples on the casing with openings therethrough adapted severally to register with the closure ports, a stem on the closure rotatable in the casing boss, a throttle lever on the stem for rotating the closure, a needle closure controlling the mouth of the fuel nozzle and having a stem rotatable in an opening through the stem of the closure, a yoke whose lower end is adjustably secured on the boss of the casing and whose upper arm has a guide opening, a bushing non-rotatable and longitudinally reciprocable in the guide opening in screwthreaded engagement with the needle stem closure, means for securing the bushing and stem in adjusted position, a collar bearing against the throttle lever in screwthreaded engagement with the bushing, means interlocking the lever and collar to turn together, a stop on the yoke for limiting the movement of the companion throttle lever, a deflector plate opposite one of the nipples of the casing within the main closure, means for adjusting the plate vertically, and a foraminous cage within the casing around the air inlets.

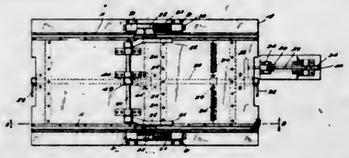
1,207,683. SAW-GUARD. ROBERT C. COYLE, Indianapolis, Ind., assignor to E. C. Atkins & Co., Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 24, 1915. Serial No. 63,147. (Cl. 143—159.)

1. A saw guard for circular saws, comprising a plate arranged for support in the plane of the saw, said plate being provided with a slot, a saw guard U-shaped in cross section and having a rearwardly extending arm projecting past said plate, a pin carried by said rearwardly extending arm and coöperating with said slot for guiding the movements of said saw guard, a second pin carried by said rearwardly extending arm, said second pin cooperating with the rear edge of said plate, and said rear edge of said plate and said slot where they coöperate with said pins approaching each other obliquely upward.



2. A saw guard for circular saws, comprising a plate arranged for support in the plane of the saw, said plate being provided with a slot, a saw guard U-shaped in cross section and having a rearwardly extending arm projecting past said plate, a pin carried by said rearwardly extending arm and coöperating with said slot for guiding the movements of said saw guard, a second pin carried by said rearwardly extending arm, said second pin coöperating with the rear edge of said plate, said rear edge of said plate and said slot where they coöperate with said pins approaching each other obliquely upward, and the lower edges of said saw guard being lower at the ends than at the intermediate portion.

1,207,684. AUTOMATIC CAR-STOP FOR MINE-CAGES. JOHN A. CUSHMAN, Terre Haute, Ind., assignor to Frank Prox Co., Terre Haute, Ind., a Corporation of Indiana. Filed Jan. 10, 1916. Serial No. 71,158. (Cl. 187—97.)



1. In combination, a movable platform for receiving a car, means carried by said platform for locking the car in place thereon, means operated by the movement of the platform to a predetermined position for releasing said locking means to free the car therefrom, means for initiating setting of the locking means by a car when it passes off the platform, and other means for causing the final setting of said locking means.

2. In combination, a movable platform for receiving a car, means carried by said platform for locking the car in place thereon, means for initiating setting of the locking means by a car when it passes off the platform, and other means for causing the final setting of said locking means.

3. In combination, a movable platform for receiving a car, locking means carried by said platform for locking the car in desired position thereon, means controlled by the movement of the platform to a predetermined position for releasing said locking means, means controlled by the movement of a car from the platform for initiating a resetting of said locking means, and means controlled by the movement of a car to a predetermined position on the platform for causing the completion of the resetting of said locking means to hold said last-named car in such position.

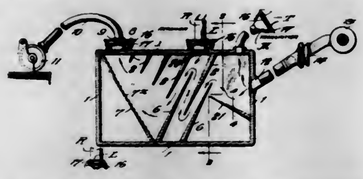
4. In combination, a movable platform arranged to receive a car, a locking member carried by said platform and movable into and out of locking position in which locking

position it locks the car on the platform, said locking member tending to move into locking position, a device carried by the platform for moving said locking member against its tendency to unlocking position, a device movable into and out of the path of movement of said last-named device and engaged thereby when the platform reaches a predetermined position to produce unlocking of said locking member, said second device being spring-pressed into the path of movement of the first device, means for moving said second device out of the path of movement of the first device by the movement of a car from the platform, and a catch for preventing the immediate return of said locking member to locking position.

5. In combination, a movable platform arranged to receive a car, a locking member carried by said platform and movable into and out of locking position in which locking position it locks the car on the platform, said locking member tending to move into locking position, a device carried by the platform for moving said locking member against its tendency to unlocking position, a device movable into and out of the path of movement of said last-named device and engaged thereby when the platform reaches a predetermined position to produce unlocking of said locking member, means for moving said second device out of the path of movement of the first device by the movement of a car from the platform, and a catch for preventing the immediate return of said locking member to locking position.

[Claims 6 to 16 not printed in the Gazette.]

1,207,685. DEVICE FOR RECORDING TELEPHONE CONVERSATIONS. GREENHOW JOHNSTON, Richmond, Va., assignor of one-half to James W. Graves, Richmond, Va. Filed Dec. 14, 1915. Serial No. 66,772. (Cl. 274—1.)



1. The herein described apparatus for recording telephone conversations, which consists of a sound amplifying box, a mouthpiece connected with said box, a phonograph having connection with the interior of the box for receiving sounds from the box, and a transmitter also having connections with the box for receiving sounds from the box.

2. The herein described apparatus for recording telephone conversations, which consists of a sound amplifying box, a mouthpiece connected with said box, a phonograph having connection with the interior of the box for receiving sounds from the box, a transmitter also having connection with the box for receiving sounds from the box, and a telephone receiver having its diaphragm in communication with the interior of the box.

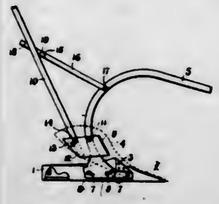
3. The herein described apparatus for recording telephone conversations, which consists of a sound amplifying box, a mouthpiece connected with said box, a phonograph having connection with the interior of the box for receiving sounds from the box, a transmitter also having connection with the box for receiving sounds from the box, a telephone receiver having its diaphragm in communication with the interior of the box, and an ear-piece having communication with the interior of the box.

4. The combination with a phonograph, and a telephone having a receiver and transmitter, of a sound amplifying box or casing, separate means for connecting the transmitter with the telephone, the receiver of the telephone and the phonograph with the interior of the sound amplifying box or casing, a mouthpiece, an earpiece, and a common sound tube for connecting said mouthpiece and said earpiece with the interior of said sounding box.

5. In a device for recording telephonic conversations, the combination with a phonograph and a telephone having a receiver and transmitter, of a sound amplifying box, separate means for detachably connecting the transmitter of the telephone, the receiver of the telephone, and the phonograph with the interior of the casing, a mouthpiece, an earpiece, and means for establishing communication between said mouthpiece and said earpiece and the interior of said sound amplifying box.

[Claims 6 to 15 not printed in the Gazette.]

1,207,686. PLOW. JESSE F. VAN WICKEL, New York, N. Y., assignor to Pacific Commercial Company, Manila, Philippine Islands, a Corporation of Philippine Islands. Filed Nov. 20, 1915. Serial No. 62,445. (Cl. 97—21.)



1. In a plow, the combination of a land side, a share, a lower V-shaped brace interposed between said land side and said share and having interiorly projecting lugs on one wing, a mold board, an upper V-shaped brace having one wing attached to said mold board, a draft beam pivotally mounted on the other wing of said upper brace and having slotted openings at its lower end to engage the lugs projecting from the lower brace, whereby said beam may be held in contact therewith, said beam being adjustable in a plane lying between the planes of the beam engaging wings of said braces, and means for fastening said beam securely to said braces.

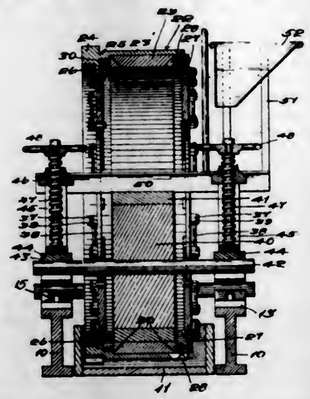
2. In a plow, the combination of a land side, a share, a V-shaped brace having one wing attached to said share and the other wing provided with a slot, a plow handle pivotally attached at one end to the latter wing below said slot and having a lug adapted to engage said slot, means for fastening the lug in any desired position along the slot, and handle bracing means interposed between said beam and the handle.

3. In a plow, the combination of a land side, a share, a V-shaped brace having one wing attached to said share and a free wing, a beam pivotally mounted on said free wing, a plow handle adapted to be supported by and fastened at two points to said free wing in the longitudinal plane of said beam whereby the handle is held rigidly in said longitudinal plane, and handle bracing means interposed between said beam and the handle.

4. In a plow, the combination of a land side, a share, a V-shaped brace having one wing attached to said share and a free wing, a beam pivotally mounted on said free wing, a plow handle disposed in the plane of said beam and attachable to the free wing at two points, handle bracing means pivoted at one end to the beam and slidably embracing said handle at the other end, and means for fastening said handle bracing means in secure operative relation to said handle and to said beam.

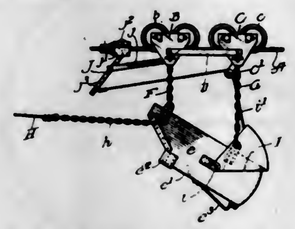
1,207,687. ORE GRINDING OR PULVERIZING MACHINE. FREDERICK A. WISWELL, Oakland, Cal., assignor of two-fifths to Elizabeth E. Phelan, Oakland, Cal. Filed July 29, 1915, Serial No. 42,580. Renewed Apr. 29, 1916. Serial No. 94,483. (Cl. 83—9.)

In a machine of the character described; a supporting structure; supporting rolls carried thereby; a drum arranged above and contacting with the supporting rolls, said drum comprising an annular outer casing having an annular gear formed upon one end thereof and an inner annular overflow flange formed upon the annular gear, said annular casing being provided near the annular gear with an interior shoulder; a second annular overflow flange connected with the opposite end of the annular casing and arranged interiorly thereof to form with the first named flange an annular recess; an annular protect-



ing lining arranged within the annular recess and contacting with the shoulders of the recess; a grinding roll arranged within the drum to coöperate with the annular protecting lining; and means to drive the drum, embodying a gear engaging the annular gear.

1,207,688. EXCAVATING APPARATUS. RAYMOND W. DULL, Chicago, Ill. Filed Sept. 18, 1913. Serial No. 790,505. (Cl. 37—19.)



1. An excavating apparatus comprising a drag-line bucket, a track extending above said bucket, means to support the bucket for movement in carrying position along said track, a drag-line attached to said bucket, a stop on said track, and dumping mechanism arranged to engage said stop for opening the rear end of said bucket, said mechanism including a connecting member extending over the bucket to the rear end thereof, said bucket having a gate to which said member is connected arranged to open upwardly, and said mechanism having means for engaging said stop to exert a forward pull on said member and thereby open said gate while the bucket remains in said position.

2. An excavating apparatus comprising a drag-line bucket, a track extending above said bucket, means to support the bucket for movement in carrying position along said track, a drag-line attached to said bucket, a stop on said track, and dumping mechanism arranged to engage said stop for opening the rear end of said bucket, said mechanism including a connecting member extending over the bucket to the rear end thereof, said bucket having a gate to which said member is connected arranged to open upwardly, and said mechanism having means for engaging said stop to exert a forward pull on said member

and thereby open said gate while the bucket remains in said position, said means being flexible to permit tilting of said bucket into position for filling when dragged along the ground.

3. An excavating apparatus comprising a drag-line bucket, a track extending above said bucket, means to support the bucket for movement along said track, a drag-line attached to said bucket, a stop on said track, and dumping mechanism arranged to engage said stop for opening the rear end of said bucket, said mechanism including a connecting member extending over the bucket to the rear end thereof, and said bucket having a gate to which said member is connected arranged to open upwardly, and said mechanism having means for engaging said stop to exert a forward pull on said member and thereby open said gate while the bucket remains in said position, said gate being pivoted at a point to hold the load in the bucket, and said member being arranged to move the gate edgewise into open position.

4. An excavating apparatus comprising a drag-line bucket, a track extending above said bucket, means to support the bucket for movement along said track, a drag-line attached to said bucket, a stop on said track, and dumping mechanism arranged to engage said stop for opening the rear end of said bucket, said mechanism including a connecting member extending over the bucket to the rear end thereof, and said bucket having a gate to which said member is connected arranged to open upwardly, and said mechanism having means for engaging said stop to exert a forward pull on said member and thereby open said gate while the bucket remains in said position, said mechanism including an element pivoted on said means, a lever pivoted on said element, the lower end of said lever being connected to the forward end of said member, and means for connecting the upper end of said lever to travel on said track.

5. An excavating apparatus comprising a drag-line bucket, a track extending above said bucket, means to support the bucket for movement along said track, a drag-line attached to said bucket, a stop on said track, and dumping mechanism arranged to engage said stop for opening the rear end of said bucket, said mechanism including a connecting member extending over the bucket to the rear end thereof, and said bucket having a gate to which said member is connected arranged to open upwardly, and said mechanism having means for engaging said stop to exert a forward pull on said member and thereby open said gate while the bucket remains in said position, said means including front and rear hanger chains for supporting the bucket in carrying position during the opening of said gate, a carriage supporting said chains on the track, and a forward connection between said carriage and said mechanism.

[Claims 6 to 18 not printed in the Gazette.]

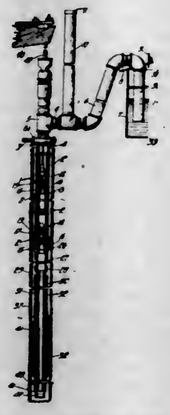
1,207,689. OIL-WELL EQUIPMENT. JOHN HAHN, Los Angeles, Cal. Filed Dec. 22, 1915. Serial No. 68,173. (Cl. 103—61.)

1. In combination, inner, outer and intermediate tubular members spaced apart from one another to form annular chambers, the intermediate tubular member having perforations, a head closing the upper ends of said chambers and provided with a port communicating with the interior of the inner chamber, a head closing the lower ends of the chambers and provided with a port communicating with the outer chamber, a tube extending down from the lower head and closed at its lower end and having its upper end communicating with the port in the lower head, said inner tubular member extending through the lower head, pump tubing connected to the upper head and provided with a cylinder, a piston in the cylinder, and means to operate said piston.

2. In combination, pump tubing having a cylinder, a piston in said cylinder, means to operate said piston, well casing, a centering support connected to said tubing, said support comprising tubular end hubs and resilient inwardly bowed spring arms extending from hub to hub and

said spring arms being provided with outwardly projecting bosses to frictionally engage the inside surface of the well casing, and means tending to straighten said spring arms so as to hold the bosses tightly against the casing.

3. In combination, pump tubing, means forming a reservoir, means connecting the reservoir to the lower end of the pump tubing, said reservoir having a liquid-sealed inlet port and extending a substantial distance above said port, an oil discharge pipe connected to the upper end of the pump tubing, and a stand pipe connected to said oil discharge pipe to minimize fluctuation of pressure in the reservoir.



4. In combination, pump tubing, inner, outer and intermediate tubular members spaced apart from one another to form annular chambers, the intermediate tubular member having perforations, a head closing the upper ends of said chambers and provided with a port communicating with the interior of the inner chamber and connected to the pump tubing, a head closing the lower ends of the chambers and provided with a port communicating with the outer chamber, and a tube extending down from the lower head and closed at its lower end and having its upper end communicating with the port in the lower head, said inner tubular member extending through the lower head.

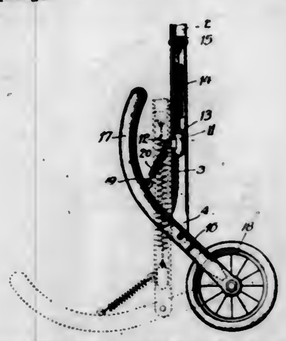
5. In combination, inner, outer and intermediate members spaced apart from one another to form annular chambers, the intermediate tubular member having outwardly expanding perforations, a head closing the upper ends of said chambers and provided with a port communicating with the interior of the inner chamber, a head closing the lower ends of the chambers and provided with a port communicating with the outer chamber, a tube extending down from the lower head and closed at its lower end and having its upper end communicating with the port in the lower head, said inner tubular member extending through the lower head, pump tubing connected to the upper head and provided with a cylinder, a piston in the cylinder, and means to operate said piston.

[Claims 6 to 17 not printed in the Gazette.]

1,207,690. LANDING-GEAR FOR AERIAL VEHICLES. WILLIAM E. HANN, Chicago, Ill., assignor of one-half to Max R. Hann, Chicago, Ill. Filed May 23, 1914. Serial No. 840,461. (Cl. 244—2.)

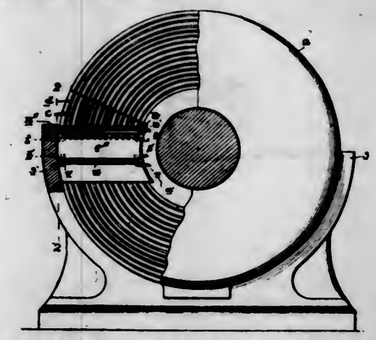
1. A supporting gear for aerial vehicles, comprising a strut, a skid pivoted to said strut, a member slidably retained by said strut, yielding means between said member and skid, and coöperating means for yieldingly opposing the sliding of said member.

2. A supporting gear for aerial vehicles comprising a hollow strut, a plunger slidably mounted on said strut, resilient means interposed between said plunger and a fixed connection on said strut, a skid pivoted to the end of said strut, said skid having a curved end and wheel journaled on its other end for normally supporting said vehicle and yielding means interposed between said skid and said plunger.



3. A supporting gear for aerial vehicles comprising a hollow strut having a slot therein, a plunger slidably mounted on said strut, yielding means interposed between said plunger and a fixed connection on said strut, a skid pivoted to the end of said strut, said skid having one end curved and having a wheel journaled on the other end for normally supporting said vehicle, and yielding means interposed between the curved end of said skid and said plunger, said means being connected through the slot in said strut.

1,207,691. BALL-GRINDING MACHINE. EWALD HANUS, Tegel, near Berlin, Germany. Filed Oct. 30, 1916. Serial No. 128,616. (Cl. 51—4.)



1. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other; a stationary grinding plate arranged in the space between the rotatable grinding plates and provided with a charging recess which has a width equal to the thickness of that plate and which has a gable-shaped bottom; and a funnel-shaped distributer located within said charging recess above said bottom, and having a longitudinal discharge opening which directly overlies the ridge line of said bottom.

2. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other; a stationary grinding plate arranged in the space between the rotatable grinding plates and provided with a charging recess which has a width equal to the thickness of that plate and which has a gable-shaped bottom; and means located within said charging recess to receive the balls from said rotatable grinding plates and to mix them up and distribute them evenly upon opposite sides of said bottom.

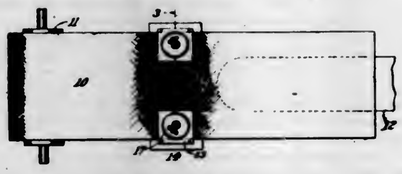
3. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other; a stationary grinding plate arranged in the space between the rotatable grinding plates and provided with a charging recess which has a width equal to the thickness of that plate and which has a gable-shaped bottom; a funnel-shaped distributer located within said charging recess above said bottom, and having a longitudinal discharge opening which directly overlies the ridge line of said bottom; and a rotary agitator disposed within said distributer directly above and parallel with said discharge opening.

4. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other; a stationary grinding plate arranged in the space between the rotatable grinding plates and provided with a charging recess which has a width equal to the thickness of that plate and which has a gable-shaped bottom; and a pair of plates disposed within said charging recess above said bottom and inclined toward each other, said plates having their lower longitudinal edges spaced apart to form a longitudinal discharge opening which directly overlies the ridge line of said bottom.

5. In a ball-grinding machine, the combination of a pair of rotatable grinding plates arranged in spaced, parallel relation to each other; a stationary grinding plate arranged in the space between the rotatable grinding plates and provided with a charging recess which has a width equal to the thickness of that plate and which has a gable-shaped bottom; a semi-cylindrical casing surrounding the lower portion of the stationary grinding plate; upper and lower pairs of pins secured to the inner face of the front portion of said casing and to the hub of said stationary grinding plate; and a pair of plates disposed within said charging recess above said bottom and having their outer longitudinal edges hooked over the upper pins and their lower edges resting upon the lower pins in spaced relation to form a discharge opening which directly overlies the ridge line of said bottom; said pin-supported plates being inclined toward each other to direct the balls deposited thereon from said rotatable grinding plates toward said discharge opening.

[Claim 6 not printed in the Gazette.]

1,207,692. FABRIC CENTERING AND STRETCHING DEVICE. GEORGE MCNEILL, Detroit, Mich., assignor to Morgan & Wright, a Corporation of Michigan. Filed Apr. 2, 1915. Serial No. 18,769. (Cl. 26—8.)



1. In a device for manipulating fabric, a support for the fabric, and a revoluble member opposite said support having a marginal frictional surface adapted to contact with said fabric on said support, the axis of said member being inclined at such an angle as to cause said frictional surface to contact with said fabric only when moving toward the edge thereof.

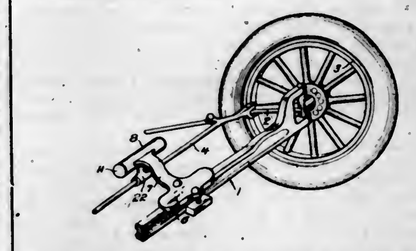
2. In a device for manipulating fabric, a support for the fabric, and a revoluble member opposite said support having a beveled margin with a roughened surface adapted to frictionally contact with said fabric on said support, the axis of said member being inclined at such an angle as to cause said surface to contact with said fabric only when moving toward the edge thereof.

3. In a device for manipulating fabric, a support having a slot to receive the edge of the fabric, said slot terminating in a straight wall forming a guide, and a revoluble member on said support having a frictional surface projecting into said slot and adapted to contact with said fabric, the axis of said member being inclined at such an angle as to cause said frictional surface to contact with said fabric only when moving toward said guide.

4. In a device for manipulating fabric, a support for the fabric, a guide for the fabric, and a revoluble disk spring pressed toward said support and having a beveled margin with a roughened surface adapted to contact with said fabric on said support, the axis of said disk being inclined at such an angle as to cause said surface to contact with said fabric only when moving toward said guide.

5. In a device of the class described, a support having a slot to receive the edge of a traveling sheet, a guide, and a spring-pressed member entering the slot and adapted to be frictionally driven from the sheet and extending at an oblique angle to the sheet for feeding the sheet from the slot in marginal coincidence with the guide.

1,207,693. SAFETY STEERING DEVICE. HENRY J. MILLER, Kansas City, Mo., assignor, by direct and mesne assignments, of one-fourth to J. H. Miller, Kansas City, Mo., one-half to Safety Manufacturing Company, a Corporation of Missouri, and one-fourth to The Everglades Sugar & Land Co., Miami, Fla., a Corporation of Florida. Filed Oct. 12, 1914. Serial No. 866,277. (Cl. 21—200.)



1. The combination with relatively fixed and movable members of an open end cylinder on one of the members, having a longitudinal slot, a slide in said cylinder having a rib projected through the slot and connected with the other of said first named members, caps closing the ends of the cylinder when the parts are in normal position, and a spring located within the slide and connecting said caps.

2. The combination with fixed and movable brackets, of a cylinder on one of the brackets, having a longitudinal slot, free cap members at the ends of the cylinder, a spring located within the cylinder and connected with both of said cap members, a slide located within the cylinder and having a rib extending through the cylinder slot and connected with the other bracket, whereby movement of the brackets relative to each other will induce contact of one end of the slide with one of the caps, to project the cap away from the cylinder against the tension of said spring.

3. The combination with a connecting rod and axle of a bracket on the axle having a cylinder overlying and arranged longitudinally relative to the connecting rod, the said cylinder having open ends and having a longitudinal slot facing the rod, a bracket fixed to the connecting rod, a slide in said cylinder having a rib thereon projected into said slot and connected with the rod bracket, a spring located within the slide, and free cap members at opposite ends of the cylinder connected with the spring, whereby projection of the slide in either direction will move a relative cap member away from the cylinder to permit the connecting rod and axle to move against the tension of said spring and whereby the parts are returned to normal position under the spring tension.

4. A safety appliance for motor vehicle steering mechanism, the same comprising concentric members, means for

connecting one of such members to the axle, other means for connecting the remaining member to the drag link, a spring arranged within the concentric members, and connecting means at the extremities of the spring engaging both ends of the concentric members, the parts being disposed to effect a stretching of the spring between the outer ends of the members upon a relative movement of the members in one direction or the other.

5. A safety appliance for the steering mechanism of motor vehicles, the same comprising concentric members, a spring arranged within such members, means at the ends of the spring for sustaining the tension thereof engaging the extremities of the concentric members, and means entering the inner member and serving to centralize and retain the connecting means at the ends of the spring in proper position.

[Claims 6 to 8 not printed in the Gazette.]

1,207,694. METHOD OF PRODUCING GRANULAR CARBON FROM GAS REFUSE. ROBERT D. PIKE, San Francisco, Cal. Filed Apr. 1, 1916. Serial No. 88,418. (Cl. 204—65.)

1. The method of producing granular carbon from "lamp black" derived from the refuse of oil gas manufacture, which consists in eliminating moisture therefrom, intermixing oil tar therewith, heating the said mixture to a temperature to expel all volatile products therefrom, and reducing the residue into a finely divided condition.

2. The method of producing granular carbon from lamp black and oil tar which consists in heating the lamp black to a relatively low temperature to expel the water therein contained, mixing the dried lamp black and the oil tar in suitable proportions to form a semi-plastic mass, heating said mixture to a high temperature to expel all volatile products, and grinding the residue into a finely divided condition.

3. The method of producing granular carbon from lamp black and oil tar which consists in heating the lamp black to a relatively low temperature to expel the water therein contained, mixing the dried lamp black and the oil tar in suitable proportions to form a semi-plastic mass, compressing said mass into cakes, heating said cakes to a high temperature to expel all volatile products, and reducing the residue to a finely divided condition by grinding.

4. The method of producing granular carbon from lamp black and oil tar which consists in heating the lamp black to a relatively low temperature to expel the water therein contained, mixing the dried lamp black and the oil tar in suitable proportions to form a semi-plastic mass, compressing said mass into cakes, heating said cakes to a high temperature to expel all volatile products, reducing the residue to a finely divided condition by grinding, and removing any magnet material from the ground residue by magnetic separation.

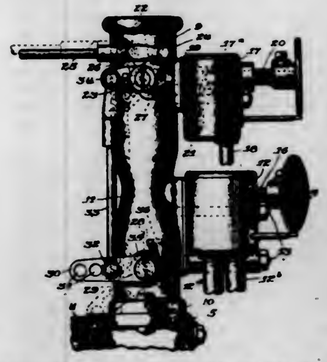
5. The method of producing carbon from lamp black and oil tar which consists in mixing the lamp black with the oil tar in suitable proportions to form a semi-plastic mass, compressing said mass into cakes, heating said cakes to a high temperature to expel all volatile products, and reducing the residue to a finely divided condition by grinding.

[Claims 6 to 8 not printed in the Gazette.]

REISSUES.

14,224. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. EDMUND J. KANE, Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation, a Corporation of New Jersey. Filed Nov. 15, 1915. Serial No. 61,701. Original No. 1,144,549, dated June 29, 1915, Serial No. 737,637, filed Dec. 19, 1912. (Cl. 123—123.)

1. A carbureter for internal combustion engines having, in combination, a vertically arranged mixing chamber communicating with an engine cylinder and with the atmosphere, an air throttling valve including a valve stem journaled in opposite walls of said mixing chamber near the upper end thereof, an arm secured to said valve stem and means whereby said arm may be connected with an engine governor mechanism, a second arm loosely mounted upon said stem and adapted to be turned axially by said first named arm when the latter has reached a predetermined degree of angular movement, a mixture throttling valve including a valve stem journaled in the walls of said chamber near the lower end thereof, an arm secured to said stem, an operative connection between said arm and said second arm, a spring operative to turn said mixture throttling valve toward an open position, and a fuel feed mechanism communicating with said mixing chamber.



2. A carbureter for internal combustion engines having, in combination, a mixing chamber communicating with an engine cylinder and with the atmosphere, fuel feed mechanism communicating with said mixing chamber, rocking air throttling and mixture throttling valves mounted in said chamber upon opposite sides of said fuel feed mechanism and including valve stems, means whereby said air throttling valve may be connected with an engine governor mechanism in a manner to be controlled thereby, a spring operative to normally retain said mixture throttling valve in an open position, an arm loosely mounted upon the stem of said air throttling valve, a second arm secured to the stem of said mixture throttling valve, and a link connection between said arms and said air throttling valve having a limited angular movement independent of said mixture throttling valve.

3. In a carbureter for internal combustion engines, the combination of a mixing chamber, an air throttling valve, a mixture throttling valve, and a connection between said valves whereby said valves may be actuated together or independently of each other automatically, said valves being controlled in accordance with engine working conditions.

4. In a carbureter for internal combustion engines, the combination of a mixing chamber, air throttling and mixture throttling valves, and a connection between said valves whereby said valves are actuated together under light load conditions, and one of said valves actuated independently of the other under heavy load conditions to vary the degree of vacuum in said mixing chamber.

5. In a carbureter for internal combustion engines, the combination of a mixing chamber, interconnected air throttling and mixture throttling valves in said chamber, said air throttling valve having two closed positions and said mixture throttling valve one closed position, said valves being actuated in accordance with engine working conditions, and means whereby said mixture throttling valve is arrested in open position while said other valve is free to move to vary the degree of vacuum in said chamber.

6. In a carbureter for internal combustion engines, the combination of a mixing chamber, fuel and water feed mechanisms associated therewith, an air throttling valve adapted to control the degree of vacuum in said chamber and the admission of water, a mixture throttling valve controlling the admission of fuel, and an operative connection between said valves whereby said valves are actuated together under certain conditions and one independently of the other under other conditions.

7. In a carbureter for internal combustion engines, the combination of a mixing chamber, a water supply mechanism associated therewith, and a valve having two closed positions for controlling the vacuum in said mixing chamber, one in which water is permitted to enter said chamber and the other preventing the admission of water.

8. In combination, a governor, and a carbureter having a mixing chamber, a water supply mechanism associated therewith, and a valve controlled by said governor having two closed positions for controlling the vacuum in said mixing chamber, one in which water is permitted to enter said chamber and the other preventing the admission of water.

9. In a carbureter for internal combustion engines, the combination of a mixing chamber, water supply means associated therewith, and a valve having two closed positions for controlling the vacuum in said mixing chamber in a manner to permit the vacuum to extend to said water supply means under certain operating conditions and to prevent the extension of the vacuum to said water supply means under different operating conditions.

10. In a carbureter for internal combustion engines, the combination of a mixing chamber, fuel and water supply means associated therewith, and interconnected air throttling and mixture throttling valves in said chamber, said air throttling valve having two closed positions for controlling the vacuum in said mixing chamber in a manner to permit the vacuum to extend to said water supply means under certain operating conditions and to prevent the extension of the vacuum to said water supply means under different operating conditions.

11. A carbureter for an engine including a throttle valve, an air inlet valve, and a speed responsive device connected with the throttle valve and with the air inlet valve to move the latter toward closed position after the throttle valve is in full open position.

12. A carbureter for an engine including a throttle valve, an air inlet valve, fuel feeding means intermediate said valves, a device for uniting the valves and including a lost motion connection, and means operating through the device to control the action of the throttle during ordinary speed changes and to move the air inlet valve toward closed position upon an abnormal decrease in speed.

13. The combination of an engine, a carbureter connected therewith, and a speed responsive device controlling the carbureter, said carbureter including an air inlet valve, and a connection between the valve and speed responsive device whereby the valve is moved toward closed position as the speed of the engine drops below a predetermined point.

14. The combination of an engine having a carbureter connected therewith and means controlling the carbureter, said carbureter comprising a fuel spraying nozzle, throttle and air inlet valves at opposite sides thereof, and a connection between the valves for permitting simultaneous movement thereof during average speed changes, and independent movement of the air inlet valve during a drop in speed below a predetermined point.

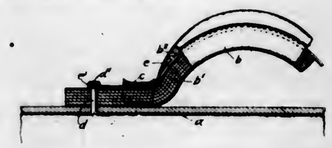
15. The combination of an engine, a carbureter therefor comprising fuel admitting means and air inlet and throttle valves; arms connected with the valves; a link having a direct connection with one arm and a lost motion connection with the other arm whereby the air inlet valve may be moved toward closed position while the throttle remains open.

16. The combination of an engine provided with a speed responsive device; a carbureter for the engine comprising air inlet conduit, mixing chamber, mixture outlet conduit, valve in said inlet conduit, device for feeding fuel into said inlet conduit, and throttle valve in said outlet conduit and operatively controlled by the speed responsive device; and means controlled by the speed responsive device to move the air inlet valve toward closed position during a drop in speed below a predetermined point, and after the throttle valve is moved to full or approximately full open position.

17. A carbureter for an engine comprising air inlet conduit, mixing chamber, mixture outlet conduit, means for feeding fuel into the air indrawn through the inlet conduit, throttle valve in the outlet conduit, valve in said inlet conduit, and means for moving the valves to vary the passage openings through said conduits simultaneously during normal operation and to move the inlet conduit valve toward closed position when the throttle valve reaches its full or approximately full open position.

18. A carbureter for an engine comprising air inlet conduit, mixing chamber, mixture outlet conduit, means for feeding fuel into the air indrawn through said inlet conduit, throttling valve in said outlet conduit and adapted to vary free opening therethrough, valve in said inlet conduit and adapted to vary the free opening therethrough, and means for moving said air inlet valve toward closed position when the throttling valve reaches its full or approximately full open position.

14,225. BAG-HANDLE. ADOLPH LOWY, New York, N. Y. Filed Aug. 14, 1916. Serial No. 114,918. Original No. 1,171,528, dated Feb. 15, 1916, Serial No. 55,366, filed Oct. 12, 1915. (Cl. 190—57.)



1. A bag having a handle, a metallic ligament running through and concealed in the handle, a keeper fastened to the bag through which the handle and ligament pass and a rivet passing through the end of the handle and into the bag around which rivet and under the head thereof, the end of said metallic ligament is turned and by which it is anchored in place.

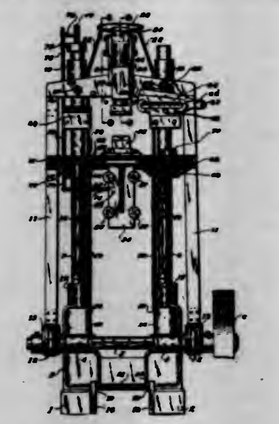
2. A suit case having a handle with its enlarged ends lying flat on the surface thereof, a metal ligament running through and concealed in the handle, keepers fastened to the bag through which the ends of the handle and ligament pass and rivets passing through the enlarged ends of the handle perpendicularly to the said surface of the suit case around which rivets and under the heads of which the ends of said metallic ligament are turned and by which they are anchored in place.

14,226. MACHINE FOR CUTTING PIECED LIFTS AND FOR BUILDING HEEL-BLANKS THEREFROM. DENNIS PARKS, St. Louis, Mo. Filed Sept. 13, 1916. Serial No. 119,994. Original No. 1,167,107, dated Jan. 4, 1916, Serial No. 31,371, filed June 1, 1915. (Cl. 164—23.)

1. In a machine of the class described, in combination with a die, a reciprocable member, an independently-movable member carrying a cutting block, means for automatically effecting engagement between said reciprocable and movable members when the latter has been moved a predetermined distance whereby the cutting block may be carried into contact with the die by the reciprocable member, and coöperating means for automatically releasing such engagement after a single impact of the cutting block with the die.

2. In a machine of the class described, in combination with a die, a reciprocable member, an independently-movable member carrying a cutting block, means for automatically effecting locking engagement between said reciprocable and movable members when the latter has been moved a predetermined distance whereby to cause the cut-

ting block to be carried into contact with the die by the movement of the reciprocable member, and coöperating means for automatically releasing such engagement after a single impact of the cutting block with the die.



3. In a machine of the class described, in combination with a die, a reciprocable member, a depressible member carrying a cutting block, means for automatically effecting engagement between said depressible and reciprocable members when the former has been lowered a predetermined distance, to cause the cutting block to be carried into contact with the die by the reciprocable member, and coöperating means for automatically releasing such engagement after a single impact of the cutting block with the die.

4. In a machine of the class described, in combination with a die, a continuously reciprocable member, a manually depressible member carrying a cutting block, means for automatically effecting engagement between said depressible and reciprocable members when the former has been lowered a predetermined distance, to cause the cutting block to be carried into contact with the die by the reciprocable member, and coöperating means for automatically releasing such engagement after a single impact of the cutting block with the die.

5. In a machine of the class described, in combination with a die, a reciprocable member, a depressible member carrying a cutting block adapted to coöperate with said die, and automatic mechanism carried by one of said members and adapted to be actuated in the descent of said depressible member to effect engagement of the latter with said reciprocable member in the downward movement thereof to cause the cutting block to be carried into contact with the die, and to be released from such engagement in the following upward movement of said reciprocable member.

6. In a machine of the class described, in combination with a die, a continuously reciprocable member, a depressible member carrying a cutting block adapted to cooperate with said die, and automatic mechanism carried by said depressible member and adapted to be actuated in the descent thereof to effect engagement of said depressible member with said reciprocable member in a downward movement thereof, to cause the cutting block to be carried into contact with the die, and to be released from such engagement in the following upward movement of said reciprocable member.

7. In a machine of the class described, in combination with a die, a continuously reciprocable member, a manually depressible member carrying a cutting block, and automatic catch mechanism carried by said depressible member and adapted to be actuated in the descent of said depressible member to effect engagement of said depressible member with said reciprocable member in a downward movement thereof to cause the cutting block to be carried into contact with the die, and to be released from such engagement in the following upward movement of said reciprocable member.

8. In a machine of the class described, in combination with a die, a continuously reciprocable member, a depressible member carrying a cutting block, and automatic catch mechanism carried by said depressible member and adapted to be actuated in the descent of said depressible member to effect engagement of said depressible member with said reciprocable member in a downward movement thereof, to cause the cutting block to be carried into contact with the die, and to be released from such engagement in the following upward movement of said reciprocable member and be maintained in such released position until said depressible member is again raised and depressed.

9. In a machine of the class described, in combination with a die, a continuously reciprocable member, a depressible member carrying a cutting block adapted to cooperate with said die, a spring-controlled catch pivotally mounted on said depressible member, a dog movable with said depressible member and normally engaging said catch to hold it out of the path of movement of said depressible member, means for automatically releasing said dog from engagement with the catch in the downward movement of the depressible member to permit said catch to be thrown into engagement with said reciprocable member to cause the cutting block to be carried into contact with the die in a downward movement of the latter member, a spring operating to throw said dog into engagement with said catch while the cutting block is in its lowermost position, and automatic means operating to move said catch out of the path of movement of said reciprocable member in the following upward movement thereof.

10. In a machine of the class described, in combination with a die, a continuously reciprocable member, a depressible member carrying a cutting block adapted to cooperate with said die, a spring-controlled catch pivotally mounted, and having a limited slidable movement in, said depressible member, a dog movable with said depressible member and normally engaging said catch to hold it out of the path of movement of said reciprocable member, means for automatically releasing said dog from engagement with the catch in a downward movement of the depressible member to permit said catch to be thrown into engagement with said reciprocable member to cause the cutting block to be carried into contact with the die, a spring operating to throw said dog into engagement with said catch while the cutting block is in its lowermost position, and automatic means operating to raise said catch and simultaneously move it out of the path of movement of said reciprocable member in the following upward movement thereof.

11. In a machine of the class described, in combination with a die, a continuously reciprocable member, a depressible member carrying a cutting block adapted to cooperate with said die, a spring-controlled catch pivotally mounted, and having a limited slidable movement in, said depressible member, a spring normally holding the pivot of said catch in its uppermost position, a dog movable with said depressible member and normally engaging said catch to hold it out of the path of movement of said reciprocable member, a latch adapted to be engaged by said dog in its downward movement to turn the dog out of engagement with said catch to permit it to be thrown into engagement with said reciprocable member in a downward movement thereof to cause the cutting block to be carried into contact with the die, a spring operating to throw said dog into engagement with said catch while the cutting block is in its lowermost position whereby, in the following upward movement of said reciprocable member, the pivot of said catch will be thrown upward by its spring to raise said catch and simultaneously move it out of the path of movement of said reciprocable member.

12. In a machine of the class described, in combination with a die, a continuously reciprocable member, a depressible member mounted on said reciprocable member and movable independent thereof, a catch carried by said depressible member and movable with and also independent thereof, and automatic means adapted to throw said catch into the path of movement of said reciprocable member in the downward movement of said depressible member, whereby said reciprocable member in a downward movement will engage the catch and carry the cutting block into engagement with the die, and coöperating means operating in the following upward movement of said reciprocable member to move said catch out of the path of movement of said reciprocable member.

13. In a machine of the class described, in combination with a die, a continuously reciprocable member, a depressible head, a depressible member mounted in said head and movable independent thereof, said member having a vertically-disposed slot in its upper end, a catch having a pivot slidably mounted in said slot and spring-supported above the bottom thereof, a spring tending normally to throw said catch across the path of movement of said head, a dog normally holding said catch out of said latter position, and means operating on the depression of said member to release said dog from its engagement with the catch to permit the latter to spring under said head whereby, in a downward movement of the latter, it will engage the catch and draw its pivot into engagement with the bottom of said slot and thereby further depress said member to carry the cutting block into engagement with said die, and simultaneously move the catch into engagement with said dog, so that, in the following upward movement of said head, the pivot of said catch will be raised by its spring to the upper part of said slot to raise said catch and turn it out of the path of movement of said head.

14. In a machine of the class described, in combination with a die, a continuously reciprocable member, a plunger slidably mounted in said depressible member and carrying a cutting block adapted to coöperate with said die, spring-controlled pull-rods connected to said plunger, a treadle member carried by said pull-rods and adapted to be depressed to lower said plunger, and automatic mechanism carried by said depressible member and adapted to be actuated in the descent of said plunger to effect engagement of said depressible member with said reciprocable member in a downward movement of the latter to cause the cutting block to be carried into contact with the die, to be released from such engagement in the following upward movement of said reciprocable member, and to be reset by the upward movement of said plunger when the treadle member is released.

15. In a machine of the class described, in combination with a holder and means for continuously cutting and forcing lifts downwardly therein, a spring-pressed pivotally-supported arm having at one end a contact member lying in the path of movement of said lifts, a movable rod secured to the other end of said arm and carrying a pointer, and a scale mounted on the machine in cooperative relation with said pointer.

16. In a machine of the class described, in combination with a holder and means for continuously cutting and forcing lifts downward therein, a bell crank lever pivotally mounted on said machine, a spring normally acting on one member of said lever to force the other member toward the holder, an arm pivotally mounted intermediate its ends on said latter member and having a free end provided with a contact member lying in the path of movement of said lifts, a movable rod connected to the other end of said arm and carrying a pointer, and a scale mounted on the machine in coöperative relation with said pointer.

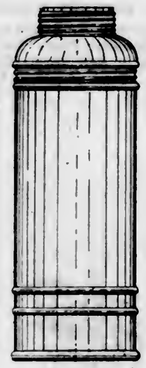
DESIGNS.

49,977. CASING FOR VACUUM-INSULATED PITCHERS. GEORGE P. ALTENBERG, Cincinnati, Ohio, assignor to The Icy-Hot Bottle Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed Sept. 28, 1916. Serial No. 122,767. Term of patent 14 years.



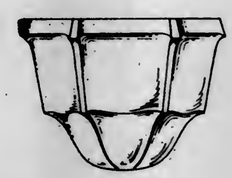
The ornamental design for a casing for vacuum-insulated pitchers, substantially as shown.

49,978. CASING FOR VACUUM-INSULATED BOTTLES. GEORGE P. ALTENBERG, Cincinnati, Ohio, assignor to The Icy-Hot Bottle Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed Oct. 2, 1916. Serial No. 123,451. Term of patent 14 years.



The ornamental design for a casing for vacuum-insulated bottle, substantially as shown.

49,979. BOWL FOR LIGHTING-FIXTURES. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J. Filed Oct. 3, 1916. Serial No. 123,594. Term of patent 7 years.



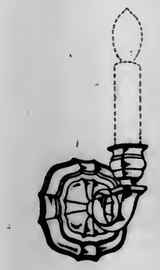
The ornamental design for a bowl for lighting fixtures, as shown.

49,980. LIGHTING-FIXTURE. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J., assignors to The Mitchell Vance Company, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,948. Term of patent 7 years.



The ornamental design for a lighting fixture, as shown.

49,981. LIGHTING-FIXTURE. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J., assignors to The Mitchell Vance Company, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,949. Term of patent 7 years.



The ornamental design for a lighting fixture, as shown.

49,982. LIGHTING-FIXTURE. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J., assignors to The Mitchell Vance Company, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,950. Term of patent 7 years.

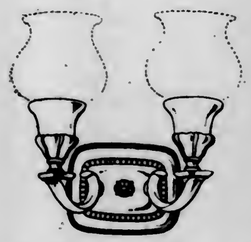


The ornamental design for a lighting fixture, as shown.

49,983. LIGHTING-FIXTURE. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J., assignors to The Mitchell Vance Company, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,951. Term of patent 7 years.

The ornamental design for a lighting fixture, as shown.

49,984. LIGHTING-FIXTURE. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J., assignors to The Mitchell Vance Company, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,952. Term of patent 7 years.



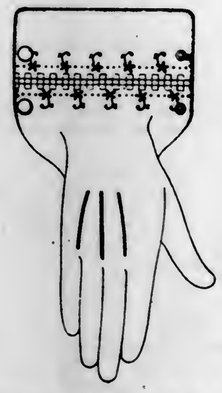
The ornamental design for a lighting fixture, as shown.

49,985. EMBLEM. FRANK F. BENTLEY, Warren, Ohio, assignor to The Warren Automobile Club. Filed Oct. 3, 1916. Serial No. 123,592. Term of patent 3½ years.



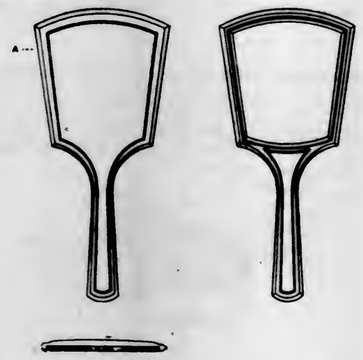
The ornamental design for an emblem, as shown.

49,986. GLOVE. ROBERT E. BOLLES, New York, N. Y., assignor to Fownes Brothers & Co., a Firm composed of William Gardiner Rigden, William Fownes Rigden, Edward Fownes Rigden, Stanley Fownes Rigden, Sir Henry Urwick, and Leslie Alan Spall, London, England. Filed Mar. 17, 1916. Serial No. 84,985. Term of patent 3½ years.



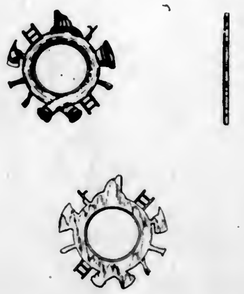
The ornamental design for a glove substantially as shown.

49,987. HAND-MIRROR. LESLIE BROWN, Sag Harbor, N. Y., assignor to Joseph Fahys & Company, New York, N. Y. Filed July 23, 1915. Serial No. 41,611. Term of patent 7 years.



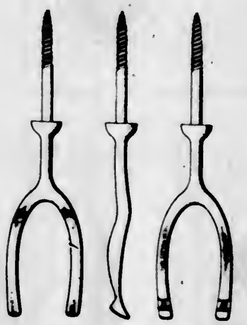
The ornamental design for a hand mirror, as shown.

49,988. BADGE, EMBLEM, OR SIMILAR ARTICLE. GEORGE B. CLAY, Jenkintown, Pa. Filed Sept. 23, 1916. Serial No. 121,891. Term of patent 7 years.



The ornamental design for a badge, emblem or similar article as shown.

49,989. WASHSTICK-HOOK. WALTER LOUIS CLEMENS, Milwaukee, Wis. Filed Aug. 1, 1916. Serial No. 112,619. Term of patent 14 years.



The ornamental design for a wash stick hook as shown.

49,990. LIQUID-DISPENSER. HENRY G. CORDLEY, Glen Ridge, N. J. Filed June 9, 1916. Serial No. 102,788. Term of patent 7 years.



The ornamental design for a liquid dispenser as shown and described.

49,991. LIQUID-DISPENSER. HENRY G. CORDLEY, Glen Ridge, N. J. Filed June 9, 1916. Serial No. 102,789. Term of patent 7 years.



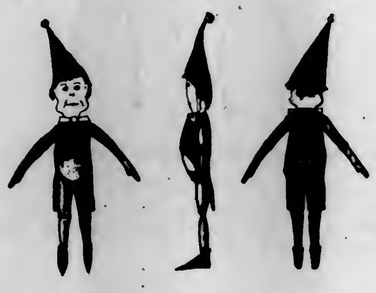
The ornamental design for a liquid dispenser as shown and described.

49,992. EMBLEM. PEDRO GIUSTI, San Juan, Porto Rico. Filed Sept. 28, 1916. Serial No. 122,772. Term of patent 7 years.



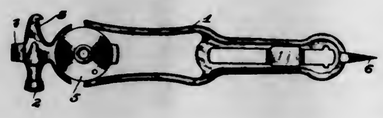
The ornamental design for an emblem, as shown.

49,993. DOLL. EVA C. HAMILTON, Hubbard, Oreg. Filed Oct. 9, 1916. Serial No. 124,734. Term of patent 3½ years.



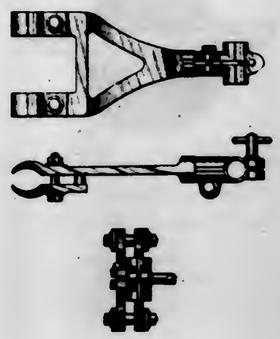
The ornamental design for a doll, as shown.

49,994. COMBINATION-TOOL. NIRA J. HAWKS, New York, N. Y. Filed Aug. 14, 1915. Serial No. 45,598. Term of patent 14 years.



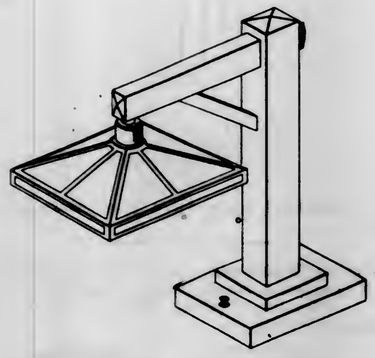
The ornamental design for a combination tool, as shown and described.

49,995. ELECTRIC-LAMP BRACKET. WALLES L. KAUFMANN, Santa Ana, Cal. Filed Oct. 3, 1916. Serial No. 123,595. Term of patent 3½ years.



The ornamental design for an electric lamp bracket, as shown.

49,996. LAMP. ERWIN W. LAMB, Lansing, Mich. Filed Oct. 20, 1916. Serial No. 126,802. Term of patent 7 years.



The ornamental design design for a lamp, as shown.

49,997. BUTTON-FASTENER. TRUEL T. LEE, Yarmouth, Iowa. Filed Oct. 5, 1916. Serial No. 123,991. Term of patent 14 years.



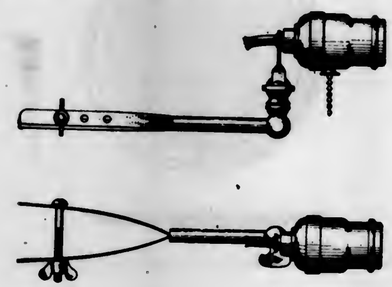
The ornamental design for a button fastener as shown.

49,998. BOW-HOLDER. CHARLES MCLAUGHLIN, Brooklyn, N. Y., assignor to Royal Comb Company, Leominster, Mass. Filed Sept. 1, 1916. Serial No. 118,151. Term of patent 7 years.



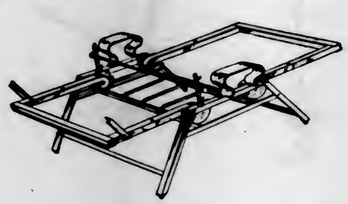
The ornamental design for a bow-holder as shown.

49,999. ADJUSTABLE LAMP-FIXTURE. JOSEPH MORITZ, New York, N. Y. Filed May 12, 1915. Serial No. 27,724. Term of patent 3½ years.



The ornamental design for an adjustable lamp fixture as shown.

50,000. BEDSTEAD. ALFRED TONNELE and WILLIAM J. CURTIS, Wilmington, Del., assignors to National Adjustable Bed and Spring Company, Wilmington, Del. Filed Sept. 2, 1916. Serial No. 118,277. Term of patent 14 years.



The ornamental design for a bedstead, as shown.

50,001. BRACKET-BACK FOR LIGHTING-FIXTURES. LESTER R. WELLMAN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 28, 1916. Serial No. 128,334. Term of patent 7 years.



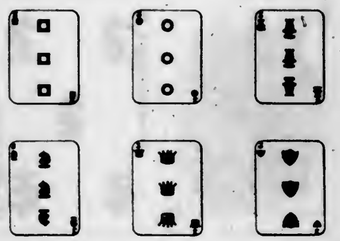
The ornamental design for a bracket back for lighting fixtures, as shown.

50,002. BRACKET-BACK FOR LIGHTING-FIXTURES. LESTER R. WELLMAN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 28, 1916. Serial No. 128,335. Term of patent 7 years.

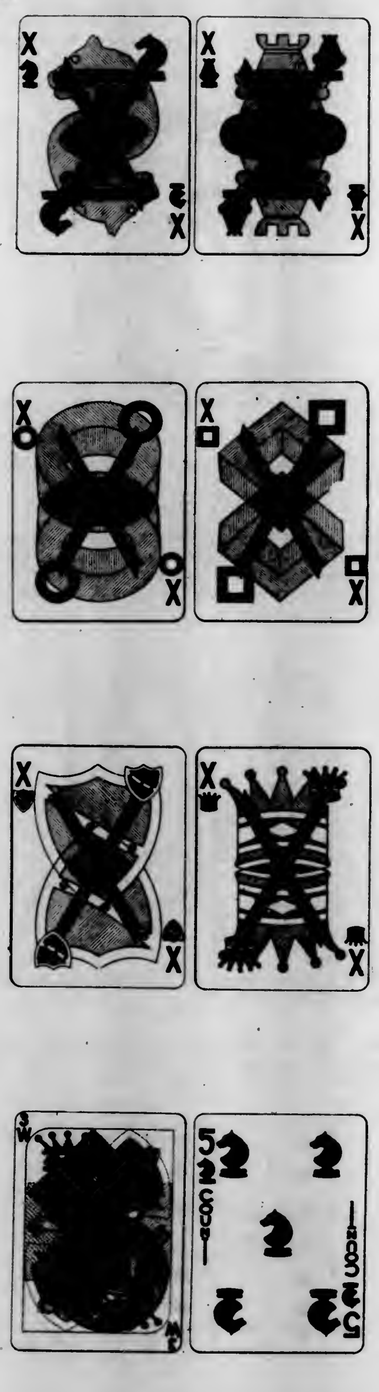


The ornamental design for a bracket back for lighting fixtures, as shown.

50,003. SET OF PLAYING-CARDS. FRANK E. WILLIAMS, Los Angeles, Cal. Filed Sept. 7, 1915. Serial No. 49,411. Term of patent 14 years.



50,003.



50,003.



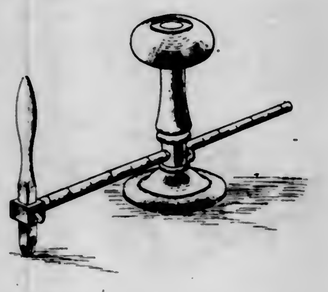
The ornamental design for a set of playing cards, as shown.

50,004. METAL TRAY. LOUIS WOJIDKOW, Brooklyn, N. Y., assignor to New York Stamping Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 29, 1915. Serial No. 17,939. Term of patent 14 years.



The ornamental design for a metal tray, as shown.

50,005. CUTTER. FRANK ROBERT WOELZ, New Brunswick, N. J. Filed Jan. 18, 1916. Serial No. 72,858. Term of patent 7 years.



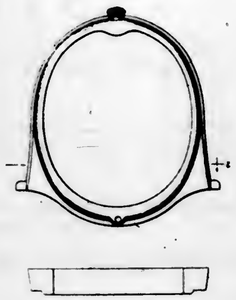
The ornamental design for a cutter, as shown.

50,006. SHOE-FASTENER. EMMA VAN GOFER, Kansas City, Mo. Filed July 6, 1915. Serial No. 38,325. Term of patent 3½ years.



The ornamental design for a shoe fastener, as shown.

50,007. RADIATOR-CASING FOR AUTOMOBILES. THOMAS M. PEPPERDAY, New York, N. Y. Filed Sept. 13, 1916. Serial No. 119,987. Term of patent 14 years.



The new, original, and ornamental design for a radiator casing for automobiles, as shown.

TRADE-MARKS

PUBLISHED DECEMBER 5, 1916.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 75,426. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BUNTE BROTHERS, Chicago, Ill. Filed Jan. 26, 1914.

TANGOS

Particular description of goods.—Candy.
Claims use since about the 19th day of April, 1913.

Ser. No. 81,820. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JACOB JAFFE, Far Rockaway, N. Y. Filed Oct. 12, 1914.

ECONOMITE

Particular description of goods.—A Chemical Coal-Saving Compound.
Claims use since Nov. 1, 1914.

Ser. No. 86,567. (CLASS 39. CLOTHING.) DUOFOLD HEALTH UNDERWEAR COMPANY, Mohawk, N. Y. Filed May 12, 1915.

Duo-Rib

Particular description of goods.—Knitted Underwear—viz., Shirts, Drawers, and Union-Suits.
Claims use since 1910.

Ser. No. 86,987. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) DORROS BROS., New York, N. Y. Filed May 29, 1915.



No claim being made to the name "Dorros Bros." apart from the mark shown.
Particular description of goods.—Artificial Flowers, Bridal Wreaths, Bouquets, and Flower Trimmings.
Claims use since Jan. 1, 1915.

Ser. No. 87,000. (CLASS 39. CLOTHING.) HENRY SONNEBORN & CO. INC., Baltimore, Md. Filed May 29, 1915.



No claim being made to the word "Clothes" apart from the mark shown in the drawing.
Particular description of goods.—Boys' Outer and Under Suits, Men's Outer and Under Suits, Overcoats, Rain-Coats, Vests, Children's Outer and Under Suits, Slip-Coats, Trousers, Top-Coats.
Claims use since Apr. 16, 1915.

Ser. No. 88,283. (CLASS 12. CONSTRUCTION MATERIALS.) NORTHERN INSULATING COMPANY, St. Paul, Minn. Filed July 29, 1915.

KEYBOARD

Particular description of goods.—Felted-Vegetable-Fiber Heat-Insulating Material.
Claims use since on or about Apr. 1, 1915.

Ser. No. 88,947. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & Co., INC., New York, N. Y. Filed Sept. 1, 1915.



Colored as shown, having flowers of blue hues and golden leaves and blue and white scrolls and border on a yellow background with a bluish center.
Particular description of goods.—Toilet Powder and Rouge or Solid Face-Powder.
Claims use since Nov. 7, 1914.

Ser. No. 90,438. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANKLIN MACVEAGH & COMPANY, Chicago, Ill. Filed Nov. 5, 1915.



No claim being made to the word "Holland" apart from the mark shown in the drawing.
Particular description of goods.—Olives, Pickles, Peanut-Butter, Apple-Butter, Mince-Meat, Tomato Catsup, Jellies, and Fruit Preserves.
Claims use since July 30, 1915.

Ser. No. 90,811. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) BENJAMIN-SELLAR MFG. CO., Chicago, Ill. Filed Nov. 22, 1915.

The BOY CONTRACTOR

Particular description of goods.—Building and Construction Toys.
Claims use since Nov. 10, 1915.

Ser. No. 91,790. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATONS.) NATHAN TEPLOW, New York, N. Y. Filed Dec. 27, 1915.

SUPEROL

Particular description of goods.—Oils Used as a Remedy for Rheumatism, Neuralgia, Lumbago, Backache, Stiff Joints, Swellings, Sprains, and All Muscular Pains; Pile Remedy; Ointments Used as a Remedy for Eczema, Pimples, Burns, Sores, Cuts, Wounds, Itching, and other Skin Affections; Liniments Used as a Remedy for Rheumatism, Neuralgia, Lumbago, Backache, Stiff Joints, Swellings, Sprains, and Muscular Pains; and Emulsions Used as a Remedy for Coughs, Colds, Bronchitis, and Whooping-Cough.
Claims use since Sept. 1, 1915.

Ser. No. 92,265. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COFFETONE MANUFACTURING COMPANY, Minneapolis, Minn. Filed Jan. 20, 1916.



No claim is made to the words "Nature's Own Drink" apart from the mark shown in the accompanying drawing.
Particular description of goods.—A Substitute for Coffee.
Claims use since Sept. 21, 1915.

Ser. No. 93,054. (CLASS 39. CLOTHING.) PROTEXWEL MANUFACTURING CORPORATION, Chicago, Ill. Filed Feb. 23, 1916.

Protexwel

Particular description of goods.—Corsets, Pantaloons for Men, Women, and Children, Coats, and Coats and Aprons for Surgeons and Workmen, Skirt-Protectors, Shampoo-Jackets, Shampoo-Throws, Cover-Sheets for Protecting Bedding or the Like, Aprons, Sanitary Shields, Bibs.
Claims use since on or about the 19th day of February, 1915.

Ser. No. 93,515. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TAMPA BAY PACKING COMPANY, St. Petersburg, Fla. Filed Mar. 13, 1916.



Particular description of goods.—Citrus Fruits.
Claims use since Nov. 1, 1912.

Ser. No. 94,021. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOSEPH T. RICHMAN, New York, N. Y. Filed Mar. 31, 1916.

RICO BLUE LINE

Comprising the words "Rico Blue Line" and a blue thread sewn along the selvage of the fabric, no claim being made to the exclusive use of the words "Blue Line" apart from the mark as shown in the drawing.
Particular description of goods.—Cotton Piece Goods.
Claims use since Jan. 1, 1916.

Ser. No. 94,885. (CLASS 39. CLOTHING.) BROKAW BROTHERS, New York, N. Y. Filed May 4, 1916.

EASYSTRIDE

Particular description of goods.—Shoes Made of Leather, Hide, Rubber, Canvas, Cloth, or Substitutes for Said Materials and Combinations Thereof.
Claims use since Mar. 3, 1916.

Ser. No. 94,904. (CLASS 39. CLOTHING.) LOUIS SHAPIRO & Co., New York, N. Y. Filed May 4, 1916.

ELL
ESS
System

No claim being made for the exclusive use of the word "System."
Particular description of goods.—Men's and Children's Coats, Vests, and Trousers.
Claims use since April, 1907.

Ser. No. 95,055. (CLASS 15. OILS AND GREASES.) SWAN & FINCH Co., New York, N. Y. Filed May 10, 1916.



The exclusive use of the diagrammatic representation of the gear-wheels not being claimed apart from the mark as shown in the drawing.
Particular description of goods.—Transmission and Gear-Case Grease.
Claims use since Apr. 15, 1916.

Ser. No. 95,388. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMPOULE DRUG COMPANY, INC., New York, N. Y. Filed May 24, 1916.

AMPOINTS

Particular description of goods.—Aromatic Spirits of Ammonia, Strychnin Nitrate, Nitroglycerin, (for Medicinal Purposes,) Caffein, Camphor, Morphin Sulfate, Sodium Cacodylate, Tincture of Iodin, Iron Citrate, Iodin Colloidal, and Mercury Salicylate.
Claims use since July 20, 1915.

Ser. No. 95,392. (CLASS 37. PAPER AND STATIONERY.) WILLIAM EDWARD BLAKE, Toronto, Ontario, Canada. Filed May 24, 1916.



Particular description of goods.—Writing or Letter Paper.
Claims use since the 24th of April, 1916.

Ser. No. 95,766. (CLASS 39. CLOTHING.) SAM WEIL, St. Louis, Mo. Filed June 9, 1916.

Sam Weil
"NOTHING BUT STRAWS"

No claim is made to the words "Nothing But Straws" apart from the mark as shown. The name "Sam Weil" is a facsimile of applicant's signature as written by the applicant.

Particular description of goods.—Straw Hats.

Claims use since on or about May 1, 1916.

Ser. No. 95,786. (CLASS 38. PRINTS AND PUBLICATIONS.) ETHEL V. KEMPER, Chicago, Ill. Filed June 10, 1916.

Virginia Page

The trade-mark constitutes the *nom de plume* and is in the handwriting of the applicant.

Particular description of goods.—A Newspaper-Section.

Claims use since Aug. 20, 1914.

Ser. No. 96,245. (CLASS 38. PRINTS AND PUBLICATIONS.) BENZIGER BROTHERS, New York, N. Y. Filed June 30, 1916.



Particular description of goods.—Books and Circulars.

Claims use since Feb. 1, 1895.

Ser. No. 96,623. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WARREN J. DAVIS, Camden, N. J. Filed July 17, 1916.

The Genuine
CAN-U-TIL-LO
H
TE E PO
R
PO TE
B

No claim being made for the words "The Genuine Herb" and "Can-U-Til-Lo" apart from the mark shown in the drawing.

Particular description of goods.—A Remedy for Rheumatism and Kidney Diseases.

Claims use since May 26, 1911.

Ser. No. 96,691. (CLASS 39. CLOTHING.) HARRISON & LITTRELL, Woodward, Okla. Filed July 20, 1916.

"LEARN THE WAY"

Particular description of goods.—Men's and Boys' Overcoats and Outer Suits, Men's and Boys' Hats and Caps, Men's and Boys' Dress, Negligée, and Work Shirts, Men's and Boys' Union-Suits, Undershirts, and Drawers, Hosiery, Leather and Rubber Boots and Shoes, Men's and Boys' Collars, Men's and Boys' Mackinaws, Overalls, Jumpers, and Gloves.

Claims use since July 7, 1913.

Ser. No. 96,893. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JANIE LINCOLN, Toledo, Ohio. Filed July 27, 1916.

JL
Janie Lincoln

The name "Janie Lincoln" is used in connection with the monogram "J L," no claim being made for the name "Janie Lincoln" apart from the mark shown on the drawing.

Particular description of goods.—Complexion-Powder.

Claims use since Apr. 10, 1914.

Ser. No. 96,945. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON BARON, New York, N. Y. Filed July 29, 1916.

TAT

Particular description of goods.—Cleansing the Hair of All Nits, Vermin, Dandruff, Germs, and Dirt.

Claims use since on or about Nov. 1, 1910.

Ser. No. 96,953. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE FLETCHER, TERRY COMPANY, Bristol, Conn. Filed July 29, 1916.



Particular description of goods.—Glass-Cutters, Tube-Cutters, Oval-Cutters, Circle-Cutters.

Claims use since June, 1914.

Ser. No. 96,977. (CLASS 37. PAPER AND STATIONERY.) CHOPE-STEVENS PAPER CO., Detroit, Mich. Filed July 31, 1916.

Yankee

Particular description of goods.—Bond-Paper.

Claims use since Aug. 30, 1906.

Ser. No. 97,132. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE BEST ELECTRIC COMPANY, Pittsburgh, Pa. Filed Aug. 7, 1916.

"JIFFY"

Particular description of goods.—Attachment-Plugs, Lamp-Sockets, and Outlet-Box Receptacles.

Claims use since early in August, 1915.

Ser. No. 97,210. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CONTINENTAL VARNISH COMPANY INC., New York, N. Y. Filed Aug. 9, 1916.

VELOX

No claim being made to the right to the exclusive use of the words "Architectural Finishes" apart from the mark shown in the drawing.

Particular description of goods.—Varnish, Enamel, Furniture-Polish, and Varnish-Remover.

Claims use since June 19, 1916.

Ser. No. 97,359. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) SLAZENGERS, LIMITED, London, England. Filed Aug. 15, 1916.



Particular description of goods.—Tennis-Rackets, Tennis-Balls, Cricket-Bats, Cricket-Balls, Badminton Rackets, Foot-Balls, Hockey-Sticks, Hockey-Balls, Racket-Rackets and Squash-Rackets.

Claims use since before 1888.

Ser. No. 97,382. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) O. G. WILSON, Centralia, Mo. Filed Aug. 16, 1916.

O.G.WILSON
Reg. U.S. Pat. Off.

No claim being made for the words "Reg. U. S. Pat. Off." and "O. G. Wilson."

Particular description of goods.—A Medicine for the Treatment of Influenza and Distemper Among Horses, Coming in Liquid Form, Put Up in Bottles, and Known on the Market as Wilson's Distemper Remedy.

Claims use since Aug. 1, 1916.

Ser. No. 97,450. (CLASS 39. CLOTHING.) THE FAULTLESS RUBBER CO., Ashland, Ohio. Filed Aug. 19, 1916.

Reliance
De Luxe

No claim being made to the words "De Luxe" apart from the mark shown in the drawing.

Particular description of goods.—Household Rubber Gloves.

Claims use since Aug. 7, 1916.

Ser. No. 97,457. (CLASS 39. CLOTHING.) SOLOMON NEWMAN, New York, N. Y. Filed Aug. 19, 1916.

Dauntless

Comprising the word "Dauntless."

Particular description of goods.—Trousers and Rain-Coats.

Claims use since 1900.

Ser. No. 97,502. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE CINCINNATI RUBBER MANUFACTURING COMPANY, Norwood, Ohio. Filed Aug. 21, 1916.

NORWOOD

No claim being made to the word "Norwood" apart from the mark shown in the drawing.

Particular description of goods.—Rubber Belting, Rubber Hose, Duck Belting, Duck Hose, Rubber Machinery Packing, and Asbestos Machinery Packing.

Claims use since October, 1905.

Ser. No. 97,503. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE CINCINNATI RUBBER MANUFACTURING COMPANY, Norwood, Ohio. Filed Aug. 21, 1916.

R
C CONGO M
C

No claim being made to the word "Congo" apart from the mark shown in the drawing.

Particular description of goods.—Rubber Belting, Rubber Hose, Duck Belting, Duck Hose, Rubber Machinery Packing, and Asbestos Machinery Packing.

Claims use since October, 1905.

Ser. No. 97,568. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ARMAND COMPANY, Des Moines, Iowa. Filed Aug. 23, 1916.



Particular description of goods.—Face-Powder, Cold-Cream, Hair-Wash, Tooth-Paste, Rouge, Shampoo Preparations, and Perfume.

Claims use since May 29, 1916, on face-powder; since July 27, 1916, on other items enumerated above.

Ser. No. 97,731. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EVERETT MILLS, Lawrence and Boston, Mass. Filed Aug. 31, 1916.

MAYFLOWER

CHEVIOT

No claim is made to the word "Cheviot" apart from the mark shown on the drawing.

Particular description of goods.—Cotton Shirtings in the Piece.

Claims use since Nov. 1, 1900.

Ser. No. 97,787. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FLOOR-SHINE MANUFACTURING COMPANY, St. Louis, Mo. Filed Sept. 5, 1916.

PELICAN



Particular description of goods.—Varnish.

Claims use since about Aug. 4, 1916.

Ser. No. 97,793. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ITEN BISCUIT CO., Omaha, Nebr. Filed Sept. 5, 1916.

ARIEL

Particular description of goods.—Cakes and Cookies.

Claims use since Aug. 1, 1916.

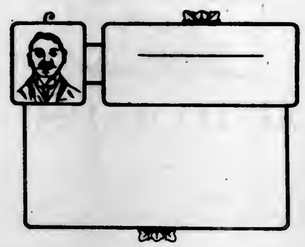
Ser. No. 97,794. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ITEN BISCUIT CO., Omaha, Nebr. Filed Sept. 5, 1916.

ALL-THERE

Particular description of goods.—Cakes and Cookies.

Claims use since Aug. 1, 1916.

Ser. No. 97,809. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRED. PHILLIPS, New York, N. Y. Filed Sept. 5, 1916.



The portrait being that of myself.

Particular description of goods.—A Medicine for Rheumatic Pains.

Claims use since on or about Sept. 1, 1916.

Ser. No. 98,042. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COMMERCIAL CREAMERY COMPANY, Spokane, Wash. Filed Sept. 18, 1916.

MEDO-MAID

Particular description of goods.—Butter and Honey.

Claims use since Apr. 22, 1916.

Ser. No. 98,057. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROYAL REMEDIES COMPANY, Waukegan, Ill. Filed Sept. 18, 1916.

tGRIPGO

Particular description of goods.—A Medicinal Compound Adapted to the Treatment of La Grippe, Colds, Intercostal Neuralgia, and Kindred Human Ailments.

Claims use since Aug. 1, 1916.

Ser. No. 98,059. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROYAL REMEDIES COMPANY, Waukegan, Ill. Filed Sept. 18, 1916.

ODOWILGO

Particular description of goods.—A Pharmaceutical Preparation for Checking Excessive Secretions of the Skin and Preventing the Odor.

Claims use since Aug. 1, 1916.

Ser. No. 98,097. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) REMY, SCHMIDT AND PLEISSNER, New York, N. Y. Filed Sept. 19, 1916.

LINHUCK

Particular description of goods.—Towelings and Towels.

Claims use since Sept. 1, 1916.

Ser. No. 98,176. (CLASS 12. CONSTRUCTION MATERIALS.) WILLITE ROAD CONSTRUCTION COMPANY OF AMERICA, New York, N. Y. Filed Sept. 22, 1916.

WILLITE
TRADE MARK REG. U.S. PAT. OFFICE

No claim being made to the words "Trade Mark Reg. U. S. Pat. Office" and the representation of the border of the name-plate apart from the mark shown in the drawing.

Particular description of goods.—Bituminous Paving and Paving Materials.

Claims use since August, 1915.

Ser. No. 98,194. (CLASS 38. PRINTS AND PUBLICATIONS.) OLD-WIL PUBLISHING CO., Milwaukee, Wis. Filed Sept. 23, 1916.



No claim is made to the words "French," "German," "Spanish," and "Language" apart from the mark shown in the drawing.

Particular description of goods.—Language-Teaching Publications, and Particularly for Such Publications in Card Form.

Claims use since Nov. 22, 1915.

Ser. No. 98,219. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OSBORNE ZINC WHITE LIMITED, London and Widnes, England. Filed Sept. 25, 1916.



The trade-mark consists of the representation of a seascape and the words "The Rising Sun" and "The Great Colour Maker." No claim is made to the use of the words "The Great Colour Maker" appearing on the mark apart from the mark as in the drawing.

Particular description of goods.—Pigments for Use in the Rubber and Linoleum Industries.

Claims use since about Oct. 26, 1910.

Ser. No. 98,232. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTIN KAPLAN, New York, N. Y. Filed Sept. 25, 1916.

Mottéllis

Particular description of goods.—Shampoos and Corn Remedies.
Claims use since June 15, 1914.

Ser. No. 98,239. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CROWN CORK AND SEAL CO. OF BALTIMORE CITY, Baltimore, Md. Filed Sept. 26, 1916.

TERRAPIN

Particular description of goods.—Bottle-Openers.
Claims use since June, 1916.

Ser. No. 98,255. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE HAWTHORNE MANUFACTURING COMPANY INCORPORATED, Bridgeport, Conn. Filed Sept. 27, 1916.

NITROJECTOR

Particular description of goods.—Electric Lamps.
Claims use since May 18, 1916.

Ser. No. 98,307. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VAN ANTWERP'S DRUG CORPORATION, INC., Mobile, Ala. Filed Sept. 28, 1916.

ROACHBANE

Particular description of goods.—A Preparation for the Destruction and Prevention of Roaches and Water-Bugs.
Claims use since the 3d day of May, 1913.

Ser. No. 98,320. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EPAULA M. WILLIAMS, Terre Haute, Ind. Filed Sept. 29, 1916.

Epaula M. Williams

Consisting of a facsimile of the applicant's signature.
Particular description of goods.—Cough-Syrup.
Claims use since Sept. 1, 1916.

Ser. No. 98,342. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILLIAM C. PERRY, Duchesne, Utah. Filed Sept. 30, 1916.



AUTO WADS

No claim is made to the words "Auto Wads" apart from the showing made in the drawing.
Particular description of goods.—Cotton-Waste Especially Adapted for Use in Cleaning and Polishing Automobiles.
Claims use since the 1st day of December, 1915.

Ser. No. 98,383. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE COLLINS, Pittsburgh, Pa. Filed Oct. 3, 1916.

OSCO

Particular description of goods.—Medicinal Salve for the Treatment of Piles, Boils, Abscesses, Burns, Cuts, and Sores and for Any Affection of the Human Body (Such as Eruptions on the Skin) Needing Drawing and Healing.
Claims use since Sept. 19, 1916.

Ser. No. 98,397. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE WILKINSON MANUFACTURING CO., Binghamton, N. Y. Filed Oct. 3, 1916.

CHOO-CHOO

Particular description of goods.—Child's Vehicle.
Claims use since Feb. 2, 1916.

Ser. No. 98,450. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE TROPICAL PHARMACAL CO., New York, N. Y. Filed Oct. 5, 1916.

TROPICAL PHARMACAL CO. INC.

Particular description of goods.—Medicines for the Treatment of Diseases of Women, Medicinal Tonics, Expectorants, Tooth-Paste, Talcum Powders, Lotions and Tablets for Treatment of the Eyes, Laxatives, Ointments for the Treatment of Wounds, Cuts, Burns, Insect-Bites, Rheumatism, and for the Treatment of All Inflammatory Skin Diseases, Such as Eczema, Bunions, Boils, and Felons, Also for the Treatment of Nasal Catarrh, and Hair-Tonics.
Claims use since Feb. 1, 1913.

Ser. No. 98,462. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CADILLAC AUTO TRUCK COMPANY, Cadillac, Mich. Filed Oct. 6, 1916.

ACME THE TRUCK OF PROVED UNITS

The mark consists of the word "Acme" in connection with the representation of a red seal and the words "The Truck of Proved Units." The words "The Truck of Proved Units" are not claimed apart from the mark shown.
Particular description of goods.—Auto or Motor Trucks.
Claims use since Nov. 1, 1915.

Ser. No. 98,464. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GOLD SEAL BATTERY & ELECTRIC CO. INC., New York, N. Y. Filed Oct. 6, 1916.

DRY GOLD SEAL BATTERY

No claim being made, however, to the exclusive use of the words "Dry Battery" which appear in the said trade-mark.
Particular description of goods.—Dry Battery.
Claims use for the past two months.

Ser. No. 98,468. (CLASS 2. RECEPTACLES.) ALBERT HEATH, Escanaba, Mich. Filed Oct. 6, 1916.

Albert Heath.

The trade-mark shown in the accompanying drawing being the facsimile of my signature.
Particular description of goods.—A Coffin-Box.
Claims use since December, 1915.

Ser. No. 98,469. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) R. U. KEVIL & SONS, Mayfield, Ky. Filed Oct. 6, 1916.

JERSEY CREAM

Particular description of goods.—Wheat-Flour.
Claims use since Sept. 1, 1887.

Ser. No. 98,476. (CLASS 38. PRINTS AND PUBLICATIONS.) THE MOTOR WORLD PUBLISHING CO., New York, N. Y. Filed Oct. 6, 1916.

MOTOR WORLD

Particular description of goods.—Weekly Publications.
Claims use since October, 1900.

Ser. No. 98,484. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLARE CARLE REPLOGLE, Shenandoah, Iowa. Filed Oct. 6, 1916.

Dollflower

Particular description of goods.—Wheat-Flour, Graham Flour, and Pancake-Flour.
Claims use since June 23, 1916.

Ser. No. 98,508. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) GRINNELL WASHING MACHINE COMPANY, Grinnell, Iowa. Filed Oct. 7, 1916.

LAUNDRY QUEEN

Particular description of goods.—Laundry-Washing Machine.
Claims use since Dec. 1, 1912.

Ser. No. 98,525. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) POLACK TYRE & RUBBER CO., New York, N. Y. Filed Oct. 9, 1916. Under ten-year proviso.

POLACK

Particular description of goods.—Rubber Packing, Rubber-Asbestos Packing, Rubber-Lined Fire-Hose of Fabric, Fire-Hose Entirely of Fabric, Rubber Hose, Rubber Tubes, Solid Rubber Tires, and Pneumatic Rubber Tires.
Claims use since 1865.

Ser. No. 98,560. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) EXCELSIOR MANUFACTURING CO. LTD., Pittsburgh, Pa. Filed Oct. 11, 1916.

LYKNU

Particular description of goods.—Furniture Cleaner and Polish.
Claims use since Nov. 29, 1915.

Ser. No. 98,563. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOLOMON R. HAMBLETON, Memphis, Tenn. Filed Oct. 11, 1916.

LEMON-OLA

Comprising the word "Lemon-Ola."
Particular description of goods.—An Antiseptic Lotion for Use After Shaving and for Treatment of Chapped Skin, Burns, and Headache.
Claims use since about Oct. 15, 1911.

Ser. No. 98,590. (CLASS 48. MALT EXTRACTS AND LIQUORS.) CONSOLIDATED BOTTLING CO., Newark, N. J. Filed Oct. 12, 1916.

"BOB"

Particular description of goods.—Stock-Ale and Extra Porter.
Claims use since Dec. 15, 1915.

Ser. No. 98,596. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN P. KEETON, Atlanta, Ga. Filed Oct. 12, 1916.

BIG

Particular description of goods.—Cotton-Seed Meal.
Claims use since Aug. 1, 1916.

Ser. No. 98,606. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) J. PASKUS & SON, INC., New York, N. Y. Filed Oct. 12, 1916.

P

Particular description of goods.—Sole-Leather.
Claims use since about the early part of 1910.

Ser. No. 98,608. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) STANDARD POLISH COMPANY, Rapid City, S. D. Filed Oct. 12, 1916.

R-C

Particular description of goods.—Soap.
Claims use since July 1, 1915.

Ser. No. 98,646. (CLASS 39. CLOTHING.) BROWNSTEIN-LOUIS COMPANY, Los Angeles, Cal. Filed Oct. 14, 1916.

HENDAN

Particular description of goods.—Shirts, Pajamas, Nightgowns, and Underwear.
Claims use since Jan. 1, 1912.

Ser. No. 98,706. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RUB-NO-MORE CO., Fort Wayne, Ind. Filed Oct. 16, 1916.



Particular description of goods.—Soap.
Claims use since June 21, 1915.

Ser. No. 98,709. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Oct. 16, 1916.



Particular description of goods.—Newspaper-Sections.
Claims use since Aug. 7, 1916.

Ser. No. 98,713. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY CO., Springfield, Mass. Filed Oct. 16, 1916.

Soldiers Three

Particular description of goods.—Games.
Claims use since on or about Feb. 1, 1915.

Ser. No. 98,729. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE GLUCKAUF COMPANY INC., New York, N. Y. Filed Oct. 17, 1916.

OUR

PIPPIN

Particular description of goods.—Suspenders.
Claims use since Feb. 19, 1914.

Ser. No. 98,730. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE GLUCKAUF COMPANY INC., New York, N. Y. Filed Oct. 17, 1916.

OUR

DANDY

Particular description of goods.—Suspenders.
Claims use since Feb. 19, 1914.

Ser. No. 98,765. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ALEC LORIMORE, New York, N. Y. Filed Oct. 19, 1916.

KIZ-O-MAR

Particular description of goods.—Motion-Picture Films.
Claims use since Mar. 1, 1916.

Ser. No. 98,773. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SARAH J. SANGER, Lima, N. Y. Filed Oct. 19, 1916. Under ten-year proviso.

ONE The Sanger's SANGER'S Emery Inside Ring Buffs

Particular description of goods.—Ring-Buffs—viz., Buff-Sticks.
Claims use since about the year 1891.

Ser. No. 98,783. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BURTON & DAVIS CO., New York, N. Y. Filed Oct. 20, 1916.

VINE

Particular description of goods.—Canned Vegetables.
Claims use since the 1st day of January, 1885.

Ser. No. 98,785. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ADELAIDE CLARK, New York, N. Y. Filed Oct. 20, 1916.

CHEER UP

Particular description of goods.—Puzzles.
Claims use since June 27, 1916.

Ser. No. 98,795. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) ATLAS CRUCIBLE STEEL COMPANY, Dunkirk, N. Y. Filed Oct. 21, 1916.

LOCO

Particular description of goods.—Tool-Steels.
Claims use since Jan. 1, 1908.

Ser. No. 98,797. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) ATLAS CRUCIBLE STEEL COMPANY, Dunkirk, N. Y. Filed Oct. 21, 1916.

DEWARD

The trade-mark consists of the letters "Deward" either printed upon labels or impressed in the steel.

Particular description of goods.—Tool-Steels.

Claims use since Jan. 1, 1916.

Ser. No. 98,800. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROSCOE FRANK BEAUCHAMP, Philadelphia, Pa. Filed Oct. 21, 1916.

RA-DOX-AL

Particular description of goods.—Salves to be Applied Externally for Eczema, Pimples, Cracked Skin, Tetter, Salt-Rheum, and All Skin Eruptions.

Claims use since Aug. 1, 1910.

Ser. No. 98,808. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) HISCOX & CO., Patchogue, N. Y. Filed Oct. 21, 1916.

TRADE HVL MARK

No claim is made to the exclusive use of the words "Trade Mark" apart from the mark shown in the drawing.

Particular description of goods.—A Preparation for Polishing Auto-Bodies, Pianos, Furniture, Hardwood Floors, and All Varnished Surfaces.

Claims use since Oct. 5, 1916.

Ser. No. 98,844. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JOSEPH E. PERRAULT, Springfield, Mass. Filed Oct. 23, 1916.

PANAZONE

Particular description of goods.—Polish for Furniture, Automobile-Bodies, Pianos, and Woodwork Generally.

Claims use since Oct. 2, 1916.

Ser. No. 98,846. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) THE REMINGTON ARMS UNION METALLIC CARTRIDGE COMPANY, New York, N. Y., and Bridgeport, Conn. Filed Oct. 23, 1916.

KILRITE

Particular description of goods.—Shotgun-Cartridges, Loaded and Empty.

Claims use since July 25, 1916.

Ser. No. 98,852. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) S. J. VALK & BRO., New York, N. Y. Filed Oct. 23, 1916.

OLIVONS

Particular description of goods.—Olives.

Claims use since about Oct. 16, 1916.

Ser. No. 98,865. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEON RENAKER, Winchester, Ky. Filed Oct. 24, 1916.

BLUE RIBBON

Particular description of goods.—Turkeys.

Claims use since Nov. 10, 1911.

Ser. No. 98,882. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) MAX HERMAN, New York, N. Y. Filed Oct. 25, 1916.

ALADDIN POM PON

Comprising the words "Aladdin Pom Pon," no claim being made to the exclusive use of the words "Pom Pon" apart from the mark shown in the drawing.

Particular description of goods.—Pompons.

Claims use since Sept. 21, 1916.

Ser. No. 98,921. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CUDAHY PACKING COMPANY, Chicago, Ill. Filed Oct. 27, 1916.

REX

Particular description of goods.—Canned Pork and Beans.

Claims use since about Jan. 1, 1902.

Ser. No. 98,929. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MILLER-ELMER MANUFACTURING CO., LTD., New Orleans, La. Filed Oct. 27, 1916.



The picture being fanciful.

Particular description of goods.—Candy.

Claims use since July 1, 1916.

Ser. No. 98,934. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALECIA EVAPORATED MILK COMPANY, Madison, Wis. Filed Oct. 27, 1916.



Particular description of goods.—Evaporated Milk.

Claims use since December, 1914.

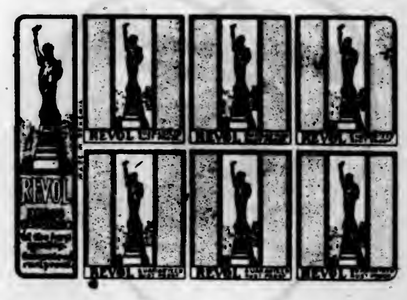
Ser. No. 98,937. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) AUGUST BUEHRMANN MANUFACTURING COMPANY, Newark, N. J. Filed Oct. 28, 1916.

HERCULES

Particular description of goods.—Bits, Spurs, Stirrups, and Saddlery Hardware.

Claims use since Dec. 17, 1912.

Ser. No. 98,967. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WALDES & CO., Prague-Wrschowitz, Austria-Hungary. Filed Oct. 28, 1916.



No claim is made to the exclusive use of the words "Dress Fasteners of the Best Quality, Guaranteed Rust Proof, Made in Bohemia."

Particular description of goods.—Snap-Fasteners of All Kinds.

Claims use since Feb. 12, 1912.

Ser. No. 99,052. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WAUKESHA PURE FOOD COMPANY, Waukesha, Wis. Filed Nov. 2, 1916.

JJ

Particular description of goods.—Jelly-Powders, Ice-Cream Powders, and Gelatins.

Claims use since Aug. 1, 1916.

Ser. No. 99,063. (CLASS 18. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE HAYDENVILLE COMPANY, Haydenville, Mass. Filed Nov. 3, 1916.

SANIDOME

Particular description of goods.—Bibs and Cocks or Faucets.

Claims use since the latter part of the year 1913.

Ser. No. 99,091. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MORRELL & Co., Ottumwa, Iowa. Filed Nov. 4, 1916.



Particular description of goods.—Meat Products—Namely, Breakfast-Bacon.
Claims use since Aug. 24, 1916.

Ser. No. 99,092. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MORRELL & Co., Ottumwa, Iowa. Filed Nov. 4, 1916.



Particular description of goods.—Breakfast-Bacon.
Claims use since Sept. 10, 1910.

Ser. No. 99,152. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SPEAKMAN SUPPLY & PIPE COMPANY, Wilmington, Del. Filed Nov. 7, 1916.

Kas-Bras

Particular description of goods.—Shower-Heads.
Claims use since July 26, 1916.

Ser. No. 99,165. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) WILLIAM FAERBER, Chicago, Ill. Filed Nov. 8, 1916.

EXCELSIOR.

Particular description of goods.—Shampooing Apparatus.
Claims use since Mar. 25, 1912.

Ser. No. 99,169. (CLASS 39. CLOTHING.) LILY OF FRANCE CORSET Co., New York, N. Y. Filed Nov. 8, 1916.

VINETTE.

Particular description of goods.—Corsets.
Claims use since the year 1900.

Ser. No. 99,201. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RUSSIA CEMENT COMPANY, Gloucester, Mass. Filed Nov. 9, 1916.

RUSCO

Particular description of goods.—Cod-Liver Oil.
Claims use since Oct. 1, 1916.

Ser. No. 99,207. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CREW LEVICK COMPANY, Philadelphia, Pa. Filed Nov. 10, 1916.

MISTOKLOTHS

Particular description of goods.—Polishing-Cloths.
Claims use since March, 1916.

Ser. No. 99,228. (CLASS 39. CLOTHING.) SNYDER BROTHERS, Boston, Mass. Filed Nov. 10, 1916.

Zignet

Particular description of goods.—Hosiery.
Claims use since Aug. 15, 1915.

Ser. No. 99,237. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAUL CHOVANECZ, Johnstown, Pa. Filed Nov. 11, 1916.



The portrait being of myself.
Particular description of goods.—A Remedy for Gonorrhea.
Claims use since Oct. 20, 1916.

TRADE-MARK REGISTRATIONS GRANTED

DECEMBER 5, 1916.

114,128. PRESERVED HERRING. ALASKA FISH SALTING & BY-PRODUCTS CO., Portland, Oreg.
Filed July 19, 1916. Serial No. 96,660. PUBLISHED SEPTEMBER 19, 1916.

114,129. CERTAIN NAMED CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. ALEXANDER DRUG CO., Oklahoma, Okla.
Filed January 28, 1916. Serial No. 92,459. PUBLISHED APRIL 4, 1916.

114,130. HONEY. AMERICAN SUGAR COMPANY, LTD., Honolulu and county of Maui, Territory of Hawaii.
Filed July 11, 1916. Serial No. 96,487. PUBLISHED SEPTEMBER 26, 1916.

114,131. CLIPPED WHITE OATS. ARMOUR GRAIN COMPANY, Jersey City, N. J., and Chicago, Ill.
Filed August 14, 1916. Serial No. 97,318. PUBLISHED SEPTEMBER 19, 1916.

114,132. RUBBER TIRES AND TUBES FOR AUTOMOBILES, AEROPLANES, TRUCKS, AND THE LIKE. AUTOMOBILE SUNDRIES COMPANY, New York, N. Y.
Filed July 27, 1916. Serial No. 96,884. PUBLISHED SEPTEMBER 26, 1916.

114,133. PREPARATION FOR WHIPPED CREAM AND EGGS. LE GRANDE HAROLD BAKER, New Haven, Conn.
Filed August 7, 1916. Serial No. 97,156. PUBLISHED SEPTEMBER 19, 1916.

114,134. CERTAIN NAMED FOODS. MILTON F. BARINGER, Philadelphia, Pa.
Filed March 3, 1916. Serial No. 93,258. PUBLISHED SEPTEMBER 26, 1916.

114,135. CANNED VEGETABLES AND ROLLED OATS. BLOOMINGTON WHOLESALE GROCERY CO., Bloomington, Ind.
Filed August 10, 1916. Serial No. 97,239. PUBLISHED SEPTEMBER 19, 1916.

114,136. CANNED VEGETABLES. BLOOMINGTON WHOLESALE GROCERY CO., Bloomington, Ind.
Filed August 10, 1916. Serial No. 97,240. PUBLISHED SEPTEMBER 19, 1916.

114,137. WOOD CONSTRUCTION TOY. BOSTON NOVELTY CO., Boston, Mass.
Filed November 10, 1915. Serial No. 90,554. PUBLISHED JANUARY 4, 1916.

114,138. CERTAIN NAMED CONSTRUCTION MATERIALS. BRADEN MANUFACTURING COMPANY, Terre Haute, Ind.
Filed July 10, 1916. Serial No. 96,457. PUBLISHED SEPTEMBER 26, 1916.

114,139. COTTON-SEED FEED. THE BUCKEYE COTTON OIL COMPANY, Cincinnati, Ohio.
Filed January 29, 1916. Serial No. 92,491. PUBLISHED SEPTEMBER 19, 1916.

114,140. CERTAIN NAMED CONSTRUCTION MATERIALS. WM. CAMERON & CO. INC., Waco, Tex.
Filed January 15, 1916. Serial No. 92,156. PUBLISHED JULY 4, 1916.

114,141. ICE-SKATES AND PARTS AND ACCESSORIES THEREOF. CANADA CYCLE & MOTOR CO., LTD., Toronto, Ontario, Canada.
Filed August 26, 1915. Serial No. 88,818. PUBLISHED AUGUST 29, 1916.

114,142. WHEAT-FLOUR. THE CANADIAN-AMERICAN CEREAL PRODUCTS CO., New York, N. Y.
Filed July 18, 1916. Serial No. 96,646. PUBLISHED SEPTEMBER 19, 1916.

114,143. WHEAT-FLOUR. CANADIAN MILL & ELEVATOR CO., El Reno, Okla.
Filed August 9, 1916. Serial No. 97,209. PUBLISHED SEPTEMBER 19, 1916.

114,144. CANNED SALMON. CHINOOK PACKING COMPANY, Chinook, Wash.
Filed June 8, 1916. Serial No. 95,699. PUBLISHED JULY 11, 1916.

114,145. CANNED SALMON. CHINOOK PACKING COMPANY, Chinook, Wash.
Filed June 8, 1916. Serial No. 95,700. PUBLISHED JULY 11, 1916.

114,146. COAL. PEARL A. COEN, Columbus, Ohio.
Filed July 8, 1916. Serial No. 96,421. PUBLISHED SEPTEMBER 19, 1916.

114,147. COAL. PEARL A. COEN, Columbus, Ohio.
Filed July 8, 1916. Serial No. 96,422. PUBLISHED SEPTEMBER 19, 1916.

114,148. AMALGAMATING PREPARATION OF RUBBER. SERENUS ALFRED CONOVER, Philadelphia, Pa.
Filed June 29, 1916. Serial No. 96,225. PUBLISHED SEPTEMBER 26, 1916.

114,149. SHORTENING COMPOSED OF COTTON-SEED OIL AND COTTON-SEED-OIL STEARIN. THE DIXIE REFINING CO., Memphis, Tenn.
Filed August 14, 1916. Serial No. 97,330. PUBLISHED SEPTEMBER 19, 1916.

114,150. CLOTHES-DRIERS. DOMESTIC LAUNDRY EQUIPMENT CORPORATION, New York, N. Y.
Filed July 15, 1916. Serial No. 96,582. PUBLISHED SEPTEMBER 26, 1916.

114,151. CLOTHES-DRIERS. DOMESTIC LAUNDRY EQUIPMENT CORPORATION, New York, N. Y.
Filed July 15, 1916. Serial No. 96,583. PUBLISHED SEPTEMBER 26, 1916.

114,152. CERTAIN NAMED MEDICINES AND PHARMACEUTICAL PREPARATIONS. SAMUEL S. DWORKIN, New York, N. Y.
Filed July 22, 1915. Serial No. 88,110. PUBLISHED MAY 9, 1916.

114,153. CHARMS, PENDANTS FOR NECK-CHAINS AND BRACELETS, BROOCH-PINS, AND FINGER-RINGS. EISENSTADT MANUFACTURING COMPANY, St. Louis, Mo.
Filed July 24, 1916. Serial No. 96,780. PUBLISHED SEPTEMBER 26, 1916.

114,154. WRITING-PENS OF ALL KINDS. THE ESTERBROOK STEEL PEN MFG. CO., Camden, N. J.
Filed June 15, 1916. Serial No. 95,886. PUBLISHED SEPTEMBER 26, 1916.

114,155. PEANUT-OIL. FIDELITY COTTON OIL COMPANY, Houston, Tex.
Filed August 4, 1916. Serial No. 97,079. PUBLISHED SEPTEMBER 19, 1916.

114,156. COFFEE. JAS. H. FORBES TEA & COFFEE CO., St. Louis, Mo.
Filed August 11, 1916. Serial No. 97,273. PUBLISHED SEPTEMBER 19, 1916.

114,157. SYRUP FOR LEMONADE, LIMEADE, AND PHOSPHATE DRINKS. GARRETT & COMPANY, Norfolk, Va.
Filed May 8, 1916. Serial No. 94,983. PUBLISHED JUNE 6, 1916.

114,158. PREPARATIONS FOR TREATING HYDROCARBON FUELS FOR INTERNAL-COMBUSTION ENGINES. GAS ENGINE EFFICIENCY COMPANY, St. Louis, Mo., assignor to Efficiency Oil Corporation, St. Louis, Mo., a Corporation of Delaware.
Filed August 21, 1915. Serial No. 88,732. PUBLISHED OCTOBER 19, 1915.

114,159. COAL. THE GEM COAL CO., Nelsonville, Ohio.
Filed July 10, 1916. Serial No. 96,464. PUBLISHED SEPTEMBER 19, 1916.

114,160. CHOCOLATE, CANDY, COCOA, AND MUSTARD. D. GHIRARDELLI CO., San Francisco, Cal.
Filed October 2, 1915. Serial No. 89,000. PUBLISHED SEPTEMBER 19, 1916.

114,161. CANNED SHRIMP AND CANNED OYSTERS. GLYNN CANNING COMPANY, Brunswick, Ga.
Filed August 9, 1916. Serial No. 97,211. PUBLISHED SEPTEMBER 19, 1916.

114,162. CERTAIN NAMED FOODS. A. GOODMAN & SONS, INC., New York, N. Y.
Filed February 28, 1916. Serial No. 93,140. PUBLISHED SEPTEMBER 19, 1916.

114,163. METAL SNAP-FASTENING BUTTONS OR CLASPS. HERO SNAP FASTENER COMPANY, New York, N. Y.
Filed April 12, 1915. Serial No. 85,899. PUBLISHED APRIL 25, 1916.

114,164. GAS-RANGES. HARRY J. HOOVER, Cincinnati, Ohio.
Filed June 22, 1916. Serial No. 96,057. PUBLISHED SEPTEMBER 19, 1916.

114,165. CRACKERS AND BISCUIT. JOHNSON EDUCATOR FOOD CO., Boston, Mass.
Filed August 11, 1916. Serial No. 97,294. PUBLISHED SEPTEMBER 19, 1916.

114,166. DRIED BEANS. JUDSON MICHIGBEAN COMPANY, Durand, Mich.
Filed July 7, 1916. Serial No. 96,409. PUBLISHED SEPTEMBER 19, 1916.

114,167. FRESH FRUITS. LAKE KEUKA FRUIT SALES COMPANY, INC., Penn Yan, N. Y.
Filed July 26, 1916. Serial No. 96,873. PUBLISHED SEPTEMBER 19, 1916.

114,168. CANDY. LOOSE-WILES BISCUIT COMPANY, Kansas City, Mo.
Filed July 31, 1916. Serial No. 96,992. PUBLISHED SEPTEMBER 26, 1916.

114,169. VIOLINS. LYON & HEALY, Chicago, Ill.
Filed April 10, 1915. Serial No. 85,856. PUBLISHED MAY 30, 1916.

114,170. AUTOMOBILE TRUCKS AND UNITS AND CERTAIN NAMED PARTS THEREOF. MAXFER TRUCK COMPANY, Chicago, Ill.
Filed May 15, 1916. Serial No. 95,148. PUBLISHED SEPTEMBER 26, 1916.

114,171. FURNITURE, SAME BEING A SEWING-BASKET IN TABLE FORM AND FOOTSTOOLS. METALKRAFT-ROCHESTER, Rochester, N. Y.
Filed May 17, 1916. Serial No. 95,206. PUBLISHED SEPTEMBER 26, 1916.

114,172. INCANDESCENT ELECTRIC LAMPS. THE METALYTE COMPANY, INC., New York, N. Y.
Filed July 3, 1915. Serial No. 87,760. PUBLISHED AUGUST 24, 1915.

114,173. PREPARED CEREAL FOOD. PETER V. MYSTKOWSKI, Chisholm, Minn.
Filed July 17, 1916. Serial No. 96,630. PUBLISHED SEPTEMBER 26, 1916.

114,174. CERTAIN NAMED FOODS. NAVE-MCCORD MERCANTILE CO., St. Joseph, Mo.
Filed July 22, 1916. Serial No. 96,756. PUBLISHED SEPTEMBER 26, 1916.

114,175. CANNED FRUITS AND VEGETABLES. M. O'CONNOR AND CO., Indianapolis, Ind.
Filed July 29, 1916. Serial No. 96,962. PUBLISHED SEPTEMBER 19, 1916.

114,176. CANDY. THE PECANELLA COMPANY, INC., Albany, N. Y.
Filed July 17, 1916. Serial No. 96,632. PUBLISHED AUGUST 29, 1916.

114,177. BICYCLES AND MOTOR-CYCLES. HARRY PERLMAN, New York, N. Y.
Filed July 6, 1916. Serial No. 96,363. PUBLISHED SEPTEMBER 26, 1916.

114,178. CIGARETTES. JACOB L. & FREDERICK PINKUS, trading as Jayeipi Freres & Cie., New York, N. Y.
Filed June 1, 1916. Serial No. 95,580. PUBLISHED SEPTEMBER 19, 1916.

114,179. SEASONING FOR MEATS AND GRAVIES. CARA PORSDAL, Omaha, Nebr.
Filed June 26, 1916. Serial No. 96,162. PUBLISHED SEPTEMBER 19, 1916.

114,180. NECKLACES. POWERS & MAYER, INC., New York, N. Y.
Filed October 21, 1915. Serial No. 89,996. PUBLISHED SEPTEMBER 26, 1916.

114,181. CARBON-PAPER AND TYPE-WRITER RIBBONS. REMINGTON TYPEWRITER COMPANY, Ilion and New York, N. Y.
Filed November 22, 1915. Serial No. 90,846. PUBLISHED MAY 30, 1916.

114,182. LINGERIE-TAPE—VIZ., A PLAIN BRAIDED TAPE. SAMSTAG & HILDER BROS., New York, N. Y.
Filed January 21, 1916. Serial No. 92,305. PUBLISHED MARCH 14, 1916.

114,183. CANNED SALMON. GEO. W. SANBORN & SONS, Astoria, Oreg.
Filed July 11, 1916. Serial No. 96,509. PUBLISHED SEPTEMBER 26, 1916.

114,184. CIGARETTES. LOUIS N. SARAS, Hazleton, Pa.
Filed June 30, 1916. Serial No. 96,258. PUBLISHED SEPTEMBER 26, 1916.

114,185. NOUGAT-BARS AND CHOCOLATE-COVERED CANDIES. W. F. SCHRAFFT & SONS CORPORATION, Boston, Mass.
Filed August 14, 1916. Serial No. 97,344. PUBLISHED SEPTEMBER 19, 1916.

114,186. CANNED VEGETABLES, CANNED SAUER-KRAUT. CANNED PORK AND BEANS, AND CANNED HOMINY. THE SEARS & NICHOLS CO., Chillicothe, Ohio.
Filed April 10, 1915. Serial No. 85,875. PUBLISHED AUGUST 10, 1915.

114,187. CITRUS FRUITS. RICHARD A. SMART, Georgiana, Fla.
Filed August 9, 1916. Serial No. 97,225. PUBLISHED SEPTEMBER 19, 1916.

114,188. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed January 29, 1916. Serial No. 92,504. PUBLISHED SEPTEMBER 26, 1916.

114,189. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed January 29, 1916. Serial No. 92,505. PUBLISHED SEPTEMBER 26, 1916.

114,190. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed January 29, 1916. Serial No. 92,506. PUBLISHED SEPTEMBER 26, 1916.

114,191. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed January 29, 1916. Serial No. 92,507. PUBLISHED SEPTEMBER 26, 1916.

114,192. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed January 29, 1916. Serial No. 92,508. PUBLISHED SEPTEMBER 26, 1916.

114,193. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed January 29, 1916. Serial No. 92,509. PUBLISHED SEPTEMBER 26, 1916.

114,194. TEA, CANNED PEACHES, CANNED TOMATOES, CANNED SWEET CORN, LEMON EXTRACT, COFFEE, EGGS, AND BUTTER. THE SQUARE DEAL MARKET COMPANY, Gary, Ind.
Filed August 1, 1916. Serial No. 97,027. PUBLISHED SEPTEMBER 19, 1916.

114,195. COFFEE. STEWART-GWYNNE COMPANY, Memphis, Tenn.
Filed August 11, 1916. Serial No. 97,296. PUBLISHED SEPTEMBER 19, 1916.

114,196. CORDS, CABLES, (NON-INSULATED,) AND CORDAGE IN BULK. STROMBERG-CARLSON TELEPHONE MANUFACTURING CO., Rochester, N. Y.
Filed October 17, 1915. Serial No. 89,810. PUBLISHED DECEMBER 28, 1915.

114,197. BUTTER. SUGAR CREEK CREAMERY COMPANY, Watseka, Danville, and Pana, Ill.
Filed February 21, 1916. Serial No. 93,031. PUBLISHED SEPTEMBER 19, 1916.

114,198. WATERPROOFED CORDS AND TWINES. TATE ELECTROLYTIC WATERPROOFING COMPANY, INCORPORATED, New York, N. Y.
Filed August 10, 1916. Serial No. 97,242. PUBLISHED SEPTEMBER 26, 1916.

114,199. RED MASON-JAR RINGS. R. E. TONGUE & BROS. CO., Philadelphia, Pa.
Filed April 3, 1916. Serial No. 94,091. PUBLISHED SEPTEMBER 26, 1916.

114,200. BUTTER. UNION MEAT COMPANY, North Portland, Oreg.
Filed July 28, 1916. Serial No. 96,938. PUBLISHED SEPTEMBER 19, 1916.

114,201. MINTS AND CANDIES OF ALL DESCRIPTIONS. ALICE M. VAN HORSEN, Los Angeles, Cal.
Filed August 9, 1916. Serial No. 97,229. PUBLISHED SEPTEMBER 19, 1916.

114,202. THREAD-CUTTERS. W-B MANUFACTURING COMPANY, INC., Binghamton, N. Y.
Filed April 13, 1916. Serial No. 94,403. PUBLISHED MAY 30, 1916.

114,203. FIBROUS ROPE AND CORDAGE. WALL ROPE WORKS, INC., Beverly, N. J., and New York, N. Y.
Filed July 25, 1916. Serial No. 96,858. PUBLISHED SEPTEMBER 26, 1916.

114,204. CERTAIN NON-ALCOHOLIC BEVERAGE. LEO WALLERSTEIN, New York, N. Y.
Filed August 10, 1916. Serial No. 97,261. PUBLISHED SEPTEMBER 26, 1916.

114,205. PIANOS, AUTOPIANOS, AND PLAYER-PIANOS. LOUIS H. ABENHEIMER, New York, N. Y.
Filed September 1, 1916. Serial No. 97,743. PUBLISHED OCTOBER 3, 1916.

114,206. FLAVORING EXTRACTS FOR FOODS, SPICES, COCOA, AND BIRD-SEED. ALEXANDER DRUG CO., Oklahoma, Okla.
Filed January 28, 1916. Serial No. 92,460. PUBLISHED APRIL 4, 1916.

114,207. STEEL SHOT. AMERICAN BALL COMPANY, Minneapolis, Minn.
Filed June 26, 1916. Serial No. 96,129. PUBLISHED OCTOBER 3, 1916.

114,208. CIGARS. AMERICAN EXCHANGE CIGAR COMPANY, New York, N. Y.
Filed July 29, 1916. Serial No. 96,943. PUBLISHED OCTOBER 3, 1916.

114,209. CLOTHES-WRINGERS AND PARTS THEREOF. THE AMERICAN WRINGER COMPANY, New York, N. Y.
Filed April 4, 1916. Serial No. 94,122. PUBLISHED OCTOBER 3, 1916.

114,210. SHOVELS, SPADES, AND SCOOPS. AMES SHOVEL & TOOL COMPANY, Jersey City, N. J., and Boston, Mass.
Filed May 20, 1916. Serial No. 95,507. PUBLISHED OCTOBER 3, 1916.

114,211. CHICK-CARRIERS, EGG-CARRIERS, PARCEL-POST BOXES, AND EGG-TRAYS. O. B. ANDREWS' COMPANY, Chattanooga, Tenn.
Filed July 14, 1916. Serial No. 96,556. PUBLISHED OCTOBER 3, 1916.

114,212. METAL HOT-WATER BOTTLES AND SYRINGES. ATLANTIC SALES CORPORATION, Boston, Mass.
Filed July 21, 1916. Serial No. 96,707. PUBLISHED OCTOBER 3, 1916.

114,213. CANDLES USED FOR LIGHTING PURPOSES OR FOR A NIGHT-LIGHT. ASSUNTA BARATTA, New York, N. Y.
Filed June 17, 1916. Serial No. 95,929. PUBLISHED OCTOBER 3, 1916.

114,214. SHARPENING AND ABRASIVE PREPARATION FOR METAL EDGE-TOOLS. CHARLES L. BAREWALD, Davenport, Iowa.
Filed September 5, 1916. Serial No. 97,781. PUBLISHED OCTOBER 3, 1916.

114,215. SPHYGMOMANOMETERS. WILLIAM A. BAUM, New York, N. Y.
Filed July 11, 1916. Serial No. 96,490. PUBLISHED OCTOBER 3, 1916.

114,216. TEXTILE THREADS. BELDING BROS. & CO., Rockville, Conn., and New York, N. Y.
Filed December 6, 1915. Serial No. 91,204. PUBLISHED APRIL 18, 1916.

114,217. TIRE-TAPE, RUBBER AND ADHESIVE PATCHES. BERIODIN RUBBER COMPANY, Philadelphia, Pa.
Filed July 1, 1916. Serial No. 96,267. PUBLISHED OCTOBER 3, 1916.

114,218. METALLIC VALVES. THE BISHOP-BABCOCK-BECKER CO., Cleveland, Ohio.
Filed December 31, 1913. Serial No. 74,907. PUBLISHED OCTOBER 3, 1916.

114,219. GLOVES AND MITTENS. THE BOSS MANUFACTURING COMPANY, Kewanee, Ill.
Filed July 10, 1916. Serial No. 96,455. PUBLISHED OCTOBER 3, 1916.

114,220. CERTAIN NAMED TEXTILES OF ALL KINDS. JOHN BOYLE & COMPANY, INCORPORATED, New York, N. Y.
Filed July 24, 1916. Serial No. 96,775. PUBLISHED OCTOBER 3, 1916.

114,221. CERTAIN NAMED FOODS. FREDERICK BRIGGS, Washington, D. C.
Filed November 8, 1915. Serial No. 90,496. PUBLISHED FEBRUARY 22, 1916.

114,222. BILLIARD-CLOTH. THE BRUNSWICK-BALKE-COLLENDER CO., Chicago, Ill.
Filed November 2, 1914. Serial No. 82,333. PUBLISHED OCTOBER 3, 1916.

114,223. BILLIARD-CLOTH. THE BRUNSWICK-BALKE-COLLENDER CO., Chicago, Ill.
Filed November 2, 1914. Serial No. 82,334. PUBLISHED OCTOBER 3, 1916.

114,224. HOSIERY. BURD KNITTING MILLS CO., Philadelphia, Pa.
Filed March 4, 1916. Serial No. 93,292. PUBLISHED OCTOBER 3, 1916.

114,225. MAGAZINE-SECTION ISSUED MONTHLY. THOMAS A. CAWTHRA, New York, N. Y.
Filed June 22, 1916. Serial No. 96,048. PUBLISHED OCTOBER 3, 1916.

114,226. ATHLETIC ANKLE-SUPPORTS. HENRY JAMES COLLIS, Taunton, Mass.
Filed July 29, 1916. Serial No. 96,950. PUBLISHED OCTOBER 3, 1916.

114,227. EXTENSION-TABLES. CONERY-DAVIS MF'G. CO., Shelbyville, Ind.
Filed August 2, 1916. Serial No. 97,032. PUBLISHED OCTOBER 3, 1916.

114,228. SHEET-ASBESTOS PACKING. CRANE COMPANY, Chicago, Ill.
Filed March 18, 1916. Serial No. 93,630. PUBLISHED JUNE 20, 1916.

114,229. LEATHER BELTING. DETROIT OAK BELTING CO., Detroit, Mich.
Filed June 21, 1913. Serial No. 71,232. PUBLISHED OCTOBER 3, 1916.

114,230. CORNMEAL, CREAM-MEAL, YELLOW MEAL, CRACKED CORN, AND HOMINY FEED. ENGELKE & FEINER MLG. CO., St. Louis, Mo.
Filed September 7, 1915. Serial No. 89,058. PUBLISHED SEPTEMBER 26, 1916.

114,231. MEN'S AND BOYS' LEATHER BOOTS AND SHOES. FARMINGTON SHOE MFG. CO., Dover, N. H.
Filed July 19, 1916. Serial No. 96,666. PUBLISHED OCTOBER 3, 1916.

114,232. SHIRTS, HOSIERY, UNDERWEAR, CLOTHING, AND HATS. FIFIELD & STEVENSON, Chicago, Ill.
Filed June 1, 1916. Serial No. 95,575. PUBLISHED OCTOBER 3, 1916.

114,233. CLEANING PREPARATION IN FINELY-DIVIDED FORM FOR HOUSEHOLD USE. FITZPATRICK BROS., Chicago, Ill.
Filed August 17, 1914. Serial No. 80,602. PUBLISHED OCTOBER 3, 1916.

114,234. SOAPLESS LIQUID WASHING COMPOUND. S. A. AND FRED FOSTER, Rochelle, Tex.
Filed May 22, 1915. Serial No. 86,818. PUBLISHED SEPTEMBER 26, 1916.

114,235. HATS AND CAPS. THE FRANKENBERG & LEMPERT HAT COMPANY, Toledo, Ohio.
Filed April 20, 1916. Serial No. 94,570. PUBLISHED OCTOBER 3, 1916.

114,236. SOFT DRINKS OR BEVERAGES CONTAINING EXTRACTS OF ROOTS AND SYRUPS THEREFOR. FRANK C. GOODALE, Lowell, Mass.
Filed August 28, 1916. Serial No. 97,665. PUBLISHED OCTOBER 3, 1916.

114,237. LETTERS, LEAFLETS, PAMPHLETS, BULLETINS, AND BOOKS. THE GOODYEAR TIRE & RUBBER COMPANY, Akron, Ohio.
Filed June 14, 1916. Serial No. 95,864. PUBLISHED OCTOBER 3, 1916.

114,238. PLAYING-CARDS. DALE M. GOTTFRIED, Falls City, Oreg.
Filed August 22, 1916. Serial No. 97,549. PUBLISHED OCTOBER 3, 1916.

114,239. METAL ALLOYS. THE HAYNES STELLITE CO., Kokomo, Ind.
Filed July 22, 1916. Serial No. 96,748. PUBLISHED OCTOBER 3, 1916.

114,240. SOAP. H. E. HECKINGER & COMPANY, Cincinnati, Ohio.
Filed January 26, 1916. Serial No. 92,412. PUBLISHED OCTOBER 3, 1916.

114,241. CLEANING FLUID. SARAH L. HILLMAN, Atlantic City, N. J., assignor to Eradico Company, a Corporation of New Jersey.
Filed May 1, 1916. Serial No. 94,825. PUBLISHED OCTOBER 3, 1916.

114,242. CERTAIN NAMED CLOTHING FOR MEN, YOUTHS, BOYS, WOMEN, MISSES, AND CHILDREN. THE O. L. HINDS COMPANY, Burlington, Vt.
Filed January 8, 1916. Serial No. 92,020. PUBLISHED MAY 23, 1916.

114,243. NEWSPAPER-SECTIONS PUBLISHED PERIODICALLY. KIN HUBBARD, Chicago, Ill.
Filed June 29, 1916. Serial No. 96,231. PUBLISHED OCTOBER 3, 1916.

114,244. AIR-FEED HAMMER-DRILLS. INGERSOLL-RAND COMPANY, Jersey City, N. J., and New York, N. Y.
Filed November 11, 1915. Serial No. 90,580. PUBLISHED OCTOBER 3, 1916.

114,245. REFRIGERATING UNITS. ISKO, INCORPORATED, Detroit, Mich.
Filed May 22, 1916. Serial No. 95,337. PUBLISHED OCTOBER 3, 1916.

114,246. REFRIGERATING UNITS. ISKO, INCORPORATED, Detroit, Mich.
Filed July 14, 1916. Serial No. 96,564. PUBLISHED OCTOBER 3, 1916.

114,247. CORNMEAL. JULIETTE MILLING CO., Macon, Ga.
Filed August 11, 1916. Serial No. 97,275. PUBLISHED SEPTEMBER 26, 1916.

114,248. BEVERAGES MADE PARTLY OR WHOLLY OF CEREALS. KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich.
Filed August 26, 1916. Serial No. 97,645. PUBLISHED OCTOBER 3, 1916.

114,249. ORNAMENTAL BOWLS AND BASINS FOR USE AS BIRD-BATHS. J. C. KRAUS CAST STONE WORKS, INC., New York, N. Y.
Filed June 17, 1916. Serial No. 95,945. PUBLISHED OCTOBER 3, 1916.

114,250. BUTTER. LABOWE SPECIALTY CO., Philadelphia, Pa.
Filed March 20, 1915. Serial No. 85,278. PUBLISHED JANUARY 11, 1916.

114,251. SHOE-GREASE. THE LEATHER FOOD COMPANY, Sandy Lake, Pa.
Filed March 13, 1916. Serial No. 93,502. PUBLISHED SEPTEMBER 26, 1916.

114,252. CERTAIN NAMED PIECE GOODS. LESHER, WHITMAN & CO. INC., New York, N. Y.
Filed February 5, 1916. Serial No. 92,670. PUBLISHED OCTOBER 3, 1916.

114,253. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE MATERIALS. LESHER, WHITMAN & CO., INC., New York, N. Y.
Filed June 9, 1916. Serial No. 95,754. PUBLISHED OCTOBER 3, 1916.

114,254. PIANOS AND PLAYER-PIANOS. THE LINDENBERG PIANO COMPANY, Columbus, Ohio.
Filed September 5, 1916. Serial No. 97,798. PUBLISHED OCTOBER 3, 1916.

114,255. ARTIFICIAL EMERY. ELEKTRIZITATSWERK LONZA, Gampel, Switzerland.
Filed August 22, 1913. Serial No. 72,483. PUBLISHED OCTOBER 3, 1916.

114,256. CIGARS, CHEROOTS, AND LITTLE CIGARS. JOSE LOVERA COMPANY, New York, N. Y.
Filed August 3, 1916. Serial No. 97,048. PUBLISHED OCTOBER 3, 1916.

114,257. PREPARATION COMPOSED OF HONEY AND MALT USED IN THE MAKING OF BREAD. JOS LOWE CO., New York, N. Y.
Filed July 27, 1916. Serial No. 96,891. PUBLISHED SEPTEMBER 19, 1916.

114,258. BOOTS AND SHOES OF LEATHER AND OF LEATHER AND FABRIC. W. H. MCELWAIN COMPANY, Boston, Mass.
Filed January 26, 1916. Serial No. 92,421. PUBLISHED OCTOBER 3, 1916.

114,259. COTTON AND MIXED PIECE GOODS AND DRAPERIES. MANVILLE COMPANY, Providence, R. I.
Filed February 4, 1916. Serial No. 92,647. PUBLISHED OCTOBER 3, 1916.

114,260. VERMUTH. MARTINI & ROSSI, Turin, Italy.
Filed August 4, 1916. Serial No. 97,087. PUBLISHED OCTOBER 3, 1916.

114,261. GRAND AND UPRIGHT PIANOS AND PLAYER-PIANOS. MATHUSHEK PIANO MANUFACTURING COMPANY, New York, N. Y.
Filed July 28, 1916. Serial No. 96,927. PUBLISHED OCTOBER 3, 1916.

114,262. LIMESTONE. MICHIGAN LIMESTONE & CHEMICAL COMPANY, Buffalo, N. Y.
Filed April 19, 1916. Serial No. 94,541. PUBLISHED OCTOBER 3, 1916.

114,263. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE FABRICS. JULIUS A. MIGEL, New York, N. Y.
Filed April 19, 1916. Serial No. 94,542. PUBLISHED OCTOBER 3, 1916.

114,264. COTTON ROPE. MOUNT VERNON-WOODBERRY MILLS, INCORPORATED, Baltimore, Md.
Filed November 13, 1915. Serial No. 90,632. PUBLISHED OCTOBER 3, 1916.

114,265. MATCHES. NORTH AMERICAN MERCANTILE CO., San Francisco, Cal.
Filed August 22, 1916. Serial No. 97,561. PUBLISHED OCTOBER 3, 1916.

114,266. MATCHES. NORTH AMERICAN MERCANTILE CO., San Francisco, Cal.
Filed August 22, 1916. Serial No. 97,562. PUBLISHED OCTOBER 3, 1916.

114,267. MATCHES. NORTH AMERICAN MERCANTILE CO., San Francisco, Cal.
Filed August 22, 1916. Serial No. 97,563. PUBLISHED OCTOBER 3, 1916.

114,268. SAWED LUMBER. OCEAN LUMBER COMPANY, Seattle, Wash.
Filed July 20, 1916. Serial No. 96,697. PUBLISHED OCTOBER 3, 1916.

114,269. BONNETS, HATS, AND HAT-FRAMES. OGUS, RABINOVICH & OGUS CO., Chicago, Ill.
Filed May 15, 1916. Serial No. 95,150. PUBLISHED OCTOBER 3, 1916.

114,270. INSULATED WIRE AND CABLES. THE OKONITE COMPANY, New York, N. Y.
Filed July 15, 1916. Serial No. 96,595. PUBLISHED OCTOBER 3, 1916.

114,271. INSULATED WIRE AND CABLES. THE OKONITE COMPANY, New York, N. Y.
Filed July 15, 1916. Serial No. 96,596. PUBLISHED OCTOBER 3, 1916.

114,272. HOSIERY. ONEIDA KNITTING COMPANY, Philadelphia, Pa.
Filed October 4, 1915. Serial No. 89,640. PUBLISHED APRIL 18, 1916.

114,273. TABLETS, COMPOSITION-BOOKS, AND NOTE-BOOKS. OSBORN PAPER COMPANY, Marion, Ind.
Filed August 21, 1916. Serial No. 97,519. PUBLISHED OCTOBER 3, 1916.

114,274. IRISH WHISKY. PARK & TILFORD, New York, N. Y.
Filed August 11, 1916. Serial No. 97,279. PUBLISHED OCTOBER 3, 1916.

114,275. ADVERTISING PUBLICATION WHICH IS ISSUED FROM TIME TO TIME. THE PHELPS PUBLISHING COMPANY, Springfield, Mass.
Filed February 18, 1916. Serial No. 92,953. PUBLISHED OCTOBER 3, 1916.

114,276. CERTAIN NAMED TIRES, INNER TUBES, AND PATCHES. POWELL SUPPLY COMPANY, Omaha, Nebr.
Filed March 8, 1916. Serial No. 93,393. PUBLISHED AUGUST 8, 1916.

114,277. APPLE-JUICE. FRANK PYLE, Osawatomie, Kans.
Filed August 31, 1916. Serial No. 97,737. PUBLISHED OCTOBER 3, 1916.

114,278. COTTON PIECE GOODS. RAFAEL DEL CASTILLO & COMPANY, New York, N. Y.
Filed July 7, 1916. Serial No. 96,[illegible]. PUBLISHED OCTOBER 3, 1916.

114,279. CONCRETE-MACHINES. RANSOME CONCRETE MACHINERY COMPANY, New York, N. Y., and Dunellen, N. J.
Filed July 13, 1916. Serial No. 96,551. PUBLISHED OCTOBER 3, 1916.

114,280. CERTAIN NAMED PACKINGS. REVERE RUBBER COMPANY, Providence, R. I., and Chelsea, Mass.
Filed May 18, 1916. Serial No. 95,240. PUBLISHED JULY 25, 1916.

114,281. SILK PIECE GOODS AND SATIN PIECE GOODS. ROGERS & THOMPSON, INC., New York, N. Y.
Filed June 18, 1915. Serial No. 87,396. PUBLISHED MARCH 28, 1916.

114,282. HOSIERY. GEORGE O. RUNYEON, Jr., Jonestown, Pa.
Filed February 1, 1916. Serial No. 92,575. PUBLISHED MAY 23, 1916.

114,283. PAPER-BOARD FLOORING. SCHACK ARTIFICIAL FLOWER CO., Chicago, Ill.
Filed July 15, 1916. Serial No. 96,606. PUBLISHED OCTOBER 3, 1916.

114,284. MONTHLY PUBLICATIONS. SCHOOL ARTS PUBLISHING CO., Boston, Mass.
Filed April 2, 1915. Serial No. 85,653. PUBLISHED OCTOBER 3, 1916.

114,285. CERTAIN NAMED FOODS. THE SCHUSTER COMPANY, Cleveland, Ohio.
Filed May 26, 1916. Serial No. 95,452. PUBLISHED AUGUST 8, 1916.

114,286. CIGARS, CHEROOTS, AND LITTLE CIGARS. E. M. SCHWARZ & CO., New York, N. Y.
Filed August 3, 1916. Serial No. 97,062. PUBLISHED OCTOBER 3, 1916.

114,287. CIGARS, CHEROOTS, AND LITTLE CIGARS. E. M. SCHWARZ & CO., New York, N. Y.
Filed August 3, 1916. Serial No. 97,066. PUBLISHED OCTOBER 3, 1916.

114,288. CIGARS, CHEROOTS, AND LITTLE CIGARS. E. M. SCHWARZ & CO., New York, N. Y.
Filed August 3, 1916. Serial No. 97,067. PUBLISHED OCTOBER 3, 1916.

114,289. CIGARS, CHEROOTS, AND LITTLE CIGARS. E. M. SCHWARZ & CO., New York, N. Y.
Filed August 3, 1916. Serial No. 97,068. PUBLISHED OCTOBER 3, 1916.

114,290. SCHOOL-CRAYONS. SEARS, ROEBUCK AND CO., Chicago, Ill.
Filed August 9, 1916. Serial No. 97,224. PUBLISHED OCTOBER 3, 1916.

114,291. CERTAIN NAMED TIRES, RELINERS, TIRE BOOTS OR SHOES, PATCHES, RETREAD-TIRES, AND INNER TUBES. SHADBOLT & BOYD IRON CO., Milwaukee, Wis.
Filed July 6, 1916. Serial No. 96,369. PUBLISHED OCTOBER 3, 1916.

114,292. LADIES' SKIRTS, MACKINAW COATS, DRESSES, AND CAPES. SHEUERMAN BROTHERS, Des Moines, Iowa.
Filed July 22, 1914. Serial No. 79,994. PUBLISHED OCTOBER 3, 1916.

114,293. WINDOWS MADE TO KEEP IN STOCK. SHRAUGER & JOHNSON, Atlantic, Iowa.
Filed July 12, 1916. Serial No. 96,528. PUBLISHED OCTOBER 3, 1916.

114,294. LIME AND FERTILIZER SPREADERS. HARRY M. SPAHR, Baltimore, Md.
Filed May 10, 1916. Serial No. 95,056. PUBLISHED OCTOBER 3, 1916.

114,295. HEAT-TRANSMITTING OILS. STANDARD OIL CO. OF NEW YORK, New York, N. Y.
Filed July 28, 1916. Serial No. 96,934. PUBLISHED OCTOBER 3, 1916.

114,296. BRAKELININGS. STANDARD WOVEN FABRIC COMPANY, Walpole, Mass.
Filed July 14, 1916. Serial No. 96,573. PUBLISHED OCTOBER 3, 1916.

114,297. INTERCHANGEABLE TEETH AND BACKINGS. STEWART DENTAL MFG. COMPANY, Pittsburgh and Philadelphia, Pa.
Filed June 16, 1916. Serial No. 95,924. PUBLISHED OCTOBER 3, 1916.

114,298. CIGARS. STODDARD-GILBERT & CO., INC., New Haven, Conn.
Filed July 31, 1916. Serial No. 97,005. PUBLISHED OCTOBER 3, 1916.

114,299. SUGAR-DISPENSING RECEPTACLES. THE SUGAR DISPENSER CO., Baltimore, Md.
Filed May 22, 1915. Serial No. 86,839. PUBLISHED OCTOBER 3, 1916.

114,300. PHONOGRAPHS. THE STROBEL & WILKEN COMPANY, Cincinnati, Ohio, and New York, N. Y.
Filed August 16, 1916. Serial No. 97,378. PUBLISHED OCTOBER 3, 1916.

114,301. RAVIOLI. THOMAS-BODY CO., San Francisco, Cal.
Filed August 2, 1916. Serial No. 97,041. PUBLISHED SEPTEMBER 19, 1916.

114,302. CERTAIN NAMED OILS AND GREASES. TIDE WATER OIL CO., New York, N. Y.
Filed July 31, 1916. Serial No. 97,008. PUBLISHED OCTOBER 3, 1916.

114,303. SARDINES IN SALT, WITH HEAD. GIO BATTA TRABUCCO, Olhão, Portugal.
Filed March 21, 1916. Serial No. 93,750. PUBLISHED SEPTEMBER 19, 1916.

114,304. SKIRTS, COLLARS, DRESSES, OUTER SUITS, GOWNS, HATS, GLOVES, AND LEATHER, RUBBER, AND CANVAS SHOES. THE TREMONT STORES, INC., Boston, Mass.
Filed June 15, 1914. Serial No. 79,127. PUBLISHED OCTOBER 3, 1916.

114,305. PRINTED BOOKS, PERIODICALS, (PUBLISHED MONTHLY,) AND PAMPHLETS. UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA, Indianapolis, Ind.
Filed October 1, 1915. Serial No. 89,593. PUBLISHED OCTOBER 3, 1916.

114,306. COFFEE AND CHICORY. UNITED COFFEE COMPANY, New Orleans, La., assignor to United Coffee Growers Corporation of Brazil, a Corporation of Delaware.
Filed August 12, 1914. Serial No. 80,521. PUBLISHED SEPTEMBER 26, 1916.

114,307. LUBRICANTS. ALEXANDER WARRELL, Worcester, Mass.
Filed June 12, 1914. Serial No. 79,046. PUBLISHED AUGUST 17, 1915.

114,308. WRITING-PAPER. BYRON WESTON CO., Dalton, Mass.
Filed August 22, 1916. Serial No. 97,546. PUBLISHED OCTOBER 3, 1916.

114,309. WHEAT-FLOUR. WILLIAM GRANT WHITEHEAD, Wilmington, N. C.
Filed July 31, 1916. Serial No. 97,011. PUBLISHED SEPTEMBER 19, 1916.

114,310. WRITING-PAPER. BYRON WESTON CO., Dalton, Mass.
Filed August 22, 1916. Serial No. 97,547. PUBLISHED OCTOBER 3, 1916.

114,311. MECHANICAL MUSIC-PLAYING INSTRUMENTS AND MUSIC-SHEETS THEREFOR. THE WILCOX & WHITE COMPANY, Meriden, Conn.
Filed June 16, 1916. Serial No. 95,927. PUBLISHED OCTOBER 3, 1916.

114,312. SHEETS AND PILLOW-CASES. WILSON AND BRADBURY, New York, N. Y.
Filed May 10, 1916. Serial No. 95,066. PUBLISHED OCTOBER 3, 1916.

114,313. SURGICAL APPARATUS IN THE TREATMENT OF DISEASE BY ARTIFICIAL HEAT. WOODARD, CLARKE & CO., Portland, Oreg.
Filed July 17, 1916. Serial No. 96,638. PUBLISHED OCTOBER 3, 1916.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE DURANT.

Decided October 16, 1916.

EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the Belgian Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

ON PETITION.

WIND INSTRUMENT.

Mr. Henri Van Oldenneel and *Mr. W. H. Berrigan* for the applicant.

EWING, *Commissioner:*

This is a petition that a final fee paid September 20, 1916, six months and five days after the expiration of the six months from the notice of allowance, be accepted under the provisions of the act of August 17, 1916.

Applicant is a subject of the King of Belgium. The Belgian Government has issued certain decrees which are published in volume 206 of the OFFICIAL GAZETTE, (p. 1439,) volume 209, OFFICIAL GAZETTE, (p. 1318,) volume 210, OFFICIAL GAZETTE, (p. 718.)

The extensions indicated therein are believed to conform fully with the requirements of the statute that reciprocal privileges be granted to citizens of this country.

The showing made is held to establish that the failure to pay the final fee within the six months period was due to the existing and continuing state of war, and it is directed that it be accepted.

EX PARTE ENBERG.

Decided October 16, 1916.

EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the Swedish Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

ON PETITION.

CALCULATING-MACHINE, CASH-REGISTER, AND THE LIKE.

Mr. Henri Van Oldenneel for the applicant.

EWING, *Commissioner:*

This is a petition that the final fee, which was paid September 20, 1916, two months and twelve days after the expiration of the six months from the date of the notice of allowance, be accepted under the provisions of the act of August 17, 1916.

Applicant is a subject of the King of Sweden. The Swedish Government has issued certain ordinances which are published in the OFFICIAL GAZETTE, (vol. 219, p. 273; vol. 220, p. 1046.) (The limit set in the last order was subsequently extended.)

The extensions indicated therein are believed to conform fully with the requirements of the act of August 17, 1916, that reciprocal privileges be granted to citizens of this country.

The showing made is held to establish that the failure to pay the fee within the six months was due to the existing and continuing state of war, and it is directed that it be accepted.

EX PARTE FISHER.

Decided November 17, 1916.

EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the Danish law grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

EWING, *Commissioner:*

Applicant is a subject of the King of Denmark. The Danish law and the orders issued under the authority thereof (see 208 O. G., 986; 210 O. G., 719, and *La Propriété Industrielle*, 1916, 65) grant to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

As the application was mailed when the war had not been in progress more than three months and the delay in the mails not so great as at present, it could reasonably have been expected that it would be received by the Office within the period fixed by section 4887 of the Revised Statutes. The failure to file the application within that period is therefore held to have been due to the "existing and continuing state of war."

The patent granted on applicant's Danish application will therefore not bar the grant of a patent in this country.

EX PARTE FOLEY AND BAKER.

Decided October 16, 1916.

1. EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the British Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

2. SAME—DELAY DUE TO WAR.

Where the failure to receive and file the application within a year of the date of the British application was shown to be due to failure in the mails, and possibly to the sinking of a mail-steamer, *Held* that the delay would be regarded as due to the war.

ON PETITION.

DETACHABLE OR INTERCHANGEABLE WHEEL FOR MOTOR-VEHICLES AND THE LIKE.

Mr. Berthold Singer for the applicants.

EWING, *Commissioner:*

This application was filed more than twelve months after the filing of the British application on January 28, 1915. Applicants request that they be given the benefit of the act of August 17, 1916, extending the time for filing applications and fees.

Applicants are subjects of the King of Great Britain.

Under the provisions of section 1 of the Patents, Designs, and Trade-Marks (Temporary Rules) Act of 1914 the British Board of Trade issued certain rules which are published in volume 209 of the OFFICIAL GAZETTE, (p. 1054.)

The extensions indicated therein are believed to conform fully with the requirement of the statutes that reciprocal privileges be granted to citizens of this country.

Concerning the question of the failure to file within twelve months of the filing of the British application the British attorney in an affidavit accompanying the present application states that the necessary application papers were prepared and despatched on August 17, 1915, to the present attorney, that a letter was written to him on the same date calling attention to the importance of filing the application as early as possible, and that no response was ever received to this communication. He also states that he is aware that on August 19, 1915, the *Arabic*, which carried American mails, was sunk off the Irish coast.

An affidavit has also been filed of the file clerk of the present attorney, who states that the records of his office do not show the receipt of the letter above referred to.

The statements above made are deemed sufficient to establish that the failure to file the application within the period fixed by section 4887 was due to the existing and continuing state of war, and as the application was filed within nine months from the expiration of that period the British patent will not bar the grant of a patent in this country.

EX PARTE JUNG.

Decided October 16, 1916.

1. EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the German Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

2. SAME—DELAY DUE TO WAR.

Where it appeared that a letter was sent to the German attorney three months before the time for paying the final fee expired, but was lost in the mails, and that the instructions to pay the fee were mailed more than a month before the time expired, *Held* that the delay would be regarded as due to the war.

ON PETITION.

SHAPING-MACHINE.

Mr. B. Singer for the applicant.

EWING, *Commissioner:*

This is a petition that the final fee, which was paid September 26, 1916, eight days after the expiration of the six months from the date of the notice of allowance, be accepted under the provisions of the act of August 17, 1916.

Applicant is a subject of the Emperor of Germany. The German Government has issued certain orders, which are published in the OFFICIAL GAZETTE (vol. 208, p. 239; vol. 209, p. 1318; vol. 215, p. 979.) (The limit set in the last order was subsequently indefinitely extended.)

The extensions indicated therein are believed to conform fully with the requirement of the statute that reciprocal privileges be granted to citizens of this country.

It appears from the affidavit filed in support of the petition that the attorney of record wrote to applicant's German attorney on March 20, 1916, notifying him that the application had been allowed; that he wrote again on June 17, 1916, calling attention to the fact that the final fee was due September 18, 1916, and that on September 25, 1916, he received a letter from the German attorney, dated August 12, 1916, stating that no communication had been received since the letter of March 20, 1916, and directing the payment of the final fee.

In view of the non-receipt of the attorney's letter of June 17, 1916, and the fact that the directions to pay the final fee were mailed more than a month prior to the expiration of the six months period it is held that the failure to pay the final fee within that period was due to the existing and continuing state of war, and it is directed that it be accepted.

EX PARTE RAVIER.

Decided October 16, 1916.

1. EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the French Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

2. SAME—DELAY DUE TO WAR.

Where it appeared that the applicant was in the French Navy and that his signature to the United States application could not be obtained until very shortly before expiration of the year following the French filing date, *Held* that the delay would be regarded as due to the war.

ON PETITION.

WORKS SUCH AS RETAINING-WALLS, PIERS, AND WHARFS.

Mr. John Imirie for the applicant.

EWING, *Commissioner:*

Applicant is a citizen of France. The French Government has passed a law (*La Propriété Industrielle*, 1915, p. 66) which reads in part as follows:

ART. 5. The provisions of the decree of August 14, 1914, suspending the time limits in the matter of pat-

ents and of designs and models from and after August 1, shall be enjoyed by subjects and citizens of foreign countries only in so far as such countries have accorded or may hereafter accord, by way of reciprocity, equivalent privileges to the citizens of France and of the French protectorates.

ART. 7. The terms of priority established by article 4, as amended, of the Convention of the International Union of 1883, are hereby suspended from and after August 1, 1914, during the continuation of hostilities and until dates to be fixed by a future decree.

The enjoyment of this suspension shall be claimed only by subjects of the Union whose country has accorded or may hereafter accord the same privilege to the citizens of France and of the French protectorates.

The extensions indicated therein are believed to conform fully with the requirements of the act of August 17, 1916, that reciprocal privileges be granted to citizens of this country.

It appears from the affidavit and correspondence filed in support of this petition that the applicant was in the French Navy and that his French agent was unable to obtain his signature to the United States application until shortly before the expiration of the year following the filing of the French application on February 20, 1915, and that the application was mailed in Paris February 10, 1916, being received by the attorney February 23, 1916.

This showing is held to establish that the failure to file the application within the year from the filing of the French application was due to the existing and continuing state of war.

Applicant's French patent is therefore not a bar to the grant of a patent on the present application. It is directed that the amendment filed September 21, 1916, be entered and considered.

EX PARTE SCHLUMPF.

Decided October 16, 1916.

EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the Swiss Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

ON PETITION.

DEVICE FOR PRESSING-ROLLERS, PARTICULARLY FOR LACING-EYELETS.

Messrs. Munn & Co. for the applicant.

EWING, *Commissioner:*

This is a petition that the final fee, which was paid September 18, 1916, three months after the expiration of the six months from the date of the notice of allowance, be accepted under the provisions of the act of August 17, 1916.

Applicant is a citizen of Switzerland. The Swiss Government has issued certain orders, which are published in the OFFICIAL GAZETTE, (vol. 207, p. 937; vol. 211, p. 288, and vol. 216, p. 1321.) (The limit set in the last order was subsequently extended.)

The extensions indicated therein are believed to conform fully with the requirements of the act of August 17, 1916, that reciprocal privileges be granted to citizens of this country.

The showing made is held to establish that the failure to pay the fee within the six months was due to the existing and continuing state of war, and it is directed that it be accepted.

EX PARTE VICTORERO.

Decided October 16, 1916.

EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the Spanish Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

ON PETITION.

MACHINE FOR THE ELABORATION OF CIGARETTES.

Mr. B. Singer for the applicant.

EWING, *Commissioner:*

Applicant is a subject of the King of Spain. The Spanish Government has issued decrees which read in part as follows, (208 O. G., 986; *La Propriété Industrielle*, 1916, p. 30:)

1. So long as the present state of war may continue, and from and after the 26th of July last, any declaration to the effect that a proceeding will not be pursued or that a registration effected has lapsed, in the matter of industrial property, shall be held in suspense in the case of an individual or corporate body domiciled abroad.

2. Immediately upon cessation of hostilities, a suitable term shall be fixed within which the individuals and corporate bodies referred to in the preceding paragraph shall show that they were prevented by circumstances over which they had no control from complying with the legal formalities within the terms fixed by the laws in force, and upon furnishing proof considered sufficient by the patent office authorities they shall be protected from all injury.

ARTICLE 1. The priority term allowed for patents, in so far as it concerns cases wherein the term referred to had not elapsed on July 31, 1914, shall be extended until a date to be fixed at the conclusion of the war.

ART. 2. Such privilege is granted upon the basis of reciprocity to those countries that shall decide to grant a like benefit to Spain.

The extensions indicated therein are believed to conform fully with the requirements of the act of August 17, 1916, that reciprocal privileges be granted to citizens of this country.

The showing made is held to establish that the failure to file the application in this country within twelve months from the filing of the Spanish application was due to the existing and continuing state of war.

Applicant's Spanish patent will therefore not bar the grant of a patent in this country.

EX PARTE HECHT.

Decided October 16, 1916.

EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.

Held that the Hungarian Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.

ON PETITION.

CONTAINER FOR LOOSE SHEETS.

Mr. Henri Van Oldenneel for the applicant.

EWING, *Commissioner:*

This is a petition that the final fee, which was paid September 16, 1916, two months and twenty-five days after the expiration of the six months from the date of the notice of allowance, be accepted under the provisions of the act of August 17, 1916.

Applicant is a subject of the King of Hungary. The Hungarian Government has issued certain

orders, which read, in part, as follows. (*La Propriété Industrielle*, 1916, p. 4:)

No. 81,250/1915 of December 1, 1915.

By virtue of the powers provided in sec. 16 of Article LXIII of the law of 1912, which article relates to the exceptional measures to be adopted in case of war, I hereby order, in the meaning of ordinance No. 6981/1914 M. E., enacted in plenary session of the Royal Hungarian Ministry, as follows:

SECTION 1. The terms of priority fixed with regard to filing in the matter of patents, designs and trade-marks by art. 4 of the Convention of the Union of Paris of March 20, 1883, revised at Brussels December 14, 1900, and at Washington June 2, 1911, are hereby extended for three months in so far as they had not expired prior to July 26, 1914. A future ordinance will fix the date from which such extension of three months shall run.

This provision shall be applicable in favor of subjects of other countries belonging to the International Union for the Protection of Industrial Property only if such countries grant an extension of the terms of priority to Hungarian subjects. If however any such country shall grant this privilege to Hungarian subjects to a lesser extent than provided for in the 1st paragraph, the same restriction shall be applicable to the citizens of such country.

A notice to be published in the official organ shall specify to what extent the terms of priority will be extended in Hungary in favor of subjects of other countries in the meaning of the provisions contained in the 2nd paragraph.

No. 87,639 of December 23, 1915.

By virtue of the power conferred by sec. 16 of Article LXIII of the law of 1912 concerning the exceptional measures to be adopted in case of war and in conformity with the ordinance of the Royal Hungarian Ministry No. 6981/1914 M. E., I hereby order as follows:

SECTION 1. The provision of my ordinance of August 19, 1915, No. 54,400, under the terms of which the duration of the terms for the payment of annual taxes on patents and of additional taxes was suspended until December 31, 1915, is hereby modified by extending the duration of such suspension to June 30, 1916.

In other respects my order cited above shall remain in force without any modification.

SEC. 2. This ordinance shall go into force from the date of its publication (published December 25, 1915).

(The limit set in the last order was subsequently extended.)

The extensions indicated therein are believed to conform fully with the requirements of the act of August 17, 1916, that reciprocal privileges be granted to citizens of this country.

The showing made is held to establish that the failure to pay the fee within the six months was due to the existing and continuing state of war, and it is directed that it be accepted.

ADJUDICATED PATENTS.

(U. S. D. C.) The Lindquist patents, No. 744,773 and No. 764,608, each for an alternating-current electromagnet, both *Held* infringed by certain structures made by defendant and not infringed by others. *Sundh Electric Co.* v. *General Electric Co.*, 235 Fed. Rep., 708.

(U. S. D. C.) The Thatcher patent, No. 617,615, for an improvement in concrete arches, where series of metal bars in pairs were used, *Held* limited to a combination in which the bars of each pair are physically and mechanically independent of each other, and, as so limited, not infringed. *Thatcher* v. *Board of Sup'rs of Polk County, Iowa*, 235 Fed. Rep., 724.

Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1916.

George Thompson Robie, his assigns or legal representatives, take notice:

A cancelation proceeding has been instituted by this Office upon the application of The Ironsides Company, of Columbus, Ohio, to effect the cancelation of the trade-mark registration of George Thompson Robie, of Chicago, Ill., registered July 26, 1906, No. 55,407, and the notice of such proceeding sent by registered mail to said Robie at the said address having been returned by the post-office undeliverable notice is hereby given that unless said George Thompson Robie, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will proceed as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 24, 1916.

James Marshall, his heirs, successors, or assigns, take notice:

An interference having been declared by this Office between the application of Gimbel Brothers, of Twenty-third and Broadway, New York, N. Y., the application of Ariston Hat Mfg. Co., of Peekskill, N. Y., for registration of trade-marks, and two trade-marks registered June 5, 1894, Nos. 24,808 and 24,809, to James Marshall, foot of Shaw street, Fall River, Mass., and the said James Marshall being deceased, notice is hereby given that unless his heirs, successors, or assigns shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 22, 1916.

Henry Rattermann, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of William Korbach, of 606 Washington street, Hoboken, N. J., for registration of a trade-mark and trade-mark registered June 4, 1895, No. 26,652, to Henry Rattermann, of 577 Elm street, Cincinnati, Ohio, and a notice of such declaration sent by registered mail to said Henry Rattermann at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Henry Rattermann, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

THE
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OF THE
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CONTENTS

	Page.
ISSUE OF DECEMBER 5, 1916	355
DRAWINGS	355
DATE OF PATENT	355
APPLICATIONS UNDER EXAMINATION	356
PATENTS GRANTED	357
REISSUES	721
DESIGNS	726
TRADE-MARKS—REGISTRATION APPLIED FOR	735
TRADE-MARK REGISTRATIONS GRANTED	751
TRADE-MARK REGISTRATIONS CANCELLED	753
LABELS AND PRINTS	754
COMMISSIONER'S DECISIONS—	
Ex parte Dyson	755
ADJUDICATED PATENTS	756
DISCLAIMERS	756
CHANGES IN CLASSIFICATION	756
NOTICE OF CANCELATION	757
INTERFERENCE NOTICES	757
ADVERSE DECISIONS IN INTERFERENCE	757

ISSUE OF DECEMBER 12, 1916.

Patents	1028—No.	1,207,695 to No.	1,208,722, inclusive.
Designs	45—No.	60,008 to No.	60,060, inclusive.
Trade-Marks	80—No.	114,314 to No.	114,402, inclusive.
Labels	23—No.	19,768 to No.	19,790, inclusive.
Prints	9—No.	4,580 to No.	4,588, inclusive.
Reissues	6—No.	14,227 to No.	14,232, inclusive.
Total	1198		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	7	.....	North Carolina	4	2
Arizona	.....	.....	North Dakota	4	1
Arkansas	6	.....	Ohio	56	5
California	37	13	Oklahoma	10	.....
Colorado	9	2	Oregon	12	1
Connecticut	15	.....	Pennsylvania	81	7
Delaware	2	1	Rhode Island	4	1
Florida	8	1	South Carolina	4	1
Georgia	2	2	South Dakota	3	.....
Idaho	1	.....	Tennessee	.....	1
Illinois	133	10	Texas	8	.....
Indiana	20	3	Utah	.....	.....
Iowa	20	.....	Vermont	1	.....
Kansas	13	1	Virginia	6	3
Kentucky	8	1	Washington	13	4
Louisiana	4	.....	West Virginia	3	.....
Maine	3	.....	Wisconsin	25	2
Maryland	6	4	Wyoming	2	.....
Massachusetts	62	6			
Michigan	36	3	Alaska, District of	1	.....
Minnesota	21	2	Canal Zone	.....	.....
Mississippi	2	.....	District of Columbia	11	1
Missouri	27	4	Hawaii Territory	.....	.....
Montana	5	.....	Philippine Islands	1	.....
Nebraska	5	1	Porto Rico	1	.....
Nevada	2	.....	U. S. Army	2	.....
New Hampshire	2	.....	U. S. Navy	1	.....
New Jersey	43	3			
New Mexico	.....	.....	Total to residents of the United States	965	117
New York	209	31			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	2	.....	Netherlands	1	1
Austria-Hungary	.....	.....	New South Wales	.....	.....
Belgium	.....	.....	New Zealand	.....	.....
British India	.....	.....	Norway	.....	.....
British West Indies	.....	.....	Poland	1	.....
Canada	16	.....	Portugal	1	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	1	.....
Denmark	.....	.....	South Australia	.....	.....
England	17	.....	Spain	.....	.....
Finland	.....	.....	Sweden	2	1
France	7	.....	Switzerland	3	.....
Germany	23	1	Tunis	.....	.....
Greece	.....	.....	Victoria	2	.....
India	.....	.....	Western Australia	.....	.....
Ireland	.....	.....			
Italy	.....	.....	Total to residents of foreign countries	79	4
Japan	.....	1			
Mexico	.....	.....			

Drawings.

RULE 88.

88. When there are drawings, the description will refer to the different views by figures and to the different parts by letters or numerals, (preferably the latter.)

RULE 52—EXTRACT.

(6) The different views should be consecutively numbered. Letters and figures of reference must be carefully formed. They should, if possible, measure at least one-eighth of an inch in height, so that they may bear reduction to one twenty-fourth of an inch; and they may be much larger when there is sufficient room. They must be so placed in the close and complex parts of drawings as not to interfere with a thorough comprehension of the same, and therefore should rarely cross or mingle with the lines. When necessarily grouped around a certain part, they should be placed at a little distance, where there is available space, and connected by short broken lines with the parts to which they refer. They must never appear upon shaded surfaces, and when it is difficult to avoid this, a blank space must be left in the shading where the letter occurs, so that it shall appear perfectly distinct and separate from the work. If the same part of an invention appear in more than one view of the drawing it must always be represented by the same character, and the same character must never be used to designate different parts.

It is suggested that numerals or letters be used without exponents.

Date of Patent.

RULE 207. The weekly issue closes on Thursday, and the patents of that issue bear date as of the *fourth* Tuesday thereafter. If the final fee in any application is not paid on or before Thursday, the patent will not go to issue until the following week.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 9, 1916.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 22	Oct. 7	379
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 24	Oct. 16	661
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Nov. 22	Nov. 21	80
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Devices; Railway Mail Delivery; Store-Service; Traversing Hoists.	Oct. 17	Nov. 8	219
167	5. Bookbinding; Harvesters; Jewelry; Music	Aug. 19	Nov. 13	296
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Aug. 24	Nov. 10	198
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	July 24	Sept. 26	507
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 25	Sept. 16	1,250
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps	June 6	Sept. 11	548
235	10. Carriages and Wagons; Spring Devices	June 19	Nov. 13	306
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 6	Nov. 25	88
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements	Aug. 9	Nov. 21	567
329	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 10	Oct. 31	497
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 28	Nov. 8	272
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 9	Nov. 18	224
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	June 8	Sept. 20	567
303	17. Matrix-Making; Ornamentation; Paper Manufactures; Printing; Type-Bar Making	Sept. 2	Nov. 28	170
227	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 28	Nov. 2	167
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	July 15	Sept. 1	441
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 11	Nov. 23	126
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Sept. 14	Nov. 9	275
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	July 1	Oct. 20	482
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 29	July 21	419
144	24. Apparel; Apparel Apparatus; Sewing-Machines	May 25	Oct. 4	307
315	25. Agitating; Butebering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Oct. 13	Oct. 30	191
106	26. Electricity, Generation; Motive Power	Apr. 4	Aug. 9	666
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Nov. 8	Oct. 21	208
65	28. Internal-Combustion Engines	July 8	Sept. 20	600
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 6	Oct. 21	367
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Oct. 4	Nov. 17	276
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	June 2	Sept. 26	342
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	May 1	Oct. 28	574
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 26	Oct. 16	332
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	May 9	Oct. 19	336
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet	May 2	Oct. 30	653
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography	July 27	Nov. 2	769
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	May 3	Oct. 19	777
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Nov. 2	Nov. 8	138
221	39. Water Distribution	May 18	Nov. 4	294
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 26	Nov. 9	617
126	41. Railway Draft Appliances; Resilient Tires and Wheels	Aug. 8	Oct. 16	515
244	42. Electricity, Conductors; Railway Signaling; Signals; Electricity-Transmission to Vehicles	May 23	Sept. 25	249
262	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 31	Oct. 14	99

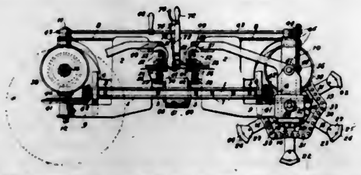
Oldest new case, Apr. 4; oldest amended, July 21.
Total number of applications awaiting action..... 13,041

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Nov. 2	Nov. 17	660
	Designs	Oct 21	Nov. 3	362
	Labels and Prints	Nov. 25	Nov. 27	30

PATENTS

GRANTED DECEMBER 12, 1916.

1,207,695. TRACTION-ENGINE. HERMAN E. ALTGELT, New Braunfels, Tex. Filed Jan. 29, 1916. Serial No. 75,086. (Cl. 21—114.)



1. The combination with the body of a tractor, and ambulatory wheels mounted to have revoluble and also up-and-down movement relatively to the body, of a gear on each ambulatory wheel, and a driving gear on the body meshing with the gear on the ambulatory wheel to drive the latter, one of said gears made in the form of a cam.

2. The combination with the body of a tractor, and ambulatory wheels therefor, of a cam wheel secured to each wheel, wheels on the body of the tractor and engaging the cam wheels on the ambulatory wheels, and means on the tractor to drive the wheels on the body thereof and impart motion through said cam wheels to the ambulatory wheels.

3. The combination with the body of a tractor, and ambulatory wheels therefor, of a cam wheel secured to each ambulatory wheel and providing means constituting a gear wheel, pinions mounted on the tractor body and meshing with said cam gear wheels, and means on the tractor body for driving said pinions.

4. The combination with the body of a tractor, and ambulatory wheels therefor, of a cam gear secured to each wheel, shafts mounted on the tractor, pinions carried by said shafts and meshing with the cam gears on the ambulatory wheels, means for driving said shafts, and means for controlling the direction of rotation of said shafts.

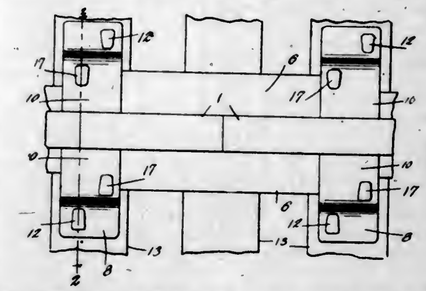
5. The combination with a tractor body, of truck frames connected with respective ends thereof, revoluble ambulatory wheels having vertically movable connection with said truck frames, cam wheels secured to said ambulatory wheels, and driving wheels mounted on the truck frames and coöperating with said cam wheels to drive the ambulatory wheels.

[Claims 6 to 9 not printed in the Gazette.]

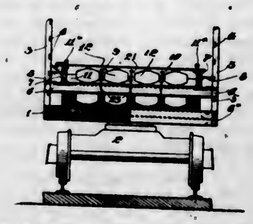
1,207,696. RAIL-JOINT. LEE ANDER ANDREWS, Benhaden, Fla., assignor of one-half to John Mitchell Andrews, Benhaden, Fla. Filed July 7, 1916. Serial No. 108,017. (Cl. 239—6.)

1. A rail joint embodying fish plates having lower outturned flanges provided with lower bent back flanges whose edges lie in a horizontal plane above the horizontal plane of the basal portions of the bent back flanges, tie plates upon which the ends of the bent back flanges rest and having upstanding portions spaced from their ends, said upstanding portions having ears overlapping the outturned flanges, the tie plates having spike apertures between their ends and said upstanding portions, said ears, bends between said flanges, and tie plates having alining spike apertures.

2. A rail joint embodying fish plates having lower outturned flanges provided with lower bent back flanges whose edges lie in a horizontal plane above the horizontal plane of the basal portions of the bent back flanges, tie plates upon which the ends of the bent back flanges rest and having upstanding portions spaced from their ends, said upstanding portions having ears overlapping the outturned flanges, the tie plates having spike apertures between their ends, said ears, bends between said flanges, and tie plates having alining spike apertures inclined and converging downwardly, and the apertures in said bends being sufficiently large to loosely receive the spikes passed therethrough.



1,207,697. APPARATUS FOR MOLDING OR CASTING. GROSVENOR ATTERBURY, New York, N. Y. Filed Sept. 10, 1910. Serial No. 581,840. (Cl. 25—1.)



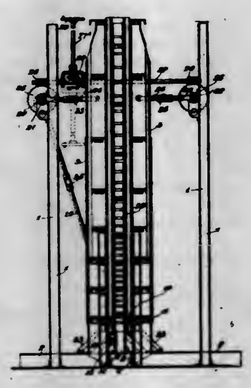
1. A molding or casting apparatus comprising a bed, vertical standards secured thereto, a bottomless frame supported thereon by means of adjustable horizontal members and having sectional end walls adapted to receive and support cores, and an adjustable transverse wall, substantially as described.

2. A molding or casting apparatus comprising a bed, vertical standards secured thereto, a bottomless frame supported thereon by means of adjustable horizontal members and having horizontally sectional end walls adapted to receive and support cores, and an adjustable transverse wall, substantially as described.

3. A molding or casting apparatus comprising a bed, vertical standards secured thereto, a bottomless frame supported thereon by means of adjustable horizontal members and having sectional end walls adapted to receive and support cores, means to connect the sections in separated position, and an adjustable transverse wall, substantially as described.

4. A molding or casting apparatus comprising a bed, vertical standards secured thereto, a bottomless frame supported thereon by means of adjustable horizontal members and having sectional end walls adapted to receive and support cores between them and an adjustable transverse wall, substantially as described.

1,207,698. APPARATUS FOR MOLDING OR CASTING. GROSVENOR ATTERBURY, New York, N. Y. Filed Sept. 10, 1910. Serial No. 581,343. (Cl. 25—41.)



1. In a mold of the kind described, movable side and end walls, a collapsible core comprising a longitudinally adjustable center member, an operating device controlled by a single operating handle, means connecting the side and end walls and the center member with said operating device, and means positively connecting the center member with the walls of the core whereby the movement of the opening device simultaneously opens or closes said walls and contracts or expands the core, substantially as described.

2. In a mold of the kind described, movable side and end walls, a collapsible core comprising a longitudinally adjustable center member, an operating device controlled by a single operating handle, adjustable means connecting the side and end walls and the center member with said operating device, and means positively connecting the center member with the walls of the core whereby the movement of the operating device simultaneously opens or closes said walls and contracts or expands the core, substantially as described.

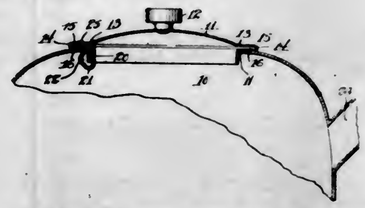
3. In a mold of the kind described, a movable side wall, a rotatable shaft, a crank thereon, a rod connected at one end to said crank and at the other end to said wall, a worm gear on said shaft, and an operating device arranged to rotate said shaft and thereby to move said wall and open and close said wall, said operating device including a worm meshing with said worm gear, substantially as described.

4. In a mold of the kind described, movable side and end walls, a series of vertical cores supported at their lower ends on the base of the mold, a removable bar having a series of core supporting covers for said cores secured thereto and arranged to steady the upper ends of the cores, the ends of said bar being adjustably secured to said end walls.

5. In a mold of the kind described, a frame, side walls hinged thereto at their lower ends, end wall-supporting members adjustably secured to said frame, end walls having their lower ends secured to said adjustable members by a hinged connection, adjustable guides mounted on and arranged to be moved along the upper edges of said side walls and a transversely disposed member secured to each of the upper ends of the end walls and having an inclined surface in sliding engagement with said adjustable guides, whereby the movement of the side walls effects a corresponding movement of the end walls, substantially as described.

[Claim 6 not printed in the Gazette.]

1,207,699. LID FOR COOKING UTENSILS AND RETAINING DEVICE THEREFOR. CARL H. ANSCHUTZ, Wilson, Kans. Filed May 1, 1915. Serial No. 25,283. (Cl. 53—8.)



1. A lid retaining device comprising in combination with a detachable lid structure having a depending flange, a structure mounted on the lid and depending in parallelism to the inner face of said depending flange, and said structure provided with a resilient extension to project below the lower edge of said flange to normally bear against the outer face thereof at a point adjacent the juncture of the flange with the lid structure, as and for the purpose specified.

2. A lid retaining device including in combination with a lid structure having a depending insert flange, a structure fixed to the lid structure and depending therefrom in parallelism to the inner face of said flange, the lower end portion of said structure being bent to project beneath the lower edge of said flange, and a curved extension on said structure having its free edge engaging the outer face of said flange at a point adjacent its juncture with said lid structure, as and for the purpose specified.

3. A lid retaining device including in combination with a lid structure, a member carried by said lid structure, a portion of said member depending from said lid structure, the lower end of said member being curved to extend beneath said depending flange and an extension on said last mentioned curved portion arcuately curved when viewed in cross section and having its free edge opposed to said depending portion, as and for the purpose specified.

4. A lid retaining device including in combination with a lid structure having a depending flange, of a member carried by said lid structure, a portion of said member depending to lie in close proximity to the inner face of said flange, and an extension on said member bent to have its free edge engaged with the outer face of said flange to oppose said depending portion, as and for the purpose specified.

5. In a device of the character described, the combination with a lid structure consisting of a body portion bent at its terminal edge to form spaced apart rim flanges, a flange member depending from the lower one of said flanges to lie in spaced relation with the terminal edge of said body portion, of a retaining device having one end disposed between said flanges, means connecting said retaining device and said flanges, the body portion being bent to project beneath the lower edge of said last mentioned flange, and an extension on said last mentioned body portion arcuate when viewed in cross section having its free edge normally bearing against the outer face of said last mentioned flange at a point adjacent the juncture thereof with the lower of said first mentioned flanges to form a retaining shoulder, as and for the purpose specified.

1,207,700. CALCULATING-MACHINE. FRANK S. BALDWIN and GEORGE H. BALDWIN, East Orange, N. J. Filed Feb. 24, 1915. Serial No. 10,218. (Cl. 235—61.)

1. A calculating machine, comprising a registering mechanism including a set of numeral or registering wheels having a decimal movement, transmission spindles with which said registering wheels are normally coupled so as to be rotated thereby, a main shaft, a set of primary calculating disks thereon each provided on one of their faces with laterally projecting and radially extending counting-teeth progressively shortened in length but with their outer ends alined in the same arc, transmission shafts, secondary calculating wheels having eight peripheral teeth mounted on said transmission shafts so as to rotate the same, said secondary calculating wheels being rotatable in a plane at right angles to said primary calculating disks, said secondary calculating wheels being movable on their transmission shafts, relative to said counting-teeth so as to be engaged and operated by one or more of the same, and a four to five ratio trasmission gearing between said transmission shafts and said transmission spindles.



2. A calculating machine, comprising a registering mechanism including a main shaft, a set of primary calculating disks on said main shaft provided on their opposite faces with sets of laterally projecting and radially extending counting-teeth progressively shortened in length but with their outer ends alined in the same arc, transverse transmission shafts, secondary calculating wheels mounted on said transmission shafts so as to rotate the same, said secondary calculating wheels being movable relative to said counting-teeth so as to be engaged and operated by one or more of the same, and means for shifting said main shaft longitudinally to shift said primary calculating disks so that the counting-teeth on one face or the other of said disks are positioned operatively relative to said secondary calculating wheels to rotate the latter in one direction or the other for the purposes specified.

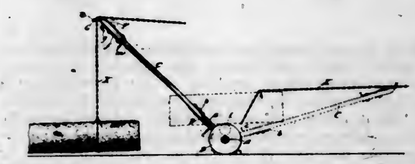
3. A calculating machine, comprising a set of numeral or registering wheels having a decimal movement, transmission spindles with which said registering wheels are normally coupled, a main shaft, a set of primary calculating disks thereon provided on their opposite faces with series of laterally projecting and radially extending counting-teeth progressively shortened in length but with their outer ends alined in the same arc, transmission shafts, secondary calculating wheels having eight teeth mounted on said transmission shafts so as to be capable of a longitudinal movement thereon, and thus adapted to be positioned to be engaged and operated by one or more of said counting-teeth, said secondary calculating wheels rotating in a plane at right angles to said primary calculating disks, means for shifting said main shaft longitudinally to shift said primary calculating disks so that the counting-teeth on one face or the other of said disks are positioned operatively relative to said secondary calculating wheels to rotate the latter in one direction or the other for the purposes specified, and a four to five ratio transmission gearing between said transmission shafts and said transmission spindles.

4. A calculating machine, comprising a set of numeral or registering wheels, a set of primary calculating disks each provided on one of their faces with a series of laterally projecting radially extending counting-teeth progressively shortened in length but with their outer ends alined in the same arc, and a carry-tooth projecting laterally from each primary calculating disk, transmission shafts, secondary calculating wheels mounted on said transmission shafts to rotate the same, said secondary calculating wheels being movable on their transmission shafts relative to said counting-teeth so as to be engaged and operated by one or more of the same, transmission means between said transmission shafts and said registering wheels, a carrying-wheel slidably mounted on each transmission shaft, a set of bell-crank levers, one arm of each extending beneath a registering wheel from which the digit is to be carried and the other arm of each being connected with the carrying wheel of the next adjacent transmission shaft which operates the registering-wheel to which the digit is to be carried, a trip-nosing on each registering wheel for operating said bell-crank levers for the purposes specified, and means on said primary calculating disks for returning said carrying wheels to normal initial position.

5. A calculating machine, comprising a set of numeral or registering wheels mounted in a movable carriage, a main shaft mounted in a casing, a plurality of primary calculating disks on said shaft provided on their opposite faces with series of counting-teeth, transmission shafts, eight toothed secondary calculating wheels mounted on said transmission shafts to rotate the latter, means for selectively positioning said secondary calculating wheels so that the same may be engaged and operated by one or more counting-teeth, means for shifting said main shaft longitudinally to operatively relate said primary calculating disks to one side or the other of said secondary calculating wheels to turn the same in the desired direction for multiplication or division, transmission spindles, coupling means for selectively coupling said registering wheels therewith according to the position of said carriage, a four to five transmission gearing between said transmission shafts and said transmission spindles, a carrying tooth on each face of said primary calculating disks, a carrying wheel on each transmission shaft, a trip-nosing on each registering wheel, means operated by said trip-nosing for shifting the carrying wheel of the next adjacent transmission shaft in the path of a carrying tooth of a primary calculating disk, and means on said primary calculating disks for returning said carrying wheels to normal initial position.

[Claims 6 to 10 not printed in the Gazette.]

1,207,701. LOGGING-WHEEL. THOMAS W. BARRY, Keweenaw, Mich. Filed June 11, 1915. Serial No. 33,430. (Cl. 254—125.)



1. A vehicle of the kind described comprising a pair of wheels, an axle on the arms of which said wheels are mounted, a tongue suitably secured to and projecting forward from said axle, a shoe mounted upon the forward end of said tongue having an eye forming a holding means in the forwardly extending end thereof, a roller which is journaled in bearings secured to and arising from said axle, and means threaded through said eye to the rear end of which the load to be lifted is attached.

2. A vehicle of the kind described comprising a pair of wheels, an axle on the arms of which said wheels are mounted, a tongue suitably secured to and projecting from said axle, a shoe mounted upon the front end of said tongue the forward end of which extends beyond the forward end of said tongue is curved upwardly and has an eye therein, and means threaded through said eye and adapted to be held thereby to the rear end of which the load to be lifted is attached.

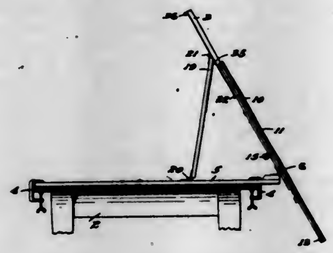
3. A vehicle of the kind described comprising a pair of wheels, an axle on the arms of which said wheels are mounted, a tongue suitably secured to and projecting forward from said axle, a shoe mounted on the forward end of said tongue and having its forward extended end curved upward and provided with an eye the rear portion of which is extended longitudinally and has the sides thereof

converse to and meet at the rear end of the same, and a chain threaded through said eye and held thereby to whose rear end the load to be lifted is attached.

4. A vehicle of the kind described comprising a pair of wheels, an axle on the arms of which said wheels are mounted, a tongue suitably secured to and projecting forward from said axle, a shoe on the forward end of the tongue the forward extended end of which is curved upward and has a suitable eye therein, a roller which is journaled in open bearings secured to and arising from said axle, and a chain threaded through said opening to the rear end of which the load to be lifted is attached.

5. A vehicle of the kind described comprising a pair of wheels, an axle on the arms of which said wheels are mounted, a tongue suitably secured to and projecting forward from said axle, a shoe on the forward end of the tongue the forward extended end of which is curved upward and has a suitable eye therein, a hook the point of which extends to the rear and which is secured to and projects from the rear end of said shoe, a roller which is journaled in open bearings secured to and arising from said axle, and a chain threaded through said opening to the rear end of which the load to be lifted is attached.

1,207,702. PORTABLE DRAWING-BOARD. CHARLES L. BARTHOLOMEW, Minneapolis, Minn. Filed Apr. 12, 1915. Serial No. 20,921. (Cl. 45—131.)



1. A drawing apparatus comprising brackets composed of pairs of bars, the bars of one pair having one end pivotally connected to the bars of the other pair at a point intermediate to their ends, and means for securing the bars of either pair to a horizontal support, braces interposed between the corresponding bars of the pairs for supporting one pair of bars in an inclined position for drawing purposes, or an upright position for lecture work, and means for fastening a drawing board to either of the pairs of bars.

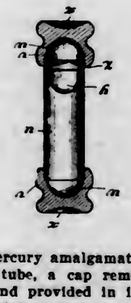
2. A drawing apparatus comprising brackets composed of upright and horizontal members having means for securing either one of them to a horizontal support, each member of a bracket having a hinged connection at one end with the corresponding member of the other bracket at a point intermediate to its ends, said brackets being capable of inversion to reverse the position of said members and a drawing board having means for securing it to either one of said members, the securing means of said board on one of said members permitting the revolution of said board in the plane thereof.

3. A drawing apparatus comprising brackets composed of upright and horizontal members mounted for adjustment toward or from one another and having means for securing them to a support, said members being arranged in pairs, one member of each pair being hinged at one end to the other member of the same pair at a point intermediate to its ends, and said members being reversible, and a drawing board having means for securing it to either member of a pair.

4. A drawing apparatus comprising brackets composed of upright and horizontal members having means for securing either one of them to a horizontal support, each member of a bracket having a hinged connection at one end with the corresponding member of the other bracket at a point intermediate to its ends, said brackets being capable of inversion to reverse the position of said members and a drawing board having means for securing it to either one of said members.

5. A drawing apparatus comprising brackets composed of bars, those of one bracket being pivotally connected with the corresponding bars of the other bracket, braces adjustably mounted between the corresponding bars of said brackets, and means for horizontally securing the bars of one bracket to a support, the other bracket having freedom of vertical adjustment to adapt it as an inclined support for a drawing board, and said brackets being capable of reversal on said support and when reversed the formerly horizontal bracket then forming a vertical support for a lecture board, said braces having means for holding said vertical support in an upright position.

1,207,703. AMALGAM-MIXER. HORACE E. BAKEHORN and EDWARD L. KRAFT, York, Pa. Original application filed Mar. 22, 1915. Serial No. 16,187. Divided and this application filed May 23, 1916. Serial No. 99,424. (Cl. 83—73.)



An alloy and mercury amalgamating device, consisting of an open-ended tube, a cap removably covering each end of the tube and provided in its inner face with a mortar-like depression, and a rounded weight mounted to reciprocate freely in said tube, for the purpose set forth.

1,207,704. ARTIFICIAL EAR-DRUM. EDWARD BAUM, Philadelphia, Pa. Filed Oct. 26, 1915. Serial No. 58,047. (Cl. 181—23.)



1. An artificial ear drum, comprising a disk, with magaphone shaped sound accumulators extending therefrom.

2. An artificial ear drum, comprising a concave disk, with megaphone shaped sound accumulators extending therefrom.

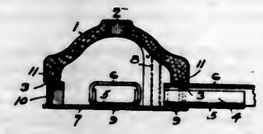
3. An artificial ear drum, comprising a disk, with megaphone shaped sound accumulators extending therefrom, and provided with ports in proximity to the disk.

4. An artificial ear drum, comprising a disk, with megaphone shaped sound accumulators extending therefrom, there being at the juncture of the rim of the disk and said accumulators, interrupted circular cuts.

5. An artificial ear drum, comprising a disk, with megaphone shaped sound accumulators extending therefrom, and the juxtaposed walls of the accumulators being connected together.

[Claims 6 to 14 not printed in the Gazette.]

1,207,705. OUTLET-BOX. WILLIAM A. BONNELL, New York, N. Y. Filed Aug. 31, 1914. Serial No. 859,888. (Cl. 247—7.)



1. An electric outlet comprising a body portion having an outlet opening and one or more conduit receiving inlets, the walls of each of said inlets being grooved and a knock-out disk for each inlet adapted to be sprung into the groove thereof to close the inlet, and a base plate for the device.

2. An electric outlet device comprising a body portion of porcelain or like material, having an outlet opening and having a plurality of conduit receiving inlets, a bottom plate for said device having means for securing the conduits thereto, the walls of each of said conduit openings being grooved, a closure plate for each inlet of greater area than that of the inlet and adapted to be sprung into closing position with its edges held in said groove.

3. An electric outlet device comprising a hollow body portion, having an outlet opening at the top and an open bottom, a closure plate at the bottom of said device, the lower edge of said body portion having a plurality of notches of recesses for receiving conduits, a closure plate for each of said conduit openings of greater area than of said openings and curved to conform to the curvature of the side wall of said body portion, the walls of said conduit openings being grooved to receive the edges of said closure plates and to removably hold said plates in position therein.

4. An electric outlet comprising a body portion having an outlet opening and one or more conduit receiving inlets, the walls of each of said inlets being grooved and a closure plate for each inlet adapted to be sprung into the groove thereof to close the inlet, and a base plate for the device.

1,207,706. MANUFACTURE OF OXIDS OF NITROGEN. CARL BOSCH, ALWIN MITTASCH, and CHRISTOPH BECK, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Germany. Filed Feb. 25, 1915. Serial No. 10,625. (Cl. 23—1.)

1. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas over a heated catalytic agent containing at least one oxid of a metal of the iron group and at least one oxid of a rare earth metal.

2. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas over a heated catalytic agent containing at least one oxid of a metal of the iron group and at least one oxid of a rare earth metal and a compound of bismuth.

3. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas through a layer of separate lumps of a heated catalytic agent containing at least one oxid of a metal of the iron group and at least one oxid of a rare earth metal and an oxid of bismuth.

4. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas through a layer of separate lumps of a heated catalytic agent containing at least one oxid of a metal of the iron group and at least one oxid of a rare earth metal.

5. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas through a layer of separate lumps of a heated catalytic agent containing at least one oxid of a metal of the iron group and at least one oxid of a rare earth metal and a compound of bismuth.

[Claim 6 not printed in the Gazette.]

1,207,707. MANUFACTURE OF OXIDS OF NITROGEN. CARL BOSCH, ALWIN MITTASCH, and CHRISTOPH BECK, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Germany. Filed Feb. 25, 1915. Serial No. 10,626. (Cl. 23—1.)

1. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas over a catalytic agent containing at least one oxid of a rare earth metal and a compound of bismuth.

2. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas over a catalytic agent containing at least one oxid of a rare earth metal and an oxid of bismuth.

3. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas through a layer of separate lumps of a heated catalytic agent containing at least one oxid of a rare earth metal and a compound of bismuth.

4. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas through a layer of separate lumps of a heated catalytic agent containing at least one oxid of a rare earth metal and an oxid of bismuth.

5. The manufacture of oxids of nitrogen by passing a mixture of ammonia and an oxygen-containing gas through a layer of separate lumps of a heated catalytic agent containing at least one oxid of cerium and an oxid of bismuth.

1,207,708. MANUFACTURE OF OXIDS OF NITROGEN. CARL BOSCH, ALWIN MITTASCH, and CHRISTOPH BECK, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Germany. Filed Feb. 25, 1915. Serial No. 10,628. (Cl. 23—1.)

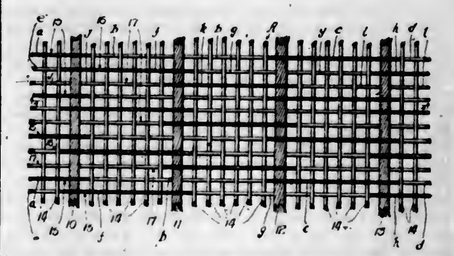
1. The process of manufacturing oxids of nitrogen which consists in passing a mixture of ammonia and an oxygen-containing gas over a heated catalytic agent containing at least one oxid of a metal of the iron group and a compound of bismuth.

2. The process of manufacturing oxids of nitrogen which consists in passing a mixture of ammonia and an oxygen-containing gas over a heated catalytic agent containing at least one oxid of a metal of the iron group and an oxid of bismuth.

3. The process of manufacturing oxids of nitrogen which consists in passing a mixture of ammonia and an oxygen-containing gas through a layer of separate lumps of a heated catalytic agent containing at least one oxid of a metal of the iron group and a compound of bismuth.

4. The process of manufacturing oxids of nitrogen which consists in passing a mixture of ammonia and an oxygen-containing gas through a layer of separate lumps of a heated catalytic agent containing at least one oxid of a metal of the iron group and an oxid of bismuth.

1,207,709. FABRIC FOR TIRES. LEON JAY CAMPBELL, Chicago, Ill. Filed May 25, 1914. Serial No. 840,677. (Cl. 139—9.)



1. A fabric, comprising a body composed of laterally spaced, relatively stout threads, and interwoven warp and

woof threads, said woof threads having loops, each extending between said stout threads and over and out of contact with the body of the fabric between said stout threads; the portions of the woof threads at the extremities of each loop being interwoven with the warp threads, and said loops forming with the body of the fabric a channel adapted to receive a layer of rubber or the like.

2. A fabric, comprising a body composed of a plurality of laterally spaced relatively stout threads, a plurality of warp threads located between said stout threads, and a plurality of woof threads interwoven with said warp threads; said woof threads having loops each extending over and between said stout threads and out of contact with those interwoven warp and woof threads between said stout threads.

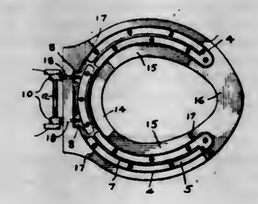
3. A fabric, comprising a body composed of two laterally spaced relatively stout threads, a plurality of warp threads parallel to and arranged between and on opposite sides of said stout threads and a plurality of woof threads interwoven with said warp threads; one of said woof threads having a loop extending between and over said stout threads and out of contact with the warp threads therebetween; the portions of said woof threads at the opposite sides of said loop being interwoven with the warp threads on opposite sides of said stout threads, and another of said woof threads being interwoven with the warp threads between said stout threads.

4. A fabric, comprising a body composed of laterally spaced relatively stout threads, a set of warp threads and a set of woof threads interwoven with said set of warp threads; the threads of one set having loops each extending between and over the stout threads and out of contact with the interwoven warp and woof threads therebetween.

5. A fabric, comprising a body composed of a plurality of relatively stout threads, a set of warp threads and a set of woof threads interwoven with said set of warp threads; the threads of one set being arranged between said stout threads and the threads of the other set having loops each extending between and over said stout threads and out of contact with the interwoven warp and woof threads between said stout threads; each of the threads provided with said loops having a portion extending under at least one stout thread.

[Claims 6 to 9 not printed in the Gazette.]

1,207,710. TOILET-SEAT. CHARLES FREDERICK CHURCH, Pittsburgh, Pa. Filed Feb. 21, 1914. Serial No. 820,126. (Cl. 4—18.)



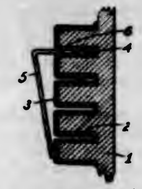
1. The combination of a toilet seat formed of a plurality of parts and having a channel formed by rabbeting in the under side of the seat, a metal reinforcing strip secured to each of the parts and located in the channel above the lower surface, a filler covering the strip and filling the channel to form a smooth undersurface and protect the metal reinforcing strip and hinge bolts threaded into the strip.

2. The combination of a toilet seat formed of a plurality of segmental parts and having a channel formed by rabbeting in the under side of the parts and a stiff metal reinforcing strip located in the channel and secured to each of the parts and a filling body for covering the metallic strip and filling the channel to the under side of the seat to form a smooth undersurface and protect the metal reinforcing strip and hinge bolts threaded into the strip through the rear edge of the seat.

3. The combination of a toilet seat having a plurality of segmental parts and a channel formed by rabbeting the under sides of the parts, a metal strip having enlarged shoulders located in the channel, hinge bolts extending through the seat into the channel and screw threaded into the shoulders.

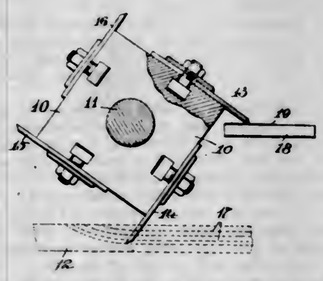
4. The combination of a toilet seat having a plurality of segmental parts and having a channel formed by rabbeting the under sides of the parts, a cast metal strip having reinforcing ribs and enlarged socketed shoulders located in the channel, hinge bolts extending through the seat into the channel and screw threaded into the shoulders and a sealing composition for covering the strip and filling the channel.

1,207,711. CHANGEABLE SIGN-BOARD. RICHARD W. CLARK, Chicago, Ill. Substituted for application Serial No. 789,752, filed Sept. 15, 1913. This application filed Apr. 14, 1915. Serial No. 21,442. (Cl. 40—142.)



In changeable sign characters adapted to be used with a board having grooves comprising characters, the characters being constructed of springy material, a tongue formed at one end only of each of the characters and adapted to removably fit into one of said grooves, said tongue being inclined at an acute angle with the character whereby when the tongue is pressed into a groove the springiness of the character will cause it to bind against the surface of the board to retain it in position, substantially as described.

1,207,712. DEVICE FOR LAYING OUT AND ADJUSTING CUTTERS IN CUTTER-HEADS. FREDERICK C. CODER, Edgewater, N. J., assignor of one-half to Margaret F. Brennan, South Ozone Park, Long Island, N. Y. Filed Oct. 15, 1915. Serial No. 56,117. (Cl. 33—185.)



1. A device of the kind described comprising a frame, a cutter-head rotatable in the frame, a block sliding in the frame, a screw adjustment for the block, a pattern support sliding on the block, and means for locking the pattern support, the parts being disposed to hold the face of the pattern support substantially radial to the center of rotation of the cutter-head.

2. In a device of the class described, a frame comprising side bars, a cutter-head having bearings in said side bars, a table for supporting a pattern with the top surface of the table in a plane including the cutter-head axis, and means for moving said table along said side bars to and from the cutter-head.

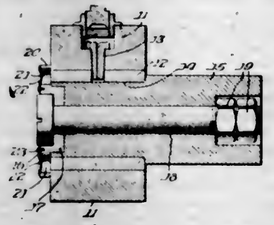
3. In a device of the class described, a frame comprising side bars, a cutter-head having bearings in the side bars, a table for supporting a pattern with its top surface in a plane including the cutter-head axis, means for moving said table along said side bars to and from the cutter-head, and means for moving said table in a direction transverse to the first-named movement.

4. In a device of the class described, the combination of a frame adapted to stand solidly on a base and comprising side bars, a cutter-head having bearings in said side bars, a pattern-carrying table on said frame and having its top surface in a plane including the axis of the cutter-head, a traveling carriage upon which said table is supported, means for moving said carriage longitudinally of the frame toward and away from the cutter-head, and a slide-way in said carriage arranged transversely of said side bars and wherein the said table may be moved transversely to its movement along said side bars.

5. In a device of the class described, the combination of a frame adapted to stand firmly on a base and comprising a pair of side bars, a cutter-head having bearings in said side bars, a carriage extending across transversely of said side bars, slide-ways in said carriage, a pattern-carrying table in said slide-ways and having its top surface in a plane including the axis of the cutter-head, and a pair of screws, one of said screws attached to each of said side-bars, said screws serving to move said carriage and table longitudinally of the side bars to and away from the cutter-head.

[Claims 6 and 7 not printed in the Gazette.]

1,207,713. BEARING DEVICE. PATRICK J. COLLIGAN, Chicago, Ill. Filed July 28, 1916. Serial No. 111,770. (Cl. 64—10.)



1. In a bearing construction, the combination of a bushing, a shaft engaged by said bushing, and a member adjacent to and covering the end of said bushing, said member being provided with an inspection opening in line with said bushing.

2. In a bearing construction, the combination of a bushing, a shaft engaged by said bushing, and a member adjacent to and covering the end of said bushing, said member being provided with an inspection opening in line with said bushing and extending completely across the thickness of the same.

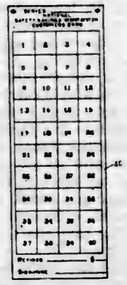
3. In a bearing construction, the combination of a bushing, a shaft rotatable within said bushing, and a member carried by said shaft and adjacent to the end of said bushing, said member being provided with an inspection opening in line with said bushing.

4. In a bearing construction, the combination of a bushing, a shaft rotatable within said bushing, and a member carried by said shaft and adjacent to the end of said bushing, said member being provided with an inspection opening in line with said bushing and extending completely across the thickness of the same.

5. In a bearing construction, the combination of a bushing, a shaft rotatable within said bushing, and a collar adjacent the end of said bushing, said collar having an inspection opening in line with said bushing.

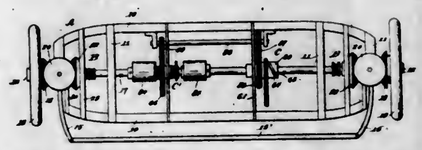
[Claims 6 to 8 not printed in the Gazette.]

1,207,714. SAVINGS-DEPOSIT-ACCOUNT DEVICE. THOMAS HENRY COOK, Sarnia, Ontario, Canada. Filed Apr. 29, 1915. Serial No. 24,837. (Cl. 11—19.)



A savings deposit account device including a plurality of sets of gummed stamps, the stamps of each set being of a distinctive color and value, depositors' cards divided into rows of consecutively numbered spaces of a size to receive the said stamps, said depositors' cards corresponding in color to the sets of stamps and having a signature line at the bottom, and bank register cards corresponding in color with the stamps and the depositors' cards and divided into consecutively numbered spaces corresponding in number with the spaces of the depositors' cards, said bank register cards having signature and identification lines, the said stamps being adapted to be applied to the depositors' cards and to be canceled by the bank and the spaces of the bank register card being adapted to receive an impression of the stamp canceling means whereby the bank register cards will correspond with the deposits indicated on the depositors' cards.

1,207,715. TRANSMISSION FOR MOTOR-VEHICLES. LOGAN RODFORD CROUCH, Ulmer, Iowa. Filed Dec. 18, 1912. Serial No. 737,494. (Cl. 21—90.)



1. In transmission of the character described, the combination of a frame, two wheels carried thereby and bodily oscillatable about upright axes, a drive shaft, said wheels having their horizontal axes coincident with the axis of the shaft and mechanism for imparting movement of said shaft to said wheels at a positive velocity ratio, but permitting the latter to rotate faster than the ratio provided for by said shaft, including gear wheels turnable with the shaft, gear wheels rotatable with the first mentioned wheels and means to drive the gear wheels of the first mentioned wheels from the gear wheels of the shaft.

2. In transmission of the character described, the combination of a frame, two wheels carried thereby and bodily oscillatable about upright axes, a drive shaft, said wheels having their horizontal axes coincident with the axis of the shaft, and mechanism for imparting movement of said shaft in either direction to said wheels at a positive velocity ratio, but permitting the latter to rotate faster than the ratio provided for by said shaft, including gear wheels turnable with the shaft, gear wheels rotatable with the first mentioned wheels and means to drive the gear wheels of the first mentioned wheels from the gear wheels of the shaft.

3. In transmission of the character described, the combination of a frame, two wheels carried thereby, a rotatable shaft carried by said frame intermediate the planes

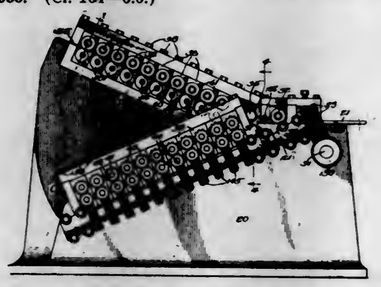
of said wheels and reciprocable longitudinally, means for imparting movement of said shaft to said wheels at a positive velocity ratio, but permitting the latter to rotate faster than the ratio provided for from said shaft, said means being reversible by longitudinal movement of said shaft, to positively rotate the wheels in the reverse direction, and means for reciprocating said shaft, substantially as and for the purpose set forth.

4. In transmission of the character described, the combination of a frame, two wheels carried thereby and bodily oscillatable about upright axes, a rotatable shaft carried by said frame intermediate the planes of said wheels and reciprocable longitudinally, means for imparting movement of said shaft to said wheels at a positive velocity ratio, but permitting the latter to rotate faster than the ratio provided for from said shaft, said means being reversible by longitudinal movement of said shaft, and means for reciprocating said shaft, substantially as and for the purpose set forth.

5. In transmission of the character described, the combination of a frame, two wheels carried thereby, a revoluble shaft carried by said frame intermediate the planes of said wheels and reciprocable longitudinally, means for imparting movement of said shaft to said wheels at a positive velocity ratio, but permitting the latter to rotate faster than the ratio provided for from said shaft, said means being reversible by longitudinal movement of said shaft to positively rotate the wheels in the opposite direction, and means for imparting circumferential movement to said shaft and capable of reciprocating the same, substantially as and for the purpose set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,207,716. MACHINE FOR MAKING EXPANDED METAL. LEWIS E. CURTIS, Kenilworth, Ill., assignor to Ames Steel Lath Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 7, 1916. Serial No. 76,535. (Cl. 164—6.6.)



1. In a machine for making expanded metal, means for slitting portions of a sheet on opposite sides of the longitudinal center thereof and immediately opening up the slitted portions, said means being so arranged that successive portions of the sheet from the center thereof outwardly to the edges are slitted and opened up until the entire sheet has been expanded.

2. In a machine for making expanded metal, two series of divergently arranged means for successively slitting and expanding adjacent portions of a sheet as the latter progresses through the machine, said series of means diverging in a direction from the entrance to the exit end of the machine.

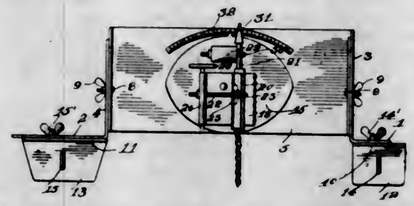
3. In a machine for making expanded metal, two series of divergently arranged means for successively slitting and expanding adjacent portions of a sheet as the latter progresses through the machine, said means operating progressively on portions of the sheet from the center thereof out toward the edges.

4. In a machine for making expanded metal, two series of divergently arranged means for successively slitting and expanding adjacent portions of a sheet as the latter progresses through the machine, said means also acting to feed the sheet forwardly, said series of means diverging in a direction from the entrance to the exit end of the machine.

5. In a machine for making expanded metal, two series of slitting and expanding means arranged divergently in a direction from the entrance to the exit end of the machine to operate on successive portions on opposite sides of the center line of the sheet as it passes through the machine.

[Claims 6 to 22 not printed in the Gazette.]

1,207,717. ANGLE-GAGE FOR DRILLS. ROY O. DARTT, Montello, Wis. Filed Apr. 25, 1916. Serial No. 93,423. (Cl. 77—31.)



1. A drill guiding device of the class described, including base members, work-engaging elements associated therewith, a drill carrying frame, said drill carrying frame being angularly adjustable relative said work engaging elements, a drill carrying member carried by said frame, said member being angularly adjustable on said frame, means for said members to accommodate drills of various sizes, and depth regulating means for the drill.

2. In a drill guide of the class described, work-engaging elements, a drill supporting frame associated therewith, and means carried by said frame for adjusting a drill forwardly and rearwardly for changing the angle of the drill.

3. A device of the character described, including base members, work-engaging elements associated therewith, a carrying frame angularly adjustable between said base members, a drill carrying member adjustable on said frame whereby to forwardly and rearwardly and laterally adjust the drill.

4. A device of the class described, including base members, work-engaging elements associated therewith, an adjustable carrying frame associated with said base members, a drill carrying member associated with said frame, means for removably mounting a drill thereon, a regulating screw, and means carried by the drill for engagement with said screw whereby to regulate the depth to which the drill operates.

5. A drill gaging device of the character described, including base members, work-engaging elements removably associated therewith, a carrying frame adjustable angularly on said base members, a drill carrying member angularly adjustable on said frame having indicating means associated therewith, and depth regulating means for the drill.

[Claim 6 not printed in the Gazette.]

1,207,718. ELECTRIC SWITCH. FREDERICK J. DECKER, Rochester, N. Y., assignor to Shafer-Decker Company, Rochester, N. Y., a Corporation of New York. Original application filed June 9, 1915, Serial No. 33,171. Divided and this application filed Oct. 13, 1915. Serial No. 55,742. (Cl. 200—1.)

1. An electric switch comprising a cylinder containing oil, a sleeve of insulating material in said cylinder, a series of spaced conducting rings mounted within the sleeve, means for insulating the rings from each other, a binding post connected with each ring and extending through and insulated from the cylinder, a conducting

piston mounted in the cylinder and adapted to successively contact with the conducting rings, said conducting piston having openings for the passage of the oil in the cylinder, whereby to retard the movement of the piston, a bearing in the bottom of the cylinder, a conducting stem slidable with the piston and operating in the bearing, and a spring interposed between the bottom of the cylinder and the piston to return said piston to normal position.



2. An electric switch comprising a cylinder containing oil, a conducting stem slidably mounted therein, a conducting piston carried by the conducting stem, a socket formed within the lower end of the cylinder for receiving the lower end of the conducting stem, conducting members insulated from each other and arranged within the cylinder, said piston adapted successively to contact with said conducting members, and the stem having means of communication between the socket and the interior of the cylinder whereby the oil may pass therethrough for the purpose set forth.

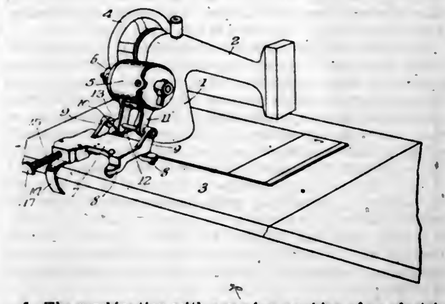
3. An electric switch comprising a cylinder, a sleeve of insulated material within the cylinder, a plurality of conducting rings within the insulated sleeve, means for insulating the rings from each other, binding posts connected with the rings and extending through the cylinder and insulated therefrom, a conducting piston slidably mounted within the cylinder and adapted in its movement to successively contact with said rings, conducting means slidable with the piston, a guide disposed in the cylinder and spaced from the conducting rings for guiding the slidable conducting means, and means for retarding the movement of the piston and the conducting means when operated in the cylinder.

4. An electric switch comprising a cylinder containing oil, a sleeve of insulated material mounted in the cylinder, a plurality of rings mounted in the sleeve, means for insulating the rings from each other, a conductor leading from each ring and extending through and insulated from the cylinder, a conducting piston slidably mounted within said cylinder and adapted to contact with said rings, a slotted stem extending from the conductor piston, a hollow guide on the cylinder in which said stem operates, the oil being forced through the slot to retard the movement of the piston and slotted stem when said parts are moved in the cylinder, and means contained in the cylinder for returning the conducting piston and conducting stem to normal position.

5. An electric switch comprising a cylinder, a plurality of conducting members arranged therein, a plurality of spaced grids parallel with the axis of the cylinder and mounted on the exterior of the latter, means for connecting said grids with said conducting members, means cooperating with the conducting members for successively cutting out the resistance connected with the respective conducting members, and a conductor movable with said latter means to carry current thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,207,719. PORTABLE MOTOR-SUPPORT. FREDERICK DIEHL, Elizabeth, and HENRY L. ZABRISKIE, Westfield, N. J., assignors to Diehl Manufacturing Company, Elizabeth, N. J., a Corporation of New Jersey. Filed May 10, 1916. Serial No. 96,531. (Cl. 74—26.)



1. The combination with a sewing machine of an electric motor and means for movably supporting the motor in driving relation to the machine, said means being adapted to be clamped to the sewing machine table between the edge thereof and an opening therein.

2. The combination with a sewing machine of an electric motor and means for pivotally supporting the motor so that it can be moved into and out of driving connection with the machine, said means being adapted to be clamped to the sewing machine table between the edge thereof and an opening therein.

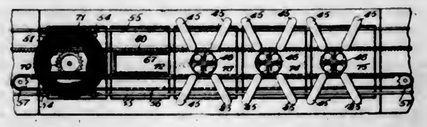
3. The combination with a sewing machine of an electric motor having a friction drive wheel, means for pivotally supporting the motor so that its drive wheel may be moved into and out of frictional engagement with the fly wheel of the machine, said means being adapted to be clamped to the sewing machine table between the edge thereof and the edge of the belt hole therein.

4. A portable driving means for sewing machines comprising an electric motor, a base upon which said motor is mounted, said base having means thereon for clamping it to a sewing machine table between an edge of said table and one of the belt holes therein, said motor being mounted on said base so that it can be moved into and out of driving connection with the machine.

5. A portable driving means for sewing machines comprising an electric motor having a friction drive wheel, a base carrying said motor, means on said base for clamping it to a sewing machine table between an edge of the table and one of the belt holes therein, said motor being pivotally mounted on said base so that its drive wheel may be moved into and out of engagement with the balance wheel of the machine.

[Claims 6 to 14 not printed in the Gazette.]

1,207,720. WASHING-MACHINE. CHARLES H. J. DILG, New York, N. Y. Filed Mar. 26, 1913. Serial No. 757,043. (Cl. 141—9.)



1. A dish-washing machine comprising a tank, a dish carrier, a track leading into and out of the tank, means for conveying the carrier along the track through the tank, a spout overhanging the tank and adapted to direct a stream of fluid eccentrically into the tank so as to produce a rotary motion therein, and means for supplying

water to the spout as the carrier passes through the tank.

2. A dish-washing machine comprising a tank, a carrier for the dishes, means for conveying the carrier through the tank, a spout overhanging the tank and adapted to direct a stream of fluid upon the dishes as they are conveyed through the tank, and means for rotating the carrier as it is conveyed through the tank.

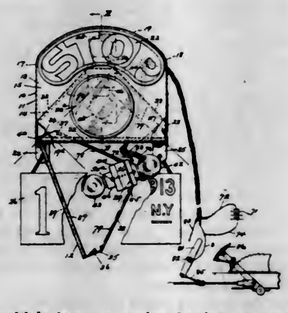
3. A dish-washing machine comprising a carrier, a plurality of sets of water spouts, the spouts of each set being adapted to direct streams of water upon the carrier, means for supplying water to each set of spouts, means for conveying the carrier progressively through the range of each set of spouts where it is subjected to the combined action of the streams of each set, and means for rotating the carrier as it is conveyed through the tank.

4. A dish-washing machine comprising a carrier for the dishes, a plurality of tanks, means for conveying the carrier successively through the tanks, a spout overhanging each tank and adapted to direct a stream of fluid thereon as the dishes are conveyed therethrough, and means for rotating the carrier as it is conveyed through the tanks.

5. A dish-washing machine comprising a carrier for the dishes, a plurality of tanks, a set of spouts for each tank arranged to direct streams of water eccentrically into the tank so as to produce a rotary motion therein, means for supplying water to each set of spouts, means for conveying the carrier through the tanks in the range of the successive sets of spouts, whereby it is subjected successively to the combined action of the streams from each set of spouts, and means for rotating the carrier as it is conveyed through the tanks.

[Claims 6 to 9 not printed in the Gazette.]

1,207,721. VEHICLE-LAMP. LAURENS P. DIXON, New York, N. Y. Filed Jan. 6, 1914. Serial No. 810,604. (Cl. 240—22.)

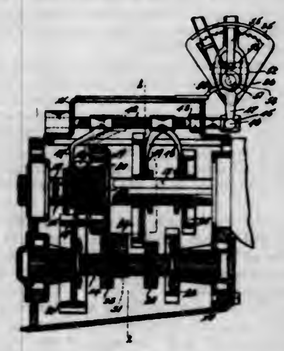


1. In a vehicle lamp, a casing having an outer hollow section formed with an open underside, an inner hollow section movably interfitting the outer section, and having side walls formed to serve as a movable partition to provide the casing with upper and lower compartments, said inner section also having an open end communicating with the open underside of the outer casing, a transparent plate in the open end of the inner section, means on the outer section for carrying a sign below the open underside of the casing, a socket provided on the wall of the inner section, two electric lamps mounted in the socket, one disposed in the upper compartment and one disposed in the lower compartment, an electric circuit, and means for removably connecting the electric circuit to the lamps, reflectors within the inner section, and arranged to deflect the light from the lower lamp through the transparent plate of the inner section, and said inner section being hingedly connected to the outer section so as to be swung inwardly and outwardly of the outer section whereby the electric lamp may be replaced when damaged as well as permitting the electric circuit to be disconnected from the socket.

2. In a vehicle lamp, a casing having an outer hollow section formed with an open underside, an inner hollow section movably interfitting the outer section, and having side walls formed to divide the casing into separable upper and lower compartments, a transparent plate in the outer section for permitting a light to serve as a danger signal to be displayed therethrough from the lower compartment, means also provided in the outer section to permit a light from the upper compartment to be displayed to serve as a "Stop" signal, a socket on the wall of the inner section, two electric lamps mounted in the socket, one disposed in the upper compartment and one disposed in the lower compartment, and an electric circuit adapted to be closed when the brake mechanism is applied to check the speed of the vehicle whereby the lamp in the upper compartment may be lighted, and adapted to be opened to extinguish the light when the brake mechanism is released, and said inner section being hingedly connected to the outer section so as to be swung inwardly and outwardly of the outer section whereby the electric lamps may be replaced when damaged as well as permitting the electric circuit to be disconnected from the socket.

3. In a vehicle lamp, a casing having an outer hollow section formed with an open underside, an inner hollow section removably interfitting the outer section, and having side walls formed to divide the casing into separable upper and lower compartments, said inner section also having an open end communicating with the open underside of the outer casing, means on the outer section for carrying a sign below the open underside of the casing, a transparent plate in the outer section for permitting a light to serve as a danger signal to be displayed therethrough from the lower compartment, means also provided in the outer section to permit a light from the upper compartment to be displayed to serve as a "Stop" signal, a socket on the wall of the inner section, two electric lamps mounted in the socket, one disposed in the upper compartment and one in the lower compartment, means on the socket to permit an electric circuit to be removably connected to the lamps whereby the lamp in the upper compartment may be lighted when the brake mechanism is applied to stop the vehicle, and the light may be extinguished when the brake mechanism is released.

1,207,722. TRANSMISSION-GEAR MECHANISM. JOHN F. DODGE, Detroit, and HORACE E. DODGE, Grosse Pointe, Mich., assignors to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed Aug. 19, 1914. Serial No. 857,483. (Cl. 74—58.)



1. In a transmission gear mechanism, the combination of alined driving and driven shafts, a shiftable driving gear having external gear-teeth, and mounted to turn with but shiftable on said driving shaft, said gear constituting a clutch member, a companion clutch member therefor, mounted rigidly on said driven shaft, and having internal teeth adapted to receive said gear teeth between them and clutch said shafts together, and speed change gearing adapted to be driven by the said teeth of said gear when the said clutch connection is broken, and to transmit motion to said driven shaft, but at which time said companion clutch member is entirely inoperative as to any of said parts.

2. In a transmission gear mechanism, the combination of alined driving and driven shafts, a shiftable driving gear having external gear-teeth, and mounted to turn with but shiftable on said driving shaft, said gear constituting a clutch member, a companion clutch member therefor, acting on said driven shaft, and having internal teeth adapted to receive said gear teeth between them and clutch said shafts together, speed change gearing, adapted to be driven by the said teeth of said gear when the said clutch connection is broken and to transmit motion to said driven shaft, but at which time said companion clutch member is entirely inoperative as to any of the parts herein, and a reversing gear driven from said countershaft, said change gearing including a shiftable gear on said driven shaft which is engageable with said reversing gear.

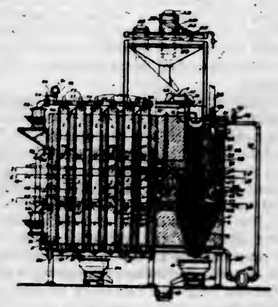
3. In a transmission gear mechanism, the combination of alined driving and driven shafts, a shiftable driving gear having external gear-teeth, and mounted to turn with but shiftable on said driving shaft, said gear constituting a clutch member, a companion clutch member therefor, acting on said driven shaft, and having internal teeth adapted to receive said gear teeth between them and clutch said shafts together, a countershaft, gears of different diameter rigidly mounted thereon, one of said gears meshing with said driving clutch gear, and a gear rotatable with said driven shaft and shiftable to engage another of said gears on the countershaft, the said shiftable gears being mounted for relative movement on said alined shafts to the exclusion of any of such on said countershaft, a reversing gear mounted alongside said countershaft, and a countershaft gear meshing with said reversing gear, said driven-shaft gear being engageable with said reversing gear, and said countershaft and said reversing gear being idle when said clutch members are connected.

4. In a transmission gear mechanism, the combination of alined driving and driven shafts, a shiftable driving gear having external gear-teeth, and mounted to turn with but shiftable on said driving shaft, said gear constituting a clutch member, a companion clutch member therefor, acting on said driven shaft, and having internal teeth adapted to receive said gear teeth between them and clutch said shafts together, a countershaft, gears of different diameter rigidly mounted thereon, one of said gears meshing with said clutch gear, a gear rotatable with said driven shaft and shiftable to engage another of said gears on the countershaft, a pair of additional cooperating gears of different diameter than any of the other gears, respectively mounted rigidly on said countershaft and on, but shiftable with respect to, said driven shaft and said companion clutch member, the said shiftable gears being mounted for relative movement on said alined shafts to the exclusion of any of such on said countershaft, a reversing gear mounted alongside said countershaft and a gear mounted rigidly on said countershaft and meshing with said reversing gear, one of said driven shaft gears being engageable with said reversing gear.

5. In a transmission gear mechanism, the combination of alined driving and driven shafts, a shiftable driving gear having external gear-teeth, and mounted to turn with but shiftable on said driving shaft, said gear constituting a clutch member, a companion clutch member therefor, acting on said driven shaft, and having internal teeth adapted to receive said gear teeth between them and clutch said shafts together, a countershaft, gears of different diameter rigidly mounted thereon, one of said gears meshing with said clutch gear, a gear rotatable with said driven shaft and shiftable to engage another of said gears on the countershaft, a pair of additional cooperating gears of different diameter than any of the other gears, and respectively mounted rigidly on said countershaft and on, but shiftable with respect to, said driven shaft, a reversing gear mounted alongside said countershaft, a countershaft gear meshing with said reversing gear, one of said driven-shaft gears being engageable with said reversing gear, and mechanism for shifting the said gears on said driving and driven shafts for obtaining a direct drive and two additional speeds, comprising means for moving in the same direction, said driving clutch gear to connect the clutch, and one of said driven-shaft gears to disconnect it from its companion gear, and for moving the last mentioned driven-shaft gear into mesh with its said companion gear and said clutch gear over into mesh with its companion gear on the countershaft, and means for moving the other of said driven shaft gears into and out of mesh with its companion countershaft gear and said reversing gear, said countershaft and the gears thereon being idle when said clutch members are engaged.

[Claims 6 to 8 not printed in the Gazette.]

1,207,723. METHOD OF CARBONIZING FUEL. HENRY L. DOHERTY, New York, N. Y. Original application filed Nov. 15, 1911, Serial No. 660,450. Divided and this application filed Jan. 29, 1915. Serial No. 5,110. (Cl. 48—210.)



1. In the operation of a continuous vertical distilling apparatus for making gas and coke, the process which comprises normally removing gas from the head of the coal column until tarry and pitchy matters accumulate in such column to an undesired extent and then forcing gas backward down through said column until the desired amount of tarry and pitchy matter has been transferred downward into the coking zone.

2. The method of carbonizing fuel and making gas in a comparatively long conduit having an intermediate localized externally-heated carbonizing section which comprises, charging the raw fuel into one end portion of said conduit, heating said fuel and distilling the volatile matter from said fuel in said intermediate carbonizing section, passing the products of such distillation in contact with the raw fuel occupying the said end portion of said conduit, to condense tar-forming constituents of said distillation products on said raw fuel, redistilling the so-condensed tar by periodically reversing the direction of flow of the gaseous products of the distillation to carry back the said tar into the said intermediate section of said conduit, to vaporize the said tar, and withdrawing the so-revaporized tar from said chamber.

3. The method of carbonizing fuel and making gas in an elongated conduit having an intermediate localized carbonizing section which comprises, charging the raw fuel into one end section of said conduit, heating fuel and distilling the volatile matter from fuel in said intermediate section of said conduit, passing the gases and vapors from said intermediate section in contact with raw fuel occupying the said end section of said conduit, to condense on the said raw fuel tar-forming constituents of the products of the distillation, periodically reversing the direction of flow of the gas current passing through said raw fuel, to carry back the condensed tar in contact with the hot fuel

in an intermediate section of said conduit and to re-vaporize the said tar, withdrawing the re-vaporized tar from said conduit and transferring the heat from the carbonized residue of said distilling operation to the said raw fuel.

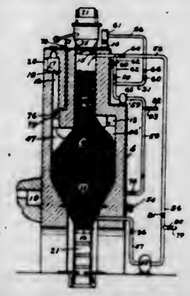
4. The method of carbonizing fuel and making gas in a closed conduit having comparatively long end extensions which comprises, charging raw fuel into one end extension of said conduit, heating fuel and distilling the volatile matter from said fuel in an intermediate localized carbonizing section of said chamber, passing the gases and vapors from said carbonizing section in contact with raw fuel occupying the said end extension of said conduit, to condense tar-forming constituents of the products of the distillation of the fuel in said carbonizing section on said raw fuel, periodically reversing the direction of flow of the gas current passing through the raw fuel, to carry back the condensed tar, by means of the reversed gas current, into contact with hot fuel in the said intermediate section of said conduit and to re-vaporize the said tar, withdrawing the re-vaporized tar from said conduit, withdrawing hot carbonized fuel from said intermediate section into the other of said end extensions of said conduit, contacting with hot carbonized fuel in said end extension a current of cold deluminated gas, to transfer to said cold deluminated gas substantially all the sensible heat of the said carbonized fuel above the initial temperature of said deluminated gas, and passing the heated deluminated gas in contact with fuel to be carbonized, whereby the sensible heat of said carbonized fuel is transferred to the said fuel to be carbonized.

5. The method of carbonizing fuel and making gas in a closed conduit having comparatively long end extensions and an intermediate localized carbonizing section which comprises, advancing a body of fuel through said conduit, the said body of fuel being advanced through said conduit and maintained in said conduit by withdrawing material from one end extension of said conduit and adding raw fuel to the other end extension of said conduit, heating said fuel and distilling the volatile matter from said fuel in said intermediate section of said conduit, passing the products of such distillation in contact with the raw fuel occupying the said end extension of said conduit, to condense tar-forming constituents of said distillation products on said raw fuel, periodically reversing the direction of flow of the gaseous current to carry back the said tar into the said intermediate section of said conduit in contact with hot fuel undergoing carbonization therein to re-vaporize the said tar and to convert heavy hydrocarbons of the tar vapors into difficultly condensable gases of lower molecular weights, and withdrawing the current of gas together with the gases derived from the said tar from said conduit.

[Claims 6 to 13 not printed in the Gazette.]

1,207,724. METHOD OF MAKING COMBUSTIBLE GAS. HENRY L. DOHERTY, New York, N. Y. Original application filed Nov. 15, 1911, Serial No. 660,449. Divided and this application filed Jan. 29, 1915. Serial No. 5,111. (Cl. 48—206.)

1. The method of manufacturing gas which comprises, maintaining a body of mixed carbonized and bituminous fuel in regulated proportions in a relatively long conduit, producing combustible gas in an intermediate region of the said conduit by passing laterally through that portion of the fuel body in said intermediate region an oxidising draft current comprising regulated proportions of water vapor and air, the relative proportions of the said water vapor and air being so regulated with respect to their respective endothermic and exothermic action on the fuel in the said intermediate portion that the said fuel will be maintained at the temperature desired, advancing the said body of fuel through the said region of semi-combustion at a rate greater than the rate of combustion of the said fuel therein, withdrawing a minor portion of the combustible gas formed in the said intermediate region from the said region, contacting the said minor portion of combustible gas with that portion of the said fuel body above the said intermediate region and which is advancing toward the said region, to carbonise the bituminous matter in the said portion of said fuel body, to preheat the said portion of the said fuel body and to cool the said minor portion of combustible gas, contacting with that portion of the said fuel body which has advanced beyond the said region of semi-combustion the said cooled portion of combustible gas to cool the said portion of said fuel body, withdrawing the cooled mixture of carbonized fuel and ash, separating the carbonized fuel from the ash of the said mixture and returning the said carbonized fuel in admixture with a regulated portion of fresh fuel to that part of the said fuel body which is advancing toward the said region of semi-combustion.



2. The method of making combustible gas which comprises, maintaining a body of mixed carbonized and bituminous fuel in regulated proportions in a relatively long conduit, the proportion of the said carbonized fuel relative to that of the bituminous fuel being that proportion which will substantially prevent the caking of the said bituminous fuel, maintaining a semi-combustion to produce combustible gas in an intermediate portion of the fuel in said body by passing through the said portion of fuel an oxidising draft current composed of balanced proportions of endothermically and exothermically reacting constituents, the said draft current comprising a mixture of water vapor and air in regulated proportions, advancing the said body of fuel through the said region of semi-combustion at a rate greater than the rate of combustion in the said region, the rate of advance of the said body relative to the rate of combustion being that which will maintain a major proportion of unconsumed but carbonized fuel and a minor proportion of ash in the material advanced beyond the said region of semi-combustion, withdrawing a minor portion of combustible gas from the said region of semi-combustion, contacting said minor portion of combustible gas with that portion of the said fuel body which is advancing toward the said region of semi-combustion, to carbonize the bituminous fuel in the said fuel body, to preheat the said portion of said fuel body and to cool the said minor portion of combustible gas, contacting with the mixture of carbonized fuel and ash which has advanced beyond the said region of semi-combustion the said cooled minor portion of combustible gas, the volume of the said portion of combustible gas relative to the quantity of the said mixture of fuel and ash being that required to cool the said mixture to the desired degree.

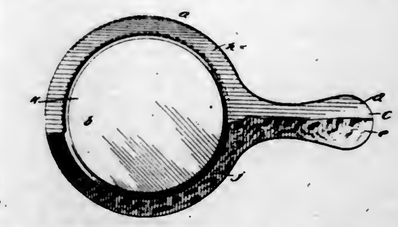
3. The method of manufacturing gas which comprises, maintaining a body of mixed carbonized and bituminous fuel of regulated proportions in a relatively long conduit, maintaining a semi-combustion to produce combustible gas in a portion of the fuel in said body in an intermediate region of the said fuel conduit by passing through the portion of the said fuel in the said intermediate region a balanced draft current comprising regulated proportions of water vapor and air, advancing the said body of fuel through the said region at a rate greater than the rate of combustion of the said fuel therein, the rate of advance of said body relative to the rate of combustion being that which will maintain a major proportion of unconsumed but carbonized fuel and a minor proportion of ash in the material advanced beyond the said intermediate region, the said major portion of carbonized fuel comprising 80 per cent. or more of said material, withdrawing the minor portion of said combustible gas from said intermediate region, contacting said minor portion of combustible gas with that portion of said fuel body which is advancing toward the said intermediate region, to carbonise the bituminous fuel in the said portion of said fuel body, to preheat the said portion of the said fuel body and to cool the said minor portion of combustible gas, contacting the so-called minor portion of combustible gas with the mixture of carbonized fuel and ash which has advanced beyond the said intermediate region to cool the said mixture and to reheat the said portion of combustible gas, and returning the so-reheated portion of combustible gas to the main draft current passing through the said intermediate region.

4. The method of manufacturing combustible gas which comprises, maintaining a body of mixed carbonized and bituminous fuel in regulated proportions in a relatively long conduit, the proportion of said carbonized fuel relative to that of the bituminous fuel being that which will substantially prevent the caking of the said bituminous fuel, maintaining a semi-combustion to produce combustible gas of a portion of the fuel in said body in an intermediate region of said fuel conduit, located near the middle of the said conduit, by passing laterally through the ignited fuel and across the said conduit in said intermediate region an oxidising draft current comprising balanced proportions of endothermically and exothermically reacting constituents, said draft current comprising flue gas, water vapor and air in regulated proportions, the proportions of flue gas and water vapor on the one hand and the air on the other hand being so regulated with reference to the cooling effect on the said ignited fuel of the flue gas and water vapor and the heating effect on the said fuel of the air that the temperature of the said fuel will be maintained at the point desired, advancing the said body of fuel through the said semi-combustion region at a rate greater than the rate of combustion of the said fuel therein, the rate of advance of said body relative to the rate of combustion being that which will maintain a major proportion of unconsumed but carbonized fuel and a minor proportion of ash in the residual material from said combustion, the said major portion of carbonized fuel constituting 80 per cent. or more of the said material, the said fuel body being advanced by withdrawing regulated portions of the said mixture of carbonized fuel and ash from the lower part of the said fuel conduit, withdrawing the major part of the combustible gas in said semi-combustion region from the said conduit, withdrawing the minor portion of said combustible gas from said semi-combustion region, contacting the said minor portion of said combustible gas with that portion of said fuel body in the upper part thereof above the said region of semi-combustion, and which portion of said body is advancing toward the said region, to carbonize the bituminous fuel in the said fuel mixture, to preheat the said mixture and to cool the said minor portion of combustible gas, withdrawing the residual mixture of carbonized fuel and ash from the said semi-combustion region, contacting with the said fuel and ash mixture a relatively cool gaseous fluid, to quench the carbonized fuel in said mixture, to cool the said fuel and to heat the said gaseous fluid, the volume of the said gaseous fluid relative to the quantity of said mixture of fuel and ash being that required to cool the said mixture to the desired degree, the said gaseous fluid comprising said cooled minor portion of combustible gas, conducting the heated gaseous fluid into and mingling the same with the draft current passing through said region of semi-combustion, withdrawing the mixture of cooled carbonized fuel and ash from the said conduit, the said mixture being withdrawn from the lower part of the said fuel body in said conduit, separating the carbonized fuel from the ash of said mixture and returning the carbonized fuel in admixture with a regulated proportion of fresh bituminous fuel to the part of said body which is advancing toward the said region of semi-combustion, the said part of said fuel body occupying the upper part of the said fuel conduit.

5. In the manufacture of combustible gas the process which comprises, transmitting a body of fuel past and in contact with an oxidizing draft current comprising air and steam in admixture, whereby a portion of the fuel of said fuel body is caused to react with reactive constituents of said draft current to generate combustible gas, said fuel being transmitted past said draft current at a rate materially greater than the rate of combustion of said fuel by said draft current and withdrawing in contact with the fuel in that portion of said fuel body which has not been subjected to combustion a portion of the combustible gas formed to cool said portion of combustible gas, and passing cooled combustion gas in contact with that portion of said fuel body which has been subjected to partial combustion by said draft current, to cool said portion of said fuel body.

[Claims 6 to 31 not printed in the Gazette.]

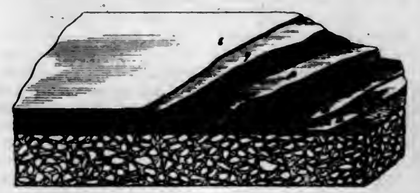
1,207,725. ARTICLE OF MANUFACTURE. LOUIS DUNKELSBERG, Brooklyn, N. Y. Filed Mar. 13, 1916. Serial No. 83,932. (Cl. 45—98.)



1. A new article of manufacture, comprising a frame formed of three layers cut or stamped from sheet celluloid, the lower layer being of one solid continuous piece, a middle and upper layer each having an opening therein, the opening in the upper layer being of less diameter than the opening in the middle layer, all of the said layers being cemented together, and each layer forming a portion of an integral handle to the said frame.

2. As a new article of manufacture, a frame for hand-mirrors, comprising three layers cut or stamped from sheet celluloid, a lower layer formed of one solid continuous piece adapted to support a mirror, a middle layer of different shades of celluloid provided with an opening to receive the mirror, and an upper layer having an opening of less diameter than the opening in the middle layer, all of the said layers being firmly secured together, and each layer forming a portion of an integral handle to the said frame, whereby the entire outer edges of the frame will expose the middle layer in its various colors.

1,207,726. WATERPROOFING. CHARLES V. EADES, Chicago, Ill., assignor to Standard Asphalt & Rubber Company, Chicago, Ill., a Corporation of New Jersey. Filed Mar. 28, 1914. Serial No. 828,104. (Cl. 108—7.)
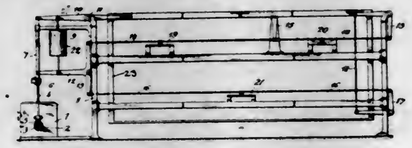


1. In a waterproofing, the combination with a foundation, of a paint coat on the upper surface of said founda-

tion, a pair of asphaltic mop coats, flexible fabrics between the mop coats and a bituminous cushion between said fabrics, said cushion and coats uniting with each other to form a substantially unitary structure.

2. In a waterproofing, the combination with a rigid foundation, of a pair of bituminous saturated fabrics on said foundation, a relatively thick bituminous cement bond coat interposed between the fabrics and bituminous mop coats above and below the fabrics.

1,207,727. EMBROIDERING-MACHINE. KARL EGGART, Arbon, Switzerland, assignor to the Firma Adolph Saurer, Arbon, Switzerland. Filed Feb. 3, 1914. Serial No. 816,146. (Cl. 112—7.)

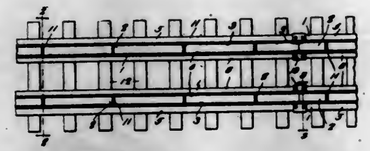


1. In an embroidering machine, the combination of a machine frame, a work frame, suspension levers mounted on the machine frame and directly supporting the working frame, a multiple armed actuating lever mounted on the machine frame, and tension members directly connecting the arms of the actuating lever to the suspension levers for movement in both directions.

2. In an embroidering machine, the combination of a machine frame, a work frame, a bell crank suspension lever mounted on the machine frame, a bell crank transmitting lever also mounted on the machine frame, a connection between one arm of the transmitting lever and one arm of the suspension lever, a multiple armed actuating lever mounted on the machine frame, a tension member connecting one arm of the actuating lever with another arm of said suspension lever, and a tension member connecting the other arm of the actuating lever with the other arm of the transmitting lever.

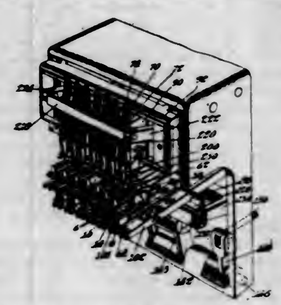
3. In an embroidering machine, the combination of a machine frame, a work frame, suspension levers mounted on the machine frame, a multiple armed actuating lever mounted on the machine frame, tension members connecting the arms of the actuating lever with the suspension levers for movement in both directions, and an automat directly connected to the actuating lever.

1,207,728. TRACK. GABRIEL ELLINGSON, Kimball, S. D. Filed June 12, 1916. Serial No. 103,204. (Cl. 104—178.)



A track of the class described formed from sheet metal, and bent to provide curved bases, said bases having their longitudinal edges terminating in curved sides, said sides terminating in vertical flanges, said flanges in turn terminating in horizontal flanges for engaging a tie, tie bars connecting the adjacent ends of the rails and overlapping the horizontal flanges thereof, said bases having transverse slots formed therein, as and for the purpose set forth.

1,207,729. BUTTONING-MACHINE. HERBERT E. ENSLIN, Malden, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 2, 1915. Serial No. 265. (Cl. 12—1.)



1. A buttoning machine comprising means for positioning a button, buttonhole fly engaging means, and operating mechanism constructed and arranged to effect relative movement of said button positioning means and said buttonhole fly engaging means in substantially the same manner with respect to the opposite sides of a buttonhole to dispose one side of the buttonhole under the edge of the button in buttoned relation thereto and thereafter similarly to dispose the other side of said buttonhole in said buttoned relation to the button.

2. A buttoning machine having, in combination, means for engaging a buttonhole fly, means for positioning a button, and mechanism constructed and arranged to effect relative movement of said fly engaging means and said button positioning means to render said fly engaging means effective successively at opposite sides of a buttonhole for disposing the material adjacent to the buttonhole in buttoned relation to the button.

3. A buttoning machine having, in combination, tuckers for engaging a buttonhole fly upon the two sides of a buttonhole, means for positioning a button, and mechanism constructed and arranged to effect relative movement of said tuckers and said button positioning means to cause the two sides of the buttonhole to be disposed successively in buttoned relation to the button.

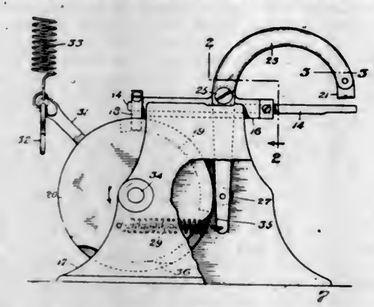
4. A buttoning machine having, in combination, relatively movable tuckers for engaging a buttonhole fly upon the two sides of a buttonhole, means for positioning a button, and mechanism constructed and arranged to effect relative movement of said tuckers and said button positioning means to cause the two sides of the buttonhole to be disposed successively in buttoned relation to the button.

5. A buttoning machine having, in combination, tuckers for engaging a buttonhole fly upon the two sides of a buttonhole, means for positioning a button, and mechanism constructed and arranged to effect relative movement of said tuckers to bring said tuckers successively into engagement with the buttonhole fly and by relative movement of said tuckers and said button positioning means to cause the two sides of the buttonhole to be successively disposed in buttoned relation to the button.

[Claims 6 to 91 not printed in the Gazette.]

1,207,730. MACHINE FOR BUTTONING SHOES. LEWIS J. BASSONI, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 3, 1913. Serial No. 740,001. (Cl. 12—1.)

1. A buttoning machine having, in combination, a holder for supporting a button, means for operating upon an article which has a buttonhole to open said buttonhole adjacent to the button, means for moving said button holder to pass the head of the button through said buttonhole, and means for operating upon said article to close the buttonhole around the shank of the button.



2. A buttoning machine having, in combination, a holder for supporting a button, means for operating upon an article which has a buttonhole to move the material at one edge of said buttonhole to open the buttonhole, means for moving said button holder to pass the head of the button through the buttonhole, and means for operating upon said article to move the material at the opposite edge of said buttonhole past the head of the button and to close the buttonhole around the shank of the button.

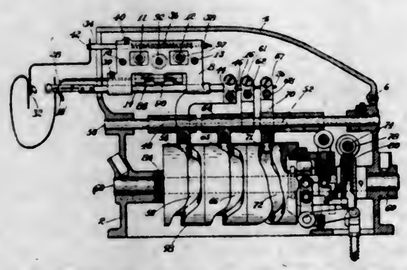
3. A buttoning machine having, in combination, a holder for supporting a button, two work-engaging members for operating upon an article which has a buttonhole for said button, said members being disposed to engage said article at opposite sides of the buttonhole respectively, means for operating one of said members to move the material at one edge of the buttonhole to open the buttonhole, means for operating said button holder to pass the head of the button through the buttonhole, and means for operating the other work-engaging member to move the material at the other edge of the buttonhole to close the buttonhole around the shank of the button.

4. A buttoning machine having, in combination, a button holder for supporting a button, means for operating upon an article which has a buttonhole to open said buttonhole, and means for operating said button holder to tilt the button and pass the head thereof edgewise through said buttonhole.

5. A buttoning machine having, in combination, a tilting button support, buttonhole fly engaging means, and means for tilting said button support relatively to said fly engaging means to pass the head of the button through a buttonhole in said fly.

[Claims 6 to 71 not printed in the Gazette.]

1,207,731. BUTTONING-MACHINE. LEROY FARNUM, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 11, 1913. Serial No. 753,522. (Cl. 12—1.)



1. In a buttoning machine the combination of means for initially positioning a button, means for engaging the button in said positioning means, buttonhole fly engaging means, and mechanism for relatively moving the button engaging means and the buttonhole fly engaging means to effect a buttoning operation, said mechanism being constructed to cause the button to be tipped during said buttoning operation to present it edgewise to the buttonhole.

2. In a buttoning machine the combination of means for initially positioning a button, means for engaging the button in said positioning means, buttonhole fly engaging means, and mechanism for relatively moving said button engaging and fly engaging means to effect a buttoning operation, said mechanism being constructed to impart to the button a plurality of tipping movements during the buttoning operation.

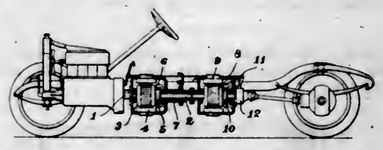
3. In a buttoning machine the combination of button holding means movable to grasp a button, buttonhole fly engaging means, and mechanism for causing said holding means to tip the button to present it edgewise to the buttonhole and for relatively moving said button holding and buttonhole fly engaging means to complete the buttoning operation.

4. In a buttoning machine the combination of button holding means comprising a plurality of devices constructed to engage different portions of a button, buttonhole fly engaging means, and mechanism for moving said devices relatively to each other to tip the button and for effecting a relative movement of said button holding and fly engaging means to complete the buttoning operation.

5. In a buttoning machine the combination of button holding means constructed to engage a button at opposite sides of the button head, buttonhole fly engaging means, and mechanism for causing said holding means to tip the button to present it edgewise to the buttonhole and for relatively moving said button holding and fly engaging means to complete the buttoning operation.

[Claims 6 to 71 not printed in the Gazette.]

1,207,732. MOTOR-VEHICLE CONTROL. JUSTUS B. ENTZ, Cleveland, Ohio. Filed Jan. 13, 1915, Serial No. 1,906. Renewed Jan. 22, 1916. Serial No. 73,755. (Cl. 171—315.)



1. In a device for transmitting power from a prime mover to a load; the combination of a dynamo electric machine, one element of which is connected to the prime mover and the other to the load; a second dynamo electric machine, one element of which is stationary and the other connected to the load; and a controller having its contacts and connections arranged to connect said machines in series to actuate the load; and to short circuit the first machine on itself to act as a magnetic clutch, connect a series field and an opposing shunt field to the armature of the second machine and connect said second machine to a battery to charge the same.

2. In a device for transmitting power from a prime mover to a load; the combination of a dynamo electric machine, one element of which is connected to the prime mover and the other to the load; a second dynamo electric machine, one element of which is stationary and the other connected to the load; and a controller having its contacts and connections arranged to connect said machines in series to actuate the load and with a non-inductive resistance shunted around the field of the first machine to divert the excessive starting current; to cut out said resistance; and to short circuit the first machine on itself to act as a magnetic clutch, connect a series field and an opposing shunt field to the armature of the second machine and connect said second machine to a battery to charge the same.

3. In a device for transmitting power from a prime mover to a load; the combination of a dynamo electric

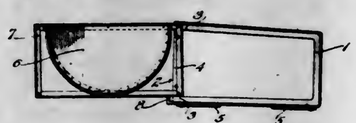
machine, one element of which is connected to the prime mover and the other to the load; a second dynamo electric machine, one element of which is stationary and the other connected to the load; and a controller having its contacts and connections arranged to connect said machines in series to actuate the load; to progressively decrease the field strength of the second machine to vary the speed of the load; and to short circuit the first machine on itself to act as a magnetic clutch, connect a series field and an opposing shunt field to the armature of the second machine and connect said second machine to a battery to charge the same.

4. In a device for transmitting power from a prime mover to a load; the combination of a dynamo electric machine, one element of which is connected to the prime mover and the other to the load; a second dynamo electric machine, one element of which is stationary and the other connected to the load; and a controller having its contacts and connections arranged to connect said machines in series to actuate the load and with a non-inductive resistance shunted around the field of the first machine to divert the excessive starting current; to cut out said resistance; to progressively decrease the field strength of the second machine to vary the speed of the load; and to short circuit the first machine on itself to act as a magnetic clutch, connect a series field and an opposing shunt field to the armature of the second machine and connect said second machine to a battery to charge the same.

5. In a device for transmitting power from a prime mover to a load; the combination of a dynamo electric machine, one element of which is connected to the prime mover and the other to the load; a second dynamo electric machine, one element of which is stationary and the other connected to the load; and a controller having its contacts and connections arranged to connect the field of the first machine, and a resistance in series therewith, in shunt with its armature and connect said first machine to a storage battery to charge the same, the second machine being ineffective; and to connect said machines in series to actuate the load.

[Claims 6 to 53 not printed in the Gazette.]

1,207,733. HOG-TROUGH. ANDREW A. FAIR, near Pierson, Iowa. Filed May 17, 1915. Serial No. 28,703. (Cl. 119—63.)



1. In combination, a movable trough, a pair of rectangular end members secured one to each end thereof and having horizontal top and bottom edges, and upright front and rear edges, fixed L-iron bottom edges receiving in their angles the bottom bars of the end members, stops rising from the front ends of the L-iron bottom bars in advance of said end members, upright L-iron bars rising from the rear ends of said L-iron bottom bars and receiving in their angles the upright rear edges of the end members, L-iron top bars extending forwardly from said upright L-iron bars and receiving in their angles the top edges of said end members, and additional upright bars connecting the front ends of the L-iron top and bottom bars and spacing said L-iron top bars above the end members a distance equal to the height of the aforesaid stops, said additional bars being spaced laterally from the front edges of said end members to allow the latter and the trough to be moved forwardly when raised above the stops.

2. In combination, a hog trough having a pair of upright rectangular horizontally elongated end members secured one to each end of said trough, a retaining structure for the trough consisting of a pair of horizontally elongated rigidly connected four-sided retaining frames receiving the aforesaid end members, each of said retaining frames consisting of an L-iron bar whose central portion stands upright and snugly receives in its angle the up right rear end of the adjacent end member, one end portion of said L-iron bar being bent laterally in a horizontal direction and snugly receiving in its angle the bottom of the adjacent end member, the horizontal base flange of said horizontally bent end portion of the L-iron bar being bent upwardly to a slight extent in advance of the adjacent end member to form a stop to prevent said end frame from being withdrawn from its respective retaining frame until raised above said stop, the other end portion of the aforesaid L-iron bar being bent in a substantially horizontal direction and receiving in its angle the top of the adjacent end member, the last-named horizontally bent portion of the L-iron bar being inclined upwardly from its fixed to its free end to such an extent as to allow the front end of the adjacent end member to be raised above its respective stop, and an upright bar secured to the outer sides of both horizontally bent portions of the L-iron bar at the free ends thereof and spaced laterally from the end members, said bars being adapted for contact with upright cleats at the ends of a horizontally elongated opening in the side of a pig pen and being formed with bolt holes to receive bolts passed through said cleats.

1,207,734. JOINT FOR CORRUGATED PAPER-BOARD. FRANK G. FEELEY, Chicago, Ill., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 11, 1916. Serial No. 90,341. (Cl. 93—36.)



1. A joint for faced corrugated paper-board, comprising a pair of complementary board sections, one of which has a portion of the lining sheet removed to uncover a portion of the corrugated sheet, and the two sections being mated with the said uncovered portion of the corrugated sheet of one section overlapping and interlocking with the corrugated sheet of the other section, and means connecting the adjacent ends of the lining sheets of the two sections.

2. A joint for faced corrugated paper-board, comprising a pair of complementary board sections, one of which has a portion of the lining sheet and the other of which has a portion of the corrugated sheet removed to provide a projecting length of lining sheet, the two sections being mated with the uncovered portion of the corrugated sheet of one section overlapping and interlocking with the corrugated sheet of the other section and with the projecting length of lining sheet of the latter section overlapping a portion of the lining sheet of the first section, and means securing said overlapping portion of the lining sheet of one section to the underlying lining sheet of the other section.

3. A joint for double-faced corrugated paperboard, comprising a pair of complementary board sections, one of which has a portion of the inner lining sheet removed and the other of which has a portion of the outer lining sheet removed to uncover portions of the corrugated sheets of the respective sections, the two sections being mated with the uncovered portions of their corrugated sheets overlapping and interlocking with each other, and means connecting the adjacent ends of the lining sheets at the opposite sides of the board sections.

4. A joint for double-faced corrugated paperboard, comprising a pair of complementary board sections, one of which has a portion of the inner lining sheet removed and the other of which has a portion of the outer lining sheet removed to uncover portions of the corrugated sheets of the respective sections, and one of which sections also has a portion of its corrugated sheet removed to provide a projecting length of lining sheet, the two sections being mated with the uncovered portions of their corrugated sheets overlapping and interlocking with each other and with the said projecting length of lining sheet of one section overlapping a portion of the adjacent lining sheet of the other section, and means connecting the adjacent ends of the lining sheets at the opposite sides of the board sections.

5. A joint for double-faced corrugated paperboard, comprising a pair of complementary board sections, each of which has a portion of its corrugated sheet removed to provide a projecting length of lining sheet at one side thereof and a portion of its opposite lining sheet removed to provide an uncovered portion of corrugated sheet, the two sections being mated with the uncovered portions of their corrugated sheets overlapping and interlocking with each other and with the projecting length of lining sheet of each section overlapping the adjacent portion of the other section, and means securing the overlapping length of lining sheet of each section to the underlying portion of the other section.

1,207,735. REAMER. BION D. FORD, Cleveland, Ohio. Filed Nov. 8, 1915. Serial No. 60,194. (Cl. 77—72.)



1. A cutter head having a slot therein, a blade in the slot having a flat longitudinally and laterally inclined surface, and a wedge key in the slot, having a flat inclined surface fitting against the said inclined surface of the blade, to lock the same in the slot.

2. A cutter head having a slot therein, a blade in the slot having a surface inclined both to the axis and the radius of the head, and a wedge key in the slot, having a flat inclined surface fitting against said surface of the blade.

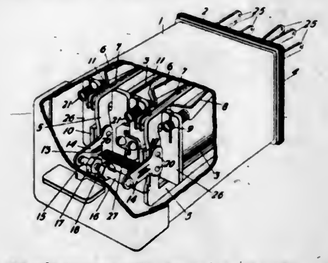
3. A cutter head having a slot therein, one wall of the slot having a longitudinally inclined groove, a blade fitting in the slot and having a flat surface opposite the groove inclined both to the axis and the radius of the head, and a wedge key in the groove, fitting against said surface.

4. A cutter head having a slot therein, the front side wall of the slot having a tapered groove, a blade fitting in the slot and having a flat side surface inclined longitudinally and transversely, and a wedge key in the groove having a flat side, fitting against said surface.

5. A cutter head having a recess therein open at both ends and one side wall of which is tapered longitudinally, a blade fitting in said recess, and a wedge key in said recess, beside the blade, the small end of the key projecting through and beyond the opening at one end of the recess whereby it may be backed out by pressure applied to said end.

[Claims 6 to 8 not printed in the Gazette.]

1,207,736. ELECTROMAGNETIC DEVICE. OSCAR F. FORSBERG, Yonkers, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed May 2, 1914. Serial No. 835,879. (Cl. 175—321.)



1. In an electromagnetic device, a plurality of armatures, an electromagnetic actuating means individual to each of said armatures, flexible means connecting said armatures together, and a spacing member interposed between said armatures, whereby the said armatures are caused to move in unison in response to the energization of either of said actuating means.

2. In an electromagnetic device, a plurality of coils adapted to produce magnetic fluxes of different phase, cores for said coils, a plurality of armatures mounted in operative relation to said cores, an adjustable means for relatively spacing said armatures, and means for retaining said spacing means in position.

3. In an electromagnetic device, a plurality of armatures mounted in substantially parallel planes, an electromagnetic actuating means individual to each of said armatures, flexible means connecting said armatures together, and an adjustable spacer interposed between said armatures whereby the said armatures are caused to move in unison in response to the energization of either of said actuating means.

4. In an electromagnetic device, a pair of armatures mounted in substantially parallel planes, an electromagnetic actuating means therefor, each of said armatures being provided in their ends with depressions, a spacer having conical ends registering in said depressions, and flexible means connected with said armatures to maintain said spacer in position.

5. In an electromagnetic device, a pair of armatures mounted in substantially parallel planes, an electromagnetic actuating means therefor, each of said armatures being provided in their ends with depressions, a spacer having conical ends registering in said depressions, said spacer being adjustable relative to its length, and flexible means connected with said armatures to maintain said spacer in position.

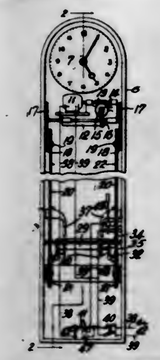
[Claims 6 to 8 not printed in the Gazette.]

1,207,737. ADVERTISING DEVICE. CARLETON K. FOTHERINGHAM and ARCHIE R. LAING, Montreal, Quebec, Canada, assignors to American Advertising Clocks, Limited, Montreal, Quebec, Canada, a Corporation of Canada. Filed Jan. 28, 1913. Serial No. 744,669. (Cl. 40—36.)

1. An advertising device comprising a case, a pair of endless chains having advertisement carrying pins, a plurality of advertisement carrying rods, a magazine containing said rods and arranged to shift the same by gravity toward the front of the case, a pair of blocks on each advertisement rod having pin engaging grooves and sloping edges arranged to aline the rods transversely of the case, and adjustable means mounted on the magazine arranged to aline the grooves with the path of travel of the pins.

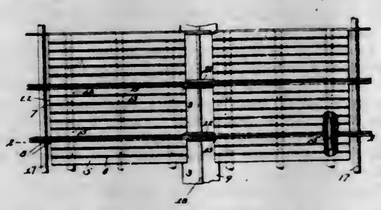
2. An advertising device comprising a case, a pair of endless chains having advertisement carrying pins, a magazine, a plurality of advertisement carrying rods in

said magazine, blocks on said rods having pin engaging grooves and sloping magazine engaging alining edges, plates pivoted to the magazine in engagement with the blocks of the front advertisement carrying rod, means for adjusting said plates to aline the block grooves with the chain pins, and a magazine gate holding all rods but the first against removal.



3. An advertising device comprising a case, a pair of endless advertisement carrying belts, a continuous running motor operating said belts, a plurality of advertising sheets, a magazine holding said sheets, said belts adapted to pick said sheets from the magazine, an electric circuit supplying power to the motor, a shunt circuit supplying electric power to said circuit breaker, and a gravity actuated circuit maker in said shunt circuit maintained in open position by advertisements carried by the belts, a magnet circuit breaker in said first mentioned circuit adapted to break said circuit when the belts fail to pick an advertisement from the magazine.

1,207,738. PAVING CONSTRUCTION. GEORGE B. FRALEY, Liberty, N. Y. Filed Dec. 10, 1915. Serial No. 66,186. (Cl. 94—1.)



1. In a paving construction, a series of alternately arranged metal and plastic components having close side contact and edges thereof uppermost, the said components being provided with transversely extending securing devices to form independent component groups, supporting devices arranged adjacent to the ends of the groups and along the latter, and coupling means disposed in alternate relation to the groups and having their ends engaging the supporting devices.

2. In a paving construction, a series of alternately arranged metal and plastic components, the plastic components being longitudinally continuous between the metal components, coupling means arranged longitudinally between series of the metal and plastic component at intervals and connected to the latter, and means for engaging the ends of the said coupling means.

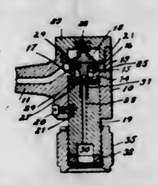
3. In a paving construction, a series of alternately arranged metal and plastic components having close side contact with edges thereof uppermost, the plastic components being continuous between the metal components, the metal components being of less vertical extent than the plastic components to form key ways between the components, means extending transversely through the components for holding them in close assembled relation in distinct groups, coupling means extending between the groups and connected to the latter, supporting means engaged by the ends of the coupling means, and a finishing coating applied over the components and engaging the key ways.

4. In a paving construction, a series of alternately arranged metal and plastic components having close side contact with edges thereof uppermost, means extending transversely through the components for holding the latter in close assembled relation, coupling means extending through and connected to portions of the components and having projecting reversely slotted ends, and supporting means extending along the ends of the components and engaged by the slotted ends of the coupling means.

5. In a paving construction, sections composed of alternately arranged metal and plastic components, means for holding the components of each section in closely assembled relation, means for connecting the components of adjacent sections, supporting means arranged along the ends of the sections, and coupling means alternately arranged with relation to the sections and having their ends engaging the said supporting means.

[Claims 6 to 9 not printed in the Gazette.]

1,207,739. COUPLING DEVICE. JAMES W. FRAZIER and FRED E. HANSEN, Cleveland, Ohio. Filed Sept. 13, 1915. Serial No. 50,344. (Cl. 137—28.)



1. The combination, with a casing having oppositely disposed valve seats, of a spring pressed valve and a movable plunger arranged to coöperate respectively with said seats, said plunger having an air passage extending therethrough, said valve having an apertured hollow stem adapted to contact with said plunger and aline with said air passage, said plunger carrying means at its outer end for tightly gripping a tire valve stem.

2. The combination, with a casing having opposed chambers with oppositely disposed valve seats arranged between said chambers, of a spring pressed valve coöperating with one seat and having a hollow apertured stem extending into the opposite chamber, a plunger independent of the valve adapted to coöperate with the other valve seat and having a limited movement in its chamber, said plunger having a central air passage adapted to be brought into communication with the hollow valve stem, said plunger at its opposite end being provided with means for engaging a tire valve stem.

3. In a device of the kind described, the combination with a casing having upper and lower chambers, the intermediate partition centrally apertured and provided with oppositely disposed valve seats, said casing having a bored hose connection communicating with the upper chamber, a valve located in the upper chamber having an elastic face contacting with the upper valve seat and a depending stem projecting through the partition, means for maintaining said valve seated, and a plug arranged in the lower chamber independent of the valve and contacting at its upper end with the depending stem of the valve, said plug having an elastic surface at its upper end, the lower end of said plug being shaped to receive a tire valve as set forth.

4. In a device of the kind described, the combination with a plunger having an air passage extending therethrough, a recess in the lower end of said plunger communicating with said air passage and adapted to receive a tire valve stem, a nut movable upon the lower end of said plunger, an elastic ring arranged at the end of the plunger and having a central aperture alining with the recess in said plunger, and a flanged apertured container between said nut and elastic ring for the purpose specified.

5. In a device of the kind described, the combination with a plunger having an air passage extending therethrough, a recess at the lower end thereof adapted to receive a tire valve stem, a nut movable upon the lower end of said plunger, the upper end thereof having an annular groove, a spring located in said groove, one end of said spring being connected to the nut, and means interposed between the nut and end of the plunger for gripping a tire valve stem as set forth.

1,207,740. NESTABLE CULVERT. JOHNATHAN R. FREEZE, Middletown, Ohio, assignor to The American Rolling Mill Company, Newark, N. J., and Middletown, Ohio. Filed Mar. 8, 1916. Serial No. 82,808. (Cl. 61—9.)



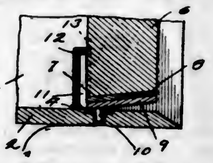
1. A nestable culvert comprising a circumferential series of pipe sections, said pipe sections being formed with shoulders near their longitudinal edges, cover-strips adapted to overlap the contiguous edges of said pipe sections and formed with shoulders arranged to engage the shoulders thereon, and means whereby said cover-strips may be secured to said pipe sections to secure the same together, combined substantially as set forth.

2. A nestable culvert comprising, a circumferential series of pipe-sections having their longitudinal edges spaced apart, outwardly presenting shoulders upon the pipe-sections near their longitudinal edges, separable cover-strips disposed outside the joints and overlapping the contiguous edges of the pipe-sections and formed with interior shoulders engaging the shoulders on the pipe-sections, and bolts passing between the contiguous edges of the pipe-sections and through the separable cover-strips and means whereby said bolts are adapted to draw the inner surfaces and shoulders of the cover-strips firmly to the outer surfaces and shoulders of the pipe-sections, combined substantially as set forth.

3. A nestable culvert comprising, a circumferential series of circumferential corrugated pipe-sections having their longitudinal edges spaced apart, outwardly presenting shoulders upon the pipe-sections near their longitudinal edges, and following the sinusoids of the corrugations, transversely corrugated separable cover-strips disposed outside the joints and overlapping the contiguous edges of the pipe-sections and formed with interior shoulders engaging the shoulders on the pipe-sections, and bolts passing between the contiguous edges of the pipe-sections and through the separable cover-strips and means whereby said bolts are adapted to draw the inner surfaces and shoulders of the cover-strips firmly to the outer surfaces and shoulders of the pipe-sections, combined substantially as set forth.

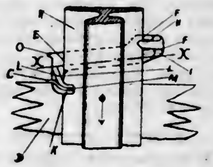
4. A nestable culvert comprising, a circumferential series of pipe-sections having their longitudinal edges spaced apart, outwardly presenting shoulders upon the pipe-sections near their longitudinal edges, separable cover-strips disposed outside and inside the joints and overlapping the contiguous edges of the pipe-sections and formed with shoulders engaging the shoulders on the pipe-sections, and bolts passing between the contiguous edges of the pipe-sections and through the separable cover-strips and adapted to draw the surfaces and shoulders of the cover-strips firmly to the surfaces and shoulders of the pipe-sections, combined substantially as set forth.

1,207,741. WEATHER-STRIP. BENJAMIN LOUIS GILBERT, Silverton, Colo. Filed May 10, 1916. Serial No. 96,592. (Cl. 20—66.)



The combination with a door and its threshold, of a weather strip having lugs carried by its inner edge, slotted plates carried by the threshold, said lugs being loosely pivoted in the slots of the plates and removably engaged therewith, an arm carried by one end of the strip, said arm being engaged by the door to swing said strip upwardly when the door is closed, said door having a strip of metal and a strip of resilient material secured to its lower edge for engaging in the order stated the upper surface of the first named strip as and for the purpose set forth.

1,207,742. RAIL-ANCHOR. HORATIO G. GILLMOR, Washington, D. C. Filed Apr. 2, 1915. Serial No. 18,725. (Cl. 238—4.)



1. A device for preventing the creeping of rails comprising a cross bar extending transversely under the rail and having integral shoulders thereon adapted to bear against and grip opposite edges of the rail base flange and provided at one end with an integral jaw adapted to engage the rail base flange and at the other end with an integral tie-engaging portion.

2. An anticreeper, comprising a cross bar having integral rail base engaging portions upon its two ends adapted to engage the top and bottom of the rail base at opposite sides of the rail and an integral rail edge engaging shoulder adapted automatically to engage the edge of the rail base when said anticreeper is forced into position and to lock said anticreeper upon the rail base.

3. A rail anchor comprising a device arranged for transverse application to a rail base and having at one end an integral jaw and an integral rail base edge engaging shoulder and at the other end thereof an integral arm adapted to engage the upper surface of the rail base flange and an integral shoulder adapted to engage the edge of the rail base flange to lock said device upon the rail base.

4. A device for preventing the creeping of rails comprising a cross bar having at one end an integral jaw adapted to engage the top and bottom of the rail base and an integral shoulder adapted to engage the rail edge and at the other end an integral tie-engaging portion an integral arm adapted to engage the upper surface of the rail base at one side of said tie-engaging portion and an integral shoulder adapted to engage the edge of the rail base at the other side of said tie-engaging portion.

5. A rail stay comprising a cross bar having base edge engaging portions upon its ends, a rail base engaging jaw at one end and an arm adapted to engage the upper surface of the rail base at the other end, the whole adapted to be placed in position upon the rail by horizontal angular movement in relation to the rail and to be locked upon the rail by the engagement of the base edge engaging portions with opposite edges of the rail base.

[Claims 6 to 15 not printed in the Gazette.]

1,207,743. JAR AND CLOSURE THEREFOR. GUSTAVE GLOCKER, Washington, D. C., assignor to C. A. Chapman, Chicago, Ill. Filed Jan. 27, 1913, Serial No. 744,457. Renewed Dec. 9, 1915. Serial No. 66,020. (Cl. 215—80.)



1. A cap or closure having an annular portion provided with an air passage, and a gasket held from movement in the annular portion and projecting into the passage intermediate of the ends of the passage, whereby the passage is normally open above and below the gasket.

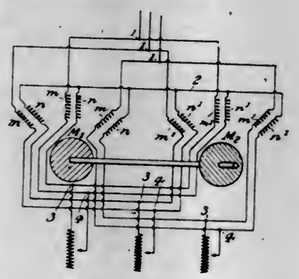
2. A cap or closure having an annular portion provided with an air passage, and a gasket mounted in the annular portion and projecting into the passage intermediate of the ends of the passage, whereby the passage is normally open above and below the gasket.

3. A cap or closure having an annular portion provided with a circumferential groove and an air passage intersecting said groove, and a gasket fitted in the groove and providing an air escape with the passage adjacent the supporting edge of the gasket.

4. A cap, or closure having an annular portion provided with a circumferential groove intersected by a passage, and a gasket fitted snugly in the groove and having its rear edge forming with the passage an air passage open above and below the gasket.

5. In combination, two interfitting members, a resilient gasket interposed between the members, one of said members having spaced annular grooves connected by a transverse passage, said gasket fitting in one of the grooves and extending across the passage, the said gasket being adapted to close the passage to the other groove when the members are interfitted.

1,207,744. ASYNCHRONOUS MOTOR. RUDOLF GOLDSCHMIDT, Darmstadt, Germany. Filed May 21, 1912. Serial No. 698,821. (Cl. 172—280.)

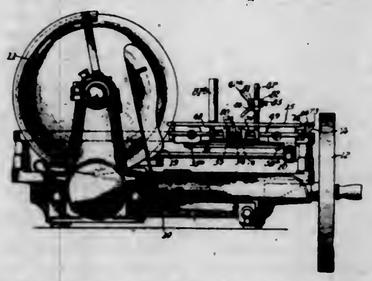


1. An asynchronous motor comprising a current-supplied stator winding and a single phase rotor which is adapted to induce in the stator winding secondary currents, and a separate circuit for said secondary currents, said circuit including a starting resistance.

2. An asynchronous motor comprising a current-supplied stator winding and a single phase rotor which is adapted to induce in the stator winding secondary currents, and a separate circuit for said secondary currents, said circuit including a starting resistance and an inductance.

3. An asynchronous motor composed of two stators having current-supplied windings and supplementary windings and of two rotors having single-phase windings, the two component parts of one of said motor-comprising elements being mutually displaced for one half of the pole pitch, whereby the rotors are adapted to induce in the supplementary stator windings secondary currents of the double slip frequency, and a starter in circuit with said supplementary windings.

1,207,745. SLICING-MACHINE. HERBERT R. GOODFELLOW, Chicago, Ill., assignor to U. S. Slicing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 23, 1914. Serial No. 826,471. (Cl. 17—24.)



1. In a slicing machine, a relatively movable article support and cutter, coöperating article side clamping elements, means controlling the clamping action of said elements, the said means yieldable to the movement of the article with respect to the clamping elements, said cutter during the cutting operation tending to force the article against one of the said clamping elements, means operating to automatically lock that one of the clamping elements against retrograde movement under such action of the cutter, and means for releasing the said locking means.

2. In a slicing machine, an article support embodying coöperating article side clamping elements, and means operating to move the elements in clamping direction one with respect to the other, the said means yieldable to the movement of the article with respect to the elements, one of the elements being mounted for adjustment in an upright plane toward and away from the support.

3. A device of the character described embodying coöperating clamping elements, means tending normally to render the elements active, said elements yieldable against the stress of the said means to permit the article to be fed with respect to the elements, mechanism automatically rendered active under the stress of the article for locking one of the elements against retrograde movement and means for rendering the last said mechanism inactive, the last said means also operating to separate the said elements and maintain them separated.

4. An article holder for slicing machines embodying an article support, coöperating clamping elements projecting above the support to clamp the sides of the article, means tending normally to move the elements in a clamping direction with respect to each other, and means individual to the elements and operating automatically to lock them against retrograde movement.

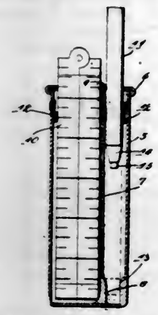
5. An article holder for slicing machines embodying an article support, opposed laterally movable article side clamps projecting above the support, means tending normally to impart a clamping action to the clamps, and means operating under the stress of the article upon one of the clamps to lock the latter against unclamping movement.

[Claims 6 to 20 not printed in the Gazette.]

1,207,746. COMBINED RULE AND PENCIL HOLDER. EDWARD S. GOODNOUGH, Ellis, Kans., assignor of one-half to Andrew Bolig, Ellis, Kans. Filed Sept. 9, 1916. Serial No. 119,318. (Cl. 24—3.)

1. As a new article of manufacture, the combination of a rule and pencil holder comprising a casing, a central partition carried thereby, said central partition provided with a thickened portion at the bottom thereof, said casing also provided with a thickened portion on one side for constituting a pencil supporting shoulder and protector for the lead of the pencil when a pencil is thrust into said casing, spring tongues carried within said casing and adapted to grip an object for firmly holding the same against accidental displacement from said casing.

2. A combined pencil and rule holder comprising a casing, a metallic plate secured to said casing, a spring tongue struck therefrom and adapted to engage said support for releasably holding said casing upon said support,



a partition carried within said casing, and metallic tongues struck from the body of said casing and adapted to grip an object for preventing the accidental displacement of said object from said casing.

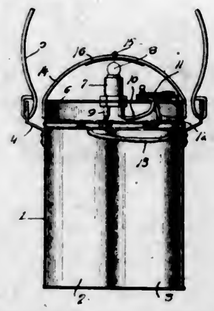
1,207,747. BUILT-IN IRONING-BOARD. ARTHUR E. GRIMSHAW, Seattle, Wash. Filed Apr. 14, 1915, Serial No. 21,277. Renewed May 9, 1916. Serial No. 96,361. (Cl. 68—10.)



1. In an article of the class described, the combination of the ironing board, the width of one of whose ends is substantially equal to the distance between the usual studding of a wall, the said end being adapted to be thrust between the studding, a crossbar extending from one of the studding to the other and cut into the same and a second crossbar extending between the studding and similarly secured, the upper and lower edges of the said crossbars respectively being in horizontal planes which are a distance apart equal to the thickness of the said ironing board, and their inner faces being in vertical planes which are in spaced relation to each other, the studding being provided with vertical slots whose upper ends are in the same horizontal plane with the upper edge of the lower crossbar, eye bolts secured to the said ironing board, a rod passing through the eyebolts and having its ends confined to slidable vertical and rotative movement within the said slots.

2. In a built-in ironing board including an ironing board, the width of whose supported end is substantially equal to the distance between the usual studs of a wall, the said end being adapted to be thrust between two of the said studs, the combination of a pair of straight horizontal supporting bars whose ends are cut into and supported directly by said wall studs, the upper edge of one and the lower edge of the other of said supporting bars being in horizontal planes which are a distance apart equal to the thickness of the said ironing board, said supporting bars forming the only supporting means for said ironing board, a pair of oppositely disposed straight vertical slots, one in either stud, said slots being midway between inner vertical faces of said supporting bars, a rod secured to the under side of said ironing board and having projecting ends beyond the sides of said board and adapted to engage the slots in the studs, whereby the said ironing board is secured against disengagement from the studs, is held in engagement with the supporting bars when in an operable position, is held in an upright position and prevented from falling forward when inclosed in the cabinet.

1,207,748. ELECTRIC LANTERN. PAUL GRUNER, Pinckneyville, Ill. Filed June 3, 1916. Serial No. 101,590. (Cl. 240—8.5.)



1. An electric hand lantern comprising a battery container, a removable cover for said container, an electric lamp bulb mounted on the cover, a switch on the cover to control the supply of current to the lamp, rods secured to the cover to form a protecting frame work over the lamp and the switch, and a reflector plate carried by said frame work over the lamp to cause the rays thereof to be reflected downwardly.

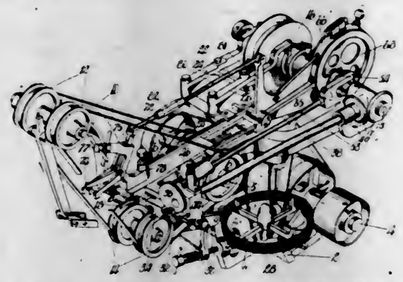
2. An electric hand lantern comprising a battery containing case, a cover to be removably fitted on and close said case, an electric lamp bulb carried by the cover, circuit connections from said bulb to be connected with batteries placed within the case, a switch connected in the circuit connections to control the supply of current to the lamp, bow shaped rods connected with the cover in crossed relation to form a protecting frame work over the switch and the lamp, and a reflector plate carried by said frame work above the lamp to cause the light rays therefrom to be reflected downwardly.

3. An electric hand lantern comprising a battery containing case, a cover to close said case, an electric lamp bulb carried by the cover, circuit connections from said bulb to be connected with batteries placed within the case, a switch connected in the circuit connections to control the supply of current to the lamp, bow shaped rods connected with the cover in crossed relation to form a protecting frame work over the switch and the lamp, a reflector plate carried by said frame work above the lamp to cause the light rays therefrom to be reflected downwardly, and a bail handle connected with the case to permit carrying of the lantern.

1,207,749. STAPLE-FASTENING MACHINE. CHARLES E. GRUSH, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 17, 1912. Serial No. 715,633. (Cl. 1—20.)

1. In a stapling machine, staple driving means, a stationary outside former, and an inside former constructed and arranged to move in said outside former in the direction opposed to the driving movement of the driving means to form a staple and movable with said driving means during its driving movement to coöperate with said driving means in completing the formation of the staple and in holding the staple as it is driven.

2. In a machine of the class described, a stationary former, a reciprocating inside former, a driver and actuating means therefor, connections between said inside former and said driver to cause said inside former to be moved by said driver in both of its operative movements, and means constructed and arranged to effect a coöperation of said inside former with said driver during the movement of said inside former and said driver in staple driving direction.



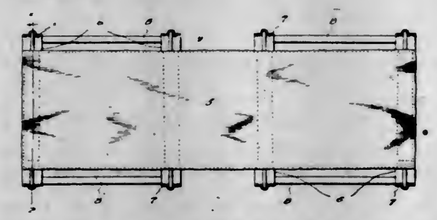
3. In a staple forming and inserting machine, a stationary outside former, an inside former movable in said outside former partially to form a staple during movement of the driver in one direction and movable with the driver in an opposed direction, and means for retarding the movement of said inside former during its movement in said opposed direction whereby said inside former cooperates with said driver to complete the formation of the staple and to control the staple as it is driven.

4. In a machine for forming and inserting staples, a stationary outside former, a driver, a reciprocating inside former, operative connections between said inside former and said driver to cause the inside former to form a staple during movement of said driver in a direction opposed to the driving movement and to move with said driver during its driving movement, and means to retard the movement of said inside former in staple driving direction to effect a coöperation of said inside former with said driver during their movement in staple driving direction.

5. In a machine of the class described, a stationary outside former, a reciprocating inside former, a driver and actuating means therefor, operative connections between said inside former and said driver to cause said inside former to be moved by the driver in a direction opposed to the driving movement of said driver to form a staple and movable with the driver during its driving movement, and means constructed and arranged to retard the movement of said inside former during its movement in staple driving direction.

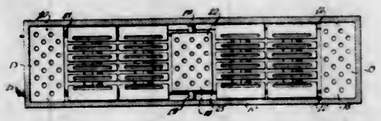
[Claims 6 to 8 not printed in the Gazette.]

1,207,750. STRETCHER. IRA CURRY GWIN, Oakland, Cal. Filed Mar. 22, 1916. Serial No. 85,863. (Cl. 21—80.)



A stretcher comprising an elongated body portion of flexible material and a pair of spaced strips extending transversely thereof and entirely thereacross at each end of the body portion and to which the body portion is secured, said strips being extended beyond the body portion at each side thereof and terminating in handle receiving eyes, rigid handles lying lengthwise of the body portion and extending between the strips of a pair and being engaged in said eyes and interengaging means between said eyes and the handles for preventing endwise movement of the handles with relation to the eyes.

1,207,751. GRATE-BAR. MARCUS E. HANSELL, Anamosa, Iowa, assignor of one-half to Gustavus A. Smith, Marshalltown, Iowa. Filed Dec. 16, 1915. Serial No. 67,127. (Cl. 126—176.)



1. A grate comprising two substantially parallel side bars, each bar having a ledge at each of its ends extending toward the other side bar, and each ledge having a vertical perforation therein; perforated end plates resting on the ledges and connecting the side bars; vertical pins on the end plates smaller than and disposed in said perforations providing play in the connections between the side bars and end plates; a wide perforated plate pivotally mounted in and intermediate the ends of the side bars; grate bars pivotally mounted in the frame at each side of said central plate; manually operable means for controlling oscillations of the grate bars; and manually operable means independent of the first-mentioned means for controlling the movement of the central grate plate.

2. In combination, a grate frame; bars extending across and journaled in the grate frame; grate fingers each having a notch in its lower edge engaging one of said bars, there being grooves in the grate fingers in the sides of said notches, providing ventilating openings between the grate fingers and said bars; and deflecting plates in certain of the grooves of the grate fingers adapted to direct currents of air passing through said grooves toward said bars.

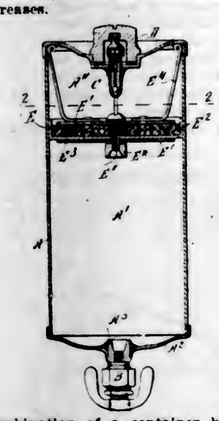
3. In combination, a grate frame; bars extending across and journaled in the grate frame; grate fingers each having a notch in its lower edge engaging one of said bars, there being ventilating grooves between the sides of the notches and said bars extending substantially parallel with the latter, and vertical ventilating grooves in the sides of the notches opening into the first mentioned ventilating grooves; and deflecting members in the first mentioned grooves at the upper ends of the vertical grooves adapted to direct air toward said bars.

4. In combination, a grate frame provided with side rails; bars extending across and journaled in the side rails; grate fingers each having a notch in its lower edge engaging one of said bars; and projecting lips on certain of the grate fingers extending over and protecting the side rails from heat, there being a plurality of spaced recesses in the edges of said lips adapted to increase the radiating surfaces of the grate fingers.

1,207,752. FIRE-EXTINGUISHER. WILLIAM L. HARRISON, Branford, Conn. Filed Mar. 23, 1915. Serial No. 16,327. (Cl. 169—12.)

1. The combination of a container having an outlet, a manually operatable valve controlling said outlet, and a piston movable in said container and dividing it into two compartments adapted to be filled respectively with a compressed gaseous medium and with liquid, said piston being made of soft elastic material and engaging the wall of the container with progressively diminishing force as the pressure of said gaseous medium decreases during the movement of the piston toward said outlet.

2. The combination of a container having an outlet, a manually operatable valve controlling said outlet, and a piston movable in said container and dividing it into two compartments adapted to be filled respectively with a compressed gaseous medium and with a liquid, said piston being deformable in response to variations of pressure within the container in such a manner as to reduce the friction between piston and container wall when the pressure decreases.



3. The combination of a container having an outlet, a manually operatable valve controlling said outlet, and a piston movable in said container and dividing it into two compartments adapted to be filled respectively with a compressed gaseous medium and with a liquid, said piston being compressible axially and expansible radially in response to an increase of pressure within the container.

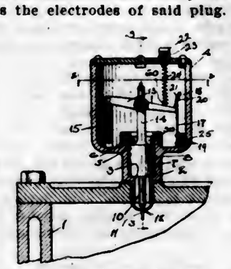
4. The combination of a container having an outlet, a manually operatable valve controlling said outlet, and a piston movable in said container and dividing it into two compartments adapted to be filled respectively with a compressed gaseous medium and with a liquid, said piston comprising a holding device having two connected abutments, rigid washers mounted loosely between said abutments so as to be capable of moving toward and from the same, and a piston proper located between said washers, said piston proper being compressible axially and expansible radially in response to an increase of pressure within the container.

5. The combination of a container having an outlet, a manually operatable valve controlling said outlet, and a piston movable in said container and dividing it into two compartments adapted to be filled respectively with a compressed gaseous medium and with a liquid, said piston comprising a body of soft elastic material and a cup-shaped washer of smooth-surfaced material having its flange fitted around the edge of the piston body and in engagement with the container wall.

1,207,753. IGNITER FOR GAS-ENGINES. ALBERT B. HERRICK, New York, N. Y., assignor to Matie C. Messler, Providence, R. I. Filed Feb. 4, 1915. Serial No. 6,049. (Cl. 123—166.)

1. In a high tension igniter for gas engines the combination of a spark plug having an aperture therein and provided with fixed spaced electrodes, and a movable member mounted in such aperture and adapted to be actuated by the compression in the engine cylinder to break an electrical circuit thereby causing a spark across the electrodes of said plug.

2. In a high tension igniter for gas engines the combination of a spark plug having an aperture therein and provided with fixed spaced electrodes, and a movable member mounted in such aperture and adapted to be actuated by compression in the engine cylinder to rapidly make and break an electrical circuit thereby causing a series of sparks across the electrodes of said plug.



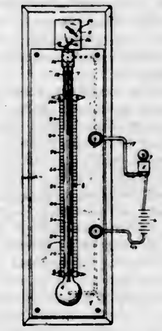
3. In a high tension igniter for gas engines the combination of a spark plug having an aperture therein and provided with fixed spaced electrodes, a movable member mounted in such aperture and adapted to be actuated by the compression in the engine cylinder to break an electrical circuit thereby causing a spark across the electrodes of said plug, and means for adjusting the pressure necessary to operate said movable member.

4. In a high tension igniter for gas engines, the combination of a spark plug having an aperture therein and provided with fixed spaced electrodes; a movable member mounted in such aperture and adapted to be operated by the compression in the engine cylinder; and a second member adapted to be actuated by said first member and adapted to break an electrical circuit thereby causing a spark across the points of said plug.

5. In a high tension igniter for gas engines the combination of a spark plug having an aperture therein and provided with fixed spaced electrodes; a movable member mounted in such aperture and adapted to be operated by the compression in the engine cylinder; and a second member adapted to be actuated by said first member to rapidly make and break an electrical circuit thereby causing a series of sparks across the electrodes of said plug.

[Claims 6 to 14 not printed in the Gazette.]

1,207,754. ADJUSTABLE-CONTACT THERMOMETER. ALFRED THEODORE HESPE, Weehawken, N. J. Filed Sept. 2, 1914. Serial No. 859,836. (Cl. 200—32.)



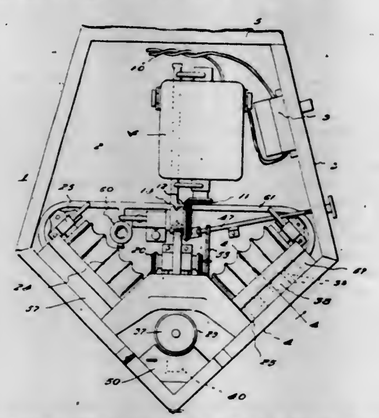
1. A thermometer having a mercury tube, mercury therein, a flexible metallic member entering said tube, a rotatable spool upon which said flexible member is adapted to be wound to adjust said flexible member within said tube and an electric circuit adapted to be closed through said mercury and said flexible member.

2. A thermometer having a mercury tube, mercury therein, a casing supported by said tube, and electric circuit one side of which is connected to said casing and the other end of which enters the said mercury, a metallic member entering said mercury and adapted to be rolled within said casing and means between said roll and

said mercury for electrically engaging said metallic member within said casing.

3. An adjustable thermometer having a mercury tube and chamber formed integral, mercury within said tube and said chamber, a second chamber formed in said tube, a non-corrosive, non-conductive liquid therein, a metallic thimble and casing supported by said tube, and a flexible metallic member operative through said casing, said thimble and said second chamber, and into said mercury tube, a rotatable spool in said casing upon which said flexible member is adapted to be wound, and a plurality of rollers, one of which is adjustably supported by said casing and adapted to receive said flexible member between them to guide said flexible member and continue an electrical contact between said casing and said flexible member.

1,207,755. NAIL-POLISHING MACHINE. ANTHONY V. HOLEC, New York, N. Y. Filed Mar. 26, 1915. Serial No. 17,169. (Cl. 30—23.)



1. A nail polishing machine including a pair of angularly related horizontally disposed rotary nail polishing elements arranged to operate simultaneously on the finger nails of both hands simultaneously and a superimposed vertically disposed rotary polishing element arranged to operate on the thumb nails simultaneously with the said polishing elements.

2. A nail polishing machine including horizontally disposed polishing rolls arranged at an angle to each other, a vertically disposed thumb nail polishing roll located above the plane of the said polishing rolls, means for supporting blocks of polishing material adjacent to the said rolls, rock shafts located at the angularly related polishing rolls and provided with arms arranged to move the adjacent blocks of polishing material to and from the said rolls, a centrally arranged arm connected with the block which is located adjacent to the thumb nail polishing roll, a shaft, connections between the shaft and the rock shafts and the arm at the thumb nail polishing roll for moving the said blocks into engagement with the rolls and yieldable means for normally maintaining the blocks out of engagement with the said rolls.

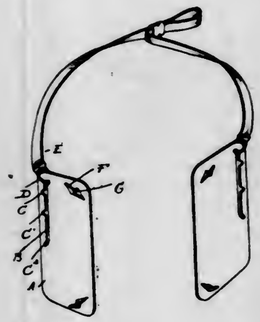
3. A finger nail polishing machine including a rotary polishing element provided with a plurality of nail receiving grooves, a support located upon the polishing element and about which the fingers of the hand are to be bent to position the nails within the grooves in the polishing element, means for rotating the polishing element, and means for supporting blocks of polishing material adjacent to the grooves and below the support and moving the said polishing material into and out of contact with the said polishing element.

4. A finger nail polishing machine including a rotary polishing element, a finger support located adjacent the polishing element, means disposed below the support for supporting a block of polishing material, spaced flanges depending from the under side of the support and adapted to receive the block of polishing material therebetween, means for operating the rotary polishing element, and means for moving the block of polishing material into and out of contact with the rotary polishing element.

5. A finger nail polishing machine including a polishing element, a finger support located adjacent the polishing element, a shelf disposed below the finger support and having a slot therein, the said shelf being adapted to support a block of polishing material, and operating means extending through the slot in the shelf for moving the block of polishing material into and out of contact with the finger polishing element.

[Claims 6 to 8 not printed in the Gazette.]

1,207,756. RUBBER-DAM HOLDER. CLARENCE A. HOLMES, Seattle, Wash., assignor to Detroit Dental Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 15, 1916. Serial No. 84,456. (Cl. 32—20.)



1. In a dental dam holder, a cheek-plate having a struck-out and return-bent prong for engaging the dam.

2. In a dental dam holder, a cheek-plate having a plurality of struck-out prongs within the perimeter thereof for engaging the dam and extending at angles to each other.

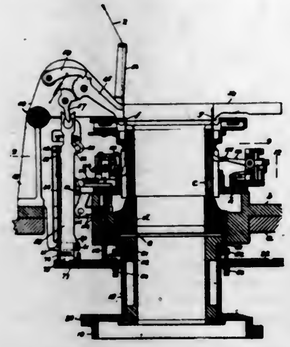
3. In a dental dam holder, a cheek-plate having a slot parallel to one edge thereof, and a plurality of struck-out prongs at opposite corners thereof and within the perimeter for engaging the rubber dam, and means adjustably engaging said slot for securing said cheek-plate.

4. In a dental dam holder, a cheek-plate formed of a sheet-metal stamping having a slot provided with a series of notches, said slot being substantially parallel to one edge thereof, and means adjustably engaging said slot and notches for securing said cheek-plate.

1,207,757. CIRCULAR-KNITTING MACHINE. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 22, 1915. Serial No. 51,939. (Cl. 66—24.)

1. In a circular knitting machine, in combination, a rotatable needle cylinder, driving mechanism including rotary driving means and oscillatory driving means, vertically movable shifting mechanism for alternately connecting the two driving means with the needle cylinder, a cam disk rotatable on a vertical axis, a pattern chain, means controlled by the pattern chain and operable from the driving mechanism to turn the cam disk step by step, and cams turning with the cam disk and adapted, during one rotation thereof, to actuate the shifting mechanism twice in each direction.

2. In a circular knitting machine, in combination, a rotatable needle cylinder, driving mechanism including rotary driving means and oscillatory driving means, vertically movable shifting mechanism for alternately connecting the two driving means with the needle cylinder, a cam disk rotatable on a vertical axis, means to turn the cam disk step by step, a sleeve turning with the cam disk, a flange on the sleeve, and upper and lower peripheral cams on the flange adapted to engage and actuate the shifting mechanism in respectively opposite directions.



3. In a circular knitting machine, in combination, driving mechanism including a rotating cam, a cam disk, knitting mechanism whose operation is controlled by the cam disk, a ratchet on the cam disk, a slide restrained from lateral movement, a pawl pivoted on the slide, a spring-actuated lever adapted to be oscillated by the cam and connected with the slide so as to reciprocate the same thereby ratcheting the cam disk, a spring-actuated pivoted lock for the slide adapted, on the advance of the slide, to move into position to hold the slide from retraction, one of the mutually engaging locking faces of the lock and slide being beveled to prevent partial retraction of the slide, and pattern mechanism adapted at intervals to withdraw the lock from operative position, thereby releasing the slide and allowing its actuating lever to be retracted by its actuating spring and advanced by its actuating cam.

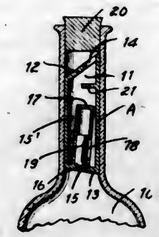
4. In a circular knitting machine, in combination, a rotatable and vertically movable needle cylinder, a ring on which said cylinder rests, pins depending from the ring, a pivoted yoke lever upon which said pins rest, a support normally upholding the lever, a rotatable cam disk, a device on the cam disk adapted to underride the lever and lift it from its normal support, and means to turn the cam disk step by step.

5. In a circular knitting machine, in combination, a rotatable and vertically movable needle cylinder and gear secured together, a fixed ring upon which the gear rests and turns, pins depending from the ring, a lever pivoted on a horizontal axis, said pins supported by the lever, vertically adjustable means supporting the free end of the lever, a rotatable cam disk, a device on the cam disk adapted to underride the lever and lift it from its support, and pattern controlled means to turn the cam disk step by step.

[Claims 6 to 15 not printed in the Gazette.]

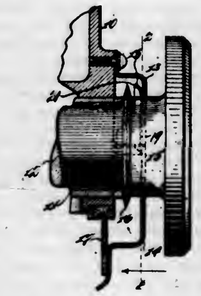
1,207,758. NON-REFILLABLE BOTTLE. WILLIAM JOSEPH HOWE, Port Dalhousie, Ontario, Canada. Filed Apr. 10, 1914. Serial No. 830,985. (Cl. 215—65.)

In a device of the class described, a cylindrical casing having openings in its ends respectively and adapted for insertion in a bottle neck, a tubular member formed integral with one end of the casing and inclined with respect to the longitudinal axis of said casing, said tubular member having one end closed and its other end in communication with the opening in the end of the casing, and further having an opening in that portion of its side wall which is inclined toward the side wall of the casing, and a projection on the side wall of the casing between



the tubular member and the opening in the end of the casing remote from the tubular member and extending across that portion of the side wall of the tubular member which is provided with an opening.

1,207,759. OIL-GUARD. RUSSELL HUFF, Detroit, Mich., assignor to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed Apr. 14, 1916. Serial No. 91,018. (Cl. 64—22.)



1. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with centrifugally acting oil throw-off means, and catching means fitted inside of said housing for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

2. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with a centrifugally acting, annular, oil-throw-off ridge, and catching means fitted inside of said housing for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

3. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with centrifugally acting oil throw-off means, and catching means substantially concentric with said means and fitted inside of said housing for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

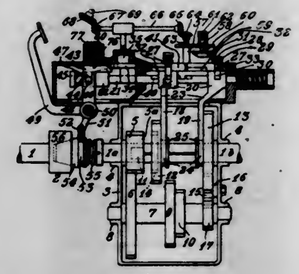
4. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with centrifugally acting oil throw-off means, and catching means fitted in and projecting inwardly from said housing toward said throw-off means for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

5. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with centrifugally acting oil throw-off means, and catching means fitted in and projecting inwardly from said housing toward said throw-off means and lying in an arc outside of said throw off means, said catching

means being adapted for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

[Claims 6 to 13 not printed in the Gazette.]

1,207,760. SPEED-CONTROLLING MECHANISM FOR AUTOMOBILES. MERION J. HUGGINS, New York, N. Y. Filed Mar. 13, 1916. Serial No. 83,841. (Cl. 74—58.)



1. In an automobile, the combination with a drive gear, and a transmission gear, of a rod connected to one of said gears, means to move said rod, means to actuate said rod, a stop upon said rod, a cam slidable along said rod engaged by said actuating means for actuating the rod, a detent to engage said stop for arresting the rod when in actuated state, and said cam actuating said detent to release said stop and permit said moving means to move the rod without control of said actuating means.

2. In an automobile, the combination with a drive gear, and a transmission gear, of a rod connected to one of said gears, means to move said rod, means to actuate said rod, a stop upon said rod, a cam slidable along said rod engaged by said actuating means for actuating the rod, a detent to engage said stop for arresting the rod when in actuated state, said cam actuating said detent to release said stop and permit said moving means to move the rod without control of said actuating means, and means to control the movement of said rod contrary to the power exerted by its moving means through actuation of said cam.

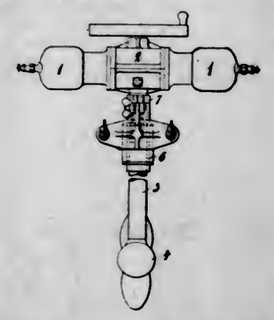
3. In an automobile, the combination with a drive gear, and a transmission gear, of a rod connected to one of said gears, a spring to move said rod, means to actuate said rod, a stop upon said rod, a cam slidable along said rod engaged by said actuating means for actuating the rod, a detent to engage said stop for arresting the rod when in actuated state, and said cam actuating said detent to release said stop and permit said spring to move the rod independent of control of said actuating means.

4. In an automobile, the combination with a drive gear, and a transmission gear, of a rod connected to one of said gears, a spring to move said rod, means to actuate said rod, a stop upon said rod, a cam slidable along said rod engaged by said actuating means for actuating the rod, a detent to engage said stop for arresting the rod when in actuated state, said cam actuating said detent to release said stop and permit said spring to move the rod independent of control of said actuating means, and means to control the movement of said rod contrary to the power exerted by said spring through actuation of said cam.

5. In an automobile, the combination with a drive gear, and a transmission gear, of a rod connected to one of said gears, means to move said rod, means to actuate said rod, a stop upon said rod, a cam slidable along said rod engaged by said actuating means for actuating the rod, a detent to engage said stop for arresting the rod when in actuated state, said cam actuating said detent to release said stop and permit said moving means to move the rod without control of said actuating means, and a buffer to absorb undue shock imparted to said rod by said moving means.

[Claims 6 to 44 not printed in the Gazette.]

1,207,761. OUTBOARD MOTOR. CARL ALRIK HULT and OSCAR WALFRID HULT, Stockholm, Sweden. Original application filed July 3, 1913, Serial No. 777,152. Divided and this application filed June 16, 1915. Serial No. 34,332. (Cl. 115—17.)



1. In an outboard motor, the combination with a motor having a central crank casing, engine cylinders arranged symmetrically at opposite sides of the casing and an extended motor shaft in line with the crank casing, a propeller driven from said motor shaft, and a sleeve surrounding said motor shaft and immovable relatively to the motor.

2. In an outboard motor, the combination with a motor having a central crank casing, engine cylinders arranged symmetrically at opposite sides of the casing and an extended motor shaft in line with the crank casing, a propeller driven from said motor shaft, a sleeve surrounding said motor shaft and immovable relatively to the motor, and means in which said sleeve is freely revoluble and by which said motor is supported.

3. In an outboard motor, the combination with a motor having a central crank casing, engine cylinders arranged symmetrically at opposite sides of the casing and an extended motor shaft in line with the crank casing, a propeller driven from said motor shaft, a sleeve surrounding said motor shaft and immovable relatively to the motor, means in which said sleeve is freely revoluble and by which said motor is supported, and means lengthwise adjustable on said sleeve whereby the position of the motor in relation to the boat may be predetermined.

1,207,762. ANTHRAQUINONE DYES AND PROCESS OF MAKING THEM. MAX HENRY ISLER, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Feb. 4, 1913. Serial No. 746,175. (Cl. 8—1.)

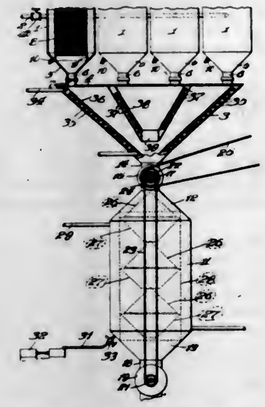
1. The process of producing coloring matters of the anthraquinone series by heating an oxidation product of dibenzanthrone.

2. The process of producing coloring matters of the anthraquinone series by heating an oxidation product of dibenzanthrone in the presence of para-toluidin and boric acid.

3. As new articles of manufacture the coloring matters of the anthraquinone series which can be obtained by heating an oxidation product of dibenzanthrone, which new coloring matters consist, when dry, of green powders, are insoluble in dilute acids and alkalis, are very difficutly soluble in the organic solvents of high boiling point, but are soluble in alkaline hydrosulfite yielding blue vats which dye cotton brilliant olive-green shades of excellent fastness against the action of soap, and very good fastness against the action of chlorin.

1,207,763. APPARATUS FOR TREATING GRAINS. ADOLPH JAEGER, Jackson, Mo., assignor of forty-five one-hundredths to Arthur O. Knight, St. Louis, Mo. Filed Aug. 18, 1911. Serial No. 644,794. (Cl. 34—10.)

1. In an apparatus of the character described, the combination with a tank, of means for exhausting the air within said tank, a plurality of inclined screens discharging from one to the other, an inlet valve discharging onto the uppermost screen; said inlet valve being adapted to maintain an air-tight closure in said tank, a discharge valve receiving grain from said screens, said discharge valve being adapted to maintain an air-tight closure; and means for continuously operating said valves.



2. In an apparatus of the character described, the combination with a tank, of a screen within said tank and spaced from the outer wall thereof, a steam coil extending around said screen between it and the outer wall of said tank, a plurality of inclined screens centrally disposed within the first said screen, a continuously movable valve disposed above the uppermost screen; said inlet valve being adapted to continuously maintain an air-tight closure during its movement; a continuously movable air-tight outlet valve, and means for creating a vacuum within said tank.

3. In an apparatus of the character described, a vacuum chamber, provided with inlet and outlet valves, a partition arranged within said vacuum chamber and spaced from the inner wall of said chamber, and heat-radiating means disposed in the space between said partition and the wall of said vacuum chamber.

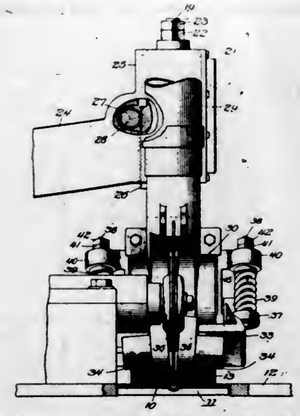
4. In an apparatus of the charactd described, the combination with a vacuum chamber through which grain falls by gravity, said chamber being provided with an inlet and outlet, of a plurality of reticulated chutes interposed between said inlet and outlet, said chutes being adapted to segregate the grain during its passage through said chamber.

5. In apparatus of the character described, a vacuum tank with inlet and outlet valves, a screen within said tank and spaced from the inner wall thereof, and heat radiating means disposed in the space between said screen and the inner wall of said tank.

[Claims 6 to 12 not printed in the Gazette.]

1,207,764. PRESSURE-ROLLER CONSTRUCTION FOR SAWS. GUSTAVE T. JOHNSON, Beloit, Wis., assignor to P. B. Yates Machine Company, Beloit, Wis., a Corporation of Wisconsin. Filed Oct. 7, 1915. Serial No. 54,636. (Cl. 143—157.)

1. In an appliance of the character described, the combination of a bed, a saw disposed in a plane substantially perpendicular to the bed, and a pressure-roller adapted to engage the work and located at one side of the saw and close to its face and point of action on the lumber and also inclined to the planes of the saw and bed with the greater space between the roller and saw more remote from the bed, whereby the roller may hold the work close to the point of action of the saw thereon and splinters will not tend to wedge between the saw and roller, substantially as described.



2. In an appliance of the character described, the combination of a bed, a saw, and a pressure-roller adapted to engage the work, and located at one side of the saw and close to its face and point of action on the lumber, said roller being inclined to the plane of the saw and having its surface which engages the work substantially parallel to the bed of the appliance, substantially as described.

3. In an appliance of the character described, the combination of a saw, a pair of spring-pressed pressure-rollers adapted to engage the work and located on opposite sides of the saw and close to its opposite faces and point of action on the lumber, said rollers being oppositely inclined with reference to the plane of the saw, substantially as described.

4. In an appliance of the character described, the combination of a bed, a saw, a pair of independently-operable pressure-rollers adapted to engage the work and located on opposite sides of the saw and close to its opposite faces and point of action on the lumber, said rollers being oppositely-inclined with respect to the plane of the saw and having their faces adapted to engage the lumber substantially parallel to the bed of the appliance, substantially as described.

5. In an appliance of the character described, the combination of a saw-bed, a saw, a main pressure-roller, a spring-pressed mounting for said pressure-roller constructed to permit adjustment of the latter toward and from said bed, a supplemental pressure-roller adapted to engage the work and located at one side of the saw and close to its face and point of action on the lumber, and a spring-pressed support for said supplemental pressure-roller on said mounting, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,207,765. ZITHER. MARTIN KAHNE, Detroit, Mich. Filed Apr. 19, 1916. Serial No. 92,074. (Cl. 84—80.)

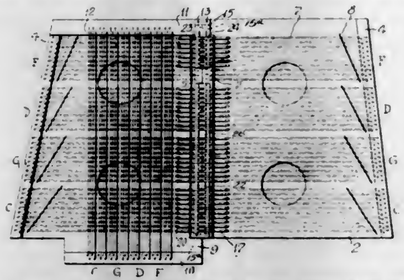
1. A musical instrument comprising bass and treble sounding boards one hinged to the other and provided with strings, and a key board common to the strings and detachably connected thereto.

2. A musical instrument comprising bass and treble sounding boards one hinged to the other, groups of strings on each sounding board, a key board common to the strings, and groups of strings disposed transversely of some of the other strings of said instrument.

3. A zither comprising bass and treble sounding boards, one hinged to the other and provided with strings, a detachable bar common to the strings and hammers and keys projecting from the longitudinal edges of said bar.

4. A zither comprising bass and treble sounding boards provided with strings, strings disposed transversely of

the strings of the bass sounding board of said zither, a bar connected to the bass and treble sounding boards, and individual hammers and keys on said bar extending above the strings of the bass and treble sounding boards.



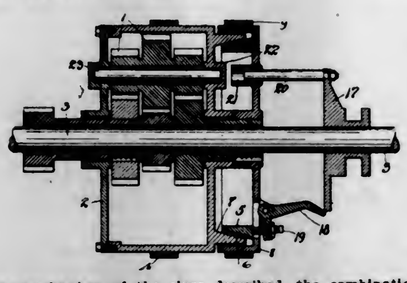
5. A key board adapted for a zither comprising connected superposed hammer supporting bars; double hammer arms clamped between said bars, and keys pivoted in one of said bars and engaging said hammer arms.

[Claims 6 and 7 not printed in the Gazette.]

1,207,766. COMPOSITION OF MATTER FOR DESTROYING INSECTS. CHARLES KATZENBERGER, Hoboken, N. J. Filed Nov. 23, 1912. Serial No. 733,154. (Cl. 167—12.)

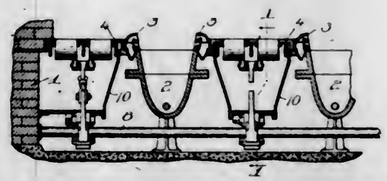
The herein described composition of matter including buhach six pounds, fine particles of wood three pounds, dragon's blood powdered one-half ounce, galbanum one and one-half ounces, gum tragacanth two ounces, potassium nitrate two ounces, means for preventing the ashes formed by burning the composition from scattering, said means comprising talc two ounces, and sufficient water to produce a pasty mass of the said ingredients as described and for the purpose specified.

1,207,767. CLUTCH MECHANISM. GEORGE A. KENNEDY, Massillon, Ohio; Marie Kennedy, administratrix of said George A. Kennedy, deceased, assignor to Jacob J. Dauch, Sandusky, Ohio. Filed Aug. 4, 1911. Serial No. 642,374. (Cl. 192—6.)



In mechanism of the class described, the combination of a clutch member having lugs thereon; a second longitudinally movable coöperative clutch member provided with apertures; a slidably mounted collar having locking pins adapted to be received in such apertures in said movable clutch member and adapted to engage with such lugs upon the first clutch member in one position of said collar to positively lock said clutch members together; bell crank levers pivotally mounted on said movable member and having bent arms adapted to be engaged by said collar; adjusting screws mounted in the other arms of said bell-crank levers and contacting said clutch member, movement of said collar being adapted to first move said longitudinal movable clutch member into engagement with said relatively stationary clutch member, further movement being adapted to bring said locking pins into engagement to give a positive drive, the relative point at which the positive lock takes place being dependent upon the adjustment of said screws.

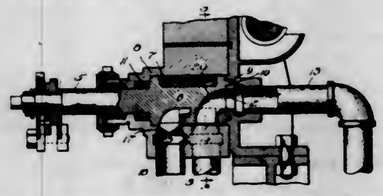
1,207,768. UNDERFEED STOKER. WILLIAM J. KENNEY, Wilmette, Ill., assignor to Under-Feed Stoker Company of America, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 10, 1914. Serial No. 866,027. (Cl. 110—44.)



1. In combination, a furnace, a retort and supports beside the same dividing the furnace into an upper combustion chamber and a lower air chamber, twyer blocks on the retort communicating at their inlet ends with said air chamber, said supports having openings therethrough, means for admitting air under pressure to said air chamber, and partitions separating the space proximate to the under side of the supports from the remainder of the chamber, said partitions having openings therethrough, and a manually operated valve for controlling said openings.

2. In combination, a furnace, a retort and supports beside the same dividing the furnace into an upper combustion chamber and a lower air chamber, twyer blocks on the retort communicating at their inlet ends with said air chamber, said supports having openings therethrough, means for admitting air under pressure to said air chamber, and partitions separating the space proximate to the under side of the supports from the remainder of the chamber, said partitions having small openings therein through which air can flow in sufficient quantities to maintain a slight pressure beneath said supports, said partition also having large openings therethrough, and valves for controlling said large openings.

1,207,769. VALVE FOR AUTOMATIC STOKER-CONTROLLERS. WILLIAM J. KENNEY, Wilmette, Ill., assignor to Under-Feed Stoker Company of America, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 10, 1914. Serial No. 866,029. (Cl. 137—26.)



1. In a device of the character described, a casing having a cylindrical bore, a rotatable member fitting in said bore, a stem projecting from one end of said member out of the casing, said casing having an inlet opening arranged axially of and at the opposite end of said member, said casing also having three ports disposed circumferentially with respect to said member, said member having a passageway extending through the body thereof, adapted to connect the said inlet opening successively to two of the other ports as said member is rotated, and said member having portions cut away at the surface thereof to form an exterior passage adapted to connect the third of said circumferentially disposed ports successively with the other two circumferentially disposed ports and thereafter maintain said three ports in communication with each other during a considerable portion of each rotation of said member, said rotatable member at all times shutting off communication between the inlet opening and said third port.

2. In a device of the character described, a valve casing having a cylindrical bore, a rotatable valve member fitting in said bore, an inlet pipe connected to one end of said bore at the axis thereof, an exhaust pipe connected to the casing and opening into the side of the bore, two delivery pipes connected to the casing and opening into the side of the bore, said rotatable member being constructed and arranged to connect said inlet pipe successively to said delivery pipes and the delivery pipes successively to the exhaust pipe and maintain a connection between both delivery pipes and the exhaust pipe during a considerable portion of each revolution of said member, said rotatable member at all times shutting off communication between the inlet opening and said third port.

3. In a device of the character described, a casing having a cylindrical bore, a rotatable member fitting in said bore, a stem projecting from one end of said member out of the casing, said casing having an inlet opening arranged axially of and at the opposite end of said member, said casing also having three ports disposed circumferentially with respect to said member, said rotatable member being constructed and arranged to complete the following cycle during each revolution, at all times preventing communication between said inlet opening and the third of said ports: connect the inlet opening to the first of said ports and the second of said ports to the third port; connect said second port to the inlet opening and the first port to the third port; and disconnect said second port from the inlet opening and connect it with the third port while maintaining the connection between the latter port and the first port.

4. In a device of the character described, a casing having a cylindrical bore, a rotatable member fitting in said bore, a stem projecting from one end of said member out of the casing, an annular rib on the other end of said member, the casing having an annular groove for the reception of said rib, a spring acting on said member for pressing said rib into said groove, said casing having an inlet opening arranged axially of and at the opposite end of said member from said stem, said casing also having a plurality of ports disposed circumferentially with respect to said member, said member being constructed and arranged to connect the said inlet opening successively to certain of the said ports and to connect each of the latter ports to the remaining port as said member is revolved, said rotatable member at all times shutting off communication between the inlet opening and said third port.

1,207,770. PACKING-RING. WILLIAM H. KEYS, St. Louis, Mo. Filed Mar. 14, 1916. Serial No. 84,030. (Cl. 121—108.)



1. A packing comprising a ring adapted to press against the wall of the cylinder in which the ring is mounted, a laterally extended portion integral with said ring provided with a circumferential groove, an additional ring encircling the laterally extended portion and adapted to press against the wall of the cylinder, a flange on the additional ring engaging in said groove, an abutment limiting relative rotation of said two rings, a part on one of said rings coöperating with said abutment to press the two rings laterally toward each other as an incident to compression of the two rings, and a passage for lubricant between said rings.

2. A packing comprising a ring adapted to press against the wall of the cylinder in which the ring is mounted and formed with an oblique wall at one side, a laterally extended portion integral with the ring on the same side as the oblique wall, a circumferential flange at the side edge of said laterally extended portion, an additional ring encircling the laterally extended portion and formed with an internal groove receiving said flange and provided with an oblique wall bearing against the oblique wall of the first-named ring, an abutment on the laterally extended portion spaced from the oblique wall of the first-named ring, a projection on the second-named ring arranged to extend between said abutment and the oblique wall of the first-named ring to press said rings laterally toward each other as an incident to compression thereof, an oil chamber in the second-named ring, and a passage between said rings communicating with said chamber.

3. A packing comprising a ring adapted to press against the wall of the cylinder in which the ring is mounted and provided with an oblique wall on one side, a laterally extended portion on the same side as the oblique wall, a flange at the side edge of the laterally extended portion having its inner wall at right angles to the axis of the ring, the peripheral wall of the laterally extended portion extending obliquely from said flange toward the axis of the ring to intersection with the first-named oblique wall, an additional ring composed of a part at the side of the laterally extended portion and a part encircling the laterally extended portion, the last-named part of said additional ring having an oblique side wall and an oblique inner wall matching the two oblique walls of the first-named ring, and said additional ring also having an internal groove receiving and being wider than said flange, whereby said rings are capable of slight lateral movement relative to each other, an abutment on the laterally extended portion of the first-named ring and spaced from the oblique wall at the side edge thereof, a tapering projection on the second-named ring arranged to pass between said abutment and said oblique wall to press said two rings together as an incident to compression thereof, and an oil chamber formed in the second-named ring and communicating with said groove.

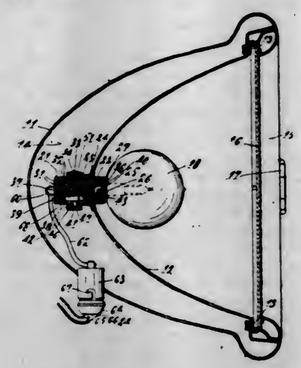
4. A packing comprising a ring, a laterally extended portion on said ring, a circumferential groove in said laterally extended portion, an additional ring, a portion in connection with said additional ring encircling the laterally extended portion of the first-named ring, a flange in connection with said encircling portion engaging in said groove, an abutment for limiting relative rotation of said two rings, a part on one of said rings coöperating with said abutment to press the two rings laterally toward each other as an incident to compression of said two rings, an oil chamber in one of said rings, and a passage between said rings communicating with said chamber.

1,207,771. ELECTRIC LAMP. EUGENE A. KUEN, Cincinnati, Ohio, assignor, by mesne assignments, to The Corcoran-Victor Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 2, 1915. Serial No. 43,184. (Cl. 240—44.)

1. In an electric lamp, the combination of a reflector, a lamp-member, a socket-member guided by the latter, means whereby said socket-member is arranged for movement manually about the line of the principal axis of said reflector, and a movement-limiting part arranged to be moved rotatively by said socket-member and said socket-member arranged to be moved rotatively relative to said movement-limiting part, said lamp-member arranged for limiting the rotative movement of said movement-limiting part during said rotative movement of said socket-member relative to said movement-limiting part.

2. In an electric lamp, the combination of a reflector, a lamp-member, a socket-member guided by the latter for movement in any direction lengthwise of and rotatively about the line of the principal axis of said reflector, means remaining automatically effective for retaining said socket-member in adjusted positions, and a member coacting with said socket-member limiting said rotative

movements of said socket-member arranged for being rotatively moved by said socket-member, and said socket-member arranged to be moved rotatively relative to said last-named member.



3. In an electric lamp, the combination of a reflector, a lamp-member, a socket-member provided with retardant surface-formations having movement in said lamp-member in any direction lengthwise of or rotatively about the line of the principal axis of said reflector, a position-retaining part provided with a coacting surface, a shiftable movement-limiting part for said socket-member, and resiliently acting means for said position-retaining part and for frictionally holding said movement-limiting part.

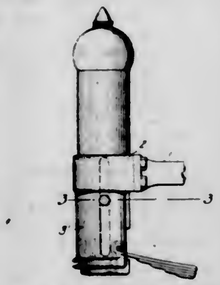
4. In an electric lamp, the combination of a reflector, a flange about the line of the principal axis of said reflector, a socket-member therein guided thereby and having movement in said flange in any direction lengthwise of or rotatively about said line, said socket-member provided with an opening, said flange provided with an opening, a finger received through said opening in said flange into said opening in said socket-member, said openings having end walls and side walls, the side walls of one of said openings being spaced apart substantially greater than the thickness of said finger, and the respective end walls and side walls of the other of said openings being spaced apart substantially greater than the thickness of said finger, a position-retaining part coacting with said socket-member, and a spring-band received about said flange acting on said last-named part and on said finger whereby said socket-member has movement in said lamp-member in any direction lengthwise of or rotatively about the line of the principal axis of said reflector and said movements in each of said directions is limited.

5. In an electric lamp, the combination of a reflector, a flange about the line of the principal axis of said reflector, a socket-member therein arranged whereby said socket-member has movement in said flange in any direction lengthwise of or rotatively about the line of the principal axis of said reflector, said socket-member provided with a recess, said flange provided with an opening, said recess and opening having end walls and side walls, and a finger-plate provided with a finger received through said opening into said recess, the walls of said recess being movable with relation to said finger during a portion of the range of movement of said socket-member, and said finger being movable with relation to the walls of said opening during another portion of the range of movement of said socket-member.

[Claims 6 to 8 not printed in the Gazette.]

1,207,772. PNEUMATIC CUSHION. IRVING A. LAKE, New York, N. Y., assignor of one-half to Emily Lake, New York, N. Y. Filed Sept. 15, 1915. Serial No. 50,750. (Cl. 267—49.)

1. In a device of the character described, a pair of telescoping tubular members, the upper tubular member being closed at the upper end and the lower tubular member being closed at the lower end, a division member connected with the lower tubular member at the upper end, a tube connected to said lower tubular member at the lower end of said lower tubular member and extending to near the upper end of the other tubular member through said division member, a pipe extending through the top of said upper tubular member downwardly into said tube, an upwardly facing washer arranged at the bottom of said pipe and engaging said tube whereby the same will act as a pump, said pipe acting as an inlet guide for compressed air when the same is forced into said tube through said pipe and the upper telescoping tubular member.

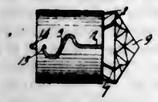


2. In a device of the character described, a pair of telescoping members, a tube connected with the lower telescoping member, said tube having an opening adjacent the lower part communicating with the lower telescoping member, said tube extending to near the top of the upper telescoping member, a washer arranged above said opening, a member connected with the top of the upper telescoping member projecting into said tube, an upwardly facing washer connected with said member whereby when said telescoping members move said washer and associated parts act as a pump, a division member comprising a plate connected with the upper end of the lower telescoping member, said plate having openings adjacent said tube, a spool threaded on said tube, an upwardly facing washer surrounding said tube and resting on said end plate, said spool clamping said washer in position against said end plate, said spool having an opening therethrough registering with the opening in said end plate, an upwardly facing washer arranged on the upper end of said spool, and a nut threaded on to said tube for clamping said last mentioned washer in position.

3. In a device of the character described, a pair of telescoping tubular members, a casing connected to the upper tubular member, a pair of pins extending through said casing, said lower tubular member being provided with grooves extending longitudinally thereof for substantially the full length thereof, said pins extending into said grooves whereby the lower tubular member cannot rotate independent of the upper tubular member, means for connecting said casing to the body of the vehicle, means for connecting the lower tubular member to the spring of the vehicle, means for directing air into the upper tubular member, and a division plate connected to the lower tubular member fitting in the upper tubular member whereby the air in said upper tubular member will act as a cushion.

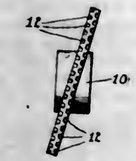
1,207,773. GEM-SETTING. LOUIS A. LARSON, Sioux City, Iowa. Filed Apr. 27, 1916. Serial No. 93,966. (Cl. 63—29.)

A setting for gems comprising a casing, said casing having a zig-zag slot formed in its wall, said slot communicating with a longitudinal slot which is formed in the casing, a cylinder having recesses in its upper edge, a section hingedly connected to the cylinder, said section having a semi-annular bar fixed to its free end, said bar having gem engaging prongs carried on its top edge, prongs carried by the upper edge of the cylinder, hooks



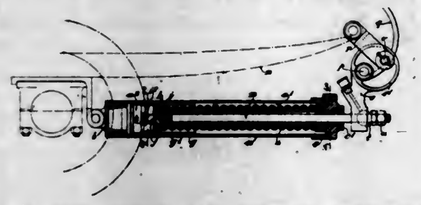
carried by the under edge of the bar for engaging the recesses in the top of the cylinder, and a stud carried by the cylinder for slidably engaging the slots.

1,207,774. MECHANICAL SPRAYER. HOWARD S. LEVY and LIONEL F. LEVY, Philadelphia, Pa. Filed Sept. 4, 1914. Serial No. 860,208. (Cl. 41—9.)



In a mechanical sprayer, the combination of a shaft, a mechanical sprayer mounted thereon comprising a hub coaxial with said shaft and a web inclined in relation to the shaft and hub, and fluid pocketing and conveying means in the periphery of said web.

1,207,775. SHOCK-ABSORBER FOR VEHICLES. ANTOINE EDMOND LEYMARIE, Paris, France. Filed Mar. 28, 1913. Serial No. 757,287. (Cl. 21—105.)



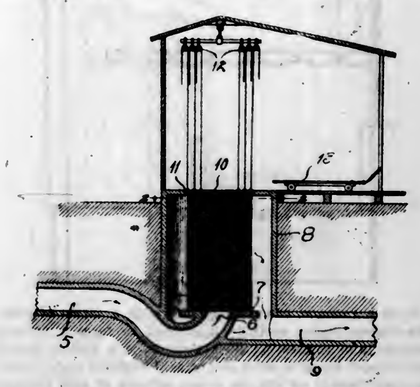
1. A shock absorbing device, embodying therein a casing adapted to contain liquid, a piston slidable within said casing, said piston having a valve controlled axial duct for the passage of liquid from one side to the other of the piston, and a plurality of radial ducts of reduced diameter for return of the liquid to its source, said radial ducts being in communication with said axial duct, and means adapted to govern the rate of flow of the liquid through said ducts.

2. A shock absorbing device, embodying therein a casing adapted to contain liquid, a piston slidable within said casing and having a valve controlled axial duct for the passage of liquid from one side to the other of the piston and a plurality of radial ducts of reduced diameter for return of the liquid to its source, and a sleeve within said casing provided with orifices through which the liquid passes as it flows out of said radial ducts.

3. A shock absorbing device, embodying therein a casing adapted to contain a liquid, a spring controlled piston slidable within said casing, said piston having a valve controlled axial duct and a plurality of radial ducts each communicating at one of its ends with said axial duct, and a sleeve within said casing, said sleeve having orifices adapted to communicate with said radial ducts.

4. A shock absorbing device, embodying therein a casing adapted to contain a liquid, a piston slidable within said casing, a spring having a normal tendency to force said piston toward one end of said casing, said piston having a valve controlled axial duct and a plurality of radial ducts communicating with said axial duct, and a sleeve fixed to said casing and within which said piston slides, said sleeve having a plurality of slots therein gradually decreasing in size in a direction parallel to that toward which the piston is forced by said spring.

1,207,776. AQUATIC SCREEN. DONALD MCDONALD, Louisville, Ky. Filed Feb. 17, 1916. Serial No. 78,928. (Cl. 210—16.)



1. In combination, an aqueduct having a supply pipe with an upwardly presented discharge, a receiving dome surrounding said discharge; and a delivery conduit into which said receiving dome discharges, a screen mounted in said receiving dome concentric with the upwardly presented discharge of said supply pipe and intercepting the passage of water through said aqueduct; said screen embodying in its construction, a series of coaxially mounted cylindrical screening elements, and means for selectively removing a screening element from said dome.

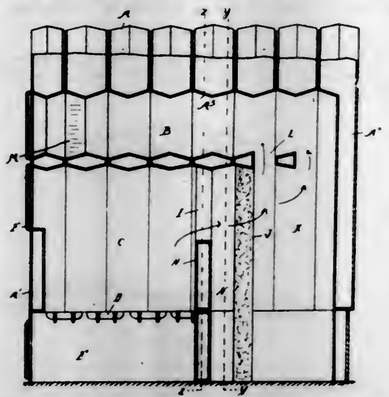
2. In combination, an aqueduct having a supply pipe with an upwardly presented discharge, a receiving dome surrounding said discharge; and a delivery conduit into which said receiving dome discharges, a supporting ledge surrounding said supply pipe discharge, and a cylindrical screen supported on said ledge concentric with said discharge and adapted to intercept the passage of water through said aqueduct; said screen embodying in its construction, a series of coaxially mounted cylindrical screening elements, and means for selectively removing a screening element from said dome.

3. In combination, an aqueduct having a supply pipe with a vertically presented discharge, a cylindrical receiving dome surrounding said discharge, and a delivery conduit into which said receiving dome discharges, a supporting ledge surrounding said supply pipe discharge, and a cylindrical screen supported on said ledge concentric with said discharge and adapted to intercept the passage of water through said aqueduct, said screen embodying in its construction, a series of coaxially mounted cylindrical screening elements, each of said elements having a receptacle provided on its lower end, and means for selectively removing a screening element from said dome.

1,207,777. FURNACE. JAMES F. MCINTIRE, Detroit, Mich., assignor to United States Radiator Corporation, Detroit, Mich., a Corporation of New York. Filed Mar. 18, 1916. Serial No. 85,047. (Cl. 122—228.)

1. In a furnace, the combination with a series of adjacent water sections apertured to form a furnace chamber and connecting flues therein, of a pair of spaced walls extending transversely across the furnace chamber, having non-registering apertures for the passage of the combustion gases therethrough, compelling a transverse move-

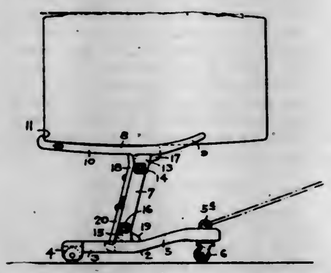
ment and commingling of said gases between said walls, one of said walls being a water-wall integral with one of said furnace sections, and the other of said walls being formed of refractory material.



2. In a furnace, the combination with a series of abutting hollow water sections apertured to form a furnace chamber and connecting flues therein, of a hollow water-wall formed integral with one of said sections and extending transversely across the lower portion of said furnace chamber, with an aperture for the passage of gases thereabove, and a refractory wall extending parallel to and in rear of said water-wall, said refractory wall being provided with a vertical comparatively narrow slot for the passage of the gases out of registration with the aperture in said water-wall, and compelling a transverse commingling movement of the gases between said walls.

3. In a furnace, the combination with a series of abutting arched hollow water sections, forming a furnace chamber surrounded with water walls, of grates extending across a portion of said chamber, a hollow water-wall extending transversely across said chamber in rear of said grates, being formed integral with one of said sections and providing a horizontally-extending aperture thereabove for the passage of gases, and a refractory wall built within one of said arched sections in rear of said water-wall and providing a vertically-extending comparatively narrow slot for the purpose described.

1,207,778. BARREL-HOIST. JAMES A. MCMASTER, Kittanning, Pa. Filed Feb. 21, 1916. Serial No. 79,725. (Cl. 248—13.)



1. A barrel jack comprising a truck frame, a barrel supporting member, a postlike standard, means for connecting the standard to the truck frame and supporting member, said means being so disposed in respect to the center of gravity of the barrel as to cause the standard to maintain the barrel in supported position.

2. A barrel jack comprising a truck frame, a barrel supporting member, a connecting standard, pivotal connections between the standard and the truck frame and between said standard and the barrel supporting member, said pivotal connections being so disposed in respect to one another whereby the center of gravity of the barrel maintains the barrel in supported position.

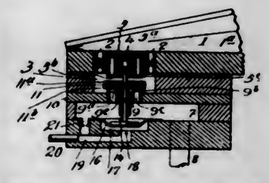
3. In a barrel jack, the combination of a truck-frame, a barrel supporting member, a pivoted standard connected to said barrel member, means for locking the barrel supporting member against tilting on the standard, and pivotal connections between the standard and said truck-frame, whereby the center of gravity of the barrel maintains the barrel in supported position.

4. In a barrel jack, the combination of a truck-frame, a barrel supporting member, a standard, pivotal connections between said barrel supporting member and said standard, means for locking said member on said standard, pivotal connections between said standard and said truck frame, said last named pivotal connections being so disposed in respect to said first pivotal connections, whereby the center of gravity of the barrel supporting member acts to maintain said member in supporting position, and positive locking means for locking said standard to said truck frame.

5. In a barrel jack, the combination of a truck frame, a barrel supporting member, a standard, pivotal connections between said barrel supporting member and said standard, a locking member on said standard adapted for engagement with said barrel supporting member in supporting position, pivotal connections between said standard and said truck frame, a second locking member on said standard adapted to engage said truck frame and hold said standard and said barrel supporting member in non-tiltable position.

[Claim 6 not printed in the Gazette.]

1,207,779. VALVE MECHANISM FOR MUSICAL INSTRUMENTS AND THE LIKE. LOUIS H. MAIER, New York, N. Y. Filed May 2, 1913. Serial No. 765,003. (Cl. 84—178.)



1. The combination of a valve, with a plurality of seats in position to coöperate with said valve and having one or more openings between said seats for the flow of air therethrough when the valve is off the seats, and spaced flexible arms connected with said valve, a stem to operate said valve whereby it may vibrate on said arms, a seat for said valve around said stem and within said first named seats, and a flexible diaphragm to control said stem.

2. The combination of a valve, with a plug having a chamber having an outlet and seats surrounding the outlet of said chamber to coact with said valve, with flexible arms spaced apart supporting said valve, said plug having a central bore, and a seat for said valve around said bore within the first named seat, a stem for said valve slidable in said bore, and a diaphragm to control said stem.

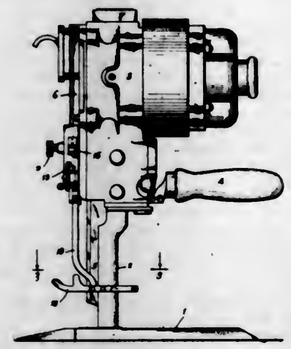
3. The combination of a valve having opposed members, concentric seats on one side of the valve having one or more openings therebetween, concentric seats on the opposite side of the valve having one or more openings therebetween, and flexible means between the opposed members and connected with said valve to permit it to move between said seats.

4. The combination of a valve, concentric seats on one side of the valve having one or more openings therebetween, concentric seats on the opposite side of the valve having one or more openings therebetween, and flexible means connected with said valve to permit it to move between said seats, said valve having an opening to communicate with one of the first named openings.

5. The combination of a valve, a plug on one side of said valve having concentric seats, said plug having one or more openings adjacent said seats, and a plug on the opposite side of said valve having seats, said plug having a chamber adjacent said seats and provided with an opening for the flow of air therethrough.

[Claims 6 and 7 not printed in the Gazette.]

1,207,780. KNIFE-GUARD AND STRIPPER FOR CLOTH-CUTTING MACHINES. DAVID S. MAIMIN, New York, N. Y. Filed Oct. 4, 1915. Serial No. 54,067. (Cl. 164—75.)



1. In a cloth cutting machine having a knife and a knife-holding standard, a combined knife guard and stripper-foot having a pair of separate guard members pivotally supported to swing away from the path of the knife in a plane substantially normal thereto, and two complementary stripper-foot sections carried by the guard member and shaped to embrace the knife and knife-holding standard and extended in front of the knife and behind the standard to effectively hold down the cloth at the whole region of the cut.

2. In a cloth cutting machine having a knife and a knife-holding standard, a combined knife guard and stripper-foot having a pair of separate guard members pivotally supported to swing away from the path of the knife in a plane substantially normal thereto, and two complementary stripper-foot sections carried by the guard member and shaped to embrace the knife and knife-holding standard and extended in front of the knife and behind the standard to effectively hold down the cloth at the whole region of the cut, one of the stripper-foot sections being extended to form a guiding finger.

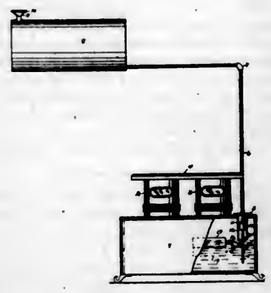
3. In a cloth cutting machine having a knife and a knife-holding standard, a stripper-foot consisting of two complementary sections shaped to embrace the knife and knife-holding standard and extended to overlie the uncut cloth in front of the knife and also to overlie the cut cloth behind the standard, to effectively hold down the cloth in the whole region of the cut.

4. In a cloth-cutting machine having a knife and a knife-holding standard, a stripper-foot consisting of two complementary sections shaped to embrace the knife and knife-holding standard, and extended to overlie the uncut cloth in front of the knife and also to overlie the cut cloth behind the standard, to effectively hold down the cloth in the whole region of the cut, one of the sections being extended to form a guiding finger.

5. A knife guard for cloth cutting machines having a pair of separate guard members pivotally supported to swing away from the knife to fully expose its edge for sharpening, and stripper-foot members carried by the guard members and engaging the cloth on opposite sides of the line of cut.

[Claims 6 and 7 not printed in the Gazette.]

1,207,781. MEANS FOR CONTROLLING A FUEL-OIL SUPPLY. CHARLES ISAAC MANEE, New York, N. Y. Filed Sept. 18, 1915. Serial No. 51,484. (Cl. 137—104.)



1. A device of the character described having a reservoir, a cylinder having a port and arranged within said reservoir, a supply pipe entering said cylinder, a piston in said cylinder adapted to open and close said port, a float adjustably connected to and operating said piston and a valve upon said piston and adapted to engage upon the end of said pipe to check the flow through said pipe and said cylinder.

2. A device having a reservoir, a screw-threaded plug entering said reservoir, a pipe connecting said plug and a source of supply, a cylinder secured to said plug and communicating with said pipe, a piston within said cylinder, a float connected to said piston and an off-set and reversible means connecting said float and piston and adapted to operate said piston and thereby control the passage of fuel through said pipe and said cylinder.

1,207,782. PRODUCTION OF ANHYDROUS HYDROSULFITES FROM AQUEOUS HYDROSULFITE SOLUTIONS. EDUARD MARBURG and GUSTAV MÜNCH, Griesheim-on-the-Main, Germany, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany, a Corporation of Germany. Filed June 9, 1914. Serial No. 844,026. (Cl. 23—13.)

1. The process of removing from partly evaporated hydrosulfite solutions containing a suitable organic base, the amount of which base is in excess of that removed by evaporation of the water of the solution, the last parts of water and producing anhydrous hydrosulfites in a stable form, which comprises distilling off the last parts of water at a temperature of about 60 to 65° C. under a suitable vacuum, and removing the organic base by further distillation.

2. The process of producing a high per cent. anhydrous hydrosulfite in stable form comprising subjecting to evaporation a mixture of an aqueous hydrosulfite solution and an organic base, the amount of said base being in excess of that which is removed by the evaporation of the water of the solution, distilling off the last parts of water at a temperature of about 60 to 65° C. under a suitable vacuum, and removing the said base.

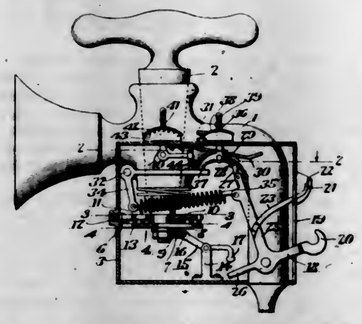
3. The process of producing a high per cent. anhydrous hydrosulfite in stable form comprising subjecting to evaporation a mixture of an aqueous hydrosulfite solution and aniliu, the amount of aniliu employed being such that it is present as a free base after the water of the solution is evaporated, distilling off the last parts of water at a temperature of about 60 to 65° C. under a suitable vacuum, and removing the aniliu.

4. The process of producing anhydrous hydrosulfites in a stable form, which comprises mixing with an aqueous hydrosulfite solution an organic base, the amount of said base being in excess of that which is removed by the evaporation of the water of the solution, evaporating said mixture until the greater part of the water has been removed, distilling off the remainder of the water at a temperature of about 60 to 65° C. under a suitable vacuum, and removing the organic base by further distillation.

5. The process of producing anhydrous hydrosulfites in a stable form, which comprises mixing with an aqueous hydrosulfite solution anilin, the amount of anilin being in excess of that which is removed by the evaporation of the water of the solution, evaporating said mixture until the greater part of the water has been removed, distilling off the remainder of the water at a temperature of about 60 to 65° C. under a suitable vacuum, and removing the anilin by further distillation.

[Claims 6 and 7 not printed in the Gazette.]

1,207,783. MEASURING-FAUCET. FREDERICK MARQUARDT, Brooklyn, N. Y. Filed Aug. 7, 1915. Serial No. 44,216. (Cl. 73—181.)



1. In combination with a faucet body having a valve turnably mounted therein, spring means for turning the valve to a closed position in the body, means for locking the valve in open position in the body, a spring controlled hook member pivoted upon the body and adapted to sustain a vessel at the discharge outlet thereof and engageable with the locking means to release the valve and a spring located in the path of movement of the hook member to render the initial movement thereof comparatively slow and the final movement thereof comparatively fast under the influence of the vessel and its contents.

2. In combination with a faucet body having a valve turnably mounted therein, spring means for turning the valve to a closed position in the body, means for locking the valve in an open position in the body, a spring controlled hook member pivoted to the body and engageable with the locking means to release the valve, a spring located in the path of movement of the hook member and having a hump disposed toward the pivot of the hook member to render the initial movement of the hook member comparatively slow and the final movement thereof comparatively fast under the influence of the vessel and the contents thereof.

3. In combination with a faucet body having a valve turnably mounted therein, spring means for turning the valve to a closed position in the body, means for locking the valve in an open position in the body, a bell crank lever fulcrumed adjacent the body, a hook member pivoted upon the body, a spring connecting the hook member with the bell crank lever, said hook member being engageable with the locking means to release the valve, and a lever fulcrumed adjacent the body and engageable with the arm of the bell crank lever to adjust the tension of the spring which connects the bell crank lever with the hook member.

4. In combination with a faucet body having a valve turnably mounted therein, spring means for turning the valve to a closed position in the body, means for locking the valve in an open position in the body, a hook member pivotally mounted upon the body and engageable with the locking means to release the valve, a bell crank lever fulcrumed adjacent the body, a spring connecting one arm of the bell crank lever with the hook member, a lever fulcrumed adjacent the body and engageable with the bell crank lever to adjust the tensoin of the said spring and another lever fulcrumed adjacent the body and engageable with the bell crank lever to still further adjust the tension of the spring which connects the bell crank lever with the hook member.

5. In combination with a faucet body having a valve turnably mounted therein, spring means for turning the valve to a closed positon in the body, means for locking the valve in an open positon in the body, a hook member pivoted upon the body and engageable with the locking means to release the valve, an indicator hand carried by the hook member, a plate having a graduation located adjacent the path of movement of the free end of the indicator hand, a bell crank lever fulcrumed adjacent the body, a spring connecting one arm of the bell crank lever with the hook member, a lever fulcrumed adjacent the body and engageable with the bell crank lever to adjust the tension of the spring and another lever fulcrumed adjacent the body and engageable with the bell crank lever to still further adjust the tension of the said spring.

[Claims 6 and 7 not printed in the Gazette.]

1,207,784. PROCESS OF WEIGHTING SILK WITH HÆMATOXYLIN. FRANZ MUELLER, Zurich, Switzerland. Filed Nov. 29, 1913. Serial No. 803,861. (Cl. 8—5.)

1. A process consisting in treating silk with a bath of hæmatoxylin and sodium phosphate.

2. A process consisting in treating silk with a bath of hæmatoxylin and sodium phosphate at about 50° C.

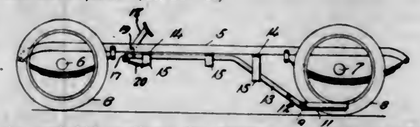
3. A process consisting in treating silk with a bath of hæmatoxylin and sodium phosphate at about 50° C.; and increasing the temperature of the bath.

4. A process of weighting silk consisting in treating the silk with a bath of 100 parts hæmatoxylin and 50 parts sodium phosphate at about 50° C.; and increasing the temperature of the bath.

5. A process of weighting silk consisting in manipulating the silk at about 50° C. in a warm bath of 100 parts hæmatoxylin and 50 parts sodium phosphate; and gradually increasing the temperature of the bath.

[Claims 6 and 7 not printed in the Gazette.]

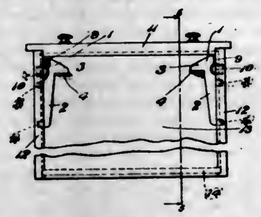
1,207,785. NON-SKID APPLIANCE. AUGUST H. OSSELIN, Long Island City, N. Y. Filed May 12, 1916. Serial No. 97,090. (Cl. 21—8.)



An anti-skid appliance for vehicles, comprising rigidly connected brake shoes operatively supported beneath the vehicle frame, each of said shoes being substantially U-shaped and disposed to straddle a wheel of the vehicle, and means for operating said shoes to dispose the legs thereof into engagement with the ground at opposite sides of the respective wheel and wedge the bight portions thereof between the ground and the wheels.

1,207,786. DRAWER-STOP. JACOB OLEES, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Jan. 17, 1916. Serial No. 72,484. (Cl. 45—7.)

1. In combination, with a drawer having sides and a bottom, of a stop device including a portion projecting downwardly below the bottom and a section turned to lie between the bottom and a side of said drawer to thereby secure the device in place, substantially as described.



2. In combination, a drawer including sides each having a groove cut therein adjacent its lower edge and on its inner side, a stop device comprised of a metal body having a lug turned therefrom and with ears extending from the body each terminating in a lug turned in a direction opposite to the first lug, said last named lugs seating in a groove, and a bottom secured in said grooves at its side edges and lying between the sides of the drawer.

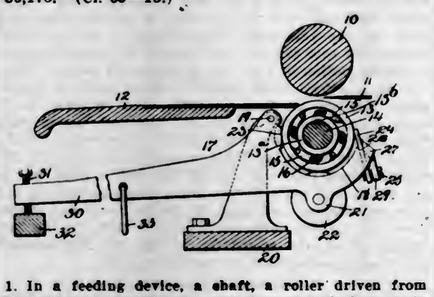
3. A stop member adapted to be attached to a drawer comprised of a metal member including a head having extensions at right angles to each other integral therewith, a lug turned at right angles to one of said extensions, an ear extending from the side of the other extension and a lug turned at right angles to the ear in a direction opposite the first lug.

4. A stop member adapted to be attached to a drawer comprised of a head, extensions thereto positioned in the same plane with the head and at right angles to each other, a pair of ears projecting from the side of one extension and terminating in lugs turned at right angles to the plane of the head, a lug turned from the side edge of the head in the same direction as said lugs, and another lug turned from the other extension at right angles to the plane of the head, and also at right angles to the planes of the other lugs and in an opposite direction therefrom.

5. A stop member adapted to be attached to a drawer comprised of a flat metal body, a lug turned at right angles to the plane of and from the body, an ear projecting from the body terminating in a lug turned in a direction opposite to the first lug and positioned at right angles to the plane of the first lug, and a semi-cylindrical portion extending from the body in the same direction as said ear.

[Claim 6 not printed in the Gazette.]

1,207,787. FEEDING MEANS. WILLIAM H. O'CONNOR, East Orange, N. J. Filed Mar. 23, 1916. Serial No. 86,176. (Cl. 69—13.)



1. In a feeding device, a shaft, a roller driven from said shaft and adapted to be moved on said shaft so as to make it either concentric or eccentric in relation to said shaft, a lever having a recessed part to receive the roller, the lever being mounted so that it can rock, a supporting roller in said lever on which the first-mentioned roller rests, an abutment and a holding piece for retaining the roller in the lever, means for adjusting the space between the abutment and the holding piece, and a spring acting against the lever.

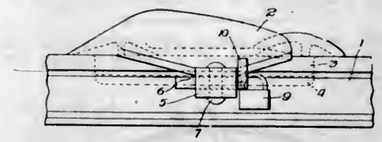
2. In a feeding device, a shaft, a roller driven from said shaft and adapted to be moved on said shaft so as to make it either concentric or eccentric in relation to said shaft, a lever having a recessed part to receive the roller, the lever being mounted so that it can rock, a supporting roller in said lever on which the first-mentioned roller rests, an abutment and a holding piece for retaining the roller in the lever, means for adjusting the space between the abutment and the holding piece, a spring acting against the lever, and an adjustable stop to limit the movement of the lever when the lever is actuated by the spring.

3. In a feeding device, a series of independent rollers, a fixed roll with which said rollers are adapted to coöperate to feed material, a yielding pressure-exerting means, and equalizing devices connecting the rollers and the pressure-exerting means so as to equalize the pressure exerted by the rollers.

4. In a feeding device, a series of rollers arranged side by side, levers adapted to rock, each lever supporting a roller, links connecting alternate levers, equalizing levers connecting the links, and a spring connected to said levers.

5. In a feeding device, a shaft, rollers driven from said shaft and adapted to be moved on said shaft so as to make them either concentric or eccentric in relation to said shaft, levers having recessed parts to receive the rollers, the levers being mounted so that they can rock, supporting rollers in said levers on which the first-mentioned rollers rest, an abutment and a holding piece for retaining the rollers in the levers, means for adjusting the space between the abutment and the holding piece, links connecting alternate levers, equalizing levers pivoted to each other and connected to the links so as to distribute power applied to any individual roller among the other rollers, and a spring connected to said equalizing levers to normally force the rollers eccentric to the shaft with which they rotate.

1,207,788. PORTABLE DERAIL. EBEN R. PACKER, Wilmette, Ill., assignor to Q & C Company, New York, N. Y., a Corporation of Maine. Filed Sept. 18, 1915. Serial No. 51,331. (Cl. 104—127.)



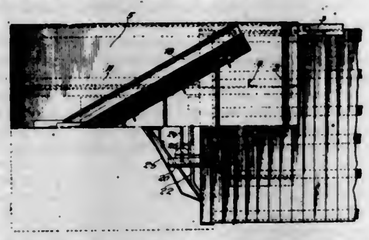
1. In combination, a derailing block having on one side a depending flange and on the other side a jaw having its open side directed toward said flange, and a cam-shaped locking dog mounted in said jaw to swing about a vertical axis, a portion of said dog projecting outwardly beyond one side of said jaw and being provided with perforations for receiving the shackle of a padlock.

2. In combination, a derailing block having on one side a depending flange and on the other side a jaw having its open side directed toward said flange, and a cam-shaped locking dog mounted in said jaw to swing about a vertical axis, a portion of said dog projecting outwardly beyond one side of said jaw and being provided with perforations for receiving the shackle of a pad-lock, the dog having at an outer point thereon an upwardly projecting lug.

1,207,789. COMBINED PLOW AND FLANGER. EBEN R. PACKER, Wilmette, Ill. Filed Sept. 30, 1915. Serial No. 53,213. (Cl. 104—51.)

1. A snow plow comprising a series of parallel inclined metal beams, a plate or cover secured upon said beams, certain of the beams being bent so as to bring the rear ends thereof horizontal, and other beams secured to cer-

tain of the aforesaid beams and lying parallel with and in a plane below the said horizontal ends.



2. A snow plow comprising a series of parallel inclined metal beams, a plate or cover secured upon said beams, the two beams at the sides being bent so as to bring their rear ends horizontal, horizontal beams secured to the side beams at some distance below the said horizontal ends, and plates at the sides of the structure secured to the adjacent beams.

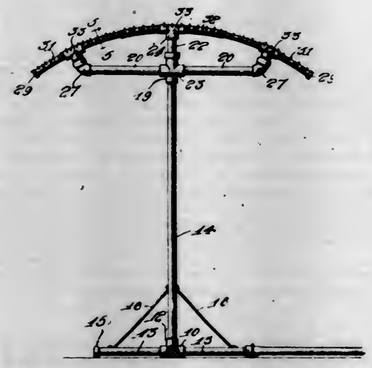
3. A snow plow comprising a series of parallel inclined metal beams, a plate or cover secured upon said beams, the two beams at the sides being bent so as to bring their rear ends horizontal, horizontal beams secured to the side beams at some distance below the said horizontal ends, plates at the sides of the structure secured to the adjacent beams, and vertical abutments on the under side of the intermediate inclined beams at about the point where the bend occurs in the side beams.

4. A snow plow comprising a series of inclined metal beams, a cover or plate secured upon said beams, the rear ends of the side beams being bent so as to lie horizontal, horizontal rearwardly-projecting beams secured to the side beams and lying at some distance beneath the horizontal ends of the latter to form therewith a pair of jaws, and stiffening irons secured to the under side of the intermediate inclined beams and having rear vertical portions forming the rear ends of said jaws.

5. In combination, a snow plow, depending plates on the under side of the plow in rear of the front end, and a snow flanger supported by said plates and extending transversely of the plow from a point near one side thereof to a point near the other side.

[Claim 6 not printed in the Gazette.]

1,207,790. COMBINED SPRAY AND SPRINKLER. JOHN PETERSON, Lake George, N. Y. Filed Aug. 31, 1914. Serial No. 859,506. (Cl. 137—59.)

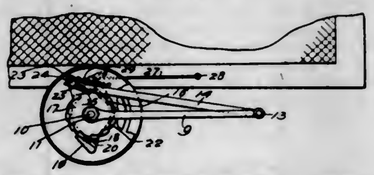


1. The combination with an upright central pipe, of horizontal lead pipes communicating with said central pipe, a plurality of horizontal branch pipes carried by each of said lead pipes and said central pipe, fitted sleeve connections carried by said branch pipes, a plurality of downwardly curved parallel spray pipes mounted in said sleeve connections, ball and socket joints between said connections and said spray pipes, a perforate sleeve rotatably mounted on said spray pipes and having tangentially disposed fingers which may be moved into position to break up and scatter streams of water from the spray pipe.

2. A combined sprayer and sprinkler including a base formed of pipe sections, means connecting one of said sections with a suitable source of water supply, an upstanding central pipe, lead pipes communicating with said central pipe, branch pipes communicating in pairs with each of said lead pipes and said central pipe, unions carried at the extremities of said branch pipe, arcuate and apertured spray pipes positioned in said unions, rotatable sleeves embracing said couplings and said spray pipes, and tongues struck out from said sleeves in registration with the apertures of said embraced pipes as a means for regulating the spraying or sprinkling jet.

3. A combined sprayer and sprinkler including a base formed of pipe sections, a fluid supply connected to one of said sections, an upstanding central pipe connected to all of said sections, lead pipes communicating with said central pipe, branch pipes communicating with each lead pipe, a plurality of similarly curved parallel spray pipes carried by said lead and branch pipes, rotatable sleeves carried by each of said spray pipes, and tongues projecting tangentially from said sleeves for directing the dissemination of spray when water from the spray pipes impinges upon said tongues.

1,207,791. SAFETY-CRANK FOR INTERNAL-COMBUSTION MOTORS. JESSE D. POLLOCK, Carpenter, Wyo. Filed Mar. 7, 1916. Serial No. 82,613. (Cl. 123—185.)



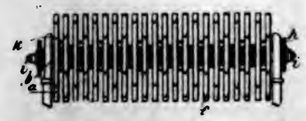
1. In a safety motor crank, a shaft, a ratchet wheel thereon, a dog adapted to engage the ratchet wheel, means for supporting the dog whereby it may rotate the shaft in one direction, a ratchet wheel rotatable on the said shaft, an arm thereon having a pin, said dog having a cam slot to receive the pin, the said dog being slidable with relation to the pin, means for holding the dog normally out of engagement with the ratchet wheel, and a stationary member having dogs for engaging the second mentioned ratchet wheel to prevent anti-clockwise movement thereof upon back fire of the motor.

2. In a safety motor crank, a crank shaft having a ratchet wheel thereon, a dog engaging said ratchet wheel, said dog having a cam slot, a ratchet wheel rotatable on the said shaft and having a pin extending through the said cam slot, and means for preventing anti-clockwise motion of the second mentioned ratchet wheel.

3. In a safety motor crank, a crank shaft, a ratchet wheel thereon, an arm rotatable with relation to the shaft, a dog connected to the said arm and moving therewith, said dog having a slot in its inner end, a ratchet wheel rotatable on the shaft, a pin projecting from said ratchet wheel into the slot of the dog, a plate on the said shaft, said plate having arms, pawls pivoted on said arms and adapted to engage the second mentioned ratchet wheel to prevent anti-clockwise rotation of the said ratchet wheel, and means for holding the dog normally out of engagement with the ratchet wheel.

1,207,792. DIGGER FOR SELF-PROPELLED HARROWS. EDOUARD MARIE QUELLENNEC, Paris, France. Filed Apr. 30, 1910. Serial No. 558,561. (Cl. 97—78.)

1. In a rotary plowing machine, the combination with a shaft, of a plurality of disks mounted on said shaft, bolts extending from each intermediate disk in opposite directions and connecting such intermediate disk with one adjacent disk on each side independently of the other disks, means interposed between the disks for separating them, and a plurality of diggers removably secured to each disk.



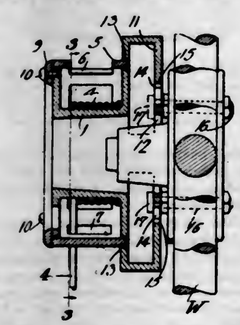
2. In a rotary plowing machine, the combination, with a shaft, of a plurality of disks, mounted on said shaft, each disk being divided diametrically into two parts, means for securing said parts together, said disks having lateral annular flanges, facing the adjacent disks, and rings mounted on said shaft between the disks and engaged by the flanges of the adjacent disks, and a plurality of diggers secured to each disk.

3. In a rotary plowing machine, the combination, with a shaft, of a plurality of disks, mounted on said shaft, each disk being divided diametrically into two parts, means for securing said parts together, said disks having lateral annular flanges facing the adjacent diggers and rings mounted on said shaft between the disks and engaged by the flanges of the adjacent disks, said rings being divided diametrically into two parts, and a plurality of disks secured to each disk.

4. In a rotary plowing machine the combination, with a shaft, of a plurality of disks mounted on said shaft, each disk being divided diametrically into two parts, means for securing said parts together, said disks having lateral annular flanges facing the adjacent disks, bolts extending from each intermediate disk in opposite directions and connecting such intermediate disk with the adjacent disk on each side, rings mounted on said shaft between the disks and engaged by the flanges of the adjacent disks, said rings being divided diametrically into two parts, and a plurality of diggers, removably secured to each disk.

5. In a rotary plowing machine, the combination, with a shaft of a plurality of disks mounted on said shaft and adapted to carry plows or diggers, each disk comprising separable sections for ready removal of the disk from the shaft, and bolts extending from each intermediate disk in opposite directions and connecting such intermediate disk with one adjacent disk on each side independently of the other disks.

1,207,793. AUTOMOBILE-PULLING ATTACHMENT. CHARLES RAMSTAD, Okmulgee, Okla. Filed May 25, 1916. Serial No. 99,883. (Cl. 242—95.)

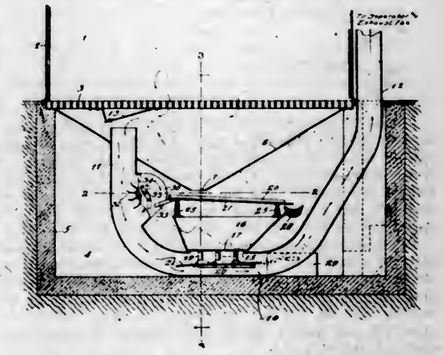


1. An automobile pulling attachment comprising a reel having flanges, means for attaching the reel to the rear wheel of an automobile, a guard mounted loosely upon the edges of said flanges and having an opening for the passage of a cable connected to and wound upon the wheel and means carried by one flange for holding the guard on said flanges.

2. An automobile pulling attachment comprising a reel having outturned flanges at its ends, a guard mounted loosely upon the edges of said flanges and having an opening for the passage of a cable connected to and wound upon said reel, one flange having means for attaching it to the rear wheel of an automobile, and a ring detachably secured to the other flange and extending therefrom to hold the guard upon the flanges.

3. An automobile pulling attachment embodying a tubular reel having flanges at its ends, one flange having an elongated relatively-flat casing provided with an opening, said opening and reel being adapted to receive the hub of a rear wheel of an automobile, said casing having arcuate slots at opposite sides of said opening for the engagement of headed members carried by said wheel, said slots having enlargements between their ends, said flange having studs at opposite sides of said casing, and jam screws threaded into said studs to bear against the wheel and force said casing away from it.

1,207,794. GRADING AND TRANSFERRING MECHANISM FOR GRANULAR MATERIAL. BYRON H. REDDY, Cleveland, Ohio, assignor to The W. W. Sly Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 23, 1912. Serial No. 716,628. (Cl. 193—10.)



1. In a pneumatic transferring device for granular material, the combination, with an air conduit having a substantially horizontal portion and a receptacle for the granular material located above said horizontal portion, of one or more vertical tubular nipples leading from said receptacle into said conduit and spaced above the bottom thereof, and means for adjusting the distance between the lower ends of said nipples and the bottom of said conduit.

2. In a pneumatic transferring device for granular material, the combination, with an air conduit having a substantially horizontal portion and a receptacle for the granular material located above said horizontal portion, of one or more vertical tubular nipples leading from said receptacle into said conduit and spaced above the bottom thereof, and means for varying the length of the said nipples.

3. In a pneumatic transferring device for granular material, the combination, with an air conduit having a substantially horizontal portion and a receptacle for the granular material located above said horizontal portion, of one or more vertical tubular nipples leading from said receptacle into said conduit and spaced above the bottom thereof, and an adjustable sliding sleeve carried by said nipple whereby its length may be varied.

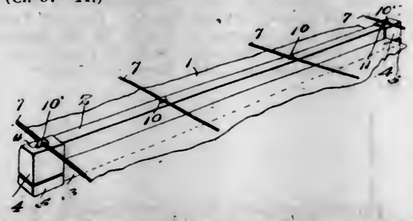
4. In a pneumatic transferring device for granular material, the combination, with an air conduit and a receptacle for granular material, of a substantially horizontal

plate within said conduit, and one or more substantially unimpeded tubular conduits having their upper ends communicating with said receptacle and having their lower ends extending downwardly into said conduit and terminating at a point above said plate, said plate extending beyond said vertical conduits at each side a distance not less than the height of such conduits above said plate.

5. In a pneumatic transferring device for granular material, the combination, with an air conduit and a receptacle for granular material, of a substantially horisontal plate within said conduit, one or more substantially unimpeded tubular conduits having their upper ends communicating with said receptacle and having their lower ends projecting downwardly into said conduit and formed with discharge openings above said plate, and means for varying the distance between said plate and the ends of said tubes, said plate extending beyond said conduits in all directions an amount not less than the distance of said plate from said conduits.

[Claims 6 to 12 not printed in the Gazette.]

1,207,795. HAY-SLING. HENRY F. RIEKENBERG, Sylvan Grove, Kans. Filed Aug. 21, 1916. Serial No. 116,031. (Cl. 57—11.)



1. The combination in a hay sling with its canvas member and parallel transverse bars, of sectional caps on each pair of bars, one of said caps having a slot therein, the other one perforated, a bolt passed through said perforated cap member and the ends of the bars, an eye on said bolt and a supporting rope passed through said eye, and a nut on the bolt for clamping these parts together.

2. The combination with a header box including its side rails, of a hay sling having spaced supporting ropes projecting beyond one end and separately attached to the lower side rail, the other ends of said ropes having an attaching ring, an eye bolt secured in the upper side of the other side rail, and a locking hook adapted to engage said ring and eye bolt.

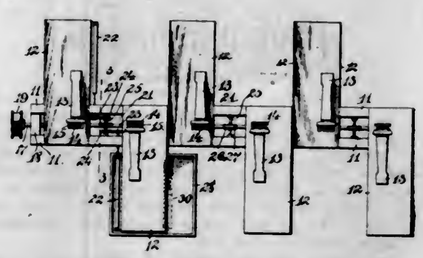
3. A hay sling comprising a canvas strip and upper and lower parallel transverse bars, sectional caps at the ends of said bars, eye bolts passed through said caps and bars, supporting ropes passed through said eye bolts, and nuts on the bolts for clamping the caps to rigidly hold the ropes in said eye bolts.

1,207,796. SEWING-MACHINE INSTALLATION. JOHN WM. ROBERTS, ARTHUR P. BREWSTER, and BOYD BRYSON, Passaic, N. J. Filed Mar. 28, 1913. Serial No. 757,291. (Cl. 45—27.)

1. A sewing machine installation comprising a longitudinal support of spaced members, the space providing room for driving mechanism, tablets projecting alternately from opposite sides of the support at the top thereof, and sewing machines mounted on the tablets so as to receive and deliver goods from and into the spaces between tablets on the same side.

2. A sewing machine installation comprising a longitudinal support of spaced members, the space providing room for driving mechanism, tablets projecting alternately from opposite sides of the support at the top thereof, and sewing machines mounted on the tablets so as to receive and deliver goods from and into the spaces between tablets on the same side, the machines being also disposed so that they can be operatively connected with driving mechanism on the support.

3. A sewing machine frame consisting of parallel longitudinal stringers, uprights on which the stringers are mounted to form a support, and tablets arranged in pairs, each tablet of a pair extending across and secured to both stringers and projecting transversely from the side opposite the other tablet of the pair, the pairs being separated.

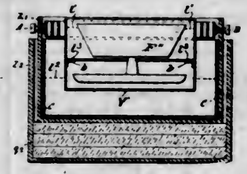


4. A sewing machine frame consisting of parallel longitudinal stringers, uprights on which the stringers are mounted to form a support, tablets arranged in pairs, each tablet of a pair extending across and secured to both stringers and projecting transversely from the side opposite the other tablet of the pair, the pairs being separated, bearings for a driving shaft arranged between the uprights, and sewing machines on the tablets and disposed so as to receive and deliver goods to and from the spaces between tablets on the same side.

5. A sewing machine installation comprising a longitudinal support, tablets arranged to project alternately from opposite sides of the support, and sewing machines arranged on the tablets with their ends that receive the power substantially above the support and with their sewing ends over the tablets, whereby the machines can readily receive power from driving mechanism on the support and can receive and deliver goods from and to spaces between tablets on the same side of the support.

[Claim 6 not printed in the Gazette.]

1,207,797. ARTIFICIAL HORIZON. JOHN RYMER-JONES, London, England. Filed Dec. 18, 1915. Serial No. 67,503. (Cl. 88—1.)



1. An artificial horizon comprising a support, two sets of gimbal rings mounted therein and pivotally connected together, the innermost ring carrying a depending container, and a horizontal reflecting surface within said container.

2. An artificial horizon comprising a container, means for suspending said container from its upper portion for a universal rocking movement, and a floatable horizontal reflecting surface therein.

3. An artificial horizon comprising a support, a container, means for mounting the container in said support for a universal rocking movement, said means being connected to the upper portion of said container, a horizontal reflecting surface in said container, and means of considerable weight in said container below said horizontal reflecting surface.

4. An artificial horizon comprising a support, a container, means for connecting said container to said support for a universal rocking movement, said means being connected to the upper portion of said container, a horizontal reflecting surface carried within said container, and means to damp the vibrations of the container.

5. An artificial horizon comprising a container, means for supporting said container for a universal rocking movement, said means being connected to the upper portion of the container, a tray within said container, a horizontal reflecting surface in said tray, means in the container to damp the vibrations of the tray, and means to damp the vibrations of the container.

[Claims 6 to 27 not printed in the Gazette.]

1,207,798. PROCESS OF MANUFACTURING SODIUM SALTS OF SULFONIC ACIDS. ALBERT PARSONS SACHS and OSCAR BYRON, Carnegie, Pa. Filed Apr. 6, 1916. Serial No. 89,452. (Cl. 23—24.)

1. The manufacture of a sodium salt of a sulfonic acid from a mixture of a sulfonic acid forming a water soluble calcium salt, sulfuric acid and water, which consists in neutralizing the mixture by the addition thereto of lime, thereby producing a mixture of calcium sulfate and the calcium salt of the sulfonic acid, and then adding thereto sodium sulfate.

2. The manufacture of a sodium salt of a sulfonic acid from a mixture of a sulfonic acid forming a water soluble calcium salt, sulfuric acid and water, which consists in neutralizing the mixture by the addition thereto of lime, thereby producing a mixture of calcium sulfate and the calcium salt of the sulfonic acid, then adding sodium sulfate, and then agitating and filtering.

3. The manufacture of a sodium salt of a sulfonic acid from a mixture of a sulfonic acid forming a water soluble calcium salt, sulfuric acid and water, which consists in neutralizing the mixture by the addition thereto of lime, thereby producing a mixture of calcium sulfate and the calcium salt of the sulfonic acid, and then, without previous filtration, adding to the mixture sodium sulfate.

4. The manufacture of a sodium salt of a sulfonic acid from a mixture of a sulfonic acid forming a water soluble calcium salt, sulfuric acid and water, which consists in neutralizing the mixture by the addition thereto of lime, thereby producing a mixture of calcium sulfate and the calcium salt of the sulfonic acid, then adding sodium sulfate, and filtering only after the addition of the sodium sulfate.

5. The manufacture of sodium benzene-sulfonate from a mixture of benzenesulfonic acid, sulfuric acid and water, which consists in neutralizing the mixture by the addition of lime, thereby producing a mixture of calcium sulfate and calcium benzenesulfonate, and then adding to the mixture sodium sulfate.

[Claim 6 not printed in the Gazette.]

1,207,799. INTERNAL-COMBUSTION ENGINE. WILHELM SCHELLER, Aachen, Germany, assignor to Hugo Junkers, Aschen, Prussia, Germany. Filed Nov. 18, 1915. Serial No. 62,228. (Cl. 123—51.)



An internal combustion engine comprising a cylinder, two pistons located therein and adapted to reciprocate in opposite directions simultaneously, said pistons being of such length that they nearly come into contact with each other when they are at the inner ends of their strokes and being provided with recesses in their faces which recesses form a combustion chamber when the pistons are in their inner position and a valve for injecting fuel into the combustion chamber, the combustion chamber being of much smaller size in a direction transverse to the axis of the cylinder than the diameter of the cylinder, having its walls almost exclusively formed by the pistons, and being located eccentrically with relation to the cylinder axis closely in front of the mouth of the said fuel injecting valve, as and for the purpose specified.

1,207,800. PROCESS FOR WEIGHTING SILK. PETER SCHMID and KARL GROSS, Basel, Switzerland; said Gross assignor to said Schmid. Filed Oct. 7, 1915. Serial No. 54,497. (Cl. 8—13.)

1. In the process for weighting silk by treating it alternately with metal chlorid baths and alkali metal phosphate baths and subsequently with an alkali metal silicate bath, the said metal chlorid being the chlorid of a heavy metal and capable of being fixed upon the silk fiber by an alkali metal phosphate, the use of the alkali metal phosphate baths and of the alkali metal silicate bath in the form of froth or foam baths.

2. In the process for weighting silk by treating it alternately with metal chlorid baths and alkali metal phosphate baths and subsequently with an alkali metal silicate bath, the said metal chlorid being the chlorid of a heavy metal and capable of being fixed upon the silk fiber by an alkali metal phosphate, the use of the alkali metal phosphate baths in form of froth or foam baths.

3. In the process for weighting silk by treating it alternately with metal chlorid baths and alkali metal phosphate baths and subsequently with an alkali metal silicate bath, the said metal chlorid being the chlorid of a heavy metal and capable of being fixed upon the silk fiber by an alkali metal phosphate, the use of the alkali metal silicate bath in form of a froth or foam bath.

4. In the process for weighting silk by treating it alternately with metal chlorid baths and alkali metal phosphate baths and subsequently with an alkali metal silicate bath, the said metal chlorid being the chlorid of a heavy metal and capable of being fixed upon the silk fiber by an alkali metal phosphate, the use of the alkali metal phosphate baths and of the alkali metal silicate bath in the form of foam or froth baths produced by heating to ebullition the liquid baths containing a substance having components which are saponifiable by the alkali becoming free during the process, in order to prevent the baths from becoming too alkaline and consequently the metal previously applied to the silk fiber from being dissolved in the baths.

5. In the process for weighting silk by treating it alternately with metal chlorid baths and alkali metal phosphate baths and subsequently with an alkali metal silicate bath, the said metal chlorid being the chlorid of a heavy metal and capable of being fixed upon the silk fiber by an alkali metal phosphate, the use of the alkali metal phosphate baths in the form of foam or froth baths produced by heating to ebullition the liquid baths containing a substance having components which are saponifiable by the alkali becoming free during the process, in order to prevent the baths from becoming too alkaline and consequently the metal previously applied to the silk fiber from being dissolved in the baths.

[Claims 6 to 9 not printed in the Gazette.]

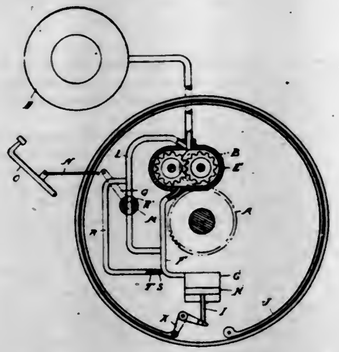
1,207,801. VEHICLE-BRAKE. ALBERT SCHMIDT, Flint, Mich., assignor of one-half to Albert J. Champion, Flint, Mich. Filed Sept. 14, 1914. Serial No. 861,597. (Cl. 188—5.)

1. The combination with a revoluble wheel, of a brake drum thereon, a brake-band for said drum, a hydraulic pump inclosed within said brake drum, mechanism for driving said pump from said wheel, a motor operated by the pressure developed by said pump, and a connection between said motor and said brake-band, for the purpose described.

2. The combination with a revoluble wheel, of a brake drum thereon, a brake-band for said drum, and a means within said brake drum for operating said brake-band, said means being dependent upon the rotation of said wheel.

3. The combination with a revoluble traction wheel, of a non-skidding brake therefor actuated by the rotation of

said wheel at any rate of speed and inoperative when said wheel is not rotating.



4. The combination with a revoluble wheel, of a brake therefor, a hydraulic pump, mechanism for driving said pump from said wheel, means operated by the pressure developed by said pump for actuating said brake and a by-pass for permitting a drop in the pressure when said wheel is not rotated.

1,207,802. PRODUCING AROMATIC AMINS AND CATALYSTS THEREFOR. OTTO SCHMIDT, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Filed Oct. 21, 1914. Serial No. 867,715. (Cl. 23—24.)

1. The process of producing an aromatic amin by passing the vapors of the corresponding nitro compound together with hydrogen over a catalytic agent containing copper prepared pyrogenetically from a salt thereof and a body promoting the action of the said copper.

2. The process of producing an aromatic amin by passing the vapors of the corresponding nitro compound together with hydrogen and carbon monoxid over a catalytic agent containing copper prepared pyrogenetically from a salt thereof and a body promoting the action of the said copper.

3. The process of producing an aromatic amin by passing the vapors of the corresponding nitro compound together with hydrogen over a catalytic agent containing copper prepared pyrogenetically from a salt thereof and a body containing zinc.

4. The process of producing an aromatic amin by passing the vapors of the corresponding nitro compound together with hydrogen and carbon monoxid over a catalytic agent containing copper prepared pyrogenetically from a salt thereof and a body containing zinc.

5. The process of producing anilin by passing vaporized nitrobenzene together with hydrogen over a catalytic agent containing copper prepared pyrogenetically from a salt thereof and a body promoting the action of the said copper.

[Claim 6 not printed in the Gazette.]

1,207,803. ORE-CONCENTRATOR. HANNIBAL SCOVELL, Galena, and LESLIE E. SCOVELL, Columbus, Kans. Filed Mar. 14, 1916. Serial No. 84,097. (Cl. 83—56.)

1. A device of the class described including an approximately horizontally disposed movable frame having a screen, longitudinally disposed side levers arranged in an approximately horizontal position and forming side rails, said frame being supported upon and slidable along the side levers, means for moving the frame longitudinally of the levers and means for oscillating the levers to raise and lower the frame.

2. A device of the class described including a tank provided at one end with a depending pocket or extension and adapted to contain a liquid, a carrier frame having spaced sides extending into the tank, said carrier frame being also provided with transverse bars or rods located at the lowed edges of the sides adjacent to the bottom of the tank, a screen also carried by the said frame and means for reciprocating the frame both vertically and longitudinally whereby the material on the screen will be separated and the material collected on the bottom of the tank will be moved toward the pocket by the said transverse bars or rods.

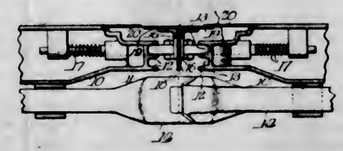


3. A device of the class described including a support, side levers fulcrumed intermediate of their ends at opposite sides of the support and having inner and outer arms, a carrier frame slidably supported by the outer arms of the said levers, a transverse shaft provided with eccentrics arranged to vibrate the inner arms of the levers to reciprocate the carrier fame vertically and means connected to the shaft for reciprocating the carrier frame longitudinally.

4. A device of the class described including a support, side levers fulcrumed intermediate of their ends at opposite sides of the support and having inner and outer arms, a carrier frame slidably supported by the outer arms of the said levers, a transverse shaft provided with eccentrics arranged to vibrate the inner arms of the levers to reciprocate the carrier frame vetically, and means including an eccentric and pitman for imparting a reciprocatory movement to the frame from the said transverse shaft.

5. A device of the class described including a tank, a carrier frame extending into the tank and provided with hanger rods extending beyond the tank and provided with anti-friction devices, side levers fulcrumed intermediate of their ends at opposite sides of the tank and having their outer arms receiving the said anti-friction devices, a transverse shaft provided with outer eccentrics arranged to operate on the inner arms of said levers for vibrating the latter, a transverse rod located intermediate of the ends of the carrier frame and means including an eccentric and pitman for connecting the last mentioned transverse rod with the shaft for reciprocating the carrier frame longitudinally and a screen mounted on the carrier frame.

1,207,804. ANTITELESCOPING DEVICE FOR RAILWAY-CARS. ALBERT H. SISSON, Chicago, Ill., assignor, by mesne assignments, to Waugh Draft Gear Company, a Corporation of Illinois. Filed Oct. 25, 1911. Serial No. 656,644. (Cl. 213—3.)

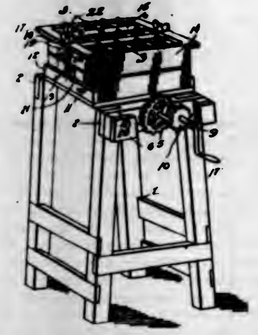


1. In a car construction, the combination of a car frame, a buffing mechanism, and an anti-telescoping device rigidly mounted independently of the buffing mechanism, the buffing mechanism provided with means normally interposed between the anti-telescoping devices of adjacent cars but out of contact with the said devices but permitting them to engage and interlock upon collision, substantially as described.

2. In a car construction, the combination of a car frame, a buffing mechanism, and an anti-telescoping device rigidly mounted independently of the buffing mechanism, and a plate movable with the buffing mechanism as a shield between but normally out of contact with the said devices and adapted upon collision to permit the interlocking devices of adjacent cars to interlock, substantially as described.

3. In a car construction, the combination of a car frame, a buffing mechanism, and an anti-telescoping device rigidly mounted independently of the buffing mechanism, and a plate movable with the buffing mechanism and adapted upon collision to be caught between the anti-telescoping devices of adjacent cars and deformed to permit the said device to interlock, substantially as described.

1,207,805. BOTTLED - LIQUID - MIXING MACHINE. JOHN SJAUKEN, Hoboken, N. J. Filed May 6, 1914. Serial No. 836,724. (Cl. 226—9.)

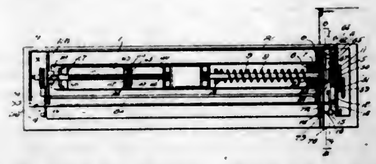


1. In a device of the class described, a stand having spaced parallel bars at its upper end, a cross bar pivotally mounted between said parallel bars, a gear wheel on one end of said cross bar, a bracket secured to one of said parallel bars, a crank arm pivoted in the said bracket and the parallel bar and having a gear wheel fixedly mounted thereon and in engagement with the first mentioned gear wheel, a platform on said cross bar arranged to support a crate of bottles, means for securing said crate on the platform and the bottles in the crate comprising a box like structure having apertures in its upper face through which the necks of the bottles are adapted to extend, means for securing said box like structure upon the platform, and means for adjusting said securing means.

2. In a device of the class described, a stand, a platform rotatably mounted thereon, means to rotate said platform, means for securing a crate of bottles to the platform including a box like structure having cross bars on its upper face and apertures between the cross bars said cross bars adapted to engage the shoulders of the bottles to prevent the same from moving with relation to the crate, flanges on the ends of the box like structure, hooks pivotally secured to said flanges adapted to engage the platform and means for adjusting the length of said hooks.

1,207,806. FIRE-CURTAIN. EZRA B. SMITH, Chicago, Ill., assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Dec. 1, 1911. Serial No. 663,190. (Cl. 189—58.)

1. In combination, a barrel, means for revolubly supporting said barrel, a curtain on said barrel, a counter-balancing spring lying within said barrel and secured at one end thereto, a shaft connected to the other end of the spring and revolubly supported by the barrel, means for normally holding said shaft against rotation, and means actuated by the rotation of the shaft for locking the ends of the spring against relative movement.



2. In combination, a curtain, a service spring for counter-balancing the curtain, mechanism for rendering the spring inoperative as a counter-balance without releasing its tension, restraining means for said mechanism adapted to be rendered inoperative upon a predetermined rise in temperature, said mechanism including a part controlled by the curtain for restoring the spring to operativeness.

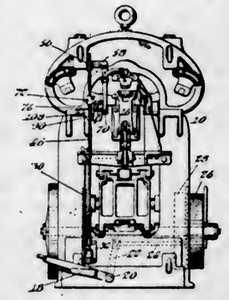
3. In combination, a curtain, a service spring normally under tension for counter-balancing the curtain, mechanism actuating upon a predetermined rise in temperature for rendering the spring inoperative as a counter-balance and at the same time locking it against unwinding, and means for automatically restoring the spring to operativeness as a counter-balance after the curtain has descended a predetermined distance below the point it occupied when the spring was locked.

4. In combination, a curtain, a barrel for the curtain, a service spring connected at one end to the barrel, a holding device for the other end of the spring, means acting upon a predetermined rise in temperature for detaching the latter end of the spring from said device and locking it against movement relative to the other end, and means controlled by the curtain for returning the spring to service condition.

5. In combination, a curtain, a counter-balancing spring connected at one end to said curtain, a revoluble screw-threaded shaft connected to the other end of the spring, a nut having considerable inertia loosely mounted on said shaft, means coöperating with said nut in one position of the nut to lock the ends of the spring against relative movement, and means including a fusible element for normally holding said shaft against rotation.

[Claims 6 to 24 not printed in the Gazette.]

1,207,807. HEEL-COMPRESSING MACHINE. JOHN F. STANDISH, Winthrop, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 10, 1915. Serial No. 13,477. (Cl. 12—48.)



1. In a machine for compressing heel blanks, the combination of compressing mechanism, and means controlled by the compressing mechanism for stopping the operation of the compressing mechanism upon failure to supply a blank thereto.

2. In a machine for compressing heel blanks, the combination of compressing mechanism, manually operable means for starting and stopping the machine, and automatic means controlled by the compressing mechanism for stopping the machine upon failure to supply a blank thereto.

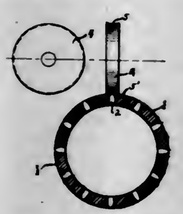
3. In a machine for compressing heel blanks, the combination of compressing mechanism, manually operable means for starting operation of the compressing mechanism, means for locking the starting means in operating position, and automatic mechanism for unlocking the starting means controlled by the compressing mechanism.

4. In a machine for compressing heel blanks, the combination of compressing mechanism, manually operable means for starting the machine, means tending normally to move the starting means into position to stop the machine, a lock for holding the starting means in operating position, and automatic mechanism controlled by the compressing mechanism for unlocking the starting means.

5. In a machine for compressing heel blanks, the combination of compressing mechanism, manually operable means for starting the machine, means for locking the starting means in operating position, automatic means controlled by the compressing mechanism for releasing the lock, and manually operable means for releasing the lock.

[Claims 6 to 13 not printed in the Gazette.]

1,207,808. METHOD FOR MAKING SCREEN. ROBERT A. STEPS, Los Angeles, Cal. Filed Apr. 11, 1916. Serial No. 90,422. (Cl. 29—148.)



1. The method of making well screen from pipe having slots, which consists in driving a cutting tool into the surface of the pipe adjacent a slot and distinctly nearer the slot thus operated on than to any other slot and thereby turning the edge of said nearer slot beyond the wall thereof so as to form a pronounced inwardly flaring lip which partly closes the said nearer slot.

2. The method of making well screen from pipe having slots, which consists in driving a roller under pressure into the surface of the pipe astraddle the edges of a slot and distinctly nearer the straddled slot than to any other slot and thereby turning said straddled edges toward each other so as to form pronounced inwardly flaring lips which partly close the straddled slot.

1,207,809. SCREEN. ROBERT A. STEPS, Los Angeles, Cal. Filed Apr. 11, 1916. Serial No. 90,423. (Cl. 166—5.)

1. A well screen for working in oil or water well sands, consisting of pipe the walls of which are equipped with elongated apertures extending therethrough so that fluids can pass through said apertures from the outside to the inside of said pipe, and depressions formed in the outside surface of the body of the pipe and extending away laterally from said apertures so as to form feeders for conducting undercurrents along said pipe toward said apertures, the apertures being unobstructed outwardly so that the well sands can lie directly upon and feed directly into the said apertures, and the plain surface of the metal on one side of the apertures being substantially a continuation of the plain surface of the metal on the other side of the apertures.

2. A well screen for working in oil or water well sands, consisting of pipe the walls of which are equipped with elongated apertures extending therethrough so that fluids can pass through said apertures from the outside to the inside of said pipe, and depressions formed in the outside surface of the body of the pipe and extending away laterally from both sides of said apertures so as to form feeders for conducting undercurrents along said pipe toward said apertures, the apertures being unobstructed outwardly so that the well sands can lie directly upon and feed directly into the said apertures, and the plain surface of the metal on the one side of the apertures being substantially a continuation of the plain surface of the metal on the other side of the apertures.

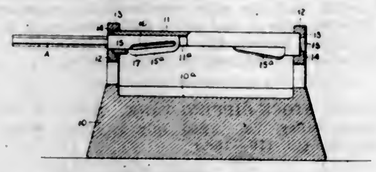


3. A well screen for working in oil or water well sands, consisting of pipe the walls of which are equipped with elongated apertures extending therethrough so that fluids can pass from the outside of the pipe to the inside, said apertures being narrower toward the outside of the pipe than toward the inside, and lateral feeders formed in the outside surface of the body of the pipe and extending away laterally a limited distance from said apertures for producing lateral undercurrents along the pipe toward the apertures, said apertures being unobstructed outwardly so that the well sands can lie directly upon and feed directly into the apertures, and the plain surface of the metal on one side of the apertures being substantially a continuation of the plain surface of the metal on the other side of the apertures.

4. A well screen for working in oil or water well sands, consisting of pipe, the walls of which are equipped with elongated apertures extending therethrough so that fluids can pass through said apertures from the outside to the inside of the pipe, and reservoirs or troughs beside the apertures and parallel thereto, each trough comprising a depression in the outside surface of the pipe alongside an edge of the aperture and parallel thereto, the relatively small amount of material between the trough and the adjacent edge of the aperture being flared inward toward the aperture so as to make the aperture narrower near the outside of the pipe than near the inside of the pipe, the said apertures and troughs being unobstructed outwardly so that the well sands can lie directly upon and feed directly into the said apertures, and the plain surface of the pipe on one side of the aperture being substantially a continuation of the plain surface of the pipe on the other side of the aperture.

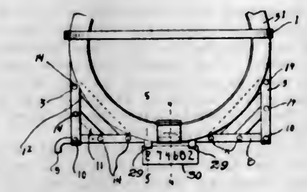
1,207,810. COMBINED PAPER-WEIGHT AND PENCIL-SHARPENER. SAMUEL MERRETT STEVENS, Asheville, N. C. Filed Jan. 9, 1915. Serial No. 1,330. (Cl. 120—1.)

1. An article of the character described comprising a body, standards on the body at the top and formed with lateral depressions in their inner faces and with counter-bores extending through the standards, a tubular handle extending at its ends into said depressions above the body, the counter-bores of the standards alining with the interior of the handle, and pencil sharpeners fitted in the tubular handle at the ends and projecting beyond the same into the said counter-bores, the tubular bodies of the sharpeners being open at the outer ends for the entrance of a pencil thereinto through the said counter-bores of the standards.



2. An article of the character described, comprising a body, a tubular handle supported on the body above the top thereof and formed with an elongated opening at the under side extending laterally into the handle to the hollow interior thereof, said opening terminating at its outer end short of the adjacent standard, and a pencil sharpener having a tubular body, the tubular body fitting in the tubular handle and having a cutter projecting through said opening, the outer end of said tubular body of the sharpener extending beyond the said lateral opening, and being movable endwise to bring its said extending end to the opening for removing the sharpener, and the outer end of the tubular body being open for the entrance of a pencil.

1,207,811. REAR-TIRE HOLDER. ROSSIE W. STEWART, Burr Oak, Kans. Filed Aug. 18, 1916. Serial No. 115,615. (Cl. 224—29.)



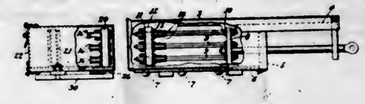
1. In a device of the class described, a pair of standards provided at their lower ends with angularly extended vehicle-engaging means; a tire-holding loop connecting the standards adjacent the upper ends of the standards; a bottom bar connecting the standards adjacent the lower ends of the standards; and a tire support carried by the bottom bar intermediate the ends of the bottom bar.

2. A device of the class described comprising a tire-holding loop; a pair of standards having their upper ends connected with the loop, the standards being provided with vehicle-engaging means; a bottom bar connecting the standards adjacent their lower ends, one end of the bottom bar being extended to form a lamp holder; and a tire support carried by the bottom bar intermediate the ends of the bottom bar.

3. In a device of the class described, a tire holding loop; a pair of standards having their upper ends assembled with the loop, the standards being provided with vehicle engaging means; a bottom bar connecting the standards adjacent the lower ends of the standards; a tire support carried by the bottom bar, intermediate the ends of the bottom bar, the tire support being of U-shape; and a latch pivotally assembled at one end with the support, and co-operating at its other end with the support.

4. In a device of the class described, a tire-holding loop; a pair of standards assembled at their upper end with the loop and provided at the rear ends with outstanding arms; braces connecting the arms of the standards with the body portions of the standards; a bottom bar connected with the standards adjacent the arms; braces connecting the standards with the bottom bar; and a tire support carried by the bottom bar and located intermediate the ends of the bottom bar.

1,207,812. CIRCUIT-CONTROLLER. THOMAS GEORGE STILES, Arlington, N. J. Filed Aug. 13, 1913. Serial No. 784,531. (Cl. 173—332.)



1. In a sliding circuit-controller, the combination with a movable contact-rod, of a pair of coöperative substantially U-shaped conductive circuit-controlling elements in the path of and adapted to be spread by said contact-rod and the edges of one of which are in engagement with inner surfaces of the other when the circuit-controller is open and which are out of contact with each other and in engagement with said contact-rod when the circuit-controller is closed.

2. In a sliding circuit-controller, the combination with a movable contact-rod angular in cross-section, of a pair of coöperative conductive circuit-controlling members in the path of and adapted to be spread by said contact-rod and which are in engagement when the circuit-controller is open and which are out of contact with each other and one of which is in surface engagement with edges of said contact-rod when the circuit-controller is closed.

3. In a sliding circuit-controller, the combination with a movable contact-rod angular in cross-section and embodying an insulating member, of a coöperative spring-contact comprising a pair of conductive contact-fingers in the path of and adapted to be spread by said contact-rod and which are in engagement when the circuit-controller is open and which are out of contact with each other and the surfaces of which are in engagement respectively with said insulating member and with edges of said contact-rod when the circuit-controller is closed.

4. The combination with a draw-bridge circuit-controller comprising male and female members, the former of which has multiple insulated contact-rods slidable into and out of contact-sockets, and the latter of which has multiple insulated contact-sockets for receiving said contact-rods respectively, at least one of which contact-sockets embodies a pair of oppositely arranged U-shaped conductive circuit-controlling elements in the path of and adapted to be spread by said contact-rod and the edges of one of which engage surfaces of the other when the circuit-controller is open and which are out of contact with each other and in engagement with their respective contact-rod when the circuit-controller is closed, of an electrical controlling circuit leading from the female member and connected with said circuit-controlling elements, and means for resiliently forcing the U-shaped elements together.

5. A draw-bridge circuit-controller, comprising male and female members, the former of which has multiple insulated contact-rods slidable into and out of contact-sockets, and the latter of which has multiple insulated contact-sockets for receiving said contact-rods respectively, said members also having respectively complementary self-centering elements disposed lengthwise of the circuit-controller and one of which is a guide-way and the other of which is a slide adapted to enter and substantially fill said guide-way crosswise of the controller and to have relative movement therein after the contact-rods enter said contact-sockets.

[Claims 6 to 8 not printed in the Gazette.]

1,207,813. METHOD FOR PRESERVING TENNIS-BALLS OR OTHER OBJECTS CONTAINING FLUID UNDER PRESSURE. FRANK W. STOCKTON, Chicago, Ill. Original application filed Mar. 6, 1915, Serial No. 12,653. Divided and this application filed Aug. 14, 1915. Serial No. 45,581. (Cl. 206—46.)

1. The method of preserving a state of fluid pressure in an object during storage and prior to use of the object, which consists in inclosing the object in a hermetically sealed container, and then creating a fluid pressure in the container around the object.

2. The method of preserving a state of fluid pressure in an object during storage and prior to use of the object, which consists in inclosing the object in a hermetically sealed container, and then creating a fluid pressure in the container around the object substantially the same as that of the pressure in the object.

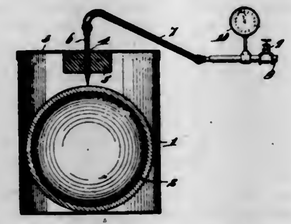


3. The method of preserving a state of fluid pressure in an object which consists in inclosing the object in a hermetically sealed receptacle, and then through chemical reaction creating a fluid pressure in the receptacle around the object.

4. The method of preserving a state of fluid pressure in an object during storage and prior to use of the object, which consists in inclosing the object in a hermetically sealed container, and then through chemical reaction, within the container, creating a fluid pressure in the container around the object.

5. The method of preserving a state of fluid pressure in an object during storage and prior to use of the object, which consists in inclosing the object in a hermetrically sealed container, and then, through chemical reaction, within the container, creating a fluid pressure in the container around the object substantially the same as that of the pressure in the object.

1,207,814. METHOD FOR PRESERVING TENNIS-BALLS OR OTHER OBJECTS CONTAINING FLUID UNDER PRESSURE. FRANK W. STOCKTON, Chicago, Ill. Original application filed Mar. 6, 1915, Serial No. 12,653. Divided and this application filed Aug. 14, 1915. Serial No. 45,582. (Cl. 206—46.)



1. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a container under pressure.

2. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a container under pressure substantially the same as that of the fluid contained in the object.

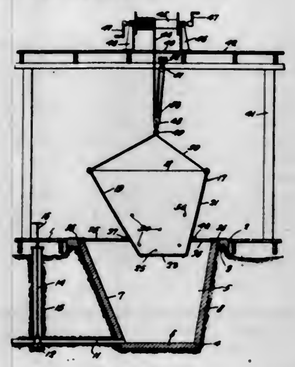
3. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object under pressure in a hermetically sealed container.

4. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a hermetically sealed container containing fluid of the same composition as that contained in the object and under the same pressure as that of the fluid contained in the object.

5. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a container, in introducing fluid into said container under substantially the same pressure as that of the fluid contained in the object, and then hermetically sealing said container.

[Claims 6 to 8 not printed in the Gazette.]

1,207,815. STOCK-DIPPING TANK. EDWIN F. STRONG, Indian Valley, Va. Filed July 1, 1916. Serial No. 107,116. (Cl. 119—158.)



1. A stock dipping device including a tank; a downwardly tapered cage coöperating with the tank; means for raising and lowering the cage; and movable means under the control of an operator and permanently connected with the tank and engaging the cage to steady the cage against lateral movement when the cage is being raised and lowered, and when the smaller lower end of the cage is adjacent the top of the tank.

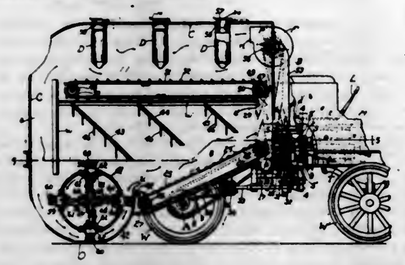
2. A stock dipping device including a tank; a cage coöperating with the tank, the cage including a downwardly slanting wall; means for raising and lowering the cage; a door for the tank and coöperating with the slanting wall of the cage to limit the lateral movement of the cage as the cage is raised and as the smaller, lower end of the cage approaches the top of the tank; and means for mounting the door for vertical swinging movement.

3. A stock dipping device including a tank; a cage movable with respect to the tank, the cage having slanting ends and being tapered toward its lower end and embodying a vertical side; a door coöperating with the vertical side of the cage when the cage is raised and when the smaller end of the cage approaches the top of the tank; end doors coöperating with the slanting ends of the cage; and means for mounting all of the doors for vertical swinging movement.

4. A stock dipping device including a platform having an opening; a tank located below the opening; a downwardly tapered cage coöperating with the tank, the cage having an open side and including end walls having outwardly projecting inclined extensions coöperating with the platform at one edge of the opening to move the cage laterally as the cage is lowered; a downwardly swinging door for the open side of the cage and adapted to move upwardly between the extensions to a closed position; and a vertically swinging door hinged to the platform at the other edge of the opening and coöperating with the cage to hold the cage against lateral movement when the cage is raised.

1,207,816. STREET-SWEEPER. CARL G. THOMPSON, Sullivan, Ind. Filed Jan. 27, 1916. Serial No. 74,620. (Cl. 15—17.)

1. In a street sweeper, a suitable vehicle, a casing mounted thereon, a rotary brush at the bottom of the casing operating to sweep the surface traveled over by the vehicle, a suitable receptacle on the vehicle, a conveyer interposed between the receptacle and brush for supplying material to said receptacle, means for circulating currents of air in the casing past the brush for carrying over the lighter particles, means for causing a partial precipitation of said lighter particles onto the conveyer, a collecting platform for receiving the balance of the lighter particles, and means for removing the accumulations on said platform.



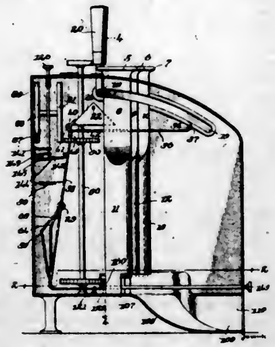
2. In a street sweeper, a suitable vehicle, a casing mounted thereon, a rotary brush at the bottom of the casing operating to sweep the surface traveled over by the vehicle, a suitable receptacle on the vehicle, a conveyer interposed between the receptacle and brush for supplying material to said receptacle, means for circulating currents of air in the casing past the brush for carrying over the lighter particles, means for causing a partial precipitation of said lighter particles onto the conveyer, a gutter broom operated in conjunction with the sweeper brush aforesaid, and means for causing the material swept by the gutter-broom to be drawn into the casing in response to the air currents circulating therein.

3. In a street sweeper of the character described, a casing, a brush at the bottom thereof for sweeping the surface passed over by the sweeper, a receptacle, means for conducting the sweepings to the receptacle, means for causing currents of air to circulate through the casing around and under the brush for assisting the sweepings toward the receptacle, a series of deflecting plates and baffles for causing a partial precipitation of the lighter particles onto the conducting means aforesaid, a platform superposed above the deflecting plates for collecting the remainder of the light particles, a traveling member for scraping the accumulations on the platform toward the receptacle, and means for regulating the air pressure in the casing in the region above the platform.

4. In a street sweeper of the character described, a casing, a vertical partition wall removed from the rear wall of the casing and terminating a suitable distance from the top and bottom of the casing, a horizontal platform leading from the partition toward the opposite wall of the casing and terminating a suitable distance therefrom, a sweeper broom at the bottom of the casing below the partition wall aforesaid, a fan at the end of the casing opposite the partition discharging air into the space above the platform, air conduits leading from the space in the casing below the platform aforesaid to the fan, suitable deflecting plates leading downwardly from the platform toward the conduits leading to the fan, baffles leading from the deflecting plates on the sides facing the sweeper broom, a trough, and a conveyer conducting the discharges from the sweeper broom and the finer particles precipitated thereon by the baffles and deflecting plates, into the trough.

1,207,817. MONEY-CHANGING MACHINE. EUGENE V. THOMPSON, Portland, Oreg. Filed Jan. 22, 1914. Serial No. 813,782. (Cl. 133—2.)

1. A money changing machine comprising a series of coin holders, a series of rotatable ejector carriers operatively connected to have movement with each other, means to be rotated in opposite directions connected with one of said carriers for simultaneously rotating and setting the several carriers to selectively position the ejectors thereof with respect to said coin holders, ejector actuating means arranged to be brought into operation by the insertion of a coin into said machine, and means for operating the actuating means to cause operation of the selected ejectors.



2. A money changing machine, comprising a series of coin holders, a series of ejector carriers rotatably mounted adjacent to said coin holders and arranged to be capable of simultaneous rotation, ejectors mounted on said ejector carriers at spaced apart points and in varied relations upon the several carriers, means to be rotated in opposite directions for selectively fitting said carriers to selectively position the ejectors thereof for operation, and manually movable means for actuating the positioned ejectors.

3. In a money changing machine, a series of coin holders for holding coins of different denominations, a series of gear ejector carriers rotatably mounted adjacent to said coin holders and in relations that the teeth thereof mesh, means to be rotated in opposite directions mounted to mesh with one of the carriers for simultaneously rotating the carriers to selectively position ejectors thereof with respect to said coin holders, and manually operable means for imparting actuating movement to the selected ejectors for ejecting coins from the holders.

4. In a money-changing machine, a series of coin holders, a series of rotary ejector carriers having teeth in mesh engagement with each other to cause adjacent carriers to rotate in opposite directions, ejectors pivotally mounted on said carriers, means connected with one carrier for rotating the series to selectively position certain of the ejectors for operation, and means for operating the positioned ejectors.

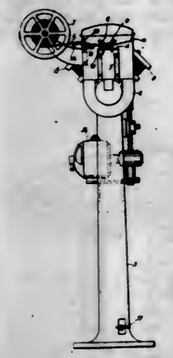
5. In a money changing machine, a series of coin holders, a series of rotary ejector carriers having teeth in meshing engagement with each other to cause adjacent carriers to rotate in opposite directions and to cause simultaneous turning movement of the several carriers, ejectors pivotally mounted on said carriers, means connected with one carrier for rotating the series, means to permit determination of the degree of turning movement transmitted to said carriers to selectively position certain of the ejectors for operation, and means for operating the positioned ejectors.

[Claims 6 to 10 not printed in the Gazette.]

1,207,818. TAGGING-MACHINE. HARVEY G. TISSOT, Cleveland, Ohio, assignor to The Hall Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 10, 1913. Serial No. 753,305. (Cl. 93—88.)

1. In a tagging machine, a staple-forming plunger having wire-shearing edges and means to feed wire to said plunger, in combination with a stationary staple-clenching device about said plunger, and means to feed tagging

material to said device at a point apart from said plunger to permit the goods to enter between the plunger and the tagging material.



2. In a tagging-machine, a fixed and a movable staple-clenching member, means to feed staple forming wire in a horizontal plane to one of said members and means to feed tagging material to the other member transversely to the feed of said wire, and separate shearing devices for the wire and the tagging material respectively, in combination with means co-acting with the said movable clenching member to form a staple preparatory to clenching the same against the other member.

3. In a tagging machine, a stationary staple-clenching member, a sectional plunger vertically disposed beneath said member, a spring adapted to provide differential movements in the sections of said plunger and devices co-acting with said plunger to form staples and project the same from the end of the plunger, in combination with separate means adapted to feed wire and tagging material respectively at right angles to each other but on different horizontal planes across the exposed end of said plunger.

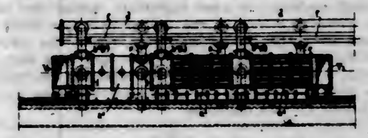
4. In a tagging machine, a stationary staple-clenching member, a wire-shearing plunger adapted to cut a plurality of staple wires at separate points opposite the ends of said clenching member at one stroke, a cushioning spring for said plunger, devices to co-act with said plunger to form staples and push members adapted to project the finished staples against said clenching member, in combination with means to feed wire in a horizontal plane to said plunger, means to feed tagging material downwardly and transversely between said plunger and said clenching device, and means to sever said tagging material into predetermined lengths conjointly with the clenching of the staples.

5. In a tagging machine, a fixed jaw having a transverse passage for a piece of tape and feeding mechanism therewith, and an entrance for the goods alined with and beneath said passage, a staple-clenching die plate mounted in inverted position adjacent said passage, substantially in line with said mechanism, a knife transversely of said passage and a projecting portion on said jaw opposite the cutting edge of said knife, in combination with a plunger and co-acting devices to lift and press the goods against the tape and to force a staple through the goods and tape successively against the said die plate.

[Claims 6 to 8 not printed in the Gazette.]

1,207,819. FURNACE. WILHELM TROELLER, Frankfort-on-the-Main, Germany. Filed Apr. 9, 1915. Serial No. 20,163. (Cl. 266—20.)

1. In a furnace for the purpose described, in combination, two compartments, one of the compartments being provided with a fluid inlet and the other of the compartments being provided with a fluid outlet, and a removable receiver for the material to be treated inserted between the compartments and communicating therewith, said receiver being removable without moving the compartments.



2. In a furnace for the purpose described, in combination, a plurality of compartments arranged in line, means associated with each compartment for the admission and discharge of fluid, and a plurality of receivers for the material to be treated arranged in line in alternating relation with the compartments and communicating therewith and removable transversely of the line.

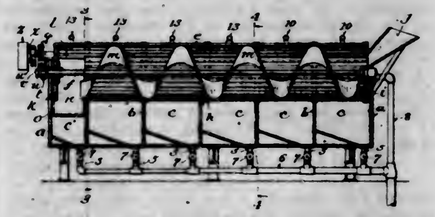
3. In a furnace for the purpose described, in combination, a plurality of compartments arranged in series, means associated with each compartment for the admission and discharge of fluid, a plurality of removable receivers for the material to be treated arranged in alternating relation between the compartments and communicating therewith, and guiding means for two receivers whereby the two receivers may be simultaneously removed from the furnace along separate non-alined paths.

4. In a furnace for the purpose described, in combination, a plurality of compartments arranged in series, means associated with each compartment for the admission and discharge of fluid, and a plurality of removable receivers for the material to be treated arranged in series in alternating relation with the compartments and communicating therewith, each receiver being removable without moving any other receiver or any of the compartments.

5. In a furnace for the purpose described, in combination, two rows of compartments, means associated with each compartment for the admission and discharge of fluid, removable receivers for the material to be treated arranged between the compartments of each row, and fluid conducting means connecting the compartments at each end of one row with the compartments at the corresponding end of the other row.

[Claims 6 to 8 not printed in the Gazette.]

1,207,820. WASHING-MACHINE. FRANK WATERS VAN NESS, Milwaukee, Wis. Filed Feb. 19, 1912. Serial No. 678,645. (Cl. 68—37.)



1. In a washing machine the combination of a tank divided by partitions into a number of compartments which are provided with separate discharge connections, a receptacle extending through and communicating with the compartments of said tank and having provision at its ends for receiving and discharging the articles to be washed, means for moving such articles through said receptacle, and means for supplying water to said tank.

2. In a washing machine the combination of a tank having a number of compartments provided with discharge connections, means for moving articles to be washed along and in communication with said compartments, means for supplying water to said tank, and means for producing pulsations of the water through such articles as they pass through said tank along the several compartments.

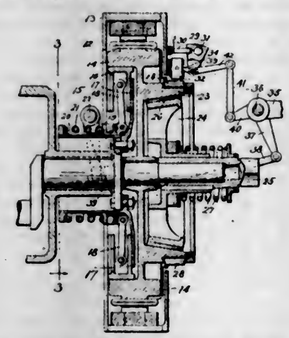
3. In a washing machine the combination of a tank having intercommunicating washing and plunger compartments, a foraminated clothes receptacle within the washing compartment, and a plunger fitted in the plunger compartment and adapted to produce pulsations of water in the washing compartment through the clothes in said receptacle.

4. In a washing machine the combination of a tank having supply and discharge connections arranged to produce a current of water through the tank, means for conducting clothes through the tank, and means for producing pulsations of the water through the clothes as they pass through the tank.

5. In a washing machine the combination of a tank divided longitudinally by transverse partitions into compartments which are subdivided by longitudinal partitions into washing and plunger compartments; a clothes receptacle extending longitudinally through and communicating with the washing compartments, plungers fitted to work in the plunger compartments and adapted to produce pulsations of the water in the adjoining washing compartments, means for advancing clothes through said receptacle, separate discharge connections opening from the lower parts of the several compartments of the tank, an overflow connection opening from the tank at the feeding end of the machine, and separate supply connections adapted to deliver water into the several compartments of the tank.

[Claims 6 and 7 not printed in the Gazette.]

1,207,821. STARTER FOR INTERNAL-COMBUSTION ENGINES. GEORGE R. WADSWORTH, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 8, 1911. Serial No. 659,100. (Cl. 172—239.)



1. In combination with an internal combustion engine having a crank shaft, a starting motor having a stationary element and a rotary element mounted for rotation about the axis of the crank shaft, a switch for connecting the motor to a source of current, a clutch for connecting the rotary element of the motor to the crank shaft, and means for simultaneously throwing out the clutch to disconnect the motor from the crank shaft and for closing the switch and a single operating device for said means.

2. In combination with an internal combustion engine having a crank shaft, a motor for starting the engine comprising a stationary element and a rotary element mounted for rotation about the axis of the crank shaft, a clutch for connecting and disconnecting the rotary element of the motor and the crank shaft, a switch for connecting the motor to a source of current, and brushes movable into contact with or away from the commutator of the motor, and a unitary mechanism for throwing out the clutch, for closing the switch and for shifting the brushes into engagement with the commutator.

3. In combination with an internal combustion engine, an electric motor including commutator brushes and a rotary member having a commutator, means for connecting and disconnecting the rotary member of the motor and the engine and means associated with said connecting and disconnecting means for shifting the brushes into and out of engagement with the commutator.

4. In combination with an internal combustion engine, an electric motor for starting the engine and including commutator brushes and a rotary member having a commutator, means including a clutch for connecting and disconnecting the motor and the engine, and means associated with said connecting and disconnecting means for lowering the brushes onto the commutator when the motor and engine are disconnected, and for raising the brushes from the commutator when the motor and engine are connected.

5. In combination with an internal combustion engine having a crank shaft, a starting motor, a source of current to which the motor is adapted to be electrically connected, and mechanism for connecting or disconnecting the motor and crank shaft, and simultaneously disconnecting or connecting the motor and source of current.

[Claims 6 to 8 not printed in the Gazette.]

1,207,822. ELECTRIC OPHTHALMOSCOPE. REINHOLD H. WAPPLER, New York, N. Y. Filed July 3, 1914. Serial No. 848,765. (Cl. 88—20.)



1. In an ophthalmoscope, the combination of a source of light, and a prism through which the light is projected, said prism having a substantially flat surface at its front extending at such an angle to the axis of the prism that the ray is totally reflected and a substantially flat surface at its rear also extending at an angle to the axis of the prism, and a reflecting medium at the last-named surface.

2. In an ophthalmoscope, the combination of a source of light, and a prism through which the light is projected, said prism having a substantially flat reflecting surface at its front extending at an angle to the axis of the prism and a substantially flat surface at its rear also extending at an angle to the axis of the prism, said second flat surface being coated with a reflecting medium.

3. In an ophthalmoscope, the combination of a source of light, and a prism through which the light is projected, said prism having a substantially flat reflecting surface at its front extending at an angle to the axis of the prism and a substantially flat surface at its rear also extending at an angle to the axis of the prism, said flat surface being coated with a reflecting medium, and said prism having a lentiform lower end.

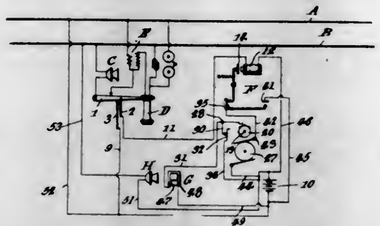
4. In an ophthalmoscope, the combination of an electric lamp, a concentrating lens above the lamp, and a prism above the concentrating lens, said prism having a convex lower end, a substantially flat front reflecting surface and a substantially flat rear surface, both surfaces extending angularly to the axis of the prism, and the latter surface being provided with a reflecting medium.

5. In an ophthalmoscope, a source of light and means for deflecting a substantially vertical ray of light to a substantially horizontal direction, said means comprising a reflector for reflecting the vertical ray toward the rear

of the ophthalmoscope and a reflector in the path of the reflected ray, adapted to reflect said ray forwardly, the two reflectors being so arranged that the sum of the angles of incidence and reflection of the vertical ray is considerably greater than the sum of the angles of incidence and reflection of the reflected ray, the ray passing through the device without crossing itself.

[Claims 6 to 8 not printed in the Gazette.]

1,207,823. ANNUNCIATOR. JOHN F. WEBSTER, Lineboro, Md. Filed June 6, 1916. Serial No. 102,021. (Cl. 179—28.)



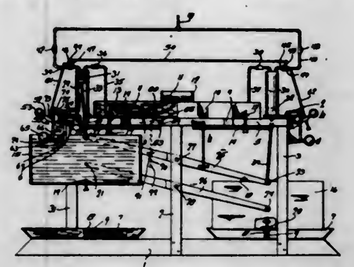
1. An annunciator of the character described, comprising an intermittent circuit closer including a wheel having a serrated periphery, a stop wheel rotatable therewith, a motor for rotating both wheels, a releasable stop engaging said stop wheel, an oscillatable arm, a finger movable with said arm and engageable by the stop when the same is disengaged from the wheel, an electro-magnet for releasing the stop, normally spaced contacts in circuit with the electromagnet and a source of current, a contact engageable by the arm, said arm and contact being connected in series with the motor and the source of current, an oscillatable arm engaging the serrated periphery of the first mentioned wheel, a contact engageable by said arm, a buzzer in circuit with said arm, contact and the source of current, and a transmitter disposed in close relation to the buzzer.

2. An annunciator of the character described, including a frame, a shaft rotatably mounted therein, a serrated wheel and a stop wheel mounted on the shaft, an electromagnet mounted on the frame, a shaft journaled in the frame, a finger on the shaft engaging the stop wheel, an arm on the shaft, an armature on the arm, said finger being releasable from engagement with the wheel when the electro-magnet is energized, a motor for rotating the wheel shaft, a circuit closer operable by the stop finger for closing the motor circuit, a signal, a circuit closer operated by the serrated wheel for actuating the signal, and a transmitter located in close relation to the buzzer.

3. An annunciator of the character described, including in combination with a subscriber's set of a party line telephone system an intermittent circuit closer, an audible signal operable by said circuit closer, means for actuating the circuit closer, means for initiating operation of said actuating means, a relay the armature of which is normally in engagement with a contact, normally spaced contacts connected in series with said armature, contact and initiating means, whereby when the receiver hook is in raised position, the relay may be energized by an impulse proceeding from the central station and the initiating means rendered inoperative, and means for converting the signals into current impulses.

4. The combination with a subscriber's set of a party line telephone system, of a plurality of annunciators, each including an intermittent circuit closer, an audible signal operable by said circuit closer, means for actuating the circuit closer, means for initiatng operaton of said actuating means, a relay which includes an electro-magnet, an armature normally spaced therefrom, a contact engaged by the armature, said electro-magnet being in series with one of the main leads of the system and the receiver hook, a contact engageable by the receiver hook and connected to the other main lead, normally spaced contacts in series with the relay armature, contact and the aforesaid initiating means, whereby when the receiver hook is in raised position, the relay may be energized by an impulse proceeding from the central station, and the initiating means rendered inoperative, and means for converting the audible signals into current impulses for transmission over the leads when the receiver hook of an eavesdropper subscriber is raised and his relay not energized.

1,207,824. WATER-OPERATED PUMP. GUSTAV A. WENDT, Spokane, Wash. Filed Nov. 24, 1914. Serial No. 873,740. (Cl. 103—12.)



1. In a pump mechanism, a pair of pumps each having an egress controlling valve, means connecting said valves to open one when the other is closed, a set of devices for each controlling valve and each set comprising a gravity device normally acting to close one valve, a trip device normally acting to prevent operation of said gravity device, a water bucket for operating each pump, and a float device for each set acted upon by the level in the operating bucket of its pump to actuate the trip device of its set and free the gravity device for closing its respective valve, substantially as described.

2. In a pump mechanism, a pair of pumps each having a controlling valve for egress therefrom, a water operating bucket for each pump, and a set of devices for each valve initiated into action by the water level in the bucket of the respective pumps, substantially as described.

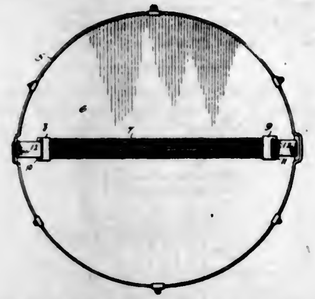
3. In a pump mechanism, a pair of pumps each having a controlling valve for egress therefrom, a water operating bucket for each pump, an operating mechanism for each valve initiated into action by the water level in the bucket of the respective pump, and means connecting said controlling valves to shut off one and open the other to establish pumped liquid locks acting through the pumps to prevent movement of the operating buckets during closure of a controlling valve, substantially as described.

4. In a pump mechanism, a pair of pumps each having a controlling valve for egress therefrom, a water operating bucket device for each pump, a set of devices for each valve initiated into action by the water level in the bucket devices of the respective pumps, and means for each set of devices actuated by the bucket device of the respective pump for restoring such set of devices to a starting position, substantially as described.

5. In a pump mechanism, a pair of pumps each having a controlling valve for egress therefrom, a water operating bucket device for each pump, a set of devices for each valve initiated into action by the water level in the bucket device of the respective pump, means for each set of devices actuated by the respective bucket device for restoring such set of devices to a starting position, and means connecting said controlling valves to shut off one and open the other to establish pumped liquid locks acting through the pumps to prevent movement of the operating buckets during closure of a controlling valve, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,207,825. SNARE FOR DRUMS. MOULTON W. WHEELER, San Diego, Cal. Filed Aug. 15, 1916. Serial No. 115,018. (Cl. 84—127.)



1. A snare for drums comprising a plurality of side by side metallic strands of like length, a pair of transversely slotted plates to which said strands are fixedly secured and non-elastic straining loops passing through the slots of said plates, the combined length of the strands and the plates being less than the diameter of the drum head upon which the snare is used.

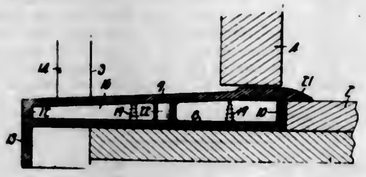
2. A snare for drums comprising a plurality of strands, plates to which said strands are fixedly secured and straining loops connected to said plates, said strands being of such length that the plates lie adjacent to the surface of the head of the drum when the device is in use and the tape loops extend over the edges of the head of the drum.

1,207,826. PROCESS FOR PRODUCING A WATER-SOFTENER. GEORGE H. WIDNER, Des Moines, Iowa, assignor to Des Moines Refining Company, Des Moines, Iowa, a Corporation of Iowa. Original application filed May 20, 1916, Serial No. 98,993. Divided and this application filed Aug. 10, 1916. Serial No. 114,258. (Cl. 210—1.)

1. The herein described process which consists of treating a mineral having for its base a hydrated silicate of aluminum by first drying said mineral to remove all free moisture then reducing said mineral to suitable size by mechanical means then adding salt to said mineral, then baking said mineral without fusing the same until it is hard enough to resist the powdering action of water.

2. The herein described process which consists of treating a mineral having for its base a hydrated silicate of aluminum by first drying said mineral to remove all free moisture, then reducing said mineral to suitable size by mechanical means, then adding salt to said mineral, then baking said mineral without fusing the same until it is hard enough to resist the powdering action of water and then storing said mineral in water.

1,207,827. DOOR-SILL. SAMUEL J. WINTERS, Plymouth, Mich. Filed June 12, 1916. Serial No. 103,065. (Cl. 20—64.)



1. A door sill comprising a base plate and a tread plate spaced from each other and connected together, and nealing blocks interposed between the plates at their ends whereby the casing of the door in which the sill is to be used may be readily attached to the sill.

2. A metal door sill comprising a base plate and a tread plate spaced from each other and connected together, nailing blocks interposed between the plates at their ends whereby the casing of the door in which the sill is to be used may be readily attached to the sill, and means for retaining the nailing blocks in position in respect to the plates whereby they are prevented from dropping out in transportation.

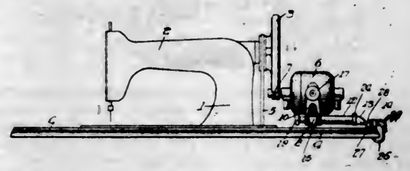
3. A door sill comprising a base plate and a tread plate spaced from each other and connected together, nailing blocks interposed between the plates at their ends whereby the casing of the door in which the sill is to be used may be readily attached to the sill, and means for preventing the nailing strips from being forced inwardly from the ends of the plate more than a predetermined amount.

4. A door sill comprising a base plate and a tread plate spaced from each other and connected together, nailing blocks interposed between the plates at their ends whereby the casing of the door in which the sill is to be used may be readily attached to the sill, and a cross wall joining the plates near each end whereby the nailing blocks are prevented from being driven inwardly.

5. A hollow door sill comprising a base plate and a tread plate spaced therefrom, a nailing piece interposed between the plates, an outer longitudinal wall joining the base plate and tread plate, said outer wall and said tread plate being extended beyond the nailing block and being joined by a transversely extending end wall whereby the outer portion of the nailing block is concealed when the sill is in use.

[Claims 6 to 8 not printed in the Gazette.]

1,207,828. PORTABLE MOTOR-SUPPORT. HENRY L. ZABRISKIE, Westfield, and GUSTAVE C. MARX, Elizabeth, N. J., assignors to Diehl Manufacturing Company, Elizabeth, N. J., a Corporation of New Jersey. Filed May 10, 1916. Serial No. 96,516. (Cl. 74—26.)



1. A portable support for sewing machine motors comprising a base adapted to support an electric motor and to rest on a sewing machine table, said base having means thereon adapted to be fastened to the edge of the table to hold the support in position.

2. A portable support for sewing machine motors comprising a base adapted to support an electric motor and to rest on a sewing machine table, said base having an extension provided with means adapted to be fastened to the edge of the table to hold the support in position.

3. A portable support for sewing machine motors comprising a base adapted to movably support an electric motor and to rest on a sewing machine table, means on said base for biasing the motor to driving position, said base having an extension thereon provided with means adapted to be fastened to the edge of the table to hold the support in position.

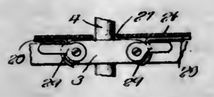
4. A portable support for sewing machine motors comprising a base adapted to rest on a sewing machine table, arms projecting from said base for pivotally supporting an electric motor, and an extension adjustably attached to said base having means on the outer end thereof for clamping it to the edge of said table.

5. A portable support for sewing machine motors comprising a base adapted to rest on a sewing machine table, arms projecting from said base for pivotally supporting an electric motor, means on said base for engaging the

motor to normally bias it to a certain position and an extension adjustably attached to said base having means on the outer end thereof for clamping it to the edge of said table.

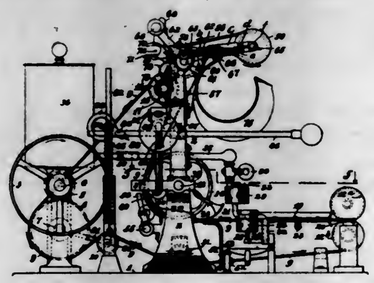
[Claims 6 to 19 not printed in the Gazette.]

1,207,829. PIVOTED COVER FOR FODDER-CUTTERS. MICHAEL ZECH, Enderlin, N. D. Filed June 13, 1912. Serial No. 703,513. (Cl. 74—56.)



The combination with a casing having a body portion and a pivoted cover, of blocks secured to the body portion, said blocks having curved ends, fingers secured to the cover and having curved projections engaging the ends of the blocks and latches pivotally mounted on the upper faces of the block and arranged to swing over the fingers to maintain them on the blocks.

1,207,830. EDGE-IRONING MACHINE. WILLIAM A. ZEIDLER, New York, N. Y., assignor to William A. Zeidler Co., New York, N. Y. Filed Oct. 29, 1909. Serial No. 525,375. (Cl. 68—9.)



1. In an edging machine, the combination of means for feeding an article through the machine, means in rear of the feeding means for moistening the edge of the article, means for arching the article after it has been moistened, and means for ironing the arched edge of the article.

2. In an edging machine, the combination of yielding means for feeding an article through the machine, a rotatable moistening wheel, means for moistening the periphery of said wheel, means for feeding the article in edge contact with said periphery, means in rear of the moistening means for arching the article, and means for ironing its arched edge.

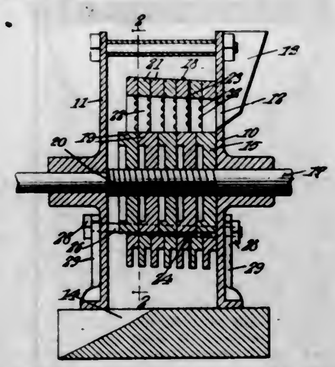
3. In an edging machine, the combination of a moistening wheel rotatable about a vertical axis, means for feeding water to the periphery of the wheel, means for feeding the article in edge contact with said periphery, means rotating on a horizontal axis for arching the article after it has been moistened, and means associated with the arching means for ironing its arched edge.

4. In an edging machine, the combination of a moistening wheel rotatable about a vertical axis, said wheel having apertures leading from its top out to its periphery, means delivering water upon the top of the wheel, means for feeding the article in edge contact with the periphery of the wheel below where the apertures deliver to said periphery, means wholly in rear of the moistening wheel for arching the article, and means for ironing its arched edge.

5. In an edging machine, the combination with an article carrier, of means for feeding an article upon said carrier, moistening wheels, means normally tending to move said wheels toward said carrier to cause them to contact with and moisten the edge of an article, a pair of irons laterally movable toward and away from each other and means disposed in juxtaposition to said irons and co-acting with the article carrier to bend the article into arch formation during the time that it is being carried past and into contact with said irons.

[Claims 6 to 8 not printed in the Gazette.]

1,207,831. ROLLER GRINDING-MILL. HENRY ALLEN, Gainesville, Fla. Filed June 15, 1916. Serial No. 103,753. (Cl. 83—14.)



1. A grinding mill having a rotor and a stator constituting coöperative grinding elements, the stator having a substantially oval inner surface facing the grinding surface of the rotor, pivotally mounted eccentrically to the rotor and providing an inclosed feed passage parallel with the axis of the rotor, and means for securing the stator in its adjusted position.

2. A grinding mill having a rotor and a stator constituting coöperative grinding elements, said stator being of sectional construction on planes transverse to the axis of the rotor, and a baffle plate interposed between sections of the stator for obstructing the passage between said elements.

3. A grinding mill having a rotor and a stator constituting coöperative grinding elements, the stator being of sectional construction on planes transverse to the axis of the rotor, a baffle plate interposed between adjacent sections of the stator for obstructing the passage between said elements, and means for securing said baffle plate in adjusted positions with reference to the sections of the stator.

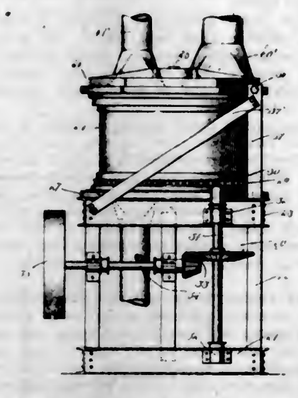
4. A roller grinding mill having a shaft, a roll consisting of a series of sections removably mounted upon said shaft and provided with serrated peripheries, a breast or concave surrounding said roll and consisting of interiorly oval sections arranged in planes at right angles to the axis of the roll and pivotally mounted for adjustment, said breast or concave sections having serrated inner grinding faces, and means for securing said sections of the breast or concave in adjusted position.

5. A roller grinding mill having coöperating grinding elements consisting of a roll and a breast or concave, said breast or concave consisting of a series of oval sections arranged in planes transverse to the axis of the roll and surrounding the same to form a feed chamber or passage parallel with the axis of the roll, and means for feeding and delivering the material respectively at opposite ends of the roll.

[Claim 6 not printed in the Gazette.]

1,207,832. PRESSURE-SYSTEM CHARGER. WILLIAM E. ALLINGTON, Saginaw, Mich. Filed Aug. 14, 1914. Serial No. 856,817. (Cl. 193—10.)

1. In a charger of the character described, the combination of a rotatable pocketed drum, heads therefor, a material supply connection opening through the one head, air pressure supply and delivery connections opening through opposite heads, the last said connections arranged with respect to the drum that a compartment, moving in rotation, opens to the delivery connections before opening to the pressure supply connections.



2. In a charger of the character described, the combination of opposing heads, a drum therebetween having walls dividing the drum into five compartments, one said head provided with material supply and air pressure supply ports, the other head having a delivery port substantially alining with the pressure supply port, and one of said heads having a vent-port, said pressure and delivery ports located slightly more than a compartment space in advance of the material supply port, and one of said air ports arranged to open to an approaching compartment at substantially the same time that the vent-port opens to a compartment third in advance thereof, whereby three of the five compartments may normally be maintained under pressure.

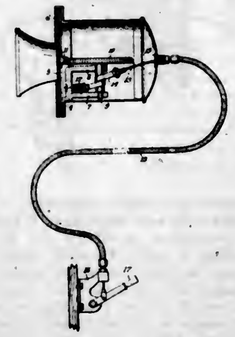
3. In a charger of the character described, the combination of opposing heads, a rotatable drum therebetween having partition walls dividing it into five compartments, there being in one head a material supply port, an air pressure supply port in advance thereof slightly more than the space of a compartment, and a vent port slightly in rear of the material supply port, and in the opposite head a delivery port generally in alinement with the pressure supply port and arranged to open to a progressing pocket, before said pressure supply port opens thereto, and at approximately the same time in the rotation of the drum that the vent port opens to the compartment third in advance.

4. In a charger of the character described, the combination of opposing heads, a drum with its axis vertical therebetween and having walls dividing the drum into five compartments, one said head provided with material supply and air pressure supply ports, the other head having a delivery port substantially alining with the pressure supply port, and one of said heads having a vent-port, said pressure and delivery ports located slightly more than a compartment space in advance of the material supply port, and one of said air ports arranged to open to an approaching compartment at substantially the same time that the vent-port opens to a compartment third in advance thereof, whereby three of the five compartments may normally be maintained under pressure, a shaft for said drum and to which it is secured, a single shaft bearing in the lower head, and means to rotate said drum and acting directly on the drum adjacent its lower end.

5. In a charger of the character described, the combination of a drum, positioned with its axis vertical, a short shaft therefor rotatable therewith, relatively stationary heads for the drum providing a material supply port in one head and alining air ports in the other head, a single shaft-bearing close to the lower head, and means for rotating said drum arranged to apply power in plane close to the shaft supporting bearing.

[Claims 6 to 15 not printed in the Gazette.]

1,207,833. HAND-OPERATED SIGNAL. EMANUEL AUFIERO, Brooklyn, N. Y. Filed May 31, 1912, Serial No. 700,675. Renewed Apr. 13, 1916. Serial No. 90,974. (Cl. 116—1.)



1. In a sound-emitting apparatus, the combination of an acoustic diaphragm, a rotary diaphragm-actuating device mounted to be movable into and out of close operative relation with said diaphragm, and a flexible member secured yieldingly at one end and passing around the shaft of said rotary device in such manner that pulling upon said member forces said rotary device into and rotates it in close operative relation with said diaphragm.

2. In a sound-emitting apparatus, the combination of an acoustic diaphragm, a rotary diaphragm-actuating device mounted to be movable into and out of close operative relation with said diaphragm, and mechanism for rotating said rotary device in one direction and simultaneously moving it into and holding it in close operative relation with said diaphragm and alternately rotating it in the opposite direction and simultaneously moving it out of and holding it out of close relation therewith.

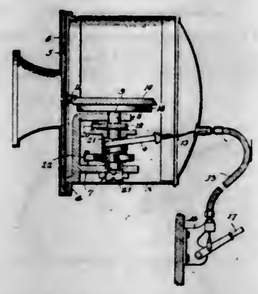
3. A sound-emitting apparatus comprising the combination of a diaphragm having a stud projecting therefrom, a frame at the rear of said diaphragm, a shaft journaled in said frame parallel with the face of said diaphragm, a cam carried by said shaft and having teeth adapted to act upon said projection, a spring secured to said frame, and a flexible member secured at its inner end to said spring and passing around said shaft, a casing secured to said diaphragm and inclosing the frame and other parts aforesaid, and a pulling-member secured to the outer end of said flexible-member and passing through the rear of said casing.

4. A sound-emitting signal-device, comprising the combination of a vibratory acoustic diaphragm, a rotary shaft, and a cam rigidly carried thereby for vibrating said diaphragm, a contraction spring secured at one end adjacent said diaphragm, a handle operable by the attendant, and a flexible member comprising a Bowden-wire connected to the free end of said spring and to said handle respectively and frictionally engaging said shaft, whereby movement of said handle and the reaction of said spring rotate said cam backward and forward.

1,207,834. HAND-OPERATED SIGNAL. EMANUEL AUFIERO, Brooklyn, N. Y. Original application filed May 31, 1912, Serial No. 700,675. Divided and this application filed Feb. 20, 1913. Serial No. 749,662. (Cl. 116—1.)

1. In a device of the character described, a diaphragm, energy transmitting means, and energy receiving, storing

and imparting means adapted to receive energy from the transmitting means, said second means being always free immediately to transmit said energy to the diaphragm.



2. In an alarm or signaling apparatus, a diaphragm, a wear-piece carried by said diaphragm, a rotor adapted to actuate said wear-piece to vibrate the diaphragm, said rotor constituting a heavy fly-wheel having a relatively large mass, and manually actuated means for intermittently energizing said fly-wheel and vibrating the diaphragm for a period of time extending beyond the period during which energy is applied to said fly-wheel.

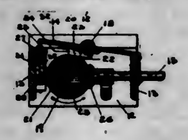
3. In an alarm horn or signaling apparatus, a diaphragm, a rotatable member adapted to vibrate said diaphragm, and actuating means intermittently in operative engagement with said diaphragm vibrating member, said member constituting an energy reservoir having capacity to produce continuous vibration of the diaphragm during intermittent movement of said actuating means of sufficient frequency to generate a continuous note.

4. In a device of the character described, a diaphragm, and means for vibrating the diaphragm, comprising energy transmitting means, and energy receiving and imparting means of large mass receiving the energy from the transmitting means, and adapted to resist the influence of irregularly applied energy and to move with gradually increasing and decreasing velocity.

5. In a signaling device, in combination, a casing, an elastic diaphragm, a wear-piece at its center, a shaft approximately parallel to the diaphragm, a weighted rotary member on said shaft at approximately right angles to the shaft and diaphragm and provided with projections at its periphery adapted to engage said wear-piece and to vibrate the diaphragm, a sleeve loosely mounted on said shaft, one-direction connecting means between said sleeve and said shaft, a cord attached to said sleeve and wound thereon adapted to directly apply the operator power to rotate said sleeve, shaft and weighted rotary member when the sleeve is operatively connected to the shaft, and a spring element having one end attached to the sleeve and its other end to the casing for moving the sleeve idly in the opposite direction while the weighted rotary member continues its motion in the first-named direction by virtue of its inertia.

[Claims 6 to 13 not printed in the Gazette.]

1,207,835. SACK-JIGGER. ADOLPH BARNEDT and GEORGE FLOWER, Bickleton, Wash. Filed July 29, 1916. Serial No. 112,136. (Cl. 83—26.)



1. A sack jigging device comprising a box like frame; a shaft rotatably mounted transversely within said frame; cams upon said shaft; covers pivotally mounted upon one side of said frame; spring buffers mounted within said frame and adapted to coact with said covers; cam seats upon said covers adapted to coact with said cams to impart a reciprocating motion to said covers; means whereby said covers may be rearwardly movable to allow for accidental reversal of motion of said shaft; and means to drive said shaft from some source of power outside of said frame.

2. In a sack jigger comprising a frame, a vertically reciprocating member upon said frame, and means to operate said reciprocating member; means whereby said reciprocating member may be rearwardly movable in case said operating means is accidentally reversed in direction of motion.

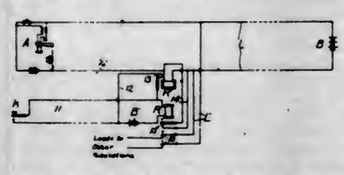
3. In a sack jigging device having a frame, a reciprocating member, and a cam shaft coacting with said reciprocating member; a hinge adapted to pivotally mount said reciprocating member upon said frame and to allow said reciprocating member a rearward motion upon reversal of motion of said shaft, said hinge comprising a member secured to said frame, a member secured to said reciprocating member, and a member intermediate said previously mentioned hinge members and pivotally attached to each thereof.

4. In a sack jigging device; a frame; horizontally disposed covers pivotally attached at one edge thereof to said frame; a spring buffer within said frame and adapted to contact with said covers at the edge thereof opposite that pivotally attached to said frame; and means within said frame to impart to said covers a vertical reciprocating motion.

5. In a sack jigging device; a frame; covers pivotally attached to said frame; saddles upon said covers; spring buffers within said frame; a shaft journaled within said frame; cams upon said shaft; and means to operate said shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,207,836. CONNECTING SYSTEM FOR TELEPHONE-STATIONS. LEON D. BARROWS, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Dec. 20, 1915. Serial No. 67,862. (Cl. 179—33.)



1. A plurality of associated telephone stations, a line for connecting said stations to another station, and a plurality of electro-mechanisms belonging to one of the associated stations and being adapted to vary the connection of such stations to the line, one of the electro-mechanisms being energized over the line and the other locally.

2. A plurality of associated telephone stations, a line for connecting said stations to another station, and a plurality of electro-mechanisms belonging to one of the associated stations and being adapted to vary the connection of such stations to the line, one of the electro-mechanisms being energized over the line and the other locally, the first energized electro-mechanism controlling the operation of the other.

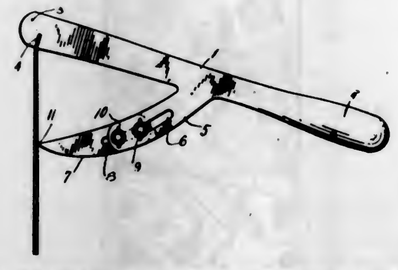
3. A plurality of associated telephone stations, a line for connecting said stations to another station, and a plurality of electro-mechanisms exclusively belonging to one of the associated stations and being adapted to vary the connection of such stations to the line, and manually operable means at the station for controlling one of the electro-mechanisms, said electro-mechanism when thus energized controlling the operation of another.

4. In a telephone system, a plurality of substations, a trunk line connecting the substations with another station, a relay belonging to one of the substations and having its winding connected to the trunk, another relay, and a local circuit for the last named relay including contacts of the trunk relay, said relays being provided with contacts for varying the connection of the substations with the trunk.

5. In a telephone system, a plurality of substations, a trunk line connecting the substations with another station, a relay belonging to one of the substations and having its winding connected to the trunk, another relay, a local circuit for the last named relay including contacts of the trunk relay, said relays being provided with contacts for varying the connection of the substations with the trunk, and a manually operable contact device included in the circuit with one of the relays.

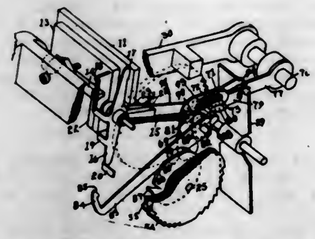
[Claims 6 to 18 not printed in the Gazette.]

1,207,837. SAW-TOOTH SET. PAUL H. BARTZ, Altura, Minn. Filed Feb. 2, 1915. Serial No. 5,735. (Cl. 76—71.)



A saw tooth set consisting of a shank having a handle on one end thereof and a slotted head on the other end thereof adapted to engage a tooth of a saw, an arcuate arm formed integrally with and extending outwardly and forwardly from said shank, and having a hole and an arcuate slot therein, a slide having a pointed end and a slot and a hole therein, a thumb screw passing through the slot in the arm and the hole in the slide and a second thumb screw passing through the slot in the slide and the hole in the arm constructed and arranged to clamp the said arm and slide together in adjusted positions.

1,207,838. NON-INTERFERENCE SIGNAL-BOX. CLARENCE E. BEACH and LEE J. VOORHEES, Binghamton, N. Y., assignors, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company, a Corporation of New York. Filed Feb. 23, 1915. Serial No. 9,990. (Cl. 177—361.)



1. A signaling train, signaling contacts operable thereby, a noninterference magnet, an armature therefor, disabling means controlled by said armature constantly tending to act to render said contacts unresponsive to the running of the train, an actuating spring, one end of which is connected to said means, and the other end to the armature so that when the signaling contacts are disabled by said means the force applied to said armature by said spring will be substantially less than when said signaling contacts are free to act.

2. A signaling train; signaling contacts operable thereby; a noninterference magnet; an armature therefor; disabling means controlled by said armature adapted to render said contacts unresponsive to the running of the train; an actuating spring, one end of which is connected to said means, and the other end to the armature; and means operated by the train in running for moving the disabling means to adjust said spring to a maximum tension at predetermined intervals during the running of the train.

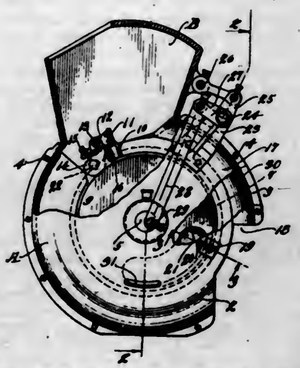
3. A signaling train; signaling contacts operable thereby; a noninterference magnet; an armature therefor; disabling means controlled by said armature adapted to render said contacts unresponsive to the running of the train; an actuating spring, one end of which is connected to said means, and the other end to the armature; means operated by the train in running for moving said disabling means to adjust said spring to a maximum tension at predetermined intervals during the running of the train; and means governed by the position of the armature for retaining said maximum tension while the armature remains in attracted position.

4. A signaling train; signaling contacts operable thereby; a noninterference magnet; an armature therefor; disabling means controlled by said armature adapted to render said contacts unresponsive to the running of the train; an actuating spring, one end of which is connected to said means, and the other end to the armature; means operated by the train in running for moving the disabling means to adjust said spring to a maximum tension at predetermined intervals during the running of the train; and means governed by the position of the armature for retaining said maximum tension while the armature remains in attracted position, and for decreasing said tension upon retraction of the armature.

5. A signaling train; signaling contacts operable thereby; a noninterference magnet; an armature therefor; disabling means controlled by said armature adapted to render said contacts unresponsive to the running of the train when in one position, and adapted to assume a second position rendering said contacts responsive to the running of the train; an actuating spring, one end of which is connected to said means, and the other end to the armature, and means governed by the position of the disabling means for suitably varying the tension of said spring.

[Claims 6 to 45 not printed in the Gazette.]

1,207,839. MOLDING APPARATUS FOR FOUNDING. ELMER O. BEARDSLEY and WALTER F. PIPER, Klamath Falls, Oreg. Filed Dec. 28, 1915. Serial No. 69,058. (Cl. 22—36.)



1. In molding apparatus for founding, the combination with a sand supply means, of a continually rotating

member associated therewith and having a sand engaging element to receive and project the sand from the supply means, a casing substantially conforming in cross sectional area to and surrounding the engaging element to the point of discharge of the sand for controlling the quantity of said sand projected by the same and retaining the sand on the engaging element against centrifugal displacement, and means for rotating said rotating member.

2. In molding apparatus for founding, the combination with sand supply means, of rotatable means associated therewith for extracting sand therefrom in predetermined quantities and having thereon a radially yieldable sand engaging element, and means for operating said extracting means.

3. In molding apparatus for founding, the combination with sand supply means, of means associated therewith for forcibly projecting sand therefrom, in predetermined quantities, consisting of a contractible sand engaging member comprising relatively movable sections, and means for operating said projecting means.

4. In molding apparatus for founding, the combination with sand supply means, of means associated therewith for forcibly projecting sand therefrom in predetermined quantities consisting of a sand engaging member comprising relatively rigid and yieldable sections, and means for varying the capacity of the engaging member.

5. In molding apparatus for founding, the combination with sand supply means, of means associated therewith for projecting sand therefrom in predetermined quantities comprising a revoluble member having a sectional sand engaging blade, and means coöperating therewith for controlling the operative area of the blade.

[Claims 6 to 18 not printed in the Gazette.]

1,207,840. PROCESS OF TREATING SUGAR-BEETS AND THE PRODUCT DERIVED THEREFROM. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Dec. 17, 1914. Serial No. 877,629. (Cl. 127—17.)

1. The process of treating sugar beets, which consists in first dividing the beets, then subjecting the divided beets to the action of moving air currents having a temperature sufficient to gradually extract the required percentage of water and to coagulate all coagulable materials, but insufficient to destroy the enzyms present or rupture the cell walls or render such walls incapable of permitting osmosis when the dried product is subsequently treated in the diffusion process.

2. The process of treating sugar beets, which consists in first dividing the beets, then subjecting the divided beets to the action of moving air currents of large volume heated to a temperature sufficient to gradually extract approximately 90% of the normally contained water and to coagulate all coagulable materials, but insufficient to sterilize the cossettes or rupture the cell walls or render such walls incapable of permitting osmosis when the dried product is subsequently treated in the diffusion process.

3. The process of treating sugar beets, which consists in first dividing the beets, then subjecting the divided beets to the action of moving air currents having a temperature of approximately 170° Fahrenheit and continued sufficiently long to gradually extract approximately 90% of the normally contained water and to coagulate all coagulable materials and not to rupture the cell walls or render such walls incapable of permitting osmosis when the dried product is subsequently treated in the diffusion process.

4. The process of treating sugar beets, which consists in first dividing the beets, then subjecting the divided beets to the action of moving air currents of large volume heated to a temperature to gradually extract 90% of the contained water and to coagulate the coagulable materials, but insufficient to rupture the cell walls of the beets or destroy the enzyms present, and finally incorporating with the dried product, a material which will prevent fermentation or mold taking place in such dried product.

5. The process of treating sugar beets which consists in first dividing the beets, then extracting the required percentage of water, and simultaneously coagulating all coagulable materials contained in the beets and without destroying the enzyms present or rupturing the cell walls or rendering such walls incapable of permitting osmosis when the dried product is subsequently treated in the diffusion process.

[Claims 6 to 11 not printed in the Gazette.]

1,207,841. FIBER PICTURE AND PROCESS OF MAKING THE SAME. CHARLES S. BENTLEY, Plattsburg, N. Y. Filed Feb. 17, 1916. Serial No. 78,968. (Cl. 41—10.)



1. A picture formed of portions of colored fiber placed together in proper relation to each other relatively to their colors to form the picture; and means for holding said portions of colored fiber in the desired relation to each other.

2. The process of forming pictures by placing together portions of variously colored fibrous material in proper relation to each other relatively to their colors to produce the pictures desired.

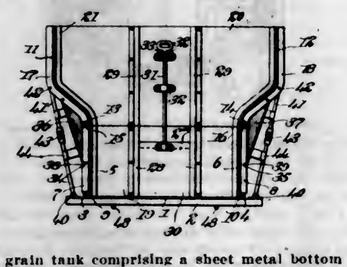
3. The process of forming pictures by placing together portions of variously colored fibrous material in proper relation to each other relatively to their colors to produce the pictures desired, and superimposing upon the surface of the fiber thus arranged a plate of transparent material pressed into engagement with said surface to bring the surface of the picture into an even plane coincident with the under surface of the transparent plate.

4. A specimen mount comprising a fibrous backing; and a holder for said backing, said backing being formed of portions of variously colored fiber placed together in proper relation to each other relatively to their colors to form a picture illustrative of the environment and scenery of the natural habitat of the specimen; said holder having a transparent top adapted to be pressed into engagement with the colored fiber forming the picture.

1,207,842. GRAIN-TANK. JOHN A. BERGREN, Lake Park, Minn., assignor of one-half to Herman S. Wilson, Lake Park, Minn. Filed May 9, 1914. Serial No. 837,561. (Cl. 21—7.)

1. A grain tank comprising a bottom member, side members mounted on said bottom member to be detachable therefrom, extension side members loosely and detachably mounted on said side members, and detachable means connected between the extension side members and the bottom member to have connection with the side members and to thus hold the side members and extension side members rigidly connected with said bottom while at the same time allowing removal of the side and extension side members when the connecting means is detached.

2. A grain tank comprising a bottom provided at its sides with portions of an interfitting connecting seam, side members provided with mating portions of the interlocking seam on their lower edges to be fitted in conjunction with the bottom portion and at their upper edges having portions of a second connecting seam, extension side members provided on their lower edges with mating portions of interlocking connecting seams to be fitted with the second mentioned seams of the side members, end gates mounted in interfitted relation between the side members and extension side members, and clamping rods connected between the bottom member and the extension sides to have connection with the side members and to thus secure the side members and said extension side members rigidly in place and to hold the end gates in the proper relation, while at the same time being readily detachable to allow removal of the side and extension side members.



3. A grain tank comprising a sheet metal bottom member provided with upturned flanges at the edges thereof, side members provided with flanges to be received in interlocking relation with the flanges of the bottom member to be detachably mounted thereon, extension side members mounted on the sides of the body as hereinbefore set forth, and means connected between the body portion and the extension side members to hold said extension side members and the sides rigidly connected with the bottom member.

4. A grain tank comprising a bottom provided with one member of an interlocking connection formed along each side edge thereof, side members provided with the fitting member of the interlocking connection to be mounted upon said body and to be detachable therefrom, extension side members adapted to rest on the upper edges of said side members, brackets to engage between the side of the body and said extension side members, and means connected between said extension sides and the body to engage with said bracket to hold said extension sides and the side members rigidly connected in place.

5. A grain tank comprising a bottom provided at its side edges with one member of an interlocking connection, side members provided with the interfitting member of the interlocking connection to be connected along the sides of said body in an interlocking and detachable relation, extension side members mounted on the sides of said body portion, brackets engaged between said extension side members and the sides of said body, and adjustable side braces connected between the body portion and said extension sides to coöperate with said brackets to hold the extension side members rigidly connected upon the sides of the tank.

[Claims 6 to 10 not printed in the Gazette.]

1,207,843. METHOD OF MAKING LUBRICANTS AND PRODUCTS THEREOF. CHRISTOPHER H. BIERBAUM, Buffalo, N. Y. Filed Apr. 7, 1915. Serial No. 19,760. (Cl. 87—9.)

1. The herein described method of making a lubricant which consists in mixing a wet mass of pulverized graphite with petrolene and agitating said mixture.

2. The herein described method of making a lubricant which consists in mixing a wet mass of pulverized graphite with petrolene, agitating said mixture and diluting the mixture with oil and a solution of petrolene.

3. As a new article of manufacture, a substantially non-aqueous lubricant-mixture consisting essentially of graphite and petrolene.

4. As a new article of manufacture, a substantially non-aqueous lubricant-mixture consisting of graphite freed from impurities and petrolene.

5. As a new article of manufacture, a substantially non-aqueous lubricant-mixture consisting of graphite, petrolene and oil.

1,207,844. LINK JEWELRY. JULIUS BONNER, Brooklyn, N. Y. Filed Feb. 9, 1916. Serial No. 77,114. (Cl. 59—80.)



1. In an article of jewelry the combination with a pair of links, of a coupling member with meeting portions connecting the links, reinforcing means including a composition arranged at the meeting portions for uniting the coupling.

2. In an article of jewelry the combination with a pair of links each having a bar, of a coupling member with meeting portions connecting the bars, and a reinforcing member including a metallic composition disposed at the meeting portions for uniting the coupling.

3. In an article of jewelry the combination with a pair of links each having a bar, of a coupling member with meeting portions extending about the bars, and a reinforcing member including a fusible metallic composition disposed at the meeting portions for uniting the coupling.

4. In an article of jewelry the combination with a pair of links each having a bar, of a coupling member with meeting portions looped about the bars, a reinforcing member including a fusible metallic composition disposed at the meeting portions for uniting the coupling.

5. In an article of jewelry the combination with a pair of links each having a slot and bar, of a coupling member having meeting portions passing through two oppositely located slots and looped about the bars, the coupling having a projecting end, and a reinforcing member including a fusible metallic composition disposed on the projecting end at the meeting portions for uniting the coupling.

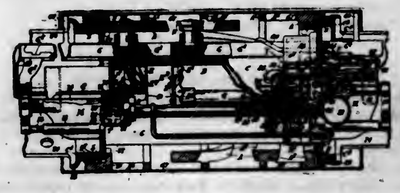
[Claim 6 not printed in the Gazette.]

1,207,845. ACID-PROOF COATING FOR METALS. EDWARD B. BONSTEIN, West Pittston, Pa. Filed Sept. 1, 1914. Serial No. 859,709. (Cl. 134—13.)

1. An acid-proof compound for coating metals, comprising solely rosin, alcohol and oil of turpentine in substantially the proportions described.

2. An acid-proof compound for coating metals, comprising rosin, alcohol, and oil of turpentine in the proportions of substantially eleven to fifteen pounds of rosin, seven quarts of alcohol, and one quart of oil of turpentine.

1,207,846. ROTARY AND RECIPROCATING INTERNAL-COMBUSTION ENGINE. ROBERT DANIEL BRADFORD, London, England. Filed Nov. 27, 1914. Serial No. 874,249. (Cl. 123—51.)



1. In an internal combustion engine, in combination, a stationary cylinder, a pair of pistons adapted to recipro-

cate therein, hollow piston rods on said pistons, a cam roller carried by each piston rod, a cam-member adapted to rotate about said stationary cylinder, means for supporting said cam-member, a pair of cam-grooves in said cam-member adapted to engage the cam-rollers each cam groove comprising successively a forward helical part of proportional axial length 12, a return helical part of proportional axial length 11, a forward helical part of proportional axial length 1, a return helical part of proportional axial length 2, a cylindrical part connecting the first of said helical parts and the last of said helical parts, and means for operating the said pistons, substantially as described.

2. In an internal combustion engine, in combination a stationary cylinder, a pair of pistons adapted to reciprocate therein, piston rods on said pistons, axial passages through said pistons and piston rods, non-return valves opening said passages on the plane sides of the piston, side to side passages leading from the plane sides of the pistons to the rod sides thereof, non-return valves opening said side to side passages to the rod sides of said pistons, cam-rollers carried by said pistons and piston rods, a cam-member adapted to rotate about said stationary cylinder, a pair of irregular zig-zag cam grooves in said cam-member adapted to engage said cam-rollers, means for supporting said cam-member and means for operating the said pistons, substantially as described.

3. In an internal combustion engine, in combination, a stationary cylinder, a pair of pistons having inclined corrugated rod-side peripheral portions adapted to reciprocate therein, piston rods on said pistons, axial passages through said pistons and piston rods, inwardly opening non-return valves controlling said axial passages, passages leading from the plane sides of the piston to the rod sides thereof and controlled by the corrugated peripheral piston portions, a cam-member adapted to rotate about said stationary cylinder, a pair of irregular zig-zag cam grooves in said cam-member adapted to engage said cam-rollers, means for supporting said cam-member and means for operating said pistons, substantially as described.

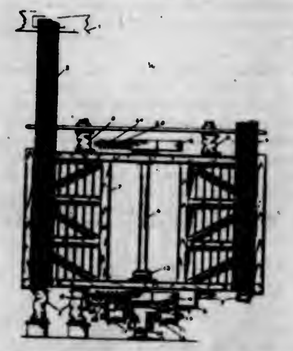
4. In an internal combustion engine, in combination, a stationary cylinder, a pair of pistons adapted to reciprocate therein, piston rods on said pistons, axial passages through said pistons and piston rods, non-return valves opening said passages on the plane side of the pistons, annular passages leading from the plane sides of the piston to the rod sides thereof, annular non-return valves opening said annular passages to the rod sides of said pistons, cam-rollers carried by said piston rods, a cam-member adapted to rotate about said stationary cylinder, a pair of irregular zig-zag cam-grooves in said cam-member adapted to engage the said cam-rollers, means for supporting the said cam-member and means for operating the said pistons, substantially as described.

5. In an internal combustion engine, in combination, a stationary cylinder, movable cylinder heads therein, seats in said cylinder for said cylinder heads, a pair of pistons adapted to work in said cylinders, hollow piston rods on said pistons, cam-rollers carried by the piston-rods, a cam-member adapted to rotate about the said stationary cylinder, a pair of irregular zig-zag cam-grooves in said cam-member adapted to engage said cam-rollers, internal teeth on said cam-member adapted to intermittently engage means for opening and closing said cylinder heads at each end of the cylinder alternately, means for supporting said cam-member and means for operating said pistons, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,207,847. SELF-BALANCING SIFTER. ALLEN C. BRANTINGHAM, Toledo, Ohio, assignor to Nordyke & Marmon Company, Indianapolis, Ind., a Corporation of Indiana. Filed Dec. 20, 1915. Serial No. 67,715. (Cl. 83—38.)

1. A freely supported body, and driving means for the body including a shaft, a fly-weight on the shaft adjacent the body, a pulley on said shaft concentrically mounted as to the body, said pulley being disposed on the side of the fly-weight away from the body, and a shaft engaging frame extending from the body to the shaft beyond the pulley from the body.



2. A freely supported body and driving means for the body including a fly-weight, a rotary shaft concentrically mounted as to the body, a pulley on the same side of the fly-weight and body concentrically mounted on the shaft, a driving belt for the pulley and guiding means for the belt axially spaced from the pulley and movable relatively to the body, said guiding means engaging the shaft on the side of the pulley remote from the fly-weight.

3. A body supported for gyration and driving means for the body including a fly-weight, a pulley on the same side of the fly-weight and body, and normally gyratable with the body, a belt for the pulley, and guiding means for the belt movable relatively to the body, said guiding means engaging the shaft on the side of the pulley remote from the flyweight.

4. A body supported for gyration and driving means for the body including a pulley normally gyratable with the body, a belt for the pulley, and guiding means for the belt automatically movable relatively to the body, said guiding means carried by the body.

5. A body supported for gyration and means for gyrating the body including a member coacting with the body and having an axis of rotation, a support below the body for the member, an adjustable weight rotatable with the member and movable to a plurality of positions as to said member, and a single adjustable compression spring to resist weight movement, a portion of said weight being disposed for opposite control action at one position to its control action at another position.

[Claims 6 to 14 not printed in the Gazette.]

1,207,848. PROCESS OF CARBONIZING AND HARDENING METAL. NELSON H. BRAY, San Francisco, Cal. Filed Apr. 29, 1914. Serial No. 835,298. (Cl. 148—26.)

1. The process of carbonizing metals which includes heating the metal to a highly absorbent degree by the direct application of an acetylene flame containing an excess of acetylene.

2. The process of carbonizing metals which includes heating the metal to a highly absorbent degree by the direct application of an acetylene flame.

3. In the process of hardening metal by carbonizing, the step which consists in heating the metal to a highly absorbent degree by the direct application of an oxy-acetylene flame.

4. The process of treating metal, which includes the direct application of the oxy-acetylene flame, and applying carbonaceous elements to the metal during its most absorbent temperature.

5. The process of treating metal, which includes heating the metal to a high degree, by the direct application of an oxy-acetylene flame, and applying cyanid of potassium, and a solution of salt and copper sulfate, during the period of high temperature.

[Claims 6 to 8 not printed in the Gazette.]

1,207,849. SAFETY-GOGGLES. HERMAN J. BRENNECKE, Chicago, Ill. Filed July 14, 1916. Serial No. 109,220. (Cl. 88—41.)



1. A pair of goggle lenses consisting of non-metallic disks having openings for lens frames cut therein and forming expansible open rings, and lens frames having lenses therein, said lens frames being arranged to be held in said open rings.

2. A pair of lenses consisting of a pair of fiber disks connected together and forming main frames, said main frames having meeting ends normally meeting and forming expansible rings which may be opened to insert therein lens-carrying frames, and lens-carrying frames held in said rings.

3. A pair of goggles consisting of main frames connected to move angularly relatively to each other and forming split rings which may be expanded to engage and hold lens-carrying frames, and lens-carrying frames consisting of grooved rings which are expansible to engage and hold lenses.

4. The combination in a pair of goggles of split ring main frames, and split ring lens frames, the former engaging the latter and the latter adapted to engage lenses, and means for preventing relative movement of lens frames and lenses, and main frames and lens frames.

5. A pair of goggles consisting of a pair of pivoted together frame members having lens-frame portions which are substantially split rings, split lens holders or lens frames having means thereon to support lenses therein, and means for holding the first mentioned split rings closed against accidental expansion.

1,207,850. SCREEN-FRAME. JULIEN A. BRIED, Oakland, Cal. Filed Aug. 23, 1915. Serial No. 46,849. (Cl. 156—14.)



1. Means for tensioning a fabric sheet comprising a toggle plate adapted to engage at its outer edge with a fabric sheet; and means for supporting said plate at its inner edge against the tension developed in said sheet when the said plate is forced toward a plane parallel with the said sheet.

2. In a frame for tensioning a fabric sheet, a moving strut plate fulcrumed along its inner edge to the frame and adapted for engagement at its opposite edge with said sheet and arranged to carry the same outwardly when the said moving strut plate is forced toward the plane of the frame.

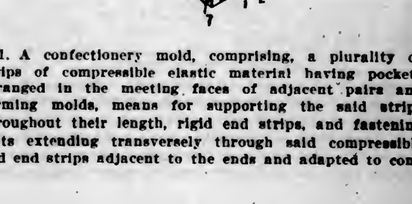
3. In a frame for tensioning a screen sheet, a tensioning member consisting of a plate, on one or more sides of the frame, with its inner edge supported by the frame and the other edge engaged with a screen sheet; the said plate being movable from a position at an angle with, to a position approximately in plane with the frame to carry the engaged edge of the screen sheet outwardly and thereby cause tension in said screen sheet.

4. In a screen frame, means for tensioning a screen sheet comprising a long narrow plate form toggle member fulcrumed to the frame at its inner edge and adapted to engage at its free edge with a screen sheet and arranged to carry the engaged portion of the said sheet outwardly when forced from a position at an angle with, toward the plane of the screen frame.

5. A screen frame comprising a molding, a toggle plate longitudinal with and fulcrumed at its inner edge to said molding and a separable side on said molding adapted to cover the toggle plate when the same is placed approximately into the plane of the frame.

[Claim 6 not printed in the Gazette.]

1,207,851. SUBMARINE VESSEL. JESSE C. BUSBEE, Tampa, Fla. Filed Mar. 4, 1916. Serial No. 82,066. (Cl. 114—16.4.)



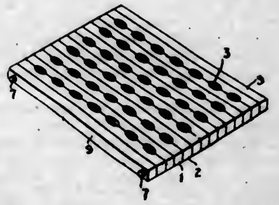
1. In a submersible, a keel comprising ballast units adapted to releasably inter-engage one another, means for holding the units in place, and means for releasing the units independently or as a whole.

2. In a submersible, a keel comprising detachable units, attaching means carried by each of said units, means on the vessel for releasably engaging the unit attaching means, and means adapted to operate the engaging means to release the units in the desired proportion.

3. In a submersible, a keel comprising detachable units, attaching means carried by each of said units, said means comprising pins, rollers spaced apart on the pins, means on the vessel for releasably engaging the unit attaching means, and means adapted to operate the engaging means to release the units in the desired proportion.

4. In a submersible, a keel comprising detachable units, means for removably securing said units to the vessel, a plurality of transverse levers on said means, longitudinally extending rods on said levers, and means for operating the rods and levers to cause the units to be detached in proper proportion.

1,207,852. CONFECTIONERY-MOLD. REMY CHARLES BURGER, Toronto, Ontario, Canada. Filed Oct. 30, 1914. Serial No. 869,373. (Cl. 107—19.)



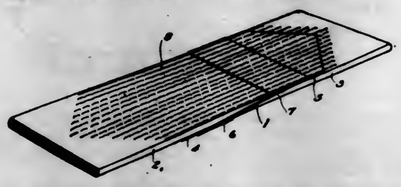
1. A confectionery mold, comprising, a plurality of strips of compressible elastic material having pockets arranged in the meeting faces of adjacent pairs and forming molds, means for supporting the said strips throughout their length, rigid end strips, and fastening bolts extending transversely through said compressible and end strips adjacent to the ends and adapted to com-

press and bind the mold sections together during the molding.

2. A confectionery mold, comprising, a plurality of strips of flexible material having pockets arranged in the meeting faces of adjacent pairs and forming molds, said strips having transverse orifices therethrough adjacent to the ends and arranged in alinement, ferrules arranged within said orifices of a length slightly shorter than the width of the strip, binding bolts extending through the ferrules in said strips, and solid end bars adapted to be clamped by said binding bolts against said mold sections to hold them together in a state of compression during the molding.

3. A confectionery mold, comprising, a plurality of flexible strips, each having pockets formed in the adjacent faces and registering to form molds, each of said strips having a plurality of sockets extending along one face thereof and the adjacent strip having projecting pins adapted to enter said sockets to maintain the flexible strips in a common plane, and means for temporarily compressing and binding said strips together during molding.

1,207,853. METHOD OF SPLICING BELTING MATERIAL. ERNEST L. BURRELL, Chicago, Ill. Filed Jan. 2, 1915. Serial No. 179. (Cl. 24—38.)



1. The improved method of splicing belting material which consists in overlapping the ends of the belting and inserting a sheet of fibrous material between the overlapped ends of the belting material and fastening these together, said sheet being extended beyond said ends of the belting and the ends of said sheet being fastened to the opposite faces of said belting material.

2. The improved method of splicing belting material which consists in overlapping the ends of the belting, inserting between said overlapped ends a sheet of fibrous material which extends beyond the ends of the belting, and then stitching said ends and sheet together by means of threads running lengthwise of the belting and extending beyond the ends of said sheet.

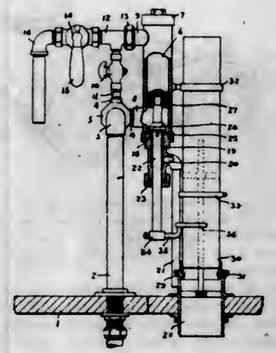
3. The improved method of splicing belting material, which consists in tapering the ends that are to be overlapped, cementing between said ends a sheet of thin material having fibers extending lengthwise of the belt, said sheet being extended beyond said overlapped ends and stitching said sheet and overlapped ends together.

4. The improved method of splicing belting material which consists in tapering the ends of the belting, overlapping such tapered ends, inserting between them a sheet of fibrous material and fastening said ends and sheet together, and securing other strips of thin material upon the faces of said belting material to cover the ends thereof.

5. The improved method of splicing belting material which consists in overlapping the ends of the belting, inserting between said overlapping ends a sheet of fibrous material having the ends thereof pointed, said sheet being extended beyond the ends of the belting, and the ends of said sheet being fastened to the opposite faces of said belting material.

1,207,854. FLUSH-TANK CONTROL. WILLIAM J. CALLOW, Toronto, Ontario, Canada. Filed Feb. 24, 1916. Serial No. 80,131. (Cl. 4—5.)

1. In a flush tank control, the combination with the pressure water supply to the tank, a valve closing said supply and a valve for releasing the water from the tank, of a hydraulically operated member operated by the pressure of water from the supply, means connected to said hydraulic member and operatively engaging the water supply controlling valve and said release valve and adapted to successively open the water supply valve and said release valve, and manually operated means for controlling said hydraulically operated means.



2. In a flush tank control, the combination with the pressure water supply to the tank, a valve closing said supply and a valve for releasing the water from the tank, of a hydraulically operated member operated by the pressure of water from the supply and operatively connected to the water supply controlling valve, an arm secured to said hydraulically operated member adapted to engage and lift said release valve following the opening of the water supply valve and to close said release valve prior to the closing of the water supply valve, and means for controlling said hydraulically operated member.

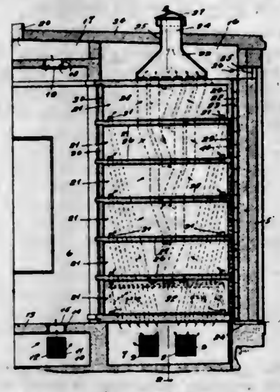
3. In a flush tank control, the combination with the water supply and water outlet from the tank, of a valve closing the outlet, a reciprocating member adapted to lift said valve to release the water from the tank, hydraulic operated means connected with the water supply for operating the said reciprocating member to lift the valve, means for overbalancing the lifting hydraulic pressure on said reciprocating member and to allow the closing of the release valve, and means operated by said reciprocating member for controlling the inflow of water to the tank.

4. In a flush tank control, the combination with the water supply, of a cylinder having ports at each end connected with the water supply, a piston operating in said cylinder between said ports, a piston rod secured to said piston, an outlet to the tank, a valve closing said outlet, means secured to said piston rod for lifting said outlet valve, a valve carried by said piston rod for closing the water supply, and means for controlling the pressure at the outer end of the cylinder to effect the return movement of the said piston to allow the closing of the outlet valve and to close the water supply to the tank.

5. In a flush tank control, the combination with the water supply, of a cylinder having ports at each end connected with the water supply, means interposed between one port and the water supply for regulating the flow of water to the corresponding end of the cylinder, manually operated means connected with said port for releasing the pressure in the said end of the cylinder, a piston operating in said cylinder, a piston rod connected to said piston, a valve seat surrounding said piston rod, a valve on said piston rod adapted to engage said valve seat to close the water supply to the tank, an outlet valve adapted to release the water from the tank, and means carried by said piston rod for operating said outlet valve.

[Claims 6 to 12 not printed in the Gazette.]

1,207,855. MAUSOLEUM. WILLIAM P. CANTWELL, Lima, Ohio. Filed Jan. 19, 1916. Serial No. 72,978. (Cl. 72—7.)



1. In a mausoleum of the character described, a building casing, a bottom air chamber arranged in the lower portion thereof, a top air chamber arranged in the upper portion thereof, a set of noncommunicating crypts arranged between the bottom air chamber and the top air chamber, a ventilator arranged within the top air chamber and discharging exteriorly thereof to the atmosphere, means providing individual air inlets for each crypt, the air inlets leading into each crypt near its bottom and near its opposite ends upon one side thereof and having communication with the bottom air chamber, and means providing an individual air outlet for each crypt, the air outlet leading into the opposite side of the crypt near its top and spaced a substantial distance from the opposite ends thereof and having communication with the interior of the ventilator.

2. In a mausoleum of the character described, a building casing, a set of crypts arranged therein, a crypt bottom air chamber disposed beneath the crypts and having separate means of communication with each crypt, a crypt top air chamber disposed above the crypts and having no communication therewith and having communication with the atmosphere, an outlet conduit having no communication with the crypt top air chamber and having separate means of communication with each crypt, a corridor formed within the building casing to provide access to the crypts, a corridor bottom air chamber disposed beneath the corridor and having no communication with the crypt bottom air chamber and having communication with the atmosphere and also having communication with the corridor, and a corridor top air chamber having no communication with the crypt top air chamber and having communication with the atmosphere and having communication with the corridor.

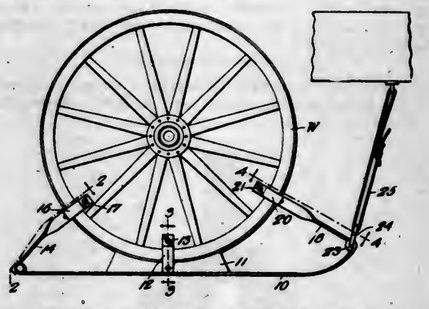
3. In a mausoleum of the character described, a building casing, a bottom air chamber arranged in the lower portion thereof, a top air chamber arranged in the upper portion thereof, a set of non-communicating crypts arranged between the bottom air chamber and top air chamber, a ventilator arranged within the top air chamber and having no communication therewith and discharging exteriorly thereof to the atmosphere, means providing an individual air inlet flue for each crypt having communication with the bottom air chamber, and means providing an individual air outlet flue for each crypt having communication with the interior of the ventilator.

4. In a mausoleum of the character described, a building casing, a bottom air chamber arranged in the lower portion thereof, a top air chamber arranged in the upper portion thereof, a set of non-communicating crypts arranged between the bottom air chamber and the top air chamber, a ventilator arranged within the top air chamber and having no communication therewith and discharging exteriorly thereof to the atmosphere, means providing an individual air inlet flue for each crypt which has communication with the bottom air chamber, means providing an individual air outlet flue for each crypt which has communication with the interior of the ventilator, and a set of ventilating conduits arranged between the exterior of the crypts and the adjacent wall of the building casing and communicating near their ends with the atmosphere.

5. In a mausoleum of the character described, a building casing having a corridor, a corridor bottom air chamber arranged beneath the corridor and having means of communication therewith, a corridor top air chamber arranged above the corridor and having means of communication therewith, a bottom crypt air chamber arranged adjacent the corridor bottom air chamber and having no communication therewith, a crypt top air chamber arranged adjacent the corridor top air chamber and having no communication therewith, a set of non-communicating crypts arranged between the crypt bottom and top air chambers; a ventilator arranged between the crypt top air chamber and having no communication therewith and discharging exteriorly thereof to the atmosphere, means providing an individual air inlet flue for each crypt which has communication with the crypt bottom air chamber, means providing an individual air outlet flue for each crypt which has communication with the interior of the ventilator, and a set of ventilating conduits arranged between the exterior of the crypts and the adjacent wall of the building casing, and communicating near their ends with the atmosphere.

[Claim 6 not printed in the Gazette.]

1,207,856. DETACHABLE SLEIGH-RUNNER. ERNEST T. CARLISLE, Livingston, Mont. Filed June 23, 1916. Serial No. 105,429. (Cl. 21—96.)

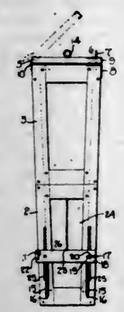


In a device of the class described, a sleigh runner, wheel securing means on said runner, hinge eyes formed on the front end of the runner, a front brace provided with a hinge eye fitting between the eyes on the front of the runner, clamping means carried by the front brace for attachment to the rim of a wheel and a link having one side extending through the hinge eyes and adapted to receive a brace strap for attachment of the front end of the runner to the body of a vehicle.

1,207,857. GARMENT-STRETCHER. MAGNUS CARLSON, Joaquin, Tex. Filed Aug. 16, 1915. Serial No. 45,818. (Cl. 223—19.)

A garment stretcher comprising a substantially rectangular frame, a garment clamp hingedly mounted on one end face of the frame, means for holding the garment clamp in coactive relation to the adjacent end of the frame, a garment clamp slidably mounted upon the face of the frame adjacent the other end comprising two sections hingedly connected to each other, studs projecting from the under face of the garment clamp, the side members of the frame being longitudinally slotted for engagement with the studs, means for holding the sections in

clamping engagement with the garment, springs urging the clamp in a direction away from the first-named clamp,



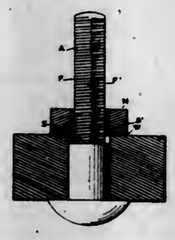
and a chain for limiting the movement of the last-named clamp under the action of the springs.

1,207,858. COMPOSITION OF MATTER TO BE USED FOR PRESERVING GRAPHITE CRUCIBLES. JAMES B. CARMICHAEL, Seattle, Wash., assignor of one-half to Hine J. Harper, Seattle, Wash. Filed Jan. 28, 1916. Serial No. 74,941. (Cl. 134—45.)

1. The herein-described composition of matter consisting of pulverized glass, pulverized pumice and a saturated solution of sodium silicate in substantially the proportions specified.

2. The herein-described composition of matter for preserving graphite crucibles, consisting of pulverized glass eighteen ounces, pulverized pumice nine ounces, and a saturated solution of sodium silicate one quart, substantially as described.

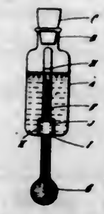
1,207,859. NUT-LOCKING WASHER. AMOS H. CARPENTER, Stockton, Cal. Filed Nov. 12, 1912. Serial No. 730,892. (Cl. 151—2.)



1. In a nut locking washer, the combination of a bolt having an angular shank, a nut for the reception of the bolt, and a washer the opening of which has a side conformed to engage the angular shank of the bolt to prevent it moving thereon, the washer having near its outer edge a portion bent out of its plane on the side adjacent to the nut to engage a corner of the nut, and being at a greater distance from the center of the nut than the distance of the outer edge therefrom, but less than the distance of the corner of the nut therefrom.

2. The combination of a nut, a carriage bolt having an angular shank, a flexible washer on said bolt having at its inner edge opposite portions bent out of plane on the side remote from the nut and adapted to engage the bottom of the thread of the bolt, when pressed by the nut into the plane of the washer, its bolt hole having a straight side to engage the angular shank of the bolt to prevent it turning thereon, and also having near its outer edge opposite portions projecting out of the plane of the washer on the side adjacent to the nut to engage the corners of the nut, said latter portions being at a distance from the center of the nut greater than the distance of the outer edge of the nut therefrom, but less than the distance of the corner of the nut therefrom.

1,207,860. PORTABLE APPARATUS FOR THE INSTANTANEOUS PRODUCTION OF FRESH SOLUTIONS. RAUL DE CARVALHO and JOAO GUIMARAES CARREIRA, Lisbon, Portugal. Filed Aug. 7, 1915. Serial No. 44,362. (Cl. 23—3.)



1. Portable apparatus for the instantaneous production of fresh solutions comprising a vessel intended to contain a solvent, a plurality of orifices in said vessel, a bored stopper in one of said orifices, a tubular vessel containing a substance to be dissolved closed at each end extending through said bored stopper into said first mentioned vessel, a filed notch on said tubular vessel said tubular vessel being adapted to be moved to extend through another of said orifices to bring the filed notch outside the first mentioned vessel, to be fractured at said file mark and then withdrawn into the first mentioned vessel to permit the substance in the two vessels to come into contact with each other, substantially as described.

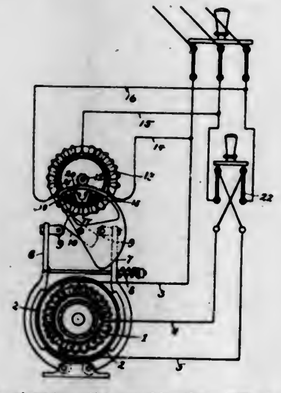
2. Portable apparatus for the instantaneous production of fresh solutions comprising a vessel open at each end and intended to contain a solvent, a bored stopper closing one end of said vessel, a solid stopper normally closing the other end of said vessel, a tubular vessel containing a substance to be dissolved, closed at each end extending through said bored stopper into said first mentioned vessel, a filed notch in said tubular vessel, said tubular vessel being adapted to be moved through the opening normally closed by the solid stopper when the latter has been removed, to bring the filed notch outside the first mentioned vessel, to be fractured at said file mark and then withdrawn into the first mentioned vessel to permit the substances in the two vessels to come into contact with each other substantially as described.

3. Portable apparatus for the instantaneous production of fresh solutions comprising a vessel open at each end intended to contain a solvent, an inwardly directed neck at one end of said vessel, a bored stopper fitting within said neck, a solid stopper normally closing the other end of said vessel, a tubular vessel containing a substance to be dissolved, closed at each end extending through said bored stopper into said first mentioned vessel, a filed notch in said tubular vessel said tubular vessel being adapted to be moved through the opening normally closed by the solid stopper when the latter has been removed, to bring the filed notch outside the first mentioned vessel, to be fractured at said file mark and then withdrawn into the first mentioned vessel to permit the substances in the two vessels to come into contact with each other substantially as described.

4. Portable apparatus for the instantaneous production of fresh solutions comprising a vessel intended to contain a solvent, an orifice in said vessel a bored stopper in said orifice, a tubular vessel containing a substance to be dissolved closed at each end extending through said bored stopper into said first mentioned vessel, the said tubular vessel being formed with a bulb at one end, a filed notch on said tubular vessel said tubular vessel being adapted to be moved to bring the filed notch outside the first mentioned vessel, to be fractured at said file mark and then withdrawn into the first mentioned vessel to permit the substances in the two vessels to come into contact with each other, substantially as described.

5. Portable apparatus for the instantaneous production of fresh solutions comprising a vessel open at each end and intended to contain a solvent, a bored stopper closing one end of said vessel, a solid stopper normally closing the other end of said vessel, a tubular glass vessel containing a substance to be dissolved closed at each end extending through said bored stopper into said first mentioned vessel, the said tubular vessel being formed with a bulb at one end, a filed notch in said tubular vessel said tubular vessel being adapted to be moved through the opening normally closed by the solid stopper when the latter has been removed, to bring the filed notch outside the first mentioned vessel, to be fractured at said file mark and then withdrawn into the first mentioned vessel to permit the substance in the two vessels to come into contact with each other substantially as described.

1,207,861. ELEVATOR-BRAKE. WILLIAM H. CHAPMAN, Portland, Me. Filed Mar. 10, 1915. Serial No. 13,466. (Cl. 74—70.)



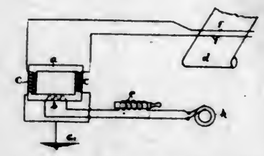
1. In an elevator, the combination with a brake and brake drum of means for normally holding the brake in engagement with the drum, an electric motor, a pinion rotated by said motor, a geared sector engaging said pinion and weighted to cause its return to its normal position, a cam connected to said sector and formed and positioned to force the brake out of engagement with the drum when the sector is rotated in one direction.

2. In an elevator, the combination with a brake and brake drum of means for normally holding the brake in engagement with the drum, an electric motor, a pinion rotated by said motor, a geared sector engaged by said pinion, said sector being weighted to return it to its normal position and having a recess formed therein a pair of spring stops within said recess positioned to limit the motion of the sector in both directions and a cam connected with said sector for causing the disengagement of the brake and its drum when the sector is rotated in one direction.

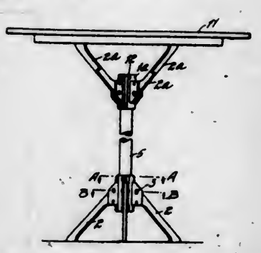
1,207,862. PROCESS AND APPARATUS FOR NEUTRALIZING STATIC ELECTRICITY. WILLIAM H. CHAPMAN, Portland, Me. Filed Apr. 22, 1916. Serial No. 92,836. (Cl. 175—264.)

1. The process of neutralizing static electricity which consists of maintaining on each of a pair of discharge wires, an alternating charge of electricity, each charge having simultaneous alternations of different signs, placing said wires in such close proximity that a glow discharge will take place between them and finally passing the material to be neutralized through the ionized field, thus produced.

2. In an apparatus for neutralizing static electricity, the combination of a transformer having two secondary oppositely wound or connected coils, a terminal of each coil being connected to a discharge wire, the two discharge wires being so located in proximity that a glow discharge will take place between them and means for passing the material to be acted upon through the ionized space thus produced.



1,207,863. FOLDING STAND. CHARLES CHISHOLM, New York, N. Y. Filed Feb. 19, 1916. Serial No. 79,254. (Cl. 45—117.)



1. A folding structure such as described comprising in combination a hollow central sleeve-member, another member movable therein, and arms pivoted to said sleeve-member, said sleeve member being open opposite the butts of said arms to permit engagement of such butts with the member within such sleeve, such inner member movable with respect to the sleeve to a position such that while said inner member is still within said sleeve said arms may be moved to another position and in such other position held by engagement with said inner member, when such inner member is moved still within said sleeve to engage said arms in such further position.

2. A folding structure such as described comprising in combination a hollow sleeve member, another member movable therein, and arms movably connected to said sleeve member and each having two butt surfaces one or the other of which will engage said inner member in one or another of two positions of such arms with respect to said sleeve member, said sleeve member being open to permit such engagement, and said inner member being movable to disengage such butt surfaces during movement of said arms from one to another of such two positions.

3. A folding structure such as described comprising in combination a hollow central sleeve-member, another member movable therein, and arms pivoted to said sleeve-member, said sleeve member being open opposite the butts of said arms to permit engagement of such butts with the member within such sleeve, such inner member movable with respect to the sleeve to a position such that said arms may be moved to another position and in such other position held by engagement with said inner member, when such inner member is moved to engage said arms in such further position, said sleeve member and inner member provided, the one with a bayonet-lock groove, and the other with a stud engaging such groove.

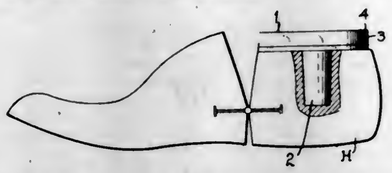
4. A folding structure such as described comprising in combination a hollow sleeve member, another member movable therein, and arms movably connected to said sleeve member and each having two butt surfaces one or the other of which will engage said inner member in

one or another of two positions of such arms with respect to said sleeve member, said sleeve member being open to permit such engagement, and said inner member being movable to disengage such butt surfaces during movement of said arms from one to another of such two positions, said sleeve member and inner member provided, the one with a bayonet-lock groove, and the other with a stud engaging such groove.

5. A folding structure such as described comprising in combination a hollow central sleeve member having projecting ears, another member movable within such sleeve member, and arms pivoted to said sleeve member and having each two butt surfaces, one or the other of which will project through a corresponding opening of the sleeve member into engagement with said inner member in one or another of two positions of such arm, such inner member movable out of engagement with said arms to permit the latter to move.

[Claims 6 to 10 not printed in the Gazette.]

1,207,864. TOP PLATE FOR SHOE-LASTS. HAGOP N. CHOPOURIAN, Bridgewater, Mass. Filed Aug. 5, 1916. Serial No. 113,350. (Cl. 12—139.)

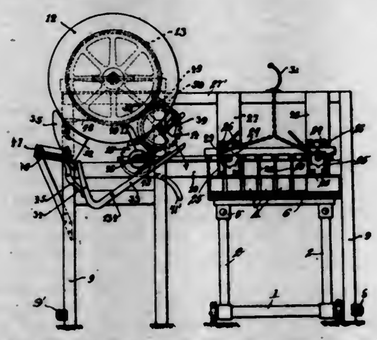


1. As a new article of manufacture, a top plate for a shoe last having the outer portions of its sides and rear rabbeted, and a filler of compressible material seated within said rabbet.

2. As a new article of manufacture, a top plate for a shoe last having the outer portions of its sides and rear rabbeted, and a filler of leather seated within said rabbet.

3. In combination with the heel portion of a last, a plate overlying the cone of said heel portion, the sides and rear of said plate remote from the heel portion being rabbeted, and a compressible filler seated within said rabbet whereby the outer edges of said plate at the sides and rear thereof are rendered yieldable.

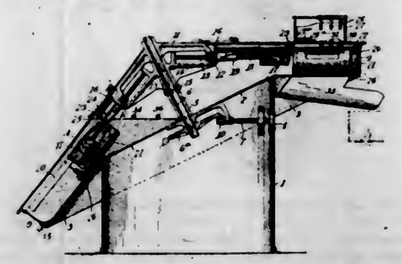
1,207,865. BUTTER-FORMING MACHINE. NAPOLEON CHOQUETTE, St. Ludger, Quebec, Canada. Filed Apr. 24, 1915. Serial No. 23,642. (Cl. 31—65.)



1. In a butter-forming machine, a device for cutting a uniform layer of butter into equal strips, consisting of, a number of parallel knives at equal distance from each other and fixed at bars which are crossing the knives; endless chains at the side of the front-end and at the rear-end of the knives, adapted to move in a rectangular way in vertical planes at right angles to the knives; means for connecting the knife-bearing cross-bars to the chains, so as to impart to the cross-bars and to the knives a movement in a rectangular vertical way; means for disconnecting the cross-bars and knives from the chains if desired, and for raising and keeping the cross-bars and knives in the raised position.

2. In a butter-forming machine, a device for cutting equal strips of butter into equal pieces of pound-size or any other standard market-size, consisting of a square or mold, adapted to receive the strip of butter from a foregoing part of the machine; a casing of the size of the strips of butter and divided by partitions into chambers of the pound-size or other desired market-size; a swinging lever, bearing at its one end the butter-strip-bearing square or mold and adapted to swing it into the way of the chambers-containing casing for transferring the butter from the square or mold to the chambers, and to swing it back after that to its first position for receiving a new strip of butter; a plate or mold on the side of the machine with compartments adapted to receive the pieces of butter contained in the aforementioned chambers; pistons on the bottom of the chambers, adapted to press the pieces of butter out of the chambers and on the aforementioned compartments; means for swinging to and fro the aforementioned lever; and means for moving the chambers containing casing and the pistons in the casings, so as to receive respectively to press out the butter, substantially as described and illustrated.

1,207,866. BOTTLE-WASHING MACHINE. WILLIAM R. COPPAGE, Washington, D. C., assignor of one-half to H. N. Brawner, Jr., Washington, D. C. Filed Aug. 28, 1914. Serial No. 859,108. (Cl. 141—7.)



1. In bottle washing apparatus, the combination of a tank, a bottle carrier in which the bottle is loosely supported, the said carrier having means for scrubbing the outerside of the bottle, means for moving said carrier through the tank, a brush located in line with the carrier and movable with the same, means for moving the carrier toward and away from the brush, means above the water level in the tank for automatically feeding the bottle to the carrier, and means for automatically discharging the bottle after it has passed through the tank.

2. In a bottle washing apparatus, the combination of a tank, a bottle carrier in which the bottle is loosely supported, the said carrier having means for washing the outer side of the bottle, means for moving the same down into the water in said tank and then up above the water, a revolving brush located in line with the carrier and movable with the latter, means for moving the carrier toward and away from the revolving brush means located above the water level in the tank for automatically feeding the bottles to the carrier, and means for automatically discharging said bottles after they have been passed through the water.

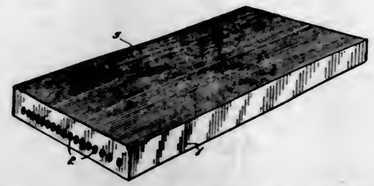
3. In a bottle washing apparatus, the combination of a tank, a conical frame mounted on an oblique axis so that one part of the frame will be horizontal when the diametrically opposite part thereof is immersed in said tank, a fixed inclined carrier guide partly within the tank, a bottle carrier mounted on the conical frame and adapted to move on the carrier guide and also move transversely of the latter, a revolving brush bearing a fixed relation to the bottle carrier and located in a position to enter the bottle in the carrier as the latter is moved transversely of the carrier guide, means adjacent the horizontal part of the frame for feeding bottles to the carrier, and means for discharging bottles from the carrier.

4. In a bottle washing apparatus, the combination of a tank, a fixed circular inclined guide the lower portion of which is within the water, a hinged bottle carrier mounted to travel on said guide and maintained by the same in position to support the bottle, means for moving the carrier transversely of the guide and a revolving brush located in the path of transverse movement of the bottle carrier, whereby when the bottle carrier is moved transversely of the guide in one direction it will carry the bottle onto the revolving brush.

5. In a bottle washing apparatus, the combination of a water tank, a circular inclined guide the lower portion of which is below the water level in the said tank, a bottle carrier hinged at one side edge, and sustained in carrying position during its movement around the apparatus by the guide on which it moves, and adapted when it reaches the discharge point to tilt and discharge the bottle, and means for washing the inside of the bottle.

[Claims 6 to 17 not printed in the Gazette.]

1,207,867. GLASS-CASTING TABLE. JOHN W. CORDES, Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 20, 1914. Serial No. 873,082. (Cl. 49—34.)



1. A casting table having a metal glass receiving surface roughened with a degree of fineness such as to reduce the area of contact between the glass and metal while at the same time giving a substantially smooth surface to the glass cast upon the surface.

2. A water cooled casting table of metal having its glass receiving surface roughened with a degree of fineness such as to reduce the area of contact between the glass and metal while at the same time giving a substantially smooth surface to the glass cast upon the surface.

3. A casting table of metal having a metal glass receiving surface substantially plain but covered with minute depressions of such smallness that the molten glass is substantially excluded therefrom.

4. A casting table of metal having its glass receiving surface finely roughened so as to provide minute depressions and projections, and a coating of unguent relatively refractory material on the said surface filling the said depressions and rendering such surface smooth.

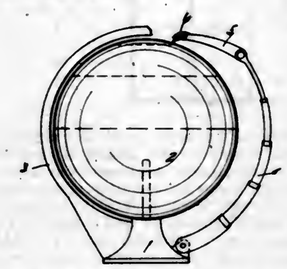
5. A water cooled casting table of metal having its glass receiving surface substantially plain but covered with minute depressions of such smallness that the molten glass is substantially excluded therefrom.

[Claims 6 to 8 not printed in the Gazette.]

1,207,868. SPHERICAL BLACKBOARD. THOMAS G. CRAIGHEAD, Seattle, Wash. Filed June 20, 1916. Serial No. 104,731. (Cl. 35—15.)

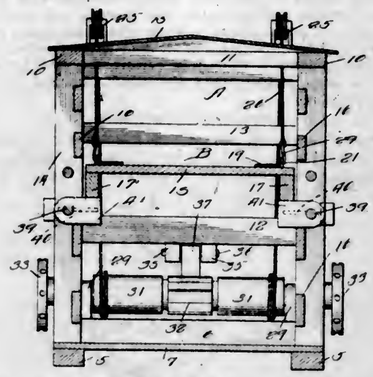
1. In a device of the class described, the combination of a revolving blackboard globe mounted upon a standard, a telescopic arm hinged to said standard and extending upward adjacent the surface of the globe, and means upon the free end of the arm for marking the globe.

2. In a device of the class described, the combination of a revolving globe mounted upon a standard, a telescopic arm hinged to said standard and extending upward adjacent the surface of the globe, and means upon the free end of the arm for marking the globe, hemispherical hollow blackboards adapted to be removably attached around the said globe, whereby a map may be drawn upon the said hemispheres removed.



3. In a device of the class described, the combination of a globe revolubly mounted on a standard, hemispherical hollow blackboard shells removably attachable to said globe, and means for adjustably holding a crayon in contact with the surface of said hemispheres.

1,207,869. FREIGHT-CAR. JOHN CRANSHAW, Denver, Colo. Filed June 8, 1912. Serial No. 702,396. (Cl. 105—15.)

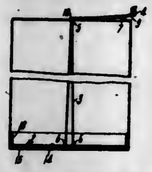


The combination with a car body having a frame consisting of vertical standards and longitudinal slats located upon the inner sides of said standards, longitudinally extending shafts mounted through said standards so as to rotate outside of said slats, a removable floor within the car body, means for raising the floor to a point adjacent the shafts, means for rocking the shafts, blocks mounted upon said shafts in position to be turned below said floor and to rest upon the adjacent slats so as to support said floor, said floor elevating means comprising drums mounted at the lower portions of the end of the car body, pulleys located on the roof of said car, and cables extending from said floor over said pulleys to said drums, whereby said floor may be raised or lowered in accordance with the operation of said drums.

1,207,870. RECEPTACLE FOR CONTAINING AND DISCHARGING SEMISOLID AND PASTY SUBSTANCES. JAMES F. CRAVEN, Crafton, Pa. Filed Dec. 13, 1913. Serial No. 806,596. (Cl. 221—78.)

1. A device of the character described, comprising a receptacle having a body or wall formed of sheet material, a

follower therein, and means for operating said follower, said means being arranged when operated to first rupture or tear the original sheet of the body or wall and thereby form a discharge orifice and then move the follower to expel the contents of the receptacle through said orifice.

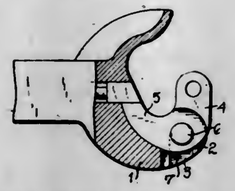


2. A device of the character described, comprising a receptacle having a body or wall formed of sheet material and having a portion thereof weakened along a line, a follower therein, and means for operating said follower, said means being arranged when operated to rupture or tear the original sheet of the body or wall along said weakened line and thereby form a discharge orifice and then move the follower to expel the contents of the receptacle through said orifice.

3. A device of the character described, comprising a receptacle having an abutment at its discharge end, a follower movable therein, and means for moving said follower, said follower comprising a hollow member arranged to move along the receptacle wall and engage said abutment, a disk, and a frangible connection between said disk and hollow member and adapted to be broken when said hollow member engages said abutment.

4. A device of the character described, comprising a receptacle having an abutment at its discharge end, a follower movable therein, means for moving said follower, said follower comprising a cylinder and a disk lying within said cylinder, and a frangible connection between said disk and cylinder arranged to permit the disk to move through said cylinder when the latter impinges against said abutment.

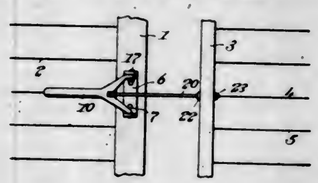
1,207,871. CAR-COUPLING. TERRENCE L. CRAWFORD, Grafton, W. Va., assignor of one-half to William T. Crawford, Pensacola, Fla. Filed Feb. 14, 1916. Serial No. 78,216. (Cl. 213—65.)



A car coupling comprising a draw head provided with a transverse slot, the opposed walls of the slot being provided with transversely directed open recesses, a knuckle having trunnions extending from opposite faces thereof, said trunnions being insertible within the recesses in the opposed walls of the slot of the head, and a pin removably inserted through the head and intersecting the recesses, said pin being engageable with the adjacent edge of the knuckle when in applied position, the adjacent edge of the knuckle being arranged on a curve concentric to the axes of the trunnions of the knuckle.

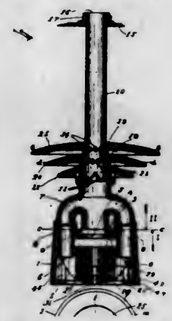
1,207,872. WIRE-FENCE FASTENER. NICKLOUS DEGEN, Austin, Minn. Filed May 9, 1914. Serial No. 837,541. (Cl. 70—121.)

1. A fence fastener, including a bearing member, a lever formed from a single casting, said lever having a bifurcated portion providing diverging arms, one of said arms having an apertured extremity, and the other of said arms bent to form a stud for reception upon said bearing member, a projection adjacent the point of divergence of said arms, and a connecting rod having a hooked extremity for engagement with said projection.



2. A fence fastener, including a U-shaped bracket having apertured bearing portions, a lever formed from a single casting, said lever having diverging arms, one of said arms being apertured for registration with one of said apertured bearing portions and the other of said arms being provided with a stud for engagement with the other of said bearing members, said lever being apertured adjacent the divergence of said arms, and a hooked rod for engagement with said apertured portion of said lever.

1,207,873. SYSTEM OF BURNING OILS. JAMES JOHN DE HLEBDON, Kansas City, Mo. Filed Feb. 18, 1916. Serial No. 79,074. (Cl. 158—91.)



1. In a system of burning oil, an oil bowl, an oil distributer in said bowl, means to admit oil to said distributer and said bowl, means for the passage of air around said bowl, a branch pipe fitting over said bowl, a down draft pipe above said branch pipe fitting, and deflecting disks on said pipe.

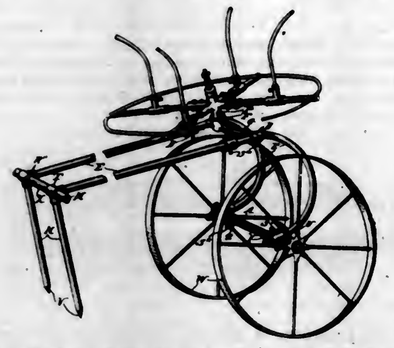
2. In a system of burning oil, a bowl for the initial ignition of oil gases, a pipe over said bowl and leading superheated air downward to said bowl, disks around said pipe, and holes communicating from the interior of said pipe to the exterior thereof and below said disks whereby superheated air is supplied to flame surrounding said disks.

3. In a system of burning oil, means to cause oil to burn in a hollow cup shape, means to supply superheated air to the burning flames from within said hollow cup shape, and disks mounted upon said means to spread said flames.

4. In a system of burning oil, means to burn oil below a plurality of disks, said disks arranged to spread said flames, and means to supply superheated air to the flame from underneath said disks.

1,207,874. WIRE-PAYOUT REEL. JOHN PHILANDER DELPHEY, Toledo, Ohio. Filed Nov. 16, 1911. Serial No. 660,610. (Cl. 21—28.)

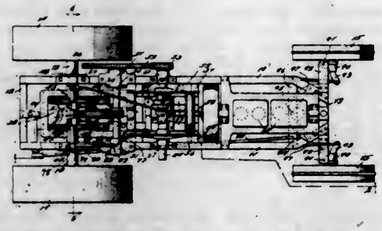
1. In a wire payout reel truck, in combination with an axle and wheels journaled on the end portions of the axle, a pair of goosenecked sills mounted and secured on and to the axle, the sills pendant forward and rearward transversely to the axle, a handle bar cross-connecting the sills and legs pendant to the handle bar.



2. In a wire payout reel carrier, in combination with an axle and wheels journaled on the end portions of the axle and means to support a reel on the axle, comprising a pair of goosenecked sills adjustably mounted on and secured to the axle, a handle bar cross-connecting the sills, legs pendant from the hande bar, and a bridge member having its end portions secured each to one of the sills, said bridge having centrally thereof a vertically disposed journal adapted for rotatably mounting the hub of a reel.

3. A wire payout reel carrier, consisting of a pivot bridge with reel pivot on its central part, the ends of the pivot bridge terminating in open lipped clamps with compressing bolts and set screws therein and carried by and clamped to the intermediate part of two goosenecked sills, one end of each sill fastened into a handle cross-bar and the other end adjustably, transversely fastened to a reel truck axle, supports attached to the handle bar, and wheels mounted on its opposite ends of the reel truck axle.

1,207,875. TRACTOR. JOSEPH M. DENNING, Cedar Rapids, Iowa. Filed Sept. 4, 1915. Serial No. 49,099. (Cl. 21—114.)



1. Propelling mechanism for tractors, and the like, embodying a traction wheel, an axle upon which the wheel is loosely mounted, a driven element separate from the wheel and disposed adjacent the axis of the wheel, means connecting the said element with the rim of the wheel, and a driving element to the movement of which latter the driven element is responsive.

2. Propelling mechanism for tractors and the like, embodying a traction wheel, a driven element separate from the wheel and arranged adjacent the hub of the wheel, a driving element to the movement of which the driven element is responsive, and means other than the hub and spokes of the wheel for imparting the movement of the said driven element directly to the rim of the wheel.

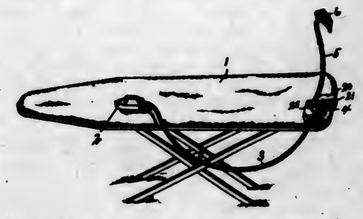
3. Propelling mechanism for tractors and the like, embodying a traction wheel, a driven element separate from the wheel and arranged adjacent the hub of the wheel, a driving element to the movement of which the driven element is responsive, means other than the hub and spokes of the wheel, for imparting the movement of the said driven element directly to the rim of the wheel, and a shaft for alining the parts, said shaft being detached from all of the said parts.

4. Propelling mechanism for tractors and the like, embodying a traction wheel, a shaft upon which the wheel is loosely mounted, a driven element also loosely mounted upon the shaft, means other than the hub and spokes of the wheel, directly connecting the driven element with the rim of the wheel, and means for driving the said driven element.

5. Propelling mechanism for tractors and the like, embodying a driven element separate from the hub and spokes of the wheel, means rigidly connecting the driven element with the rim of the wheel for rotating the wheel, and means for driving the said driven element.

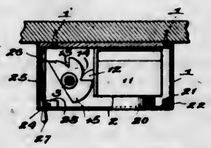
[Claims 6 to 9 not printed in the Gazette.]

1,207,876. ELECTRICAL ATTACHMENT. HARRY CARDEN DESPARD, Syracuse, N. Y. Filed Apr. 24, 1915. Serial No. 23,631. (Cl. 173—324.)



In an apparatus of the class described, an iron adapted to be electrically heated, a socket, a switch element, clamping means in connection with said switch element for securing the same to an ironing table, flexible electric conductor connection between the switch element and the iron so that the iron may move in all directions relatively to the element, flexible electric conductor connection between the switch element and the socket so that the switch element may be positioned at any desired point relatively to the socket, said clamping means adapted to secure the switch element to an ironing table in such manner that the flexible conductor between the switch element and the iron hangs practically entirely off the edge of the table.

1,207,877. LOCKING DEVICE FOR AUTOMOBILES. SAMUEL M. DICK, Minneapolis, Minn. Filed Oct. 28, 1915. Serial No. 58,408. (Cl. 137—7.)



1. The combination with a valve; of a casing, a cover therefor, means for locking said cover in closed position, an operating shaft extending through said casing, said shaft being rotatable to release said locking means to permit removal of said cover, and a connection between said shaft and the valve, said valve being opened without releasing said locking means by rotation of said shaft.

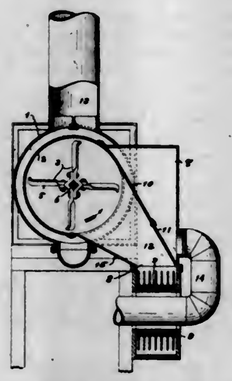
2. The combination with a valve; of a casing, a cover therefor, a leaf spring secured to said casing, a finger on said cover to coact with said spring to hold the same in locked position, an operating shaft extending through said casing, a stop plate fixed on said shaft, a lock for holding said plate in predetermined positions, said stop plate being rotatable by said shaft when the lock is released to engage and retract said spring, thereby permit-

ting the cover to be removed, and a connection between said shaft and the valve, said valve being opened by rotation of the shaft.

3. In a locking device of the class described, a casing, a cover therefor, a leaf spring secured to said casing, a finger on said cover to coact with said spring to hold the same in locked position, an operating shaft extending through said casing and adapted to be connected with a valve, a stop plate fixed on said shaft, and a lock for holding said plate in predetermined positions, said plate being rotatable by said shaft when the lock is released, to engage and retract said spring, thereby permitting the cover to be removed, said valve being opened by rotation of the shaft.

4. The combination with a valve, of a casing, a cover therefor, fastening elements on the interior of said casing for securing the same to a support, an operating shaft extending transversely through said casing, a connection between said shaft and the valve, a stop plate fixed to said shaft, and having a pair of notches in its edge, a lock having its bolt adapted for coaction with said notches to hold said plate in predetermined positions, a leaf spring secured to said casing, a finger on the inner face of one end of said cover for holding the same in the casing, and a connection between the opposite end of the cover plate and the casing, whereby said cover prevents tampering with the mechanism within the casing, said cover plate being unlocked by rotation of the stop plate, said valve being opened by rotation of the stop.

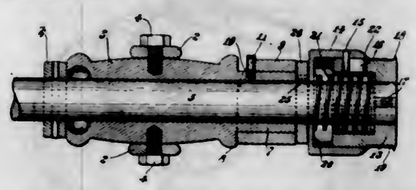
1,207,878. COTTON-CLEANER. EUSTICE E. DICKERSON, Fort Worth, Tex. Filed Nov. 26, 1915. Serial No. 63,461. (Cl. 13—19.)



1. In a cotton cleaner, comprising a cylindrical chamber having a screen wall, a means for forcing air and cotton under pressure through said chamber, an imperforate wall forming the end of said chamber, a box-like compartment projecting from the cylindrical chamber at the discharge end thereof, a partition dividing said compartment into two chambers, said partition consisting of the screen wall and an imperforate extension projecting tangentially from the screen wall of the cleaning chamber, an outlet from said compartment communicating with the interior of the cleaner chamber through the second chamber of said compartment, and pipes leading from the first chamber of said compartment to constitute said chamber an air releasing chamber for the cleaner.

2. In a cotton cleaner comprising a cylindrical chamber having a screen wall through which chamber air and cotton under pressure are forced, an imperforate wall forming the end of said chamber, a box-like outlet projecting from the side of the cylinder adjacent to the end, and a partition formed of the screen wall and an imperforate extension, said partition projecting tangentially from said screen wall, and dividing the box-like outlet into two chambers whereof one is the air release and the other a discharge for the cotton.

1,207,879. EDGE-SETTING MACHINE. STEPHEN A. DOBYNE, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 29, 1915. Serial No. 64,011. (Cl. 12—77.)



1. In a machine of the class described, a setter head having a relatively movable section arranged for adjustment to adapt the head to work of different thicknesses, and a rotatable sleeve and means coöperating therewith, constructed and arranged upon rotation of said sleeve to shift said section.

2. In a machine of the class described, a setter head having a relatively movable section arranged for adjustment to adapt the head to work of different thicknesses, a rotatable sleeve and means coöperating therewith, constructed and arranged upon rotation of said sleeve to shift said section, and means for locking the sleeve against movement.

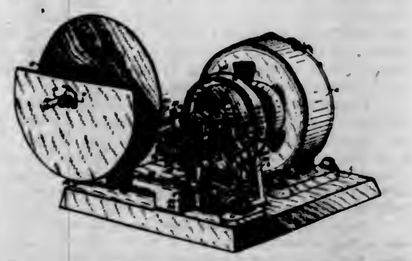
3. In a machine of the class described, a setter head having an adjustable section arranged for movement to adapt the head to work of different thicknesses, a rotatable sleeve and means coöperating therewith, constructed and arranged upon rotation of said sleeve to move said section in one direction, and a spring arranged for moving said section in the other direction.

4. In a machine of the class described, a setter head having a relatively movable section adjustable to adapt the head to work of different thicknesses, a rotary sleeve operatively arranged for movement to effect adjustment of said section, said sleeve having a cam face, and a stop disposed for engagement with said cam face and for cooperation therewith during rotation of the sleeve for actuating the latter to adjust said section.

5. In a machine of the class described, a setter head adjustable to work of different thicknesses, and head adjusting means including an element movable in one relation to operate said means to adjust said head and movable in another relation to lock said head in adjusted position.

[Claims 6 to 14 not printed in the Gazette.]

1,207,880. COILING-MACHINE. FRED H. DOERR, Grand Rapids, Mich. Filed May 15, 1914. Serial No. 838,635. (Cl. 153—65.)



1. In a coiling machine, the combination of a mandrel comprising a guide member, means for feeding wire across the mandrel, a tool engaging the wire as the wire is delivered across the mandrel, a forming tool disposed oppositely to said guide member, said tools being disposed radially to the mandrel and having wire engaging grooves, a holder for said forming tool, a supporting pivot for said holder, disposed parallel with the mandrel, said pivot being threaded for longitudinal adjustment, and being provided with a lock nut, said holder being provided with a socket for said tool and with spaced ears, a slotted arm on said forming tool, an adjusting eccentric engaging the slot of said arm and provided with a spindle arranged through said ears on said holder, said spindle being threaded and provided with a lock nut engaging one of said ears, a finger piece on said spindle between said ears, a set screw for securing said forming tool in its adjusted positions, and a screw for adjusting said tool holder on its pivot provided with a lock nut.

2. In a coiling machine, the combination of a mandrel comprising a guide member, means for feeding wire across the mandrel, a tool engaging the wire as the wire is delivered across the mandrel, a forming tool disposed oppositely to said guide member, said tools being disposed radially to the mandrel and being provided with non-rotatable work faces rigid therewith and having wire engaging grooves, a holder for said forming tool, a supporting pivot for said holder, disposed parallel with the mandrel, said pivot being threaded for longitudinal adjustment, said holder being provided with a socket for said tool, an arm on said forming tool, an adjusting eccentric engaging said arm, a set screw for securing said forming tool in its adjusted positions, and a screw for adjusting said tool holder on its pivot.

3. In a coiling machine, the combination of a mandrel, means for feeding wire across the mandrel, a tool having a wire engaging groove, a holder for said tool, a supporting pivot for said holder, said pivot being threaded for longitudinal adjustment and being provided with a lock nut, said holder being provided with a socket for said tool and with spaced ears, a slotted arm on said tool, an adjusting eccentric engaging the slot of said arm and provided with a spindle arranged through said ears on said holder, said spindle being threaded and provided with a lock nut engaging one of said ears, a finger piece on said spindle between said ears, a set screw for securing said tool in its adjusted positions, and a screw for adjusting said tool holder on its pivot provided with a lock nut.

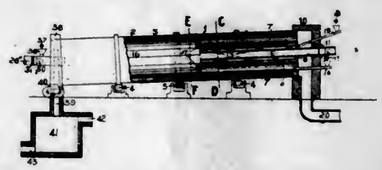
4. In a coiling machine, the combination of a mandrel, means for feeding wire across the mandrel, a tool having a wire engaging groove, a holder for said tool, a supporting pivot for said holder supported for longitudinal adjustment, said holder being provided with a socket for said tool and with spaced ears, a slotted arm on said tool, an adjusting eccentric engaging the slot of said arm and provided with a spindle arranged through said ears on said holder, a finger piece on said spindle, means for securing said tool in its adjusted positions, and means for adjusting said tool holder on its pivot.

5. In a coiling machine, the combination of a mandrel supported for lateral adjustment, means for feeding wire across the mandrel, a tool disposed radially to the mandrel and having a wire engaging groove with a forwardly curved work face, a holder for said tool, a supporting pivot for said holder, disposed parallel with the mandrel, said pivot being threaded for longitudinal adjustment, an arm on said tool, an adjusting eccentric engaging said arm, means for securing said forming tool in its adjusted positions, and a screw means for adjusting said tool holder on its pivot.

[Claims 6 to 10 not printed in the Gazette.]

1,207,881. PROCESS OF SMELTING METALLIC ORES. HENRY L. DOHERTY, New York, N. Y. Filed June 22, 1909. Serial No. 503,736. (Cl. 75—17.)

1. The process of smelting metallic ore which comprises superheating said ore with an oxidising flame, the said oxidising flame burning with the aid of superheated air and being in direct and intimate contact with said ore, continuously adding a reducing material to said superheated ore, and subjecting the mixture of ore and reducing material to the action of radiated heat from a reducing flame of carbonaceous material in aerial suspension burning with a limited amount of heated air to assist in the reduction of the metal of said mixture and to maintain the said mixture at a temperature sufficient to smelt reduced metal during the said reduction.



2. The process of smelting metallic ore which comprises superheating said ore and a suitable flux to a temperature above the temperature of reduction with a comparatively high temperature oxidizing flame burning in intimate contact therewith, adding to the superheated mixture of ore and flux a powdered carbonaceous material capable of reducing the metallic constituent of the ore to the metallic state, and agitating the resulting mixture while maintaining the temperature of the same above the fusing temperature of the reduced metal by exposing said mixture to radiated heat from a flame of burning carbonaceous material in suspension in only sufficient heated air to burn said material to carbon monoxid.

3. The process of smelting metallic ore which comprises directly and intimately contacting metallic ore and a suitable flux with a flame burning with the aid of sufficient superheated air to make it freely oxidizing to the metallic constituent of the ore, whereby said mixture of ore and flux is superheated and reaction caused to take place between gangue of said ore and said flux, mixing the superheated mixture of ore and flux with a reducing material and maintaining the temperature of the mixture for a time sufficient for reduction by radiated heat from a strongly reducing flame formed by burning powdered fuel with a proportion of heated air only sufficient to burn said fuel to carbon monoxid.

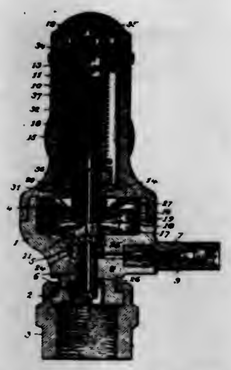
4. The process of smelting metallic ores which comprises directly and intimately contacting metallic ore mixed with a suitable flux with a relatively high temperature flame which is freely oxidizing to the metallic constituent of the ore to superheat said ore and to bring about a partial reaction between the said flux and the gangue of said ore, continuously adding to the superheated materials powdered reducing material, and subjecting the mixture of superheated material and reducing material to heating to a temperature capable of liquefying the reduced material and fluxed gangue by burning powdered fuel in radiating relation to said materials but out of contact therewith by a proportion of air only sufficient to burn said fuel to carbon monoxid, removing the molten metal and fluxed gangue to a settling chamber, and separating said metal from said gangue in said settling chamber.

5. The process of smelting a metallic ore which comprises heating said ore and a suitable flux in a plurality of rotating chambers by direct contact with a flame of combustible gas and preheated air, whereby gangue of said ore is caused to combine with said flux, removing the fluxed ore to a rotating reducing chamber, substantially filled with a reducing atmosphere coming from powdered carbonaceous material burning to carbon monoxid in aerial suspension, mixing a reducing material with said fluxed ore at substantially its place of entrance to said reducing chamber, and subjecting the mixture of heated ore, flux and reducing material to heat in said reducing atmosphere to reduce the metallic constituent of the ore and to fuse the reduced metal and slag, conducting the hot reducing gases from said reducing chamber to the said heating chambers, and mixing preheated air with said gases, at substantially their place of entrance

to said heating chambers, to burn said gases in contact with the mixture of ore and flux in said heating chambers, to heat said mixture.

[Claims 6 and 7 not printed in the Gazette.]

1,207,882. TIRE-VALVE. CONRAD J. DORFF, Chicago, Ill. Filed Oct. 16, 1915. Serial No. 56,175. (Cl. 137—28.)



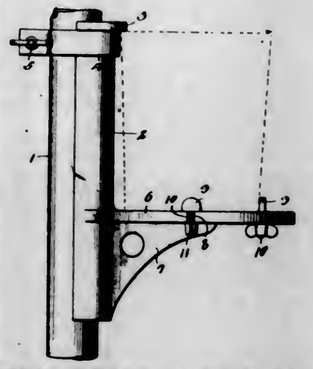
1. In a tire valve, the combination of a main casing adapted for attachment to the filling tube of a pneumatic tire and formed with an upper chamber and an intermediate main chamber, an expansion member arranged in the aforesaid main chamber and comprising upper and lower diaphragms connected together by an annular marginal wall, a dished spring having central bearing on the upper diaphragm and marginal bearing in the main chamber aforesaid, a carrying head attached centrally to said spring and upper diaphragm and moving therewith, an inwardly opening check valve arranged in said carrying head and provided with an axially arranged stem, and an abutment for said valve stem associated with the main casing, substantially as set forth.

2. In a tire valve, the combination of a main casing adapted for attachment to the filling tube of a pneumatic tire and formed with an upper chamber and an intermediate main chamber, an expansion member arranged in the aforesaid main chamber and adapted under varying pressures to have movement in an outward direction, a carrying head attached to said expansion member and moving therewith, an inwardly opening check valve arranged in said carrying head and provided with an axially arranged stem, an externally screw-threaded abutment collar engaging a screw-threaded formation of the upper chamber of the main casing and formed for guiding engagement with the outer end of the carrying head aforesaid, an abutment screw arranged in said abutment collar in axial alinement with the valve stem aforesaid, and a spring encircling the carrying head and having bearing on its lower end on said head and at its upper end against said abutment collar, substantially as set forth.

3. In a tire valve, the combination of a main casing adapted for attachment to the filling tube of a pneumatic tire and formed with an upper chamber and an intermediate main chamber, an expansion member arranged in the aforesaid main chamber and comprising upper and lower diaphragms connected together by an annular marginal wall, an abutment member attached to the lower diaphragm, a hollow shouldered nipple attaching said abutment member in place, a carrying head centrally associated with said upper diaphragm and moving therewith, an inwardly opening check valve arranged in said carrying head and provided with an axially arranged stem, an abutment for said valve stem associated with the main casing, and resilient means for moving the carrying head and upper diaphragm in a downward direction, substantially as set forth.

4. In a tire valve, the combination of a main casing adapted for attachment to the filling tube of a pneumatic tire, a pair of diaphragms arranged in said casing and connected together to form a pressure receiving chamber, an abutment member attached to the lowermost diaphragm aforesaid, a hollow shouldered nipple attaching said abutment member in place, a cup-shaped abutment spring associated with the uppermost diaphragm aforesaid, a movable valve carrying head connected to said uppermost diaphragm and provided with an abutment collar near its lower end, an inwardly opening check valve in said carrying head, an adjustable abutment collar arranged in the upper part of the main casing and having guiding engagement with the valve carrying head aforesaid, an adjustable abutment screw arranged in said abutment collar in longitudinal alinement with the aforesaid inwardly opening valve, and a spring arranged between the aforesaid abutment collars, substantially as set forth.

1,207,883. ADJUSTABLE SUPPORT FOR RECEPTACLES. DOMINICK DUGAN and JOSEPH DROUGHT, Bryn Mawr, Pa. Filed Apr. 22, 1916. Serial No. 92,953. (Cl. 248—3.)



A support comprising a bar, a shelf formed integrally with the bar and disposed at right angles thereto, said shelf having formed therein radial open ended slots, and clamping members adjustably mounted in each of the said slots.

1,207,884. EXPLOSIVE CHARGE FOR THE CENTRAL TUBES OF SHRAPNEL-SHELLS AND PROCESS OF PREPARING SAME. ERNEST DU PONT, Wilmington, Del., assignor, by mesne assignments, to Francis I. du Pont and Ernest du Pont, Wilmington, Del. Filed Feb. 19, 1916. Serial No. 79,239. (Cl. 102—1.)



1. The process of preparing perforated pellets for the central tubes of shrapnel shells, which consists in assembling the same end to end in the relative positions they are to occupy in said tube and covering the peripheral surface of the set and opposite ends with a unitary flexible covering adapted to yieldingly hold the pellets in the relation in which they are assembled.

2. The process of preparing pellets for the central tubes of shrapnel shells, which consists in assembling the same in the relative positions they are to occupy in said tube and dipping the entire set in a solution of a substance adapted to dry and form a solid tube inclosing the set, thereby providing a charge capable of being handled as a unit.

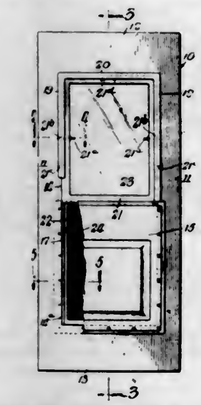
3. The process of preparing perforated pellets for the central tubes of shrapnel shells which consists in stringing the same on a wire, and dipping the same in a solution of a substance adapted to dry and form a unitary tube inclosing the pellets and permitting them to be handled as a unit.

4. The process of preparing pellets for the central tubes of shrapnel shells, which consists in assembling the same in the relative positions they are to occupy in said tube, coating the surface of the same with collodion, and drying the same to form a unitary tubular container for the pellets.

5. The process of preparing perforated pellets for the central tubes of shrapnel shells, which consists in stringing the same on a wire, dipping the same in a solution of collodion and allowing the coating so formed to dry.

[Claims 6 to 20 not printed in the Gazette.]

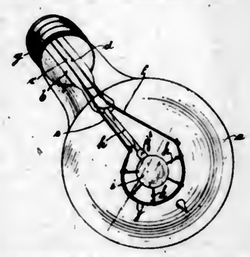
1,207,885. DOOR. HORACE GEORGE ESTABROOK, West Summerland, British Columbia, Canada. Filed Dec. 31, 1915. Serial No. 69,578. (Cl. 20—36.)



A door comprising stiles, and top and bottom rails, panels fixed to said stiles and bottom rails to provide a compartment and an opening thereabove, guide-strips fixed to the inner edges of and extending the full height of said stiles, molding strips fixed to and overlapped on the opposite faces of said stiles about said opening, said panels, guide strips and molding strips providing channels in the plane of said stiles, movable frames arranged to slide independently of each other in said channels to close said opening, said movable frames having top and bottom horizontal members which are adapted to coact with each other to close the top end of said compartment when both of said frames are fully within or fully withdrawn from said compartment and when one of said frames is in said compartment and the other frame is in a position closing the opening above said compartment.

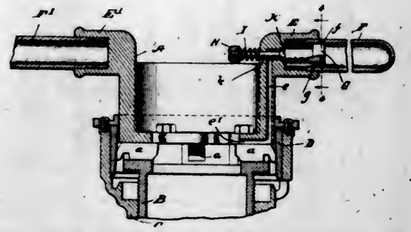
1,207,886. METALLIC-FILAMENT LAMP. KARL FARKAS, New York, N. Y., assignor of one-half to Arthur B. Lisle, Providence, R. I. Filed Nov. 18, 1915. Serial No. 62,147. (Cl. 176—34.)

A metallic filament nitrogen lamp comprising an inner supporting glass rod, a hollow globular glass reflector with a short neck secured to the inner end of the said rod and having a small opening in the said neck to establish uniform tensity of nitrogen within the reflector



and globe, a concentrated metallic filament beyond the reflector, and a plurality of filament supporting anchors secured to the said reflector.

1,207,887. OILING DEVICE FOR PIPE-THREADING AND SIMILAR MACHINES. HILAND R. FARNSWORTH, Sandusky, Ohio, assignor, by mesne assignments, to The Threading Machine Company, Sandusky, Ohio, a Corporation of Ohio. Filed Jan. 3, 1916. Serial No. 69,858. (Cl. 10—126.)



1. An oiling device of the character referred to comprising a guide head having a socket and a duct leading therefrom to the cutting dies, a tubular handle detachably secured in said socket adapted to serve as an oil container, said handle having an air vent therein, a valve seated in said socket in communication with the interior of said handle and having its stem protruding through said head, a piston in said handle movable with said valve and normally closing said vent; said piston having an oil passage therethrough, and means on said stem for yieldingly holding said valve to its seat.

2. An oiling device of the character referred to comprising a guide head having a socket and a duct leading from said socket to the cutting tools, a tubular handle detachably secured in said socket and adapted to serve as an oil container, a valve seated in said socket having its stem protruding through said head and said stem having means thereon for yieldingly holding the valve to its seat, and a piston in said handle movable with said valve and having an oil passage therethrough; said handle having an air inlet therein normally closed by said piston.

3. In a machine of the character described, an oiling device comprising a work holder and a die-carrying head revoluble relatively thereto, said head having an operating tubular handle adapted to contain oil or other lubricant, and a conduit therethrough leading from said container to the cutting tool or article which is being cut, said handle having an air inlet therein, and a valve controlling said conduit, together with means movable with said valve for simultaneously opening said air inlet and valve.

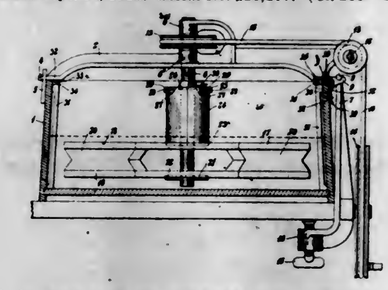
4. In a machine of the character described, a revoluble die-carrying head having a tubular operating handle adapted to serve as an oil container, a conduit leading through said head from the interior of the handle to the point where oil is required on the article to be cut, a valve

carried by said head controlling said conduit adapted to be opened by pressure of the thumb or finger, means for normally holding said valve closed, an air vent through said tube for admitting air into the valve-chamber and means for opening and closing said vent simultaneously with the opening and closing of the valve.

5. An oiling device for a pipe-threading machine or the like comprising a work holder, a revoluble head mounted on said work holder and having a socket, a tubular handle having one end secured in said socket, a valve seated in said socket having its stem protruding through an aperture in said head, means on said stem for keeping said valve normally closed, an air vent in said tube, a piston removable with said valve for opening said air vent when said valve is opened, said piston having an oil duct therein permitting the pasage of oil therethrough to the valve-chamber, and said head having a passage therein leading from said valve-chamber to the cutting tool or article to be cut.

[Claims 6 to 8 not printed in the Gazette.]

1,207,888. APPARATUS FOR OPERATING UPON COMPOSITE SUBSTANCES. ALPHEUS FAY, Louisville, Ky. Filed Sept. 14, 1916. Serial No. 120,177. (Cl. 259—108.)



1. In apparatus for operating upon composite substances, a vessel, an impeller in said vessel comprising upper and lower flat members with plane upper and lower surfaces, and spacing pieces of material length secured between said members along their peripheries in spaced apart relation, whereby said members are held together substantially concentric, means for supplying air down to the space between said members, and means for supporting and rotating said impeller in said vessel.

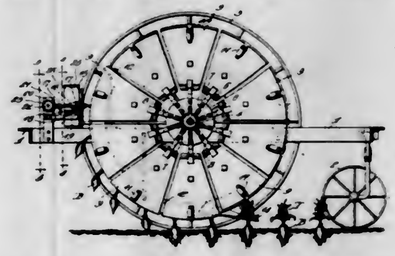
2. In apparatus for operating upon composite substances, a vessel, an impeller in said vessel comprising upper and lower flat members with plane upper and lower surfaces, and spacing pieces, each with a V-shaped channeled end formation, secured between said members along their peripheries in spaced apart relation, whereby said members are held together substantially concentric, with alternate closed and polygonal open sides to the impeller, means for supplying air down to the space between said members, and means for supporting and rotating said impeller in said vessel.

3. In apparatus for operating upon composite substances, a vessel, an impeller in said vessel comprising upper and lower flat, circular members with plane upper and lower surfaces, and spacing pieces, each with a V-shaped channeled end formation secured between said members along their peripheries in spaced apart relation, whereby said members are held together substantially concentric, with alternate closed and polygonal open sides to the impeller, means for supplying air down to the space between said members, and means for supporting and rotating said impeller in said vessel.

4. In apparatus for operating upon composite substances, a vessel, a hollow impeller having a substantially central opening, a hollow shaft alined with said opening, a solid shaft extending down through said hollow shaft and through the opening in the impeller, means holding the impeller up on this solid shaft and causing said impeller to turn with said solid shaft, and a clamping means for the top of the hollow shaft comprising a hub and means on said hub to hold it stationary on said solid shaft, and arms extending from said hub across the upper edges of said hollow shaft, and having downwardly turned parts flanking said hollow shaft but leaving the top of the hollow shaft open, and said upper edges of said hollow shaft having upwardly opening notches receiving the respective arms of the clamping means, and means for supporting and rotating said shafts and impeller in said vessel.

5. In apparatus for operating upon composite substances, a vessel, a hollow impeller having a substantially central opening with an upwardly opening annular depression around it, a hollow shaft composed of separable sections fitting down in said depression, a solid shaft extending down through said hollow shaft and through the opening in the impeller, means holding the impeller up on this solid shaft and causing said impeller to turn with said solid shaft, and a clamping means for the top of the hollow shaft comprising a hub and means on said hub to hold it stationary on said solid shaft, and arms extending from said hub across the upper edges of the respective sections of said hollow shaft, and having downwardly turned parts flanking said sections but leaving the top of the hollow shaft open, and each one of said sections having an upwardly opening notch receiving the respective arm of the clamping means, and means for supporting and rotating said shafts and impeller in said vessel.

1,207,889. BEET-HARVESTER. FRANK FLETCHER, Bowling Green, Ohio. Filed Jan. 6, 1916. Serial No. 70,666. (Cl. 55—108.)



1. A beet harvesting machine comprising a portable frame, a beet topping knife mounted thereon, a beet pulling wheel mounted in advance of the knife and having jaws at its periphery adapted to grip the tops of the beets and convey said beets to the knife, and a beet lifter in rear of said wheel and knife for properly presenting said beets to the latter.

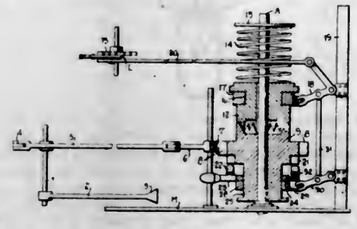
2. A beet harvesting machine comprising a portable frame, a beet topping knife mounted thereon, beet pulling means in advance of the knife and having jaws adapted to grip the tops of the beets and convey said beets to the knife, and a beet lifter in rear of said means for properly presenting said beets to the knife, said lifter having a plurality of vertically moving paddles traveling in close proximity to the path of the jaws and adapted to lift the beets to proper positions in respect to the knife.

3. A beet harvesting machine comprising a portable frame, a beet topping knife mounted thereon, beet pulling means in advance of the knife and having jaws adapted to grip the tops of the beets and convey said beets to the knife, and a beet lifter in rear of said means for properly presenting said beets to the knife, said lifter having a plurality of vertically moving paddles traveling in close proximity to the path of the jaws and adapted to lift the beets to proper positions in respect to the knife, the ends of said paddles being curved toward their direction of travel to readily engage the beets.

4. A beet harvester comprising a portable frame, a rotary beet topping knife mounted thereon and traveling in an upright plane disposed transversely thereof, a beet pulling wheel mounted on the frame in advance of the knife and having jaws at its periphery adapted to grip the tops of the beets and convey said beets to the knife, and a rotary beet lifter traveling in an upright plane parallel to the aforesaid plane and spaced in rear thereof, said lifter having a plurality of flat radiating paddles adapted to raise the beets and properly present the latter to the knife.

5. A beet harvester comprising a portable frame, a rotary beet topping knife mounted thereon and traveling in an upright plane extending transversely of the aforesaid frame, a beet pulling wheel mounted in advance of the knife and having at its periphery a plurality of jaws adapted to grip the tops of the beets and to convey the latter to the knife, the latter comprising a plurality of spaced radiating blades, a rotary beet lifter revolving in an upright plane parallel to and spaced in rear of the knife, said lifter having a plurality of flat radiating paddles equaling in number the number of blades, such paddles being adapted to raise the beets to properly present them to such blades, the ends of said paddles being curved toward their direction of movement to readily engage the beets.

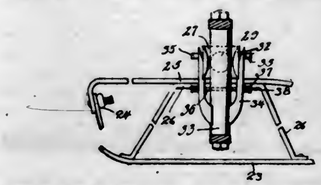
1,207,890. CORN-PLANTER. MARTIN F. FOLEY, Genesco, and LEO C. KONITZER, Colona, Ill. Filed June 10, 1916. Serial No. 103,011. (Cl. 111—6.)



1. In a corn planter, the combination of a main frame, a dropping mechanism operatively engaged with the main frame and including a movable frame, a driven axle carried by the main frame, a controlling lever carried by the main frame for raising and lowering the front frame, a trip wheel loosely mounted on the axle, a trip lever pivotally supported by the main frame and operatively engaged with the dropping mechanism, said trip lever being in the path of the trip wheel whereby the dropping mechanism may be intermittently operated upon rotation of the trip wheel, a clutch member slidably engaged with the axle, means operatively engaged with the controlling lever for forcing the clutch member into operative engagement with the trip wheel when the controlling lever is moved to lower the front frame and to disengage the clutch member from the trip wheel when the controlling lever is moved to raise the front frame, a lever loosely mounted on the axle and provided with a pawl, said trip wheel being provided with teeth adapted to be engaged by the pawl, and means under control of the operating means for the clutch member for moving the lever in operative position relative to the trip wheel when the clutch member is moved away from the trip wheel, said last named means including an annular member loosely mounted on the axl and provided with a pawl coacting with the teeth of the trip wheel for holding said trip wheel against retrograde movement.

2. In a corn planter, the combination of a main frame, a dropping mechanism operatively engaged with the main frame and including a movable frame, a driven axle carried by the main frame, a controlling lever carried by the main frame for raising and lowering the front frame, a trip wheel loosely mounted on the axle, a trip lever pivotally engaged with the dropping mechanism, said trip lever being in the path of the trip wheel whereby the dropping mechanism may be intermittently operated upon rotation of the trip wheel, a clutch member slidably engaged with the axle, a lever mounted on the axle and provided with a pawl, said trip wheel being provided with teeth adapted to be engaged by the pawl, an annular member rotatably supported by the clutch member and movable with said clutch member longitudinally of the axle, a sleeve loosely mounted upon the trip wheel at the side opposite to the clutch member, rock arms supported by the frame and operatively engaged with the annular member, said rock arms being connected to move in unison and in the same general direction, a connection between the controlling lever and one of said arms for imparting rocking movement thereto, a lever loosely mounted upon the trip wheel inwardly of the annular member coacting with said trip wheel, a pawl carried by the last named lever and engageable with the teeth of the trip wheel whereby said trip wheel is intermittently rotated upon movement of the lever in one direction, and a pawl carried by the annular member coacting with the trip wheel and engageable with the teeth of the trip wheel for holding said trip wheel against retrograde movement.

1,207,891. SLEIGH ATTACHMENT FOR AUTOMOBILES. EUGENE FORREST, Brimley, Mich., assignor of two-eighths to Treffley Forrest, one-eighth to Carl Forrest, and one-eighth to Alfred Forrest, Sr., Brimley, Mich. Filed June 22, 1915. Serial No. 35,634. (Cl. 21—96.)



1. In a sleigh attachment for automobiles, the combination with a steering knuckle, of a spindle box having a runner attached thereto, and jaws yieldingly engaging the steering knuckle and spindle box, whereby the runner is normally sustained in a horizontal position.

2. In a sleigh attachment for automobiles, the combination with a steering knuckle, of a spindle box having a runner attached thereto, jaws yieldingly engaging the steering knuckle and spindle box, whereby the runner is normally sustained in a horizontal position, a bolt extending through said jaws, and springs on said bolt serving to press the jaws against the knuckle and spindle box.

1,207,892. FORCEPS. CHARLES GABEL, Hawkeye, Iowa. Filed Dec. 17, 1915. Serial No. 67,436. (Cl. 128—27.)



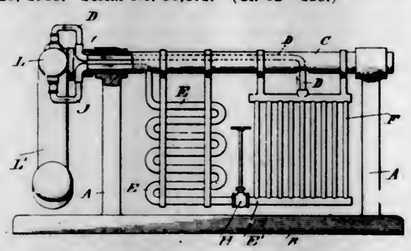
1. An instrument of the class described embodying a shank provided at one end with a fixed jaw; a plurality of shank carried pivoted jaws, the bases of which are angularly disposed whereby as the free ends of the movable jaws move toward the fixed jaw, the said free ends of the movable jaws are moved transversely in converging planes toward the fixed jaw; and means for actuating all of the movable jaws at once.

2. An instrument of the class described embodying a shank provided at one end with a fixed jaw; a plurality of shank carried pivoted jaws the bases of which are angularly disposed whereby as the free ends of the movable jaws move toward the fixed jaw, the said free ends of the movable jaws are moved transversely in converging planes toward the fixed jaw; and means housed within the shank and accessible from the other end of the shank for manipulating the movable jaws.

3. An instrument of the class described embodying a shank provided at one end with a fixed jaw; a plurality of shank carried pivoted jaws, the bases of which are angularly disposed whereby as the free ends of the movable jaws move toward the fixed jaw, the said free ends of the movable jaws are moved transversely in converging planes toward the fixed jaw; means for actuating all of the movable jaws at once; and a flexible loop engaged with the jaws.

4. An instrument of the class described embodying a shank provided at one end with a fixed jaw; a plurality of shank carried pivoted jaws the bases of which are angularly disposed whereby as the free ends of the movable jaws move toward the fixed jaw, the said free ends of the movable jaws are moved transversely in converging planes toward the fixed jaw; a flexible loop assembled with the jaws; and means housed within the shank and accessible from the other end of the shank for manipulating the movable jaws.

1,207,893. COMPRESSION REFRIGERATING-MACHINE. CARL C. GERLACH, Cleveland, Ohio. Filed Oct. 28, 1915. Serial No. 58,471. (Cl. 62—115.)



1. A refrigerating machine comprising standards, a shaft mounted therein provided with a duct, a condenser and an expansion coil oscillating with said shaft, a valve-regulated pipe communicating between the condenser and expansion coil, an oscillating casing and cylinder fixed to said shaft and communicating with the condenser coil, pistons within said cylinder, and pipe connections between the latter and the expansion coil.

2. A refrigerating machine comprising standards, a shaft mounted therein provided with a duct, a condenser and an expansion coil oscillating with said shaft, a valve-regulated pipe communicating between the condenser and expansion coil, an oscillating casing and cylinder fixed to said shaft and communicating with the condenser coil, pistons and stems connected thereto, and a weighted lever fixed to said stems and holding the pistons stationary as the casing oscillates.

3. A refrigerating machine comprising standards, a shaft mounted therein provided with a duct, a condenser and an expansion coil oscillating with said shaft, a valve-regulated pipe communicating between the condenser and expansion coil, an oscillating casing and cylinder fixed to said shaft and communicating with the condenser coil, pistons and stems connected thereto, a weighted lever pivoted within the casing and having slotted pivotal connection with said stems.

1,207,894. RESILIENT VEHICLE-TIRE. CARL F. GEYER, Akron, Ohio. Filed Apr. 24, 1916. Serial No. 93,274. (Cl. 152—5.)

1. A self-sustaining resilient liner for wheel tires employing an outer casing and a sustaining rim; said liner being adapted to fit said casing and having an essentially circular transverse section with a central core space and with thickened walls surrounding said space to render the outer arch of the liner section self-sustaining under the wheel load; said liner being provided with a dividing slot in a plane radial to its axis and having a wedge entering said slot from the core space adapted to produce a spreading effect in the divided parts of the liner.

2. A self-sustaining resilient liner for wheel tires employing an outer casing and a sustaining rim; said liner being adapted to fit said casing and having an essentially circular transverse section with a central core space and with thickened walls surrounding said space to render the outer arch of the liner section self-sustaining under the wheel load; said liner being provided with a dividing slot in a plane radial to its axis and having a wedge entering said slot from the core space adapted to develop a spreading effect in the divided parts of the liner, the walls of the dividing slot being constructed to approach nearer together adjacent to the core space where they encounter the greater dimension of the wedge.



3. A self-sustaining resilient liner for wheel tires employing an outer casing and a sustaining rim; said liner being adapted to fit said casing and having an essentially circular transverse section with a central core space and with thickened walls surrounding said space to render the outer arch of the liner section self-sustaining under the wheel load; said liner being provided with a dividing slot in a plane radial to its axis and having a wedge entering said slot from the core space adapted to develop a spreading effect in the divided parts of the liner and an anti-creeper plate adapted to grip both the outer casing and the liner when the wedge is drawn to its seat, so that the outer casing and the liner cannot move or creep relatively to each other.

4. The combination of a self-sustaining resilient liner for wheel tires divided in a plane radial to its axis, a wedge for compressing the divided portions of said liner, and an anti-creeper plate underlying said wedge and divided portions and adapted to clamp an outer casing against a sustaining rim.

5. The combination of a self-sustaining resilient liner for wheel tires divided in a plane radial to its axis, a wedge for compressing the divided portions of said liner, and an anti-creeper plate underlying said wedge and divided portions and adapted to clamp an outer casing against a sustaining rim; said wedge having a screw for drawing it to its seat, which also engages the anti-creeper plate to prevent displacement of the latter upon the rim.

1,207,895. TOOTH SHADE-GUIDE. EDMUND D. GILBERT, Philadelphia, Pa., assignor to The S. S. White Dental Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 8, 1913. Serial No. 805,285. (Cl. 211—34.)

1. A tooth shade-guide for artificial teeth, comprising a holder formed of a strip of sheet material having its longitudinal margins folded over and its edges recessed to provide guiding and retaining means respectively for removably supporting tooth mountings.

2. A tooth shade-guide for artificial teeth, comprising a holder formed of a strip of sheet material having its longitudinal margins folded to form a hollow edged structure, one edge having apertures through which the tooth mountings may be thrust and frictionally retained by the tension of said folded margin, and the other edge having apertures for maintaining said mountings parallel.



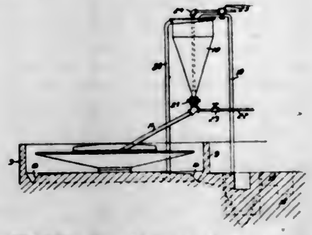
3. A tooth shade-guide for artificial teeth, comprising a holder formed of sheet material having its margins folded to form a hollow edged structure, the edges of one of said margins being provided with notches forming means for frictionally retaining the individual tooth mountings, in parallel relation.

4. A tooth shade-guide for artificial teeth, comprising a holder formed of sheet material having its longitudinal margins folded to form a hollow edged structure, one of said margins being recessed to receive the tooth mountings, and the other margin being notched to form fingers for individually engaging said tooth mountings.

5. A tooth shade-guide for artificial teeth, comprising a holder formed of sheet material having hollow edges provided with a series of apertures for receiving the tooth mountings, and having notches providing means integral with one of said edges for frictionally retaining said tooth mountings in said holder.

[Claims 6 to 8 not printed in the Gazette.]

1,207,896. GLASS-GRINDING APPARATUS. WILLIAM JOS. GOLIGHTLY, Kokomo, Ind., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 12, 1911. Serial No. 626,803. (Cl. 51—11.)



1. In apparatus for applying abrasive to grinding mechanism, the combination of a settling tank mounted above the grinding mechanism and provided with a discharge pipe leading thereto, a receiving pit, a conduit leading from the grinding mechanism to the receiving pit, an overflow passage leading from the receiving pit, a pipe leading from the receiving pit at a point beneath the level of the overflow passage and extending to the settling tank, a pump in said pipe for elevating the contents of the receiving pit to the settling tank, and a water ejector projecting into the settling tank and adapted to wash out the contents of the settling tank.

2. In apparatus for applying abrasive to grinding mechanism, the combination of a settling tank mounted above the grinding mechanism and provided with a discharge pipe leading thereto, a receiving pit, a conduit leading from the grinding mechanism to the receiving pit, an overflow passage leading from the receiving pit, a pipe leading from the receiving pit at a point beneath the level of the overflow passage and extending to the settling tank, a pump in said pipe for elevating the contents of the receiving pit to the settling tank, a water ejector projecting into the settling tank and adapted to wash out the contents of the settling tank, a water supply pipe leading into the discharge pipe, and valves for controlling the ejector, water supply and discharge pipe.

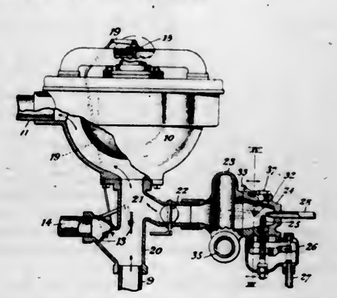
3. In apparatus for applying abrasive to grinding mechanism, the combination of a settling tank for the abrasive mounted above the grinding mechanism and provided with a discharge pipe leading thereto, a valve for controlling said discharge pipe, a water ejector projecting into the settling tank for washing out the abrasive, a valve for controlling said ejector, a water supply pipe opening into the discharge pipe, a valve for controlling said water supply pipe, a ditch extending about the grinding mechanism, a receiving tank, a conduit leading from the ditch to the receiving tank, an overflow passage leading from the receiving pit, a pipe between the receiving pit and the settling tank, and a pump in said pipe for transferring the contents of the receiving tank to the settling tank.

4. In glass grinding apparatus, the combination with glass grinding mechanism, of a receiving tank adapted to contain abrasive material and water, an outlet from its lower end, a connection leading to the grinding mechanism, and an ejector or blow-out pipe extending downwardly through the tank and having its lower end lying in the extreme lower end of the tank at the outlet thereof.

5. In combination with grinding mechanism, a settling receptacle, means for conducting the drainage from the grinding mechanism directly to the settling receptacle and delivering it to the upper portion thereof, an overflow at the upper portion of the receptacle for eliminating the surplus water and finer abrasive from such receptacle, means for conducting the mixture of coarser abrasive and water from the lower portion of the receptacle, and a water supply conduit for diluting the said mixture of coarser abrasive and water to the consistency necessary for the grinding operation.

[Claims 6 to 11 not printed in the Gazette.]

1,207,897. HEATER FOR COMBUSTION-ENGINES. JOHN GOOD, Brooklyn, N. Y. Filed Mar. 6, 1914. Serial No. 822,813. (Cl. 123—122.)



1. In an internal combustion engine, the combination of means whereby the heat of the engine combustions is utilized for the vaporization of the fuel, a forced draft heating means independent of the engine combustion for heating the fuel used in the engine and comprising nozzles for atomizing fuel with air, an electric igniter in the path of the atomized fuel and means for simultaneously operating said nozzles and igniter.

2. In an internal combustion engine, the combination of fuel-vaporizing apparatus normally heated by heat developed by combustion in the engine, means for preheating such apparatus, comprising a burner chamber forming one end of a closed flame passage which includes the vaporizing apparatus and means for directing a flame from the chamber through the passage comprising a source of air pressure to support combustion, means for spraying liquid fuel of low volatility into said passage, and an electric spark igniter mounted in the path of and operable to ignite said spray.

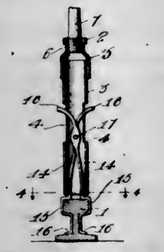
3. In an internal combustion engine, adapted for use on heavy oils, and having means for vaporizing its fuel by the heat of its combustion, the combination of a fuel oil supply for such vaporizing means, an inclosed combustion device for preheating said means comprising oil and air nozzles, and means for delivering oil from said oil supply also to the oil nozzle.

4. An internal combustion engine, adapted for use on heavy fuel oils and having means for vaporizing its fuel by the heat of its combustion, combined with a forced draft flame-producing device permanently applied to the said vaporizing means and including a casing to prevent escape of flame to the exterior, said casing containing a fuel spray means and an electric igniter having divergently related and self-draining electrodes directly intercepting said spray, and means for operating said device from the exterior of the casing.

5. The combination with an internal combustion engine using heavy liquid fuel and having means whereby said fuel is normally vaporized by the heat of the combustion in the engine, of an inclosed flame-producing device for heating said means, comprising a closed flame passage having an outlet for combustion products at one end and containing means at the other end for creating a blast mixture of said liquid fuel and air, ignitible in said passage in a cold state, an electric igniter for said mixture and means for supplying air to the ignited mixture in said flame passage and under pressure.

[Claims 6 to 21 not printed in the Gazette.]

1,207,898. SIGNAL-STAFF FOR RAILROADS. FRANK S. GREGUR, West Brownsville, Pa. Filed May 1, 1915. Serial No. 25,257. (Cl. 246—40.)



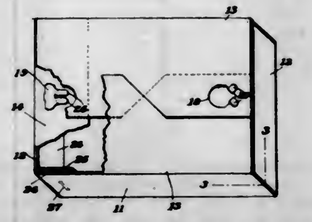
1. A signal staff for railroads including jaws to embrace the rails having shanks extending therefrom to provide operating portions, and a signal bearing standard movably associated with said jaws to automatically clamp the latter on the rail, when the standard is dropped, said operating portions being actuated by movement of the standard in the opposite direction, to disengage the jaws from the rail.

2. A signal staff for railroads including jaws to embrace a rail, means in connection with said jaws to gravitate thereon for automatically clamping said jaws in engagement with the rail when said means is released, and a signal standard carried by said means for elevating the latter to disengage said jaws.

3. A signal staff for railroads and including automatically expansible and contractible jaws, and a body slidably associated with said jaws to contract the same into snug engagement with the rail when said body is moved in one direction, the jaws being automatically expanded when the body is moved in the opposite direction.

1,207,899. MAILING-WRAPPER. HERMAN L. GREVE, New York, N. Y., assignor to International Mailing Tube & Wrapper Company, a Corporation of New York. Filed June 1, 1914. Serial No. 842,067. (Cl. 229—87.)

1. A wrapper comprising a body, side and end walls, closure flaps, tongues extending from certain of the walls, said tongues being scored transversely to form a plurality of sections which are folded one upon the other and constitute reinforcing and cushioning angle members at the inside corners of the wrapper for the full depth thereof, said cushioning means being adapted to embrace the corners of the article to be shipped, as and for the purposes described.

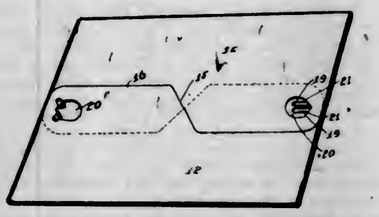


2. A wrapper comprising a body portion, side and end walls, flaps extending laterally from the walls, tongues extending longitudinally from the walls, said tongues being scored transversely to form a plurality of sections, said sections being folded one upon the other to constitute reinforcing and cushioning angle members extending the full depth of the wrapper to embrace and protect the corners of the article to be shipped, and means for fastening adjacent sections to each other.

3. A wrapper comprising a body portion, side and end walls, closure flaps, tongues extending from the walls, said tongues being scored transversely to form a plurality of sections which are folded one upon the other and constitute reinforcing and cushioning angle members extending the full depth of the wrapper, and disposed on both sides of the meeting edges of the walls and adapted to embrace the corners of the article to be shipped as and for the purposes described.

4. A wrapper comprising a body portion, side and end walls, flaps extending laterally from the walls, tongues extending longitudinally from the walls, said tongues being scored transversely to form a plurality of sections, said sections being folded one upon the other to constitute reinforcing and cushioning angle members disposed at the inside corners of the wrapper extending the full depth thereof and abutting the adjacent walls, the adjacent sections of said tongues being fastened to each other, and the surface of the angle members contacting with the article to be shipped being angular to fit about the corners of said article.

1,207,900. MAILING-WRAPPER. HERMAN L. GREVE, New York, N. Y., assignor to International Mailing Tube & Wrapper Company, a Corporation of New York. Filed Oct. 26, 1914. Serial No. 868,546. (Cl. 229—87.)



1. A mailing wrapper having a body portion, end flaps and interlocking side flaps, said side flaps having portions overlapping each other, said overlapping portions being formed with registering perforations and fasteners attached to the end flaps having portions which may be grasped through the perforations and divergently bent to engage the side flaps to hold the latter in place when set up, said perforations being of sufficient width to permit passing of the fingers therethrough to grasp the tongues before they are bent over.

2. A mailing wrapper having a body portion, end flaps and interlocking side flaps, said side flaps having portions overlapping each other, said overlapping portions being formed with registering perforations of substantial area, and fasteners attached to the end flaps, said fasteners being each formed with a tongue extending flatwise of the material and of a substantially smaller length than the perforation whereby the tongue may be grasped through the registering perforations and bent over the side flap to hold the same in place when set up.

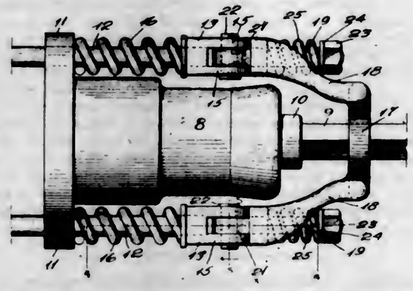
3. A mailing wrapper having a body portion, end flaps and interlocking side flaps, said side flaps having portions overlapping each other, said overlapping portions being formed with registering perforations of substantial area, and fasteners attached to the end flaps, each fastener being formed with a plurality of tongues extending flatwise of the material and of a substantially smaller length than the perforation whereby the tongue may be grasped through the registering perforations and bent over the side flap to hold the same in place when set up.

4. A mailing wrapper having a body portion, end flaps and interlocking side flaps, said side flaps having portions overlapping each other, said overlapping portions being formed with registering perforations having converging angularly disposed walls, and fasteners attached to the end flaps, each fastener having a tongue adapted to be grasped when the perforation registers thereover to be bent over the angularly extending wall.

5. A mailing wrapper having a body portion, end flaps and interlocking side flaps, said side flaps having portions overlapping each other, said overlapping portions being formed with registering perforations having a plurality of converging angularly disposed walls and fasteners attached to the end flaps, each fastener having a plurality of tongues extending flatwise of the material of the end flap, said tongues adapted to be grasped when the perforation registers thereover to be bent divergently over the angularly extending walls.

[Claim 6 not printed in the Gazette.]

1,207,901. TOOL-RETAINER. HJALMER C. GUSTAFSON, Denver, Colo., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo., a Corporation of Delaware. Filed Aug. 29, 1916. Serial No. 117,455. (Cl. 121—20.)



1. In apparatus of the character set forth, the combination with a tool holding member, of securing means therefor, a tool retaining device having a pivotal mounting on the securing means and capable of forward movement, and yielding means swinging with the device for resisting the forward movement.

2. In apparatus of the character set forth, the combination with a tool holding member, of side bolts for securing the same in place, a swinging tool retaining device having a pivotal mounting on the side bolts and capable of forward movement under the impact of a tool striking the same, and yielding means swinging with the device for resisting its forward movement.

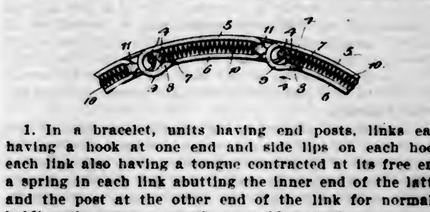
3. In apparatus of the character set forth, the combination with a tool holding member, of securing means therefor, and an extensible tool retaining member movably mounted on the securing means.

4. In apparatus of the character set forth, the combination with a tool holding member, of side bolts for securing the same in place, and a swinging tool retaining member comprising a yoke pivotally mounted on the side bolts and extensible longitudinally of the tool retained thereby.

5. In apparatus of the character set forth, the combination with a tool holding member, of side bolts for securing the same in place, and a swinging tool retaining member comprising a yoke having yielding longitudinally extensible side arms pivotally mounted on the side bolts.

[Claims 6 to 18 not printed in the Gazette.]

1,207,902. PLATFORM FOR DOORWAYS. JOHN B. HABERMAN, Heron Lake, Minn. Filed Dec. 27, 1915. Serial No. 68,753. (Cl. 14—71.)



1. The combination with a wall having an opening therethrough with its lower edge spaced from the floor; of a platform extending from said lower edge to the floor, and said platform having a jointed connection between one side of the edge adjacent the opening and the wall, whereby the same is adapted to be raised vertically and swung laterally to one side of the opening when not in use.

2. The combination with a wall having an opening therethrough, with its lower edge spaced from the floor; of a platform extending from said lower edge to the floor, and a combined hinge and swivel connecting the platform and wall whereby the platform may be raised vertically and swung laterally to one side of the opening when not in use.

3. The combination with a wall having an opening therethrough, with its lower edge spaced from the floor; of a platform extending from said lower edge to the floor, a bar secured to said platform and projecting from its edge, a swivel secured to the wall, and a hinged connection between said swivel and the projecting end of the bar.

4. The combination with a wall having an opening therethrough, with its lower edge spaced from the floor; of a platform extending from said lower edge to the floor, a bar secured to the lower surface of said platform and projecting from the same adjacent one side, an additional bar secured to the wall adjacent one side of the lower edge of said bar, a substantially U-shaped member having its base rotatably connected with said last mentioned bar, a pintle between the arms of said member, and the projecting end of the bar on said platform hingedly connected with the pintle.

1,207,903. BRACELET. ART HADLEY, Providence, R. I. Filed Mar. 6, 1916. Serial No. 82,321. (Cl. 59—79.)

1. In a bracelet, units having end posts, links each having a hook at one end and side lips on each hook, each link also having a tongue contracted at its free end, a spring in each link abutting the inner end of the latter and the post at the other end of the link for normally holding the tongue opposite to said post thereby to prevent inward movement of the tongue.

2. In a bracelet, units having end posts, a spring pressed link in each unit, each link having a hook at one end and also having a tongue, each hook being curved

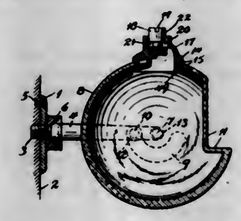
inwardly at its free end part and extended approximately parallel to the major part of the link so as to lie in close proximity to the adjacent post, and formed with a seat for the free end of the tongue to allow the tongue free end to form a substantially unbroken continuation of the said free end part of the hook and be normally held opposite to said post.

3. In a bracelet, units having end posts, a spring pressed link in each unit, each link having a hook at one end and also having a tongue the free end of which latter rests on the hook so as to be held against outward movement by the hook, the hook and free end of the tongue being formed so as to interengage and provide unbroken continuation of each other whereby to eliminate projections.

4. In a bracelet, units having end posts, a spring pressed link in each unit, and a clip formed independent of the link and clenched to one end of the link to engage the unit and limit lateral movement of the link.

5. In a bracelet, units having end posts, a spring pressed link in each unit, and means formed independent of the link and frictionally secured to the link to engage the unit and limit lateral movement thereof.

1,207,904. LIQUID-DISPENSER. JOSEPH B. HALL, Chicago, Ill. Filed July 29, 1914. Serial No. 853,840. (Cl. 221—94.)



1. In a liquid dispenser, the combination with a holder for liquid, of a nozzle having a continuously open orifice for the passage of liquid and provided with separated projections adjacent to said orifice and disposed in substantial parallelism with one another and longitudinally on opposite sides of the path of the liquid through said orifice.

2. In a liquid dispenser, the combination with a holder for liquid, of a nozzle having an orifice for the passage of liquid and provided with approximated projections adjacent to said orifice and disposed in substantial parallelism with one another and longitudinally on opposite sides of the path of the liquid through said orifice, said projections being of different lengths.

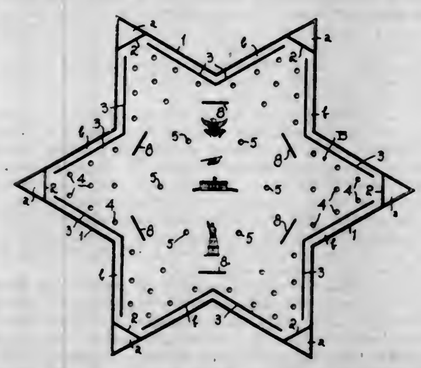
3. In a liquid dispenser, the combination with a holder for liquid, of a nozzle having an orifice for the passage of liquid and provided with approximated projections adjacent to said orifice and disposed in substantial parallelism with one another and longitudinally on opposite sides of the path of the liquid through said orifice, one of said projections having a recess in its surface adjacent to the other projection.

4. In a liquid dispenser, the combination with a holder for liquid, of a nozzle having an orifice for the passage of liquid and provided with approximated projections of different lengths adjacent to said orifice and disposed in substantial parallelism with one another and longitudinally on opposite sides of the path of the liquid through said orifice, said projections having a recess in their adjacent surfaces.

5. In a liquid dispenser, the combination with a tiltable holder for liquid, of a nozzle having an orifice for the passage of liquid and provided with approximated projections adjacent to said orifice and disposed in substantial parallelism with one another and longitudinally on opposite sides of the path of the liquid through said orifice, said projections each having a recess in their adjacent surfaces.

[Claim 6 not printed in the Gazette.]

1,207,905. GAME APPARATUS. ARTHUR A. HALLAM, Jacksonville, Fla. Filed Aug. 9, 1916. Serial No. 113,969. (Cl. 46—61.)



1. A game apparatus of the character described including a base board provided with a marginal series of pockets in predetermined spaced relation, a series of pockets arranged in the central portion of the game board, projectiles adapted to travel over the game board, and means for impelling the projectiles, the marginal portion of the game board being provided with run-ways, said run-ways being open at their opposite ends.

2. A game apparatus of the character described including a base board provided with a marginal series of pockets in predetermined spaced relation, a series of pockets arranged in the central portion of the game board, projectiles adapted to travel over the game board, means for impelling the projectiles, the marginal portion of the game board being provided with run-ways, and upstanding strips carried by the base board inwardly of the run-ways and at points intermediate the length of said run-ways.

3. A game apparatus of the character described including a base board provided with a marginal series of pockets in predetermined spaced relation, a series of pockets arranged in the central portion of the game board, and projectiles adapted to travel over the game board, the marginal portion of the game board being provided with run-ways, said run-ways being open at their opposite ends.

4. A game apparatus of the character described including a base board provided with a marginal series of pockets in predetermined spaced relation, a series of pockets arranged in the central portion of the game board, projectiles adapted to travel over the game board, the marginal portion of the game board being provided with run-ways, and upstanding strips carried by the base board inwardly of the run-ways and at points intermediate the length of said run-ways.

1,207,906. TEXTILE-FABRIC STRIP. THEODORE W. HANRATH, Chicago, Ill., assignor to A. Stein & Company, Chicago, Ill., a Corporation of Illinois. Filed June 7, 1916. Serial No. 102,327. (Cl. 154—46.)



As a new article of manufacture, a substitute for non-elastic webbing consisting of a strip of textile fabric folded lengthwise and of two-ply thickness throughout the greater portion of its width, said strip having inwardly folded edges in alinement and cemented together.

1,207,907. RUBBER-HEEL PROTECTOR. BLAIR HARDESTY, Clifton Forge, Va. Filed Sept. 2, 1915. Serial No. 48,688. (Cl. 36—75.)

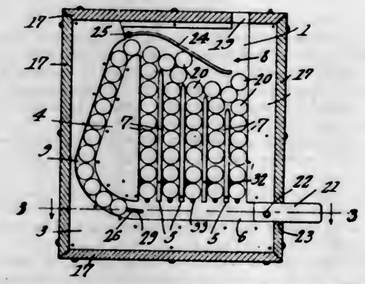


1. A heel protector formed from a single piece of metal comprising a base and opposite sides, said base having notches in its side edges disposed in staggered relation, and the sides of the protector extending laterally from the base with their extremities disposed in a single plane.

2. A heel protector formed from a single piece of metal comprising an arcuate base and opposite sides, said base having notches in its side edges disposed in staggered relation, the sides of said protector extending laterally from the base at right angles thereto and disposed in arcuate spaced series with their outer edges disposed in a single plane, said base and sides having apertures therethrough.

3. The combination with a heel, of a metal protector comprising an arcuate base and opposite sides embedded therein at a point intermediate the upper and lower surfaces of the heel and adjacent one side of its curved edge, the base portion of said protector having notches in its side edges disposed in staggered relation, the sides of said protector extending laterally with their outer edges flush with the lower surface of the heel and spaced in arcuate relation with the adjacent edge of the same, said protector being apertured so that it may be securely engaged by the heel.

1,207,908. GAME AND CHANCE DEVICE. ELZA HARNESS, Bloomington, Ill. Filed Mar. 3, 1916. Serial No. 81,935. (Cl. 46—56.)



1. A game device embodying a frame having a magazine, a slot below the magazine, and a slot extending from the aforesaid slot to the magazine, disks within the magazine adapted to drop into the first mentioned slot, and to be returned by way of the second mentioned slot into the magazine.

2. A game device embodying a frame having a horizontal slot, a plurality of chutes extending upwardly from said slot, a magazine at the upper ends of said chutes, and a return slot extending from one end of the aforesaid slot to the magazine, and disks within the magazine adapted to gravitate through the chutes into the horizontal slot, and to be returned by way of the return slot to the magazine.

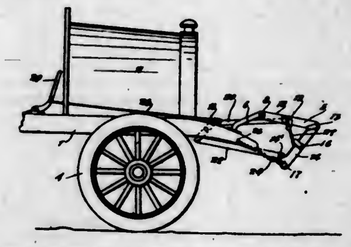
3. A game device embodying a frame having a magazine, a slot below the magazine, a slot extending from the aforesaid slot to the magazine, disks within the magazine adapted to drop into the first mentioned slot, and to be returned by way of the second mentioned slot into the magazine, the frame also having a plate covering the magazine and provided with openings exposing the disks which are in the slots.

4. A game device embodying a frame having a horizontal slot, a plurality of chutes extending upwardly from said slot, a magazine at the upper ends of said chutes, a return slot extending from one end of the aforesaid slot to the magazine, disks within the magazine adapted to gravitate through the chutes into the horizontal slot, and to be returned by way of the return slot to the magazine, and an arm pivoted at the upper end of the return slot and projecting within the magazine to press the disks downwardly into the chutes.

5. A game device embodying a frame having a magazine, a slot below the same, and a return slot extending from one end of said slot to the magazine, disks within the magazine to drop into the first mentioned slot, and manually controllable means for supporting the disks within the magazine and for releasing them to drop into the first mentioned slot.

[Claims 6 to 11 not printed in the Gazette.]

1,207,909. AUTOMOBILE-FENDER. FREDERICK WILLIAM HARRIS, Tate, Saskatchewan, Canada. Filed Apr. 10, 1916. Serial No. 90,146. (Cl. 105—33.)



1. The combination with the chassis of an automobile, of a horizontally and pivotally jointed two-part fender pivotally suspended from the chassis, means retaining the fender in a set collapsed position with the joint advanced for engagement with an object and releasable means for locking the fender in an extended position with the two parts thereof contained in the same plane.

2. The combination with the chassis of an automobile, of a horizontally and pivotally jointed two-part fender pivotally suspended from the front end of the chassis, a pair of levers pivotally secured to the chassis to the rear of the fender, a pair of bars connecting the upper ends of the levers with the upper portion of the fender, a pair of bars connecting the lower ends of the levers with the lower part of the fender and spring means connecting the lower pair of bars with the lower part of the fender.

3. The combination with the chassis of an automobile, of a horizontally and pivotally jointed two-part fender pivotally suspended from the front end of the chassis, a pair of levers pivotally secured to the chassis to the rear of the fender, a pair of bars connecting the upper ends of the levers with the upper portion of the fender, a pair of bars connecting the lower ends of the levers with the lower portion of the fender, spring means connecting the lower pair of bars with the lower part of the fender and a stop bar carried by the lower part of the fender and engageable with the upper part thereof in the collapsed position of the fender.

4. The combination with the chassis of an automobile, of a pair of brackets permanently secured to the front end of the chassis, a horizontally and pivotally jointed two-part fender pivotally suspended from the brackets and located in advance of the chassis, an opposing pair of levers pivotally secured to the chassis to the rear of the fender, a pair of bars connecting the upper ends of the

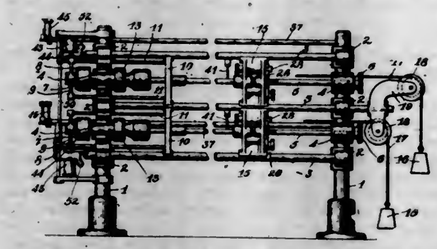
levers pivotally to the upper portion of the fender, a pair of bars connecting the lower ends of the levers pivotally to the lower portion of the fender, springs inserted between the body portions of the latter bars and the lower portion of the fender and a stop bar secured to the lower portion of the fender and designed to engage with the upper portion thereof in the collapsed position of the fender.

5. The combination with the chassis of an automobile, of a pair of brackets permanently secured to the chassis, pairs of upper and lower opposing links having their meeting ends pivotally connected together, the upper ends of the upper links pivotally connected to the brackets and the lower ends of the lower links back-turned, guards secured to the links and passing in a direction across the chassis, a pair of opposing levers pivotally connected to the chassis, a pair of upper bars having their rear ends pivotally connected to the upper ends of the levers and their forward ends connected to the upper pair of links, a pair of lower bars having their rear ends connected to the lower ends of the levers and their forward ends pivotally connected to the back-turned ends of the lower links, a pair of coiled springs having their rear ends fastened to the bodies of the lower bars and their forward ends secured to the lowermost guard and a stop bar secured to one of the guards carried by the lower links and engageable, in the movement of the lower links with the guard carried by the upper links.

1,207,910. PROCESS OF CRYSTALLIZING BRASS SURFACES. OTTO ROY HASENOHR, Terre Haute, Ind., assignor of one-half to Jacob Deheck, Terre Haute, Ind. Filed Oct. 14, 1914. Serial No. 866,723. (Cl. 41—18.)

The herein described process of crystallizing brass surfaces, which consists first in dipping the brass in a solution containing one part of nitric acid and two parts of sulfuric acid and maintaining the brass in said solution from five to ten seconds, then removing the brass and washing it in cold water and dipping the brass in a solution containing eight ounces of potassium cyanid to a gallon of water, where the brass is kept for from five to ten seconds, after which the brass is washed in cold water, and then placing the brass in sawdust which contains a mixture consisting of ten ounces of salammoniac, two ounces of blue vitriol to a half gallon of water, the brass being kept in the sawdust for a period of from one to five minutes, after which it is washed in cold water and finally dried by dipping it in and removing it from boiling water.

1,207,911. WIRE-COILING MACHINE. EDGAR F. HATHAWAY, Boston, Mass., assignor to American Warp Drawing Machine Company, a Corporation of Maine. Filed Oct. 5, 1906, Serial No. 337,575. Renewed June 16, 1916. Serial No. 104,120. (Cl. 153—64.)



1. A wire coiling machine comprising a rotatable mandrel, an abutment mounted thereon for relatively axial movement and having an operative face substantially normal to the axis of the mandrel and wire delivery means to deliver a wire to said mandrel to be coiled thereon against said abutment.

2. A wire coiling machine comprising a rotatable mandrel, an abutment mounted thereon and axially movable with respect thereto, and wire delivery means to deliver a wire to said mandrel in a direction substantially normal to the axis of the mandrel to be coiled thereon against said abutment.

3. A wire coiling machine comprising a rotatable mandrel, an abutment mounted thereon for axial movement, and having a spire forming face with which the wire engages as it is coiled, restraining means to oppose the movement of said abutment, and wire delivery means to deliver a wire to said mandrel to be coiled thereon against said abutment.

4. A wire coiling machine comprising a rotatable mandrel, an abutment mounted thereon for axial movement, and having a spire forming face substantially normal to the axis of the mandrel, friction restraining means to oppose the said movement of the abutment, and wire delivery means to deliver a wire to said mandrel to be coiled thereon against said abutment.

5. A wire coiling machine comprising a rotatable mandrel, an abutment mounted thereon for axial movement, a plurality of restraining devices to oppose the axial movement of said abutment, and wire delivery means to deliver a wire to said mandrel to be coiled thereon against said abutment.

[Claims 6 to 108 not printed in the Gazette.]

1,207,912. CARBON-BRUSH CONNECTION. RAYMOND F. HAUSEN, Pittsburgh, Pa. Filed Apr. 14, 1915. Serial No. 21,305. (Cl. 200—26.)



1. In combination, a carbon brush having a cylindrical aperture therein, a flexible conductor extending into said aperture, and a cylindrical member of conductive material located also in said aperture and surrounding said conductor, said member having one or more longitudinal slots whereby it is compressed tightly around the conductor when driven into said aperture.

2. In combination, a carbon brush having a cylindrical aperture therein, a flexible conductor extending into said aperture, and a cylindrical member of conductive material surrounding said conductor and having one or more longitudinal slots, said member being of such size that when it is driven into the brush it is compressed tightly around the conductor.

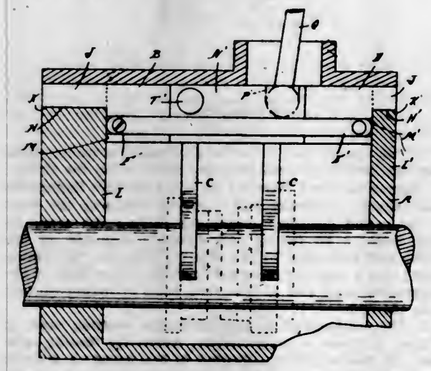
3. In combination, a carbon brush having a cylindrical aperture therein, a flexible conductor extending into said aperture, a cylindrical screw adapted to be turned into said aperture and having a longitudinal bore adapted to receive said conductor, said screw having one or more longitudinal slots, and the bore being of such size as to require that the screw be spread at the slot or slots to admit the conductor, whereby when the screw is turned into the aperture it is caused to grip the conductor so that the latter cannot then be withdrawn.

4. In combination, a carbon brush having a cylindrical aperture therein, a flexible conductor extending into said aperture, a cylindrical member of conductive material adapted to be driven into said aperture and having a longitudinal bore adapted to receive said conductor, said member having also one or more longitudinal slots, the bore of said member being of such size as to require that the member be spread at the slot or slots to admit the conductor, and the size of said aperture being substantially the same as the normal size of the outside of said member, whereby when the member is driven into the brush it is caused to grip the conductor so that the latter cannot be withdrawn.

5. In combination, a carbon brush having a cylindrical aperture therein, a flexible conductor extending into said aperture, a cylindrical member of conductive material adapted to be driven into said aperture and having a longitudinal bore adapted to receive said conductor, said member having also one or more longitudinal slots, the bore of said member being of such size as to require that the member be spread at the slot or slots to admit the conductor, and the size of said aperture being substantially the same as the normal size of the outside of said member, whereby when the member is driven into the brush it is caused to grip the conductor so that the latter cannot then be withdrawn, and the bore in said member being roughened to increase its grip on the conductor.

[Claims 6 and 7 not printed in the Gazette.]

1,207,913. GEAR-SHIFTING MECHANISM. HENRY C. HAYS, Detroit, Mich., assignor to Anthony J. Detlaff, Detroit, Mich. Filed June 5, 1916. Serial No. 101,784. (Cl. 74—39.)



1. The combination with a transmission gearing housing having slotted end walls, of a gearing shifter mechanism having a bar engageable by transverse movement with the slots in said end walls and means engaging said bar for holding the same in position in said housing.

2. A gear shifter unit comprising shifter forks, and a guide frame for said forks comprising parallel side bars and a center bar projecting beyond the ends of said side bar.

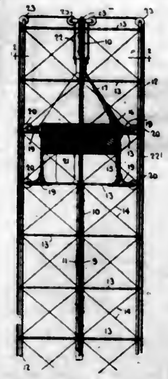
3. A gear shifter unit comprising shifter forks, and a guide frame for said forks comprising parallel side bars and a center bar projecting beyond the ends of said side bar, the projecting ends of the center bar and the ends of the side bar forming part of the supporting means for said unit.

4. A gear shifter unit comprising shifter forks, slidable heads for said forks and a guide frame for said heads comprising parallel side bars and a center bar, said center bar having a plurality of latch engaging detents and said slidable heads having a spring pressed member for engaging said detents.

5. A shifter unit comprising shifter forks, slidable heads carrying said forks, parallel side bars forming guides for said heads, a center bar having latch engaging detents, a housing having a screw threaded engagement within said heads and a latch member inclosed within said housing spring pressed against said center bar for holding the shifter head in different positions of adjustment.

[Claims 6 and 7 not printed in the Gazette.]

1,207,914. AMUSEMENT APPARATUS. JEAN D. HASEN, South Bocagrande, Fla., assignor of one-half to John Low Kerr, South Bocagrande, Fla. Filed May 2, 1916. Serial No. 94,988. (Cl. 46—72.)



1. In amusement apparatus of the character described, the combination with a passenger car, of means for raising and lowering the car, means for rotating said car, and means for coupling the car to and uncoupling it from the rotating means to cause both to rotate together or permit one to rotate with relation to the car.

2. In amusement apparatus of the character described, the combination with a passenger car, of means for raising and lowering the car, a rotatable member that moves up and down with the car, means for rotating the member during its travel with the car and means for clutching together and unclutching the car and member.

3. In amusement apparatus of the character described, the combination with a standard, of a rotatable member movable longitudinally thereof, coacting devices on the standard and member to cause the rotation of the latter, a car movable longitudinally of the standard, and means for clutching the car to the member to cause the rotation of said car and unclutching it therefrom to permit the movement of the car without rotating it.

4. In amusement apparatus of the character described, the combination with a standard having a spiral trackway thereon, of a car movable longitudinally of the standard and rotatable with respect to the same, a collar movable longitudinally of the standard and engaged with the trackway so as to be rotated thereby upon the longitudinal movement, a clutch for connecting the collar and car to cause the same to rotate together and permit the rotation of the collar with respect to the car, and means for operating the clutch.

5. In amusement apparatus of the character described, the combination with a car, of means for moving the same, means for rotating the car during such movement, and a yielding shock absorbing connection between the rotating means and car.

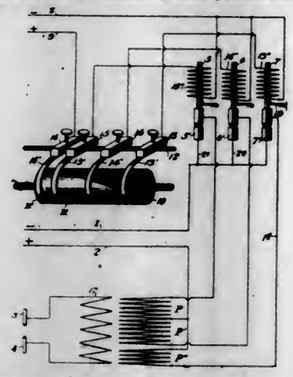
[Claims 6 to 12 not printed in the Gazette.]

1,207,915. TIMING MECHANISM FOR ELECTRIC WELDING. JOHN ALLEN HEANY, New York, N. Y., assignor to Royalty Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 20, 1916. Serial No. 121,244. (Cl. 219—13.)

1. In a timing device for electric welding machines, means for effecting variations in the voltage during the welding operation and for effecting variations of the time of flow of the current during each voltage variation.

2. In a timing device for electric welding machines, a transformer having welding electrodes connected to the secondary winding thereof and having its primary winding formed in a plurality of parts, means for conducting

an electric current to said parts, and means for automatically and successively rendering said parts inactive.



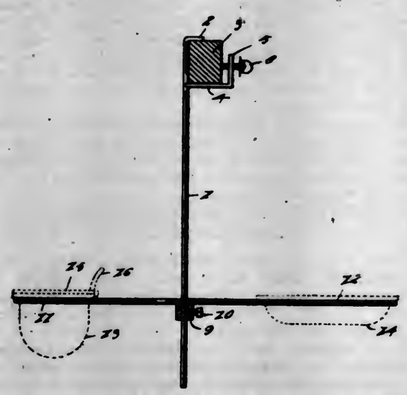
3. In a timing device for electric welding machines, a transformer having a primary winding formed of a plurality of parts and having a constant secondary winding, means operable to close the circuits through the parts of the primary winding, simultaneously, and for permitting them to be successively opened, and means for regulating the time of flow of the current through each part.

4. In a timing device for electric welding machines, a transformer having its primary winding consisting of a plurality of parts, means for rendering said parts active, and means for rendering said last-mentioned means successively inoperative including a plurality of controlling magnets, a commutator having a contact plate thereon and brushes connected to the magnets and to a suitable source and arranged to successively pass out of contact with said plate, said brushes being independently adjustable to vary the time of contact.

5. In a timing device for electric welding machines, means for varying the voltage and the time interval between successive voltage variations.

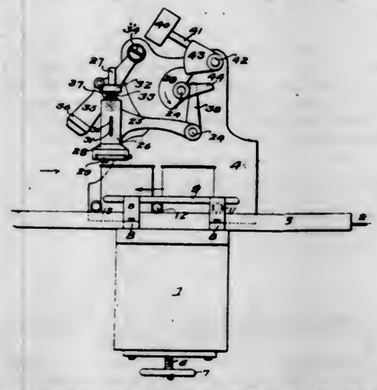
[Claims 6 and 7 not printed in the Gazette.]

1,207,916. COMBINED WASHBASIN AND CUSPIDOR SUPPORT FOR INVALID-BEDS. ROSA B. HENDRICKS, McClure, Ill. Filed Mar. 8, 1916. Serial No. 82,880. (Cl. 248—3.)



A combined wash basin and cuspidor support comprising a supporting rod, said supporting rod provided with its upper end flattened and bent at right angles to overlie the side rail of a bed, an arm formed on the supporting rod and underlying the side rail of the bed, said arm provided with its free end bent at right angles and spaced from the side rail of the bed, a set screw carried by the free end of said arm for engaging the side rail to clamp the supporting rod at any desired point along the side rail, a horizontal arm rotatably and adjustably secured upon the supporting rod, and means on the ends of the horizontal arm for receiving a cuspidor and wash basin.

1,207,917. STAMPING-MACHINE. JOHN EDGAR HIBBS, Malvern, Pa. Filed Feb. 17, 1914. Serial No. 819,177. (Cl. 101—83.)



1. The combination of a frame; means for feeding cans past the frame; an arm pivotally mounted on the frame; an impression head mounted on the arm, said impression head having a spindle and a spring retaining the head in its raised position; means for raising the arm; an arm carrying an inking pad pivotally mounted on the frame and connected to the arm carrying the impression head; and a hammer arranged to strike the spindle of the impression head and to force the head in inking contact with the pad.

2. The combination in a machine for marking cans, of a base; a frame secured thereto; means for feeding cans past the frame; an arm pivoted to the frame; a bearing carried by the arm; an impression head having a spindle extending through the bearing and carrying a type form; an arm carrying an inking pad and adapted to the frame; a link connecting the arm with the arm of the impression head; a cam for raising the arm of the impression head; a hammer; and a cam for raising the hammer, said hammer being in line with the spindle of the impression head when the head is raised and in alinement with the inking pad.

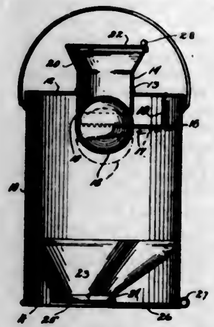
3. The combination in a machine for stamping cans, of a frame; stamping mechanism having an impression head; means for actuating the mechanism; means for feeding the cans under the impression head; a horizontal rock shaft having arms; fingers connected to the arms and projecting through the frame in the path of the cans whereby the cans are centered; a vertical rock shaft for actuating the horizontal rock shaft; and a driven cam for actuating the vertical rock shaft in time with the movement of the stamping head.

4. The combination in a machine for stamping cans, of a frame; stamping mechanism carried by said frame; means for feeding cans under the stamping mechanism; three fingers projecting into the path of the cans; means for actuating the fingers, the first finger of the series being yieldingly connected to its mechanism so that it will yield if a can is in its path.

5. The combination in a stamping machine, of a frame; means for feeding cans past the frame; means for stamping cans; a horizontal shaft having two arms rigidly secured thereto and spaced a given distance apart; a third arm loosely mounted on the said shaft; a spring for retaining the arm in position; means for actuating the rock shaft; and fingers attached to the several arms and projecting through the frame and into the path of the cans.

[Claim 6 not printed in the Gazette.]

1,207,918. ODORLESS GARBAGE-CAN. EARL A. T. HOCKERSMITH, Colorado Springs, Colo. Filed Feb. 15, 1916. Serial No. 78,440. (Cl. 220—115.)



A waste receptacle comprising a hollow body, a top for said body, a cylindrical chute fixed in the top and extending within the body, a filling opening at the upper end of the chute, an arm pivoted at one end to the body, a spherical valve supported at the free end of the arm, spring means normally holding said valve snugly seated within the lower end of the chute, and means for closing the filling opening.

1,207,919. LIQUID-LEVEL INDICATOR. CHARLES H. HOLWAY, La Crosse, Wis. Filed Feb. 4, 1915. Serial No. 6,178. (Cl. 177—327.)

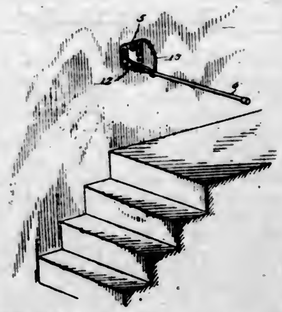


1. An indicator, comprising a multipolar magnet constructed of an iron ring having an offset portion in which its poles are mounted, an indicator armature pivoted in the geometric center of said multipolar magnet and having a path of travel which brings its pointer end successively under control of the respective poles of said magnet, its lower end being continuously under control of the lower portion of said magnet, and independent circuits for the respective poles of said magnet.

2. An indicator, a magnet having a plurality of poles and windings, adapted to be energized successively, a ring piece, poles being mounted on one side of a diameter of said ring piece, and an indicator armature of magnetic material pivoted concentric with said ring and having one end passing successively under the influence of the several poles, and the other end continuously under the influence of the other side of the ring.

1,207,920. SAFETY APPLIANCE. HARRY HOWE, Rockford, Ill. Filed May 29, 1916. Serial No. 100,657. (Cl. 39—84.)

1. The combination with a stationary supporting element positioned at one side of a passage, a guard element extending transversely of the passage and pivotally connected at one end to said supporting element, and means attached to said supporting element for holding the guard in operative position and for guiding it in its pivotal movement to inoperative position comprising a series of spaced guide faces converging downwardly from said supporting element and providing a rest at the juncture of said faces to receive the guard at a point distant from its pivotal support, said faces being shaped to prevent the guard from swinging horizontally on its pivot in one direction while seated on said rest in operative position but enabling it to swing in said direction upon being raised an appreciable distance from the rest and permitting the guard to also swing horizontally in the opposite direction to an inoperative position.

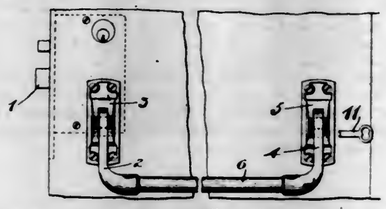


2. A passage guard of the character described comprising a bracket adapted to be supported at one side of a passage and equipped with guides converging downwardly into the passage, and a guard member pivotally mounted on said bracket intermediate said guides and normally resting on the same at the juncture or lowermost point thereof, so as to extend laterally across said passage, one of said guides having a vertically disposed stop portion at said lowermost point whereby to preclude horizontal swinging movement of the guard along this guide until after the guard has been raised above the said stop, whereby the guard when swung to raised position, guided along either of said guides will upon being released, automatically return to normal position.

3. A passage guard of the character described comprising a guard element pivotally secured at one end to a stationary support at one side of the passage and adapted to extend horizontally across the same, and means providing a rest for the guard at a point distant from its pivotal support to hold the guard in its horizontally disposed or operative position, said means being shaped to provide opposed guiding surfaces diverging upwardly from said rest and also to provide a stop at the base of one of said guiding surfaces whereby to prevent the guard from swinging horizontally toward said stop, the guard being movable in said direction after being raised above the stop, whereby when the guard is swung horizontally and upwardly in either direction guided by either of said surfaces, the guard will upon being released be guided to its lower or horizontal position.

4. A passage guard of the character described comprising a guard element pivotally connected at one end to a fixed support at one side of a passage and capable of a universal swinging movement on its pivotal mounting, and means on which the guard element rests at a point distant from its pivotal support so as to be held in a horizontally disposed position, said means including the stop preventing the guard element from swinging horizontally in one direction and including upwardly diverging guide surfaces one of which commences at said rest and the other at the top of said stop, whereby the guard element may be freely swung upwardly and horizontally guided along the first mentioned guide surface but in order to be swung horizontally and upwardly in the opposite direction it must be raised above the said stop.

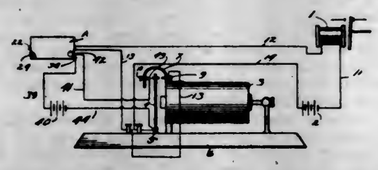
1,207,921. PANIC-BOLT HOLDBACK. NORMAN B. HURD, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 5, 1916. Serial No. 76,339. (Cl. 70—120.)



1. In a device of the character described, a bracket, a retracting member having a hub portion pivoted in the bracket and provided with a locking shoulder, a barrel pivoted in the bracket provided with a notch freely receiving the locking shoulder on the hub in the swinging movement of said retracting member and hub and provided with a locking shoulder at one end of the notch therein adapted to be brought by the turning of the barrel into the plane of the locking shoulder on the hub, manually operable means for rotating the barrel to carry the locking shoulder thereon into the plane of the locking shoulder on the hub, said barrel having a notch therein in the side opposite the locking shoulder before described and a holding spring engaged in said notch.

2. In a device of the character described, a hollow bracket having spaced apart sides, a retracting member having a hub portion disposed between the sides of said hollow bracket and provided with a locking shoulder, a pivot engaged in the sides of said bracket and pivotally supporting the hub portion of the retracting member therein, a spring within the hollow bracket exerting its tension to swing the retracting member in one direction, a barrel pivoted in the hollow bracket parallel to the pivot of the retracting member and provided with a notch in the side thereof facing the locking shoulder and freely receiving the same in the swinging movement of the retracting member and thereby preventing relative displacement of said hub portion and barrel, said barrel having a locking shoulder at the end of the notch therein to coöperate with the locking shoulder on the hub portion and means at the end of said barrel for rotating said barrel to carry the notch out of the plane of the locking shoulder on the hub and position the locking shoulder on the barrel in the plane of the locking shoulder on the hub portion.

1,207,922. BATTERY-ECONOMIZER. ARTHUR L. JENKS, Minneapolis, Minn. Filed Jan. 10, 1916. Serial No. 71,327. (Cl. 175—320.)



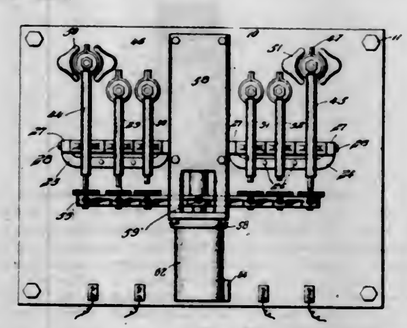
1. In a device of the class described, the combination with a casing having an electromagnet mounted therein, of an armature for said magnet having an arm extending therefrom, a circuit in which the magnet is included, which circuit includes a stationary contact and a spring contact and also an automatically operated switch, a second circuit including a stationary contact and a spring contact and an automatically operated switch, the said spring contacts being in the path of movement of the aforementioned arm, the magnet being adapted to move the arm in one direcion to disengage one of the spring contacts from the corresponding stationary contact and a spring for moving the arm in the opposite direction for disengaging the other spring contact from the corresponding stationary contact.

2. In a device of the class described, the combination with a casing having an electromagnet mounted therein, of an armature for said magnet having an arm extending therefrom, a circuit in which the magnet is included, which circuit includes a stationary contact and a spring contact and also an automatically operated switch, a second circuit including a stationary contact and a spring contact and an automatically operated switch, the said spring contacts being in the path of movement of the aforementioned arm, the magnet being adapted to move the arm in one direction to disengage one of the spring contacts from the corresponding stationary contact and a spring for moving the arm in the opposite direction for disengaging the other spring contact from the corresponding stationary contact, the said spring contact being so arranged that the movement of the arm under the action of the spring will be arrested when the first mentioned spring contact engages the corresponding stationary contact if the automatically operated switch in the same circuit is closed.

3. In a device of the class described, the combination with a line circuit, of a local circuit, an auxiliary circuit having means therein for closing the local circuit upon the opening of the line circuit, the auxiliary circuit being normally open when the local circuit is closed and the aforementioned means in the auxiliary circuit being constructed and arranged to permit the local circuit and the auxiliary circuit to be closed at the same time for a short interval.

4. In a device of the class described, the combination with a main line circuit, of a local circuit and an auxiliary circuit, of switches in the local and auxiliary circuits and means controlled by the main line to alternately open said switches, the said means being inactive to effect either of said switches during a short period of time whereby both of said local and auxiliary circuits remain closed.

1,207,923. MOTOR-STARTER. CLAY JEWELL, Baltimore, Md. Filed Mar. 1, 1913. Serial No. 751,628. (Cl. 172—288.)



1. In a motor starter, the combination with a starting resistance, of a current supply main, circuit closers for connecting the current supply main to the resistance and subsequently gradually short-circuiting the resistance, means for actuating two of said circuit closers simultaneously, on starting, and the other circuit closers afterward, means for starting and releasing said actuating means, and means whereby said actuating means, when started, operates with a quick initial movement to quickly connect the supply main to the resistance and thereafter operates with a retarded movement until the entire resistance is cut out, and whereby said actuating means when released has a return movement at first more rapid than said retarded movement to reinsert the resistance in circuit, said return movement being finally more rapid than said quick initial movement to suddenly break the connection between said resistance and said current supply means.

2. In a motor starter, the combination with a starting resistance, of a current supply main, a plurality of independently movable circuit closers for connecting the current supply main to the resistance and subsequently gradually short-circuiting the resistance, means for actuating said circuit closers comprising a horizontally disposed vertically reciprocable bar adapted to move each of the aforesaid circuit closers, means for starting and releasing said actuating means, and means whereby said actuating means when starting operates with a quick initial movement to quickly operate the circuit closers which connect the supply main to the resistance, and whereby said actuating means thereafter operates with a retarded movement until the entire resistance is cut out, and whereby said actuating means when released has a return movement at first more rapid than said retarded movement to reinsert the resistance in circuit, said return movement being finally more rapid than said quick initial movement to suddenly break the connection between said resistance and said current supply main.

3. In a motor starter, the combination of a panel or support, a starting resistance, contacts on the front of the panel connected to points in said resistance, another contact on the front of said panel adapted to be connected directly to a current supply main, a plurality of members coöperating with the contacts, a reciprocable bar having means for engaging all of said members to actuate them, an electro-magnet having a plunger connected substantially midway between the ends of the bar whereby the latter is balanced with respect to the plunger, and means whereby said bar is operated to cause said members to first quickly close the circuit and connect the resistance to the current supply main and thereafter to gradually cut out said resistance.

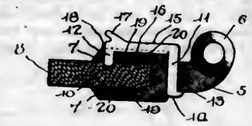
4. In a device of the class described, the combination of a starting resistance, contacts connected with different points in said resistance, current supply mains, an armature circuit having a lead directly connected with one of said supply mains and a lead directly connected with said resistance, a series of electrically connected members coöperating with said contacts, one of said members being arranged when operated to connect the other supply main to said resistance and other members arranged when successively operated to gradually short-circuit said resistance, a horizontally disposed reciprocable bar having means for engaging and operating all of said members, and an electro-magnet for reciprocating said bar.

5. In a motor starter, the combination of a panel, a vertically arranged electro-magnet on said panel, a starting resistance, a set of contacts on said panel connected to different points of said starting resistance and symmetrically arranged on opposite sides of said electro-magnet, two other contacts on opposite sides of the electro-magnet and at equal distances therefrom, a plurality of independently movable contacting members coöperating with all of said contacts and also arranged symmetrically with respect to the electro-magnet, a vertically reciprocable plunger operable by said electro-magnet, a horizontal bar carried by said plunger and capable of causing the operation of said members, said bar first simultaneously engaging the contacting members which coöperate with said two other contacts and thereafter successively engaging the contacting members which coöperate with said set of contacts.

1,207,924. MOUNTING FOR SPECTACLES, EYEGLASSES, AND THE LIKE. PAUL H. JOHNSTON, Davenport, Iowa. Filed Feb. 11, 1916. Serial No. 77,584. (Cl. 88—47.)

1. A spectacle or eyeglass mounting comprising a lens, a box provided with a member extended upon one face of said lens, and a separate integral spring member carried by said box and adapted to engage the face of said lens directly opposite said first-mentioned member.

2. A spectacle or eyeglass mounting comprising a lens having a depression thereon adjacent one edge, a box provided with a member extended upon one face of said lens, and a separate one piece spring member carried by said box and adapted to engage the face of said lens directly opposite said first-mentioned member and seat in said depression.

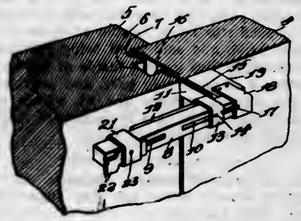


3. A spectacle or eyeglass mounting comprising a lens, a box provided with members extended upon each side of said lens and opposite each other, and a separate one piece spring member carried by said mounting and adapted to engage the lens through one of said members and directly opposite the other of said members and lock the same in said box.

4. A spectacle or eyeglass mounting comprising a lens, a box provided with members extended upon each side of said lens, and a latch adapted to lock said lens in said box and consisting of an elastic body portion disposed upon one of said box members and a lateral extension adapted to extend through the box member upon which it is disposed and contact said lens.

5. A spectacle or eyeglass mounting comprising a lens, a box provided with members extended upon each side of said lens, and a latch adapted to lock said lens in said box and consisting of a substantially U-shaped body of spring metal one of the parallel arms whereof is secured to said box and the remaining portion whereof is adapted to extend along one of said box members and have the opposite arm inserted through said box member and engage said lens.

1,207,925. EMERGENCY DOOR-LOCK. JOHN KACENGA, Witt, Ill. Filed Mar. 25, 1915. Serial No. 16,841. (Cl. 16—8.)



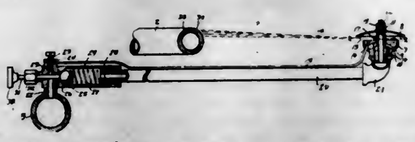
1. A bolt of the character described, comprising a slotted sliding bolt, a locking arm connected thereto, a sliding ferrule connected to the locking arm and slidably mounted over said bolt, a rivet carried by the ferrule and locking arm and extending through the slot in the bolt, and a block hingedly connected to said ferrule by a link and adapted to be inserted between the bolt and the face of a door to which the device is attached, substantially as specified.

2. An emergency lock, comprising a locking arm having its one end shaped in the form of a hook which is adapted to be inserted in the bolt recess of the door casing, a slotted sliding bolt carried by said locking arm, means passing through the slot in the bolt and carried by the locking arm, and a block arranged to be inserted between the bolt and the face of the door, and a flexible means for supporting the block, substantially as specified.

1,207,926. GAS-IGNITER. REGINA KAHN, Milwaukee, Wis. Filed Sept. 23, 1912. Serial No. 721,762. (Cl. 158—115.)

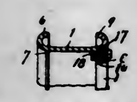
1. The combination with a main gas supply duct of a branch duct and a vertical duct provided with a plurality

of radial ports, means for controlling the admission of gas to said vertical duct and ports, a pair of disks respectively supported from said vertical duct upon the respective sides of said ports, a pilot duct communicating from said main gas supply duct and having its discharge end terminating between said disks, means for controlling the admission of gas to said pilot duct, one or more gas burners connected with said main gas supply duct, and means for controlling the admission of gas to said burners.



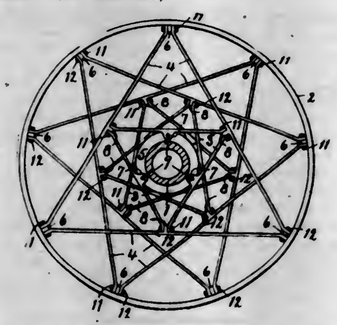
2. The combination of a main gas supply duct and a vertical duct provided with a plurality of radial ports, means for controlling the admission of gas to said vertical duct and ports, a pair of disks respectively supported from said vertical duct upon the respective sides of said ports, means for adjusting said disks nearer to or farther from each other, a pilot duct communicating from said main gas supply duct and having its discharge end terminating between said disks, means for controlling the admission of gas to said pilot duct, one or more gas burners connected with said main gas supply duct, and means for controlling the admission of gas to said burners.

1,207,927. WHEEL-RIM. ROBERT M. KEATING, Springfield, Mass. Filed Feb. 27, 1914. Serial No. 821,527. (Cl. 152—21.)



The combination, in a wheel rim, with a band having a tire-engaging part, and provided with internal annular ribs, one of such ribs being located adjacent to the outer edge of said band, and said band being further provided with bolt-receiving lugs located inside of the outer rib, of a ring having a tire-engaging part, and provided with an annular shoulder to receive and fit within said outer rib, and bolts adapted to pass through said ring into said lugs, to secure said ring to said band.

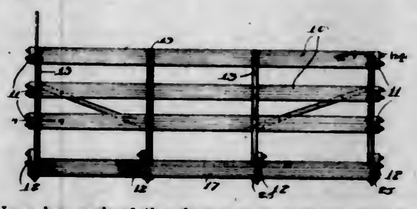
1,207,928. SPRING-WHEEL. ROBERT M. KEATING, Springfield, Mass. Filed Apr. 16, 1914. Serial No. 832,201. (Cl. 152—28.)



1. A spring wheel comprising a hub provided with peripheral projecting members, a rim provided with interior radial members, an intermediate spring unit consisting of an inner triangle having substantially straight one-piece sides which are provided with interior lugs that extend between said peripheral hub members, and of an outer triangle having substantially straight one-piece sides which are provided with interior lugs, means rigidly to connect said inner triangle lugs with said peripheral hub members, means rigidly to connect said inner triangle at the angles with said outer triangle lugs, and means rigidly to connect said outer triangle at the angles with said radial rim members.

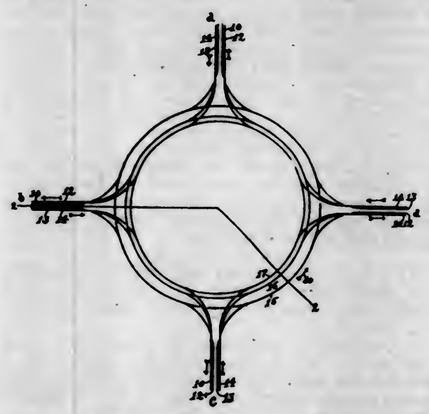
2. A spring wheel comprising a hub provided with peripheral projecting members, a rim provided with interior radial members arranged in sets of three and at equal distances apart, circumferentially of said rim, with said radial members in each set in offset relationship to said radial members in any other set, intermediate spring units consisting of inner triangles having substantially straight one-piece sides which are provided with interior lugs that extend between said peripheral hub members, and of outer triangles having substantially straight one-piece sides which are provided with interior lugs, means rigidly to secure said inner triangle lugs to said peripheral hub members, means rigidly to secure said inner triangles at the angles to said outer triangle lugs, and means rigidly to secure said outer triangles at the angles to said radial rim members.

1,207,929. HAY-RACK. JOHN LAURENCE KELLEHER, Le Mars, Iowa. Filed Mar. 27, 1913. Serial No. 757,215. (Cl. 21—74.)



In a hay rack of the class described, the combination with a plurality of longitudinally extending side members, upright angle bars carried thereby, end members secured to each outside upright angle bar, securing bolts carried by said members and passing through said angle bars, said securing bolts provided with overhanging ends, and said overhanging ends passing through said side members and held in firm engagement therewith.

1,207,930. RAILWAY SYSTEM. WALTER S. KELLEY, Brookline, Mass. Filed Apr. 6, 1915. Serial No. 19,615. (Cl. 104—62.)



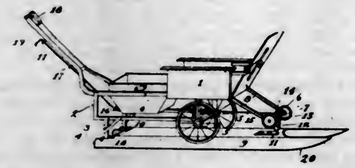
1. In a railway system, in combination, a plurality of circular tracks, and a plurality of trunk lines of tracks extended in different directions and having an ingoing track and an outgoing track connected to said circular tracks, one of said trunk lines being directly connected with a plurality of the circular tracks.

2. In a railway system, a plurality of lines of track each having a plurality of inward and outward tracks, and a plurality of circular tracks with one of which one set of said inward and outward tracks of said lines is directly connected, and with another of which another set of inward and outward tracks of said lines is directly connected.

3. In a railway system, in combination, a plurality of inward and outward lines of tracks extended in different directions, and a plurality of circular tracks located at different levels and with each of which the ingoing and outgoing tracks of a plurality of lines connect.

4. In a railway system, in combination, a plurality of circular tracks, and a plurality of lines of tracks extended in different directions and connected with said circular tracks, one of said lines having a plurality of inward and outward tracks connected directly with separate circular tracks.

1,207,931. ATTACHMENT FOR COMBINING GO-CARTS WITH SLEDS. FAYETTE D. KENDRICK, St. Paul, Minn. Filed Jan. 17, 1916. Serial No. 72,547. (Cl. 21—96.)



1. In attachments for combining go-carts with sleds, the combination of a hinged connection for the rear end of the sled and the go-cart which are to be combined, a second supporting member positioned at the other end of said go-cart and said sled constituting an engagement bar, two points of engagement in said engagement bar adapted to receive a supporting point of said sled, means for releasing said engagement, and means for engaging said bar with said supporting point of said cart.

2. In attachments for combining sleds with go-carts having a supporting member at one end thereof, and a front axle on the other end thereof, the combination of a hinged connection joining said sled with said supporting member, an engagement bar at the other end of said sled having two points of engagement adapted to engage with said forward axle of said cart for positioning said cart with respect to said sled, and means for selecting the point of engagement.

3. In an attachment for combining sleds with go-carts having supporting wheels substantially in the center thereof and auxiliary supports at the front and rear ends thereof to prevent said cart from tipping, the combination of means for attaching said rear support to said sled in a hinged connection, an engagement bar adapted to be attached to the other end of said sled and having two points of engagement therein adapted to receive said forward supporting means on said cart, means for drawing said bar in engagement with said forward supporting means, and means for releasing said engagement bar from said engagement.

4. In an attachment for combining sleds with go-carts, the combination of means for attaching the rear end of said go-cart with the rear end of said sled with a hinged connection, a tiltable engagement bar adapted to engage with a forward member of said go-cart, said engagement bar being mountable on said sled, spring controlled in one direction, and trigger controlled in the opposite direction.

5. In attachments for combining sleds with go-carts, the combination of a tiltable and slidable connecting member, whereby a supporting member of said cart may be attached to said sled, an engagement bar adapted to be fastened to said sled and having notches therein adapted to engage with a forward supporting member of said cart and held by spring control in such engagement, and trigger controlled means whereby said engagement bar may be released from said engagement.

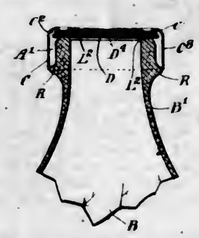
[Claims 6 and 7 not printed in the Gazette.]

1,207,932. SPOKE-CLIP. JEREMIAH A. KING, Swifton, Ark., assignor of one-third to Elbert T. Cashion, Swifton, Ark. Filed Aug. 24, 1915. Serial No. 47,204. (Cl. 21—176.)



A spoke clip, comprising a pair of curved members having felly contacting extensions, curved slotted resilient tongues on the members, the tongue on one member being overlapped by the member adjacent thereto, when both of said members are in position for embracing the spoke, and fasteners adjustably connecting the members and loosely passed through the slots in the tongues.

1,207,933. BOTTLE-CLOSURE. JOSEPH MOSES WARD KITCHEN, East Orange, N. J. Filed Nov. 28, 1914. Serial No. 874,385. (Cl. 215—85.)



1. In a bottle closure, the coöperating combination of, (1) a glass bottle lip comprising a flat horizontal annular sealing surface, (2) a sheet metal superimposed cap, and (3) a compressible disk gasket compressed between the lip and cap, said superimposed cap comprising a horizontal annular sealing surface, two oppositely placed lugs projecting outwardly from the sides of the lip and a bell-ring at the lower level of said lip, said cap having a crown-sheet comprising an annular downstruck compression ring of a width of surface substantially the same as the sealing surface of said lip and horizontally disposed on the same plane, and other downstruck projections for spacing the sealing gasket from most of the horizontal surface of the crown sheet, said cap having a coating of heat and moisture resisting lacquer.

2. In a bottle closure, the combination with a bottle lip of, (1) means of a soft moldable compressible character for effecting a sealing closure of said lip, (2) means for downwardly compressing to and holding in contact with the top of said lip said first named means, (3) a removable means for temporarily preventing the adhesion of the first and second named means during the heating of said closure, and (4) a non-adhesive paper disk for preventing the adhesion of the first and second named means after the cooling of the heated closure and for indicating the date of the heating of said closure.

3. In a bottle closure, the combination of the following coöperating instrumentalities: (1) a bottle lip, (2) a bell cap superimposed on and covering the entire lip, (3) a compressible sealing gasket resting on said lip, and (4) a perforated disk resting on said sealing gasket, said

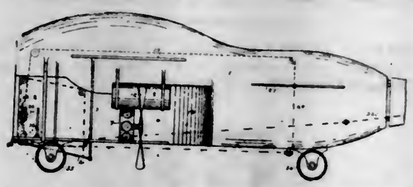
disk having a bottom formed in a substantially horizontal plane and being smooth thereon, but being rough on its upper surface and having numerous perforations allowing air to traverse easily through many parts of the disk to all parts of the upper surface of the sealing gasket.

4. In a bottle closure, the coöperative combination of, (1) a lip, (2) a sealing disk, said sealing disk being coated with a waterproofing material solid at temperatures below 100° F., (3) a metal cap for superimposition above and around the sealing disk during heating of the bottle in the process of pasteurization, and (4) a paper disk of a nonadhesive character superimposed above the first named disk, said combination comprising means for compressing and for holding the two disks in cooperative apposition.

5. In a bottle closure, the combination of, (1) a lip, (2) a compressible moldable adhesive sealing disk, (3) a bell cap for superimposition on and around the lip, said lip and cap having means for controllably compressing the disk onto the lip, and (4) a non-adhesive paper between the disk and the cap for preventing the adhesion of the disk to the cap.

[Claims 6 to 9 not printed in the Gazette.]

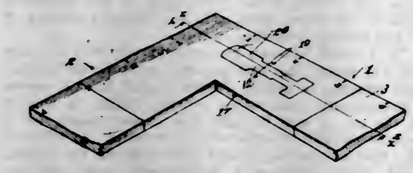
1,207,934. AIRSHIP. AUGUSTUS PETER KOCH, New York, N. Y. Filed Mar. 28, 1914. Serial No. 828,040. (Cl. 244—3.)



1. A device of the character described comprising a body oval and tapered in plan, and oval and blunt in elevation, said body being adapted to contain a buoyant gas and being shaped to provide a plurality of chambers for the operating means and the operator, and an upwardly projecting portion over said chambers to provide gas containing space throughout the entire body as herein specified.

2. A combination of a dirigible and aeroplane comprising a body adapted to retain a buoyant gas and having its forward end extending upwardly above the plane of the upper surface of the remainder of the body, pivoted, elevating wings at the forward end of said body and hinged wings at the rear end, and a rudder all combined for the purpose set forth.

1,207,935. CARPENTER'S SQUARE. AUGUST KRAGE, Hermon, Cal. Filed Mar. 30, 1916. Serial No. 87,664. (Cl. 33—114.)



1. In a carpenter's square, a pair of square members, an extension straight edge, shoulders on said straight edge, a securing element on one of said square members, said securing element comprising a pair of lever members, one of said lever members being pivoted to said square member, the other lever member being carried by said first lever member, a latch on said second lever member adapted to engage said shoulders on said straight edge to lock said straight edge to said square member in alinement therewith, and means for adjusting said second lever member with relation to said first lever member to take up wear in said shoulders and said latch.

2. In a carpenter's square, a pair of square members, an extension straight edge, shoulders on said straight edge, a securing element on one of said square members, said securing element comprising a pair of lever members, a pivot pin for pivoting one of said lever members to one of said square members, the other lever member being provided with a notch through which said pin extends, said pin engaging the upper wall of said notch to hold the second lever member against said first lever member, a latch on said second lever member for engaging said shoulders to lock said straight edge to said square member in alinement therewith and means for adjusting said second lever member to take up wear in said shoulders and said latch, said notch permitting such relative adjustment of said lever members.

3. In a carpenter's square, a pair of square members, an extension straight edge, shoulders on said straight edge, a securing element comprising a pair of lever members, one of said lever members being pivoted to one of said square members, the other lever member being carried by said first lever member, a latch on said second lever member adapted to engage said shoulders on said straight edge to lock said straight edge to one of said square members in alinement therewith, a lug on one of said lever members, a screw extending through a portion of the other lever member, said screw being swiveled to said lug so that upon turning said screw, said second lever member may be adjusted to take up wear in the latch and said shoulders.

4. In a carpenter's square, a pair of square members, an extension straight edge, shoulders on said straight edge, a securing element comprising a pair of lever members, one of said lever members being pivoted to one of said square members, the other lever member being carried by said first lever member, a latch on one end of said second lever member for engaging said shoulder to lock said straight edge to one of said square members to hold said straight edge in alinement with said square members, the other end of said second lever member being provided with a longitudinal slot, a lug projecting from said first lever member into said slot, a screw extending through the slot end of said lever member and swiveled to said lug for adjusting said second lever member and latch to take up wear in said latch and said shoulders.

5. In a carpenter's square, a pair of square members, an extension straight edge, shoulders on said straight edge, a securing element in one of said square members, said securing element comprising a pair of lever members, a pivot pin in said square member for pivoting one of said lever members to said square member, set screws for holding said pivot pin in said square member, a latch on one end of the other lever member for engaging said shoulders to lock said straight edge to said square member in alinement therewith, a screw extending into the end of one of said lever members, a lug on the other lever member to which said screw is swiveled, said screw being adapted to adjust said latch lever member with relation to the other lever member to take up wear in said latch and said shoulders.

1,207,936. EMULSION. SIMON PENDLETON KRAMER, Cincinnati, Ohio. Filed July 22, 1916. Serial No. 110,660. (Cl. 167—3.)

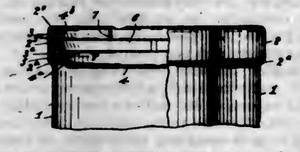
1. An emulsion consisting of substantially fifty per cent. by volume of oil, forty-nine per cent. by volume of water, and a soluble derivative of silica.

2. An emulsion consisting of substantially fifty per cent. by volume of oil, forty-nine per cent. by volume of water, and a soluble silicate.

3. An emulsion consisting of substantially fifty per cent. by volume of oil, forty-nine per cent. by volume of water, and a soluble alkaline silicate.

4. An emulsion consisting of substantially fifty per cent. by volume of a natural oil, forty-nine per cent, by volume of water, and a soluble alkaline silicate.

1,207,937. METALLIC RECEPTACLE. AUGUST M. KRUSE, Defiance, Ohio, assignor to The American Steel Package Company, Defiance, Ohio, a Corporation of Ohio. Filed Dec. 13, 1915. Serial No. 66,451. (Cl. 220—64.)



1. In a metallic receptacle, the combination with a cylindrical receptacle provided with an internally flanged and grooved welding ring; of a flanged and shouldered removable head mounted within and seated on the flanged portion of said ring, and a split expansible head retaining locking ring seated in the grooved portion of said reinforcing ring and provided with means for preventing the circumferential movement of the same while being inserted.

2. In a metallic receptacle, a cylindrical vessel provided with a chime welding rim, a reinforcing flanged and grooved chime ring seated in and welded to said chime welding rim, a removable head having shouldered and flanged portions resting upon and within the flanged and grooved portions of said chime ring, respectively, and a split locking ring interposed between the grooved portion of said chime rim and the flanged portion of said head.

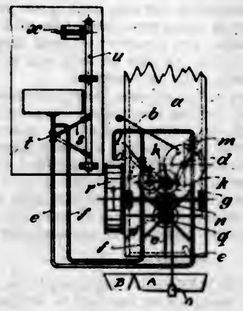
3. In a metallic vessel, a cylindrical body provided with a reinforcing chime ring having circumferential groove and inwardly extending annular head and ring supporting shoulders, a head provided with an annular shoulder and off-set rim abutting against and resting on said head supporting shoulder, said off-set rim resting in said circumferential groove below said ring supporting shoulder and being of less diameter than the inner diameter of the latter, and a split locking ring seated in said groove and interposed between said ring supporting shoulder and said off-set rim of said head.

4. In a metallic receptacle, a cylindrical vessel, provided with a chime welding rim and shoulders, a grooved and flanged chime ring mounted on said shoulders and arranged within and welded to said chime welding rim, a head having a shouldered portion resting within said ring and terminating in a flanged rim resting within the grooved portion of the latter, a split expansible locking ring resting on said flanged rim and seated in said grooved portion of said chime ring, and means for preventing the circumferential movement of said ring relative to said chime ring when being inserted.

5. In a metallic receptacle, a cylindrical vessel, a grooved shouldered chime welding ring arranged within and welded to the rim portion of said cylindrical vessel, a head having a shouldered portion resting against and interlocking with the shouldered portion of said ring and terminating in a flanged rim resting within the grooved portion of the latter, a split expansible locking ring resting on said flanged rim and seated in said grooved portion of said chime ring, and a key member between the latter and said locking ring for preventing circumferential movement of the latter relative to said chime ring.

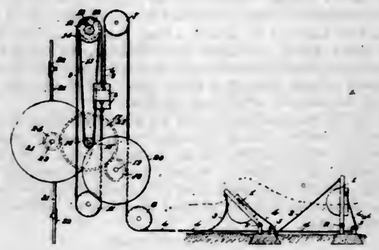
1,207,938. AUTOMATIC FOOD AND WATER SUPPLY. HEINRICH KUXMANN, Bielefeld, Germany. Filed Oct. 28, 1912. Serial No. 728,160. (Cl. 119—56.)

1. An automatic food and water supply comprising a rotatable drum containing food and which delivers food to a feed receptacle, a water wheel, a shaft to which said water wheel is fastened, a worm on said shaft, said worm operatively connected with the drum to rotate it, a pipe conducting water to said water wheel to operate it, said water after operating the water wheel being delivered to a drinking trough, a valve in said pipe, a handle for said valve, a wheel operatively connected with said drum to be rotated thereby, and a projection on the wheel adapted by the rotation of the wheel to be brought into contact with the handle of the valve to close the valve and shut off the water supply.



2. An automatic food and water supply comprising a food holding drum a water wheel operatively turning said drum, a shaft on which said water wheel is mounted, a worm mounted on said shaft, a gear wheel meshing with said worm and turning said drum, valved water delivery pipes, a gear wheel operatively connected to said worm, a pin on said last mentioned gear wheel, means adapted to be engaged by the pin to operate the valves and a spring brake on the shaft of said drum, for the purpose specified.

1,207,939. WAVE-MOTOR. JOSEPH LACHANCE, Los Angeles, Cal. Filed Jan. 31, 1916. Serial No. 75,424. (Cl. 253—11.)



1. In a wave motor, a weight, a wave actuted vane, an endless cable having said weight secured thereto, means connecting said vane and said weight for raising the latter upon oscillation of the former, a pulley and pulley shaft, a ratchet connection between said pulley and said shaft for operating said shaft upon the fall of said weight, a power shaft and an operative connection between said pulley shaft and said power shaft, substantially as described.

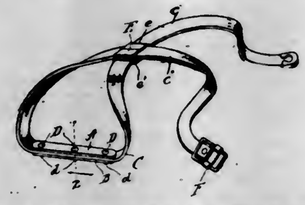
2. In a wave motor, a pair of super-imposed pulleys, an endless cable passing over said pulleys, a weight fixed to said cable, a pulley shaft, a ratchet connection between said pulley shaft and the respective pulley, a wave actuated vane, means connecting said vane and said weight for raising the latter with the reciprocation of the former, a power shaft and an operative connection between said pulley shaft and said power shaft, substantially as described.

3. In a wave motor, a pulley shaft, a plurality of pulleys on said shaft, a ratchet connection between each of said pulleys and said shaft, a corresponding number of endless cables passing over said pulleys respectively, a weight on each of said cables, a like number of wave actuated vanes, cables connecting said vanes with said weights respectively for raising the latter upon reciprocation of the former, a power shaft and an operative connection between said pulley shaft and said power shaft, substantially as described.

4. In a wave motor, a power shaft, a reciprocating wave actuated vane, driving mechanism connecting said vane and said shaft, in combination with a governor for said shaft comprising a fixed disk, a rotary member adjacent said disk, a connection between said power shaft and said rotary member, a brake shoe carried by said rotary member and engaging the periphery of said disk, a cam for actuating said shoe, an arm on said cam and a wing on said arm, substantially as described.

5. In a wave motor, a power shaft, a reciprocating wave actuated vane, driving mechanism connecting said vane and said shaft, in combination with a governor for said shaft comprising a fixed disk, a rotary member adjacent said disk, a connection between said power shaft and said rotary member, a brake shoe carried by said rotary member and engaging the periphery of said disk, a cam for actuating said shoe, a radial arm on said cam and a wing adjustably mounted on said arm, substantially as described.

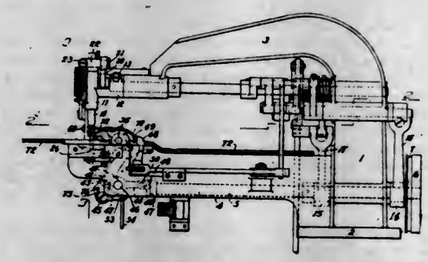
1,207,940. ICE-CREEPER. FRANCIS WILBUR LAKE, Buffalo, N. Y., assignor of one-half to William E. Chace, Buffalo, N. Y. Filed Feb. 12, 1916. Serial No. 77,997. (Cl. 36—62.)



1. An ice creeper comprising an attaching strap having cross members, a plate connected to the under side of said strap and adapted to extend across the sole of the shoe, said plate being provided with downwardly projecting points, an adjustable guide loop through which the crossed members of said attaching strap pass, and means for fastening the ends of said strap together.

2. An ice creeper comprising an attaching strap having crossed members, plates arranged upon opposite sides of said strap, rivets having shanks pasing through said plates and strap and serving to connect said parts together and having pointed lower ends, and an adjustable guide having loops through which the crossed members of said attaching strap pass.

1,207,941. FOLDING-MACHINE. WILLIAM F. LAUTENSCHLAGER, Cincinnati, Ohio, assignor to Lorenz Muther, Newton, Mass. Filed June 26, 1916. Serial No. 105,930. (Cl. 12—54.)



1. In a folding machine, the combination of feeding and folding means, of a slitting knife and means for operating it directly connected to said slitting knife, said operating means comprising a lever, a plate pivoted to said lever, a bearing formed on the side of said plate, a pivot-shaft for said bearing, said plate and bearing having an elongated hole, one end of the hole being concentric with said bearing and the other end extending outside of the periphery of said bearing, a connection mounted at one end of said bearing and its other end pivoted to a knife operating lever, said knife operating lever, the slitting knife being mounted upon the free end of said operating lever, and means for moving the first-mentioned bearing to a position either concentric or eccentric to the shaft upon which it is pivoted to render the slitting knife movable to cut, or stationary and non-cutting.

2. In a folding machine, operating mechanism for a slitting knife, a slitting knife, a connection for the slitting knife pivoted at one of its ends to the operating mechanism and at its other end to the slitting knife, and a pivoted bearing in said operating mechanism, so formed and arranged that the bearing may be adjusted to positions either concentric or eccentric to the axis on which it is pivoted, as desired, so as to render the slitting knife either inoperative and stationary, or operative and in a cutting position.

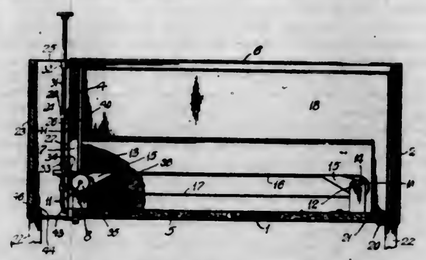
3. In a folding machine having a slitting knife, means for operating said slitting knife, comprising an oscillating lever, a pivot on which said lever oscillates, a member movably mounted on said lever, a bearing on said movable member, means for adjusting said bearing to positions either eccentric or concentric with relation to said pivot, and means for oscillating said lever.

4. In a folding machine, a slitting knife, operating means for the slitting knife, a connection pivoted at one end to the slitting knife, its other end being pivoted upon a bearing in the operating means, means for oscillating said bearings, and means for adjusting said bearing to positions either eccentric or concentric with relation to the pivot upon which it oscillates to render the slitting knife either operative or inoperative as desired.

5. A folding machine having a slitting mechanism comprising a stationary knife and a movable knife, the movable slitting knife being so arranged upon an oscillating lever as to have a constant bearing against said stationary knife and so that the cutting edges of said knives will pass each other and operate with a scissors-like action, said oscillating lever, operating means for operating the oscillating lever, a connection for connecting the oscillating lever and the operating means, and means whereby the pivot on the operating means to which the connection is pivoted may be adjusted so as to render the slitting mechanism either operative or inoperative, as desired.

[Claims 6 and 7 not printed in the Gazette.]

1,207,942. DISPENSING-CABINET. CHRISTIAN G. LEHMANN, Detroit, Mich. Filed June 10, 1916. Serial No. 102,820. (Cl. 31—65.)



1. A butter dispensing cabinet comprising a casing having insulated walls, an endless conveyer normally extending into one of the casing walls adapted to feed a bar of butter therethrough, and butter slicing and conveyer actuating means on the wall of said casing and adapted by a single operation for actuating the conveyer in advance of slicing butter.

2. A butter dispensing cabinet comprising a casing having insulated walls, an endless conveyer in said casing extending into one of said casing walls adapted to feed a bar of butter therethrough, butter slicing and conveyer actuating means on the wall of said casing adapted for actuating the conveyer in advance of slicing butter, and a tiltable shelf supported by the same casing and adapted to be tilted by said means after butter is sliced.

3. A butter dispensing cabinet comprising a casing having insulated walls, an endless conveyer extending into one of the casing walls and adapted to feed a bar of butter therethrough, a container over said conveyer adapted to hold a refrigeratory agent, and butter slicing and conveyer actuating means on the wall of said casing adapted for actuating a conveyer in advance of slicing butter.

4. A butter dispensing cabinet comprising a casing having insulated walls, a conveyer in said casing, extending into one of the casing walls and adapted to feed a bar of butter therethrough, a container over said conveyer adapted to hold a refrigeratory agent, butter slicing and conveyer actuating means on the wall of said casing adapted for intermittently actuating said conveyer in advance of slicing butter, and a tiltable shelf supported by the same casing wall adapted to receive butter and adapted to be tilted by said butter slicing means.

5. A butter dispensing cabinet comprising a casing, a partition in said casing dividing said casing into an operating compartment and a refrigeratory compartment, a conveyer in the latter compartment of said casing adapted to feed a bar of butter through said partition, and butter slicing means carried by said partition adapted for actuating said conveyer in advance of slicing butter.

[Claims 6 to 11 not printed in the Gazette.]

1,207,943. SHEET-METAL CURTAIN-ROLLER. JAMES F. LEMON and AUGUST WARNER, Syracuse, N. Y., assignors to George Demore, Syracuse, N. Y. Filed Feb. 25, 1915. Serial No. 10,466. (Cl. 156—29.)



1. In a curtain roller, a sheet metal strip rolled into substantially cylindrical form and having overlapping portions depressed within the periphery of the roller to form lengthwise channeled ribs seated one within the other, the longitudinal edge of the innermost rib being deflected circumferentially to form a reinforcing flange, as 9, abutting against the inner face of the main body of the roller at one side of both ribs, and the outer portions of the opposite side of the ribs returned partially across the open side of the channel.

2. A curtain roller consisting of a cylindrical sheet metal tube having overlapping longitudinal edges depressed inwardly to form channeled ribs nested one within the other, one side of the innermost rib extending across the inner side of the outermost rib and provided with a reinforcing flange abutting against the inner face of the main body of the roller, the side of the ribs opposite the reinforcing flange being extended laterally toward said flange partially across the base of the channel to reduce the peripheral width of the mouth of the channel and to lock the ribs against relative radial movement.

1,207,944. VEHICLE DIRECTION-INDICATOR. WILLIAM E. LEMP and EDWARD KEYLAND MCQUILLEN, Mobile, Ala. Filed Feb. 28, 1916. Serial No. 80,882. (Cl. 40—52.)

1. A signaling headlight, comprising a casing the front wall of which has an opaque lower panel and a transparent upper panel, a light source and a light projecting reflector in the casing directly behind the transparent panel, a pair of signal plates normally gravitationally supported in said casing behind said opaque panel, and means for raising said plates between the transparent panel and the light source embodying a solenoid mounted on top of the casing and a solenoid depending from the bottom of the casing and a core connected to each plate intermediate its ends and coöperating with one of the solenoids to raise the plate and to maintain it in a vertical position at all times, the lower core normally depending below the solenoid and the upper core normally depending across the transparent upper panel.



2. A signaling headlight, comprising a casing the front wall of which has an opaque lower panel and a transparent upper panel, a light source and a light projecting reflector in said casing, a signal plate normally gravitationally held behind the opaque panel, a solenoid depending from the center of the bottom of the casing, and a core coöperating with the solenoid and connected with the signal plate intermediate the ends thereof for raising the plate between the transparent panel and the light source and maintaining the plate in a vertical position at all times, said core normally depending below the solenoid so that when the signal plate is raised the core will lie its full length within the solenoid.

3. A signaling headlight, comprising a casing having a front wall having a transparent upper panel and an opaque lower panel, a light source and a light projecting reflector in said casing directly behind the transparent panel, a signal plate normally held behind said opaque panel, a solenoid mounted on top of the casing centrally thereof, and a core connected at its lower end to the plate intermediate the ends thereof and coöperating with the solenoid to temporarily raise the plate between the transparent panel and the light source and to maintain the plate in a vertical position at all times.

1,207,945. ADVERTISING DEVICE. JOHN JAY LEPPER, Milwaukee, Wis. Filed Jan. 21, 1915. Serial No. 3,449. (Cl. 40—139.)

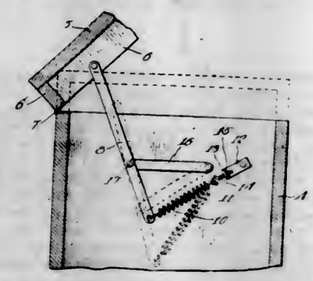


1. In a device of the described class, the combination of a source of electrical energy, a hollow figure representing a cigar, a trade name supported upon said hollow figure, two moving figures connected with said representation of a cigar, one of said figures carrying a spear and the other a cigar, a plurality of electric lamps, a motor, means for communicating motion from said motor to said

images, spear and cigar and means for communicating light to said lamps both within and outside said representation of a cigar.

2. In a device of the described class, the combination of a source of electrical energy, a hollow figure representing a cigar, a trade name on said figure, one or more movable images located upon the exterior surface of said hollow figure, one carrying a spear and the other a cigar, an electric light supported on said spear, a plurality of electric lamps connected with said figure, an electric motor located within said hollow figure, means for communicating electrical energy from said source of power to said motor, means for communicating motion from said motor to said images, and means for communicating electric light from said source of power to said lamps, on said spear and within said cigar all substantially as and for the purpose specified.

1,207,946. SUPPORT FOR HINGED COVERS OR MEMBERS. FRANK E. LEVANSELER, Chicago, Ill. Filed May 15, 1915. Serial No. 28,245. (Cl. 217—60.)



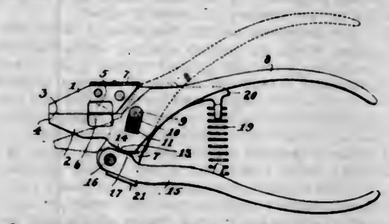
1. In a support for hinged covers or members, the combination with a hinged cover or member, of a link pivotally connected thereto at one of its ends at a suitable distance from the hinged portion of the cover or member, a shifting fulcrum link pivotally connected at one of its ends to the first named link between the ends thereof and pivotally supported near its other end, and a spring connected at one of its ends to the free portion of the first named link and at its other end to a suitable support.

2. In a support for hinged covers or members, the combination with a hinged cover or member, of a link pivotally connected thereto at one of its ends at a suitable distance from the hinged portion of the cover or member, a shifting fulcrum link pivotally connected at one of its ends to the first named link near the free end of the latter and pivotally connected at its other end to a suitable support, a spring connected to the free portion of the first named link, and means for adjusably connecting the other end of said spring to a suitable support.

3. In a support for hinged covers or members, the combination with a hinged cover or member, of a link pivotally connected thereto at one of its ends at a suitable distance from the hinged portion of the cover or member, a shifting fulcrum-link pivotally connected at one of its ends to the first named link between the ends thereof and pivotally supported near its other end, and a spring connected at one of its ends to the free portion of the first named link and at is other end to a suitable support, the said links and spring being arranged with such angularity with respect to each other and to the hinged cover or support as to permit the latter to remain closed.

1,207,947. TOOL. ISAAC W. LITCHFIELD, Boston, Mass. Filed Oct. 30, 1913. Serial No. 798,216. (Cl. 81—43.)

1. A tool of the class described, having, in combination, relatively movable jaws, levers for actuating the jaws, one of which is movable relatively to both the jaws, connections for moving said jaws respectively as one with the levers to open and close the jaws, and means to produce relative working movement of the jaws by the movement of one of said levers relatively to the jaws.



2. A tool of the class described, having, in combination, relatively movable jaws, levers for actuating the jaws, one of which is movable relatively to both the jaws, connections for moving said jaws respectively as one with the levers to open and close the jaws, and means to produce relative working movement of the jaws by the movement of one of said levers relatively to the jaws, said means being effective only upon the introduction of a resistance between the jaws.

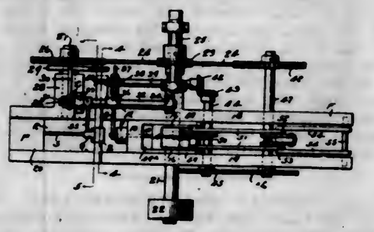
3. A tool of the class described, having, in combination, relatively movable jaws, a lever for relatively actuating the jaws arranged to move relatively to both the jaws, a connection for causing one of said jaws to move as one with the lever to open and close the jaws, and means to produce relative working movement of the jaws by the movement of the lever relative to the jaws.

4. A tool of the class described, having, in combination, relatively movable jaws, a lever for relatively actuating the jaws arranged to move relatively to the jaws, a connection for causing one of said jaws to move as one with the lever to open and close the jaws, and means to produce relative working movement of the jaws by the movement of the lever relatively to the jaws, said means being effective only upon the introduction of a resistance between the jaws.

5. A tool of the class described, having, in combination, relatively movable jaws, a lever for relatively moving the jaws movable with relation to both the jaws, means for causing one of the jaws to move as one with the lever to open and close the jaws, and means comprising a toggle connection operated by the movement of said lever relatively to both jaws for imparting a relative working movement to the jaws.

[Claims 6 to 12 not printed in the Gazette.]

1,207,948. FORGING-MACHINE FOR MAKING CIRCULAR CAPS AND ANALOGOUS METAL FORMS. FRED R. LONG, Catawissa, Pa. Filed Jan. 28, 1916. Serial No. 74,900. (Cl. 78—1.)



1. A forging machine for making circular caps and analogous metal forms including a die having a stock feed opening, a clamping device operating at one side of the die, an upsetting device working in opposition to the face of the die, and punching-shear means coöperating with said upsetting device.

2. A forging machine for making circular caps and analogous metal forms including an upstanding guide wall having a die receiving opening therein, a die fitting said opening, a clamping device operating at one side of the said wall, an upsetting plunger operating at the opposite side of said wall in opposition to the die, and a punching-shear movable axially through the plunger and also into the die.

3. A forging machine for making circular caps and analogous metal forms including an upright guide wall having a die opening therein, a die fitted in said opening, a reciprocating clamp operating at one side of the guide wall, a shiftable gage operating beyond the opposite side of the guide wall, an upsetting plunger working in opposition to the face of the die, and a punching-shear movable axially through the plunger and also adapted to extend beyond the plunger and into the opening through the die.

4. A forging machine for making circular caps and analogous metal forms including a rigid framework having a die provided with a stock feed opening mounted therein, a stock measuring device operating at one side of the die, a clamping device operating at the feeding-in side of the die, an upsetting device working in opposition to the face of the die, a punching shear movable axially through the upsetting device, a main drive shaft journaled in the machine, means connected with said main drive shaft for operating said clamping means, means connected with said main drive shaft for operating said upsetting device and punching shear successively, and means connected with said means for operating the upsetting device and punching shear for operating the stock measuring device prior to the clamping device.

5. A forging machine for making circular caps and analogous metal forms including a rigid framework having a die provided with a stock feed opening, a stock measuring device operating at one side of the die, a clamping device operating at the feeding-in side of the die, an upsetting device working in opposition to the face of the die, a punching shear movable axially through the upsetting device, a main drive shaft journaled in the lower intermediate portion of the machine and having a driving gear, a relatively large transmission gear mounted above said driving gear and meshing therewith, a clamping device operating gear meshing with said transmission gear, means operated by said latter gear for actuating the clamping device, and means geared with the opposite side of the transmission gear for operating the stock measuring device, upsetting device and shearing punch in synchronism with the clamping device.

[Claims 6 and 7 not printed in the Gazette.]

1,207,949. CARD-INDEX CABINET. FREDERICK STANLEY LONG, Calgary, Alberta, Canada. Filed Feb. 5, 1916. Serial No. 76,488. (Cl. 129—16.)



1. A card index cabinet of the class described provided with a lid formed in two portions opening rearwardly and forwardly respectively, the said cabinet being divided into a front and rear compartment, an inclined rack in the rear compartment and a plurality of vertically disposed resilient clips operatively supported from the rack and adapted to retain a plurality of index cards in stepped relation relatively to each other as and for the purpose specified.

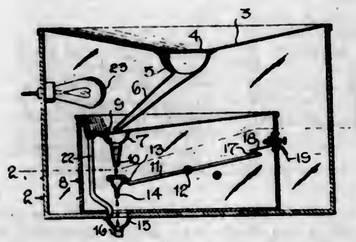
2. A card index cabinet of the class described having a lid formed in two portions opening rearwardly and forwardly respectively, the said cabinet being divided into a front and rear compartment, and means located in the rear compartment adapted to hold a plurality of index cards in stepped relation to each other and spaced a distance apart, said means including resilient divisions having their upper edges curled back upon the divisions for spacing the cards apart.

3. A card index cabinet of the class described having a lid, the said cabinet being divided into a front and rear compartment, and means located in the rear compartment adapted to hold a plurality of index cards in stepped relation to each other, said means including resilient walled pockets of decreasing depth from the front of the rear compartment.

4. An index cabinet comprising a front and rear compartment, means associated with the rear compartment adapted to space the cards one from another and maintain them in stepped relation, and a hinged cover adapted to swing downwardly to form a tray at the front of the cabinet.

5. An index cabinet comprising a front and rear compartment, means associated with the rear compartment adapted to space the cards one from another and maintain them in stepped relation, and a cover formed in two hinged portions opening forwardly and rearwardly, one of which is adapted to form a tray at the side of the cabinet.

1,207,950. RAIN-SIGNAL. HUGH ALVIN LONGINO, La Grange, Ky. Filed Oct. 20, 1915. Serial No. 56,985. (Cl. 200—35.)



1. A rain signal of the character described including a balanced member provided at one end with a signaling device and at the other end with a rain receiving cup having an opening in its bottom, that end of the balanced member carrying the signaling device normally overbalancing the end of the member carrying the cup, and means for directing rain water into the cup.

2. A rain signal of the character described including a casing having a collecting area with an opening, a balanced member disposed within the casing and provided at one end with a cup having a receiving opening and a discharge opening in its bottom and at the other end with an element of a signaling device, the end of the member having the signaling device being of greater weight than the cup when the latter is only partly full, and means for conducting water from the said collecting area to the cup and for discharging excess water from the collecting area.

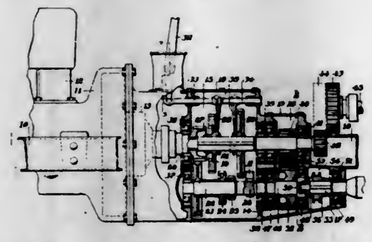
3. A rain signal of the character described including a casing having a rain collecting top formed with a discharge opening, a balanced member mounted within the casing and provided at one end with a cup having a receiving opening and a relatively small discharge opening in its bottom and at its other end with a signaling element, the last-named end of the member being heavier than the cup when the latter is partially filled, a hopper leading from the opening of the collecting area and discharging into the cup, the casing being formed with a discharge opening disposed below the cup.

4. A rain signal of the character described comprising an outer casing having a rain collecting top formed with an opening, an inner casing, a hopper leading from the collecting opening of the top of the outer casing into the inner casing, a balanced member mounted within the inner casing, a cup mounted upon one end of the balanced member and into which the hopper is adapted to discharge, a signal element mounted upon the opposite end of the balanced member and normally counterbalancing the cup

when the latter is empty or partially filled, and means disposed between the outer and inner casings for heating the air within the outer casing.

5. A rain signal of the character described including an outer casing formed with a water collecting top and with a receiving opening, an inner casing also formed with a water collecting top and a discharge opening, a hopper located within the receiving opening of the outer casing and leading to the opening of the inner casing, a hopper disposed within the inner casing below said opening, a balanced rod mounted within the inner casing carrying at one end a cup and at the other end a signaling element, the cup having a relatively large upper end and a relatively small opening in its lower end, a drain pipe leading from the interior of the interior casing and beneath the cup, and a drain pipe leading from the collecting surface of the interior casing to said first-named drain pipe.

1,207,951. GEARING. ALLEN LOOMIS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 23, 1912. Serial No. 733,132. (Cl. 74—58.)



1. In a motor vehicle, the combination with the alined driving and driven shafts, and gearing connecting said shafts to operate the driven shaft at various speeds relative to the driving shaft, of a transmission shaft out of line with the driven shaft, driving mechanism constantly connecting the driven shaft with said transmission shaft, and a second driving connection on said driven shaft.

2. In a motor vehicle, the combination with the alined driving and driven shafts, and gearing connecting said shafts to operate the driven shaft at various speeds relative to the driving shaft, of a transmission shaft out of line with the driven shaft, chain mechanism for driving the transmission shaft from the driven shaft at a reduced speed, and a second driving connection on the driven shaft beyond said chain mechanism.

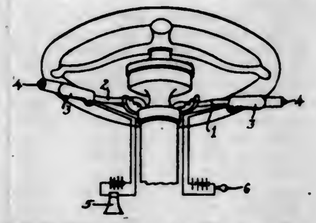
3. In a motor vehicle, the combination with alined driving and driven shafts, a lay shaft, and gears on said shafts for driving the driven shaft at a plurality of different speeds relative to the driving shaft, of a transmission shaft alined with said lay shaft, and speed reducing gearing between the driven shaft and the transmission shaft.

4. In a motor vehicle, the combination with alined driving and driven shafts, a lay shaft, and gears on said shafts for driving the driven shaft at a plurality of different speeds relative to the driving shaft, of a transmission shaft out of line with said driven shaft, chain driving mechanism between said transmission and driven shafts, and a gear on said driven shaft beyond the chain mechanism.

5. In a motor vehicle, the combination with alined driving and driven shafts, a lay shaft, and gears on said shafts for driving the driven shaft at a plurality of different speeds relative to the driving shaft, of a transmission shaft out of line with said driven shaft, driving mechanism between said driven shaft and said transmission shaft, a shaft alined with said transmission shaft, a detachable coupling mechanism between said two latter shafts, and a mechanism adapted to be connected to, and disconnected from, said driven shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,207,952. ELECTRIC SWITCH AND MOUNTING THEREFOR. THOMAS B. LYNCH, Detroit, Mich., assignor of one-half to William C. Morgan, Detroit, Mich. Filed Aug. 5, 1915. Serial No. 43,727. (Cl. 21—90.)



1. In combination with a steering wheel and adjacent control lever for the operating parts of an automobile, a switch mounting providing an extension for said lever terminating adjacent the steering wheel rim, an electric switch carried by said mounting, and means for operating the switch.

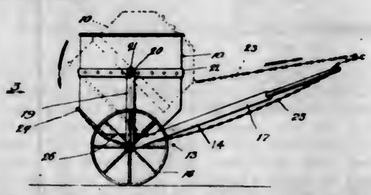
2. In combination with a steering wheel and adjacent control lever for the operating parts of an automobile, a switch mounting providing an extension for said lever terminating adjacent the steering wheel rim, an electric switch carried by the mounting, a normally open electrical circuit, the wires being supported by the mounting and connecting with the switch terminals, and a button in the end of the mounting for closing the circuit.

3. In combination with a steering wheel and adjacent control lever for the operating parts of an automobile as described, a switch mounting adapted to be detachably secured to the lever providing an extension therefor terminating adjacent the steering wheel rim, an electric switch carried by the mounting, an electrical circuit, the wires of which are supported by the mounting and connected with the terminals of the switch, and a button in the end of the mounting for operating the switch.

4. A switch mounting providing an extension for a lever comprising a split case having a cylindrical end for receiving the switch, the opposite end being flattened, the side walls being spaced to receive the lever and the electric wiring for the switch, and means for clamping the case on the lever.

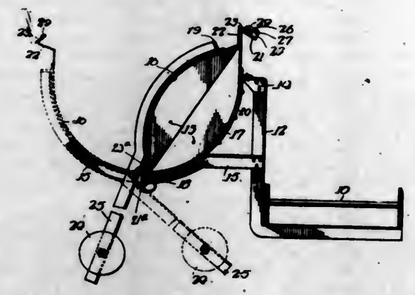
5. In combination with a steering wheel and adjacent control lever for the operating parts of an automobile, a switch mounting providing an extension for said lever and provided with a hollow end portion terminating near the steering wheel rim, and an electric switch in the end of said hollow portion, said hollow portion being adapted to provide a conduit for the wires leading to the switch.

1,207,953. ASH-RECEPTACLE. EDWARD MCCLURE, Chicago, Ill., assignor of one-half to Franklin P. Smith, Chicago, Ill. Filed Sept. 27, 1915. Serial No. 52,792. (Cl. 21—119.)



A device of the character described, comprising in combination a tilting carriage having two straight handle bars unobstructed on their lower sides and connected at the front by a cross bar, said bars being formed at the rear with posts which stand upright in the pulling position of the carriage, an axle connecting the bars and secured thereto at the places where the posts join them, and wheels mounted on said axle, and a rectangular box pivotally sustained at the upper ends of said posts directly above the axle, said box extending down to within a short distance from the axle and having downwardly converging side portions arranged to clear the axle when the box is tilted, and a flat bottom portion narrower than the top, the parts being so proportioned and arranged that when the carriage is tilted upward to lower the box to the ground, the handle stands to one side of the box in an upright position.

1,207,954. FIRE-ESCAPE. EDWARD MCCLURE, Chicago, Ill., assignor of one-half to Franklin P. Smith, Chicago, Ill. Filed May 1, 1916. Serial No. 94,601. (Cl. 227—7.)



1. A device of the character described, comprising a support and an inclined chute secured thereto and having a hinged counter weighted portion for covering the inner surface of the chute.

2. A device of the character described, comprising a support and an inclined chute carried thereby, and comprising a stationary section and a counter weighted section hinged to the stationary section, and movable from a position covering the inner face of the chute to an operative or open position.

3. A device of the character described, comprising a support, and an inclined chute supported thereby, said chute comprising two sections, the one being stationary, and the other hinged thereto along the lower edges thereof, and being also counter weighted, the hinged section being movable from a position covering the inner faces of the sections, and the hinged section having an upper edge portion adapted to overlap an upper edge portion of the stationary section.

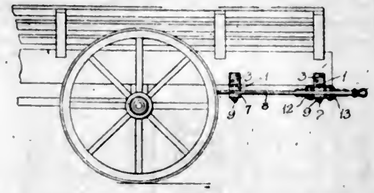
4. A device of the character described, comprising a support, an inclined chute supported thereby and comprising a stationary section and a movable section hinged thereto along the lower edges thereof, counter weight supporting arms secured to said movable section, and counter weights adjustably secured on said arms.

5. A device of the character described, comprising a support, an inclined chute supported thereby, and consisting of two sections, one being stationary and the other hinged thereto along their lower edges, and movable from a position covering the inner faces of the chute to an open operative position, counter weight supporting arms secured to the movable section, and counter weights carried by said arms and operating to swing open the hinged section, and latch mechanism for holding the hinged section in closed position.

[Claim 6 not printed in the Gazette.]

1,207,955. COUPLING FOR HAY-RACKS. THORBURN D. MCDONALD, Ruthven, Ontario, Canada. Filed Mar. 27, 1916. Serial No. 86,914. (Cl. 21—137.)

1. A coupling for farm machinery comprising a pair of transverse members secured in parallel spaced relation, pairs of oppositely disposed angle brackets adjustably secured on the transverse members, a draft bar having a longitudinally slotted portion engaged by a pin on one transverse member and pairs of guide rollers near the other end of the draft bar between which the other transverse member lies.



2. A coupling for farm machinery comprising a pair of transverse members secured in parallel spaced relation, pairs of oppositely disposed angle brackets adjustably secured on the transverse members, a draft bar having a longitudinally slotted portion engaged by a pin on one transverse member, pairs of rollers on the draft bar embracing the other transverse member, and guide bars secured against the faces of the transverse members and adapted to coöperate therewith in maintaining the draft bar in position.

3. The combination with a wagon rack having longitudinal sills, of a draft rigging including a pair of transverse members secured in spaced relation by longitudinal members, pairs of brackets on the transverse members secured to the sills, guide members on the transverse members, a draft bar playing between the guide and transverse members, a pin on one transverse member engaging a longitudinal slot in the draft bar, and guide rollers on the draft bar embracing the other transverse member.

4. A coupling for farm machinery comprising a pair of transverse members, longitudinally disposed members secured to the transverse members, pairs of holding brackets adjustable on the transverse members, guide members secured on the lower faces of the transverse members in parallel, spaced relation thereto, a draft bar playing between the guide and transverse members, a pin on one transverse member engaging a longitudinal slot in the rear portion of the draft bar and pairs of rollers on the draft bar bearing on the marginal faces of the other transverse member and companion guide.

5. A coupling for farm machinery comprising a pair of transverse members, longitudinally disposed members secured to the transverse members, pairs of oppositely disposed angle brackets adjustably secured on the transverse members, guide members in parallel, spaced relation to the transverse members, a pin on one transverse member, a draft bar playing between the guide and transverse members and having a longitudinal slot engaged by the pin and bearing rollers on the draft bar bearing against the marginal faces of the other transverse member and companion guide.

1,207,956. CASING FOR ELECTRIC SWITCHES. JAMES F. MCELROY, Albany, N. Y.; Susie H. McElroy, executrix of said James F. McElroy, deceased, assignor to Consolidated Car-Heating Company, a Corporation of West Virginia. Filed Aug. 29, 1911. Serial No. 646,607. (Cl. 175—282.)

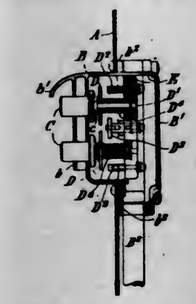
1. A switch casing having a cover and an external supplemental wall spaced from said cover and parallel therewith, said cover and said wall being provided with alined openings forming push button guiding means.

2. A switch casing having a cover and an external supplemental wall spaced from said cover and parallel therewith, said cover and said wall being provided with alined openings forming push button guiding means, and a hood overhanging the external wall and the push button openings.

3. A switch casing having a cover and an external supplemental wall spaced from said cover and parallel therewith, said cover and said wall being provided with alined

openings forming push button guiding means, and a separable hood overhanging said cover and said external wall.

4. A switch casing formed of stationary and movable members hinged together, said members having means for clamping a conduit for the leading-in wire, and a base secured to the movable members and provided with means for supporting stationary and movable switch members.



5. A switch casing formed of stationary and movable members hinged together, and a base secured to the movable member and provided with means for supporting stationary and movable switch members, one of said switch members having main and supplemental walls, the latter serving as a shield for the former.

[Claims 6 to 9 not printed in the Gazette.]

1,207,957. THERMOSTAT. JAMES F. MCELROY, Albany, N. Y.; SUSIE H. McELroy, executrix of said James F. McElroy, deceased, assignor to Consolidated Car-Heating Company, a Corporation of West Virginia. Filed Oct. 21, 1911. Serial No. 655,847. (Cl. 200—31.)



1. The combination with stationary contacts and a movable contact piece, of a thermostatic element engaging the movable contact piece to move the same conformable to temperature changes, and non-thermostatic means independent of the stationary contacts coöperating with the thermostatic element to prevent non-thermal vibrations of said movable contact piece.

2. The combination with stationary contacts and a neutrally mounted contact piece, of a thermostatic element engaging the movable contact piece to move the same conformable to temperature changes, and adjustable non-thermostatic means independent of the stationary contacts coöperating with the thermostatic element to prevent non-thermal vibration of said movable contact piece.

3. In a thermostat, the combination with a movable contact-piece neutrally mounted with respect to non-thermal vibrations, of a thermostatic element acting thereon neutrally with respect to non-thermal vibrations, and adjustable means acting on the contact piece in opposition to the thermostatic element.

4. In a thermostat, the combination with a movable contact-piece pivotally mounted at its center of gravity, of a thermostatic element acting thereon in response to temperature variations, and adjustable means engaging and acting on the contact piece in opposition to the thermostatic element.

5. In a thermostat, the combination with a movable contact-piece pivotally mounted at its center of gravity, of a thermostatic element acting thereon oppositely on opposite sides of its pivotal point and a spring resisting the action of said element.

[Claims 6 to 12 not printed in the Gazette.]

1,207,958. ATTACHMENT FOR ELECTRICAL CONDUITS. ADNAH MCMURTRIE, New York, N. Y., assignor to Thomas & Betts Company, New York, N. Y., a Corporation of New York. Filed Apr. 1, 1915. Serial No. 18,598. (Cl. 247—1.)



1. A conduit for electric conductors, comprising a junction box having an opening therethrough, a tube extending therefrom, a coupling having a plurality of members extending through the opening and surrounding the end of the tube, two lateral flanges extending from each of said coupling members, and screws for connecting said flanges to one another to clamp the coupling members to the end of the tube, substantially as described.

2. A split connector for electrical conduit, comprising a plurality of opposed segments forming when assembled a tubular device, said segments having respectively body portions, and head portions with retaining flanges, said head portions being cut away adjacent to the region of juncture to permit relative tilting movements of said segments, said body portions being provided with coöperating bearing surfaces, said segments being provided with lugs and with draft members engaged with said lugs and serving to draw said segment bodies into clamping engagement with a tubular conduit member, and to expand said head into retentive engagement with the apertured wall of another electrical conduit member, and thereby to set said device in connective relation with said conduit members.

3. A split connector for electrical conduit, comprising a plurality of opposed segments forming when assembled a tubular device, said segments having respectively body portions, and head portions with retaining flanges, said head portions being cut away adjacent to the region of juncture to permit relative tilting movements of said segments, said segments being provided with lugs and with draft members engaged with said lugs and serving to draw said segment bodies into clamping engagement with a tubular conduit member, and to expand said head into retentive engagement with the apertured wall of another electrical conduit member, and thereby to set said device in connective relation with said conduit members.

4. A split connector for electrical conduit, comprising a plurality of opposed segments forming when assembled a tubular device, said segments having respectively body portions and head portions with retaining flanges, said head portions being constructed with lips adjacent to the region of juncture to permit relative tilting movements of said segments to collapse and alternately to expand said head flanges, said segments being provided with lugs and with draft members engaged with said lugs and serving to draw said segment bodies into clamping engagement with a tubular conduit member, and to expand said head into retentive engagement with the apertured wall of another electrical conduit member, and thereby to set said device in connective relation with said conduit members.

5. A split connector for electrical conduit, comprising a plurality of lever segments having respectively head portions with retaining flanges and body portions formed with fulcra to permit relative tilting movements of said segments to contract said body portions and expand said head flanges into retentive engagement respectively with a tubular member and an apertured wall, and draft members to connect said lever segments in assembled relation and to operate the same.

1,207,959. PIPE-COUPLING. ADNAH MCMURTRIE, New York, N. Y., assignor to Thomas & Betts Company, New York, N. Y., a Corporation of New York. Filed Apr. 1, 1915. Serial No. 18,599. (Cl. 247—1.)



1. A pipe-coupling, comprising a plurality of opposed segments forming when assembled a tubular device, said segments having respectively body portions and head portions with retaining flanges, said head portions being constructed with lips adjacent to the region of juncture to permit relative tilting movements of said segments to collapse and alternately to expand said head flanges, said segments being provided with lugs and with draft members engaged with said lugs and serving to draw said segment bodies into clamping engagement with a tubular conduit member, and separate means to expand said head into retentive engagement with the apertured wall of another electrical conduit member, and thereby to set said device in connective relation with said conduit members.

2. A pipe-coupling, comprising a tubular device having attaching body and head portions, said device being split longitudinally to permit collapse of said head for application to the aperture wall of an electrical conduit member, and also to permit expansion of said body to receive a tubular electrical conduit member, and means to contract said body and thereby to position said flanges to hold said connector against axial displacement, and separate means to expand said head into binding retentive engagement and electrical contact with said aperture wall, substantially in the manner, and for the purpose, set forth.

3. A pipe-coupling, comprising a tubular device having a body and a head split longitudinally and provided with oppositely presented retaining flanges, the material of said device being constructed and arranged to form a fulcrum intermediate said body and head, to permit tilting movements of the portions on each side of said split, for alternate expansion and contraction of the body and head to permit application of said device to the apertured wall of an electrical conduit member and to a tubular conduit member, and its subsequent retentive engagement therewith by expansion of said head and contraction of said body, means to hold said segments in contracted assembled position, and separate means to spread said flanges into binding engagement with said aperture wall.

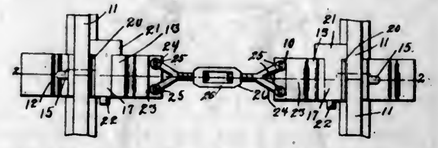
4. A pipe-coupling, comprising a plurality of opposed segments forming when assembled a tubular device, said segments having respectively body portions and head portions with retaining flanges, said head portions being constructed with lips adjacent to the region of juncture to permit relative tilting movements of said segments to collapse and alternately to expand said head flanges, means to hold said segments in contracted assembled position, and separate means to spread said flanged portions apart.

1,207,960. TRICK DEVICE. ROBERT CLARK MCNEILL, Jersey City, N. J. Filed Aug. 2, 1915. Serial No. 43,208. (Cl. 46—41.)



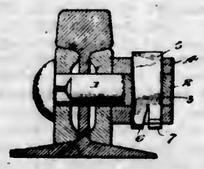
An article of the class described including a stock having its sides extending in parallel relation and a flat lower end merging without projections into the sides and at right angles thereto, and a pin directed downwardly from the center of the flat bottom of the stock and projecting beyond the flat bottom of the same.

1,207,961. RAIL-CLAMP. WILLIAM MCNORTON, Thompson Falls, Mont. Filed Sept. 16, 1915. Serial No. 51,073. (Cl. 238—5.)



A rail clamp comprising a plate adapted to be secured to a tie and having a rail base engaging flange thereon, a flange carried by the plate at the opposite side of the rail and spaced therefrom, said flange having a longitudinal tapering groove formed therein, a tapering rail base engaging bar slidable between the flange and the rail and formed with a rib engaging in said groove, and a turn button on one end of said bar arranged to be turned to engage one side of the said plate to prevent backward movement of the bar, said turn button being arranged to be turned into a horizontal position and having its outer end reduced to be snugly received within the groove when the bar is being inserted or removed.

1,207,962. RAIL-JOINT BOLT. WALTER F. MCRAE, Waynesboro, Miss. Filed Nov. 7, 1914. Serial No. 870,888. (Cl. 85—7.)

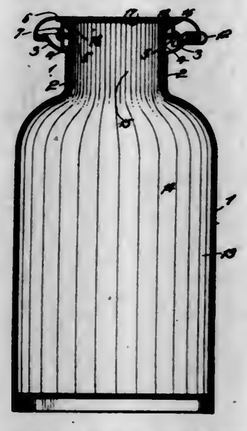


1. In combination, a bolt having a shank provided with an elongated opening having oppositely inclined side walls and straight parallel end walls, a sleeve adapted to be received on said bolt and having spaced and registering openings therein, each provided with oppositely inclined side walls and straight parallel end walls co-acting with the side and end walls of the opening in the bolt to provide a wedge shaped channel extending transversely through the bolt and sleeve, a key slitted longitudinally for a portion of its length at one end to form prongs adapted to be bent in opposite directions exteriorly of the sleeve when the key is positioned in said channel, said key having oppositely inclined sides adapted to be frictionally engaged with the inclined sides of said channel, a straight wall on said key for contact with an end wall of said channel, an inclined wall on said key adapted to contact with the other wall of said channel at one end thereof, and a beveled portion on the last mentioned inclined wall of the key whereby, when said prongs are slid apart laterally said beveled portion may be brought into contact with the last mentioned end wall of said channel at the other end of the opening.

2. The combination with a bolt having a sleeve thereon and a transversely extending wedge shaped channel passing through the bolt and sleeve, of a wedge shaped key adapted to be received in said channel and slitted longitudinally for a portion of its length near one end to form prongs, said key having a straight side for engagement with one end wall of said channel, and an inclined side adapted to engage the other end wall of said channel at one end thereof, and a beveled portion on the inclined wall of said key, whereby when said prongs are bent in

opposite directions and spread apart laterally said beveled portion will be caused to contact with the last mentioned end wall of said channel at the other end thereof.

1,207,963. MILK-CAN. MARION MACMILLAN, New York, N. Y. Filed Aug. 16, 1912, Serial No. 715,354. Renewed Apr. 27, 1916. Serial No. 94,047. (Cl. 220—98.)



1. A can lining formed of a single piece of flexible, water-proof material plaited or fluted to form a cylindrical seamless vessel adapted to expand under a suitable pressure, the upper end of said lining being plaited to form a contracted neck, and an annular binding wire secured to the upper end of said contracted portion.

2. A can comprising a rigid body formed with an upstanding contracted throat, an outwardly and upwardly extending annular flange connected to the upper end of said throat, a tubular neck projecting upwardly from the throat, a cover carrying a downwardly extending annular flange adapted to receive the throat when the cover is in position, means for interlocking said flange with said neck, means for loosely connecting the cover to the upwardly extending flange of the throat, and a seal for the upper end of the neck adapted to be held securely in position by the cover.

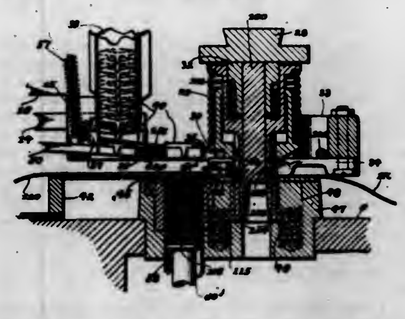
3. A can comprising a rigid body formed with an upstanding contracted throat, an outwardly and upwardly extending annular flange connected to the upper end of said throat, a tubular neck projecting upwardly from the throat, a cover, a downwardly extending annular flange secured to the under side of the cover and fitting outside of the neck, outwardly extending lugs formed on the neck, means carried by the cover for interlocking the cover with said lugs, a seal for the upper end of the neck, and an annular sealing band around the edge of said seal, said seal and band being held in position by the cover.

4. A can comprising a rigid body formed with an upstanding contracted throat, an outwardly and upwardly extending annular flange connected to the upper end of said throat, a tubular neck projecting upwardly from the throat, a cover carrying a downwardly extending annular flange adapted to receive the neck when the cover is in position, means for interlocking said flange with said neck, and a seal for the upper end of the neck adapted to be held securely in position by the cover.

5. A can comprising a rigid body formed with an upstanding contracted throat, a tubular neck projecting upwardly from the throat, a cover, a downwardly extending annular flange secured to the under side of the cover and fitting outside of the neck, outwardly extending lugs formed on the neck, means carried by the cover for detachably interlocking the cover with said lugs, a seal for the upper end of the neck, and an annular sealing band around the edge of the said seal, said seal and band being held in position by the cover.

[Claim 6 not printed in the Gazette.]

1,207,964. MACHINE FOR SETTING EYELETS IN AUTOMOBILE-CURTAINS. CARL A. MAHLER, Cleveland, Ohio. Filed Feb. 12, 1916. Serial No. 77,914. (Cl. 1—3.)



1. In a machine for setting pronged eyelets, the combination of a punch, a blade holder surrounding the punch and provided with blades spaced from the punch and adapted to cut openings for the prongs of the eyelets, a die opposite the punch, and clenching blocks surrounding the die, adapted to clench said prongs.

2. In a machine for setting pronged eyelets, the combination of a punch for cutting an eye, a presser surrounding the punch and adapted to press the eyelet to the material, a blade holder surrounding the presser and having blades adapted to cut openings for the prongs, spaced from the eye, a hollow die opposite the punch, and means surrounding the die to clench the prongs after they are inserted through said openings by the presser.

3. In a machine for setting pronged eyelets, the combination of a punch for cutting an eye, a presser surrounding the punch and adapted to press the eyelet to the material, a blade holder surrounding the presser and having blades adapted to cut openings for the prongs, spaced from the eye, a die opposite the punch, and means to clench the prongs after they are inserted through said openings by the presser, the blade holder and presser being yieldable with respect to the punch.

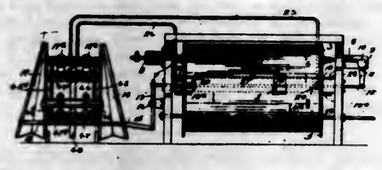
4. In a machine for setting pronged eyelets, the combination of a punch for cutting an eye, a presser surrounding the punch and adapted to press the eyelet to the material, a blade holder surrounding the presser and having blades adapted to cut openings for the prongs, spaced from the eye, a die opposite the punch, and means to clench the prongs after they are inserted through said openings by the presser, the blade holder being yieldable with respect to the presser.

5. In a machine for setting pronged eyelets, the combination of a punch for cutting an eye, a spring pressed presser surrounding the punch and yieldable with respect thereto, a spring pressed holder provided with cutting blades surrounding the presser and yieldable with respect thereto, a die opposite the punch, and means opposite the presser to clench prongs inserted through openings made by said blades.

[Claims 6 to 10 not printed in the Gazette.]

1,207,965. AUTOMATIC MUSIC-SHEET TRACKER. LOUIS H. MAIER, New York, N. Y. Filed Mar. 30, 1915. Serial No. 17,975. (Cl. 84—161.)

1. The combination of a tracker bar, a music sheet, means to cause a marginal portion of the sheet to bend when the sheet travels to one side of a normal path with respect to the tracker bar, and means controlled by such bending of the sheet to restore the proper traveling relation between the music sheet and tracker bar.



2. The combination of a tracker bar, a music sheet, spaced means located adjacent to the marginal portions of the sheet between which said sheet is adapted to travel to cause bending of portions of the sheet when the latter deviates from a proper traveling path, and means controlled by the bending of portions of the sheet to restore proper traveling relation of the sheet with respect to the tracker bar.

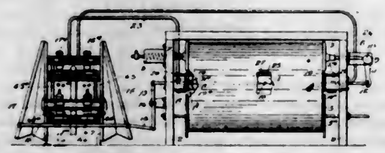
3. A player mechanism for musical instruments comprising a traveling music sheet, a tracker bar, abutments adjacent to the edges of the music sheet, means to support the music sheet to travel over the tracker and between said abutments, mechanism to adjust the music sheet and tracker bar with relation one to another, and means coactive with marginal portions of said sheet to cause operation of said mechanism when a marginal portion of the sheet is bent by engagement with such abutment.

4. A player mechanism for musical instruments comprising a traveling music sheet, a tracker bar, abutments adjacent to the edges of the music sheet, means to support the music sheet to travel over the tracker and between said abutments, mechanism to adjust the music sheet and tracker bar with relation one to another, and means spaced inwardly from such abutments behind marginal portions of the sheet to cause operation of said mechanism when a marginal portion of the sheet is bent by engagement with an abutment.

5. A player mechanism for musical instruments comprising a traveling music sheet, a tracker bar, abutments adjacent to the edges of the music sheet, means to support the music sheet to travel over the tracker and between said abutments, mechanism to adjust the music sheet and tracker bar with relation one to another, and means spaced inwardly from such abutments behind marginal portions of the sheet to cause operation of said mechanism when a marginal portion of the sheet is bent by engagement with an abutment.

[Claims 6 to 20 not printed in the Gazette.]

1,207,966. AUTOMATIC MUSIC-SHEET TRACKER. LOUIS H. MAIER, New York, N. Y. Original application filed Mar. 30, 1915, Serial No. 17,975. Divided and this application filed Sept. 27, 1915. Serial No. 52,790. (Cl. 84—161.)



1. The combination of a tracker bar, a music sheet, means to cause marginal portions of the sheet to bend when the sheet travels to one side of a normal path with respect to the tracker bar, means to shift the sheet or tracker bar with relation one to another, and a movable member to control said means, said member being located in position to be moved by the bending of the music sheet.

2. The combination of a tracker bar, a music sheet, means to cause marginal portions of the sheet to bend when the sheet travels to one side of a normal path with respect to the tracker bar, means to shift the sheet or tracker bar with relation one to another, a passage having an opening, and a movable member to control said opening, said movable member being located in position to be moved by the bending of the sheet to control the flow of air through said opening.

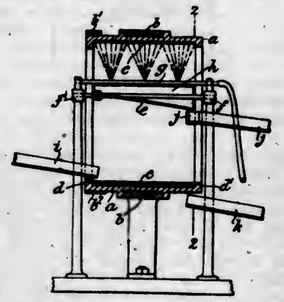
3. The combination of a tracker bar, a music sheet, means to cause marginal portions of the sheet to bend when the sheet travels to one side of a normal path with respect to the tracker bar, means to shift the sheet or tracker bar with relation one to another, a passage having an opening, a lever pivotally supported to be moved by the bending of the music sheet, and a valve operated by said lever to control said opening.

4. The combination of a tracker bar, a music sheet, means to cause marginal portions of the sheet to bend when the sheet travels to one side of a normal path with respect to the tracker bar, means to shift the sheet or tracker bar with relation one to another, a passage having an opening, a lever pivotally supported to be moved by the bending of the music sheet, a valve operated by said lever to control said opening, and means to adjustably support said lever and passage relatively to the tracker bar.

5. The combination of a tracker bar, a music sheet, means to cause marginal portions of the sheet to bend when the sheet travels to one side of a normal path with respect to the tracker bar, means to shift the sheet or tracker bar with relation one to another, a passage having an opening, a lever pivotally supported to be moved by the bending of the music sheet, a valve operated by said lever to control said opening, and means to adjust the lever to position one of its ends with respect to the adjacent margin of the music sheet.

[Claims 6 to 10 not printed in the Gazette.]

1,207,967. APPARATUS FOR THE WATER CONCENTRATION OF ORES OR THE LIKE. WILLIAM MORLEY MARTIN, Redruth, England. Filed Jan. 24, 1916. Serial No. 73,972. (Cl. 83—86.)



1. An apparatus for concentrating ores comprising a drum revolving about a horizontal axis and whose inner surface is formed of glass having flutes parallel with the axis of the drum provided with a plurality of microscopic pits.

2. An apparatus for concentrating ores, comprising a drum revolving about a horizontal axis and whose inner surface is formed of glass having flutes parallel with the axis of the drum provided with a plurality of microscopic pits of varying sizes.

1,207,968. PROCESS OF ABSORBING CARBON MONOXID. WILHELM MEISER and CARL KRAUCH, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Feb. 25, 1915. Serial No. 10,565. (Cl. 48—220.)

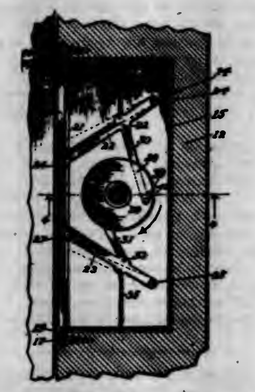
1. The process of absorbing carbon monoxid from gases containing it, which consists in treating the said gases in

iron apparatus with an ammoniacal solution of cuprous compounds substantially free of halogen.

2. The process of absorbing carbon monoxid from gases containing it, which consists in treating the said gases in iron apparatus with an ammoniacal solution of cuprous compounds containing a weak acid but substantially free of halogen.

3. The process of absorbing carbon monoxid from gases containing it, which consists in treating the said gases in iron apparatus with an ammoniacal solution of cuprous oxid substantially free of halogen.

1,207,969. WINDOW-SASH CATCH. JOHN B. MENZIES, Saugus, Cal. Filed Aug. 5, 1916. Serial No. 113,359. (Cl. 16—19.)

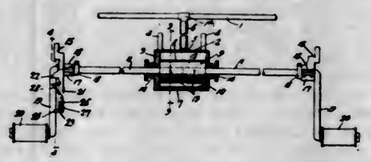


1. A sash lock, comprising a lock casing, a pair of swinging arms pivoted therein and extending therefrom, locking jaws pivoted upon said swinging arms and adapted to be moved outwardly from said casing by said arms, file faces upon said locking jaws whereby frictional engagement may be had, a rotatable locking disk mounted within said casing, means whereby the swinging arms will act in opposition to each other and to move the locking jaws outwardly from the casing, means whereby rotation of the disk will retract said locking jaws, and means for locking said jaws in their retracted position.

2. A sash lock comprising a lock casing, a pair of swinging arms pivoted therein, lock jaws pivoted upon said swinging arms and adapted to be moved outwardly from said casing by said arms into operative position in engagement with the window casing, a rotatable locking disk mounted within said casing, links pivotally connecting said arms to said disk whereby said swinging arms will act in unison on the rotation of said disk, either to move said jaws into operative or inoperative position, a pivot pin on which said disk is slidably and rotatably mounted, resilient means operatively connected to said swinging arms, and tending to move them into operative position, a stationary locking lug adapted to engage a slot on said disk to hold said disk and said arms in inoperative position, a spring engaging said disk and holding the same in engagement with said locking lug, and means mounted on said disk whereby the latter may be moved in opposition to said spring to allow said lug to be disengaged and said resilient means to move said jaws into operative position.

3. A sash lock comprising a lock casing, a pair of swinging arms pivoted therein, lock jaws pivoted upon said swinging arms and adapted to be moved into operative position into engagement with the window casing, a rotatable locking disk mounted within said casing, links pivotally connecting said arms to said disk, whereby said swinging arms will act in unison on the rotation of said disk, either to move said jaws into operative or inoperative position, a pivot pin on which said disk is slidably and rotatably mounted, a stationary locking lug adapted to engage a slot on said disk to hold said disk and said arms in inoperative position, resilient means holding said disk in engagement with said locking lug, and means mounted on said disk whereby the latter may be moved in opposition to said resilient means to allow said lug to be disengaged and said arms to be moved into operative position.

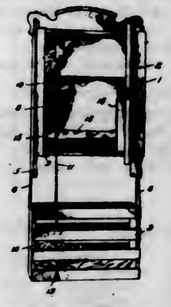
1,207,970. TRAIN-CONTROLLING APPARATUS. JAMES MERRIWEATHER, Greencastle, Ind., assignor of forty one-hundredths to Thomas Brothers, Greencastle, Ind. Filed Dec. 9, 1915. Serial No. 65,972. (Cl. 246—59.)



1. In a train controlling apparatus, an oscillatory valve, a normally depending crank arm connected to said valve, spring means for holding the arm in depending position, stops for limiting the upward movement of the arm in either direction, and springs for holding said arm against said stops.

2. A train controlling apparatus embodying an oscillatory valve, a bearing, a shaft journaled through said bearing and attached to said valve and having a depending crank arm adjacent said bearing, the bearing having a depending segment, a spring carried by the lower portion of said segment for normally holding the arm in depending position, said segment having stops for limiting the upward movement of said arm in either direction, and springs carried by the segment for holding said arm when swung adjacent said stops.

1,207,971. HOLDER FOR INDIVIDUAL TOWELS. EDWARD M. MIKKELSEN, Chicago, Ill. Filed Mar. 19, 1913. Serial No. 755,410. (Cl. 45—32.)



1. In a towel holder or the like, the combination with a supporting member provided with a bore, of an assembling member rotatably fixed in said bore, a retaining member flexibly secured at one end to the assembling member, and means for detachably securing the free end of the retaining member to the socket end of the assembling member.

2. In a towel holder or the like, the combination with a supporting member provided with a bore, a rod arranged upon said member and projecting at its base through said bore, a flexible retaining member secured at one end to the outer end of the rod, and means for detachably securing the other end of the retaining member to the inner end of the rod.

1,207,972. METHOD OF DECORATING GLASSWARE. WENZEL A. MIKSCH and ARTHUR W. MIKSCH, Charleroi, Pa., assignors to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 6, 1914. Serial No. 849,076. (Cl. 41—26.)



1. The method of producing glassware decorated in colors, which consists in imprinting upon the smooth uncolored surface of the article a protecting outline of resist of the design to be produced, treating the article thus imprinted to roughen the surface with the exception of the portion protected by the said resist, removing the said resist leaving a smooth outline, applying the desired colors to the roughened glass on one side of said smooth outline and leaving the roughened glass on the other side of the said smooth outline uncolored, and rubbing the design to thin the colors and make them uniform and remove any colors on the said smooth outline.

2. The method of producing glassware decorated in colors, which consists in imprinting upon the smooth uncolored surface of the article a protecting outline of resist of the design to be produced, treating the article thus imprinted to roughen the surface with the exception of the portion protected by the said resist, removing the said resist leaving a smooth outline, applying the desired colors to the roughened glass on one side of said smooth outline, and rubbing off any of the coloring matter accidentally applied to the smooth outline.

1,207,973. SETTING FOR PRECIOUS STONES AND THE LIKE. FRANK MILHENING, Chicago, Ill., assignor to J. Milhening, Inc., Chicago, Ill., a Corporation of Illinois. Filed Apr. 13, 1916. Serial No. 90,937. (Cl. 63—27.)



1. A gem setting comprising a shell, a plurality of reflecting ridges on the concave surface of said shell and projections extending from the concave surface and exterior surface of the shell.

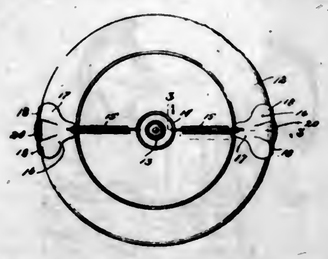
2. A gem setting comprising a shell, said shell being substantially the frustum of a cone, an opening in the center thereof and projections extending from the inner and outer surfaces of said shell.

3. A gem setting comprising a shell, a plurality of reflecting ridges formed on the interior or concave surface of said shell and extending parallel to the outer edge of said shell and a plurality of projections extending from the shell.

4. A gem setting comprising a shell having a plurality of projections, said shell being substantially the frustum of a cone and having a plurality of annular reflecting ridges arranged on its concave surface.

5. A gem setting comprising a conical shell, the inner or concave surface of said shell having a plurality of annular reflecting ridges extending parallel to the outer edge of the shell and a series of projections extending from both sides of the shell.

1,207,974. LID-RETAINER. JACOB C. MILLER, Omaha, Nebr. Filed July 23, 1915. Serial No. 41,592. (Cl. 70—82.)



1. In a device of the kind described, a pair of oppositely disposed hooks each having a pair of laterally spaced bills and an intermediate upstanding thumb piece, and a resilient connection between said hooks including a central boss surrounding element.

2. A lid holder for a cooking vessel comprising, a pair of oppositely extending coil springs, a ring connecting the inner ends of the springs and adapted for engagement on the central handle of the lid, and clips on the outer ends of the springs, each including a pair of hooks for embracing engagement with the rim of the vessel and the lid, and integral finger holds between the hooks.

1,207,975. RIM CONSTRUCTION. HARRY MILLS, Philadelphia, Pa. Filed Jan. 21, 1913. Serial No. 743,324. (Cl. 152—21.)



1. The combination in a wheel of a member removably mounted thereon; and holding means for said member consisting of a series of bolts adjustably threaded into the wheel; with a flat retaining ring provided with inwardly projecting portions having open sided recesses for the reception of said bolts.

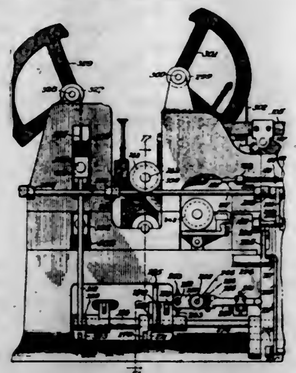
2. The combination in a wheel of a rim having a series of threaded sockets; a tire mounted on said rim; means for holding the tire in place consisting of a ring provided with a series of open sided recesses; and bolts mounted in the sockets in positions to enter the recesses of the ring, the latter being removable from the bolts by a rotary movement and the outer face of the ring being countersunk adjacent the recesses to prevent such rotary movement when the bolts are not set up.

3. The combination in a wheel of a rim having a series of threaded sockets; a tire mounted on said rim; means for holding the tire in place consisting of a ring having a flat portion in a plane at right angles to the axis of the wheel and provided at its inner edge with inwardly projecting portions formed with open sided recesses, the outer face of said ring being counter-sunk around said recesses; with bolts mounted in the sockets in positions to enter the recesses of the ring through the openings thereof.

1,207,976. BOARD-SIZING MACHINE. HARRISON J. MITCHELL, Beloit, Wis., assignor to P. B. Yates Machine Company, Beloit, Wis., a Corporation of Wisconsin. Filed June 25, 1915. Serial No. 36,167. (Cl. 144—114.)

1. The combination with a machine including tools for acting on material supplied thereto, of an abutment gage for the material, said gage automatically adjusted by the

entering material to adapt the same for material of varying stock dimensions, and a laterally positionable guide for directing the material to the gage.



2. The combination with a machine including tools for acting on material supplied thereto, of a sectional abutment gage for the material, certain sections arranged to be engaged by the entering material and rendered inoperative whereby to vary the effective part of the gage to suit material of varying stock dimensions, and a laterally positionable guide for directing the material to the gage.

3. The combination with a machine including tools for acting on material supplied thereto, of a sectional abutment gage for the material, said gage disposed in the path of the advancing material whereby certain sections corresponding to the width of the material will be engaged and rendered inoperative whereby to vary the effective part of the gage to suit material of varying stock dimensions, and a laterally positionable guide for directing the material to the gage.

4. The combination with a machine including tools for acting on material supplied thereto, of a sectional abutment gage for the material, said gage disposed in the path of the advancing material whereby certain sections corresponding to the width of the material will be engaged and caused to override the same while the remaining sections will constitute a laterally supporting guide for the material, and a laterally positionable guide for directing the material to the gage.

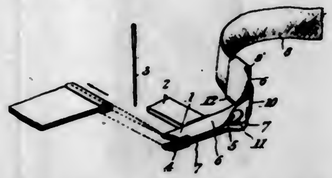
5. The combination with a machine including tools for acting on material supplied thereto, of a sectional abutment gage comprising a series of members arranged in planes parallel to the path of the advancing material and mounted for independent movement in a vertical direction, certain of the sections adapted to be individually engaged by and lifted out of the path of the entering material, those members not so engaged remaining in place as a lateral guide and support for the material, and a laterally positionable guide for directing the material to the gage.

[Claims 6 to 35 not printed in the Gazette.]

1,207,977. FOLDER FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 5, 1912. Serial No. 669,567. (Cl. 112—1.)

1. A folder including in combination, a body portion having a central rib for folding a strip, said rib terminating short of the receiving end of the folder, the walls of the folder being straight at the receiving end and gradually bent to conform to said central rib, and supplemental folding means disposed between the rib and the receiving end of the folder and coöperating with the former for turning the raw edges of the strip back on the body portion of the strip.

2. A folder including in combination, a body portion having a central rib for folding a strip, said rib terminating short of the receiving end of the folder, the walls of the folder being straight at the receiving end and gradually bent to conform to said central rib, and spaced fingers disposed between the rib and the receiving end of the folder coöperating with the body portion of the folder for turning the edges of the strip back on the body portion of the strip.



3. A folder including in combination, a body portion having a central rib for folding a strip, said rib terminating short of the receiving end of the folder, the walls of the folder being straight at the receiving end and gradually bent to conform to said central rib, spaced fingers disposed between the rib and the receiving end of the folder coöperating with the body portion of the folder for turning the edges of the strip back on the body portion of the strip, and means for yieldingly supporting said fingers.

4. A folder including in combination, a body portion having a central rib for folding a strip, said rib terminating short of the receiving end of the folder, the walls of the folder being straight at the receiving end and gradually bent to conform to said central rib, and spaced fingers disposed between the rib and the receiving end of the folder coöperating with the body portion of the folder for turning the edges of the strip back on the body portion of the strip, the outer walls of the folder being spaced in the central plane of the folder to allow insertion of the goods.

5. A folder including in combination, a body portion having a central rib for folding a strip, the delivery end of the folder being cut at an angle to the longitudinal axis of the folder, the walls of the folder being straight at the receiving end and gradually bent to conform to said central rib, a yielding member mounted at the receiving end of the folder and having a forked end forming fingers disposed on opposite sides of the rib and projecting longitudinally of the folder and located at the receiving end of the folder, said fingers coöperating with the body of the folder and with the rib for turning the edges of the strip back on the body portion of the strip.

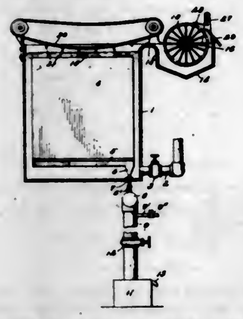
[Claims 6 to 8 not printed in the Gazette.]

1,207,978. PROCESS OF TREATING PULP. GEORGE MOORE, Joplin, Mo. Filed Jan. 23, 1915. Serial No. 4,022. (Cl. 92—29.)

1. In a process of recovering paper pulp from water bearing suspended pulp solids, submerging a filter cell in such water, passing water through the cell for depositing solids of pulp thereon while maintaining the cell submerged until a coat of solids is formed on the cell, aerating the solids forming such coating, and discharging the solids coating from the cell while submerged.

2. In a process of recovering paper pulp from water bearing suspended pulp solids, passing water of such waste water through a filter cell while maintaining the cell submerged in waste water for depositing a cake of pulp solids on the filter cell, exposing the coated cell to the atmosphere, drawing air through the coating into the cell, resubmerging the cell, and discharging the coating while thus submerged.

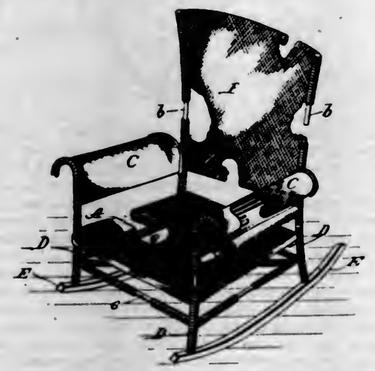
3. In a process of recovering paper pulp from water bearing suspended pulp solids, thickening the pulp in a body of such water, delivering the thickened pulp to a body of such pulp, forming a cake of solids of such body of pulp on a screen by difference in pressure at one side of the screen from that at the other, moving the thus formed cake from the body of pulp into the atmosphere, maintaining the cake in position on the screen by a like difference in pressure, dewatering the cake, and reversing the difference in pressure for discharging the cake from the screen beyond the body of thickened pulp.



4. In a process of recovering paper pulp from waste water, thickening pulp in a body of water, aerating the thickened pulp, and causing the pulp to float on a body of water.

5. Thickening paper pulp in water, and floating the pulp by means of bubbles.

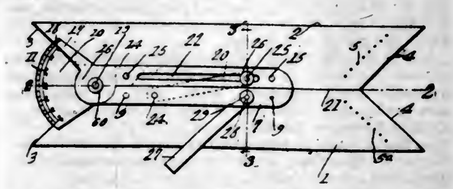
1,207,979. MANUFACTURE OF COVERED FRAME-PIECES FOR CHAIRS AND OTHER ARTICLES. HAROLD B. MORRIS, Glendale, Cal. Original application filed June 24, 1915, Serial No. 36,036. Divided and this application filed July 3, 1916. Serial No. 107,446. (Cl. 144—309.)



The method herein described of preparing a frame piece of a chair or other article, which consists in softening a piece of wood of suitable shape, then covering said piece while still soft with hot glue, then winding covering material on the piece thus treated and then bending the covered piece to suitable shape.

1,207,980. ADJUSTABLE TRIANGLE OR SQUARE AND PROTRACTOR. JOHN NASH, Seattle, Wash. Filed Nov. 11, 1915. Serial No. 60,913. (Cl. 33—117.)

1. In a device of the class described, a pair of coöperating members; strips extended longitudinally of the members and secured thereto; a pivotal connection between the strips, one strip being provided with a scale and the other strip terminating in an extension adapted to move over the scale, one strip being provided with a slot; a link pivoted to the other strip; a stud carried by the link and adapted to ride in the slot; and clamping means carried by the stud and coöperating with the slotted strip.



2. In a device of the class described, a pair of coöperating members; strips secured to the longitudinal edges of the members, one strip terminating in a graduated head, and the other strip being provided with means for registering on the graduated head; a straight edge pivoted to one strip; a link pivoted to the said strip; and means for connecting the link with the other strip for adjustment longitudinally of said other strip.

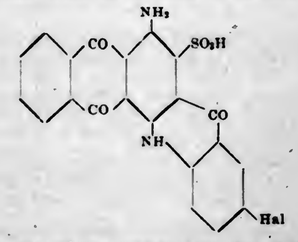
3. In a device of the class described, parallel members; means for pivotally connecting the said members adjacent one end; and means for holding the said members at adjusted angles with respect to each other; each member being provided adjacent its other end with an opening, one opening being adapted to receive a center point, and the other opening being adapted to receive a scriber, whereby an arc may be struck and whereby a point on the arc may be determined by the scriber, that member which is provided with the scriber-receiving opening being movable on the pivotal connecting means to dispose one edge of said member in coincident relation to the point determined by the scriber, whereby a tangent to the arc may be drawn at said point.

1,207,981. ANTHRAQUINONE DYES AND PROCESS OF MAKING THEM. HEINRICH NERESHEIMER, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Oct. 29, 1914. Serial No. 869,166. (Cl. 8—1.)

1. The new anthraquinone dyes which are 4-amino-3-sulfo-2.1-anthraquinone acridones and which consist when dry of dark green to blue powders, are soluble in water giving green-blue solutions, are soluble in concentrated sulfuric acid giving red-brown to yellow solutions, are insoluble in most organic solvents and dye wool blue to green shades.

2. The new anthraquinone dyes which are 4-amino-3-sulfo-2.1-anthraquinone acridones, and which contain only one sulfonic acid group in the molecule and which consist when dry of dark green to blue powders, are soluble in water giving green-blue solutions, are soluble in concentrated sulfuric acid giving red-brown to yellow solutions, are insoluble in most organic solvents and dye wool blue to green shades and on treatment with alkaline hydrosulfite solution can be made to split off the sulfonic acid group and give rise to vat coloring matters.

3. The new anthraquinone dyes which are amino-halogen-anthraquinone-acridone sulfonic acids, probably possessing a constitution corresponding to the formula:—



which coloring matters consist when dry of dark blue-green powders, are insoluble in most organic solvents,

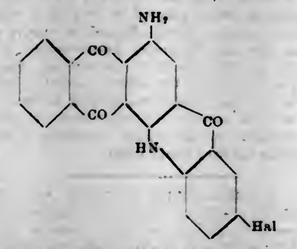
yield greenish blue solutions in water and brown solutions in concentrated sulfuric acid, dye wool green shades and on treatment with alkaline hydrosulfite solution can be made to split off the sulfonic acid group giving vat dyes which dye cotton blue shades.

4. The process of producing 4-amino-3-sulfo-2.1-anthraquinone acridones by treating 4-amino-1-arylido-anthraquinone-3-sulfo-2'-carboxylic acids with a condensing agent under mild conditions so that the sulfonic group in position 3 remains unattacked.

5. The process of producing an amino-chlor-anthraquinone-acridone-sulfonic acid by treating 4-amino-1-para-chlor-ortho-carboxy-anilido-anthraquinone-3-sulfonic acid with a condensing agent under mild conditions so that the sulfonic group in position 3 remains unattacked.

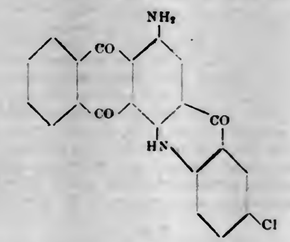
1,207,982. ANTHRAQUINONE DYES AND PROCESS OF MAKING THEM. HEINRICH NEREESHEIMER, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Oct. 29, 1914. Serial No. 869,167. (Cl. 8—1.)

1. The hereinbefore described anthraquinone dyes being amino-halogen-anthraquinone acridones probably possessing a constitution corresponding to the formula:—



which consist when dry of dark blue powders containing halogen, are insoluble in water, difficultly soluble in organic solvents of low boiling point, give blue solutions in hot nitrobenzene, from brown to yellow solutions in concentrated sulfuric acid and which dissolve in alkaline hydrosulfite solution giving violet vats which dye from greenish blue to pure blue.

2. The hereinbefore described anthraquinone dye being amino-chlor-anthraquinone acridone, probably possessing a constitution corresponding to the formula:—

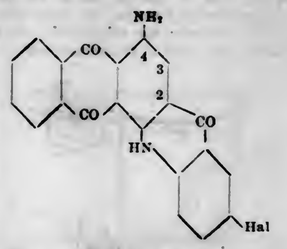


which consists when dry of a dark blue powder, containing chlorin, is insoluble in water, difficultly soluble in organic solvents of low boiling point, gives a blue solution in nitrobenzene, a yellow-brown solution in concentrated sulfuric acid, and which dissolves in alkaline hydrosulfite solution giving a violet vat, which dyes cotton greenish blue shades of excellent fastness.

3. The process of producing 4-amino-2.1-anthraquinone acridones by treating a 4-amino-3-sulfo-2.1-anthraquinone acridone so as to split off the sulfonic acid group from position 3.

4. The process of producing 4-amino-2.1-anthraquinone acridones by treating 4-amino-3-sulfo-2.1-anthraquinone acridones with an alkaline hydrosulfite solution.

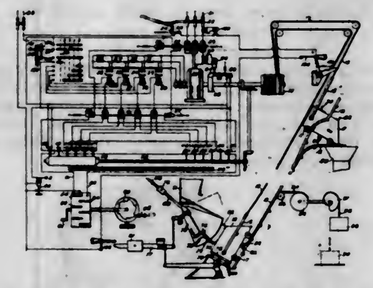
5. The process of producing amino-halogen-anthraquinone acridones of a constitution corresponding to the formula:—



by treating the corresponding sulfonic acid compound containing the sulfonic acid group in position 3 with alkaline hydrosulfite solution.

[Claim 6 not printed in the Gazette.]

1,207,983. SYSTEM OF CONTROL. RAY C. NEWHOUSE, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed June 17, 1911. Serial No. 633,798. (Cl. 214—8.)



1. A hoisting apparatus comprising a car to be hoisted, a power-operated device for hoisting it, a bin from which material to be hoisted is supplied to the car, said bin having a gate, means for causing the closing of the bin gate when the weight of the material in the car reaches a predetermined value, and means operated by the closing of the bin gate for causing said power-operated device to hoist the car.

2. A hoisting apparatus comprising a car to be hoisted, an electric motor for hoisting it, a bin from which material to be hoisted is supplied to the car, said bin having a gate for controlling the supply of material to the car, means for causing the closing of the gate when the material in the car reaches a predetermined weight, and means operated by the closing of the bin gate for causing the motor to be connected to hoist the car.

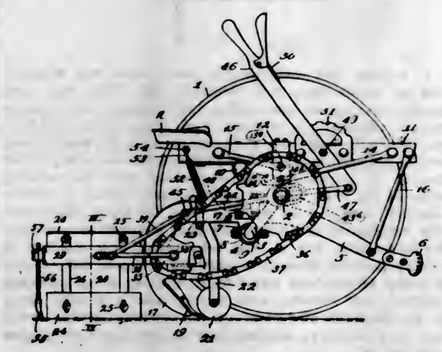
3. A hoisting apparatus comprising a car, a power-operated device for raising and lowering said car, a bin from which material is supplied to the car when at the bottom of its travel, said bin having a gate which is automatically opened when the car reaches the bottom of its travel, means for causing the closing of said gate when the weight of the material supplied to said car has reached a predetermined value, and means operated by the closing of the bin gate to cause said power-operated device to raise the car.

4. A hoisting apparatus comprising a car, a power-operated device for raising and lowering said car, a bin from which material is supplied to the car when at the bottom of its travel, said bin having a gate which is automatically opened when the car reaches the bottom of its travel, means for causing the closing of said gate when the weight of the material supplied to said car has reached a predetermined value, means operated by the closing of the bin gate to cause said power-operated device to raise the car, and means for causing the power-operated device to stop raising the car when the latter reaches the top of its travel.

5. A hoisting apparatus comprising a car, an electric motor for raising and lowering said car, a bin from which material is supplied to the car when at its lower limit of movement, said bin having a gate which is automatically opened by the car as the latter approaches said lower limit of movement, means for causing the closing of said bin gate when the weight of the material in the car reaches a predetermined value, and means operated by the closing of the bin gate for causing the completion of the motor circuit in the proper direction to cause it to raise the car.

[Claims 6 to 51 not printed in the Gazette.]

1,207,984. COMBINATION FARMING-MACHINE. EDWARD T. NOWELL, Stotts City, Mo. Filed Jan. 3, 1916. Serial No. 69,711. (Cl. 97—46.)



1. In a machine of the character described, a pair of carrying wheels one of which has a clutch member, an axle upon which said wheels are rotatably mounted, a gear wheel loosely-mounted upon the axle and provided with a clutch member adapted to be driven by the clutch member on the carrying wheel, gearing driven by said gear wheel, cultivator appliances driven by said gearing, manual means for raising and lowering said cultivator appliances, and a shifter bar controlled by the cultivator appliances and provided with a wedge adapted to engage and shift the gear clutch into engagement with the wheel clutch when said cultivator appliances are lowered.

2. In a machine of the character described, a pair of carrying wheels one of which has a clutch member, an axle upon which said wheels are rotatably mounted, sleeves through which said axle extends, a yoke secured to said sleeves, a tongue secured to said yoke, a gear wheel loosely mounted on the axle adjacent one of the sleeves and provided with a clutch member adapted to be driven by the clutch member on the carrying wheel, rotary cultivator appliances geared to said gear wheel, means for raising and lowering said cultivator appliances, and a shifter bar having a slotted portion through which the axle extends and a wedge portion interposed between the gear wheel and one of the sleeves to shift the gear wheel clutch member into engagement with the carrying wheel member clutch when the cultivator appliances are lowered.

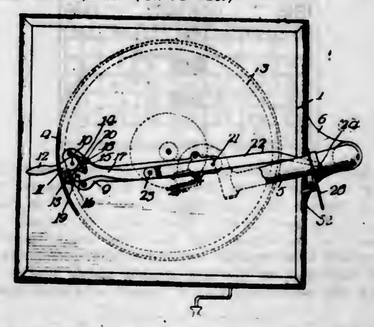
3. In a machine of the character described, a tongue, an axle to support said tongue, carrying wheels rotatably mounted upon said axle and one of which has a clutch member, a plow operably-connected to the axle and the tongue, a frame extending rearwardly from said plow, a rotary cotton chopper journaled in said frame, gearing for driving said cotton chopper, a gear wheel loosely-mounted on the axle to drive said gearing, and provided with a clutch member for engagement with the clutch member on the carrying wheel, manual means for raising and lowering the plow and the cotton chopper, springs secured to the tongue and the plow to assist in raising the latter, and a shifter bar connected to said plow and adapted to shift the gear wheel clutch member into engagement with the carrying wheel clutch member when the plow is lowered.

1,207,985. ANTIFRICTION-HANGER. CHARLES I. NULL and HERMAN P. RAAB, Indianapolis, Ind. Filed Aug. 17, 1914. Serial No. 857,217. (Cl. 64—36.)



A device of the class described comprising a yoke, a shaft fixed between the arms thereof, said shaft having a peripheral groove formed centrally in its outer face, an oscillatable ring encircling the shaft over the groove, bearing balls disposed in the groove, and a pair of rings encircling the shaft on opposite sides of and secured to the ring to confine the balls within the groove and to prevent the ring moving toward the arms.

1,207,986. BRAKE MECHANISM FOR TALKING-MACHINES. MARTIN NYSTROM, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed May 20, 1916. Serial No. 98,820. (Cl. 74—46.)



1. In a mechanism of the character described, the combination of a brake adapted to engage a moving part of a talking machine, a latch to normally retain said brake in inoperative position, and means for releasing said brake including a lever pivotally connected to said latch, a member adjustably mounted on a tone arm of the talking machine and an indicator coöperating with said member, whereby said member may be readily set to release said brake at predetermined points in the travel of said tone arm.

2. In a mechanism of the character described, the combination of a pivotally mounted brake adapted to engage a moving part of a talking machine, a pivotally mounted latch to normally retain said brake in inoperative position, a spring connecting said brake and latch, and means for releasing said brake including a lever pivotally connected to said latch, a member adjustably mounted on the tone arm of the talking machine and an indicator co-operating with said member, whereby said member may be readily set to release said brake at predtermined points in the travel of said tone arm.

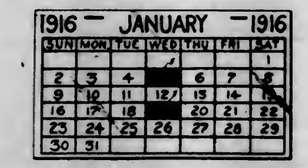
3. In a mechanism of the character described, the combination of a pivotally mounted brake adapted to engage a moving part of a talking machine, means for manually moving said brake to operative or inoperative position, a latch resiliently connected to said brake to normally retain said brake in inoperative position, and means to automatically release said brake including a pivoted lever connected to said latch, a member adjustably secured to the tone arm of the talking machine and movable into engagement with said lever and an indicator coöperating with said member, whereby said member may be readily set to release said brake at predetermined points in the travel of the tone arm.

4. In a mechanism of the character described, the combination of a rotatable table, a pivotally mounted brake adapted to engage said table, and having an abutment thereon, a pivotally mounted latch having means thereon to engage said abutment and thereby retain said brake in inoperative position, a spring connecting said brake and latch, a lever pivotally connected to said latch, a tone arm, and means carried thereby to engage said lever and move said latch to release said brake.

5. In a mechanism of the character described, the combination of a rotatable table, a pivotally mounted brake adapted to engage said table and having an abutment thereon, means for manually moving said brake to operative or inoperative position, a pivotally mounted latch having means thereon to engage said abutment and thereby retain said brake in inoperative position, a spring connecting said brake and latch, a lever pivotally connected to said latch, a tone arm, and means carried thereby to engage said lever and move said latch to release said brake.

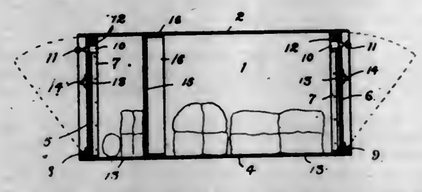
[Claims 6 and 7 not printed in the Gazette.]

1,207,987. CALENDAR. BENJAMIN A. OEHLER, St. Louis, Mo. Filed Dec. 4, 1915. Serial No. 65,094. (Cl. 40—121.)



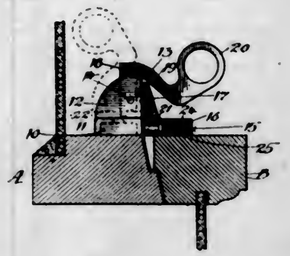
A calendar comprising a series of superposed sheets having the days of the month and their respective dates printed thereon and apertures formed therein in lieu of certain dates, each of said sheets being so arranged with reference to the others that the same weekly period in each month is in register throughout the calendar, and a notice displayed on the last of said sheets in the location of said period and visible through said apertures.

1,207,988. RECEPTACLE. GEORGE C. OLMSTED, Duluth, Minn. Filed July 6, 1915. Serial No. 38,305. (Cl. 232—1.)



The combination with a receptacle having a slidable partition therein and open at both ends, of a continuous angular member extending about the innermost wall thereof and permanently fixed thereto adjacent each end, and a substantial distance therefrom, a door hinged at one edge upon one wall of each end of the receptacle adjacent the angular member and closable thereagainst, and a spring actuated lock fixed to the opposite edge of each door in such a manner that the bolt of the lock will automatically engage the inwardly extending wall of the angular member when the door is forcibly closed.

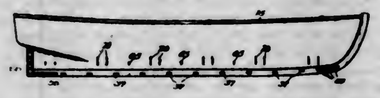
1,207,989. SASH-LOCK. WILLIAM F. O'ROURKE, Chicago, Ill. Filed Apr. 1, 1916. Serial No. 88,301. (Cl. 16—145.)



1. A sash lock comprising a lower sash lock member, and an upper sash lock member, said lower sash lock member having an upstanding lug formed with a recess therein adjacent the meeting edges of the sash, and having also a locking arm swinging member in said recess, said upper sash lock member having a locking arm pivoted thereto on a horizontal pivot parallel with the meeting edges of the sash, and said locking arm having a portion adapted to extend up directly from its pivot which portion terminates in an inclined part adapted to overhang the upstanding lug on the lower sash lock member in locking position when both sashes are closed, but capable of being swung back away from said lug to an unlocked position, said locking arm having also a portion lying in the path of movement of the member of the lower sash lock member; substantially as and for the purpose set forth.

2. A sash lock comprising lower and upper sash lock members, the lower sash lock member having an upstanding lug adjacent the meeting edges of the sash, and having a recess in its lower side, a spring pressed member in said recess protruding out through the end thereof adjacent the meeting edges of the sash; said upper sash lock member having a locking arm pivoted thereto on a pivot parallel with the meeting edges of the sash, said locking arm having a part on one side of its pivot adapted to lie in the path of travel of the spring pressed member, when in unlocked position, for the purpose specified, and having a portion adapted to extend directly up from said pivot, which portion terminates in an inclined part that overhangs said lug when in its locked position.

1,207,990. MEANS FOR CONTROLLING A BOAT. JOHN J. OTTO, Chicago, Ill. Filed July 27, 1914. Serial No. 853,531. (Cl. 115—14.)

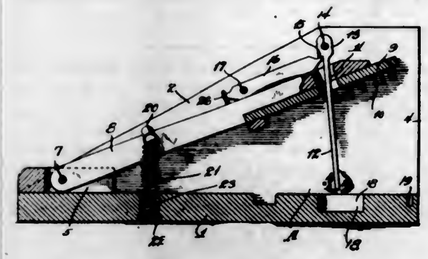


1. The combination of a boat hull, comprising a keel, nozzles distributed throughout the length of said keel and arranged to discharge from the bottom and sides thereof, the laterally discharging nozzles being arranged closer together at the ends of the keel, and means for supplying fluid under pressure to said nozzles.

2. The combination of a boat hull comprising a keel, nozzles distributed throughout the length of said keel and arranged to discharge from the bottom and sides thereof, the laterally discharging nozzles being arranged closer together at the ends of the keel and each of said nozzles having a flattened discharge orifice, and means for supplying fluid under pressure to said nozzles.

3. The combination of a boat hull, a tubular member positioned at the rear thereof and provided with a plurality of rows of openings arranged in rows longitudinally and circumferentially of the member, a pipe rotatably mounted inside said member and provided with a single longitudinal row of openings adapted to be alined with any of the surrounding rows in said member, means for supplying fluid under pressure to said pipe, means whereby said pipe may be turned so as to discharge the fluid from said member in any desired direction.

1,207,991. ANIMAL-TRAP. ELMER C. OWEN, Lorain, Ohio. Filed Feb. 8, 1916. Serial No. 77,066. (Cl. 43—21.)



1. An animal trap comprising a base, a striker arm pivotally mounted upon the base, a pair of contracting springs connected to said base and to said striker arm, the connection of said springs with said striker arm comprising a yoke adapted to be manually moved for adjusting the tension of said springs, and means for releasably holding the striker arm in raised position.

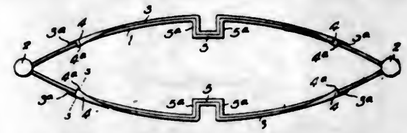
2. An animal trap comprising a base, a striker arm pivotally mounted upon said base, a plate carried by said striker arm, a latch trigger pivotally mounted and releasably engaging said striker arm, a bait trigger releasably engaging said latch trigger, and spring means secured to said base and loosely connected to said striker arm whereby the connection of said spring means with said striker arm may be varied for adjusting the tension of said spring means to vary the force of the blow exerted by said striker arm when said latch trigger is released.

3. An animal trap comprising a base, a striker arm pivotally mounted on said base, means releasably retaining said striker arm in raised position, a yoke straddling said striker arm and resilient means connecting said yoke with said base, said yoke being longitudinally adjustable on said striker arm for causing the said resilient means to vary the force of the blow of said striker arm.

4. An animal trap comprising a base, a striker arm pivotally mounted on said base, a yoke straddling said striker arm, said base being provided with a depression in its bottom face and a pair of openings extending through said base and communicating with said depression, tension springs mounted in said openings and connected at their upper ends to said yoke, a securing plate disposed within said depression and connected to the lower ends of said springs, and means releasably retaining said striker arm in raised position.

5. An animal trap comprising a base, a striker arm pivotally mounted on said base, means releasably retaining said striker arm in raised position, a securing plate carried by said base, and spring means fastened to said securing plate and loosely connected to said striker arm whereby the connection of said spring means with said striker arm may be varied for adjusting the tension of said spring means to vary the force of the blow exerted by said striker arm when said first mentioned means is released.

1,207,992. VEHICLE-SPRING. FELIX S. OWEN, Billings, Mont. Filed Apr. 4, 1916. Serial No. 88,775. (Cl. 267—27.)



1. An elliptic spring including superposed leaves of graded lengths, the ends of the shorter leaves being simultaneously tapered in thickness and flared in width and the projecting edges of the flared ends being extended laterally to provide side flanges which embrace the sides of the longer leaves to hold the leaves against relative lateral displacement.

2. An elliptic spring including superposed leaves of graded lengths, the ends of the shorter leaves being simultaneously tapered in thickness and flared in width, the projecting flared edges being extended laterally to provide side flanges which embrace the longer leaves, and the side flanges terminating in inwardly extending lips, the lips preventing gaping of the ends of the leaves, while the side flanges prevent relative lateral displacement of the leaves.

1,207,993. SPRING-WHEEL. RICHARD G. PARK, Jr., Philadelphia, Pa. Filed Jan. 27, 1910. Serial No. 540,309. (Cl. 152—45.)

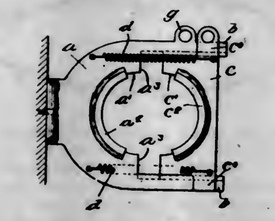


A wheel comprising a hub portion, parallel disks and a rim portion, the body of the rim portion being received between the disks of the hub; the body of the rim portion having sockets formed therein; bolts uniting the disks of the hub and passing through said sockets; springs interposed between the sockets and the bolts, whereby one portion of the wheel is cushioned relative to the other; a collar interposed between said portions of the wheel, said collar having slideways at right angles to each other coöperating with projecting slide-plates carried respeceively by the hub portion and the rim portion of the wheel; an outside cover plate fastened to the rim portion and covering the entire end of the hub; and an elastic ring interposed between the end of the hub portion and the inside of the cover plate, with which said cover plate is adapted to contact to limit the relative movement between the two portions of the wheel.

1,207,994. MILK-BOTTLE HOLDER. EDWIN B. PARKER, Haverhill, Mass., assignor of one-half to Pierce F. Cummings, Lawrence, Mass. Filed Feb. 12, 1916. Serial No. 78,011. (Cl. 232—41.)

1. A bottle holder comprising a bracket having a bottle-receiving recess in its front side, and guideways at each side of said recess, a clamping-bar slidably mounted on

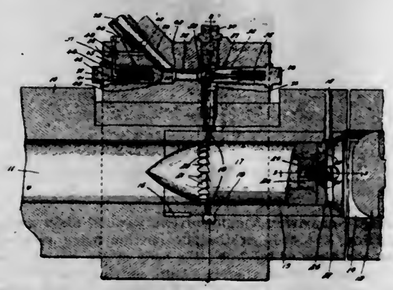
said guide-ways and having a bottle-engaging seat on its side next said recess, stops on the bracket for limiting the movement of said bar toward the bracket, and springs for normally holding said bar against said stops.



2. A bottle holder comprising a bracket having a bottle-receiving recess in its front side, a pair of arms extending therefrom at opposite sides of said recess, a clamping-bar slidably mounted on said arms, and means to hold said bar in yielding engagement with a bottle held in said recess, said bar and one of said arms each having a fastener-receiving aperture arranged to be held in register when the bar is in a bottle-supporting position.

3. A bottle holder comprising a bracket having a bottle-receiving recess in its front side, a pair of arms extending therefrom at opposite sides of the recess, a clamping-bar slidably mounted on said arms, means to hold said bar in yielding engagement with a bottle held in said recess, a cover on said bracket arranged to extend over said recess and said bar, and means to lock said cover and bar to one of said arms.

1,207,995. GUN. JOHN PATTEN, Baltimore, Md., assignor of seventy-five one-hundredths to C. Wilbur Miller and Ernest B. Miller. Filed Dec. 26, 1912. Serial No. 738,779. (Cl. 89—1.)



1. In combination, a gun, a projectile having energy converting rotating means arranged directly thereon, and means for applying energy to said rotating means to rotate the projectile in the breech of the gun and before it moves longitudinally of the gun.

2. In combination, a gun, a projectile having energy converting rotating means arranged directly thereon, means for supplying energy to said rotating means to rotate the projectile in the breech of the gun, and means for controlling said energy supplying means.

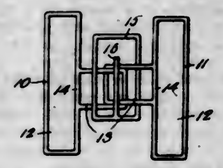
3. In combination, a gun, a projectile having fluid pressure energy converting rotating means thereon, a conduit in the gun for supplying fluid to said means, and means for controlling said conduit.

4. In combination, a gun, a projectile having a turbine wheel thereon, and fluid pressure supply means in the gun for said wheel.

5. In combination, a gun, a projectile having a turbine wheel thereon, fluid pressure supply means in the gun for said wheel, and means for controlling said supply means.

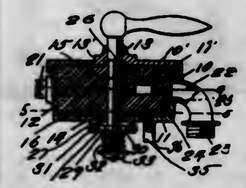
[Claims 6 to 18 not printed in the Gazette.]

1,207,996. PUZZLE. MICHAEL PERRICONE, Brooklyn, N. Y. Filed Mar. 7, 1916. Serial No. 82,710. (Cl. 46—41.)



A puzzle comprising a pair of wire members each formed with a larger elongated loop and a smaller loop extending centrally from one side thereof, a transverse bar closing communication between the loops, the smaller loops being interengaged, and a ring engaged on the interengaged loops, said ring having a stem formed centrally on one end and extending to a point adjacent the center of the opposite end.

1,207,997. COMBINED HOT AND COLD WATER FAUCET. JASPER B. PERRY, Newberry, Pa. Filed Mar. 30, 1915. Serial No. 18,165. (Cl. 137—26.)



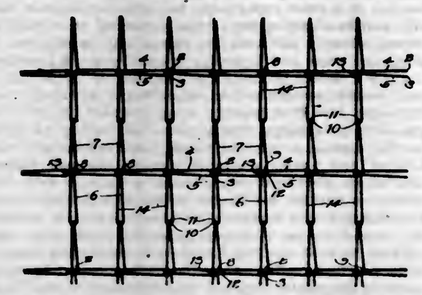
1. A faucet comprising a casing and a rotary valve therein, a stem disposed through the valve and extending below the casing, a cup member mounted on the casing and receiving the stem therethrough, said cup member having diametrically disposed recesses, a member mounted on the stem below the cup and provided with rollers adapted for engagement with the lower edge of the cup and resilient means for forcing the rollers into frictional engagement with the cup.

2. A faucet comprising a casing, a rotary valve in the casing, a stem disposed through the valve and extending from opposite sides of the casing, a shoulder on the stem engaging said valve, a cup member mounted on the casing and surrounding the stem, said cup having diametrically disposed recesses therein, a member slidably and non-rotatably mounted on the stem and provided with rollers adapted to seat within the recesses, a washer arranged on the stem below the cup, and a spring encircling the stem between the washer and said slidable member whereby to yieldably maintain the rollers in frictional engagement with the cup member and hold the valve snugly seated in the casing.

1,207,998. WIRE MATTRESS FABRIC. ARON PETERSON, Chicago, Ill. Filed Mar. 1, 1916. Serial No. 81,379. (Cl. 245—5.

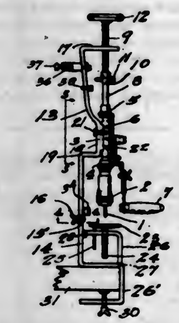
1. A link for a wire fabric, which consists of a single wire bent a certain distance from its initial end at right angles, then bent upon itself to form an elongated loop extending to the right-angle bend first-mentioned and beyond said bend to form another similar loop on the other side of the bend, and finally bent around said first-mentioned right-angle bend and the elongated loops and returning to its starting point, said starting point being the two ends of the wire, which ends are formed into eyes or loops adapted to engage the elongated loops of an adjoining link on opposite sides of the bend around the right-angle bend.

2. A wire fabric consisting of links each of which has three arms or projections, two of which form substantially one long loop and the third extends from the middle of said long loop at right angles thereto and consists of a right angle bend in said wire and a loop around the long loop, said third arm being the terminal runs of the wire



lying side by side, or parallel to each other, and terminating in pivot eyes adapted to be connected with the long loop of an adjacent link.

1,207,999. HAND DRILLING-MACHINE. MORITZ J. PFAFF, Pittsburgh, Pa. Filed Nov. 22, 1915. Serial No. 62,801. (Cl. 77—19.)



1. The combination in a drilling machine of the bench type including its screw feed bar and slidable shank, of a supporting frame and means for clamping it to a bench, an angle bracket on the frame for supporting the screw feed bar, and said frame having a slotted offset portion provided with side flanges to receive the shank, and a set screw passed through the slotted portion and the shank for retaining the latter.

2. The combination in a drilling machine including its screw feed bar and slidable shank of a frame section having an angular bracket for the feed bar and said frame having an offset slotted portion forming a shoulder and means in connection with said offset portion for guiding and retaining the shank, a supporting brace bar adapted to engage said shoulder, a perforated lug on the frame section, and a foot plate having a screw bar engaging said lug.

1,208,000. PAPER-MAKING MACHINE. EDWARD J. POPE, Holyoke, Mass. Filed June 11, 1915. Serial No. 33,451. (Cl. 92—39.)

1. In a machine of the class specified, the combination with an apron, of means to direct fluid pressure against material carried by said apron formed as a part of a line-forming element comprising an elongated bar to engage the material carried by the apron after it has been acted upon by fluid pressure.

2. In a machine of the class described, the combination with an apron, of means to direct fluid pressure into contact with material on the apron and a stationary line-forming element adjustably mounted with relation to the apron to engage the material on the apron after it has been acted upon by fluid pressure.



3. In a machine of the class described, the combination with an apron, of means to direct fluid pressure into contact with the material on the apron to reduce the thickness of the material, and a stationary line-forming element adjustable longitudinally with relation to the surface of the apron.

4. In a machine of the class described, the combination with an apron, of means to exert pressure on the material of the apron to reduce the thickness of material, and a stationary line-forming element adjustable longitudinally and transversely with relation to the surface of the apron.

5. In a machine of the class described, the combination with an apron, of means to exert pressure on the material carried by the apron to reduce the thickness of said material, and a stationary line-forming element comprising elongated parallel members which are adjustable longitudinally and transversely with relation to the surface of the apron.

[Claims 6 to 20 not printed in the Gazette.]

1,208,001. FABRIC-RENOVATING BRUSH. FRANK J. PRASIL and JAMES G. BETAR, Chicago, Ill. Filed Feb. 25, 1916. Serial No. 80,478. (Cl. 26—7.)



1. In a device of the character described, the combination of a body having a pair of independent steam chambers, separate means for conveying steam to said chambers and a brush communicating with one of said chambers and adapted for receiving steam therefrom.

2. In a device of the character described, the combination of a body having a pair of independent steam chambers, means for constantly maintaining steam in one of said chambers, a brush having a perforated back communicating with the other of said chambers, and means for controlling the passage of steam to said brush.

3. In a device of the character described, the combination of a body having upper and lower independent chambers, means for constantly maintaining steam in said upper chamber, a brush having a perforated back, said brush being attached to said lower chamber and communicating with same, means for discharging steam through said lower chamber and said brush at desired intervals of time.

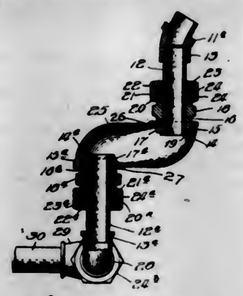
4. In a device of the character described, the combination of a hollow body having a horizontal partition therein dividing the interior thereof into an upper chamber and a lower chamber, a main pipe adapted for constantly conveying steam to said upper chamber, an associate pipe communicating with said main pipe for conveying steam to said lower chamber, a brush attached to said lower chamber and a valve for controlling the passage of steam through said lower chamber and brush.

5. In a device of the character described, the combination of a body having an imperforate partition dividing the interior thereof into an upper chamber and a lower chamber, a main pipe adapted for constantly maintaining steam in said upper chamber, means for draining said upper chamber, a pipe communicating with said main pipe and said lower chamber, a valve for said pipe communicat-

ing with said lower chamber for controlling the passage of steam thereto, a handle adjacent said body enveloping both of said pipes, and a brush having a perforated back, said perforations arranged between the bristles and communicating with said lower chamber.

[Claim 6 not printed in the Gazette.]

1,208,002. SWING-JOINT CONNECTION. WILLIAM QUEENAN and JOHN F. HANSEN, Aurora, Ill. Filed Dec. 16, 1913. Serial No. 806,981. (Cl. 137—34.)

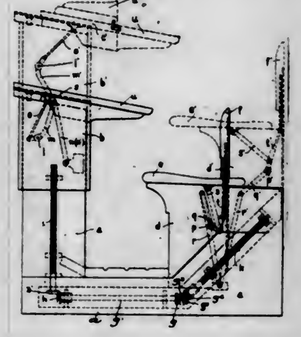


1. In a device of the class described, a train pipe, a duct member secured to and depending downwardly from said pipe, said duct member being provided at its lower end with an external annular shoulder having an upper beveled surface, a coupling sleeve journaled on said duct member and having an inner annular inclined surface adapted to coact with said beveled surface on said duct member, a packing box formed within and carried by said coupling sleeve, a horizontally extending hollow connecting member having a threaded aperture in its upper side engaged by said coupling sleeve, said connecting member being provided on its lower side with a second threaded aperture diagonally disposed with reference to said first-named aperture, a second coupling sleeve threadedly engaging said second-named aperture and depending downwardly therefrom parallel to the longitudinal axis of said first-named coupling sleeve, said second-named coupling sleeve being provided at its upper extremity with an inner annular inclined surface, a second duct member journaled in said second-named coupling sleeve, said second-named duct member being provided at its upper end with an external annular shoulder having a bevel on its underside adapted to coact with said inclined surface on said second-named coupling sleeve, a second packing box formed within and carried by said second-named coupling sleeve, a third duct member extending horizontally from and fixed with respect to said second-named duct member, a third coupling sleeve journaled on said third-named duct member, said third-named duct member being provided at the extremity thereof opposite said second-named duct member with an annular beveled shoulder, said third-named coupling sleeve being provided with an inner inclined surface adapted to seat upon the beveled shoulder of said third-named duct member, a packing box formed within and carried by said third-named duct member, a pipe fixed with respect to said third-named coupling sleeve and communicating with said third-named duct member, and a coupling member carried by said last-named pipe.

2. In a swing joint connector, a downwardly extending duct member having an external peripheral shoulder at its lower end, a coupling sleeve seating upon said shoulder and journaled upon said duct member, a packing box formed within and carried by said coupling sleeve, said elements comprising a swing joint, a connecting member threadedly engaging said coupling sleeve, the principal axis of said connecting member lying at right angles to the principal axis of said duct member, a second duct member parallel to said first mentioned duct member, said second duct member being attached by means of a second coupling sleeve to said connecting member at the opposite end from and diagonally opposed to said first mentioned duct member, said second duct member being rigidly connected and angularly disposed with respect to the duct member of a third swing joint, the coupling sleeve of said last mentioned swing joint being connected to a coupling means, whereby said coupling means may be adjusted to lie in any plane and to occupy a wide range of positions.

3. In a device of the class described, a train pipe, a duct member secured to and depending downwardly from said pipe, said duct member being provided at its lower end with an external annular shoulder having an upper beveled surface, a coupling sleeve journaled on said duct member and having an inner annular inclined surface adapted to coact with said beveled surface on said duct member, a packing box formed within and carried by said coupling sleeve, a horizontally extending hollow connecting member having a threaded aperture in its upper side engaged by said coupling sleeve, said connecting member being provided on its lower side with a second threaded aperture diagonally disposed with reference to said first-named aperture, a second coupling sleeve threadedly engaging said second-named aperture and depending downwardly therefrom parallel to the longitudinal axis of said first-named coupling sleeve, said second-named coupling sleeve being provided at its upper extremity with an inner annular inclined surface, a second duct member journaled in said second-named coupling sleeve, said second-named duct member being provided at its upper end with an external annular shoulder having a bevel on its underside adapted to coact with said inclined surface on said second-named coupling sleeve, a second packing box formed within and carried by said second-named coupling sleeve, a third duct member connected to said second-named duct member, and a coupling member connected to said third duct member.

1,208,003. UNITARY WRITING-DESK AND SEAT. HENRICUS MARTINUS RAOETLIE, Baardwijk, Netherlands. Filed Aug. 29, 1916. Serial No. 117,391. (Cl. 155—34.)



1. In an unitary writing desk and seat, the combination of a main frame, two frames adjustably mounted thereon, a seat slidably supported on one of said adjustable frames, a desk leaf slidably supported on the other adjustable frame, means for effecting the vertical movement and separation of said adjustable frames, and means for slidably displacing the desk and seat with respect to their supporting frames.

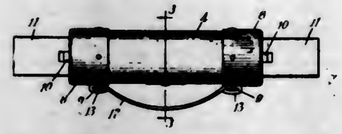
2. In an unitary writing desk and seat, the combination of a main frame, a frame adjustably mounted on one end of said main frame, a frame adjustably mounted on the main frame some distance from the other adjustable frame, a folding desk leaf slidably supported on one of the adjustable frames, a seat slidably supported on the other adjustable frame, means for effecting the vertical adjustment and distance of separation of said adjustable frames, and means operated simultaneously with the aforesaid means for slidably displacing the desk and seat with respect to their supporting frames.

3. In an unitary writing desk and seat, the combination of a main frame, a frame adjustably mounted on one end of said main frame, a frame adjustably mounted on the main frame a suitable distance from the other adjustable frame, a desk leaf slidably supported on one of the adjustable frames, a seat slidably supported on the other adjustable frame, operating gear for effecting the vertical adjustment and distance of separation of said adjustable frames, and link mechanism effective when the adjustable frames are moved to displace the desk and seat with respect to their supporting frames.

4. In an unitary writing desk and seat, the combination of a fixed main frame, an adjustable seat frame, a seat slidably mounted on said seat frame, a back for said seat, link mechanism for connecting the seat and back with the seat frame and main frame, a desk leaf slidably mounted on said desk frame, link mechanism for connecting the desk leaf with the desk frame and main frame, said link mechanism imparting movement to the seat and seat back and desk leaf when the seat and desk frames are adjusted.

5. In an unitary writing desk and seat as herein set forth, the combination of an adjustable seat frame, a seat slidably mounted on said seat frame, a back adjustable with respect to said seat, an adjustable desk frame, a desk leaf slidably mounted on said desk frame, and means for effecting the simultaneous adjustment of all of said elements to suit the body dimensions of children or adults.

1,208,004. FUSE. HARRY L. REED, Dorchester, Mass., assignor to John E. Crowley, Dorchester, Mass. Filed Dec. 17, 1915. Serial No. 67,317. (Cl. 175—273.)



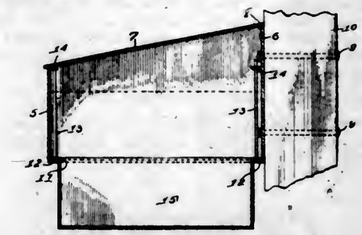
1. A fuse having, in combination, a tubular casing, closures for opposite ends of said casing, a handle constructed of insulating material, metallic means for securing opposite ends of said handle to said closures, and means constituting portions of said handle adapted to inclose said metal securing means to insulate said means.

2. A fuse having, in combination, a tubular casing, a cap constructed and arranged to close each end of said casing, rivets extending through said caps and into said casing, a handle constructed of insulating material adapted to be secured by said rivets to said caps, and means on said handle adapted to cover the ends of said rivets and insulate the same.

3. A fuse having, in combination, a tubular casing, a cap constructed and arranged to close each end of said casing, rivets extending through said caps and into said casing, a handle constructed of insulating sheet material adapted to be secured by said rivets to said caps, and extensions on said handle bent backwardly toward said handle and adapted to cover the ends of said rivets to insulate the same.

1,208,005. MAIL-BOX. THOMAS L. REED, Circleville, Kans. Filed Sept. 11, 1914. Serial No. 861,236. (Cl. 232—17.)

1. A mail receptacle comprising an outer box having an open bottom and a narrow horisontal flange projecting inwardly from the lower edge of each side of said box, an inner box open at the top movable through the open bottom of said outer box, an ear projecting horizontally from the top of a plurality of corners of the inner box and adapted to bear upon the bottom flange of the outer box to support said inner box when lowered, and a vertical rod passing freely through a perforation in each of said ears to guide side inner box as it is raised and lowered, said rods being disposed in the corners of the outer box and fastened on to said horizontal flange and to a projecting lug at the top of the box.



2. A mail receptacle comprising an outer box having an open bottom and a narrow horizontal flange projecting inwardly from the lower edge of each side of said box, an inner box open at the top movable vertically through the open bottom of said outer box, an ear projecting horizontally from the top of each corner of the inner box and adapted to bear upon said flange and support said inner box when the latter is lowered, a vertical rod in each corner of the outer box fastened at its lower end to said flange and at its upper end to a lug projecting inwardly from the top of the outer box, said rods passing freely through perforations in the ears on the inner box and serving as a guide for said inner box, external guide ways extending longitudinally of the corners of the inner box to receive said rods, and disengageable means on the outer box for holding said inner box in elevated position entirely within the outer box.

1,208,006. COLLAPSIBLE LIFE-RAFT. JAN REMBISZEWSKI and EDWARD GRODZKI, Worcester, Mass. Filed June 5, 1916. Serial No. 101,744. (Cl. 9—13.)



1. A life raft comprising a flexible inflatable mattress member rectangular in cross-section, reinforcing cords arranged within the edge portions thereof, transverse rods carried adjacent the opposite ends of the device projecting laterally from the side walls thereof, adjustable braces having their opposite ends secured to the outer ends of the said rods and formed in separable slidable engaging sections, adjusting bolts secured between the adjacent sections of the said side braces, and flexible connectors secured between each of the said sections and the opposite edge portions of the mattress.

2. A device of the class described comprising an inflatable flexible mattress having end and side walls, rods arranged transversely through the mattress secured to the said side walls in parallelism adjacent the said end walls and having ends projecting outwardly of the mattress, side braces formed of longitudinal slotted sections with the opposite ends of the terminal sections rigidly secured to

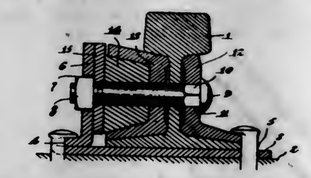
the projecting ends of the said rods, adjusting bolts secured to the corresponding end portions of the said sections having squared shanks slidably arranged through the slots of the adjacent sections, eyes carried adjacent the opposite edges of the said side walls at opposite sides of the said bolts when the mattress is extended, flexible connectors between the said eyes and the adjacent bolt carrying ends of the said sections, and an inflating nipple for the said mattress.

1,208,007. BURGLAR-ALARM. ORVILLE K. REYNOLDS, Muskogee, Okla. Filed Feb. 15, 1916. Serial No. 78,464. (Cl. 177—314.)



In a device of the class described, the combination with a base, of a body portion having a plurality of vertically extending pockets therein, a plurality of pairs of springs arranged beneath the pockets, push-buttons extending through the base and between the springs, a wire connected to one spring of each pair, a contact adjacent each of the last mentioned springs, a wire connected to each of said contacts, the ends of the wires being connected to a relay, a second circuit including a bell and a switch, one element of said switch forming the armature of the aforementioned relay and a manually operable switch in the first mentioned wire.

1,208,008. RAIL-JOINT. MORRELL A. RICHARDSON, Indianola, Miss. Filed Feb. 25, 1916. Serial No. 80,546. (Cl. 239—6.)



The herein described rail joint comprising in combination with the meeting ends of a pair of rails, a base plate on which the rail ends rest, said base plate being provided at one side with an upstanding flange having openings, fish plates on opposite sides of the rails, the plate on the side adjacent the upstanding flange being provided with a channel in its outer side, a cushing bar arranged in said channel, a wear plate between said cushioning bar and said upstanding flange, and bolts passing through the fish plates, rails, cushioning bar, and wear plate and having nuts bearing against the outer side of the wear plate and arranged in said openings of said upstanding flange.

1,208,009. SNAP-FASTENER. CHAUNCEY E. RICHARDSON, Washington, D. C. Filed June 29, 1916. Serial No. 106,668. (Cl. 24—217.)



1. A snap fastener comprising a female member provided with a projecting socket having reëntrant snap members converging inwardly from the walls of said socket and terminating in outwardly diverging reversely bent portions, and a male member having a dome-shaped socket provided with a head, said head adapted for insertion through said snap members into locking engagement with said outwardly diverging reversely bent portions of the latter.

2. A snap fastener comprising a female member consisting of an elongated base having a projecting socket provided with resilient snap members and spaced slightly from one end thereof, whereby said end constitutes a fulcrum and the other end of said elongated base provides convenient means for readily unfastening the snap fastener, and a male member consisting of an elongated base having one end adapted to overlap said fulcrum end of the female member and provided with a head for lockingly engaging said snap members, the other end of said elongated base of the male member constituting convenient means for readily unfastening the snap fastener.

3. A snap fastener comprising a female member consisting of an elongated base provided adjacent one end with a projecting socket having reëntrant snap members converging inwardly from the walls of said socket and terminating in outwardly diverging locking portions, and a male member consisting of an elongated base provided at one end with a head adapted for insertion through said snap members into locking engagement with said outwardly diverging portions of the latter.

4. A snap fastener comprising a female member having a base provided with a projecting dome-shaped socket having reëntrant snap members converging inwardly from the walls of said dome-shaped socket and terminating in outwardly diverging portions, and a male member comprising a base provided with a projecting dome-shaped socket having a reëntrant head, said socket being adapted to fit over the dome-shaped socket of the female member and said head to have locking engagement with the reëntrant snap members.

5. A snap fastener comprising one member having a base provided with a projecting dome-shaped socket having reëntrant downwardly directed snap members terminating in outwardly diverging portions, in combination with a second member comprising a base provided with a projecting dome-shaped socket having a central downwardly extending head with a contracted neck portion, said socket adapted to fit over the dome-shaped socket of the first-named member, and said head arranged to have locking engagement with the outwardly diverging portions of said snap members.

[Claim 6 not printed in the Gazette.]

1,208,010. SNAP-FASTENER. CHAUNCEY E. RICHARDSON, Chevy Chase, Md. Filed Sept. 22, 1916. Serial No. 121,602. (Cl. 24—217.)



1. A snap fastener member comprising a base having a projecting socket portion provided with reëntrant inwardly and outwardly curved snap members, in combination with a coöperating member comprising a base having a curved projecting portion shaped to fit over said socket member and a depending head for locking engagement with said snap members, said socket and projecting portions having interlocking engagement at their bases.

2. A snap fastener member comprising a base with a raised socket thereon provided with a contracted neck and central reëntrant inwardly and outwardly curved locking members, in combination with a second member comprising a base with a projecting portion thereon shaped to fit over said socket and having a contracted portion near the base, and a depending head, to interlock with said contracted neck and locking members, respectively.

3. A snap fastener member comprising an elongated base having a series of perforations near its edges and near one end having a projecting socket with central reëntrant inwardly and outwardly curved locking tongues, in combination with a second member comprising an elongated base having a series of perforations near its edges and near one end a dome-shaped projection with a central depending head arranged to fit over said socket with said head in locking engagement with said tongues.

4. A snap fastener member comprising a base having a socket in combination with a second member comprising a base having a hollow portion to fit over and have locking engagement with the socket, said socket and hollow portion being shaped to prevent relative rotation of the fastener members.

5. A snap fastener member comprising a base having a projecting socket thereon, in combination with a second member comprising a base having a coöperating projecting hollow portion to fit over said socket, said socket and hollow portion being of oval form to prevent relative rotation of the fastener members.

[Claims 6 to 9 not printed in the Gazette.]

1,208,011. COAL-AGITATOR FOR MECHANICAL STOKERS. ROBERT SANFORD RILEY, Worcester, Mass., assignor to Sanford Riley Stoker Co. Ltd., Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 4, 1916. Serial No. 82,239. (Cl. 193—1.)



1. In a coal feeding mechanism, the combination with a hopper, of a rigid coal agitator located within the hopper, and means located in the hopper for operating one end of said agitator, the other end also being movable back and forth in the hopper.

2. In a coal feeding mechanism, the combination with a hopper and a plunger for feeding coal therefrom, of an agitator in the hopper connected to be operated by the plunger and having one end movable freely in the hopper.

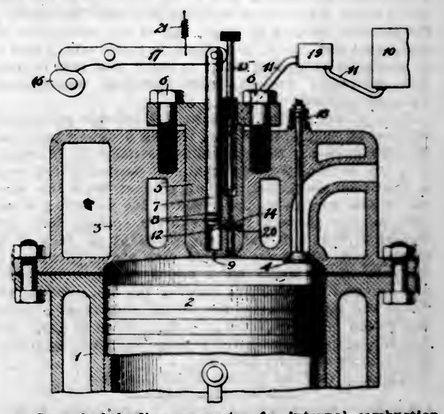
3. In a coal feeding mechanism, the combination with a hopper and a reciprocating plunger at the bottom thereof, of a coal agitator pivotally connected with the end of the plunger and extending upwardly therefrom in the hopper the upwardly extending part being free in the hopper.

4. In a coal feeding mechanism, the combination with a hopper and a reciprocating plunger, of a coal agitator pivotally connected with the end of the plunger and located in the hopper, and having a nose extending at an angle therefrom forwardly.

5. In a coal feeding mechanism, the combination with a hopper and a reciprocating plunger at the bottom thereof, of a coal agitator pivotally connected with the end of the plunger and extending upwardly therefrom in the hopper, said agitator having a nose substantially at right angles thereto, and constructed and arranged to provide a space underneath said nose when the plunger is retracted sufficient to hold a complete charge of fuel.

[Claim 6 not printed in the Gazette.]

1,208,012. FUEL-FEEDING APPARATUS. EUGENE A. RIOTTE, Douglaston, N. Y., assignor to Standard Motor Construction Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 7, 1916. Serial No. 107,897. (Cl. 123—32.)



1. In a fuel feeding apparatus for internal combustion engines, an engine driven fuel feeding piston, a mounting therefor having a bore extending partially therethrough of a size to snugly receive said fuel feeding piston, with a relatively small fuel feeding passage from the inner end of said bore to the inner end of the mounting, a fuel feed passage through said mounting opening into said bore at a point adjacent to the piston at the back of its stroke, with means for causing said piston to pause at the back of its stroke for a period sufficient to permit fuel to enter the chamber between the inner end of the piston and the contracted fuel outlet and means to cause said piston to be projected at certain times to expel said fuel through said contracted passage.

2. In a fuel feeding apparatus for internal combustion engines, an engine driven fuel feeding piston, a mounting therefor having a bore extending partially therethrough of a size to snugly receive said fuel feeding piston, with a relatively small fuel feeding passage from the inner end of said bore to the inner end of the mounting, a fuel feed passage through said mounting opening into said bore at a point adjacent to the piston at the back of its stroke, with means for causing said piston to pause at the back of its stroke for a period sufficient to permit fuel to enter the chamber between the inner end of the piston and the contracted fuel outlet and means to cause said piston to be projected at certain times to expel said fuel through said contracted passage, said piston operating to close said fuel inlet during the feeding period.

3. In a fuel feeding apparatus for internal combustion engines, an engine driven fuel feeding piston, a mounting therefor having a bore extending partially therethrough, of a size to snugly receive said fuel feeding piston, with a relatively small fuel feeding passage from the inner end of said bore to the inner end of the mounting, a fuel feed passage through said mounting opening into said bore at a point adjacent to the piston at the back of its stroke, with means for causing said piston to pause at the back of its stroke for a period sufficient to permit fuel to enter the chamber between the inner end of the piston and the contracted fuel outlet and means to cause said piston to be projected at certain times to expel said fuel through said contracted passage, and means for closing said fuel inlet during the feeding movement of the piston against the return of the fuel therethrough by action of said piston.

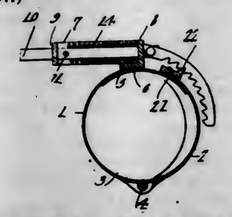
4. In a fuel feeding apparatus for internal combustion engines, an engine driven fuel feeding piston, a mounting therefor having a bore extending partially therethrough,

of a size to snugly receive said fuel feeding piston, with a relatively small fuel feeding passage from the inner end of said bore to the inner end of the mounting, a fuel feed passage through said mounting opening into said bore at a point adjacent to the piston at the back of its stroke, with means for causing said piston to pause at the back of its stroke for a period sufficient to permit fuel to enter the chamber between the inner end of the piston and the contracted fuel outlet, and means to cause said piston to be projected at certain times to expel said fuel through said contracted passage, said regulating means being manually operable.

5. In a fuel feeding apparatus for internal combustion engines, an engine driven fuel feeding piston, a mounting therefor having a bore extending partially therethrough, of a size to snugly receive said fuel feeding piston, with a relatively small fuel feeding passage from the inner end of said bore to the inner end of the mounting, a fuel feed passage through said mounting opening into said bore at a point adjacent to the piston at the back of its stroke, with means for causing said piston to pause at the back of its stroke for a period sufficient to permit fuel to enter the chamber between the inner end of the piston and the contracted fuel outlet, and means to cause said piston to be projected at certain times to expel said fuel through said contracted passage, said fuel regulating means being manually operable.

[Claims 6 to 9 not printed in the Gazette.]

1,208,013. MEAT-COMPRESSOR. ALEXANDER RISPEL, Chicago, Ill. Filed Nov. 17, 1915. Serial No. 62,016. (Cl. 100—57.)



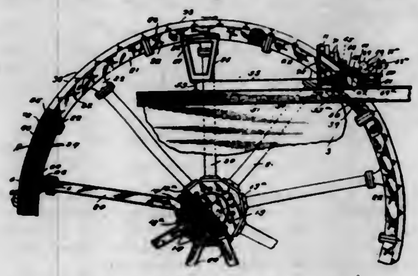
1. A meat compressor comprising a pair of pivotally connected, trough-shaped members; a casing on one member; a keeper on the other member; a plunger mounted to slide in the casing; an abutment on the plunger; a spring interposed between the abutment and the forward end of the casing; and a latch pivoted to the plunger and provided with means for engaging the keeper, the latch terminating at its inner end in a cam coacting with the casing to effect a compression of the spring when the latch is moved to an unlocked position with respect to the keeper, the cam coacting with the casing to hold the latch engaged with the keeper when the latch is in a locked position with respect to the keeper.

2. A meat compressor comprising a pair of pivotally connected, trough-shaped members; a keeper on one member; a plunger mounted to slide with respect to the other member; a latch pivoted to the plunger and provided with means for engaging the keeper; means for supporting the plunger slidably; and a spring coöperating with said means and the plunger, the latch being provided with a cam engaging said means.

3. A meat compressor embodying a pair of pivotally connected, trough-shaped members; a keeper carried by one of said members; a latch pivotally and slidably carried by the other of said members and adapted to coact with the keeper; and spring means for drawing the latch circumferentially of both members, to effect relative compressive movement between said members.

1,208,014. DEHYDRATER. CYRUS ROBINSON, Mount Vernon, N. Y., assignor to Metallurgical Engineering & Process Corporation, a Corporation of New York. Filed Nov. 29, 1910. Serial No. 594,704. (Cl. 210—14.)

1. The combination in a dehydrating mechanism, of a tank, a drum framework mounted partly within the tank for rotation about a horizontal axis and comprising an annular conduit, a filtering medium fixedly mounted on the framework and forming a complete cylinder surrounding the conduit and closely adjacent thereto, means for maintaining partial vacuum in the conduit, ducts rigid with respect to the framework and serving to directly connect sectoral parts of the inner surface of the filtering medium independently of each other with the vacuum conduit, valves interposed respectively between the said sectoral parts of the filtering medium and the said vacuum conduit, other valves interposed respectively between the said sectoral parts and the said pressure conduit, means for automatically causing each of the first said valves to be open during the lower part of each revolution and closed during the upper part, means operating continuously to remove accumulated material from the uppermost part thereof, and means for automatically causing each valve to be closed during that part of its revolution where it is adjacent the last aforesaid means and to be open during the remainder of said revolution.



2. The combination in a dehydrating mechanism, of a tank, a drum framework mounted partly within the tank for rotation about a horizontal axis and comprising two parallel annular conduits, a filtering medium fixedly mounted on the framework and forming a complete cylinder surrounding the conduits and closely adjacent thereto, means for maintaining partial vacuum in one conduit, means for maintaining pressure in the other conduit, ducts rigid with respect to the framework and serving to directly connect sectoral parts of the inner surface of the filtering medium independently of each other with vacuum conduit, other ducts rigid with respect to the framework and serving to directly connect the said sectoral parts independently of each other with the pressure conduit, valves interposed respectively between the said sectoral parts of the filtering medium and the said vacuum conduit, other valves interposed respectively between the said sectoral parts and the said pressure conduit, means for automatically causing each of the first said valves to be open during the lower part of each revolution and closed during the upper part, means operating continuously to remove accumulated material from the uppermost part thereof, and means for automatically causing each valve to be closed during that part of its revolution where it is adjacent the last aforesaid means and to be open during the remainder of said revolution.

3. The combination in a dehydrating mechanism, of a tank, a drum framework mounted partly within the tank for rotation about a horizontal axis and comprising an annular conduit, a filtering medium fixed with respect to the framework and forming a complete cylinder surrounding the conduit and closely adjacent thereto, the said medium being made up of a plurality of separated sectoral sections, a plurality of frames for the said sections respectively, the said frames being normally rigidly but detachably connected to the drum framework, means for maintaining a partial vacuum in the conduit, ducts rigid with respect to the framework and serving to directly connect the said sections of the filtering medium independently of each other with the conduit, valves interposed respectively between the said sections of the filtering medium and the conduit, means operating continuously to remove accumulated material from the uppermost part thereof, and means for automatically causing each valve to be closed during that part of its revolution where it is adjacent the last aforesaid means and to be open during the remainder of said revolution.

4. The combination in a dehydrating mechanism, of a tank, a drum framework mounted partly within the tank for rotation about a horizontal axis, a filtering medium fixed with respect to the framework and forming a complete cylinder, the said medium being made up of a plurality of separable sectoral sections, a plurality of frames for the said section respectively, normally rigidly but detachably connected to the drum framework and each having a set of grooves which extend longitudinally of the drum and over which the filtering medium is stretched, the said grooves being closed at their ends and separated from each other by imperforate walls, a vacuum means, ducts rigid with the drum framework and each serving to directly connect the grooves of one set with the vacuum means independently of the grooves of the other set, and valves located respectively in the said ducts.

5. The combination in a dehydrating mechanism, of a tank, a drum framework mounted partly within the tank for rotation about a horizontal axis and comprising an annular conduit, a filtering medium fixed with respect to the framework and forming a complete cylinder surrounding the conduit and closely adjacent thereto, medium supporting frame elements connected to the drum framework and having sets of grooves which extend longitudinally of the drum and over which the filtering medium is stretched, the said grooves being closed at their ends and separated from each other by imperforate walls, means for maintaining a partial vacuum in the conduit, ducts rigid with the drum framework and each serving to directly connect the grooves of one set with the conduit independently of the grooves of the other sets, and valves located respectively in the said ducts.

[Claims 6 to 15 not printed in the Gazette.]

1,208,015. HICKEY. MINER ROBINSON, Newton, Mass. Filed June 22, 1915. Serial No. 35,685. (Cl. 240—85.)



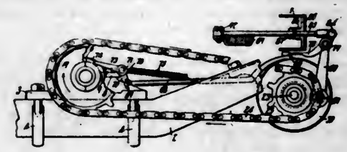
1. A hickey having a body portion and opposite threaded extensions, a longitudinal passage extending through one of said threaded extensions and communicating with a laterally-extending outwardly-opening passage formed in the body portion and the other threaded extension.

2. A hickey presenting at one end an internally-threaded recess and at the other end a threaded portion, and having a wire-receiving passage communicating with the inner end of said recess and extending laterally through the side of the hickey between said threaded portions, said passage having an extension in the form of a groove formed in the last-named threaded portion, which groove terminates substantially at the end of the hickey.

3. A hickey provided at one end with an externally-threaded portion and at the other end with an internally-threaded recess, said hickey having a wire-receiving passage which communicates at one end with the recess, the other end of said passage opening through the side of the hickey and being formed partly in the externally-threaded portion thereof, said externally-threaded portion being at some point in its length solid along a diametrical line.

1,208,016. ENGINE-STARTER. GEORGE L. ROCK, Jonesville, Mich. Filed May 12, 1915. Serial No. 27,478. (Cl. 185—41.)

1. A starter for internal combustion engines comprising a spring arranged to be stressed, means for utilizing the stress of the spring for starting the engine and for thereafter renewing the stress in the spring, said means comprising control means manually movable between an initial position in which the starter is disconnected from the engine and a second position in which the starter is connected to the engine to start the latter, means for renewing the stress in the spring when the engine is running and the control means is in a position other than the second position, and means for automatically disconnecting the starter from the engine when the stress has attained a predetermined amount.



2. A starter for internal combustion engines comprising a spring arranged to be stressed, means for utilizing the stress of the spring for starting the engine and for thereafter renewing the stress in the spring, said means comprising control means manually movable between an initial position in which the starter is disconnected from the engine and a second position in which the starter is connected to the engine to start the latter, means tending to return the control means to initial position, means for renewing the stress in the spring when the engine is running and the control means is in a position other than the second position, and means for automatically disconnecting the starter from the engine when the stress has attained a predetermined amount.

3. A starter for internal combustion engines comprising a spring arranged to be stressed, means for utilizing the stress of the spring for starting the engine and for thereafter renewing the stress in the spring, said means comprising a control lever manually movable from an initial to a second position, means tending to return the lever to the initial position, means controlled by the lever for connecting the starter to the engine when the control lever is in a position intermediate between the positions named, means also controlled by the lever for allowing the spring to start the engine when the lever is moved farther toward the second position, means for renewing the stress in the spring as the control lever thereafter approaches initial position, and means for disconnecting the starter from the engine when the stress has reached a predetermined amount.

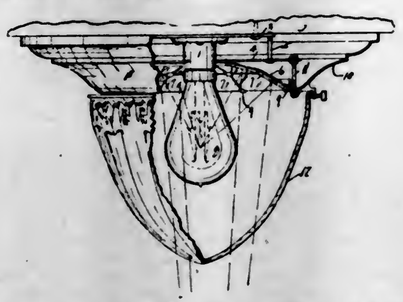
4. A starter for internal combustion engines, comprising a starter shaft in alinement with and slidable longitudinally in respect to the engine shaft, clutch mechanism for connecting the engine shaft to the starter shaft when the latter is in one position, a stressed spring, means whereby the spring may drive the starter shaft at will to start the engine, means whereby the engine may renew the stress in the spring, and means for automatically disconnecting the engine form the spring when the stress in the latter exceeds a predetermined amount, said last mentioned means comprising a brake operatively connected to the spring, a cam on the starter shaft, and a member movable into engagement with the cam, whereby the starter shaft is disconnected from the engine shaft, the movement of the member being controlled by the brake.

5. A starter for internal combustion engines comprising a starter shaft in alinement with and slidable longitudinally in respect to the engine shaft, clutch mechanism for connecting the engine shaft to the starter shaft when the latter is in one position, resilient means tending to force the starter shaft to the position mentioned, a stressed spring, means whereby the spring may drive the starter shaft at will to start the engine, means whereby the engine may renew the stress in the spring, and means for automatically disconnecting the engine from the spring when the stress in the latter exceeds a predetermined amount, said last mentioned means comprising a brake operatively connected to the spring, a cam on the starter shaft, and a member movable into engagement with the cam surface whereby the starter shaft is moved in opposition to the force for the resilient means and disconnected

from the engine shaft, the movement of the member that engages with the cam surface being controlled by the brake.

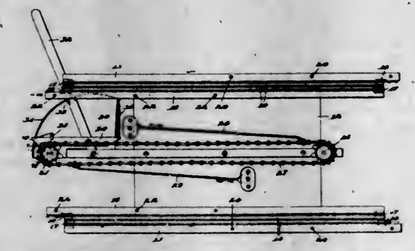
[Claims 6 to 32 not printed in the Gazette.]

1,208,017. FIXTURE-LAMP. LOUIS H. ROCKAFELLOW, Seattle, Wash., assignor of one-half to Charles C. Dose, King county, Wash. Filed Dec. 6, 1915. Serial No. 65,340. (Cl. 240—92.)



In a device of the class described, including a lamp bulb and a lamp socket which is attached to a ceiling yoke, the combination of a spider located centrally with respect to the said receptacle and adjustably secured to the said yoke, a concave reflector backing concentric with the said spider and secured thereto, a plurality of trapezoidal reflecting surfaces arranged in circular and radial rows upon and secured to the inner face of the said reflector backing and at such angles with respect to a common point in the said light bulb that the rays of light which emanate from said point and strike said reflecting surfaces centrally will be reflected toward a common focal point located on the axis of the light bulb and at a predetermined distance from said common source point.

1,208,018. TABLE. JOHN ROGGINGER, Chicago, Ill., assignor, by direct and mesne assignments, to Chicago Table Steel Slide Co., a Copartnership consisting of John Roggінger, Marguerite Stelzner Roggінger, and William M. Stelzner, Chicago, Ill. Filed July 17, 1915. Serial No. 40,394. (Cl. 45—9.)



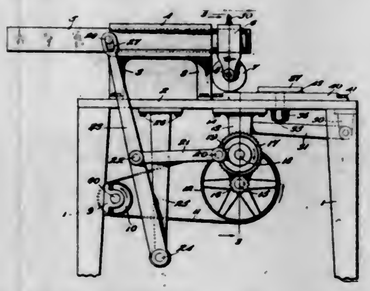
1. A table comprising a support; two separable table parts slidable in said support; an endless flexible element arranged under said table parts; an operative connection between opposite sides of said element and said table parts; a member provided with gear teeth operatively connected with said flexible element; a rack bar shiftable into and out of engagement with said gear teeth; and means for manipulating said rack bar for drawing said table parts together, substantially as described.

2. A table comprising a support; two separable table parts slidable in said support; sprocket wheels on said support under said table parts; an endless chain running on said sprockets; bars connected at one of their ends with opposite sides of said chains and at their other ends with the under sides of said table parts; gear teeth on one of said sprockets; a rack bar shiftable into and out of engagement with said gear teeth; and means for manipulating said rack bar to draw said table parts together, substantially as described.

3. A table comprising a support; two separable table parts slidable in said support; sprocket wheels on said support under said table parts; an endless chain running on said sprockets; bars connected at one of their ends to opposite sides of said chain and at their other ends with the under sides of said table parts; gear teeth on one of said sprockets; an operating lever; a toothed segment cooperating with said lever; a rack bar pivoted on said lever in coöperating relation with said teeth; a spring normally holding said rack bar in engagement with said teeth; and means for disengaging said rack bar from said teeth at the end of the operative movement of said lever, substantially as described.

4. A table comprising a support; two separable table parts slidable in said support; sprocket wheels on said support under said table parts; an endless chain running on said sprockets; bars connected at one of their ends to opposite sides of said chain and at their other ends with the undersides of said table parts; gear teeth on one of said sprockets; an operating lever; a toothed segment cooperating with said lever; a rack bar pivoted on said lever in coöperating relation with said teeth; a spring normally holding said rack bar in engagement with said teeth; and a pin on said segment, there being a cam surface on said rack bar coöperating with said pin for disengaging said rack bar from said teeth at the end of the operative movement of said lever, substantially as described.

1,208,019. APPARATUS FOR CUTTING PATTERNS. OSCAR B. RONEY, Olney, Ill. Filed Aug. 2, 1915, Serial No. 43,204. Renewed May 6, 1916. Serial No. 95,919. (Cl. 164—17.)



1. In a machine for cutting patterns from sheet material, the combination of cutting edges, over which the material to be cut may be placed; a roller adapted to be reciprocated over and out of contact with said edges; and means located between said roller and edges adapted to cause the latter to cut entirely through said sheet material when said roller passes over said edges, substantially as described.

2. In a machine for cutting patterns from sheet material the combination of metal cutting edges; over which the material to be cut may be placed; a metal roller adapted to be reciprocated over and out of contact with said edges; a protecting sheet of material located between said roller and said edges; and means to adjust the distance between said roller and said edges, whereby said edges will be caused by said roller to pass entirely through said first named sheet, and only partially through said protecting sheet, substantially as described.

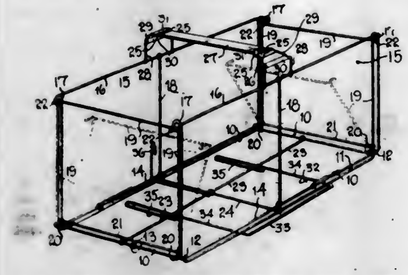
3. In a machine for cutting patterns from sheet material, the combination of a power shaft; an oscillating lever; connections between said shaft and lever; a reciprocating bar connected to said lever; a reciprocating roller carried by said bar; cutting edges located below the path of movement of said roller; means to adjust said roller a predetermined distance above said edges; and a plunger associated with said edges adapted to reciprocate above and below the same, substantially as described.

4. In a machine for cutting patterns from sheet material, the combination of a power shaft; an oscillating lever; connections between said shaft and lever; a reciprocating bar connected to said lever; a reciprocating roller carried by said bar; cutting edges located below the path of movement of said roller; means to adjust said roller a predetermined distance above said edges; a plunger associated with said edges adapted to reciprocate above and below the same; a lever for operating said plunger; and a cam for operating said last named lever, the parts being so timed that said plunger will rise above said edges when said roller is to one side of the same, and will remain below said edges when said roller is over said edges, substantially as described.

5. In a machine for cutting patterns from sheet material associated with a protecting sheet, the combination of cutting edges over which said material and protecting sheet may be placed; a pressure means adapted to be reciprocated over and out of contact with said edges; and means to so adjust said pressure means as to provide between its pressure surface and said edges a space for said material and protecting sheet, said space being less than the combined thickness of said material and protecting sheet, substantially as described.

[Claim 6 not printed in the Gazette.]

1,208,020. COLLAPSIBLE MARKET-BASKET. WALTER ROSS, Springfield, Ohio. Filed Mar. 6, 1916. Serial No. 82,471. (Cl. 220—132.)



1. A collapsible basket comprising a base frame, side frames and end frames, each of said frames being rectangular in form and made of wire, the side frames and end frames being operatively hinged to the base frame for movement into parallel or rectangular relation thereto and to each other, means for locking the side and end frames in rectangular relation to each other and to the base frame, and a handle connected by a plurality of hinged links to the upper side bars of the side frames.

2. A collapsible basket comprising a base frame, side frames and end frames, each of said frames being rectangular in form and made of wire, the side frames and end frames being operatively hinged to the base frame for movement into parallel or rectangular relation thereto and to each other, means for locking the side and end frames in rectangular relation to each other and to the base frame, links hinged to the upper side bars of the side frames, a transversely extending handle, and links operatively hinged to the first-named links and to the handle.

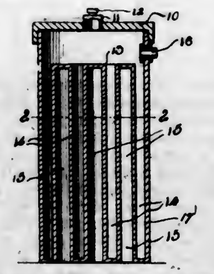
3. A collapsible basket comprising a rectangular base frame formed of wire and bent at its corners to provide eyes extending at right angles to the plane of the base frame, a rectangular side frame formed of wire and providing upper and lower longitudinally extending bars, the lower bar of each side frame being passed through the corresponding eyes on the base frame, the wire at the junction of the upper bar of each frame and the end bars thereof being bent to form eyes extending at right angles to the plane of the side frame, wire end frames rectangular in form having their extremities bent around the end members of the base frame, said end frames at their corners being provided with outwardly projecting loops forming tongues engageable in the eyes in the side frame, a handle and a plurality of links between each end of the handle and the upper bar of the corresponding side frame, the links being hingedly connected to each other.

4. A collapsible basket formed of a base, side and end members adapted to be folded into parallel relation and into rectangular relation, a handle linked to the side frames, and an auxiliary handle operatively engaged with the base frame and adapted to be shifted to be projected therefrom in the plane of the base frame.

5. A collapsible basket formed of a base, side and end members adapted to be folded into parallel relation and into rectangular relation, a handle linked to the side frames, and an auxiliary handle operatively engaged with the base frame and adapted to be shifted to be projected therefrom in the plane of the base frame, said handle having legs extending transversely of the base frame and having sliding engagement therewith.

[Claim 6 not printed in the Gazette.]

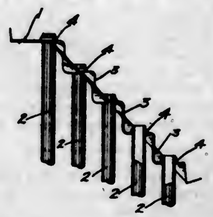
1,208,021. CISTERN-FILTER. GEORGE W. ROYALTY, Greene, Iowa. Filed Aug. 3, 1915. Serial No. 43,431. (Cl. 210—11.)



1. As an article of manufacture, a filtering element consisting of a cylinder stone having a series of concentric pockets formed therein and opening alternately at opposite ends of the cylinder, the central pocket being circular in cross section and the remaining pockets being annular in cross section.

2. A filter comprising an integral stone filtering element having a series of concentric pockets formed therein, said pockets opening alternately at opposite ends of the filtering element, the central pocket being circular in cross section and the remaining pockets being annular in cross section, and means to provide material to be filtered to one end of the element and to permit the withdrawal of filtered material from the remaining end of the element.

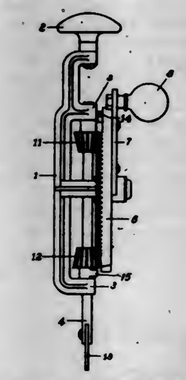
1,208,022. RADIATOR HEAD-SHEET. JOSEPH T. SCHLACKS, Detroit, Mich., assignor to McCord Manufacturing Company, Detroit, Mich., a Corporation of Maine. Filed Sept. 21, 1914. Serial No. 862,689. (Cl. 257—129.)



In a radiator, the combination with tubes, of a head sheet having a corner portion extending obliquely to said

tubes but formed with offsets affording portions through which certain of the said tubes are extended at a right angle, the offsets of said head sheet extending less than from edge to edge thereof, leaving the said edge portions on unbroken lines.

1,208,023. VALVE-GRINDING TOOL. HAROLD A. SCHLEIDEN, Los Angeles, Cal. Filed Jan. 17, 1916. Serial No. 72,494. (Cl. 51—4.)



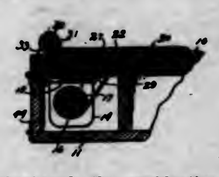
1. The combination, in a valve grinding tool, of a driving gear carrying two concentric sets of bevel gear teeth, each of said sets of teeth having a circular length of less than one half of a complete circle, one of said sets of teeth subtending a central angle which is greater by a fractional multiple, and includes the central angle subtended by the other of said sets of teeth; a pair of bevel pinions mounted upon a tool carrying shaft in such a manner that they will alternately mesh with their respective sets of teeth on said driving gear; and a pair of cams located upon said driving gear and adapted to meet, periodically, a follower located upon said tool carrying shaft in such a manner that the mutual action of the cams and follower upon each other will result in maintaining said pinions in correct angular position for reëngagement with their respective gears during the period preceding the reversal of their angular motion, and when neither of said pinions is engaged with its respective gear.

2. The combination, in a valve grinding tool, of two concentric driving gears, each set subtending an arc of less than 180 degrees; two corresponding pinions rigidly mounted upon the same shaft in such relative positions that a continuous rotation of the driving gears in one direction will give the driven shaft a rotation, first in one direction, and then in the other; and means for maintaining the driven shaft, after the dis-engagement of one of the sets of gears, in correct position for the engagement of the other set of gears; all substantially as shown.

3. In a valve grinding tool, arranged to impart by means of toothed gearing a periodically reversed rotation to a driven shaft as the result of a continuous rotation of the driving gear in one direction; a pair of cams located upon the driving gear in such positions as to meet, periodically, a follower located upon the driven shaft, the mutual action of said cams and said follower upon each other being such as to maintain the said driven shaft in correct angular position for reëngagement of said gearing during the period preceding the reversal of motion of said driven shaft, when said gearing is out of mesh.

1,208,024. UNIVERSAL DRAWING-BOARD. CRAWFORD C. SINCLAIR, Fredonia, Kans. Filed May 10, 1915. Serial No. 27,146. (Cl. 45—131.)

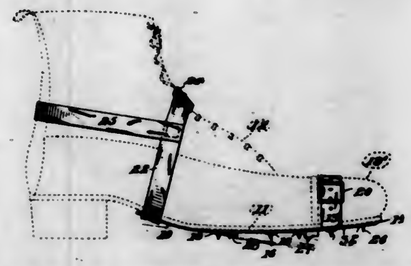
1. In a drawing board, the combination of a board proper provided in its under face adjacent the edge portion with a longitudinal groove having its bottom reduced and open to form a slot in the face of the board, a scale member including a plurality of regular faces rotatably mounted in the said groove to selectively expose one of its faces through said slot.



2. In a drawing-board, the combination of a board proper provided in its upper face portion adjacent its edge with a longitudinal slot, a scale member provided with a plurality of scale faces and rotatably mounted below said slot to selectively expose its faces through the slot when turned, and means for yieldably holding the scale member against rotation.

3. In a drawing board, the combination of a board proper provided in its under face adjacent its edge portion with a longitudinal groove having its bottom reduced and open to form a slot in the face of the board, a scale member including a plurality of scale faces revolubly mounted in the groove to selectively expose one of its faces through the said slot, and a spring strap yieldingly engaging the scale member to hold the latter against rotation.

1,208,025. SAFETY-SOLE. JOHN SMISEK, North Bergen, N. J. Filed Sept. 1, 1916. Serial No. 118,055. (Cl. 36—62.)

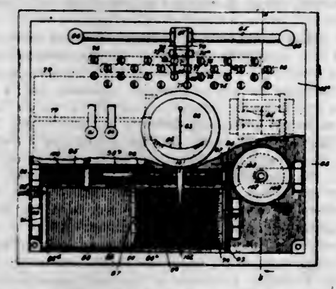


A safety sole comprising a shoe carried plate having calk forming struck out, elongated, triangular and square portions, the said plate being provided with a cross-shaped slot, a convoluted indrawn marginal portion, a calk arranged beneath the said plate having a shank adjustably positioned within the said cross shaped slot and a locking washer for the said calk.

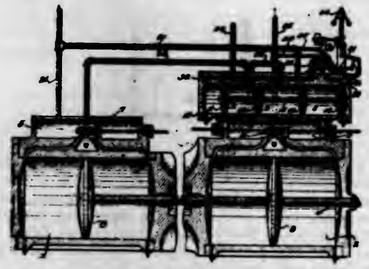
1,208,026. TELEMETRIC SYSTEM. ARTHUR J. SMITH, Bath, Me. Filed June 3, 1912. Serial No. 701,259. (Cl. 177—351.)

1. In a telemetric system, a main line, an exciter in said line, a pair of branch circuits in parallel in said main line, equal constant resistances in each of said branch circuits, a measuring instrument across the branch circuits, and a variable resistance in each of said branch circuits, said variable resistances each comprising a drum, a resistance wire wound spirally upon each of said drums, variable mechanism for rotating one of said drums, manual means for rotating the other of said drums, a movable contact for each of said drums engaging the respective resistance wires thereof and having connection with the variable mechanism and the manual means respectively, whereby to automatically position one of said contacts upon the respective drum by the variable mechanism and whereby the second contact may be manually adjusted with respect to the second drum.

2. In a telemetric system a main line, an exciter in said line, a pair of branch circuits in parallel in said main line, equal constant resistances in each of said branch circuits, and a variable resistance in each of said branch circuits, said variable resistances each comprising a drum, a resistance wire wound spirally upon each of said drums the convolutions of which are spaced apart and each convolution having a resistance of one ohm, variable mechanism for rotating one of said drums, manual means for rotating the other of said drums, a movable contact for each of said drums engaging the respective resistance wires thereof and having connection with the variable mechanism and the manual means respectively, whereby to automatically position one of said contacts upon the respective drum by the variable mechanism and whereby the second contact may be manually adjusted with respect to the second drum.

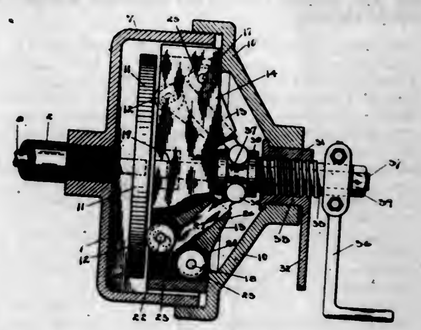


1,208,027. STEAM-ENGINE. CHARLIE W. SMITH, San Diego, Cal. Filed Jan. 18, 1915. Serial No. 2,853. (Cl. 121—31.)



An intercepting valve for compound steam engines adapted to be interposed between the high and low pressure cylinders comprising a casing provided with ports leading to the steam pipe, the low pressure cylinder, the exhaust of high pressure cylinder, and to the atmosphere respectively, a series of pistons therein mounted upon the common piston rod, the relation of the pistons and ports being such that in one position of the pistons the steam and low pressure ports, and the two exhaust ports respectively are in communication on opposite sides of a piston, and in another position the high pressure exhaust and low pressure cylinder ports are in communication and the steam and exhaust ports are separated therefrom and from each other by the pistons, and an operating valve comprising a casing secured to the intercepting valve casing having ducts leading to each end of the intercepting valve casing and having exhaust ports provided at each end of the operating valve casing with a central steam admission port, a piston in the casing, means to move the piston in one direction to admit steam through the duct to one end of the intercepting valve to move the pistons therein and in another direction to admit steam through the duct to the opposite end of the intercepting valve and move the pistons therein to the other end of the casing, as and for the purpose set forth.

1,208,028. FRICTION-THROW. DOLPH SMITH, Clatskanie, Oreg. Filed Aug. 26, 1915. Serial No. 47,545. (Cl. 192—8.)



1. In a friction clutch operating device, a shaft, a casing secured to said shaft, a pin within said shaft adapted to co-act with a cross-key, a disk mounted upon said pin, a cross member within said casing, toggle arms fulcrumed within said cross member, relatively movable rollers mounted within said toggle arms, one of said rollers in each toggle arm being adapted to contact with said disk, wedges within said toggle arms and adapted to engage said rollers, and means to operate said toggle arms and said wedges.

2. In a friction clutch operating device of the toggle lever type, a plurality of toggle arms in combination with a pair of rollers mounted therein, a wedge reciprocatingly mounted within each of said toggle arms and adapted to enter between said rollers, and to separate said rollers, and means to simultaneously operate said toggle arms and said wedges.

3. In a friction clutch operating device, a casing, a plurality of toggle arms within said casing, a pair of rollers mounted upon each of said arms, one of said rollers being loosely mounted therein, a wedge reciprocatingly mounted within each of said arms intermediate said rollers, a reciprocating plunger adapted to engage said wedges, a disk adapted to engage said loosely mounted rollers, means to connect said disk to said friction clutch, and means to operate said arms and said wedges.

4. In a hoisting or hauling engine, a shaft, a gear secured to said shaft, a friction ring secured to said gear, a drum having a flange adapted to engage said friction ring, a cross key in said shaft adapted to engage said drum, a thrust pin longitudinally and centrally mounted within said shaft and adapted to engage said cross key, a casing secured to the end of said shaft, a cap mounted upon said casing, a disk within said casing and mounted upon said thrust pin, a cross piece within said casing, toggle arms pivotally mounted upon said cross piece, rollers mounted upon said arms, one of said rollers being loosely mounted transversely to said arms, wedges reciprocatingly mounted upon said arms and adapted to engage said rollers, a nut rotatably mounted in said cap, means to hold said nut stationary, a threaded sleeve within said nut, a lever upon said sleeve, a pin within said sleeve, and collars integral with said pin, said collars being adapted to engage said wedges.

1,208,029. DOLL-HEAD. HELEN ESTELLE SMITH, Kansas City, Mo. Filed Aug. 2, 1915. Serial No. 43,288. (Cl. 46—40.)

1. A doll head comprising a hollow body open at the rear and provided with a slit, and with an aperture opposite the slit, a post located within said slit and bearing against the body, adjacent the aperture, a fastening member projecting through said aperture into the end of the post, and means for securing said post to the slit portion of said body.

2. A doll head comprising a hollow body, open at the rear and provided with a slit at its under edge, a post located in said slit and bearing against the inner face of said body, opposite the slit, and means for securing said post to the body.



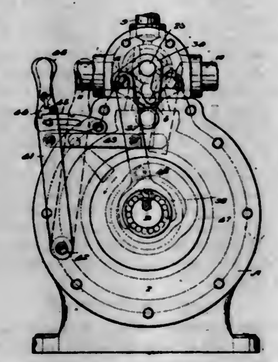
3. A doll head comprising a hollow body, open at the rear and provided with a slit at its under edge, a post located in said slot and bearing against the inner face of said body, opposite the slit, and means for securing said post to the body, the said body having eye and mouth openings at the end opposite the post.

4. A doll head comprising a half of a cocoanut shell, having the cocoanut eyes drilled out to form eye and mouth openings, and a post fixed to the open end of the shell and projecting from the shell to form an anchoring part for a doll body.

5. A doll head comprising a half of a cocoanut shell, having the cocoanut eyes drilled out to form eye and mouth openings, a post fixed to the open end of the shell and projecting from the shell to form an anchoring part for a doll body, and a cover for the open end of the shell.

[Claims 6 and 7 not printed in the Gazette.]

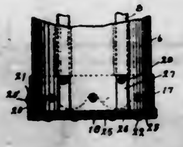
1,208,030. ROTARY ENGINE. JOHN A. SMITH, San Francisco, Cal., assignor to Smith Engine Company, San Francisco, Cal. Filed Mar. 21, 1913, Serial No. 755,908. Renewed May 4, 1916. Serial No. 95,500. (Cl. 121—82.)



1. An engine comprising a casing having a valve chamber and an expansion chamber, said chambers in communication with each other, a rotary piston mounted in the expansion chamber and a valve mounted in the valve chamber, a shaft on which the piston is mounted, inlet and exhaust pipes leading to the valve chamber, said valve having passages for conducting the steam to the expansion chamber, and for conducting the exhaust steam from the expansion chamber, a double crank arm connected to the valve having a slot therein, a lever having connection with the crank arm and adapted to be held at either terminus of the slot for imparting an oscillatory movement to the valve upon the actuation of the lever for admitting and cutting off the supply of steam to the expansion chamber, means for actuating the lever from one terminus of the slot to the other for regulating the direction of movement of the valve, and means on the shaft for imparting movement to the lever for operating the valve.

2. An engine comprising a casing having a valve chamber and an expansion chamber, said chambers having leads for forming a communication therebetween, a rotary piston mounted in the expansion chamber and a valve mounted in the valve chamber, a shaft on which the piston is mounted, inlet and exhaust pipes leading to the valve chamber, said valve having a duct and channels, the duct for conducting the steam to the expansion chamber, and the channels for conducting the exhaust steam from the expansion chamber to the exhaust pipes, one of said channels always forming a communication between the expansion chamber and the exhaust pipe, a double crank arm connected to the valve having a slot therein, a lever having connection with the crank arm and adapted to be held at either terminus of the slot for imparting an oscillatory movement to the valve upon the actuation of the lever for admitting and cutting off the supply of steam to the expansion chamber, means for actuating the lever from one terminus of the slot to the other for regulating the direction of movement of the valve, and means on the shaft for imparting movement to the lever for operating the valve.

1,208,031. GOLF-BAG. SINGLETON SMITH, Milwaukee, Wis., assignor to The Wallace & Smith Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 29, 1916. Serial No. 100,551. (Cl. 224—29.)



1. A golf bag comprising a casing of flexible material, metal reinforcing ribs secured to the outside of the casing and having their lower ends passing through the casing near the lower end thereof, a reinforced bottom secured to the lower end of the casing, and an inner reinforcing plate disposed within the bottom and held in place by the lower ends of said ribs.

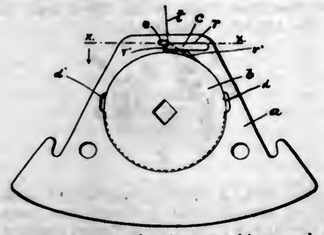
2. A golf bag comprising a casing of flexible material, metal reinforcing ribs secured to the outside of the casing and having their lower ends passed through the casing near the lower end thereof, a bottom member, a metal reinforcing plate secured to the outside of the casing near the lower end thereof and to the bottom member, and an inner reinforcing plate disposed upon the bottom member and held in place by the lower ends of said ribs.

3. A golf bag comprising a casing of flexible material, metal reinforcing ribs secured to said casing, a bottom member secured to the lower end of the casing, and an inner reinforcing plate disposed within the bottom and held in place by said ribs.

1,208,032. BOBBIN-CARRIAGE FOR LACE-MACHINES. WILLIAM H. SMITH, Pawtucket, R. I. Filed May 22, 1916. Serial No. 99,091. (Cl. 66—6.)

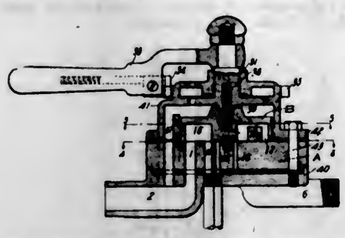
1. A bobbin carriage for lace machines in which the inclosed bobbin is retained within the carriage so that its circumference is in close proximity to said carriage, said carriage being provided with small spaces in its inner circumference for the purpose of admitting the bobbin to be inclosed, substantially as described.

2. A bobbin carriage for lace machines adapted to receive the inclosed bobbin in such a manner as to leave relatively slight space between the circumference of said bobbin and said carriage with the exception of two diametrically opposed limited spaces *d*—*d'* for the admission and removal of said bobbin, said carriage being also provided with a tension device consisting of a longitudinal flat spring fastened at one end to said carriage and free at the opposite end, and adapted to receive between its free end and the body of the carriage the thread from the bobbin and to exercise any desired tension thereon, without impeding the revolution of the inclosed bobbin, said carriage being recessed so that when the thread is in position, said spring will not project beyond the flat surface of the carriage, substantially as set forth.



3. A bobbin carriage for lace machines embodying a tension device consisting of a longitudinal flat spring fixed at one end to the body of the carriage and adapted to receive between its free end and the body of the carriage the thread from the inclosed bobbin, and to exercise the required tension thereon; said carriage being also provided with a threading-hole and a recess containing said spring, said recess extending beyond the free end of said spring, the relative positions of said threading-hole, recess, and spring being such that the free end of said spring overlaps only a portion of said threading-hole and that tension upon the free end of the thread, after the same has passed through the threading-hole, will draw the thread under the free end of said spring, substantially as described.

1,208,033. ENGINEER'S BRAKE-VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Filed July 5, 1912. Serial No. 707,737. (Cl. 188—7.)



1. An engineer's brake valve provided with ports communicating with the atmosphere, train pipe, main reservoir, equalizing reservoir and a brake cylinder, and a valve provided with cavities and passages coöperating with said ports and arranged in running position to connect the main reservoir with the train pipe and the equalizing reservoir, in service position to blank the train pipe and brake cylinder ports and connect the equalizing reservoir port with the atmosphere, and in a position adjacent to the service application position to blank the equalizing reservoir port and connect the brake cylinder port to the atmosphere.

2. An engineer's brake valve provided with ports communicating with the atmosphere, train pipe, main reservoir, equalizing reservoir and a brake cylinder, and a valve provided with cavities and passages coöperating with said ports and arranged in running position to connect the main reservoir with the train pipe and with the equalizing reservoir, in service application position to blank the train pipe port and connect the equalizing reservoir port with the atmosphere, and in another position to blank the train pipe port and open a restricted communication from the main reservoir to the equalizing reservoir.

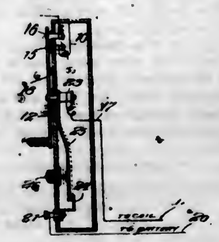
3. An engineer's brake valve provided with ports communicating with the atmosphere, train pipe, main reservoir, equalizing reservoir and brake cylinder, and a valve provided with cavities and passages coöperating with said ports and arranged in one position to connect the main reservoir by way of a reducing valve to the train pipe and to the equalizing reservoir and blank the brake cylinder and exhaust ports, in an adjacent position to maintain the connection from the main reservoir to the train pipe and equalizing reservoir and also connect the brake cylinder with the atmosphere, in another position to blank the train pipe and brake cylinder ports and connect the equalizing reservoir port with the atmosphere, and in an adjacent position to blank the train pipe port and equalizing reservoir ports and connect the brake cylinder port with the atmosphere.

4. An engineer's brake valve provided with ports communicating with the atmosphere, train pipe, main reservoir, equalizing reservoir and a brake cylinder, and a valve provided with cavities and passages coöperating with said ports and arranged in one position to connect the main reservoir directly to the train pipe and also with the equalizing reservoir and simultaneously blank the brake cylinder port, and in another position to blank the train pipe and brake cylinder ports and connect the main reservoir to the equalizing reservoir port through a restricted passage.

5. An engineer's brake valve provided with ports communicating with the atmosphere, train pipe, main reservoir, equalizing reservoir and a brake cylinder, and a valve provided with cavities and passages coöperating with said ports and arranged in one position to blank the train pipe, brake cylinder and exhaust ports and connect the main reservoir to the equalizing reservoir, and in another position to blank the train pipe, exhaust and equalizing reservoir ports and connect the main reservoir with the brake cylinder.

[Claims 6 to 12 not printed in the Gazette.]

1,208,034. IGNITION SYSTEM. LEO ANDREW SNYDER, Haileyville, Okla., assignor of one-half to Edgar M. Jones, Haileyville, Okla. Filed May 8, 1915. Serial No. 26,725. (Cl. 175—116.)

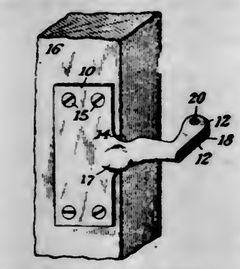


1. A device of the character specified, for selecting and distributing electric current to a series of spark plugs, and comprising a plate having a series of contact plates or buttons at one end, and adapted for connection with the several plugs, a switch arm pivoted to the plate and adapted to contact with the respective buttons, and adapted for connection with one of the terminals of an electrical circuit, a contact member for connection with the other terminal, a resilient contact arm connected with the switch arm and normally out of contact with the last-named contact member, and having a push button for permitting the said arm to be moved into contact with the said contact member.

2. A device of the character specified, for selecting and distributing electric current to a series of spark plugs, and comprising a plate having a series of contact plates or buttons at one end, and adapted for connection with the several plugs, a switch arm pivoted to the plate and adapted to contact with the respective buttons, and adapted for connection with one of the terminals of an electrical circuit, a contact member for connection with the other terminal, a resilient contact arm connected with the switch arm and normally out of contact with the last-named contact member, and adapted to be moved into contact with the said contact member to close the circuit.

3. In combination with a series of spark plugs, a high tension jump spark coil, a source of electrical energy, and an open circuit in which the coil and the source are interposed, of a support, a series of binding posts on the support, each post being connected to a plug, a switch arm pivoted to the support and adapted to contact with the respective posts, and connected to one of the terminals of the source, a resilient contact arm connected with the switch arm and normally out of contact with the other terminal of the circuit and adapted to be moved toward the said terminal to complete the circuit.

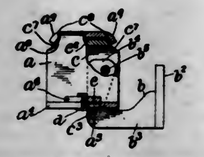
1,208,035. HINGE. CHARLES J. SOSS, New York, N. Y., assignor of one-third to Henry Soss and one-third to Samuel Soss, New York, N. Y. Filed Nov. 26, 1915. Serial No. 63,472. (Cl. 16—5.)



1. In a hinge of the type described, a hook-member formed of a one-piece sheet-metal blank having a body-portion and a lateral neck provided at its outer end with oppositely extending arms, the neck and arms being bent centrally into substantially parallel planes at right angles to the plane of the body-portion and the sheet-metal at the juncture of the neck and body-portion being bulged to strengthen the member thereat.

2. In a hinge of the type described, a hook-member formed of a one-piece sheet-metal blank having a body-portion and a lateral neck provided at its outer end with oppositely extending arms, the neck and arms being bent into substantially parallel planes at right angles to the plane of the body-portion, and a filling piece secured between the arms.

1,208,036. HINGE. CHARLES J. SOSS, New York, N. Y., assignor of one-third to Henry Soss and one-third to Samuel Soss, New York, N. Y. Filed July 14, 1916. Serial No. 109,207. (Cl. 16—5.)



1. In a hinge, a box-shaped part adapted to be secured in a stationary support, a U-shaped member detachably connected with said part, and spring members connected with the box-shaped part and in connection with which said U-shaped member operates to hold the same against movement and to give tension to the means for securing the U-shaped member in the box-shaped part.

2. A hinge butt composed of main and supplemental parts, the main part being U-shaped in form and the closed end thereof being provided at its opposite sides with inwardly directed ears, and the supplemental part being also U-shaped in form and being adapted to be inserted into the main part, and the closed end thereof being provided at its opposite sides with recesses to receive said ears.

1,208,037. HINGE. CHARLES J. SOSS, New York, N. Y., assignor of one-third to Henry Soss and one-third to Samuel Soss, New York, N. Y. Filed Sept. 13, 1916. Serial No. 119,841. (Cl. 16—5.)



1. A hinge butt or member comprising a plate-shaped head and an approximately L-shaped arm composed of separate similar sheet metal parts riveted together and secured to said head.

2. A hinge butt or member composed of a plate-shaped head having a central longitudinal aperture, and an approximately L-shaped arm consisting of separate similar sheet metal parts riveted together, the longer portion of said arm being provided with an approximately triangular head formed by said separate parts thereof, and the separate parts being provided with lugs or projections which pass through said aperture and are secured therein.

3. A hinge butt or member comprising an approximately L-shaped arm having a plate-shaped head member secured on the end of the longer part of said arm, said plate-shaped head member being provided with a central longitudinal aperture, and said arm being composed of separate similar parts having lugs or projections which are passed through said apertures and which are secured therein and to said head member.

1,208,038. DEEP-WELL PUMP. JOHN B. SPERRY, Aurora, Ill., assignor to The American Well Works, Aurora, Ill., a Corporation of Illinois. Filed Oct. 12, 1912. Serial No. 725,426. (Cl. 103—82.)



1. A pump comprising a plurality of pump rods adapted to be reciprocated simultaneously in opposite directions, a cylinder connected with one of said pump rods and movable therewith, a check valve in the lower portion of said cylinder, a plunger connected with the other pump rod and

adapted to operate in said cylinder above said check valve, and passages through said plunger, one of said passages communicating with said cylinder above the check valve therein, and the other with the well below said check valve.

2. A pump comprising a plurality of pump rods adapted to be reciprocated simultaneously in opposite directions, a cylinder connected with one of said pump rods and movable therewith, a check valve in the lower portion of said cylinder, a plunger connected with the latter pump rod, a cylinder in which the said plunger operates, a plunger connected with the other pump rod and adapted to operate in said first mentioned cylinder, and passages through the latter plunger, one of said passages communicating with said movable cylinder above the check valve therein, and the other with the well below said check valve.

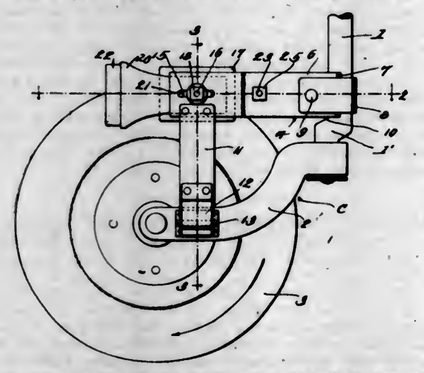
3. A pump comprising a plurality of pump rods adapted to be reciprocated simultaneously in opposite directions, a stationary cylinder, a plunger carried by one of said pump rods and operating in said stationary cylinder, a cylinder connected with the latter pump rod and adapted to move therewith, a check valve in the lower portion of said movable cylinder, a plunger connected with the other pump rod and adapted to reciprocate in the latter cylinder, passages through said plunger, one of said passages communicating with said movable cylinder above the check valve, and the other with the well below said check valve, and means for supplying water to the latter passage on the down stroke of the latter pump-rod.

4. A pump comprising a plurality of pump rods adapted to be reciprocated simultaneously in opposite directions, a stationary cylinder, a plunger connected with one of said pump rods and adapted to operate in said stationary cylinder, a plurality of movable cylinders connected with the latter pump rod, and a plurality of plungers connected with the other pump rod and adapted to operate in said movable cylinders.

5. A pump comprising a plurality of pump rods adapted to be reciprocated simultaneously in opposite directions, a plurality of cylinders connected with one of said pump rods and movable therewith, and a plurality of pistons connected with the other pump rod and operating in said cylinders.

[Claims 6 to 30 not printed in the Gazette.]

1,208,039. SHARPENING DEVICE FOR ROLLING COLTERS. RICHARD M. SPILLMAN, Poseyville, Ind. Filed June 8, 1916. Serial No. 102,524. (Cl. 97—77.)



1. A sharpening device of the class described comprising a U-shaped supporting member, said member having a semicircular seat in its base adapted to receive a shank of a colter, the arms of said member being adapted to be disposed one on each side of the disk of the colter, a U-shaped clip having its arms engaged with the arms of said member and adapted to be disposed around said shank to hold said sharpening device in operative position, and an abrading block on the free end of each of the arms of said member and adapted to engage and sharpen the disk of the colter when the same is in operation.

2. In a sharpening device of the class described, an auxiliary cleaner comprising a supporting member, a scraper comprising a pair of L-shaped plates attached by their long arms to said member, and a flexible contact member disposed between said plates and projecting beyond the short arms thereof.

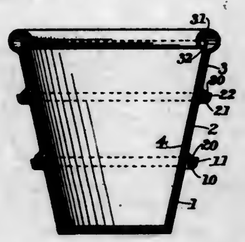
3. A sharpening device of the class described comprising a U-shaped supporting member, said member having a semicircular seat in its base to receive the shank of a colter, the arms of said member being adapted to be disposed one on each side of the disk of the colter, a U-shaped clip having its arms engaged with the arms of said member and adapted to be disposed around said shank to hold said sharpening device in operative position, a leg depending from each of said arms adapted to be attached to the disk carrying arms of the colter, and an abrading block on the free end of each of the arms of said member adapted to engage and sharpen the disk of the colter when the same is in operation.

4. In combination with a disk colter, an abrading block supporting member mounted on the shank thereof, a leg depending from said member for engagement with the disk-carrying arm of the colter, and an abrading block carried by said member and engaging the face of the disk of said colter.

5. In combination with a disk colter, an abrading block supporting member mounted on the shank thereof, a leg depending from said member for engagement with the disk-carrying arm of the colter, a spring finger on the end of said leg for coöperative engagement with the disk-carrying arm, and an abrading block carried by said member and engaging the disk of said colter.

[Claims 6 to 11 not printed in the Gazette.]

1,208,040. COLLAPSIBLE RECEPTACLE. LOUISE F. SPOHRR, Brooklyn, N. Y. Filed Nov. 4, 1915. Serial No. 59,588. (Cl. 220—52.)



A collapsible receptacle comprising a lower section having means at its upper edge for supporting an upper section, an upper section having an inwardly overhanging bead with an opening in its bottom in line with the inner surface of the wall of said upper section, and a continuous cup-shaped lining to fit throughout the sections when erected and have its rim extend into said overhanging bead for the purpose specified.

1,208,041. PROCESS-KETTLE. CLARENCE E. STEERR, Chicago, Ill., assignor to Sprague Canning Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 14, 1916. Serial No. 72,055. (Cl. 53—1.)

1. The combination with a receptacle having an opening and a closure therefor, of pressure controlled means for holding said closure in position with respect to said opening, said pressure controlled means including a diaphragm exposed to the pressure within said receptacle, said diaphragm being supported by said cover, said cover having a portion for engagement with the movable part of the diaphragm to limit its movement.

2. The combination with a receptacle having an opening and a closure therefor, of pressure controlled means

for holding said closure in position with respect to said opening, said pressure controlled means including a diaphragm exposed to the pressure within said receptacle, said diaphragm being supported by said cover, said cover having an opening therethrough leading from the space between the cover and diaphragm.



3. The combination with a receptacle having an opening and a closure therefor, of pressure controlled means for holding said closure in position with respect to said opening, said holding means comprising an inwardly extending member on said receptacle, and an outwardly movable member supported by said cover for engagement with said inwardly extending member, said pressure controlled means including a diaphragm supported by said cover, and transmission mechanism between said diaphragm and said outwardly movable member.

4. The combination with a receptacle having an opening and a closure therefor, of pressure controlled means for holding said closure in position with respect to said opening, said holding means comprising an inwardly extending member on said receptacle, and an outwardly movable member supported by said cover for engagement with said inwardly extending member, said pressure controlled means including a diaphragm supported by said cover, and transmission mechanism between said diaphragm and said outwardly movable member, said transmission mechanism including a plunger member supported by said diaphragm, and a bell crank actuated by said plunger member.

5. The combination with a receptacle having an opening and a closure therefor, of pressure controlled means for holding said closure in position with respect to said opening, said holding means comprising an inwardly extending member on said receptacle, and an outwardly movable rod supported by said cover and having a portion for engagement with said inwardly extending member, said pressure controlled means including a diaphragm supported by said cover, and transmission mechanism between siad diaphragm and said movable rod.

[Claims 6 to 15 not printed in the Gazette.]

1,208,042. CLOSURE FOR COMPARTMENTS. SAMUEL PRICE STEVENSON, Chester, Pa. Filed Nov. 4, 1914. Serial No. 870,291. (Cl. 20—16.)



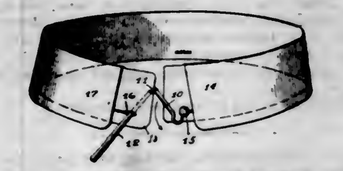
1. A closure for a compartment having an opening, comprising an outer movably supported cover for said opening, an automatic fastener upon said cover, an inner auxiliary cover movably supported in said opening independently of the outer cover and adjacent thereto to automatically close, and means for actuating said fastener to release the same when engaged by said auxiliary cover in opening the latter.

2. A closure for a compartment having an opening, comprising an outer door hinged to close the outer side of the opening, an automatic fastener for such door, an inner auxiliary door hinged in the opening independently of the outer cover, means for yieldingly closing said auxiliary door across the opening independently of the position of the outer door, and a movable element connected to actuate the fastener on the outer door and adapted to be operated by the auxiliary door when the latter is opened outward.

3. A closure for a compartment having an opening, comprising an outer movably supported cover for said opening, an automatic fastener upon said cover, an inner auxiliary cover in said opening movably supported to automatically close, and remain in closed position independently of the position of the outer cover, and means adapted to be actuated from the interior to release the fastener, when the auxiliary cover is opened outwardly.

4. A closure for a compartment having an opening, comprising an outer movably supported cover for said opening, an automatic fastener upon said cover, an inner auxiliary cover in said opening movably supported independently of the outer cover to automatically close independently of the position of the outer cover, means adapted to be actuated from the interior to release the fastener, and a swinging member in suitable relation to the actuating means and adapted, when moved in the direction for opening the outer door, to move said actuating means to release the fastener.

1,208,043. BUTTONER. FRANK N. STURGIS, Winnetka, Ill. Filed Mar. 6, 1915. Serial No. 12,506. (Cl. 24—40.)

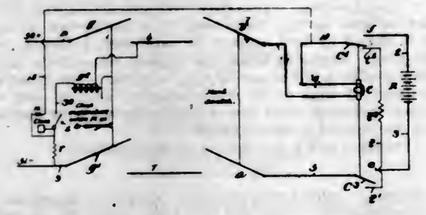


A buttoner, comprising a sectional member or rod, at least one section thereof terminating in a hook and formed cylindrical and comparatively short so as to permit movement through the arc of a circle between the folds of a collar, the adjacent ends of the sections being apertured, and a loose link connection between the apertured ends of the sections whereby these sections may be folded parallel with each other throughout their length and be moved into any inclination relative to each other so that the connected end of the second or handle-section is permitted to move, between the folds of a collar, through the same arc of a circle as the hook-section.

1,208,044. TIME-LIMIT DEVICE FOR CHARGING STORAGE BATTERIES. NATHAN H. SUREN, Needham, Mass., assignor to The Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed July 22, 1910. Serial No. 573,291. (Cl. 171—314.)

1. In a time-limit device for the charging of storage-batteries, the combination of a switch to connect a storage-battery with a charging line, and means responsive to a difference of potential across the charging mains, and operative only while current is charging the battery and arranged to open said switch when the current has charged the battery for a predetermined length of time, substantially as described.

2. In a time-limit device for the charging of storage-batteries, the combination of a switch to connect a storage-battery with a charging line, and switch-opening means responsive to a difference of potential across the charging mains, and arranged to open said switch when the current has charged the battery for a predetermined period of time and also arranged for suspension of operation upon cessation of the charging current during such time, substantially as described.



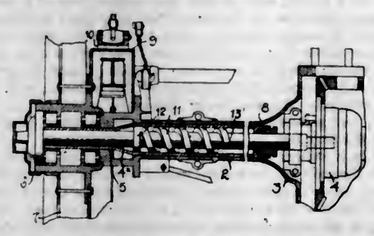
3. In a time-limit device for the charging of storage-batteries, the combination of a switch to connect a storage battery with a charging line, switch-opening means to open said switch when the current has charged the battery for a predetermined period of time, means responsive to a difference of potential across the charging mains, to cause operation of the switch-opening means while the charging current passes to the battery and to engage and hold said switch-opening means at rest while not influenced by the charging current, substantially as described.

4. In a time-limit device for the charging of storage-batteries, the combination of a switch to connect a storage battery with a charging line, switch-opening means associated therewith to open the switch when the current has charged the battery for a predetermined period of time, a controlling-magnet for said switch-opening means which is responsive to a difference of potential across the charging mains, and arranged while deënergized to arrest the switch-opening means and while energized to permit operation thereof, substantially as described.

5. In a time-limit device for charging storage batteries, the combinstion of a switch having means for operating it manually to connect a storage battery with a charging line, automatic means to open it at the end of a period of time, and means responsive to a potential difference across the charging line, to temporarily suspend operation of said automatic means during the time said charging current fails, substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,208,045. AUTOMOBILE-AXLE. CLARENCE H. SWART and ARTHUR M. TAILLEUR, Dayton, Nev. Filed Apr. 3, 1915. Serial No. 18,968. (Cl. 64—22.)

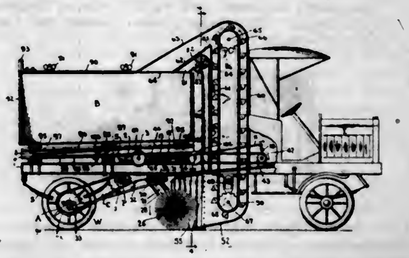


1. In an automobile, a shaft section, a housing therefor and uniformly spaced therefrom, a chamber containing oil through which the shaft section extends, and means for preventing the passage of the oil from said chamber along the shaft in one direction and along the inner face of the housing comprising a helical flange produced upon the shaft and described in a direction reverse to the direction of rotation of the shaft, the edge of the flange contacting with the housing, said flange terminating at its outer end away from said receptacle in a collar which contacts with the housing and said flange at its inner end adjacent the receptacle gradually merging into the shaft section.

2. In an automobile, a differential housing, a shaft housing extending therefrom, a shaft section disposed within said housing and spaced uniformly therefrom, and means for preventing the passage of oil from the differential housing along said shaft to the outer end of the shaft and along the inner shaft of the housing comprising a helical flange produced upon the shaft and described in a direction reverse to the direction of rotation of the shaft, the edge of the flange contacting with the housing, said helical flange terminating at its outer end away from the flange in an annular collar having its edge engaging with the housing.

3. In an automobile, a shaft section, a housing surrounding the section and terminating at its inner end in a lubricant containing chamber, a gland surrounding the shaft and engaging the housing, and means for preventing the passage of oil along the shaft from the lubricant containing chamber and preventing the passage of oil along the inner face of the housing comprising a helical flange produced upon the shaft and described in a direction reverse to the direction of rotation of the shaft, said flange having a transversely flat face, the edge of the face contacting with the housing and wiping thereagainst, said flange terminating at its outer end away from said receptacle in a collar contacting with the inner face of the housing and the flange at its inner end adjacent the gland gradually merging into the shaft section.

1,208,046. STREET-CLEANER. CHARLES L. TALBOT, Chicago, Ill., assignor to Municipal Sanitary Devices Company, Plymouth, Ind. Filed Aug. 11, 1913, Serial No. 784,140. Renewed May 10, 1916. Serial No. 96,716. (Cl. 15—17.)



1. In a street cleaner, the combination with a frame mounted on wheels and having pins projecting laterally from it, and an upright casing rising through said frame and leading to a receptacle; of a box disposed transversely beneath the frame and having an opening in its top registering with said casing, eyes rising from said box and loosely mounted on said pins, springs between the frame and eyes for permitting yielding lateral movements of said box, and means for sweeping the street and delivering the dirt into said box and raising it therefrom through said casing.

2. In a street cleaner, the combination with a frame mounted on wheels and having pins projecting laterally from it, and an upright casing rising through said frame and leading to a receptacle; of a box disposed transversely beneath the frame and having an opening in its top registering with said casing, eyes rising from said box and loosely mounted on said pins, springs between the frame and eyes for permitting lateral movements of said box, an elevator mounted within said casing and having its lower end within the box, the rear side of the latter being open, and a rotary brush carried by said frame for delivering the sweepings into said open side of the box.

3. In a street cleaner, the combiantion with a frame mounted on wheels and having laterally projecting pins, a box carried beneath the frame and having eyes loosely mounted on said pins, the box being wider than the frame and having its ends and the endmost portions of its top closed, its front side and bottom being also closed and its

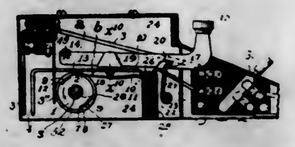
rear side open, and means for gathering the dirt and delivering it into said open rear side; of hangers depending from said frame through the open top of the box, bearings within the latter carried by said hangers, an endless elevator whose lower shaft is mounted in said bearings, an upright casing carried on the frame and registering with the opening in the top of the box, the upper elevator shaft being journaled in said casing; means for adjusting one pair of bearings, and a delivery spout leading from the upper end of the elevator.

4. In a street sweeper, the combination with a frame, wheels and axles, and springs supporting the frame on the axles; of hangers pivoted in the frame forward of the rear axle and having studs thereon, a brush journaled between said hangers, means for communicating rotary motion to said brush, and push bars pivotally connected at their rear ends with the rear axle and having slots at their front ends engaging said studs, for the purpose set forth.

5. In a street sweeper, the combination with a frame, axles, springs supporting the frame from the axles, a bracket connected with one axle, and a push bar adjustably connected at its rear end with said bracket and having a slot near its front end; of a shaft journaled in the frame, a hanger depending from said shaft, a stud in said hanger loosely engaging the slot of said bar, a brush rotatably supported by the hanger, means for rotating the brush, and manually operable means for swinging said shaft to raise the brush, for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,208,047. TELEGRAPH-TRANSMITTER. CHARLES G. TAYLOR, Los Angeles, Ca., assignor to The Telegraph Transmitter Company, Los Angeles, Cal., a Corporation of California. Filed May 4, 191[illegible]. Serial No. 836,381. (Cl. 173—360.)



1. An electrical telegraph transmitter, comprising electrical conductors insulated from each other; a conducting shaft connected to one of said conductors; electrical contact disks mounted on the shaft, electrically connected thereto and rotating therewith, and having intermittent contacting peripheries representing characters to be transmitted; means to rotate the shaft; contact devices connected to the other conductor and normally out of contact with the contact disks and out of circuit therewith, and adapted to independently contact with said disks respectively, each with its own disk exclusively; and means to cause the contact devices separately to contact with their disks respectively during the periods of the characters respectively.

2. A telegraph transmitter comprising a series of electrically connected notched contact disks, means to simultaneously rotate all of said disks, contact points to contact with and projecting beyond both sides of the projections between the notches, means for alternatively moving the contact points into contacting position, and insulating disks of less radius than the projections to support the contact points on both sides of the contact disks adjacent the spaces between the projections.

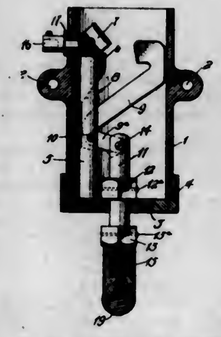
3. A telegraph transmitter comprising series of contact devices, provided respectively with different characters arranged with like periods and constructed on different scales so as to equalize the spacing, thereby allowing the longer characters to be produced in a medium period of time.

4. In a telegraph transmitter, the combination with contact devices having characters, of a conducting spring plate slitted to form tongues for said contact devices respectively, fingers to move said tongues respectively into contact with said contact devices, and a slitted insulating sheet having tongues between the fingers and the contact tongues respectively.

5. In a telegraph transmitter, the combination with contact devices having characters, of a conducting spring plate slitted to form tongues for said contact devices respectively, fingers to move said tongues respectively into contact with said contact devices, a slitted plate forming auxiliary springs under the conducting springs, and a slitted insulating sheet having tongues between the fingers and the contact tongues respectively.

[Claims 6 and 7 not printed in the Gazette.]

1,208,048. TROLLEY-SWITCH. JAMES C. THOMPSON, Lemoyne, Pa. Filed Feb. 25, 1915. Serial No. 10,556. Renewed May 23, 1916. Serial No. 99,438. (Cl. 246—54.)



1. In a trolley wire switch, the combination of a suitable mounting, a switch carried by said mounting, and a combined trolley-wire-supporting and switch-actuating means, movably carried in and supporting the trolley wire from said mounting, and having suitable connection with the movable member of the switch; said means comprising a vertically sliding rod-plunger having its upper end connected directly to the switch in position to impart directly thereto, the endwise thrust of the plunger, and having at its lower end and in line with the plunger, a trolley wire clamp through which the plunger receives a direct upward thrust from the lifting of the trolley wire.

2. In a trolley wire switch, the combination of a mounting base adapted to be suspended in proper position to support a trolley wire, an axially movable rigid thrust-plunger carried by said mounting and having stop shoulders for limiting its movement therein, a post projecting from said mounting to one side of the plunger, and fixed and movable circuit-closing members mounted on said post; the movable circuit-closing member being connected with the plunger.

3. In a trolley wire circuit closer, the combination of a shell adapted to be suspended in position to support a trolley wire, a base carried by said shell, a post mounted upon the base within the shell, and having a fixed contact suitably mounted thereon, a movable contact arm pivoted to said post, and an axially reciprocating plunger carried by said mounting, with means for limiting its movement therein, connected at one end to the movable switch arm for positively moving the latter in opposite directions, and at its other end adapted to receive a trolley wire attaching means.

1,208,049. PIPE-FITTING. MARSHAL D. TILLMAN, Wabash, Ind., assignor to Tillman Heating Devices Company, Indianapolis, Ind., a Corporation of Indiana. Filed May 29, 1914. Serial No. 841,833. (Cl. 137—75.)

1. Means of communication between a hot water main conveying pipe and a branch, comprising a hollow body projected horizontally throughout its length from the pipe and having a passageway substantially tangential to the channel of the pipe and leading from below the axis thereof with the bottom faces of said passageway and channel substantially on the same level.



2. A hot water pipe fitting having a hollow main conveying body and having a branch, the axes of said body and branch lying in horizontal planes, the passageway of said branch extending horizontally from its inlet to its outlet and below the axis of the main pipe, said branch having means to communicate with a receiving pipe, the cross area of the branch passageway and the inlet of the receiving pipe being equal.

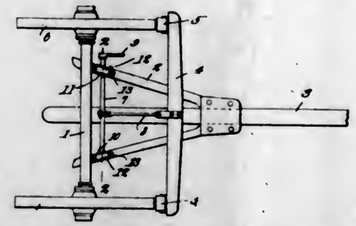
3. A pipe fitting having a conveying channel adapted to communicate with a distributing pipe and having a lateral branch in communication with the main body of the fitting and provided with a passageway tangential at its bottom to the channel of the said main body, the axes of said passageway and channel of the main body lying in horizontal parallel planes.

4. A pipe fitting having a conveying horizontal hollow body portion, a branch pipe adapted to connect with a receiving pipe and having a horizontal axis throughout its length of less cross area than that of said body portion and adapted to communicate horizontally and tangentially with said body and exit passageway means leading from said body portion below the center thereof with the bottom surfaces of the passageway and body portion substantially level and having the same cross area as the branch pipe, substantially as described.

5. A pipe fitting having a hollow conveying section, a lateral part leading horizontally and tangentially from the lower portion of said section and an abutment projecting downwardly into the passageway between said section and part, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

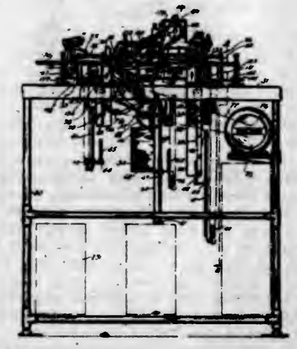
1,208,050. BRAKE-SHAFT MOUNTING FOR WAGON-GEAR. ALBERT F. TONNEMACHER, Huntingburg, Ind. Filed May 17, 1916. Serial No. 98,112. (Cl. 64—54.)



1. A shaft mounting embodying a U-shaped bracket having attaching means at its ends, and a bearing fitting snugly within said bracket, the ends of the bearing being rounded and the limbs of said bracket being curved to accommodate the ends of the bearing, whereby the bearing can be adjusted about a vertical axis.

2. A shaft mounting embodying a U-shaped bracket having attaching means at its ends, and a bearing fitting snugly within said bracket, the ends of the bearing being rounded and the limbs of said bracket being curved to accommodate the ends of the bearing, whereby the bearing can be adjusted about a vertical axis, the intermediate portion of said bracket having pivot means with which said bearing is engaged.

1,208,051. STOP-CARD-INSERTING MACHINE. CHARLES A. TRIPP, Indianapolis, Ind., assignor, by direct and mesne assignments, of one-half to J. E. Merion, Pittsburgh, Pa., and one-half to Orange E. McMeans and Charles A. Tripp, Indianapolis, Ind. Filed June 26, 1915. Serial No. 36,597. (Cl. 83—92.)



1. In combination, discharge mechanism, a card-supplying device on each side of said discharge mechanism, means coöperating successively with the cards supplied from one of said card-supplying devices to said discharge mechanism, and means controlled by said last-named means for controlling the supply of cards from said two card-supplying devices to said discharge mechanism.

2. In combination, discharge mechanism, two card-supplying devices for supplying cards to said discharge mechanism, a feeding device for feeding cards from either of said card-supplying devices to said discharge mechanism, and means coöperating with the successive cards from one of said card-supplying devices for determining whether said feeding device shall feed to said discharge mechanism a card from one or the other of said card-supplying devices.

3. In combination, discharge mechanism, two card-supplying devices, a control member upon which the cards from one of the card-supplying devices are fed successively before reaching the discharge mechanism, and means controlled by each card when fed to the control member for determining whether such card or a card from the other card-supplying device shall be fed to the discharge mechanism.

4. In combination, discharge mechanism, two card-supplying devices, a control member, a feeding device for feeding cards successively from one of the card-supplying devices to the control member and then to the discharge mechanism and for feeding cards from the other card-supplying device to the discharge mechanism, and means controlled by the cards which pass on to the control member for selectively determining the action of the feeding device.

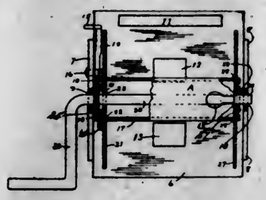
5. In combination, discharge mechanism, two card-supplying devices, a feeding device for feeding cards from either of said card-supplying devices to said discharge mechanism, and means coöperating successively with the cards from one of said card-supplying devices for selectively determining the action of said feeding device.

[Claims 6 to 89 not printed in the Gazette.]

1,208,052. CLOTHES-LINE REEL. GUY TROUP, Elkhart, Ind., assignor to A. L. Deal, Elkhart, Ind. Filed Apr. 15, 1915. Serial No. 21,562. (Cl. 242—100.)

1. In a clothes line reel, the combination with a reel body provided with driving shaft bores and a ratchet rigidly secured thereto, said ratchet being provided with a driving shaft bore and driving pin slots adjacent thereto, of a driving shaft detachably arranged within said reel and ratchet bores, said shaft being provided with a driving pin aperture; and a driving pin rigidly secured

within said pin aperture, projecting therefrom and having its ends arranged within said driving pin slots in said ratchet.



2. In a clothes line reel, the combination with a reel body provided with driving shaft bores and a ratchet rigidly secured thereto, said ratchet being provided with a driving shaft bore, an embossment surrounding said bore and driving pin slots formed in said embossment adjacent said bore, of a driving shaft detachably arranged within said reel and ratchet bores, said shaft being provided with a driving pin aperture; and a driving pin rigidly secured within said pin aperture, projecting therefrom and having its ends detachably arranged within said driving pin slots in said ratchet embossment.

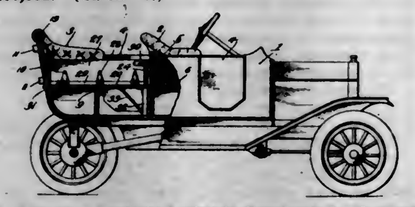
3. In a clothes line reel, the combination with a reel support and a reel hub and shaft rotatively mounted upon the support, of a reel disk provided with clip holes; a ratchet provided with clip holes in registration with said disk clip holes; and means for rigidly securing the disk and ratchet together and to the reel hub, said means comprising integral L-shaped hub clips, a portion of each of said clips being arranged within a disk and ratchet clip hole and the other portion thereof extending laterally therefrom along and upon the outer face of the ratchet.

4. In a clothes line reel, the combination with a reel support and a reel hub and shaft rotatively mounted upon the support, of a reel disk provided with clip holes of uniform shape; a ratchet provided with clip holes of uniform shape in registration with said disk clip holes; and means for rigidly securing the disk and ratchet together and to one end of the reel hub, said means comprising integral hub clips penetrating the disk and ratchet clip holes, projecting beyond the outer face of the ratchet and bent down upon and along the outer face thereof.

5. In a clothes line reel, the combination with a reel support and a reel hub and shaft rotatively mounted upon the support, of a reel disk provided with clip holes; a ratchet provided with clip holes in registration with said disk clip holes; and means for rigidly securing the disk and ratchet together and to one end of the reel hub, said means comprising integral hub clips penetrating the disk and ratchet holes, projecting beyond the outer face of the ratchet, and bent down upon and along the outer face thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,208,053. AUTOMOBILE-BODY. CHARLES H. VAN ALLEN, Paterson, N. J. Filed July 3, 1916. Serial No. 107,352. (Cl. 21—7.)



1. A touring car body having in its rear end a doorway opening through the upper edge of said end, the lower edge of said doorway being substantially flush with the rear seat frame, a detachable platform to be mounted in the body and to extend from said seat frame to the back of the front seat, and one or more doors for closing said doorway.

2. A touring car body having in its rear end a doorway opening through the upper edge of said end, the lower edge of said doorway being substantially flush with the rear seat frame, a detachable platform to be mounted in the body and to extend from said seat frame to the back of the front seat, one or more doors for closing said doorway, and a rear seat back having a detachable connection with said door or doors.

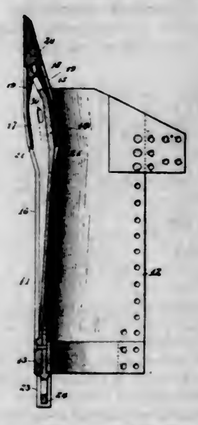
3. A touring car body having in its rear end a doorway opening through the upper edge of said end, the lower edge of said doorway being substantially flush with the rear seat frame, a detachable platform to be mounted in the body and to extend from said seat frame to the back of the front seat, one or more doors for closing said doorway, a latch for holding said door or doors in closed position, and a removable seat back equipped with means for holding said latch in operative position.

4. A touring car body having in its rear end a doorway opening through the upper edge of said end, the lower edge of said doorway being substantially flush with the rear seat frame, a detachable platform to be mounted in the body and to extend from said seat frame to the back of the front seat, one or more doors for closing said doorway, a latch for locking the door or doors in closed position, said latch having an operating knob, and a rear seat back having a socket member on its rear side removably receiving said knob to simultaneously retain said back and the latch in operative position.

5. A touring car body having in its rear end a doorway opening through the upper edge of said end, the lower edge of said doorway being substantially flush with the rear seat frame, a detachable platform to be mounted in the body and to extend from said seat frame to the back of the front seat, one or more doors for closing said doorway, a knob extending inwardly from one of said doors, and a seat back having on its rear side a socket member removably receiving said knob therein, whereby to retain said seat back in operative position.

[Claims 6 and 7 not printed in the Gazette.]

1,208,054. DIPPER-FRONT. ELLISON EDWARD VANDERHOEF, Ruth, Nev., assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed Dec. 10, 1915. Serial No. 66,030. (Cl. 37—16.)



1. A dipper front comprising a front wall sloping inwardly toward its upper extremity, ribs carried by said front wall and extending longitudinally along the external surface thereof, said ribs of gradually increasing thickness toward their upper extremity, the thickening of the ribs along their upper extremity corresponding to the inward slope of the front wall, whereby the front surface of said ribs extends substantially vertical when the dipper front, considered in its entirety, is so positioned.

2. A dipper front comprising a front wall with integral ribs, said ribs provided at their upper extremities with tooth-supporting bases, with the longitudinal axes of said bases inclined upwardly and outwardly, the upper extremity of said front wall thickened and forming a lip inclined to correspond to the inclination of the longitudinal axes of said tooth bases.

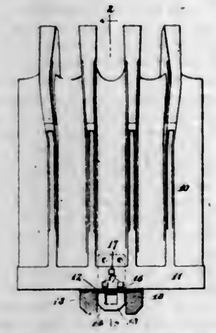
3. A dipper front comprising a front wall with integral ribs, said ribs provided at their upper extremities with tooth-supporting bases, with the longitudinal axes of said bases inclined upwardly and outwardly, the upper extremity of said front wall thickened and forming a lip inclined to correspond to the inclination of the longitudinal axes of said tooth bases, the outmost edge of said lip being bent sharply outward.

4. A single-piece cast metal front for dippers comprising a front wall with integral ribs extending longitudinally thereof, said ribs located upon the outside of said front wall and thickening toward their upper extremities and forming point-supporting bases with wedge-shape noses, said bases provided with overhanging ledges adapted to receive the extremities of the jaws of a dipper point thereagainst, and to bring the surfaces of said jaws and the ribs flush, and a thickened lip extending along the top of said dipper front, with the upper edge thereof inclined upwardly and outwardly, corresponding to the obliquity of the noses of said bases.

5. A single-piece cast metal front for dippers having ribs extending along the outside of said front and formed integral therewith, the upper portion of said dipper front thickened and forming a lip inclined outwardly toward its upper extremity, the uppermost edge of said lip being bent sharply outwardly, said ribs provided with teeth-supporting bases at their upper extremities, adapted to support dipper teeth with the one jaw thereof lying adjacent the inner surface of said dipper front.

[Claims 6 and 7 not printed in the Gazette.]

1,208,055. DIPPER-BUCKET. ELLISON EDWARD VANDERHOEF, Ruth, Nev., assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed Sept. 12, 1916. Serial No. 119,652. (Cl. 37—16.)



1. An article of the class described comprising a dipper front, a dipper latch keeper carried thereby and projecting below the lower extremity of said dipper, and means carried by said dipper front and located upon opposite sides of said dipper latch keeper, adapted to protect the same.

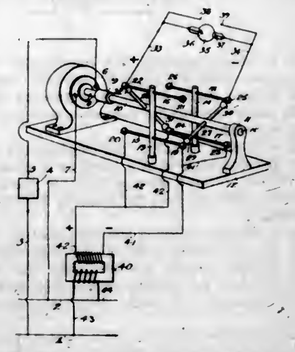
2. A dipper front provided with spaced and integral lugs projecting below the bottom edge of said front, and a dipper latch keeper secured to said front and positioned between, and protected by, said spaced integral lugs.

3. A dipper front having front and side walls, said walls provided with a reinforcing portion extending around the lower extremity thereof, spaced lugs formed integral with said front wall and projecting below said reinforced portion, and a dipper latch keeper secured to said reinforced portion, housed between, and protected by, said lugs.

4. In combination with the lower extremity of a dipper front, of a latch keeper carried thereby and projecting therebelow, and lugs carried by and projecting below the lower extremity of said dipper front and arranged adjacent said dipper latch keeper and adapted to protect the same.

5. A dipper front with spaced lugs projecting therebelow, a latch keeper secured to said front and protected by said spaced lugs, said latch keeper formed with a lower latch-receiving end, with an attaching plate projecting thereabove, and with a ledge extending between the attaching plate and the latch-receiving end, said ledge contacting with the lower extremity of said dipper front.

1,208,056. HIGH-TENSION RECTIFYING-SWITCH. HARRY F. WAITE, Whitestone Landing, N. Y. Filed Apr. 24, 1916. Serial No. 93,345. (Cl. 175—364.)



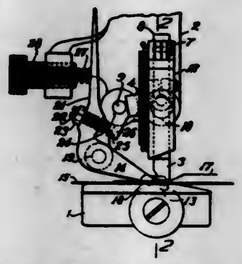
1. In an alternating current rectifying switch the combination of a shaft; an arm carried by said shaft, provided with flaring fin-like extremities; a plurality of pairs of terminals associated with said arm and adapted to form spark gaps with its said extremities; a second arm carried by said shaft in angularly disposed relation to said first arm, said second arm being also provided with flaring fin-like extremities; a plurality of pairs of terminals associated with said second arm and adapted to form spark gaps with its extremities; and electrical connections between one terminal of each pair of terminals that are associated with said first arm and one terminal of each pair of terminals that are associated with said second arm, substantially as described.

2. In a rectifying switch the combination of a rotating shaft; a source of alternating current; means for rotating said shaft synchronously with the alternations of said current; a plurality of angularly disposed arms having fin-like extremities carried by said shaft; a plurality of series of balls arranged in close proximity to the paths of said fin-like extremities; electrical connections between certain of the balls of adjacent series; insulating means between certain of the balls of adjacent series; means for raising the potential of a portion of said current; and connections between said last named means and said ball series, whereby a high potential current may be rectified when said shaft is rotated, substantially as described.

3. In a rectifying switch the combination of a rotating shaft; a source of alternating current; means adapted to rotate said shaft synchronously with the alternations of said current; a pair of supports; an insulating rod carried by each of said supports; a conducting rod also carried by each of said supports; a conducting ball mounted on each end of each of said rods; a pair of angularly disposed arms carried by said shaft provided with flaring fin-like extremities adapted to traverse paths in close proximity to said balls; means adapted to raise the potential of a portion of said current; and suitable connec-

tions between said last named means and said balls, whereby the higher potential portion of said current may be rectified, substantially as described.

1,208,057. FOLDING-MACHINE. ALFRED B. WALES, Whitman, Mass., assignor to Lorenz Muther, Newton, Mass. Filed June 16, 1916. Serial No. 104,087. (Cl. 12—55.)



1. In a folding machine, the combination of means for feeding the material with a movable member having formed thereon means for guiding, turning the edge, fold-pressing and retaining the material stationary between the feeding movements.

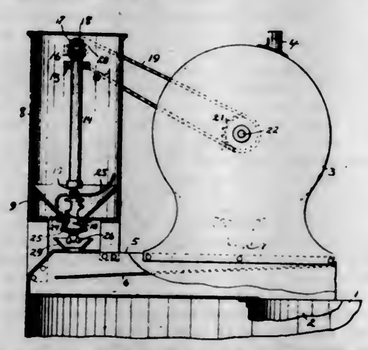
2. In a folding machine, the combination of means for feeding the material, with a movable member having portions thereof formed respectively for turning over the edge of the material and for pressing it upon the body of the material.

3. In a folding machine, the combination of means for feeding the material, with a movable member having formed thereon means for retaining the material stationary between its feeding movements and for turning over and pressing the folded edge upon the body of the material.

4. In a folding machine, the combination of feeding means with a movable member having formed thereon means for guiding the edge of the material, for turning over the edge of the material and for pressing the turned over edge upon the body of the material.

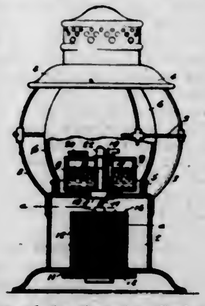
5. In a folding machine, the combination of means for feeding the material with a movable member having formed thereon means for guiding the material, for pressing the turned over edge upon the body of the material and for holding the material stationary between the feeding movements thereof.

1,208,058. FEEDER FOR WATER-SOFTENING PLANTS. WALTER WARRINER, Fort Wayne, Ind., assignor of one-half to John M. Kuhns and Herbert W. Bond, Fort Wayne, Ind. Filed Jan. 8, 1916. Serial No. 70,956. (Cl. 210—1.)



In apparatus of the class described, a water-wheel having inlet and discharge openings, a chute adapted to receive the discharge from the water-wheel, a feed-hopper having a nozzle adapted to discharge into the chute, a rotating shaft within the hopper, motion transmitting mechanism in connection with the water-wheel and shaft for actuating the latter, an agitator fixed on the shaft within the lower portion of the hopper, a spiral feeder extending into the nozzle and adapted to be actuated by the shaft, and a revolving discharge member bearing against the outer end of the nozzle.

1,208,059. CONVERTIBLE ACETYLENE-GAS AND OIL LANTERN. ROY C. J. WELCH and STANLEY L. SWEENEY, Port Coquitlam, British Columbia, Canada. Filed Jan. 11, 1916. Serial No. 71,569. (Cl. 240—37.)



1. In a lantern of the class described, the combination with a chamber having an aperture in the top and bottom, a carbid holder secured in and forming a closure for the lower aperture and projecting into the chamber, a water reservoir removably connected in the upper aperture of the chamber, said reservoir having a controllable water delivery into the carbid holder, and a tube through the water reservoir communicating with the chamber, and a gas burner inserted in the upper end of this tube, said reservoir, said controllable water delivery and said tube being bodily removable as a unit from said chamber.

2. In a lantern of the class described, the combination with a chamber having an aperture in the top and bottom, a carbid holder having apertured sides secured in and forming a closure for the lower aperture and projecting into the chamber, a water reservoir removably connected in the upper aperture of the chamber, said reservoir having a controllable water delivery into the carbid holder, and a tube through it communicating with the chamber, and a gas burner inserted in the upper end of the tube, said reservoir, said controllable water delivery and said tube being bodily removable as a unit from said chamber.

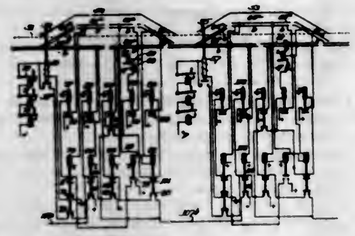
3. In a lantern of the class described, the combination with a chamber having an aperture in the top and bottom, a carbid holder secured in and forming a closure for the lower aperture of the chamber to project into it and having apertured side walls, a central tube having a perforated disk secured on its lower end which disk loosely fits the carbid holder, a water reservoir removably connected in the upper aperture of the chamber, said reservoir having a controllable water delivery into the central tube of the carbid holder, and a tube through the water reservoir the lower end of which communicates with the chamber, and a gas burner secured in the upper end of the tube, said reservoir, said controllable water delivery and said tube being bodily removable as a unit from said chamber.

4. In a lantern of the class described, the combination with a chamber having an aperture in the top and bottom, a carbid holder secured in the lower aperture and projecting into the chamber, a water reservoir removably secured in the upper aperture of the chamber, said reservoir having a controllable water delivery into the carbid holder, and a tube through the reservoir communicating at its lower end with the chamber, a gas burner removably inserted in the upper end of the tube, an oil reservoir adapted to fit the carbid holder in the upper end of which reservoir is an aperture adjacent the upper aperture of the chamber, and a wick burner adapted to be secured in the upper aperture of the chamber and interchangeable with the water reservoir, the under end of which burner is adapted to seat upon and form a joint around the aperture in the upper end of the oil reservoir.

5. In a lantern of the class described, the combination with a chamber having an aperture in the top and bottom, a carbid holder secured in the lower aperture to project into the chamber, said holder having apertured side walls, a central tube secured at its lower end in an apertured disk adapted to loosely fit the carbid holder, a water reservoir removably secured in the upper aperture of the chamber, said reservoir having a controllable water delivery into the central tube of the carbid holder, and a tube through the reservoir communicating at its lower end with the chamber, a gas burner removably inserted in the upper end of said tube, an oil reservoir adapted to fit the carbid holder when the central tube and disk are removed, in the upper end of which oil reservoir is an aperture concentric with and adjacent the upper aperture of the chamber, and a wick burner adapted to fit the upper aperture of the chamber and removably interchangeable with the water reservoir, the lower end of which burner is adapted to seat within the chamber around the aperture in the upper end of the oil reservoir.

[Claim 6 not printed in the Gazette.]

1,208,060. ELECTRICAL TRANSPORTATION SYSTEM. ROBERT C. WELLER, Cleveland, Ohio, and STANLEY T. HYDE and PHILIP D. NAUGLE, Bremerton, Wash. Original application filed Nov. 4, 1912. Serial No. 729,189. Divided and this application filed Apr. 11, 1914. Serial No. 831,278. (Cl. 104—210.)

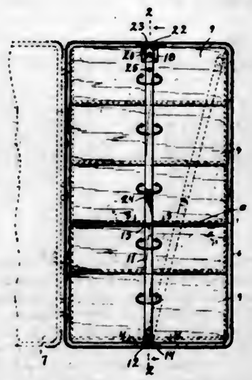


1. In a transportation system, a main track, and a plurality of sidings, each of said sidings having a switch therefor, a car adapted to move on said track, and sidings, and selector mechanism carried by said car, said mechanism being manually operable at the car despatching point to mechanically close a circuit and thereby actuate a distant sliding switch on the approach of said car to said switch, the intervening switch being unaffected by the passage of said car, substantially as described.

2. In a transportation system, a main track, and a plurality of sidings, each of said sidings having a switch therefor, electrical means for controlling the operation of each of said switches, a car adapted to move on said track and said sidings, means for propelling said car, and a plurality of manually and separately movable detents carried by said car, said mechanism being manually operable at the car despatching point and adapted to control the electrical circuit at any one of said switches on the approach of the car to said switch, substantially as described.

3. In a transportation system, a main track, and a plurality of sidings, a car having an electric motor for moving the same, means on said car for controlling the application of a propelling force, means including a plurality of independently actuable detents for actuating the entrance switches to the various sidings, said switch controlling means being operable by the mechanical closing of electric contacts by the car prior to the arrival of the car at a siding switch, substantially as described.

1,208,061. LOCKING-FIXTURE FOR TRUNKS. GEORGE HENRY WHEARY, Racine, Wis. Filed July 1, 1915. Serial No. 37,406. (Cl. 45—94.)



1. The combination with a trunk having a plurality of drawers, of a locking fixture therefor, comprising a two-part hinged together member engaging the drawers and releasably engaging the trunk at one end and carrying a lock at its opposite end, the bolt of said lock, when the locking fixture is in locking position, lockingly engaging the trunk, and means engaging a medial portion of the two part member for preventing the outward movement of the medial portion of said member while in locked position.

2. The combination with a trunk having a plurality of drawers, of a locking fixture therefor, comprising a holdable bar positioned in front of the drawers and releasably engaging the trunk at one end and carrying a lock at its opposite end, the bolt of said lock, when the bar is in locking position, lockingly engaging the trunk, and means connected to the trunk and engaging a medial portion of the bar for preventing the outward movement of the medial portion of said bar while in locked position.

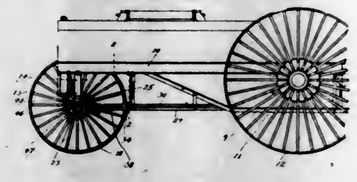
3. The combination with a trunk having a plurality of drawers, of a locking fixture therefor, comprising a foldable bar positioned in front of the drawers and releasably engaging the trunk at one end, and carrying a lock at its opposite end, the bolt of said lock, when the bar is in locking position, lockingly engaging the trunk, and a tracing arm projecting from a medial portion of the trunk, lockingly engaging the bar adjacent its folding joint for preventing the outward movement of said bar while in locking position.

4. The combination with a trunk, having a plurality of drawers, one of said drawers having a recessed plate secured thereto, the recess extending inwardly, of a locking fixture, comprising a foldable bar positioned in front of the drawers and releasably engaging the trunk at one end and carrying a lock at its opposite end, the said lock, when the bar is in locking position, extending into the recess of the plate, and the bolt of the lock, when the lock is within the recess, lockingly engaging the trunk, and means connected to the trunk and engaged by the bar for preventing outward movement of the medial portion of the bar while in locked position.

5. In combination with a trunk, having a plurality of drawers, of a locking fixture therefor, comprising a projecting slotted arm connected to the lower portion of the trunk, a foldable bar positioned in front of the drawers, and having a lower reduced end, the said reduced end releasably engaging the slot of the projecting arm, means connected to the trunk and engaged by the bar for preventing outward movement of the medial portion of the bar while in locked position, and a locking mechanism between the upper end of the bar and the trunk.

[Claims 6 and 7 not printed in the Gazette.]

1,208,062. TRACTION-ENGINE. EDWIN M. WHEELOCK, Winona, Minn. Original application filed June 9, 1911, Serial No. 632,274. Divided and this application filed July 29, 1912, Serial No. 712,079. Renewed May 5, 1916. Serial No. 96,256. (Cl. 21—114.)



1. In a traction engine, a frame comprising upper and lower longitudinal members, traction wheels and an axle therefor journaled in said frame and supporting the same from the upper members at two points, a pair of front wheels and an axle connected therewith supporting said frame at a single point in the plane of the lower members, said axle being connected with the frame so as to have freedom for oscillation in a vertical plane, and means relatively movable with respect to the lower frame members and connected therewith and with the ends of the front axle to restrain said front axle from oscillation in a horizontal plane.

2. In a traction engine, a double deck frame, traction wheels and an axle therefor journaled in and supporting said frame at two points of the upper deck, a standard depending from the front end of the upper deck, a reach bar connected with said standard, a pair of steering wheels and an axle therefor connected therewith supporting said frame at a single point adjacent the junction of said standard and reach, said axle being connected so as to have freedom for oscillation in a vertical plane, a steering rod extending along said reach bar and through the center of oscillation of the front axle, and rods connected to and extending rearwardly in the plane of said front axle and having pivotal connection with the steering rod for restraining horizontal oscillation of the axle.

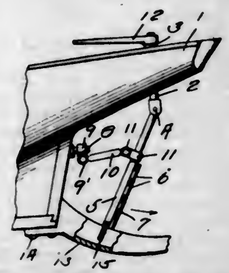
3. In a traction engine, a double deck frame, traction wheels and an axle therefor journaled in and supporting said frame at two points in the plane of the upper deck, a pair of steering wheels and an axle connected therewith supporting said frame at a single point in the plane of the lower deck, said axle being connected to the frame so as to have freedom for oscillation in a vertical plane, a steering rod journaled in said lower deck of the frame, and arms pivotally connected with said rod and with the front axle near each end thereof, respectively.

4. In a traction engine, a frame, traction wheels and an axle therefor journaled in and supporting said frame at two points, a pair of steering wheels and an axle connected therewith supporting said frame at a single point, said axle being connected to the frame so as to have freedom for oscillation in a vertical plane, a rod horizontally mounted in the plane of said point of connection, and arms pivotally connected with said rod and with the front axle near each end thereof, respectively.

5. In a traction engine, a double deck frame, traction wheels and an axle therefor journaled in and supporting said frame at two points in the plane of the upper deck, a pair of steering wheels and an axle connected therewith supporting said frame at a single point in the plane of the lower deck, said axle being connected to the frame so as to have freedom for oscillation in a vertical plane, a steering rod journaled in said lower deck of the frame and extending freely through the center of said front axle, a wing-piece rotatably mounted on said rod but restrained from movement therealong, and arms pivotally connected with said wing-piece and with the said axle near each end thereof, respectively.

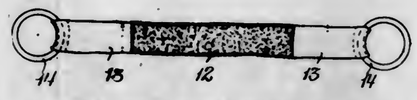
[Claims 6 to 8 not printed in the Gazette.]

1,208,063. COMBINED PROPELLER AND RUDDER FOR BOATS. ELMER E. WHITE, Tillamook, Oreg. Filed May 18, 1915. Serial No. 28,934. (Cl. 115—29.)



A boat having a rudder post, a skeg projecting rearwardly from the stern of said boat and having a groove in its upper face, a rod pivotally connected to the lower end of said rudder post and having a lower end moving in the groove of the skeg, said rod having a frame formed intermediate its upper and lower ends, a plurality of paddles hinged to said frame, a reciprocating power rod, said power rod extending through the stern of said boat, a link, and ball and socket connections between the link and said rods.

1,208,064. CLEANING DEVICE. LYMAN J. WILBER, Brockton, Mass. Filed July 26, 1916. Serial No. 111,532. (Cl. 128—16.)



1. A cleaning device having portions arranged to encircle a part of a hand of the user and having a friction face of unvulcanized crape rubber.

2. A cleaning device comprising a strip of unvulcanized crape rubber having attached thereto means for engagement by the hand of a user.

3. A cleaning device comprising a strip of unvulcanized crape rubber having attached thereto oppositely disposed means for engagement by the hands of a user.

4. A cleaning device an end of which is formed to receive one or more digits of a hand, said device being provided between its ends with a friction face of unvulcanized crape rubber.

5. A cleaning device comprising a strip of fibrous material provided between its ends with a friction face of unvulcanized pale crape rubber.

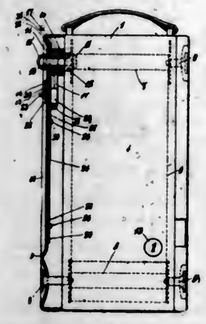
[Claims 6 and 7 not printed in the Gazette.]

1,208,065. REGISTERING WIRE-STRETCHER. GREEN B. WILLIAMS, Long Lane, Mo. Filed June 1, 1916. Serial No. 101,101. (Cl. 73—15.)



In a wire stretcher, the combination with a tubular casing, of a winding drum mounted adjacent one end thereof and within the same, a flexible attaching member secured to and windable on said drum, means for preventing the rotation of the drum in one direction, a bar extending transversely of the casing, a spring connected to the bar and a wire engaging member associated with the spring, the said spring having a pointer on one end thereof and the casing having a series of numbers thereon which coöperate with the pointer to indicate the force applied to the spring.

1,208,066. CAMERA. HARNEY I. WILLIAMS, Cincinnati, Ohio. Filed May 6, 1915. Serial No. 26,347. (Cl. 242—71.)



1. In a camera, in combination with a film and normally varyingly-acting shifting means acting directly on said film for shifting it, means immediate and automatically adjustable to said shifting means for intermittently operating said shifting means to successively shift said film, and variably-stopped manipulating means, directly connected to said immediate means, whereby repeated movement of said manipulating means repeatedly operates said shifting means to shift said film to an equal extent at each successive operation.

2. In a camera, in combination with a film and normally varyingly-acting rotatable shifting means acting directly on said film for shifting it, means coaxial with and automatically adjustable to said shifting means for intermittently rotating said shifting means to successively shift said film, and variably-stopped manipulating means, directly connected to said coaxial means, whereby repeated movement of said manipulating means repeatedly rotates said shifting means to shift said film to an equal extent at each successive rotation.

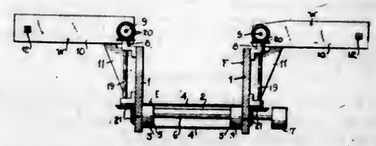
3. In a camera, in combination with a film and normally varyingly-acting rotatable shifting means acting directly on said film for shifting it, means coaxial with and automatically adjustable to said shifting means for intermittently rotating said shifting means to successively shift said film, variably-stopped manipulating means, and flexible operative connection from this means direct to said coaxial means, whereby repeated movement of said manipulating means repeatedly rotates said shifting means to shift said film to an equal extent at each successive rotation.

4. In a camera, in combination with a film and normally varyingly-acting rotatable shifting means acting directly on said film for shifting it, means coaxial with and automatically adjustable to said shifting means for intermittently rotating said shifting means to successively shift said film, variably-stopped manipulating means movable in a single general direction, and flexible operative connection from this means direct to said coaxial means, whereby repeated movement of said manipulating means repeatedly rotates said shifting means to shift said film to an equal extent at each successive operation.

5. In a camera, in combination with a film and normally varyingly-acting shifting means for successively shifting said film, guided manipulating means for said shifting means, and modifying means, guided substantially in the direction of guiding of the manipulating means, to successively vary the degree of operation of said shifting means, to shift said film to an equal extent at each successive operation.

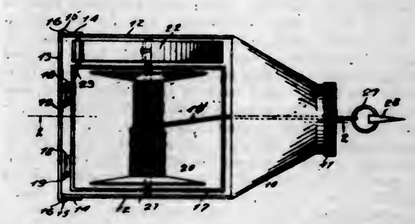
[Claims 6 to 29 not printed in the Gazette.]

1,208,067. FEEDING DEVICE. JOHN W. WILLIAMS, Cozad, Nebr. Filed Apr. 1, 1916. Serial No. 88,353. (Cl. 193—14.)



The combination with a feeding member including side boards, an endless conveyer movable between said side boards, and a driving shaft for said conveyer; of posts secured to each of the side boards and extending thereabove, shafts rotatably supported by the extended portions of the posts and operatively engaged with the drive shaft of the endless conveyer, a laterally disposed wing pivotally engaged with each of said last named shafts, each of said wings including an endless conveyer movable toward the feeding member and operatively engaged with the shaft of the adjacent side board of the feeding member, and outwardly disposed stops carried by the sides of the feeding member and coacting with the wings for preventing the outward movement of the wings extending beyond substantially the horizontal, said wings when in substantially a horizontal position occupying a horizontal plane above the horizontal plane of the side boards of the feeding member.

1,208,068. CHALK-LINE REEL. MILTON D. WINCHELL, Fleischmanns, N. Y. Filed Nov. 1, 1915. Serial No. 59,103. (Cl. 33—87.)



1. A device of the character described comprising an outer frame forming a chalk receptacle, side walls extending from said receptacle and having their free end portions provided with lugs, a rear wall provided with side flanges extending along the outer faces of said side walls and provided with pockets to receive the lugs and releasably hold the rear wall in engagement with the side walls, an inner frame positioned within the outer frame, an axle passing through said inner frame and journaled in the outer frame, a drum carried by said axle within said inner frame, a line wound upon said drum and extending through said receptacle, means for rotating said axle for winding the line upon the drum, extensions provided upon said inner frame, and pins extending from said rear wall and engaging said extensions to hold said inner frame against rotation.

2. A device of the character described comprising an outer frame forming a chalk receptacle, an inner frame positioned within said outer frame, an axle extending through said inner frame and journaled in said outer frame, a drum mounted upon said axle within said inner

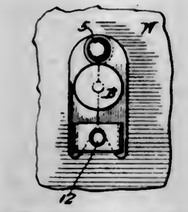
frame, means for rotating said axle for winding a line upon said drum, extensions formed upon said inner frame, and means extending from said outer frame for engaging said extensions to hold the inner frame against rotation.

1,208,069. DRY SHAMPOO COMPOSITION. JOHN J. WITTWER, Sr., Seattle, Wash. Filed Apr. 19, 1915. Serial No. 22,274. (Cl. 87—5.)

1. The herein-described composition, consisting of the perisperm of wheat, and powdered soapstone.

2. The herein-described composition, consisting in the perisperm of wheat, ninety-five per cent., and powdered soapstone, five per cent.

1,208,070. MOTOR-VEHICLE-LOCKING DEVICE. ERNEST L. WOODS, Farmer, S. D. Filed June 12, 1916. Serial No. 103,289. (Cl. 70—90.)

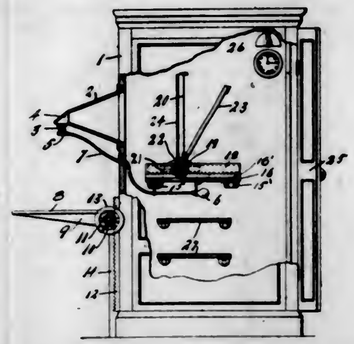


A locking device of the class described comprising a two-part clamp composed of a pair of substantially rectangular pivotally connected plates arranged edge to edge with said edges abutting when the plates are closed, each plate having a laterally extending semi-circular apertured ear at one end on its abutting edge, said ears being arranged in lapping relation, the opposed faces of the plates adjacent said ears being chamfered to form semi-circular seats, the bottom of the seat of each plate being flush with the inner face of its ear and of a depth corresponding to the thickness of the ear on the other plate and adapted to receive said ear when the plates are assembled whereby both faces of one plate will be flush with the corresponding faces of the other, a transverse pivot connecting said ears, the free ends of said plates having their opposed edges diverging outwardly from a point spaced from their terminals to form a space between them when closed, said abutting plate edges being provided with registering recesses between their pivotally connected and free ends, and L-shaped keeper members, one secured at the free end of one arm to one plate and the other to the other plate, said members having their free arms extending toward each other and overlapping when the plates are closed, said overlapping arms having registering apertures to receive the shackle of a pad lock, said apertured arms being arranged over the space formed between the diverging ends of the plates to provide for the reception of the pad lock shackle.

1,208,071. PHOTOGRAPHIC APPARATUS. ALEXANDER H. WYNKOOP, Washington, D. C., assignor to Photo-Reproducer Company, Newark, N. J., a Corporation of Delaware. Filed Mar. 11, 1916. Serial No. 83,630. (Cl. 88—24.)

1. A photographing apparatus, comprising in combination, a cabinet constituting a dark-room, a lens and shutter mechanism arranged in the front of the cabinet, a table carried by the front of said cabinet and adjustable toward and from said lens, a prism for bending light rays from said table into said lens, a support for a light sensitive medium movable along the path of light within said cabinet, and a means operative within said cabinet for opening and closing said shutter mechanism.

2. A photographing apparatus, comprising in combination, a cabinet constituting a dark-room, a lens and shutter mechanism arranged in the front wall of said cabinet, a table vertically adjustable along the front of said cabinet, a prism interposed between the lens and said table to direct light from the latter into said lens, a support for a light sensitive medium mounted within said cabinet and adjustable toward and from said lens in the path of the light therefrom, and a means operative within said cabinet for opening and closing said shutter mechanism.



3. A photographing apparatus, comprising in combination, a cabinet, a lens and shutter mechanism arranged in the front wall of said cabinet, a table projecting from the front wall of the cabinet, a prism interposed between said table and said lens to direct light from the table into the latter, means for adjusting said table toward and from said prism, a printing frame mounted in said cabinet transversely to the path of the light inside the latter means for adjusting said frame toward and from the lens, and means for actuating said shutter mechanism from a point within said cabinet.

4. A photographing apparatus, comprising in combination, a dark-room cabinet having standing-room for an operator, a lens and shutter mechanism fixed in the front wall of the cabinet, a prism associated with said lens to direct rays into said lens, an exterior support carried by the cabinet, an interior support for a light sensitive medium, said supports being located in the path of the light rays from said lens, and means for adjusting the positions of said supports relative to the lens to vary the size of the image thrown on the interior support and to focus the lens.

1,208,072. AUTOMATIC SPRINKLER. CHARLES C. ABBOTT, Pittsfield, Mass., assignor to Robbins, Gamwell and Company, Pittsfield, Mass., a Copartnership. Filed June 22, 1916. Serial No. 105,281. (Cl. 169—5.)



1. In an automatic sprinkler, the combination with a yoke having a set screw, a hub, a cap for closing the opening in the hub having a concave depression in its outer face and a compression plate having a corresponding convex face, of a compression member having a resilient lip engaged by the set screw, and flanges having upper and lower notches, a brace engaging said member and the compression plate, and a two-part locking and releasing member, one of said parts having lugs engaging the upper notches and an angle plate, and the other part having lugs engaging the lower notches and an angle plate registering with the other angle plate, said parts being secured together by low-melting solder.

2. In an automatic sprinkler, the combination with a yoke having a set screw, a hub, a cap for closing the opening in the hub having a concave depression in its outer face and a compression plate having a corresponding convex face, of a compression member having a resilient lip engaged by the set screw, and flanges having upper and lower notches, a brace engaging said member and the compression plate, and a locking and releasing member comprising upper and lower parts, said upper part having lugs engaging the upper notches and an angle plate with an opening, and the lower part straddling the brace and having lugs engaging the lower notches and an angle plate with an opening smaller than the first mentioned opening, said parts being secured together by low-melting solder which also fills the openings.

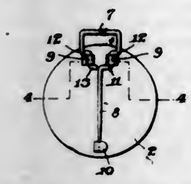
3. In an automatic sprinkler of the character described, cap-retaining means comprising a compression member having a resilient lip and flanges with upper and lower notches, a brace engaging said member back of the lip, and a two-part locking and releasing member, the upper part having lugs engaging the upper notches and an angle plate, and the lower part straddling the brace and having lugs engaging the lower notches and an angle plate lying under the first mentioned angle plate, said angle plates being provided with openings to receive low-melting solder and the portions of said parts above the angle plates being secured together by low-melting solder.

4. A locking and releasing member for automatic sprinklers comprising an upper part having at its lower end an angle plate with an opening, and a lower part having at its lower end an angle plate lying below the first mentioned angle plate and having a smaller opening, said parts being secured together by low-melting solder which also fills the openings in the angle plates.

5. A locking and releasing member for automatic sprinklers comprising an upper part having at its upper end lugs and at its lower end an angle plate with an opening, and a lower part having at its lower end an angle plate with an opening and lugs, said parts being secured together by low-melting solder which also fills the openings in the angle plates.

[Claims 6 and 7 not printed in the Gazette.]

1,208,073. PIN-FASTENER FOR TAGS AND OTHER ARTICLES. JULIUS ABRAHAMS, Philadelphia, Pa. Filed June 2, 1916. Serial No. 101,229. (Cl. 24—161.)



1. In a device of the character described, a body portion having a securing tongue, and a part formed of a single piece of wire and embraced by said tongue and secured thereby to the body portion and comprising a retaining pin extending downwardly from said tongue and a loop extending upwardly from said tongue to a position over said tongue and being adapted to be bent down to embrace said tongue.

2. In a device of the character described, a body portion having a securing tongue struck from the body thereof, and a part formed of a single piece of wire and embraced by said tongue and secured thereby to the body portion and comprising a retaining pin extending downwardly from said tongue and a loop extending upwardly from said tongue, said part having a shoulder formed thereon engaging said tongue and preventing downward displacement of said part, and said part having a shoulder formed thereon engaging said tongue and preventing upward displacement of said part.

3. In a device of the character described, a body portion having securing projections on the back thereof, and a single piece of wire having its lower portion forming a retaining pin and extending from said pin to form a shoulder engaging the bottom of one of said projections, then extending upwardly through one of said projections, then extending above said projections and forming a loop and shoulders engaging the top of said projections, and then extending down through one of said projections and forming a shoulder engaging the last named projection.

1,208,074. ELECTRICAL CONNECTING DEVICE. FREDERICK G. ALLEN, Erie, Pa. Filed Nov. 3, 1915. Serial No. 59,358. (Cl. 178—84.)



1. In an electrical connecting device, a plug adapted to be inserted into a socket and comprising a core, and an expansible shell surrounding said core, said core and shell having parts which operate by relative rotation of the core and shell to expand the shell into holding engagement with the socket.

2. In an electrical connecting device, a plug adapted to be inserted into a socket and comprising a core, and an expansible shell surrounding said core and having parts adapted to engage parts in the socket for retaining the plug in the socket, said core having eccentric faces adapted by turning the core relatively to the shell to expand the shell into holding engagement with the socket.

3. The combination with a socket, of a plug adapted to be inserted into the socket and comprising a core, an expansible shell surrounding said core, and parts on said shell and core which operate by relative rotation of the core and shell to expand the shell into holding engagement with the socket.

4. A plug for socket and plug electrical connectors comprising a core, a screw-threaded expansible shell surrounding said core and adapted to enter said socket endwise when contracted and to yieldingly engage with screw-threads in the socket, and parts on said shell and core which operate by relative rotation of the core and shell to expand the shell into holding engagement with said socket.

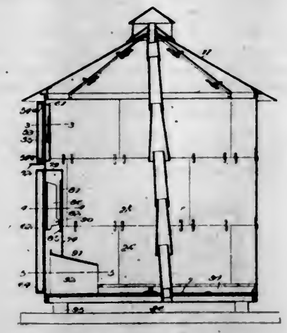
5. The combination with a socket having an internally screwthreaded part, of a plug adapted to be inserted into said socket and comprising a core, and an expansible screw-threaded shell surrounding said core and adapted to enter said screwthreaded socket endwise when contracted, said core and shell having parts which operate by relative rotation of the core and shell to expand the shell for causing the threads of the shell and socket to be pressed into holding engagement.

[Claims 6 to 25 not printed in the Gazette.]

1,208,075. DOOR STRUCTURE FOR METALLIC STORAGE-BINS. JOHN E. ALLSTEADT, Hastings, Nebr. Original application filed Jan. 28, 1914, Serial No. 814,959. Divided and this application filed July 17, 1914. Serial No. 851,621. (Cl. 193—33.)

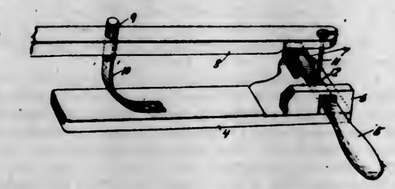
1. A storage bin having an opening in one of its walls, a strip attached to the bin beneath said opening with the upper portion thereof flaring upwardly and outwardly and spaced at its upper edge from said opening and above the lower line of the same, a closure for the opening seat-

ing when closed upon the flaring portion of the strip, and a chute mounted to swing from said bin and with its inner edge extended to engage when open beneath the flaring portion of the strip, said strip coacting with the closure to retard the flow of the material and enable the discharge to be controlled.



2. A storage bin having an opening in one of its walls, a strip attached to the bin beneath the opening with its upper portion flaring upwardly and outwardly and spaced at its upper edge from said opening and above the lower line of the same, a closure for the opening seating when closed upon the flaring portion of the strip, brackets extending from the wall of said bin above the upper line of the strip and in advance of the same, and a chute having vertical sides and pivoted by said vertical sides to said brackets, the inner edge of said chute being extended to engage when open beneath the flaring portion of the strip, the strip and the closure coacting to retard the flow of the material to control the discharge of the same from the bin.

1,208,076. PEDAL FOR MUSICAL INSTRUMENTS. JOHN AMMON, New York, N. Y., assignor to Henry Christman, New York, N. Y. Filed Dec. 9, 1912. Serial No. 735,729. (Cl. 84—24.)



In combination with the pedal of a musical instrument, a pivotal support for the back of said pedal, a bar attached at one end to and between the front and back of said pedal, a flat resilient bar secured at one end to said instrument, and provided at the other end with a dowel, and said dowel secured within a hole through said first mentioned bar.

1,208,077. VIOLIN. FRANK M. ASHLEY, New York, N. Y., assignor to Cadwell Company, a Corporation of New Jersey, trustee. Filed June 17, 1914. Serial No. 845,587. (Cl. 84—44.)



1. A violin comprising a sound box having a belly formed with sound holes, a back, and walls spacing the belly and back entirely around the box, said walls being of gradually increasing depth approaching the middle of the sound box, said belly arching in accordance with the slope of the walls.

2. A violin comprising a sound box having a belly formed with sound holes, a back, side walls, and end walls spacing the belly and back entirely around the box, said end walls being of gradually increasing depth approaching the middle of the sound box, the belly arching according to the arch of the end walls.

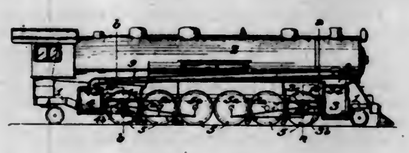
3. A violin comprising a sound box having a belly with sound holes therein, the fibers in the belly running continuous throughout the length thereof except where cut by the sound holes, and walls spacing the belly and back entirely around the box, said walls being of gradually increasing depth approaching the middle of the sound box, said belly arching in accordance with the slope of the walls.

4. A violin comprising a sound box having a belly, a back, and walls spacing the belly and back entirely around the box, said walls increasing in depth toward the middle of the sound box, both said belly and back arching convexly in accordance with the slope of the walls.

5. A violin comprising a sound box having a belly, a back, side walls, and end walls, spacing the belly and back entirely around the box, said end walls being formed with convexly curved edges at the top and bottom thereof, the belly and back arching according to the curvature of the end walls.

[Claims 6 to 12 not printed in the Gazette.]

1,208,078. LOCOMOTIVE-ENGINE. HERMAN F. BALL, Bronxville, N. Y., and HAL R. STAFFORD, Plainfield, N. J. Filed Aug. 29, 1916. Serial No. 117,397. (Cl. 105—17.)



1. In a locomotive engine, the combination of a frame; a boiler supported thereon and connected thereto without capacity of relative lateral movement; a plurality of driving axles mounted therein, each carrying a pair of driving wheels; lateral motion driving boxes in which the front and rear driving axles are journaled; a pair of front steam cylinders having their pistons coupled to a driving axle in rear of the front one; and a pair of rear steam cylinders having their pistons coupled to a driving axle in front of the rear one.

2. In a locomotive engine, the combination of a frame; a boiler supported thereon and connected thereto without capacity of relative lateral movement; a plurality of driving axles mounted therein, each carrying a pair of driving wheels; coupling rods connecting said axles into a forward and a rear group; lateral motion driving boxes in which the front and rear driving axles are journaled; a pair of steam cylinders having their pistons coupled to an axle of the forward group; and a pair of steam cylinders having their pistons coupled to an axle of the rear group.

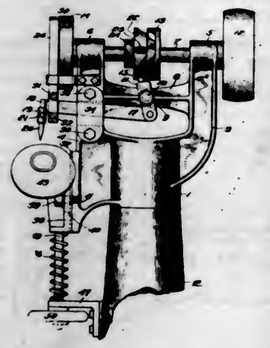
3. In a locomotive engine, the combination of a frame; a boiler supported thereon and connected thereto without capacity of relative lateral movement; a plurality of driving axles mounted therein, each carrying a pair of driving wheels; lateral motion driving boxes in which the front and rear driving axes are journaled; a pair of high pressure steam cylinders having their pistons coupled to a driving axle which is not journaled in lateral motion driving boxes; and a pair of low pressure cylinders having their pistons coupled to another driving axle which is not journaled in lateral motion driving boxes.

4. In a locomotive engine, the combination of a frame; a boiler supported thereon and connected thereto without capacity of relative lateral movement; a forward and a rear group of coupled driving axles, each axle being mounted in the frame and carrying a pair of driving wheels; lateral motion driving boxes in which the front axle of the forward group and the rear axle of the rear group are journaled; a pair of steam cylinders having their pistons coupled to an axle of the forward group; and a pair of steam cylinders having their pistons coupled to an axle of the rear group.

5. In a locomotive engine, the combination of a frame; a boiler supported thereon and connected thereto without capacity of relative lateral movement; a forward and a rear group of coupled driving axles, each axle being mounted in the frame and carrying a pair of driving wheels; lateral motion driving boxes in which the front axle of the forward group and the rear axle of the rear group are journaled; a pair of steam cylinders secured to the frame, in front of the forward group, and having their pistons coupled to an axle of said group; and a pair of steam cylinders secured to the frame, in rear of said group, and having their pistons coupled to an axle thereof.

[Claim 6 not printed in the Gazette.]

1,208,079. STITCH-SEPARATING MACHINE. GEORGE BASLER, Lynn, Mass., assignor to Basler Machinery Company, Lynn, Mass., a Corporation of Maine. Filed Aug. 14, 1913. Serial No. 784,722. (Cl. 12—41.)

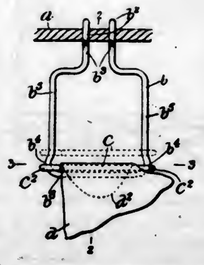


1. In a stitch separating machine, a combined indenting and feeding tool, means to impart feeding action to said tool and to raise and lower it upon the work, comprising a movable carrier and mechanism to move said carrier to effect the feeding movement of the tool, and a vertically movable lever having a recess therein in which said carrier rests to raise and lower said carrier and tool from and toward the work.

2. In a stitch separating machine, a combined indenting and feeding tool, means to impart feeding action to said tool and to raise and lower it upon the work, comprising a movable carrier and mechanism to move said carrier to effect the feeding movement of the tool, a vertically movable lever having a slot therein through which the carrier passes loosely, and means connecting said lever with the carrier in said slot to raise and lower said tool from and toward the work, said connection between the carrier and lever permitting a variation in feeding movement to the tool by said carrier.

3. In a stitch separating machine, a combined indenting and feeding tool, means to impart feeding action to said tool, comprising a horizontally movable carrier, a pivoted lever to actuate said carrier, and a cam to oscillate said lever, in combination with means to impart indenting action to said tool, comprising a pivoted arm through which said carrier projects, a cam to actuate said arm, and means permitting said arm to impart vertical movement to the tool carrier, irrespective of the lateral swing of said arm.

1,208,080. CLOTHES-LINE ATTACHMENT. ANDREW F. BELL, Stapleton, N. Y., assignor of one-sixth to Ernest C. Heidler, Stapleton, N. Y. Filed Apr. 24, 1916. Serial No. 93,095. (Cl. 68—3.)

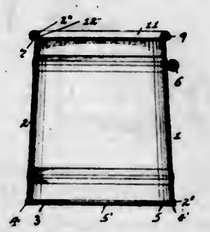


1. An article of the class described, comprising a link-shaped body portion open at one end and provided with projecting members by means of which said article may be suspended from a line, the side portions of the article being provided adjacent to the closed end thereof with outwardly curved parts, and a transverse slide device mounted on the side portions of the attachment and movable longitudinally thereof.

2. A clothesline attachment, comprising a link-shaped body portion open at one end and provided with projecting members whereby it may be slidably suspended from the line, the side portions of the device being provided adjacent to the closed end thereof with outwardly curved parts, and a transverse slide device mounted on the side portions of the attachment and movable longitudinally thereof.

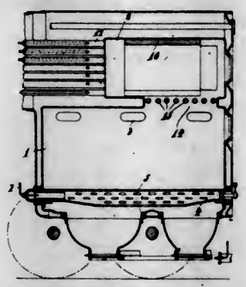
3. A line attachment of the class described comprising a link-shaped body portion adapted at one end to be slidably suspended from the line, and the sides of which are provided adjacent to the opposite end with outwardly curved portions, and a transverse slide device mounted on said sides and operating in connection with said outwardly curved portions and the adjacent end of the body portion to hold articles in connection with said attachments.

1,208,081. SHEET-METAL CAN. GEORGE EDGAR BENNETT, Brooklyn, N. Y., assignor to Pittsburgh Can Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 26, 1915. Serial No. 63,408. (Cl. 220—34.)



A sheet metal can comprising a body portion having an open top and a closed bottom, said bottom having a downwardly extending peripheral flange, and a cover having a peripheral flange surrounding the open top of said body portion, said body portion having an upward and inward taper, and the outer diameter of said cover being substantially equal to the inner diameter of said first-named flange.

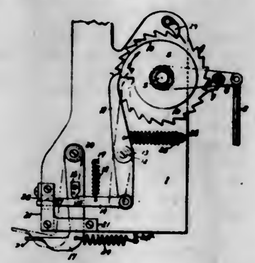
1,208,082. STEAM-BOILER. CARL KNUT EDVARD BILDT, Norrviken, Sweden, assignor to Clas Gabriel Timm, Engelsberg, Sweden, and Hjalmar Johan Daniel Braune, Stockholm, Sweden. Filed Sept. 12, 1914. Serial No. 861,429. (Cl. 122—5.)



1. In a steam boiler of the locomotive or like type, a shell forming a gas producer and a gas combustion chamber, a constricted passage connecting said producer and combustion chamber, the walls of said passage being in contact on all sides with the water of the boiler, and means for introducing air for combustion, said means consisting of twyers passing through the water space and projecting into said passage, said twyers being surrounded by water for substantially the whole of their length from the point where they enter the shell of the boiler.

2. In a steam boiler of the locomotive or like type, a shell forming a gas producer and a gas combustion chamber superposed thereon, said producer extending forwardly beyond the front of the combustion chamber, a constricted passage directly connecting said producer and combustion chamber, the walls of said passage being in contact on all sides with the water of the boiler, and means, for introducing air for combustion, consisting of twyers passing through the water space and projecting into said passage, said twyers being surrounded by water for substantially the whole of their length from the point where they enter the shell of the boiler.

1,208,083. COUNTING DEVICE. WILLIAM BODGE, Nutley, N. J., and JOHN B. WEISMILLER, New York, N. Y. Filed May 4, 1916. Serial No. 95,383. (Cl. 93—93.)



1. In a counting device, a thrust-bar, resilient means normally retracting said thrust-bar, resilient means normally adapted to project said thrust-bar in opposition to said retracting means, means controlling the action of said resilient projecting means, means for periodically tripping said controlling means and projecting said thrust-bar, and means for tripping said projecting means to permit the retraction of said thrust-bar.

2. In a counting device, a thrust-bar, resilient means normally retracting said thrust-bar, a trip-rod engaging said thrust-bar, resilient means engaging said trip-rod and normally adapted to project said thrust-bar in opposition to said retracting means, a trip-cam controling the action of said trip-rod, means for tripping said trip-cam to permit the action of said trip-rod, and means for tripping said trip-rod to permit the retraction of said thrust-bar.

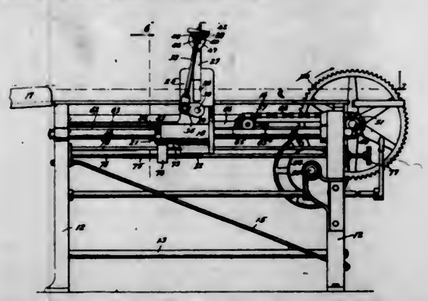
3. The combination with a conveyer arranged for delivering articles in spaced relation with each other, of a counting device therefor comprising a thrust-bar, resilient means for retracting said thrust-bar, resilient means for projecting said thrust-bar in opposition to said retracting means for engaging and displacing one of the articles in each predetermined number thereof during delivery, and means for tripping said projecting means to permit the retraction of said thrust-bar.

4. The combination with a conveyer arranged for delivering articles in spaced relation with each other, of a counting device therefor comprising a thrust-bar, resilient means for retracting said thrust-bar, resilient means for projecting said thrust-bar in opposition to said retracting means for engaging and displacing one of the articles in each predetermined number thereof during delivery, a trip-cam controlling the action of said projecting means, means for tripping said trip-cam at the delivery of each predetermined number of articles, and means for tripping said projecting means to permit the retraction of said thrust-bar.

5. In a counting device, the combination with a support, of a thrust-bar mounted on said support, resilient means normally retracting said thrust-bar, a trip-rod engaging said thrust-bar, resilient means carried by said support and acting through said trip-rod to project said thrust-bar to opposition to said resilient retracting means, and means for tripping said trip-rod to permit the retraction of said thrust-bar.

[Claims 6 to 12 not printed in the Gazette.]

1,208,084. FEEDING MECHANISM. HENRY BOSCH, Chicago, Ill., assignor to Henry Bosch Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 31, 1914. Serial No. 869,566. (Cl. 101—36.)



1. In sheet-feeding mechanism, the combination of a reciprocable carriage, guide means on said carriage extending at right angles to the plane of movement of said carriage, a clamping member on said carriage and engaging said guide-means and movable up and down thereon and in parallelism with said carriage and in a path at a right angle to the path of movement of the carriage, for clamping sheets between it and said carriage, a rock-member connected with said carriage, means operated by said rock-member for actuating said clamping member, and means connected with said rock-member for rocking it to move said clamping member to clamping position and actuating the carriage, operating during a portion of their movement to move said clamping member into clamping engagement with the sheet without moving said carriage and thereafter, by the clamping action produced, move said carriage and with it the sheet.

2. In sheet-feeding mechanism, the combination of a reciprocable carriage, a clamping member on said carriage and movable up and down thereon, and in parallelism therewith, and in a path at a right angle to the path of movement of the carriage, for clamping sheets between it and said carriage, a rock-member connected with said carriage, means operated by said rock-member for actuating said clamping member, and means connected with said rock-member for rocking it to move said clamping member to clamping position and actuating the carriage, operating during a portion of their movement to move said clamping member into clamping engagement with the sheet without moving said carriage and thereafter, by the clamping action produced, move said carriage and with it the sheet, said last named means being adjustable for varying the length of feed.

3. In sheet-feeding mechanism, the combination of a reciprocable carriage, a clamping member on said carriage movable relative to said carriage and adapted to clamp sheets between it and said carriage, a rock-member connected with the carriage, means operated by said rock-member for actuating said clamping member, means connected with said rock-member for rocking it to move said clamping member to clamping position and operating thereafter to advance said carriage, and means for preventing rocking of said rock-member under the action of said second-named means, until said carriage has moved a predetermined distance.

4. In sheet-feeding mechanism, the combination of a reciprocable carriage, a clamping member on said carriage movable relative to said carriage and adapted to clamp sheets between it and said carriage, a rock-member connected with the carriage, means operated by said rock-member for actuating said clamping member, means connected with said rock-member for rocking it to move said clamping member to clamping position and operating thereafter to advance said carriage, and adjustable means for preventing rocking of said rock-member under the action of said second-named means until said carriage has moved a predetermined distance.

5. In sheet-feeding mechanism, the combination of a reciprocable carriage, a movable clamping member on said carriage for clamping sheets between it and said carriage only by pressure exerted by said clamp, a rock-member on said carriage, means connected with said rock-member and with said clamping member for actuating the latter, a traveling member, and a member connecting said traveling member with said rock-member, for the purpose set forth.

[Claims 6 to 36 not printed in the Gazette.]

1,208,085. THREAD-GUIDE. HARRY BRANLEY, Honesdale, Pa. Filed Apr. 17, 1916. Serial No. 91,784. (Cl. 66—17.)



1. A device of the class described comprising a finger band, a body member carried thereon, thread guides on said body member and a spring tension member for the thread also carried by said body member.

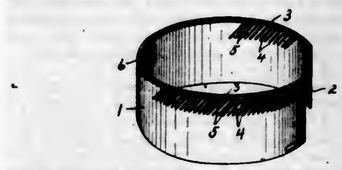
2. A device of the class described comprising a perforated finger band, a body member swiveled thereon, and spring tension means carried by said body member.

3. A device of the class described comprising a finger encircling band, thread guides carried by said band and a spring arm carried by said band for guiding and tensioning the thread.

1,208,086. COLLAR-IRONING MACHINE. PHILIP NATHANIEL BRAUN, Syracuse, N. Y., assignor to National Chemical Company, Syracuse, N. Y., a Corporation of New York. Filed June 8, 1914. Serial No. 843,716. (Cl. 68—9.)

1. In a collar ironing machine, a circular collar supporting plate having portions thereof near one edge slotted diagonally to form resilient arms.

2. In a collar ironing machine, a circular collar supporting plate having diagonally disposed spring arms.



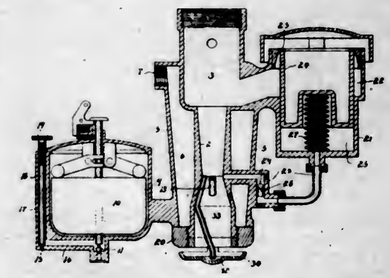
3. In a collar-ironing machine, a circular collar support having a series of yielding members arranged side by side about its axis, and means integral with said members for holding them in concentric relation to said axis.

4. In a collar-ironing machine, a circular collar support having a portion thereof composed of series of vertically yieldable fingers, and an integral coping member covering the upper ends of said fingers.

5. In a collar ironing machine, a substantially circular collar support having a portion thereof composed of a series of diagonally disposed fingers.

[Claim 6 not printed in the Gazette.]

1,208,087. CARBURETER. ARTHUR BENJ. BROWNE, Branford, Conn. Filed Aug. 21, 1912. Serial No. 716,150. (Cl. 261—41.)



1 In a carbureter, the combination with an air chamber, of a spring controlled air inlet valve consisting of a cup-shaped cylinder located within said chamber, in position to have its outer edge co-act with the walls of said chamber, which are so formed that the area of the opening produced by the travel of said valve varies in less than direct proportion to the travel of said valve.

2. In a carbureter, the combination with an air chamber, of a valve seat detachably inserted into said chamber, and a spring controlled cup-shaped valve located within said chamber in positon to co-act with the walls of the valve seat which are so formed that the area of opening produced by the travel of said valve, varies in less than direct proportion to the travel of said valve.

3. In a carbureter, the combination with an air chamber, of a valve seat detachably inserted into said chamber, and a spring controlled cup-shaped valve located within said chamber, in position to have its outer edge co-act with the walls of said valve seat, which are so formed that the area of the opening produced by the travel of said valve, varies in less than direct proportion to the travel of said valve.

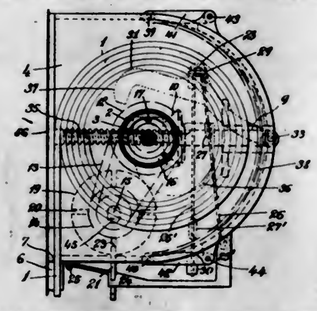
4. In a carbureter, the combination with the primary air-inlet thereof, of a combined auxiliary air-chamber and a vacuum chamber located in line with each other, a valve-seat located in the auxiliary air-chamber, an imperforate cylindrical valve extended at one end into the said air-chamber for co-action with the valve-seat and having its opposite end extended into the said vacuum chamber, a spring to normally close the said valve, and connection between the vacuum-chamber and the main

air-inlet of the carbureter, whereby a vacuum is created in the vacuum chamber for in part neutralizing the effect of the spring and permitting the valve to open, the said valve-seat being shaped so that the area of the opening produced by the movement of the valve in the said combined chambers will be less than a direct proportion to the movement of the valve.

5. In a carbureter, the combination with the mixing chamber thereof, of a vacuum chamber, a supplemental air-valve located in the said vacuum-chamber, and an air-passage between the bottom of the vacuum-chamber and the said mixing-chamber, the said passage being of such a restricted area that sudden variations of pressure in the mixing-chamber are negligible in their effect upon the pressure in the vacuum-chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,208,088. FIRE-SHUTTER. DANIEL B. BRYAN, Lexington, Ky., and HAROLD F. BLANCHARD, New York, N. Y.; Mary B. Bryan administratrix of said Daniel B. Bryan, deceased; said Blanchard and said administratrix assignors to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Aug. 26, 1911. Serial No. 646,083. (Cl. 189—58.)



1. In a fire shutter, the combination with a roller-shutter, of a rotatable drum upon which the said shutter is adapted to be wound, counter-balance means for the shutter, means for rendering the counter-balance means ineffective, and thus permitting the shutter to fall, means for retarding the fall of the shutter, operable only when said counterbalance means has been rendered ineffective, and means for maintaining the shutter constantly parallel to the opening to be protected in the wall during its fall, substantially as described.

2. In a fire shutter, the combination with a roller-shutter, of rotatable shutter-carrying means, means for normally preventing the automatic descent of the shutter under the influence of gravity, friction braking means, normally in a position out of coöperative relation to said shutter-carrying means, and means for releasing said preventing means under conditons of abnormal heat, and placing said friction breaking means in position to act upon said shutter-carrying means frictionally, substantially as described.

3. In a fire shutter, the combination with a roller-shutter-carrying drum and the shutter carried thereby, of means for causing the movement of the shutter toward the opening to be protected by the shutter during the unwinding of the latter from its drum, yielding means normally resisting the unwinding of the shutter, other means for resisting descent of the shutter, normally in inoperative position, and means for simultaneously rendering said yielding means ineffective and placing said other means in operative position, substantially as described.

4. In a fire shutter, the combination with a roller shutter and a rotatable drum therefor, of a bodily movable bearing for said drum, means normally resiliently opposing movements of translation of said bearing, other resilient opposing means normally ineffective and means for releasing said bearing from the restraint of said first opposing means and causing said other opposing means to oppose movements of said bearings, substantially as described.

5. In a fire shutter, the combination with a roller-shutter and a rotatable drum therefor, of a counter-balance spring for said shutter mounted within said drum, a retarding spring outside said drum, and means operable upon the occurrence of abnormal heat for rendering said first spring ineffective to maintain said shutter in raised position and for causing said second spring to resist the descent of said shutter, substantially as described.

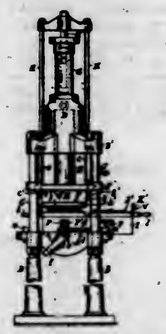
[Claims 6 to 21 not printed in the Gazette.]

1,208,089. SANITARY BOTTLE-STOPPER. ROSCOE P. BUFFINGTON, Baltimore, Md. Filed May 22, 1916. Serial No. 99,039. (Cl. 215—14.)



A bottle seal, comprising a disk provided with a pouring opening having a relatively wide pouring edge, and a combined cover and pouring lip for said disk and opening, said cover and pouring lip having a closed hinged joint formed across the same and a closed connection with said disk, both said closed hinged joint and closed connection with the disk being positioned adjacent said wide pouring edge.

1,208,090. PRESS WITH DUPLICATE MOLDS. CHARLES F. BURROUGHS, East Orange, N. J. Filed May 10, 1915. Serial No. 27,036. (Cl. 25—55.)

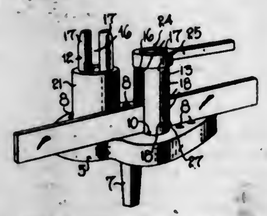


1. An upright press having a horizontal press-bed, a slide movable across the press-bed, mold-carriers mounted upon the slide near its opposite ends, an ejector fitted movably to a bore in the center of each mold-carrier, lifting means upon the mold-carrier for moving the ejector upwardly, a plunger movable to and from the press-bed and provided with a platen having a die adapted to coöperate with either of the said molds, and means attached to the press-bed near its opposite ends adapted to operate automatically upon such lifting means to raise the ejector and discharge the article from the mold, when the carrier is moved into either of its opposite positions.

2. An upright press having a horizontal press-bed, a slide movable across the press-bed, mold-carriers mounted upon the slide near its opposite ends, an ejector fitted movably to a bore in the center of each mold-carrier, the slide having a transverse slot intersecting the bore for the ejector, a cross-bar movable vertically in the slot, means upon the press-bed operating to lift the cross-bar near the ends of the slide's movement to operate the ejector at such time, and a plunger movable to and from the press-bed and provided with a platen having a die attached removably thereto and adapted to coöperate with either of the said molds when moved beneath such die.

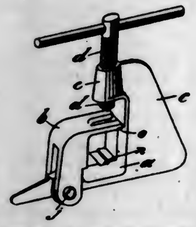
3. An upright press having a horizontal press-bed, a plunger having a platen with die carried thereby and movable to and from the press-bed, a slide movable across the press-bed, mold-carriers and molds mounted upon the slide near the ends, manual means to shift the slide with either mold beneath the die, the plunger having a lifting movement sufficient to separate the die widely from the said mold, fixed bolts extended by the side of the platen, and tubular stops fitted removably to the bolts to limit the upward movement of the platen and the resulting movement of the molds.

1,208,091. METAL-BENDING MACHINE. HERMAN BUSSEL, El Paso, Tex. Filed Mar. 27, 1916. Serial No. 87,037. (Cl. 153—40.)



In a metal bending apparatus, a base, spaced rotatable posts removably mounted upon said base, each of said posts having a longitudinal slot opening upon the upper end of the post into which a metal bar is adapted to be fitted, the other of the posts constituting a bearing for the bar, and a detachable lever adapted to be interchangeably engaged on the upper ends of said posts to rotate the post within which the bar is fitted and angularly bend the bar.

1,208,092. APPLIANCE FOR EXTRACTING OR INSERTING STUDS OF DRIVING-CHAINS. ADRIAN ETHELBERT CARTER, Manchester, England, assignor to Hans Renold, Limited, Didsbury, Manchester, England, a Corporation of Great Britain and Ireland. Filed Nov. 3, 1914. Serial No. 870,109. (Cl. 29—86.1.)



1. A chain cramp for use in extracting and inserting the studs of driving chains, comprising a thrust-pin, a fork adapted to pass between the links of a chain, a frame carrying the thrust-pin, means for movably supporting the fork on the frame and permitting it to be adjusted in position relatively to the thrust-pin, and means for operating the thrust-pin.

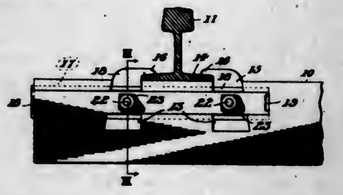
2. A chain cramp for use in extracting and inserting the studs of driving chains, comprising a thrust-pin, a frame carrying the same and means for operating the thrust-pin, a fork and means for carrying the same in a movable manner on the frame, said fork having jaws wider at one part than another, and adapted to pass between the links of a chain and to support the inner upper link-plate while the stud is being forced out of the outer upper link-plate.

3. A chain cramp for use in extracting and inserting the studs of driving chains, comprising a thrust-pin, a frame carrying the same, means for operating the thrust-pin, a stub on the frame, a boss adapted to slide thereon, a fork on said boss, said fork being wider at its outer part than at its rear part, the outer part being adapted to pass between the links of a chain when a stud is to be removed, and the rear part of the fork being adapted to support the outer link plate of a chain when a stud is to be forced thereinto, while the movements of the boss on the stub enable either part of the fork to be brought into line with the thrust pin.

4. A chain cramp for use in extracting and inserting the studs of driving chains, comprising a frame, a thrust pin carried thereon, means for operating the thrust pin, a stub, a boss adapted to slide and to turn thereon, and a plurality of forks on said boss, said forks being of different widths one from another, whereby one or other fork can be brought into position in line with the thrust pin according to the dimensions of the chain to be operated upon.

5. A chain cramp for use in extracting and inserting the studs of driving chains, comprising a thrust pin, a frame carrying the same, means for operating the thrust pin, a stub on the frame, a boss adapted to slide thereon, a fork on said boss, said fork being wider at its outer part than at its rear part, the outer part being adapted to pass between the links of a chain when a stud is to be removed, and the rear part of the fork being adapted support the outer link plate of a chain when a stud is to be forced therein, a ledge on the frame over which the end of a fork can slide when in line with the thrust pin, said ledge being adapted to assist in bearing the thrust on the fork during the extraction and removal of studs from a chain, while the sliding movement is sufficient to withdraw the fork from the ledge in order to permit of the insertion of the fork between the links of a chain.

1,208,093. RAILWAY-TIE. ANTONI CHALASIEWICS, Philadelphia, Pa. Filed June 30, 1916. Serial No. 106,813. (Cl. 238—5.)



1. A railway tie provided with transverse slots having their inner walls in parallelism spaced apart a distance equal to the base of a railway rail, the said slots being downwardly flaring and tapered in a uniform direction, wedge members closely fitted within the said slots having inwardly projecting marginal rail engaging lips, the said tie having longitudinal grooves upon its opposite sides extending inwardly from the free end of the tie, locking plates slidably retained within the said grooves and having receiving notches in their inner ends, and locking bolts transversely positioned through the said plates and the intermediately arranged wedges.

2. A tie provided with spaced transverse slots, a rail upon the said tie with its base flanges positioned between the said slots, locking flanges seated within the said slots and provided with inwardly projecting marginal lips overlying the said base flanges, the said tie having inwardly flaring side grooves opening from the free end of the tie traversing the said slots, and retaining locking plates removably secured within the said grooves and being substantially trapezoidal in cross-section.

1,208,094. BED. COLBY B. CHENAULT, Oklahoma, Okla. Filed Apr. 6, 1915. Serial No. 19,588. (Cl. 5—29.)

1. In a bed, the combination of upper and lower supporting members, the lower member being adapted to en-

gage the side rails of a bedstead and the upper member being adapted to support a bed bottom, hangers connected to the ends of the upper supporting member, equalizing levers pivotally connected at their outer ends with said hangers and fulcrumed between their ends upon the lower supporting member, a movable connection between the inner ends of said levers, spring-retainers at the ends of the upper supporting member and extending laterally from the same and said hangers and springs resting upon the lower supporting member and operatively connected at their upper ends with the said retainers.



2. In a bed, the combination of a lower supporting member, an upper supporting member, equalizing levers fulcrumed upon the lower supporting member and having their outer ends connected with the outer ends of the upper supporting member, a movable connection between the inner ends of said levers, laterally projecting spring retainers carried by the ends of the upper supporting member, and springs disposed at the sides of the supporting members having their lower ends fitted upon the lower supporting member and their upper ends secured to said retainers.

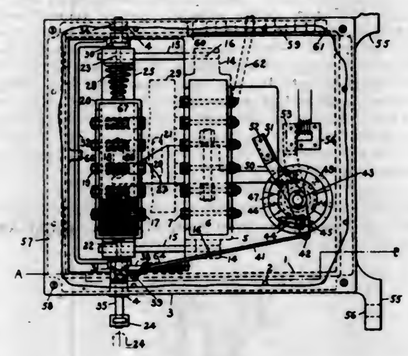
3. In a bed, the combination of spaced lower supporting bars, means connecting said bars and holding them in spaced relation, equalizing levers fulcrumed between the said bars, a link connecting the inner ends of said levers, an upper supporting bar, connections between the outer ends of the levers and the ends of said upper supporting bar, a spring retainer secured upon the end of said upper supporting bar and projecting laterally therefrom, and springs having their lower ends secured upon the lower supporting bars and their upper ends secured to the ends of said retainer.

4. In a bed, the combination of lower supporting bars provided with notches in their upper edges having overhanging walls, lateral projections on said bars, an upper supporting bar, spring retainers secured to the ends of the said upper supporting bar and projecting laterally therefrom, longitudinal projections at the ends of said retainers having notches in their under surfaces, equalizing devices carried by the lower supporting bars and connected to the upper supporting bar, and springs having their lowermost coils engaged in the notches in the lower supporting bars and the projections thereon and their uppermost coils inserted through the spring retainers and engaging the notches in the projections on said retainers.

5. In a bed, the combination of a pair of supporting bars, stirrups secured to and bridging said bars and projecting laterally from the outer sides thereof at the respective ends of the same, arms secured to and projecting laterally from the inner sides of the bars at the ends thereof, springs mounted upon and supported by said stirrups and arms, an upper support, retainers connected with the respective ends of said upper support and engaging the upper ends of the springs, and equalizing connections between said retainers.

1,208,095. OIL-SWITCH. CHARLES A. CLARK, New York, N. Y., assignor, by direct and mesne assignments, to Wood River Iron Works, Inc. Filed Sept. 8, 1915. Serial No. 49,477. (Cl. 175—282.)

1. In an electric switch, a reciprocable, laterally shiftable contact carrying member, contacts mounted thereon, coöperating fixed contacts, actuating means adapted to reciprocate said member into engagement with said fixed contacts, and means for laterally shifting said member upon alternate actuations thereof.



2. In an electric oil switch, a reciprocable, laterally shiftable removable member carrying contacts, a coöperating removable fixed contact member having contacts mounted thereon, actuating means adapted to reciprocate said member into engagement with said fixed contacts and means for laterally shifting said member upon alternate actuations thereof.

3. In an electric oil switch, an oil tank and frame combined as one unit, carrying a reciprocable, laterally shiftable removable sliding contact carrying member with contacts mounted thereon, a coöperating removably sliding fixed contact member having contacts mounted thereon, actuating means adapted to reciprocate said member into engagement with said fixed contacts and means for laterally shifting said member upon alternate actuations thereof.

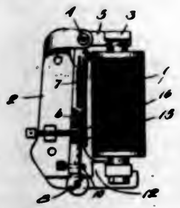
4. In an electric oil switch, a tank and frame unit carrying a reciprocable, laterally shiftable removable sliding contact carrying member with compressible contacts mounted thereon, a coöperating removably sliding fixed contact member having non-compressible contacts mounted thereon, actuating means adapted to reciprocate said member into engagement with said fixed contacts and means for laterally shifting said member upon alternate actuations thereof.

5. In an electric oil switch, a tank and frame unit carrying a reciprocable, laterally shiftable removable sliding contact carrying member with compressible contacts mounted thereon, a coöperating removable sliding fixed contact member having non-compressible contacts mounted thereon, actuating means adapted to reciprocate said member into engagement with said fixed contacts, means for laterally shifting said member upon alternate actuations thereof and means for holding said switch after having moved it laterally to complete an electric circuit or circuits.

[Claims 6 not printed in the Gazette.]

1,208,096. SOUNDER. FREDERICK W. COLE, Newton Highlands, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed Nov. 6, 1915. Serial No. 60,125. (Cl. 178—100.)

1. The sounder herein described comprising a sounder-magnet, armature, pivoted bell-crank armature-lever, one arm of which is made long and extends lengthwise of the magnet, a retractile spring, a striker and anvil, a long slender flat spring attached at one end of the armature-lever, near its pivot, and a stop arranged to be engaged by the free end of said spring upon attractive movement of the armature, thereby to gradually overcome the inertia of the armature, and cause it to come to rest without producing sound vibrations.



2. The sounder herein described comprising a sounder-magnet, armature, pivoted bell-crank armature lever, one arm of which is made long and extends lengthwise of the magnet and has a hole through it near its extremity, a retractile spring, a striker and anvil, a long flat spring attached at its upper end to the armature-lever, near the pivot thereof, and extended over the hole therethrough, a screw arranged on the frame and adapted to extend through said hole upon attractive movement of the armature-lever, to engage the free end of said spring, thereby to gradually overcome the inertia of the armature as its movement is checked.

3. The sounder herein described comprising a sounder-magnet, armature, pivoted armature lever, a retractile spring, a striker and anvil, a flat spring attached at one end to the armature lever, and a screw arranged to be engaged by the free end of said spring upon attractive movement of the armature, thereby to gradually overcome the inertia of the armature and cause it to come to rest without producing sound vibrations.

1,208,097. VEHICLE-TOP. CAP B. COLLINS, Des Moines, Iowa, and JOHN T. H. PATERSON, Chicago, Ill. Filed July 16, 1915. Serial No. 40,263. (Cl. 135—5.)



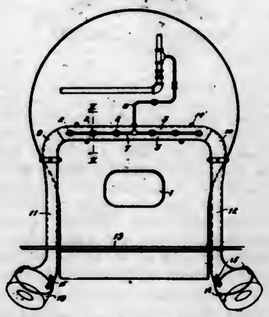
1. In a structure of the character described the combination of a standard, ribs radiating from the upper end thereof and pivotally connected therewith, an extension slidably connected with each rib, a covering secured at its edge to the outward ends of said extensions, a set of rods pivotally connected with the ribs, and a second set pivotally connected with said extensions, a collar for the inner ends of each set of rods, said collars being slidable on the standard, and means for securing said collars to hold the rods in extended position.

2. In a structure of the character described, the combination with a standard, of ribs radiating from the upper end thereof and pivotally connected therewith, an extension slidably connected with each rib, a covering secured at its edge to the outward ends of said extensions, a set of rods pivotally connected with the ribs and a second set pivotally connected with the said extensions, a collar for the inner ends of each set of rods, said collars being slidable on the standard, inter-engaging means carried by said collars for preventing independent rotation thereof, means for preventing rotation of one of said collars with respect to the standard, and means for securing said collars in position on the standard when the rods are extended.

3. In a structure of the character described the combination of a tubular standard, a head having a projecting part extending within the upper end of said standard, a pin extending through said standard and projection for securing the head in place, ribs radiating from the said head and pivotally connected therewith, a cover secured at its edge to the outward ends of said ribs, a tubular section surrounding said standard and secured thereto by means of the aforesaid pin, rods carried by said ribs for holding the same in extended position, a collar surrounding the standard and slidable over the aforesaid tubular section, and to which the inner ends of said rods are pivotally connected, the upper end of said collar being slotted for engagement with the projecting ends of the aforesaid pin, and means engaging said tubular member for locking the collar in its uppermost position.

4. In a structure of the character described the combination of a standard, a series of radially disposed ribs pivoted to the upper end of said standard, rods pivoted to said ribs, a support slidable on said standard to which the inner ends of said rods are pivoted, a second set of rods, a second support slidable on said standard to which the inner ends of the last mentioned rods are pivoted, and rib extensions slidably connected with the ribs and to which the outer ends of the second set of rods are connected.

1,208,098. SMOKE-ABATING DEVICE. THOMAS R. COOK, Pittsburgh, Pa. Filed Feb. 12, 1913. Serial No. 747,966. (Cl. 110—61.)



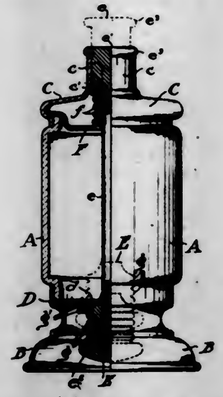
1. In combination, a locomotive backhead having a series of passages therethrough, a muffler box extending transversely of the backhead, a steam pipe extending longitudinally of the box and provided with nozzles in alinement with said passages, an inlet pipe extending downwardly from each end of the box to points below the cab floor, with their ends expanded, and mufflers carried by such ends.

2. In combination, a locomotive backhead having a series of passages therethrough, a muffler box extending transversely of the backhead, a steam pipe extending longitudinally of the box and provided with nozzles in alinement with said passages, an inlet pipe extending downwardly from each end of the box to points below the cab floor, and having their ends turned to the rear and expanded, and mufflers carried by such ends.

1,208,099. CONDIMENT-DISPENSER. CHRISTOPHER CORNELL, New York, N. Y. Filed Feb. 5, 1916. Serial No. 76,286. (Cl. 65—57.)

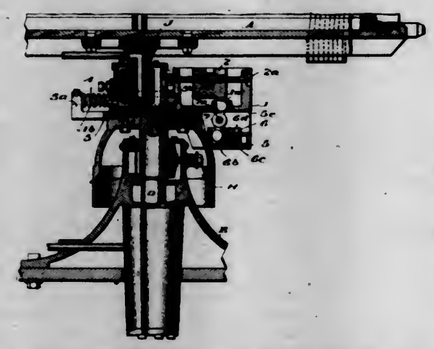
1. A condiment dispenser embodying a casing, a partition in the upper portion thereof, a partition in the lower portion thereof, between which partitions the condiment is normally contained, a discharge duct formed in the lower partition, which duct is provided with interiorly positioned ribs, and a valve coöperating with the discharge duct, a portion of which valve is provided on its

periphery with a plurality of ribs adapted to coöperate with the ribs in the discharge duct to pulverise the condiment during the operation of the valve in dispensing the same, in combination with a valve stem adjustably secured to the valve, extending upwardly through the casing, and provided at its upper end with a finger-piece extending through an aperture in the top of the casing, whereby pressure on the finger-piece serves to depress the valve and open the discharge opening, and a spring coöperating with said finger-piece for normally elevating the stem and closing the valve, said spring being housed in the chamber intermediate the upper partition and the top of the casing.



2. A condiment dispenser embodying a casing adapted to contain a condiment, a discharge duct therefor which duct is provided with a plurality of interiorly positioned ribs, a valve coöperating with said discharge duct, which valve is provided on its periphery with a plurality of ribs adapted to coöperate with the ribs in the discharge duct, a stem on said valve, and a finger-piece for operating said stem, in combination with a spring housed within the casing for normally seating the valve, whereby, when the finger-piece is depressed to open the valve, the condiment is ground between the ribs of the valve and discharge duct and delivered in a finely pulverized condition.

1,208,100. GYRATORY DRIVING MECHANISM. JOHN B. CORNWALL, Moline, Ill., assignor to Barnard and Leas Manufacturing Company, Moline, Ill., a Corporation of Illinois. Filed May 6, 1916. Serial No. 95,870. (Cl. 74—14.)



1. In combination, a member, means for imparting gyratory movements to said member; counter-acting means, and means whereby when the member tends to be moved under the action of centrifugal force caused by variation in the load the counter-acting means is moved to counteract the thrust of such force due to such variation in the load.

2. In combination, a body, a driven member for imparting gyratory movements to said body; counter-acting means, and means whereby when the driven member is moved in one direction under the action of centrifugal force the counter-acting member is positively moved in the opposite direction.

3. In a gyratory drive, the combination of a driving member, a driven member movable radially or transversely of the driving member under the action of centrifugal force, a counter-acting member, and connections whereby when the driven member is moved in one direction by centrifugal action the counter-acting member is moved in the opposite direction.

4. Means for imparting gyratory motion to objects, comprising a driving shaft, a driven member mounted on and movable transversely of the driving shaft, counter-acting means, and means operatively controlled and automatically actuated by the first member whereby the counter-acting means is positively shifted to counter-act the thrust of centrifugal force on the shaft.

5. In a gyratory drive the combination of a driving member, a driven member movable transversely of the driving member under the action of centrifugal force, a counter-acting member, and connections whereby when the driven member is thrust by centrifugal force due to variations in the load the counter-acting member is automatically moved in to offset or neutralize such thrust.

[Claims 6 to 11 not printed in the Gazette.]

1,208,101. PILE FABRIC. EDWARD S. CRADDOCK, New York, N. Y., assignor to John A. Boyajean, Jersey City, N. J. Filed Apr. 16, 1915. Serial No. 21,728. (Cl. 139—71.)



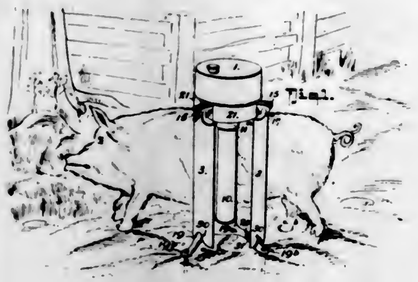
1. A pile fabric comprising wefts, a set of pile units looped over certain of said wefts and up around wefts at opposite sides of said looped-over wefts, adjacent pile units of said set being separated from each other by only a single intervening weft and a second set of pile units looped over said single intervening wefts between the units of the first set and up around the wefts at opposite sides thereof which are looped about by adjoining units in the first set of pile units, whereby each pile unit of one set serves to tie together two adjoining pile units in the other set and whereby adjacent upstanding tufts of the pile units are separated only by a single intervening weft to thereby form a close uniform firm pile structure.

2. A pile fabric comprising wefts, binders combined with said wefts and pile units arranged in two sets, the pile units of the respective sets being looped over alternate wefts and under and up around the wefts between said looped-over alternate wefts, each pile unit in each set being looped over a weft between adjoining pile units in the other set and up around the same wefts which are looped about by the adjoining units in the other set and thereby tying together the adjoining pile units in the other set and providing in effect a substantial continuity of the pile units.

3. A pile fabric comprising wefts, a set of pile units looped over certain of said wefts and up around wefts at opposite sides of said looped-over wefts, adjacent pile units of said set being separated from each other by only a single intervening weft and a second set of pile units disposed alongside and immediately adjoining the first set of pile units and looped over said single intervening wefts between the units of the first set and up around the wefts at opposite sides thereof which are looped about by adjoining units in the first set of pile units, whereby each pile unit of one set serves to tie together two adjoining pile units in the other set and whereby adjacent upstanding tufts of the pile units are separated only by a single intervening weft to thereby form a close uniform firm pile structure.

4. A pile fabric comprising wefts, pile units arranged in two sets, the pile units of the respective sets being looped over alternate wefts and under and up around the wefts between said looped-oved alternate wefts, each pile unit in each set being looped over a weft between adjoining pile units in the other set and up around the same wefts which are looped about by the adjoining units in the other set and thereby tying together the adjoining pile units in the other set and providing in effect a substantial continuity of the pile units and a single binder disposed between certain of the adjacent sets of pile units and interwoven with the wefts aforesaid.

1,208,102. HOG-OILER. HARRY J. CRINER, Burlington, Iowa, assignor to Hampton Planter Company, Lomax, Ill., a Corporation of Minnesota. Filed June 2, 1916. Serial No. 101,270. (Cl. 119—157.)



1. In a hog oiler, a standard, a cap member on the standard, a liquid holder supported above the cap member, a liquid pocket in the cap member in communication with the holder, a combined plunger and trough slidably mounted in the liquid pocket, a rubbing member hingedly connected at the lower end to the standard to normally swing upwardly and adapted to swing inwardly by the animals rubbing thereagainst, the free end of the said member being connected with the combined plunger and trough whereby when the rubbing member is pushed inwardly the plunger will eject the liquid into the trough, said trough having its discharge end projected to deliver the liquid onto the outer face of the rubbing member.

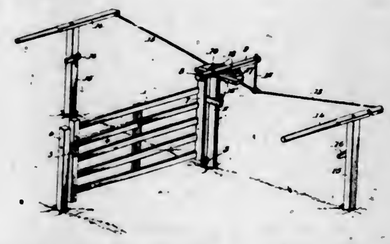
2. In a hog oiler, a standard, a cap member mounted on the standard, a liquid holder supported above the cap member, a liquid pocket in the cap member in communication with the holder, means for simultaneously mixing and withdrawing liquid from the pocket, the said means being arranged for actuation by animals rubbing thereagainst and for conveying the mixed liquid to the bodies of such animals, the said means including a combined distributing trough and a plunger that operates against the liquid and forces it into the trough.

3. In a hog oiler, the combination of a base, a standard projected centrally from the base, a cap member mounted on the top of the standard, a liquid holding tank supported over the cap, the said cap member including a central pocket into which the liquid is received from the tank, a main liquid chamber in communication with the liquid pocket, a liquid space formed between a pair of vertical flanges that radiate from the central pocket, a hinged member arranged to be moved in one direction by animals rubbing thereagainst and which automatically returns to its normal position when pressure thereagainst is released, a trough slidably mounted between the pair of vertical flanges, said trough including a plunger head that mixes and forces the liquid in the liquid space up into the trough, the said trough being arranged to discharge the liquid gathered therein onto the hinged member and thereby convey the liquid to the body of the animal pressing against the said hinged member

4. A hog oiler, comprising a standard, a reservoir mounted thereon, a liquid pocket constantly in communication with the reservoir, a plunger operable in the liquid pocket, means normally held to withdraw the plunger to thereby draw a charge of liquid into the pocket, said means being arranged for actuation by the animals to move the plunger inwardly, said plunger having a trough in its upper face whose discharge end extends over the animal actuated means, all being arranged whereby when the plunger is forced inwardly under animal pressure, the mixed liquid is forced up into the trough and discharged onto the said animal engaged means, said means being arranged to return with the plunger to the normal position when the rubbing pressure of the animal ceases.

5. In a hog oiler, a standard, a cap member mounted on the standard, said member including a plurality of horizontally disposed liquid holding chambers and a central receiving space into which the liquid from the reservoir discharges, said central space being in communication with all of the chambers, a series of liquid holding spaces that radiate from the central space and which are in communication with the said liquid holding chambers, a plunger slidably mounted in each one of the series of liquid holding spaces, a rubbing member for each plunger, said rubbing member being pivotally supported at the lower end to normally swing outwardly, the said plungers each including a trough portion that discharges over the upper end of the rubbing members, said trough portions being connected to the upper ends of their respective rubbing members, all being arranged whereby when the rubbing members are forced inwardly their attached portions close off their respective liquid holding spaces from the liquid supply and force the liquid in such space up onto their respective distributing trough portions.

1,208,103. GATE-OPERATOR. ALONZO C. CUNNINGHAM, Norma, Tenn. Filed Feb. 25, 1914. Serial No. 821,055. (Cl. 39—57.)

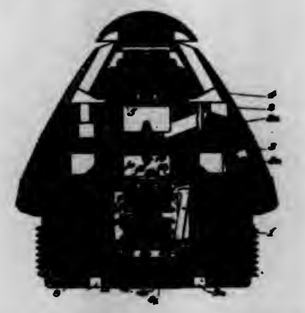


1. Gate operating mechanism, including a retaining plate having pairs of oppositely disposed shoulders formed thereon, the said plate being further provided with a plurality of outwardly inclined surfaces extending respectively from the top of the inner pairs of shoulders to the base of the shoulders next adjacent thereto, an operating lever fixed to the plate and to the gate, and means movable with the lever to engage the shoulders for locking the gate either in open or closed position, the said inclined surfaces facilitating movement of the locking means in locking relation therewith.

2. Gate operating mechanism, including a retaining device having pairs of oppositely disposed shoulders formed thereon, the top surfaces of the said device being inclined

from a point at the top of the innermost shoulder to a point at the bottom of the shoulder next adjacent thereto, a gate operating lever pivoted loosely to said device, a locking member mounted on said lever to engage with said shoulders and said inclined surface for the purpose specified, the end engaging face of the said locking member being similarly inclined, and a means to rock said lever and accordingly disengage said locking member from said shoulders to permit of subsequent swinging movement of said gate.

1,208,104. PROJECTILE-FUSE. WILLIAM DALTON, Schenectady, N. Y. Filed July 18, 1916. Serial No. 109,886. (Cl. 102—39.)



1. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin and a detonator cap oppositely disposed therein; a reciprocating member adapted to explode the cap against the firing pin and having a spring seat formed thereon; means for transmitting a fire flash to a powder charge; centrifugal triggers engaging and locking the reciprocating member in disarmed position; a laterally projecting arm formed on each trigger; means for pivotally supporting and guiding the triggers; a movable spring seat bearing against said arms; and a spring interposed between the seats and exerting centripetal force upon the triggers for holding the reciprocating member in locked and disarmed position until the fuse is rotated, while in flight, above a predetermined arming speed for the purpose of firing an explosive charge.

2. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin and a detonator cap oppositely disposed therein; a reciprocating member adapted to explode the cap against the firing pin; a guiding flange formed on the back end of the reciprocating member; means for transmitting a fire flash from the cap to a powder charge; centrifugal triggers engaging the reciprocating member and locking it in disarmed position; means for pivotally supporting and guiding the triggers; a spring seated upon the flange; and transmitting means interposed between the spring and triggers for exerting centripetal force upon the triggers, for holding the reciprocating member in locked and disarmed position.

3. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin and a detonator cap oppositely disposed therein; a reciprocating member adapted to explode the cap against the firing pin; means for guiding the reciprocating member; means for transmitting a fire flash from the cap to a powder charge; longitudinally disposed centrifugal triggers engaging the rear end of the reciprocating member and locking it in disarmed position; means for pivotally supporting and guiding the triggers; laterally projecting arms formed on the front ends of the triggers; and a spring opposing the reciprocating member, and bearing against said arms, for exerting centripetal force upon the triggers for holding the reciprocating member in locked and disarmed position.

4. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin fixed in the front end thereof; a percussion spool disposed within the chamber and adapted to contain a powder core and to slide toward and from the firing pin; a detonator cap carried in the front end of the spool, adjacent to the firing pin; a centrifugal locking trigger disposed within the chamber, adjacent to the spool; means for pivotally supporting and guiding the trigger; and a spring interposed between the spool and trigger, and exerting centripetal force on the trigger whereby it will be held in its inner locked and disarmed position until the fuse is rotated, while in flight, above a predetermined arming speed for the purpose of firing an explosive charge.

5. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin fixed in the front end thereof; a percussion spool disposed within the chamber and adapted to contain a powder core and to slide toward and from the firing pins; a detonator cap carried in the front end of the spool, adjacent to the firing pin; a plurality of centrifugal locking triggers disposed within the chamber, adjacent to the spool; means for pivotally supporting and guiding the triggers; and a spring interposed between the spool and triggers, and exerting centripetal force on the triggers whereby they will be held in their inner locked and disarmed positions until the fuse is rotated, while in flight, above a predetermined arming speed for the purpose of firing an explosive charge.

[Claims 6 to 12 not printed in the Gazette.]

1,208,105. PROJECTILE-FUSE. WILLIAM DALTON, Schenectady, N. Y. Filed July 18, 1916. Serial No. 109,887. (Cl. 102—39.)



1. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin and a detonator cap oppositely disposed therein; a reciprocating member adapted to explode the cap against the firing pin; means for transmitting fire flash from the cap to a powder charge; one or more centrifugal triggers engaging and normally locking the reciprocating member in disarmed position; means for pivotally supporting and guiding the triggers; a movable inertia member adapted to unlock the triggers and arm the reciprocating member when the fuse begins its flight; and automatic means opposing the motion of the reciprocating member, the inertia member, and the triggers, for normally holding the reciprocating member in locked disarmed position, releasing it after beginning flight, and again locking it at a rotative speed of the fuse below a predetermined arming speed.

2. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin and a detonator cap oppositely disposed therein; a reciprocating member adapted to explode the cap against the firing pin; means for transmitting fire flash from the cap to a powder charge; one or more centrifugal triggers engaging and normally locking the reciprocating member in disarmed position; means for pivotally supporting and guiding the triggers; laterally projecting arms formed on the triggers; a movable inertia sleeve encircling the reciprocating member, so as to normally bear against said arms, and to slidingly bear against the triggers and unlock the reciprocating member when the fuse begins its flight and the sleeve is thereby given a rearward motion away from the arms; and a spring opposing the motion of the reciprocating member, the inertia sleeve, and the triggers, and normally holding the latter in locked engagement with the reciprocating member, in disarmed position and releasing them after beginning flight.

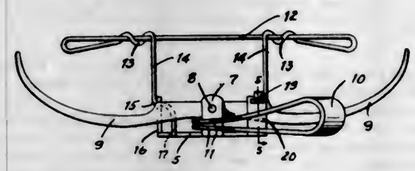
3. The combination, in an explosive projectile fuse, of a percussion element; a firing pin and a detonator cap oppositely disposed therein; a reciprocating member adapted to explode the cap against the firing pin; means for transmitting fire flash from the cap to a powder charge; one or more centrifugal triggers engaging and normally locking the reciprocating member in disarmed position; laterally projecting arms formed on the triggers; a movable inertia member bearing on the arms and adapted to unlock the triggers; slots formed in the inertia member, embracing and positioning the front ends of the triggers; and a spring opposing the motion of the inertia and reciprocating members, normally holding the triggers in said disarmed locked engagement with the reciprocating member, and releasing them after beginning flight.

4. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin and a detonator cap oppositely disposed therein; a reciprocating member adapted to explode the cap against the firing pin; means for transmitting fire flash from the cap to a powder charge; one or more centrifugal triggers engaging and normally locking the reciprocating member in disarmed position; laterally projecting arms formed on the triggers; a movable inertia member bearing on the arms and adapted to unlock the triggers; slots formed in the inertia member, embracing and positioning the front ends of the triggers; a slotted flange formed on the reciprocating member and oppositely disposed to the inertia member and embracing and positioning the rear ends of the triggers; trigger seats formed on the reciprocating member normally engaging the triggers; and a spring interposed between the inertia member and slotted flange, for normally holding the reciprocating member in locked disarmed position and releasing it after beginning flight.

5. The combination, in an explosive projectile fuse, of a percussion chamber; a firing pin and a detonator cap oppositely disposed therein; a reciprocating member adapted to explode the cap against the firing pin; a guiding flange formed on the rear end thereof; means for transmitting fire flash from the cap to a powder charge; one or more centrifugal triggers engaging and normally locking the reciprocating member in disarmed position; an inertia sleeve encircling the reciprocating member, so as to slide toward the guiding flange and unlock the triggers after beginning flight; and a spring interposed between the inertia sleeve and the reciprocating member, to hold them in normal disarmed position until beginning flight.

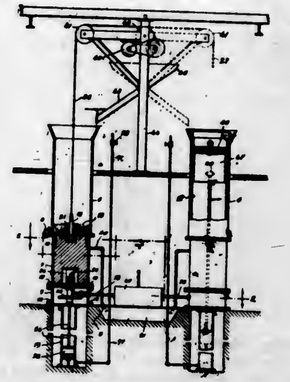
[Claims 6 to 9 not printed in the Gazette.]

1,208,106. ANIMAL-TRAP. ARTHUR L. DARWIN, Mayflower, Ark. Filed Jan. 11, 1915. Serial No. 1,649. (Cl. 43—23.)



An animal trap comprising a base, a pair of jaws pivoted to the base, spring means for urging said jaws together, a trigger pivoted to the base and adapted to extend across one of the jaws and a trigger holding member comprising a single length of material having its end portions bent back upon its intermediate portions and then directed downwardly and pivoted to the base portion, one of said ends being provided with a notch to receive the free end of the trigger and means preventing the trigger holding member from swinging into the plane of the jaws.

1,208,107. PIPE-MOLDING MACHINE. JAMES B. DAVIS, Brooklyn, N. Y. Filed Feb. 24, 1916. Serial No. 80,105. (Cl. 22—18.)



1. In a device of the character described, in combination, a cylindrical flask, a piston, a piston box, a piston rod, a cylindrical pattern of less diameter than the flask removably attached to the downwardly extending piston rod attached to the piston, said piston being movably incased within the piston box, sand distributing blades upon the pattern, and means for moving the pattern through the flask with a revolving motion.

2. In a device of the character described, in combination, a cylindrical flask, a piston, a piston box, a piston rod, a cylindrical pattern of less diameter than the flask removably attached to the downwardly extending piston rod attached to the piston, said piston being movably incased within the piston box, means for moving the pattern through the flask with a revolving motion, a black-wash plug, means for removably attaching the black-wash plug to the piston rod, means for passing the black-wash plug through the flask, and means for depositing sand between the flask and the pattern.

3. In a device of the character described, in combination, a cylindrical flask, a piston, a piston rod, a piston box, a cylindrical pattern of less diameter than the flask removably attached to the downwardly extending piston rod attached to the piston, said piston being movably incased within the piston box, means for moving the pattern through the flask with a revolving motion, means for admitting air beneath the piston during its upward stroke, means for allowing and preventing the escape of said air from beneath the piston, and means for depositing sand between the flask and the pattern during the movement of the latter.

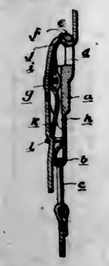
4. In a device of the character described, in combination, a cylindrical flask, a cylindrical pattern of less diameter than the flask and within the flask, sand distributing blades upon the pattern, a piston box, a piston, a piston rod connecting the pattern with the piston, the piston being movable within the piston box, means for raising and lowering the piston rod and pattern, means for rotating the piston rod and pattern during their passage through the flask, and means carried by the pattern for the uniform distribution of sand between the pattern and the flask.

5. In a device of the character described, in combination, a cylindrical flask, a cylindrical pattern of less diameter than the flask and within the flask, a piston, a piston box, a piston rod connecting the pattern with the piston, the piston being movable within the piston-box,

means for raising and lowering the piston rod and pattern, means for rotating the piston rod and pattern during their passage through the flask, means for admitting and retaining air beneath the piston, means for removing the pattern from the rod, and means carried by the pattern for uniformly distributing sand between the pattern and the flask during the movement of the former.

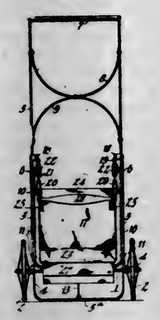
[Claims 6 and 7 not printed in the Gazette.]

1,208,108. STRAP-CLAMP. WILLIAM E. DAVIS, New Ipswich, N. H. Filed June 15, 1916. Serial No. 103,784. (Cl. 24—170.)



A strap clamp consisting of a main plate having a transverse opening across its upper end, thereby forming a bar across said upper end, a clamp plate pivoted on the front face of said main plate and having its upper edge adapted to clamp the strap against the front face of the aforesaid bar and having its lower part depending below its pivot and lying in front of the main plate, and a loop projecting forwardly from the front face of the main plate adjacent to the extended lower end of the pivoted plate so that when the upper end of the pivoted plate is pulled by the strap against said bar the extreme lower end of the plate will swing outwardly and bite the strap against said loop.

1,208,109. BABY-CART. WILLIAM M. DECKER, Buffalo, N. Y. Filed Sept. 30, 1915. Serial No. 53,262. (Cl. 21—12.)



1. In a two-wheeled cart, the combination of an axle, a foldable frame carried by the axle and including a combined handle and foot-member, the lower or foot-portion of said member being arranged to stand on the ground when the cart is at rest and to clear the ground when the cart is trundled, and a seat suspended from said frame, the center of gravity of the seat and the frame being located in front of the axle when the cart is at rest.

2. In a folding cart, the combination of an axle having wheels, a foldable frame comprising a supporting member carried by the axle and extending upwardly therefrom, and a combined handle and foot member pivoted to said supporting member, means for holding said members in their unfolded position, and a seat suspended from said frame with its center of gravity located in front of the axle.
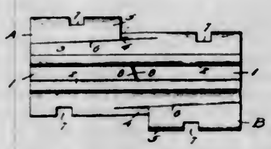
3. In a folding baby cart, the combination of an axle having wheels, supporting arms mounted on the axle, a folding handle frame pivoted to said supporting arms, a seat suspended from said arms, and means for holding said frame in its unfolded position, the lower portion of the frame being arranged on the front side of the axle and extending below the seat to form a foot.

4. In a folding baby cart, the combination of an axle having wheels, supporting arms extending upwardly from the axle, a folding handle-frame pivoted to said arms, a seat suspended from the upper portions of said arms, the point of suspension of the seat being on the front side of the axle, and means for holding said frame in its unfolded position.

5. In a folding baby cart, the combination of an axle having wheels, supporting arms extending upwardly from the axle, a folding handle-frame pivoted to said arms, the upper portions of the arms being curved forwardly beyond said frame and forming supports for a seat, and means for holding said handle-frame in its unfolded position.

[Claims 6 to 11 not printed in the Gazette.]

1,208,110. RAIL-JOINT. JOSEPH DE FALCO, Vineland, N. J. Filed June 12, 1916. Serial No. 103,296. (Cl. 239—6.)



1. In a rail joint, coacting joint members each having a chair, portions overlapping opposite rail flanges one having a tapered edge, a rail web engaging member, an arm on the rail chair engaging under the rail chair of the coacting joint member, slotted edge portions for spiking the device to ties.

2. In a rail joint, coacting joint members each having a chair portion, a rail web engaging portion, a wedge-like portion opposite to the rail web engaging portion, a tapered end portion adapted to wedge against the correspondingly tapered portion of the coacting joint member, a wedge-like arm extending outwardly from one side of the rail chair, a correspondingly recessed portion on the other side of the rail chair to receive the wedge-like arm of the coacting member of the rail joint, a diagonal edge portion extending between the arm and recessed portions, and slotted edge portions for spiking the rail joint to the ties.

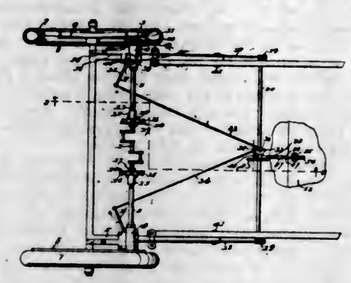
3. In a rail joint, coacting joint members, each having a chair portion having an arm engaging under a portion of the chair of the coacting member, an upright rail engaging portion, correspondingly tapered abutting edge portions on diagonally opposed portions of the coacting joint members to secure the same in wedge-like engagement, and slotted edge portions to receive tie spikes.

1,208,111. MOTOR-VEHICLE. CHARLES E. DURYEA, Philadelphia, Pa. Filed May 8, 1915. Serial No. 26,803. (Cl. 21—90.)

1. An automobile chassis frame or body frame and a rear wheel frame pivoted thereto to rise and fall independently of the said frame, a motor mounted upon and above said rear frame, friction driving mechanism on the rear frame coöperating with the rear wheel and controlling means therefor on the chassis frame.

2. An automobile chassis frame or body frame, and a rear wheel frame pivoted thereto to rise and fall independently of the said frame, a friction drive on the rear frame and controlling means therefor on said chassis frame.

3. An automobile chassis frame or body frame, and a rear wheel frame pivoted thereto to rise and fall independently of the said frame, a friction drive on the rear frame and controlling means therefor on said chassis frame, said pivoted frame adapted to support a power plant.

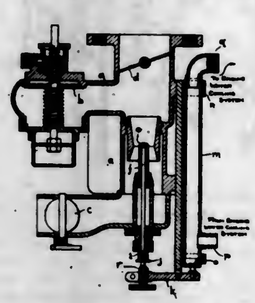


4. An automobile body frame, a rear wheel frame pivoted thereto to rise and fall independently of said frame and to support a power plant, drive mechanism on the rear frame, controlling means therefor on the chassis frame, and springs interposed between said frames in proximity to the pivot of said frames to permit such rise and fall and yet carry the load.

5. An automobile body frame, a rear frame pivoted thereto, a power plant supported thereby, roller drive mechanism on the rear frame, means on the chassis frame for controlling the same and pressure-assisting means disposed adjacent the rear axle and operable in conjunction with the movement of said roller drive mechanism to assist in securing the necessary contact pressure to drive the vehicle, said pressure-assisting means being independent of the power plant.

[Claims 6 to 20 not printed in the Gazette.]

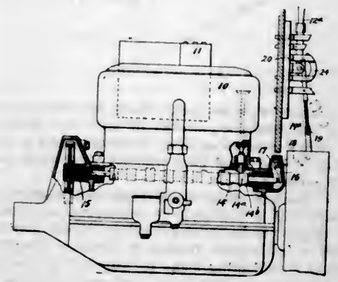
1,208,112. THERMOSTATIC CONTROL FOR CARBURETERS. ARTHUR E. ENGLAND, Detroit, Mich. Filed Feb. 11, 1915. Serial No. 7,507. (Cl. 261—30.)



1. In a device of the character described, the combination of a carbureter shell, a needle valve normally tending away from the needle valve seat, a thermostatic tube secured to the shell of the carbureter in substantially parallel relation with the needle valve and arranged for connection with the water circulating system of the engine jackets, and a rocker arm pivotally supported on the shell and having one end with a thrust engagement with the needle valve and the other end with a thrust engagement with the thermostatic tube, substantially as described.

2. In a device of the character described, the combination of a carbureter shell, a needle valve, a spring normally tending to unseat the needle valve, a thermostatic tube secured at one end by a tight clip to the carbureter shell and arranged for connection with the water circulating system of the engine so as to allow the water to flow through the tube, and a rocker arm pivoted to the shell and at one end having a thrust connection with the outer end of the needle valve and at the other end having a thrust connection with the end of the thermostatic tube opposite the end which is secured to the carbureter shell.

1,208,113. STARTING AND REVERSING MEANS FOR INTERNAL-COMBUSTION ENGINES. JUSTUS B. ENTZ, Cleveland, Ohio, assignor to Edwin L. Thurston, trustee, Cleveland, Ohio. Filed Dec. 23, 1912. Serial No. 738,122. (Cl. 123—179.)



1. In combination, a reversible valve internal combustion engine having a shiftable valve operating means whereby the valves may be operated for either forward or reverse drive, a starter, together with means for transmitting power from the starter to the engine for starting the engine in either direction, and a unitary means having progressive operative positions for controlling the direction of drive of the starter, and for controlling the shifting of the valve operating means.

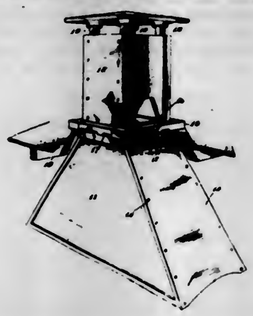
2. In combination, a reversible valved internal combustion engine, shiftable valve operating means adapted to operate the valves for engine drive in either direction, a reversible starter together with means for transmitting power between the starter and engine for starting the latter in either direction, a starter operating member controlling the direction of starting, and an operative connection between said member and the shiftable valve operating means.

3. In combination, a reversible valved internal combustion engine adapted to drive in either forward or reverse direction, shiftable valve operating means for operating the valves for either direction of drive, a reversible electric motor coupled to the engine, a switch for controlling the direction of rotation of the motor, and connecting means between said switch and the shiftable valve operating means, for shifting the valve operating means when the switch is thrown to position for starting in reverse direction.

4. In combination, a reversible internal combustion engine, a starter for starting the engine in either direction, a starter controlling member having two operative positions and an intermediate inoperative position, means for supplying igniting current to the engine, said starter controlling member having means for cutting out of service the ignition means when said member is in inoperative position.

5. In combination, a reversible internal combustion engine, a starter for starting the engine in either direction, a starter controlling member having two operative positions, and an intermediate inoperative position, a source of igniting current, said starter controlling member having means for cutting said source out of service in passing from one operative position to the other.

1,208,114. CONCRETE SMOKE-JACK. ROBERT T. EVERETT, Chicago, Ill., assignor to C. F. Massey Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 13, 1916. Serial No. 83,706. (Cl. 104—208.)



1. In a concrete smoke jack, a hood part and a chimney part each comprising a plurality of wall sections of reinforced concrete capable of being assembled, and a channel in the top of said hood part whereby said parts may be secured together.

2. In a concrete smoke jack, hood and chimney parts each comprising a plurality of reinforced concrete wall sections adapted to be secured together along their lateral edges, and a head piece formed at the top of said hood part having a projecting ledge for supporting the jack.

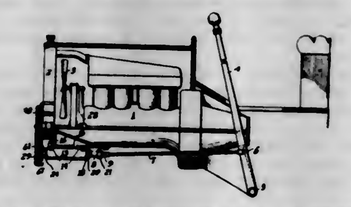
3. In a concrete smoke jack, hood and chimney parts of reinforced concrete, an integral head piece formed at the upper end of said hood part serving as the sole support for the jack.

4. In a concrete smoke jack, hood and chimney parts, a head piece on said hood part, a channel formed in said head piece, and a ledge on said head piece for supporting a jack, said channel adapted to receive the chimney part for securing said hood and chimney parts together.

5. In a sectional concrete smoke jack, a hood part comprising four substantially flat pieces of reinforced concrete capable of being assembled, an integral head piece formed at the top of the hood part when so assembled, an annular channel in said head piece, and a chimney part comprising four substantially flat rectangular pieces of reinforced concrete capable of being assembled, said chimney part when so assembled adapted to be secured to said hood part and in said annular channel in said head piece.

[Claim 6 not printed in the Gazette.]

1,208,115. STARTER FOR AUTOMOBILES. THOMAS M. EYNON and HAROLD G. EYNON, Philadelphia, Pa. Filed Apr. 22, 1915. Serial No. 23,042. (Cl. 74—40.)



1. In a device of the character stated, an engine shaft, a second shaft, gearing therebetween, a uni-directional clutch within the gearing, an operating element for the second shaft movable axially of it and connections between the element and the shaft transforming the longitudinal movement of the element into rotary movement of the shaft.

2. In a device of the character stated, a shaft, bearings therefor, a sleeve movable longitudinally of the shaft and surrounding it, means for preventing rotation of the sleeve, coöperating engaging devices between the sleeve and shaft giving rotation to the shaft with longitudinal movement of the sleeve, an engine shaft, operative connections between the two shafts and a uni-directional clutch located between the sleeve and the engine shaft.

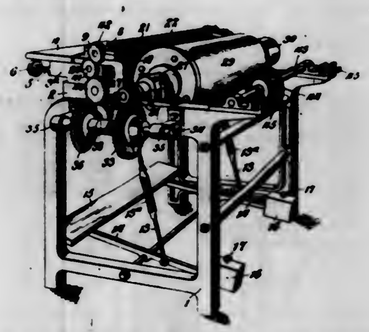
3. In a device of the character stated, a spiral shaft, bearings supporting it for rotation, an engine shaft, connections between the engine shaft and the spiraled shaft, a uni-directional clutch in the connections, a non-rotatable operating element movable longitudinally along the spiraled shaft to rotate it and hand-operated means for driving the element along the spiraled shaft.

4. In a device of the character stated, a spiraled shaft, an engine shaft, connections between the spiraled shaft and engine shaft, bearings for the shafts, a sleeve surrounding the spiraled shaft and coöperating with it to rotate the spiraled shaft with longitudinal movement of the sleeve, a casing surrounding the spiraled shaft and end of the sleeve, a guide for the sleeve carried by the casing and supporting the sleeve against rotation and means for driving the sleeve longitudinally along the spiraled shaft.

5. In a device of the character stated, an engine shaft, a spiraled shaft, gearing connecting the shafts, a uni-directional clutch in the connectinops between the shafts, a sleeve movable longitudinally of the spiraled shaft for rotating it, a guide and connections between the sleeve and guide for supporting the sleeve.

[Claims 6 to 9 not printed in the Gazette.]

1,208,116. LEATHER-DRESSING MACHINE. OTTO FELIX FEIX, West Hoboken, N. J. Filed July 2, 1915, Serial No. 37,750. Renewed Nov. 4, 1916. Serial No. 129,634. (Cl. 149—14.)



1. In a machine for treating fine tanned leather, a positively driven abrasive roll, a non-rotatable presser plate having a hard, smooth, unyielding surface presented toward the abrasive roll, means imparting to the presser plate a constant tendency toward the abrasive roll, means for limiting the approach of the presser plate toward the abrasive roll, and feeding rollers for delivering the leather to and between the presser plate and abrasive roll.

2. In a machine for treating fine tanned leather, a positively driven abrasive roll, a non-rotatable presser plate with a hard, smooth, unyielding surface presented toward the abrasive roll, said presser plate having a constant tendency toward the abrasive roll with said presser plate substantially unyieldable in a direction away from the abrasive roll to the passage of the leather being treated between said plate and abrasive roll, and means for delivering the leather to and between the presser plate and abrasive roll.

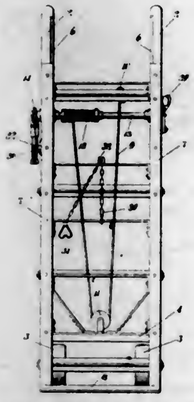
3. In a machine for treating fine tanned leather, a positively driven abrasive roll, a non-rotatable presser plate with a hard, smooth, unyielding surface presented toward the abrasive roll, said presser plate having a constant tendency toward the abrasive roll with said presser plate substantially unyieldably in a direction away from the abrasive roll to the passage of the leather being treated between said plate and abrasive roll, and means for delivering the leather to and between the presser plate and abrasive roll, said last-named means comprising feeding rollers with surfaces shaped to stretch the latter passing between them.

4. In a machine for treating fine tanned leather, a positively driven abrasive roll, a carriage movable toward and from the roll, gravity means for imparting to the carriage a constant tendency to move toward the roll, manipulating means for the carriage for moving it in opposition to the gravity means, stop means for the carriage for positively limiting its movement toward the roll, an unyielding non-rotative presser plate mounted on the carriage to move therewith and provided with a hard, smooth surface presented toward the abrasive roll to hold leather passing between the plate and roll substantially unyieldingly against the latter, and feeding rollers for delivering leather to and between the presser plate and abrasive roll.

5. In a machine for treating fine tanned leather, a positively driven abrasive roll, a carriage movable toward and from the roll, gravity means for imparting to the carriage a constant tendency to move toward the roll, manipulating means for the cariage for moving it in opposition to the gravity means, stop means for the carriage for positively limiting its movement toward the roll, an unyielding, non-rotative presser plate mounted on the carriage to move therewith and provided with a hard, smooth surface presented toward the abrasive roll to hold leather passing between the plate and roll substantially unyieldingly against the latter, and feeding rollers for delivering leather to and between the presser plate and abrasive roll, one of the rollers being mounted on the carriage for movement with the latter into and out of operative relation to the other feeding roller.

[Claims 6 to 10 not printed in the Gazette.]

1,208,117. WAREHOUSE-TRUCK. HARWOOD FROST, Chicago, Ill. Filed Sept. 21, 1912. Serial No. 721,526. (Cl. 254—4.)



1. In a hand truck having a movable platform, the combination of means to raise said platform comprising a pawl and ratchet adapted to be connected with and disconnected from each other, a handle adapted to be moved between a plane extending at right angles to the direction of movement of said truck and a plane extending in the direction of movement of said truck, and connections between said handle and said pawl and ratchet when said handle is in the plane extending at right angles to the direction of movement of said truck and to disconnect said pawl and ratchet when said handle is in the plane extending in the direction of movement of said truck, and means to prevent said handle from completing more than one backward rotation if it should slip from the hand of the operator while being operated comprising a stop adapted to yield against pressure in the direction of operation of said handle and to prevent movement of said handle in a backward direction.

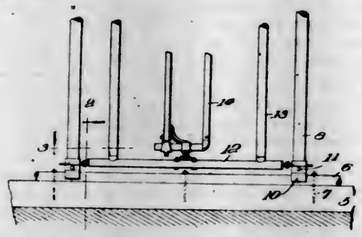
2. In a hand truck having a movable platform, the combination of means to raise said platform comprising a pawl and ratchet adapted to be connected with and disconnected from each other, a handle adapted to be moved between a plane extending at right angles to the direction of movement of said truck, and a plane extending in the direction of movement of said truck, and connections between said handle and said pawl and ratchet when said handle is in the plane extending at right angles to the direction of movement of said truck and to disconnect said pawl and ratchet when said handle is in the plane extending in the direction of movement of said truck, and of means adapted to lie flat along the side of the truck to maintain said platform in raised position or permit gradual lowering of said platform when said pawl and ratchet are disconnected comprising a ratchet and an integral pawl and braking device substantially surrounding said ratchet adapted in one position to engage said ratchet as a pawl and to engage said ratchet as a brake when moved from said first-named position.

4. In a hand truck having a movable platform, the combination of means to raise said platform comprising a pawl and ratchet adapted to be connected with and disconnected from each other, a handle adapted to be moved between a plane extending at right angles to the direction of movement of said truck and a plane extending in the direction of movement of said truck, and connections between said handle and said pawl and ratchet adapted to connect said pawl and ratchet when said handle is in the plane extending at right angles to the direction of movement of said truck and to disconnect said pawl and ratchet when said handle is in the plane extending in the direction of movement of said truck, and of means adapted to lie flat along the side of the truck to maintain said platform in raised position or permit gradual lowering of said platform when said pawl and ratchet are disconnected comprising a ratchet and an integral pawl and braking device substantially surrounding said ratchet adapted in one position to engage said ratchet as a pawl and to engage said ratchet as a brake when moved from said first-named position, and a hand hold on said truck in position to be grasped in connection with said brake device.

1,208,118. STALL CONSTRUCTION. HOWARD J. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Original application filed Mar. 27, 1914, Serial No. 827,646. Renewed Aug. 15, 1916, Serial No. 115,087. Divided and this application filed Oct. 7, 1916. Serial No. 124,239. (Cl. 119—27.)

1. In stable equipment, in combination, a stationary concrete curb, a metallic fastening way elevated above the surface of said curb and permanently anchored thereto and lying longitudinally thereof, and a series of stalls

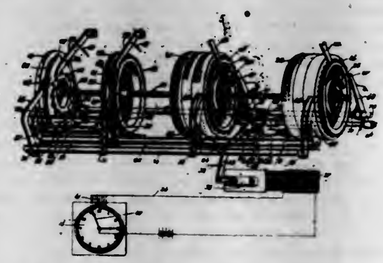
comprising a stanchion supporting frame and end members, said end members being clamped to said way and adjustable along the same whereby the width of the stalls may be varied with relation to each other and to the length of said curb.



2. In stable equipment, in combination, a stationary concrete curb, a fastening way in the form of a pipe elevated above the surface of the surb and permanently anchored thereto and lying longitudinally thereof, and a stall frame structure capable of being bodily adjusted along said way and comprising a stanchion-supporting frame and stall-frame parts, the latter clamped to said pipe and longitudinally adjustable along the same and adapted to be secured thereto or removed therefrom without moving said pipe.

3. In stable equipment, in combination, a stationary concrete curb, a metallic fastening way elevated above the surface of the curb and permanently anchored thereto and lying longitudinally thereof, and a stall frame structure capable of being bodily adjusted along said way and comprising a stanchion-supporting frame and stall-frame parts, the latter clamped to said way and longitudinally adjustable along the same and adapted to be secured thereto or removed therefrom without moving said way.

1,208,119. APPARATUS FOR RECORDING AND COMPUTING MANUFACTURING COSTS. NICHOLAS T. FICKER, New York, N. Y., assignor to Ficker Recording Machine Company, Inc., a Corporation of New York. Filed Jan. 26, 1915. Serial No. 4,440. (Cl. 234—53.)



1. In a workman's time recorder, an indicating time wheel, a motive means therefor adapted to be continuously operated by a master clock, an indicating computing wheel, returning means tending continually to bring the same to zero, power transmitting means between said motive means and said computing wheel for driving the latter, automatic means controlled by movement of said time wheel for temporarily withdrawing said computing wheel from the influence of said power transmitting means and manually controllable means for controlling the action of said returning means whereby the computing wheel may be brought to zero at will.

2. In a workman's time recorder, an indicating time wheel, a motive means therefor adapted to be continuously operated by a master clock, an indicating computing wheel, returning means tending continually to bring the same to zero, power transmitting means between said motive means and said computing wheel for driving the latter, automatic means controlled by movement of said time wheel for temporarily withdrawing said computing wheel from the influence of said power transmitting means, a holding device for normally restraining said returning means, and automatic means controlled by movement of said time wheel for rendering said holding device temporarily inoperative to return the computing wheel to zero.

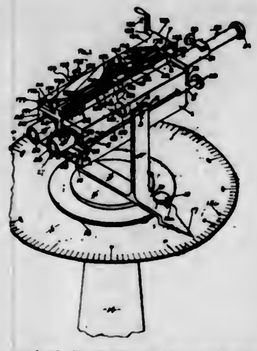
3. In a workman's time recorder, an indicating time wheel, an indicating computing wheel, a pawl and ratchet for each, a returning means adapted to bring the computing wheel to zero, a motive means for both pawls, adapted to be continually operated by a master clock, a cam associated with said time wheel, means controlled by said cam for lifting and dropping the computing wheel pawl automatically, and means for controlling at will the operation of said returning means.

4. In a workman's time recorder, an indicating time wheel, an indicating computing wheel mounted parallel thereto, a ratchet on each wheel, a pawl shaft parallel to the common axis of said wheels, a pawl for each ratchet having offset mountings on said pawl shaft, a cam associated with said time wheel, and means controlled by said cam for lifting and dropping the computing wheel pawl automatically.

5. In a workman's time recorder, an indicating job wheel, an indicating totalizer wheel movable independently thereof, separate returning means for each wheel tending to return them to zero, a master wheel, a motive device for all of said wheels adapted to be continuously operated by a master clock, automatic means controlled by said master wheel for simultaneously stopping and starting said job wheel and totalizer wheel, and separate automatic means controlled by said master wheel for controlling the return to zero of said last named wheels.

[Claims 6 to 20 not printed in the Gazette.]

1,208,120. INSTRUMENT FOR MEASURING DISTANCES OPTICALLY. BRADLEY A. FISKE, U. S. Navy, assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed May 10, 1915. Serial No. 26,932. (Cl. 88—2.7.)



1. In an optical instrument for measuring distances, the combination of a transversely adjustable objective, a second objective spaced from the first named objective in a direction substantially normal to the direction of the adjustment thereof and adjustable toward and from said objective, of an ocular and an image uniting prism cooperating with the objective to form in the field of the instrument a single divided image of an object, comprising a pair of complementary half images received one half from each of the objectives and arranged one on either side of a dividing line, means operating between the image uniting prism and the objectives and acting on the light transmitted by the latter to adjust the image halves one with relation to the other to a greater or lesser extent, and means for translating the displacement of the image halves into terms of range of the object.

2. In an optical instrument for measuring distances, the combination of a transversely adjustable objective, a second objective spaced from the first named objective in a direction substantially normal to the direction of the adjustment thereof and adjustable toward and from said objective, of an ocular and an image uniting prism cooperating with the objective to form in the field of the instrument a single divided image of an object, comprising a pair of complementary half images received one half from each of the objectives and arranged one on either side of a dividing line, a pair of refracting wedges arranged one in the axis of each objective and mounted to be movable simultaneously along said axes, a carriage for the wedges, an index carried thereby and a scale cooperating with the index.

3. In an optical instrument for measuring distances, the combination with an ocular and an image uniting prism having a pair of primary reflecting surfaces arranged at either end thereof, and a pair of intersecting secondary reflecting surfaces arranged intermediate the primary reflecting surface with their intersection in the axis of the ocular, of an objective lens arranged in line with each of the primary reflecting surfaces of said prism said objectives each being individually adjustable in a direction disposed at right angles to the direction of adjustment of the other and transversely to their axes, means operating between the image uniting prism and the objectives and acting on the light transmitted thereby to shift the image formed by one objective with relation to the image formed by the other.

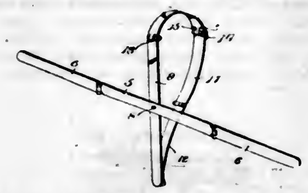
4. In an optical instrument for measuring distances, the combination with a pair of transversely spaced objectives each adapted to form an image of an object, an ocular and an image uniting prism adapted to select complementary halves of each of said images and unite them in the field of the ocular as a single divided image, of optical means for relatively adjusting the image halves in the field of the ocular said means including a refracting wedge arranged in the axis of one of the objectives and adapted to move along said axis between the objective and the image uniting prism, a carrier for said refracting wedge, an index traveling with the carrier, a scale cooperating with the index, said scale and index being relatively adjustable in the direction of travel of the latter to set the instrument for the measurement of the range of the second object in the field by alining the half image on one object with the half image of the other.

5. An instrument of the class described embodying a pair of objectives, an ocular prism and an ocular system coöperating with said objectives to form a single image, a pair of optical wedges arranged one along the axis of each objective and adapted to refract the images formed by the respective objectives in opposite directions, a carriage for the said wedges mounted to be movable along the axes of the objectives, guiding means for the carriage, a pointer mounted on said carriage, said pointer being adjustable in a direction transverse to the direction of movement of the wedge carriage and a scale coöperating with said pointer said scale comprising a plate provided with divergent lines extending in a direction transverse to the direction of movement of the said wedge carriage, substantially as and for the purposes herein set forth.

[Claims 6 to 8 not printed in the Gazette.]

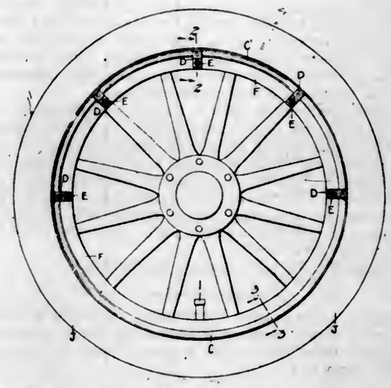
1,208,121. CLOTHES-PROTECTOR. DANIEL E. FITZGERALD, Ardmore, Okla. Filed Feb. 25, 1915. Serial No. 10,557. (Cl. 155—26.)

A protector of the character set forth comprising an apron having alined transverse pockets on one face at its opposite edges and near one end, the face of the apron between the pockets being clear, a foldable frame having its ends inserted in the pockets, a clip comprising a shank pivoted to said frame at the center thereof and adapted to extend toward the adjacent end of the apron, a bight member hinged to the shank to fold to the same or extend therefrom over the back of a seat, a bill member hinged to the bight member, a terminal bill member hinged to the first-mentioned bill member to fold between the same and the shank or to extend therefrom and bear against the



back of a seat, and interengaging means on the apron and bight member to detachably connect the apron to the clip whereby both the apron and the clip will be held extended.

1,208,122. WHEEL-RIM. LUKE G. FLEMING, Tarrytown, N. Y. Filed Dec. 31, 1914. Serial No. 879,893. (Cl. 152—21.)



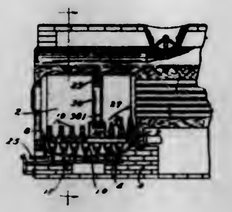
A rim for automobile wheels, comprising a ring having an integral annular inner flange and an outer flange, of which latter approximately one-half portion is integral with the ring and the remaining half portion is separable, brackets on the said separable flange portion, bolts for attaching the said separable flange portion to the felly of the wheel, and retaining washers on the said bolts and engaging apertures in the said ring of the rim, the said apertures being flush with the inner face of the felly and the said retaining washers abutting against the inner face of the felly.

1,208,123. FURNACE APPLIANCE. IRA W. FOLTZ, Chicago, Ill., assignor to The Eureka Smokeless Furnace Company, Chicago, Ill., a Corporation of Illinois. Filed June 21, 1915, Serial No. 35,333. Renewed Apr. 6, 1916. Serial No. 89,484. (Cl. 110—65.)

1. The combination with a furnace comprising a fire-box, ash-pit, and combustion chamber, of a removable attachment therefor comprising a conduit adapted to be supported at the inner sides of the fire-box, said conduit being provided with openings arranged for communication respectively with the ash-pit, fire-box and combustion chamber, and means for regulating the area of the openings in the conduit communicating with the fire-box.

2. The combination with a furnace comprising a fire-box, ash-pit, and combustion chamber, of an attachment therefor comprising a conduit adapted to be supported at the inner sides of the fire-box, said conduit being provided with openings arranged for communication respectively with the ash-pit, fire-box and combustion chamber, and a plurality of perforated upright pipes above the openings in the conduit communicating with the fire-box.

3. The combination with a furnace comprising a fire-box, ash-pit, and combustion chamber, of an attachment therefor comprising a conduit adapted to be supported at the inner sides of the fire-box, said conduit being provided with openings arranged for communication respectively with the ash-pit, fire-box and combustion chamber, and a plurality of perforated upright pipes above the openings in the conduit communicating with the combustion chamber.

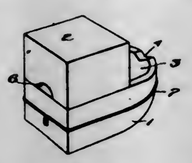


4. The combination with a furnace comprising a fire-box, ash-pit, and combustion chamber, of an attachment therefor comprising an air conduit extending from the fire-box to the combustion chamber, said conduit being provided with a plurality of perforated upstanding pipes extending into the fire-box and combustion chamber.

5. The combination with a furnace comprising a fire-box, ash-pit, and combustion chamber, of an attachment therefor comprising an air conduit extending from the fire-box to the combustion chamber, said conduit being provided with a plurality of perforated upstanding pipes extending into the fire-box and combustion chamber, and means for regulating the relative effective area of the perforations in said upstanding pipes in the fire box and the combustion chamber.

[Claims 6 to 11 not printed in the Gazette.]

1,208,124. JEWELER'S CRUCIBLE. WILLIAM H. FORD, Lowell, Mass., assignor of one-half to Frank Hanchett, Lowell, Mass. Filed June 6, 1913. Serial No. 772,091. (Cl. 263—48.)



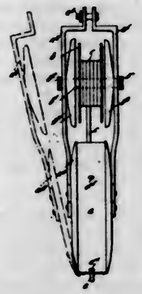
A metallic cover for a jeweler's crucible, comprising a metallic containing cup for the lower crucible member and a metallic cover for the upper crucible member, adapted to fit over and slide upon said cup, having a port to register with the recess in the upper crucible member.

1,208,125. PRINTING APPARATUS. ARTHUR GRAHAM FRANCE, Adelphi, London, England. Filed Feb. 24, 1916. Serial No. 80,261. (Cl. 101—126.)

1. Tape printing apparatus of the kind hereinbefore referred to comprising in combination, a casing, a part of which is displaceable, a type carrier rotatable on a fixed pin within said casing, removable means on said pin for retaining said carrier in position thereon, means for supplying tape to said carrier, and type inking means.

2. Tape printing apparatus of the kind hereinbefore referred to comprising type inking means, a carrier for single letter type, type carried thereby, means for supplying tape to said type, and clamping means for securing said type in place comprising a screw nut, a bearing washer, and a flat piece of resilient compressible material for gripping the type.

3. Tape printing apparatus of the kind hereinbefore referred to comprising a tape supply reel free to adjust itself to the proper position for feeding the tape to the type carrier notwithstanding variation in position of the part when the tape leaves the supply.

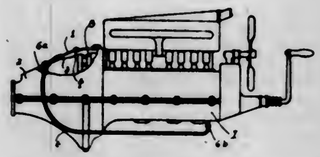


4. Tape printing apparatus of the kind hereinbefore referred to comprising a type carrier, type carried thereby, means for supplying tape to said type, means for inking the type, means for suspending the apparatus with freedom for angular movement within the place where the tape is to be supplied, and means for delivering the printed tape from the apparatus in a downward direction.

5. Tape printing apparatus of the kind hereinbefore referred to comprising in combination a carrier for single letter type and a tape supply reel free to adjust itself to the proper position for feeding the tape to the type carrier notwithstanding variation in position of the part where the tape leaves the supply.

[Claims 6 and 7 not printed in the Gazette.]

1,208,126. LUBRICATING SYSTEM FOR MOTORS. JASPER E. FRANCISCO, Sacramento, Cal. Filed May 17, 1916. Serial No. 98,057. (Cl. 184—1.)



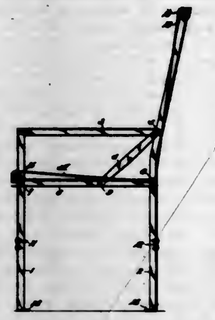
1. A lubricating system for a motor of the type described comprising the combination with a removable cover on a transmission case, of a sloping chamber formed on the underside of said cover and provided with an opening, a pipe leading from the cover and communicating with the chamber, such pipe leading to and communicating with the forward end of the crank case of the motor.

2. The combination with a motor and a transmission case, of a chamber formed on the upper side of the transmission case and provided with an opening, and a pipe leading from the chamber and communicating with the forward end of the motor.

3. The combination comprising a motor and transmission case, the top of the transmission case being in a higher plane than the crank case on the motor, a chamber formed on the top of the transmission case and having an opening and a pipe leading from the chamber and communicating with the crank case.

4. The combination with a motor and a transmission case having a removable cover disposed in sloping relation with respect to the horizontal axis of the crank case, of a chamber formed on the cover and having an opening at its forward end and a pipe leading from the chamber and communicating with the crank case.

1,208,127. FOLDING CHAIR. WILLIAM E. FRANK, St. Louis, Mo., assignor to The Foster Bros. Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed May 3, 1915. Serial No. 25,503. (Cl. 155—8.)



1. In a chair, a seat frame, a back frame, the outer transverse rail of said seat frame consisting of an angle iron whose concave portion is presented upwardly and the upper transverse rail of said back frame consisting of an angle iron whose concave portion is presented forwardly, a piece of fabric having a loop at each end, a retaining bar arranged in each of said loops, said fabric entirely surrounding said angle iron rails and having the end loops that carry the retaining bars seated in the concave portion of said rails, and means for supporting said fabric at the junction of said seat and back frames.

2. In a chair, a seat frame consisting of side members formed of angle iron having vertical and horizontal flanges, and a front cross member formed of angle iron whose flanges are presented upwardly at an angle and whose ends are flattened for connection to the horizontal flanges of said side members; a back frame consisting of side members formed of angle iron, and a top cross member formed of angle iron whose flanges are presented forwardly at an angle; a continuous piece of fabric extending from said top cross member to said front cross member, said fabric being provided at each end with retaining bars which are seated in the grooves formed by said cross members, said retaining bars being of greater diameter than the depth of said grooves and said fabric being wrapped around said cross members and lying over said bars; and means at the junction of said seat and back frames for supporting said fabric.

1,208,128. X-RAY TUBE. CHARLES A. FRIEDRICH, New York, N. Y. Filed Jan. 28, 1914. Serial No. 814,860. (Cl. 250—35.)

1. The method of expelling the gases in X-ray tubes which consists in the production of heat within the hollow anode and cathode, thereby avoiding the creation of a static field during the periods of time when the metal parts of both electrodes attain a red heat.

2. The method of expelling the gases from large amounts of metal in X-ray tubes during evacuation which consists in the production of heat within the hollow anode and cathode, thereby avoiding the creation of a static field during the periods of time when the metal parts of both electrodes attain a red heat and effecting thereby a thorough exhausting of the large amounts of metal of which the electrodes are composed.

3. The method of expelling the gases in X-ray tubes which consists in creating the cathode discharge from the center of the vacuum space and producing heat within the hollow anode and cathode thereby avoiding the creation of a static field during the periods of time when the metal parts of both electrodes attain a red heat.

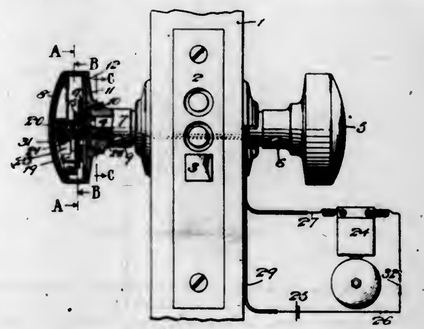
4. The method of expelling gases in X-ray tubes which consists in creating a very short path for the electric discharge, starting the cathode discharge from the center of the vacuum space and producing heat within the hollow anode and cathode thereby avoiding the creation of a static field during the periods of time when the metal parts of both electrodes attain red heat.



5. The method of expelling gases in X-ray tubes which consists in creating a cathodal discharge from the center of a large surface and over a very short path, starting the said cathode discharge from the center of the vacuum space whereby uniform conditions are created both for the cathode and anode discharges.

[Claims 6 to 20 not printed in the Gazette.]

1,208,129. ALARM FOR KNOBS. EDWARD J. FULLER, New York, N. Y. Filed Mar. 2, 1915. Serial No. 11,530. (Cl. 200—30.)



1. A shank, a hollow knob turnable thereon, an electric alarm having a fixed contact piece carried by the knob and a movable contact piece mounted to swing freely within said knob in position to be engaged by the fixed contact piece, whereby the turning of said knob on the shank will bring the contact pieces together to operate the alarm.

2. A shank, a hollow knob turnable thereon, an electric alarm having a fixed contact piece carried by the knob and a movable contact piece mounted to swing freely within said knob in position to be engaged by the fixed contact piece, whereby the turning of said knob on the shank will bring the contact pieces together to operate the alarm, and means for automatically separating the contact pieces when the knob is released.

3. A shank, a hollow knob turnable thereon, an electric alarm having a fixed contact piece carried by the knob and a movable contact piece mounted to swing freely

within said knob in position to be engaged by the fixed contact piece, a lost motion connection between the shank and the knob, whereby the turning of the knob will bring the contact pieces together to operate the alarm, and means for automatically separating the contact pieces when the knob is released.

4. A shank, a hollow knob turnable thereon, said knob having a slot therein, a pin secured to said shank and projecting through said slot for limiting the movement of the knob upon said shank, an electric alarm having a fixed contact piece carried by the knob and a movable contact piece mounted to swing freely within said knob in position to be engaged by the fixed contact piece, whereby the turning of the knob will bring the contact pieces together to operate the alarm, and means between said pin and knob for automatically separating the contact pieces when the knob is released.

5. A shank, a hollow knob including a removable plate turnable on said shank, said plate having a slot therein, a pin secured to said shank and projecting through said slot for limiting the movement of the knob upon said shank, an electric alarm having a fixed contact piece carried by the knob and a movable contact piece mounted to swing freely within said knob in position to be engaged by the fixed contact piece, whereby the turning of the knob will bring the contact pieces together to operate the alarm and a spring actuated means between said pin and knob for automatically separating the contact pieces when the knob is released.

1,208,130. FLUID-MIXING DEVICE. WESTON M. FULTON, Knoxville, Tenn., assignor to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Filed Oct. 27, 1913. Serial No. 797,667. (Cl. 236—6.)



1. In a device for mixing fluids of different temperatures to produce a mixture of a predetermined temperature, a conduit having inlets for admitting fluids of different temperatures and a discharge outlet, temperature-controlled valve means for controlling the relative admission of said fluids to the conduit, means indicating temperatures for adjusting the first-named means to automatically maintain the outgoing mixture at a temperature indicated by said second means and other means associated with said valve and subject to pressure of said fluids for rendering the operation of said valve independent of variations of fluid pressure.

2. In a device for mixing fluids of different temperatures to produce a mixture of a predetermined temperature, a conduit having inlets for admitting fluids at different temperatures and a discharge outlet, valves controlling the relative flow of fluids through said inlets, thermosensitive means for operating said valves, means for setting the thermosensitive means to operate above and below a predetermined temperature to automatically maintain the outgoing mixture at said predetermined temperature and other means associated with said valve and subject to pressure of said fluids for rendering the operation of said valve independent of variations of fluid pressure.

3. In a device for mixing fluids of different temperatures to produce a mixture of a predetermined temperature, a conduit having inlets for admitting fluids at different temperatures and a discharge outlet, valves for controlling the relative flow of fluids through said inlets, thermosensitive means for operating said valves, means associated with said valves and subject to pressure of said fluids for rendering the operation of said valves independent of variations in fluid pressure, and means for setting the thermosensitive means to operate above and below a predetermined temperature to automatically maintain the outgoing mixture at said predetermined temperature.

4. In a device for mixing fluids of different temperatures to produce a mixture of a predetermined temperature, a conduit having inlets for admitting fluids at different temperatures and a discharge outlet, valves for controlling the relative flow of fluids through said inlets, thermosensitive means for operating said valves, means associated with said valves and subject to pressure of said fluids for rendering the operation of said valves independent of variations in fluid pressure, and temperature indicating means for setting the thermosensitive means to operate above and below a predetermined temperature to automatically maintain the outgoing mixture at said predetermined temperature.

5. In a device for mixing fluids of different temperatures to produce a mixture of a predetermined temperature, a conduit having a plurality of fluid inlets admitting fluids at different temperatures and a fluid outlet, valves for controlling the relative flow of fluid through said inlets, a thermosensitive vessel exposed to the outgoing mixed fluids for operating said valves to control said fluid supply inlets and maintain the temperature of the mixture discharged substantially constant and means associated with said valves and subject to pressure of said fluids for rendering the operation of said valves independent of variations in fluid pressure.

[Claims 6 to 17 not printed in the Gazette.]

1,208,131. VETERINARY OBSTETRICAL FORCEPS. CHARLES GABEL, Hawkeye, Iowa. Filed May 28, 1915. Serial No. 30,920. (Cl. 128—27.)

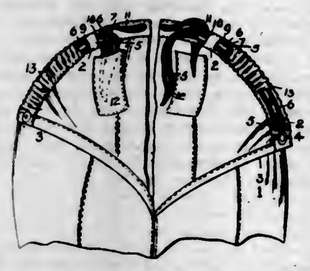


1. In an instrument of the class described, a shank, a head carried by the shank and comprising separably connected sections arranged when connected to provide a tubular shank removably fitted into the said first mentioned shank, one of the sections being flared at its end and provided with a concave side and with a portion facing its concave side, the other section having a portion engaging over the said portion of the first mentioned section, means for separably connecting the said portions of the sections, the sections at the flared end of the head being provided with oppositely located guiding portions, a loop connected to the first mentioned shank and having its sides coöperating with the guiding portions of the head and extending through the shank of the head and into the first mentioned shank, and means working in the first mentioned shank for advancing and retracting the sides of the loop.

2. In an instrument of the class described, a tubular shank, a head carried by the shank and provided at its end with oppositely located guiding portions and inwardly of its end with other oppositely located guiding portions, spaced loops having their bights connected to each other exteriorly of the shank, the sides of one of the loops coöperating with the first mentioned guiding portions of the head and the sides of the other loop coöperating with the last mentioned guiding portions of the head, the said sides of the loops extending within the shank, and means working in the shank and operable to advance and retract the said sides of the loops.

3. In an instrument of the class described, a tubular shank, a head comprising sections having concave opposing faces, the sections being separably connected in assembled relation, the said sections having portions forming a tubular shank when assembled, the shank being removably fitted into the end of the first mentioned shank, the said sections being provided beyond their shank portions with coöperating guiding portions located at opposite sides of the head in the assembled relation of the sections, a loop having its bight connected exteriorly of the first mentioned shank and having its side portions extending through the guiding portions of the head and through the shank of the head and into the first mentioned shank, and means working in the first mentioned shank to which the said sides of the loop are connected, the said means being operable to expand and contract the loop.

1,208,132. WAISTBAND FOR GARMENTS. THOMAS R. GAINES, Pittsburgh, Pa., assignor to E. H. King Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Jan. 27, 1916. Serial No. 74,527. (Cl. 2—143.)



1. A garment having a waistband, a tape secured at one end to the waistband, and having a longitudinal series of openings, there being in fixed relation to the waistband a hole through which the said tape is passed, the said tape being passed through the hole, and any one of the said openings serving to receive a locking means to prevent the taps from passing back through the hole.

2. A garment having a waistband, a tape secured at one end to the waistband and having a longitudinal series of openings, a hole in the waistband, through which the tape is passed, and a locking means passed through one of the openings to prevent the tape passing back through the hole.

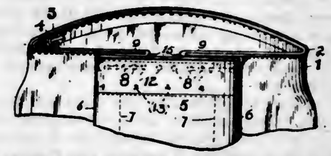
3. A garment having a waistband and a flap provided with a hole, a tape having one end secured to the waistband and the other end extending through the hole in the flap, and means extending through one of the openings and coöperating with the flap to prevent the tape from passing back through the hole.

4. A garment having a waistband, a tape secured at one end to the waistband and having a longitudinal series of openings, there being in fixed relation to the waistband a hole through which the said tape is passed, the said tape being passed through the hole, and any one of the said openings serving to receive a locking means to prevent the tape from passing back through the hole, the said tape comprising two tapes one passed back and forth through the other whereby the said openings are formed between the two constituent tapes.

5. A garment having a waistband, a tape secured at one end to the waistband and having a longitudinal series of openings, there being in fixed relation to the waistband a hole through which the said tape is passed, the said tape being passed through the hole, and any one of the said openings serving to receive a locking means to prevent the tape from passing back through the hole, the said tape comprising a pair of tapes arranged side by side and secured together at selected places, whereby the said openings are formed between the constituent tapes.

[Claims 6 and 7 not printed in the Gazette.]

1,208,133. WAISTBAND FOR GARMENTS. THOMAS R. GAINES, Pittsburgh, Pa., assignor to E. H. King Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Jan. 27, 1916. Serial No. 74,528. (Cl. 2—143.)

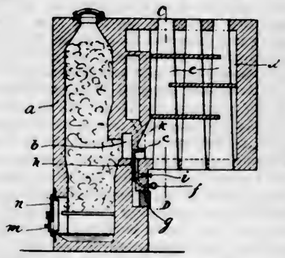


1. A garment having a waistband secured to the body thereof, a longitudinal series of evenly-spaced eyelets in the rear portion of the waistband, the said eyeleted portion being folded to form external plaits in the waistbands with the eyelets of the folds registering, and lacing means passed through the registering eyelets to secure the folds of the plaits together, some of the eyelets adjacent to the edges of the plaits extending through the outer and middle members of the three members constituting the plaits.

2. A garment having a waistband secured to the body thereof, a longitudinal series of evenly-spaced eyelets in the rear portion of the waistband, the said eyeleted portion being folded to form external plaits in the waistbands with the eyelets of the folds registering, lacing means passed through the registering eyelets to secure the folds of the plaits together, and a cover for the eyelets between the edges of the plaits.

3. A garment having a waistband secured to the body thereof, a longitudinal series of evenly-spaced eyelets in the rear portion of the waistband, the said eyeleted portion being folded to form external plaits in the waistbands with the eyelets of the folds registering, lacing means passed through the registering eyelets to secure the folds of the plaits together, a cover for the eyelets between the edges of the plaits, and means for detachably securing the cover over the said eyelets.

1,208,134. METHOD OF HEATING COKE-OVENS AND THE LIKE. RUDOLF GEIPERT, Berlin, Germany, assignor to Dessauer Vertikal Ofen Gesellschaft, Berlin, Germany, a Corporation of Germany. Filed Apr. 10, 1914. Serial No. 830,925. (Cl. 110—31.)



1. In the method of heating coke ovens and the like by alternately burning producer gas or illuminating gas in the same, continuously generating during the periods of burning illuminating gas a quantity of producer gas sufficient to maintain the high temperature of the producer proper as well as of the flues connecting said producer and the coke oven.

2. In the method of heating coke ovens and the like by alternately burning producer gas or illuminating gas in the same, continuously generating during the periods of burning illuminating gas a quantity of producer gas sufficient to maintain the high temperature of the producer proper as well as of the flues connecting said producer and the coke oven, mixing the producer gas and the illuminating gas before their entrance into the coking oven and burning this mixture in the coke oven.

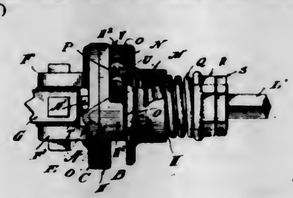
3. In the method of heating coke ovens and the like by alternately burning producer gas or illuminating gas, continuously generating during the periods of burning illuminating gas a quantity of producer gas, mixing said gas with the illuminating gas before their entrance into the coke oven, burning the mixture thus obtained in the coke oven, and preventing explosions of the obtained gas mixture during the removal of clinkers from the producer by suitably regulating the flues for the admission of the illuminating gas.

4. In the method of heating coke ovens and the like by alternately burning producer gas or illuminating gas, continuously generating during the periods of burning illuminating gas a quantity of producer gas, mixing said gas with the illuminating gas before their entrance into the coke oven, burning the mixture thus obtained in the coke oven, and preventing explosions of the obtained gas mixture during the removal of clinkers from the producer by suitably regulating the flues for the admission of the producer gas.

5. In the method of heating coke ovens and the like by alternately burning producer gas or illuminating gas, continuously generating during the periods of burning illuminating gas a quantity of producer gas, mixing said gas with the illuminating gas before their entrance into the coke oven, burning the mixture thus obtained in the coke oven, and preventing explosions of the obtained gas mixture during the removal of clinkers from the produced by suitably regulating the flues for the admission of both illuminating and producer gas.

[Claims 6 and 7 not printed in the Gazette.]

1,208,135. CLUTCH. HARVEY V. GIBSON, Washington, Ill. Filed Aug. 11, 1913. Serial No. 784,210. (Cl. 192—9.)



1. A device of the character described including in its construction two rotatable portions, a member adapted for movement in a direction parallel to the axis of rotation of the portions including a part adapted in said movement to secure both said rotatable portions relatively in driving relation and adapted by its structure and that of one of the portions to be moved to interrupt said driving relation on overload, means to hold the member elastically in its position to maintain the driving relation of the portions, and an elastically controlled member adapted to engage behind the described member when forced out to hold it in its disengaged position.

2. A device of the character described including in its construction two rotatable portions, a member adapted for movement in a direction parallel to the axis of rotation of the portions including a part adapted to secure both said rotatable portions relatively in driving relation, one of the latter and the member having engaging surfaces formed whereby the said member is moved outward under overload to interrupt said driving relation, means to hold the member elastically in the direction of and upon the portion with whose surface it engages, a member adapted to enter between one of the portions and the first described member when the latter is forced out to maintain separation thereof, and means constantly tending to move the second described member between the described parts.

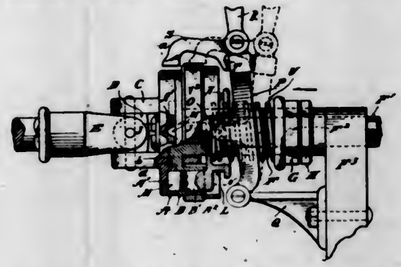
3. A device of the character described including in its construction two rotatable portions, a member including a part adapted to engage both portions and secure them relatively in driving relation, said part and one of said portions being formed whereby the part is moved outward under overload to terminate the driving relation of the said two portions, means to hold the member elastically in the direction of the portions for the described engagement, and a member disposed between the portions and the first described member adapted to automatically engage between one of said portions and said first member and maintain separation thereof when the latter and its part has been moved outward.

4. A device of the character described including in its construction two rotatable portions, a member including a part adapted to engage both portions and secure them relatively in driving relation, said part and one of said portions being formed whereby the part is moved outward under overload to terminate the driving relation of the said two portions, means to hold the member elastically in the direction of the portions for the described engagement, a member disposed between the portions and the first described member adapted to automatically engage between one of said portions and said first member and maintain separation thereof when the latter and its part has been moved outward, and means to move the second described member automatically to engage between the said portions and said first member at the time described.

5. A device of the character described including in its construction two rotatable facing portions, one of them having a recess in its face having angled walls, a member including a part to engage in said recess and having faces corresponding to those of the recess adapted to be forced from the recess under overload, means to hold the member and its part elastically in the direction of and to engage the described portion having said recess to secure both said portions in driving relation, said member including a series of extensions facing the portions, and a member interposed between the first said member and the said portions and likewise provided with projections facing those of the said first described member and adapted to engage them, and means to automatically move the second described member to cause the engagement of the projections of both members at the time the first described member is forced outward to maintain its separation from the said portion having the recess.

[Claims 6 to 17 not printed in the Gazette.]

1,208,136. CLUTCH. HARVEY V. GIBSON, Peoria, Ill. Filed Apr. 28, 1914. Serial No. 835,057. (Cl. 192—9.)



1. In a device of the class described, the combination of a driving and driven portion, a clutch part carried by and rotatable with one of the portions and adapted to engage and rotate the other said part adapted by its construction and that of said other portion to be moved from engagement with the latter under overload, means constantly tending to hold the part elastically in engagement with the said portion, and a member including a part adapted to engage the clutch part and hold it disengaged, said member also including a portion in position to be engaged during its rotation to change its relation and to release the described clutch part.

2. In a clutch, the combination of two rotatable portions abutting upon one another, a part carried by one of the portions and adapted to move in the direction of and to engage the other, the said part and the last named portion having substantially correspondingly formed engaging faces, said part adapted to be removed under overload from the portion with which it engages, means constantly tending to reëngage the part, a member adapted to be automatically moved to engage and hold the part in its disengaged position, and including a portion adapted to be manually operated during the rotation of the clutch to release the part and permit its reëngagement.

3. In a clutch, the combination of two rotatable facing portions, a part carried by and rotatable with one of the portions and adapted to move in the direction of and engage the other, the latter and said part including inclined engaging surfaces, elastic means to hold the part in engagement with the inclined surfaces of the portion, the part and said portion adapted to separate under overload in opposition to the force exerted by said means, a member to engage the part after disengagement and prevent its reëngagement, means to move the member automatically into engagement with said part, said member including a ring portion adapted for rotation with one of the clutch portions and in position to be engaged during its rotation whereby to move it relatively to and to release the described part.

4. The combination of two clutch portions, a part rotatable with one of them including extensions adapted to engage the other, the latter including recesses in its face to receive the extensions, the walls of the said recesses and the surfaces of the engaging portions of the extensions being beveled and adapted under overload to cause the latter to be disengaged, means to elastically hold the described part in engagement with the portion having the recesses, a member rotatable with one of the portions and adapted to automatically engage and hold the part outward when disengaged and maintain it in its disengaged position, said member including an annular extension or ring, and a manually operated device to engage the annular portion or ring to momentarily retard it in its rotation and liberate the said part.

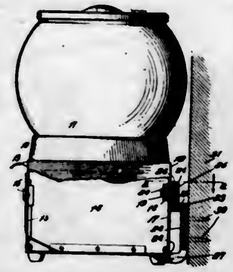
5. The combination of two clutch portions, a part rotatable with one of the portions including extensions adapted to engage the other of said portions, said other portion including recesses in its face to receive the extensions, the walls of the said recesses and the surfaces of the engaging portions of the extensions being beveled and adapted under overload to cause said extensions to be forced outward, means constantly tending to move the part toward and hold its extensions elastically in engagement with the recessed portion, a member rotatable with one of the portions and adapted to enter behind and hold the part and its extensions outward, elastic means to move said member behind said part, said member including an annular extension or ring, and a manually operated device adapted to be carried into engagement with the annular extension or ring, and also permanently engaging the said part.

[Claims 6 to 24 not printed in the Gazette.]

1,208,137. COIN-CONTROLLED VENDING-MACHINE. HARVEY GILES, Brooklyn, N. Y., assignor to Artemas Ward, New York, N. Y. Filed June 17, 1916. Serial No. 104,146. (Cl. 248—30.)

1. In combination, a coin-controlled vending machine having a base containing a chamber equipped at one side with a door and lock therefor and at its opposite side with an inner screw whose head is accessible only from within said chamber when the door is open and an outer loop secured to said side in line with said screw, said side having an opening behind the loop for the passage of said screw, and a supporting bracket having an apertured member to enter said loop and receive the outer end of said screw and a body-member to be fastened, behind said opposite side of the base, to a wall.

2. In combination, a coin-controlled vending-machine having a base containing a chamber equipped at one side with a door and lock therefor and at its opposite side with an inner screw whose head is accessible only from within said chamber when the door is open and an outer loop secured to said side in line with said screw, said side having an opening behind the loop for the passage of said screw, and a supporting bracket having an apertured member to enter said loop and receive the outer end of said screw, a body-member to be fastened, behind said opposite side of the base, to a wall and a lower member extending below and receiving the adjacent portion of said base.



3. In combination, a coin-controlled vending-machine having a base containing a chamber equipped at one side with a door and lock therefor and at its opposite side with an inner screw whose head is accessible only from within said chamber when the door is open and an outer loop secured to said side in line with said screw, said side having an opening behind the loop for the passage of said screw, and a supporting bracket having an apertured member to enter said loop and receive the outer end of said screw, a body-member to be fastened, behind said opposite side of the base, to a wall and a lower member extending below and receiving the adjacent portion of said base and having a shoulder to engage the vertical side of said lower portion of the base.

4. In combination, a coin-controlled vending machine having a base containing a chamber equipped at one side with a door and lock therefor and at its opposite side with an inner screw whose head is accessible only from within said chamber when the door is open and an outer loop secured to said side in line with said screw, said side having an opening behind the loop for the passage of said screw, and a supporting bracket having an apertured member to enter said loop and receive the outer end of said screw, a body-member to be fastened, behind said opposite side of the base, to a wall and a lower member extending below and receiving the adjacent portion of said base and composed of diverging feet having on their upper sides shoulders to engage the vertical side of said lower portion of the base.

5. In combination, a coin-controlled vending machine having a base containing a chamber equipped at one side with a door and lock therefor and at its opposite side with a ninner screw whose head is accessible only from within said chamber when the door is open and an outer loop secured to said side in line with said screw, said side having an opening behind the loop for the passage of said screw, and a supporting bracket having an apertured member to enter said loop and receive the outer end of said screw and a body-member to be fastened, behind said opposite side of the base, to a wall, said bracket having a shoulder to receive the lower edge of said loop.

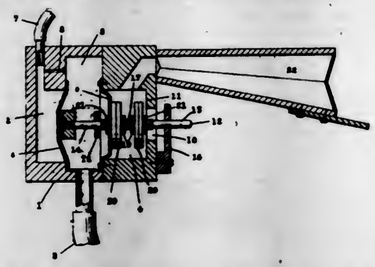
[Claims 6 to 8 not printed in the Gazette.]

1,208,138. VALVE FOR PLAYER-PIANOS AND THE LIKE. JOSEPH GIULIANA, Newark, N. J. Filed Jan. 25, 1916. Serial No. 74,084. (Cl. 84—156.)

1. A valve for player pianos and the like comprising a stem having a threaded portion, a sleeve screw threaded interiorly adapted to be screwed on said threaded portion o fthe stem, and means for holding a valve disk on said sleeve whereby the disk is prevented from slipping on said stem but may be adjusted with respect thereto.

2. A valve for player pianos and the like comprising a stem having a threaded portion, a sleeve threaded inte-

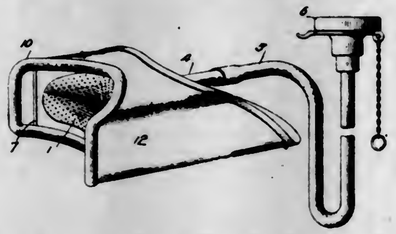
riorly and exteriorly adapted to be screwed on said threaded portion of the stem, said sleeve having a shoulder, and a nut adapted to be screwed upon the sleeve and hold a valve disk thereon between said nut and shoulder.



3. A valve for player pianos and the like comprising a stem having end portions adapted to be slidably guided and having a middle threaded portion, a sleeve threaded interiorly and exteriorly adapted to be screwed on said threaded portion of the stem, said sleeve having a shoulder, and a nut adapted to be screwed upon the sleeve and hold a valve disk thereon between said nut and shoulder.

4. A valve for player pianos and the like comprising a stem having a threaded portion, a pair of sleeves threaded to screw onto said stem, said sleeves being exteriorly threaded and having shoulders at their adjacent ends, valve disks on said sleeves seating laterally against said shoulders, and nuts screwed onto said sleeves for retaining the disks thereon.

1,208,139. APPARATUS FOR IMPROVING THE CONTOUR AND CONDITION OF THE CHIN AND THROAT. FLORENCE N. GRAHAM, New York, N. Y. Filed Feb. 29, 1912. Serial No. 680,742. (Cl. 128—28.)

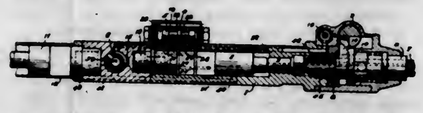


1. An apparatus of the class described comprising a spray plate having perforations of different sizes in different portions thereof, a supporting frame for said plate conforming in general to the contour of the neck and spaced away from said plate, and a chin rest arranged to fit over said frame and be supported thereby, said chin rest carrying a waterproof shield substantially as set forth, and liquid supply means for said plate.

2. Apparatus for treating the neck and chin comprising a spray plate provided with centrally located relatively large perforations and with smaller peripheral perforations, means for supplying water to said plate, and means conforming to the general contour of the neck for supporting said spray plate and spacing it at the proper distance from the surface to be treated.

3. Apparatus for treating the neck and chin comprising a spray plate curved to conform approximately to the surface of the neck and throat, and means for supplying liquid to said plate, said spray plate being provided with relatively large centrally disposed perforations to deliver coarse jets of liquid against the front of the neck and under the chin and with smaller peripheral perforations to deliver weaker lateral jets.

1,208,140. FLUID-OPERATED TOOL. LOUIS W. GREVE, Cleveland, Ohio, assignor, by mesne assignments, to The Cleveland Rock Drill Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 12, 1914. Serial No. 824,263. (Cl. 121—20.)



1. In combination in a fluid actuated machine having a cylinder and a hammer piston, automatic valve mechanism for controlling the operation of the hammer piston, a hollow drill steel with its passage in communication with the front end of said cylinder, and a throttle valve and connections whereby fluid pressure is supplied to the said valve mechanism and thence to the front end of the cylinder when the throttle valve is in one position and whereby the supply of fluid to said automatic valve is cut off and fluid pressure supplied direct from the throttle valve to the front end of the cylinder when such throttle valve is in another position.

2. In combination in a fluid actuated machine having a fluid operated distributing valve, a hammer piston controlled thereby, and a hollow drill steel, a throttle valve and connections whereby the movement of the throttle valve to one position secures a continuous supply of fluid through the drill steel and cuts off the supply of fluid to the distributing valve and whereby the movement of the valve to another position supplies fluid to the distributing valve and thence through the drill steel.

3. In combination in a fluid actuated machine having a distributing valve, a cylinder, a hammer piston therein, a drill steel having a passage communicating with the front end of the cylinder, and an exhaust passage leading from the front end of the cylinder, a throttle valve and connections whereby the movement of the throttle valve to one position secures a continuous supply of fluid to the front end of the cylinder and through the drill steel and cuts off the supply of fluid to the distributing valve and blanks the said exhaust passage.

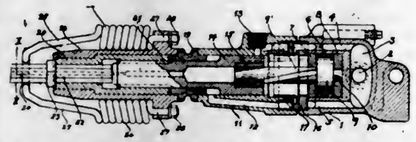
4. In combination in a fluid actuated machine having a distributing valve, a cylinder, a hammer piston therein, a drill steel having a passage communicating with the front end of the cylinder, and an exhaust passage leading from the front end of the cylinder, a throttle valve and connections whereby the movement of the throttle valve to one position secures a continuous supply of fluid to the front end of the cylinder and through the drill steel and cuts off the supply of fluid to the distributing valve and blanks the said exhaust passage and whereby the movement of the valve to another position opens the said exhaust passage, and supplies fluid to the distributing valve and thence through the drill steel.

5. The combination with a fluid actuated machine having a hammer cylinder, a hammer piston, a hollow drill steel with its passage communicating with the front end of the hammer cylinder and an automatic valve mechanism for controlling the operation of the hammer piston, of fluid supply controlling means whereby fluid pressure may be supplied continuously to the front end of the hammer cylinder and thence through the drill steel when the supply of fluid pressure to the valve mechanism is cut off.

[Claims 6 to 18 not printed in the Gazette.]

1,208,141. FLUID-OPERATED DRILLING-MACHINE. LOUIS W. GREVE, Cleveland, Ohio, assignor, by mesne assignments, to The Cleveland Rock Drill Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 8, 1915. Serial No. 49,492. (Cl. 121—20.)

1. In combination in a fluid operated drilling machine, a handle, a casing, a rifle bar mounted in the rear portion of the casing and projecting forwardly, mechanism at the rear of the casing permitting the bar to rotate in one direction but not in the other, a piston having a nut coöperating with the rifle bar whereby the piston is rotated as the piston moves to the rear, a drill steel rotated by the piston, and a sleeve valve for controlling the piston located to the front of the said mechanism, surrounding the rifle bar and adapted to receive the piston when it moves to its rear position.



2. In combination in a fluid operated drilling machine, a handle, a casing, a rifle bar mounted in the rear portion of the casing and projecting forwardly, mechanism at the rear of the casing permitting the bar to rotate in one direction but not in the other, a piston having a nut coöperating with the rifle bar whereby the piston is rotated as the piston moves to the rear, a drill steel rotated by the piston, a fluid supply reservoir behind the said mechanism in the casing, means for supplying fluid under pressure to the reservoir, and a sleeve valve, for controlling the piston and supplied with fluid under pressure from said reservoir, surrounding the rifle bar and adapted to receive the piston when it moves to its rear position.

3. In combination, in a fluid operated drilling machine, a handle casing, ratchet mechanism mounted in the forward portion of the casing and carrying a forwardly projecting rifle bar, a piston casing to the front of the handle casing carrying a rotatable reciprocating piston, a valve block held between the opposing ends of the handle casing and the piston casing, a reciprocating sleeve valve mounted in the valve block and adapted to receive said piston, a rotatable chuck to the front of the piston casing carrying a drill steel, and means whereby the rotation of the piston causes the rotation of the chuck and drill steel.

4. In combination, in a fluid operated drilling machine, a handle casing, ratchet mechanism mounted in the forward portion of the casing and carrying a forwardly projecting rifle bar, a piston casing to the front of the handle casing carrying a rotatable reciprocating piston, a valve block held between the opposing ends of the handle casing and the piston casing, a reciprocating sleeve valve mounted in the valve block and adapted to receive said piston, a chuck sleeve to the front of the piston casing, a buffing block for the piston held between the opposing ends of the piston casing and chuck sleeve, a chuck mounted in the chuck sleeve and rotatable by the piston, and a drill steel mounted for reciprocation in the chuck and rotatable thereby.

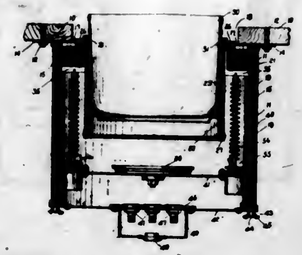
5. In combination, in a fluid operated drilling machine, a handle casing, a ratchet cage fitting in the front portion thereof, ratchet mechanism and a forwardly projecting rifle bar supported in the cage, a piston casing to the front of the handle casing carrying a rotatable reciprocating piston engaging the rifle bar, a valve block held between the opposing ends of the handle casing and piston casing and itself holding the ratchet mechanism and cage in position, a sleeve valve carried by the valve block, and a chuck and drill steel rotated by the piston.

[Claims 6 and 7 not printed in the Gazette.]

1,208,142. ELECTRIC HEATER FOR BONBON-KETTLES. WILLIAM S. HADAWAY, Jr., New Rochelle, N. Y. Filed Sept. 26, 1913. Serial No. 791,933. (Cl. 219—43.)

1. In an electric heater, the combination with a relatively stationary hollow cylindrical insulating jacket vertically disposed, of a heater comprising a base plate removably secured to the bottom of the jacket, an intermediate plate spaced from the base and a plurality of radiant heater units secured to the intermediate plate near the inside walls of the jacket and a flat convection heater secured to the intermediate plate near its center.

2. The combination with a relatively stationary hollow cylindrical insulating jacket vertically disposed and having an inner plate at the top forming a ledge on which a cooking vessel is adapted to be supported with the body of the vessel extending into the jacket, of a heater comprising a base plate removably secured to the bottom of the jacket, an intermediate plate spaced from the base and a plurality of radiant heater units secured to the intermediate plate near the inside walls of the jacket and a flat convection heater secured to the intermediate plate near its center.



3. The combination with a relatively stationary hollow cylindrical insulating jacket vertically disposed and having an inner plate at the top forming a ledge on which a cooking vessel is adapted to be supported with the body of the vessel extending into the jacket, of a heater comprising a base plate removably secured to the bottom of the jacket, a hollow cylindrical reflector secured to the base and extending upwardly into the jacket, a transverse intermediate plate spaced from the base secured to the reflector and a plurality of electric heater units removably secured to the intermediate plate and extending upwardly adjacent to the walls of the reflector.

4. The combination with a relatively stationary hollow cylindrical insulating jacket vertically disposed and having an inner plate at the top forming a ledge on which a cooking vessel is adapted to be supported with the body of the vessel extending into the jacket, of a heater comprising a base plate removably secured to the base and extending upwardly into the jacket, a transverse intermediate plate spaced from the base secured to the reflector and a plurality of radiant electric heater units uniformly distributed within the reflector and adjacent to the walls thereof and a convection heater secured to the intermediate plate near its center.

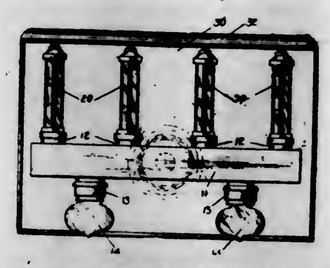
5. The combination with a relatively stationary hollow cylindrical insulating jacket vertically disposed and having an inner plate at the top forming a ledge on which a cooking vessel is adapted to be supported with the body of the vessel extending into the jacket, of a heater comprising a base plate removably secured to the bottom of the jacket, a hollow cylindrical reflector secured to the base and extending upwardly into the jacket, a transverse intermediate plate spaced from the base secured to the reflector and a plurality of radiant electric heater units removably secured to the intermediate plate and extending upwardly therefrom adjacent to the walls of the reflector, and a convection heater secured to the intermediate plate near its center.

[Claims 6 to 10 not printed in the Gazette.]

1,208,143. ELECTRIC HEATING AND LIGHTING APPARATUS. WILLIAM S. HADAWAY, Jr., New Rochelle, N. Y. Filed Sept. 26, 1913. Serial No. 791,934. (Cl. 219—45.)

1. A combination heating and lighting apparatus comprising a radiant electric heater unit adapted to translate a relatively large quantity of electric energy into heat at a temperature which is sufficiently high to produce useful light, and a lighting unit adapted to translate a relatively small quantity of energy into light at a high temperature whereby the resultant light from the two units is available and constitutes the lighting effect of the apparatus.

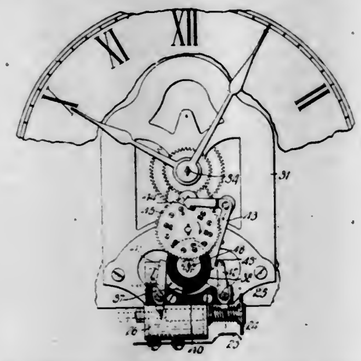
2. A combination heating and lighting apparatus comprising a radiant electric heater unit adapted to operate at a temperature sufficient to produce a quantity of light, and a lighting unit adapted to produce a light of such quality as to effectively supplement and combine with the light produced by teh heating elements whereby both units operate efficiently and coöperatively in proximity to each other.



3. A combination heating and lighting fixture comprising a support, a radiant electric heater unit mounted thereon and arranged to transmit a large percentage of heat generated therein by radiation, and to operate at a sufficiently high temperature to produce useful light, and a lighting unit mounted on the same support, arranged to transform a large percentage of the electric energy consumed therein to light, and adapted to coöperate with the light produced by the heater and to determine the character of the effective light of the fixture.

4. A combination heating and lighting fixture having a support, a plurality of electrical heating devices carried on one side of said support, a plurality of electric lighting devices carried on the other side of said support and a common reflector associated with said devices.

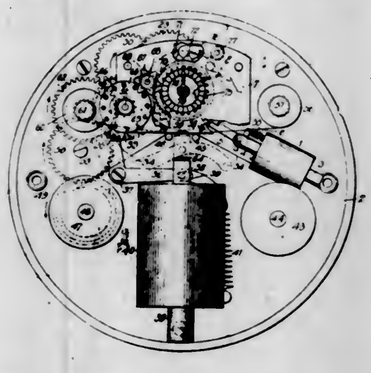
1,208,144. RECORDING MECHANISM. CHESTER I. HALL, Chicago, Ill., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 3, 1911. Serial No. 600,426. (Cl. 234—35.)



1. In combination, a time-controlled disk, make-and-break mechanism, means on said disk for determining whether said make-and-break mechanism shall operate, a printing wheel, an electromagnet controlled by said make-and-break mechanism for effecting the printing operation, a rotary disk controlled by said electromagnet, and means on said last-mentioned rotary disk for determining whether or not said printing wheel shall be advanced.

2. In combination, a time-controlled element, make-and-break mechanism, means on said element for determining whether said make-and-break mechanism shall operate, printing mechanism, an electromagnet controlled by said make-and-break mechanism for effecting the printing operation, a rotary element controlled by said electromagnet, and means on said rotary element for determining whether or not said printing mechanism shall be operated.

1,208,145. PRINTING-METER. CHESTER I. HALL, Chicago, Ill., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 3, 1911. Serial No. 612,053. (Cl. 234—35.)



1. In a recording meter, the combination of recording devices, means for advancing the devices during successive time intervals amounts proportional to meter operation to be recorded, means for automatically returning the recording devices to their initial position at the end of each interval, a number recording mechanism for making a record of the number of the recording operation, and means for making a record of the recording devices and the number recording mechanism at the end of each interval.

2. In a recording meter, the combination of recording devices, means for advancing the devices during successive time intervals amounts proportional to meter operation to be recorded, means for automatically returning the recording devices to their initial position at the end of each interval, a number recording mechanism for making a record of the number of the recording operation, means for making a record of the recording devices and the number recording mechanism at the end of each interval, and devices actuated by the recording operation for advancing the number recording mechanism.

3. In a printing meter, the combination of printing wheels, an electricity meter, devices for advancing the printing wheels step by step by and in accordance with the operation of said meter, a periodically operated mechanism for moving a record sheet against the printing wheels to make a record, the said mechanism by its operation serving to accomplish the rotation of the printing wheels to their initial position.

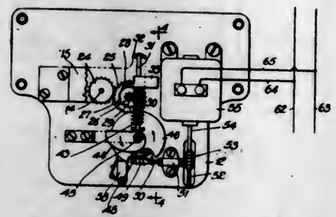
4. In a printing meter, the combination of printing wheels, a first electromagnetic mechanism for advancing the printing wheels, a first circuit for energizing such electromagnetic mechanism, devices for controlling such circuit actuated by meter operation to be recorded, a second electromagnetic mechanism for making a record from the printing wheels, and means for returning the printing wheels to their initial position at each recording operation.

5. In a printing meter, the combination of printing wheels, a first electromagnetic mechanism for advancing the printing wheels, a first circuit for energizing such electromagnetic mechanism, devices for controlling such circuit actuated by meter operation to be recorded, a supply roll for a record strip, a receiving roll for such strip, a receiving roll for a manifolding strip, a second electromagnetic mechanism for making a record from the printing

wheels, and separate devices for advancing the record strip and the manifolding strip at different rates for each recording operation.

[Claims 6 to 8 not printed in the Gazette.]

1,208,146. MAXIMUM-INDICATOR FOR METERS. CHESTER I. HALL, Chicago, Ill., assignor to Chicago Electric Meter Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 29, 1911. Serial No. 662,965. (Cl. 171—34.)



1. In an electricity meter, the combination of a meter element revoluble proportionally to the electricity measured, a device for indicating the electricity measured for a given interval, gearing between the revoluble element and the indicating device, a pawl and ratchet mechanism associated with the gearing, a rack adapted to move one element of the pawl and ratchet mechanism relatively to the other, a weight tending to move the rack to drive the pawl and ratchet mechanism and thereby the gearing, a cam for periodically moving the weight and rack to their initial position, a constant speed motor, gearing driven by the motor, mechanism between the cam and the motor gearing for storing the energy of rotation of the motor, and an escape mechanism actuated by the motor gearing for releasing the cam and communicating thereto the stored energy.

2. In an electricity meter, the combination of a meter element revoluble proportionally to the electricity measured, a device for indicating the electricity measured for a given interval, gearing between the revoluble element and the indicating device, a pawl and ratchet mechanism associated with the gearing, a rack adapted to move one element of the pawl and ratchet mechanism relatively to the other, a weight tending to move the rack to drive the pawl and ratchet mechanism and thereby the gearing, a cam for periodically moving the weight and rack to their initial position, and a constant speed motor for intermittently operating the cam.

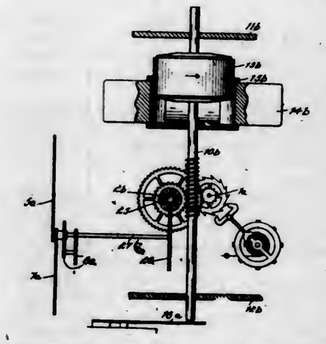
3. In an electricity meter, the combination of a meter element revoluble proportionally to the electricity measured, a device for indicating the electricity measured for a given interval, gearing between the revoluble element and the indicating device, a pawl and ratchet mechanism associated with the gearing, a rack adapted to move one element of the pawl and ratchet mechanism relatively to the other, a weight tending to move the rack to drive the pawl and ratchet mechanism and thereby the gearing, and a constant speed motor for mechanically moving the weight and rack to their initial position at regularly recurring intervals.

4. In an electricity meter, the combination of a meter element revoluble proportionally to the electricity measured, a device for indicating the electricity measured for a given interval, gearing between the revoluble element and the indicating device, a pawl and ratchet mechanism associated with the gearing, a rack adapted to move one element of the pawl and ratchet mechanism relatively to the other, a weight tending to move the rack to drive the pawl and ratchet mechanism and thereby the gearing, and a constant speed motor for mechanically moving the weight and rack to their initial position at regularly recurring intervals without changing the position of the indicating device.

5. In an electricity meter, the combination of a meter element revoluble proportionally to the electricity measured, a device for indicating the electricity measured for a given interval, driving mechanism between the revoluble element and the indicating device, a pawl and ratchet mechanism associated with the driving mechanism, a device adapted to move one element of the pawl and ratchet mechanism relatively to the other, means tending to move the said device to drive the pawl and ratchet mechanism and thereby the elements of the driving mechanism, and means operating at a constant rate for mechanically moving the actuating device for the pawl and ratchet mechanism to its initial position at regularly recurring intervals.

[Claims 6 to 12 not printed in the Gazette.]

1,208,147. CLOCK CONSTRUCTION. CHESTER I. HALL, Chicago, Ill., assignor to Chicago Electric Meter Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 22, 1912. Serial No. 732,853. (Cl. 58—23.)



1. In combination, elements comprising a chronometer mechanism, a weight for driving said elements arranged when rotated to move upwardly, and mechanism arranged to continuously rotate the weight to maintain it in substantially the same horizontal plane.

2. In combination, elements comprising a chronometer mechanism, a weight for driving said elements arranged when rotated to move upwardly, and mechanism arranged to subject said weight to a constantly operating variable torque to maintain it in substantially the same horizontal plane.

3. In combination, elements comprising a chronometer mechanism, a weight for driving said elements arranged when rotated to move upwardly, mechanism arranged to continuously rotate the weight to maintain it in substantially the same horizontal plane, and means out of engagement with the weight when the weight is turning arranged to retain the weight in operative position after it has ceased to turn.

4. In combination, elements comprising a chronometer mechanism, a weight for driving said elements arranged when rotated to move upwardly, mechanism arranged to continuously rotate the weight to maintain it in substantially the same horizontal plane, and a spring out of engagement with the weight when the weight is turning arranged to hold the weight in operative position after it has ceased to turn.

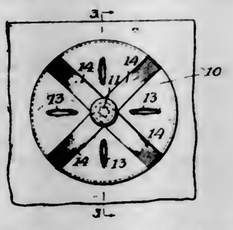
5. In combination, elements comprising a chronometer mechanism, a weight for driving said elements, and constantly operating motor mechanism for moving the weight to a driving position, motion of said weight to its driving position serving to decrease the driving torque of said motor mechanism.

[Claims 6 to 10 not printed in the Gazette.]

1,208,148. RENEWABLE BUTTONING DEVICE. RICHARD F. HALLADAY, Leominster, Mass. Filed Mar. 22, 1916. Serial No. 85,861. (Cl. 2—57.)

1. As an article of manufacture, a garment having a member thereon provided with a plurality of button-holes,

said member being fastened to the garment at a point and being capable of being turned about said point to a plurality of positions, in each of which one of said button-holes is located in operative position, without being detached from the garment.



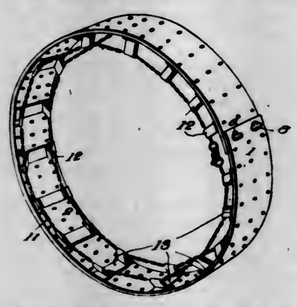
2. As an article of manufacture, a garment provided with a member secured thereto at its center and capable of being turned on said center to different positions and having a plurality of buttoning devices radiating from said center.

3. As an article of manufacture, a garment provided with a circular member of sheet material secured to the garment at the center of the member, capable of turning on said center, and having a plurality of button-holes arranged around the center.

4. The combination with a garment, of a member formed of sheet material, a snap fastener having two parts, one mounted on said member and one on the garment adapted to be snapped together to secure the member to the garment at any desired angle, said member being provided with button-holes arranged around said fastener.

5. As an article of manufacture, a button-hole member consisting of two sheets of cloth in circular form sewed together around their edges and provided with radiating rows of stitching equally spaced apart to form a series of pockets in the member, button-holes arranged in each of said pockets, and fastening means located at the center.

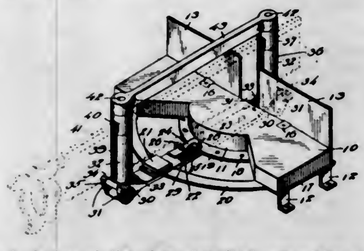
1,208,149. DETACHABLE SAND-TREAD FOR TIRES. WILLIAM G. HANING, Riverside, Cal. Filed June 2, 1915. Serial No. 31,728. (Cl. 152—17.)



1. In a detachable tire tread of the class described, a flexible band, a plurality of resilient tread members carried thereby, straps extending transversely of the band and provided with loops spaced inwardly from the lateral edges of the band, and flexible securing elements passed through said loops and also located inwardly of the lateral edges of the band.

2. In a detachable tire tread of the class described, a flexible tread band comprising connected plies, resilient rectilinear tread members disposed between the plies and extending transversely thereof, reinforcing strips extending longitudinally between said plies, the said tread members being provided at their ends with eyes, and securing elements passing through the plies and through the eyes of the said members and also through the said strips.

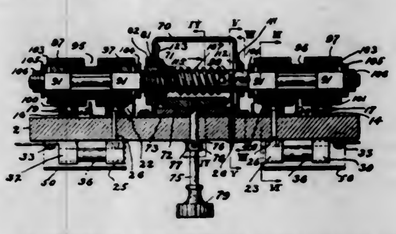
1,208,150. FOLDING MITER-BOX. LOUIS L. HALL, Duluth, Minn. Filed Aug. 7, 1915. Serial No. 44,368. (Cl. 143—89.)



1. A device of the class described comprising a base element back plates carried thereby, a horizontal bar pivoted intermediately of the base element, respective saw guides pivoted on the ends of the bar, ears formed at each side of the bar at the ends and projecting outwardly of the pivots of the guides, a latch movable to lie across the ears, the ears and latches being constructed to coengage for support of the guides, and means to secure the bar in various positions in its pivotal movement.

2. In a miter box, a body portion, a pivot opening being formed therein having a slot extending therefrom, a bar having a pintle engaged in said opening, said pintle having flattened sides spaced from each other and disposed at an angle to the bar for engagement slidably in said slot when the bar is in a predetermined inoperative position, and saw guides movably mounted on the bar to clear the body member at times.

1,208,151. SWITCHBOARD. JOHN P. HAYES, Pittsburgh, Pa., assignor of one-half to John E. Barnhart, Pittsburgh, Pa. Filed Sept. 8, 1914. Serial No. 860,564. (Cl. 175—289.)



1. In combination with conducting members having contact terminals, a rotatable switch having a co-acting conducting portion and non-conducting portion, a shaft therefor, a casing, gears rotatably mounted in the casing adapted to actuate the shaft, a fixedly mounted locking abutment, an abutment extending from the shaft co-acting therewith and adapted to be released therefrom upon predetermined movement of said gears, and a spring connected with one of said gears and with said shaft.

2. In combination with conducting members having contact terminals, a rotatable switch having a co-acting conducting portion and non-conducting portion, a longitudinally movable rotatable threaded shaft therefor, locking means for the shaft releasable upon longitudinal movement thereof, a gear having threaded engagement with the shaft, a spring connecting said gear with the shaft, and means for actuating said gear.

3. In combination with conducting members having contact terminals, a rotatable switch having a co-acting conducting portion and non-conducting portion, a longitudinally movable rotatable threaded shaft therefor, locking means for the shaft releasable upon longitudinal movement thereof, a gear having threaded engagement with the shaft, a spring connecting said gear with the shaft,

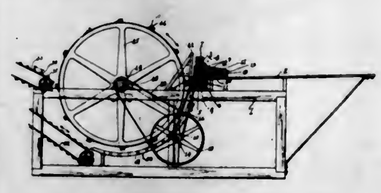
and an operating spindle having a gear engaging said gear.

4. In combination with conducting members having contact terminals, a rotatable switch having a co-acting conducting portion and non-conducting portion, a longitudinally movable rotatable threaded shaft therefor, a casing, a gear rotatably mounted in the casing having threaded engagement with the shaft and adapted to advance it longitudinally, a fixedly mounted locking abutment, an abutment extending from the shaft co-acting therewith and operable to be released therefrom upon longitudinal movement of the shaft, a spring connecting said gear with the shaft, and an actuating gear engaging said gear.

5. In combination with conducting members having contact terminals, a rotatable switch having a co-acting conducting portion and non-conducting portion, a longitudinally movable rotatable threaded shaft therefor, a casing, a gear rotatably mounted in the casing having threaded engagement with the shaft and adapted to advance it longitudinally, means for fixedly holding said gear against reverse movement, a fixedly mounted locking abutment, an abutment extending from the shaft co-acting therewith and operable to be released therefrom upon longitudinal movement of the shaft, a spring connecting said gear with the shaft, and an actuating gear engaging said gear.

[Claims 6 to 10 not printed in the Gazette.]

1,208,152. HEMP BREAKING AND CLEANING MACHINE. JOHN HEANEY, Stockton, Cal. Filed May 31, 1916. Serial No. 100,876. (Cl. 13—18.)



1. A hemp breaking and cleaning machine comprising a feed mechanism, a beater cylinder coöperating with the feed mechanism, beater bars on the cylinder, such beater bars being inclined from their edges toward their centers in a reverse direction to the direction of travel of the cylinder, and a screen over which the beater bars move.

2. A hemp breaking and cleaning machine comprising feed rollers, a shield plate disposed in front of the rollers and provided with a slot terminating short of the ends of the rollers, a plate along the bottom edge of the slot, one edge of the plate extending closely adjacent the lower roller, a beater cylinder, beater bars on the cylinder operable closely adjacent such plate, such bars being provided with teeth and extending obliquely from their ends to their centers in the direction opposite the direction of movement of the cylinder, a cleaning cylinder disposed below the plate, the beater bars movable over the cleaning cylinder, a conveyer operable adjacent the cleaning cylinder and a cleaning conveyer operable adjacent the beater bars.

1,208,153. KITCHEN-CABINET. CHARLES B. HEATH, Stockton, Cal., assignor of one-half to G. W. Quigley, Stockton, Cal. Filed Apr. 28, 1914. Serial No. 834,936. (Cl. 45—16.)

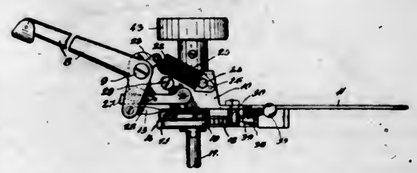
1. In a kitchen cabinet, a cabinet proper and a door vertically hinged thereto, a panel for the lower portion of the door vertically hinged to the latter so that the panel may be swung outwardly to lie in the same plane with the door, said panel having its lower part offset, a table horizontally hinged to the panel and movable downwardly to engage the inner face of the panel, and legs hinged to the table at the free side thereof, said legs being movable to engage the under face of the table and when so engaged being disposed in the offset of the panel.



2. In a kitchen cabinet, a cabinet proper, a door vertically hinged to the cabinet proper, a member vertically hinged to the outer side edge of the door so that the member may be swung outwardly to lie in the same plane with the door and may be folded to lie substantially parallel to the door, a foldable table horizontally hinged to the member and when folded being movable to lie substantially parallel to the door, and foldable means to horizontally support the table and when folded lying substantially parallel to the door.

3. In a kitchen cabinet, a cabinet proper, a door vertically hinged to the cabinet and having a lower offset extending inwardly of the cabinet, a panel vertically hinged to the door, said panel having a lower offset extending outwardly of the cabinet, and a table horizontally hinged to the panel and foldable into the door offset, and foldable legs for the table foldable into the panel offset.

1,208,154. LINE-SPACE DEVICE FOR WRITING-MACHINES. EDWARD B. HESS, Brooklyn, N. Y., assignor to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Sept. 24, 1914. Serial No. 863,264. (Cl. 197—114.)



1. In a typewriting machine, the combination of a carriage, its front bearing, a platen mounted in the carriage, pawl and ratchet mechanism for operating the platen for line spacing, a rocker arm carrying the pawl, a horizontally arranged pawl-operating lever pivoted to move about a vertical axis located forward of the front bearing of the carriage, and a link connecting the rocker arm with the pawl-operating lever.

2. In a typewriting machine, the combination of a carriage, its front bearing, a platen mounted in the carriage, pawl and ratchet mechanism for operating the platen for line spacing, a rocker arm carrying the pawl, a horizontally arranged pawl-operating lever pivoted to move about a vertical axis located forward of the front bearing of the carriage, and a link connected at its rear end to the rocker arm and at its front end with the operating lever in a plane forward of the front of the carriage.

3. In a typewriting machine, the combination of a carriage, its front bearing, a platen mounted in the carriage,

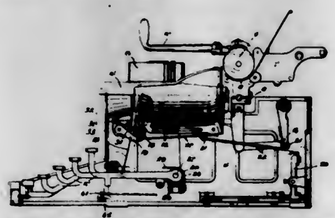
pawl and ratchet mechanism for operating the platen for line spacing, a rocker arm carrying the pawl, a bracket extending forward from the carriage, a horizontally arranged pawl-operating lever supported by the bracket and pivoted to move about a vertical axis located forward of the front bearing of the carriage, and a link connecting the rocker arm with the pawl operating lever.

4. In a typewriting machine, the combination with the carriage, the platen and the pawl and ratchet for operating the platen for line spacing, of a bracket extending forward from the carriage frame, a horizontally arranged line space operating lever pivoted to said bracket to move about a vertical axis located forward of the front bearing of the carriage, a stop plate attached to said bracket and engaging the operating lever for limiting its return movement, a stop on the bracket for limiting the forward movement of the lever, a horizontally arranged incased spring connected with the lever and with the bracket for turning the lever to normal position, a ratchet wheel connected with a platen, a pawl coöperating with the ratchet wheel, a rocking arm by which the pawl is carried and a link connected at one end with the arm extending forward therefrom and connected at its front end with the operating lever.

5. A line spacing device for a writing machine, comprising a platen controlling ratchet wheel on a shaft having a bearing in the end frame of the carriage, a spring carried detent roller adapted to act on the ratchet wheel, a vertical lever pivoted at its lower end to the carriage frame and to which the detent roller spring is secured between said pivot and the upper operating end of the lever and a forward and a backward stop between which the lever is free to move.

[Claim 6 not printed in the Gazette.]

1,208,155. TYPE-WRITING MACHINE. EDWARD B. HESS and LEWIS C. MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed May 3, 1915. Serial No. 25,384. (Cl. 197—40.)



1. In a typewriting machine, key levers, a bearing bar for the rear ends of the key levers, an alining plate extending upwardly in rear of the bearing bar and having its top above the rear ends of the key levers thus serving to aline the pivot holes of said levers, and a pivot rod connecting the key levers with the bearing bar.

2. In a typewriting machine, key levers, a bearing bar to which the rear ends of the key levers are pivotally connected and a guard secured to the bearing bar and extending upwardly and over the ends of the key levers to protect their bearings from dust and adapted to guide the ends of levers to aline their holes with the bearing holes of the bearing bar and a bearing rod or shaft having a pointed end by which it may be readily inserted through the holes of the levers and holes of the bearing bar.

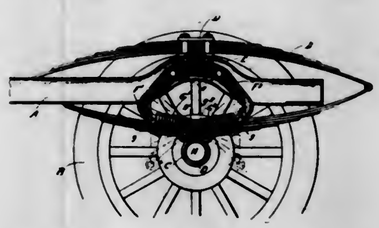
3. In a typewriting machine, key levers, a bearing bar to which the rear ends of the key levers are pivotally connected, front links of link systems for operating the type bars, vertical links connecting the key levers to the front links, and a supporting bar provided with bearings for the front links and having at its rear side a downwardly extending flange, said front links being formed with a bend to extend under said flange.

4. In a typewriting machine, key levers, a bearing bar to which the rear ends of the key levers are pivotally connected, front links of link systems for operating the type bars, vertical links connecting the key levers to the front links, a supporting bar provided with bearings for the front links and having its upper side inclined downwardly toward the front edge, and a dust guard formed to seat on the upper side of the front link supporting bar and to extend downwardly to the key levers in front of the machine.

5. In a typewriting machine, key levers, a bearing bar to which the rear ends of the key levers are pivotally connected, front links of link systems for operating the type bars, vertical links connecting the key levers to the front links, a supporting bar provided with bearings for the front links and having its upper side inclined downwardly toward the front edge and a dust guard formed to seat on the upper side of the front link supporting bar and to extend downwardly to the key levers in front of the machine, the upper part of said dust guard being shaped to conform to the curvature of the face line of the type heads.

[Claims 6 to 8 not printed in the Gazette.]

1,208,156. AUXILIARY VEHICLE-SPRING. PHILLIP HIEN, Chicago, Ill. Filed Dec. 7, 1911. Serial No. 664,384. (Cl. 267—19.)



1. The combination with a vehicle comprising relatively movable parts and interposed springs, of a coiled spring shock absorbing device for supplementing the action of the vehicle springs, and means for connecting said device to the relatively movable parts of the vehicle to render said device inactive when the vehicle springs are in normal position under predetermined load and for subjecting the coiled springs of said device to a gradually increasing tension, both upon the compression and recoil of the vehicle springs thereby exerting a gradually increasing resistance both to the compression and recoil of the vehicle springs from their normal position under predetermined load.

2. The combination with a vehicle comprising relatively movable parts and interposed springs, of a device for supplementing the action of the vehicle springs comprising a pair of auxiliary springs in substantial horizontal alinement when the vehicle contains a predetermined load, and means for securing said springs at their outer ends to one of the relatively movable parts of the vehicle and at their inner ends to the other of the relatively movable parts of the vehicle, whereby the ends of said auxiliary springs are relatively vertically moved and the auxiliary springs thereby placed under a gradually increasing tension as the vehicle springs are compressed and also as the vehicle springs recoil.

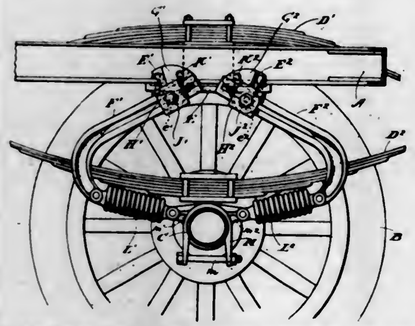
3. The combination with a vehicle comprising a body, axles, and springs interposed between the body and axles, of a device for reinforcing said springs comprising a pair of auxiliary springs in substantial horizontal alinement when the vehicle contains a predetermined load, and means for securing said springs at their outer ends to the frame of the vehicle body and at their inner ends to an axle, whereby the ends of said auxiliary springs are relatively moved vertically and the auxiliary springs thereby placed under a gradually increasing tension as the vehicle springs are compressed and also as the vehicle springs expand.

4. The combination with a vehicle comprising relatively movable parts and interposed springs connecting said parts, of a shock absorbing device for supplementing the action of the vehicle springs comprising a pair of oppositely extending coil springs, means connecting the inner ends of said coil springs to one of the relatively movable parts of the vehicle, and means for connecting the outer ends of said coil springs to the other of the relatively movable parts of the vehicle, the relative positions of said two means placing said coil springs under tension when the vehicle is unloaded and brought into alinement without tension when the vehicle contains a predetermined load.

5. The combination with a vehicle comprising relatively movable parts and interposed springs connecting said parts, of a shock absorbing device for supplementing the action of the vehicle springs comprising a pair of oppositely extending coil springs, means connecting the inner ends of said coil springs to one of the relatively movable parts of the vehicle, means for connecting the outer end of said coil springs to the other relatively movable parts of the vehicle, and means for relatively adjusting the inner and outer ends of said coil springs so that the said springs will be relatively inclined when the vehicle is unloaded and will aline when the vehicle contains a predetermined load.

[Claims 6 to 8 not printed in the Gazette.]

1,208,157. AUXILIARY VEHICLE-SPRING. PHILLIP HIEN, Chicago, Ill. Filed Feb. 14, 1914. Serial No. 818,781. (Cl. 267—19.)



1. The combination with a vehicle comprising relatively movable parts and interposed springs, of a device for supplementing the action of the vehicle springs comprising a pair of normally substantially alined auxiliary springs, means for securing the inner ends of said auxiliary springs to one of the relatively movable vehicle parts, brackets for securing the outer ends of said auxiliary springs to the other of the relatively movable vehicle parts, means for oscillating said brackets to vary the relative positions of the ends thereof to which the outer ends of the auxiliary springs are connected, and means for retaining said brackets in their adjusted positions.

2. The combination with a vehicle comprising relatively movable parts and interposed springs, of a device for supplementing the action of the vehicle springs comprising a pair of normally substantially alined auxiliary springs, means for securing the inner ends of said auxiliary springs to one of the relatively movable vehicle parts, brackets for securing the outer ends of said auxiliary springs to the other of the relatively movable vehicle parts, means for oscillating said brackets to vary the relative positions of the ends thereof to which the outer ends of the auxiliary springs are connected, means for adjusting the point of oscillation of said bracket, and means for retaining said brackets in their adjusted positions.

3. The combination with a vehicle comprising relatively movable parts and interposed springs, of a device for supplementing the action of the vehicle springs comprising a pair of normally substantially alined auxiliary springs, means for securing the inner ends of said auxiliary springs to one of the relatively movable vehicle parts, brackets for securing the outer ends of said auxiliary springs to the other of the relatively movable vehicle parts, an oscillatory support for each of said brackets, and means for securing said support in any position to which it may be oscillated.

4. The combination with a vehicle comprising relatively movable parts and interposed springs, of a device for supplementing the action of the vehicle springs comprising a pair of normally substantially alined auxiliary springs, means for securing the inner ends of said auxiliary springs to one of the relatively movable vehicle parts, brackets for securing the outer ends of said auxiliary springs to the other of the relatively movable vehicle parts, an oscillatory support for each of said brackets, means for adjusting said brackets relatively to their supports, and means for securing said supports in any positions to which they may be oscillated.

5. The combination with a vehicle comprising relatively movable parts and interposed springs, of a device for supplementing the action of the vehicle springs comprising a pair of normally substantially alined auxiliary springs, means for securing the inner ends of said auxiliary springs to one of the relatively movable vehicle parts, brackets for securing the outer ends of said auxiliary springs to the other of the relatively movable vehicle parts, an oscillatory supporting plate for each of said brackets, a fixed plate adjacent the path of oscillation of each of said supporting plates, and means for rigidly connecting each oscillatory plate to the adjacent rigid plate in any positions to which they may be relatively oscillated.

[Claims 6 and 7 not printed in the Gazette.]

1,208,158. GAME. CHARLES S. HILL, Belmont, Mass. Filed Apr. 9, 1915. Serial No. 20,336. (Cl. 46—59.)



1. In a game, a support, a pin positioned thereon and adapted to be overthrown and means to hold the pin in position including an elastic loop passing transversely through said pin and securing it under tension to said support.

2. In a game, an apertured support, a plurality of pins positioned thereon and adapted to be overthrown, a cord looped back and forth through the apertures of said support under elastic tension, the pins engaging and held by portions of said cord between adjacent apertures.

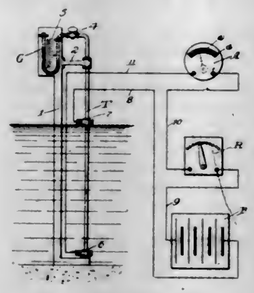
3. In a game, a support, a series of pins positioned thereon and adapted to be overthrown and means for securing said pins comprising a member having a part transversely interengaging with the base of a pin and parts engaging the board adjacent said base, said means resiliently pressing said pin toward the support whereby when over-set said pin will snap into fallen position and there be retained without rolling.

4. In a game, a support, a series of pins positioned thereon and adapted to be overthrown and securing means for the pins comprising a transverse portion engaged with each pin adjacent its base and forming a journal therefor, said portion being resiliently held to the board whereby the pin when overthrown will snap from upright to fallen position without rolling or transverse movement.

1,208,159. METHOD AND APPARATUS FOR MEASURING THE FLOW OF FLUIDS. CLIFFORD W. HUMPHREY, Chicago, Ill. Filed Dec. 17, 1915. Serial No. 67,310. (Cl. 73—167.)

1. The method of measuring the flow of fluids which consists in inclosing a certain volume of fluid in a space

substantially surrounded by the flowing fluid, whereby the temperature of the inclosed fluid is affected by the flowing fluid, heating the inclosed fluid and observing the relation existing between the energy utilized to heat the inclosed fluid and the resultant expansion of said inclosed fluid.



2. The method of measuring the flow of fluids which consists in inclosing a certain quantity of fluid under substantially atmospheric pressure in a space substantially surrounded by the flowing fluid, heating the fluid thus inclosed and observing the relation between the energy utilized to heat the inclosed fluid and the resultant expansion of said inclosed fluid.

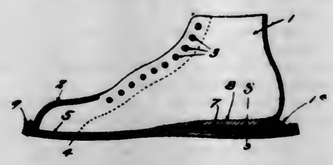
3. The method of measuring the flow of fluids which consists in determining the amount of electricity required to so heat an electric resistance element, which is immersed in the flowing fluid and which incloses a quantity of gas otherwise free to expand, that said quantity of gas assumes a certain predetermined volume.

4. The method of measuring the flow of fluids which consists in inclosing a certain quantity of gas at the temperature of the flowing fluid and under substantially atmospheric pressure in a space substantially surrounded by the flowing fluid and determining the amount of electrical energy required to so heat said inclosed quantity of gas that said gas assumes a certain predetermined volume.

5. Apparatus for measuring the flow of fluid comprising a resistance element adapted to be immersed in a flowing fluid and arranged to inclose a column of gas together with electric circuit connections whereby a heating current may be passed through said resistance element, and means for determining the expansion of the gas under heating.

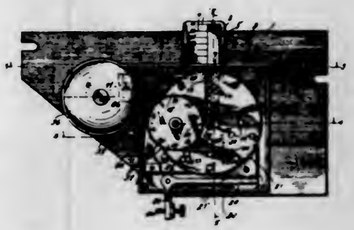
[Claims 6 to 11 not printed in the Gazette.]

1,208,160. SHOE. WALTER C. JANSEN, Louisiana, Mo., assignor of one-half to Craddock-Terry Company, Lynchburg, Va., a Corporation of Virginia. Filed Apr. 20, 1916. Serial No. 94,302. (Cl. 36—27.)



A shoe comprising quarters having heel extensions, an inside shank to the under side of which said quarters are attached above the line of said extensions, said shank terminating approximately at the ball of the shoe, an inside heel arranged under said inside shank and within the heel extensions on the quarters, and a sole to which said heel extensions are secured.

1,208,161. VARIABLE-RINGING REGISTER. JOHN J. J. JOHNSON, Bethlehem, Pa. Filed Feb. 25, 1915. Serial No. 10,538. (Cl. 235—128.)



1. In a variable ringing register of the class described, the combination of a support, a tripping disk rotatably carried thereby, teeth formed upon the periphery of said disk, a tripping arm pivotally mounted upon said support, said arm extending in a horizontal plane, a vertical spring carried by the free end of said arm, said spring engaging said teeth, a depending finger formed upon the pivoted end of said arm, said finger being adapted to be intermittently rocked for rocking said arm, whereby said tongue will move said disk the space of one tooth upon each complete rock of said arm, said disk being adapted to operate a signal as it rotates.

2. In a variable ringing register of the class described, the combination of a support, a tripping disk rotatably mounted thereon, said disk being provided with apertures, an adjusting bar slidably mounted upon said support, means for retaining said bar in an adjusted set position, a block pivotally mounted upon said bar, a clapper arm fixedly secured to said block, a lug formed upon said clapper arm, means for urging said clapper arm forwardly, said lug being adapted to fall into said apertures as said disk rotates, whereby said clapper arm will spring forwardly, said arm being adapted to strike a bell for giving a signal.

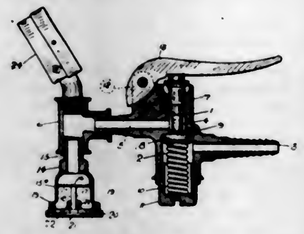
3. In a variable ringing register of the class described, the combination of a support, a tripping disk rotatably mounted thereon, said disk being provided with apertures, an adjusting bar slidably mounted upon said support, means for retaining said bar in an adjusted set position, spaced ears formed upon said bar, said ears having openings, a block having projecting ends fitting within said openings, whereby said block will be pivotally supported, a clapper arm fixedly secured to said block, a lug formed upon said clapper arm, means for urging said clapper arm forwardly, said lug being adapted to fall into said apertures, as said disk rotates, whereby said clapper arm will spring forwardly, said arm being adapted to strike a bell.

4. In a variable ringing register of the class described, the combination of a support, a tripping disk rotatably mounted thereon, said disk being provided with apertures, an adjusting bar slidably mounted upon said support, said bar being provided with teeth upon one side edge thereof, a flat spring carried by said support and engaging said teeth for holding said bar in an adjusted set position, a block pivotally mounted upon said bar, a clapper arm fixedly secured to said block, a lug formed upon said clapper arm, means for urging said clapper arm forwardly, said lug being adapted to fall into said apertures as said disk rotates, whereby said clapper arm will spring forwardly, said arm being adapted to strike a bell.

5. In a variable ringing register of the class described, the combination of a support, a tripping disk rotatably mounted thereon, said disk being provided with apertures an adjusting bar slidably mounted upon said support, means for retaining said bar in an adjusted set position, a block pivotally mounted upon said bar, a clapper arm fixedly secured to said block, a spring connected to said block and said support for urging the free end of said clapper arm outwardly, an outwardly bent lug secured to said arm, said lug riding upon one side surface of said disk, whereby said lug may pass into said apertures at intermittent intervals, thereby allowing the free end of said arm to swing outwardly, the inner end of said arm being bent to form an inwardly extending tongue, said tongue being adapted to bear upon said support for limiting the swinging movement of the free end of said arm, said clapper arm being adapted to strike a bell.

[Claim 6 not printed in the Gazette.]

1,208,162. PRESSURE-RECORDING VALVE. HENRY JUNGJOHANN, Davenport, Iowa. Filed Mar. 25, 1915. Serial No. 16,905. (Cl. 137—28.)



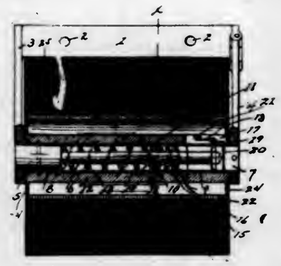
1. In a device of the class set forth, a T-fitting; a pressure gage attached to one of the passages thereof; a tire-nipple engaging device connected to the passage of the fitting opposite the pressure gage and provided with a valve device adapted to make an air-tight connection with the nipple body and also adapted to close by internal air pressure when the device is disconnected from the nipple; a valve casing attached to the remaining passage of said fitting and provided with means for connecting it with an air-hose; and a manually-operated reciprocating valve mounted in said casing between the fitting connection and the air-hose connection, said valve being reciprocable on a line parallel with the tire-nipple engaging device and adapted to open in the direction of thrust in making connection with a tire valve.

2. In a valve of the class described, a three-way fitting; an attachment secured to said fitting affording communication to a source of air supply; a connecting member and a recording gage secured to said fitting; in combination with means adapted to establish communication from said source of air supply to said connecting member and to said recording gage, said connecting member being provided with automatic means whereby communication may be established between the source of air supply and said recording gage without the escape of air from the connecting member.

3. In a valve of the class described, a valve body provided with an inlet and an outlet; means adapted to establish communication from a source of air supply to said inlet; and an automatic slip connection communicating with said outlet comprising a body portion having a vertically extending tire-valve-opening pin affixed centrally thereof and a packing ring having a raised central portion surrounding said pin capable of being expanded from said pin forming an air passage to and an air-tight connection with a tire valve and of being compressed against said pin forming an air-tight closure when disconnected from a tire valve.

1,208,163. PAPER-ROLL HOLDER. GEORGE F. KEARNEY, Detroit, Mich. Filed Jan. 31, 1914. Serial No. 815,587. (Cl. 211—31.)

1. In apparatus of the character described, the combination with a bracket, of a support for paper rolls, a paper roll spindle rotatably mounted on the support, a follower on the support within the spindle, a spiral groove formed in the spindle and engaged by the follower whereby rotation of the spindle causes a movement of the follower longitudinally of the support, and a spring limiting the longitudinal movement of the follower adapted to return the follower to its normal position upon release of the spindle from actuation.



2. In apparatus of the character described, the combination with a bracket provided with means for supporting a paper roll, of a paper roll spindle rotatably mounted relative to the support, a follower on the support within the spindle, means whereby rotation of the spindle causes a movement of the follower longitudinally of the support, and means for repositioning the follower for successive operations.

3. In a device of the character described, in combination with a bracket provided with means for supporting a paper roll, of a paper roll spindle rotatably mounted relative to the support, a follower on the support within the spindle, means whereby rotation of the spindle causes a movement of the follower longitudinally of the support, said follower being held from rotation on the support, and means limiting the longitudinal movement of the follower adapted to return the follower to its original position for successive operations.

4. A device of the character described comprising in combination, a bracket, a support for a paper roll carried by the bracket, a hollow spindle for the paper roll rotatable relative to the support, a follower on the support within the spindle provided with lugs, a tube fixedly secured to the support, said tube having longitudinal slots through which the lugs on the follower project, spiral grooves on the spindle engaged by said lugs on the follower whereby rotation of the spindle causes a movement of the follower longitudinally of the support, and a spring on the support adapted to resist said longitudinal movement of the follower and restore it to its normal position.

5. A device of the character described, comprising a bracket having a fixed and a pivoted arm, a paper roll support secured to the fixed arm; a spindle rotatably mounted on said support, means actuated by the rotation of the spindle limiting the extent of such rotation, a paper roll having a core, a plate near each end of the core apertured to engage the spindle, and locking means for securing the pivoted arm in operative relation with correlated parts, said locking means being covered by the core.

[Claims 6 and 7 not printed in the Gazette.]

1,208,164. DRILL. JAMES W. KELLY, Chicago, Ill. Filed Apr. 8, 1916. Serial No. 89,926. (Cl. 77—70.)

1. A drill comprising a metal tube formed into an exterior and interior spirally-twisted section, the internal spiral forming a lubricant-duct leading to the cutting extremity of the drill.

2. A drill comprising a metal tube formed into a straight chuck-section and an exterior and interior spirally-twisted section, the internal spiral forming a lubricant-duct leading to the cutting extremity of the drill.

3. A drill comprising a metal tube provided with concave wall-sections and formed into an exterior and interior spirally-twisted section provided with a cutting extremity, the interior spiral forming a lubricant-duct leading to said cutting extremity.

4. A drill comprising a spirally-twisted metal tube provided with concave wall-sections contacting along their inner surfaces, the concavities forming external sharp-edged grooves in the twisted tube, extending to the cutting extremity of the drill.



5. A drill comprising a metal tube having a section formed of longitudinally-concave opposite wall-portions spirally twisted to form external and internal spiral grooves in said section, and a reinforced straight section, the internal spiral forming a lubricant-duct leading to the cutting extremity of the drill.

[Claim 6 not printed in the Gazette.]

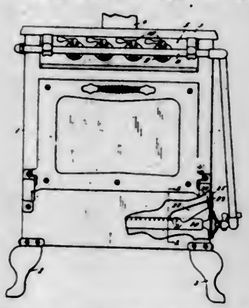
1,208,165. VACUUM CLEANING-TOOL. GORDON E. KENT, Rome, N. Y., assignor of one-third to Fay T. Kent, Rome, N. Y., and one-third to Bert M. Kent, Washington, D. C. Filed May 15, 1914. Serial No. 838,725. (Cl. 15—60.)



In a vacuum cleaning tool, the combination of a body having an exhaust connection and a relatively long and narrow inlet slot, a shoe, pivots connecting the ends of said body with the ends of said shoe and adapted to permit the body to be rocked relatively to the surface to be cleaned, said shoe having an opening registering with said inlet and also having its lower surface in a plane relatively lower than the lower edges of the walls of said body whereby the shoe is adapted to support the body off the surface being cleaned, said shoe having the inner surfaces of the longer side walls curved about the axis of said pivots to fit the adjacent walls of said body and substantially prevent air from passing between the walls of the shoe and body, and rollers on said shoe projecting below the lower surface thereof and arranged so as to support the shoe off the surface being cleaned and in a state of stability.

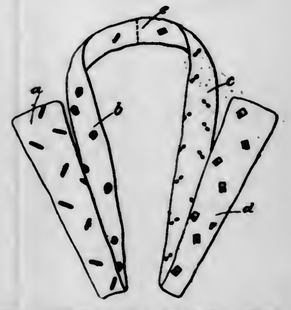
1,208,166. IGNITION DEVICE FOR GAS-STOVES. FRANK V. KNAUSS, Portsmouth, Ohio. Filed Aug. 30, 1915. Serial No. 47,930. (Cl. 158—115.)

A device of the nature disclosed comprising a gas burner, a burner chamber having an apertured wall, the aperture being located remote from the zone of combustion of the burner, and an inclined plate secured to the chamber wall adjacent the aperture, having a channeled under surface terminating at the aperture through the wall, said plate



having an aperture therethrough registering with said wall aperture, the opposite end of said inclined plate straddling over a portion of the burner gas jet openings.

1,208,167. NECKTIE. ERNEST WILFORD KNOTTS, Shawnee, Okla. Filed Mar. 13, 1914. Serial No. 824,380. (Cl. 2—11.)



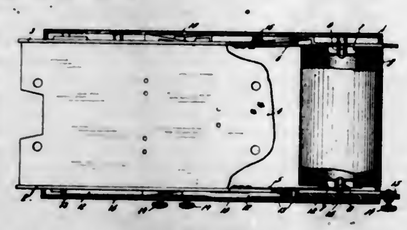
A necktie consisting of a band for tying comprising four pieces of material each of a different color, pattern, texture or the like, said pieces being disposed at the opposite ends of the two sides of the tie and there connected together at their adjacent ends and along their respective edges so that the junction of the said pieces is so located as to cause the adjacent parts of the different pieces to be hidden by the wearer's collar substantially as set forth.

1,208,168. WEB-HOLDER FOR MANIFOLDING DEVICES. ALBERT KRAUTH, Hamilton, Ohio. Filed Sept. 27, 1915. Serial No. 52,810. (Cl. 211—31.)

1. A web support comprising a casing, a pair of yielding members operatively supported within said casing adapted to claspingly sustain a web therebetween and a rigid member on said frame for engaging one of said yielding members to stabilize the same when supporting a web.

2. A web support comprising a pair of yielding members oppositely arranged and supported to receive and sustain a web therebetween and a rigid member having an adjustable abutment projecting therefrom for engaging one of said members to stabilize the same when supporting a web.

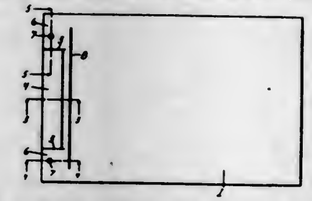
3. A machine of the class described, a casing, a writing table supported by the casing, a pair of yielding members oppositely supported within the casing below the writing table to claspingly receive and support a web, the web adapted to be fed over the writing table and an adjustable abutment rigidly supported on said casing projecting to engage one of said yielding members to stabilize the same and for alining the web with respect to the writing table for a second web support within the casing and said abutment being movable for releasing said member for a web insertion or removal.



4. A web support comprising a pair of oppositely arranged holder members for compressingly sustaining a web, a cupped disk upon each of said holders respectively to engage with the core ends of said web, a rigid member abuttingly engaging one of said holders to limit its motion in a holder expanding direction and releasable from its holder engagement.

5. In a machine of the class described, a pair of side frames, web supporting means therefor comprising a pair of flexible blades relatively opposite and respectively secured to said frame to compressingly sustain a web, a disk mounted upon the free end of each blade engaging into the web core, a bar releasably secured to one of said side frames and across an adjacent holder web supporting end, and an adjustable member on said bar, engaging said holder as an abutment therefor.

1,208,169. LEAF OR SHEET FOR TEMPORARY BINDERS. REINHOLD KRUMMING, Milwaukee, Wis. Filed Dec. 20, 1915. Serial No. 67,869. (Cl. 129—1.)



1. A leaf having alined opposed transverse slits extending from its edges and longitudinal slits extending forwardly from such transverse slits, said sheet being folded on the line of said transverse slits, the folded portion constituting a binding member flap, the portions at the outside of said longitudinal slits constituting flap retaining members, said flap being disposed through said longitudinal slits, the sheet being provided with perforations through said flap and parts overlapping therewith and being transversely scored adjacent the inner edge of said flap to facilitate flexing.

2. A leaf having alined opposed transverse slits extending from its edges and longitudinal slits extending forwardly from such transverse slits, said sheet being folded on the line of said transverse slits, the folded portion constituting a binding flap and being disposed through said longitudinal slits, there being a line of perforations between said transverse slits to facilitate folding of the flap.

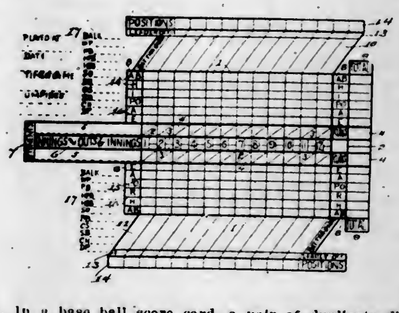
3. A leaf having alined opposed transverse slits extending from its edges and longitudinal slits extending forwardly from such transverse slits, said sheet being folded on the line of said transverse slits and the ends of the folded portion being disposed through said longitudinal slits.

4. A leaf having a flap portion at its binding edge folded back upon the leaf body, there being transverse slits extending from each edge, and longitudinal slits extending forwardly from such transverse slits, the parts on the outside of said longitudinal slits constituting flap retaining members, said flap retaining members being arranged over said flap, there being registering binding member perforations through said flap retaining members and flap, said sheet being scored transversely adjacent the inner edge of said flap to provide a point of flexure.

5. A leaf having a flap portion at its binding edge folded back upon the leaf body, there being transverse slits extending from each edge, and longitudinal slits extending forwardly from such transverse slits, the parts on the outside of said longitudinal slits constituting flap retaining members, said flap retaining members being arranged over said flap, there being registering binding member perforations through said flap retaining members and flap.

[Claim 6 not printed in the Gazette.]

1,208,170. BASE-BALL SCORE-CARD. WILMOT LAKE, Washington, D. C. Filed Aug. 19, 1915. Serial No. 46,313. (Cl. 235—126.)



1. In a base ball score card, a pair of duplicate diagrams each comprising independent record columns for each player of two opposing teams, parallel longitudinal columns perpendicular to the record columns and dividing the diagram centrally, said parallel columns projecting from one end of the diagrams and containing respectively the names of opposing teams and "innings and outs by innings," one of the parallel columns containing requisite inning numerals between the record columns for both teams, "out by innings" spaces in said numeral column, "runs by innings" spaces opposite said numerals in each of the other parallel columns, and player-name columns for each team projecting from said record columns.

2. In a base ball score card, a pair of duplicate diagrams each comprising independent record columns for each player of two opposing teams, a column for "innings and outs by innings" dividing the diagrams and containing one set of requisite inning numerals for both teams, a total column perpendicular to the said innings column, a run column parallel with and adjacent to each side of the innings column and extending through the total column at one end of the diagrams, said innings and run columns projecting from the other end of the diagrams, a position column for each team and having individual position spaces, and player-name columns connecting the position columns with the said record columns and with the run columns.

3. In a one face base ball score card, requisite inning columns containing record spaces for each player of two opposing teams, a plurality of columns extending centrally across the inning columns and dividing the record columns into a set for each team, one of said dividing columns containing "outs by innings" spaces and one set of characters denoting the number of the record columns by innings of both sets, diagonal "batting order" columns leading from the inning columns, a "positions" column at the outer end of the "batting order" columns, and a "leader off" column between the "positions" columns and the "batting order" columns, substantially as shown and described.

1,208,171. CONCENTRATION OF SULFID ORES. HENRY LAVERS, Camberwell, ALFRED HENRY PIPER LOWRY, Prahran, and HENRY HOWARD GREENWAY, Melbourne, Victoria, Australia, assignors, by mesne assignments, to Minerals Separation American Syndicate (1913) Limited, London, England. Filed Mar. 14, 1914. Serial No. 824,765. (Cl. 83—85.)

1. A process of concentrating ores containing mixed metalliferous minerals which consists in agitating and aerating a pulp of such an ore, such pulp containing in solution an alkaline selectivity-modifying agent, so as to obtain a froth of concentrates of substantially all the floatable metalliferous minerals while the gangue sinks, said solution being alkaline during separation of the minerals, and separating the froth, whereby the metalliferous minerals are separated from the gangue.

2. A process of concentrating ores containing mixed metalliferous minerals which consists in agitating and aerating a pulp of such an ore, such pulp containing in solution an alkaline selectivity-modifying agent and also containing a small proportion of a frothing agent, so as to obtain a froth of concentrates of substantially all the floatable metalliferous minerals while the gangue sinks, said solution being alkaline during separation of the minerals, and separating the froth, whereby the metalliferous minerals are separated from the gangue.

3. A process of concentrating ores containing mixed metalliferous minerals which consists in agitating and aerating a pulp of such an ore, such pulp containing in solution a carbonate of an alkaline metal, so as to obtain a froth of concentrates of substantially all the floatable metalliferous minerals while the gangue sinks, said solution being alkaline during separation of the minerals, and separating the froth, whereby the metalliferous minerals are separated from the gangue.

4. A process of concentrating ores containing mixed metalliferous minerals which consists in agitating and aerating a pulp of such an ore, such pulp containing in solution a carbonate of an alkaline metal and also containing a small proportion of a frothing agent, so as to obtain a froth of concentrates of substantially all the floatable metalliferous minerals while the gangue sinks, said solution being alkaline during separation of the minerals, and separating the froth, whereby the metalliferous minerals are separated from the gangue.

5. A process of concentrating ores containing mixed metalliferous minerals which consists in agitating and aerating a pulp of such an ore, such pulp containing sodium carbonate in solution so as to obtain a froth of concentrates of substantially all the floatable metalliferous minerals while the gangue sinks, said solution being alkaline during separation of the minerals, and separating the froth, whereby the metalliferous minerals are separated from the gangue.

[Claims 6 to 12 not printed in the Gazette.]

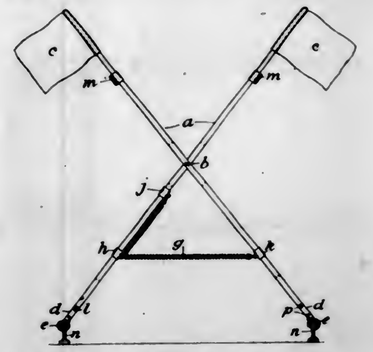
1,208,172. FLAG-SIGNAL FOR USE ON RAILWAYS. WILLIAM SAMUEL LENG, Gateshead, England. Filed Dec. 14, 1914. Serial No. 877,057. (Cl. 246—40.)

1. A signal device for use on railways comprising two pivotally connected relatively movable members, and means at the lower ends of said members for engaging the track rails to support the device.

2. A railway signal device comprising two movable members pivotally connected at their centers, rail engaging devices pivotally attached to the lower ends of said members, and flags attached to the upper ends of said members.

3. A railway signal device comprising two movable intersecting members pivotally connected together, a spring attached to said members adapted to hold their lower ends against the rails, and signals attached to the upper ends of said members.

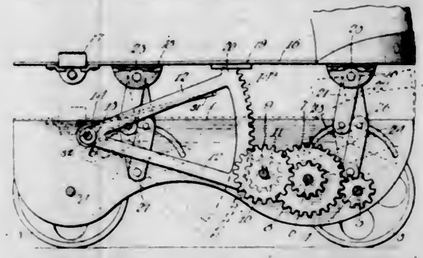
4. A railway signal device comprising two members pivotally connected together at their centers, means for securing lamps thereto; shoe members attached to the lower ends of said members adapted to engage the rails, and means for holding said shoe members tightly against said rails.



5. In a signal device for railways, the combination of two intersecting members pivotally connected together, shoes attached to said members adapted to engage the rails; said shoes being shaped to fit the top of the rail, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,208,173. SKATE. JOSEF LENHARDT, Chicago, Ill. Filed Dec. 8, 1915. Serial No. 65,663. (Cl. 46—51.)



1. In a device of the class described, a frame having two separated side plates in parallel separated arrangement, rollers rotatably supported from said side plates, speed increasing gearing supported between the side plates and connected to the rollers, a foot plate arranged over the side plates of the frame, a plurality of connecting links, pivots connecting said links in pairs, said pivots being slidably mounted in the side plates, and pivots fixed in position connecting the upper and lower extremities of the pairs of links respectively to the foot plate and the side plates.

2. In a device of the class described, a frame having two vertical side plates in parallel separated arrangement, said plates being of thin metal long and fairly wide and extending longitudinally and side by side, rollers mounted on the exterior of and rotatably supported from said side plates, speed increasing gearing supported between the side plates and connected to the rollers, a foot plate movably mounted over the frame and operatively connected to the speed increasing gearing, said food plate having movement in a vertical direction relatively to the frame, and a plurality of links arranged in pivotally joined pairs connecting the foot plate to the side plates.

3. In a device of the class described, a frame having two vertical side plates in parallel separated arrangement, said plates being of thin metal long and fairly wide and extending longitudinally and side by side, rollers mounted on the exterior of and rotatably supported from said side plates, speed increasing gearing supported between the side plates and connected to the rollers, a foot plate movably mounted over the frame and operatively connected to the speed increasing gearing, said foot plate having movement in a vertical direction relatively to the frame, and links arranged in pivotally connected pairs pivotally connecting the foot plate to the side plates, said side plates being provided with curved slots into each of which the connecting pivot of a pair of links slidably fits.

4. In a device of the class described, a frame having two separated side plates in parallel separated arrangement, rollers rotatably supported from said side plates, speed increasing gearing supported between the side plates and connected to the rollers, a foot plate arranged over the side plates of the frame, a plurality of connecting links, pivots connecting said links in pairs; the side plates being provided with curved slots in which pivots are slidably mounted, and pivots fixed in position connecting the upper and lower extremities of the pairs of links respectively to the foot plate and the side plates.

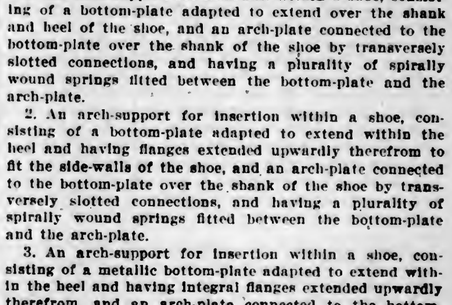
5. In a device of the class described, a frame having two vertical side plates in parallel separated arrangement, a foot plate movably mounted over the frame, a series of links connecting the foot plate to the frame, there being curved slots formed in the side plates of the frame, pivot pins extending from the links and slidably projecting into the curved slots, rollers rotatably mounted in the side plates of the frame, speed increasing gearing rotatably mounted between the side plates and geared to some of said rollers, a segmental gear mounted in the frame and adapted to oscillate vertically therein, said segmental gear meshing with one of the gears of the speed increasing gearing and a connection between the segmental gear and the foot plate.

1,208,174. NEST. OTIS G. LIKENS, Brandon, Iowa. Filed Feb. 16, 1916. Serial No. 78,701. (Cl. 119—50.)

1. A device of the character described comprising a casing provided with an entrance opening and with a window opening, a swinging door coacting with said entrance opening and normally maintained open by gravity, levers pivotally supported intermediate their length for rocking movement within the casing, a nest mounted for vertical movement and pivotally engaged with the inner extremities of the levers, an operative connection between the forward extremities of the levers and the door for adjusting the door in closed position upon downward movement of the nest, and an operative connection between a lever and the shutter for moving the shutter in an open position upon depression of the nest.

2. A device of the character described comprising a casing provided with an entrance opening and with a window opening, a swinging door coacting with said entrance opening and normally maintained open by gravity, a shutter coacting with the window opening, levers pivotally supported intermediate their length for rocking movement within the casing, a nest mounted for vertical movement and pivotally engaged with the inner extremities of the levers, an operative connection between the forward extremities of the levers and the door for adjusting the door in closed position upon downward movement of the nest, and a suitably guided flexible member interposed between a lever and the shutter for moving the shutter in an open position upon depression of the nest, said shutter assuming a closed position by gravity upon elevation of the nest.

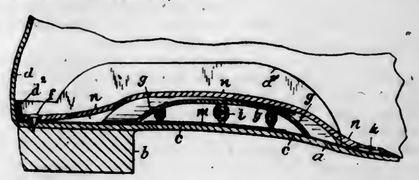
1,208,175. PROCESS FOR PREPARING FOOD. LOUIS LIPMAN, Seattle, Wash. Filed May 31, 1916. Serial No. 100,842. (Cl. 99—8.)



1. A process for forming tongue loaf which includes boiling beef tongues, skinning said tongues while hot, placing the tongues while hot in a mold with the tips and butts alternating, pressing the mold tightly together and allowing them to cool, whereby the mass of tongue is solidified by the gelatin constituents of the tongue into a mass of uniform shape and quality, and coating the pressed mass of tongues directly with an edible gelatin.

2. The process of placing hot boiled beef tongues in a sectional mold with the tips and butts of the said tongues alternating, compressing the mold and its contents and allowing them to cool in the mold, and dipping the molded mass of tongues into an edible gelatin in order to give a protective coating.

1,208,176. FOOT-FORM ARCH-SUPPORT. JULIUS LITTMAN, New York, N. Y. Filed Apr. 10, 1916. Serial No. 90,055. (Cl. 36—71.)



1. An arch-support for insertion within a shoe, consisting of a bottom-plate adapted to extend over the shank and heel of the shoe, and an arch-plate connected to the bottom-plate over the shank of the shoe by transversely slotted connections, and having a plurality of spirally wound springs fitted between the bottom-plate and the arch-plate.

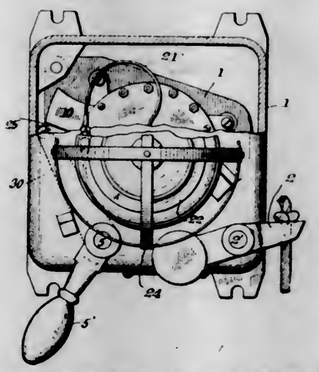
2. An arch-support for insertion within a shoe, consisting of a bottom-plate adapted to extend within the heel and having flanges extended upwardly therefrom to fit the side-walls of the shoe, and an arch-plate connected to the bottom-plate over the shank of the shoe by transversely slotted connections, and having a plurality of spirally wound springs fitted between the bottom-plate and the arch-plate.

3. An arch-support for insertion within a shoe, consisting of a metallic bottom-plate adapted to extend within the heel and having integral flanges extended upwardly therefrom, and an arch-plate connected to the bottom-plate over the shank of the shoe by transversely slotted connections, and having a plurality of spirally wound springs fitted between the bottom-plate and the arch-plate.

4. An arch-support for insertion within a shoe, consisting of a bottom-plate, an arch-plate connected to the

bottom-plate over the shank of the shoe by transversely slotted connections, and having a plurality of spirally wound springs fitted between the bottom-plate and the arch-plate, and a cover-plate applied over the whole and secured within the heel and provided at its free end with a slip-connection to the sole.

1,208,177. THERMALLY-CONTROLLED RELEASING MECHANISM FOR FIRE-DOORS AND THE LIKE. ERNEST A. LOWE, Plainfield, N. J. Original application filed June 17, 1913, Serial No. 774,101. Divided and this application filed May 12, 1915. Serial No. 27,485. (Cl. 189—45.)



1. In an apparatus of the character described, the combination of a primary release arm and train of detents normally holding the same out of action, a weighted master shaft having a detent normally holding said train from action, a detent arm also carried by said shaft and normally holding the same from rotation under the influence of the weight, a secondary detent and detent arm normally restraining said rock shaft and detent arm and means for freeing said secondary detent arm upon increase of temperature at an abnormal rate.

2. In an apparatus of the character described, the combination with the master rock shaft and primary release arm provided with means controlled by a detent on the master shaft for normally detaining said arm, of a detent arm carried by the master shaft, a pivoted latch or catch sustained thereby, a shaft provided with a lock for said latch and having a secondary detent arm, a detent lever having a dog normally engaged by the secondary detent arm and a latch for the dog-carrying lever operatively connected with means responsive to abnormal rate of rise of temperature.

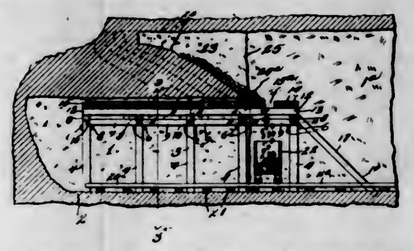
3. In an apparatus of the character described, the combination with the master rock shaft and means controlled thereby for normally holding a primary release arm out of action, of means responsive to an abnormal rate of rise of temperature, a weight tending to turn said master shaft in a direction to free the primary release arm and an independent train of detents normally holding the master shaft from turning and operatively connected with the devices responsive to abnormal rate of rise of temperature and actuated by the latter through the direct force of air when expanded by the heat of said abnormal rate of rise.

4. In an apparatus of the character described, the combination of a weighted master rock shaft having a detent arm projecting from said shaft, a detent shaft provided with a detent normally holding the detent arm and master shaft from turning, a secondary detent arm, a pivoted dog-carrying lever or latch normally restraining said secondary detent arm, a catch for holding the dog in position to normally lock the secondary detent arm, a diaphragm operatively connected with the catch and serving to free the secondary arm from the dog and a connection from the diaphragm chamber to an air chamber having a vent adapted to allow air to escape at a predetermined rate to render the device responsive only when the temperature of the air rises at a predetermined rate as and for the purpose described.

5. In an apparatus of the character described, the combination of a weighted master rock shaft and detent devices therefor comprising a detained member carried by said rock shaft and a detaining member engaged thereby and having a bias under the influence of the weighted rock shaft tending to move it in a direction to release said shaft, a secondary detent arm connected to said detaining member, a catch locking said arm against movement so as to hold the detent devices for the rock shaft in check, means responsive to change of temperature for freeing the secondary arm from the locking action of said catch and means for turning the master shaft back to normal position and restoring said catch to position for locking the secondary detent arm prior to the restoration of the detained member of the rock shaft detent devices to position for engaging with its detaining member.

[Claims 6 to 9 not printed in the Gazette.]

1,208,178. METHOD OF TUNNELING. EDWARD E. MCCABE, Benton, Wis. Filed Mar. 29, 1916. Serial No. 87,522. (Cl. 61—16.)



1. The method of excavating tunnels comprising first constructing a drift heading, then removing the roof by blasting in a stope heading, blasting away the material from the lower surface of the stope heading and maintaining said stope heading in advance of the tunnel during subsequent blasting.

2. The method of excavating rock tunnels comprising first constructing a drift heading then removing the roof by blasting in a stope heading, blasting away the material from the lower surface of the stope heading, allowing the broken material to gravitate to receptacles and maintaining said stope heading in advance of the tunnel during subsequent blasting.

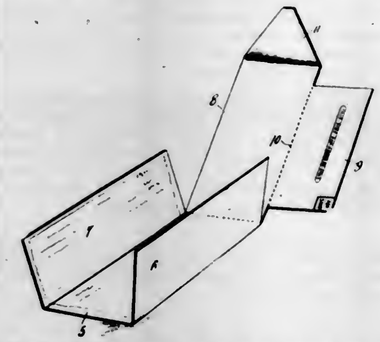
3. The method of excavating tunnels which comprises constructing a drift heading, erecting a staging in the drift heading, providing this staging with an opening, blasting in a stope heading, blasting away the material from the lower surface of the stope heading, allowing the broken material to gravitate through the opening in the staging into receptacles, maintaining said stope heading in advance of the tunnel during subsequent blasting and advancing the opening in the staging as the rear end of the stope heading is advanced.

4. The method of excavating rock tunnels which comprises constructing a drift heading, erecting a staging in the drift heading, providing this staging with an opening, blasting in a stope heading, blasting away the material from the lower surface of the stope heading, allowing the broken material to gravitate through the opening in the staging into a receptacle, maintaining said stope heading in advance of the tunnel during subsequent blasting and advancing the opening in the staging and the receptacle so that the opening and receptacle will at all times be in vertical alinement with the rear end of the stope heading as said rear end is advanced.

5. The method of excavating tunnels comprising first constructing a drift heading, then removing the roof by blasting in a stope heading, blasting away the material from the lower surface of the stope heading so that the walls of the stope heading will break the momentum of the broken material, then allowing the broken material to gravitate to receptacles and maintaining said stope heading in advance of the tunnel during subsequent blasting.

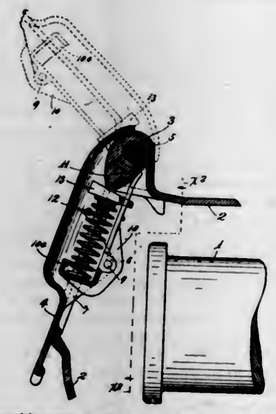
[Claim 6 not printed in the Gazette.]

1,208,179. MAILING-CARD. WILLIAM W. MCCLAY and CLARRENCE G. MCCLAY, Chicago, Ill. Filed July 17, 1916. Serial No. 109,822. (Cl. 120—74.)



A mailing device comprising a sheet having top and bottom flaps foldable down above the sheet, the sheet also having an end flap provided with a bottom flap and a locking flap at its outer end, the last mentioned bottom flap being foldable between the first mentioned top and bottom flaps, and the end flap being foldable on top of the top flap, the locking flap being free for insertion between the sheet and the first mentioned bottom flap.

1,208,180. JOURNAL-BOX LID. ALVIN C. MCCORD, Chicago, Ill. Filed Feb. 19, 1916. Serial No. 79,335. (Cl. 64—23.)



1. The combination with a journal box and a lid hinged thereto, of a cam-acting abutment on said box, a lever pivoted to said lid and engaging said abutment, and a spring re-acting against said abutment and lever and exerting a force normally holding said lid in a closed position.

2. The combination with a journal box and a lid hinged thereto, of a cam-acting abutment on said box, a lever pivoted to said lid and engaging said abutment, and a spring reacting against said abutment and lever, said lever and spring shifting their points of re-action, under opening and closing movements of the lid, and yieldingly holding the lid in both closed and opened positions.

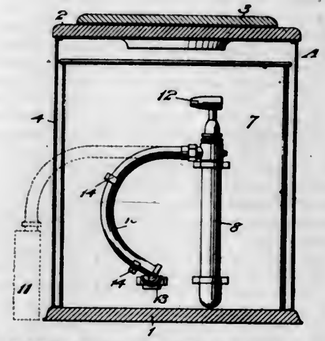
3. The combination with a journal box and a lid hinged thereto, of a cam-acting abutment on said box in the vicinity of its hinge connection to said lid, a lever intermediately pivoted to said lid with one arm engaging said abutment, a wearing piece slidably mounted on said lever and also engaging said abutment, and a spring interposed between said wearing piece and said lever and exerting a force normally holding the lid in a closed position.

4. The combination with a journal box and a lid hinged thereto, of a cam-acting abutment on said box in the vicinity of its hinge connection to said lid, a lever intermediately pivoted to said lid, at a point inward of the plane of the mouth of the box, with one arm engaging said abutment, a wearing piece slidably mounted on the abutment engaging arm of said lever and also engaging said abutment, and a spring interposed between said wearing piece and the other arm of said lever and exerting a force normally holding the lid in a closed position.

5. The combination with a journal box and a lid hinged thereto, of a cam-acting abutment on said box in the vicinity of its pivotal connection to said lid, a bell crank lever pivoted to said lid with its upwardly extended arm engaged with said abutment, a wearing piece slidably mounted on the upwardly extended arm of said lever and also engaging said abutment, and a coiled spring reacting against said wearing piece and the lower end of said lever, and exerting a force normally holding said lid in a closed position.

[Claims 6 and 7 not printed in the Gazette.]

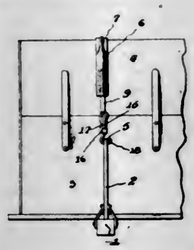
1,208,181. SANITARY CLOSET. MOSES M. MARCUSE, New York, N. Y., assignor to West Disinfecting Company, New York, N. Y., a Corporation of New York. Filed June 5, 1914. Serial No. 843,176. (Cl. 4—32.)



1. In a sanitary closet, a suitable casing, a receptacle therein, a pump located between the casing and the receptacle and permanently connected to and communicating with the receptacle, the said pump having a flexible connection adapted to be removably connected to a separate receptacle for discharging the contents from the first named receptacle into the second named receptacle.

2. In a sanitary closet, a suitable casing, a receptacle therein, a pump located between the casing and the receptacle and permanently connected to and communicating with the receptacle, the said pump having a flexible connection adapted to be removably connected to a separate receptacle for discharging the contents from the first named receptacle into the second named receptacle, a drip cup on said first named receptacle for the flexible connection and means for retaining the flexible connection in position to discharge any drippings therefrom into said drip cup.

1,208,182. WAGON-BED ATTACHMENT. NICHOLAS B. MARTIN, Mount Hope, Kans. Filed Apr. 12, 1916. Serial No. 90,694. (Cl. 21—7.)



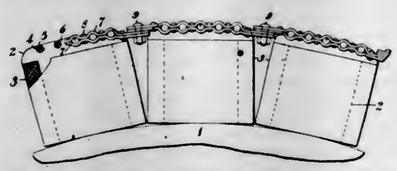
1. The combination of a hollow wagon-box-engaging member having an open side adapted to fit against the side of the wagon box and constructed at its upper end with a hook adapted to engage over the edge of the same, a link slidably mounted in the lower end of said member and having a threaded upper extremity, a nut on said threaded extremity of the link fitting within the wagon-box-engaging member to be inclosed and held against rotation thereby, a spring coiled around the link between said nut and the lower end of the wagon-box-engaging member whereby rotation of the link will vary the tension of the link, a lever pivoted between its ends to the lower end of said link, and a hook adapted to engage a running gear and having a stem pivoted to the end of said lever.

2. The combination of a wagon-box-engaging member, a member adapted to be connected with a running gear, a link yieldably fitted within the wagon box engaging member, and a locking lever pivoted at one end to the member adapted to be connected with a running gear and intermediate its ends to the end of said link, the free end of said locking lever being constructed to engage around the member to be connected with the running gear.

3. The combination of a wagon-box-engaging member, a longitudinally movable link mounted therein, a hook adapted to be connected with a running gear and having a stem extending toward the said link, and a locking lever pivoted intermediate its ends to the end of said link and at one end to the end of said stem, the free end of said locking lever being constructed with a hook adapted to engage around the said stem.

4. The combination of a wagon-box-engaging member, a link movable longitudinally within said member, a foot adapted to fit against and be secured to a bolster of a running gear and provided with an opening at its upper end, a hook adapted to pass through said opening and having a stem extending toward said link, and a locking lever having pivotal connections with the link and the said stem and constructed to lockingly engage said stem.

1,208,183. MOTOR-WINDING. EMIL MATTMAN, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 17, 1913. Serial 748,836. (Cl. 172—120.)



1. In a dynamo-electric machine, the combination with pole pieces and energizing coils therefor, of an auxiliary winding on said pole pieces comprising conductor bars, conductors for connecting said bars, and means for clamping said conductors in direct engagement with said bars and with each other.

2. In a dynamo-electric machine, a rotor having slots, conductor bars in said slots, straps for connecting said bars, and means for clamping the straps in direct engagement with the bars and with each other.

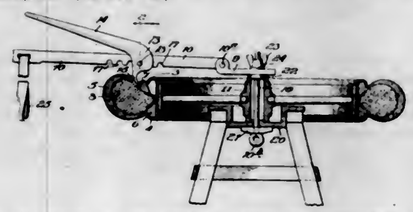
3. In a dynamo-electric machine, the combination with pole pieces and magnetizing coils therefor, an auxiliary winding upon each of said pole pieces, comprising conductor bars substantially cylindrical in cross section, said bars being mounted in holes in the said pole pieces, means for connecting said bars comprising corrugated straps, and means for clamping said straps together.

4. In a dynamo-electric machine, a rotor having slots, a squirrel cage winding therefor, comprising conductor bars mounted in said slots, a corrugated strap on each side of said bars and means for fastening said straps together between said bars.

5. In a dynamo-electric machine having relatively movable members, the combination with a plurality of conductor bars carried by one of said members, of means for connecting said bars comprising conductors on opposite sides thereof, and having portions in contact with each other between adjacent bars.

[Claim 6 not printed in the Gazette.]

1,208,184. TIRE-ADJUSTING APPARATUS. FRANC D. MAYER, Chicago, Ill. Filed June 22, 1914. Serial No. 846,530. (Cl. 157—6.)



1. A device of the character described, comprising a bearing bar formed in sections hingedly connected together, one of said sections being pivotally supported adjacent the hub portion of a wheel, said other section having a plurality of rounded recesses, and a lever fulcrumed on said second mentioned section in any one of said recesses and provided at one end with a handle and at its other end with a tire bead engaging portion of a shape adapted to press one side of the tire toward the opposite side and then carry it toward the rim.

2. A device of the character described comprising a bearing member adapted to be firmly held at a point adjacent the hub portion of a wheel and extending in a radial direction therefrom, a member hingedly connected with said bearing member extending to a point beyond the periphery of the wheel, and a removable lever having an opening through which said section passes provided with an operating handle at one end and a tire bead engaging tool at its other of a shape adapted to press one side of the tire toward the opposite side and then carry it toward the rim.

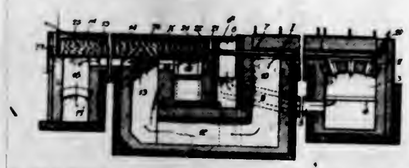
3. A device of the character described comprising a bearing member projecting radially with respect to the central part of a wheel, a second member fulcrumed on said bearing member having a plurality of notches, a lever reversibly and removably mounted upon said second member having an operating handle and a tire bead engaging portion adapted to force said bead into or out of interlocking position according to the position of the lever upon said second mentioned member.

4. A device of the character described, comprising a movable member having one end relatively fixed and having a series of notches along its lower edge, a lever having an opening through its central part adapted to be slipped over said member in either direction, and having a fulcrum pin adapted to be received in any one of said notches, said lever being provided with an operating handle and a tire bead engaging member adapted to urge said tire into or out of interlocking position with respect to the rim of a wheel.

5. A device of the character described, comprising a bearing bar formed in sections hingedly connected together, means adapted to pivotally support said member at one section on the hub-portion of a wheel, and a lever fulcrumed on the other of said sections and provided at one end with a handle and at its other end with a tire-bead-engaging portion.

[Claim 6 not printed in the Gazette.]

1,208,185. FURNACE FOR GALVANIZING WIRE. GUY L. MEAKER, Joliet, Ill. Filed June 27, 1913. Serial No. 776,150. (Cl. 91—12.5.)



1. In a furnace for coating wire with metal, a tank adapted to contain coating metal, a conduit communicating with the bath at one end and relatively raised at the other and adapted to contain an annealing bath and means for heating said conduit and tank, said means adapted to heat the conduit to a higher temperature at a portion remote from the tank and a lower temperature at the portion nearer said tank.

2. In a furnace for coating wire with metal, a tank adapted to contain the coating metal, a conduit adapted to contain an annealing bath, means for heating said conduit and said tank and means for cooling said conduit at a point adjacent the tank.

3. In a furnace for coating wire with metal, a tank for containing a coating metal, a conduit adapted to contain an annealing bath, a fire box arranged adjacent the end of said conduit remote from the tank, a flue connected thereto and surrounding said conduit and extending beneath said tank and a space between said flue and tank adapted to permit access of air to the portion of the conduit adjacent the tank.

4. In a furnace for coating wire with metal, a tank for containing a coating metal, a conduit adapted to contain an annealing bath and opening into said tank below the upper edge thereof, a flue surrounding said conduit, a fire box communicating with said flue near the end thereof remote from the tank and flues communicating with the above named flue and extending beneath said tank for heating the same.

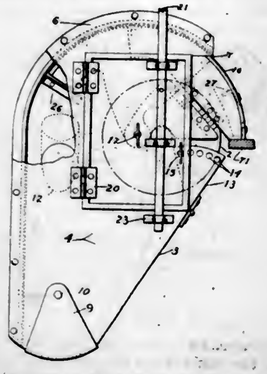
5. In a furnace for coating wire with metal, a tank for containing a coating metal, a conduit adapted to contain an annealing bath and opening into said tank below the upper edge thereof, a flue surrounding said conduit, a fire box communicating with said flue near the end thereof remote from the tank, flues communicating with the above-named flue and extending beneath said tank for heating the same, and means intermediate the first said flue and the tank for cooling the conduit adjacent the tank.

[Claims 6 to 16 not printed in the Gazette.]

1,208,186. SAFETY TOOL APPLIANCE. HARRY N. MIDDLETON, Westville, N. J., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 22, 1915. Serial No. 52,010. (Cl. 51—7.)

1. A hood for rotary abrasive wheels, comprising a cover portion with an aperture providing for access to the wheel face, and a part pivoted on said portion to cover or uncover the opening and adapted to be closed over the opening by the impact of fragments thrown off by the wheels, substantially as described.

2. A safety appliance for rotary abrasive wheels having, in combination, a protecting covering with an opening to provide for access to the wheel rim, and a shutter adjustable to uncover the opening and adapted to be automatically closed over the opening by the impact of flying fragments from the wheel, substantially as described.



3. A hood for rotary abrasive wheels having, in combination, a curved upper portion and flanking sides and having a mouth for access to the wheel, a shutter for the mouth in the form of a segment of a cylinder pivoted at its axial line in the hood and standing normally in position within the hood to uncover the mouth thereof, the closing movement of the shutter being controlled by fragments from the rotating wheel, substantially as described.

4. A hood for polishing or grinding wheels having, in combination, a casing substantially inclosing the wheel and having an opening at the front for access to the wheel surface, and a guard member poised in said casing in slightly over-balanced position and tending to close the mouth by the action of gravity when moved slightly by fragments from the wheel, substantially as described.

5. A hood for polishing or grinding wheels having, in combination, a casing having a mouth at its front and an opening in its side for insertion or removal of the wheel, a closure for the side opening, and a shutter on the casing movable automatically over the mouth and controlled by the breaking of the wheel, substantially as described.

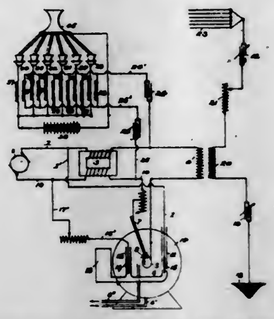
[Claims 6 to 8 not printed in the Gazette.]

1,208,187. APPARATUS FOR GENERATING HIGH-FREQUENCY ELECTRICAL OSCILLATIONS. FREDERICK HOYER MILLENER, Omaha, Nebr. Original application filed Apr. 10, 1911, Serial No. 620,035. Divided and this application filed Nov. 7, 1912. Serial No. 730,022. (Cl. 250—6.)

1. An apparatus for generating high frequency electric oscillations, comprising a source of electric current; a conducting circuit therefor; a transformer having its primary winding included in said circuit; a choke coil included in said circuit between the source of energy and said primary coil; arc electrodes also included in said circuit at a point between the primary coil and the choke coil; and a gas generator within which the arc electrodes are located, said generator comprising a closed chamber, an electrolyte container within said chamber having upward extensions, one opening within the chamber and the other extending through a wall of the chamber and opening outside thereof, electrodes contained within said extensions, and a shunt circuit branching from the conducting circuit of the source of current, and including said electrodes.

2. In apparatus for generating high frequency electric oscillations, comprising a source of electric energy, a conductor between the terminals thereof, a choke coil, a pair of arcing electrodes included in the electric circuit, and an inclosing chamber for said electrodes; an electrolytic gas generator within said chamber, comprising an electrolyte

container, an electrolyte within said container, and a pair of electrodes immersed in said electrolyte and included in a shunt circuit bridging the main energizing circuit at a point between the source of electric energy and the choke coil.



3. In apparatus for generating high frequency electric oscillations, the combination of a source of electric current; conductors for said current; a rotatable electrode in circuit with said conductors; a second electrode in arcing relation to the first and also in circuit with said conductors; a shunt circuit bridging said conductors; two electrodes included in the shunt circuit; an electrolyte container having separate tubes in which said electrodes are located in position to enter an electrolyte therein; and a shell or casing encompassing the several electrodes, and serving to confine a neutral gas, liberated by electrolytic action.

4. In an apparatus for generating high frequency electric oscillations, the combination of a source of current; a pair of electrodes in arcing relation in circuit with said source; means for cooling one of said electrodes; a casing encompassing said electrodes; an electrolytic gas generator within said casing, including two electrodes; and a shunt circuit bridging the circuit wires of the arcing conductors, and including the electrodes or the gas generator.

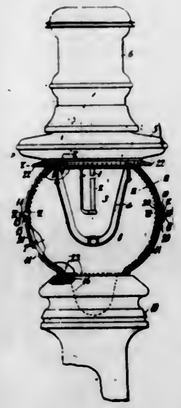
5. In an apparatus for generating high frequency electric oscillations, the combination of an energized electric circuit; means, including arcing electrodes, for generating oscillations in said circuit; an inclosing casing for said electrodes; a shunt from the main circuit; electrodes included in said shunt; and an electrolyte into which said shunt electrodes extend, whereby a neutral gas is generated and supplied to the chamber containing the arcing electrodes, by the same current which energizes the arc circuit.

[Claims 6 to 8 not printed in the Gazette.]

1,208,188. POST-TYPE ARC-LAMP. FREDERICK H. MILLER, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 28, 1913. Serial No. 803,474. (Cl. 176—52.)

1. The combination with a pedestal, and arms projecting therefrom, of an arc lamp supported on said arms, an inner globe attached to said arc lamp, and a divided outer globe disposed upon the pedestal and providing a dead air space which substantially surrounds the said inner globe, the sections comprising the divided outer globe closely engaging said arms which serve to provide tight joints between the respective globe sections.

2. The combination with a pedestal, and arms secured thereto, of an arc lamp which is supported upon said arms, an inner globe closed at its bottom and removably attached to the lamp, and an outer globe open at its top and bottom and comprising a plurality of sections closely engaging said arms which serve to provide tight joints between the respective globe sections, said outer globe normally engaging, at its upper end, the structure of the lamp, and at its lower end, the pedestal, in order to provide a dead air space around the inner globe.



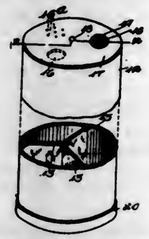
3. The combination with a pedestal, and oppositely disposed and upwardly projecting arms secured thereto, of an arc lamp supported upon said arms and centrally disposed relative thereto, a removable closed inner globe attached to the lamp, a divided outer globe normally providing a dead air space which substantially surrounds the inner globe, the sections of the divided outer globe being hinged to one of said arms, and resilient means associated with said arms and engaging said globe sections when the globe sections are in operative position in order to provide tight joints therebetween.

4. The combination with a pedestal and oppositely disposed arms secured thereto, said arms having resilient lips formed thereupon, of an arc lamp supported upon said arms and provided with a condenser, an inner globe closed at its bottom and communicating at its top with the condenser, and an outer globe comprising a plurality of hinged sections disposed beneath said condenser which extends laterally thereof, the sections of said outer globe normally engaging the lamp structure and the pedestal to provide a dead air space which substantially surrounds the said inner globe and closely engaging the lips formed on said arms to provide tight joints between the globe sections.

5. In a post-type inclosed arc lamp, an upright pedestal, a pair of oppositely disposed supporting arms secured thereto, resilient and spaced lips integrally formed and longitudinally disposed upon said arms, an arc lamp supported upon said arms, an outer globe divided into two sections, each being hinged to one of said arms, metallic rims embracing the coöperatively engaging edges of said sections, said globe sections in operative position closely engaging said lips of the supporting arms, thereby providing water tight joints between the said globe sections.

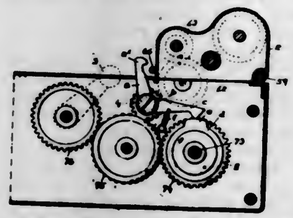
1,208,189. RECEPTACLE FOR POWDERED MATERIALS, &c. HOWARD O. MILLER, Rochester, N. Y. Filed Dec. 7, 1915. Serial No. 65,518. (Cl. 221—62.)

A selective powder dispenser comprising a body, a fixed head at one end of the body, the opposite end of the body being open, and partitions subdividing the body into a plurality of compartments the walls of which are formed by the body, head and partitions, said compartments being open to receive powder at the open end of the body, a closure removably engaged with the open end of the body and bearing simultaneously on said partitions to simultaneously close the compartments, each compartment having an independent outlet, and the said outlets being in a circular series, and a valve mounted on the exterior of the dispenser and rotatable relatively thereto on an axis equidistant from the compartment outlets, said valve being



adapted to simultaneously close all the outlets, and provided with a single port adapted to register singly and successively with the said outlets.

1,208,190. CARRIAGE LOCK FOR CALCULATING-MACHINES. JAY R. MONROE, New York, N. Y., assignor to Monroe Calculating Machine Company, New York, N. Y., a Corporation of New York. Filed Sept. 25, 1914. Serial No. 863,513. (Cl. 235—130.)



1. The combination with a calculating machine having a hinged carriage whereupon are mounted registering wheels, setting up mechanism including primary wheels operating said registering wheels, carrying mechanism, and an operating device for turning said primary wheels and said carrying mechanism, of means including a yieldable spring pressed member for holding the carriage down at the start of each rotation of said device and for releasing the carriage at the finish of each rotation to enable the carriage to be lifted during such rotation.

2. The combination with a calculating machine having a hinged carriage whereupon are mounted registering wheels, setting up mechanism including primary wheels operating said registering wheels, carrying mechanism, and an operating device for turning said primary wheels and said carrying mechanism, of means including a cam-operated yieldable spring-pressed member for holding the carriage down at the start of each rotation of said device and for releasing the carriage at the finish of each rotation, to enable the carriage to be lifted during such rotation.

3. The combination with a calculating machine having a hinged carriage whereupon are mounted registering wheels, setting up mechanism including primary wheels, carrying mechanism, an operating device for turning said primary wheels and said carrying mechanism, and a series of wheels operated by said primary wheels and operating said registering wheels, of means for yieldably holding the carriage down at the start of each rotation of said device and for releasing the carriage at the finish of each rotation, including a lever, a spring operating the lever to engage and lock the carriage, and means operating said lever for release.

4. The combination with a calculating machine having a hinged carriage provided with registering wheels, setting up mechanism including primary wheels operating said registering wheels, an operating device for turning said primary wheels and said carrying mechanism, of means for yieldably holding the carriage down at the start of each rotation of said device and for releasing the carriage at the finish of each rotation, including a hooked lever, a spring operating the lever to engage and hold the carriage, and a rotary cam operating said lever for release.

5. The combination with a calculating machine having a hinged carriage provided with registering wheels, setting-up mechanism including primary wheels, carrying mechanism, an operating means including a crank handle for turning said primary wheels and said carrying mechanism, and a series of wheels operated by said primary wheels and operating said registering wheels, of means for yieldably holding the carriage down at the start of each rotation of said handle and for releasing the carriage at the finish of each rotation, including a bell-crank hooked lever, a spring operating the lever to engage and hold the carriage, and a rotary cam operating said lever for release.

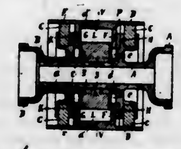
1,208,191. ADVERTISING NOVELTY. GEORGE A. MORROW, Altoona, Pa. Filed May 25, 1916. Serial No. 99,816. (Cl. 40—146.)



1. An advertising device, comprising in combination, a body, handle sections formed from said body, and bent therefrom, said handles being intermediately hinged to fold in opposite directions into contact with said body, and a hinge connecting the lower ends of said handles.

2. An advertising device, comprising in combination, a body consisting of blanks secured back to back, a handle stamped from each blank and bent therefrom, means connecting the ends of said handles, and hinges placed at intermediate points of said handles to permit the latter to be folded upwardly into contact with the body, said handles being also adapted to be disposed behind said body to provide an easel for supporting the latter.

1,208,192. VEHICLE-WHEEL. CHARLES EDOUARD MOSER, Boulogne-sur-Seine, France. Filed Nov. 25, 1912. Serial No. 733,391. (Cl. 152—45.)

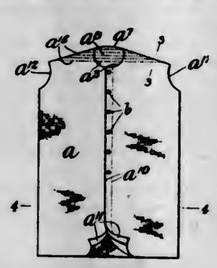


1. In a shock absorbing wheel the combination of an annular chamber having a polygonal peripheral inner wall, non-compressible balls filling said chamber, a hub composed of two telescopically engaged members threaded into each other, each member being provided with a radial plate on one face provided near its circumference with a groove substantially rectangular in cross section, a cylindrical annular hub box mounted on said hub and having interlocking engagement with the radial plates of the hub forming a portion of the ball chamber, said hub box being provided with annular end closures and having peripheral openings, radial arms dividing the interior of said box into four equal compartments, an envelop in-

closing the ball chamber and arranged concentric with the hub, said envelop being formed of two longitudinally disposed adjustably connected tubular members having polygonal inner faces and provided with two inwardly extending radial plates engaged respectively with the inner faces of the radial hub carried plates, forming the annular ball chamber having a polygonal inner peripheral wall, two rubber rings placed in the grooves of the radial hub plates and extending between the bottoms of these grooves and the inner faces of the tubular members comprising the envelop.

2. In a shock absorbing wheel, an annular polygonal chamber filled with non-compressible balls, a hub composed of two members, each provided with a circular radial plate equipped on its outer face with a groove rectangular in cross section, a rubber ring disposed in each of said grooves, one of said radial plates being provided on its inner face with a diametrically disposed rib of a width equal to the diameter of the hub, a hub box having radial arms dividing it into compartments and in which the balls are disposed, one of the walls of said hub box being provided on its exterior face with two symmetrical segmental projections, the rectangular faces of which are tangential to the perforation of the hub box, said projections being disposed at each side of the rib of the radial hub plate, an envelop formed of two tubular members arranged longitudinally and screwed together, each of said members being provided with a radially and inwardly extending plate constituting the end walls of the ball chamber, one of said radial plates being provided on its outer face with a recess wider than the rib of the radial hub plate and in which said rib is disposed to permit the envelop to shift slightly during the rotation of the wheel in one direction or the other, two rubber rings disposed in the grooves of said radial hub plates and extending from the bottom of said grooves to the inner face of the envelop, said rubber rings being slightly compressible to modify the shock of the shifting of the non-compressible balls in the chamber.

1,208,193. SHIRT. CHARLES NIGHTINGALE, New York, N. Y. Filed Jan. 31, 1916. Serial No. 75,203. (Cl. 2—41.)



1. A shirt body composed of a single sheet having parallel opposite side edges, said sheet being provided at its opposite corners with arc-shaped recesses forming the side and front portions of the neck opening of the shirt and centrally with a recess which forms the back part of the neck opening, and said sheet being also provided at its top edge thereof and midway between the central portion and the arc-shaped corner recesses with apertures which form the sleeve openings, the parallel side edges of the shirt being reinforced from the neck openings to the bottom of the shirt body, and the opposite sides of the shirt being folded inwardly and stitched longitudinally to reinforce the sides of said shirt from the sleeve openings to the bottom thereof.

2. A shirt body composed of a single sheet having parallel opposite side edges, said sheet being provided at its opposite top corners with arc-shaped recesses forming the side and front portions of the neck opening of the shirt and centrally of the top edge thereof with a recess which forms the back part of the neck opening, and said sheet being also provided at the top edge thereof and midway between the central portion and the arc-shaped corner recesses with apertures which form the sleeve openings, and the top edge portions of said sheet between the sleeve openings and the corner recesses, and the top edges between the sleeve openings and the central portion of the sheet being folded and interlocked by passing the folded edge of one part within the folded edge of the other part, said folded and interlocked edges being stitched by parallel lines of stitchings to form the shoulders or yoke of a shirt and the parallel side edges being stitched in lines extending from the bottom of the neck openings to the bottom of the shirt to form front flies composed of a plurality of thicknesses of material and having fastening devices.

1,208,194. KEY-ACTUATED MECHANISM. KOLMEN OSWALD, New York, N. Y., assignor, by mesne assignments, to C. Maurice Peabody, South Orange, N. J. Filed July 17, 1912. Serial No. 709,977. (Cl. 70—46.)



1. In key-actuated mechanism, the combination of a rotatably mounted key-barrel, a locking pin adapted to engage a portion of the mechanism with respect to which said key-barrel is rotatable, a carrier for said pin, and a guide pin for said carrier slidably mounted in an aperture of the key-barrel and projecting into the key-barrel and arranged to be engaged and actuated by a proper key inserted into the key-barrel, whereby said locking pin may be disengaged from the part which it normally engages and so caused to release the key barrel.

2. In key-actuated mechanism, the combination of a rotatably mounted key-barrel, a locking pin adapted to engage a portion of the mechanism with respect to which said key-barrel is rotatable, a carrier for said pin, and a guide pin for said carrier slidably mounted in an aperture of the key-barrel and projecting into the key-barrel and arranged to be engaged and actuated by a proper key inserted into the key-barrel, whereby said locking pin may be disengaged from the part which it normally engages and so caused to release the key barrel, and a spring tending to press said locking pin and guide pin inward.

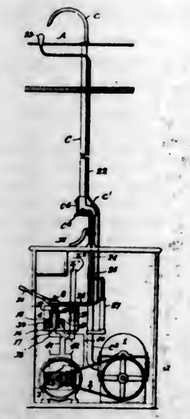
3. The combination, with key-actuated mechanism, comprising a rotatably mounted key-barrel and locking means therefor, comprising actuating means projecting into the key-barrel, and adapted to be actuated by a proper key inserted to its full depth in said key-barrel, and when so actuated to release the key-barrel, said key-barrel having a shoulder, occupying less than the full cross section of the key-barrel, limiting the depth of insertion of a key into said key barrel, of a key adapted to be inserted into said key-barrel and having a shorter portion corresponding to said shoulder and a longer portion adapted to engage the actuating means of said locking means, and so release the key-barrel, said key-actuated mechanism comprising a spring tending to return the key-barrel to normal position after rotation thereof.

4. The combination with key-actuated mechanism, comprising a rotatable key-barrel adapted to receive the shank of a key, said key-barrel having a projection extending inwardly from one side thereof, of a key having a shank adapted to fit within said key-barrel and provided in its exterior portion with a slot adapted to receive the said projection of the key-barrel.

5. The combination with key-actuated mechanism comprising a rotatable key-barrel adapted to receive the shank of a suitable key, and locking means adapted to lock said key-barrel when the latter has been rotated from normal position to a predetermined position, of a key adapted to be inserted in said key-barrel and provided with means adapted to engage said locking means and release the key-barrel upon withdrawal of the key from said key-barrel.

[Claims 6 to 15 not printed in the Gazette.]

1,208,195. PNEUMATIC-DESPATCH-TUBE APPARATUS. ALBERT W. PEARSALL, Lowell, Mass., assignor to The Lamson Company, (formerly Lamson Consolidated Store Service Company,) Boston, Mass., a Corporation of New Jersey. Filed Sept. 16, 1912. Serial No. 720,560. (Cl. 243—7.)



1. In a pneumatic despatch tube apparatus, a transit tube for the transmission of carriers in either direction, a pump connected with said tube and adapted to supply a current of air in either direction through said tube for the transmission of carriers, a motor adapted to drive said pump, a switching device for starting, stopping or reversing said motor, and pneumatically controlled means, subject in part at least to the pressure in a portion of said tube, for operating said switching device to stop said motor.

2. In a pneumatic despatch tube apparatus, a transit tube for the transmission of carriers in either direction, a pump connected with said tube and adapted to be reversed for supplying a current of air in either direction through said tube for the transmission of carriers, a motor adapted to drive said pump, a switching device having a part thereof movable in either of two directions away from a median position, said device being adapted to start, stop or reverse said motor, and time element means for controlling a motor stopping operation of said switching device, said device having a tendency for its median position.

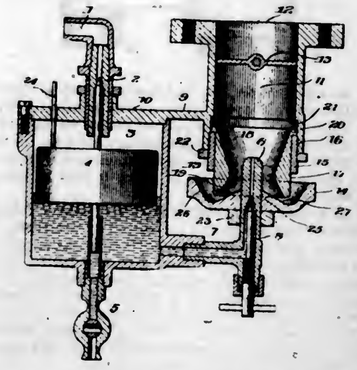
3. In pneumatic despatch apparatus, a tube, means for establishing a carrier-transmitting flow of air through said tube in either direction, and mechanism for controlling the duration of running of said means, when the latter is in operation, by either vacuum or plenum in a part of said tube, according to the direction of said flow.

4. In a pneumatic despatch tube apparatus, a transit tube for the transmission of carriers in either direction, a pump connected with said tube and adapted to be reversed for supplying a current of air in either direction through said tube for the transmission of carriers, a motor adapted to drive said pump, a switch adapted to start, stop or reverse said motor, means for timing the operation of said motor in one direction, and pressure controlled means adapted to co-act with said switch to stop the actuation of said motor when the latter is running in the opposite direction.

5. In a pneumatic despatch tube apparatus, a transit tube for the transmission of carriers in either direction, a pump connected with said tube and adapted to be reversed for supplying a current of air in either direction through said tube for the transmission of carriers, a motor adapted to drive said pump, a switch adapted to start, stop or reverse said motor, means for controlling the operation of said switch for starting or reversing said motor and for automatically stopping said motor when it is being driven in one direction, upon the establishment of a determined carrier transmitting condition in a part of the system, and means for timing the duration of operation of said motor when being driven in the opposite direction.

[Claims 6 to 13 not printed in the Gazette.]

1,208,196. CARBURETER. WINFIELD P. PEMBROKE, Rochester, N. Y. Filed June 4, 1914. Serial No. 843,073. (Cl. 261—64.)



1. In a carbureter, the combination with a carbureting chamber and an air deflecting member arranged in spaced relation to the induction end thereof and adjustable toward and from the latter, of a vibratory tube projecting from said end of the chamber toward the air deflecting member and adapted to be actuated by pressure variations in the carbureting chamber and means for regulating the amplitude of movement of the tube.

2. In a carbureter, the combination with a carbureting chamber and a cup-shaped air deflecting member arranged in spaced relation to the induction end thereof, of a vibratory tube projecting from said end of the chamber into the cup-shaped air deflecting member and adapted to be actuated by pressure variations in the carbureting chamber, said tube constituting the sole air intake passage to the carbureting chamber.

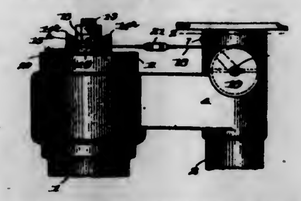
3. In a carbureter, the combination with a carbureting chamber and an annular air deflecting member arranged in spaced relation to the induction end thereof, of a vibratory tube projecting from said end of the chamber toward the air deflecting member and adapted to be actuated by pressure variations in the carbureting chamber, and a fuel jet projecting into the tube, the air deflecting member being arranged to surround the fuel jet below and independently of the discharge opening therein and being adjustable thereon toward and from the tube.

4. In a carbureter, the combination with a carbureting chamber and an air deflecting member arranged in spaced relation to the induction end thereof, of a vibratory tube projecting from said end of the chamber toward the air deflecting member and adapted to be actuated by pressure variations in the carbureting chamber and means for regulating the latitude of movement of the tube, said tube constituting the sole air intake passage to the carbureting chamber.

5. In a carbureter, the combination with a carbureting chamber and an air deflecting member arranged in spaced relation to the induction end thereof, of a vibratory tube projecting from said end of the chamber toward the air deflecting member and adapted to be actuated by pressure variations in the carbureting chamber, means for regulating the latitude of movement of the tube and means for adjusting the fixed position of the air deflecting member toward or away from the tube.

[Claims 6 and 7 not printed in the Gazette.]

1,208,197. CARBURETER-CONTROLLING MEANS. WINFIELD P. PEMBROKE, Rochester, N. Y. Filed June 4, 1914. Serial No. 843,074. (Cl. 261—41.)

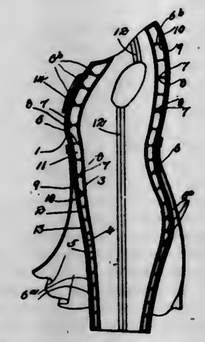


1. In a carbureter, the combination with a throttle, an induction valve adapted to be opened by atmospheric pressure when the throttle is opened and a spring tending to close the valve, of positive means operated by the opening movement of the throttle for automatically locking the valve open in any position in which it may be left by the said atmospheric action.

2. In a carbureter, the combination with a throttle, an induction valve adapted to be opened by atmospheric pressure when the throttle is opened and a spring tending to close the valve, of a mechanical device adapted to positively open the valve in the event of its failure to open under atmospheric pressure, and to postively and automatically maintain it open against the tension of the spring in any position in which it may be left by the said atmospheric action, and operating connections between said means and the throttle.

3. In a carbureter, the combination with a throttle, an induction valve having a stem provided with an abutment and adapted to be opened by atmospheric pressure when the throttle is opened and a spring tending to close the valve, of a cam having operating connections with the throttle arranged to coöperate with the abutment on the valve stem to positively maintain the valve open in any position in which it may be left by the said atmospheric action position and to insure its opening coincidently with the opening of the throttle.

1,208,198. BATHING-SUIT. STINEY PENKSA, Glen White, W. Va. Filed Feb. 24, 1916. Serial No. 80,270. (Cl. 9—20.)



1. A suit having air tight inflatable walls and an outer covering sewed to said walls at the junctures thereof.

2. A common bathing suit having an inflatable lining, the walls of which taper apart from bottom to top and graduated connections for said walls.

3. A common bathing suit having an inflatable lining, the walls of which taper apart from bottom to top and graduated connections for said walls, said suit forming a skirt and bodice.

4. A common bathing suit having an inflatable lining, the walls of which taper apart from bottom to top and graduated connections for said walls, said suit forming a skirt and bodice and means whereby either of said sections may be inflated.

5. A suit having air tight inflatable walls, said walls being inclined apart from the bottom up and an outer covering for the suit sewed to said walls at the junctures thereof.

[Claims 6 to 16 not printed in the Gazette.]

1,208,199. MANUFACTURE OF FERTILIZER. CHARLES F. PENNEWELL, Sacramento, Cal. Filed Aug. 18, 1914. Serial No. 857,312. (Cl. 71—10.)

1. A method of stimulating bacterial growth which consists in superimposing upon a container charged with bacterial growth another container containing a suitable bacterial stimulant, bringing the contents of the two containers into close union to permit filtration from the bacterial stimulant to the bacteria container, occasionally moistening the stimulating contents and allowing the moisture to filter through to the bacterial contents, and occasionally stirring the latter.

2. A method of stimulating bacterial growth which consists in superimposing upon a container charged with bacterial growth another container containing a suitable bacterial stimulant, bringing the contents of the two containers into close union to permit filtration from the bacterial stimulant to the bacteria container, occasionally moistening the stimulating contents and allowing the moisture to filter through to the bacterial contents, and occasionally stirring the latter, said moistening and stirring being carried on at intervals of approximately three days for a period approximately ninety days.

3. A method of stimulating bacterial growth which comprehends superimposing a container having a foraminous bottom charged with stable manure and a carbohydrate, upon a soil container charged with nitrogen producing bacteria and allowing moisture to filter through from one to the other.

4. A method of stimulating bacterial growth which comprehends superimposing a container having a foraminous bottom charged with stable manure and a carbohydrate, upon a soil container charged with nitrogen producing bacteria, and allowing moisture to filter through from one to the other, there being approximately two gallons of moisture producing liquid to a ton of the manure compound and a ton of the bacterial preparation.

5. A method of stimulating bacterial growth which comprehends superimposing a container having a foraminous bottom charged with stable manure and a carbohydrate, upon a soil container charged with nitrogen producing bacteria, and allowing moisture to filter through from one to the other, there being approximately two gallons of moisture producing liquid to a ton of the manure compound and a ton of the bacterial preparation, the liquid being added approximately every third day to the contents of the bacterial stimulant, the preparation in the lower container being stirred and aerated about every three days, the operation of moistening and stirring continuing approximately for ninety days.

[Claims 6 and 7 not printed in the Gazette.]

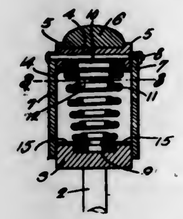
1,208,200. FUSIBLE LINK FOR SPRINKLER-HEADS. WILLIAM A. PERRY, St. Louis, Mo. Filed Jan. 31, 1916. Serial No. 75,426. (Cl. 236—16.)



1. In a fusible link, a pair of sections placed face to face in parallel relation, a coupling ball traversing said pair of sections, corner hooks on one edge of each of said sections projecting over the free edge of the adjacent section tongue formations between the hooks, a fusible substance interposed between each of said hooks and edge of the adjacent section, and a fusible substance holding the sections in fixed relation.

2. In a fusible link for sprinkler heads, a pair of sections placed face to face in substantially parallel relation, registering openings substantially in the center of said sections, concave walls bounding said openings, a ball traversing the openings and seated on the concave walls, the latter operating to prevent the ball from becoming displaced, corner hooks on one edge of each of said sections projecting over the free edge of the adjacent section tongues between the hooks, a fusible substance interposed between the ends of the hooks and said free edge, and a fusible substance holding the sections and ball in fixed relation.

1,208,201. SPRING-WHEEL. MICHAEL PICCIANO and THOMAS RUBINO, Hazleton, Pa. Filed Sept. 14, 1916. Serial No. 120,144. (Cl. 152—37.)



1. In a device of the class described, a felly having seats in its outer face; an outer rim having seats in its inner face; helical springs having their ends engaging the respective seats; inner rings surrounding the felly and engaging the inner convolutions of the springs; outer rings coacting with the inner face of the outer rim and engaging the outer ends of the springs; and side plates secured to the rim, the side plates engaging all of the rings to prevent the same from moving laterally, the side plates being slidably engaged with the felly.

2. In a device of the class described, a felly; a rim, the felly and the rim constituting coöperating elements; side plates slidably engaged with one of said coöperating elements; means for securing the side plates to the other of said coöperating elements; helical springs abutting at their outer ends against the rim, the inner ends of the springs abutting against the felly; inner rings surrounding the felly and restrained against outward movement by the side plates, the inner rings coacting with the inner ends of the springs to hold the same on the felly; and outer rings coacting with the inner face of the rim, the side plates coacting with the outer rings to hold the same against outward movement, the outer rings engaging the outer ends of the springs to hold the same on the rim.

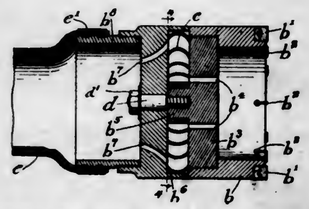
1,208,202. SHEARS WITH DETACHABLE CUTTING-BLADES. THOMAS K. PIGGOTT, Seattle, Wash., assignor of two-thirds to James F. Liby and one-third to John S. Lorraine, Seattle, Wash. Filed Feb. 14, 1916. Serial No. 78,315. (Cl. 30—13.)

1. A shears comprising pivoted frame members, each having a blade-carrying bar, cutting members bent to embrace the back of the blade-carrying bars and terminating at this edge in an inwardly extending flange, and the blade-carrying bars having a slot to receive said flange.

2. A shears comprising pivoted frame members, each having a blade carrying bar, cutting members bent to embrace the back of the blade carrying bars and terminating at this edge in an inwardly extending flange, the blade carrying bars having a slot receiving said flange and the blades having lugs engaging the front edge of the blade carrying bars.



1,208,203. TOOL FOR REMOVING INCRUSTATIONS IN BOILER-TUBES. FREDERICK A. PLIMLEY, Coplay, Pa. Filed Mar. 22, 1916. Serial No. 85,977. (Cl. 83—64.)



A tool of the character described, comprising a hollow head provided at one end with abrading or cutting means and at the other end with a cap or closure; an incasement to which said head is rotatably secured; a turbine splined to said cap and inclosed in said incasement; and means connected with the incasement for supplying fluid thereto; said incasement and said cap each having channels through which said fluid is adapted to pass in the rotation of said turbine.

1,208,204. AUTO-FENDER. ALFRED POIMIROO and ANGELINA POIMIROO, Seattle, Wash. Filed Aug. 5, 1916. Serial No. 113,338. (Cl. 105—33.)



1. In a device of the class described, a vehicle comprising wheels; mud guards carried by the vehicle and located above the wheels and including fender extended in front of the vehicle and including rearwardly extended arms engaged with the mud guards; means for connecting the arms detachably with the mud guards; a lower fender mounted to move upwardly and downwardly with respect to the upper fender; and vehicle carried means for raising and lowering the lower fender.

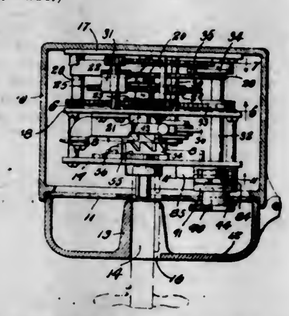
2. In a device of the class described, a vehicle; an upper fender located in front of the vehicle; a brace connecting the upper fender and the vehicle; a lower fender mounted to move upwardly and downwardly with respect to the upper fender and including a guide slot receiving the brace; and vehicle carried means for raising and lowering the lower fender.

3. In a device of the class described, a vehicle including an axle; an upper fender located in front of the vehicle; a brace connecting the upper fender with the axle; a lower fender mounted to move upwardly and downwardly with respect to the upper fender and provided with a guide slot receiving the brace; and vehicle carried means for raising and lowering the lower fender.

4. In a device of the class described, a vehicle; a forward lever fulcrumed intermediate its ends on the vehicle; a fender carried by the forward end of the forward lever; a rear lever fulcrumed intermediate its ends on the vehicle; means for pivotally connecting the rear end of the forward lever with the forward end of the rear lever; an upwardly extended actuating member pivoted at its lower end to the rear end of the rear lever; and interengaging elements on the vehicle and the actuating member for holding the fender in adjusted positions.

5. In a device of the class described, a vehicle; a fender located in front of the vehicle; a forward lever fulcrumed intermediate its ends on the vehicle and having its forward end connected with the fender; a rear lever fulcrumed intermediate its ends on the vehicle and having its forward end pivoted to the rear end of the forward lever; an upstanding actuating member pivoted at its lower end to the rear end of the rear lever; interengaging elements on the actuating member and the vehicle for holding the actuating member in adjusted positions; and spring means coacting with the actuating member to hold said interengaging elements in coöperating relation.

1,208,205. COMBINED FIRE-ALARM AND WATCHMAN'S SIGNAL-TRANSMITTER. CHARLES E. POTTER, St. Louis, Mo., assignor to Potter Electric Signal and Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 20, 1915. Serial No. 56,894. (Cl. 177—364.)



1. In a signal transmitting device, spring driven means for transmitting signals through an electric circuit, the spring of which means is normally partially wound, key operated means for winding the spring to effect a movement of the transmitting means, means whereby the key operated means is automatically released when the spring has been wound to a predetermined degree, and separate means including a pull lever for winding the spring to such a degree as to cause the transmitting means to operate a predetermined number of times, thereby transmitting repeated signals.

2. In a signal transmitter, spring driven transmitting means, the spring of which is normally partially wound, means including a pull lever for winding the spring to a predetermined degree, whereby the transmitting means is actuated to produce repeated signals, and means including a series of notched disks having pin and slot connections with each other, and a member adapted to engage in the notches in the disks when said notches are in alinement for maintaining the pull lever in inoperative position while the transmitting means is operating to transmit the repeated signals.

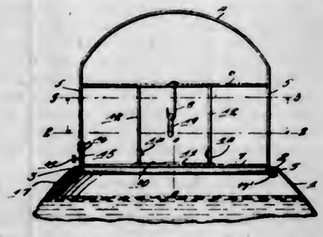
3. In a signal transmitter, spring driven means for producing signals in an electric circuit, the spring of which means is partially wound, means including a shaft for winding said spring to produce a movement of the transmitting means, a key operated member having axial and rotary movement adapted to lock with the spring winding shaft, and means for holding said member locked to the shaft during the winding movement.

4. In a signal transmitter, spring driven means for producing signals in an electric circuit, the spring of which means is partially wound, means including a shaft for winding said spring to produce a movement of the transmitting means, a key operated member having axial and rotary movement adapted to lock with the spring winding shaft, means for holding said member locked to the shaft during the winding movement, and means for automatically breaking the connection between said member and the shaft when the latter has been rotated to a predetermined degree.

5. In a signal transmitter, spring driven means for producing signals in an electric circuit, the spring of which means is normally partially wound, means for further winding said spring to produce a single operation of the signal transmitting means, a member having axial and rotary movement for actuating the spring winding means, a key for operating said last mentioned member, and means for holding the key in engagement with said member until the spring winding movement has been accomplished.

[Claims 6 to 8 not printed in the Gazette.]

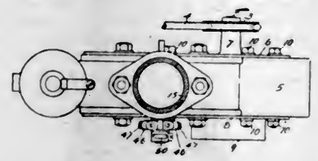
1,208,206. MOUSE-TRAP. ALOIS POYNTER, Eden, S. D. Filed Aug. 2, 1916. Serial No. 112,762. (Cl. 43—24.)



A device of the class described, comprising a handle bent so as to form a gripping portion, vertically extending supporting strips, an upper and a lower horizontally extending plate fixedly secured to said supporting strips, bait means provided upon said upper plate, vertically extending guard walls connecting said upper plate to said lower plate, horizontally extending trap doors mounted upon said lower plate, stop lips provided upon the outer edges of said trap doors, struck-out portions provided on said guard walls a spaced distance above the axles of said trap doors, whereby said trap doors will be prevented from rotating past a given point, and means for attaching the device to a suitable catching receptacle.

1,208,207. CARBURETION SYSTEM. SYDNEY I. PRESCOTT, Brooklyn, N. Y. Filed Feb. 4, 1915. Serial No. 6,025. (Cl. 123—131.)

1. In a carburetion system, the combination with an air intake having co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section, said members being operative by a current of air established therebetween and acting thereupon to vary the amplitude of the passage between said members in accordance with variations in the air current, of a manifold connected and coöperative with said air intake, and means for producing and delivering a blast of air to the intake substantially equal in volume to the normal capacity of the engine cylinders in connection with which the device is used and in such manner as to cause the air blast to coöperate with the engine suction in operating and controlling the operation of said rocking members.



2. In a carburetion system, the combination with an air intake having co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section said members being operative by a current of air established therebetween and acting thereupon to vary the amplitude of the passage between said members in accordance with variations in the air current, of a manifold connected and coöperative with said air intake, and a blower and operative connections for producing and delivering a blast of air to the intake substantially equal in volume to the normal capacity of the engine cylinders in connection with which the device is used and in such manner as to cause the air blast to coöperate with the engine suction in operating and controlling the operation of said rocking members.

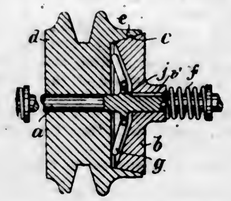
3. In a carburetion system, the combination with an air intake having co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section said members being operative by a current of air established therebetween and acting thereupon to vary the amplitude of the passage between said members in accordance with variations in the air current, of a manifold connected and coöperative with said air intake, and means for producing and delivering a blast of air to the intake in such manner as to cause the air blast to coöperate with the engine suction in operating and controlling the operation of said rocking members, said means being adapted to be controlled by the engine in connection with which the device is used whereby the blast varies in volume in accordance with variations of engine speed.

4. In a carburetion system, the combination with an air intake having co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section said members being operative by a current of air established therebetween and acting thereupon to vary the amplitude of the passage between said members in accordance with variations in the air current, of a manifold connected and coöperative with said air intake, and a blower and operative connections for producing and delivering a blast of air to the intake substantially equal in volume to the normal capacity of the engine cylinders in connection with which the device is used and in such manner as to cause the blast of air to coöperate with the engine suction in operating and controlling the operation of said rocking members, said blower being adapted to be controlled by the engine in connection with which the device is used whereby the blast is varied in volume in accordance with variations of engine speed.

5. In a carbureter, the combination with an air intake having co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section said members being operative by suction established therebetween and acting thereupon to vary the amplitude of the passage between the members in accordance with suction variations, of a fuel nozzle located between said members and concentric with the grooves thereof, an air nozzle within said fuel nozzle, and means for producing and delivering a blast of air to the intake and through the air nozzle substantially equal in volume to the normal capacity of the engine cylinders in connection with which the device is used.

[Claims 6 to 11 not printed in the Gazette.]

1,208,208. CENTRIFUGAL SPEED-REGULATOR. SIDNEY LEOPOLD PRICE, Holborn, London, England. Filed May 27, 1913. Serial No. 770,146. (Cl. 74—45.)



1. A speed regulator comprising a rotatable shaft, a driving member mounted loosely upon the shaft and having a clutch face, a driven member slidably mounted on said shaft, means for preventing rotation of the driven member with respect to the shaft, said driven member having a clutch face to engage the clutch face of the driving member, yieldable means for normally maintaining the clutch face of the driven member in firm contact with the clutch face of the driving member, said clutch members forming an inclosed chamber, centrifugal members mounted pivotally on the shaft within said chamber, said centrifugal members engaging the driven member and moving the same to a position of less pressure upon the driving member when the shaft attains a predetermined speed.

2. A speed regulator comprising a rotatable shaft, a driving member mounted loosely upon said shaft and having a clutch face, a driven member including an annular inner section and an annular outer section arranged concentric to the inner section and having a clutch face, the inner section of the driven member being slidably mounted on said shaft, means for securing the inner section of the driven member against rotation relative to the shaft, means for preventing rotation of the onter section of the driven member upon the inner section thereof in one direction, said clutch face on the driven member being adapted to engage the clutch face of the driving member, yieldable means for normally maintaining the clutch face of the driven member in firm contact with the clutch face of the driving member, said clutch member forming an inclosed chamber, centrifugal members mounted pivotally on the shaft within said chamber, said centrifugal members engaging the driven member and moving the same to a position of less pressure upon the driving member when the shaft attains a predetermined speed.

1,208,209. LAMINATED FABRIC FOR SHOE-SOLES AND THE LIKE. JOHN D. PRINCE, Boston, Mass. Filed Mar. 17, 1915. Serial No. 14,918. (Cl. 154—46.)



1. A fabric for shoe soles and the like comprising a plurality of layers of rubber and an intermediate layer of leather, the whole being firmly bonded into a unitary structure.

2. A fabric for shoe soles and the like comprising a plurality of layers of vulcanized rubber and an intermediate layer of leather, the whole being firmly bonded into a unitary structure.

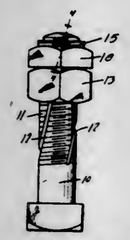
3. A fabric for shoe soles and the like comprising a plurality of layers of rubber and an intermediate layer of leather, the contiguous surfaces of the rubber and leather being cemented and the whole firmly bonded into a unitary structure.

4. The method of making a fabric for shoe soles and the like, which fabric includes layers of rubber and leather, comprising, first, coating a surface of the layers with cement; second, associating the layers with the cement intermediate thereof; and, third, subjecting the whole to impact blows.

5. The method of making a fabric for shoes soles and the like, which fabric includes layers of rubber and a layer of leather, comprising, first, coating both surfaces of the leather and one surface of each of the layers of rubber with cement; second, associating the layers with the leather between the rubber and the cemented surfaces contiguous; and, third, subjecting the whole to impact blows.

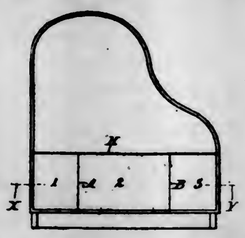
[Claims 6 to 13 not printed in the Gazette.]

1,208,210. NUT-LOCK. RICHARD L. PURCELL and GEORGE E. PARKHILL, Spokane, Wash. Filed Apr. 10, 1915. Serial No. 20,508. (Cl. 151—11.)



The combination with a screw threaded bolt having grooves traversing its threads, of a nut with a tubular extension having a screw thread on its outer surface and a longitudinal slot therein and a beveled wall one one side of the slot and a lock nut having a threaded bore to engage the threads on said extension and inwardly extending spring pawls adapted to extend over the beveled wall and through the slot in said extension and into one of the grooves traversing the threads of the bolt.

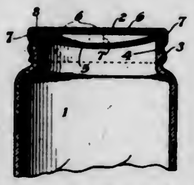
1,208,211. TOP LID FOR HORIZONTAL GRAND PIANOS. ARCHIBALD DAWES RAMSDEN, London, England. Filed Mar. 20, 1916. Serial No. 85,460. (Cl. 84—52.)



A top lid for a horizontal grand piano with the front portion divided into a plurality of sections by beveled cuts.

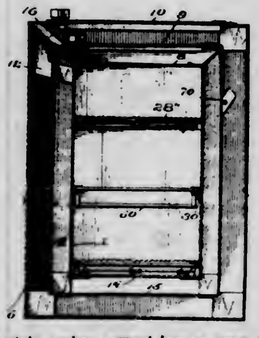
1,208,212. CAP AND SEAL FOR JARS, BOTTLES, &c. EUGENE STANLEY RICHARDSON, Philadelphia, Pa. Filed Aug. 1, 1912. Serial No. 712,667. (Cl. 215—84.)

1. In a cap and seal for a receptacle, the combination of a sealing member having its edge portion supported upon the mouth edge of said receptacle, and the portion thereof inside of said edge portion being depressed so that its central point is its lowest point and such central portion being inclined radially outwardly and upwardly from such central point to the outer edge portion of the said sealing member, a cap having a flange portion adapted to engage the upper end of said receptacle, said cap also having a top which is provided with an annular rib projecting downwardly therefrom, the said rib contacting with the said sealing member in alinement with the edge of the mouth of said receptacle, substantially as and for the purpose stated.



2. In a cap and seal for a receptacle such as a jar or bottle the combination of a sealing member having its edge supported directly upon the mouth edge of said receptacle, the central portion of said sealing member being primarily permanently shaped and depressed as shown and a cap for securing and holding the said sealing member in position in contact with the mouth edge of a receptacle and the said cap being provided with a raised bearing portion on its under side for contacting with the said sealing member in alinement with the said mouth edge, the surface of said raised portion occupying a plane below the plane of the top of said cap so that the central part of the said cap does not contact with the sealing member and the flange and top portions of the said cap being provided with openings therein for the purpose stated.

1,208,213. ELECTRIC COOKER. WALTER RICHMOND, Memphis, Tenn., assignor to John Elliott Jenkins, Chicago, Ill. Filed Oct. 24, 1911, Serial No. 656,431. Renewed Oct. 12, 1916. Serial No. 125,335. (Cl. 219—35.)



1. An electric cooker comprising an oven and a duplex casing spaced from said oven and providing a plurality of insulating chambers, electric heating coils within said oven, an outlet vent connected with said oven, and an inlet port or opening connecting said oven with the inner chamber of said casing.

2. An electric cooker comprising an oven and a duplex casing spaced from said oven and providing a plurality of insulating chambers, electric heating coils within said oven, an outlet vent connected with said oven, an inlet port or opening connecting said oven with the inner chamber of said casing, and a port connecting the intermediate chamber with the outer chamber thereof.

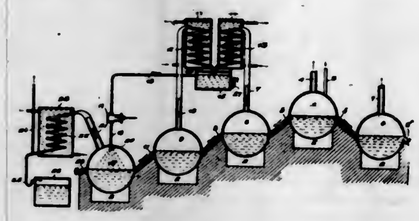
3. A cooker comprising an oven, a plurality of spaced walls forming heat insulating chambers surrounding said oven, electric heating coils within said oven, and means for ventilating said oven while maintaining the adjacent surrounding chamber closed.

4. An electric oven, comprising a casing vented through its top and bottom, means for controlling the air vent in the bottom of the casing, a resistance wire within the oven and constituting the heater, a switch in circuit with said resistance-wire, and automatically-operating means for opening the switch.

5. In an oven, a casing divided into a plurality of chambers, suitable heaters arranged therein, and heat insulating walls comprising alternate heat reflecting and non-conducting layers.

[Claims 6 to 14 not printed in the Gazette.]

1,208,214. APPARATUS FOR CONVERTING THE HEAVY PRODUCTS OBTAINED FROM PETROLEUM. PEDRO ROTH and MÁXIMO EDUARDO VENTURINO, Buenos Aires, Argentina. Filed Oct. 16, 1916. Serial No. 126,058. (Cl. 196—25.)



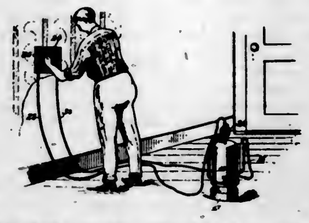
1. Apparatus for the industrial conversion of the heavy products of petroleum into lighter products, comprising in combination:—a series of boilers arranged in battery, means of connection between every two successive boilers, means for the discharge of the vapors and gases of distillation from each boiler, means for condensing said vapors and gases, means for separating the condensed heavy or middle hydrocarbons from the water and impurities which they may contain, and means for introducing said liquid heavy or middle hydrocarbons into the vapor space of the lowermost or converting boiler and means for condensing the vapors generated within said converting boiler.

2. Apparatus for the industrial conversion of the heavy products of petroleum into lighter products, comprising in combination:—a series of boilers arranged in battery, means of connection between every two successive boilers, means for the discharge of the vapors and gases of distillation from each boiler, means for condensing said vapors and gases, means for separating the condensed heavy or middle hydrocarbons from the water and impurities which they may contain, means for introducing said liquid heavy or middle hydrocarbons under pressure into the vapor space of the lowermost or converting boiler and a sprayer connected to said last mentioned means through which the middle hydrocarbons are discharged and means for condensing the vapors generated within said converting boiler.

1,208,215. APPARATUS FOR REMOVING WALL-PAPER. NATHAN RUBENSTEIN, New York, N. Y. Filed Mar. 4, 1916. Serial No. 82,046. (Cl. 126—271.1.)

1. A wall paper remover comprising a closed shallow box, a handle carried thereby, a pad stretched over the front wall of said box, said front wall provided with a limited number of restricted openings communicating with the interior of said box and terminating at the rear surface of said pad.

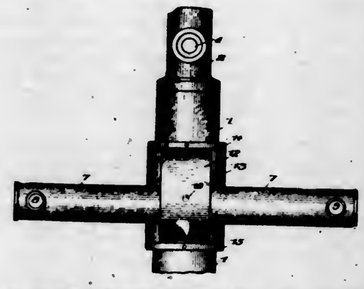
2. A wall paper remover comprising a portable closed box, a handle carried thereby, a pad extending over the front wall of said box, the front wall of said box provided with a limited number of fine openings therein, preventing the rapid escapement of steam from said box, to thereby provide for the maintenance of pressure therein.



3. A wall paper remover comprising a portable closed shallow box with an inwardly offset front wall, a frame including a netting, and a pad, located within the recess defined by the offset front wall, the front wall of said box provided with openings therein.

4. A wall paper remover comprising a portable closed shallow box with an inwardly offset front wall, flexible steam inlet and outlet pipes communicating with said box, a frame including a pad, and a netting, positioned within the receptacle defined by the offset front wall, said pad extending substantially flush with the outer edge of said box, the front wall of said box provided with a limited number of restricted openings extending therethrough.

1,208,216. COMBINED PERISCOPE AND RANGE-FINDER. GEORGE N. SAEGMULLER and GUSTAV A. HERMANN KELLNER, Rochester, N. Y., assignors to Bausch & Lomb Optical Co., Rochester, N. Y., a Corporation of New York. Filed Dec. 16, 1914. Serial No. 877,467. (Cl. 88—2.7.)



1. An optical instrument comprising two systems of optical elements, one arranged to form a periscope and the other arranged to form a range finder, located with its axis in a plane intersecting that of the periscope, a reflector arranged to receive light rays from the range finder system and direct them into the axis of the periscope system.

2. A combined periscope and range finder, each comprising the usual complement of objective and ocular lenses, said instruments being disposed so that the optical axis of one intersects the axis of the other and means embodying a reflector disposed to coöperate with the two oculars to enable the observer at the eyepiece of the periscope to observe the images formed in the eyepiece of the range finder.

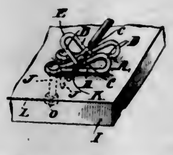
3. In an optical instrument, the combination with a system of vertically disposed periscope optical elements and a system of horizontally disposed range finder optical elements, the latter being located at one side of the axis of the former, of a reflector adjustably mounted relatively to the two systems and serving to direct light rays from the range finder system into the axis of the periscopic system.

4. In an optical instrument, the combination with a system of periscope optical elements, and a system of

range finder optical elements, the latter being disposed at one side of and at an angle intersecting the plane of the axis of the former, of a collective lens and a reflector coöperating with the range finder system and a portion of the periscopic system to render the images formed by the range finder system visible in the ocular of the periscopic system.

5. In an optical instrument, the combination with a system of periscope optical elements comprising an ocular, and a system of range finder optical elements also comprising an ocular, the latter system being disposed with its axis in a plane intersecting that of the periscopic system, of means for adjusting the range finder system for altitude about the center of the exit pupil of its ocular, and an adjustable reflector coöperating with the latter to render images formed therein visible in the ocular of the periscope.

1,208,217. SPRING FASTENING DEVICE. JOHN SCHADE, Jr., New York, N. Y., assignor to Fahnestock Electric Company, a Corporation of West Virginia. Filed Dec. 13, 1906, Serial No. 347,577. Renewed Mar. 13, 1913. Serial No. 754,128. (Cl. 173—259.)



1. A fastening device for electrical conductors, formed of bent spring wire provided with retaining portions, and having flat contact surfaces inside the bends of said retaining portions for the conductor.

2. A fastening device for electrical conductors comprising a piece of resilient metallic wire, having a body member, a spring member and a resistant member, said spring member and resistant member being bent to form retaining portions for the conductor, and the wire being flattened at the inside surface of said bends forming contact portions for the conductor.

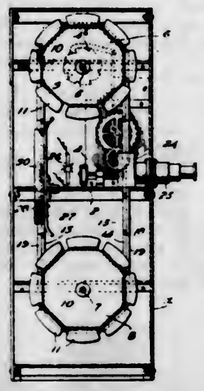
3. A fastening device for electrical conductors comprising a piece of resilient metallic wire, having a body member, a spring member and a resistant member, said spring member and resistant member being bent to form retaining portions for the conductor, the wire having flat contact surfaces inside the bends of the said retaining portions.

1,208,218. MOTOR-OPERATED CARD AND PICTURE DISPLAY APPARATUS. PAUL J. SCHELLER, Evansville, Ind., assignor to The Slide-O-Graph Company, Evansville, Ind., a Corporation of Indiana. Filed Dec. 18, 1915. Serial No. 67,664. (Cl. 88—28.)

1. In a slide exhibiting apparatus, the combination with a chain of slide holders, of a projecting device before which the chain of slide holders is adapted to pass, a source of light for the projection of the pictures, and a combined reflector and guide serving as a reflector for the source of light and a guiding device for the chain of slide holders.

2. In a slide exhibiting apparatus, the combination with an endless chain of slide holders, of a projecting device before which one stretch of the chain of slide holders is adapted to pass, a source of light for the projection of the pictures, and a combined reflector and guide serving as a reflecting back-ground for said source of light and as a guide for the remaining stretch of slide holders.

3. In a slide exhibiting apparatus, the combination with an endless chain of slide holders, of a projecting device before which one stretch of the chain of slide holders is adapted to pass, a source of light for the projection of the pictures, a reflecting plate disposed at the back of the source of light and serving as a reflector therefor, and provided with flanges between which the remaining stretch of the chain of slide holders is adapted to pass, said slide holders being adapted to pass over the face of said plate.

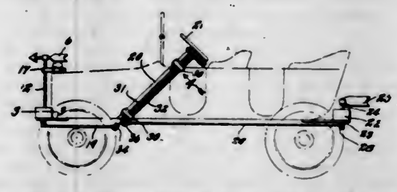


4. In a slide exhibiting apparatus, the combination with upper and lower reels or drums, of an endless chain of slide holders adapted to run over said reels or drums, a projecting device for displaying the matter carried by the slide holders and having means for guiding the front stretch of said endless chain of slide holders, and guiding means, independent of said drums, adapted to directly coöperate with, and guide, the central portion of the rear stretch of said chain of slide holders rearwardly of the projecting and guiding device aforesaid.

5. In a slide exhibiting apparatus, a slide carrier comprising articulated flat links arranged in pairs and independent slide holders secured to the respective pairs of links and constituting bridging and bracing means for them.

[Claims 6 and 7 not printed in the Gazette.]

1,208,219. SIGNAL FOR MOTOR-VEHICLES. LAWRENCE H. W. SCHRAMM, St. Louis, Mo. Filed July 8, 1915. Serial No. 38,691. (Cl. 116—31.)



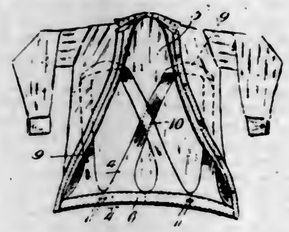
1. The combination with a motor vehicle, of movable signal members arranged at front and rear of the body of the vehicle, operating connections extending from said signal members to the steering post of the vehicle, a pair of handles forming a part of the signal operating means, and means on each handle for engaging the other handle when either handle is moved toward the other, whereby both signaling members can be simultaneously operated.

2. The combination with a motor vehicle, of signaling members arranged for operation at front and rear of the vehicle body, independently operating actuating means for said signaling members, a portion of which means is located adjacent to the steering post of the vehicle, a handle for each actuating means, and a finger on each handle, which finger projects into the path of travel of the other handle so that when either handle is moved toward the other both handles will be moved simultaneously in the same direction.

3. The combination with a motor vehicle, of housings located at front and rear of the body of the vehicle, a pair of shafts journaled in each housing, a signaling member carried by one shaft of each pair, driving connections between the shafts of each pair, and means for actuating said driving connections, which actuating means includes a pair of handles arranged adjacent to the steering post of the vehicle and means on each handle for engaging the other handle when either handle is moved toward the other whereby both signaling members can be simultaneously operated.

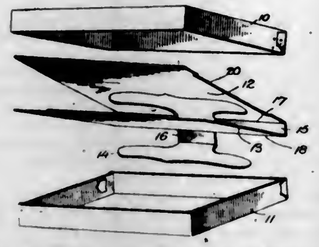
4. The combination with a motor vehicle, of signaling members arranged for operation at front and rear of the vehicle body, independently operating actuating means for said signaling members, a portion of which means is located adjacent to the steering post of the vehicle, a handle for each actuating means, means on each handle for engaging the other handle when either handle is moved toward the other, whereby both signals are moved simultaneously, and means for retaining said signals in their shifted positions.

1,208,220. BLOUSE. HARRY A. SHAPERA, Chicago, Ill. Filed Aug. 12, 1915. Serial No. 45,086. (Cl. 2—96.)



A blouse waist of the class described comprising a body portion, a loose-fitting waistband overlapping and stitched to the lower edge of the body portion, a pair of shoulder straps disposed within the body portion of the garment and arranged to be crossed and passed over the shoulders of the wearer to support the waist-band at the waist line of the wearer, the said shoulder straps flaring at their extremities and the extremities of the shoulder straps being stitched between the body portion and the waist-band, with the adjacent edges of the several shoulder strap extremities lying in immediate proximity to each other along the length of the waist-band as and for the purpose set forth.

1,208,221. PACKING DEVICE. HARRY SIMONS, New York, N. Y., assignor to Wayne Paper Goods Company, Fort Wayne, Ind., a Corporation. Filed Dec. 14, 1915. Serial No. 66,832. (Cl. 206—7.)

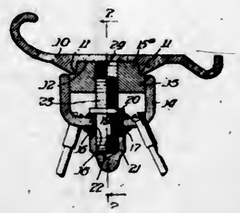


1. In a packing box or receptacle, the combination with the top and bottom sections of a box, of a frame comprising a plurality of leaves or layers around which the clothing may be folded, and a rack or hanger cut from one of the leaves to carry the coat.

2. In a packing box or receptacle, the combination with a box comprising a top and bottom sections, of a plurality of leaves hinged together to separate the clothing in the box, and a hanger cut from one of the leaves and secured at the hinge.

3. In a packing box or receptacle for clothing, the combination with a paper box comprising a top and a bottom section, of paper leaves united by a hinge portion and adapted to separate the clothing, and a hanger for the coat cut from one of the leaves at the hinge section.

1,208,222. DEMOUNTABLE-RIM CONSTRUCTION. RALPH W. SKILLIN, Oak Park, Ill. Filed Dec. 15, 1915. Serial No. 67,075. (Cl. 152—21.)



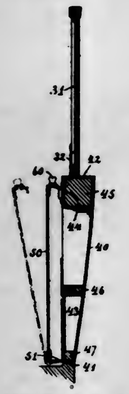
1. In a wheel, the combination of a metallic channeled fixed rim substantially U-shaped in cross section, the interior side walls of the channel thereof being on substantially parallel planes, a block substantially the width of said channel slidably mounted between said channel walls for inward and outward movement, said block having a substantially radial threaded hole therein, a bolt-like element substantially radially arranged carried by said fixed rim and mounted thereon for axial rotation and against movement in its longitudinal directions, a portion thereof normally within said channel being threaded and adapted to thread into the threaded hole in said block, means on said bolt-like element for rotating the same, a tire rim having a pair of annular projections on the inner side thereof, a portion of said block being adapted substantially to interfit between said projections when said tire rim is on said fixed rim and said bolt-like element is rotated to move said block outward.

2. In a wheel, the combination of a metallic fixed rim having an annular channel formed therein, the side walls defining said channel being on substantially parallel planes, a block-like locking element substantially the width of said channel and slidably positioned therein for outward and inward movement, a tire rim adapted substantially to fit upon said fixed rim, said tire rim having a pair of spaced apart projections on the inner side thereof, a portion of said block-like element being adapted substantially to interfit between said projections when the two rims are normally assembled and said block-like element is moved outwardly, and means including a threaded shaft substantially radially arranged and having a fixed bearing in said fixed rim for moving said block-like element outward and inward, said shaft being threaded into said block-like element.

3. In a wheel, the combination of a fixed rim, a tire rim having a pair of annular spaced apart projections on the inner side thereof forming a channel, a locking member having a substantially radial threaded hole mounted slidably for inward and outward movement in said fixed rim, a portion of said locking member being adapted to enter said tire rim channel lockingly when said two rims are operatively together and said locking member is moved outward, and means for moving said locking member outward into such locking position and inward into unlocking position, said means comprising a substantially radially arranged element rotatably mounted and having a constant bearing in a portion of said fixed rim, said rotatable element being thus held against outward or inward movement, said rotatable element being threaded, said locking

member being threaded whereby the threads thereof cooperate and interfit with the threads on said rotatable element, whereby when said rotatable element is rotated said locking element will be moved inward or outward.

1,208,223. GUARD FOR AN AUTOMOBILE-WINDOW. HINSDALE SMITH, South Hadley, Mass., assignor to The Springfield Body Corporation of New York. Original application filed Sept. 15, 1913, Serial No. 789,738. Divided and this application filed Feb. 2, 1916. Serial No. 75,635. (Cl. 21—125.)



1. A door for a vehicle body, a window pivotally mounted on the door and adapted to be moved to a position above it or alongside of it, in combination with a hinged cover for the window secured to the door, and means for holding the cover in place when the window is in either of the two positions.

2. A door for a vehicle body having a window pivotally connected to the upper edge portion thereof adapted to be swung downwardly and inwardly alongside the door, and to be swung to an upstanding position above the door, a hinge connected cover for the window, and means for detachably connecting the upper edge portion of said cover with an upper portion of the door.

3. A door for a vehicle body, a window hinged at the upper edge of the door and adapted to be moved to one position above the door and to another position alongside of the door, in combination with a cover for the window mounted on the door when in the latter position.

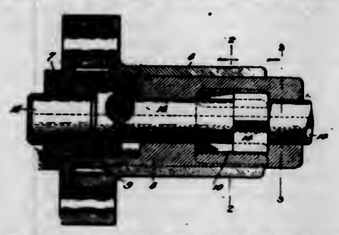
4. In a vehicle of the character described, a door, a window hingedly secured thereto at its upper inner edge, a cover for the window secured to the door at its lower inner edge, and means for holding the cover in position including a bar on the cover and a member on the window adapted to engage therewith.

5. In a vehicle of the character described, the combination with a door, of a window hinged to its upper edge and a cover for the window hinged to its lower edge, and means for securing the cover to the door and which means are arranged above the window when the latter is in its lowered position, including a bracket on the door, a spring within the same and a bar on the cover adapted to be engaged by the bracket and the spring.

[Claims 6 and 7 not printed in the Gazette.]

1,208,224. CHUCK-COUPLING. WILLIAM A. SMITH, Denver, Colo., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo., a Corporation of Delaware. Filed Aug. 21, 1914. Serial No. 857,917. (Cl. 78—44.5.)

1. In a structure of the character set forth, two members to be coupled, one of said members having on open-ended socket that is angular in cross section, and internal recesses in the walls of said socket, forming stop shoulders, the other member having an angular portion that enters the open end of the socket and is partially rotatable therein, the stop shoulders engaging said angular portion and limiting the rotation of the same in the socket.



2. In a structure of the character set forth, two members to be coupled, one of said members having a socket provided with an angular mouth, and internal recesses in the walls of said socket, forming stop shoulders, the other member having an angular portion that substantially corresponds to the angular mouth of the socket and enters the same, said angular portion being partially rotatable within the socket and bearing against the stop shoulders, to limit such rotation, and said member when so rotated being interlocked against withdrawal from the socket.

3. In a structure of the character set forth, two members to be coupled, one of said members having a socket that is of angular cross section and having an open mouth and being of substantially the same cross sectional area in rear of the mouth, said socket having internal recesses forming clearance spaces, and stop shoulders, the other member having an enlarged angular portion that is movable through the angular mouth of the socket into the same and is partially rotatable within the socket and recesses, abutting against the stop shoulders to limit such rotation, said recesses being longer than the angular enlargement to permit a limited longitudinal play.

4. In a structure of the character set forth, two members to be coupled, one having a socket provided with an open mouth and a slot cut into said member and intersecting the socket, forming a stop shoulder, the other member having a portion entering the socket and partially rotatable therein, said latter member having a portion that abuts against the wall of the slot and limits the said rotation.

5. In a structure of the character set forth, two members to be coupled one having a socket provided with an open mouth, and a tangential slot cut into said member and intersecting the socket, forming a clearance space and a stop shoulder, the other member having an angular portion that enters the socket and is partially rotatable therein and in the slot, said latter member abutting against the stop shoulder.

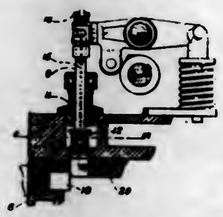
[Claims 6 to 8 not printed in the Gazette.]

1,208,225. INTERNAL-COMBUSTION ENGINE. HARRY B. STILZ, Philadelphia, Pa. Filed May 17, 1912. Serial No. 697,894. (Cl. 123—30.)

1. A valve having a fuel nozzle centrally located therein, said nozzle having means for projecting a cone shaped film of fuel from the orifice in the end thereof, the body of said valve having means therewith for discharging the air therefrom in a whirling current around said film of fuel and means for opening said valve and causing a simultaneous flow of fuel through said nozzle.

2. A valve having an independent passage therethrough for a combustible, an air-tight body inclosing said valve, means for causing a gaseous fluid to pass through said body and be discharged therefrom in a whirling current over the seat of said valve and means for opening said valve and causing a simultaneous flow of combustible through said passage.

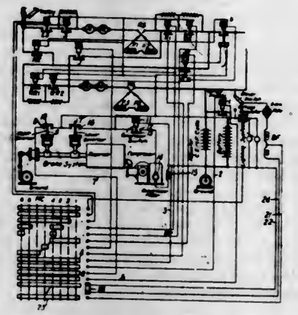
3. A valve having independent passages therethrough for two fluids leading to a common final discharge orifice through concentric individual orifices, the inner individual orifice having means therewith for discharging the fluid therefrom in a hollow cone-shaped film, means for producing a rotary motion in the fluids while passing through said common final discharge orifice and means for controlling the fluids at their respective individual discharge orifices so that simultaneous flows of said fluids may be effected intermittently through said valve.



4. The combination with a cylinder and piston, an air compressor, a fuel-oil pump and an exhaust valve on said cylinder, of an admission valve having an air tight body, a conduit leading tangentially into the space within said body, a fuel supply passage coaxial with said valve terminated by a small delivery orifice, a spiral overlying said passage and means for opening said valve and simultaneously operating said pump.

5. In combination with a cylinder and a piston, an air compressor, a fuel oil pump and an exhaust valve on said cylinder, of an air admission valve having a fuel nozzle centrally located therein with delivery direct and independent to said engine cylinder, means for whirling the air admitted through said valve around the delivery orifice in said fuel nozzle, a conduit between said compressor and said admission valve, a conduit between said oil pump and said fuel nozzle and means for opening said admission valve and simultaneously causing a flow of fuel through said nozzle.

1,208,226. CONTROL SYSTEM. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 8, 1914. Serial No. 860,609. (Cl. 172—179.)



1. In a system of control, the combination with a supply circuit and main translating means energized therefrom, of an auxiliary source of energy, auxiliary translating means having a plurality of coöperating windings, means for connecting said auxiliary translating means in circuit either with said main translating means or with said source of energy, and means for varying the active portion of one of said windings under predetermined conditions.

2. In a system of control, the combination with a supply circuit and main translating means energized therefrom, of a source of energy in circuit with said means, a dynamo-electric machine having an armature and a field magnet winding, means for connecting said machine in circuit either with said main translating means or with said source of energy, and means for varying the active portion of said field winding under predetermined conditions.

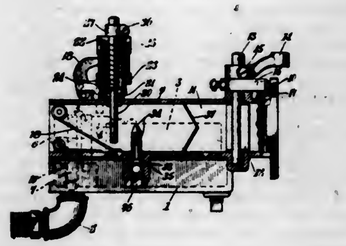
3. In a system of control, the combination with a supply circuit, main translating means energized therefrom, and auxiliary translating means, of a dynamo-electric machine having an armature and a field magnet winding, an energy accumulator normally connected in series circuit with said main translating means and adapted to be charged, means for connecting said auxiliary translating means in parallel with said accumulator under predetermined conditions, means for connecting said machine in circuit either with said main translating means or with said accumulator, and means for varying the active portion of said field winding under other predetermined conditions.

4. A system of control comprising a supply circuit, main translating means receiving energy therefrom, auxiliary translating means, a dynamo-electric machine having an armature and a field magnet winding, an energy accumulator normally in circuit with said main translating means, means for regulating the amount of current traversing said accumulator, means for connecting said machine in circuit either with said main translating means or with said accumulator, and means for varying the active portion of said field winding under predetermined conditions.

5. A system of control comprising a supply circuit, an electric motor receiving energy therefrom, auxiliary translating means, an auxiliary dynamo-electric machine having an armature and a field magnet winding, a storage battery normally in circuit with said motor, means in parallel circuit with said battery for controlling the charging current thereof, means for connecting said machine in circuit either with said motor or with said battery, and means for varying the active portion of said field winding when the main motor current is interrupted.

[Claims 6 to 22 not printed in the Gazette.]

1,208,227. CARBURETER. FREDERICK R. SUNDERMAN, Newburgh, N. Y., assignor to Sunderman Safety Carburetor Corporation, Newburgh, N. Y., a Corporation of New York. Filed Jan. 29, 1916. Serial No. 75,002. (Cl. 261—41.)



1. In a carbureter, the combination of a horizontal open-ended passageway, a hydrocarbon chamber, a plurality of hydrocarbon nozzles, communicating with said chamber and discharging within said passageway at different levels, an air admission valve hinged at its upper end in advance of said nozzles and normally inclined downwardly toward the nozzles and having its free end terminating short of the nozzles so as to swing up and down free thereof and acted upon directly by suction to be swung inwardly and upwardly by increased suction to direct the incoming air in a converging current upon one or more of the nozzles and to uncover one or more nozzles to the current of air depending upon the height that the valve is lifted, and a

throttle valve controlling the flow of hydrocarbon fuel through said passageway to the engine.

2. In a carbureter, the combination of a horizontal open-ended passageway, a hydrocarbon chamber, a plurality of hydrocarbon nozzles communicating with said chamber and discharging within said passageway at different levels, an air admission valve hinged at its upper end in advance of said nozzles and normally inclined downwardly toward the nozzles and normally closing said passageway to prevent any substantial admission of air past the valve when the same is in its lowest position and having its free end terminating short of the nozzles so as to swing up and down free thereof and acted upon directly by suction to be swung inwardly and upwardly by increased suction to direct the incoming air in a converging current upon one or more of the nozzles and to uncover one or more nozzles to the current of air depending upon the height that the valve is lifted, and a throttle valve controlling the flow of hydrocarbon fuel through said passageway to the engine.

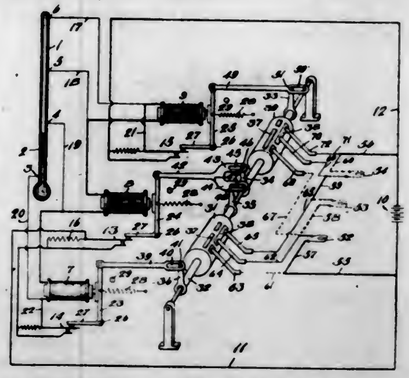
3. In a carbureter, the combination of a horizontal open-ended passageway of rectangular cross-section, a rectangular air admission valve near the inlet end of the passageway hinged at its upper end at the top portion of the passageway and extending downwardly and inwardly, a rectangular throttle valve within the passageway for controlling the flow of fuel mixture from the pasageway to the engine, a hydrocarbon chamber, a plurality of hydrocarbon nozzles communicating with said chamber and discharging into the said passageway at different levels and at points between the free edge of said air inlet valve and the throttle valve, said air inlet valve being acted upon directly by suction to be swung inwardly and upwardly by increased suction so as to uncover one or more nozzles to the current of air depending upon the height to which the valve is lifted.

4. In a carbureter, the combination of a horizontal open-ended passageway of rectangular cross-section, a rectangular air admission valve near the inlet end of the passageway hinged at its upper end at the top portion of the passageway and extending downwardly and inwardly, a rectangular throttle valve within the passageway for controlling the flow of fuel mixture from the passageway to the engine, a hydrocarbon chamber, a plurality of hydrocarbon nozzles communicating with said chamber and discharging into the said passageway at different levels and at points between the free edge of said air inlet valve and the throttle valve, said air inlet valve being acted upon directly by suction to be swung inwardly and upwardly by increased suction so as to uncover one or more nozzles to the current of air depending upon the height that the valve is lifted, a housing on the top of the passageway, a plunger extending slidably through said housing into the passageway in position to be engaged by the air valve when the latter is lifted by suction, and a spring within the housing and coöperating with the plunger to oppose the upward movement of the air valve.

5. In a carbureter, the combination of a horizontal open-ended passageway of rectangular cross-section, a constant level hydrocarbon chamber, a plurality of hydrocarbon nozzles communicating with said chamber and projecting upwardly in the passageway from the floor thereof, one of said nozzles being of substantially the height of the hydrocarbon level of the chamber and the other nozzle being substantially higher so as to require much higher suction in the passageway to draw hydrocarbon therethrough, an air admission valve rectangular in cross-section and hinged at its upper end at the top portion of the passageway in advance of the nozzles and extending downwardly and inwardly toward the base of the nozzles and in close proximity thereto, said air inlet valve being acted upon directly by the suction of the engine to swing inwardly and upwardly to direct incoming air against the discharge openings of one or more of said nozzles depending upon the height to which said valve is lifted and a rectangular throttle valve in said passageway for controlling the flow of hydrocarbon fuel therefrom.

[Claims 6 to 13 not printed in the Gazette.]

1,208,228. TEMPERATURE-INDICATOR. NATHAN H. SUREN, Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed Jan. 28, 1915. Serial No. 4,926. (Cl. 177—351.)



1. A temperature indicator having a thermostatic control, branch circuits arranged to be governed by the thermostatic control at arbitrary extremes and mean temperatures, a plurality of electrical responsive units in a series circuit, said units being shunted by the branch circuits, and a plurality of signals governed by the condition of all the units.

2. A temperature-indicator including a series of electromagnets, a series of signals respectively controlled by the condition of all of the magnets, and thermostatically operated means for controlling the condition of the respective magnets in accordance with the temperature.

3. A temperature-indicator including a series of electromagnets, a series of signals respectively controlled by the condition of all of the magnets, and thermostatically operated means for controlling the condition of the respective magnets in accordance with the temperature, said means being adapted to maintain a constant condition of the magnets with respect to their signal operation between arbitrary temperature points.

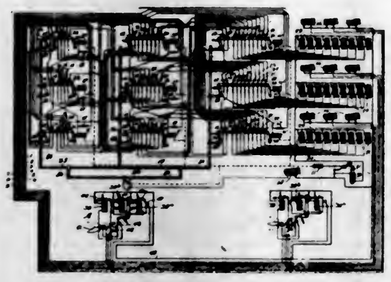
4. A temperature-indicator including a series of electromagnets, a series of signals respectively controlled through the condition of all of the magnets, a series of branch circuits controlling the condition of the magnets a main circuit to which the branch circuits are connected and a thermostatic control for governing said branch circuits.

5. A temperature-indicator including a series of electromagnets, a series of signals respectively controlling through the condition of all of the magnets, a series of branch circuits controlling the condition of the magnets, a main circuit to which the branch circuits are connected and a thermostatic control for governing said branch circuits, said thermostatic control governing said branch circuits in accordance with the temperature and maintaining a constant branch circuit control throughout the full range of thermostatic control, whereby one or another of the signals is constantly indicated.

[Claims 6 to 19 not printed in the Gazette.]

1,208,229. ELECTRIC SIGNAL SYSTEM. NATHAN H. SUREN, Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed Feb. 13, 1915. Serial No. 8,069. (Cl. 177—361.)

1. In a signal-system, a plurality of signal-wires adapted for connection with the circuit, boxes with signal determining means for selectively connecting the signal-wires with the circuit, a plurality of relays arranged in groups corresponding to each number group of a code signal, one of said groups of relays being connected in circuit with the signal-wires, and open contacts controlled by the relays of each group for connecting the relays of succeeding groups in circuit with the signal-wires, and open contacts controlled by relays of each group, and arranged in series for controlling annunciator circuits, and annunciators in said circuits.



2. In a signal-system, a plurality of signal-wires adapted for connection with the circuit, boxes with signal determining means for selectively connecting the signal-wires with the circuit, a plurality of relays arranged in groups corresponding to each number group of a code signal, one of said groups of relays being connected in circuit with the signal-wires, and open contacts controlled by the relays of each group for connecting the relays of succeeding groups in circuit with the signal-wires, contacts controlled by each relay for cutting out the other relays of the group, and open contacts controlled by the relays of each group, and arranged in series with those of the other groups for controlling annunciator circuits, and annunciators in said circuits.

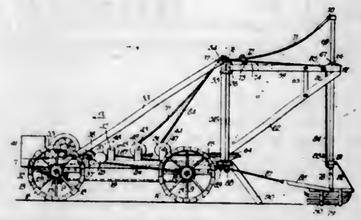
3. In a signal-system, a plurality of signal-wires adapted for connection with the circuit, boxes with signal determining means for selectively connecting the signal-wires with the circuit, a plurality of relays arranged in groups corresponding to each number group of a code signal, one of said groups of relays being connected in circuit with the signal-wires, and open contacts controlled by the relays of each group for connecting the relays of succeeding groups in circuit with the signal-wires, and open contacts controlled by relays of each group, and arranged in series for controlling annunciator circuits, and annunciators in said circuits, and a normally closed switch in the circuit adapted to be opened by means controlled by the closure of any annunciator circuit to open the main circuit and permit the parts to resume their normal positions.

4. In a signal-system, a plurality of signal-wires adapted for connection with the circuit, boxes with signal determining means for selectively connecting the signal-wires with the circuit, a plurality of relays arranged in groups corresponding to each number group of a code signal, one of said groups of relays being connected in circuit with the signal-wires, and open contacts controlled by the relays of each group for connecting the relays of succeeding groups in circuit with the signal-wires, and open contacts controlled by relays of each group, and arranged in series for controlling annunciator circuits, and annunciators in said circuits; and a normally closed switch in the circuit adapted to be opened by means controlled by the closure of any annunciator circuit to open the main circuit and permit the parts to resume their normal positions, a creeper mechanism with associated annunciator adapted to be set in operation upon the operation of the relays, and to continue in case any of the relays are not restored in the allotted time, thereby to cause operation of the annunciator.

5. In a signal-system, a plurality of signal-wires adapted for connection with the circuit, boxes with signal determining means for selectively connecting the signal-wires with the circuit, a plurality of relays arranged in groups corresponding to each number group of a code signal, one of said groups of relays being connected in circuit with the signal-wires, and open contacts controlled by the relays of each group for connecting the relays of succeeding groups in circuit with the signal-wires, and open contacts controlled by relays of each group and arranged in series for controlling annunciator circuits, and annunciators in said circuits, an annunciator and resistance associated with each relay of the several groups to indicate the continuity of the circuits.

[Claims 6 to 9 not printed in the Gazette.]

1,208,230. EXCAVATING-MACHINE. HENRY L. SWEET and WALDO SWEET, Fond du Lac, and CHARLES B. T. HUTCHINS, Menasha, Wis., assignors to B. F. & H. L. Sweet Company, Fond du Lac, Wis., a Corporation of Wisconsin. Filed June 8, 1912. Serial No. 702,432. (Cl. 37—16.)



1. In an excavating machine, a frame, a triangular beam extending from and pivoted to said frame, a pole sliding vertically in a swinging joint on said beam, said joint being disposed at the end of said beam, a cable attached to the top of said pole, a drum for said cable, a cable attached to said pole below said joint, a sheave for said second named cable disposed near said swinging joint, and a drum for said last named cable.

2. In an excavating machine, a frame, a horizontally swinging triangular beam pivoted to said frame, a pole sliding vertically in a vertically swinging joint on said beam, a cable attached to the top of said pole, a drum for said cable, a lifting cable attached to said pole below said joint, a sheave for said lifting cable disposed near the swinging joint, and a drum for said last named cable.

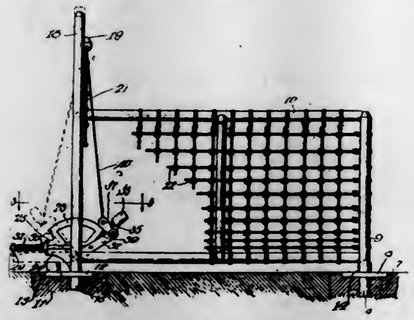
3. In an excavating machine, a frame, a beam extending from said frame, a pole sliding vertically in a swinging joint on said beam, an adjustable scoop carried by said pole, a cable attached to the top of said pole, a drum for said cable, a cable attached to said pole below said joint, a drum for said second named cable, a guiding member for said second named cable disposed near said joint, a cable attached to said scoop, and a drum for said last named cable.

4. In an excavating machine, a frame, a beam extending from said frame, a pole sliding vertically in a swinging joint on said beam, an adjustable scoop carried by said pole, a cable attached to the top of said pole, a drum for said cable, a cable attached to said pole below said joint, a guiding member for said second named cable mounted close to said joint, a drum for said second named cable, a cable attached to said scoop, and a drum for said last named cable, said scoop facing said frame.

5. In an excavating machine, a supporting frame, a beam extending from said frame, a pole sliding vertically in a swinging joint on said beam, an adjustable scoop carried by said pole, a cable secured to the top of said pole, a drum for said cable, a cable fastened to said pole near said scoop, a guiding member for said second named cable mounted in proximity to said joint, a drum for said second named cable, common guiding means for both of said cables disposed between said drums and said pole; a cable attached to said scoop, and a drum for said last named cable, said scoop facing said supporting frame.

[Claim 6 not printed in the Gazette.]

1,208,231. GATE OPERATING AND LOCKING MEANS. JOSEPH H. TAUSCH, Winthrop Harbor, Ill., assignor, by mesne assignments, to Gorton Fence Co., Racine, Wis., a Corporation of Wisconsin. Filed Feb. 11, 1916. Serial No. 77,609. (Cl. 39—43.)



1. The combination with a gate mounted at one of its ends for pivotal movement in a vertical plane, of a segmental locking member fixed alongside the pivoted portion of the gate, a spring actuated arm pivotally mounted to move in unison with the gate, a spring pressed pawl carried by said arm and having a catch adapted to engage alternately the ends of said locking member, a lever fulcrumed on an elevated support, and a connection uniting said lever and said dog.

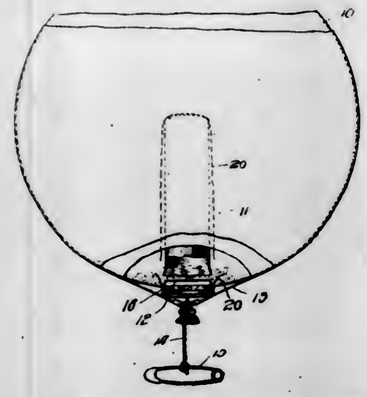
2. The combination with a gate mounted at one of its ends for pivotal movement in a vertical plane, of a segmental locking member fixed alongside the pivoted portion of the gate, a spring actuated arm pivotally mounted to move in unison with the gate, a spring pressed pawl carried by said arm and having a catch adapted to engage alternately the ends of said locking member, and a lever fulcrumed on an elevated support on each side of the gate, and connections uniting said levers and said dog.

3. The combination with a gate mounted at one of its ends for pivotal movement in a vertical plane, of a segmental locking member fixed alongside the pivoted portion of the gate, an arm mounted at one of its ends on the gate pivot and adapted to move in unison with the gate, a rod pivotally connected at one of its ends to said arm, a support for said rod, a nut adjustably mounted on said rod, a spring interposed between said nut and the support for said rod, a spring pressed pawl carried by said arm and having a catch adapted to engage alternately the ends of said locking member, a suitably fulcrumed and supported lever, and a connection uniting said lever and said dog.

4. The combination with a suitably mounted base plate having a pair of uprights, of a shaft journaled in said uprights, a gate mounted at one of its ends on said shaft, a segmental locking member fixed to said plate and extended alongside the gate, an arm mounted at one of its ends on said shaft and adapted to move in unison with the gate, a socketed member on the other end of said arm, a spring pressed bolt in said socketed member, a pawl pivotally mounted on said arm below said bolt and adapted to contact therewith, a catch on said dog to engage the locking arm, a rod pivotally connected at one of its ends to the arm which carries the dog, a support for said rod, a nut on the rod, a spring interposed between said nut and said support, a suitably supported and fulcrumed lever, and a connection uniting said lever and said dog.

1,208,232. SAFETY DEVICE FOR SWIMMERS AND LIKE USES. FRANK W. TAYLOR, Cicero, Ill. Filed Aug. 16, 1915. Serial No. 45,616. (Cl. 9—19.)

1. A safety device for swimmers comprising an inflatable closed bag, a container therein to receive a reacting agent, a closure for said container, the bag having a space exterior to the container to receive a reacting agent, means to close said bag, a sheath surrounding the bag, with means to close the same and means to withdraw the closure from said container to permit the intermingling of the reacting agents in said bag to inflate the latter.



2. A safety device for swimmers comprising an inflatable and deflatable bag, a container within the bag to contain a reacting agent, a closure for the container, means to attach the mouth of the bag to the closure to provide a gas tight bag, and means to release the closure from the container.

3. A safety device for swimmers comprising an inflatable and deflatable bag, a container within the bag to contain a reacting agent, a closure for the container, the mouth of the bag encircling the closure beyond the container and means to clasp the mouth of the bag about the closure exterior to the container.

4. A safety device for swimmers comprising an inflatable and deflatable bag, a container within the bag to contain a reacting agent, a closure for the container provided beyond the container with a grooved portion which is encircled by the wall of the mouth of the bag, and a closure releasing cord drawn closely about the mouth of the bag to force the wall of the mouth into the groove closure to produce a gas tight joint.

5. A safety device for swimmers comprising an inflatable and deflatable bag, a container within the bag to contain a reacting agent, a closure for the bag and container, a sheath to inclose said bag and provided with a closable mouth and a strand connected to the closure and extending outwardly through the mouth of said sheath.

[Claim 6 not printed in the Gazette.]

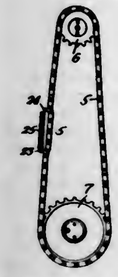
1,208,233. GARMENT-FORM. ISRAEL R. TAYLOR, Asbury Park, N. J. Filed Nov. 8, 1915. Serial No. 60,318. (Cl. 223—18.)



1. A garment form including sections adapted for disposal upon opposite sides of the body and arranged to have their front and rear edge portions overlapped, each section having an arm opening and being provided with an arm portion connected therewith at the upper side of the arm opening and disconnected therefrom at the lower side of the arm opening, each arm portion being divided along a vertical line from its lower end to its upper end at the inner side thereof whereby each of said portions may be expanded or contracted.

2. A garment form including sections adapted for disposal upon opposite sides of the body and each integral throughout, the said sections being arranged to have their front and rear edge portions overlapped, each section having an arm opening and being divided along a line extending vertically downwardly from the lower side of the arm opening, each section being further provided with an arm portion integral at the upper side of its upper end with said section at the upper side of the arm opening and each arm portion being divided along a vertical line at its inner side.

1,208,234. AUTOMATIC SLACK TAKE-UP FOR CHAINS. ALVAR K. TERNSTEDT, New York, N. Y., assignor to Perfect Window Regulator Company, New York, N. Y., a Corporation of Maine. Original application filed Dec. 19, 1911, Serial No. 666,759. Divided and this application filed Jan. 25, 1913. Serial No. 744,116. (Cl. 74—31.)



1. A driving chain comprising links pivotally secured to each other, hooks secured to two of said links and a spring connecting said hooks for taking up the slack in said chain.

2. A driving chain comprising links pivotally secured together, hooks projecting from two of said links remote from each other and a tension spring having its ends connected to said hooks to automatically take up the slack in said chain.

3. A driving chain comprising links through which the teeth of the sprockets pass, supplemental links or connectors pivotally secured to the links, hooks projecting from two of said connectors and a tension spring having its ends secured to said hooks as and for the purpose described.

4. A sprocket driving chain comprising links pivotally connected together, hooks laterally projecting from said chain remote from each other and off-set from the link pivots and a spring connected to the ends of said hooks whereby the links between the hooks are maintained in a taut condition.

1,208,235. AERIAL CROQUET. HEMAN DALE THAYER, Conneaut, Ohio. Filed Apr. 1, 1916. Serial No. 88,357. (Cl. 46—59.)

1. In a game, a frame adapted to support a flexible pocket device and formed of semicircular rod sections hingedly united, and a support coupled to swing at right angles to one of said frame sections near one end, and a support coupled to swing at right angles to the other frame section near the other end.

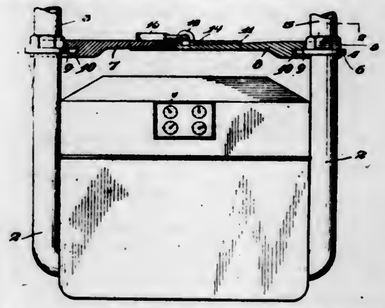
2. In a game, a frame adapted to support a flexible pocket device and formed of semicircular rod sections hingedly united, a support coupled to swing at right angles to each of said frame sections, and a catch carried by each of said frame sections and adapted to engage said supports when the frame sections are folded and hold them in close relation to the folded frame sections.

3. In a game device, a frame formed of coacting sections each having a terminal connecting eye whereby the sections are hingedly united with the material of the frame extended in advance of the eye of each section and ending in a catch device, a support coiled at one end around each section and swinging thereon and engaged



respectively by the catches to hold the supports distended, and a bag device supported by the frame and adapted to receive a ball when thrown therein.

1,208,236. LOCK FOR COUPLING-NUTS. FRANK H. THOMPSON and FRANK C. THOMPSON, Philadelphia, Pa. Filed Jan. 19, 1916. Serial No. 72,994. (Cl. 70—80.)



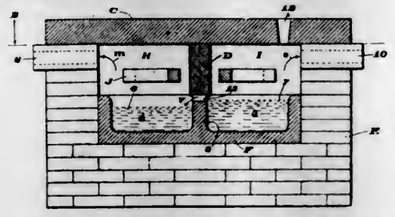
1. A lock for flanged coupling nuts in a device of the character described, comprising two members, each member having an angular socket intersecting the upper face thereof and being designed to receive and prevent turning of the angular portion of the nuts and having an additional recess in the walls of the socket designed to receive the flange of a respective nut to prevent said members from being moved longitudinally of the pipe, and means locking the members together, substantially as described.

2. The combination with a pair of flanged coupling nuts spaced apart, said nuts each having flat faces and an annular flange, of a coupling device comprising two members, each member having a socket designed to receive and prevent turning of flat faces of said nuts, said sockets also having recesses in the walls thereof for receiving said flanges of the nuts, one member having a slot therein, the other member having a staple projecting through the slot, a lock on the staple, one of said members having flanges at its edges forming a guideway open at its top for confining the edges of the other member, substantially as described.

1,208,237. METHOD OF SEPARATING FUMABLE METALS BY FRACTIONAL DISTILLATION. JOHN THOMSON, New York, N. Y., assignor to John Thomson Press Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 8, 1916. Serial No. 76,903. (Cl. 75—153.)

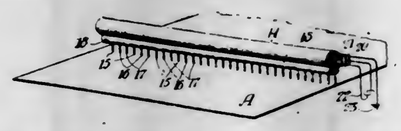
1. The method of separating alloyed metals, each having a different vaporizing point, which consists in first fuming the metal which vaporizes at the lower temperature and then causing the residuum to flow into another

contiguous basin where it is acted upon and vaporized by a higher temperature.



2. The method of separating alloyed metals, each having a different vaporizing point, which comprise charging a container with the alloy; heating the alloy until the metal having the lowest vaporizing temperature is evolved; displacing the residuum by additional charges of alloy and causing it to pass into a contiguous container; volatilizing the metal passed to said last mentioned container and separately condensing the fumes thus fractionally produced.

1,208,238. APPARATUS FOR NEUTRALIZING STATIC CHARGES. HARRY C. TOOKER and BARTON S. HALLENBECK, Yonkers, N. Y. Filed Mar. 24, 1914. Serial No. 826,867. (Cl. 175—264.)



1. An apparatus for removing static electrical charges comprising a series of needles, a condenser, connections between certain of said needles and one plate of said condenser, and connections between certain other of said needles, and the other plate of said condenser.

2. An apparatus for removing static electrical charges comprising a series of needles, a condenser, connections between certain of said needles and one plate of said condenser, connections between certain other of said needles, and the other plate of said condenser, and connections between certain other of said needles and a ground.

3. An apparatus for removing static electrical charges from bodies including a series of conductors insulated from each other, and extending substantially parallel to said body, a series of collectors extending from each conductor toward said body and terminating closely adjacent thereto, and a condenser having one plate connected to one of said conductors and another plate connected to another of said conductors.

4. An apparatus for removing static electrical charges from bodies including a series of conductors insulated from each other, and extending substantially parallel to said body, a series of collectors extending from each conductor toward said body and terminating closely adjacent thereto, and a condenser having one plate connected to one of said conductors and another plate connected to another of said conductors, and still another of said conductors being grounded.

5. An apparatus for removing static electrical charges from bodies including a series of conductors insulated from each other, and extending substantially parallel to said body, a series of collectors extending from each conductor toward said body and terminating closely adjacent thereto, and a condenser having one plate connected to one of said conductors and another plate connected to another of said conductors, and still another of said conductors being grounded, no two successive collectors being connected to the same conductor.

[Claims 6 to 12 not printed in the Gazette.]

1,208,239. CORN-POPPER AND ANALOGOUS DEVICE. FRANK A. TRAVER, Milwaukee, Wis. Filed Sept. 2, 1915. Serial No. 48,656. (Cl. 53—4.)



1. A corn popper comprising a box adapted to receive the corn to be popped, said box being reversible to present any side thereof to the popping heat, said box having a popped corn discharge opening, and a separating screen arranged within the box internally dividing the same into two popping chambers and extending through said discharge opening and a distance therebeyond, said screen arranged to hold the popped corn and to permit the unpopped corn to pass therethrough when the box is reversed, said screen arranged to permit popped corn from either of its sides to discharge through said opening.

2. A corn popper comprising a box having a popped corn discharge opening, and a vertically swingable separating screen arranged within said box and projecting through said opening and extending a distance therebeyond forming an exterior guide for the popped corn.

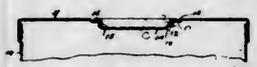
3. A corn popper comprising a box having a discharge opening at its rear end and a handle projecting from its opposite end, and a vertically swingable separating screen arranged within the box and projecting through said opening and at its rear end having guards for both sides of the screen.

4. A corn popper comprising a box having a discharge opening, and a vertically swingable screen dividing the box into two popping chambers, said screen extending through said opening and forming a discharge spout swingable therein as the box is reversed.

5. A corn popper comprising a box having opposite reticulated side walls and an opening in its rear end, said box composed of two similar sections, a lock uniting said sections and embodying a length of wire passing through adjacent side walls of said sections, and a separating screen arranged in the box and dividing the interior thereof into two popping chambers.

[Claims 6 and 7 not printed in the Gazette.]

1,208,240. RECEPTACLE. EMIL H. W. ULLRICH, Chicago, Ill. Filed June 23, 1915. Serial No. 35,825. (Cl. 220—76.)

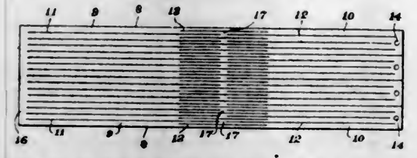


1. In a receptacle, the combination of a body and a top therefor having an outlet opening, a cap for said opening in the form of a plug which when in closing position engages for a short distance at its upper part intimately with the outlet opening sides at all points to thereby seal the opening, a section of the lower peripheral edge of said cap being deflected to be spaced away from the vertical plane of the adjacent outlet opening side whereby to prevent wedging or jamming when the corresponding side of the cap is pried up and the cap tilted preparatory to removal from the opening.

2. In a receptacle, the combination of a body and a top therefor having an outlet opening, a seating flange surrounding said opening, a cap having plug fit at its upper section with said seating flange at all points thereof, a section of the lower peripheral corner of said cap being beveled and spaced away from the seating flange whereby to prevent binding and jamming when the corresponding side of the cap is raised and the cap tilted.

3. In a receptacle, the combination of a body and a top therefor having an outlet opening, a cap for said opening in the form of a plug engaging at its upper part intimately with the outlet opening sides at all points, a section of the lower peripheral edge of said cap being deflected to be spaced away from the vertical plane of the adjacent outlet opening side whereby to prevent wedging or jamming when the corresponding side of the cap is pried up and the cap tilted, said cap having a lateral flange at its upper end for abutting against the receptacle top when the cap is in closing position.

1,208,241. PROCESS OF MAKING EXPANDED ARTICLES. THOMAS W. VARLEY, New York, N. Y. Filed Feb. 24, 1915. Serial No. 10,282. (Cl. 164—6.6.)



1. The process of making expanded articles consisting in providing a blank of rectangular shape, shearing the same longitudinally from a point adjacent each end toward the middle and leaving a space between the ends of the oppositely disposed shearings, shearing the same longitudinally intermediate the first mentioned shearings and across the space between the ends of said shearings, bending the blank along the ends of the intermediate shearings and expanding the same along the lines of the shearings.

2. The process of making expanded articles consisting in providing a blank of rectangular shape, shearing the same longitudinally from a point adjacent each end toward the middle and leaving a space between the ends of the oppositely disposed shearings, shearing the same longitudinally intermediate the first mentioned shearings and across the space between the ends of said shearings, bending the blank along the ends of theintermediate shearings, bending the blank along the ends of one of the first mentioned shearings and expanding the blank along the lines of the shearings.

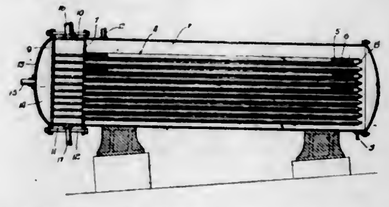
3. The process of making expanded articles consisting in providing a blank of rectangular shape, shearing the same longitudinally from a point adjacent one end of said blank toward the middle, shearing said blank longitudinally from a point adjacent the other end of the blank toward the middle in line with said first mentioned shearings but leaving a space between the oppositely disposed ends of said shearing, certain of said latter shearings extending through the end of the blank to divide the resulting strips into groups, shearing the blank longitudinally intermediate the other shearings and across the space between the ends of said other shearings, bending the blank along the ends of the intermediate shearings, bending the blank along the ends of the first mentioned shearings and expanding the blank along the lines of the shearings.

4. The process of making expanded articles consisting in providing a blank of rectangular shape, shearing the same longitudinally from a point adjacent one end of said blank toward the middle, shearing said blank longitudinally from a point adjacent the other end of the blank toward the middle in line with said first mentioned shearings but leaving a space between the oppositely disposed ends of said shearings, certain of said latter shearings extending through the end of the blank to divide the resulting strips into groups, shearing the blank longitudinally intermediate the other shearings and across the space between the ends of said other shearings, bending the blank along the ends of the intermediate shearings, bending the blank along the ends of the first mentioned shearings, bending the strips of each group so that they will permit subsequent expansion, and expanding the blank along the lines of the shearings.

5. The process of making expanded articles consisting in providing a blank of rectangular shape, dividing the blank longitudinally into a plurality of strips joined in the middle, the outer ends of one set of strips being integral with the blank, the other set of strips being divided into a plurality of groups by cutting through the end of the blank at intervals, shearing the blank intermediate said strips and across the portion joining said strips at the middle, bending the blank along the ends of said intermediate shearings, bending the blank along the ends of the strips integral with the blank to form a rim about which the subsequent expansion takes place, bending the strips of each group of strips so that they will permit the subsequent expansion and expanding the blank along the lines of the shearings.

[Claims 6 to 8 not printed in the Gazette.]

1,208,242. AMMONIA-GENERATOR. CLARENCE W. VOGT, Louisville, Ky. Filed Oct. 15, 1915. Serial No. 56,137. (Cl. 257—238.)



1. In an ammonia generator the combination of a steam shell closed at both ends, an ammonia chamber adjacent to one end of said shell, a liquor chamber adjacent to an exposed face of the ammonia chamber, a plurality of tubes within the steam chamber, one end of each of said tubes extending through the end wall of the steam chamber and communicating with the ammonia chamber, and the other end of each of said tubes being closed, an inner tube within each of said first mentioned tubes, each inner tube extending across the ammonia chamber and through the wall of the same into communication with the liquor chamber, a steam inlet leading into the steam chamber, a condensation connection leading from the steam chamber, a strong liquor connection into the liquor chamber, a weak liquor connection leading from the ammonia chamber, and an ammonia connection in the upper portion of the ammonia chamber, substantially as described.

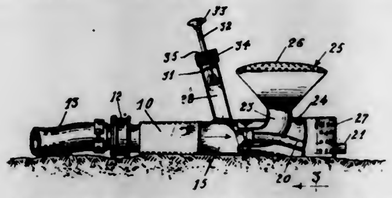
2. In an ammonia generator the combination of an ammonia chamber, a liquor chamber adjacent to one wall, of the ammonia chamber, a plurality of tubes connected into another wall of the ammonia chamber, each of said tubes having its free end closed, an inner tube within each of said first mentioned tubes, each inner tube extending across the ammonia chamber and through the wall of the same into communication with the liquor chamber, means for conducting heating madium into contact with the first mentioned tubes, a strong liquor inlet leading into the liquor chamber, a weak liquor connection leading from the ammonia chamber, and an ammonia connection leading from the upper portion of the ammonia chamber, substantially as described.

3. In an ammonia generator the combination of an ammonia chamber, a plurality of tubes projecting from a wall of said chamber, each tube having its inner end in communication with the interior of the ammonia chamber and its outer end closed, a liquor chamber adjacent to another wall of the ammonia chamber, a plurality of inner tubes within said first mentioned tubes, each of said inner tubes extending across the ammonia chamber and communicating with the liquor chamber,

means for conducting heating medium into contact with the first mentioned tubes, there being an opening into the liquor chamber for the admission of strong liquor thereto, and there being an opening from the ammonia chamber for the discharge of weak liquor therefrom.

4. In an ammonia generator, the combination of an ammonia chamber, a plurality of tubes outside of said chamber, each of said tubes having its interior in communication with said chamber, a liquor chamber adjacent to the ammonia chamber, a plurality of inner tubes within said first mentioned tubes, each inner tube extending across the ammonia chamber and having its interior in communication with the liquor chamber, means for conducting heating medium into contact with the first mentioned tubes, there being an opening into the liquor chamber for the admission of strong liquor thereto, and there being openings in the ammonia chamber for delivering weak liquor and ammonia from the ammonia chamber.

1,208,243. LAWN-SPRINKLER. EDWARD J. VONDEY-BOSCH, Los Angeles, Cal. Filed Dec. 13, 1915. Serial No. 66,615. (Cl. 137—83.)



1. A lawn sprinkler comprising a casing having a posterior supply chamber adapted to be connected to a source of water under pressure and an anterior spraying chamber, said spraying chamber being provided with a perforated lateral wall, a conduit leading from said supply chamber to said spraying chamber, a top sprayer provided with an upper perforated wall, a second conduit leading from said supply chamber to said top sprayer, a third conduit leading from said supply chamber to the perforated wall of said lower spraying chamber, said last named conduit terminating in a nozzle projecting outwardly from said last named wall, and manually operated valves for independently controlling said conduits.

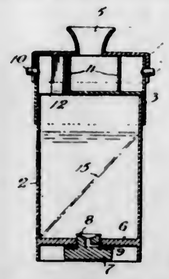
2. A lawn sprinkler comprising a casing having a posterior water supply chamber and an anterior spraying chamber, a conduit leading from said supply chamber to said spraying chamber, said spraying chamber being provided wtih a perforated lateral wall, a top sprayer provided with a square perforated wall, a second conduit leading from said supply chamber to said top sprayer, a third conduit leading from said supply chamber to said perforated lateral wall, said last named conduit terminating in a nozzle, and manually operated valves for controlling said conduits.

3. A lawn sprinkler comprising a casing having a water supply chamber and a spraying chamber, said spraying chamber being provided with a perforated lateral wall, a top sprayer provided with an upper perforated wall, a nozzle projecting from said lateral wall, separate conduits connecting said spraying chamber, top sprayer and nozzle with said supply chamber, and manually operated means for independently controlling said conduits.

4. A unitary discharge device adapted to be connected to a hose comprising a casing having a water supply chamber, separate irrigating devices connected thereto by separate passages, said devices including a lateral sprayer, a top sprayer and a lateral nozzle and manually operated means for independently controlling said passages.

1,208,244. DENTAL-FILM-DEVELOPING APPARATUS. HARRY F. WAITE, Whitestone Landing, N. Y. Filed Apr. 24, 1916. Serial No. 93,347. (Cl. 95—90.)

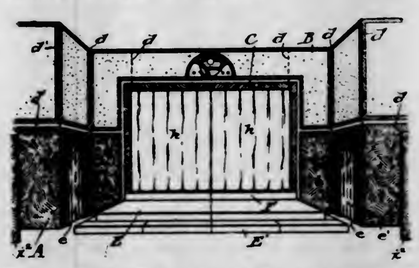
1. In a photographic developing apparatus the combination of a liquid holding receptacle provided with a vent; a closure for said receptacle comprising a cap having a perforation and a partition to provide a tortuous passage into and out of said receptacle; and a cover provided with an opening fitting said cap and forming with said perforation and partition, a tortuous light tight liquid passage into and of said receptacle, substantially as described.



2. In a photographic developing apparatus the combination of a liquid holding receptacle adapted for use as a developing chamber; a cap having an orifice and a curved partition partially closing said receptacle providing a tortuous passage into and out of said receptacle; and a closure having a funnel opening into said cap to form with said orifice and partition, a tortuous light tight passage into and out of said receptacle, substantially as described.

3. In a device of the class described, a cap with a perforated bottom, a curved partition resting on said bottom and extending to one wall of the cap, and a cover adapted to rest on said cap and said partition, said cover having a suitable means for admitting liquid to said cap and about said partition.

1,208,245. THEATRICAL STAGE AND EQUIPMENT. STUART WALKER, New York, N. Y. Filed May 27, 1916. Serial No. 100,264. (Cl. 46—70.)



1. In a theatrical arrangement, the combination of a wall provided with a reëntrant portion, a proscenium opening in the reëntrant portion, a fore-stage positioned forwardly of the proscenium opening, a main stage positioned rearwardly of the proscenium opening, entrances in the reëntrant portion of the proscenium wall and on either side of the proscenium opening, and a curtain for closing the proscenium opening to conceal the main stage.

2. In a theatrical arrangement, the combination of a wall provided with a reëntrant portion, a proscenium opening in the reëntrant portion, an elevated fore-stage positioned forwardly of the proscenium opening, a main stage positioned rearwardly of the proscenium opening and abeve the plane of the forestage, and an entrance to the fore-stage from the wings through the reëntrant portion of the proscenium wall.

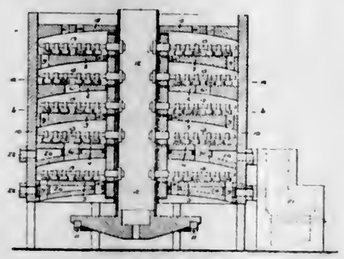
3. In a theatrical arrangement, the combination of a wall provided wtih a reëntrant portion, a proscenium opening in the reëntrant portion, an elevated fore-stage positioned forwardly of the proscenium opening, a main stage positioned rearwardly of the proscenium opening and above the plane of the fore-stage and an entrance at each side of the fore-stage through the reëntrant portion of the proscenium wall.

4. In a theatrical arrangement, the combination of a wall provided with a proscenium opening, a forestage positioned in front of the proscenium opening, a main stage positioned behind the proscenium opening, a curtain for closing the proscenium opening to conceal the main stage, and an entrance to the fore-stage through the proscenium wall.

5. In a theatrical arrangement, the combination of a provided with a proscenium opening, a forestage positioned in front of the proscenium opening, a main stage positioned behind the proscenium opening and elevated above the fore-stage, a curtain for closing the proscenium opening to conceal the main stage, and an entrance to the fore-stage through the proscenium wall.

[Claims 6 to 19 not printed in the Gazette.]

1,208,246. FURNACE AND ALLIED STRUCTURE. UTLEY WEDGE, Ardmore, Pa. Filed Jan. 12, 1914, Serial No. 811,773. Renewed Apr. 27, 1916. Serial No. 94,051. (Cl. 263—26.)



1. A furnace having a hearth presenting a plurality of charge-receiving surfaces side by side and each with its own outlet, means for feeding charges to each of said surfaces independently, means for moving the charge over one surface from feed point to outlet in one direction, and means for moving the charge over the other surface from feed point to outlet in another direction.

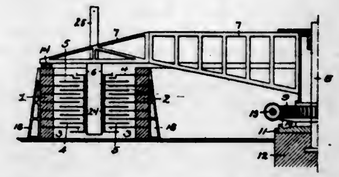
2. A furnace having a circular hearth presenting inner and outer charge-receiving surfaces each with its own outlet, means for moving the charge outwardly on the inner surface from feed point to outlet, and means for moving the charge inwardly on the outer surface from feed point to outlet.

3. A furnace having a series of superposed hearths each presenting a plurality of charge-receiving surfaces side by side and each with its own outlet, means for feeding charges to each of said surfaces independently, and means for moving the charges independently over said surfaces, the outlets of some of the hearths being located midway between the adjoining surfaces and the outlets of the intervening hearths being located at points farthest removed from said median line.

1,208,247. FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed Feb. 11, 1914, Serial No. 818,049. Renewed Apr. 27, 1916. Serial No. 94,052. (Cl. 263—26.)

1. The combination, in a furnace, of inner and outer fixed annular structures, the inner having an annular hearth projecting outwardly therefrom and the outer having an annular hearth projecting inwardly therefrom, and an intermediate rotating annular structure having annular hearths projecting in both directions therefrom, the inwardly projecting hearth lapping that of the inner fixed structure and the outwardly projecting hearth lapping that of the outer fixed structure.

2. The combination, in a furnace, of inner and outer fixed annular structures, each having a series of superposed annular hearths projecting therefrom, those of the inner structure projecting outwardly and those of the outer structure projecting inwardly, and an interposed rotating annular structure having on each side of the same a superposed series of annular projecting hearths, those on the inner side lapping corresponding hearths of the inner fixed structure and those on the outer side lapping corresponding hearths of the outer fixed structure.



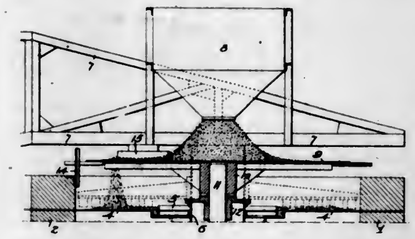
3. The combination, in a furnace, of a fixed annular structure, having an annular hearth projecting therefrom, and a rotating annular structure having an annular hearth projecting therefrom and lapping that of the fixed structure, an axially pivoted structure disposed above said annular structures, and means for suspending the rotating annular structure from said upper structure.

4. The combination, in a furnace of inner and outer fixed annular structures, the inner having an annular hearth projecting outwardly therefrom and the outer having an annular hearth projecting inwardly therefrom, and an intermediate rotating annular structure suepended from above and having annular hearths projecting in both directions therefrom, the inwardly projecting hearth lapping that of the inner fixed structure and the outwardly projecting hearth lapping that of the outer fixed structure.

5. The combination, in a furnace, of inner and outer fixed annular structures, each having a series of superposed annular hearths projecting therefrom, those of the inner structure projecting outwardly and those of the outer structure projecting inwardly, and an interposed rotating annular structure suspended from above and having on each side of the same a series of superposed annular projecting hearths, those on the inner side lapping corresponding hearths of the inner fixed structure and those on the outer side lapping corresponding hearths of the outer fixed structure.

[Claims 6 to 27 not printed in the Gazette.]

1,208,248. FEEDING DEVICE FOR FURNACES. UTLEY WEDGE, Ardmore, Pa. Filed Feb. 28, 1914, Serial No. 821,675. Renewed Apr. 27, 1916. Serial No. 94,053. (Cl. 263—26.)



1. The combination, in a furnace, of a fixed annular structure having hearths projecting therefrom in one direction, a rotating annular structure having hearths projecting therefrom in the opposite direction and overlap-

ping those of the fixed structure, a feed hopper carried by said rotating structure, and means for effecting feed of material from said hopper to the top hearth of the furnace and from said hearth onto the hearth below.

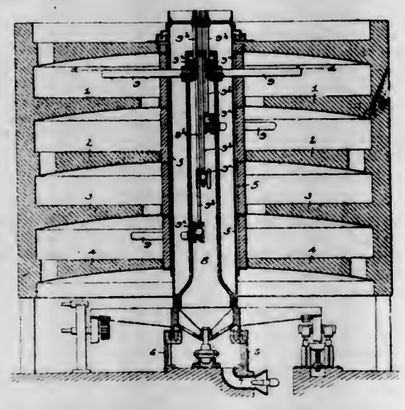
2. The combination, in a furnace, of fixed and rotating annular structures, a hopper rotating with said rotating annular structure, a distributing plate rotating with said rotating annular structure, and also rotating about its own axis, and means for feeding ore from said distributing plate onto a hearth of the furnace.

3. The combination, in a furnace, of fixed and rotating annular structures, a feed hopper rotating with said rotating annular structure, a distributing plate also rotating with said rotating annular structure and mounted so as to be free to rotate about its own axis, and engaging members on said plate and on the fixed structure of the furnace whereby, as said plate is rotated with the rotating annular structure, it will also be caused to rotate about its own axis.

4. The combination, in a furnace, of fixed and rotating annular structures, a feed hopper rotating with said rotating annular structure, a distributing plate also rotating with said rotating annular structure and mounted so as to be free to rotate about its own axis, and engaging members on said plate and on the fixed structure of the furnace whereby, as said plate is rotated with the rotating annular structure, it will also be caused to rotate about its own axis, one of said members being inclined rearwardly.

5. The combination, in a furnace, of fixed and rotating annular structures, a feed hopper and distributing plate rotating with said rotating annular structure, a cap on said structure having an upwardly projecting pivot pin, and a depending hub on the distributing plate for the reception of said pin.

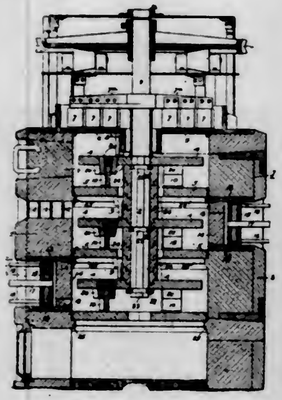
1,208,249. METALLURGICAL FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed Nov. 21, 1914, Serial No. 873,246. Renewed Apr. 27, 1916. Serial No. 94,055. (Cl. 263—26.)



1. The combination, in a metallurgical furnace, of a casing having a hearth with a treating chamber above the same, a shaft, an arm projecting therefrom into said treating chamber and open at its shaft end, a valve sliding across said open end of the arm but otherwise rigidly mounted, and means for imparting such sliding movement to said valve, said means being otherwise rigid.

2. The combination, in a metallurgical furnace, of a casing having a hearth with treating chamber above the same, a tubular shaft having a tubular member within the same, a hollow rabble arm having a return passage therein which communicates at one end with the interior of the tubular shaft and at the other end with the interior of the tubular member within the shaft, an air distributing arm projecting into the working chamber of the furnace but independent of the rabble arm, said air distributing arm communicating with but one of said tubular members, means for supplying air to the other of said tubular members, and means for regulating the flow of said air from the air distributing arm into working chamber of the furnace.

1,208,250. METALLURGICAL FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed Mar. 1, 1915. Serial No. 11,332. Renewed Apr. 27, 1916. Serial No. 94,057. (Cl. 263—26.)



1. The combination of a rabble blade having an enlarged head with a rabble supporting member having therein a slot enlarged in its upper portion for the reception of the enlarged head on the rabble blade, said supporting member having also a rib or flange extending below the rabble head and bearing upon the rear face of the rabble blade.

2. The combination of a rabble blade having an enlarged head, a hearth or like support having an opening therein, and a pair of jaws carrying said rabble blade and adapted to said opening, one of said jaws having a rib for engaging the enlarged head of the rabble blade.

3. The combination of a rabble blade having an enlarged head, a hearth or like support having an opening therein, and a pair of jaws carrying said rabble blade, and adapted to said opening, each of said jaws having a rib for engaging the enlarged head of the rabble blade.

4. The combination of a rabble blade having an enlarged head, supporting jaws for said rabble blade, a hearth or equivalent blade support having an opening therein for the reception of said jaws, and a filling body occupying the space between said jaws above the top of the rabble blade.

5. The combination of a rabble blade having an enlarged head, a hearth or equivalent blade support in which said enlarged head is mounted below the top of the same, and a filling body occupying the space in said support above the top of the rabble blade.

[Claims 6 to 9 not printed in the Gazette.]

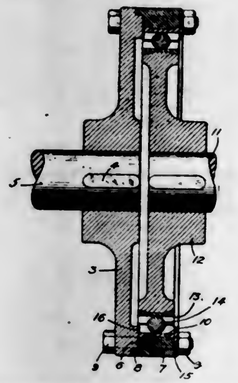
1,208,251. DRESSMAKER'S FORM. ALICE WEST, Riverside, Cal. Filed Aug. 10, 1915. Serial No. 44,808. (Cl. 223—18.)

A dress form including a hollow body having an inner lining of fabric and provided with a neck portion, the fabric lining being folded across the bottom of the form, a plastic coating upon the outer surface of said lining and across the folded portion at the bottom of the form, a fabric sheath covering said coating and extending across the bottom of the form, a filling arranged within the body portion, plastic material arranged within the neck portion, a supporting standard extending through the bottom of the form and having its upper end anchored in the



plastic material, and shoulder and hip braces carried by the standard and embedded within the filling.

1,208,252. COUPLING. GEORGE WESTINGHOUSE, Pittsburgh, Pa., assignor to The Westinghouse Gear and Dynamometer Company, a Corporation of Pennsylvania. Filed Nov. 16, 1911. Serial No. 660,659. (Cl. 64—13.)

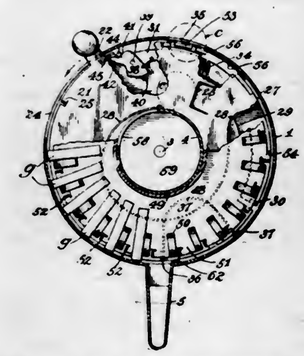


1. In combination with two alined rotary shaft members, one of said shaft members being provided with a plurality of longitudinally extending open ended grooves formed in a peripheral face thereof, a telescoping member carried by the other shaft member and having similar grooves formed in an inner peripheral face thereof, semi-cylindrical bushings located in said grooves, a ball located within each pair of oppositely disposed bushings and forming a driving connection between the shaft members, and a retainer carried by said telescoping member for said balls.

2. In combination with two alined rotary shafts, a disk member carried by one of said shafts, a ring secured to said disk member and provided with laterally-extending semi-cylindrical grooves in its inner periphery, a disk member carried by the other shaft and provided with similar grooves coöperating with the grooves in said ring member, bushings secured in said grooves, balls located in said bushings and a retainer carried by said ring member for said balls.

3. In combination with two alined rotary shafts, a disk member carried by one of said shafts and provided in its outer peripheral face with open ended transversely extending semi-cylindrical grooves, a disk member carried by the other shaft and having a portion overhanging said first mentioned disk member and provided with correspondingly located similar grooves open at one end, a semi-cylindrical bush located in each groove, a metal spherical member located between each pair of oppositely disposed bushes and a retainer carried by one of said disk members for said balls.

1,208,253. VENDING-MACHINE. JOHN N. WHITEHOUSE, Newark, N. J., assignor, by mesne assignments, to Rotary Vending Machine Corporation, a Corporation of New York. Filed July 15, 1914, Serial No. 851,056. Renewed Oct. 10, 1916. Serial No. 124,922. (Cl. 194—63.)



1. In a device of the character described, the combination with a circular casing having a coin slot in its periphery and a centrally arranged bearing member, of a pair of disks mounted to oscillate upon said bearing member, spring means for actuating each of said disks in one direction, a manually operable means for actuating one of said disks against the tension of its spring, a fixed member carried by the casing, a locking pawl carried by the other of said disks, and arranged to engage said fixed member, said disks being sufficiently spaced apart to permit of the entry of a coin between them, a projection carried by the manually operable disk arranged to engage a coin and to cause it to travel around said central bearing member, said locking pawl being arranged in the path of movement of said coin and being arranged to be released thereby from said fixed member, and interengaging lugs carried by said disks and arranged to engage with each other, whereby a movement of the manually operated disk is imparted to the other of said disks after said pawl is released.

2. In a device of the character described, the combination with a circular casing having a coin slot formed in its periphery, a centrally arranged hollow hub having a coin slot formed in its periphery in alinement with the first named coin slot, a pair of disks mounted to oscillate upon said hub and sufficiently spaced upon opposite sides of said coin slots to permit of the entry of a coin between them, a fixed element carried by the casing, a pivoted pawl carried by one of said disks and arranged to engage said fixed element, means carried by the other of said disks for engaging a coin deposited between said disks, said pawl being arranged in the path of movement of said coin and being arranged to be released from said fixed element by the movement of said coin, spring means for actuating said disks in one direction, interengaging lugs carried by said disks, the lugs of one disk projecting toward the other of said disks to thereby space them apart, said lugs serving when said pawl is released, to permit of the actuation of the pawl carrying disk from the other of said disks.

3. In a vending machine, the combination with a coin receptacle, and a rotatable magazine, of a plurality of rotatable members mounted for rotation on an axis substantially coincident with the axis of said coin receptacle,

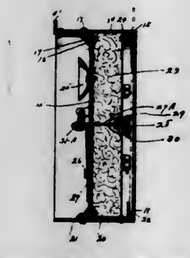
said members being relatively separated to produce between them a space the width of which substantially exceeds the thickness of a coin adapted to be positioned intermediate said members, means for controlling the rotative movement of said members, and means operated by the rotative movement of the members for imparting a step feed to said magazine.

4. In a vending machine, the combination with a coin receptacle, and a magazine, of a plurality of rotatable members mounted for rotation on an axis substantially coincident with the axis of said coin receptacle, said members being relatively separated to produce an intermediate space the width of which exceeds the thickness of a coin adapted to be positioned between said members, means whereby the rotation of one member relatively to and independently of the other member operates to carry a coin to the coin receptacle, and means operable by the conjoint rotation of said members for controlling the delivery of goods from said magazine.

5. In a vending machine, the combination with a coin receptacle, and a magazine, of a plurality of rotatable members relatively spaced to produce an intermediate space the width of which exceeds the thickness of a coin adapted to be positioned therein, means for imparting movement to one member, means for carrying a coin to the coin receptacle by said movement of the member, and means operated by the conjoint movement of said rotatable members for controlling the delivery of goods from said magazine.

[Claims 6 to 16 not printed in the Gazette.]

1,208,254. TARGET. CHARLES H. WHITMAN, Des Moines, Iowa. Filed Mar. 7, 1916. Serial No. 82,631. (Cl. 124—15.)



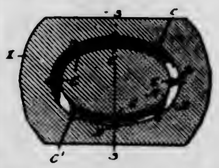
1. A target comprising a hollow body with an inwardly extending flange at its forward end, said body having a slot adjacent to said flange, a perforable target member designed to be extended through said slot and mounted in said body, a solid partition mounted in said body rearwardly of the forward part thereof, a cushioning member mounted in front of said partition, a bell supported on said partition, a clapper pivotally mounted below said bell and adapted to normally hang downwardly, a spring supported on the rear surface of said partition, a forwardly extending member on said spring extended through said partition and through said cushioning member, a head on the forward end of said forwardly extending member, said parts being so arranged that when said head is struck by a shot, the clapper will be agitated to strike the bell, and the spring will return the head to its normal position.

2. A target comprising a hollow body with an inwardly extending flange at the forward end, said body having a slot adjacent to said flange, a perforable target member designed to be extended through said slot and mounted in said body, a solid partition mounted in said body rearwardly of the forward part thereof, a cushioning member mounted in front of said partition, a bell supported on said partition, a clapper pivotally mounted below said bell and adapted to normally hang downwardly, a spring supported on the rear surface of said partition, a forwardly extending member on said spring extended through said partition and through said cushioning member, a head on the forward end of said forwardly extending member, said parts being so arranged that when said head is struck by a shot, the clapper will be agitated to strike the bell, and the spring will return the head to its normal position, said cushioning member being of such thickness and resiliency as to readily permit the first part of the movement of said spring, and also to receive the impact of the head and cushion it for reducing the final strain on the spring.

3. A target comprising a hollow body with an inwardly extending flange at its forward end, said body having a slot adjacent to said flange, a perforable target member designed to be extended through said slot and mounted in said body, a solid partition mounted in said body rearwardly of the forward part thereof, a cushioning member mounted in front of said partition, a bell supported on said partition, a clapper pivotally mounted below said bell and adapted to normally hang downwardly, a spring supported on the rear surface of said partition, a forwardly extending member on said spring extended through said partition and through said cushioning member, a head on the forward end of said forwardly extending member, said parts being so arranged that when said head is struck by a shot, the clapper will be agitated to strike the bell, and the spring will return the head to its normal position, a strip secured to said body on the interior thereof and having inwardly extending flanges adapted to be selectively secured to said partition and to support said perforated target member.

4. A target comprising a hollow body, a perforable target member removably mounted in the forward end thereof, a body of cushioning material spaced rearwardly from said perforable member, a rigid member mounted rearwardly of said cushioning body, a head mounted between said perforable body and said body of cushioning material, said head being yieldingly supported on said rigid member, a bell suitably supported, a clapper pivotally mounted adjacent to the bell, said head and clapper and bell being so arranged that when said head is struck by shot, it will be driven rearwardly and the clapper will be agitated to strike the bell.

1,208,255. ANTISPLIT DEVICE FOR WOOD RAILWAY-TIES. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Jan. 22, 1915. Serial No. 3,807. (Cl. 85—11.)



1. An anti-split device for railway ties consisting of a flat metal strip in curvilinear form having on one face a series of lateral projections with abrupt shoulders adapted to resist equally longitudinal slipping in either direction when the strip has been driven in wood, one face of the strip being straight in cross section and the opposite face being beveled to meet the face first mentioned at one edge of the strip.

2. An anti-split device for railway ties consisting of a flat strip in curvilinear form beveled on one broad face to meet the opposite non-beveled face at the margin of the strip forming a sharp edge and provided on one face with transverse projections having abrupt shoulders adapted to resist equally longitudinal slipping in either direction when driven in wood, said projections terminating in sharp edges near the edge first mentioned.

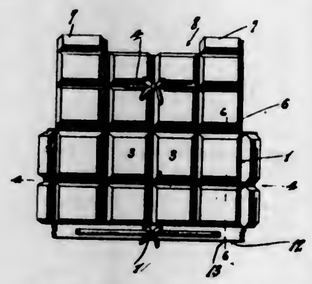
3. An anti-split device for railway ties consisting of a flat metal strip in curvilinear form beveled on one broad face to meet the other broad face at one margin of the strip and provided on each face with transverse projections terminating in sharp edges near the intersection of the two faces, each of said projections extending outward from the adjacent portion of the strip to a distance approximately equal to half the thickness of the strip.

4. An anti-split device for railway ties consisting of a pliable flat metal strip having one marginal portion of uniform thickness, the strip being beveled on one face to form a cutting edge at the margin of the non-beveled opposite face and both faces being provided with transverse projections each merging at one end in one face of said marginal portion and having a cutting edge, at its opposite end, approximately equal in length to one half the thickness of the strip.

5. An anti-split device for railway ties composed of a metal strip adapted to be driven into the end of a tie and provided with lateral projections having abrupt shoulders transverse to the general line of direction of the corresponding portion of the strip, the said strip being formed to embrace the central portion of the tie end and with its own end portions overlapping each other.

[Claim 6 not printed in the Gazette.]

1,208,256. LIFE-PRESERVER. HERMAN W. WILLIN, New York, N. Y. Filed Mar. 11, 1916. Serial No. 83,594. (Cl. 9—17.)

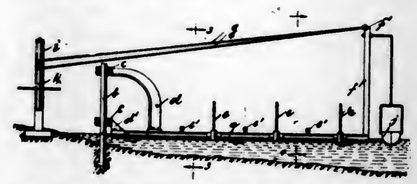


1. A life preserver including a fabric vest consisting of a back portion, separable front sections or portions, side connecting portions terminating short of the tops of the front and back portions and top connecting portions spaced apart and also from the side sections to provide a top opening and opposite side openings and hollow metallic floats secured to the fabric vest throughout the same, said fabric vest being provided at the side portions with an intermediate flexible sectional portion located between the floats of the side section to permit an adjustment of the vest to persons of different sizes.

2. A life preserver including a fabric vest consisting of a back portion, separable front sections or portions, side connecting portions terminating short of the tops of the front and back portions and top connecting portions spaced apart and also from the side sections to provide a top opening and opposite side openings and hollow metallic floats secured to the fabric vest throughout the same, said fabric vest being provided at the side sections between the floats with flexible portions and the said vest being also provided with a depending flexible extension having openings and a belt laced through the openings.

3. A life preserver of the class described including a fabric vest composed of inner and outer plies or thicknesses and comprising a back portion, front section having meeting edges at the front and side and top sections connecting the back with the front section and spaced apart to form top and side openings and hollow metallic floats secured between the inner and outer plies or thicknesses of the fabric and arranged at the back and at the front, top and side sections, said vest being provided at the bottom with a depending extension and the side section having flexible extension portions located between the floats of the side section, a belt carried by the depending extension of the vest and fastening means for securing the upper portions of the front sections together.

1,208,257. DEVICE FOR SUPPORTING NON-SWIMMERS OR ANIMALS DURING BATHING. ISIDOR WINDT, New York, N. Y. Filed May 20, 1916. Serial No. 98,726. (Cl. 9—14.)



1. A device for supporting non-swimmers or animals during bathing, comprising a floating rigid member extending in the water from a point near the shore, suspension means fixed to said member and a stationary support on the shore around which said member is rotatively mounted.

2. A device for supporting non-swimmers or animals during bathing, comprising a raft-like rigid member extending in the water from a point near the shore, suspension means fixed on said member, a support fixed on the shore and means at the shore-end of said member whereby the latter is rotatively mounted on said support.

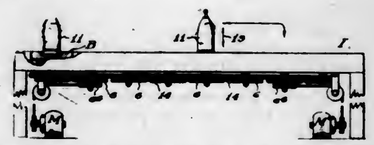
3. A device for supporting non-swimmers or animals during bathing, comprising a raft-like rigid member extending in the water from a point near the shore, a series of suspension means fixed along the longitudinal edges thereof and a standard fixed on the shore and on which said member is rotatively mounted.

4. An amusement and instruction device for bathers, comprising a raft-like rigid member extending in the water from a point near the shore, a series of arms fixed along the longitudinal edges of said member, a standard fixed on the shore and bearings on the shore-end of said member whereby the latter is rotatively mounted on said standard.

5. An amusement and instruction device for bathers, comprising a raft-like member extending in the water from a point near the shore, suspension means along the longitudinal edges of said member, a standard fixed on the shore and brackets formed with bearings at the shore-end of said member and whereby said member is rotatively borne on said standard.

[Claims 6 to 8 not printed in the Gazette.]

1,208,258. DEVICE FOR GAGING MANUFACTURED PARTS. EDWIN M. WINTER, East Orange, N. J., assignor of one-half to A. N. Van Deman, New York, N. Y. Filed Apr. 19, 1916. Serial No. 92,245. (Cl. 20—84.)



1. In a device of the class described, means for supporting the article to be gaged and tested rotating in one direction, during the insertion of the gage; and like means rotating in the reverse direction adjacent thereto for rotating the article to be tested reversely to withdraw the gage.

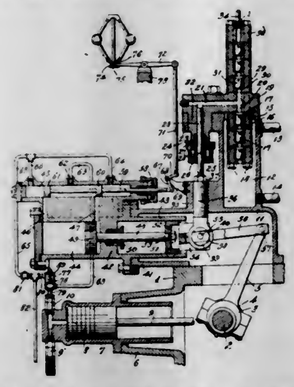
2. In a device of the class described, a supporting table; a plurality of revoluble supports carried by such table each adapted to receive and rotate therewith a cylindrical body, the adjacent supports rotating reversely to one another.

3. In a device of the class described, a plurality of revoluble supports adapted to receive cylindrical bodies and rotate the same, the adjacent supports rotating re-

versely to one another; two motors for bringing about rotation of the same; gearing connecting such two motors with such supports in such manner that the stoppage of either motor or disarrangement of any single set of gearing will not stop the rotation of the various supports.

4. In a device of the class described, a plurality of revoluble supports adapted to receive cylindrical bodies and rotate the same, the adjacent supports rotating reversely to one another; two motors for bringing about rotaton of the same; belting connecting such two motors with each of such supports, in such manner that the stoppage of either motor, or disarrangement, or breaking of any belt, will not stop the rotation of any of the various rotating supports.

1,208,259. FUEL-FEED FOR INTERNAL-COMBUSTION MOTORS. ALEXANDER WINTON, Lakewood, Ohio, assignor to The Winton Gas Engine & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 4, 1914. Serial No. 842,883. (Cl. 123—140.)



1. In apparatus for feeding liquid fuel under pressure to internal combustion motors, a device for supplying fuel under pressure, means for controlling said device to vary the amount of fuel, fluid operated means for controlling said device, and means for governing said fluid operated controlling means.

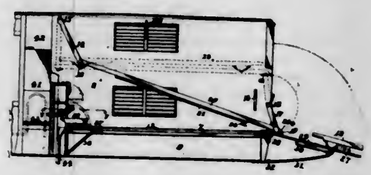
2. In apparatus for feeding liquid fuel under pressure to internal combustion motors, a fuel pump, means for operating said pump, a device for varying the stroke of said pump, fluid actuated means for controlling said stroke varying device, and means for governing said controlling means.

3. In an apparatus for feeding fuel under pressure, a fuel pump, means for actuating said pump, a device for varying the stroke of said pump, a fluid pressure cylinder and piston structure for actuating said stroke varying device, means for supplying fluid under pressure to said fluid pressure cylinder and piston structure, and means actuated by the motor for governing the feed of the fluid pressure to the fluid pressure cylinder.

4. In apparatus for feeding fuel under pressure to internal combustion motors, a fuel pump, means for actuating said pump, a device for varying the stroke of said pump, means for controlling said stroke varying device and comprising a cylinder, a piston, a controlling valve therefor, means for supplying fluid under pressure to the controlling valve, and means for governing said controlling valve.

5. In apparatus for feeding fuel under pressure to internal combustion motors, a fuel pump cylinder, a plunger mounted therein and coöperating therewith, a plunger operating lever pivotally connected to said plunger, means for rocking said lever, a cross head slidably mounted, pivotal connections between said cross head and said plunger operating lever, and means for shifting said cross head and comprising a fluid pressure cylinder and piston, a controlling valve therefor, means for supplying fluid pressure to said controlling valve, and means for governing the operation of said controlling valve.

1,208,260. AMBULANCE. CHARLES S. WOOD, Philadelphia, Pa., assignor to Rech-Marbaker Company, a Corporation of Pennsylvania. Filed June 22, 1916. Serial No. 105,112. (Cl. 21—80.)



1. In an ambulance, a body having an adjustable stretcher-support comprising a longitudinal frame structure upon which the stretcher may rest, hinged connections jointed at their upper ends to the body and at their lower ends to the longitudinal frame structure adjacent to one end, additional hinged connections having their upper ends jointed to the longitudinal frame structure adjacent to the other end thereof and having their lower ends hinged to the body, said additional hinged connections adapted to swing from an upright position to a depending position for lowering one end of the longitudinal frame structure, whereby it assumes an inclined position for permitting loading or discharging of the stretcher and its load.

2. In an ambulance, a body having an adjustable stretcher-support comprising a longitudinal frame structure upon which the stretcher may rest, hinged connections jointed at their upper ends to the body and at their lower ends to the longitudinal frame structure adjacent to one end, additional hinged connections having their upper ends jointed to the longitudinal frame structure adjacent to the other end thereof and having their lower ends hinged to the body, said additional hinged connections adapted to swing from an upright position to a depending position for lowering one end of the longitudinal frame structure, whereby it assumes an inclined position for permitting loading or discharging of the stretcher and its load, combined with a hinged door on the body adjacent to the last mentioned additional hinged connections and providing a continuation of the guiding portions of the adjustable support for receiving the stretcher in the act of loading or unloading in respect to the said support.

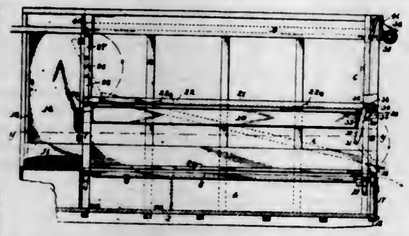
3. In an ambulance, a body having an adjustable stretcher-support comprising a longitudinal frame structure upon which the stretcher may rest, hinged connections jointed at their upper ends to the body and at their lower ends to the longitudinal frame structure adjacent to one end, additional hinged connections having their upper ends jointed to the longitudinal frame structure adjacent to the other end thereof and having their lower ends hinged to the body, said additional hinged connections adapted to swing from an upright position to a depending position for lowering one end of the longitudinal frame structure, whereby it assumes an inclined position for permitting loading or discharging of the stretcher and its load, combined with a hinged door on the body adjacent to the last mentioned additional hinged connections and providing a continuation of the guiding portions of the adjustable support for receiving the stretcher in the act of loading or unloading in respect to the said support, and means for holding the door in an inclined position when lowered and in a locked position when raised, said door in said latter position preventing the lowering of the stretcher support.

4. In an ambulance, a body having an adjustable stretcher-support comprising a longitudinal frame structure having side guide portions upon which the stretcher may rest said guide portions adjustable laterally to collapse the frame structure, hinged connections jointed at their upper ends to the body and at their lower ends to the longitudinal frame structure adjacent to one end, additional hinged connections having their upper ends jointed to the longitudinal frame structure adjacent to the other end thereof and having their lower ends hinged to the body, said additional hinged connections adapted to swing from an upright position to a depending position for lowering one end of the longitudinal frame structure, whereby it assumes an inclined position for permitting loading or discharging of the stretcher and its load.

5. In an ambulance, a body having an adjustable stretcher-support comprising a longitudinal frame structure upon which the stretcher may rest, hinged connections jointed at their upper ends to the body and at their lower ends to the longitudinal frame structure adjacent to one end, additional hinged connections having their upper ends jointed to the longitudinal frame structure adjacent to the other end thereof and having their lower ends hinged to the body, said additional hinged connections adapted to swing from an upright position to a depending position for lowering one end of the longitudinal frame structure, whereby it assumes an inclined position for permitting loading or discharging of the stretcher and its load, combined with a lower horizontally arranged stretcher-support substantially on a level with the lower end of the longitudinal frame structure when lowered.

[Claims 6 to 14 not printed in the Gazette.]

1,208,261. AMBULANCE. CHARLES S. WOOD, Philadelphia, Pa., assignor to Rech-Marbaker Company, a Corporation of Pennsylvania. Filed July 3, 1916. Serial No. 107,216. (Cl. 21—80.)



1. In an ambulance, a body having folding seats at each side arranged to be turned over toward the middle of the body to provide two stretcher supports, combined with two suspended stretcher supports one over each seat portion, suspension devices for the front end of the suspended stretcher supports whereby they may shift longitudinally, and suspension devices for the rear of said suspended stretcher supports whereby said end may be lowered to approximately the level of the seats, said suspended stretcher supports arranged side by side and substantially occupying the full width of the body.

2. In an ambulance, a body having folding seats at each side arranged to be turned over toward the middle of the body to provide two stretcher supports, combined with two suspended stretcher supports one over each seat portion, suspension devices for the front end of the suspended stretcher supports whereby they may shift longitudinally, toggle suspension devices for the rear of said suspended stretcher supports whereby said end may be lowered to approximately the level of the seats, said toggles comprising jointed links one hinged to the body and the other hinged to the support, and means for locking the suspended stretcher supports against longitudinal movement when elevated, said suspended stretcher supports arranged side by side and substantially occupying the full width of the body.

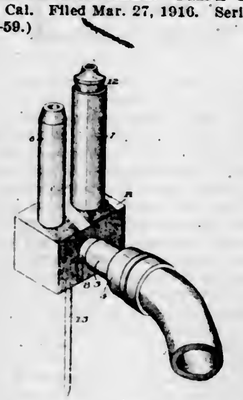
3. In an ambulance, a body having folding seats at each side arranged to be turned over toward the middle of the body to provide two stretcher supports, combined with two suspended stretcher supports one over each seat portion, suspension devices for the front end of the suspended stretcher supports whereby they may shift longitudinally and be lifted to a position close to the roof, and suspension devices for the rear of said suspended stretcher supports whereby said end may be lowered to approximately the level of the seats and also raised to a position close to the roof.

4. In an ambulance, a body, combined with two longitudinally arranged suspended stretcher supports, suspension devices for the front ends of the supports for permitting longitudinal movement and for elevating the supports to a position near the roof, and additional suspension devices for the rear ends of the supports for sustaining the supports horizontally and for lowering their rear ends to assume an inclined position for loading and unloading and also for elevating the supports to a position near the roof.

5. In an ambulance, a body, combined with two longitudinally arranged suspended stretcher supports, suspension devices for the front ends of the supports for permitting longitudinal movement and for elevating the supports to a position near the roof, additional suspension devices for the rear ends of the supports for sustaining the supports horizontally and for lowering their rear ends to assume an inclined position for loading and unloading and also for elevating the supports to a position near the roof, and means to lock the supports against longitudinal movement when in their suspended position midway between the roof and floor.

[Claims 6 to 13 not printed in the Gazette.]

1,208,262. LAWN-SPRINKLER. FRANK G. WOOD, San Francisco, Cal. Filed Mar. 27, 1916. Serial No. 86,894. (Cl. 137—59.)



The combination in a water distributer, of a rectangular anchored base having a hole transversely through it, a hollow plug fitting and turnable in the hole, said plug having a retaining collar at one end and a hose coupling member at the inlet end, an opening at one side within the base, passages from the top of the base, opening transversely to and against the plug interiorly, nozzles mounted upon the base to connect independently with the interior passages, said plug being turnable to connect its transverse opening with either of the nozzles, and exterior stops limiting the rotation of the plug to register with either nozzle opening.

1,208,263. CONNECTING-ROD. WILLIAM E. WOODARD, Schenectady, N. Y. Filed Oct. 11, 1916. Serial No. 124,992. (Cl. 74—17.)

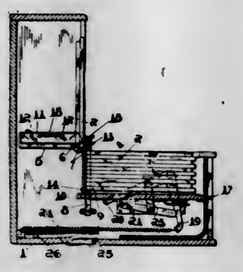
1. As a new article of manufacture, a connecting rod, the body of which is progressively tapered or inclined from an I section at its crank pin stub end to a rectangular section at its cross head stub end.

2. As a new article of manufacture, a connecting rod having crank pin and cross head stubs at its opposite ends, and an intermediate body which is of I section at the crank pin stub and rectangular section at the cross head stub.



3. As a new article of manufacture, a connecting rod having crank pin and cross head stubs at its opposite ends, and an intermediate body, comprising a vertical web which progressively increases in width from the crank pin stub to the cross head stub, and upper and lower flanges which progressively increase in width from the cross head stub to the crank pin stub.

1,208,264. ACCOUNT-FILE. WILSON BARR, Trenton, Ontario, Canada. Filed Jan. 7, 1916. Serial No. 70,885. (Cl. 45—2.)



1. In an account file the combination of a plurality of account holding leaves pivotally connected at their lower edges whereby one or more of said leaves may occupy either a substantially vertical or a substantially horizontal position; guiding means tending to restrict the leaves to a substantially vertical movement only when they are horizontal; guiding means adapted to restrict the leaves substantially to a backward or forward movement only when they are substantially vertical, said means being movable forwardly of their normal position to permit of the leaves when all are horizontal being withdrawn vertically; means for releasably retaining said vertical guiding means in their normal position; and yielding means tending to press the leaves upward when they are in the substantially horizontal position, the guiding means being adapted to permit of the leaves being swung from the vertical position to the horizontal, and vice versa.

2. In an account file the combination of a plurality of account holding leaves pivotally connected at their lower edges whereby one or more of said leaves may occupy either a substantially vertical or a substantially horizontal position; guiding means tending to restrict the leaves to a substantially vertical movement only when they are horizontal; guiding means adapted to restrict the leaves substantially to a backward or forward movement only when they are substantially vertical, said means being pivoted at their lower ends so that they may be swung forwardly of their normal position to permit of the leaves when all are horizontal being withdrawn vertically; latches adapted to engage said guiding means to releasably retain them in their normal position; and yielding means tending to press the leaves upward when they are in the substantially horizontal position, the guiding means being adapted to permit of the leaves being swung from the vertical position to the horizontal, and vice versa.

3. In an account file the combination of a plurality of account holding leaves pivotally connected at their lower edges; a substantially horizontal guide track at each side of the apparatus; a substantially vertical guide track at each side of the apparatus, said tracks substantially meeting the horizontal tracks; projections on the last leaf adapted to ride on top of the horizontal tracks; projections on the first leaf adapted to ride in front of the vertical tracks; projections on each leaf adapted to engage behind the vertical tracks and under the horizontal tracks; and yielding means tending to press the leaves upward when they are in the substantially horizontal position, the guiding means being adapted to permit of the leaves being swung from the vertical position to the horizontal, and vice versa.

4. In an account file the combination of a plurality of account holding leaves pivotally connected at their lower edges; a substantially horizontal guide track at each side of the apparatus; a substantially vertical guide track at each side of the apparatus, said tracks substantially meeting the horizontal tracks; projections on the last leaf adapted to ride on top of the horizontal tracks; projections on the first leaf adapted to ride in front of the vertical tracks; projections on each leaf adapted to engage behind the vertical tracks and under the horizontal tracks; vertically movable tracks arranged substantially parallel to and above the horizontal tracks and adapted to engage the projections of the last leaf riding on top of said horizontal tracks; spring means yieldingly pressing said movable tracks downwardly; projections on the first leaf adapted to ride in front of the vertical tracks; projections on each leaf adapted to engage behind the vertical tracks and under the horizontal tracks; and yielding means tending to press the leaves upward when they are in the substantially horizontal position, the guiding means being adapted to permit of the leaves being swung from the vertical positon to the horizontal, and vice versa.

5. In an account file the combination of a plurality of account holding leaves pivotally connected at their lower edges; a substantially horizontal guide track at each side of the apparatus; a substantially vertical guide track at each side of the apparatus, said tracks substantially meeting the horizontal tracks; a short extension on each vertical track extending outwardly at an angle to both the horizontal and vertical tracks; projections on the last leaf adapted to ride on top of the horizontal tracks; projections adapted to ride in front of the vertical tracks; links carrying said projections and pivotally connected to the first leaf; projections on each leaf adapted to engage behind the vertical tracks and under the horizontal tracks; and yielding means tending to press the leaves upward when they are in the substantially horizontal position, the guiding means being adapted to permit of the leaves being swung from the vertical position to the horizontal, and vice versa.

[Claims 6 and 7 not printed in the Gazette.]

1,208,265. FUEL AND PROCESS OF MAKING THE SAME. CHARLES BASKERVILLE, New York, N. Y., assignor to S. Sternau & Company, a Copartnership composed of Sigmund Sternau and Lionel Strassburger, Brooklyn, N. Y. Filed Jan. 11, 1916. Serial No. 71,406. (Cl. 44—7.)

1. A fuel consisting of a jellied mixture of alcohol and a salt together with a substance which neutralizes any alkali which may be produced during the burning of the fuel

2. A fuel consisting of a jellied mixture of alcohol and a salt together with an acid substance to prevent the formation of an alkali during the burning of the fuel.

3. A fuel consisting of a jellied mixture of alcohol and a salt, with a chemical means to prevent the formation of an alkali during the burning of the fuel.

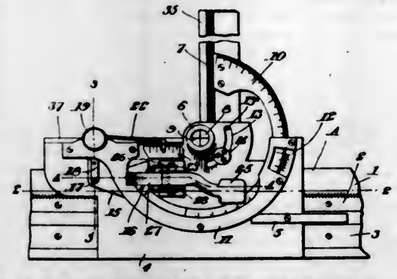
4. A mixture of calcium acetate and alcohol in the form of gel.

5. A mixture of calcium acetate and alcohol in the form of a gel, said mixture containing a weakly ionizable substance of acid nature.

[Claims 6 to 9 not printed in the Gazette.]

1,208,266. SECTION-LINER. GEORGE BLISS BEAUMONT, Moncton, New Brunswick, Canada. Filed Dec. 16, 1915. Serial No. 67,167. (Cl. 33—81.)

1. In a section liner of the class described and in combination, a carriage, a plate pivotally mounted thereon provided with a curvilinear edge having a plurality of serrations therein, a crank lever pivotally supported from the carriage, a stop member on the crank lever coacting with the serrations on the pivotally mounted plate, a rack, and a pawl having a plurality of teeth operatively connected to the crank lever and adapted to coact with the rack.



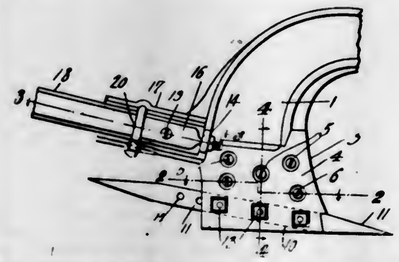
2. In a section liner of the class described and in combination, a carriage, a ruler pivotally mounted thereon, a curvilinear protractor operatively engaging the ruler, a curvilinear guide slidably engaging with the protractor, a vernier on the guide coacting with the protractor, and means for moving the carriage a predetermined distance after each operation of section lining.

3. In a section liner of the class described and in combination, a carriage, a plate pivotally mounted on the carriage provided with a curvilinear edge having a plurality of serrations therein, resilient means for adjusting the said plate, a stop member coacting with the plate, and means for moving the carriage through a predetermined distance after each operation of section lining.

4. In a section liner of the class described, and in combination, a rack, a carriage, a pawl slidably mounted on the carriage provided with a pair of teeth and a cam face, a clearance pin designed to engage the cam face, means for actuating the pawl and resiliently controlled means for returning the pawl to a normally disengaged position.

5. In a section liner of the class described, and in combination, a carriage, a curvilinear guide operatively mounted thereon, provided with a plurality of serrations in its lower face, a curvilinear protractor coacting with the guide, a pivotally mounted plate, a resilient member operatively connected to the plate provided with a tooth engaging the said serrations, a stop member coacting with the plate, a rack, a pawl coacting with the rack and means for simultaneously operating the pawl and stop member.

1,208,267. PLOW. EMILIUS C. F. BECKER, Milledgeville, Ga. Filed July 7, 1916. Serial No. 107,993. (Cl. 37—50.)



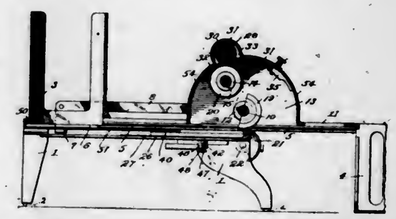
1. A plow including a stock, separate holding plates clamped upon opposite faces of the stock and meeting at their front edges to form a cutting edge, and a bit detachably mounted between the side plates and below the stock.

2. A plow including a stock, separate holding plates clamped upon opposite faces of the stock and meeting at their front edges to form a cutting edge, a reversible bit detachably mounted between and projecting forwardly beyond the plates, and fastening means extending through the plates and bit for holding them clamped together.

3. The combination with a stock having recesses in its side faces, of separate side plates having bosses projecting into the recesses, said side plates having their outer faces converging to an edge in front of the stock, said plates having oppositely disposed registering channels forming a bit receiving passage, means extending through the bosses and stock for binding the plates upon the stock, a bit detachably and reversibly mounted within the registering channels, and means extending through the side plates and bit for detachably securing the bit between the side plates.

4. The combination with a stock having a substantially triangular rear extension, and ears outstanding from the stock, of handles extending along the outer sides of the spacing extension, strips secured upon the outer faces of the handles and secured to the ears, side plates secured upon the stock and meeting at their front ends to form a cutting edge, and a bit extending beyond and between the front and rear edges of said plates.

1,208,268. PRINTING MECHANISM. EDWIN D. BELKNAP, East Orange, N. J. Filed May 6, 1914. Serial No. 836,811. (Cl. 101—1.)



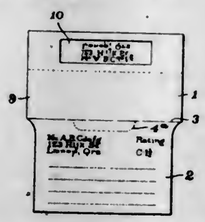
1. In a stencil printing machine the combination with an inking device comprising a pair of rotating inking and platen members, a reciprocating card feeding slide and guides therefor, of a casing for the inking members, an actuating crank mounted on the shaft of one of the above recited pair of rotating members, a handle on said crank exterior of said casing, and a connecting rod pivoted to said handle and to the card feeding slide.

2. In a stencil printing machine the combination with a rotary inking device provided with a driving shaft, reciprocating card feeding slide, and a casing for the inking device having an approximately semi-circular opening on one side, of a crank disk mounted on the driving shaft of the inking device and closing said opening, and a connecting rod pivoted to said crank disk and reciprocating slide.

3. The combination of a casing of approximately semi-cylindrical shape open at one end but closed at the other and having an interior cross partition with hubs extending therefrom at right angles thereto, shafts journaled in said hubs, a set of inking rolls mounted in the closed end of the casing on said shafts, intermeshing gears mounted on the outwardly projecting ends of the shafts and a crank disk mounted on one of the shafts and closing the before mentioned opening in the casing.

4. In a stencil printing machine the combination of a pair of rotating elements comprising an inking sector and coöperating platen sector, means for rotating the two sectors, a protecting housing for the upper member of said pair of rotating elements, means for feeding stencils along a line tangential to the meeting line of said sectors, and a feed table located slightly below the line of feed of the stencils and the lower edge of the housing and slotted to permit the lower sector to project upward through it, together with an envelop guide mounted on said table.

1,208,269. RECORD-BEARING STENCIL-CARD. EDWIN D. BELKNAP, East Orange, N. J. Filed Oct. 2, 1914. Serial No. 864,686. (Cl. 101—134.)

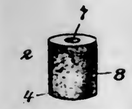


1. A stencil card of rectangular shape having an extension adapted to have additional record data marked thereon hinged along one edge, the dimensions of said extension parallel to the hinge being less than the corresponding dimensions of the stencil card proper.

2. A stencil card of rectangular shape having an extension adapted to have additional record data marked thereon hinged along one edge and a classification tab projecting from the same edge.

3. A stencil card of rectangular shape having an extension adapted to have additional record data marked thereon hinged along one edge and a classification tab projecting from the same edge and cut out of the said extension.

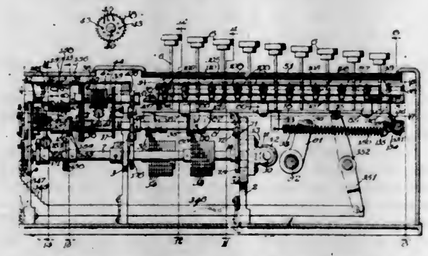
1,208,270. INKING APPARATUS. EDWIN D. BELKNAP, East Orange, N. J. Filed Dec. 7, 1915. Serial No. 65,568. (Cl. 91—67.8.)



1. As an article of manufacture a fountain roll for inking apparatus consisting of an integral cylindrical body of felt in which layers of material composing the felt extend in planes at right angles to the axis of the cylinder.

2. As an article of manufacture a fountain roll for inking apparatus consisting of an integral cylindrical body of felt in which layers of material composing the felt extend in planes at right angles to the axis of the cylinder, said cylinder having an axial bore of relatively small diameter as compared with the external diameter of the cylinder.

1,208,271. CALCULATING-MACHINE. PAUL H. BERGER, Chicago, Ill., assignor to Carlin Calculator Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 13, 1911. Serial No. 620,826. (Cl. 235—60.)



1. In a calculating machine, the combination of registering mechanism embodying rotatable number bearing members, actuating means for said members, recording mechanism operatively connected with the actuating means for operation in unison with the registering mechanism and embodying printing elements, selecting mechanism for controlling the degree of actuation of said members and printing elements, means for controlling the direction of actuation of the number bearing members or for rendering the said number-bearing members inactive while the recording mechanism remain active, means individual to the recording mechanism for rendering the latter inactive at will while the registering mechanism remains active.

2. In a calculating machine, the combination of a register embodying a forwardly and rearwardly operating character bearing element, recording mechanism, actuating mechanism operatively connected with the recording mechanism, means for operatively connecting the register with the said actuating mechanism for operation in unison with the recording mechanism, the said means embodying mechanism for controlling the direction of operation of the said element and for disconnecting the latter with respect to the said actuating mechanism, and means whereby the recording mechanism may be disconnected with respect to the said actuating mechanism and independently with respect to the register.

3. In a calculating machine, the combination of a register embodying a forwardly and rearwardly operating character bearing element, recording mechanism, actuating mechanism operatively connected with the recording mechanism, means for operatively connecting the register with the said actuating mechanism for operation in unison with the recording mechanism, the said means embodying mechanism for controlling the direction of operation of the said element and for disconnecting the latter with respect to the said actuating mechanism, means whereby the recording mechanism may be disconnected with respect to the actuating mechanism and independently with respect to the register, and means for controlling the degree of actuation of the recording mechanism and the said element.

4. In a calculating machine, the combination of a register embodying a forwardly and rearwardly operating character bearing element, recording mechanism, actuating mechanism operatively connected with the recording mechanism, means for operatively connecting the register with the said actuating mechanism for operation in unison with the recording mechanism, the said means embodying mechanism for controlling the direction of operation of the said element and for disconnecting the latter with respect to the said actuating mechanism, means whereby the recording mechanism may be disconnected with respect to the actuating mechanism and independently with respect to the register, and selecting mechanism for controlling the degree of actuation of the recording mechanism and the said element.

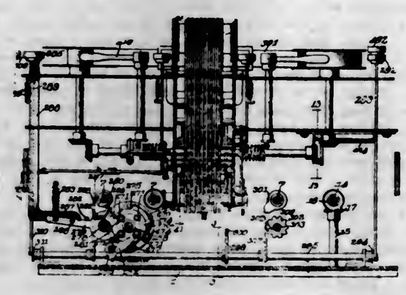
5. In a calculating machine, the combination of a register embodying a forwardly and rearwardly operating character bearing element, recording mechanism, actuating mechanism operatively connected with the recording mechanism, means for operatively connecting the register with the said actuating mechanism for operation in unison with the recording mechanism, the said means embodying mechanism for controlling the direction of operation of the said element and for disconnecting the latter with respect to the said actuating mechanism, means whereby the recording mechanism may be disconnected with respect to the actuating mechanism and independently with respect to the register, and selecting mechanism for controlling the degree of actuation of the recording mechanism and the said element, said selecting mechanism embodying a plurality of actuating keys.

[Claims 6 to 72 not printed in the Gazette.]

1,208,272. CALCULATING-MACHINE. PAUL H. BERGER, Chicago, Ill., assignor to Carlin Calculator Company, Chicago, Ill., a Corporation of Illinois. Original application filed Apr. 13, 1911, Serial No. 620,826. Divided and this application filed Nov. 11, 1912. Serial No. 730,786. (Cl. 197—60.)

1. The combination with a carriage and platen, of an escapement drum coöperating therewith, a shaft connected operably with said carriage and adapted to be rotated by the escapement thereof, an escapement coöperating with said shaft to regulate and time the escapement thereof and a rotating shaft for controlling said escapement.

2. The combination with a carriage and platen, of an escapement drum coöperating therewith, a shaft connected operably with said carriage and adapted to be rotated by the escapement thereof, an escapement coöperating with said shaft for locking the same from rotation and hence the carriage from escapement and a rotating shaft adapted to periodically release said escapement.



3. The combination with a carriage and platen, of an escapement drum coöperating therewith, a shaft connected operably with said carriage and adapted to be rotated by the escapement thereof, an escapement coöperating with said shaft for normally locking the same from rotation and hence the carriage from escapement, and a rotating member for automatically releasing said escapement to permit the shaft to rotate and the carriage to escape.

4. The combination with a carriage and platen, of an escapement drum coöperating therewith, a shaft connected operably with said carriage and adapted to be rotated by the escapement thereof, an escapement coöperating with said shaft for normally locking the same from rotation and hence the carriage from escapement, and a rotating cam for operating said escapement to release said shaft and permit the carriage to escape.

5. The combination with a carriage and platen, of a stationary line spacing shaft, a constant connection between said shaft and said platen, means for imparting a predetermined rotation to said shaft, and means for controlling the movement of said shaft from the movement of the carriage and platen.

[Claims 6 to 14 not printed in the Gazette.]

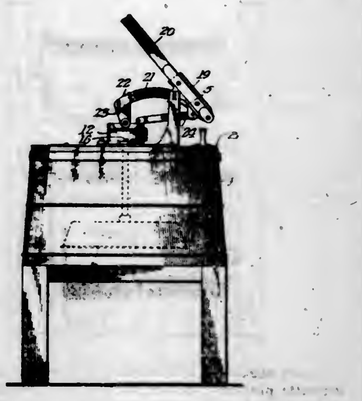
1,208,273. MECHANICAL MOVEMENT FOR WASHING-MACHINES. FREDERICK HENRY BERGMAN, Newton, Iowa. Filed Feb. 9, 1916. Serial No. 77,150. (Cl. 74—14.)

1. In a gearing for washing machines or the like, a support, a reciprocatory shaft in said support, means to rotate said shaft during the reciprocation including means to periodically reverse the direction of its rotation after it has rotated in one direction during a plurality of reciprocations.

2. In a gearing for washing machines or the like, a support, a reciprocatory shaft in said support, means to reciprocate said shaft, connections from said means for intermittently rotating said shaft, including means for periodically reversing its direction of rotation.

3. In apparatus of the class described, a support, a member hinged to the support, a standard on said member, a lever pivoted in said standard, a reciprocatory shaft in said hinged member, connections between said lever and said reciprocatory shaft for operating the latter both in longitudinal and rotary directions including resilient means for holding the shaft in extended position.

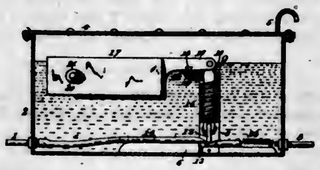
4. In apparatus of the class described, a support, a member hinged to the support, a reciprocatory shaft in said member, a ratchet slidably but non-rotatably mounted on to said shaft, means including a bell crank lever and a link for reciprocating the shaft, means operated by said bell crank lever for rotating said ratchet, including a reversible pawl.



5. In an apparatus of the class described, a support, a member hinged to the support, a reciprocatory shaft in said member, a ratchet slidably but non-rotatably mounted on to said shaft, lever operated means for operating said shaft, connections from said lever operated means for rotating said ratchet including a two edged pawl and a projection on said ratchet to periodically upset said pawl and thereby reverse the direction of rotation of the ratchet.

[Claim 6 not printed in the Gazette.]

1,208,274. FLUID-REGULATING DEVICE. CHARLES L. BESLER, Winfield, Kans. Filed May 10, 1915. Serial No. 27,258. (Cl. 137—66.)



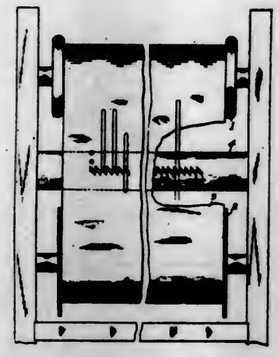
1. In a water regulator of the class specified, a chamber with an inlet and outlet, a compressible tube connected with one of them, a pinching blade and a notched seat therefor coöperating to crimp and close said tube, a plunger pivoted to said blade, guiding supports for the blade and plunger, a spring tending to press said blade into crimping position, and a float fulcrumed on said support connecting pivotally with the plunger, and provided with lateral guides, substantially as and for the purpose set forth.

2. In a water-regulator of the class specified, a chamber provided with inlet and outlet, a compressible tube connecting with one of them, spring actuated means for closing said tube, float-actuated means for releasing the same, and a spring connected with the free end of the tube to stretch the same, and prevent obstructive crimping or flattening of the same.

1,208,275. TRACKER-BAR FOR PNEUMATIC MUSICAL INSTRUMENTS. WILLIAM G. BETZ, Buffalo, N. Y. Filed Oct. 10, 1914. Serial No. 866,001. (Cl. 84—165.)

1. An elongated horizontally disposed tracker bar for pneumatic players having ports provided with upper and

lower edges oblique to the horizontal axis of the bar and extending in the same general direction, and vertically disposed side edges directly connecting the upper and lower edges.

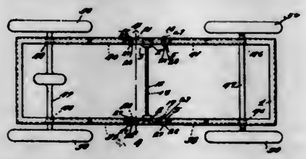


2. An elongated horizontally disposed tracker bar for pneumatic players having ports each rhomboidal in form and provided with upper and lower edges oblique to the horizontal axis of the bar, and connecting side edges, each one of one set of corresponding side edges being positioned directly above the adjacent side edge of the next adjacent port.

3. A horizontally disposed tracker bar for pneumatic players provided with a row of ports disposed along the length thereof, said ports covering the full centers from port to port and having upper and lower substantially parallel edges oblique to the horizontal axis of the bar and vertical side edges, a side edge of each port being positioned above the adjacent side edge of the next port.

4. A tracker bar for pneumatic players having a horizontal row of similarly shaped and similarly disposed ports covering the full centers from port to port and provided with oblique upper and lower substantially parallel edges and connecting side edges, a side edge of each port being positioned above the adjacent side edge of the next port.

1,208,276. SHOCK-ABSORBER. HERSCHEL BILLHIMER, New Madison, Ohio. Filed Mar. 29, 1916. Serial No. 87,513. (Cl. 21—105.)



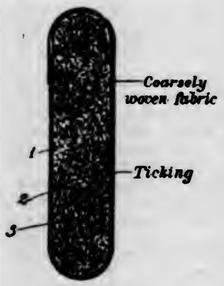
1. A shock absorbing running gear for vehicles comprising members secured to opposite sides of the frame having U-shaped recesses, bearing blocks secured therein, upper and lower rock shafts mounted in said bearing blocks, the opposite ends of each shaft having oppositely extending levers, oscillatory spring levers connected to the ends of the first levers and carried by the frame of the vehicle and being in turn connected to the forward and rear axles.

2. A shock absorbing running gear for vehicles comprising members secured to opposite sides of the frame having U-shaped recesses, bearing blocks secured therein, upper and lower rock shafts mounted in said bearing blocks, the opposite ends of each shaft having oppositely extending levers, oscillatory spring levers connected to the ends of the first levers and carried by the frame of the vehicle and being in turn connected to the forward and rear axles, and auxiliary spring tensioned shock absorbers connecting the first levers to the frame of the vehicle.

3. In improvements in a shock absorbing running gear for vehicles, a pair of members secured to opposite sides of the frame of the vehicle substantially midway of the ends of the frame, bearing blocks mounted in said members, upper and lower transverse shafts mounted in the bearing blocks, the opposite ends of each shaft having oppositely extending levers movable therewith, two pairs of spring levers, the levers of one pair being in parallelism and being pivoted substantially midway their ends to the frame of the vehicle and having their forward ends connected to the forward axle of the vehicle, the rear end of one of the forward spring levers being linked to one of the first levers carried by the upper transverse shaft, the rear end of the other forward spring lever being linked to one of the first levers of the lower shaft, the spring levers of the other pair being in parallelism and having their rear ends connected to the rear axle of the vehicle and being pivoted midway their ends to the frame of the vehicle, the forward end of the last mentioned pair of spring levers being linked to the respective levers which extend respectively, one end of each of said shafts rearwardly.

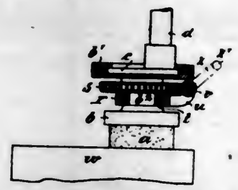
4. In improvements in a shock absorbing running gear for vehicles, a pair of members secured to opposite sides of the frame of the vehicle substantially midway of the ends of the frame, bearing blocks mounted in said members, upper and lower transverse shafts mounted in the bearing blocks, the opposite ends of each shaft having oppositely extending levers movable therewith, two pair of spring levers, the levers of one pair being in parallelism and being pivoted substantially midway their ends to the frame of the vehicle and having their forward ends connected to the forward axle of the vehicle, the rear end of one of the forward spring levers being linked to one of the first levers carried by the upper transverse shaft, the rear end of the other forward spring lever being linked to one of the first levers of the lower shaft, the spring levers of the other pair being in parallelism and having their rear ends connected to the rear axle of the vehicle and being pivoted midway their ends to the frame of the vehicle, the forward end of the last mentioned pair of spring levers being linked to the respective levers which extend respectively, one end of each of said shafts rearwardly, and auxiliary spring tensioned shock absorbers connecting the first levers to the frame of the vehicle, said bearing blocks having means to prevent axial movement of the upper and lower shaft.

1,208,277. PILLOW. NEWTON K. BILLOW, Columbus, Ohio. Filed May 15, 1915. Serial No. 28,451. (Cl. 5—15.)



As an article of manufacture, a washable pillow consisting of a sack of loosely woven fabric adapted to permit the free passage of water therethrough, and a filling of pillow feathers in said sack, said sack being permanently closed whereby the pillow including its feathers may be washed without removing them from the sack.

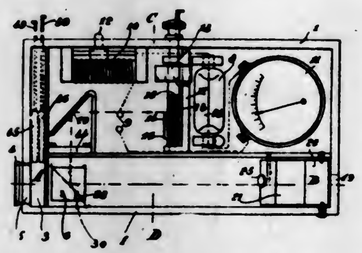
1,208,278. DEVICE FOR GRINDING CYLINDRICAL ROTATING BODIES BY MEANS OF A PLANE GRINDING-TOOL. CARL BLECHER, Berlin-Dahlem, Germany, assignor to Rotophot Akt. Ges. für graphische Industrie, Berlin, Germany. Filed Dec. 4, 1914. Serial No. 875,549. (Cl. 51—4.)



1. In a device for grinding cylindrical rotating bodies by means of a plane tool, in combination, a grinding tool, a driving shaft for said tool, means for revolving said tool around an eccentric axis and means for imparting to said tool a non-uniform rotary motion.

2. In a device for grinding cylindrical rotating bodies by means of a plane tool, in combination, a grinding tool, a driving shaft for said tool, an eccentric connecting said grinding tool with said driving shaft, a worm gear adapted to rotate said grinding tool around its own axis and a slot and crank device interposed between said tool and said eccentric, said slot and crank device being adapted to oscillate around a fixed point and carrying the worm forming part of said worm gear.

1,208,279. PHOTOMETER. ANDRÉ BLONDEL, Paris, France. Filed Nov. 4, 1913. Serial No. 799,152. (Cl. 88—23.)



1. In a photometer, the combination of an incandescent lamp having a straight luminous body; and a part provided with an adjustable slit in close proximity to said body; and means for adjusting the width of the slit.

2. In a photometer, the combination of an incandescent lamp serving as a source of light with which the light to be examined is compared and comprising a straight luminous body of small diameter; and a pair of shutters in close proximity to the lamp; and means for adjusting the width of the slit formed between the shutters.

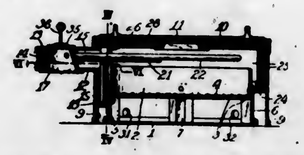
3. In a photometer, the combination of an electric incandescent lamp comprising a cylindrical bulb of small diameter and a straight light giving body of small diameter and located axially thereof; a pair of relatively movable shuters located in close proximity to said bulb; and a micrometer screw adapted to engage one of the shutters for changing at will the width of the slit between said shutters in the direction of the length of said light giving body.

4. In a photometer, the combination of an electric incandescent lamp having a straight light giving body of small diameter; a pair of relatively movable shutters located in close proximity to said body; a micrometer screw adapted to change at will the width of the slit between said shutters in the direction of the length of said light giving body; and a screen on which the light from said body falls with a luminosity which is variable proportionally to the width of the slit.

5. In a photometer, the combination of a source of light having a straight luminous body of small diameter; a slit-diaphragm near said light; means for adjusting said slit; a screen on which the light from said source falls through said slit-diaphragm; and an optical comparison device having a reflecting portion adapted to receive rays reflected from said screen, and a transparent portion adapted to transmit the rays from the surface of which the luminosity is to be measured parallel and near to the rays reflected from the reflecting portion.

[Claim 6 not printed in the Gazette.]

1,208,280. HEATING SYSTEM FOR INCUBATORS AND OTHER APPARATUS. FRANK E. BOWERS, Indianapolis, Ind. Filed July 24, 1916. Serial No. 110,944. (Cl. 119—40.)



1. A heating system including a wall to form an inclosure and having an opening adjacent to its top, a heater casing having an open side secured to the wall to cover the opening, the casing having two duct portions therein on different horizontal planes, the upper one of the duct portions having communication with the interior of the inclosure, a heat-radiator in the heater casing, and an up-duct having its terminal connected with the lower one of the duct portions at a distance from the heat-radiator.

2. A heating system including a wall to form an inclosure and having an opening adjacent to its top, a heater casing having an open side secured to the wall to cover the opening, the casing having two duct portions therein on different horizontal planes, the upper one of the duct portions having communication with the interior of the inclosure, a heat-radiator in the heater casing, a draft tube connected with the heat-radiator and extending through the upper one of the ducts, and an up-duct having its terminal connected with the lower one of the two duct portions at a distance from the heat-radiator.

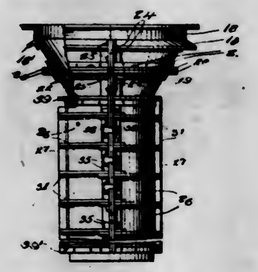
3. A heating system including a wall to form an inclosure and having an opening adjacent to its top, a heater connected to the wall and having a chamber in communication with the opening, a hollow heat-radiator in the chamber of the heater, a flat horizontal division plate in the chamber and extending from the heat-radiator outward from the chamber into the inclosure to form two duct portions in the chamber, the upper one of the duct portions having communication with the chamber and the inclosure, and an up-duct having its terminal connected with the chamber below the division plate and adjacent to the wall.

4. A heating system including a wall having an opening in one portion thereof, a heater connected to the wall and having a chamber in communication with the opening, a hollow truncated cone connected to the bottom and top of the heater and extending through the chamber therein, a horizontal division plate in the chamber and extending from the cone outward from the chamber into the space within the wall, a partition opposite to the inside of the wall below the division plate and having sides connected to the wall to form an up-duct, the partition extending up to the division plate, an adjustable closure for the top of the cone, and a draft flue connected to the cone above the division plate and extending through the opposite portion of the wall.

5. In a heating system, the combination of a housing comprising a wall and a top on the wall, the wall having an opening in one portion thereof adjacent to the top, a

heater casing having an open side secured to said wall to cover said opening, a hollow truncated cone extending through and connected to the top and bottom of said casing, a division plate horizontally supported in said casing and extending into the space within said wall, a partition adjacent to the inside of said wall and having sides secured to the wall to form an up-duct, said partition being below and extending up to said plate, and a plurality of tubes connected to said cone and extending divergently above said plate and through and secured to opposite portions of said wall, with a floor supported below said tubes.

1,208,281. MOLD. HARRY L. W. BOWLER and FRANK WM. BOWLER, Chicago, Ill. Filed Jan. 22, 1916. Serial No. 73,758. (Cl. 25—131.)



1. A mold comprising a plurality of sections, angle bars positioned adjacent the adjoining edges of said sections, said angle bars being provided with openings and with slots, keys pivotally connected with certain of said angle bars and passing through the slots of said angle bars to releasably connect the same, strips extending about said mold and having their end portions passed through the openings of said angle bars and having their end portions positioned in overlapped relation and provided with alined openings, and means passing through said openings to securely hold said mold in a set-up position.

2. A mold comprising a plurality of sections, angle bars positioned adjacent the adjoining edges of said sections and provided with cutouts, keys pivotally connected with certain of said angle bars and passing through the cutouts to releasably connect the angle bars, strips extending about said mold and having their end portions positioned in overlapping relation, and means connecting the end portions of said strips to securely hold said mold in a set-up position.

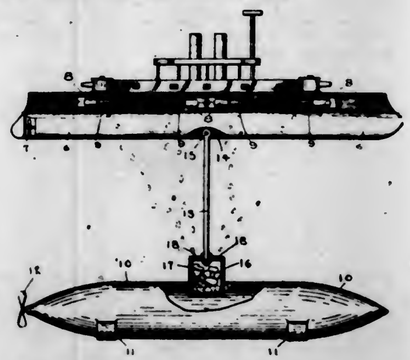
3. A mold comprising a plurality of sections, outstanding strips positioned adjacent the adjoining edges of said sections and provided with cutouts, pivotally mounted means passing through the cutouts to releasably connect the outstanding strips, bracing strips extending about said mold and passing through the cutouts of the outstanding strips, and means for releasably connecting the end portions of said bracing strips.

1,208,282. TOY BOAT. CHARLES BRINKMAN, Chicago, Ill. Filed Sept. 18, 1916. Serial No. 120,840. (Cl. 46—40.)

1. A toy boat provided with means to carry flames, and means to liberate an explosive gas in position to be ignited by said flames.

2. The combination of a toy surface boat provided with means to maintain flames thereon, and a submerged vessel connected to the surface boat and provided with means to liberate an explosive gas in position to be ignited by said flames.

3. The combination of a toy surface boat provided with holders for candles or the like at the sides thereof, and a submerged vessel connected to the surface boat and provided with a gas tank having an outlet, adapted to liberate gas under the boat in position to be ignited by said candles as it rises from the water.

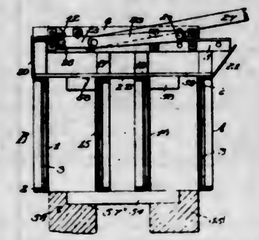


4. The combination with a toy submerged boat provided with means to liberate a gas, of means at the surface of the water, and connected to said boat, to carry flame in position to ignite said gas as it rises from the water.

5. The combination with a toy boat having candle holders mounted thereon above the water level, of a submerged vessel, means suspending the submerged vessel under the bottom of the boat, and a gas tank carried by the submerged vessel and provided with an outlet for gas, for the purpose stated.

[Claim 6 not printed in the Gazette.]

1,208,283. MOLD. WILLIS N. BRITTON, Rochester, N. Y. Filed July 5, 1910. Serial No. 570,485. (Cl. 25—131.)



1. A mold comprising a pair of bars arranged one above the other and having opposed faces in sliding engagement with each other to permit a relative longitudinal movement of said bars, bolts passing vertically through the bars to maintain such sliding engagement, L-shaped wall-carrying members, and horizontally arranged bolts securing one arm of each L-shaped wall-carrying member against a vertical face of one of the slide bars, the L-shaped members on both bars being arranged on one and the same side of the bars so that they lie in a single plane.

2. A mold comprising a pair of bars having opposed faces in sliding engagement with each other to permit a relative longitudinal movement of said bars, one of said bars being arranged above the other, and each of said bars being provided with a plurality of horizontally arranged bolt openings, at least two L-shaped members, each having one of its arms provided with bolt openings, bolts securing said arm against the vertical face of one of the slide bars, and two mold walls each secured to the other arm of one of the L-shaped members.

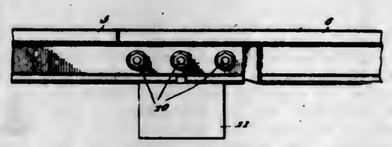
3. A molding machine comprising a pair of bars having opposed faces in engagement with each other to permit relative longitudinal movement of said bars, one of said bars being arranged above the other, of two links each pivoted at one end to the other and at the other end to one of the bars, and two mold walls each secured to one of said slide bars, the mold walls being so positioned that, when the links are substantially alined, the walls are nearest to each other and when the pivotal connection between the links is raised, the walls will move away from each other.

4. A molding machine comprising a pair of bars having opposed faces in engagement with each other to permit relative longitudinal movement of said bars, one of said bars being arranged above the other, of two links, each pivoted at one end to the other and at the other end to one of the bars, one of said links being extended beyond the pivot to provide an operating portion, and at least two mold walls each secured to one of said slide bars, the mold walls being so positioned that, when the links are substantially alined, the walls are nearest to each other and when the pivotal connection between the links is raised, the walls will move away from each other.

5. A molding machine comprising two pairs of bars each pair having opposed faces in engagement with each other to permit relative longitudinal movement of said bars, one of said bars being arranged above the other, of two links for each pair of bars, each link pivoted at one end to the other and at the other end to one of the bars, one of said links being extended beyond the pivot and having rigid connection with the extension of the like link on the other pair of bars, and two mold walls, each secured to one of the slide bars of each pair, the mold walls being so positioned that when the links are substantially alined, the walls are nearest to each other and, when the pivotal connection between the links is raised, the walls will move away from each other.

[Claims 6 to 11 not printed in the Gazette.]

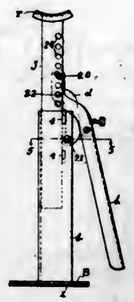
1,208,284. RAIL-JOINT. EARL W. BRUNTON, St. Louis, Mo. Filed Apr. 17, 1915. Serial No. 22,158. (Cl. 239—8.)



1. A rail joint comprising a pair of rails, one rail having a portion of its web offset laterally with its outer face coincident with the side of the head of the rail and its inner face of convex form, the remaining rail having an extended web portion with concaved inner and outer faces the concaved inner face engaging the convex inner face of the first-mentioned rail, one of said rails having a portion of its base cut-away, the remaining base portion of said last-mentioned rail resting upon the corresponding base portion of the remaining rail, said corresponding portion of said remaining rail being provided with a flat upper face, and securing means engaged through the overlapping portions of said rails.

2. A rail joint comprising a pair of overlapping rails, one-half having an extended and laterally off-set web portion provided with a straight outer face and a convex inner face, the remaining rail having a web portion provided with a concaved face for engagement with the convex face of the first-mentioned rail web, the web portion of the second-mentioned rail resting beneath the longitudinal center of the head of the first-mentioned rail, the overlapping portions of the rails having the concaved and convex faces of their web portions engaged to prevent sagging of the rails, one of said rails having a portion of its base cut-away, the remaining rail having the opposite portion of its base provided with a flat upper face to receive the base of the first-mentioned rail, means for securing the base portions of said rails to a tie and securing means for engaging through the overlapping portions of said rails.

1,208,285. LIFT-JACK. JOHN H. BURKHOLDER, Ashland, Ohio, assignor to The Elite Manufacturing Company, Ashland, Ohio, a Partnership. Filed July 12, 1915. Serial No. 39,270. (Cl. 254—116.)



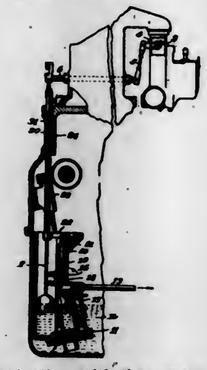
1. A lift jack having a U-shaped body in cross section and a lift standard of like formation therein having a series of transverse holes through the sides thereof, a cross piece connecting the sides of said body at its upper end behind said standard and confining the standard in sliding relations in the front portion thereof, in combination with a unitary handle having opposite flat sides at its end with a double bend edgewise and the extremity thereof in approximately a parallel plane with its body and pivotally engaged in holes in said standard over said body, and a pair of fulcrum links having inwardly extending extremities at their ends and the lower ends of said links pivoted within the sides of said body behind said standard and the upper ends pivoted within the sides of said handle at the outer of said bands.

2. A jack as described, having a body and a lift standard of U shape in cross section and the rounded portions of said parts alike at the front and open at the rear, the standard being of less width than the body, a confining plate connecting the sides of said body behind said standard and a cross rod through the sides of said body relatively behind said plate, in combination with two flat fulcrum members pivoted on said cross rod at their lower ends within the sides of said body and a handle having said fulcrum members pivoted at their upper ends between the sides thereof and said handle pivoted at its extremity within the sides of said standard above the end of said body, the said handle having two bends in its fulcrum end between its inner and its outer pivot connections.

3. The jack described having a U-shaped body and a lift standard slidable therein of U shape in cross section and provided with a series of holes oppositely through its sides and edges, in combination with a handle U-shaped in cross section and having a shank with flat opposite sides open across its top and having two bends edgewise bringing the extremities of said sides into a plane nearly parallel with the body of the handle, a set of fulcrum links having inwardly extending extremities provided with holes and pivoted within the sides of the handle at their upper ends and within the sides of said body at their lower ends, and the said handle pivoted in one of said series of holes in the standard above said body.

4. The jack described having a U-shaped body and a U-shaped standard slidably mounted therein, a U-shaped handle having a split end with flat sides and a compound bend edgewise of the sides thereof and a reinforcing piece in said shank bent correspondingly thereto and fixed between the said sides, in combination with fulcrum members pivotally engaged between the sides of said shank and the sides of said reinforcing piece, and said handle pivoted on said standard through the extremity of its reinforced shank.

1,208,286. LUBRICATING DEVICE FOR MOTOR-CARS. ALFRED L. CAMPBELL, Elmhurst, N. Y., assignor to Brewster & Co., a Corporation of New York. Filed Aug. 22, 1916. Serial No. 116,301. (Cl. 184—6.)

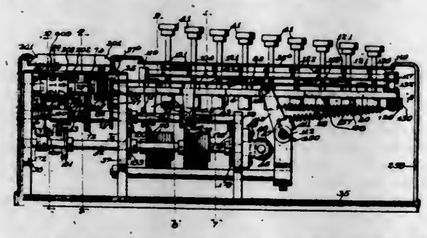


1. The combination, with the power-regulating valve of a motor, the oil feed duct, a pressure-relieving valve in the oil feed duct, and a spring controlling said pressure-relieving valve, of spring-controlling means between said spring and the power regulating valve.

2. The combination, with the fuel-supply valve of a motor, the oil feed duct, and a pressure-relieving valve in the oil feed duct, of a spring acting on the pressure-relieving valve, a compressor acting on said spring, a chamber containing said spring and compressor, and an operating connection between said compressor and the fuel-supply valve.

3. The combination, with the oil feed duct of a motor, and a pressure-relieving valve in the oil feed duct, of a spring acting on said valve, a compressor acting on said spring, a motor power regulating valve, and operating connections between said valve and said compressor.

1,208,287. CALCULATING-MACHINE. SAMUEL E. CARLIN, Chicago, Ill., assignor to Carlin Calculator Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 6, 1910. Serial No. 580,659. (Cl. 235—60.)



1. In a calculating machine, the combination of a totalizer comprising a series of coöperating number bearing wheels, mechanism for operating each of said wheels, a series of keys for each wheel, selector mechanism actuated by the keys for controlling the degree of movement of the respective number bearing wheels, means coöperating with the selector mechanism for locking the actuated key in its actuated position and for locking the remaining keys of the respective series against actuation, a controlling key for controlling the operation of the number bearing wheels, means actuated by the controlling key to lock the remaining unactuated keys against actuation in advance of the operation of the number bearing wheels, and means for restoring the last said means to release the keys locked thereby, the last recited means including mechanism for returning the said controlling key.

2. In a calculating machine, the combination of a totalizer comprising a series of coöperating number bearing wheels, power mechanism, operating mechanism between the power mechanism and the said number bearing wheels including a normally inactive coupling, a series of keys for each of the wheels, selector mechanism controlled by each of the series, means operatively related to the selector mechanism for locking the actuated key and the remaining keys of the respective series against actuation, a controlling key, a loose connection between the controlling key and the said coupling to permit an independent movement of the key without actuating the coupling, and means controlled by such independent movement to lock the remaining unactuated keys against operation.

3. In a calculating machine the combination of a totalizer comprising a series of coöperating number bearing wheels, power mechanism, operating mechanism between the power mechanism and the said number bearing wheels including a normally inactive coupling, a series of keys for each of the wheels, selector mechanism controlled by each of the series, means operatively related to the selector mechanism for locking the actuated key and the remaining keys of the respective series against actuation, a controlling key, a loose connection between the controlling key and the said coupling to permit an independent movement of the key without actuating the coupling, mechanism for locking the remaining unactuated keys against operation, and an operative connection between the last recited mechanism and the controlling key and operable thereby in advance of the operation of the said coupling by said key.

4. In a calculating machine, the combination of a totalizer comprising a series of coöperating number bearing wheels, power mechanism, operating mechanism between the power mechanism and the said number bearing wheels including a normally inactive coupling, a series of keys for each of the wheels, selector mechanism controlled by each of the series, means operatively related to the selector mechanism for locking the actuated key and the remaining keys of the respective series against actuation, a controlling key, a loose connection between the controlling key and the said coupling to permit an independent movement of the key without actuating the coupling, mechanism for locking the remaining unactuated keys against operation, an operative connection between the last recited mechanism and the controlling key and operable thereby in advance of the operation of the said coupling by said key, and means for restoring the said locking mechanism to release the keys locked thereby, the last recited means embodying means for returning the said controlling key.

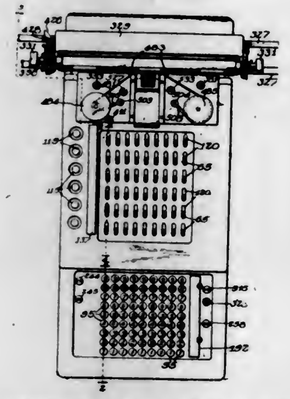
5. In a calculating machine, the combination of a totalizer comprising a plurality of number bearing wheels, mechanism for actuating said wheels, a series of keys for each wheel, selector mechanism individual to each series of keys for controlling the degree of movement of the number wheels, means coöperating with the selector mechanism for locking the actuated key in its actuated position and for locking the unactuated keys of the respective series against actuation, a controlling key for controlling the operation of the number wheels, mechanism also actuated by the controlling key for locking the remaining unactuated keys against actuation, and means for restoring the last said locking means and the controlling key, and means for automatically restoring the selector mechanism.

[Claims 6 to 94 not printed in the Gazette.]

1,208,288. CALCULATING MACHINE. SAMUEL E. CARLIN, Chicago, Ill., assignor to Carlin Calculator Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 8, 1911. Serial No. 648,381. (Cl. 235—60.)

1. The combination with a plurality of totalizers each embodying a series of numeral wheels, of a drive shaft for each denominational order in common to all of the totalizers, connection between each drive shaft and the corresponding numeral wheels, and means individual to each drive shaft for imparting a varied movement thereto.

2. The combination with a plurality of totalizers each comprising a series of numeral wheels, of a totalizer shaft for each denominational order, common to the numeral wheels of all the totalizers of such order and upon which said numeral wheels are mounted for rotation, the totalizer drive shaft for each denominational order, gears common to each numeral wheel for creating a connection between the numeral wheels and the totalizer shafts, and a means for connecting said gears for operation with the drive shafts.



3. The combination with a plurality of totalizers each comprising a series of numeral wheels, of a totalizer shaft for each denominational order, common to the numeral wheels of all the totalizers of such order and upon which said numeral wheels are mounted for rotation, the totalizer drive shaft for each denominational order, normally inactive gears individual to each numeral wheel whereby said numeral wheels may be operated from the drive shafts, and means for simultaneously rendering the gears of each totalizer active for a calculation.

4. The combination with a plurality of totalizers each comprising a series of numeral wheels, of a totalizer shaft for each denominational order, common to the numeral wheels of all the totalizers of such order and upon which said numeral wheels are mounted for rotation, the totalizer drive shaft for each denominational order, normally inactive gears individual to each numeral wheel whereby said numeral wheels may be operated from the drive shafts, a connection between the gears and the drive shafts for rotating the numeral wheels upon the totalizer shafts for performing a calculation, and independent means for connecting said gears to said drive shafts for a carrying operation or transfer from one numeral wheel to another.

5. The combination with a plurality of totalizers each comprising a series of numeral wheels, of a totalizer shaft for each denominational order, common to the numeral wheels of all the totalizers of such order and upon which said numeral wheels are mounted for rotation, the totalizer drive shaft for each denominational order, normally inactive gears individual to each numeral wheel whereby said numeral wheels may be operated from the drive shafts, a connection between the gears and the drive shafts for rotating the numeral wheels upon the totalizer shaft for performing a calculation, and independent automatically operable means for connecting the gears to the drive shafts for effecting a transfer or carrying operation between the numeral wheels of a totalizer.

[Claims 6 to 74 not printed in the Gazette.]

1,208,289. GUN-BARREL-DRILLING MACHINE. FRED M. CARROLL, Dayton, Ohio, assignor of one-half to Edward S. Swift, New Haven, Conn. Filed Feb. 9, 1916. Serial No. 77,147. (Cl. 77—5.)

1. In a machine for drilling gun barrels and the like, the combination of a longitudinally movable drill-holding-bar having a longitudinal oil duct therein, of a cylinder surrounding said bar and a source of fluid pressure acting to simultaneously move said bar and feed fluid through said duct to the drill.



2. In a machine for drilling gun barrels and the like, the combination of a longitudinally movable drill-holding-bar having a longitudinal oil duct therein, of a cylinder surrounding said bar and a source of fluid pressure acting to simultaneously move said bar in one direction and feed oil through said duct to the drill, a second cylinder, a plunger therein connected to said bar and means for causing said fluid pressure to act upon said plunger to move said bar in the opposite direction.

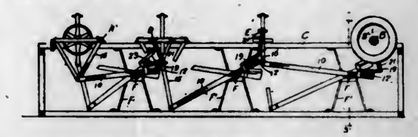
3. In a machine for drilling gun barrels and the like, the combination of a longitudinally movable drill-holding-bar having a longitudinal oil duct therein, of a cylinder surrounding said bar and a source of fluid pressure acting to simultaneously move said bar in one direction and feed oil through said duct to the drill, a second cylinder, a plunger therein connected to said bar and means for causing said fluid pressure to act upon said plunger to move said bar in the opposite direction, a valve controlling ports to both of said cylinders so that the cylinder containing said bar is always subjected to pressure when said bar is moving in either direction, one of said cylinders only being subjected to pressure from the source when said bar is moving in a rearward direction.

4. In a machine for drilling gun barrels and the like, the combination of a longitudinally movable drill-carrying-device, said device having a longitudinal oil duct substantially in line with said drill, and being provided with two piston surfaces facing in opposite directions, of a casing surrounding said device and means for supplying fluid pressure to both of said surfaces when said bar is moving in the forward direction and to one of said surfaces only when said bar is moving in the opposite direction, said pressure when the bar is moving in the forward direction acting to move said bar and simultaneously feed oil to the drill.

5. In a machine for drilling gun barrels, the combination of a longitudinally movable drill-holding-bar, having an oil duct substantially in line with said drill, said bar having a shoulder at its approximate center, a plunger connected to said bar and parallel therewith, cylinders surrounding said bar and said plunger respectively, the end of said plunger facing in the opposite direction from said shoulder, a source of fluid under pressure and means for connecting said source to both of said cylinders simultaneously and at other times with only the cylinder surrounding said bar.

[Claims 6 to 14 not printed in the Gazette.]

1,208,290. POWER-TRANSMISSION DEVICE. LEWIS RICHARD CARROLL, Charlotte, N. C. Filed Feb. 10, 1916. Serial No. 77,464. (Cl. 74—5.)



1. In a power transmission device of the character described, driving and driven shafts having cranks, and leverage connections therebetween including levers each of which is intermediately fulcrumed and provided at one end with an upright extension, and with spaced upstanding ears between its said fulcrum and its said extension, a pitman connecting the opposite end of said lever to a crank of one of said shafts, a link pivotally connected at

one end to said ears, and a pitman connecting the opposite end of said link to a crank of the other shaft, the said link overlying the said upright extension of the lever, for the purpose described.

2. In a power transmission device of the character described, driving and driven shafts having cranks, and leverage connections therebetween including levers each of which is intermediately fulcrumed and provided at one end with an upright extension, and with spaced upstanding ears between its said fulcrum and its said extension, a pitman connecting the opposite end of said lever to a crank of one of said shafts, a link pivotally connected at one end to said ears, a pitman connecting the opposite end of said link to a crank of the other shaft, the said link overlying the said upright extension of the lever, for the purpose described, and a spring controlled contact pin carried by the upper end of the said upright extension and initially engageable with the said link when the respective end of the lever is moved upwardly, to absorb the shock of contact between these parts.

3. In a power transmission device of the character described, driving and driven shafts having cranks, and leverage connections therebetween including levers, each of which is intermediately fulcrumed at a point adjacent one end and provided at its said end with an upright extension, a pitman connecting the opposite end of said lever to a crank of one of said shafts, a link pivotally connected at one end to said lever at a point between the fulcrum of the lever and its said upright extension, and overlying the latter, and a pitman connecting the other end of said link to a crank of the other shaft.

4. In a power transmission device of the character described, driving and driven shafts having cranks, and leverage connections therebetween including levers, each of which is intermediately fulcrumed at a point adjacent one end and provided at its said end with an upright extension, a pitman connecting the opposite end of said lever to a crank of one of said shafts, a link pivotally connected at one end to said lever at a point between the fulcrum of the lever and its said upright extension and overlying the latter, and a pitman connecting the other end of said link to a crank of the other shaft, said upright extension having an opening and a bore communicating with the opening, a screw plug closing the lower end of the bore, a vertically depressible pin extending through the said opening, the upper end of which projects exteriorly above the upper end of the said extension, and the lower end of which is provided with an enlargement disposed within the said bore, and a spring also disposed within the bore upon the said screw plug and bearing at its upper end against the lower face of the enlargement of the said pin, for the purpose described.

1,208,291. UNDERGARMENT. HORACE A. CARTER, Needham Heights, Mass. Filed Aug. 25, 1916. Serial No. 116,930. (Cl. 128—38.)

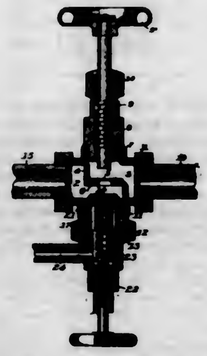


1. An undergarment having lower trunk, crotch and leg portions and trunk adjusting strips or tapes secured to the leg portions of the garment at the front thereof adjacent to the crotch portion and extending transversely of said garment and having opposed securing portions, by means of which the trunk portion of the garment may be adjusted to the proper height.

2. An undergarment having lower trunk, crotch and leg portions and one or more gusset portions at the crotch of the garment and a pair of trunk adjusting strips or tapes secured respectively to the leg portions adjacent the crotch portion of the garment at the front thereof and extending transversely of the garment and having opposed securing portions by means of which the trunk portion of the garment may be adjusted to the proper height.

3. An undergarment having lower trunk, crotch and leg portions and gussets 6, 7 at the crotch of the garment and provided with gores 15, 16 and trunk adjusting strips or tapes 19, 19' secured to the leg portions adjacent the crotch portion of the garment at the front of and extending transversely of the garment and having opposed securing portions by means of which the trunk portion of the garment may be adjusted to the proper height.

1,208,292. VALVE. GARNET W. COEN, San Francisco, Cal. Filed Jan. 26, 1916. Serial No. 74,356. (Cl. 67—115.)



1. The combination with a valve casing having an inlet opening connected with a source of fluid supply under pressure and an outlet opening connected with a service line, of a pair of passages in the valve casing having valve seats formed therein, one of said passages forming communication between the source of supply and the service line, and the other passage forming communication between the source of supply and a return, a valve interposed between the valve seats adapted to be normally actuated by the fluid under pressure to close the passage between the source of supply and the return, mechanical means within the casing for automatically projecting the valve against the opposite seat to shut off flow of liquid through the service line the moment the fluid pressure drops below a predetermined pressure, and means for positively retaining the valve on its seat to prevent the automatic operation described.

2. The combination with a valve casing having an inlet opening connected with a source of fluid supply under pressure and an outlet opening connected with a service line, of a pair of passages in the valve casing having valve seats formed therein, one of said passages forming communication between the source of supply and the service line, and the other passage forming communication between the source of supply and a return, a valve interposed between the valve seats adapted to be normally actuated by the fluid under pressure to close the passage between the source of supply and the return, means for automatically projecting the valve against the opposite seat to shut off flow of liquid through the service line the moment the fluid pressure drops below a predetermined pressure, and means for positively retaining the valve on its seat to prevent the automatic operation described, said means comprising a threaded valve stem adapted to be screwed down into engagement with the valve.

3. The combination with a valve casing having an inlet opening connected with a source of fluid supply under pressure and an outlet opening connected with a service line, of a pair of passages in the valve casing having valve seats formed therein, one of said passages forming communication between the source of supply and the service line, and the other passage forming communication between the source of supply and a return, a valve interposed between the valve seats adapted to be normally actuated by the fluid under pressure to close the passage between the source of supply and the return, means for automatically projecting the valve against the opposite seat to shut off flow of liquid through the service line the moment the fluid pressure drops below a predetermined pressure, said means comprising a spring engageable with the valve, means for increasing the tension of the spring to permit the valve to automatically close under varying pressures, and means for positively retaining the valve on its seat to prevent the automatic operation described.

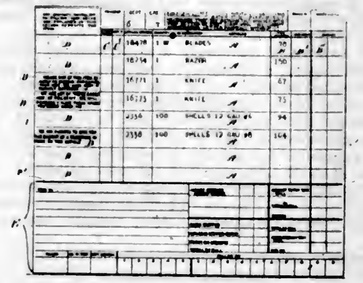
4. In combination, a valve casing having an inlet opening connected with a source of fluid supply under pressure and an outlet opening connected with a service line, of a passage in said casing between said source of supply and said service line, a valve seat in said passage, said casing being provided with an opening, a cup extension detachably fitting in said opening, said extension provided with a valve seat, a valve interposed between said seats normally actuated by the fluid under pressure to hold the valve on said cup extension seat to close the inner end of said cup extension, means for automatically projecting the valve against said passage seat to shut off the flow of liquid through the service line the moment the fluid pressure drops below a pre-determined degree, and to establish communication between said source of supply and said cup, and a return pipe communicating with said cup extension.

5. In combination, a valve casing having an inlet opening connected with a source of fluid supply under pressure and an outlet opening connected with a service line, of a passage in said casing between said source of supply and said service line, a valve seat in said passage, said casing provided with a hollow extension, a cup extension fitting within said hollow extension, a nut engaging said cup extension and screwing on the end of said hollow extension to hold said cup extension within said hollow extension, said cup extension provided with a valve seat, a valve interposed between said seats normally actuated by the fluid under pressure to hold the valve on said cup extension seat to close the inner end of said cup extension, means for automatically projecting the valve against said passage seat to shut off the flow of liquid through the service line the moment the fluid pressure drops below a predetermined degree and to establish communication between said source of supply and said cup, and a return pipe communicating with said cup.

[Claims 6 to 8 not printed in the Gazette.]

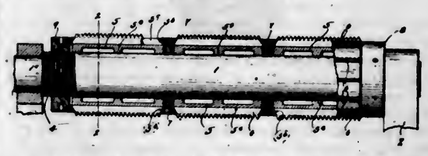
1,208,293. BILL AND CORRESPONDENCE SHEET. ALONZO E. COLE, Chicago, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed May 7, 1915. Serial No. 26,477. (Cl. 11—19.)

1. A combined bill and correspondence sheet provided with parallel horizontal lines to form spaces and means dividing said spaces into a plurality of vertical columns, said columns being provided with indicia defining the nature of the data to be entered therein respecting the items of the bill, said sheet being provided at one edge with a column of spaces of substantial size, there being a separate space for and coinciding with each item of the bill, said column having a heading indicating that said spaces are for general correspondence concerning the items alined with the respective spaces.



2. A combined bill and correspondence sheet divided into two general parts one of which is provided with parallel horizontal lines to form spaces and means dividing said spaces into a plurality of vertical columns, said columns being provided with indicia defining the nature of the data to be entered therein respecting the items of the bill, said part being provided at one edge with a column of spaces of substantial size, there being a separate space for and coinciding with each item of the bill, said column having a heading indicating that said spaces are for general correspondence concerning the items alined with the respective spaces, the other part of said sheet being separated from the first part by a division line and ruled to form spaces containing indicia directed generally to the whole order.

1,208,294. FEED-ROLLER FOR LUMBER-MACHINES. THOMAS A. COLEMAN, Vredenburgh, Ala., assignor to Peter Vredenburgh, Jr., Vredenburgh, Ala. Filed Apr. 5, 1915. Serial No. 19,418. (Cl. 144—250.)



1. In a feed roller, a shaft, a plurality of carriers mounted thereon and provided with longitudinal slots, engaging elements removably mounted in such slots, holding members disposed between the carriers and formed to engage the engaging elements to retain them in the slots, said holding members being provided with perimetrically arranged slots alining with the slots in the carriers and adapted to receive end portions of the engaging elements.

2. In a feed roller, a shaft, a pair of carriers relatively movable thereon and provided with longitudinal slots, a plurality of work engaging elements removably mounted in the slots on each carrier, a holding member disposed intermediate the carriers and adapted to engage engaging elements on both thereof to retain them in their mountings, said holding member being provided with peripheral slots adapted to accommodate end portions of engaging elements on both carriers.

3. A feed roller comprising a shaft, a pair of carriers relatively movable thereon, a plurality of longitudinally extending work engaging elements removably mounted on each carrier, a holding member disposed intermediate the carriers and adapted to engage engaging elements on both thereof to retain them in their mountings, the end portions of engaging elements on the respective carriers extending across the periphery of said holding member to provide uninterrupted work engaging members extending longitudinally of the roller.

4. In a feed roller, a shaft, carriers relatively movable thereon, engaging elements removably mounted on said carriers, and a movable clamping member disposed

intermediate the carriers and coöperating with the sloping extremities of engaging elements on both thereof in relationship such that pressure may be transmitted from engaging elements on one carrier to those on the other to urge them toward the shaft.

5. A feed roller comprising a shaft, carriers relatively movable thereon, a plurality of engaging elements removably mounted on each carrier, said engaging elements having beveled ends projecting beyond the adjacent end surface of the carriers upon which they are mounted, holding members disposed intermediate the carriers and adapted to engage the beveled ends of engaging elements on adjacent carriers, and clamping means operable to move said holding members and engaging elements longitudinally of the shaft whereby to force the engaging elements radially toward the shaft and clamp them in their mountings.

[Claims 6 and 7 not printed in the Gazette.]

1,208,295. WARPING APPARATUS. HOWARD D. COLMAN, Rockford, Ill., assignor to himself, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Filed May 27, 1912, Serial No. 699,902. Renewed Aug. 11, 1916. Serial No. 114,477. (Cl. 242—131.)



1. A warping apparatus having, in combination, a creel for supporting a plurality of yarn carriers, brakes to stop the yarn carriers, means for rotating a section beam to draw yarn from the yarn carriers, a roller arranged to bear against the yarn extending from the creel to the section beam, detectors arranged to cause stoppage of the beam, a weight for moving the roller to take up slack, a counterbalance weight, means for automatically connecting said counterbalance weight to said roller when the latter is forced by the tension of the threads out of slack-take-up position, said counterbalance weight being arranged to be automatically disconnected from the roller when a detector acts, and means actuated in the slack-take-up movement of the roller to cause application of the creel brakes.

2. A warping apparatus having, in combination, a creel for supporting a plurality of yarn carriers, brakes to stop the yarn carriers, means for rotating a section beam to draw yarn from the yarn carriers, a roller arranged to bear against the yarn extending from the creel to the section beam, detectors arranged to cause stoppage of the beam, means tending to move the roller to take up slack, means for partially counteracting said roller-moving means, said counteracting means being arranged to be rendered ineffective when a detector acts, and means actuated in the slack-take-up movement of the roller to cause application of the brakes.

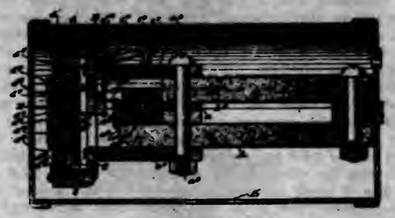
3. A warping apparatus having, in combination, a creel for supporting a plurality of yarn carriers, brakes to stop the yarn carriers, said brakes tending to move into "applied" position, means for holding the brakes in "released" position, means tending to withdraw the holding means, a roller bearing against the yarn extending from the creel, means tending to move the roller to take up slack, means for partially counteracting said roller-moving means, and means for rendering the counteracting means ineffective, said roller controlling the withdrawing means.

4. A warping apparatus having, in combination, a creel for supporting a plurality of yarn carriers, brakes to stop the yarn carriers, said brakes tending to move into "applied" position, means for holding the brakes in "released" position, a roller bearing against the yarn extending from the creel, means tending to move the roller to take up slack, means for partially counteracting said roller-moving means, means to render said counteracting means ineffective, and means actuated in the slack-take-up movement of the roller for withdrawing said holding means.

5. In a creel-braking mechanism, a brake-controlling lever having an "applied" and a "released" position, said lever tending to move into applied position, a rotatory wheel, means connected to said lever and adapted for connection to said wheel for moving said lever into released position, and means for holding said lever in released position.

[Claims 6 to 29 not printed in the Gazette.]

1,208,296. REPEATER. JOHN J. COMER, Chicago, Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 25, 1911. Serial No. 616,861. (Cl. 179—171.)



1. In a repeater, a differential microphone, provided with a central diaphragm electrode, a reproducing instrument provided with means for pneumatically operating said diaphragm, means for adjusting said diaphragm operating means with respect to said diaphragm, and means for adjusting said operating means independently of said diaphragm.

2. In a repeater, a microphone provided with a central diaphragm electrode, granular carbon at each side of the center of said diaphragm, a shallow chamber for air encircling one body of carbon, said diaphragm serving as one wall of said chamber, a second diaphragm for alternately compressing and rarefying the air in said chamber, to vibrate the first diaphragm, an electro-magnet provided with an armature, a connection between said armature and said second diaphragm, means for regulating said connection, to relatively adjust the diaphragms, and means for regulating the armature independently of said connection.

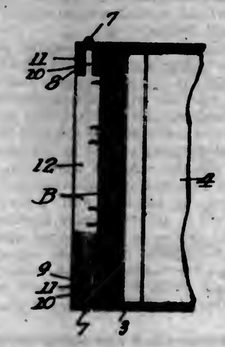
3. In a repeater, a diaphragm, a variable resistance box covering the middle portion of one side of said diaphragm, a ring lying in close proximity and substantially covering the exposed surface on the same side of said diaphragm, a second diaphragm so located that the vibrations of said second diaphragm will pneumatically operate said first diaphragm, an electromagnet, and adjustable connections from the armature of said electromagnet to said second diaphragm.

4. In a repeater, a pair of diaphragms forming a closed air space between them, a variable resistance box mounted on each side of and covering the central portion of one of said diaphragms, a ring lying adjacent to one side of said last-mentioned diaphragm and substantially covering the exposed portion thereof, an electromagnet, and connections from the armature of said electromagnet to the other of said diaphragms.

5. In a repeater, a pair of diaphragms forming a closed air space between them, a variable resistance box covering the central portion of one of said diaphragms, a ring lying adjacent to one side of said last-mentioned diaphragm and substantially covering the exposed portion thereof, an electromagnet, and connections from the armature of said electromagnet to the other of said diaphragms, said connections consisting of a lever pivoted at one end, a link connecting the opposite end of said lever to said other diaphragm, and a connection from an intermediate point on said lever to said armature.

[Claim 6 not printed in the Gazette.]

1,208,297. BOX AND PROCESS OF MANUFACTURE THEREOF. EDWARD CRAIG, St. Joseph, Mich. Filed Apr. 24, 1916. Serial No. 93,066. (Cl. 217—12.)



1. A foldable box-blank comprising a plurality of box-side-sections composed of sheet-material and flexibly connected together by binding-members extending parallel on the outer surface of the blank and beyond the end thereof and having only one but not all of said box-side-sections provided with cleats on the inner surface of the box-blank.

2. A foldable box-blank comprising a plurality of box-side-sections composed of sheet-material and flexibly connected together by binding-members extending parallel on the outer surface thereof and having some but not all of said box-side-sections provided with cleats on the inner surface of the box-blank, said cleat-reinforced-box-side-sections being two in number, and there being the same number of box-side-sections which are not thus reinforced, and said cleats having their opposite ends even with the edges of the sheet-material.

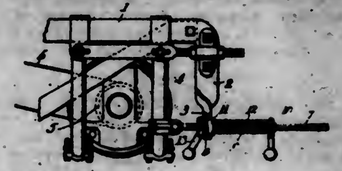
3. A foldable box-blank comprising a plurality of box-side-sections composed of sheet-material and flexibly connected together by binding-members extending parallel on the outer surface thereof and having some but not all of said box-side-sections provided with cleats on the inner surface of the box-blank, said cleat reinforced-box-side-sections being two in number, and there being the same number of box-side-sections which are not thus reinforced, and said cleats having their opposite ends even with the edges of the sheet-material, said box-side-sections being spaced apart to allow the edges thereof to overlap at the corners of the box in the manner shown and described.

4. Means to form a cleat-reinforced-box, comprising a foldable blank having only two of the box-side-sections thereof reinforced by cleats, and box-ends having cleats for attachment to the box-side-sections which are not thus reinforced.

5. Means to form a cleat-reinforced-box, comprising a foldable blank having only two of the box-side-sections thereof reinforced by cleats, and box-ends having cleats for attachment to the box-side-sections which are not thus reinforced, said box-side-sections comprising sheet-material the edges of which are even with the opposite ends of said cleats thereof, and said box-ends comprising sheet-material the edges of which are flush with the ends and outer sides of the cleats secured thereto.

[Claims 6 to 19 not printed in the Gazette.]

1,208,298. TENSION-LIMIT FOR SPRINGS. LOUIS S. CUNNY, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light and Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Apr. 17, 1914. Serial No. 832,497. (Cl. 64—52.)



1. In combination, a movably mounted generator, a belt for driving said generator, means for placing said belt under tension, and means for limiting the amount of tension that can be applied to said belt.

2. In a generator suspension, a tension rod, a relatively fixed support therefor, a spring carried by said rod, means for placing said spring under tension, and means for limiting the amount of tension that can be applied to said spring.

3. In a generator suspension, a tension rod, a spring carried thereby, means for placing said spring under tension, and means for limiting the amount of tension that can be applied to said spring.

4. In a generator suspension, a tensioning member, a relatively fixed support therefor, a spring carried by said member, and a sleeve for limiting the amount of tension that can be applied to said spring.

5. A generator suspension for an axle driven generator including a movably mounted frame for supporting the generator on the car, a relatively fixed member in proximity thereto, a tension member connected to said movable frame, an adjustable spring confined between said relatively fixed member and an adjustable portion of said tension member, an abutment on said tension member, and a rigid member adjacent said tension member and confined between said abutment and said adjustable portion to limit the amount of tension which may be applied to said spring.

1,208,299. BLOCK-MOLD. WILLIS L. CUTLER, Legrand, Iowa, assignor of one-half to Frank R. Ensminger, Gilman, Iowa. Filed Dec. 27, 1915. Serial No. 68,846. (Cl. 25—121.)



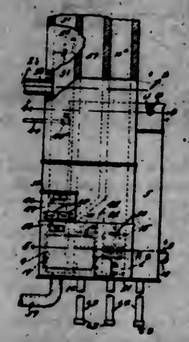
1. In a device of the class described, the combination of a mold box with a core member comprising an upper wall inclined from the side of the mold box downwardly and inwardly, a central, vertical wall, a lower wall inclined from said central wall downwardly and outwardly, and an upwardly and inwardly inclined brace member.

2. In a device of the class described, the combination of a mold box with a core member comprising an upper wall inclined from the side of the mold box downwardly and inwardly, a vertical wall, a lower wall inclined from said vertical wall downwardly and outwardly, an upwardly and inwardly inclined brace member, said core member being provided with registering slots in the upper and the vertical wall members and in the lower and the vertical wall members.

3. In a device of the class described, the combination of a mold box with a pair of cores each comprising an upper wall extending from the side of the mold box inwardly to the center of the mold box, a vertical wall, and a lower wall extending from the lower edge of said vertical wall laterally to the side of the mold box, the vertical walls

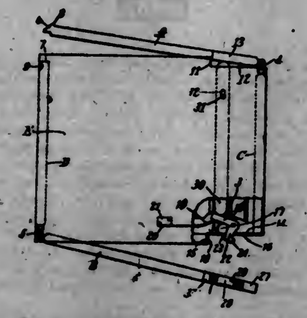
of said mold members being arranged adjacent to each other, and clips for securing the ends of said vertical walls together.

1,208,300. HEATING-SYSTEM ATTACHMENT FOR RANGES. ROBERT DE POLO, Connellsville, Pa. Filed June 30, 1916. Serial No. 106,849. (Cl. 126—6.)



In a heating system of the kind set forth, the combination of a range or stove and a casing constructed to the rear and as a part of said range, of a water chamber in the upper part of the extreme back portion of said casing, said casing having a chamber at its lower part in communication with the fire pot of the range, said casing having a flue extending direct from said chamber to and in communication with the atmosphere, said casing having a second flue in communication with said chamber merging into an upwardly and downwardly zigzag flue having several bends under the water chamber, and terminating in a chamber in the lower part of said casing, said chamber in the lower part of said casing having a port of communication with the first flue, said first flue where it merges from its chamber having a damper, to be opened or closed, whereby the heat may either pass through the first flue or the second and zigzag flues, said last named chamber where it has a port of communication with the first flue having a damper, to be opened when the first damper is closed and vice versa.

1,208,301. SHIPPING-CASE. WILLIAM H. DOBLE, Quincy, Mass., assignor of one-fourth to Pneumatic Scale Corporation, Limited, Quincy, Mass., a Corporation of Maine. Filed May 31, 1916. Serial No. 100,758. (Cl. 220—17.)



1. A box having a drop bottom, means for normally retaining said drop bottom in a closed position, a cover for the top, and means controlled by said cover in its closed position to retain said bottom locking means in operative position.

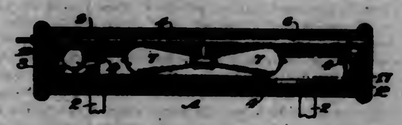
2. A box having a cover, a drop bottom, means for locking said drop bottom in a closed position, means tending to release said bottom locking mechanism, and intermediate mechanism controlled by the cover in its closed position to hold said releasing mechanism in restraint, said restraining mechanism being released by the opening of the cover.

3. A box having a cover, a drop bottom, locking mechanism mounted within two opposite side walls of the box and projecting down through the lower edge of said side walls, said bottom being slotted to receive the said downwardly projecting lock mechanism and having coöperating means to be engaged by said locking mechanism whereby the said bottom is locked in closed position, means which tend to release said locking mechanism when the cover is open, and means controlled by the cover in its closed position to retain said locking mechanism in locking engagement with said bottom.

4. A box having front and rear walls, two opposite side walls, a drop bottom hinged on one edge to said front wall, a cover hinged to the upper edge of said rear wall, each of the said two side walls having pivoted therein a bell crank dog having one arm which extends down through a slot in the lower edge of the wall in which it is mounted, the bottom being slotted on its inner face and having a socket member which is adapted to be engaged by a tooth on the downwardly projecting arm of said dog to lock said bottom to the side wall, means which normally hold said dog in the disengaged position with relation to the socket member in said bottom when the cover is open, and intermediate mechanism engaged by said cover which, when the cover is closed, holds said dog in locking engagement with the bottom and which is released to permit the dog to be disengaged when the cover is opened.

5. A box having front and rear walls, two opposite side walls, a drop bottom hinged on one edge to the front wall, a cover hinged to the upper edge of said rear wall, a dog pivotally mounted in each of said side walls having one arm which extends down through the lower edge of the wall in which it is mounted and into a slot in the bottom panel, a coöperating member in said slot with which said dog is adapted to engage to lock the said bottom in closed position, a vertically slidable member mounted in said side wall, the lower end of said slidable member engaging with said dog, the upper end being engaged by said cover, and tension means which tends to unlock said dog and lift the slidable member, said unlocking mechanism being rendered inoperative by the downward pressure of the cover in closed position and being rendered operative when the cover is raised to release the pressure.

1,208,302. VEHICLE SIGNALING DEVICE. ROBERT F. DURYEA, San Francisco, Cal. Filed Dec. 29, 1915. Serial No. 69,196. (Cl. 40—52.)

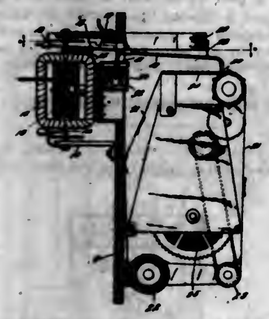


In a vehicle signaling device, a cylindrical casing having closed ends and sight openings in its periphery, an inner cylinder having its ends closed and spaced from the ends of the casing to form end compartments, longitudinally arranged shafts fixed to the casing ends and rotatably supporting the inner cylinder, cylinder-rotating means arranged in one end compartment, between one end of the casing and the adjacent end of the cylinder, the ends of the cylinder being formed with arcuate slots arranged in proximity to the periphery of the cylinder, a source of light arranged in the other end compartment between the opposite ends of the casing and cylinder and visible through one of the sight openings, the adjacent closed end of the cylinder preventing the passage of light rays from said source of light into said cylinder, a source

of light disposed in the cylinder and visible through another sight opening, and a tubular member fixed to each of the ends of the casing and passing through the arcuate slots of the ends of the inner cylinder to serve as a steadying means for the latter, said tubular member also having both sources of light connected thereto and constituting the sole support for the sources of light aforesaid.

1,208,303. [WITHDRAWN.]

1,208,304. DEAD-BEAT RECORDING INSTRUMENT. JOHN W. ESTEBLINE, Indianapolis, Ind. Filed Jan. 31, 1916. Serial No. 75,197. (Cl. 234—5.5.)



1. In a recording instrument, the combination of a pen mounted for movement relative to a record sheet, said pen being pivotally mounted so as to be also movable toward and from the record-sheet, an ink well, a feed tube supplying said pen and extending into said ink well and movable therein as the pen is moved, said feed tube where it extends into said ink well being provided with a paddle which moves with it and by the resistance offered by the ink in the ink well serves to damp the vibrations of the pen.

2. In a recording instrument, the combination of a pen mounted for movement relative to a record sheet, an ink well, a feed tube supplying said pen and extending into said ink well and movable therein as the pen is moved, said feed tube where it extends into said ink well being provided with a paddle which moves with it and by the resistance offered by the ink in the ink well serves to damp the vibrations of the pen.

3. In a recording instrument, the combination of a pen mounted for movement relative to a record sheet, said pen being pivotally mounted so as to be also movable toward and from the record sheet, an ink well, a feed tube supplying said pen and extending into said ink well and movable therein as the pen is moved, said feed tube where it extends into said ink well being provided with a paddle which moves with it and by the resistance offered by the ink in the ink well serves to damp the vibrations of the pen, said pen being so balanced at its pivotal support for movement toward and from the record sheet that the weight of the ink in the feed tube serves to hold the pen against the record sheet.

4. In a recording instrument, the combination of a pivotally mounted movable element, a pen carried by said movable element for movement thereby relative to a record sheet, an ink well, a feed tube carried by said movable element for movement therewith and extending into said ink well and supplying said pen, said feed tube being provided where it extends into the ink well with a paddle which is resisted in its movements by the ink so as to serve to dampen the movements of said movable element.

5. In a recording instrument, the combination of a pivotally mounted movable element, a pen carried by said movable element for movement thereby relative to a record sheet, said pen being pivotally mounted on said movable element on an axis transverse to the axis of the latter so as to be movable toward and from said record sheet, an ink well, a feed tube carried by said movable element for movement thereby and extending into said ink well and supplying said pen, said feed tube being provided where it extends into the ink well with a paddle which is resisted in its movements by the ink so as to serve to dampen the movements of said movable element.

[Claims 6 to 9 not printed in the Gazette.]

1,208,305. VAPOR-RECTIFIER. SIDNEY W. FARNSWORTH, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 30, 1914. Serial No. 828,197. (Cl. 175—354.)



1. In vapor electric apparatus, the combination with an electrode, of an arc-controlling barrier for limiting the area of arc activity thereupon, said barrier comprising a plurality of substantially concentric rings and each of said rings comprising a plurality of insulating members.

2. The combination with an electrode, of shielding means for restricting the active arc zone, said means affording indirect communication between the active and inactive portions of the electrode along the electrode surface.

3. In vapor electric apparatus, the combination with a liquid electrode, of an arc-controlling barrier partially submerged therein and comprising a plurality of members of refractory insulating material, and means for preventing the arc from impinging upon the electrode in proximity to the refractory members.

4. In vapor electric apparatus, the combination with a liquid electrode, of an arc-controlling barrier partially submerged therein and comprising a plurality of members of refractory insulating material, and a shield for the meniscus formed between the refractory members and the material of the electrode.

5. In vapor electric apparatus, the combination with a liquid electrode, of an arc-controlling barrier partially submerged therein and comprising a plurality of members of refractory insulating material, and a shield for the portion of the electrode in proximity to the refractory members, said shield also supporting the refractory members in fixed relation.

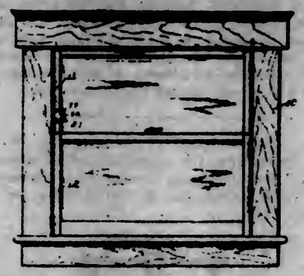
[Claims 6 to 10 not printed in the Gazette.]

1,208,306. [WITHDRAWN.]

1,208,307. WINDOW-LOCK DEVICE. HENRY J. FRITZ, Des Moines, Iowa. Filed Jan. 31, 1916. Serial No. 75,317. (Cl. 16—18.)

In a window lock, a pair of plates having adjacent edges provided with alined knuckles, arranged to alternate with each other, a pintle received in said knuckles, and projecting above the upper knuckle, said pintle and knuckles having coacting means for locking the plates against hinged movement with relation to each other when in one of their positions, one of said plates being designed to be secured to the upright member of the frame of a window sash, and having at its lower edge an outwardly extending flange, the other of said plates having at its lower edge a laterally extending flange, a portion

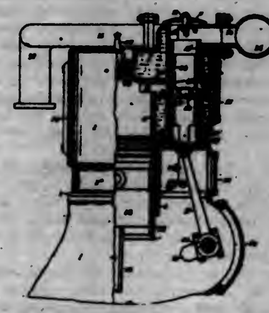
of which stands below the lower end of the pintle, and a portion of which is designed to overlap the first flange



to prevent access to the edge of the second flange from below for swinging the last mentioned hinged plate.

1,208,308. INTERNAL-COMBUSTION ENGINE. CLIFFORD S. GOBY, Cleveland, Ohio, assignor to The Engine Holdings Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 24, 1910. Serial No. 568,612. (Cl. 123—59.)

1. In an internal combustion engine, the combination of a plurality of cylinders, a cylindrical valve chamber for



each cylinder having a port intermediate of its ends communicating with its cylinder and having an open bottom and extending substantially parallel with each cylinder, a plate through which the bottoms of said valve chambers extend, a chamber beneath said plate, a shaft in the latter chamber, a tubular valve slidably mounted in each valve chamber and having a port intermediate of its ends adapted to register with the corresponding port of its valve chamber, means connecting said valves with said shafts, an abutment in each valve extending across the bore thereof beneath the port in said valve, and a ring threaded in the lower end of each valve chamber and adapted to bear against the lower surface of the plate.

2. In an internal combustion engine, the combination of a plurality of cylinders, a valve casing extending substantially parallel with each cylinder and having a port communicating with its cylinder, a plate through which the bottoms of said casings extend, a chamber beneath said plate, a shaft in said chamber, a tubular valve slidably mounted in each of said valve casings and each having a port adapted to register with its valve casing port, means connecting said valves with said shaft, and an abutment in each valve extending across the interior thereof and arranged to prevent the gases flowing through its port from passing into the chamber beneath the plate.

3. In an internal combustion engine, the combination of a cylinder, a valve casing separate from the cylinder and having a port adapted to communicate with the cylinder, a tubular valve longitudinally movable in said casing and having a port in its wall adapted to register with the casing port, an abutment in said valve at one side of the port thereof, and a pivotal support for said abutment.

4. In an internal combustion engine, the combination of a cylinder, a valve casing separate from the cylinder and having a port adapted to communicate with the cylinder, a tubular valve longitudinally movable in said casing and having a port in its wall adapted to register with the casing port, a tubular liner within the valve and having a port adapted to register with the former ports and provided with an abutment at one side of its port, and a pivotal support for said liner.

5. In an internal combustion engine, the combination of a cylinder, a valve casing separate from the cylinder and having a port adapted to communicate with the cylinder, a tubular valve longitudinally movable in said casing and having a port in its wall adapted to register with the casing port, a tubular liner within the valve and having a port adapted to register with the former ports and provided with an abutment at one side of its port, an arm connected to said liner, and means pivotally anchoring said arm.

[Claims 6 to 14 not printed in the Gazette.]

1,208,309. PLANTER. FELIX G. GREEN, Sedalia, Mo. Filed June 6, 1916. Serial No. 102,084. (Cl. 111—6.)



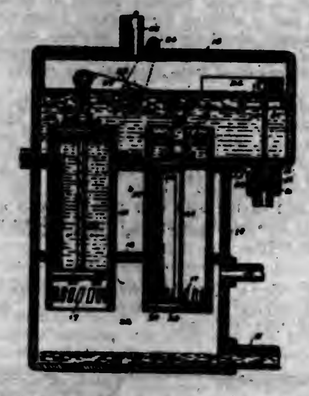
1. In a planter, the combination with a frame supporting wheels therefor, of grain carrying boxes on said frame, of a shaft extending transversely through said boxes, cups attached to said shaft adapted to be rotated through the boxes, a tube at one end of each box, inclined guards to cause the contents of the cups to descend into said tube, said guards having openings for the passage of said cups, spring pressed hingedly mounted plates below said openings to prevent the passage of the contents of the cups through said openings, a trap in each tube to stop the descent of the contents of the cup at a point within the tube, trip arms carried by said shaft, and a trip lever connected to said trap and operated by said arms to release the contents of the cup and permit the same to descend through said tube.

2. In a planter, the combination with a frame, of a pair of grain carrying boxes on said frame, slotted inclined guards in said boxes, a shaft extending transversely of the frame and through said boxes, each end of said shaft having a plurality of spokes attached thereto, said spokes being adapted to rotate said shaft, cups removably secured to the shaft and adapted to rotate through said boxes and through the slots in said guards, a tube at the forward end of each box, hingedly mounted below said slots, springs to normally hold said plates adjacent the guards to convey the contents of the cups into said tube, a trap pivoted in each tube, and means to intermittently operate the trap to permit the contents of the cup to descend through the tube.

3. In a planter, a pair of boxes, a shaft extending through said boxes, means to cause said shaft to rotate, a tube at one end of each box, cups attached to said shaft and adapted to rotate therewith to carry the contents of the box to a position to be deposited in the tube, a tilting trap to stop the descent of the contents of the cup at a point adjacent the upper end of the tube, a plurality of trip arms carried by said shaft and a trip lever attached to said trap and operated by said trip arms to intermittently tilt the trap to permit the contents of the cup to descend through the tube.

4. In a planter, the combination with a pair of boxes having a partition disposed in each box and dividing each box into two compartments, a common discharge tube for both of said compartments, a trap arranged in each discharge tube, a shaft extending through said boxes, radial arms projecting from said shaft in each of said compartments, and a grain cup carried by each arm, of a guard attached at one end to one end wall of each compartment, said guards extending upwardly and inwardly at an angle in each compartment and in the path of said arms and cups, each guard having a slot for the passage of said arms and an opening for the passage of said cups, and a plate hingedly mounted below each of said guards adapted to normally cover the opening in the guard, each pair of guards adapted to discharge the contents of said cups on to the trap in the adjacent tube for simultaneous delivery.

1,208,310. BOILER-FEEDER. JOHN A. GUNN, Des Moines, Iowa. Filed Sept. 21, 1914. Serial No. 862,848. (Cl. 137—101.)



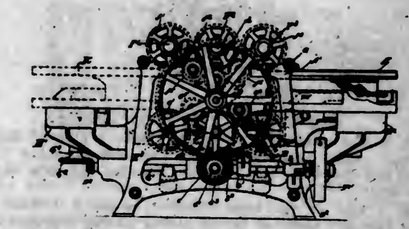
1. In a device of the class described, a pair of vertical, hollow cylinders each having a plurality of openings in its upper wall and in its lower wall, a pair of pistons in each cylinder connected together, and so spaced that when the pistons are at their upward limit of movement the upper piston is above the upper openings and the lower piston is above the lower opening, and when at their lower limit of movement the upper piston is below the upper openings and the lower piston is below the lower openings, and when in an intermediate position both pistons are between the upper and lower openings.

2. In a device of the class described, a shell, a tube communicating with the lower interior of the shell and designed to communicate with the boiler, a tube communicating with the shell at a point above the bottom thereof and designed to communicate with the boiler, a pair of parallel vertical cylinders mounted in the upper portion of said shell and extending to a point above the shell, a tank surrounding the upper ends of said cylinders, piston rods mounted in said cylinders, pistons on the opposite ends of the rod in each cylinder, and a reciprocating lever operatively connected with the pistons in each cylinder and pivoted at a point between them, said cylinders being provided with openings at their upper and lower ends adapted to be passed by the upper and lower pistons respectively in each cylinder during a complete stroke of the pistons in each cylinder.

3. In a device of the class described, a pair of vertical cylinders arranged in parallel relation, the lower ends of said cylinders being adapted to be in communication with the boiler, a supply tank communicating with the upper ends of said cylinders, a piston stem in each cylinder, pistons at each end of each stem designed to reciprocate in said cylinders, and means for operatively connecting said pistons for alternate reciprocation.

4. In a device of the class described, a pair of vertical cylinders arranged in parallel relation, the lower ends of said cylinders being adapted to be in communication with the boiler, a tank communicating with the upper ends of said cylinders, a piston stem in each cylinder, pistons at each end of each stem designed to reciprocate in said cylinders, means for operatively connecting said stems for alternate reciprocation of said pistons in the respective cylinders said cylinders being provided with openings in their walls near each end, said parts being arranged so that in one of their positions, the pistons of one cylinder are both below the openings of the cylinder, and in another position the pistons are both between the openings of the cylinder and in still another position both pistons are above the openings of the cylinder.

1,208,311. IRONING-MACHINE. WILLIAM R. HAGER, Chicago, Ill. Filed May 24, 1915. Serial No. 30,087. (Cl. 68—9.)



1. In a machine of the character described, the combination with a board for supporting an article to be operated upon by the machine, of an adjustable form projecting from the surface of said board, a member adapted to engage the article supported on the surface of said board and having a recess therein to receive said form, mechanism for relatively moving said board and member into coöperative relation, and means for simultaneously adjusting said form and said mechanism to register said form with the recess in said member.

2. In a machine for ironing shirt bosoms, the combination with a board for supporting a shirt, of an adjustable neck band support mounted upon said board, an ironing member having a recess therein to receive said neck band support, mechanism for relatively moving said board and said member into coöperative relation, and means for simultaneously adjusting said neck band support and said mechanism to register said neck band support with said recess.

3. In a machine for ironing shirt bosoms, the combination with a board for supporting a shirt, of an adjustable neck band support mounted upon said board, a rotating ironing cylinder having a recess therein, mechanism for moving said board into coöperative relation with said cylinder, and means for simultaneously adjusting said neck band support and said mechanism to register said neck band support with the recess in said cylinder.

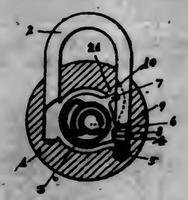
4. In a machine of the character described, the combination with a board for supporting an article to be operated upon by the machine, of an adjustable form projecting from the surface of said board, a member adapted to engage the article supported on the surface of said board having a recess therein to receive said form, a rack-bar adjustably secured to said board, a gear-wheel for engaging said rack-bar to move said board into engagement with said member, and means for simultaneously adjusting said form and said rack-bar relatively to said board to so regulate the engagement of said board with said member as to register said form with said recess.

5. In a machine of the character described, the combination with a board for supporting an article to be operated upon by the machine, of an adjustable form projecting from the surface of said board, a member adapted to engage the article supported on the surface of said board having a recess therein to receive said form, a rack-bar adjustably secured to said board, a gear-wheel for engaging said rack-bar to move said board into engagement with said member, means for simultaneously adjusting said form and said rack-bar relatively to said board to so regulate the engagement of said board with

said member so to register said form with said recess, and conveying means for moving said board into position for said gear-wheel to engage said rack-bar.

[Claims 6 to 17 not printed in the Gazette.]

1,208,312. LOCK. GEORGE B. HAWBY, Los Angeles, Cal. Filed May 24, 1916. Serial No. 99,673. (Cl. 70—113.)



1. A lock comprising a casing, a dial, a grooved disk, a ball placed between the dial and disk engaging the dial and the disk, and a locking member engaging with the disk.

2. A lock of the type described having a casing, a dial turnably mounted in the casing having a groove in the inner surface radially positioned, a disk concentrically below the dial turnably mounted and having a combination of grooves joining at certain points, a ball inserted between the dial and the disk adapted to be moved by the dial along the combination grooves in the disk to a stopping point engaging the disk and the dial, and a locking member engaging with the disk.

3. A lock of the type described, consisting of a casing having a chamber therein, a disk turnably mounted in the chamber of said casing having a combination of grooves provided in the upper surface, a locking stop formed at a suitable place on the disk, a corresponding member inserted into the casing adapted to engage with the locking stop of the disk, a dial turnably mounted concentrically above the disk and closing the chamber of the casing, a groove formed radially on the inner surface of the dial, and a ball placed between the disk and the dial designed to fit in the combination grooves of the disk and the radially positioned groove in the dial adapted to be operated by the dial to disengage said locking stop and said member.

4. A lock of the type described, consisting of a casing having a chamber therein, a disk turnably mounted in the chamber of said casing, a combination of grooves formed in the upper surface of the disk being joined so as to form a single stopping end, a locking stop formed at a suitable place on the disk, a corresponding member inserted into the casing having a circular recess near the innermost end adapted to engage with the locking stop of the disk, a dial turnably mounted concentrically above the disks and closing the chamber of the casing, a groove formed radially in the inner surface of the dial, a groove formed longitudinally in the inserted end of said member adapted to prevent the closing of the lock except when turned into the correct position, and a ball placed between the disk and the dial designed to fit in the combination grooves of the disk and the radially positioned groove in the dial, said combination grooves formed to allow the ball to roll in the desired direction when holding the lock in a certain position only.

5. A lock of the type described, consisting of a casing, a disk turnably mounted in the casing, a combination of grooves formed in the upper surface of the disk, a locking stop formed at a suitable place on the disk, a corresponding member inserted into the casing adapted to engage with the locking stop, a dial turnably mounted above the disk and closing the casing, a groove formed radially in the inner surface of the dial, a ball placed between the disk and the dial fitting in the grooves, and a spring placed against a suitable part of the disk adapted to require a push against the inserted member to open the lock.

1,208,313. SURGICAL BANDAGE. WALTON HAYDON, Marshfield, Oreg. Filed July 6, 1916. Serial No. 107,798. (Cl. 128—8.)

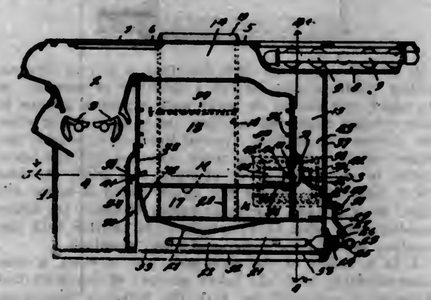


1. A roll of surgical bandage, having an adhesive tab upon one end, a strip of waxed paper connected to the tab and wound about the roll of bandage, both ends of the roll of bandage having coatings of wax, whereby the bandage is prevented from unrolling too rapidly as it is used.

2. A roll of surgical bandage, having a strip of waxed paper attached to one end of the bandage and wound about the roll, said roll of bandage having both ends provided with coatings of wax, whereby the bandage is prevented from unrolling too rapidly as it is used.

3. A roll of surgical bandage provided with a paper covering and having both ends provided with a coating of wax, to prevent the bandage from unrolling when applying the same.

1,208,314. COAL AND GAS RANGE. GEORGE E. HEIDBREDER, Quincy, Ill. Filed Sept. 14, 1916. Serial No. 120,124. (Cl. 126—36.)



1. In a coal and gas range, the combination of a range casing having a fire-pot and an oven, of a flue extending from the fire-pot over the oven and down and under said oven and provided with an exhaust flue, a burner space under the flue which extends under the oven, a burner in said space, said burner space having upwardly extending flues, one at each end, in communication with the oven, and means of communication between the oven and that portion of the first flue which extends down adjacent one end of the oven.

2. In a coal and gas range, the combination of a range casing having a fire-pot and an oven, of a flue extending from the fire-pot across the top of the oven and down adjacent one end and under the oven and terminating in an exhaust flue, a burner space under that portion of the flue under the oven and provided with flues, one at each end, in communication with said oven, a burner in said space provided with a gas cock, a space of communication between the back portion of the oven and the downwardly exteading part of the first flue, a damper controlling said communication between the oven and the downwardly extending part of the first flue.

3. In a coal and gas range, the combination of a range casing having a fire-pot and an oven, of a flue extending from the fire-pot across the top of the oven and down adjacent one end and under the oven and terminating in an

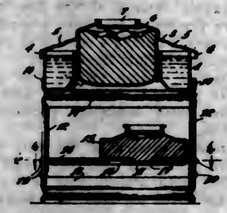
exhaust flue, a burner space under that portion of the flue under the oven and provided with flues, one at each end, in communication with said oven, a burner in said space provided with a gas cock, a space of communication between the back portion of the oven and the downwardly extending part of the first flue, a damper controlling said communication between the oven and the downwardly extending part of the first flue, and a connection between said damper and the gas cock whereby the gas cock and the damper may be operated simultaneously.

4. In a coal and gas range, the combination of a range casing having a fire-pot and an oven, of a flue extending from the fire-pot across the top of the oven and down adjacent one end and under the oven and terminating in an exhaust flue, a burner space under that portion of the flue under the oven and provided with flues, one at each end, in communication with said oven, a burner in said space provided with a gas cock, a space of communication between the back portion of the oven and the downwardly extending part of the first flue, a damper controlling said communication between the oven and the downwardly extending part of the first flue, and a deflector plate secured to the bottom sheet of the flue that extends under the oven, for deflecting the heat from the burner into the flues at opposite ends of said burner space.

5. In a coal and gas range, the combination of a range casing having a fire-pot and an oven, of a flue extending from the fire-pot across the top of the oven and down adjacent one end and under the oven and terminating in an exhaust flue, a burner space under that portion of the flue under the oven and provided with flues, one at each end, in communication with said oven, a burner in said space provided with a gas cock, a space of communication between the back portion of the oven and the downwardly extending part of the first flue, a damper controlling said communication between the oven and the downwardly extending part of the first flue, a deflector plate secured to the bottom sheet of the flue that extends under the oven, for deflecting the heat from the burner into the flues at opposite ends of said burner space, and a connection between said damper and the gas cock whereby the gas cock and the damper may be operated simultaneously.

[Claims 6 to 9 not printed in the Gazette.]

1,208,315. FUMIGATING APPARATUS. SANDFORD M. HEXTER and FRANCIS E. STEWART, Cleveland, Ohio, assignors to The Hexter-Stewart Corporation, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 17, 1916. Serial No. 91,553. (Cl. 167—3.)



1. In disinfecting apparatus an upright circular support, an annular chamber adapted to rest upon said support, a medicament receptacle adapted to fit in said chamber and having a laterally extending portion adapted to rest either on the top of said chamber or on the top of said support, a heating device carried by said support, and means for holding said heating device so as to operate upon said receptacle alone or said receptacle and chamber simultaneously as desired.

2. In a device of the character described, a liquid receiving chamber, a medicament receptacle adapted to fit against a wall of said chamber, a heating device, and a support, said support being adapted to hold either said receptacle alone or said receptacle and chamber together and having provisions whereby said heating device may be devoted to said receptacle alone or to said chamber and receptacle jointly.

3. In a device of the character described, an annular liquid receiving chamber, a medicament receptacle supported within the opening of the inner wall thereof and spaced from said wall to define a narrow passageway, and a vaper fuel burner located beneath said receptacle.

1,208,316. [WITHDRAWN.]

1,208,317. LOOSE-LEAF DEVICE. CHARLES A. HOSKINS, Chicago, Ill., assignor to Automatic Utilities Co., a Corporation of Illinois. Filed Sept. 17, 1909. Serial No. 518,228. (Cl. 129—16.1.)



1. In a device of the character described, the combination with a casing having a plurality of cards therein, of a plurality of rods for displacing one or more cards from normal position, a roller mounted in the end of each displacing rod, a guide for said roller consisting of a metal plate provided with a plurality of vertical grooves fitting to the rollers on the ends of the bars.

2. In a device of the character described the combination with a casing of a plurality of cards therein, a plurality of card displacers, a plurality of keys secured to pins mounted in the front wall of the casing, operatively connected to and adapted to elevate the card displacers, spring actuated means to hold the displacers normally on the bottom of the casing, a plurality of rollers mounted in the ends of the displacers, a plate secured to the inside of the rear wall of the casing having a plurality of guide channels formed therein fitted to and coinciding with the rollers on the ends of the displacers.

3. In a device of the character described, the combination with a casing of a plurality of cards therein, a plurality of card displacers, a plurality of keys secured to pins mounted in the front wall of the casing, operatively connected to and adapted to elevate the card displacers, means to provide a graduated spring pressure for holding the displacers normally on the bottom of the casing and increasing the tension on them as they are elevated.

4. A device of the character described, comprising a casing, a plurality of longitudinally movable bars, mounted in said casing, a plurality of rollers in said bars upon which they roll, and a plurality of rising bars connected thereto whereby the longitudinal movement of the first bars operates to elevate the rising bars.

5. A device of the character described, comprising a casing, a plurality of longitudinally movable bars, mounted in said casing, a plurality of rollers in said bars upon which they roll, a plurality of rising bars connected thereto whereby the longitudinal movement of the first bars operates to elevate the rising bars, and a roller mounted upon the inner end of each of the rising bars.

[Claims 6 to 21 not printed in the Gazette.]

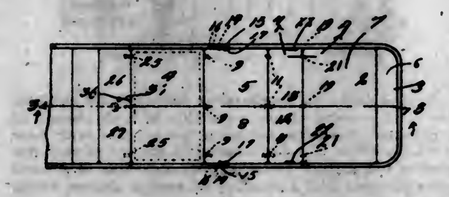
1,208,318. STROPPING DEVICE FOR SAFETY-RAZOR BLADES. HUGO HORNICK, Rochester, N. Y. Filed July 9, 1914. Serial No. 849,942. (Cl. 30—25.)



A stropping device comprising a handle, a pair of blade clamping members supported at one end of the handle and having their longitudinal axes extending in the direc-

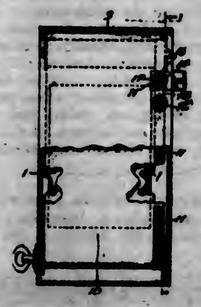
tion of the length of the handle to receive a blade between them, the free ends of the blade clamping members each being provided with a pocket on its outer face opening at the outer end of the member and of less width than the member, and a separable bifurcated fastening device extending around the free ends of the clamping members to expose both sides of the members so that a double-edged blade may have both its edges exposed, said device having its arms slidably engaged within said pockets and removable in the direction of the length of the handle, the outer faces of said arms being flush with the outer faces of the blade clamping members, the pockets serving to prevent the lateral movement of the fastening device under the stropping action.

1,208,319. MOTOR-VEHICLE BODY. JULIAN M. HUGHES, Peru, Ind. Filed Oct. 7, 1915. Serial No. 54,528. (Cl. 21—43.)



In combination with a vehicle body, of a seat mounted on said body, a foot support hingedly connected to the forward upper portion of the seat, an opening in the front wall of the seat, a plate secured to the inner surface of the front wall and partially overlying said opening, the rear or under surface of the foot support having a pair of ears protruding through said opening and beyond said plate, a segment ratchet bar pivoted between the ears and designed, when the support is lowered, to suspend or hang downwardly, whereby a portion of said ratchet bar will abut the rear face of said plate, which is in the path of the bar, thereby preventing accidental raising of the support, means connected to the free end of the bar to partially raise the same, whereby the support may be raised to adjusted positions, the teeth coöperating with the plate to hold the support raised, the free end of the bar coöperating with the lower edge of the opening and abutting the front face of the plate, thereby constituting means to hold the support in a horisontal position.

1,208,320. PHOTOGRAPHIC CAMERA. HARRY L. IDE, Springfield, Ill., assignor of one-half to Roy W. Ide, Springfield, Ill. Filed Oct. 23, 1915. Serial No. 57,404. (Cl. 95—10.)



1. A photographic camera including a negative producing element; a sensitised testing portion coupled therewith for testing actinic light value, there being an opening in the camera casing at which the testing portion may be placed to be acted upon by light; and a portion of fixed tint margining said opening for comparison with the changing tint of the testing portion when exposed to the action of light.

2. A photographic camera including a negative producing element; and a sensitised testing portion of ribbon form coupled therewith for testing actinic light value, there being an opening in the camera casing at which the testing portion may be placed to be acted upon by light.

3. A photographic camera including a negative producing element; and a sensitised testing portion coupled therewith at one side thereof for testing actinic light value, there being an opening in the camera casing at which the testing portion may be placed to be acted upon by light.

4. A photographic camera including a negative producing element; a sensitised testing portion coupled therewith for testing actinic light value; and a portion of fixed tint provided upon the part of the camera that carries the negative element for comparison with the changing tint of the testing portion when exposed to the action of light.

1,208,321. PHOTOGRAPHIC CAMERA. HARRY L. IDE, Springfield, Ill., assignor of one-half to Roy W. Ide, Springfield, Ill. Filed Nov. 26, 1915. Serial No. 63,390. (Cl. 95—10.)



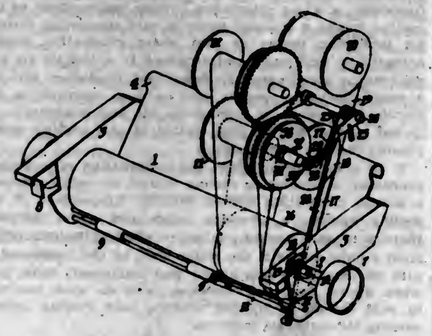
1. A photographic camera of the film pack type including negative producing elements arranged in a pack each of these elements having a sensitised portion coupled therewith for testing actinic light value.

2. A photographic camera of the film pack type including negative producing elements; and light shields therefor provided with sensitised portions for testing actinic light value.

3. A photographic camera of the film pack type including negative producing elements; and light shields therefor provided with pulling tabs which in turn are provided with sentitised portions for testing actinic light value.

1,208,322. TYPE-WRITING MACHINE. ARTHUR A. JOHNSON, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 25, 1914. Serial No. 863,486. (Cl. 197—132.)

1. The combination, with a platen; of a receiving spool to which a strip or web is led from said platen; line-spacing mechanism for imparting a positive, step-by-step, rotary movement directly to said spool, to directly and positively feed the strip over said platen and wind it up in a roll on said spool; and compensating mechanism, controlled by the rolled-up strip on the spool as the diameter of the roll increases, for automatically reducing, proportionately to such increase, the angle through which said spool is turned at each rotation thereof, so as to maintain constant the extent of advance of the strip at each rotation of the spool.



2. The combination, with a platen; of a receiving spool to which a strip or web is led from said platen; line-spacing mechanism for imparting a positive, step-by-step, rotary movement directly to said spool, to directly and positively feed the strip over said platen and wind it up in a roll on said spool; and compensating mechanism, controlled by contact with the rolled-up strip on the spool as the diameter of the roll increases, for automatically reducing, proportionately to such increase, the angle through which said spool is turned at each rotation thereof, so as to maintain constant the extent of advance of the strip at each rotation of the spool.

3. The combination with a revoluble platen, of means to supply a web or strip to be fed around the platen, a winding spool on which the leading end of the web is wound, manually operated line-spacing mechanism for positively rotating the winding spool step by step and thereby causing it to line-space said web at the platen, and a device to compensate for the increasing diameter of the web on the spool as the latter is rotated, said device arranged to bear on the periphery of the roll of web on the spool, and operative by its change in position as the roll increases, to reduce the extent of each step-by-step rotation of the spool substantially in proportion to the increase in the diameter of said roll.

4. The combination, with a platen; of a receiving spool to which a strip or web is led from said platen; line-spacing mechanism for imparting a positive, step-by-step, rotary movement directly to said spool, to directly and positively feed the strip over said platen and wind it up in a roll on said spool, said mechanism comprising a wheel connected to drive the spool, and a reciprocating driver having a one-way driving connection with said wheel; and compensating mechanism controlled by the rolled-up strip on the spool as the diameter of the roll increases, for automatically reducing, proportionately to such increase, the angle through which said spool is turned at each rotation thereof, so as to maintain constant the extent of advance of the strip at each rotation of the spool.

5. The combination with a platen, of mechanism for feeding a web or strip over the platen, comprising a winding spool or spindle on which the leading edge of the strip is wound in a roll, line-spacing mechanism comprising a wheel connected to rotate the spool, a driving arm pivoted concentric of said wheel, a pawl or gripping member on said arm having a one-way driving connection with the wheel, means to reciprocate said arm and thereby impart a step-by-step rotation to the spool and cause it to draw the web step by step over the platen, and a compensating device arranged to bear on the periphery of said roll, said compensating device comprising means to position the driving arm to correspond to the diameter of said roll and correspondingly vary the angle of rotation of said roll at each operation and thereby cause the web to be advanced through equal distances at successive rotations of the spool.

[Claims 6 to 22 not printed in the Gazette.]

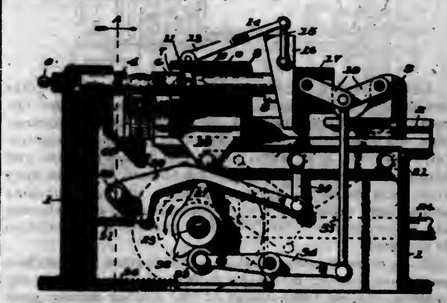
1,208,323. BUTTON. ALEXANDER JONAS, Philadelphia, Pa., assignor of one-third to Charles Smith, Camden, N. J., and one-third to Joseph Slater, Philadelphia, Pa. Filed June 10, 1916. Serial No. 103,005. (Cl. 24—97.)



1. In a button the combination, of a head, a post rigidly secured to the under side of the head, a cross bar upon the free end of the post, a shank adapted to raise the head of the button away from the fabric to which the button is attached, said shank consisting of two telescoping members, one thereof secured to said head and the other thereof slidably mounted upon said post, a spring acting between the said head and the movable member of the shank tending to press the latter against the cross bar and tending also to raise the head of the button away from the fabric.

2. In a button the combination, of a head, a post rigidly secured to the under side of the head, a cross bar upon the free end of the post, a shank adapted to raise the head of the button away from the fabric to which the button is attached, said shank consisting of two telescoping members, one thereof secured to the said head and the other thereof slidably mounted upon said post, a flange formed upon the movable member of the shank, a spring inclosed in the member of the shank which is secured to the head, said spring acting against the head of the button and the flange of the movable member of the shank, and an inwardly turned flange upon the member of the shank which is secured to the head adapted to form a stop to limit the movement of the movable member of the shank.

1,208,324. NUT-CRACKING MACHINE. HERBERT MAYBURN JONES, Peoria, Ill. Filed June 25, 1915. Serial No. 36,171. (Cl. 146—3.)



1. In equalising mechanism for nut cracking machines, the combination of a reciprocating carriage, a cracking plunger mounted and having reciprocating movement therein, an equalising element suspended adjacent the rear end of said plunger, an arm pivoted on said carriage adjacent said plunger and supporting said equalising element, and an operating connection between said arm and plunger.

2. In a nut cracking machine, the combination of a stationary anvil against which the nuts are to be cracked, a cracking plunger, a carriage upon which said plunger is mounted, mechanism for operating said plunger to crack the nuts, mechanism for operating said carriage, and equalising mechanism controlled by said plunger whereby when said carriage has reached the limit of its travel all of the parts are properly set for the cracking of the nut.

3. In a nut cracking machine, the combination of an anvil, a cracking plunger having only a rearward motion with relation to its carriage when setting an equalising

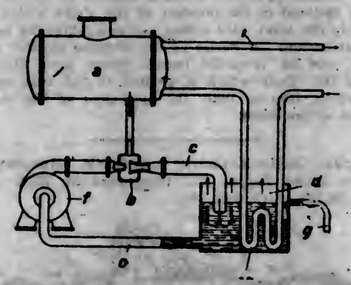
mechanism, a carriage upon which said plunger is mounted, operating mechanism for said carriage, mechanism for imparting a fixed forward movement to said plunger to crack a nut, equalising mechanism wholly controlled in its position by the size of a nut, and a suitable frame for the machine.

4. In a nut cracking machine, the combination of a stationary anvil, a cracking plunger, a carriage upon which said plunger is mounted, operating mechanism for said carriage, mechanism for imparting a predetermined forward movement to said plunger to crack a nut, feeding mechanism for presenting nuts successively to the cracking mechanism, equalising mechanism wholly controlled in its position by the size of a nut, and a suitable frame for the machine.

5. In a nut cracking machine, the combination of a stationary anvil, a cracking plunger, a carriage for said plunger, predetermined stroke cracking mechanism carried by said carriage, and equalising mechanism actuated by the plunger according to the size of the nut to be cracked.

[Claims 6 to 11 not printed in the Gazette.]

1,208,325. DEVICE FOR CONDENSING AND VACUUM-PRODUCING. EMIL JOSSE, Berlin-Lankwitz, and WILHELM GENSECKE, Berlin, Germany, assignors to Gesellschaft für Kälteindustrie mit beschränkter Haftung, Berlin, Germany, a Corporation of Germany. Filed July 9, 1915. Serial No. 38,975. (Cl. 257—32.)



1. In a condensing plant the combination of a surface condenser, cooling means for said condenser, a water circulating system independent of the cooling means, pressure means included in said system to maintain the circulation thereof, a jet actuated by the pressure means and arranged to withdraw air and condensate simultaneously from said condenser through a single discharge opening and an open tank in said water circulating system whereby air is permitted to pass off and a surface of evaporation is provided.

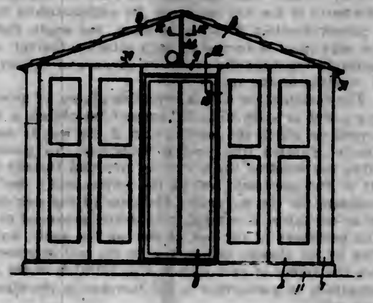
2. In a condensing plant the combination of a surface condenser, cooling means for said condenser, a water circulation system independent of the cooling means, pressure means for maintaining said circulation, the said cooling means being disposed to cool the water in said circulation system, jet producing means in said water circulation system adjacent to and actuated by said pressure means and arranged to withdraw air and condensate simultaneously from said condenser through a single discharge opening, an open reservoir in the circulation system to receive the discharge products of the jet.

3. In a condensing plant the combination of a surface condenser, cooling means for said condenser, a water circulation independent of the cooling means, a pressure pump to maintain said circulation, jet producing means in said water circulation system adjacent to and actuated by said pressure pump and arranged to withdraw air and condensate simultaneously from said condenser through a single discharge opening, and an open reservoir in the circulation system to receive the discharge products of the jet, the cooling means being disposed to cool the contents of said reservoir.

4. In a condensing plant the combination of a surface condenser, cooling means including a pipe section for said condenser, a water circulation system independent of the cooling means, a pressure pump in said circulation system, jet producing means in said water circulation system actuated by said pump and arranged to withdraw air and condensate simultaneously from said condenser through a single discharge opening, and an open reservoir in the circulation system to receive the air and condensate removed by the jet, the pipe section of said cooling means passing through said reservoir.

5. In a condensing plant the combination of a surface condenser, a circulating cooling system for said condenser, a second circulating system entirely independent of the cooling system, a pressure pump and a jet actuated thereby in said second system, a single pipe connection from a point beneath the water level of the condenser to said jet through which all air and condensate must pass when drawn from the condenser, and an open reservoir in said second circulating system, said cooling system passing through said reservoir.

1,208,326. BUILDING CONSTRUCTION. THOMAS H. KANE, Youngstown, Ohio, assignor to Trussed Concrete Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 30, 1915. Serial No. 69,330. (Cl. 189—2.)



1. A building comprising, in combination with wall panels, a roof truss that includes a metal rafter and a metal tie member having flat webs in substantially the same vertical plane, a thin gusset plate to which the end of the rafter and the tie member are rigidly joined, said gusset plate having an extension which projects beyond the wall panels, whereby eave plates may be supported.

2. A building comprising in combination with sheet metal wall panels, a roof truss that includes a sheet metal rafter and a sheet metal tie member having flat webs in substantially the same vertical plane, a thin gusset plate to which the webs of the rafter and tie member are welded, said gusset plate having an extension which projects beyond the wall panels, whereby eave plates may be supported.

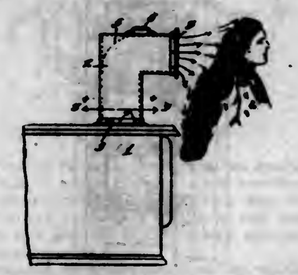
3. A building comprising a plurality of roof trusses, spaced apart from each other, each of said trusses including a sheet metal compression chord and a sheet metal tension chord, said compression chords and said tension chords being arranged, respectively, in the same general planes, and a sheet metal sway brace extending from the compression chord of one of the trusses to the tension chord of the other, said sway brace including a web and a flange at an angle to each other, the ends of the flange being bent into the plane of the web and both web and flange being welded to the corresponding chords.

4. A building comprising an end including a plurality of sheet metal panels having alined flanges along their upper margins, a thin stiffener bar extending across said flanges, end sheet metal gable plates having flanges along their lower margins bearing on the stiffener bar, and means passing through said bar and the flanges of the panels and gable plates for detachably securing the parts together.

5. A building comprising an end including a plurality of sheet metal panels having alined grooved flanges along their upper margins, a thin stiffener bar extending across said flanges, end sheet metal gable plates having grooved flanges along their lower margins bearing on the stiffener bar, said bar having longitudinal ribs conforming to the grooves in the panels and gable plates, and means passing through said bar and the flanges of the panels and gable plates on each side of the ribs and grooves for detachably securing the parts together.

[Claims 6 to 17 not printed in the Gazette.]

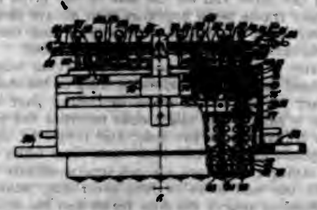
1,208,327. HAIR-DRIER. ALBERTINA KERDAN, Chicago, Ill. Filed May 17, 1916. Serial No. 98,133. (Cl. 34—26.)



1. A hair drier comprising a tubular elbow having flanges at both ends, and one end or the other of said elbow being engageable upon the top of a range over the burner thereof, said elbow having a handle for handling the same.

2. A hair drier comprising a tubular elbow, one end or the other of which being engageable upon the top of a range over the burner thereof and means in the corner of the elbow for counter-balancing the arm thereof which extend laterally.

1,208,328. CHOCOLATE-STRINGING MACHINE. THEODOR KIHLGREN, Springfield, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed Oct. 13, 1913. Serial No. 794,872. (Cl. 107—27.)



1. In a machine for handling fluid or semi-fluid material, a tank for said fluid and having an opening at the bottom thereof, a vibratory spindle associated with said opening to eject the fluid, a skeleton screw concentric with, but spaced from said spindle, means to vibrate the spindle and to rotate the screw, whereby as the spindle and screw perform their several functions the fluid is free at all times to flow about and between the spindle and the screw and into and out from the space therebetween.

2. A sub-combination in a machine for handling fluids and semi-fluids and including a tank having an opening therein, involving, in combination, a sleeve, a spindle slidable in said sleeve, a screw secured to and depending from said sleeve, said sleeve being concentric with but spaced at all points from said spindle whereby said parts may be readily dissociated for cleaning and whereby the fluid is at all times free to flow in and about said spindle and screw, and into and out of the space therebetween, in any direction.

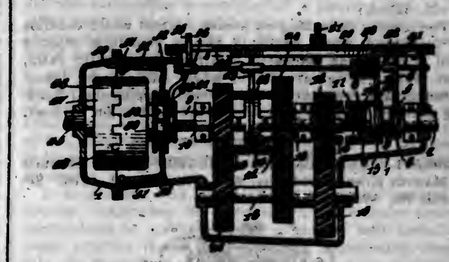
3. In a machine for expelling jets of a fluid or semi-fluid, a tank having a series of openings therein together with wells leading to said openings, a removable cover plate for each opening and provided with an orifice, a spider removably seated in said opening and provided with a bearing alined with said orifice, a sleeve revolubly mounted in said tank, a spindle slidable in said sleeve, a double skeleton helix rigid with said sleeve and concentric with, but spaced from said spindle, whereby the entire expelling mechanism is open for the free flow of the liquid therethrough and thereabout and further may be readily disassembled for cleaning.

4. In a machine of the class described, a tank having openings, a battery of sleeves revolubly mounted in said tank and positively connected from one end of the battery to the other, a master-gear for driving one of said sleeves, helixes mounted in said sleeves for forcing the fluid toward said openings, sprockets on a plurality of non-adjacent sleeves, and a chain trained over said sprockets, whereby the fluid is stirred during the revolution of the sleeves.

5. In a machine for handling fluid or semi-fluid material, a tank having orifices for the discharge of said fluid, a carrier associated with said tank, a series of spindles depending from said carrier and associated at their lower ends with said orifices, means for limiting the downward movement of said carrier, means for vibrating said carrier, comprising a revoluble ratchet, means for controlling the vibratory action of said carrier comprising manual means, including a cam whereby the weight of said carrier may be taken from said limiting means and placed on said ratchet or surrendered to said limiting means from said ratchet at the will of the operator.

[Claims 6 to 13 not printed in the Gazette.]

1,208,329. TRANSMISSION MECHANISM. GEORGE C. KINCANNON, Excelsior, Wis. Filed June 29, 1915. Serial No. 37,070. (Cl. 74—59.)



1. In transmission mechanism, a driven shaft, a clutch device mounted on said shaft having internal teeth, a transmission shaft axially alined with said driven shaft, teeth formed at one end of said transmission shaft, a gear loose upon said transmission shaft, a second clutch device mounted on said first mentioned clutch device, and a means to move the mentioned clutch devices, respectively, into enagement with the teeth upon said transmission shaft and into engagement with the said gear for the purpose specified.

2. In transmission mechanism, a driven shaft, a transmission shaft axially alined with said driven shaft, a first clutch device mounted on said driven shaft, a clutch member formed upon said transmission shaft, a second clutch device mounted upon said first mentioned clutch device, a clutch device loose upon said transmission shaft, a means to move said first clutch device into engagement with the clutch member upon said transmission shaft, and the second clutch device into engagement with the clutch member upon said transmission shaft, for the purpose set forth.

3. In transmission mechanism, a driven shaft, a transmission shaft, a counter-shaft, change speed gears mounted on said transmission shaft, like meshing gears mounted on said counter-shaft, clutch devices mounted on said transmission shaft and said driven shaft for movement into and out of engagement with certain of the change speed gears, a guide bar mounted to extend parallel with said transmission shaft, a rotatable tortuously grooved disk, a means to manually rotate said disk, and means on said guide rod engaging in said tortuous grooves and with the clutch devices.

4. In transmission mechanism, a driven shaft, a transmission shaft axially alined with said driven shaft, a counter-shaft, a fixed guide rod, change speed gears mounted upon said transmission shaft like meshing gears on said counter-shaft, a plurality of clutch devices mounted upon said transmission shaft and said driven shaft for movement into and out of engagement with certain change speed gears, a rotatable disk provided with a plurality of tortuous grooves, a means to manually rotate said disk on a vertical axis, and shifters mounted on said guide rod and engaging with the respective tortuous grooves and with the respective clutch devices to shift the latter upon the driven shaft and the transmission shaft respectively to accordingly control transmission.

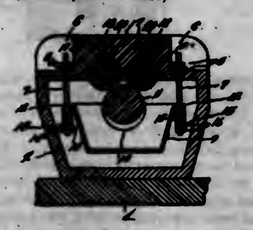
5. In transmission mechanism, a driven shaft, a transmission shaft axially alined with said driven shaft, an auxiliary shaft mounted in parallelism with said transmission shaft, change speed gears mounted loosely upon said transmission shaft, meshing change speed gears mounted on said auxiliary shaft, clutch devices mounted for sliding movement upon said transmission shaft, clutch devices mounted for sliding movement upon said driven shaft, and a common means to move the several clutch devices.

[Claim 6 not printed in the Gazette.]

1,208,330. PROCESS OF MAKING ABRASIVE WHEELS. CLARENCE ROSCOE KING, Worcester, Mass., assignor to Norton Company, a Corporation of Massachusetts. Filed May 28, 1914. Serial No. 841,678. (Cl. 51—1.)

The process of making an abrasive wheel which consists in forming a wheel having a porous structure, dipping said wheel in an unheated solution of synthetic resin, and thereafter reheating said wheel and thereby transforming said resin into a hard tough supplemental bonding material incapable of subsequent liquidation by heat.

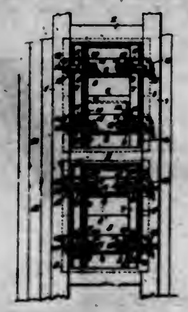
1,208,331. LUBRICATING FRICTION-BOX. WILLIAM MARTIN KING, Poindexter, Ky. Filed June 1, 1916. Serial No. 101,061. (Cl. 64—35.)



1. In a lubricating bearing box, the combination of a casing and a waste and lubricant container on the interior thereof, of means for yieldably supporting said container, said means comprising bowed springs carried by the opposite side of the container, and adjustable rods carried by the upper wall of the casing adjustably connected to the bowed springs, for increasing or decreasing the tension of the springs of the container.

2. In a lubricating bearing box, the combination of a casing having its upper wall provided with movable bearings and a waste and lubricant container on the interior of said casing, an axle spindle, one end wall of said container having a semi-circular recess to receive an axle spindle, whereby the waste and lubricant may be in contact with the spindle, of means for yieldingly supporting said container, said means comprising bowed springs carried by the opposite longitudinal side of the container, said springs being bowed downwardly, adjustable rods carried by the upper wall of the casing, adjustably connected to the bowed springs, for increasing or decreasing the tension of the springs, whereby the waste and lubricant in said container may bear upon the axle spindle and hold the same in contact with the movable bearings.

1,208,332. SILO. STEPHEN F. F. KNEPLEY, Williamsport, Pa. Filed June 20, 1916. Serial No. 104,726. (Cl. 20—1.4.)



1. In a silo, the combination with a door frame and a door having battens adjacent to the sides and located on the outer face of the door, of locking means for the door comprising a bail pivotally mounted at the ends in the battens and extending crosswise of the door with the bail movable about an axis crosswise of the door, and locking levers pivotally mounted on the battens and each having an elongated slot on the side of the pivot toward and traversed by the bail.

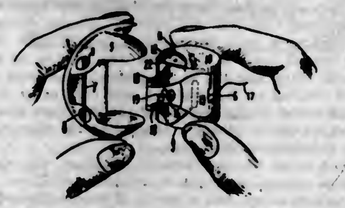
2. In a silo, the combination with a door frame and a door having battens adjacent to the sides and located on the outer face of the door, a bail having angle ends pivoted in the battens on an axis transverse of the door, and levers on opposite sides of the door pivotally mounted on the battens with each lever having the outer end movable into overriding relation to the corresponding side of the door frame, and the inner end on the side of the pivot remote from the door frame being provided with an eye elongated in the direction of the length of the lever and traversed by a corresponding angle end portion of the bail.

3. In a silo, a door frame and a door having longitudinally arranged battens near opposite sides of the door and spaced apart to set within a corresponding part of the door frame, a bail having angle ends entering the battens on an axis transverse of the door, and levers on the battens at opposite sides of the door, each lever being a substantially straight structure pivoted intermediately to the batten with one end movable into overriding relation to the corresponding side of the door frame and the other end formed with an elongated eye lengthwise of the lever and traversed by the corresponding angle end of the lever.

4. In a silo, a door frame and a door having longitudinally arranged battens near opposite sides of the door and spaced apart to set within a corresponding part of the door frame, a bail having angle ends entering the battens on an axis transverse of the door, and levers on the battens at opposite sides of the door, each lever being a substantially straight structure pivoted intermediately to the batten with one end movable into overriding relation to the corresponding side of the door frame and the other end formed with an elongated eye lengthwise of the lever and traversed by the corresponding angle end of the lever, the eye in each lever being wider than the thickness of the bail and having the edges toward the door expanded or beveled to permit the angle portions of the bail to slant outwardly and downwardly from the door when the levers are substantially horizontal.

5. In a silo, a door having levers near opposite edges of and spaced from the outer face of the door and with their pivotal axes substantially perpendicular to the outer face of the door, each lever having the end on the side of the pivot toward the other lever provided with a substantially straight longitudinal slot, and a bail having angle ends pivoted to the door and extending through the slots in the respective levers.

1,208,333. SHUTTLE FOR SEWING-MACHINES. FERDINAND KULHAWY, New York, N. Y. Filed Mar. 6, 1916. Serial No. 82,366. (Cl. 112—23.)



1. In a shuttle for sewing machines, the combination of a bobbin case, a holder therefor, a rod provided in said holder, a groove provided in said bobbin case, into which said rod fits, and a cam lever carried by said bobbin case, adapted to lock said rod in said groove, substantially as and for the purpose set forth.

2. In a shuttle for sewing machines, the combination of a bobbin case, a holder therefor, a rod provided in said holder, a groove provided in said bobbin case, a cam lever pivotally carried by said bobbin case and spring means tending to lock said rod in said groove by means of said cam lever, substantially as and for the purpose set forth.

1,208,334. CONCENTRATION OF ORES. HENRY LAVERS, Camberwell, HENRY HOWARD GREENWAY, Melbourne, and ALFRED HENRY PIPER LOWRY, Prahran, Victoria, Australia, assignors to Minerals Separation American Syndicate (1913) Limited, London, England. Original application filed MAR. 14, 1914, Serial No. 824,765. Divided and this application filed Sept. 14, 1916. Serial No. 120,057. (Cl. 83—85.)

1. A process of concentrating ores which consists in agitating and aerating an ore pulp containing in solution an alkaline substance, but without the addition of a frothing agent other than the said alkaline substance, so as to obtain a froth of concentrates, and separating the froth.

2. A process of concentrating ores which consists in agitating and aerating an ore pulp containing in solution a salt of a mineral acid having an alkaline reaction, but without the addition of a frothing agent other than said salt, so as to obtain a froth of concentrates, and separating the froth.

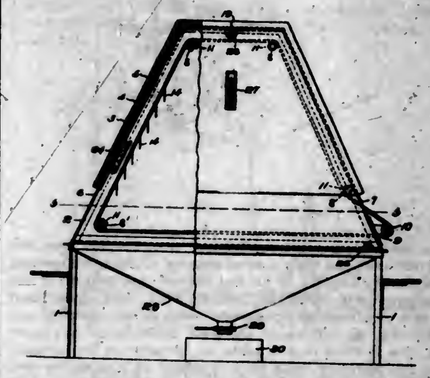
3. A process of concentrating ores which consists in agitating and aerating an ore pulp containing sodium carbonate in solution, but without the addition of a frothing agent other than said sodium carbonate, so as to obtain a froth of concentrates, and separating the froth.

4. A process of concentrating ores which consists in agitating and aerating a heated ore pulp containing in solution an alkaline substance, but without the addition of a frothing agent other than the said alkaline substance, so as to obtain a froth of concentrates, and separating the froth.

5. A process of concentrating ores which consists in agitating and aerating a heated ore pulp containing in solution a salt of a mineral acid having an alkaline reaction, but without the addition of a frothing agent other than said salt, so as to obtain a froth of concentrates, and separating the froth.

[Claim 6 not printed in the Gazette.]

1,208,335. STERILIZER FOR REMOVING CAKE-ICING. EDWARD E. LAWRENCE, Cambridge, Mass., assignor to Loose-Wiles Biscuit Company, Kansas City, Mo., a Corporation of Missouri. Filed Nov. 22, 1912. Serial No. 732,814. (Cl. 126—369.)



1. A steriliser and cleanser for icing hooks and other articles, comprising in combination, a housing open at its lower part to receive said hooks or other articles, and closed against the escape of steam except at said open lower part, means for introducing superheated steam into a portion of said housing above said open lower part and for interposing a layer or veil of saturated steam at the said open lower part, and means for passing the icing hooks or other articles to be sterilized and cleansed into said housing through said veil of saturated steam into the sone of superheated steam and again through said veil of saturated steam out of said housing.

2. A steriliser and cleanser for icing hooks and other articles, comprising in combination a housing open at its lower part to receive said hooks or other articles, and closed against the escape of steam except at said open lower part, means for introducing superheated steam into a portion of said housing above said open lower part whereby a layer or veil of saturated steam is interposed at the said open lower part, and means to subject the icing hooks or other articles to be sterilized and cleansed to the action both of the superheated steam in the upper portion of the casing and of the said veil of saturated steam.

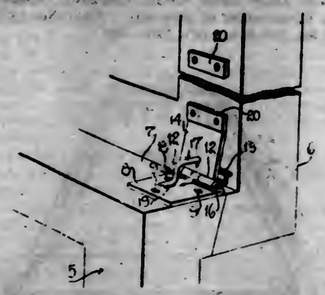
3. A steriliser and cleanser for icing hooks and other articles comprising in combination, a housing permanently open at its lower part to receive said hooks or other articles, means for admitting superheated steam into the portion of said housing above said permanently open part, means including a deflector for the steam adjacent the point of inlet thereof for maintaining superheated steam in said housing and constituting means to direct water of condensation to a wall of the housing out of contact with said icing hooks or other articles.

4. A steriliser and cleanser for icing hooks and other articles comprising in combination, a housing having a permanently open, lower part, means for introducing superheated steam into said housing at its upper portion and for maintaining superheated steam therein, and troughs arranged along walls of the housing for conducting off water of condensation, thereby to prevent contact of said water of condensation with said hooks or other articles.

5. A steriliser for icing hooks and the like comprising in combination a housing for the reception of the sterilising fluid, an endless chain conveyer having icing hook receiving projections and guides to engage said hooks adjacent the point of discharge, to release said hooks from said receiving projections.

[Claims 6 to 13 not printed in the Gazette.]

1,206,336. SASH-LOCK. HENRY W. LEE, St. Louis, Mo. Filed Dec. 13, 1915. Serial No. 67,631. (Cl. 16—146.)



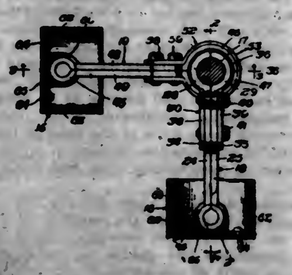
A locking device comprising a plate having one end portion provided with a substantially rectangular opening positioned inwardly of an end thereof, the portion of the plate provided with the opening being bent upon itself to provide knuckles at opposite sides of the opening and overlying the portion of the plate inwardly of the opening, the portion of the plate in advance of the opening and the knuckles being bent to afford an upstanding and outwardly curved guard flange, a second plate provided with an extension, and a pintle to which the extension of the second plate is fixed, the extremities of the pintle being loosely mounted within the knuckles of the first named plate.

1,206,337. AIRSHIP. HERMAN LEINWEBER, Chicago, Ill.; Curt Leinweber and Fred H. Leinweber executors of said Herman Leinweber, deceased. Filed July 21, 1914. Serial No. 852,178. (Cl. 244—12.)



An airship plane concavo-convex in transverse section throughout its length, the lower side being concave the central major portion of said plane being positioned substantially horizontally when the ship is on an even keel, and both ends thereof being upwardly inclined, substantially as described.

1,206,338. CONNECTING-ROD FOR PNEUMATIC DRILLS. AXEL LINDBAHL, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Chicago, Ill., a Corporation of Delaware. Filed Sept. 30, 1915. Serial No. 53,456. (Cl. 74—17.)



1. The combination with pistons and a crank, of connecting rods joining said pistons with said crank, said rods being formed from blanks cut from sheet metal and folded to provide a double thickness of metal throughout the length of the rods, and the free ends of said blanks being bent semi-cylindric in form to provide a tubular bearing at one end of each of said rods, the bearing of one of said rods being adapted to be journaled on said crank, and the bearing of the other of said rods being adapted to be journaled on the bearing of said first mentioned rod, and means for pivotally connecting the opposite ends of said rods with said pistons.

2. The combination with cylinders, pistons in said cylinders, and a crank, of connecting rods joining said pistons with said crank, said rods being formed from blanks cut from sheet metal and folded transversely at their central portions to provide a double thickness of metal throughout their lengths, each of said blanks being provided with enlarged end portions adapted to be bent semi-cylindric in form to provide a tubular split bearing at one end of each of said rods, the bearing of one of said rods being adapted to be journaled on said crank, and the bearing of the other of said rods being adapted to be journaled on the bearing of the said first mentioned rod, and means for pivotally connecting the opposite ends of said rods with said pistons.

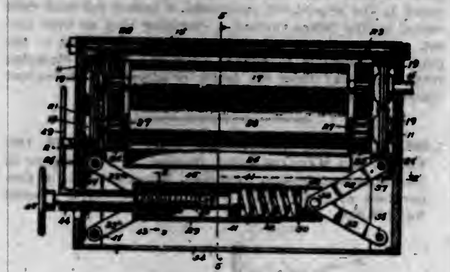
3. In a device of the character described, the combination with pistons mounted in cylinders arranged at an angle to each other, and a crank, of connecting rods connecting said crank and pistons and formed from blanks cut from sheet metal, each of said blanks being folded upon itself to provide a double thickness of metal throughout its length, said rods being provided at one end with enlarged portions bent semi-cylindric in form to provide a split bearing, the bearing of one of said rods being journaled on said crank, there being provided an aperture in the shank portion of said rod adjacent to said bearing, and the split bearing of the other of said rods being journaled on the bearing of the first mentioned rod and extending through said aperture thereof, and means for pivotally connecting the opposite ends of said rod with said pistons.

4. In a device of the character described, the combination with pistons mounted in cylinders arranged at an angle to each other, and a crank, of connecting rods connecting said crank and pistons and formed from blanks cut from sheet metal, each of said blanks being folded upon itself to provide a double thickness of metal throughout its length, one of said blanks being provided at one end with enlarged portions bent semi-cylindric in form to provide a split bearing adapted to be journaled on said crank and provided with an aperture adjacent to said bearing, the other of said rods being provided with a bearing at its end journaled on and intermediate the ends of the bearing of the first mentioned rod and extending through said aperture thereof, a strap formed from a blank of sheet metal bent to form two cylindric portions adapted to surround the end portions of the bearing of the first mentioned rod at either side of the bearing of said last mentioned rod and end portions secured to the rod adjacent to said aperture, and means for pivotally connecting the opposite ends of said rod with said pistons.

5. In a device of the character described, the combination with pistons mounted in cylinders arranged at an angle to each other, and a crank, of connecting rods connecting said crank and pistons, and formed of a double thickness of sheet metal, one of said rods being provided at one end with enlarged portions bent cylindric in form to provide a bearing adapted to be journaled on said crank and provided with an aperture adjacent to said bearing, the end portions of the other of said rods being formed to provide a bearing of less width than that of the first mentioned rod, the same being journaled on the bearing of the first mentioned rod throughout a portion of its width and extending through said aperture thereof, a strap of sheet metal surrounding the split bearing of said last mentioned rod and fastened at the ends to the rod adjacent to said bearing, and a strap surrounding the free portions of the bearing of said first mentioned rod and fastened to the same adjacent to the bearing thereof.

[Claims 6 to 17 not printed in the Gazette.]

1,206,339. WRINGER. GEORGE W. LEWIS, Grinnell, Iowa. Filed Mar. 4, 1915. Serial No. 12,186. (Cl. 68—32.)



1. In a device of the class described, a casing provided with opposite openings in its walls, and having a removable end, a wringer roll mounted in said casing, a second wringer roll movably mounted within the casing with relation to the first roll, coacting gearing devices for imparting motion from one of said rolls to the other, means within the casing for holding the rolls together under yielding tension, and means extending to a point outside the casing for regulating said last named means.

2. In a device of the class described, a casing provided with opposite openings in its walls, and having a removable end, a wringer roll mounted in said casing, a second wringer roll movably mounted within the casing with relation to the first roll, coacting gearing devices for imparting motion from one of said rolls to the other, means within the casing for holding the rolls together under yielding tension.

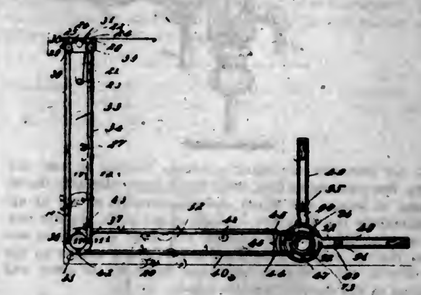
3. In a device of the class described, a casing open at its bottom, and having opposite openings in its side walls, end members, shafts in said casing, rollers mounted on said shafts, bearing devices for said shafts in said end members one of said shafts being vertically slidable, coacting gearing devices on the respective shafts, means below said rolls for imposing yielding tension on said rolls, means extending to position outside said casing for controlling said last named means, and means controllable from outside the casing for instantly releasing said tension device.

4. In a device of the class described, a casing open at its bottom, and having opposite openings in its side walls, end members, shafts in said casing, rollers mounted on said shafts, bearing devices for said shafts in said end members, one of said shafts being vertically slidable, coacting gearing devices on the respective shafts, slidable members below the bearing devices for the lower shaft, a supporting member below said rollers, a link pivoted thereto and to one of said sliding members, a link pivoted to said supporting member and to said end member, a second supporting member, a link pivoted thereto and to the other of said sliding members, a link pivoted to said second supporting member and to the other end, a sleeve received in said second supporting member and extending to position outside the casing, said sleeve being provided with a lug on its inner end, said second supporting member being provided with spaced slots adapted to slidingly receive said lug and handle on said sleeve outside said casing, said sleeve being screw threaded, a screw threaded rod received in said sleeve and slidably extended through said first support, a limiting device on said rod, a spring mounted on said rod between said limiting member and said first supporting member, said rod extending to position outside the casing.

5. In a device of the class described, a casing having a removable member, a pair of wringer rolls mounted in the upper portion thereof, said rolls having shafts, one of said shafts being extended through said casing, means for imparting rotation from one shaft to the other, and an instantly releasable adjustable tension device arranged within the casing and below the wringer rolls, adapted to impose tension on the rolls.

[Claim 6 not printed in the Gazette.]

1,206,340. DRAFTING-MACHINE. CHARLES H. LITTLE, Cleveland, Ohio. Filed Dec. 12, 1908. Serial No. 467,284. (Cl. 33—79.)



1. In a drafting machine, a jointed arm, the connection between the sections of the arm comprising ball bearings, the shells of such bearings securely clamping the balls thereof against lost motion.

2. In a drafting machine, in combination, an anchor plate, an arm swingingly mounted upon the plate, the connection between the arm and the plate comprising ball bearings, the shell of such bearings securely clamping the balls thereof against lost motion.

3. In a drafting machine, in combination, an anchor plate having a hinged leaf, an arm swingingly attached to and overhanging the leaf of the plate, the connection between the arm and the leaf comprising ball bearings, the shell of such bearings securely clamping the balls thereof against lost motion.

4. In a drafting machine, in combination, an anchor plate, a post fixed in the plate, a pair of circular plates mounted on the post and having their marginal portions inclined away each from the other, an arm having an eye the wall of which is circumferentially channeled and which encircles the post, such arm being located between the circular plates, and balls seated between the marginal portions of the circular plates and within the channel of the wall of the eye of the arm, the circular plates being securely clamped upon the balls to prevent lost motion.

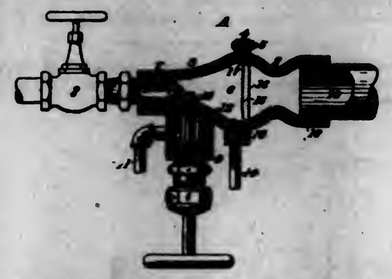
5. In a drafting machine, in combination, a jointed arm comprising two members, one thereof having an eye the wall of which is formed with an annular channel, a post fixed in the other member of the arm and projecting through the eye, a conical centering block on the post, a cone fitted to the post and having a recess for engaging the centering block, a second cone mounted on the post, and a set of balls fitted in the channel and engaging the cones.

[Claims 6 to 24 not printed in the Gazette.]

1,206,341. ATOMIZER. THOMAS J. LOFTUS, Castella, Cal., assignor of one-half to Harmon Bell, Oakland, Cal. Filed May 31, 1916. Serial No. 100,938. (Cl. 158—76.)

1. An atomizer including a casing formed in two sections, each section having its outer end interiorly threaded and having its inner end flanged, means to secure the flanges in abutting relation, a lateral integral interiorly threaded extension on one of said sections, an oil supply pipe extending laterally into said extension, an oil nozzle secured in said extension, an air valve threaded in the outer end of the section having said extension, a screen clamped between said inner ends of the sections, and an oil drain pipe extending into the inner end of said sec-

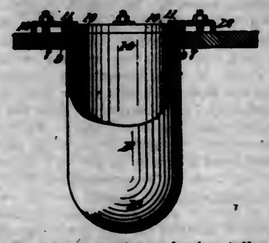
tion having the extension and located between the screen and oil nozzle.



2. An atomiser including a casing formed in two sections, the sections having their inner ends similarly flared, means to secure the flared ends together, a screen at approximately the juncture of said flared ends, an air nozzle and an oil nozzle secured to the outer end of one section, the oil nozzle being disposed at right angles to the air nozzle, the other section being flared at its outer end similar to the flare of its inner end.

3. An atomiser including a sectional casing, one section being contracted at its outer end and flared at its inner end, atomizing means in said contracted end, the second section being convexed on its interior between its ends so as to form each end thereof with a flare which gradually merges into the convexed part, means to secure the inner ends of the sections together whereby a central enlarged chamber is provided by said inner ends of the sections, a screen extending across the center of said chamber, and a pipe connected to the outer flared end of the second section.

1,208,342. FILTER. THOMAS J. LOFTUS, Castella, Cal., assignor of one-half to Harmon Bell, Oakland, Cal. Filed May 31, 1916. Serial No. 100,939. (Cl. 210—11.)



1. In a filtering apparatus, a horizontally disposed tank having a shoulder between its top and bottom, a plate insertible in the tank through the top thereof and seating on the shoulder, said plate having a series of apertures each of which is surrounded by a larger cutaway part forming a shoulder, tubes open at their tops and closed at their bottoms and having their tops formed with flanges engaging with the last named shoulders, and individual means for retaining the tubes in position on the plates whereby each tube is removable from the plate independent of the others and may be all removed from the tank by upward movement of the plate.

2. In a filtering apparatus, a tank, a plate in the tank having a countersunk opening forming a shoulder, a tube open at its top and closed at its bottom and having a flange at its top engaged with said shoulder, a gasket seated on top of the flanges, a clamping ring seated on top of the gasket, and means to secure the clamping ring in position including L-shaped members each of which has one leg resting on top of the ring and its other leg bearing on the plate, and screws secured to the plate and extending through the first named legs of the L-members and having heads engaging the latter.

3. In a filtering apparatus, a tank, a plate therein having shouldered apertures, tubes closed at their bottoms and open at their tops and having flanges at their tops engaged in the shouldered apertures, a gasket for each tube seated on the flange thereof, a clamping ring on each gasket, and a series of independent clamps connected to the plate and movable to engage with the several clamping rings and away from the latter to allow of independent removal of the rings.

1,208,343. LENS CENTERING AND TRANSFER DEVICE. ELI MAYNARD LONG, Geneva, N. Y., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed June 30, 1916. Serial No. 106,910. (Cl. 51—3.)



1. In a device for centering and placing lenses in edge grinding machines, the combination of a pair of jaws spring-pressed toward each other, and means for opening the jaws against the action of the spring including a handle bar movable transversely to the plane of movement of the jaws.

2. In a device of the character described, the combination of a pair of jaws spring-pressed toward each other, one of the jaws having a yielding lens-engaging portion, and hand-operated means for opening the jaws against the action of the spring.

3. In a device of the character described, the combination of a pair of jaws spring-pressed toward each other, one of the jaws having spring fingers for engaging the adjacent lens, and hand-operated means for opening the jaws.

4. In a device of the character described, the combination of lens-clamping jaws movable one in relation to the other, guiding means for said jaws to cause them to move in parallelism, and means operatively connected to said jaws and movable relatively thereto for operating one of the jaws along the guiding means in relation to the other jaw.

5. In a device of the character described, the combination of a pair of lens-clamping jaws, a handle having a movable member connected to one of the jaws to open the same, and a retracting spring for the movable member to close said jaw.

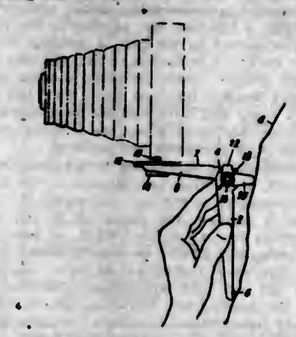
[Claims 6 to 12 not printed in the Gazette.]

1,208,344. CAMERA-HOLDING DEVICE. EDWARD S. MCALL, Ilion, N. Y. Filed Apr. 29, 1915. Serial No. 24,666. (Cl. 248—48.)

1. A camera-holding device comprising a base, a platform hinged thereto, feet adjacent to the ends of the hinge, and a clamp effective to hold the platform adjusted with relation to the base, these feet being fast together and their length being less than that of the base and less than the width of that part of the base which is next to the hinge.

2. A camera-holding device comprising a base, a platform hinged thereto, a clamp effective to hold the platform adjusted with relation to the base, and angularly movable feet adjacent to the ends of the hinge, these feet being fast together and their length being less than that of the base and less than the width of that part of the base which is next to the hinge.

3. A camera-holding device comprising a base, a platform hinged thereto, a clamp effective to hold the platform adjusted with relation to the base, and three short feet which with the base form a low tripod, two of the feet being adjacent to the ends of the hinge, and the other being fast on the base.



4. A camera-holding device comprising a base, a platform hinged thereto, a clamp effective to hold the platform adjusted with relation to the base, and three short feet which with the base form a low tripod, two of the feet being adjacent to the ends of the hinge and being pivotally connected with the base, and the other being fast on the base.

5. A camera-holding device comprising a base, a platform hinged thereto, a fastening to secure the camera on the platform, a clamp effective to hold the platform adjusted with relation to the base, and three short feet which with the base form a low tripod, two of the feet being adjacent to the ends of the hinge and the other being fast on the base.

[Claims 6 to 14 not printed in the Gazette.]

1,208,345. SILO-CHUTE. JAMES F. MCGAFFEE, Des Moines, Iowa. Filed Mar. 7, 1916. Serial No. 82,653. (Cl. 193—29.)

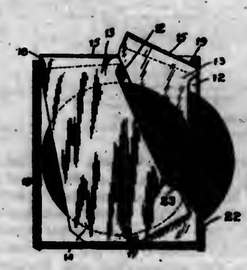


1. An improved silo chute comprising a number of sheet metal sections separated transversely, each sheet metal section being formed of two half sections, the adjacent edges of the half sections being provided on one side with an outwardly extended flange having a rounded portion at its outer end, and the other half section being provided with an outwardly extended flange capable of entering the rounded outer end of the other flange when inserted from the top, and brace rods extended transversely around the silo chute and having the said outwardly extended flanges of the half sections resting on top of them.

2. An improved silo chute comprising a number of sheet metal sections divided transversely, each section being formed of two half sections, the adjacent edges of the half sections being formed one with an outstanding flange and the other with a doubled portion, an outstanding flange and a rounded portion, said parts being so arranged that the first mentioned part may enter between the rounded portion and the doubled portion of the other part, when inserted from the top, and supporting bars for the chute sections arranged with the rib formed by said outstanding flanges resting on top of them.

3. The combination with a silo having hoops thereon of a silo chute comprising wooden uprights, hooked bolts connecting the wooden uprights with the said hoops, a silo chute comprising a series of sheet metal sections divided transversely, each section being formed of two half sections, the joints between the half sections being so arranged that one may be telescoped into another from above, a series of supporting braces extending around the silo sections at the transverse joints thereof and covering the overlapping upper and lower edges of the silo sections, and being arranged between the vertical joints of the chute half sections so that the material of said joints may rest upon the said braces, brace rods connected to each of the braces and extended outwardly, and clamps fixed to said brace rods and attached to the said hoops substantially as set forth.

1,208,346. DISK-RECORD HOLDER. CLIFFORD W. MARSH, Bridgeport, Conn. Filed Dec. 7, 1915. Serial No. 65,500. (Cl. 211—16.)



1. A holder of the character described comprising a frame having an open top and an open side, a series of record containers mounted within said frame in side-by-side arrangement and adapted to be individually advanced and retracted by rocking movement to and from a position at said open side of the frame, and means for checking movement of said containers in both advanced and retracted positions, said containers being in a condition of stable equilibrium in each of said positions and the tops thereof being in a common substantially horizontal plane when said containers are in their retracted positions.

2. A holder of the character referred to comprising a frame having a closed side and an open side, record containers mounted to rock within said frame, and means contiguous to the open side of the frame to prevent movement of the containers beyond the plane of said open side, movement in the opposite direction being limited by the closed side of the frame.

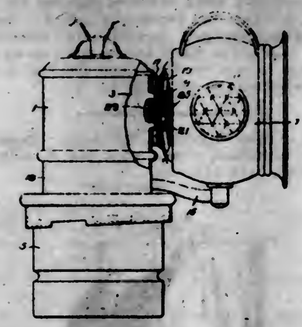
3. A holder of the character referred to comprising a frame having a closed side and an open side, record containers mounted to rock within said frame, and a stop contiguous to the open side of the frame and positioned to engage the tops of the containers to prevent movement thereof beyond the plane of said open side, movement in the opposite direction being limited by the closed side of the frame.

4. A holder of the character described comprising a frame, record containers mounted within said frame to individually rock to and from advanced and retracted positions, and means at each side of said frame for limiting the range of rocking movement to the space between the sides of said frame, one of said means comprising a rod located laterally with respect to the containers and positioned to be engaged by the tops thereof, the top edges of said containers being normally in a common substantially horizontal plane when the containers are in retracted positions.

5. An improved disk record container comprising a body having a flat base upon which it is normally supported, spaced-apart sides which incline from the perpendicular when said body is resting upon said base, and a top disposed substantially parallel to said base.

[Claim 6 not printed in the Gazette.]

1,208,847. LAMP. HENRY MAYTROTT, Bridgeport, Conn., assignor to The Hawthorne Manufacturing Company, Inc., Bridgeport, Conn., a Corporation of Connecticut. Original application filed Aug. 19, 1912, Serial No. 715,783. Divided and this application filed Nov. 5, 1913. Serial No. 799,392. (Cl. 240—11.)



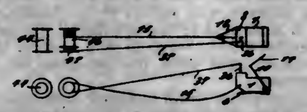
1. In a lamp the combination of a fuel containing portion with a lamp body offset at one side thereof; a supply pipe connecting said lamp body and said fuel containing portion; a central connecting member between said body and said portion and a seating member interposed between the same and resiliently bracing the same apart in a zone spaced from and surrounding said connection.

2. In a lamp the combination of a fuel containing portion with a lamp body offset at one side thereof; a supply pipe connecting the lamp body and fuel containing portion; a curvilinear conformable seating member having an outwardly flaring edge to engage the lamp back and conform to the outline thereof between the lamp back and fuel containing portion whereby movement of the lamp body relatively to the fuel containing portion is prevented; and means coöperating with said seating member to lock the lamp body to the fuel containing portion.

3. In a lamp a combined body and reflector securing device for securing the same to a support, comprising a threaded member having a relatively wide flanged head, said member adapted to engage and extend through the lamp body and said support, a coöperating member to lock the threaded member therein, the threaded member being tapped, a second member extended through the reflector and threaded to the first named threaded member for locking the reflector to the flanged head of said member.

4. In a lamp the combination of a fuel containing portion with a lamp body offset at one side thereof; a supply pipe connecting the lamp body and fuel containing portion; a cup like, conformable seating member interposed between said containing portion and lamp body and having a bottom conforming to one of said members and a flared edge conforming to the other of said members and means coöperating with said seating member to lock the lamp body to the fuel containing portion.

1,208,846. EXCAVATING APPARATUS AND BUCKET. THOMAS SPENCER MILLER, South Orange, N. J. Filed Feb. 10, 1912. Serial No. 676,816. (Cl. 37—19.)



1. In combination an excavating bucket comprising an open-ended body, a hoisting bail pivoted to the body, a hoisting line connected to the bail, a drum for the hoisting line, a hauling line connected to the forward end of the bucket, means for locking the bail to the bucket, a line for releasing said means, said hauling line and last-named line being wound on a drum and the said last-named line being of less length than the hauling line.

2. In combination, an excavating bucket comprising an open-ended body, a hoisting bail pivoted to the body, a hoisting line connected to the bail, a hauling line connected to the bucket, a latch for locking the bail to the bucket, a latch line to release the latch, a drum adapted to operate said hauling line and latch line, and means including said drum and latch line for automatically exerting a pull on said latch when the hoisting line has moved the body to a predetermined position.

3. In combination, an excavating bucket comprising an open-ended body, a hoisting bail pivoted to the body, a hoisting line connected to the bail and means for operating the same, a hauling line connected to the bucket, means for locking the bail to the bucket, an independent line for releasing said means, means for taking up said independent line while the bucket is being hauled and operating to pay out said independent line during the operation of the hoisting line and to automatically exert a pull on said independent line when the hoisting line has hoisted the bucket to a predetermined point.

4. In combination, a boom, an excavating bucket comprising an open-ended body, a hoisting bail pivoted to the body, a hoisting line connected to the bail and passed over the outer end of the boom and wound on a drum at the base of the boom, a hauling line wound on a drum at the base of the boom, and connected to the forward end of the body, a latch for locking the bail to the body, means operable by the hauling line to swing the bail forward into engagement with said latch, a latch line for releasing the latch, said latch line being of less length than the hauling line, and being wound on the hauling line drum, and having its end connected to said drum.

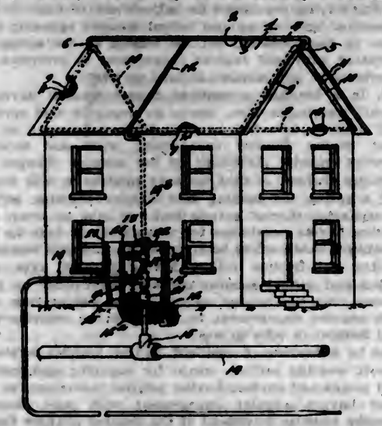
5. In combination, a boom, an excavating bucket comprising an open-ended body, a hoisting bail pivoted to the body, a hoisting line connected to the bail and passed over the outer end of the boom and wound on a drum at the base of the boom, a hauling line wound on a drum at the base of the boom, and connected to the forward end of the body, a latch for locking the bail to the body, means operable by the hauling line to swing the bail forward into engagement with said latch, a latch line for releasing the latch, said latch line being wound on the hauling line drum, and being of such length that the paying out of the hauling line will reverse the winding of the latch line on the drum to exert a pull on the latch line to release the latch.

[Claim 6 not printed in the Gazette.]

1,208,849. FIRE-EXTINGUISHING APPARATUS. BENJAMIN F. MOODY, Huttig, Ark. Filed Aug. 17, 1916. Serial No. 115,428. (Cl. 169—20.)

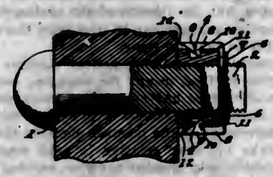
1. In a fire extinguishing apparatus, the combination of a series of water distributing pipes and a water supply main, of a pipe connecting said distributing pipes and the main, said connecting pipe consisting of two sections, a union having a lateral extension connecting the adjacent ends of said sections, and designed to be given a half turn in one direction or the other, whereby a hose may be conveniently attached to the lateral extension.

2. In a fire extinguishing apparatus for buildings, the combination of a series of water distributing pipes disposed adjacent the eaves of the roof of the building and having a distributing pipe adjacent the top of the roof at its central portion and a pipe connected to the pipe on the top of the building and extending laterally of the roof and downwardly and being embedded in the side of the building, said last named pipe consisting of two sections, of a boxing in the wall of the building having exterior and interior doors, and into which boxing the adjacent ends of said sections extend, a union connecting the adjacent ends of said sections and having a lateral extension, to which a half turn may be imparted, so that the extension will extend toward the exterior or interior doors, whereby a hose may be conveniently attached to



the extension, and valves carried by the sections of said last named pipe controlling the water through the system.

1,208,850. NUT-LOCK. EDMUND L. MOORE, Vega Baja, Porto Rico. Filed Nov. 2, 1915. Serial No. 59,255. (Cl. 151—5.)



1. A nut lock comprising, in combination with a bolt having a longitudinal slot, and a nut provided with diametrically disposed recesses and a substantially circumferential slot, of a locking element respectively traversing the slot and the alined recesses of the nut and provided with branch locking terminals yieldingly confined in the groove of the nut.

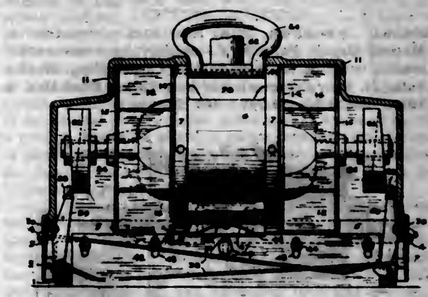
2. In a nut lock, the combination with a bolt having a longitudinal slot and a nut having a series of diametrically opposed recesses and also a slot at right angles to the recesses, of a resilient locking element provided with a long arm extending through the slot in the bolt and movable longitudinally therein and also extending through two of the said diametrically opposed recesses in the nut and having relatively yieldable short arms extending over the sides of the nut and provided with shouldered surfaces engaged in the slot.

1,208,851. VACUUM FLOOR-CLEANER. ALBERT E. MOORHEAD, San Francisco, Cal. Filed Feb. 23, 1916. Serial No. 79,808. (Cl. 15—60.)

1. In combination, front and rear rollers, a rotating motor and fans carried thereby, one at each end of the motor, cams rotating with the motor, beaters between said rollers, and adapted to strike the surface upon which the rollers roll, and means controlled by said cams for moving said beaters.

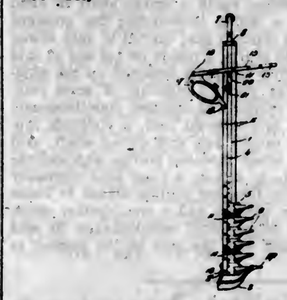
2. In combination, front and rear rollers, a rotating motor and fans carried thereby, one at each end of the motor, cams rotating with the motor, a casing surrounding the fans, levers pivotally mounted in said casing and controlled by said cams, and vibrating beaters between said rollers and carried by said levers and adapted to strike the surface upon which the rollers are rolling.

3. In combination, front and rear rollers, a rotating motor and fans carried thereby, one at each end of the motor, cams rotating with the motor, a casing surrounding the fans, levers pivotally mounted in said casing and controlled by said cams, springs actuating said levers, and vibrating beaters between said rollers and carried by said levers and adapted to strike the surface upon which the rollers are rolling.



4. In combination, supports adapted to move along the ground, a motor and a fan carried thereby, a vibrating beater between the supports and adapted in its vibration to strike the surface of the ground, a removable stop for preventing the movement of said beater and means controlled by said motor for vibrating said beater.

1,208,852. HAND-MOWER. JAMES MORISON, Watson, Oreg. Filed May 17, 1915. Serial No. 28,714. (Cl. 56—16.)



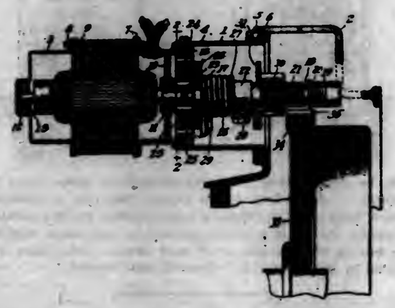
1. In a hand mower adapted for operation in a vertical position, a stationary finger bar, a reciprocable cutter bar, fingers secured to the stationary finger bar for the purpose specified, a shoe mounted at the lower extremity of said stationary finger bar, for engagement with the lowermost finger, and a handle formed upon the reciprocable cutter bar in vertical alinement therewith.

2. In a hand mower adapted for operation in a vertical position, a relatively stationary finger bar structure comprising spaced bar sections, a means maintaining the bar sections in rigid relation, a reciprocable cutter bar adapted for operation in the space between the respective bar sections, and having a series of cutter plates, a means maintaining the reciprocable cutter bars against displacement, guard devices secured to one section of the stationary finger bar for coaction with the aforesaid cutter plate, a shoe mounted at the lower extremity of the stationary finger bar for engagement with the lowermost finger, a handle formed upon the reciprocable cutter bar in vertical alinement therewith, and a means connecting one of the finger bar sections and the cutter bar for obtaining leverage during operation.

3. In a hand mower adapted for operation in a vertical position, a finger bar structure comprising spaced bar sections, one of said sections carrying the finger guards, a

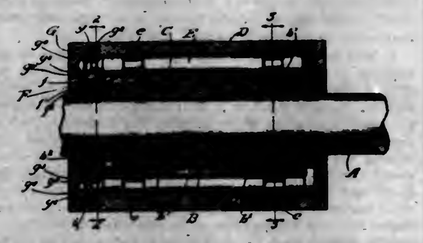
reciprocable cutter bar operable between said bar sections, a handle for operating said cutter bar, a handle on one of said bar sections, and a lever connected to the last mentioned handle, and detachably connected to the other of the bar sections, permitting direct manipulation of the cutter bar by means of the first mentioned handle, said lever being connectible to the cutter bar for actuation thereof to obtain an increased leverage.

1,208,353. STARTER FOR ENGINES. CHARLES A. MUDGE, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light and Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Mar. 4, 1915. Serial No. 11,947. (Cl. 74—34.)



In combination, a geared rotatable member to be driven and means for driving said member including an electric motor having an armature shaft, a driven shaft in axial alinement therewith, a casing surrounding the adjacent ends of said shafts, an internal gear carried by said casing in fixed relation to said shafts, a pinion on the end of said armature shaft, a carrier rotatably mounted on the adjacent end of said driven shaft, a plurality of gears rotatably carried by said carrier and meshing simultaneously with said pinion and said internal gear, a yieldable connection between said carrier and said driven shaft, said driven shaft having a screw threaded portion adjacent the gear on the member to be driven, a loose gear internally threaded on said screw threaded portion biased to resist rotation by said screw threads, and a stop against which said loose gear abuts when moved longitudinally by said screw threads into mesh with the gear on the member to be driven.

1,208,354. ROLLER-BEARING. HUBERT A. MYERS, Toledo, Ohio, assignor of one-half to Arthur S. Hickok, Toledo, Ohio. Filed Mar. 11, 1914. Serial No. 823,887. (Cl. 64—62.)



1. In a bearing, a resilient helical member having a smooth wearing surface, means for engaging said surface, said means and surface having relative movement, an element having angular engagement with said member, whereby endwise movement of the member changes the diameter thereof, to take up wear relative to said means, and a spring for pushing said member endwise, serving by expansion thereof automatically to take up wear, said bearing having provisions for adjustment to take up said expansion, said element having a spiral bevel, and said member having the convolutions thereof formed to fit said bevel, said spring and helical member opposing each other by their tension, but the tension of the spring coöperating with said angular engagement to overcome the reluctance of said member to take up wear.

2. In a bearing, a resilient helical member having a smooth wearing surface, means for engaging said surface, said means and surface having relative movement, an element having angular engagement with said member, whereby endwise movement of the member changes the diameter thereof, to take up wear relative to said means, and a spring for pushing said member endwise, serving by expansion thereof automatically to take up wear, said bearing having provisions for adjustment to take up said expansion, said spring and helical member opposing each other by their tension, but the tension of the spring coöperating with said angular engagement to overcome the reluctance of said member to take up wear.

3. In a bearing, a resilient helical member having a smooth wearing surface, means for engaging said surface, said means and surface having relative movement, an element having angular engagement with said member, whereby endwise movement of the member changes the diameter thereof, to take up wear relative to said means, and a spring for pushing said member endwise, serving by expansion thereof automatically to take up wear, said bearing having provisions for adjustment to take up said expansion, said element having a spiral bevel, and said member having the convolutions thereof formed to fit said bevel, said spring and helical member opposing each other by their tension, but the tension of the spring coöperating with said angular engagement to overcome the reluctance of said member to take up wear.

4. In a bearing, a resilient helical member having a smooth wearing surface, means for engaging said surface, said means and surface having relative movement, an element having angular engagement with said member, whereby endwise movement of the member changes the diameter thereof, to take up wear relative to said means, and a spring for pushing said member endwise, serving by expansion thereof automatically to take up wear, said bearings having provisions for adjustment to take up said expansion, a ring interposed between said spring and member, and other springs engaging said ring, said spring and helical member opposing each other by their tension, but the tension of the spring coöperating with said angular engagement to overcome the reluctance of said member to take up wear.

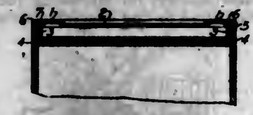
5. In a bearing, a resilient helical member having a smooth wearing surface, means for engaging said surface, said means and surface having relative movement, an element having angular engagement with said member, whereby endwise movement of the member changes the diameter thereof, to take up wear relative to said means, and a spring for pushing said member endwise, serving by expansion thereof automatically to take up wear, said bearing having provisions for adjustment to take up said expansion, said member being formed with the convolutions thereof in tight engagement with each other, whereby said surface is practically continuous and unbroken in character, said spring and helical member opposing each other by their tension, but the tension of the spring coöperating with said angular engagement to overcome the reluctance of said member to take up wear.

[Claim 6 not printed in the Gazette.]

1,208,355. LEAD-PIPE-SEALING CAP. SAMUEL D. NICHAMKUS, Brooklyn, N. Y. Filed Mar. 29, 1916. Serial No. 87,408. (Cl. 137—76.)

1. A device for sealing lead pipes, comprising a top portion and a side portion adapted to be inserted into the pipe, the side portion being bent outwardly and then inwardly forming thereby an annular projection for the purpose shown and described.

2. A device for sealing lead pipes, comprising a top having its central portion depressed and a side portion adapted to be inserted into the pipe, the side portion being bent outwardly and then inwardly forming thereby an annular projection for the purpose shown and described.



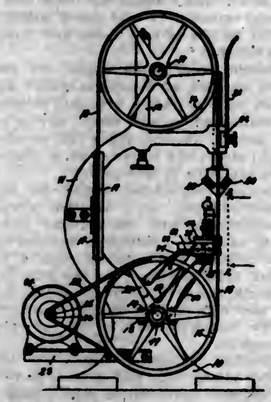
3. A device for sealing lead pipes, comprising a top portion having its central portion depressed, and a side portion having its junction with the top portion beveled, the said side portion being bent outwardly and then inwardly forming thereby an annular projection for the purpose shown and described.

4. A device for sealing lead pipes comprising a top portion and a side portion adapted to be inserted into the pipe, the side portion being provided with a rounded projection adapted to be in contact with the inner surface of the pipe, and a layer of solder adapted to flush into said gap.

5. A device for sealing lead pipes, comprising a top portion having its central portion depressed and a side portion being provided with a rounded projection adapted to be in contact with the inner surface of the pipe thereby leaving a gap between the side portion and the inner surface of the pipe and a layer of solder adapted to flush into said gap.

[Claim 6 not printed in the Gazette.]

1,208,356. FEEDING-MECHANISM GEARING. WILLIAM J. NESBITT, Los Angeles, Cal. Filed Jan. 25, 1916. Serial No. 74,269. (Cl. 74—40.)



1. In heel cutting apparatus, the combination of a shelf provided with a slot, a platform movably mounted on the shelf, a driving-shaft, a threaded spindle operatively connected to the driving-shaft, a socket member secured to the platform and passing through said slot, a spring-pressed follower having at one end a stem freely fitted in said socket and having its other end grooved to fit on the top part of the spindle, said follower having a groove therein, a shaft, a plate secured to said shaft and extending into said groove, a lever for moving said shaft to move the plate to raise the follower, means for locking the lever when the follower is in the raised position, means for releasing said lever to permit the follower to move to operative contact with the threaded spindle, a cam on the threaded spindle to raise the follower out of contact with the threaded spindle, and a spring for returning the platform to its forward position when the follower is moved away from the threaded spindle.

2. In a heel cutting apparatus, the combination of a shelf, a platform movably mounted thereon and provided with a socket, a driving-shaft, a threaded spindle operatively connected to the driving-shaft, a follower fitted freely in said socket and adapted to fit against the top part of the threaded spindle, said follower provided with a groove, a shaft, a spring-pressed plate secured to said shaft and extending into said groove, a lever for moving said shaft to move the plate to raise the follower away from the threaded spindle, a part with which the lever engages to lock said lever when the follower is in the raised position, and means for releasing said lever to permit movement of said shaft and plate to move the follower to operative contact with the threaded spindle.

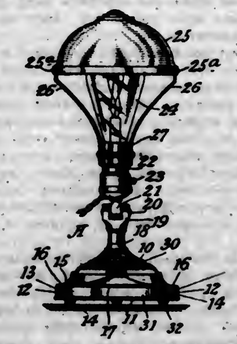
3. In heel cutting apparatus, the combination of a movably mounted platform provided with a socket, a threaded spindle, a follower fitted freely in the socket and adapted to fit against the threaded spindle, said follower having a groove therein, a shaft, a spring-pressed plate secured to said shaft and extending into said groove, and a lever for moving said shaft to move the plate to move the follower away from the threaded spindle.

4. In heel cutting apparatus, the combination of a movably mounted platform provided with a socket, a threaded spindle, a follower fitted freely in the socket and adapted to fit against the threaded spindle, said follower being provided with a groove, a shaft, a spring-pressed plate secured to said shaft and extending into said groove, a lever for moving said shaft to move the plate to move the follower away from the threaded spindle, a pivotally mounted spring-pressed plate having a part thereon with which the lever engages to lock said lever when the follower is moved away from the threaded spindle, and a lever for moving said pivotally mounted spring-pressed plate to unlock the first-mentioned lever to permit movement of said shaft and the plate thereon to move said follower against the threaded spindle.

5. In heel cutting apparatus, the combination of a movably mounted platform provided with a socket, a threaded spindle, a spring-pressed follower fitted freely in the socket and adapted to fit against the threaded spindle, said follower having a groove therein, a shaft, a plate secured to said shaft and extending into said groove, a lever for moving said shaft to move the plate to move the follower away from the threaded spindle, means for locking the lever when the follower is moved away from the threaded spindle, and means for unlocking said lever to permit the follower to move to position against the threaded spindle.

[Claim 6 not printed in the Gazette.]

1,208,357. CONVERTIBLE LAMP AND HEATER DEVICE. NORMAN G. NICOLL, Brooklyn, N. Y. Filed June 20, 1916. Serial No. 104,688. (Cl. 219—19.)



1. In a device of the class described, a stand having an electrically connected socket adapted to carry a lamp and a hollow base having a circumferential depending flange provided with teats, a bottom plate having an annular flange formed with a continuous groove to receive the teats, said base curved from the top of the circumferential depending flange, inwardly and upwardly to form a shoulder portion, a heater having a marginal flange

adapted, when the said heater is stored in the base, to be confined between the shoulder and the bottom plate to prevent movement thereof, said heater being also provided with a plug adapted in use to enter the socket as and for the purpose set forth.

2. In a device of the class described, a stand having an electrically-connected socket adapted to carry a lamp, said stand being provided with a base forming a housing, and a heater element adapted to be stored in the base when not in use and having means for operative connection with the socket as described.

3. In a device of the class described, a stand having an electrically-connected socket adapted to carry a lamp, and a base forming a housing having a removable bottom, in combination with a heater element having a plug adapted for engagement with the socket for the purpose specified.

4. In a device of the class described, a stand having an adjustable, electrically-connected socket adapted to carry a lamp, and a hollow base in combination with a heater element having a plug to engage the socket, said heater being provided with a coil chamber and a marginal flange for the purpose specified.

5. In a device of the class specified, a stand having a hollow base and a pivoted electrically-connected socket adapted to carry a lamp, a heater element shaped to enter the base when not in use, a removable bottom to said base having an annular flange, said base being also provided with a shoulder adapted, when the heater is stored in the base, to bear on the same to prevent movement thereof said heater having a plug for use in connection with the socket as described.

[Claim 6 not printed in the Gazette.]

1,208,358. SMOKELESS POWDER. JESSE C. NICHOLLS, U. S. Army. Filed Feb. 21, 1916. Serial No. 79,711. (Cl. 102—1.)



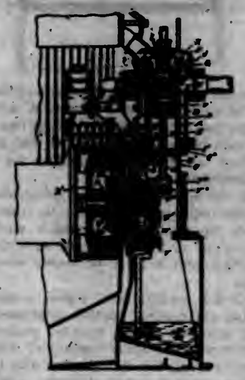
1. A maneuver powder which, when fired with low confining resistance, will simulate in report and appearance, the discharge of a normal service charge; said powder consisting of sheets or disks cut from rods, sticks or other pieces of explosive of suitable composition, which strips, sheets or disks are relatively very thin as compared with their other dimensions, such as length and breadth, or diameter.

2. A maneuver powder which, when fired with low confining resistance, will simulate in report and appearance, the discharge of a normal servise charge; said powder consisting of sheets or disks cut from rods, sticks or other pieces of explosive of suitable composition, which strips, sheets or disks are relatively very thin as compared with their other dimensions, such as length and breadth, or diameter; said strips, sheets, or disks being of a form developing a comparatively large bulk and occupying a space sufficient to constitute a safeguard against using, through error or accident, a dangerously large charge.

3. The berein described maneuver powder composed of shavings or chips of relatively thin dimension and of form developing a large bulk in comparison with its density, and having the qualities of developing, when lightly confined, a loud report with minimum visible products of combustion.

1,208,359. INTERNAL-COMBUSTION ENGINE. WARREN NOBLE, Detroit, Mich. Filed Nov. 1, 1915. Serial No. 58,957. (Cl. 123—80.)

1. In an internal combustion engine, the combination with a ported cylinder of a rotative sleeve within said cylinder ported for registration with said cylinder port, a piston member and a core member fitting within different portions of said sleeve, a segmental projection on one of said members overlapping the ported portion of said sleeve and forming an inner seal therefor, and means upon the other of said members for lubricating the inner face of said sleeve adjacent to said segmental projection.



2. In an internal combustion engine, the combination with a ported cylinder of a rotative sleeve within said cylinder ported for registration with the cylinder port, a reciprocatory piston member and a core member fitting within different portions of said sleeve, a segmental extension of said core member overlapping the ported portion of said sleeve and forming an inner seal therefor, and a segmental extension of said piston adapted to overlap an adjacent portion of said sleeve and forming lubricating means therefor.

3. In an internal combustion engine, the combination with a ported cylinder, of a rotative sleeve within said cylinder ported for registration with said cylinder port, a piston reciprocating within said sleeve, having an upward extension on one side thereof, and a core member extending within said sleeve and cut-away to be complementary to the upward extension of said piston.

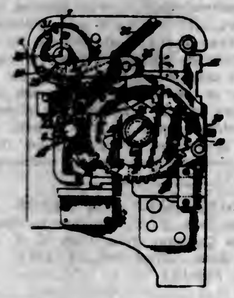
4. In an internal combustion engine, the combination with a ported cylinder, of a rotative sleeve therein ported for registration with the cylinder ports, a core member within said sleeve extending to cover the ported zone of said cylinder and provided with a registering port, said core being cut-away on one side beyond the zone of the ports, and a piston reciprocating within said sleeve below said core member and provided with an upward extension complementary to the cut-away portion of said core member.

5. In an internal combustion engine, the combination with a cylinder having inlet and exhaust ports in a zone thereof, of a rotative sleeve within said cylinder having a plurality of ports successively registered with said inlet and exhaust ports, a core member fitting within the ported zone of said sleeve and cut-away at one side, and a piston reciprocating within said sleeve, having an extension complementary to said cut-away portion of the core, said extension adapted to cover one of the ports of said sleeve.

[Claims 6 to 15 not printed in the Gazette.]

1,208,360. INTERLOCKING MECHANISM. JOHN F. OHMER and WILLIAM G. ORTH, Dayton, Ohio, assignors to Ohmer Fare Register Company, Rochester, N. Y. Original application filed Apr. 23, 1914, Serial No. 834,002. Divided and this application filed Apr. 30, 1915. Serial No. 25,066. (Cl. 235—30.)

1. In mechanism of the character specified, the combination with a setting shaft and a printing shaft, of different interlocking means for said setting and printing shafts, the interlocking means for the printing shaft being under the control of the setting shaft, means comprising disengaging gears between the setting and printing shafts for returning said setting shaft to normal position after the printing operation of said printing shaft is concluded, means actuated by said printing shaft to unlock the setting shaft, and interlocking means to permit said last named shaft to be returned to normal position.



2. In mechanism of the character specified, the combination with a setting shaft, and a printing shaft, of locking devices for said setting shaft including a disk and pawl, locking devices for said printing shaft including a disk and a pawl, the latter being normally under the control of the setting shaft through the first named pawl, means carried by said printing shaft for actuating said first named pawl to unlock the setting shaft at the conclusion of the printing operation of the said printing shaft, and gears interposed between the setting shaft and the printing shaft whereby the setting shaft is returned to normal position after the printing shaft has concluded its printing operation.

3. In mechanism of the character specified, the combination with a setting shaft, and a printing shaft, of locking devices for said setting shaft including a disk mounted on said setting shaft, and a pawl coöperating therewith and adapted to lock said disk in the initial operative position of said setting shaft, locking devices for said printing shaft including a pawl having a one-way-moving connection with said first named pawl, and a ratchet wheel mounted on the printing shaft, said last named pawl being adapted to lock the printing shaft until the setting shaft has been given a full movement from normal position, and a cam carried by said printing shaft for actuating said first named pawl to unlock the setting shaft.

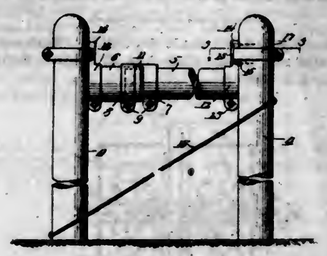
4. In mechanism of the character specified, the combination with a setting shaft adapted to be moved to two positions from the normal position thereof, and a printing shaft, of interlocking devices controlling said printing shaft until the setting shaft is moved to the second position from its normal position.

5. In mechanism of the character specified, the combination with a setting shaft adapted to be moved to two positions from its normal position, of locking devices preventing said shaft from being returned to normal position from the intermediate one of said positions, a printing shaft, locking devices for said printing shaft actuated by the locking devices of the setting shaft to release said printing shaft when the setting shaft has been moved to the limit of its movement from said intermediate position, and gears interposed between the setting and printing shafts for returning the setting shaft to normal position by an operation of the printing shaft.

[Claims 6 to 12 not printed in the Gazette.]

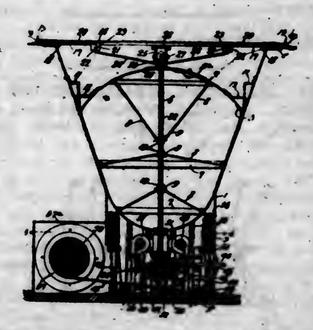
1,208,361. FENCE-POST BRACE. LEWIS OLSON, Madison, Wis. Filed June 28, 1916. Serial No. 106,462. (Cl. 256—35.)

1. The combination with a fence post, of a lateral brace comprising a pair of pipe sections telescopingly joined, one of the pipe sections being connected to said post and the other to an opposed support, and means fixedly securing the pipe sections together at their joined portions comprising band clamps embracing and clamped to each pipe section, and a connection between the clamps holding them in fixed relative relation.



2. A fence post brace comprising in combination with the post, a lateral brace, a split band embracing the brace, means for clamping the band to the brace, the band being provided with an integral extension having an aperture therethrough, a split band embracing the post and extending through said aperture, and means for clamping the last mentioned split band to the post whereby to secure the brace in fixed relation thereto.

1,208,362. VESSEL LOCATING AND SALVAGING APPARATUS. JAMES M. ORR, East Point, Ga. Filed Feb. 11, 1916. Serial No. 77,667. (Cl. 114—165.)



1. An apparatus of the character described embodying a well, a buoy within the well, a cable connected to the buoy, a closure for the well, means for normally latching the closure in closed position, and means for unlatching the closure when the buoy is raised.

2. An apparatus of the character described embodying a well, a buoy therein, a cable connected to the buoy, a pair of hinged doors for closing the well, latch devices for holding the doors in closed position, and means for unlatching the doors when the buoy is raised.

3. An apparatus of the character described embodying a well, a buoy therein, a cable connected to the buoy, a closure normally closing said well, and a latch device carried by the closure for holding it in closed position and having a portion for the contact of the buoy when it is raised to unlatch the closure.

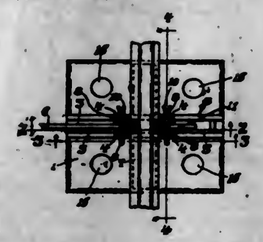
4. An apparatus of the character described embodying a well, a buoy therein, a cable connected to the buoy, a pair of hinged doors for closing the well, a pair of latch bolts carried by each door for holding it in closed position, and toggle links connected to the latch bolts and adapted to be operated by the buoy when it is raised, for retracting the latch bolts to release the doors.

5. An apparatus of the character described embodying a well, a buoy seated therein, a stand within the lower potrion of the well, a sleeve journaled for rotation through said stand, the buoy having a depending portion thread-

edly engaged with said sleeve, means for rotating the sleeve, and a cable attached to the buoy to pass upwardly through said sleeve.

[Claims 6 to 11 not printed in the Gazette.]

1,208,363. METALLIC RAILWAY-TIE. WILLARD PENNOCK, Minerva, Ohio. Filed Apr. 27, 1915. Serial No. 24,189. (Cl. 238—6.)



In a metallic railway tie of the class described, the combination of a rail base, said base provided with flanges adapted to abut against the longitudinal edges of the railway base flanges, said flanges provided with elongated slots and shouldered ends, a tie bar provided with a rail clamping head, said clamping head adapted to fit between the shouldered ends of the flanges and a tapered key adapted to be located through the elongated slots and in contact with the upper edge of the tie bar.

1,208,364. [WITHDRAWN.]

1,208,365. ELEVATING ATTACHMENT FOR MARINE VESSELS. THOMAS J. PHILLIPS and VASIL J. MURGA, McKeesport, Pa. Filed July 7, 1916. Serial No. 107,928. (Cl. 9—9.)

1. An elevating attachment for the purpose set forth comprising a plurality of drums adapted to be secured to the body of a vessel, a lifting cable normally wound on each drum, a buoyant elevating member secured to each cable for unwinding it when the vessel sinks and for suspending the cable upright, tapering coupling members adapted to be secured to the body of the vessel and each having a cable extending therethrough, wedge-shaped abutments carried by the cables and wedging within the coupling members when the cables are unwound to take the pulling weight off the drums when the vessel is raised by elevating the cables.

2. An elevating attachment for the purpose set forth comprising a plurality of drums, a support for each drum adapted to be secured to the body of the vessel, a lifting cable normally wound on each drum, a rectangular buoyant elevating member normally seated upon a support and secured to a cable for unwinding it when the vessel sinks and for suspending the cable upright, tapering coupling members adapted to be secured to the body of the vessel and each having a cable extending therethrough, wedge-shaped abutments carried by the cables and wedging within the coupling members when the cables are unwound to take the pulling weight off the drums when the vessel is raised by elevating the cables.

3. An elevating attachment for the purpose set forth comprising a plurality of drums, a support for each drum adapted to be secured to the body of the vessel, a lifting cable normally wound on each drum, a rectangular buoyant elevating member normally seated upon a support and secured to a cable for unwinding it when the vessel sinks and for suspending the cable upright, tapering coupling members adapted to be secured to the body of the vessel and each having a cable extending therethrough, wedge-shaped abutments carried by the cables and wedging within the coupling members when the cables are unwound to take the pulling weight off the drums when the vessel is raised by elevating the cables, said elevating members having a rectangular pocket, a spool rotatably supported in each of said pockets, and means carried by said spools for indicating when the vessel is sunk when said elevating members are submerged.

1,208,366. SPRING-BRAKE FOR GEARS. EDGAR E. PHINNEY, New York, N. Y., assignor to Monroe Calculating Machine Company, New York, N. Y., a Corporation of New York. Filed Oct. 27, 1914. Serial No. 868,869. (Cl. 74—13.)



1. In a yieldable check device, a member having a rod provided with projections spaced apart from each other, a coiled spring surrounding said rod and having the interior surfaces of certain of its coils engaged by said projections, and a member having engagement with the exterior surfaces of the coils of said springs located between said projections, one of said members being movable with relation to the other member.

2. In a yieldable check device for a machine having a gear wheel, a rod supported by said machine and provided with projections spaced apart from each other, and a coiled spring surrounding said rod and having the interior surfaces of certain of its coils engaged by said projections, said gear wheel having engagement with the exterior surfaces of the coils of said spring located between said projections.

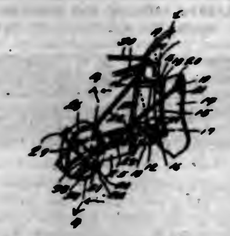
3. In a yieldable check device for a machine having gear wheels, a rod supported by said machine and provided with projections spaced apart from each other, a coiled spring surrounding said rod and having its coils laterally in substantial contact with each other and the interior surfaces of certain of its coils engaged by said projections, said gear wheels having engagement with the exterior surfaces of the coils of said spring located between said projections.

4. In a yieldable check device for a machine having gear wheels, a rod having end bearings in the frame of said machine and provided with projections spaced apart from each other and recesses between said projections, a coiled spring surrounding said rod and having its coils laterally in substantial contact with each other and the interior surfaces of certain of its coils engaged by said projections, said gear wheels having engagement with the exterior surfaces of the coils of said spring located between said projections and opposite said recesses.

5. In a yieldable check device for a machine having gear wheels, a rod having end bearings in the frame of said machine and provided with projections spaced apart from each other, a coiled spring surrounding said rod and having the interior surfaces of certain of its coils engaged by said projections, said gear wheels having engagement with the exterior surfaces of the coils of said spring located between said projections, and means for adjusting said rod and said spring bodily toward and away from said gear wheels.

[Claim 6 not printed in the Gazette.]

1,208,367. PLOW ATTACHMENT FOR ROAD-GRADERS. JOHN R. PILE, Owensboro, Ky. Filed Aug. 2, 1916. Serial No. 112,744. (Cl. 97—12.)



1. In a plow attachment of the kind set forth, the combination of a plow beam having a downwardly extending standard at the rear and a supporting wheel carried by the standard, of a trench plow mold board having a metallic strap upon its rear face having upper and lower rearwardly extending right angle ears provided with apertures, the forward edge of the standard having a pair of forwardly and downwardly extending lugs the downwardly extending portions of which pass through the apertures of the ears, means carried by the lugs to hold the ears thereon, a support for the wheel, an axle mounted in said support and on which the wheel is journaled, and means connecting the axle and the upper portion of the plow mold board for bracing the plow mold board.

2. In a plow attachment of the kind set forth, the combination of a plow beam having a downwardly extending standard at the rear and a supporting wheel carried by the standard, of a trench plow mold board having a metallic strap upon its rear face having upper and lower rearwardly extending right angle ears provided with apertures, the forward edge of the standard having a pair of forwardly and downwardly extending lugs the downwardly extending portions of which pass through the apertures of the ears, means carried by the lugs to hold the ears thereon, a support for the wheel, an axle mounted in said support and on which the wheel is journaled, and means connecting the axle and the upper portion of the plow mold board for adjustably bracing the plow board, said means comprising rods having eye connections with the upper opposite corners of the mold board, sleeves swiveled on the axle and having additional sleeves swiveled thereto, and nuts on said rods for adjustably connecting the rods to the second sleeves.

1,208,368. GLAZIER'S FASTENING DEVICE. JOHANNES PIETER PUNT, Chicago, Ill., and SIMON PUNT, Orange City, Iowa. Filed Nov. 20, 1915. Serial No. 62,497. (Cl. 85—15.)



1. A fastening device of the class described comprising a body consisting of two angularly disposed portions; a downwardly bent portion at one end of one of said body portions; and laterally bent portions at the corners of the other of said body portions for fastening the same in operative position, substantially as described.

2. A fastening device of the class described comprising a body consisting of two angularly disposed portions; a downwardly bent portion at one end of one of said body portions, the opposite end of said body portion being beveled; and means for fastening the other body portion in operative position, substantially as described.

3. A fastening device of the class described comprising a body consisting of two angularly disposed portions; a downwardly bent portion at one end of one of said body portions, the opposite end of said body portion being beveled, the outer corners of the other of said body portions being bent back to constitute fastenings devices, substantially as described.

4. A fastening device of the class described comprising a body consisting of two angularly disposed portions; a downwardly bent portion at one end of one of said body portions, the outer longitudinal edge of said body portion being beveled from said end thereof to the juncture of said body portion with the other body portion at the other end of said body; and means for fastening said body in operative position, substantially as described.

1,208,369. HAIR-WAVING DEVICE. JAMES E. PLANT, Buffalo, N. Y. Filed Jan. 15, 1916. Serial No. 72,227. (Cl. 132—18.)



1. In a hair waving device, a set of curved, slender, wire-like members, spacers positioned at intervals on said members and fixed thereto in a manner to hold the said members parallel with one another, said set of spaced members being flexible and continuously stiff throughout its length and adapted to encircle the head of a wearer of said device, a fastening element on each end of said set of members, and means adapted to closely join said fastening elements, substantially as set forth.

2. In a hair waving device, a set of curved, slender, wire-like members, comb teeth on one of said members, spacers positioned at intervals on said members and fixed thereto in a manner to hold the said members parallel to one another, said set of spaced members being flexible and stiff throughout its length, and adapted to encircle the head of the wearer of said device, a fastening element on each end of said set of members, and means adapted to closely join said ends by attachment to said elements.

3. In a hair waving device, a set of flexible, horse-shoe shaped members, continuously stiff throughout its length, spacers fixed at intervals to said members in a manner to space said members parallel to one another, fastening elements on the ends of said set of members and elastic means joining said elements and adapted to hold said ends close to one another flexibly.

4. In a hair waving device, adapted to encircle the head of a wearer of said device, a set of curved and spaced impression members, spacers fixed at intervals on said members, adapted to hold them apart from one another, said set of members being stiff throughout its length and means adapted to closely join the ends of said set of members.

5. A hair waving device adapted to encircle a head of hair, comprising a set of curved and spaced impression members, spacers fixed at intervals on said members, adapted to hold contiguous members apart, said set of members being stiff throughout its length, comb teeth on one of said members, adapted to engage the hair of the wearer, and means adapted to closely join the ends of said set of members.

1,208,370. THROW-OFF MECHANISM FOR FISHING-REELS. LOUIS PORTER, Newark, N. J., assignor to A. F. Meiselbach & Brother, a Corporation of New Jersey. Filed June 8, 1916. Serial No. 102,445. (Cl. 242—84.7.)

1. In a throw-off mechanism for fishing reels, the combination of a spool and a manually driven train of gears for rotating said spool, means for retaining the engagement of the respective gears of said train comprising a spring pressed, oscillating bridge for supporting one of said gears, and automatic locking mechanism for locking said oscillating bridge with said gears in engagement com-

prising an off-set arm upon said bridge, said arm having a circular opening and an off-set slot therein, and a headed spring-pressed push-pin in said opening to lock said bridge and adapted to be manually depressed to disengage the head of said pin from said opening to release said bridge.



2. In a throw-off mechanism for fishing reels, the combination of a spool, a manually driven train of gears in normal mutual engagement with each other for rotating said spool, a bridge mounted for limited oscillation upon which one of the gears of said train is mounted to rotate, a spring bearing upon said bridge for oscillating the same in one direction to disengage said gears, and locking mechanism for locking said bridge with said gears in engagement when said bridge is manually pressed against the action of said spring comprising an off-set arm upon said bridge, said arm having circular opening and an off set slot therein, and a headed spring-pressed push-pin in said opening to lock said bridge and adapted to be manually depressed to disengage the head of said pin from said opening to release said bridge.

3. In a throw-off mechanism for fishing reels, the combination of a spool, a manually driven train of gears in normal engagement with each other to rotate said spool, a pivotally mounted bridge for supporting one of said gears, a spring for oscillating said bridge in one direction to disengage said gears, and automatic locking mechanism for locking said bridge with said gears in engagement, when manually depressed against the action of said spring comprising an off-set arm upon said bridge, said arm having circular opening and an off set slot therein, and a headed spring-pressed push-pin in said opening to lock said bridge and adapted to be manually depressed to disengage the head of said pin from said opening to release said bridge.

4. In a throw-off mechanism for fishing reels, the combination of a line spool, a manually driven train of gears in normal engagement with each other to rotate said spool, a bridge upon which one of said gears is mounted, said bridge being pivoted at one end to oscillate and carry said gear into and out of engagement with another gear of said train, a spring bearing upon the other end of said bridge, the normal tendency of which is to throw the same in one direction to separate said gears, and locking mechanism for locking said bridge when manually pressed against said spring to reëngage said gears comprising an offset arm upon said bridge, said arm having a circular opening and an off set slot therein and a headed spring-pressed push-pin in said opening to lock said bridge and adapted to be manually depressed to disengage the head of said pin from said opening to release said bridge.

5. In a throw-off mechanism for fishing reels, the combination of a spool, a train of gears for rotating said spool, a bridge upon which one of said gears is mounted, said bridge being pivoted at one of it sends, a spring bearing upon the opposite end of said bridge to throw said gears out of engagement with each other, manually operated means for shifting said bridge against the action of said bridge being pivoted at one of its ends, a spring bearlocking mechanism for locking said bridge in position with said gears engaged comprising an offset arm upon said bridge, said arm having a circular opening and an off set slot therein and a headed spring-pressed push-pin in said opening to lock said bridge and adapted to be manually depressed to disengage the head of said pin from said opening to release said bridge.

[Claims 6 and 7 not printed in the Gazette.]

1,206,871. CUTTER-HEAD AND CUTTER. ALBERT F. PRESTON, Boston, Mass. Original application filed Oct. 10, 1912, Serial No. 725,075. Patent No. 1,105,584, dated July 28, 1914. Divided and this application filed Mar. 4, 1914. Serial No. 822,323. (Cl. 164—47.)



1. The combination of a knife and its holder, said holder having a socket of approximately the same shape and size as a portion of the knife, and the knife being permanently set out of exact accordance with the form of the socket, and being of elastic material, whereby said knife upon being inserted in the socket in distorted elastically and caused to bind resiliently against the walls of the socket.

2. The combination of a knife block or holder and a knife, said block having a socket adapted to receive one end of the knife, and the knife being of such form approximately the same as that of the socket but slightly out of true therewith, that when inserted into the socket the knife is sprung from its normal shape and caused to bind resiliently against the walls of the socket.

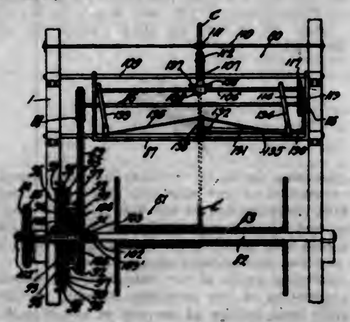
3. The combination of a cutter having a shank in the form of a bar, non-circular in cross section and a cutter carrier having a socket shaped similar to and of a size to fit closely about the bar, the bar being both twisted and bent so as to bind resiliently in the socket.

4. The combination of a cutter having a shank in the form of a bar, non-circular in cross section and a cutter carrier having a socket shaped similar to and of a size to fit closely about the bar, the bar being bent out of true with the socket sufficiently to bind resiliently against the walls of the socket.

5. The combination of a cutter having a shank in the form of a bar, non-circular in cross section and a cutter carrier having a socket shaped similar to and of a size to fit closely to the bar, the bar being twisted sufficiently to bind resiliently against the walls of the socket when forced thereinto.

[Claims 6 to 10 not printed in the Gazette.]

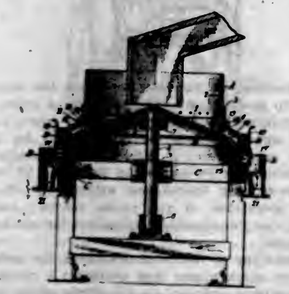
1,206,872. TRAVERSE MECHANISM FOR CABLE-MAKING MACHINES. WILLIAM N. RETTINGER, Bourbon, Ind. Filed Nov. 20, 1915. Serial No. 62,543. (Cl. 242—158.)



1. In a machine of the character described, a screw, a cable guide having a nut engaging said screw, a lever fulcrumed between its ends, a pair of gears carried by the opposite arms of said lever, operating means connected to said gears, a gear secured to said screw with which said pair of gears are adapted to mesh alternately, means for oscillating said lever and holding it in either position, a pair of levers operated by said guide at the opposite ends of the screw, and an operative connection connecting said levers and the oscillating means.

2. In a machine of the character described, a screw, a cable guide having a nut engaging said screw, an operating shaft, a lever fulcramed between its ends, a pair of gears carried by the opposite arms of said lever and connected to said shaft, a gear secured to the screw with which said pair of gears are adapted to mesh alternately, a pair of levers operated by said guide at the opposite ends of the screw, a lever associated with the first mentioned lever, the first mentioned lever having portions between which the third mentioned lever is movable, and the first and third mentioned levers being movable relative to one another, spring means for holding the third mentioned lever at either of two positions, a latch for holding the first mentioned lever, and means for releasing the latch when the third mentioned lever is operated.

1,206,873. PULP-DISTRIBUTER. CLARENCE EDGAR RHODES, El Oro, Mexico. Filed Mar. 31, 1913, Serial No. 757,880. Renewed Oct. 13, 1916. Serial No. 125,511. (Cl. 73—21.)



1. In a distributer for liquid pulp and the like, the combination of a receptacle rotatable on a vertical axis and provided with discharge openings, means in connection with said discharge openings and rendered operative by the discharge of liquid therefrom for rotating said receptacle, a launder into which said discharge openings are adapted to deliver, and distributing connections to said launder, substantially as described.

2. In a distributer for liquid pulp and the like, the combination of a receptacle rotatable on a vertical axis and provided with discharge openings, spouts which communicate with said discharge openings, the discharge ends of which are directed rearwardly, a launder into which said spouts are adapted to deliver, and distributing connections to said launder, substantially as described.

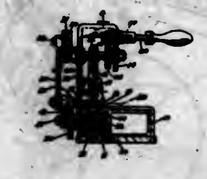
3. In a distributer for liquid pulp and the like, the combination of a receptacle rotatable on a vertical axis the bottom of which declines outwardly and downwardly and which is provided with discharge openings adjacent to its outer edge, spouts which communicate with said discharge openings the discharge ends of which are directed rearwardly, a launder into which said spouts are adapted to deliver, and distributing connections to said launder, substantially as described.

4. In a distributer of the type described, the combination of a receptacle rotatable on a vertical axis, and provided with discharge openings formed in the side walls of said receptacle, spouts which communicate with said discharge openings, a launder into which said spouts are adapted to deliver, said launder being provided with discharge openings, means for controlling said discharge openings, boxes into which said discharge openings deliver, and means for making pipe connections to said boxes, substantially as described.

5. In a distributer of the type described, the combination of a receptacle rotatable on a vertical axis, and provided with discharge openings formed in the side walls of said receptacle, spouts which communicate with said discharge openings, a launder into which said spouts are adapted to deliver, said launder being provided with discharge openings, means for controlling said discharge openings, boxes into which said discharge openings deliver, and means for making pipe connections to said boxes, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,208,374. PUNCHING-MACHINE. GEORGE H. RICHARDSON, Bridgeport, Conn. Filed May 5, 1916. Serial No. 95,526. (Cl. 164—87.)



1. In a punching machine, in combination, a frame having a way with a rack thereon, a carriage on the way, a short shaft carrying a pinion engaging the rack and a ratchet, a two-armed lever pivoted on the shaft, right and left pawls carried by said lever and adapted to engage the ratchet, punching mechanism and means for oscillating the lever.

2. In a punching machine, in combination, a frame having a way with a rack thereon, a carriage on the way, a short shaft carrying a pinion engaging the rack and a ratchet, a two-armed lever pivoted on the shaft, right and left pawls carried by said lever and adapted to engage the ratchet, a punch holder, a shaft carrying a cam for actuating the punch holder nd a crank arm, and a link connected to the two-armed lever and adjustably connected to the crank arm.

3. In a punching machine, in combination, a frame having a way with a rack thereon, a carriage reciprocating on the way, and a punch, a shaft carrying a cam for reciprocating the punch and a crank arm, a short shaft carrying a pinion engaging the rack and a ratchet, a two-armed lever pivoted on the short shaft, right and left pawls on said lever adapted to engage the ratchet, and a link connecting said lever and the crank arm, all upon the carriage.

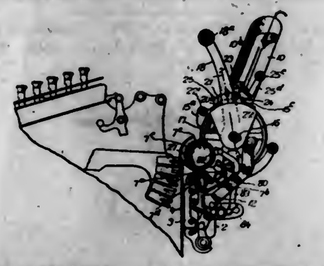
4. In a punching machine, in combination, a frame, a reciprocating carriage, a standard extending upward from the carriage and having a bracket, a shaft journaled in the standard and the bracket and carrying a cam and a crank arm, a punch holder actuated by the cam, a pinion and rack feed for the carriage, a shoft shaft for the pinion, a ratchet carried by the shaft, a two-armed lever pivoted on the shaft, right and left pawls adapted to engage the rtchet, and a link connecting the lever and the crank arm.

5. In a punching machine, in combination, a frame having a table, a strip of hard wood recessed into the table, and a way having a rack, a carriage, a standard extending upward from the carriage and having a bracket, a shaft journaled in the standard and the bracket, and carrying a cam and a crank arm, a punch coöperating with the strip of hard wood and actuated by the cam, a short shaft carrying a pinion engaging the rack and a ratchet, a two-armed lever pivoted on the shaft, right and left pawls pivoted to said lever and adapted to engage the ratchet, and a link pivoted to one arm of the lever and adjustably connected to the crank arm.

1,208,875. LINE-SPACING MECHANISM FOR ADDING OR TYPE-WRITING MACHINES. FRANK C. BINSCHE, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed July 21, 1913. Serial No. 780,266. (Cl. 197—117.)

1. A line spacing mechanism for adding machines and the like comprising a platen, a pinion rotatable therewith, a gear wheel meshing with said pinion, a rearwardly spring-pressed operating handle pivoted concentrically with said gear wheel, a pawl carried by said handle and forming a ratchet connection between said handle and gear wheel, a forward fixed stop, and a rearward adjustable

stop, said handle normally engaging said last mentioned stop and both said stops being arranged adjacent the path of the handle and coöperating therewith to limit its stroke and the rotation of the platen.



2. In a paper holding carriage for adding machines and the like, a platen journaled in the carriage frame, a pinion rotatable therewith, a gear wheel meshing with said pinion, a rearwardly spring-pressed operating handle journaled concentrically with said gear wheel, a pawl carried by said handle and forming a ratchet connection between said handle and gear wheel, a fixed stop arranged in the path of the handle to limit the throw thereof in a forward direction, a segmental rack also concentric with the gear wheel, and a movable stop adjustable on said segmental rack and arranged in the path of the handle to limit the throw thereof in the rearward direction and the rotation of the platen.

3. In a paper holding carriage for adding machines and the like, a platen journaled in the carriage frame, a pinion rotatable therewith, a gear wheel meshing with said pinion, an operating handle journaled concentrically with said gear wheel, a pawl and ratchet connection between said handle and gear, a fixed stop limiting the throw of the handle in one direction, a rocking arm pivoted concentrically of the gear wheel and equipped with a stop for limiting the throw of the arm in the other direction, and means for locking said arm in various positions of angular adjustment.

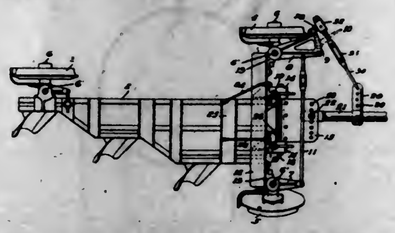
4. In a paper holding carriage for adding machines and the like, one of the end plates of the carriage having an upward extension equipped with a fixed stop, a pivot and a segmental rack concentric with the pivot, a platen journaled in the end plates, a pinion rotating with the platen adjacent said upward extension, a gear wheel rotatable on said pivot, an operating lever mounted to rotate concentrically of said pivot and arranged to contact said fixed stop at the limit of its movement in one direction, a ratchet connection between said operating lever and gear wheel, and a movable stop adjustable on said segmental rack for limiting the movement of the operating handle in the other direction.

5. In a paper holding carriage for adding machines and the like, one of the end plates of the carriage having an upward extension equipped with a fixed stop, a pivot, and a segmental rack concentric with the pivot, a platen journaled in the end plates, a pinion rotating with the platen adjacent said upward extension, a gear wheel rotatable on said pivot, an operating lever mounted to rotate concentrically of said pivot and arranged to contact said fixed stop at the limit of its movement in one direction, a ratchet connection between said operating lever and gear wheel, an arm 24 mounted to rotate on said pivot, a pawl on said arm arranged to engage said rack at various positions of adjustment, said arm having a stop contact arranged to interfere

2. In a device of the character described comprising a clip, and an air chamber carried by the clip including a hemispherical casing having its edge secured to the clip.

3. In a device of the character described comprising a clip, a casing carried by the clip and providing an air chamber, for preventing the submersion of said clip.

1,208,380. PLOW-HITCH. RICHARD RUEMELIN, Minneapolis, Minn., assignor to Minneapolis Steel & Machinery Company, Minneapolis, Minn., a Corporation of Minnesota. Filed June 26, 1913. Serial No. 775,869. (Cl. 97—7.4.)



1. The combination, with a plow frame of the character described, the steering crank arms thereof, and means connecting the same, of a vertically adjustable clevis connected to the forward end of said plow frame, a laterally adjustable draw-bar connected to said clevis, an adjustable arm upon said draw-bar, a connecting rod, means adjustably connecting one end of said rod to said arm, and means adjustably connecting the other end of said rod to one of said steering crank arms, substantially as described.

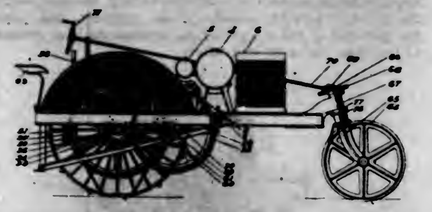
2. The combination, with a plow frame of the character described and, the steering crank arms thereof, of a clevis connected to the forward end of said plow frame, means for vertically adjusting said clevis, a draw-bar connected to said clevis, means for laterally adjusting the connection between said draw-bar and said clevis, an arm mounted upon said draw-bar, means for adjusting said arm lengthwise of said draw-bar, a connecting rod, means adjustably connecting one end of said rod to said arm and means adjustably connecting the other end of said rod to one of said steering crank arms, substantially as described.

3. The combination, with a plow frame, of the character described, the steering arms thereof, and means connecting the same, of a clevis connected by a horizontal pivot to the forward end of said plow frame, a laterally adjustable draw-bar connected to said clevis, an arm upon said draw-bar, a connecting rod, means connecting one end of said rod to said arm, and means adjustably connecting the other end of said rod to one of said steering crank arms, substantially as described.

1,208,381. TRACTOR. RICHARD RUEMELIN, Minneapolis, Minn., assignor to Minneapolis Steel & Machinery Company, Minneapolis, Minn., a Corporation. Filed Nov. 9, 1914. Serial No. 871,071. (Cl. 21—114.)

1. The combination, in a machine of the class described, with a frame, of a motor mounted upon said frame, an axle mounted in bearings upon said frame, a main traction wheel rigidly secured to said axle near one end thereof, and provided with a ring gear, an auxiliary traction wheel loosely mounted upon said axle near its opposite end, a ratchet clutch having one member upon said axle and the other upon said auxiliary traction wheel, means for disconnecting said clutch at will, a shaft arranged parallel to said axle and provided with a pinion engaging the ring gear upon the main traction wheel, and means arranged between said last named shaft and the engine for driving said shaft, substantially as described.

2. The combination, in a machine of the class described, with a frame, of a motor mounted upon said frame, an axle mounted in bearings upon said frame, a main traction wheel rigidly secured to said axle near one end thereof, and provided with a ring gear, an auxiliary traction wheel loosely mounted upon said axle near its opposite end, a ratchet clutch having one member upon said axle and the other upon said auxiliary traction wheel, means



for disconnecting said clutch at will, a shaft arranged parallel to said axle and provided with a pinion engaging the ring gear upon the main traction wheel, and means arranged between said last named shaft and the engine for driving said shaft at two speeds in a forward direction, and at a single speed in a reverse direction, substantially as described.

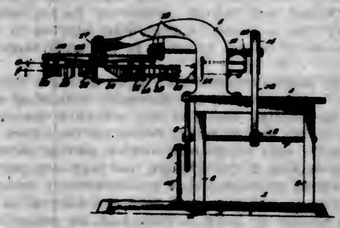
1,208,382. SPRING-BUMPER. JAMES H. SAGER, Rochester, N. Y., assignor to J. H. Sager Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 1, 1916. Serial No. 88,339. (Cl. 213—39.)



1. A bumper for motor vehicles comprising a resilient front bar, a resilient rear bar attached at its ends to ends of the front bar and deflected forwardly between its ends for engagement by the front bar, the forwardly deflected portion being free of the front bar, and attaching brackets secured to the rear bar in spaced relation to the ends of the latter and on opposite sides of the forwardly deflected portion.

2. A bumper for motor vehicles comprising two flexible bars one in advance of the other, the front bar being supported by the rear bar and the rear bar having a supplemental impact receiving portion free of said front bar but engaged by the latter after said front bar has been beat rearwardly.

1,208,383. TOBACCO-STRINGING MACHINE. FRIEDRICH J. SALZER, Erie, Pa., assignor of one-fourth to Frank Salzer, Erie, Pa. Filed Aug. 17, 1914. Serial No. 857,254. (Cl. 131—21.)



1. A machine for stringing tobacco comprising a piercing needle, rotating means to carry the leaves or plants to a position to be pierced by said needle, and means to hold the piercing needle against endwise and lateral displacement, and at the same time to be mechanically operated to overstep the carrying means as the leaves are threaded onto the needle.

2. A machine for stringing tobacco comprising a penetrating needle, a string connected with said needle, means to cause the leaves or plants to be pierced by said needle and strung onto said string, and mechanically operated

means to engage with and hold the penetrating needle against lateral and endwise displacement, and arranged to be moved from the engagement to overstep the leaves as threaded onto the needle.

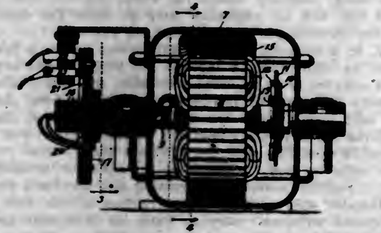
3. A machine for stringing tobacco comprising a penetrating needle adapted to have a string attached thereto, means with which the leaves or plants are engaged to be carried to said needle, means to support and hold said needle against lateral and endwise displacement and to be moved in the proper intervals to overstep the leaves and the engaging means and all of said parts so arranged that the leaf-carrying and holding means is permitted to have progressive movement while the needle is maintained at a fixed point.

4. A machine for stringing tobacco comprising means by which each of the leaves or plants is to be impaled, a plurality of holding means to receive the leaves or plants successively, rotatable means to carry said holding means and to bring said means to an operative relation, and mechanically operated means to engage with said impaling means to support the same against lateral and endwise displacement and to move to the inoperative relation in the proper intervals to overstep the holding means as the leaves or plants are carried onto the impaling means.

5. A machine for stringing tobacco comprising means by which each of the leaves or plants is to be impaled, a plurality of holding means to receive the leaves or plants successively, rotatable means to carry said holding means and to bring said means to an operative relation, means within the control of the operator to cause a turning motion to be transmitted to said rotatable means, and mechanically operated means mounted to engage with said impaling means to hold the same against lateral and endwise displacement and arranged to be brought to an inoperative relation through its own mechanical means in advance of the holding means to overstep the same.

[Claims 6 to 13 not printed in the Gazette.]

1,208,384. RECTIFIER. HENRY K. SANDELL, Chicago, Ill., assignor to Herbert S. Mills, Chicago, Ill. Filed Mar. 3, 1914. Serial No. 822,135. (Cl. 175—364.)

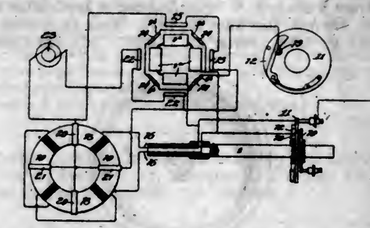


A device of the character described comprising a motor of the induction type having a primary rotor and a secondary stator, a commutator, one member of which is driven by the rotor, slip rings carried by the rotor, connections movable with the rotor from the slip rings to the rotor windings and from the slip rings to the driven commutator member, two winding in the secondary member, one of which is short circuited and the other of which consists of coils, leads for drawing off rectified current from the stationary member of the commutator and for leading the rectified current therefrom to the coil winding of the stator.

1,208,385. RECTIFIER. HENRY K. SANDELL, Chicago, Ill., assignor to Herbert S. Mills, Chicago, Ill. Filed May 1, 1914. Serial No. 835,643. (Cl. 175—364.)

1. In combination with a stator of the induction type and two field windings therein, for the purpose set forth, a rotor, coils thereon, slip-rings carried by the rotor and having connection with its coil, a commutator carried by the rotor, connections from the slip-rings to the commutator segments, line wires having connection with the commutator brushes, one of the stator field windings being in parallel with the line wires and the other in series therewith.

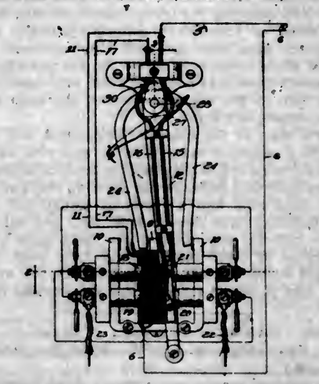
2. A device of the character described, comprising a magnetizable rotor, coils thereon, slip-rings to receive alternating current, connections between the slip-rings and the rotor coil, an inductive stator surrounding the rotor, a commutator carried by the rotor, connections between the slip-rings and commutator segments, brushes bearing on the commutator segments, two windings in the stator, direct current leads from the commutator brushes and connections with the two stator windings, one being in parallel with the direct current leads and the other in series therewith.



3. A device of the character described, comprising a magnetizable rotor, coils thereon, slip-rings to receive alternating current, a commutator carried by the rotor, brushes bearing on the commutator to lead off the rectified current, a connection between the slip-rings and rotor coils, a connection in parallel with the rotor coils leading to the commutator segments; two coils in the stator, direct current leads from the commutator brushes and connections to the two stator coils, one of said coils being parallel to the other in series with the direct current leads.

4. A device of the character described, comprising a primary member receiving alternating current and a secondary member, one of said members being a rotor and the other a stator, three windings in the secondary member, one of the windings being short circuited on itself and the other two being in the form of coils, a commutator, connections for leading alternating current to the primary member and to one of the commutator members in parallel with the coils of the primary member, direct current leads from the other commutator member, supplying direct current to the two coils in the secondary member, one of said coils being in parallel, the other in series with the load supplied with direct current by the commutator.

1,208,386. AUTOMATIC CURRENT-REVERSING MECHANISM. HENRY K. SANDELL, Chicago, Ill., assignor to Herbert S. Mills, Chicago, Ill. Filed May 1, 1914. Serial No. 835,645. (Cl. 175—352.)



In combination, a pivoted arm, a horse-shoe magnet carried thereby, an electro-magnet having a central pole

and auxiliary pole-pieces at the sides thereof whereby each pole of the horse-shoe magnet lies between the pole-piece and an auxiliary pole-piece of the electro-magnet, stationary pole-changer contacts and contacts to co-operate therewith on the swinging arm, feed wires of varying polarity, and lead-out wires connected to pole-changer contacts, and connections between the feed-wires and the electro-magnet to change the polarity thereof with changes in the feed wire circuit.

1,208,387. ELECTRIC LAMP. ALFRED SCHICKERLING, Mount Vernon, N. Y. Continuation of application Serial No. 110,022, filed July 19, 1916. This application filed Aug. 11, 1916. Serial No. 114,377. (Cl. 240—48.6.)



1. In a lamp of the character designated, the combination with the main reflector, and with an electric light bulb positioned therein, of an independently constructed inverted light-transmuting hood of translucent material closed at back and bottom and formed with front and side walls which conceal the said bulb from frontal view, said hood being inclosed by and within the confines of the main reflector and being formed with an open top adapted to allow the light rays from said bulb to impinge directly upon the upper portion of said main reflector, for the purpose set forth.

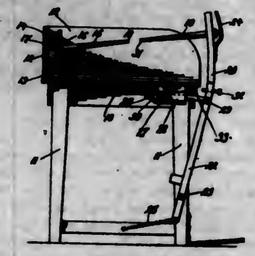
2. In a lamp of the character designated, the combination with the main reflector, and with an electric light bulb positioned therein of an independently constructed inverted light-transmuting hood of translucent material closed at back and bottom and formed with front and side walls which conceal the said bulb from frontal view, said hood being inclosed by and within the confines of the main reflector and being formed with front and side walls the upper edges of which are as high as the top of said light bulb to conceal the latter from frontal view, said hood being also formed with an open top commensurate in area with the size of the bulb and adapted to allow the light rays from said bulb to impinge directly upon the upper portion of the main reflector, for the purpose described.

3. In a lamp of the character designated, the combination with the main reflector and with the electric light bulb positioned with relation thereto, of a supplementary reflector cup covering the lower portion of said light bulb and a shade of translucent material partially inclosing said electric light bulb and said supplementary reflector cup, said shade being open above for the passage of light rays directly from said bulb and from said supplementary reflector cup to the upper portion of the main reflector, for the purpose set forth.

4. In a lamp of the character designated, the combination with a parabolic main reflector and with an electric light bulb positioned substantially in focal relation thereto, of a supplementary reflector cup covering the lower portion of said light bulb and a shade of translucent material partly inclosing said electric light bulb and said supplementary reflector cup, said shade being open above for the passage of light rays directly from said bulb and from said supplementary reflector cup to the upper portion of said parabolic reflector, for the purpose described.

1,208,388. GARMENT-TURNER. THOMAS E. SCULLY, Napa, Cal. Filed Apr. 7, 1916. Serial No. 89,664. (Cl. 223—20.)

1. A garment turner comprising a fixed approximately horisontal tapered pin, an upright swinging lever pivoted near its lower end, a second and similar tapered pin mounted on the upper end of said lever in axial line with the fixed pin and movable toward the same by body pressure of the operator against the upper or free end of the lever, resilient means for retracting said lever and pin, and an adjustable stop to limit the approach of the movable pin toward the fixed pin.



2. A garment turner comprising an approximately horizontal tapered pin normally fixed but capable of vertical adjustment, an upright swinging lever fulcrumed near its lower end, a second and similar tapered pin adjustably mounted on the upper free end of said lever in axial line with the fixed pin and movable toward the same by body pressure of the operator against the free end of said lever, resilient means for retracting said lever and pin, adjustable means to limit the movement of said lever and the pin carried thereon toward the fixed end, and other means for limiting the movement of the lever and pin in the opposite direction.

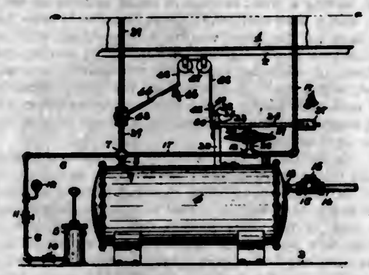
3. In a garment turner, a supporting bench, a tapered pin mounted thereon and adapted to be adjusted in a vertical direction, a swinging lever pivoted on said bench, a second and similar tapered pin adjustably mounted on said lever in axial line with the fixed pin and movable toward the same by bodily pressure of the operator against the lever, resilient means for retracting the said lever and pin, and an adjustable stop to limit the approach of the movable pin toward the fixed pin.

4. In a garment turner, a supporting bench, a bracket fixed on said bench, a tapered pin fixed to said bracket and adapted to be adjusted vertically, said pin projecting toward the front of the bench, a swinging lever pivoted on said bench below the top thereof, a second similar tapered pin adjustably mounted on the upper end of said lever in axial line with the fixed pin and movable toward the same by body pressure of the operator against the lever, resilient means for retracting said lever and pin, an adjustable stop to limit the retraction of the lever, and a second adjustable stop to limit its movement toward the fixed pin.

5. In a garment turner comprising a supporting bench mounted on legs and having guard boards at each side and at the rear, a bracket fixed to said bench near the rear thereof and having a slight rearward inclination at its upper end, said upper end being vertically slotted, a tapered pin adjustably mounted in the slot of said bracket and having a slight upward inclination at its forward end, a swinging lever pivoted near the bottom of the front legs and extending above said bench, the upper end of said lever being vertically slotted, a second and similar tapered pin mounted in said slot, and vertically adjustable therein to set said pin in axial line with the fixed pin, said lever being movable toward the bench by body pressure of the operator against said lever, a retracting spring connected to the lower end of the lever below its pivot, and adjustable stops to limit the movement of the lever in both directions.

1,208,389. FIRE-ALARM OR SIGNALING SYSTEM. JAMES M. SEYMOUR, Jr., Newark, N. J. Filed Dec. 6, 1915. Serial No. 65,402. (Cl. 116—19.)

1. A fire or signaling alarm comprising a main line of piping and a pair of auxiliary lines of piping connected with and extending from said main line of piping, means for conducting a pressure-exerting fluid into said main line of piping, one of said auxiliary lines being fitted with a fluid-operated signal and means for actuating said signal, a normally inflated diaphragm-control connected with and located in said main line of piping intermediate of said pair of auxiliary lines of piping, the diaphragm of said control being subject to pressure only upon one side thereof, and upon its other side supporting said signal-actuating means, and means in the other auxiliary line of piping for deflating said diaphragm-control and releasing said signal-actuating means to admit the fluid into and through said fluid-operated signal.



2. A fire or signaling alarm comprising a main line of piping and a pair of auxiliary lines of piping connected with and extending from said main line of piping, means for conductig a pressure-exerting fluid into said main line of piping, one of said auxiliary lines being fitted with a fluid-operated signal and means for actuating said signal, a normally inflated diaphragm-control connected with and located in said main line of piping intermediate of said pair of auxiliary lines of piping, the diaphragm of said control being subject to pressure only upon one side thereof, and upon its other side supporting said signal-actuating means, a normally closed valve in the other auxiliary line of piping, and means for operating and opening said valve for deflating said diaphragm-control and releasing said signal-actuating means to admit the fluid into and through said fluid-operated signal.

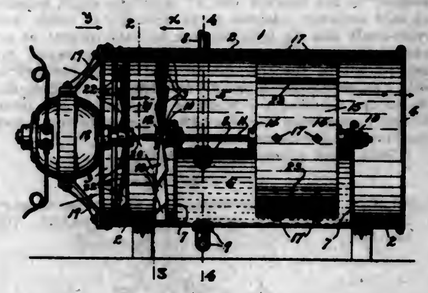
3. A fire or signaling alarm comprising a main line of piping and a pair of auxiliary lines of piping connected with and extending from said main line of piping, means for conducting a pressure-exerting fluid into said main line of piping, one of said auxiliary lines of piping being fitted with a fluid-operated signal, a normally closed valve in said line of piping, and means for actuating said valve, a normally inflated diaphragm-control connected with and located in said main line of piping intermediate of said pair of auxiliary lines of piping, the diaphragm of said control being subject to pressure only upon one side thereof and upon the other side supporting said valve-actuating means and means in the other auxiliary line of piping for deflating said diaphragm-control and releasing said valve-actuating means to admit fluid into and through said fluid-operated signal.

4. A fire or signaling alarm comprising a main line of piping and a pair of auxiliary lines of piping connected with and extending from said main line of piping, means for conducting a pressure-exerting fluid into said main line of piping, one of said auxiliary lines of piping being fitted with a fluid-operated signal, a normally closed valve in said line of piping, and means for actuating said valve, a normally inflated diaphragm-control connected with and located in said main line of piping intermediate of said pairs of auxiliary lines of piping, the diaphragm of said control being subject to pressure only upon one side thereof and upon the other side supporting said valve-actuating means, a normally closed valve in the other auxiliary line of piping, and means for operating and opening said last-mentioned valve for deflating said diaphragm-control and releasing said valve-actuating means to admit fluid into and through said fluid-operated signal.

5. A fire or signaling alarm comprising a reservoir or tank, adapted to receive a fluid, a fluid-compressor, a main line of piping leading from said compressor to said reservoir or tank, a pair of auxiliary lines of piping connected with and extending from said main line of piping, one of said pair of auxiliary lines of piping being fitted with a fluid-operated signal, a normally closed valve in said line of piping, means for actuating said valve, a normally inflated diaphragm-control connected with and located in said main line of piping intermediate of said pairs of auxiliary lines of piping, the diaphragm of said control being subject to pressure only upon one side thereof, and upon its other side supporting said valve-actuating means, and means in the other auxiliary line of piping for deflating said diaphragm-control and releasing said valve-actuating means to admit fluid into and through said fluid-operated signal.

[Claims 6 to 10 not printed in the Gazette.]

1,208,390. COOLING AND HUMIDIFYING APPARATUS. JAMES M. SEYMOUR, Jr., Newark, N. J. Filed Dec. 6, 1915. Serial No. 65,403. (Cl. 261—92.)



1. The combination with an open-ended casing provided in its interior with a fluid reservoir, of a rotor element mounted to rotate partially in said reservoir and partially in a current of air passed through said casing, means for rotating said rotor-member actuated by said current of air passed through said casing, and means for checking the speed of rotation of said rotor-member, comprising checking-baffles secured to and radiating from its circumferential surface.

2. In an apparatus of the kind described, the combination with an open-ended casing provided in its interior with a fluid reservoir, of a fluid supply pipe and a fluid outlet pipe connected in communication with said reservoir, a rotor-element mounted to rotate partially in said reservoir and partially in a current of air passed through said casing, and a propeller fan located within said casing connected with said rotor-member and actuated by said current of air passed through said casing.

3. The combination with an open-ended casing provided in its interior with a fluid reservoir, of a longitudinal rotor-shaft mounted within said casing above said reservoir, a rotor-element comprising a hub fixed on said rotor-shaft, a main body-member in the form of a spirally wound thin plate-like band having an opening or space between its convolutions and means for securing said body-member to said hub, said rotor-member being adapted to rotate partially in said reservoir and partially in a current of air passed through said casing above said reservoir, and a propeller-member located within said casing secured to the forward end of said rotor-shaft exterior of said reservoir adapted to be actuated to rotate said rotor-shaft and its rotor-member by said current of air passed through said casing.

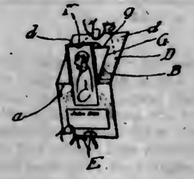
4. The combination with an open ended casing provided in its interior with a fluid reservoir, of a longitudinal rotor-shaft mounted within said casing above said reservoir, a rotor-element comprising a hub fixed on said rotor-

shaft, a main body-member in the form of a spirally wound thin plate-like band having an opening or space between its convolutions and means for securing said body-member to said hub, said rotor-member being adapted to rotate partially in said reservoir and partially in a current of air passed through said casing above said reservoir, a propeller-member located within said casing secured to the forward end of said rotor-shaft exterior of said reservoir adapted to be actuated to rotate said rotor-shaft and its rotor-member by said current of air passed through said casing, an air-blast generating fan located within the entrance of said casing forward of said propeller-member, and means for driving said fan.

5. The combination with an open-ended casing provided in its interior with a fluid reservoir, of a longitudinal rotor-shaft mounted within said casing above said reservoir, a rotor-element comprising a hub fixed on said rotor-shaft, a main body-member in the form of a spirally wound thin plate-like band having an opening or space between its convolutions and means for securing said body-member to said hub, said rotor-member being adapted to rotate partially in said reservoir and partially in a current of air passed through said casing above said reservoir, a propeller-member located within said casing secured to the forward end of said rotor-shaft exterior of said reservoir adapted to be actuated to rotate said rotor-shaft and its rotor-member by said current of air passed through said casing, an air-blast generating fan located within the entrance of said casing forward of said propeller-member, means for driving said fan, and means for checking the speed of rotation of said rotor-member, comprising checking-baffles secured to and radiating from its circumferential surface.

[Claim 6 not printed in the Gazette.]

1,208,391. CARD. FERNANDIEZE M. SIMMONDS, Chicago, Ill. Filed Mar. 23, 1916. Serial No. 86,152. (Cl. 40—149.)



1. An article of the character described, comprising a single thickness of material of suitable shape to form a card, having a front section to stand upright on its lower edge and a back section which is foldable flatwise against the back of the front section and provided with means flexible into position to support the two sections upright in parallel relation to each other, thereby to form an easel-like article for the desired purpose, said front and back sections being partially detached from each other and ready to fold except for a small breakable portion which keeps the entire card flat to prevent accidental folding thereof, and means to retain the folded back section flatwise against the rear surface of the front section.

2. An article of the character described, comprising a single thickness of material of suitable shape to form a card, having a front section to stand upright on its lower edge and a back section which is foldable flatwise against the back of the front section and provided with means flexible into position to support the two sections upright in parallel relation to each other, thereby to form an easel-like article for the desired purpose, said front and back sections being partially detached from each other and ready to fold except for a small breakable portion which keeps the entire card flat to prevent accidental folding thereof, and said front section having a top portion formed by said partial detachment and held in place at the upper end thereof by said breakable portion, and means to retain the folded back section flatwise against the rear surface of the front section.

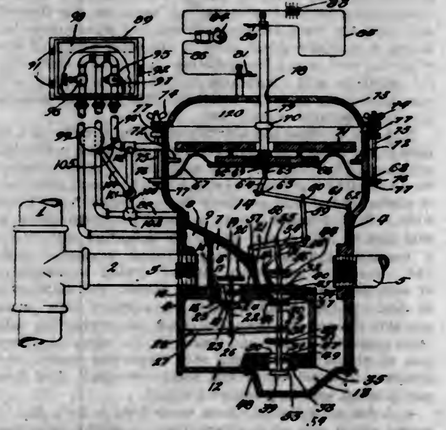
3. An article of the character described, comprising a single thickness of material of suitable shape to form a card, having a front section to stand upright on its lower edge and a back section which is foldable flatwise against the back of the front section and provided with means flexible into position to support the two sections upright in parallel relation to each other, thereby to form an easel-like article for the desired purpose, said means consisting of foldable corners on the back section to extend rearward when the two sections are flatwise together and thereby form the easel-like support for said article.

4. An article of the character described, comprising a single thickness of material of suitable shape to form a card, having a front section to stand upright on its lower edge and a back section which is foldable flatwise against the back of the front section and provided with means flexible into position to support the front section, thereby to form an easel-like article for the desired purpose, said front section having a tongue at the lower edge thereof, and said back section being notched for insertion between said tongue and the front section, thereby to hold the sections flatwise together.

5. An article of the character described, comprising a single thickness of material of suitable shape to form a card, having a front section to stand upright on its lower edge and a back section which is foldable flatwise against the back of the front section and provided with means flexible into position to support the two sections upright in parallel relation to each other, thereby to form an easel-like article for the desired purpose, said means including a portion which extends backward to form a prop for the article when the two sections are flatwise together.

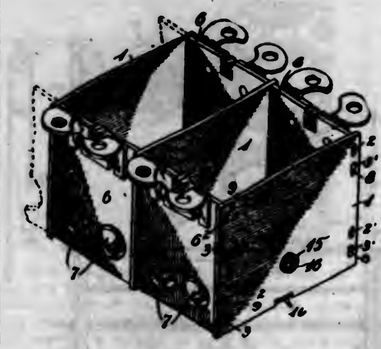
[Claim 6 not printed in the Gazette.]

1,208,392. PRESSURE-CONTROLLING DEVICE. WALTER C. SIMMONS, Kenton, Ohio. Filed July 11, 1914. Serial No. 850,529. (Cl. 50—25.)



In a pressure gas controlling device, the combination of the casing having diametrically opposite inlet and outlet conduits and means for controlling the gas from the inlet to the outlet, of a vibrating diaphragm being fixed in the upper part of said casing, thereby dividing said casing into weight and outlet chambers, the weight chamber being above the outlet chamber, connection between said diaphragm and said means, whereby said diaphargm vibrates downwardly said means are actuated to cut off the gas from said outlet, a weight secured to the upper face of said diaphragm, a dominate weight detachably supported upon the first weight while the diaphragm is held vibrated upwardly, members formed upon diametrically opposite points of the wall of the weight chamber to support the dominate weight, when the diaphragm is vibrated downwardly, and means adapted to be automatically actuated for by-passing the gas from the outlet chamber into the weight chamber, which by-passed gas combined with the dominate weight, constitute means to vibrate the diaphragm downwardly, to actuate the first means.

1,208,393. WALL-CASE. EZRA E. SMART, Hartford, Conn. Filed Oct. 14, 1915, Serial No. 55,811. Renewed Oct. 17, 1916. Serial No. 126,186. (Cl. 247—5.)



1. In a wall case, the combination of two end plates provided with openings adjacent to each of their ends, intermediate separating means having vertical and horizontal portions provided on both sides with projections which enter said openings in the plate members, and clamping means passing through said two plate members and between the upright portions of said separating means.

2. In a wall case, the combination of two end plates provided with openings adjacent to each of their ends, intermediate separating means having vertical and horizontal portions provided on both sides with projections which enter said openings in the plate members, clamping means passing through said two plate members and between the upright portions of said spacing means, and a spacer surrounding said clamping means.

3. In a wall case, the combination of two end plates provided with openings adjacent to each of their ends, intermediate separating means having vertical and horizontal portions provided on both sides with projections which enter said openings in the plate members, a headed externally threaded clamping screw passing through said two plate members and between the upright portions of said spacing means, said clamping screw having also a screw threaded recess in its head adapted to receive the externally screw threaded portion of a similar clamping screw.

4. In a wall case, the combination of two end plates provided with a series of openings adjacent to each of their ends, intermediate separating means having vertical and horizontal portions provided on both sides with projections which enter said openings in the plate members, clamping means passing through said two plate members and between the upright portions of said separating means, the projections on said separating means entering offset openings in said plate members.

5. In a wall case, the combination of two end plates provided with openings adjacent to each of their ends, intermediate separating means having vertical and horizontal portions provided on both sides with projections which enter openings in the plate members, clamping means passing through said two plate members and between the upright portions of said separating means, said separating means being divided so as to form two L-shaped members.

[Claims 6 and 7 not printed in the Gazette.]

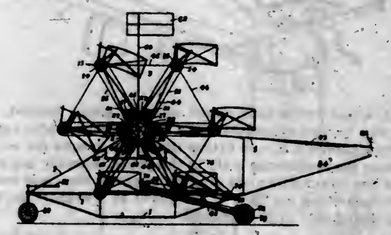
1,208,394. COMBINATION OF NECKTIE SUPPORTER AND RETAINER. THOMAS C. SPELLING, New York, N. Y. Filed Sept. 6, 1916. Serial No. 118,620. (Cl. 24—56.)



1. A tie supporter and retainer comprising a resilient plate having a slot formed therein from one end thereof, said plate being arched to engage a collar at the ends thereof when said plate is applied, arms rising from said plate, said arms being bent to partly overlie said plate, and coacting jaw members carried by said arms.

2. A tie supporter and retainer comprising a resilient plate, arms rising from said plate, said arms being bent to partly overlie said plate, jaw members formed on said arms, said jaw members having gripping edges formed thereon, and said jaw members being bent to form fulcrums for said members.

1,208,395. FLYING-MACHINE. RUTER W. SPRINGER, U. S. Army. Filed June 11, 1910. Serial No. 566,445. (Cl. 244—11.)



1. In a gravity flying machine, the combination with a plurality of aeroplanes employed to support the machine and on the under surface of each of which a constant air pressure is maintained, means for moving the said aeroplanes in a path of revolution, and means for insuring that the said aeroplanes shall, during normal flight of the machine, be maintained in position to support the machine upon the air as a glider, while pursuing the downward portions of their paths of revolution, and while pursuing the upward portions of their paths of revolution permitting their rear portions to "lag," without however relieving them of supporting air pressure.

2. In a gravity flying machine, the combination with a main frame, of a plural series of supporting aeroplanes, on the under surface of each of which a constant air pressure is maintained, means for causing the said series of aeroplanes to pursue paths of revolution, each individual aeroplane being pivotally supported, means for maintaining the said aeroplanes, while the machine is in normal flight, in position to support the machine as a glider while pursuing the downward portions of their paths of revolution, and, while they are pursuing the upward portions of their paths of revolution, permitting their rear edges to "lag," without, however, relieving them of supporting air pressure and means for limiting the movements of the said individual aeroplanes about their pivotal supports.

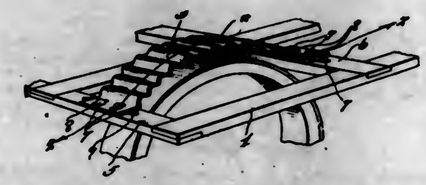
3. In a flying machine, the combination of a plural series of aeroplanes supported to move in a circular path and aranged to have an individual flapping motion, resilient means for sustaining the shock of movement when the flapping action reaches its proper limits and danger signaling mechanism arranged in connection with each aeroplane.

4. In a gravity flying machine, the combination of a rotary wheel, a series of sustaining aeroplanes carried thereby, each loosely hung in the said wheel, and frames for allowing the aeroplanes a limited amount of swinging movement but preventing them from being unduly deflected from their normal positions, whereby throughout their entire paths of rotation as carried by the said wheel they operate as sustaining planes.

5. In a gravity flying machine, a rotatable, circular series of sustaining, depressed aeroplanes individually supported so as to be free to change their angles relative to the plane of flight of the machine in combination with a circular series of upstanding frames arranged to keep the aeroplanes within proper limits of motion, so that they at all times operate as sustaining planes for supporting the machine, and means for upholding said frames in their proper position at all times, said means consisting essentially of gear mechanism at the center of the said circular series of aeroplanes, and also contiguous to the frames.

[Claims 6 and 7 not printed in the Gazette.]

1,208,396. WHEEL-SHIELD ATTACHMENT FOR HAY-RACKS. MEKEL O. STANDY, Homestead, N. D. Filed Aug. 20, 1914. Serial No. 857,634. (Cl. 21—23.)



A wheel guard constructed of sheet metal, arched, and having transverse convolutions, a reinforcing strip arched correspondingly to and fitting the guard, means for so fastening the reinforcing strip to the guard, whereby the strip and the guard will yield relative to each other, and means for connecting the ends of the guard to a support, so that the guard will arch the wheel.

1,208,397. SHOE-SHANK. EDWIN B. STIMPSON, Brooklyn, N. Y. Filed June 8, 1914. Serial No. 843,763. (Cl. 36—76.)

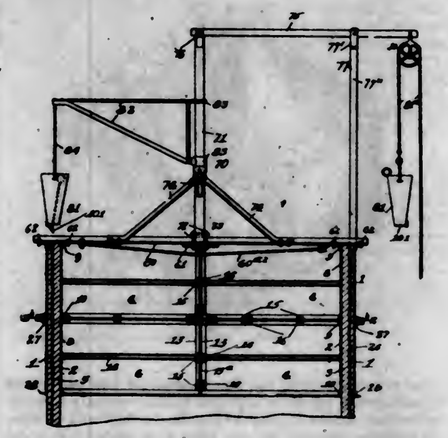


A shoe-shank and cap therefor, said cap having a bottom wall and bent-over side portions between which and the bottom the end of the shank is slidable and by which the shank is restrained against lateral movement, said bottom wall having an integral forward extension.

1,208,398. PROCESS AND APPARATUS FOR ERECTING CONCRETE STRUCTURES. ALEXANDER J. STOESSER, Chicago, Ill. Filed Dec. 22, 1911. Serial No. 667,845. (Cl. 25—124.)

1. In an apparatus for erecting concrete structures, the combination of concrete elevating and distributing mechanism with upper and lower mold forms constructed for interchange of position, said upper and lower forms comprising outer and inner walls, each composed of a plurality of sections removably secured together, and said concrete elevating and distributing mechanism being formed for continuous support solely upon the forms as they are raised to provide mold cavities for successive courses of wall.

2. In apparatus for erecting concrete structures, the combination of segmental upper and lower forms comprising outer and inner walls, means removably securing the upper and lower forms together adapting same for interchange of position, with concrete elevating and distributing mechanism supported upon the upper form and spacing the walls apart, said concrete elevating and distributing mechanism adapted to be continuously supported solely by the forms as they are raised to form mold cavities for successive courses of wall.



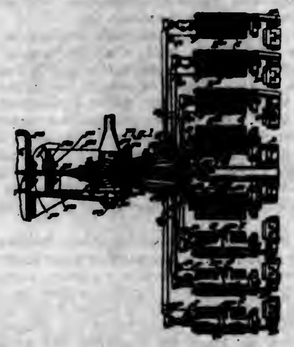
3. In apparatus for erecting concrete structures, the combination of a segmental mold comprising upper and lower forms removably secured together and adapted to be segmentally removed and alternately secured one above the other, concrete elevating and distributing mechanism supported upon the forms and comprising a base portion engaging the outer and inner walls of the form and spacing them apart, a centrally arranged vertical mast secured to the base, a horizontal member pivotally attached to the upper part of the mast and extending beyond the outer mold wall, and means supporting the outer end of the horizontal member from the mold form.

4. Apparatus for erecting concrete structures, comprising in combination, forms for molding concrete consisting of outer and inner walls, comprising upper and lower plural member forms removably secured together and adapted for interchange of position, combined mast supporting and form-wall spacing means comprising centrally connected cross beams resting upon and engaging the walls of said form, a mast centrally arranged on said combined mast support and spacer, a boom pivotally connected at the inner end to the mast, a depending member pivoted at the outer end of the boom and resting upon the forms, and concrete elevating and form-raising means on said boom.

5. Apparatus for erecting concrete structures, comprising in combination forms for molding concrete consisting of outer and inner walls, comprising upper and lower plural member forms removably secured together and adapted for interchange of position, combined mast supporting and form-wall spacing means comprising centrally connected cross beams resting upon and engaging the walls of said form, a mast centrally arranged on said combined mast support and spacer, a boom detachably and pivotally connected at its inner end to the upper part of the mast, a depending member pivoted to the outer end of the boom and supporting the boom by engagement with the outer wall of the form, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,208,399. DEVICE FOR AUTOMATICALLY COATING YARN ELEMENTS FROM WHICH A LAMINATED COHESIVE INTERWOUND FABRIC IS CONSTRUCTED. LAWRENCE A. SUBERS, East Cleveland, Ohio. Continuation of application Serial No. 816,089, filed Feb. 2, 1914. This application filed Aug. 17, 1914. Serial No. 857,070. (Cl. 28—21.)



1. In a device of the character described, the combination with a stationary mandrel and a series of reels rotatable thereabout in opposite directions, of a series of guide rods depending from each reel and rotatable therewith, a support secured to each set of guide rods, and a channeled guide member secured to each support.

2. In a device of the character described, a mandrel, a series of reels rotatable thereabout in opposite directions, an annular guide support operatively connected with each reel, a series of channeled guides secured to said support and encircling said mandrel, spools for storing flexible elements upon said reels and means for guiding said flexible elements from said spools to said channeled guides.

3. In a device of the character described, a stationary mandrel, a series of reels rotatable in opposite directions about said mandrel, a series of spools thereon, a guide support connected to rotate with said reels and a series of channeled guides, encircling said mandrel and detachably connected with said supports.

4. In combination with a stationary mandrel, a series of reels rotatable in opposite directions and spools thereon, a series of channeled guides rotatable with said reels, a series of guiding rollers adapted to guide flexible elements to said channeled guides, said channeled guides encircling said mandrel, a receptacle into which said mandrel and guides extend, and means for delivering a coating material to said flexible elements in said receptacle.

5. The combination with a receptacle for coating material having an opening in its side, of a series of guide supports and channeled guide members sleeved over each other and arranged in said opening, a central stationary mandrel, and intermediate strips of coating excluding material interposed between said guide members and between the outer guide member and the edges of said opening.

[Claims 6 to 13 not printed in the Gazette.]

1,208,400. WATERPROOFED MATERIAL AND METHOD OF PRODUCING THE SAME. ALFRED O. TATE, Montreal, Quebec, Canada, assignor to Tate Electrolytic Waterproofing Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 31, 1914. Serial No. 879,872. (Cl. 204—1.)

1. The described method of waterproofing fibrous materials consisting in impregnating the mass thereof with a saponaceous substance, chemically incorporating therein a metal palmate and a metal hydroxid: and electrolytically incorporating in said mass an additional quantity of a metal hydroxid.

2. The described method of waterproofing fibrous materials consisting in impregnating the mass thereof with a saponaceous substance and then electrolytically incorporating into the fibers thereof a metal palmate and a metallic hydroxid.

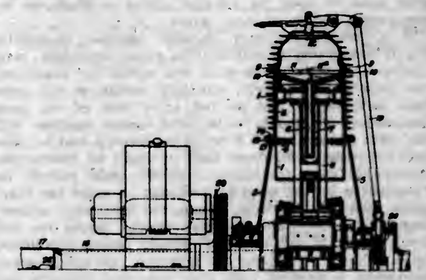
3. The described method or process of waterproofing fibrous materials consisting in permeating the mass thereof with a saponaceous liquid and a metal sulfate and electrolytically incorporating therein a metal palmate and a metal hydroxid which coact in the fibers of the material being treated to make them of a non-capillary nature.

4. The described method of waterproofing fibrous material consisting in impregnating it with a saponaceous liquid and then electrolytically incorporating in the fibers thereof a plurality of substances which coact to make said fibers substantially non-capillary one of such substances being insoluble in water.

5. The described method of waterproofing fibrous materials consisting in impregnating the mass with a saponaceous liquid and an aluminum sulfate and subjecting the material to the action of an electric current between electrodes one of which is soluble.

[Claims 6 to 13 not printed in the Gazette.]

1,208,401. INTERNAL-COMBUSTION ENGINE. FELIX JOSEPH CHARLEMAGNE TESSE, La Varenne St.-Hilaire, France, assignor of one-half to George Mallison, Eastbourne, England. Filed Apr. 7, 1915. Serial No. 19,844. (Cl. 123—44.)



1. A two-stroke rotary cylinder internal combustion engine comprising in combination a rotary cylinder, a main piston therein, a crank-shaft and means for connecting the main piston thereto, an auxiliary piston in the cylinder, independent and on the outer side of the main piston, and means for cushioning said auxiliary piston upon its outer movement, said means comprising exhaust controlling means adapted to modify the escape of exhaust gases in such manner as to oppose the outward movement of the auxiliary piston near but short of the limit of outward movement of the auxiliary piston, and for subsequently releasing the compressed residue of burnt gases into the atmosphere.

2. A two-stroke rotary cylinder internal combustion engine comprising in combination rotary cylinders, main pistons therein, a crank-shaft and means for connecting the main pistons thereto, auxiliary pistons in the cylinders, independent and on the outer side of the main pistons and adapted under the influence of centrifugal force to draw in combustible mixture between themselves and the main pistons for compression by the main pistons, and to expel the burnt gases from the cylinders, exhaust valves for the cylinders, and means for interrupting the discharge of the burnt gases from the cylinders for a portion of the outstroke of the auxiliary pistons in order to cushion the motion of same under centrifugal force by the resulting compression of the burnt gases thus imprisoned, and for subsequently releasing said compressed cushioning gases into the atmosphere.

3. A two-stroke rotary cylinder internal combustion engine comprising in combination rotary cylinders, main pistons therein, a crank-shaft and means for connecting

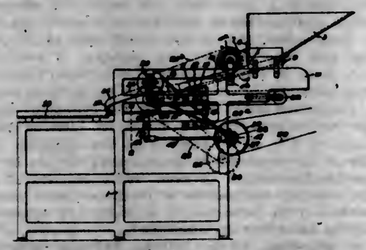
the main pistons thereto, auxiliary pistons in the cylinders, independent and on the outer side of the main pistons and adapted under the influence of centrifugal force to draw in combustible mixture between themselves and the main pistons for compression by the main pistons and to expel the burnt gases from the cylinders, exhaust valves for the cylinders and valve operating means adapted to open said respective valves to discharge a portion of the burnt gases under the outward impulse of the auxiliary pistons, then to close the exhaust valves until the auxiliary pistons have been cushioned approximately to rest by the imprisoned residue of burnt gases at about the end of their outstroke, and then again to open the exhaust valve to discharge the compressed residue of burnt gases.

4. A two-stroke rotary cylinder internal combustion engine comprising in combination rotary cylinders, main pistons therein, a crank-shaft and means for connecting the main pistons thereto, auxiliary pistons in the cylinders, independent and on the outer side of the main pistons and adapted under the influence of centrifugal force to draw in combustible mixture between themselves and the main pistons for compression by the main pistons and to expel the burnt gases from the cylinders, exhaust valves for the cylinders and valve operating means comprising a cam adapted to open said respective valves to discharge a portion of the burnt gases under the outward impulse of the auxiliary pistons, then to close the exhaust valves until the auxiliary pistons have been cushioned approximately to rest by the imprisoned residue of burnt gases at about the end of their outstroke, and then again to open the exhaust valves to discharge the compressed residue of burnt gases.

5. A two-stroke rotary cylinder internal combustion engine comprising in combination rotary cylinders, main pistons therein, a crank-shaft and means for connecting the main pistons thereto, auxiliary pistons in the cylinders, independent and on the outer side of the main pistons and adapted to be impelled inward together with the main pistons by the force of combustion and to move outward under centrifugal force to draw in combustible mixture between themselves and the main pistons for compression by the main pistons, and to expel the burnt gases from the cylinders, means for admitting mixture between the main and auxiliary pistons during the outward stroke of the auxiliary pistons under centrifugal force, exhaust valves for the cylinders and valve operating means adapted to open said respective valves to discharge a portion of the burnt gases under the outward impulse of the auxiliary pistons; then to close the exhaust valves until the auxiliary pistons have been cushioned approximately to rest by the imprisoned residue of burnt gases at about the end of their outstroke, and then again to open the exhaust valves to discharge the compressed residue of burnt gases.

[Claims 6 to 11 not printed in the Gazette.]

1,208,402. ASSEMBLING APPARATUS. FREDERICK J. THOMAS, Taunton, Mass., assignor, by mesne assignments, to New England Confectionery Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 12, 1912. Serial No. 670,743. (Cl. 10.7—45.)



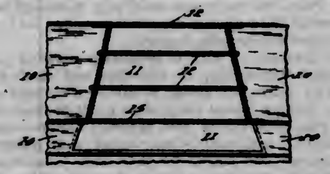
1. In a machine for assembling wafers in stacked relation, the combination with a stack holder 33 having a series of grooves therein, of a corresponding series of inclined guides 31 leading to said grooves and having elongated openings 35 to discharge pieces of broken wafers therefrom, means 4, 19 to separate the wafers into rows and deliver the same to said inclined guides, means 20 to prevent accumulation of the wafers on the inclined guides, plungers 36 at the juncture of said stack holder and inclined guides, and means to reciprocate said plungers to advance the stacks in said grooves.

2. In a machine for assembling wafers in compact series, the combination with a stackholder of delivery means therefor including a stationary inclined chute having an end portion formed to present an incline sharper than that of the body of the chute, a fixed deflector cooperating with said sharper incline for inverting the wafers from flat to upset position, a movable apron for delivering the wafers to said chute, a rotary brush located substantially at the juncture of said apron and chute and means for rotating said brush oppositely to the direction of travel of the wafers for preventing their piling on the chute.

3. In a machine for assembling thin, flat-like articles in compact series, the combination with a stackholder of delivery means therefor including a hopper, a transversely vibratory tray having row forming guides for receiving the articles from said hopper, a rotary brush above said tray for preventing the piling up of the articles on said tray, a chute, an apron for conveying the articles from said tray to said chute, and a rotary brush located substantially at the juncture of said apron and chute for preventing the piling up of the articles on the latter.

4. In a machine for assembling wafers in stacked relation, the combination with a stack holder of an inclined guide having an abruptly inclined delivery end adapted to deliver wafers in succession to said stack holder, means for feeding wafers to said guide, and reciprocatory stacking means comprising a plunger alined with said stack holder and adapted to engage the back of the deposited wafer and means for yieldably moving said plunger.

1,208,403. AUTOMOBILE-CAP. GENEVIEVE C. THOMAS and EDWIN T. THOMAS, Chicago, Ill. Filed July 21, 1916. Serial No. 110,444. (Cl. 2—118.)

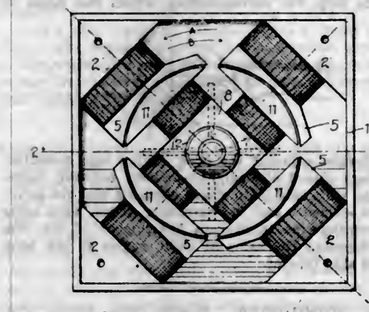


1. In a sport hat, the combination of a frame of crinolin having a vertical section cut through its back part, a brim secured on the lower edge of the frame, elastic cords secured to the opposite edges of the cut out section, substantially as and for the purpose specified.

2. In a sport hat, the combination of a hat frame having a section cut down through its back part, a brim secured on its lower edge, having a portion of its inner edge cut out corresponding with the section in the frame, a webbing secured in said section of the brim to the edge thereof, elastic cords secured in the inner section of said webbing and fastened at their ends to the cut out ends of the frame, substantially as and for the purpose specified.

1,208,404. ELECTRIC MOTOR. WILLIAM THOMASON, Sapulpa, Okla., assignor of one-half to John C. Bedigrew, Sapulpa, Okla. Filed Oct. 21, 1914. Serial No. 867,840. (Cl. 172—36.)

1. A motor of the class described comprising a casing, a stator and a rotor disposed therein, each being provided with pole limbs including windings therefor, the limbs of the stator being circumferentially displaced in planes parallel to the diagonal lines passing through the corners of the casing lying in a plane normal to the axis of the rotor, the limbs of the rotor being oppositely displaced with respect to the stator limbs.



2. A motor of the class described comprising a casing, a stator, and a rotor disposed therein, each being provided with pole limbs including windings therefor, the limbs of the stator being circumferentially displaced in planes parallel to the diagonal lines passing through the corners of the casing lying in a plane normal to the axis of the rotor, the limbs of the rotor being oppositely displaced with respect to the stator limbs, and pole pieces for the several limbs of segmental shape, the disposition thereof on the limbs being such that the diagonal lines of the casing pass through the centers of the segmental pieces.

3. In an electric motor of the class described, a casing of rectangular design having solid body members of triangular design mounted in the corners thereof, the inner faces of said body members being provided with threaded sockets whose axes are arranged in planes offset to one side respectively of the planes of the diagonals of the casing lying in a plane normal to the axis of the rotor, core members having threaded stems engaged with the threaded sockets of said body members, pole pieces formed integral with the outer ends of said core members, and means for energizing said core members and pole pieces.

4. In a motor of the class described, a casing, a stator and rotor suitably arranged therein, each being provided with the usual magnets, the magnets of said stator and rotor being respectively circumferentially offset in opposite directions from the diagonal lines passing through the corners of the casing lying in a plane normal to the axis of the rotor.

1,208,405. SUPERHEATER ELEMENT FOR FLUE-TUBE BOILERS. PETER THOMSEN, Cassel, Germany, assignor to Schmidt'sche Heissdampf Gesellschaft M. B. H., Cassel-Wilhelmshöhe, Germany, a Corporation of Germany. Filed Oct. 2, 1915. Serial No. 53,855. (Cl. 122—462.)



1. In a boiler provided with flue tubes, a superheater element comprising a plurality of completely independent parallel U-shaped loops inserted in some of the flue tubes, the superheated ends of the loops being connected to a common exit pipe having a cross section substantially equal to the sum of the cross sections of the individual pipes.

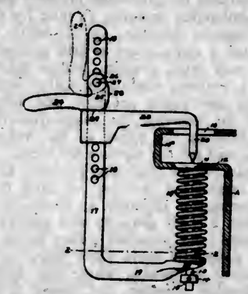
2. In a boiler provided with flue tubes, a superheater element comprising a plurality of completely independent parallel U-shaped loops inserted in some of the flue tubes both the superheated ends and the saturated ends of the loops being connected respectively to common exit and inlet pipes having cross sections substantially equal to the sum of the cross sections of the individual pipes.

3. In combination with a boiler provided with flue tubes and a smoke box, a superheater element comprising a plurality of completely independent parallel U-shaped loops inserted in some of the flue tubes, both the superheated ends and the saturated ends of the loops being connected respectively to common exit and inlet pipes having cross sections substantially equal to the sum of the cross sections of the individual pipes, the connecting point of the superheater ends being within a flue tube and of the saturated ends within the smoke box.

4. The combination, with a locomotive boiler flue, of two parallel U-shaped steam superheating tubes arranged within said flue and consisting each of a long leg and of a short leg, means to conduct saturated steam simultaneously into the ends of the two long legs, a connection between the ends of the two short legs, and a third tube connected with said connection and adapted to lead off the steam superheated within said two U-shaped tubes.

5. The combination, with a locomotive boiler flue, of two parallel U-shaped steam superheating tubes arranged within said flue and consisting each of a long leg and of a short leg, a connection between the ends of the two long legs; means to conduct saturated steam into said connection, a connection between the ends of the two short legs, and a third tube connected with said second connection and adapted to lead off the steam superheated within said two U-shaped tubes.

1,208,406. VALVE-REMOVER. CLARENCE OTTO THROP, Jefferson, Iowa. Filed Mar. 31, 1915. Serial No. 18,404. (Cl. 29—87.1.)

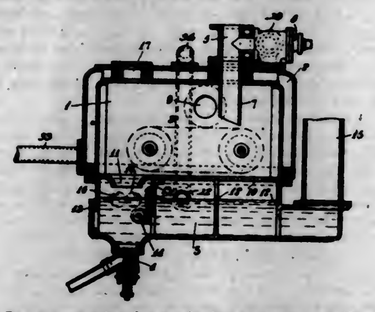


A valve remover comprising an upright member provided with a plurality of spaced openings, a lateral extension at the lower end of said member having forked ends adapted to receive a flat stem between them, a laterally extending arm slidably but non-rotatably mounted on said upright member parallel with said extension, having at its free end a downwardly extending member arranged to be above the space between the forked arms of said extension, a lever arm having a bifurcated curved end provided with cam faces, the bifurcated end members being provided with registering openings, and a bolt detachably extended through said last openings and selectively received in one of the openings in the upright member, said lever arm and bifurcated end portions thereof having a flat portion designed to rest immediately above said laterally extending arm and to engage the same, with said flat portion substantially in line with the upper surface of said arm when the lever arm is in one position of its movement and to be swung upwardly to position adjacent to the upper end of said upright member with said bifurcated end above the laterally extending arm in another position of said lever.

1,208,407. APPARATUS FOR PRODUCING PRESSURE-GAS. JOHAN AUGUST TILLNER, Borås, Sweden. Filed July 14, 1914. Serial No. 850,955. (Cl. 60—32.)

1. In an apparatus for producing pressure gas, the combination of a combustion chamber, an inlet for fuel and

air into said combustion chamber, an automatic feeder for fuel in said inlet, a chamber containing water and communicating with the combustion chamber, and means in said water chamber for directing the gases from the combustion chamber through the water in the water chamber, substantially as and for the purpose set forth.



2. In an apparatus for producing pressure gas, the combination of a combustion chamber, an inlet for fuel and air into said combustion chamber, an automatic feeder for fuel in said inlet, a chain grate in said combustion chamber below the said inlet, a chamber containing water and communicating with the combustion chamber, and means in said water chamber for directing the gases from the combustion chamber through the water in the water chamber, substantially as and for the purpose set forth.

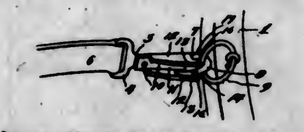
3. In an apparatus for producing pressure gas, the combination of a combustion chamber, an inlet for fuel and air into said combustion chamber, an automatic feeder for fuel in said inlet, a chain grate in said combustion chamber below the said inlet, crushing rollers below one end of said grate, a chamber containing water and communicating with the combustion chamber, and means in said water chamber for directing the gases from the combustion chamber through the water in the water chamber, substantially as and for the purpose set forth.

4. In an apparatus for producing pressure gas, the combination of a combustion chamber, an inlet for fuel and air into said combustion chamber, an automatic feeder for fuel in said inlet, a chain grate in said combustion chamber below the said inlet, crushing rollers below one end of said grate, an automatic drain valve below said crushing rollers, a chamber containing water and combunicating with the combustion chamber, and means in said water chamber for directing the gases from the combustion chamber through the water in the water chamber, substantially as and for the purpose set forth.

5. In an apparatus for producing pressure gas, the combination of a combustion chamber, an inlet for fuel and air into said combustion chamber, an automatic feeder for fuel in said inlet, a chain grate in said combustion chamber below the said inlet, crushing rollers below one end of said grate, an automatic drain valve below said crushing rollers, a chamber containing water and communicating with the combustion chamber, a number of partition plates in said water chamber dividing the chamber into sections and provided with openings alternately above and below the surface of the water in said chamber, movable plates on the partition plates provided with openings below the water surface, and means for adjusting the position of said movable plates, substantially as and for the purpose set forth.

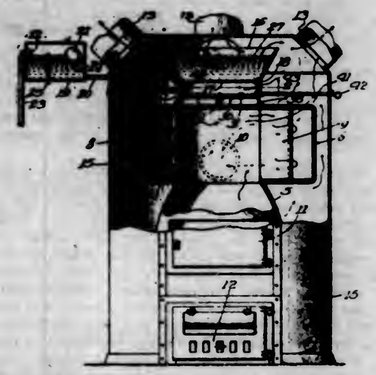
1,208,408. HARNESS-HOOK. HARRY UPDEGRAFF, Hoopeston, Ill., assignor of one-half to George W. Duley, Hoopeston, Ill. Filed Feb. 21, 1916. Serial No. 79,735. (Cl. 24—231.)

In a device as set forth, the combination of a shank member having a loop at one end and a hook at the other end at right angles to the loop, and a U-shaped plate on the shank, of means for securing the plate on the shank, said plate having laterally extending parallel side flanges spaced apart upon opposite sides of the extremity of the hook and having their edges substantially flush with the outer edge of the hook and constituting guard elements to prevent a ring on the hook against movement toward the loop, the corresponding lateral end edges of



the side flanges adjacent the hook having lugs constituting auxiliary guard elements to prevent outward movement of the ring, said main guard elements and the auxiliary guard elements and the extremity of the hook being in such relations as to prevent detachment of the ring without disposing the same at right angles to the hook and to one side thereof.

1,208,409. HUMIDIFIER. DEWITT VAN EVERA, Chicago, Ill. Filed Feb. 9, 1916. Serial No. 77,141. (Cl. 126—113.)



A humidifier for a furnace comprising a water holding pan; a casing interposed between the furnace and pan and having perforate bottom and side walls; closures for said perforations and connecting means for operating said closures extending to without the furnace.

1,208,410. GOGGLES. JOHN R. VAN TASSEL, Geneva, N. Y., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed June 30, 1916. Serial No. 106,793. (Cl. 2—149.)



1. In a lens mounting for spectacles, a frame having a pair of lens-receiving sockets, in combination with a pair of lenses and retaining rings therefor surrounding the marginal edges thereof and closely fitting within the sockets to protect the edges of the lens from contact with the peripheral walls of said sockets.

2. In a lens mounting for spectacles, a frame having a pair of lens-receiving sockets, in combination with a pair of lenses and retaining rings therefor surrounding the marginal edges thereof and closely fitting within the sockets, and movable members for locking and releasing the rings upon and from the frame.

3. In a lens mounting for spectacles, a frame having a pair of lens-receiving sockets, in combination with a pair of lens-retaining rings telescoping within the sockets and having detachable hinge connections with the walls thereof.

4. In a lens mounting for spectacles, a frame having a pair of lens-receiving sockets, in combination with a pair of lens-retaining rings telescoping within the sockets and having detachable hinge connections with the frame at the inner sides of the sockets.

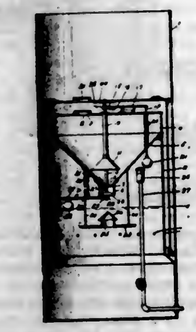
1,208,411. MATCH AND THE PROCESS OF MAKING THE SAME. DÉSIRÉ ALEXANDRE VENOT and LOUIS FIRMIN CHASSIGNOL, Pantin, France. Filed Aug. 4, 1911, Serial No. 642,241. Renewed May 4, 1916. Serial No. 95,499. (Cl. 52—5.)

1. The herein described improvement in the art of manufacturing matches which consists in forming a solvent-free composition comprising a matrix or carrier of a combustible subetance that fuses at a low heat but is solid at atmospheric temperatures, and a substance mixed therewith that ignites by frictional heat, fusing such composition, and dipping the match splints into the said fused composition.

2. The herein described improvement in the art of manufacturing matches which consists in forming a solvent-free ignition-tip composition that fuses at a low heat, is solid at atmospheric temperatures, does not absorb moisture from the atmosphere, and comprises sulfur and amorphous phosphorus, and applying such composition to the match splints while in a fused condition to form the ignition tips.

3. A match having a non-hygroscopic, anhydrous ignition-tip, which is frictionally ignitible and insoluble in water, comprising as a binder a fused matrix of a water-insoluble substance solid at ordinary temperature but melting at a temperature materially below the temperature of ignition of the tip.

1,208,412. ACETYLENE-GAS APPARATUS. CHARLES P. VENNER, Cedar Rapids, Iowa. Filed Oct. 29, 1915. Serial No. 58,646. (Cl. 48—53.1.)



In an apparatus for producing acetylene gas, a casing having water therein, said casing having an inner lining spaced therefrom but connected therewith, said lining being provided with openings below the level of the water, a gas bell disposed between the inner lining and the casing, anti-frictional guide wheels upon the bell and contacting with the casing, a carbid tank upon the open top of the inner lining, said tank having a lower funnel-shaped portion, the mouth of which providing a valve seat, a spout surrounding the seat, a perforated pan connected with the tank disposed below the level of the water, a sleeve connected to the top of the tank and projecting centrally therein, a cone-shaped guide upon the sleeve, a valve for the valve seat, said valve having a hollow stem projecting through the sleeve above the top of the tank, a second and larger valve having an upper rounded face to engage with the lower edge of the spout, a stem for the valve extending through the hollow stem of the first named valve and projecting thereabove, weighted means for retaining the valve seated, and both of the valve stems adapted to be contacted by the bell when said bell is in its lowered position, and a gas outlet pipe for the casing.

1,208,413. METHOD OF MANUFACTURING ENVELOPS. MATTHEW VIERENGEL, Brooklyn, N. Y. Filed Dec. 9, 1915. Serial No. 65,895. (Cl. 93—61.)



1. The method of manufacturing envelops consisting in cutting a continuous blank having full-width face portions and full-width back portions, and lateral extensions to be united with said face portions; then applying gum to said blank as desired for uniting the portions thereof; then securing on said blank a reinforcing strip, portions of said strip being disposed adjacent the edge of the face and flap of the completed envelop; then mounting on said face and on the reinforcement thereof, a closure clasp; and then severing the sections of said blank for folding the portions thereof to form completed envelops.

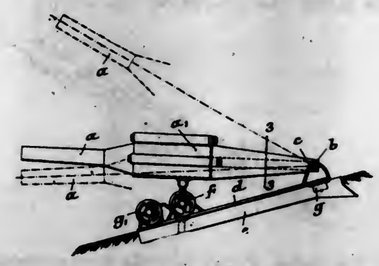
2. The method of manufacturing envelops consisting in forming a continuous blank, the edges whereof are shaped to form a series of envelop-forming sections, each section providing a face portion, a back portion, a flap portion, and marginal extensions for holding said back and face portions in folded relation; then applying adhesive as desired; then placing a reinforcing strip upon said blank adjacent the edges of the flap portion and adjoining face portion before said sections are severed from the continuous blank; then adding to said blank and to the reinforced portions thereof, a metal clasp member; then punching an orifice in said reinforcing strip adjacent the edge of the flap portion; then severing the sections, the line of severance extending between each flap portion and the adjacent face portion, and through the reinforcing strip thereon placed; and then folding and attaching the portions of the envelop by said adhesive.

3. The method of manufacturing envelops consisting in forming a continuous strip blank having edges shaped to partially sever the same, said blank providing envelop-forming sections, each having a back portion, a face portion, and a flap portion, said portions being full width; then securing near the edge of each of said face portions, a metal clasp, and forming in the flap portion adjacent thereto an orifice for receiving a similar clasp; then successively folding said sections to form the bodies of envelops, and then severing the bodies so formed from the strip blank, the line of severance passing between the flap portion of the envelop being removed and the face portion of the next succeeding section.

4. The method of manufacturing envelops consisting in forming a continuous blank of envelop-forming sections, each of said sections having a face portion, a back portion, and a flap portion of full width for forming a seamless body portion for each envelop; then moving said strip past a plurality of receiving stations; then successively applying to said blank portions, reinforcing stripe, said stripe overlying and connecting the portions of said blank forming the face and flap portions of separate envelops

when formed; then delivering a continuous strip of metal clasps for successively uniting the clasps to said blank strip and to the reinforced portions thereof adjacent the edges of said face portions; then folding the body portions of said blank to form envelops; and then severing the formed portions from said blank.

1,208,414. GUN WITH RECOILING BARREL. KARL VÖLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Mar. 27, 1915. Serial No. 17,336. (Cl. 89—37.)



1. In combination, a recoiling barrel, a cradle therefor, and trunnions for the cradle located in rear of the limit of travel of the barrel in recoiling and in the plane of the travel thereof.

2. In combination, a recoiling barrel, a cradle therefor having extensions the ends of which are beyond the limit of travel of the barrel in recoiling, and trunnions for said extensions at the outer ends thereof, the axial line of said trunnions being intersected by the axial line of said barrel in all positions of the latter.

3. In combination, a recoiling barrel, a cradle therefor having extensions the ends of which are beyond the limit of travel of the barrel in recoiling, and trunnions for said extensions at the outer ends thereof, a carriage having bearings for the trunnions, and a vertical pivot for the carriage, in approximately the same vertical plane with said bearings.

4. In combination, a recoiling barrel, a cradle therefor having extensions the ends of which are beyond the limit of travel of the barrel in recoiling and in the plane of the travel thereof, a carriage having bearings for the trunnions, and a vertical pivot for the carriage located in proximity to the pivot of the cradle.

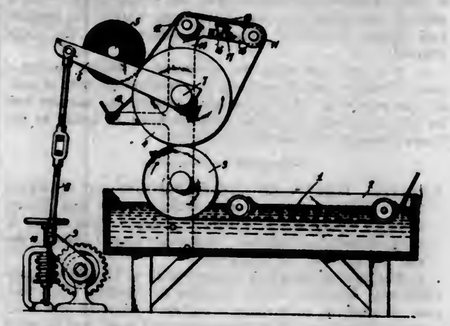
5. In a gun having a recoiling barrel the combination of a cradle, lateral guideways connected with the cradle for guiding the recoiling barrel and trunnions at the outer end of these lateral guideways, the common plane of the latter intersecting the axial line of said trunnions.

[Claim 6 not printed in the Gazette.]

1,208,415. APPARATUS FOR TREATING PAPER. SOLOMON R. WAGG, Appleton, Wis.; James B. Wagg administrator of said Solomon R. Wagg, deceased. Filed Oct. 12, 1915. Serial No. 55,550. (Cl. 91—31.)

1. An apparatus for treating paper web, comprising, a size bath through which said web is passed, size-expressing rolls disposed over said bath and between which said web is passed and fed forward, and a reel on which the web is wound up, said reel supported to hold the web thereon in frictional contact with one of said rolls so as to cause the rotation of said reel therefrom.

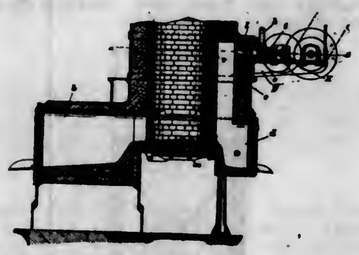
2. An apparatus for treating paper web, comprising, a size bath through which said web is passed, size-expressing rolls disposed over said bath and between which said web is passed and fed forward, a winding reel for the web, and an adjustable support whereon said reel is carried to be gravitally held in frictional contact with one of the said rolls whereby said web is wound and the reel operated from said roll.



3. An apparatus for treating paper web, comprising, a size bath, size-expressing rolls disposed over the bath and feeding said web forward, a winding reel for the web in frictional contact with one of the rolls and to be operated thereby, and a spreader roller over which said web is passed after the size has been expressed therefrom and before being wound upon said reel.

4. An apparatus for treating paper web, comprising, a size bath, size-expressing rolls disposed over the bath and feeding said web forward, a winding reel for the web and in frictional contact with one of the rolls to be operated thereby, spaced guide rolls, and a yielding spreader roller disposed between said guide rolls, said web being passed over said guide rolls and spreader roller after the size has been expressed therefrom and before being wound upon said reel.

1,208,416. CUPOLA-FURNACE. WLADYSLAW WAGNER, Lodz, Poland. Filed Feb. 17, 1913. Serial No. 749,016. (Cl. 266—40.)



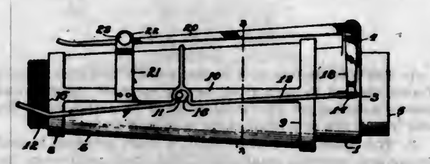
1. In a smelting furnace, the combination of a conduit associated with said furnace and located within the smelting zone of the latter, a receiver communicating with the conduit from which the iron may be drawn off, and means for pressing iron shavings into briquets connected with the conduit at a point adjacent the smelting zone thereof for introducing the iron shavings aforesaid into the conduit.

2. A cupola furnace having a conduit located within the smelting zone of the furnace and provided with a fore-hearth or container for charge iron, the bottom of the furnace being inclined toward said container for the purpose set forth.

3. A cupola furnace having a conduit located within the smelting zone of the furnace and provided with a fore-hearth or container for charge iron, the bottom of said furnace being formed with oppositely inclined surfaces meeting at an obtuse angle, one of the surfaces inclining toward the container for the charge iron, a receiver communicating with said conduit, means for compressing and introducing iron shavings into the conduit so that they will be deposited in said receiver, the other surface of the bottom of the furnace inclining toward said receiver.

4. A cupola furnace comprising a bottom having oppositely inclined surfaces, and having a conduit located within the smelting zone of the furnace, a container disposed at one side of the furnace and adapted to receive charge iron, one of the inclined bottom surfaces of the furnace inclining toward said container, a receiver communicating with the conduit aforesaid and disposed at the side of the furnace opposite the said container, the other surface of the bottom of the furnace inclining toward said receiver, the arrangement of the bottom surfaces aforesaid being such that charge iron introduced into the furnace is directed to the container above referred to, and iron shavings introduced into the conduit are directed to the receiver.

1,208,417. HOSE-COUPLING. WALTER WAIDLICH, Detroit, Mich. Filed Sept. 25, 1915. Serial No. 52,649. (Cl. 137—28.)



1. In a coupling of the class described, a male member comprising a tubular sleeve tapering from one end to the other and formed at diametrically opposite points at the relatively large end thereof with longitudinally extending slots, and a lug between said slots, a female member comprising a sleeve tapering from one end to the other and designed to slide onto the first sleeve, lugs extending outwardly from said female member at diametrically opposite points intermediate the ends thereof, rods disposed at diametrically opposite parts of the coupling, a pin on one end of each rod having one extremity thereof disposed within the adjacent slot in said first sleeve, and the opposite extremity projecting beyond the rod, said rods having the central portions thereof formed with loops adapted to receive said lugs in the movement of the last-mentioned sleeve whereby said sleeves will be locked against accidental disconnection.

2. In a coupling of the class described, a male member comprising a tubular sleeve tapering from one end to the other and formed at diametrically opposite points at the relatively large end thereof with longitudinally extending slots, and a lug between said slots, a female member comprising a sleeve tapering from one end to the other and designed to slide onto the first sleeve, lugs extending outwardly from said female member at diametrically opposite points intermediate the ends thereof, rods disposed at diametrically opposite parts of the coupling, a pin on one end of each rod having one extremity thereof disposed within the adjacent slot in said first sleeve, and the opposite extremity projecting beyond the rod, said rods having the central portions thereof formed with loops adapted to receive said lugs on the movement of the last-mentioned sleeve whereby said sleeves will be locked against accidental disconnection, and a ball having the extremities thereof secured to the looped portions of said rods and adapted to bear upon the upper portion of said first sleeve when the sleeves are uncoupled to hold the rods in normal position.

3. In a coupling of the class described, a male member comprising a tubular sleeve tapering from one end to the other and formed at diametrically opposite points at the relatively large end thereof with longitudinally extending slots, and a lug between said slots, a female member comprising a sleeve tapering from one end to the other and designed to slide onto the first sleeve, lugs extending outwardly from said female member at diametrically opposite points intermediate the ends thereof, rods disposed at diametrically opposite parts of the coupling, a pin on one end of each rod having one extremity thereof disposed within the adjacent slot in said first sleeve, and the opposite extremity projecting beyond the rod, said rods having the central portions thereof formed with loops adapted to receive said lugs in the movement of the last-mentioned sleeve whereby said sleeves will be locked against accidental disconnection, a U-shaped yoke passed through said first lug and embracing the relatively large end of said first sleeve and having the free ends thereof formed with eyes receiving the outer extremities of said pins, and a lever connected to said yoke for swinging the latter to slide the pins farther along in the slots whereby the contacting surfaces of said sleeves will be drawn into frictional engagement.

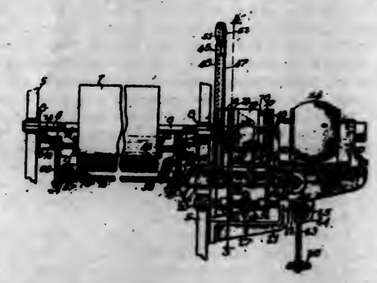
4. In a coupling of the class described, a male member comprising a tubular sleeve tapering from one end to the other and formed at diametrically opposite points at the relatively large end thereof with longitudinally extending slots, and a lug between said slots, a female member comprising a sleeve tapering from one end to the other and designed to slide onto the first sleeve, lugs extending outwardly from said female member at diametrically opposite points intermediate the ends thereof, rods disposed at diametrically opposite parts of the coupling, a pin on one end of each rod having one extremity thereof disposed within the adjacent slot in said first sleeve, and the opposite extremity projecting beyond the rod, said rods having the central portions thereof formed with loops adapted to receive said lugs in the movement of the last-mentioned sleeve whereby said sleeves will be locked against accidental disconnection, a U-shaped yoke passed through said first lug and embracing the relatively large end of said first sleeve and having the free ends thereof formed with eyes receiving the outer extremities of said pins, a lever connected to said yoke for swinging the latter to slide the pins farther along in the slots whereby the contacting surfaces of said sleeves will be drawn into frictional engagement, and a spring actuated pin carried by said last-mentioned sleeve to engage said lever and hold the latter against return to normal position succeeding the swinging of said yoke.

5. In a coupling of the class described, a male member comprising a tubular sleeve tapering from one end to the other and formed at diametrically opposite points at the relatively large end thereof with longitudinally extending slots, and a lug between said slots, a female member comprising a sleeve tapering from one end to the other and designed to slide onto the first sleeve, lugs extending outwardly from said female member at diametrically opposite points intermediate the ends thereof, rods disposed at diametrically opposite parts of the coupling, a pin on one end of each rod having one extremity thereof disposed within the adjacent slot in said first sleeve, and the opposite extremity projecting beyond the rod, said rods having the central portions thereof formed with loops adapted to receive said lugs in the movement of the last-mentioned sleeve whereby said sleeves will be locked against accidental disconnection, and a cap corresponding in shape to that of the male member of the coupling and adapted to inclose the latter when the members of the coupling are disconnected whereby the entrance of dirt into the male member of the coupling is eliminated.

1,208,418. PAPER-ROLL MECHANISM FOR PRINTING-PRESSES. JOSEPH J. WALSER and CHARLES A. DRESSER, Chicago, Ill., assignors to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 27, 1912. Serial No. 686,476. (Cl. 242—58.)

1. In combination, a frame, a roll-spindle journaled in said frame and movable longitudinally of itself therein, a

motor mounted in said frame and movable thereon in the same directions as the roll-spindle, a friction clutch-member on said roll-spindle, a coöperative friction clutch-member on the shaft of said motor, and means for simultaneously moving said motor and said roll-spindle in either direction on said frame.



2. In combination, a frame, a roll-spindle journaled in said frame and movable longitudinally of itself therein, a motor slidingly mounted on said frame, coöperative clutch-members on said roll-spindle and the shaft of said motor, means for simultaneously moving said motor and said roll-spindle on said frame, a hand-lever, and means operated by the movement of said hand-lever to move said motor independently of said roll-spindle.

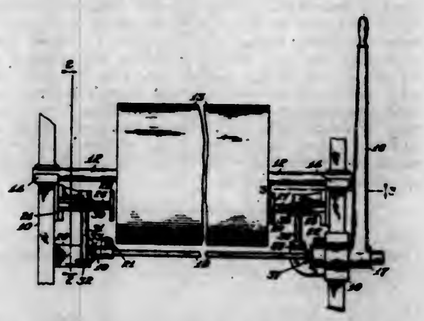
3. In combination, a frame, a roll-spindle journaled in said frame and movable longitudinally of itself therein, a motor slidingly mounted on said frame, coöperative clutch-members on said roll-spindle and the shaft of said motor, arms adapted to engage said clutch-members, means for moving said arms simultaneously in either direction to simultaneously move said roll-spindle and said motor in the same direction when said arms are in engagement with said clutch-members, a hand-lever, mechanism operated by said hand-lever to disengage said arms from said clutch-members, and mechanism operated by said hand-lever to move said motor independently relatively to said roll-spindle.

4. In combination, a frame, a roll-spindle journaled in said frame and movable longitudinally of itself therein, a clutch-member upon one end of said roll-spindle, a motor mounted in said frame and movable thereon in the same directions as said roll-spindle, a disk rigidly secured to the shaft of said motor, a clutch-member adapted to cooperate with the clutch-member on said roll-spindle and slidingly mounted on the shaft of said motor, springs interposed between said disk and said second clutch-member, arms adapted to engage said disk and the clutch-member on said roll-spindle, means for simultaneously moving said arms in one direction or the other to move said motor and roll-spindle longitudinally of said roll-spindle on said frame, a hand-lever, mechanism operated by said hand-lever to disengage said arms from said disk and said first-named clutch-member, and mechanism operated by said hand-lever for moving said motor on said frame independently of said roll-spindle.

5. In combination, a frame, a roll-spindle journaled in said frame and movable longitudinally of itself therein, a motor mounted in said frame and movable thereon in the same direction as said roll-spindle, coöperative clutch-members mounted on said roll-spindle and said motor, respectively, means for moving said roll-spindle and said motor simultaneously in the same direction, a roll mounted on said roll-spindle, bearing-plates mounted on said frame, a hand-lever, and means operated by said hand-lever to move said bearing-plates toward and away from said roll.

[Claims 6 to 48 not printed in the Gazette.]

1,208,419. PAPER-ROLL MECHANISM FOR PRINTING-PRESSES. JOSEPH J. WALSER, Chicago, and CHARLES A. DRESSER, Glencoe, Ill., assignors to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Original application filed Mar. 27, 1912, Serial No. 686,476. Divided and this application filed Jan. 24, 1916. Serial No. 73,877. (Cl. 242—76.)



1. The combination of a frame, a shaft mounted on said frame adapted to have a roll fixedly mounted thereon, and means mounted on the frame adapted by action upon the roll to position said shaft relative to said frame.

2. The combination of a frame, a shaft mounted in said frame and movable longitudinally of itself relative to the frame, said shaft being adapted to have a roll fixedly mounted thereon in adjusted position relative thereto, and means mounted on the frame adapted by engagement with said roll to center the roll and the shaft relative to the frame.

3. The combination of a frame, a shaft mounted in said frame adapted to have a roll mounted thereon, and means adapted to act upon the ends of said roll for centering the roll relative to said frame.

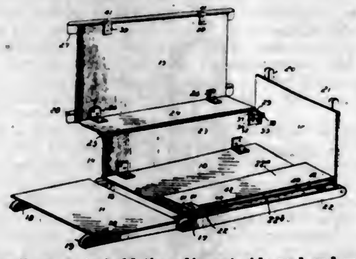
4. The combination of a frame, a shaft mounted in said frame adapted to have a roll mounted thereon, and gage-plates adapted to be moved toward each other at opposite ends of said roll for centering the roll relative to the frame.

5. The combination of a frame, a shaft mounted in said frame adapted to have a roll mounted thereon, gage-plates adapted to be moved toward each other at opposite ends of said roll for centering the roll relative to the frame, and a hand-lever for moving said gage-plates toward and from each other.

[Claims 6 to 16 not printed in the Gazette.]

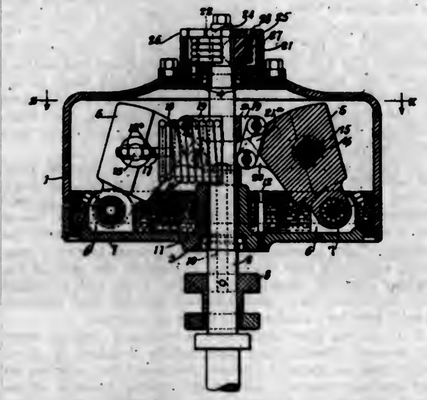
1,208,420. COLLAPSIBLE SHIPPING AND STORAGE BOX. WILLIAM R. WATKINS, Woodlawn, Ala. Filed Aug. 1, 1913. Serial No. 782,519. (Cl. 217—15.)

The combination with a crate having folding side and end walls, studs carried by the end and side walls and located adjacent the meeting edges of said walls, hinges associated with the inner surfaces of the side and end walls and positioned at the meeting edges of the said walls, and each including a pair of leaves connected to each other by a pintle, one of the leaves being of substantially rectangular configuration and having a vertical slot therein for receiving the stud of the adjacent side wall, the other leaf being substantially inverted L-shaped and adapted to engage the inner face of the adjacent end wall and having a downwardly extending projection formed on the shorter arm thereof, the said hinge being adapted to vertical movement on the stud carried by the side wall and adapted, when the walls of the crate are in crate formation, to be slid downwardly so as to cause the downwardly extending projection on the shorter arm of the L-shaped leaf to engage over the studs on the adjacent



end wall, so as to hold the adjacent side and end walls in operative position.

1,208,421. GOVERNOR. ELMER A. WATTS, Springfield, Ohio. Filed Oct. 13, 1914. Serial No. 866,496. (Cl. 264—15.)



1. In a governor, a rotatable support, weighted arms pivotally mounted on said support on opposite sides of and at points remote from the axis of rotation of said support and normally inclined toward said axis of rotation, a valve-actuating device arranged adjacent to the axis of rotation of said support, links connecting the respective weighted arms with said valve-actuating device, each of said weighted arms having the axis of its pivotal connection to its link arranged normally on the inner side of a line extending through the axis of the connection of said link to said valve-actuating device and the axis about which said weighted arm moves, said weighted arm being capable of outward movement to bring the first-mentioned axis into alinement with the two last-mentioned axes, said outward movement of said arm being so limited that said first-mentioned axis will not be moved beyond said line in the normal operation of said governor, and a pair of springs connecting said weighted arms one to the other and tending to move them toward the axis of rotation of said support, each of said springs being pivotally connected at its ends with the respective weighted arms.

2. In a governor, a vertically arranged rotatable spindle, a support mounted on and rotatable with said spindle, a valve-actuating device mounted on said spindle and capable of longitudinal movement relatively thereto, two weighted arms pivotally mounted on said support on opposite sides of, and at points remote from, its axis of rotation, each of said weighted arms having inwardly extending portions, links pivotally connected at one end to said inwardly extending portions of said weighted arms and pivotally connected at their opposite ends with said valve-actuating device, said valve-actuating device having outwardly extending lugs to the outer portions of which said links are connected, whereby the point of connection between each link and its weighted arm will lie on the inner side of a line extending through the connection between said link and said valve-actuating device and the axis about which said weighted arm moves, and the greater portion of the weight of said weighted arm will lie on the outer side of said line, said weighted arm being capable of outward movement sufficient to move the point of connection between it and the link into but not beyond said line, and springs pivotally connected at their ends directly to the respective weighted arms.

3. In a governor, a spindle, a support mounted on said spindle, two weighted arms pivotally mounted upon said support on opposite sides of and at points remote from the axis of said spindle, a valve-actuating device movable longitudinally of said spindle, links connecting said valve-actuating device with those portions of the respective arms which lie adjacent to said spindle, the connections between said valve-actuating device and said links being spaced inwardly of the pivots of the arms, the connections between the arms and the links being situated normally between the inclined lines drawn through the pivot of the arms and the connections between said valve-actuating device and said links, a spring connecting said arms, and means to allow the points of connection of the arms with the links to move to coincide with the inclined lines but not pass therebeyond.

4. In a governor, a spindle, a support mounted on said spindle, two weighted arms having axes mounted upon said support on opposite sides of and at points remote from the axis of said spindle, said arms normally inclining inwardly toward said last-mentioned axis with their centers of gravity on the inner sides of the first-mentioned axes, a valve-actuating device movable longitudinally of said spindle, links connecting said valve-actuating device with those portions of the respective arms which lie adjacent to said spindle, means to limit the outward swinging of said arms whereby their centers of gravity never pass outside of the axes of said arms, shafts rotatably mounted on said arms centrally thereof, and springs connecting the adjacent ends of the respective shafts.

5. In a governor, a fluid-tight casing having a bearing in its bottom wall and adapted to contain a quantity of fluid, a boss surrounding said bearing and extending upward beyond the normal level of the fluid within said casing, said boss having laterally extending openings formed in said extensions and extending through the bottom of said casing, a spindle journaled in said bearing, a collar mounted on said spindle above said boss, rods secured to said collar and extending through the openings in the respective lateral extensions of said boss, weights movably mounted within said casing and connections between said weights and said collar.

[Claims 6 and 7 not printed in the Gazette.]

1,208,422. ADJUSTABLE HINGE. JOHN HOWARD WAY, Philadelphia, Pa. Filed Oct. 27, 1916. Serial No. 128,029. (Cl. 16—107.)

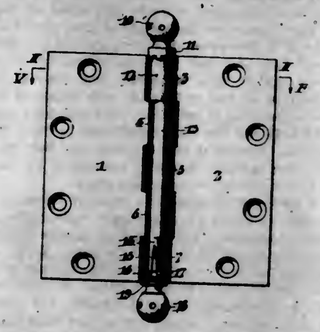
1. A hinge having a pintle provided with portions which are successively eccentric to each other, such portions being successively of reduced diameter to an extent permitting the eccentricity to be accomplished without any projection of an eccentric portion beyond the cylindrical plane which bounds the preceding portion.

2. A hinge having its end knuckles bored concentrically, and a pintle the upper and lower portions of which fit said end knuckles, and the intermediate portion of which is eccentric to said upper and lower portions.

3. A hinge having its end knuckles bored concentrically, intermediate knuckles bored eccentrically, and a pintle with a large upper portion and a small lower portion fitting the end knuckles, and an intermediate portion fitting the intermediate knuckles.

4. In an adjustable hinge, the combination of a pintle having portions which are eccentric in relation to other

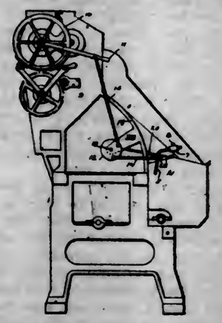
portions, a head whereby said pintle may be rotated, and means whereby said pintle when driven home to its seat, is held against rotation.



5. In an adjustable hinge, the combination of a pintle having portions which are eccentric in relation to other portions, a head whereby said pintle may be rotated, a toothed edge below the head, and a correspondingly toothed edge at the top of the upper end knuckle of the hinge.

[Claim 6 not printed in the Gazette.]

1,208,423. SELF-ADJUSTING FEED ATTACHMENT FOR COTTON-GINS. TANDY WEAR, Paris, Ark., assignor of one-half to Harry E. Arnold, Paris, Ark. Filed July 7, 1916. Serial No. 107,996. (Cl. 13—9.)

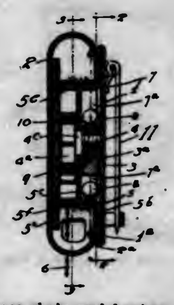


1. The combination with a cotton gin having a hinged breast, and a cotton gin feeder provided with a controlling lever, a rotary element, means for connecting the rotary element with the controlling lever, mechanism for transmitting motion from the hinged breast to the rotary element, a pressure member mounted for movement within the roll box, and means for transmitting motion from the pressure member to the said rotary element.

2. The combination with a cotton gin having a hinged breast, and a cotton gin feeder provided with a controlling lever, a shaft provided with a crank lever, an arm carried by the gin breast and arranged to actuate the crank element for partially rotating the said shaft, means for transmitting motion from the shaft to the controlling lever, a pressure member mounted for movemeat within the roll box and means for transmitting motion from the pressure member to the said shaft.

3. The combination with a cotton gin having a movable breast, and a cotton gin feeder provided with a controlling lever, of a transverse shaft provided with a crank bend, a crank disk mounted on the transverse shaft, a pressure member hinged within the roll box, and exteriorly arranged weighted arm connected with the pressure member, rods connecting the crank disk with the said arm and the controlling lever and an arm carried by the breast of the gin and arranged to actuate the crank bend.

1,208,424. EYEGLASS-CHAIN REEL. OTTO B. WEDELL, Clinton, Iowa. Filed July 28, 1915. Serial No. 42,244. (Cl. 242—98.)

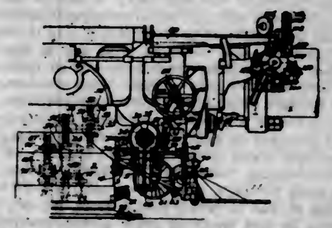


1. In an eye-glass chain reel having a casing composed of a back plate and a cover member, means by which said parts are separably connected, a drum having a transaxial web centrally apertured, a bearing stud supported on one of said parts and rotatably supporting said drum by engagement with its central aperture, said stud having a slotted head abutting the side of the web toward the other part of the casing for retaining the drum against removal, and a spiral spring having its inner end engaged in the slot of said head and its outer end fixed to the drum, whereby said spring is accessible upon separation of the casing members without disturbing the drum mounting and removable without releasing the drum from its mounting on the stud.

2. In an eye glass chain reel, a casing, a circular member secured thereto and peripherally notched; a drum having an annular portion journaled for rotation on said circular member, said annular portion having a recess and a check ball lodged therein for engagement with the notches of the circular member, said drum having a centrally apertured web extending proximate the side of the circular member opposite the casing wall, and a headed stud extending from said member through the aperture of said web for retaining the drum in position.

3. In an eye glass chain reel, a casing, a circular member secured thereto and peripherally notched, a drum comprising an annular portion journaled for rotation on said circular member, said drum having a series of recesses differing in number from the notches of the circular member, the circumferential extent of each recess being less than the circumferential distance between adjacent notches, check balls lodged in such recesses adapted for engagement with the notches, and means retaining the drum against axial displacement.

1,208,425. SYSTEM OF GUN CONTROL. ARTHUR HOWARD WEGNER, Washington, D. C., assignor to Wegner Control System, Incorporated, Portsmouth, N. H., a Corporation of Maine. Original application filed May 2, 1912, Serial No. 694,687. Divided and this application filed Mar. 10, 1913. Serial No. 753,445. (Cl. 89—41.)



1. In a system of gun control, the combination with a plurality of guns one of which is provided with means for manually effecting its movements, of electrical devices and connections for effecting corresponding movements of another gun of said plurality.

2. In a system of gun control, the combination with a master gun provided with means for manually effecting its movements, of a series of other guns each having means for electrically effecting its movements, and connections whereby movements of the master gun control the electric operation of the other guns to the same limit as the master gun.

3. In a system of gun control, the combination with a master gun provided with means for manually effecting its movements, of a series of other guns each having means for electrically effecting its movements, and connections whereby movements of the master gun control the electric operation of the other guns to the same limit as said master gun, each of said other guns having means whereby it may be moved independently of the electric devices.

4. The combination with a pair of guns one of which has means for manually moving it, of means for electrically moving the second gun, said means including a range controller comprising a number of isolated areas representing different range units, means for electrically operating said range controller from the first gun, and means whereby said controller may be stopped at a point corresponding to the range of the first gun.

5. A gun control system of the character described comprising first and second guns, the first being manually movable and the second having a motor for moving it, said motor having operating connections with the first gun whereby the second gun is moved continuously to any degree without interruption during the operation of the motor, and means controlled by the first gun for starting the operation of the motor and prescribing the operation of the motor and movement of the second gun to an exact predetermined limit.

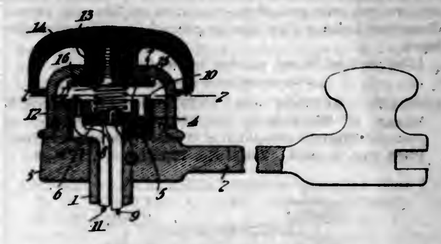
[Claims 6 to 15 not printed in the Gazette.]

1,208,426. AIR-COMPRESSING PUMP. WILLIAM JOSEPH WHITE and WILLIAM FRANK NEAL, Birmingham, Ala. Filed May 1, 1915. Serial No. 25,223. (Cl. 230—27.)



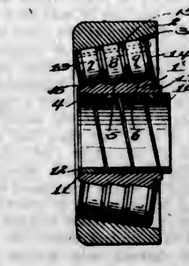
A pump of the class described comprising a base having one end thereof tapered, upstanding flanges formed in each of the marginal edges of said tapered end, a standard formed medially of the tapered end, flanges formed on the opposite sides of said standardard, each of which is disposed in parallel spaced relation to one of the adjacent first mentioned flanges, cylinders formed integrally with the upper edges of said flanges, a second standard formed on the base at the opposite end thereof and in horizontal alinement with the first mentioned standard, a shaft journaled in the last mentioned standard, a pair of friction wheels on the ends of said shaft and disposed upon the opposite sides of said standard, crank pins formed on the outer faces of said wheels, pistons in the cylinders, and pitmen connecting said pistons with said crank pins.

1,208,427. TWO-WIRE HORN BUTTON-SWITCH. SAMUEL ORR WHITE, Muncie, Ind., assignor to Warner Gear Company, Muncie, Ind., a Corporation of Indiana. Filed Dec. 17, 1914. Serial No. 877,726. (Cl. 200—27.)



An electric switch, comprising a hub having a recess therein, a perforated cap fitting over said hub, a block of insulation arranged in said recess, said block recessed in its upper face, and cut out on its under face, a metal disk arranged in the recess of the block, a spring mounted thereon, a button having a shank depressible through said perforated cap and normally held in elevated position by the spring, a conductor ring embedded in the block, a contact plate carried by the inner end of the button shank and engaged by the spring, and electric connections connected respectively to said disk and ring.

1,208,428. ROLLER-BEARING. FRANK WHITNEY, Hubbard Woods, Ill. Filed Jan. 9, 1914. Serial No. 811,244. (Cl. 64—62.)



1. In a roller bearing, the combination of bearing members, having opposed conical faces of equal angle with respect to the axis of the bearing, the larger end of one face adjoining and offsetting the smaller end of the adjacent face, and a series of rollers coöperative with each of said faces, each face being of less length than the diameter of the coöperating rollers.

2. In a roller bearing, the combination of opposed bearing members, one having a plurality of stepped conical faces of equal angle relatively to the axis of the bearing, and a series of cylindrical rollers coöperative with each of said faces and being of greater diameter than the width of said faces.

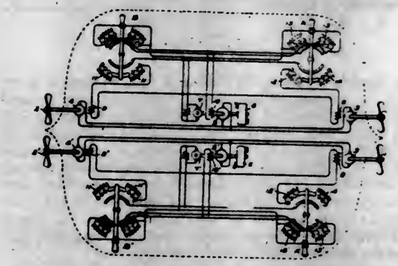
3. In a roller bearing, the combination of inner and outer conical bearing members, one of said members having a plurality of stepped conical bearing surfaces, and cylindrical rollers coöperative with the bearing members, the diameters of said rollers being greater than the length of the coöperating stepped bearing surfaces.

4. In a roller bearing, the combination of inner and outer conical bearing members, one of said members having a plurality of stepped conical bearing surfaces, the larger ends of said surfaces adjoining and offsetting the smaller ends of the adjacent surfaces, and series of cylindrical rollers, one series coöperative with each of said stepped conical surfaces.

5. In a roller bearing, in combination, inner and outer bearing members, one of said members having a plurality of stepped conical surfaces of equal angle relatively to the angle of the other bearing member, the larger ends of said surfaces adjoining and offsetting the smaller ends of the adjacent surfaces, and a series of cylindrical rollers coöperative with each stepped conical surface and having diameters greater than the lengths of the respective surfaces.

[Claims 6 to 34 not printed in the Gazette.]

1,208,429. SYSTEM OF ELECTRIC PROPULSION. MERLE J. WIGHTMAN, Seattle, Wash., assignor to General Electric Company, a Corporation of New York. Filed Jan. 8, 1916. Serial No. 70,982. (Cl. 172—8.)



1. The combination in a system of electric propulsion of a vessel, propellers for said vessel located at the opposite ends thereof, an independent motor for driving each propeller, and a controlling device near each end of the vessel for simultaneously controlling the motors at both ends and for maintaining a lower speed of the motor driving the propeller at one end of said boat than that of the motor driving the propeller at the other end.

2. The combination in a system of electric propulsion of a vessel adapted to be driven in either direction, propellers for said vessel located at the opposite ends thereof, an independent motor for driving each propeller, means for maintaining a lower speed of the motor driving the propeller at one end of said boat than that of the motor driving the propeller at the other end, and means for regulating the relative speeds of said motors in accordance with the direction in which said vessel is driven.

3. The combination in a system of electric propulsion of a vessel, propellers for said vessel located at the opposite ends thereof, an independent motor for driving each propeller, means for driving said motors at different speeds, and means for varying the ratio between the speeds of said motors in proportion to the speeds of the motors.

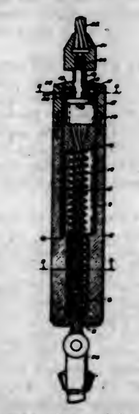
4. The combination in a system of electric propulsion of a vessel adapted to be driven in either direction, propellers for said vessel located at the opposite ends thereof, an independent motor for driving each propeller, means for driving said motors at different speeds and means for regulating the relative speeds of said motors in accordance with the direction in which said vessel is driven.

5. The combination in a system of electric propulsion of a vessel, two propellers for said vessel at each end thereof, an independent motor for driving each propeller, a generator for supplying current to one motor at each end of the vessel, a second generator for supplying current to the second motor at each end of the vessel, and controlling means at each end of the vessel for maintaining a lower speed of the motors driving the propellers at one end of the vessel than that of the motors driving the propellers at the other end of the vessel.

[Claims 6 to 12 not printed in the Gazette.]

1,208,430. RESILIENT CONNECTOR-WEIGHT. WILSON B. WIGLE, Fullerton, Cal. Filed Mar. 15, 1916. Serial No. 84,322. (Cl. 267—12.)

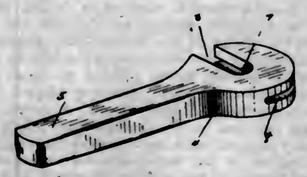
1. A resilient connector weight for well rigs, comprising the combination of a shell of relatively great weight, a stem secured thereto by a swivel connection for attachment to a cable, a hook securing member slidably secured to said shell, and resilient means interposed between said member and said shell, said shell provided with means to relieve the pressure on said resilient means when compressed a predetermined amount.



2. A resilient connector weight for well rigs, comprising the combination of a shell of relatively great weight having an axially extending bore of enlarged diameter intermediate its ends thereby forming a shoulder at the upper end, a securing member adapted for attachment of a hook extending into said bore, a head on said member, a resilient member mounted between said head and the end of said shell supporting said members, said head arranged to abut said shoulder to relieve the pressure on said resilient member when compressed a predetermined amount, and a stem having a head disposed in said enlarged portion of the bore and below said shoulder forming a swiveled connection between said shell and said stem.

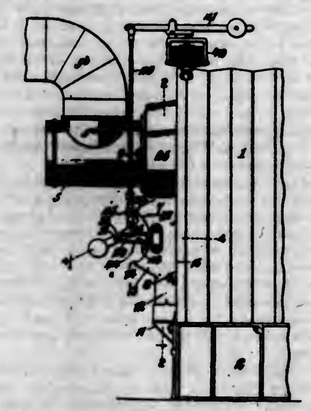
3. A resilient connector weight for well rigs, comprising the combination of a shell of relatively great weight having an axially extending bore of enlarged diameter intermediate its ends thereby forming an upper and lower shoulder, a hook securing member extending into said bore having at its upper end a head disposed in the enlarged portion of said bore, a spring between said head and said lower shoulder, said head arranged to abut said shoulder to relieve the pressure on said spring when compressed a predetermined amount, a stem adapted to be attached to a cable having a head disposed in the enlarged portion of said bore, anti-friction bearing means between said upper shoulder and the head on said stem.

1,208,431. HOLDER FOR SPINNING-TOPS. OSCAR S. WILCOX, Troy, N. Y., assignor of one-half to Lansing Van Auken, Watervliet, N. Y. Filed May 10, 1915. Serial No. 27,012. (Cl. 46—32.)



The combination of a top having a comparatively flat under-face and a depending spindle, a holder provided at one end with a handle and at its opposite end with a comparatively flat top-receiving and supporting portion in which is formed an open bearing slot extending inwardly from an edge of said portion and with an open cord-receiving slot intersecting said bearing slot, the top being adapted to rest on the upper surface of said top-receiving portion with its said depending spindle located at the innermost end of the bearing slot, whereby only the under face of the top and its said depending spindle frictionally engage the holder, and a cord adapted to be wound upon the top spindle and to traverse and project outwardly through the cord-receiving slot so that by drawing the cord outwardly from the top the same may be set in rapid spinning motion and, being supported on the upper surface of the holder, may be positioned by inclining said surface or holding it level so that the top upon leaving the holder by way of said bearing slot will spin on an axis determined by the positioning of the holder with respect to the horizontal.

1,208,432. DRAFT-REGULATOR. EDGAR C. WILEY, Lynchburg, Va., assignor of one-third to Ernest J. F. Wilson, Lynchburg, Va. Continuation of application Serial No. 13,894, filed Mar. 12, 1915. This application filed Nov. 8, 1915. Serial No. 60,306. (Cl. 126—298.)



1. A draft regulator for furnaces comprising a duct structure including a plurality of ducts leading individually from the atmosphere to different parts of the furnace for draft and air check purposes and terminating at the atmospheric ends in ports in close association and individual to the respective ducts, said ports having their atmospheric ends defining an arc described about a common center, and a unitary valve or damper common to the ports having a port-controlling face movable concentric with and situated exterior to said curved ports.

2. A draft regulator for furnaces comprising a casting with a plurality of separate ducts therein leading to different parts of the furnace with the ducts terminating in adjacent ports individual to respective ducts and having concave mouths curved about a common axis, and a unitary valve or damper common to the ports and mounted to rock about the axis of curvature of the mouths of the ports and provided with a convex face concentric with the mouths or openings of the ducts, the valve or damper being exterior to the casting containing the ducts.

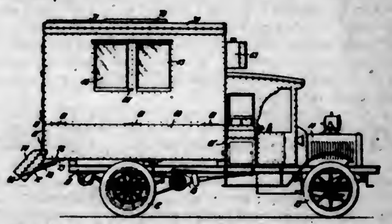
3. A draft regulator for furnaces having a plurality of separate ducts leading to different parts of the furnace and at the ends remote from the furnace opening individually and directly to the atmosphere, the atmospheric ends of the ducts being grouped in close association and having a concave curvature about a common axis exterior to the ducts, and a valve or damper exterior and common to the ducts and provided with a convex face movable across the ducts to control the admission of air thereto.

4. A draft regulator for furnaces having air ducts leading to the ash pit, smoke flue and combustion chamber and including a damper structure for said air ducts having a range and direction of movement to cut off the admission of air to the ash pit, to admit air to the smoke flue and to then admit air to the combustion chamber in the order named.

5. A draft regulator for furnaces comprising an air duct leading to the ash pit, another air duct leading to the smoke flue, and another air duct leading to the combustion chamber and all located in adjacent relation one to the other, and a damper structure movable into opening and closing relation to the ducts and adapted and arranged to cut off the admission of air to the ash pit, to admit air to the smoke flue, and to then admit air to the combustion chamber in the order named.

[Claims 6 to 19 not printed in the Gazette.]

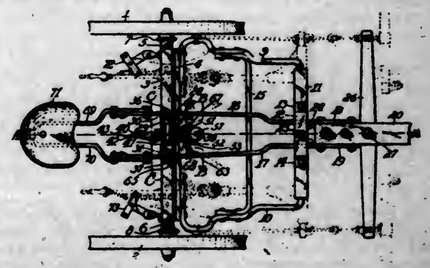
1,208,433. AMBULANCE. ROBERT WILLIAMS, New York, N. Y. Filed Feb. 8, 1916. Serial No. 76,937. (Cl. 21—80.)



1. In a field ambulance, the combination of a body having pairs of upright guideways, slides movable up and down along said guideways, stretcher cradles each comprising a rigid frame, a pair of links pivotally connected at their upper ends to the cradle frame and at their lower ends to the upper ends of a pair of said slides, means to support the ends of the cradle when swung upwardly into horizontal position around said pivotal connections, and supporting means for the lower ends of the slides whereby said slides constitute supporting legs for the cradle.

2. In an ambulance, the combination of a body having pairs of corner posts, a pair of channel guides midway between the pairs of posts, a pair of supporting slides in said guideways, a stretcher cradle, a pair of links pivotally connecting the middle portion of the cradle to the upper ends of said slides permitting one end of the cradle to tilt so as to lie adjacent the end of the body, and means coöperating with said corner posts to support the ends of the cradle when swung into horizontal position.

1,208,434. ADJUSTABLE RIDING-CULTIVATOR FRAME. WILLIAM M. WILLMORE, Vincennes, Ind., assignor to Hartman Manufacturing Company, Vincennes, Ind., a Corporation of Indiana. Filed July 13, 1914. Serial No. 850,594. (Cl. 97—35.)



1. In a cultivator frame, the combination of an axle, a frame member secured to the axle, two frame bars connected together and pivotally connected with the frame member forward of the axle and extending over the axle, a concave notched catch-bar having a base that is secured

to the forward side of the axle, a bracket arranged above the catch-bar and connected with the two frame bars, and a latch bar pivoted to the bracket to engage the catch-bar and having an upwardly-extending weighted over-balancing-arm.

2. In an adjustable riding cultivator, the combination of an arched axle, a track secured upon the crown of the arched axle, a frame secured to the axle, two frame bars pivoted to the frame forward of the axle and extending over and beyond the axle, a roller box arranged between and secured to the frame bars, a roller mounted in the roller box and supported upon the track, and a guide secured to the rearward side of the roller box and extending under the track.

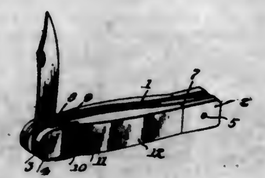
3. In a cultivator frame, the combination of an axle, a frame secured to the axle, two frame bars connected together and pivotally connected with the frame forward of the axle, the bars extending over and beyond the axle, a box arranged between and secured to the two frame bars, a concave notched catch-bar secured to the forward side of the axle, a bracket secured to the forward side of said box and having two guides thereon that extend above the catch-bar, and a latch bar pivoted to said bracket and normally extending between said guides and into engagement with said catch-bar.

4. In a cultivator frame, the combination of a main axle portion having a flat top, a frame bar secured to the forward side of the axle portion, two frame members secured to said bar, a pivot bar secured to said members, two frame bars extending across the flat top of said axle portion and across said pivot bar, a cross-bar secured to said frame bars and pivoted to said pivot bar, a concave notched catch-bar secured to said frame bar, a roller box arranged between and secured to said extension bars, a bracket secured to said box, a roller mounted in said box and supported upon the flat top of said axle portion, and a latch bar pivoted to said bracket to coöperate with said catch-bar.

5. In an adjustable cultivator frame, the combination with a flat main axle portion, a frame secured to the axle portion, and two frame bars connected together and pivotally connected with the frame, the bars extending over the axle portion; of a roller box comprising two main bars and two end bars connected together, the box being arranged between the two frame bars with the end bars thereof in contact with and secured to the frame bars respectively, said end bars having each a lug extending under the adjacent frame bar; an axle secured to the main bars of the box, and a roller mounted on the axle between the main bars of the box and supported upon the flat main axle portion.

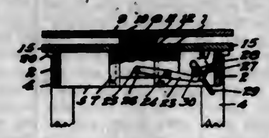
[Claim 6 not printed in the Gazette.]

1,208,435. ARTICLE OF CUTLERY. LOUIS E. YOUNG, Wellington, Colo. Filed Nov. 13, 1915. Serial No. 61,293. (Cl. 7—11.)



In combination, a knife handle having an end piece secured thereto provided with an under-cut shoulder, a second end piece secured to the handle having a transverse channel, a stone arranged between said end pieces and having one of its ends engaging with the under-cut shoulders, a retaining plate formed with inturned fingers and a holding flanges, the fingers of the retaining plate engaging in the channel of the second end piece and positioning the holding flange thereof over the opposite end of the stone.

1,208,436. TABLE. BENJAMIN ZIMMER, Minneapolis, Minn. Filed Nov. 11, 1914. Serial No. 871,494. (Cl. 45—118.)



1. A table comprising a frame, a top, vertically movable supports whereon said top is mounted, levers pivotally connected with said supports, a bail pivoted on said frame for operating said levers, and leaves normally under said top and movable outwardly when said top is raised, said top, when lowered, dropping down between said leaves in the plane thereof.

2. A table comprising a frame having cross bars and slides mounted to move vertically on the middle portion of said cross bars and having a limited movement thereon, a table top centrally mounted on said slides, levers pivoted at points intermediate to their ends near said slides and having their inner ends pivotally connected with said slides, the outer ends of said levers extending to a point near the side rails of the table frame, oscillating means mounted in said frame adjacent to said side rails and having a part for engaging the outer portion of said levers for tilting them to lift said table top and leaves normally fitting beneath said top and adapted to be drawn out when the top is raised, said top, when lowered, dropping down between said leaves in the plane thereof.

3. A table comprising a frame having cross bars and vertical guides thereon near the middle portion of said bars, slides mounted to move vertically in said guides, a table top mounted on said slides, levers pivoted intermediate to their ends adjacent to said guides and having pivotal connections at one end with said slides, the outer ends of said levers being adjacent the side rails of said frame, a rocking means mounted in said frame adjacent said slide rails and having means for engagement with said levers, and a depending hand grip portion adjacent the side rails of said frame.

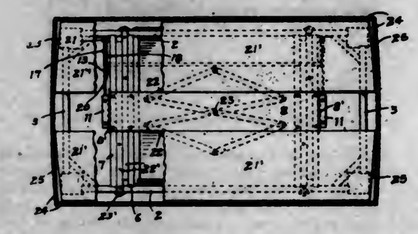
4. The combination, with a table frame, of plates vertically movable therein, a table top mounted on said plates, levers pivotally suppported intermediate to their ends on said frame and having pivotal connections with said plates at one end, a bail pivoted on said frame and having means engaging the other ends of sid levers for tilting them to raise said plates, and leaves, normally beneath said top and capable when the top is raised of being drawn out to a position in the plane of the top when it is lowered between them.

5. The combination, with a table frame, of levers pivotally supported intermediate to their ends thereon and having lugs at their outer ends, arms pivoted on said frame and having lugs to engage said levers, a bail connecting said arms with one another, the rocking of said bail operating said arms to tilt said levers in a vertical plane, a vertically movable table top, means engaging said top and actuated by the movement of said levers for raising or lowering it, leaves mounted on said frame beneath said top and normally having their edges flush with the corresponding edge of said top, said leaves being movable outwardly when said top is raised, said top, when lowered after the withdrawal of said leaves, fitting between them and in the plane of said leaves.

[Claims 6 to 9 not printed in the Gazette.]

1,208,437. TABLE. BENJAMIN ZIMMER, Minneapolis, Minn. Filed Aug. 24, 1915. Serial No. 47,024. (Cl. 45—118.)

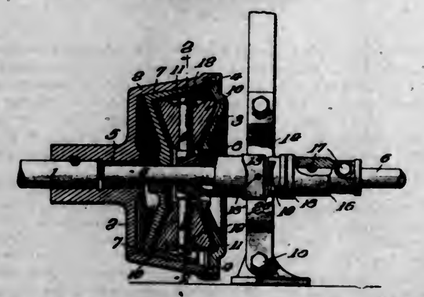
1. A table having a vertically movable top provided at its side and end edges with a depending flange, the ends of said top being curved slightly and the flanges thereon being curved to correspond thereto, leaves normally fitting under said top and gradually decreasing in length from one longitudinal edge to the other, whereby said leaves may fit under said top and between said end flanges and be concealed thereby, the ends of said leaves when they are withdrawn from under said top and the top is dropped down between them forming continuations of the end flanges of said top.



2. A table having a vertically movable top, leaves mounted for outward movement to allow said top to be dropped down between them and in the plane thereof, the ends of said leaves being curved and the edges of said table top having depending flanges thereon for concealing the crack between the table top and the leaves when the table is closed, the end flanges of said table top being curved to conform to the degree of curvature of the ends of said leaves, for the purpose specified.

3. A table comprising a frame having cross bars and a table top, supports centrally arranged on said cross bars and having pin and slot connections therewith, levers pivoted at points intermediate to their ends and having pivotal connections at one end with said support, rocking arms mounted adjacent the side rails of said frame and having pivotal connections with said levers, a rod adjacent a side rail of said table and having its ends mounted in said arms and forming therewith an operating bail and leaves normally beneath said top and adapted to be drawn out to allow said top to drop down between them in the plane thereof.

1,208,438. REVERSING MECHANISM. GEORGE E. AARNO, Springfield, Mass. Filed Mar. 2, 1916. Serial No. 81,706. (Cl. 74—26.)

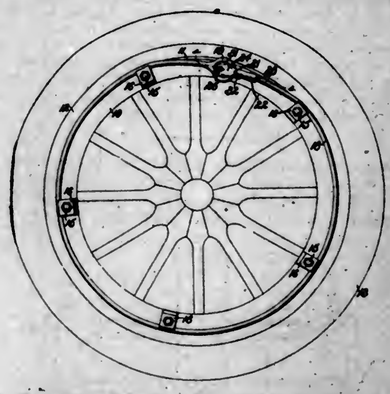


1. The combination with a power shaft, of a housing and a face plate connected therewith affixed to said power shaft, a clutch facing on said housing, a driven shaft carrying clutching means, a sleeve longitudinally movable on said driven shaft, intermediate rotary means carried by said sleeve, and means for moving said rotary means carrying sleeve whereby the clutching means will be actuated by the clutch facing on said housing, and upon a reversal of the movement of the actuating means the clutching means will bear against said intermediate rotary means, and the intermediate rotary means will bear against said face plate whereby to reverse the direction of the rotation of the driven shaft.

2. The combination with a power shaft, of a housing and a face plate connected therewith keyed to said shaft, a clutch facing on said housing, a driven shaft carrying clutching means mounted thereon, intermediate rotary means located between said clutching means and said face plate, a slidable collar on said driven shaft, a sleeve adjustably mounted on said driven shaft in close proximity to said collar, means for actuating said collar whereby it may be brought into engagement with the sleeve on said driven shaft whereby a driven shaft is moved axially and said intermediate rotary means is squeezed between the clutching means and said face plate and the direction of the driven shaft is reversed.

3. The combination with a shaft, of a unitary element having clutch and gear portions thereon, a driven shaft, a unitary element having clutch and gear portions thereon connected with said driven shaft, a non-rotatable slidable sleeve having journal pins, pinions on the pins between the gear portions of said elements, means comprising a lever engaging said sleeve, a collar slidably mounted on said driven shaft and engaged by said lever, and a sleeve adjustably mounted on the driven shaft for sliding the slidable shaft to engage the clutch portions or the gear portions and pinions.

1,208,439. DEMOUNTABLE-RIM RETAINER. CLINTON LAVERNE ADAIR, Benton, Pa., assignor of one-half to Karl Zarr Hess, Benton, Pa. Filed June 29, 1916. Serial No. 106,630. (Cl. 152—21.)



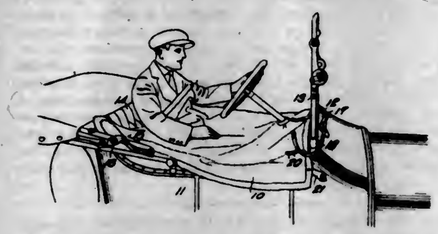
1. The combination with a felly, a rim fixed thereto and a demountable rim coöperating with the fixed rim, of retaining means for the demountable rim comprising a hoop having a ring at one end, a bifurcated socket piece at the other end, the ring being located in the bifurcated portion of the socket piece, a crank shaft journaled in the socket piece and a cam wheel secured to the crank shaft and fitted rotatably in the ring for tightening the hoop, and means secured to the side of the felly to hold the hoop in place against the demountable rim.

2. The combination with a felly and a rim secured thereto, of a demountable rim retainer coöperating with said felly and rim and comprising a hoop having at one end a circular ring and at the other end a bifurcated socket piece adjustably connected thereto, said ring being fitted into the forked portion of the socket piece, a shaft journaled in the socket piece and having a polygonal portion between its ends, a cam wheel secured upon the polygonal portion of the shaft and fitted for rotation within the ring aforesaid, means to rotate the shaft and cam wheel and a stop member secured to the shaft to limit its extent of rotation.

1,208,440. ROBE FOR AUTOMOBILES. HERMAN S. H. ADLER, New York, N. Y. Filed Sept. 23, 1915. Serial No. 52,161. (Cl. 21—61.)

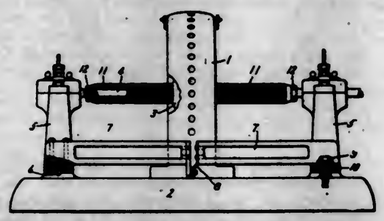
As an article of manufacture, an automobile robe having a rectangular body of a size to extend across the open

top of an automobile body from the dashboard to the front seat and from one side to the other side thereof, the front portion of the robe body having a slit leading to an opening for the passage of the steering post of the automobile, straps secured to one face of the robe body adjacent the front edge and a distance from the side edges, one of the straps being provided with a buckle, the said straps being adapted to be passed around the front of the wind shield of the automobile and buckled together to support the front end of the robe, loops attached to the robe body



at points intermediate the sides of the robe body and the attached ends of the said straps for the latter to pass through the loops, the robe body being provided at the rear of its sides with projecting tabs adapted to extend over the side edges of the automobile body to engage with the curtain fastener buttons on the sides of the automobile body to support the rear end of the robe, and tabs on the front end of the said robe body adjacent the sides thereof and adapted to engage the curtain fastener buttons at the front of the dashboard of the automobile.

1,208,441. HIGH-SPEED ROTATING BODY. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 8, 1914. Serial No. 865,682. (Cl. 64—30.)



1. The combination with a rotatable shaft adapted to rotate at or above its critical speed, of means for damping the vibration of the shaft, said means being secured to said shaft and relatively fixed with respect thereto.

2. A rotatable body adapted to rotate at or above its critical speed, said body including a mass of laminations held together under pressure and adapted to damp the vibration of the body.

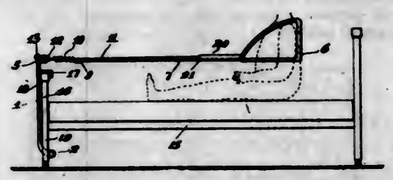
3. The combination with a shaft adapted to rotate at or above its critical speed, of a mass of laminations held together under pressure and operatively related to the shaft and adapted to damp the vibration of the shaft.

4. A rotatable body adapted to rotate at or above its critical speed, said body including a medium adapted to absorb energy imparted thereto by a vibratory tendency of the body but unable to give such absorbed energy back again to increase the vibratory tendency.

5. A rotatable body adapted to rotate at or above its critical speed comprising a mass of laminations held together under pressure and adapted to absorb energy imparted thereto by a vibratory tendency of the body but unable to give such absorbed energy back again to increase the vibratory tendency.

[Claims 6 to 11 not printed in the Gazette.]

1,208,442. INVALID-SUPPORTER. FRANK B. ALLEN, Passaic, N. J. Filed Sept. 15, 1915. Serial No. 50,736. (Cl. 5—41.)



1. In a device of the character described, a bedstead, an invalid supporter, and a crane for the said supporter comprising an upright post adapted to be placed against the outside of the bedstead and bearing against the same and a cross bar secured to the lower end section of said post and comprising two telescoping members adapted to engage, when extended, the inside of the legs of the bedstead.

2. In a device of the character described, a crane adapted to be attached to a bedstead and comprising a post whose lower end is bent out of the plane of the main portion thereof, a cross bar at the lower end of said post and also disposed out of the plane of the main portion of the post and provided with telescoping end sections, and a hook at the upper end of said post.

1,208,443. MOP-HEAD. CHARLES V. ANDERSON, Cincinnati, Ohio. Filed May 27, 1916. Serial No. 100,867. (Cl. 15—56.)

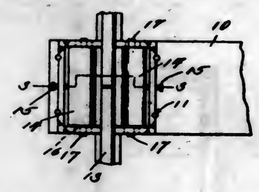


1. A mop head for mops which have a substantially continuous bead, comprising a main mop-supporting member for engagement with a portion of the bead of a mop, a clamp mounted on said member and extensible substantially in its plane, and means for extending said clamp into engagement with another portion of the bead of the mop, said clamp when extended imparting a pointed shape to the mop.

2. A mop head for mops, which have a substantially continuous bead, comprising a main mop-supporting member having an arcuate periphery for engagement with a portion of the bead of a mop, a clamp mounted in said member and extensible substantially in its plane, and means for extending said clamp into engagement with another portion of the bead of the mop, said clamp when extended causing opposite sides of the bead of the mop to converge from opposite terminals of the arcuate periphery of the main mop-engaging member.

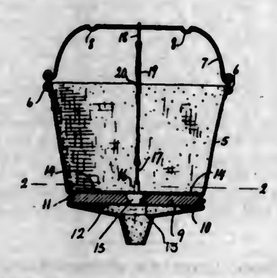
3. A mop head for mops which have a substantially continuous bead, comprising a main mop-supporting member having an arcuate periphery for engagement with a portion of the bead of a mop, a screw threaded shank mounted in said member and extensible substantially in its plane, a bead engaging head at the outer end of said shank, and a nut on said shank for extending the head into engagement with another portion of the bead of the mop, said shank and head when extended causing opposite sides of the bead of the mop to converge from opposite terminals of the arcuate periphery of the main mop-engaging member.

1,208,444. RAIL-JOINT. HENRY C. ARCHER, Fort Wayne, Ind. Filed Apr. 11, 1916. Serial No. 90,467. (Cl. 239—6.)



A clamp for a rail joint comprising a frame secured to a railway tie and having rail receiving openings in the opposite sides thereof, said sides being formed with transverse elongated slots, elongated rail clamping blocks disposed in the frame against the ends and the rails, pins carried by the ends of the blocks and slidably disposed in the slots, and adjustable bolts carried by the ends of the frame and engaging the sides of the blocks.

1,208,445. COLLAPSIBLE BUCKET. NORVILL P. ARNOLD, Rector, Ark. Filed Feb. 5, 1916. Serial No. 76,492. (Cl. 150—50.)



1. A bucket of the character described having a collapsible body wall and a rigid bottom provided with a central opening, a bail or handle for the bucket, a valve to close the opening in the bucket bottom, and means connected to the valve and adjustable upon the bail to engage means on the bail whereby the valve is retained in an open position.

2. A bucket of the character described having a collapsible body wall and a rigid bottom provided with a central opening, a bail or handle for the bucket, a valve to close the opening in the bucket bottom, means connected to the valve and adjustable upon the bail to engage means on the bail whereby the valve is retained in an open position, and means normally acting to yieldingly hold said valve in its closed position.

3. A bucket of the character described having a collapsible body wall and a rigid bottom provided with a central opening, a bail or handle for the bucket, a valve to close the opening in the bucket bottom, and flexible means connected to said valve and adjustable upon the bail whereby the valve may be held in its open position.

4. A bucket of the character described having a collapsible body wall and a rigid bottom provided with a central opening, a bail or handle for the bucket, a valve to close the opening in the bucket bottom, flexible means connected to said valve and adjustable upon the bail whereby the valve may be held in its open position, and means fixed to the bottom of the bucket normally acting to yieldingly hold the valve in its closed position.

5. A bucket having a flexible body wall and a tapering flexible funnel-shaped extension on one end, a rigid bottom for the bucket, means for clamping the wall of the bucket above said extension to the outer edge of said bottom, said bucket bottom being centrally provided with an opening, a valve to close said opening, and means for opening said valve to permit the water to escape from the bucket into the funnel-shaped extension thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,208,446. CONTAINER-PUMP. WILLIS E. ARNOLD, St. Cloud, Fla. Filed Apr. 18, 1916. Serial No. 91,935. (Cl. 103—17.)



1. A container pump comprising a pump cylinder, a valve seat detachably mounted within the lower end of said cylinder, a valve mounted on said seat, a spring arranged within said pump cylinder having a valve retainer at its lower end, a hollow piston mounted within said cylinder upon said spring, and a hollow piston rod connected to said piston having a goose neck at its upper end.

2. A container pump comprising a pump cylinder, a valve seat arranged within the lower end of said cylinder, a split ring for retaining said valve seat within said cylinder, a ball valve mounted in said seat, a coil spring arranged within said cylinder having a ball retainer at its lower end, a hollow piston mounted within said cylinder, a piston valve arranged within said piston, a split ring for retaining said piston within said cylinder, and a hollow piston rod connected to the said piston.

3. A container pump comprising a pump cylinder having a check valve at its lower end, a spring supported hollow piston mounted within said cylinder, a piston valve arranged within said piston, a cage for said valve, and a sectional hollow piston rod connected to said piston.

4. A container pump comprising a pump cylinder having annular interior grooves adjacent its ends, a valve seat mounted in the lower end of said cylinder, a split ring arranged within said groove for holding said valve seat within said cylinder, a hollow valved piston mounted within said cylinder, a split ring arranged within the annular groove at the upper end of said cylinder for retaining said piston within said cylinder, and a hollow piston rod connected to said piston.

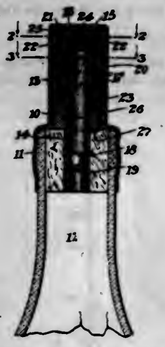
5. A container pump comprising a pump cylinder having a detachable valve seat at its lower end, a piston working within said cylinder, a retaining ring for said piston, a spring for supporting said piston within said cylinder, and a hollow piston rod connected to said piston having a goose neck at its upper end.

[Claims 6 to 10 not printed in the Gazette.]

1,208,447. BOTTLE-STOPPER. CYRUS ARNONE, New York, N. Y. Filed Sept. 23, 1915. Serial No. 52,138. (Cl. 215—66.)

1. A bottle stopper comprising a body member, a tubular stem extending both outwardly and inwardly therefrom, there being provided a series of ports in the outer end of the same, a valve seat adjacent the inner end of the stem, a valve within the stem, and a sleeve secured to the extremity of the outer end of the stem, being provided with

discharge ports and forming an annular chamber between itself and the said outer end of the stem.



2. A bottle stopper comprising a body member, adapted to be attached to the neck of a bottle, a tubular stem extending outwardly and inwardly from the body member, and having a plurality of ports in the outer end thereof, a valve seat adjacent the inner end of the stem, a valve therein, a gasket surrounding the said stem and bearing against the outer end of the body member, and a sleeve secured to the extremity of the outer end of the stem and extending between the same and said gasket thereby providing an annular chamber between the said sleeve and the outer end of the stem, in the former of which adjacent the point of attachment to the stem, there are discharge ports.

3. A bottle stopper comprising a body member, adapted to be attached to the neck of a bottle, a tubular stem extending outwardly and inwardly from the body member, and having a plurality of ports in the outer end thereof, a valve seat adjacent the inner end of the stem, a valve therein, a gasket surrounding the said stem and bearing against the outer end of the body member, a sleeve secured to the extremity of the outer end of the stem and extending between the same and said gasket thereby providing an annular chamber between the said sleeve and the outer end of the stem, in the former of which adjacent the point of attachment to the stem, there are discharge ports, and a cap normally fitted over the said sleeve and removably secured to the exterior of the said body member.

1,208,448. ELECTRIC CUT-OUT. WALTER ARTHUR, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 26, 1914. Serial No. 821,289. (Cl. 175—273.)



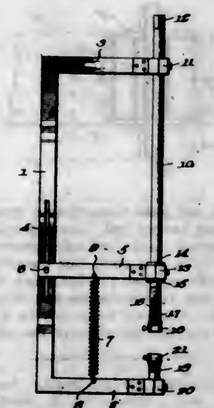
1. A fusible electric cut-out member of metallic cadmium.

2. An electric fuse conductor of metallic cadmium, substantially free from oxidation at any temperature below that of fusion, blowing promptly when fused, and substantially unchanged as regards blowing properties by any current below the blowing current.

3. An electric fuse comprising a conductor of metallic cadmium in the form of ribbon so thin as to be materially deformed by surface tension when fused, said conductor being mounted in an environment which freely permits such deformation.

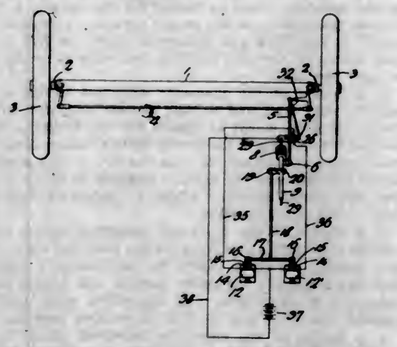
4. An electric fuse comprising a conductor of metallic cadmium in the form of thin twisted ribbon, said conductor being in contact with other material only at its ends, and a tubular casing inclosing said conductor.

1,208,449. AUTOMOBILE-TOOL. FREDERICK GEORGE ATTWASSER, Saco, Mont. Filed May 9, 1916. Serial No. 96,385. (Cl. 81—55.)



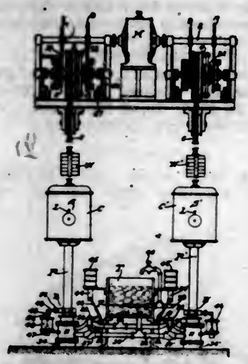
The herein described tool comprising a frame having fixed arms at its ends, an arm slidably connected to the frame and arranged for movement longitudinally thereof, a spring to move the said movable arm toward one of the fixed arms, a stub shaft on said fixed arm and having a nut receiving socket, a shaft mounted in bearings in said movable arm and the other fixed arm for rotation, and also connected to said movable arm for movement therewith, said shaft being arranged in line with the said stub shaft and being adapted to be rotated by a wrench or the like, said shaft also having a nut receiving socket in its end which is opposed to the stub shaft and being further provided in said end with a bore and with a spring in said bore.

1,208,450. SEMI-AUTOMATIC STEERING-GEAR-OPERATING MECHANISM. FRANK W. AUSTIN, Cabool, Mo. Filed Oct. 1, 1915. Serial No. 53,564. (Cl. 172—8.)



The combination with a steering gear including a knuckle, of electrically operated means operatively connected therewith, for moving the steering gear in one direction or the other, a manually controlled shaft, a pair of electrical circuits in which said means are disposed, a switch controlling said circuits and embodying a pair of coöperating oscillatory members, one being attached to said shaft, a link connecting the other member and knuckle, said members having contacts, the switch having spring means for normally holding the switch members in place with the contacts separated.

1,208,451. ELEVATOR. WILLIAM D. BALDWIN, New York, N. Y., and FLOYD C. FUALOW, Montclair, N. J., assignors to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 7, 1914. Serial No. 817,155. (Cl. 187—43.)



1. In an elevator system, the combination of a constantly rotating power shaft, a plurality of cars, transmission mechanism operatively connecting each car with the said shaft, plungers connected to the cars, receptacles containing a liquid for receiving the plungers, electro-mechanical operating mechanism for controlling the transmission mechanism, electro-mechanical operating mechanism for regulating the flow of liquid on the descent of the car, and a single device for controlling both of said operating mechanisms from the cars.

2. In an elevator system, the combination of a plurality of cars, a hoisting unit for each car, a single prime mover operatively connected to the hoisting units, hydraulic retarding means for each car, comprising plungers connected to each car, cylinders for receiving the plungers, a tank communicating with the cylinders, electro-mechanical means for regulating the flow of fluid to said tank, and a single device for controlling both the hoisting unit and the electro-mechanical means from the car.

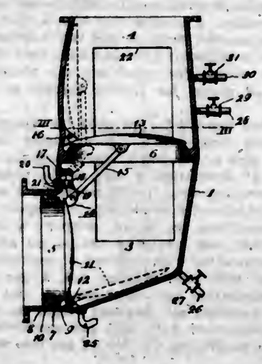
3. In an elevator system, the combination of a constantly rotating shaft, transmission mechanism operatively connecting each car with the said shaft, plungers connected to the cars, receptacles containing a liquid for receiving the plungers, electro-mechanical means associated with the transmision mechanism for effecting a variable speed of the car in either direction of travel, electro-mechanical means for varying the flow of liquid proportionately with the speed of the car in its descent, and a single device for controlling all of the said electro-mechanical means from the car.

1,208,452. COMBINATION WET AND DRY PIPE VALVE. WILLIAM N. BALLARD, Kansas City, Kans. Filed May 6, 1916. Serial No. 95,824. (Cl. 169—23.)

1. In a pipe valve of the character described, a casing, a valve seat therein, a valve adapted to bear against said seat, an alarm tube extending into said casing, a valve to close said alarm tube, a lever pivoted to the interior of the casing and having the last-mentioned valve pivoted thereto, and a rod pivotally connected to the first valve and the lever and adapted to unseat the alarm valve when said first valve opens.

2. In a pipe valve of the character described, a casing, two valve seats therein, two valves adapted to bear respectively against said seats, a rod connected to one of said valves and adapted to transfer pressure at an angle therefrom against the other valve, an alarm tube communicating with said casing, a valve to close said alarm tube, and a lever carrying the last-mentioned valve and connected to the above-mentioned rod.

3. In a convertible device of the character described, a casing having two valve seats arranged therein at an angle to each other, upper and lower pivoted valves mounted independently of each other so that both may be closed or a certain one may be left open and a member extending at an angle from the upper valve and adapted to exert pressure on the lower valve when closed, in accordance to the angularity of said member.

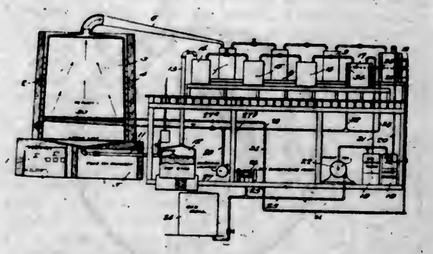


4. In a convertible device of the character described, a casing having two valve seats arranged therein at an angle to each other, upper and lower pivoted valves mounted independently of each other so that both may be closed or a certain one may be left open and a rod pivoted to the upper valve to extend obliquely therefrom and exert pressure on the lower valve when closed, in accordance to the obliquity of said rod.

5. In a device of the character described, a casing, upper and lower valves pivoted to said casing, a lever pivoted to the casing and adapted to bear against the lower valve when closed, an alarm valve carried by said lever, an alarm tube against which said alarm valve is adapted to seat, and a member operably-connected to the upper valve and said lever to hold the latter firmly against the lower valve when closed and unseat the alarm valve when the upper valve opens.

[Claims 6 to 9 not printed in the Gazette.]

1,208,453. APPARATUS FOR DESTRUCTIVE DISTILLATION. JAMES WHITNEY BARNES, Lake Charles, La. Filed Feb. 15, 1916. Serial No. 78,413. (Cl. 203—6.)



1. The herein described apparatus for destructive distillation which comprises a retort, means for heating the same, means at one end of the retort for carrying off the vapor, means for fractionally condensing the vapor, means at the opposite end of the retort for carrying off the liquid products, means for heating the liquid products, means for condensing fractionally the heated vapor from the liquid products, a common gas bell, a suction device disposed between said common gas bell and each set of condensers for withdrawing the gas from each of

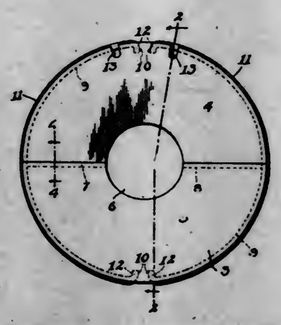
the sets of condensers, and means for regulating the temperature of the retort.

2. The herein described apparatus for destructive distillation which comprises a retort, means for heating the same, means at one end of the retort for carrying off the vapor, means for fractionally condensing the vapor, means at the opposite end of the retort for carrying off the liquid products, means for heating the liquid products, means for condensing fractionally the heated vapor from the liquid products, a common gas bell, a suction device disposed between said common gas bell and each set of condensers for withdrawing the gas from each of the sets of condensers, means for regulating the temperature of the retort, and means for cooling certain of said condensers.

3. The herein described apparatus for destructive distillation, which comprises a retort, means for heating the retort, a pipe at the top of the retort for conveying away vapors of distillation, a pipe at the bottom of the retort for conveying away liquid products, a set of condensers for fractionally condensing the vapor products, means for vaporizing the liquid products, a set of condensers for said last named products, an exhaust fan having communication with each set of condensers, a gas bell connected with said exhaust fan, a gas condenser having communication with said gas bell and with said exhaust fan, a cooling coil disposed within the retort and having communication with said gas condensing device, and means for controlling the flow of gas into said cooling coil.

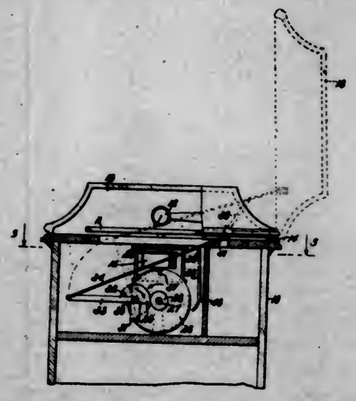
4. The herein described apparatus for destructive distillation, which comprises a retort, means for heating the same, means at one end of the retort for carrying off the vapor, means for fractionally condensing the vapor, means at the opposite end of the retort for carrying off the liquid products, means for heating the liquid products, means for condensing fractionally the heated vapor from the liquid products, a common gas bell, a suction device disposed between said gas bell and each set of condensers for withdrawing the gas from each set of condensers, and means for regulating the temperature of the retort and of certain of said condensers, said means comprising a cooling coil within the retort, a cooling coil for each of the said condensers, a gas condenser pump, and a condenser cylinder communicating with said gas bell and said suction device, and cooling pipes connecting said condenser cylinder with the cooling coils in said retort and in said condensers.

1,208,454. HUB-LINER. WILLIAM F. RAUMEYER, Sparta, Ill. Filed July 24, 1916. Serial No. 111,085. (Cl. 105—146.)



A hub liner of the class described comprising a circular plate formed of two semicircular sections, the periphery of said plate having a circumferentially extending groove therein, each section of said plate having a pair of sockets formed substantially at diametrically opposite points in the bottom of said circumferential groove, said sockets being disposed in planes at right angles to the line of division of said plate, a pair of substantially semicircular spring metal bands removably disposed in said circumferential groove and adapted to hold the two sections together, the resiliency of said bands causing the ends thereof to move toward each other to tightly grip said plate, and inwardly extending lugs formed on the free ends of each of said bands and at right angles thereto, said lugs being disposed in the aforesaid sockets.

1,208,455. AUTOMATIC WINDING DEVICE FOR PHONOGRAPHS. GEORGE BEDFORD, Brooklyn, N. Y. Filed May 23, 1916. Serial No. 99,288. (Cl. 185—39.)



1. The combination with a cabinet, a movable lid therefor, and a spring motor within the cabinet, of connections between the lid and the motor for completely winding the spring at each opening movement of the lid, said connections including an arm and another member mounted to swing around the same axis, lost motion engaging means between the arm and the other member effective in one direction but idle in the other, and a rigid bar pivotally connecting the free end of the arm to the lid.

2. The combination with a cabinet, a movable lid therefor, and a motor carried by the cabinet, of connections between the lid and the motor for storing full power in the motor at each opening movement of the lid, said connections including an arm and another member mounted to swing around the same axis, lost motion engaging means between the arm and the other member effective in one direction but idle in the other, and means connecting the free end of the arm to the lid.

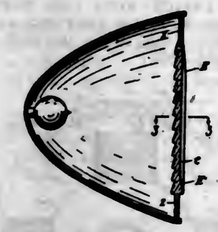
3. The combination with a phonograph cabinet, a movable lid therefor and a spring motor within the cabinet, of automatic winding devices for the motor spring actuated by the opening of the lid, said winding devices including a rotary member having positive connection with one end of the spring and movable with said spring in opposite directions during the winding and unwinding thereof respectively, and a lever connected to the lid and coöperating with said rotary member to actuate the same in one direction for winding the spring and movable freely in the opposite direction away from said rotary member when the lid is closing.

4. In a phonograph, the combination of a cabinet, a hinged lid therefor, a spring motor within the cabinet, the spring of the motor being adapted to wind and unwind from the same end, lost motion connections between the lid and the spring serving to wind the spring while the lid is being opened but permitting free unwinding movement of the spring when the lid is closed, said connections including a rigid bar connected to the lid and a link pivoted to the bar and coöperating with the cabinet to hold the lid open temporarily, said link having lost motion connection with the cabinet whereby the lid is permitted to move slightly toward its closed position to permit sufficient unwinding of the spring to initiate the playing of the record preliminary to the release of the lid for closing.

5. In an automatic winding device for phonographs, the combination with a spring motor including a casing and a pinion secured to the casing, of a gear in mesh with said pinion, a segment having a projecting lug, connections between the segment and the gear whereby the rotation of the segment will cause rotation of the gear at relatively high peripheral speed, a pivoted arm adapted to bear against said lug to rotate the segment, a lid, and a member extending from the free end of the arm to the lid to oscillate the arm each time the lid of the phonograph casing is lifted.

[Claims 6 to 12 not printed in the Gazette.]

1,208,456. HEADLIGHT. LOUIS BELL, West Newton, Mass. Filed Jan. 20, 1916. Serial No. 73,288. (Cl. 240—48.4.)



1. In a headlight screen the combination of transverse prisms having curved surfaces of incidence with an exterior refracting surface so disposed as to deflect the emergent light laterally downwardly and outwardly.

2. In a headlight screen, the combination of a plurality of transverse prismatic elements on one face of the screen, and a refracting surface so disposed as to deflect the emergent light laterally outwardly and downwardly upon the other side of the screen, and a peripheral zone of diffusing surface.

3. In a headlight screen, the combination of a plurality of horisontal prisms upon one side thereof, with a refracting surface upon the other side thereof, so disposed as to deflect laterally outwardly and downwardly, the light rays which pass through it.

4. In a headlight screen, the combination of a plurality of horisontal prisms upon one side thereof, with a refracting surface upon the other side thereof, so disposed as to deflect laterally outwardly and downwardly, the emergent light, and an auxiliary area of diffusing surface.

5. In a headlight, a substantially parabolic reflector, and a screen carried at substantially right angles to the roadway, having upon its interior a plurality of transverse prismatic elements, each having its face of incidence a curved surface of horisontal axis and having an exterior curved refracting surface of vertical axis so disposed as to deflect emergent light laterally, downwardly, and outwardly.

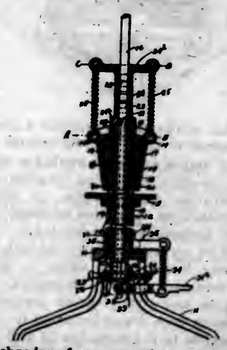
[Claims 6 to 10 not printed in the Gazette.]

1,208,457. ROTARY DISPLAY-TABLE FOR STORE-WINDOWS. WILLIAM M. BELLVILLE, Cannelton, Ind. Filed Dec. 14, 1915. Serial No. 66,835. (Cl. 211—20.)



A display table for store windows, etc., comprising a circular base with a circumferential flange having a series of annular teeth projecting from its inner face, a rotatable table having a downwardly extending flange telescoping over the flange of the base, spaced apart therefrom, a post having a bearing centrally in the base and fixed to said table, pinties mounted upon said table, tables upon said pinties, roller bearings upon the tables which are mounted upon said pinties, and gear wheels fixed to the pinties and meshing with the gear teeth upon the flange of the base.

1,208,458. MECHANISM FOR SUPPORTING AND HOISTING LOADS AND SUNDRY ARTICLES. ISRAEL BENJAMINS, Bath Beach, N. Y. Filed July 25, 1916. Serial No. 111,320. (Cl. 254—106.)



1. In a mechanism for supporting and hoisting loads and sundry articles a movable column, adapted to carry a load, a stationary gripping member, a movable gripping member, a stationary column adapted to support said stationary gripping member, a base for said stationary column, a foot lever, adapted to actuate each of said gripping members, pivotally connected to said base, a means for connecting said foot levers to said gripping members, and a spring, connected to each of said foot levers and adapted to return the same to its original position after each displacement thereof.

2. In a mechanism for hoisting loads and sundry articles a movable column adapted to carry a load, a movable gripping member, adapted to hoist said column, a stationary column adapted to support said gripping member, a base for said stationary column, a foot lever adapted to actuate said gripping member, pivotally connected to said base, a means for connecting said foot lever to said gripping member, and a spring connected to said foot lever and adapted to return the same to its original position after each displacement thereof.

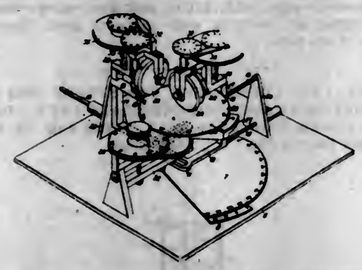
3. In a mechanism for supporting and hoisting loads and sundry articles a movable column, a gripping member comprising one or more tapered keys, a means for inclosing said key or keys, one or more raceways in said key or keys, rolling members in said raceways in contact with said column, a means for jamming said key or keys in said inclosing means and a means for releasing said key or keys.

4. In a mechanism for supporting loads and sundry articles a movable column, a gripping member, adapted to support said column, said gripping member comprising one or more tapered keys, a means for inclosing said key or keys, one or more raceways in said key or keys, rolling members in said raceways in contact with said column, riders on said rolling members, said riders being adapted to keep said rolling members in contact with said column, a means for jamming said key or keys in said inclosing means and a means for releasing said key or keys.

5. In a mechanism for supporting and hoisting loads and sundry articles a movable column, a movable gripping member, comprising one or more tapered keys, one or more raceways in said key or keys, rolling members in said raceways, a box inclosing said key or keys, a means for jamming said key or keys in said box and a means for lifting said box, thereby releasing said key or keys.

[Claims 6 to 30 not printed in the Gazette.]

1,208,459. TRAVERSE-MACHINE. JOHN F. BENSON, Portsmouth, Va. Filed Jan. 31, 1916. Serial No. 75,342. (Cl. 235—61.)



1. In a machine of the class described a protractor having an arm mounted to turn in a horizontal plane, slides disposed at right angles and each having a slotted arm at right angles to the slide, said arms crossing each other, a stud on the protractor arm engaging the slotted arms of the slides, a standard on each slide adapted to participate in the movement thereof, a disk mounted to revolve in the horizontal plane on an axis passing through the intersection of the center lines of the slides, a frame on each standard in pivotal engagement therewith, the force of gravity tending to move the frames toward the disk, a registering wheel in each frame mounted to revolve in the frame at right angles to the direction of motion of the corresponding slide, each of said wheels having a frictional engagement with the disk, means for registering the number of revolutions made by the disk, and means for registering the number of revolutions of each registering wheel carried by the corresponding frame of the wheel.

2. In a machine of the class described, a protractor having an arm mounted to turn in a horizontal plane, slides disposed at right angles to each other and each having a slotted arm at right angles to the corresponding slide, said arms crossing each other, a stud on the protractor arm engaging the slotted arms of the slides, the axis of movement of said protractor passing through the intersection of the center lines of the slides, a standard for each slide adapted to participate in the movement of the corresponding slide, a disk mounted to revolve in the horizontal plane on an axis coinciding with the axis of the protractor, an arm on each standard in pivotal engagement therewith so that the force of gravity tends to move the frames toward the disk, a registering wheel in each frame mounted to revolve in a plane at right angles to the direction of motion of the corresponding slide, each of said wheels having a frictional engagement with the disk, means for registering the number of revolutions of said disk, and means for registering the number of revolutions of each wheel.

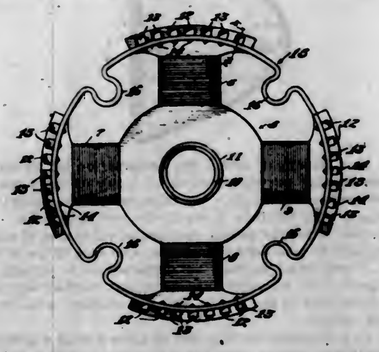
3. In a machine of the class described a protractor mounted to turn in a horizontal plane, a distance indicator mounted to revolve in the horizontal plane, registering wheels mounted to revolve in vertical planes and engaging frictionally the distance indicator, gravitationally operable means carrying said registering wheels whereby the registering wheels are engaged frictionally with the distance indicator, and motion transmission means from the protractor to said gravitationally operable means whereby said registering wheels are displaced in a predetermined relation on said distance indicator.

4. In a machine of the class described, a protractor mounted to turn in a horizontal plane, a distance indicator mounted to revolve in the horizontal plane, registering wheels mounted to revolve in vertical planes and in frictional engagement with the distance indicator, motion transmission means from the protractor to the wheels for displacing said wheels on the distance indicator to and from the axis of rotation of said indicator, said motion transmission means including means whereby when one of said wheels is moved toward the axis of rotation, the other wheel is moved away therefrom.

5. In a machine of the class described, a protractor mounted to turn in a horizontal plane, a disk mounted to revolve in the horizontal plane and coaxial with the protractor, said disk having means for indicating distance, registering wheels mounted to revolve in a vertical plane and frictionally engaging the disk, a gravitationally operable frame for each of said registering wheels whereby the frictional engagement is maintained between the registering wheels and the disk, motion-transmission means from the protractor to the frames whereby the registering wheels are caused to move radially on the disk when the protractor is turned, said motion-transmission means including means whereby one of the wheels is caused to move toward the center of rotation of the disk, while the other is moved away therefrom, means for indicating the number of revolutions of the disk, and means for indicating the number of revolutions of each of the registering wheels.

[Claims 6 and 7 not printed in the Gazette.]

1,208,460. EXPANSION-RING FOR ELECTRIC MOTORS. DE WITT W. BIDDER and PETER AMES CRESSEY, Nacozari, Mexico. Filed June 14, 1915. Serial No. 33,903. (Cl. 172—120.)



In a revolving field synchronous motor, a rotor provided with field poles, a secondary circuit for rendering the motor self-starting, comprising inductors mounted on said field poles transverse to the plane of rotation of said rotor, and continuous short circuiting end rings of relatively low resistance secured to each of said inductors for short circuiting the same, said end rings having loops intermediate the poles of relatively high flexibility, said loops bent inwardly in the planes of their respective rings.

1,208,461. CLASSIFYING APPARATUS FOR COAL, ORES, AND OTHER MATERIALS. FRANCOIS BLANC, St.-Etienne, France. Filed Apr. 26, 1916. Serial No. 93,764. (Cl. 233—29.)

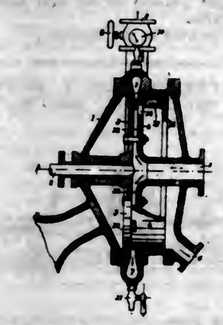
1. A classifying apparatus for minerals and other materials, comprising a chamber, a wheel therein provided with vanes, a projection fitted adjustably to each vane, a hole adjacent said projection and a deposit chamber, substantially as set forth.

2. A classifying apparatus for minerals and other materials, comprising a chamber, a wheel therein provided with vanes, a projection fitted in each vane, a hole adjacent said projection, a deposit chamber and a wearing plate fitted on each vane.

3. A classifying apparatus for minerals and other materials comprising a chamber, a wheel therein provided with vanes, an adjustable projection fitted in each vane, a hole adjacent said projection, a deposit chamber and a wearing plate fitted on each vane.

4. A classifying apparatus for minerals and other materials, comprising a chamber, a wheel therein provided with vanes, an adjustable projection fitted in each vane, a hole adjacent said projection, a deposit chamber and a serrated wearing plate fitted on each vane.

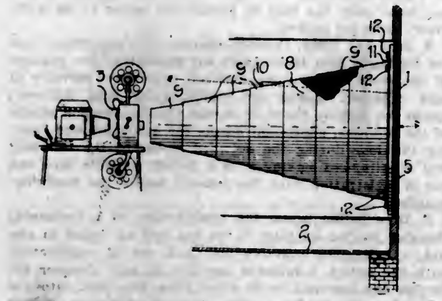
5. A classifying apparatus for minerals and other materials comprising a chamber, a wheel therein provided with



vanes, a projection fitted in each vane, a hole adjacent said projection, a deposit chamber and a serrated wearing plate fitted on each vane.

[Claims 6 to 19 not printed in the Gazette.]

1,208,462. ADVERTISING APPARATUS. SIGISMOND G. BORENSTEIN, Washington, D. C. Filed Nov. 3, 1913. Serial No. 798,875. (Cl. 88—24.)



1. An advertising apparatus of the character described, including a light confining cone, a frame connected to one end thereof, and means carried by said frame for adhesively connecting the same to a glass.

2. An advertising apparatus of the character described, including a light confining cone, a frame connected to one end thereof, and means carried by the frame for causing the latter to adhere to a glass, the frame being formed in its inner edge with a groove, for the purpose specified.

3. An advertising apparatus of the character described, including a frame provided with a groove to receive a pane of glass, and suction cups carried by said frame, for the purpose specified.

4. An advertising apparatus of the character described, including a frame provided with a flange, a light confining cone provided at one end with a flange and adapted at such end to slip over the flange of the frame, and fasteners carried by the frame for engagement with the flange of the cone, whereby to connect the cone and frame together.

5. An advertising apparatus of the character described, including a light confining cone, a frame connected to one end thereof, and means for attaching said frame to a glass, said frame being formed with a relatively soft facing designed to engage the glass.

[Claims 6 to 11 not printed in the Gazette.]

1,208,463. COLTER. JOHN C. BOHMER, Bradley, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed July 17, 1916. Serial No. 109,761. (Cl. 64—55.)

1. A colter having, in combination, a colter blade, a hub for said blade having shoulders thereon, means for rotatably supporting said hub comprising members having shoulders adapted to cooperate with said first mentioned shoulders and having contacting spiral end surfaces, and means for holding one of said hub supporting members in adjustable relation with another hub supporting member.



2. A colter having, in combination, a colter blade, a hub for said blade, means for rotatably supporting said hub comprising members having contacting spiral end surfaces, a clutch member having a serrated surface thereon adapted to engage a complementary surface at the opposite end of one of said supporting members, and means for securing said members together.

3. A colter having, in combination, a colter blade, a hub for the colter blade, means for rotatably supporting said hub comprising members having contacting spiral end surfaces and means for holding one of said hub supporting members in adjustable relation with another hub supporting member.

4. A colter having, in combination, a colter blade, a hub therefor, supporting members, a clutch member secured to one of said supporting members, a pivot member secured to another of said supporting members, a second pivot member adapted for rotation with respect to said clutch and said first mentioned pivot member, and means for securing said members together.

5. A bearing having, in combination, adjustable pivot members, supporting members having a rib-and-groove connection with said pivot members and means for securing all of said members together.

[Claims 6 to 9 not printed in the Gazette.]

1,208,464. MONKEY-WRENCH. DAILEY BOOTH and JOHN J. DOUGLAS, Lexington, Ky. Filed Feb. 12, 1916. Serial No. 77,927. (Cl. 81—139.)

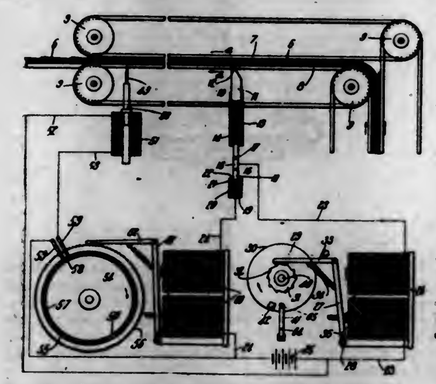


A wrench comprising a stationary jaw having an integrally formed shank, said shank having a longitudinally extending slot formed therein, a toothed plate closing one side of the slot, a handle formed on the shank and having a longitudinally extending threaded bore formed therein and communicating with the slot, a movable jaw having a shank slidably mounted within the said slot, said last mentioned shank having a recess formed on its inner end, a spring pressed dog pivotally mounted within the recess and engageable with said toothed plate, a push member pivotally connected to the dog and projecting from the said slot, a screw mounted in the threaded bore of said handle, and a coil contractile spring connecting said screw with the inner end of the second mentioned shank.

1,208,465. COUNTING APPARATUS. VERNON T. BORNHAM, Roxbury, Mass. Filed Jan. 11, 1916. Serial No. 71,479. (Cl. 93—93.)

1. In combination, instrumentalities for advancing sheets of material in overlapped relation, means having

feeling contact with said sheets, constructed and arranged to be moved by the overlapped portion of successive sheets, an electric circuit including an electromagnet and a switch included in said electric circuit operatively connected with said feeling means and adapted to be closed by the movement of said means, whereby said magnet may be energized.



2. In combination, instrumentalities for advancing sheets of material in overlapped relation, a feeler arranged in the path of said sheets, adapted to engage and be moved by the overlapped portion of each of said sheets, an electric circuit, an electromagnet included in said circuit and a switch for said circuit adapted to be closed by each consecutive movement of said feeler in one direction, whereby said electromagnet may be energized.

3. A counting apparatus having, in combination, instrumentalities for feeding sheets, a feeler constructed and arranged to be operated by said sheets, a switch operatively connected with said feeler, an electric circuit including said switch, an electromagnet included in said electric circuit adapted to be energized by the closing of said switch, a numeral wheel, means rendered operative by the energising of said magnet constructed and arranged to impart a step by step rotary movement to said numeral wheel, a make and break device adapted to be operated at a predetermined point in the rotation of said numeral wheel to close said electric circuit, a second numeral wheel and electrical instrumentalities rendered operative upon the closing of said electric circuit by said make and brake device adapted to impart a step by step movement to said second numeral wheel.

4. A counting apparatus having, in combination, instrumentalities constructed and arranged to advance sheets of material in overlapped relation to each other, a feeler disposed in the path of said sheets of material and adapted to be moved by each of said sheets, an electric circuit, a switch operatively connected with said feeler constructed and arranged to be closed by successive movements of said feeler in one direction, an electromagnet included in said electric circuit, a perforating instrument arranged in the path of said sheets and instrumentalities rendered operative by the energising of said electromagnet adapted to move said perforating instrument to perforate predetermined sheets.

5. A counting apparatus having, in combination, instrumentalities constructed and arranged to advance sheets of material in overlapped relation to each other, a feeler disposed in the path of said sheets of material and adapted to be moved by each of said sheets, an electric circuit, a switch operatively connected with said feeler constructed and arranged to be closed by successive movements of said feeler in one direction, an electromagnet included in said electric circuit, a needle arranged in the path of said sheets adjacent to one side thereof, electrical instrumentalities constructed and arranged to move said needle to engage a predetermined one of said sheets and retard the movement thereof with respect to its adjacent sheets and means rendered operative by the energising of said electromagnet adapted to set said needle operating means into operation.

[Claim 6 not printed in the Gazette.]

1,208,466. HAY-PRESS. FRED A. BOTHWELL, Locke, N. Y. Filed Mar. 22, 1915. Serial No. 16,352. (Cl. 100—3.)

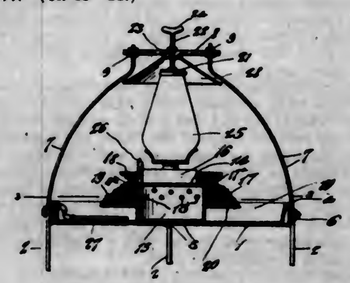


1. In a baling press, the combination with a substantially horisontal receiving chamber having an inlet in the top and an outlet in one end and a follower movable in said chamber, of a revoluble baling-box having a plurality of radial pockets movable successively into registration with the outlet of the receiving chamber as the box is rotated, separate sets of movable fingers, one set for each pocket for retaining the hay or other material to be baled therein as it is compressed, and separate devices operable at will for releasing the separate sets of fingers from engagement with the bale to permit the latter to be withdrawn from its pocket.

2. In a hay press, the combination of a receiving-chamber having a door in one side for permitting the passage of the loose hay into the chamber, a follower movable in said chamber, means for reciprocating said follower, means for locking the door during the compression stroke of the follower, additional means for unlocking and opening the door during the outward stroke of the follower, and a baling-box having a bale pocket movable into and out of registration with the delivery end of the receiving-chamber.

3. In a baling press, the combination of a horisontal chamber having an inlet in its top and an outlet in one end, a baling-box movable into and out of registration with the outlet, a follower movable in said chamber for forcing the material to be baled from the inlet into the baling-box, means for reciprocating the follower, a door for the inlet, and means operating in synchronism with the follower-operating means for automatically opening and closing the door.

1,208,467. INSECT-DESTROYER. JOHN C. BOWERMAN, Cedaredge, Colo. Filed Mar. 18, 1916. Serial No. 85,077. (Cl. 43—22.)



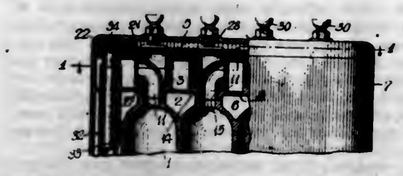
1. An insect destroyer including a reservoir, a bait receptacle located within and extending above the reservoir and provided with perforations located in the upper portion of the bait receptacle above the surface of the liquid of the reservoir and a hood extending downwardly from the bait receptacle to within the reservoir, said hood being provided with openings for the passage of insects.

2. An insect destroyer including a reservoir, a bait receptacle located within and extending above the reservoir and provided with perforations located in the upper portion of the bait receptacle above the surface of the liquid of the reservoir and a hood extending downwardly from the bait receptacle to within the reservoir, said hood being provided with openings for the passage of insects, and relatively fine wires located within the hood and arranged to be struck by insects whereby the latter are caused to fall into the reservoir.

3. An insect destroyer including a reservoir, designed to contain a poisonous liquid, a bait receptacle supported by the reservoir and extending above the liquid, and provided in its upper portion with openings, a hood extending downwardly and outwardly from the bait receptacle and a guard or deflector extending upwardly from the hood.

4. An insect destroyer including a reservoir, designed to contain a poisonous liquid, a bait receptacle supported by the reservoir and extending above the liquid, and provided in its upper portion with openings, a hood extending downwardly and outwardly from the bait receptacle and a guard or deflector extending upwardly from the hood, said hood and guard being of annular formation at the openings for the passage of insects.

1,208,468. VALVE CONSTRUCTION. HARRY BOYCE, Detroit, Mich. Filed Jan. 28, 1916. Serial No. 74,824. (Cl. 123—59.)



1. The combination of engine cylinders, and a casing providing an intake chamber at one side of the engine, a water jacket for said cylinders, and an exhaust manifold; valve housings at the upper end of said cylinders, a vertical partition connecting said valve housing and coöperating therewith in forming a wall of the intake chamber of said casing, rotary valves in said housings adapted to establish communication between said cylinders and said exhaust manifold and said cylinders and said intake chamber, a train of gears above said housings adapted to impart movement to said rotary valves, and lubricant conveying bearings for each gear extending through the top of said casing.

2. The combination of engine cylinders having neck portions, and a casing coöperating with said cylinders in forming a water jacket, an intake chamber, a gear chamber and an exhaust manifold; valve housings at the neck portion of said cylinders in communication with said intake chamber and said exhaust manifold, rotary valves in said housings having elbows with the lower ends thereof extending into the neck portions of said cylinders and adapted to establish communication between said cylinders and said exhaust manifold and said cylinders and said intake chamber, and a train of gears in said gear chamber adapted to impart movement to said rotary valves.

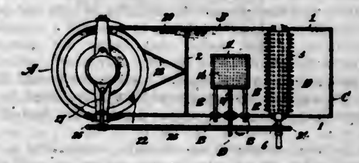
3. In combination, engine cylinders, a casing having horizontal spaced walls and a partition connecting said walls and coöperating with said cylinders in providing a water jacket, an intake chamber, a gear chamber, and an exhaust manifold; valve housings forming part of said casing partition and connecting the horizontal casing walls and in communication with said cylinders, said intake chamber and said exhaust manifold; rotary valves in said valve housings having elbows adapted to establish communication between said cylinders and said exhaust manifold and said cylinders and said intake chamber, a train of gears in said chamber for imparting movement to said rotary valves, and means extending through said casing into said gear chamber adapted to impart movement to said train of gears.

4. In combination, engine cylinders, a casing having horisontal walls and a partition connecting said walls and coöperating with said cylinders in providing a water jacket, an intake chamber, a gear chamber, and an exhaust manifold; valve housings forming part of the casing partition and connecting the horizontal casing walls and in communication with said cylinders, said intake chamber and said exhaust manifold; hollow rotary valves in said valve housings adapted to establish communication between said cylinders and said intake chamber and said cylinders and said exhaust manifold, a train of gears in said gear chamber forming part of said rotary valves and adapted to impart movement thereto, means bearing centrally upon said rotary valves in said housings and adapted to convey a lubricant to said housings, and means extending into said gear chamber for imparting movement to said train of gears.

5. In an internal combustion engine, cylinders having necks, valve housings at the upper ends thereof, rotary valves in said valve housings having elbows extending into the necks of the cylinders and constituting a single exhaust and intake port for each cylinder, meshing gears forming part of said rotary valves and adapted to impart movement thereto, and lubricant conveying bearings, engaging said gears to maintain said valves in said housings and adapted for delivering a lubricant on top of each gear.

[Claims 6 and 7 not printed in the Gazette.]

1,208,469. ICE BREAKING, SALTING, AND FEEDING MACHINE. ANDREW H. BRADLEY, Kansas City, Mo. Filed May 29, 1915. Serial No. 31,205. (Cl. 83—63.)



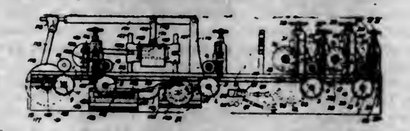
1. The combination of a machine frame, embodying an elevated trough having an inclined floor arranged to discharge at one side of the machine, supporting means for said trough, a rotary ice breaking cylinder extending across said trough, a crank for operating said cylinder, a salt receptacle positioned over said trough, a movable feed gate for said receptacle, and gate-operating means in the path of movement of and actuated by the crank of the ice breaking cylinder.

2. The combination of a machine frame, embodying an elevated trough having an inclined floor arranged to discharge at one side of the machine, and supporting means for said trough, a rotary ice breaking cylinder extending across said trough and parallel to said inclined floor so as to leave a wedge-shaped space for a block of ice, operating means for said cylinder, a salt receptacle positioned over said trough, a movable feed gate for said receptacle, means actuated by the crank of the ice breaking cylinder for imparting motion to said feed gate, a delivery shelf on which the ice is discharged provided with distributing means, and chain and sprocket mechanism actuated by the shaft of said ice breaking cylinder for operating an ice cream freezer or the like.

1,208,470. APPARATUS FOR CARVING AND ORNAMENTING WOOD MOLDINGS AND THE LIKE. FRANK RAY BRADSHAW, London, England. Filed Sept. 26, 1914. Serial No. 863,732. (Cl. 144—137.)

1. In combination, a bed plate over which work passes, a plurality of mechanisms arranged along said plate in sequence and adapted to operate upon said work, said

cutter mechanisms comprising revolving chisels, a horizontal cutter, a horisontal rotary cutter, a drill cutter and a vertical straight cutting mechanism, and means controlled by the advance of the work over said plate for operating said cutters in proper sequence.



2. A molding cutting machine comprising a bed plate over which the molding passes, a vertical rotary tool holder, a horizontally movable tool holder, a horizontally movable vertically rotatable tool holder, a tool operating mechanism for forming beads on said molding, a vertically movable tool holder, all arranged in sequence and adapted to operate relatively to the bed plate and said molding, and means controlled by the advance of the work over said plate for actuating said holders and tool operating mechanism in proper sequence, said molding being effectively operated upon when tools are carried in said holders.

3. A molding cutting mechanism comprising a bed plate over which molding passes, a plurality of cutting mechanisms arranged to operate relative to said bed plate and upon said molding to produce a composite ornamentation on the latter, and means controlled by the presentation of the work to each cutting mechanism for operating each cutting mechanism in proper sequence to produce the desired design.

4. A molding cutting machine comprising a bed plate over which said molding passes, a plurality of cutting mechanisms arranged to operate relative to said bed plate and to operate upon said molding to produce a composite ornamentation on the latter, and means for operating each cutting mechanism at a relative movement controlled by the rate at which said molding passes over said plate so that the various cutting mechanisms are timed to operate upon the molding at a proper point in the feed of the latter.

5. A molding ornamenting machine comprising a bed plate over which the molding is fed, rollers on said plate actuated by the feed of said molding over the latter, a plurality of cutting mechanisms arranged to operate relatively to said plate and to operate on said molding to produce a composite design, said mechanisms being operated by said rollers, thereby regulating the speed of the operation of said mechanisms according to the movement of feed of said molding.

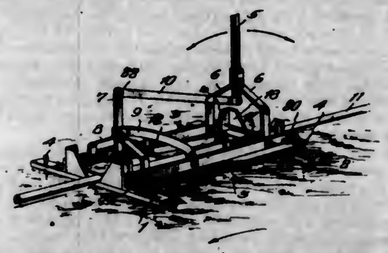
[Claims 6 and 7 not printed in the Gazette.]

1,206,471. TUBULAR SLEEVE OR COVER FOR THE ROLLERS OF WRINGING, SCOURING, WASHING, PAPER-MAKING, AND SIMILAR MACHINES. HEINRICH OTTO BRANDT, Manchester, England. Filed July 2, 1914. Serial No. 849,015. (Cl. 38—7.)

1. A process for making tubular blankets for rollers, consisting of first laying on a former a section of wool fiber, then winding upon said section narrow sliver strips of wool, then placing an outer section of wool fiber upon and around said wound strips, and then felting said sections and strips together, so that the edges of the wound-strips felt one into the other and into the two outer sections, substantially as described.

2. As a new article of manufacture, the herein-described seamless blanket for rollers comprising, three distinct sections, the first section being composed of a plurality of layers of a broad fleece of wool fiber, the second or intermediate section being composed of a plurality of layers of spirally wound slivers of wool, and the third or outer section being composed of a plurality of layers of a broad fleece of wool fiber, all of said sections being felted together to produce a homogeneous mass, substantially as described.

1,206,472. PIPE PUSHING AND PULLING MACHINE. HORACE A. BROWN, Ottumwa, Iowa. Filed Aug. 8, 1916. Serial No. 113,703. (Cl. 254—29.)



1. A machine of the character specified, comprising a frame having means for permitting it to be anchored to the ground, central alined guides on the frame for holding the pipe in place, each pair of guiding means consisting of upstanding plates at the ends of the frame spaced apart from each other and having their adjacent side walls beveled, each plate having a lateral inwardly extending flange, and said flanges having registering openings, a rod engaging the openings, and means mounted on the frame for moving the pipe longitudinally thereof.

2. A machine of the character specified, comprising a frame having guides for the pipe and means for preventing upward movement thereof, and means for moving the pipe in either direction, such means comprising a C-shaped clamping member, a lever pivotally supported by the frame intermediate the ends of the lever, a link connecting the lower end of the lever with the top of the clamping member, means for vibrating the said lever and connected with the top thereof, and a coil spring arranged between the frame and the clamping member, said member having eyes at the opposite faces thereof for engagement by the spring.

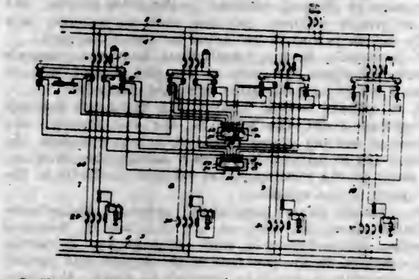
3. A machine of the character specified comprising a frame having guides for the pipe and means for preventing upward movement thereof, means for moving the pipe in either direction, such means comprising a C-shaped clamping member, a lever pivotally supported by the frame intermediate the ends of the lever, a link connecting the lower end of the lever with the top of the clamping member, means for vibrating the lever, and a spring arranged beneath the clamp and the link and reversible for normally holding the clamp in inclined position.

4. A machine of the character specified, comprising a frame having guides for the pipe, and means for preventing upward movement thereof, means for moving the pipe in either direction, such means comprising a C-shaped clamping member adapted to encircle the pipe, a lever pivotally supported by the frame, a link connecting the lever with the top of the clamping member, means for vibrating the lever, and a spring normally holding the clamp in inclined position.

1,208,473. PROTECTING MEANS FOR ELECTRIC DISTRIBUTION SYSTEMS. GEORGE A. BURNHAM, Saugus, Mass., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Feb. 5, 1913. Serial No. 746,281. (Cl. 175—294.)

1. The combination in a system of distribution of a plurality of parallel transmission lines, a single series transformer for each line, a transformer energised by current from the series transformers of all of the lines, and a reverse current relay for each line having one winding connected to the secondary of the series transformer in that line and a second winding connected to a secondary of the common transformer.

2. The combination in a system of distribution of a plurality of parallel transmission lines, a single series transformer for each line, a transformer having a plurality of primary coils one of which is connected in the secondary circuit of each of the first mentioned transformers, and a reverse current relay for each line having one winding connected to the secondary of the series transformer in that line, and a second winding connected to a secondary winding of the common transformer.



3. The combination in a system of distribution of a plurality of parallel transmission lines, a single series transformer for each line, a transformer having a plurality of primary coils, one of which is connected in the secondary circuit of each of the first mentioned transformers, and a single secondary coil, and a reverse current relay for each line having one winding connected to the secondary of the series transformer in that line, and a second winding connected to the secondary winding of the common transformer.

4. The combination in a system of distribution of a plurality of parallel transmission lines, a single series transformer for each line, a transformer energized by current from the series transformers of all of the lines, and a reverse current relay for each line having differential windings, one winding connected to the secondary of the series transformer in that line and the second winding connected to a secondary of the common transformer.

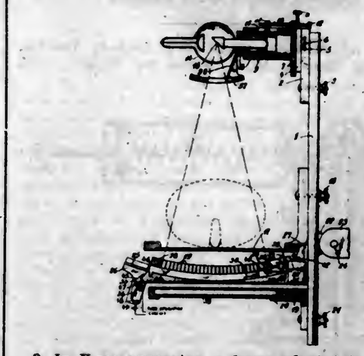
5. The combination in a system of distribution of a plurality of parallel transmission lines, a single series transformer for each line, a transformer having a plurality of primary coils, one of which is connected in the secondary circuit of each of the first mentioned transformers, and a reverse current relay for each line having differential windings, one winding connected to the secondary of the series transformer in that line and the second winding connected to a secondary winding of the common transformer.

[Claims 6 to 8 not printed in the Gazette.]

1,208,474. X-RAY SCREENING APPARATUS. EUGENE W. CALDWELL, New York, N. Y. Filed Oct. 12, 1915. Serial No. 55,878. (Cl. 250—84.)

1. In X-ray apparatus, a frame adapted to be movably mounted, a tube support on said frame and comprising means for adjusting the position of an X-ray tube with respect to said frame, a plate support adjustably mounted on said frame, a subject support adjustably mounted on said frame, a circular screen guide having the tube target for a center and mounted on said frame between said tube support and said plate support, a cellular screen mounted in said screen guide and comprising a screen rim and thin screen members arranged substantially radially with respect to said tube target to form substantially square opaque screen cells arranged diagonally with respect to said screen guide, a motor mounted on said screen guide and having an adjustable escapement control device, gearing between said motor and said screen to oscillate said screen in said screen guide and controlling devices connected to said screen to automatically start the operation of the X-ray tube and to automatically stop such operation after said screen has oscillated through a space corresponding to an even number of times the diagonal width of the screen cells and to automatically stop said motor.

2. In X-ray apparatus, a frame adapted to be movably mounted, a tube support on said frame and comprising means for adjusting the position of an X-ray tube with respect to said frame, a plate support mounted on said frame, a circular screen guide having the tube target for a center and mounted on said frame between said tube support and said plate support, a cellular screen mounted in said screen guide and comprising a screen rim and thin screen members arranged substantially radially with respect to said tube target to form substantially square opaque screen cells arranged diagonally with respect to said screen guide, a motor mounted on said screen guide and having an adjustable escapement control device, gearing between said motor and said screen to oscillate said screen in said screen guide and controlling devices connected to said screen to automatically start the operation of the X-ray tube and to automatically stop such operation after said screen has oscillated through a space corresponding to an even number of times the diagonal width of the screen cells and to automatically stop said motor.



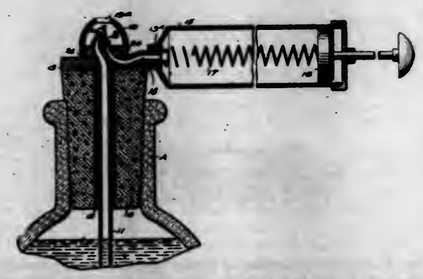
3. In X-ray apparatus, a frame adapted to be movably mounted, a tube support on said frame, a plate support mounted on said frame, a circular screen guide having the tube target for a center and mounted on said frame between said tube support and said plate support, a cellular screen mounted in said screen guide and comprising a screen rim and thin screen members arranged substantially radially with respect to said tube target to form substantially opaque screen cells arranged diagonally with respect to said screen guide, a motor mounted on said screen guide and having an adjustable escapement control device, gearing between said motor and said screen to oscillate said screen in said screen guide and controlling devices connected to said screen to automatically start the operation of the X-ray tube and to automatically stop such operation after said screen has oscillated through a space corresponding to an even number of times the diagonal width of the screen cells.

4. In X-ray apparatus, a frame adapted to be movably mounted, a tube support on said frame and comprising means for adjusting the position of an X-ray tube with respect to said frame, a plate support mounted on said frame, a subject support mounted on said frame, a circular screen guide having the tube target for a center and mounted on said frame between said tube support and said plate support, a cellular screen mounted in said screen guide and comprising a screen rim and thin screen members arranged substantially radially with respect to said tube target to form substantially square opaque screen cells arranged diagonally with respect to said screen guide, a motor mounted on said frame and having an adjustable escapement control device, connections between said motor and said screen to oscillate said screen in said screen guide and controlling devices connected to said screen to automatically start the effective operation of the X-ray tube and to automatically stop such operation after said screen has oscillated through a space corresponding substantially to an even number of times the diagonal width of the screen cells.

5. In X-ray apparatus, a frame, a tube support on said frame and comprising means for adjusting the position of an X-ray tube with respect to said frame, a plate support mounted on said frame, a circular screen guide having the tube target for a center and mounted on said frame between said tube support and said plate support, a cellular screen mounted in said screen guide and comprising a screen rim and thin screen members arranged substantially radially with respect to said tube target to form substantially square opaque screen cells arranged diagonally with respect to said screen guide, a motor and having an adjustable escapement control device, connections between said motor and said screen to oscillate said screen in said screen guide and controlling devices connected to said screen to automatically start the effective operation of the X-ray tube and to automatically stop such operation after said screen has oscillated through a space corresponding substantially to an even number of times the diagonal width of the screen cells.

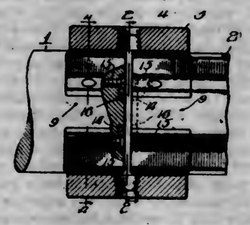
[Claims 6 to 23 not printed in the Gazette.]

1,208,475. ATOMIZER. RAY HUGH CALLAN, Trenton, Mo. Filed June 3, 1915. Serial No. 31,881. (Cl. 128—2.)



In an atomizer, a stopper adapted to close a bottle containing a liquid to be atomized, a cap plate supported on the stopper and formed with a lateral extension at one side of and projecting beyond the stopper, a discharge tube extending through the stopper, said cap plate having a passage forming a continuation of said discharge tube, the cap being furthermore formed at the upper side with a laterally bent integral protuberance through which said passage extends, and an air pump supported on the cap plate and connected with the lateral extension thereof, said cap plate having a lateral passage extending through the lateral extension thereof and communicating with the pump outlet, said passage curving upwardly through said protuberance beneath the end of the first passage.

1,208,476. FLEXIBLE JOINT FOR ROLLING-MILL SPINDLES AND THE LIKE. JOHN A. CALWELL, Chicago, Ill., assignor of one-half to Arthur W. Gleason, Chicago, Ill. Filed Sept. 2, 1916. Serial No. 118,163. (Cl. 64—13.)



1. In combination, two spindles arranged end to end and each having longitudinal channels distributed about the periphery thereof at the end adjacent to the other spindle, and a coupling box in the form of a shell of approximately uniform thickness surrounding said ends and provided with interior ribs to enter said channels.

2. In combination, two spindles arranged end to end and each having longitudinal channels distributed about the same at the end adjacent to the other spindle, and an inherently resilient coupling shell surrounding said ends and having parts extending into said channels.

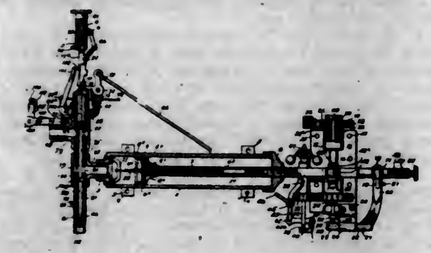
3. A spindle having longitudinal under-cut channels distributed about the same at the end thereof, and U-shaped wearing plates fitting into said channels.

4. A spindle having longitudinal under-cut channels distributed about the same at the end thereof, and U-shaped wearing plates fitting into said channels, the parts being so proportioned that a considerable thickness of metal in the wearing plates extends outwardly to the periphery of the spindle.

5. A spindle having longitudinal under-cut channels distributed about the same at the end thereof, U-shaped wearing plates fitting in said channels, and a holding plate secured to the end face of the spindle and extending outwardly a sufficient distance to overlie the outer ends of the wearing plates.

[Claims 6 to 8 not printed in the Gazette.]

1,208,477. PNEUMATIC TYPE-WRITER CARRIAGE. GEORGE E. CALLAWAY, De Soto parish, La. Filed Mar. 31, 1916. Serial No. 88,066. (Cl. 197—67.)



1. The combination with the carriage of the typewriter, of a cylinder, a piston therein, a rod connected with the piston and extending through one end of the cylinder and provided with rack teeth, a shaft, a pinion on the shaft engaging the rack teeth, a disk on the shaft, a clutch connected between the disk and the shaft, a gear wheel on the shaft, a rack bar connected with the carriage and engaged by the gear wheel, a valve for admitting motive fluid to the opposite end of the cylinder from the shaft, whereby to move the piston outwardly to operate the rack bar, a spring for returning the piston, a pawl and ratchet connection between the gear wheel and the shaft to connect the disk with the gear wheel when the piston rod moves outwardly, means for releasing the clutch connection between the shaft and the disk when the rod moves inwardly, a spring normally holding the valve opened, a catch for holding the valve closed, a trip for releasing the catch and normally in inoperative position, means for lifting the trip into position for engagement by the spacing bar of the typewriter when the carriage is near the end of its movement in one direction, a cushioning device for checking the return movement of the carriage, and means operated by the said device for moving the valve into closed position.

2. The combination with the carriage of a typewriter, of a rack bar connected therewith, a cylinder, a piston therein, a valve for controlling the admission of motive fluid to one end of the cylinder to move the piston in one direction, a spring for returning the piston, a gear wheel meshing with the rack bar, a rod connected with the piston, a spring normally holding the valve in open position, means for connecting the rod with the gear wheel to rotate the same to return the carriage when the piston is moved outwardly, a spring operated catch normally holding the valve closed, a tripping device for releasing the catch, a cushioning device for checking the return movement of the carriage, and means operated by the said device for moving the valve into position for engagement by the catch to hold the said valve closed.

3. In a device of the character specified, the combination with the carriage of a typewriter, of fluid pressure operated means for returning the carriage, a valve for controlling said means, a spring normally holding the valve in open position, a catch for holding the valve in closed position against the resistance of the spring, a tripping device for releasing the catch to permit the fluid operated means to return the carriage, a cushioning device for checking the carriage at the end of its return movement, means operated by the said device for moving the valve into position for engagement by the catch to hold the said valve closed, a governor operated by the fluid pressure means, means operated by an excess of speed of the governor for partially closing the valve, a spring for returning the fluid operated means to normal position, and means operated by the return of the said means for disconnecting the fluid operated means from the carriage.

4. In a device of the character specified, the combination with the carriage of a typewriter, of fluid pressure operated means for returning the carriage, a valve for controlling said means, a spring normally holding the valve in open position, a catch for holding the valve in closed position against the resistance of the spring, a tripping device for releasing the catch to permit the fluid operated means to return the carriage, a cushioning device for checking the carriage at the end of its return movement, means operated by the said device for moving the valve into position for engagement by the catch to hold the said valve closed, a governor operated by the fluid pressure means, means operated by the governor for partially closing the valve when the said governor exceeds a predetermined speed, and a spring for returning the operating means to normal position.

5. In a device of the character specified, the combination with the carriage of a typewriter, of fluid pressure operated means for returning the carriage, a valve for controlling said means, a spring normally holding the valve in open position, a catch for holding the valve in closed position against the resistance of the spring, a tripping device for releasing the catch to permit the fluid operated means to return the carriage, a cushioning device for checking the carriage at the end of its return movement, means operated by the said device for moving the valve into position for engagement by the catch to hold the said valve closed, a governor operated by the fluid pressure means, means operated by the governor for partially closing the valve when the governor exceeds a predetermined space.

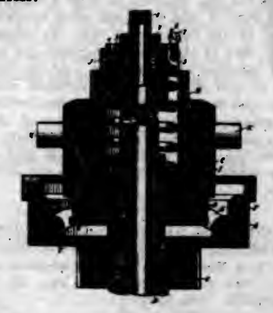
[Claims 6 to 22 not printed in the Gazette.]

1,208,478. LOCKING AND SEALING DEVICE FOR FRICTION-CLUTCHES. JOHN W. CANTY, Oskaloosa, Iowa. Filed Jan. 6, 1916. Serial No. 70,670. (Cl. 192—1.)

1. In a lock attachment for clutches having a shaft and an adjustable member for varying the clutch engaging force acting upon the clutch members, a threaded nipple adapted to be attached to said shaft and form a continuation thereof, and a nut threaded on said nipple and movable into locking engagement with said adjustable member.

2. In a lock attachment for clutches having a shaft and an adjustable member for varying the clutch engaging force acting upon one of the clutch members, a threaded nipple adapted to be threaded in said shaft and form a continuation thereof, a nut threaded on said nipple and movable into locking engagement with said adjustable member, and means for sealing said nut and adjustable member together.

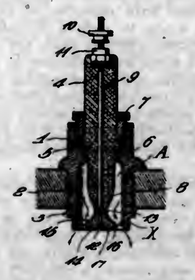
3. In a lock for clutches, having a hollow shaft upon which the clutch members are mounted and a threaded member on the shaft for varying the clutch engaging force acting upon one of said clutch members, a threaded nipple formed with a longitudinal bore and adapted to be threaded in the bore of said hollow shaft to form an extension of the latter, and a lock nut threaded on said nipple in a direction opposite to the threading of said adjustable member and adapted to be moved into locking engagement with the latter.



4. In a lock attachment for clutches, the combination with a hollow shaft upon which the clutch members are mounted and a threaded member on the shaft for varying the clutch engaging force acting upon one of said clutch members and formed with a passage therethrough, of a threaded nipple formed with a longitudinal bore and adapted to be threaded in the bore of said hollow shaft to form an extension of the latter, a lock nut threaded on said nipple in a direction opposite to the threading of said adjustable member and adapted to be moved into locking engagement with the latter, said lock nut having a series of perforations therein adapted to register with the passage in said threaded member as the lock nut is rotated, and a sealing thread extending through said passage and its registering perforation for securing said lock nut and threaded member together.

5. In a lock attachment for clutches, the combination with a shaft and an adjustable member for varying the clutch engaging force acting upon the clutch members, of a nipple to be threaded on said shaft to form a continuation thereof, and a nut threaded on said nipple and movable into locking engagement with said adjustable member.

1,208,479. SPARK-PLUG. FREDRICK CARLSON, North Easton, Mass. Filed Feb. 7, 1916. Serial No. 76,659. (Cl. 123—169.)



A spark plug comprising a casing having an enlarged cup-shaped gas chamber formed in its lower end, said chamber having an opening in its upper end larger than the open lower end of the same, a continuous uninterrupted downwardly beveled edge at said lower end of the chamber, an insulating core in the casing with its lower end extending downwardly in the gas chamber through the open upper end to form an annular chamber therein, said lower end of the core being arcuately contracted and terminating a short distance from the lower edge of said chamber, a centrally disposed electrode rod in the core

extending from the lower end thereof, a washer on the lower end of said rod, a substantially frusto-conical shaped electrode in the lower end of said rod having a flat top engaging said washer and its lower edge spaced equidistant from the upper portion of the outwardly beveled lower edge of the gas chamber to form a spark gap therebetween, the wall of said electrode being arcuately curved and merging at its upper edge into the arcuately contracted lower end of the core to increase the area of the annular gas chamber at that point, and the lower power of the wall of said electrode being inclined outwardly at substantially the same inclination as the beveled edge of the gas chamber, whereby upon explosion of the gases in the chamber they will be directed downwardly with full force against the wall of the electrode and hence out through the spark gap which will keep the said gap free from carbon.

1,208,480. CONTROL APPARATUS FOR FUEL-SUPPLY FOR INTERNAL-COMBUSTION ENGINES. THOMAS F. CASEY, New York, N. Y., assignor of one-half to Oscar Horstman, New York, N. Y. Filed Jan. 26, 1916. Serial No. 74,423. (Cl. 137—7.)



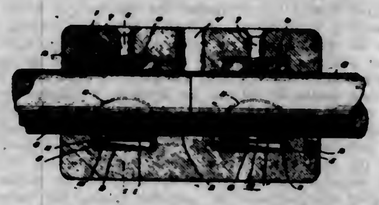
1. An apparatus as characterised comprising an elongated channel member; a series of plugs disposed transverse the channel of said member, each of said plugs having a port therein adapted for registry with said channel, and each of said ports being provided with a wrench head having an exposed surface indicative of a normal orderly arrangement with reference to the heads of the other plugs, the heads in certain of said plugs having a special arrangement differing from the arrangement of the heads of the other plugs with reference to the ports therein; and an electric alarm system embodying an electric current supply, an audible alarm, and contacts for engaging said plugs when moved from the service position thereof.

2. An apparatus as characterised comprising an elongated channel member; a series of plugs disposed transverse the channel of said member, each of said plugs having a port therein adapted for registry with said channel, and each of said ports being provided with a wrench head having an exposed surface indicative of a normal orderly arrangement with reference to the heads of the other plugs, the heads in certain of said plugs having a special arrangement differing from the arrangement of the heads of other plugs with reference to the ports therein; an electric alarm system embodying an electric current supply; an audible alarm, and contacts for engaging said plugs when moved from the service position thereof; and a manually-controlled switch for said circuit operable for completing the circuit when the plugs are in service relation.

3. An apparatus as characterised comprising a body portion forming part of the gas supply pipe; a plurality of rotary valves operatively mounted on said body portion for closing the passage therethrough; a plurality of laterally extended electrical contacts, one mounted on the stem of each of said valves; a plurality of contact bars disposed at opposite sides of said body portion to engage said contacts when turned to the active position thereof; and an audible alarm incorporated in the electric circuit of which said bars, contacts and body portion form a part.

1,208,481. SHAFT-COUPLING. FRANK H. CATHCART, Trenton, N. J., assignor to Automatic Shaft Coupling Co., Alexandria, Va., a Corporation of Delaware. Filed May 15, 1912. Serial No. 697,260. (Cl. 64—13.)

1. A shaft coupling comprising a shell having a cylindrical bore, and adapted to receive a shaft therein of appreciably less diameter than the internal diameter of the shell, said shell having a shaft engaging enlargement extending inwardly and spaced beyond the inner surface of the shell, a roller in the shell, and a wedge located between the roller and the shaft when the shaft is in the shell, substantially as described.



2. A shaft coupling comprising a shell having bearings therein for a shaft, and having a concentric recess therein with an inwardly projecting enlargement in the recessed portion against which the shaft is adapted to bear, a roller in said recess, and a wedge located between the roller and shaft when the shaft is in the shell, whereby the movement of the wedge circumferentially tends to press the said enlargement against the shaft, substantially as described.

3. A shaft coupling comprising a shell having bearings therein to receive a shaft, said shell having a recess therein, a frame in said recess, rollers at the ends of the frame, and a wedge plate interposed between said frame and the shaft, substantially as described.

4. A shaft coupling comprising a shell having bearings therein to receive a shaft, and said shell having a recess therein concentric with the bearings, a frame in the recess, rollers in the ends of the frame, and a wedge plate fitting the shaft and adapted to be moved circumferentially to wedge between the rollers of the frame and the shaft, substantially as described.

5. A shaft coupling comprising a shell having a cylindrical bore, and adapted to receive a shaft therein of appreciably less diameter than the internal diameter of the shell, said shell having a shaft engaging surface extending inwardly beyond the inner surface of the shell, two rollers in the shell, and a wedge located between the rollers and the shaft, said wedge curved in the arc of a circle widest at its center and tapering to both ends, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,208,482. BEE-ESCAPE. CHARLES D. CHENEY, Lyndhurst, N. J. Filed June 3, 1916. Serial No. 101,497. (Cl. 6—4.)



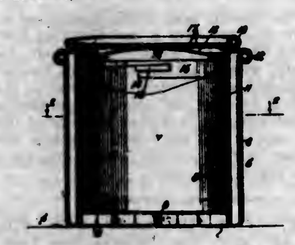
1. A bee escape, comprising oppositely disposed spaced plates, of which one is provided with a central inlet opening, and a baffle between the said plates and having spring tongues extending radially outward from the said inlet opening and being bent toward the other plate, the free ends of the said tongues extending a distance from the said other plate to provide a passage in any direction in the plane of the plates for the bees entering the said inlet.

2. A bee escape, comprising a top plate having a central opening, a bottom plate arranged parallel to the said top plate, and a baffle attached to the under side of the said top plate and having an opening in register with the said central opening of the top plate, and spring tongues extending radially outward and bent toward the said bottom plate, the free ends of the spring tongues terminating a distance from the said bottom plate to provide a passage in every direction in the plane of the plates for the bees entering the said central opening.

3. A bee escape, comprising a top plate having a central inlet opening, a bottom plate, attaching members detachably connecting the said plates with each other and holding the said plates spaced apart, and a baffle attached to the under side of the said top plate and having an opening in register with the central opening and having spring tongues extending radially outward and bent toward the other plate, the free ends of the tongues terminating a distance from the said other plate to provide a passage for the bees entering the said inlet opening.

4. A bee escape, comprising a circular top plate having a central inlet opening and marginal slots, a circular bottom plate of a diameter less than that of the said top plate, the said bottom plate being provided with struck-up arms engaging the said slots to fasten the plates together and to hold the plates spaced apart, and a baffle in the form of a collar having radially disposed and outwardly extending spring tongues, the said top plate having clenching members at the central opening and engaging the said collar to attach the latter to the under side of the top plate, the said spring tongues terminating at their free ends a distance from the said bottom plate and at points within the marginal edge thereof.

1,208,483. CUP. FREMONT BARTLETT CHEEBROUGH, Boston, Mass. Filed June 28, 1916. Serial No. 106,855. (Cl. 229—1.)



1. In a cup, an outer wall, an inner wall spaced therefrom, and corrugated material separating the inner and outer walls, the upper ends of the two walls and of the corrugated material being rolled together, for the purpose specified.

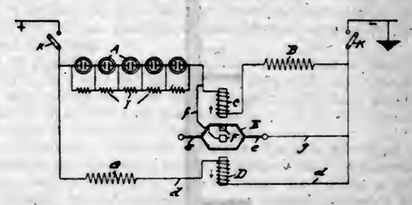
2. In a cup, an outer wall of stiff paper, an inner wall of impervious paper spaced therefrom, and a corrugated stiff paper member connecting the two walls, the upper ends of the stiff paper member, the impervious paper member and the corrugated paper member being rolled together, for the purpose specified.

3. In a cup, an outer wall of stiff paper, an inner wall of impervious paper spaced therefrom, a corrugated stiff paper member connecting the two walls, the upper ends of the stiff paper member, the impervious paper member and the corrugated paper member being rolled together, a cover for the cup consisting of a stiff paper member for engaging the inner portions of the cup, an impervious paper member connecting the inner portions of the stiff paper member of the cover, and an additional stiff paper member spaced above the body of the last mentioned impervious paper member, the last two mentioned stiff paper members having their edges rolled together for the purpose specified.

4. In a device of the class described, a cover consisting of a stiff paper member for engaging the inner portions of a cup, an impervious paper member connecting the inner portions of the stiff paper member, and a second stiff paper member spaced above the body of the impervious paper member, the two stiff paper members having their edges rolled together for the purpose specified.

5. In a cup, an outer wall of stiff paper, an inner wall of impervious paper spaced therefrom, a corrugated stiff paper member connecting the two walls, the upper ends of the stiff paper member, the impervious paper member and the corrugated paper member being rolled together, a cover for the cup consisting of a stiff paper member for engaging the inner portions of the cup, an impervious paper member connecting the inner portions of the stiff paper member, an additional stiff paper member spaced above the body of the last mentioned impervious paper member, the last two mentioned stiff paper members having their edges rolled together, and a bayonet joint lock for holding the cover in place on the cup.

1,208,484. LIGHTNING-ARRESTER. RHODOLPHUS PHILIP CLARK, Shelter Island, N. Y. Filed Jan. 27, 1915. Serial No. 4,616. (Cl. 175—214.)



1. In a protective device, the combination with an electrolytic condenser, of current-limiting means in series therewith, and means for automatically short-circuiting said current-limiting means only when the requisite condition of film formation has been attained within the cell.

2. In a protective device, the combination with an electrolytic condenser cell, of a current-limiting resistance in series with the cell, an initially open short-circuit in shunt relation to said resistance, and means for closing said short-circuit automatically when the requisite condition of film formation has been attained within the cell.

3. In a lighting arrester, the combination with an electrolytic condenser cell, of a current-limiting resistance initially in series with the cell, and a circuit in shunt relation to the cell and including means for short-circuiting said resistance automatically when the requisite condition of film formation has been attained within the cell.

4. The combination with a lightning arrester cell, of a current-limiting resistance through which the cell is initially connected in the line circuit, an initially open short-circuit adapted to connect the cell with the line, and means including a shunt circuit and a relay for closing said short-circuit after the insulating film of the cell has been formed by the current passed through the current-limiting resistance.

5. In a protective device, the combination of an electrolytic condenser cell, a current-limiting resistance initially in series therewith, an initially open short-circuit in shunt relation to said resistance, a shunt circuit including a regulating resistance and a relay coil, and the said relay adapted to close said short-circuit when the requisite condition of film formation has been attained within the cell.

[Claims 6 to 25 not printed in the Gazette.]

1,208,485. COUNTER APPLIANCE. JUSTIN A. CLARKE, Vincennes, Ind. Filed Jan. 29, 1916. Serial No. 75,083. (Cl. 242—141.)

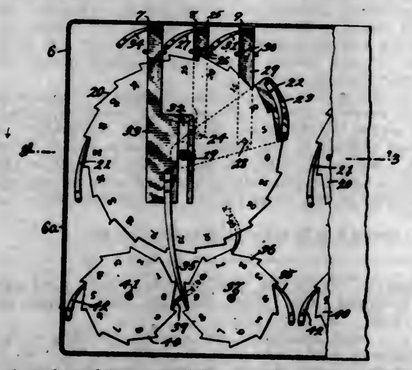
1. A cord attachment for counters including a cord receptacle, a telescopic tube communicating with the receptacle, a guard receiving the tube, said guard including a horizontal portion having its edge curved outwardly and downwardly and terminating in a clamp which exerts a pressure against the underface of the said horizontal portion, a cutting member engaged by the clamp and having its edge arranged at the rounded portion, the said rounded portion being provided with spaced slots, a bodkin for drawing the cord from the receptacle through the tube over the guard, and said bodkin adapted to serve as a retaining element for the cord.

2. A cord attachment for counters including a receptacle having a ball of cord therein, a spring door for the receptacle, a telescopic tubular member communicating with the receptacle, a right angular guard having a sleeve receiving the outer end of the tube, said guard having an opening communicating with the tube, a cutting element upon the guard, and means for drawing the end of the cord through the tube and through the opening of the guard, and said means adapted to serve as a retaining element for the cord, substantially as described.



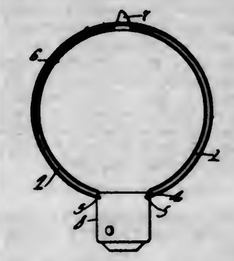
3. A cord attachment for counters including a receptacle adapted to receive a ball of cord, a telescopic tubular member communicating with the receptacle and through which the cord is fed, an angular guard having one of its ends connecting the outer tubular member and being provided with an opening which registers with the bore of said tube and through which the cord also passes, the said angular guard including spaced curved fingers, a cutting element disposed between the fingers, and a headed gravity pin member inserted through the opening and in the tube to engage the cord to prevent the reentrance of the end of the same to the tube.

1,208,486. CASH-REGISTER. CLARENCE E. CLIFFORD, Albany, Oreg. Filed May 24, 1916. Serial No. 99,503. (Cl. 235—75.)



A cash register, comprising a casing provided with a plurality of apertures, a shaft therein, a toothed disk on said shaft, an arm pivoted on said shaft, a spring pawl on said arm engaged with said disk, a spring resisted plunger pivoted to said arm adjacent its pivot, a pin carried by said arm nearer its outer end than its pivot, a spring resisted supplemental plunger notched in its lower end to receive said pin, said first named plunger moving said disk a plurality of spaces and said second plunger moving said disk one space, a second toothed disk, means on said first disk for moving said second disk one space in each complete rotation of said first disk, a third plunger guided on said shaft for rotating said second disk one space, a third toothed disk, means on said second disk for rotating said third disk one space in a complete rotation of said second disk, and means for preventing backward movement of said disks, said disks bearing numerals adapted to be brought into view at the respective apertures.

1,208,487. DIMMER. WESLEY E. COCHRAN, Cleveland, Ohio, assignor to The Art Metal Manufacturing Company, Cleveland, Ohio. Filed May 19, 1915. Serial No. 29,136. (Cl. 240—48.6.)



A dimmer for electric lamp bulbs, comprising a hemispherical body provided with a teat-receiving journaling opening located within the contour of the body, and provided in its edge with a parti-circular notch located opposite to the opening, the constituent material of the body being continuous adjacent the notch, the geometrical center of the notch being set back from the edge of the body, whereby the edge of the notch will coöperate with the edge of the body to form acutely pointed gripping prongs which project toward each other.

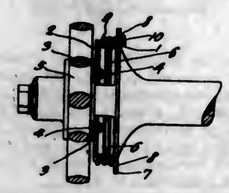
1,208,488. CARRYING-LOOP FOR FOLDING UMBRELLAS. MARY JOSE COLEMAN, New York, N. Y. Filed June 17, 1916. Serial No. 104,187. (Cl. 135—47.)



1. In combination, an umbrella, having a cane, a cover fabric adapted to fold upon said cane, and a handle pivotally connected to said cane and adapted to be disposed in parallel relation with said cane; a carrying loop formed of flexible material and secured on said handle, adjacent the free end thereof, said loop being elongated to be passed over the pivoted end of said handle; and fasteners mounted on said loop forming in service a small binding ring for said cover fabric.

2. In combination, an umbrella having a cane, a cover fabric adapted to fold upon said cane, and a handle pivotally connected to said cane and adapted to be disposed in parallel relation to said cane; a carrying loop formed of flexible material and secured on said handle, adjacent the free end thereof, said loop being elongated to be passed over the pivoted end of said handle; fasteners mounted on said loop for holding in folded relation said handle and said fabric; and other fasteners mounted on said loop for uniting the sides thereof intermediate said handle and said fabric.

1,208,489. COMBINED AUTOMOBILE PULLER AND BRAKE-DRUM. JOHN W. COMBS, Marionville, Mo. Filed Aug. 9, 1916. Serial No. 114,053. (Cl. 242—95.)

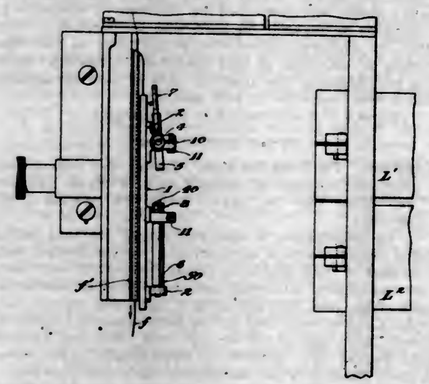


1. In a device of the character described, a brake drum having an inturned flange at one edge for attachment to the rear wheel of an automobile, and having an out-turned flange at its other edge, said out-turned flange having means for the attachment of a flexible element to be wound upon the drum.

2. A device of the character described, embodying a brake drum having an inturned flange at one edge attachable to the rear wheel of an automobile and having an out-turned flange at its other edge, said out-turned flange having a slot for the engagement of the end of a flexible element adapted to be wound upon the drum.

3. A device of the character described, embodying a brake drum having an inturned flange at one edge attachable to the rear wheel of an automobile and having an out-turned flange at its other edge, said out-turned flange having reverse oblique slots for receiving the end of a flexible element adapted to be wound upon the drum.

1,208,490. AUXILIARY REGISTERING DEVICE FOR SIMULTANEOUS PROJECTION OF TWO OR MORE PICTURES. DANIEL F. COMSTOCK, Brookline, Mass., assignor, by mesne assignments, to Technicolor Motion Picture Corporation, Boston, Mass., a Corporation of Maine. Filed Feb. 16, 1916. Serial No. 78,754. (Cl. 88—16.4.)



1. A projection apparatus having in combination object positioning means, a projection lens and movable refractive means adapted in different positions to change the virtual position of the object whose image is projected.

2. Projection apparatus having therein object positioning means, and means for changing the virtual direction of an object positioned thereby with respect to a lens for projecting an image of said object comprising a transparent refracting body interposed between said object and said lens, and means whereby said refracting body may be tilted with respect to the direction from said lens to a point of said object.

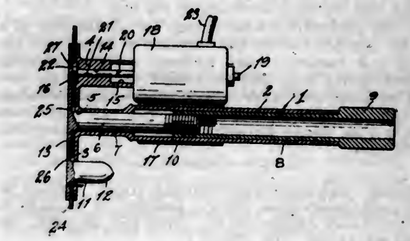
3. Means for bringing into registry the images of a plurality of objects slightly displaced respectively with reference to the axes of a similar plurality of projection lenses, comprising transparent refracting bodies interposed between each object and one lens, and means whereby said bodies may be tilted in different directions mutually to displace the virtual position of the different objects in different directions.

4. A projection apparatus having in combination lenses, positioning means for objects to be projected, and refracting means between each lens and said positioning means adapted to be adjusted independently to vary the virtual direction of the object from the lens.

5. Projection apparatus having a film-gate providing a plurality of display-openings, axially fixed projection lenses, one for each opening, and means for making a fine adjustment of the positions of the images projected by the several lenses comprising a plane parallel refracting plate adjustably mounted for rotation about an axis crosswise of the line of sight from lens to display opening.

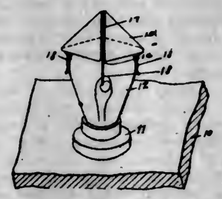
[Claims 6 and 7 not printed in the Gazette.]

1,208,491. SAFETY-RAZOR. FERNAN CONILL, New York, N. Y. Filed Apr. 22, 1916. Serial No. 92,910. (Cl. 30—12.)



A safety razor comprising a handle, a transversely curved head at one end of the handle, said handle being provided with a bore, the head being provided with an opening near one end, a stem on the inner face of the head projecting in a plane parallel with the handle near the end opposite the opening, said stem being provided with a longitudinal bore, the rear end of the bore opening into an enlarged chamber, a transversely curved guard plate adapted for coöperation with the head, a stem on said guard plate extending into the bore in the handle, a lug on the guard plate extending through the opening in the head, means in the bore of the handle to hold the guard plate and stem in place, a longitudinally slidable blade positioned between the guard plate and the head, said blade having a central elongated slot and being provided with a similar opening near one end, said opening being disposed in a plane parallel with the longitudinal axis of the blade, the blade being provided with an elongated opening near its opposite end, the last-named opening being disposed in a plane at right angles to the longitudinal axis of the blade, an eccentric shaft mounted in the bore of the eccentric on the head, an eccentric at the outer end of the shaft positioned within the transverse opening of the blade, a sleeve surrounding the handle, a motor carried by the sleeve, a shaft for said motor, and a universal joint connecting the shaft with the eccentric shaft.

1,208,492. ILLUMINATED-SIGN DEVICE. ARNER F. CONNER and GUY L. WILLETT, Indianapolis, Ind., assignors to Thos. Cusack Company, Chicago, Ill., a Corporation. Filed Mar. 8, 1916. Serial No. 82,972. (Cl. 240—108.)



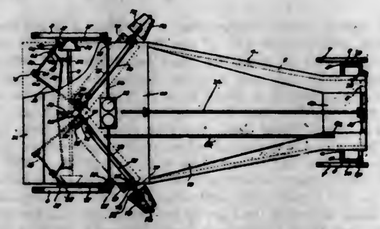
1. The combination with a lamp bulb or the like, of a cap formed of translucent material with a plurality of flat surfaces inclined to an apex so that the cap is substantially pyramidal and having diagopal grooves in the outer surface of said cap, and wires fitting in said grooves with their inner ends bent in and clamping said bulb or the like.

2. The combination with a lamp bulb or the like, of a cap formed of translucent material with a plurality of flat surfaces inclined to an apex so that the cap is substantially pyramidal and having diagonal grooves in the outer surface thereof and with the corners recessed, and wires in said grooves and extending through the recessed corners with the inner ends formed to clamp said lamp bulb or the like.

3. The combination with a lamp bulb or the like, of a cap for said bulbs or the like composed of translucent material and formed of flat sectional portions, diagonal grooves in the outer surface thereof, and wires in said grooves with their inner ends bent to form clamps for securing said cap to a lamp bulb or the like.

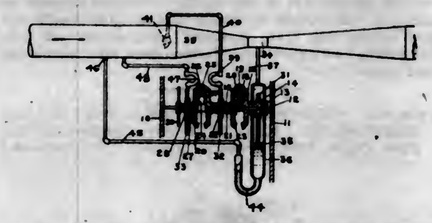
4. The combination with a lamp bulb or the like, of a cap for said bulbs or the like composed of translucent material and formed of flat sectional portions, diagonal grooves in the outer surface thereof and with the corners recessed, and wires in said grooves and extending through the recessed corners and with the inner ends bent to form clamps for securing the cap to a lamp bulb or the like.

1,208,493. STREET-SWEEPING MACHINE. GEORGE W. CONNOR, Bearwallow, N. C., assignor of one-half to Frank Lamb, Chester, W. Va. Filed Feb. 29, 1916. Serial No. 81,204. (Cl. 15—17.)



In a street sweeping machine, brushes disposed at the opposite sides of the center line of the machine and arranged at an angle to the path of travel thereof, means for raising and lowering said brushes, shafts arranged behind the respective brushes and parallel therewith, sleeves slidably mounted upon said shafts, friction wheels secured to the hub of the rear wheels of the machine and adapted to rotate therewith, friction disks on the outer ends of said sleeves respectively engaging said friction wheels whereby motion may be imparted from said friction wheels to said shafts, driving connections between said shafts and brushes, and means for sliding said sleeves along said shafts to vary the speed of said disks relatively to said wheels.

1,208,494. FLUID-METER. FREDERICK N. CONNET, Providence, R. I. Filed Apr. 28, 1910. Serial No. 558,228. (Cl. 73—167.)



1. In a meter for measuring fluids, a conduit through which the fluid is caused to flow, and means connected with said conduit and controlled by the fluid in response to variations in quantity, pressure and temperature of said fluid for obtaining movements proportional to the logarithms of functions of said variations, and means for adding together said movements to obtain a movement proportional to the logarithms of flow.

2. In a meter for measuring fluids, a conduit through which the fluid is caused to flow, means connected with said conduit and controlled by the fluid in response to variations in quantity, pressure and temperature of said fluid for obtaining movements proportional to the logarithms of functions of said variations, and differential gearing for obtaining the algebraic sum of said movements.

3. In a meter for measuring fluids, a conduit through which the fluid is caused to flow, means connected with said conduit and controlled by the fluid in response to variations in quantity, pressure and temperature of said fluid for obtaining movements proportional to the logarithms of functions of said variations, and means for adding together said movements to obtain a movement proportional to the logarithms of flow, and means for converting the movement thus obtained into a movement proportional to the flow itself.

4. In a meter for measuring fluids, a conduit through which the fluid is caused to flow, means connected with said conduit and controlled by the fluid in response to variations in quantity, pressure and temperature of said fluid for obtaining movements proportional to the logarithms of functions of said variations, and means for adding together said movements to obtain a movement proportional to the logarithms of flow, and a cam for converting the movement thus obtained into a movement proportional to the flow itself.

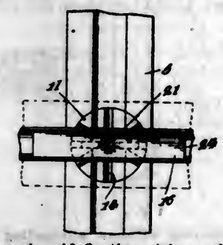
5. In a meter for measuring fluids, a conduit through which the fluid is caused to flow, means connected with said conduit and controlled by the flow in response to variations in quantity, pressure and temperature of said fluid for obtaining movements proportional to the logarithms of functions of said variations, differential gearing for obtaining the algebraic sum of said movements, and a cam controlled by said gearing.

[Claims 6 to 9 not printed in the Gazette.]

1,208,495. TILTABLE SASH. ALBERT E. CONRAD, Vanport, Pa., assignor of one-half to A. F. Reed, Vanport, Pa. Filed Dec. 30, 1914. Serial No. 879,749. (Cl. 20—49.)

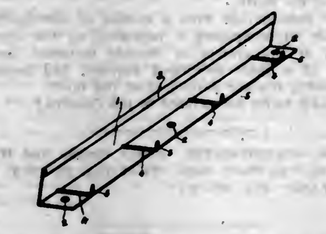
1. In combination, a sash and casing, the said casing being provided with a longitudinal groove, a floating strip arranged in said groove, a spring for forcing said strip into engagement with said sash, a reinforcing member in said strip, lugs on said member extending beyond said strip, a cap on said sash having radial grooves adapted to receive said lugs, a pin on said sash extending through said floating strip, the said pin being adapted when moved a given distance in one direction to force said strip out of engagement with said sash, and means for moving said pin.

2. In combination, a sash and casing, the said casing being provided with a longitudinal groove, a floating strip arranged in said groove, a spring for forcing said strip into engagement with said sash, a reinforcing member in said strip, lugs on said member extending beyond said strip, a cap on said sash having radial grooves adapted to receive said lugs, a pin slidably arranged on said sash and



extending through said floating strip, a shoulder on said pin for engagement with said floating strip to move the latter into said groove when the said pin is moved in one direction, a spring for normally holding said pin extended, and means for retracting said pin.

1,208,496. CARPET-FASTENER. ALBERT GEORGE COOKE, Regina, Saskatchewan, Canada. Filed Apr. 17, 1916. Serial No. 91,716. (Cl. 16—70.)



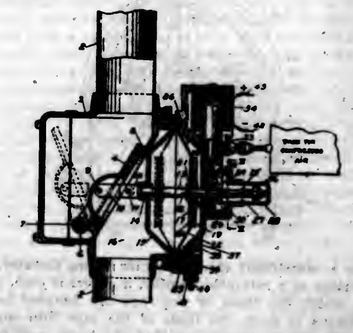
1. A carpet fastener, comprising a plate of substantially angle section the vertical leg of which is provided with a plurality of outstanding members the extremities of which are turned upwardly, the said vertical leg having its upper edge turned over to form a bead, and a detachable brace member adapted to fit when assembled against the inner face of the said projections and the underside of the said bead.

2. A carpet fastener comprising a plate member having its upper edge turned inwardly to form a bead and provided adjacent its lower edge with a plurality of spaced members extending outwardly at right angles therefrom, the ends of said members being upturned, and a covering plate designed to be sprung into position between the upturned ends of the said members and the said bead to act as a brace to maintain the carpet securely engaged by said members.

3. A carpet fastener comprising a plate member having its upper edge turned inwardly and provided adjacent its lower edge with a plurality of spaced members extending outwardly therefrom, the extremities of said members being turned upwardly, and an arc shaped covering plate having lateral edge flanges and designed to be sprung into place so that the said flanges bear respectively against the inwardly turned edge of the plate and the inner faces of the upturned ends of the spaced members and are held thereagainst by the inherent spring of the plate.

1,208,497. PNEUMATIC-DESPATCH APPARATUS. JAMES T. COWLEY, Minot, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Feb. 16, 1915. Serial No. 8,601. (Cl. 243—15.)

1. In pneumatic despatch apparatus, the combination of a transit tube, a valve for controlling the flow of air therethrough, means movable by pressure fluid for opening said valve, a secondary valve for controlling the admission of pressure fluid to said last mentioned means, electrical means for actuating said secondary valve, a latch to co-act with said secondary valve for insuring that the latter shall remain open, when once actuated by said electrical means, even when the latter is but momentarily energized, for a time sufficient to enable the pressure fluid to displace the means controlled thereby to the limit of its travel, and means controlled by said first mentioned means for rendering said latch inoperative after the lapse of said time.



2. In pneumatic despatch apparatus, the combination of a transit tube, a valve for controlling the flow of air therethrough, a diaphragm for controlling said valve, a source of compressed air, connections for causing said compressed air to displace this diaphragm whereby to open said valve, a secondary valve for controlling said connections, a latch for holding said valve in its open position, and means controlled by said diaphragm for actuating said latch to release said valve.

3. In pneumatic despatch apparatus, the combination of a transit tube, a valve for controlling the flow of air therethrough, a diaphragm for controlling said valve, a source of compressed air, connections for causing said compressed air to displace this diaphragm whereby to open said valve, a secondary valve for controlling said connections, electrically controlled means for opening said secondary valve, a latch for holding said valve in its open position, and means controlled by said diaphragm for actuating said latch to release said valve.

4. In pneumatic despatch apparatus, the combination of a transit tube, a valve for controlling the flow of air therethrough, a member movable by compressed air for controlling said valve, connections to supply compressed air to said member and to form a chamber upon one side thereof, a pilot valve for controlling said connections, and having a tendency to move back into a determined position when displaced from the latter, means for controlling said valve from a point along said tube and adjacent the despatching terminal thereof to move said pilot valve out of said determined position, means to positively hold said pilot valve in the position in which it is placed by the controlling means therefor, means controlled by said member for releasing said pilot valve from said holding means, and means to permit of the escape of compressed air from said chamber at a determined rate to determine the time during which said first mentioned valve shall remain open.

5. In pneumatic despatch apparatus, the combination of a transit tube, a valve for controlling the flow of air therethrough, mechanism for opening and closing said valve, a source of compressed air, means for causing an actuation of said mechanism in one direction by compressed air from said source, a positively acting device a part of which has a tendency for movement in a determined direction to co-act with said last mentioned means to insure a full movement of said mechanism in said last mentioned direction,

means for re-setting said device after a movement thereof in said direction, and means for timing the return movement of said mechanism.

1,208,498. GOVERNOR-RETARDING DEVICE FOR ELEVATOR-SAFETIES. ANDREW M. COYLE, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 11, 1907. Serial No. 378,356. (Cl. 187—91.)



1. In a centrifugal speed governor in an elevator, the combination of a rotatable member, a governor rope, abutments, which the leads of the rope are adapted to engage, means to force the leads of the rope into engagement with the abutments, to bind the leads, and to increase the pressure between the rope and the rotatable member by shortening, in effect, the leads between the abutments and the rotatable member.

2. The combination with a rotatable member, of a flexible connection associated therewith to drive the same, a retarding apparatus associated with said flexible connection, an operating lever connected to said retarding apparatus, a means carried by the rotatable member for engaging and operating said lever to effect the application of the retarding apparatus to one or both portions of the flexible connection extending beyond said rotatable member.

3. The combination with a rotatable member, of a driving connection therefor, a retarding mechanism associated with said connection, a rider mounted concentrically to said rotatable member, a means carried by said rotatable member and movable by centrifugal force into position to engage the rider, and connections between the rider and the retarding mechanism.

4. The combination with a rotatable member, of a rider pivoted for movement about the same axis as said member, an actuating device carried by the rotatable member and movable by centrifugal force into position to engage the rider, and retarding mechanism movable relatively to and operated by said rider.

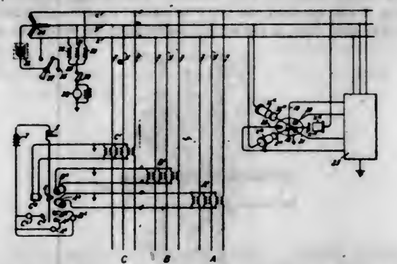
5. The combination with a rotatable member, of a rider pivoted concentrically therewith, an actuating device carried by the rotatable member and movable by centrifugal force into position to operate the rider, and retarding mechanism operated by the rider.

[Claims 6 to 12 not printed in the Gazette.]

1,208,499. MEANS FOR PROTECTING ELECTRIC SYSTEMS. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 13, 1912. Serial No. 696,930. (Cl. 175—294.)

1. In combination with a system of distribution, of means including a plurality of feeders for impressing a testing potential on the system to develop incipient faults thereon, and means for selecting the feeder upon which a fault is developed.

2. In combination with a system of distribution, of means for superimposing a potential on the operating potential of the system to develop incipient faults, a localizer of a fault developed thereby, and means for protecting the system against surges produced by said fault.



3. The combination with an alternating current system of distribution, of means for superimposing a direct current potential on the operating potential of the system to develop incipient faults, a localizer of a fault developed thereby, and means for protecting the system against surges produced by said fault.

4. The combination with a system of distribution, of means for impressing a testing potential on the system to develop incipient faults, a localizer of a fault developed thereby, and means for extinguishing the arc developed at the fault.

5. The combination with a system of distribution, of means for superimposing a potential on the operating potential of the system to develop incipient faults, a localizer of a fault developed thereby, and means for extinguishing the arc developed at the fault.

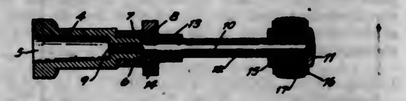
[Claims 6 to 32 not printed in the Gazette.]

1,208,500. CAN-OPENER. EDSON CRITES and HOWARD GRIBLER, Van Wert, Ohio. Filed Aug. 28, 1915. Serial No. 47,814. (Cl. 30—3.)



The herein described construction of can openers including a flat slotted shank having its opposite edges threaded and one of its ends formed with a segmental head which is disposed centrally of the shank and which has its lower edge inturned to provide a continuous flange, a cutter member including a body portion which is received in the slot of the shank and which has its lower corner disposed opposite the head formed with the cutting element arranged at an angle to the said body and directed toward the flange of the head, and a handle comprising a short tubular member having a threaded bore disposed upon the shank and co-acting with the threads of the shank to contact with and adjust the cutter member longitudinally upon the said shank.

1,208,501. DENTAL TOOL. SAMUEL A. CROCKER, Jr., Cincinnati, Ohio, assignor to The Samuel A. Crocker Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 25, 1916. Serial No. 93,541. (Cl. 51—1.)



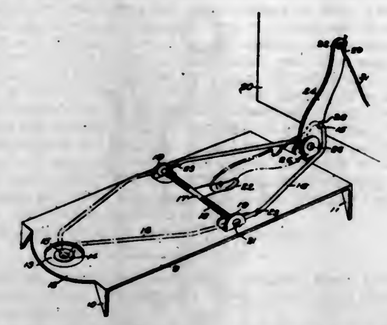
In combination in a dental tool a socket having screw threads formed at its end, a spindle extending therefrom and having a headed end, a sleeve reciprocally mounted on the spindle and having one end screw threaded and the opposite end flanged, a yielding member located between the head and the flange, and a screw threaded member cooperating with the screw threads of the sleeve and socket and adapted to force the flange toward the head to expand the yielding member, said screw threads being so formed that use of the tool during rotation in either direction will maintain uniform expansion thereof.

1,208,502. CROCHET-BALL HOLDER. CHARLES H. CROWLEY, New York, N. Y. Filed Nov. 11, 1914. Serial No. 871,602. (Cl. 242—136.)



A yarn holder including a body member formed from a single length of wire bent intermediate its ends to provide juxtaposed portions forming the lower limb of a cross, each end of said wire being then bent outwardly at right angles to the first portions and rebent inwardly to provide juxtaposed portions forming the arms of said cross, each end of the wire being then bent upwardly to provide coacting juxtaposed portions forming the upper limb of the cross, the extremities of said wire being bent to form eyes one of which overlaps the other in coaxial relation, and a swivel supporting means including a ring passing through both of said eyes to prevent spreading of said wire ends.

1,208,503. BURGLAR-ALARM. DANIEL CRUICE, New York, N. Y., assignor of one-half to Henry A. Soffer, New York, N. Y. Filed June 17, 1915. Serial No. 34,650. (Cl. 116—42.)

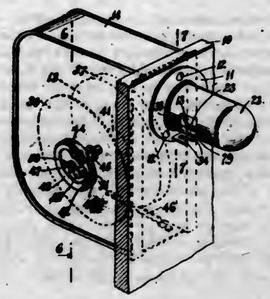


1. An alarm comprising a one-piece sheet metal base having depending supporting members and vertically-extended pivot-bearing members, said members being centrally located and integrally formed with said base, said base being further provided with upstanding pivot-bearing members located at one end of said base; a hammer pivotally mounted on said base plate, said hammer being formed from a single piece of wire bent centrally to form a striking head; a trigger pivotally mounted between said last-mentioned bearing members, said trigger having means for engaging and holding said hammer formed from a wire bent upon itself to form a striking head, said hammer being pivotally mounted in the vertically-extended members of said base; a cup formed in said base for receiving a detonating cap, said cap being disposed in the path of said hammer; and a spring operatively connecting said hammer and said base for rotating said hammer and driving the head thereof into said cup when said hammer is released by said trigger.

2. An alarm comprising a one-piece sheet metal base having depending supporting members and vertically-extended pivot-bearing members, said members being centrally located and integrally formed with said base, said base being further provided with upstanding pivot-bearing members located at one end of said base; a hammer pivotally mounted on said base plate, said hammer being formed from a single piece of wire bent centrally to form a striking head; a trigger pivotally mounted between said last-mentioned bearing members, said trigger having means for engaging and holding said hammer formed from a wire bent upon itself to form a striking head, said hammer being pivotally mounted in the vertically-extended members of said base; a cup formed in said base for receiving a detonating cap, said cap being disposed in the path of said hammer; a spring operatively connecting said hammer and said base for rotating said hammer and driving the head thereof into said cup when said hammer is released by said trigger; and means connected with said trigger and extending from the end of said base beyond the limits of said hammer to be engaged by a moving object for releasing said trigger.

3. An alarm comprising a one-piece base plate having tabs integrally formed therewith; a hammer pivotally mounted in said tabs located centrally on said base plate, said hammer being formed from a single piece of wire bent centrally for forming a striking head; a trigger pivotally mounted in bearings in certain of said tabs at one end of said plate for engaging the head of said hammer and restraining the action of said hammer; and a coil spring mounted on said hammer operable for swinging the same and forcing the head thereof into contact with said base plate adjacent the end thereof removed from said trigger.

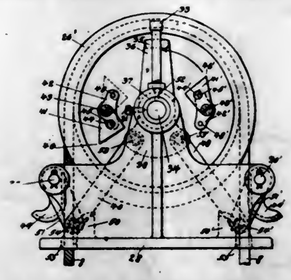
1,208,504. COMBINED DASH AND TROUBLE LAMP. CHARLES F. CUNO, Meriden, Conn., assignor to The Cuno Engineering Corporation, Meriden, Conn., a Corporation of Connecticut. Filed June 6, 1916. Serial No. 101,885. (Cl. 240—7.)



1. In a device of the character set forth, the combination with a supporting socket having an exposed face flange and a spring wound reel at the back of said socket, of an electrical device detachably seated in said socket provided with a flexible cord adapted to be wound on the spring reel and rigid outstanding spaced jaws mounted on the flange of the socket adjoining the mouth of said socket and in position therefore to receive between them the flexible cord of the electrical device when said device is withdrawn from the socket and the cord is deflected slightly to the side of the socket where said cord holding jaws are located.

means for re-setting said device after a movement thereof in said direction, and means for timing the return movement of said mechanism.

1,208,498. GOVERNOR-RETARDING DEVICE FOR ELEVATOR-SAFETIES. ANDREW M. COYLE, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 11, 1907. Serial No. 378,356. (Cl. 187—91.)



1. In a centrifugal speed governor in an elevator, the combination of a rotatable member, a governor rope, abutments, which the leads of the rope are adapted to engage, means to force the leads of the rope into engagement with the abutments, to bind the leads, and to increase the pressure between the rope and the rotatable member by shortening, in effect, the leads between the abutments and the rotatable member.

2. The combination with a rotatable member, of a flexible connection associated therewith to drive the same, a retarding apparatus associated with said flexible connection, an operating lever connected to said retarding apparatus, a means carried by the rotatable member for engaging and operating said lever to effect the application of the retarding apparatus to one or both portions of the flexible connection extending beyond said rotatable member.

3. The combination with a rotatable member, of a driving connection therefor, a retarding mechanism associated with said connection, a rider mounted concentrically to said rotatable member, a means carried by said rotatable member and movable by centrifugal force into position to engage the rider, and connections between the rider and the retarding mechanism.

4. The combination with a rotatable member, of a rider pivoted for movement about the same axis as said member, an actuating device carried by the rotatable member and movable by centrifugal force into position to engage the rider, and retarding mechanism movable relatively to and operated by said rider.

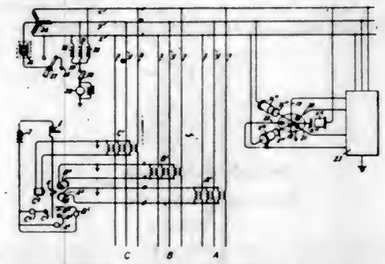
5. The combination with a rotatable member, of a rider pivoted concentrically therewith, an actuating device carried by the rotatable member and movable by centrifugal force into position to operate the rider, and retarding mechanism operated by the rider.

[Claims 6 to 12 not printed in the Gazette.]

1,208,499. MEANS FOR PROTECTING ELECTRIC SYSTEMS. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 13, 1912. Serial No. 696,930. (Cl. 175—294.)

1. In combination with a system of distribution, of means including a plurality of feeders for impressing a testing potential on the system to develop incipient faults thereon, and means for selecting the feeder upon which a fault is developed.

2. In combination with a system of distribution, of means for superimposing a potential on the operating potential of the system to develop incipient faults, a localizer of a fault developed thereby, and means for protecting the system against surges produced by said fault.



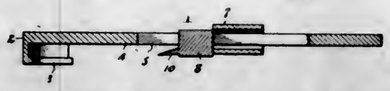
3. The combination with an alternating current system of distribution, of means for superimposing a direct current potential on the operating potential of the system to develop incipient faults, a localizer of a fault developed thereby, and means for protecting the system against surges produced by said fault.

4. The combination with a system of distribution, of means for impressing a testing potential on the system to develop incipient faults, a localizer of a fault developed thereby, and means for extinguishing the arc developed at the fault.

5. The combination with a system of distribution, of means for superimposing a potential on the operating potential of the system to develop incipient faults, a localizer of a fault developed thereby, and means for extinguishing the arc developed at the fault.

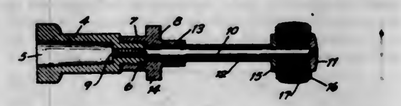
[Claims 6 to 32 not printed in the Gazette.]

1,208,500. CAN-OPENER. EDSON CRITES and HOWARD GRIBLER, Van Wert, Ohio. Filed Aug. 28, 1915. Serial No. 47,814. (Cl. 30—3.)



The herein described construction of can openers including a flat slotted shank having its opposite edges threaded and one of its ends formed with a segmental head which is disposed centrally of the shank and which has its lower edge inturned to provide a continuous flange, a cutter member including a body portion which is received in the slot of the shank and which has its lower corner disposed opposite the head formed with the cutting element arranged at an angle to the said body and directed toward the flange of the head, and a handle comprising a short tubular member having a threaded bore disposed upon the shank and co-acting with the threads of the shank to contact with and adjust the cutter member longitudinally upon the said shank.

1,208,501. DENTAL TOOL. SAMUEL A. CROCKER, Jr., Cincinnati, Ohio, asignor to The Samuel A. Crocker Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 25, 1916. Serial No. 93,541. (Cl. 51—1.)



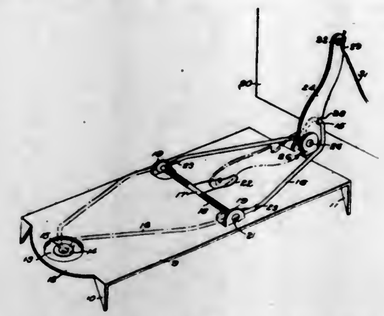
In combination in a dental tool a socket having screw threads formed at its end, a spindle extending therefrom and having a headed end, a sleeve reciprocally mounted on the spindle and having one end screw threaded and the opposite end flanged, a yielding member located between the head and the flange, and a screw threaded member coöperating with the screw threads of the sleeve and socket and adapted to force the flange toward the head to expand the yielding member, said screw threads being so formed that use of the tool during rotation in either direction will maintain uniform expansion thereof.

1,208,502. CROCHET-BALL HOLDER. CHARLES H. CROWLEY, New York, N. Y. Filed Nov. 11, 1914. Serial No. 871,602. (Cl. 242—136.)



A yarn holder including a body member formed from a single length of wire bent intermediate its ends to provide juxtaposed portions forming the lower limb of a cross, each end of said wire being then bent outwardly at right angles to the first portions and rebent inwardly to provide juxtaposed portions forming the arms of said cross, each end of the wire being then bent upwardly to provide coacting juxtaposed portions forming the upper limb of the cross, the extremities of said wire being bent to form eyes one of which overlaps the other in coaxial relation, and a swivel supporting means including a ring passing through both of said eyes to prevent spreading of said wire ends.

1,208,503. BURGLAR-ALARM. DANIEL CRUICE, New York, N. Y., assignor of one-half to Henry A. Soffer, New York, N. Y. Filed June 17, 1915. Serial No. 34,650. (Cl. 116—42.)

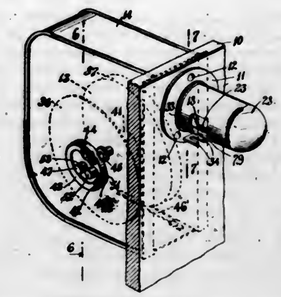


1. An alarm comprising a one-piece sheet metal base having depending supporting members and vertically-extended pivot-bearing members, said members being centrally located and integrally formed with said base, said base being further provided with upstanding pivot-bearing members located at one end of said base; a hammer pivotally mounted on said base plate, said hammer being formed from a single piece of wire bent centrally to form a striking head; a trigger pivotally mounted between said last-mentioned bearing members, said trigger having means for engaging and holding said hammer formed from a wire bent upon itself to form a striking head, said hammer being pivotally mounted in the vertically-extended members of said base; a cup formed in said base for receiving a detonating cap, said cap being disposed in the path of said hammer; and a spring operatively connecting said hammer and said base for rotating said hammer and driving the head thereof into said cup when said hammer is released by said trigger.

2. An alarm comprising a one-piece sheet metal base having depending supporting members and vertically-extended pivot-bearing members, said members being centrally located and integrally formed with said base, said base being further provided with upstanding pivot-bearing members located at one end of said base; a hammer pivotally mounted on said base plate, said hammer being formed from a single piece of wire bent centrally to form a striking head; a trigger pivotally mounted between said last-mentioned bearing members, said trigger having means for engaging and holding said hammer formed from a wire bent upon itself to form a striking head, said hammer being pivotally mounted in the vertically-extended members of said base; a cup formed in said base for receiving a detonating cap, said cap being disposed in the path of said hammer; a spring operatively connecting said hammer and said base for rotating said hammer and driving the head thereof into said cup when said hammer is released by said trigger; and means connected with said trigger and extending from the end of said base beyond the limits of said hammer to be engaged by a moving object for releasing said trigger.

3. An alarm comprising a one-piece base plate having tabs integrally formed therewith; a hammer pivotally mounted in said tabs located centrally on said base plate, said hammer being formed from a single piece of wire bent centrally for forming a striking head; a trigger pivotally mounted in bearings in certain of said tabs at one end of said plate for engaging the head of said hammer and restraining the action of said hammer; and a coil spring mounted on said hammer operable for swinging the same and forcing the head thereof into contact with said base plate adjacent the end thereof removed from said trigger.

1,208,504. COMBINED DASH AND TROUBLE LAMP. CHARLES F. CUNO, Meriden, Conn., assignor to The Cuno Engineering Corporation, Meriden, Conn., a Corporation of Connecticut. Filed June 6, 1916. Serial No. 101,885. (Cl. 240—7.)



1. In a device of the character set forth, the combination with a supporting socket having an exposed face flange and a spring wound reel at the back of said socket, of an electrical device detachably seated in said socket provided with a flexible cord adapted to be wound on the spring reel and rigid outstanding spaced jaws mounted on the flange of the socket adjoining the mouth of said socket and in position therefore to receive between them the flexible cord of the electrical device when said device is withdrawn from the socket and the cord is deflected slightly to the side of the socket where said cord holding jaws are located.

2. In a lamp of the character described the combination of a supporting socket and a lamp adapted to be received in said socket, one of said members having a radial projection and the other of said members having a radial depression to receive the projection on the other member and a guiding groove extending inward from the end of such member to the depression therein, a cord attached to said lamp and a cord reel at the back of the supporting socket receiving said cord.

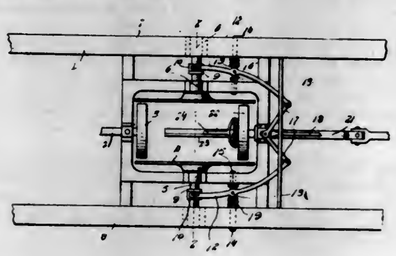
3. In a lamp of the character set forth a lamp body, a lamp carried thereby, a bull's-eye lens carried by said lamp body at a point beyond the lamp thereon, a hood normally housing said lamp and lens but removable to uncover said lens and a light shielding sleeve slidably along the lamp body to the lens at the end thereof to thereby confine the light from the lamp to said bull's-eye lens.

4. In a combined dash and trouble lamp, a lamp body, a lamp mounted thereon, a sleeve longitudinally movable on the lamp body and a hood covering the end of the lamp and slidably engageable with said sleeve.

5. In a combined dash and trouble lamp a lamp body, a lamp mounted thereon, a hood slidably engaged over the end of the lamp body and provided with a slot in one side thereof and a sleeve longitudinally movable on the lamp body and telescopically engaged with the hood and thereby adapted to vary the width of the slot forming the light aperture in the hood.

[Claims 6 to 17 not printed in the Gazette.]

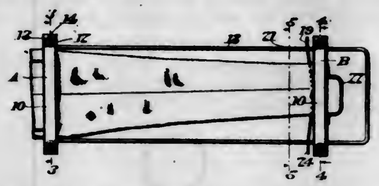
1,208,505. FRICTION TRANSMISSION. PAUL B. CURTIS, Amesbury, Mass. Filed Oct. 5, 1914. Serial No. 865,120. (Cl. 74—26.)



In a friction transmission in combination with a frame, a friction disk constructed and arranged to be mounted on a crank shaft of an engine, a second disk adapted to be slidably mounted on the differential shaft, a pair of disks arranged at right angles to the first named disks and adapted to simultaneously engage the sides of the first named disks, and having supporting shafts supported by the frame, second shafts arranged parallel of the first shafts and supported by the frame, said shaft having collars slidably mounted thereon, shipper levers pivotally connected to the second shafts and slidably connected to the first named shafts, coil springs encircling the second shafts and having one of their ends engaged with the frame and their other ends engaged with the collars for forcing the forward ends of the levers away from each other, as and for the purpose set forth.

1,208,506. GARMENT-STRETCHER. WALLACE B. CURTIS, Hamburg, N. Y. Filed Nov. 17, 1915. Serial No. 61,987. (Cl. 223—19.)

A garment stretcher comprising a U-shaped frame formed from a single strand of stiff wire, pairs of clamping cleats, one cleat of one pair being fixed to the end of the frame, one cleat of the other pair being slidable on the frame, adjustable bolts connecting the cleats of the pairs together, a pivot swingingly connecting one bolt to one cleat in each pair, the said cleats of both pairs being slotted to receive the swinging bolts, a bowed leaf spring connected medially thereof with the cleat slidable on the frame and having holes loosely receiving the frame, and ratchet teeth formed on the inner sides of the limbs of the frame and coacting with the edges of the holes in the springs for locking engagement thereof with the frame,



the spring being fixed to the side of the slidable cleat facing the fixed cleat so that pulling action by the garment upon the slidable cleat will cause the biting engagement of the spring with the teeth.

1,208,507. PREPARATION FOR SILVERING OR GILDING METAL ARTICLES. AGNES DALBY, London, England. Filed July 22, 1916. Serial No. 110,708. (Cl. 134—24.5.)

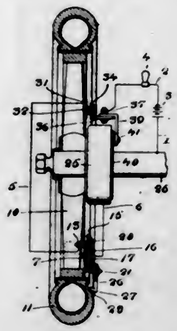
1. A preparation for plating or coating metals, which contains potassium iodid, hydropotassium tartrate, potassium cyanid and a noble metal compound.

2. A preparation for plating or coating metals, which contains potassium iodid, hydropotassium tartrate, potassium cyanid and double cyanid of potassium and silver.

3. A liquid preparation for plating or coating metals which contains equal quantities of potassium iodid, hydropotassium tartrate, potassium cyanid, a noble metal compound and distilled water in the proportion of one pint to eight ounces of a mixture of the aforesaid substances.

4. A preparation for plating or coating metals, which contains equal quantities of potassium iodid, hydropotassium tartrate, potassium cyanid, a noble metal compound and moisture.

1,208,508. TIRE-DEFLATING INDICATOR. STOCKWELL G. DARE, Whitestone, N. Y. Filed Dec. 2, 1915. Serial No. 64,608. (Cl. 200—27.)



1. In a tire deflation indicator, a circuit closing device including a bracket plate carrying an adjustable stationary circuit closing member, said bracket plate having means for securing the same upon a wheel, a movable circuit closing member including a plate slidably connected with said bracket plate and mounted for movement radially of the wheel, a spring for normally holding said plate projected, and a shoe adjustably connected with said plate and having an inclined surface arranged adjacent to, externally of and at one side of the tire and adapted to be actuated to convert the lateral spread of the tire due to deflation into radial circuit closing motion to said movable circuit closing member.

2. A circuit closer of the class described comprising a bracket plate, a connection between said bracket plate and one spoke of the wheel, a contact and keeper adjustably connected to the inner end of said bracket plate, a head slidably mounted upon the outer surface of said bracket plate, an arm formed integral with the outer end of said head and disposed at right angles thereto, a tire contact member carried by said arm whereby said head may be moved along said bracket plate upon the deflation of the tire, and a contact carried by said head and adapted to engage said contact and keeper in the movement of said head along said bracket plate in the deflation of the tire.

3. A circuit closer of the class described comprising a bracket plate, a connection between said bracket plate and one spoke of the wheel, a contact and keeper adjustably connected to the inner end of said bracket plate, a head slidably mounted upon the outer surface of said bracket plate, an arm formed integral with the outer end of said head and disposed at right angles thereto, a tire contact member carried by said arm whereby said head may be moved along said bracket plate upon the deflation of the tire, and a contact carried by said head and adapted to engage said contact and keeper in the movement of said head along said bracket plate in the deflation of the tire, said contact and keeper being substantially U-shape and formed of springy material to frictionally engage said contact when engaged by the latter to hold the contact in engagement with the contact and keeper.

4. A circuit closer of the class described comprising a bracket plate, a connection between said bracket plate and one spoke of the wheel, a contact and keeper adjustably connected to the inner end of said bracket plate, a head slidably mounted upon the outer surface of said bracket plate, an arm formed integral with the outer end of said head and disposed at right angles thereto, a tire contact member carried by said arm whereby said head may be moved along said bracket plate upon the deflation of the tire, a contact carried by said head and adapted to engage said contact and keeper in the movement of said head along said bracket plate in the deflation of the tire, and a spring holding said head in normal position.

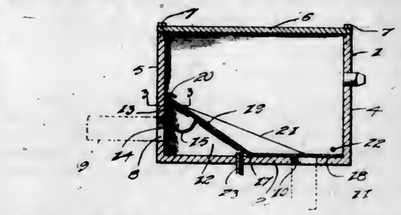
5. A circuit closer of the class described comprising a bracket plate, a connection between said bracket plate and one spoke of the wheel, a contact and keeper adjustably connected to the inner end of said bracket plate, a head slidably mounted upon the outer surface of said bracket plate, an arm formed integral with the outer end of said head and disposed at right angles thereto, a tire contact member carried by said arm whereby said head may be moved along said bracket plate upon the deflation of the tire, a contact carried by said head and adapted to engage said contact and keeper in the movement of said head along said bracket plate in the deflation of the tire, a lug integral with the inner end of said bracket plate and disposed at right angles thereto, a stem connected to said arm and slidably mounted in said lug, and a spring encircling said stem and acting upon said arm and lug to hold said head in normal position.

[Claims 6 to 10 not printed in the Gazette.]

1,208,509. PIPE-LINE TRAP. WILLIAM EDDY DAVIS, Kiefer, Okla. Filed Feb. 5, 1916. Serial No. 76,444. (Cl. 137—68.)

1. A pipe line trap comprising a casing, said casing provided with an inlet and an outlet port, a transverse shaft journaled within said casing, a gate bent intermediate its ends and into engagement with said shaft and provided with one of its ends extending downwardly over the inlet port, the outer end of said gate bent downwardly and upwardly to form an extension, a valve loosely mounted within said casing and adapted to overlie and close the outlet port, said valve adapted to engage the extension and be raised from engagement with the outlet port when the gate is moved to open position, and means for unseating said valve.

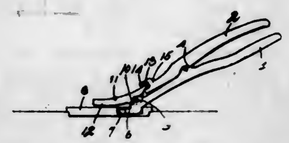
2. A pipe line trap comprising a casing, said casing provided with an inlet and an outlet port, a pair of substantially triangular shaped braces secured within said casing and provided with their highest points recessed, a shaft journaled within said recesses and extending through the side of the casing, a gate hingedly secured to said shaft and adapted to close the inlet port, a downwardly and upwardly directed extension formed on said gate, a valve bent intermediate its ends to provide a horizontal portion adapted to overlie the outlet port and an upwardly inclined portion adapted to rest upon the extension to be raised upwardly when the gate is in open position causing the horizontal portion to move away from engagement with the outlet port, and means for unseating the valve.



3. A pipe line trap comprising bottom, side and end walls, a cover detachably secured to the side and end walls, one of said end walls provided with an inlet port, said bottom wall provided with an outlet port, a pair of substantially triangular shaped braces secured to the side walls and abutting one of the end walls, a transverse shaft journaled upon said braces and extended into the side walls, a gate hingedly secured to the transverse shaft and adapted to close the inlet port, a valve bent intermediate its ends to provide a horizontal portion and an upwardly inclined portion, said horizontal portion adapted to overlie the outlet port, and a downwardly and upwardly curved extension formed on the upper end of said gate and adapted to engage the upwardly inclined portion to raise the horizontal portion from engagement with the outlet port.

4. A pipe line trap comprising a casing, said casing provided with an outlet and an inlet port, a transverse shaft journaled in said casing, a gate hingedly secured to said shaft and adapted to close said inlet port, a valve bent intermediate its ends to provide a horizontal portion and an upwardly inclined portion, said horizontal portion adapted to overlie the outlet port, and a downwardly curved extension formed on the upper end of said gate to engage and raise the upwardly inclined portion of the valve to move the horizontal portion away from an engagement with the outlet port when said gate is in open position, a transverse rod secured within said casing at a point adjacent the ends of the horizontal portion of said valve to limit the upward movement of the horizontal portion, and a setscrew mounted in the bottom to unseat the valve when held against movement.

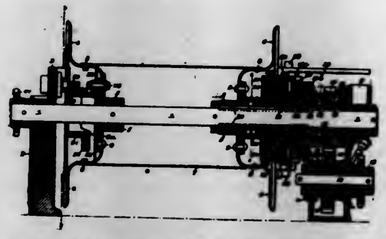
1,208,510. STOVE-LID LIFTER. ALBERT WALLACE DEANE, Joliet, Ill. Filed May 16, 1914. Serial No. 838,977. (Cl. 126—328.)



A stove lid lifter comprising, a stationary handle member having one end provided with a lifting lug, a second handle disposed above the first-mentioned handle and pivoted thereto intermediate its ends and at a point beyond

the lifting lug and having one end bifurcated, the fingers of the bifurcation extending in parallelism and coextensive with each other, ears formed on the stationary handle and located at the point of juncture between the handle and the lifting lug, an arcuate shaped clamping member overlying the lifting lug on the stationary handle and having one end projecting beyond the free end of the lifting lug and its opposite end overlying the stationary handle and reduced and located between the fingers of the bifurcated end of the pivoted handle, ears depending from the arcuate shaped clamping member and located adjacent the reduced end and positioned between and pivoted to the ears on the stationary handle, and a spring interposed between the pivoted and stationary handles and located to one side of the pivotal connection between the handles to effect normal depression of the bifurcated end of the pivoted handle so as to normally hold the clamping member in unclamping position.

1,208,511. CLUTCH AND BRAKE MECHANISM IN REELS FOR MINE-LOCOMOTIVES. FRANK B. DRANE, Sharon Hill, and BENJAMIN K. KIRK, Philadelphia, Pa., assignors to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 29, 1915. Serial No. 69,254. (Cl. 74—46.)

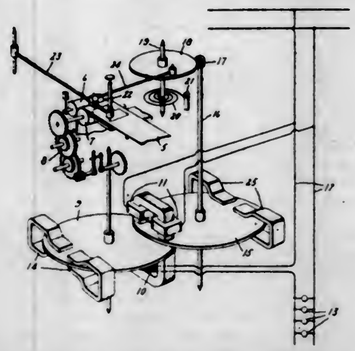


1. The combination of a shaft; bearings therefor; driving mechanism; a clutch section loosely mounted on the shaft; means for adjusting the clutch section with respect to the driving gear; a second clutch section splined to the shaft but free to be moved longitudinally thereon; a spring bearing against the second clutch section, said second clutch section having a friction surface forming part of a brake; a brake ring mounted to turn freely on the second clutch section and having a friction surface alining with the friction surface of said section; and lever mechanism for moving the ring into frictional contact with the second clutch section and on the continued movement of the lever the said section will be drawn back against the pressure of its spring, releasing the clutch.

2. The combination of a shaft; clutch mechanism, said clutch mechanism consisting of two elements; disks mounted between said elements, one of said elements being arranged to slide on the shaft and the other being loose thereon; a spring at the back of the sliding element; a pinion on the hub of the other element; screws for adjusting said element; a driving shaft; bearings therefor; a gear wheel on the driving shaft meshing with the pinion; a brake ring arranged to bear against the sliding clutch member; and lever mechanism for moving the brake ring into and out of position, the brake ring being applied in advance of the release of the clutch.

1,208,512. METHOD OF AND APPARATUS FOR RECORDING ELECTRICAL QUANTITIES. JOHN THOS. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 18, 1913. Serial No. 779,768. (Cl. 234—5.5.)

1. The method of recording the rate of consumption of energy in an electrical installation which consists in moving a suitable record sheet at a speed proportional to the rate of consumption of energy in the installation, and simultaneously recording on said record sheet the instantaneous rate of consumption of energy in said installation.



2. An electrical recording instrument comprising in combination a movable record sheet, means for moving said record sheet at a speed proportional to the rate of consumption of electric energy, and means for imparting on said record sheet a record of the instantaneous rate of consumption of energy.

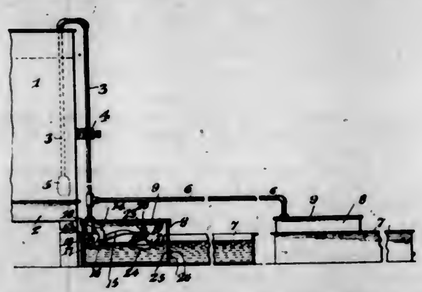
3. An electrical recording instrument comprising in combination a motor type electric meter element and an indicating electric meter element, a record sheet arranged to be moved by the motor type meter element, means for imparting a record on said record sheet, and means operatively connecting said last mentioned means to said indicating meter element.

4. An electrical recording instrument comprising in combination a watthour meter element and an indicating wattmeter element, a movable record sheet arranged to be moved by the watthour meter element, means for imparting a record on said record sheet, and means operatively connecting said last mentioned means to said indicating wattmeter element.

5. An electrical recording instrument comprising in combination a watthour meter element and an indicating wattmeter element, a movable record sheet, means actuated by the watthour meter element for moving said record sheet, means for drawing a curve upon said record sheet, and means operatively connecting said curve drawing means to the indicating wattmeter element.

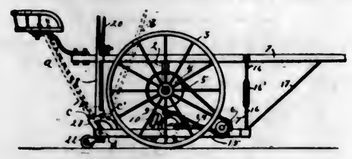
[Claims 6 to 13 not printed in the Gazette.]

1,208,513. STOCK-WATERING DEVICE. CHARLES F. DERRY, Adair, Ill. Filed Apr. 26, 1915. Serial No. 24,111. (Cl. 119—80.)



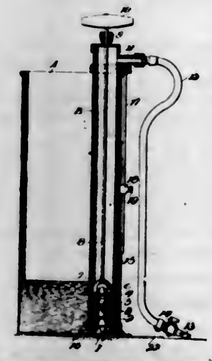
A stock watering device, comprising a trough, a compartment therein provided with a wall dividing the compartment from the trough with said wall having portions struck out to provide passage through the wall and with the struck out portions constituting guards integral with the wall and in overhanging relation to the passages, a valved supply pipe leading into the compartment, and a float in the compartment controlling the valve.

1,208,514. MACHINE FOR REMOVING SURPLUS PLANTS. BENJAMIN F. DEVENDORF, Grandville, Mich. Filed Dec. 14, 1914. Serial No. 877,607. (Cl. 97—46.)



In combination with the two wheels, a single axletree, a tongue and a vertically adjustable shaft frame in a machine for cutting surplus plants from overstocked rows; a shaft mounted on the shaft frame in position to bisect the angle between one side of the tongue and one end of the axletree, means for revolving said shaft from one of the wheels, a cutter head on one end of said shaft immediately below the center of the axletree, knives adjustably mounted in the periphery of said head and arranged to be made to cut more or less of the plants in a row being operated upon without changing the natural rotary movement of the head.

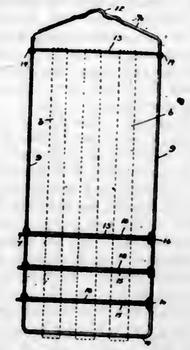
1,208,515. GREASE-PUMP. WILLIAM H. DILLEY, Muir, Mich. Filed June 4, 1915. Serial No. 32,142. (Cl. 103—65.)



The combination with a receptacle, of an upright, an arm thereon, a bar parallel thereto, means for tightening the bar upon the upright for holding them in an adjusted position, a clamp rigidly affixed to one end of said bar and substantially at right angles thereto, adapted to be held against an edge of said receptacle for holding it rigidly, a pump casing slidably received in said clamp, means for holding said casing in said clamp, whereby tilting of the pump casing is prevented and a foot support pivotally connected to said upright so that in its normal open position it is in substantially the same plane as said arm, said pump casing adapted to press downwardly upon the bottom of the receptacle against said arm, whereby the receptacle is rigidly clamped to the up-right.

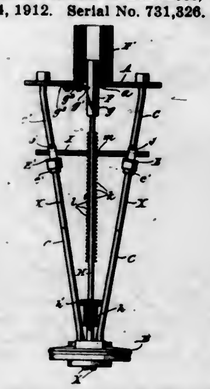
1,208,516. NECKTIE SUPPORTER AND STRETCHER. EDWIN P. DIMENT, Newberg, Oreg. Filed July 20, 1914. Serial No. 852,018. (Cl. 223—19.)

A necktie supporter and stretcher comprising a substantially rectangular frame formed from a continuous piece of wire and having its ends bent inwardly and upwardly and twisted about each other, a supporting bar secured to the side members adjacent the bent ends for supporting necktles, said side members provided with offset portions, a plurality of cross rods twisted about the side members within the offset portions, and a plurality of



holding members twisted around one of the side members within the offset portions and bent adjacent each end to offset them from the plane of the cross rods for securing the ends of the necktles between the cross rods and the holding members and the free ends of the holding members being bent to clamp one of the side members.

1,208,517. ARC-LAMP. JOHN L. DINSMOOR, Brooklyn, N. Y., assignor to Clarissa B. Dinsmoor, Windham, N. H. Filed Nov. 14, 1912. Serial No. 731,326. (Cl. 176—68.)



1. In an arc lamp, the combination with a solenoid and a reciprocating plunger, of means for axially turning said plunger simultaneously with the reciprocating movement thereof, carbon carriers, and feed means actuated by the turning movement of the plunger for permitting a step by step movement to said carbon carriers.

2. In an arc lamp, the combination with a solenoid and a reciprocating plunger, of means coöperating with said plunger and actuated by the reciprocating movement thereof for imparting an axial turning movement to said plunger, means for supporting a carbon, and feed means controllable by the turning movement of the plunger for imparting a step by step feed to said carbon.

3. In an arc lamp, the combination with a solenoid and a reciprocating plunger, of a feed member depending from said plunger and reciprocable therewith, means for imparting an axial turning movement to the feed member simultaneously with its reciprocating movement, a carbon holder, a gravity operated member coöperating with said

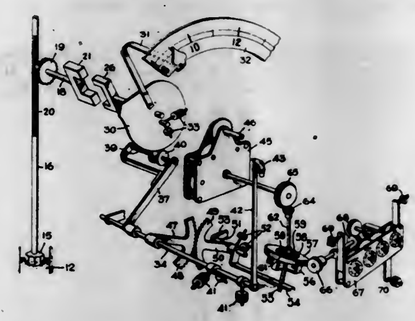
carbon holder, and means operable by the depending feed member for limiting the gravity operated member and the carbon holder to a step by step movement.

4. In an arc lamp, the combination with a solenoid and a reciprocating plunger, of a feed member reciprocable with said plunger, an electrode-actuating member movable vertically with the plunger and the feed member, means for imparting a turning movement to the feed member simultaneously with its reciprocating movement, and cooperating devices on the feed member and the electrode actuating member for releasing and locking the latter at successive intervals to effect the feed of the electrode with a step by step movement.

5. In an arc lamp, the combination with a solenoid and a reciprocating plunger, of means for imparting an axial turning movement to said plunger, a feed rod reciprocating and turning with said plunger, a transverse carbon supporting member, and means on the feed rod cooperating with said transverse member for locking and releasing the latter to the feed rod, said transverse member being movable vertically with the plunger when locked to the feed rod and being free to descend by gravity for a limited distance when released from such locking engagement with said feed rod.

[Claims 6 to 9 not printed in the Gazette.]

1,208,518. MEASURING INSTRUMENT. AUSTIN R. DODGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 6. 1915. Serial No. 65,244. (Cl. 235—91.)



1. The combination with an indicating instrument, of integrating mechanism therefor comprising a disk having a universal support, means for rotating it, a wheel which frictionally engages the edge of the disk, registering mechanism adapted to be driven by the wheel, and means for tilting the disk in accordance with the indications of the instrument.

2. The combination with an indicating instrument, of integrating mechanism comprising a disk, a shaft, a gimbal joint connecting the disk to the shaft, means for turning the shaft, a wheel which frictionally engages the edge of the disk, registering mechanism adapted to be driven by the wheel, and means for tilting the disk in accordance with the indications of the instrument.

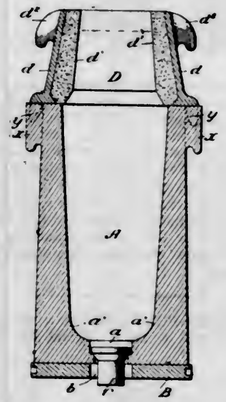
3. The combination in a measuring instrument, of integrating mechanism comprising a friction disk member, means for turning it on its axis, a friction wheel member which engages the edge of the disk member, registering mechanism adapted to be driven by the wheel member, a universal support for one of said friction members, and means for tilting the member having the universal support in accordance with the indications of the instrument.

4. The combination in a measuring instrument, of integrating mechanism comprising an annular disk, a shaft, gimbals connecting the disk to the shaft, clock mechanism for driving the shaft, a friction wheel which engages the edge of the disk and extends at an angle to the plane of the disk, registering mechanism driven from the wheel, and means for tilting the disk to vary the angle between the planes of the disk and wheel.

5. The combination in a flow meter, of a disk having a universal support, means for turning it, a wheel which engages the edge of the disk, registering mechanism connected therewith, and means for tilting the disk in accordance with the flow.

[Claims 6 and 7 not printed in the Gazette.]

1,208,519. INGOT-MOLD. GEORGE A. DORNIN, Baltimore, Md. Filed May 24, 1916. Serial No. 99,605. (Cl. 22—139.)



1. An ingot mold formed with lifting lugs and a feeder formed with downwardly extending centering lugs engaging said lifting lugs.

2. An ingot mold formed with lifting lugs and a feeder formed with downwardly extending centering lugs engaging opposite sides of the lifting lugs.

3. An ingot mold formed with lifting lugs and a feeder formed with downwardly extending centering lugs having inclined sides engaging opposite sides of the lifting lugs.

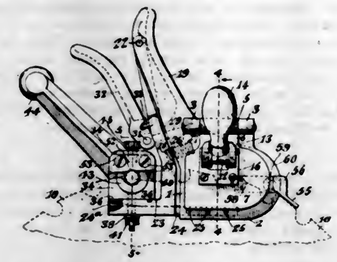
4. An ingot mold formed with lifting lugs and a feeder having downwardly extending centering lugs formed with inclined or beveled inner faces engaging the mold walls and with beveled sides engaging the lugs.

1,208,520. (WITHDRAWN.)

1,208,521. SAW-SHARPENER. CHARLES H. DOUGLAS, Springfield, Mass., assignor to Douglas Saw & Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 27, 1915. Serial No. 52,943. (Cl. 76—44.)

1. A saw sharpener provided with a tool for acting on the teeth of the saw, a carrying structure for the tool, a clamp on the carrying structure comprising a fixed and a movable jaw for engaging respectively opposite faces of the saw, and means for actuating the movable jaw, the clamp jaws having laterally extended bearing surfaces each of an area to so frictionally grip the respective faces of the saw without injury thereto as to effectively prevent slipping of the saw sharpener on the saw under conditions of use, and said carrying structure also having means under the control of an operator for moving the sharpening tool against the teeth being sharpened.

2. A saw sharpener comprising a body member with a clamping jaw hinged thereto, a locking cam for moving the hinged jaw to clamp a saw blade against the body member, a rockable tool carrier provided with means for receiving and rotating a sharpening tool, and means under the control of the hand of an operator for moving the tool against a saw tooth for sharpening the latter.



3. A saw sharpener comprising a body member with clamping means thereon for fastening the body member to a saw blade and also having a handle member projecting therefrom, a rockable tool carrier mounted on the body member and having its axis of rocking located in the handle member at the end thereof remote from the portion of the body member from which the handle member extends, and manipulating means for rocking the tool carrier associated and coacting with the handle member.

4. A saw sharpener comprising a body member with clamping means thereon for fastening the body member to a saw blade, a rockable tool carrier mounted on the body member, and manipulating means for rocking the tool carrier, the tool carrier having its axis of rocking located in the manipulating means at the end thereof remote from the tool, said manipulating means including a lever in position to be grasped by the hand, a fixed member in operative relation to the lever and adapted to be grasped by the same hand as the lever, and said lever and rockable member being related to constitute a compound lever.

5. A saw sharpener comprising a body member with clamping means thereon for securing the body member to a saw blade and said body member being provided with a hand hold projecting therefrom in a direction away from the saw to which the body member is clamped, a rockable member pivoted to the hand hold near the end thereof remote from the body member, means for the actuation of a sharpening tool carried by the rockable member, and a lever connected to and associated with the hand hole and engaging the rockable member in compound lever relation thereto.

[Claims 6 to 11 not printed in the Gazette.]

1,208,522. SCREW AND RIVET HOLDER. JOHN C. DUNCAN, Pittsburgh, Pa. Filed Apr. 24, 1916. Serial No. 93,091. (Cl. 29—89.)



1. The combination of a support, an apertured screw holder and a device for clamping a screw each movably mounted on the support, the movable holder adapted to place the supported screw either in or out of position to be clamped, the screw body extending through the holder aperture with the screw head bearing on the face of the holder disposed toward the clamp, the face of the holder distant from the clamp being accessible for operating on the screw body projecting therethrough.

2. In a work holder, the combination of a support, a holder movably mounted on the support and formed with a series of apertures, one face of the holder being accessible for operating on a screw body projecting through any one of the apertures and with the screw head bearing against the opposite face of the holder, and a clamping device adjustable in the support and with which any one of the holder apertures is adapted to be moved into alinement for clamping the headed end of the screw.

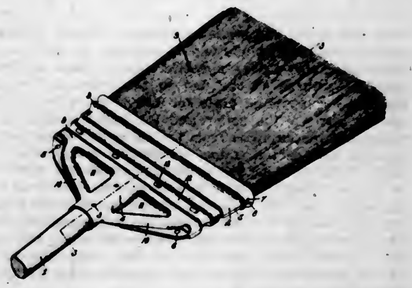
3. In a work holder, the combination of a supporting arm, a clamp device for a screw mounted thereon, an apertured holder rotatably mounted on the arm and adapted to resist pressure in direction away from the arm, the face of the holder adjacent the clamp adapted to receive a screw head in line with the clamp and the opposite face thereof accessible for operating on the screw body projecting through the holder aperture.

4. The combination of a support, a screw holder rotatably mounted thereon and formed with a concentric series of apertures, and a clamp device mounted on the support and with which each of the holder apertures is adapted to be alined for clamping a headed screw, the screw body projecting from the face of the holder distant from the clamp device and with said distant face and the projecting screw accessible for operating on the later.

5. The combination of a support, a plate-like holder rotatably mounted on the support and having a screw receiving aperture, a clamp adjustable in the support for engaging a headed screw entered in said aperture and thereby adapted to exert pressure on the rotatable holder in direction away from the support, the support having a bearing surface for that portion of the rotatable holder located diametrically opposite the portion subjected to pressure for preventing the holder from tilting when under pressure, the screw body projecting from the face of the holder distant from the clamp and accessible for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

1,208,523. BROOM. HENRY J. EDLUND, Burlington, Vt. Filed May 5, 1916. Serial No. 95,577. (Cl. 15—19.)



1. In a device of the character described, a head, a broom body having one end extending into said head, said head being formed with an annular depressed portion acting on the head for causing the same to rigidly clamp the broom body, said head overlapping the broom body to an appreciable extent so as to produce flexing of the broom body at a point distant from the place where the broom body is clamped and rivets extending through said broom body and the depressed portion of said head.

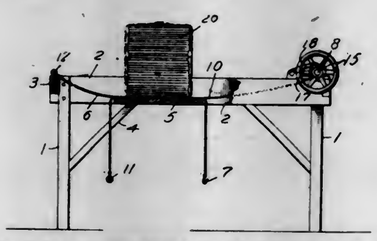
2. In a device of the character described, a broom body, a socket member therefor provided with a depressed portion or groove extending entirely threround, rivets for holding said depressed portion or groove in proper position, said rivets passing through said broom body adjacent one end and said depressed portion pinching said broom body adjacent said end, said socket member extending an appreciable distance from said depressed portion toward the free end of the broom so as to present a spaced

flared member, means extending from said socket for receiving an operating handle, and bracing members extending from said socket member and merging into the means for receiving said handle.

3. In a device of the character described, a broom body, a head for said broom body formed from a plurality of plates of sheet metal pressed out for producing a socket portion and a handle receiving portion, said handle receiving portion having a pair of bracing members and said socket receiving portion being provided with a flared section and a depressed annular section for gripping the end of said broom body.

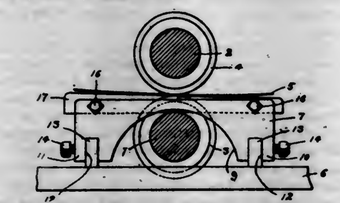
4. In a device of the character described, a broom body and a head therefor provided with a socket portion and a handle receiving portion said body being formed from a pair of plates pressed out for producing said socket portion and said handle receiving portion, rivets extending through certain parts of said plates for holding the same rigidly together, said socket portion having an annular depressed section for pinching one end of said broom body in said socket portion, means engaging said depressed section for holding the same properly in position for rigidly gripping said broom body, and a flared section arranged adjacent the outer edge of said socket portion for causing the broom body to have a gradual bend in operation.

1,208,524. SACK-BALER. ROBERT LEE EDWARDS, Asher, Okla. Filed Nov. 10, 1915. Serial No. 60,681. (Cl. 100—31.)



A sack baler, comprising a frame, a series of flexible members secured at one end to one side of the frame, a roller journaled at the opposite side, a series of flexible members secured at one end to the roller and winding thereon, a supporting plate for the sacks to be baled arranged between the roller and the opposite side of the frame and spaced apart from the roller and from the said opposite side of the frame, the flexible members of each series being of a length to extend across the plate and to depend below the plate at the opposite side from their connection and the members of the series having interengaging means for connecting the corresponding members of the series above the sacks to be baled, said plate being spaced below the level of the connection of the flexible members to lift the bale of sacks when the flexible members are tightened.

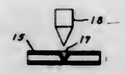
1,208,525. SAW-STRAIGHTENING DEVICE. ALBERT W. EILERS, Cloquet, Minn. Filed Mar. 20, 1916. Serial No. 85,353. (Cl. 76—27.)



1. The combination with a saw stretching machine having a pair of saw engaging rolls and a table adjacent the rolls, of an adjustable auxiliary table astride the lowermost roll and an adjustable saw gaging member carried by the auxiliary table.

2. The combination with a saw stretching machine having a pair of coöperating rollers therein, of a table surrounding the lowermost roller and below a plane with the uppermost face of said roller, channels being formed within the uppermost face of the table and upon both sides of the roller, inclined gaging members slidably carried within said channels and means for holding said gaging members in a predetermined location.

1,208,526. PIVOT AND JEWEL FOR MEASURING INSTRUMENTS. ALVARADO L. R. ELLIS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 17, 1915. Serial No. 28,542. (Cl. 29—148.)



1. The method of rounding an instrument pivot point of glass-hard steel which consists in forming a matrix of a fusible material harder than glass-hard steel by heating a mass of such material until plastic and then forcing a shaper of the same configuration as the desired rounded pivot point into the plastic mass, and pressing the pivot point to be rounded into the matrix so formed.

2. The method of rounding an instrument pivot point of glass-hard steel which consists in forming a matrix of vitreous material harder than glass-hard steel by heating a mass of such material until plastic and then forcing a shaper of the same configuration as the desired rounded pivot point into the plastic mass, and pressing the pivot point to be rounded into the mtrix so formed.

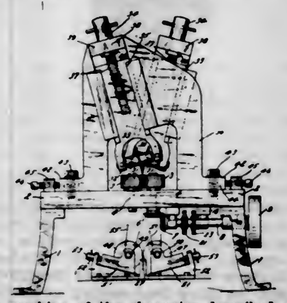
3. The method of rounding an instrument pivot point of glass-hard steel which consists in pressing the pivot point into a matrix of a material harder than glass-hard steel.

4. The method of rounding an instrument pivot point of glass-hard steel which consists in pressing the pivot point into a matrix of a vitreous material harder than glass-hard steel.

5. The method of rounding an instrument pivot point of glass-hard steel which consists in forcing the pivot point under slight pressure and accompanied with a slight rotary movement into a matrix of a material harder than glass-hard steel.

[Claims 6 to 12 not printed in the Gazette.]

1,208,527. MACHINE FOR MAKING SAW-TOOTHED METAL FASTENERS. JOSEPH J. ENGLERT, Chicago, Ill., assignor to Acme Steel Goods Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 23, 1912. Serial No. 727,277. (Cl. 10—28.)



1. In a machine of the character described, the combination of a bed, a plurality of fluted rollers upon said bed for feeding the blank to be operated upon, a pair of guideblocks between which said blank must pass, a cutter adapted to operate upon said blank, a slide which carries said cutter, a holder within which said slide is adapted to move, means for moving the slide toward or away from the bed, and a rotatable plate mounted upon the bed beneath said cutter, the blank to be operated upon being adapted to rest upon said rotatable plate.

2. In a machine of the character described, the combination of a bed, a plurality of fluted rollers upon said bed for feeding the blank to be operated upon, a pair of guideblocks between which said blank must pass, a cutter adapted to operate upon said blank, a slide which carries said cutter, a holder within which said slide is adapted to move, means for fixing the slide at a predetermined distance from the bed, and a rotatable plate mounted upon the bed beneath said cutter, the blank to be operated upon being adapted to rest upon said rotatable plate.

3. In a machine for making corrugated saw-toothed metal fasteners, the combination of guides forming a channel for holding a corrugated strip on edge with provisions for sustaining it both laterally and edgewise; means for continuously advancing the strip through said channel; and a rotary cutter angularly arranged with relation to said channel with its cutting edge in the path of travel of a part of the exposed edge of the strip and adapted to penetrate the said edge to one side of the median longitudinal line thereof cutting on a bevel toward the crowns of the corrugations on that side while the strip advances.

4. In a machine for making corrugated saw-toothed metal fasteners, the combination of guides forming a channel for holding a corrugated strip on edge with provisions for sustaining it both laterally and edgewise; means for continuously advancing the strip through said channel; a rotary cutter angularly arranged with relation to said channel with its cutting edge in the path of travel of a part of the exposed edge of the strip and adapted to penetrate the said edge to one side of the median longitudinal line thereof cutting on a bevel toward the crowns of the corrugations on that side while the strip advances; and a second such cutter similarly arranged and adapted to enter the cut made by the first cutter and to further penetrate the strip.

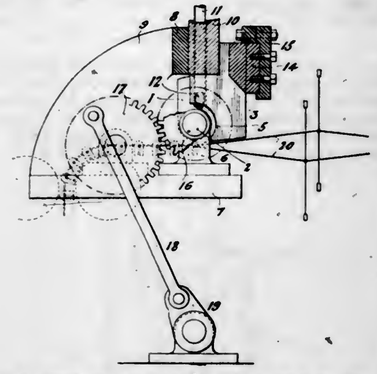
5. In a machine for making corrugated saw-toothed metal fasteners, the combination of guides forming a channel for holding a corrugated strip on edge with provisions for sustaining it both laterally and edgewise; means for continuously advancing the strip through said channel; and rotary cutters set at opposite angles to the channel with their cutting edges in the paths of travel of parts of the exposed edge of the strip on opposite sides of the median longitudinal line thereof and adapted to penetrate said edge cutting on bevels toward the crowns of the corrugations on the respective sides of the strip as the latter advances.

[Claims 6 to 19 not printed in the Gazette.]

1,208,528. LOOM FOR THE MANUFACTURE OF MATS OF COIR YARN OR OTHER COARSE MATERIALS. ERNEST JAMES ENTWISLE, East Ham, London, England. Filed Mar. 21, 1916. Serial No. 85,642. (Cl. 139—66.)

1. In looms for the manufacture of mats of coir yarn or other coarse materials; a loop-forming and delivery mechanism to form and deliver U-shaped pile loops with their free ends upward, an angularly moving member, stationary guides opposed to said member and between which guides said member can pass, said member and said guides being located above the ground warp threads, means for giving angular forward and return motions to said member to carry the U-shaped pile loops by said forward motion of said member from said forming and delivery mechanism between said guides to deliver said U-shaped pile loops with their free ends downward astride said ground warp threads, said member returning inoperatively preparatory to acting on the next set of U-shaped pile loops.

2. In looms for the manufacture of coir yarn or other coarse materials; the combination of a shaft, bearings to carry said shaft, separated fingers extending radially from said shaft, a series of separated guide plates located in front of said separated fingers said guide plates and said fingers being located above the ground warp threads, means for supporting said guide plates stationary relatively to said fingers in such relative positions that said fingers can pass between said guide plates, means for delivering already formed U-shaped pile loops with their free ends upward in front of the forward acting edges of said fingers, means for giving angular forward and return motions to said fingers to cause the forward acting edges of said fingers during said forward angular motion to contact with the upstanding arms of said U-shaped loops to carry the latter along between the faces of said guide plates to invert said loops and to deliver said loops with their free ends downward astride said ground warp threads, said fingers returning inoperatively to position preparatory to acting on the next set of U-shaped pile loops.

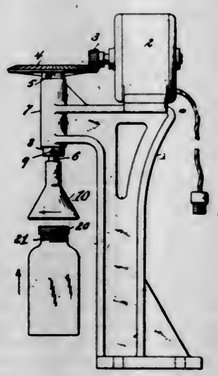


3. In looms for the manufacture of mats of coir yarn or other coarse materials; the combination of a shaft, bearings to carry said shaft, separated fingers extending radially from said shaft, a series of separated guide plates located in front of said separated fingers said guide plates and said fingers being located above the ground warp threads, means for supporting said guide plates stationary relatively to said fingers so that said fingers can pass between said guide plates, the forward edge of each alternate guide plate being at a distance from the opposed acting edges of said fingers while the forward edges of the other extended guide plates overlap the acting edges of said fingers, means for delivering already formed U-shaped pile loops with their free ends upward between the facing surfaces of the extended guide plates and in front of the forward edges of the alternate guide plates, means for giving angular forward and return motions to said fingers to cause their forward acting edges during said forward angular motion to contact with the upstanding arms of said U-shaped loops to carry the latter upon opposite sides of the alternate guide plates and between the faces of the extending guide plates to invert said loops and to deliver said loops with their free ends downward astride said ground warp threads, said fingers returning inoperatively to position preparatory to acting on the next set of U-shaped pile loops.

4. In looms for the manufacture of mats of coir yarn or other coarse materials; the combination of a shaft, bearings to carry said shaft, separated plates extending radially from said shaft to form separated fingers, a series of separated guide plates located in front of said separated fingers said guide plates and said fingers being located above the ground warp threads, means for supporting said guide plates stationary relatively to said fingers so that said fingers can pass between said guide plates, the lower parts of said guide plates facing the shaft carrying said fingers being cut away to conform

with and to clear said shaft, alternate guide plates having their edges extended to exteriorly overlap the acting edges of each pair of said fingers, intermediate guide plates having their forward edges at a distance from the opposed acting edges of said fingers when in position to receive U-shaped loops and arranged to allow said fingers to pass between said guide plates, means for delivering said already formed U-shaped pile loops with their free ends upward between the facing surfaces of the extended guide plates and in front of the edges of alternate guide plates, means for giving angular forward and return motions to said fingers to cause their forward acting edges during said forward angular motion to contact with the upstanding arms of said U-shaped loops to carry the latter upon opposite sides of the alternate guide plates and between the extending faces of the extending guide plates to invert said loops during such motion and to deliver said loops with their free ends downward astride said ground warp threads, said fingers returning inoperatively to position preparatory to acting on the next set of U-shaped pile loops.

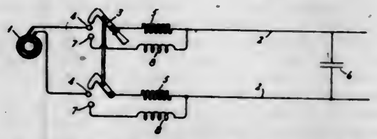
1,208,529. MACHINE FOR SECURING METALLIC SCREW-CAPS TO BOTTLES, JARS, AND THE LIKE. FRED EVANS, Summit, N. J., assignor to Automatic Weighing Machine Company, Newark, N. J., a Corporation of New York. Filed Jan. 27, 1915. Serial No. 4,620. (Cl. 226—4.)



1. In a machine for capping bottles and the like, the combination of a hollow cone-shaped rotatable cap-receiving cup designed to embrace a cap and secure it upon a bottle, a tubular extension formed on said cap-receiving cup, a spring-actuated cap-positioning element designed to bear upon the top of the cap, one end of which cap-positioning element is located in said tubular extension, and the other end of which is located in the hollow cone-shaped portion of said cup, a spiral spring located in said tubular extension, said cone-shaped cup being further provided on the inside thereof with a corrugated lining designed to bear upon and have frictional engagement with the circumferential edge of the cap to be operated upon.

2. In a machine for capping bottles and the like, the combination of a hollow cone-shaped rotatable cap-receiving cup designed to embrace a cap and secure it upon a bottle, a tubular extension formed on the upper end of said cap-receiving cup, a headed spring-actuated cap-positioning element designed to bear against the top of the cap, the headed end of said cap-positioning element being located in said tubular extension, and the other end of which is located in the hollow-cone-shaped portion of said cup, a spiral spring adapted to engage the upper surface of said headed cap-positioning element located in said tubular extension, said cone-shaped cup provided on the inside thereof with a corrugated lining of semi-moisture impervious material designed to bear upon and have frictional engagement with the circumferential edge of the cap to be operated upon and means for operating said headed cap-positioning element and hollow cone-shaped cap-receiving cup.

1,208,530. SYSTEM OF DISTRIBUTION. GIUSEPPE FACCIOLI, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 27, 1915. Serial No. 24,332. (Cl. 171—118.)



1. The combination in a system of distribution of an alternating current generator, line conductors, inductance and resistance connected to said line conductors and switching means for connecting the generator to the line conductors first through said resistance and afterward through said inductance and resistance in parallel.

2. The combination in a system of distribution of line conductors and means for preventing high frequency disturbances comprising an inductance and resistance connected to said line conductors and switching means for connecting apparatus to the line conductors first through the resistance and afterward through the inductance and resistance in parallel.

3. The method of connecting alternating current apparatus to a system of distribution which consists in first connecting it to said system through a high resistance and then through the high resistance and an inductance in parallel with each other.

1,208,531. GARMENT-BUCKLE. CHARLES FASOLDT, Grand Rapids, Mich. Filed Nov. 15, 1915. Serial No. 61,700. (Cl. 24—73.)



1. In a garment buckle, a buckle loop, side bars pivotally connected with the buckle loop and having buckle tongues integral therewith, a strap loop securely connected at each end with the side bars, and the free ends of the wire from which the strap loop is made extending toward the buckle loop and formed to produce an open button loop at the strap loop attaching end of the buckle frame.

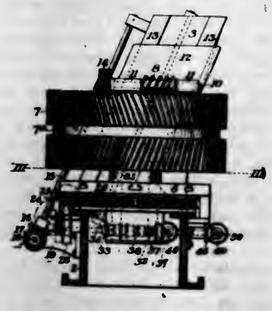
2. In combination with a garment buckle, side bars pivotally connected with the buckle loop at one end, and rigidly connected with a strap loop at the other end, the ends of the strap loop bent inward in serpentine form to form a button loop, and thence bent at right angles, extending outward, and adjustably supported by the side bars of the buckle.

3. In combination with a garment buckle, side bars pivotally connected with the buckle loop, and firmly connected with a strap loop at the lower ends, each side of the buckle frame arranged to form a hole through it laterally, wires extending relatively inward from the strap loop in serpentine form to form a button receiving loop, the ends of said wires bent at right angles and extending through the holes in the side bars of the buckle frame.

4. In a garment buckle, a frame having a buckle loop at one end and a strap loop at the other end, in combination with serpentined wires extending from the longitudinal center of the strap loop toward the buckle loop to form the spring sides of a button loop.

5. In combination with the side bars and loop of a buckle frame, the side bars having holes through them laterally, wires extending inward from the lower end of the frame in position to form the spring sides of a button loop, the ends of said wires bent outward and passed through the holes in the side bars of the frame.

1,208,532. GEAR-CUTTING MACHINE. THOMAS FAWCUS, Pittsburgh, Pa. Filed Feb. 5, 1914. Serial No. 816,710. (Cl. 90—4.)



1. In a machine for cutting double helical gears, a pair of rotary hobs mounted on separate axes and arranged to act upon a continuously revolving gear blank, and means for feeding both hobs in the same direction in a line oblique to the axis of the gear blank; substantially as described.

2. In a machine for cutting double helical gears, a pair of rotary hobs mounted on separate axes and arranged to act upon a continuously revolving gear blank, means for rotating the blank and hobs at speeds such as would be imparted if either the blank or the cutters were rotated by their engagement with each other, and means for feeding both hobs in the same direction and obliquely to the axis of the blank; substantially as described.

3. In a machine for forming double helical gears, two rotary cutters, means for feeding said cutters in the same direction and at an angle to the axis of the blank to be cut, and means for driving both cutters at substantially the same speed; substantially as described.

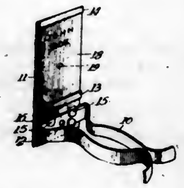
4. In a machine for forming double helical gears, two rotary cutters mounted to act simultaneously upon opposite sides of a blank, one of said cutters being arranged to cut downwardly from one end of the blank toward its center, and the other to cut from the central portion of the blank downwardly toward its lower edge, and means for feeding both cutters in the same direction and at an angle to the axis of the said blank; substantially as described.

5. In a machine for forming double helical gears, a rotary blank carrier, two tool carriers movable in the same direction but at an angle to the axis of the blank to be cut, and a cutter mounted on each carrier, said cutters being arranged to act simultaneously upon different portions of the blank; substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

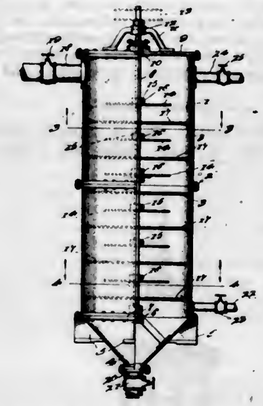
1,208,533. STAMP-HOLDER. HARRY S. FOLGER, Chicago, Ill. Filed Apr. 23, 1915. Serial No. 23,295. (Cl. 211—43.)

A plate having its upper edge bent over to form the upper lip 14 of a card holding channel and its lower portion folded over on to itself to form a flat surface of double thickness, the edge of the fold being bent to form the lower lip 13 of the card holding channel and the flat surface below said lip 13 having lugs punched from both



thicknesses of metal, and a stamp holder secured to said flat surface by said lugs.

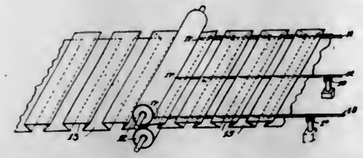
1,208,534. APPARATUS FOR BLEACHING LIQUIDS. LEE J. FORET, Lockport, La. Filed Jan. 22, 1916. Serial No. 73,659. (Cl. 127—1.)



1. An apparatus for bleaching cane and beet juice, comprising a vertically-disposed cylindrical casing provided with a series of annular ribs on the interior thereof, and a series of annular shelves loosely mounted on said ribs, the said shelves being each formed of two semi-circular segments, a vertical spindle projecting down through the center of said casing and provided with a series of circular disks secured thereto, with means for supplying the liquid to be treated to the upper part of said casing and for conveying the treated liquid from the lower part of said casing, and means for supplying a gaseous reagent to the lower part of said casing and for carrying off the waste gases from the upper part of said casing, substantially as described.

2. An apparatus for bleaching cane and beet juice comprising a vertically-disposed cylindrical casing provided with a series of annular ribs on the interior thereof, and a series of annular shelves loosely mounted on said ribs, the said shelves being each formed of two semi-circular segments, a vertical spindle projecting down through the center of said casing and provided with a series of circular disks secured to said spindle, said disks overlapping the inner edges of the annular shelves, means for rotating said spindle, means for supplying the liquid to be treated to teh upper part of said casing and for conveying the treated liquid from the lower part of said casing, and means for supplying a gaseous reagent to the lower part of said casing and for carrying off the waste gases from the upper art of said casing, substantially as described.

1,208,535. METHOD OF MAKING LATH-BOARD. SILAS M. FORD, St. Paul, Minn. Filed Nov. 12, 1915. Serial No. 61,186. (Cl. 154—2.)



1. The method of making lath-board comprising the passing of paper or other suitable material through plaiting means, passing the completed material so formed through means for pressing the lath-board to the desired thickness, and forcing the material so formed on to reinforcing wires, the wires piercing that portion of the formed material lying in planes at an angle with the completed lath-board.

2. The method of making lath-board comprising the forming of paper or other suitable material into a plaited or dove-tailed shape, and forcing the material so formed on to reinforcing wires, the wires threading through the webs of the plaited form connecting the outer two surfaces of the lath-board so formed, to reinforce and stiffen the lath-board.

1,208,536. VENTILATOR. JOHN H. GATELEY, Janesville, Wis. Filed Mar. 5, 1915. Serial No. 12,362. (Cl. 98—4.)



1. In a ventilator of the class described, the combination of a body, said body comprising a plurality of plates slanting inwardly toward their upper ends, a pair of forwardly extending flanges extending from each plate, means for securing said flanges together, whereby said plates and flanges will constitute wind chutes which are open throughout their entire length, a ring secured to the upper ends of said flanges, said ring terminating at a distance from said plates and slanting upwardly toward its inner periphery, whereby the wind from said wind chutes will be directed inwardly, and a cap carried at a distance above said body, said cap having an inverted conical body, whereby the wind striking against said bottom will be directed outwardly so as to cause a suction above said body for drawing foul or heated air from said body.

2. In a ventilator of the class described, the combination of a body, said body comprising a plurality of plates slanting inwardly toward their upper ends, a pair of forwardly extending flanges extending from each plate, means for securing said flanges together, whereby said plates and flanges will constitute wind chutes which are open throughout their entire length, a ring secured to the upper ends of said flanges, said ring terminating at a distance from said plates and slanting upwardly toward its inner periphery, whereby the wind from said wind chutes will be directed inwardly, brackets mounted upon said ring and extending thereabove, and a cap carried upon said brackets, said cap having an inverted conical bottom, said bottom overhanging said wind chutes at a distance thereabove, whereby the wind directed inwardly by said ring will strike upon said bottom and be deflected outwardly, thereby causing a suction within said body for drawing air therethrough.

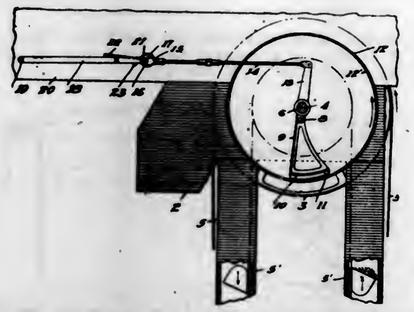
3. In a ventilator of the class described, the combination of a body, said body comprising a plurality of plates slanting inwardly toward their upper ends, a pair of forwardly extending flanges extending from each plate, means for securing said flanges together, whereby said plates and flanges will constitute wind chutes which are open throughout their entire length, a ring secured to the upper ends of said flanges, said ring terminating at a distance from said plates and slanting upwardly toward its inner periphery, whereby the wind from said wind chutes will be directed inwardly, brackets mounted upon said ring and extending thereabove, a cap carried upon said brackets, said cap having an inverted conical bottom, said bottom overhanging said wind chutes at a distance thereabove, whereby the wind directed inwardly by said ring will strike upon said bottom and be deflected outwardly, thereby causing a suction within said body for drawing air therethrough, and means for preventing the passage of weather, insects and birds beneath said bottom and into said body.

4. In a ventilator of the class described, the combination of a body, said body comprising a plurality of plates slanting inwardly toward their upper ends, a pair of forwardly extending flanges extending from each plate, means for securing said flanges together, whereby said plates and flanges will constitute wind chutes which are open throughout their entire length, a ring secured to the upper ends of said flanges, said ring terminating at a distance from said plates and slanting upwardly toward its inner periphery, whereby the wind from said wind chutes will be directed inwardly, brackets mounted upon said ring and extending thereabove, a cap carried upon said brackets, said cap having an inverted conical bottom, said bottom overhanging said wind chutes at a distance thereabove, whereby the wind directed inwardly by said ring will strike upon said bottom and be deflected outwardly, thereby causing a suction within said body for drawing air therefrom, a second metallic ring carried by said brackets contiguous to the space between said wind chutes and bottom for preventing weather from beating therebetween, and means for preventing the passage of birds or insects into said body.

5. In a ventilator of the class described, the combination of a body, said body comprising a plurality of plates slanting inwardly toward their upper ends, a pair of forwardly extending flanges extending from each plate, means for securing said flanges together, whereby said plates and flanges will constitute wind chutes which are open throughout their entire length, a ring secured to the upper ends of said flanges, said ring terminating at a distance from said plates and slanting upwardly toward its inner periphery, whereby the wind from said wind chutes will be directed inwardly, brackets mounted upon said ring and extending thereabove, a cap carried upon said brackets, said cap having an inverted conical bottom, said bottom overhanging said wind chutes at a distance thereabove, whereby the wind directed inwardly by said ring will strike upon said bottom and be deflected outwardly, thereby causing a suction within said body for drawing air therefrom, a second metallic ring carried by said brackets contiguous to the space between said wind chutes and the bottom for preventing weather from beating therebetween, means for preventing the passing of birds or insects into said body, and wire mesh secured to said bottom and ring and also to said flanges and plates, whereby insects or birds will be prevented from entering said body.

[Claims 6 to 8 not printed in the Gazette.]

1,208,537. BACK-STOP FOR ELEVATOR-HEAD PULLEYS. CHARLES GEMLO, Minneapolis, Minn., assignor to Strong-Scott Manufacturing Company, Minneapolis, Minn., a Corporation. Filed Sept. 7, 1915. Serial No. 49,195. (Cl. 74—13.)

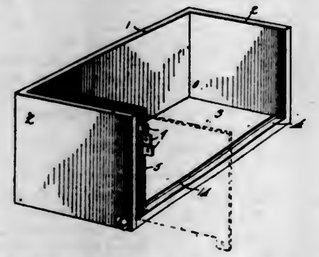


1. The combination, with a shaft, of a drive pulley and belt, a brake pulley secured on said shaft and having an internal friction surface, a hub loosely mounted on said shaft, an arm pivotally connected with said hub and normally depending in an idle position therefrom, a shoe mounted in the lower end of said arm in position to engage the friction surface of said brake pulley upon backward movement thereof, a second arm projecting from said hub, and means connected with said second arm for operating said hub to release said locking arm when it has been moved to its locking position by the backward movement of said brake pulley.

2. The combination, with a shaft, of a brake pulley secured thereon and having an internal friction surface, a hub loosely and concentrically mounted on said shaft, an arm having a pivotal connection with said hub and provided with a friction shoe for engaging said surface on the initial backward movement of said brake pulley, said arm and its pivot forming a toggle between said hub and its friction surface, the rocking of said hub shifting the pivotal connection of said hub and arm to release said shoe, and means for rocking said hub.

3. The combination, with a shaft, of a drive pulley and belt, a brake pulley secured on said shaft and having an internal friction surface, a hub loosely mounted on said shaft, an arm pivotally connected with said hub and normally depending in an idle position therefrom, a shoe mounted in the lower end of said arm in position to engage the friction surface of said brake pulley upon backward movement thereof, and means for releasing said arm and shoe from their locking position.

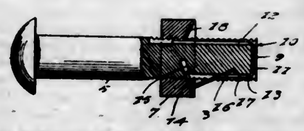
1,208,538. INTEREST-CALCULATING SYSTEM. CEPHAS GILBERT, Jasper, Fla. Filed Apr. 29, 1916. Serial No. 94,470. (Cl. 129—16.)



1. In combination with a cabinet having an open top and side and a bearing groove formed in its bottom adjacent said open side, a plurality of cards pivotally mounted therein, said cards comprising a body portion, an index tab, and a bearing projection thereon and having an aperture therein, said aperture having a metal binding.

2. A card for filing cabinets comprising a body portion, an index tab projecting from the side edge of said body portion, and a bearing formed on the corner of said body portion below said tab, said bearing comprising a rounded projection having an aperture therein.

1,208,539. NUT-LOCK. WILLIS C. GILBERT, Thunder Hawk, S. D. Filed May 5, 1916. Serial No. 95,595. (Cl. 151—9.)



1. A nut lock comprising a bolt having grooves in the side and end thereof and a recess at the inner terminal of one of the grooves, a nut fitted upon said bolt having radially extending ratchet teeth in the outer face thereof, a substantially U-shaped locking element engaged in said grooves having an angularly directed end engaging the ratchet teeth of said nut to lock the latter against rotation upon the bolt and movable inwardly into said recess to release the nut, and means to lock said locking element against longitudinal movement upon said bolt.

2. A nut lock including a bolt having grooves in the side and end thereof and recesses formed in the inner wall of one of the grooves, a nut fitted upon said bolt, radially extending ratchet teeth formed upon the outer face of said nut, a substantially U-shaped locking element engaged in said grooves having an angular end movable inwardly in one of the recesses in the bolt and adapted to engage the nut to lock the latter against rotary movement upon the bolt, and a tongue struck out from said locking element and directed toward the free end of said bolt and engaged in one of said recesses to lock the locking element against removal from the bolt.

1,208,540. LAMP. FRANCISCO LAURENT GODINEZ, Jersey City, N. J., assignor to George C. Lynch Co., New York, N. Y., a Corporation of New York. Filed Apr. 6, 1916. Serial No. 89,385. (Cl. 240—81.)



1. A lamp comprising a plurality of superposed electric lighting units, each unit having an upwardly-opening reflector and independent illuminating elements contained therein; a shade encompassing to partially conceal both of said units and to deflect the light emitted from the lowermost unit; and means for independently controlling the illuminating element of said units.

2. A lamp comprising a plurality of superposed electric lighting units, each unit having an upwardly-opening reflector, the netherposed reflector being translucent for diffusing the light of the nethorposed unit; independent

illuminating elements contained in said units; a shade encompassing to partially conceal both of said units and to deflect the light emitted from the netherposed unit; and means for independently controlling the illuminating elements of said units.

3. A lamp comprising a plurality of superposed electric lighting units, each unit having an upwardly-opening reflector, the netherposed reflector being translucent for diffusing the light of the netherposed unit; independent illuminating elements contained in said units; a shade encompassing to partially conceal both of said units and to deflect the light emitted from the netherposed unit; means for independently controlling the illuminating elements of said units; and means for varying the intensity of the illuminating element of the netherposed unit.

4. A lamp comprising a plurality of superposed electric lighting units, each unit having an upwardly opening reflector, the netherposed reflector being translucent for diffusing the light of the netherposed unit; independent illuminating elements contained in said units; a shade encompassing to partially conceal both of said units and to deflect the light emitted from the netherposed unit; means for independently controlling the illuminating elements of said units; and means for varying the intensity of the illuminating element of the netherposed unit, said means embodying an electric rheostat having a movable exposed handle.

5. A lamp comprising a plurality of superposed illuminating units, each of said units having electric illuminating elements and upwardly-opening reflectors surrounding the same, said reflectors being closed at the bottom to prevent emission of direct light thereunder; and an electric supply for said illuminating elements, embodying circuits for each of said units, each circuit being independent of the other unit, and one of said circuits embodying a rheostat for increasing the resistance in the circuit in which is incorporated the illuminating element of one unit.

[Claims 6 to 11 not printed in the Gazette.]

1,208,541. CLUTCH FOR POWER-HAMMERS OR THE LIKE. LOUIS GOLLY, Brooklyn, N. Y., assignor to James C. Campbell, New York, N. Y. Filed Mar. 1, 1915. Serial No. 11,156. (Cl. 192—1.)
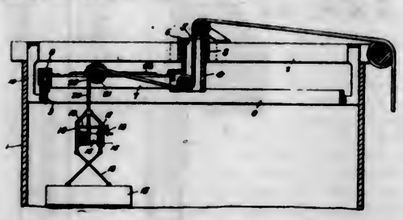


1. In a device of the kind described, a rotative driving member and a rotative driven member, clutch mechanism including locking means interposed between the parts, a holder for each of said rotating members, and coöperating parts carried by the said holders for detachably uniting them, including a lug carried by one of the holders, the said holder having also a locking pin, and including also a member carried by the other holder having a main slot and an offset recess both of which are adapted to receive the said locking pin, and the said lug being adapted to slide within said main slot.

2. In a device of the kind described, a member having a flange provided with a main slot and with two offset recesses or bays opening thereinto, another member having a locking pin adapted to coöperate with said main slot and said offset recesses, and having also a spring-pressed member adapted to slide in the main slot.

3. In a device of the kind described, a head member having a driven member rotatable therein and having an axial flange provided with a longitudinal slot and with offset recesses opening thereinto, a cylindrical member having a bore, a driving member rotatable within the bore of said cylindrical member, means for preventing retrograde movement of the latter member, a ring slidable on the outside of said cylindrical member and having a projecting lug or finger adapted to slide in the slot aforementioned, a sleeve surrounding said cylindrical member and said ring, means connecting the sleeve and ring whereby the latter is actuated, a spring for urging said ring in one direction and means for limiting the movement of said outside sleeve.

1,208,542. ENSILAGE-TAMPING MACHINE. WILLIAM M. GOODNIGHT, Montserrat, Mo. Filed Sept. 11, 1915. Serial No. 50,244. (Cl. 100—57.)



1. The combination with a silo, of ensilage tamping apparatus, embodying a central elevated support, a circular elevated track, a head journaled in said support to turn on a vertical axis, an arm extending from said head and having its outer end supported by said track and adapted to sweep through a complete circle, a tamper, a tamper operating cable, and cable guiding means on said arm and support.

2. The combination with a silo, of ensilage tamping apparatus, embodying a central elevated support, a circular elevated track, a tubular head journaled in said support to turn on a vertical axis, an arm extending from said head and having its outer end supported by said track and adapted to sweep through a complete circle, a tamper, a tamper operating cable passing through the tubular head and its support, and cable guiding means on said arm and support.

3. The combination with a silo, of ensilage tamping apparatus, embodying a central elevated support, a circular elevated track, a head journaled in said support to turn on a vertical axis, an arm extending from said head and having its outer end supported by said track and adapted to sweep through a complete circle, a tamper, a tamper operating cable, cable guiding means on said arm and support, an annular series of brackets supporting said track, and a track wheel journaled on said arm.

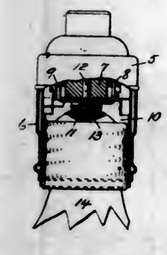
4. The combination with a silo, of ensilage tamping apparatus, embodying a central elevated support, a circular elevated track, a head journaled in said support to turn on a vertical axis, an arm extending from said head and having its outer end supported by said track and adapted to sweep through a complete circle, a tamper, a tamper operating cable, and a cable guide adjustable longitudinally of said arm.

5. The combination with a silo, of ensilage tamping apparatus, embodying a tamper, a tamper operating cable, cable guiding means, and cable controlling mechanism comprising a winding drum for said cable, an oscillatory arm for exerting a pull on the cable to raise the tamper, a crank wheel for operating said arm, means for driving said crank wheel, a ratchet face on the drum, an eccentric on the shaft of the crank wheel, and a dog actuated by said eccentric and movable into and out of engagement with said ratchet face, whereby an intermittent rotative movement of the drum is produced to gradually decrease the throw of the cable and tamper.

[Claim 6 not printed in the Gazette.]

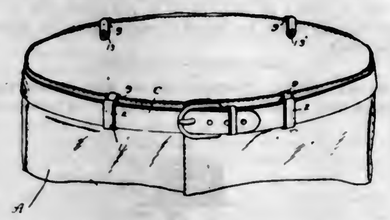
1,208,543. LAMP-GRIP. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 13, 1914. Serial No. 850,793. (Cl. 173—358.)

1. A lamp receptacle having a screw connection with the inserted plug end of a lamp, and having a center contact, means for securing the latter in position in the receptacle and a prong element independent of said center contact but held in position by said securing means and having a digging point shaped to permit the insertion of the plug end in the receptacle but entering the end of the plug to hold the latter against reverse rotation, substantially as described.



2. A lamp receptacle having a screw connection with the inserted plug end of a lamp, and having a center contact, means for securing the latter in position in the receptacle and a prong element projecting beyond and independent of said center contact but held in position by said securing means and having a digging point shaped to permit the insertion of the plug end in the receptacle but entering the end of the plug to hold the latter against reverse rotation, substantially as described.

1,208,544. BELT SLIDE-LOOP. HERMIT E. GREGG, Portland, Oreg. Filed Jan. 14, 1916. Serial No. 72,095. (Cl. 241—11.)



1. A belt slide consisting of an elongated and flexible strip of material having one end bent upon itself to provide a belt-receiving loop and having its other end extended across the free terminals of the first-mentioned end and having its longitudinal edges secured to the longitudinal edges of the first-mentioned end so as to provide a pocket, a metallic strip positioned within the pocket and having one end thereof bent and extending across the free terminal of the first-mentioned end of the flexible strip, and then bent into parallelism with the metallic strip, and extended into the loop, for the purpose specified.

2. A belt slide consisting of an elongated flexible strip of material bent upon itself to provide a loop and a pocket, located in rear of the loop; one wall of the pocket having an opening therein; a metallic strip positioned within the pocket; an attaching member having one end extending into the pocket and positioned between the metallic strip and the mentioned wall of the pocket and having an opening therein registering with the opening in the wall of the pocket; and a stud having one end extending through the opening in the said wall of the pocket and the inner end of the attaching member and having connection with the metallic strip; a head formed on the outer end of the strip; and a socket carried by the free end of the attaching member and adapted to removably receive the head on the stud, for the purpose specified.

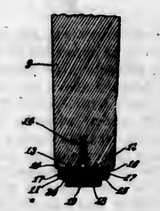
1,208,545. POLISH. JOHN GRIESHAMER, Jacksonville, Fla. Filed Oct. 13, 1916. Serial No. 125,392. (Cl. 134—7.)

1. A liquid polish including lubricating oil, linseed oil, turpentine, kerosene, neat's foot oil, glycerin and paint drier substantially in the proportions described.

2. A liquid polish including lubricating oil, linseed oil, turpentine, kerosene, neat's foot oil, glycerin, paint drier, and coloring matter substantially in the proportions described.

3. A liquid polish including lubricating oil, 30%, linseed oil 10%, turpentine 15%, kerosene 30%, neat's foot oil 5%, glycerin 5% and paint drier 5%.

1,208,546. FURNITURE-TIP. FREDERICK HACHMANN, St. Louis, Mo., assignor of one-half to Fred C. Schoenthaler, St. Louis, Mo. Filed June 25, 1915. Serial No. 36,290. (Cl. 155—33.)



1. A furniture tip comprising a cupped pressed metal base adapted for attachment to the leg of an article of furniture, a pressed metal head designed to coöperate with said base, said base and head being relatively yieldable transversely and constructed and arranged to form a flange and lug connection adapted to snap into coöperative interlocking engagement for detachably securing the head on the base and permitting ready disengagement of the head at will, and a pad removably clamped between the head and base and arranged to form the floor engaging part of said tip.

2. A furniture tip comprising a shankless, cupped pressed metal base adapted for attachment to the leg of an article of furniture by means of an extraneous fastener and having a flange, a pressed metal head yieldable relative to said base and having means constructed and arranged to snap into detachable interlocking frictional engagement with said flange for permitting ready disengagement of said head at will, and a pad removably retained by and projecting through said head to form the floor engaging part of said tip.

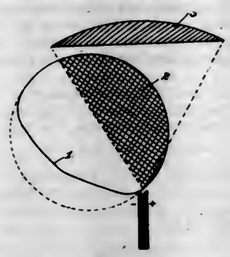
3. A furniture tip comprising a cupped pressed metal base adapted for attachment by an inserted fastener to the leg of an article of furniture, a cupped pressed metal head coacting with said base, said base and head being relatively yieldable transversely and having coöperative interengaging parts constructed and arranged to snap into interlocking engagement for detachably holding said head on said base and permitting ready disengagement of the head at will, and a pad removably retained by said head arranged to form the active surface of said tip.

1,208,547. ARC-LAMP. NICOLAAS ADOLF HALBERTSMA, Darmstadt, Germany. Filed Apr. 18, 1913. Serial No. 761,912. (Cl. 176—51.)

1. In a continuous direct current arc lamp, a projector, parallel carbons disposed within a vertical plane, the positive of said carbons being superposed in line with the optical axis of said projector and having its combustion end set back with reference to the corresponding end of the negative carbon whereby the positive crater burns substantially transverse and symmetrical relative to such optical axis.

2. In a direct current arc lamp of the character described, a projector, parallel carbons disposed within a vertical plane and in line with the optical axis of the pro-

jector, the positive of said carbons having its crater set back with respect to the crater of the negative carbon whereby it burns substantially perpendicular to the optical axis solely by reason of the initial arrangement and continued maintenance of such relationship.

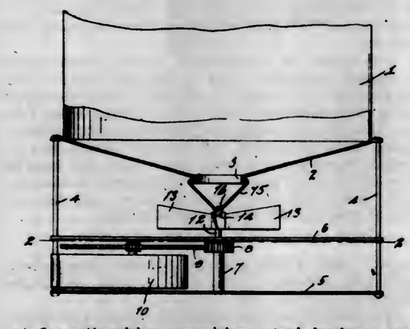


3. A direct current projecting arc lamp comprising a projector, parallel carbons extending in the direction of the optical axis of such projector, the positive of said carbons being furthermore disposed above the other and having its combustion end set back with regard to the corresponding end of the negative carbon whereby the positive crater maintains such relative location during the burning.

4. In a continuous direct current projecting arc lamp, a projector, parallel carbons arranged along the optical axis of the projector and disposed in the same vertical plane the relative sizes and intervening space being so established that the crater of the positive carbon initially becomes set back relatively to the crater of the negative carbon whereby the projection of light is symmetrical relative to such optical axis.

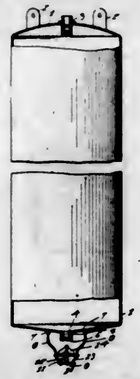
5. In a direct current arc lamp, a projector, parallel carbons arranged along the optical axis of the projector, the positive of said carbons being superposed in the same vertical plane as the negative carbon, the relative sizes and intervening space being so established that the crater of the positive carbon becomes set back to a fixed extent relatively both to the crater of the negative carbon and to said projector whereby the projection of light is symmetrical relative to such optical axis.

1,208,548. FIRE-EXTINGUISHER. PEARL M. HALLER, Bay City, Mich. Filed Apr. 8, 1916. Serial No. 89,816. (Cl. 169—21.)



A fire extinguisher comprising a tank having a central outlet opening arranged in the bottom wall, a pair of frames suspended below said tank, a spreader journaled in said frames and consisting of a plurality of spoon shaped wings, a spring motor carried by the frames and adapted to actuate the spreader, a fusible cap fitted over the outlet opening, the spreader being provided with a notch arranged centrally thereof and a depending extension on said fusible cap for engagement within the notch to hold the spreader against operation.

1,208,549. FIRE-EXTINGUISHER. PEARL M. HALLER, Bay City, Mich. Filed Apr. 21, 1916. Serial No. 92,649. (Cl. 169—14.)



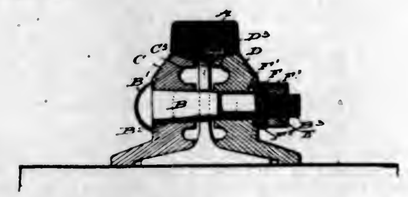
A fire extinguisher comprising a tank adapted to hold liquid under pressure, a pair of supporting ears at the upper end of the tank, the lower end of the tank being provided with an outlet opening, a neck surrounding said outlet opening, a cap of highly inflammable material for closing the lower end of the neck, hollow internally threaded bosses formed on the bottom of the tank, arms threaded into the bosses, a plate connecting the lower ends of the arms, a coöperating plate mounted intermediate the ends of the arms, a shaft journaled between the plates, a rotary deflector mounted on the upper end of the shaft and adapted to be automatically rotated by the outflowing contents of the tank and an inlet valve in the upper end of the tank through which the liquid is passed when the same is being filled.

1,208,550. BOLT. TOWNSON HAND, New Haven, Conn. Filed Nov. 19, 1915. Serial No. 62,413. (Cl. 151—15.)



A nut lock comprising a bolt, a washer mounted thereon and formed of relatively soft material, a nut also mounted on the bolt and provided with a concaved serrated face, the teeth of which embed in said washer when the nut is threaded thereagainst, another face of said nut being provided with an inclined locking surface, a second nut having a similar surface mounted upon said bolt adapted for engagement with the inclined surface of the first-named nut, said nut having outwardly converging and registering key-ways in the sides thereof, and spring keys engaging in said key-ways for locking said nuts together.

1,208,551. RAIL-JOINT. TOWNSON HAND, New Haven, Conn. Filed Dec. 8, 1915. Serial No. 65,764. (Cl. 151—19.)



1. In a device of the character described, a bolt, a nut threaded thereon, an abutment through which the bolt passes having a cam face around the bolt, and a washer disposed between the said abutment and the said nut, having an inner cam face for engagement with the cam face of the abutment, said cam faces adapted to force the washer and nut longitudinally of the bolt when the washer is turned, and having a toothed outer face for gripping the said nut.

2. A rail joint including angle bars, bolts extending through and connecting said bars, nuts threaded upon said bolts, and washers disposed between the said nuts and one of the angle bars and having means for gripping the former, said washers and said adjacent angle bars having relatively engaging means whereby to force the former longitudinally of the bolts and against the nuts to bind the latter with the bolt threads when the washers are turned.

3. A rail joint including angle bars, bolts extending through and connecting said bars, nuts threaded upon said bolts, and washers disposed between said nuts and one of the angle bars and engaged by the former, said washers and said adjacent angle bar having relatively engaging cam faces the pitch of which is greater than that of the bolt threads whereby to force the former longitudinally of the bolts and against the nuts to bind the latter with the bolt threads when the washers turn, and said washers also having their outer faces provided with nut gripping means.

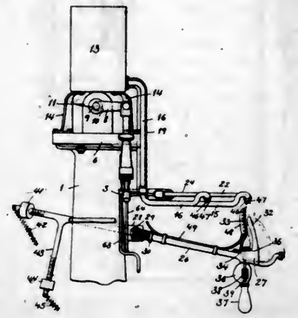
4. A rail joint including angle bars, bolts extending through and connecting said bars, nuts threaded upon said bolts, and washers disposed between said puts and one of the angle bars and having means for gripping the former, said washers and said adjacent angle bar having relatively engaging cam faces whereby to force the washers and nuts longitudinally of the bolts and into gripping relation with the bolt threads when the washers and nuts turn on the bolts away from the said angle bars.

5. In a device of the character described, a bolt, a nut threaded thereon, an abutment through which the bolt passes, and a washer disposed between the said abutment and the said nut and having means for gripping the nut, said abutment and said washer having adjacent cam faces engaging in planes substantially at right angles to the axis of the bolt, for the purpose described.

1,208,552. EDGE-SETTING MACHINE. JOHN EMERY HARRIMAN, Jr., Brookline, Mass.; Julia L. Harriman, administratrix of said John Emery Harriman, Jr., deceased, assignor to Frank B. Dole, Brookline, Mass. Filed Nov. 9, 1909, Serial No. 527,085. Renewed May 3, 1916. Serial No. 95,253. (Cl. 12—78.)

1. The combination in an edge-setting machine for boots and shoes, of gum-applying means, inking means, an edge-setting tool, and a shoe-holder mounted with capability of moving the shoe edge in a path substantially coincident with said means and tool, whereby to present it in succession to the action of said means and tool.

2. An edge-setting machine comprising means for applying a dressing to the edge of a shoe and drying such dressing, an edge-setting tool, and a shoe-holder movable in such a manner as to bring the shoe to said applying means and tool, and movable also to subject the entire extent of the sole edge to the action of said means and tool.



3. The combination in a machine for treating and setting the edges of shoe soles of instrumentalities for applying dressing, a burnishing tool, a shoe holder movable bodily to carry a shoe from proximity to the dressing-applying means to a position where it may be acted upon by said burnishing tool, and means for causing an upward pressure to be automatically exerted upon a shoe carried by said holder while the shoe is acted upon.

4. A sole edge-treating machine comprising a container for liquid dressing having an outlet, means for blowing dressing from said outlet, means for causing a stream of air to issue close to said outlet, whereby the dressing may be applied to the edge of a sole and immediately dried, a burnishing tool and a shoe holder, the latter being movable in a path from said outlet to said burnishing tool, whereby to carry a shoe from one to the other.

5. A machine of the character described comprising a base, an edge-setting tool supported by said base, means for imparting a rapid movement to said tool, a container for dressing also mounted upon said base and having an outlet, means for conducting air into proximity to said outlet and causing the air to blow the dressing therefrom, and a shoe holder also mounted upon said base and movable relatively thereto in such manner as to present the edge of a sole to the air and dressing issuing from said outlet, and also to present the sole edge to said burnishing tool.

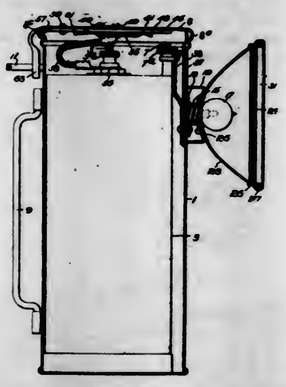
[Claims 6 to 21 not printed in the Gazette.]

1,208,553. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Feb. 18, 1915. Serial No. 8,994. (Cl. 204—53.)

1. In combination, a battery having terminals, a battery casing carrying an electrically operated mechanism and connections between said battery terminals and the mechanism including a spring member carried by said casing and in electrical connection with said mechanism, said member adapted to bear against one of the battery terminals and to exert a resilient thrust thereon in one direction and having a flanking portion engaging said terminal and resisting movement thereof in a direction transverse to that of said thrust.

2. In combination, a battery having terminals one of said terminals being of rounded form, a battery casing carrying an electrically operated mechanism and connections between said battery terminals and the mechanism including a spring member carried by said casing and in electrical connection with said mechanism said member being adapted to bear resiliently against the rounded surface of said one terminal and having laterally disposed rib

portions defining between them a groove to receive said surface.



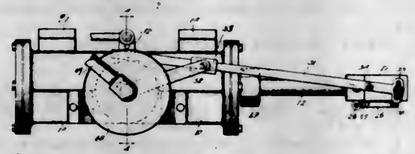
3. In combination, a battery having terminals, a battery casing carrying an electrically operated mechanism and connections between said battery terminals and the mechanism including a spring tongue of sheet metal carried by said casing and in electrical connection with said mechanism, said tongue arranged to bear resiliently against one of the battery terminals and having embossed longitudinal ribs disposed laterally and forming between them a groove presented toward said terminal to receive the same.

4. The combination of a battery having a terminal with a casing therefor, a cover for said casing, a spring clip secured to said cover and an electrical connection having eyes, one adapted to be secured to said terminal and the other adapted to be inserted over said clip.

5. The combination of a battery having a terminal with a casing, a cover for said casing and means to complete the battery circuit including a spring clip attached to the cover and a connection from said terminal to said clip having an eye adapted to be snapped over said clip.

[Claims 6 to 8 not printed in the Gazette.]

1,208,554. MECHANISM FOR OPERATING VALVE-GEAR OF LOCOMOTIVES. HENRY HELMHOLTZ and CLARENCE C. BERTRAM, Chicago, Ill. Filed Mar. 15, 1915. Serial No. 14,304. (Cl. 121—98.)



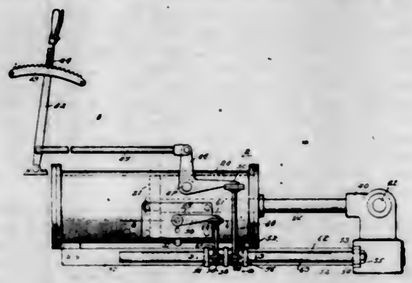
1. In combination, a working cylinder; a piston in said cylinder; a crosshead; a piston rod connected between the piston and crosshead; a valve connected with the cylinder for controlling the operation of the piston; a rod pivoted near one end to the crosshead and having a slot therein concentric with its pivotal connection; a screw passing through the slot and threaded in the crosshead for locking the rod at different angles to the crosshead; and an operative connection between the rod and the valve.

2. In combination, a working cylinder; a piston in the cylinder; a piston rod connected with the piston; a guide having rack teeth thereon; a crosshead slidably mounted on the guide and connected with the piston rod; a pinion pivotally mounted in the crosshead and meshing with the rack teeth; a friction drum connected to rotate with the pinion; a friction band cooperating with the friction drum; a cylinder; a piston in the last mentioned cylinder and connected with the friction band for moving the latter into operative connection with the friction drum; and valves connected with said cylinders for controlling the operation of said pistons.

3. In combination, a working cylinder; a piston in the cylinder; a guide having rack teeth thereon; a cross-crosshead; a pinion on said shaft and meshing with the teeth of the guide; a friction-drum on said shaft; a friction-band on said drum; a fluid-operable means connected with the band; a piston-rod connecting the piston with the cross-head; a valve connected with the cylinder and said fluid-operable means; and a connection connecting the cross-head with the valve.

4. In combination, a working cylinder; a piston in the cylinder; a guide having rack teeth thereon; a cross-head mounted on the guide; a piston rod connecting the piston with the crosshead; a shaft journaled in the cross-head; a pinion on the shaft meshing with the rack teeth; a friction drum on the shaft; a friction band around the drum; a compressed fluid supply; valves connected with the fluid supply and the cylinder for controlling the supply of fluid to the cylinder; a cylinder connected with the valves; a piston in the second mentioned cylinder; a piston rod connecting the second mentioned piston with the brake band; and a spring pressing on the second mentioned piston normally holding the brake band out of operative engagement with the brake drum and adapted to yield when fluid is fed into the second mentioned cylinder for moving the brake band into operative engagement with the drum.

1,208,555. LOCOMOTIVE REVERSING-GEAR. HENRY HELMHOLTZ and CLARENCE C. BERTRAM, Chicago, Ill. Filed Mar. 2, 1916. Serial No. 81,576. (Cl. 121—98.)



1. In combination, a working cylinder having fluid passages communicating therewith; a valve for controlling communications through the fluid passages; a piston in the cylinder; a crosshead connected to move with the piston; a shaft having one end journaled in the crosshead and grooves therein; a throttle means; a connection between the throttle means and one of the grooves in the shaft; and a connection between the other groove in the shaft and said valve.

2. In combination, a working cylinder having fluid passages communicating therewith; a valve for controlling communications through the fluid passages; a piston in the cylinder; a head connected to move with the piston; a shaft having one end journaled in the crosshead and grooves therein disposed angularly to each other in a generally longitudinal direction of the shaft; a throttle means; collars on the shaft, each collar having a portion extending into one of the grooves of the shaft; a connection between the valve and one of said collars; and a connection between the other collar and the throttle means.

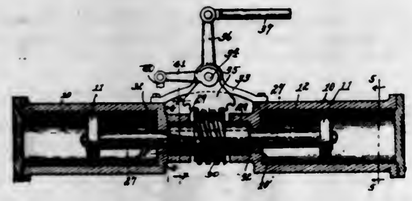
3. In combination, a working cylinder having fluid passages communicating therewith; a valve for controlling communications through the fluid passages; a piston in the cylinder; a shaft connected with the piston and having grooves therein disposed angularly to each other and in a generally longitudinal direction of the shaft; a throttle means; fixed bearings; collars mounted on the shaft and journaled in said bearings, each collar having a portion extending into one of the grooves of the shaft; and operative connections connecting the collars with the valve and throttle means.

4. In combination, a working cylinder having fluid passages communicating therewith; a valve for controlling communications through the fluid passages; a piston in the cylinder; a shaft having its axis substantially parallel with the axis of the cylinder and connected with the piston to be moved by the latter; a throttle means; a connection between the throttle means and the shaft; and a connection between the valve and the shaft, said throttle means being adapted to operate through said connections, rotate the shaft, and open the valve, and the piston being adapted to move the shaft with respect to said connections and close the valve.

5. In combination, a working cylinder having fluid passages communicating therewith; a valve for controlling communications through the fluid passages; a piston in the cylinder; a shaft having its axis substantially parallel with the axis of the cylinder and connected with the piston to be moved by the latter, there being converging grooves in said shaft; a throttle means; and a connection between the throttle means and valve including the shaft, whereby movement of the throttle means opens the valve and movement of the piston operating through the shaft and other portions of said connection closes the valve.

[Claims 6 to 9 not printed in the Gazette.]

1,208,556. LOCOMOTIVE REVERSING-GEAR MECHANISM. HENRY HELMHOLTZ and CLARENCE C. BERTRAM, Chicago, Ill. Filed Apr. 7, 1916. Serial No. 89,525. (Cl. 121—98.)



1. A valve gear operating mechanism comprising a longitudinally movable rod having a spiral groove therein; means for moving the rod; a worm journaled around said rod with its axis substantially concentric with the axis of the rod; a feather secured to the worm and slidably mounted in the groove, a worm wheel meshing with the worm; and a valve gear connecting link operatively connected with the worm wheel.

2. A valve gear operating mechanism comprising a longitudinally slidable rod; a worm; a connection between the rod and the worm for transmitting movement kinematically from the rod to the worm; a worm gear meshing with the worm; a lever connected with the worm gear; and a valve gear connecting rod connected with the lever.

3. A valve gear operating mechanism comprising a cylinder; a piston in the cylinder; a piston rod connected with the piston, extending from the cylinder and having a spiral groove therein; an oscillatory lever; a worm rotatably mounted about the piston rod; a feather on the worm and slidably mounted in said groove; a worm gear meshing with the worm and connected with the oscillatory lever; a valve connected with the cylinder for controlling the operation of said piston; and a connection between said worm gear and said valve adapted to close the latter.

4. A valve gear operating mechanism comprising two alining cylinders; a piston in each cylinder; a piston rod connecting the pistons and having a spiral groove therein; a worm gear journaled about the piston rod substantially coaxial therewith; a connection between the piston rod and said spiral gear causing longitudinal movement of the piston rod to rotate the worm; a worm gear meshing with the worm; and a connecting rod connected with the worm gear adapted to be operated thereby.

5. A valve gear operating mechanism comprising a cylinder; a piston in the cylinder; a piston rod connected with the piston and having a spiral groove therein; a worm having a splined connection with said spiral groove; a worm gear meshing with the worm; a valve gear connecting rod connected with the worm gear; a valve chest connected with the cylinder; two valves in the valve chest; a manually operable means connected with one of the valves for moving the latter to establish communication between the valve chest and cylinder; and a connection between the worm gear and the other valve for moving the latter to cut off communication between the valve chest and cylinder.

[Claims 6 to 9 not printed in the Gazette.]

1,208,557. MACHINE FOR AUTOMATICALLY MANIPULATING THE CORE-POLES OF MOLDING-MACHINES. CHARLES F. HENNING, Chicago, Ill., assignor to The United States Gypsum Company, Chicago, Ill., a Corporation of New Jersey. Filed Nov. 14, 1914. Serial No. 872,139. (Cl. 25—99.)



1. In a machine for automatically manipulating the core poles of a continuously operable molding machine, the combination with a plurality of movable molds having removable cores of means moving in synchronism with said molds, and means carried thereby and adapted to automatically withdraw said cores from said molds and to support said cores when disengaged from said molds.

2. In a machine for automatically manipulating the core poles of a continuously operable molding machine, the combination with a plurality of molds having removable cores of means comprising a plurality of elements connected to form a conveyer, means for moving said elements in synchronism with said molds, and means carried by said elements adapted to automatically withdraw said cores from said molds and to support said cores when disengaged from said molds.

3. In a machine for automatically manipulating the core poles of a continuously operable molding machine, the combination with a plurality of movable molds having removable cores of means comprising a plurality of elements connected to form an endless conveyer, means for moving said elements in synchronism with said molds, means carried by said elements adapted to engage the cores in said molds and to support said cores when disengaged from said molds, and means cooperating with said supporting means to rigidly hold said core poles.

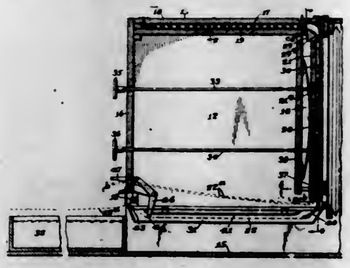
4. In a machine for automatically manipulating the core poles of a continuously operable molding machine, the combination with a plurality of movable molds having removable cores of means comprising a plurality of elements connected to form an endless conveyer, means for moving said elements in synchronism with said molds, means carried by said elements adapted to engage the cores in said molds and to support said cores when disengaged from said molds, and means for moving said supporting means toward and from said molding machine whereby said cores are withdrawn from and inserted in said molds.

5. In a machine for automatically manipulating the core poles of a continuously operable molding machine,

the combination with a plurality of movable molds having removable cores of means comprising a plurality of elements connected to form an endless conveyer, means for moving said elements in synchronism with said molds, means carried by said elements adapted to engage the cores in said molds and to support said cores when disengaged from said molds, means coöperating with said supporting means to rigidly hold said cores, and means for moving said supporting and coöperating means toward and from said molding machine whereby said cores are withdrawn from and inserted in said molds.

[Claims 6 to 25 not printed in the Gazette.]

1,208,558. MAGAZINE FILM-HOLDER FOR CAMERAS. LODEWYK J. R. HOLST, Philadelphia, Pa., assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 21, 1915. Serial No. 46,648. (Cl. 95—22.)

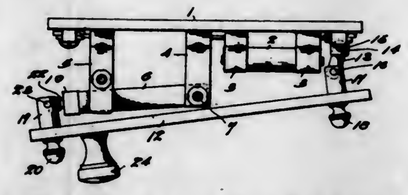


1. A camera having a glass plate located in its focal plane and a light proof chamber located in the rear thereof, said chamber having a supporting strip with a spring plate located in the rear of said glass plate, a pressure board supported by said strip and spring plate, longitudinal rods extending rearwardly from said pressure board through the back wall of said chamber, whereby said pressure board may be retracted, a film pack mounted in said chamber and containing a series of cut films, each of said films being provided with a manipulating tab, extending to the exterior of said chamber, whereby it may be withdrawn from said film pack into a position between said pressure board and said glass plate for exposure and then withdrawn from said exposure position.

2. A camera having a glass plate located in its focal plane and a light proof chamber located in the rear thereof, said chamber having a supporting strip with a spring plate located in the rear of said glass plate, a pressure board supported by said strip and spring plate, a pusher located in one part of said strip and projecting through said pressure board, longitudinal rods extending rearwardly from said pressure board through the back wall of said chamber, whereby said pressure board may be retracted, a film pack mounted in said chamber and containing a series of cut films, each of said films being provided with a manipulating tab, extending it to the exterior of said chamber, whereby it may be withdrawn from said film pack into a position between said pressure board and said glass plate for exposure and then withdrawn aided by said pusher from said exposure position.

3. A camera having a glass plate located in its focal plane and a light proof chamber located in the rear thereof, said chamber having a supporting strip with a spring plate located in the rear of said glass plate, a pressure board supported by said strip and spring plate, a pusher located in one part of said strip and projecting through said pressure board, a guide connected with said pressure board, longitudinal rods extending rearwardly from said pressure board through the back wall of said chamber, whereby said pressure board may be retracted, a film pack mounted in said chamber and containing a series of cut films, each of said films being provided with a manipulating tab, extending to the exterior of said chamber, whereby it may be withdrawn from said film pack into a position between said pressure board and said glass plate for exposure and then withdrawn from said exposure position aided by said pusher and guide.

1,208,559. GUARD FOR ELECTRIC SWITCHES. FREDERICK WILLIAM HORN, Lester, Pa. Filed Apr. 22, 1916. Serial No. 92,882. (Cl. 175—282.)

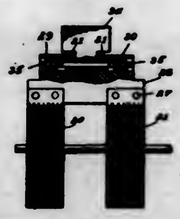


1. The combination in a knife switch including the panel board and a plurality of knife blades forming part of the switch, of a guard plate covering the switches, a double hinge joint between said guard plate and panel board, and a hinge joint between the pivoted knife blades and the guard plate.

2. The combination in a safety device for knife switches, comprising a panel board and knife supporting brackets, a plurality of knife blades pivoted in the brackets, an insulated knife bar attached to the blades, a guard plate pivoted to the bar, and a hinge joint between the guard plate and the panel board.

3. The combination with the pivoted blade of a knife switch, of a guard plate pivotally connected to the blade, a panel board supporting the switch, and a hinge joint between the panel board and the guard plate.

1,208,560. AUTOMATIC TRAIN CONTROL. CLARENCE L. HOWARD, Ottawa, Kans. Filed Aug. 31, 1915. Serial No. 48,309. (Cl. 246—59.)



1. In an automatic train stop, a track obstacle comprising a support, a pair of horizontally spaced rack bars vertically movable in said support, a plate rigidly connecting said bars together, means for giving rectilinear motion to said bars, and a T-shaped member pivotally connected to said plate.

2. In an automatic train stop, a track obstacle comprising a support, a pair of rack bars slidably mounted therein, a plate for holding said rack bars in position, and a T-shaped member pivotally connected to the upper end of said rack bars.

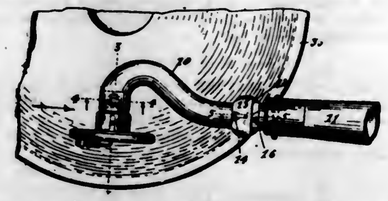
3. In an automatic train stop, a track obstacle comprising a support, a shaft journaled therein, a pair of spaced gears secured to said shaft, means coöperating with said gears for converting the rotary motion of the latter into rectilinear motion, and a T-shaped member pivotally connected to said means.

4. In an automatic train stop, a track obstacle comprising a support, a pair of rack bars movable vertically therein, gear mechanism for sliding said rack bars, a T-shaped member pivotally connected to said rack bars, and springs carried by the rack bars and normally holding said member in a vertical position.

5. In an automatic train stop, a track obstacle comprising a support, a pair of spaced rack bars arranged for vertical slidable movement in said support, means for giving movement to said rack bars, a plate connecting the upper end of said bars together, lugs secured to said plate, a shaft journaled in said lugs, a T-shaped member secured to said shaft, and springs for normally holding said T-shaped member in vertical position.

[Claim 6 not printed in the Gazette.]

1,208,561. SOUND-BOX ATTACHMENT FOR PHONOGRAPHS. STEPHEN E. HUFF, Los Angeles, Cal. Filed Sept. 14, 1914. Serial No. 861,497. (Cl. 274—24.)



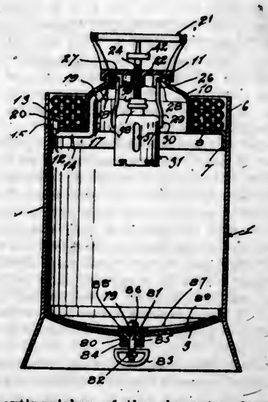
1. A sound box mounting for phonographs, comprising the combination of a tubular elbow union having means for connecting it to a tone arm, an adapter revolubly mounted in said union having at one end a tubular portion adapted to be connected to the nipple of a sound box and at the other end a circumferentially extending groove formed with recesses, and a spring pressed plunger carried by said union arranged to extend into said groove to hold the adapter against disconnection from the union and adapted to extend into the recesses in said groove to lock the coupling against free movement.

2. A sound box mounting for phonographs, comprising the combination of a tubular elbow union having means for connecting it to a tone arm, an adapter revolubly mounted in said union having at one end a tubular portion adapted to be connected to the nipple of a sound box and at the other end a groove extending partially around the circumference thereof formed with recesses at the terminations of said groove, a spring pressed plunger carried by the union adapted to extend into said groove to hold said adapter against disconnection from the union, and adapted to extend into the recesses at the ends of the groove to lock the coupling against free movement, said plunger arranged to permit movement of said union in either direction.

1,208,562. FIRE-EXTINGUISHER. RAYMOND N. A. ICKES, Altoona, Pa. Filed July 28, 1915. Serial No. 42,337. (Cl. 169—7.)

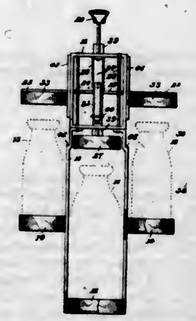
1. A fire extinguisher of the character described comprising a cylindrical body forming a liquid receiving chamber, a cover having a dome-shaped portion secured at one end of the body and a flange on the cover, said flange being spaced downwardly from the upper edge of the body to form an annular trough for the reception of a hose, a cap removably secured to the highest point of the dome, a pipe leading from the highest point of the dome out through the flange and being connected to the hose, a liquid container carried by the cap, and means to control the passage of liquid from the container into the chamber.

2. A fire extinguisher comprising a shell, a bottom for said shell, a top for the shell, said top being spaced downwardly upon the upper edge of the shell, a dome-shaped portion centrally of the top, said dome-shaped portion cooperating with the part of the shell projecting above the top in forming an annular trough, a hose adapted to lie in said trough, a pipe leading from the interior of the extinguisher to the hose, the dome-shaped portion being provided with a central filling opening, a cap for closing said filling opening an acid container supported by the cap, means to control the flow of acid from the container, a bottom for the shell, said bottom being provided with a central opening, a shaft rotatably mounted in the opening, a handle on the outer end of the shaft, and an agitator on the inner end of the shaft whereby when the handle is turned the agitator will stir the contents of the shell to prevent crystallization and precipitation of the constituents of said contents to keep the same at its maximum strength.



3. A fire extinguisher of the character described comprising a cylindrical body forming a liquid-receiving chamber in which the contents will be agitated so as to keep them at their maximum strength, a cover secured to the upper end of the body having a dome-shape portion and a flange on the dome shaped portion, said flange being spaced downwardly from the upper edge of the body to form an annular trough for the reception of a hose that may vary in length, a removable cap secured at the highest point of the dome, said cap carrying a valve and stem which enables the user to control the flow of liquid so as to turn it off and on when desired, said cap allowing the mixing of the chemicals contained within and also allowing the agitation of said chemicals without mixing, a pipe leading from the highest point of the dome out through the flange and being connected to the hose, a scraper situated on the interior of the bottom of the extinguisher which will cause the crystallized substances to be freed from the bottom of the extinguisher, and a liquid container having a removable cap at the top which will allow the chemicals to mix when opened.

1,208,563. THEFT-PREVENTING DEVICE. ANTONI IWANICKI, New York, N. Y. Filed Feb. 19, 1916. Serial No. 79,323. (Cl. 232—41.)



1. A device of the class described comprising a frame, a cup at the bottom thereof, side cups intermediately positioned and carried by the said frame, a casing at the top

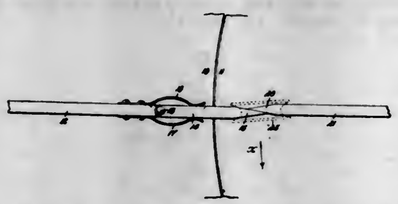
of the said frame having opposite slots therein, a locking door for the said casing, a cross head having a rectangular central portion shiftably mounted within the said casing and having opposite arms projecting through the said slots, guide bars for the said rectangular portion, an operating rod vertically shiftable centrally through the said casing and secured to the said cross head intermediate its length, coöperating caps for the said cups and positioned in axial alinement therewith upon the said rod and arms, a retractile spring connected between the said cross head and the top of the casing, a bracket within the said casing, a releasable spring locking latch carried by the said bracket and positioned within the locking path of movement of the said cross head, and cover plates for the said casing slots carried by the arms.

2. A device of the class described comprising a frame, cups carried thereby, a casing positioned at the upper end of said frame, a cross head vertically slidable within said casing and including side legs projecting from the casing, cups carried by the cross head and side legs in vertical alinement with the aforesaid cups, a spring within the casing connected at one end to the upper end of the casing and at its other end to the cross head normally to hold the cross head elevated, a spring catch arranged within said casing and in the path of descending movement of the cross head to engage the cross head when lowered to hold the same in locked position, and means for releasing the spring catch.

3. A device of the class described comprising a frame, supports carried thereby, a casing carried by the upper end of the frame and having opposite openings therein, a cross head vertically slidable within the casing and extending through said openings, means carried by said cross head and associated with said casing openings to provide constant closures therefor, means for normally holding the cross head elevated, and locking means associated with the cross head for holding the same in lowered locked position.

4. A device of the class described comprising a frame, supports carried thereby, a casing carried by the upper end of the frame and having oppositely disposed openings therein, a cross head vertically slidably within said casing and extending through said openings, coöperative means carried by the cross head and frame to provide constant closures for said casing openings and to limit the lowering movement of the cross head, means for normally holding the cross head elevated, and locking means for holding the cross head in lowered position.

1,208,564. CONTINUOUS TROLLEY CONNECTIONS FOR BRIDGES. THOMAS JENKINS, New York, N. Y., assignor of one-half to John Milo, New York, N. Y. Filed Apr. 8, 1916. Serial No. 89,803. (Cl. 191—9.)

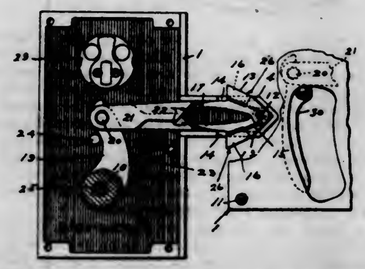


1. A continuous trolley connection for draw-bridges, comprising a land conductor, a bridge conductor, a tongue vertically pivoted on the end of one of said conductors and adapted to engage in over-lapping horizontal relation the adjacent end of the other conductor, and resilient means for normally holding the said tongue in alinement with the conductor on which it is vertically pivoted and permit its deflection by the other conductor.

2. A continuous trolley connection for draw-bridges comprising a land conductor, a bridge conductor terminating short of the end of the bridge, a tongue vertically pivoted to one end of the land conductor, and adapted to engage in overlapping horizontal relation the adjacent end of the bridge conductor, and resilient means for normally holding said tongue in alinement with the conductor to which it is vertically pivoted, and permit its deflection by the other conductor.

3. A continuous trolley connection for bridges, comprising a land conductor terminating short of the bridge, a bridge conductor having a wedge-shaped end and terminating short of the end of the bridge, a tongue pivoted on the end of the said land conductor on a vertical pivot and having a wedge-shaped end adapted to project over the bridge and engage the wedge-shaped end of the said bridge conductor, and springs attached to the land conductor and engaging the sides of the said tongue to normally hold the latter in alinement with the land conductor and to allow the tongue to be deflected by the bridge conductor on opening or closing the bridge.

1,208,565. SLIDING-DOOR LOCK. EDWIN A. JOHNSON, Minneapolis, Minn., assignor of one-fourth to Joseph E. Berry, one-fourth to George E. Johnson, and one-fourth to Oliver Laselle, Minneapolis, Minn. Filed Feb. 16, 1916. Serial No. 78,610. (Cl. 70—31.)



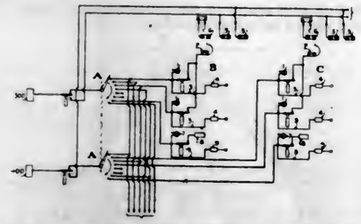
1. A sliding door lock comprising a casing having an extension, a lock dog pivotally mounted in said extension and engageable with the detent of a lock plate, a normally retracted releasing plunger mounted in said casing and guided by the extension thereof, and means for projecting said releasing plunger for releasing the lock dog from the detent of the lock plate.

2. A sliding door lock comprising a casing having an extension, a pair of independently movable lock dogs pivotally mounted in said extension and engageable with the detents of a lock plate, a spring normally holding said lock dogs in an operative position, a normally retracted releasing plunger mounted in said casing and guided by the extension thereof, and means for projecting said releasing plunger for releasing the lock dogs from the detents of the lock plate.

3. A sliding door lock comprising a casing having an extension, a pair of independently movable lock dogs pivotally mounted in said casing and engageable with the detents of a lock plate, said lock dogs having laterally offset tail-like extensions, a spring normally holding said lock dogs in operative positions, a normally retracted releasing plunger mounted in the casing and having laterally offset cam surfaces, and means for projecting said releasing plunger for carrying its cam surfaces into engagement with the tail-like extensions of the lock dogs to release the same from the detents of the lock plate.

1,208,566. TELEPHONY. MORTON L. JOHNSON, Chicago, Ill., assignor, by mesne assignments, to Frank B. Cook Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 4, 1912. Serial No. 734,866. Renewed May 10, 1916. Serial No. 96,717. (Cl. 179—27.)

1. A telephone exchange system including telephone lines extending from substations to an exchange; link connectors controlled at an operator's position for effecting connection between telephone lines; an additional link connector controlled at the aforesaid position for effecting connection between telephone lines; and speech recording and reproducing mechanism adapted to be associated with calling lines by equipment of said additional link connector and operable by telephonic current impressed at a calling station upon the calling telephone line to record the calling subscriber's speech and operable to convey the recorded speech to the operator at said position.



2. A telephone exchange system including telephone lines extending from substations to an exchange; link connectors controlled at an operator's position for effecting connection between telephone lines; speech recording and reproducing mechanism; and a connector having equipment for associating this mechanism with a calling line, said mechanism being operable by telephonic current impressed at a calling station upon the calling telephone line to record the calling subscriber's speech and operable to convey the recorded speech to the operator at said position.

3. A telephone exchange system including telephone lines extending from substations to an exchange; link connectors controlled at an operator's position for effecting connection between telephone lines; automatically operating switching mechanism for connecting these link connectors with calling line; and speech recording and reproducing mechanism adapted to be associated with calling lines by said additional link connector and operable by telephonic current impressed at a calling station upon the calling telephone line to record the calling subscriber's speech and operable to convey the recorded speech to the operator at said position.

4. A telephone exchange system including telephone lines extending from substations to an exchange; link connectors controlled at an operator's position for effecting connection between telephone lines; speech recording and reproducing mechanism; a connector having equipment for associating this mechanism with a calling line, said mechanism being operable by telephonic current impressed at a calling station upon the calling telephone line to record the calling subscriber's speech and operable to convey the recorded speech to the operator at said position; and automatically operating switching mechanism for connecting said connectors with calling lines.

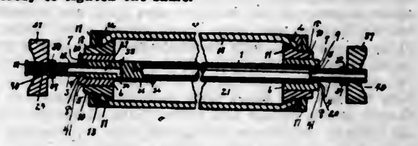
5. A telephone exchange system including telephone lines extending from substations to an exchange where operators' responsive devices are located; link connectors controlled at an operator's position for effecting connection between telephone lines; operator responsive device selector switches for associating operator responsive devices free for selection with calling lines throughout the normal range of operation of such selector switches; and recording devices adapted to be associated with calling lines by selector switches when operated beyond their normal ranges of operation.

[Claims 6 to 11 not printed in the Gazette.]

1,208,567. ROLLER. JAMES S. JOHNSTON, Utica, N. Y. Filed Mar. 20, 1914. Serial No. 826,096. (Cl. 197—147.)

1. In a roller, a platen, compressed air for giving said platen resiliency, means for forcing air into said roller and mechanical means for drawing said platen in a longitudinal direction, whereby to tighten the same.

2. In a roller, a platen, a chamber in said roller, means for holding air under pressure within said chamber, means for increasing said pressure to any desired degree and sleeves for drawing said platen in a longitudinal direction, whereby to tighten the same.

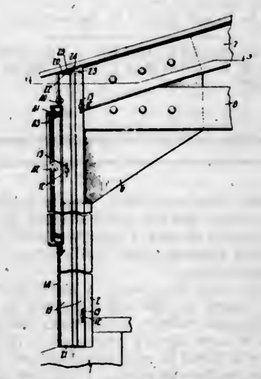


3. In a roller, a platen, washers having beveled surfaces for securing the ends of said platen in assembled position, compressed air for holding the surface of said platen in yielding position, means for keeping said compressed air in normal condition and sleeves for drawing said platen in a longitudinal direction, whereby to tighten the same.

4. In a roller, a platen, a chamber in said roller, means for holding air under pressure within said chamber, a pump for keeping said pressure up to normal pressure and sleeves provided with nut heads for drawing said platen in a longitudinal direction, whereby to tighten the same.

5. In a roller, a platen, a sleeve and a washer for holding each end of said platen in assembled position, a second sleeve for tightening said platen, a chamber within said roller, and means for forcing air into said chamber, whereby to form a pneumatic cushion for said platen.

1,208,568. BUILDING CONSTRUCTION. THOMAS HENRY KANE, Youngstown, Ohio, assignor to Trussed Concrete Steel Company, Detroit, Mich., a Corporation of Michigan. Filed July 31, 1915. Serial No. 42,872. (Cl. 189—2.)



1. A metal building construction comprising in combination a pair of spaced columns each having a thin web and a flange projecting from the side thereof, a sheet metal panel extending across between the columns, said panel having flanges at its side bent in from the body thereof, each of said flanges being grooved to receive and conform to the flange on the corresponding column, and means for detachably securing the grooved flanges to the column.

2. A metal building construction comprising in combination a pair of spaced columns each having a thin web and a flange projecting from the side thereof, said webs being perforated on opposite sides of the flanges, a sheet metal panel extending across between the columns, said panel having flanges at its side bent in from the body thereof, each of said flanges being grooved to receive and conform to the flange on the corresponding column, and being perforated on opposite sides of the grooves to correspond to the perforations in the webs of the columns, and means passing through the perforations in the webs and in the

flanges of the panel for detachably securing the latter in position.

3. A metal building construction comprising in combination a column having a flange projecting therefrom, a gusset plate supported on the upper end of the column, a frame member secured to the gusset plate and extending outwardly from the latter, said gusset plate having a flange in alinement with the flange on the column, a sheet metal panel extending laterally from the column and gusset plate, and having a flange at its side bent in from the body thereof, said flange being grooved to conform to the flanges on the column and gusset plate, and means passing through the column and gusset plate for securing the grooved flange of the panel to the column.

4. A metal building construction comprising in combination a column having a flange projecting therefrom, a gusset plate supported on the upper end of the column, a frame member secured to the gusset plate and extending outwardly from the latter, said gusset plate having a flange in alinement with the flange on the column, a sheet metal panel extending laterally from the column and gusset plate, and having a flange at its side bent in from the body thereof, said flange being grooved to conform to the flanges on the column and gusset plate, and means passing through the column and gusset plate on each side of the flanges for securing the grooved flange of the panel to the column and for forming a tight weatherproof joint between the parts.

5. A metal building construction comprising in combination a pair of spaced columns each having a thin web and a flange projecting from the side thereof, a sill upon which the columns rest, a sheet metal panel extending across between the columns, said panel having flanges at its side bent in from the body thereof, each of said flanges being grooved to receive and conform to the flange on the corresponding column, wedge bolts for securing the grooved flanges to the columns on opposite sides of the flanges on the latter, said panel being bent inwardly at its lower side to conform to the upper surface of the sill.

[Claims 6 to 16 not printed in the Gazette.]

1,208,569. PARALLEL-RULER. KENKICHI KIMURA, New York, N. Y. Filed May 1, 1916. Serial No. 94,820. (Cl. 33—109.)



1. A parallel ruler comprising, a main roller, extended side bearing pieces for the same adapted to be rotated around the journals thereof, a secondary roller also having bearings in said bearing pieces, and a straight edge fixed to said secondary roller.

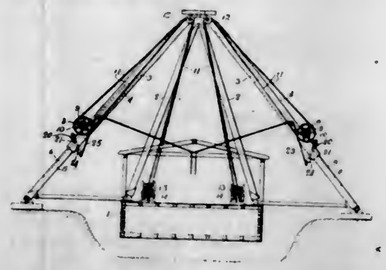
2. A parallel ruler comprising, a main roller, extended side bearing pieces for the same adapted to be rotated around the journals thereof, a secondary roller also having bearings in said bearing pieces, and a straight edge firmly fitted into a slot in said secondary roller.

3. A parallel ruler comprising, a main roller, extended side bearing pieces for the same adapted to be rotated around the journals thereof, a secondary roller also having bearings in said bearing pieces, a straight edge fixed to said secondary roller, and means for preventing rotation of said secondary roller in its bearings at will.

4. A parallel ruler comprising, a main roller, extended side bearing pieces for the same adapted to be rotated around the journals thereof, a secondary roller also having bearings in said bearing pieces, a straight edge fixed to said secondary roller, and nuts screwing onto the journals of said secondary roller and adapted to be tightened so as to prevent rotation of said roller.

1,208,570. SPUD-OPERATING MECHANISM. CHARLES B. KING and HARVEY T. GRACELY, Marion, Ohio, assignors to The Marion Steam Shovel Company, Marion, Ohio, a Corporation of Ohio. Filed Jan. 2, 1912. Serial No. 668,855. (Cl. 37—18.)

1. An excavating machine comprising a platform, a frame extending above said platform, a spud comprising two overlapping members, the upper end of one of said members being connected at its upper end with said frame and held against lengthwise movement, and the lower member of said spud being slidably mounted on said upper member, two drums mounted on said upper member, near the lower end thereof and connected one to the other, a connection between said drums and the slidable member of said spud to cause said slidable member to be moved by the rotation of said drums, cables wound in opposite directions about the respective drums, and means mounted on said platform for actuating said cables to rotate said drums in either direction.



2. An excavating machine comprising a platform, a frame extending above said platform, a spud comprising two overlapping members, the upper end of one of said members being pivotally connected at its upper end to said frame and held against lengthwise movement, and the lower member of said spud being slidably mounted on said upper member, two drums mounted on said upper member, near the lower end thereof and connected one to the other, a connection between said drums and the slidable member of said spud to cause said slidable member to be moved by the rotation of said drums, guides carried by said frame near the point of connection between the same and said spud, cables having their adjacent ends secured to and wound in opposite directions about the respective drums, said cables extending lengthwise of said spud, about the respective guides and thence downward to said platform, and devices mounted on said platform for actuating said cables to rotate said drums in either direction.

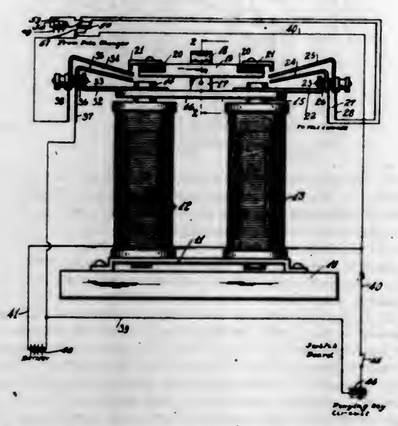
3. In an excavating machine, a spud comprising two overlapping members, the lower member being slidably mounted on the upper member and having a toothed portion, said upper member being connected at its upper end with a part of said machine, a shaft journaled on the lower portion of said upper member of said spud, a pinion mounted on said shaft and meshing with the toothed portion of the lower member of said spud, a drum secured to said shaft at each end thereof, cables wound about said drums in opposite directions, and means for actuating said cables.

4. An excavating machine comprising a platform, a frame extending above said platform, a spud comprising two overlapping members, the upper end of one of said members being connected at its upper end with said frame and held against lengthwise movement and the lower member of said spud being slidably mounted on said upper member, a drum mounted on each side of said upper member near the lower end thereof and connected one to the other, a connection between said drums and the slidable member of said spud to cause said slidable member to be moved by the rotation of said drums, cables wound in opposite directions about the respective drums, and means mounted on said platform for actuating said cables to rotate said drums in either direction.

5. An excavating machine comprising a platform, a frame extending above said platform, a spud comprising two overlapping members, the upper end of one of said members being pivotally connected at its upper end to said frame and held against lengthwise movement and the lower member of said spud being slidably mounted on said upper member, a drum mounted on each side of said upper member near the lower end thereof and connected one to the other, a connection between said drums and the slidable member of said spud to cause said slidable member to be moved by the rotation of said drums, guides carried by said frame near the point of connection between the same and said spud, cables having their adjacent ends secured to and wound in opposite directions about the respective drums, said cables extending lengthwise of said spud about the respective guides and hence downward to said platform, and devices mounted on said platform for actuating said cables to rotate said drums in either direction.

[Claim 6 not printed in the Gazette.]

1,208,571. ELECTRIC-SWITCH MECHANISM. CHARLES KINOAN, Edinburg, Ind., assignor of one-half to John T. Middleton, Edinburg, Ind. Filed Oct. 10, 1914. Serial No. 866,094. (Cl. 171—97.)



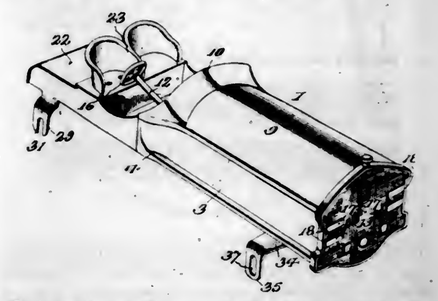
1. In an electric system, the combination with a D. C. circuit, an A. C. circuit, a second D. C. circuit, and a pole changer, of a switch mechanism including a magnet coil, an armature adapted to be excited by said coil, a switch mechanism adapted to be closed by said armature for closing said second-mentioned D. C. circuit and said A. C. circuit, and a switch board for closing said first-mentioned D. C. circuit.

2. In an electric system, the combination with a D. C. circuit, an A. C. circuit, a second D. C. circuit, and a pole changer, of a switch mechanism adapted to close said second-mentioned D. C. circuit and said A. C. circuit, a magnet coil on said switch mechanism, a starting battery, a switch board, and a circuit through said starting battery, switch board and a magnet coil for closing said switch mechanism and setting up the current through said D. C. circuit and A. C. circuit.

1,208,572. TOY AUTOMOBILE. HARRY T. KINGSBURY, Keene, N. H. Filed May 8, 1913. Serial No. 766,334. (Cl. 46—48.)

1. A toy automobile comprising a sheet of metal bent to form the bottom and the sides of the body, the sides of the body having outwardly projecting flanges at the forward ends thereof in the region of the hood and the top having inwardly projecting flanges adapted to interlock with the flanges on the sides, a radiator plate for closing the front end of the hood, and a frame surrounding the bottom, sides and top of the hood against which said radiator plate is clamped.

2. A toy automobile comprising a sheet of metal bent to form the bottom and the sides, a top interlocked with the sides of the body at the forward ends thereof for forming the hood, a radiator plate for closing the forward end of the hood, said plate having slots formed therein, lugs carried by the top and side members adapted to extend through said slots and be folded against the front face of the radiator plate, a frame surrounding the bottom, sides and top of the hood, said frame having a web adapted to be engaged by the side members and top of the hood and against which the radiator plate is clamped.



3. A toy automobile comprising a sheet of metal bent to form the bottom and the sides, a top interlocked with the sides of the body at the forward ends thereof for forming the hood, a radiator plate for closing the forward end of the hood, said plate having slots formed therein, lugs carried by the top and side members adapted to extend through said slots and be folded against the front face of the radiator plate, a frame surrounding the bottom, sides and top of the hood, said frame having a web adapted to be engaged by the side members and top of the hood and against which the radiator plate is clamped, and a plate resting on the sides of the body and carrying a seat, said plate being secured thereon by lugs carried by the plate and bottom.

4. A toy automobile comprising a sheet of metal bent to form the bottom and the sides, a top interlocked with the sides of the body at the forward ends thereof for forming the hood, a radiator plate for closing the forward end of the hood, said plate having slots formed therein, lugs carried by the top and side members adapted to extend through said slots and be folded against the front face of the radiator plate, a frame surrounding the bottom, sides and top of the hood, said frame having a web adapted to be engaged by the side members and top of the hood and against which the radiator plate is clamped, a front plate secured to the rear end of the hood for closing the same, said plate having a vertical slot therethrough for the steering wheel post.

5. A toy automobile comprising a sheet of metal bent to form the bottom and sides of the body, a top resting upon the sides, a radiator plate closing the front of the hood, and a frame surrounding the bottom, sides and top of the hood against which said radiator plate is clamped.

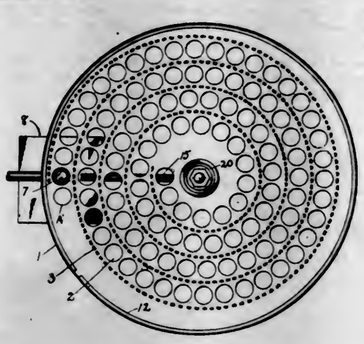
1,208,573. SUPPORT FOR DISK FILMS. ISIDOR KITSEE, Philadelphia, Pa. Filed May 13, 1912. Serial No. 696,993. Renewed May 16, 1916. Serial No. 97,957. (Cl. 88—19.5.)

1. In a device of the class described, a holder for a moving picture record mounted for rotation and simultaneous transverse movement, projections or teeth spirally arranged on said holder, and means fixed with relation to the holder engaging the teeth.

2. In cinematography, a disk-shaped holder for a picture film, a flange for said holder, a series of cut-out parts or windows in spiral form, a series of projections or teeth in spiral form.

3. In cinematography, a disk-like moving picture film, a series of pictures thereon spirally arranged, in combination with a holder provided with a series of cut-out parts or windows spirally arranged and means to move the

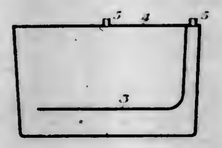
holder for the purpose of bringing successively successive pictures to view.



4. In cinematography, a holder for moving picture records of the disk type, said holder provided with spirally arranged projections.

5. In combination with a circular picture film provided with a series of pictures representing spiral lines, a holder for said film, said holder provided with cut-out parts or windows spirally arranged and projections interspaced between said cut-out parts or windows.

1,208,574. MANUFACTURE OF BOSH-PLATES. LUTHER L. KNOX, Avalon, Pa., assignor of one-third to Montgomery Murray and one-third to John S. Craig, Pittsburgh, Pa. Filed Nov. 12, 1915. Serial No. 61,091. (Cl. 113—116.)



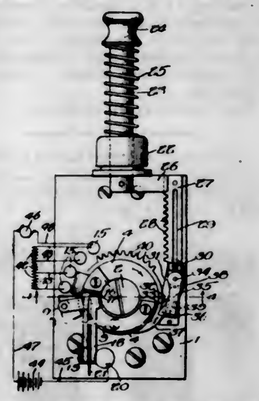
1. In the manufacture of hollow sheet metal bosh plates, the method which consists in providing a sheet metal blank of oval form, and subjecting the same to successive die operations which form the same into a comparatively thin oblong hollow body by gradually decreasing the length and width of said body while increasing its depth, fixing a baffle within the hollow body so formed, and then providing a closure for the open side of said body; substantially as described.

2. In the manufacture of hollow sheet metal bosh plates, the method which consists in providing a sheet metal blank of oval form, and subjecting the same to successive die operations which form the same into a comparatively thin oblong hollow body by gradually decreasing the length and width of said body while increasing its depth, securing a baffle within the hollow body so formed, and then welding a closure member to said body to close its open side; substantially as described.

3. In the manufacture of hollow sheet metal bosh plates, the method which consists in shaping a flat sheet metal plate into an oblong hollow body closed except at its outer side, placing baffle means within said hollow body, and then securing a separate closing plate within such outer side; substantially as described.

4. In the manufacture of hollow sheet metal bosh plates, the method which consists in shaping a flat sheet metal plate into an oblong hollow body closed except at its outer side, and then securing a baffle within the hollow body so formed, and then securing a separate closure plate to the open end of said body; substantially as described.

1,208,575. ELECTRIC SWITCH. FRANK KRAEMER, Milwaukee, Wis., assignor, by direct and mesne assignments, to Pan-American Electric Tool Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 27, 1915. Serial No. 63,809. (Cl. 200—1.)



1. In a device of the character described, the combination of a base, coöperating contact members thereon, one of said members being fixed and the other being arranged to move into engagement therewith, and an auxiliary contact member normally restrained from engagement with one of said contact members and automatically movable to quickly engage said member after said movable member has engaged said fixed member.

2. In a device of the character described, the combination of a base, coöperating contact members thereon, one of said members being fixed and the other being arranged to move into engagement therewith, an auxiliary contact arm normally restrained from engagement with said movable contact member and automatically movable to quickly engage said member after said movable member has engaged said fixed member, and means for actuating said movable member.

3. In a device of the character described, the combination of a base, coöperating contact members thereon, one of said members being fixed and the other being arranged to move into engagement therewith, an auxiliary contact arm normally restrained from engagement with said movable contact member and automatically movable to quickly engage said member after said movable member has engaged said fixed member, manually controlled means for actuating said movable member in one direction, and means for automatically actuating said movable member to move in the reverse direction.

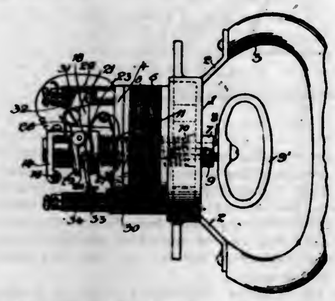
4. In a device of the character described, the combination of a base, coöperating contact members thereon, one of said members being fixed and the other being arranged to move into and out of engagement therewith, an auxiliary contact arm normally restrained from engagement with said movable contact member and automatically movable to quickly engage said member after said movable contact member has engaged said fixed contact member, manually controllable means for actuating said movable contact member in one direction to close said circuit, and a spring for actuating said movable contact member in the reverse direction to break the circuit.

5. In a device of the character described, the combination of a base, coöperating contact members thereon, one of said members being fixed, a rotatable member supporting the other of said contact members, an auxiliary contact arm normally restrained from engagement with the contact member supported by said rotatable member and automatically movable to engage therewith after said rotatable member has been moved to cause the contact member supported thereby to engage said fixed contact member, and means for actuating said rotatable member

comprising a manually reciprocable member, and means providing an intermittent connection between said reciprocating and rotatable members.

[Claims 6 to 17 not printed in the Gazette.]

1,208,576. ELECTRIC SWITCH. FRANK KRAEMER, Milwaukee, Wis., assignor, by direct and mesne assignments, to Pan-American Tool Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 25, 1916. Serial No. 86,547. (Cl. 200—1.)



1. In an electric switch, the combination of a reciprocable contact member biased in one direction, a pivoted contact arm extending into the path of and biased in the direction of said contact member, an auxiliary contact arm in the path of said contact member pivotally connected to and biased toward said first-mentioned contact arm, insulating means on one face of said auxiliary contact arm, and means for actuating said contact member.

2. In an electric switch, the combination of a reciprocable contact member biased in one direction, a pivoted contact arm extending into the path of and biased in the direction of said contact member, an auxiliary contact arm in the path of said contact member pivotally connected to and biased toward said first-mentioned contact arm, insulating means on one face of said auxiliary contact arm, means for actuating said contact member, and a fixed contact member in the path of said contact arm.

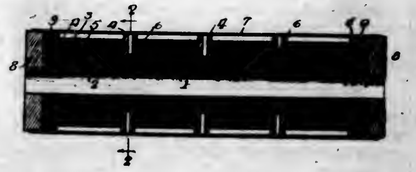
3. In an electric switch, the combination of a reciprocable contact member biased in one direction, a pivoted contact arm extending into the path of and biased in the direction of said contact member, an auxiliary contact arm in the path of said contact member pivotally connected to and biased toward said first-mentioned contact arm, insulating means on one face of said auxiliary contact arm, means for actuating said contact member, a fixed contact member in the path of said contact arm, and means connected to said contact arm and fixed contact member to regulate the flow of current through the switch.

4. In an electric switch, the combination of a reciprocable plunger, a contact member secured thereto, a spring to normally retain said plunger in a predetermined position, manually operable means to move said plunger against said spring, a pivoted contact arm extending into the path of and biased in the direction of said contact member, an auxiliary contact arm in the path of said contact member pivotally connected to and biased in the direction of said first-mentioned contact arm, and an insulating member on the face of said auxiliary contact arm adapted to be first engaged by said contact member as it is moved by said manually operable means.

5. In an electric switch, the combination of a reciprocable plunger, a contact member secured thereto, a spring to normally retain said plunger in a predetermined position, manually operable means to move said plunger against said spring, a pivoted contact arm extending into the path of and biased in the direction of said contact member, an auxiliary contact arm in the path of said contact member pivotally connected to and biased in the direction of said first-mentioned contact arm, an insulating member on the face of said auxiliary contact arm adapted to be first engaged by said contact member as it is moved by said manually operable means, and a fixed contact member in the path of said contact arm.

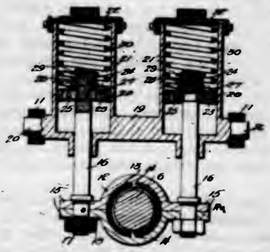
[Claims 6 to 10 not printed in the Gazette.]

1,208,577. SOLENOID. FRANK KRAEMER, Milwaukee, Wis., assignor, by direct and mesne assignments, to Pan-American Electric Tool Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 27, 1916. Serial No. 86,890. (Cl. 175—21.)



A solenoid comprising a hollow core of non-magnetic material, a plurality of mechanically independent sections arranged end to end on said core, each of said sections including an electrical conductor and the conductors of said sections being electrically connected, resilient spacing means between said sections, a metal casing inclosing said sections, and means connected to said casing for rigidly clamping said sections and core in assembled relation within said casing.

1,208,578. AIR-CUSHION FOR AUTOMOBILES. ROMANUS KRAUSE, Belhaven, N. C., assignor to John G. Tooly, Belhaven, N. C. Filed Oct. 1, 1915. Serial No. 53,486. (Cl. 267—19.)

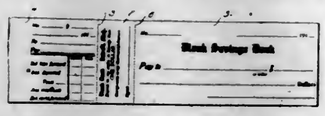


In a vehicle, the combination with a chassis and an axle, of a cushioning device associated with the end of said axle and including a sectional flanged sleeve surrounding the same and fixed relative thereto, vertically arranged piston rods extending through and supported by the flanges of said sleeve, pistons carried by said rods and having large and small ports therein, a vertically movable element having cylinders formed integrally therewith and adapted to receive said pistons, a spring interposed between each of said pistons and the upper end of the cylinder in which the piston is mounted, a valve for controlling the passage of air through the large port in said piston, and a support secured intermediate its ends to said chassis and connected at its ends to said vertically movable element.

1,208,579. COMBINED CHECK AND DEPOSIT-SLIP. PAUL KUHN, Detroit, Mich. Filed June 30, 1913. Serial No. 776,475. (Cl. 11—13.)

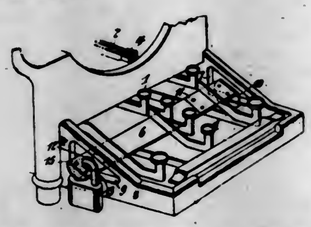
The combination with an ordinary stub, and an ordinary check, of an intermediate deposit portion between said stub and said check and divided therefrom by tearing lines whereby said check and said deposit portion may be detached from said stub and said intermediate

deposit portion detached from said check, said intermediate deposit portion being non-negotiable when detached from said check and having thereon indicia directing the bank upon which the check is drawn to deposit



to the credit of the drawer of the check in a savings department, a specified amount and to charge the same to the commercial account of the drawer of the check, together with indicated space contiguous to the check for the signature of the drawer.

1,208,580. TYPE-WRITING MACHINE. ALFRED G. F. KUKOWSKI, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 22, 1915. Serial No. 35,499. (Cl. 197—198.)



1. In a typewriting machine, the combination with printing mechanism comprising type-bars and keys for operating said type-bars, of a bar in position to hold said printing mechanism against operation, said bar movable lengthwise into and out of said holding position.

2. In a typewriting machine, the combination with printing mechanism comprising type-bars and keys for operating said type-bars, of a bar to hold said printing mechanism against operation, said bar movable in the direction of its length and thereby removable from the machine, and means to lock the bar in the machine in position to hold the printing mechanism against operation.

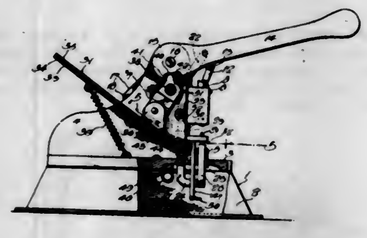
3. In a typewriting machine, the combination with printing mechanism comprising type-bars and keys for operating said type-bars, of a bar extending transversely of the machine beneath the keys and adapted to hold said keys against operation, said bar movable in the direction of its length to release the keys, and means for preventing the removal of said bar comprising a fluke or barb at one end of the bar, and a lock at the other end of the bar.

4. The combination with a frame and a key-lever mechanism contained therein comprising a set of key levers ranged across the frame, said frame having openings in its opposite sides, of a locking bar extending transversely of the frame and key levers beneath the key levers to lock the latter, and projecting through said openings and supported directly by the frame at said openings, said bar arranged to be withdrawn lengthwise to release the key levers.

5. The combination with a frame and a key-lever mechanism contained therein comprising a set of key levers ranged across the frame, said frame having openings in its opposite sides, of a locking bar extending transversely of the frame and key levers beneath the key levers to lock the latter, and projecting through said openings and supported directly by the frame at said openings, said bar arranged to be withdrawn lengthwise to release the key levers, and means to seal the locking bar against removal.

[Claims 6 to 16 not printed in the Gazette.]

1,208,581. EYELETING-MACHINE. CHARLES A. KUTCHER, Sheridan, Wyo. Filed Aug. 11, 1916. Serial No. 114,445. (Cl. 218—15.)



1. In an eyeleting machine, a support, an anvil carried thereby, an operating lever pivoted to said support over the anvil, an L-shaped member connected by one arm to said lever, the other arm extending beneath said anvil, and an eyelet setting plunger for coaction with said anvil fixed to the free end of said last mentioned arm and disposed substantially parallel to the first mentioned arm of said member.

2. In an eyeleting machine, a block, a support, an anvil mounted on said support over said block, an operating lever pivoted to said support, an L-shaped member connected by one arm to said lever, the other arm extending beneath said block, an eyeleting setting plunger for coaction with said anvil fixed to the free end of said last mentioned arm and disposed substantially parallel to the first mentioned arm, and a punch connected with the lever and movable toward and away from said block, said plunger being movable below the surface of said block when the punch is brought into contact with the latter.

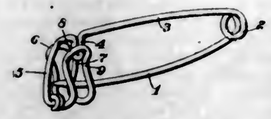
3. In an eyeleting machine, a support, a block connected thereto, said block having a horizontal slot and a vertical opening formed therethrough and intersecting each other, an anvil disposed over said block, an operating lever pivoted to said support, an eyelet setting plunger disposed in said vertical opening and connected to said lever, an eyelet feeder pivoted to the support and adapted to be moved into said slot, and a depressible stop operable by said plunger to prevent said feeder entering said slot.

4. In an eyeleting machine, a support, a block connected thereto, said block having a horizontal slot and a vertical opening formed therethrough intersecting each other, said block also having an aperture opening into said slot, an anvil disposed over said block, an operating lever pivoted to said support, an eyelet setting plunger disposed in said vertical opening and connected to said lever, an eyelet feeder pivoted to said support and adapted to be moved into said slot, and a stop rod reciprocatorily mounted in said aperture, and a finger projecting from said rod for engagement by said plunger, whereby said stop rod is moved out of operative position when said plunger is lowered.

5. In an eyeleting machine, a support, a block connected thereto, said block having a horizontal slot and a vertical opening formed therethrough and intersecting each other, said block also having an aperture opening into said slot, an anvil disposed over said block, an operating lever pivoted to said support, an L-shaped member connected by one arm to said lever, the other arm extending beneath said anvil, an eyelet setting plunger for coaction with said anvil and disposed in said vertical opening, said plunger being secured to the free end of the last mentioned arm of said L-shaped member, an eyelet feeder pivoted to the support and adapted to be moved into said slot, a stop rod reciprocatorily mounted in said aperture, and a finger projecting from said rod for engagement by said L-shaped member, whereby said rod will be moved out of operative position when said plunger is lowered.

[Claims 6 to 15 not printed in the Gazette.]

1,208,582. SAFETY-PIN. EDWARD F. LALLY, New York, N. Y. Filed Aug. 8, 1916. Serial No. 113,795. (Cl. 24—159.)



A safety pin consisting of a piece of wire bent upon itself to form an upper bar and a point bar, the upper bar having a loop formed therein and which is disposed toward the free end portion of the point bar, the opposite sides of the said loop lying in planes which are approximately parallel with the longitudinal axes of the said bars, the upper bar being extended from the said loop transversely across the point bar and beyond the free end thereof and the said extended portion being continued into spring loops having at points between their ends inwardly disposed humps which lie beyond the edges of the first mentioned loop, the second mentioned loops having outwardly disposed upper ends which are disposed transversely across and beyond the sides of the first mentioned loop.

1,208,583. SWITCH MECHANISM. DAVID C. LARSON, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 7, 1914. Serial No. 870,781. (Cl. 175—282.)



1. A switch comprising contact mechanism, a pair of rocker arms carrying the contact mechanism, springs for urging the arms toward each other with unequal pressure, a roller carried by one arm and located below the pivot thereof, and an additional roller carried by the other arm and located in the path of movement of the first named roller.

2. A switch comprising a pair of coacting contacts, pivoted arms carrying the contacts, said arms normally inclining toward each other to close the contacts, a roller carried by one of the arms located below the pivot thereof, and an additional roller on the other arm located above the pivot thereof, and in the path of movement of the first named roller.

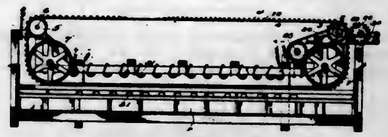
3. A switch comprising a pair of coacting contacts, a pair of pivoted arms carrying the contacts, a spring for urging the contacts toward each other to close the said contacts, a roller carried by one of the arms located below the pivot thereof, and a roller on the other arm located above the pivot thereof and in the path of movement of the first named roller.

4. A switch comprising a two point make and break contact mechanism, a pair of rocker arms carrying the said contact mechanism, springs for urging the arms toward each other with unequal pressure, and a roller carried by each arm, the roller carried by the arm with the strongest spring being adapted to be actuated to actuate the other arm.

5. A switch comprising a two point make and break contact mechanism, a pair of pivoted arms carrying the said contact mechanism, springs for urging the arms toward each other with unequal pressure, a roller carried by one of the arms and located below the pivot thereof, and an additional roller on the other arm located above the pivot thereof and in the path of movement of the first named roller.

[Claims 6 to 11 not printed in the Gazette.]

1,208,584. ELECTROGALVANIZING APPARATUS. ALEXANDER LAUGHLIN, Jr., Sewickley, Pa. Filed Nov. 25, 1914. Serial No. 874,004. (Cl. 204—5.)



1. In an electro-plating apparatus, the combination with a tank and fixed conductors extending longitudinally therethrough, of means for moving tubes through said tank, and supports for said tubes arranged at right angles to and designed to engage said conductors, said supports being carried by said moving means and designed to extend into the tubes at the opposite ends thereof.

2. The combination with a tank, of a conveyer extending lengthwise thereof, guides for said conveyer, tube-supporting members carried by said conveyer and extending transversely of said guides, and fixed conductors with which said members engage.

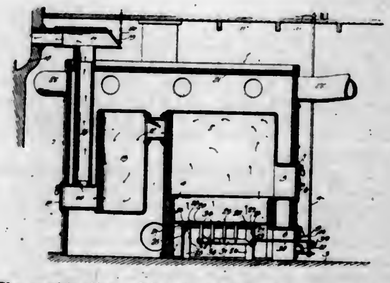
3. The combination with a tank, of a conveyer extending lengthwise thereof, guides for said conveyer, fixed conductors arranged parallel with but in a different plane from said guides, and tube-supporting members carried by said conveyer and arranged transversely of said guides, said members engaging said conductors.

4. The combination with a tank, of a conveyer extending lengthwise thereof, guides in which said conveyer travels, fixed conductors arranged parallel with and above said guides, and tube-supporting members carried by said conveyer and arranged transversely of said guides, said members engaging said conductors.

5. The combination with a tank, of conveyer chains paralleling the sides thereof, guides for said chains, insulating blocks carried by said chains, tube-supporting pins extending transversely of said blocks, and fixed conductors with which said pins engage.

[Claims 6 to 15 not printed in the Gazette.]

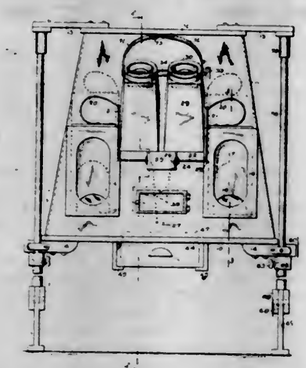
1,208,585. FURNACE. JAMES A. LAZZELL, Columbus, Ind. Filed July 13, 1916. Serial No. 109,093. (Cl. 126—176.)



The combination with a furnace having a passage leading into its ash pit and a horizontally swinging door for closing said passage, of a tilting frame in said furnace, a plurality of grate bars mounted rockably on said frame, a single reciprocating bar for simultaneously rocking said grate bars, said reciprocating bar having in its front end an eye, a vertical rock shaft in front of the furnace

and having an operating handle at its upper end, a horizontal crank arm on the lower end of said rock shaft extending to a point in advance of the aforesaid door and having in its free end an eye, and a one-piece horizontal link pivotally connected with one eye and having a downwardly bent end received removably in the other eye, said link passing through the aforesaid passage and the free edge of said door having a notch receiving said link therein to normally prevent the downwardly bent end thereof from disengaging its respective eye.

1,208,586. PORTABLE DARK CABINET. GEORGE LEACHMAN, New Cumberland, W. Va. Filed May 10, 1915. Serial No. 27,059. (Cl. 95—91.)



1. In a portable dark cabinet, a table, a flexible inclosing member secured around the table, there being two openings in the flexible member, slides for partially closing the openings, springs secured to the slides, and a cord disposed within the flexible member and having terminals secured to the springs for the purpose specified.

2. In a portable dark cabinet, a table, a flexible inclosing member secured around the table, there being two openings in the flexible member, slides for partially closing the openings, a cord disposed within the flexible member and having terminals, means connecting the terminals one with each slide, and a button within the flexible inclosing member around which the cord between its terminals may be disposed for holding the slides in predetermined positions.

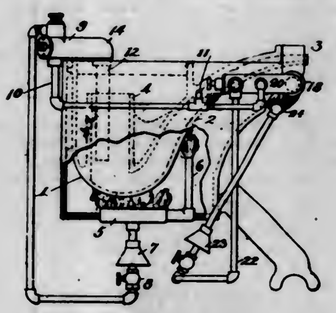
3. In a portable dark cabinet, a table, a flexible inclosing member secured around the table, there being two openings in the flexible member, slides for partially closing the openings, springs secured to the slides, a cord disposed within the flexible member and having terminals, one secured to each spring, and a button within the flexible inclosing member around which the cord between its terminals may be disposed for holding the slides in predetermined positions.

4. In a portable dark cabinet, a table, a flexible member secured around the table, means for supporting the flexible member, there being an opening at the front and another at the back of the flexible member, a lens in one of the openings, means for detachably supporting a plate in the other opening, means for closing the opening in which the lens is normally disposed, a guideway on the table extending between the openings, there being one or more additional openings in the flexible member, a slide or slides for partially closing the said additional openings, and means within the flexible member for operating the slide or slides.

5. In a portable dark cabinet, a table, a flexible member secured around the table, two sockets, one secured at each side of the top of the flexible member, two standards with their upper ends disposed in the sockets, cleats having recesses, secured to the table, the standards being normally disposed in the recesses, collars adjustably mounted on the standards, means for securing the collars to the standards in adjusted position, there being vertically extending threaded orifices in the collars, screws in the threaded orifices engaging the cleats for raising the latter as desired, blocks having sockets in which the lower ends of the standards are disposed, slots extending through the top and the sides of the blocks, legs pivoted in the slots and tie members for connecting the legs below the blocks when the legs diverge downwardly from the blocks.

[Claims 6 and 7 not printed in the Gazette.]

1,208,587. HEAT CONTROL FOR LINOTYPE MELTING-POTS. GEORGE E. LEE, Cleveland, Ohio, assignor to The George E. Lee Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 1, 1915. Serial No. 31,343. (Cl. 22—71.)



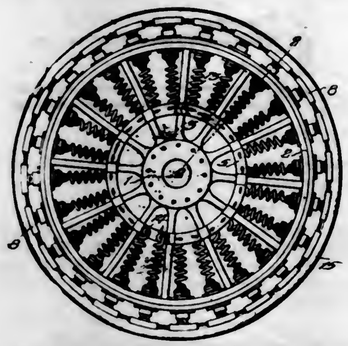
1. The combination with a melting pot for a type line casting machine comprising a reservoir portion, a throat portion, and a mouth portion, means for heating the reservoir portion and the mouth portion, and separate means for automatically and independently controlling the amount of heat supplied to the reservoir portion and mouth portion, in accordance with the heat condition of the said portions.

2. The combination with a melting pot for linotype machines, said melting pot comprising a reservoir portion, a throat and mouthpiece, means for heating the reservoir portion, independent means for heating the mouth portion, a thermostat associated with the reservoir portion for controlling the means which supplies heat to the reservoir portion, a thermostat associated with the mouth portion and adapted to control the means which supplies heat to the mouth portion.

3. The combination with a melting pot for a linotype machine, said melting pot comprising a reservoir portion, a throat portion and a mouth portion, means for heating the reservoir portion, and independent means for heating the mouth portion, a thermostat having a thermostatic couple which extends into the reservoir portion, said thermostat controlling the heat supplied to the reservoir portion, a thermostat having a thermostatic couple which extends longitudinally of the mouth portion, said thermostat controlling the heat supplied to the mouthpiece by its heating means.

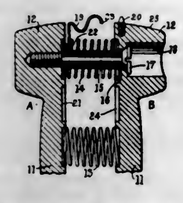
1,208,588. RESILIENT WHEEL. ROBERT WILLIAM LEMMING, Brantford, Ontario, Canada. Filed June 17, 1916. Serial No. 104,225. (Cl. 152—31.)

In combination, a wheel having radial openings in its rim, and a ring clamped to the spokes coaxial with the wheel, a plunger slidable in each opening, a tire supporting shoe pivoted to each plunger outside of the rim, a solid flexible tire held by the shoe, and a spring between the inner end of each plunger and the ring and connecting the



plunger to the ring, all of the said springs being normally neutral, neither under compression nor expansion.

1,208,589. SPRING-GRIP DUMB-BELL. LOUIS GRAHAM LEWIS, London, England. Filed Feb. 18, 1916. Serial No. 79,082. (Cl. 46—68.)



1. The combination with a spring dumb-bell, of means for giving a signal both on the occurrence of complete closure of the grip and also as soon as, thereafter, appreciable relaxation of the grip takes place.

2. The combination with a dumb-bell having resiliently extended members, of a signaling device comprising a spring member carried by one member of the dumb-bell, and means carried by the other member of the dumb-bell in position to present an obstruction in the path of the spring member upon the approach and separation of the dumb-bell members beyond respective certain points.

3. The combination with a spring dumb-bell, of a signaling device comprising members carried by the parts of the dumb-bell and adapted to coöperate with each other in giving a signal both upon the approach of the parts of the dumb-bell beyond a certain point, and the separation of the parts of the dumb-bell beyond a certain point.

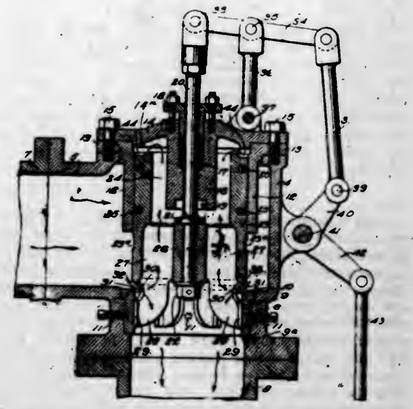
4. The combination with a spring-grip dumb-bell, of a signaling device comprising a spring member carried by one member of the dumb-bell, and a catch on the other member of the dumb-bell and with which the spring member is adapted to engage.

5. The combination with a spring grip dumb-bell, of a signaling device comprising a spring carried by one member of the dumb-bell and having a curved nib, and a headed stud on the other member of the dumb-bell and with which the nib of the spring is adapted to engage.

[Claim 6 not printed in the Gazette.]

1,208,590. VALVE. WILLIAM J. LILLY, Butte, Mont. Filed Aug. 28, 1915. Serial No. 47,896. (Cl. 137—4.)

1. In a valve, a casing having a valve seat adjacent its lower end and provided with a guide ring projecting from its upper end, a hollow open ended elongated cylindrical valve guided in said ring and adapted to seat with its lower end on the valve seat, said valve being provided at its lower end with a central member and radial ribs connecting the member with the valve, said ribs extending downward below the lower end of the valve into the valve seat and having sector-shaped faces engaging the inner face of the said seat, said ribs having curved recesses at the lower end of the valve and means connected with the said member of the valve for operating it.

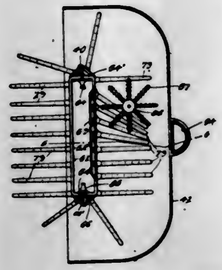


2. In a valve, a casing having a valve seat adjacent its lower end, a guide ring resting on the upper end of the casing and projecting into the same, a head resting upon the guide ring and having a flange engaging the inner face of the ring, a hollow open ended cylindrical valve slidably mounted in the ring adapted to seat with its lower end on the valve seat, said valve having an annular groove in its upper end coöperating with the flange of the head to form cushioning means and provided with a central member and radial ribs connecting the member with the valve, said ribs projecting below the valve into the valve seat and engaging the same, and means connected with the said member of the valve for operating it.

3. In a valve, a casing having a head provided with a tubular member projecting into the casing, said casing having a valve seat at its lower end, a guide ring having a flange extending between the head and casing and projecting into the upper end of said casing, a hollow open ended cylindrical valve guided in said ring and adapted to seat with its lower end on the valve seat, said valve being provided with a central hub and radial ribs connecting the hub with the valve, said ribs having curved recesses adjacent the lower end of the valve and projecting below the valve into the valve seat and having sector-shaped surfaces engaging the valve seat, a valve stem secured to the hub of the valve and extending out through the tubular member of the head of the valve casing, and means for operating said valve stem.

4. In a valve, a casing having a head provided with a tubular member projecting into the casing and having a recess in its inner end, said casing having a valve seat at its lower end and a guide ring projecting into its upper end, a hollow open ended cylindrical valve slidably mounted in said ring and adapted to seat with its lower end on the valve seat, said valve being provided with a central hub and radial ribs connecting the hub with the valve, said ribs projecting below the lower end of the valve into the valve seat and engaging the same, a valve stem secured to the hub of the valve and extending out through the tubular member of the head of the casing, said valve stem having a flange resting on the said hub and adapted to enter the recess of the tubular member of the head of the casing, and means connected with the stem for operating it.

1,208,591. COTTON-HARVESTER. DANIEL B. LOVEJOY, Purmela, Tex. Filed June 16, 1914. Serial No. 845,399. (Cl. 56—118.)



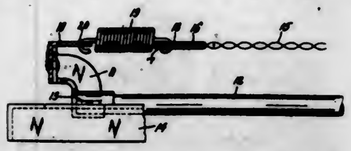
1. In a cotton harvester, the combination, of a sprocket chain, plates carried by said chains, picking arms carried by said plates, movable picking pins carried by said arms for movement into and out of a cotton engaging position, spiders having radiating arms for engaging said chains and moving them into and out of a cotton picking position, means for moving said pins into and out of a cotton picking position, said means being arranged for moving said pins into a cotton picking position when said chain is moved into a cotton picking position, means for stripping the cotton from said arms, cotton retaining casing chutes for conveying the cotton from said stripping means to said casings.

2. In a cotton harvester, the combination, of a sprocket chain, plates carried by said chains, picking arms carried by said plates, movable picking pins carried by said arms for movement into and out of a cotton engaging position, spiders having radiating arms for engaging said chains and moving them into and out of a cotton picking position, means for moving said pins into and out of a cotton picking position, said means being arranged for moving said pins into a cotton picking position when said chain is moved into a cotton picking position.

3. In a cotton harvester, the combination, of a sprocket chain composed of connected spaced links, plates carried by said chain, picking arms carried by said plates and comprising a sleeve having one end closed, a spindle rotatably mounted in said sleeve, collars mounted upon said spindle at spaced intervals along its length, a plurality of pins connected to said collars concentrically about said spindle, said sleeve being provided with openings corresponding to and alined with said pins, means for permitting of a limited movement of said spindle independent of said sleeve for moving said pins into or out of a projecting position through said openings, spiders having radiating arms for engaging said chains and moving them into and out of a cotton picking position, said means being arranged for moving said pins into a projecting position out of said sleeve when said arms are in a cotton picking position, and moving the pins inwardly into the sleeve when the arms are moved out of a cotton picking position, means for stripping the cotton from said arms comprising a plurality of hub sections, radiating arms carried by said hub sections, brushes carried by said arms, cotton retaining casings, chutes for conveying the cotton from the stripping mechanism into said casings.

1,208,592. BED-SPRING. MORRIS LOWY, New York, N. Y. Filed June 9, 1915. Serial No. 33,092. (Cl. 5—62.)

A bed spring comprising a supporting frame including transverse end members, a wire fabric bottom having the free ends of its wire strands inclosed by mold-fashioned retaining strips, helical stretcher springs having their inner ends hooked onto said retaining strips and their outer ends connected with said transverse end members, and reinforcing members embedded in said retaining strips



and disposed in front of the curved portions of the hook-shaped inner ends of said stretcher springs.

1,208,593. COLLAPSIBLE FORM FOR CONCRETE-SEWER-PIPES. MART V. B. LYON, Jr., Fort Recovery, Ohio, assignor of one-half to Emil Wagner, Fort Recovery, Ohio. Filed Aug. 8, 1913. Serial No. 783,754. (Cl. 25—127.)



1. A collapsible support for a form jacket comprising segments, one pair of segments comprising spaced members between which the other pair of segments are pivotally mounted, means for preventing one pair of segments from moving in respect to the other, a sliding connection between the other pair of segments, a lever, and a yoke for locking said lever for holding said segments in set-up position.

2. A collapsible support for forms, comprising segmental-shaped members pivotally connected together, one pair of segmental members having a sliding connection, adjustable means for holding one pair of members in fixed position in relation to the other pair of members, a lever for moving and holding the other pair of members in set-up position, and a yoke having an adjustable pin for locking said lever in adjusted position.

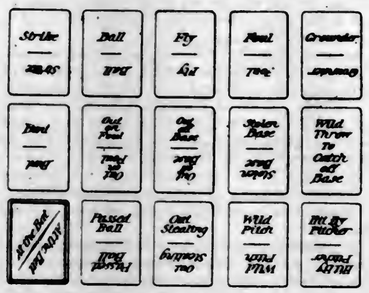
3. A collapsible support for forms, comprising segmental-shaped members pivotally connected together, one pair of segmental-shaped members having a sliding connection, a lever carried by one of said segmental-shaped members, and a pivoted yoke carried by the adjacent segmental member for locking said lever in adjusted position.

4. A collapsible support for forms, comprising a plurality of segmental-shaped members pivotally connected together, a bolt connecting one pair of segmental members for locking said members in fixed position in respect to each other, a lever carried by one of the other segmental members for moving said segmental members, a yoke carried by one of said segmental members having spaced oppositely disposed openings, and a pin extending through one pair of alining openings for locking said lever in adjusted position.

1,208,594. BASE-BALL GAME. JOHN H. MCCLELLAND, Anamoose, N. D. Filed Jan. 21, 1916. Serial No. 73,458. (Cl. 46—25.)

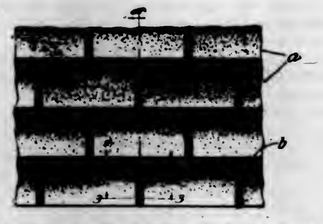
1. A base ball game comprising a plurality of decks of cards, including a main deck and a number of auxiliary decks, the cards of the main deck containing indicia indicative of the initial step of certain plays of the game, while the cards of the auxiliary decks contain indicia to complete said plays, and the indicia on the cards of the main deck being related to the indicia on the cards of the auxiliary decks to determine from which of said decks a card must be played subsequent to the lead from the main deck.

2. A base ball game comprising a plurality of decks of cards, including a main deck and a number of auxiliary decks, the cards of the main deck having indicia indicative of the initial step of certain plays of the game, while the cards of the auxiliary decks contain indicia to complete



said plays when used in certain combinations with the card from the main deck, the indicia on the cards of all the decks being related to determine from which deck the next card must be played to complete a play subsequent to the playing of a card from any deck.

1,208,595. PREPARED ROOFING. WILLIAM F. MCKAY, La Grange, Ill. Filed Dec. 7, 1915. Serial No. 65,614. (Cl. 91—67.9.)



1. As an article of manufacture, a prepared roofing member comprising a piece of foundation material, a layer of dark, plastic material adhering thereto, and a body of lighter-colored material adhering to the plastic layer, covering and substantially concealing the plastic layer in predetermined areas that are adapted to appear in physical relief in the finished roof, exposing preponderatingly the dark plastic in deep-shadow areas that are predeterminedly related to said relief areas to simulate shadow cast by high-relief and exposing gradually-increasingly the plastic layer in arbitrary shadow-blend areas lying between said high relief areas and deep-shadow areas.

2. As an article of manufacture, prepared roofing adapted to present when laid physical elevations and depressions in its surface constituting patterns in relatively-thin relief, said roofing comprising foundation material, a dark plastic layer adhering thereto, and means for optically simulating in the laid roofing the appearance of relief deeper than that physically presented, comprising a body of lighter colored material applied to and adhering to the higher relief portions of the surface to appear predominatingly thereon, applied to shadow blend areas arbitrarily related to the highest relief surfaces to appear graduatedly less and less thereon, and leaving predominatingly uncovered the color of the plastic coating in deep shadow areas appropriately related to the highest relief surfaces.

3. Prepared roofing adapted to present, when laid, a relatively thin true-relief pattern, said roofing having a plastic layer of dark material exposed preponderatingly in areas approximately conforming to the deepest depressions of the physical relief, and a body of lighter-colored relatively coarse separate particles adhering to the plastic layer, said particles overlying and substantially covering the plastic layer throughout the highest relief areas and partially submerged in the darker plastic layer to expose to a gradually increasing extent the darker color of the plastic layer in predetermined areas, thereby producing an optical illusion of shadow fictitiously giving an appearance of increased depth of relief.

4. Prepared roofing adapted to present when laid a relatively thin true-relief pattern, said roofing having a plastic layer of dark material and a color layer of lighter colored separate, relatively coarse particles adhering to the plastic layer throughout its area, said particles substantially covering the plastic layer throughout the highest relief areas, depressed increasingly into the plastic layer gradually to display increasingly the darker color of the plastic layer in intermediate shadow blend areas, and depressed substantially to their crests in deep shadow areas conforming to deepest depressions in the physical relief, thereby displaying in the deep shadow areas aggregately-extensive surfaces of the dark plastic layer, and thereby optically simulating a depth of relief greatly in excess of that physically provided.

5. Prepared roofing adapted to present when laid a relatively thin true-relief pattern having abrupt edges sharply defining areas of physical elevation, a lighter-colored body of coarse particles adheringly laid upon the high relief area substantially to conceal the dark plastic material throughout a major area of the exposed surface, and exposed in gradually decreasing quantities upon the tapering surfaces merging from said high relief surfaces toward the bottoms of the abrupt edges, and said dark plastic material being preponderatingly displayed in the depressed areas adjacent to the bottoms of said abrupt edges, thereby to create the optical illusion of uniform color corresponding with that of the particles but overshadowed as a result of relief deeper than that physically present.

[Claims 6 to 9 not printed in the Gazette.]

1,208,596. PROCESS OF TREATING FERROTUNGSTEN. PHILIP M. MCKENNA, Washington, D. C. Filed Aug. 11, 1916. Serial No. 114,479. (Cl. 75—18.)

1. A process of treating smelted ferro-tungsten alloy for the removal of metalloid impurities, which consists in comminuting the smelted mass, then subjecting the comminuted material to the action of an acid which will combine with the impurities in the production of hydrogen compounds and which will not combine with the metallic alloy.

2. The process of treating smelted ferro-tungsten alloy for the removal of metalloid impurities, which consists in comminuting the smelted mass, then subjecting the comminuted material to the action of an acid which will combine with the impurities in the production of hydrogen compounds and which will not combine with the metallic alloy, then washing out the acid solvent and finally drying the comminuted ferro-tungsten.

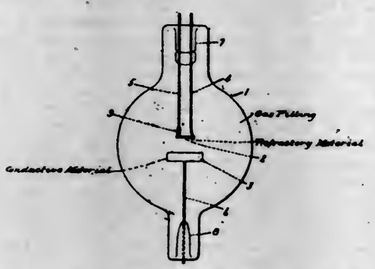
3. The process of removing sulfur from smelted ferro-tungsten, which consists in comminuting the smelted mass, then volatilizing the sulfur in the form of hydrogen sulfid by treatment with an acid which will not combine with the metallic tungsten alloy, and finally washing and drying the comminuted product.

4. The process of removing sulfur, phosphorus and carbon from smelted ferro-tungsten, which consists in grinding the smelted mass, then treating it with muriatic acid of approximately 20° Baumé, and finally washing and drying the comminuted product.

1,208,597. INCLOSED-ARC DEVICE AND METHOD OF OPERATING THE SAME. GEORGE M. J. MACKAY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 30, 1915. Serial No. 58,897. (Cl. 250—27.)

1. The combination of a sealed envelop, arcing electrodes therein, one of which is adapted to operate at in-

candescence, an atmosphere of gas chemically inert with respect to said electrodes and a material chemically active with respect to impurities in said gas acting to continuously combine with gaseous impurities evolved from the electrodes and walls of the envelop during the operation of an arc between said electrodes.



2. The combination of a sealed envelop, a cathode of refractory material adapted to operate at incandescence, a coöperating anode, a filling of gas inert chemically with respect to said electrodes and suppressing the electrical disintegration of the cathode and a material forming compounds of negligibly low vapor pressure with gaseous impurities tending to increase the fall of potential in the arc between said electrodes.

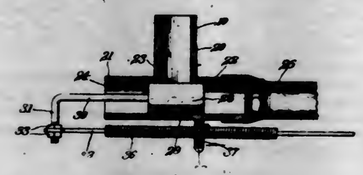
3. An arc device comprising the combination of a sealed envelop, a cathode of material having a melting point exceeding about 2000° C., a coöperating anode, a filling of monatomic gas having at the operating temperature of the device a pressure of at least several millimeters of mercury, and a material forming under the operating conditions of the device compounds of negligibly low vapor pressure with polyatomic impurities in said gas.

4. An arc device comprising the combination of a sealed envelop, a tungsten cathode, an anode, a filling of argon at a pressure materially greater than one millimeter of mercury pressure and a quantity of material chemically active with respect to water vapor.

5. The method of purifying the gaseous atmosphere surrounding an incandescent cathode and a coöperating anode in a closed envelop which consists in liberating during the operation of the arc in contact with said atmosphere a vapor having no affinity for said gaseous atmosphere but chemically active with respect to deleterious gaseous impurities given off by the envelop and said electrodes.

[Claim 6 not printed in the Gazette.]

1,208,598. ATTACHMENT FOR INTERNAL-COMBUSTION ENGINES. JOHN CLINTON MACKEY, New York, N. Y., assignor, by direct and mesne assignments, to The Mackey-Reusing Gas Saver Company, a Corporation of Ohio. Filed Oct. 15, 1914. Serial No. 866,835. (Cl. 48—180.)

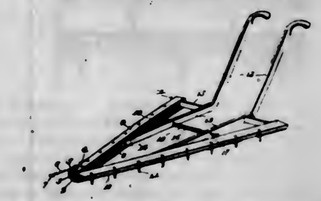


1. An attachment for internal combustion engines comprising a T-shaped hollow fitting, one branch of which is capable of being connected to the intake manifold of an internal combustion engine, a second branch and a third branch located in alinement and integrally connected with the first branch, the second branch having direct communication with the atmosphere and constituting a cold air inlet, the third branch constituting an inlet for heated air, a plunger slidably movable in a straight line in the second and third branches and across the entrance of the first-mentioned branch, said plunger being adapted to completely close the entrance of the first-mentioned branch of the fitting to cut off the air flowing from either of the second or third branches to the first branch, and means for operating said plunger.

2. An attachment for internal combustion engines comprising a T-shaped hollow fitting, one portion of which consists of a pipe open at both ends to respectively provide a cold air inlet and a hot air inlet for the fitting, a branch pipe intermediate the ends of the first mentioned pipe and disposed at right angles thereto and having communication with the first mentioned pipe, and a valve member fitting in the first mentioned pipe between the ends thereof and being adapted to cut off the communication between both ends of the first mentioned pipe and the branch pipe.

3. An attachment for internal combustion engines comprising a T-shaped hollow fitting having one branch capable of being connected to the intake manifold of an engine, a second branch and a third branch located in line and capable of being connected in communication with the first branch, the second branch having direct communication with the atmosphere and constituting the cold air inlet, the third branch constituting an inlet for heated air, a plunger slidably movable in a straight line in the second and third branches of said fitting and controlling communication between the latter and said first mentioned branch of the fitting, a stem connected to said plunger and extending outwardly through the cold air inlet and to one side thereof, a guide on said fitting, and an operating rod connected to the stem of the plunger and slidable on said guide.

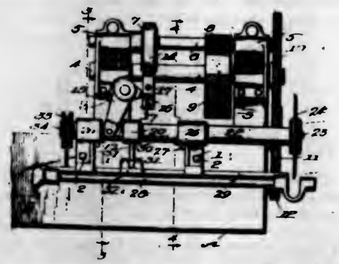
1,208,599. LEVELER AND PULVERIZER. EDWARD FRANKLIN MADDOX, Nelson, Wis. Filed Nov. 15, 1915. Serial No. 61,629. (Cl. 55—125.)



The herein described leveler and pulverizer comprising a pair of forwardly converging bars, each provided with teeth, a hinge pivotally connecting said bars together, at their front ends and including a pintle bolt having adjusting openings in its upper portion and extending above the bars, a draft element attached to one of the openings of said bolt, a pair of handle bars arranged on the inner sides of the first named bars and each having a forwardly extending arm attached to one of said first named bars and also having an outwardly extending brace attached to the rear end of one of the first named bars, a bolt connecting and slidably connected to the arms of the handle bars and a spring on said bolt ond bearing against the inner sides of the arms of said handle bars.

1,208,600. CUT-OFF MECHANISM FOR MACHINES FOR MAKING ARTIFICIAL STRAWS. LEWIS C. MALTBY, Washington, D. C., assignor to The Stone Straw Company, Washington, D. C., a Corporation of New Jersey. Filed Feb. 12, 1916. Serial No. 78,057. (Cl. 164—60.)

1. The combination of a bed, a rocking frame mounted thereon, a sleeve connected with said frame, a shaft rotatable in the sleeve and carrying a disk-cutter, a straw-tube slidably connected with the bed, and means extending from the sleeve and slidably connected with the straw-tube for moving the latter endwise with the endwise movement of the disk-cutter.



2. The combination of a bed, a rocking frame, a slidably-mounted straw-tube, and endwise movable means carried by the frame and extending laterally therefrom, and slidably connected with the tube, whereby the frame is capable of moving laterally with respect to the straw-tube, and the endwise movable means carried thereby causes the straw-tube to move endwise with the lateral movement of the frame.

3. The combination of a bed, a rocking frame, a slidable sleeve, a straw-tube, a bar connected with the straw-tube, common means for rocking the frame and sliding the sleeve, and means extending from the sleeve laterally and slidably connected with the bar for moving the latter endwise with the lateral movement of the frame and slidable sleeve.

4. The combination with a bed, a rocking frame mounted thereon, a sleeve slidably connected with said frame, a shaft rotatable in the sleeve and carrying a disk-cutter, a straw tube slidably connected with the bed, means extending from the rocking frame and slidably connected with the straw tube for moving the latter endwise with the endwise movement of the disk-cutter, of an intermittently rotated shaft, an eccentric thereon, and means extending from the eccentric to the rocking frame for reciprocating and swinging the latter laterally.

5. The combination with a bed, a rocking frame mounted thereon, a sleeve slidably connected with said frame, a shaft rotatable in the sleeve and carrying a disk-cutter, a straw tube slidably connected with the bed, means extending from the rocking frame and slidably connected with the straw tube for moving the latter endwise with the endwise movement of the disk-cutter, of a pair of shafts intermittently intergeared, an eccentric carried on one of said shafts, and means extending from the eccentric to the rocking frame for reciprocating and swinging the latter laterally.

[Claims 6 and 7 not printed in the Gazette.]

1,208,601. CURTAIN-FASTENER. JOSEPH A. MANAHAN, New York, N. Y., assignor to Seymour Bookman, New York, N. Y. Filed Mar. 23, 1916. Serial No. 86,100. (Cl. 24—217.)



1. An eyelet comprising a shell including a front having inner and outer walls to form an opening and support the shell on an object, a spring projecting from one of the walls partly into the opening, and a loop located on the spring for coöperation with a stud.

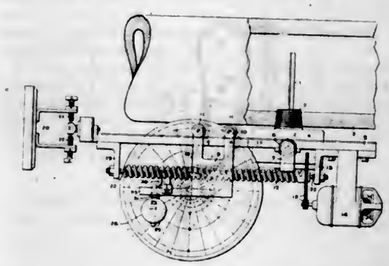
2. An eyelet comprising a shell including a front having inner and outer walls to form an opening and support the shell on an object, a spring projecting from the front wall partly into the opening, and a loop located on the spring for coöperation with a stud.

3. An eyelet comprising a shell including a front having inner and outer elliptical walls to form an opening and support the shell on an object, a spring projecting from the front wall partly into the opening, and a loop formed at the end of the spring for coöperation with the shank of a stud.

4. An eyelet adapted for fastening curtains shaped from a single sheet of metal, comprising a shell including a front dished portion having inner and outer elliptical walls to form an opening and support, prongs extending inwardly from the outer wall for engagement with an object, a spring forming an integral part of the front wall extending partly into the opening, and a loop formed at the end of the spring for coöperation with the shank of a stud.

5. A blank for eyelets comprising an elliptical sheet of metal having an elliptic opening, and a body provided with sections to form an elliptic front with inner and outer wall portions, prongs projecting from the perimeter of the blank, and a resilient tongue forming an integral part of the body.

1,208,602. METER APPARATUS. HAROLD H. MAPELSDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 1, 1913. Serial No. 792,870. (Cl. 73—167.)



1. The combination with a conduit through which a fluid to be metered flows, of a member in the conduit against which the fluid flows tending to move the same, a scale beam or lever connected to said member, a counterweight adjustable along said beam or lever for counterbalancing the force exerted by the fluid on said member, and means controlled by a slight movement of said member to automatically adjust the position of the counterweight whereby said member is held in a substantially fixed position in the conduit, and means for indicating the position of said counterweight on the beam.

2. An apparatus for measuring the velocity or flow of fluid comprising a movable member in the path of the fluid, a scale beam or lever rigidly connected to said member, a sliding counterweight on said beam for counterbalancing the force of the fluid on said member, and means responsive to movement of said member for automatically shifting said counterweight along said beam so as to bring said movable member back to its initial position.

3. An apparatus for measuring the velocity or flow of fluid comprising a casing having a nipple adapted to be inserted in the conduit through which pases the fluid to be metered, a vane pivoted in said casing and extending through said nipple so as to be exposed to the fluid in the conduit when the nipple is in place, means operatively connected with said vane for counterbalancing the force exerted by the flowing fluid thereon, and means for in-

dicating the magnitude of the force exerted by said counterbalancing means and the velocity or flow.

4. An apparatus for measuring the velocity or flow of fluid comprising a movable member in the path of the fluid, means for counterbalancing the force exerted by the fluid on said member, means actuated by the movement of said member resulting from variation in said force for varying and adjusting the force exerted by said counterbalancing means to compensate for variation in the velocity or flow of the fluid and maintain said member in its initial position, and means for indicating the magnitude of the force exerted by said counter-balancing means and the velocity or flow.

5. An apparatus for measuring the velocity or flow of fluid comprising a movable member in the path of the fluid whose area is so large in comparison with that otherwise available for the flow of the fluid past the point where it is located that it causes throttling of the fluid, means for counterbalancing the force exerted by the fluid on said member, means actuated by movement of said member resulting from variation in said force for varying and adjusting the force exerted by said counterbalancing means to compensate for such variation in the velocity or flow of the fluid and maintain said member in its initial postion, and means for indicating the magnitude of the force exerted by said counterbalancing means and hence the velocity or flow.

[Claims 6 to 9 not printed in the Gazette.]

1,208,603. ADJUSTABLE TONE-ARM AND SOUND-BOX COUPLING. LEONARD MARKELS, New York, N. Y., assignor to Champion Graphophone Company, Inc., New York, N. Y. Filed May 29, 1915. Serial No. 31,149. (Cl. 274—24.)



1. The combination of a tone arm, a sound box, an elbow on the sound box detachably connected with the tone arm and rotatable thereon, and a stop ring fixed on the tone arm and arranged to engage with and limit the turning of the sound box on the latter.

2. The combination of a tone arm section and a sound box section, one section having a portion into which the other section screws, and a ring on one section removably secured thereto and having spaced stops for limiting the relative turning of the sections through an angle of ninety degrees.

3. The combination of a tone arm section and sound box section, said sections having parts rotatably connected by screw-threads, and a plurality of stops detachably fastened to one section and adapted to be engaged by the other section, whereby relative turning of the sections is limited to approximately ninety degrees, said stops being adapted to be loosened to permit the sections to be turned for screwing or unscrewing the sections.

4. A tone arm having a reduced extremity forming a shoulder, a ring on the said extremity and engaging the shoulder, means for detachably fastening the ring to the tone arm for preventing turning of the ring, said ring having spaced stops, a sound box, and a member connecting the box with the reduced portion of the tone arm and supporting the box in a position whereby the body thereof is adjustable to engage either of the said stops.

1,208,604. SHOE-LACE CLASP OR FASTENER. HARRY MARKIEWISE, Park Ridge, N. J. Filed Apr. 28, 1916. Serial No. 94,149. (Cl. 24—121.)



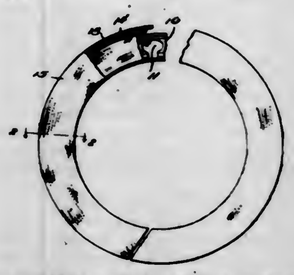
1. A clasp comprising a box-like element open at opposite sides and comprising a body and a hinged cover, opposite walls of the body forming fixed jaws, a bowed spring having its free ends terminating at the said walls and forming movable jaws, and means for centrally fastening the spring in the body.

2. A clasp comprising a body open at two sides and having oppositely disposed walls forming fixed jaws, a spring device having free extremities forming movable jaws associated with the fixed jaws, and a post in the said body and to which the spring device is rigidly fastened.

3. A clasp comprising a body open at opposite sides and formed with a bottom and opposite walls, said bottom having a lug stamped therefrom and extending into the body, a cover hingedly mounted on the body, and a bowed spring fastened to the said lug and having its free ends adjacent the said walls to form means for gripping the ends of a lacing.

4 A clasp comprising a body having two spaced walls, and the bottom of the body being formed with an integral lug extending into the body, a spring disposed in the body and over which the free end of the lug is bent to rigidly fasten the spring in place, the free ends of the spring being in coöperative relation with the said walls to form lace-gripping jaws.

1,208,605. PACKING. CHARLES I. E. MASTIN, Midland Park, N. J., assignor to Stewart Dickson, New York, N. Y. Filed Sept. 2, 1916. Serial No. 118,236. (Cl. 154—45.5.)

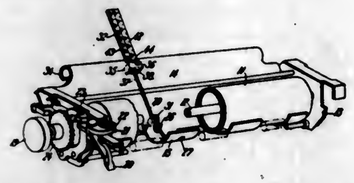


1. In a packing, a metal reinforce, rolls located upon opposite sides of the reinforce, and each comprising a rubber core and fabric laminations, and fabrics spanning over and joining the rolls together.

2. A packing comprising a metal reinforce of substantially I-beam form having cut-out portions upon one side forming the inner surface of the packing, rolls located upon opposite sides of the metal reinforce composed of rubber cores and laminations of rubberized fabric, rubberized fabrics spanning the cores, and the entire structure vulcanized connecting the rolls through the cut-out portions of the metal reinforce.

1,208,606. TYPE-WRITING MACHINE. BRANTZ MAYER, Philadelphia, Pa., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 28, 1916. Serial No. 122,583. (Cl. 197—189.)

1. In a typewriting machine, the combination with a platen and means to feed a work-sheet thereover, of a bottom margin-indicating device comprising a gage normally stationary as the work-sheet advances over the platen, and means for advancing said gage into position to engage the bottom edge of the work-sheet and by the position of the gage indicate the distance of said edge from the writing line on the platen.



2. In a typewriting machine, the combination with a platen and means to feed a work-sheet thereover, of an indicating device movable in the path of the work-sheet into position to engage the bottom edge of the sheet as said edge approaches the line of writing and thereby indicate the position of said edge.

3. In a typewriting machine, the combination with a platen and means to feed a work-sheet thereover, of a bottom margin-indicating device, said device normally at rest as the work-sheet is advanced over the platen, and means for guiding the indicating device for movement into position to strike the edge of the work-sheet and thereby arrest said device at a position corresponding to the position of advancement of the sheet over the platen.

4. In a typewriting machine, the combination with a roller platen and feed-rolls running thereon to feed a work-sheet over the platen, of means forming with the platen a passage-way through which the work-sheets are guided, a page-end indicating device, and means for guiding said device along said passage-way into position to strike the bottom edge of a work-sheet while said edge is in said passage-way to indicate the position of said edge with respect to the writing line on the platen.

5. In a typewriting machine, the combination with a rotary platen, of a paper table at the introductory side of the platen, feed-rolls running on the platen for advancing a work-sheet thereover, an apron curved around the platen and spaced therefrom to provide a passage-way for the work-sheet, a gage slidable along said apron and projecting into said passage-way, and means for moving said gage into position to engage the end edge of a work-sheet in said passage-way.

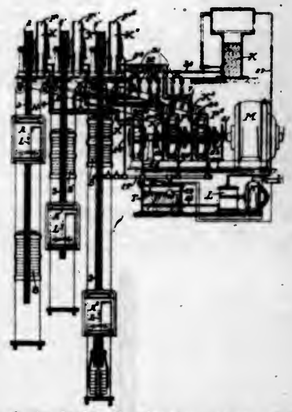
[Claims 6 to 15 not printed in the Gazette.]

1,208,607. MULTIPLE-CAR ELEVATOR SYSTEM. WALDEMAR F. MAYER, Hoboken, N. J., and AUGUST SUNDH, Hastings-upon-Hudson, N. Y. Filed May 20, 1914. Serial No. 839,755. (Cl. 187—20.)

1. In an electro-hydraulic elevator system of the class described, the combination with a number of cars, electro-hydraulic apparatus arranged to drive the cars, means to accumulate the leakage from the hydraulic apparatus, and means for returning the said leakage under pressure to the fluid operating system of said mechanism.

2. In an electro-hydraulic elevator system of the class described, the combination with a plurality of elevator cars each having a fluid transmission unit associated therewith, means for accumulating the leakage from all of said units, means for automatically effecting the return of the said leakage under pressure to the fluid operating system of the said transmission units.

3. In an electro-hydraulic elevator system of the class described, the combination with a plurality of elevator cars, each having a fluid transmission unit independently associated therewith, a receptacle for accumulating the leakage from all of the said units, a fluid pressure distributer connected by fluid passages with the fluid operating system of all the said units, an auxiliary pump for delivering the leakage from the said receptacle to the pressure distributer, and automatic mechanism for controlling the pump to deliver fluid from the receptacle to the pressure distributer in direct proportion to the amount of leakage.

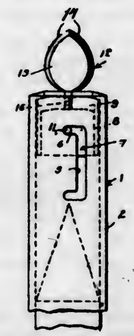


4. In an electro-hydraulic elevator system of the class described, the combination with a plurality of cars, each having a fluid transmission unit independently associated therewith, a receptacle for accumulating leakage from all of the said units, a fluid pressure distributer connected by fluid passages with the fluid operating system of all of the said units, an auxiliary pump for delivering the leakage to the pressure distributer, means for driving the auxiliary pump, and means comprising a float actuated switch for controlling the electric motor in its operation of the pump, to effect a delivery of fluid from the receptacle to the said distributer in direct proportion to the amount of leakage from all the units.

5. The combination with a plurality of independently operable cars each having a fluid power transmission device associated therewith, and means for maintaining an equalized pressure in the fluid operating systems of all the said units.

[Claim 6 not printed in the Gazette.]

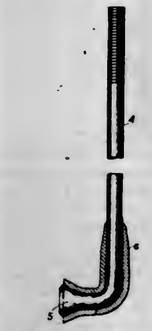
1,208,608. PEN AND PENCIL CAP. WILLIAM E. MEADWELL, Ithaca, N. Y. Filed May 15, 1915. Serial No. 28,420. (Cl. 120—39.)



A device of the class described comprising an outer casing having a tubular body closed at one end, said closed end provided with a transversely extending slot, said side wall of the outer casing having a vertical slot therein provided at each of its ends with a transverse slot, a tubular body of less diameter than the first named tubular body slidably mounted therein, said second tubular body having one end closed and having a central screw threaded aper-

ture, a blade provided with a screw threaded shank removably fitted in the screw threaded opening of the second tubular body, said second tubular body having a lug adapted to move in the vertical slot and be turned into the transverse slots at the opposite ends of the vertical slot for holding the blade into and out beyond the first named tubular body, said blade when on the exterior of the first named tubular body and the lug is turned into the upper transverse slot, the blade will be turned out of registration with the slot in the end of the first named tubular body and will rest upon the upper surface thereof and any rotary or accidental inward movement of the same eliminated.

1,208,609. SPOKE. CHARLES FREDRICK MENGE, Utica, N. Y., assignor to Mott Wheel Works, Utica, N. Y. Filed Nov. 7, 1914. Serial No. 870,864. (Cl. 21—69.)

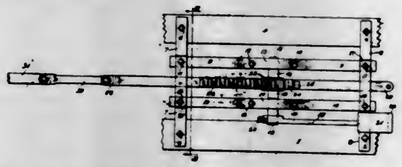


1. A wire spoke having a head at one end and a sleeve of softer metal than the metal of the spoke on the spoke at the head, said sleeve being rigid with the spoke and having an enlarged end adapted to rigidly engage the head.

2. A metal spoke having a head at one end and a sleeve of softer metal on the spoke rigid therewith, said sleeve having a seat for the head of the spoke substantially as and for the purpose set forth.

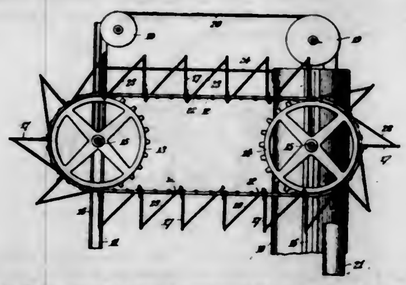
3. As an article of manufacture, a wire spoke having a head at one end and being threaded at the other end, and a sleeve of softer material fitted tightly on said spoke against the head to make it rigid therewith so that the wire spoke with the sleeve thereon can be shaped simultaneously, substantially as and for the purpose set forth.

1,208,610. RAILROAD-SWITCH. GOSAKU MIHARA, Seattle, Wash. Filed Jan. 12, 1916. Serial No. 71,800. (Cl. 104—25.)



In a switch stand, the combination with parallel supporting members, and parallel cross bars mounted upon said members, of a pair of spaced supporting brackets mounted upon the cross-bars and having upwardly bent intermediate portions, bearing members carried by said upwardly bent portions of the supporting brackets, a shaft journaled in said bearing members, a weighted lever on one end of said shaft, a pinion on the shaft, and a rack bar slidably mounted on the cross-bars and engaged by said pinion, said rack bar adapted for connection at either end with a switch point.

1,208,611. WATER-CURRENT MOTOR. WARREN C. MILLER, Medford, Oreg. Filed June 29, 1915. Serial No. 37,007. (Cl. 170—90.)



A fluid current motor comprising a pair of hollow caissons arranged in parallel spaced relation and having the confronting faces thereof provided with vertically extending guideways, a pair of vertical beams arranged in spaced relation to the caissons and in alinement with the guideways, said beams being spaced from each other and having the confronting faces thereof formed with vertically extending channels, shafts slidably mounted in the guideways and in the channels, sprocket wheels keyed to each of the shafts, said sprocket chains trained over the sprocket wheels, blades mounted on the chains, pulleys journaled at the upper ends of the beams and caissons, and weighted cables connected to the shafts and trained over the pulleys, said cables being secured to the opposite extremities of the shafts and lying in said channels and guideways.

1,208,612. SPRING DRESS-FASTENING. WILLIAM MILLER, Birmingham, England. Filed Oct. 15, 1915. Serial No. 55,965. (Cl. 24—217.)



1. A dress fastening comprising only a flat ring, radial slots terminating at the inside of the ring, perforations in the ring for the reception of stitches, a complementary piece and a narrow projection on said piece which can detachably engage the ring, substantially as set forth.

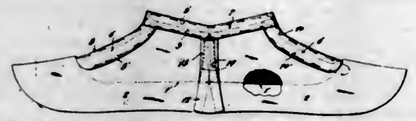
2. A dress fastening comprising only a flat ring, radial slots terminating at both the inside and outside of the ring, perforations for the reception of stitches, a complementary piece and a projection on said piece which can detachably engage the ring, substantially as set forth.

3. A dress fastening comprising only a pair of similar flat spring rings, radial slots terminating at the inside of each ring, perforations in each ring for the reception of stitches, and a connecting piece which can detachably engage both rings, substantially as set forth.

1,208,613. METHOD OF MAKING SHOES. JOSEPH C. MINGES, Highland, Ill., assignor of one-fourth to Frederick J. Hockmuth and one-fourth to Alvin C. Minges. Filed July 10, 1916. Serial No. 108,440. (Cl. 12—142.)

1. The method of making shoes which comprises cutting quarters and lining members therefor, securing the lining members to the respective quarters to produce a pair of lined quarters, securing the lined quarters to each other, securing facings to the lined quarters by stitching through the linings, facings and quarters, and thereafter finishing the shoe.

2. The method of making shoes which comprises cutting quarters and lining members therefor, securing the lining members to the respective quarters to produce a pair of lined quarters, each lined quarter of the pair being free of connection with the other lined quarter, then securing the lined quarters to each other by stitching through the rear margins of the quarters, securing facings to the lined quarters by stitching through outer margins of said facings and quarters and also by stitching through the quarters, linings and inner margins of the facings, and subsequently finishing the shoe.



3. The method of making shoes which comprises forming quarters and lining members therefor, thereafter attaching a side facing to each lining member by stitching through the inner margin of the side facing and through the lining member and quarter, thereby forming the eyelet row stitching on the outer face of the quarter, and subsequently finishing the shoe.

4. The method of making shoes which comprises cutting quarters and lining members therefor, securing the lining members to the respective quarters to produce a pair of lined quarters, thereafter attaching the lined quarters to each other, securing a top facing to the lined quarters by stitching through the lining members, top facing and quarters after the lined quarters have been attached to each other, and thereafter finishing the shoe.

5. The method of making shoes which comprises cutting the quarters and lining members corresponding thereto, cementing the lining members to the respective quarters, securing the back edges of the quarters together by a row of stitching, securing side and top facings to the linings and quarters by parallel lines of stitching disposed respectively adjacent to the inner and outer edges of said facings, and subsequently finishing the shoe.

[Claims 6 to 8 not printed in the Gazette.]

1,208,614. SEGMENTAL GRATE-BAR. RALPH W. MINOR, Birmingham, Ala. Filed Aug. 3, 1915. Serial No. 43,501. (Cl. 126—180.)



1. A segmental grate bar comprising in combination, a bar, a grate segment comprising a fire head and a base, the base having a slot similar to the cross section of its supporting bar and having a contracted opening through one side of the base, said side opening leaving overhanging top and bottom lips adapted to embrace the top and bottom of the bar and prevent the lateral disengagement of the segment from the bar, and a removable portion of the bar, substantially as described.

2. A segmental grate bar comprising a bar formed of two spaced longitudinal members, cross webs connecting said members in spaced relationship, grate sections comprising fire heads and bases, and means to mount the bases of two series of the segments on the longitudinal members, substantially as described.

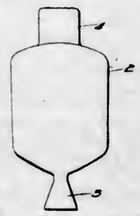
3. A sectional grate bar comprising a bar formed of two spaced longitudinal members, integral cast webs connecting said members in spaced relationship and with their inside faces diverging downwardly, and two sets of spaced detachable grate bar segments, each set being mounted on one of said longitudinal members.

4. A sectional grate bar comprising a bar formed of two spaced longitudinal members, integral cast webs connecting said members in spaced relationship and with their inside faces diverging downwardly, and two sets of spaced detachable grate bar segments, each set being mounted on one of said longitudinal members and the two sets being spaced from each other.

5. A sectional grate bar comprising a bar having a portion thereof cut away, a notch in the base of the cut away portion, a side lug on the bar near the outer end of its cut away portion, a filler block adapted to fill out the cut away portion and the notch, and grate segments slotted to conform to the cross section of the uncut away portion of the bar, said slots having a side opening which permits their being mounted over the cut away portion of the bar between said lug and the inner end of the cut away portion and brought to position to slip endwise onto the uncut away portion of the bar, substantially as described.

[Claim 6 not printed in the Gazette.]

1,208,615. DIPPED RUBBER HOT-WATER BOTTLE AND METHOD OF MAKING. HARVEY F. MITZEL, Boston, Mass., assignor of one-half to William M. Rose, Hyde Park, Boston, Mass. Filed July 6, 1915. Serial No. 38,199. (Cl. 18—58.)



1. The method of making a dipped rubber hot water bottle which consists in repeatedly immersing a form having a flat extended body portion, a funnel-shaped neck portion and a bottom extension, in a rubber solution and allowing it to dry to form a continuous seamless laminated shell or coating of rubber having a flat body, a funnel-shaped neck and a sleeve-like bottom extension, in vulcanizing the shell on the form, in removing the vulcanized shell by stretching the bottom extension and drawing it over the form, in uniting the opposite walls of the sleeve-like bottom extension to close it, and in finishing the bottle.

2. The method of making a dipped rubber hot water bottle which consists in repeatedly immersing a form having a flat extended body portion, a funnel-shaped neck portion, and a bottom extension, in a rubber solution and allowing it to dry to form a continuous seamless laminated shell or coating of rubber having a flat body, a funnel-shaped neck and a sleeve-like bottom extension, in vulcanizing the shell on the form, in removing the vulcanized shell by stretching the bottom extension and drawing it over the form, in uniting the opposite walls of the bottom extension to close it, in turning the shell inside out and applying a sheet of rubber to the inside of the shell over the mouth of the bottom extension to form a lock seam, in turning the shell right side out, and in finishing the bottle.

3. The method of making a dipped rubber hot water bottle which consists in repeatedly immersing a form having an extended flat body portion and a funnel-shaped neck portion and a bottom extension, in a rubber solution and allowing it to dry to form a continuous seamless laminated shell or coating of rubber, having a flat body, a funnel-shaped neck and a sleevelike bottom extension, in vulcanizing the shell on the form, in removing the shell by stretching the bottom extension and drawing it over the form, in putting a sheet of reinforcing material in the bottom extension, in uniting the opposite walls of the bottom extension to close it, in turning the shell inside out and applying a sheet of rubber to the inside of the shell over the inner mouth of the bottom extension to form a lock seam, in turning the shell right side out, in

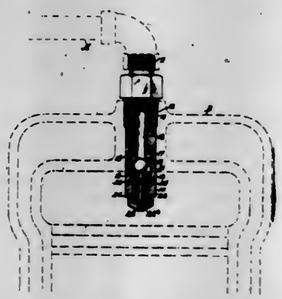
inserting a gromet through the bottom extension and contained reinforcing material, and in finishing the bottle.

4. The method of making a dipped hubber hot water bottle which consists in repeatedly immersing a form having an extended flat body portion and a funnel-shaped neck portion and a bottom extension, in a rubber solution and allowing it to dry to form a continuous seamless laminated shell or coating of rubber having a flat body, a funnel-shaped neck and a sleevelike bottom extension, in vulcanizing the outer surface of the shell on the form leaving the inner surface un- or incompletely-vulcanized, in removing the thus vulcanized shell by stretching the bottom extension and drawing it over the form, in uniting the opposite walls of the bottom extension to close it, in turning the shell inside out, and in vulcanizing the inner surface of the shell, and in turnig the shell right side out and finishing it.

5. The method of making a dipped rubber hot water bottle which consists in repeatedly immersing a form having an extended flat body portion, a funnel-shaped neck portion and a flat bottom extension, in a rubber solution and allowing it to dry to form a continuous seamless laminated shell or coating of rubber having a flat body, a funnel-shaped neck and sleevelike bottom extension, in vulcanizing the outer surface of the shell on the form leaving the inner surface un- or incompletely-vulcanized, in removing the thus vulcanized shell by stretching the bottom extension and drawing it over the form, in uniting the opposite walls of the bottom extension to close it, in turning the shell inside out and applying a sheet of rubber to the inside of the shell over the inner mouth of the bottom extension to form a lock seam, in vulcanizing the inner surface of the shell and vulcanizing the rubber sheet to the inside of the shell, in turning the shell right side out and finishing it.

[Claims 6 to 12 not printed in the Gazette.]

1,208,616. VALVE FOR THE FUEL-NOZZLES OF INTERNAL-COMBUSTION ENGINES. BERT B. MONO, Muncie, Ind., assignor of one-half to Eugene Brotherton, Muncie, Ind. Filed July 5, 1916. Serial No. 107,544. (Cl. 123—32.)



1. A fuel nozzle for internal combustion engines, including a body having a fuel passage therethrough and provided with means to secure the same in a cylinder and to connect an end thereof with a fuel supply, a cap detachably secured at one end to the body at the front of the latter and forming a valve chamber, the opposite end of said cap having a jet orifice leading outward from the valve chamber, a tubular valve element in said chamber having an axial bore communicating at the rear end with the said chamber and communicating at the forward end with the said jet orifice, said valve element being adapted to reciprocate in the said chamber toward and from the front end of the cap, said front end of the cap constituting a stop limiting the forward movement of the tubular valve element, a compression spring normally tending to maintain said valve element away from the front end of the cap, and a ball valve interposed between the first valve element and the front end of the body, said ball valve seating on the body at the front end of the fuel passage and seating at the opposite side on the first valve element at the axial bore thereof, there being free passage at all times beneath the ball valve to the bore of the tubular valve element.

2. A fuel nozzle for internal combustion engines, having means to secure the same in an engine cylinder and to connect it with a fuel supply, said nozzle having a valve chamber, a fuel passage leading thereto, and a jet orifice at the front of the chamber, a reciprocating spring-pressed element communicating at its forward end with the jet orifice and at its rear end with the valve chamber, and a valve in said chamber controlling said passage, said valve seating on the said element to move the same by the opening movement of the valve and to be moved by the said element to the closed position.

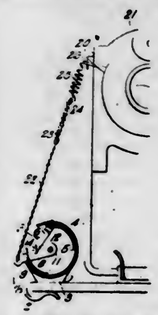
3. A fuel nozzle for internal combustion engines, having means to secure the same in an engine cylinder and to connect it with a fuel supply, said nozzle having a valve chamber, a fuel passage leading thereto, and a jet orifice at the front of the chamber, a reciprocating spring-pressed element having a longitudinal bore communicating at its forward end with the jet orifice, said element being formed at its rear end with a transverse passage communicating with the said bore and with the valve chamber, and a valve in the said chamber controlling the said passage, the said valve being seated on the said spring-pressed element.

4. A fuel nozzle for internal combustion engines, having a valve chamber, a fuel passage leading thereto and a jet orifice leading therefrom, a valve controlling communication from the said fuel passage to said chamber, and spring-pressed means between said valve and said jet orifice and yieldingly holding the valve to its seat subject to the pressure of the fuel.

5. A fuel nozzle for internal combustion engines, having a valve chamber, a fuel passage leading thereto and a jet orifice leading therefrom, a valve controlling communication from the said fuel passage to said chamber, and spring-pressed means between said valve and said jet orifice and yieldingly holding the valve to its seat subject to the pressure of the fuel, said last-mentioned means forming a passage for the fuel to the jet orifice from the end of the valve chamber adjacent to the fuel passage.

[Claims 6 and 7 not printed in the Gazette.]

1,208,617. CAMERA TRIPPING ATTACHMENT. JOHN RUSSELL MONTAGUE, Niagara Falls, Ontario, Canada. Filed Jan. 3, 1916. Serial No. 69,915. (Cl. 95—53.)



1. A tripping attachment for the exposure lever of a camera, comprising a tripping lever, a spring for actuating the tripping lever when released, means for releasing the tripping lever, and a connecting means including a spring leading from the said tripping lever and adapted for connection with the exposure lever for taking up any shock when the tripping lever is released.

2. A tripping attachment for cameras comprising a spring biased lever arm, a catch for locking said lever arm, said catch arranged and adapted to move out of the plane of movement of said lever arm to release the said arm, and means operable in the direction of the catch movement to disengage the catch from the lever arm.

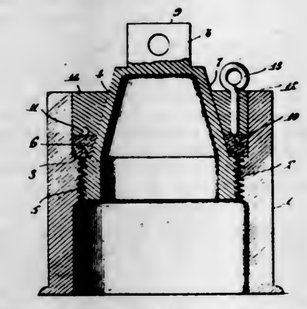
3. In a tripping attachment for cameras, the combination with a spring actuated tripping means, of an adjustable connecting means including a spring, for taking up any shock when the tripping means is tripped.

4. A tripping attachment for cameras comprising a clip adapted to engage the base of a camera, a tripping lever means mounted on said clip and having a tripping lever adapted to move in a plane parallel to an exposure lever of the camera, a catch for locking said tripping lever mounted to move within the plane of the tripping lever movement, for releasing the latter lever, and means on the catch for attaching a cord to freely and directly pull the said catch away from the tripping lever.

5. In combination with a spring operated tripping means, an adjustable spring connecting means for connecting the tripping means with the exposure lever of a camera and serving to prevent shock from the spring action of the said tripping means.

[Claims 6 to 9 not printed in the Gazette.]

1,208,618. CLEAN-OUT FERRULE. JOHN H. MORAISON, New York, N. Y. Filed Mar. 28, 1916. Serial No. 87,343. (Cl. 137—76.)



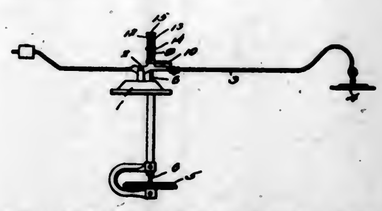
1. A ferrule having an interiorly located thread between its ends, a cone shaped plug having a thread adapted to engage the thread of the furrule, the conical exterior surface of the plug being spaced from the inner surface of the ferrule as applied and a packing interposed between the conical exterior surface of the plug and the inner surface of the ferrule.

2. A ferrule having an interiorly located thread positioned between its ends, a cone shaped plug having an exterior thread adapted to engage the thread in the ferrule, fibrous packing interposed between the exterior conical surface of the plug and the inner surface of the ferrule and a metallic packing poured into the upper portion of the said space above the fibrous packing.

3. A ferrule provided with an interiorly located thread positioned between the ends thereof, a conical plug having an exteriorly located thread adapted to engage the thread in the ferrule, a fibrous packing interposed between the conical exterior surface of the plug and the interior surface of the ferrule, a curved wire positioned upon the said fibrous packing and having an end portion disposed above the upper end of the ferrule and a metallic packing located in the upper portion of the said space between the plug and the ferrule and in which the said wire is embedded.

4. A ferrule having an interiorly located thread positioned between the ends thereof, a conical plug having an exteriorly located thread which loosely engages the thread in the ferrule, a fibrous packing interposed between the exterior conical surface of the plug and the interior surface of the ferrule and positioned above the upper ends of the said threads, a curved wire resting upon the fibrous packing and having an end portion which extends above the end of the ferrule, and a metallic packing fitting snugly in the upper portion of the said space and in which the said wire is embedded.

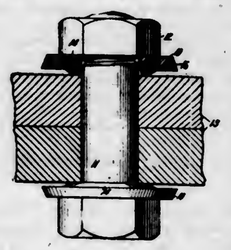
1,208,619. DEVICE FOR REGULATING INCUBATORS, &c. THOMAS J. MORRISON, Manhattan, Kans. Filed May 15, 1916. Serial No. 97,631. (Cl. 236—6.)



1. In a device for regulating incubators, a thermostat, a damper, means operatively connecting the thermostat and damper, said means comprising a hollow cylindrical temperature regulating member formed with a longitudinal slot and with an indicating scale, a reciprocating device situated within said member and formed with a pointer operating in said slot, and an adjustable contact device in the path of said pointer, for the purposes described.

2. In a device for regulating incubators, a thermostat, a damper, means operatively connecting the thermostat and damper, said means comprising a hollow temperature regulating member formed with a longitudinal slot and with an indicating scale, a reciprocating device having a pointer operating in said slot, and an adjustable contact device in the path of said pointer, for the purposes described.

1,208,620. WASHER. MILTON MOSER, Juneau, Alaska. Filed Feb. 24, 1916. Serial No. 80,149. (Cl. 151—7.)

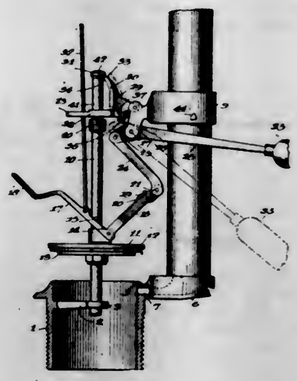


A bolt washer having an undercut countersink in a face thereof and a resilient ring gasket carried thereby and embedded in said countersink, the said washer being flared at the periphery to correspond with the countersink and extending into the opening of the washer to come to a bearing and be compressed against the surface of an article to which the bolt is applied, and to constrict the opening of the gasket for binding action thereof against the bolt, the inner wall of the gasket being flared in an outward direction to initially present a restricted annular clinging contact with the bolt.

1,208,621. FLUSH-VALVE. BERNARD H. MOSSINGHOFF, St. Louis, Mo. Filed May 6, 1916. Serial No. 95,808. (Cl. 4—5.)

1. In a flushing tank, a discharge valve seat, a valve member, pressure means pressing said valve member to said seat, and means releasing said pressure means from its pressure engagement with said valve member before the valve is opened.

2. A flushing tank valve seat, a valve member, pressure means, means communicating said pressure to said valve member, said communicating means being collapsible for the purpose of suddenly breaking said pressure communication, and means actuating said collapsible means and raising said valve member.



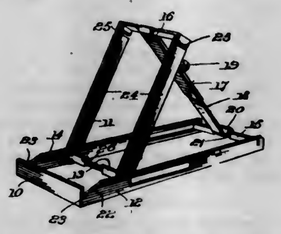
3. In a tank, a valve seat, a valve member, means pressing said valve member to said seat, means effecting release of said pressure means and raising said valve member from said seat after said pressure has been thus released, and means holding said valve member raised, said pressure means tripping said holding means.

4. In a tank, in combination with a valve seat and a valve member normally seated thereon, of supplementary pressure means, consisting of a float, pressing said valve member more securely to said seat, and means releasing said supplementary float pressure before the valve is opened.

5. In a flushing tank an outlet valve seat, a valve member, a pressure actuated lever, a support sustaining the same, a connecting member one end of which connects with the arm of said pressure lever, means connected to said valve member adapted to engage the other end of said connecting member, so as to communicate pressure from said connecting member to said valve member, and means effecting pressure release between said connecting member and said engaging means before the valve is opened.

[Claims 6 to 9 not printed in the Gazette.]

1,208,622. DISPLAY-STAND. FRANK J. MULLER, Philadelphia, Pa. Filed July 24, 1915. Serial No. 41,726. (Cl. 211—24.)



1. In a display stand, a base, cross pieces thereon and having offset portions, a frame swingingly carried by one of said cross pieces and movable into folded position to said base, and a frame supporting element normally engaging the offset of one of the cross pieces to support the frame and adapted to engage the offset of the other cross piece to secure said frame in inclosed relation with respect to said base.

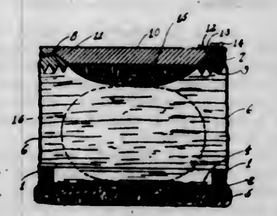
2. In a display stand, a base, cross pieces thereon, a frame movably supported by one of said cross pieces and adapted to fold upon said base, and a frame supporting element pivotally connected to the frame and having a hooked end, the hook of the frame supporting element normally engaging with the other of said cross pieces for retaining the frame in supporting position, and said hook adapted to engage with the cross piece of the base upon which the frame is movably supported for securing the frame in closed position.

3. A display stand comprising a base, cross pieces on the base, a frame adjustably mounted on one of said cross pieces, a frame supporting element pivotally connected to the frame for holding the latter in adjusted position, said frame supporting means being foldable beneath said frame and interlocking with the cross piece of the base upon which the frame is connected for holding the latter in folded position.

4. In a display stand, a base, cross pieces having offset portions, a frame swingingly carried by one of said cross pieces including notched side members, frame supporting means pivotally connected to said frame and normally engaging with the offset of one of the cross pieces to support the frame, said frame supporting means engaging with the offset of the cross piece upon which the frame is mounted for locking the latter, the notches of the frame straddling the opposite cross piece upon the locked position of the frame to permit of the latter being folded within said base.

5. In a display stand, a base, cross pieces, one of said cross pieces being provided with an offset portion and reduced portions, a frame swingingly connected to the reduced portions of the latter mentioned cross piece, frame supporting means pivotally connected to said frame, said frame supporting means adapted to fold beneath the frame and engage with the offset of the cross piece upon which the frame is mounted for locking the frame in folded position, and within said base.

1,208,623. BRUSH. GEORGE K. NAKASHIMA, Stockton, Cal. Filed May 4, 1916. Serial No. 95,358. (Cl. 15—13.)



A brush comprising two opposed heads, one head being perforated, flexible sides connecting the heads and arranged to allow a free movement of each head toward or laterally of the other, such sides forming a receptacle between the heads for the reception of a cleansing material, the free movement of the heads allowing them to be moved toward each other to be closed in against said material and then oscillated laterally to work the material into a lather and force it through the perforated head.

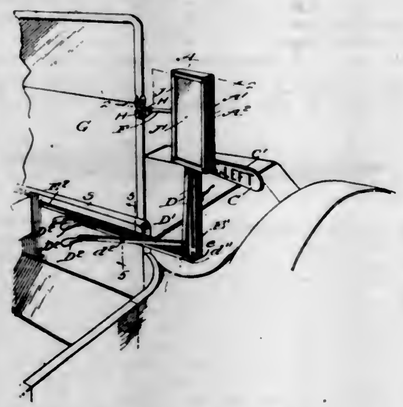
1,208,624. SHEEP-HOOK. HENRY EDWARD NEWMAN, Lemhi, Idaho. Filed Mar. 20, 1914. Serial No. 826,034. (Cl. 119—152.)

In a telescopic pole or handle, the combination with a series of hollow sections telescopically arranged, of the friction fastening for holding them telescoped, the same consisting of a spring having its ends bowed inward and attached to the bottom of the main telescopic section, the telescopic outer-end section 4 being of greater length than any of the other sections, whereby, when the sections are



telescoped, the spring will engage with the inner or butt end of the outer-end section, as described.

1,208,625. AUTOMOBILE-SIGNAL. MAX H. NEWMAN, Atlantic City, N. J. Filed Dec. 16, 1915. Serial No. 67,267. (Cl. 40—67.)

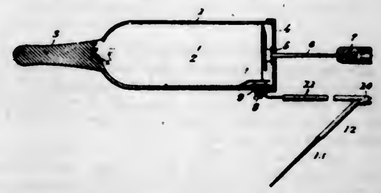


1. A visual signal adapted to be attached to the windshield of automobiles and other vehicles and comprising a casing open at one side and provided with a plurality of vertical compartments therein, said casing secured to a frame adapted to be rigidly secured at its lower end to the dash of the automobile and pivotally connected at its upper end to one end of a horizontal rod a clamp member adapted to be vertically and horizontally adjusted on the side edge of the windshield and slidably supporting the opposite end of said horizontal rod, semaphore blades pivotally mounted at their lower ends within the aforesaid compartments, vertical rods connected at their upper ends to the lower ends of said blades, horizontal levers adapted to be pivotally mounted on the dash of the vehicle and pivotally connected to the lower ends of said rods, handles projecting from said levers, and cushion stops within the aforesaid compartments to engage the edges of the blades when swung back into the compartments.

2. A visual signal adapted to be attached to the windshield of an automobile and comprising a casing open at one side and provided with a plurality of vertical compartments therein, said casing adapted to be rigidly connected at its lower end to the dash of the automobile, and pivotally connected to one end of a horizontal rod, a clamp adapted to be detachably and adjustably screwed to the side edge of the windshield and slidably holding the opposite end of said horizontal rod, semaphore blades pivotally mounted within said compartment, and means adapted to be detachably secured to the dash of the automobile for operating said blades.

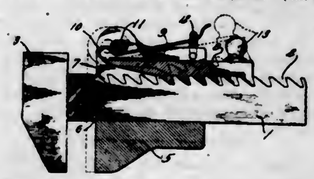
3. A visual signal adapted to be removably applied to the windshield of automobiles and other vehicles and comprising a casing open at one side and provided with three vertical compartments therein, said casing secured to a frame, said frame adapted to be rigidly secured at its lower end to the dash of the automobile and pivotally connected at its upper portion to a rod, said rod slidably mounted in a clamp, said clamp adapted to be detachably secured to the windshield frame, notched semaphore blades pivotally mounted within the aforesaid compartments, vertical rods pivotally connected at their upper ends to the lower ends of the semaphore blades, horizontal levers adapted to be pivotally mounted on the dash of the vehicle, and handles projecting inwardly from the said levers, cushion washers separating the partitions and adapted to be engaged by the notched semaphore blades.

1,208,626. TESTING DEVICE. ROYAL H. NICKERSON and GEORGE G. COURTNEY, Plymouth, Mass. Filed July 22, 1913. Serial No. 780,500. (Cl. 175—183.)



In a device of the class described, in combination a casing, a battery mounted snugly in said casing, said casing having a concavo convex bottom, said battery having a convex bottom snugly fitting the concave side of said casing, said battery projecting in spaced relation from the outer edge of said casing, a cap threaded upon the outer edge of said casing, a contact finger extending transversely in said casing between said cap and battery and secured to the latter, said cap being provided with an opening, the contact member having a conductor rod extending through the opening in said cap, said cap adapted to force the last named contact to bear against the first named contact finger.

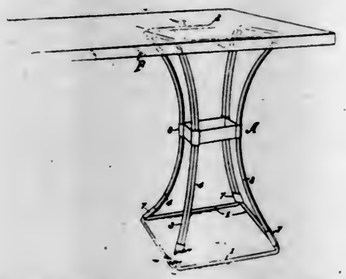
1,208,627. WRENCH. EDWIN NILSSON, Chicago, Ill. Filed June 15, 1914. Serial No. 845,179. (Cl. 81—184.)



A wrench including a toothed bar having a fixed jaw, a movable jaw having an opening receiving said toothed bar, said opening being of a greater cross-section than said bar forming spaced-apart walls having extending therethrough a transverse pin extending from said movable jaw said toothed bar being received between said walls and a bridge mounted and pivoted upon said pin, a loop secured to the sides of said movable jaw and upraised therefrom and positioned transversely of said movable

jaw, fixed-jaw bar and bridge, and a resilient member looped under said transverse pin with one end extended under said loop, the other end of said spring having connection with said bridge, delivering pressure thereupon, the teeth of said bridge being in engagement with the teeth of said fixed jaw bar, normally, and the gripping ends of said movable and fixed jaws being upon the side of said fixed-jaw bar opposite to said teeth, whereby the strain resulting when the wrench is in use, does not tend to dislodge the teeth of said bridge from said fixed-jaw bar teeth.

1,208,628. DISPLAY-SHELF SUPPORT. HENRY J. NUTRIZIO, New York, N. Y. Filed May 8, 1916. Serial No. 96,217. (Cl. 248—41.)



1. A shelf support of pedestal-like form composed of wire side frames having upper, side and bottom members, the bottom members forming together a common base, and the upper members a common top or head, and fastening means between the side members of adjacent frames for binding the frames together.

2. A display shelf support formed of a skeleton wire structure enlarged at its top and bottom, said structure being composed of individual rigid frames extending from the top to the bottom of the support, and means fastening the frames rigidly together.

3. A support of the class described comprising a skeleton-like wire structure enlarged at its top and bottom and composed of a plurality of individual wire frames extending from the top to the bottom of the support and each formed of top and bottom members and side members, the side members of the frames being in contact and rigidly secured together.

4. A support of the class described comprising a skeleton-like wire structure enlarged at its top and bottom and composed of a plurality of individual wire frames each formed of top and bottom members and side members, the frames being so arranged that the right member of one frame is in contact with the left member of the adjacent frame, and clips securing the contacting side members of the frames rigidly together.

5. A support of the class described comprising a structure formed of a plurality of frames each consisting of top and bottom members and curved side members, a clip for securing the ends of the members together and serving to unite adjacent frames rigidly, and additional clips also serving to rigidly unite adjacent frames.

[Claims 6 to 8 not printed in the Gazette.]

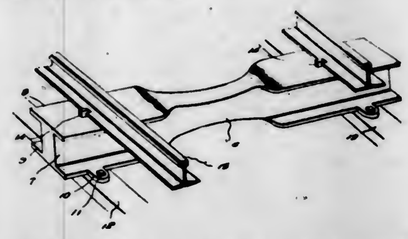
1,208,629. METAL-FILAMENT MANUFACTURE. OTTO OBERLÄNDER, London, England, assignor to General Electric Company, a Corporation of New York. Filed Nov. 27, 1911. Serial No. 662,628. (Cl. 176—132.)

1. The method of producing a plastic mass for the manufacture of tungsten filaments which consists in treating a haloid of the tungsten with methylated ether and evaporating the resulting product to the desired consistency for subsequent operation.

2. The method of producing a plastic mass for the manufacture of tungsten bodies which consists in treating tungsten hexachlorid with methylated ether and evaporating the resulting product to a paste of suitable consistency.

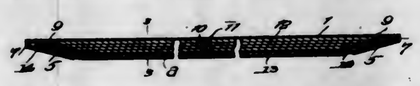
3. A plastic material for the manufacture of tungsten bodies consisting of a pasty product of a halogen tungsten compound and methylated ether or its described equivalent.

1,208,630. RAILWAY-TIE. GEORGE F. A. OCHS, Pompton Plains, N. J. Filed July 11, 1916. Serial No. 108,682. (Cl. 238—5.)



A metallic railway tie made in an integral piece of metal and having a relatively thick web extending from end to end, the end portions being provided upon opposite sides with relatively wide flanges and rail receiving portions, the lower flanges being provided with oppositely extending apertured bolt receiving lugs, the opposite face of the tie being provided with a plurality of substantially J-shaped spike receiving sockets, the intermediate portion of the tie being tapered and reduced.

1,208,631. RULER. HARRY W. OLNEY, Colfax, Wash. Filed Jan. 18, 1916. Serial No. 72,714. (Cl. 120—2.)

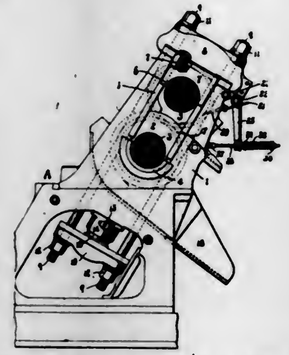


1. A blotter comprising a supporting strip of resilient material having at each end of one face a pocket or socket, the said pockets or sockets having their inner ends open, and that wall of each socket remote from the supporting strip inclining away from the adjacent face of the strip toward the inner end of the socket, a strip of resilient material connected to the supporting strip intermediate the ends of the said strips, the resilient strip having at each end an angular portion approximately parallel with the inclined wall of the adjacent socket for clamping the end of a strip of blotting material between the said portion and the inclined wall of the adjacent socket, and filling strips arranged between the resilient strip and the supporting strip.

2. A blotter comprising a supporting strip of resilient material having at each end of one face a pocket or socket, the said pockets or sockets having their inner ends open, and that wall of each socket remote from the supporting strip inclining away from the adjacent face of the strip toward the inner end of the socket, and a strip of resilient material connected to the supporting strip intermediate the ends of the said strips, the resilient strip having at each end an angular portion approximately parallel with the inclined wall of the adjacent socket for clamping the end of a strip of blotting material between the said portion and the inclined wall of the adjacent socket.

3. A blotter comprising a supporting strip having at each end of one face a pocket, the said pockets having their inner ends open and that wall of each pocket remote from the strip inclining away from the adjacent face of the strip toward the inner end of the pocket, and a second strip connected to the supporting strip intermediate the ends of the said strips, and having at each end an angular portion approximately parallel with the inclined wall of the adjacent socket for clamping the end of a strip of blotting material between the said portion and the inclined wall of the adjacent socket, the said strips.

1,208,632. CRUSHING-MILL. JOHN F. O'NEIL, St. Louis, Mo. Filed May 5, 1915. Serial No. 25,946. (Cl. 100—47.)

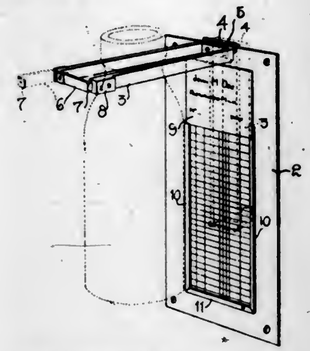


1. A crushing roll comprising a main support provided with guides, a rotatable crushing roll, a yieldable crushing roll movable toward and away from the first mentioned crushing roll, the ends of said yieldable crushing roll being provided with journals which lie between said guides, bearing members fitted to said journals and guided by said guides, caps fitted to said bearing members, means for forcing said caps onto said bearing members to yieldingly force said yieldable roll toward the other roll, scraper bearings secured to said caps, a rod having its ends fitted to said scraper bearings, a scraper fitted to said yieldable roll and secured to said rod, arms secured to said rod, and means associated with said arms so as to force said scraper into engagement with said yieldable roll.

2. A crushing roll comprising a main support provided with guides, a rotatable crushing roll, a yieldable crushing roll movable toward and away from the first mentioned crushing roll, the ends of said yieldable crushing roll being provided with journals which lie between said guides, bearing members fitted to said journals and guided by said guides, caps fitted to said bearing members, means for forcing said caps onto said bearing members to yieldingly force said yieldable roll toward the other roll, scraper bearings secured to said caps, a rod having its ends fitted to said scraper bearings, a scraper fitted to said yieldable roll and secured to said rod, arms secured to said rod, spring holders passing through said arms and pivoted to said main support, and springs associated with said spring holders so as to force said scraper into engagement with said yieldable roll.

1,208,633. MILK-BOTTLE HOLDER. OTTES E. PARIS, Aurora, Ill., assignor of one-half to George M. Paris, Montgomery, Ill. Filed Aug. 11, 1915. Serial No. 44,982. (Cl. 232—41.)

1. A milk bottle holder comprising a base plate, a substantially U-shaped bottle rack comprising oppositely disposed parallel arms and an integral connecting strip, a hinge attaching the upper edge of the connecting strip to the upper edge of the base, said hinge permitting the rack to move from a position against the back of the base plate and parallel thereto into a position at right angles to the base plate and engaging at its butt end with the face of the plate to support the rack perpendicularly to the face of the plate, and a locking member hinged to the outer end of one arm of the bottle rack and having locking engagement with the outer end of the other arm of the rack and when locked preventing bending of the two arms into divergent relation.



2. A milk bottle holder and protector comprising a base, a bottle rack hinged to the upper end of the base and adapted to be drawn either into an angular position with reference to the base, or turned upward approximately parallel thereto, and an account card removably mounted upon the base and normally prevented from removal by the bottle rack when the latter is in a position at right angles to the base.

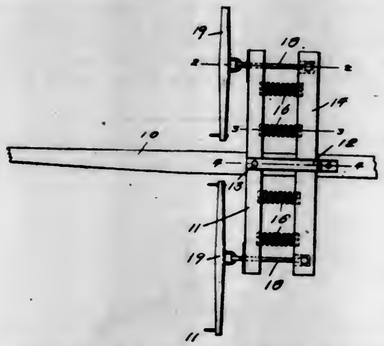
1,208,634. OIL-CAN. OLE PAULSON and JACOB B. NELSON, Rhame, N. D. Filed May 7, 1915. Serial No. 26,584. (Cl. 221—51.)



1. An oiler of the class described comprising a body having a hollow boss formed at its top and also having a dished bottom provided with a central internally threaded nipple, a barrel extended through the nipple in the bottom and engaged with the boss at the top of the body, an annular flange formed on the lower end of the barrel and received in the nipple on the bottom, a closure plug tapped in the nipple in the bottom and engaging the flange on the barrel, a plunger working in the barrel, a spring seated within the barrel and acting upon the plunger, a two-part plug, one part being detachably mounted in the top of the body centrally thereof, a collar detachably connecting the two parts of the plug, a discharge spout carried by one part of the plug and a valved feed tube leading from the barrel to the two-part plug, said two-part plug being formed with passages for establishing communication between the body and the said spout.

2. An oiler of the class described comprising a body having a hollow boss formed at its top and also having a dished bottom provided with a central internally threaded nipple, a barrel extended through the nipple in the bottom and engaged with the boss at the top of the body, an annular flange formed on the lower end of the barrel and received in the nipple on the bottom, a closure plug tapped in the nipple in the bottom and engaging the flange on the barrel, a plunger working in the barrel, a spring seated within the barrel and acting upon the plunger, a two-part plug, one part being detachably mounted in the top of the body centrally thereof, a collar detachably connecting the two parts of the plug, a discharge spout carried by one part of the plug, a valved feed tube leading from the barrel to the two-part plug, said two-part plug being formed with passages for establishing communication between the body and the said spout, a downwardly tapered valve seat formed in the barrel near the lower end thereof, said barrel being formed with a plurality of apertures below said valve seat, and a valve normally engaged in said seat.

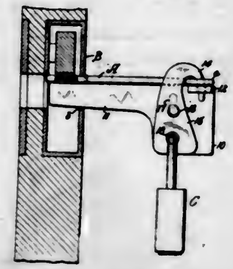
1,208,635. RESILIENT DOUBLETREE. GEORGE PETERSEN, Denver, Colo. Filed May 19, 1915. Serial No. 29,127. (Cl. 21—78.)



A draft device for a horse drawn vehicle comprising a pole, a doubletree bar pivotally mounted thereon, a bracket secured to the pole and connectel to the pivot of the doubletree, said doubletree bar having openings extending forwardly and rearwardly through the ends thereof, and sockets in the rear face thereof, a second transverse bar disposed on the pole rearwardly of the doubletree and under the bracket, said second bar having sockets in its forward face, coil springs between the bars and having their ends seated in the sockets of both bars, and links pivotally connected to the ends of the second bar and extending through the end openings of the doubletree, said links fitting loosely in said openings.

1,208,636. KEY-LOCKING DEVICE. MAGNUS BERNHARD PETERSEN, Seattle, Wash. Filed July 26, 1916. Serial No. 111,397. (Cl. 70—65.)

1. A device of the class described including a shank adapted to be inserted in a keyhole, a head at the outer end of the shank presenting a transverse member at the top adapted to lie beneath the bow of a key, when the latter is turned to dispose the bit of the key laterally in a lock, said top member having vertical holes therein at the sides of the head, and vertically disposed hooks on the head at the sides thereof, said hooks being mounted on the head for pivotal and sliding movement in their vertical planes to extend the bills of the hooks through the said holes of the top member, the shanks of the hooks, below the pivots thereof, having transverse holes therein, and the said head having a transverse hole which is in alinement with those of the hooks when the bills of the hooks are disposed in the said vertical holes of the top member.



2. A locking device for keys, having a shank adapted to be inserted in a keyhole, a vertically disposed hook at a side of the shank and mounted to move relative to the said shank, the said hook having a downturned bill adapted to be passed through the bow of the key when the shank is in position in a lock beneath the key and the latter turned to dispose the bit thereof laterally, and a horizontally disposed member in fixed relation to the shank to lie beneath the bow of the key, the hook being movable to project the bill thereof through the bow of the key, and the said member being adapted to be engaged by the bill of the hook when projected through the said bow.

3. A locking device for keys, including a shank adapted to be inserted in the keyhole of a lock beneath an inserted key, a head on the shank at the outer end thereof, said head having a transverse member at the top thereof in position to lie beneath the bow of the key when the shank is in the keyhole beneath the key, a hook rockable and slidable in its own vertical plane on the said head and having a downturned bill engageable with the said transverse member and with the bow of the key to hold the key against displacement.

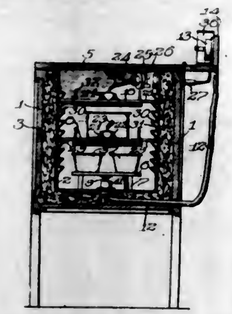
4. A locking device for keys, including a shank adapted to be inserted in the keyhole of a lock beneath an inserted key, a head on the shank at the outer end thereof, said head having a transverse member at the top thereof in position to lie beneath the bow of the key when the shank is in the keyhole beneath the key, a hook rockable and slidable in its own vertical plane on the said head and having a downturned bill engageable with the said transverse member and with the bow of the key to hold the key against displacement, said hook and head having transverse holes adapted to register for receiving the shackle of a lock when the hook is in engagement with the transverse member.

5. A locking device for keys, including a shank adapted to be inserted in the keyhole of a lock beneath an inserted key, a head at the outer end of the shank, the said head having a transverse member at the top in position to lie beneath the bow of the key when the shank is in the keyhole beneath the key, a hook movably mounted on the head to engage and disengage said transverse member and hold the bow of the key, the head and hook having means to receive a lock to prevent their relative movement.

1,208,637. ELECTRIC COOKING APPARATUS. SABRING I. PHELPS, Buchanan, Mich. Filed July 5, 1911. Serial No. 637,021. (Cl. 219—35.)

1. In a cooking apparatus, the combinat'on of an oven, an electric heater in the bottom of said oven, and a second electric heater adjustably supported above said first heater, said second heater comprising a plate, having a heating element secured thereto, the lower face of said second heater being open and covered by a sheet of transparent insulating material whereby it is adapted to transmit heat mainly by radiation.

2. In a cooking apparatus, the combination of an oven, an electric heater adapted to be supported in said oven and have a utensil of food placed thereon, and a second electric heater having one face thereof open so as to facilitate direct radiation of heat from the heating element therein, said second heater being adapted to be placed in said oven above said utensil, legs extending outward from the back of said second heater whereby it may stand in an inverted position when removed from said oven, contact members on said heaters, and coacting contact members in said oven and outside thereof respectively adapted to have interfitting engagement with the contact members on said second heaters.



3. In a cooking apparatus, the combination of an oven, an electric heater in the bottom of said oven, a second electric heater adapted to be supported above said first heater, a plurality of vertically spaced shoulders arranged along the sides of said oven and supporting parts disposed at right angles relatively to each other formed at opposite edges of said second heater, the horizontal part thereof being adapted to coact with said shoulders for supporting said heater in said oven, and the vertical parts being adapted to be used as handles.

4. In cooking apparatus, the combination of an oven, a plurality of electric heaters adapted to be used in said oven or on the outside thereof, vertically spaced shoulders at the sides of said oven, supporting parts disposed at right angle relatively to each other formed at opposite sides of said heaters, the horizontal parts being adapted to coact with said shoulders for supporting said heaters in said oven, and the vertical parts being adapted to serve as legs for supporting the heater in an inverted position and both parts of said members being adapted to serve as handles when the heater is supported on the other parts of said members.

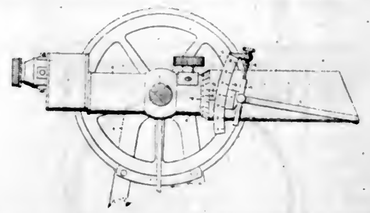
5. In an electric heater, the combination of a plate, a heating element secured to said plate and having its face covered by a sheet of transparent insulating material whereby it is free to transmit heat mainly by radiation, and a comparatively narrow border member secured to said plate for holding said heating element and insulating material thereto.

1,208,638. INSOLE. TOBIAS NATHAN PHILLIPS, New York, N. Y. Filed June 3, 1916. Serial No. 101,448. (Cl. 36—44.)



An insole comprising two layers of leather, a sheet metal layer interposed between the first named layers and having its edges terminating short of the edges thereof whereby the margins of the same may be secured together, all of said layers having opposite laterally projecting and upturned flanges at the arch portions of the insole, superposed padding elements arranged in the instep and between one of said leather layers and said metallic layer, and an electric insulating material applied to the edges of the two leather layers.

1,208,639. ATTACHMENT FOR ENGINEERS' TRANSITS. CHARLES M. PIDGEON, Washington, D. C. Filed Feb. 23, 1915. Serial No. 10,038. (Cl. 88—2.4.)



1. The combination with the objective end of a telescope, of means mounted thereon to one side of the optical axis thereof and capable of adjustment in accordance with the time of day and the position of the sun for projecting the image of the sun in the center line of the field of the telescope.

2. The combination with the objective end of a telescope, of a sleeve mounted on said telescope and independently rotatable thereon, a reflector upon the free end of said sleeve, and means for adjusting the position of the reflector in accordance with the time of day and the position of the sun.

3. The combination with a telescope, of a transit or other surveying instrument, having a circumferentially grooved rib, of a sleeve adapted to fit over the objective end of said telescope, means carried by the sleeve engaging said groove to hold the sleeve over said telescope, a reflector mounted at the free end of the sleeve, and means to adjust said reflector in accordance with the time of day and the position of the sun whereby the image of the sun will be reflected in the center of the field of the telescope.

4. The combination with a transit telescope, having a grooved rib adjacent its pivot point, and a collar at its outer end, one edge of said rib having hour graduations thereon, of a sleeve adapted to fit over the objective end of the telescope and having its ends bearing respectively upon said rib and collar, means carried by the sleeve adapted to engage said groove in the rib and hold said sleeve over the telescope and permit the same to rotate independently of the telescope, one end of the sleeve having a graduated index to coöperate with the hour graduations, a reflector pivoted in the free end of said sleeve, means to adjust said reflector in accordance with the time of day and the position of the sun to reflect the image of the sun in the center of the field of the telescope, said reflector being positioned to one side of the center of the field of the telescope.

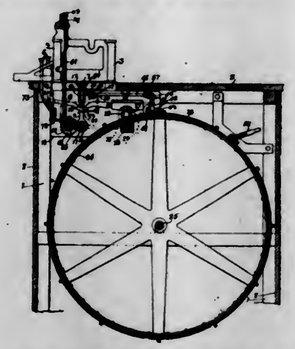
5. The combination with a transit telescope, of a sleeve independently rotatably mounted upon one end of the telescope, said sleeve having one of its ends projecting beyond the object end of the telescope, said end being cut at an angle to the axis of the sleeve, a reflector mounted in said projecting end, and means to adjust said sleeve and reflector in accordance with the time of day and the position of the sun to reflect the image of the sun in the center of the field of the telescope.

[Claim 6 not printed in the Gazette.]

1,208,640. AUTOMATIC OPERATING MECHANISM FOR TYPE-WRITERS. JOHN H. PILLINGS, Dayton, Ohio, assignor of one-half to Benjamin H. Noyes, Dayton, Ohio. Filed Sept. 29, 1913. Serial No. 792,368. (Cl. 197—19.)

1. An operating mechanism comprising an actuating device adapted to be connected with any one of a plurality of devices to be operated, a movable controlling device having parts projecting therefrom, bodily adjustable thereon and positively held against displacement, and means arranged in the path of and adapted to be engaged by said parts of said controlling device, to cause operative

connections to be established between said actuating device and selected devices to be operated.



2. An operating mechanism comprising an actuating device adapted to be connected with any one of a plurality of devices to be operated, a movable controlling device having parts projecting therefrom and bodily adjustable thereon, and means arranged in the path of and adapted to be engaged by said parts of said controlling device, to cause operative connections to be established between said actuating device and selected devices to be operated, and means to retain said parts in their adjusted positions to cause said selected devices to be operated to be actuated in the same sequence by sucessive movements of said movable member.

3. An operating mechanism comprising an actuating device adapted to be connected with any one of a plurality of devices to be operated, a movable controlling device having parts projecting therefrom and bodily adjustable thereon, means coöperating with said parts to establish operative connections between said actuating device and the selected parts to be operated, and means to positively retain said parts in their adjusted positions whereby said selected device to be operated may be actuated in the same sequence by the successive movements of said movable member.

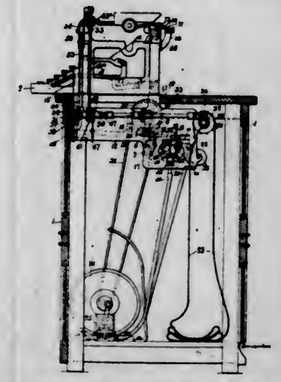
4. An operating mechanism comprising an actuating device adapted to be connected with any one of a plurality of devices to be operated, a movable controlling device for said actuating device having controlling members arranged in normally fixed relative positions and adjustable transversely to the line of movement of said controlling device, movable devices arranged to be actuated by said controlling members, and means operated by said movable devices to cause said actuating device to be operatively connected with selected parts to be operated.

5. An operating mechanism comprising an actuating device adapted to be connected with any one of a plurality of parts to be operated, said actuating device having a plurality of members mounted thereon and separately movable into positions to establish the connections between said device and its respective parts to be operated, a continuously moving controlling device comprising a series of controlling members, and connecting devices mounted separately from said actuating device and arranged to be engaged by said controlling member and to separately operate the movable members of said actuating device to cause the latter to be operatively connected with the selected parts to be operated.

[Claims 6 to 48 not printed in the Gazette.]

1,208,641. SELECTIVE OPERATING MECHANISM. JOHN H. PILLINGS, Dayton, Ohio, assignor of one-half to Benjamin H. Noyes, Dayton, Ohio. Filed July 13, 1914. Serial No. 850,550. (Cl. 197—20.)

1. In an operating mechanism of the character described, the combination, with an actuating device, and a plurality of parts to be actuated, said parts being normally disconnected from said actuating device, of selecting devices movable into positions to connect said actuating device with selected parts to be operated, a series of pneumatic operating devices for said selecting devices comprising air chambers, movable members operatively connected with the respective selecting devices, an air pump connected with said chambers and acting on said movable members to move the same in one direction, and means to move said movable members in the other direction, said chambers having individual controlling ports leading directly to the atmosphere and adapted to be opened and closed to control the operation of the selecting device.



2. In an operating mechanism of the character described, the combination with an actuating member and a plurality of parts to be actuated, said parts being normally disconnected from said actuating member, of selecting devices movable into positions to connect said actuating member with selected parts to be operated, a series of cylinders arranged adjacent to said selecting devices, plungers mounted in said cylinders and connected with the respective selecting devices, springs tending to move said plungers in one direction and an air pump connected with said cylinders to move said plungers in the other direction, each cylinder having a relief port adapted to be opened and closed to control the action of said air pump on the piston in that cylinder.

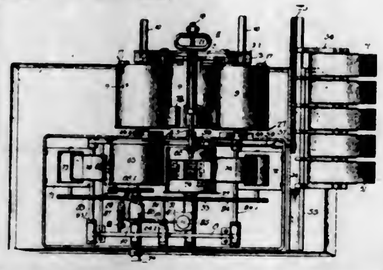
3. In an operating mechanism of the character described, the combination with an actuating member and a plurality of parts to be actuated, said parts being normally disconnected from said actuating member, of selective mechanism including a suction apparatus, a plurality of cylinders, each connected with the suction apparatus and each having a relief port, plungers mounted in the several cylinders, selecting devices connected with the respective plungers and adapted to establish an operative connection between said actuating device and the respective parts to be operated, springs to move said plungers in one direction and means to control said relief ports.

4. In an operating mechanism of the character described, the combination with an actuating member and a plurality of parts to be actuated, said parts being normally disconnected from said actuating member, of selective mechanism comprising a bar arranged adjacent to said actuating member and having a series of cylinders formed therein and also having a longitudinal chamber connected with each of said cylinders, each of said cylinders having a relief port, plungers mounted in the several cylinders and selecting devices connected with the several plungers and movable to establish operative connections between said actuating member and the respective parts to be actuated.

5. In an operating mechanism of the character described, the combination with an actuating member and a plurality of parts to be actuated, said parts being normally disconnected from said actuating member, of selective mechanism comprising a bar arranged adjacent to said actuating member and having a series of cylinders formed therein and also having a chamber connected with each of said cylinders, each of said cylinders having a relief port, plungers mounted in the several cylinders and selecting devices connected with the several plungers and movable to establish operative connections between said actuating member and the respective parts to be actuated, and means to movably support a perforated web of paper in operative relation to said relief ports.

[Claims 6 to 23 not printed in the Gazette.]

1,208,642. PARCEL-POSTAGE METER. ARTHUR H. PITNEY, Joliet, Ill. Filed Feb. 3, 1913. Serial No. 746,082. (Cl. 101—126.)



1. In a machine of the class described, the combination with supporting means for a plurality of paper strips, of postage stamp printing mechanism, a plurality of registering devices, and means for differentially adjusting the printing mechanism constructed to selectively control the paper supporting means and registering devices for operation.

2. In a machine of the class described, the combination with supporting means for a plurality of paper strips, of printing mechanism, means for setting the printing mechanism to print different amounts, and said setting means having connections to selectively control the paper supporting means for impressions on different paper strips.

3. In a machine of the class described, the combination with accounting devices and operating mechanism therefor, of printing mechanism, positioning means for record strips, and means for selectively making coöperative any one of said accounting devices and the operating mechanism adapted to control said positioning means to set a corresponding one of said strips into operative relation with the printing mechanism.

4. In a machine of the class described, the combination with supporting means for a plurality of paper strips, printing mechanism, a plurality of registering devices, operating mechanism for the registering devices, and means for causing the printing mechanism to effect an impression on a desired paper strip and the operating mechanism to operate a registering device having a predetermined relationship to the said strip.

5. In a machine of the class described, the combination with a plurality of independent printing mechanisms of an operating mechanism therefor, manually operated means constructed to selectively control said printing mechanisms whereby the same may be adjusted to effect impressions from any one of said printing mechanisms, and means for differentially controlling said operating mechanism whereby any desired number of impressions may be effected from the selected printing mechanism.

[Claims 6 and 7 not printed in the Gazette.]

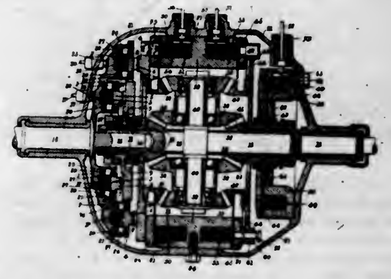
1,208,643. IRONING BOARD, PAD, AND COVER. RAE POLL, Chicago, Ill. Filed July 29, 1916. Serial No. 112,040. (Cl. 68—10.)

1. A board, a pad thereon, a cover thereover, a plurality of hook shaped holding means for said pad and cover at one side of said board, and a plurality of holding devices at the opposite side of said board having, each, a head provided with a transverse bore therethrough, and a pin held in each of said bores, said pad and cover having eyelets passed over the respective holding means.



2. As an article of manufacture, adapted for the reception of a pad and cover, a board having a plurality of headed screws held in spaced relationship along opposite edges of the under side thereof, the screws along one edge having hook shaped heads, and the screws along the opposite edge having transversely bored heads, and a pin held in each bore.

1,208,644. VARIABLE-SPEED GEARING. GEORGE POLLARD, Piccadilly, London, England, assignor to Menco-Elma Syndicate Limited, London, England. Filed July 29, 1915. Serial No. 42,529. (Cl. 74—34.)



1. In a variable speed gear of the epicyclic type, driving and driven members, gearing for establishing variable speed connection between the same, electromagnetic means for controlling said variable speed connections, clutch means for establishing a direct-drive connection, and spring means, operative only on the deënergization of said electromagnetic means, for establishing the direct drive clutch connection.

2. In a variable speed gear of the epicyclic type, driving and driven members, gearing for establishing variable speed connections between the same, electromagnetic means for controlling said variable speed connections, a plurality of clutch devices for effecting a direct drive connection between said driving and driven members, mechanical means constantly tending to establish said direct drive connection, and electromagnetic means to overcome said mechanical means and open certain of said clutch devices to vary the drive connection.

3. In a variable speed gear of the epicyclic type, driving and driven members, gearing for establishing variable speed connections between the same, electromagnetic means for controlling said variable speed connections, a plurality of clutch devices for effecting a direct drive connection between said driving and driven members, spring means for maintaining said clutch devices normally closed, and electromagnetic means for opening, against the action of said spring means, certain of the clutch devices to vary the drive connection.

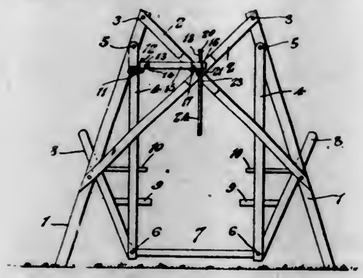
4. In a variable speed gear of the epicyclic type, driving and driven members, gearing for establishing variable speed connections between the same, electromagnetic means for controlling said variable speed connections, a plurality of normally-closed, mechanically-operated clutch devices for effecting a direct drive connection between the driving and driven members, said clutch devices comprising members rotatable with one of said members and electromag-

netic means for opening certain of said clutch devices to vary the drive connection.

5. In a variable speed gear of the epicyclic type, driving and driven members, clutch means for establishing a high speed, direct-drive connection between the same, said clutch means comprising a drivening member having projections and a driven member having recesses to receive said projections, gearing operatively connected to said driven member to afford reduced speed connections, and electromagnetic means for controlling said connections, and spring means operative only on the deënergization of said electromagnetic means for establishing the direct-drive clutch connection.

[Claims 6 to 14 not printed in the Gazette.]

1,208,645. LAWN-SWING FAN. HARRISON B. PORTER, Ander, Tex. Filed Mar. 22, 1915. Serial No. 16,214. (Cl. 230—7.)



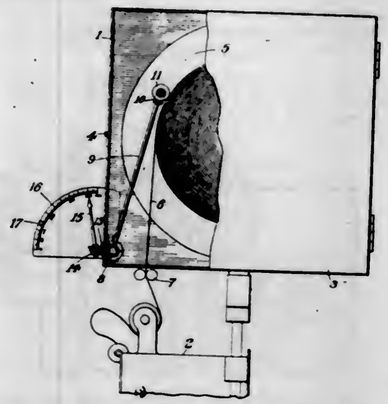
1. In an automatic fan for swings including the combination with a supporting frame, and seat suspending bars pivoted to said frame, of a rod journaled centrally in said frame, a fan operating bar connected at one of its ends to said suspending bars, a block pivotally connected at one end to the other end of said operating bar, a headed pin extending through the free end of said block and connected to said rod, a spring surrounding said pin and located between the head of the pin and block, and a fan carrying frame secured to said rod.

2. In an automatic fan for swings including the combination with a supporting frame, and seat suspending bars pivoted to said frame, of an L-shaped bracket secured at one of its ends to one of said seat suspending bars, a bar, blocks pivotally secured at one of their ends to the opposite ends of said bar, one of said blocks being secured to the bracket, the opposite end of said bar extended toward the center of said swing frame, a rod journaled centrally in said swing frame, a pin extending through the free end of the block on the inner end of the bar, and extending through said rod, a spring surrounding said pin and disposed between said block and the head of said pin, said spring holding the block in firm contact with said rod.

3. In an automatic fan for swings, including the combination with a supporting frame, and seat suspending bars pivoted to said frame, a rod journaled centrally in said frame, a bracket secured to said suspending bars, a horizontal operating bar, blocks pivotally secured to the opposite ends of said bar, one of said blocks being secured to said brackets, a pin extending through the free end of the other block, the opposite end of said pin extending into the rod, a spring surrounding said pin and abutting the block, and the head of the same, a fan carried by said rod, said spring holding said block in firm contact with said rod.

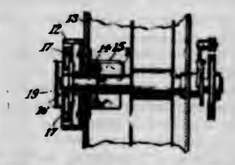
1,208,646. INDICATOR FOR FILM-MAGAZINES. NICHOLAS POWER, Brooklyn, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed July 14, 1913. Serial No. 778,887. (Cl. 33—172.)

1. The combination with a magazine for moving picture films having a door forming one entire side thereof, of an indicator therefor comprising a shaft rotatably mounted in the rear wall of said magazine, an arm mounted on the shaft in the magazine and provided with a roller adapted to engage the film on the reel, a plate connected to the rear wall of said magazine and projecting beyond one edge of the latter, a scale marked on said plate and an indicator hand pivoted on said plate and having geared connection with said shaft.



2. The combination with a magazine for moving picture machines having one entire side thereof hinged to form a door, of an indicator for said magazine comprising an arm supported on the inside of the casing and independently of said door, a plate supported by said casing and projecting beyond the edge of the latter and having a scale marked on the face of the plate visible from the same side of the magazine as said door, an indicator hand coöperating with said scale, and operative connections between said arm and said indicator hand.

1,208,647. SIGNAL DEVICE FOR FILM-MAGAZINES. NICHOLAS POWER, Brooklyn, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 7, 1914. Serial No. 817,201. (Cl. 88—17.)



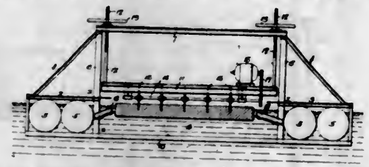
1. The combination of a magazine for moving picture films having a door adapted to close the magazine, a winding reel within the magazine and an indicator carried by the door and comprising a shaft rotatably mounted in the door and having a driving connection with the winding reel when the door is closed and a speed controlled signal operated by said shaft to produce a signal when the speed of said shaft exceeds a predetermined maximum.

2. The combination of a magazine for moving picture films having a door adapted to close the magazine, a winding reel within the magazine, an indicator carried by the door of the magazine and having operative connection with the winding reel when the door is closed, said indicator comprising a speed controlled signal device adapted to operate to produce a signal when said winding reel exceeds a predetermined speed.

3. The combination of a magazine for moving picture films, a winding reel within said magazine, a tension drive for said reel, and an indicator without said magazine having operative connection with said reel, said indicator comprising a speed controlled signal device adapted to operate to produce an alarm signal when said winding reel exceeds a predetermined speed.

4. The combination of a magazine for moving picture films, having a door adapted to close the magazine, a winding reel shaft within the magazine, a tension drive for such shaft, an indicator carried by the door of the magazine and having driving connection with said shaft when the door is closed, said indicator comprising a rotary member having a part radially movable through centrifugal action and a sounding member adjacent said rotary member and adapted to be engaged by said radially movable part when said reel exceeds a predetermined speed.

1,208,648. FLOATING ICE-SAWING MACHINE. HOWELL D. PRATT, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed July 8, 1915. Serial No. 38,830. (Cl. 125—14.)

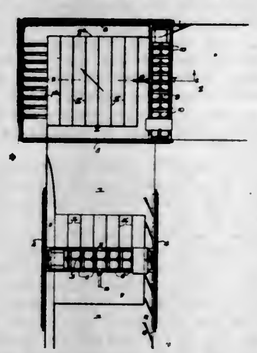


1. The combination of a floating structure made in two sections spaced apart and connected and forming a channed for the ice; and a series of saws located in the channel and arranged to cut the ice in the channel.

2. The combination of a floating structure made in two sections spaced apart and connected; a saw frame vertically adjustable on the structure and extending across the channel; a shaft; a series of circular saws on the shaft; bearings on the frame carrying the shaft; and means for driving the saws.

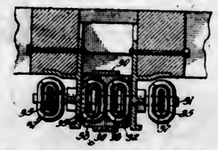
3. The combination in a floating structure, of two sections spaced apart to form a channel and connected by two beams, one of said beams being overhead and the other beam being below the line of the floating ice; air tight cylinders mounted in each section; a saw frame extending across the channel; bearings on the frame; a saw shaft mounted in the bearings; circular saws on the shaft; a motor also on the saw frame; and driving mechanism between the motor and the saw shaft.

1,208,649. METHOD OF CUTTING BLOCKS OF ICE. HOWELL D. PRATT, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 31, 1916. Serial No. 117,892. (Cl. 125—20.)



The process herein described of cutting a block of ice, said process consisting in floating the ice into the corner of a right angled channel formed at the junction of two sections of the channel, holding the ice rigidly in said corner, then traversing the cutting mechanism over the cakes of ice so as to form a series of kerfs therein, and finally removing the cut block of ice from the corner.

1,208,650. DRAFT-GEAR. HERMAN C. PHIEBE, Blue Island, Ill. Original application filed Aug. 27, 1914, Serial No. 858,854. Divided and this application filed Mar. 8, 1915. Serial No. 12,724. (Cl. 213—42.)



1. A draft gear including the followers thereof; a yoke structure coöperating with the followers; and a pair of coil springs located side by side between the sides of the yoke structure and interposed between these followers, the bores of these coil springs being elliptical.

2. A draft gear including the followers thereof; a yoke structure coöperating with the followers; and a pair of coil springs located side by side between the sides of the yoke structure and interposed between these followers, the bores of these coil springs being elliptical, the major axes of these bores being disposed upright.

3. A draft gear including the followers thereof; transversely extending keys movable longitudinally of the gear and engaging the followers; and coil springs interposed between said keys, the bores of the springs being elliptical with the major axes of the bores upright.

1,208,651. HARNESS-CHAIN. JULIUS C. PROEBSTEL, Portland, Oreg. Filed Oct. 7, 1915. Serial No. 54,550. (Cl. 54—52.)



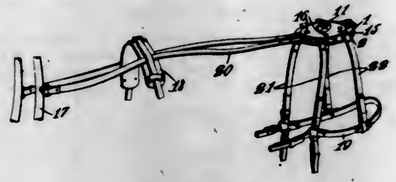
1. A chain of the character shown and described consisting of a series of links, each link being made of a flat strip of metal having its ends folded over upon its middle portion in such a way as to form elongated end loops extending longitudinally of said link, a fastener passing through the middle and end portions of said link, and other flat links connecting the loops of adjacent first links, said flat links having free movement in said loops lengthwise thereof, whereby to make possible the folding of said chain, substantially as described.

2. A trace consisting of a backing strip of flexible material, a series of links riveted thereto, each link consisting of a flat strip of metal having its ends folded over upon its middle portion thus forming end loops, a fastener passing through said backing strip and the middle and end portions of said link, and other links, connecting the loops of adjacent first links, said other links having free movement in said loops lengthwise thereof, substantially as illustrated.

1,208,652. HARNESS HIP-PAD. JULIUS C. PROEBSTEL, Portland, Oreg. Filed May 20, 1916. Serial No. 98,868. (Cl. 54—5.)

1. A harness comprising a breeching; back straps; suspension straps assembled with the breeching; a foot plate; side pins and an intermediate pin carried by the foot plate, the side pins being engaged with the back straps, the suspension straps being mounted on the intermediate

pin; a stud upstanding from the foot plate; a cap on the stud to bind the straps upon the foot plate; and a tightening device on the stud to cause the cap to engage all of the said straps firmly.



2. In a device of the class described, a foot plate; intermediate pins upstanding from the foot plate; side pins upstanding from the foot plate; a breeching; forward suspension straps assembled with the breeching, the upper ends of the suspension straps being engaged with one of the intermediate pins; rear suspension straps assembled with the breeching, the upper ends of the rear suspension straps being mounted on the other of the intermediate pins; a pair of back straps, the back straps being mounted on the side pins; a stud upstanding from the foot plate; a cap through which the stud passes, the cap coacting with the foot plate to bind all of the straps with respect to the foot plate; and a tightening device on the stud and coacting with the cap.

3. A strap holding hip pad for a harness, comprising a foot plate; a stud upstanding from the foot plate; pins upstanding from the foot plate; a cap through which the stud passes, the cap being provided with seats receiving the pins; and a tightening device on the stud and coacting with the cap.

4. In a strap holding hip pad for a harness, a foot plate; a stud assembled with the foot plate; pins passing upwardly through the foot plate and provided with heads engaging the lower face of the foot plate; a base engaging the heads of the pins; means for securing the base to the foot plate; a cap through which the stud passes; and a tightening device on the stud and coacting with the cap.

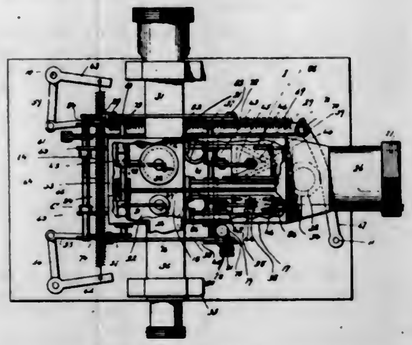
5. In a strap holding hip pad for a harness; a foot plate; a stud upstanding from the foot plate; pins extending through the foot plate and provided with heads engaging the lower face of the foot plate; a base engaging the heads of the pins; means for securing the base to the foot plate; a cap through which the stud passes, the cap being provided with seats receiving the pins; and a tightening device on the stud, the tightening device coacting with the cap.

1,208,653. FOUNTAIN-PEN. KARL RÄUCHLE, Hennef, and ALBERT KOEHLER, Kolmar, Germany, assignors to Firm Klio-Werk, Fabrik für Gebrauchsgegenstände, G. M. B. H., Hennef, Germany. Filed May 19, 1914. Serial No. 839,552. (Cl. 120—49.)



A fountain pen comprising a barrel portion having its open end formed slightly frusto-conical and provided with an interior thread, said barrel having an exterior threaded portion intermediate its ends, a cap member having an interior thread adapted to be screwed upon said exteriorly threaded portion of said barrel, a nib carrier adapted for engagement with the interiorly threaded portion of said barrel, a threaded socket formed concentrically of said nib carrier, and a rod supported centrally of said cap member and adapted for engagement with said threaded socket of said nib carrier.

1,208,654. APPARATUS FOR MIXING GAS AND AIR. EDWIN A. REEVES, Milford, Conn. Filed Nov. 26, 1915. Serial No. 63,692. (Cl. 48—184.)



1. In an apparatus of the character described, the combination with a body member, having separate air and gas inlets and an exhaust outlet; of means, within said body member, for mixing in predetermined proportions the air and gas that passes through said inlet, irrespective of the relative pressure under which the air and gas enter said body member and delivering said mixture to said exhaust outlet; and means for carrying such predetermined proportions.

2. In an apparatus of the character described, the combination with a body member, having separate air and gas inlets and an exhaust outlet; of means, within said body member for mixing in predetermined proportions the air and gas that passes through said inlets, irrespective of the relative pressure under which the air and gas enter said body member and delivering said mixture to said exhaust outlet, and maintaining the same at said exhaust outlet in the same relative proportion; and means for varying such predetermined proportions.

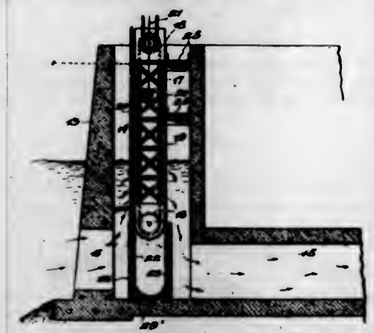
3. In an apparatus of the character described, the combination with means for independently receiving air and gas at varying and different pressures, with means for separately reducing said air and gas to a pressure less than atmospheric pressure; means for holding said air and gas balanced at the same pressure; means for uniting the air and gas into a common mixture and in predetermined proportions; and means for varying such predetermined proportions.

4. In an apparatus of the character described, the combination with a body member, having a vacuum chamber, a gas chamber, and an air chamber therein; of a gallery member, having an air chamber, a gas chamber and a vacuum chamber therein; means for connecting both of said vacuum chambers; means for connecting both of said air chambers; means for connecting both of said gas chambers; valve controlled means for admitting air into the air chamber in said gallery member; means for admitting gas into the gas chamber in said gallery member; a port connecting each of said gas and air chambers in said gallery member with the vacuum chamber therein; a valve for covering and uncovering said port; and means, controlled by the diaphragm within the vacuum chamber within said body member for operating said valves.

5. In an apparatus of the character described, the combination with a body member, having a plurality of chambers therein; a diaphragm in each of said chambers; a gallery member, having a plurality of chambers therein, and connected with said body member; valve means for controlling the flow of air into one of the chambers in said gallery member; means for operatively connecting said valve means with one of said diaphragms; valve means for controlling the flow of gas into one of the chambers in said gallery member; means for operatively connecting the last mentioned valve means with another of said diaphragms; a plurality of valves for controlling the flow of air and gas from said chambers into another chamber in said gallery member; and means operatively connected with another of said diaphragms for actuating all of said latter valves.

[Claims 6 to 19 not printed in the Gazette.]

1,208,655. FLUME-SCREEN. BENJAMIN S. REYNOLDS, Milwaukee, Wis., assignor to Chain Belt Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 4, 1916. Serial No. 123,692. (Cl. 210—16.)



1. In a water screening apparatus, a water chamber separated from the stream from which the water supply is taken by a wall, in the lower portion of which is an opening, a vertically adjustable water screen mounted in the chamber at a distance back from the wall sufficient to permit a free flow of water between the screen and the wall, and a gate for closing the space between the bottom of the screen and the bottom of the chamber arranged to deflect the water upward to cause it to pass through the screen when the latter is raised and the gate lowered.

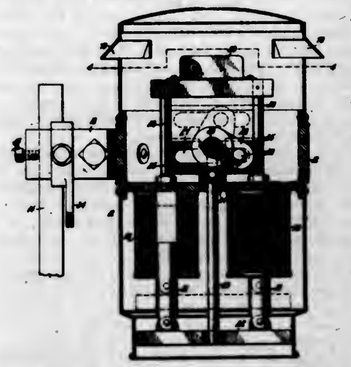
2. The combination with an endless traveling flume screen provided with transverse lips for lifting material taken out of the water by the screen, of means arranged to cover the lateral edges of the screen arranged to prevent material which the screen is intended to separate from passing beyond the said lateral edges, the said lifting lips being shorter than the transverse dimensions of the screen, whereby they lie between the edges of the said covering means.

3. The combination with an endless traveling flume screen formed of separate screen sections connected at their edges to chains, and provided with transverse lips for lifting the material taken out of the water by the screen, of guard plates overlying the lateral edges of the screen and disposed close to the outer edges thereof, the said lifting lips being shorter than the transverse dimensions of the screen and than the distance between the edges of the opposite guard plates, whereby limited lateral flexure of the screen is permitted.

4. The combination with an endless traveling flume screen formed of articulated sections, of guards arranged to overlie the lateral edges of the screen and disposed close thereto, transverse lips for lifting material taken out of the water by the screen, the lifting lips being shorter than the transverse dimensions of the screen and than the distance between the opposite edges of the guards, and strips arranged to overlie the spaces between contiguous screens secured to the said lips and also shorter than the distance between the guards.

5. In a flume screen, the combination of a series of separate screen sections, chains at the side edges of the screen to the links of which the screen sections are united, and cross bars uniting the opposite chains and passing between adjacent screen sections, the cross bars being proportioned to the space between the screen sections which they separate as set forth, whereby they substantially fill the spaces between the ends of the sections and operate to prevent solid material that may be carried by the water passing between the said sections and hence escaping the screen.

1,208,656. SIGNALING DEVICE. THOMAS RICHARDSON, New Orleans, La., assignor of one-half to George Downin, New Orleans, La. Filed Mar. 28, 1916. Serial No. 87,197. (Cl. 177—329.)



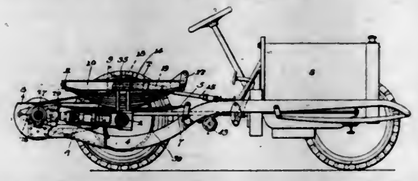
1. In a signaling device, a casing including a cup shaped section having a floor, a solenoid mounted on the floor therebeneath, and having a movable armature provided with a rod slidably extending through an opening in the floor, a crosshead carried by the rod above the floor, a cross head guideway having an alarm mounted thereon, said guideway mounted on the floor thereabove, a shaft operable by the crosshead, and journaled in the walls of the cup-shaped section and extending to the outside thereof, a sign carried by the outer end of the shaft and movable by said shaft into inactive and display positions, a cap section forming a portion of the casing mounted above and detachably secured to the said cup section, and housing the parts above the floor, and a lower casing section mounted below and detachably secured to the cup section, and housing the parts below the floor.

2. In a signaling device, a casing including a cup-shaped member having a floor and having means whereby the casing may be attached to a vehicle, a signal mounted on the cup-shaped member without the same, operating mechanism for the signal mounted in the casing on the said floor and including parts arranged above said floor, and parts arranged below said floor, a cap member forming a portion of the casing and arranged above and detachably secured to the cup member, and housing the parts above the floor, and a lower casing member arranged below and detachably secured to the cup and housing the parts below the floor.

1,208,657. TRACTOR. WILLIAM A. RIDER, Los Angeles, Cal., assignor to M. S. Bulkley, Los Angeles, Cal. Filed Jan. 13, 1914. Serial No. 811,803. (Cl. 21—90.)

1. In a tractor, a rear axle, driving wheels thereon, a tractor frame, resilient means mounted on said axle supporting said tractor frame, a jack shaft located at the rear of the rear axle, suitable gearing between the jack shaft and rear wheels for driving the latter, means for

driving said jack shaft, resilient means mounted on said rear axle independent of said first named resilient means, a load supporting frame mounted on said second named resilient means, and a draw bar secured to said tractor frame and to said load supporting frame.



2. In a tractor, a rear axle, driving wheels thereon, a tractor frame, resilient means mounted on said axle supporting said frame, a jack shaft located at the rear of the rear axle, suitable gearing between the jack shaft and the rear axles for driving the latter, means for driving the jack shaft, radius rods with their front ends pivoted on the rear axle and their rear ends pivotally connected with the jack shaft, resilient means mounted on said axle independent of said first named resilient means, a load supporting frame mounted on said second named resilient means, and a draw bar secured to said tractor frame and to said load supporting frame.

3. In a tractor, a rear axle, driving wheels thereon, a jack shaft located at the rear of the rear axle, suitable gearing between the jack shaft and rear wheels for driving the latter, a propeller shaft extending from a point forward of the rear wheels to the jack shaft for driving the latter, radius rods with their front ends pivoted on the rear axle and their rear ends pivotally connected with the jack shaft, front wheels, an axle for the front wheels, side frame members with their forward ends supported by the front axle, said side frame members extending rearwardly and below the rear axle, the rear ends of the side frame members supporting the said jack shaft.

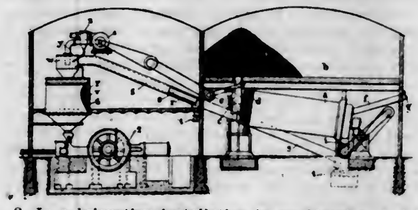
4. In a tractor, a rear axle, driving wheels thereon, a jack shaft located at the rear of the rear axle provided with a housing, suitable gearing between the jack shaft and rear wheels for driving the latter, a propeller shaft extending from a point forward of the rear wheels to the jack shaft for driving the latter, radius rods with their front ends pivoted on the rear axle and their rear ends pivotally connected with the jack shaft, front wheels, an axle for the front wheels, side frame members with their forward ends supported by the front axle, said side frame members extending rearwardly and below the rear axle, the rear ends of the side frame members supporting the jack shaft housing, and springs supported by the said rear axle, the front end of said springs being connected with intermediate points of said side frame members, the rear ends of said springs being connected at the rear ends of the frame members.

5. In a tractor frame, a rear axle, a tractor frame provided with side bars, resilient means mounted on said axle supporting said tractor frame, a jack shaft located at the rear of said rear axle and supported by said side bars, suitable gearing between said jack shaft and rear wheels for driving the latter, a second resilient means mounted on the rear axle, a load supporting frame mounted on said second resilient means, and a draw bar secured to the tractor frame and to the load supporting frame.

[Claims 6 to 9 not printed in the Gazette.]

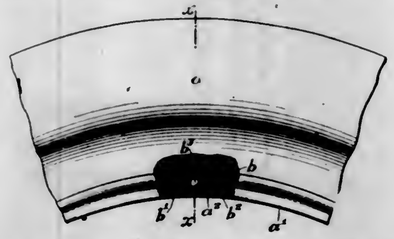
1,208,658. FUEL-BRIQUETING PLANT AND THE LIKE. THOMAS RIGBY, Dumfries, Scotland, assignor, by mesne assignments, to Wetcarbonizing Limited, London, England. Filed Feb. 16, 1912. Serial No. 677,923. (Cl. 34—6.)

1. The method of reducing the liability of fire in a briqueting installation in which an inflammable powder, for the purpose of removing moisture therefrom, is normally passed through a drying apparatus in association with a gaseous mixture having constituents tending to support combustion, such method consisting in reducing such constituents beyond the point at which inflammation can be propagated through the associated mass.



2. In a briqueting installation in combination, a drier, means for supplying a limited quantity only of gas to said drier to assist the removal of moisture from powdered peat undergoing desiccation, an element for separating solids from gases, a duct connecting the locality at which the drier is situated to said element, a duct connecting the outlet of the drier to the former duct, and means for causing a rapid stream of non-inflammable flue gases to flow through the former duct, as set forth.

1,208,659. TELLTALE DEVICE FOR AUTOMOBILE-TIRES. HENRY H. ROBERTS, Jr., Philadelphia, Pa. Filed Dec. 4, 1915. Serial No. 65,152. (Cl. 235—95.)



1. A tell-tale device of the character described, comprising a container with roughened interior surface and a rolling body mounted therein, substantially as and for the purposes described.

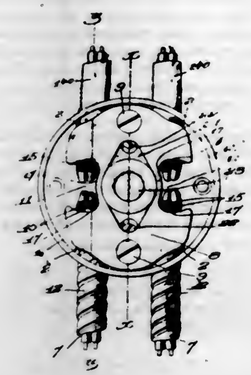
2. A tell-tale device of the character described, comprising a capsule-type of container having a removable cap and a scored or roughened interior surface and a rolling body mounted therein, substantially as and for the purposes described.

3. The combination with an automobile shoe or tire having an oblong chamber formed therein, of a tell-tale device consisting of an oblong container having a cap fitted thereto and having a scored or roughened interior surface and a rolling body mounted in said container, substantially as and for the purposes described.

1,208,660. JUNCTION OR OUTLET BOX. MINER ROBINSON, Newton, Mass. Filed July 29, 1911. Serial No. 641,340. (Cl. 247—1.)

1. An outlet box having a conduit-receiving opening through a wall thereof to permit the conduit to be passed obliquely through said opening and to project into the interior of the outlet box, said wall of the outlet box being provided with a raised portion extending laterally therefrom on the interior thereof and transversely to the direction of a conduit entering said opening and situated to be engaged by the portion of the conduit which enters the outlet box, the wall of said outlet box beyond the raised portion being depressed so that the conduit entering the box can be bent over the raised portion.

2. An outlet box having a conduit-receiving opening through the wall thereof to permit a conduit to be inserted obliquely therethrough with an end projecting into the interior of the outlet box, said outlet box being provided with a raised portion extending laterally therefrom on the interior thereof and transversely to the direction of a conduit entering said opening, said outlet box being provided with a recess beyond the raised portion, and a clamp adjustably secured to the wall of the outlet box and adapted to engage the portion of the conduit opposite the recess and bend said conduit over the raised portion.



3. The combination with an outlet box having a conduit-receiving opening and provided with a recess beyond the opening, of a conduit entering said opening and a clamp constructed to engage the end of the conduit and bend the end thereof into the recess and also to cover the end of the conduit armor.

4. The combination with an outlet box having a conduit-receiving opening, of an armored conduit extending into said opening and having the end thereof within the outlet box extending substantially parallel to the bottom of said box, and a clamp to clamp the conduit against the bottom of the outlet box, said clamp covering the end of the armor and having an open-sided wire-receiving passage formed in one side thereof and provided with rounded edges situated beyond the end of the armor which rounded edges prevent the wire from being injured by the rough edge of the armor.

5. The combination with an outlet box having a conduit-receiving opening and a raised portion within the box extending laterally relative to the axis of the opening, of a conduit inserted through said opening and engaging the raised portion and a clamp for clamping the conduit against the raised portion, said clamp having a shoulder to limit the distance which the conduit can be inserted into the opening.

[Claims 6 to 14 not printed in the Gazette.]

1,208,661. DRESS-VEST. MORRIS ROLLNICK, New York, N. Y. Filed Mar. 1, 1915. Serial No. 11,192. (Cl. 2—97.)

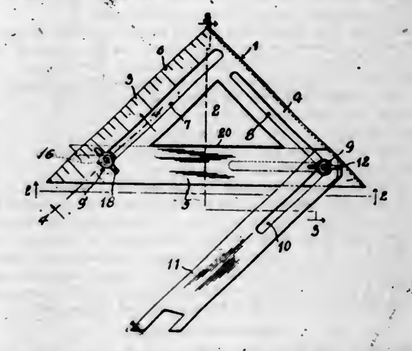
1. The herein described dress vest having a pocket in the lower portion of each side front, there being provided in each side front a vertical inverted box-plait having its upper end fixed and its lower end terminating at the center of said pocket, the lower end of the plait also being held from opening, the portions of the plait between its ends being adapted to bulge outwardly, substantially as set forth.

2. The herein described dress vest comprising side fronts, each formed with a diagonally arranged pocket and an inverted plait extending from the pocket upwardly to the shoulder, the main portion of the structure of the pocket and the plaited portion of the side front being cut from a single piece of material, the lower rear portion of the side front being cut from the plaited portion on a straight line parallel to the top of the pocket, and a portion of the side front adjacent the plait being cut as an



extension below said straight line, said portion becoming a portion of the pocket when the plait is formed.

1,208,662. COMBINATION-TOOL. CHARLES ROTH, New Philadelphia, Ohio, assignor of one-fourth to Joseph Yaggi and one-fourth to James Wilbert Rinehart, New Philadelphia, Ohio. Filed Apr. 20, 1916. Serial No. 92,451. (Cl. 33—94.)



1. In a device of the class described, a triangular body member having an opening through its central portion to form a number of arms, and a miter flange on the inner edge of one of said arms and formed from the metal struck from said opening.

2. In a device of the class described, a triangular body member having an opening through its central portion to form a number of arms, two of said arms being longitudinally slotted, a scribing pin in each slot, and a miter flange on the inner edge of the other arm and formed integrally therewith, said slots extending on both sides of said flange.

3. In a device of the class described, a body member in the form of a triangular plate, two of the edges thereof forming a right angle, said plate having a triangular opening in its central portion to form a number of arms, a miter flange formed on the inner edge of the arm opposite said right angle, and a flange formed on one of the outer edges of one of the other arms.

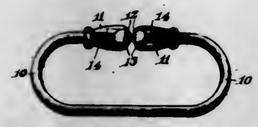
4. In a device of the class described, a triangular body member, a lateral flange on one edge of said member, a swinging blade pivoted to said member and movable to a plurality of positions, and means for holding said blade in adjusted positions.

5. In a device of the class described, a triangular body member having an opening in its central portion to form a plurality of arms, said arms having longitudinal slots, a

lateral flange formed on one edge of said member, a longitudinally slotted blade, and clamping means slidable in said slots and adapted to hold said blade in adjusted positions.

[Claim 6 not printed in the Gazette.]

1,208,663. KEY-RING. ERNEST F. RUECKERT, Providence, R. I. Filed Feb. 28, 1916. Serial No. 80,988. (Cl. 59—99.)



1. A key ring comprising a body bent to dispose its opposite ends in close spaced relation and provide an entrance throat between the ends and provided thereat with receptacles having their opposed ends open, balls mounted for longitudinal movement in said receptacles, resilient means engaging the balls and urging the same outwardly to close said entrance throat, and inturned flanges on the outer ends of asid receptacles for engagement with said balls to limit the outward movement of the latter.

2. A key ring comprising a length of wire bent into the form of a loop with its ends arranged in spaced relation and provided with a casing on each end of said length of wire, said casings being open at their opposed ends, balls mounted in said casings, and means to urge the balls outwardly and block the space between said ends.

3. A key ring comprising a body bent to dispose its opposite ends in close spaced relation and provide between the ends an entrance throat, opposed casings carried upon the ends of the body, balls mounted for longitudinal movement in the casings, a spring in each casing engaging the ball therein and normally urging the same outwardly to close said entrance throat, and inturned flanges on the outer ends of the casings for engagement with said balls to limit the outward movement of the same.

4. A key ring comprising a solid length of wire bent into form with its opposite ends arranged in close spaced relation to provide a throat between the ends, a casing swaged at one end upon each end of the length of wire, a ball mounted in each casing, an inturned flange on the outer end of each casing to confine the ball therein, and a spring mounted in each casing bearing against the ball therein to yieldingly project the latter from the end of the casing.

1,208,664. METHOD OF RENDERING SCRATCHES ON CINEMATOGRAPH-FILMS INVISIBLE. HUGO RUSSAK and OTFRID V. HANSTEIN, Berlin-Schöneberg, Germany; said von Hanstein assignor to said Russak. Filed Feb. 12, 1915. Serial No. 7,892. (Cl. 88—17.)



1. The herein described method of rendering scratches on cinematographic films temporarily invisible by optical illusion, which consists in applying to such film, before it passes the projection opening of the projecting apparatus, a readily vaporizable liquid having substantially the same index of refraction as the film.

2. The herein described method of rendering scratches on cinematographic films temporarily invisible by optical illusion, which consists in applying to such film, before it passes the projection opening of the projecting apparatus, a readily vaporizable and non-inflammable liquid having substantially the same index of refraction as the film.

3. The herein described method of rendering scratches on cinematographic films temporarily invisible by optical illusion, which consists in applying to such film before it passes the projection opening of the projecting apparatus, a liquid containing readily vaporizable halogenized hydrocarbon having substantially the same index of refraction as the film.

4. The herein described method of rendering scratches on cinematographic films temporarily invisible by optical illusion, which consists in applying to such film before it passes the projection opening of the projecting apparatus, a substance containing tetrachlorid of carbon, and having substantially the same index of refraction as the film.

1,208,665. SHOE. CARL RYDELL, Manila, Philippine Islands, assignor of one-fourth to Peter Johnson Wester, Lamao, Philippine Islands. Filed Apr. 11, 1916. Serial No. 90,431. (Cl. 36—73.)



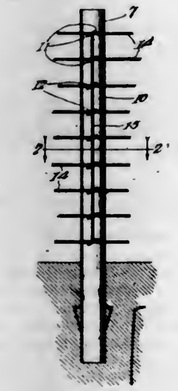
1. In a shoe, an open center marginal frame provided on the under side thereof with internally threaded tubular bosses arranged at intervals throughout the length of said frame, a sheet metal main sole provided with holes therein corresponding in location with said internally threaded bosses, internally threaded bosses arranged in a row extending transversely of the main sole and projecting from the bottom thereof, a half sole retaining bridge extending transversely of the main sole and secured at its opposite extremities thereto and formed with holes in line with the last named internally threaded bosses, a half sole marginal frame provided with holes in line with corresponding holes in the main sole, a half sole fastened in the last named marginal frame, and screws inserted through said retaining bridge into the rear edge portion of said half sole.

2. In a shoe, an open center marginal frame provided on the under side thereof with internally threaded tubular bosses arranged at intervals throughout the length of said frame, a sheet metal main sole provided with holes therein corresponding in location with said internally threaded bosses, internally threaded bosses arranged in a row extending transversely of the main sole and projecting from the bottom thereof, a half sole retaining bridge extending transversely of the main sole and secured at its opposite extremities thereto and formed with holes in line with the last named internally threaded bosses, a half sole marginal frame provided with holes in line with corresponding holes in the main sole, a half sole fastened in the last named marginal frame, screws inserted through said retaining bridge into the rear edge portion of said half sole, and a toe cap for holding the toe portion of the half sole marginal frame in fixed relation to the main sole.

3. In a shoe, an open center marginal frame provided on the under side thereof with internally threaded tubular bosses arranged at intervals throughout the length of said frame, a sheet metal main sole provided with holes therein corresponding in location with said internally threaded bosses, internally threaded bosses arranged in a row extending transversely of the main sole and projecting from the bottom thereof, a half sole retaining bridge extending transversely of the main sole and secured at its opposite extremities thereto and formed with holes in line with the last named internally threaded bosses, a half sole marginal frame provided with holes in line with corresponding holes in the main sole, a half sole fastened in the last named marginal frame, screws inserted through said retaining bridge into the rear edge portion of said half sole, a hollow metallic heel provided with a flange by which it is secured to the main sole, and a lift detachably fastened to said metallic heel.

4. In a shoe, an open center marginal frame provided on the under side thereof with internally threaded tubular bosses arranged at intervals throughout the length of said frame, a sheet metal main sole provided with holes therein corresponding in location with said internally threaded bosses, internally threaded bosses arranged in a row extending transversely of the main sole and projecting from the bottom thereof, a half sole retaining bridge extending transversely of the main sole and secured at its opposite extremities thereto and formed with holes in line with the last named internally threaded bosses, a half sole marginal frame provided with holes in line with corresponding holes in the main sole, a half sole fastened in the last named marginal frame, screws inserted through said retaining bridge into the rear edge portion of said half sole, and a compressible gasket extending along the marginal portion of the shoe and interposed between the main sole and the upper, the inturned edge of the latter being also interposed between the open center marginal frame and the main sole.

1,208,666. FENCE-POST. HOWARD D. SALINS, Chicago, Ill. Filed Feb. 14, 1916. Serial No. 78,129. (Cl. 256—54.)

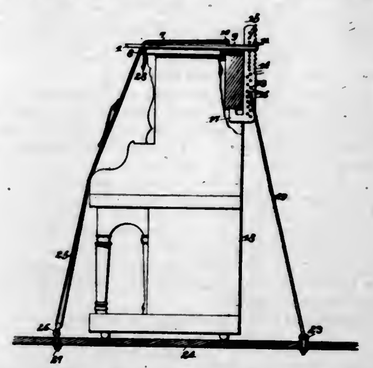


1. A fence post consisting of a single piece of material having a front face portion and a pair of hollow and parallel portions having the adjacent parts of their walls located approximately at the rear central portion of the face of the post and rearwardly diverged, the said face portion having openings arranged in vertical rows, one of the rows of said openings being located on one side of and adjacent to one of said rearwardly diverged walls, and the other row of said openings being located on one side of and adjacent to the other of said rearwardly diverged walls.

2. A fence post consisting of a single sheet of metal bent to form a face portion and two hollow and parallel portions having the adjacent parts of their walls located approximately at the central rear portion of the face of the post and rearwardly diverged, the said face portion having openings arranged in vertical rows, one of the rows of said openings being located on one side of and adjacent to one of said rearwardly diverged walls, and the other row of said openings being located on one side of and adjacent to the other of said rearwardly diverged walls.

3. A fence post consisting of a single sheet of metal bent to form a face portion and two hollow and parallel portions having overlapping flanges at their edges, the adjacent parts of the walls of said portions and said flanges being located approximately at the rear central portion of the face of the post and the said walls being rearwardly diverged, the said face portion having openings arranged in vertical rows, one of the rows of said openings being located on one side of and adjacent to one of said rearwardly diverged walls, and the other row of said openings being located on one side of and adjacent to the other of said rearwardly diverged walls.

1,208,667. ANCHORING MEANS FOR HEAVY ARTICLES. FREDERICK STOCK SAMMEL, Bedford, Pa. Filed Sept. 19, 1916. Serial No. 121,032. (Cl. 214—5.)



1. A device of the character specified, comprising a fulcrum board adapted to be arranged transversely of a body to be secured, said board having at one end a longitudinally extending guideway and a bearing block slidable in the guideway, said board having at the other end a longitudinally extending slot, and a journal pin at the outer end of the slot, a grab plate adapted to pass through the slot and having teeth for engaging the journal pin, said plate having a longitudinally extending series of openings and a stanchion having an angular portion for engaging one of the openings and having a hook at the opposite end for engaging an eye bolt, a strap having its ends adjustably connected and having a snap hook adapted to engage the eye bolt at the opposite side of the package from the stanchion, said strap being adapted to pass over the bearing block, the fulcrum board having means for engagement by the end of the strap remote from the snap hook, said grab plate having at the edge remote from the teeth laterally offset pointed spurs or lugs, and the stanchion being adjustable in length.

2. A device of the character specified comprising a fulcrum board adapted to be arranged transversely of a body to be secured, said board having at one end a longitudinally extending guideway, and a bearing block slidable in the guideway, said board having at the other end a longitudinally extending slot, and a journal pin at the outer end of the slot, a grab plate adapted to pass through the slot and having teeth for engaging the journal pin, said plate having a longitudinally extending series of openings, a stanchion having an angular portion for engaging one of the openings and having a hook at the opposite end for engaging an eye bolt, a strap having its ends adjustably connected and having a snap hook adapted to engage the eye bolt at the opposite side of the package from the stanchion, said strap being adapted to pass over the bearing block, and the fulcrum board having means for engagement by the end of the strap remote from the snap hook.

3. A device of the character specified, comprising a fulcrum board adapted to be arranged transversely of the body to be secured in place, a grab plate adjustably con-

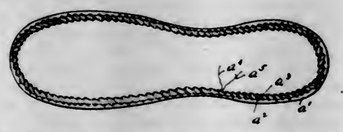
nected with one end of the board, a flexible member connected with the said board and adapted to extend longitudinally of the board and to a connection with the supporting surface for the body at the opposite side from the grab plate, a bearing block adjustable on the board for engagement by the flexible member, said member being adjustable in length, and a stanchion for connection with the grab plate at one end and adapted to engage the supporting surface at the other, said stanchion consisting of sections adjustably connected with each other.

4. A device of the character specified, comprising a fulcrum board adapted to be arranged transversely of the body to be secured in place, a grab plate adjustably connected with one end of the board, a flexible member connected with the said board and adapted to extend longitudinally of the board, and to a connection with the supporting surface for the body at the opposite side from the grab plate, a bearing block adjustable on the board for engagement by the flexible member, said member being adjustable in length, and a stanchion having connection with the grab plate at one end and adapted to engage the supporting surface at the other.

5. A device of the character specified comprising a fulcrum board adapted to extend transversely of the object to be secured in place, means connected with one end of the board and adjustable with respect thereto and adapted to engage the supporting surface for the object at one side of the object, a flexible member connected with the board adjacent to the said first named means and adapted to extend longitudinally of the same to a connection with the supporting surface at the opposite side of the body, and a bearing block having guided movement on the board for engagement by the flexible member at the opposite end of the board from the connection, the flexible member being adjustable in length.

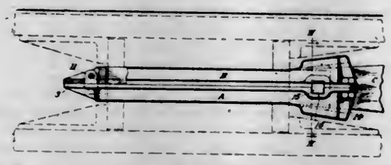
[Claims 6 and 7 not printed in the Gazette.]

1,208,668. SLIPPER-SOLE. MAX E. SCHENKE, Brooklyn, N. Y. Filed May 27, 1915. Serial No. 30,709. (Cl. 36—30.)



As an article of manufacture, a sole for slippers, consisting of an outer piece, a stiffening piece of smaller size than and glued to the former, and a trimming around the edge of the marginal part of said outer piece serving to reinforce the latter and consisting of a row of stitches, of which one of the longitudinal threads extends around said edge and serves as a draw string.

1,208,669. COUPLING-YOKE. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 25, 1914. Serial No. 820,795. (Cl. 213—42.)

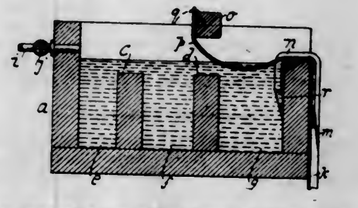


1. A coupler yoke formed in two parts by means of a longitudinal vertical division, each part engaging forward faces of a coupler liner-block, and each part having on its inner face a laterally-extending projection seating by a direct lateral movement in a corresponding recess in the other part, whereby the excessive stresses of buffing and draft applied to one part will be equalized between the parts, and means for securing the parts together.

2. A coupler yoke comprised of two parts separated by a longitudinal vertical division, each part engaging forward faces of a coupler liner block, the said two parts having interlocking engagements with each other near their forward ends to equalize the stresses of buffing and draft applied to the parts, and means for securing the parts together.

3. A coupler yoke comprised of two parts, each part being of substantially U-shape and engaging forward faces of a coupler liner block, and means for preventing longitudinal movement of one part relative to the other part, said means consisting of projections on each part cooperating with recesses on the other part.

1,208,670. APPARATUS FOR MIXING AND DISTRIBUTING LIQUIDS. OTTO SCHUTZ, New York, N. Y., assignor to Badische Company, New York, N. Y., a Corporation of New York. Filed Feb. 9, 1916. Serial No. 77,342. (Cl. 137—21.)



1. An apparatus for mixing liquids comprising a tank adapted to contain a solution, and having a front wall of less height than its other walls, a plurality of partitions of less height than the front wall to divide the tank into a number of compartments, one partition having openings connecting adjacent compartments, capillary means arranged over the front wall and suspended in to the liquid for drawing off minute quantities of the solution.

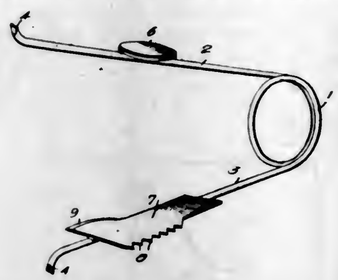
2. An apparatus for mixing liquids comprising a tank adapted to contain a solution, and having a longitudinal front wall of less height than its other walls, a plurality of longitudinal partitions of less height than the front wall to divide the tank into a number of compartments, one partition having an opening at each end connecting adjacent compartments, capillary means arranged over the front wall and suspended into the liquid for drawing off minute quantities of solution.

3. An apparatus for mixing liquids comprising a tank adapted to contain a solution, and having a longitudinal front wall of less height than its other walls, a plurality of longitudinal partitions of less height than the front wall to divide the tank into a number of compartments, gutters provided with tubes secured to the front wall, capillary means projecting into the tubes over the front wall from the gutter and suspended into the liquid for drawing off minute quantities of the solution.

4. An apparatus for mixing liquids comprising a tank adapted to contain a liquid solution, and having a front longitudinal wall of lower height than its other walls, a plurality of compartments located in the tank, liquid distributing tubes including gutters secured to the front longitudinal wall, a bar arranged above the compartments, capillary means suspended from the bar into the liquid and guided to the gutters into the tubes.

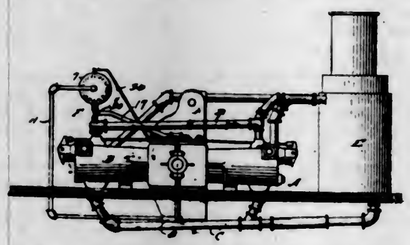
5. An apparatus for mixing liquids comprising a tank adapted to contain a solution, and having a front longitudinal wall of lower height than its other walls, a plurality of partitions of smaller height than the front wall for dividing the tank into a series of compartments, liquid distributing tubes provided with gutters disposed on the front longitudinal wall, a bar arranged above the compartments, capillary means suspended from the bar into the liquid and guided to the gutters into the tubes.

1,208,671. FISHING DEVICE. SVEN A. SEVERTSEN and LOUIE D. SCHWAB, Deer River, Minn., assignors of one-half to Owen E. Hulehan, Deer River, Minn. Filed June 30, 1916. Serial No. 106,797. (Cl. 43—7.)



A device of the character specified, composed of wire bent to form a pair of arms extending alongside each other, and diverging slightly toward their outer ends, each arm having at the outer end thereof an outwardly bent lug, and a finger piece on each arm for facilitating manipulation thereof, one of the said finger pieces having one edge beveled, and the other provided with teeth, for the purpose specified.

1,208,672. LUBRICATING APPARATUS. ROBERT J. SHAW, Beaumont, Tex. Filed Sept. 5, 1916. Serial No. 118,399. (Cl. 184—6.)



1. Lubricating apparatus comprising in combination, a tank to contain oil under pressure, an oil sump below said tank, mechanism for elevating oil from said sump and introducing the same into said tank under pressure, valve-controlled outlets extending from below said tank and open to the bottom of the interior thereof, a regulable device permitting oil under excess pressure to find egress from said tank, and a conductor for the oil from the egress of said device to said oil sump.

2. Lubricating apparatus comprising in combination, a tank to contain oil under pressure, an oil sump below said tank, a pump in said oil sump for elevating oil therefrom and introducing the same into said tank under pressure, valve-controlled outlets extending from below said tank and open to the bottom of the interior thereof, a regulable device permitting oil under excess pressure to find egress from said tank, and a conductor for the oil from the egress of said device to said oil sump.

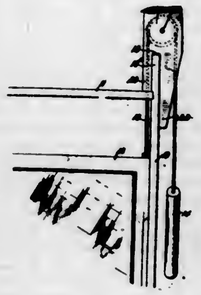
3. Lubricating apparatus comprising in combination, a tank to contain oil under pressure, an oil sump below said tank, mechanism for elevating oil from said sump and introducing the same into said tank under pressure, valve-controlled outlets extending from below said tank and a conductor for oil open to said tank above its bottom for egress of oil therefrom, said conductor in communication with said oil sump.

4. Lubricating apparatus comprising in combination, a tank to contain oil under pressure, an oil sump below said tank, mechanism for elevating oil from said sump and introducing the same into said tank under pressure, outlets extending from below said tank and open to the bottom of the interior thereof, said outlets each embodying manually controlled devices for permitting oil to drop from said tank by gravity or flow therefrom due to internal pressure, a regulable device permitting oil under excess pressure to find egress from said tank, and a conductor for the oil from the egress of said device to said oil sump.

5. Lubricating apparatus comprising in combination, a tank to contain oil under pressure, an oil sump below said tank, mechanism for elevating oil from said sump and introducing the same into said tank under pressure, valve-controlled outlets extending from below said tank and open to the bottom of the interior thereof, a regulable device permitting oil under excess pressure to find egress from said tank, a conductor for the oil from the egress of said device to said oil sump, and a filtering device intermediate the ingress of said tank and said outlets.

[Claims 6 to 9 not printed in the Gazette.]

1,208,673. SASH-PULLEY. CHAUNCEY D. SHUPP, Nebawka, Nebr., assignor of one-third to Abraham L. Griffith, Nebawka, Nebr. Filed Apr. 22, 1916. Serial No. 92,875. (Cl. 16—17.)
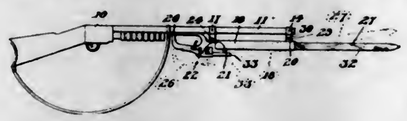


1. A sash pulley mounting comprising a single strip of sheet metal bent upon itself to form a pair of spaced apart downwardly extending side members, and a sheave journaled between said side members, said side members having feet at the rear adapted to rest upon the top of the window frame, and having downward extensions, the rear edges of which are adapted to lie against the vertical end of the window frame.

2. A sash pulley comprising a body fashioned from sheet metal bent upon itself to form spaced sides, and a sheave journaled between said sides, said sides having at the rear, feet adapted to rest upon the top of a window frame, and having at the front spaced downward extensions the front edges of which are adapted to rest against a side of the window frame.

3. A sash pulley comprising a body having spaced sides, and a sheave journaled between said sides, said sides being cut away at their rear edges to form feet adapted to rest upon the top of a window frame and having at their lower ends spaced extensions the rear edges of which are adapted to rest against a side of the window frame, below the top thereof, said feet constituting means for attaching the device in place.

4. A sash pulley comprising a body fashioned from sheet metal bent to form spaced sides, and a sheave journaled between said sides, near the top thereof, said sides being cut away at their rear edges to form feet adapted to rest upon the top of a window frame, and having at their lower ends spaced apart tapered extensions the rear edges of which are adapted to rest against a side of the window frame, below the top thereof, said feet constituting means for attaching the device in place upon the window frame.

1,208,674. FIREARM ATTACHMENT. JOHN P. SIDUR, Ware, Mass. Filed Oct. 2, 1916. Serial No. 123,329. (Cl. 42—53.)



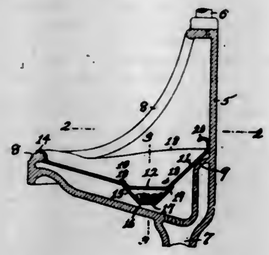
1. A firearm attachment comprising a catch mount and a pivot mount secured in spaced relations to the barrel of the firearm, a scabbard hingedly attached to the pivot mount and detachably connected to the catch mount, and a sword member removably arranged within the said scabbard.

2. A firearm attachment comprising a catch mount and a pivot mount secured in spaced relations to the barrel of the firearm, a scabbard hingedly attached to the pivot mount and detachably connected to the catch mount, a pistol sword having the sword portion thereof adapted for slidable reception within the scabbard and having a keeper notch adapted for engagement by the said catch when the scabbard is in its normal retained position.

3. An attachment for rifle barrels comprising a pivoting mount secured adjacent the nozzle of the barrel, a catch mount secured upon the barrel rearwardly of the pivoting mount, a spring-pressed latch carried by the catch mount projecting forwardly thereof, a scabbard hingedly attached to said pivoting mount and having a keeper notch in its rear end with the said latch positioned therein when the scabbard is normally arranged parallel with the gun barrel, and a sword member detachably secured within the said scabbard.

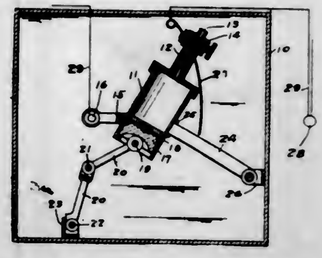
4. An attachment for rifle barrels comprising a pivoting mount secured adjacent the muzzle of the barrel, a catch mount secured upon the barrel rearwardly of the pivoting mount, a spring-pressed latch carried by the catch mount projecting forwardly thereof, a scabbard hingedly attached to said pivoting mount and having a keeper notch in its rear end with the said latch positioned therein when the scabbard is normally arranged parallel with the gun barrel, a pistol sword having the sword portion thereof adapted for slidable reception within the said scabbard and arranged with a keeper notch positioned in alinement with the said scabbard notch when the sword portion is positioned within the scabbard whereby the said latch is in seated relations with the sword notch when the same is engaged with the scabbard notch.

1,208,675. SANITARY SCREEN. GEORGE A. SLEIGHT, Hyde Park, N. Y. Filed Oct. 11, 1916. Serial No. 124,998. (Cl. 4—12.)



As an article of manufacture, for use in a urinal having a feed pipe, a drain pipe, and a nosing bead, a pan comprising a central perforated portion, rear, side and front converging imperforate portions, said side portions being adapted to rest beneath said bead and said front portion being adapted to rest thereover, and a holder for disinfectants having a central perforated portion and imperforate converging portions suspended beneath the perforated portion of said pan.

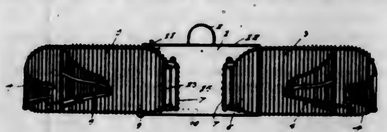
1,208,676. ELECTRIC PNEUMATIC TIME-SWITCH. ORVALL SMILEY and EARL C. APPLEGATE, Indianapolis, and GUY R. BENNETT, Fort Wayne, Ind.; said Smiley assignor of his one-third to David A. Frew, Hartford City, Ind. Filed Oct. 4, 1915. Serial No. 54,038. (Cl. 161—25.)



1. An electric switch comprising a switch box, a cylinder pivoted to the wall of said box, a piston in said cylinder, a cylinder head having an adjustable aperture thereon, a contact spring secured to said box so as to engage and make contact with said cylinder, and a releasable arm pivoted to said box adapted to engage and disengage said cylinder, whereby said cylinder will be held in position to engage said spring by said arm until released, when it will fall by force of gravity from its contact position within a given time, depending upon the time it takes the air to pass through said aperture.

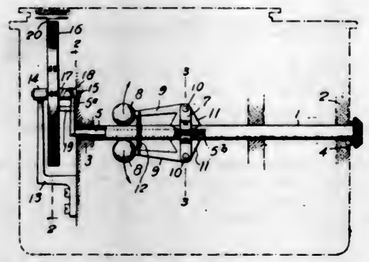
2. An electric switch comprising an air cylinder, a switch box, an arm on said cylinder pivoted to said switch box, a piston in said cylinder, a weight on the end of said cylinder having an aperture therethrough, a valve for adjusting the opening in the aperture, a spring switch secured to said box and extending downward so as to engage said cylinder when in its upward position, and an arm pivoted to said box adapted to be turned in a position to engage said cylinder and hold it in engagement with said spring and in a position to disengage said cylinder and allow it to be forced downwardly by means of said weight against the compressed air escaping through said valve to a position out of engagement with said spring, thereby breaking the circuit.

1,208,677. TRAP. WILLIAM M. SMITH, Democrat, Tex. Filed July 12, 1916. Serial No. 108,926. (Cl. 43—24.)



A device of the character described comprising a body having its ends open, a trap of ordinary construction rigidly attached to one end of said body with its outlet end positioned within the body, a door closing said outlet end, a second trap of ordinary construction hingedly connected to said body with its outlet end projecting into the body, a door closing the outlet end of the second trap, a catch carried by said body for an engagement with said second trap, said outlet ends being relatively spaced to provide a bait receptacle between said doors within the body, and the hinging of said second trap to the body permitting its outlet end to be swung out of said body so access may be gained to said doors and to the bait receptacle.

1,208,678. SPEEDOMETER. MARVIN SMITHEY, Lawrenceville, Va. Original application filed Dec. 11, 1915, Serial No. 66,288. Divided and this application filed Aug. 14, 1916. Serial No. 114,878. (Cl. 264—15.)



1. A speedometer comprising a hollow drive shaft, a slidable rod disposed in one end of said hollow shaft, said slidable rod being provided at one end with a laterally extending portion disposed outside of the hollow shaft and at the other end with a rack portion consisting of a series of circular teeth disposed within the hollow shaft, a pair of arms secured on opposite sides of said power shaft, a pair of centrifugal members pivoted to said arms on opposite sides of the shaft, each of said centrifugal members comprising a lever, a weight secured to the end of the lever, one end of the lever being formed into a segmental gear arranged to extend through an opening in the shaft and to engage the rack, a stub shaft, a number wheel loosely mounted on said stub shaft and having a hub provided with a cam groove arranged to receive one end of said laterally extending portion of the slidable rod, and a pair of guide members for guiding the movement of said laterally extending portion.

2. A speedometer comprising a hollow drive shaft provided with opposed openings, a rod slidably disposed in one end of said hollow shaft, a laterally extending arm secured to one end of said slidable rod outside of said hollow shaft, the opposite end of the rod being provided with a rack disposed within the hollow shaft and arranged to register with said openings, a pair of centrifugal members each having a segmental gear arranged to extend through one of said openings and to engage the rack, a stub shaft, a number wheel, loosely mounted on said stub shaft and having a slot provided with a cam groove arranged to receive one end of said laterally extending arm, and means for guiding the movement of said laterally extending arm.

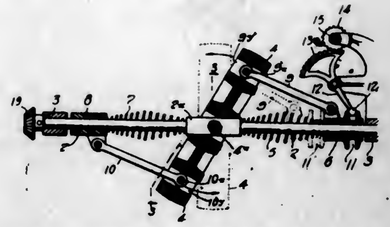
3. A speedometer, comprising a hollow drive shaft having an opening, a rod slidably disposed in one end of said hollow shaft, a rack portion, a centrifugal device secured to the exterior of said hollow shaft, means carried by said centrifugal device and arranged to extend through the opening in the hollow drive shaft for engaging the rack when the latter is rotated, a laterally extending arm secured to said rod at the end outside of the hollow shaft, a stub shaft, a number wheel loosely mounted on said stub shaft and having a hub provided with a cam groove arranged to receive one end of said laterally extending arm, and means for guiding the movement of said laterally extending arm in a direction parallel to the axis of the hollow shaft.

4. A speedometer, comprising a hollow drive shaft having an opening, a centrifugal device carried by said hollow shaft and having a portion arranged to extend through said opening, a rod slidably disposed to extend through one end of said hollow shaft and having a rack portion arranged to be engaged by said centrifugal device for moving the rod longitudinally with respect to the axis of the hollow shaft, a stub shaft, a number wheel loosely mounted on said stub shaft and having a hub provided with a cam groove, and means carried by said slidable rod and arranged to extend into said cam groove for causing the turning of the number wheel in proportion to the movement of the sliding rod.

5. A speedometer, comprising a hollow drive shaft having an opening, a centrifugal device carried by said hollow drive shaft and provided with a portion arranged to extend through the opening, a rod slidably disposed within the hollow shaft and arranged to be engaged by the inwardly extending portion of the centrifugal device, a number wheel having a hub provided with a cam groove, means carried by the slidable rod and arranged to extend into said cam groove for causing the rotation of the number wheel when the rod is moved.

[Claim 6 not printed in the Gazette.]

1,208,679. SPEEDOMETER. MARVIN SMITHEY, Lawrenceville, Va. Original application filed June 16, 1916, Serial No. 104,047. Divided and this application filed Sept. 22, 1916. Serial No. 121,586. (Cl. 264—20.)



1. In a speedometer, a rotatable shaft, a ring or wheel pivotally mounted on said shaft, a pair of slidable collars disposed on said shaft, links connecting said collars with said wheel, said shaft having an enlarged portion near its center, and a pair of spiral springs disposed between said enlarged portion, and said movable collars, each of said springs having large convolutions and being made of relatively thick wire, said spring tapering toward its ends and the diameter of each wire being relatively small toward the ends.

2. In a speedometer, a rotatable shaft, a ring or wheel pivotally mounted on said shaft, a pair of slidable collars disposed on said shaft, links connecting said collars with said wheel, said shaft having an enlarged portion near its center, a pair of spiral springs disposed between said enlarged portion and said movable collars, each of said springs having large convolutions and being made of relatively thick wire, said spring tapering toward its ends and the diameter of each wire being relatively small toward the ends, a movable pointer, and means connecting one of said movable collars with said pointer for shifting the latter in proportion to the movement of the collar.

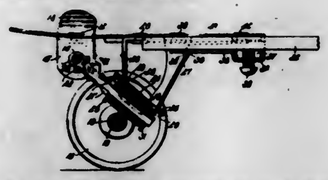
3. In a speedometer, a rotatable shaft, a ring or wheel pivotally mounted on said shaft, a pair of slidable collars disposed on said shaft, links connecting said collars with said wheel, said shaft having an enlarged portion near its center, a pair of spiral springs disposed between said enlarged portion and said movable collars, each of said springs having large convolutions and being made of relatively thick wire, said spring tapering toward its ends and the diameter of each wire being relatively small toward the ends, a movable pointer, means connecting one of said movable collars with said pointer for shifting the latter in proportion to the movement of the collar, said last named means comprising a pivoted arm, a segmental gear carried by the arm, a pinion arranged to engage said segmental gear, and a shaft bearing said pinion and said arm or pointer.

1,208,680. [WITHDRAWN.]

1,208,681. ROLLER-SKATE. THOMAS SPACIE, Blue Island, Ill. Filed Apr. 22, 1916. Serial No. 92,992. (Cl. 46—51.)

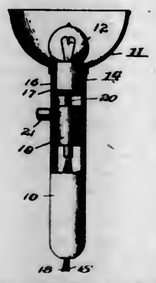
1. In a roller skate, the combination with a sole plate, a pair of clamping claws slidable toward and from each

other along said plate, and a right and left screw coöperating with said claws to control their operation, said screw having a circumferential groove at its central portion, of a pedestal secured to the bottom of the sole plate, a pair of wheels, a cradle connected to the wheels and cooperating with the lower end of the pedestal, and a pivot pin extending through the pedestal and cradle effecting the pivotal connection, said pivot pin having means projecting laterally therefrom to limit the extent of projection through the pedestal and cradle and having an arc-shaped head at its upper end extending into said groove and serving to brace said screw.



2. In a roller skate, the combination of a sole plate having a flat flangeless rear end, a longitudinal rib adjustably connected to the sole plate and extending rearwardly therefrom, and an anchor member for determining the adjustment of the rib, said anchor member being formed of sheet metal and comprising a horizontal web and upwardly projecting side flanges embracing the sides of the rib and preventing lateral movement of the rib and a pair of wings extending laterally from the upper edges of the flanges for positive rigid connection to the sole plate, and a clamping screw carried by the anchor member and bearing upwardly against the bottom of the rib, substantially as set forth.

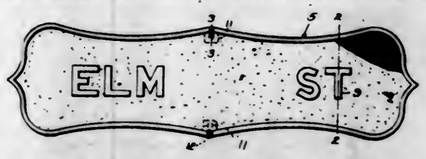
1,208,682. ELECTRICAL SWITCHING DEVICE. MAXIMILLIAN H. SPIELMAN, New York, N. Y. Filed Dec. 11, 1914. Serial No. 876,627. (Cl. 173—349.)



A switching device including a tubular body having a circular cross section and provided at an intermediate point in its length with a transverse slot, a lamp having the base thereof fitted within one end of the tubular body and provided on said base with a contact area, a cylindrical insulating body rotatably mounted within an intermediate portion of the tubular body, an operating handle projecting laterally from the cylindrical body and received within the transverse slot of the tubular body so as to coöperate therewith to hold the insulating block against longitudinal movement in either direction within the tubular body, and a spring contact plunger carried by the cylindrical block at one side thereof and directly engaging the base of the lamp so as to be moved into and out of engagement with the contact area of the lamp as the block is rotated.

1,208,683. SIGN. JOHN J. SPINKS, Watertown, Mass. Filed Nov. 10, 1913. Serial No. 800,147. (Cl. 40—125.)

A sign of the class described including an elongated frame substantially concavo-convex in cross section and having the concave flanges disposed inwardly to provide a plastic receiving channel, a wire mesh secured to the inner concave face of the frame centrally between the edges thereof, and panels of plastic material applied to



the opposite sides of the mesh and seated in the groove or channels of the frame, and a plurality of letters embedded in the plastic panels, and means on the inner ends of said letters for anchoring the same within the panels.

1,208,684. METHOD OF AERIAL NAVIGATION. ROTER W. SPRINGER, Springfield, Ill. Filed Apr. 20, 1906, Serial No. 312,891. Renewed Sept. 22, 1916. Serial No. 121,690. (Cl. 244—13.)



1. The art of continuous gravitational aerial navigation which consists in presenting the supporting surfaces of a flying machine in motion to the atmosphere at such an angle as will cause the machine, under the influence of gravity, to glide forwardly and downwardly, then changing the angle of the said supporting surfaces to the air so as to increase their angle of incidence and cause a lifting effect upon the machine, then changing the angle of the said supporting surfaces to again cause the machine to glide downwardly, and successively and rhythmically repeating these changes; and at the same time these operations are taking place causing up and down movements of the supporting surfaces, relative to the flying machine as a whole, these latter movements being timed and synchronized with reference to the changes of the angles of the supporting surfaces as set forth, so that the downward movements thereof are caused during the time the supporting surfaces are more downwardly inclined, and the upward movements during the other inclinations thereof.

2. The art of continuous gravitational aerial navigation which consists in presenting the supporting surfaces of a flying machine in motion to the atmosphere at such an angle as will cause the machine, under the influence of gravity, to glide forwardly and downwardly, then rapidly changing the angle of the said supporting surfaces to the air, causing them to assume an upward inclination from rear to front whereby the machine is caused to ascend, and at the same time the machine is thus ascending causing the supporting surfaces to be moved upwardly relative to the machine as a whole, and then again changing the angle of the supporting surfaces so as to permit the machine to glide downwardly, and at the same time causing the wings to move downwardly relative to the body of the machine as a whole, and successively and rhythmically repeating these operations.

3. In the art of continuous gravitational aerial navigation in which a machine with supporting surfaces that are caused to move upward and downward are employed, the herein described method which consists in synchronizing the up and down movements of the supporting surfaces and tilting movements of the said surfaces relative to the horizon, the downward movements of the supporting surfaces and their more downward inclinations occurring simultaneously and their upward or less downwardly inclined inclinations and upward movements taking place simultaneously, and these synchronized movements being produced successively and rhythmically, whereby the machine is caused to glide along a series of successive supporting bodies of air the beginning of each glide being at a higher level than the ending of each preceding glide.

4. The art of continuous gravitational aerial navigation, which consists in producing a gliding plane of supporting air and passing rapidly forwardly and downwardly thereon, and while thereon elevating the center of gravity of the apparatus relative to the said gliding plane by exerting an increased downward pressure thereon, then forming a rising plane of supporting air and passing rapidly forwardly and upwardly thereon, and while thereon, lowering the center of gravity of the apparatus relative thereto, and rhythmically and successively repeating these steps.

5. The art of continuous gravitational aerial navigation, which consists in rhythmically producing in succession gliding planes of air, with rising planes of air between them, passing rapidly forward from one plane to the next over the said rising planes and increasing the downward pressure of the apparatus while supported upon the gliding planes and reducing the pressure while on the rising planes.

[Claim 6 not printed in the Gazette.]

1,208,685. DRIVING MECHANISM FOR A MOVING-PICTURE FILM. LUCIAN STANEK, Boston, Mass. Filed Feb. 21, 1914. Serial No. 820,322. (Cl. 74—41.)

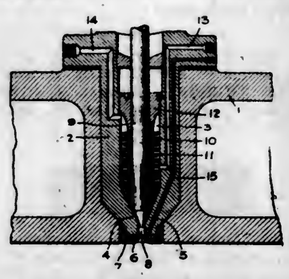


A driving mechanism for a moving picture film embodying a driving shaft and a driven shaft at right angles to each other with their median axial lines in different planes, a gear fast to said driving shaft with a tooth extending circumferentially of the periphery of said gear and projecting radially beyond said periphery between the opposite edges thereof and extending at right angles to the length of said shaft for a portion of the length of said tooth, the opposite ends of said tooth terminating in portions inclined at an angle to the length of said shaft and forming an inclined groove therebetween extending across and beyond the opposite sides of said circumferentially extending portion of said tooth, and a gear fast to said driven shaft with a plurality of teeth on its periphery, two of said teeth simultaneously engaging said tooth on said driving gear, said first-named tooth fitting into and filling the space between said teeth, said teeth adapted to be successively engaged by said inclined portions, whereby said driven shaft and its gear may be intermittently rotated.

1,208,686. IGNITING CHARGE IN HIGH-PRESSURE COMBUSTION-ENGINES. KARL STEINBECKER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed July 1, 1912. Serial No. 706,905. (Cl. 123—127.)

1. The method of igniting the main charge of fuel in a high compression internal combustion engine, which consists in first exposing a special igniting charge of fuel more easily ignitible than the main fuel to the action of the air compressed in the engine cylinder, and subsequently causing the main charge to force said igniting charge into the cylinder in advance of said main charge.

2. The method of igniting the main charge of fuel in a high compression internal combustion engine in which the fuel is injected by a blast of air controlled by a fuel valve which consists in first introducing an igniting charge of easily ignitible fuel at a point in advance of the fuel valve so that it is exposed to the action of the air compressed in the engine cylinder and then introducing the main charge of fuel.



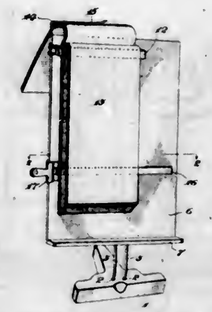
3. In an internal combustion engine operating with automatically igniting fuel blown in by fluid pressure, an ignition nozzle, a valve therein for controlling the admission of the main charge, and means for conveying a special quantity of fuel more readily ignitible than that of the main charge to the ignition nozzle at a point below said valve and open to the cylinder.

4. In an internal combustion engine operating with automatically igniting fuel blown in by fluid pressure, an ignition nozzle having a seat for a main fuel admission valve and a space between said seat and the inner end of said nozzle which is always in free communication with the interior of the cylinder, and means for conveying to said space a special quantity of fuel which is more easily ignitible than that of the main charge before the opening of said valve.

5. In an internal combustion engine operating with automatically igniting fuel blown in by fluid pressure, an ignition nozzle, means for conveying to said nozzle supplies of fuel and compressed air, there being a tortuous passage in said nozzle for mixing said air and fuel, a valve controlling the admission of the charge, and a duct opening below said valve for introducing fuel more readily ignitible than that aforesaid where it will be subjected to the action of the air compressed in the engine cylinder prior to the opening of said valve.

[Claim 6 not printed in the Gazette.]

1,208,687. COPY-HOLDER. FREDERICK E. STEINBRUNN, Philadelphia, Pa. Filed Aug. 15, 1916. Serial No. 114,965. (Cl. 120—28.)



A copy holder, comprising a base having a pair of sockets therein, a standard comprising a single wire bent forming two parallel members, the lower ends of which are adapted to be removably supported in said sockets, the upper end of said standard bent rearwardly, a supporting plate, a block on the rear face of said supporting plate having a pair of parallel grooves therein receiving the members of the standard, a turn-button secured to the block between the grooves of the latter and binding

the standard in the grooves, said rearwardly bent portion of the standard operating to limit the upward movement of the plate on the standard.

1,208,688. PROCESS OF PRODUCING ATTRITION-SHEETS AND THE ARTICLES OF MANUFACTURE PRODUCED THEREBY. HERMAN F. STEMPEL, Jr., Fort Madison, Iowa. Filed Mar. 31, 1913. Serial No. 757,909. (Cl. 51—1.)



1. The herein described process of producing attrition sheets which consists in treating the face of the sheet with a solvent, thereby softening the surface of the sheet, applying attrition material to the sheet while the latter is in its softened condition, and then drying the sheet.

2. The herein described process of producing attrition sheets which consists in treating the face of the sheet with a solvent, thereby softening the surface of the sheet, applying attrition material to the sheet while the latter in in its softened condition, then drying the sheet, and preventing the buckling of the sheet while the latter is drying.

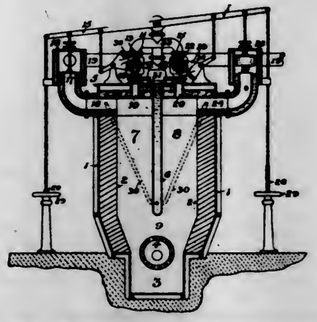
3. The herein described process of producing attrition sheets, which consists in treating the face of a sheet of celluloid with a solvent of celluloid, thereby softening the surface of the sheet, applying attrition material to the sheet while the latter is in its softened condition, and then drying the sheet.

4. The herein described process of producing attrition sheets which consists in treating the face of a sheet of celluloid with a solution of celluloid containing a volatile solvent, applying attrition material to the sheet and subsequently permitting the solvent to evaporate.

5. The herein described process of producing attrition sheets which consists in treating the face of a sheet of celluloid with a solution of celluloid containing a volatile solvent, applying attrition material to the sheet, subsequently applying a second coat of the solution and drying the sheet.

[Claim 6 not printed in the Gazette.]

1,208,689. GAS-PRODUCER. JOHN STEWART, Codnor Park, Alfreton, England, and WILLIAM STEWART, Motherwell, Scotland. Filed Nov. 18, 1910. Serial No. 593,064. (Cl. 48—83.)



1. In a gas producer having two combustion chambers, a hollow partition separating the chambers, and a steam generator above the combustion chambers of the producer, the steam generator communicating with the interior of the partition whereby water circulates from one to the other, substantially as set forth.

2. In a two-chamber gas producer, a hollow partition separating the chambers, a water tank covering the producer and forming a steam generator, the steam space of the tank being connected with the upper portions of the partition, and circulating pipes connecting the said water space with the partition near its lower end, substantially as set forth.

3. A gas producer having in combination two generator chambers connected at their lower ends by a passage, means for closing the upper ends of each chamber substantially gas-tight, means for feeding fuel to each chamber independently adapted to cut off communication between the external air and the generator chambers, valve-controlling means by which air may be supplied directly to the upper portion of each generator chamber, means for supplying air to the lower portions of the chambers, and valve-controlled conduits through which the gases produced are led off, connecting directly with the upper portions of the said chambers, these parts being arranged as described whereby air delivered to the top of one chamber is caused to pass downward through the bed of incandescent fuel in that chamber, across to the other chamber where additional volumes of air are supplied, whence the united products pass upward through the body of incandescent fuel in the other chamber to the delivery conduit.

4. A gas producer having in combination two generator chambers connected at their lower ends by a passage, means for closing the upper ends of the chambers substantially gas-tight, means for feeding fuel to each chamber independently, valve-controlled means for supplying air alternately directly to the upper portions of the generator chambers, means for supplying air to the lower portions of said chambers, valve-controlled conduits through which the gases produced are led off, connected respectively directly with the upper portions of the generator chambers, and controlling means arranged to open the air supply to one chamber and the delivery conduit to the other, and vice versa.

5. A gas producer having two chambers connected at their lower ends by a passage, means for feeding fuel to each chamber independently, a steam generator arranged to be heated by combustion taking place in the said chambers of the producer, an air conduit having a portion opening into the steam space of the said generator and other portions extending from the said steam space directly into the upper portions respectively of the chambers of the producer, valves controlling the passage of the commingled air and steam through the said conduit portions delivering into the producer chambers, conduits for taking off the gaseous products connected directly with the upper portions of the producer chambers, and valves controlling the said takeoff conduits.

[Claims 6 and 7 not printed in the Gazette.]

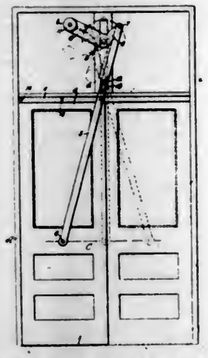
1,208,690. SELF-CLOSING PENDULUM-HANGER FOR DOORS. JOHN H. STEWART, New York, N. Y. Filed Aug. 26, 1916. Serial No. 116,989. (Cl. 16—47.)

1. The combination of a doorway, a sliding door, a pendulum bar pivotally connected with the door, means located centrally above the doorway for movably mounting the bar, whereby the lower end travels in a horizontal line, and means acting on the bar to urge the same constantly in one direction.

2. The combination of a laterally sliding door, a bar pivotally connected therewith and extending upwardly above the door, a pivoted arm to which the bar is connected, whereby the upper end of the bar travels in the arc of a circle, and a fulcrum slidably connected with the bar, whereby the lower end of the bar moves in a horizontal line.

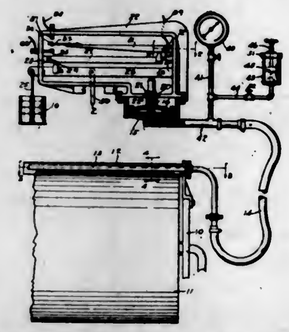
3. The combination of a laterally sliding door, a bar pivotally connected therewith and extending upwardly above the door, a pivoted arm to which the bar is connected, whereby the upper end of the bar travels in the arc of a circle, a fulcrum slidably connected with the bar and located above the door and vertically in line with the pivot of the said arm, whereby the lower end of the bar moves in a horizontal line, and a horizontal guide with which the top of the door slidably engages.

4. The combination of a laterally sliding door, a lever fulcrumed above the door in a vertical line located between the limits of movement of the door, a pendulum bar having its upper end pivotally connected with the lever, a pivotal connection between the lower end of the bar and the door at a point in line with the center of gravity thereof, a fulcrum disposed vertically under the fulcrum of said lever, and means on the bar slidably engaging the said fulcrum, whereby the lower end of the bar moves in a horizontal line.



5. The combination of a laterally sliding door, a lever fulcrumed above the door in a vertical line located between the limits of movement of the door, a pendulum bar having its upper end pivotally connected with the lever, a pivotal connection between the lower end of the bar and the door at a point in line with the center of gravity thereof, a fulcrum disposed vertically under the fulcrum of said lever, means on the bar slidably engaging the said fulcrum, whereby the lower end of the bar moves in a horizontal line, and a weighted arm connected with the lever to effect automatically the movement of the door from one extreme position to the other extreme.

1,208,691. THERMOSTATIC HEAT-CONTROLLING MEANS. COLE STICKLE, Indianapolis, Ind. Filed Apr. 2, 1915. Serial No. 18,757. (Cl. 200—32.)



1. A thermally actuated circuit closer including a circuit closer, a closed liquid filled chamber adapted to be influenced by heat, means actuated by the expansion or contraction of the liquid in said chamber for controlling the circuit closer, a cylinder connected with said liquid chamber, and a longitudinally adjustable plunger therein for closing said cylinder and varying the capacity of said liquid chamber so as to maintain a uniform pressure therein.

2. A thermally actuated circuit closer including a circuit closer, a closed liquid filled chamber adapted to be influenced by heat, means actuated by the expansion or contraction of the liquid in said chamber for controlling the circuit closer, a cylinder connected with said liquid chamber and located on a higher level than said chamber, a pipe connecting the lower part of the cylinder with said liquid chamber, a valve in said pipe, a plunger in said cylinder, and a removable cap on the upper end of said cylinder, whereby said liquid chamber can be charged with liquid through said cylinder and while the pressure is acting on the fluid in said chamber.

1,208,692. RING CONNECTION. EDWIN R. STORM, New York, N. Y. Filed June 20, 1910. Serial No. 567,952. (Cl. 24—201.)



1. In a ring connection, the combination of a head having a threaded stem and provided with channels formed parallel to the axis of the stem and terminating in the said head; an open link whose ends are adapted to move simultaneously lengthwise of the said channels to their terminations; and a threaded member fitted to the threaded stem and adapted to bear against the head and prevent the link from returning along the said channels.

2. In a ring connection, the combination of an open ring having an appreciable distance between its ends; a headed member provided with a threaded portion adapted to hold the member to position, and with holes adapted to hold the ends of the said ring and permit it to oscillate, and having channels formed parallel to the axis of the threaded portion adapted to permit the ends of the ring to pass lengthwise of the said channels and enter the said holes; and a member adapted to close the channels and prevent the ring from leaving the said holes.

3. The combination of an open link; a headed member formed with regard to an axis, having outwardly flaring holes adapted to hold the link, formed with their axes perpendicular to the axis of the member, and provided with channels formed parallel to the axis of the member and terminating in the said holes; the ends of the link being adapted to move simultaneously along the channels to and be held in the said holes; a sleeve formed to close the parallel channels and retain the link within the holes and means for attaching the connection to an object.

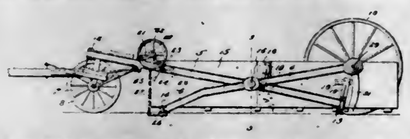
4. The combination of an open circular link; a head having outwardly flaring holes adapted to hold the link, and a perforation connecting the holes; a stem on the head provided with channels formed parallel to its axis, extending to and communicating with the said holes; a threaded portion on the stem; and a sleeve working on the threaded portion, adapted to close the channels, retain the link within the said holes, and hold the said head to an object.

5. In a ring connection, the combination of a head having a threaded stem; channels formed parallel with the axis of the stem and terminating in the said head; a perforation joining the terminations of the channels; a second head provided with a threaded stem and with holes having an appreciable distance between their bottoms; channels formed parallel to the stem terminating in the said holes; an open ring passing through the said perforation of the first head, and having its ends held in the holes of the second head; sleeves working on the threaded stems and portions of the said sleeves adapted to close the said channels.

1,208,693. WAGON. WALTER H. SWANSON, St. Paul, Minn. Filed Oct. 5, 1915. Serial No. 54,207. (Cl. 21—19.)

1. A wagon including front and rear axles, vertical movable crossed frame sections supported at their opposite ends upon said axles, means connecting the sections of the frame, and a body supported upon said sections and movable therewith.

2. A wagon including a supporting frame composed of crossed and pivotally connected sections, axles supporting the opposite ends of the frame, a body supported upon said frame, and means for elevating said body.



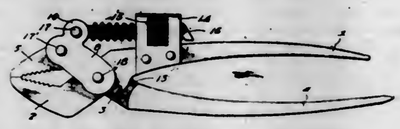
3. A wagon including a frame composed of a pair of crossed and pivoted sections, axles supporting the outer ends of the sections, and a body supported upon the inner ends of said sections.

4. A wagon including forward and rear crossed supporting frame sections, means pivotally connecting said sections together, axles supporting the outer extremities of said frame sections, a body supported upon the inner ends of said sections, and means for elevating the body.

5. A wagon including forward and rear supporting frame sections, means pivotally securing said sections, axles supporting the outer extremities of the sections, a body supported upon the inner extremities of the sections, a shaft rotatably supported upon the forward section, and flexible members adapted to be wound upon said shaft and secured to the forward extremity of said rear frame section.

[Claims 6 and 7 not printed in the Gazette.]

1,208,694. TOOL. DAN B. SWICKARD, Galva, Ill. Filed Nov. 22, 1915, Serial No. 62,815. Renewed Oct. 28, 1916. Serial No. 128,347. (Cl. 81—48.)



1. A tool of the class described comprising a pair of members each having a jaw, a pair of links arranged at the sides of the jaw of one member, means to pivot said links to said jaw at the point in advance of the crossing of said members, one of said members being provided with a slot, and means extending through said slot to connect the plurality of said links and said members.

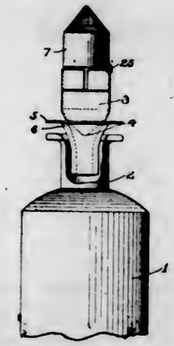
2. A tool of the class described comprising a pair of members each having a jaw, one of said members having a slot arranged transversely thereof near the rear of its jaw, a plurality of elongated links, means to connect one end of the links to one jaw near the central part thereof, means to connect the other end of the links through the slot of one member to permit of limited swinging movement of the member and adjustable means to vary the operative position of the jaw.

3. A tool of the class described comprising a pair of members each including a handle and jaw, one of said members having a slot arranged transversely thereof near the rear of its jaw, a plurality of elongated links having an offset, means to connect one end of the links to one jaw, means to connect the other end of the links through one member and the slot of the other member, and adjustable means pivoted to the offset of the links to vary the operative position of the jaws.

4. A tool of the class described comprising a pair of members each including a handle and jaw, a link provided with a notch intermediate of its ends, means to pivot said link to one member in advance of the crossing of the members, means to pivotally connect said link to the other member at the crossing of said members to have an edge of said crossing member coöperate with the notch of said link at predetermined intervals to serve as a cutter, and means to connect said link to the handle of one member.

5. In a tool of the class described comprising a pair of members each including a handle and a jaw, one of said members having an enlargement and a slot at substantially the point where it crosses the other member, a link provided with a notch intermediate of its ends to coöperate with the enlargement and serve as a cutter, means to pivotally connect said link to the jaw of one member, and pivotal means passing through said slot to connect said link with the members at the crossing thereof.

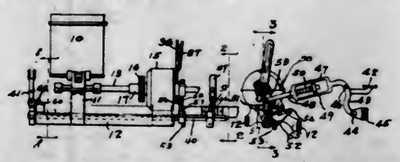
1,208,695. DISPENSING-CLOSURE. KARN TAKEMI, New York, N. Y. Filed June 27, 1916. Serial No. 106,164. (Cl. 221—116.)



1. In a measuring closure, a base, means for engaging said base with a container, a body formed in sections and receivable on said base, said sections having openings therein, and a valve element rotatively arranged in the body and having angularly related wing portions for engagement with said openings, at times.

2. A dispensing closure, including a body formed in two detachable sections, one of said sections being provided with an elongated depression, the other section being provided with an elongated slot to accommodate the said depression and to prevent relative movement of the sections, the ends of said sections having oppositely arranged triangular openings, the last mentioned section having a slot therein extending semi-circumferentially of the said section, a tubular body member, the ends of the said tubular body member having semi-conical portions arranged approximately at right angles, the tubular member having portions adjacent the ends cut away to form valve wings, a manipulating handle extending radially from the tubular member and intermediate its ends, upon operation of the said handle the tubular member is rotated and thereby operating the valves.

1,208,696. CLUTCH MECHANISM FOR SEED-PLANTERS. JOHN TEDELL, Moline, Ill. Filed Nov. 8, 1915. Serial No. 60,266. (Cl. 111—5.)



1. A seed planter including a shaft, a closed housing in which the shaft is mounted, and clutch mechanism within said housing for controlling the operation of said shaft, the members of said clutching mechanism having portions thereof extending outwardly through the housing concentric with the shaft so as to be externally operated and adjusted without opening the housing.

2. A seed planter including a shaft, a closed housing in which the shaft is mounted, clutch mechanism within said housing for controlling the operation of said shaft, sleeves for carrying members of said clutch mechanism which project outward through the housing concentric with the shaft, and means engaging said sleeves outside the housing for operating and adjusting the same.

3. A seed planter including a shaft, a closed housing in which the shaft is mounted, clutch mechanism within said housing for controlling the operation of said shaft, sleeves on which members of said clutch mechanism are mounted which extend outwardly through the housing and furnish bearings for the shaft, and means engaging said sleeves outside the housing for operating and adjusting the same.

4. A seed planter including a shaft, a clutch member loosely mounted on said shaft and having a ratchet thereon, means for constantly driving said clutch member, a member rigidly mounted on the shaft, a lever fulcrumed at one end of said member, a pawl mounted on said lever in position to engage the ratchet, stops on said lever and pawl in position to engage each other, a spring connected with the inner end of said pawl for holding said stops in engagement and also withdrawing said lever and pawl both inward so that the pawl will not engage the ratchet, and means operable while the machine is in operation for moving the free end of said lever so as to bring the pawl into engagement with the ratchet and thus transmit power to the shaft.

5. A seed planter including a shaft, a constantly driven clutch member loosely mounted thereon, adjustable engaging means operably mounted on said shaft in position to be moved into or out of engagement with said constantly driven clutch member, a cam disk with a notched periphery around which said adjustable clutch member travels, another cam disk beside said first cam disk and of the same diameter and having peripheral notches adapted at times to register with the notches on the first disk, and a rock shaft operably connected with one of said disks for oscillating it, the parts being so arranged that before the rock shaft is oscillated the notches in the disks will register and permit the adjustable clutch member to be out of engaging position and when the rock shaft is actuated the disk with which it is connected will be moved so that the notches in the two disks will not register and the peripheries of the disks will hold the adjustable clutch member in actuating position until the rock shaft and the disk which is actuated return to their normal position.

[Claims 6 to 11 not printed in the Gazette.]

1,208,697. CHAIN-CONNECTOR. WILLIAM H. THOMPSON, Marinette, Wis., assignor of one-half to Michael Peters, Menominee, Mich. Original application filed Dec. 31, 1915, Serial No. 69,581. Divided and this application filed Apr. 1, 1916. Serial No. 88,331. (Cl. 57—128.)

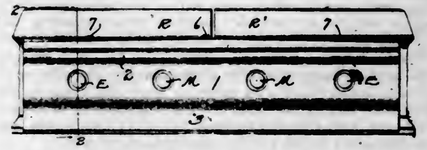


1. A fastening and a releasing means therefor, comprising a flexible element; a primary ring; an intermediate ring carried by the flexible element and spaced from the end of the flexible element; a lever pivoted to the end of the flexible element and extended through the primary ring, the lever embodying a free end extended through the intermediate ring; a detachable link extended through the intermediate ring and having at one end a bend detachably received upon the free end of the lever; and an operating means assembled with the other end of the link.

2. A fastening and a releasing means therefor, comprising a flexible element; a primary ring; an intermediate ring carried by the flexible element and spaced from the end of the flexible element; a lever pivoted to the end of the flexible element and extended through the primary ring, the lever embodying a free end extended through the intermediate ring; a third ring pivoted to the free end of the lever and coacting with the intermediate ring to form a keeper, the third ring being adapted to be folded within the intermediate ring, into contact with the lever; a link extended through the intermediate ring and supported on the third ring, the link having at one end a bend detachably seated on the lever; and an operating means connected with the other end of the link.

3. A fastening and a releasing means therefor, comprising a flexible element; a primary ring; an intermediate ring carried by the flexible element and spaced from the end of the flexible element; a lever pivoted to the end of the flexible element and extended through the primary ring, the lever embodying a free end extended through the intermediate ring; a releasing member extended through the intermediate ring and provided intermediate its ends with a seat for receiving the intermediate ring, one end of the releasing member being bifurcated to straddle the free end of the lever; and an actuating means assembled with the other end of the releasing member.

1,208,698. RAIL-JOINT. WILLIAM P. THOMSON, New York, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Mar. 13, 1916. Serial No. 83,885. (Cl. 239—9.)



1. A rail joint including a splice bar having a rail-clamping end of less fishing height than the central part of the bar.

2. A rail joint including a splice bar of less height at the ends than at its central portion and clamping the fishing space from end to end.

3. A rail joint including a splice bar fitting the fishing space closer to the rail webs at its ends than at its central portion.

4. In a rail joint, a splice bar fitting into the fishing space for its entire length but with the distance between the web of the rail and the bar greater at the center than at the ends of the bar.

5. A rail joint including a splice bar having longitudinal rail bearing faces, the distance between the faces at the end of the bar being less than at the center.

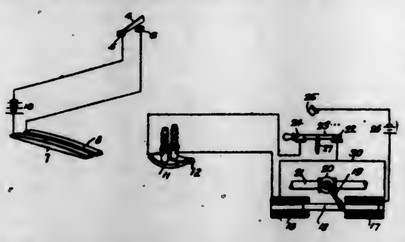
[Claims 6 to 12 not printed in the Gazette.]

1,208,699. TRAIN-STOPPING SYSTEM. WILLIAM E. TIBBITT, New Castle, Del., assignor of one-fourth to Hauisey B. Maston and one-fourth to George L. Townsend, Jr., Wilmington, Del. Filed Nov. 18, 1914. Serial No. 872,817. (Cl. 246—59.)

1. The combination of train stopping means; two electro-magnets for operating said means; a source of current; means for causing at will the energization of one of said magnets; and automatically acting signal-controlled means for controlling the energization of the other magnet and the consequent operation of the train stopping device.

2. The combination of a train stopping device; two electro-magnets for controlling said device; a current source; a double throw switch connected to cause energization of one of said magnets when in one position and to complete a portion of the circuit of the other magnet when in a second position; a track circuit having means for completing the circuit of the second magnet; and signal con-

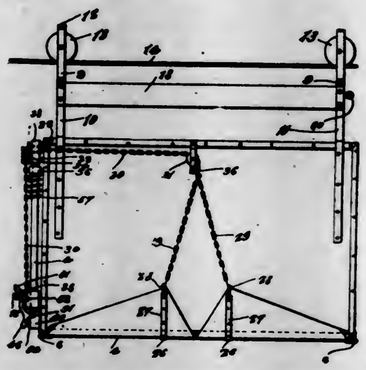
oiled means in said circuit for permitting flow of current under predetermined conditions.



3. The combination of a signal; a switch mounted to be closed when said signal occupies a "danger" position; a track contact in circuit with said switch; a source of current; a train circuit including a brush placed to engage said contact; an electro-magnet in circuit with said brush; a train controlling valve operatively connected to the movable member of said magnet; a second electro-magnet also operatively connected to the valve; and means for causing energization of said second magnet at will.

4. The combination of a railroad track; a series of signals spaced at predetermined distances apart along said track; a track circuit for each signal including a source of current, at least one contact mounted adjacent the track, and a switch mounted to be closed when said signal occupies a "danger" position; with apparatus carried by each of the trains operating on the track, the same including a valve connected in the air brake system, two electro-magnets having their movable elements operatively connected to said valve, at least one brush in circuit with one of the magnets and mounted to coöperate with the contacts of the track circuits; and means for causing energization of the second magnet at will.

1,208,700. AUTOMATIC FEED-CARRIER. LOUIS H. TREIBER, Danbury, Iowa. Filed Mar. 21, 1916. Serial No. 85,648. (Cl. 214—14.)



1. A carrier of the class described including a receptacle having a dumping bottom, a vertically slidable member mounted on the receptacle, flexible connections extending from the said member to the dumping bottom, guiding means for the flexible connections, a catch arranged to engage the slidable member for locking the same against vertical movement, and a combined operating and trip rope secured at one end to the catch and connected at the other end with the receptacle and extending to points at opposite sides of the receptacle and adapted to be pulled in one direction to move the receptacle outward, and in the opposite direction to trip the catch and also to return the receptacle to its initial position.

2. A carrier of the class described including a bucket having hinged bottom sections, a vertically slidable member mounted on the bucket at one of the end walls thereof between the top and bottom of the same, flexible connections connecting the vertically slidable member with the bottom sections, guide pulleys for the flexible connections, a catch arranged to engage the slidable member for locking the same against movement and means for releasing the catch.

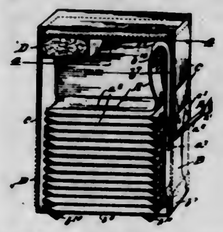
3. A carrier of the class described including a bucket having a dumping bottom, a vertical guide mounted on one of the walls of the bucket, a member slidable along the guide, flexible connections extending from the said member to the dumping bottom, guide pulleys for the flexible connections, a catch for holding the said member against movement, and means for limiting the movement of the said member.

4. A carrier of the class described including a receptacle having a dumping bottom, a vertical guide carried by the receptacle, a member slidable along the guide and connected with the dumping bottom, a catch for holding the said member against movement, and an adjustable stop having a cushion for limiting the movement of the said member.

5. A carrier of the class described including a bucket having a dumping bottom, a vertical guide bar mounted on the exterior of one of the end walls of the bucket, a sleeve slidable along the guide bar, flexible connections connecting the sleeve with the dumping bottom, guide pulleys for the flexible connections, and a catch for locking the sleeve against movement.

[Claims 6 to 10 not printed in the Gazette.]

1,208,701. PROPHYLACTIC AND HYGIENIC ART. SIMEON TRENNER, Chicago, Ill. Filed Aug. 16, 1915. Serial No. 45,773. (Cl. 206—63.2.)



1. A closed container, a series of aseptic articles therein, a flexible connector to which the articles are connected in serial order, the container having an elongated closed exit passage open at its ends through which the articles may be removed by means of the connector, the walls of the passage being adapted to close upon the connector between the articles thereon to maintain the container and its contents in aseptic condition and to prevent the inadvertent return to the container of the exposed end of the connector.

2. A closed container for sterile material provided with an elongated tube-like exit passage open at its ends only and through which the material must pass as it is removed from the container, the walls of said passage being adapted to close toward each other upon and yieldable to permit the sterile material to pass.

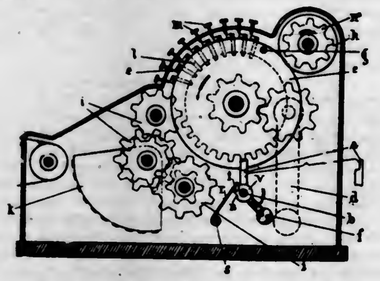
3. A closed container adapted to hold sterile material and provided with a downwardly extending exit passage through which the material must pass in a downward direction as it is removed from the container, said passage having walls adapted to close toward each other upon the material therein which normally acts as a stopper for the passage to reduce to a minimum the flow of air into and out of the container.

4. The improvements herein described comprising a container having a chamber to hold sterile material and provided with an elongated closed exit passage communicating at one end with said chamber, the other end serving as an exit opening, said exit opening arranged below the other end of the passage, whereby the sterile material must pass in a downwardly direction as it it removed from the container through said passage.

5. A closed container in combination with a strip carrying sterile material arranged within the container to be continuously drawn out, said container having an exit passage of appreciable length formed of transversely connected or continuous walls and through which the strip extends, the walls of the passage adapted to frictionally engage the strip and prevent its free return to the container, and a cover incasing the container and adapted to protect the outer end of the strip.

[Claims 6 to 9 not printed in the Gazette.]

1,208,702. COMPUTING-MACHINE. FRANZ TRINKS, Brunswick, Germany. Filed Nov. 5, 1915. Serial No. 59,789. (Cl. 235—60.)



1. In a computing machine, the combination of an operable element, shiftable numeral-setting members on said element and adapted to be moved into and out of operative position, a printing mechanism to be actuated by said members, an accumulating mechanism to be actuated by said members, and means for rendering the operative members inoperative after said members have actuated one of said mechanisms.

2. In a computing machine, the combination of an operable setting-up wheel, radially pivoted teeth on said setting-up wheel, adapted to be moved into and out of operative position, a printing device, accumulating mechanism, means for rendering said pivotally mounted teeth operative to actuate said printing device and accumulating mechanism, and means for returning said operative teeth into inoperative position after said operative teeth have passed said printing device and before the same have been able to actuate said accumulating mechanism.

3. In a computing machine, the combination of an operable setting-up wheel, shiftable teeth on said setting-up wheel adapted to be moved into and out of operative position, printing and accumulating mechanisms arranged to be actuated in sequence by said teeth, and means for rendering said teeth inoperative after the latter have actuated said printing mechanism.

4. In a computing machine, the combination of an operable setting-up wheel, shiftable teeth on said setting-up wheel adapted to be moved into and out of operative positive position, printing and accumulating mechanisms arranged to be actuated in sequence by said teeth, a rotatable shaft, a radially projecting member on said shaft and arranged in the path of said teeth to render the latter inoperative after actuating the first of said mechanisms to be actuated, and a handle on said shaft for moving said member into operative position.

5. In a computing machine, the combination of an operable setting-up wheel, shiftable teeth on said setting-up wheel adapted to be moved into and out of operative position, printing and accumulating mechanisms arranged to be actuated in sequence by said teeth, a rotatable shaft, a radially projecting member on said shaft and arranged in the path of said teeth to render the latter inoperative after actuating said printing mechanism, a handle on said shaft adapted to move said member into operative position, and means for automatically moving said member in a position to be ineffective upon said teeth.

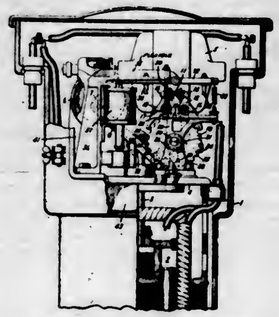
[Claims 6 to 11 not printed in the Gazette.]

1,208,703. FEEDER FOR STANDARD INGOT-MOLDS. ERNEST J. TURNER, Pittsburgh, and BLOOMFIELD H. HOWARD, Aspinwall, Pa. Filed Mar. 10, 1915. Serial No. 13,551. (Cl. 22—147.)



In a feeder for ingot molds, the combination with a mold, of a plate adapted to rest on the top of the mold and having an opening of greater diameter than the bore of the mold, said plate being provided with a marginal wall, and a refractory ring having its lower end reduced, said reduced end fitting in the opening of the plate and resting upon the top of the mold.

1,208,704. FEEDER-REGULATOR. MAGNUS UNGER, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 20, 1913. Serial No. 774,778. (Cl. 74—54.)



1. In a regulator, the combination with means for operating the regulating mechanism comprising a toothed wheel, an oscillating rocker arm, a latch carried by said arm and engaging with the teeth of the wheel to rotate the same and means for controlling the engagement of the latch with the wheel, of means for limiting the total movement of the wheel comprising a member movable under the latch to prevent its engagement with the wheel, and means to move said member under the latch when the regulating mechanism has been operated to a predetermined position.

2. In a regulator, the combination with means for operating the regulating mechanism comprising a toothed wheel, an oscillating rocker arm, a latch carried by said arm and engaging with the teeth of the wheel to rotate the same, and a catch also carried by said arm to hold said latch out of engagement with the wheel, of means for limiting the total movement of the wheel comprising a cam movable to a position to engage with the latch to hold it in position to be engaged by the catch, and means to move said cam to such position when the regulating mechanism has been operated to a predetermined position.

3. In a regulator, the combination with means for operating the regulating mechanism comprising a toothed wheel, an oscillating rocker arm, a latch carried by said

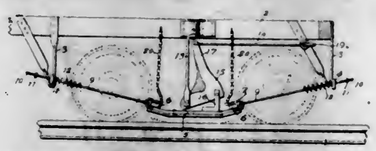
arm and engaging with the teeth of the wheel to rotate the same and a catch also carried by said arm to hold said latch out of engagement with the wheel, of a cam movable to a position between the latch and the wheel to prevent its engagement with the wheel and to hold it in position to be engaged by the catch, and means to move said cam to such position when the regulating mechanism has been operated to a predetermined position.

4. In a regulator, the combination with means for operating the regulating mechanism comprising a toothed wheel, an oscillating rocker arm, two latches carried by said arm and engaging with the teeth of said wheel to rotate it in opposite directions and two catches also carried on said arm to hold said latches out of engagement with the wheel, of a pivoted member having two cam faces movable to positions between the respective latches and the wheel, and a lever for moving said member operated by said regulating mechanism.

5. In a regulator, the combination with means for operating the regulating mechanism comprising a toothed wheel, an oscillating rocker arm and a latch carried thereby for engaging the teeth of the wheel and operating the same, of a tripping means located to engage the latch near the end of its operating stroke to disengage the latch from the teeth.

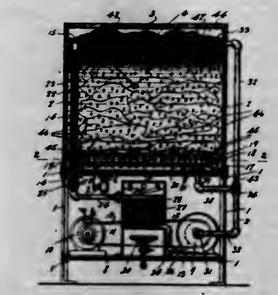
[Claims 6 to 9 not printed in the Gazette.]

1,208,705. RAILWAY-CAR BRAKE. NAPOLEON B. AYRES, Sapulpa, Okla. Filed Oct. 7, 1915. Serial No. 54,633. (Cl. 188—47.)



A railway car brake including a shoe, brackets pendently supported by the car frame, rods, one end of each of which is in connection with said shoe, the opposite end of each being slidably arranged through said bracket, means carried by said rods to force the inner ends thereof away from each other, to normally hold the shoe out of engagement with the rail, means to decrease the operative length of said rods, and means for actuating said shoe into engagement with the rail to retard movement of the car.

1,208,706. WASHING APPARATUS OR THE LIKE. ANDREW L. HATFIELD, Hillside, N. J. Filed Feb. 5, 1916. Serial No. 76,255. (Cl. 68—37.)



1. A washing apparatus, comprising a covered tank, an air discharge means at the bottom of said tank, a circulating supply pipe, a pump mechanism connected in the line of said supply pipe, the intake end of said supply pipe communicating with the upper end of the interior of said tank, and the outlet end of said supply pipe communicating with said air discharge means, a water pipe connected with said supply pipe on the intake side of said pump mechanism, the intake end of said water pipe communicating with the lower end of said tank, and a two-way valve located at the juncture of said water pipe with said supply pipe.

2. A washing apparatus, comprising a tank, a standpipe extending upwardly through said tank to a point above the normal water level of the tank, said stand-pipe being closed at its upper end, discharge piping connected with and communicating with the lower end of said stand-pipe, said discharge piping being submerged in and supported upon the bottom of said tank and provided with a multiplicity of upwardly directed spaced openings disiributed coextensively with the area of said tank-bottom, a delivery pipe of smaller diameter extending upwardly through said stand-pipe its open upper end terminating short of the closed upper end of said stand-pipe but above the normal water level of the tank, a downwardly extending passage being provided by said stand-pipe between its walls and the exterior of said delivery pipe, and means connected with the lower end of said delivery pipe for supplying a stream of air thereto and thence through said stand-pipe to said discharge piping.

3. A washing apparatus, comprising a tank, a stand-pipe extending upwardly through said tank to a point above the normal water level of the tank, said stand-pipe being closed at its upper end, discharge piping connected with and communicating with the lower end of said stand-pipe, said discharge piping being submerged in and supported upon the bottom of said tank and provided with a multiplicity of upwardly directed spaced openings distributed coextensively with the area of said tank-bottom, a delivery pipe of smaller diameter extending upwardly through said stand-pipe its open upper end terminating short of the closed upper end of said stand-pipe but above the normal water level of the tank, a downwardly extending passage being provided by said stand-pipe between its walls and the exterior of said delivery pipe, a circulating supply pipe, a pump mechanism connected in the line of said supply pipe, means for driving said pump mechanism, the intake end of the said supply pipe communicating with the upper end of the interior of said tank, the outlet end of said supply pipe communicating with the lower end of said delivery pipe, a heating-coil connected in the line of said supply pipe on the outlet side of said pump-mechanism, a heating-unit mounted beneath said heating-coil, a water pipe connected with said supply pipe on the intake side of said pump mechanism, the intake end of said water pipe communicating with the lower end of said tank, a two-way valve located at the juncture of said water pipe with said supply pipe, and a cover-member for closing the open upper end of said tank.

4. A washing apparatus, comprising a tank, a stand-pipe extending upwardly through said tank to a point above the normal water level of the tank, said stand-pipe being closed at its upper end, a lateral header-pipe connected with and communicating with the lower end of said stand-pipe at the bottom of said tank, a second lateral header-pipe transversely opposite said first mentioned header-pipe, a plurality of transversely extending discharge pipes communicating at their opposite ends with said respective header-pipes, said discharge pipes each having a plurality of small upwardly directed outlets or discharge openings, a delivery pipe of smaller diameter extending upwardly through said stand-pipe its open upper end terminating short of the closed upper end of said stand-pipe but above the normal water level of the tank, a downwardly extending passage being provided by said stand-pipe between its walls and the exterior of said delivery pipe, a circulating supply pipe, a pump mechanism connected in the line of said supply pipe, means for driving said pump mechanism, the intake end of said supply pipe communicating with the upper end of the interior of said tank, the outlet end of said supply pipe communicating with the lower end of said delivery pipe, a heating-coil connected in the line of said supply pipe on the outlet side of said pump-mechanism, a heating-unit mounted beneath said heating-coil, a water pipe connected with said supply pipe on the intake side of said pump mechanism, the intake end of said water pipe communicating with the lower end of said tank, a two-way valve located at the juncture of said water pipe with said supply pipe, and a cover-member for closing the open upper end of said tank.

1,208,707. WATCH. WILLIAM W. JORDAN, Mena, Ark. Filed Feb. 7, 1916. Serial No. 76,693. (Cl. 58—90.)

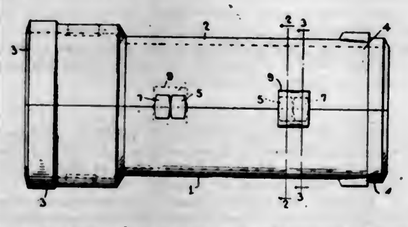


1. The combination with the annular body of a watch case and a lever set watch movement, of an elastic packing ring interposed between the movement and the body of the case, said packing ring being divided longitudinally into two independent sections adapted to be assembled from opposite sides of the movement, and a notch being provided at the joint between the sections for the reception of the setting lever, and means for holding the sections of the packing ring in position.

2. The combination with the annular body of a watch case and a watch movement, the said body being provided with a winding stem and having a depression in its inner surface around the winding stem, of an elastic packing ring surrounding the movement so as to be interposed between the same and the body of the case, the packing ring being formed with an opening to receive the winding stem and being provided on its outer surface with an integral protuberance surrounding the said opening and adapted to be forced into the before mentioned depression of the body to form a stuffing box around the winding stem.

3. The combination with the annular body of a watch case and a lever set watch movement, said body having a winding stem and being provided with a depression on its inner surface around said stem, an elastic packing ring surrounding the movement and interposed between the same and the annular body of the case, said packing ring being divided longitudinally into two independent sections adapted to be assembled from opposite sides of the movement and having a notch at the joint between the sections to receive the setting lever, said packing ring being also formed with an opening to receive the winding stem and an integral protuberance surrounding the opening and arranged to be forced into the depression of the body to form a stuffing box around the winding stem, and means for holding the two sections of the packing ring in position.

1,208,708. SECTIONAL PIPE AND CLAMP CONNECTION THEREFOR. SAMUEL F. KING, Birmingham, Ala., assignor to Robert C. White. Filed Nov. 7, 1914, Serial No. 870,825. Renewed May 11, 1916. Serial No. 96,945. (Cl. 61—9.)



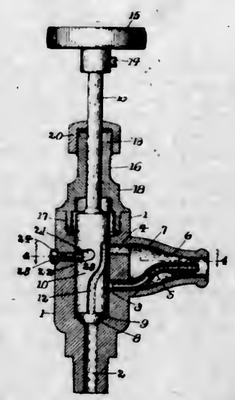
1. A sectional pipe divided into longitudinal sections and means to tie said sections together against both axial, lateral, and vertical displacement, said means comprising pairs of lugs, one lug of each pair being on a different pipe section, the lugs of each pair being raised from the side of their respective pipe sections and extended beyond the section edge to overlap the side of the adjacent section, each lug having top and bottom edges that are spaced substantially equidistantly from the line on which its respective pipe section meets the adjacent section, the lugs of a pair being disposed to abut edgewise to prevent axial displacement of the pipe sections, the top and bottom edges respectively of a pair of lugs being undercut and disposed in common planes, and a clamp sleeve adapted to engage the undercut top and bottom edges of each pair of abutting lugs to prevent relative displacement of the pipe sections.

2. A pipe formed of cast half sections, and lugs cast on each section and overhanging the side edges thereof, said lugs being disposed to abut endwise in pairs when the pipe is assembled, each lug of one section overlapping the side of the other pipe section to prevent sidewise displacement of the sections, each lug being a continuation of a raised shoulder on the side of the pipe sections, each abutting pair of lugs and their shoulders forming in side elevation a wedge like sectional body raised from the side of the pipe and having its converging top and bottom edges undercut and equidistant from the junction plane of the pipe sections, and an undercut wedge clamp sleeve adapted to be driven into engagement with said undercut edges of the lugs and shoulders, substantially as described.

3. A pipe section having along its side edges, lugs which project beyond the edges and into position to overlap the sides of the adjacent pipe section, each lug having its body continued as an integral raised shoulder on the side of the section, the end edges of the shoulder and of the lug being on opposite sides of the pipe section edge and equidistant therefrom, and said shoulder and lug edges being reversely undercut.

4. As an article of manufacture, a pipe section having along each side edge one or more offset side lugs, which lugs rise from the surface of the pipe at a point spaced from its edge and extend a substantial distance beyond said edge, the top and bottom edges of said lug being undercut and equally spaced from the section edge, substantially as described.

1,208,709. SODA-FOUNTAIN DRAFT-COCK. WILLIS E. LA RUE, Indianapolis, Ind., assignor of one-half to William M. Emerson, Indianapolis, Ind. Filed Aug. 23, 1915. Serial No. 46,992. (Cl. 225—25.)



1. In a soda fountain draft-cock, in combination with a casing having a valve chamber provided with an inlet and a plurality of outlet ports, a longitudinally movable and rotatable valve in said chamber having a solid metal body provided with a head adapted to have direct metallic contact against the inlet seat and movable longitudinally

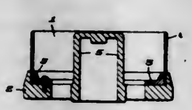
of the chamber to open and close said inlet, said valve body having a closing fit against the wall of the valve chamber and being provided with exterior longitudinal ports and adapted to open and close said outlet ports.

2. In a soda fountain draft cock, in combination with a casing having a valve chamber which has an inlet and outlet ports, a rotatable metal valve in said chamber having a head adapted for direct metallic contact against the inlet seat, means for protracting and retracting said valve to control said inlet, said valve having a series of exterior longitudinal channel ports adapted to establish communication between the inlet and the different outlet ports successively in the rotative movement of the valve.

3. In a soda fountain draft-cock, in combination with a casing having a valve chamber and an inlet, and having a plurality of outlet ports, tubes of different areas communicating with said outlet ports, a single common outlet body providing the larger tube and inclosing the smaller tube, a valve mounted for simultaneous rotatable and longitudinal movements in said chamber and having a conical metallic head adapted to have direct contact with the inlet seat and operable to close and open said inlet in its longitudinal movement and having exterior ports formed in the valve body and corresponding to said outlet ports and adapted to establish communication between said ports and said inlet in the rotatable movement of the valve.

4. In a soda fountain draft-cock, in combination with a casing having a valve chamber provided with an inlet and with outlet ports, a metallic valve in said chamber having direct contact against the inlet seat, a handle for rotating said valve, said valve having an inclined groove, and a pin in the casing for engaging said groove to protract and retract the valve, said valve having longitudinal ports spaced circumferentially and adapted to establish communication between the inlet and said outlet ports.

1,208,710. COLLAR-MOLDING MACHINE. THOMAS W. LLEWELLYN and JAMES J. DOYLE, Syracuse, N. Y., assignors to Howard P. Denison, Syracuse, N. Y. Original application filed June 26, 1913, Serial No. 775,875. Divided and this application filed Nov. 13, 1914. Serial No. 872,048. (Cl. 68—9.)



1. A ring for collar molding machines, the ring having edge portions depressible relatively to the body of the ring, substantially as and for the purpose described.

2. A ring for collar molding machines, the ring having portions of its upper margin weakened relatively to the body of the ring, substantially as and for the purpose specified.

3. A ring for collar molding machines, the ring having its margin formed with perforations, substantially as and for the purpose described.

4. A ring for collar molding machines, the ring having its margin formed with perforations extending along its upper edge, the perforations being arranged in two rows, one above the other, and those of one row being arranged staggered with those of the other row, substantially as and for the purpose specified.

5. A ring for collar molding machines, the ring having its margin formed with perforations in the form of slots extending lengthwise of the margin of the ring, the slots being arranged in two parallel rows, one above the other, and the slots of one row being arranged staggered with those of the other row and the ends of the slots of one lapping the ends of the slots of the other and being spaced apart therefrom, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,208,711. SHUTTER-OPERATING ATTACHMENT FOR CAMERAS. JAMES EDWARD PAYNE, Campbell, Mo., assignor of one-half to Madison N. Payne, Campbell, Mo. Original application filed July 16, 1915, Serial No. 40,200. Divided and this application filed Nov. 8, 1915. Serial No. 60,354. (Cl. 161—26.)



1. A device of the class described comprising a casing adapted to be secured to a camera box adjacent the shutter operating lever, means for engaging said lever and a time operated device for imparting an impulse to said lever engaging means, first in one direction and then in the other upon successive operations of the device, substantially as described.

2. A camera box in combination with a casing detachably secured thereto adjacent the shutter operating lever, means for detachably engaging said lever, and a time operated device for imparting an impulse to said lever engaging means, first in one direction and then in the other upon successive operations of the device, substantially as described.

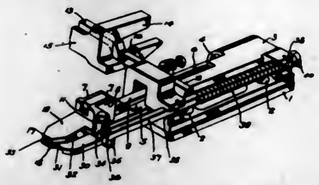
3. A box camera having the usual shutter operating lever projecting therefrom in combination with a casing supported by said box, a reciprocating member, a socket on the end of said member to receive the end of said lever and time operated mechanism within said casing for imparting an impulse to said reciprocating member, first in one direction and then in the other upon successive operations of the device, substantially as described.

4. A camera box of the kodak type provided with the usual lever for normally completely actuating the shutter upon each movement thereof and a slide for transforming the shutter mechanism for a time exposure in combination with a reciprocating member engaging the shutter actuating lever, time actuated mechanism for normally imparting a single impulse to said reciprocating member, and means for modifying the action of said time controlled means to impart an impulse to said reciprocating member, first in one direction and then in another upon each operation of the device, substantially as described.

5. In a device of the class described, a clock work driven timing disk provided with a notch in its periphery, a spring driven actuating disk provided with diametrically opposite notches in its periphery, the radius of the disk being increased from each notch to the next notch in the same direction, a rock lever, a detent upon each end of said lever, one of said detents being adapted to engage within the notch of the timing disk and the other within the notches of the actuating disk, means for manually withdrawing the detent from engagement with the notch in the timing disk and means connected to the actuating disk for operating the shutter actuating mechanism of a camera, substantially as described.

1,208,712. FEELER-MOTION FOR LOOMS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Mar. 9, 1916. Serial No. 83,186. (Cl. 139—85.)

1. A feeler motion for looms, comprising an upper feeler member and a lower feeler member each adapted to enter the same shuttle on a detecting beat and feel for the filling therein, a guard to prevent detecting action by either feeler member until the filling nears substantial exhaustion, and means rendered effective upon detection of substantial exhaustion of filling by either feeler member to initiate filling replenishment.



2. A feeler motion for looms, comprising an upper feeler member to enter the shuttle and detect the condition of filling therein when the filling carrier is in a relatively high position in the shuttle-box, a lower feeler member to enter the shuttle and detect the condition of the filling when the filling carrier is in a relatively low position in the shuttle-box, means adapted to be moved to effect the filling replenishment upon detection of substantial exhaustion of filling by either of said feeler members.

3. A feeler motion for looms, comprising an upper and a lower feeler member each adapted to enter the shuttle on a detecting beat and feel for the filling, and a guard between the upper and lower feeler members having a filling engaging and extending beyond the feeler members and moved from guarding position when the filling nears substantial exhaustion.

4. A feeler motion for looms, comprising two feeler members to enter the same shuttle on a detecting beat, one of said feeler members acting to detect substantial exhaustion of filling when the shuttle is high in the shuttle-box and the other member acting to detect substantial exhaustion of filling when the shuttle is low in the shuttle-box, and means rendered effective by detecting movement of either of said feeler members to initiate filling replenishment.

5. A feeler motion for looms, comprising two feeler members to enter the same shuttle on a detecting beat, one of said feeler members acting to detect substantial exhaustion of filling when the shuttle is high in the shuttle-box and the other member acting to detect substantial exhaustion of filling when the shuttle is low in the shuttle-box, a guard between the said two feeler members and movable from guarding position when the filling nears substantial exhaustion to permit said feeler members to detect substantial exhaustion, and means rendered effective by detecting movement of either of said feeler members to initiate filling replenishment.

[Claims 6 to 13 not printed in the Gazette.]

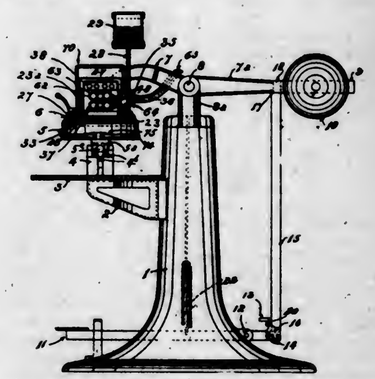
1,208,713. ROTARY BRUSH. ARTHUR M. ROLAND, San Francisco, Cal., assignor of two-fifths to Alphonse Newhouse, San Francisco, Cal. Filed Nov. 28, 1914. Serial No. 874,416. (Cl. 15—37.)



1. In a rotary brush, a hollow handle having an enlarged head with a transverse partition, said partition having a plurality of openings therethrough, a water motor in contact with said partition and having vanes which travel over the openings therethrough, a frame carried by the head and having a bearing at its outer end, a brush shaft in alinement with the motor axis extending through said bearing and into a fixed bearing in the hollow head, a series of reduction gears between the motor and the shaft last mentioned whereby it will be driven at a slower rate of speed than the motor shaft, a hollow perforated brush carried by the shaft, said brush extending over the brush frame to which the shaft bearing is connected, and a funnel to direct the escaping water into the hollow brush.

2. In a rotary brush, a hollow handle having an enlarged head at one end thereof, a cylinder screwed into said enlarged head and having a partition and a bearing connected therewith, a shaft extending through said bearing and carrying a motor wheel with its vanes in contact with the openings through the partition in the cylinder, a frame connected with said cylinder, said frame having a bearing for a reduction gear shaft and bearings for the brush shaft in alinement with the motor shaft bearing, a brush shaft in alinement with the motor shaft having a hollow perforated brush on its outer end, means to direct the water being discharged into the hollow brush, and suitable gears for driving the brush from the motor at a slower rate of speed than the motor.

1,208,714. CLOTHES-PRESSING MACHINE. ARTHUR E. SNOW, Erie, Pa., assignor, by mesne assignments, to U. S. Hoffman Company, Syracuse, N. Y., a Corporation of New York. Filed July 31, 1912. Serial No. 712,505. (Cl. 68—9.)



1. In a clothes pressing machine, the combination of a buck on which a gramen can be arranged for pressing; a presser head movably mounted to operate on said buck and having steam passages extending through its face; a flash steam coil carried by the head and connected at a discharge end with said passage; a gas burner carried by the head arranged to heat said coil; means for supplying combustible mixture to said burner; and means for supplying water to the opposite end of the coil from the discharge.

2. In a clothes pressing machine, the combination of a buck on which a garment can be arranged to be pressed; a presser head movably mounted to operate on said buck and having steam passages extending through its face; means for supplying steam to said passages; a hot water system carried by said head for heating the body adjacent to the face of said head; and means for heating the water of said system.

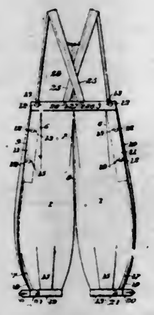
3. In a clothes pressing machine, the combination of a buck on which a garment can be arranged to be pressed; a presser head movably mounted to operate on said buck and having hot water heating passages carried thereby adjacent to the face of the head; and means carried by the head for heating the water in said passages.

4. In a clothes pressing machine, the combination of a buck on which a garment can be arranged to be pressed; a presser head movably mounted to operate on said buck and having hot water heating passages carried thereby adjacent to the face of the head; means carried by the head for heating the water in said passages; and means for supplying steam to the face of said head.

5. In a clothes pressing machine, the combination of a buck on which a garment can be arranged to be pressed; a presser head movably mounted to operate on said buck and having steam passages extending through its face and water passages adapted to heat the head; a generator carried by the head for generating steam; a connection between the generator and said steam passages; means carried by the head for heating the generator; and means carried by the head for heating the water in the hot water passages.

[Claims 6 to 12 not printed in the Gazette.]

1,208,715. OVERALLS FOR WOMEN. CHARLES W. BARTRUM, Newburgh, N. Y., assignor to Sweet-Orr & Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 12, 1916. Serial No. 114,587. (Cl. 2—144.)

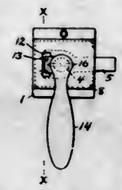


1. Overalls for women, having individual leg portions united and permanently closed from front to back throughout the crotch, and full-fashioned in the seat, hips and thighs and down to their bottoms, shaped to fit the waist by means of plaits at front, back and sides, and provided with side openings between the side plaits and fastenings therefor, a waistband divided at the sides so as to open the garment, and having the bottoms similarly plaited and also provided with side openings and fastening bands, whereby the legs may be secured about the wearer's ankles and also just below her knees, the material of the legs at such time falling down over the bottom fastening bands and producing a skirt effect.

2. Overalls for women, having individual leg portions united and permanently closed from front to back throughout the crotch, and full-fashioned in the seat, hips and thighs and down to their bottoms, shaped to fit the waist by means of plaits at front, back and sides, and provided with side openings between the side plaits and fastenings therefor, a waistband divided at the sides so as to open the garment, and having the bottoms similarly plaited and also provided with side openings and fastening bands, whereby the garment may be worn with the bottoms extended to the wearer's ankles and also with said bottoms gathered up and fastened beneath the wearer's knees and a bib applied to the front of the garment and having shoulder straps and means to connect them with the back.

1,208,716. LATCH. HENRY BECK, Andrews, Ind., assignor to Wasmuth-Endicott Company, a Corporation of Indiana. Filed Dec. 11, 1915. Serial No. 66,250. (Cl. 70—44.)

1. In a latch, a base-plate having a rigid stud projecting therefrom; a lock-bar loosely mounted upon the stud at a point adjacent the base-plate; a handle pivoted to the outer end of the stud and having an arm that engages the lock-bar at one side of the stud and actuates the same as the handle is swung upon its pivot; and a cover secured to the base-plate, having openings therein respectively for the arm on the handle and the projecting end of the lock-bar, said lock-bar and handle being adapted to turn upon axes that extend respectively at right angles to each other.



2. In a latch, a base-plate having a rigid projecting stud; a handle pivoted upon the outer end of the stud and having an inwardly extending arm; and a lock-bar loosely mounted upon the stud between the handle and adjacent face of the base-plate, and having actuated relation with the arm of the handle, said lock-bar and handle being adapted to turn upon axes that extend respectively at right angles to each other.

3. In a latch, a base-plate having a rigid stud projecting therefrom; a lock-bar mounted upon the stud and being adapted to turn upon the axis thereof; a pin extending through the outer end of the stud at right angles to the axis thereof; and a handle mounted upon the pin and having an extending arm engaging the lock-bar.

1,208,717. PROCESS FOR THE MELTING OF METALS WHICH FUSE AT HIGH TEMPERATURES IN IRON OR STEEL LADLES. JOHN COOKERLEY, Inglenook, Ala., assignor of eighty one-hundredths to Ed Shelton, Birmingham, Ala. Filed Feb. 21, 1916. Serial No. 79,531. (Cl. 148—38.)

1. The hereindescribed process for the melting of copper, bronze and cuprous metals having a high melting point, which consists in melting the cuprous metal in an iron or steel crucible in the presence of a bath of melted sodium chlorid.

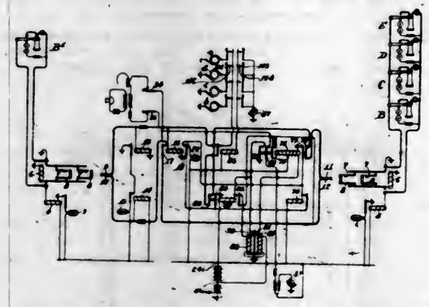
2. The hereindescribed process for the melting of copper, bronze, and cuprous metals having a high melting point in iron or steel ladles or crucibles, which consists in introducing sufficient sodium chlorid into the ladle or crucible to form, when melted, a bath therein, causing this bath of molten sodium chlorid to contact with the inner surface of the ladle or crucible to treat the latter, then introducing the copper, brass, bronze and the like into the ladle or crucible with the sodium chlorid bath therein, and bringing the ladle or crucible to a white hot temperature.

3. The hereindescribed process for the melting of cuprous metals in iron or steel ladles, which consists in treating an iron or steel ladle prior to exposing it to a temperature capable of melting its cuprous contents, with a bath of sodium chlorid.

1,208,718. TELEPHONE SYSTEM. ALFRED H. DYSON, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Mar. 19, 1906, Serial No. 306,817. Renewed Apr. 17, 1912. Serial No. 691,505. (Cl. 179—35.)

1. A telephone exchange system including a telephone line, a signal at the exchange adapted to be displayed responsive to currents over said line, a second telephone line, a plurality of substations connected therewith, operators' means for uniting said lines, apparatus connected therewith for selectively ringing a desired one of said plurality of substations, and means responsive to the busy condition of said second line to render said apparatus ineffective and to extend a signal.

2. A telephone exchange system including a telephone line, a signal at the exchange adapted to be displayed responsive to currents over said line, a second telephone line, a plurality of substations connected therewith, operators' means for uniting said lines, apparatus connected therewith for selectively ringing a desired one of said plurality of substations, means responsive to the busy condition of said second line to render said apparatus ineffective and to extend a signal, and means effective upon a response at a called substation to render said apparatus ineffective.



3. A telephone exchange system including party lines, operators' means for uniting said lines for conversation, apparatus associated therewith for selectively signaling the parties of said lines, and means responsive to the busy conditions of said lines to render said apparatus ineffective and to extend signals.

4. A telephone exchange system including telephone lines, a plurality of substations connected to some of said lines, multiple terminals of said lines at the exchange, signals responsive to currents over said lines, operators' link-circuits adapted for connections to said terminals, means for altering the normal electrical condition of the terminals of a line when a link-circuit is connected to one, party line signaling mechanism associated with said link-circuits for projecting selective signaling current over said lines, and electro-magnets for said link-circuits sensitive to the altered electrical conditions of said terminals to prevent the projection of said current and extend signals.

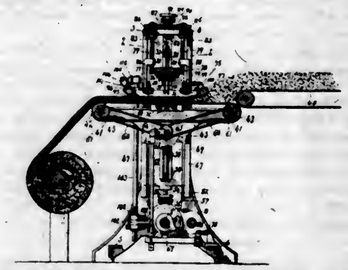
5. A telephone exchange system including telephone lines, a plurality of substations connected to some of said lines, multiple terminals of said lines at the exchange, signals responsive to currents over said lines, operators' link-circuits adapted for connections to said terminals, means for altering the normal electrical condition of the terminals of a line when a link-circuit is connected to one, party-line signaling mechanism associated with said link-circuits for projecting selective signaling currents over said lines, electro-magnets for said link-circuits sensitive to the altered electrical conditions of said terminals to prevent the projection of said current and extend signals, and electro-magnets for said link-circuits controlled by responses at called substations adapted to terminate the projection of signaling current over said lines.

[Claims 6 to 43 not printed in the Gazette.]

1,208,719. MACHINE FOR INTERLACING CURLED HAIR. FREDERICK MAUSSNER, Philadelphia, Pa., assignor to Delany and Company, Philadelphia, Pa. Filed July 22, 1916. Serial No. 110,629. (Cl. 38—8.)

1. In a machine of the character described, the combination of a frame, a reciprocating needle bar, needles secured to said bar, means for supporting the material to be treated located adjacent to the needles, a rack located adjacent to the said supporting means adapted to compress the material, and movable members carried by said rack adapted to facilitate the movement of the material through the machine.

2. In a machine of the character described, the combination of a frame, a reciprocating needle bar, needles secured to said bar, means for supporting the material to be treated located adjacent to the said supporting means adapted to compress the material, said rack composed of parallel bars having spaces between them for the needles, said bars having grooves formed in the under surface thereof and movable members slidably carried in the said grooves formed in said bars.



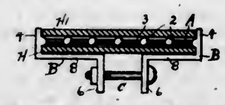
3. In a machine of the character described, the combination of a frame, a reciprocating needle bar, needles secured to said bar, means for supporting the material to be treated located adjacent to the needles, a rack located adjacent to the supporting means adapted to compress the material, said rack composed of parallel bars, a flexible member held by each bar of the rack and means for moving the flexible members along the said bars to advance the material through the machine.

4. In a machine of the character described, the combination of a frame, a reciprocating needle bar, needles secured to said bar, an apron for carrying the material to be treated, a rack having bars to compress the material, a movable member located adjacent to each of said bars and means for advancing the apron and the movable members simultaneously.

5. In a machine of the character described, the combination of a frame, a reciprocating needle bar, needles secured to said bar, an apron for carrying the material to be treated, a rack having bars between which the needles pass, a flexible movable member under each of said bars, rock shafts to which the ends of the movable members are secured and means for reciprocating the rock shafts to move the flexible members.

[Claims 6 to 12 not printed in the Gazette.]

1,208,720. LEAF-SPRING. WILLIAM T. PERRY, Fresno, Cal., assignor of one-half to Arthur Everett Jeans, Fresno county, Cal. Filed July 29, 1916. Serial No. 112,168. (Cl. 267—33.)



1. In combination with a leaf spring, a rod having a plurality of balls attached thereto inserted between the leaves of the spring, and means for loosely holding said balls in said position, substantially as described and for the purposes set forth.

2. In a spring, the combination of spring leaves, a plurality of balls attached to a rod inserted between said leaves, and means for holding said rod between the leaves consisting of a pair of jaws having an opening therein to receive the end of said rod, and means for clamping the jaws to one leaf of the spring, substantially as described and for the purposes set forth.

3. In a spring, the combination of a plurality of leaves, a plurality of rods having balls of slightly larger diameter than the diameter of the rods rigidly attached thereto, the center of rod being on a line with a diameter of the balls, and means for holding said rods and balls between the leaves of said spring, substantially as described and for the purposes set forth.

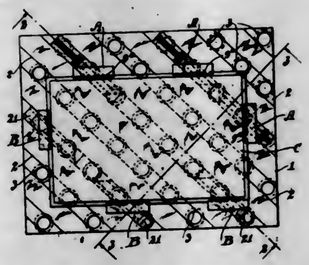
4. In a spring, the combination of a plurality of leaves, a rod having balls of slightly larger diameter than the diameter of the rod rigidly attached to the rod with a diameter of the balls on common line with the center

of the rod, placed between each two contiguous leaves of a spring, and means for holding said rod in between said leaves consisting of a clamp having an upright extension with a hole therein of such size to receive an end of the rod, all substantially as described.

5. In a spring, the combination of a plurality of leaves, a plurality of balls having a rod passed through the center thereof, the rod to be the approximate length of the width of one of the leaves, and the balls to be of slightly larger diameter than the thickness of the rod, a retainer for such rod consisting of a member having two upward projections with holes therein slightly larger than the diameter of the rod and means for clamping said members to a leaf of the spring, all substantially as described.

[Claim 6 not printed in the Gazette.]

1,208,721. PRINTING-PLATE HOLDER AND REGISTERING DEVICE. CHARLES FREDERICK ROCKSTROH, Jr., Richmond Hill, N. Y., assignor to F. Wesel Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 22, 1912. Serial No. 685,524. (Cl. 101—169.)



1. In a device of the class described, the combination of a grooved base, a carriage, means for holding the carriage in different positions in a grooved portion of the base, the carriage comprising a horizontal longitudinally extending main lower member provided with upstanding ends, a horizontal longitudinally extending rod secured to the ends and a hook mounted on and slidable along the rod.

2. In a device of the class described, the combination of a grooved base and a printer's registering device secured thereto comprising end members, a main connecting member therebetween, a holding rod parallel with the connecting member and a plate engaging member or hook slidably mounted on the rod, the main connecting member being provided with means to hold the device in any one of several places in a groove of the base.

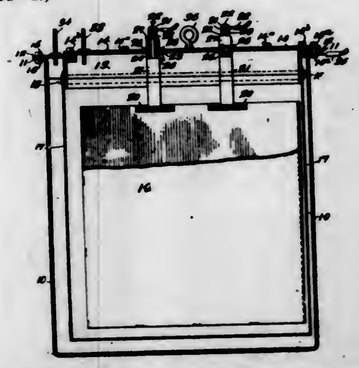
3. In a device of the class described the combination of a grooved base and a register hook constructed so that it can be secured directly to the base in any one of several positions in a groove thereof, said hook comprising end members, a main connecting member therebetween, a holding member parallel with the main connecting member, a plate engaging hook or member slidably mounted on the holding member, and means between the plate engaging hook and at least one of the end members to maintain said hook in proper position between the end members.

4. A register hook comprising end members, a main connecting member and holding means extending to and between the end members, a plate engaging hook or member slidable along the holding member, and means between the plate engaging hook and at least one of the end members whereby a thrust imparted to the plate engaging hook will be transmitted to the end member, the main connecting member being provided with depending base engaging legs.

5. A register hook comprising a main member provided with means to secure a hook directly to a base, a second or holding member parallel with the main member, a screw threaded rod parallel with the second member, a plate engaging hook slidable along the rod and holding member, and gear means between the plate engaging hook and the screw threaded rod.

[Claims 6 to 10 not printed in the Gazette.]

1,208,722. ELECTROLYTIC CELL. DUDLEY SHAW, New York, N. Y. Filed June 22, 1915, Serial No. 35,518. Renewed Oct. 11, 1916. Serial No. 125,087. (Cl. 204—1.)



1. An apparatus of the character described comprising a receptacle constituting an electrode, a support mounted upon said receptacle having an opening therein, a porous diaphragm secured to said support and registering with the opening therein, a gas outlet communicating with the interior of said receptacle outside of said diaphragm, a cover for sealing the opening in said support, a gas outlet communicating with the interior of said diaphragm, and an electrode secured to said cover and extending into said diaphragm, substantially as specified.

2. An apparatus of the character described comprising a receptacle constituting an electrode, a support mounted upon said receptacle having an opening therein, a sleeve member depending from said support, a porous diaphragm secured at its top to the sleeve member on said support, a gas outlet communicating with the interior of said receptacle outside of said diaphragm, a cover for sealing the opening in said support, a gas outlet communicating with the interior of said diaphragm, an electrode secured to said cover and extending into said diaphragm, means for securing said cover to said support, and means securing said support to said receptacle, substantially as specified.

3. An apparatus of the character described comprising a receptacle constituting an electrode, a support mounted upon said receptacle having an opening therein, a sleeve member depending from said support, a diaphragm secured at its top to the sleeve member on said support, a cover for sealing the opening in said support, an electrode secured to said cover and insulated therefrom and extending into said diaphragm, a gas outlet provided in said support, a gas outlet provided in said cover, means for securing said support to said receptacle, and means, independent of the means for securing said support to said receptacle, for securing said cover to said support, substantially as specified.

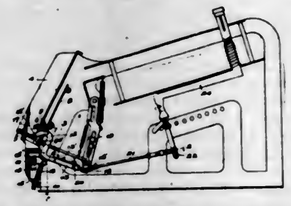
4. An apparatus of the character described comprising a receptacle constituting an electrode, a flange provided along the edge of said receptacle, a support disposed upon said receptacle and serving partly to close the same, means for securing said support to said flange; said support having a central opening therein, a sleeve member depending from the edge of said support, a diaphragm secured along its top to said sleeve member, a cover plate for sealing the opening in said support, an electrode disposed within said diaphragm, supporting means extending from said last-named electrode through the opening in said support and said cover plate and insulated from said cover plate, means for securing said cover plate to said support, means provided upon said cover plate for conducting gas from the interior of said diaphragm, and means provided upon said support and communicating with the interior of said receptacle exteriorly of said diaphragm for conducting gas therefrom, substantially as specified.

5. An apparatus of the character described comprising a receptacle constituting an electrode, a laterally-extending flange provided along the open portion of said receptacle, a support corresponding in outline with the outline of said flange, means for securing said support to said flange; said support having a central opening therein, a sleeve member depending from the edge of said opening, a bag-shaped, flexible diaphragm disposed upon the depending sleeve on said support, means for securing said diaphragm to said sleeve, a cover plate for sealing the opening in said diaphragm, means for securing said cover plate to said support, an electrode disposed within said diaphragm, supporting members secured to said electrode and extending upwardly through said cover plate but insulated therefrom, a gas outlet secured in said cover plate and communicating with the interior of said diaphragm, and a gas outlet secured in said support and communicating with the interior of said receptacle exteriorly of said diaphragm, substantially as specified.

[Claim 6 not printed in the Gazette.]

REISSUES.

14,227. COIN-DELIVERY MACHINE. EDWARD J. BRANDT, Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Filed Sept. 6, 1916. Serial No. 118,788. Original No. 1,129,063, dated Feb. 23, 1915, Serial No. 854,046, filed July 30, 1914. (Cl. 133—4.)



1. In a coin delivery machine, a coin pusher swing arm, and a spring controlled elbow rocker one branch of which is an inclined lever serving alternately as a track and stop for the swing arm, its other branch being fashioned to provide a nose engageable with a rear wall slot of a coin tray compartment of the machine to at times extend into said compartment over against coin therein, the rocker being then a stop in the forward path of said swing arm.

2. In a coin delivery machine, a coin pusher swing arm, a pivot rod, and a spring controlled elbow rocker having a bearing lug loose on the rod, one branch of the rocker being an inclined lever serving alternately as a track and stop for the swing arm, the other branch of said rocker being fashioned to provide a nose engageable with a rear wall slot of a coin tray compartment of the machine to at times extend into said compartment over coin therein, the rocker being then a stop in the forward path of said swing arm.

3. In a coin delivery machine, a coin pusher swing arm, an elbow rocker, one branch of which is an inclined lever serving alternately as a track and stop for the swing arm, its other branch being fashioned to provide a nose engageable with a rear wall slot of a coin tray compartment of the machine to at times extend into said compartment over against coin therein, the rocker being then a stop in the forward path of said swing arm, and a spring opposing the rocker from below.

4. In a coin delivery machine, an elbow rocker comprising a pair of partly angularly bent and connected parallel pieces having right angle flanges at one end constituting a track and stop alternately in the path of another movable part of the machine.

5. In a coin delivery machine, a rocker stop having an inclined lever branch that serves alternately as a track and stop for a swing arm to which a coin pusher of the machine is connected, the other branch of the rocker being normally in contact with coin of a descending column in a coin tray compartment of said machine, whereby said rocker is tilted to place the lever branch thereof in track position and further tilted out of contact with said coin coincidental with forward movement of said swing arm.

6. In a coin delivery machine the combination with a coin tray part and a pusher, with mechanism for operating the pusher, means for preventing the operation of the pusher upon the absence of coin in the tray, said means comprising a pivoted stop member having a part arranged to engage the edge of the coin, and means for moving the stop member out of engagement with the coin upon the actuation of the pusher in a direction to eject a coin.

7. In a coin delivery machine the combination with a coin receiving tray member and coin ejecting mechanism, of means controlled by the absence of a coin from the tray for preventing the operation of the ejecting mechanism, and means for causing the said preventing mechanism to move from engagement with the coin in the tray member by and upon the operation of the ejector mechanism in a direction to eject a coin.

8. In a coin delivery machine the combination with a coin tray element of ejector mechanism, means for preventing the operation of the ejector mechanism upon the absence of coin in the tray element, and means operable upon and by the movement of the ejector mechanism for positioning the preventing mechanism out of engagement with the coin during the operation of the ejector mechanism.

9. In a coin delivery machine the combination with a coin tray element and a reciprocating ejector mechanism comprising a swinging member, of means for preventing the swinging of said member upon the absence of coin in the tray, and means operated by the swinging element for removing the said preventing means from engagement with a coin during the operation of said swinging element.

10. In a coin delivery machine the combination with a tray element and a coin pusher of a swinging support for the pusher, key mechanism for operating the support, and a stop interposed in the path of the swinging support during the absence of coin in the coin tray element, and spring mechanism for operating the stop in one direction.

11. In a coin delivery machine the combination with a tray element and a pusher mechanism of a spring actuated stop mechanism having an extended part entering the tray element, and means for removing the extended part from the tray by and upon the operation of the pusher mechanism in a direction to eject a coin.

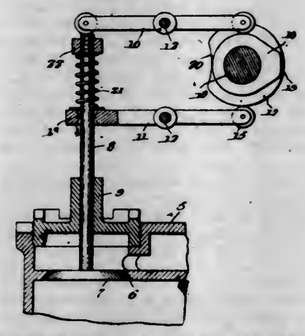
12. In a coin delivery machine the combination with a tray element and a pusher mechanism, of a rocking lever having one end arranged to enter the tray upon the absence of coin and having an extension arranged to be engaged by the pusher mechanism for moving the tray entering end of the lever from its position in line with the coin in the tray upon the forward movement of the pusher mechanism.

13. In a coin delivery machine the combination with a tray and pusher mechanism, of a tiltable stop lever, and means for engaging the stop lever for tilting the same out of engagement with the coin in the tray by and upon the ejecting movement of the pusher mechanism.

14. In a coin delivery machine having a coin tray and an ejector mechanism, a swinging locking member for the

ejector mechanism, and means for operating the locking member out of operative position by and upon the ejecting movement of the ejector mechanism.

14,228. VALVE. FRANK MACVICAR, Syracuse, N. Y. Filed Sept. 12, 1916. Serial No. 119,770. Original No. 1,185,516, dated May 30, 1916, Serial No. 63,775, filed Nov. 27, 1915. (Cl. 123—90.)



1. The combination with a cylinder of an internal combustion engine, and a valve therefor, of a valve operating mechanism including opening and closing cams, valve actuating means operable by said opening and closing cams, and yieldable means between the valve and valve actuating means, one of said cams not being affected by the tension of said yieldable means when the valve is open, and the other of said cams having a greater throw to place said yieldable means under tension.

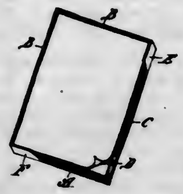
2. The combination with a cylinder of an internal combustion engine, and a valve therefor, of a cam-controlled valve mechanism including a valve-actuating means operatively associated with the valve and adapted to engage the opening and closing cams, a yieldable means operating to hold said valve-actuating means in continuous engagement with the closing cam, the latter having a greater throw than the opening cam for compressing and placing said yieldable means under tension as described.

3. The combination with a cylinder of an internal combustion engine, and a valve therefor, of valve-actuating means including a pair of spaced parallel rocking arms, one of said arms being terminally associated with the stem of the valve, said stem being slidably fitted in the adjacent end of the other of said arms, a cam for operating one of said arms to open the valve, a second cam operating on the other arm to close said valve, and yieldable means interposed between said arms operating to hold the valve closing arm in continuous engagement with the closing cam, one of said cams having a greater throw than the other for compressing and placing said yieldable means under tension.

4. The combination with a cylinder of an internal combustion engine, and a valve therefor, of valve actuating means including a pair of rocking arms, a cam for operating one of said arms to open the valve, a second cam for operating the other arm to close said valve, and yieldable means operating to hold the valve closing arm in continuous engagement with the closing cam, one of said cams having a greater throw than the other for compressing and placing said yieldable means under tension.

5. The combination with an engine valve, of opening and closing cams for said valve, valve-actuating means, and yieldable means between the valve and valve-actuating means serving to prevent the closing cam from bottoming in relation to the valve-actuating means, said yieldable means having no effect between the cams and valve-actuating means when the valve is unseated, the closing cam having a greater throw than the opening cam and serving to compress the yieldable means when the valve reaches the limit of its closing movement.

14,229. LOOSE-SHEET TABLET. WILLIAM STUART MATTHEWS, St. Joseph, Mo. Filed Sept. 9, 1916. Serial No. 119,306. Original No. 1,184,976, dated May 30, 1916, Serial No. 51,711, filed Sept. 20, 1915. (Cl. 129—43.)



1. In a device of the kind described, the combination of loose sheets of paper and a box and a telescopic lid, a bottom, one end and one side of the bottom of the box being complete, and portions of the other side and end cut away to prevent interference with the hand and wrist when writing on the tablet.

2. A device of the kind described, comprising a box with a solid bottom and a telescopic lid, one side and one end being complete, and diagonally opposite sections on the other side and end to prevent the sheets from slipping out of the box.

3. A device of the kind described, comprising a shallow box having a solid bottom, one side and one end, the corresponding opposite side and end consisting of short, extensions leaving an open space from extension to extension, and the sheets held in position therein.

4. A device of the kind described, comprising the bottom and a side and one end of the rim of a box, diagonally opposite extensions of the rim on the other side and end of the box, loose sheets of paper fitted in said box, and a loose lid to close the top, sides and ends of the box.

5. A loose sheet tablet composed of a pile of loose sheets of paper, and a supporting device for said pile provided with means that holds the sheets in alinement and prevents them from moving horizontally in any direction off said supporting device without interfering with the hand or wrist of the person writing on the tablet.

6. A loose sheet tablet, comprising a pile of loose sheets of paper, a flat member on which said pile rests, and upwardly projecting devices on said member arranged in such a manner that they coöperate with the edges of said sheets to hold them in vertical alinement with each other and prevent them from moving horizontally in any direction off said flat member without obstructing the hand or wrist of the person writing on the top sheet of the pile.

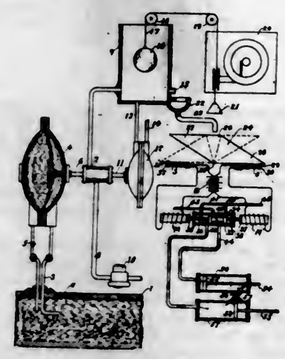
7. A loose sheet tablet composed of a pile of loose rectangular sheets of paper, a flat member on which said pile rests, and means on said member that embrace only three corners of the pile so as to hold the sheets of paper in proper position on said member.

8. A loose sheet tablet, consisting of a pile of loose sheets of paper, and a box that incases said sheets when the tablet is not in use, said box comprising a lower part provided with means that holds the sheets in superimposed relation and prevents them from moving horizontally in any direction off the bottom of the box without obstructing the hand or wrist of the person writing on the top sheet of the pile.

9. A device of the kind described, comprising a box that is adapted to hold loose sheets of writing paper, a portion of the rim of said box being removed at one side and at one end of the box so as to provide a space for the hand or wrist of the person writing on the paper in said box, and a lid or cover for the box.

10. A device of the kind described, comprising a box provided with a lid or cover, said box having a bottom that is adapted to support a pile of loose sheets of paper, and means on said bottom that holds said sheets in proper superimposed relation and prevents them from moving horizontally in any direction off said bottom without offering an obstruction to the hand or wrist of the person writing on the top sheet of the pile.

14,230. REGULATING AND PROPORTIONING THE FEED OF CHEMICALS OR LIKE SUBSTANCES TO WATER OR OTHER FLUIDS. GEORGE GOODELL EARL and ALBERT BALDWIN WOOD, New Orleans, La. Filed Nov. 1, 1916. Serial No. 129,319. Original No. 1,200,324, dated Oct. 3, 1916, Serial No. 626,359, filed May 10, 1911. (Cl. 210—19.)



1. In a device of the class described, the combination of a fluid duct, means to control the introduction of a substance into said duct, a pressure source independent of said duct, a tank and means including a pair of movable members and a valve to regulate the pressure in said tank so that the flow from the source will be proportional to the flow of the fluid in the duct and means operated by the flow of fluid from said tank controlling said first named means.

2. In a device of the class described, the combination of a fluid duct, means to control the introduction of a substance into said duct, a fluid reservoir, a valve adapted to move in proportion to the flow of fluid in the duct, said valve controlling the flow of fluid into the reservoir, and means operated by the flow of fluid from said reservoir controlling said first named means.

3. In a device of the class described, the combination of a fluid duct, means to introduce a substance into said duct, a movable member adapted to move in proportion to the difference between the static and total pressures in said duct, a valve adapted to be moved in response to the movement of said member, a fluid reservoir, the supply to said reservoir being controlled by said valve and means operated by the flow of fluid from said reservoir controlling the said first named means.

4. In a device of the class described, the combination of a fluid duct, means to introduce a substance into said duct, a movable partition adapted to move in accordance with the differences between the static and total pressures of the fluid in said duct, a fluid reservoir, a valve controlling the flow of fluid into said reservoir, a second movable partition adapted to move in response to the variation in pressure in said reservoir, said valve adapted to move in response to the movements of the two partitions and means operated by the flow of fluid from said reservoir controlling said first named means.

5. In a device of the class described, the combination of a conduit conducting a main flow of fluid, means conducting a second flow, means including a vibratile diaphragm for regulating the second flow proportionately to the first and apparatus controlled by said functional flow for introducing a dry substance to said conduit.

6. In a device of the class described, the combination of a fluid duct, means to introduce a substance into said duct, a fluid reservoir, means governed by the flow of fluid in said duct, controlling the supply to said reservoir, and a vibratile tank controlled by the pressure in the reservoir governing said first named means.

7. In a device of the class described, the combination of a fluid duct, means to introduce a substance into said duct, a fluid reservoir, means controlled by the joint action of the movement of the fluid in said duct and the pressure in said reservoir for controlling the flow of fluid to said reservoir, a reciprocating member operated by the water flowing from said reservoir and a valve controlled by said reciprocating member, said valve controlling the operation of said first named means.

8. In a device of the class described, the combination of a fluid duct of means to introduce a substance into said duct, said means including a battery of chambers, a piston mounted in each chamber and interconnecting ducts between said chambers, said ducts being independent of each other and providing independent intercommunication between the chambers.

9. In a device of the class described, the combination of a fluid duct, means to introduce a substance into said duct, said means including a pair of chambers, a piston mounted in each chamber adapted to reciprocate from one end of the chamber to the other end and a duct opening into one chamber to the rear of the end position of the piston in that chamber and in the other chamber forward of the end position of the piston in that chamber.

10. In a device of the class described, the combination of a fluid duct, means to introduce a substance into said duct, said means including a pair of chambers, a piston mounted in each chamber, means to move said pistons from one end of said chambers to the other, a duct terminating in one chamber behind the end position of the piston in that chamber and terminating in the other chamber forward of the end position of the piston in said other chamber and a second duct terminating in each chamber in reversed relations with respect to the end positions of said pistons.

11. As a means for feeding a substance to a water main, the combination of a water main, fluid operated means which vibrates in proportion to the flow of water in the main, a plurality of plungers caused to reciprocate by said means, a receptacle for the substance to be introduced to said main, ways for said plunger associated with said receptacle, said ways and said receptacle being connected so that the substance may pass into the ways when the plunger operating therein recedes, and a duct connecting said receptacle and said main, said plungers operating when reciprocated to discharge said substance from said ways into said duct.

12. In a device of the class described, the combination of a main fluid duct through which fluid flows under pressure, a fluid receptacle, a diaphragm in said receptacle dividing it into two compartments, means to convey pressure from said main duct to each of said compartments, said pressures acting on said diaphragm, a second fluid receptacle, a second diaphragm in said second receptacle dividing it into two compartments, means for rigidly connecting said diaphragms together, an auxiliary duct adapted to convey an auxiliary flow, a reservoir into and out of which the fluid through the auxiliary duct flows, means to connect one of the compartments in the second receptacle to atmosphere conveying the atmospheric pressure to one side of the diaphragm in the second receptacle, means to convey the pressure in the reservoir to the other compartment in the second receptacle and to the other side of the diaphragm therein, a valve in the auxiliary duct controlled by said diaphragm and regulating the pressure in the reservoir, means for introducing a chemical to the main duct and apparatus whose operation is controlled by the pressure in said reservoir for regulating the introduction of the chemical to the main duct.

13. In a device of the class described, the combination of a fluid duct, means to introduce a substance into said duct, electrical means controlling said first named means, and mechanism including a vibratory tank governed by the flow of fluid in said duct governing said electrical means.

14. In a device of the class described, the combination of a fluid duct, means to control the introduction of a substance into said duct, a pressure source independent of said duct, a tank and means including a movable member, a valve and interconnecting means to regulate the pressure in said tank so that the flow from the source will be proportional to the flow of the fluid in the duct, and means operated by the flow of fluid which passes through said tank controlling said first named means.

15. In a device of the class described, the combination of a fluid duct, means including a fluid reservoir to introduce a substance into said duct, a movable member adapted to move in proportion to the difference between the static and total pressure in said duct, a valve adapted to be moved in response to the movement of said member, the supply to said reservoir being controlled by said valve and means operated by the flow of fluid which passes through said reservoir controlling said first named means.

16. In a device of the class described, the combination of a fluid duct, means to introduce a substance into said duct, a movable partition adapted to move in accordance with the difference between the static and total pressures of the fluid in said duct, a fluid reservoir, a valve controlling the flow of fluid into said reservoir, a second movable partition adapted to move in response to the variation in pressure in said reservoir, said valve adapted to move in response to the movements of the two partitions and means operated by the flow of fluid through said reservoir controlling said first named means.

17. In a device of the class described, the combination of a main conduit through which fluid may flow under pressure, a pressure chamber, a movable partition in said chamber dividing the chamber into two cells, a duct connecting the conduit to one of said cells adapted to convey the static pressure of the fluid in the conduit to said cell, a second duct connecting the conduit with the other of said cells for conveying the velocity pressure from said conduit to the other of said cells, a fluid reservoir, a second pressure chamber, a second movable member in said second chamber, dividing said second chamber into two pressure cells, a duct connecting said reservoir with one of the pressure cells in the second chamber, a second duct connecting the atmosphere with the other cell in the second chamber, a third duct, a valve controlling the flow in the third duct, means to connect said valve to each of said movable members, independent means for exerting pressure on the first-named movable member, a source of pressure for creating a flow through the third duct regulated by said valve and mechanism controlled by the flow through the third duct for introducing to said conduit a dry substance in proportion to the flow of fluid through the conduit.

18. In a device of the class described, the combination of a main conduit through which fluid flows under pressure, the flow of fluid through said conduit being variable, apparatus for creating a flow of fluid proportional to the flow through the conduit, including a duct, a valve in said duct and a movable member controlling said valve, means to convey to said movable member the effects of the fluid pressure in said main and mechanism operated by the proportional flow of fluid for introducing to said main a dry substance in proportion to the flow of fluid through the main.

14,231. WATCH HOLDING AND ATTACHING DEVICE. SENECA G. LEWIS, Greensburg, Pa., assignor of one-half to George W. Daum, Jeannette, Pa. Filed Nov. 9, 1916. Serial No. 130,488. Original No. 1,176,840, dated Mar. 28, 1916, Serial No. 51,793, filed Sept. 21, 1915. (Cl. 224—4.)

1. A watch holding and attaching device consisting of a disk-shaped body of elastic material, such disk-shaped body being provided on one side with an inturned annular flange forming a watch-receiving cup, and being provided on its opposite side with a second inturned annular flange forming a support-engaging cup.

2. A watch holding and attaching device formed of one continuous body of rubber and consisting of a disk-shaped body provided on its opposite faces with extending annular flanges, such flanges forming with the body from which they extend a watch pocket on one side and a support-engaging cup on the other, in combination with a support adapted to enter the said support-engaging cup and to sustain the device by means of the constrictive engagement of the walls of said support-engaging cup upon it.



3. A watch holding and attaching device comprising in combination, a supporting body having a laterally-extending flange at its outer end; and a watch holder formed of elastic material and consisting of a medial web, a watch-receiving and retaining cup on one side of said web, and a second cup on the other side of the web provided with an overhanging flange engaging the flange of said supporting body.

4. A watch holding and attaching device comprising in combination, a cap nut having a laterally-extending flange at its outer end; and a watch holder formed of elastic material and consisting of a medial web, a watch-receiving and retaining cup on one side of said web, and a second cup on the other side of the web provided with an overhanging flange engaging the flange of said nut.

5. A watch holding and attaching device comprising in combination a supporting body having a laterally extending flange at its outer end, and a watch holder provided with an elastic walled cup making constrictive engagement upon said flanged body and rotatable thereon.

14,232. SUPPORT FOR TIMEPIECES. SENECA G. LEWIS, Greensburg, Pa., assignor of one-half to George W. Daum, Jeannette, Pa. Filed Aug. 25, 1916. Serial No. 116,941. Original No. 1,176,839, dated Mar. 28, 1916, Serial No. 34,805, filed June 18, 1915. (Cl. 224—4.)



1. A support for a timepiece consisting of a body of elastic material, a pocket in one face of said body, and an inlay of rigid material arranged wholly within said body.

2. A support for a timepiece consisting of a body of elastic material, said body provided on one face with an annular flange formed also of elastic material and of one substance with said body and forming with said body a watch-pocket, and an inlay of rigid material within said body, such support being provided with a securing hole extending through the elastic material and through the inlay within it.

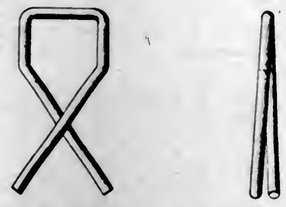
3. A support for a timepiece consisting of a body of elastic material, a pocket in one face of said body and of one substance with said body, and an inlay of rigid material within said body, said structure being provided with a securing hole extending from said pocket through said body of elastic material and through said inlay of rigid material within it.

4. A support for a timepiece consisting of a body of elastic material provided on one face with an annular flange formed also of elastic material and of one substance with said body and forming with said body a pocket for a timepiece, said flange being provided with a watch stem engaging orifice normally engaging (when the watch is in place) the stem of the watch beneath the winding knob.

5. A support for a timepiece consisting of a body of elastic material provided on one face with a pocket, and expansible and contractible to permit the insertion, secure retention, and removal of a timepiece, said pocket being closed over the back of an introduced timepiece and having two openings; the one exposing the face and the other exposing the winding means of an introduced timepiece.

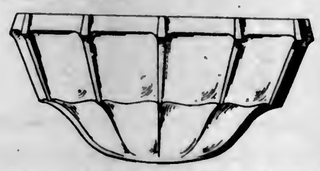
DESIGNS.

50,008. PAPER-FASTENER. CHARLES AHRHART, Jr., Buffalo, N. Y. Filed July 27, 1916. Serial No. 114,726. Term of patent 3½ years.



The ornamental design for a paper fastener, as shown.

50,009. BOWL FOR LIGHTING-FIXTURES. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J. Filed Aug. 24, 1916. Serial No. 116,739. Term of patent 7 years.



The ornamental design for a bowl for lighting fixtures, as shown.

50,010. BOTTLE. ROBERT E. BELL, Detroit, Mich. Filed Oct. 13, 1916. Serial No. 125,517. Term of patent 14 years.



The ornamental design for a bottle, as shown.

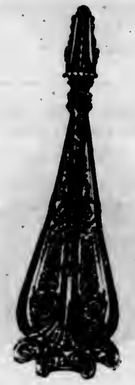
50,011. BOTTLE. ROBERT E. BELL, Detroit, Mich. Filed Oct. 13, 1916. Serial No. 125,518. Term of patent 14 years.



The ornamental design for a bottle, as shown.

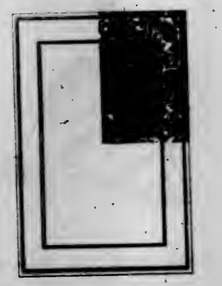
50,012. HARP. DONALD CAMPBELL, Chicago, Ill., assignor to Lyon & Healy, Chicago, Ill., a Corporation of Illinois. Filed Oct. 9, 1916. Serial No. 124,736. Term of patent 3½ years.





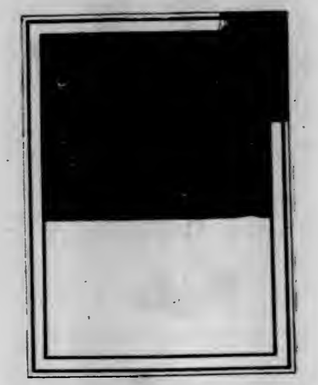
The ornamental design for a harp, as shown.

50,013. RUG. ALBERT COOK, Auburn, N. Y., assignor to Nye & Wait-Kilmarnock Corporation, Auburn, N. Y., a Corporation of New York. Filed Oct. 19, 1916. Serial No. 126,617. Term of patent 3½ years.



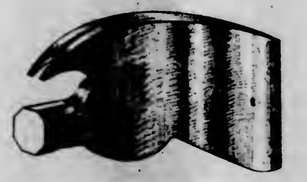
The ornamental design for a rug, substantially as shown.

50,014. RUG. ALBERT COOK, Auburn, N. Y., assignor to Nye & Wait-Kilmarnock Corporation, Auburn, N. Y., a Corporation of New York. Filed Oct. 25, 1916. Serial No. 127,719. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

50,015. COMBINATION-TOOL. BENJAMIN H. COOPER, Denver, Colo. Filed Jan. 28, 1916. Serial No. 74,888. Term of patent 14 years.



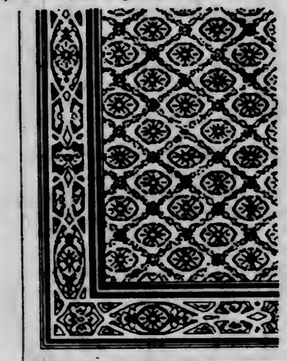
The ornamental design for a combination tool, as shown.

50,016. COMB-RACK. HENRY EGEBERG, Henning, Minn. Filed Apr. 24, 1915. Serial No. 23,756. Term of patent 7 years.



The ornamental design for a comb rack, as shown.

50,017. RUG. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,715. Term of patent 7 years.



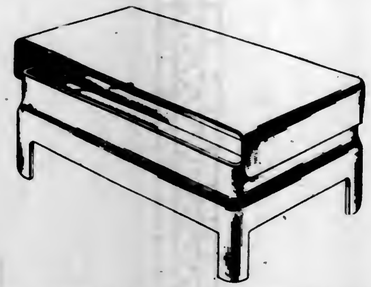
The ornamental design for a rug, substantially as shown.

50,018. RUG. CHARLES FORRESTER, Jersey City, N. J., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,716. Term of patent 7 years.



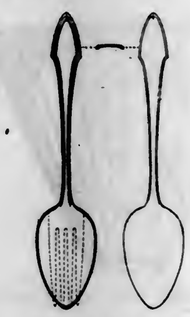
The ornamental design for a rug, substantially as shown.

50,019. AIR-MOISTENER. ROBERT W. HARDIE, Mount Vernon, N. Y. Filed Sept. 25, 1916. Serial No. 122,162. Term of patent 14 years.



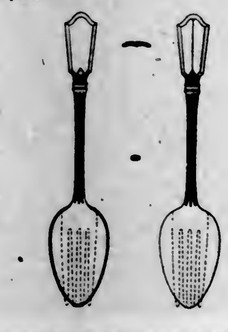
The ornamental design for an air moistener substantially as shown.

50,020. SPOON, FORK, OR THE LIKE. FREDERICK KAUFMANN, Brooklyn, N. Y., assignor to Joseph Fahys & Co., New York, N. Y., a Corporation of New York. Filed Mar. 1, 1916. Serial No. 81,563. Term of patent 7 years.



The ornamental design for a spoon, fork or the like, as shown.

50,021. SPOON, FORK, AND THE LIKE. FREDERICK KAUFMANN, Brooklyn, N. Y., assignor to Joseph Fahys & Company, New York, N. Y., a Corporation of New York. Filed Nov. 3, 1916. Serial No. 129,400. Term of patent 7 years.



The ornamental design for a spoon, fork and the like, as shown.

50,022. RUG. HENRY C. LACOUTURE, Arlington, N. J., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,714. Term of patent 7 years.



The ornamental design for a rug substantially as shown.

50,023. MEDAL. IVAN V. LAKICH, St. Louis, Mo. Filed July 10, 1916. Serial No. 108,477. Term of patent 3½ years.



The ornamental design for a medal, substantially as shown.

50,024. RUG. CHARLES LEHNER, New York, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,711. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

50,025. RUG. WILLIAM MCCANN, New York, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,709. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

50,026. ANTISKID-CHAIN. THOMAS E. MCCOY, Ickesburg, Pa. Filed Feb. 29, 1916. Serial No. 81,271. Term of patent 7 years.



The ornamental design for an anti-skid chain, as shown.

50,027. LIGHTING-FIXTURE. OTTO H. MOHR, Chicago, Ill. Filed Sept. 28, 1916. Serial No. 122,763. Term of patent 14 years.



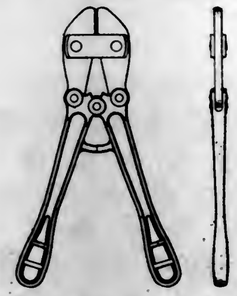
The ornamental design for a lighting fixture, as shown.

50,028. RUG. JULIUS G. PEGEL, Brooklyn, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,710. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

50,029. CUTTING-TOOL. HENRY K. PORTER, Brookline, Mass. Filed July 13, 1916. Serial No. 109,193. Term of patent 14 years.



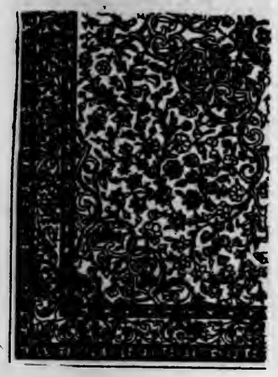
The ornamental design for a cutting tool as shown.

50,030. TRANSPARENT SIGN. BERT H. RHODES, Seattle, Wash. Filed Dec. 22, 1915. Serial No. 68,269. Term of patent 3½ years.



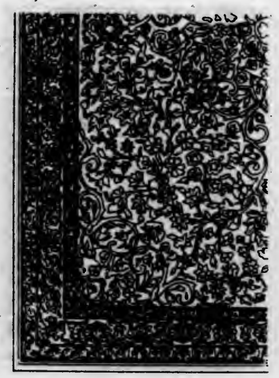
The ornamental design for a transparent sign, as shown.

50,031. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,701. Term of patent 7 years.



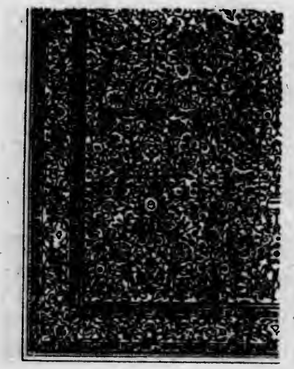
The ornamental design for a rug, substantially as shown.

50,032. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,702. Term of patent 7 years.



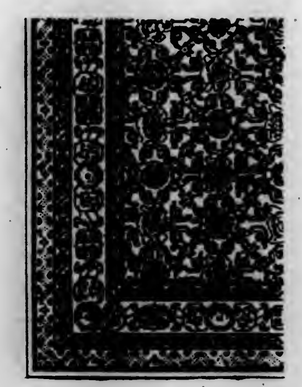
The ornamental design for a rug, substantially as shown.

50,033. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,703. Term of patent 7 years.



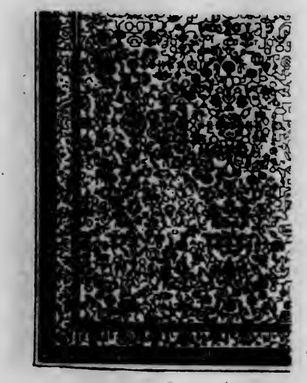
The ornamental design for a rug, substantially as shown.

50,034. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,704. Term of patent 7 years.



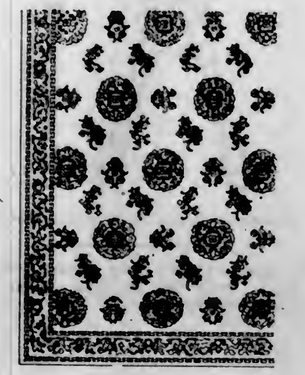
The ornamental design for a rug, substantially as shown.

50,035. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,705. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

50,036. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,706. Term of patent 7 years.



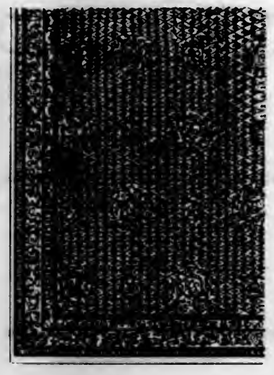
The ornamental design for a rug, substantially as shown.

50,037. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,707. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

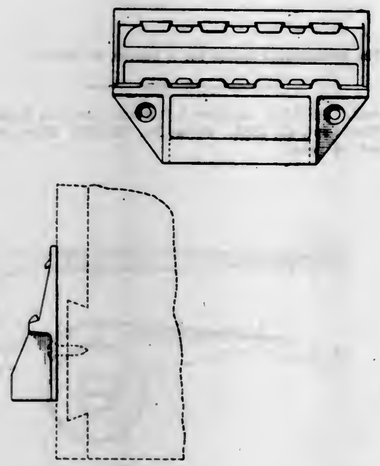
50,038. RUG. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,708. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

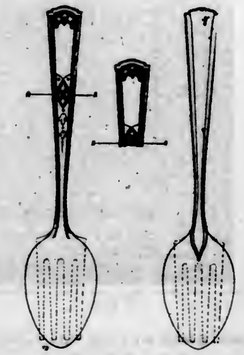
50,039. [WITHDRAWN.]

50,040. DRAWER-PULL. WILLIAM G. SHERER, Chicago, Ill. Filed Sept. 5, 1916. Serial No. 118,583. Term of patent 14 years.



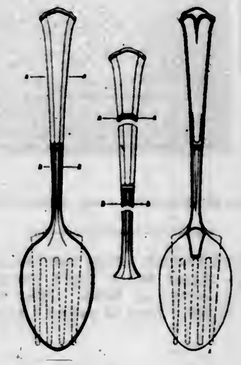
The ornamental design for drawer pull as shown.

50,041. SPOON, FORK, OR SIMILAR ARTICLE. CHARLES F. SIMMS, Attleboro, Mass., assignor to The Watson Company, Attleboro, Mass. Filed Sept. 29, 1916. Serial No. 122,943. Term of patent 14 years.



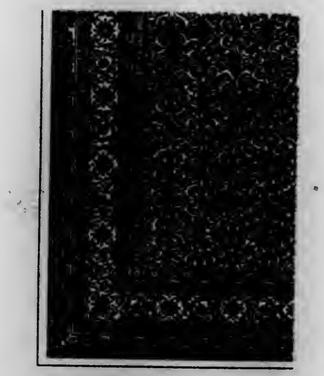
The ornamental design for a spoon, fork or similar article as shown.

50,042. SPOON, FORK, OR SIMILAR ARTICLE. CHARLES F. SIMMS, Attleboro, Mass., assignor to The Watson Company, Attleboro, Mass. Filed Sept. 29, 1916. Serial No. 122,944. Term of patent 14 years.



The ornamental design for a spoon, fork or similar article as shown.

50,043. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,712. Term of patent 7 years.



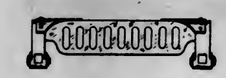
The ornamental design for a rug, substantially as shown.

50,044. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,713. Term of patent 7 years.



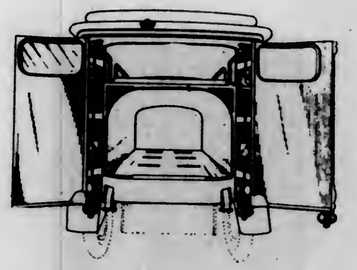
The ornamental design for a rug, substantially as shown.

50,045. TRUCK-FRAME. JOHN SQUIRES, Detroit, Mich., assignor to Signal Motor Truck Company, Detroit, Mich., a Corporation of Maine. Filed Mar. 18, 1916. Serial No. 85,223. Term of patent 7 years.



The ornamental design for a truck frame, substantially as shown.

50,046. HEARSE-INTERIOR. JACQUES TCHELEBIAN, Chicago, Ill. Filed Sept. 14, 1916. Serial No. 120,201. Term of patent 7 years.

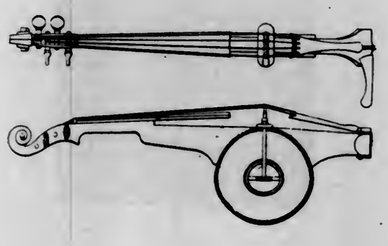


The ornamental design for a hearse interior, as shown.

50,047. HEARSE. JACQUES TCHELEBIAN, Chicago, Ill. Filed Sept. 14, 1916. Serial No. 120,202. Term of patent 7 years.

The ornamental design for a hearse, as shown.

50,048. VIOLIN. ROBERT L. YEAKEY, Cave in Rock, Ill. Filed Sept. 22, 1916. Serial No. 121,688. Term of patent 14 years.



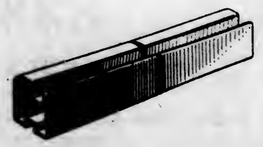
The ornamental design for a violin, as shown.

50,049. EMBROIDERED TRIMMING. ALLIE S. FREED, New York, N. Y. Filed Oct. 24, 1916. Serial No. 127,504. Term of patent 3½ years.



The ornamental design for an embroidered trimming as shown.

50,050. ORNAMENTAL TUBING. PETER N. LANDINE, Milford, Conn., assignor to The Rostand Manufacturing Company, Milford, Conn., a Corporation of Connecticut. Filed Sept. 30, 1916. Serial No. 123,165. Term of patent 7 years.





The design for ornamental tubing as shown, or any imitation thereof.

TRADE-MARKS

PUBLISHED DECEMBER 12, 1916.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provisior in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 78,169. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE EDWARD KATZINGER COMPANY, Chicago, Ill. Filed May 9, 1914.



Particular description of goods.—Oil and Gas Lamps; Metal Doors; Frames and Grates for Brick Ovens; Metal Cooking Furnaces and Stoves Using Coal, Coke, Gas, and Wood for Fuel; and Steam and Hot-Water Boilers and Tanks.

Claims use since Mar. 19, 1908.

Ser. No. 80,970. (CLASS 39. CLOTHING.) LANGE & JANKE MFG. CO., Milwaukee, Wis. Filed Sept. 3, 1914.



No claim being made to the exclusive use of the word "Shoes" and the words "Lange & Janke Mfg. Co." apart from the mark shown in the drawing.

Particular description of goods.—Leather Shoes.

Claims use since August, 1911.

Ser. No. 81,038. (CLASS 32. FURNITURE AND UPHOLSTERY.) DELTOX GRASS RUG COMPANY, Oshkosh, Wis. Filed Sept. 8, 1914.



No claim being made to the words "Furniture" and "Novelties" apart from the mark shown in the drawing.

Particular description of goods.—Furniture—Namely, Chairs, Rockers, Settees, Davenports, Couches, Desks, Tables, Writing-Tables, Tea-Carts, Plant-Stands, Umbrella-Stands Made of Grass Twine, Porch-Swings, Muffin-Stands, Pedestals Made of Grass Twine.

Claims use since July 10, 1914.

Ser. No. 86,955. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) FORD MOTOR COMPANY, Highland Park, Mich. Filed May 28, 1915. Under ten-year proviso.



Particular description of goods.—Electrical Sparking and Timing Apparatus, Magnetos, Generators, Spark-Coils, Condensers, Batteries, and Electrical Ignition and Lighting Devices.

Claims use since about Feb. 15, 1895.

Ser. No. 89,382. (CLASS 39. CLOTHING.) H. KUHN & SONS (INC.), New York, N. Y. Filed Sept. 22, 1915.

"American Boy"

Particular description of goods.—Men's, Youths', Boys', and Children's Outer Suits and Overcoats.
Claims use since July 1, 1915.

Ser. No. 89,547. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LYON & HEALY, Chicago, Ill. Filed Sept. 30, 1915.

AMERICAN Climax

No claim being made to the word "American" apart from the mark shown in the drawing.
Particular description of goods.—Cornets, Trombones, Altos, Tenors, Melophones, Baritones, Basses, Saxophones, French Horns.
Claims use since June 25, 1915.

Ser. No. 89,781. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE ALUMINOX CO., Kansas City, Mo. Filed Oct. 11, 1915.

ALUMINOX

Particular description of goods.—Metal-Polishes.
Claims use since July 1, 1914.

Ser. No. 90,135. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CHADRON ICE & CREAMERY CO., Chadron, Nebr. Filed Oct. 27, 1915.



No claim being made to the letter "C" apart from the mark shown in the drawing.
Particular description of goods.—Butter.
Claims use since June 27, 1915.

Ser. No. 90,592. (CLASS 39. CLOTHING.) THE BEACON FALLS RUBBER SHOE COMPANY, Beacon Falls, Conn. Filed Nov. 12, 1915.



Particular description of goods.—Rubber Boots and Shoes.
Claims use since January, 1913.

Ser. No. 90,869. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) COMPRESSED METAL COMPANY, New York, N. Y. Filed Nov. 23, 1915.

Recordapter

Particular description of goods.—Attachments for Phonographs and Like Articles.
Claims use since Nov. 1, 1915.

Ser. No. 90,901. (CLASS 33. GLASSWARE.) GENERAL ELECTRIC COMPANY, Schenectady, N. Y. Filed Nov. 24, 1915.

REGENT

Particular description of goods.—Glass Columns, Glass Bases, Glass Supports, Glass Globes, Glass Shades, Glass Reflectors, Glass Bowls for Illuminating Purposes, Pressed and Blown Glass of All Kinds, Glass Rods, and Glass Tubings.
Claims use since about Oct. 2, 1915.

Ser. No. 91,005. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HILL PUMP VALVE COMPANY, Chicago, Ill. Filed Nov. 29, 1915.

UTILITY

Particular description of goods.—Pumps and Wrenches.
Claims use since about October of 1912.

Ser. No. 92,380. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WEAVER MANUFACTURING COMPANY, Springfield, Ill. Filed Jan. 24, 1916.

AMBULANCE

The trade-mark consisting of the word "Ambulance." A representation of the trade-mark is shown in the accompanying drawing.
Particular description of goods.—Vehicles for Use in Towing Automobiles and the Like.
Claims use since September, 1913.

Ser. No. 92,433. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) LOUIS D. CORIELL, Baltimore, Md. Filed Jan. 27, 1916.

AUTO SHAVING BRUSH

No claim being made to the words "Shaving Brush" apart from the mark shown in the drawing.
Particular description of goods.—Shaving-Brushes.
Claims use since Dec. 7, 1915.

Ser. No. 92,663. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOHN DIAMOND & SONS, Philadelphia, Pa. Filed Feb. 5, 1916.

ELECTRIC PASTE STOVE POLISH READY FOR USE

No claim is made to any portion of the mark shown in the accompanying drawing excepting the word "Electric."
Particular description of goods.—Stove-Polish.
Claims use since 1877.

Ser. No. 92,970. (CLASS 37. PAPER AND STATIONERY.) THE CENTRAL-TOPEKA PAPER CO., Topeka, Kans. Filed Feb. 19, 1916.

CENTO

Particular description of goods.—Wrapping-Paper, Writing-Paper, Printing-Paper, and Toilet-Paper.
Claims use since Feb. 1, 1914.

Ser. No. 94,008. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DETMER WOOLEN CO., New York, N. Y. Filed Mar. 31, 1916.

University

Particular description of goods.—Woolen Goods in the Piece.
Claims use since about Mar. 19, 1916.

Ser. No. 95,085. (CLASS 38. PRINTS AND PUBLICATIONS.) THE SILK GUIDE, INC., New York, N. Y. Filed May 11, 1916.

The Silk Guide

Particular description of goods.—A Technical Compendium of the Silk Industry Compiled, Collated, and Edited Twice a Year.
Claims use since Mar. 15, 1916.

Ser. No. 95,093. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE YOUNGSTOWN MACARONI CO., Youngstown, Ohio. Filed May 11, 1916.



No claim is made to the printed matter, including the words "L'Italiana, Brand, Pure Sublime Macaroni, Manufactured by The Youngstown Macaroni Co., Youngstown, Ohio," apart from the mark shown upon the drawing, the trade-mark having a green triangle in the upper left-hand corner and a red triangle in the lower right-hand corner, both of which are separated by a white space which extends from the lower left-hand corner to the upper right-hand corner and upon which the printed matter appears.
Particular description of goods.—Macaroni.
Claims use since Jan. 1, 1915.

Ser. No. 95,327. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DELGADO MILLS, Wilmington, N. C. Filed May 22, 1916.

CAMERON

No claim being made for the word "Cameron" apart from the mark shown in the drawing.
Particular description of goods.—Ginghams.
Claims use since about Sept. 15, 1913.

Ser. No. 95,413. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) CARBO-HYDROGEN COMPANY OF AMERICA, Pittsburgh, Pa. Filed May 25, 1916.

CARBO

Particular description of goods.—Cutting and Welding Torches and Tips for the Same and Gas-Cylinders and Regulators for the Gases Used for Cutting and Welding Purposes.
Claims use since about September, 1914.

Ser. No. 95,574. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed June 1, 1916.



No claim is made to the name "Taber" and the words "Golden Bantam" apart from the mark shown in the drawing.
Particular description of goods.—Canned Fruits.
Claims use since Apr. 1, 1916.

Ser. No. 95,941. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE GOODYEAR'S METALLIC RUBBER SHOE CO., Naugatuck, Conn. Filed June 17, 1916.

NAUGAHYDE

Particular description of goods.—Shoe-Leather Substitute.
Claims use since May 4, 1916.

Ser, No. 96,101. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 24, 1916.

DULCINO

Particular description of goods.—Invert-Sugar for Use as a Food.
Claims use since June 20, 1916.

Ser. No. 96,207. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) KIL-GRECE COMPANY, St. Paul, Minn. Filed June 28, 1916.

KIL-GRECE

Particular description of goods.—A Paste for Cleansing the Hands, Fabrics, Pots, and Pans and for the Laundry and Bathing.
Claims use since Nov. 1, 1915.

Ser. No. 96,337. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ALVIN H. SWEET, Los Angeles, Cal. Filed July 5, 1916.

ANIMAL KUT-UPS
THE EDUCATOR TOY

No claim is made to the words "Trade Mark" or to the words "The Educator Toy" apart from the mark shown in the drawing.
Particular description of goods.—Parts Simulating Parts of Animals, for Use as Educational Toys.
Claims use since Aug. 1, 1915.

Ser. No. 96,732. (CLASS 39. CLOTHING.) ROCHESTER HEEL COMPANY, Rochester, N. Y. Filed July 21, 1916.

VANITY

Particular description of goods.—Heels for Shoes.
Claims use since June 1, 1916.

Ser. No. 97,325. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THOMAS S. BALLARD, Grand Island, Nebr. Filed Aug. 14, 1916.

A-La-Mode

Particular description of goods.—A Preparation for Cleaning Windows.
Claims use since June 20, 1916.

Ser. No. 97,348. (CLASS 38. PRINTS AND PUBLICATIONS.) THE HOLT MANUFACTURING COMPANY, Stockton, Cal. Filed Aug. 15, 1916.

CATERPILLAR TIMES

Particular description of goods.—Monthly Periodicals.
Claims use since May, 1913.

Ser. No. 97,365. (CLASS 12. CONSTRUCTION MATERIALS.) VERMONT MARBLE COMPANY, Proctor, Vt. Filed Aug. 16, 1916.

VERMARCO

Particular description of goods.—Marble-Dust, Hydrated Lime, and other Lime.
Claims use since July 1, 1916.

Ser. No. 97,406. (CLASS 39. CLOTHING.) EDSON MOORE & COMPANY, Detroit, Mich. Filed Aug. 17, 1916.



Particular description of goods.—Work-Shirts, Negligée Shirts, and Undershirts, Overalls, Jumpers, and Rompers.
Claims use since July 20, 1916.

Ser. No. 97,412. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) REED CHOCOLATE CO., INC., Buffalo, N. Y. Filed Aug. 17, 1916.



Particular description of goods.—Candies.
Claims use since Dec. 15, 1915.

Ser. No. 97,444. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CROWN SUSPENDER COMPANY, New York, N. Y. Filed Aug. 19, 1916.

YOUNG AMERICA

Particular description of goods.—Children's Garment-Supporters and Hose-Supporters.
Claims use since July 15, 1916.

Ser. No. 97,582. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARTHUR A. LIBBY, Boston, Mass. Filed Aug. 23, 1916.

TRI-SAL

Particular description of goods.—Tooth-Cleaning Preparations.
Claims use since May 2, 1916.

Ser. No. 97,587. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) MATTSON RUBBER COMPANY, Lodi, N. J. Filed Aug. 23, 1916.



Particular description of goods.—Rubber Pedal-Covers.
Claims use since July 15, 1916.

Ser. No. 97,726. (CLASS 39. CLOTHING.) WM. W. BROWN, Worcester, Mass. Filed Aug. 31, 1916.



The words "Made by W. W. Brown, Worcester, Mass.," "Style 244," "Size," and "Price" and the word "Jacket" are disclaimed; but what I claim is, in the accompanying trade-mark, a photograph which is that of the applicant wearing a jacket or vest, in combination with the words "Brown's Beach Jacket."
Particular description of goods.—Jackets and Vests.
Claims use since October, 1913.

Ser. No. 97,789. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE FEIL MANUFACTURING COMPANY, Cleveland, Ohio. Filed Sept. 5, 1916.

KOTO-WAX

No claim being made to the word "Wax" aside from the mark shown.

Particular description of goods.—Polishing Materials for Automobiles, Furniture, Pianos, Floors, and Woodworking Generally.
Claims use since June 1, 1916.

Ser. No. 97,844. (CLASS 27. HOROLOGICAL INSTRUMENTS.) J. & J. SALES COMPANY, St. Louis, Mo. Filed Sept. 7, 1916.

C-IT

Particular description of goods.—Clocks and Watches.
Claims use since on or about the 1st day of June, 1916.

Ser. No. 97,919. (CLASS 37. PAPER AND STATIONERY.) NATIONAL BLANK BOOK CO., Holyoke, Mass. Filed Sept. 11, 1916.



Particular description of goods.—Blank Books and Writing-Paper.
Claims use since on or about Sept. 1, 1915.

Ser. No. 97,968. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM BASS, Memphis, Tenn. Filed Sept. 13, 1916.

Besso

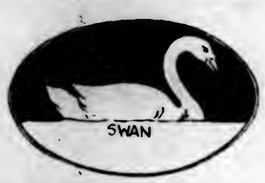
Particular description of goods.—Hair-Oil.
Claims use since Mar. 1, 1916.

Ser. No. 97,981. (CLASS 37. PAPER AND STATIONERY.) UNITED STATES PAPER MILLS, INC., New York, N. Y. Filed Sept. 13, 1916.

"SANITOWL"

Particular description of goods.—Paper Towels, Paper Diapers, and Paper Napkins.
Claims use since July 20, 1915.

Ser. No. 97,992. (CLASS 39. CLOTHING.) THE SWAN SHOE COMPANY, Baltimore, Md. Filed Sept. 14, 1916.



Particular description of goods.—Baby or Infant Shoes Made of Soft Leather or Cloth.
Claims use since June 10, 1916.

Ser. No. 98,103. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SPLITDORF ELECTRICAL COMPANY, Newark, N. J. Filed Sept. 19, 1916.



The Plug with the Green Jacket

No claim is made herein to the representation of the spark-plug *per se;* nor is claim herein made to the word "Splitdorf," which is separately registered as a general trade-mark applied to applicant's goods. The band or jacket is colored green.
Particular description of goods.—Electric Spark-Plugs.
Claims use since January, 1910.

Ser. No. 98,170. CLASS 12. CONSTRUCTION MATERIALS.) GEORGE L. SIMONDS, Chicago, Ill., assignor to Vulcan Fuel Economy Company, a Corporation of Illinois. Filed Sept. 22, 1916.

Vulcan Vastite

Particular description of goods.—A Waterproofing Composition for Wood, Concrete, Brick, Stone Masonry, and other Surfaces.
Claims use since Aug. 1, 1916.

Ser. No. 98,185. (CLASS 37. PAPER AND STATIONERY.) DUPLICATOR MANUFACTURING COMPANY, Chicago, Ill. Filed Sept. 23, 1916.

Copy-Cat

The word "Copy-Cat."
Particular description of goods.—Duplicating-Machines or Multicopying-Machines.
Claims use since Aug. 14, 1916.

Ser. No. 98,186. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FULTON SHOE POLISH CO. INC., New York, N. Y., assignor to W. R. Grace & Company, New York, N. Y., a Corporation of Connecticut. Filed Sept. 23, 1916.



Particular description of goods.—Shoe-Polishes.
Claims use since May 24, 1913.

Ser. No. 98,193. (CLASS 5. ADHESIVES.) JOHN N NEAL, Coldwater, Mich. Filed Sept. 23, 1916.



No claim being made to the representation of a pneumatic tire apart from the mark shown in the drawing.
Particular description of goods.—Puncture-Proof Solution.
Claims use since June 1, 1916.

Ser. No. 98,231. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARD BAKING COMPANY, New York, N. Y. Filed Sept. 25, 1916.

WARD'S
ROMANY RYE
BREAD

The applicant does not claim the exclusive right to the use of the word "Wards" or the exclusive right to the use of the word "Rye" or the exclusive right to the use of the word "Bread."
Particular description of goods.—Bread.
Claims use since July 1, 1916.

Ser. No. 98,236. (CLASS 39. CLOTHING.) A. S. ROSENTHAL COMPANY, New York, N. Y. Filed Sept. 26, 1916.



Particular description of goods.—Scarfs for Personal Wear.
Claims use since 1914.

Ser. No. 98,279. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed Sept. 27, 1916.

Velveluxe

Particular description of goods.—Face-Lotions.
Claims use since July 26, 1916.

Ser. No. 98,291. (CLASS 38. PRINTS AND PUBLICATIONS.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed Sept. 28, 1916.

General Fireproofing

Particular description of goods.—Monthly House-Organ Periodicals.
Claims use since October, 1914.

Ser. No. 98,335. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE KEYSTONE WATCH CASE COMPANY, Philadelphia, Pa. Filed Sept. 30, 1916.

Tudor

Particular description of goods.—Watches, Watch-cases, Watch-Movements, and Parts Thereof.
Claims use since about August, 1915.

Ser. No. 98,337. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE KEYSTONE WATCH CASE COMPANY, Philadelphia, Pa. Filed Sept. 30, 1916.

Augustan

Particular description of goods.—Watches, Watch-cases, Watch-Movements, and Parts Thereof.
Claims use since about July, 1916.

Ser. No. 98,338. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE KEYSTONE WATCH CASE COMPANY, Philadelphia, Pa. Filed Sept. 30, 1916.

Ionic

Particular description of goods.—Watches, Watch-cases, Watch-Movements, and Parts Thereof.
Claims use since about August, 1914.

Ser. No. 98,348. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO. INC., New York, N. Y. Filed Oct. 2, 1916.

PEACHES AND CREAM

Particular description of goods.—Face-Powder and Rouge.
Claims use since Jan. 15, 1913.

Ser. No. 98,415. (CLASS 39. CLOTHING.) THE LITTLE DUCHESS DRESS CO. INC., New York, N. Y. Filed Oct. 4, 1916.

The Little Duchess

Comprising the words "The Little Duchess."
Particular description of goods.—Ladies', Misses', Juniors', and Infants' One and Two Piece Dresses and One and Three Piece Garments.
Claims use since Apr. 1, 1907.

Ser. No. 98,441. (CLASS 2. RECEPTACLES.) MANHATTAN ELECTRICAL SUPPLY COMPANY, Jersey City, N. J., and New York, N. Y. Filed Oct. 5, 1916.

MESCO

Particular description of goods.—Letter and Package Postal Delivery-Boxes, and Particularly Receptacles of This Type Having Electric Attachments Associated Therewith.
Claims use since November, 1905.

Ser. No. 98,466. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE E. W. HAYDEN CO., Toledo, Ohio. Filed Oct. 6, 1916.

RUBY GLOSS

No claim being made to the exclusive use of the word "Gloss" except in association with the mark as shown.
Particular description of goods.—A Polish for Furniture, Automobiles, Woodwork of All Kinds, and All Varnished Surfaces.
Claims use since Aug. 18, 1916.

Ser. No. 98,513. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) RAY CAVE, Columbus, Ohio. Filed Oct. 9, 1916.

Ko-Co-Lem-A

Particular description of goods.—Soda-Fountain Syrup.
Claims use since Aug. 1, 1916.

Ser. No. 98,534. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WEST SIDE FOUNDRY CO., Troy, N. Y. Filed Oct. 9, 1916.

CASSCO TIRE PUMP PAT'S PEND

No claim is made to the exclusive use of the words "Tire Pump" and "Pat's Pending" apart from their association or combination with the word "Cassco" as it appears in the proposed trade-mark.
Particular description of goods.—An Engine-Driven Air-Pump for Automobile-Tires.
Claims use since Dec. 18, 1915.

Ser. No. 98,535. (CLASS 32. FURNITURE AND UPHOLSTERY.) WOLVERINE MANUFACTURING CO., Detroit, Mich. Filed Oct. 9, 1916.

Cadillac

Particular description of goods.—Tables and Desks.
Claims use since the 1st day of January, 1905.

Ser. No. 98,540. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HOBO MANUFACTURING CO., Voth, Tex. Filed Oct. 10, 1916.

HOBO



Particular description of goods.—Fire-Kindlers.
Claims use since Sept. 1, 1916.

Ser. No. 98,541. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM S. MILLIKEN, New York, N. Y. Filed Oct. 10, 1916.



Particular description of goods.—Carbon-Remover and Gasolene-Saver.
Claims use since June 10, 1916.

Ser. No. 98,602. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE NATIONAL TIRE & RUBBER COMPANY, East Palestine, Ohio. Filed Oct. 12, 1916.

THE HIGHWAY

Particular description of goods.—Automobile Tire Casings and Tire Tubes Composed of Rubber.
Claims use since Aug. 25, 1916.

Ser. No. 98,603. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WM. R. NOE & SONS, New York, N. Y. Filed Oct. 12, 1916.

MUNICIPAL

Particular description of goods.—Watchmen's Whistles.
Claims use since February, 1912.

Ser. No. 98,607. (CLASS 39. CLOTHING.) NEW YORK MACKINTOSH CLOTHING COMPANY, New York, N. Y. Filed Oct. 12, 1916.

Proxite

Particular description of goods.—Waterproof Clothing.
Claims use since Sept. 30, 1916.

Ser. No. 98,609. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE STENOPAIC OPTICAL CO., New York, N. Y. Filed Oct. 12, 1916.



No claim is made to the term "Movie Eyes" except as used in conjunction with the other features of the mark as shown.

Particular description of goods.—Spectacles.

Claims use since about Sept. 15, 1916.

Ser. No. 98,610. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) SILVER & CO., Brooklyn, N. Y. Filed Oct. 12, 1916.

FIREFLY

Particular description of goods.—Burning-Lamps.

Claims use since Aug. 1, 1916.

Ser. No. 98,611. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE TRAUB MANUFACTURING COMPANY, Detroit, Mich. Filed Oct. 12, 1916.

ORANGE BLOSSOM

Particular description of goods.—Finger-Rings.

Claims use since September, 1915.

Ser. No. 98,612. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE TRAUB MANUFACTURING COMPANY, Detroit, Mich. Filed Oct. 12, 1916.

VENUS

Particular description of goods.—Finger-Rings.

Claims use since September, 1915.

Ser. No. 98,615. (CLASS 11. INKS AND INKING MATERIALS.) JACOB ULLRICH, New York, N. Y. Filed Oct. 12, 1916.

VULCAN

Particular description of goods.—Writing-Inks and Drawing-Inks.

Claims use since about Jan. 1, 1913.

Ser. No. 98,618. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WINDFIELD PARKER SNYDER, Great Falls, Mont. Filed Oct. 12, 1916.

DELAZY

Particular description of goods.—A Preparation for the Treatment of Cholera in Hogs and Chickens.

Claims use since Nov. 5, 1915.

Ser. No. 98,659. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH A. GARDNER, Memphis, Tenn. Filed Oct. 14, 1916.

PROPHYLAX-O
TABLETS
(GARDNER)



No claim is made to the words "Tablets" or "Gardner" except as associated with the other features of the mark.

Particular description of goods.—Tablets for Use by Dentists in the Treatment of Teeth.

Claims use since the 1st day of July, 1916.

Ser. No. 98,672. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE TIVOLI MERCANTILE CO., Cheyenne, Wyo. Filed Oct. 14, 1916.

106

Particular description of goods.—Whisky.

Claims use since May 20, 1916.

Ser. No. 98,679. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BROOKMAN MANUFACTURING COMPANY, Chicago, Ill. Filed Oct. 16, 1916.

KANOV
BRAND
POWDERED
LYE

The word "Kanov" is red, and the background within the figure is blue. No claim is made for the words "Brand" and "Powdered Lye" apart from the mark shown in the drawing.

Particular description of goods.—Powdered Lye.

Claims use since Sept. 30, 1916.

Ser. No. 98,704. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CORNELIUS J. O'RIELY, Los Angeles, Cal. Filed Oct. 16, 1916.



Particular description of goods.—Tennis-Rackets, Tennis-Balls, Base-Balls, Base-Ball Bats, Base-Ball Gloves, Base-Ball Mitts, Boxing-Gloves, Striking-Bags, Striking-Bag-Platforms, Medicine-Balls, Hockey-Sticks, Golf-Clubs, Golf-Balls, Snow-Shoes, Fencing-Foils, Fencing-Masks, Base-Ball Masks, Body-Protectors, Roller-Skates, Fishing-Rods, Fishing-Hooks, Fishing-Baskets, Fishing-Lines, Gut Leaders, Golf-Club Bags, Bat-Bags, Dumb-Bells, Indian Clubs, Quoits, Indoor Base-Balls, Recreation-Balls.

Claims use since Sept. 1, 1916.

Ser. No. 98,744. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO., INC., New York, N. Y. Filed Oct. 18, 1916.

PEACHES

Particular description of goods.—Face-Powder and Rouge.

Claims use since Jan. 15, 1913.

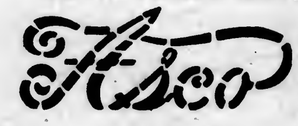
Ser. No. 98,778. (CLASS 12. CONSTRUCTION MATERIALS.) UNIVERSAL PORTLAND CEMENT COMPANY, Chicago, Ill. Filed Oct. 19, 1916.



Particular description of goods.—Portland Cement.

Claims use since Sept. 15, 1916.

Ser. No. 98,821. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN SUGAR COMPANY, LTD., Honolulu, Territory of Hawaii. Filed Oct. 23, 1916.



Particular description of goods.—Beeswax.

Claims use since July, 1906.

Ser. No. 98,838. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE DR. J. H. MCLEAN MEDICINE CO., St. Louis, Mo. Filed Oct. 23, 1916. Under ten-year proviso.

UNIVERSAL

Particular description of goods.—Medicines or Preparations Designed and Intended as Remedies for Complaints and Disorders of the Liver, Kidneys, and Stomach and Bilious Affections.

Claims use since before the year 1860.

Ser. No. 98,851. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) RONALD VIVIAN TAYLOR, New York, N. Y. Filed Oct. 23, 1916.



The applicant does hereby disclaim the exclusive appropriation to the figure or representation of a bottle of furniture-polish in said trade-mark.

Particular description of goods.—Furniture-Polish.

Claims use since the 18th of September, 1916.

Ser. No. 98,859. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES GREEN, New York, N. Y. Filed Oct. 24, 1916.

SANOCRAN

Comprising the word "Sanocran."

Particular description of goods.—A Hair-Tonic.

Claims use since Oct. 10, 1916.

Ser. No. 98,863. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM A. MINICK, Glasgow, Ky. Filed Oct. 24, 1916.

HELPING HAND



Particular description of goods.—A Remedy for Snake-Bites, Mosquito and All Insect Bites, Piles, Old Sores, Carbuncles, Tetter, Eczema, and All Skin Diseases.
Claims use since Sept. 1, 1916.

Ser. No. 98,877. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRUITONE COMPANY, INC., New York, N. Y. Filed Oct. 25, 1916.

FRUITONE

Particular description of goods.—A Compound Mixture of Fruit Forming a Paste Having Laxative Properties.
Claims use since Sept. 1, 1916.

Ser. No. 98,878. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN H. FILBERT, Baltimore, Md. Filed Oct. 25, 1916.

SEA GULL

Particular description of goods.—Oleomargarin.
Claims use since Sept. 30, 1916.

Ser. No. 98,881. (CLASS 37. PAPER AND STATIONERY.) THE JOHN HORNER CO., Green Bay, Wis. Filed Oct. 25, 1916.



Particular description of goods.—Toilet-Paper.
Claims use since Jan. 1, 1916.

Ser. No. 98,886. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Chicago, Ill. Filed Oct. 25, 1916.

U-NO-ME

Particular description of goods.—Cakes.
Claims use since about June 15, 1916.

Ser. No. 98,887. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE NIKOLOW, New York, N. Y. Filed Oct. 25, 1916.



Particular description of goods.—Remedy for Rheumatism.
Claims use since Oct. 15, 1916.

Ser. No. 98,893. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNION SEED & FERTILIZER COMPANY, Guttenberg, N. J. Filed Oct. 25, 1916.

SURETY

Particular description of goods.—Foodstuffs for Cattle and other Animals, Consisting of Cotton-Seed Meal.
Claims use since Oct. 17, 1916.

Ser. No. 98,895. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BIG FOUR MILLING COMPANY, Cleveland, Ohio. Filed Oct. 26, 1916.

ECOTA

Particular description of goods.—Horse, Mule, Cattle, Poultry, Hog, and Sheep Food.
Claims use since about Apr. 1, 1914.

Ser. No. 98,907. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) McDOWELL, PYLE & CO., INC., Baltimore, Md. Filed Oct. 26, 1916.

KNOX-A-KOF

Particular description of goods.—Candy Cough-Drops.
Claims use since September, 1915.

Ser. No. 98,910. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PRANGE MILLING COMPANY, New Douglas, Ill. Filed Oct. 26, 1916.

AMBITION

Particular description of goods.—Wheat-Flour.
Claims use since October, 1916.

Ser. No. 98,912. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE REESE COMPANY, Chicago, Ill. Filed Oct. 26, 1916.



Particular description of goods.—Breath-Tablets.
Claims use since about Oct. 1, 1916.

Ser. No. 98,920. (CLASS 2. RECEPTACLES.) CAPITAL PAPER COMPANY, Indianapolis, Ind. Filed Oct. 27, 1916.

HOLD-TITE

Particular description of goods.—Paper Bags.
Claims use since July 5, 1914.

Ser. No. 98,935. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) E. M. & F. WALDO, New York, N. Y. Filed Oct. 27, 1916.

OXIMONY

Particular description of goods.—Dry Colors for Painters' Use.
Claims use since Sept. 25, 1916.

Ser. No. 98,948. (CLASS 12. CONSTRUCTION MATERIALS.) GEORGE G. KIRTLEY, Van Horn, Tex. Filed Oct. 28, 1916.

MICHOLITHIC

Particular description of goods.—Crushed Granitized Stone Used as an Aggregate and as a Finish in Concrete and Cement Construction.
Claims use since Apr. 1, 1911.

Ser. No. 98,974. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) DRIVER HARRIS WIRE COMPANY, Harrison, N. J. Filed Oct. 30, 1916.

Kromore

Particular description of goods.—Wire and Metallic Strips Highly Resistant to Heat and of Low Electrical Conductivity.
Claims use since Oct. 19, 1916.

Ser. No. 98,984. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) JAMES MANOIL COMPANY, INC., New York, N. Y. Filed Oct. 30, 1916.

M

Particular description of goods.—Phonographs.
Claims use since July 15, 1916.

Ser. No. 98,986. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES E. PADEN, Denver, Colo. Filed Oct. 30, 1916.

Lubri-Gas

Particular description of goods.—A Compound for Use as a Lubricant in Internal-Combustion-Engine Cylinders and as a Carbon-Forming Preventive.
Claims use since the month of July, 1915.

Ser. No. 98,996. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE EXTIRPO SPECIALTY CO., Barre, Vt. Filed Oct. 31, 1916.

EXTIRPO

Particular description of goods.—A Hair-Tonic.
Claims use since June 28, 1916.

Ser. No. 99,010. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOWARD E. LONG, Cleveland, Ohio. Filed Oct. 31, 1916.

THOXINE

Particular description of goods.—An Internal Treatment for Sore Throat, Hoarseness, Tonsillitis, Enlarged Tonsils, and Any Inflamed Condition of the Throat or Mouth.
Claims use since Oct. 26, 1915.

Ser. No. 99,022. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CHICAGO PNEUMATIC TOOL COMPANY, Chicago, Ill. Filed Nov. 1, 1916.

Little Giant

Particular description of Goods.—Automobiles and Automobile-Trucks.
Claims use since about June, 1909.

Ser. No. 99,024. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Nov. 1, 1916.

MARVELOUS

Particular description of goods.—Perfume, Talcum Powder, Face-Powder, Bath-Powder, Bath-Salts, Headache-Cologne, Smelling-Salts, Almond-Meal, Toilet Cerate, Creams for the Skin other Than Cold-Cream, Liquid Rouge, and Dentifrices.
Claims use since Oct. 23, 1916.

Ser. No. 99,025. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KEHLOR FLOUR MILLS COMPANY, St. Louis, Mo. Filed Nov. 1, 1916. Under ten-year proviso.

KEHLOR'S LUXURY FLOUR

Applicant disclaims herein the word "Kehlor's" as heretofore registered Oct. 31, 1911, No. 84,008, and makes no claim to exclusive use of the word "Flour" shown in the drawing.
Particular description of goods.—Wheat-Flour.
Claims use since 1869.

Ser. No. 99,029. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MOLO MEDICINE CO., Chattanooga, Tenn. Filed Nov. 1, 1916.



Particular description of goods.—A Chill-Tonic.
Claims use since Oct. 19, 1916.

Ser. No. 99,062. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRIES & FRIES, Cincinnati, Ohio. Filed Nov. 3, 1916.

AMAGDOL

Particular description of goods.—Benzaldehyde.
Claims use since Aug. 20, 1916.

Ser. No. 99,068. (CLASS 32. FURNITURE AND UPHOLSTERY.) VANCE C. PALMER, Sioux City, Iowa. Filed Nov. 3, 1916.

KIDDIKVM

Particular description of goods.—Child's Dressing-Chair.
Claims use since Dec. 1, 1915.

Ser. No. 99,080. (CLASS 12. CONSTRUCTION MATERIALS.) THE BEAVER BOARD COMPANIES, Buffalo, N. Y. Filed Nov. 4, 1916.

SEALTITE

Particular description of goods.—Wall-Board.
Claims use since Oct. 31, 1916.

Ser. No. 99,088. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HEEBL MILLING COMPANY, East St. Louis, Ill. Filed Nov. 4, 1916.



Particular description of goods.—Self-Rising Wheat-Flour.
Claims use since Aug. 9, 1916.

Ser. No. 99,090. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MELROSE MILLING COMPANY, Evansville, Ind. Filed Nov. 4, 1916.

INDEX

Particular description of goods.—Self-Rising Wheat-Flour.
Claims use since Aug. 28, 1916.

Ser. No. 99,098. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TRENTON MILLING CO., Trenton, Ill. Filed Nov. 4, 1916.

Minuet

Particular description of goods.—Wheat-Flour, More Specifically Self-Rising Flour.
Claims use since October, 1916.

Ser. No. 99,110. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Nov. 6, 1916.

FLEECEDOWN

Particular description of goods.—Cotton Piece Goods.
Claims use since Feb. 19, 1904.

Ser. No. 99,138. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) STEPHEN J. TRAVIS, Chicago, Ill. Filed Nov. 6, 1916.

CLARITONE

Particular description of goods.—Phonographs.
Claims use since Oct. 18, 1916.

Ser. No. 99,161. (CLASS 12. CONSTRUCTION MATERIALS.) THE BERGER MANUFACTURING COMPANY, Canton, Ohio. Filed Nov. 8, 1916.

RIBPLEX

Particular description of goods.—Expanded Metal.
Claims use since Oct. 30, 1916.

Ser. No. 99,209. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) DETROIT TRUCK COMPANY, Detroit, Mich. Filed Nov. 10, 1916.

Tonford

Particular description of goods.—Truck Attachments for Converting Passenger into Freight-Carrying Automobiles.
Claims use since Feb. 19, 1916.

Ser. No. 99,212. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, New York, N. Y., and Kansas City, Mo. Filed Nov. 10, 1916.



Particular description of goods.—Cakes of the Kind Known as Cookies.
Claims use since about Feb. 18, 1915.

Ser. No. 99,226. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Nov. 10, 1916.



Particular description of goods.—Poultry Feed.
Claims use since July 1, 1916.

Ser. No. 99,253. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) POSTEX COTTON MILLS, Post, Tex. Filed Nov. 11, 1916.

postex

Particular description of goods.—Cotton Piece Goods, Pillow-Cases, and Sheets.
Claims use since at least as early as February, 1914.

Ser. No. 99,254. (CLASS 12. CONSTRUCTION MATERIALS.) QUIGLEY FURNACE SPECIALTIES CO., INCORPORATED, New York, N. Y. Filed Nov. 11, 1916.

HYTEMPITE

Particular description of goods.—Fire-Brick Cement.
Claims use since the 1st day of May, 1916.

Ser. No. 99,260. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed Nov. 11, 1916.



Particular description of goods.—Toilet-Paper.
Claims use since June 17, 1915.

Ser. No. 99,281. (CLASS 46. MALT EXTRACTS AND LIQUORS.) THE PEOPLES BREWING CO., Oshkosh, Wis. Filed Nov. 13, 1916.

Asterisco

Particular description of goods.—Beer.
Claims use since about the 21st day of June, 1913.

Ser. No. 99,310. (CLASS 47. WINES.) GIUSEPPE GRASSO, New York, N. Y. Filed Nov. 15, 1916.



Particular description of goods.—Sparkling Wines.
Claims use since Oct. 9, 1916.

[Vol. 233. No. 2.]

TRADE-MARK REGISTRATIONS GRANTED

DECEMBER 12, 1916.

114,314. CAKES. ABRAMS SISTERS, Richmond, Va.
Filed November 30, 1915. Serial No. 91,032. PUBLISHED OCTOBER 3, 1916.

114,315. STOMACHIC AND LAXATIVE. OSCAR ADLER, Chicago, Ill.
Filed August 19, 1916. Serial No. 97,441. PUBLISHED OCTOBER 3, 1916.

114,316. HOMOGENEOUS WATERPROOF AND FIRE-RESISTING WOOD SUBSTITUTES MADE FROM PULP. THE AGASOTE MILLBOARD CO., Trenton, N. J., and New York, N. Y.
Filed June 10, 1916. Serial No. 95,774. PUBLISHED SEPTEMBER 26, 1916.

114,317. CANDY, TEA, WAFERS, AND CRACKERS. THE AMERICAN ALFALFA PRODUCTS COMPANY, Denver, Colo.
Filed August 9, 1916. Serial No. 97,203. PUBLISHED OCTOBER 3, 1916.

114,318. COTTON-SEED OIL FOR USE IN THE MANUFACTURE OF VARNISHES, PAINTS, AND PAINTERS' MATERIALS. THE AMERICAN COTTON OIL COMPANY, Guttenberg, N. J., and New York, N. Y.
Filed May 10, 1916. Serial No. 95,018. PUBLISHED OCTOBER 10, 1916.

114,319. KÜMMEL LIQUEUR. AMSTERDAMSCHE LIKEURSTOKERIJ "'T. LOOTSJE" DER ERVEN LUCAS BOLS, Amsterdam, Netherlands.
Filed August 7, 1916. Serial No. 97,130. PUBLISHED SEPTEMBER 26, 1916.

114,320. CERTAIN NAMED MEDICINE AND PHARMACEUTICAL PREPARATIONS. O. B. ANDREWS' COMPANY, Chattanooga, Tenn.
Filed July 14, 1916. Serial No. 96,555. PUBLISHED OCTOBER 3, 1916.

114,321. CANDY. THE AROMINT COMPANY, Cincinnati, Ohio.
Filed August 16, 1916. Serial No. 97,366. PUBLISHED OCTOBER 3, 1916.

114,322. CANNED TUNA. THE J. K. ARMSBY CO., San Francisco, Cal.
Filed August 22, 1916. Serial No. 97,581. PUBLISHED OCTOBER 3, 1916.

114,323. PHONOGRAPHS. THE ARTOPHONE COMPANY, St. Louis, Mo.
Filed March 27, 1916. Serial No. 93,884. PUBLISHED SEPTEMBER 12, 1916.

114,324. PORTLAND CEMENT. ASANO CEMENT JOINT STOCK CO., Tokyo, Japan.
Filed March 27, 1916. Serial No. 93,882. PUBLISHED OCTOBER 3, 1916.

114,325. RICE. THE ASIA COMPANY, Los Angeles, Cal.
Filed April 12, 1915. Serial No. 85,888. PUBLISHED SEPTEMBER 19, 1916.

114,326. PEANUTS. THE BAIN PEANUT CO., INC., Wakefield, Va.
Filed March 20, 1916. Serial No. 93,698. PUBLISHED SEPTEMBER 26, 1916.

114,327. EAR-PHONES. EDWARD BAUM, Philadelphia, Pa.
Filed July 29, 1916. Serial No. 96,949. PUBLISHED SEPTEMBER 5, 1916.

114,328. SYRUPS FOR FOOD-FLAVORING PURPOSES. BERNARD BERG, Denver, Colo.
Filed June 16, 1916. Serial No. 95,913. PUBLISHED OCTOBER 3, 1916.

114,329. SALVE FOR THE RELIEF OF PILES AND SORES OF VARIOUS KINDS. WILLIAM E. BORLAND, Yonkers, N. Y.
Filed March 6, 1916. Serial No. 93,330. PUBLISHED OCTOBER 3, 1916.

114,330. GLOVES AND MITTENS. THE BOSS MANUFACTURING COMPANY, Kewanee, Ill.
Filed August 18, 1916. Serial No. 97,432. PUBLISHED OCTOBER 10, 1916.

114,331. FRESH APPLES. BOSTON-OKANOGAN APPLE CO., Okanogan, Wash.
Filed June 22, 1914. Serial No. 79,253. PUBLISHED OCTOBER 3, 1916.

114,332. CANDY. BISHOP & COMPANY, Los Angeles, Cal.
Filed August 17, 1916. Serial No. 97,388. PUBLISHED OCTOBER 3, 1916.

114,333. CERTAIN NAMED FOODS. BRODSKY PALMAN GELBER CO., Chicago, Ill.
Filed August 21, 1916. Serial No. 97,490. PUBLISHED OCTOBER 3, 1916.

114,334. CANNED SALMON. BRODSKY PALMAN GELBER CO., Chicago, Ill.
Filed August 21, 1916. Serial No. 97,491. PUBLISHED OCTOBER 3, 1916.

114,335. NON-ALCOHOLIC BEVERAGE SOLD AS A SOFT DRINK. CHAM-PAY PRODUCTS COMPANY, Wilmington, Del., and Evansville, Ind.
Filed January 19, 1916. Serial No. 92,234. PUBLISHED MARCH 14, 1916.

114,336. CERTAIN NAMED FOODS. THE CITIZENS' WHOLESALE SUPPLY COMPANY, Columbus, Ohio.
Filed July 28, 1916. Serial No. 96,921. PUBLISHED OCTOBER 3, 1916.

114,337. NIGHT-SHIRTS, PAJAMAS, UNDERSHIRTS, UNDERDRAWERS, AND UNION-SUITS. CLUETT, PEABODY & CO. INC., Troy, N. Y.
Filed August 12, 1916. Serial No. 97,301. PUBLISHED OCTOBER 10, 1916.

114,338. CERTAIN NAMED FOODS. DRAKE & COMPANY, Easton, Pa.
Filed February 15, 1916. Serial No. 92,856. PUBLISHED OCTOBER 3, 1916.

114,339. FRESH APPLES. DUFUR ORCHARD CO-OWNERS CO., The Dalles, Oreg.
Filed August 30, 1916. Serial No. 97,704. PUBLISHED OCTOBER 3, 1916.

114,340. TANNING SUBSTANCES. DR. G. EBERLE & CIE., Stuttgart, Germany.
Filed August 17, 1916. Serial No. 97,396. PUBLISHED OCTOBER 3, 1916.

114,341. CANNED SALMON. EVERETT PACKING CO., Everett, Wash.
Filed August 21, 1916. Serial No. 97,508. PUBLISHED OCTOBER 3, 1916.

114,342. CANNED SALMON. EVERETT PACKING CO., Everett, Wash.
Filed August 21, 1916. Serial No. 97,509. PUBLISHED OCTOBER 3, 1916.

114,343. CANNED SALMON. EVERETT PACKING CO., Everett, Wash.
Filed August 21, 1916. Serial No. 97,510. PUBLISHED OCTOBER 3, 1916.

114,344. CERTAIN NAMED FOODS. FAIRCHILD BROS. & FOSTER, New York, N. Y.
Filed July 18, 1916. Serial No. 96,648. PUBLISHED SEPTEMBER 5, 1916.

114,345. CORSETS. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed August 1, 1916. Serial No. 97,019. PUBLISHED OCTOBER 10, 1916.

114,346. NON-ALCOHOLIC CARBONATED TONIC BEVERAGES SOLD AS SOFT DRINKS. MARY A. FLANAGAN, Columbia, Pa.
Filed August 17, 1916. Serial No. 97,397. PUBLISHED SEPTEMBER 12, 1916.

114,347. MEN'S OUTER SHIRTS. FREEDMAN, CASPER & Co., Philadelphia, Pa.
Filed July 21, 1916. Serial No. 96,711. PUBLISHED OCTOBER 10, 1916.

114,348. CERTAIN NAMED ATHLETIC GOODS. FREIDENRICH-VAN COTT, INC., New York, N. Y.
Filed May 25, 1916. Serial No. 95,416. PUBLISHED OCTOBER 10, 1916.

114,349. SYRUPS FOR MIXTURE WITH CARBONATED WATER. M. GETZ & CO., INC., San Francisco, Cal.
Filed August 14, 1916. Serial No. 97,335. PUBLISHED SEPTEMBER 26, 1916.

114,350. BREAD. MARY GWENN'S BREAD SHOP, INC., Patchogue, N. Y.
Filed July 7, 1916. Serial No. 96,451. PUBLISHED SEPTEMBER 19, 1916.

114,351. MEDICINE IN THE FORM OF AN EYE-LOTION. WASYL HAIDEI, Hannastown, Pa.
Filed August 19, 1916. Serial No. 97,452. PUBLISHED OCTOBER 3, 1916.

114,352. BUTTER. THE CHARLES H. HESS COMPANY, Cincinnati, Ohio.
Filed August 16, 1916. Serial No. 97,372. PUBLISHED OCTOBER 3, 1916.

114,353. FLUSH METERS. HOBBS MANUFACTURING COMPANY, Worcester, Mass.
Filed September 9, 1916. Serial No. 97,870. PUBLISHED OCTOBER 10, 1916.

114,354. LEATHER BOOTS AND SHOES AND BOOT AND SHOE SOLES OF LEATHER. HOLLAND SHOE CO., Holland, Mich.
Filed January 3, 1916. Serial No. 91,872. PUBLISHED OCTOBER 10, 1916.

114,355. SALTED NUTS. FRANK M. HOYT, Amesbury, Mass.
Filed March 21, 1916. Serial No. 93,739. PUBLISHED MAY 23, 1916.

114,356. MEAT-CHOPPERS. HUSQVARNA VAPENFABRIKS AKTIEBOLAG, Husqvarna, Sweden.
Filed March 20, 1916. Serial No. 93,704. PUBLISHED OCTOBER 10, 1916.

114,357. UNDERWEAR MADE OF KNITTED MATERIAL. ROBERT G. JENNINGS, Elmira Heights, N. Y.
Filed July 13, 1916. Serial No. 96,543. PUBLISHED OCTOBER 10, 1916.

114,358. CATTLE FOOD. SPENCER KELLOGG AND SONS, INC., Buffalo, N. Y.
Filed August 18, 1916. Serial No. 97,439. PUBLISHED OCTOBER 3, 1916.

114,359. SELF-RISING WHEAT-FLOUR. THE KIRKLAND DISTRIBUTING CO., Columbia, S. C.
Filed August 23, 1916. Serial No. 97,580. PUBLISHED OCTOBER 3, 1916.

114,360. OVERALLS. J. KIRSCHNER, Savannah, Ga.
Filed August 15, 1916. Serial No. 97,351. PUBLISHED OCTOBER 10, 1916.

114,361. BOOTS AND SHOES, THE SAID BOOTS AND SHOES BEING MADE OF LEATHER. ANTHONY LAGIGLIA, Norfolk, Va.
Filed May 19, 1916. Serial No. 95,270. PUBLISHED OCTOBER 10, 1916.

114,362. MEDICINES FOR CERTAIN NAMED AILMENTS. JOHN W. B. LAXTON, Lynn, Mass.
Filed June 26, 1916. Serial No. 96,150. PUBLISHED OCTOBER 3, 1916.

114,363. LEATHER BOOTS AND SHOES. LEONARD & BARROWS, Middleboro, Mass.
Filed November 12, 1915. Serial No. 90,602. PUBLISHED MAY 30, 1916.

114,364. BED-SPRINGS. THE LEWIS-WELLER MFG. CO., Utica, N. Y.
Filed March 9, 1916. Serial No. 93,413. PUBLISHED MAY 16, 1916.

114,365. CERTAIN NAMED FOODS. LINDLEY & COMPANY, Sacramento, Cal.
Filed July 24, 1916. Serial No. 96,790. PUBLISHED OCTOBER 3, 1916.

114,366. COFFEE AND TEA. LINDLEY & Co., Sacramento, Cal.
Filed July 24, 1916. Serial No. 96,792. PUBLISHED OCTOBER 3, 1916.

114,367. BREAD. THE LOBACO COMPANY, Louisa, Ky.
Filed August 1, 1916. Serial No. 97,018. PUBLISHED OCTOBER 3, 1916.

114,368. CANDY. LOFT, INCORPORATED, New York, N. Y.
Filed August 22, 1916. Serial No. 97,558. PUBLISHED OCTOBER 3, 1916.

114,369. CANDY. THE WALTER M. LOWNEY COMPANY, Boston, Mass.
Filed August 28, 1916. Serial No. 97,670. PUBLISHED OCTOBER 3, 1916.

114,370. MACARONI. CARLO MASPERO, New York, N. Y.
Filed August 16, 1916. Serial No. 97,374. PUBLISHED OCTOBER 3, 1916.

114,371. FURNITURE — NAMELY, BASKETABLES, SAME BEING A SEWING-BASKET IN TABLE FORM, AND FOOTSTOOLS. METALKRAFT-ROCHESTER, Rochester, N. Y.
Filed May 29, 1916. Serial No. 95,528. PUBLISHED SEPTEMBER 26, 1916.

114,372. LEATHER GLOVES. LOUIS MEYERS & SON, New York, N. Y.
Filed August 24, 1916. Serial No. 97,603. PUBLISHED OCTOBER 10, 1916.

114,373. WEATHER-VANES. NATURE STUDIO, Elk Ridge, Md.
Filed July 6, 1916. Serial No. 96,361. PUBLISHED OCTOBER 10, 1916.

114,374. AUTOMOBILE-OIL AND SEPARATOR-OIL. NORTHWESTERN OIL CO., Superior, Wis., and Duluth, Minn.
Filed June 26, 1916. Serial No. 96,157. PUBLISHED OCTOBER 10, 1916.

114,375. CEREAL BREAKFAST FOOD. THE NUT CEREAL COMPANY, Wichita, Kans.
Filed August 22, 1916. Serial No. 97,560. PUBLISHED OCTOBER 3, 1916.

114,376. COFFEE. PARSONS & SCOVILLE CO., Evansville, Ind.
Filed August 30, 1916. Serial No. 97,714. PUBLISHED OCTOBER 3, 1916.

114,377. COFFEE. PARSONS & SCOVILLE CO., Evansville, Ind.
Filed August 30, 1916. Serial No. 97,715. PUBLISHED OCTOBER 3, 1916.

114,378. ROOFING PAPER AND FELT AND PREPARED ROOFING. PIONEER PAPER CO., Los Angeles, Cal.
Filed November 17, 1915. Serial No. 90,709. PUBLISHED FEBRUARY 29, 1916.

114,379. COTTON PIECE GOODS. CHARLES L. POOR CO., New York, N. Y.
Filed November 28, 1914. Serial No. 82,959. PUBLISHED OCTOBER 10, 1916.

114,380. WHEAT-FLOUR. FRANCE MILLING COMPANY, New Douglas, Ill.
Filed August 25, 1916. Serial No. 97,628. PUBLISHED OCTOBER 3, 1916.

114,381. DISTILLED AND AERATED WATER. PURITAN ICE COMPANY, Tampa, Fla.
Filed September 11, 1916. Serial No. 97,926. PUBLISHED OCTOBER 10, 1916.

114,382. CORSETS. HERMAN RAAB, Philadelphia, Pa.
Filed August 5, 1916. Serial No. 97,118. PUBLISHED OCTOBER 10, 1916.

114,383. ALIMENTARY PASTE. RAVARINO & FRESCHI IMPORTING & MFG. CO., St. Louis, Mo.
Filed August 21, 1916. Serial No. 97,522. PUBLISHED OCTOBER 3, 1916.

114,384. OIL TO BE MIXED WITH WATER, USED AS A LUBRICANT FOR METAL-CUTTING TOOLS. WM. C. ROBINSON & SON CO., Baltimore, Md.
Filed June 21, 1916. Serial No. 96,026. PUBLISHED OCTOBER 10, 1916.

114,385. MACARONI. F. ROMBO & CO., INC., New York, N. Y.
Filed November 3, 1915. Serial No. 90,395. PUBLISHED OCTOBER 3, 1916.

114,386. LADIES' AND MISSES' SHIRT-WAISTS. SAMEK BROS. INC., New York, N. Y.
Filed July 21, 1916. Serial No. 96,739. PUBLISHED OCTOBER 10, 1916.

114,387. ANTISEPTIC POWDER. SEPCO CHEMICAL COMPANY, Washington, D. C.
Filed February 5, 1916. Serial No. 92,672. PUBLISHED MARCH 28, 1916.

114,388. WHEAT-FLOUR. SHEPHERD MILLING CO., Shepherd, Mich.
Filed August 19, 1916. Serial No. 97,460. PUBLISHED OCTOBER 3, 1916.

114,389. MEN'S OUTER SHIRTS AND BOYS' OUTER WAISTS. M. E. SMITH & Co., INC., Omaha, Nebr.
Filed August 9, 1916. Serial No. 97,226. PUBLISHED OCTOBER 10, 1916.

114,390. WHEAT-FLOUR, RYE-FLOUR, SELF-RISING AND PREPARED FLOUR. THE SOUTHWESTERN MILLING CO. INC., New York, N. Y., and Kansas City, Mo.
Filed May 27, 1916. Serial No. 95,487. PUBLISHED OCTOBER 3, 1916.

114,391. WHEAT-FLOUR, RYE-FLOUR, SELF-RISING AND PREPARED FLOUR. THE SOUTHWESTERN MILLING CO. INC., New York, N. Y., and Kansas City, Mo.
Filed May 27, 1916. Serial No. 95,491. PUBLISHED OCTOBER 3, 1916.

114,392. WHEAT-FLOUR, RYE-FLOUR, SELF-RISING AND PREPARED FLOUR. THE SOUTHWESTERN MILLING CO. INC., New York, N. Y., and Kansas City, Mo.
Filed May 27, 1916. Serial No. 95,492. PUBLISHED OCTOBER 3, 1916.

114,393. WHEAT-FLOUR, RYE-FLOUR, SELF-RISING AND PREPARED FLOUR. THE SOUTHWESTERN MILLING CO. INC., New York, N. Y., and Kansas City, Mo.
Filed May 27, 1916. Serial No. 95,494. PUBLISHED OCTOBER 3, 1916.

114,394. WHEAT-FLOUR. LORENZ G. SPINDLER, New York, N. Y.
Filed August 21, 1916. Serial No. 97,525. PUBLISHED OCTOBER 3, 1916.

114,395. WHEAT-FLOUR. SYLVESTER STEWART, Mott, N. D.
Filed August 19, 1916. Serial No. 97,459. PUBLISHED OCTOBER 3, 1916.

114,396. PAINT-OILS. THE TOWER VARNISH & DRYER COMPANY, Dayton, Ohio.
Filed May 17, 1916. Serial No. 95,211. PUBLISHED OCTOBER 10, 1916.

114,397. HOSIERY. E. M. TOWNSEND & Co., New York, N. Y.
Filed July 19, 1916. Serial No. 96,680. PUBLISHED OCTOBER 10, 1916.

114,398. RAIN-COATS. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 25, 1916. Serial No. 96,854. PUBLISHED OCTOBER 10, 1916.

114,399. SERIES OF DIFFERENT MOTION-PICTURE PHOTOPLAYS. UNIVERSAL FILM MANUFACTURING COMPANY, New York, N. Y.
Filed March 30, 1916. Serial No. 93,999. PUBLISHED OCTOBER 10, 1916.

114,400. DYES AND INGREDIENTS THEREOF. WARREN DYE COMPANY, Warren, R. I.
Filed August 17, 1916. Serial No. 97,417. PUBLISHED OCTOBER 3, 1916.

114,401. ELECTRIC BAND LIGHTS AND LAMP SOCKETS. JOHN W. WIEDEY, Baltimore, Md.
Filed August 29, 1916. Serial No. 97,698. PUBLISHED OCTOBER 10, 1916.

114,402. GRAPE-JUICE. R. C. WILLIAMS & COMPANY, New York, N. Y.
Filed September 11, 1916. Serial No. 97,939. PUBLISHED OCTOBER 10, 1916.

TRADE-MARK REGISTRATIONS CANCELED.

38,423. CUSHION-SHOES. ADAM REED, St. Joseph, Mo.
Registered June 10, 1902. Canceled July 5, 1916.

LABELS

REGISTERED DECEMBER 12, 1916.

19,780.—*Title:* "SEALSHIPT OYSTERS." (For Oysters.) NORTH ATLANTIC OYSTER FARMS, INC., Boston, Mass. Filed November 21, 1916.

19,781.—*Title:* "PORCELA—THE BATH TUB CLEANSER." (For a Cleanser for Bath-Tubs.) PORCELA-RADAX COMPANY, Pittsburgh, Pa. Filed September 30, 1916.

19,782.—*Title:* "R. & G. MINERAL WATER ASSN." (For Mineral-Water Containers.) R. & G. MINERAL WATER ASSN., Austin, Tex., and Kansas City, Mo. Filed September 21, 1916.

19,783.—*Title:* "BLUE RIBBON." (For Playing-Cards.) RUSSELL PLAYING CARD CO., Millitown, N. J., and New York, N. Y. Filed November 21, 1916.

19,784.—*Title:* "SCHLESINGER'S CHARLIES." (For Candy.) HARRY L. SCHLESINGER, Atlanta, Ga. Filed September 6, 1916.

19,785.—*Title:* "A WESTCLOX ALARM." (For Alarms.) WESTERN CLOCK CO., Peru, Ill. Filed October 16, 1916.

19,786.—*Title:* "NORTH STAR." (For Bonita Fish.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed November 23, 1916.

19,787.—*Title:* "BLACK AND WHITE." (For Albacore Fish.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed November 23, 1916.

19,788.—*Title:* "NORTH STAR." (For Yellowtail Fish.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed November 23, 1916.

19,789.—*Title:* "RED STAR." (For Canned Tuna Flakes.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed November 23, 1916.

19,790.—*Title:* "MACK'S MANHATTAN." (For Whisky.) JOHN P. WINAND, Baltimore, Md. Filed November 23, 1916.

19,768.—*Title:* "BEECH-NUT BRAND MINTS." (For Mint-Flavored Candies and Confections.) BEECH-NUT PACKING COMPANY, Canajoharie, N. Y. Filed November 23, 1916.

19,769.—*Title:* "COMMUNITY." (For Coffee.) COMMUNITY COFFEE AND SPICE COMPANY, Alliance, Ohio. Filed October 21, 1916.

19,770.—*Title:* "CIGARS." (For Cigars.) ARTHUR F. ERWOOD, Green Bay, Wis. Filed October 28, 1916.

19,771.—*Title:* "EL-MOHADA." (For Cigarettes.) FEZ-ZAN TOBACCO CO., INC., New York, N. Y. Filed October 12, 1916.

19,772.—*Title:* "NEVER-SAG." (For Bed-Springs.) GANGELHOFF BROS., Minneapolis, Minn. Filed November 2, 1916.

19,773.—*Title:* "OBSERVA." (For Cigars.) A. GARTEN & SONS, New York, N. Y. Filed October 18, 1916.

19,774.—*Title:* "McKINNEY BREAD." (For Bread.) GENERAL BAKING COMPANY, New York, N. Y. Filed November 18, 1916.

19,775.—*Title:* "GRENCORT." (For Cigars.) SALVATORE GIARRATANO, New York, N. Y. Filed October 5, 1916.

19,776.—*Title:* "ARISTO." (For Cigars.) SALVATORE GIARRATANO, New York, N. Y. Filed October 5, 1916.

19,777.—*Title:* "HOLTHOEFER'S HEALTH SALT." (For a Medicinal Compound.) HERMAN J. HOLTHOEFER, Chicago, Ill. Filed February 23, 1916.

19,778.—*Title:* "MURPHY RANCH TWO CROWN." (For Lemons.) MURPHY OIL COMPANY, Whittier, Cal. Filed June 5, 1916.

19,779.—*Title:* "MURPHY RANCH THREE STAR." (For Lemons.) MURPHY OIL COMPANY, Whittier, Cal. Filed June 5, 1916.

PRINTS

REGISTERED DECEMBER 12, 1916.

4,580.—*Title:* "THE BRISKIN MFG. CO. (INC.) RADIATOR REPAIR SPECIALISTS." (For the Manufacture and Repair of Radiators for Automobiles.) THE BRISKIN MANUFACTURING COMPANY, Indianapolis, Ind. Filed October 30, 1916.

4,581.—*Title:* "NEVER MIND, PLENTY LEFT HONEY." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed November 20, 1916.

4,582.—*Title:* "BRAN—EATA BISCUITS." (For a Food in Biscuit or Cake Form.) GRAIN PRODUCTS CO., St. Louis, Mo. Filed October 30, 1916.

4,583.—*Title:* "CHILDREN LIKE KRUMBLES AND IT BUILDS THEM UP." (For Kellogg's Krumbles.) KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich. Filed October 21, 1916.

4,584.—*Title:* "THER-MO-BILT." (For Ice-Cream Freezers.) CLIFFORD S. REUTER, New York, N. Y. Filed November 7, 1916.

4,585.—*Title:* "PRINCE ALBERT JUST DOES THIS LITTLE OLD THING." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed October 23, 1916.

4,586.—*Title:* "PRINCE ALBERT—THE NATIONAL JOY SMOKE MAKES MEN TOBACCO HAPPY BECAUSE IT CAN'T BITE TONGUES AND CAN'T PARCH THROATS; THE PATENTED PROCESS FIXES THAT!" (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed October 23, 1916.

4,587.—*Title:* "MOLTJOOS." (For a Drink.) ROCK ISLAND BREWING COMPANY, Rock Island, Ill. Filed September 20, 1916.

4,588.—*Title:* "EDESCO FINEST MADE-TO-MEASURE CLOTHES." (For Custom-Made Clothing.) EDWARD E. STRAUSS & COMPANY, Chicago, Ill. Filed October 27, 1916.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE DYSON.

Decided November 6, 1916.

1. PRACTICE — OLD APPLICATIONS — DILATORY PROSECUTION.

The policy of delaying the issuance of patents on applications in the telephone art commonly pursued by applicants and their attorneys in those cases reviewed and condemned.

2. SAME—SAME—SAME—WITHDRAWING FROM ISSUE.

Where an applicant whose case had been pending in the Office for over ten years and had been once forfeited and renewed requested that it be withdrawn from issue for the purposes of interference and to draw a proper line between it and a divisional application, *Held* that the circumstances of the case did not justify withdrawal for interference purposes and that the line of division could be drawn by amendment under Rule 78, and the petition was accordingly denied.

ON PETITION.

TELEPHONE SYSTEM.

Mr. Curtis B. Camp for the applicant.

EWING, *Commissioner:*

Petitioner prays that this application be withdrawn from issue for the purpose of an interference and to enable a proper line of division to be established between its claims and those of a divisional case now in interference with the patent to Dean, No. 1,120,605. The final fee is due November 15, 1916.* The application has been once allowed, forfeited, and renewed. A second forfeiture would presumably result in abandonment.

The establishment of a proper line of division between this case and the other can be effected under the provisions of Rule 78 without withdrawal from issue.

The proofs seeking to establish priority of invention over Dean can be made upon the divisional case now in the interference as well as upon the present parent case.

Petitioner urges that although this application contains none of Dean's claims yet there are claims of the present case which would dominate Dean's invention and that it would be unfair to Dean to allow the present case to issue into a patent while the interference is in progress. This, however, is Dean's affair, and the fact is noted also that the filing date of the present case is prior to the date of conception alleged by Dean.

This application has been pending for over ten years. Had the case been promptly prosecuted it would have become a patent long before Dean filed his application and no interference would have been necessary.

There is a large number of applications for automatic telephone systems which have been kept pending for ten, twelve, and even fifteen years. Over and over again have they been reviewed by the Examiner. Their records have become cumbersome and their consideration time-consuming. They block the issuance of patents to other inventors seeking an early grant. They render necessary the declaration of many otherwise needless interferences, involving motions for dissolution and other delaying procedures. They are, in effect, hidden traps for later inventors, who, without knowledge of their existence, in good faith produce similar inventions and apply for patents, only to find their efforts anticipated and their labor lost. Patents granted are carefully examined by the owners of these old applications to see if some claim or claims of the patent can by arguable interpretation be predicated upon the structure of some one of these old cases. If this is found to be possible, the claim is presented in the old application and an interference is demanded. By reason of the old filing date an award of priority adverse to the patentee sometimes results and the Office is placed in the position of having issued a patent with invalid claims.

These old applications, representing the inventions of a considerable number of inventors, are mainly owned by a few large rival corporations. Various inventors in the employ of these concerns have shifted their employment from one to the other. In this manner each corporation has obtained some information as to the nature of the inventions represented in the old applications owned by its rivals. As a consequence it has been possible for these rival concerns to so amend their applications as to bring about a multitude of interferences. A large number of such applications are now interlocked in contests of this character and more are constantly being added. Many such contests continue for years before a conclusion is finally reached.

When these applications shall have finally issued into patents, many of them will, presumably, contain broad claims dominating better devices and

*Now Patent No. 1,208,718, December 12, 1916.

mechanisms developed during the years of their pendency.

The Office has vainly sought to remedy this condition. In other arts the efforts to remedy such conditions have met with coöperation on the part of the applicants and their counsel, and the result has been, speaking generally, a marked improvement of the condition. In this exceptionally complex art the Office has found itself unable to bring about an improvement. The lack of coöperation of counsel, presumably under the direction of the corporation heads, due to the fear that if one of these old applications is allowed to become patented a commercial rival will obtain some advantage therefrom, combined with the very evident desire of the owners to keep these cases pending for future eventualities or conditions which they believe or fear may arise, have conspired to block every effort made by the Office to remedy this evil. Amendments are delayed in many instances until the end of the period allowed by law, and when applications are passed for issue they frequently are forfeited and renewed with further amendment and their slow prosecution is resumed.

Such a condition constitutes an abuse of the latitude and leniency of the law, a drag upon and a menace to the progress of the art.

The only possible relief from conditions which have become intolerable is to force an application to patent or abandonment whenever an opportunity presents itself.

The petition is denied.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Burkholder patent, No. 1,004,741, for a lift-jack for automobiles, *Held* invalid because anticipated and lacking invention. *Elite Mfg. Co.* v. *Ashland Mfg. Co.*, 235 Fed. Rep., 893.

(U. S. C. C. A.) The Burkholder design patent, No. 44,837, for a design for a lifting-jack standard, *Held* invalid for want of invention, showing neither beauty, originality, nor creative design. *Elite Mfg. Co.* v. *Ashland Mfg. Co.*, 235 Fed. Rep., 893.

(U. S. C. C. A.) The Elliott patent, No. 765,616, for improvement in shoe-button-fastening machines, construed in the light of the proceedings in the Patent Office and *Held* invalid for want of invention. *Elliott Mach. Co.* v. *Rothschild & Co.*, 235 Fed. Rep., 896.

Disclaimers.

1,101,268.—*Louis E. Fuller*, New York, N. Y. STENCIL-SHEET. Patent dated June 23, 1914. Disclaimer filed December 4, 1916, by the assignee, *A. B. Dick Company*.

Enters its disclaimer as follows, to wit:

1. It disclaims that portion of said specification which is in the following words, viz:

"My new material is not only useful for stencil purposes, but I have found it to be very useful in many ways, especially in cases where a substance is required that must be water and oil proof and proof against all neutral solvents of oils, greases or resins, and where the flexibility must not change appreciably under extreme conditions of heat or cold, moisture or dryness, and where it must be tough and not easily injured, torn, or broken."

2. It disclaims, as the base of the patented stencil-sheet, all fibrous material except open, lacelike material, such as Japanese Yoshino paper or its equivalent.

3. It disclaims all stencil blanks or sheets except such as, employing the said improvements, are used, or adapted or intended to be used, for conversion into stencils by impact or pressure, such, for example, as the action of the type of a writing-machine.

1,101,269.—*Louis E. Fuller*, New York N. Y. PROCESS FOR FORMING STENCIL-MACHINES. Patent dated June 23, 1914. Disclaimer filed December 4, 1916, by the assignee, *A. B. Dick Company*.

Enters its disclaimer as follows, to wit:

1. It disclaims any and all process or processes which include impregnating a fibrous sheet, except such as involve impregnating a thin, open, lacelike paper such as Japanese Yoshino paper or its equivalent.

2. It disclaims any and all process or processes of forming stencil-sheets except such as, employing the said patented invention, are used, or adapted or intended to be used, for conversion into stencils by impact or pressure, such, for example, as the action of the type of a writing-machine.

1,101,270.—*Louis E. Fuller*, New York, N. Y. PROCESS OF PREPARING DUPLICATING-STENCILS. Patent dated June 23, 1914. Disclaimer filed December 4, 1916, by the assignee, *A. B. Dick Company*.

Enters its disclaimer as follows, to wit:

1. It disclaims, under said Letters Patent, any and all process or processes which include impregnating a fibrous sheet, except such as involve impregnating Japanese Yoshino paper or its equivalent.

2. It disclaims, under said Letters Patent, any and all process or processes of preparing or forming stencils which does not or do not involve forming the characters by impact or pressure, such, for example, as the action of the type of a writing-machine.

Changes in Classification.

(ORDER No. 2,295.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 4, 1916.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 156, Curtains, Shades, and Screens, (Division II,) abolish subclass—

41. Carriage-curtains.

The patents formerly contained in this subclass have been placed for the most part in class 21, Carriages and Wagons, subclass 220, Tops, Curtains, hereinafter established.

In class 21, Carriages and Wagons, (Division X,) establish subclass—

Tops—
220. Curtains.

The patents contained in this subclass have been taken from class 156, Curtains, Shades, and Screens, subclass 41, Carriage-curtains, hereinbefore abolished.

THOMAS EWING,
Commissioner.

(ORDER No. 2,296.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 5, 1916.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 178, Telegraphy, (Division XVI,) establish the following subclass and definition:

Systems—
Automatic—
Transmitters or recorders—
17.5. Storing.

17.5. SYSTEMS, AUTOMATIC, TRANSMITTERS OR RECORDERS, STORING. Automatic transmitters comprising means for accumulating messages or code-signals in advance of actual transmission.

Search Class—
178—TELEGRAPHY, subclass 3, Systems, Automatic, for storing-transmitters in combination with other elements of an automatic system.

The patents contained in this subclass have been taken from class 178, Telegraphy, subclasses 17, Systems, Automatic, Transmitters or Recorders; 79, Code-transmitters, and 83, Code-transmitters, Rotary contact.

THOMAS EWING,
Commissioner.

Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1916.

George Thompson Robie, his assigns or legal representatives, take notice:

A cancelation proceeding has been instituted by this Office upon the application of The Ironsides Company, of Columbus, Ohio, to effect the cancelation of the trade-mark registration of George Thompson Robie, of Chicago, Ill., registered July 26, 1904, No. 55,407, and the notice of such proceeding sent by registered mail to said Robie at the said address having been returned by the post-office undeliverable notice is hereby given that unless said George Thompson Robie, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will proceed as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 24, 1916.

James Marshall, his heirs, successors, or assigns, take notice:

An interference having been declared by this Office between the application of Gimbel Brothers, of Twenty-third and Broadway, New York, N. Y., the application of Ariston Hat Mfg. Co., of Peekskill, N. Y., for registration of trade-marks, and two trade-marks registered June 5, 1894, Nos. 24,808 and 24,809, to James Marshall, foot of Shaw street, Fall River, Mass., and the said James Marshall being deceased, notice is hereby given that unless his heirs, successors, or assigns shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 22, 1916.

Henry Rattermann, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of William Korbach, of 606 Washington street, Hoboken, N. J., for registration of a trade-mark and trade-mark registered June 4, 1895, No. 26,652, to Henry Rattermann, of 577 Elm street, Cincinnati, Ohio, and a notice of such declaration sent by registered mail to said Henry Rattermann at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Henry Rattermann, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

Adverse Decisions in Interference.

PATENT No. 996,500.

On November 2, 1916, a decision was rendered that William Hugo Mathies was not the first inventor of the subject-matter covered by claims 1, 2, 5, 6, and 7 of his Patent No. 996,500, subject, "Automatic exchange system," and no appeal having taken within the time allowed such decision has become final.

PATENT No. 1,008,068.

On October 23, 1916, a decision was rendered that Charles W. Robinson was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,008,068, subject, "Double-disk bearings for the furrow-openers of grain-drills," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,169,667.

On October 20, 1916, a decision was rendered that William Henry Meguyer was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,169,667, subject, "Golf-clubs," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,143,998.

On November 10, 1916, a decision was rendered that John G. Roberts was not the first inventor of the subject-matter covered by claim 3 of his Patent No. 1,143,998, subject, "Line-switches," and no appeal having been taken within the time allowed such decision has become final.

THE

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CONTENTS

	Page.
Issue of December 19, 1916	759
Disclaimer	759
Notice Relating to Drawings	759
Remittances to the Patent Office	759
Applications Under Examination	760
Patents Granted	761
Reissues	1081
Designs	1082
Trade-Marks—Registration Applied for	1091
Trade-Mark Registrations Granted	1099
Trade-Mark Registrations Renewed	1105
Labels and Prints	None.
Commissioner's Decisions—	
Ex parte Conrad v. Kraus and Malley	1107
Adjudicated Patents	1108
Interference Notices	1109

ISSUE OF DECEMBER 19, 1916.

Patents	928—No.	1,208,723 to No.	1,209,650, inclusive.
Designs	37—No.	80,051 to No.	80,087, inclusive.
Trade-Marks	210—No.	114,403 to No.	114,612, inclusive.
Labels	None.		
Prints	None.		
Reissues	2—No.	14,233 to No.	14,234, inclusive.

Total.....1177

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	5	2	North Carolina	5	1
Arizona	....	....	North Dakota	4	....
Arkansas	3	1	Ohio	47	9
California	46	8	Oklahoma	7	1
Colorado	10	2	Oregon	7	2
Connecticut	21	3	Pennsylvania	90	15
Delaware	....	....	Rhode Island	7	2
Florida	1	5	South Carolina	1	....
Georgia	4	4	South Dakota	6	....
Idaho	4	....	Tennessee	4	1
Illinois	100	14	Texas	16	1
Indiana	23	2	Utah	3	1
Iowa	12	1	Vermont	3	....
Kansas	11	2	Virginia	11	5
Kentucky	5	4	Washington	12	4
Louisiana	10	1	West Virginia	14	....
Maine	3	1	Wisconsin	22	4
Maryland	7	3	Wyoming	1	1
Massachusetts	45	12			
Michigan	38	5	Alaska, District of	....	....
Minnesota	14	4	Canal Zone	....	....
Mississippi	3	....	District of Columbia	7	2
Missouri	41	8	Hawaii Territory	1	....
Montana	4	....	Philippine Islands	....	....
Nebraska	8	2	Porto Rico	1	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	1	1	U. S. Navy	1	....
New Jersey	51	8			
New Mexico	2	....	Total to residents of the United States	886	201
New York	143	59			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	....	....	Natal	....	....
Austria-Hungary	....	1	Netherlands	1	....
Belgium	....	....	New South Wales	1	....
Brazil	....	....	New Zealand	2	....
British West Indies	....	....	Norway	1	....
Canada	15	1	Portugal	....	....
Cape Colony	....	....	Queensland	....	....
China	1	....	Roumania	....	....
Costa Rica	....	....	Russia	....	....
Cuba	....	....	Scotland	2	....
Denmark	2	....	South Australia	....	....
England	15	3	Spain	....	....
Finland	....	....	Sweden	1	....
France	9	3	Switzerland	....	....
Germany	21	....	Transvaal, South Africa	....	....
Guatemala	....	....	Victoria	1	....
India	....	....	Wales	....	....
Ireland	....	....			
Italy	....	....	Total to residents of foreign countries	74	8
Japan	....	....			
Mexico	2	....			

Disclaimer.

1,165,749.—*Martin Christenson*, Racine, Wis. Book-Stitching Machine. Patent dated December 28, 1915. Disclaimer filed December 8, 1916, by the patentee.

Enters his disclaimer—

"To claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17, 18, 19, 20, 21, 22, 23, 33, 35, 37, 42, 75, 76, and 88."

Notice Relating to Drawings.

Department of the Interior,
United States Patent Office,
Washington, D. C., March 6, 1914.

Attention is called to paragraphs 7 and 9 of Rule 52 of the Rules of Practice of the Patent Office, and inventors and attorneys are directed to omit from the space outside of the marginal line of the drawings any marks of identification, inasmuch as the space referred to is reserved for the use of the Patent Office. Such identifying-marks should be placed upon the back of the drawings.

THOMAS EWING,
Commissioner of Patents.

Remittances to the Patent Office.

Checks should be certified. Cash should be registered; if by ordinary mail at risk of sender. Postage stamps not receivable.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 15, 1916.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Seeders and Planters; Trees, Plants, and Flowers.	Oct. 2	Oct. 14	373
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 24	Oct. 16	656
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Nov. 27	Nov. 27	87
232	4. Conveyors; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Devices; Railway Mail Delivery; Store-Service; Traversing Hoists.	Oct. 18	Nov. 8	211
167	5. Bookbinding; Harvesters; Jewelry; Music.	Aug. 19	Nov. 9	286
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Aug. 24	Nov. 10	220
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	Aug. 3	Sept. 29	513
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 27	Aug. 9	1271
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps	June 10	Oct. 10	543
235	10. Carriages and Wagons; Spring Devices	June 19	Nov. 13	816
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 12	Dec. 4	82
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements	Aug. 9	Dec. 8	565
320	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 18	Nov. 11	478
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Aug. 4	Nov. 14	268
308	15. Bread, Pastry, and Confection Making; Cooling; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 9	Dec. 1	220
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	June 16	Oct. 6	564
303	17. Matrix-Making; Ornamentation; Paper Manufactures; Printing; Type-Bar Making	Oct. 7	Dec. 4	157
327	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 31	Nov. 2	156
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	July 29	Sept. 1	436
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 20	Dec. 1	132
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Sept. 18	Oct. 11	284
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	July 12	Nov. 4	481
370	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 29	July 25	408
144	24. Apparel; Apparel Apparatus; Sewing-Machines	May 25	Oct. 14	398
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Oct. 21	Nov. 2	142
106	26. Electricity, Generation; Motive Power	Apr. 4	Sept. 16	651
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Nov. 11	Nov. 28	204
65	28. Internal-Combustion Engines	Aug. 4	Sept. 12	556
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	July 1	Oct. 21	360
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Oct. 9	Dec. 4	279
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	July 11	Oct. 10	324
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	May 13	Nov. 3	379
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 28	Nov. 1	347
94	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	May 17	Oct. 9	341
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet	May 2	Nov. 21	675
64	36. Driers; Geometrical Instruments; Measuring Instruments; Photography	Aug. 2	Nov. 13	742
07	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	May 9	Oct. 26	777
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Nov. 10	Nov. 17	157
321	39. Water Distribution	May 24	Nov. 9	280
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Aug. 2	Nov. 10	555
125	41. Railway Draft Appliances; Resilient Tires and Wheels	Aug. 10	Oct. 28	498
244	42. Electricity, Conductors; Railway Signaling; Signals; Electricity-Transmission to Vehicles	May 23	Oct. 16	355
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 31	Oct. 14	98

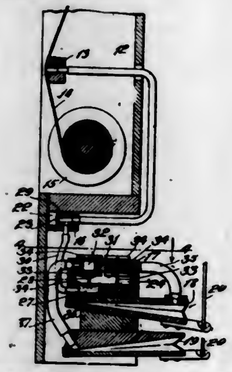
Oldest new case, Apr. 4; oldest amended, Aug. 9.
Total number of applications awaiting action..... 17,609

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Nov. 4	Nov. 17	661
	Designs	Oct. 21	Nov. 18	428
	Labels and Prints	Nov. 25	Nov. 27	115

PATENTS

GRANTED DECEMBER 19, 1916.

1,208,723. AUTOMATIC MUSICAL INSTRUMENT. ERNST G. ANDERSON, Westfield, N. J., assignor to National Pneumatic Action Co., Inc., New York, N. Y., a Corporation of New York. Filed June 19, 1914. Serial No. 846,030. (Cl. 84—178.)



1. In a player-piano comprising a tracker-bar for a perforated traveling music-sheet and a bleed-strip connected by tubes therewith, a valve chest comprising an exhaust chamber and having in its top parallel rows of valve chambers and vertically movable valves therein and in its bottom, below said valves, parallel rows of chambers and diaphragms covering the same and in engagement with stems of said valves, a series of tubes connecting the bleed-strip with said diaphragm chambers, a row of pneumatics at the lower side of said valve chest, rearwardly disposed tubes extending from the rear series of valve chambers in the top of the valve chest to said pneumatics, a board extending below said pneumatics, a row of pneumatics at the lower side of said board, and a series of frontwardly disposed tubes connecting the front row of valve chambers in the top of the valve chest with said lower pneumatics, said frontwardly disposed tubes communicating directly with the lower pneumatics through the stationary upper members thereof, and the movable members of both pneumatics being connected with the abstracts of the piano action.

2. In a player-piano comprising a tracker-bar for a perforated traveling music-sheet and a bleed strip connected by tubes therewith, a valve-chest comprising an exhaust chamber and having in its top parallel rows of valve chambers and vertically movable valves therein and in its bottom, below said valves, parallel rows of chambers and diaphragms covering the same and in engagement with stems of said valves, a series of tubes connecting the bleed strip with said diaphragm chambers, a row of pneumatics at the lower side of said valve chest, rearwardly disposed tubes extending from the rear series of valve chambers in the top of the valve chest to said pneumatics, a board extending below said pneumatics, a row of pneumatics at the lower side of said board, and a series of frontwardly disposed tubes connecting the front row of valve chambers in the top of the valve chest with said lower pneumatics, said frontwardly disposed tubes communicating directly with the lower pneumatics through the stationary upper members thereof and the movable members of both pneumatics being connected with the abstracts of the piano action, and all of the said tubes connecting the bleed strip with said diaphragm chambers being at the front of the valve-chest.

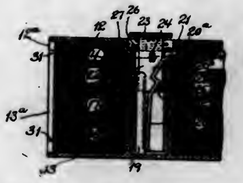
3. In a player-piano comprising a tracker-bar for a perforated traveling music-sheet and a bleed-strip connected by tubes therewith, a valve chest comprising an exhaust chamber and having in its top parallel rows of valve chambers and vertically movable valves therein and in its bottom, below said valves, parallel rows of chambers and diaphragms covering the same and in engagement with stems of said valves, a series of tubes connecting the bleed strip with said diaphragm chambers, two rows, one below the other, of pneumatics below said valve chest, a rearwardly disposed set of tubes extending from the rear series of valve chambers in the top of the valve chest to one row of said pneumatics, and a frontwardly disposed set of tubes extending from the front series of chambers in the top of the valve chest to the other row of said pneumatics.

4. In a player-piano comprising a tracker-bar for a perforated traveling music-sheet and a bleed strip connected by tubes therewith, a valve chest comprising an exhaust chamber and having in its top parallel rows of valve chambers and vertically movable valves therein and in its bottom, below said valves, parallel rows of chambers and diaphragms covering the same and in engagement with stems of said valves, a series of tubes connecting the bleed strip with said diaphragm chambers, two rows, one below the other, of pneumatics below said valve chest, a rearwardly disposed set of tubes extending from the rear series of chambers in the top of the valve chest to one row of said pneumatics, and a frontwardly disposed set of tubes extending from the front series of chambers in the top of the valve chest to the other row of said pneumatics, and all of the said tubes connecting the bleed-strip with said diaphragm chambers being at the front of the valve-chest.

5. In a player-piano, a pneumatic valve-action comprising a valve-chest having in the top thereof a series of vertical chambers with tubes leading from the sides thereof to the pneumatics, apertured blocks secured to the upper and lower sides of said top and partly closing the upper and lower ends of said chambers, and a set of valves confined within said chambers, the body portion of said valves being fitted to guide directly on the walls of said chambers and differing in outline therefrom.

[Claims 6 and 7 not printed in the Gazette.]

1,208,724. LOOSE-LEAF BINDER. WILLIAM H. AVERILL, Boston, Mass. Filed Dec. 15, 1915. Serial No. 66,920. (Cl. 129—13.)



1. A loose leaf binder comprising opposed jaws, each having a tubular post member, the two members constituting a telescopic hollow post, a toothed bar and a bar-engaging latch within said post, the bar being rigidly

connected with one jaw, and the latch pivotally connected with the post member of the other jaw, a manually movable plunger in the post, and a spring normally holding the plunger in a raised position, the said latch and plunger being provided with complemental latch-shifting means cooperating with said spring to normally hold the latch in engagement with the bar, and acting to separate the latch from the bar when the plunger is manually depressed.

2. A loose leaf binder comprising opposed jaws, each having a tubular post member, the two members constituting a telescopic hollow post, a toothed bar and a bar-engaging latch within said post, the bar being connected with one jaw, and the latch with the other jaw, and a manually movable spring-raised plunger in the post, the latch being provided with outer and inner inclined faces, and the plunger with outer and inner cross-bars coöperating in normally holding the latch in engagement with the bar, and in separating the latch from the bar when the plunger is manually depressed.

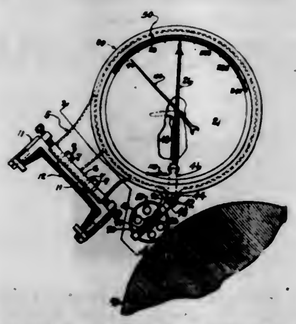
3. A loose leaf binder comprising a jaw having an outer tubular post member and a toothed bar within the same, another jaw having an inner tubular post member movable in said outer member, a latch oscillatively engaged with the inner post member and adapted to engage the said bar, said latch being provided with outer and inner inclined faces, a plunger movable in the inner post member and provided with outer and inner cross-bars coöperating with said inclined faces, and a spring normally raising said plunger and holding the latch in engagement with the bar.

4. A loose leaf binder comprising a jaw having an outer tubular post member and a toothed bar within the same, another jaw having an inner tubular post member movable in said outer member, a latch oscillatively engaged with the inner post member and adapted to engage the said bar, said latch being provided with outer and inner inclined faces, a plunger movable in the inner post member and provided with outer and inner cross-bars coöperating with said inclined faces, and a spring normally raising said plunger and holding the latch in engagement with the bar, the inner post member being provided with an enlargement forming a spring-receiving recess.

5. A loose leaf binder comprising a jaw having an outer tubular post member and a toothed bar within the same, another jaw having an inner tubular post member movable in said outer member and provided with a slot, a bar-engaging latch having a hook movable loosely in said slot, and a manually movable spring-pressed plunger in the post, said latch and plunger being provided with complemental latch-shifting means.

[Claim 6 not printed in the Gazette.]

1,208,725. CONTINUOUS INDICATING AND RECORDING MICROMETER. HENRY L. BALDERSTON, Llanerch, Pa. Filed Feb. 7, 1913. Serial No. 746,782. (Cl. 33—172.)



1. In a device of the character described, the combination of a casing, indicating and recording mechanisms situated in said casing, arms having operative connection respectively with said indicating and recording mechanisms, means for pivotally supporting the said arms, a contact member, and means for supporting said contact member, said supporting means having connection with said arms.

2. In a device of the character described, the combination of indicating and recording mechanisms, arms having operative connection respectively with said indicating and recording mechanisms, means for pivotally supporting said arms, projections extending from said arms beyond the said pivotal supporting means, and a contact member supported on said projections, substantially as described.

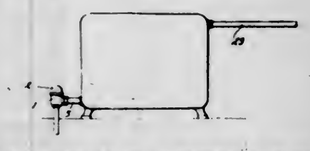
3. In a device of the character described, the combination of indicating and recording mechanisms, arms having operative connection respectively with said indicating and recording mechanisms, means for pivotally supporting said arms, the pivotal axes of said arms being in alinement, extensions extending from said arms beyond such pivotal supporting means such extensions being arranged side by side, and a contact member supported upon said extensions, substantially as described.

4. In a device of the character described, the combination of a casing, indicating and recording mechanisms situated in said casing, levers pivotally supported intermediate their ends, the inner end of one lever having operative connection with the indicating mechanism and the inner end of the other lever having operative connection with the recording mechanism, a contact wheel, and means for adjustably connecting the said wheel with the outer end portions of said levers.

5. In a device of the character described, the combination of a casing, indicating and recording mechanism situated in said casing, arms extending inwardly of said casing and having operative connection respectively with the said indicating and recording mechanisms, means for pivotally supporting the said arms, an extension having rigid connection with the said arms and extending outwardly with respect to the said casing, a contact wheel, and means for adjustably connecting the same with and supporting it upon the said outward extension, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,208,726. STEAM-TRAP VALVE. JOHN D. BANKS, Colwyn, Pa. Filed May 29, 1916. Serial No. 100,722. (Cl. 236—9.)



1. The combination in a thermostatic valve, of means providing a chamber and having an inlet passage and an outlet passage communicating with said chamber, a valve casing having a portion fitting within the inlet passage and another portion projecting into said chamber, a valve movable in said casing, and means within said chamber having portions movable relatively to each other due to variations in temperature, said portions being operatively attached to the valve casing and to the valve to move the latter into and out of engagement with the inlet passage to close and open the same, substantially as described.

2. The combination in a thermostatic valve, of means providing a chamber and having an inlet passage and an outlet passage communicating with said chamber, a valve casing having a portion fitting within the inlet passage and another portion projecting into said chamber, a valve movable in said casing, means within said chamber and connected to the valve casing and to the valve, said latter means being operative due to the variation of temperature within said chamber to actuate said valve to close the inlet passage, substantially as described.

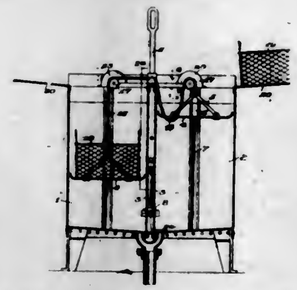
3. The combination in a thermostatic valve, of means providing a chamber and having an inlet passage and an outlet passage communicating with said chamber, said inlet passage being tapered, a valve casing having a tapered portion fitting the tapered inlet passage, a valve slidable within said casing, and means within said chamber operative by variations of the temperature within the chamber and connected respectively to the valve casing and the valve to move the latter to open or close said inlet passage, substantially as described.

4. The combination in a thermostatic valve, of means providing a chamber and having an inlet passage and an outlet passage communicating with said chamber, said inlet passage being tapered, a valve casing having a tapered portion fitting the tapered inlet passage, a valve slidable within said casing, a ring fitting within said valve casing, and means within said chamber operative by variations of the temperature within the chamber and connected respectively to the valve casing and the valve to move the latter into and out of engagement with said ring to open and close said inlet passage, substantially as described.

5. The combination in a thermostatic valve, of means providing a chamber and having an inlet passage and an outlet passage communicating with said chamber, a valve casing having a portion fitting within said inlet passage and having another portion projecting into said chamber and being provided with an opening communicating with said inlet passage, a valve slidable within said valve casing, a rod carried by said valve, a pivot pin in said casing, a member within said chamber and operative due to variations in the temperature within said chamber, said member having two legs, means on said legs engaging said pin on the valve casing and said rod whereby the movement of the valve is effected to open and close said inlet passage, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,208,727. DISH-WASHING MACHINE. WILLIAM B. BARLEY, Rochester, N. Y. Filed Oct. 3, 1912. Serial No. 723,687. (Cl. 141—9.)



1. In a dish washing machine, the combination with a pair of receptacles, of a holder movable within each receptacle, a lever fulcrumed between the receptacles, guides arranged at the tops of the receptacles, and flexible connections passing over the guides from the holders to said lever.

2. In a dish washing machine, the combination with a pair of receptacles, of a holder movable within each receptacle, a lever fulcrumed between the receptacles, sprocket wheels arranged at the tops of the receptacles, flexible connections passing over the sprockets from the holders to said lever, and means connected with the sprocket wheels for turning the same whereby to automatically elevate the holders.

3. In a dish washing machine, the combination with a pair of receptacles, of guides at the tops of the receptacles, a holder movable within each receptacle, means for elevating the holders comprising a lever fulcrumed at a point near the bottoms of the receptacles, and flexible connections between the lever and the holders, said connections passing around said guides and being attached to the lever at points adjacent to the plane of the tops of the receptacles.

4. In a dish washing machine, the combination with a pair of receptacles, of guides at the tops of the receptacles, a holder movable within each receptacle, a lever fulcrumed at a point near the bottoms of the receptacles, flexible connections between the lever and the holders passing over said guides, and automatic elevating means operatively connected to the holders and acting to elevate the holders independently of said lever.

1,208,728. SUPPORTING-CASE FOR VACUUM-JARS. FREDERICK W. BARTLETT, Caldwell, RICHARD B. GRANT, Orange, and EDWARD PAYSON COOKE, Paterson, N. J. Filed Jan. 13, 1916. Serial No. 71,877. (Cl. 150—52.)



1. Supporting means for receptacle holders, comprising a removable flexible jacket adapted to embrace the holder and having connectible and disconnectible parts adapting it to be attached to or removed from the receptacle holder, and a sling or suspending strap having a detachable or cast-off connection to the said jacket.

2. Supporting means for receptacle holders, comprising a removable flexible jacket adapted to embrace the holder and having connectible and disconnectible parts adapting it to be attached to or removed from the receptacle holder, and a sling or suspending strap both of whose ends have a detachable or cast-off connection to said jacket.

3. Supporting means for receptacle holders, comprising a removable flexible jacket adapted to embrace the holder and having connectible and disconnectible parts adapting it to be attached to or removed from the receptacle holder, and a sling or suspending strap carrying hooks at both of its ends adapted for detachable connection to the jacket.

4. Supporting means for receptacle holders, comprising a removable flexible jacket adapted to embrace the holder and having connectible and disconnectible parts adapting it to be attached to or removed from the receptacle holder, a sustaining strap extending down the sides of the jacket and across the lower end thereof to serve as a support for the holder, and suspending means for said jacket.

5. Supporting means for receptacle holders, comprising a removable flexible jacket adapted to embrace the holder and having connectible and disconnectible parts adapting it to be attached to or removed from the receptacle holder, a sustaining strap extending down the sides of the jacket and across the lower end thereof to serve as a support for the holder, and a suspending strap or sling connected to the respective side portions of the sustaining strap.

[Claims 6 to 18 not printed in the Gazette.]

1,208,729. STATION-INDICATOR. JOHN F. BATES, Philadelphia, Pa. Filed Mar. 20, 1916. Serial No. 85,251. (Cl. 40—101.)



1. A station indicator comprising a casing, a drum in the casing, name cards movable over the drum, a star wheel secured to turn with the drum, a bearing bracket, a journal bolt secured to the bracket, an arm pivotally connected to the journal bolt, a pawl connected to said arm and adapted to engage the star wheel when the arm is oscillated, and removable means forming a guide-way, together with the side of the casing for the arm, said journal bolt permitting the arm to be moved to either side of the star wheel when said means is removed, whereby the drum may be turned in either direction, substantially as described.

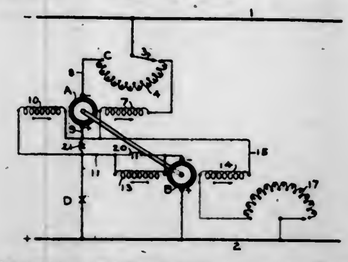
2. A station indicator comprising a casing, a drum in the casing, name cards movable over the drum, means secured to turn with the drum, a bearing bracket, a journal bolt secured in the bearing bracket, an arm pivotally connected to the journal bolt, a pawl movably connected to the arm and adapted to engage and move said means when the arm is oscillated, and a spring connected to said bolt and to the arm and pawl to hold them in their normal position, substantially as described.

3. A station indicator, comprising a casing, a drum in the casing, name cards movable over the drum, a star wheel secured to turn with the drum, a bearing bracket on the outside of the casing, a journal bolt secured in the bearing bracket, an arm pivotally connected to the journal bolt, a pawl connected to the free end of the arm and adapted to engage the star wheel when the arm is oscillated, and said journal bolt permitting the arm to be moved to either side of the star wheel, whereby the drum may be turned in either direction, substantially as described.

4. A station indicator, comprising a casing, a drum in the casing, name cards movable over the drum, a star wheel secured to turn with the drum, a bearing bracket on the outside of the casing, a journal bolt secured in the bearing bracket, an arm pivotally connected to the journal bolt, a pawl connected to the free end of the arm and adapted to engage the star wheel when the arm is oscillated, a guide bar pivotally connected to the casing and behind which the pawl and free end of the arm are adapted to move, a locking device normally holding the guide bar in position, but permitting the same to move and allow the arm to be swung to the opposite side of the star wheel, substantially as described.

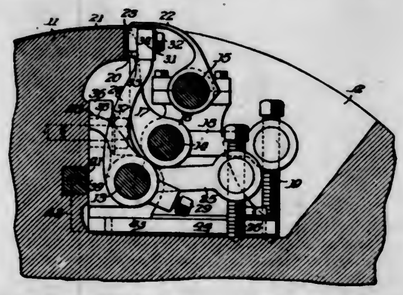
1,208,730. MOTOR-GENERATOR SET. CHARLES J. BEST, Delphos, Ohio. Filed Apr. 2, 1913. Serial No. 758,424. (Cl. 171—224.)

1. In combination with a translating device, a motor generator set for regulating the current to said translating device, the motor of the set having a series field winding and a shunt field winding, the two windings wound cumulatively, the generator of the set having a series field winding and a shunt field winding, the two windings of the generator wound differentially, the shunt field winding of the generator being connected in series with a divided circuit comprising the shunt field winding of the generator and the armature of the motor in parallel and the series field winding of the motor being connected in series with the translating device.



2. In combination with a source of current supply and a translating device, a motor generator set for regulating the current to said translating device, the motor of the set having a series field winding and a shunt field winding, the two windings wound cumulatively, the generator of the set having a series field winding and a shunt field winding, the two windings of the generator wound differentially, the shunt field winding of the generator being connected in series with a divided circuit comprising the shunt field winding of the motor and the armature of the motor in parallel and the series field winding of the motor being connected in series with the translating device, a resistance connecting one terminal of the shunt field of the motor with the motor armature and means for making connection with the resistance at points intermediate the terminals thereof, with the source of current supply.

1,208,731. ADJUSTABLE GRIPPER-PAD. JOSEPH R. BLAINE, Oak Park, Ill., assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 6, 1916. Serial No. 89,295. (Cl. 101—115.)



1. The combination with a printing press cylinder, the grippers, the gripper pads, and the gripper pad support, of means to adjustably position the pads on said supports radially of the cylinder, said means comprising a cam member acting on the pad and a portion of the support, and means to clamp the pad and support together in adjusted position.

2. The combination with a printing press cylinder, the grippers, the gripper pads, and the gripper pad support, of means to adjustably position the pads on said supports radially of the cylinder, said means comprising a pin rotatably mounted in the support and having an eccentric portion bearing upon the lower face of the pad, means for rotating said pin, and means to clamp the pad and support together in adjusted position.

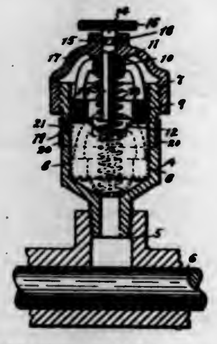
3. The combination with a printing press cylinder, the grippers, the gripper pads, and the gripper pad supports, of means to adjustably position the pads on said supports radially of the cylinder, said means comprising a pin rotatably mounted in the support and having projecting therefrom an eccentric stud bearing upon the lower face of the pad, means to angularly position the pin comprising a segment plate mounted thereon and having an arcuate slot, and means to clamp the pin in adjusted position comprising a set screw passing through the slot into the gripper pad, said set screw acting to clamp the segment plate, the support and the gripper pad together in adjusted relation.

4. The combination with a printing press cylinder, and the grippers, of a shaft, arms projecting from said shaft, a gripper pad carried by each of said arms, and means to adjustably position the pads on said arms radially of the cylinder, said means comprising a cam member acting on the pad and a portion of the arm, and means to clamp the pad and arms together in adjusted position.

5. The combination with a printing press cylinder, and the grippers, of a shaft, arms projecting from said shaft, a gripper pad carried by each of said arms, and means to adjustably position the pads on said arms radially of the cylinder, said means comprising a cam member mounted on the arm and bearing on the pad, and means to clamp the pad and arm together in adjusted position.

[Claims 6 to 10 not printed in the Gazette.]

1,208,732. GREASE-CUP. LOUIS A. BOCKSTAHLER, East Cleveland, Ohio. Filed Aug. 28, 1916. Serial No. 117,264. (Cl. 184—38.)



1. The combination of a grease cup, and a follower therein comprising a ring, a flexible diaphragm fixed to the ring and extending across the opening therein, and a spring pressing against the rear side of the diaphragm and tending to extend the same beyond the face of the follower.

2. The combination of a grease cup having a cap thereon, a follower movable in the cup and comprising a ring, a yoke connected thereto, a flexible diaphragm across the inner face of the ring, a spring between said diaphragm and yoke, and an operating rod extending through the cap and engaged with the yoke.

1,208,733. BROOM-BRIDLE. CHARLES BOUFFIER, New York, N. Y. Filed Jan. 28, 1916, Serial No. 74,792. Renewed Sept. 22, 1916. Serial No. 121,691. (Cl. 15—23.)

1. An improved attachment for brooms comprising guard members U-shaped in cross-section, rods pivotally connecting at their opposite ends to the lower ends of said members, a relatively shorter rod connecting the upper ends of said members at one side, and a rod hingedly connected at the other side to one of said members and adapted to detachably engage the other of said members.

2. An improved attachment for brooms, comprising guard members, U-shaped in cross-section, rods connecting the lower ends of said members, a relatively shorter rod connecting the upper ends at one side, and a rod hingedly connected at the other side to one of said members, and provided at its forward end with a slightly rearwardly, downwardly and inwardly inclined portion, the other of said members being provided with a plurality of openings whereof the upper edges are swaged inward, the said forward end of the said hingedly connected rod being adapted to detachably engage one of said openings by a swinging movement in a substantially vertical plane.



1,208,734. SASH-HOLDING DEVICE. JAMES H. BOYE and EBIK S. HAGEN, Chicago, Ill., assignors to James H. Boye Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 22, 1916. Serial No. 105,127. (Cl. 16—54.)



1. A sash support comprising a casing adapted to be secured upon the top of a sash rail, having upstanding side walls at one end thereof, a carrier, including a curved rear wall and parallel side walls pivotally suspended between said casing side walls, a roller journaled in said carrier so as to project beyond the end of said casing, a locking roller disposed between said first mentioned roller and the rear wall of said carrier in position to wedge between said roller and said wall so as to lock the roller against rotation in one direction, and a spring for yieldingly swinging said carrier outwardly on its pivot.

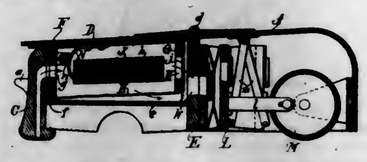
2. A sash support, comprising an elongated flat bottom casing adapted to be mounted upon the top of a sash rail and provided at one end with upwardly extending side portions, a roller carrier consisting of a back and side walls pivotally suspended between said upwardly extending portions, a roller journaled in fixed bearings in said carrier, a spring arranged in said casing to urge the lower end of said carrier outwardly, and a gravity-actuated locking device loosely positioned in the angle between said roller and said back wall of the carrier for locking said roller against rotation in one direction, the axis of said roller being disposed outwardly of a vertical line through said carrier pivot and beneath said pivot so that a toggle thrust effect is produced against the window frame groove when said roller is locked.

3. A sash support, comprising a casing consisting of a body member open at one end and having vertically extended side walls at said open end and a cover member having depending flanged side walls adapted to be secured to a sash rail, a bodily movable roller mounted in the open end of said body member between said vertically extended side walls, a spring in said casing tending to force said roller outwardly of said open end, an adjusting screw

in the other end of said body member for tensioning said spring, and means limiting the rotation of said roller to one direction.

4. A sash support, comprising a casing consisting of a body member open at one end and having vertically extended side walls at said open end and a cover member having depending flanged side walls adapted to be secured to a sash rail, a roller-carrier pivotally suspended from and between said vertically extended side walls, a roller journaled in said roller carrier, a spring in said casing abutting at one end against said roller-carrier, an adjusting screw in the other end of said casing abutting against the other end of said spring, and means limiting the rotation of said roller to one direction.

1,208,735. VACUUM-CLEANER. HOMER L. BOYLE, Lansing, Mich., assignor of one-half to Samuel H. Davis, Lansing, Mich. Filed Nov. 26, 1915. Serial No. 63,540. (Cl. 15—60.)



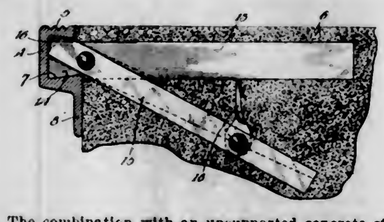
1. In a vacuum cleaner, the combination with a casing having an air-tight compartment, of air-suction devices in communication with the said air-tight compartment, means for operating the said air-suction devices, a nozzle having an opening, the said air-tight compartment having an opening registering with the opening of the nozzle, a removable dust receptacle having an opening registering with the said opening in the said compartment, the said receptacle having a portion provided with air-filtering material within the said air-tight compartment, the said air-tight compartment having an opening for the removal of the said dust receptacle, means for closing the said opening when the said receptacle is in the said compartment, and devices arranged to exert force upon the said receptacle and the said closing means at the same time whereby said opening of said receptacle is held to the opening of said compartment registering with the opening of the nozzle and the said compartment closing means are held closed.

2. In a vacuum cleaner, the combination with a casing having an air-tight compartment, of air-suction devices in communication with the said air-tight compartment, means for operating the said air-suction devices, a nozzle having an opening, the said air-tight compartment having an opening registering with the said opening of the nozzle, a rigid removable dust receptacle having an opening registering with the said opening in the said compartment, the said receptacle having a portion provided with air-filtering material within the said air-tight compartment, the said compartment having an opening for the removal of the said receptacle, means for closing the said opening when the said receptacle is in the said compartment, and spring devices arranged to exert force upon the said receptacle and the said closing means at the same time whereby the said rigid receptacle is pressed bodily toward the nozzle and the opening of said receptacle is held to the opening of the compartment registering with the said opening of the nozzle and the said closing means are held closed.

3. In a vacuum cleaner, the combination with a casing having an air-tight compartment, a movable top covering the compartment, air-suction devices in communication with the said compartment, means for operating the air-suction devices, a nozzle opening into the said compartment, a removable dust receptacle having a front wall provided with an opening registering with the said opening to the nozzle, the said receptacle having its top open near the said front wall, and means including springs attached to said movable top of said compartment and devices carried on the inside of said front wall of the receptacle and constructed to engage the said springs whereby the front of the receptacle is held against the front of said compartment and the said top is at the same time held closed.

4. In a vacuum cleaner, the combination with a casing, of a driving wheel in the rear of the casing, an air-tight compartment formed in the front of the casing, the said casing having a hinged top portion removably covering the said compartment, air-suction means arranged in the rear of the casing and in communication with the said compartment, the said air-suction means being connected with and operated by the said driving wheel, a nozzle arranged at the front of the casing and opening into the said compartment, a removable dust receptacle located in the said compartment and having a front opening arranged to register with the said opening in the nozzle, and means including spring members attached to the said hinged top of the casing and arranged to act against the front of the said receptacle to hold the said receptacle yieldingly in the said compartment and at the same time to hold the said front opening of the receptacle in conjunction with the said opening of the nozzle.

1,208,736. CORNER-PROTECTOR ANCHOR. JACOB G. BRAUN, Chicago, Ill. Filed Jan. 9, 1915. Serial No. 1,321. (Cl. 72—96.)



1. The combination with an unsupported concrete step, of a metal tread for the edge of the step having a dovetail groove into which the concrete enters, and an anchor having movable means pivoted thereto for securing it at one end in the groove and embedded in the concrete and to hold the anchor in position along the tread and to fix the tread in the step.

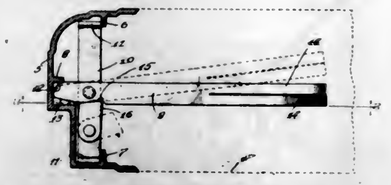
2. The combination with a structure of plastic material having a projecting edge or corner, of a metal protecting member for said corner comprising a groove in which the plastic material enters before it hardens, and an anchor removably inserted in the groove with a locking member pivotally attached thereto and movable to bind it firmly in the groove.

3. The combination with a structure of plastic material having a projecting edge or corner, of a metal protecting member for said corner comprising a groove in which the plastic material enters before it hardens, an anchor having an end adapted to be inserted in the groove, and a locking member pivoted to the said end having a portion to engage the groove and means to releasably lock the anchor to the metal protector.

4. The combination with a structure of plastic material having a projecting edge or corner, of a metal protecting member for said corner comprising a groove in which the plastic material enters before it hardens, an anchor consisting of a metal strip with an end adapted to be freely inserted and coöperating with one side of the groove, and a locking bar pivoted to the strip adjacent the said end having an extremity to coöperate with the other side of the groove and means to hold the bar in locking position with respect to the strip and the groove.

5. The combination with a concrete step, of a molding for the edge of the step with a dovetail groove at the back into which the concrete is adapted to enter when in a plastic state, an anchor for the molding embedded in the concrete and consisting of a metal strip with the side of one end formed to coöperate with one side of the groove, and a locking bar pivoted adjacent this end and having its adjacent end formed to coöperate and engage the opposite side of the groove and with its other end bent so that it springs below the strip when the bar is rotated into the locking position to hold the locking bar releasably in this position.

1,208,737. ANCHOR FOR CASINGS AND THE LIKE. JACOB G. BRAUN, Chicago, Ill. Filed Jan. 9, 1915. Serial No. 1,322. (Cl. 72—121.)



1. An anchor of the class described comprising a cross-piece, a member pivoted thereto having a split extremity of which the ends are bent in opposite directions, and a lock pivoted to the cross-piece and adapted to engage the member for holding it in a predetermined position.

2. The combination with a casing having inward projections therefrom, of a cross piece adapted to engage some of the projections, and a member pivoted to the cross piece with a cam surface at the end adapted to engage the casing and to press the cross piece against its projections, one of the projections constituting a stop for the pivoted member.

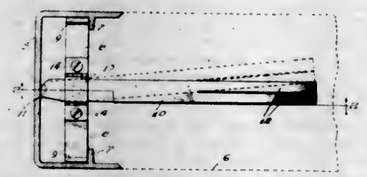
3. The combination with a casing comprising opposite inward projections and an intermediate projection, of an anchor therefor comprising a cross piece adapted to engage the opposite projections, and a member pivoted thereto having a wedging surface at the end to force the cross piece against its projections and adapted to engage the transverse projection to hold the member in position.

4. An anchor of the class described, comprising a cross piece, a member pivoted thereto, and a lock pivoted to the cross piece and adapted to engage the member for holding it in a predetermined position.

5. An anchor of the class described, comprising a cross piece for engaging a member to be anchored, a member pivoted to the cross piece having a wedging surface at one end for holding the anchor in position, and a locking member for engaging the pivoted wedging member to hold it in a predetermined position.

[Claims 6 and 7 not printed in the Gazette.]

1,208,738. ANCHOR FOR CASINGS AND THE LIKE. JACOB G. BRAUN, Chicago, Ill. Filed Jan. 9, 1915. Serial No. 1,323. (Cl. 72—121.)



1. An anchor for a casing having opposite projections comprising a cross-piece both ends of which engage the casing projections, a member pivoted to the cross-piece intermediate its ends, and means for securing the member to the cross-piece in any desired position.

2. An anchor for a casing having opposite sides comprising a cross-piece both extremities of which loosely engage the inside of said casing sides, a member pivoted thereto, and locking means for fastening the member to the cross-piece at any desired angle.

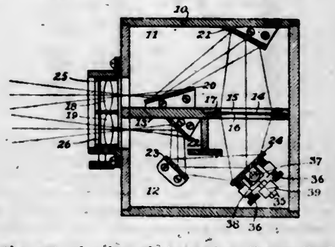
3. An anchor for a hollow casing with opposite sides comprising a cross-piece of which both ends engage the opposite sides of the casing, a pivoted wedging member secured thereto, and a nut and screw fastening device for holding the wedging member in any desired position with respect to the cross-piece.

4. The combination with a casing having opposite inward projections, of an anchor for the casing comprising a cross-piece adapted to contact with the said projections, a member pivoted thereto having a wedging surface for engaging the casing to bind the cross-piece against the projections, and locking means for securing the pivoted member to the cross-piece in any desired position.

5. The combination with a casing having opposite inward projections, of an anchor for the casing comprising a cross-piece adapted to contact with the said projections, a member pivoted thereto having a wedging surface for engaging the casing to bind the cross-piece against the projections, and locking means comprising a nut and screw device for holding the pivoted member at any desired angle with respect to the cross-piece.

[Claim 6 not printed in the Gazette.]

1,208,739. COLOR PHOTOGRAPHY. PERCY DOUGLAS BREWSTER, East Orange, N. J. Filed Jan. 29, 1914, Serial No. 815,153. Renewed May 11, 1916. Serial No. 96,942. (Cl. 95—2.)



1. In the art of color photography, the method comprising projecting in different colors and upon opposite sides of a film sensitized on both sides independent images of the same object, chemically treating both sides of film to produce photographic images thereon, and coloring the two resulting images in different colors.

2. In the art of color photography, the method comprising projecting in light of one spectral group of colors upon one side of a film sensitized on both sides an image of an object and upon the other side of the film, but in light of a different group of colors, an image of the same object, chemically treating both sides of the film to produce photographic images thereon, and coloring the resulting images in correspondence with the colors of the light with which they were produced.

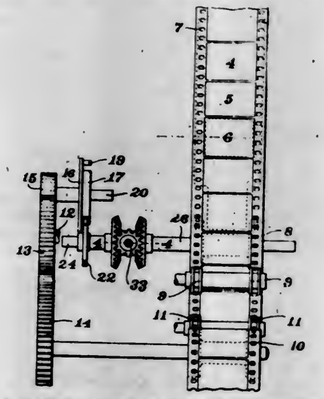
3. In the art of color photography, the herein described method, comprising projecting on one side of a film sensitized on both sides an image of the object which is to be photographed and upon the other side in light substantially devoid of rays above yellow in the spectrum an image of the same object, chemically treating both sides of the film to produce photographic images thereon, and coloring the two resulting images with different colors, one with a color above red and the other with a color below green in the spectrum.

4. In the art of color photography, the herein described method, comprising projecting in light predominantly green upon one side of a film sensitized on both sides an image of an object which is to be photographed and upon the other side of the film in light predominantly red an image of the same object, chemically treating both sides of the film to produce photographic images thereon, and coloring the resulting images different colors, one with a color above red and the other with a color below green of the spectrum.

5. In the art of color photography, the herein described method, comprising projecting, upon opposite sides of a film sensitized on both sides, centrally congruent but different sized images of the same object, one image being in light of one spectral group of colors and the other in light of another spectral group; chemically treating both sides of the film to produce photographic images thereon; and coloring the two resulting images in different colors.

[Claims 6 to 20 not printed in the Gazette.]

1,208,740. FRAMING DEVICE FOR MOVING-PICTURE MACHINES. AUSTIN D. BRIXEY, New York, N. Y. Filed Feb. 19, 1915. Serial No. 9,243. (Cl. 88—18.)



1. In a moving picture machine, the combination with a film sprocket, of driving means therefor and an adjustable connection between said driving means and said sprocket comprising a pair of beveled gears respectively fixed to a pair of rotatable shafts and a rotatably mounted gear connecting said beveled gears and adjustable about their axis, the axis of said rotatably mounted gear being normally stationary.

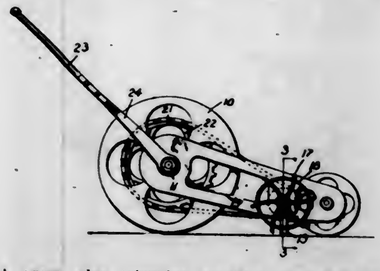
2. In a moving picture machine, the combination with a film driving sprocket of a beveled gear driving said sprocket, intermittent driving means, a second beveled gear driven thereby, and beveled gears connecting the aforesaid beveled gears and adjustable about their axis.

3. In a moving picture machine, the combination with a film sprocket, of driving means therefor and an adjustable connection between said driving means and sprocket comprising driving and driven shafts in axial alinement, bevel gears fixed to said shafts respectively, an intermediate bevel gear connecting the aforesaid bevel gears, a carrier on which said intermediate bevel gear is rotatably mounted, said carrier being normally stationary, coaxial with said shafts and adjustable about said shafts, and means for holding said carrier stationary.

4. In a moving picture machine, the combination with a film sprocket, of driving means therefor and an adjustable connection between said driving means and sprocket comprising driving and driven shafts in axial alinement, bevel gears fixed to said shafts respectively, a sleeve between said gears receiving the ends of said shafts, trunnions extending from said sleeve, bevel gears rotatably mounted on said trunnions and meshing with the aforesaid bevel gears, means for adjusting said sleeve about its axis, and means for holding it in adjusted stationary position.

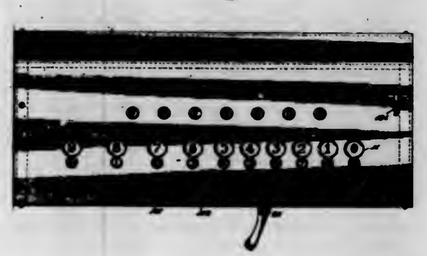
1,208,741. GRASS-EDGE-TRIMMING MACHINE. JOHN BROWN, New York, N. Y. Filed June 3, 1915. Serial No. 32,022. (Cl. 56—19.)

1. A grass edge trimming machine comprising side plates, a shaft journaled therein near their forward ends and provided with a supporting roller, a second shaft journaled in the side plates adjacent their rear ends and provided with a driving roller, a fixed knife extending downwardly from one of the side plates to the level of the lowest point in the periphery of said rollers, a cutter shaft journaled in the side plates between the two rollers, means for rotating said shaft from one of said rollers, and blades carried by said shaft to coöperate with the fixed knife.



2. A grass edge trimming machine comprising side plates, a shaft journaled therein near their forward ends and provided with a supporting roller, a second shaft journaled in the side plates adjacent their rear ends and provided with a driving roller, a fixed knife extending downwardly from one of the side plates to the level of the lowest point in the periphery of said rollers, a cutter shaft journaled in the side plates between the two rollers, a chain drive from the shaft of the driving roller to said cutter shaft, curved blades carried by said cutter shaft to coöperate with the fixed knife, and a handle mounted upon the shaft of the driving roller.

1,208,742. COMPUTING-MACHINE. GEORGE BROWNING, Chicago, Ill. Filed Mar. 9, 1914. Serial No. 823,569. (Cl. 235—82.)



1. In a computing machine a vertically movable carriage and a plurality of keys mounted upon said carriage, each adapted to successively move said carriage a predetermined distance, in combination with means for successively limiting the movements of said carriage and means for locking the carriage in each position.

2. In a computing machine, a vertically movable pivotally mounted carriage and a plurality of keys mounted upon said carriage adapted to successively move said carriage a predetermined distance, in combination with means for limiting the successive movements of said carriage, and means for locking the carriage in each position.

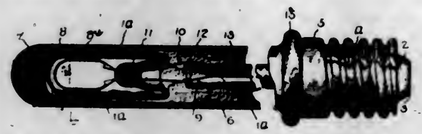
3. In a computing machine, a vertically movable carriage and a plurality of independently movable keys mounted upon said carriage each adapted to successively move said carriage a predetermined distance, in combination with means for limiting the successive movements of said carriage and means for locking the carriage in each position.

4. In a computing machine a vertically movable carriage and a plurality of keys mounted upon said carriage, each adapted to successively move said carriage a predetermined distance, in combination with a movable stop for limiting the successive movements of said carriage and means for locking the carriage in each position.

5. In a computing machine, a vertically movable carriage and a plurality of keys mounted upon said carriage, each adapted to successively move said carriage a predetermined distance, in combination with means operable by the several keys for limiting the successive movements of said carriage and means for locking the carriage in each position.

[Claims 6 to 36 not printed in the Gazette.]

1,208,743. INCANDESCENT ELECTRIC LAMP. WILLIAM J. CAMERON, Chicago, Ill. Filed Feb. 14, 1916. Serial No. 78,125. (Cl. 128—24.)



1. An incandescent electric lamp comprising a plug, a glass tube extending therefrom, a bulb, a filament therein, conductors leading from said filament and out of said bulb, respectively upon the outside and inside of said glass tube to terminals in said socket, a cylinder of heat-insulating material cast about said bulb, conductors and tube, and a tubular casing having a lenticular closure in the end thereof surrounding the cylinder of heat-insulating material and being cemented in said plug.

2. An incandescent electric lamp comprising a plug, a glass tube extending therefrom, a bulb, a filament therein, conductors leading from said filament and out of said bulb respectively upon the outside and inside of said glass tube to terminals in said socket, a cylinder of heat-insulating material cast about said bulb, conductors and tube, and a tubular casing of white glass, having a lenticular closure of clear glass in the end thereof surrounding the cylinder of heat-insulating material and being cemented in said plug.

3. An incandescent electric lamp comprising a plug, an insulating tube extended therefrom, a light bulb, conductors leading from said bulb to said plug and respectively disposed exteriorly and interiorly of said tube, a tubular casing extending from said plug and surrounding said bulb, conductors and tube and provided with a light-transmitting member at its outer end, and heat-insulating substance interposed between said casing and the elements inclosed therein.

4. An incandescent electric lamp comprising an outer casing, a light bulb disposed therein, an insulating tube also disposed in said casing, conductors leading from said bulb and respectively disposed exteriorly and interiorly of said tube, heat-insulating substance interposed between said casing and the elements inclosed therein, and means connecting said conductors with a suitable electric circuit.

1,208,744. LINERS FOR THE CYLINDERS OF INTERNAL-COMBUSTION ENGINES. GEORGES EUGÈNE CANHAC, St.-Denis, France, assignor to Societe Anonyme Des Etablissements Delaunay-Belleville, St.-Denis, France, a Corporation of France. Filed Apr. 17, 1916. Serial No. 91,718. (Cl. 123—193.)

1. The combination with the cylinder of an internal combustion engine, of a liner therefor having its upper portion laminated, for the purpose described.

2. The combination with the cylinder of an internal combustion engine, of a liner therefor, and an annular ring encircling the upper portion of said liner to augment the thickness of said upper portion.

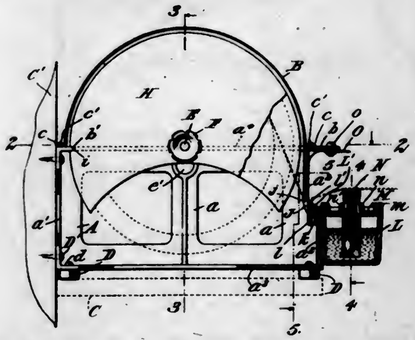
3. The combination with the cylinder of an internal combustion engine, of a liner therefor, and an annular ring associated with the upper portion of said liner, at least a portion of said ring serving to augment the thickness of the liner, and said ring at the portion of its greatest thickness being laminated, for the purpose described.



4. The combination with the cylinder of an internal combustion engine, of a liner therefor, and an annular ring associated with the upper portion of said liner, at least a portion of said ring serving to augment the thickness of the liner, and an additional ring associated with one portion of said first-named ring and serving to augment the thickness thereof.

5. The combination with the cylinder of an internal combustion engine, of a liner therefor, and a ring screwed up on said liner to augment the thickness thereof, the threaded connection between the liner and said ring being of the buttress thread type.

1,208,745. MACHINE FOR DISPENSING AND MOISTENING GUMMED TAPES. SPENCER C. CARY and CHARLES S. WEEKS, Brooklyn, N. Y.; said Weeks assignor to said Cary. Filed June 21, 1911. Serial No. 634,435. (Cl. 91—14.5.)



1. In a device for dispensing and moistening materials, the combination of a container provided with a slot through which a strip of material is adapted to be drawn, and a reservoir coöperating with said container and positioned to reduce the area of the slot in said container, said reservoir being removable whereby the area of the slot in the container is enlarged to obtain free access to an end portion of the material.

2. In a device for dispensing and moistening material, the combination of a container provided with a slot through which a strip of material is adapted to be drawn, and a reservoir having a member positioned to partially close the slot and thereby decrease the width thereof, said member being removable for enlarging the slot and permitting free access to an end portion of said material.

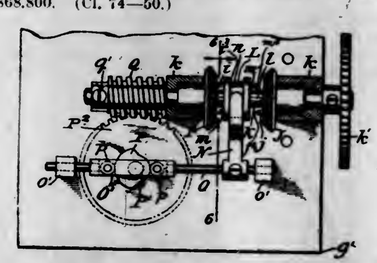
3. In a device for dispensing and moistening material, the combination of a container provided with a slot through which a strip of material is adapted to be drawn, one edge or wall of the slot being positioned for contact with said strip to guide the latter when drawing it for use, and a reservoir having means positioned to partially close said slot and to diminish the area thereof, said means being adjacent to the path of the strip and adapted to contact therewith for guiding the latter, said guiding edge or wall of the slot and the guiding means of the reservoir being so related to the path of the strip as to engage with the respective faces of said strip.

4. In a device for dispensing and moistening material, the combination of a container provided with a slot through which a strip of material is adapted to be drawn, a reservoir having a member positioned to partially close said slot and thereby decrease the width thereof when said reservoir is in an operative position, and means for detachably supporting said reservoir upon the container, one edge or wall of the slot and an edge of said member being parallel to each other to produce a narrow space through which the strip of material is to be drawn, the width of said space being less than that of the slot.

5. In a device for dispensing and moistening material of the kind specified, a container for roll material, and a moisture supplying reservoir, said reservoir being provided with hooks for detachably retaining the reservoir in operative position relative to said container, and said container and reservoir coöperating to produce a guide for said material.

[Claims 6 to 11 not printed in the Gazette.]

1,208,746. **REVERSING MECHANISM FOR ELECTRICALLY-OPERATED WASHING-MACHINES.** JOHN W. CAVANAGH, New York, N. Y., assignor to Mary E. Gugel, Oakhurst, N. J. Filed Oct. 27, 1914. Serial No. 868,800. (Cl. 74—50.)



1. In a reversible drive mechanism, the combination with a power shaft, and a driven shaft adapted to impart motion to a part to be driven, of reversible mechanism positioned intermediate said power shaft and the driven shaft, said reversible mechanism embodying a plurality of gears mounted loosely on the driven shaft, said gears being positioned in facing relation to each other and provided on their opposing faces with clutch pins, a clutch member splined to the driven shaft and positioned intermediate said facing gears, said clutch member being provided with yieldable clutch pins in the path of which are positioned the clutch pins of said facing gears, means for operating the clutch member at intervals so as to disengage it from one gear and make it fast with the other gear alternately, and means operated by the power shaft for driving said gears, said clutch pins of the clutch member being yieldable to contact with a clutch pin of one gear or the other under acquired momentum of the part to be driven transmitted through the driven shaft.

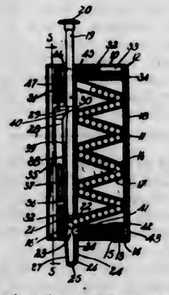
2. In a reversible drive mechanism, the combination with a power shaft, and a driven shaft adapted to impart motion to a part to be driven, of a plurality of gears mounted loosely on said driven shaft, said gears being in facing relation, a clutch member splined to the driven shaft and positioned intermediate said facing gears so as to be made fast with either gear, means for driving said gears, a shipper rod slidably supported adjacent to the driven shaft is provided with a yoke having spaced antifriction rollers, means connecting said shipper rod with the clutch member for imparting sliding movement to the latter, a shaft mounted separately from the driven shaft, a cam rotatable with said separately mounted shaft, said cam being positioned within the yoke and between the rollers of the shipper rod and operating to impart reciprocating movement thereto, a worm on the driven shaft, and a worm gear on the separately mounted shaft whereby the worm and worm gear coöperate in driving the separately mounted shaft from the driven shaft.

3. In a reversible drive mechanism, the combination with a power shaft, and a driven shaft adapted to impart motion to a part to be driven, of a plurality of gears loose on the driven shaft, a clutch member splined on the driven shaft and positioned intermediate said gears, means for driving the gears, clutching means on the gears and clutching means on opposite sides of the clutch member to alternately engage the gears for coupling said clutch member to one gear or the other according as the driven shaft is to be rotated in one direction or the other, said clutching means of the clutch member being axially yieldable to acquired momentum of the part to be driven transmitted through the driven shaft for precluding undue frictional contact by causing slip at the moment of engagement between the clutch member and one of said gears.

4. In a reversible drive mechanism, the combination with a driving gear, a driven shaft having spaced driven gears loosely mounted thereon and meshing with the driving gear, clutch pins on the driven gears, a clutch member splined on the driven shaft and having yieldable pins to coact with the pins of the driven gears, mechanism for reciprocating the clutch member to alternately engage the clutch pins, and means on the driven shaft for actuating said mechanism.

5. In a reversible drive mechanism, the combination with a driving gear, a driven shaft having spaced driven gears loosely mounted thereon and meshing with the driving gear, clutch pins on the driven gears, a clutch member splined on the driven shaft and having yieldable pins to coact with the pins of the driven gears, a shipper rod connected with said clutch member and provided with a yoke, a cam mounted for movement in said yoke to shift the shipper rod and clutch member, and means rotatable by the driven shaft for imparting movement to said cam.

1,208,747. **LIGHTER.** DANIEL L. CHANDLER, Ayer, and JOHN H. TRAYNE, Groton, Mass. Filed Feb. 13, 1915. Serial No. 8,063. (Cl. 67—7.)



1. A lighter having, in combination, a casing having a chamber adapted to contain a pellet, a container in said casing opening into said chamber and capable of holding a plurality of pellets, said chamber having a second opening thereinto, a holder for one of said pellets slidable on said casing in said chamber and constructed and arranged to transfer a pellet from said container opening to said second opening and a friction member arranged to contact with one of said pellets while said pellet is positioned by said holder at said second opening, said friction member being movable relatively to said holder, whereby said pellet may be ignited.

2. A lighter having, in combination, a casing having a chamber adapted to contain a pellet, a raceway in said casing having an opening into said chamber and capable of holding a plurality of pellets, said chamber having a second opening thereinto, a yieldingly arranged stop arranged to project into said chamber adjacent to said raceway opening, a holder for one of said pellets slidable on said casing in said chamber and constructed and arranged to transfer a pellet from said raceway opening to said second opening, said stop adapted to be pushed out of said chamber by said pellet and a friction member arranged to contact with one of said pellets while said pellet is positioned by said holder at said second opening, said friction member being movable relatively to said holder and casing whereby said pellet may be ignited.

3. A lighter having, in combination, a casing, a holder for a pellet slidable on said casing, a friction member arranged to contact with a pellet while said pellet is positioned by said holder, means on said friction member constructed and arranged to engage said holder, whereby both holder and friction means may be moved on said casing together, means arranged to disengage said friction member from said holder and means arranged to move said friction member relatively to said holder after said friction member has been disengaged therefrom, whereby a pellet having an exterior surface composed of material adapted to be ignited by friction may be ignited.

4. A lighter having, in combination, a casing, a holder for a pellet slidable on said casing, a friction member arranged to contact with a pellet while said pellet is positioned by said holder, a tooth on said friction member constructed and arranged to project into a recess in said holder, whereby both holder and friction member may be moved on said casing together, means on said casing arranged to disengage said tooth from said recess and a spring arranged to move said friction member relatively to said holder after said friction member has been disengaged therefrom, whereby a pellet provided with an exterior surface adapted to be ignited by friction may be ignited.

5. A lighter having, in combination, a casing having a chamber adapted to contain a pellet, a holder for said pellet slidable on said casing into said chamber, a stop at one end of said chamber, there being an opening into said chamber adjacent to said stop, whereby said pellet may be moved by said holder along said chamber and held against said stop, a friction member arranged to contact with said pellet while so held and movable by said holder in one direction and independently of said holder in the opposite direction, whereby a pellet having an exterior surface composed of inflammable material may be ignited.

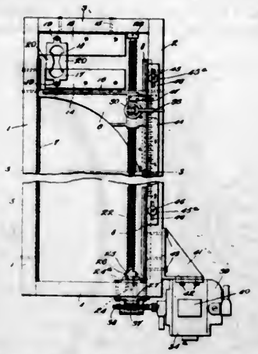
[Claims 6 to 8 not printed in the Gazette.]

1,208,748. **TESTING-MACHINE.** HARRY I. CHOW, Washington, D. C., assignor of one-half to Alfred D. Trempe, Utica, N. Y. Filed May 3, 1913. Serial No. 765,215. (Cl. 73—51.)

1. In a testing machine the combination of a tank; a carriage mounted to travel on the tank; a screw shaft journaled in the tank; a member carried by said carriage and movable into and out of engagement with the threaded shaft whereby to drive the carriage and permit of shifting thereof; mold sections mounted on said carriage and tank respectively; and means for operating the screw shaft, substantially as described.

2. In a testing machine the combination of a tank; a pair of guides mounted on the tank; a carriage mounted to travel on said guides; a screw shaft journaled in the tank; a threaded member carried by said carriage and movable into and out of engagement with the threaded shaft whereby to drive the carriage and permit of shifting thereof; members mounted on said tank and carriage for holding the respective ends of the material being tested; and means for operating the screw shaft.

3. In a testing machine the combination of a tank; a pair of guides mounted in the tank; a carriage mounted to travel on said guides; a screw shaft journaled in the tank and having driving connection with said carriage; members mounted on said tank and carriage for holding the respective ends of the material being tested; a screw and worm gear connected to the screw shaft; and a motor connected to drive said gear.



4. In a testing machine the combination of a tank; guides mounted in the tank; a carriage mounted to travel on said guides; a screw shaft journaled in the tank and adapted to drive said carriage; means for throwing said carriage into and out of driving engagement; a scale mounted on the tank; a pointer carried by the carriage and coöperable with said scale; members mounted on said tank and carriage for holding the respective ends of the material being tested; and a motor for operating said screw shaft.

5. In a testing machine the combination of a tank; guides mounted in the tank; a carriage mounted to travel on said guides; a screw shaft journaled in the tank and adapted to drive the carriage; a plate mounted on the tank; a plate mounted on the carriage; members carried by said plates for holding the respective ends of the material being tested; a scale mounted on the tank; a pointer carried by the carriage and coöperable with the scale; and a motor for operating said screw shaft.

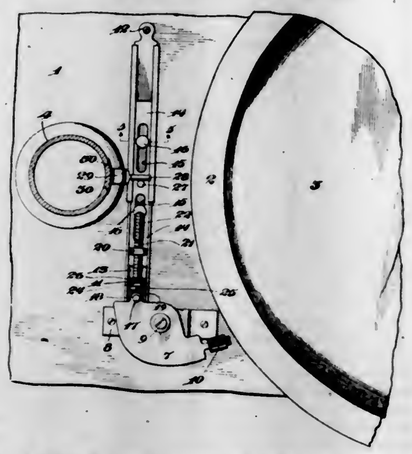
[Claim 6 not printed in the Gazette.]

1,208,749. **AUTOMATIC BRAKE FOR TALKING-MACHINES.** FRANCESCO CIRELLI, Philadelphia, Pa. Filed Mar. 22, 1916. Serial No. 85,786. (Cl. 74—46.)

1. The combination with a talking machine having a support, a turn table, and a movable tone arm, of a bracket, a plate movably carried by the bracket and including a brake shoe, said brake shoe being adapted to engage said turn table, two bars mounted to slide longitudinally and having limited independent movement, means for guiding said bars one with respect to the other, one of said bars being pivotally connected to said plate, a member on the other of said bars, means for adjusting the bars relatively to each other, and means on the tone arm adapted to engage said member and move the bars longitudinally to apply the brake, substantially as described.

2. In a device of the character described, the combination with a support, a turn table, and a pivoted tone arm, of a brake, a guide on the support, two bars mounted to slide in the guide and having a restricted independent movement, means for adjusting the bars relative to each other, a pin on one of the bars projecting through an opening in the brake, and coupling the parts together, an upwardly projecting pin on the other of said bars, and a finger on the tone arm adapted to engage the last-mentioned pin and move both bars and the brake in a direction to apply the brake, substantially as described.

3. In a device of the character described, the combination with a support, a turn table, and a pivoted tone arm, of a bracket on the support, a brake pivotally supported between its ends on the bracket and having a brake shoe at one end adapted to engage the turn table, and having an opening adjacent its other end, two bars mounted to slide relative to each other, a pin on one of the bars projecting through the opening in the brake, means for adjusting the bars relative to each other, a pin on the other of said bars, and a finger on the tone arm adapted to engage the last-mentioned pin, substantially as described.



4. In a device of the character described, the combination with a support, a turn table, and a pivoted tone arm, of a channel guide on the support, two bars mounted to slide in the guide and having slot and pin connection, upwardly projecting lugs on the respective bars, a screw mounted to turn in one of said lugs and having screw-threaded engagement with the other of said lugs, a head on said screw, an upwardly projecting pin on one of said bars, a finger on the tone arm adapted to engage said pin, and a brake adapted to engage the turn table and operatively connected with one of said bars, substantially as described.

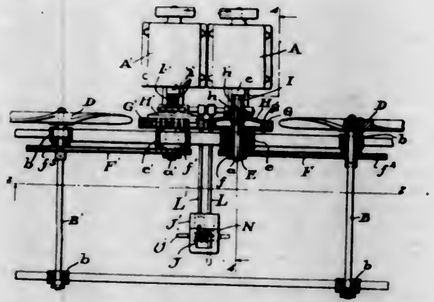
5. In a device of the character described, the combination with a support, a turn table, and a pivoted tone arm, of a channel guide on the support, two bars mounted to slide in the guide and having slot and pin connection, upwardly projecting lugs on the respective bars, a screw mounted to turn in one of said lugs and having screw-threaded engagement with the other of said lugs, a head on said screw, an upwardly projecting pin on one of said bars, a finger on the tone arm adapted to engage said pin, a pivoted brake on the support adapted to engage the turn table, and having an opening therein, a pin on one of said bars projecting through the opening in the brake, and a cross pin in the guide adapted to be engaged by the last-mentioned pin and limit the movement of the brake in one direction, substantially as described.

1,208,750. LAMP-GLOBE FIXTURE. EUGENE COCHRAN, Cleveland, Ohio. Filed July 7, 1915. Serial No. 38,454. (Cl. 240—115.)



A clip for shade hangers comprising a single strip of metal bent to form upper and lower arms with a spring connection at their outer ends whereby the arms will closely engage the upper and lower surfaces of the rim of a shade, the upper arm having a loop at its inner end to receive a suspending device and a downwardly projecting finger at the inner end of the loop, to engage within said rim, and the inner end of the lower arm being extended downwardly to fit against the outer side of the shade.

1,208,751. POWER AND TRANSMISSION MECHANISM. LEWIS R. COMPTON, East Orange, N. J. Filed Dec. 17, 1912. Serial No. 737,215. (Cl. 74—7.)



1. The combination of a plurality of engines, a plurality of parallel driven shafts, transmission mechanism coöperating with the engines and the driven shafts, a single lever, and controlling means operable by said single lever whereby one or all of said engines may be used for driving said shafts.

2. The combination of a plurality of engine shafts, a plurality of parallel driven members, a train of gears certain of which are mounted directly on said engine shafts, said train of gears operating to transmit the power of one or all of said engine shafts simultaneously to said independent driven members, and means for rendering inactive one or all of said gears whereby either of said engines may be employed to impart motion to the driven members without affecting the inactive engine or engines.

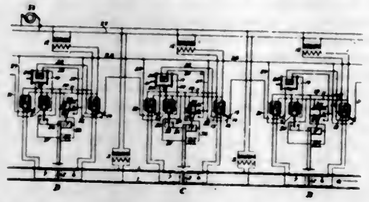
3. The combination of a plurality of engines, a plurality of countershafts, driven mechanism, means connecting said countershafts with the driven mechanism, intermeshing gears loosely mounted on the shafts of said engines, separate clutch mechanisms whereby said gears may be applied to operate the countershafts from said engine shafts, and means for operating the clutch mechanisms.

4. The combination of a plurality of engines, driven mechanism, a plurality of countershafts operatively connected with said driven mechanism, gears mounted loosely on the shafts of said engines and meshing with each other, and means controllable at will for making said loose gears fast with the shafts of the engines, whereby both engines may impart motion to the driven mechanism or either engine may be thrown out of service in such manner that the inactive engine will not be affected by the engine remaining in service.

5. The combination of a plurality of engines, driven mechanism, a plurality of countershafts operatively connected with the driven mechanism, gears fast with said countershafts and meshing with each other, said gears being rotatable independently of the shafts of said engines, a plurality of clutch mechanisms each coöperating with one engine shaft and one of said gears, and means for operating said clutch mechanisms at will whereby the engines may be conjointly applied to operate the driven mechanism and one of said engines may be thrown out of service in a manner that it will remain unaffected by the operation of the active engine.

[Claims 6 to 8 not printed in the Gazette.]

1,208,752. BLOCK SIGNALING SYSTEM FOR RAILWAYS. ALBERT V. T. DAY, New Rochelle, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company, New York, N. Y., a Corporation of Maine. Filed June 15, 1908. Serial No. 438,594. (Cl. 246—36.)



1. A block signal system comprising successive signaling blocks, line circuits extending through the various blocks one for each block, and means for producing current in the line circuits, and at the rear end of each block a signaling apparatus including means for effecting a change of current strength in the line circuit extending in one direction and means for effecting a change of current direction in the line circuit extending in the opposite direction, and each signaling apparatus also including translating means in control of the signal indication and responsive to a change of current direction in the line circuit extending in said one direction and also including translating means in control of the signal indication and responsive to a change in current strength in the line circuit extending in said opposite direction.

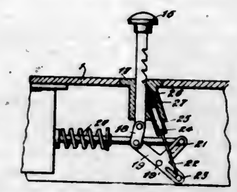
2. A block signal system comprising signal controlling conductors extending along the railway, means for producing current in the conductors, signaling apparatuses at successive points along the railway including means at various of said points for effecting a change of current strength in the signal controlling conductors extending in one direction and also for effecting a change of current polarity in the signal controlling conductors extending in the opposite direction, and each signaling apparatus being responsive to a change of current polarity of the controlling conductors extending in said one direction and responsive to a change in current strength in the controlling conductors extending in said opposite direction.

3. A block signal system comprising signal controlling conductors extending along the railway, means for producing current in the conductors, signaling apparatuses at successive points along the railway including means at various of said points for effecting a change of current strength in the signal controlling conductors extending in advance direction and also for effecting a change of current polarity in the signal controlling conductors extending in rearward direction, and each signaling apparatus being responsive to a change of current polarity in the controlling conductors extending in advance direction and responsive to a change in current strength in the controlling conductors extending in rearward direction.

1,208,753. MECHANICAL FOOT-OPERATED CLUTCH. FREDERICK J. DECKER, Rochester, N. Y., assignor to Shafer-Decker Company, Rochester, N. Y., a Corporation of New York. Original application filed June 9, 1915, Serial No. 33,171. Divided and this application filed Mar. 17, 1916. Serial No. 84,863. (Cl. 74—81.)

1. In combination a controller, manually operated speed control means for locking said controller against movement, comprising a reciprocating element having notches, a connection including a lever between said element and the controller, a pawl actuated by movement of said lever whereby to position the pawl to engage the notches on the element, means associated with the pawl to temporarily hold same in engagement with the notches, and means movable independent of the lever for retracting the pawl to permit further movement of the reciprocating element.

2. In combination a controller, a reciprocating element having holding means, a lever pivoted to the reciprocating element to operate the controller, a cylinder having a vent and mounted adjacent the reciprocating element, a piston operating in the cylinder, means connecting the piston to the lever, a pawl attached to the piston and adapted to temporarily engage with the holding means on the reciprocating element when the latter is depressed, and means for withdrawing the pawl when the air in the cylinder exhausts through the vent.



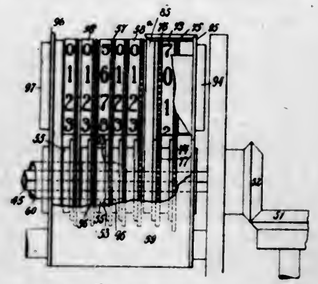
3. In combination, a controller, a reciprocating element having pawl engaging means, means for connecting the reciprocating member with the controller including a lever, a cylinder having a vent, a pawl carried by the cylinder to temporarily engage the holding means on the reciprocating element, a piston operating in the cylinder, means connecting the piston to the lever, and means for withdrawing the pawl from the pawl engaging means independently of the movement of the lever and its connection with the piston.

4. In combination, a controller, a starting element having pawl engaging means, a connection between the element and the controller, a pawl operated by the connection to cause same to temporarily engage the pawl engaging means, and means acting independently of the connection to withdraw the pawl from the pawl engaging means, whereby to permit further movement of the starting element.

5. In combination, a controller, a foot pedal, means for operatively connecting the foot pedal with said controller, means for engaging said foot pedal whereby its successive operations may be automatically controlled, said latter means comprising a cylinder carrying a pawl, a piston in the cylinder, and a spring for withdrawing the pawl and cylinder to normal position.

[Claims 6 and 7 not printed in the Gazette.]

1,208,754. COMBINED TYPE-WRITING AND COMPUTING MACHINE. GUSTAVE O. DEGENER, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Oct. 3, 1911. Serial No. 652,532. (Cl. 235—59.)



1. The combination with a dial wheel, of a master wheel, and a gear comprising internal teeth operable by said master wheel, a gear connected with said dial wheel and meshing with said first-mentioned gear, said gears being of different diameters.

2. The combination with a dial wheel, of a master wheel, a gear operable by said master wheel, a gear connected with said dial wheel and meshing with said first-mentioned gear, another gear carried by said dial wheel, and a gear of equal diameter to said last gear and meshing therewith.

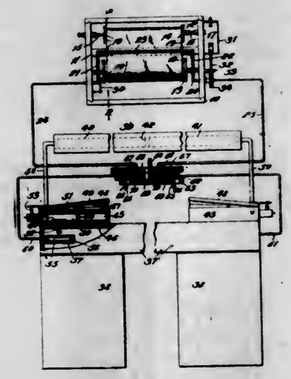
3. The combination with a dial wheel, of a master wheel, a gear operable by said master wheel, a gear connected with said dial wheel and meshing with said first-mentioned gear, said gears being of different diameters, another gear carried by said dial wheel, and a gear of equal diameter to said last-mentioned gear meshing therewith and arranged beside said first-mentioned gear.

4. The combination with a dial wheel, of a master wheel, a gear operable by said master wheel, a gear connected with said dial wheel and meshing with said first-mentioned gear, said gears being of different diameters, another gear carried by said dial wheel, a gear of equal diameter to said last-mentioned gear meshing therewith and arranged beside said first-mentioned gear, a wheel carried by said last-mentioned gear having quadrantly disposed depressions thereon, and a detent adapted to engage said depressions to hold said dial wheel against accidental movement.

5. The combination with a units dial wheel, of a fraction dial wheel, a master wheel, a gear operable by said fraction dial wheel and independent of operation by said master wheel, a gear operable by said master wheel for operating said units wheel, and means for causing a concomitant motion of said second mentioned gear at a certain motion of said first mentioned gear.

[Claims 6 to 37 not printed in the Gazette.]

1,208,755. AUTOMATIC MUSICAL INSTRUMENT. JOHN C. DEHLS, Brooklyn, N. Y., assignor to National Pneumatic Action Co., Inc., New York, N. Y., a Corporation of New York. Filed Dec. 12, 1913. Serial No. 806,138. (Cl. 84—168.)



1. In a musical instrument of the class described comprising a traveling music sheet having accenting perforations, a tracker bar having an opening in position to register with said accenting perforations, an action chest, a main exhaust chest whose exhaust action on the action chest is modified to effect the accenting, and accenting mechanism for coöperative action with said music sheet and tracker bar and including controlling devices interposed between the tracker bar and said main exhaust chest and comprising a hollow frame movable toward and from said sheet at the tracker-bar and having an opening in its rear face in position to register with the accenting perforations and to be opened thereby when said perforations, one after another, pass into register therewith and with the opening in the tracker-bar, and a conduit for the passage of air at atmospheric pressure leading from said frame to the pneumatic mechanism.

2. In a musical instrument of the class described comprising a traveling music sheet having accenting perforations, a tracker-bar having openings in position to register with said accenting perforations, an action chest, a main exhaust chest whose exhaust action on the action chest is modified to effect the accenting, and accenting mechanism for coöperative action with said music sheet and tracker bar and including controlling devices interposed between the tracker-bar and said main exhaust chest and comprising a hollow frame movable toward and from said sheet at the tracker-bar and having independent air ducts in its opposite end portions and in the rear face of said portions openings in position to register with the accenting perforations and to be opened thereby when said perforations, one after another, pass into register therewith and with the openings in the tracker bar, and independent conduits for the passage of air at atmospheric pressure leading from the end portions of said frame to the pneumatic mechanism.

3. In a musical instrument of the class described comprising a traveling music sheet having accenting perforations, a tracker-bar having openings in position to register with said accenting perforations, an action chest, a main exhaust chest whose exhaust action on the action chest is modified to effect the accenting, and accenting mechanism for coöperative action with said music sheet and tracker-bar and including controlling devices interposed between the tracker-bar and said main exhaust chest and comprising a hollow frame movable toward and from said sheet at the tracker-bar and having independent air ducts in its opposite end portions and in the rear face of said portions openings in position to register with the accenting perforations and to be opened thereby when said perforations, one after another, pass into register therewith and with the openings in the tracker bar, and independent conduits for the passage of air at atmospheric pressure leading from the end portions of said frame to the pneumatic mechanism, said frame having means for adjusting its length to meet the requirements of the sheet and tracker bar.

4. In a musical instrument of the class described comprising a traveling music sheet having accenting perforations, a tracker-bar having openings in position to register with said accenting perforations, an action chest, a main exhaust chest whose exhaust action on the action chest is modified to effect the accenting, and accenting mechanism for coöperative action with said music sheet and tracker bar and including controlling devices interposed between the tracker bar and said main exhaust chest and comprising a hollow frame movable toward and from said sheet at the tracker-bar and having independent air ducts in its opposite end portions and in the rear face of said portions openings in position to register with the accenting perforations and to be opened thereby when said perforations, one after another, pass into register therewith and with the openings in the tracker bar, independent conduits for the passage of air at atmospheric pressure leading from the end portions of said frame to the pneumatic mechanism, and a pneumatic for moving said frame to its operative and inoperative positions.

5. In a musical instrument of the class described comprising a traveling music sheet having accenting perforations, a tracker bar having openings in position to register with said accenting perforations, an action chest, a main exhaust chest whose exhaust action on the action chest is modified to effect the accenting, and accenting mechanism for coöperative action with said music sheet and tracker bar and including controlling devices interposed between the tracker bar and said main exhaust chest and comprising a swiveled frame having side members and a connecting member extending when the frame is in operative position across said sheet along the tracker bar and said frame having openings in its rear face in position to register with the accenting perforations and to be opened thereby when said perforations, one after another, pass into register therewith and with the openings in the tracker bar, and independent conduits for the passage of air at atmospheric pressure leading from the end portions of said frame to the pneumatic mechanism.

1,208,756. ELECTRIC HEATING UNIT. ACHILLES DE KHOTINSKY, Chicago, Ill., assignor to Central Scientific Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 19, 1914. Serial No. 862,511. (Cl. 219—63.)



1. A mounting for an electric heating unit, having exposed terminals, comprising a pair of alined sockets forming circuit connections, and an auxiliary element threaded upon one terminal of the unit and presenting an exposed contact, said contact and the other of said terminals contacting respectively with the said sockets, the said contact and the socket contacting therewith being operatively connected by a screw formation reverse to and of considerably greater pitch than the said threaded connection between the auxiliary element and the unit.

2. An electric heating element including a tube of insulating material, a resistance wire disposed upon the surface thereof, a flexible contact mounted at one end of said tube and connected to one end of said resistance wire, a metal element carried by the other end of said tube and connected to the other end of said wire, a conducting member coupled to said element and connecting the latter to one terminal of the circuit, and means associated with said coupling for permitting a tilting of the said coupling element with respect to the said conducting member.

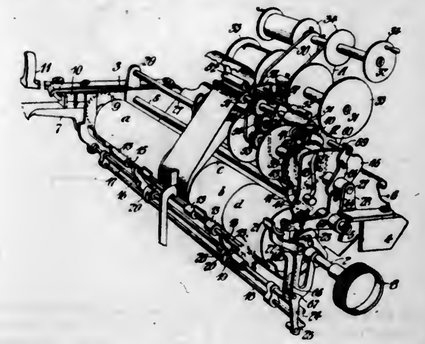
3. An electric heating unit including in combination with a cylindrical member of insulating material and a resistance wire disposed thereon, a pair of caps mounted on the respective ends of the said insulating element, contact members carried by the respective caps and carried respectively by the ends of the resistance wire, and a set fusible material simultaneously securing each of said caps and the contact member adjacent thereto to said tube.

4. In a heating unit, in combination with a stem of insulating material and a high resistance wire wound thereon, a cap of insulating material slipped over one end of said stem and equipped with a perforation substantially axial of said stem, and a screw of conducting material extending through said perforation and having its head disposed within said cap, the said screw equipped with a slot permitting the adjacent end of the high resistance wire to be brought through the said perforation.

5. The combination with a pair of substantially alined circuit terminals of a heating unit including an insulating cylinder, a resistance wire wound thereon, a pair of contact elements mounted on the respective ends of the cylinder and respectively connected to the ends of said wire, said contact elements normally entering the respective terminals, there being yielding means associated with one of said terminals and the contact entered thereby for compensating a lack of alinement of said contacts and terminals, and means for interlocking the other of said terminals with the contact entered thereby.

[Claims 6 to 8 not printed in the Gazette.]

1,208,757. TYPE-WRITING MACHINE. ADOLPHUS S. DENNIS, Lakewood, Ohio, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 11, 1913, Serial No. 805,928. Renewed Aug. 10, 1915. Serial No. 45,080. (Cl. 197—132.)



1. The combination with a platen frame and a rotary platen thereon, of an oscillating frame, means to direct a web over the platen, and mechanism to feed said web over the platen when said frame is swung in one direction, and permitting the web to remain stationary when the frame is swung in the reverse direction.

2. The combination with a platen frame and a platen rotatable therein, of an oscillating frame carried by the platen frame, a paper supply roll on the oscillating frame, a receiving roll for a web extending from the supply roll over the platen, and pawl-and-ratchet mechanism for imparting an intermittent rotation to the receiving roll when the frame is oscillated.

3. The combination with a rotary platen and feed rolls therefor, of tally strip feed mechanism comprising a swinging frame, means actuated by said frame when swung in one direction to throw the feed rolls off the platen, and means to feed the tally strip forward when said frame is swung in the reverse direction.

4. The combination with a rotary platen and feed rolls therefor, of tally strip feed mechanism comprising a swinging frame, means actuated by said frame when swung in one direction to throw the feed rolls off the platen, means to feed the tally strip forward when said frame is swung in the reverse direction, and means operable independently of the movement of said frame to throw off the feed rolls from the platen.

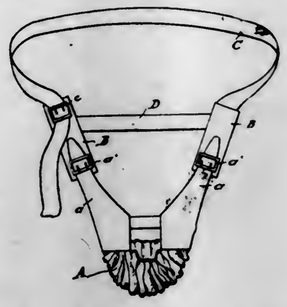
5. The combination with a platen frame and a platen axle journaled therein, of a platen comprising a section fixed to the axle, and a section loose on the platen axle, tally strip mechanism for feeding a tally strip over said loose section, feed rolls for the said fixed section, movable into and out of operative relation to the said fixed section, and means to automatically effect said movement of the feed rolls when the tally strip mechanism is operated.

[Claims 6 to 57 not printed in the Gazette.]

1,208,758. SUSPENSORY. ADOLPH DEUTSCH, New York, N. Y. Filed Oct. 7, 1916. Serial No. 124,227. (Cl. 128—38.)

1. In a device of the class described, the combination of a supporting sack provided at the opposite sides thereof with tabs, a pair of terminal members, a waist encircling band fixed at one end to one of said terminal members and adapted to be adjustably secured near its other end to the other terminal member, a buckle on each terminal member adapted to engage with one of the tabs of the sack for maintaining the sack in a raised or lowered position relative to the terminal members, an elastic tension member

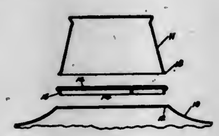
secured at its opposite ends to the terminal members and adapted to be under tension when said band is encircling the waist of the wearer, said tension member serving at all times to bind the body encircling band about the waist of the wearer.



2. In a device of the class described, the combination of a supporting sack provided at the opposite sides thereof with tabs, a pair of terminal members, a waist encircling band fixed at one end to one of said terminal members and adapted to be adjustably secured near its other end to the other terminal member, and a buckle on each terminal member adapted to engage with one of the tabs of the sack for maintaining the sack in a raised or lowered position relative to the terminal members.

3. In a device of the class described, the combination of a supporting sack, a pair of terminal members, a waist encircling band fixed at one end to one terminal member and adapted to be adjustably secured near its other end to the other terminal member, and means coöperating with each terminal member and with the sack for maintaining the sack in a raised or lowered position relative to the terminal members.

1,208,759. REFLECTOR. HENRY D'OLIER, Jr., Bridgeport, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a Corporation of Connecticut. Filed Feb. 5, 1916. Serial No. 76,357. (Cl. 240—103.)



1. A two-part reflector comprising a flaring body portion and a neck portion, said portions being provided with oppositely directed registering flanges at the adjoining edges thereof, and an annular connecting gasket intermediate said portions having oppositely disposed circumferential grooves within which said flanges are clamped.

2. A two-part reflector comprising a flaring body portion and a neck portion, said body portion being provided with an inwardly directed flange and said neck portion with an outwardly directed flange at the adjoining edges of said portions, and an annular connecting gasket having oppositely disposed circumferential grooves within which said flanges are clamped.

3. A gasket for the purpose set forth comprising a ring of soft metal having its ends unattached, said ring having a flat body provided with an outward bend at approximately the median line, the edge of the bent portion being extended inwardly and spaced from the outwardly bent portion to form an internal flange receiving groove.

1,208,760. DETACHABLE COVERING FOR THE HEELS OF SHOES AND METHOD OF APPLYING THE SAME. WILFRED JOHN DREY, Carlisle, Pa., assignor of one-half to Edward J. Wilks, Carlisle, Pa. Filed Mar. 22, 1916. Serial No. 85,821. (Cl. 12—147.)



1. The method of securing a covering to the heel of a shoe after said heel is permanently attached to the shoe, which consists in detachably securing the upper edge of the covering in the groove between the heel and the upper and the body of the covering to the heel.

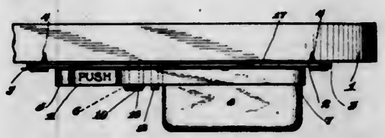
2. The method of securing a covering to the heel of a shoe after said heel is permanently attached which consists in detachably securing the upper edge of the covering in the groove between the heel and the upper, folding the lower edge of the covering in upon the bottom of the heel, and attaching a top lift to cover said folded portions.

3. The method of securing a covering to the heel of a shoe after said heel is permanently attached, which consists in detachably tying the upper edge of the covering around the top of the heel in the groove between the heel and the upper, folding the lower edge portion of the covering in upon the bottom of the heel, and attaching a top lift to cover said folded portions.

4. The method of securing a covering to the heel of a shoe after said heel is permanently attached, which consists in detachably tying the upper edge of the covering around the top of the heel, the tying means being arranged in the groove between the heel and upper and having its ends secured together on the breast of the heel, folding the end portion of the covering upon the breast of the heel and the lower edge portion of said cover on the bottom of the heel, covering the connected ends of the tying means and the folds of the covering on the breast of the heel by another piece of covering material, and covering the turned in portions at the bottom of the heel with a top lift.

5. The method of securing a covering to the heel of a shoe after said heel is permanently attached, which consists in detachably securing the upper edge of a piece of covering material around the sides and rear portion of the heel with folds on the breast and bottom of the heel, fastening a separate piece of covering material over the breast of the heel to cover the folds of the other piece thereon, and securing a top lift over the folds of the first piece of covering material on the bottom of the heel.

1,208,761. ASH-RECEPTACLE. JAMES L. EAMES, Jr., Millville, N. J., assignor of one-half to Thomas Eames, Millville, N. J. Filed Nov. 8, 1915. Serial No. 60,371. (Cl. 131—51.)

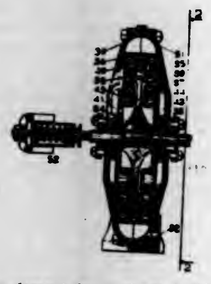


1. An attachment of the character described, comprising a frame providing an opening and including an offset extension, a member having a depending pivot pin, means included in said offset extension having a hole through which the pivot pin extends, a receptacle fitting said opening, said offset extension having a portion designed to be manually pressed to facilitate the movement of said frame on its pivot, substantially as described.

2. An attachment of the character described, comprising a plate, means for detachably connecting the plate to a support, a pivot pin depending from said plate, a frame having an opening and an offset extension, a receptacle in said opening, means on said offset portion providing a hole through which the pivot pin extends, a single pin depending from said plate and placed to be alternately engaged by said offset extension and by the portion of the frame having the opening therein, to limit the pivotal movement of the frame on the pivot pin, substantially as described.

3. The combination with a support, and a pair of guides secured to the support, of a plate having its ends movable in the guides and positioned under the support, a stud depending from the plate, a frame relatively large at one end forming a receptacle support and relatively narrow at its other end constituting a push member, a block secured to the frame at a point removed from its narrower end and having an opening therein receiving the stud, said stud having a head on its lower end, and a pin projecting downwardly from the plate and limiting the pivotal movement of the frame in both directions, substantially as described.

1,208,762. STEAM-TURBINE. JOEL EKLUND, Chicago, Ill. Filed Sept. 28, 1914. Serial No. 863,838. (Cl. 253—94.)



1. A rotary element for a steam turbine, comprising a disk, a series of buckets on each side of said disk, and common fastening devices for securing both series of buckets in place on said disk, each of said series of buckets being formed from strip metal in a tooth arrangement.

2. A rotary element for a steam turbine, comprising a disk, a plurality of series of buckets on each side of said disk, and common fastening devices for securing to said disk corresponding series of buckets located upon opposite sides thereof, each of said series of buckets being formed from strip metal in a tooth arrangement.

3. A rotary element for a steam turbine, comprising a disk, a plurality of series of buckets on each side of said disk, and common fastening devices for securing to said disk corresponding series of buckets located upon opposite sides thereof, each of said series of buckets being formed from sharp-edged strip metal in a tooth arrangement.

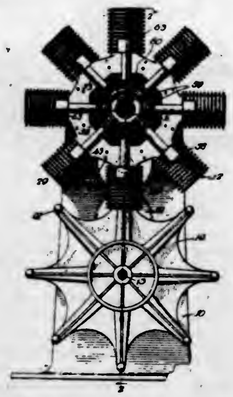
4. A rotary element for a steam turbine, comprising a disk, a series of buckets on each side of said disk, and common fastening devices for securing both series of buckets in place on said disk, each series of buckets being formed from strip metal of oval cross-section into a tooth arrangement.

5. A rotary element for a steam turbine, comprising a disk, a plurality of series of buckets on each side of said disk, and common fastening devices for securing to said disk corresponding series of buckets located upon opposite sides thereof, each series of buckets being formed from strip metal of oval cross-section into a tooth arrangement.

[Claims 6 to 18 not printed in the Gazette.]

1,208,763. INTERNAL-COMBUSTION ENGINE. HOWARD H. FASNACHT, Chicago, Ill., assignor of one-half to Alfred L. Day, Chicago, Ill. Filed Jan. 4, 1916. Serial No. 70,151. (Cl. 123—44.)

WITHDRAWN



1. A fluid pressure engine comprising a cylinder, a piston therein, means for mounting said cylinder to rotate about an axis to which said cylinder extends substantially radially, a rotor, means for mounting said rotor to rotate about an axis substantially parallel to said first axis, and means whereby said piston exerts pressure on said rotor to cause said cylinder and rotor to rotate about their respective axes, the distance between said axes being greater than the length of said cylinder, said cylinder in its movement passing between said axes.

2. A fluid pressure engine comprising a plurality of cylinders, pistons for said cylinders, means for mounting said cylinders to rotate about an axis to which said cylinders extend substantially radially, a rotor, means for mounting said rotor to rotate about an axis substantially parallel to said first axis, and means whereby said pistons successively exert pressure on said rotor to cause the cylinders and rotor to rotate about their respective axes, said cylinders in their movement passing between said axes.

3. A fluid pressure engine comprising a cylinder, a piston therein, means for mounting said cylinder to rotate about an axis to which said cylinder extends substantially radially, a rotor, means for mounting said rotor to rotate about an axis substantially parallel to said first axis, and means whereby said piston exerts pressure on said rotor to cause said cylinder and rotor to rotate about their respective axes, said cylinder being open at its outer end and said rotor having a portion for engaging said piston.

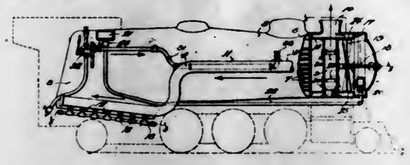
4. A fluid pressure engine comprising a plurality of cylinders, pistons for said cylinders, means for mounting said cylinders to rotate about an axis to which said cylinders extend substantially radially, a rotor, means for mounting said rotor to rotate about an axis substantially parallel to said first axis, and means whereby said pistons successively exert pressure on said rotor to cause the cylinders and rotor to rotate about their respective axes, said cylinders being open at their outer ends and said rotor having portions for successively engaging said pistons.

5. An internal combustion engine comprising a cylinder, means for mounting said cylinder to rotate about an axis to which said cylinder extends substantially radially, a combined compression and power piston operating in the outer part of said cylinder, a combined charging and

scavenging piston operating in the inner part of said cylinder, a rotor, and means whereby said power piston exerts pressure on said rotor to cause said cylinder and rotor to rotate about their respective axes.

[Claims 6 to 16 not printed in the Gazette.]

1,208,764. SMOKE-CONSUMING DEVICE FOR LOCOMOTIVES. FRANK L. FISHER, Milwaukee, Wis. Filed Mar. 16, 1916. Serial No. 84,719. (Cl. 110—50.)



1. A smoke consuming device for furnaces including a fire box and a gas chamber, comprising a duct connecting said fire box and gas chamber to form a circuit for the gases, said chamber being provided with an annular opening, a fan in the chamber, and an annular plate carried by the ends of the fan blades and closing said opening and provided with openings at the ends of the fan blades.

2. A smoke consuming device for furnaces including a fire box and a gas chamber, comprising a duct connecting said fire box and gas chamber to form a circuit for the gases, said chamber being provided with an annular opening, a fan in the chamber, an annular plate carried by the ends of the fan blades and closing said opening and provided with openings at the ends of the fan blades, and said blades being provided with longitudinal pocket grooves in alinement with respective plate apertures.

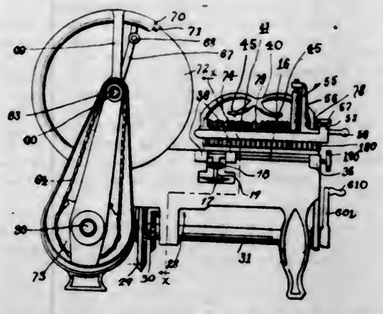
3. A smoke consuming device for locomotive engines comprising the combination with an engine shell including a fire-box portion and a gas chamber at its forward end, of said chamber being divided into sections, a smoke-stack communicating with one of the sections, a steam exhaust duct communicating with said section, the combustion gases from the fire-box communicating with the other section, a duct connecting said other section with the fire-box, means for permitting escape of a limited amount of gas from the last specified section to the first, said steam duct passing through the second specified section and having apertures communicating therewith, and means for closing said apertures.

4. A smoke consuming device for locomotive engines comprising the combination with an engine shell including a fire-box portion and a gas chamber at its forward end of an annular wall portion in said chamber dividing it into inner and outer sections, a smoke-stack communicating with the outer section, a duct communicating with the inner section and with the fire-box, means permitting a limited amount of gas to pass from the inner section to the outer section, a steam duct passing transversely through the sections in alinement with the smoke-stack and communicating with the outer section thereadjacent, apertures in the steam duct within the inner section, and means for closing said apertures.

1,208,765. SLICING-MACHINE. RAYMOND ST. CLAIR FOW, Philadelphia, Pa., assignor to Frank X. Mathis, Philadelphia, Pa. Filed Apr. 10, 1913. Serial No. 760,179. (Cl. 17—24.)

1. In a slicing machine, the combination of a rotary knife rotating upon a fixed axis, a carriage, a carriage reciprocating mechanism, and a fly wheel revolving on the shaft of the carriage reciprocating mechanism, and at a more rapid speed than this shaft, all said parts being positively geared together.

2. In a slicing machine the combination of the meat slicing knife, the meat carriage, the mechanism for reciprocating the meat carriage, a rotating rind slicing knife, a spindle carrying this knife, a rotatable spindle to which the spindle carrying the knife is attached, running substantially parallelly with the meat slicing knife and mechanism for rotating the rind slicing knife when the latter is turned into cutting position.



3. In a slicing machine, the combination of the meat slicing knife, the meat carriage, the mechanism for reciprocating the meat carriage, a rotatable rind slicing knife, a spindle carrying this knife, a rotatable spindle to which the spindle carrying the rind slicing knife is attached, running substantially parallel with the meat slicing knife, a rack upon the carriage and a pinion mounted the spindle carrying the rind slicing knife and meshing with said rack.

4. In a slicing machine, the combination of the meat slicing knife, the meat carriage, mechanism for reciprocating the meat carriage, a spindle substantially parallel with the meat slicing knife, a rind slicing knife, a spindle extending angularly from the spindle running substantially parallel with the meat slicing knife and carrying the rind slicing knife, and rack and pinion mechanism connecting the carriage and the rind slicing knife and rotating the rind slicing knife at a greatr circumferential speed than the speed of the translation movement of the carriage.

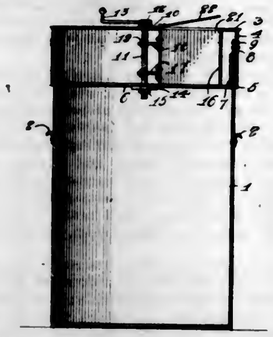
5. The combination in a slicing machine having a rotating main shaft, of a rotating knife, a reciprocating carriage, mechanism for reciprocating the carriage toward and away from the knife, said mechanism comprising a finger positively moved through the revolution of the shaft, in a circular orbit, and a cam attached to the carriage and traversed by the finger, a carrying plate for the material to be sliced, mounted on the carriage, step-by-step mechanism for advancing the plate upon the carriage, means for actuating the step-by-step mechanism when the carriage is at a point toward the end of its movement away from the knife, the actuating surface of the cam traversed by the finger during the actuation of the step-by-step mechanism, being, while so traversed by the finger, inclined toward the axis of the orbit in which the finger moves.

[Claims 6 to 9 not printed in the Gazette.]

1,208,766. ODORLESS COVER FOR GARBAGE-CANS. HOWARD F. FREDERICK, Loretto, Nebr. Filed Oct. 18, 1915. Serial No. 56,505. (Cl. 220—115.)

1. A cover for receptacles including a lid provided with an opening, a flap for closing the opening, a supporting arm carried beneath the opening in the lid, a deposit box associated with the lid and supporting arm and normally arranged beneath the opening and above the arm so that the arm constitutes a bottom for the box, and means for rotating the box to deposit material within the receptacle with which the closure is associated.

2. A closure for receptacles including a lid having an opening therein, supporting means extending transversely of the lid, and rotatably mounted means between the lid and the supporting means and normally arranged beneath the opening for receiving a quantity of refuse preparatory to depositing the refuse in a receptacle when the means is rotated.



3. A cover for receptacles including a lid having an opening therein, means for removably closing the opening, supporting means extending transversely of the lid and arranged beneath the opening, and a movably mounted deposit box for receiving a quantity of refuse removably positioned beneath the opening and above the supporting means so that the supporting means serves as a bottom for the box.

4. A closure for receptacles including in combination with a receptacle, a lid provided with an opening, a flap for closing said opening, a supporting platform depending from the lid, a deposit box associated with the lid and supporting platform normally arranged beneath the opening and above the supporting platform for receiving a quantity of material without allowing odors to escape from the receptacle, and means for rotating the deposit box for depositing the material within the receptacle without allowing odors to escape therefrom.

5. A closure for receptacles including in combination with a receptacle, a lid having an opening therein, a flap associated with the lid and above the opening, a cross arm rigidly connected to the lid and depending from the lid, a supporting platform formed by enlarging the arm beneath the opening, a shaft rotatably mounted in the lid and arm, a deposit box rigidly carried by the shaft and positioned beneath the opening and the supporting platform so that the platform will serve as a bottom, and a crank handle associated with the shaft for rotating the box to permit of refuse being emptied into the receptacle without allowing odors to escape therefrom.

1,208,767. HOLDER FOR HATS, COATS, UMBRELLAS, &c. JOHN J. GARRETT, Trumann, Ark., assignor of two-fifths to Martin McGrath, Trumann, Ark. Filed Jan. 6, 1916. Serial No. 70,663. (Cl. 45—13.)

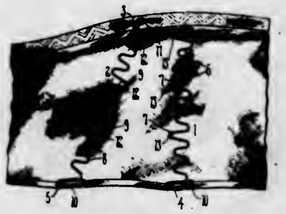
1. The combination with a base, outstanding garment engaging means thereon, and a retaining member hingedly connected to the base and having an opening for the reception of portions of the supported garments, of guards bridging the opening, means upon the base for receiving and supporting a cane or the like insertible downwardly thereinto, means upon the retaining member for preventing upward withdrawal of said cane or the like from the engaging means, and means for locking the retaining member in holding position.

2. The combination with a base and superposed garment engaging means outstanding therefrom, of a retaining member hingedly connected to the base and having an enlarged hat receiving opening into which one of the garment engaging means projects, arcuate guards bridging said opening, said member having an outwardly bowed portion at the free end thereof for straddling a portion of a garment engaging the other garment engaging means, superposed cane receiving loops outstanding from the base, a guard plate extending laterally from the hinged retaining member and adapted, when said member is in retaining position, to overhang an object engaging the loops, and means for locking the retaining member in garment holding position.



3. The combination with a base and superposed garment engaging means outstanding therefrom, of a retaining member hingedly connected to the base and having an enlarged hat receiving opening into which one of the garment engaging means projects, arcuate guards bridging said opening, said member having an outwardly bowed portion at the free end thereof for straddling a portion of a garment engaging the other garment engaging means, superposed cane receiving loops outstanding from the base, a guard plate extending laterally from the hinged retaining member and adapted, when said member is in retaining position, to overhang an object engaging the loops, means for locking the retaining member in garment holding position, said means including a slide, means on the base for engaging the slide, means for transmitting motion from the retaining member to the slide when said member is swung into or out of retaining position, and locking means for engaging the slide to hold it against movement.

1,208,768. SUPPORTER. MINNA FROESÉ, New York, N. Y., assignor to John A. Prince, New York, N. Y. Filed Nov. 15, 1913. Serial No. 801,312. (Cl. 2—91.)

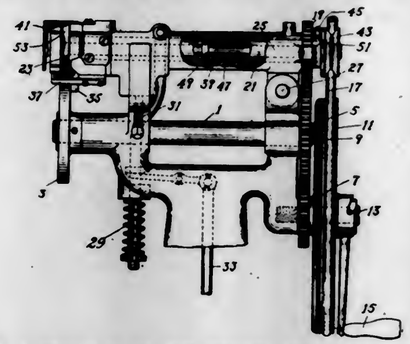


A supporter comprising a crimped vertical member having a series of open extended attaching loops and a transversely elongated closed loop, a crimped diagonal member having a series of open extended attaching loops and a transversely elongated closed loop, and a straight diagonal attaching member having transversely elongated attaching loops oppositely disposed and interposed between the vertical and diagonal members and the straight attaching member.

1,208,769. WELT-LAYING MACHINE. FREDERICK M. FURBER, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 29, 1915. Serial No. 31,180. (Cl. 12—67.)

1. A machine of the class described, having, in combination, means for laying a welt on a sole, and means for

removing, during the laying operation, the puckers which form where the welt is bent or turned.



2. A machine of the class described, having, in combination, means for laying a welt progressively along the margin of a sole, and means for similarly removing the puckers which form in said welt at the toe portion of said sole.

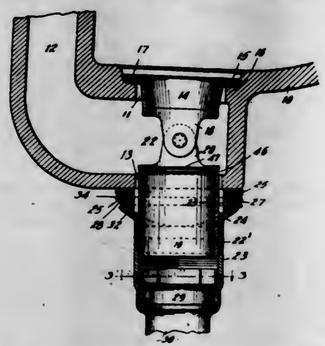
3. A machine of the class described, having, in combination, means including a wheel for laying a welt progressively along the margin of a sole, and means located at one side of said wheel for removing the puckers which form where the welt is bent or turned.

4. A machine of the class described, having, in combination, means including a wheel for laying a welt progressively along the margin of a sole, a pucker removing member located at one side of said wheel, and means for rotating said member.

5. A machine of the class described, having, in combination, means including a wheel for laying a welt progressively along the margin of a sole, a pucker removing member located at one side of said wheel, means for rotating said member, and means for reciprocating said member.

[Claims 6 to 10 not printed in the Gazette.]

1,208,770. LAVATORY WASTE-PLUG. JOHN H. GAVIN, Chicago, Ill., assignor to L. Wolff Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 25, 1914. Serial No. 847,198. (Cl. 137—96.)



1. A plug for lavatories and the like comprising two pivotally connected hollow members, the lower of said members being threaded, a ball-joint washer, and a cooperating ball-joint lock-nut, the latter coöperating with said threaded member and the washer being interposed between the nut and the surface against which the plug is to be clamped, substantially as specified.

2. A plug for lavatories and the like comprising two hollow members pivotally connected, said members being recessed adjacent the pivotal connections, and means for clamping said members in position, said means including a lock-nut and washer having a ball-joint therebetween, substantially as specified.

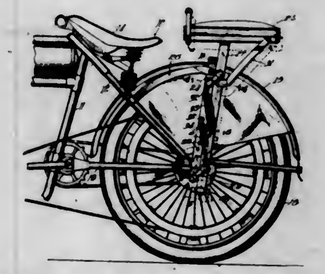
3. A device of the character described including, in combination: a lavatory having an overflow passageway, the bottom wall of the lavatory proper and the bottom wall of the overflow passageway having alined openings; a plug extending through said openings, said plug comprising an upper flanged member and a lower threaded member pivotally connected, said members being cut away on the side adjacent the overflow passageway; and means for clamping the plug in place, said means including members having a ball-joint therebetween, substantially as specified.

4. A device of the character described including, in combination: a lavatory having an overflow passageway; a plug extending through the bottom wall of the lavatory and overflow passageway; and means for clamping said plug in position and permitting the latter to have a universal adjustment with respect to the lavatory, the contact between interengaging surfaces being substantially constant in all adjustments, substantially as specified.

5. A plug for lavatories and the like comprising two hollow members adjustably connected, one of said members being exteriorly threaded, a lock-nut coöperating with said threaded member, and a washer coöperating with said lock-nut, the washer and lock-nut having coöperating curved surfaces forming a ball-joint, the contact between interengaging surfaces being substantially constant in all adjustments, substantially as specified.

[Claim 6 not printed in the Gazette.]

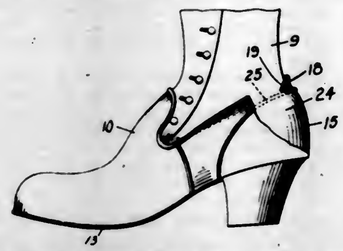
1,208,771. SEAT-SUPPORT FOR VEHICLES. JOHN F. GLASER, Oak Park, Ill., assignor of one-half to John F. Blything, Chicago, Ill. Filed Aug. 6, 1915. Serial No. 43,915. (Cl. 208—100.)



A vehicle rear seat support for a cycle comprising a substantially vertical U-shaped member, having its lower end fixed to respective ends of the fixed axle of a cycle, and its upper end secured to the frame of the cycle; a substantially parallel U-shaped relatively movable member; a seat secured to the upper end thereof; a pair of parallel links pivotally connecting the respective limbs of said U-shaped members and positioned to lie on the outer sides thereof; helical tension springs, connected to the stationary member and to the movable member on the outer sides thereof, to yieldingly support the latter and to normally hold the same in close contact with the first mentioned U-shaped member.

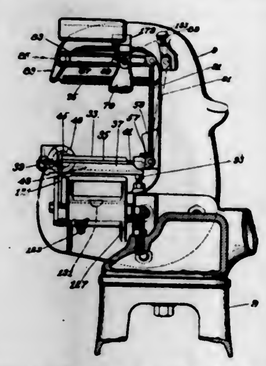
1,208,772. HEELLESS OVERSHOE. CLINTON S. GOODYEAR, Naugatuck, Conn., assignor to L. Candee & Company, a Corporation of Connecticut. Filed June 18, 1915. Serial No. 34,777. (Cl. 36— 6.)

1. An overshoe having an elastic foothold constructed to extend above the stiff counter of an inner shoe, and a bead projecting from the inner face of the foothold, and extending diagonally across the foothold to reinforce and stiffen the same throughout.



2. A rubber overshoe embodying a vamp, a sole terminating at the rear end in a shank, a counter constructed to extend to the top edge of the counter of an inner shoe, the bottom edge of the counter and the rear edge of the shank being free and coacting in defining a heel opening, a foothold extending above the top edge of the counter, and a bead projecting from the inner face of the foothold, and extending diagonally across the foothold to reinforce and stiffen the same throughout.

1,208,773. SPLITTING-MACHINE. JOSEPH GOULDBOURN, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 8, 1914. Serial No. 843,759. (Cl. 69—14.)



1. A machine of the class described having, in combination, a plurality of feed members capable of relative longitudinal adjustment, an adjustable knife, and means connected with one of said feed members for causing adjustment of said knife in accordance with the relative longitudinal adjustment of said feed members.

2. A machine of the class described having, in combination, a plurality of feed members capable of relative longitudinal adjustment, an angularly adjustable knife, and means connected with one of said feed members for causing adjustment of said knife in accordance with the relative longitudinal adjustment of said feed members.

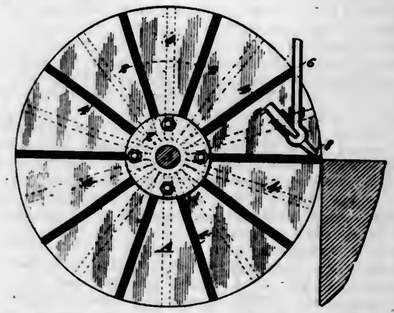
3. A machine of the class described having, in combination, a plurality of feed rolls capable of relative longitudinal adjustment, an adjustable knife, and means connected with one of said rolls for causing adjustment of said knife in accordance with the relative longitudinal adjustment of said feed rolls.

4. A machine of the class described having, in combination, a plurality of feed rolls capable of relative longitudinal adjustment, an angularly adjustable knife, and means connected with one of said rolls for causing adjustment of said knife in accordance with the relative longitudinal adjustment of said rolls.

5. A machine of the class described having, in combination, a plurality of feed rolls one of which is longitudinally adjustable, an adjustable knife arranged to split a piece of stock advanced by said rolls and connecting means between said longitudinally adjustable roll and said knife whereby adjustment of said roll adjusts said knife.

[Claims 6 to 17 not printed in the Gazette.]

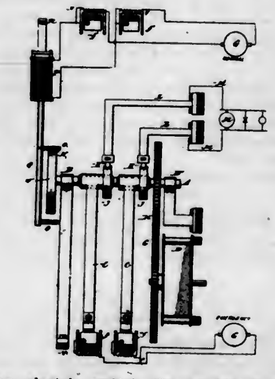
1,208,774. GRANITE AND STONE SAW. GUSTAV GRIESCHE, Berkeley, Cal. Filed Mar. 11, 1916. Serial No. 83,557. (Cl. 125—18.)



1. The combination in a stone sawing device, of a circular saw having radial, acute angled grooves alternating upon the opposite sides, and a pair of supply ducts converging outwardly upon each side of the periphery of the saw, said ducts discharging into the grooves and into the kerf formed in the stone.

2. The combination of a circular granite and stone saw, having acute angled radial grooves or recesses, and abrasive material ducts converging outwardly upon each side of the saw and directed into the grooves and into the kerf.

1,208,775. ELECTRIC-CIRCUIT CONTROLLER OR SWITCH. JOHN HAMILTON, Boston, Mass. Filed May 22, 1915. Serial No. 29,907. (Cl. 171—97.)



1. In an electric switch the combination of one or more levers of conducting material mounted upon a trunnion or axle which is free to revolve about its own axis, supported upon one or more bearings; a motor or source of power suitably connected to cause said trunnion or axle to revolve; one or more stationary disks or other electrical contacts so disposed as to come into contact with said levers in any predetermined order; one or more stationary spring brushes or arms of conducting material bearing or rubbing upon friction contacts revolving with

and attached to said levers; pawls or detents mounted independently of said trunnion or axle but so disposed that they will in certain positions prevent the revolving of said trunnion or axle, and an electro-magnetic means for controlling said pawls or detents in their relationship with said trunnion or axle.

2. In an electric circuit the combination of one or more contact levers mounted upon a revoluble shaft and so disposed upon said shaft as to come into electrical connection with certain stationary electrically energized contacts, and pawls or dogs in close proximity to said revoluble shaft but independent of it but so disposed as to engage with said revoluble shaft in such manner and position as to prevent said shaft from revolving farther when the said contact levers or blades shall have come into electrical connection with one or more of the stationary electrically energized contacts; suitable friction or rubbing devices to conduct electrical energy off and from said contact levers or blades, and a means for causing said revoluble shaft to revolve.

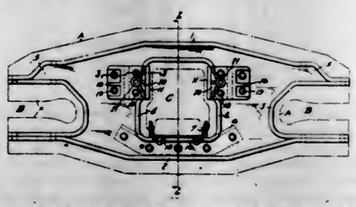
3. In an electrical distribution system the combination of contact levers mounted upon a revoluble shaft and so disposed upon said shaft as to come into electrical connection with one or more stationary electrical contacts in a predetermined order; one or more stationary spring brushes or frictional contacts bearing upon said contact levers or some substantial part thereof; one or more pawls or detents engaging said shaft for the purpose of stopping the same and an electro-magnetic means for maintaining said pawls or detents in positions of action or inaction in relation to said shaft, and a means for causing said shaft to revolve.

4. In an electric wiring system the combination of a switching device having its movable element or elements actuated by a revoluble shaft and a means for causing said shaft to revolve; a plurality of stationary elements so disposed as to electrically engage said movable element or elements in a predetermined sequence; stationary slipping or brushing contacts bearing upon said movable element or elements; one or more electrically controlled detents or pawls so disposed and controlled that they will either permit or prevent the revolving of said revoluble shaft according to the electrical potential of the circuit from which they are controlled, and a means for retarding arcing at the breaking of the circuit.

5. In an electrical transmission system the combination of a revoluble shaft and a means for causing said shaft to revolve; one or more switch levers mounted upon said shaft; stationary electrical contacts mounted independently of said shaft and so disposed as to engage said switch levers; one or more stationary wiping or brushing contacts bearing upon said switch levers or some attachment thereto; one or more detents or pawls mounted independently of said shaft and so disposed as to engage said shaft or some substantial part thereof and a means for controlling said detents or pawls in their engaging said shaft.

[Claims 6 to 15 not printed in the Gazette.]

1,208,776. TRUCK SIDE FRAME. SOREN HANSSON, New Glasgow, Nova Scotia, Canada. Filed Oct. 30, 1915. Serial No. 58,932. (Cl. 105—112.)



1. A pressed steel side frame, comprising a plate metal member provided with flanges around its edges, said flanges being pressed together above and below the journal box recesses to increase the bearing surface.

2. A pressed steel side frame, comprising a plate metal member provided with flanges around its edges and at its ends having recesses forming arms to receive the journal boxes, and flanges around the edges of said recesses, the upper and lower flanges of said arms being pressed together and wider than the flanges on the body portion of the frame.

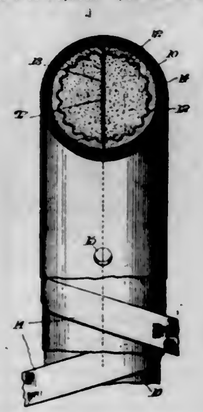
3. A pressed steel side frame, comprising a plate metal member provided with flanges around its edges and at its ends having recesses forming arms to receive the journal boxes, and flanges around the edges of said recesses, the upper and lower flanges of said arms being pressed together and wider than the flanges on the body portion of the frame, the upper and lower flanges of the upper arm where it merges into the main body of the frame being separated from each other to reinforce said arm in the vertical plane.

4. A pressed steel side frame, comprising a plate metal member provided with a central opening for the bolster and end recesses for the journal boxes, and flanges around the outer edges of said member and around the edges of said opening and recesses, said flanges above the journal boxes being pressed together and wider than the other flanges to increase the bearing surface.

5. A pressed steel side frame, comprising a plate metal member provided with a central opening for the bolster and end recesses for the journal boxes, and flanges around the outer edges of said member and around the edges of said opening and recesses, said flanges above and below the journal boxes being pressed together and wider than the other flanges to increase the bearing surface.

[Claims 6 to 8 not printed in the Gazette.]

1,208,777. APPARATUS FOR MAKING ANNULAR TUBES. SCHUYLER C. HATFIELD, Baltimore, Md. Filed Mar. 31, 1913, Serial No. 757,834. Renewed May 13, 1916. Serial No. 97,432. (Cl. 18—45.)



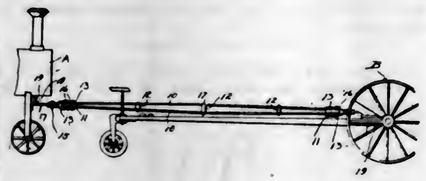
1. An internal mold or form for pneumatic tires consisting of a hollow, annular plaster shell filled with finely divided material.

2. A core or mold for pneumatic tires consisting of a plaster of Paris shell in the form of an annular tube filled with sand.

3. An internal mold or form for pneumatic tires consisting of a frangible shell filled with finely divided material.

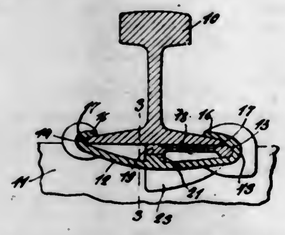
4. An annular internal mold or form for pneumatic tires consisting of a frangible shell formed in two halves, the shell being separated on the central plane of the annulus, the halves being filled with finely divided material, the open surface being covered and the halves superimposed one upon another to form an annulus having a frangible shell with finely divided filling.

1,208,778. PUSH-POLE. THOMAS HEINSELMAN, Kinsley, Kans. Filed Aug. 30, 1916. Serial No. 117,699. (Cl. 21—137.)



A push pole for connecting tractors and grain headers comprising a plurality of members extending longitudinally of the pole, spacing blocks between the ends of said members, a spacing block between the members intermediate their ends, the last-mentioned spacing block being of greater thickness than the spacing blocks at the ends of the members whereby to hold the central portions of said members farther apart than the ends thereof, a pair of plates at each end of said pole, one of each pair of said plates engaging the top of the pole and the other engaging the bottom of the pole and projecting over the ends of said members, the projecting portions having vertically alined openings, bolts passing through the plates, the members and the end spacing blocks whereby to hold the plates and blocks in position relative to each other and to the members, pivot pins removably mounted in the openings of the plates, and brackets pivoted on said pins and provided with bolt receiving openings whereby to afford means for connection to a tractor and to a header.

1,208,779. RAIL-ANCHOR. JOHN HERRON, Marquette, Mich., assignor of one-half to John E. Raby, Marquette, Mich. Filed May 6, 1915. Serial No. 26,294. (Cl. 238—4.)



1. A rail anchor comprising a resilient yoke extending transversely beneath the rail and having jaws at its ends engaging opposite sides of the rail base, an incline on top of the yoke intermediate the ends thereof; and a wedge driven between the under side of the rail base and the incline, said incline and the wedge having interlocking parts.

2. A rail anchor comprising a resilient yoke extending transversely beneath the rail and having jaws at its ends engaging opposite sides of the rail base, an incline on top of the yoke intermediate the ends thereof, and a wedge driven between the under side of the rail base and the incline, the contiguous portions of the wedge and the incline having interlocking teeth for locking the wedge against withdrawal.

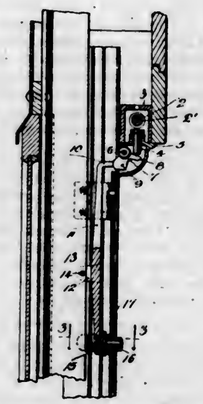
3. A rail anchor comprising a resilient yoke extending transversely beneath the rail and having jaws at its ends engaging opposite sides of the rail base, an incline on top of the yoke intermediate the ends thereof, a key between the yoke and the under side of the rail base, one side of the key abutting against one of the jaws of the yoke, and the other side having a wedge engageable with the incline, and said wedge and incline having interlocking parts.

4. A rail anchor comprising a resilient yoke extending transversely beneath the rail and having jaws at its ends engaging opposite sides of the rail base, an incline on top of the yoke midway between the ends thereof and extending in the direction of the length of the rail, a key between the yoke and the under side of the rail base, one side of the key having a wedge engageable with the incline, and the other side of the key abutting against one of the jaws of the yoke, said jaw having a recess located below the plane of the underside of the rail base, in which recess the last mentioned side of the key seats.

5. A rail anchor comprising a resilient yoke extending transversely beneath the rail and having jaws at its ends engaging opposite sides of the rail base, and a key between the yoke and the under side of the rail base, one side of the key abutting against one of the jaws of the yoke, and the other side having a wedge engaging the yoke midway between its ends for flexing the same, said wedge and yoke having interlocking parts.

[Claims 6 to 13 not printed in the Gazette.]

1,208,780. CAR SIGNALING SYSTEM. WILLIAM H. HEULINGS, Jr., Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 18, 1915. Serial No. 34,885. (Cl. 200—27.)



1. In a device of the class described, a bare conductor mounted in a junction box, a plunger supported by said junction box and a push button and levers to actuate said plunger to cause it to contact with the bare conductor and close the circuit.

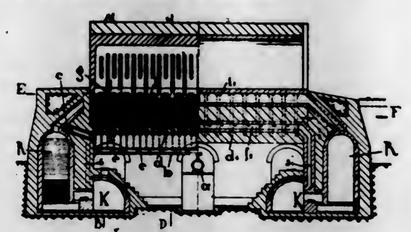
2. In a device of the class described, a bare conductor, a plunger mounted below said conductor, a bell crank lever pivoted below said plunger, a lever hinged on a car post, a push button engaging the lower end of said lever, the upper end of said lever engaging the bell crank lever and causing said bell crank lever to raise the plunger against the conductor.

3. In a device of the class described, a bare conductor mounted in a junction box, a bracket under said junction box with a plunger mounted at the upper end thereof and adapted to engage said bare conductor when raised, a bell crank lever pivotally mounted in said bracket with one end under said plunger and adapted to raise the same when pressed, and a lever with a toe adapted to press said bell crank lever so as to raise said plunger.

1,208,781. COKE-OVEN. ERNST HINSELMANN, Essen-on-the-Ruhr, Germany. Filed Nov. 24, 1914. Serial No. 873,735. (Cl. 202—9.)

1. In a coke oven adapted to be heated from below, the combination of a series of long channel brick columns,

a series of regenerators disposed between said columns, a series of short channel brick columns connected with said regenerators, and means for supplying gas to said long and short columns in alternation.



2. In a coke oven adapted to be heated from below, the combination of a series of long channel brick columns, a series of regenerators disposed between said columns, a series of short channel brick columns connected with said regenerators, means for supplying gas to said long and short columns in alternation, a main flue connected with said regenerators, valves in said main flue, and means for operating said valves from a point below said supply means.

3. In a coke oven adapted to be heated from below, the combination of a plurality of gas supply tubes, a series of long channel brick columns disposed above said supply tubes and adapted to be fed with rich gas, small regenerators disposed between said columns and adspted to be fed with poor gas, short channel brick columns connected with said regenerators, and means for alternately connecting said gas supply tubes with said long and short channels respectively.

4. In a coke oven adapted to be heated from below, the combination of a plurality of gas supply tubes, a series of long channel brick columns disposed above said supply tubes and adapted to be fed with rich gas, small regenerators disposed between said columns and adapted to be fed with poor gas, short channel brick columns connected with said regenerators, and a swiveled elbow pipe for alternately connecting said gas supply tubes with said long and short channels respectively.

1,208,782. REINFORCING-BACK FOR BRAKE-SHOES. JOHN HOFFHINE, New York, N. Y., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Filed Aug. 18, 1915. Serial No. 46,193. (Cl. 188—82.)



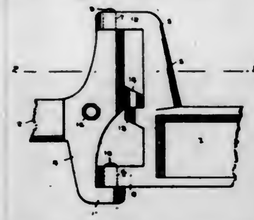
1. A back for brake shoes comprising a body with flanged edges, said flanges extending outward from the convex face of said body and being bent into contact therewith to define ribs extending along the top surface of said shoe back.

2. A back for brake shoes comprising a plate curved in its length, the central portion of said plate provided with means for anchoring the toes of a lug thereto, the said means being removed from the side edges of said plate, and flanges formed at the side edges of said plate and projecting above the convex surface thereof.

3. A back for brake shoes comprising a plate curved in its length, the central portions of said plate provided with means for anchoring the toes of a lug thereto, the said means being removed from the side edges of said plate, and contiguous flanges formed at the side edges of said plate and projecting above the convex surface thereof.

4. A back for brake shoes consisting of a steel plate curved in its length and provided with continuous ribs projecting above the convex surface, the central portion of said plate, intermediate said ribs, provided with spaced slots therein, and a lug with the toes anchored in the said slots.

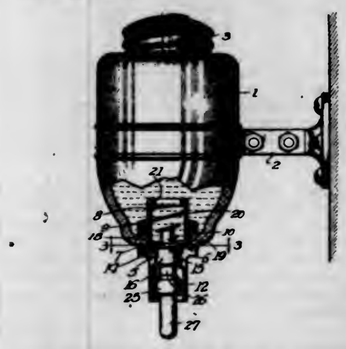
1,208,783. AXLE CONSTRUCTION. RICHARD N. HOLDING, Ingram, Pa. Filed Feb. 15, 1916. Serial No. 78,476. (Cl. 21—141.)



1. The combination with a main axle having a yoke at each end, each yoke comprising a pair of arms, the upper one of which is provided with a lateral extension, said extension and lower arm having sockets therethrough substantially in registration, of a knuckle having studs attached thereto adapted to enter said sockets of the yoke, and overlapping flanges carried by the yoke and knuckle between their ends adapted to hold said knuckle in engagement with the yoke when the knuckle is in operative position and release the knuckle from the yoke when the knuckle is turned at right angles to the trend of the axle.

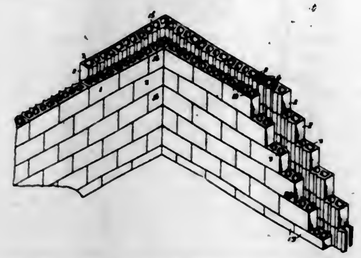
2. The combination with a main axle having a yoke at its ends, of a stub axle, a knuckle carried by the stub axle, means to pivotally attach the knuckle to said yoke, a flange integral with the yoke, and a similar flange integral with the knuckle, said flanges coöperating with each other to hold the knuckle in engagement with the yoke, the flange of the knuckle having concave end edges adapted to register with the flange of the yoke when the stub shaft is turned at right angles to the main shaft whereby the knuckle may be engaged with or disengaged from the yoke.

1,208,784. LIQUID-DISPENSER. ALFRED E. HOLMES, Chicago, Ill., assignor of one-half to William H. Plunkett, Chicago, Ill. Filed Jan. 3, 1916. Serial No. 69,748. (Cl. 221—104.)



In a liquid dispenser, a reservoir, a cylindrical chamber communicating therewith, a vertically arranged cylinder at the lower end of said chamber, said cylinder being of smaller diameter than the chamber, a valve seat formed at the junction of the chamber and cylinder, a stem, twin plungers secured to said stem one above the other, said plungers being closer together than the length of the cylinder, and a valve formed at the upper end of the upper plunger, and adapted to seat upon said valve seat, said valve being of smaller diameter than the chamber, and a plurality of separate fingers projecting radially from said valve and making sliding contact with the inner walls of the chamber, for guiding the plunger and scraping the walls of the chamber.

1,208,785. BUILDING-TILE AND WALL THEREOF. ROBERT E. HUNN, Oakland, Cal. Filed Nov. 7, 1914. Serial No. 870,804. (Cl. 72—38.)



1. A building tile having a plurality of obliquely extending tongues projecting from its vertical side face to coöperate with and overlap similar tongues on the adjacent face of an oppositely disposed tile, the opposite and non-adjoining tongues forming between them at their elongated sides cavities for the reception of binding material.

2. A building tile having on its vertical side face a plurality of obliquely extending tongues inclined in the same direction and adapted to coöperate with and overlap similar tongues on the adjacent side face of an oppositely disposed tile, and provided with double concaved surfaces on the elongated sides of the tongue to form cavities for the reception of binding material, whereby to provide an interlocking connection between opposite tiles.

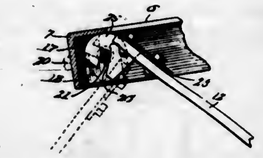
3. A building tile having a series of obliquely extending tongues carried on its vertical side face adapted to coöperate with and overlap similar tongues on an oppositely disposed tile, said tongues provided on their elongated sides with double concaved surfaces forming a ridge where they meet, whereby to provide cavities between the coöperating tongues for the reception of binding material, the adjacent ridges coöperating to prevent relative endwise movement of opposite tiles.

4. A wall comprising building tiles having interlocking vertical faces, said faces comprising obliquely extending tongues upon the tiles at one side of the wall inclined in the same direction and obliquely extending tongues on the tiles at the other side of the wall inclined in a direction opposite to the first mentioned tongues and overlapping therewith, said tiles intermediate their tongues being provided with opposed concaved faces to form cavities for the reception of mortar, and coöperating shoulders whereby to lock said tiles in place against endwise movement.

1,208,786. DRAG-BAR MOUNTING. FREDERICK K. HURXTHAL, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Mar. 2, 1916. Serial No. 81,674. (Cl. 111—18.)

1. The combination of a support, a pivotal member carried thereby, a drag bar having a slotted head adapted to be engaged with said pivotal member, and means for preventing disengagement of the drag bar from said member during normal movements of the drag bar but permitting disengagement when said drag bar is swung into an abnormal position.

2. The combination of a pivot member, a drag bar having a head mounted thereon comprising a plurality of spaced ears each provided with an open-ended slot adapted to receive said pivot member, and means disposed over said pivot member for preventing disengagement of said ears from said member except upon movement of the drag bar to abnormal position.



3. The combination of a bracket, a pivot member carried by said bracket, a drag bar having a head provided with a plurality of spaced slotted ears pivotally engaging said member, and means for preventing disengagement of said ears from said member.

4. The combination of a frame of angle iron construction, a bracket mounted on said frame within the angle thereof, a pivot member carried by said bracket, a drag bar head comprising a pair of spaced ears, each provided with an open-ended slot adapted to fit over said pivot member, said parts being so proportioned and arranged that one flange of said frame serves to prevent disengagement of the drag bar head from said pivot member except upon movement of said head to a predetermined position.

5. The combination of a frame, a bracket mounted thereon provided with a plurality of open-ended slots, a pivot member seated in said slots, and a drag bar head pivotally and detachably mounted on said pivot member.

[Claims 6 and 7 not printed in the Gazette.]

1,208,787. CORSET-COVER. ELIA B. IGNATIUS, Pittsburgh, Pa. Filed Oct. 8, 1915. Serial No. 54,819. (Cl. 2—98.)

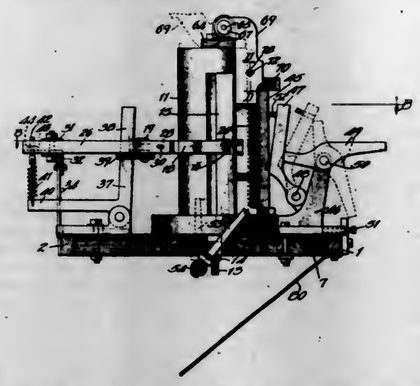


1. A corset cover comprising a front of a permanent contour corresponding to the contour of the bust, a pair of shoulder straps having their front ends secured to the top of the front and secured together at their rear ends, a pair of oppositely extending inclined elastic retaining members connected at their upper ends to the rear ends of the shoulder straps and of a length to extend from the back of a person to overlap the said front, overlapping straps projecting from said retaining members and adapted to be secured together for the purpose of maintaining the retaining members in position, and bands connected to said front and adapted to encircle the waist of a person and be secured together to maintain the lower portion of the front in position.

2. A corset cover comprising a front of a permanent contour corresponding to the contour of the bust, a pair of shoulder straps having their front ends secured to the top of the front and secured together at their rear ends, a pair of oppositely extending inclined elastic retaining members connected at their upper ends to the rear ends of the shoulder straps and of a length to extend from the back of a person to overlap the said front, overlapping straps projecting from said retaining members and adapted to be secured together for the purpose of maintaining the

retaining members in position, bands connected to said front and adapted to encircle the waist of a person and be secured together to maintain the lower portion of the front in position, and a tape depending from the bottom of the front and adapted to be secured to a corset to arrest upward movement of the front.

1,208,788. BABBITTING-MACHINE. ANTONI IGNATOWSKI, Chicago, Ill. Filed Aug. 28, 1916. Serial No. 117,249. (Cl. 22—123.)



1. A machine of the class described, comprising a framework, a mandrel mounted on said framework, said mandrel being rotatably adjustable on said framework, means for holding a journal-bearing brass in spaced relation to said mandrel so that molten metal may be poured into such space for lining said brass, said means comprising a pivoted arm adapted to bear against said bearing brass at the upper and lower ends thereof, and a pivotally mounted lever, one end of said lever being shaped to form a handle and the other end thereof being adapted to wedgingly engage said arm.

2. A machine of the class described, comprising a framework, a mandrel mounted on said framework, said mandrel being rotatably adjustable on said framework, means for holding a journal-bearing brass in spaced relation to said mandrel so that molten metal may be poured into such space for lining said brass, and means for guiding the molten metal into said space, comprising a pair of side plates and a transversely disposed shelf mounted between said plates.

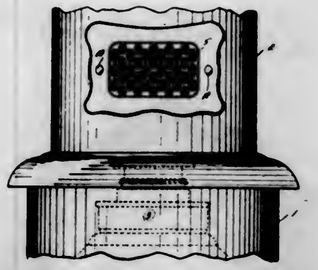
3. A machine of the class described, comprising a framework, a mandrel mounted on said framework, said mandrel being rotatably adjustable on said framework, means for holding a journal-bearing brass in spaced relation to said mandrel so that molten metal may be poured into such space for lining said brass, and means for guiding the molten metal into said space, comprising a pair of side plates and a transversely disposed shelf mounted between said plates, said side plates being yieldingly adjustable laterally with respect to said shelf.

4. A machine of the class described, comprising a framework, a mandrel mounted on said framework, means for clamping the journal-bearing brass against said mandrel, and means for positioning the base of said journal-bearing brass with respect to said mandrel, comprising a rod, a positioning finger mounted on said rod, and a handle for moving said rod so as to carry said finger away from said journal-bearing brass.

5. A machine of the class described, comprising a framework, a mandrel mounted on said framework, means for clamping the journal-bearing brass against said mandrel, and means for positioning the base of said journal-bearing brass with respect to said mandrel, comprising a rod, said rod being movable axially and rotatably, a positioning finger mounted on said rod, and a handle for moving said rod so as to carry said finger away from said journal-bearing brass.

[Claims 6 to 13 not printed in the Gazette.]

1,208,789. WINDOW FOR STOVES. WILLIAM R. JEAVONS, Cleveland, Ohio. Filed June 11, 1913. Serial No. 772,987. (Cl. 126—200.)



1. The combination, with a cylindrical drum having a window opening, of a frame for said opening having a perforated or reticulated central portion covering the opening and having substantially the same radius of curvature as the drum, said frame having an outer or rim portion surrounding the opening and connected with the central portion by means of a ledge or shoulder, means extending through said rim and connecting the frame to the drum, and a wire gauze covering for the opening having its outer edges bent around said ledge or shoulder.

2. The combination, with a drum having a window opening in the wall thereof, of a sheet-metal frame having a depressed perforated central portion of greater area than said opening and an outwardly pressed rim portion surrounding the central portion and connected thereto by a ledge or shoulder, said rim portion having its outer edges bent toward the drum to contact therewith, a wire gauze covering for said opening, said covering having its edges flanged outwardly around the said ledge or shoulder of the frame, and means for securing the frame to the drum.

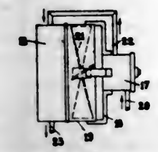
3. The combination, with a drum having a hydrocarbon draft burner therein and a window opening for observing the burner flame, of a foraminous covering for said opening, the openings in said covering frictionally retarding the passage of air therethrough, and a pattern coöperating with the covering to increase the obstruction offered by the openings therein to the passage of air therethrough, the openings permitting the observation of the flame contour and being sufficiently small to materially limit the passage of light rays therethrough and to substantially maintain intact the draft conditions within said drum.

4. The combination, with a drum having a hydrocarbon draft burner therein and a window opening for observing the burner flame, of a wire gauze covering for said opening, the meshes in said covering frictionally retarding the passage of air therethrough, and a backing frame for the gauze having a pattern for coöperating with the gauze to increase the obstruction offered thereby to the passage of air therethrough, the meshes in said gauze permitting the observation of the flame contour and being sufficiently small to materially limit the passage of light rays therethrough and to substantially maintain intact the draft conditions in said drum.

5. The combination, with a drum having a hydrocarbon draft burner therein and a window opening for observing the flame of said burner, of a foraminous covering for said opening, the openings in said covering permitting the observation of the flame contour and being sufficiently small to materially limit the passage of light rays therethrough and to maintain substantially intact the desired draft conditions within said drum, the area of perforation being approximately one-fourth the area of the covering.

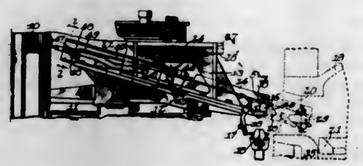
[Claim 6 not printed in the Gazette.]

1,208,790. HEATING AND COOLING APPARATUS. HUGO JUNKERS, Aix-la-Chapelle, Germany. Filed Nov. 8, 1904. Serial No. 231,867. (Cl. 257—137.)



The combination of a radiator formed of a plurality of parallel flattened conduits arranged in spaced relation to each other, said conduits being in communication with each continguous conduit at alternately opposite ends whereby the heating medium will flow through the conduits alternately in opposite directions, a sinuously formed metal sheet located between adjacent conduits, each bend being alternately in contact with said conduits, an open cylindrical casing surrounding said radiator, heat diffusing elements spaced apart extending from the outer radiator conduits to said casing, a fan in said casing, a motor in operative connection with said fan, a steam supply pipe leading to the motor, an exhaust pipe leading to and in communication with the top of said radiator.

1,208,791. CUT-OFF MECHANISM FOR GLASS-FORMING APPARATUS. AUGUST KADOW, Toledo, Ohio, assignor to The Westlake Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Sept. 11, 1912. Serial No. 719,866. (Cl. 49—62.)



1. In apparatus for gathering glass, the combination with a ram, a gathering mold on the ram, a cut-off device pivoted to the ram, an operating rod secured to the cut-off device, a fixed cam, and a bell crank pivoted to the ram, one arm of which engages the cam, the operating rod being secured to the other arm, said operating rod comprising two telescopic members, and a spring connecting said members.

2. In apparatus for gathering glass, the combination with containing means for a supply of molten glass, of gathering mechanism adapted to enter and be withdrawn from said containing means and provided with an intake port, a cut-off knife standing normally away from the said port across said intake port from side to side, and means for moving said knife so as to make the cut in a direction away from said containing means and immediately return the knife to normal position.

3. In apparatus for gathering glass, the combination with containing means for a supply of molten glass, of gathering mechanism movable into and out of said containing means and provided with an intake port, a cut-off knife standing normally away from said port across said intake port from side to side, and mechanism for operating the cut-off knife as the gathering device is withdrawn from said containing means which gives the knife its active stroke in a direction away from the containing means and immediately following said active stroke returns the knife to normal position.

4. In apparatus for gathering glass, the combination with containing means for a supply of molten glass, of gathering mechanism adapted to enter and be withdrawn from said containing means and provided with an intake port, a cut-off knife pivoted to the gathering mechanism and standing normally away from said port, and means operated by the movement of the gathering mechanism as it is withdrawn from said containing means for moving the knife across said intake port from side to side in a direction away from the containing means to make the cut and for immediately returning the knife to normal position.

5. In apparatus for gathering glass, the combination with containing means for a supply of molten glass, of a ram movable into and out of said containing means, a cut-off knife pivoted to the ram, an operating rod connected with said knife, and a fixed cam, a bell crank, one arm of which engages the cam, the operating rod being connected to the other arm, the cam being formed so that the active stroke of the knife is away from the said containing means.

[Claims 6 to 13 not printed in the Gazette.]

1,208,792. SHOE ATTACHMENT. PAUL KENVILLE, Felton, Cal. Filed Mar. 7, 1916. Serial No. 82,583. (Cl. 36—62.)



1. An attachment for shoes, consisting of a pair of flexible members with the upper meeting edges adapted to be laced together over the front top portion of a shoe, and connected together at the bottom by a plurality of transverse, independent cleats having upturned securing flanges and pivoted links flexibly connecting the upturned flanges.

2. A holding attachment for shoes, consisting of flexible members adapted to be laced together at the top, and having transverse slits, indepedent separated cleats having holding surfaces to engage the surface upon which the shoe is to be used, said cleats having upturned flanges adapted to be secured independently to the lower edges of the first named members, and links pivotally secured to the lower edges of the flexible members and extending across the open spaces between the cleats.

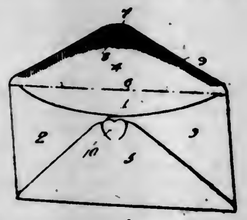
3. A holding attachment for shoes, comprising a pair of flexible members with upper meeting edges adapted to be laced together over the front, top portion of the shoe, and slitted transversely, independent cleats having downwardly projecting holding portions, and upwardly turned flanges secured to the lower edges of the flexible members, said cleats being formed of overlapping adjustable sections, and links flexibly connecting the upwardly turned side flanges.

4. An attachment of the character described, comprising a flexible portion adapted to be engaged over and secured to the forward part of a shoe, said attaching portion having relatively free side edges, and metal cleat members each having a flat portion to bridge said side edges and contact with the under surface of the sole, and anti-slipping means depending therefrom, said cleat members being connected at the ends thereof to the side edges of said flexible securing portion and spaced apart to be relatively independent, with portions of the flexible side edges of the securing portion therebetween.

5. An attachment of the character described, comprising a flexible portion adapted to be engaged over and secured to the forward part of a shoe, said attaching portion having relatively free side edges, and metal cleat members each having a flat portion to bridge said side edges and contact with the under surface of the sole, and anti-slipping means depending therefrom, said cleat members being connected at the ends thereof to the side edges of said flexible securing portion and spaced apart to be relatively independent, with portions of the flexible side edges of the securing portion therebetween, the respective cleats having integral upturned end flanges overlying said free edges of the flexible securing portion to constitute in part the securing means for the cleat members.

[Claims 6 to 8 not printed in the Gazette.]

1,208,793. ENVELOP. KENKICHI KIMURA, New York, N. Y. Filed May 4, 1916. Serial No. 95,320. (Cl. 229—84.)



1. A safety envelop comprising a body portion, side flaps and a top and bottom flap, a lip partially cut out of the top flap, a comparatively large safety flap partially cut out of the lower flap and adapted to be folded to pass through the opening formed in the top flap by said lip, means for sealing said lip to one of said side flaps, and means for sealing said safety flap to said top flap.

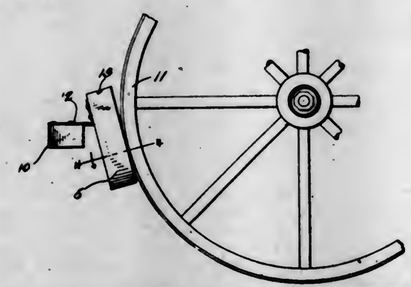
2. A safety envelop comprising a top flap provided with a substantially rectangular lip partially cut therefrom, a bottom flap provided with a comparatively large safety flap partially cut therefrom, said safety flap adapted upon being folded to pass through the opening cut in said top flap in forming said lip, and means for sealing said safety flap to the outer surface of said top flap.

3. A safety envelop including a bottom flap and a top flap foldable thereon, the bottom flap having a safety flap portion partially severed therefrom and the top flap having a lip cut out of it leaving an opening therethrough, said safety flap adapted to be inserted through said opening and pasted to the exterior surface of the upper flap over said opening, said lip being secured beneath said safety flap.

4. A safety envelop comprising a top flap provided with a substantially rectangular lip partially cut therefrom, a bottom flap provided with a comparatively large safety flap partially cut therefrom, said safety flap adapted upon being folded to pass through the opening cut in said top flap in forming said lip, and means for sealing said safety flap to the outer surface of said top flap and to the outer surface of said lip.

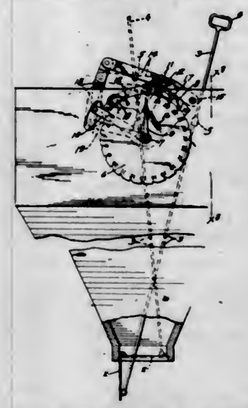
5. A safety envelop comprising side flaps sealed together, a top flap provided with a lip practically cut therefrom, a bottom flap provided with a comparatively large safety flap partially cut therefrom, said safety flap being adapted only when folded to pass through the opening cut in said top flap in forming said lip, means for sealing said lip to one of said side flaps, means for sealing said safety flap to the outer surface of said lip and said top flap, and means for sealing a portion of said top flap to the outer surface of said bottom flap.

1,208,794. WAGON-BRAKE. EDWARD D. KING, Lavonia, Ga. Filed Nov. 29, 1915. Serial No. 64,080. (Cl. 21—82.)



The combination with a brake beam; of a bracket having a horizontal arm secured to the top of the beam and projecting forwardly therefrom, said bracket further having a second arm extending upwardly from the forward end of the first arm and inclined rearwardly toward the brake beam, a brake block carrier comprising a channel shaped member and having the second arm of the bracket secured adjacent its upper end, and a brake block removably mounted in the carrier and arranged to be engaged by a wheel below the horizontal arm of the bracket.

1,208,795. TALLY FOR SCALE-HOPPERS. OSCAR A. KNEELAND and LOUIS A. WALLING, Minneapolis, Minn. Filed May 15, 1915. Serial No. 28,336. (Cl. 735—91.)



1. The combination with a hopper or bin having a discharge gate, a gate operating connection and an abutment coöperating with said connection to hold said gate closed, of a tally operated by movements of said connection into and out of engagement with said abutment.

2. The combination with a hopper or bin having a discharge gate and a connection for holding said gate in a closed position, of a movable abutment adapted to support said operating connection in a position to hold said gate closed, and a tally arranged to be operated by movements of said abutment.

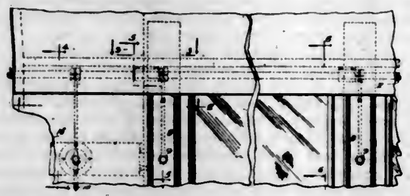
3. The combination with a hopper or bin having a pivoted drop gate and an operating rod connected to said gate, of a movable abutment engageable with said operating rod to hold said gate in a closed position, and a tally connected to and arranged to be operated by movements of said abutment.

4. The combination with a hopper or bin having a pivoted drop gate and an operating rod connected to said gate, of a pivoted abutment bar, said operating rod having a part adapted to be arranged to be interlocked by said abutment bar by lateral movement along the said bar, the said bar when depressed, serving as an abutment to hold said gate in a closed position, and a tally arranged to be operated by movements of said abutment bar.

5. The combination with a hopper or bin having a pivoted drop gate and an operating rod connected to said gate, of a pivoted abutment bar, said operating rod having a part adapted to be arranged to be interlocked by said abutment bar by lateral movement along the said bar, the said bar, when depressed, serving as an abutment to hold said gate in a closed position, and a tally comprising a fixed pointer, a movable dial, a dog-equipped lever, and a link connecting said lever to said abutment bar.

1,208,796. SIGNAL DEVICE FOR STREET-CARS. GEORGE B. KOHLER, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 18, 1915. Serial No. 34,810. (Cl. 200—27.)

1. In a device of the class described, a shaft and means for mounting the same so that it may rotate about its axis, arms fastened to said shaft, a push button, adapted to close a circuit, operated by one of said arms, and a push button adapted to operate another arm when pressed by an operator.



2. In a device of the class described, a shaft adapted to be shifted about its axis and means for mounting the same, arms secured to said shaft between its ends and extending downwardly therefrom in the car post casings, the end of one of said arms operating a circuit closing device and the end of the other of said arms being operated by a push button.

3. In a device of the class described, a rotatable shaft extending substantially the length of a car, a plurality of arms disposed in the car post casings and secured to the shaft, circuit closing devices operated by the said arms and push buttons for engaging the lower ends of said arms.

4. In a device of the class described, a horizontally extending rotatable shaft, extending substantially the length of a car, an arm within a car post casing having its upper end rigidly secured to said shaft and its lower end engaged by a manually operated push button, another arm within another car post casing having its upper end rigidly secured to said shaft and its lower end engaging circuit closing means.

5. In a device of the class described, a shaft adapted to be shifted about its axis, a mounting for said shaft, an arm having an offset upper end secured to said shaft and its lower end engaging a manually operated push button, another arm extending downwardly at right angles to the shaft, having an offset upper end secured to the shaft and its lower end engaging circuit closing means.

1,208,797. MANUFACTURE OF BASE-EXCHANGING SILICATES. HEINRICH KREIDSHEIM, New York, N. Y., assignor to The Permutit Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 21, 1916. Serial No. 85,586. (Cl. 23—13.)

1. In the manufacture of purifying materials, the process which comprises leaching with water an alkaline melt comprising silica and alumina and precipitating an alkaline solution of an amphoteric oxid with the leachings.

2. In the manufacture of purifying materials, the process which comprises leaching with water an alkaline melt comprising silica and alumina and precipitating a solution containing alumina with the leachings.

3. In the manufacture of purifying materials, the process which comprises leaching with water an alkaline melt comprising silica and alumina and precipitating an alkaline solution containing alumina with the leachings.

4. In the manufacture of purifying materials, the process which comprises leaching with water an alkaline melt containing silica and alumina, dissolving an amphoteric oxid with an alkali solution, and mingling the leachings and the solution to obtain a precipitate of a base-exchanging material.

5. In the manufacture of purifying materials, the process which comprises leaching with water an alkaline melt containing silica and alumina, dissolving alumina with an alkaline solution, and mingling the leachings and the solution to obtain a precipitate of a base-exchanging material.

[Claims 6 to 8 not printed in the Gazette.]

1,208,798. FLUX FOR SOLDERING ALUMINUM. CARL F. KRIEWS, Cleveland, Ohio, assignor of one-half to Frank C. Kriews, Cleveland, Ohio. Filed Feb. 10, 1916. Serial No. 77,867. (Cl. 75—187.)

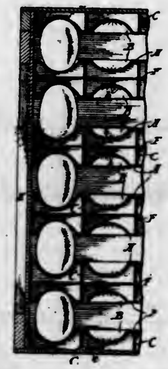
1. A flux for soldering aluminum consisting of olive oil.

2. A flux for soldering aluminum consisting of a glycerid of a fatty acid.

1,208,799. FLUX FOR SOLDERING ALUMINUM. CARL F. KRIEWS, Cleveland, Ohio, assignor of one-half to Frank C. Kriews, Cleveland, Ohio. Filed Apr. 21, 1916. Serial No. 92,657. (Cl. 75—187.)

A flux for soldering aluminum comprising a fatty acid such as oleic, palmitic, stearic, obtainable from animal fats.

1,208,800. EGG-CARRIER. FERDINAND KRONENBERGER, Hastings, N. Y., assignor to Frederic B. Clark, Englewood, N. J. Filed Aug. 9, 1913. Serial No. 783,864. (Cl. 217—27.)



1. An article carrier embodying a plurality of coöperating members assembled for fixedly retaining in position the articles to be packed, each member comprising a sheet or web provided with pressure-transmitting stays, said stays being integral with the sheet or web and extending in crossing relation to each other, and said stays bounding definite areas of the sheet or web, which definite areas of the sheet or web are slitted intermediate the stays and said slitted portions producing tongues which are positioned for frictional contact with articles placed between the members and operating to retain said articles under pressure.

2. An article carrier of the class described embodying a sheet or web provided with integral pressure-transmitting stays, said stays extending from one surface of the sheet or web and certain of said stays extending at a right angle to the remaining stays so as to form cells located at one side of the sheet or web, certain parts of the sheet or web being bounded by the cell-forming stays and said certain parts being cut to produce resilient members which are yieldable to the pressure of articles occupying the cells so as to be deflected from the plane of the sheet or web.

3. An article carrier of the class described embodying a sheet or web provided with rows of slitted portions, and pressure-transmitting stays integral with said sheet or web and extending from one surface thereof, said stays being joined to the sheet or web in the intervals between the slitted portions thereof.

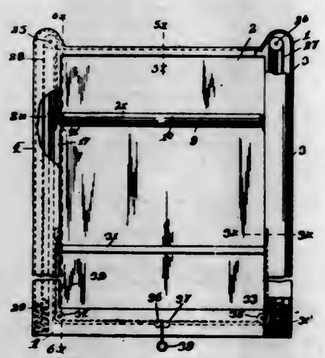
4. An article carrier embodying a plurality of members assembled for fixedly retaining in position the articles to be packed, each member comprising a sheet or web provided with two rows of integral stays extending in one direction from a surface of said sheet, the stays of one row being at right angles to the stays of the other row and bounding definite areas of the sheet so as to

produce a series of cells, said sheet or web being slitted in the spaces bounded by the stays and producing resilient tongues positioned for frictional contact with the articles adapted to be held between the first named members, said definite areas of the sheet bounded by the stays being characterized by a certain stiffness or rigidity as compared with the yieldable tongues so that the margins of the web at the slitted portions thereof operate to apply pressure upon the articles the resistance of which deflects said tongues from the plane of the sheet or web.

5. An article carrier of the class described comprising a slotted bank of sheet material, said sheet material being cut or slitted to produce yieldable members and said blank being foldable in two directions on lines intermediate said slitted portions, said folded portions of the sheet material producing pressure-transmitting stays integral with the sheet and bounding the spaces formed with the slitted portions of said sheet.

[Claims 6 to 8 not printed in the Gazette.]

1,208,801. CLEANER FOR WIND-SHIELDS. JAMES F. LEARY, Rochester, N. Y. Filed Dec. 29, 1915. Serial No. 69,259. (Cl. 15—59.)



1. In a cleaner for windshields the combination of a frame, guides on opposite sides thereof for holding the glass, a cleaning device, guides on opposite sides of the frame for holding the cleaning device, slides mounted to travel in the last named guides, said cleaning device being mounted between said slides, a pair of cam slots cut adjacent to said guides, a pair of pins mounted on said cleaning device engaging with said cam slots by which said cleaning device is held in contact with the glass when said pins engage both of said cam slots and are horizontally in line with each other and hold said cleaning device out of contact when said pins engage but one of said cam slots and are vertically in line with each other.

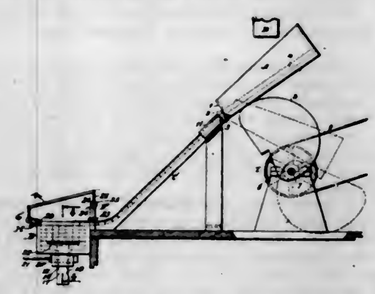
2. In a cleaner for windshields the combination of a frame, a cleaning device, guides on opposite sides of the frame, slides in said guides, said cleaning device being mounted to swing on said guides, shoulders on said cleaning device engaging with said guides to limit the swinging movement of said cleaning device spring pressed dogs mounted in said frame and being adapted to make frictional contact with said guides to prevent any vibration of said frame and hold said frame stationary.

3. In a cleaner for windshields the combination of a frame, a cleaning device, guides on opposite sides of the frame, slides in said guides, said cleaning device being mounted to swing on said guides, shoulders on said cleaning device engaging with said guides to limit the swinging movement of said cleaning device, pins on said cleaning device, cam slots adjacent to said guides with which said pins engage, said pins coöperating with said slots to rock said cleaning device.

4. In a cleaner for windshields the combination of a frame, a cleaning device, guides on opposite sides of the frame, slides in said guides, latches mounted at the bottom of said slides, springs on said slides pressing said latches against the frame to take up the lost motion between the slides and the frame, ropes attached to said latches to draw the slides down, said ropes also operating to draw the latches back from the frame.

5. In a cleaner for wind shields, the combination of a frame, a cleaning device, guides on opposite sides of the frame, slides in said guides, said cleaning device being mounted to swing on said guides, shoulders on said cleaning device engaging with said guides to limit the swinging movement of said cleaning device, spring pressed dogs mounted in said frame and being adapted to make frictional contact with said guides to prevent any vibration of said frame and hold said frame stationary, a pulling tape for releasing said spring pressed dogs and hold said dogs out of engagement with said guides when operating said cleaner.

1,208,802. SUGAR TABLET OR CUBE BOXING MACHINE. JACOB H. LIENAU and WILLIAM STEENKEN, New York, N. Y.; said Lienau assignor of his one-half to The National Sugar Refining Co. of New Jersey, a Corporation of New Jersey. Filed Apr. 16, 1914. Serial No. 832,271. (Cl. 107—45.)



1. A machine of the character described, comprising a stationary chute, for guiding in regular order articles to be packed, a pile-forming mechanism at the lower end of said chute, the said articles adapted to flow into the said pile-forming mechanism by the descending weight of all the articles in the chute, to form a layer of a predetermined number in said pile-forming mechanism, the said articles in the chute and said layer of articles in the pile-forming mechanism adapted to remain in continuous adjacent relation before removal of said layer, means at the lower end of said chute adapted to engage the lowermost articles in said chute to arrest the remaining articles therein during said continuously adjacent relation, and during removal of said layer in the pile-forming mechanism from the path of the next layer.

2. A machine of the character described, comprising a stationary chute adapted to guide articles to be packed in a plurality of separate streams, the said articles being arranged evenly in transverse rows, a pile-forming mechanism at the lower end of said chute, the said articles adapted to flow into the said pile-forming mechanism by the descending weight of all the articles in the chute, to form a layer of a predetermined number in said pile-forming mechanism, the said articles in the chute and the said layer of articles in the pile-forming mechanism adapted to remain in continuous adjacent relation before removal of said layer, means at the lower end of said chute adapted to engage the lowermost articles in said chute during said continuously adjacent relation and during removal of said layer in the pile-forming mechanism out of the path of the next layer.

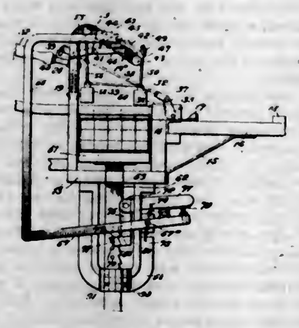
3. A machine of the character described, comprising a pile-forming box, a chute arranged to supply articles to be packed in layers to the said box from one side thereof, an abutment at the side of the box opposite from the point of entrance of the articles, adapted to engage the foremost row of articles in the box to limit the movement of the said articles and to maintain the same in relatively tight engagement with each other, and means for moving the said abutment out of engagement with said foremost row of articles to loosen the engagement of the said articles with each other to permit removal of the same out of the path of the next succeeding layer of articles.

4. A machine of the character described, comprising a pile-forming box, a chute arranged to supply articles to be packed to the said box from one side thereof, means for arresting articles in the chute after a predetermined number have been supplied to the said box from one side thereof, an abutment at the side of the box opposite from the point of entrance of the said articles, adapted to engage the foremost row of articles in the box to limit the movement of the said articles and to maintain the same in relatively tight engagement with each other, and means for moving the said abutment out of engagement with said foremost row of articles in the box to loosen the engagement of the said articles with each other after the arresting of the articles in the said chute, to permit removal of the same out of the path of the next succeeding predetermined number of tablets.

5. A machine for boxing tablets and the like, comprising a pile-forming box, a chute arranged to supply tablets to the box from one side thereof, a gate for arresting tablets in the chute after a predetermined number have been supplied to the box, a movable abutment at the side of the box opposite from the point of entrance of the tablets, adapted to engage the foremost row of tablets in the box to limit the movement of the tablets, and to maintain the same in tight engagement with each other, means for moving the abutment out of engagement with the foremost row of tablets to loosen the engagement of said tablets with each other after the arresting of the tablets in the chute, and a follower in the box adapted to move downwardly for removing the tablets from the path of the next supply of tablets from the chute.

[Claims 6 to 12 not printed in the Gazette.]

1,208,803. AUTOMATIC STACKING OR BOXING MACHINE. JACOB H. LIENAU and WILLIAM STEENKEN, New York, N. Y.; said Lienau assignor of his one-half to The National Sugar Refining Co. of New Jersey, a Corporation of New Jersey. Filed Sept. 9, 1915. Serial No. 49,699. (Cl. 107—45.)



1. A device of the character described, comprising a stationary chute for guiding in regular order articles to be packed, a pile forming mechanism at the lower end of said chute adapted to receive successive layers of said articles from said chute, arresting means at the entrance end of said pile forming mechanism, means adapted to be operated to actuate the said arresting means to engage the lowermost row of articles in the chute to arrest the flow of the remaining articles therein during removal of a layer of said articles from the path of the next layer, abutment means adapted to engage the foremost row of articles in the said pile forming mechanism, means for moving said abutment means out of engagement with the said foremost row of sugar, a slotted arm on said means for actuating the arresting means, and means for connecting said slotted arm with said means for actuating the abutment means for causing the same to be actuated after the actuation of the said arresting means.

2. A device of the character described, comprising a stationary chute for guiding in regular order articles to be packed, a pile forming mechanism at the lower end of said chute adapted to receive successive layers of said articles from the said chute, arresting means at the entrance end of said pile forming mechanism, means adapted to be operated to actuate the said arresting means to engage the lowermost row of articles in the chute to arrest the flow of the remaining articles therein during removal of a layer of the articles from the path of the next layer, abutment means adapted to engage the foremost row of articles in the said pile forming mechanism, means coöperating with said means for moving said abutment means out of engagement with said foremost row of sugar after the arresting means has been actuated, pusher blocks supported above the tablets in the said pile forming mechanism, raising and lowering means adapted to move the same upwardly and downwardly in the said pile forming mechanism, and to engage the end rows of sugar therein to cause the same to be lowered, and means connecting the said raising and lowering means with the said means for actuating the arresting means, to cause the said raising and lowering means to be actuated by movement of the said means for actuating the arresting means.

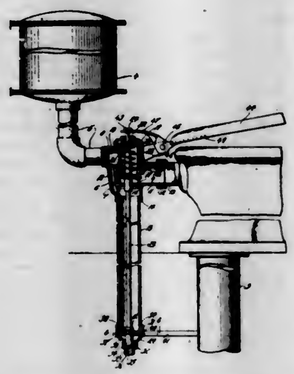
3. A device of the character described, comprising a stationary chute for guiding in regular order articles to be packed, a pile forming mechanism at the lower end of said chute adapted to receive successive layers of said articles from said chute, arresting means at the entrance end of said pile forming mechanism, means adapted to be operated to actuate the said arresting means to engage the lowermost row of articles in the chute to arrest the flow of the remaining articles therein during removal of a layer of said articles from the path of the next layer, pusher blocks supported above the tablets in the said pile forming mechanism, raising and lowering means adapted to move the said pusher blocks upwardly and downwardly in the said pile forming mechanism and to engage the end rows of tablets therein to cause the same to be lowered, and means connecting the said raising and lowering means with the said means for actuating the arresting means to cause the said raising and lowering means to be actuated by movement of the said means for actuating the arresting means.

4. A device of the character described, comprising a stationary chute for guiding in regular order articles to be packed, a pile forming mechanism at the lower end of said chute adapted to receive successive layers of articles to be packed from said chute and provided with channels in which streams of the said articles are guided, arresting means at the entrance end of said pile forming mechanism, means adapted to be operated to actuate the said arresting means to engage the lowermost row of articles in the chute to arrest the flow of the remaining articles therein during the removal of a layer of said articles from the path of the next layer, pusher blocks supported above the articles in the said pile forming mechanism and provided with a plurality of projections adapted to engage the channels thereof, raising and lowering means adapted to move the said pusher blocks upwardly and downwardly in the said pile forming mechanism to engage the end rows of tablets therein to cause the same to be lowered, and means connecting the said raising and lowering means with the said means for actuating the arresting means to cause the said raising and lowering means to be actuated by movement of the said means for actuating the arresting means.

5. A device of the character described, comprising a stationary chute for guiding in regular order articles to be packed, a pile forming mechanism at the lower end of said chute adapted to receive successive layers of said articles from the said chute, arresting means at the entrance end of said pile forming mechanism, means adapted to be operated to actuate the said arresting means to engage the lowermost row of articles in the chute to arrest the flow of the remaining articles therein during removal of a layer of the articles from the path of the next layer, abutment means adapted to engage the foremost row of articles in the said pile forming mechanism, means coöperating with said means for moving said abutment means out of engagement with said foremost row of sugar after the arresting means has been actuated, pusher blocks supported above the tablets in the said pile forming mechanism, raising and lowering means adapted to move the same upwardly and downwardly in the said pile forming mechanism, and to engage the end rows of sugar therein to cause the same to be lowered, and means connecting the said raising and lowering means with the said means for actuating the arresting means, to cause the said raising and lowering means to be actuated by movement of the said means for actuating the arresting means, and a follower in said pile forming mechanism adapted to be lowered step by step as the said means for actuating the said arresting means is operated.

[Claims 6 to 8 not printed in the Gazette.]

1,208,804. WATER-CLOSET. ABRAHAM S. LINSE, Philadelphia, Pa. Filed June 20, 1916. Serial No. 104,810. (Cl. 4—28.)



1. The combination with a water closet including a reservoir and a bowl, of a casing having a passage therein, and two other passages communicating therewith and respectively with the reservoir and the bowl, a valve operative within the first passage, a seat for the bowl, means on said seat operative to move the valve to cut off communication between said two passages, a water inlet passage communicating with one of said second passages, means for automatically opening said valve, a second valve positioned to open and close said inlet passage and being connected to the first valve, said second valve being movable into an open position when said first valve is closed by a movement of the seat and movable into a closed position when said first valve is opened by the automatic means, substantially as described.

2. The combination with a water closet including a reservoir and bowl, of a casing having a passage therein, and two other passages one of which communicates with the reservoir and the other with the bowl, said latter passage being at a lower level than the other of said two passages, a valve operative within said first passage, a seat for the bowl, means on said seat operative to move the valve to cut off communication between said two lastnamed passages, said casing providing a water inlet passage communicating with said reservoir, means for automatically opening said valve and operative to raise said seat, a second valve operatively connected to the first valve, and movable into a closed position by the opening movement of said first valve to cut off the water supply to said reservoir when said first valve is open, substantially as described.

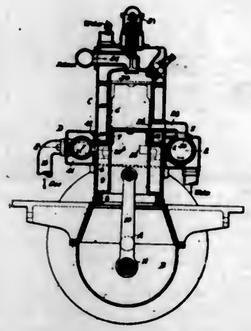
3. The combination with a water closet including a reservoir and a bowl, of a casing having a passage therein, and two other passages communicating therewith and respectively with the reservoir and the bowl, a valve operative within the first passage, a threaded sleeve fitting within said first passage and closed at its outer end and open at its inner end, said inner end providing a seat for said valve, a hole in said sleeve permitting communication between the second-mentioned passages when the valve is off its seat, said casing having a depending portion providing a passage, and a portion forming a partition between said latter passage and the first-mentioned passage, and a by-pass passage extending from the passage in the depending member and communicating with one of said second-mentioned passages, a spring operative to keep said valve off its seat, a second valve for controlling the inlet to said depending passage and connected to said first valve, a seat for said bowl having a member operative when the seat is depressed to compress said spring and to move the first-mentioned valve into engagement with its seat and to open the said second valve to permit water to flow into the reservoir, said spring being operative when the seat is released to open the first-mentioned valve and to close the inlet valve, substantially as described.

4. The combination with a water closet including a reservoir and a bowl, of a casing having a passage therein, and two other passages communicating therewith and respectively with the reservoir and the bowl, a valve operative within the first passage, a threaded sleeve fitting within said first passage and closed at its outer end and open at its inner end, said inner end providing a seat for said valve, a hole in said sleeve permitting communication between the second-mentioned passages when the valve is off its seat, said casing having a depending portion providing a passage, and a portion forming a partition between said latter passage and the first-mentioned passage and a by-pass passage extending from the passage in the depending member and communicating with one of said second-mentioned passages, a spring operative to keep said valve off its seat, a second valve for controlling the inlet to said depending passage, a seat for said bowl, a rod connecting said valves and passing through the opening in said partition and the closed end of said sleeve, a head on the rod outside of said sleeve, and means on said seat operative upon said head to move said rod against the action of said spring, substantially as described.

5. The combination with a water closet including a reservoir and a bowl, of a casing having a passage therein, and two other passages one of which communicates with the reservoir and with the top of said first passage, and the other of which communicates with the bowl and the lower portion of said first passage, a threaded sleeve fitting within said first passage and having an opening communicating with the upper one of said two passages, the inner end of said sleeve being positioned below said upper passage and forming a valve seat, a valve operative within the first passage and against said seat to cut off communication between said two passages, a spring operative to move and hold said valve away from its seat, and means for moving said valve into contact with said seat against the action of said spring, said casing including a water inlet passage communicating with said reservoir passage, said casing also having a partition separating said inlet passage from said bowl connecting passage and provided with a hole forming a guide-way for said valve, substantially as described.

[Claim 6 not printed in the Gazette.]

1,208,805. TWO-CYCLE GAS-ENGINE. ROBERT F. LONABERGER and CALVIN R. BALMER, Reading, Pa., assignors of one-third to Jacob W. Easterline, Reading, Pa. Filed Apr. 6, 1915. Serial No. 19,436. (Cl. 123—59.)



1. In a two-cycle internal combustion engine, a pair of working-and-pump cylinders having intake-valve and bypass-valve housings arranged on opposite sides of the cylinders and each provided with independent ports and passageways to the respective pump cylinders and the bypass-valve housing provided also with separate ports and passageways to the respective working cylinders, and valves in said housings arranged to coöperatively control the several ports.

2. In a two-cycle internal combustion engine, a pair of working-and-pump cylinders having separate intake-valve and bypass-valve housings oppositely arranged in line with the junctions of the working and pump portions of said cylinders and each provided with separate ports to the respective pump cylinders and the bypass-valve housing provided also with separate ports to the respective working cylinders, and valves in said housings arranged to cooperatively control the several ports.

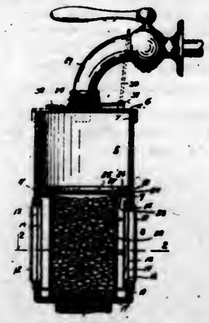
3. In a two-cycle internal combustion engine, a pair of working-and-pump cylinders having separate cylindrical intake-valve and bypass-valve housings arranged on opposite sides of the cylinders and each provided with separate ports to the respective pump cylinders and the bypass-valve housing provided also with separate ports to the respective working cylinders, and cylindrical rotary valves in said housings each having a central chamber with openings therefrom arranged to register with the several ports.

4. In a two-cycle internal combustion engine, a pair of working-and-pump cylinders having separate cylindrical intake-valve and bypass-valve housings arranged on opposite sides of the cylinders and each provided with separate ports to the respective pump cylinders, and the bypass-valve housing provided also with separate ports to the respective working cylinders, and cylindrical rotary valves in said housings each having a central chamber and openings therefrom adapted to register at determined intervals with the ports to the respective cylinders.

5. In a two-cycle internal combustion engine, a pair of working-and-pump cylinders each provided with a valve-controlled inlet to the pump portion thereof on one side of the cylinders, a cylindrical valve housing on the opposite side of said cylinders having separate openings communicating with the working and pump portions of each cylinder, and a rotary cylindrical valve in said housing having a central reservoir chamber and ports controlling communication between the latter and the respective working and pump cylinders.

[Claims 6 to 10 not printed in the Gazette.]

1,208,806. MEANS FOR CHARGING WATER WITH RADIO-ACTIVITY. MARY A. LOYER, Denver, Colo. Filed Sept. 23, 1915. Serial No. 52,274. (Cl. 250—34.)



1. A device of the class described, comprising a receptacle, said receptacle consisting of upper and lower parts, the lower part comprising a frame detachably secured to the upper part, a vertically disposed screen retained by said frame, a perforated housing retained in position by said frame and encircled by said screen, and the upper part of said receptacle having an interior member therein with which the upper part of said perforated housing is engaged.

2. A device of the class described, comprising a receptacle, said receptacle consisting of upper and lower parts, the lower part comprising a frame detachably secured to said upper part, a screen retained by said frame, an annular flange disposed on the interior of the upper part of said receptacle, a housing retained in position by said frame and surrounded by said screen, the upper extremity of said housing engaging with said flange, and means for securing the upper part of said receptacle to a water faucet.

3. A device for charging water with therapeutic qualities, consisting of a receptacle composed of two parts detachably connected together, one of said parts comprising two rings spaced apart, stays connecting said rings and holding the latter in their spaced apart relation, one of said rings adapted to be engaged with the other part of said receptacle, a cap threaded in the other ring, a screen held in position by said rings, and a perforated housing seated on said cap and encircled by said screen.

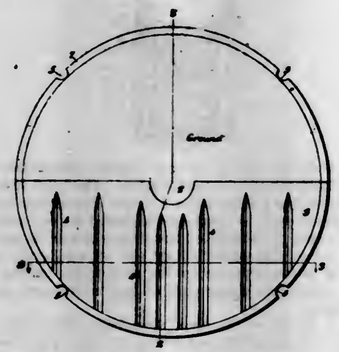
4. A device for charging water with therapeutic properties, comprising a receptacle composed of upper and lower parts, one of said parts comprising two rings spaced apart, stays connecting said rings, the lower extremity of the upper part of said receptacle having a member thereon, one of said rings adapted to be threaded on said member, a cap threaded in the other ring, a screen held in position by said rings, a housing seated on said cap and encircled by said screen, the upper extremity of said housing having a horizontally disposed outwardly extending flange, the interior of the upper part of said receptacle having an annular flange engaged by said flange of said housing, and a screen covering the top of said housing and engaged between said flanges, the said flange of said housing having a portion cut out to receive the edge of said last named screen.

5. A device for charging water with therapeutic qualities, consisting of a receptacle composed of upper and lower parts, the wall of the upper part being solid, the lower part consisting of a frame, said frame being composed of two rings spaced apart, stays connecting said rings and holding the latter in their spaced apart relation, one of said rings being threaded on the lower extremity of the upper part of said receptacle, a cap threaded in the other ring and forming the bottom of the lower part of said receptacle, vertically disposed screens held in position by said frame, a housing seated on said cap and encircled

by said screens, a spacing ring held by said frame and encircling said housing near the lower part of the latter, the upper extremity of said housing having an outwardly extending flange, the interior of the upper part of said receptacle having an annular flange engaged by the flange of said housing, the wall of said housing being perforated, and means for securing said receptacle to a water faucet.

[Claim 6 not printed in the Gazette.]

1,208,807. POLISHED PLATE-GLASS LENS. EMIL LUCKE, Portland, Oreg. Filed Apr. 19, 1916. Serial No. 92,147. (Cl. 240—48.4.)



1. A lens, the upper half of which is ground and provided with a tab portion at the center also of ground surface, the lower half, except the tab, being clear and provided with vertically extending parallel miter cuts.

2. A lens comprising a plate, one-half of which is ground and the other half clear, the clear half being provided with parallel light distributing miter cuts.

3. A lens, the upper half of which is ground and provided with a tab portion at the center also of ground surface, the lower half, except the tab, being clear and provided with vertically extending parallel miter cuts, said lens also including an annular rim portion having notches substantially as shown and for the purposes described.

4. A lens comprising a body, a portion of which is ground and the remaining portion is provided with alternating clear surfaces and parallel light distributing grooves.

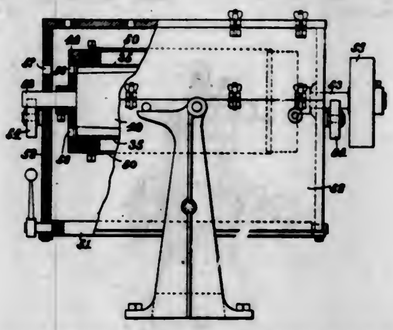
5. A lens comprising a sheet glass body approximately one-half of which is ground to form a continuous translucent portion, and the remaining part of said body being provided with parallel vertically extended light distributing undulations or grooves.

1,208,808. METHOD OF MAKING WALL-COVERINGS. JAMES W. MCINDOE, Medford, and ARTHUR E. WHITNEY, Winchester, Mass. Filed Mar. 22, 1916. Serial No. 86,313. (Cl. 204—1.)

1. The method which consists in taking two pieces of wood veneer of similar design; abutting the ends together with the backs thereof secured to a flat plate; removing the gum from the grain; forming an electroplate therefrom; and then forming said electroplate into an impression cylinder.

2. The method which consists in taking two pieces of wood veneer of similar design; trimming the corresponding ends thereof to produce abutting walls; abutting the trimmed ends together with the backs thereof secured to a flat plate; removing the gum from the grain; forming an electroplate therefrom; and then forming said electroplate into an impression cylinder.

3. The method which consists in taking two pieces of wood veneer of similar design; abutting the ends together with the backs thereof secured to a flat plate; smoothing and leveling said veneer; removing the gum from the grain; forming an electroplate therefrom; and then forming said electroplate into an impression cylinder.

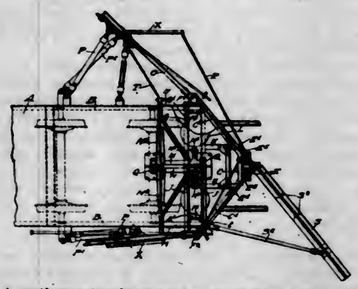


4. The method which consists in taking two pieces of wood veneer of similar design; abutting the ends together with the backs thereof secured to a flat plate; smoothing and leveling said veneer; giving the surface a light coating of shellac; removing the gum from the grain; forming an electroplate therefrom; and then forming said electroplate into an impression cylinder.

5. The method which consists in taking two pieces of wood veneer of similar design; abutting the ends together with the backs thereof secured to a flat plate; removing the gum from the grain; depositing an electric conductor on the surface; forming an electroplate therefrom; and then forming said electroplate into an impression cylinder.

[Claims 6 to 16 not printed in the Gazette.]

1,208,809. RAILWAY TRACK-SPREADER. ORVILLE C. MANN, Oak Park, Ill. Filed Oct. 8, 1914. Serial No. 865,659. (Cl. 37—22.)



1. A railway track spreader comprising a car having a draw-bar and having its platform frame at the forward end beveled off at both corners substantially from the opposite sides of the draw-bar to a transverse vertical plane at the forward end of the truck; a prow comprising two divergent deflecting members rigidly united, mounted for vertical movement against the bevels of the platform, said prow being cut away through the apex at a distance above the lower edge of said prow at the position of the draw-bar, to accommodate the draw-bar in such up-and-down movement of the prow, and means on the car for supporting, raising and lowering the prow.

2. A railway track spreader comprising a car having a draw-bar and having its platform frame at the forward end beveled off at both corners substantially from the opposite sides of the draw-bar to a transverse vertical plane at the forward end of the truck; a prow or V-shaped deflector having its diverging sides mounted for vertical movement against the bevels of the platform; a transverse horizontal framing bar which is rigid with the divergent side members of said prow at the lower part thereof, and upright posts which are rigidly extended upward from said transverse framing bar through the platform; a cross-beam which rigidly connects said posts at their upper ends, and means acting upon the cross beam for raising and lowering the posts and thereby raising and lowering the prow, and guiding brackets extending rigidly from the sides of the platform outside said posts, said brackets being provided each with a vertical slot and the ends of said transverse framing bar being engaged in said slots for guiding the prow in such up-and-down movement for checking the same against any forward movement relative to the platform.

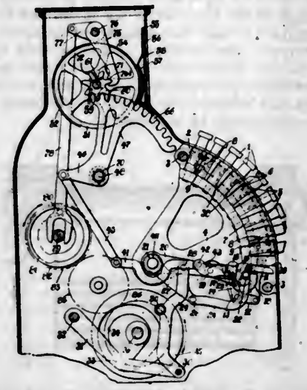
3. A railway track spreader comprising a car having a draw-bar and having its platform frame at the forward end beveled off at both corners substantially from the opposite sides of the draw-bar to a transverse vertical plane at the forward end of the truck; a prow or V-shaped deflector having its diverging sides mounted for vertical movement against the bevels of the platform; the platform frame comprising longitudinal side bars from the ends of the parallel portions of which the beveled corners of the platform extend; means for framing rigidly together the said diverging sides of the prow, comprising a cross-beam extending below the platform and crossing under the longitudinal side bars of said platform frame, and tie bars which connect said cross-beam rigidly with said diverging members of the prow; posts rigidly secured to the cross-beam at the opposite end portions thereof, each post comprising two members, one extending up inside and the other extending up outside of the longitudinal side bar of the platform; brackets rigidly secured to the platform at the outer sides of said longitudinal side bars of the platform, said brackets being provided each with a rearwardly-facing vertical edge, the ends of the cross-beam being extended beyond the posts and engaging behind said vertical edges of the brackets respectively for checking the prow against swinging forwardly and for guiding the same in vertical movement; a cross-head connecting the posts at their upper ends, and means operating upon the cross-head for lifting and lowering the prow.

4. A railway spreader comprising in combination with a car a deflecting prow positioned in front of the forward truck and mounted on the car platform frame for up and down movement past the forward end of said frame, means on the car for so moving it; a lateral wing hinged at its forward end to the car behind the outer end of the prow in position to receive and further deflect the material deflected and delivered by the prow for swinging at the rear end toward and from the car, means for controlling the rear end of said wing in such swinging, and connections by which the upward movement of the prow pulls on the wing to swing it inward and upward; whereby such wing is collapsed against the side of the car when the prow is lifted out of working position.

5. A railway spreader comprising in combination with a car a deflecting prow positioned in front of the forward truck and mounted on the car platform frame for up and down movement past the forward end of said frame; a rock shaft journaled longitudinally on the platform frame of the car having a crank-arm, a member connected with the prow so as to partake of the up and down movement of the latter, and connections from such member to the crank-arm for rocking the shaft by the up and down movement of the prow, said shaft having also a lever arm which extends upwardly at the position of the rock shaft at the upper limit of the movement of the prow; a lateral wing hinged at its forward end to the car behind the outer end of said prow for swinging at its rear end toward and from the car, and a connection from said lateral wing to said lever arm whereby the arm is swung inward and upward by the rocking of the shaft which results upon the upward movement of the front prow.

[Claims 6 to 9 not printed in the Gazette.]

1,208,810. INDICATOR MECHANISM FOR CASH-REGISTERS. HAAKON A. MARTIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 15, 1914. Serial No. 838,730. (Cl. 235—23.)



1. In a machine of the class described, the combination with two accounting elements each bearing a part of the digits or characters of a series and so constructed that any digit or character on either element may be brought to a common effective point, and differential mechanism for operating the same.

2. In a machine of the class described, the combination with an accounting element bearing part of a series of digits or characters, of a second accounting element bearing the remaining digits or characters of the series, and differential mechanisms for operating said accounting elements so that but one digit or character of the series is brought into effective position.

3. In a machine of the class described, the combination with an indicator element bearing part of a series of digits or characters, of a second indicator element bearing the remaining digits or characters of the series, and differential mechanism common to the two indicator elements for operating the same so that but one digit or character of the series is displayed at a time.

4. In a machine of the class described, the combination with two indicator elements each bearing a number of digits or characters of a series and so constructed that any digit or character on either element may be brought to a common reading point, and differential mechanism common to the two indicator elements for operating the same.

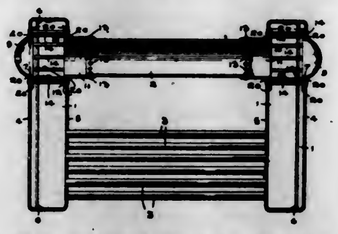
5. In a machine of the class described, the combination with two rotary indicator elements, one positioned within the other and each bearing a number of digits or characters of a series, and differential mechanism for rotating the indicator elements to bring any digit or character on either indicator element to a common reading point.

[Claims 6 to 22 not printed in the Gazette.]

1,208,811. BOILER. EDWARD C. MEISS, Phoenixville, Pa. Filed Apr. 30, 1915. Serial No. 24,899. (Cl. 122—262.)

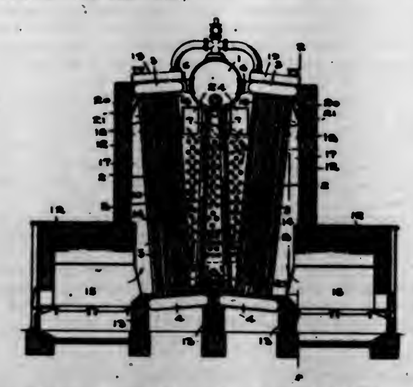
1. In a boiler, the combination with two water legs, both water legs having registering openings in their inner and outer sheets, heads projected through the openings in the outer water leg sheets, said heads having outwardly disposed flanges located against the inner faces of the outer water leg sheets, nipples projecting through the openings in the inner water leg sheets and having flanges at their inner ends, a casing secured at its ends to the respective nipples, a plurality of stay bolts projected through both sheets of both water legs, and through the internal flanges of the heads and the nipples, substantially as described.

2. In a boiler, the combination with two water legs, both water legs having registering openings in their inner and outer sheets, heads projected through the openings in the outer water leg sheets, said heads having outwardly disposed annular flanges located against the inner faces of the outer water leg sheets, nipples projecting through the openings in the inner water leg sheets and having annular flanges at their inner ends, an elongated casing having its ends located inside of and secured to the respective nipples, a plurality of stay bolts arranged in annular formation and projected through both sheets of both water legs and through the flanges of the heads and the nipples, substantially as described.



3. A boiler, comprising two boxes, said boxes having openings in their inner and outer sheets, heads projected through the openings of the outer sheets, and having outwardly disposed projecting flanges at their inner portions welded to the inner faces of the outer sheets, nipples projecting through the openings in the inner sheets and having outwardly disposed projecting flanges welded to the inner faces of the inner sheets, a casing connecting the nipples, and stay bolts projecting through the front and rear sheets and through the flanges of the heads and nipples, substantially as described.

1,208,812. UPRIGHT BOILER. EDWARD C. MEIER, Phoenixville, Pa. Filed Aug. 6, 1915. Serial No. 43,954. (Cl. 122—351.)



1. A boiler, comprising a drum, a plurality of pairs of boiler units located at opposite sides of the drum and communicating with the drum, chambers formed between the pairs of boiler units, super-heaters in said chambers, and means for controlling the flow of smoke and gases through said chambers, substantially as described.

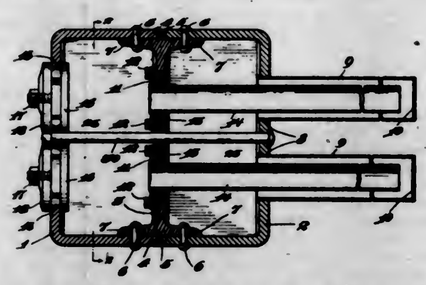
2. In a boiler, the combination with a cross drum located at the top of the boiler, of a plurality of pairs of boiler units located at opposite sides of the drum, supported in an upright position and supporting the drum between them, said boiler units forming a chamber below the drum and forming other chambers between each pair of boiler units, a pre-heater supported in the first-mentioned chamber, and super-heaters in the last-mentioned chambers, substantially as described.

3. In a boiler, the combination with a cross drum located at the top of the boiler, of a plurality of pairs of boiler units located at opposite sides of the drum, supported in an upright position and supporting the drum between them, said boiler units forming a chamber below the drum and forming other chambers between each pair of boiler units, a pre-heater projecting through the first-mentioned chamber and super-heaters supported on top of the boiler structure and projecting into the last-mentioned chambers, substantially as described.

4. In a boiler, the combination with a cross drum located at the top of the boiler, of a plurality of pairs of boiler units located at opposite sides of the drum, supported in an upright position and supporting the drum between them, said boiler units forming a chamber below the drum and forming other chambers between each pair of boiler units, a pre-heater supported in the first-mentioned chamber, and super-heaters in the last-mentioned chambers, and dampers controlling the flow of smoke and gases through the last-mentioned chambers, substantially as described.

5. In a boiler, the combination with a cross drum located at the top of the boiler, of a plurality of pairs of boiler units located at opposite sides of the drum, supported in an upright position and supporting the drum between them, said boiler units forming a chamber below the drum and forming other chambers between each pair of boiler units, a pre-heater projecting through the first-mentioned chamber, super-heaters on top of the boiler structure and projecting into the last-mentioned chambers, and dampers controlling the flow of smoke and gases through the last-mentioned chambers, substantially as described.

1,208,813. BOX-HEADER. EDWARD C. MEIER, Phoenixville, Pa. Filed Jan. 22, 1916. Serial No. 73,513. (Cl. 122—462.)



1. A box header comprising two members forming a casing and having their edges projecting toward each other, a member forming a longitudinal partition adjacent the parting line of said two members, said member having flanged ends bridging the parting between the edges and being secured to the casing, stay bolts projecting through both of said first members and through the partition, said stay bolts having their opposite heads respectively engaging the outer surface of said members and serving to bind them together, tubes secured to one of said members and having closed ends, open ended tubes of smaller diameter than the first-mentioned tubes and secured in the partition and projecting into the first-mentioned tubes, substantially as described.

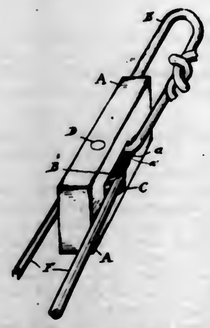
2. A box header comprising two members having their edges projecting toward each other, an I-beam forming a longitudinal partition adjacent the parting line of said two members, said I-beam having its opposite flanged ends secured to both of said members and bridging the parting between said edges, stay bolts projecting through both members and through the partition, said stay bolts having their opposite heads respectively engaging the outer surfaces of said members and serving to bind them together, tubes secured to one of said members and having closed ends, open ended tubes of smaller diameter than the first-mentioned tubes and secured in the partition and projecting into the first-mentioned tubes, and welding material interposed between said edges of the members, substantially as described.

3. A box header of the character described, comprising two members forming a casing and having their edges projecting toward each other, a partition member extending longitudinally within said casing and having flanged ends bridging the parting between said edges and being secured to the casing, means forming transverse partitions within said casing and connecting the longitudinal partition with the inner surfaces of said first members, stay bolts extending through both of said first members and through the partition member, the heads of said bolts being in engagement with the outer surfaces of said first members and serving to bind them together, tubes secured to one of said first members and having closed outer ends, smaller open ended tubes secured in the longitudinal partition and projecting into the first-mentioned tubes, and flanged collars secured to the ends of the header, one of said collars adapted to be secured to an inlet pipe and the other to an outlet pipe, substantially as described.

4. A box header of the character described, comprising two members having their edges projecting toward each other, a longitudinal partition located inside the header, and having flanged portions at opposite ends, each of said flanged portions being secured to both members, the edges of both of said members beveled forming V-shaped troughs, welding material in said troughs, and tubes having ends communicating with space between opposite surfaces of the partition and oppositely disposed surfaces of said members, the other ends of said tubes being in communication, and means providing inlet and outlet passages, said passages communicating with space adjacent opposite surfaces of said partition, substantially as described.

5. A box header of the character described, comprising two channel shaped members having their edges projecting toward each other, welding material between the edges of the members, an I-beam extending longitudinally of the box header, and secured to both of said members, and stay bolts projecting through both of said members and through the I-beam, substantially as described.

1,208,814. CLOTHES-LINE PULLEY. HERMANN F. MEIER, Brooklyn, N. Y. Filed Oct. 7, 1916. Serial No. 124,214. (Cl. 254—192.)



1. A clothes line pulley embodying a one-piece block of non-corrosive material, a portion of which is cut out to form two slots disposed longitudinally of the block, a non-corrosive axle extending through one of said slots, a sheave of non-corrosive material positioned in said slot and mounted for rotation on the axle, and an attaching loop of non-corrosive material embracing one end of the block and passing through the other slot for mounting the pulley for universal movement on a fixed support, whereby the pulley is constructed entirely of non-corrosive materials and the depositing of corrosion or rust upon the clothes line is thereby obviated.

2. A clothes line pulley embodying a one-piece block of non-corrosive material, a portion of which is cut out to form two slots disposed longitudinally of the block, a non-corrosive axle extending through one of said slots, a sheave of non-corrosive material positioned in said slot and mounted for rotation on the axle, and an attaching loop of non-corrosive material embracing one end of the block and passing through the other slot for mounting the pulley for universal movement on a fixed support whereby the pulley is constructed entirely of non-corrosive materials and the depositing of corrosion or rust upon the clothes line is thereby obviated, the slots of the block being connected by a constricted passage precluding inadvertent disengagement of the attaching loop from its slot.

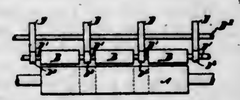
3. A clothes line pulley embodying a one-piece block of non-corrosive material provided with a longitudinal slot, a non-corrosive axle extending through the slot of the block, a sheave of non-corrosive material positioned within the slot and mounted for rotation on the axle, said block being provided with an attaching slot positioned at one end of the sheave slot and connected therewith by a constricted passage, and a flexible attaching member of non-corrosive material passing through the attaching slot for mounting the pulley for universal movement on a fixed support, whereby the pulley is constructed entirely of non-corrosive materials and the depositing of corrosion or rust on the clothes line is thereby obviated.

4. A clothes line pulley embodying a one-piece block of non-corrosive material provided with a longitudinal slot having a constricted portion intermediate its ends dividing the slot into two sections, a non-corrosive axle extending through one section of the slot of the block, a sheave of non-corrosive material positioned within said section and mounted for rotation on the axle, and a flexible member of non-corrosive material passing through the other section of the slot for mounting the pulley for universal movement on a fixed support, whereby the pulley is constructed entirely of non-corrosive materials and the depositing of corrosion of rust on the clothes line is thereby obviated.

5. A clothes line pulley embodying a one-piece longitudinally slotted block of non-corrosive material, a non-corrosive axle extending through the slot of the block, a sheave of non-corrosive material positioned within the slot and mounted for rotation on the axle and means for mounting the pulley for universal movement on a fixed support, whereby the pulley is constructed entirely of non-corrosive materials and the depositing of corrosion or rust on the clothes line is thereby obviated.

[Claims 6 and 7 not printed in the Gazette.]

1,208,815. INTERMEDIATE ROLL FOR PRINTING-MACHINES. EDUARD MERTENS, Freiburg-im-Breisgau, Germany. Filed Feb. 6, 1913, Serial No. 746,588. Renewed July 25, 1916. Serial No. 111,195. (Cl. 101—126.)

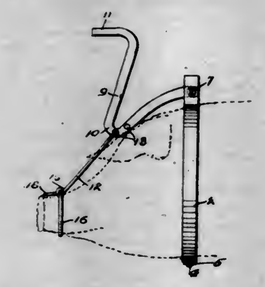


1. In a printing apparatus, a printing roll, a shaft supported above the printing roll, counter pressure cylinders carried by said shaft, counter pressure disks supported adjacent the counter pressure cylinders, a shaft supported above the first mentioned shaft, pressure disks carried by the second mentioned shaft, the disks of said shaft adapted to engage the counter pressure disks of the first mentioned shaft for exerting pressure to the shaft thereof and counter pressure cylinders.

2. In a printing apparatus, a printing roll, a shaft supported above the printing roll, counter pressure rolls on the shaft, means engaging the shaft adjacent the counter pressure rolls for communicating pressure thereto independent of the surfaces thereof.

3. In a printing apparatus, a printing roll, a shaft carrying counter pressure rolls supported above the printing roll, pressure means above the counter pressure rolls, and pressure means adapted to communicate pressure to the shaft of the counter pressure rolls adjacent the ends of the counter pressure rolls.

1,208,816. NECK-YOKE. AMOS E. METTS, Grosvenor, Tex. Filed Sept. 27, 1915. Serial No. 52,909. (Cl. 119—140.)



1. A neck yoke including neck clamping means, a V-shaped lever pivotally connected at one terminal thereof to said neck clamping means, a guarding hook formed by bending the other terminal of the lever outwardly, a snout engaging ring, a bell crank lever adjustably connected to the V-shaped lever at the vertex thereof and movably connected at its point of distortion to the snout engaging ring, and the free end of the bell crank lever being pointed and adapted to engage the snout of the animal when the guard hook is moved.

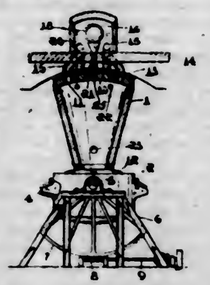
2. A neck yoke including a pair of adjustable sections clamped about the neck of an animal, a substantially V-shaped lever pivotally connected at one terminal thereof between the upper terminals of the sections, a guarding hook formed by bending the other terminal of the V-shaped lever outwardly, a snout engaging ring, a bell crank lever formed from a single piece of rod metal, a loop provided at the point of distortion of the bell crank lever and pivotally arranged about the ring, a long arm of the bell crank lever being adjustably connected to the V-shaped lever at the vertex thereof, and the short arm of the bell crank lever being pointed to engage the snout of an animal when the guard hook is moved.

1,208,817. ELECTRIC FURNACE. JAMES W. MOFFAT, Toronto, Ontario, Canada. Filed Mar. 24, 1916. Serial No. 86,471. (Cl. 204—64.)

1. A furnace comprising a stationary stack; and an unobstructed reduction chamber and a crucible in fixed relationship to one another and tiltable as a unit, the reduction chamber normally communicating with said stack.

2. A furnace comprising a stationary stack; and an unobstructed reduction chamber and a crucible in fixed relationship to one another and tiltable as a unit, the reduction chamber normally communicating with said stack and adapted when tilted to substantially close off the stack.

3. A furnace comprising a stationary stack; an unobstructed reduction chamber and a crucible in fixed relationship to one another and tiltable as a unit, the reduction chamber having a plurality of holes formed in its top; a plate having openings therein adapted to register with the openings in the top of the reduction chamber; and flues communicating with the openings in the said plate and with the stack.

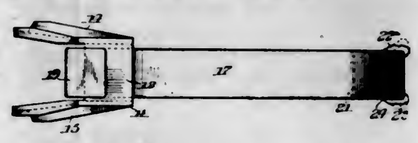


4. A furnace comprising a stationary stack; an unobstructed reduction chamber and a crucible in fixed relationship to one another and tiltable as a unit, the reduction chamber having a plurality of holes formed in its top; a plate having openings therein adapted to register with the openings in the top of the reduction chamber and a charge hopper adapted to feed through a central opening in the top of the reduction chamber when the latter is in normal position; and flues communicating with the other openings in the said plate and with the stack.

5. A furnace comprising a stationary stack including charge pre-heating means and a chamber for the reception of furnace gases through which the pre-heating means discharges; and an unobstructed reduction chamber and a crucible in fixed relationship to one another and tiltable as a unit, the reduction chamber normally communicating with the chamber of said stack.

[Claims 6 and 7 not printed in Gazette.]

1,208,818. YOKE FOR DRAFT-GEARS. CHARLES J. NASH, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., Chicago, Ill., a Corporation of Illinois. Original application filed Apr. 28, 1913, Serial No. 764,401. Divided and this application filed May 16, 1914. Serial No. 838,941. (Cl. 213—42.)



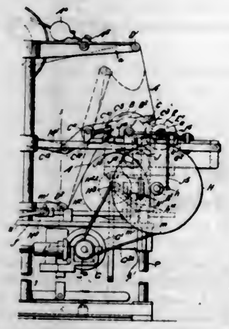
In a draft gear yoke, in combination, a U-shaped strap and a filler block fitting within the inner end of the strap and having integral fingers in hooked form embracing the yoke end and securing the block thereto.

1,208,819. BANDING-MACHINE. JOHN WILLIAM NASMITH, Heaton Mersey, England. Filed Feb. 8, 1912. Serial No. 676,365. (Cl. 93—54.)

1. In a banding machine, the combination with a receptacle for an adhesive, of a rotatable adhesive applying roller in contact with the adhesive in said receptacle, continuously driven means for imparting rotation to said adhesive applying roller, and means intermediate said adhesive-applying roller and said continuously driven means under the control of the band for imparting rotation to said adhesive-applying roller.

2. In a banding machine, the combination with a receptacle for an adhesive, of a rotatable adhesive applying roller in contact with the adhesive in said receptacle, continuously driven means for imparting rotation to said adhesive applying roller, and normally inactive means intermediate said adhesive-applying roller and said continuously driven means under the control of the band for imparting rotation to said adhesive applying roller.

3. In a banding machine, the combination with a receptacle for an adhesive, of a rotatable adhesive-applying roller in contact with the adhesive in said receptacle, continuously driven means for imparting rotation to said adhesive applying roller, means intermediate said adhesive-applying roller and said continuously driven means for imparting rotation to said adhesive applying roller, means to normally maintain said intermediate device inactive, and means under the control of the band for releasing said intermediate means and imparting rotation to said adhesive-applying roller.



4. In a banding machine, the combination with a receptacle for an adhesive, of a rotatable adhesive applying roller in contact with the adhesive in said receptacle, continuously driven means for imparting rotation to said adhesive applying roller, a roller intermediate said adhesive applying roller and said continuously driven means for imparting rotation to said adhesive-applying roller, means for normally maintaining said intermediate roller out of contact with said continuously driven means, and means under the control of the band for releasing said intermediate roller and to permit contact with said continuously driven means.

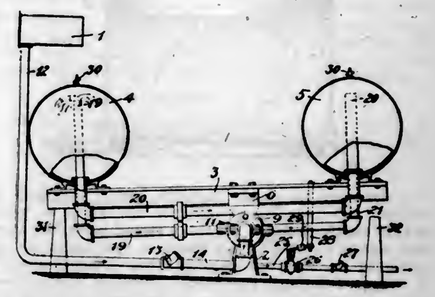
5. In a banding machine the combination of a receptacle for the adhesive substance; an adhesive-applying roller partly immersed in the contents of the receptacle and adapted to be rotated therein; a stripping roller adapted to rotate with its peripheral face clear of the adhesive in the receptacle and a short distance from the adhesive-applying roller; means for positively driving the adhesive-applying roller; means, acted upon by the band, for bringing the said positive driving means into operation; and means for positively driving the stripping roller simultaneously with the driving of the adhesive-applying roller.

[Claims 6 to 48 not printed in the Gazette.]

1,208,820. SEPARATING-TRAP. JOHN W. NEWMAN, Ridgefield Park, N. J. Filed Dec. 28, 1915. Serial No. 69,019. (Cl. 137—103.)

1. A separating trap comprising two tanks of the same capacity, a walking beam supporting said tanks and having hollow trunnions, one of said tanks being mounted at a materially greater distance than the other from the trunnions, a support for said tanks and walking beam through the medium of said trunnions, a pipe leading into one of said tanks through one of said trunnions, another pipe leading from the last mentioned tank to the other tank, and another pipe leading from the last mentioned tank to the other trunnion, and another pipe leading from the last trunnion, a valve in said last mentioned pipe, with means for controlling said valve by the relative position of said walking beam.

2. In a separating trap, a main support, tiltable mechanism mounted thereon including a walking beam having hollow trunnions mounted in said support, two separate tanks of the same capacity mounted on opposite ends of said walking beam, one end of said tiltable member being heavier than the other, a pipe system leading through one of said trunnions and into the tank on the heavier side of the trunnion, another pipe leading from the last mentioned tank to the tank on the lighter side of said tilting mechanism, another pipe leading through the other trunnion to an outlet, a valve in said outlet, and means of connection between said tiltable mechanism and said valve for opening the same when said tiltable mechanism stands in one position.



3. In a separating trap, a main support, tiltable mechanism mounted thereon including a walking beam having hollow trunnions mounted in said support, two separate tanks mounted on opposite ends of said walking beam, one end of said tiltable member being heavier than the other, a pipe system leading through one of said trunnions and into the tank on the heavier side of the trunnion, another pipe leading from the last mentioned tank to the tank on the lighter side of said tilting mechanism, another pipe leading through the other trunnion to an outlet, a valve in said outlet, means of connection between said tiltable mechanism and said valve for opening the same when said tiltable mechanism stands in one position, the outlet being of smaller capacity than the inlet and the passage connecting the separate tanks being larger than the outlet.

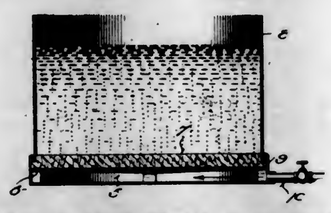
4. In a separating trap, a tiltable walking beam having trunnions, a mounting therefor, two tanks carried one at each end of said walking beam, said trunnions being located nearer to one end than to the other, an introductory pipe leading through one trunnion into the upper part of the tank on the longer end of the walking beam, another pipe leading from the lower part of said tank into the upper part of the other tank, another pipe leading from the lower part of the last mentioned tank through the other trunnion and a discharge pipe leading from the last mentioned trunnion, a valve in said pipe with means of connection between said valve and walking beam whereby when the longer end of said walking beam is down, said valve will be open and vice versa.

5. In a separating trap, a walking beam having hollow trunnions at opposite sides thereof, bearing supports for said trunnions, two tanks carried by said walking beam at opposite sides of said trunnions all constituting a tiltable mechanism, one end of which normally overbalances the other, each of said trunnions having a hollow chamber, a pipe entering one trunnion from one end with means for forming a substantially water-tight joint between said pipe and trunnion, said pipe opening into the chamber of said trunnion, another pipe leading from the chamber of said trunnion into the upper part of the tank at the heavier end of said tiltable mechanism, another pipe leading from the lower part of the last mentioned tank into the upper part of the other tank, another pipe leading from the lower part of the last mentioned tank to the other trunnion and opening into the chamber thereof, another pipe leading longitudinally through the last mentioned trunnion and having an opening into said chamber with a valve in the outer part of the last men-

tioned pipe, and means of connection between said tiltable mechanism and said valve for controlling said valve by the position of said member.

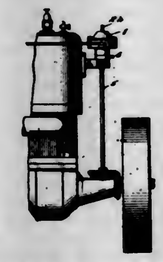
[Claims 6 and 7 not printed in the Gazette.]

1,208,821. AERATING APPARATUS. CARL H. NORDELL, Milwaukee, Wis. Filed Mar. 23, 1916. Serial No. 86,174. (Cl. 210—1.)



A container for sludge having a bottom composed of wooden slabs cut transversely of the grain to form minute elastic passages for air, a casing below the wood slab bottom forming an air chamber, and means for introducing air under pressure into the chamber whereby it is forced through the fibrous passages of the wood slabs to form minute bubbles for uniformly aerating the body of the sludge that is supported by the fibrous bottom.

1,208,822. LOCKING MEANS FOR INTERNAL-COMBUSTION MOTORS. CASIN W. OBERT, Brooklyn, N. Y. Filed Feb. 27, 1915. Serial No. 10,976. (Cl. 123—166.)



1. An improved locking means for internal-combustion engines, comprising a rotatable timer-shaft, an ignition device having a timing element, and disconnectible and detachable means for locking said timing element of the ignition device to said shaft.

2. An improved locking means for internal-combustion engines, comprising a rotatable timer-shaft a rotatable member secured to said motor shaft and having a timing element, and disconnectible means for locking said timing element and said rotatable member to said shaft.

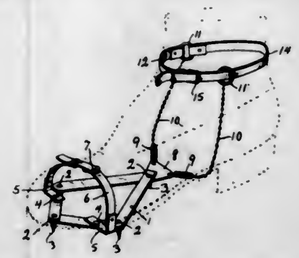
3. An improved locking means for internal-combustion engines, comprising a rotatable timer-shaft, a rotatable member secured to said shaft, a projecting spindle on said rotatable member, an ignition device, provided with a hub fitting said projecting spindle, and means for locking said projecting spindle and ignition device together.

4. An improved locking means for internal combustion engines, comprising a rotatable timer-shaft, a rotatable member secured to said timer-shaft, a projecting spindle on said rotatable member provided with a key-receiving slot, an ignition device comprising a hub fitting said projecting spindle and having a key-receiving slot adapted to register with the slot aforesaid, and means fitting said slots for locking said projecting spindle and ignition device together.

5. An improved locking means for internal-combustion engines, comprising a rotatable timer-shaft, an ignition device having a timing element, and means connecting with said timing element of the ignition device for enabling the timing element to be operated, and means for detachably holding said first-named means.

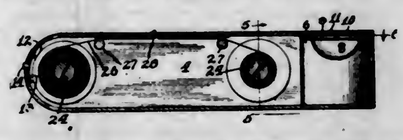
[Claims 6 and 7 not printed in the Gazette.]

1,208,823. ICE-CREEPER. JOHN E. OSTRANDER, Staatsburg, N. Y. Filed Feb. 12, 1916. Serial No. 77,957. (Cl. 36—62.)



A creeper of the class described comprising, in combination, a toggle member adapted to underlie the sole of a shoe, the forward members of the toggle being provided with attaching means, a plate pivotally connected with the rear pivot of the toggle member, retractile members secured to the plate at transversely spaced points, a flexible member secured to each of the retractile members and terminating in an annular member, and ankle embracing straps secured to one of the annular members, the free extremities of said ankle straps being adapted to be adjustably engaged, one of said straps being loosely directed through the annular member of the second flexible member.

1,208,824. AUTOMOBILE-ROUTE AND MILEAGE INDICATOR. PAUL C. PAULSEN, Chicago, Ill., assignor of one-half to Harry W. Morton, Chicago, Ill. Filed Jan. 2, 1915. Serial No. 53. (Cl. 40—86.)

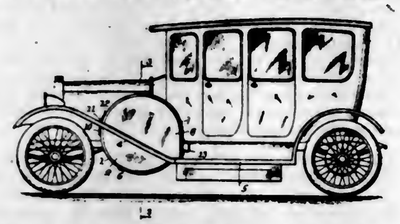


1. In a directional device for vehicles, a casing, means in said casing for displaying the direction to be taken in terms of points of the compass, an adjusting ring rotatably mounted in said casing, and a compass pivotally supported by said ring, whereby when the ring is rotated to bring the north of the dial in register with the north pole of the compass needle that point of the compass toward which the vehicle is pointing will be indicated by the compass dial.

2. In a directional device for vehicles, a casing, an adjustable winding direction tape indicating mechanism in said casing, an adjusting ring rotatably mounted in said casing, and a compass pivotally supported in said ring, whereby when the ring is rotated to bring the north of the dial in register with the north pole of the compass needle that point of the compass toward which the vehicle is pointing will be indicated by the compass dial.

1,208,825. CARRIER FOR SPARE WHEELS. WARD E. PEARSON, New York, N. Y. Filed May 10, 1915. Serial No. 26,943. (Cl. 21—23.)

1. A vehicle part having, in combination, a wheel-fender, and a closable and openable tire-inclosing casing built into the fender and having a curved bottom joined to the fender, and an upper movable cover part movably joined to the bottom at its junction with the fender.



2. A vehicle part having, in combination, a front wheel-fender, and a closable and openable tire-inclosing casing built into the fender and having a curved bottom the forward end of which is joined to the fender, and an upper movable cover part movably joined at its forward end to the forward end of the bottom.

3. A vehicle part having, in combination, a front wheel-fender sloping upward from its rear end, and a closable and openable tire-inclosing casing built into the fender and projecting downward through and below the rear sloping portion of the fender and having an arcuate bottom, and an upper movable cover part having a top wall curved upward from the front and downward toward the rear.

4. In a vehicle, in combination, a vehicle body having a load-receiving compartment, a running board outside of the said compartment at the side thereof, a front wheel-fender sloping upward from the forward end of the running board, and a closable and openable tire-inclosing casing comprising a lower casing part built into the fender and projecting downward through and below the rear sloping portion of the fender and having an arcuate bottom, and an upper movable cover part having a top wall curved downward toward the rear.

5. In a vehicle, in combination, a vehicle body having a load-receiving compartment, a running board outside of the said compartment at the side thereof, a front wheel-fender sloping upward from the forward end of the running board, and a closable and openable tire-inclosing casing comprising a lower casing part built into the fender and projecting downward through and below the rear sloping portion of the fender and having an arcuate bottom of less than a semi-circle, and an upper movable cover part having a top wall curved downward toward the rear and joining the running board.

[Claims 6 to 8 not printed in the Gazette.]

1,208,826. LUBRICATING SYSTEM FOR MINING-MACHINE GEARING. NICOLA PEDULLA, Macdonaldton, Pa. Filed July 25, 1916. Serial No. 111,131. (Cl. 184—6.)



1. In a lubricating system for gearing, the combination with a horizontal plate, a vertical shaft journaled therein, a gear carried by the lower end of the shaft below the plate, a gear on the upper end of the shaft above the plate and a cover for said upper gear, of an oil reservoir carried by said cover and having means for dropping oil onto the upper gear, said plate having a passage therethrough for permitting oil which drops from the upper gear onto the plate to pass through the same and be delivered onto the gear on the lower end of the shaft.

2. In a lubricating system for gearing, the combination with a horizontal plate, a plurality of vertical shafts journaled therein, gears carried by the lower ends of the shafts below the plate, and gears on the upper ends of the shafts above the plate, of means for feeding oil onto the upper gears, said plate having grooves arranged between the gears and passages leading from said grooves and arranged above the lower gears for the purpose specified.

3. In a lubricating system for gearing, the combination with a horizontal plate, a plurality of vertical shafts journaled therein, gears carried by the lower ends of the shafts below the plate, and gears on the upper ends of the shafts above the plate, of an oil reservoir arranged above the upper gears, and individual discharge spouts for delivering oil from the reservoir to the several upper gears, the plate having grooves arranged between the gears and passages leading from said grooves and arranged above the lower gears for the purpose specified.

1,208,827. IDENTIFYING MAILING-CARD. EDWIN G. PICKERING, Montgomery county, near Dayton, Ohio. Filed Sept. 7, 1916. Serial No. 118,823. (Cl. 40—2.)



1. A mailing card containing a separable part adapted to receive a name and address, and means coöperating with a tapering hole formed in said separable part, for firmly securing the latter, when severed from the card, to the coat of the addressee.

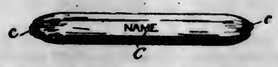
2. A mailing card containing a separable part adapted to receive a name and address, and a hole in said separable part through which an attaching pin may be passed, said hole terminating in a portion narrower than the head of said pin, but wide enough to receive the shank thereof, whereby the pin may firmly and neatly secure said separable part, when severed from the card, to the coat of the addressee.

3. A mailing card containing a separable part adapted to receive a name and address, a wide aperture and a narrow slot connected on a dividing line in said separable part above the name and address, and a pin attached within a buttonhole of the addressee's coat, the head of said pin adapted to be passed through said aperture, after which said pin may be pressed into the slot, which is narrower than its head, to firmly secure the separable part, when severed from the card, to the coat of the addressee.

4. A mailing card containing an identifying part and an attaching part, a dividing line between said parts, an aperture in said identifying part, a pin attached within a button hole of the addressee's coat, having a head adapted to pass through said aperture, said attaching part having a slot narrower than the pin head, said slot meeting the aperture on said dividing line to receive the shank of said pin, whereby the latter may firmly secure the identifying and attaching parts, when severed from the card and bent at right angles to each other on said dividing line, to the coat of the addressee.

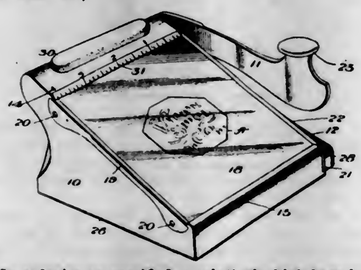
5. A mailing card containing an elongated scored part adapted to receive a name and address, said scored part having above the latter an attaching lip portion adapted to be turned at right angles thereto when severed from the card, an aperture in said scored part, a pin attached within a buttonhole of the addressee's coat, having a head adapted to pass through said aperture, said lip portion having a slot narrower than the pin-head, said slot meeting the aperture on the line which divides the lip portion from the identifying part, to receive said pin, after which the identifying part is turned at right angles to its lip portion to lock the pin in said slot, whereby the severed part of said card will be firmly secured by it to the coat of the addressee.

1,208,828. OUTER CIGAR WRAPPER AND COVER. VINCENT M. PLANCO, New York, N. Y. Filed June 30, 1916. Serial No. 106,742. (Cl. 131—11.)



The combination, with a cigar, of a protective wrapper comprising a sheet of flexible, transparent material slightly longer than the cigar and of a character adapted to retain bends and twists imparted thereto, and having gage-means thereon for registering with a cigar, whereby the cigar may be placed equidistant from the ends of the sheet and parallel with its sides, said wrapper rolled around the cigar and having extended ends of equal length, said ends twisted into short, rope-like extensions, said extensions bent at right angles to the horizontal plane of the cigar.

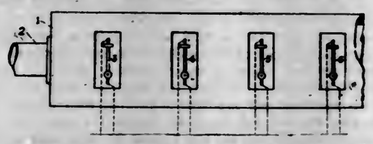
1,208,829. PAPER-CUTTER. JAMES N. W. PORTER, Norfolk, Va. Filed July 13, 1915. Serial No. 39,543. (Cl. 164—44.)



1. In a device as specified, a relatively high base having a face adapted to support the paper to be cut, a knife along one edge of the base for cutting the paper, and a relatively narrow receptacle on the side of said base beneath said knife for receiving the cut clippings, said receptacle being open at its rear whereby the same may be readily emptied and said base being cut away adjacent the open end of said receptacle to facilitate emptying of the receptacle.

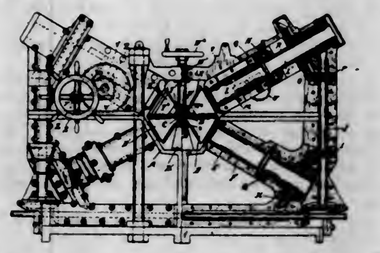
2. In a device as specified, a base to support papers to be cut, a knife along one edge of the base for clipping said papers, and a relatively narrow receptacle beneath said knife for receiving the clippings, said receptacle being formed from a sheet of sheet metal bent at right angles along a longitudinal line and having one leg attached to the bottom of said base and having its upper rear corner bent inwardly and secured to the upper rear edge of said base whereby said receptacle is open at its top to receive said clippings and the receptacle is open at its rear so that the clippings may be expelled therefrom said base being cut away adjacent the open end of said receptacle to enlarge the opening and facilitate the emptying of said receptacle.

1,208,830. APPLIANCE FOR PURIFICATION OF LIQUIDS. EDMUND A. PRATT, New York, N. Y. Filed Apr. 22, 1915. Serial No. 23,148. (Cl. 210—1.)



In combination: a flume or other conduit for containing a liquid to be purified; a plurality of sterilizing lamps; a source of light; a photo-sensitive cell, so situated with respect to the source of light that the rays of light therefrom penetrate the said liquid before reaching the said photo-sensitive cell; a source of electrical supply; a plurality of electrical relays, so connected with the source of electrical supply, the photo-sensitive cell, and the sterilizing lamps that the variation of conductivity of the said photo-sensitive cell caused by the varying opacity of the liquid and acting through the said electrical relays, operates to control the sterilizing lamps; substantially as described in the specification.

1,208,831. MACHINE FOR ROLLING WHEEL-BLANKS. ALDEN L. PUTNAM, Detroit, Mich., assignor to Detroit Pressed Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 14, 1916. Serial No. 78,162. (Cl. 80—16.)



1. The combination with a pair of conical driven rolls, of means for revolubly supporting a blank with its axis of rotation passing through the point of intersection of the axes of said rolls, and a common means for adjusting one of said rolls axially toward or from the coöperating roll.

2. The combination with a pair of conical driven rolls relatively adjustable toward or from each other with their axes intersecting in a fixed point, a clamp for supporting a blank between said rolls, and a revoluble support for said clamp having its axis of rotation intersecting the point of intersection of the axes of said rolls.

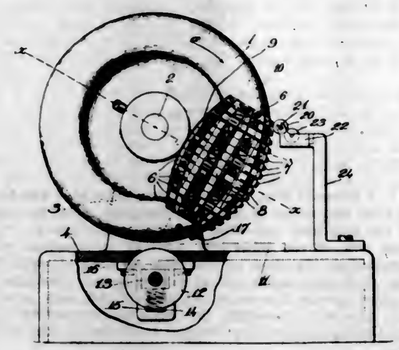
3. The combination with a pair of conical driven rolls, of a revoluble work-support having its axis of rotation intersecting the axes of said rolls in a fixed point, said work-support being adapted to engage a cupped hub member on the blank to hold the latter between said rolls, a clamp for holding said blank upon said revoluble support, and antifriction bearings for said support and clamp to permit the free rotation of said blank.

4. The combination with a pair of conical driven rolls, of supporting shafts therefor extending from the large ends thereof, bearings for said shafts, a frame on which said bearings are mounted, guides for the bearings of one of said shafts permitting adjustment thereof longitudinally of the shaft, members oppositely projecting from said adjustable member, and means acting through both of said members for adjusting the bearing longitudinally.

5. The combination with two pairs of conical rolls, of a non-adjustable pivot disposed between corresponding members of said pairs, said members being likewise non-adjustable, a coöperating pivot adjustable to or from the first-mentioned pivot and disposed between the other two rolls of said pairs, the rolls at each side of the adjustable pivot members being adjustable to or from their fellows and being formed to act differentially upon substantially the same portion of a blank.

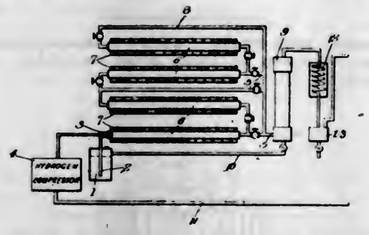
1,208,832. PRINTING-MACHINE. FRED A. PUTNAM, Melrose, Mass. Filed Sept. 14, 1911. Serial No. 649,284. (Cl. 101—126.)

In a printing machine, the combination with a bed for supporting the material to be printed, of a yieldingly-sustained presser roll having its upper surface projecting through the bed, a rotary combined feeding and printing member situated directly above the presser roll but having its periphery separated therefrom a distance slightly less than the thickness of the material to be printed, said combined feeding and printing member having a peripheral surface which engages the material and feeds it forward, means to rotate said member, a plurality of type disks sustained by said rotary member for rotary move-



ment about an axis extending at right angles to that of the rotary member and having their operative type characters in the peripheral feeding surface of said rotary member, and a yielding feeding projection carried by said rotary member and extending beyond the periphery thereof in the line of the feeding surface and in advance of the type disks.

1,208,833. PROCESS OF PRODUCING PHENOLS. ALEXANDER S. RAMAGE, Detroit, Mich., assignor to Bostaph Engineering Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 20, 1916. Serial No. 92,469. (Cl. 23—24.)



1. The process of producing phenols from high-boiling tar-acids, which consists in subjecting a material containing such acids, at a suitable temperature, to the action of hydrogen in presence of a catalyst.

2. The process of producing phenols from high-boiling tar acids, which consists in introducing a material containing such acids in the form of a spray intimately mixed with hydrogen into a chamber containing a catalyst maintained at a suitable temperature, and condensing and collecting phenols.

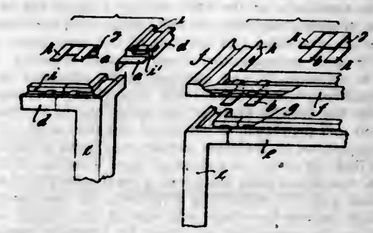
3. The process of producing phenols from high-boiling tar acids, which consists in spraying a material containing such acids by means of a jet of hydrogen into a chamber containing a heated catalyst, and condensing and collecting the resulting phenols.

4. The process of producing phenols from high-boiling tar acids, which consists in spraying a material containing such acids by means of a jet of hydrogen into a chamber containing a catalyst maintained at a temperature of about 600°–650° C. and condensing and collecting the resulting phenols.

5. The process of producing phenols from high-boiling tar acids, which consists in subjecting such acids at a suitable temperature to the action of hydrogen in presence of a nickel catalyst.

[Claim 6 not printed in the Gazette.]

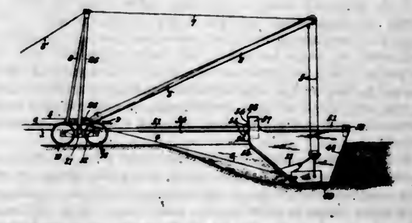
1,208,834. BUILDING-BOX FOR ERECTING FRAMEWORK STRUCTURES. ADOLF RICHTER, Rudolstadt, Germany. Filed Nov. 3, 1914. Serial No. 870,086. (Cl. 72—1.)



1. In a building, building elements comprising spaced U-shaped members connected by a web at the ends of the adjacent inner arms of the members, registering slots passing through one of the outer arms, and through said inner arms, the slots in said outer and inner arms being on the same straight line, and coupling members having coupling cars, the coupling cars of said coupling members being adapted to pass through the said slots of adjacent building elements, said coupling ears passing between the connecting portions of said U-shaped members and the connecting web.

2. In a building, building elements comprising spaced and inverted U-shaped members connected by a web at the ends of the adjacent inner arms of the members, the outer arms of the members, being longer than the inner arms, registering slots passing through one of the outer arms and through said inner arms, the slots in said outer and inner arms being on the same straight line, and coupling members having coupling ears, the coupling ears of said coupling members being adapted to pass through the slots of adjacent building elements, said coupling ears passing below the connecting portions of said U-shaped members and above the connecting web.

1,208,835. DRAIN-EXCAVATOR. ARTHUR W. ROBINSON, Montreal, Quebec, Canada. Filed Dec. 17, 1915. Serial No. 67,359. (Cl. 57—39.)



1. Apparatus of the class stated comprising a suitable supporting structure, a swinging boom thereon, a drag scraper suspended from the boom, a mold adapted to shear the sides and bottom of the excavation and define its contour attached to and traveling with the supporting structure, and means to simultaneously and co-extensively advance the supporting structure and the mold attached to it, the relation of the parts being such that the drag scraper will operate only with and in advance of the mold.

2. Apparatus of the class stated comprising a suitable supporting structure, a swinging boom thereon, a drag scraper suspended from the boom and which operates

toward the supporting structure, a mold closed at its rear and which defines the contour of the excavation and within which only the drag scraper operates, and means to simultaneously and co-extensively advance the supporting structure and the mold.

3. A mold for a trench excavating machine the cross section of which coincides with the contour of the trench, the bottom, the sides and the rear of the mold being immovably and permanently closed, and the forward cutting edges of each side inclined forwardly from the bottom up.

4. In apparatus of the class stated, a mold the cross section of which coincides with the contour of the trench, the bottom, the sides and the rear of the mold being immovably and permanently closed, means whereby the mold is attached to and adapted to be advanced by a self-propelled dredge supporting structure, and means whereby the cutting edges of the mold may be vertically elevated and depressed to determine the degree of cut.

5. Apparatus of the class stated comprising a suitable supporting structure, a swinging boom thereon, a drag scraper suspended from the boom, a mold attached to and traveling with the supporting structure, the cross section of which defines the shape and size of the trench, connected to the supporting structure by laterally disposed bars to which the mold is pivoted, the rear of the mold being closed and its front cutting edges inclined from the bottom up, and means whereby the cutting edges of the mold may be elevated and depressed from the supporting structure as the work progresses to determine the degree of cut.

[Claim 6 not printed in the Gazette.]

1,208,836. GARMENT-STAY. WILLIAM J. ROCHE, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed June 22, 1914. Serial No. 846,590. (Cl. 2—76.)



1. A garment stay, comprising wire bent to form a series of main loops or eyes lying at the edges of the stay and connected by transverse portions or crossings, said eyes or loops having broad outer ends the wire of which is coiled to form a closed loop or eye smaller than the main loop or eye and extending toward the center line of the stay, each of said closed loops or eyes lying wholly within one of the main loops or eyes along the edges of the stay.

2. A garment stay, comprising wire bent to form a series of main loops or eyes lying along the edges of the stay and connected by transverse portions or crossings, said main loops or eyes having broad outer ends the wire of which is bent or coiled to form closed convolutions smaller than and lying within said main eyes or loops.

3. A garment stay, comprising wire bent back and forth to form a series of main loops or eyes lying along the edges of the stay and connected by transverse portions or crossings, said main loops or eyes having broad outer ends the wire of which is bent or coiled to form closed convolutions smaller than and lying within said main eyes or loops, the crossing portions of the wire being bent intermediate the edges of the stay to form a series of closed loops or convolutions lying along the center line of the stay.

1,208,837. GARMENT-STAY. WILLIAM J. ROCHE, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed June 22, 1914. Serial No. 846,592. (Cl. 2—76.)

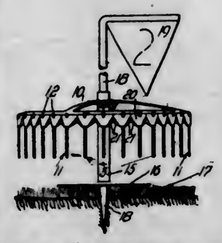


1. A garment stay, comprising wire bent back and forth to form two series of loops or eyes lying along the edges of the stay and connecting transverse portions or crossings, part of the transverse portions or crossings being deflected in the plane of the stay out of a straight line and then back again, all of said deflected crossings extending toward the same end thereof and each overlapping the next crossings, the remaining transverse portions being substantially straight from edge to edge of the stay.

2. A garment stay, comprising wire bent back and forth to form two series of loops or eyes lying along the edges of the stay, and transverse intermediate portions or crossings, every alternate crossing portion of the wire being deflected intermediate its ends out of a straight line and then back again and overlapping the next adjacent transverse portion or crossing.

3. A garment stay, comprising wire bent back and forth to form two series of loops or eyes lying along the edges of the stay and transverse connecting portions or crossings, every alternate intermediate portion or crossing being deflected intermediate its ends in the plane of the stay out of a straight line and then back again and overlapping the next adjacent crossing, the deflected crossings all extending toward the same end of the stay.

1,208,838. BALL-TRAP. CHARLES A. ROLPH, Redlands, Cal. Filed July 12, 1916. Serial No. 108,915. (Cl. 46—4.)



1. A ball tap or the like, embodying a horizontal disk and supporting means therefor, a plurality of pendants spaced around the edge of the disk, and means to restrict the pendants to movement inward toward the center of the disk and to restrict said inward movement to a horizontal field of approximately a right angle.

2. A ball trap or the like, embodying a horizontal disk, supporting means therefor adjustable to adjust the height of the disk above a playing surface, a plurality of pendants spaced around the edge of the disk and hanging loosely therefrom, and means to restrict the pendants to movement inward toward the center of the disk and to restrict said inward movement to a horizontal field of approximately a right angle.

3. A ball trap or the like, embodying an elevated support, a plurality of pendants spaced around the support in

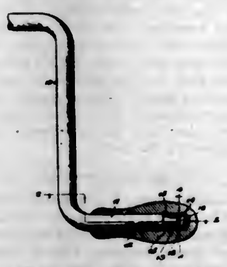
substantially circular formation, and means to restrict the pendants to inward swinging motion toward the center of their formation and to restrict said motion of each pendant to a horizontal field of approximately a right angle.

4. A ball trap or the like, embodying a support, a plurality of movable members mounted on and spaced around the support in substantially circular formation and means to restrict said members to inward motion toward the center of their formation and to restrict said motion of each member to a horizontal field of approximately a right angle whose apex is at the normal position of the member.

5. A ball trap or the like, embodying an elevated support, a plurality of pendants spaced around the support in substantially circular formation, and means to restrict each pendant to inward swinging motion in a field defined by an angle of approximately ninety degrees opening inwardly from the normal position of the pendant toward the center of the pendant formation.

[Claim 6 not printed in the Gazette.]

1,208,839. HANDLE DEVICE. LEROY L. SALFISBERG, Piano, Ill., assignor to Gray Piano Company, Piano, Ill., a Corporation of Illinois. Filed July 17, 1916. Serial No. 109,742. (Cl. 74—33.)



1. In a handle device, the combination of a spindle having a reduced portion, a handle grip on said spindle, and a resilient coupling member disposed in said reduced portion and covered by said grip, said coupling member being unattached either to the grip or to the spindle but arranged to limit longitudinal movement of the grip on the spindle in at least one direction while permitting the grip to turn on the spindle.

2. In a handle device, the combination of a spindle having a reduced portion, a handle grip on said spindle, a spring coupling member located in the reduced portion between the spindle and the grip and having a locking engagement with both though unattached to either, whereby relative longitudinal movement of the grip and spindle in one direction is substantially prevented while relative rotational movement is permitted.

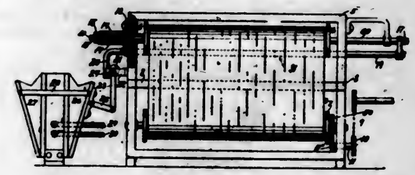
3. In a handle device, the combination of a spindle having an abutment shoulder, a handle grip on said spindle and an approximately U-shaped spring wire coupling member between the spindle and the grip, but unattached to either, said coupling member bearing with its base against said shoulder and with its free ends against said grip, and locking the grip and spindle together against relative longitudinal movement while permitting their relative rotation.

4. In a handle device, the combination of a spindle having a reduced portion and a groove adjacent one end of said reduced portion, a handle grip on said spindle, a resilient coupling member inclosed between the grip and spindle but unattached to either, and having a transverse portion engaging said groove, and having arms extending toward the other end of said reduced portion and in locking engagement with said grip.

5. In a handle device, a spindle, a hand grip thereon, and coupling means wholly inclosed between said spindle and grip but unattached to either, said coupling means being arranged to positively lock the grip against longitudinal movement in one direction relative to the spindle, while permitting it to turn freely on the spindle.

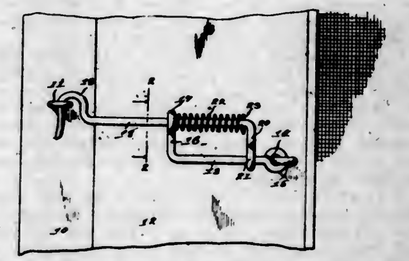
[Claims 6 to 8 not printed in the Gazette.]

1,208,840. SHEET-ADJUSTING APPARATUS. JOSE SAMPERE, deceased, New York, N. Y., by Marie Sampere Pausas, administratrix, New York, N. Y., assignor, by mesne assignments, to A. C. Cheney Piano Action Co., Castleton, N. Y. Original application filed Mar. 2, 1911, Serial No. 611,896. Divided and this application filed Dec. 18, 1912. Serial No. 737,509. (Cl. 84—161.)



In a device of the class described, a pneumatic, a spool bearing, a spool and sheet thereupon, a cam operatively connected between the bar and said pneumatic, a tracker over which said sheet passes, and connections between said bearing and said pneumatic and parallel with said spool which are adapted to shift parallel with said spool and adjust said bearing when said pneumatic is operated, said spool provided with resilient means to oppose longitudinal movement and said connection provided at one end with means adapted to be operated upon by said cam actuated by said pneumatic.

1,208,841. YIELDABLE HOOK. WILLIAM F. SCHMIDT, Green Bay, Wis. Filed May 28, 1914. Serial No. 841,622. (Cl. 70—83.)

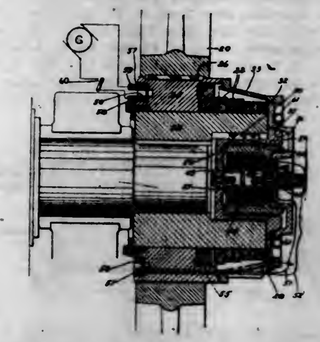


In a fastening device, a carrying element having a shank and a relatively long bendable arm disposed at an angle thereto and provided with an eye, a securing member having a shank slidable through said eye, a relatively long bendable arm extending at an angle from the second mentioned shank and provided with an eye, the first mentioned shank being slidable through the second mentioned eye, an abutment member on one of said shanks additional to said bendable arms, and an expansive spring abutting said member and one of said arms and surrounding one of said shanks so that it may expand in but one direction upon bending of the said bendable arms.

1,208,842. CLUTCH. CARL F. SCHNUCK, Ansonia, Conn., assignor to Farrel Foundry & Machine Company, Ansonia, Conn., a Corporation of Connecticut. Filed Sept. 15, 1914. Serial No. 861,825. (Cl. 192—14.)

1. In a coil clutch, the combination of an annular driving member, a cylindrical driven member embraced thereby, a helical friction coil attached at one end to said

driving member and surrounding said driven member alongside said driving member, a cylindrical shell inclosing said coil and carried by said annular driving member, and a magnet structure for locking the free end of said coil to said driven member, including an end plate for said shell; substantially as described.



2. In a coil clutch, the combination of a driving member, a driven member, one of said members comprising a drum, a friction coil attached to the other member and embracing said drum, an auxiliary clutch member carried by the drum, a second auxiliary clutch member attached to the free end of the friction coil, and electromagnetic means for interengaging the auxiliary clutch members; substantially as described.

3. In a coil clutch, the combination of a driving member, a driven member, one of said members comprising a drum, a friction coil attached to the other member and embracing said drum, a tail plate connected with the free end of the friction coil and constituting one member of an auxiliary clutch, a member carried by the drum and constituting the other member of said auxiliary clutch, and electromagnetic means interposed between said auxiliary clutch members for moving the same into engagement with each other; substantially as described.

4. In a coil clutch, the combination of two clutch members, one of said members formed as a cylinder, a helical friction coil embracing said cylinder and attached at one end to the other clutch member, the free end of said coil located adjacent one end of said cylinder, and an electromagnetic auxiliary clutch interposed between the said end of said cylinder and the free end of the coil; substantially as described.

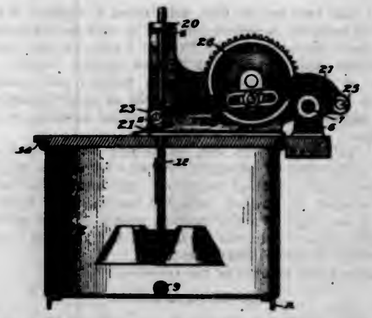
5. In a coil clutch, the combination of two main clutch members, one of said members comprising a drum, a friction coil attached to the other member and embracing said drum, a tail plate attached to the free end of the friction coil, and electromagnetic means carried by the tail plate for clamping the same to the drum; substantially as described.

[Claims 6 to 32 not printed in the Gazette.]

1,208,843. OPERATING MECHANISM FOR WASHING-MACHINES. FRANK B. SCHUYLER, Berkeley, Cal. Filed Dec. 22, 1915. Serial No. 68,166. (Cl. 74—14.)

1. In a washing machine, a frame, a plunger rod having laterally extending arms on its lower end, a lever pivotally mounted at one end to the frame and having its opposite end pivotally connected to the rod, the lowest movement of the last end of the lever being slightly below the horizontal plane of the pivot of the first end of said lever whereby during the upstroke of the plunger rod the lateral arms of the latter will initially be given a slow, short forward rotation and then, with gradually increasing speed, a larger rearward rotation, and means for swinging the lever.

2. In a washing machine, a frame, a plunger rod having laterally extending arms on its lower end, and means for reciprocating the rod and rotating the same whereby during a stroke the lateral arms will initially be given a slight and short forward movement and then a larger reverse movement with increasing velocity.



3. In a washing machine, a receptacle, a hinged cover therefor, a rotatable drive gear, a frame fixed to the cover and provided with a bracket arm extending outwardly of the gear for movement with the cover toward and away from the gear, said frame being further provided with alined bearings, a plunger rod slidable in the bearings of the frame and through the cover, a gear meshing with the drive gear and journaled on the frame intermediate the latter and the plunger rod, a lever pivoted at one end to the bracket arm of the frame and at its opposite end to the plunger rod, said lever extending above the drive gear, and a drive connection between the second gear and the lever for oscillating the latter.

1,208,844. HOLDER FOR TALKING-MACHINE RECORDS. JOHN J. SCULLY, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed June 8, 1915. Serial No. 32,939. (Cl. 206—15.)



1. The combination of a case for holding a talking machine record, and a horizontally pivoted latch normally extending inwardly of the top of the case to yieldably engage the top of the record, the latch being movable about its pivotal axis outwardly to permit removal and insertion of the record.

2. The combination of a case for holding a talking machine record having a length less than that of the case, and a horizontally pivoted latch normally extending over the top of the case and downward to yieldably engage the top of the record, the latch being movable about its pivotal axis upward and outward to permit removal and insertion of the record.

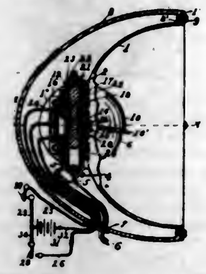
3. The combination of a case for holding a talking machine record, a movably mounted latch normally extending inwardly of the top of the case to yieldably engage the top of the record, said latch being movable outwardly to permit removal and insertion of the record, and a spring for holding said latch in record-engaging position.

4. The combination of a case for holding a talking machine record, a horizontally pivoted latch normally extending inwardly of the top of the case to yieldingly engage the top of the record, the latch being movable about its pivotal axis outwardly to permit removal and insertion of the record, and a spring for holding said latch in record-engaging position.

5. The combination of a case for holding a talking machine record, a movably mounted latch normally extending inwardly of the top of the case to yieldably engage the top of the record, said latch being movable outwardly to permit removal and insertion of the record, and a spring for holding said latch either in record-engaging position or in out of record-engaging position.

[Claims 6 to 14 not printed in the Gazette.]

1,208,845. LAMP-LIGHT-DEFLECTOR AND MECHANISM FOR OPERATING THE SAME. THOMAS SHAFFER, St. Joseph, Mo. Filed Mar. 20, 1916. Serial No. 85,407. (Cl. 240—45.)



1. The combination with an oscillatably mounted deflector shaft, adapted to have a deflector secured on one end thereof; of a segment of gear pinion secured on the other end of said shaft; a slidably mounted solenoid core; rack teeth formed on said core said teeth being in engagement with the teeth of said pinion; a pair of helices for reciprocatively moving said core; a source of electric energy; and electric conducting means whereby an electric current is alternately conducted through said helices; and stopping means whereby said movement of said core is limited.

2. The combination with a reflector having an outwardly extending flange formed on the front edge thereof; of a semispherical rear portion formed with said reflector, said rear portion having an inward projection of bead form formed on the inner surface of the upper half thereof adjacent to said reflector; a light deflector oscillatably mounted in said rear portion; a front flange formed on the front edge of said deflector said front flange being adapted to snugly fit against the upper, rear portion of said reflector; a rear flange formed on the rear edge of said deflector said rear flange being adapted to be moved against and to be stopped by said bead flange for forming a light tight joint; and oscillating means whereby said deflector is oscillated.

3. The combination with a pair of helices, of a solenoid core slidably mounted for reciprocative movement therein; of rack teeth formed on said core entirely around the central portion thereof; a segment of gear pinion in engagement with said rack teeth; and an oscillatably mounted shaft adapted to have a deflector secured on one end thereof while the other end of said shaft is secured in said pinion.

4. The combination with a reflector having a smaller rear end portion said reflector being adapted to be detachably secured in a lamp body leaving a space between said rear end portion of said reflector and said body; a solenoid bracket secured on one side of said rear portion; a solenoid core guide of tubular form said guide having an opening through one side of the central portion thereof; a pair of elastic bearings formed with the central portion of said core guide at each side of said opening, respectively; a segment of gear pinion oscillatably mounted in said bearings with its periphery extended into said opening; a solenoid core having rack teeth formed on the central portion thereof, said core being mounted for reciprocative movement in said core guide with its rack teeth in engagement with said pinion; a solenoid spool on each end portion of said core guide; a solenoid helix wound on each one of said spools; a pair of yoke straps whereby said spools are secured on said bracket; a cap screwed on each end of said core guide; a core adjusting screw screwed into each one of said caps for adjusting the reciprocative movement of said core; spool adjusting means whereby said spools are adjusted and secured against longitudinal movement on said bracket; a deflector shaft having one of its ends secured in said pinion the other end of said shaft being adapted to be connected with a lamp light deflector; and electric energizing means whereby said helices are alternately energized.

1,208,846. FISHING-TOOL FOR WELLS. WARD J. SHELDON and ROLLAND J. HALSTEAD, Electra, Tex. Filed Feb. 16, 1915. Serial No. 8,621. (Cl. 57—9.)



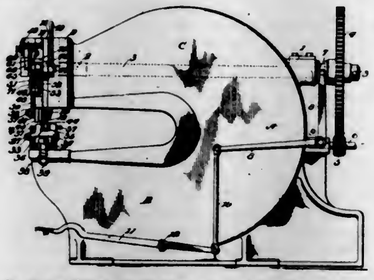
1. A tool of the class described comprising a shank, resilient gripping members at the other end of the shank adapted at one end for connection of operating means, a sleeve slidably engaged on the shank and operable by gravity to force and retain said fingers in gripping position, said sleeve being outwardly flared at its lower end to frictionally engage the wall of a well casing and be held thereby out of operative position, and means to limit sliding movement of the sleeve with respect to the shank.

2. A tool of the class described, comprising a shank, resilient gripping members at one end of the shank, a sleeve slidably engaged on said shank and operable by gravity to force and retain said resilient members in gripping position, spaced collars fixed to said shank, and inwardly directed lugs arranged circumferentially of the upper end of the sleeve and loosely engaging the shank between the collars to limit longitudinal movement of the sleeve, the lower end of the sleeve being arranged to swing on said lugs laterally of the shank to frictionally engage the wall of a well casing and be held thereby out of operative position.

1,208,847. MACHINE FOR CUTTING SHEET-FORM MATERIAL. WILLIAM F. SIMPSON, Knoxville, Tenn. Filed Apr. 7, 1915. Serial No. 19,788. (Cl. 164—49.)

1. In a machine of the nature described, the combination of a body having arms between which there is a throat, a drive member on the upper arm, a pair of feed members standing below said drive member in opposition to each other at said throat and adapted to receive a sheet between them and normally constantly press said sheet, a reciprocatory cutter adjacent said feed members and in operative relation with said drive member, and means on the upper arm and above the sheet plane operatively connecting the upper feed member with said drive

member for actuating said feed member, substantially as described.



2. In a machine of the nature described, the combination of a body having arms between which there is a throat, a drive member on the upper arm, a pair of feed rollers standing below said drive member in opposition to each other at said throat and adapted to receive a sheet between them and normally constantly press said sheet, a reciprocatory cutter adjacent said feed rollers and in operative relation with said drive member, and means on the upper arm and above the sheet plane operatively connecting the upper feed roller with said drive member for turning said roller, substantially as described.

3. In a machine of the nature described, the combination of a body having arms between which there is a throat, a face plate on the upper arm, a drive member on the upper arm, a pair of feed members standing in opposition to each other at said throat and adapted to receive a sheet between them, a reciprocatory cutter adjacent said feed members and in operative relation with said drive member, and means on said face plate operatively connecting the upper feed member with said drive member for actuating said member for feeding, substantially as described.

4. In a machine of the nature described, the combination of a body having arms between which there is a throat, a face plate on the upper arm, a drive member on the upper arm, a pair of feed rollers standing in opposition to each other at said throat and adapted to receive a feed member between them, a reciprocatory cutter adjacent said feed rollers and in operative relation with said feed member, and means on said face plate connecting the upper feed roller with said feed member for turning said roller, substantially as described.

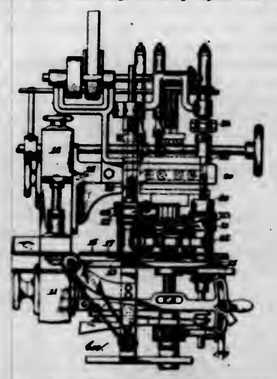
5. In a machine of the nature described, the combination of a body having arms between which there is a throat, a drive member on the upper arm, a pair of feed members standing in opposition to each other at said throat and adapted to receive a sheet between them and normally constantly press said sheet, a liftable support for the upper feed member, said support being supported on the upper arm, means controlled by the operator for lifting said support, a reciprocatory cutter adjacent said feet members and in operative relation with said drive member, and means on the upper arm operatively connecting the upper feed member with said drive member for actuating said feed member, substantially as described.

[Claims 6 to 109 not printed in the Gazette.]

1,208,848. CAN-CAPPING MACHINE. CHESLEY T. SMALL, St. Louis, Mo., assignor, by mesne assignments, to Automatic Can Filling Machinery Company, Newark, N. J., a Corporation of New Jersey. Filed Aug. 21, 1912. Serial No. 716,257. (Cl. 113—14.)

1. In a can capping machine, the combination with a can holder movable vertically to engage the can, of means for supporting a cap in said holder above the can, and means for moving the holder laterally relative to the supporting member for allowing the cap to drop upon the can.

2. In a can capping machine, the combination with a can holder movable vertically to engage the can, of a plate for supporting a cap in the holder above the can, and means for moving said holder laterally relative to the plate to allow the cap to drop upon the can.



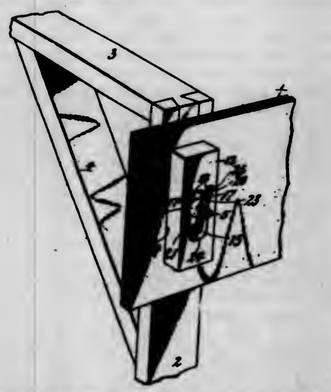
3. In a can capping machine, the combination with a plurality of holders movable vertically to engage the cans, of means for rotating said holders, said holders being each provided with a slot, a stationary division plate adapted to enter said slots and support a cap in the holder, and feeding mechanism for delivering the caps to said holders while coöperating with said plate.

4. In a can capping machine, the combination with a can holder, of a chute for delivering caps to said holder, a rocking member provided with fingers projecting into said chute to control the feed of the caps, one of said fingers being adapted to move in front of one of the caps simultaneously with the withdrawal of the other finger from in front of another cap, a yielding member arranged in the path of the can carried by said holder, and adjustable connections between said members.

5. In a can capping machine, the combination with a can holder, of a chute for delivering caps to said holder, a rocking member provided with fingers projecting into said chute to control the feed of the caps, a yielding member arranged in the path of the can carried by said cap, and an adjustable arm carried by said yielding member and bearing on said rocking member to actuate the latter.

[Claims 6 to 10 not printed in the Gazette.]

1,208,849. SCAFFOLD-BRACKET. CHARLES SMART, Niagara Falls, N. Y. Filed July 23, 1915. Serial No. 41,456. (Cl. 20—84.)



A scaffold bracket comprising a body adapted to engage the outer side of a support, a tie rod connected at its outer end with said body and adapted to pass through said support, and means for tightening said rod comprising a clamping block adapted to engage its outer side with the inner side of said support, inclined runways arranged on the inner side of said block and each having an end pointed and driven into the block, a nail which secures the opposite end of each runway to the block, a thrust washer mounted on the rod and engaging opposite edges with said runways, and a key arranged on the rod and engaging with said washer.

1,208,850. FOOD COMPOUND. ONA E. SMITH, San Jose, Cal. Filed June 17, 1916. Serial No. 104,334. (Cl. 99—11.)

1. The herein described composition of matter, compounded in the manner and in the quantities substantially as described, consisting of cured prunes having the pits removed therefrom, cured olives having the pits removed therefrom, roasted peanuts ground with the olives into a paste and inserted into said prunes, substantially as described and for the purpose specified.

2. The herein described composition of matter for prune food production consisting of three parts prunes, three-fourths part olives, one-fourth part roasted peanuts, the olives and peanuts being ground together, in the form of a paste and inserted into said prunes, substantially as described and for the purpose specified.

1,208,851. METHOD OF DRAWING GLASS. ARTHUR E. SPINASSE, Mount Vernon, Ohio, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed Aug. 26, 1911, Serial No. 646,238. Divided and this application filed Oct. 25, 1911. Serial No. 656,784. (Cl. 49—83.1.)



1. The herein described method of drawing glass cylinders from a body of glass with a metal bait having its bottom open and its interior thereabove of a larger dimension than the opening, which consists in maintaining the bait at a temperature to chill the glass, immersing the bait while at such temperature to such a depth as to permit the glass to flow upward into the enlarged interior where it is chilled by the relatively low temperature of the bait, and then raising the bait supporting the cylinder as it is drawn by the glass within the bait and applying air pressure to its interior, with the glass upon the interior of the bait supported free to shrink radially toward the center of the bait.

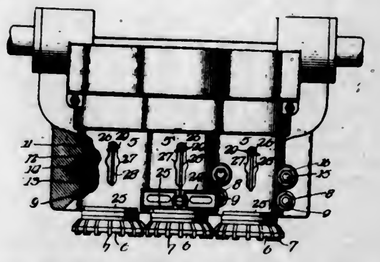
2. The herein described method of drawing glass cylinders from a body of glass with a metal bait having its bottom open and its interior thereabove of a larger diameter than the opening, which consists in maintaining the bait during the operation as hereinafter set forth, at a temperature such as to chill the glass contacting therewith and prevent its adherence to the bait, immersing the bait to such a depth as to permit the glass to flow upward into the enlarged interior where it is chilled by the relatively low temperature of the bait, and then raising the bait supporting the cylinder as it is drawn by the glass within the bait and applying air pressure to its interior, with the chilled glass upon the interior of the bait supported non-adherent to the bait and free to move with respect to the surface of the bait upon which it is supported.

3. The herein described method of drawing glass cylinders from a body of glass with a metal bait having its bottom open and its interior thereabove of a larger diameter, which consists in maintaining the bait during the operation as hereinafter set forth, at a temperature such as to chill the glass and prevent adherence to the bait, causing the glass from the said body of glass to flow into the bait where it is chilled by the relatively low temperature of the bait, and then raising the bait supporting the cylinder as it is drawn by the glass within the oait and applying air pressure to its interior, with the chilled glass upon the interior of the bait supported non-adherent to the bait and free to move with respect to the surface of the bait upon which it is supported.

4. The herein described method of drawing glass cylinders from a body of glass with a metal bait provided with a circular supporting ledge, which consists in maintaining the bait during the operation as hereinafter set forth, at a temperature such as to chill the glass and prevent adherence to the bait, causing the glass from the said body of glass to flow over the supporting ledge where it is chilled into an annular flange or ring by the relatively low temperature of the bait, and then raising the bait supporting the cylinder as it is drawn by the annular ring of chilled glass, with the said chilled glass ring supported non-adherent to the bait and free to move radially with respect to the surface of the bait upon which it is supported.

5. The herein described method of drawing glass cylinders from a body of glass with a metal bait having its bottom open and its interior thereabove of a larger dimension than its opening, which consists in maintaining the bait during the operation as hereinafter set forth at a temperature such as to chill the glass contacting therewith and prevent its adherence to the bait, immersing the bait in the body of glass to such a depth as to permit the glass to flow upward into the enlarged interior where it is chilled into a solid flange or ring by the relatively low temperature of the bait, and then raising the bait supporting the cylinder as it is drawn by the chilled glass within the bait and applying air pressure to its interior, with the said chilled flange or ring upon the interior of the bait and the neck of glass extending downwardly therefrom supported non-adherent to the bait and free to shrink radially toward the center of the bait.

1,208,852. ADJUSTING CUTTER. WILLIAM C. SPROUL, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 28, 1915. Serial No. 53,007. (Cl. 90—11.)

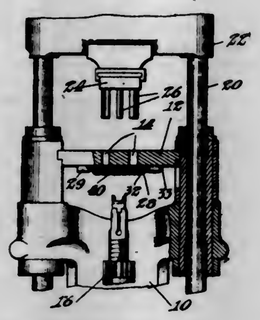


1. The method of adjusting cutters which consists in preliminarily adjusting the cutters to approximately the desired position, milling a blank with the approximately adjusted cutters, determining by a dial indicator the amount of inaccuracy of the milled surface of said blank, supporting the indicator in position to be operated by movement of a cutter requiring adjustment, and then adjusting said cutter an amount, which shown by the indicator, will eliminate the inaccuracy previously determined.

2. The combination of an axially adjustable cutter, a stationary support, a dial indicator positioned on said support, and a member connected to and movable with the cutter and positioned to operate said indicator di-

rectly by axial movement of the cutter whereby the extent of movement of the cutter is indicated by said indicator.

1,208,853. HEEL-ATTACHING MACHINE. JOHN F. STANDISH, Winthrop, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 19, 1915. Serial No. 22,357. (Cl. 1—36.)



1. In a heel attaching machine, means for pressing a resilient heel upon a shoe, and means for confining the heel about its margin adjacent to the shoe, said latter means being constructed and arranged to permit lateral expansion of the heel above its confined area.

2. In a heel attaching machine, a jack and heel engaging plate relatively movable to press a cemented resilient heel upon a shoe, and means for confining the heel about its margin adjacent to the cemented surface of the heel while permitting the heel to bulge laterally above its confined area.

3. In a heel attaching machine, a jack and heel engaging plate relatively movable to press a resilient heel upon a shoe, and a ring member shaped to engage the periphery of the heel and having a groove in its inner face to permit bulging of the heel in that portion of its area located opposite to the groove.

4. In a heel attaching machine, relatively movable members for pressing a resilient heel upon a shoe, and a ring member shaped to confine the heel against bulging laterally adjacent to its flat faces and having a groove for permitting such bulging intermediately.

5. In a heel attaching machine, relatively movable members for pressing a resilient heel upon a shoe, a gang of drivers movable to force attaching nails below the tread surface of the heel, and a holding member shaped to confine the heel against bulging laterally adjacent to the shoe and having a groove to permit such bulging below the tread surface of the heel.

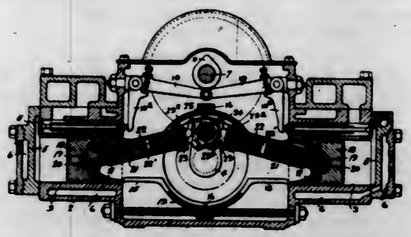
[Claims 6 to 12 not printed in the Gazette.]

1,208,854. INTERNAL-COMBUSTION ENGINE. WASHINGTON G. STITT, Pittsburgh, Pa., assignor of one-fourth to James F. Keefe and one-fourth to Stanley M. Long, Pittsburgh, Pa. Filed May 27, 1916. Serial No. 100,221. (Cl. 122—29.)

1. In an internal-combustion engine, the combination with a pair of opposed cylinders, of an engine crank-shaft, a single piston member common to both cylinders, and extensible-piston rods within the piston member journaled in each end of the piston member and journaled to a single crank-pin of the crank-shaft.

2. In an internal-combustion engine, the combination with a pair of opposed cylinders, of an engine crank-shaft, a single piston member common to both cylinders, and extensible piston-rods within the piston member and having like non-shiftable journal connections to the piston and to a single crank-pin of the crank-shaft.

3. In an internal-combustion engine, the combination with a pair of opposed cylinders, of an engine crank-shaft, a single piston member common to both cylinders, and extensible piston-rods within the piston member having relatively fixed journal connections to the piston member and having like opposite connections to a single crank-pin of the crank-shaft.

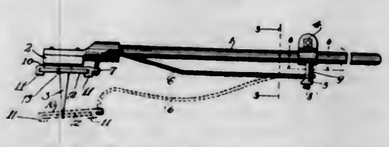


4. In an internal-combustion engine, the combination with a pair of opposed cylinders, of an engine crank-shaft, a single piston member common to both cylinders, and piston-rods within the piston member, having relatively fixed journal connections to each end of the piston member, said piston-rods being composed of a piston-rod member and a pitman member having sliding connection with each other.

5. In an internal-combustion engine, the combination with a pair of opposed cylinders, of an engine crank-shaft, a single piston member common to both cylinders, and piston-rods within the piston member, having relatively fixed pivotal connections to each end of the piston member, said piston-rods comprising members telescoping one within the other.

[Claims 6 to 12 not printed in the Gazette.]

1,208,855. RAKE ATTACHMENT. WILLIAM STOFFEL, McHenry, Ill. Filed Apr. 9, 1915. Serial No. 20,256. (Cl. 55—146.)

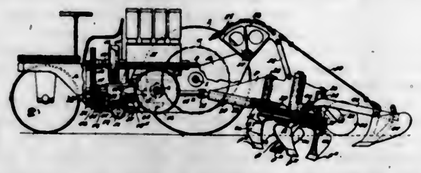


An attachment for rakes comprising a bracket slidable upon the rake handle, an apertured depending shank formed integral with said bracket, a Y-shaped resilient rod having its closed end passed through the apertured portions of said shank, adjustable telescoping plates formed with apertures to receive the rake teeth, rearward extending ears formed upon said plates for engagement with the free ends of said Y-shaped rod and means carried by said depending shank for engagement with the closed end of said Y-shaped rod to counteract the tendency of the closed end of said rod to contract its free ends.

1,208,856. MOTOR-DRIVEN TILLING-MACHINE. NORMAN C. STOREY, Aguirre, Porto Rico. Filed Jan. 8, 1916. Serial No. 70,915. (Cl. 97—51.)

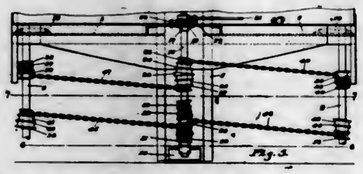
1. In a tilling machine, the combination with a frame provided with traction wheels, of a rotor and means for rotating the same, a tilling implement carried by the rotor and comprising a blade and an overhanging earth-turning plate, and connections between the frame and the rotor whereby the latter may be maintained in inclined relation to the frame and the path of movement of the earth-turning plate located above the ground when the tilling implement is in its foremost position with respect to the frame.

2. In a tilling machine, a revolving implement-carrying device mounted to operate on an inclined plane in relation to the ground, means for rotating said device, implements mounted upon and traveling around the axis of the revolving implement-carrying device and adapted to turn or push



the plowed earth away from their axis of rotation, said implements being continually active in untilled earth and having a forward movement in the direction from the low to the high side of the said plane to cut a curtate cycloid path.

1,208,857. DISCHARGE-DOOR-OPERATING MECHANISM. JOHN F. STREIB, Avalon, Pa., assignor to Pressed Steel Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 30, 1915. Serial No. 58,894. (Cl. 105—14.)



1. In a discharge door operating mechanism, the combination with a plurality of doors, of a plurality of door raising shafts, connections therefrom to said doors, said shafts being movable into door supporting positions when the doors are closed or out of door supporting positions when the doors are opened and means for operating said shafts simultaneously, said means comprising an operating shaft, connections from said shaft to said door raising shafts, and means for adjusting the effective lengths of said connections.

2. In a discharge door operating mechanism, the combination with a plurality of discharge doors, of a plurality of door raising shafts, connections from said shafts to said doors, said shafts being adapted to support said doors in their closed positions and adapted to be moved out of supporting positions to open said doors and means for operating said shafts simultaneously, said means comprising an operating shaft, connections from said shaft to said door raising shafts, and means for adjusting the effective lengths of said connections.

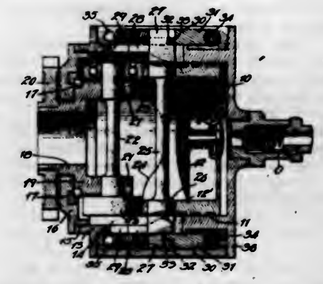
3. In a discharge door operating mechanism, the combination with a plurality of discharge doors, shafts arranged to support the doors when the doors are raised and arranged to move to a non-supporting position when the doors are opened, connections between the shafts and the doors and means for operating said shafts simultaneously, said means comprising an operating shaft, connections from said shaft to said door raising shafts, and means for adjusting the effective lengths of said connections.

4. In a discharge door operating mechanism, the combination with a plurality of discharge doors, a plurality of door raising shafts, connections therefrom to the doors, said shafts being movable into supporting positions when the doors are raised and out of supporting positions when the doors are being opened, and means for operating said shafts simultaneously, said means comprising an operating shaft, connections from said shaft to said door raising shafts, and means for automatically adjusting the effective lengths of said connections.

5. In a discharge door operating mechanism, the combination with a plurality of discharge doors, of a plurality of shafts operatively connected with said doors, engaging means between said doors and said shafts for causing said shafts to move laterally into and out of supporting positions with said doors, and means for operating said shafts simultaneously.

[Claims 6 to 39 not printed in the Gazette.]

1,208,858. PUMP. WILLIS A. SWAN, Chicago, Ill. Filed Apr. 5, 1915. Serial No. 19,266. (Cl. 230—27.)



1. In a pump, the combination of a casing providing a cylinder, a piston member in said cylinder, means comprising a pin and slot connection between the piston and the cylinder wall to prevent rotation of the piston, a rotatable driving member carried by the casing, one of said members having a cam surface for reciprocation of the piston member by rotation of said driving member, and resilient means maintaining said members in engagement.

2. In a pump, the combination of a casing providing a cylinder, a piston therein having a crowned cam with multiple rises symmetrically disposed, a rotatable element coaxial with the piston having parts symmetrically disposed-coacting equally with the multiple cam surfaces, means comprising a pin and slot connection between the piston and cylinder wall for preventing rotation of said piston with respect to the cylinder, and resilient means acting on said piston to hold its cam in constant engagement with said parts of the rotatable member.

3. In a pump, the combination of a casing providing longitudinal guide openings, a piston therein provided with a multiple rise crown cam, means on said piston extending through said guide openings to prevent rotation of the piston, springs acting on said means to move said piston on its outstroke, an axially disposed rotatable member, and symmetrically disposed driving parts on said member coacting equally with the multiple rises of the cam.

4. In a pump the combination of an open ended tubular casing providing a cylinder, a piston therein non-rotatable with respect thereto, a hollow rotatable member coaxial with said piston and mounted in the open end of the casing, said piston and rotatable member being provided with coöperating multiple contact parts and multiple-crown cam surfaces symmetrically disposed with respect to the axis of the structure, means constantly maintaining said parts in engagement and a check valve in said piston opening inwardly to the cylinder.

5. In a pump of the character described, the combination of a casing providing longitudinal slots, a piston reciprocable in said casing carrying parts projecting through said slots to prevent rotation of the piston, springs externally acting on said parts tending constantly to move said piston to the end of its outstroke, a rotatable, axially-immovable driving member coaxial with said piston, said driving member and piston having coöperating roller and cam means.

[Claims 6 to 14 not printed in the Gazette.]

1,208,859. ASEPTIC FRUIT-JUICE AND PROCESS OF MAKING THE SAME. JOKICHI TAKAMINE and KEIZO WOOYENAKA, New York, N. Y. Filed Oct. 13, 1913. Serial No. 794,803. (Cl. 99—11.)

1. As a new article of manufacture, a beverage suitable for human consumption, consisting of an aseptic fruit juice containing an antiseptic in a quantity less than would be necessary to render the juice aseptic.

2. As an article of manufacture, a beverage suitable for human consumption consisting of aseptic orange juice containing an antiseptic in a quantity less than would be necessary to render the juice aseptic.

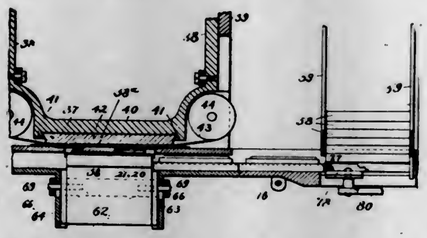
3. As an article of manufacture, a beverage suitable for human consumption consisting of aseptic orange juice containing sulfurous acid in less proportion than would be necessary to render the same aseptic.

4. As a new article of manufacture, aseptic citrous fruit juice having substantially its natural color and flavor, and containing a minute quantity of an antiseptic, and which will not ferment when subjected to a temperature of 95° F. for approximately one week.

5. As an article of manufacture, a citrous fruit juice which with air excluded, and subjected to the temperature of 95° F. for one week, will not ferment, and which contains an antiseptic in less proportion than is sufficient to render the whole aseptic.

[Claims 6 to 14 not printed in the Gazette.]

1,208,860. PRINTING AND ADDRESSING MACHINE. RICHARD G. THOMAS, Cleveland, Ohio, assignor, by mesne assignments, to The Automatic Addressing Machine Company, Cleveland, Ohio. Filed Nov. 22, 1910. Serial No. 593,642. (Cl. 101—1.)



1. In a printing machine, a blank holder adapted to support blanks when in printing position, a main printing device adapted to print the same subject matter on one side of each of a number of blanks placed successively on the blank holder, and a member movable toward and away from the blank holder and adapted to receive one at a time and to move toward the blank holder separate and unconnected printing slugs fed into the path of movement of said member so as to cause said slugs to print on the opposite sides of the blanks, and means for feeding the slugs from a source of supply into the path of movement of said member.

2. In a printing and addressing machine, a platen having an opening therein, a movable member on one side of the platen and carrying a type form for printing matter on one side of each of a number of blanks placed successively on the platen, a movable member on the opposite side of the platen and adapted to move address slugs toward the platen and project type carried thereby through the opening of the platen so as to print addresses on the opposite sides of the blanks, and means for feeding the slugs one at a time in the path of said slug moving member.

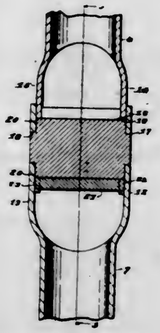
3. In a printing machine, a blank holder having an opening therein, a movable member arranged above the blank holding member and having a type form adapted to print on the upper face of each of a number of blanks, a device arranged below the blank holder and movable toward and away from the same, and means for feeding printing slugs successively onto said device so as to cause the latter to raise the slugs successively and project type carried thereby through the opening in the blank holder so as to print on the lower face of each of the blanks.

4. In a printing and addressing machine, a blank holder having an opening therein, a main printing device adapted to print on the upper face of each of a number of blanks, a plunger arranged below the blank holder, means for feeding separate address slugs in the path of said plunger, and operating mechanism for causing said plunger to be raised and lift an address slug so as to print on the bottom face of a blank simultaneously with the printing on the upper face of the blank.

5. In a printing and addressing machine, a platen having an opening therein, a main printing member adapted to print on one side of each of a number of blanks, a hopper adapted to be provided with a number of address slugs, means for feeding the slugs from the hopper along beneath the platen, and a reciprocating member adapted to raise the slugs successively so as to print on the opposite faces of the blanks as said slugs are moved to a position between the platen and the plunger.

[Claims 6 to 27 not printed in the Gazette.]

1,208,861. FRICTION-JOINT. FRANK H. TRIMBLE, Los Angeles, Cal. Filed May 1, 1916. Serial No. 94,658. (Cl. 248—8.)



1. In an adjustable lamp stand, the combination of sections each having forked ends, the arms of one fork disposed between the arms of the other fork, a pintle bridging the outer arms and secured thereto against rotation, and a split spring bushing encompassing and frictionally engaging the pintle, said bushing secured to the inner arms against rotation.

2. In an adjustable lamp stand, the combination of sections each having forked ends, the arms of one fork disposed between the arms of the other fork, a pintle bridging the outer arms and secured thereto against rotation, and a split spring bushing encompassing and frictionally engaging the pintle, said bushing extending between the inner arms and having tongues fixed in apertures in the inner arms to prevent rotation.

3. In an adjustable lamp stand, the combination of sections each having forked ends, the arms of one fork disposed between the arms of the other fork, a cylindrical pintle having reduced polygonal ends, said ends disposed in corresponding apertures in the outer arm, and a split spring bushing encompassing and frictionally engaging the pintle, said bushing extending between the inner arms and having tongues fixed in apertures in the inner arms to prevent rotation.

4. In an adjustable lamp stand, the combination of sections each having forked ends, the arms of one fork disposed between the ends of the other fork, a cylindrical pintle having reduced polygonal ends, said ends disposed in corresponding apertures in the outer arms, cylindrical apertures in the inner arms in which said pintle is disposed, and a split spring bushing encompassing and frictionally engaging the pintle, said bushing extending between the inner arms and having tongues fixed in apertures in the inner arms to prevent rotation.

1,208,862. EGG-BEATING IMPLEMENT. VÉLISSAR VÉLISSARIDÈS, New York, N. Y. Filed Aug. 21, 1916. Serial No. 115,930. (Cl. 259—126.)



1. An egg beater having a plurality of members arranged one within another; each of said members being formed from a single piece of wire coiled to provide a cylindrical handle portion comprising a plurality of turns or whirls in contact with one another, and a conical operating portion comprising a plurality of turns or whirls spaced apart from one another; and a handle extending into the interior of and having portions of different diameters adapted to fit within said cylindrical portions.

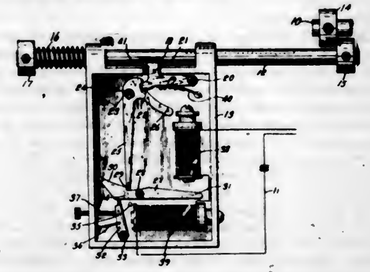
2. An egg beater made up of two members arranged one with the other and each of which members is formed from a single piece of wire coiled to provide a cylindrical portion comprising a plurality of turns or whirls in contact with one another, and a conical portion comprising a plurality of turns or whir[illegible]paced apart from one another; the cylindrical portio[illegible] of the inner of said members extending into the cylindrical portion of the outer member.

3. An egg beater made up of two members arranged one within the other and each of which members is formed from a single piece of wire coiled to provide a cylindrical portion comprising a plurality of turns or whirls in contact with one another, and a conical portion comprising a plurality of turns or whirls spaced apart from one another, and having a handle extending into the interior of said cylindrical portions; the planes of the turns or whirls of the outer conical member being inclined with reference to the planes of the turns or whirls of the inner conical member.

1,208,863. STOP-MOTION. ALEXIS F. WALDOW, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed May 7, 1913. Serial No. 765,983. Renewed June 15, 1916. Serial No. 103,911. (Cl. 74—93.)

1. In a stop-motion, the combination with a suitable part adapted when released to throw off the power, of successive locking devices one being capable of holding said part and the second blocking movement of the first, said devices being arranged so as to be least affected by jars and vibration in directions approximately at right angles to each other, and electro-magnetic means for withdrawing each of said devices.

2. In a stop-motion, the combination of two magnets and their respective armatures placed at approximately right angles to each other, one armature being arranged to block movement of the other, and knock-off mechanism controlled by the latter armature.



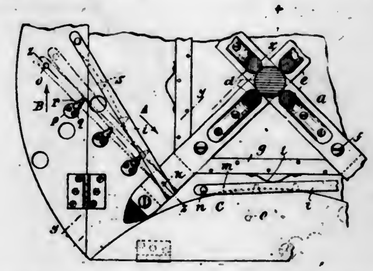
3. In a stop-motion, the combination of a control circuit, locking devices one adapted to prevent movement of the other, knock-off mechanism adapted to be held against operation by the latter device independently of the former, and electro-magnetic means controlled by said circuit for actuating each of said detent devices.

4. In a stop motion, knock-off mechanism, and means for operating the same comprising a control circuit and electro-magnetic means including two armatures controlling said mechanism and adapted the one to lock the other.

5. In a stop-motion, the combination of two magnets and their respective armatures in angular relation, knock-off mechanism controlled by said armatures, and a stop-motion circuit for sending current through both magnets.

[Claims 6 to 12 not printed in the Gazette.]

1,208,864. FOLDING-LEAF TABLE. ALBERT WANNER, Jr., New York, N. Y. Filed Feb. 5, 1915. Serial No. 6,252. (Cl. 45—47.)



1. A table including a top structure having a fixed member and a leaf member hinged to one side of and foldable under the fixed member, a leaf supporting arm underlying and crossing the adjoining edges of said members and bearing against and pivoted to one of them to swing in a horizontal plane clear of the other, and a binding device for the arm secured to the under side of said other member laterally of the arm and having a binding portion projecting toward the arm and formed with an upper beveled surface, said arm having a downwardly facing surface adapted to engage over said beveled surface of the binding device to bind said other member and arm together.

2. A table including a top structure having a fixed member and a leaf member hinged to one side of and foldable under the fixed member, a leaf supporting arm underlying and crossing the adjoining edges of said members and bearing against and pivoted to one of them to swing in a horizontal plane clear of the other, a binding device for the arm secured to the under side of said other member laterally of the arm and having a binding portion projecting toward the arm and formed with an upper beveled surface, said arm having a downwardly facing surface

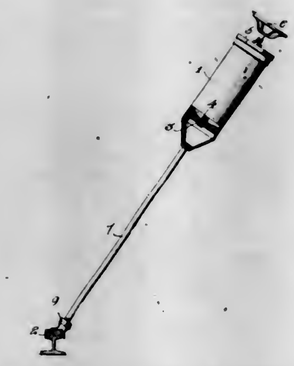
adapted to engage over said beveled surface of the binding device to bind said other member and arm together, and means to latch the arm against pivotal movement when engaged by the binding device.

3. A table including a top structure having a fixed member and a leaf member hinged to one side of and foldable under the fixed member, a leaf supporting arm underlying and crossing the adjoining edges of said members and bearing against and pivoted to one of them to swing in a horizontal plane clear of the other, and wedge means binding said arm and the other member against relative up or down movement and extending from a point relatively close to the pivot of said arm longitudinally of said arm.

4. A table including a top structure having a fixed member and a leaf member hinged to one side of and foldable under the fixed member, a leaf supporting arm underlying and crossing the adjoining edges of said members and bearing against and pivoted to one of them to swing in a horizontal plane clear of the other, and a series of wedge devices binding said arm and the other member against relative up or down movement and extending from a point relatively close to the pivot of said arm outwardly.

5. In combination, with two parts one having sliding movement over the face of the other, one of said parts having a hole therein, a securing device on the other part adapted to enter the hole and prevent such movement, and a staple driven into the first-named part at the hole and affording contact to said securing device.

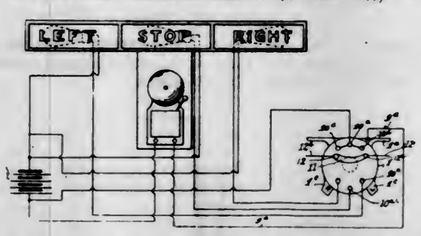
1,208,865. GREASE-GUN. CHARLES E. WARWICK, Vicksburg, Miss. Filed Nov. 29, 1915. Serial No. 64,101. (Cl. 221—47.)



1. A grease gun comprising a shoe, rail engaging tongues carried by said shoe and positioned at an angle to the latter and to one another, said shoe and tongues being arranged to form a pocket to one side of said rail when said tongues are engaged therewith, a lubricant feed pipe connected with said shoe, said shoe having separate conducting passages formed therein to conduct a lubricant from said feed pipe to said pocket and to the upper face of said rail, and means for supplying a lubricant to said feed pipe.

2. A grease gun comprising a shoe, rail engaging tongues carried by said shoe, one of said tongues being curved for engagement with the side face of said rail, said shoe having a pocket formed therein adjacent the upper edge of said curved tongue, a lubricant feed pipe connected with said shoe, said shoe having oppositely extended separate passages formed in its central portion and leading from said feed pipe to the working face of the straight tongue and the pocket whereby the lubricant will be conducted to both faces of the rail with which said tongues are engaged.

1,208,866. ELECTRIC SWITCH. FRED F. WEISHAAR, Cleveland, and FRED W. JACKSON, Elyria, Ohio. Filed Nov. 19, 1915. Serial No. 62,370. (Cl. 200—27.)



1. An electric switch, comprising an insulating block provided with fixed contact elements forming terminals of main and secondary circuits, a compound switch lever common to and extending between said contact elements for controlling said circuits, and means for holding said switch lever in a neutral position.

2. An electric switch, comprising a casing provided with an insulating block, diametrically opposite groups of contact elements on said block, one group forming the terminals of the main circuit and the other the terminals of the secondary circuits, a pivotally mounted switch lever arranged to make simultaneous contact between said contact elements of each of said groups, and means for returning and holding said switch lever in a normally neutral position.

3. An electric switch, comprising an insulating disk block having a centrally located pivot bearing and provided with diametrically opposite fixed contact elements, a switch lever mounted on said pivot bearing in coöperative relation to said fixed contact elements, and a pair of spring resisted pivotally mounted levers normally in engagement with said pivot bearing and coöperating with said switch lever said levers being adapted to alternately moved outwardly by the action of said switch lever while the other is held in a fixed position against said pivot bearing.

4. An electric switch, comprising an insulating block provided with fixed median and lateral contact elements forming terminals of main and secondary circuits, a switch lever common to and extending between said contact elements for controlling said circuits, means for holding said switch lever in a neutral position above said median contact elements, and spring contact elements carried by said switch lever for making circuit through said casing when said switch lever is moved to its respective shifted positions.

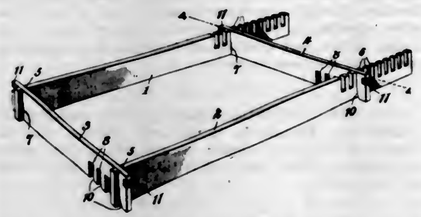
5. An electric switch, comprising a casing provided with oppositely arranged switch lever stop members, an insulating block therein provided with fixed contact elements forming terminals of main and secondary circuits, a common switch lever extending between said contact elements for controlling said circuits and provided with appositely arranged spring contact elements adapted to make contact with said stop members of said casing when moved to its respective shifted positions, and spring resisted switch lever actuated levers, adapted to return and hold said switch lever in neutral position.

[Claims 6 to 8 not printed in the Gazette.]

1,208,867. CLAMPING DEVICE FOR TYPE. EMIL WEITZEL, Philadelphia, Pa. Filed Apr. 24, 1916. Serial No. 93,231. (Cl. 101—52.)

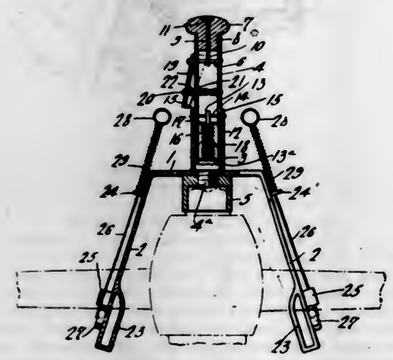
1. A clamping device for type, comprising two side bars each with a single notch in one edge near one end and arranged perpendicular to the length of the bar and a series of notches in the same edge and located near the other end of and also perpendicular to the length of the bar, and two end bars each with a single notch in one edge near one end and perpendicular to the length of the bar and a series of like notches in the same edge near the other end, with the notches of one bar adapted to receive a corresponding portion of the other bar.

2. A clamping device for type, comprising two side bars each with a single notch in one edge near one end and arranged perpendicular to the length of the bar and a series of notches in the same edge and located near the other end of and also perpendicular to the length of the bar, and two end bars each with a single notch in one edge



near one end and perpendicular to the length of the bar and a series of like notches in the same edge near the other end, with the notches of one bar adapted to receive a corresponding portion of the other bar, and each end bar having a notch in the end edge for permitting the lifting of the bar from engagement with the side bars.

1,208,868. WRENCH. WILLIAM R. WELLER, Millstone, Md. Filed Aug. 11, 1916. Serial No. 114,431. (Cl. 81—74.)



1. A wrench embodying a plate having prongs to pass between the spokes of a wheel, said prongs having guides, rods slidable through the guides longitudinally of the prongs, spring means for moving the rods away from the ends of the prongs, a holding member pivoted between its ends to the end of each rod and adapted to be swung into alinement with the rod to pass between the spokes, and to be swung at right angles with the rod so that the opposite ends of said member are engageable with spokes at opposite sides of the respective prongs, and a socket member carried by the said plate, said holding members being moved toward the guides by the tension of the spring means.

2. A wrench embodying a plate having prongs to pass between the spokes of a wheel, said prongs having guides, rods slidable through said guides and having finger pieces at those ends remote from the free ends of said prongs, holding bars pivoted between their ends to the other ends of said rods and resting slidably against the prongs adjacent their free ends, springs for moving said rods to move said bars toward the guides, and a socket member carried by said plate.

3. A wrench embodying a plate having means for engaging a wheel and having a collar provided with teeth, a member rotatable in said collar and having a socket member, a second collar slidable on said rotatable member and having teeth interengageable with the aforesaid teeth, and a swinging member pivotally connected with the aforesaid rotatable member adapted to be swung thereagainst with its free end abutting the second mentioned collar to hold it in engagement with the first mentioned collar.

4. A wrench embodying a plate having means for engaging a wheel and having a collar provided with teeth, a tubular member projecting through said collar and having a socket member at one end, a second collar slidable upon the tubular member and having teeth engageable with the aforesaid teeth, a stop plate pivotally connected with the tubular member and projecting toward the first mentioned plate, the free end of the stop plate being adapted to abut against the second mentioned collar to hold it in engagement with the first mentioned collar, a pin slidable through said stop plate adjacent its free end and engaged with the opposite wall of the tubular member, the tubular member having an aperture through which said pin extends, and a coiled expansion spring upon said pin between the stop plate and opposite wall of the tubular member.

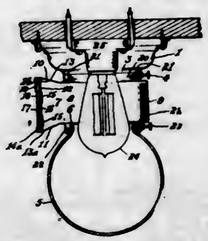
5. A wrench embodying a plate having means for engaging a wheel and having a collar, a tubular member rotatable within said collar and having a socket member at one end, a second collar slidable upon the tubular member, the adjacent ends of the two collars having interengageable sinuous teeth, the tubular member having opposite longitudinal slots, a pin projecting through said slots and engaged with the second mentioned sleeve, a stem within the tubular member engaged with said pin, a guide within the tubular member through which said stem is slidable, and a spring between said guide and stem for moving the second mentioned collar against the first mentioned one.

1,208,869. CLOSET-SEAT. MICHAEL J. WHELAN, Muskegon, Mich., assignor to Brunswick-Balke-Collender Company, a Corporation of Delaware. Original application filed July 14, 1913, Serial No. 778,982. Divided and this application filed Oct. 9, 1914. Serial No. 865,859. (Cl. 4—18.)



A closet seat comprising an annular wood frame composed of a plurality of sections having a rough unfinished surface and loosely fitted and connected together to provide spaces between their contiguous ends, and a coating of rubber composition vulcanized on said frame and filling the spaces between the ends of the sections and the interstices in the surface of the frame.

1,208,870. COMBINED LIGHT AND ILLUMINATED SIGN. ELLIOTT H. WHITLOCK, Cleveland, Ohio. Filed Dec. 11, 1914. Serial No. 876,705. (Cl. 40—131.)



1. In a combined light and illuminated sign, the combination of a depending bracket adapted to be secured to a ceiling; a frame depending and detachable from said bracket and having a portion of its side walls formed of a

translucent sign; and a globe depending and detachable from said frame.

2. In a combined light and illuminated sign, the combination of a bracket; a detachable frame depending from said bracket and having a portion of its walls formed by a translucent sign; and a globe depending from said frame and detachable therefrom; said bracket being arranged so that said globe, when said frame is removed, may be attached thereto.

3. In a combined light and illuminated sign, the combination of a bracket; a frame depending and detachable from the latter and having a portion of its walls formed by a translucent sign; and a globe depending from said frame and having an upper circumferential flange, the latter being connected with the lower portion of said frame and detachable therefrom.

4. In a combined light and illuminated sign, the combination of a bracket adapted to be fixed to a ceiling and open at its top; a frame having an upper flange connected with and detachable from the lower portion of said bracket and having a portion of its walls formed by a translucent sign; and a globe depending from said frame and detachable therefrom.

5. In a combined light and illuminated sign, the combination of a fixed bracket; a frame having an upper circumferential flange connected with and detachable from the lower portion of such bracket; said frame having a portion of its walls formed by a translucent sign; and a globe having an upper circumferential flange connected with the lower part of said frame and detachable therefrom.

[Claim 6 not printed in the Gazette.]

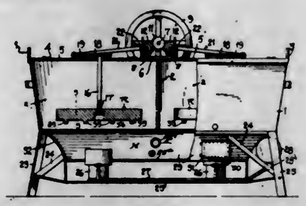
1,208,871. CAR-TRUCK. RALPH E. WILDER, Johnstown, Pa. Filed Oct. 25, 1916. Serial No. 127,509. (Cl. 105—105.)



1. An integrally formed column guide of pressed steel comprising top and bottom flanges adapted to fit within the opening of a truck frame, the upper part of which extends toward the bolster to form a bolster guide, said truck column being provided with an integral inwardly extending portion adapted to directly support a brake beam hanger pivotally secured thereto.

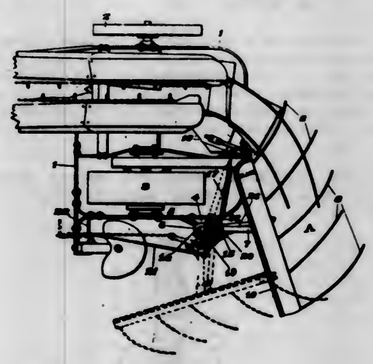
2. An integrally formed pressed steel column guide comprising upper and lower flange portions adapted to fit within the opening between the truck arch bars, the upper portion adapted to contact with the bolster and the lower portion not adapted to contact with the bolster, a pair of webs extending vertically between the arch bars, an inwardly projecting portion comprising a web and flanges, the flanges being perforated and adapted to support a brake beam hanger.

1,208,872. WASHING-MACHINE. JOSEPH C. WILEY, Upland, Ind. Filed Mar. 22, 1916. Serial No. 85,914. (Cl. 126—350.)



In combination, a body, a shelf supported below the body, end plates interposed between the bottom of the body and the shelf at the ends thereof, a supplemental shelf interposed between the first named shelf and the bottom of the body and between the end plates, side plates interposed between the bottom of the body and the longitudinal margins of the supplemental shelf, said end plates and side plates being inwardly directed, a heating device supported by the first named shelf and extending through the supplemental shelf, a door controlled opening in one of the side plates adjacent the heating device, and a source of fuel supply in communication with the heating device.

1,208,873. BUNDLE-CARRIER FOR CORN-HARVESTERS. FREDERICK D. WILSON, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Mar. 16, 1915. Serial No. 14,858. (Cl. 56—37.)



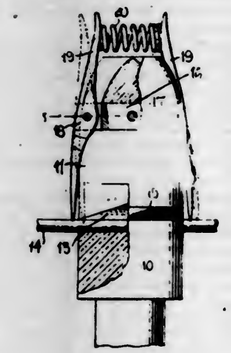
1. In a corn harvester having a binder, the combination of a main frame, a bundle carrier including a support pivoted on the main frame, a receiver pivotally journaled in a bearing on said support and adapted to receive bundles from the binder and carry them stubbleward, a member loosely mounted on said support, a bar pivoted on said member to form a lock joint therewith and pivotally connected with the receiver to hold the latter in a position to receive the bundles and carry them stubbleward, means to swing the support and receiver stubbleward to a predetermined position, and means to break said lock joint to permit the receiver to deposit the bundles upon the ground.

2. In a corn harvester having a binder, the combination of a main frame, a bundle carrier including a support pivoted on the main frame, a receiver pivotally journaled in a bearing on said support and adapted to receive bundles from the binder and carry them stubbleward, a member loosely mounted on said support, a bar pivoted on said member to form a lock joint therewith and pivotally connected with the receiver to hold the latter in a position to receive the bundles and carry them stubbleward, means to swing the support and receiver stubbleward to a predetermined position, means to break said lock joint to permit the receiver to deposit the bundles upon the ground, means to return said support and receiver to its initial position at the rear of the binder, said member and bar coöperating to raise the receiver to the position for receiving bundles, and to re-form the lock joint.

3. In a corn harvester having a binder, the combination of a main frame, a bundle carrier pivotally supported thereon to receive bundles from the binder and adapted to be swung stubbleward to deposit the bundles upon the ground, a member loosely mounted on said support, and a bar pivoted on said member to form a lock joint therewith and coöperating with said member to hold the receiver in position for receiving bundles and carrying them stubbleward, and means to break said lock joint as the receiver reaches the limit of its stubbleward movement.

4. In a corn harvester having a binder, the combination of a main frame, a bundle carrier pivotally supported thereon to receive bundles from the binder and adapted to be swung stubbleward to deposit the bundles on the ground, a member loosely mounted on said support and movable therewith when the latter is swung with the receiver to deposit the bundles, a bar pivoted on said member and extending grainward of the line of advance of the machine to connection with the receiver to hold the latter in position to receive bundles and carry them stubbleward, means to hold said bar and member in rigid relation one with the other when the receiver is in its receptive position, said means maintaining said rigid relation of the bar and said member for part of the swing of the carrier to deposit the bundles, means to check the movement of said member before the swing of the carrier is completed, the bar swinging on its pivot on said member and returning the latter to its original position by a longitudinal movement of said bar when the receiver is rocked to deposit the bundles.

1,208,874. INSULATOR. WILLIAM E. WILSON, Lookout, W. Va. Filed Aug. 19, 1916. Serial No. 115,876. (Cl. 173—313.)



1. An insulator comprising a body formed with a conductor passage and a slot intersecting the passage, the upper end of the body on diametrically opposite sides being formed with vertically extending grooves intersecting said passage, oppositely disposed dogs pivotally mounted intermediate their ends in said grooves, the lower ends of the dogs being sharp edged and engaging a conductor disposed within the passage, and means for urging the upper ends of the dogs outward.

2. An insulator comprising a body formed with a conductor passage, the outer end of the body on diametrically opposite sides being formed with longitudinally disposed grooves intersecting said passage, and a dog pivotally mounted within each of said grooves, the inner end of the dog being engageable with a conductor disposed within the passage.

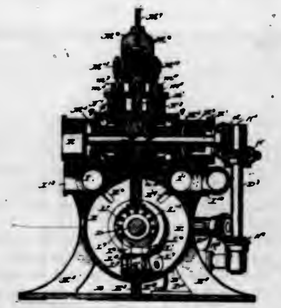
3. An insulator comprising a body formed with a conductor passage, the outer end of the body on diametrically opposite sides being formed with longitudinally disposed grooves intersecting said passage, a dog pivotally mounted within each of said grooves, the inner end of the dog being engageable with a conductor disposed within the passage, and means for forcing the inner end of said dog toward the body.

4. An insulator comprising a body formed with a conductor passage, the outer portion of the body being provided with longitudinally disposed grooves intersecting said passage, a dog pivotally mounted intermediate its length within each of said grooves, the inner ends of said dogs being engageable with a conductor disposed within the passage, and an expansible member interposed between the outer ends of the dogs for urging the inner ends of the dogs in a direction toward the body.

5. An insulator comprising a body formed with a conductor passage and longitudinally disposed grooves intersecting said passage, a bar disposed through the body and extending within the grooves, and dogs pivotally engaged with the extended portions of the bar.

[Claim 6 not printed in the Gazette.]

1,208,875. ROTARY STEAM-ENGINE. LEANDER J. WING, Lexington, Mass.; Mabel Wing Castle, Lexington, Mass., administratrix of said Leander J. Wing, deceased. Filed May 8, 1906, Serial No. 315,803. Renewed May 16, 1916. Serial No. 97,981. (Cl. 121—51.)



1. A rotary steam engine having an annular cylinder, with a continuous finished bore that is circular in cross section, a piston disk carrying a self expanding piston on its periphery, rotatable therein, said disk rigidly secured to the main shaft which it actuates, a revolving disk abutment, having a cut-away section at one side of its disk, adapted to revolve at right angles across the bore of the cylinder, in an abutment chamber that cuts through the same at right angles to the piston path, means for connecting the shafts of the piston disk and abutment, whereby they shall revolve at a relative, uniform, rotative speed, means for maintaining a flexible connection between the piston disk and abutment, means connected with the abutment for taking the impact and pressure of the steam against the abutment upon ball bearings, with internal devices for automatic compensation for wear and expansion in the moving parts in contact, together with means for automatic cut-off and expansion of the steam within the cylinder, substantially as shown and described, and for the purposes herein set forth.

2. In a rotary engine, the combination with the cylinder, provided with a single steam inlet, and a single exhaust outlet, of a revolving disk abutment, internally balanced and counter-poised located between said inlet and exhaust openings, and a revolving piston rotatable within said cylinder, substantially as shown and described, and for the purposes herein set forth.

3. A rotary engine, a revolving disk abutment, internally balanced and counterpoised, said abutment having a cut-away section at one side of its central hub, with means for revolving said disk at right angles across the bore of the cylinder and across the piston disk, substantially as shown and described, and for the purposes herein set forth.

4. In a rotary engine, the combination with the annular cylinder, having a bore that is circular in cross section, a revolving disk adapted to carry a piston around said bore, a balanced and counter-poised disk abutment, having a cut-away section on one side of said disk, of a deep circular chamber adapted to contain said disk abutment, arranged to cut across the bore of the cylinder at right angles, said abutment adapted to revolve freely in either

translucent sign; and a globe depending and detachable from said frame.

2. In a combined light and illuminated sign, the combination of a bracket; a detachable frame depending from said bracket and having a portion of its walls formed by a translucent sign; and a globe depending from said frame and detachable therefrom; said bracket being arranged so that said globe, when said frame is removed, may be attached thereto.

3. In a combined light and illuminated sign, the combination of a bracket; a frame depending and detachable from the latter and having a portion of its walls formed by a translucent sign; and a globe depending from said frame and having an upper circumferential flange, the latter being connected with the lower portion of said frame and detachable therefrom.

4. In a combined light and illuminated sign, the combination of a bracket adapted to be fixed to a ceiling and open at its top; a frame having an upper flange connected with and detachable from the lower portion of said bracket and having a portion of its walls formed by a translucent sign; and a globe depending from said frame and detachable therefrom.

5. In a combined light and illuminated sign, the combination of a fixed bracket; a frame having an upper circumferential flange connected with and detachable from the lower portion of such bracket; said frame having a portion of its walls formed by a translucent sign; and a globe having an upper circumferential flange connected with the lower part of said frame and detachable therefrom.

[Claim 6 not printed in the Gazette.]

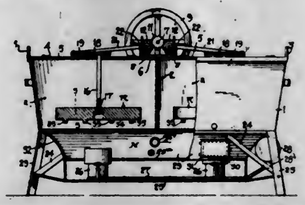
1,208,871. CAR-TRUCK. RALPH E. WILDER, Johnstown, Pa. Filed Oct. 25, 1916. Serial No. 127,509. (Cl. 105—105.)



1. An integrally formed column guide of pressed steel comprising top and bottom flanges adapted to fit within the opening of a truck frame, the upper part of which extends toward the bolster to form a bolster guide, said truck column being provided with an integral inwardly extending portion adapted to directly support a brake beam hanger pivotally secured thereto.

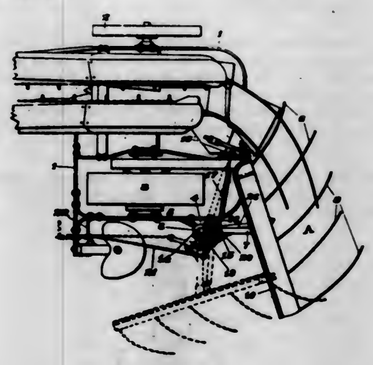
2. An integrally formed pressed steel column guide comprising upper and lower flange portions adapted to fit within the opening between the truck arch bars, the upper portion adapted to contact with the bolster and the lower portion not adapted to contact with the bolster, a pair of webs extending vertically between the arch bars, an inwardly projecting portion comprising a web and flanges, the flanges being perforated and adapted to support a brake beam hanger.

1,208,872. WASHING-MACHINE. JOSEPH C. WILEY, Upland, Ind. Filed Mar. 22, 1916. Serial No. 85,914. (Cl. 126—350.)



In combination, a body, a shelf supported below the body, end plates interposed between the bottom of the body and the shelf at the ends thereof, a supplemental shelf interposed between the first named shelf and the bottom of the body and between the end plates, side plates interposed between the bottom of the body and the longitudinal margins of the supplemental shelf, said end plates and side plates being inwardly directed, a heating device supported by the first named shelf and extending through the supplemental shelf, a door controlled opening in one of the side plates adjacent the heating device, and a source of fuel supply in communication with the heating device.

1,208,873. BUNDLE-CARRIER FOR CORN-HARVESTERS. FREDERICK D. WILSON, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Mar. 16, 1915. Serial No. 14,858. (Cl. 56—37.)



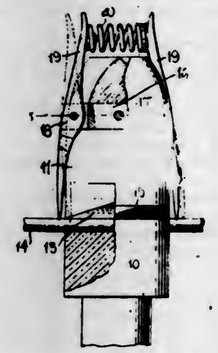
1. In a corn harvester having a binder, the combination of a main frame, a bundle carrier including a support pivoted on the main frame, a receiver pivotally journaled in a bearing on said support and adapted to receive bundles from the binder and carry them stubbleward, a member loosely mounted on said support, a bar pivoted on said member to form a lock joint therewith and pivotally connected with the receiver to hold the latter in a position to receive the bundles and carry them stubbleward, means to swing the support and receiver stubbleward to a predetermined position, and means to break said lock joint to permit the receiver to deposit the bundles upon the ground.

2. In a corn harvester having a binder, the combination of a main frame, a bundle carrier including a support pivoted on the main frame, a receiver pivotally journaled in a bearing on said support and adapted to receive bundles from the binder and carry them stubbleward, a member loosely mounted on said support, a bar pivoted on said member to form a lock joint therewith and pivotally connected with the receiver to hold the latter in a position to receive the bundles and carry them stubbleward, means to swing the support and receiver stubbleward to a predetermined position, means to break said lock joint to permit the receiver to deposit the bundles upon the ground, means to return said support and receiver to its initial position at the rear of the binder, said member and bar coöperating to raise the receiver to the position for receiving bundles, and to re-form the lock joint.

3. In a corn harvester having a binder, the combination of a main frame, a bundle carrier pivotally supported thereon to receive bundles from the binder and adapted to be swung stubbleward to deposit the bundles upon the ground, a member loosely mounted on said support, and a bar pivoted on said member to form a lock joint therewith and coöperating with said member to hold the receiver in position for receiving bundles and carrying them stubbleward, and means to break said lock joint as the receiver reaches the limit of its stubbleward movement.

4. In a corn harvester having a binder, the combination of a main frame, a bundle carrier pivotally supported thereon to receive bundles from the binder and adapted to be swung stubbleward to deposit the bundles on the ground, a member loosely mounted on said support and movable therewith when the latter is swung with the receiver to deposit the bundles, a bar pivoted on said member and extending grainward of the line of advance of the machine to connection with the receiver to hold the latter in position to receive bundles and carry them stubbleward, means to hold said bar and member in rigid relation one with the other when the receiver is in its receptive position, said means maintaining said rigid relation of the bar and said member for part of the swing of the carrier to deposit the bundles, means to check the movement of said member before the swing of the carrier is completed, the bar swinging on its pivot on said member and returning the latter to its original position by a longitudinal movement of said bar when the receiver is rocked to deposit the bundles.

1,208,874. INSULATOR. WILLIAM E. WILSON, Lookout, W. Va. Filed Aug. 19, 1916. Serial No. 115,876. (Cl. 173—313.)



1. An insulator comprising a body formed with a conductor passage and a slot intersecting the passage, the upper end of the body on diametrically opposite sides being formed with vertically extending grooves intersecting said passage, oppositely disposed dogs pivotally mounted intermediate their ends in said grooves, the lower ends of the dogs being sharp edged and engaging a conductor disposed within the passage, and means for urging the upper ends of the dogs ontward.

2. An insulator comprising a body formed with a conductor passage, the outer end of the body on diametrically opposite sides being formed with longitudinally disposed grooves intersecting said passage, and a dog pivotally mounted within each of said grooves, the inner end of the dog being engageable with a conductor disposed within the passage.

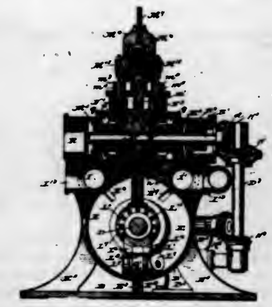
3. An insulator comprising a body formed with a conductor passage, the outer end of the body on diametrically opposite sides being formed with longitudinally disposed grooves intersecting said passage, a dog pivotally mounted within each of said grooves, the inner end of the dog being engageable with a conductor disposed within the passage, and means for forcing the inner end of said dog toward the body.

4. An insulator comprising a body formed with a conductor passage, the outer portion of the body being provided with longitudinally disposed grooves intersecting said passage, a dog pivotally mounted intermediate its length within each of said grooves, the inner ends of said dogs being engageable with a conductor disposed within the passage, and an expansible member interposed between the outer ends of the dogs for urging the inner ends of the dogs in a direction toward the body.

5. An insulator comprising a body formed with a conductor passage and longitudinally disposed grooves intersecting said passage, a bar disposed through the body and extending within the grooves, and dogs pivotally engaged with the extended portions of the bar.

[Claim 6 not printed in the Gazette.]

1,208,875. ROTARY STEAM-ENGINE. LEANDER J. WING, Lexington, Mass.; Mabel Wing Castle, Lexington, Mass., administratrix of said Leander J. Wing, deceased. Filed May 8, 1906, Serial No. 315,803. Renewed May 16, 1916. Serial No. 97,981. (Cl. 121—51.)



1. A rotary steam engine having an annular cylinder, with a continuous finished bore that is circular in cross section, a piston disk carrying a self expanding piston on its periphery, rotatable therein, said disk rigidly secured to the main shaft which it actuates, a revolving disk abutment, having a cut-away section at one side of its disk, adapted to revolve at right angles across the bore of the cylinder, in an abutment chamber that cuts through the same at right angles to the piston path, means for connecting the shafts of the piston disk and abutment, whereby they shall revolve at a relative, uniform, rotative speed, means for maintaining a flexible connection between the piston disk and abutment, means connected with the abutment for taking the impact and pressure of the steam against the abutment upon ball bearings, with internal devices for automatic compensation for wear and expansion in the moving parts in contact, together with means for automatic cut-off and expansion of the steam within the cylinder, substantially as shown and described, and for the purposes herein set forth.

2. In a rotary engine, the combination with the cylinder, provided with a single steam inlet, and a single exhaust outlet, of a revolving disk abutment, internally balanced and counter-poised located between said inlet and exhaust openings, and a revolving piston rotatable within said cylinder, substantially as shown and described, and for the purposes herein set forth.

3. A rotary engine, a revolving disk abutment, internally balanced and counterpoised, said abutment having a cut-away section at one side of its central hub, with means for revolving said disk at right angles across the bore of the cylinder and across the piston disk, substantially as shown and described, and for the purposes herein set forth.

4. In a rotary engine, the combination with the annular cylinder, having a bore that is circular in cross section, a revolving disk adapted to carry a piston around said bore, a balanced and counter-poised disk abutment, having a cut-away section on one side of said disk, of a deep circular chamber adapted to contain said disk abutment, arranged to cut across the bore of the cylinder at right angles, said abutment adapted to revolve freely in either

direction across the piston path, substantially as shown and described, and for the purposes herein set forth.

5. In a rotary engine, the combination with the annular cylinder, the revolving piston disk carrying a piston, of a balanced and counter-poised disk abutment, the disk being finished on both surfaces, and adapted to be packed on one or both of said surfaces, and provided with a cut-away section in said disk and having a curved outer edge to snugly fit against the periphery of the piston disk across which it revolves, substantially as shown and described, and for the purposes herein set forth.

[Claims 6 to 58 not printed in the Gazette.]

1,208,876. MAKING LONG SEAMLESS THIN-ROLLED TUBES OUT OF WARM SOLID BLOCKS OF METAL. LUDWIG WOLFFORAM, Brooklyn, N. Y. Filed June 16, 1915. Serial No. 34,367. (Cl. 80—11.)



1. In a tube rolling mill the combination of guideways, guideblocks composed of separable sections adapted to traverse said guideways, and a rolling mandrel bar engaging said guideblocks, said blocks being adapted to be engaged and pushed by the tube being rolled and being free to drop off said bar when passing off the ends of said guideways.

2. In a tube rolling mill the combination of guideways, guideblocks composed of hinged separable sections adapted to traverse said guideways, and a rolling mandrel bar engaging said guideblocks, said blocks being adapted to be engaged and pushed by the tube being rolled and being free to drop off said bar when passing off the ends of said guideways.

1,208,877. MANUFACTURE OF ACID AMMONIUM PHOSPHATE. WILHELM WOLLENWEBER, Bochum, Germany. Filed Oct. 19, 1915. Serial No. 56,802. (Cl. 23—21.)

1. In the process for the manufacture of acid ammonium-phosphate, the step which comprises conveying ammonia into phosphoric acid until a weak alkaline reaction results, and maintaining the reaction temperature at about 110° C.

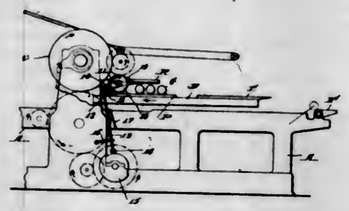
2. In the process for the manufacture of acid ammonium-phosphate, the step which comprises conducting ammonia into phosphoric acid of 30° Bé., until a minimum 32° Bé., are reached.

3. The process for the manufacture of acid ammonium-phosphate which comprises warming 30° Bé., phosphoric acid to 80°–90° C., conducting ammonia into the same until the solution has a concentration of 37°–38° Bé., and maintaining the reaction temperature at about 110° C.

4. The process for the manufacture of acid ammonium-phosphate which comprises warming 30° Bé., phosphoric-acid to 80°–90° C., subjecting the acid to the action of the ammonia until the solution has a concentration of 37°–38° Bé., and is slightly alkaline, maintaining the reaction temperature at about 110° C., separating the salt-mass from the mother-liquor, mixing the separated liquor with a strong phosphoric acid, and returning the mixture into the cycle of operations.

1,208,878. MECHANISM FOR PRINTING FROM INTAGLIO PRINTING-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Sept. 30, 1905, Serial No. 280,752. Renewed May 22, 1916. Serial No. 99,212. (Cl. 101—102.)

1. In mechanism for printing from intaglio printing plates, the combination of a printing member having a to-and-fro movement, a scraping blade, means for causing the blade to contact with the printing member upon alternate movements thereof, and a cleaning device, the surface of which has a movement along the surface of the blade and is constantly in contact therewith for removing refuse ink therefrom.



2. In a mechanism for printing from intaglio printing plates, the combination of an impression member, a printing member for carrying the printing plate, an inking mechanism for inking the printing plate, an oscillatable scraping blade having an edge for engaging the printing plate for removing the surplus ink from the printing plate, a receptacle for the surplus ink, and means for constantly removing the surplus ink from the scraper and conveying the same into the receptacle in all positions of the scraper.

3. In a mechanism for printing from intaglio printing plates, the combination of an impression member, a printing member for carrying the printing plate, an inking mechanism for the printing plate, a scraper having a sharp edge for removing the surplus ink from the printing-plate, a receptacle for the surplus ink, and a carrying surface adapted constantly to remove the surplus ink from the scraper and pass the same directly to the receptacle.

4. In a mechanism for printing from intaglio printing plates, the combination with the bed of an impression member, a printing member for carrying the printing plate, an inking mechanism for the plate, a scraper for removing the surplus ink from the plate, means for causing the scraper to contact with the printing plate upon alternate movements of the printing member, a receptacle for the surplus ink, and a carrier driven at a faster peripheral speed than the maximum speed of the bed during its printing movement.

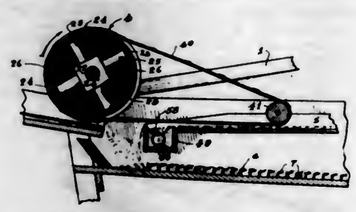
5. In a mechanism for printing from intaglio printing plates, the combination of an impression member, a reciprocating printing member for carrying the printing plate, an inking mechanism for the plate, means for removing the surplus ink from the plate, means for causing the removing means to contact with the printing plate upon alternate movements of the latter, a receptacle for the surplus ink, a carrier for removing the surplus ink from the first named means in all positions thereof and passing the same to the receptacle, and means for driving said carrier at a faster peripheral speed than the minimum speed of the printing member during its printing movement.

[Claim 6 not printed in the Gazette.]

1,208,879. METHOD OF MAKING PRINTERS' ROLLERS. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed May 4, 1914. Serial No. 836,182. (Cl. 18—58.)

A method of making a printer's roller which consists in centering a tube of flexible material in a cylindrical mold of larger diameter than the tube, keeping the tube out of contact with the cylindrical inner surface of the mold, and molding the roller composition in said mold inside the tube and between the tube and mold to cover and surround said tube.

1,208,880. MAGNETIC SEPARATOR. PARVIN WRIGHT and GORDON LAND, Seattle, Wash.; said Land assignor to said Wright. Filed May 26, 1913. Serial No. 769,895. (Cl. 83—71.)

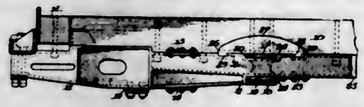


1. In a magnetic separator, a material receiving table, a cylinder mounted to rotate adjacent said table and provided with magnetic devices for producing magnetic poles at the periphery of said cylinder, means for supplying material and water to said table, means for conveying away the discharge from said table, a flume mounted over said discharge means, a roller journaled on said flume, and a belt passing around said cylinder and said roller to convey the magnetic material from said cylinder to said flume, said flume being pivotally mounted so that its weight is sustained by said belt and tensions the belt.

2. In a magnetic separator, a material receiving table, a cylinder mounted to rotate adjacent said table and provided with magnetic devices for producing magnetic poles at the periphery of said cylinder, means for supplying material and water to said table, means for conveying away the discharge from said table, a flume mounted over said discharge means, a roller journaled on said flume, a belt passing around said cylinder and said roller to convey the magnetic material from said cylinder to said flume, said flume being pivotally mounted so that its weight is sustained by said belt and tensions the belt, and means for adjusting the ends of said roller relatively to said cylinder.

3. In a magnetic separator, a material receiving table, a cylinder mounted to rotate adjacent said table and provided with magnetic devices for producing magnetic poles at the periphery of said cylinder, means for supplying material and water to said table, means for conveying away the discharge from said table, a flume mounted over said discharge means, a roller journaled on said flume, a belt passing around said cylinder and said roller to convey the magnetic material from said cylinder to said flume, said flume being pivotally mounted so that its weight is sustained by said belt and tensions the belt, and a water supply pipe on which said flume is pivotally mounted, provided with openings for discharging water into said flume.

1,208,881. DRAFT-ARM FOR RAILWAY-CARS. HENRY J. WRIGLEY, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., a Corporation of Illinois. Filed Sept. 15, 1914. Serial No. 861,793. (Cl. 105—76.)



1. In a draft arm, in combination, a body portion adapted to extend beyond the bolster of a car, and a reinforcing member applied to the top of the body portion and adapted to bear against the bottom face of a sill, such elements having transverse engaging shoulders.

2. In a draft arm, in combination, a body portion adapted to extend through a bolster, and a reinforcing member applied to the top of the body portion and adapted to span the bolster and to bear against the bottom face of a sill, such elements having transverse engaging shoulders at opposite sides of the bolster.

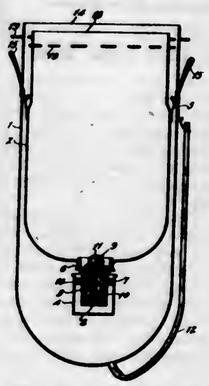
3. In a draft arm, in combination, a body portion having transverse channels in its upper face, and a reinforcing member applied to the upper face of the body portion and adapted to bear against the bottom face of a sill and having transverse ribs entering the channels.

4. In a draft arm, in combination, a body portion having transverse channels in its upper face, and a reinforcing member applied to the upper face of the body portion and having transverse ribs entering the channels, such channels and ribs being interengaged with a dove-tail formation.

5. In a draft arm, in combination, a body portion adapted to extend beyond the bolster of a car, and a reinforcing member applied to the top of the body portion and having an upstanding marginal flange, such elements having transverse engaging shoulders and being adapted to bear against the bottom and a side face of a sill.

[Claims 6 to 15 not printed in the Gazette.]

1,208,882. DOMESTIC WATER-BAG. WILLIAM MCGIE YOUNG, Victoria, British Columbia, Canada. Filed Apr. 27, 1916. Serial No. 93,980. (Cl. 210—12.)



1. A water bag of the character described comprising an outer bag adapted to permit of the slow evaporation of the water passing therethrough, the outlet pipe leading from the outer bag, an inner bag completely surrounded by the outer bag and provided with a collar, means engaging with the said collar for suspending the inner bag from the outer bag, and a filtering device forming an outlet from the inner bag.

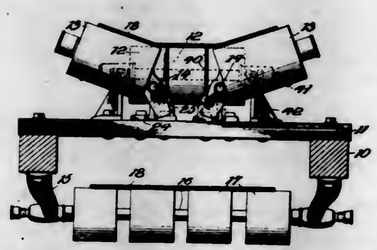
2. A water bag of the character described comprising an outer bag, an outlet pipe leading from the outer bag, an inner bag, means for suspending the inner bag from the outer bag, a filtering device forming an outlet from the inner bag, said filtering device comprising an outer receptacle, an inner receptacle removably connected thereto and spaced therefrom, and filtering material in the inner receptacle, and means for attaching the inner receptacle to the inner bag.

3. A water bag for the purpose specified comprising an inner bag having an opening at the bottom and a collar around the opening, a metal container connected to the collar and projecting downwardly therefrom and being filled with a filtering material and having a perforated bottom, a second metal container fitting about the first and spaced therefrom and removably connected thereto, said second container having an outlet at the top through which a filter of water may overflow, and an outer bag surrounding and connected to the inner bag.

4. A water bag for the purpose specified comprising an inner bag having an opening at the bottom and a collar around the opening, a metal container connected to the collar and projecting downwardly therefrom and being filled with a filtering material and having a perforated

bottom, a second metal container fitting about the first and spaced therefrom and removably connected thereto, said second container having an outlet at the top through which a filter of water may overflow, an outer bag surrounding and connected to the inner bag, and a plurality of hooks forming the connection between the outer and inner bag.

1,208,883. ADJUSTABLE CONVEYER-ROLLER. EDWARD H. ZIEBER, Philadelphia, Pa., assignor to William T. Plummer, Ardmore, Pa. Filed May 26, 1915. Serial No. 30,651. (Cl. 193—27.)



1. In a device of the character described, in combination, a horizontal roller, separate and independent troughing rollers at each side thereof materially overlapping said first mentioned roller, and means for adjusting said troughing rollers comprising a support, and a swinging arm on said support, said last mentioned parts having coacting means whereby the rollers of several sets are insured a uniform adjustment.

2. In a device of the character described, in combination, a horizontal roller, separate and independent troughing rollers at each side thereof materially overlapping said first mentioned roller, and means for adjusting said troughing rollers comprising a support, and a swinging arm on said support, coacting means on said support and arm adapted to be clamped into intermeshing relation and insure uniform adjustment and means for limiting the movement of said swinging arm with respect to its support.

3. In a device of the character described, in combination, a troughing roller having central supporting webs, reinforcing means at its upper edge being materially thicker in the direction of the axis of the roller, and a support about which the roller is adapted to turn.

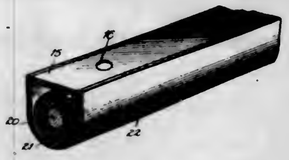
4. In a device of the character described, in combination, a troughing roller, a support for said roller inclined upwardly with respect to the horizontal and a relatively thick and long reinforcing bead on the upper inner edge of said roller adapted to prevent wear to a sharp edge by a belt traveling thereon should said roller be prevented from turning upon its support.

5. In a device of the character described, in combination, troughing rollers, independent fixed supports therefor, each having a plurality of lugs, swinging arms pivotally mounted on said supports and carrying coacting lugs positioned relatively remote from the pivot points adapted to engage said first mentioned lugs to prevent the adjustment of said troughing rollers beyond predetermined limits, and coacting means on said support and swinging arms adapted to insure uniform adjustment.

[Claim 6 not printed in the Gazette.]

1,208,884. CONDUCTOR FOR SYSTEMS OF ELECTRICAL DISTRIBUTION. CHAUNCEY W. ABBOTT, Pittsburgh, Pa., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 21, 1916. Serial No. 79,588. (Cl. 173—266.)

1. In a system of the class described the combination with a flat ribbon of electricity conducting material extending over a supporting surface, a wire conductor separate from said ribbon and provided with an insulating sheath, said insulated wire conductor extending along that face of the ribbon not in engagement with the supporting surface, said ribbon and insulated wire conductor constituting electric circuit current carrying elements, and a cover member of general U shape in cross section extending over and along said insulated wire and ribbon with the legs of the cover embracing the edges of the ribbon whereby the ribbon and cover together provide a closed passage through which the insulated wire conductor extends.



2. In a system of the class described the combination with a flat continuous ribbon of electricity conducting material secured to and extending along a supporting surface, said conducting ribbon constituting one side of an electric circuit, an insulated wire conductor extending along that face of the ribbon opposite the supporting surface, said insulated wire conductor constituting the other side of the circuit aforesaid, together with a cover member of general U shape in cross section extending over and along said ribbon and insulated wire conductor and with the supporting surface constituting a housing for the ribbon and insulated wire conductor.

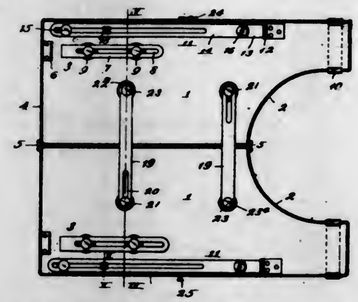
3. In a system of the class described the combination with a flat uninsulated ribbon of electricity conducting material extending over and secured to a supporting surface, said ribbon constituting the grounded conductor of an electric circuit, a wire having an insulating sheath extending along that face of the ribbon not in engagement with the supporting surface, said wire constituting the non-grounded conductor of the circuit aforesaid, and a cover member secured to the supporting surface and extending over and along said ribbon and insulated wire conductor.

4. In a system of the class described the combination with a metallic ribbon adapted to extend along and to be secured to a wall, or other flat supporting surface, said metallic ribbon constituting a part of one side of an electric circuit, a wire conductor disposed adjacent that face of the ribbon opposite the supporting surface and extending along opposite said ribbon, an insulating sheath for said wire conductor, said wire conductor constituting a part of the other side of the circuit aforesaid, together with a channel like cover member extending over and along said ribbon and insulated wire conductor and with the supporting surface constituting a housing for said ribbon and insulated wire conductor.

5. In a system of electrical distribution the combination with a flat flexible ribbon of electricity conducting material extending over a supporting surface, a cover member of general U shape in cross section extending over and along said ribbon with the legs of the cover embracing the edges of the ribbon whereby the cover and ribbon provide a continuous passage without obstructions therein, and a conductor extending through said passage and insulated from the electricity conducting ribbon aforesaid.

1,208,885. PORTABLE OPERATING-TABLE. DALLAS R. ALDERMAN and WALDO E. TYLER, Kansas City, Mo. Filed Dec. 11, 1915. Serial No. 66,297. (Cl. 45—50.)

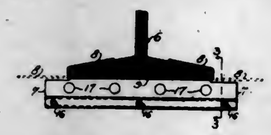
1. In a table of the character described, a top having a recess at one end, clamps at the opposite end of said top to secure it to a bed, extensible legs foldably connected to the top adjacent its recessed end and each consisting of two slotted bars, means adjustably connecting said bars and extending through the slots thereof, and resilient means depending from the top to enter the slotted portions of the legs and hold the same in folded position.



2. In a table of the character described, two leaves foldably connected, a swingable arm having a slotted connection with each leaf to swing beneath the opposing leaf to secure the leaves in open position, means beneath each leaf to secure the opposing arm in operative position and its respective arm in inoperative position, a stirrup at one end of each leaf, clamps at the opposite end of each leaf adapted to engage a bed rail, extensible legs foldably connected to the leaves, means depending from said leaves for holding the legs in folded position, and means at the margins of the leaves for holding the same in folded position.

3. In a table of the character described, a top having a recess at one end and consisting of two leaves foldably-connected, a swingable arm having a slotted connection with each leaf to swing beneath the opposing leaf to secure the leaves in open position, thumb screws beneath the leaves to secure the opposing arms in operative position and their respective arms in inoperative position, a stirrup at one end of each leaf, extensible slotted legs foldably connected to the leaves, resilient devices depending from the leaves to enter the slotted portions of the legs and hold them in folded position, stationary jaws on the leaves adapted to engage one side of a bed rail, slotted movable jaws adapted to engage the opposite side of the bed rail, and thumb screws extending through said slotted movable jaws to secure the same in operative or inoperative positions, substantially as shown and described.

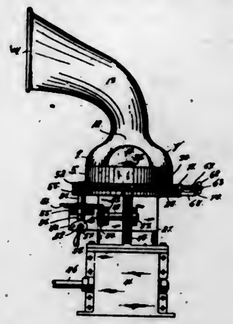
1,208,886. REINFORCING DEVICE FOR SUPPORTING MATERIAL AROUND BEAMS. HARRY A. ANDERSEN, Jamaica, N. Y. Filed Oct. 31, 1914. Serial No. 869,595. (Cl. 72—109.)



1. A reinforcing support for the protection material around a beam, comprising an upper flange with free ends adapted to be bent around the beam, a main web integral with said flange, and two lower flanges one above the other, a second web integral with and connecting said lower flanges to each other, the upper flange of said lower flanges being integral with said main web.

2. A reinforcing support for protection material around a beam, comprising an upper flange with free ends adapted to be bent around the beam, a perforated main web integral with said flange, and two lower flanges one above the other, a perforated second web integral with and connecting said lower flanges to each other, the upper flange of said lower flanges being integral with said main web.

1,208,887. SIREN. CHARLES M. ANDERSON, Denver, Colo. Filed Jan. 25, 1915. Serial No. 4,373. (Cl. 116—13.)



1. A device of the class described comprising a casing surrounding an air space, the inner wall of the casing being perforated, a rotor within the air space, the casing being rotatably mounted, an operating shaft upon which the rotor is mounted and a speed reducing connection between the said shaft and the said rotary casing, the latter being equipped with a horn.

2. In combination, a rotary casing surrounding an air space and having its inner wall perforated, a rotor within the air space, a horn mounted on the rotary casing and in communication with the interior thereof, means for operating the rotor, and a speed reducing connection between the last named means and the rotary casing.

3. In combination, a casing rotatably mounted and surrounding an air space the inner wall of the said casing being perforated, a horn in communication with the casing at one extremity, a rotor located within the air space, means for actuating the rotor, a speed reducing connection between the rotor actuating means and the rotary casing and means for interrupting said connection when it is no longer desirable to move the rotary casing.

4. A device of the class described comprising a casing surrounding an air space the said casing being rotatably mounted and provided with sound transmitting means, a rotor located within the air space, means for actuating the rotor, and a speed reducing connection between the rotor actuating means and the rotary casing.

5. A device of the class described comprising a casing rotatably mounted, the said casing surrounding an air space, in communication with the latter and provided with a horn, a rotor located within the air space, means for actuating the rotor and a speed reducing connection between the rotor actuating means and the rotary casing.

[Claims 6 to 9 not printed in the Gazette.]

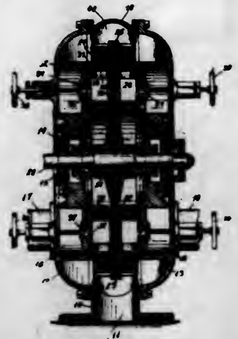
1,208,888. TURBINE-ENGINE. EMIL ANDERSON, New York, N. Y., assignor to The Universal Turbine Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 8, 1912. Serial No. 724,516. (Cl. 253—81.)

1. A turbine engine comprising a rotor ring constructed to have an annular space, a plurality of members oblique to the radii of the ring at equal intervals dividing said space into a plurality of compartments, and a plurality of wavy rotor blades normal to said dividing members in each of said compartments.

2. A turbine engine comprising a rotor constructed to form a plurality of transverse fluid passages, means for passing motive fluid through said passages, and walls for said passages, opposite walls of each passage forming partitions between the passages and substantially parallel wavy walls at substantially right angles to said opposite walls for deflecting the fluid in a zig-zag manner.

3. A turbine engine comprising a rotor constructed to form a plurality of transverse fluid passages, means for passing motive fluid through said passages, and walls for said passages, opposite walls of each passage forming par-

titions between the passages, and a plurality of other walls parallel to one another and at substantially right angles to said opposite walls dividing each passage into a plurality of parallel wavy channels for deflecting the fluid in a zig-zag manner.

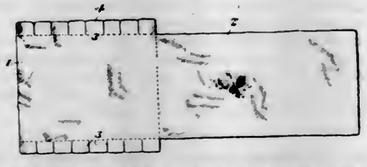


4. A turbine engine comprising a rotor constructed to form a plurality of wavy, unrestricted paths extending transversely through said rotor, with the waves substantially transverse to the path of movement of the fluid whereby the fluid is deflected in a zig-zag manner as it passes through the rotor, and means for passing motive fluid through said passages.

5. A turbine engine comprising a rotor having a plurality of compartments open to opposite ends of one of their transverse dimensions, means for passing motive fluid through the compartments, walls for said compartments, opposite walls of each compartment being of such form as to deflect the motive fluid, and other walls at substantially right angles to said opposite walls, having substantially parallel wavy surfaces for deflecting the fluid in a zig-zag manner.

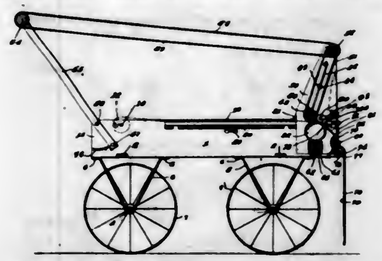
[Claims 6 to 25 not printed in the Gazette.]

1,208,889. MATTRESS. FOREST H. ANDERSON and ELMORE MCCLINTON, Clarksville, Tex. Filed Oct. 6, 1916. Serial No. 124,173. (Cl. 5—13.)



A mattress comprising a blank of a single piece of material, said blank having a broad end portion and a narrow end portion, the broad end portion being equal in length to the length of the mattress, the said broad end portion having at its opposite side incisions leading in from its edges and terminating at their inner ends in lines which lie in alinement with the longer edges of the narrow portion, said incisions being disposed at right angles to the longer edges of the broad portion, the material between the said incisions constituting tongues which are bent up at right angles to the intermediate part of the broad portion and the narrow portion being extended over the broad portion and secured at its edges to the edges of the said tongues and stitching passing through the narrower portion and the broad portion at the inner ends of the tongues and extending transversely across the broad portion and filling material located in the compartments thus formed between the narrow and broad portion and between the tongues at the opposite sides of the broad portion.

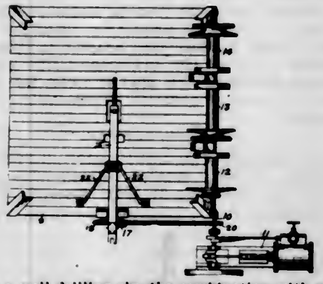
1,208,890. WALL-PAPER PASTING AND TRIMMING MACHINE. JAMES B. AUSTIN, Dolgeville, N. Y. Filed Apr. 19, 1913. Serial No. 762,343. (Cl. 91—14.)



1. A device as specified including a frame, a feed roller mounted in one end of the frame and adapted to receive wall paper, a paste applying roller mounted in the opposite end of the frame, guide members arranged intermediate said rollers and adapted to embrace the top, bottom and opposite margins of the paper, while passing from the feed roller to the paste applying roller whereby the paper is held from lateral or vertical displacement and means for simultaneously adjusting said guide members.

2. A wall paper pasting and trimming machine including a frame, a paste applying roller mounted in the frame and adapted to receive the wall paper thereover, a roller mounted in the frame and adapted to normally gravitate toward said paste applying roller to hold the wall paper in engagement with the latter, and a bar arranged transversely through the frame and in connection with said roller to move the same away from said paste applying roller, one end of said bar being formed to provide a handle for facilitating actuation of the bar.

1,208,891. WELL-DRILLING RIG. CHARLES C. AVERILL, Trees, La. Filed Apr. 17, 1916. Serial No. 91,542. (Cl. 255—3.)



1. In a well drilling rig, the combination with a derrick having a substantially rectangular base, of a power shaft mounted in bearings along one side of said base, a crank shaft at the middle portion of one of the other sides of said base, a driving connection between said shafts, a walking beam mounted on said base, and operated by said crank shaft, and one or more hoisting drums mounted above said power shaft and operated thereby.

2. In a well drilling rig, the combination with a derrick having a substantially rectangular base, of a power shaft mounted in bearings along one side of said base, a crank shaft mounted at the middle portion of one of the other sides of said base, and extending beneath the floor of the derrick, a driving connection between said shafts, a rotary drilling device, and a driving connection from said crank shaft to the rotary.

3. In a well drilling rig, the combination with a derrick having a substantially rectangular base with upright members at the corners thereof, of a samson post mounted on the derrick floor within the uprights, a walking beam pivotally mounted on said post, a crank shaft mounted on the derrick base, a pitman connecting said crank shaft and walking beam, and driving mechanism for operating said crank shaft.

4. In a well drilling rig, the combination with a derrick having a base and upright members at the corners thereof, of a power shaft mounted in bearings along one side and supported on said base, a motor connected at one end of said shaft, one or more hoisting drums driven from said shaft, a crank shaft also mounted on said base within the uprights and parallel with said power shaft, and a driving connection between said shafts.

5. In a well drilling rig, the combination with a derrick having a base and upright members at the corners thereof, of a power shaft mounted in bearings along one side and supported on said base, one or more hoisting drums driven from the power shaft, a crank shaft also mounted at the middle portion of one of the other sides of said base parallel with the power shaft, and having a crank, a walking beam also substantially parallel with said shafts, and a pitman connected to the crank and the walking beam.

[Claims 6 and 7 not printed in the Gazette.]

1,208,892. EXTRACTOR AND EJECTOR MECHANISM FOR FIREARMS. CHARLES H. BARNES, Ilion, N. Y., assignor to Remington Arms & Ammunition Company, Ilion, N. Y., a Corporation of New York. Original application filed Sept. 27, 1912, Serial No. 722,608. Divided and this application filed Jan. 19, 1914. Serial No. 812,971. (Cl. 42—25.)



1. In a firearm, a receiver formed with a shell exit slot, and mechanism in the receiver including a movable breech bolt, an extractor and an ejector arranged on opposite sides of the breech bolt, the extractor being carried by and movable with the breech bolt and also movable outwardly laterally relatively to the breech bolt during the portion of the backward movement of said breech bolt which effects the lateral discharge movement of the shell, and the ejector being carried by the receiver and having means for coacting with the breech bolt whereby the advance end of the ejector moves toward said slot and the extractor and forces the extractor outwardly laterally through the medium of the interposed cartridge shell, and a spring acting to resist said outward lateral movement of the extractor and to move the extractor laterally in the opposite direction during the discharge of the shell, substantially as and for the purpose set forth.

2. In a firearm, a receiver formed with a shell exit slot, and mechanism in the receiver including a movable breech bolt, an extractor and an ejector arranged on opposite sides of the breech bolt, the extractor being carried by and movable with the breech bolt, and also movable outwardly laterally relatively to the breech bolt, during the portion of the backward movement of the breech bolt which effects the lateral discharge movement of the shell, and the ejector being carried by the receiver and having means for coacting with the breech bolt whereby the advance end of the ejector moves toward said slot and the extractor and forces the extractor outwardly laterally through the medium of the interposed cartridge shell, the extractor being formed with means for engaging the front side of the rim of the shell and additional means for engaging the side of the shell, and the ejector being formed with means for engaging the rear side of said rim at a point opposite to the portion thereof engaged by the extractor and with means for engaging the edge of said rim and permitting said rim to move lengthwise of the ejector, and a plurality of spring means acting to resist said outward lateral movement of the extractor and to move the extractor laterally in the opposite direction during the discharge of the shell, one of said spring means being movable independently of the other during the initial outward lateral movement of the extractor, substantially as and for the purpose set forth.

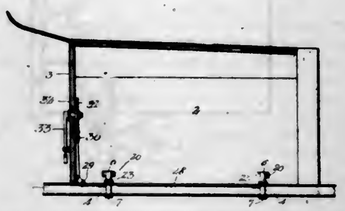
3. In a firearm, a receiver formed with a shell exit slot, and mechanism in the receiver including a movable breech bolt, an extractor and an ejector on opposite sides of the breech bolt, the extractor being carried by and movable with the breech bolt and also movable laterally relatively to the breech bolt, and the ejector being carried by the receiver and having means for co-acting with the breech bolt whereby the advance end of the ejector moves toward said slot and the extractor, and forces the extractor outwardly laterally through the medium of the interposed cartridge shell, and a spring movable with the breech bolt and acting to resist lateral movement of the extractor, the spring being disconnected from the extractor and arranged to come into action after the extractor has been moved laterally a predetermined distance, substantially as and for the purpose specified.

4. In a firearm, a receiver formed with a shell exit slot, and mechanism in the receiver including a movable breech bolt, an extractor and an ejector arranged on opposite sides of the breech bolt, the extractor being carried by and movable with the breech bolt and also movable laterally relatively to the breech bolt, and the ejector being carried by the receiver and having means for coacting with the breech bolt whereby the advance end of the ejector moves toward said slot and the extractor, and forces the extractor outwardly laterally through the medium of the interposed cartridge shell, a spring carried by the breech bolt and normally acting on the extractor to resist lateral movement of the same, and additional spring means movable with the breech bolt and arranged to come into action after the extractor has been moved a predetermined distance, substantially as and for the purpose set forth.

5. In a firearm, a receiver formed with a shell exit slot, and mechanism in the receiver including a movable breech bolt, an extractor and an ejector arranged on opposite sides of the breech bolt, the extractor being arranged on the side of the breech bolt nearest said slot, and being carried by, and movable with, the breech bolt, and being also movable laterally relatively to the breech bolt, and the ejector being carried by the receiver and having means coacting with the breech bolt whereby the advance end of the ejector moves toward the extractor and said slot, and forces the extractor laterally toward said slot through the medium of the interposed cartridge shell, a closure for the slot, movable with the breech bolt, and a spring-pressed plunger carried by the closure in position to engage the extractor and resist lateral movement thereof, substantially as and for the purpose described.

[Claims 6 to 12 not printed in the Gazette.]

1,208,893. LOCK FOR THE HOODS OF AUTOMOBILES. PAUL P. BARTMER, Denver, Colo. Filed Aug. 12, 1916. Serial No. 114,612. (Cl. 21—90.)



1. A dash releasing lock for the hoods of automobiles, comprising a two-part lock, the parts of which are adapted to be secured to the hood and the frame of an automobile, said parts being provided with a coupling pin

and a locking bolt adapted to lock to each other, one of said locks being placed at each corner portion of the hood, flexible members extending from the locking bolt of each lock to the inside of the dash, and means under the control of the driver of the car for moving the locking bolt to unlock the coupling pin and release the hood from the frame.

2. A dash releasing lock for the hoods of automobiles, comprising the combination of a two-part lock placed at each corner of the opposite sides of the hood, one part of which is secured to the hood and the other part is secured to the frame, the part on the hood having means including a coupling pin for entering the part on the frame, a locking bolt on the part of the frame arranged to lock to said coupling pin, and means including flexible members connected to the locking bolts of each lock and extending to the inside of the dash, and means including a lever under the control of the driver and connected to said flexible members for moving said locking bolt to release said coupling pin and free said hood from the frame.

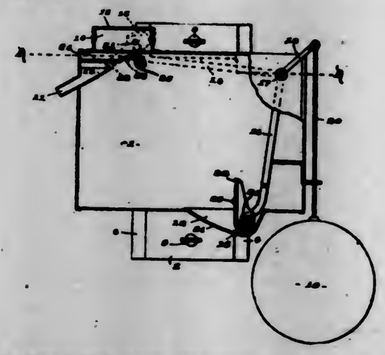
3. In a dash releasing lock for the hoods of automobiles, the combination with the hood and the dash, of a lock comprising two connecting body portions, one of which connects to the hood and the other to the frame of an automobile, each of which is provided with locking members that are spring controlled in one direction of their operative movements, means by which the locking member of each part locks to the other part and means including a hand operating member connected to the inside of the dash by which the driver may release the locking members to unlock the hood from the frame.

4. In a dash releasing lock for automobiles, the combination of the hood, the dash and the frame, with a lock comprising two parts, one of which is attached to the hood and the other to the frame, a resiliently arranged coupling pin mounted in the part on the hood arranged to extend into the part on the frame, a locking bolt therein arranged to lock the coupling pin to the part on the frame, and means including a hand operating device attached to the dash board and connected to the locking bolt of the frame for unlocking the lock and releasing the hood from the frame.

5. In a device of the character described, the combination with the hood and frame of an automobile, of locking means for said hood comprising barrels secured to said frame, bolts carried by said hood and adapted to enter said barrels, spring actuated latches carried by said barrels for engaging said bolts, manually operated means for simultaneously withdrawing said latches, and a lock for said manually operated means.

[Claims 6 to 9 not printed in the Gazette.]

1,208,894. DISINFECTING DEVICE. GEORGE E. BATES, Syracuse, N. Y. Filed Feb. 16, 1915. Serial No. 8,672. (Cl. 4—30.)



1. A disinfecting device comprising a container adapted to be located in a box, the contents of which receive the disinfectant, the container having an outlet opening at its top near one end, a lever arm located in the container and pivoted on a horisontal axis at a point remote from the outlet and located near the top and the opposite end of the container from that near which the outlet is located, a ladle carried by the free end of the lever and movable thereby toward and from the outlet into and out of position to discharge thereinto, and means for operating the lever, substantially as and for the purpose set forth.

2. The combination of a flushing tank, of a disinfecting device therein comprising a container located in the tank, the container being in the form of an elongated box having an outlet at one end, a lever arm located in the container and pivoted on a horizontal axis at a point remote from the outlet and near the top and the opposite end of the container from that at which the outlet is located, a ladle carried at the free end of the lever and movable thereby toward the outlet to discharge thereinto and away from the outlet into the liquid in the container, and means in the flushing tank connected to the axis of the lever to operate the lever, substantially as and for the purpose described.

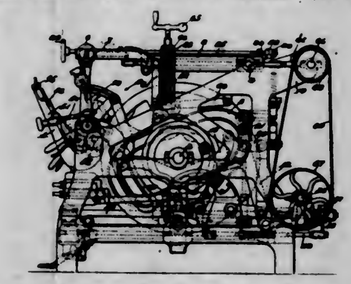
3. A disinfecting device comprising a container having an outlet, a ladle movable upwardly and downwardly in the container toward and from the outlet, a movable carrier for the ladle, the ladle being pivoted to the carrier and having a laterally extending shoulder between the pivot and the discharge end of the ladle, and a horizontally extending track arranged in the path of the shoulder for engaging the shoulder, said track having an upwardly extending arc-shaped portion, substantially as and for the purpose set forth.

4. A disinfecting device comprising a container having an inlet nozzle on its top and an outlet below said nozzle, a ladle movable upwardly and downwardly in the container toward and from the outlet into position to discharge thereinto, the ladle being movable into the nozzle when discharging into the outlet, and means in the container for supportnig and moving the ladle, substantially as and for the purpose described.

5. A disinfecting device comprising a container having a nozzle on its top, a well in its bottom, and an outlet in one side thereof, a ladle movable upwardly and downwardly in the container toward and from the outlet, into and out of the nozzle, and out of and into the well, the ladle being normally arranged in the well, means for supporting and moving the ladle, and means for tipping the ladle as it moves into said nozzle, substantially as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,208,895. LEVELING-MACHINE. WILLIAM C. BAXTER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 24, 1913. Serial No. 750,326. (Cl. 12—34.)



1. A leveling machine, having, in combination, a leveling device, a shoe supporting jack, a continuously rotated drive shaft, a jack actuating shaft, a clutch intermediate the two shafts, a shipper rod controlling the operation of the clutch, an abutment secured to the shipper rod, a trip member supported by the jack actuating shaft, and an intermediate member interposed between the trip member and abutment and arranged to be engaged by the trip member to cause engagement of the intermediate member with the abutment to move the abutment in a direction to release the clutch independently of the direction of rotation of the jack actuating shaft.

2. A leveling machine, having in combination, a leveling device, a shoe supporting jack, a continuously rotated drive shaft, a jack actuating shaft, a clutch intermediate the two shafts, a shipper rod controlling the operation of the clutch, a trip member supported by the jack actuating shaft, and a connecting member interposed between the trip member and shipper rod and arranged to always move in one direction to release the clutch independently of the direction of rotation of the jack actuating shaft.

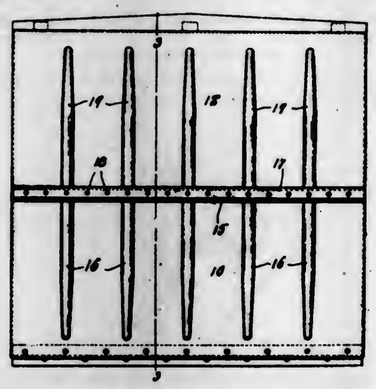
3. A leveling machine, having in combination, a leveling device, a shoe supporting jack, a continuously rotated drive shaft, a jack actuating shaft, a clutch intermediate the two shafts, a shipper rod controlling the operation of the clutch, a trip dog supported by the jack actuating shaft, and a pivotally mounted plate positioned in operative relation to the shipper rod and arranged to be engaged by the trip dog and always moved in the same direction independently of the direction of rotation of the jack actuating shaft.

4. A leveling machine comprising a continuously rotated drive shaft, a driven shaft, a clutch intermediate the two shafts, a trip dog supported by the driven shaft, a shipper rod controlling the operation of the clutch and having an abutment thereon, a plate pivoted upon the machine frame and normally disengaged from the abutment, and a stud mounted upon the plate and arranged to be engaged by the trip dog to always move the plate in a direction to release the clutch independently of the direction of rotation of the driven shaft.

5. A leveling machine, having in combination, a shoe supporting jack, a leveling roll, a roll supporting bed fulcrumed upon the machine frame, a pressure lever pivoted at one end, a link connecting the free end of the lever and the bed, and a spring bearing upon the lever between its ends and arranged to press the roll into engagement with the sole of a shoe supported upon the jack.

[Claims 6 to 12 not printed in the Gazette.]

1,208,896. RAILWAY-CAR END CONSTRUCTION. PAUL M. BEARD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 1, 1914. Serial No. 842,083. (Cl. 105—192.)



1. A car end composed of a pair of duplicate sections of sheet metal having outwardly pressed reinforcing ribs or corrugations at their meeting edges, which ribs or corrugations combine to form a substantially hollow transversely disposed girder.

2. In a car end, a lower sheet metal section having its upper edge bent to form an L-shaped rib, an upper section having its lower edge bent to form an inverted L-shaped rib which overlies the L-shaped rib on the upper edge of the lower section, and attaching means seated in the overlapping portions of said ribs.

3. In a car end, a lower sheet metal section having its upper edge bent to form an L-shaped rib, an upper section having its lower edge bent to form an inverted L-shaped rib which overlies the L-shaped rib on the upper edge of the lower section, attaching means seated in the overlapping portions of said ribs, and each section having pressed therein a series of outwardly projecting ribs or corrugations.

4. In a car end, a lower sheet metal section having its upper edge bent to form an L-shaped rib, an upper section having its lower edge bent to form an inverted L-shaped rib which overlies the L-shaped rib on the upper edge of the lower section, attaching means seated in the overlapping portions of said ribs, and each section having pressed therein a series of outwardly projecting ribs or corrugations, which unite with the ribs on the meeting edges of said sections.

5. In a car end, a pair of duplicate sections having their meeting edges bent outwardly to form a pair of overlapping ribs which are united in a plane offset from the plane of the sections to form a horizontally disposed substantially hollow reinforcement extending across the entire width of the end structure.

[Claims 6 to 10 not printed in the Gazette.]

1,208,897. METALLIC CAR END. PAUL M. BEARD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 8, 1915. Serial No. 13,001. (Cl. 105—192.)



1. In a car end, a pair of sheet metal sections having their meeting edges overlapped and secured together, each of said sections being provided adjacent its overlapped edge with a longitudinal corrugation extending substantially its entire length, and the said sections being connected by a tie plate coöperating with the said corrugated portions to form box girder members.

2. In a car end, a pair of sheet metal sections provided adjacent their meeting edges with longitudinal corrugations extending substantially from margin to margin of the sections, said sections having their meeting edges secured together, and a tie plate extending continuously from margin to margin of the sections and overlapping said corrugations and secured to the respective sections by lines of fastenings on both sides of the respective corrugations.

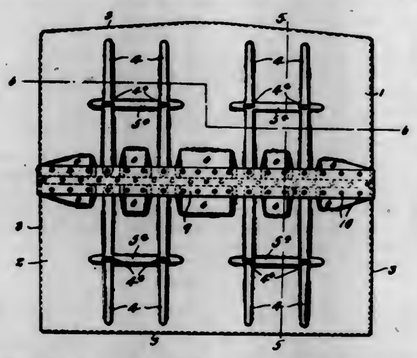
3. In a car end, a pair of sheet metal sections provided at their opposite margins with means for attachment to car framing members and provided adjacent their meeting edges with longitudinal corrugations extending approximately to their opposite margins, said sections having their meeting edges overlapped and secured together, and a tie plate overlapping said corrugations and secured to said sections at opposite sides of said corrugations, said tie plate being provided at its opposite ends with means whereby it may be affixed to a car.

4. In a car end, a pair of sheet metal sections having their meeting edges secured together and each provided with an outwardly pressed corrugation adjacent said edges, and a tie plate overlapping the reëntrant sides of said corrugations and secured to the sections, said tie plate extending continuously between opposite margins of the sections.

5. In a car end, a pair of sheet metal sections having their meeting edges secured together and provided adjacent said meeting edges with outwardly pressed corrugations forming truss members extending substantially from margin to margin of the sections, and a tie plate secured to said sections on the inner side thereof, and forming a truss member coöperating with said corrugations.

[Claims 6 to 12 not printed in the Gazette.]

1,208,898. CAR END CONSTRUCTION. PAUL M. BEARD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 8, 1915. Serial No. 13,002. (Cl. 105—192.)



1. In a car end, a pair of sheet metal sections provided with corrugations extending in transverse directions, the meeting edges of the sections being secured together, and protuberant portions of the corrugations adjacent the meeting edges being secured together to provide continuous beam members extending at right angles to each other substantially between the opposite sides of the sections.

2. In an end structure, a pair of sheet metal sections having portions adjacent their meeting edges secured together substantially in the plane of the sections, and protuberant portions adjacent their meeting edges secured together across said edges in a plane removed from the plane of the sections to provide a continuous beam member extending along the line of jointure and between opposite margins of the sections.

3. In an end structure, a pair of conjoined sheet metal sections formed with corrugations extending at an angle from their meeting edges, the meeting edges of the sections being secured together in one plane, and corrugations in the separate sections being secured together in another plane to form beam members crossing the joint.

4. In an end structure, a pair of sheet metal sections having their meeting edges secured together and provided with corrugations adjacent thereto, and a tie plate extending longitudinally of the sections and secured to the tops of the corrugations in the respective sections adjacent the joined edges of the sections.

5. In an end structure, a pair of sheet metal sections having their meeting edges joined together, said sections being provided with corrugations spaced apart from their meeting edges, and a member spaced apart from the body of the sections and extending across the meeting edges and secured to outstanding portions of the corrugations on opposite sides of the joint.

[Claims 6 to 15 not printed in the Gazette.]

1,208,899. CAR END CONSTRUCTION. PAUL M. BEARD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 28, 1915. Serial No. 30,957. (Cl. 105—192.)

1. In a car end, a pair of sheet metal sections having portions adjacent their meeting edges displaced from the major plane of the sections, and their meeting edges secured together, a tie strip spanning said displaced portions and secured to the respective sections, said tie strip being provided with stiffening corrugations.



2. In a car end, a pair of sheet metal sections having portions adjacent their meeting edges displaced from the major plane of the sections, and said meeting edges secured together to form a tension member, a tie strip disposed substantially in the major plane of the sections and connected to the sections to form a compression member, said tie strip being provided with stiffening corrugations.

3. In a car end, a pair of sheet metal sections having their meeting edges secured together in a plane apart from the major plane of the sections to form a tension member, a tie strip connecting said sections substantially in their major plane to form a compression member, said tie strip being provided with stiffening corrugations.

4. In a car end, a pair of sheet metal sections having their meeting edges secured together in a plane apart from the major plane of the sections to form a beam member, a tie strip connecting said sections substantially in their major plane to form a coöperating beam member, said tie strip being provided with stiffening corrugations, and means for securing said beam member at their extremities.

5. In a car body, in combination with vertical frame members, a girth strip passing through and secured to said vertical frame members, furring strips secured to said girth strip, an end wall sheet secured to said girth strip at the end of the car body, and sheathing secured to said furring strips and forming a portion of the side wall.

[Claims 6 to 17 not printed in the Gazette.]

1,208,900. TALKING-MACHINE-NEEDLE MAGAZINE. MABEL BLACKMAN, New York, N. Y. Filed Dec. 4, 1915. Serial No. 65,014. (Cl. 274—45.)



1. An apparatus as characterized comprising an open-ended tubular magazine; a chuck in open communication with and disposed at the delivery end of said magazine; a head for contracting and expanding said chuck; a resilient check member mounted on said magazine and having a portion thereof extending within the same to normally support a column of needles in said magazine; and means lifting said check member from engagement with said needles, said means embodying said head and an inclined portion of said check member, whereby said check member is lifted when said head closes said chuck.

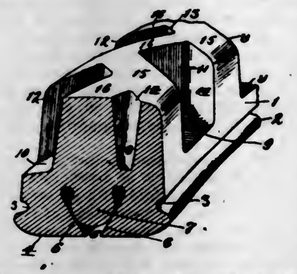
2. In combination with a sound box, a magazine comprising a diaphragm vibrator having rigidly mounted thereon, a contractible chuck; a contracting chuck head for said chuck; an elongated tubular magazine structurally connected with said chuck and supported thereby; an additional support embodying a bracket rigidly secured to said sound box; and a closure cap for said magazine.

1,208,901. WELL-BUCKET. NOBLE G. BOWLES, Paden, Okla. Filed Dec. 15, 1915. Serial No. 66,993. (Cl. 103—35.)



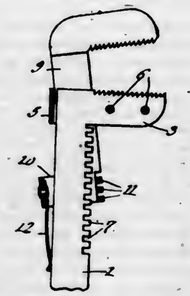
A well bucket having spaced openings in its bottom wall, vertically movable rods, one of said rods extending through one of the openings in the well bucket, valves rigidly fixed upon the respective rods to close said openings, spaced guides common to the two valve rods to maintain the same in coinciding axial relation with said openings, a lever pivotally mounted within the upper end of the bucket, and rods connected to the upper ends of the valve rods for movement relative thereto, said latter rods being pivotally connected to the lever on relatively opposite sides of its pivot, whereby the valves may be independently raised to open position when the lever is actuated.

1,208,902. ELASTIC VEHICLE-TIRE. HARRY E. BOYD, Akron, Ohio. Filed Jan. 31, 1916. Serial No. 75,340. (Cl. 152—1.)



An elastic tire provided at the inner lateral portions with rim-engaging members and further provided centrally of the inner face with a circumferentially-extending groove, the side walls of which constitute the inner faces of the rim-engaging members and are inclined outwardly from each other, and a rib integral with the outer wall of said groove, said rib having a rounded inner face and rounded sides, the rounded sides contacting with the inner faces of the rim-engaging members substantially midway the width of said faces, the rounded inner face of the rib and sides beyond the points of contact with the faces of the rim engaging members being free from engagement with the said members, the expansion of the rib at the points of contact with the rim-engaging members due to compression of the tire causing the rim-engaging members to be forced into firm engagement with a rim flange.

1,208,903. WRENCH. DAVID L. BOYER, Solomon, Kans., assignor of one-half to Charles Henning, Jr., Solomon, Kans. Filed Sept. 28, 1916. Serial No. 122,711. (Cl. 81—131.)



1. A wrench embodying a stock having an angularly extending jaw at its outer end, that edge of the stock which projects in the same direction as said jaw having a longitudinal series of teeth, a bar overlapping one side of said stock and having an angularly extending jaw at its outer end coöperable with the aforesaid jaw, said bar having teeth interengageable with the aforesaid teeth, the stock having means at its outer end for guiding said bar, and spring means between said bar and stock tending to move said teeth into engagement.

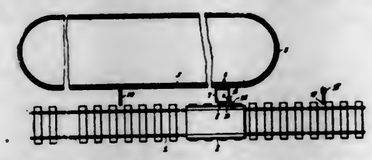
2. A wrench embodying a stock having an angularly extending jaw at its outer end, that edge of the stock which projects in the same direction as said jaw having a longitudinal series of teeth, a bar overlapping one side of said stock and having an angularly extending jaw at its outer end coöperable with the aforesaid jaw, said bar having teeth interengageable with the aforesaid teeth, the stock having means at its outer end for guiding said bar, a member carried by the inner end of said bar, and a spring carried by said member and bearing against that edge of the stock opposite the teeth and tending to move the teeth into engagement.

3. A wrench embodying a stock having a jaw at its outer end, and a longitudinal series of teeth along one edge, a pair of bars slidably overlapping opposite sides of said stock and having a jaw at their outer ends coöperable with the aforesaid jaw, said bars having teeth at their inner ends engageable with the aforesaid teeth, said jaw having a guide at its outer end for guiding said bars, a yoke attached to the inner ends of said bars, and a spring carried by said yoke and bearing against the edge of the stock opposite said teeth to move the teeth of the bars into engagement with the teeth of the stock.

4. A wrench embodying a stock having an angularly extending jaw at its outer end and a longitudinal series of teeth projecting in the same direction as said jaw, a U-shaped yoke attached to said jaw and having its bend surrounding the outer end of said stock, a pair of bars fitting slidably between opposite sides of said stock and said yoke and having an angularly extending jaw at their outer ends coöperable with the aforesaid jaw, said bars having teeth at their inner ends interengageable with the aforesaid teeth when the bars and stock are swung into

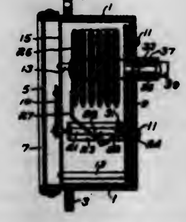
alinement, a U-shaped yoke attached to the inner ends of said bars and projecting in the same direction as the aforesaid yoke, and a spring attached to the second mentioned yoke and bearing slidably against that edge of the stock opposite the teeth thereof.

1,208,904. FUEL-DELIVERY APPARATUS FOR RAILWAY-TRAINS. JOSEPH S. BOYLAN, Ponca City, Okla. Filed Apr. 3, 1915. Serial No. 19,040. (Cl. 214—7.)



In fuel delivery apparatus for railways, tracks arranged alongside of the trackway and spaced apart one above the other, a fuel carrier on said tracks and movable along the same, means adapted to discharge fuel from said carrier into a car traveling over the trackway, an electric motor on said carrier mechanism coöperating with said motor to move the carrier and motor along the trackway in the operation of the motor, an electric circuit including said motor, a circuit closer connected in said circuit and arranged in advance of said carrier, a circuit breaker connected in said circuit and arranged behind the carrier, and car carried means for operating said circuit closer to close the circuit of the motor whereby the carrier may be moved along the trackway and for operating said circuit breaker to break the circuit of the motor, said car carried means being adapted to engage the carrier succeeding the movement thereof under the action of the motor to release said fuel discharge means.

1,208,905. GAGE. EDGAR H. BRISTOL, Foxboro, Mass., assignor to The Foxboro Company, Foxboro, Mass., a Corporation of Massachusetts. Filed Jan. 13, 1913. Serial No. 741,633. (Cl. 73—110.)

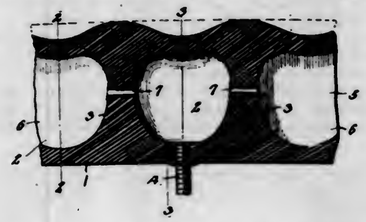


1. A gage comprising, in combination, a pressure responsive member, a shaft journaled laterally of said member and extending substantially parallel to the direction of movement of the same, a pin extending outwardly from said shaft, an arm carried by said pressure responsive member for movement therewith and extending obliquely adjacent said pin and means tending to rotate said shaft to bring said pin in contact with said arm.

2. A gage comprising, in combination, a pressure responsive member, a journaled, index-carrying shaft, a pin extending outwardly from said shaft, an arm carried by said pressure responsive member for movement therewith and extending obliquely adjacent one side of said pin and a spring connected with said shaft and tending to rotate said pin into contact with said arm.

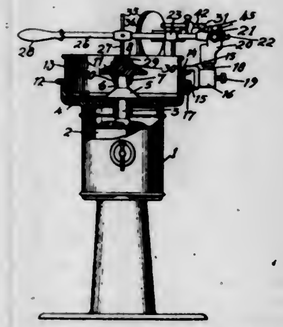
1,208,906. INNER TUBE FOR PNEUMATIC TIRES. JAMES P. BROPHY, Birmingham, Ala. Filed Apr. 1, 1916. Serial No. 88,318. (Cl. 152—22.)

An inner tube for pneumatic tires formed interiorly to provide an annular series of chambers, all of said chambers but one being divided longitudinally to form compartments arranged side by side, the compartments upon each side of the tire communicating with one another and with



the other chamber, an inflation valve in the non-divided chamber, the outer walls of said chambers being normally concaved so that the rubber may be compressed upon the inflation of the tire to reduce the possibility of puncture.

1,208,907. GRINDING-MACHINE. LUCIAN W. BUGBEE, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Oct. 7, 1916. Serial No. 124,264. (Cl. 51—3.)



1. In a lens grinding machine, the combination with a support and a vertically mounted spindle carried by the support, of a post rising from the support, an arm pivotally supported by the post for swinging movement in a horizontal plane, the arm having a pin for coöperation with a lens block, a bracket engaging the arm, an eccentric, and an adjustable link connecting the bracket and eccentric for controlling and regulating the oscillation of the arm about its pivotal support.

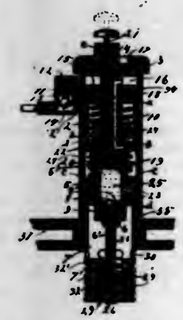
2. In a grinding machine, the combination with a rotatable spindle and a lens block disposed above the spindle, of a pivotally supported arm having a pin engaging the block and a bracket provided with a series of arcuately disposed sockets, and a reciprocating member having a pin for selective engagement in the sockets for reciprocating the arm and lap relative to the grinding spindle, the selective engagement of the pin in different apertures varying the amplitude of the reciprocations, substantially as described.

3. In a device of the character described, the combination with an oscillatable arm, of a reciprocating link, the arm having a bracket provided with an arcuate series of sockets arranged about the distant end of the link in its proximate position as a center, and means on the link for selectively engaging the several sockets to vary the outward limit of movement of the arm while maintaining a constant limit of inner movement for the arm.

4. In a machine of the character described, the combination with an oscillatable arm, of a bracket carried by the arm, a reciprocating yoke and a link extending from the yoke to the bracket, means for adjusting the combined length of the link and bracket to vary the amplitude of oscillation of the arm for corresponding reciprocations of the yoke, and means adjustably connecting the yoke and link to vary the path traversed by oscillations of the same amplitude.

5. In a grinding machine of the character described, the combination with a support and a post rising therefrom, of a bracket having a sleeve portion pivotally connected to the post, said sleeve having a pair of projections forming a seat therebetween and having a socketed laterally extending bracket integral therewith, and a reciprocating member on the support adapted for selective engagement with the bracket or the seat, substantially as and for the purpose described.

1,208,908. CARBURETER. ORSON G. BURCH, Grand Rapids, Mich. Filed June 7, 1915. Serial No. 32,797. (Cl. 123—32.)



1. In a fuel injector for hydrocarbon engines, a cylindrical body, a fixed plunger secured in said body, a vertically movable piston mounted in the lower end of the body and arranged to receive the lower end of the plunger, and form a fuel chamber inside the piston below the end of the plunger, the piston so arranged that pressure upon its lower end will force the piston to slide upward, a spring for forcing the piston downward, the plunger having a channel formed therein for the passage of fuel from a source of supply into the chamber in the piston, and with a separate channel for the passage of air into the same chamber independent of the inflowing fuel, and check valves arranged to govern the flow of fuel into said chamber, the pressure therein and the flow of fuel out of said chamber into the engine cylinder.

2. In a fuel injector for hydrocarbon engines, a cylindrical body, a piston slidably mounted in the lower end of the body and having a central longitudinal opening from the top downward, a plunger firmly mounted in the upper end of the body with its lower end projecting into the central opening in the piston, and forming a fuel chamber in the piston, a needle valve and a check valve arranged to govern the flow of fuel into the fuel chamber in the piston, the plunger provided with a fuel channel and a separate air channel leading to the fuel chamber, the air channel arranged to be cut off by a slight movement upward of the piston, an atomizer secured in the lower end of the body, a discharge tube secured in the lower end of the piston, a check valve between the tube and the piston, a spray valve at the lower end of the tube, a spring support for holding this valve normally against the end of the tube.

3. In a fuel injector for hydrocarbon engines, a cylindrical body, a plunger firmly secured in said body, a piston below and surrounding said plunger in such a manner as to form a fuel chamber in the piston below the plunger, the piston arranged to be made to reciprocate vertically in the body, a spring for forcing the piston downward in the body, a chamber and check valve at one side of the body, the plunger and valve chamber having channels for the passage of fuel to the fuel chamber in the piston, the body, plunger and piston having a channel for the passage of air into the fuel chamber in the piston, so arranged that a slight upward movement of the piston will cut off the flow of air through said channel into the chamber, an atomizer secured to the lower end of the body perforated and having shelving projections thereon, a tube secured to the lower end of the piston and extending to the lower end of the atomizer and arranged to be drawn upward with the piston as the piston is forced upward, a check valve in the upper end of the tube, a spraying valve in the lower end of the tube, means for holding said valves in normal position, and a needle valve in the plunger for opening and closing the channel to the fuel chamber.

4. In a fuel injector for hydrocarbon engines, a cylindrical body, a plunger centrally located in the body, a piston in the lower end of the body actuated to slide upward by expansive force against the lower end thereof, an atomizer connected with the cylindrical body, and means for forcing fuel from a source of supply through one channel, and an air supply through a second channel into the piston and thereinto the atomizer by the reciprocal movement of the piston.

5. In a fuel injector for hydrocarbon engines, a cylindrical fuel injector body, a plunger secured in said body and having a fuel channel through it longitudinally, a hollow piston mounted around the plunger to reciprocate automatically in the body, the plunger and the piston having registering longitudinal air passages arranged to admit air into the piston at the extreme point of its downward stroke, the plunger also having an air passage around it arranged to register with its longitudinal air passage, and valves arranged in the injector for properly distributing the fuel and air.

[Claims 6 to 8 not printed in the Gazette.]

1,208,909. PROCESS OF PACKING RIPE OLIVES. HOWARD P. BURT and GRINNELL BURT, Palermo, Cal. Filed Jan. 3, 1916. Serial No. 70,057. (Cl. 99—8.)

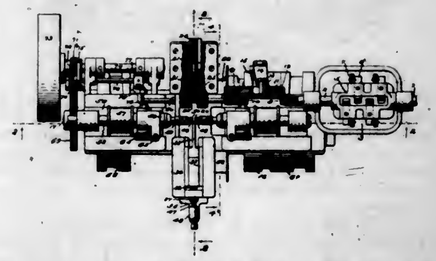
1. The method of treating ripe olives, which consists in pickling them in the usual manner, removing the liquid therefrom and then sealing them in containers.

2. The method of treating ripe olives, which consists in pickling them, sterilizing them, draining off the liquid and sealing them *in vacuo*.

3. The method of treating ripe olives, which consists in pickling them, sterilizing them, removing the liquid from them and sealing them in containers.

4. The method of treating ripe olives, which consists in pickling them in lye, salt and water, removing the liquid from them, sterilizing them, and sealing them in containers *in vacuo*.

1,208,910. AUTOMATIC METAL-TURNING MACHINE. WILLIAM M. BUTLER, Hartford, Conn., assignor to The Whitney Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed July 13, 1916. Serial No. 109,038. (Cl. 82—2.)



1. In a machine for forming metal pieces, the combination of reciprocatory mechanism for intermittently feed-

ing wire longitudinally, reciprocatory mechanism for intermittently forcing transversely and cutting off the end of the fed wire, reciprocatory mechanism for gripping the several pieces of wire and carrying them transversely still farther, and rotatory and reciprocatory mechanism for turning the end of the pieces of wire carried by the gripping mechanism.

2. In a machine for forming metal pieces, the combination of reciprocatory mechanism for intermittently feeding wire longitudinally, reciprocatory mechanism for intermittently forcing transversely and cutting off the end of the fed wire, reciprocatory mechanism for gripping the several pieces of wire and carrying them transversely still farther, and rotatory and reciprocatory mechanism for simultaneously turning the ends of the pieces of wire carried by the gripping mechanism.

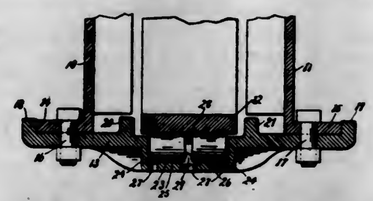
3. In a machine for forming metal pieces, the combination of rotatory mechanism for straightening wire, reciprocatory mechanism for intermittently feeding the straightened wire longitudinally, reciprocatory mechanism for intermittently cutting off the end of the fed wire, reciprocatory mechanism for gripping the several pieces of wire and carrying them transversely, and rotatory and reciprocatory mechanism for turning the end of the pieces of wire carried by the gripping mechanism.

4. In a machine for forming metal pieces, the combination of reciprocatory mechanism for intermittently feeding wire longitudinally, reciprocatory mechanism for intermittently cutting off the end of the fed wire, reciprocatory mechanism for gripping the severed pieces of wire and carrying them transversely, rotatory and reciprocatory mechanism for turning the end of the pieces of wire carried by the gripping mechanism, and mechanism engaged and actuated by the feed mechanism for stopping the machine when the end of the wire is reached.

5. In a machine for forming metal pieces, the combination of rotatory mechanism for straightening wire, reciprocatory mechanism for intermittently feeding the straightened wire longitudinally, reciprocatory mechanism for intermittently cutting off the end of the fed wire, reciprocatory mechanism for gripping the several pieces of wire and carrying them transversely, rotatory and reciprocatory mechanism for turning the end of the pieces of wire carried by the gripping mechanism, and mechanism engaged and actuated by the feed mechanism for stopping the machine when the end of the wire is reached.

[Claims 6 to 22 not printed in the Gazette.]

1,208,911. CARRIER FOR DRAFT-GEAR YOKES. PERCY B. CAMP, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., Chicago, Ill., a Corporation of Illinois. Filed May 29, 1916. Serial No. 100,503. (Cl. 213—42.)



1. A carrier for a coupler extension comprising, in combination, a member adapted for attachment to the draft irons of a car and having transverse ways, a roller running in the ways and adapted to support the coupler extension, such member being provided with upstanding transverse flanges forming lateral guides for the coupler extension.

2. A carrier for a coupler extension comprising, in combination, a member adapted for attachment to the draft irons of a car and having transverse ways, a roller having a circumferential channel and running in the ways and adapted to support the coupler extension, and a guide rod fixed in the member and loosely fitting within the channel of the roller.

3. A carrier for a coupler extension comprising an integral casting adapted for attachment to the draft irons of a car and having a transversely extending pocket in its upper face, a roller running within the pocket and adapted to support the coupler extension, and means for retaining the roller in the pocket and for guiding it in its movements.

1,208,912. CARRIER FOR DRAFT-GEAR YOKES. PERCY B. CAMP, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., Chicago, Ill., a Corporation of Illinois. Filed May 29, 1916. Serial No. 100,504. (Cl. 213—42.)



1. A carrier for a coupler extension comprising, in combination, a strap adapted for attachment to the draft irons of a car, a roller mounted on the strap and movable transversely thereof, and a frame attached to the strap for guiding and limiting the movement of the roller.

2. A carrier for a coupler extension comprising, in combination, a strap adapted for attachment to the draft irons of a car, a roller mounted on the strap and movable transversely thereof, and a frame attached to the strap for guiding and limiting the movement of the roller and having upstanding lateral flanges for guiding the coupler extension.

1,208,913. LOOM-CAM. MARION R. CASEY, Clinton, S. C., assignor to Clinton Cam Company, Clinton, S. C., a Corporation of South Carolina. Filed Jan. 28, 1916. Serial No. 74,793. (Cl. 74—1.)



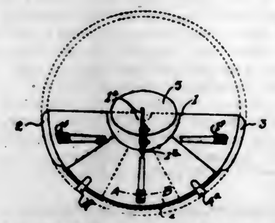
1. A loom cam of the class set forth, overweighted at a point back of the toe portion of the cam, for the purpose set forth.

2. A loom cam of the type set forth having a weight disposed on it at a point just back of the toe portion of the cam, this weight projecting laterally from the cam and having a periphery coincident with the periphery of the body of the cam, so as to thereby increase the bearing surface of the pick ball.

3. A loom cam of the class set forth, overweighted at a point back of the toe portion of the cam, said weight being cast integral with the cam.

4. A loom cam of the class set forth, overweighted at a point back of the toe portion of the cam, said weight being cast integral with the cam and having its outer face coincident with the periphery of the cam, so as to thereby provide an extended wearing surface for the pick ball.

1,208,914. LAMP-REFLECTOR. JOHN B. CLARY, San Diego, Cal., assignor to George G. Prentice, San Diego, Cal. Filed Mar. 20, 1916. Serial No. 85,265. (Cl. 240—48.2.)



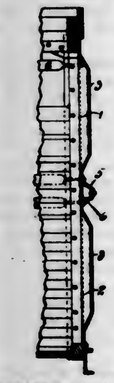
1. In a device of the class described, the combination of a semi-deadened surface element made in sections adjustable relatively to each other and a sub-reflector adjustably secured to one of said sections.

2. In a device of the class described, a non-reflecting element provided with extensible sections mounted thereon and a reflector adjustably mounted thereon.

3. In a device of the class described, a semi-circular concave non-reflecting surface element built in sections movable relatively to each other and a sub-reflector adjustably mounted on one of said sections whereby it may be moved in various positions relatively to the lamp for reflecting rays of light from the lamp.

4. In a device of the class described, in combination with a conventional reflector of a semi-circular main section adapted to fit therein, a plurality of sections adjustably mounted thereon provided with non-reflecting surfaces and a sub-reflector adjustably mounted on said main section.

1,208,915. RAILWAY-CAR END. JAMES J. COOPER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 6, 1913. Serial No. 799,516. (Cl. 105—192.)



1. A car end comprising a plurality of sections of sheet metal, the lower edge of one of which sections overlaps the upper edge of the adjacent section, and a joint member interposed between the overlapping edges of said sections, portions of which overlapping portions combine with said joint member to form a transversely disposed box girder.

2. In a car end, a pair of sections of sheet metal arranged so that the edge of one section overlaps the edge of the other section, and a joint member having a portion interposed and secured between said overlapping edges, a portion of which joint member coöperates with portions of the sections to form a transversely disposed box girder.

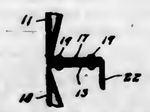
3. In a car end, a pair of conjoined sections of sheet metal the upper one of which has its lower edge offset with respect to the lower section and overlapping said lower section on the exterior thereof, and a joint member extending longitudinally of the sections and having its upper edge disposed behind the offset edge of the upper section and secured thereto, and its lower edge secured to the lower section below the upper section, said joint member having portions disposed in front of the plane of said sections so as to form a beam for stiffening the end structure.

4. The combination in a car end, of two corrugated plates, one located above another; a downwardly extending flange at the lower edge of the upper plate and an upwardly extending flange at the upper edge of the lower plate, the flange of the lower plate being out of line with the flange of the upper plate; and a Z-beam, the upper flange of the Z-beam being connected to the flange at the lower edge of the upper plate and the lower flange of the Z-beam being connected to the flange at the upper edge of the lower plate.

5. The combination in a car end of two sheet metal wall sections one located above the other, the upper section having a lower marginal flange overlapping and offset from the upper margin of the lower section, and a bar member extending longitudinally of the sections along their juxtaposed margins and having a longitudinally extending upper flange connected to the flange at the lower edge of the upper plate and another longitudinally extending flange connected to the lower section.

[Claim 6 not printed in the Gazette.]

1,208,916. RAILWAY-CAR END CONSTRUCTION. JAMES J. COOPER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 1, 1914. Serial No. 842,082. (Cl. 105—192.)



1. In a car end, a pair of sheet metal sections, the meeting edges of which are bent outwardly to form reinforcing flanges, reinforcing joint members arranged between said flanges and portions of said sections being offset to accommodate said joint members.

2. In a car end, a pair of sheet metal sections, the meeting edges of which are bent outwardly to form reinforcing flanges, reinforcing joint members arranged between said flanges and having portions spaced apart in the direction of load thrusts, and attaching means seated in said flanges and the interposed reinforcing members.

3. In a car end, a pair of duplicate sheet metal sections, the meeting edges of which are bent outwardly to form reinforcing flanges, and a reinforcing joint member arranged between said outwardly bent flanges and forming a water table for the joint.

4. In a car end, a pair of duplicate sheet metal sections provided with corrugations, the meeting edges of which sections are bent outwardly to form reinforcing flanges, and a reinforcing joint member arranged between said outwardly bent flanges and extending at an angle to the corrugations.

5. A car end comprising a pair of duplicate corrugated sheet metal sections, the meeting edges of which are bent outwardly to form reinforcing flanges, and a reinforcing joint member arranged between said outwardly bent flanges and riveted thereto, portions of said sections being offset to accommodate said joint member.

[Claims 6 to 19 not printed in the Gazette.]

1,208,917. RAILWAY-CAR END. JAMES J. COOPER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 11, 1914. Serial No. 850,463. (Cl. 105—192.)

1. In a railway car end, a pair of sheet metal plates having overlapping edges, which are offset with respect to

the plane occupied by the body portions of said plates, and a reinforcing joint member interposed between and fixed to said overlapping edges.



2. In a railway car end, a pair of sheet metal plates having overlapping edges, which are offset with respect to the plane occupied by the body portions of said plates, and a reinforcing joint member having a part interposed between and fixed to said overlapping edges, and a part projecting outwardly from said edges.

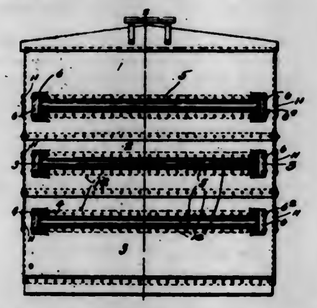
3. In a railway car end, a pair of sheet metal plates having overlapping edges which are offset with respect to the plane occupied by the body portions of said plates, and a flanged reinforcing joint member combined with said plates with one of its flanges positioned between and fixed to said overlapping edges.

4. In a car end, a pair of sections of sheet metal, the overlapping edges of which are bent so as to occupy parallel vertical planes which are offset with respect to the plane occupied by the body portions of said sections, and a reinforcing joint member having a part positioned between and fixed to said overlapping offset edges.

5. In a car end, a plurality of sections of sheet metal, the lower edge of each of which sections is offset and overlaps the offset upper edge of the next adjacent sections, and a reinforcing joint member having a part positioned between and fixed to said overlapping offset edges.

[Claims 6 to 10 not printed in the Gazette.]

1,208,918. END CONSTRUCTION FOR BOX-CARS. JAMES J. COOPER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 28, 1915. Serial No. 30,955. (Cl. 105—192.)



1. In a car structure, an end sheet extending transversely between the side walls and having outwardly pressed pockets formed therein adjacent its lateral extremities, and anchor plates secured to the sides of the car and having their outer ends secured in said pockets.

2. In a car frame members, an end sheet extending between said frame members and having portions adapted for attachment thereto, said sheet having integrally formed pockets adjacent the frame members and removed from its edges, and anchor plates secured to frame members and within said pockets on the interior of the car.

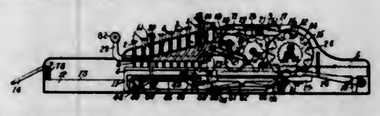
3. In a car, an end sheet extending transversely between the side walls and adapted for attachment to the corner posts, said sheet having a portion apart from the margin thereof disposed transversely of the major plane of the sheet, and securing means attached to a side wall portion and to said transversely directed portion of the sheet.

4. In a car, an end sheet extending transversely of the car and having a marginal flange directed substantially at right angles to the major plane of the sheet, said sheet having a transversely directed portion extending substantially at right angles from the major plane of the sheet and spaced apart from said marginal flange, and attaching members secured to the car wall and to said marginal flange and said transversely directed portion.

5. In a car, a sheet forming a wall portion of the car, said sheet being shaped to provide a pocket spaced apart from its margin, said pocket having a wall extending at an angle from the major plane of the sheet, and an anchor member secured to said pocket wall and to a portion of the car body.

[Claims 6 to 13 not printed in the Gazette.]

1,208,919. COMPUTING-MACHINE. CLIFTON B. CORELL, New York, N. Y., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed July 10, 1912. Serial No. 708,546. (Cl. 235—60.)



1. The combination with a series of computing wheels, rack bars arranged to rotate said wheels, legs projecting downwardly to support said rack bars in a raised position, and guiding means engaging certain of said legs to confine the movement of each of said rack bars to a certain plane.

2. The combination with a series of computing wheels, rack bars arranged to rotate said wheels, a series of pins on each of said bars to determine the extent of movement thereof, means for setting said pins to project downwardly, means for holding said bars in a raised position to permit the setting of said pins, and a series of guiding blocks spaced apart from each other and arranged on opposite sides of each of said bars to form guiding ways therefor.

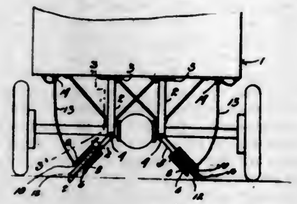
3. The combination with a series of computing wheels, rack bars arranged to rotate said wheels, a series of pins on each of said bars to determine the extent of movement thereof, and a general operator comprising a pair of side bars, a cross bar connecting said side bars and arranged to engage the set pins to move said rack bars, and a transversely disposed handle connecting said side bars.

4. The combination with a series of computing wheels, of rack bars arranged to rotate said computing wheels, keys for determining the extent of movement of said rack bars, a general operator for shifting said rack bars, said general operator comprising a pair of side bars stepped so that a portion thereof will extend under said computing wheels and a portion thereof will extend above the machine, a handle transversely disposed and connecting said last mentioned portion, and a cross bar arranged to operate said rack bars and connecting said first-mentioned portion.

5. The combination with a series of computing wheels, of rack bars arranged to rotate said computing wheels, keys for determining the extent of movement of said rack bars, and a general operator for moving said rack bars, said general operator comprising a pair of side bars spaced apart from each other and connected by a cross bar in the form of a plate, the side bars each comprising a pair of L-shaped stepped portions extending at one end beneath said computing wheels and at the other end outside of and in front of the body of the machine, a handle connecting said side bars located above and in front of the machine in a position convenient to the operator, and legs extending downwardly from said side bars to hold them in a raised position.

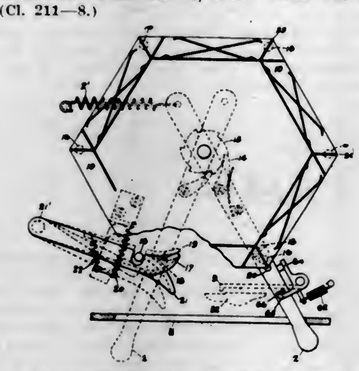
[Claims 6 to 12 not printed in the Gazette.]

1,208,920. ANTISKIDDING DEVICE FOR AUTOMOBILES. ALGERNON HARRY DALLY, Seattle, Wash. Filed Apr. 4, 1916. Serial No. 88,845. (Cl. 21—90.)



In combination with a vehicle, of rods depending from the bottom thereof, arms pivotally connected with the rods, said arms having their lower ends provided with furcations, said furcations having longitudinal slots formed therein, chambers carried by the furcations and opening into said slots, axles having their ends extended into the slots, wheels carried by the axle, bearings slidable in the slots of the chambers, coil springs engaged in the chambers and having their upper ends engaged with the upper end of the chamber, and means for raising or lowering the arms.

1,208,921. VENDING-MACHINE. BETHUEL M. DAVIS, Chicago, Ill., assignor, by mesne assignments, to Post-Card Vending Machine Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 9, 1914. Serial No. 823,436. (Cl. 211—8.)



1. In a vending machine a cylinder having a plurality of vertical partitions, a plurality of card holding pockets in each partition, said pockets arranged in levels, a pivotal shaft for said cylinder whereby said cylinder may be rotated, means for rotating said cylinder, a plurality of card extracting devices, one for each level of pockets and common to all of the pockets in its level, each device adapted for removing cards one at a time from any one of said pockets, said means comprising a reciprocating hand operated lever for rotating said cylinder to bring any partition opposite the row of extracting devices, other means for preventing the backward or forward rotation of said cylinder until the lever reaches the forward end of its stroke, and means for locking said lever when any one of the extracting mechanisms is operated.

2. In a vending machine a cylinder having a plurality of vertical partitions, a plurality of card holding pockets in each partition, said pockets arranged in levels, a pivotal shaft for said cylinder whereby said cylinder may be rotated, means for rotating said cylinder, a plurality of card extracting devices, one for each level of pockets and common to all of the pockets in its level, each device adapted for removing cards one at a time from any one of said pockets, said means comprising a reciprocating hand operated lever for rotating said cylinder to bring any partition opposite the row of extracting devices, other means for preventing the backward or forward rotation of said cylinder until the lever reaches the forward end of its stroke, and means controlled by all the extracting mechanisms for locking said lever.

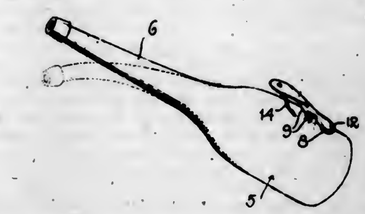
3. In a vending machine a cylinder having a plurality of vertical partitions, a plurality of card holding pockets in each partition, said pockets arranged in levels, a pivotal shaft for said cylinder whereby said cylinder may be rotated, means for rotating said cylinder, a plurality of card extracting devices, one for each level of pockets and common to all of the pockets in its level, each device adapted for removing cards one at a time from any one of said pockets, said means comprising a reciprocating hand operated lever for rotating said cylinder to bring any partition opposite the row of extracting devices, other means for preventing the backward or forward rotation of said cylinder until the lever reaches the forward end of its stroke, and means for operating one extracting mechanism at a time and locking all the rest.

4. In a vending machine a cylinder having a plurality of vertical partitions, a plurality of card holding pockets in each partition, said pockets arranged in levels, a pivotal shaft for said cylinder whereby said cylinder may be rotated, means for rotating said cylinder, a plurality of card extracting devices, one for each level of pockets and common to all of the pockets in its level, each device adapted for removing cards one at a time from any one of said pockets, said means comprising a reciprocating hand operated lever for rotating said cylinder to bring any partition opposite the row of extracting devices, other means for preventing the backward or forward rotation of said cylinder until the lever reaches the forward end of its stroke, and means for operating one extracting mechanism at a time and locking all the rest.

5. In a vending machine a cylinder having a plurality of vertical partitions, a plurality of card holding pockets in each partition, said pockets arranged in levels, a pivotal shaft for said cylinder whereby said cylinder may be rotated, means for rotating said cylinder, a plurality of card extracting devices, one for each level of pockets and common to all of the pockets in its level, each device adapted for removing cards one at a time from any one of said pockets, said means comprising a reciprocating hand operated lever for rotating said cylinder to bring any partition opposite the row of extracting devices, other means for preventing the backward or forward rotation of said cylinder until the lever reaches the forward end of its stroke, and means for locking said lever when any one of the extracting mechanisms is operated, each device having a normally locked reciprocating carriage, a card controlling means on the frame of said carriage and movable with the latter, said means comprising a roller normally disengaged from the cards, means for lowering said roller onto said cards when the device is operated, a card engaging edge so placed with relation to said roller that it is permitted to engage only a definite number of cards and remove the same from the pocket as the extracting device continues to move on.

[Claims 6 to 14 not printed in the Gazette.]

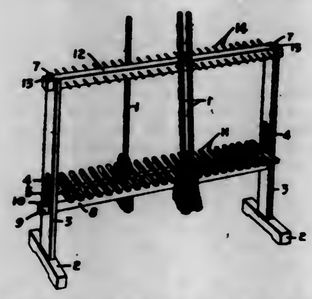
1,208,922. DRENCHING-BOTTLE. GORDIE DAWKINS, Truxno, La. Filed Aug. 12, 1916. Serial No. 114,562. (Cl. 128—27.)



A drenching bottle entirely constructed of rubber and having a relatively rigid body portion and a reduced, elongated, flexible neck portion, the body wall of the

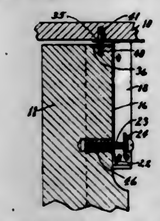
bottle being provided with an opening in one side thereof and an annular recess in the outer face of said wall surrounding said opening, a valve lever pivotally mounted upon the body wall having a head on one end for engagement in said recess, and a spring normally holding the valve head in its closed position, said lever being operated by the fingers of the hand holding the bottle in the use thereof, whereby the valve head may be moved to its open position.

1,208,923. BROOM-RACK. THOMAS CHESTER DELL, Niagara Falls, Ontario, Canada, assignor to Archie Dell, Niagara Falls South, Ontario, Canada. Filed Dec. 27, 1915. Serial No. 68,889. (Cl. 211—14.)



A broom rack comprising two standards having a keyhole shaped slot near their bases and an open ended slot in their upper ends, a removable upper cross piece having a reduced portion near each end adapted to fit into and be engaged by said open ended slots, and a removable lower cross piece having ends adapted to fit into and be engaged by said keyhole shaped slots.

1,208,924. KNOCKDOWN TABLE. WILLIAM L. DEMING, Salem, Ohio. Filed Feb. 5, 1915. Serial No. 6,364. (Cl. 45—48.)



1. The combination, with a table top and legs, of a depending leg-securing member having integral ears abutting and secured to the table top and having a flat portion engaging a surface of the table leg and having an ear extending over the top of the leg, positioning means on the table leg engaging said last mentioned ear, and a screw extending through said flat portion and engaging the table leg.

2. The combination, with a table top and legs, of pairs of depending members adapted to engage each leg, a leg-holding member having surfaces abutting and secured to each pair of said depending members and having flat integral ears abutting and secured to the table top and having a flat intermediate portion, there being an integral ear extending from the intermediate portion and over the top of the leg, an upward projection on the leg, an opening in said last mentioned ear to receive said projection, and a screw for drawing the leg toward the leg-holding member.

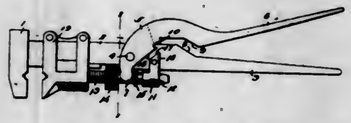
3. The combination, with a table top and legs, of pairs of depending members adapted to engage two sides of each leg, a sheet metal member having surfaces abutting and secured to each pair of said depending members and having inwardly turned integral ears abutting and secured to the table top and having a flat intermediate portion and having an outwardly turned ear extending from the intermediate portion and over the top of the leg, an upward projection on the leg, an opening in said last mentioned ear to receive said projection, and a screw for drawing the leg toward the sheet metal member.

4. The combination, with a table top and legs, of a flat sheet metal member for securing each of the legs comprising a flat portion, two flat wings extending from the sides thereof and at an angle thereto and lying in a plane substantially at right angles to each other, ears integral with each of said wings and with the intermediate strip adapted to abut and be secured to the table top, one of said ears lying over the top of the leg, a projection on the top of the leg, and an opening in the last mentioned ear to receive said projection, and means for removably securing the leg to the strip.

5. The combination, with a table top, apron members and a leg, of a device adapted to be secured to the apron members and hold the leg in place, said device comprising an intermediate body portion, wings extending therefrom at substantially forty-five degrees thereto, lips on the upper ends of the wings secured to the table top, a lip on the upper end of the intermediate body portion extending to the opposite side from the wings, means on the top of the leg positioned by the last mentioned lip, and means for securing the lower portion of the fastening device to the leg.

[Claim 6 not printed in the Gazette.]

1,208,925. WRENCH. ADOLPHUS DESORMEAU, Manistique, Mich., assignor of one-half to Daniel E. Seller, Manistique, Mich. Filed May 3, 1916. Serial No. 95,215. (Cl. 81—85.)

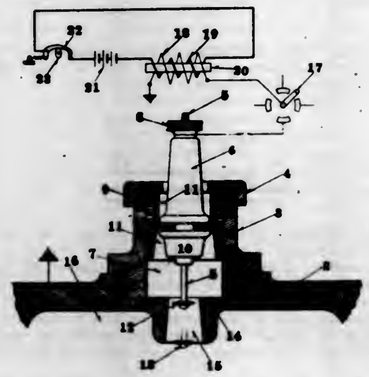


A wrench comprising a fixed jaw, a straight shank fixed with respect to said jaw and having a reduced handle portion and also having an inclined abutment at an intermediate point of its length, a jaw slidable on said shank and having a threaded bore in its rear side, an arm fixed with respect to and extending laterally from the shank and having a longitudinally-disposed guide aperture and also having portions arranged at the sides of the shank and terminating in inclined ends, a screw arranged alongside the shank and in said bore of the sliding jaw and having a finger portion and a circumferential flange spaced therefrom and also having a plain portion movable in said aperture, and a lever having a bifurcated portion straddling and pivoted to the shank and terminating in ends disposed between the finger portion and the flange of the screw and also having an inclined portion opposed to the inclined abutment of the shank and inclined portions opposed to the ends of the arm portions at opposite sides of the shank.

1,208,926. IGNITION DEVICE. BURNS DICK and VALÈRE ALFRED FYNN, St. Louis, Mo., assignors to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed July 19, 1915. Serial No. 40,602. (Cl. 123—169.)

1. In an internal combustion engine, an explosion chamber, fuel igniting means, and means governed by the pressure of the fuel in the explosion chamber for varying the position of the point of initial ignition of the fuel to vary the time between the said ignition and the development of maximum explosive pressure.

2. In an internal combustion engine, the combination of an explosion chamber, a movable spark electrode, and means operated by the pressure to which the fuel is subjected in the explosion chamber for moving said spark electrode to change the point at which the ignition spark is produced.



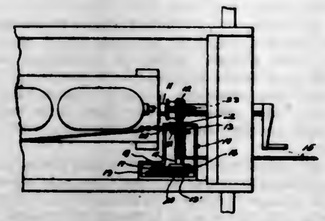
3. In an internal combustion engine, an explosion chamber, an ignition chamber in communication with the explosion chamber, ignition means in the ignition chamber, and means governed by the pressure of the fuel in said chambers for varying the distance of the point of ignition thereof from the main body of fuel in the explosion chamber.

4. In an internal combustion engine, the combination of an explosion chamber, a fuel ignition chamber communicating therewith, a spark electrode in said ignition chamber, and means operated by the pressure of the fuel in said chambers for varying the position at which the ignition spark is produced.

5. In an internal combustion engine, the combination of an explosion chamber, a sparking plug having a chambered body and a piston movable therein, the movement of said piston being governed by the pressure of the fuel in the explosion chamber, a movable electrode controlled by the piston, and a second electrode having a plurality of sparking points adjacent to the path of movement of the movable electrode whereby the position at which the ignition sparks occur will vary with the different fuel pressures in the explosion chamber.

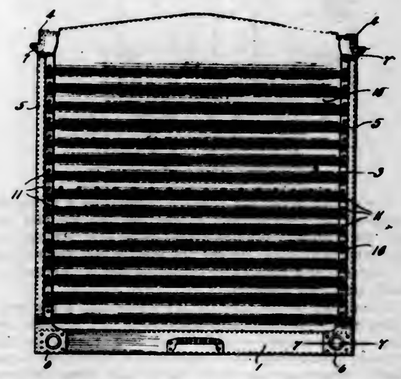
[Claims 6 to 9 not printed in the Gazette.]

1,208,927. AUTOMOBILE ATTACHMENT. WILLIAM E. DODSON and ELMER E. POWELL, Checotah, Okla., assignors of one-third to B. E. Rosendahl, Checotah, Okla. Filed Jan. 28, 1916. Serial No. 74,919. (Cl. 254—166.)



An attachment for an automobile comprising a casing mounted on the frame of the automobile adjacent the engine shaft thereof, a shaft rotatably mounted in the casing, a drum rotatably mounted on the shaft, a pinion carried by the drum and rotatable therewith, a pinion carried by the shaft and rotatable therewith and disposed adjacent the drum pinion, a pair of rigidly connected and simultaneously rotatable pinions mounted in the casing and each meshing with one of the before-mentioned pinions, intergeared connections beween the shaft and the engine shaft of the automobile, and an eccentrically mounted means for canting the drum shaft to disengage the intergeared connections.

1,208,928. METALLIC CAR END. THOMAS A. DOOLEY, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 6, 1914. Serial No. 870,584. (Cl. 105—192.)



1. A car end including a sheet metal section, and a corner post adapted to engage the marginal portion of the section along two lines and formed with a vertical channel intermediate said lines.

2. A car end including a sheet metal section, and a corner post adapted to engage the section at its margin and on a line inside the margin, said corner post being formed with a vertically disposed channel disposed intermediate the said lines of contact.

3. A car end including a sheet metal section, and a corner post formed with a portion adapted to engage a margin of the section, a portion adapted to engage the section inside the margin, and a vertically disposed channel intermediate said portions.

4. A car end structure comprising angle bars forming corner posts, corrugated metallic sections extending intermediate the angle members and secured to flanges thereof, said flanges being corrugated to conform to the surface contour of the sections, and members conforming to the inner face of the sections and coöperating with said flanges to retain the margins of the sections.

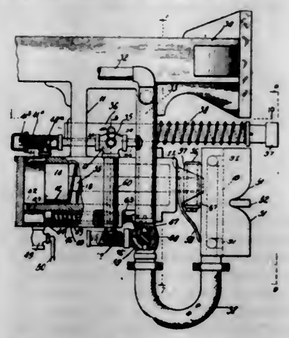
5. In a railway car structure, the combination of a corrugated metallic section forming a wall portion, and post members secured at their extremities to upper and lower car framing parts and including retaining members overlapping opposite sides of the section and shaped to conform to the corrugated contour thereof.

[Claims 6 to 15 not printed in the Gazette.]

1,208,929. COUPLING DEVICE FOR VEHICLES. EDWARD P. DOYLE, Wheaton, Ill., assignor, by direct and mesne assignments, to William T. Van Dorn, Chicago, Ill. Filed Aug. 21, 1912. Serial No. 716,144. (Cl. 173—333.)

1. A coupling device for vehicles, comprising a mechanical coupler for mechanically connecting the vehicles together, an electrical coupler for electrically coupling said vehicles, said electrical coupler having two parts, one connected with each vehicle and movable longitudinally relative thereto, and means for automatically actuating

said electrical coupler parts to move them relatively to their coupling position, said means set in operation by the movement of said vehicles, the power for actuating said means being independent of the movement of said vehicles, said mechanical coupler keeping the parts of the electrical coupler from separating.



2. A coupling device for vehicles comprising a mechanical coupler for mechanically connecting the vehicles together, an electrical coupler attached to said mechanical coupler and supported thereby for electrically connecting the vehicles and a pneumatic actuating device for operating said electrical coupler.

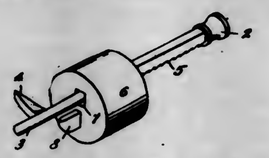
3. A coupling device for vehicles comprising a mechanical coupler for mechanically connecting the vehicles together, an electrical coupler connected therewith for electrically connecting the vehicles and means for automatically actuating said electrical coupler after the mechanical coupling has been made.

4. A coupling device for vehicles comprising a mechanical coupler having a coupler head on each vehicle, an electrical coupler associated therewith having an electrical coupler element on each vehicle and means deriving its power from a source independent of the relative movement of said vehicles for automatically moving said electrical coupler elements relative to the vehicles to electrically connect them, said mechanical coupler holding said electrical coupler elements from separating.

5. A coupling device for vehicles comprising a mechanical coupler having a coupler head associated with each vehicle, an electrical coupler having an electrical coupler element associated with each vehicle, means for mechanically connecting the coupler heads of the mechanical coupler to connect the vehicles together and means started by the movement of the vehicles and acting independent of the movement thereof for automatically moving the electrical coupler elements into contact after the vehicles have been mechanically coupled together.

[Claims 6 to 19 not printed in the Gazette.]

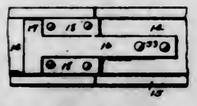
1,208,930. ANTILOCK-PICKING DEVICE. WILLIAM H. DRAPER, Kansas City, Mo. Filed Apr. 3, 1916. Serial No. 88,659. (Cl. 70—8.)



A device of the character described, consisting of a member having a bit adjacent one end and marginal ratchet teeth, a retaining member adjustably mounted upon the first member and provided at one end with a projection, a detent carried by said retaining member to engage the teeth of the first member, a key-controlled barrel for actuating said detent, and means for locking said barrel from rotation when the detent is in engagement with a tooth.

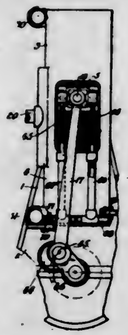
1,208,931. [WITHDRAWN.]

1,208,932. DEMOUNTABLE RIM. RUDOLPH A. ECKBERG, Des Moines, Iowa. Filed Aug. 3, 1915. Serial No. 43,491. (Cl. 152—21.)



A demountable rim comprising an annular rim member, transversely split, a metal locking member secured to the inner surface of the rim near one end thereof, having at its projecting end laterally extending portions, plates on the inner surface of the other end of said rim arranged on opposite sides of said projecting locking member and adapted to engage the sides and projecting portions thereof, and also overlap the first mentioned end of said rim.

1,208,933. INTERNAL-COMBUSTION ENGINE. WILLIAM D. EDWARDS, Portland, Oreg. Filed Aug. 3, 1912. Serial No. 713,032. (Cl. 123—63.)



1. In an engine, a cylinder, a stationary piston projecting inwardly from the head of said cylinder, a hollow plunger movable in said cylinder and fitting around said piston and said plunger having a passage extending through one of its walls to connect the interior of said cylinder around the piston with the interior of the plunger, and a valve carried by said plunger for controlling said passage.

2. In an engine, two stationary alined piston members, a hollow plunger fitting at its ends about said piston members, said plunger having a transverse partition across the same at the center so as to divide the interior thereof into two chambers, a power transmitting device connected to said plunger, a fuel inlet valve carried by said plunger for admitting combustible into either of said chambers.

3. In an engine, two stationary alined piston members, a hollow plunger fitting at its ends about said piston members, said plunger having a transverse partition across the same at the center so as to divide the interior thereof into two chambers, a power transmitting device connected to said plunger, a fuel inlet valve carried by said plunger for admitting combustible into either of said chambers, and means for connecting either of said chambers to atmosphere.

4. In an engine, a member having two alined pistons fixed relative to each other, a member having two alined cylinders fixed relative to each other, each of said pistons fitting into one of said cylinders, a power transmitting device connected to one of said members, a fuel-inlet valve carried by the member to which the power transmitting device is connected, an exhaust valve also carried by the latter member, each of said valves having a neutral position and two operative positions, means tending to hold the exhaust valve in its neutral position, means for actuating the inlet valve, and means associated with the inlet valve for causing the exhaust valve to move with it from the neutral position into each operative position and to be released in the operative position.

5. In an engine, a cylinder, a hollow stationary piston projecting inwardly from the head of said cylinder, a member extending through said head and detachably mounted in said piston and forming therewith a closed chamber extending substantially throughout the entire length of the piston, a cooling medium in said chamber, and a hollow plunger movable in said cylinder and fitting around said piston.

[Claims 6 to 14 not printed in the Gazette.]

1,208,934. SHOE-BUTTON. WILLIAM E. ELLIOTT, Grand Rapids, Mich. Filed Mar. 21, 1916. Serial No. 85,609. (Cl. 24—90.)



1. A button comprised of a head having an opening therethrough and a recess in its underside, a loop formed of a piece of wire having the ends thereof brought together and inserted into said opening at one end, an insert through which said ends pass seated in the recess in the head and a plug inserted into the opening at the other end and connected with said ends of the loop, substantially as described.

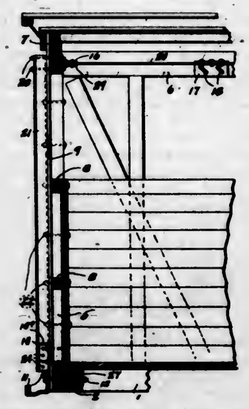
2. A button comprised of a head having an opening therethrough and a recess in its underside, an insert seating in said recess, a loop formed of a piece of wire having the ends brought together and passed through said insert and into the opening in the head, and means for permanently connecting the loop and the head, substantially as described.

3. A button comprised of a head having an opening therethrough and a circular recess in its under side, an insert comprised of a body and a downwardly extending neck provided with downwardly and inwardly curving sides, said body being received within the recess of the head to provide a smooth and unbroken surface from the neck to the head, and a wire loop projecting from the underside of the insert, said head, insert and loop being permanently connected together.

1,208,935. CAR END REINFORCEMENT. ROBERT G. ELLIS, University City, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 4, 1915. Serial No. 65,020. (Cl. 105—15.)

1. In a railway car having an end sill, end posts, and an end plate, flanged reinforcing members disposed over the end posts and secured thereto and at their upper ends to the end plate, a plate secured to the reinforcing members at their lower ends, lateral plates overlapping the flanges of the reinforcing members at their lower ends, a striking plate applied over the lower portions of said plate and said lateral plates, and means connecting said plate, striking plate and lateral plates to the end sill.

2. In a railway car having an end sill, an end reinforcement including Z bars extending vertically upward from the end sill, a plate connecting the lower ends of said Z bars, lateral plates connected to said Z bars respectively, a striking plate applied to said plate and said lateral plates, and means securing all of said plates to the end sill.



3. In a railway car having an underframe, an end reinforcement including flanged reinforcing members rising vertically from the underframe, a plate connecting said reinforcing members at their lower extremities, other plates connected to said reinforcing members respectively, a striking plate applied over all of said plates, and connecting members passing through said plates and securing the striking plate to the underframe.

4. An end reinforcement for railway cars including vertically disposed Z bars, a flanged plate having lateral portions riveted to the webs of the Z bars to connect them, separate plates applied to the flanges of the respective Z bars, and a striking plate having connection with all of said plates below the lower extremities of the Z bars.

5. In a railway car having an end plate, end wall reinforcing members in the form of Z bars extending downwardly from the end plate, and means engaging the flanges of the Z bars on opposite sides of the webs thereof for securing the Z bars to the end plate.

[Claims 6 to 9 not printed in the Gazette.]

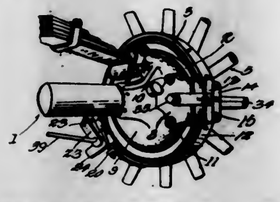
1,208,936. FISH-HOOK. HENRY ENGLAND, Chicago, Ill. Filed June 14, 1915. Serial No. 33,963. (Cl. 43—30.)



A fish hook including a shank having outwardly diverging arms formed integral therewith and curved laterally

at their fixed extremities in opposite directions away from the shank, said arms at their free extremities being bent laterally to provide primary hooks, a transverse bar rigidly secured to the arms at a point intermediate their ends and serving to hold said arms permanently in fixed spaced relation to each other, a bait hook having a shank extending longitudinally from the first mentioned shank between the laterally curved portions of the arms and terminating short of the transverse bar, the bill of said bait hook being extended in the same direction as the bills of the primary hooks and spaced from the point of junction of the arms with the shank, and a guard secured to the first mentioned shank beyond its point of attachment with the arms and having its free end bearing against the bill of the bait hook, the shank and bill of said bait hook being disposed entirely at one side of the point of junction of the arms with the first mentioned shank.

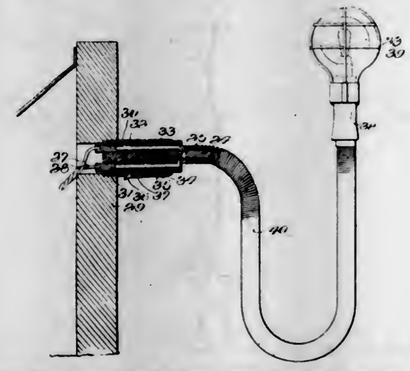
1,208,937. BAND-BRAKE. CULLEN C. EVANS, Los Angeles, Cal. Filed Apr. 3, 1916. Serial No. 88,641. (Cl. 21—8.)



1. In a brake for an automobile, the combination of a brake drum, a brake band thereon, a band spacing mechanism comprising a support having a plurality of parallel sockets, a band holding member provided with a plurality of pins slidably mounted in said sockets, springs in said sockets engaging said pins and tending to move said band away from the periphery of said drum, and a stop to limit the outward movement of said band.

2. In a brake for automobiles, the combination of a brake drum, a brake band thereon, a spacing mechanism comprising a support having a socket, a band holding member provided with a pin slidably mounted in said socket, resilient means in said socket tending to move said band holding member away from the periphery of said drum and a stop to limit the outward movement of said band holding member.

1,208,938. AUTOMOBILE-SIGNAL. EMORY D. FINCH, Atlanta, N. Y. Filed Aug. 18, 1914. Serial No. 857,359. (Cl. 173—13.)



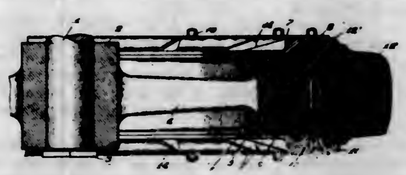
In an electrical apparatus, a cable including supply and return conductors, each being in the form of a resilient and insulated wire wound in a helix, with the helix of one disposed within and throughout the length of the other, the resiliency of the wires normally holding them so that each convolution of a wire engages adjacent convolutions of the same wire.

1,208,939. HAT-PIN GUARD. GEORGE FOSTER, South Haven, Mich., assignor of one-half to Nathaniel Thompson, South Haven, Mich. Filed Oct. 18, 1915. Serial No. 56,504. (Cl. 24—155.)



A hat pin guard including a cylindrical casing, a cap removably mounted on one end of the casing, a conical guide member having an elongated tubular apex and arranged in the opposite end of the casing, the base of the guide member and the free end of the casing being rolled upon themselves to provide a rigid connection therebtween, and oppositely arranged spring arms provided by slitting the guide member throughout the length of the apex and adapted to frictionally engage and retain the pin point within the casing subsequent to the insertion of the pin into and through the guide member.

1,208,940. VEHICLE-WHEEL. FRANKLIN A. FROMMANN, Chicago, Ill., assignor to Olive Frommann, Chicago, Ill. Filed Mar. 10, 1913. Serial No. 753,321. (Cl. 152—36.)

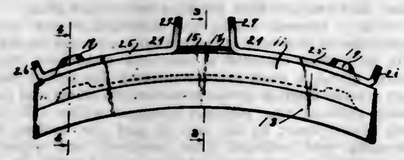


In a vehicle wheel, a hub member, a rim rigid therewith, equipped with parallel radial side flanges extending inwardly from its outer periphery, a clencher tire rim surrounding said rigid rim and movable with respect thereto, an annular cushion equipped at its outer periphery with a rigid clencher carrier and yieldingly supporting the clencher tire rim radially with respect to the rigid rim, a pair of opposite rigid side flanges each provided with a pair of circumferential grooves adapted to receive respective edges of said clencher rim and clencher carrier, and overlapping at their edges the side flanges of the rigid rim, and bolts extending between the clencher rim and clencher carrier and clamping said opposed side flanges rigidly upon the same, said clencher rim and carrier serving to rigidly space said side flanges and prevent their inner edges binding upon the side flanges of the rigid rim.

1,208,941. [WITHDRAWN.]

1,208,942. [WITHDRAWN.]

1,208,943. INTERLOCKING BRAKE-SHOE AND BACK THEREFOR. JOSEPH D. GALLAGHER, Glen Ridge, N. J., assignor to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Filed Aug. 9, 1913. Serial No. 783,909. (Cl. 188—25.)



1. A brake shoe, the entire body of which comprises two substantially like faces and divided longitudinally throughout its length, the two faces of said body being adapted to fit side by side, said body being provided with lugs on its rear faces and corresponding recesses on its wearing faces, and means for detachably holding the sections together.

2. In a brake shoe, a body portion comprising two sections arranged side by side and extending longitudinally of the shoe; a supporting back detachably secured to said body; and a second body portion detachably secured to said first-mentioned body portion.

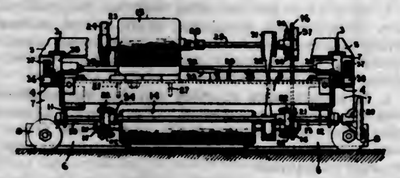
3. In a brake shoe, a body portion comprising a plurality of sections extending longitudinally of the shoe; a supporting back to which said sections are detachably secured; and a second body portion comprising a like number of sections similar to said first-mentioned sections, and which second body portion is detachably secured to said first-mentioned body portion.

4. In a brake shoe, a body portion comprising two sections arranged side by side and extending longitudinally of the shoe; a detachable back through which said body is supported; means carried by said back for forcing said body sections toward one another; a second body portion secured to said first-mentioned body portion and comprising two sections arranged side by side and extending longitudinally of the shoe; and means carried by said first-mentioned body portion for forcing the sections of said second-mentioned body portion toward one another.

5. In a brake shoe, a body portion comprising two sections arranged side by side and extending longitudinally of the shoe and which body portion is provided with a lug upon its rear face and with a recess corresponding in size and form with said lug upon its front face; and a detachable back having means for engaging the lug aforesaid to thereby support said body portion.

[Claims 6 to 13 not printed in the Gazette.]

1,208,944. MACHINE FOR TRIMMING HEELS AND SIMILAR ARTICLES. HARRY D. GARBER, Stoughton, Mass., assignor to Plymouth Rubber Company, Canton, Mass., a Corporation of Massachusetts. Filed Aug. 16, 1915. Serial No. 45,737. (Cl. 18—1.)



1. A machine for trimming heels and similar articles comprising a base adapted to have a plurality of molds for said articles superposed thereupon, frictional means for trimming the superfluous material and means to support the frictional means whereby the same may traverse the base and trim a plurality of articles.

2. A machine for trimming heels and similar articles comprising a base adapted to have a plurality of molds for said articles superposed thereupon, a movable frame adapted to traverse said base, supporting means carried by said frame and movable transversely with relation thereto, and frictional trimming means for removing the superfluous material carried by said supporting means whereby through suitable movements of said frame and said supporting means a plurality of rows of said articles may be trimmed.

3. A machine for trimming heels and similar articles comprising a base adapted to have a plurality of molds for said articles superposed thereupon, trimming means for removing the superfluous material from the molded articles, a movable carriage supporting said means, and a frame supporting said carriage, said frame being movable to afford a plurality of paths of traverse of said carriage.

4. A machine for trimming heels and similar articles comprising a base adapted to have a plurality of molds for said articles superposed thereupon, rotatable trimming means adapted to contact with and trim the articles in said molds, a carriage adapted to support said trimming means and actuable to traverse said base, means for actuating said carriage, means for rotating said trimming means in reverse direction to the traverse of the carriage, and a movable frame upon which said carriage travels, said frame being movable on said base to vary the path of traverse of said carriage and trimming means.

5. A machine for trimming heels and similar articles comprising a base adapted to have a plurality of molds for said articles superposed thereupon, a rotatable trimming roller adapted to contact with articles in the molds, a carriage for said roller, means for actuating the carriage and the roller to cause the roller to be rotated and the carriage to traverse said base, and transversely movable means for bearing the carriage whereby upon movement of said last-mentioned means the path of traverse of the roller may be varied.

[Claims 6 to 20 not printed in the Gazette.]

1,208,945. BASKET-HOLDER. CHANCEY L. GELL and LEWIS H. PAGE, Cathlamet, Wash. Filed May 17, 1916. Serial No. 98,222. (Cl. 224—26.)

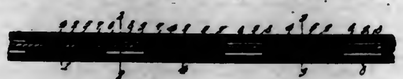


A berry picker's tray comprising two similar flanged segmental sections which are hingedly connected at their outer meeting edges, a suspending strap secured above the hinge and having an attaching element at the ends, adjustable straps connected with the inner flanges of the tray sections and secured to the suspending strap, and an adjustable back strap secured to the outer end flange of one of the tray sections and having an element co-engaging with the end flange of the other section to secure the same to the said section.

1,208,946. TIRE-FILLER. LAWRENCE G. GILCHRIST, Vandergrift, Pa. Filed Sept. 8, 1916. Serial No. 119,142. (Cl. 152—5.)

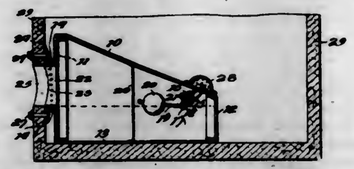
A tire filler comprising a core; inner rings surrounding the core and spaced from each other longitudinally of the core; outer rings surrounding the inner rings and spaced

from each other longitudinally of the core, the outer rings being spaced from the inner rings transversely of the core; intermediate rings spaced from each other longitudinally of the core and having their ends engaged be-



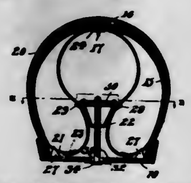
tween the ends of the inner and outer rings; and auxiliary rings surrounding the central portions of the intermediate rings and extended between the ends of the outer rings, and having their outer surfaces flush with the outer surfaces of the outer rings.

1,208,947. STOCK-WATERING APPARATUS. OTTO F. GINTHER, Rippey, Iowa. Filed Mar. 1, 1916. Serial No. 81,539. (Cl. 119—78.)



The combination with a reservoir having an opening in its side near its bottom, of a receptacle adapted to rest upon the bottom of the reservoir and provided in one end with an opening adapted to aline axially with the opening in the side of the reservoir, a screened inlet in the top of the receptacle at the opposite end of the same, means controlled by the level of liquid in the receptacle to cut off flow through said inlet, an outwardly projecting annular flange around the opening in the end of the receptacle, a collar fitting closely within said flange and constructed with a radially disposed flange fitting against the inner face of the side of the reservoir and around the opening therein, securing devices inserted radially through said collar and said flange on the receptacle, and securing devices inserted through the said radially disposed flange and the wall of the reservoir.

1,208,948. RESILIENT WHEEL. GAETANO GRECO, Pittsburgh, Pa. Filed June 17, 1916. Serial No. 104,215. (Cl. 152—8.)



1. A resilient wheel comprising a rim, a rubber shoe mounted thereon, a plurality of filler springs arranged within the shoe, spacing means for the said filler springs, a plurality of wedging tensioning bars within the said springs and an adjusting means for the said bars.

2. A resilient wheel comprising a split rim, a plurality of spaced arched spring plates mounted upon said rim, a connecting tread plate centrally engaging the said arched plates, inwardly projecting radial pins attached to the said arched and tread plates, binding wires engaging the opposite ends of the said arched plates positioned adjacent the said rim, a rubber envelop for the said arched plate and tread plate and spring filler members mounted interiorly of the said arched plates and loosely connected to the said pins.

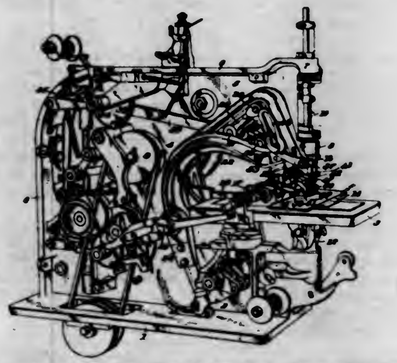
3. A resilient wheel comprising in combination with a split rim, a shoe comprising a plurality of spaced arched spring plates mounted upon said rim, a connecting tread plate centrally engaging the said arched plates, inwardly projecting radial pins connecting the said arched plates and tread plate, binding wires engaging the opposite ends of the said arched plates positioned adjacent the said rim, a rubber envelop for the said arched plates and tread plate, and resilient filler members within said shoe.

4. In a resilient wheel, the combination with a sectional rim having central perforations, and lugs upon said rim, of a shoe mounted in said rim comprising arched spring plates, a tread plate connecting the arched plates, and a tread member inclosing the arched plates and tread plate, resilient filler members arranged within said shoe and spaced apart by the lugs of said rim, locking bars engaging said resilient filler members, and adjusting screws extending through said perforations in the rim and engaging said locking bar for adjusting the tension of said filler members.

5. A resilient wheel comprising a shoe embodying a tread member, and arched spring plates within said tread member, filler springs arranged within the shoe contacting the sides thereof and having centrally arranged loops, tensioning means positioned within the said loops, and loose connections between the said filler springs and the arched plates of said shoe.

[Claims 6 to 8 not printed in the Gazette.]

1,208,949. THREAD-CUTTING DEVICE. JAMES G. GREENE and LOUIS F. A. BÜCHNER, Elizabeth, N. J., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 16, 1912. Serial No. 684,124. (Cl. 112—33.)



1. In a buttonhole stitching machine, the combination with stitch-forming mechanism, and slit-cutting mechanism, of distinct thread-serving mechanism mounted separately from and connected with and controlled in the timing of its action by said slit-cutting mechanism.

2. In a buttonhole stitching machine, the combination with stitch-forming mechanism, of slit-cutting mechanism, thread-severing mechanism independent of the latter, and means for simultaneously actuating said slit-cutting and thread-severing mechanisms.

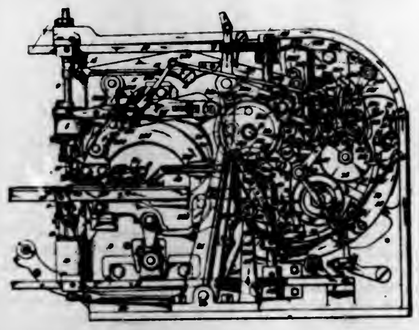
3. In a buttonhole stitching machine, the combination with stitch-forming mechanism, of slit-cutting mechanism, thread-severing mechanism independent of the latter, and common actuating means for said slit-cutting and thread-severing mechanisms.

4. In a buttonhole stitching machine, the combination with stitch-forming mechanism, and slit-cutting mechanism, of distinct thread-severing mechanism mounted separably from and having an operative connection with said slit-cutting mechanism and deriving its operative movements through said connection.

5. In a buttonhole stitching machine, the combination with stitch-forming mechanism, of a thread-severing device including separable cutting elements, means for bodily moving said thread-severing device into and out of thread-severing position, and including a movable actuating member connected with and adapted to impart the initial movement to the severing device, and a second movable actuating member initially disconnected from the severing device but adapted to assume operative relation with the latter after the action of the initially connected member and impart a subsequent bodily movement to said severing device in a direction at an angle to the direction of the initial movement, and means for opening and closing said cutting elements.

[Claims 6 to 20 not printed in the Gazette.]

1,208,950. BUTTONHOLE-SEWING MACHINE. JAMES G. GREENE and LOUIS F. A. BÜCHNER, Elizabeth, N. J., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 16, 1912. Serial No. 684,125. (Cl. 112—4.)



1. In a buttonhole stitching machine, the combination with a work-clamp, stitch-forming and feeding mechanisms, and actuating means therefor, of means independent of said actuating means and adapted to act automatically and positively upon the clamp to open and close the same.

2. In a buttonhole stitching machine, the combination with a work-clamp, stitch-forming and feeding mechanisms, slit-cutting mechanism, and successively operating means for actuating the stitch-forming and feeding mechanisms and the cutting mechanism, of means acting independently of said actuating means for automatically closing and opening said clamp.

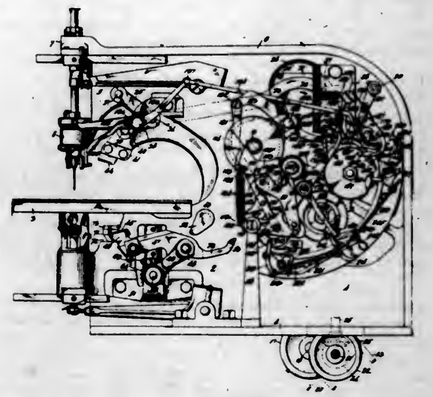
3. In a buttonhole stitching machine, the combination with a work-clamp, stitch-forming and feeding mechanisms, slit-cutting mechanism, and independent and successively operating means for actuating the stitch-forming and feeding mechanisms and the cutting mechanism, of means acting independently of said actuating means for automatically closing and opening said clamp, and controlling devices therefor whereby the successive closing and opening of the clamp are timed to occur respectively before and after the operation of said actuating means for the stitch-forming and feeding mechanisms and the cutting mechanism.

4. In a buttonhole stitching machine, the combination with a work-clamp, stitch-forming and feeding mechanisms, slit-cutting mechanism, and successively operating mean for actuating the stitch-forming and feeding mechanisms and the cutting mechanism, of clamp-operating means acting independently of said actuating means for effecting the closing and opening of the clamp, means for effecting actuations of the clamp-operating means both before and after the operation of the stitch-forming, feeding and cutting mechanisms in each buttonhole-producing cycle, and controlling means whereby the clamp is caused to be alternately closed and opened.

5. In a buttonhole stitching machine, the combination with a work-clamp, stitch-forming and feeding mechanisms, means including a rotary shaft for operating the same, a constantly rotating driving element, and a clutch device including a swinging lever whereby said shaft may be coupled to the driving element, of clamp-actuating means with connections with the clamp whereby the latter is opened and closed, and means carried by said clamp-actuating means and adapted to move the clutch lever into starting position for setting in motion the stitch-forming and feeding mechanisms.

[Claims 6 to 26 not printed in the Gazette.]

1,208,951. BUTTONHOLE STITCHING AND CUTTING MACHINE. JAMES G. GREENE and LOUIS F. A. BÜCHNER, Elizabeth, N. J., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 22, 1912. Serial No. 685,490. (Cl. 112—4.)



1. In a buttonhole stitching machine, the combination with stitch-forming mechanism and automatically controlled slit-cutting mechanism, of a manually actuated starting device for the stitch-forming mechanism, and means controllable by said starting device independently of the normal action of the latter for preventing the action of the cutting mechanism at the will of the operator.

2. In a buttonhole stitching machine, the combination with stitch-forming mechanism, actuating means therefor, slit-cutting mechanism, and means independent of said actuating means for operating said slit-cutting mechanism, of a starting device whereby said stitch-forming and cutting mechanisms are automatically successively coupled with their respective actuating means, and means connected with said starting device whereby the coupling of the cutting mechanism with its actuating means may be prevented.

3. In a buttonhole stitching machine, the combination with stitch-forming mechanism, actuating means therefor, slit cutting mechanism and independent actuating means therefor including two interengaging members, means for disconnecting said members, a locking device for maintaining said members disconnected during the stitch-forming operation, a stop motion for said stitch-forming mechanism, an operative connection between said stop motion and the locking device, and means for rendering said connection ineffective at will.

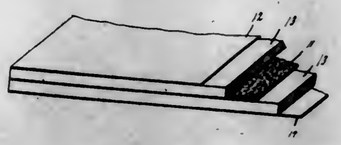
4. In a buttonhole sewing machine, the combination with stitch-forming mechanism, actuating means therefor, slit cutting mechanism and actuating means therefor independent of that for the stitch-forming mechanism and with which the cutting mechanism has a permanent connection, automatically operated means adapted to move

into engagement with and throw into action the cutting mechanism actuating means, and means for preventing such engagement at the will of the operator.

5. In a buttonhole stitching machine, the combination with stitch-forming mechanism, actuating means therefor, a stop-motion for controlling the operative relation of the stitch-forming mechanism and its operating means, a starting device whereby the stop-motion is operated to set in motion the stitch-forming mechanism, slit-cutting mechanism, actuating means therefor, automatically acting means for coupling the cutting mechanism with its actuating means, and means connected with the starting device and acting independently of the stop-motion for rendering the coupling means ineffective.

[Claims 6 to 13 not printed in the Gazette.]

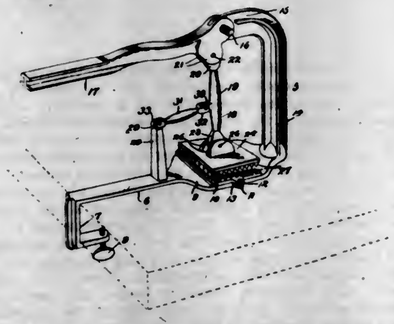
1,208,952. PAPER SHEET MATERIAL FOR BOXES. JASON H. GREENSTREET, Indianapolis, Ind. Filed Aug. 9, 1915. Serial No. 44,430. (Cl. 154—46.)



1. A reinforced paperboard comprising an interior filler of chipboard, a reinforcing layer of cloth applied to the chipboard, and facing layers of jute paper.

2. A reinforced paperboard comprising an interior filler of chipboard, a reinforcing layer of cloth applied to each face of the chipboard, and facing layers of a tough paper.

1,208,953. MEAT-TENDERER. OSCAR GRÉGOIRE, Woonsocket, R. I. Filed Aug. 8, 1916. Serial No. 113,818. (Cl. 17—28.)



1. A meat tenderer embodying a base, a bracket formed at one end of the base for detachably connecting the same to a fixed structure, a standard rising from the opposite end of the base, a fixed cutting plate connected to said base, a movable cutting plate, a lever having pivotal connection with the movable cutting plate for imparting reciprocating movement thereto, and means for rocking said lever.

2. A meat tenderer embodying a base, a bracket formed at one end of the base for detachably connecting the same to a fixed structure, a standard rising from the opposite end of the base, a fixed cutting plate connected to said base, a movable cutting plate, a lever having pivotal connection with the movable cutting plate for imparting reciprocating movement thereto, and means for moving the said movable cutter longitudinally of the fixed cutter.

1,208,954. BILL-FILING DEVICE. JOSEPH W. GREGORY, Seat Pleasant, Md. Filed Mar. 28, 1916. Serial No. 87,229. (Cl. 129—22.)

1. The combination with a bracket having a forwardly extending and upwardly bent, longitudinally slotted arm, of a needle having a cylindrical portion and a flattened portion gradually merging into said cylindrical portion, and adapted to pass into and be automatically locked in said slot, and article receiving means carried by said needle.
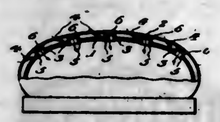


2. A device of the kind described comprising a bracket adapted to be secured to a flat surface, and having a forwardly projecting arm, said arm curving upwardly and rearwardly, and being longitudinally slotted, the upper end of the slot terminating near the free end of the arm in an enlargement, and a needle having a cylindrical portion adapted to rest in said enlargement and a flattened portion adapted to pass into said slot, and to wedge in the lower portion of the slot at the point of merger of the flattened and cylindrical portions of the needle.

3. A device of the kind described comprising a bracket, an arm carried thereby, said arm extending forwardly and then bent upwardly and back upon itself, the arm having a longitudinal slot extending from the lower to the upper portion of said arm, and terminating in the upper portion in an enlargement, and a thread supporting needle having a flattened portion adapted to be passed in a vertical position into said slot, and a cylindrical portion adapted to descend into said enlargement, as and for the purpose set forth.

4. A device of the kind described comprising a wall bracket, an arm carried thereby said arm being bent upwardly and rearwardly, the bent portion being longitudinally slotted, said slot terminating in its upper portion in an elliptical opening, and terminating in its lower portion to the rear of and below said opening, and a thread supporting member having a flattened and a cylindrical portion, said portions merging slopingly into each other, said flattened portion being adapted to pass into the upper and lower portions of said slot with said member in a vertical position, the member being adapted to move downwardly into an inclined position the merging portions of the member engaging the rear lower portion of the slot and the cylindrical portion resting and binding in the elliptical portion.

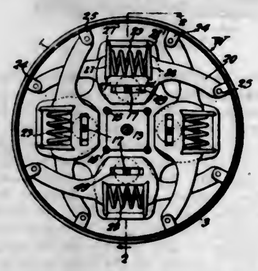
5. A device of the kind described comprising a curved arm bent on itself, and having a longitudinal slot, portions of said slot being in vertical alinement, the upper portion terminating in an enlargement, and a paper supporting member having a flattened portion adapted to be passed simultaneously into both portions of the slot and to move longitudinally in said slot thereby bringing the cylindrical portion of the member into said enlargement and into engagement with the lower portion of the slot.

1,208,955. VENTILATING SHOE-TIP. GEORGE S. GUMAER, Coronado, Cal. Filed July 19, 1916. Serial No. 110,142. (Cl. 36—3.)



A shoe including an upper, an overlying tip, the latter formed with openings, said upper being formed with openings out of line with the openings in the tip, and means for spacing the upper from the tip to provide a channel with which both sets of openings communicate.

1,208,956. CRAB-LEVER SPRING SYSTEM. ANDREW HALLNER, Arboga, Cal. Filed Oct. 18, 1915. Serial No. 56,640. (Cl. 64—17.)



1. A crab lever spring system including a plurality of units each having a fulcrum and an arm with jaws on each side of said fulcrum, a coil spring arranged between said jaws, said jaws being normally on a neutral or rest line, and means connected to pivot said jaws on their fulcrum, whereby said spring is compressed and shocks absorbed thereby.

2. A crab lever spring system including a plurality of units each having a fulcrum and an arm with jaws on each side of said fulcrum, a coil spring arranged between said jaws, said jaws being normally on a neutral or rest line, and means connected to pivot said jaws in opposite directions on their fulcrum and thereby compress said spring, the resisting power of said spring being the same whichever way the jaws are pivoted.

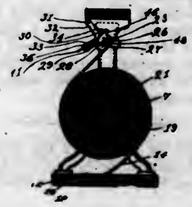
3. A crab lever spring system including a plurality of duplex units, each comprising a male and a female crab lever having telescoping pivotally connected jaws, a coiled spring arranged between the jaws of the two levers, and means connected to pivot the jaws.

4. A crab lever spring system including a casing, a plurality of lever units mounted therein and each comprising a pair of levers pivoted at one end to said casing with their other ends extending toward each other and having lapping pivotally connected heads, each of said heads having longitudinally spaced gripping elements extending laterally in the same direction, the elements of one head alining transversely with those of the other when the parts are in normal position, and shock absorbing elements arranged between the gripping elements of said heads.

5. The combination of an axle, a cylindrical casing loosely mounted thereon, spaced hub plates mounted on said axle in said casing and having registering openings, means for holding said plates in spaced relation, crab lever units mounted between said plates and pivotally connected with said casing, said units having gripping jaws with coiled springs mounted between them to absorb shocks imparted to the axle or casing, and connectors between said lever jaws and plates.

[Claims 6 to 12 not printed in the Gazette.]

1,208,957. AUTOMATIC PAPER-CUTTING MECHANISM. AARON H. HANDY, Kansas City, Mo. Filed Mar. 6, 1916. Serial No. 82,369. (Cl. 211—82.)



1. In paper cutting mechanism, a base, a frame rising from said base adapted to support a roll of paper journaled in said frame, a spring slidably mounted in said base, said spring curving upward and engaging said roll of paper, said spring adjustable transversely of said base, means to lock said spring in the desired location, and means to cut lengths of paper from said roll.

2. In paper cutting mechanism, a base, a frame rising from said base adapted to support a roll of paper journaled in said frame, a guide arranged transversely of said base, a spring arranged to traverse said guide and contact with said roll of paper, said spring slidable in said guide, teeth in said guide, said spring arranged to engage said teeth by the resiliency of said spring, and means to cut lengths of paper from said roll.

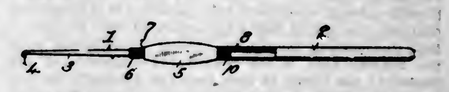
3. In paper cutting mechanism, a frame adapted to support a roll of paper journaled in said frame, a roller journaled in said frame above said roll of paper, slotted arms pivoted adjacent said roller, the journal of said roller passing through said slots, said arms projecting outward from said roller, a sheet of metal secured to said arms and formed in segmental shape over said roller, said sheet of metal having a flat portion extending outward from said roller, a slot longitudinally of said flat portion of said piece of metal whereby the paper from said roll may pass over said roller and upward through the slot in said flat portion, and project outward over and from said flat portion, arms pivoted above said roller, a flat piece of sheet metal serving as a knife and secured to said latter arms and said flat piece of metal resting upon the paper and severing said paper when said paper is drawn upward.

4. In paper cutting mechanism, a frame adapted to support a roll of paper journaled in said frame, a roller above said roll of paper and journaled in said frame, lower arms pivoted adjacent said roller, upper arms pivoted above said guide paper while being drawn from said roll, a sheet metal brake to contact with paper on said roll, an upper sheet metal guide, and said upper sheet metal guide serving as a knife to sever the paper.

5. In paper cutting mechanism a frame adapted to support a roll of paper journaled in said frame, a roller journaled in said frame, arms pivoted adjacent said roller, sheet metal guides on said arms to guide paper drawn from said roll of paper, a sheet metal brake on said arms to engage the paper on said roller, and one of said sheet metal guides serving as a knife to sever the paper.

[Claim 6 not printed in the Gazette.]

1,208,958. CROCHETING-NEEDLE. ELLA SUE HAWKINS, Acton, N. C. Filed June 20, 1916. Serial No. 104,685. (Cl. 66—17.)

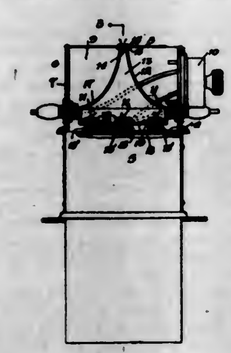


1. A needle including a shank having a flattened portion formed intermediately thereof, a tubular handle to

receive either end of the shank adjacent opposite ends of the flattened portion, the flattened portion being adapted to abut the handle to limit movement of the shank therein, for the purpose set forth.

2. A needle including a shank having a flattened portion formed intermediately thereof, a tubular handle to receive either end of the shank, the said shank, adjacent either end of the flattened portion, being provided with means for positive and detachable engagement with the handle, for the purpose set forth.

1,208,959. STORAGE BATTERY OR HOUSING. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Sept. 24, 1913. Serial No. 791,674. (Cl. 204—53.)



1. The combination with a storage battery having a vent, of a closed battery casing provided with an aperture, and a flexible, acid resisting conduit extending from said vent through said aperture and engaging the exterior wall of the casing whereby to provide a continuous resisting passage from said vent to the open.

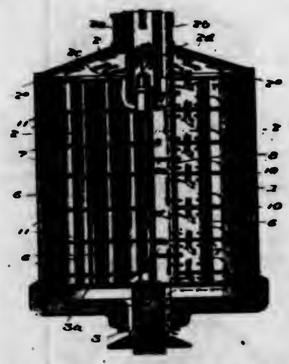
2. The combination with a storage battery having a vent of a closed battery casing provided with an aperture, and a flexible conduit extending from said vent through said aperture and provided with a groove in which the margin of said aperture is disposed.

3. The combination with a storage battery having a plurality of vents provided with enlargements, of a battery casing provided with an aperture, and a flexible conduit provided with a plurality of apertures to receive said vents, respectively, said enlargements being located within said conduit, and said conduit extending through the aperture in said casing and provided with a groove in which the margin of the casing aperture is located.

4. A conduit for conducting gas from battery cells to the exterior of an inclosing casing therefor comprising a sac of flexible material having an open ended neck formed for suspension in an aperture in the wall of the casing and openings in the wall of the sac to receive cell-venting nipples.

1,208,960. SKIMMING DEVICE FOR CREAM-SEPARATORS. LEANDER J. HEDDERICH, Mulberry, Ind. Filed Mar. 10, 1916. Serial No. 83,249. (Cl. 233—30.)

1. The herein described means of separating fluids such as milk and cream of different specific gravities, comprising a rotatable chamber having a superposed series of independent radial passages of similar size, whereby as the chamber is rotated the unseparated fluid flows through the passages, being sub-divided into a number of similar small currents, the lighter fluid being separated from the heavier fluid and passing toward the axis of the chamber, while the heavier fluid moves toward the periphery of said chamber; the inlets of said passages gradually decreasing in size from one end of the series toward the other, the outlets of said passages gradually increasing in size from one end of the series to the other, the outlet openings also increasing in size as the inlet openings diminish, whereby each passage is supplied with an equal amount of unseparated fluid, said openings being located upon one side of the bottom of each passage.



2. The herein described means of separating fluids of different specific gravities such as milk and cream, comprising a rotatable chamber containing a number of superposed series of similar independent radial passages each adapted to carry an equal amount of unseparated fluid, whereby as the chamber is rotated the lighter fluid is separated from the heavier fluid and passes toward the axis of the chamber, while the heavier fluid moves toward the periphery of said chamber, the said channels or passages having communicating openings adjacent one side of the bottom of each passage at its inlet and discharge ends, the openings at the inlet ends of said passages successively decreasing in area from one end of the series to the other, and the passages at the discharge ends of the channels gradually increasing in size from one end of the series to the other.

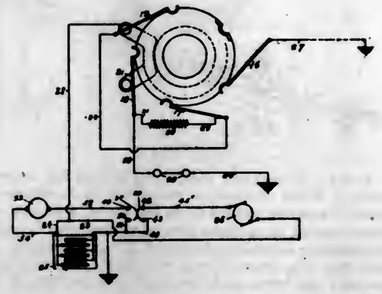
3. A fluid separator, comprising a rotatable body having a fluid inlet and a fluid outlet, and means in said chamber for dividing its interior into a large number of similar radially disposed passages or channels arranged in superimposed series and adapted to receive the unseparated fluid; each of said passages being provided with an inlet near its inner end and an outlet near its outer end; the inlets adjacent the inner ends of the passages gradually decreasing in size from one end of the superposed series of passages to the other, and the openings adjacent the outer ends of the passages gradually increasing in size from one end of the series to the other, reversely to the openings in the inner ends of the passages, said inlets and outlets adjacent one side of the bottom of each passage.

4. A fluid separator, comprising a rotatable body having a fluid inlet and a fluid outlet, and means in said chamber for dividing its interior into a large number of similar radially disposed passages or channels arranged in superimposed series and adapted to receive the unseparated fluid; each of said passages being provided with an inlet near its inner end and an outlet near its outer end; the inlets in the said passages successively decreasing in size as they are successively farther removed from the main fluid inlet; and the discharge openings in said channels successively increasing in size as the channels successively near the main fluid outlet, said inlets and outlets being located on one side of the bottom of each passage.

5. A centrifugal separator for fluids such as milk and cream comprising a rotatable body, a series of longitudinal radially disposed curved wings therein, a series of superposed ribs or partitions intermediate each adjacent pair of wings whereby the spaces between the wings are divided into numerous similar radial channels adapted to receive the unseparated fluid, said ribs having supply openings adjacent the axis of the body, and outlet openings adjacent the periphery of the body, the openings in the adjacent inner ends of the ribs gradually decreasing in size from one end of the superposed series of ribs to the other, and the openings adjacent the outer ends of the ribs gradually increasing in size from one end of the series to the other reversely to the openings in the inner ends of the series, said openings being spaced from the wings.

[Claims 6 to 15 not printed in the Gazette.]

1,208,961. CIRCUIT-CONTROLLING DEVICE. JOHN O. HEINZE, Springfield, Ohio, assignor to The John O. Heinze Company, Springfield, Ohio, a Corporation of Ohio. Filed Dec. 8, 1915. Serial No. 65,737. (Cl. 171—97.)



1. In an electric controlling mechanism, a plurality of electrical circuits, a main operating device arranged to be set at different positions to control said circuits, a second series of circuits, a second operating device associated with said main operating device for controlling said second series of circuits, means for locking said main operating device in certain positions of the same, and means controlled by said main operating device for locking said second operating device in certain operative positions of said main operating device and for unlocking said second operating device in certain other operative positions of said main operating device.

2. In an electric controlling mechanism, for motor vehicles, a plurality of electrical circuits, a main operating device for controlling the lighting and ignition circuits, and a second operating device for controlling the starter motor circuit, means for locking said main operating device in certain of its positions, and means controlled by said main operating device for locking said starter operating device in certain operative positions of said main device and for unlocking said starter operating device in certain other operative positions of said main operating device.

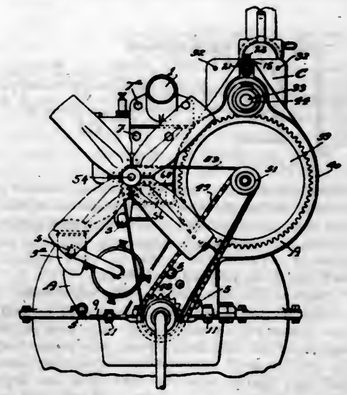
3. In a mechanism for controlling the electric circuits of motor vehicles, a plurality of electrical circuits, a main operating lever for controlling the lighting and ignition circuits, a push rod for controlling the starter motor circuit, means for locking said lever in certain positions thereof, and means controlled by the movement of said lever for locking said rod in certain operative positions of said lever and for unlocking said rod in certain other operative positions of said lever.

4. In a controlling mechanism for electric circuits for motor vehicles, a plurality of electrical circuits, a main operating device for controlling the lighting and ignition circuits arranged to be set to certain positions, in some of which the ignition circuit is closed and in some open, a starter operating device for closing the circuit for the starting motor, and means controlled by said main operating device for locking said starter operating device when the ignition circuit is open.

5. In a controlling mechanism for electric circuits for motor vehicles, a plurality of electrical circuits, a main operating device for controlling the lighting and ignition circuits, a revoluble operating device arranged to be set to different positions to control the lighting and ignition circuits, in some of which positions the ignition circuit is open and in some closed, a push rod for controlling the starting circuit associated with said revoluble device, and means controlled by said revoluble device for locking said push rod when the ignition circuit is open and for unlocking said push rod when the ignition circuit is closed.

[Claims 6 to 18 not printed in the Gazette.]

1,208,962. STARTING AND LIGHTING SYSTEM. JOHN O. HEINZE, Springfield, Ohio, assignor to The John O. Heinze Company, Springfield, Ohio, a Corporation of Ohio. Filed May 8, 1916. Serial No. 96,167. (Cl. 123—195.)



1. In a system of the character described, the combination, with an automobile engine and its crank shaft, of a main supporting plate, an auxiliary plate adjustably connected therewith and supported thereby, starting devices located on said auxiliary plate, and a driving connection including a chain from said starting devices to said crank shaft.

2. In a system of the character described, the combination, with an automobile engine and its crank shaft, of a main supporting plate provided with points of attachment corresponding to established points of attachment in relation to said engine and its crank shaft, an auxiliary plate adjustably connected with said main plate and supported thereby, starting devices located on said auxiliary plate, and a driving connection including a chain from said starting devices to said crank shaft.

3. In a system of the character described, the combination, with an automobile engine and its crank shaft, of a main supporting plate, an auxiliary plate adjustably connected therewith and supported thereby, a starting motor and a generator and their shafts secured to said auxiliary plate with the shafts projecting through said main plate, and driving devices from the motor shaft to the crank shaft including a chain and sprocket wheels between the generator shaft and said crank shaft.

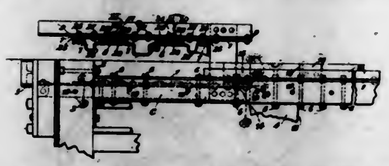
4. In a system of the character described, the combination, with an automobile engine and its crank shaft, of a main supporting plate provided with points of attachment corresponding to established points of attachment on said engine, an auxiliary plate adjustably connected to said main plate, a motor and generator carried by said auxiliary plate having their shafts extending through said main plate, and driving connections between said motor and crank shaft including a chain and sprocket wheel connection between said generator shaft and crank shaft.

5. In a system of the character described, the combination, with an automobile engine and its crank shaft, of a main supporting plate, an auxiliary plate adjust-

ably connected therewith, a motor and generator carried by said auxiliary plate having their shafts extending through said main plate, a gear on said generator shaft and a pinion operatively connected with said motor shaft together with means for throwing said pinion and gear into and out of operative relation with each other, a sprocket wheel revolubly connected with said gear and a sprocket wheel connected with said crank shaft together with a chain connecting said sprocket wheels.

[Claims 6 to 12 not printed in the Gazette.]

1,208,963. DRAFT-ARM. OSCAR HOCHBERG, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 2, 1916. Serial No. 112,722. (Cl. 213—42.)



1. In combination in a car underframe, wooden center sills, metallic plates paralleling and secured to said sills and draft lugs provided with projections, said plates having embossments containing companion incisions and being depressed between the latter to form sockets into which said draft lug projections extend.

2. In combination in a car underframe, wooden center sills, metallic plates paralleling and secured to said sills, draft sills connected to said center sills and plates and draft lugs provided with projections, said plates normally lying against the draft sills and having bearing bosses for said draft lugs spaced from the draft sills and depressed at certain localities to engage said draft sills and to form sockets for said draft lug projections.

3. In combination in a car underframe, wooden center sills, opposingly spaced metallic plates paralleling said sills, secured to the inner faces thereof and depending below the bottoms of said sills, the depending portions of said plates being more widely spaced than the sill-secured portions thereof, stiffened draft sills reinforcing said plates, and draft lugs secured to the depending plate portions, said lugs and plates having opposing and interlocking bearing bosses inwardly spaced from the draft sills.

4. In combination in a car underframe, a draft sill, a metallic plate secured thereto and provided with an embossment spaced therefrom, there being spaced slits in said embossment, the metal between adjacent slits being pressed out of alinement with the body portion of said embossment, and a draft lug having a projection adapted to bear against the slit-formed edges of the embossment.

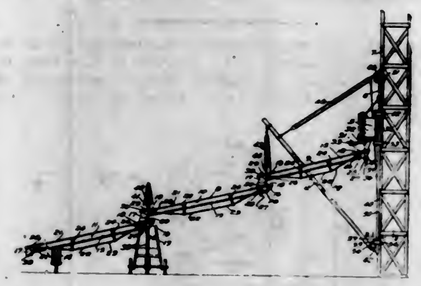
5. In combination in a car underframe, a draft sill, a metallic plate secured thereto and provided with an embossment spaced therefrom, said embossment containing parallel slits, the metal between which is deflected to lie against said sill, a draft lug having a projection extending into the space between the embossment edges formed by said slits and engaging said deflected metal and a fastening device connecting said draft lug projection, deflected metal portion and draft sill.

[Claims 6 to 15 not printed in the Gazette.]

1,208,964. CONCRETE-CONVEYER. JESSE R. HODGES, Cincinnati, Ohio. Filed Jan. 8, 1916. Serial No. 71,072. (Cl. 193—39.)

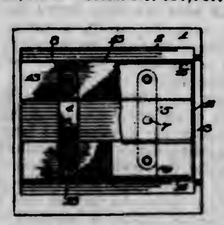
1. A concrete conveyer comprising a tank for concrete, a tower adapted to support the tank, means for adjustably mounting the tank on the tower, a series of trough sections pivotally connected together, and means carried wholly by the first mentioned means, adapted to adjust the sections vertically and to permit horizontal movement thereof to deliver concrete to the points desired.

2. In a concrete conveyer the combination of a tank for concrete, a tower, a frame supporting the tank, clamps for adjustably securing the frame in position on the tower, a trough comprising a series of sections pivotally connected together and adapted to conduct the concrete from the tank to the place where it is to be used, and adjustable means carried wholly by the frame for supporting the trough sections.



3. A concrete conveyer comprising a tank for concrete, a tower, a frame adapted to mount the tank, clamps for adjustably securing the frame to the tower, a trough comprising a series of sections pivotally connected together, and adjustable means consisting of a boom pivotally connected with the frame, blocks and tackle connecting the frame and the boom, and the boom and certain of said trough sections.

1,208,965. SUPPORTING DEVICE. GEORGE HOMMEL, EDMUND KANDLER, and WILLIAM L. PATTERSON, Rochester, N. Y., assignors to Bausch & Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 28, 1913. Serial No. 797,747. (Cl. 40—152.)



1. The combination with a frame, of a plurality of actuating devices pivotally mounted on the frame and arranged in parallelism, supporting members connecting the actuating devices, and coöperating gripping means disposed on the supporting members.

2. The combination with a frame, of an actuating device pivotally mounted on the frame, supporting members connected to the actuating device on opposite sides of its pivot, means for retaining the supporting members in parallel arrangement, and coöperating gripping means disposed on the supporting members.

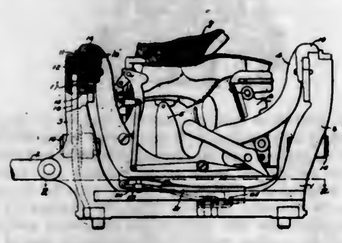
3. The combination with a frame, of a pair of supporting members, actuating means pivotally arranged on the frame and connected with the supporting members for effecting movement thereof, means for retaining the supporting members in parallelism and coöperating gripping means disposed on the supporting members.

4. The combination with a frame, of a pair of actuating links pivoted on the frame, supporting members connecting the ends of the actuating links, slidable gripping devices carried by the supporting members, and means on the frame engaging the gripping devices and preventing endwise movement thereof.

5. The combination with a frame, of a pair of actuating links pivoted on the frame, supporting members connecting the ends of the actuating links, gripping means embodying slides arranged on the supporting members, each of said slides including flanges on its rear face engaging the supporting members and a flange on the front face cooperating with the flange on the other slide to hold a card or other article therebetween.

[Claims 6 to 8 not printed in the Gazette.]

1,208,966. MACHINE FOR LEVELING THE SOLES OF BOOTS AND SHOES. WILLIAM H. HOOPER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 15, 1912. Serial No. 684,016. (Cl 12—35.)



1. A machine for operating upon the soles of boots and shoes having, in combination, a shoe supporting jack, a leveling device, means for supporting one of the members to permit a lateral swinging movement, means for shifting the line of support of the last mentioned member transversely, and means for retarding the lateral swinging movements of the member, substantially as described.

2. A machine for operating upon the soles of boots and shoes having, in combination, a shoe supporting jack, a leveling device, means for supporting one of the members to permit a lateral swinging movement, means for shifting the line of support of the last mentioned member transversely, and means for unequally resisting the swinging movements of the member in opposite directions, substantially as described.

3. A machine for operating upon the soles of boots and shoes having, in combination, a shoe supporting jack, a leveling device, means for shifting the line of support of the jack transversely, a pair of springs connected to the jack carrier, and connections between the springs and opposite sides of the jack, substantially as described.

4. A machine for operating upon the soles of boots and shoes having, in combination, a shoe supporting jack, a leveling device, means for shifting the line of support of the jack transversely, a pair of springs connected to the jack frame, connections between the springs and opposite sides of the jack, and mechanism for adjusting the springs, substantially as described.

5. A machine for operating upon the soles of boots and shoes having, in combination, a shoe supporting jack, a leveling device, means for supporting one of the members to permit a lateral swinging movement, means for shifting the line of support of the last mentioned member transversely, and a spring connected to the member and arranged to retard the lateral swinging movements of the member, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

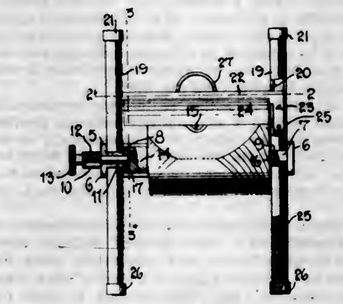
1,208,967. SANITARY HOG-TROUGH. HARRY W. HOTCHKISS and JAMES MERTZ, Webster City, Iowa; said Mertz assignor to said Hotchkiss. Filed Nov. 17, 1915. Serial No. 62,063. (Cl. 119—61.)

1. In a trough, a supporting frame consisting of a pair of longitudinal angle bars having their flanges extending horizontally toward each other, spaced supporting and partition members fastened to the outside flange of the angle bars, comprising vertical portions extending downwardly from the angle bars and portions extending upwardly and inwardly from the same point, connected at their upper ends by horizontal portions, also space partition members extending upwardly and inwardly from the angle bars with a horizontal connecting portion, a longitudinal bar attached to each horizontal connecting portion, a pair of plates extending transversely upwardly from the angle bars to the end partition members, and a trough slidably mounted on said angle bars.



2. In a trough, a supporting frame comprising a pair of longitudinal angle bars, each having a frame extending horizontally toward each other, spaced supporting and partition members extending to the vertical flange of the angle bars, comprising a vertical portion extending downwardly from the angle bars, a portion extending upwardly and inwardly from the same point, connected at their upper ends by horizontal portions, also spaced partition members extending upwardly and inwardly from the angle bars with a horizontal connecting portion, a longitudinal bar attached to each connecting portion and a trough slidably mounted on said angle bars.

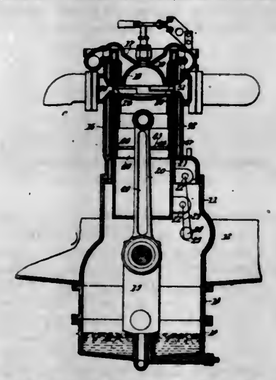
1,208,968. PAPER-CUTTER ATTACHMENT FOR PAPER-ROLL HOLDERS. JESSIE E. HUDGEL, Sloan, Iowa. Filed Apr. 3, 1916. Serial No. 88,668. (Cl. 211—32.)



1. The combination with a frame and means for mounting a paper roll therein, of spaced tubular rods fixed in said frame and each having a longitudinal slot in its inner side, a cutter plate arranged in parallel relation to the roll between said rods and having a projection on each end disposed through the slot in one of the rods, a spring arranged within each rod and connected to the projection of the cutter plate at its upper end, and a cap detachably threaded upon the tubular rod to which the lower end of the spring is connected and by which it is held upon the lower end of the tubular rod.

2. The combination with a frame and means for mounting a paper roll therein, of spaced tubular rods fixed in said frame and each having a slot in its inner side and a shoulder at the upper end of said slot, a cutter plate arranged in parallel relation to the roll between said rods and having a vertical edge portion engaged at its ends through the slots in said rods, and coil springs arranged in the tubular rods and connected to the ends of the plate to yieldingly hold the cutting edge of the plate upon the paper roll, said cutter plate being adapted to be raised to an inoperative position against the action of said springs and the ends thereof engaged upon the shoulders at the upper ends of the slots in said rods.

1,208,969. HYDROCARBON-MOTOR. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Original application filed July 2, 1909, Serial No. 505,735. Divided and this application filed Mar. 29, 1912. Serial No. 687,204. (Cl. 123—75.)



1. In an internal combustion engine, the combination with a cylinder having a substantially uniform interior diameter throughout its length, of a substantially cylindrical valve fitted therein, the outside diameter of said valve being smaller at one end than at the other end, whereby a greater clearance is provided at one end than at the other end.

2. In an internal combustion engine, the combination with a cylinder having a substantially uniform interior diameter throughout its length, of a substantially cylindrical valve fitted in the cylinder, different parts of which are adapted to be subjected to different temperatures, the part which is subjected to the highest temperature having a smaller outside diameter than the other.

3. In an internal combustion engine, the combination with a cylinder having a substantially uniform interior diameter throughout its length, of a substantially cylindrical valve fitted therein, the head end of said valve being of smaller outside diameter than the other end whereby a greater clearance is provided at one end than the other end.

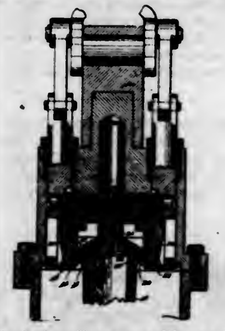
4. In an internal combustion engine, the combination of a cylinder member and a sleeve member slidingly fitted therein, said members formed with coöperating ports, the portion of the two members adjacent the ports being fitted with greater clearance than other portions, to allow for greater expansion.

5. In an internal combustion engine, the combination of a cylinder having a port, a piston working therein, a sleeve having a port and telescoped in said cylinder and surrounding said piston, said ports being adapted to cooperate to control the passage of gases therethrough, and said cylinder and sleeve being so formed as to provide a greater clearance adjacent said ports than at other portions of said sleeve and cylinder.

[Claim 6 not printed in the Gazette.]

1,208,970. PROCESS FOR SEALING. JOSEPH V. HULL, Brooklyn, N. Y., assignor to Anchor Cap & Closure Corporation, Brooklyn, N. Y., a Corporation of New York. Original application filed Mar. 16, 1912, Serial No. 682,051. Patent No. 1,134,065, dated Mar. 30, 1915. Divided and this application filed Feb. 25, 1915. Serial No. 10,512. (Cl. 113—2.)

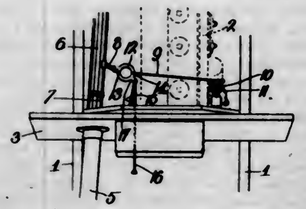
1. The method of sealing a metallic cap having an annular beading and gasket to a rigid wall container which consists in placing the cap upon the container compressing the beading in a vertical direction whereby the gasket material is squeesed laterally from the beading to effect a seal against the side wall of the container, and causing the excess metal of the beading due to its reduction in size upon compression to flow into the form of an annular groove in one of the walls of the beading.



2. The method of sealing a metallic cap having an annular beading and gasket to a rigid wall container which consists in placing the cap upon the container forming a groove in one of the walls of the beading and compressing the beading in a vertical direction, whereby the gasket material is squeezed laterally from the beading to effect a seal against the side wall of the container, and excess metal of the beading due to its reduction in size is taken care of by the said groove.

3. The method of sealing a metallic cap having an annular beading and gasket to a rigid wall container which consists in placing the cap upon the container, deforming the beading whereby the gasket material is moved from the beading to effect a seal against the side wall of the container, and causing excess metal of the beading due to its reduction in size to be taken up in an annular groove in the beading.

1,208,971. FOOT-ACTUATED FUEL-CONTROL ATTACHMENT FOR MOTOR-CARS. GEORGE W. HUMMEL, Beggs, Okla. Filed Mar. 29, 1915. Serial No. 17,918. (Cl. 74—81.)

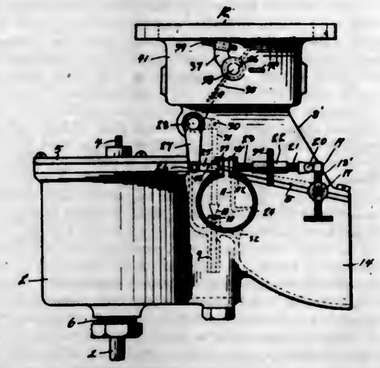


The combination in a motor car, of an engine, a carbureter, a valve for controlling the passage of combustible gas from the carbureter to the engine, a crank arm for said valve, a rock shaft, a crank arm therefor to operate in a vertical plane, a short rod pivoted at one end to the crank arm, a rod alined with the first named rod and spaced therefrom and pivotally connected at one end to the crank arm of the valve, a floating lever fulcrumed for movement in a horizontal plane on the first named rod and pivotally connected to the adjacent end of the other rod, a slide rod pivoted at its front end to said floating lever, and a retractile spring attached at its front end to the front end of said slide rod and at its rear end to a fixed part of the car.

1,208,972. PROCESS OF MAKING SHINGLES FOR COVERING ROOFS. RICHARD JELIEN, Kenosha, Wis. Filed Feb. 16, 1916. Serial No. 78,556. (Cl. 108—8.)

A process for converting wood into waterproof, fire resisting and fast colored shingle material which consists in forming a loose roll of wood veneer from the log, soaking said rolled veneer in a bath of hot asphalt to expel air and moisture from said veneer, subjecting the asphalt soaked veneer to pressure by means of rolls, spreading a layer of granular mineral material on the rolled veneer and embedding said granular material in said asphalt coated veneer while it is hot by again rolling the same under pressure.

1,208,973. CARBURETER. RASMUS JENSEN, Milwaukee, Wis., assignor to J-B. Carburetor Corporation, Los Angeles, Cal., a Corporation of California. Filed Aug. 17, 1912. Serial No. 715,538. (Cl. 261—39.)



1. In a carbureter of the described class the combination of an air controlling valve and liquid controlling valve, means for communicating motion from said air controlling valve to said liquid controlling valve, a thermostat adapted to automatically regulate the movement of said liquid controlling valve and manually actuated means connected with said air controlling valve for increasing or diminishing the throw of said liquid controlling valve.

2. In a carbureter of the described class the combination of an air controlling valve and liquid controlling valve, means for communicating motion from said air controlling valve to said liquid controlling valve, a thermostat adapted to automatically regulate the movement of said liquid controlling valve and means for manually changing the closing point of said liquid controlling valve.

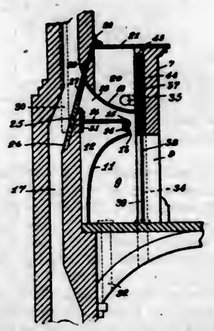
3. In a carbureter of the described class the combination of an air controlling valve and liquid controlling valve, means for communicating motion from said air controlling valve to said liquid controlling valve, a thermostat adapted to automatically regulate the movement of said liquid controlling valve, manually actuated means connected with said air controlling valve for increasing or diminishing the throw of said liquid controlling valve and means for manually changing the closing point of said liquid controlling valve.

4. In a carbureter of the described class the combination of an air controlling valve and liquid controlling valve, means for communicating motion from said air controlling valve to said liquid controlling valve, a thermostat adapted to automatically regulate the movement of said liquid controlling valve, manually actuated means connected with said air controlling valve for increasing or diminishing the throw of said liquid controlling valve, means for manually changing the closing point of said liquid controlling valve, and means for yieldingly resisting the movement of said air controlling valve.

5. In a carbureter of the described class the combination of an air controlling valve and liquid controlling valve, means for communicating motion from said air controlling valve to said liquid controlling valve, a thermostat adapted to automatically regulate the movement of said liquid controlling valve, manually actuated means connected with said air controlling valve for increasing or diminishing the throw of said liquid controlling valve, means for manually changing the closing point of said liquid controlling valve, a helical spring for yieldingly resisting the opening movement of said air controlling valve, and an index dial and pointer for indicating the proper tension of said spring.

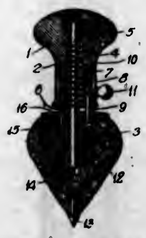
[Claims 6 and 7 not printed in the Gazette.]

1,208,974. FIREPLACE. ROBERT P. JENSEN and ANTON JENSEN, Seattle, Wash. Filed Mar. 8, 1915. Serial No. 12,852. (Cl. 126—121.)



A fire place having a combustion chamber and a hot air chamber therein, the combustion chamber formed from a metallic box having rearwardly converging side walls and a forwardly-curved back-wall terminating near the front wall of the fire place and turned backward at its termination to form a U-shaped upper edge, a plate projecting forwardly from the back wall of the fire place above the said curved back wall and having a U-shaped forward edge disposed adjacent the upper edge of the back wall, and a channel bar connecting the adjacent edges of said curved back wall and plate, the said back wall of the box together with said top plate and the rear wall of the fireplace forming the hot air chamber.

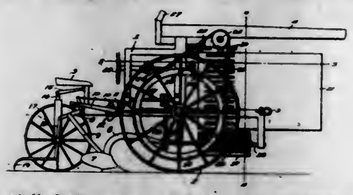
1,208,975. TOP-SPINNING DEVICE. GEORGE JOHN, Detroit, Mich., assignor of one-half to Elees Amouney, Detroit, Mich. Filed Sept. 15, 1916. Serial No. 120,242. (Cl. 46—32.)



A top spinning device comprising a handle having a central longitudinal bore, a stem of less diameter than the bore of said handle and having the inner end thereof mounted in said handle, and the outer end thereof protruding from the lower end of said handle, a coiled spring encircling said stem within the bore of said handle and having the inner convolution thereof connected to said stem and the outer convolution terminating in a hook, a top having a stem socket adapted to receive the lower end of said stem, said top having the upper end thereof provided with sockets circumferentially of the stem socket, a pin carried by the upper end of said top adapted to engage the hook of said spring and place said spring

under tension when said top is rotated upon said stem, a spring pressed latch in said handle adapted to engage in one of the latch sockets of said top, and a button operable at the side of said handle adapted for retracting said latch to release said top so that said spring may eject said top from said stem and impart a spinning movement thereto.

1,208,976. STALK-DESTROYER. JAMES JOHNSON, Mound Bayou, Miss. Filed July 1, 1916. Serial No. 107,157. (Cl. 55—62.)



1. A stalk destroyer comprising a wheel mounted frame, wings movably mounted upon the frame, means for simultaneously moving the wings toward or away from each other, shafts journaled upon the frame, saws carried by the shafts and having overlapping portions located between the wings and means for rotating the shafts from one of the supporting wheels of the frame.

2. A stalk destroyer comprising a wheel mounted frame, wings mounted upon the frame, shafts journaled upon the frame, saws carried by the shafts and having overlapping portions located between the wings, pans located below the wings, shafts extending along the pans, saws carried by the last mentioned shafts and means for operating the shafts from one of the supporting wheels of the frame.

3. A stalk destroyer comprising a wheel mounted frame, wings mounted on the frame, shafts journaled upon the frame, saws carried by said shafts and having overlapping portions located between the wings, pans located below the wings and having inclined bottoms, shafts extending along the pans, saws carried by the last mentioned shafts and passing through the bottoms of the pans and means for operating the shafts from one of the supporting wheels of the frame.

1,208,977. DOUBLE-ACTING PUMP. JOHN MASON JONES, Peoria, Ill. Filed June 30, 1915. Serial No. 37,185. (Cl. 103—71.)



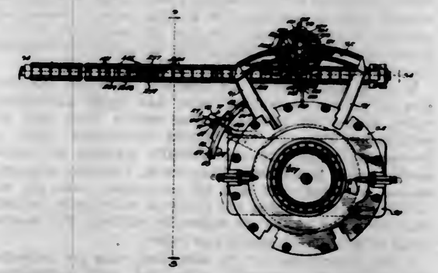
1. In a double acting pump, the combination of a seat ring connecting a suction and delivery pipe, a suction pipe extending below said seat ring, a delivery pipe supporting said seat ring, a ported plug seated within said ring and removable therefrom, suction and discharge valves seated within and on said plug, a cylinder attached to the lower part of said plug and located within said suction pipe, centering device on the lower portion of said cylinder for maintaining the latter in proper position within said suction pipe, a piston within said cylinder, means for operating said piston, a suction valve within the lower end of said cylinder, a discharge valve carried by said piston operating means, and a foot valve within the lower end of said suction pipe.

2. In a deep well pump the combination of a delivery pipe, a suction pipe connected thereto and extending below the surface of the water in a well, a foot-valve near the lower end of said suction pipe, a pump cylinder and associated parts located above said foot-valve, and means for removing said pump cylinder and associated parts from the well without disturbing said foot-valve or lowering the level of the water in said suction pipe beyond an amount equal to the displacement of the parts removed.

3. In a deep well pump the combination of a stand pipe extending below the surface of the water in a well, a divisional connection in said stand pipe which converts the lower part thereof into a suction pipe, a foot-valve in the lower part of said suction pipe, a pump cylinder and associated parts normally mounted by and at said divisional connection, and means for removing said cylinder and associated parts from the well without materially changing the level of the water in said stand pipe.

4. In a deep well pump the combination of a stand pipe extending below the surface of the water in a well, a pump-cylinder-supporting divisional connection in said stand pipe which converts the lower part thereof into a suction pipe, a foot-valve in the lower part of said suction pipe, a pump cylinder with a head portion seating in and supported by said pump-cylinder-supporting divisional connection, suction and discharge valves for said pump cylinder, a piston within said cylinder, means for operating said piston, and means for removing said cylinder and piston and said suction and discharge valves from the well without releasing the water in said stand pipe.

1,208,978. GLASS-ARTICLE DISCHARGE AND CUT-OFF MECHANISM. AUGUST KADOW, Toledo, Ohio, assignor to The Westlake Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Oct. 21, 1912. Serial No. 726,950. (Cl. 49—1.)



1. In glass manufacturing apparatus, the combination with a blank holding device, of a device for weakening the blank at a line of intended parting, and means for giving the blank holding device movement of translation past said last named device with the blank in operative contact therewith.

2. In glass manufacturing apparatus, the combination with a revoluble blank holding device, of a device for weakening the blank at a line of intended parting, and means for simultaneously giving the blank holding device movement of rotation and of translation past said last named device with the blank in operative contact therewith.

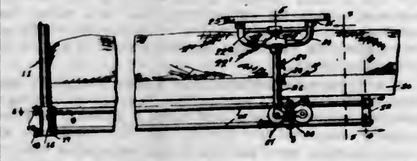
3. In glass manufacturing apparatus, the combination with a knife in fixed position, of a blank holding device and means for giving the blank holding device movement of translation past said knife with the blank in operative contact therewith.

4. In glass manufacturing apparatus, the combination with a knife in fixed position, of a blank holding device, means for giving the blank holding device movement of translation past said knife with the blank in operative contact therewith, and means for shifting the knife out of the path of the blanks.

5. In glass manufacturing apparatus, the combination with a knife in fixed position, of a revoluble blank holding device, and means for giving the blank holding device movement of translation past the knife with the blank in contact therewith.

[Claims 6 to 51 not printed in the Gazette.]

1,208,979. TABLE ATTACHMENT FOR BEDS. JOHN F. KAHRE, Vincennes, Ind. Filed Aug. 31, 1914. Serial No. 859,512. (Cl. 45—82.)



A bed attachment comprising vertically spaced rails, means to secure said rails beneath the side rail of a bed, spaced wheels running between the rails, a carriage carried by the wheels, a standard extending outwardly and upwardly from said carriage, a post telescopically supported by the standard, means to hold the post in adjusted position with respect to the standard, a bracket carried by the post and comprising a pair of diverging arms extending outwardly and upwardly from the post, table supporting arms pivoted to the bracket arms, a table mounted on the arms, a head projecting upward from the post, and a bar carried by the head and supporting the arms when the table is in position for use.

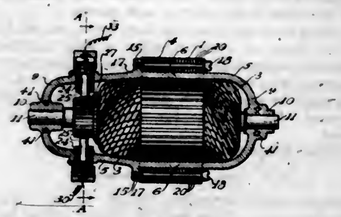
1,208,980. NUT-LOCK. JOHN KIEFER, Flinton, Pa. Filed Apr. 11, 1916. Serial No. 90,461. (Cl. 151—54.)



1. In combination, a plate through which bolts pass, and nuts upon the bolts, said plate having headed studs at its opposite ends, a bar having notches to receive the nuts, said bar from its end notches being reduced to provide spring extensions, and the said extensions adapted to be forced into engagement with the shanks of the headed studs.

2. In combination, a plate having openings through which the ends of bolts pass, nuts threaded upon the bolts and contacting with the said plate, said plate adjacent its ends having headed studs, a bar having one of its edges notched to receive the nuts, said bar being of a thickness approximately equaling the length of the shanks of the studs, and being reduced from its end notches to provide curved spring members, said springs including rounded portions which are adapted to snugly contact with the shanks of the studs and to engage between the heads of the studs and the plate, and the ends of the said spring members terminating in angularly disposed portions providing fingers.

1,208,981. DYNAMO-ELECTRIC MACHINE. AUSTIN KIMBLE, Glenellyn, Ill., assignor to Willard M. McEwen, Chicago, Ill. Filed May 25, 1916. Serial No. 99,754. (Cl. 172—276.)



1. A compensated or inductively-neutralized series conduction motor in which the compensation conductor is rigid and provided with journal bearings for supporting the armature.

2. A dynamo-electric machine comprising a magnetic field member having pole faces, an armature inductively related to said field member and disposed adjacent to said pole faces, and a compensating member carried by said field member, said compensating member being of a rigid character and having journal bearings, and said armature being mounted on said bearings.

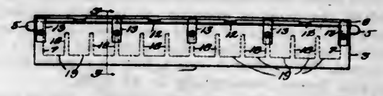
3. In a single phase motor, a field member having energizing windings thereon and a pair of pole faces, in combination with a rigid, closed circuit yoke having opposite sides embedded in said pole faces, and an armature journaled on said yoke to operative relation to said pole faces.

4. In a single-phase motor, a field member having energizing windings thereon and a pair of pole faces, in combination with a rigid, closed circuit yoke having opposite sides embedded in said pole faces, an armature journaled on said yoke in operative relation to said pole faces, and a source of alternating current connected in series with said windings and armature, the latter being provided with a commutator, and brushes suitably disposed on said machine for connecting the circuit to said commutator.

5. In a device of the class described, a field member and an armature disposed in operative relation to each other, in combination with a rigid, closed-circuit conductor disposed about said armature, said field member having polar faces and said conductor having its opposite sides embedded in said polar faces for support, and said armature being journaled on the opposite intermediate parts of said conductor.

[Claims 6 to 8 not printed in the Gazette.]

1,208,982. PLATE-HOLDER. JOHN J. KING, Boston, Mass. Filed May 31, 1916. Serial No. 100,953. (Cl. 95—70.)



1. A plate support formed with a plurality of pockets and provided with means for directing into said pockets the fluid that drips from the plate.

2. A plate support formed with a drip catching gutter and with a plurality of pockets into which the fluid that drips from the plate is directed by said gutter.

3. A plate supporting bar provided at its ends with means for engaging the frame of a plate holder, said bar being formed with a drip catching gutter extending longitudinally thereof and with a plurality of pockets into which the fluid that drips from the plate is directed by said gutter.

4. A plate supporting bar provided at its ends with means for engaging the frame of a plate holder, said bar being formed with a drip catching gutter extending longitudinally thereof and with a series of pockets extending longitudinally thereof into which the fluid that drips from the plate is directed by said gutter.

5. A plate supporting bar comprising means for engaging the frame of a plate holder, a drip catching gutter extending longitudinally of said bar, a longitudinal series of pockets into which the fluid that drips from the plate is directed by the gutter, and a plurality of plate rests connected with said bar for holding a plate in position thereon.

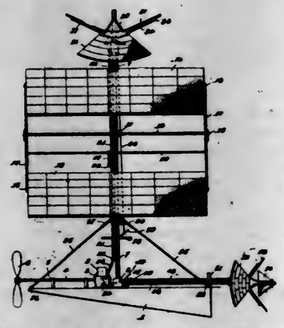
[Claims 6 to 8 not printed in the Gazette.]

1,208,983. SILO CONSTRUCTION. LOUIS J. KREBS, Coffeyville, Kans. Filed Nov. 30, 1915. Serial No. 64,291. (Cl. 72—38.)



A building block of arcuate shape having horizontal top and bottom faces and provided with projections at diagonally opposite corners thereof, said projections having vertical perforations, and horizontally disposed reinforcing rods embedded in said block, each rod having a terminal eye coinciding with the vertical aperture in one of the projections, and each rod having its opposite end bent to form an angular projection.

1,208,984. FLYING-MACHINE. JAMES KREITER, Fredericksburg, Ohio. Filed June 28, 1913. Serial No. 776,359. (Cl. 244—11.)



1. In a flying machine, a mast, superposed cone members affixed to the mast, a plurality of auxiliary segmental planes hingedly connected to the uppermost cone, an operating rod, and a connection between said rod and the several planes, the lowermost cone acting as a guide for the connecting means, substantially as set forth.

2. In a flying machine, a vertical mast, a pair of superposed cone members affixed to the mast, a plurality of hingedly connected auxiliary segmental planes carried by the uppermost cone, an operating rod, means to reciprocate the mentioned rod, and means secured to the lowermost cone and actuatable through movement of the operating rod to oscillate the several planes, substantially as described.

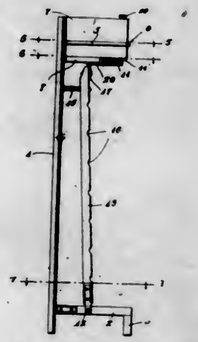
3. In a flying machine, a mast, superposed cones secured to the mast, the lowermost cone being slotted at diametrically opposite points, a plurality of auxiliary segmental planes hingedly connected to the uppermost cone, the mentioned planes being arranged in pairs, the planes constituting the respective pairs being disposed at diametrically opposite points, an operating rod, a first pair of connecting rods secured to the lowermost cone and to one pair of the mentioned planes, said rods being engaged by the operating rod to oscillate said planes, a second pair of connecting rods secured to the operating rod and to the lowermost cone and to the other of the mentioned planes to oscillate said planes, and means to reciprocate the operating rod.

4. A flying machine having a vertically extending mast mounted upon the body thereof, a pair of spaced apart cone members rigidly secured to the said mast, a plurality of segmental auxiliary planes hingedly connected to the upper of the said cone members, a slidable collar on said mast below said cone members, rods pivotally secured to the lower of the said cone members and to certain of the said planes, the said rods adapted to be engaged by the said collar, rods secured to the other of the said planes, and to the said collar, the last mentioned rods being pivotally and slidably secured to the lower of the said cone members, means for reciprocating the said collar, such reciprocatory movement adapted to operate all of the said rods alternately oscillating the said planes, as and for the purpose set forth.

5. A flying machine including a body portion, a mast mounted thereupon, a pair of spaced apart cone members mounted immovable upon said mast, a plurality of planes hingedly connected to one of said cone members, and means operable upon said mast and engageable with the other of the said cone members to alternately oscillate the said planes, as and for the purpose set forth.

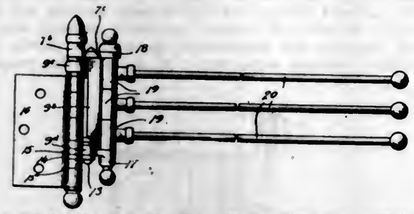
[Claim 6 not printed in the Gazette.]

1,208,985. DISINFECTANT-DISTRIBUTER. THEODORE C. KRINGS, Yorktown, Iowa. Filed Apr. 27, 1916. Serial No. 93,909. (Cl. 119—157.)



A device of the class described comprising a base, a standard rising from said base at the rear end thereof, a U-shaped member secured at its intermediate portion to said standard near the upper end thereof, the arms of said member extending horizontally forwardly of said standard to provide a pair of spaced guide members, a substantially rectangular-shaped frame arranged in a plane above said member and secured to said standard at one of its ends and extending horizontally forwardly of the same, a rectangular-shaped tank slidably received in said frame and resting upon said guide members, a horizontal valve casing fixed at its forward end to the forward end of said tank and communicating with the interior of the same, the rear end of said casing being disposed between said guide members, a slide valve arranged within said casing, a substantially upright rubbing member pivoted at its lower end to said base and having its upper end slidably received between said guide members and operatively connected to said valve, and means for normally holding said rubbing member in its forwardmost position and said valve in its closed position.

1,208,986. COMBINATION HINGE AND RACK. JOHN KRODEL, Butte, Mont. Filed July 13, 1916. Serial No. 109,120. (Cl. 248—24.)

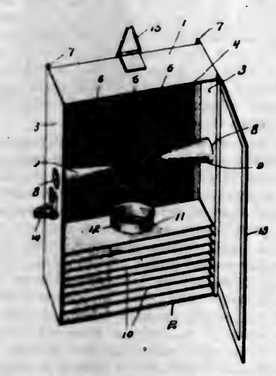


1. In a device of the character described, the combination of a hinge, an elongated pin carried thereby, and a hook mounted on said pin and provided with a bracing member engaging the hinge.

2. In a device of the character described, the combination of a hinge, a pin carried thereby and projecting beyond the body of the hinge, and a hook pivotally mounted on said pin and provided with an integral lug adapted to bear against the body of the hinge for bracing purposes.

3. In a device of the character described, the combination of a hinge, a pin carried thereby and projecting beyond the body of said hinge, a hook mounted on said pin, and a rack mounted on the pin above said hook.

1,208,987. ROACH-TRAP. JACOB LACHT, Long Island City, N. Y. Filed July 1, 1916. Serial No. 107,077. (Cl. 43—22.)

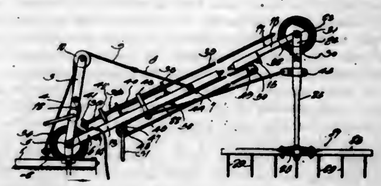


1. An insect trap comprising a casing having a rear wall formed of reticulated material and disposed inwardly beyond the adjacent edges of the side walls, the free edges of the side walls serving to bear against the surface and to space the reticulated rear wall uniformly from said surface, and trap members having their inlet ends opening through and in coincidence with the rear wall of the casing.

2. An insect trap comprising a casing having a rear wall formed of reticulated material and disposed inwardly beyond the adjacent edges of the side walls, the free edges of the side walls serving to bear against the surface and to space the reticulated rear wall uniformly from said surface, and a series of spaced shelves arranged within the casing and extended from the reticulated rear wall, said shelves being of less width than the similar dimensions of the casing to provide a space between the forward edges of said shelves and the adjacent wall of the casing.

3. An insect trap comprising a casing having a rear wall formed of reticulated material and disposed inwardly beyond the adjacent edges of the side walls, the free edges of the side walls serving to bear against the surface and to space the reticulated rear wall uniformly from said surface, and a series of spaced shelves arranged within the casing and extended from the reticulated rear wall, said shelves being of less width than the similar dimensions of the casing to provide a space between the forward edges of said shelves and the adjacent wall of the casing, one of said shelves being formed with an opening and a bait receptacle resting within the said opening and upon the immediately adjacent shelf.

1,208,988. STRAW-STACKER. HUGO LANDT, Pipestone, Minn. Filed Oct. 5, 1916. Serial No. 123,860. (Cl. 193—19.)



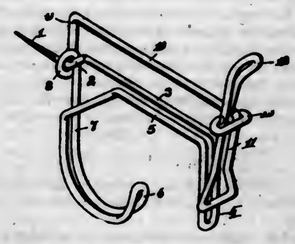
1. A machine of the class described comprising a turntable, and A frame rising rigidly therefrom, a vertically moving elongated frame consisting of a relatively fixed inner section pivoted to the A frame and an outer section slidable on said inner section, means on said A frame for adjusting the other frame vertically, a rotary distributer carried by the outer end of the outer frame section, means for driving said distributer including a pair of telescoping shafts carried respectively by the inner and outer sections of said vertically movable frame, means for adjusting the outer frame section on the inner, and means for swinging the distributer longitudinally of said vertically movable frame.

2. A machine of the class described comprising an elongated frame, means for mounting one end of said frame to permit it to swing vertically and horizontally, an arm pendant from the other end of said frame, a rotary distributer carried by said arm, and means for swinging said arm longitudinally of the frame.

3. A machine of the class described comprising an elongated frame supported at one end, an arm pendant from the other end of said frame, a rotary distributer carried by said arm, and means for swinging said arm longitudinally of the frame.

4. A machine of the class described comprising an elongated frame consisting of an inner relatively fixed section and an outer section slidable thereon, an arm pendant from the outer end of the outer section, a rotary distributer carried by said arm, a rod pivoted to said arm, a nut to which said rod is connected, a tubular screw threaded through said nut and movable with the outer frame section, and a screw operating shaft mounted rotatably on the inner frame section and passing slidably but non-rotatably through said screw.

1,208,989. COAT-HOOK. DEAN C. LAWSON, East Rochester, N. Y. Filed Feb. 23, 1915. Serial No. 10,127. (Cl. 45—13.)



1. A hook having a horizontal shank the tip of which is bent substantially at right angles to the shank, and a

member spaced from the shank and extending substantially parallel thereto, said member having a front portion bent toward and overlapping said tip and being resilient and having a normal tendency to close against the tip, said hook having means at the rear end of the shank for attachment to a supporting surface.

2. A hook having a horisontal shank the tip of which is bent substantially at right angles to the shank, and a member projecting and spaced from the shank and extending substantially parallel thereto, said member having a front portion bent toward and overlapping said tip and being resilient and having a normal tendency to close against the tip, said hook having means at the rear end of the shank for attachment to a supporting surface, said member having a part projecting beyond the plane of the shank and serving as a handle for moving the bent end of said member in opposition to its closing tendency.

3. A hook having a base portion for attachment to a support and having a shank arranged substantially at right-angles to the base portion, said shank having its front end bent substantially at right angles, and a member above and extending substantially parallel to said shank having its rear end bent substantially parallel to the base of the hook and mounted thereon and having its front end bent in the direction of and overlapping the bent front end of the shank, said bent front end of the member being resilient and normally closable toward the bent front end of the shank and having an operating hand piece.

1,208,990. SPRING. ARTHUR M. LAYCOCK, Kingston, Pa. Filed Apr. 20, 1916. Serial No. 92,493. (Cl. 267—33.)



1. A spring comprising superimposed leaves fitting on each other, at least one of said leaves having a portion of limited area at the center where the spring is adapted to be supported materially thicker than the adjacent portions of the leaf.

2. A spring comprising superimposed flat spring metal leaves, some of said leaves having a portion of limited area at the center where the spring is adapted to be supported materially thicker than the adjacent portions thereof, and the center portion of some of said leaves being so bent that the leaves will fit together.

3. A spring comprising superimposed leaves, some of which have a portion of limited area at the center where the spring is adapted to be supported materially thicker than the adjacent portions of the leaf the adjacent surfaces of said leaves being so shaped as to fit together, and a fastening clip at said central portion securing said leaves together.

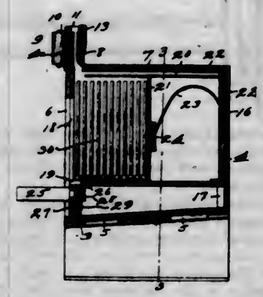
4. A spring comprising superimposed flat spring metal leaves fitting on each other, some of said leaves having portions of limited area at the center where the spring is adapted to be supported materially thicker than the adjacent portions of the leaves and said leaves at the thickened portions being so bent that the leaves will fit together, and a fastening clip fitting tightly around said spring at the center and against the projection formed by the thickening on opposite sides of the thickest point.

5. A spring comprising superimposed flat spring metal leaves so swaged as to increase the thickness materially throughout a limited area at the center, the increase in thickness being gradual from points immediately adjacent and on opposite sides of the center to the center.

[Claim 6 not printed in the Gazette.]

1,208,991. MATCH-SAFE. PETER S. LEKAS, Portland, Oreg. Filed Oct. 5, 1915. Serial No. 54,133. (Cl. 206—32.)

1. A match safe consisting of a weighted base, a match container removably mounted upon said base, said container formed with an upwardly extending opening in the top thereof, an igniting material mounted interiorly of said opening, said container formed with a vertical slot through the front face thereof, elevating means slidably mounted within said slot whereby matches will be ejected through said opening, and means mounted within said container for maintaining the matches therein in operative position with respect to said elevating means.



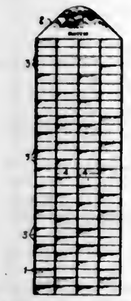
2. A match safe of the character described consisting of a base, a casing slidably mounted upon said base, the front wall of said casing extending above the upper marginal edge of the casing, a cover member mounted upon said casing and having the forward end thereof upturned and spaced apart from the front face of said casing, igniting paper mounted upon said casing and adapted to form a lining for the interior walls of said front face and said upturned portion of said cover, a match container mounted within said casing and provided with horizontal slots near the upper edge thereof, a spring actuated flange follower plate mounted within said container and slidably mounted within said slots, and means slidably mounted within said casing and said container for ejecting a plurality of matches.

3. A match safe of the character described consisting of a base, a casing slidably mounted upon said base and provided with a vertically disposed slot in the front face thereof, a cover pivoted to said casing and having the forward end thereof upturned to form the rear wall of a match withdrawal aperture, a match container mounted within said casing provided with horizontal slots near the upper edge and a vertical slot in the front face thereof, a spring actuated flanged follower mounted within said container and slidably engaged with said horizontal slots, means slidably mounted within said vertical slots adapted to eject a plurality of matches through said withdrawal opening, and means mounted upon said casing and forming a lining for said withdrawal opening whereby the matches will be ignited upon withdrawal therefrom.

4. A match safe consisting of a base, a casing mounted upon said base, provided with a vertical slot disposed in the front face thereof, a cover hingedly mounted upon the casing and having the forward end thereof upturned to form the rear wall of a match withdrawal aperture, a match container mounted within said casing provided with a vertical slot in the front face thereof registering with the first vertical slot, the bottom plate member of said container having a portion removed, a handle ejecting means, a follower mounted upon springs to provide closure means for the said opening in the bottom plate member when the operating handle is raised.

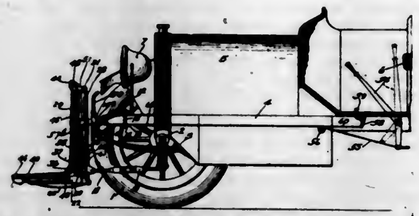
1,208,992. GAME. EVA C. LEONARD, Thompson, Pa. Filed July 3, 1916. Serial No. 107,418. (Cl. 46—63.)

A game including an elongated base board provided with a longitudinally disposed series of steps, and strips disposed longitudinally of the stepped portion of the board and in transverse spaced relation for dividing the stepped portion of the board into a plurality of parallel playing fields, the portion of the board beyond the



uppermost step thereof constituting a goal common to each of the playing fields.

1,208,993. AUTOMOBILE-FENDER. WILLIAM A. LINQUIST, Minneapolis, Minn., assignor to Bertrice E. Linquist, Minneapolis, Minn. Filed Apr. 7, 1915. Serial No. 19,653. (Cl. 105—130.)



1. A fender comprising plunger guides, vertically movable plungers working in said guides, a fender frame provided with a filler, means connecting the lower portion of said fender frame to the lower portions of said plungers with freedom for forward and rearward movements, and links connecting the upper portions of said plungers to the upper portion of said fender frame.

2. The combination with plunger guides, of vertical plungers working through said guides and provided at their lower ends with forwardly projecting shoes, forwardly projecting bolts movable in said shoes, a fender frame provided with a filler and having an upright rear portion and forwardly projecting bottom portion, the latter being connected to the front ends of said bolts, and links pivotally connected to the upper ends of said plungers and to the upper portion of said fender frame.

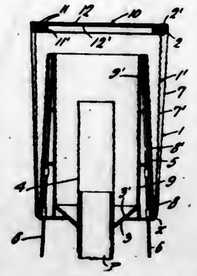
3. The combination with plunger guides, of vertical plungers working through said guides and provided at their lower ends with forwardly projecting shoes, forwardly projecting bolts movable in said shoes, a fender frame provided with a filler, and having an upright rear portion and forwardly projecting bottom portion, the latter being connected to the front ends of said bolts, links pivotally connected to the upper ends of said plungers and to the upper portion of said fender frame, the said links having limited downward movement against said plungers, and springs applied to said bolts and yieldingly pressing the same forward.

4. The combination with plunger guides, of vertical plungers working through said guides and provided at their lower ends with forwardly projecting shoes, forwardly projecting bolts movable in said shoes, a fender frame provided with a filler and having an upright rear portion and forwardly projecting bottom portion, the latter being connected to the front ends of said bolts, links pivotally connected to the upper ends of said plungers and to the upper portion of said fender frame, the said links having limited downward movement against said plungers, springs applied to said bolts and yieldingly pressing the same forward, and lock dogs normally holding said plungers and fender raised, said dogs having projections arranged to be engaged by the rear ends of said bolts to trip said dogs.

5. The combination with plunger guides, of plungers movable vertically therethrough and provided at their lower ends with forwardly projecting shoes, dogs pivoted to said plunger supports and normally operative on said plungers to hold the same raised, said dogs having depending trip arms and said shoes having recesses in which they work freely, forwardly spring-pressed tripping bolts mounted in said shoes and incased thereby with their rear ends in position to engage the depending arms of said lock dogs, and a fender supported by the front ends of said tripping bolts and the upper portions of said plungers.

[Claims 6 to 10 not printed in the Gazette.]

1,208,994. DUST-BAG. JOHN CHARLES LION, St. Marys, Pa. Filed Mar. 6, 1916. Serial No. 82,392. (Cl. 183—70.)



1. A dust collecting bag having outer, intermediate and inner portions, and a frame upstanding within and supported from the lower end of the outer portion of the bag, to hold the intermediate portion in place, the inner portion of the bag being suspended from the upper end of said frame.

2. A tapered dust collecting bag having an outer portion adjacent its larger end, an intermediate portion within the outer portion, and an inner portion adjacent its smaller end within the intermediate portion, and a tapered frame having its larger end attached to the bag adjacent the smaller end of the outer portion, whereby said frame is supported in upstanding position within the outer portion of the bag from the lower end thereof, said frame supporting the intermediate portion of the bag, and the inner portion of the bag being suspended from the upper smaller end of said frame.

3. A dust collecting bag tapered from one end to another and having an outer portion adjacent its larger end, an intermediate portion within the outer portion, and an inner portion within the intermediate portion, a hoop attached to the larger end of the bag for suspending the outer portion thereof, and a tapered frame having its larger end attached to the bag adjacent the lower end of the outer portion thereof, said frame being supported in upstanding position within the outer portion of the bag with its smaller end uppermost, the intermediate portion of the bag surrounding said frame, and the inner portion of the bag being suspended from the upper smaller end of said frame.

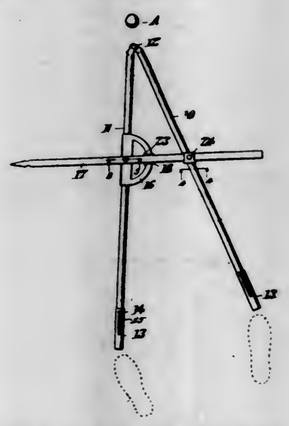
4. A tapered dust collecting bag adapted to be folded between its ends so that the smaller portion of the bag comes within the larger portion in telescopic arrangement, a hoop attached to the larger end of the bag, and a closure for the larger end of the bag having a hoop to fit the aforesaid hoop, and a porous diaphragm.

5. A dust collecting device embodying a pair of tapered bags having their smaller ends attached together, one bag

being movable over the other, the larger ends of the bags being separable, and the two bags, when one is moved over the other, being foldable into telescopic position.

[Claim 6 not printed in the Gazette.]

1,208,995. GOLF-TEACHING INSTRUMENT. WILLIAM A. LYON, Madison, Ind. Filed Mar. 31, 1916. Serial No. 88,100. (Cl. 35—12.)



1. A stance instructor comprising means for indicating the position of the feet with relation to the ball, and means operable simultaneously with the first named means for determining the line of drive according to the stance.

2. A stance instructor comprising coöperating members for indicating the position of the feet with relation to the ball, and with relation to each other, and means operable simultaneously with the first named means for determining the line of drive of the stance.

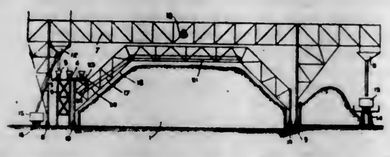
3. A stance instructor comprising means for indicating the type of drive desired, and means under control of the first named means for indicating the position of the feet for the particular drive.

4. A device of the class described comprising a pair of associated foot position indicating members, one of said members being adjustable with respect to the other, and means for indicating the direction of play and controlling the movements of said adjustable member.

5. A device of the class described comprising a frame including a stationary member and a relatively movable member, means for varying the length of said members, and an element adjustably associated with the frame for indicating the direction of play and controlling the adjustment of said movable member.

[Claims 6 to 8 not printed in the Gazette.]

1,208,996. COAL-HANDLING APPARATUS. JAMES M. MCCLELLON, Everett, Mass. Filed Jan. 14, 1915. Serial No. 2,240. (Cl. 214—4.)



1. The combination with a storage space, of a track extending along the side thereof, a discharging track section situated out of line with said track, but connected therewith at its ends, a supporting structure independent from the track on which the discharging track section is sustained, and a discharging conveyer also mounted on said supporting structure and extending over said storage space, said conveyer being adapted to receive material discharged from cars on the discharging track section and convey said material to the storage space.

2. The combination with a storage space, of a track extending along the side thereof, a discharging track section situated out of line with said track but connected therewith at its ends, a supporting structure independent from the track on which the discharging track section is sustained, said supporting structure being movable in a direction longitudinally of the track but without obstructing the latter, and a discharging conveyer also mounted on said supporting structure and extending over the storage space.

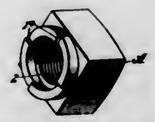
3. The combination with a storage space, of a track extending along the side thereof, a bridge supported independently of said track and extending over said space, a discharging track section carried by the bridge and situated out of line with said track but connected thereto at its ends, a discharging conveyer carried by the bridge and extending over the storage space, and a hopper or chute associated with said track section and which operates to direct the contents discharged from the car onto said conveyer.

4. The combination with a storage space, of a track extending along the side thereof, a bridge movable longitudinally of the track and extending over the storage space, said bridge being supported independently of the track, a discharging track section carried by the bridge and situated out of line with said track but connected thereto at its ends whereby cars traveling on the track will be diverted onto the track section and back onto the track again, and means carried by the bridge to carry to the storage space the contents of a car which is unloaded on said track section.

5. The combination with a storage space, of a track extending along the side thereof, a bridge supported independently of said track and movable longitudinally thereof, said bridge extending over the storage space, a discharging track section carried by the bridge and situated out of line with said track but connected thereto at its ends whereby cars traveling on the track will be diverted onto the track section and back onto the track again, a conveyer extending from said discharging track section over the storage space, and means to direct onto said conveyer the contents of a car which is unloaded on said track section.

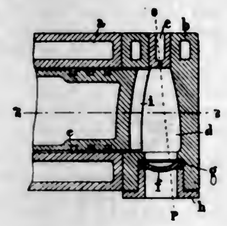
[Claims 6 to 8 not printed in the Gazette.]

1,208,997. BOLT-NUT. JOSEPH S. MCGUIGAN, St. Louis, Mo. Filed Oct. 31, 1914. Serial No. 869,549. (Cl. 151—37.)



A bolt nut having a body portion for engaging the threads of the bolt on which the nut is mounted, an annular collar on the inner side of said body portion which is rigid and integrally connected to said body portion, said collar having a center opening which is enough larger than the bolt so that the collar will not contact with the bolt, and a plurality of integral teeth on said collar that are adapted to bite into the member against which the nut bears, said teeth being so disposed that they prevent the nut from canting or tilting sidewise and the biting end of each tooth extending parallel to the face of the member against which the nut bears so that each tooth will engage said member evenly and throughout the entire length of its biting edge.

1,208,998. INTERNAL-COMBUSTION ENGINE. ALEXANDER JAMES MACKAY, Bourton, England, assignor of one-half to Donald Norman Dobson, Whetstone, England. Filed Nov. 28, 1913. Serial No. 803,485. (Cl. 123—80.)



1. In an internal combustion engine, a cylinder, a combustion chamber arranged across the end of the cylinder, said combustion chamber having a cavity which tapers gradually along its length so that one end is of greater diameter than the other, an opening along one side of the chamber for affording communication between the cavity and the cylinder, a piston in said cylinder having a trough shaped end portion which is tapered to correspond with the taper of the cavity and which, when the piston is at the inner end of its stroke, serves to close the opening between the cavity and the cylinder, and means for admitting fuel at the smaller end of the tapering tubular space formed by the cavity and the said end of the piston, so that the fuel may be sprayed along said space toward the larger end.

2. In an internal combustion engine, a cylinder, a tapering elongated combustion chamber disposed lengthwise across the end of the cylinder and communicating therewith along one side, means for admitting fuel at the smaller end of the combustion chamber and ignition means at the larger end thereof facing the fuel inlet.

3. In an internal combustion engine, a cylinder, a cylinder head having an elongated cavity therein tapering longitudinally and disposed lengthwise across the end of the cylinder, said cavity communicating along one side with the cylinder, a piston in said cylinder having a tapering trough shaped portion which, when the piston is at the inner end of its stroke, serves to close the said opening and completes the tapering cavity so as to provide a tapering tubular space in the cylinder head, means for admitting fuel at the smaller end of the space so formed, and ignition means at the larger end of the cavity.

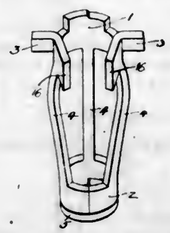
4. In an internal combustion engine, a cylinder, a tapering elongated combustion chamber disposed lengthwise across the end of the cylinder and communicating therewith along one side, means for admitting fuel at the smaller end of the combustion chamber and ignition means at the larger end thereof facing the fuel inlet, the end of the chamber at which the ignition means are arranged being lower than the end at which the fuel is admitted.

1,208,999. WALL-ANCHOR. IRA B. MALABY, Philadelphia, Pa., assignor to Norman Mellor, Philadelphia, Pa. Filed Sept. 25, 1914. Serial No. 863,555. (Cl. 85—2.4.)

1. A wall anchor consisting of annular head and tail sections; laterally weak members connecting said sections; and a plurality of oppositely placed wings projecting from the head section in planes substantially parallel to the axis of the anchor.

2. A wall anchor consisting of annular head and tail sections; laterally weak members connecting said sections; with a plurality of tongues bent out of the side parts of the head section and projecting in opposite directions in substantially the same straight line, said tongues lying in planes substantially parallel to the axis of the anchor.

3. The combination of a body of sheet material having a hole provided with two oppositely formed recesses and tongues projecting under said recesses; with a wall anchor extending through said hole and including oppositely extending wings entering the recesses and supported on the tongues.

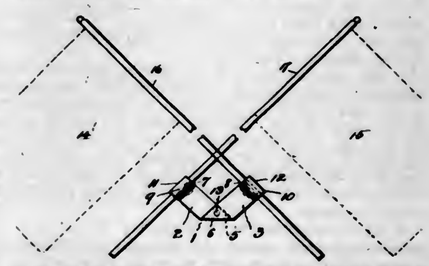


4. The combination of a body of sheet material having a hole provided with two oppositely formed recesses and tongues projecting under said recesses; with a wall anchor having head and tail sections, a screw receiving section, with members connecting the head and tail sections and bent to extend in flattened U-form at an angle to the axis of the anchor, into engagement with the underside of said body of sheet material.

5. The combination of a body of sheet material having a hole provided with two oppositely formed recesses and tongues projecting under said recesses; with a wall anchor having head and tail sections, a screw receiving section, and members connecting the head and tail sections and bent to extend in flattened U-form at an angle to the axis of the anchor into engagement with the underside of said body of sheet material; with laterally projecting wings from the head section of the wall anchor extending within the recesses of the sheet material and prevented by the tongues from passing through the same.

[Claims 6 to 8 not printed in the Gazette.]

1,209,000. HOLDER FOR CROSSED FLAGS. FREDERICK F. MARQUAND, Northport, N. Y. Filed July 13, 1916. Serial No. 109,082. (Cl. 248—37.)

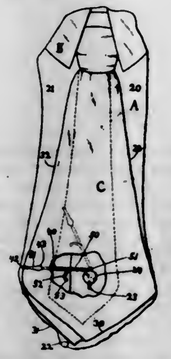


1. A holder for crossed flags formed by bending a single piece of resilient material to form a central portion provided with means for attaching it to the surface on which it is desired to place the flags and to form arms extending outwardly and upwardly from the central portion in opposite directions having their ends bent back on themselves to form receptacles to receive and hold the crossed flag-staffs.

2. A holder for crossed-flags formed by bending a single piece of resilient material to form a central portion provided with means for attaching it to the surface on which it is desired to place the flags and to form arms extending outwardly and upwardly from the central portion in opposite directions having their ends bent back on themselves to form receptacles to receive and hold the crossed flag staffs, said receptacles being made expansible by splitting their outer faces longitudinally.

3. A holder for crossed flags consisting of a central portion provided with means for attaching it to the surface on which it is desired to place the flags and arms extending outwardly and upwardly from the central portion in opposite directions provided at their ends with expansible receptacles to receive and hold the crossed flag-staffs.

1,209,001. TIE-HOLDING DEVICE. LAURIN H. MARTIN, Lowell, Mass. Filed June 5, 1915. Serial No. 32,378. (Cl. 24—84.)



1. The combination in a tie holding device, of a shank, with a spring tie gripping arm at one end thereof so bent as to return proximate the shank and at its tip to recede therefrom, a lock member slidable on the shank and adapted to engage the tie gripping arm, and a pivot arm at the other end of the shank so bent in the same plane with the tie gripping arm and shank that it returns proximate the shank and is bent at its free end in a plane at an angle with such plane about and beyond the shank and thence at its tip back toward the pivot end of the shank.

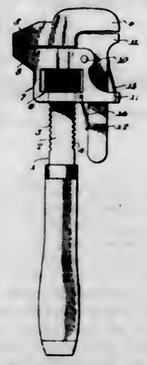
2. The combination in a tie holding device, of a substantially straight shank, with a spring tie gripping arm at one end thereof so bent as to return proximate the shank, and a pivot arm at the other end of the shank so bent that it returns proximate the shank and is bent at its free end about the shank.

3. The combination in a tie holding device of a substantially straight shank with a spring tie gripping arm at one end thereof so bent as to return proximate the shank, teeth on said shank proximate the return portion of the arm, a lock member slidable on the shank and adapted to engage the tie gripping arm, and a pivot arm from the other end of the shank so bent that it returns parallel with the shank and is curved near its end about the shank.

4. The combination in a tie holding device, of a substantially straight shank, with a spring tie gripping arm at one end thereof so bent as to return proximate the shank, a lock member slidable on the shank and adapted to engage the tie gripping arm, and a member at the other end of the shank adapted to pass through a button hole and to serve as a pivot for the device.

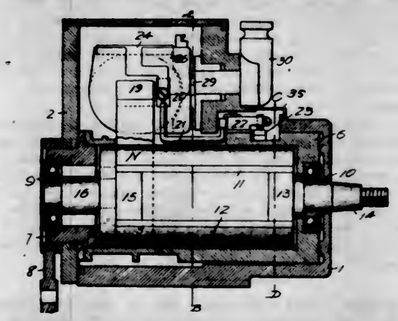
1,209,002. WRENCH. PERCY A. MARTIN, Columbia, Mo. Filed Aug. 26, 1914. Serial No. 858,703. (Cl. 81—174.)

In combination with a stationary jaw having a centrally arranged angularly disposed toothed shank, of the herein described construction of movable members for the jaw of the said shank, comprising a frame, including a movable jaw having spaced arms extending longitudinally therefrom, an angular member arranged outwardly of the said arms and connected with the jaw, arms formed on the end of said angular member and extending longitudinally therefrom in a direction parallel to the plane of the first mentioned arms, said last mentioned arms being of a greater length than the first mentioned arms and having their ends connected, a connecting member between the ends of the first mentioned arms and the second mentioned arms, a transverse plate connecting the second mentioned arms at the juncture of the connecting members between the first and second mentioned arms, the toothed shank of the stationary jaw being disposed in the spaces between the first mentioned and second



mentioned arms, an operating nut upon the threaded shank and having its opposite sides projecting through the openings in the sides of the frame, an auxiliary jaw including a shank pivotally connected to the ends of the first mentioned arms, and spring elements secured to the outer and inner connecting members of the second mentioned arms and extending in opposite directions therefrom and contacting with the opposite edges of the shank of the auxiliary jaw.

1,209,003. IGNITION-DYNAMO. CARL THOMAS MASON, East Orange, N. J., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 7, 1916. Serial No. 70,802. (Cl. 123—149.)



1. A magneto electric generator including a rotor comprising a permanent magnet, a set of pole pieces angularly adjustable about the axis of said rotor, and a winding in fixed relation to the said adjustable pole pieces and adapted to be acted upon by the magnetic flux passing through said pole pieces.

2. A magneto electric generator including a rotor comprising a permanent magnet, a set of pole pieces angularly adjustable about the axis of said rotor, a winding in fixed relation to said adjustable pole pieces and adapted to be acted upon by the magnetic flux passing through said pole pieces, and an interrupter controlled for adjustment with the adjustable pole pieces whereby the time of interruption is varied when the position of the pole pieces is varied.

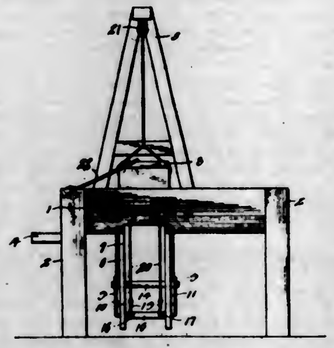
3. A magneto electric generator including a rotary magnet, a field structure comprising a cylindrical housing inclosing said magnet and mounted concentrically therewith, pole pieces carried by said field structure and therewith angularly adjustable about said magnet, a winding in fixed relation to said pole pieces, and an interrupter carried by said field structure whereby when the field structure is rocked the time of interruption is varied.

4. In an ignition dynamo, an adjustable current generating coil, a core therefor, pole pieces for said core, and a rotor comprising a permanent magnet, said magnet having a path of travel within the space between said pole pieces.

5. In an ignition dynamo, a permanent magnet, a field structure, means for rotatably supporting said magnet in said field structure, and an adjustable current generating coil and core therefor in inductive relation to said magnet.

[Claims 6 to 29 not printed in the Gazette.]

1,209,004. ANIMAL-STOCK. JAMES F. MASSEY, Rock Mart, Ga. Filed May 17, 1916. Serial No. 98,162. (Cl. 119—98.)



1. An animal stock comprising a frame, a cage pivotally mounted therein, straps carried by the cage and adapted to be passed under the belly of the animal, barriers movably mounted on the cage, straps carried by the barriers and adapted to be passed over the back of the animal and stock blocks carried by the barriers for confining the legs of the animal.

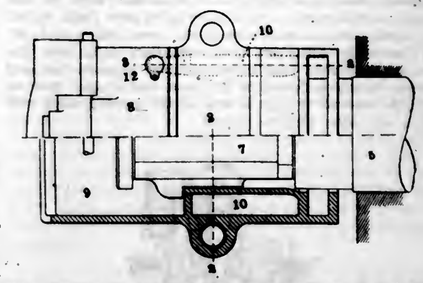
2. An animal stock comprising a frame, a cage pivotally mounted therein, straps carried by the cage and adapted to be passed under the belly of the animal, barriers movably mounted upon the cage, straps carried by the barriers and adapted to be positioned over the back of the animal, stock blocks movably mounted in the barriers, a floor movably mounted in the cage and means for moving the floor.

1,209,005. JOURNAL-BOX. RALPH E. MATHIS, St. Louis, Mo. Filed Nov. 10, 1915. Serial No. 60,635. (Cl. 64—28.)

1. The combination with an axle, of a journal box provided with a main oil chamber, and an auxiliary oil container formed integral with the body of the box, the walls of said auxiliary container forming a stop for the brass, and a fusible plug normally retaining the oil in said auxiliary container.

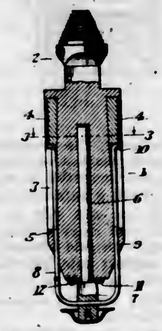
2. The combination with an axle, of a journal box provided with a main oil chamber, a pair of auxiliary oil containers formed integral with the body of the box, the walls of said auxiliary containers forming stops for the brass, and fusible plugs normally retaining the oil in said auxiliary containers.

3. The combination with an axle, of a journal box provided with a main oil chamber, a pair of auxiliary oil containers formed integral with the body of the box, the walls of said auxiliary containers forming stops for the



brass, fusible plugs normally retaining the oil in said auxiliary containers, and means for filling said auxiliary containers through the top of the body of the journal box.

1,209,006. DETACHABLE OIL-WELL-CASING PULLER. JESSEE H. MAXWELL, Barboursville, W. Va. Filed Sept. 25, 1915. Serial No. 52,718. (Cl. 57—9.)

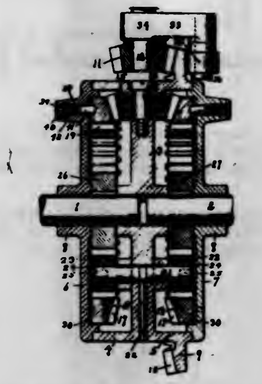


In a well casing puller, a circular body having a plurality of longitudinally extending dovetail grooves gradually decreasing in length from their upper to their lower ends, dovetail dogs slidably mounted in the grooves and arranged to be exposed beyond the surface of the body when in their lowermost position, a rod slidably mounted in the body and arranged to depend therefrom in axial alinement therewith, a hinged collar surrounding the rod and adapted to cant thereon to engage and hold the rod, and rods connected to the lower end of the first-mentioned rod and slidably mounted in the body, said last-mentioned rods adapted to engage the dogs and raise them to elevated position when the first rod is raised.

1,209,007. DIFFERENTIAL GEAR. WILLIAM MENNIS, Detroit, Mich., assignor of one-half to Carl A. Fettig, Detroit, Mich. Filed Aug. 16, 1915. Serial No. 45,626. (Cl. 74—34.)

1. In a differential gear, the combination with the adjacent ends of a divided shaft, of a case consisting of a circular central web, cylindrical flanges extending in both directions from the periphery of said web, and end plates secured to said flanges, a bevel gear mounted in a pocket in said web with its axis radial to said shaft, a pair of gear rings within the casing, one on each side of the web, co-axial with said shaft and having lateral teeth meshing with the teeth of said bevel pinion and also having internal teeth, a spur gear secured to each section of the divided shaft, an idler pinion meshing with each spur gear and the internal teeth of the adjacent gear ring, supporting means for the idler pinions mounted on the web of the case, and means to revolve the case.

2. In a differential gear, the combination with the adjacent ends of a divided shaft, a case mounted thereon, a revoluble bevel gear mounted in said case with its axis radial to said shaft, a pair of parallel gear rings within the casing, one on each side of the bevel gear and meshing therewith, said rings having internal teeth, idler pinions meshing with said internal teeth, supports for said pinions rigidly mounted in the case, and a spur gear on the adjacent end of each section of the divided shaft with which said idler pinions engage.



3. In the differential gear, the combination with the adjacent ends of a divided shaft, a casing mounted thereon, a revoluble bevel gear mounted in said casing with its axis radial to said shaft, a pair of co-axial gear rings within said casing, one on each side of the bevel gear and meshing therewith, said rings having internal teeth, an idler pinion meshing with said internal teeth of each gear ring, means to support said pinions, a spur gear mounted concentric with the ends of each section of the divided shaft and meshing with the adjacent idler pinion, and means to revolve the casing.

4. In a differential gear, the combination with the adjacent ends of a divided shaft, a casing mounted thereon, means to revolve the casing, a revoluble bevel gear mounted in said casing with its axis radial to said shaft, a pair of co-axial gear rings mounted within the casing, one on each side of the bevel gear and meshing therewith, a friction ring mounted within the casing in alinement with each gear ring and against which said gear ring may be pressed by the bevel gear when the casing is revolved under stress, said rings also being provided with internal teeth, a spur gear on the adjacent end of each shaft in the same plane with one of the gear rings, an idler pinion meshing with each gear ring and the spur gear in the same plane therewith, and means mounted on the case to revolubly support the idler.

5. In a differential gear, the combination with the adjacent ends of a divided shaft, a casing mounted thereon, means to revolve the casing, a revoluble bevel gear mounted in said casing with its axis radial to said shaft, a pair of co-axial gear rings mounted within the casing, one on each side of the bevel gear and meshing therewith, a friction ring mounted within the casing in alinement with each gear ring and against which said gear ring may be pressed by the bevel gear when the casing is revolved under stress, said rings also being provided with internal teeth, a spur gear mounted concentrically with the adjacent end of each section of the divided shaft in the same plane with one of the gear rings, an idler pinion meshing with each gear ring and the spur gear in the same plane therewith, means to support the idler pinions, and means for operatively connecting the spur gears, idler pinions and shaft sections.

[Claims 6 and 7 not printed in the Gazette.]

1,209,008. STOVEPIPE. JOSEPH MESSINA, Beuld, Ill. Filed June 30, 1916. Serial No. 106,907. (Cl. 126—308.)



1. A stove pipe comprising a pipe section, a sleeve movable longitudinally thereof, an inturned portion on said sleeve providing an internal collar on the sleeve for contact with the pipe section, means on the pipe section and sleeve co-acting to lock the sleeve against longitudinal movement on the pipe section, an inturned flange on said sleeve, and a second pipe section having an end extended within the sleeve and bearing against said flange.

2. A stove pipe comprising a pipe section having a longitudinally extending row of spaced depressions in its outer peripheral surface, a sleeve movable longitudinally of the pipe section, an inturned portion at one end of the sleeve providing an internal collar engaging said pipe section, a spring finger on the sleeve extending beyond the collar to engage with said depressions as the sleeve is moved longitudinally of the pipe section, and a second pipe section removably connected with the other end of the sleeve.

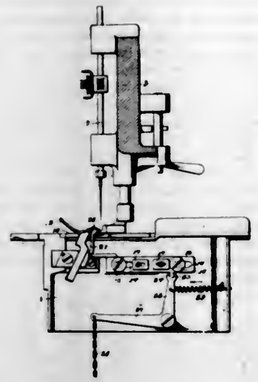
3. A stove pipe comprising a sleeve slitted for a portion of its length to provide a finger having a depression therein providing a locking rib, a pipe section connected with one end of the sleeve, a second pipe section extending within the sleeve for a portion of its length and having a longitudinally extending row of spaced depressions to receive the locking rib on the finger when the sleeve is moved longitudinally of the second mentioned pipe section, and an internal bead on the second mentioned pipe section providing an external and circumferentially extending groove thereon arranged in the path of movement of the finger to receive said locking rib.

1,209,009. SEWING-MACHINE. JAMES R. MOFFATT and RALPH S. KELSO, Chicago, Ill., assignors to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 4, 1912. Serial No. 669,897. (Cl. 112—24.)

1. A sewing machine including in combination, feeding mechanism, overedge stitch forming mechanism, of a folder for turning over the edge of the material on to the body thereof, said folder being disposed relative to the stitch forming mechanism whereby the stitches are laid over said folder and are fed off from the folder on to the folded edge of the material, and means for rendering said folder effective or ineffective.

2. A sewing machine including in combination, feeding mechanism, overedge stitch forming mechanism, a device for engaging the edge of the material and turning the same over on to the body of the material within the limits of the overedge stitch forming mechanism, said device being disposed adjacent the stitch forming mechanism, whereby said folded edge is inclosed by the stitch forming mechanism as it leaves the folder, and means under the control of the operator for moving said device into and out of effective operation.

3. A sewing machine including in combination, feeding mechanism, overedge stitch forming mechanism, a device for engaging the edge of the material and turning the same over on to the body of the material within the limits of the overedge stitch forming mechanism, said device being disposed adjacent the stitch forming mechanism, whereby said folded edge is inclosed by the stitch forming mechanism as it leaves the folder, and means under the control of the operator for moving said device diagonally into and out of the line of seam.

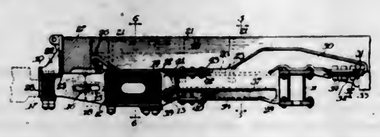


4. A sewing machine including in combination, feeding mechanism, overedge stitch forming mechanism, a device for engaging the edge of the material and turning the same over onto the body of the material within the limits of the overedge stitch forming mechanism, whereby said folded edge is inclosed by the stitch forming mechanism, and means under the control of the operator for moving said device diagonally into and out of the line of seam, said device also acting as a stitch finger over which the stitches are formed.

5. A sewing machine including in combination over edge stitch forming mechanism, a folder for turning over the edge of the material on to the body thereof, said folder being disposed relative to the stitch forming mechanism whereby the stitches are laid over said folder and are fed off from the folder on to the folded edge of the fabric, and means for moving said folder from effective to ineffective position, including manually controlled means for moving the folder in one direction, and automatic means for moving the folder in the other direction.

[Claims 6 to 15 not printed in the Gazette.]

1,209,010. RAILWAY-CAR. CHARLES J. NASH, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., a Corporation of Illinois. Filed Sept. 12, 1913. Serial No. 789,445. (Cl. 105—76.)



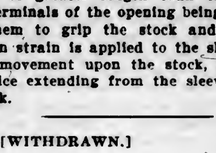
1. In a railway car, a draft arm having a buffing shoulder, a shoulder adapted to abut against a bolster, and a body portion between the shoulders, such portion comprising an upper section in a plane adjacent the inner edge of the buffing shoulder, and a lower section in a plane adjacent the base of such shoulder and both sections being at least in part within the vertical limits of such shoulder.

2. In a railway car, a draft arm having a buffing shoulder, a shoulder adapted to abut against a bolster, and a body portion between the shoulders, such portion comprising an upper and a lower section, one of said sections being in a plane adjacent the inner edge of the buffing shoulder and the other of said sections in a plane adjacent the base of such shoulder and both sections being at least in part within the vertical limits of such shoulder.

3. In a railway car, a pair of center sills, bolsters, draft arms secured to both ends of the sills and abutting against the outer faces of the bolsters, plates located back of and abutting the inner faces of the bolsters and engaging both sills, and buffing timbers secured to the sills and abutting both of such plates.

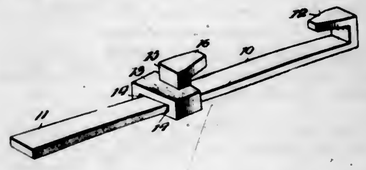
4. In a railway car, a pair of center sills, bolsters, draft arms secured to the sills and abutting the outer faces of the bolsters, plates located back of and abutting the bolsters, buffing timbers secured to the sills and abutting both of the plates, each draft arm being provided with an extension arching over the bolster and hooking over the adjacent plate.

1,209,011. DRAWER FOR CIGARETTE-DISPENSERS. WILLIAM G. NORO, San Francisco, Cal. Filed Aug. 28, 1915. Serial No. 47,834. (Cl. 45—7.)



In combination with a casing, a spring pressed drawer slidably mounted therein, a spring tongue mounted at the side of the drawer, a spring pressed locking lever pivoted in the casing for swinging movement transversely of the tongue, said tongue and said lever having end portions which extend into each other's path of movement, and a shaft movably mounted in the casing and adapted to engage the lever to swing the same.

1,209,012. FLANGE-UNION WRENCH. BENJIMAN F. O'BRIEN, Hastings, Nebr. Filed Jan. 26, 1916. Serial No. 74,389. (Cl. 81—90.)

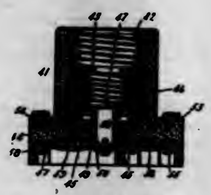


1. A wrench comprising a stock having its faces extending in parallel relation and unobstructed throughout, said stock being provided with a holding device at one end, a sleeve slidable upon the stock with its opening of greater length than the width of the stock, the terminals of the opening being relatively sharp to cause them to grip the stock and lock the sleeve thereto when strain is applied to the sleeve obliquely to its line of movement upon the stock, and an opposing holding device extending from the sleeve.

2. A wrench comprising a stock having its faces extending in parallel relation and unobstructed throughout, said stock having a holding device at one end overhanging the stock, a sleeve slidable upon the stock with its opening of greater length than the width of the stock, the terminals of the opening being relatively sharp to cause them to grip the stock and lock the sleeve thereto when strain is applied to the sleeve obliquely to its line of movement upon the stock, and an opposing holding device extending from the sleeve and overhanging the stock.

1,209,013. [WITHDRAWN.]

1,209,014. CURRENT CONNECTION FOR ELECTRIC LAMPS. JOHN ARTHUR ORANGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 26, 1914. Serial No. 879,153. (Cl. 173—342.)



1. A connection comprising a base or plug device having terminals with coacting differentially screw threaded contact surfaces and a socket or receptacle device having terminals with corresponding screw threaded contact surfaces, said socket terminals being relatively movable and so related to one another and to the base terminals that screwing the base or plug into the socket causes their movement as aforesaid.

2. A connection comprising a socket or receptacle device having terminals with coacting differentially screw threaded contact surfaces and a base or plug device for said socket having terminals with corresponding screw-threaded contact surfaces, the terminals of one of said devices being movable relatively to one another.

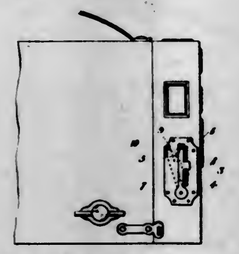
3. A connection device comprising terminals with coacting differentially screw-threaded contact surfaces for concurrent threaded engagement with threaded terminals of a corresponding connection device.

4. A connection device comprising terminals with coacting differentially screw-threaded contact surfaces of different diameters, said terminals being movable relatively to one another when engaging those of a corresponding device.

5. A high current base comprising terminals with coacting coaxial differentially screw-threaded contact surfaces of different diameters for concurrent threaded engagement with threaded terminals of a corresponding socket.

[Claims 6 to 11 not printed in the Gazette.]

1,209,015. CAMERA ATTACHMENT. DEVILLO PALMER, Detroit, Mich. Filed July 7, 1915. Serial No. 38,574. (Cl. 95—53.)



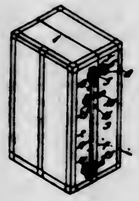
1. Means for locking the shutter shifting lever of cameras comprising a slotted mounting plate arranged to receive the shifting lever, a bar pivoted to the mounting plate and having a laterally extending lug adapted to alternately engage the opposite sides of the shifting lever, said bar being resilient, means for locking the bar in operative position, and means for moving the upper end of the bar away from the said plate when drawn into operative position to engage said locking means.

2. Means for locking the shutter shifting lever of cameras, comprising a slotted mounting plate arranged to receive the shifting lever, a resilient bar pivoted to the mounting plate, and having a laterally extending lug adapted to alternately engage the opposite sides of the shifting lever, means for locking said lever in its operative position, and an obstructing element disposed in the path of movement of said bar to move the latter away from the plate when drawn into operative position, to engage said locking means.

3. Means for locking the shutter shifting lever of cameras, comprising a slotted mounting plate arranged to receive the shifting lever, a bar pivoted to the mounting plate and having a laterally extending lug arranged to alternately engage the opposite sides of the lever, said bar being resilient, and a pin projecting from said plate and adapted to be received within an opening in said bar for holding the latter in operative position.

4. Means for locking a shutter shifting lever of cameras, comprising a slotted mounting plate arranged to receive the shifting lever, a bar pivoted to the mounting plate and having a laterally extending lug adapted to alternately engage the opposite sides of the shifting lever, said bar being resilient, a pin projecting from said plate and adapted to be received within an opening in said bar when the latter is in operative position, and means for moving the upper end of the bar away from the plate to receive said pin, when said bar is thrown into operative position.

1,209,016. INTERLOCKING DEVICE FOR TRUNKS. RICHMOND PARSONS, Philadelphia, Pa. Filed Sept. 1, 1916. Serial No. 118,118. (Cl. 70—115.)



1. The combination of a trunk, a lock thereon, additional locking means for the trunk including a hinged joint designed to abut said first lock when the latter is in its closed position, and automatic means operative to bend said hinged joint and thereby move said additional means into an unlocked position when said first lock is opened, substantially as described.

2. The combination of a trunk having a hole thereon, a lock on the outside of said trunk having a portion exposed to the interior of said trunk through the medium of said hole, additional locking means slidably mounted on the interior of said trunk, a hinged joint connected to said locking means and designed to abut said interior exposed portion of said lock, means secured to the interior of said trunk, and connected to said hinged joint, and automatic means operative to bend said hinged joint and thereby move said additional locking means into an inoperative position when said first lock is opened, substantially as described.

3. The combination of a trunk having a hole therein, a lock on the outside of said trunk having a portion extending into said hole, additional locking means on the interior of said trunk and including a hinged joint, for engagement with a portion of the lock when the latter is in its closed position, and a spring for moving said joint when permitted to do so by the opening movement of the lock, whereby said additional means is unlocked, substantially as described.

4. The combination of a trunk having a hole therein and made in two sections, a lock on the outer face of the trunk and having a portion exposed to the interior of the trunk through the medium of said hole, additional locking means on the interior of said trunk including a slidable bar, a fixed member secured to the interior, two members hinged to each other and respectively hinged to the fixed member and to the slidable bar, a spring connecting said hinged members and operative, when the first lock is moved to an open position, to move the members on their hinge and thereby effect longitudinal movement of said bar, said bar having locking means connected therewith which is released by said movement of the bar, substantially as described.

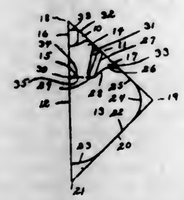
5. The combination of a trunk made in two sections, one of said sections having a hole therein, a hinged lock having a portion secured to one of said sections and having another portion designed to cover the hole in the other of said sections, a bar slidably movable within said trunk, a plate fixed within said trunk and in substantial alinement with said bar, two plates hinged together and to the first-mentioned plate and to the bar, a tension spring connecting said second-mentioned plates, arms pivoted to the interior of one of said trunk sections, loops secured to the interior of the other of said sections, means operatively connecting the bar with said arms to move their hooked ends into and out of engagement with said loops, said outer lock when in its closed position acting to prevent movement of said plates by the spring and thereby hold the arms in their locked positions, said spring, when the lock is moved into an open position, acting to move said second-mentioned plates into the space previously occupied by said first lock when in its closed position, substantially as described.

1,209,017. BUCKLE. PARKE W. PEARSON, Bloomingdale, Ind. Filed Nov. 20, 1915. Serial No. 62,567. (Cl. 24—265.)



A belt buckle formed with a strap receiving opening and having an integral tongue projected beyond the buckle proper to be interposed between the strap sections beyond the opening, and a loop member to embrace the said strap sections and tongue to bind the strap sections with relation to the tongue, and serve as a means for preventing sliding movement of the strap in the opening.

1,209,018. METHOD OF CUTTING AND SHAPING APRONS. MARGARET A. PERKINS, Bristol, Conn. Filed June 25, 1915. Serial No. 36,181. (Cl. 2—54.)



1. The method of making aprons of the type consisting of an apron body and a bib comprising providing goods in square form, folding the said goods along a diagonal, cutting the double thickness of goods to the shape desired with the axis of the apron positioned along the said diagonal, and taking up the material at the junction of the said body portion and bib along the said axis and on each side thereof by a pair of opposed laterally directed V-shaped darts which meet at the said axis.

2. The method of cutting and shaping an apron consisting of providing a piece of sheet material, cutting the said material to form an apron body and a bib connected to the said apron body along the waist line, and providing a double dart fold at the said waist line, the said double dart fold being of maximum depth at the medial line, tapering on each side, and extending the entire length of the said waist line, whereby the apron structure will be shaped at the said waist line and also a belt effect will be produced, denoting the junction of the said apron body and bib.

3. The method of cutting aprons consisting of an apron body and a bib, comprising providing goods a yard wide, cutting the said goods in yard lengths to provide a yard square of goods, rounding off the corners of the said square at one end of one of the diagonals to form one end of the said apron body, cutting a part only of the said square at the other end of the said diagonal to form the said bib and the other end portion of the said apron body, and cutting the corners only of the said square at the ends of the other diagonal to form the extreme corners of the said apron body, whereby an appreciable part of each of the sides of the said square remain uncut and serve as portions of the edges of the said apron body.

1,209,019. SNAP-FASTENER. IMMANUEL PFEIFFER, Jr Bedford, Mass. Filed June 19, 1916. Serial No. 104,366 (Cl. 24—216.)



1. The socket member of a snap fastener, consisting of a plate having a central stud-receiving perforation, and resilient arms integral with said plate and extending from the periphery thereof, said arms being disposed wholly at one side of the plate and converging toward the axis of said perforation, the free ends of said arms being normally adjacent the edge of said perforation and being arranged to permit passage between them of the head of a stud member extending through the perforation from the opposite side of the plate and to engage the head in such manner that said arms shall be braced, between their ends, by the plate when the stud member is being withdrawn.

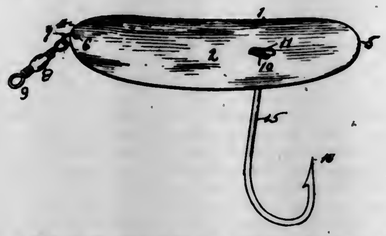
2. The socket member of a snap fastener, consisting of a concavo-convex plate having a central stud-receiving perforation, and resilient arms integral with said plate and extending from the periphery thereof, said arms being disposed wholly at the concave side of the plate and converging toward the axis of said perforation, the free ends of said arms being normally adjacent the edge of said perforation and being formed to afford a curved surface for engaging the head of a stud member, extending through said perforation from the convex side of the plate, in such manner that said arms will be braced between their ends by the plate when the stud member is being withdrawn.

3. A socket member of a snap fastener, composed of a body having a central stud-receiving opening, and a plurality of resilient S-shaped arms integral with the body, extending from the periphery thereof and disposed wholly at one side of the body, the free ends of said arms having each a stud-engaging portion in close proximity to the body, said arms being freely flexible away from the body by the stud when the latter is being inserted but arranged to contact with and be supported by the body on the application of stress tending to withdraw the stud from the socket member.

4. A socket member of a snap fastener, composed of a body having a central stud-receiving opening, and a plurality of resilient S-shaped arms integral with the body and extending from the periphery thereof, said arms being arranged wholly on one side of the body and converging toward said opening, each arm including a shank portion adapted to spring toward the body, and a jaw portion carried by the free end of the shank portion and projecting into the path of the stud and away from the body, said arms being freely flexible away from the body by the stud but arranged to contact with and be supported by the body on the application of stress tending to withdraw the stud member from the socket member.

5. A socket member of a snap fastener, composed of a concavo-convex body having a central stud-receiving opening and a plurality of resilient S-shaped arms integral with the body and extending from the periphery thereof, said arms being arranged wholly at the concave side of the body and converging toward said opening, each arm including a shank portion adapted to spring toward the body, and a curved jaw portion carried by the free end of the shank portion and projecting into the path of the stud and away from the body, said arms being freely flexible away from the body by the stud when the latter is being inserted but arranged to contact with the body and be supported by the latter on the application of stress tending to withdraw the stud member from the socket member, the stud-receiving opening being unobstructed at the convex side of the body.

1,209,020. SPOON-HOOK. CHARLES T. PFLUEGER, Akron, Ohio, assignor to The Enterprise Manufacturing Company, Akron, Ohio, a Corporation of Ohio. Filed Aug. 2, 1916. Serial No. 112,743. (Cl. 43—30.)



1. A fish hook comprising a spoon or lure arcuately fashioned in transverse and longitudinal section thereby providing a concavo-convex structure, a line attached at one end thereof, said spoon or lure provided near the opposite end with a sector-shaped opening, a loosely mounted coupling positioned in said opening and a hook connected with said coupling.

2. A fish hook comprising a spoon or lure provided with a sector-shaped opening therethrough, a coupling member loosely mounted therein, and a hook connected with said coupling.

3. A fish hook comprising a spoon or lure provided with a sector-shaped opening therethrough, a coupling member T-shaped in side elevation loosely mounted in said opening, said coupling provided with a head larger than the greatest diameter of said opening and with a depending portion provided with an aperture and a hook provided with an eye extending through the aperture of said coupling.

4. A fish hook comprising a spoon or lure provided with a sector-shaped opening, the pointed end of said opening extending toward the front of the spoon or lure and the arcuate portion turned rearwardly, a coupling member loosely mounted in said opening and a hook connected with said coupling.

5. A spoon or lure hook comprising a spoon or lure arcuately fashioned in transverse and longitudinal section thereby providing a concavo-convex structure, said spoon or lure provided at the front end with an opening for a line connection, the rear median portion provided with a sector-shaped opening disposed transversely centrally of the spoon or lure body, the pointed portion of said opening directed toward the front end of the spoon or lure a T-shaped coupling member mounted in said opening and provided with a head larger than said opening, a depending neck portion, and a hook pivotally connected with said depending neck portion.

1,209,021. ICE-CONVEYER. BYRON B. PHILLIPS, Hudson, N. Y. Filed Mar. 29, 1916. Serial No. 87,580. (Cl. 193—8.)

1. A conveyer provided with track means for the support of articles to be conveyed, propelling means for the articles, and means for moving the propelling means into and out of operative relation to articles on the track means, at will.



2. A conveyer comprising a plurality of sections each having tracks for the support of the articles to be conveyed, propelling means for such articles, and means for moving the propelling means into and out of operative relation to the articles on the tracks at will, the propelling means of each section having means for automatically coupling it to the propelling means of the next section or sections in order.

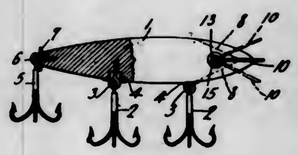
3. A conveyer section comprising a frame, tracks mounted thereon in spaced relation, propelling means for articles carried by the tracks, and means for moving the propelling means into and out of engagement with articles on the tracks, at will.

4. A conveyer section comprising a suitable frame, spaced tracks mounted thereon, a boxing on the frame between the tracks, an endless propelling means mounted in the boxing and provided with means for engaging articles on the tracks, and means for projecting the propelling means from the boxing into engaging relation to articles on the tracks or to withdraw the propelling means into the boxing, at will.

5. A conveyer section comprising a suitable support, tracks mounted on the support, a boxing also mounted on the support, an endless chain in the boxing provided with engaging means for articles upon the tracks, carrying means for the chain located within the boxing, and means for moving the chain to project the engaging means from the boxing or to draw it into the boxing, at will.

[Claims 6 to 13 not printed in the Gazette.]

1,209,022. ARTIFICIAL BAIT. WILLIS E. PHINNEY, Coldwater, Mich. Filed Apr. 20, 1916. Serial No. 92,475. (Cl. 43—30.)



1. An artificial bait embodying a body having upper and lower diverging surfaces at its forward end, and vertically adjustable line attaching means carried by the forward end of the body.

2. An artificial bait embodying a body having an inclined surface, and a line attaching member pivoted to said body near said surface and adjustable vertically.

3. An artificial bait embodying a body having upper and lower diverging surfaces at its forward end, and a line attaching member pivoted to the body adjacent its forward end and adjustable upwardly and downwardly.

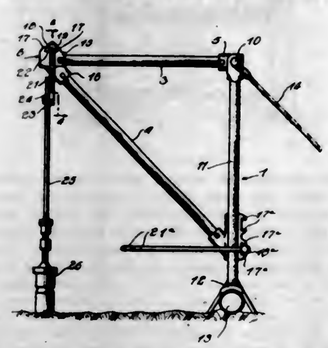
4. An artificial bait embodying a body having an inclined surface, and a bail terminally pivoted to the body near said surface and having a line attaching means at its free portion.

5. An artificial bait embodying a body having upper and lower diverging surfaces at its forward end, and a bail terminally pivoted to the sides of the body adjacent its forward end and provided at its intermediate portion with line attaching means.

[Claims 6 to 15 not printed in the Gazette.]

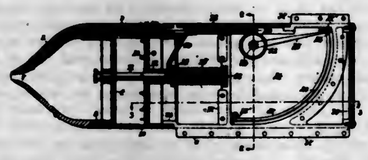
1,209,023. OIL-PUMP JACK. WILLIAM S. POINDEXTER and MYRON E. WAGNER, Bridgeport, Ill. Filed Apr. 24, 1916. Serial No. 93,186. (Cl. 74—5.)

1. An oil pump jack comprising a bell crank fulcrumed between its ends and having at one end a casting formed with a pair of parallel undercut ribs extending transversely of the crank, a bearing slidably held between said ribs, said bearing having a bore extending transversely of the crank, a shaft mounted in said bore and extending beyond the ends of the bearing, a pair of links connected one to each end of said shaft and disposed in close proximity to the opposite sides of the casting whereby to prevent endwise shifting of the bearing, and an additional pair of links connected with the other end of the bell crank, one pair of said links being adapted to serve as means for oscillating the bell crank, while the other pair is adapted to connect said crank with the pump.



2. An oil pump jack comprising a bell crank fulcrumed between its ends and having at one end a casting formed with a pair of parallel undercut ribs extending transversely of the crank, a bearing slidably held between said ribs, said bearing having a bore extending transversely of the crank, a sleeve mounted in said bore and extending slightly beyond the ends thereof and beyond the opposite sides of the casting, a pair of upright links adjacent said sides of the casting and abutting the ends of the sleeve, a bolt passing through said links and sleeve for securing the former in position, said links also serving to prevent endwise shifting of the bearing, and an additional pair of links connected to the other end of the bell crank, one pair of links serving as oscillating means for said crank while the other pair is adapted to connect said crank with the pump.

1,209,024. CURRENT-METER. HARRY E. POPP, Cleveland, Ohio. Filed Apr. 5, 1915. Serial No. 19,153. (Cl. 177—351.)



1. An instrument for determining the velocity of a stream of water, comprising a tubular body having a plunger adapted to reciprocate therein and provided with openings in its walls on opposite sides of said plunger to subject the plunger to the velocity head and pressure head of the stream, and electrical means having operating connections with said plunger to transmit the variable movements of said plunger when the instrument is immersed.

2. An instrument for the purposes described, comprising a tubular body having a reciprocable plunger therein, and chambers on opposite sides of said plunger in open communication with the front end and side exterior of said body, and provided with a sealed chamber at its rear, in combination with an electrical resistance device confined within said rear chamber and actuating connection between said plunger and device.

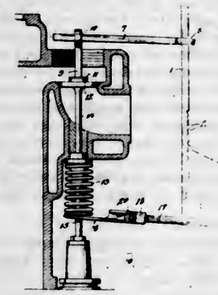
3. A current meter, comprising a perforated cylinder having a plunger therein and a nozzle in advance of the plunger and provided with a compartmented section at its rear, in combination with an electrical device confined within said compartmented section having a movable contact member and means to operate said member by the movement of said plunger.

4. In a current meter, a cylinder having a side opening and a plunger within said cylinder, an intake nozzle at the front of said cylinder, a hollow rear section for said cylinder, a plunger shaft extending into said hollow rear section, electrical resistance means having a movable contact arm in operative connection with said shaft, and a spring to force the plunger toward the front end of said cylinder.

5. In a device substantially as described, a cylinder having orifices in its side and an intake nozzle at its front end, a plunger within said cylinder, a shaft and operating spring for said plunger, a compartmented rear section for said cylinder, an electrical resistance wire and contact member engaged therewith within said rear section, and operating connections for said member engaged with the plunger shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,209,025. VALVE-SPRING RELEASE. WALTER S. PORTER, Leadville, Colo. Filed July 14, 1916. Serial No. 109,337. (Cl. 29—87.1.)



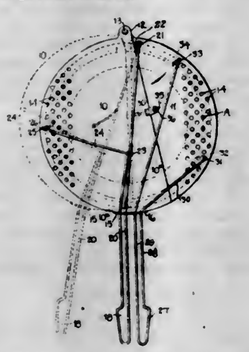
A valve spring release comprising a normally upright stock having a toothed face and of non-circular formation in cross section, an arm perpendicular to said stock and slidable longitudinally thereof but non-rotatable in relation thereto, a valve holding member extending downwardly from said arm and slidable but non-rotatable in relation to said arm, a lever pivotally connected to said stock and having a pawl adapted to engage the toothed face thereof, and a slotted valve spring compressing the presser foot slidingly mounted upon one arm of said lever and arranged to straddle a valve stem and compress the valve seating spring thereof.

1,209,026. POT LIFTER, LID, AND DRAINER. EDWARD W. PRITCHARD, Cambria, Wis. Filed Feb. 25, 1916. Serial No. 80,465. (Cl. 53—8.)

1. A pot lifter, lid and drainer comprising segmental perforated sections pivoted to each other for movement in parallel planes, one of the sections being semi-circular in form and the other being greater than a semi-circle whereby the last-named section may overlap the first-named section, handles connected one to each section opposite the pivotal connection thereof, and hooks carried by the sections and adapted to engage beneath the flange of a pot.

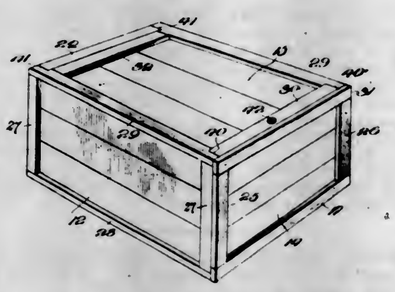
2. A pot lifter, lid and drainer comprising segmental sections pivoted to each other for movement in parallel planes, the opposite ends of the sections being perforated, one of the sections being semi-circular and the other hav-

ing an area greater than a semi-circle whereby it may overlap the first-named section, handles attached to each section, each handle comprising a rod formed at one end to provide a hook extending through the section adjacent the edge thereof, extending across the section and operatively connected thereto, extending outward to form a handle and then in parallel relation and again engaged with the section and then extended laterally across the section and engage with the section adjacent its edge and formed to provide a hook.



3. A pot lifter, lid and drainer comprising segmental sections pivoted to each other for movement in parallel planes, the sections being perforated at opposite ends, one of said sections being approximately semi-circular in form and the other having an area greater than that of a semi-circle so as to overlap the other section, one of said sections being formed with a slot and the other with a sliding member engaging said slot, and handles operatively connected to the upper faces of the sections, said handles having extensions extending across the faces of the sections and terminating in downwardly projecting hooks disposed upon the under faces of the sections.

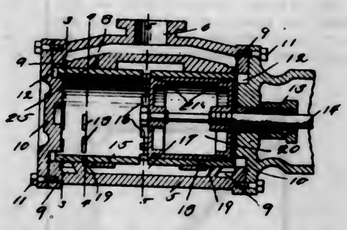
1,209,027. KNOCKDOWN SHIPPING-BOX. PAUL R. QUADE, Wausau, Wis. Filed Jan. 11, 1916. Serial No. 71,601. (Cl. 217—12.)



1. A receptacle of the class described comprising a bottom, top, sides and ends, the contiguous edges of the sides and ends having coacting tongues and grooves and the bottom and top and the sides having coacting tongues and grooves, and combined supporting and covering cleats connected to the parts of the receptacle and extending over said tongue and groove joints.

2. A receptacle of the class described comprising bottom, top, side and end members with their contiguous edges united by coacting tongues and grooves, and combined supporting and covering devices connected to said side members and one of said end members and extending inwardly over the joints between them, whereby the tongue and groove portions of the joints are relieved from lateral strains and protected from externally imparted crushing strains.

1,209,028. STEAM-CYLINDER. AUGUST N. QUICKSTAD, Toronto, S. D. Filed Mar. 31, 1916. Serial No. 88,098. (Cl. 121—45.)



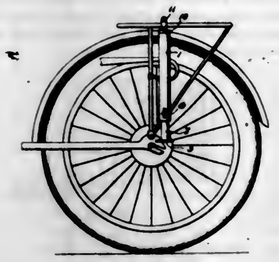
1. The combination with a steam engine cylinder, of heads closing the ends of the cylinders and having annular pockets, a sleeve mounted for sliding movement within said cylinder and adapted to have its ends project alternately into said pockets, a steam chamber, ports connecting said steam chamber to the interior of the cylinder and to said annular pockets, said ports being adapted to be cut off by said sleeve, a piston operated in said sleeve, and exhaust ports through said sleeve to permit the escape of exhaust steam into the cylinder, said piston being adapted to compress steam in said pockets behind the ends of said sleeve to alternately open the ports between the steam chamber and the cylinder by throwing the sleeve in the direction opposite to the movement of the piston.

2. The combination with a steam engine cylinder, of heads closing the ends of the cylinders and having annular pockets, a sleeve mounted for sliding movement within said cylinder and adapted to have its ends project alternately into said pockets, a steam chamber, ports connecting said steam chamber to the ends of the cylinder, and to said annular pockets, said ports being adapted to be cut off by said sleeve, a piston operated in said sleeve, main exhaust ports connecting said sleeve and the cylinder, and auxiliary ports adjacent opposite ends of the sleeve to permit a secondary exhaust of the steam when the main ports are closed, said piston being adapted to compress steam in said pockets behind the ends of said sleeve when the auxiliary ports are closed to slide the sleeve in the opposite direction, whereby to open the inlet ports.

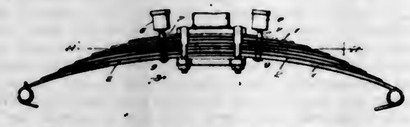
3. In a device of the class described, a cylinder, heads inclosing the ends of said cylinder and having annular pockets, a sleeve mounted for sliding movement within said cylinder and adapted to have its ends project alternately into said pockets with the opposite end out of its adjacent pocket, the said cylinder being provided with channels at its opposite ends adapted to be opened and closed alternately by said sleeve to admit or check the flow of steam to said pockets, the said channel being enlarged at the lowermost part of said cylinder, the said cylinder and sleeve being provided inwardly from their ends with exhaust ports adapted to open and close upon movements of said sleeve, a bracket secured to said sleeve, a rod secured to said bracket, and a piston in said sleeve, substantially as described.

1,209,029. MOTOR-CYCLE SUPPORT. HARRY E. RUSSE, Gypsum, Kans. Filed Oct. 13, 1915. Serial No. 55,700. (Cl. 208—84.)

A telescopic support for motorcycles and the like comprising an outer sleeve-like section and an inner sleeve-like section capable of sliding movement within the first-mentioned section, said first-mentioned section being formed with an opening adjacent to the lower end thereof, a spring actuated dog pivoted upon the first-named section and working in said opening, said inner section being formed with teeth adapted to register with the opening in the outer section to receive said dog in the outward movement of said inner section to hold the sections adjusted, cross rods carried by the outer ends of said sections, a retractile spring arranged within said sections and having the ends thereof connected to said cross rods respectively whereby the inner section may be drawn into the outer section upon the release of said inner section by said dog, and a foot plate on the lower end of said inner section.



1,209,030. LUBRICATED SPRING. JOHN W. REIFSNIDER, Chicago, Ill., assignor to Henry J. Frerks, Chicago, Ill. Filed July 12, 1916. Serial No. 108,788. (Cl. 267—33.)



1. A spring structure including main leaves alternating with auxiliary leaves, each of the latter being equipped with a projection extending beyond the adjacent main leaves and with a passage extending from said projection into the auxiliary leaf.

2. A spring structure including main leaves alternating with auxiliary leaves, each of the latter being equipped with a projection extending beyond the adjacent main leaves and with a passage extending from said projection into the auxiliary leaf, in combination with common means for supplying lubricant to the portions of said passages disposed in said projections.

3. A spring structure including main leaves and auxiliary leaves interposed therebetween, each auxiliary leaf equipped with a lateral projection extending beyond the edge of the adjacent main leaves and with a passage extending longitudinally of the auxiliary leaf and into said projection.

4. A spring structure including main leaves and auxiliary leaves interposed therebetween, each auxiliary leaf equipped with a lateral projection extending beyond the edge of the adjacent main leaves and with a passage extending longitudinally of the auxiliary leaf and into said projection, in combination with spacer elements interposed between the projections on successive auxiliary leaves and equipped with passages connecting the portions of the aforesaid passages disposed in the said projections.

5. A spring structure including main leaves and auxiliary leaves interposed therebetween, each auxiliary leaf equipped with a lateral projection extending beyond the edge of the adjacent main leaves and with a passage extending longitudinally of the auxiliary leaf and into said projection, and a supply of lubricant connected to all of the said passages through the said projections.

[Claims 6 to 14 not printed in the Gazette.]

1,209,031. GOLF-TRAINING DEVICE. HUGH M. RHIND, Chicago, Ill., assignor to Charles H. Joy, Chicago, Ill. Filed Apr. 17, 1916. Serial No. 91,514. (Cl. 35—12.)



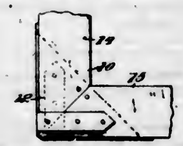
1. In a golf-training device, the combination of a head-piece adapted to engage a portion of the head of the player and an overhead support for said head-piece disposed to permit the player to make a drive while his head is in engagement with the head-piece.

2. In a golf-training device, the combination of a head-piece adapted to engage a portion of the head of the player and a vertical overhead support for said head-piece disposed to permit the player to make a drive while his head is in engagement with the head-piece.

3. In a golf-training device, the combination of a head-piece adapted to engage a portion of the head of the player, an overhead support for said head-piece disposed to permit the player to make a drive while his head is in engagement with the head-piece, and an adjustable connection which permits the head-piece to be shifted to engage either the right or left side of the player's head.

4. In a golf-training device, the combination of a head-piece adapted to engage a portion of the head of the player, an overhead support for said head-piece disposed to permit the player to make a drive while his head is in engagement with the head-piece, and an adjustable connection which permits the head-piece to be adjusted around the crown and side of the player's head.

1,209,032. CORNER-HOLDER FOR FRAMES. JOHN M. RICHENS, Jacksonville, Fla. Filed Mar. 29, 1915. Serial No. 17,748. (Cl. 20—92.)



1. A corner fastener for frames comprising a plate adapted to fit within a kerf formed in the abutting ends of adjacent frame members and provided with reversely bent attaching flanges embracing the outer edges of the frame members, said plate being formed with securing straps which extend along the sides of the frame members and across the junction of the abutting ends thereof.

2. A corner fastener for frames comprising a substantially triangular plate adapted to fit within a kerf formed in abutting ends of adjacent frame members and provided with reversely bent attaching flanges embracing the outer edges of the frame members, the right angle edges of the plate being formed with securing straps which extend along the sides of the frame members and

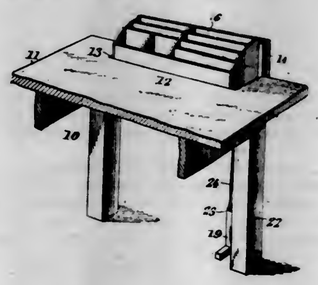
across the junction of the abutting ends thereof and the edge of the plate opposite the right angle being entirely housed within the kerf of said frame members.

3. A corner fastener for frames comprising a plate adapted to fit within a kerf formed in the abutting ends of adjacent frame members and provided with reversely bent attaching flanges embracing the outer edges of the frame members, said plate being formed with securing straps disposed at right angles to each other and extending along the sides of the frame members and across the junction of the abutting ends thereof.

4. A corner fastener for frames comprising a substantially triangular plate adapted to fit within a kerf formed in the abutting ends of adjacent frame members and having its right angle edges bent in opposite directions to form attaching flanges, there being securing straps extending laterally from the plate at the inner ends of the attaching flanges and extending along the sides of the frame members and across the junction of the abutting ends thereof.

5. As a new article of manufacture, a corner fastener for frames comprising a substantially triangular plate having two of its edges reversely bent to provide attaching flanges, there being securing straps projecting from opposite sides of the plate at the inner ends of the attaching flanges and arranged at substantially right angles to each other, each securing strap at its junction with the body of the plate being provided with a shoulder which spaces the free end of the strap from the adjacent side of the plate.

1,209,033. FILE-CABINET. CLARENCE HOVEY ROBERTSON, Shanghai, China. Filed Mar. 18, 1914. Serial No. 825,564. (Cl. 45—70.)



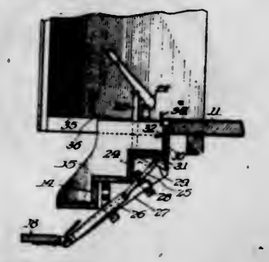
An operating mechanism for a cabinet compartment embodying a vertically slidable actuating member, a cord having connection with the cabinet and with one end of the vertically slidable actuating member, and a combined rotatable and slidable spring pressed locking member cooperating with the cabinet.

1,209,034. CAR-STEP. JOHN P. RODENSUR, Duluth, Minn. Filed Oct. 26, 1916. Serial No. 127,841. (Cl. 105—87.)

1. In a car, the combination of a vestibule having trap and vestibule doors and fixed steps, of a movable step adapted to underlie the bottom step of the fixed steps when in raised position and to extend below and outwardly thereof when in lowered position, means for operating said step, automatic means operable to prevent the closing of said vestibule door while said movable step is in lowered position, substantially as described.

2. In a car, the combination of a vestibule having trap and vestibule doors and fixed steps, of a movable step adapted to underlie the bottom step of the fixed steps when in raised position and to extend below and outwardly thereof when in lowered position, means for operating said step, and means preventing the lowering of said movable step while said trap door is in closed position, substantially as described.

3. In a car, the combination of a vestibule having trap and vestibule doors and fixed steps, of a movable step adapted to underlie the bottom step of the fixed steps when in raised position and to extend below and outwardly thereof when in lowered position, means for operating said step, automatic means operable to prevent the closing of said vestibule door while said movable step is in lowered position, and means for preventing the lowering of said movable step while said trap door is in closed position, substantially as described.

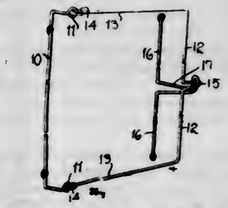


4. In a car, the combination of a vestibule having trap and vestibule doors and fixed steps, of extension steps mounted underneath said fixed steps for movement relative thereto, means for operating said extension steps, said means including a dog, which dog is arranged for cooperative action with said trap door, and a stop on said trap door adapted for coöperation with said dog, substantially as described.

5. In a car, the combination of a vestibule having trap and vestibule doors and fixed steps, of a movable step adapted to underlie the bottom step of the fixed steps when in raised position and to extend below and outwardly thereof when in lowered position, means for operating said movable step, a dog attached to said operating means and adapted to be projected into engaging position with a vestibule door when said door is opened and to be withdrawn before the door is closed as operating means are operated, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,209,035. WRAP-HOLDER FOR THEATER AND OTHER SEATS. WALTER G. ROEPE and FREDERICK J. CASSING, Concordia, Mo. Filed Feb. 14, 1916. Serial No. 78,253. (Cl. 155—26.)

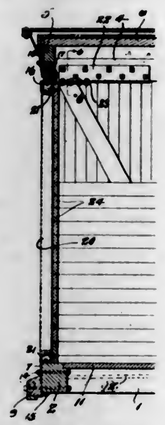


1. The combination with a seat-back, of a wrap holder comprising a rectangular frame hinged at one side to the seat-back for movement in a horizontal plane, the frame comprising an upper bar, a lower bar, and a vertical member at the free edge of the frame, the vertical member being formed with a loop and a supporting member mounted upon the seat-back and engageable with said loop when the frame has been turned into parallel relation with the seat-back.

2. The combination with a seat-back, of a vertical member attached to the seat back, a wrap supporting frame comprising a vertical member having horizontal arms, the horizontal arms being hingedly connected to the first-named vertically disposed member, the vertical member of the frame being formed with a loop, a vertical member attached to said seat back and having a hook-shaped keeper formed in its middle adapted to be engaged by said loop when the frame is turned into a parallel position to the seat-back.

3. The combination with a seat-back, of a vertically disposed member mounted thereon and having eyes at its upper and lower ends, a frame having upper and lower horizontal arms formed with eyes rotatably engaging the first-named eyes, the arms being connected by a vertical rod, the rod intermediate its ends being formed with an outwardly projecting loop, and a vertical member rigidly attached to the seat-back and having a hook-shaped keeper intermediate its ends with which said loop is adapted to engage when the holder is turned into approximately parallel relation to the seat back.

1,209,036. CAR-END-FRAMING CONSTRUCTION. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 4. 1915. Serial No. 65,029. (Cl. 105—192.)



1. An end framing for railway cars comprising the combination of end sill, end plate, side plates and corner posts, an angular sill plate applied to the end sill on its top and outer sides, a marginal metallic member applied to the lower margin of the end plate, vertical members extending between and secured to said sill plate and said marginal member, wall sheathing abutting said vertical members, members at the extremities of the sill plates engaging the corner posts, and members at the extremities of the marginal member secured to the corner posts and the side plates.

2. A car end framing construction comprising the combination with wooden end sill, end plate and side plates, of vertically disposed metallic members, transversely extending metallic members interposed respectively between the lower extremities of said vertical members and the end sill and the upper extremities of said vertical members and the end plate, attaching means securing said transversely extending members respectively to the end sill and the end plate and both of said transversely extending members to the vertically disposed members, and means disposed at the extremities of said transversely extending members for securing them to longitudinal framing members of the car.

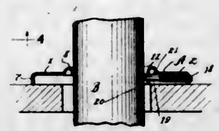
3. A car end framing construction comprising vertically disposed bar members, transversely directed metallic members connecting said vertical members at their ends, said transversely extending members being shaped to conform to the car end sill and end plate respectively, and means for securing said transversely extending members to side framing members of the car.

4. An auxiliary end framing for cars comprising transverse metallic members adapted to be fitted to the end sill and end plate, vertically disposed bar members extending intermediate said transverse members and secured thereto, and means at the extremities of said transverse members for engaging corner framing members of the car.

5. An end framing for cars comprising an end plate, a Z bar having its web applied to the lower face of the end plate and one of its flanges abutting the inner face of the end plate, an end sill, an angular sill plate having one flange overlying the end sill and another flange abutting the outer face of the end sill, bar members extending intermediate the said Z bar and sill plate and secured at their extremities thereto, end wall planking supported against said bar members, and means for securing the Z bar and the sill plate to the end plate and end sill respectively.

[Claims 6 to 15 not printed in the Gazette.]

1,209,037. FLOOR OR CEILING PLATE. MORTIMER C. ROSENFELD, Cleveland, Ohio. Filed May 2, 1914. Serial No. 835,789. (Cl. 126—317.)



1. A device of the character set forth comprising an annulus having a peripheral flange which extends at right angles from its body portion and a bead which rises from its body portion adjacent its inner edge, the peripheral flange having an opening, a perforated ear which extends from the inner edge of the bead and is in a plane substantially parallel to the plane of the aforesaid flange, and a set screw which is threaded through the opening in the flange and has its inner end guided through the perforation of the aforesaid ear.

2. A device of the character set forth comprising an annulus having a peripheral flange which extends at right angles from its body portion and a bead which rises from its body portion adjacent its inner edge, the peripheral flange having a threaded opening, a perforated ear which extends from the inner edge of the bead and is in a plane substantially parallel to the plane of the aforesaid flange and in radial alinement with the opening thereof, and a set screw which is threaded through the opening in the flange and has a smooth inner end guided through the perforation of the aforesaid ear.

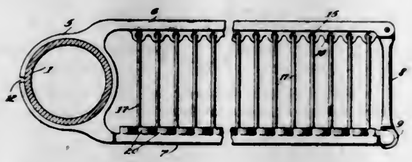
3. A device of the character set forth comprising a pair of substantially semi-annular sheet metal opposed members each of which is provided with a projection which extends from one of its ends, the projections of the two members overlapping, pivotal means connecting said projections, the ends of the members opposite their pivoted ends being provided with overlying extensions, one of said extensions having an aperture and the other a projection which is adapted to be received by said aperture, the portion of one of the members, which is overlaid by a portion of the opposite member, being depressed a depth equal to the thickness of the metal, one of the members having a flange which is provided with a threaded opening and which extends at right angles from its body portion at its outer edge, an ear which depends from the inner edge thereof, said ear having an aperture, and a screw threaded through the opening of the aforesaid flange and having its inner end guided by the aperture of said ear.

4. A device of the character set forth comprising a pair of substantially semi-annular opposed sheet metal members each of which has a projection extending from one of its ends, means pivotally connecting the projections of

the members, the ends of the members opposite their pivoted ends having overlying projections, one of which is provided with a tongue, and the other an aperture for the reception of said tongue, the extension having the aperture being inclined downwardly therefrom toward the opposed member, each member having a flange which extends from its outer edge at right angles to its body portion and a bead which rises from the body portion of the member along its inner edge, a perforated ear depending from the inner edge of the bead of one of the members, the flange of the last mentioned member having a threaded opening which is substantially in radial alinement with the ear, and a screw threaded through said opening and having a smooth portion that is guided through the perforation of the aforesaid ear.

5. A device of the character set forth comprising an annulus having an outer peripheral flange which extends at right angles from its body portion, said flange having an opening, a perforated ear which extends from the inner edge of the annulus and is in a plane substantially parallel to the plane of the aforesaid flange, and a set screw which extends through the opening in the flange and through the perforation of the aforesaid ear.

1,209,038. HOSE-RACK. MORTIMER C. ROSENFELD, Cleveland, Ohio. Filed Apr. 19, 1915. Serial No. 22,265. (Cl. 137—31.)



1. A hose rack comprising a supporting member, a pair of arms carried by the supporting member, a series of hose supporting pins each having one of its ends pivoted to one of the arms, the other arm having a series of upwardly opening pockets for the support of the free ends of said pins, and a guard for preventing the free end of each pin from entering the next adjacent pocket of the series, when the hose is removed from the rack.

2. A hose rack comprising a supporting member, a pair of arms extending therefrom, a series of hose supporting pins each having one of its ends pivoted to one of the arms, the other arm having a series of upwardly opening pockets for the reception of the free ends of the pins, each pocket having a guard extension which projects from its rear side and overhangs the next pocket to the rear thereof.

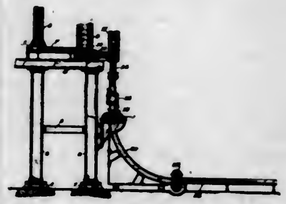
3. A hose rack comprising a supporting member, a pair of arms which extend therefrom, a series of hose supporting pins each having one of its ends pivoted to one of the arms, the other arm having an upwardly opening pocket for the reception of the free end of said pin, and a guard located adjacent said pocket for guiding the free end of the pin during its removal from the pocket.

4. A hose rack comprising a pair of opposed supporting members, a series of pins each having one of its ends pivoted to one of said members, the other of said members having a series of upwardly opening pockets for the reception of the free ends of the pins, and a guard located adjacent each pocket for guiding the free end of the pin of such pocket during its removal from the pocket.

5. A hose rack comprising a pair of opposed supporting members, a series of pins each having one of its ends pivoted to one of said members, the other of said members having a series of upwardly opening pockets, each of which is provided with an extension that rises from the rear side of the pocket and extends over the pocket next to the rear thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,209,039. APPARATUS FOR POURING STEEL AND PRODUCING INGOTS, BARS, &c. JOHN T. ROWLEY, Pittsburgh, Pa., assignor to Superior Pouring Metals Company, Johnstown, Pa., a Corporation of West Virginia. Filed Feb. 23, 1915. Serial No. 9,868. (Cl. 22—79.)



1. An apparatus for pouring metal and forming the same into ingots including a comparatively large expansion chamber, a plurality of restricted conduits leading to the expansion chamber, means for causing metal to enter the expansion chamber through the plurality of restricted conduits, and means for discharging the metal from the expansion chamber.

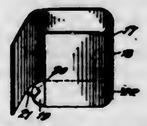
2. An apparatus for pouring metal and forming the same into ingots, including a comparatively large expansion chamber, a series of restricted conduits leading to the bottom of the expansion chamber, means for causing the molten metal to enter the expansion chamber through the restricted conduits, means for deflecting the metal upwardly as it enters the chamber, and means for discharging the metal from the expansion chamber.

3. An apparatus for pouring metal and forming the same into ingots, including a series of comparatively large open chambers, a plurality of restricted conduits connecting the said chambers so that the molten metal flows successively through the restricted conduits and chambers, and means for discharging the metal from the final chamber.

4. An apparatus for pouring metal and forming the same into ingots, including a series of expansion chambers arranged at successive elevations, a plurality of restricted conduits between the various expansion chambers, means for directing metal into the uppermost expansion chamber from which it flows by gravity through the successive series of restricted conduits and chambers to the lowermost chamber, and means for discharging the metal from the uppermost chamber.

5. An apparatus for pouring metal and forming the same into ingots, including a series of expansion chambers arranged at successive elevations, a series of restricted conduits connecting the successive chambers, means for directing molten metal into the uppermost chamber from which it flows by gravity through the various series of restricted conduits and expansion chambers into the lowermost expansion chamber, means for deflecting the molten metal upwardly as it enters each expansion chamber, and means for discharging the metal from the lowermost expansion chamber.

1,209,040. CONTAINER. HERMAN RUDNICK, New York, N. Y., assignor to F. Rudnick, Inc., a Corporation of New York. Filed Mar. 9, 1915. Serial No. 13,228. (Cl. 229—12.)

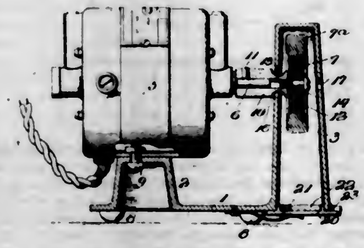


1. A blank for containers comprising an approximately elliptical bottom member having substantially parallel edges, a substantially rectangular wall member integral with one edge of said bottom member and of sufficient length to extend completely around the ends thereof when disposed transversely thereto, a second wall member integral with the other parallel edge of said bottom member and adapted when disposed transversely thereto to lie in overlapping relation to said first mentioned wall member, the opposed surfaces of the said wall members overlapping whereby a joint may be formed therebetween, and integral fingers provided on the first mentioned wall member and adapted to be folded under the ends of the bottom member to support the same when the container is in assembled position, substantially as described.

2. A blank for containers comprising an approximately elliptical bottom member having substantially parallel edges, a substantially rectangular wall member integral with one edge of said bottom member and of sufficient length to extend completely around the ends thereof when disposed transversely thereto but leaving an uninclosed space between the two adjacent edges of the wall member, and a second wall member integral with the other parallel edge of the bottom member and adapted when disposed transversely thereto to close the open space between the adjacent edges of the first mentioned wall member, thereby forming a container, substantially as described.

3. A blank for containers comprising an approximately elliptical bottom member having substantially parallel edges, a substantially rectangular wall member integral with one edge of said bottom member and of sufficient length to extend completely around the ends thereof when disposed transversely thereto but leaving an uninclosed space between the two adjacent vertical edges of the wall member, a second wall member integral with the other parallel edge of the bottom member and adapted when disposed transversely thereto to close the open space between the adjacent edges of the first mentioned wall member, the opposed edges of the first and second wall members overlapping, whereby a joint may be formed therebetween, and integral fingers provided on the first mentioned wall member and adapted to be folded under the ends of the bottom member to support the same when the container is in assembled position, substantially as described.

1,209,041. FINGER-NAIL POLISHER. JOHN W. RUGGABER, Racine, Wis. Filed Feb. 12, 1916. Serial No. 78,022. (Cl. 30—23.)



1. In combination, a base provided with a vertical hollow box open at the bottom through the base, a removable floor plate on the base for closing said open bottom of the box, a spring normally holding said plate in operative position, a motor casing carried by the base, a rotary motor shaft carried by said casing and at one end projecting into said box through a transverse opening in the side wall of the box, a rotary tool in the box and on said shaft end, said box having a front edge opening exposing a portion of the circumference of said disk and forming a finger rest.

2. In combination, a horizontally disposed base, a motor casing arranged above, fixed to and carried by the base, a horizontal rotary motor shaft carried by said casing and provided with a projecting end head, a removable rotary disk, a removable screw securing the disk to said head, a vertical hollow box rigid with and rising from said base and spaced from said casing and having a perforation in one side wall receiving said head and an alined perforation in the opposite side wall for the passage of a screw applying and removing tool to said screw, said box having an opening of dimensions to permit passage of said disk into and from the interior of the box, and a removable closure for said opening, said disk on said head occupying the upper portion of the interior of said box, the upper front corner of the box being open and forming a finger rest and guard.

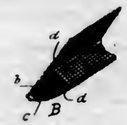
3. In combination, a base provided with a vertical hollow box open at the bottom through the base, a removable floor plate for closing said bottom opening of the box, means for maintaining said plate in normal closed position, a motor casing carried by the base, a rotary motor shaft carried by the casing and extending into said box, a rotary disk in the box and on the shaft, said box having an opening exposing a portion of the periphery of said disk.

4. In combination, a base provided with a vertical hollow box having an opening for the insertion and removal of rotary polishing tools, a removable plate normally closing said opening, a spring normally holding said plate in operative position closing said opening, a motor casing carried by the base, a rotary motor shaft carried by said casing and at one end projecting into said box through an orifice in the side wall thereof, and a rotary polishing tool in said box and removably secured on said shaft end, said box having a front edge opening exposing a portion of the periphery of said tool and forming a finger rest.

5. In combination, a horizontal base at one end provided with a permanent rigid hollow box rising from and extending across the base and having an orifice through its inner side wall and having its front upper corner open with the horizontal top edges of the front edge and opposite side walls of the box at said opening forming finger rests, a motor casing arranged above and longitudinally of said base and secured thereto and provided with a rotary motor shaft projecting into said orifice, and a rotary disk removably clamped to the end of the shaft and arranged within the upper end of said box, said box being provided with an opening of dimensions that permits passage of said disk into and from the interior of the box, substantially as described.

[Claim 6 not printed in the Gazette.]

1,209,042. TIRE. ARTHUR JOHN SAVAGE, San Diego, Cal. Filed May 21, 1915. Serial No. 29,494. (Cl. 152—13.)



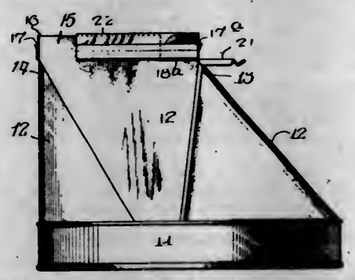
1. A tire provided with a built-up carcass, and with beads at the side edges thereof, there being separate anchorages for the beads extending therefrom and incorporated in the carcass structure.

2. A tire provided with a built-up carcass, and with beads at the side edges thereof, there being anchorages for the beads incorporated in the carcass structure; said anchorages comprising fabric strips bent about the beads and extended beyond the beads between courses of the carcass construction.

3. A tire provided with a built-up carcass, and with beads at the side edges thereof, there being anchorages for the beads incorporated in the carcass structure, each of said beads comprising an annulus consisting of a plurality of separate strands; and a fabric sheath for said strands; each of said beads being provided with a fabric strip raised above the bead and extending beyond the same and constituting said anchorage.

4. An improved tire provided with a carcass comprising a plurality of associated layers, and a bead applied to the carcass and disposed between certain of said layers; said bead being provided with an anchorage extending therefrom between certain of said layers.

1,209,043. ADJUSTABLE HOT-AIR BOOT. ALBERT G. SCHERER, Chicago, Ill., assignor to Excelsior Steel Furnace Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 5, 1916. Serial No. 125,897. (Cl. 137—75.)



1. A boot for air conduit having a collar adapted to receive a pipe of circumferential section, and a connection for conduit of rectangular section comprising rear and side walls, a separate piece having front and side walls, and a laterally extending apron, means for slidably connecting the side walls of the separate piece with the side walls for the rectangular connection, whereby the lateral apron will cover the opening produced by the inward adjustment of the separate piece.

2. A boot for air conduit having a collar adapted to receive a pipe of circumferential section, and a connection for conduit of rectangular section comprising rear and side walls, a separate piece having front and side walls, and a laterally extending apron, means for slidably connecting the side walls of the separate piece with the side walls for the rectangular connection, whereby the lateral apron will cover the opening produced by the inward adjustment of the sliding piece, and means for locking said sliding piece in adjusted position.

3. A connecting unit for conduit one end of which terminates in a collar adapted to receive a conduit of circular section, the other end of which terminates in extensions adapted to receive conduit of rectangular section, which last-mentioned end comprises stationary back and side walls, a front wall adjustably connected therewith, an apron carried by the adjustable front wall whereby the opening produced by the inward adjustment thereof will be covered by the apron.

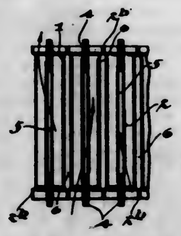
4. A connecting unit for conduit one end of which terminates in a collar adapted to receive a conduit of circular section, the other end of which terminates in extensions adapted to receive conduit of rectangular section, which last mentioned end comprises stationary back and side walls, a front wall adjustably connected therewith, an apron carried by the adjustable front wall whereby the opening produced by the inward adjustment thereof will be covered by the apron, and means for locking the adjustment of the front wall.

5. A connecting unit for conduit comprising rear and side walls, a separate piece having front and side walls, a laterally extending apron, means for slidably connecting the side walls of the separate piece with the side walls of the connecting unit whereby the lateral apron will cover the opening produced by the inward adjustment of the sliding piece.

[Claims 6 to 8 not printed in the Gazette.]

1,209,044. RADIATOR. JOSEPH T. SCHLACKS, Detroit, Mich. Filed Dec. 10, 1913. Serial No. 805,704. (Cl. 257—130.)

1. A radiator made up of a plurality of units, each unit comprising a continuous plaited metal sheet bent to form the sides, top and bottom walls of the unit and having its plaits assembled to form water conduits and intervening air spaces, and with the plaits of one unit arranged opposite the plaits of the other unit, and flat sheet metal combined parting and reinforcing strips secured at the front and rear walls of the units between the opposed plaits, and spacing the intermediate portions of the plaits of adjacent units.



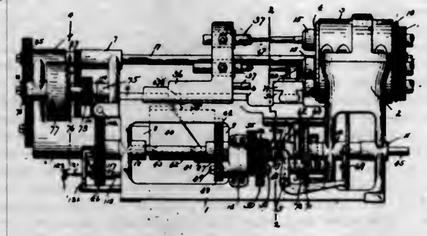
2. A radiator made up of a plurality of units, each unit comprising a continuous plaited metal sheet bent to form the sides, top and bottom walls of the unit and having its plaits assembled to form water conduits and intervening air spaces, and with the plaits of one unit arranged opposite the plaits of the other unit, and flat sheet metal combined parting and reinforcing strips secured at the front and rear walls of the units between the opposed plaits, and spacing the intermediate portions of the plaits of adjacent units, the said parting and reinforcing strips projecting beyond the exposed front edges of the radiator units to receive impacts and protect said units from distortion.

1,209,045. HEATER FOR POULTRY-WATERING DEVICES. PHILIP SCHUH, JR., Keensburg, Ill. Filed Feb. 11, 1916. Serial No. 77,768. (Cl. 126—358.)

In a poultry fountain, a base member having an opening formed in the top thereof, a housing in said base adapted to receive a heat deflector, a container having an opening in the center thereof and registering with first said opening, said container having an upstanding tapering conduit located centrally thereof, a concavo-convex deflector member, a tubular member mounted upon said deflector and connected with the upper end of said conduit, the deflector being greater in diameter than the container providing the dual function of a protector and deflector, the tubular member having openings therein at the junction of the deflector and said tubular member providing means for the escapement of the products of combustions into contact with the heat deflector for the purposes specified.

1,209,046. METAL-WORKING MACHINE. LEON F. SCHULER and ROBERT SCHULER, Cleveland, Ohio. Filed Feb. 17, 1910. Serial No. 544,514. (Cl. 29—37.)

1. In a metal working machine, stock holding and rotating mechanism, a single driving element, two sets of tools, a common feeding element for both sets of tools, reciprocating mechanism between one set of tools and said feeding element, driving mechanism between the driving element and the common feeding element, means whereby variable speed devices may be substituted in said driving mechanism, driving mechanism between the common feeding element and the second set of tools, and means whereby variable speed devices may be substituted in this driving mechanism to the second set of tools.



2. In a metal working machine, stock holding and rotating mechanism, a single driving element, a longitudinally movable tool, transversely movable tool, a common feed shaft for both tools, driving connections between the common feeding element and the longitudinally movable tools, driving mechanism between the driving element and the common feed shaft, means whereby variable speed devices may be substituted in such mechanism, a complete reciprocating mechanism for the transverse tools and operated by the feed shaft, and means whereby speed devices may be substituted between the reciprocating mechanism and the common feeding shaft.

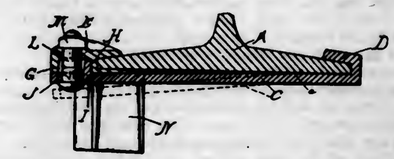
3. In a metal working machine, in combination, a stock spindle, a spindle driving shaft, longitudinally movable tools, transversely movable tools, a feed shaft therefor, a driving element, gearing between said driving element and the spindle driving shaft, means whereby the speed of the feed shaft may be varied through such gearing, a fast speed train of gearing between the driving element and the tool feed shaft whereby the latter is driven at constant speed during the idle motion of the tools, a slow speed train of gearing between the driving element and the tool feed shaft for the working operation, means whereby gears of varying ratios may be substituted in the slow speed train of gearing, suitable feed connections between the tool feed shaft and the longitudinally movable tools, suitable gearing between the tool feed shaft and the transversely movable tools, means whereby gears of varying ratios may be substituted in this train of gearing between the tool feed shaft and the transversely movable tools, and means for coupling and uncoupling the driving element with the fast and slow speed train of gears for operating the tool feed shaft.

4. In a metal working machine, in combination, a stock spindle, means for driving the same, a driving element, a longitudinally movable tool, a transversely movable tool, a feed shaft for both tools, a fast and slow speed train of gearing between the driving element and the tool feed shaft, means for automatically coupling and uncoupling the same at the proper time, suitable gearing between the tool feed shaft and the transversely movable tool, and means whereby gears of varying ratios may be substituted in this train of gearing.

5. In a metal working machine, in combination, a plurality of stock spindles, a single driving element, gearing between the driving element and the stock spindles whereby they are driven, a longitudinally movable tool, a transversely movable tool, a feed shaft for both tools, fast and slow speed trains of gears between the driving element and the tool feed shaft, means between the tool feed shaft and the longitudinally movable tool for causing the operation of the same, a train of gearing between the tool feed shaft and the transversely movable tool, means for throwing the same into and out of operation automatically, and means whereby gears of varying ratios may be supplied in this train of transversely movable tool gearing to vary the feed of the transversely movable tool relative to the feed of the longitudinally movable tool.

[Claims 6 to 18 not printed in the Gazette.]

1,209,047. RAIL-ANCHOR. JOHN M. SCOTT, Racine, Wis., assignor to Otto R. Barnett, Chicago, Ill. Original application filed Feb. 4, 1915, Serial No. 6,112. Divided and this application filed Apr. 9, 1915. Serial No. 20,283. (Cl. 238—4.)



1. In a rail anchor, the combination of a resilient member adapted to extend under the base flange of a rail and provided with means for engaging one edge of the base flange, a member adapted to engage the opposite edge of said base flange, and a bolt for securing the resilient member to the other member so as to clamp the rail between said members and subject the resilient member to a bending strain.

2. In a rail anchor, the combination of a resilient member adapted to extend under the base flange of a rail and provided with an integral jaw for engaging one edge of the base flange, a member adapted to engage the opposite edge of said base flange, and a bolt for securing the resilient member to the other member so as to clamp the rail between said members and subject the resilient member to a bending strain.

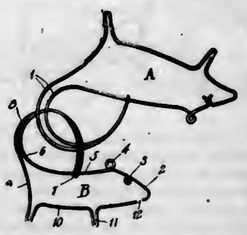
3. In a rail anchor, the combination of a member adapted to engage the edge of a rail, a resilient bar provided with means for engaging the other edge of said base flange and adapted to extend under the same with a downward inclination in the direction toward the other member, and a bolt for securing the end of the bar to the first named member so as to subject said bar to a bending strain.

4. A rail anchor comprising two rail engaging members one of which is resilient, and a bolt for securing said members together in clamping relation on the rail.

5. A rail anchor comprising two rail engaging members one of which is resilient, and a bolt for securing said members together in clamping relation on the rail, one of said members being formed with a tie abutting flange.

[Claims 6 to 11 not printed in the Gazette.]

1,209,048. PUZZLE. NORMAN C. SHATZER, Zullinger, Pa. Filed Apr. 6, 1916. Serial No. 89,428. (Cl. 46—41.)



1. A puzzle of the class described including members having loops designed to be initially interlocked, one member being of skeleton formation and its loop comprising sides connected at one end of the loop by a bight receiving one side of the open body portion of the member, the said

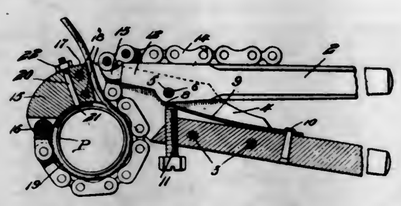
side of the body portion constituting a continuation of one side of the said loop, and another side of the said body portion constituting a continuation of the other side of the loop, the body portion being provided with a gap.

2. A puzzle of the class described including members having loops designed to be initially interlocked, one member being of skeleton formation and its loop comprising sides connected at one end of the loop by a bight receiving one side of the open body portion of the member, the said side of the body portion constituting a continuation of one side of the said loop, and another side of the said body portion constituting a continuation of the other side of the loop, the body portion being provided with a gap, the loop of the other member being of a diameter to permit of the passage of either side of the same through the said gap while the loops are mutually engaged.

3. A puzzle of the class described including members having loops designed to be initially interlocked, one member being of skeleton formation and its loop comprising sides connected at one end of the loop by a bight receiving one side of the open body portion of the member, the said side of the body portion constituting a continuation of one side of the said loop, and another side of the said body portion constituting a continuation of the other side of the loop, the body portion being provided with a gap, the loop of the said member being located at one end of the said member and the gap near the other end thereof and the loop of the other member being so proportioned as to permit of passage of the loop over the last mentioned end of the first mentioned member and through the said gap while the loops are mutually engaged.

4. A puzzle of the class described including members having loops designed to be initially interlocked, one member being of skeleton formation and its loop comprising sides connected at one end of the loop by a bight receiving one side of the open body portion of the member, the said side of the body portion constituting a continuation of one side of the said loop, and another side of the said body portion constituting a continuation of the other side of the loop, the body portion being provided with a gap, the loop of the said member being located at one end of the said member and the gap near the other end thereof and the loop of the other member being so proportioned as to permit of passage of the loop over the last mentioned end of the first mentioned member and through the said gap while the loops are mutually engaged, and being further so proportioned as to permit of its passage over the loop formed by one side of the loop of the first mentioned member.

1,209,049. PIPE-WRENCH. WILLIAM P. SHEETS, Princeton, Mo. Filed Sept. 14, 1916. Serial No. 120,143. (Cl. 81—68.)



1. A pipe wrench embodying a pair of levers, an adjustable fulcrum for one lever carried by the other, and a chain connected to the second mentioned lever and engageable with the first mentioned lever.

2. A pipe wrench embodying a pair of levers, a leaf spring secured to one lever, an adjusting screw carried by said lever for adjusting said spring, said spring forming a fulcrum for the other lever, and a chain connected to the first mentioned lever and engageable with the second mentioned lever.

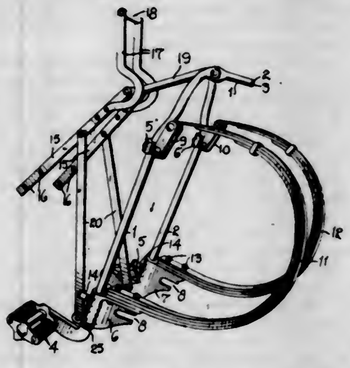
3. A pipe wrench embodying a pair of levers, a pair of side plates carried by one lever, the other lever being disposed between said side plates and having a sliding connection therewith, an adjustable fulcrum member for the second mentioned lever carried by the first mentioned lever, and a chain connected to said plates and extending therebetween for the engagement of the second mentioned lever.

4. A pipe wrench embodying a pair of levers, a pair of side plates carried by one lever and having slots, the other lever projecting between said plates and having a member working in said slots, a leaf spring secured to the first mentioned lever and projecting between said plates, an adjusting screw carried by the first mentioned lever for moving the spring away from said lever, the second mentioned lever having a rounded bearing seating against the leaf spring to fulcrum the second mentioned lever, and a chain connected to said plates and extending therebetween for the engagement of the second mentioned lever.

5. A pipe wrench embodying a pair of levers, a pair of plates carried by one lever and projecting beyond the outer end thereof, an anchor member carried by the outer ends of said plates, the other lever being fulcrumed between said plates, an elongated gripping cushion attached to said member and extending between said plates to surround a pipe, and a chain connected to said member to extend around the cushion between said plates to engage the second mentioned lever.

[Claim 6 not printed in the Gazette.]

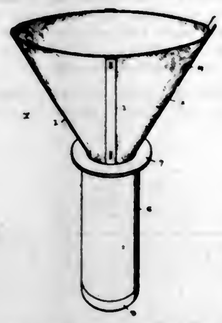
1,209,050. TANDEM ATTACHMENT FOR MOTOR-CYCLES. CLARK SHELTON, Huntington Beach, Cal. Filed July 15, 1915. Serial No. 40,084. (Cl. 208—24.)



A tandem seat attachment for motor cycles, comprising a bracket for attaching same to the frame of a motor cycle, saddle post members pivotally attached to said bracket at their upper ends, pivoted links attached to said saddle post members adjacent to their upper ends, brackets carried on the rear axle of the motor cycle having sleeves thereon for slidably holding the saddle post members adjacent to their lower ends, coil springs carried on said saddle post members beneath the brackets for cushioning same, and bowed leaf springs connecting said pivoted links and lower brackets, substantially as described.

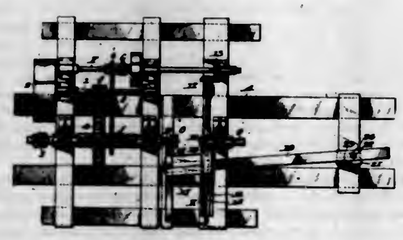
1,209,051. COLLAPSIBLE FUNNEL. FRANCESCA C. SHOTWELL, Monroe, La. Filed Sept. 27, 1915. Serial No. 52,854. (Cl. 226—33.)

A portable collapsible funnel comprising a tubular container having a laterally projecting flange at its upper part adapted to rest on the upper side of an opening through which the funnel is directed, a removably disposed strainer in said container, an outwardly flaring telescoping part of flexible material forming the uper part of the funnel and spring arms adapted to hold said part in expanded position when the funnel is open, one of said arms being provided with an extension whereby said



flexible part may be easily withdrawn from said container.

1,209,052. VENEER-CUTTING MACHINE. JAMES ALFRED SINCLAIR, Metairie Ridge, La. Filed Sept. 18, 1914. Serial No. 862,363. (Cl. 144—211.)



1. A veneer cutting machine comprising a knife, means for supporting and moving the bolt past the knife, means for mounting the knife to feed toward the work transversely to the travel of the work and to give it gradually varying inclination to the work consisting of a radius bar, a pivot therefor, and means for maintaining such pivot in a fixed plane longitudinally of the work at right angles to the plane of swing of the radius bar, the distance of such pivot from the cutting length of the knife being such as to allow the complete feeding into the work desired for the knife without varying the angle of the knife more than is desired.

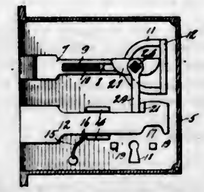
2. A veneer cutting machine, comprising a knife, a means for supporting and moving the work past the knife, a pivot at one end of the knife beyond one end of the work movable in a straight line toward the work to feed the knife into the work, and a radius bar or extension from the knife on the other side of the pivot from the work, and pivotal means engaging the bar or extension to cause the same to swing on the pivot of the knife to varying degrees of inclination to the work upon the movement of the pivot of the knife toward the work.

3. In a veneer cutting machine, the combination with means for supporting and moving a log or bolt, of a knife, means for feeding the knife toward the bolt, a radius bar connected to the knife and mounted to swing in a plane at right angles to the movement of the bolt, a slotted block, means connecting the bar to the block and having sliding movement in the slot upon the movement of the bar for regulating the angular movement of the knife.

4. A veneer cutting machine comprising a knife, means for supporting and moving the bolt past the knife, means for mounting the knife to feed toward the work transversely to the travel of the work and to give it gradually varying inclination to the work consisting of a radius bar, a pivot therefor, and means for adjusting the position of said radius bar pivot for changing the angle of the knife.

5. In a veneer cutting machine, the combination with means for supporting and moving a log or bolt, of a knife, means for feeding the knife toward the bolt, and set at an angle from a true perpendicular to the center line of the log or bolt to cause a given point of the knife to travel at right angles to the center line of the bolt, a radius bar connected to the knife and mounted to swing in a plane at right angles to the movement of the bolt, and means connected to the radius bar to allow the knife to feed into the work without varying the angle of the knife more than is desired.

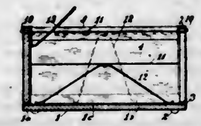
1,209,053. DOOR-LOCK. JOHN C. SINN, McKeesport, Pa. Filed Mar. 28, 1916. Serial No. 87,304. (Cl. 70—29.)



1. In a lock of the class described, a latch, a pair of latch actuating stems, one of said stems being provided in its end with a recess, a projection on the other of said stems for engagement in said recess, a flange on said latch, lugs carried by each of said stems for engagement with said flange, a lock bolt, a shoulder on said lock bolt, and an arm on one of said lugs adapted to engage said shoulder, substantially as described.

2. In a lock of the class described, a casing, latch stems projecting from said casing and being mounted for rotation independently of each other, a latch mounted for sliding movement in said casing, one of said latch members being enlarged and apertured for inclosing said stems, a flange projecting laterally from said widened portion, latch actuating lugs on said stems adapted to engage said flange, a lock bolt mounted for sliding movement in said casing, a shoulder on said bolt, an arm on one of said lugs adapted to engage said shoulder, means for locking said bolt, means for yieldably holding said latch projected, and means for yieldably suporting said lock bolt in extended or retracted position, substantially as described.

1,209,054. DISPENSER FOR PAPER NAPKINS. MAX A. SKALL, New York, N. Y. Filed Nov. 1, 1915. Serial No. 58,980. (Cl. 211—29.)



1. In a dispensing apparatus for folded paper articles a casing consisting of a base plate, vertical side plates and a removable cover plate formed by two separate parallel bars, joined at their ends by transverse braces to leave a central opening between the inward edges of said bars for the extraction of articles from said casing, and means attached to said braces to fasten said cover plate to the side plates of the casing against uplift.

2. In a dispensing apparatus for folded paper articles a casing consisting of a base plate and vertical side plates, a top plate, removably fastened to said side plates and consisting of two parallel bars held a distance apart by gage pieces inserted transversely between said bars near

their end, said gage pieces being adapted to prevent longitudinal motion of said cover plate.

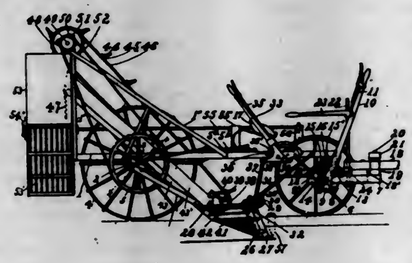
3. In a dispensing apparatus for folded paper articles a base plate and vertical side plates forming a casing open at its upper plane, a cover plate for said casing consisting of two parallel bars joined by transverse braces at their ends, to leave a longitudinal opening between their inner parallel edges and means attached to said braces to prevent motion of said cover plate longitudinally, transversely or vertically.

4. In a dispensing apparatus for napkins and similar articles a casing, consisting of a rectangular bottom section and framed transparent plates forming the sides of the casing, a top plate removably fastened to said side plates, said top plate consisting of two separate parallel bars, held a distance apart from each other by transverse braces connected to the end sections of said bars, said braces being joined longitudinally by rods forming means to secure the top plate against transverse motion.

5. In a dispensing apparatus for folded paper articles, a casing consisting of transparent side plates, each side plate being surrounded by a frame of U shaped channels, a top plate removably held on said side plates, and consisting of two bars of transparent material joined at their ends by a transverse bar and leaving a central open space between these bars for the extraction of the paper articles from said casing.

[Claim 6 not printed in the Gazette.]

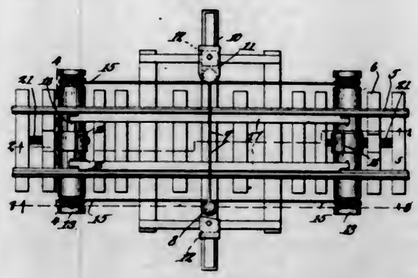
1,209,055. BEET-HARVESTER. THOMAS SLAWSON, near Rea, Mo. Filed July 31, 1914. Serial No. 854,349. (Cl. 55—9.)



1. The combination with a frame transportably supported on a rear axle and a front axle and transporting wheels therefor; of an elevator adapted to elevate beets said elevator being oscillatably mounted on said rear axle; a mold-board of a plow adapted to dig beets from a field; a land bar having its front end secured to the under surface of said mold-board and its rear end portion secured to the under surface of said elevator said rear end portion of said landbar being oscillatably mounted on said rear axle between the oscillatable mountings of said elevator there being a space between said elevator and said mold-board; a plurality of riddle rods having their front ends secured to said mold-board and their rear ends secured on the front edge of said elevator; a plow share secured on the front edge of said mold-board; and oscillating means connected with said mold-board whereby the same and the therewith connected elevator are oscillated.

2. In a beet harvester the combination with an oscillatably mounted beet elevator, of a beet plow; side beams whereby said plow and elevator are securely connected; a plow shaft oscillatably mounted on the front ends of said beams; a frame for said harvester; draft rods having their upper ends pivotally connected with said frame and their lower end portions slidably passed through the end portions of said plow shaft; a rock-shaft oscillatably mounted on said frame; cranks secured on said rock-shaft; connecting rods whereby the ends of said cranks are rod connected with the ends of said plow shaft; oscillating means whereby said rock-shaft is oscillated; detachable holding means whereby said oscillating means are held in variously adjusted positions; and adjusting means on the lower ends of said draft rods whereby the strain on said rods is adjusted.

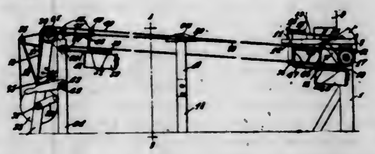
1,209,056. RAILWAY-GATE. JAMES J. SMALL, Fairfax, Mo. Filed Oct. 5, 1915. Serial No. 54,184. (Cl. 269—7.)



1. The combination of a railway gate pivoted to swing across the track, a vertical pivot carrying the gate, transverse rotary elements positioned beneath the track on opposite sides of the gate, a connection between said elements and the gates for swinging the latter, tappets on the rotary elements and projecting above the track when the gate is closed, longitudinal bars connecting the rotary elements and extending along the inner sides of the track rails in proximity thereto to be engaged by the wheel flanges, and closing means for the gate.

2. The combination of a railway gate pivoted to swing across the track, a vertical pivot carrying the gate, transverse rollers mounted beneath the track on opposite sides of the gate, a cable wound on said rollers and wound intermediate its ends around the gate pivot, tappets on the rollers, and projecting above the track when the gate is closed, longitudinal bars connecting the rollers and extending along the inner sides of the track rails in proximity thereto to be engaged by the wheel flanges, and closing means for the gate.

1,209,057. MAIL-CARRIER. HENRY THEODUS SMITH, Kent, Ill. Filed Nov. 3, 1915. Serial No. 59,432. (Cl. 116—31.)



1. In a device of the class described, spaced supports; an endless flexible element mounted to move with respect to the supports; a carrier actuated by the flexible element; a signal on one support and lying in the path of the carrier as the carrier is advanced; an actuating member manually movable into the path of the carrier as the carrier is retracted; and a signal operated by the actuating member.

2. In a device of the class described, spaced supports; an endless flexible element mounted to move with respect to the supports; a carrier actuated by the flexible element; a signal on one support and lying in the path of the carrier as the carrier is advanced; an actuating member manually movable into the path of the carrier as the carrier is retracted; a second signal pivoted to said support; and an operative connection between the actuating member and the second signal.

1,209,058. COAL-DRILL. PETER J. SMITH, Kingston, Pa. Filed Jan. 26, 1916. Serial No. 74,459. (Cl. 255—72.)



1. In a tubular drill, the combination with a shaft whose body is made up of ribs, a ring at the front end of and smaller than the body, and blocks connecting the ring with the body and of equal thickness with said ribs whereby the edges of the blocks in the direction of rotation constitute shoulders merging into the edges of the ribs; of a bit comprising an annular body, and a plurality of cutting points radially wider than the thickness of said annular body to produce shoulders, certain of which coact with and deliver clearance to the shoulders of said blocks, for the purpose set forth.

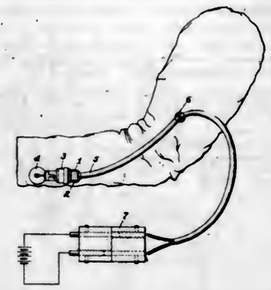
2. In a tubular drill, the combination with a shaft whose body is made up of a plurality of spiral ribs having wide rear edges, a ring at the front end of the body narrower than said edges, and blocks integrally connecting the ring with the front ends of said ribs and of equal thickness with said ribs whereby the forward edges of the blocks in the direction of rotation constitute shoulders merging into the rear edges of the ribs; of a bit comprising an annular body, means for detachably connecting it with said ring, and a plurality of cutting points radially wider than the thickness of said annular body to produce shoulders, certain of which coact with and deliver clearance to the shoulders of said blocks, for the purpose set forth.

3. In a core drill, the combination with a tubular body made up of spiral ribs having thick rear edges of steep pitch, and a ring cast integral with the front ends of said ribs and thinner than their thicker edges; of a bit comprising an annular body detachably connected with the front edge of said ring, and a series of cutting points wider than the thickness of said annular body, disposed obliquely to the axis of the drill and having their tips beveled from the rear, for the purpose set forth.

1,209,059. SIGNAL DEVICE FOR AUTOMOBILE-DRIVERS. THOMAS MARSHALL SMITH, Baltimore, Md. Filed Feb. 1, 1916. Serial No. 75,520. (Cl. 240—59.)

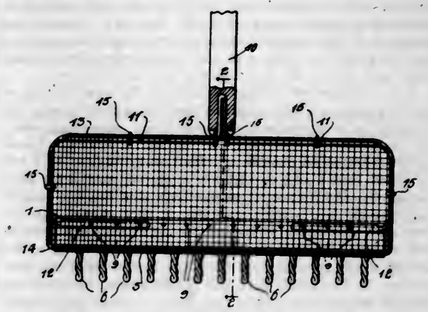
1. In combination with an electric lamp, a member to be attached to the person of the automobile driver and a fastening member detachably engaging the member first mentioned and carrying said lamp, and circuit connections to maintain said lamp lighted for all positions of the hand and arm, and leaving the operator free use of his hands and arms, said circuit connections extending to a source of current supply on the automobile.

2. In combination with an electric lamp, means to detachably mount the same on the arm of the driver of the



automobile, a guide also detachably mounted on the arm of the driver, and circuit wires leading through said detachable guide to the lamp, substantially as described.

1,209,060. LAWN-RAKE. WILBUR A. SNYDER, Montoursville, Pa. Filed Apr. 27, 1916. Serial No. 94,017. (Cl. 55—10.)



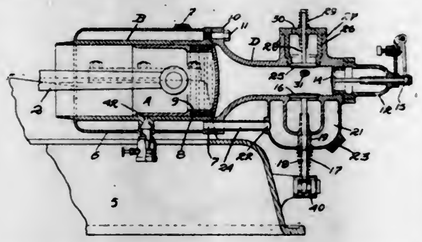
1. A device of the class described comprising a sheet metal strip folded longitudinally upon itself to provide a channeled head, the lower edge of the forward portion of said head being rolled upwardly and inwardly, a handle having means for connection to said head, a screen secured to said handle and having its forward lower side disposed in the rolled portion of said strip, and a plurality of teeth secured to said head.

2. A device of the class described comprising a sheet metal strip folded longitudinally upon itself to provide a channeled head, the lower edge of the forward portion of said head being rolled upwardly and inwardly, a handle, a pair of arms secured at one end to said handle and having their other ends fixed to the ends of said head, a screen having its forward lower side disposed in the rolled portion of said strip, the other sides of said screen conforming in shape with said arms and provided with means for securing the same thereto, and a plurality of teeth secured in said head.

1,209,061. COMBUSTION-ENGINE. WILLIAM A. SORG, Minneapolis, Minn., assignor, by mesne assignments, to Frederick G. Bradbury, trustee, St. Paul, Minn. Filed Mar. 2, 1914. Serial No. 821,909. (Cl. 123—75.)

1. A combustion engine, comprising, in combination, an inside piston and an outside cylinder in reciprocable connection, a long tube detachably mounted on one end of said cylinder forming a long combustion chamber of less diameter than the diameter of said piston, the free end of said tube being valved to admit of the forming of a

stratum of fuel in said tube and a stratum of air in the chamber formed by said tube, cylinder and piston and to exhaust spent gases and means for igniting the charge of fuel in said tube.



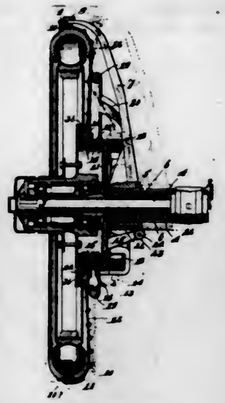
2. A combustion engine, comprising, in combination, a reciprocable inside piston and an outside cylinder in which said piston is slidably mounted, said cylinder having a jacket forming a chamber through which a cooling medium is adapted to be circulated, a long tube forming a combustion chamber detachably mounted on an end of said cylinder having a bore of less diameter than the diameter of said piston and adapted to be heated to assist in vaporizing fuel mixture therein, means on the free end of said tube for admitting fuel into said tube, means for exhausting spent gases from the free end of said tube, means for admitting air into the free end of said tube, said fuel and air being arranged in separate strata in said tube, and means for igniting the fuel in the tube.

3. A combustion engine, comprising, in combination, an inside piston, a stationary element comprising a long tube adapted to be heated and to form a hot combustion chamber to assist in vaporizing the fuel and a bearing element in the form of an outside cylinder on an end of said tube in which said piston is slidably mounted, means for lubricating the adjacent surfaces between said bearing element and piston, means for admitting a fuel charge into the free end of said tube, means for admitting air into the free end of said tube in advance of the admission of fuel and in a separate stratum from the fuel to chill the inner surface of the tube, wash out incandescent particles and prevent pre-ignition of the fuel charge, means for exhausting spent gases from the tube and means for igniting the fuel in the tube whereby the fuel is retained in a long column and consumed and a prolonged force is exerted against the piston during its working stroke.

4. A combustion engine, comprising, in combination, a piston and cylinder in reciprocable connection, said cylinder consisting of a cylindrical portion in which said piston is adapted to be reciprocated and chambered to circulate a cooling medium therethrough and a long tube extending from one end of said cylinder having a bore of materially less diameter than the diameter of said piston and adapted to be heated to a high temperature by the consumption of fuel therein to assist in directly vaporizing fuel oil therein, said tube having in its outer end valved ports, through which air and fuel oil are formed in separate strata in said tube and spent gases are exhausted, said air being adapted to chill the inner surface of the tube, wash out incandescent particles and prevent pre-ignition, and means for igniting the stratum of the fuel in said tube.

1,209,062. ANTISKIDDING DEVICE FOR VEHICLES. JOHN A. SPEYER, Chicago, Ill. Filed May 29, 1915. Serial No. 31,291. (Cl. 152—14.)

1. In mechanism of the class described, the combination with a vehicle having a wheel, of a movably mounted annular anti-skid element adapted to encircle said wheel for cooperation therewith; means for moving said element into and out of operative relation with the wheel during travel of the vehicle, said means comprising transversely movable supporting mechanism engaging with said element at the upper side of the wheel and in which said element is rotatably mounted; and means for actuating said supporting mechanism, substantially as described.



2. In mechanism of the class described, the combination with a vehicle having a wheel, of a movably mounted annular anti-skid element adapted to encircle said wheel for coöperation therewith; means for moving said element into and out of operative relation with the wheel during travel of the vehicle, said means comprising a transversely movable supporting frame mounted on the vehicle and having an outer portion formed to pass over the upper side of the wheel in close proximity thereto, said portion engaging with said anti-skid element; and means for moving said frame, substantially as described.

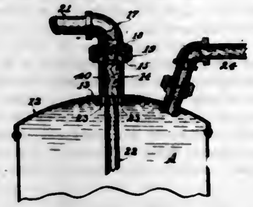
3. In mechanism of the class described, the combination with a vehicle having a wheel, of a movably mounted annular anti-skid element adapted to encircle said wheel for coöperation therewith; means for moving said element into and out of operative relation with the wheel during travel of the vehicle, said means comprising a transversely movable supporting frame mounted on the vehicle and having an outer portion formed to pass over the upper side of the wheel in close proximity thereto; a channel formed in said supporting frame in which said anti-skid element is rotatably mounted; and means for moving said frame, subtsantially as described.

4. In mechanism of the class described, the combination with a vehicle having a wheel, of a movably mounted annular anti-skid element adapted to encircle said wheel for coöperation therewith; means for moving said element into and out of operative relation with the wheel during travel of the vehicle, said means comprising a transversely movable supporting frame mounted on the vehicle and having an outer portion formed to pass over the upper side of the wheel in close proximity thereto; a channel formed in said supporting frame in which said anti-skid element is rotatably mounted; a manually operable lever; and an operative connection between said lever and said frame whereby the latter may be moved through actuation of said lever substantially as described.

5. In mechanism of the class described, the combination with a vehicle having a wheel, of a movably mounted anti-skid element adapted for coöperation with the wheel, said element comprising a transversely movable annular member adapted to encircle the wheel; and a plurality of spaced radially disposed flexible members connected at their outer ends with said annular member and adapted to be moved into and out of engagement with the tread portion of the wheel through actuation of said annular member, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,209,063. CIRCULATING BOILER-COUPLING. JOHN R. STENECK, Oak Park, Ill., assignor to Illinois Malleable Iron Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 27, 1915. Serial No. 58,188. (Cl. 126—362.)



1. In a hot water system, a stand boiler, a circulating coupling connected to said stand boiler, said circulating coupling comprising a male-piece, a tail-piece, and a coupling nut, constructed to separably connect said male, and said tail, pieces, said tail-piece having its lower end reduced in diameter and its lower terminal internally screw-threaded, there being in the terminal portion of said tail-piece internal screw-threads and a series of grooves cut through these threads, and an inlet pipe engaging with one end said internal screw-thread.

2. A circulating boiler coupling, comprising, in combination, a male-member, a tail-piece, a coupling nut on said tail piece constructed to connect the tail and male-pieces, said tail-piece having at its lower terminal an internally screw-threaded bore, there being in said bore a series of grooves or indentations, and a discharge pipe constructed to engage the internally screw-threaded portion of the tail-piece, whereby said grooves afford passages past the terminal of said discharge-pipe into the bore of the tail-piece, said grooves being formed in the said tail piece by removing portions of the internal screw threads and parts of the interior wall of said tail piece, there being an enlargement in the bore of said tail piece in which said grooves terminate.

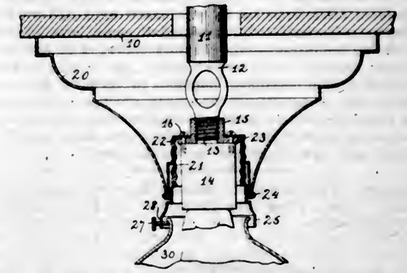
3. In an instalment of the nature described, a hot water tank, said tank comprising a shell, said shell having a bottom and a head; a cold water supply pipe; a circulating union coupling, said coupling comprising a male piece, a nut, and a tail piece, said tail piece being constructed to engage the head of said tank, there being in the bore of the lower end of said tail piece a female thread, and in said tail piece an enlarged chamber, portions of said female thread being removed to afford a series of passages between the interior of the tank and the interior of said chamber; a pipe constructed to engage said interior screw thread; a heating device connected to said tank; a hot water system; a discharge element connected to the head of said tank, and a cold water system, likewise connected to said tank.

1,209,064. LIGHTING-FIXTURE. MERTON P. STEVENS, East Orange, N. J., assignor to Edward J. Schroeder and Charles A. Schroeder, doing business under the name and style of The Edward Schroeder Lamp Works, Jersey City, N. J. Filed Apr. 22, 1915. Serial No. 23,032. (Cl. 240—78.)

1. A lighting fixture comprising a support adapted to carry a socket, or other source of illumination, said support including a hub having a flanged portion, a threaded shell carried by said flanged portion, a canopy, a canopy holder adjustably engaging the threads on said shell to hold the canopy against a wall or ceiling, a shade and an independent holder therefor adjustably engaging the shell.

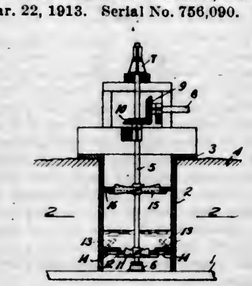
2. A lighting fixture comprising a support adapted to carry a socket, or other source of illumination, a shell threaded throughout its length carried by the support, a canopy, a canopy holder adjustably engaging one part of the shell, and an independent shade holder adjustably engaging another part of the shell.

3. A lighting fixture comprising a support adapted to carry a socket or other source of illumination, a threaded shell carried by the support, a canopy, a canopy holder threaded at one end thereof said threaded portion engageable with the threads on one end of the shell, the other end of said holder being enlarged and spaced from the shell and a threaded shade holder arranged between the canopy holder and the shell and adjustably engaging the other end of the shell.



4. A lighting fixture comprising a support adapted to carry a socket or other source of illumination, a threaded shell adjustably carried by the socket, a canopy, a canopy holder threaded at one end thereof, said threaded portion engageable with the threads on one end of the shell, the other end of said shell being enlarged and spaced from the shell and a threaded shade holder arranged between the canopy holder and the shell and adjustably engaging the other end of the shell.

1,209,065. PUMP. ROY N. STEWART, Dorchester, Mass. Filed Mar. 22, 1913. Serial No. 756,090. (Cl. 103—43.)



1. In a variable level pump, a casing having a chamber, a shaft in said casing, a main impeller on said shaft in effective working relation to said chamber, auxiliary means to initially fill said chamber including an element rotatably but not longitudinally movable upon said shaft, and a valve associated with said auxiliary means and automatically becoming effective to permit said auxiliary means to create a new fluid level in said chamber whenever the effective working area therein is insufficient for the needs of the main impeller.

2. In a variable level pump, a casing having a chamber, a shaft in said casing, a main impeller on said shaft in effective working relation to said chamber, an auxiliary impeller rotatably but not longitudinally movable upon said shaft and adapted to initially fill said chamber, and means associated with said auxiliary impeller and automatically becoming effective to permit said impeller to create a new fluid level in said chamber whenever the effective working area therein is insufficient for the needs of the main impeller.

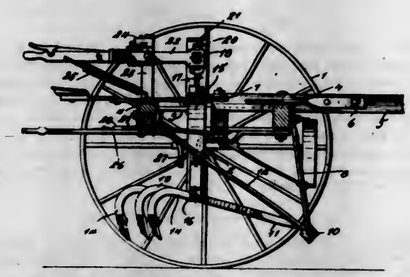
3. In a pump of the class described, a shaft, a main impeller thereon, a casing in which said shaft is mounted, said casing having a chamber in effective working relation to said impeller, an auxiliary impeller on said shaft, and gate valves coöperating with said auxiliary impeller to initially fill said chamber.

4. In a variable level pump of the class described, a casing having a liquid chamber, a shaft in said casing, a pair of spaced impellers on said shaft, and means coöperating with one of said impellers to initially fill said chamber and automatically becoming effective to create a new fluid level when the effective working area in the chamber is insufficient for the needs of the main impeller.

5. In a variable level pump, a casing, a shaft rotatable therein, a main impeller on said shaft, an auxiliary impeller on said shaft defining with said main impeller and the casing an intermediate chamber arranged in effective working relation to the main impeller, and means coöperating with said auxiliary impeller to initially fill said chamber and automatically becoming effective to create a new fluid level whenever the effective working area in said chamber is insufficient for the needs of the main impeller.

[Claims 6 to 8 not printed in the Gazette.]

1,209,066. CORN-PLOW. GEORGE W. STOCKHAM, Mankota, Kans. Filed May 13, 1915. Serial No. 27,900. (Cl. 97—35.)



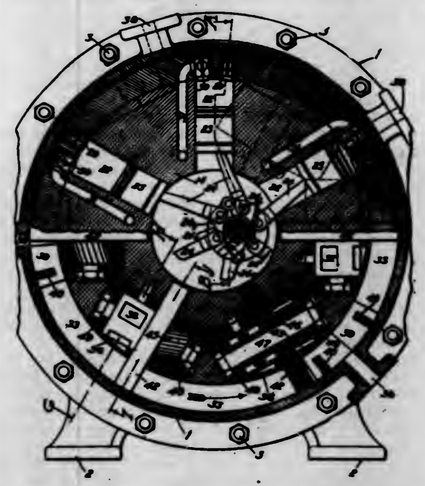
1. In a corn plow of the class described, the combination of a frame, means for supporting said frame, said frame comprising a pair of longitudinal beams, a pair of transversely extending beams carried thereon, inverted U-shaped supporting yokes carried upon the forward transversely extending beams, the sides of each yoke extending inwardly at its lower end to provide inwardly extending ends, plow beams pivotally mounted upon said inwardly extending ends, whereby each yoke may support a pair of plow beams, inclined braces secured to said inwardly extending ends and to the rear transversely extending beams, whereby said yokes will be held against rearward movement, means for vertically adjusting said plow beams, and means for adjusting said plow beams in a horizontal plane.

2. In a corn plow of the class described, the combination of a frame, supporting yokes carried upon said frame, plow beams pivotally mounted upon said supporting yokes, hanger yokes secured to said supporting yokes, means for adjusting said plow beams in a horizontal plane, a lifting bar extending entirely across the upper portion of said frame, means for adjusting said lifting bar in a vertical plane, and means secured to said hanger yokes and connected to said lifting bar for lifting said hanger yokes as said lifting bar is lifted, whereby said plow beams may be lifted, said last-mentioned means being adapted to slide along said lifting bar as said plow beams are adjusted in a horizontal plane.

3. In a corn plow of the class described, the combination of a frame, supporting yokes carried by said frame, plow beams pivotally mounted upon said supporting yokes, hanger yokes secured to said plow beams, a lifting bar extending entirely across the upper portion of said frame, means for adjusting said lifting bar in a vertical plane, a supporting eye secured to each of said hanger yokes, said eyes embracing said lifting bar so as to slide thereon when said plow beams are adjusted in a horizontal plane, said supporting eyes being adapted to lift said plow beams as said lifting bar is elevated, and means for limiting the sliding movement of said eyes upon said lifting bar as said plow beams are swung in a horizontal plane.

4. In a corn plow of the class described, the combination of a frame, supporting yokes carried by said frame, plow beams pivotally mounted upon said supporting yokes, hanger yokes secured to said plow beams, a lifting bar extending entirely across the upper portion of said frame, means for adjusting said lifting bar in a vertical plane, a supporting eye secured to each of said hanger yokes, said eyes embracing said lifting bar so as to slide therefrom when said plow beams are adjusted in a horizontal plane, said supporting eyes being adapted to lift said plow beams as said lifting bar is elevated, collars embracing said lifting bar and being slidably mounted thereon, means for holding said collars in adjusted set positions, said collars being positioned upon each side of said eyes, whereby the movement of said eyes along said lifting bar will be limited.

1,209,067. ROTARY INTERNAL-COMBUSTION ENGINE. WILLIAM M. SUBLETTE, San Jose, Cal. Filed Apr. 3, 1916. Serial No. 88,529. (Cl. 123—8.)



1. In a rotary internal combustion engine, of the class described comprising a metal body outer casing cast in two pieces, having metal supports which are an integral part thereof, means by which said two pieces are fastened together, main projections, which are an integral part of said outer casing, adapted to retain bearings therein, a flange and means of fastening said flange to one of said main projections, a crank shaft having a plurality of cranks forming said crank shaft, one end of said crank shaft being square, said flange being adapted to engage the square end of said crank shaft and hold the same rigid, means for connecting a carbureter to the end of said crank shaft, means by which the mixture of air and gas is admitted through said crank shaft, substantially as shown and described.

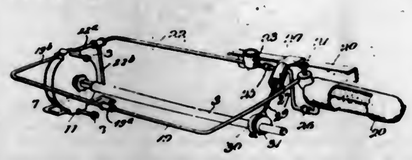
2. In a rotary internal combustion engine of the class described comprising a metal body outer casing cast in two pieces, and having main projections which are an integral part thereof, an inner rotating casing, said inner rotating casing having a supporting flange fastened thereto, said flange having an outward projection which is an integral part thereof, a stationary crank shaft inserted in said outer projection, a bearing in said outer projection adapted to allow said inner-rotating casing to revolve around said stationary crank shaft, a supporting flange fastened to the opposite side of said inner rotating casing, a bearing in said supporting flange adapted to allow said inner rotating casing to revolve around said stationary crank shaft, substantially as shown and described.

3. In a rotary internal combustion engine of the class described comprising a metal body outer casing in two pieces, having metal supports which are an integral part thereof, an inner rotating casing, a stationary crank shaft positioned in said inner and said outer casing, means by which said crank shaft is held rigid in said outer casing, means by which said inner casing revolves around said crank shaft, a supporting flange fastened to said inner casing, a driven shaft, and means by which said driven shaft is connected to said supporting flange, a plurality of compression cylinders positioned in said inner casing, each of said compression cylinders having piston and connecting rod, means by which said connecting rods are connected to said crank shaft, a center bearing for said crank shaft in said inner casing, support for said center bearing, and means by which said support is fastened to said inner casing, substantially as shown and described.

4. In a rotary internal combustion engine of the class described, comprising a metal body outer casing cast in two pieces, said outer casing having metal supports and outer projections which are an integral part thereof, an inner casing and means by which the same is connected to and revolves inside of said outer casing, a crank shaft and means by which said crank shaft is made rigid to said outer projection of said outer casing, a plurality of compression cylinders positioned in said inner casing, means by which the same is connected to said crank shaft, a plurality of intake ports in said inner casing, a plurality of intake valves positioned in said inner casing, a plurality of compression valves positioned in said inner casing, a plurality of compression chambers and expansion chambers in said inner casing, substantially as shown and described.

5. In a rotary internal combustion engine of the class described, comprising a metal body outer casing cast in two pieces, said outer casing having metal supports which are an integral part thereof, main projections, which are an integral part thereof, an inner casing positioned inside of said outer casing, a plurality of spark connections positioned in said outer and inner casings, a plurality of cutoff valves operated by cam grooves in said outer casing, a plurality of exhaust ports in said outer casing, a plurality of expansion chamber stationary heads in said outer casing, a plurality of rotating heads having a plurality of slots therein, a plurality of expansion chamber stationary heads adapted to pas through said slots, an internal gear fastened to the inner side of said outer casing, a plurality of intermediate gears, a plurality of gears connected to said inner rotating heads, bearings on which said rotating heads turn, boxes adapted to hold said gears and said rotating heads in place, expansion chamber rings, means for holding said expansion chamber rings in place around inner rotating casing, substantially as shown and described.

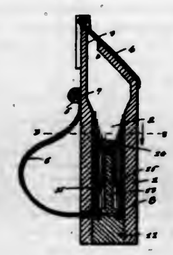
1,209,068. STARTING MECHANISM FOR HYDROCARBON-ENGINES. FRANK H. SUMMERAIL, Los Angeles, Cal., assignor of one-half to Horatio N. Norton, Mount Vernon, N. Y. Filed Nov. 11, 1913. Serial No. 800,418. (Cl. 123—179.)



1. The combination of a non-compressible fluid operated motor for starting a hydro-carbon engine, a circulatory system connected with said motor, whereby fluid is delivered to said motor, said system including a storage tank for the non-compressible fluid, said tank being closed and larger in capacitw than the volume of fluid used in the system, whereby the fluid may be stored in said tank and the air contained therein placed under pressure, means under the control of the operator for releasing the fluid from the storage tank for operating the motor, a receptacle for receiving the fluid from the motor, a pump for transmitting the fluid from said receptacle to the storage tank, said pump being continuously actuated by the engine when in operation, a valve between the pump and the receiving receptacle, and devices controlled by the fluid in the receptacle for unseating the valve to render the pump ineffective when substantially all of the non-compressible fluid has been transmitted by the pump to the storage tank.

2. The combination of a non-compressible fluid operated motor for starting a hydrocarbon engine, a circulatory system connected with said motor whereby fluid is delivered to and received from said motor, said system including a storage tank for the fluid, said tank being closed and larger in capacity than the volume of fluid used in the system, whereby the fluid may be stored in said tank and the air contained therein placed under pressure, means under the control of the operator for releasing the fluid from the storage tank for operating the motor, a receptacle for receiving the fluid from the motor and a pump for transmitting the fluid from said receptacle to the storage tank, said pump being continuously actuated by the engine, and consisting of a cylinder, a reciprocating member, a valve between the pump and the receiving receptacle, a float in said receptacle, and devices operated by said float for lifting the valve so as to render said pump ineffective.

1,209,069. LOCK. ODIN SUNDLY, Deer Park, Wis. Filed Oct. 5, 1914. Serial No. 865,167. (Cl. 70—105.)

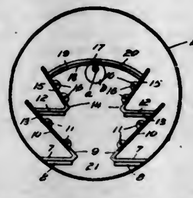


In a device of the class described, a casing having a longitudinally extending hole therethrough, a shackle pivotally secured to one face of said casing, the said casing having a slot in the said face through which the free end of the shackle passes, said free end of the shackle having a hole therein registering with the hole in the body portion but of lesser diameter, a bolt arranged to be inserted in the hole in the body portion and having a reduced portion on one end thereof adapted to fit the hole in the end of the shackle, said reduced portion carrying a further reduced portion forming a shank, a head on the end of said shank, a plurality of leaf springs secured to said bolt and arranged to lie beneath said head with their ends housed behind said reduced portion in unlocking position, a projection on the said bolt, and a notch in the said casing arranged to coöperate with said projection to determine the locking position of the said bolt.

1,209,070. BOILER-FURNACE. JOHN SWANSON, Mobile, Ala. Filed Jan. 17, 1916. Serial No. 72,566. (Cl. 126—152.)

1. In a furnace for boilers, a tubular casing, spaced side grates in the casing, said side grates including each a horizontally straight grate portion, an angular grate portion connected with the inner end thereof and overlying the said shelf, a non-pervious side plate co-extensive with the angular grate portions and extending above the

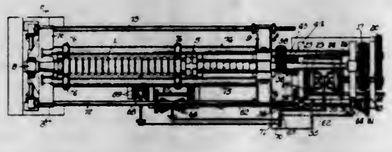
horizontal shelf portion of the adjacent grate, and an upper grate member connected with the upper side plates.



2. A grate for boilers including a tubular casing, side grates in the casing, each of said side grates including horizontal grate bars and angular grate bars formed in the inner ends of said horizontal grate bars and extending angularly over the same, non-pervious side plates coextensive with the angular grate bars and projecting above the horizontal members of the adjacent grate sections, and a dome-shaped grate connecting the side plates of the upper grates below the upper edges of the same.

3. A grate for boilers including a tubular casing, side grates in the casing, each of said side grates including horizontal grate bars and angular grate bars formed at the inner ends of said horizontal grate bars and extending angularly over the same, non-pervious side plates co-extensive with the angular grate bars and projecting above the horizontal members of the adjacent grate sections, and a dome-shaped grate connected with the side plates of the upper grates below the upper edges of the same, said dome-shaped grate comprising a plurality of independent members.

1,209,071. CORRUGATING-MACHINE. JAMES HALL TAYLOR, Oak Park, Ill. Filed Apr. 23, 1915. Serial No. 23,381. (Cl. 153—77.)



1. In combination, a pair of corrugating rolls, common means for driving said rolls, and a compensating connection between one of said rolls and said driving means.

2. In combination, a pair of corrugating rolls, common means for driving said rolls, a compensating connection between one of said rolls and said driving means, and means for varying the space between said rolls.

3. In combination, a pair of corrugating rolls, a gearing between said rolls, a compensating connection in said gearing, and common means for driving both of said rolls.

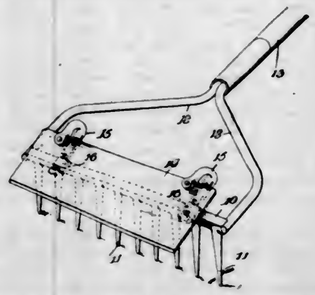
4. In combination, a pair of corrugating rolls, a driving connection between them, said driving connection including a compensating connection, and means to drive one of said rolls.

5. In combination, a pair of corrugating rolls, a driving connection between said rolls, said driving connection including a compensating connection, driving means connected to one of said rolls, and means for varying the space between said rolls.

[Claim 6 to 28 not printed in the Gazette.]

1,209,072. COMBINED GARDEN-WEEDER AND PULVERIZER. OTTO H. TEMTE, Volga, S. D. Filed Feb. 15, 1916. Serial No. 78,469. (Cl. 55—39.)

1. A combination garden implement including a rake having a body bar provided with an inclined face and a hoe carried by the rake, said hoe including a hoe blade, an arm carried by the blade, and means connecting the said arm to the body bar of the rake with the said arm seating against the inclined face of the body bar to support the hoe blade extending forwardly and downwardly in the direction of the rake teeth.

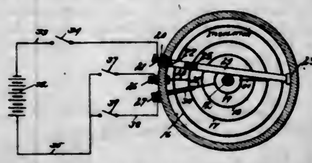


2. A combination garden implement including a rake having a body bar, and a hoe carried by the rake, the said hoe including a hoe blade, an arm carried by the blade, and means connecting the said arm to the body bar of the rake and embracing the said body bar to coöperate therewith for holding the hoe against movement about the said bar with the arm supporting the hoe blade to extend forwardly and downwardly with respect to the rake teeth.

3. A combination garden implement including a rake having a body bar, and a hoe carried by the rake, the said hoe including a hoe blade, a U-shaped arm connected at one end to the hoe blade with the opposite end of the said arm extending forwardly beneath the said blade in spaced relation thereto, and means connecting the free end of the arm with the body bar of the rake with the said arm supporting the hoe blade spaced above the said body bar to extend forwardly with respect to the rake teeth.

4. A combination garden implement including a rake having a body bar provided with a squared portion having one of the faces thereof arranged at an angle to the plane of the rake teeth, and a hoe carried by the rake, the said hoe including a hoe blade, an arm carried thereby and seating flat against the said face of the body bar to support the hoe blade inclined forwardly and downwardly in the direction of the free ends of the rake teeth, and means connecting the said arm with the body bar and coöperating with the squared portion thereof for holding the hoe against movement about the said bar.

1,209,073. FUEL-HEATER FOR INTERNAL-COMBUSTION ENGINES. EDWARD S. TESDELL, Des Moines, Iowa. Filed Feb. 28, 1916. Serial No. 81,050. (Cl. 219—38.)

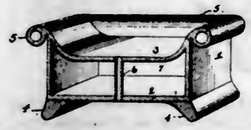


1. In a device of the class described, a fuel chamber in combination with a means for heating fuel therein, comprising a plurality of resistance coils received within the lower portion of said fuel chamber, and substantially spaced from each other, and means for including a source of electrical energy and said coils in a circuit, said coils being exposed whereby heat may be applied to the fuel in said chamber quickly and intensely over a large area.

2. In a device of the class described, a fuel chamber, in combination with a means for heating fuel therein, comprising a plurality of resistance coils received within the lower portion of said fuel chamber, and substantially spaced from each other, and means for selectively connecting said coils in one or more circuits, as may be desired, with a source of electrical energy.

3. In a device of the class described, a fuel chamber having a valve, and a float operatively connected therewith, a resistance element in said chamber, an electrical circuit including said element and including a spring contact, said spring contact being so arranged as to break the circuit when the float lowers below a predetermined point.

1,209,074. SOAP-RECEPTACLE. MARTIN C. THIEME, Huntington, Ind. Filed Jan. 11, 1915. Serial No. 1,594. (Cl. 45—28.)



In a floating receptacle, a body having a closed air chamber therein, the top wall of said body being formed with a depression, a drain conduit extending between the top wall and bottom wall of said body through said air chamber, and a plurality of parallel weighted flanges formed on said body along the bottom marginal edges thereof to form supporting feet and to stabilize the body when the device is floating.

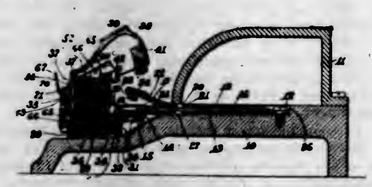
1,209,075. BUCKLE. LEWIS W. THOMAS, Washington, D. C., assignor of one-half to Oscar T. Wright, Washington, D. C. Filed Jan. 28, 1916. Serial No. 74,837. (Cl. 24—198.)



1. A belt buckle formed of sheet metal stamped to provide transverse slots adjacent to the respective ends thereof and similar slots adjacent to the first-mentioned slots respectively and inwardly thereof and spaced apart from each other, and sets of teeth stamped from the metal between said inner slots and projecting outwardly from opposite sides of the metal.

2. A belt buckle formed of sheet metal stamped to provide transverse slots adjacent to the respective ends thereof and similar slots adjacent to the first-mentioned slots respectively and inwardly thereof and spaced apart from each other, and sets of teeth stamped from the metal between said slots and projecting outwardly from opposite sides of the metal.

1,209,076. CHECK-PROTECTOR. SAMUEL T. THORSON, Boston, Mass. Filed Feb. 9, 1916. Serial No. 77,796. (Cl. 197—6.)



1. In a device of the class described, the combination of a plurality of alined perforating devices; a carriage adapted to travel in a path parallel with said perforating devices; a member pivoted to said carriage and adapted to be moved about its pivot to actuate a selected perforating device; a roll mounted on said carriage for feeding the material being operated upon; automatic means actuated by said pivoted member for moving said feed roll about its axis a predetermined amount; independent manually controlled means for moving said roll about its axis; and stop members for limiting the movement of said independent means in opposite directions.

2. In a device of the class described, the combination of a plurality of alined perforating devices; a carriage adapted to travel in a path parallel with said perforating devices; a member pivoted to said carriage and adapted to be moved about its pivot to actuate a selected perforating device; a roll mounted on said carriage for feeding the material being operated upon; automatic means actuated by said pivoted member for moving said feed roll about its axis a predetermined amount; a ratchet wheel revoluble with said feed roll; an oscillating arm movable about the axis of said feed roll; and a resilient member secured to said arm and normally engaging the teeth of said ratchet wheel.

3. In a device of the class described, the combination of a plurality of alined perforating devices; a carriage adapted to travel in a path parallel with said perforating devices; a member pivoted to said carriage and adapted to be moved about its pivot to actuate a selected perforating device; a roll mounted on said carriage for feeding the material being operated upon; automatic means actuated by said pivoted member for moving said feed roll about its axis a predetermined amount; a ratchet wheel revoluble with said feed roll; an oscillating arm movable about the axis of said feed roll; a resilient member secured to said arm and normally engaging the teeth of said ratchet wheel; and stop members on said carriage to limit the movement of said arm in opposite directions.

4. In a device of the class described, the combination of a plurality of alined perforating devices; a carriage adapted to travel in a path parallel with said perforating devices; a member pivoted to said carriage and adapted to be moved about its pivot to actuate a selected perforating device; a roll mounted on said carriage for feeding the material being operated upon; a ratchet wheel revoluble with said feed roll; a pawl engaging therewith; a spring for moving said pivoted member upward about its pivot; a pivoted lever articulated at one end to said pawl; and studs on said pivoted member adapted to coact with the opposite end of said lever.

5. In a device of the class described, the combination of a plurality of alined perforating devices; a carriage adapted to travel in a path parallel with said perforating devices; a member pivoted to said carriage and adapted to be moved about its pivot to actuate a selected perforating device; a feed roll mounted on said carriage; means for moving said roll about its axis predetermined amounts; a U-shaped resilient member above said feed roll having depending ears on its lowest arm, said resilient member forming a part of the carriage and moving therewith relatively to said perforating devices; and a bed roll revolubly mounted in said ears and normally contacting with said feed roll.

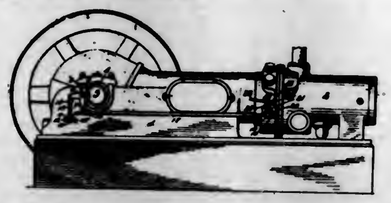
[Claims 6 to 8 not printed in the Gazette.]

1,209,077. OPERATING MEANS FOR COMPRESSOR-VALVES. FRANK M. TITUS and DELMER B. SCHWAB, Bradford, Pa., assignors to Blaisdell Machinery Co., Bradford, Pa., a Corporation of Pennsylvania. Filed Mar. 2, 1915. Serial No. 11,485. (Cl. 230—34.)

1. In an air compressor the combination of an inlet valve having oscillating movement adapted to control the admission of air, actuating means to operate said compressor comprising a reciprocating valve rod, cam connections with said operating means fashioned to permit the oscillating valve to remain stationary in the successive positions required for the pumping operation, and to quickly change its position to give intermittent motion to the valve during each revolution of the actuating means, with independent means to maintain the oscillating valve stationary over more than one revolution of said reciprocating actuating means.

2. A compressor valve actuating device comprising a rotating cam, an inlet valve having oscillating movement, a reciprocating valve rod, actuating means having a

direct connected engagement with said cam, fashioned to permit the oscillating valve to remain stationary in successive positions, and independent means for maintaining the valve rod stationary over more than one revolution of said rod actuating means.



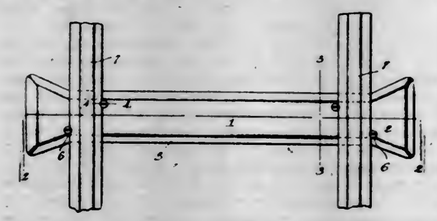
3. In a direct connected gas engine air compressor having a compressing cylinder, a port connected with said cylinder, a compressing piston working in said cylinder, a crank shaft actuating said piston, and an irregular faced cam on said crank shaft, the combination with an oscillating valve controlling said port, of means comprising a reciprocating valve rod operated by said cam, for actuating said valve in fixed time relation to the movement of the compression piston, whereby the pressure on opposite faces of the valve is substantially equal and independent means for maintaining the valve rod stationary over more than one revolution of said rod actuating means.

4. In a direct connected gas engine air compressor, having a cylinder, a port connected with said cylinder, a compressing piston working in said cylinder, and a crank shaft actuating said piston, the combination with an oscillating valve controlling said port, of means for opening said valve comprising a reciprocating valve rod actuating member, a cam on said crank shaft adapted to convey reciprocating movement to said valve rod actuating member to open said valve, and a retracted spring bearing on said valve rod actuating member adapted to close said valve in fixed time relation to the movement of the compression piston and independent means for maintaining the valve rod stationary over more than one revolution of said rod actuating means.

5. In a direct connected gas engine driven air compressor, having a compressing cylinder, a port connected with said cylinder, a compressing piston working in said cylinder, a crank shaft actuating said piston having a cam thereon, the combination with an oscillating valve controlling said port, of a reciprocating rod between said crank shaft and the oscillating valve, adapted to receive intermittent reciprocating motion from said cam whereby the intermittent movement of the oscillating valve will have a proportion of movement less than the proportion of rest.

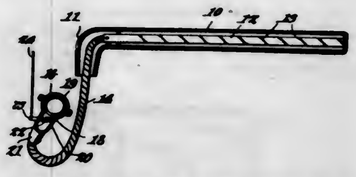
[Claims 6 to 12 not printed in the Gazette.]

1,209,078. METALLIC TIE. JACOB A. TOSSOUNIAN, Philadelphia, Pa. Filed Aug. 2, 1916. Serial No. 112,880. (Cl. 238—5.)



In a railroad construction, blocks embedded in the roadbed and having their upper faces provided with pockets, a hollow tie arranged over the blocks and having its outer surface engaged by the roadbed, lugs depending from the top plate of the tie disposed over the openings in the blocks, and spring members having one end within the openings and the other end surrounding the lugs.

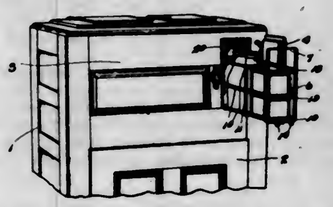
1,209,079. HEATER. JOSEPH R. TOUSONEAU, Manton, Ill. Filed Mar. 31, 1916. Serial No. 88,031. (Cl. 257—136.)



1. A heater for motor vehicles utilizing the exhaust of the engine comprising an elongated tube closed at one end and having at the other end a laterally directed elbow which opens to the atmosphere, a pipe mounted lengthwise of the tube in spaced relation therewith and having outlet perforations thereinto, and an exhaust conducting tube connecting the pipe with the engine exhaust, said tube entering the first mentioned tube through the elbow in spaced relation with the interior thereof.

2. A heater for motor vehicles utilizing the exhaust of the engine, comprising an elongated tube closed at one end and having at the other end a laterally directed elbow which opens to the atmosphere, a pipe mounted lengthwise of the tube in spaced relation therewith and having outlet perforations thereinto, an exhaust conducting tube detachably connected at one end to the exhaust pipe of the engine, and at the other end to the aforesaid pipe, said exhaust conducting tube entering the first mentioned tube through the elbow and in spaced relation with the interior thereof.

1,209,080. REFRIGERATOR CONSTRUCTION. DANIEL W. TOWER, Grand Rapids, Mich. Filed Dec. 7, 1914. Serial No. 875,865. (Cl. 45—71.)

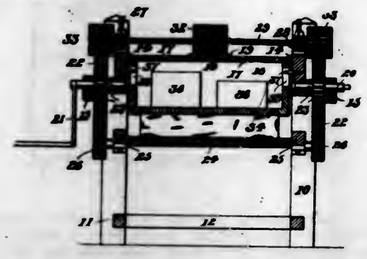


1. In a refrigerator construction, a rack having sides comprised of spaced apart vertical and horizontal bars, said sides connected together by upper and lower cross members, cross members interposed between the ends of the sides dividing the rack into compartments, spaced apart guide members positioned in horizontal relation in the front compartment and trays carried by said guide members and adapted to be slidably withdrawn from the compartment, substantially as described.

2. In combination, a refrigerator having a front opening therein, a closure for said opening, a rack located back of the opening and mounted to project through the opening, said rack having sides of open formation connected together by spaced apart upper and lower cross members, spaced apart strips secured to the lower cross members and lying lengthwise of the rack, means dividing the rack into front and rear compartments, a plurality of trays slidably mounted one above the other in the front compartment, and a sheet of continuous material posi-

tioned substantially vertically and secured at the rear of the rack, said sheet having dimensions such that it substantially fills the opening in the refrigerator but may pass therethrough, substantially as described.

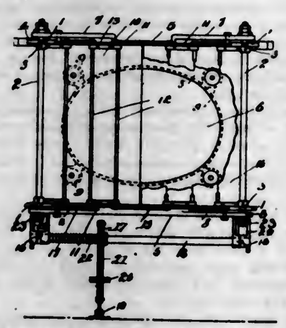
1,209,081. CLOTHES-MANGLE. JAN TYLUTKI and LADISLAUS ZISMIANSKI, Avoca, Pa. Filed Apr. 4, 1916. Serial No. 88,915. (Cl. 68—13.)



1. In a mangle, a frame having operating means therein, a pressing member in the frame adapted to move over a fabric to be pressed and having a rack thereon, a transverse shaft extending over the pressing member having a pinion thereon meshing with the rack and having connection with said operating means for driving the shaft, movable bearings for the shaft, adjustable means engaging the bearings to move the same and vary the tension of the pressing member upon the fabric, and springs beneath the bearings to automatically raise the same upon the release of said adjustable means and permit the quick adjustment of the shaft.

2. In a mangle, a frame having operating means therein, a pressing member in the frame adapted to move over a fabric to be pressed and having a rack thereon, a transverse shaft extending over the pressing member, having a pinion thereon meshing with the rack and having connection with said operating means for driving the shaft, a pair of bolts arranged at opposite sides and at opposite ends of the shaft, cross-heads slidably mounted on the bolts and bearing over the shaft, springs on the bolts beneath the cross-heads to urge the latter upwardly, and adjusting nuts on the upper ends of the bolts and adapted to be turned downwardly against and to move the cross-heads and the pressing member toward the fabric.

1,209,082. FURNACE-DOOR AND OPERATING MEANS THEREFOR. ANTOINE EMILE VEZINA, Montreal, Quebec, Canada. Filed Apr. 14, 1913, Serial No. 761,011. Renewed May 15, 1916. Serial No. 97,731. (Cl. 110—178.)



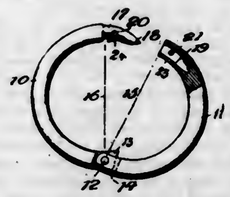
1. In furnace doors and operating means therefor, a frame secured to the head of the furnace having bearings projecting outwardly therefrom at each corner thereof, posts journaled in said bearings, plates mounted on said posts adjacent to said bearings, slat doors winding on said plates, gears mounted on the lower ends of said posts, a spring held horizontal shaft journaled in suitable bearings supported at the lower end of said frame, a crank mounted on said horizontal shaft, a pedal, a connecting rod from said pedal to said crank, and segmental gears mounted on said horizontal shaft and coacting with said gears.

2. A furnace door and operating means therefor, comprising, a frame having outstanding lugs at the upper and lower corners forming post bearings and downwardly extending lugs at the lower end forming shaft bearings, posts journaled in said post bearings, a shaft journaled in said shaft bearings, a spiral spring encircling said shaft and attached thereto and to a lug, a crank fixedly mounted on said shaft, a pedal suitably connected with said crank, a pair of bevel gears, one mounted on each post at the lower end, coacting gears mounted on said shaft, and a plurality of slats hinged together in two sections respectively and adapted to be wound around the posts on the pressure of said pedal.

3. A furnace door and operating means therefor, comprising, a rectangular frame having lugs extending inwardly therefrom, lugs extending outwardly therefrom at the upper and lower corners forming shaft bearings, brackets depending from the lower corners forming shaft bearings and gear frames, and curved guides extending laterally and forwardly from the top of the sides, posts journaled in said post bearings, a shaft journaled in said shaft bearings and spring held in its normal position, gears mounted at the lower end of said posts, coacting gears mounted on said shaft, a pedal operatively connected with said shaft, and slats vertically arranged and hinged together in two sections respectively.

4. A furnace door and operating means therefor, comprising a plurality of slats each having outwardly extending flanges at the top and bottom thereof, rods pivotally secured in said flanges adjacent to the ends thereof and joining said slats together in two sections and forming double doors, a frame having guides for sliding said slats and bearings at the ends, winding posts journaled in said bearings, plates mounted toward the upper and lower ends of said posts and having their corners slotted to receive said rods, and means for operating said posts.

1,209,083. BULL-RING. CHARLES B. WAGNER, Jr., Burlington, Wis. Filed July 28, 1915. Serial No. 42,381. (Cl. 24—230.)



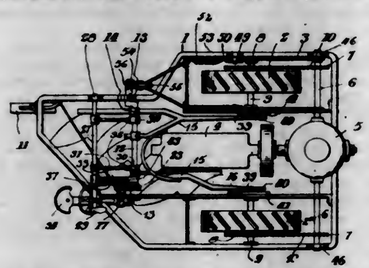
1. A nose ring comprising pivotally united sections, the free end of one of which is provided with a tapered terminal adapted to enter a socket formed in the free end of the mating section, a spring locking member mounted on the tapered terminal and engaging a recess in one wall of the socket, and an auxiliary locking member piercing the walls of the socket and engaging said tapered terminal.

2. A nose ring comprising pivotally united sections, one of said sections having a longer radius than the other and having its free end provided with a tapered terminal adapted to enter a correspondingly tapered socket formed in the free end of the mating section, the tapered terminal and the walls of the socket being provided with registering apertures, a spring locking member mounted on the tapered terminal and adapted to enter a recess

in one wall of the socket, and a locking screw extending through the registering apertures in the socket and tapered terminal, respectively.

3. A nose ring comprising pivotally united sections, one of which has a longer radius than the other and is provided with a tapered terminal adapted to enter a socket formed in the free end of the mating section, the lower wall of the socket being provided with a recess, there being transversely alined apertures formed in the side walls of the socket above said recess and adapted to register with a transverse aperture formed in the tapered terminal when the latter enters the socket, a spring locking member secured to the lower side of the tapered terminal and adapted to enter the recess in the socket, and a screw adapted to engage the registering apertures when the sections are in closed position.

1,209,084. PLOW. WILLIAM L. WALTON, Bantry, N. D. Filed June 12, 1912. Serial No. 703,239. (Cl. 97—70.)



1. In a plow, power actuated means for raising and lowering the plow shares into operative and inoperative position respectively, said means being controlled by the operator of the plow, and automatic means coöperative therewith for raising the plow shares should the same strike an obstacle, as and for the purpose specified.

2. In a motor operated plow, the combination with a main frame, an engine on said frame, traction wheels near the front of the main frame, and a guiding wheel at the rear of the main frame, said traction wheels being suitably driven by an engine located on the main frame, plows and means driven by the engine for lowering and raising the plows, said means being actuated by the operator, and automatic means coöperative therewith for raising the plow shares should the same strike an obstacle as and for the purpose specified.

3. In a motor operated plow, and in combination, an engine, plow lift mechanism operated by the engine, a wheel lift mechanism and automatic means coöperating therewith for both actuating the plow lift and the wheel lift mechanism should the plow share strike an obstacle.

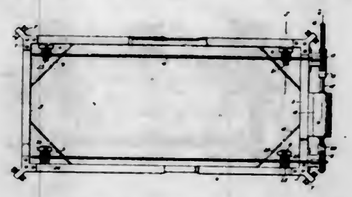
4. In a plow and in combination, a frame, land and furrow traction wheels on the frame, plow lifting mechanism, means for automatically and manually actuating the plow lifting mechanism and means coöperating with the first said means for simultaneously adjusting the land traction wheel relatively to the frame.

5. In a plow and in combination, a frame, land and furrow traction wheels on the frame, plow lifting mechanism, automatic means for both actuating the plow lift and adjusting the land traction wheel should the plow share strike an obstacle, said means including a crank shaft operatively connected to the plows and land traction wheel, and means normally restraining the turning of the crank shaft but adapted to yield under pressure.

[Claim 6 not printed in the Gazette.]

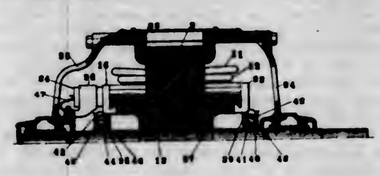
1,209,085. AUTOMOBILE-JACK. HARRY W. WATSON, Memphis, Tenn. Filed Apr. 23, 1915. Serial No. 23,410. (Cl. 74—27.)

In a device of the class described in combination, a rectangular frame, a pair of elongated bearings having rectangular members secured against one of the sides of said rectangular frame, said bearings being arranged in alinement, each of said bearings having a cylindrical bore at its inner end and being open at the top at its outer end, a rod slidably guided in the cylindrical bores of said bearings and having integral rack bars formed at its opposite ends, said rack bars being adapted to engage the bottom of said bearings in slidable relation, an integral collar formed upon the rectangular members of said bear-



ings, a shaft passing through each of said collars at right angles to said bearings, a gear fixed on each of said shafts, contacting said collars and projecting into the top of one of said bearings with its teeth in mesh with the teeth of the rack bars therein, each of said rack bars adapted to slide through said cylindrical bores, means for reciprocating said rod so as to actuate said rack bars, and a pawl pivoted upon one of said bearings, and adapted to engage with one of said rack bars.

1,209,086. ALTERNATING-CURRENT MOTOR. HANS WEICHSEL, St. Louis, Mo., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 12, 1915. Serial No. 20,698. (Cl. 172—276.)



1. In an alternating current motor, the combination of means for successively producing different numbers of stator poles, a rotor provided with a commuted winding capable of coöperating with one of the available numbers of stator poles, and means for inter-connecting all the conductors of the commuted winding at each end of the rotor.

2. In an alternating current motor, the combination of means for successively producing different numbers of stator poles, a rotor provided with a commuted winding capable of coöperating with one of the available numbers of stator poles, and a speed controlled device for interconnecting all the conductors of the commuted winding at each end of the rotor.

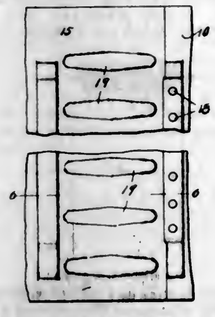
3. In an alternating current motor, the combination of means for successively producing different numbers of stator poles, a rotor provided with a pole winding and two commutators each connected to said winding, and means for short-circuiting at least a part of each commutator.

4. In an alternating current motor, the combination of means for successively producing different numbers of stator poles, a rotor provided with two commutators and a pole winding each element of which is connected to both commutators, and speed controlled means for short-circuiting the commutators.

5. In an alternating current motor, the combination of means for successively producing different numbers of stator poles, a rotor provided with two commutators located at opposite ends of the rotor and with a pole winding each element of which is connected to each commutator, and means for short-circuiting the commutators.

[Claims 6 to 11 not printed in the Gazette.]

1,209,087. RAILWAY-CAR END CONSTRUCTION. JACOB H. WEISBROD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 1, 1914. Serial No. 842,050. (Cl. 105—192.)



1. A car end comprising a plurality of vertically disposed sheet metal sections or panels, the meeting edges of which are bent outwardly to form overlapping ribs or corrugations, attaching means seated in the overlapping ribs or corrugations to connect them to form post like reinforcements and with the inner ends of said attaching means outside the plane of the inner face of the end, and outwardly pressed corrugations forming transverse reinforcements between the post like reinforcements so formed.

2. A car end comprising a series of plates, each provided with an outwardly pressed vertically disposed reinforcing rib or corrugation and the meeting edges of which plates are provided with outwardly pressed reinforcing ribs or corrugations which are adapted to overlap and interlock, said plates being provided with stiffening corrugations extending intermediate said reinforcing ribs.

3. A car end comprising a series of plates, each provided with an outwardly pressed strengthening rib or corrugation terminating short of the edges of the plates, the meeting edges of which plates are provided with outwardly pressed reinforcing ribs or corrugations terminating short of the edges of the plates which are adapted to overlap and interlock, and attaching means seated in the overlapping portions of said last mentioned ribs or corrugations.

4. A car end comprising a series of plates conjoined on vertical edges, the central portions of which plates are corrugated, and the meeting edges of which plates are provided with conjoined outwardly pressed ribs or corrugations which terminate short of the edges of the plates.

5. A car end comprising a series of plates, the central portions of which are deformed, the meeting edges of which plates extend vertically and are provided with outwardly pressed L-shaped ribs or corrugations which are adapted to overlap and interlock, and fastening means seated in the overlapping portions of said ribs or corrugations.

1,209,088. END CONSTRUCTION FOR BOX-CARS. JACOB H. WEISBROD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 28, 1915. Serial No. 30,944. (Cl. 105—192.)

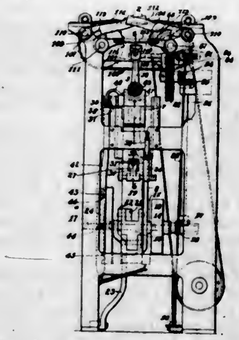
1. A car end construction comprising end wall sheets, vertically disposed side wall sheets secured at one edge to the end wall sheets and at the other edge to vertical car body frame members, a pocket member secured to the upper portions of adjacent end and side wall sheets and forming a pocket for the reception of a longitudinal side framing member.

2. In a car construction, the combination of end wall sheets, side wall sheets vertically disposed and connected at their forward edges to the lateral margins of the end wall sheets to form corners, said side wall sheets being secured at their rearward vertical margins to vertical car body frame members, a pocket member secured to the upper portion of an end wall sheet, said pocket member and the upper portion of the side wall sheet being secured to a longitudinal car body frame member.



3. In a car construction, the combination of end wall and side wall sheets secured together on vertical edges to form a corner, said side wall sheet being secured at its other vertical edge to a vertical car body frame member, a vertical stiffening member applied to said side wall sheet, the upper portion of said side wall sheet being secured to a longitudinal car frame member, and a pocket member secured to the end wall sheet and to such longitudinal frame member.

1,209,089. SOLE-LEVELING MACHINE. SAMUEL J. WENTWORTH, Newport, Ky., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 10, 1913. Serial No. 747,300. (Cl. 12—33.)



1. A sole leveling machine having, in combination, a shoe supporting jack, a plurality of leveling hammers each having a striking face conforming substantially to the desired curvature of that portion of the sole with which it engages, and mechanism for actuating the hammers simultaneously to level the sole by a plurality of blows delivered thereon.

2. A leveling machine having, in combination, a leveling device provided with a plurality of striking faces, mechanism for actuating the leveling device to cause the striking faces to simultaneously engage with the shoe sole,

a shoe supporting jack, and mechanism for automatically moving the jack to and from a leveling position and for supporting it in this position during the operation of the leveling device.

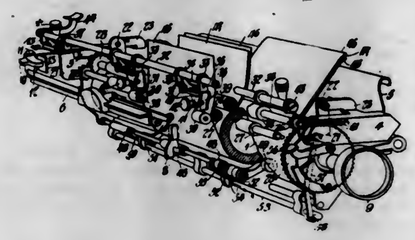
3. A leveling machine having, in combination, a leveling device provided with a plurality of striking faces, mechanism for actuating the leveling device to cause a plurality of the striking faces to simultaneously engage the sole, a shoe supporting jack, and mechanism for automatically moving the jack to and from a leveling position and for oscillating the jack laterally during the operation of the leveling device.

4. A leveling machine having, in combination, a plurality of leveling hammers, mechanism for actuating the hammers simultaneously to level the sole, a shoe supporting jack, and mechanism for automatically moving the jack to and from a leveling position beneath the hammers and for reciprocating the jack longitudinally during the operation of the hammers.

5. A leveling machine having, in combination, a plurality of leveling hammers, mechanism for actuating the hammers to level the sole, a shoe supporting jack, and mechanism for reciprocating the jack longitudinally during the operation of the hammers to cause the blows delivered by the hammers to overlap.

[Claims 6 to 20 not printed in the Gazette.]

1,209,090. TYPE-WRITING MACHINE. LESTER A. WERNEBY, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 15, 1914. Serial No. 838,634. (Cl. 197—128.)



1. In a typewriting machine, the combination with a platen and means to feed a work-sheet thereover, of auxiliary feeding mechanism for simultaneously feeding a second work-sheet over the platen at a different speed from that of said first sheet, and means to concomitantly feed both of said sheets at the same speed.

2. In a typewriting machine, the combination with a platen and means to feed a work-sheet thereover, of auxiliary feeding mechanism for simultaneously feeding a second work-sheet over the platen at a different speed from that of said first sheet, and means to concomitantly feed both of said sheets at the same speed, said last named means and said auxiliary feeding mechanism being alternatively settable into operative position.

3. In a typewriting machine, the combination with a rotatable platen, of a roller running on the platen for feeding a work-sheet thereover at the peripheral speed of the platen, auxiliary feed rolls driven from the platen at a peripheral speed different from that of the platen to feed a second work-sheet at a different speed from that of the first, said auxiliary feed rolls settable to inoperative position, and means to feed both the work-sheets at the surface speed of the platen while said auxiliary rolls are inoperative.

4. In a typewriting machine, the combination with a rotatable platen, of a feed roll running on the platen above the printing line, auxiliary feed rolls separate from the platen to feed a work-sheet at a different speed from that of the platen, and a feed roll movable into and out of position to run on the platen below the printing line.

5. In a front-strike typewriting machine, the combination with a rotatable platen, of a feed roll running on the platen above the printing line, auxiliary feed rolls located above the printing line, separate from the platen, and gearing for simultaneously rotating said auxiliary rolls and said first named feed roll, but at a different peripheral speed.

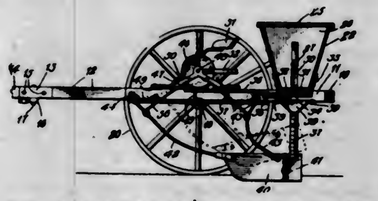
[Claims 6 to 60 not printed in the Gazette.]

1,209,091. FIBROUS CAP FOR BOTTLES AND OTHER CONTAINERS. ALBERT WESTLAKE, New York, N. Y. Filed Feb. 4, 1914. Serial No. 816,518. (Cl. 215—9.)



A fibrous cap for bottles and other receptacles which is composed of a disk of suitable fiber having a smooth center adapted to fit snugly upon the upper rim of said bottle, and having its edges turned downwardly and ironed into the form of a fringe composed of alternately projecting fins and flat portions the inner surface of the entire fringe making a continuous air-tight contact with the exterior of the bottle neck.

1,209,092. FERTILIZING-MACHINE. BRAXTON C. WHITE, Mooresboro, N. C. Filed Dec. 22, 1915. Serial No. 68,227. (Cl. 111—34.)



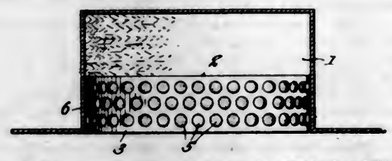
1. A machine of the character described including a frame, rocker shafts carried by said frame, digging blades, resilient strips carried by said rocker shafts and connected with said digging blades adjacent the forward and rear end portions thereof, and means for moving said rocker shafts to move said digging blades into and out of engagement with the ground.

2. A machine of the character described comprising a frame, digging blades, rocker shafts carried by said frame, strips extending from said rocker shafts and connected with said digging blades, bearing brackets carried by said frame, a disk rotatably mounted between said bearing brackets, a ratchet wheel, a pawl carried by said disk and engaging said ratchet wheel, rods extending from said disk and connected with said rocker shafts, and means for rotating said disk to move said rocker shafts and move the digging blades into and out of engagement with the ground.

1,209,093. HAT SWEAT-BAND. SAMUEL C. WHITLOW, Balmville, near Newburgh, N. Y. Filed Jan. 11, 1916. Serial No. 71,530. (Cl. 2—114.)

1. A device of the character described comprising a band having a plurality of openings therein, plugs arranged within said openings, a second band arranged upon said first band, and an adhesive material carried by said

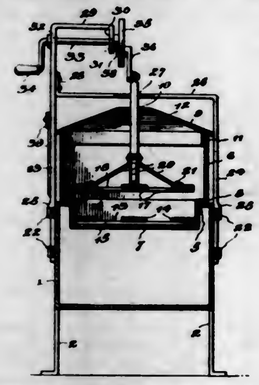
second band for engagement with said plugs to secure the same within the openings.



2. The combination with a hat, of a sweat band therefor provided with transverse openings arranged in staggered relation, and plugs engaged in said openings.

3. The combination with a hat, of a sweat band therefor provided with rows of transverse openings with the openings of the various rows arranged in offset relation, plugs positioned in said openings, and means for retaining said plugs in position.

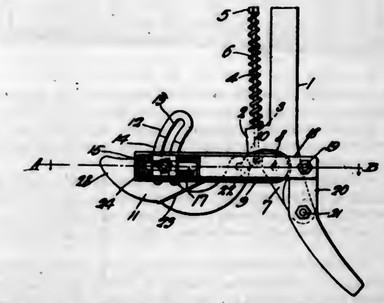
1,209,094. CONVERTIBLE WASHING-MACHINE AND CANNER. JOHN SCOTT WILLIAMS, Cooper, Tex. Filed Sept. 1, 1916. Serial No. 118,112. (Cl. 68—19.)



In an apparatus of the class described, a substantially rectangular support having a boiler receiving opening in its top, and sockets on its opposite sides, a boiler positioned on said support over said opening with its side walls in a plane parallel with and adjacent the plane of the side walls of the support, a top on said boiler having a central aperture, a plunger in said boiler having a rod extending through the aperture in said top, a combined boiler retaining device and plunger operating mechanism support comprising a substantially inverted U-shaped frame having its ends engaged with said sockets and its arms engaging the opposed side edges of said boiler top, the cross bar of said frame extending transversely across the boiler above the top thereof and having an aperture alined with the aperture in said boiler top and through which the plunger rod is adapted to extend, an upwardly projecting vertical extension on one arm of said frame provided with a lateral arm having a depending finger, alined bearings in said extension and finger, a crank shaft mounted in said bearings, and a pitman connected with said crank shaft and detachably engaged with said plunger rod.

1,209,095. PLOW-FOOT. RUDICILLE BURGOYNE WILLIAMS, Denton, Tex. Filed Apr. 7, 1916. Serial No. 89,620. (Cl. 97—11.)

1. The combination with a standard, a foot pivotally connected thereto, and yieldingly supported links extending from the standard, of a spreading element movably mounted between the links, links pivotally connected to the foot and extending along the outer sides of the first named links and having longitudinal slots, means connected to the first named links for engaging and fastening the slotted links to hold them against movement relative to the yieldingly supported links, and means for exerting a yielding pressure upon the wedging element to force the slotted links outwardly into engagement with the fastening means.



2. The combination with a standard, a foot pivotally connected thereto, and yieldingly supported links extending from the standard, of slotted links extending from the foot and along the outer sides of the yieldingly supported links, fastening devices normally engaging the outer sides of the slotted links, connections between the fastening devices and extending through the yieldingly supported links, and wedging means movably mounted between the yieldingly supported links for pressing the slotted links outwardly in engagement with the fastening means.

3. The combination with a standard, a foot pivotally connected thereto, and yieldingly supported links extending from the standard, of slotted links extending from the foot and along the outer sides of the yieldingly supported links, fastening devices normally engaging the outer sides of the slotted links, connections between the fastening devices and extending through the yieldingly supported links, and wedging means movably mounted between the yieldingly supported links for pressing the slotted links outwardly in engagement with the fastening means, said wedging means being yieldingly supported.

4. The combination with a standard, a foot pivotally connected thereto, and slotted links extending from the foot, of yieldingly supported links extending from the standard and between the slotted links, a connection between the yieldingly supported links, said connection projecting through the slots, clamping blocks carried by the connection for engaging the outer faces of the slotted links, a wedging element pivotally mounted between and supported by the yieldingly supported links and slidably mounted on said connection, and means for yieldingly pressing the wedging element to active position to force the slotted links in engagement with the fastening means.

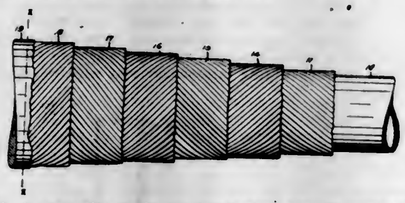
5. The combination with a standard, a foot pivotally connected thereto, and slotted links extending from the foot and having serrated outer faces, of yieldingly supported links extending from the standard and between the slotted links, a connection between the yieldingly supported links, said connection extending through the slots, fastening blocks mounted on the connection and adapted to engage the serrated faces of the slotted links, and spring pressed wedging means interposed between the links for holding said slotted links normally in engagement with the fastening blocks.

[Claim 6 not printed in the Gazette.]

1,209,096. CONDUCTOR. ROBERT B. WILLIAMSON, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Jan. 24, 1916. Serial No. 74,507. (Cl. 173—13.)

1. A composite conductor for dynamo-electric machines, comprising a substantially solid, flattened core of con-

ductive material formed from a tubular element, and conductors spirally wound about said core.



2. A composite conductor for dynamo-electric machines, comprising a substantially solid core of conductive material formed from an originally tubular element, and conductors spirally wound about said core and insulated one from another.

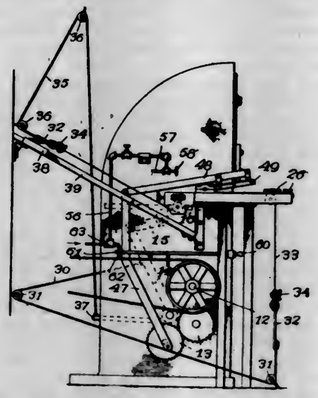
3. A composite conductor for dynamo-electric machines, comprising a substantially solid core of conductive material having portions folded over into substantial contact with each other, and conductors spirally wound about said core.

4. A composite conductor for dynamo-electric machines comprising a substantially solid, flat core of conductive material formed from an originally tubular element, and a plurality of layers of conductors spirally wound about said core, the conductors of adjacent layers being spirally wound in opposite directions.

5. A composite conductor adapted for windings of dynamo-electric machines, comprising a substantially solid, flat core of conductive material formed from an originally substantially cylindrical tubular element and having portions folded over into substantial contact with each other, and a plurality of layers of conductors spirally wound upon said core, the conductors of adjacent layers being spirally wound in opposite directions.

[Claims 6 to 12 not printed in the Gazette.]

1,209,097. APPARATUS FOR PRINTING. JOHN E. WOODBURY, Worcester, Mass. Filed June 4, 1913. Serial No. 771,668. (Cl. 101—103.)



1. In an intaglio printing device, the combination with means for moistening a portion of a sheet to be printed, and means for keeping the remainder of the sheet dry, of means for making the impression from the illustrative portion of an intaglio plate on the moistened portion of the sheet.

2. In an apparatus for printing from intaglio plates, the combination with means for locally moistening a portion of the sheet, means for preventing the spreading of the moisture beyond the moistened portion, means for removing any excess of moisture, and means for printing the illustrative portion of the design from the intaglio plate on the moistened portion of the sheet, and the reading matter on the dry portion.

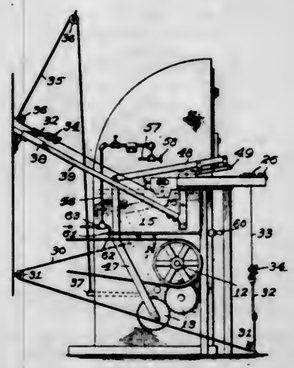
3. In an intaglio printing machine, the combination with an intaglio printing plate, of means for moistening a sheet to be printed locally on that portion which is to receive an imprint from the intaglio plate.

4. The combination with an intaglio plate having an illustrative design, of means for locally moistening a sheet on which the imprint is to be made, and means for printing thereon from the plate while the sheet is in that condition.

5. The combination with an intaglio plate having an illustrative design, and means adjacent thereto for registering a sheet in position to receive an imprint therefrom, of a second means for registering the sheet, and means for applying moisture to those portions of the sheet which register with the illustrative portions of the plate while the sheet is held by said second registering means.

[Claims 6 to 18 not printed in the Gazette.]

1,209,098. METHOD OF PRINTING. JOHN E. WOODBURY, Worcester, Mass. Original application filed June 4, 1913, Serial No. 771,668. Divided and this application filed July 12, 1915. Serial No. 39,274. (Cl. 101—103.)



1. A method of printing from intaglio plates which consists in moistening a portion of a sheet, keeping the remainder of the sheet dry, making the impression from the illustrated portion of the intaglio plate on the moistened portion of the sheet and printing on the unmoistened portion of the sheet.

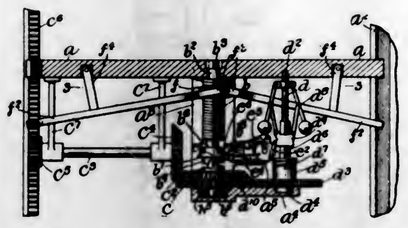
2. A method of printing from intaglio plates which consists in locally moistening a portion of a sheet, preventing the spreading of the moisture beyond the moistened spot, removing any excess of moisture therefrom, and immediately thereafter printing the illustrative portions of a design from an intaglio plate on the moistened portion of the sheet and the reading matter on the dry portion.

3. A method of printing from intaglio printing plates which consists in applying moisture to a sheet on the portions thereof which are to receive the imprint of the illustrative portions of the plate, keeping the rest of the sheet dry including the part to receive the imprint of the reading matter, taking up the excess moisture from the moistened portion, and applying the sheet to the plate from which the imprint is to be made.

4. The method of printing from intaglio plates, which consists in locally moistening a sheet on which the imprint is to be made, then taking up the excess moisture from the moistened portion of the sheet, and printing thereon while the sheet is in that condition.

5. The method of printing from intaglio plates which consists in moistening a sheet on certain portions only and printing illustrative matter only on the moistened portions from the intaglio plates.

1,209,099. SAFETY ELEVATOR ATTACHMENT. RICHARD WUNNING, New York, N. Y. Filed Aug. 30, 1915. Serial No. 48,091. (Cl. 187—89.)



1. A safety attachment for elevator cars comprising a hanger frame connected with the bottom of the car, a vertical and rotatable main shaft mounted therein, a vertical rack bar at one side of the shaft, a horizontal shaft supported beneath the car and provided at its outer end with a gear which meshes with said rack bar and at its inner end with a beveled gear, a beveled gear rotatably mounted on the bottom part of the main shaft and meshing with the last named beveled gear and provided on its top surface with a clutch member, a supplemental clutch member vertically movable on the main shaft, and adapted to operate in connection with the clutch member on said gear, a vertical governor shaft, a gear rotatably mounted on the lower end portion thereof, a corresponding gear on the main shaft and adapted to mesh with said last named gear and provided on its top surface with a clutch member, a supplemental clutch member vertically movable on the governor shaft and adapted to operate in connection with the clutch member on the last named gear, a governor device mounted on the governor shaft and comprising a vertically movable part, a rotary device mounted between the governor shaft and the main shaft and in operative connection with said vertically movable part, clutch member controlling devices mounted between the rotary device and the main shaft and in operative connection with the rotary device and having a horizontal movement and adapted to operate in connection with the clutch member mounted on the main shaft, vertically arranged brake rails and radially arranged brake members adapted to be operated by the main shaft and operating in connection with said vertically arranged brake rails at the opposite sides of the elevator shaft.

2. A safety attachment for elevator cars comprising a hanger frame suspended beneath the car, a vertically arranged rack bar at one side of the elevator shaft, vertically arranged brake rails at the opposite sides of the elevator shaft, a main central shaft rotatably and vertically mounted in said frame, radially arranged brake devices in operative connection with said shaft and operating in connection with said brake rails, a horizontal shaft suspended beneath the car and provided at its outer end with a gear which meshes with said rack bar and at its inner end with a beveled gear, a beveled gear rotatably mounted on the lower end portion of the main shaft and meshing with the beveled gear on the horizontal shaft, a vertical governor shaft, a gear mounted on the lower end portion thereof, a corresponding gear on the main shaft, and adapted to mesh with said last named gear, a governor device mounted on the governor shaft, and devices whereby too rapid downward movement of the car will operate the brake devices to stop said movement.

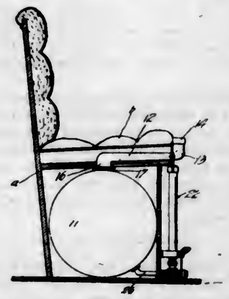
3. A safety attachment for elevator cars comprising a central vertical shaft rotatably supported beneath the car, vertical brake rails at the opposite sides of the elevator shaft, radially arranged brake devices in operative connection with said shaft and adapted to operate in connection with said vertical brake rails, devices whereby the too rapid descent of the car will throw said brake devices into operation and stop the downward movement of the car, means whereby the downward movement of the car will be stopped at a predetermined point, and supplemental stop devices whereby the downward movement of the car will be checked if the first named devices should break or fail to operate.

4. A safety attachment for elevator cars comprising a frame, a vertical threaded shaft rotatably mounted therein, vertically arranged brake rails, brake devices mounted on the threaded portion of said shaft and adapted to engage said rails, a vertical rack bar, a horizontal shaft provided with a gear which meshes with said rack bar, a gear mounted on said horizontal shaft adjacent to said vertical shaft, a corresponding gear loosely mounted on said vertical shaft and adapted to engage the gear on said horizontal shaft, a governor shaft geared in connection with the gear loosely mounted on the vertical shaft, a governor device mounted on the governor shaft, means for operating the governor in one direction only, and devices in operative connection with the vertical shaft and the governor whereby the too rapid descent of the car will operate the governor and said last named devices to rotate said shaft and operate the brake devices to stop the descent of the car.

5. A safety attachment for elevator cars, comprising vertically arranged brake rails, a vertical threaded shaft, a block movable on the threaded portion of said shaft, radially arranged brake devices the inner ends of which are connected with said block, the outer ends of said brake devices being adapted to engage said rails, a gear loosely mounted on said shaft, means for operating said gear, means for causing said gear to rotate said shaft to move said block longitudinally thereon, and means operated by the descent of the car for controlling said last named means.

[Claim 6 not printed in the Gazette.]

1,209,100. COMBINATION GAS FILLER AND GAGE FOR AUTOMOBILES. JOHN P. ANDERSON, Los Angeles, Cal., assignor of one-third to Max Green, Los Angeles, Cal. Filed Nov. 29, 1915. Serial No. 64,205. (Cl. 21—90.)



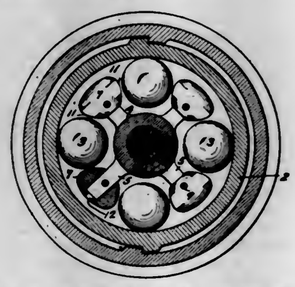
1. The combination of a seat of a motor-propelled vehicle, a storage tank under said seat, a tank filler leading from said tank to the forward edge of said seat, a gage connected to said storage tank and disposed below the forward end of said filler, means for detachably securing the forward end of said filler to the upper end of said gage and a conduit leading from said storage tank to the carbureter of the vehicle engine.

2. The combination of a seat of a motor-propelled vehicle, a storage tank under said seat, a tank filler leading from said tank to the forward edge of said seat, a gage connected to said storage tank and disposed below the forward end of said filler, the upper end of said gage being threaded, a threaded collar screwing on said upper end of said gage, ears on said collar, ears on the forward end

of said filler adapted to register with the ears on said collar, means for securing said ears together, and a conduit leading from said storage tank to the carbureter of the vehicle engine.

3. The combination of a seat of a motor-propelled vehicle, a storage tank under said seat, said tank being provided with a threaded inlet, a tank filler, one end of which is threaded to screw into said threaded inlet, said filler leading from said inlet to the forward edge of said seat, a gage connected to said storage tank and disposed below the forward end of said filler, means for detachably securing the forward end of said filler to the upper end of said gage and a conduit leading from said tank to the carbureter of the vehicle engine.

1,209,101. FULLER-MILL PUSHER. CHARLES B. ANDREWS, High Bridge, N. J., assignor to Taylor-Wharton Iron and Steel Company, High Bridge, N. J., a Corporation of New Jersey. Filed Nov. 12, 1914. Serial No. 871,644. (Cl. 83—45.)



1. In a grinding mill, a grinding ring and balls adapted to roll in contact therewith to crush the material, in combination with a yoke and pushers thereon between the balls consisting of massive bodies formed with sockets whereby they are mounted fixedly on the ends of the yoke arms, said pushers having approximately vertical cylindrically convex impelling faces adapted at all times to act horizontally upon the balls.

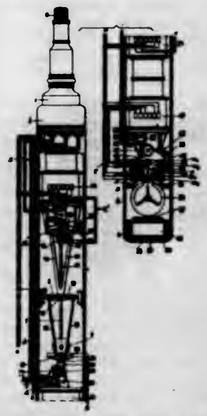
2. A pusher for a mill of the type described consisting of a massive metal body formed with a socket whereby it may be fixedly mounted on the end of an arm and having an approximately vertical cylindrically curved impelling face.

3. In a grinding mill comprising a grinding ring, balls adapted to roll in contact therewith in order to crush the material, and a rotary yoke, pushers each having an angular socket extending outward from its inner face for the reception of an arm on the yoke and an opening of materially smaller diameter than the socket extending from the outer face of the pusher and opening through the end face of said socket.

1,209,102. APPARATUS FOR DETERMINING DEVIATION OF BORE-HOLES FROM THE VERTICAL. HERMANN ANSCHÜTZ-KAEMPFE, Neumühlen, near Kiel, Germany. Filed Dec. 14, 1912. Serial No. 736,667. (Cl. 33—205.)

1. In a device for determining the deviations of bore holes from the vertical, the combination with a casing adapted to be lowered into the bore hole, of a pendulum and a compass therein, turning devices operatively connected with the pendulum and the compass and respectively controlled thereby, an indicating device outside of and separate from said casing, and synchronizing devices for transmitting the movements of the turning devices to the indicating device.

2. In a device for determining the deviations of bore holes from the vertical, the combination with a casing adapted to be lowered into the bore hole, of a pendulum and a compass therein, two frames pivoted about two axes at right angles to each other, means whereby the components of the respective movements of the pendulum about said two axes, are transmitted to the said frames, an indicating device, and electrical means for transmitting the respective movements of the said frames to the indicating device.



3. In a device for determining the deviations of bore holes from the vertical, the combination with a casing adapted to be lowered into the bore holes, of a pendulum and a compass therein, turning devices operatively connected with the pendulum and the compass and respectively controlled thereby, an indicating device having a rotatable dial, an indicator movable over said dial, electric means for transmitting the respective movements of the turning devices to the indicator, and electric means for transmitting the respective movements of the compass to the rotatable dial.

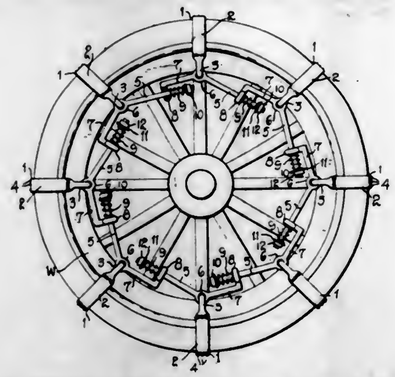
4. In a device for determining the deviations of bore holes from the vertical, the combination with a casing adapted to be lowered into the bore hole, of a pendulum and a compass therein, two frames pivoted about two axes at right angles to each other, means whereby the components of the respective movements of the pendulum about the said two axes, are transmitted to the said frames, an indicating device having a rotatable dial, an indicator movable over said dial, electric means for transmitting the respective movements of the frames to the indicator, and electric means for transmitting the respective movements of the compass to the rotatable dial.

5. In a device for determining the deviations of bore holes from the vertical, the combination with a casing adapted to be lowered into the bore hole, of a pendulum and a compass therein, turning devices operatively connected with the pendulum and the compass and respectively controlled thereby, an indicating device having a rotatable dial, a magnetic bar movable beneath said dial, an iron ball on said dial adapted to be attracted by and to follow the movements of the magnetic bar, electric means for transmitting the respective movements of the turning devices to the indicator, and electric means for transmitting the respective movements of the compass to the rotatable dial.

1,209,103. ANTISLIPPING DEVICE. FRANK H. BACHMAN and REUBEN H. BACHMAN, Allentown, Pa. Filed May 4, 1916. Serial No. 95,421. (Cl. 152—14.)

1. An anti-slipping device comprising a plurality of tread members, bars pivotally engaged with the extremities of the tread members, each of said bars being provided with an extension terminating in a perforate ear, an adjacent bar being loosely disposed through said ear, a stop carried by the portion of the bar disposed beyond the ear, and an expansible member interposed between said stop and ear.

2. An anti-slipping device comprising a plurality of tread members, bars pivotally engaged with the extremities of the tread members, each of said bars being provided with an inwardly disposed perforate ear, a bar of an adjacent tread member being loosely disposed through said ear, and an expansible member coacting with the ear and the outer portion of the bar disposed through the ear.



3. An anti-slipping device comprising a plurality of tread members, bars pivotally engaged with the extremities of the tread members, each of said bars being provided with an extension terminating in a perforate ear, a bar of an adjacent tread member being loosely disposed through said ear, and an expansible member interposed between said ear and the outer portion of the bar disposed through the ear.

1,209,104. PIER AND DOCK CONSTRUCTION. WILLIAM JOSHUA BARNBY, New York, and ARTHUR M. BROTHERS, Brooklyn, N. Y., assignors to General Contracting and Engineering Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 21, 1916. Serial No. 121,895. (Cl. 72—80.)



1. A foundation structure for docks, piers and the like comprising supports extending from the bed of the water to a point above low water line, a flooring or grillage thereon and a fireproof apron constituting a portion of the structure and extending downwardly from above said flooring or grillage to a point below low water line, said apron being spaced from the upper portions of the supports to leave an unfilled space between the apron and upper portions of the supports and thereby insure the apron against injury by lateral movements of the supports, and said apron being adapted to shield the structure from the risk of fire floating on the water.

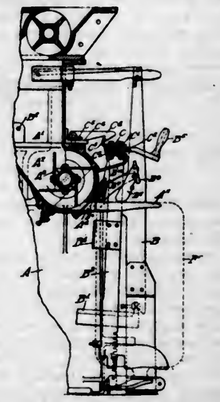
2. A foundation structure for docks, piers and the like comprising piles driven into the bed of the water and extending upwardly to a point above low water line, a grillage secured upon and connecting the piles, and a concrete apron resting upon the grillage and extending downwardly in front of the piles to a point below low water line, said grillage supporting the concrete above the ends of the piles and the apron being spaced from the upper portions of the piles to a point below low water line and thereby insuring the apron against injury by lateral movements of the piles, and said apron being adapted to shield the grillage and piles from the risk of fire floating on the water.

3. A foundation structure for docks, piers and the like comprising a series of foundation units each consisting of a series of piles driven into the bed of the water and at their upper ends being above low water line, a grillage mounted on and connecting the piles and constituting a covering to support a concrete cap above the upper ends of the piles, and a concrete cap mounted on the grillage and extending downwardly in front of the upper portions of the piles to a point below low water line and spaced from the piles to insure the depending concrete against injury by lateral movements of the piles.

4. A foundation structure for docks, piers and the like comprising a series of foundation units each consisting of a series of piles driven into the bed of the water and at their upper ends being above low water line, a grillage mounted on and connecting the piles of each unit, a reinforced concrete cap mounted on the grillage and extending downwardly in front of the upper ends of the piles to a point below low water line and a pedestal upon each unit affording foundation structure, the concrete cap being spaced from the upper ends of the piles, and an unfilled space being left between the depending portions of the cap and the piles to insure such portions against injury by lateral movements of the piles.

5. A foundation structure for docks, piers and the like comprising a series of foundation units each consisting of a series of piles driven into the bed of the water and at their upper ends being above low water line, a grillage mounted on and connecting the piles of each unit, a reinforced concrete cap mounted on the grillage and extending downwardly in front of the upper ends of the piles to a point below low water line, and a pedestal upon each unit affording foundation structure, said cap having a recess in its top and said pedestal being fitted to and located at its lower end within said recess, and an unfilled space being left between the depending portion of the cap and the supporting piling to insure such portion against injury by lateral movements of the piles.

1,209,105. VALVE-BAG-FILLING MACHINE. ADELMER M. BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed Jan. 25, 1915. Serial No. 4,097. (Cl. 100—57.)



1. In a bag filling machine a bag support, a bag mounted thereon, a scale beam carrying said support and free to move up and down under the influence of the bag and means for resisting the removal of the bag before the scale has been moved down, said means comprising a latch in engagement with the support.

2. In a bag filling machine a bag support, a bag mounted thereon, a scale beam carrying said support and free to move up and down under the influence of the bag and means for resisting the removal of the bag before the

scale has moved down, said means comprising a latch in engagement with the support, said support being free to move inwardly in engagement with the latch at all times.

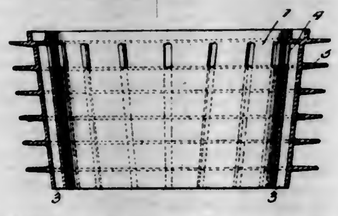
3. In a bag filling machine a bag support, a bag mounted thereon, a scale beam carrying said support and free to move up and down under the influence of the bag and means for resisting the removal of the bag before the scale has been moved down, said means comprising a latch in engagement with the support, said latch being out of engagement with the support when the scale has moved down.

4. In a bag filling machine means for locking a bag in filling position and means operative when the bag has been completely filled for releasing such locking means.

5. In a bag filling machine comprising a filling tube, means for locking a bag on the tube and means operative when the bag has been filled for releasing such locking means.

[Claims 6 to 27 not printed in the Gazette.]

1,209,106. FIRE-POT FOR FURNACES. HENRY E. BECK, Dennison, Ohio, assignor to The Dennison Foundry and Machine Company, Dennison, Ohio. Filed May 25, 1916. Serial No. 99,880. (Cl. 126—146.)



1. A furnace fire pot provided in its wall with a plurality of air passages opening through the lower edge of the said wall and at their upper ends opening through the inner face of the wall, and continuous circumscribing flanges surrounding the said wall and spaced one above another throughout the height of the said wall.

2. A furnace fire pot having a wall integral throughout and provided in its said wall with a plurality of air passages extending upwardly therethrough and arranged in a series extending around the said wall, the passages at their lower ends opening through the lower edge of the wall and at their upper ends terminating short of the upper edge of the said wall andopening through the inner surface of the wall, the said wall being provided with a plurality of integral circumscribing reinforcing flanges unbroken throughout their extent.

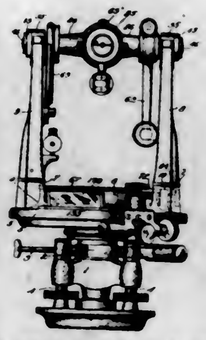
1,209,107. SURVEYING INSTRUMENT. LOUIS H. BERGER, Boston, Mass. Filed Jan. 24, 1916. Serial No. 73,825. (Cl. 33—46.)

1. In a surveyor's instrument, a telescope having a transverse axle, provided with bearings near each end of the axle, supports for said bearings, adjustable end thrust devices for the ends of said axle and means to secure lateral adjustment of the telescope and its axle in said bearings by adjusting said end thrust devices.

2. In a surveyor's instrument, a telescope having a transverse axle, provided with bearings near each end of the axle, supports for said bearings an adjustable end thrust member, bearing on an end of the axle and carried by one support, and means to secure lateral adjustment of the telescope and its axle in said bearings by said adjustable end thrust device.

3. In a surveyor's instrument, a telescope having a transverse axle provided with vertically sliding bearings near each end of the axle, supports for said bearings, an adjustable end thrust device carried by said sliding bearing during its vertical adjustments, to secure lateral adjustment of the telescope and its axle in said bearings by the adjustment of said device.

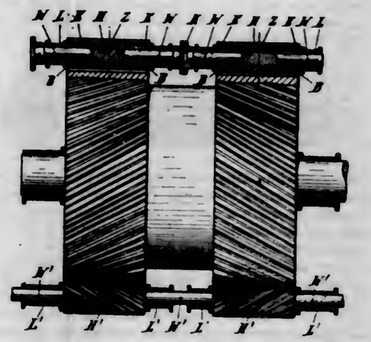
4. In a surveyor's instrument, a telescope having a transverse axle, provided with bearings near each end of the axle, supports for said bearings, and means to secure lateral adjustment of the telescope and its axle, said adjusting means comprising an end inclosing member secured to each support and constituting a dust-proof covering for the end of the axle, an adjustable plug carried by said member and having a thrust bearing on the end of the axle.



5. A surveyor's instrument, having a telescope and a horizontal axle therefor, vertically adjustable supporting bearings for the end portions of said axle, end thrust devices carried by said vertically adjustable support and adapted to bear endwise on the telescope axle, adjustment of said end thrust bearings acting to adjust, laterally, said telescope, while holding it in the position to which it has been adjusted.

[Claims 6 to 10 not printed in the Gazette.]

1,209,108. GEARING. OSKAR V. BOHUSZEWICZ, Kiel, Germany. Filed Mar. 1, 1915. Serial No. 11,402. (Cl. 74—7.)

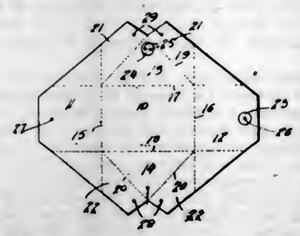


1. In a gearing, the combination of a pinion shaft, and pinion sections of comparatively small diameter and wide teeth carried by said pinion shaft, said pinion sections being connected to said pinion shaft by a comparatively narrow web, and having comparatively wide overhanging toothed portions.

2. In a gearing, the combination of a pinion shaft, and pinion halves of comparatively small diameter, and having comparatively wide teeth, carried by said pinion shaft, said pinion halves being connected to said pinion shaft by comparatively narrow webs at the middles of the pinion halves.

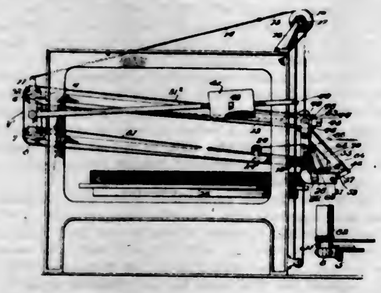
3. In a gearing, the combination of a pinion shaft, pinion halves of comparatively small diameter carried by said shaft, comparatively large teeth formed on said pinion halves and disposed to extend at opposite angles and comparatively narrow webs connecting said pinion halves to said pinion shaft, the toothed portions of the pinion halves extending in wide flanges from each side of said web.

1,209,109. SAFETY-ENVELOP. HANS BOSSART, San Francisco, Cal. Filed Feb. 16, 1916. Serial No. 78,675. (Cl. 229—78.)



An envelop comprising a body portion, end flaps, upper and lower flaps having side extensions forming webs connecting the upper and lower flaps with the end flaps, a socket plate fitting against the inner face of one of said end flaps and provided with an opening, the second end flap being provided with an opening for registering with the opening in the socket plate when the second flap is folded upon the first mentioned flap, a fastener plate fitting against the inner face of the upper flap and having resilient prongs terminating in hooked ends, the end flaps having said socket plate being folded upon said body portion and the second end flap being folded upon the first mentioned end flap, the side extensions of said upper and lower flaps being folded inwardly with the side extensions of the upper flap covering said fastener and provided with openings through which said resilient prongs pass, the side extensions of the lower flap being provided with openings registering with an opening in the lower flap, said lower flap being folded upon said end flaps with its registering openings registering with the openings in the socket plate, and said upper flap being folded upon said lower flap with the prongs extending through the registering openings thereof and through the openings of said socket plate to hold said flap in a closed position.

1,209,110. PAPER-FEEDING MACHINE. HARRY BRADSHAW, Richmond, Va., assignor to Frederick C. Caswell, Richmond, Va. Filed Oct. 10, 1914. Serial No. 866,127. (Cl. 101—40.)



1. In a paper feeder, the combination with conveying and lifting tapes, a buckling mechanism, a lifting finger adapted to move under the paper after it has been buckled, and a roller adapted to be moved down upon the sheet of paper above the lifting finger and the sheet fed between the conveying and lifting tapes by the backward movement of the lifting finger.

2. In a paper feeder, the combination with conveying and lifting tapes passing around the same roller, a buckling mechanism, a finger adapted to be moved under the sheet of paper after being buckled, a roller adapted to be moved down upon the sheet of paper above the lifting finger, whereby the outward movement of the lifting finger causes the roller to feed a sheet of paper upwardly between the conveying and lifting tapes.

3. In a feeder, the combination with conveying and lifting tapes passing over the same roller, a buckling mechanism, fingers resting upon the sheet of paper and adapted to turn the edge upwardly after being buckled, a finger adapted to move forwardly below the upwardly turned end of the sheet of paper, and a roller adapted to be brought down upon the sheet of paper above the finger, whereby the outward movement of the finger causes the sheet to travel upwardly between the conveying and lifting tapes.

4. In a feeder, the combination with conveying and lifting tapes, of a horizontally movable buckling mechanism, a finger resting upon the pile of paper and adapted to turn the end of the sheet of paper upwardly after being buckled, a lifting finger movable inwardly below the turned edge of the sheet of paper, and a roller adapted to be brought down upon the sheet of paper above the lifting finger, whereby the outward movement of the lifting finger causes the sheet of paper to travel upwardly between the conveying and lifting tapes.

5. In a paper feeder, the combination with lifting and conveying tapes arranged above the pile of paper, downwardly curved fingers resting upon the pile of paper, a buckling mechanism adapted to engage the top sheet of a pile of paper, means for clamping the pile of paper during the buckling operation, an inwardly extending finger adapted to travel below the buckled sheet, a roller engaging the sheet above the finger, said finger adapted to move the sheet outwardly by the outward movement thereof to bring the sheet upwardly between the conveying and lifting tapes.

[Claims 6 to 8 not printed in the Gazette.]

1,209,111. COVER FOR TOOTH-BRUSHES. SOPHIA D. BRELSFOARD, Maron, Ill. Filed June 30, 1916. Serial No. 106,864. (Cl. 132—11.)

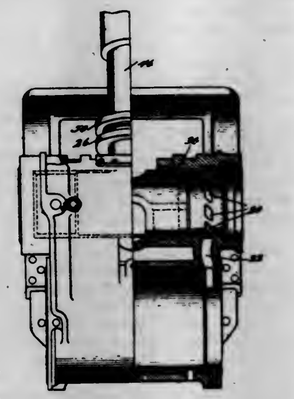


A covering for tooth brushes comprising a pair of complementary sections, each of said sections being provided with a handle receiving portion and a brush receiving portion, each handle receiving portion being provided with an opening at the end thereof, a resilient U shaped clip engaging said openings, the sections being thereby pivoted to each other so that either section may be swung around said pivot as a center in a plane parallel to the longitudinal plane of the other section, a spring latch carried by the end of one of the brush head receiving portions and a lug carried by the other brush head receiving portion for engagement by the latch as and for the purpose set forth.

1,209,112. MECHANISM FOR RECLAIMING DEFECTIVE LOCOMOTIVE AND STEAM CYLINDERS. ELMER J. BREWSTER and JOHN MURRIN, Chicago, Ill. Filed Apr. 23, 1915. Serial No. 23,313. (Cl. 121—14.)

1. In an engine, the combination of a casting including a valve cylinder and having a passage therein leading to the cylinder, a saddle casting having a passage therethrough inserted in an opening in the cylinder remote from the passage leading to the cylinder, means for securing said saddle casting to the cylinder, and a cylindrical lining inserted in the cylinder to close the first named passage and forming a steam tight joint between same

and the cylinder and between same and the saddle casting, said lining having an opening therein registering with the passage in the saddle casting.



2. In an engine, the combination of a valve cylinder, a saddle casting having a passage therethrough inserted in an opening in the cylinder, means for securing said saddle casting in position to the cylinder, and a cylindrical lining inserted in the cylinder and having an opening therein registering with the passage in the saddle casting, said lining forming a steam tight joint between same and the cylinder and between same and the saddle casting.

1,209,113. TOY BOWLING-ALLEY. THOMAS J. BURKE, New Orleans, La. Filed Mar. 25, 1916. Serial No. 86,723. (Cl. 46—54.)



1. In game apparatus, a base member, an objective game piece arranged for disposal in upright position upon the base member, a flexible element connected to the game piece and extending through the base member, a resilient element secured at one end beneath the base member and having connected to its free portion the said flexible element, and means operable to render the said resilient element inactive.

2. In game apparatus, a base member, an objective game piece arranged for disposal in upright position upon the base member, a flexible element connected to the game piece and extending through the base member, a resilient element secured at one end beneath the base member and having connected to its free portion the said flexible element, means for placing the resilient element under tension whereby to relieve the flexible element of pulling strain, and means for maintaining the tension upon the said resilient element.

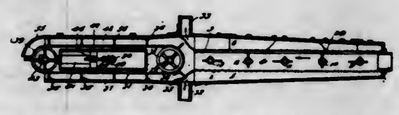
3. In game apparatus, a base member, an objective game piece arranged for disposal in upright position upon the base member, a strip of resilient material secured at one end beneath the base member, a flexible element connected to the said objective game piece and to the said resilient strip, a pulling element connected to the free portion of the strip and arranged when a pull is exerted thereon to flex the strip and place the same under tension in a manner to relieve the flexible element of pulling strain, and a detent arranged for coaction with the said strip to hold the same flexed and operable to release the said strip.

4. In game apparatus, a base member, an objective game piece arranged for disposal in upright position upon the base member, a resilient strip secured beneath the base member and having a free end portion, a flexible element connected to the game piece, yieldable connection between the flexible element and the said free portion of the resilient strip, the strip tending to normally assume a position exerting a pull upon the said connection and the said element, means for flexing the said portion of the strip to relieve the element of pulling strain, and a detent operable to maintain the said portion of the strip in flexed condition.

5. In game apparatus, a base member, an objective game piece arranged for disposal in upright position upon the base member, a resilient element mounted at one end beneath the base member and having a free portion, a flexible element connected to the game piece and to the free portion of the said member, means for flexing the said portion of the member to relieve the said element of pulling strain normally exerted by the said member, and a resilient detent mounted beneath the base member and having a portion projecting upwardly through the base member and having a shoulder arranged for engagement by the end of the said portion of the resilient member for holding the same flexed.

[Claims 6 to 9 not printed in the Gazette.]

1,209,114. SEED-COTTON CLEANER. THOMAS M. CASS, Tyler, Tex. Filed Jan. 31, 1916. Serial No. 75,278. (Cl. 13—19.)



1. A cotton cleaner comprising a chamber, screens dividing said chamber into compartments, forming a central compartment for the passage of cotton and compartments above and below the cotton compartment for the passage of trash and dirt, a series of revolving reels in said cotton compartment journaled in said chamber and provided with long and short beaters for agitating the cotton as the cotton passes therethrough, and means for creating suction through all of said compartments.

2. A cotton cleaner comprising a chamber, screens dividing said chamber into compartments, forming a central compartment for the passage of cotton and compartments above and below the cotton compartment for the passage of trash and dirt, a series of reels having long and short beaters in said cotton compartment provided with shafts journaled in said chamber, means for creating suction through all of said compartments, and means for driving said reels for agitating the cotton passing through said cotton chamber.

3. A cotton cleaner comprising a chamber, screens dividing said chamber into a passage for cotton and passages for the trash and dirt, means for creating suction through said passages, a series of reels in said cotton passage journaled in said chamber, each reel being provided with long and short beaters arranged in staggered relation, and means driving said reels.

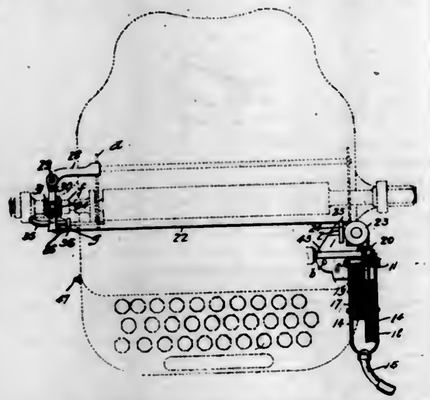
4. A cotton cleaner comprising a chamber, screens dividing said chamber into a cotton compartment and compartments for the passage of trash and dirt, means for creating drafts through said compartments, a series of reels in said cotton compartment, each having long and short beaters and the reels having different numbers of beaters arranged in staggered relation, and means for driving said reels.

5. A cotton cleaner comprising a chamber, screens dividing said chamber into a cotton compartment and compartments for the passage of trash and dirt, a series of reels in said cotton compartment journaled in said chamber and provided with long and short beaters, means for

driving said reels in unison for agitating the cotton, suction chutes connected with said chamber for carrying away trash and dirt, and a chamber for receiving and discharging the cleaned cotton.

[Claims 6 to 8 not printed in the Gazette.]

1,209,115. TYPE-WRITER CARRIAGE-RETURN MECHANISM. EDUARDO CASTAÑEDA, Monterey, Mexico, assignor of one-half to Jose Belden, Monterey, Mexico. Filed Mar. 3, 1916. Serial No. 81,895. (Cl. 197—65.)



1. In a typewriting machine, an escapement actuating member movable with the carriage, a flexible member connected with the actuating member, and means connected to the flexible member adapted to slacken and tension the latter to throw the actuating member into and out of operation respectively.

2. In a typewriting machine, an escapement actuating member movable with the carriage, a flexible member connected with the actuating member, and a pivoted lever connected to the flexible member adapted to slacken and tension the latter to throw the actuating member into and out of operation, respectively.

3. In a typewriting machine, the combination with an escapement disengaging device, of an actuating member for the latter, a flexible member connected with the actuating member, and a pivoted lever connected to the flexible member adapted to tension the flexible member to actuate the disengaging device and to slacken said flexible member to release said device.

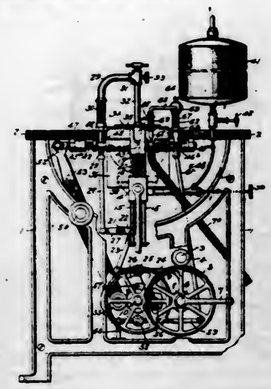
4. In a carriage return mechanism for typewriting machines, the combination of means for engaging the carriage frame and escapement disengaging device of the typewriter, a rack, a pinion engaging said rack, a pulley connected to said pinion and a flexible connection connected at one end to said pulley and at the other end to said means, and means to cause the pinion to traverse the rack.

5. In a carriage return mechanism for typewriting machines, the combination with means for causing the disengagement of the typewriter escapement, of a stationary arcuate rack, a lever pivoted at the center of the rack, a pinion mounted on said lever for engagement with said rack, a cord pulley on said pinion, and a flexible connecting member connected at one end to said pulley and at the other end to said means.

[Claims 6 to 9 not printed in the Gazette.]

1,209,116. CASTING-MACHINE. EDUARDO CASTAÑEDA, Monterey, Mexico, assignor of one-half to Jose Belden, Monterey, Mexico. Filed Mar. 9, 1916. Serial No. 83,071. (Cl. 22—57.)

1. In a casting machine, a pot for molten metal, a molten metal displacing member to raise and lower the liquid level in said pot, a mold member adjacent the pot, means to move the displacing member into the metal to cause it to flow into said mold member, and means to return the surplus metal to the pot.



2. In a casting machine, a pot for molten metal, a member for displacing the metal in the pot, a mold member communicating with the pot and above the normal level of the metal therein, and automatically operated means to actuate the displacing member periodically to raise and lower the level of the metal in the pot to cause the metal to overflow periodically from the pot into the mold member when the level of the whole body of metal is raised.

3. In a casting machine, a pot for molten metal, a displacing member, a mold member communicating with the pot and above the normal level of the metal therein, means to periodically move the displacing member to cause the molten metal to overflow into the mold member, and means to return the surplus metal to the pot.

4. In a casting machine, a pot for molten metal, a displacing member, a mold member having a runner and a gate above the normal level of the metal in the pot, means to move the displacing member into the molten metal to cause it to overflow through said runner and gate, and means to return the surplus metal in said runner and gate to the pot after the metal level has been lowered.

5. In a casting machine, a mold member having a gate, a pair of spaced plungers movable in said member, means to move the plungers with the casting between them past the gate to sever the casting from the gate metal.

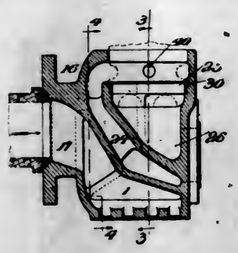
[Claims 6 to 19 not printed in the Gazette.]

1,209,117. SUPERHEATER-HEADER. JOHN S. CHAMBERS, New York, N. Y., assignor to Chambers Valve Company, New York, N. Y., a Corporation of New York. Filed Sept. 10, 1915. Serial No. 49,931. (Cl. 122—462.)

1. In combination with a boiler of locomotive type, of a superheater header comprising a relatively wide member extending transversely of the smoke box and comprising an inlet chamber connected with the steam space of the boiler, an outlet chamber connected with the cylinders, and an intervening chamber having its walls common to said first mentioned chambers having its main walls diagonally disposed with respect to said header, said intervening chamber being divided into sections and having pipes leading thereto after passing through the fire tubes of the boiler from said first chamber.

2. In combination with a boiler of locomotive type, of a superheater header comprising a sectional inlet chamber connected with the steam space of the boiler, an outlet chamber connected with the sylinders, and a sectional intervening chamber, said first and last chamber being connected one with another by superheater pipes passing

through the fire tubes of the boiler, said chambers being integrally formed and of substantially the same size, the bottom wall of one chamber being the top wall of another and being diagonally disposed within said header.



3. In combination with a boiler of locomotive type, of a superheater header comprising an inlet, an outlet and an intervening chamber having common dividing walls, said dividing walls being diagonally disposed with respect to the superheater to provide chambers of substantially equal capacity, the inlet and intervening chamber being divided into alternate sections, each section of one being connected with an adjacent section of the other by looped superheating pipes leading through the fire tubes of the boiler, said outlet chamber having an inlet opening from the intervening chamber and an outlet opening for conducting the steam therefrom, a throttle valve in said opening positioned partly within and partly without the boiler, means for operating said throttle valve extending along the outside of the boiler, and a connection from the superheater to the boiler to deliver superheated steam back to the boiler whereby a circulation of steam may occur through the superheater at all times.

4. In combination with a boiler of locomotive type, of a superheater header comprising three substantially coextensive chambers including an inlet chamber to which steam is conducted from the steam space in the boiler, an outlet chamber for conducting superheated steam to the cylinders, and an intervening chamber having diagonally disposed walls common with said first mentioned chamber, a valve opening between the intervening and outlet chamber having a loose valve seat, a valve coacting with said seat and projecting upwardly through the wall of the boiler, operating means for said valve extending along the outside of the boiler to the cab, said first chamber and intervening chamber being divided into alternate sections, and superheating tubes leading from one section through one of the fire tubes and then back to an adjacent section in the intervening chamber.

1,209,118. PROCESS OF MAKING DOLL-HEADS. ALEX CHATELAIN, Akron, Ohio, assignor to The Mechanical Rubber Co., a Corporation of New Jersey. Filed Dec. 28, 1915. Serial No. 69,043. (Cl. 18—56.)

The process of forming hollow articles having minute interstices or recesses, and with variously colored or tinted portions, which comprises forming said article about a heated core by inclosing the same in heated mold sections under external pressure, vulcanizing, stripping said article from said core, finishing the surface thereof, and then applying rubber cement containing coloring matter to the various portions thereof.

1,209,119. BALE-TIE BUCKLE. HENDERSON P. CHILDRESS, Memphis, Tenn. Filed Sept. 28, 1915. Serial No. 53,021. (Cl. 24—23.)

1. A bale-tie buckle of flat stock having retaining means near one end for one end of a bale band and also having a locking slot near the other end with a tongue projecting into the slot, and a locking lip on the side of the slot toward which the tongue projects, said lip being displaced to one side of the plane of the body of the buckle.

2. A bale-tie buckle of flat stock having retaining means near one end for one end of a bale band and also having near the other end a transversely extended locking slot, said buckle being provided with an integral tongue directed toward the end of the buckle occupied by the slot and lying in the plane of the body of the buckle, and that end of the buckle beyond the slot being offset to one side of the plane of the buckle to constitute a lip, whereby the adjacent edges of the tongue and lip are separated for the passage of the bale band between them and coact to engage opposite faces of the bale band at closely adjacent points to lock the bale band in the locking slot.



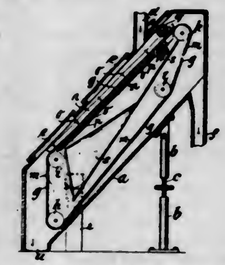
3. A bale-tie buckle of flat stock provided with retaining means near one end for one end of a bale band and also provided with a locking slot near the other end and having said end beyond the slot offset to one side of the plane of the buckle, and a locking tongue projecting from that wall of the slot remote from the offset end of the buckle and coacting therewith to doubly bend the portion of the bale band transversing the slot at closely adjacent points.

4. A bale tie buckle of flat stock having near one end retaining means for one end of a bale band, and near the other end a locking slot for the other end of the bale band, the end of the buckle beyond the slot being bent to one side of the plane of the body of the buckle and constituting a locking lip, and the body of the buckle being provided with an integral tongue projecting from the edge of the slot remote from the lip in a direction toward that end of the buckle forming the lip, the length of projection of the tongue being substantially equal to the extent of the slot lengthwise of the buckle.

5. A bale-tie buckle of flat stock having retaining means near one end for one end of a bale band and provided with a locking slot near the other end with a tongue projecting from one edge of the slot remote from the said end toward said end in the plane of the body of the buckle and said end of the buckle beyond the slot being bent to one side of the plane of the buckle in offset and substantially parallel relation thereto.

[Claim 6 not printed in the Gazette.]

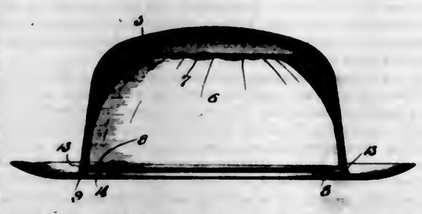
1,209,120. MACHINE FOR GRADING AND SEPARATING CEREALS AND OTHER GRANULAR SUBSTANCES OR MATERIALS, HENRY COGHLAN and HAROLD COGHLAN, Stockport, England. Filed Sept. 11, 1914. Serial No. 861,258. (Cl. 130—16.)



1. In a machine for grading or separating cereals and other granular substances or materials of the type hereinbefore referred to, an endless traveling sieve mounted at an incline, means for rotating the said sieve in an upward direction, a feeding device located near the upper end of the said sieve to supply the said sieve with the substance or material to be treated, a pair of rotary brushes located behind the said feeding device for the said sieve to pass through and adapted to loosen the portion of the substance or material which has become fast in the meshes of the sieve before the sieve commences its downward run, and means located in front of the said feeding device below the said sieve for intermittently vibrating and brushing the sieve to cause the substance or material fed to continuously gravitate thereon and also augment the action of the said pair of brushes, for the purpose specified.

2. In a machine for grading or separating cereals and other granular substances or materials of the type hereinbefore referred to, an endless traveling sieve mounted at an incline, a feeding device near the upper end of the said sieve, a pair of rotary brushes between the said feeding device and upper end of the said sieve between which brushes the said sieve passes and which run in a direction opposite to that in which the said sieve moves, an outlet at the lower end of the machine, and means in connection with the said feeding device and the said outlet for aspirating the lighter particles from the material and collecting the same, for the purpose specified.

1,209,121. COMBINED HAT-LINING AND BANDEAU. LEON COHEN, St. Louis, Mo. Filed July 19, 1915. Serial No. 40,772. (Cl. 2—108.)



1. A combined hat lining and bandeau comprising a strip of spring material, separate devices having pointed projections secured to said strip and a flexible fabric having an elastic therein and secured to said strip.

2. In a device of the class described, a strip of spring material, metallic sleeves secured to said strip, a pointed projection on each sleeve, and a fabric having an elastic therein and secured to said strip.

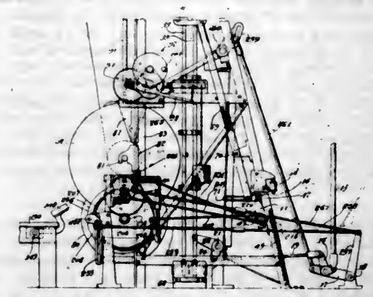
3. In a device of the class described, a single piece of fabric constituting a lining for a hat crown, and having integral casings at one margin thereof, a spring metal strip inserted into one of the casings, sleeves bearing pointed projections secured to said strip and an elastic cord in the other casing.

4. In a device of the class described a strip of spring material, sleeves secured to said strip at spaced intervals, a pointed projection carried by each sleeve, and a fabric, provided with an elastic element, secured to said strip of spring material, the said elastic element being located in the margin of the fabric opposite to the margin secured to the strip, and spaced apart therefrom.

1,209,122. WARPING APPARATUS. HOWARD D. COLMAN, Rockford, Ill., assignor to himself, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Filed June 28, 1913. Serial No. 770,238. (Cl. 28—14.)

1. A warping apparatus having, in combination, means for rotating a warp beam, a clutch which controls the beam-rotating means, a pivoted lever connected to said clutch, a treadle and connections for placing a fulcrum of said lever in position for high speed, means for swinging said lever on said fulcrum to throw in the clutch, a roller yieldingly pressed against the threads being wound, and connections between the roller and the lever-swinging means for controlling the latter.

2. A warping apparatus having, in combination, a creel for rotatively supporting a plurality of independent yarn supplies, a warp beam to draw yarn from the supplies, a series of combined stop-motion and slack-take-up members each carried solely by one of the threads being wound on the beam, and a stop-motion element movable into and out of the path of the slack-take-up movement of said members.



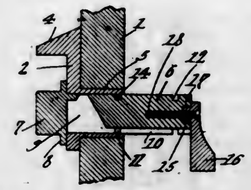
3. A warping apparatus having, in combination, a creel; beam-rotating means; brakes permitting coasting of the yarn masses in the creel; a brake permitting the beam to coast a little less than the yarn masses; individual slack-take-up members, each supported upon one of the threads; and a separate tube within which each slack-take-up member may descend to take up the slack caused by the excess coasting of the yarn masses.

4. A warping apparatus having, in combination, means for winding a thread, a detector supported upon the thread, a stop-motion member normally lying in the path of descent of the detector, and means for withdrawing said member from the path of descent of the detector to allow the detector to descend to a point below the normal position of the stop-motion member to take up slack in the thread.

5. A warping apparatus having, in combination, means for winding a plurality of threads; a detector supported upon each thread; an individual tube for each detector; an electric contact bar normally lying in the path of descent of the detectors in said tubes; stopping means controlled by said contact bar; and means controlled by the stopping means for withdrawing said bar from the path of descent of the detectors to allow the detectors to descend in said tubes to a point below the normal position of the contact bar to take up slack in the threads.

[Claims 6 to 49 not printed in the Gazette.]

1,209,123. MINER'S CHECK-HOLDER. EDWARD P. CONNELL, Huntington, W. Va., assignor of one-fourth to James I. Miller and one-fourth to Charles T. Taylor, Huntington, W. Va. Filed Feb. 21, 1916. Serial No. 79,694. (Cl. 40—15.)

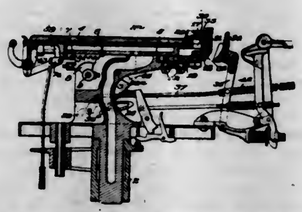


1. In a device of the class described, a tubular support; and a plunger mounted to rotate and to move endwise in the support, the plunger being provided with a check slot, with a longitudinal groove alined with the mouth of the check slot, and with spaced forward and rear circumscribing grooves communicating with the longitudinal groove, the support having a projection coöperating with the forward groove to maintain the check slot within the support, and coöperating with the rear groove to maintain the check slot outside of the support; and a depending counterweight on the inner end of the plunger and independent of the support, the weight constituting means for rotating

the plunger in the support, the longitudinal groove opening laterally in the same direction as the weight projects.

2. In a device of the class described, a tubular support; and a plunger mounted to rotate and to move endwise in the support and of greater length than the support, the plunger being provided adjacent one end with a check slot, with a longitudinal groove, and with forward and rear spaced circumscribing grooves communicating with the longitudinal groove and located between the slot and the other end of the plunger, the support having a projection adapted to traverse all of the grooves, the projection cooperating with the forward groove to maintain the check slot within the support and cooperating with the rear groove to maintain the check slot outside of the support.

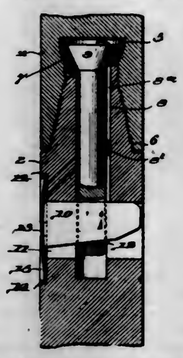
1,209,124. IRONING-MACHINE. DANIEL M. COOPER, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 14, 1912. Serial No. 731,264. (Cl. 68—9.)



1. The combination with a support, of a bosom board mounted on the support, a carrying device movable longitudinally of the support, clamping members arranged on the carrying device, and adapted to engage each other, an operating member for actuating the clamping members, a locking device carried by the operating member and operating to hold the clamping members in engagement, and releasing means arranged on the carrying device and adapted to engage the locking member.

2. The combination with a support, of a bosom board mounted on the support, a carrying device movable longitudinally of the support, clamping members arranged on the carrying device, an operating member for actuating the clamping members and a locking device arranged on the operating member and coöperating with one of the clamping members for holding them in engagement.

1,209,125. ROD-JOINT. DAVID W. COOPER, Ruston, La. Filed June 10, 1916. Serial No. 103,010. (Cl. 255—32.)



1. In a joint fastening, the combination of a first member having a socket flaring inwardly at its inner portion, a second member to engage the socket of said first member having an expansible end to engage the inwardly flaring portion of said socket and a transverse opening therein, expanding means for spreading said expansible end comprising a centrally located plunger provided with a transverse opening arranged to register with said first mentioned transverse opening, and unitary means for actuating said plunger arranged to pass through both of said transverse openings and prevent relative movement of the parts in which they are formed.

2. In a joint fastening, the combination of a first member having a socket flaring inwardly at its inner portion, a second member to engage the socket of said first member having an expansible end to engage the inwardly flaring portion of said socket, one of said members being provided with a transverse opening therein, expanding means for spreading said expansible end comprising a centrally located plunger provided with a transverse slot arranged to register with said first mentioned transverse opening, and unitary actuating means for operating said plunger arranged to pass through said transverse opening and said transverse slot and prevent relative movement of the parts in which they are formed.

3. In a joint fastening, the combination of a first member having a socket flaring inwardly at its inner portion, a second member to engage the socket of said first member having an expansible end to engage the inwardly flaring portion of said socket, a centrally located plunger for expanding said end, and unitary means for actuating said plunger and prevent relative movement between said plunger and said first and second members.

4. In a joint fastening, the combination of a first member having a socket tapering inwardly at its outer portion and flaring inwardly at its inner portion, a second member to engage said socket tapered outwardly at its inner portion and provided with an expansible end to engage the inwardly flaring portion of said socket, one of said members being provided with a transverse opening therein, expanding means for spreading said expansible end comprising a centrally located plunger provided with a transverse opening arranged to register with said first mentioned transverse opening, and unitary actuating means for operating said plunger arranged to pass through both of said transverse openings and prevent relative movement of the parts in which they are formed.

5. In a joint fastening, the combination of a first member having a socket tapering inwardly at its outer portion and screw threaded thereat and flaring inwardly at its inner portion, a second member to engage said socket tapering outwardly at its inner portion and screw threaded thereat and provided with an expansible end to engage the inwardly flaring portion of said socket, one of said members being provided with a transverse opening therein, expanding means for spreading said expansible end comprising a centrally located plunger provided with a transverse opening arranged to register with said first mentioned transverse opening, and unitary actuating means for operating said plunger arranged to pass through both of said transverse openings and prevent relative movement of the parts in which they are formed.

[Claims 6 and 7 not printed in the Gazette.]

1,209,126. TYPE-WRITING MACHINE. CORNELIUS B. CORCORAN, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 17, 1912. Serial No. 720,765. (Cl. 197—142.)



1. The combination, in a typewriting machine, with the platen frame and the platen thereof, of a paper alining table arranged over the platen, said table consisting of two members arranged at their upper and lower edges with telescoping flanges for lateral adjustment, a gage on the outer edge of each member, and means associated with one of said flanges for holding said plates in adjusted position.

2. The combination, in a typewriting machine, with a platen frame and platen thereof, of a paper alining table adapted to be arranged over the platen, said table consisting of two members arranged at their edges with telescoping flanges, a slot in the outer of one of said pairs of flanges, and a pin upon the other flange of the same pair, said pin adapted to slide in said slot, and means on said pin for clamping the two together, each of said members being arranged with a gage on its outer side.

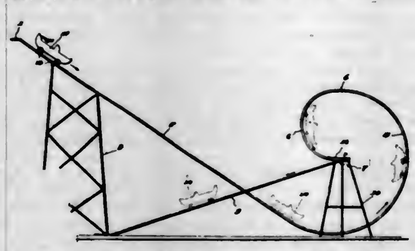
3. The combination, in a typewriting machine, with a platen frame and platen thereof, of a shaft mounted parallel to said platen, a bracket mounted toward each end of said shaft and adapted to slide thereon, a plate carried by each of said brackets, the two plates being arranged in telescopic relation to extend above and obliquely rearward from the platen, a gage on the outer edge of each of said plates, and means on said plates for holding them in adjusted position.

4. The combination, in a typewriting machine, with a platen frame and platen thereof, of a shaft extending parallel with the platen and to the rear thereof, brackets carried by said shaft one at each end thereof and adjustable lengthwise of said shaft, means between the bracket and the shaft whereby the brackets are kept from turning with reference to the shaft, a plate adjustably mounted on each of said brackets, said plates being provided with telescoping flanges for lateral adjustment, each plate being provided with a gage on its outer edge, and means in connection with one of the flanges for holding said plates in lateral adjustment.

5. The combination, in a typewriting machine, with a platen frame and platen thereof, of a shaft extending parallel with the platen and a little above it, brackets mounted on said shaft and adjustable lengthwise of said shaft, means between the shaft and bracket for preventing the brackets from turning on said shaft, a plate mounted on each of said brackets and extending upward and rearwardly from the platen, said plates arranged with telescoping flanges to constitute a paper alining table, a gage on the outer edge of each of said plates, means for holding said plates in adjustable relation to prevent their movement with respect to each other, and means on said shaft for preventing the movement of the plates which constitute the table, as a whole with reference to said shaft.

[Claims 6 to 16 not printed in the Gazette.]

1,209,127. TOY. EDGAR A. COREY, Berkeley, Cal. Filed May 2, 1916. Serial No. 94,932. (Cl. 104—111.)



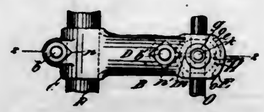
1. An amusement apparatus comprising a track and a car adapted to run over the track, the track consisting of a steep starting inclined plane, a vertically disposed spiral portion extending from the bottom of said inclined plane, and a return inclined plane extending from the said spiral portion intermediate the highest and lowest point of the same.

2. An amusement apparatus comprising a track and a car adapted to run over the track, the track consisting of a steep starting inclined plane, a vertically disposed spiral portion rising from the lower end of said inclined plane, a return portion extending laterally from the said spiral portion intermediate the highest and lowest points of the same, and an inclined plane extending from the said laterally extending portion in a direction reverse to the starting inclined plane.

3. An amusement apparatus comprising a track and a car adapted to run on the track, the track consisting of a starting inclined plane, a vertically disposed spiral portion rising from the lower end of said inclined plane, a curved track portion extending from the inner terminal of the said spiral portion, and a return inclined plane extending from the said curved laterally extending portion.

4. In an amusement apparatus, the combination of a track comprising a starting inclined plane, a vertically disposed spiral rising from the lower end of said inclined plane, a laterally extending portion leading from the inner terminal of said spiral, a return inclined plane rising from said laterally extending portion, and guides on the upper surface of said laterally extending portion of the track between the sides of the same, and a car adapted to travel on said track and having a depending member adapted to enter between and engage said guides whereby to retain the car on the track.

1,209,128. BRAKE-ROD GUIDE FOR AUTOMOBILES. JOHN T. CORLEY, Providence, R. I. Filed Oct. 5, 1916 Serial No. 123,874. (Cl. 21—8.)



1. In a brake-rod guide for automobiles or other vehicles, the combination with a member adapted to be attached to a fixed part of the vehicle and provided with a spherical bearing-chamber having openings on its sides, of a split ball mounted in the chamber and fitted to inclose a brake-rod or similar part extending through the side openings thereof, and means for exerting a resilient pressure of the parts of the ball against the rod while allowing the ball to adjust itself in its bearings.

2. In a brake-rod guide for automobiles or other vehicles, the combination with a clamp-member adapted to be attached to a fixed part of the vehicle and formed with an arm having a spherical recess at its end, of a two-part ball mounted to float in the recess with its parts inclosing the brake-rod or similar member which extends therethrough, and resilient means for pressing the two parts of the ball against the rod while allowing it to adjust itself in its bearing to provide for the angular displacement of the rod.

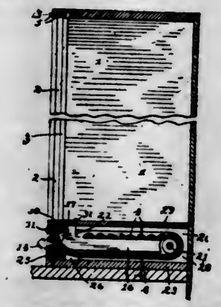
3. In a brake-rod guide for automobiles or other vehicles, the combination with a two-part clamp-member adapted to fit around a fixed part of the vehicle and formed with a split arm having a spherical cavity at its end, means to draw the parts of the member together to clamp it in place, a split ball mounted to float in the cavity of the arm with its parts inclosing the brake-rod extending therethrough, and a spring pressing against the side of the ball to hold its parts bearing against the brake-rod to prevent lateral play or vibration thereof, while allowing for sliding movement and angular displacement of the rod.

4. In a brake-rod guide for automobiles or other vehicles, the combination with a bearing-member having a two-part clamp at one end and a split arm extending therefrom with a spherical cavity at its end formed with an opening at its top, of a bolt extending through the parts of the member to bind the clamp against a fixed part of the vehicle, a two-part ball mounted in the cavity of the arm with a projection on its top seated in the opening therethrough, and a spring seated in the bottom of the cavity pressing against the under side of the ball to maintain its parts bearing against the brake-rod extend-

ing therethrough while providing for a swiveling movement of the rod as it slides in the bearing.

5. In a brake-rod guide for automobiles or other vehicles, the combination with a two-part clamp-member adapted to be secured to a fixed part of the vehicle and formed with an arm having a spherical cavity at its end with an opening in its top and a spring-pocket on its under side, a split ball mounted in said cavity and formed with a projection seated in the upper opening thereof, said ball having its parts formed to inclose a brake-rod extending therethrough and provided with oil-grooves on its sides, and a coiled spring seated in the pocket of the cavity and bearing against the under side of the ball to maintain its parts bearing against the brake-rod in the manner and for the purpose substantially as described.

1,209,129. KITCHEN-CABINET. FRANK COSS, Greencastle, Ind., assignor to McDougall Company, Frankfort, Ind., a Corporation of Indiana. Filed Mar. 1, 1915. Serial No. 11,279. (Cl. 45—16.)



1. A kitchen cabinet having a compartment open at the front and a flexible vertically sliding curtain adapted to close the front of said compartment, the said compartment having a raised floor and a bottom below said floor providing a curtain receiving recess between them, the front edge of said floor being spaced from the plane of the front of the compartment, and means separate from the curtain for excluding dust, etc., from said recess and mounted to provide a level continuation of the floor to close said space and automatically movable into and out of closing position as the curtain is moved below or above the same respectively.

2. A kitchen cabinet having a compartment open at its front and a flexible vertically sliding curtain adapted to cover said compartment, said cabinet having a bottom and a floor above the bottom providing a curtain-receiving recess between them prolonged rearwardly from the front of the compartment and adapted to receive the curtain in horizontal stretches, said floor having its front edge spaced from the front plane of the compartment, a section hinged to the said floor and providing a flush level forward continuation thereof and said curtain having a rigid member at its upper end adapted to adjoin the lower face of the section when the curtain is down and to coöperate therewith to close the spaces between the floor and curtain and the floor and bottom, respectively.

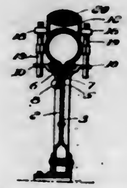
3. A kitchen cabinet having a compartment and a sliding flexible curtain adapted to cover and uncover said compartment; a vertical track in front of said compartment for said curtain, said compartment having a horizontal bottom and a floor above said bottom forming a rearwardly prolonged chamber between them to receive said curtain in horizontal stretches, means to stop said curtain when in retracted position with its upper edge in alinement with the lower face of said floor, a space closing apron hinged behind said vertical track to the front edge of said floor and extending forward in level horizontal continuation of the floor above the top face of the curtain when the latter is down and adapted to be automatically swung up and back as the curtain is raised.

4. In a kitchen cabinet provided with floors spaced apart vertically in its base providing a horizontal chamber extending from front to rear of the cabinet, a sliding flexible closing curtain vertically movable in front of the cabinet, said chamber forming the sole receiving space for the curtain when the same is lowered, means to support and guide said curtain in horizontal stretches in said chamber and a single removable curtain retaining bar extending horizontally across and closing the front end of said chamber and permitting the withdrawal of the curtain when the same is removed.

5. A kitchen cabinet having a sliding flexible curtain, means forming tracks for the curtain extending along each vertical side of the front part of the compartment, upper and lower horizontal floors extending from front to rear of the cabinet and providing a chamber for receiving said curtain when retracted, horizontal track means in said chamber for said curtain, a horizontal removable bar extending across the cabinet between said floors and closing the front end of said chamber, said bar having at each end thereof track means joining said vertical and horizontal track means and forming a continuation thereof, said bar being operable to retain the curtain in said chamber and to permit its withdrawal therefrom by the removal of the bar.

[Claim 6 not printed in the Gazette.]

1,209,130. TIRE-PROTECTOR. ALVIN DAHL, Yardley, Pa. Filed June 5, 1912. Serial No. 701,757. (Cl. 152—35.)

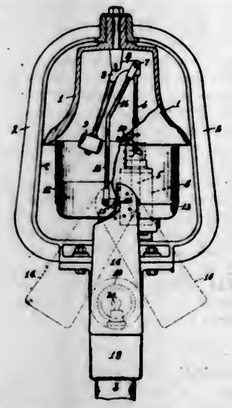


In a vehicle wheel, spokes comprising each two plates united together, one of said plates terminating short of the other, a removable annular rim section secured to said shorter plate and constituting with the other plate a rim for a pneumatic tire, a series of slotted plates projecting laterally outward from said tire rim, a pneumatic tire on said rim, a metallic ring inclosing the tread surface of said tire, flanges on said ring, and bolts projecting radially from said flanges through said plates.

1,209,131. AUTOMATIC HIGHWAY-CROSSING WARNING-SIGNAL FOR RAILROADS. BEN ORLANDO DARROW, Sacramento, Cal. Filed May 13, 1916. Serial No. 97,269. (Cl. 177—288.)

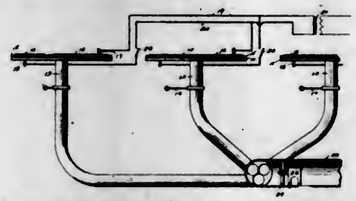
1. An automatic warning-signal comprising a supporting frame; a fixed bell carried by the upper portion of the frame; a clapper within the bell; a bell-crank shank of the clapper pivotally suspended at its angle within the bell; an electromagnet below the bell, and having an armature; a rod pivotally connecting said armature with one of the arms of the bell-crank clapper-shank; a rock shaft below the bell, and having a crank; a rod connected at one end with said crank and at the other end with the pivotal connection of the armature rod with the arm of the clapper shank; and a pendent semaphore warning arm on each end of the rock-shaft.

2. An automatic warning-signal comprising a supporting frame; a fixed bell carried by the upper portion of the frame; a clapper within the bell; a bell-crank shank of the clapper pivotally suspended at its angle within the bell; an electromagnet below the bell, and having an armature; a rod pivotally connecting said armature with one of the arms of the bell-crank clapper-shank; a rock shaft below the bell, and having a crank; a rod connected at one end with said crank and at the other end with the pivotal connection of the armature rod with the arm of the clapper shank; a pendent semaphore warning arm on each end of the rock-shaft, and a fixed light carried by the supporting frame and exposed to view from opposite



sides thereof, said light lying between the semaphore warning arms in position to be obscured by said arms when the latter are at rest and to be intermittently exposed by the pendulous movement of said arms.

1,209,132. MACHINE FOR SUBJECTING AIR TO VIOLET AND ULTRA-VIOLET RAYS. NOAH W. DAVIS, Des Moines, Iowa, assignor of one-half to Edwin M. Markel, Des Moines, Iowa. Filed Jan. 11, 1916. Serial No. 71,501. (Cl. 204—32.)

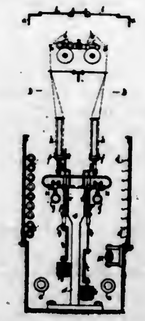


1. In a machine of the class described, a glass disk, a silicon disk parallel therewith and spaced therefrom, one of said disks having a central opening, a covering of conducting material for said glass disk, an air conducting tube communicating with said opening, spacing blocks between said glass and silicon disks of non-conducting material, said glass and silicon disks being included in an electric circuit, whereby air passed between said disks may be subjected to violet and ultra-violet rays due to the subjection of the air to brush discharge generated therein.

2. In a machine of the class described, a plurality of units, each comprising a disk of silicon, a spaced glass disk, a backing for said glass disk of non-conducting material, a tube communicating with the central space between the silicon and glass disks of each unit, a common receiving tube communicating with all of the first tubes, means for drawing air through said common receiving tubes, a valve in each of said first tubes, an electric circuit for each of said units including in each instance the glass and silicon disks of a unit, each circuit including a switch, said parts being so arranged that in any certain predetermined period a given quantity of air may, by adjustment of the valves, be drawn through one or more of the units for subjecting said air to violet and ultra-violet rays, when the electric circuits of the various units

are closed, whereby ozone may be produced in different degrees of concentration in the air passed through the units.

1,209,133. MACHINE FOR SPINNING ARTIFICIAL SILK. HILAIRE DE CHARDONNET, Paris, France. Filed July 16, 1915. Serial No. 40,271. (Cl. 18—8.)



1. In a machine for spinning artificial silk, in combination, spinning nozzles, a rotary feed table therefor, means for feeding collodion, and a pressure regulator comprising a cylinder in communication with the feed table, a plunger in said cylinder, and a spring acting upon said plunger thus exerting pressure upon the collodion.

2. In a machine for spinning artificial silk, a feed table and nozzles, and collodion feeding means in combination with the feed tables comprising a duplex single acting plunger pump, and means for causing the return strokes of the pump plungers to be more rapid than the forward strokes, whereby a continuous delivery is effected.

3. In a machine for spinning artificial silk, a feed table and nozzles, and collodion feeding means in combination with the feed tables comprising a duplex single acting plunger pump, rotary cams to actuate the plungers of said pump, the contours of said cams being such that the return stroke is more rapid than the forward stroke, whereby the flow of the collodion is uninterrupted.

4. In a machine for spinning artificial silk, a feed table and nozzles, and collodion feeding means in combination with the feed tables comprising a duplex single acting plunger pump adapted to receive collodion under pressure, means to operate said pump, and counterweights attached to the plungers of said pump whereby to exert upon the collodion in the cylinders when the delivery cock is opened a pressure equal to the minimum pressure used in spinning.

5. In machines for spinning artificial silk, bobbins, a power shaft to rotate said bobbins, a series of duplex single acting collodion feed pumps, and means for operating the plungers of said pumps in unison with each other and with the speed of rotation of the said bobbins, comprising beams, interconnecting the right hand plungers and left hand plungers respectively, cams to impart motion to said beams in a direction parallel to the axes of the pump cylinders, and means to rotate the said cams from the said shaft driving the bobbins.

[Claims 6 to 8 not printed in the Gazette.]

1,209,134. AXLE-HOUSING. JOHN F. DODGE, Detroit, and HORACE E. DODGE, Grosse Pointe, Mich., assignors to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed Aug. 19, 1914. Serial No. 857,481. (Cl. 21—5.)

1. An axle housing, comprising a longitudinally corrugated intermediate member having cylindrical uncorrugated ends, said member being tapered toward said ends, and end members inserted into said cylindrical ends and extending inwardly beyond said cylindrical ends to

points within the corrugations, so as to bridge the points between the taper and the cylindrical ends, said members being permanently united.



2. An axle housing, comprising a longitudinally corrugated intermediate member having cylindrical uncorrugated ends, said member being tapered toward said ends, and end members inserted into said cylindrical ends and extending inwardly beyond said cylindrical ends, so as to bridge the joints between the taper and the cylindrical ends, said intermediate member and end members including non-circular, engaging and co-acting surfaces at the meeting portions of said members, and which are of less diameter than the cylindrical portions, and means for permanently uniting said end members to said intermediate member.

1,209,135. PROCESS OF MAKING CEMENT. EDWIN C. ECKEL and ARTHUR C. SPENCER, Washington, D. C. Filed Jan. 4, 1911. Serial No. 600,697. (Cl. 106—25.)

1. The process of making cement clinker and by-products which comprises mixing comminuted potash feldspar with calcareous material in proportions to make cement clinker, heating the mixture to a temperature sufficient to clinker but insufficient to produce fusion for a length of time sufficient to fume off potassium compounds and recovering the potash fumes evolved in said heating.

2. The process of making cement and by-products which comprises converting a mixture comprising calcareous material and potash feldspar into cement clinker by heat in a plurality of stages at different temperatures, one such temperature being high enough to fume off the potassium compounds and recovering the potassium compounds evolved in the stage of high heating.

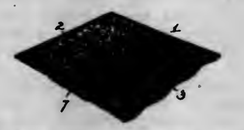
3. The process of making cement and by-products which comprises passing a mixture comprising calcareous material and potash feldspar through a rotary kiln under conditions adapted to make cement clinker while fuming off substantially all the potassium compounds and recovering the fumes of potassium compounds so volatilized.

4. The process of making cement and by-products which comprises passing a mixture comprising calcareous material and potash feldspar through a rotary kiln under conditions adapted to make cement clinker while fuming off substantially all the potash as potassium compounds and separately collecting the dust and fume evolved in different stages of the operation.

5. The process of making cement and by-products which comprises passing a mixtnre comprising calcareous material and potash feldspar through successive sections of a rotary kiln and separately recovering the dust and fume evolved in each such section.

[Claims 6 to 29 not printed in the Gazette.]

1,209,136. CARTRIDGE RECEPTACLE OR BELT. WILLIAM C. FISHER, Middletown, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn. Filed June 8, 1916. Serial No. 102,432. (Cl. 224—23.)



1. A plurality of connected cartridge pockets comprising woven fabric having fullness in one portion thereof and folded upon itself and secured transversely at intervals, forming a plurality of pockets having flat back portions and outwardly bulged front portions.

2. A cartridge receptacle comprising a woven blank having a fullness at one side of the center thereof and folded on said center line, and fastening means securing the front part having the fullness therein to the flat back portion, forming a receptacle.

3. A cartridge receptacle comprising a piece of woven fabric having a portion at one side of its center woven flat and a part at the other side of the center woven with a fullness, said fabric piece having the two parts thereof disposed one in front of the other and secured transversely, forming a receptacle having a flat back and a bulged front.

4. A cartridge receptacle comprising a woven fabric piece having a fullness in approximately one half thereof and having the other portion woven flat, reinforcing means centrally located and secured to both of said portions of the fabric piece, said fabric piece and reinforcing means being folded and the portion having the fullness disposed in front of the flat portion of the piece, and means securing the two parts of the fabric piece to form a receptacle having a reinforced bottom.

1,209,137. FISHING APPARATUS. LOUIS FRITZ, Memphis, Tenn. Filed Sept. 15, 1916. Serial No. 120,357. (Cl. 43—9.)



1. In a fishing apparatus, the combination with a slide and means for supporting and guiding the same, of looped attaching devices carried by said slide to receive the lead lines of a net or seine, one end of each of said attaching devices being free to permit the passage of the webbing of the net or seine between said attaching devices and the slide.

2. In a fishing apparatus, the combination with a slide and means for supporting and guiding the same, said slide having openings therein, of looped attaching devices secured to said slide and having upturned free ends entering said openings in the slide.

3. In a fishing apparatus, the combination with a rectangular frame and means for connecting the same with a boat, of a slide movable on said frame, looped attaching devices carried by said slide and each having one end free and disposed adjacent to the slide, and means for operating said slide.

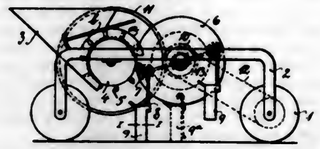
4. In a fishing apparatus, the combination with a rectangular frame and means for hinging the same to a boat, of a slide movable on said frame, and having openings therein near its side edges, looped attaching devices secured to said slide and having free upturned ends disposed in said openings free of the walls thereof, and means for operating said slide.

5. In a fishing apparatus, the combination with an apron, and means for hinging the same to a boat, of a

rectangular frame removably connected to said apron, a slide movable on said frame, means for operating said slide, and attaching devices carried by said slide, each of said attaching devices having one end free.

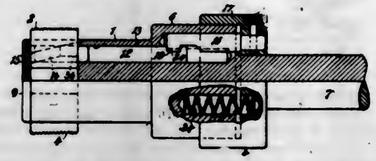
[Claim 6 not printed in the Gazette.]

1,209,138. POTATO-PLANTING MACHINE. CHRISTEN ROTBÖLL LARSEN FUGLSANG, Tousig, near Oesterild, Denmark. Filed Mar. 4, 1915. Serial No. 12,094. (Cl. 111—27.)



In a potato planting machine, the combination of a frame having driving wheels, a hopper disposed on said frame, a feed wheel forming bottom of said hopper and having recesses adapted to hold one potato, a screen permitting only one potato at a time to fall into said recesses, a flat wheel disposed in said frame and having pins, rods being turnably attached to said pins, planting tubes sliding on said rods, into which tubes the said recesses are adapted to deliver, means for holding the said planting tubes in a vertical position, and means for turning the said feed wheel and the said flat wheel in opposite directions, substantially as shown and described.

1,209,139. COLLAPSIBLE TAP. WILLIAM H. GATES, New Haven, Conn. Filed Sept. 10, 1915. Serial No. 49,896. (Cl. 10—143.)

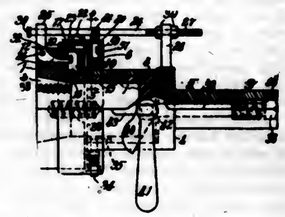


1. A tap body, threading dies removably located therein having cam grooves in their faces, sliding bolts having cams to register with the cam grooves of the dies, a sliding shell embracing the tap body, means for locking the same thereto and unlocking it therefrom, and members carried by the shell to engage with said bolts and actuate the same to open and close the threading dies.

2. A tap body, threading dies removably located therein having cam grooves in their faces, longitudinally operating cam members adapted to register with the cam grooves of the dies, said tap body having an enlarged portion and a shank portion, a sliding shell embracing said shank and enlarged part of the tap body, means for locking the same to said enlarged portion of the tap body and unlocking it therefrom, and members carried by the shell to engage with said cam member to actuate them to open and close the threading dies.

1,209,140. DIE-HEAD ATTACHMENT. WILLIAM H. GATES, New Haven, Conn. Filed Sept. 10, 1915. Serial No. 49,897. (Cl. 10—95.)

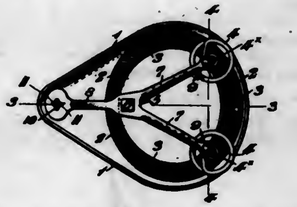
1. A die head carrying radially operating threading dies, a holder in which the head has a longitudinal movement, a sliding shell embracing the head and holder, die actuating means carried by the shell to open and close the dies, mechanism for locking the head and shell together carried by the head and shell, tripping mechanism carried by the head and holder whereby the head and shell are unlocked, automatic means for retreating the shell to open the dies, and automatic means for retreating the head.



2. A die head carrying radially operating threading dies, a holder in which the head has a longitudinal movement, a sliding shell overlying the head and holder, die-actuating means carried by the shell to open and close the dies, mechanism for locking the head and shell together carried by the head and shell, tripping mechanism carried by the head and holder whereby the head and shell are unlocked, automatic means for retreating the shell to open the dies, and automatic means for retreating the head, and manually operated means for relocking the shell to the head.

3. A die head carrying radially operating threading dies, a longitudinally operating member carrying die actuating members and a rotatable cam member carried by said operating member, a member carried by the die head to engage with the cam member, and a manually operated member for rotating the cam member to vary the distance of the dies from the work and thus effect a roughing and finishing cut.

1,209,141. BICYCLE-SADDLE. NIKOLAUS GERSON, Philadelphia, Pa., assignor to A. Mecky Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 14, 1916. Serial No. 109,243. (Cl. 208—15.)



1. In a saddle, a seat, a reinforcing ring of rigid material on the underside of the body of the seat secured thereto, a spider under said seat, springs connected with the rear portions of said ring and depending therefrom and with the terminals of the rear limbs of said spider, the forward portion of said spider being connected with the horn of said seat, the opening in said ring providing for the resiliency of said body of the seat thereover.

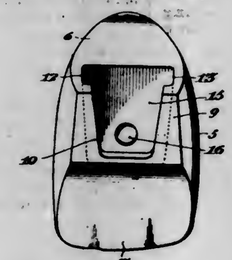
2. In a saddle, a seat of substantially rigid material, a reinforcing member of rigid material on the under side of the seating portion of the body of said seat secured thereto, a spider beneath said seat, and springs secured respectively to the rear portions of said ring and depending therefrom and the terminals of the rear limbs of said spider and supported on said limbs, the horn of the seat being supported slidingly on the front limb of said spider and secured movably thereto.

3. In a saddle, a seat, a reinforcing member on the under side of the seating portion of the body of said seat secured thereto, a spider beneath said seat, and springs secured respectively to the rear portions of said member and depending therefrom and the terminals of the rear limbs of said spider and supported on said limbs, the horn of the seat extending over the front limb of said spider and secured movably thereto, the front limb of

said spider having thereon a horizontally-extending plate on which said horn is supported directly.

4. In a saddle, a seat, a reinforcing member on the underside of the seating portion of the body of said seat secured thereto, a spider beneath said seat, and springs secured respectively to the rear portions of said member and depending therefrom and the terminals of the rear limbs of said spider and supported on said limbs, the horn of the seat extending over the front limb of said spider and being secured movably thereto, the front limb of said spider having thereon a horizontally-extending plate on which said horn is supported and to which it is secured movably, said horn having therein a longitudinally-extending slot in which is received freely the member which secures said horn to said plate.

1,209,142. ARTIFICIAL TOOTH. THOMAS F. GLENN, Ardmore, Pa., assignor to The S. S. White Dental Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 5, 1916. Serial No. 76,281. (Cl. 32—9.)



1. A tooth adapted for vulcanite work, having laterally disposed undercut shoulders, and a depression in its lingual face disposed between said shoulders and spaced therefrom.

2. A tooth adapted for vulcanite work, having a recess in its lingual wall formed by undercut shoulders, and a counter recess in the labial wall of said recess embraced upon three sides by said shoulders.

1,209,143. TOY. RICHARD GOSER, Alameda, Cal. Filed Feb. 7, 1916. Serial No. 76,877. (Cl. 244—21.)



1. A toy comprising a parachute, a ring, cords extending from the outer edge of said parachute to said ring, a weight attached to said ring, a curved arm attached to the center of said parachute on which said ring is adapted to be held and spring means for releasing said ring.

2. A toy comprising a parachute composed of sector shaped pieces, reinforcing cords inserted in the seams between said pieces, a ring held by the outer ends of said cords, a weight secured to said ring, a curved arm attached to the center of said parachute on which said ring is adapted to be held, and spring means for releasing said ring from said arms.

3. A toy comprising a parachute, a ring, cords extending from the outer edge of said parachute to said ring, a weight attached to said ring, a cushion surrounding said weight, a curved arm attached to the center of said parachute on which said ring is adapted to be held and spring means for releasing said ring.

4. A toy comprising a parachute composed of sector shaped pieces, reinforcing cords inserted in the seams between said pieces, a ring held by the outer ends of said cords, a weight secured to said ring, a circular fabric reinforcement secured to the inner ends of said sector shaped pieces, a concave button having an annular recess on the inside of said reinforcement, a circular spring ring on the outside of said fabric adapted to hold the said button in position, an upright arm formed on said ring over which said ring is adapted to be hooked and spring means adapted to release said hook from said arm.

5. A toy comprising a parachute element, a weight, cords connecting said weight to said parachute, a ring secured between said weight and said parachute, an arm secured to the center of said parachute, means for securing said arm to said ring and spring means for releasing said ring from said arm.

1,209,144. STEERING-GEAR. SAMUEL C. GORDON, Richmond, Va. Filed July 24, 1915. Serial No. 41,788. (Cl. 21—199.)

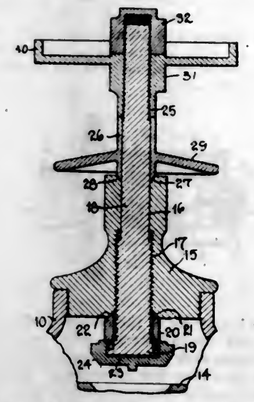


In a steering mechanism, the combination with a vehicle frame, and the axle therefor, of a steering column mounted in a fixed bearing on the frame, a spur wheel thereon, a shaft disposed parallel with the steering column, a spur wheel on said shaft meshing with the spur wheel on the steering column, an elongated coupling, a universal joint connecting said coupling to said shaft, a rock shaft carried by the axle, a rod connected by a universal joint to the rock shaft and having an end of angular cross section slidably engaging said coupling, a lever on the rock shaft, and means for connecting said lever with the vehicle wheels.

1,209,145. STEAM-VALVE. JOHN F. GRABILL, Flora, Ill., assignor of one-fourth to Earl H. Arbuthnot and one-fourth to Horatio C. Chaffin, Flora, Ill. Filed Jan. 24, 1916. Serial No. 73,952. (Cl. 137—4.)

1. In a valve of the character described, a bonnet, a valve stem longitudinally movable therethrough and carrying a valve, a sealing member having a smooth bore through which the stem loosely passes, the sealing member being independently movable longitudinally with relation to the stem into gas-tight engagement with the outer end of the bonnet, and means having screw threaded engagement with the valve stem for holding the sealing member in engagement with the outer end of the bonnet, said holding means being independently movable longitudinally of the stem with relation to the sealing member.

2. In a valve of the character described, a bonnet, a valve stem having screw-threaded engagement with the bonnet and movable longitudinally therethrough, a valve on the stem, a sealing member loosely mounted on the stem and movable longitudinally with relation thereto into or out of engagement with the outer end of the bonnet, and means having screw-threaded engagement with the stem and being movable relative to and along the stem for holding said sealing member in engagement with the bonnet.



3. In a valve of the character described, a bonnet and a valve stem movable longitudinally therethrough, a valve carried on the stem, and sealing members, one carried on the stem and being movable into engagement with the bonnet when the stem is shifted to unseat the valve and the other being longitudinally shiftable on and with relation to the stem and the valve and being normally disposed in engagement with the bonnet in all positions of the valve, means being provided for holding the last named sealing member in tight engagement with the bonnet in all positions of the valve.

4. In a valve of the character described, a bonnet, a valve stem movable longitudinally therethrough and having a valve thereon a sealing member fixedly mounted on the stem and engageable with the inner end of the bonnet when the valve stem is shifted to unseat the valve, a sealing member having free sliding engagement with the stem and coöperating with the outer end of the bonnet and movable into engagement with the outer end when the valve is shifted to its closed position, and means having screw threaded engagement with the stem for holding said last named sealing member in engagement with the bonnet.

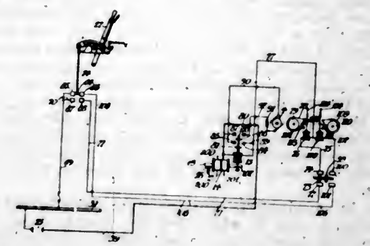
5. In a valve of the character described, a bonnet, a valve stem movable longitudinally therethrough and carrying a valve, the bonnet being formed at its outer and inner ends with seats, sealing members, one mounted upon the inner end of the valve stem and longitudinally movable therewith and the other mounted loosely upon the valve stem and coöperating with the seat on the outer end of the bonnet, and means on the valve stem whereby it may be rotated and moved longitudinally, said means acting when shifted to one position to hold the outer sealing member into engagement with the corresponding seat in the bonnet.

[Claims 6 to 16 not printed in the Gazette.]

1,209,146. SELECTIVE MEANS FOR SWITCHES. GARDNER B. GRAY, Pittsburgh, Pa. Original application filed Apr. 18, 1914, Serial No. 832,722. Divided and this application filed July 25, 1914, Serial No. 853,239. Renewed May 16, 1916. Serial No. 97,980. (Cl. 104—155.)

1. In a system of switch control, a switch, a motor rotating in one direction only, and selective means for moving the switch in opposite directions by the rotation of the motor in one direction.

2. In a system of switch control, a switch, a motor rotating in one direction only, selective means for moving the switch in opposite directions by the rotation of the motor in one direction, and controlling means for supplying power to render the motor and selective means operative.



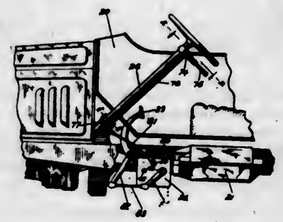
3. In a system of switch control, a switch, a motor rotating in one direction only, selective means for moving the switch in opposite directions by the rotation of the motor in one direction, and means controlled by the position of the switch for determining the direction of movement imparted to the switch by the selective means.

4. In a system of switch control, a switch, a motor rotating in one direction only, selective means for moving the switch in opposite directions by the rotation of the motor in one direction, controlling means for supplying power to render the motor and selective means operative, and means controlled by the position of the switch for determining the direction of movement imparted to the switch by the selective means.

5. In a system of switch control, a switch, a motor rotating in one direction only, selective connections between the motor and the switch for moving the switch in opposite directions by the rotation of the motor in one direction, two magnets for rendering the selective connections operative, controlling means and circuit connections for supplying current to the motor and magnets, and means controlled by the position of the switch for selecting the magnet to be energized.

[Claims 6 to 18 not printed in the Gazette.]

1,209,147. SPEED-CHANGING MECHANISM FOR MOTOR-VEHICLES. ALFRED C. GRISCOM, Sandy Hook, Conn., assignor of one-fourth to Harry B. Curtis, Bridgeport, Conn. Filed Feb. 29, 1916. Serial No. 81,255. (Cl. 74—58.)



1. In combination, a speed selecting disk having speed notches, a change speed slide rod having bevel nosed catches facing in opposite directions, an oscillating part comprising three arms, an oscillating part comprising two arms, spring controlled dogs pivoted to arms of said parts and provided with hubs adapted to engage corresponding notches in the speed selecting disk and abutments adapted to engage corresponding bevel nosed catches and be tilted thereby and then to engage said catches, an operating shaft having an arm, a slotted link connecting said arm with an arm of the three-armed oscillating part, and a link connecting another arm of the three-armed oscillating part with an arm of the two-armed oscillating part, actuation of the operating shaft causing

movement of the change speed slide rod to produce a predetermined speed.

2. In combination, speed selecting disks having speed notches, change speed slide rods having bevel nosed catches facing in opposite directions, a three-armed oscillating part, a two-armed oscillating part, dogs pivoted to arms of said parts and provided with hubs adapted to engage corresponding speed notches and abutments adapted to engage corresponding bevel nosed catches and be tilted thereby and then to engage said catches, an operating shaft having an arm, a slotted link connecting said arm with an arm of the three-armed oscillating part, and a link connecting another arm of the three-armed oscillating part with an arm of the two-armed oscillating part.

3. In combination, speed selecting disks having speed notches, a shaft by which they are carried, change speed slide rods having bevel nosed catches facing opposite directions, a three-armed oscillating part, a two-armed oscillating part, dogs pivoted to arms of said parts and provided with hubs adapted to engage corresponding speed notches and abutments adapted to engage corresponding bevel nosed catches and be tilted thereby and then to engage said catches, an operating shaft having an arm, a slotted link connecting said arm with an arm of the three-armed oscillating part, a link connecting another arm of the three-armed oscillating part with an arm of the two-armed oscillating part, and means for oscillating the speed selecting disk shaft to place a predetermined speed notch in position to be engaged by the hub of the corresponding dog.

4. In combination, speed selecting disks having speed notches, change speed slide rods having bevel nosed catches facing in opposite directions, a three-armed oscillating part, a two-armed oscillating part, dogs pivoted to arms of said parts and provided with hubs adapted to engage corresponding speed notches and abutments adapted to engage corresponding bevel nosed catches and be tilted thereby and then to engage said catches, an operating shaft carrying an arm and an operating lever, a slotted link connecting said arm with an arm of the three-armed oscillating part, a link connecting another arm of the three-armed oscillating part with an arm of the two-armed oscillating part, a pedal clutch lever and operating connections between said lever and the operating lever.

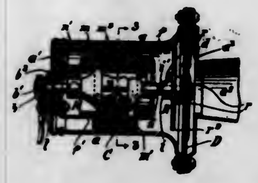
5. In combination, speed selecting disks having speed notches, a shaft by which they are carried, a speed selecting lever, operating connections intermediate said lever and the speed selecting disk shaft, change speed slide rods having bevel nosed catches facing in opposite directions, a three-armed oscillating part, a two-armed oscillating part, dogs pivoted to arms of said parts and provided with hubs adapted to engage corresponding speed notches and abutments adapted to engage corresponding bevel nosed catches and be tilted thereby and then to engage said catches, an operating shaft having an arm, a slotted link connecting said arm with an arm of the three-armed oscillating part, a link connecting another arm of the three-armed oscillating part with an arm of the two-armed oscillating part, a pedal clutch lever and operating connections between said lever and an operating lever.

[Claims 6 to 30 not printed in the Gazette.]

1,209,148. DIAPHRAGMATIC SOUND-PRODUCER. LEO GAUBMAN, Brooklyn, N. Y., assignor to Electric Spark Appliance Co. Inc., New York, N. Y., a Corporation of New York. Filed Mar. 29, 1915. Serial No. 17,636. (Cl. 177—7.)

1. In a sound producer of the character designated, the combination of a diaphragm, a percussive rotor adapted to actuate said diaphragm and movable laterally with relation thereto, a driving element, and means for rendering operative said percussive rotor by inclined contact-engagement between it and the driving element.

2. In a sound producer of the character designated, the combination of a diaphragm, a percussive rotor adapted to actuate said diaphragm and movable laterally with relation thereto, a driving element, means for rendering operative said percussive rotor by inclined contact-engagement between it and the driving element, and engagingly related shoulders on said percussive rotor and said driving element, whereby in the operation of starting the percussive rotor it is first moved longitudinally with relation to the driving member and transversely with relation to the diaphragm to bring it into contactual relation therewith and then rotated in unison with the driving element, for the purpose set forth.



3. In a sound producer of the character designated, the combination with the diaphragm of a percussive rotor adapted to actuate said diaphragm and movable laterally with relation thereto, a driving element, means for rendering operative said percussive rotor by inclined contact-engagement between it and the driving element, an electric motor, and engagingly related shoulders on said percussive rotor and said driving element, the latter being rigidly attached to the armature of said electric motor, whereby when the latter is started the percussive rotor will be first moved longitudinally with relation to the driving element and transversely with relation to the diaphragm to bring it into operative relation therewith, and then rotated with relation to the driving element, for the purpose described.

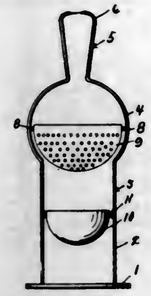
4. In a sound producer of the character designated, the combination with the diaphragm, of a percussive rotor adapted to actuate said diaphragm and movable laterally with relation to said diaphragm, a driving shaft, said percussive rotor forming part of a sleeve slidable on the driving shaft, said sleeve being formed with an inclined surface and a shoulder, and said driving shaft formed with a contact shoulder for engagement with the incline and shoulder on said percussive rotor sleeve, for the purpose described.

5. In a sound producer of the character designated, the combination with the diaphragm, of a percussive rotor adapted to actuate said diaphragm and movable laterally with relation thereto, driving and driven elements, said percussive rotor forming part of said driven element slidable longitudinally on the driving element, said driving element, means for rendering operative said percussive rotor by inclined contact-engagement between the driven element and the driving element, and engagingly related shoulders on said driven element and said driving element, whereby in the operation of starting the percussive rotor it will be first moved longitudinally with relation to the driving element and transversely with relation to the diaphragm to bring it into contactual relation thereto, and then rotated in unison with the driving element, said driven element being of mass adequate to acquire momentum sufficient to overcome frictional contact between it and the driving element so that when the rotation of the latter is retarded the driven element will move out of operative engagement therewith, for the purpose described.

[Claims 6 to 13 not printed in the Gazette.]

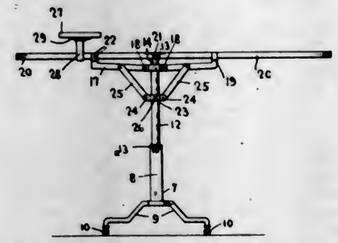
1,209,149. TEA OR COFFEE STRAINER. JAMES GUINNEY, Larchmont, N. Y. Filed May 25, 1916. Serial No. 99,818. (Cl. 210—16.)

A device of the class described comprising a rigid base plate, a frame comprising resilient arms, said arms being engaged with the base plate at their lower ends and having their upper ends each terminating in an arm of a yoke which constitutes a handle, a strainer having pins carried thereby, a cup having pins carried thereby, the pins of said strainer and cup being pivotally and detachably connected to the arms of the frame, said cup being



disposed under the strainer when the base plate is engaged with a support and the frame is in a vertical position.

1,209,150. IRONING-TABLE. HARRY A. HANNOLD, Clarion, Pa. Filed Apr. 28, 1916. Serial No. 94,091. (Cl. 68—10.)



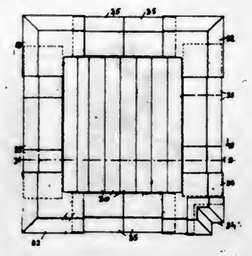
1. In a device of the class described, a standard, a pair of arms one pivoted to project from said standard adjacent one end thereof at opposite points, a board section secured to the free end of one of said arms, a second board section pivoted to said first section, a traveler on said standard, and a connection between said traveler and each of said arms, substantially as described.

2. In a device of the class described, a standard, a block secured to one end of said standard, a pair of arms one pivoted at its end to said block to project outwardly therefrom in opposite directions, a rest arranged at the free end of each of said arms, a board rigidly secured to one of said arms to extend substantially parallel therewith, a second board section hingedly connected to said board, a traveler on said standard, and a link connecting each of said arms with said traveler, substantially as described.

3. In a device of the class described, a standard, the said standard being provided with a reduced squared end, a block having a squared aperture arranged over said squared end, an arm pivoted at one end to the opposite sides of said block, a rest formed at the end of each of said arms, a board section rigidly secured to one of said arms, and of such length as to engage at one end upon said squared end and block when said arm is swung outwardly, a second board section pivoted to said end of said first section, a traveler on said standard, and a link connecting each arm intermediate its ends with said traveler, substantially as described.

1,209,151. ADJUSTABLE PANEL-MOLD FOR CONCRETE FLOOR AND ROOF WORK. RUDOLPH B. HARTMAN, Milwaukee, Wis. Filed Oct. 21, 1912. Serial No. 726,940. (Cl. 25—131.5.)

1. An adjustable panel-mold for concrete floor- and roof-work comprising four side-pieces and four corner-pieces mutually adjustable to fit different sizes of floor-panels; means for securing said pieces together in rigid relation; and transverse supports extending across the opening of said frame and below the surface thereof to support a plurality of filling-planks thereon flush with the surface of said pieces.



2. An adjustable panel-mold for concrete floor- and roof-work comprising four side-pieces in opposite parallel pairs, four corner-pieces slidable over the ends of said side-pieces, means for securing said pieces together rigidly in any desired relation; and transverse supports extending across the opening of said frame adapted to support a plurality of filling-planks thereon and with their upper surfaces flush with the frame.

3. A panel-mold for concrete floor- and roof-work comprising a pair of parallel side-pieces, a plurality of transverse beams connecting said side-pieces, a pair of parallel end-pieces, a plurality of longitudinal beams connecting said end-pieces with adjacent transverse beams, corner-pieces forming extensions of said side- and end-pieces and adjustable with relation thereto and completing the outline of the panel.

4. A panel-mold for concrete floor- and roof-work comprising a pair of parallel side-pieces, a plurality of transverse beams connecting said side-pieces, a pair of parallel end-pieces, a plurality of longitudinal beams connecting said end-pieces with adjacent transverse beams, and corner-pieces fitting over the ends of said side and end-pieces; one or more of said corner-pieces having a portion cut away, and an inset of special form inserted in place thereof.

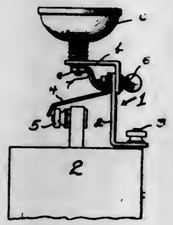
5. An adjustable panel-mold for concrete floor- and roof-work comprising a plurality of sheet-metal members sliding one over the other and forming sides of adjustable length, each member having a top-face and a side-face; and a downwardly projecting flange formed along the free edge of the top face; and means for securing said members together in rigid relation.

[Claims 6 to 23 not printed in the Gazette.]

1,209,152. LAMP ATTACHMENT FOR DRY CELLS. WILLIAM A. HARVEY, Scranton, Pa. Filed Mar. 27, 1916. Serial No. 87,013. (Cl. 240—8.5.)

1. A lamp attachment for dry cells comprising two bracket members, one of which being applicable to one pole of the dry cell and the other of which carrying the lamp, said members being jointed by a pintle, whereby said lamp carrying member is adapted to swing in the plane of the axis of the lamp, said members serving as one conductor to the lamp, and a second conductor supported on one of said bracket members for completing the circuit from the lamp to the other pole of the cell, said second conductor embodying in its construction, a resilient circuit closer leading from said bracket member to the other pole of the cell, and adapted to receive a voluntary pressure for producing a closed circuit, and a temporary glowing of the lamp, said last named cell pole having a binding member adapted for adjustment against said second conductor for producing a closed circuit, and a continuing glow of the lamp.

2. A lamp attachment for dry cells comprising two bracket members, one of which being applicable to one pole of the dry cell and the other of which carrying the lamp, said members being jointed by a pintle, whereby said lamp carrying member is adapted to swing in the plane of the axis of the lamp, said members serving as one conductor to the lamp, and a second conductor for completing the circuit from the lamp to the other pole of

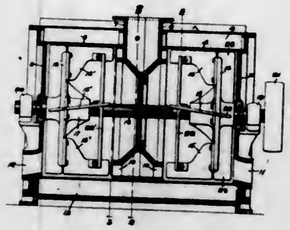


the cell, said conductor embodying in its construction, a resilient circuit closer supported by one of said bracket members, and a flexible conductor leading from said circuit closer to the lamp, said circuit closer adapted to receive a voluntary pressure for producing a closed circuit and a temporary glowing of the lamp, said last named cell pole having a binding member adapted for adjustment against said resilient circuit closer for producing a closed circuit and a continuing glow of the lamp.

1,209,153. CENTRIFUGAL SCREEN. ANTON J. HAUG, Nashua, N. H., assignor to Improved Paper Machinery Company, Nashua, N. H., a Corporation of Maine. Filed Dec. 9, 1915. Serial No. 65,998. (Cl. 92—34.)

1. In a machine of the character described, the combination with a casing of a screen drum located therein, a stock inlet extending through the casing and the screen drum intermediate the length thereof, said inlet having a discharge opening within the screen drum, sliver discharge means at each end of the drum communicating with the interior thereof, a pulp outlet communicating with the interior of the casing, and means for feeding the stock in opposite directions toward opposite ends of the drum, said means comprising paddle blades inclined from end to end rearwardly with respect to the direction of rotation.

2. In a machine of the character described, the combination with a casing of a screen drum located therein, a stock inlet extending through the casing intermediate the length thereof, and paddle blades coöperating with said drum and inclined from end to end rearwardly with respect to the direction of rotation whereby the unscreened materials are caused to travel from the stock inlet to opposite ends of said screen drum.



3. In a machine of the character described, the combination with a casing of a screen drum located therein, a stock inlet extending through the casing intermediate the length thereof, paddle blades coöperating with said screen drum extending in opposite directions from said stock inlet, and stock discharge openings located with reference to said blades to cause the stock to strike the latter and give an impulse of rotation thereto.

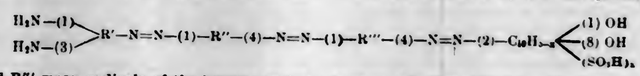
4. In a machine of the character described, the combination with a screen drum of rotary paddle blades mounted to coöperate therewith, said blades being arranged in two sets, the blades of each set inclined from end to end with reference to the direction of rotation from the end of the drum toward an intermediate point therein, and means for feeding stock to be screened upon the ends of each set of blades and in the direction of their length.

5. In a machine of the character described, the combination with a screen drum of rotary paddle blades mounted to coöperate therewith, said blades being arranged in two sets, the blades of each set inclined from end to end with reference to the direction of rotation from the end of the drum toward an intermediate point therein, and a stock inlet located between said sets of blades and having discharge openings for discharging stock upon the ends of the blades in the direction of the length thereof.

[Claims 6 to 10 not printed in the Gazette.]

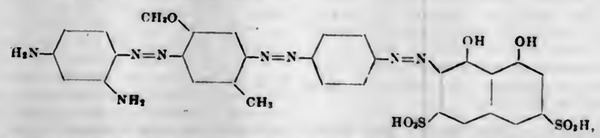
1,209,154. TRISAZO DYES. RUDOLF HAUSWITZ, Friedrichshagen, near Berlin, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed July 24, 1916. Serial No. 111,048. (Cl. 8—1.)

1. The new trisazo-dyes of the general constitution:



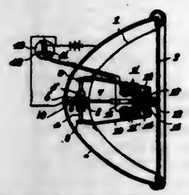
where R', R" and R"' mean radicals of the benzene series, being in the shape of their pulverized dry sodium salts blackish powders, soluble in water with a violet color, in concentrated sulfuric acid with a blue color; the aqueous solutions by addition of an alkali becoming bluer, by acidifying the dyes settling out as reddish precipitates; being destroyed by strong reducing agents; dyeing cotton from aqueous solutions violet tints which turn to black after a treatment with 4-nitrodiazobenzene.

2. The new trisazo-dye which derives from 1.4-phenylenediamin-azo-3-amino-4-methoxy-1-methylbenzene, 1.8-dioxynaphthalene-3.6-disulfonic acid and 1.3-phenylenediamin and probably corresponds to the formula:



being in the shape of its pulverized dry sodium salt a blackish powder soluble in water with a violet color, in concentrated sulfuric acid with a blue color; the aqueous solution by addition of an alkali becoming bluer, by acidifying the dye settling out as a reddish precipitate; being destroyed by strong reducing agents; dyeing cotton violet tints, which turn to black after a treatment with 4-nitrodisobenzene.

1,209,155. BEAM-DEFLECTOR FOR SEARCH-LAMPS. EDMUND F. HEARD, Newport News, Va. Filed Dec. 4, 1915. Serial No. 65,089. (Cl. 240—44.)



1. In a headlight, the combination of a concave reflector, an incandescent electric lamp normally in the focus of said reflector and mounted to move horizontally to the right and left out of the focus of the reflector selectively, steering mechanism, and means automatically controlled as the steering mechanism is turned to move the light either to the right or the left.

2. In a headlight, the combination of a concave reflector, an electric lamp normally in focus of said reflector and mounted on a vertical center for movement to the right or the left out of the focus of the reflector, a steering shaft, and means automatically operated upon the turning of the steering shaft for selectively tilting the lamp out of the focus to the right or the left for directing light in the direction in which the vehicle is turned.

3. In a headlight, the combination of a concave reflector, an incandescent electric lamp mounted to move horizontally to the right and left out of the focus of the reflector selectively, steering means, and electro-magnetic means automatically controlled as the steering means is turned to move the light either to the right or the left.

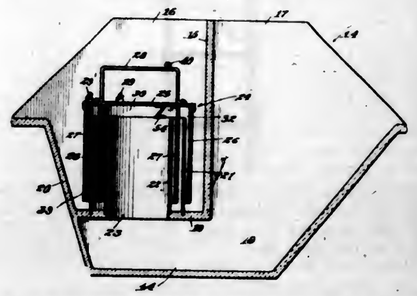
4. In a headlight, the combination of a concave reflector, an incandescent electric lamp mounted to move horizontally to the right and left out of the focus of the reflector selectively, electro-magnetic means to move the light either to the right or the left, a source of electric energy, a stationary support, an electric switch mounted on said support and electrically connected with said electro-magnetic means and source of electric energy, and steering means constructed and arranged to operate the electric switch to selectively move the light to the right or the left for directing light in the direction in which the vehicle is turned.

5. In a headlight, the combination of a concave reflector, an incandescent electric lamp normally in the focus of said reflector and pivotally mounted to swing horizontally to the right and left out of the focus of the reflector selectively, electro-magnetic means for so moving the lamp, and resilient means located at the center of movement of the lamp and constructed and arranged to return the lamp to its original position on deënergization of the electro-magnetic means.

[Claims 6 to 10 not printed in the Gazette.]

1,209,156. PNEUMATIC FLUME-GATE. PERRY L. HENDRICK, El Centro, Cal. Filed Apr. 19, 1916. Serial No. 92,187. (Cl. 61—46.)

1. In a pneumatic flume gate, the combination of a main canal, a ditch, a pit below the bottom of the main canal, a vertical partition wall dividing said pit into an anterior and a posterior chamber, said partition wall being spaced from the bottom of said pit, a horizontal partition wall connected to said vertical partition wall, a pair of fixed vertical cylindrical tubes concentrically arranged, extending upwardly from said horizontal wall, said tubes having open tops substantially on the same level as the bottom of the main canal, the inner tube being also open at the bottom and communicating with said posterior chamber, a cover for said tubes, said cover having a pair of cylindrical tubular members concentrically arranged and open at the bottom extending downwardly therefrom, the inner of said members projecting downwardly between the annular space formed between said tubes, the outer of said members surrounding the outer tube, means disposed between said cover and said tubes for maintaining said cover in spaced relation to said tubes, means locking said cover in adjusted vertical position, and independent air cocks on the cover communicating with the annular space formed between the inner and outer cylindrical members and with said inner tube, respectively.



2. In a pneumatic flume gate, the combination of a main canal, a ditch, a pit below the bottom of the main canal, a vertical partition wall dividing said pit into an anterior and a posterior chamber, a connecting passage between said chambers, a pair of fixed vertical tubes concentrically arranged in said anterior chamber, said tubes being open at the top, the inner tube being also open at the bottom and communicating with said passage, a cover for said tubes, said cover having a pair of tubular members concentrically arranged and open at the bottom extending downwardly from said cover, the inner of said members projecting downwardly between the annular space formed between said tubes, the outer member surrounding the outer tube, means for maintaining said cover in spaced relation to said tubes, means coöperating with said cover for preventing upward movement of the latter and independent air cocks communicating with the annular space formed between the inner and outer tubular members and with the inner tube, respectively.

3. In a pneumatic flume gate, the combination of a main canal and a ditch connected therewith, a pair of fixed vertical tubes forming a passage between said canal and said ditch, said tubes having their tops open and substantially on the level with the bottom of said main canal, the inner tube being also open at the bottom and forming a connecting passage between said canal and said ditch, a cover for said tubes having a pair of tubular members concentrically arranged and open at the bottom extending downwardly therefrom, the inner of said members projecting downwardly between the annular space formed between said tubes, the outer of said members surrounding the outer tube, means for spacing said cover from said tube, and means for preventing upward movement of said cover.

4. In a pneumatic flume gate, the combination of a main canal and a ditch connected therewith, a pair of fixed vertical tubes forming a passage between said canal and said ditch, said tubes having their tops open and substantially on the level with the bottom of said main canal, the inner tube being also open at the bottom and forming a connecting passage between said canal and said ditch, a cover for said tubes having a pair of tubular members concentrically arranged and open at the bottom extending downwardly therefrom, the inner of said members projecting downwardly between the annular space formed between said tubes, the outer of said members surrounding the outer tube, and means for spacing said cover from said tube.

1,209,157. SHEET-IRON SHELVING. ADOLF HEERDT, Frankfort-on-the-Main, Germany. Filed Apr. 9, 1914. Serial No. 830,601. (Cl. 211—27.)

An improved shelving structure comprising tubular supports each having an inwardly facing longitudinal slot

or slots therethrough, single horizontal piece shelves each having openings near its edges and corner portions to freely receive the tubular supports therethrough and vertical partitions arranged between the shelves and extending through the slots of the supports to the inner sur-



face of the wall diametrically opposite with respect thereto, and over the openings of the shelves, said partitions serving as plates upon which the weight of the shelves rest at the upper edges of the partitions, and the lower edges of said partitions resting upon the shelves beneath.

1,209,158. NECKTIE-RETAINER. CARL HEINZELMANN, Bird Island, Minn. Filed July 20, 1915. Serial No. 40,965. (Cl. 24—49.)



1. A necktie retainer including a pair of divergent members, means connecting the adjacent extremities of said divergent members, a leaf spring secured to the upper portion of one of said members and engaging the other member for normally retaining the latter in spaced relation, and an angularly disposed portion formed integral with one of said members and extending inwardly toward the other of said members to limit the inward movement of said last mentioned member thereby preventing the binding of a necktie.

2. A necktie retainer including a pair of divergent members, means connecting the adjacent extremities of said divergent members, a spring secured to the upper portion of one of said members and engaging the other member for normally retaining the latter in spaced relation, and a roller disposed in spaced relation between the members for the purpose specified.

3. A necktie retainer including a pair of divergent members, means connecting the adjacent extremities of said divergent members, a spring secured to the upper portion of one of said members and engaging the other member, one of said members having a right angular extension extending inwardly toward the other member, and a roller rotatably mounted upon said right angular portion and the upper part of said member for the purpose specified.

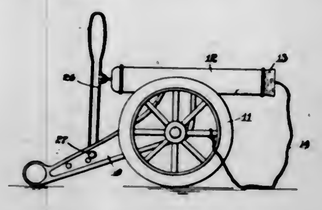
1,209,159. PROCESS OF CONSTRUCTING REINFORCED-CONCRETE BARGES, SHIPS, OR VESSELS. SEWARD D. HENDRICKS, Buffalo, N. Y. Filed Aug. 5, 1916. Serial No. 113,385. (Cl. 114—65.)

[· · ·]

1. The method of constructing barges, ships or vessels of any shape or size of reinforced-concrete or other mass formed by concretion, which consists in casting frames, trusses, sides, sides with frames or trusses together, keelsons, girders, beams, bulkheads, partitions or other members of any desired shape or size, of reinforced-concrete or other concretive material, as monoliths; and after each monolith of concrete has set, to erect and suitably support them in their proper positions and to cast the bottom and ends as a monolith or in suitable sections.

2. The method of constructing barges, ships or other vessels of any shape or size of reinforced-concrete or other mass formed by concretion, which consists of casting frames, trusses, sides, sides with frames or trusses together, keelsons, girders, beams, bulkheads, partitions or other members of any desired shape or size of reinforced-concrete or other concretious material as monoliths, having metal embedded and projecting from the surface of the precast frames, trusses, sides, sides with frames or trusses together, keelsons, girders, beams, bulkheads, partitions or other members, which projecting metal is suitably fastened to and supports the metal reinforcing of the bottom and ends; erecting and suitably supporting in their proper position these frames, trusses, sides, sides with frames or trusses together, keelsons, girders, beams, bulkheads, partitions or other precast members after they have suitably set and cured; casting the bottom and ends as a monolith or in suitable sections.

1,209,160. TOY CANNON. DAVID HEYMAN and THOMAS RAYMOND ARDEN, Brooklyn, N. Y.; said Arden assignor to said Heyman. Filed Mar. 23, 1916. Serial No. 86,077. (Cl. 124—10.)



1. In a toy gun or cannon, the combination of a barrel, a plunger reciprocable therein, an operating bar movable in said barrel and adapted to be releasably connected to said plunger, compressible means for projecting said plunger in the barrel, means for retracting said operating bar in the barrel whereby said plunger is retracted and said compressible means is placed in condition to project said plunger in the barrel, and means for releasing the connection between said operating bar and said plunger whereby said compressible means projects the plunger in the barrel.

2. In a toy gun or cannon, the combination of a barrel, a plunger reciprocable therein, an operating bar movable in said barrel and adapted to be releasably connected to said plunger, a coiled spring surrounding said bar and adapted to project the plunger in the barrel, means for simultaneously retracting said bar and said plunger in the barrel whereby said spring is compressed to place it in condition to project the plunger in the barrel, and means for releasing the connection between the bar and plunger whereby said spring may extend and project the plunger in the barrel.

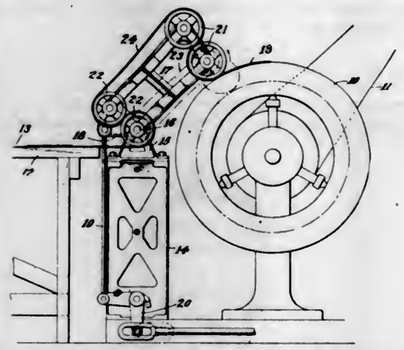
3. In a toy gun or cannon, the combination of a barrel, a plunger reciprocable therein, an operating bar movable in said barrel, means for releasably connecting the operating bar to the plunger, compressible means for projecting said plunger in the barrel, means for simultaneously retracting said bar and said plunger whereby said compressible means is placed in condition to project the plunger in the barrel, and means for actuating said first named means to release the connection between the bar and the plunger and render said compressible means operative to project the plunger in the barrel.

4. In a toy gun or cannon, the combination of a barrel, a plunger reciprocable therein, an operating bar movable in said barrel, means for releasably connecting the operating bar to the plunger, a coiled spring surrounding said bar and adapted to project the plunger in the barrel, means for simultaneously retracting said bar and said plunger whereby said spring is placed under compression, and means acting on said first named means to release the connection between the bar and the plunger whereby said spring is free to extend and project the plunger in the barrel.

5. In a toy gun or cannon, the combination of a barrel, a plunger reciprocable therein, an operating bar movable in the barrel, a pivotally mounted member for releasably connecting the operating bar to the plunger, compressible means surrounding said bar and adapted to project the plunger in the barrel, means for simultaneously retracting said bar and plunger whereby said compressible means is placed in condition to project said plunger in the barrel, and means placed in the path of and adapted to rock said pivotally mounted member to release the connection between said bar and plunger whereby said compressible means is rendered operative to project the plunger in the barrel.

[Claims 6 to 12 not printed in the Gazette.]

1,209,161. FABRIC-DISTORTING DEVICE FOR TIRE-BUILDING MACHINES. HOMER J. HOYT, Detroit, Mich., assignor to Morgan & Wright, a Corporation of Michigan. Filed Feb. 10, 1915. Serial No. 7,252. (Cl. 154—10.)

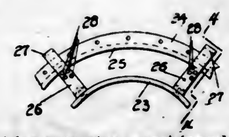


1. A tire building machine embodying a power-driven ring core, a pivoted frame, rolls thereon for delivering the fabric to the core, means for rocking the frame to dispose the delivery rolls for frictional driving by the core, and positively driven rolls on the frame for feeding fabric to the delivery rolls at a predetermined ratio of speed relatively to the speed of the delivery rolls.

2. A tire building machine embodying a power-driven ring core, a support, a frame pivoted at one end to the support, delivery rolls at the free end of the frame, rolls on the frame for feeding fabric from the support to the delivery rolls, and spaced from the delivery rolls and positively driven from the delivery rolls at a predetermined ratio of surface speed relatively to the surface speed of the delivery rolls, and means for rocking the frame to dispose the delivery rolls for frictional driving by the core.

1,209,162. VULCANIZING APPARATUS. HOMER J. HOYT, Detroit, Mich., assignor to Morgan & Wright, a Corporation of Michigan. Filed Apr. 29, 1916. Serial No. 94,318. (Cl. 18—17.)

1. A vulcanizing apparatus comprising relatively moving press members adapted to receive molds therebetween, an inclosure for the molds, and a guide for positioning the molds within the inclosure in axial alinement with each other.



2. A vulcanizing apparatus comprising relatively moving press members adapted to receive molds therebetween, an inclosure for the molds, and means on the inclosure arranged to engage the periphery of each mold at a plurality of points during entry of the mold into the inclosure and position the molds in axial alinement with each other.

3. A vulcanizing apparatus comprising relatively moving press members adapted to receive molds therebetween, an inclosure for the molds, and a curved guide on the inclosure adapted to contact with and conform to the periphery of each mold during entry thereof into the inclosure and position the molds in axial alinement with each other.

4. A vulcanizing apparatus comprising relatively moving press members adapted to receive molds therebetween, an inclosure for the molds, a guide for positioning the molds within the inclosure in axial alinement with each other, and means adjustably mounting the guide for movement on the inclosure in a plane perpendicular to the axis of the inclosure.

5. A vulcanizing apparatus comprising relatively moving press members adapted to receive molds therebetween, an inclosure for the molds having a rim, a guide for positioning the molds within the inclosure in axial alinement with each other, and means removably securing the guide to said rim.

1,209,163. VAT DYESTUFFS AND PROCESS OF MAKING SAME. BENNO HOMOLKA, Frankfort-on-the-Main, Germany, assignor to Farbwerke Vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed July 30, 1915. Serial No. 42,754. (Cl. 23—24.)

1. The process of making new vat dyestuffs, which consists in heating para-quinones with arylamino-acetic acids in a suitable solvent.

2. As new commercial products, dimethyldiaryl-amino-para-quinones, which constitute brown crystalline powders, being insoluble in water, diluted acids and alkalis, practically insoluble in alcohol, ether and benzene, soluble with a bluish-red color in concentrated sulfuric acid, and yielding colorless vats which give yellow tints on the animal fiber.

3. As a new commercial product, the vat dyestuff of the formula:

$$C_6H_2O_2\left\{N\begin{matrix}CH_3\\C_6H_5\end{matrix}\right\}_2$$

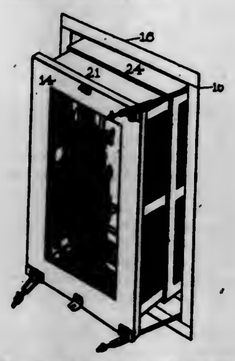
which constitutes a brown crystalline powder, melting at 232° C. with decomposition, being insoluble in water, in diluted acids and alkalis, practically insoluble in alcohol, ether and benzene; soluble with an orange-yellow color in boiling xylene and glacial acetic acid, with a red color in concentrated sulfuric acid; yielding, when dissolved in an alkaline solution of hydrosulfite, a colorless vat which gives yellow tints on the animal fiber.

1,209,164. COMBINATION WINDOW, SCREEN, AND AWNING. CARL SEVERIN JOHANSON, Montclair, N. J. Filed Mar. 30, 1916. Serial No. 87,780. (Cl. 20—40.)

1. A window including a frame, and a plurality of telescopic collapsible members comprising frames to the outermost of which is secured a sash, substantially as described.

2. A window including a sash, a series of telescopic members secured to said sash, and a frame concealing said telescopeing members, substantially as described.

3. A window including a frame and a sash, and a series of telescoping members comprising frames constructed to envelop aforesaid frame when in collapsed or telescoped position, substantially as described.



4. A window comprising a window casing and an inner frame suspended within said casing; a series of telescoping frames secured within said casing and adapted to be outwardly extended in the space between said casing and said inner frame, and to be concealed by said inner frame when in telescoped or collapsed position, substantially as described.

5. A window casing including an inner suspended frame or casing constructed to conceal a series of telescoping frames adapted to be extended or collapsed about the same, said inner suspended frame being detachable and having extensions to the sides for securing it in position, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,200,165. PHENOLIC CONDENSATION PRODUCT. WHITNEY B. JONES, Perth Amboy, N. J., assignor to General Bakelite Company, New York, N. Y., a Corporation of New York. Filed Mar. 5, 1913. Serial No. 752,230. (Cl. 134—26.)

1. As a new composition of matter, a liquid coating composition containing a phenolic condensation product and a cellulose ester, in conjunction with a solvent having a boiling-point higher than that of water.

2. As a new composition of matter, a coating composition containing a phenolic condensation product and a cellulose ester, in conjunction with a solvent containing a chlorinated hydrocarbon.

3. As a new composition of matter, a coating composition containing a phenolic condensation product and a cellulose ester, in conjunction with a chlorinated solvent having a boiling-point higher than that of water.

4. As a new composition of matter, a coating composition containing a phenolic condensation product and a cellulose ester, in conjunction with tetrachlorethane.

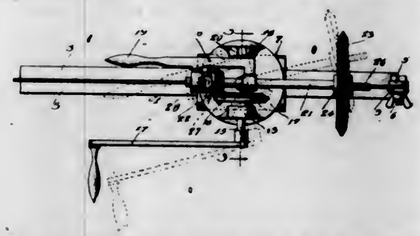
5. As a new composition of matter, a phenolic condensation product containing a cellulose ester and an ester of a phenolic body.

[Claims 6 to 9 not printed in the Gazette.]

1,209,166. SAW-FILING MACHINE. KOSA KAWAHARA, Los Angeles, Cal. Filed June 20, 1916. Serial No. 104,675. (Cl. 76—38.)

1. A saw filing machine comprising a saw blade clamp, a carriage slidable upon the clamp, a bearing member rotatably mounted upon the carriage, a rotatable shaft, a bearing for said shaft pivoted upon the rotatable bearing, a saw tooth filing member fixed to the shaft, means to rotate the shaft, and a handle carried by the last named bearing.

2. A saw filing machine comprising a saw blade clamp, a carriage slidable upon the clamp, a supporting member rotatably mounted upon the carriage, a bearing member pivoted for vertical movement upon the supporting member, a shaft journaled in the supporting member, a pinion on said shaft, a crank connected to said shaft, a circular saw tooth filing member, a shaft for supporting said member journaled in the bearing member, a pinion fixed to said last named shaft and meshing with the first named pinion, and a handle carried by the bearing member.



3. A saw filing machine comprising a saw blade clamp, a carriage slidable upon the clamp, a supporting member rotatably mounted upon the carriage, a bearing member pivoted for vertical movement upon the supporting member, a shaft journaled in the supporting member, a pinion on said shaft, a crank connected to said shaft, a circular saw tooth filing member, a shaft for supporting said member journaled in the bearing member, a pinion fixed to said last named shaft and meshing with the first named pinion, and a handle carried by the bearing member, said filing member having its ends overlapped and located in the same plane.

1,209,167. SOCKET-SHELL CAP AND INSULATING-LINING THEREFOR. JOSEPH KEEFE, Boston, Mass., assignor to The Zee Socket and Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 10, 1912. Serial No. 719,556. (Cl. 173—362.)



An insulating lining for socket shell caps and the like, said lining having a convex or dome-shaped upper portion and a cylindrical flange whereby, when said lining is inserted in a socket shell cap having a petticoat of less diameter than said lining the flange of the lining will be frictionally retained by said petticoat and whereby any pressure upon the top of the dome-shaped portion of the lining will cause a spreading of said flange and a tightening of its fit in said petticoat.

1,209,168. VANITY-BOX. WILLIAM G. KENDALL, Newark, N. J. Filed May 6, 1916. Serial No. 95,902. (Cl. 132—28.)



1. A vanity box including a box body having a marginal wall formed with indentations providing interior projections, and a rouge holding pad having an upwardly and inwardly directed marginal wall adapted to be engaged beneath the projections, whereby the pad is anchored in the box.

2. A vanity box including a body open at its ends and provided at its lower end with an inwardly directed annular flange and provided in spaced relation above the flange with indentations providing inward projections, a removable bottom forming element seating within the body of the box and resting upon the flange and a rouge holding pad having an upwardly and inwardly directed marginal wall positioned within the box, the pad having its marginal wall engaged beneath the projections and being thereby anchored in place and against the bottom forming element to hold it in place.

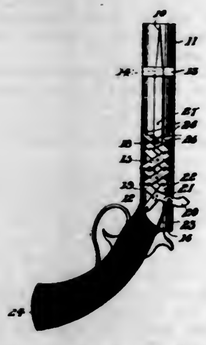
3. A vanity box including a body open at its ends and provided at its lower end with an inwardly directed annular flange and provided in spaced relation above the flange with indentations providing inward projections, a bottom forming element seating within the body of the box and resting upon the flange, a rouge holding pad having an upwardly and inwardly directed marginal wall positioned within the box, the pad having its marginal wall engaged beneath the projections and being thereby anchored in place and against the bottom forming element to hold it in place, and a cover having a marginal flange adapted to frictionally engage about the upper end of the box, the upper end of the box being outstruck to provide a projection engaging the inner face of the flange.

4. A vanity box including a box body having a bottom formed with an opening and a marginal wall formed with indentations providing interior projections, a removable element seating in the box and closing the opening in the bottom, and a rouge holding pad engaging against the element and locked in the box by the inward projections.

5. A vanity box including a body having an opening in its bottom, a removable element seating within the body and closing the opening, a rouge holding pad seated in the box, and means for anchoring the pad in the box and in engagement with the element.

[Claims 6 and 7 not printed in the Gazette.]

1,209,169. WEAPON. GEORGE KOMADINA, Dawson, N. Mex. Filed Aug. 24, 1916. Serial No. 116,606. (Cl. 42—86.)



1. A bayonet attachment for firearms comprising a bayonet longitudinally arranged adjacent the barrel thereof, a lazy tongs operatively connected between the said barrel and bayonet, an operating lever adapted for unfolding said lazy tongs, a retaining latch for the said lever when the bayonet is operatively positioned and automatic retracting means for the said lazy tongs upon the release of the said latch.

2. A device of the class described comprising in combination with a pistol having a barrel and a stock, a bracket laterally projecting from the barrel, a bayonet slidably arranged through the bracket longitudinally of the barrel extending forwardly of the latter when projected, a pin transversely carried by the bayonet projecting upon opposite sides thereof, a lazy tongs operating means pivotally anchored at its inner end adjacent the inner end of the barrel, the opposite ends of the lazy tongs being pivotally attached to the inner end of the bayonet with the adjacent links in hooked arrangement adapted for retaining positioning over the ends of the said pin when the bayonet is projected, an opening lever for the said lazy tongs, and automatic closing means for the latter.

3. A device of the class described comprising a combination with a pistol having a barrel and a stock, a bracket laterally projecting from the barrel, a bayonet slidably arranged through the bracket longitudinally of the barrel, extending forwardly of the latter when projected, a pin transversely carried by the bayonet projecting upon opposite sides thereof, a lazy tongs operating means pivotally anchored at its inner end adjacent the inner end of the barrel, the opposite ends of the lazy tongs being pivotally attached to the inner end of the bayonet with the adjacent links in hooked arrangement adapted for retaining positioning over the ends of the said pin when the bayonet is projected, an opening lever and a closing arm carried by the rear links of the said lazy tongs, a compression spring between the free end of the said arm and the said stock, the said lever being arcuate in form overlying the said barrel and arranged in contact therewith when the lazy tongs is in its open position with the bayonet projected, and a spring pressed releasable locking latch for the said lever pivotally carried by the said barrel at the opposite side thereof from the said lazy tongs.

1,209,170. BUTTON. HERBRAND T. KRAVIK, Rjukan, Vestfjorddalen, Norway, assignor to Alfred Holter, Rjukan, Norway. Filed Apr. 28, 1915. Serial No. 24,603. (Cl. 24—109.)



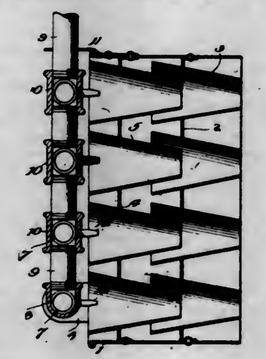
1. Improved button adapted to be fastened in position without sewing, comprising in combination, a head forming one part, a casing therein provided with double inclined slots, a spring member in the head; the two free ends of which engage the inclined slots in the casing, and a stem engaging the casing and forming the other part provided with parallel grooves at the opposite points of a diameter; said grooves engaging the free ends of the spring.

2. Improved button adapted to be fastened in position without sewing, comprising in combination, a head forming one part, a doubly slotted casing therein, a flat spring member in the head, two fingers projecting inwardly of the member and engaging the slots in the casing, and a stem engaging the casing and forming the other part provided with parallel grooves at the opposite points of a diameter, said grooves engaging the said fingers.

1,209,171. ATTACHMENT FOR FURNACES. ENOCH J. KUBICHEK, Horton, Kans. Filed Jan. 26, 1916. Serial No. 74,390. (Cl. 230—13.)

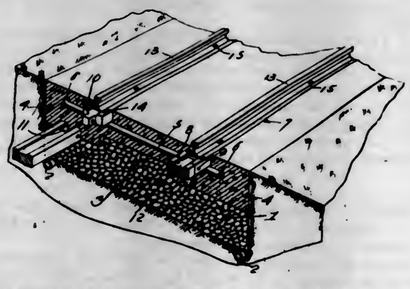
1. An apparatus for the purpose set forth comprising a casing adapted to be secured in a furnace wall, a partition in said casing, a plurality of tapered nozzles secured in and extending through said partition, the outer ends of said nozzles having the greater diameters, a plurality of supports within the casing spaced outwardly from said nozzles and spaced from each other in a transverse plane of the casing, a plurality of tapered nozzles secured in and extending through said supports and each alined axially with one of the first-mentioned nozzles with its inner smaller end fitting concentrically within and in spaced relation to the outer end of the same, a supply pipe disposed at the outer side of the casing and extending across the same, a plurality of branches extending laterally from the supply pipe across the outer ends of the outer nozzles, jets on said branches each ex-

tending into the outer end of one of said outer nozzles, a retainer at the top of the casing and extending laterally therefrom to fit around the supply pipe, and brackets extending laterally from the lower end of the casing and in which the lowest branches are journaled whereby to pivotally support the supply pipe and all its branches and permit the same to swing from the casing.



2. An apparatus for the purpose set forth comprising a casing adapted to be secured in a furnace wall, a plurality of axially alined nozzles supported within said casing, brackets at the lower end of the casing extending laterally therefrom, a central retainer at the top of the casing projecting laterally therefrom, a steam supply pipe having a vertical main portion extending across the end of the casing and a plurality of branches extending laterally across the end of the casing, and jets on said branches extending into the outer ends of the outer nozzles, the lowermost branches being pivotally mounted in the said brackets and the main supply pipe passing through and held by the said retainer.

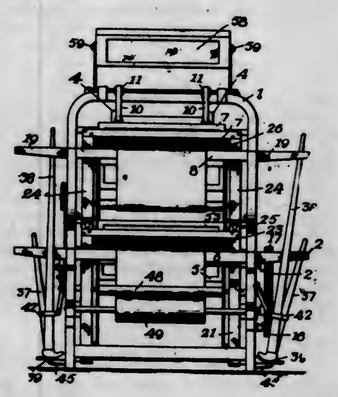
1,209,172. PERMANENT BED FOR RAILWAYS. WILLIAM F. KUBTZ, Forest, Ohio. Filed May 25, 1916. Serial No. 99,840. (Cl. 104—14.)



1. A permanent bed for railways, including a stone base of greater thickness at the center than at its sides, a concrete covering upon the base and having parallel channels, tie straps embedded within the concrete and flush with the bottoms of the channels, stringers resting upon said tie straps and fitting snugly within the channels, the upper faces of the stringers being flush with the top surface of the concrete, there being longitudinal channels within the stringers, means extending through the stringers for detachably securing them to the tie straps, and means for detachably securing rails within the channels in the stringers.

2. A permanent bed for railways, including a stone base thicker at the center than at the sides, drain tiles disposed under the side portions of the base, a concrete covering upon the base and having parallel channels, tie straps embedded within the concrete and flush with the bottoms of the channels, stringers snugly seated within the channels, the stringers in each channel abutting and interfitting at their ends, coupling pins extending transversely through the interfitting ends of the stringers, said stringers having longitudinal channels in their upper faces, means extending through the stringers for detachably securing them to the tie straps, and means for detachably securing rails in the channels in the stringers.

1,209,173. LOOM. ELZBAR O. LA FRANCE, Worcester, Mass. Filed Mar. 1, 1916. Serial No. 81,311. (Cl. 139—18.)



1. In a loom, a pivoted lay, means for oscillating said lay about its pivotal axis, said lay providing a plurality of superposed reeds, and mechanism operatively connected to each reed for equalizing the movement of said reeds in the vibration of said lay.

2. In a loom, a pivoted lay, means for oscillating said lay about its pivotal axis, said lay providing a reed for a lower fabric and an independent reed for an upper fabric, and mechanism operatively connected to each reed, for maintaining said reeds substantially in vertical alinement.

3. In a loom for weaving simultaneously an upper and a lower fabric, a pivoted lay common to both fabrics, means for oscillating said lay about its pivotal axis, said lay having two sections, one for each fabric, and means for equalizing the movement of the sections of said lay.

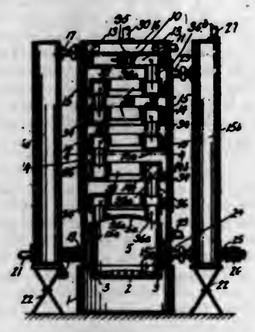
4. In a loom, a lay providing a lower reed and an upper reed, means for vibrating said lay to move said lower reed in a path of predetermined amplitude, and means actuated by the vibration of said lay for limiting the movement of the upper reed to a path of the same amplitude as the lower reed.

5. In a loom, a lay consisting of two hinged sections, each section providing a reed, means for vibrating one section, and means actuated by the vibration of the first section for maintaining the reed of the second section in a path of the same amplitude as the reed of the first section.

[Claims 6 to 9 not printed in the Gazette.]

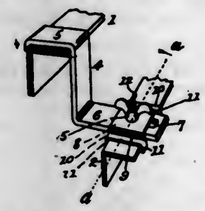
1,209,174. HOT-WATER HEATING SYSTEM. FERDINAND LANG, Colorado Springs, Colo. Filed Nov. 9, 1914. Serial No. 871,193. (Cl. 122—37.)

1. A water-heater for hot water heating systems having connections to the heating units of the system, a circulation reservoir mounted outside the heater and having connections with the top and bottom thereof, a valve in the bottom connection, and a return from the heating units of the system connected to the reservoir.



2. A water-heater for hot water heating systems, said heater having separate water chambers, a hot water reservoir mounted outside the heater and having circulating connections with one of the water chambers, outlets from the other water chamber to the heating units of the system, a circulation reservoir mounted outside the heater and connected to the second-mentioned water chamber, and provided with a valved return connection to the heater, a return from the heating units of the system connected to the reservoir, and a valved connection between the water chambers.

1,209,175. SPRING-BED SUPPORTING-HANGER. WILLARD O. LATHROP, Cincinnati, Ohio. Filed Nov. 3, 1914. Serial No. 870,137. (Cl. 5—63.)

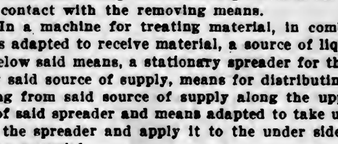


In combination, a spring-bed angle-iron side-rail and a transverse supporting-hanger device, the latter comprising a longitudinally-slotted hanger-bar, a centrally-orificed clamping-plate having downwardly-turned opposite ends adapted to transversely seat upon and span the said slotted hanger-bar at the slotted portion thereof, imperforate horizontal feet or flanges extending from said downwardly-turned opposite ends, short downwardly-turned stop-arms formed at the opposite ends of the said horizontal flanges of the clamping-plate and adapted to freely span and engage said side-rail, a vertical bolt that is partly flat-sided and adapted to engage a circular hole in the horisontal wing of the said side-rail, thence engaging the slot in said hanger-bar against turning and thence engaging the said central orifice of the clamping-plate, and a clamping-nut on the outer threaded-end of the bolt.

1,209,176. BRUSH. ROBERT D. LEARY, Worcester, Mass. Filed June 29, 1911. Serial No. 636,065. (Cl. 15—39.)

1. In a brush, a metallic back, a metallic bristle plate for attachment to said back, each of said parts being composed of an alloy containing a metal which amalgamates readily with mercury, and an amalgam uniting the joint between said back and bristle plate.

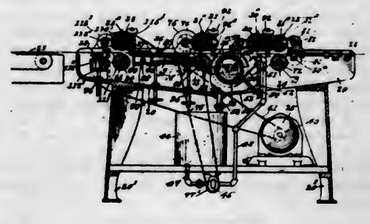
2. In a brush, a metallic back, a metallic bristle plate having an interlocking sliding engagement with said back, each of said parts containing a metal which amalgamates readily with mercury, and an amalgam interposed between the contiguous surfaces of said back and bristle plate.



3. A structure comprising interlocking metallic parts, each composed of an alloy containing a metal which amalgamates readily with mercury, and an amalgam interposed between the contiguous surfaces of said parts, and uniting said parts at atmospheric temperature.

4. A structure comprising separate metallic members, adapted to have opposing surfaces thereof united, each having in its composition a metal which amalgamates readily with mercury, and an amalgam interposed between said opposing surfaces, and uniting said parts at atmospheric temperature.

1,209,177. COATING APPARATUS. CLIFTON F. LEATHERBEE, Newton, Mass., assignor to Painting Machine Company, Kittery, Me., a Corporation of Maine. Original application filed Apr. 4, 1910, Serial No. 553,330. Divided and this application filed Aug. 17, 1910. Serial No. 577,626. (Cl. 91—39.)



1. In a machine for treating material, in combination, means adapted to receive moving material, means for applying liquid to the material, and upwardly and downwardly movable means yieldingly resistantly held against both upward and downward movement for holding the moving material in contact with the applying means.

2. In a machine for treating material, in combination, means adapted to receive moving material, means for applying liquid to the material, means for rubbing in the liquid and removing excess thereof from the material, and resilient means acting on the moving material for holding it in contact with the removing means.

3. In a machine for treating material, in combination means adapted to receive material, a source of liquid supply below said means, a stationary spreader for the liquid below said source of supply, means for distributing liquid flowing from said source of supply along the upper portion of said spreader and means adapted to take up liquid from the spreader and apply it to the under side of the moving material.

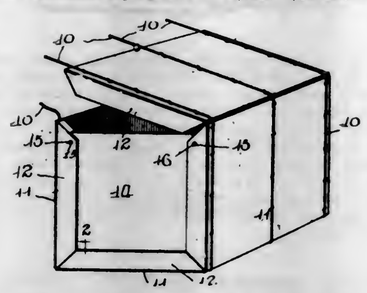
4. In a machine for treating material, in combination, means adapted to receive moving material, a source of liquid supply below said means, a stationary inclined spreader for the liquid, a moving brush having a periphery in continuous contact with the spreader adapted to take up liquid from the spreader and apply it to the under side of the moving material, and a second brush for rubbing in the liquid and removing any excess thereof.

5. In a machine for treating material, in combination, means adapted to receive moving material, a source of liquid supply below said means, a stationary inclined spreader for the liquid, a moving brush having a periphery in continuous contact with the spreader adapted to take up liquid from the spreader and apply it to the under

side of the moving material, and an auxiliary brush disposed at an angle to the first brush for rubbing in the liquid and removing any excess thereof.

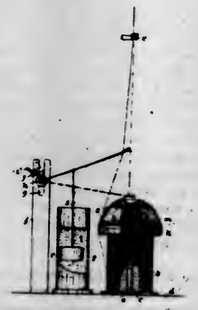
[Claims 6 to 16 not printed in the Gazette.]

1,209,178. BOX. CHARLES Q. C. LEIGH, Chicago, Ill. Filed Jan. 7, 1916. Serial No. 70,728. (Cl. 217—12.)



A knock-down crate including a plurality of sections flexibly connected together by suitable wires the ends whereof extend beyond the end sections, the flexible strip so formed being adapted to be folded transversely to form front, back, top and bottom panels, cleats beveled at their ends secured to the side portions of the strip upon one face thereof, each of said cleats having a tongue extending from one end and a recess in its other end, said tongues being adapted to project into the recesses when the strip is folded, said cleats being formed with longitudinal grooves in their centrally facing faces, end panels adapted to be mounted within said grooves, the upper portions of the two vertically disposed cleats being provided with transverse openings therein, pins adapted to be inserted in the openings in said cleats and to engage the end panels, which pins constitute means for temporarily holding the front, back and bottom of the crate against the end panels.

1,209,179. TENSION DEVICE. EMORY J. LIPPS, Fountain Hill, Pa. Filed Mar. 21, 1916. Serial No. 85,558. (Cl. 242—147.)



1. In combination, a support for a supply wound package having the coils thereof wound around and back and forth lengthwise of a common axis, means, substantially alined with the package axis, to guide the thread withdrawn from the package, a tension guide for the thread having its guiding portion arranged between said means and the package and endwise of the latter and normally held toward but movable by the thread from the package, means to damp the movement of said guide, and means in which said guide is confined to move toward and from the package.

2. In combination, a support for a supply wound package having the coils thereof wound around and back and forth lengthwise of a common axis, means, substantially alined with the package axis, to guide the thread withdrawn from the package, a pivoted tension guide for the thread having its guiding portion arranged between said means and the package and endwise of the latter and normally held toward but movable by the thread from the package, means to damp the movement of said guide, and means in which said guide is pivotally movable toward and from the package.

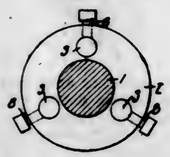
3. In combination, a support for a supply wound package having the coils thereof wound around and back and forth lengthwise of a common axis, means, substantially alined with the package axis, to guide the thread withdrawn from the package, and means, adjustable substantially lengthwise of said axis and including a tension guide for the thread having its guiding portion arranged between the first-named means and the package and endwise of the latter and normally held toward but movable by the thread from the package, for controlling the tension of the thread.

4. In combination, a support for a supply wound package having the coils thereof wound around and back and forth lengthwise of a common axis, means, substantially alined with the package axis, to guide the thread withdrawn from the package, and means for controlling the tension of the thread including an oscillatory guide for the thread having its guiding portion arranged between the first-named means and the package and endwise of the latter and normally held toward but movable by the thread from the package and adjustable means to control the oscillations of the guide.

5. In combination, a support for a supply wound package, means, spaced from the package, to guide the thread withdrawn therefrom, a tension device normally held bearing against the thread between and spaced from the package and said means and a dash-pot controlling the tension device.

[Claims 6 to 10 not printed in the Gazette.]

1,209,180. CUTTER-HEAD FOR JOINTERS. EDWARD J. LOBDELL, Onaway, Mich. Filed June 24, 1916. Serial No. 105,579. (Cl. 144—234.)

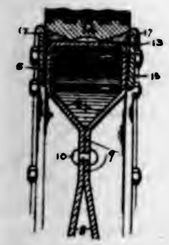


1. A cutter head for jointers comprising a main member arranged to be driven by a shaft, a journal projecting from the main member, the axis of said journal being offset from and parallel to the axis of said shaft, a cutter adjustable angularly about said journal, and a screw movable transversely with reference to the main member whereby the cutter may be brought into proper cutting relation.

2. A cutter head for jointers comprising a main member arranged to be driven by a shaft, a cutter, means for pivotally supporting the cutter on the main member in such manner that the cutter is capable of being adjusted about an axis which is offset from and parallel to that of the shaft, said cutter having a plurality of adjusting teeth and having a cutting point, and rotatable means arranged to move as a whole along its own axis of rotation to engage a desired adjusting tooth whereby the cutter may be adjusted angularly into proper cutting relation.

3. A cutter head for jointers comprising a cutter having a non-continuous peripheral cutting blade on which a cutting tooth may be formed by grinding transversely of said blade, and also having a plurality of peripherally arranged adjusting teeth, a main shaft driven member, means for supporting the cutter upon the main member in such manner that the cutter is adjustable angularly about an axis offset from the axis of the shaft by which the main member is driven, and a screw supported by the main member, said screw being movable as a whole along its own axis of rotation for engaging a desired adjusting tooth whereby the cutting tooth may be brought into proper cutting relation as the blade is worn or ground away.

1,209,181. METAL WHEEL. ALFRED M. LOFLAND, Lebanon, Ind. Filed Sept. 12, 1914, Serial No. 861,346. (Cl. 21—69.)



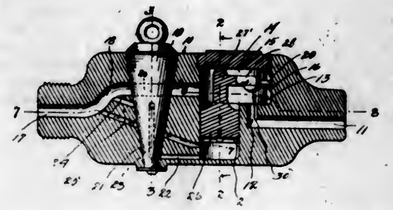
1. The combination of a pair of sheet metal disks contacting in a plane at the middle of the wheel, means for fastening the disks together in said meeting plane, said disks continuing thence in outwardly oblique directions forming the inner member of a felly, and from said inner member outwardly and parallel with each other forming the sides of the felly and from said sides inwardly at right angles to the latter forming the annular outer periphery of the felly, and bolts passing transversely through the felly close to the rim.

2. The combination, in a wheel of a pair of sheet-metal disks having an annular contacting portion near the periphery of the wheel, said disks continuing thence in outwardly oblique directions forming the inner member of a felly, and from said inner member outwardly and parallel with each other forming the sides of the felly and from said sides inwardly at right angles to the latter forming the annular outer periphery of the felly, a tire surrounding said felly, and means for securing the tire to the felly comprising bolts passing through the felly, the adjacent edges of the two disks in said felly periphery being inturned and continued into contact with said bolts to prevent the buckling and distortion of said periphery.

3. The combination, in a wheel of a pair of sheet-metal disks having an annular contacting portion near the periphery of the wheel, said disks continuing thence in outwardly oblique directions forming the inner member of a felly, and from said inner member outwardly and parallel with each other forming the sides of the felly and from said sides inwardly at right angles to the latter into contact with each other thereby completing the felly-closure, a tire surrounding said felly, and means for securing the tire to the felly comprising bolts passing through the felly.

4. The combination, in a wheel of a pair of sheet-metal disks having an annular contacting portion near the periphery of the wheel, said disks continuing thence in outwardly oblique directions forming the inner member of a felly, and from said inner member outwardly and parallel with each other forming the sides of the felly and from said sides inwardly at right angles to the latter forming the annular outer periphery of the felly, means to prevent the buckling and distortion of said periphery, a tire surrounding said felly, and means for securing the tire to the felly comprising bolts passing through the felly.

1,209,182. GAS-VALVE. BERT LOUGH and ROBERT E. MILLER, Morgantown, W. Va. Filed Apr. 27, 1916. Serial No. 94,044. (Cl. 67—115.)



An automatic gas pressure valve comprising an elongated casing having longitudinally extending inlet and outlet passages offset with respect to each other, one end of the casing having a vertical chamber formed therein, a turning plug mounted in the other end of the casing, an inclined passage connecting the inlet passage with the lower portion of the chamber, a horizontal passage connecting the valve seat with the chamber below the first passage, said first passage extending around the valve and out of communication with the seat, said plug having a substantially Z-shaped passage extending longitudinally therethrough and arranged to have its lower end in registry with the said horizontal passages at times, a short inclined passage arranged to register with the upper end of the Z-shaped passage at times, and communicating with the inlet passage, a vertically movable gravity piston mounted in the chamber and arranged to close the adjacent end of the inclined passage at times, a valve member carried by the piston for controlling the inner end of the outlet passage, said valve also having a transverse passage for registration with the inlet passage.

1,209,183. PROCESS FOR EMBOSSING PORCELAIN, STONE, AND LIKE MATERIAL. MARK GLOVER MALPAS, Morrisville, Pa. Filed June 19, 1915. Serial No. 35,143. (Cl. 41—38.)



A process for producing two-color embossed stone or the like, consisting of taking two layers of different colored material, uniting them to form one block, applying a resilient pattern to the top layer corresponding to the character or design desired to be produced, forcing under pressure particles of a cutting substance into contact with the material surrounding the pattern so that said material will be cut away, and continuing said cutting until the second layer has been exposed.

1,209,184. BUCKET-HOLDER. GEORGE W. MARKWELL, Sabula, Iowa. Filed Apr. 6, 1915. Serial No. 19,570. (Cl. 91—64.)

1. A device of the character described including a body portion having a straight supporting leg, and a straight attaching member fixed in offset relation relative to the leg to extend longitudinally beyond one extremity thereof, the attaching member being adapted to seat flat against a surface for supporting the leg to extend obliquely toward the said surface to engage at its opposite extremity therewith, and a supporting element carried by the body portion.

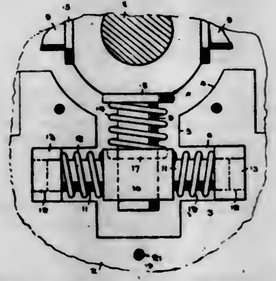
2. A device of the character described including a body member having portions of its length bent to provide a supporting leg, an attaching member fixed relative to the leg, and an offset portion connecting the attaching member with the leg with the attaching member extending longitudinally beyond one end of the leg, the attaching member being adapted to seat flat against a surface to support said leg to extend obliquely thereto with its opposite end engaging the said surface, and a supporting element carried by the offset portion of the body member.



3. A device of the character described including a body portion provided intermediate its length with an offset with the extremities of the body portion extending in opposite directions from the said offset and adapted to engage a surface with the offset abutting the said surface and extending laterally therefrom, and a supporting element carried by the said offset of the body portion.

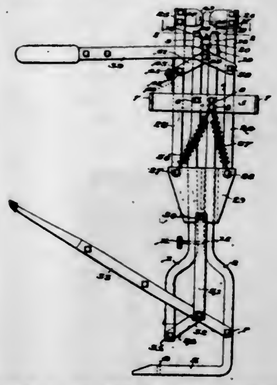
4. A device of the character described including a body portion formed from a single length of material bent intermediate its ends to provide an offset portion with the extremities of said length of material extending in opposite directions from the said offset portion and respectively providing an attaching member and a leg adapted to engage a surface with the offset portion extending laterally therefrom, and a supporting element connected to the offset portion.

1,209,185. WHEEL CONSTRUCTION. JOE F. MARX, Hartington, Nebr. Filed Jan. 28, 1916. Serial No. 74,823. (Cl. 152—28.)



A wheel comprising a main hub having a central opening and provided with radial channels communicating therewith, said hub being further provided with additional channels extending transversely to and communicating with the radial channels, a bearing block disposed in each end of the last named channels, a bar embodying an apertured head and having its opposite ends slidably disposed in each of said bearing blocks, a cushion spring arranged on each bar between the said head and the adjacent bearing block, an auxiliary hub provided with spokes disposed within the radial channels, each spoke extending through the apertured head of each bar, and a cushion spring arranged on each spoke between the auxiliary hub and the adjacent bar.

1,209,186. ROPE-SPLICING MACHINE. CHARLES N. MCCLINTOCK, Elwood, Ind. Filed Nov. 30, 1915. Serial No. 64,329. (Cl. 140—93.)



1. A machine of the class described including a staple-holding head having a socket for receiving a staple, bending means normally disposed above said head, means for moving said bending means into position to engage the ends of said staple arranged within said staple socket, and means for moving said bending means while engaged with the ends of the staple to form a loop and turn the extremities toward each other.

2. A machine of the class described including a staple-holding head having a socket for receiving a staple, bending elements normally disposed above said head, means for moving said elements into crossing relation, means for moving said bending means while crossed into engagement with the end portions of said staple and further moving the same to bend the said end portions into a loop, and means carried by said bending elements for turning the extremities of the staple inwardly toward each other when the loop is formed.

3. A machine of the class described including a staple-holding head having a socket for receiving a staple, bending elements normally disposed above said head, means for moving said elements toward and from each other to engage with the ends of said staple, and means for moving both elements together while engaged with the staple in such a direction as to bend the ends of the same into the form of a loop.

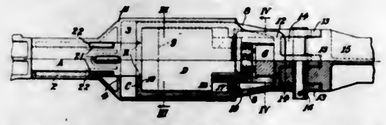
4. A machine of the class described including a relatively fixed staple head having an adjustable staple socket, oppositely arranged bending members movable toward said head, and means for bringing said bending members into crossing relation and spreading the same apart.

5. A machine of the class described including relatively fixed supporting standards having a staple receiving socket at their upper ends, oppositely arranged compressing rods, bending members carried by the upper ends of said rods, means for reciprocating said compression rods, and means for also varying the lateral distance therebetween.

[Claims 6 to 15 not printed in the Gazette.]

1,209,187. RADIAL-DRAFT GEAR. CHESTER F. MEYER, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 18, 1915. Serial No. 28,813. (Cl. 213—42.)

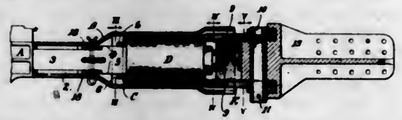
1. In a radial draft gear, an outer casing having a coupler secured thereto and having a plurality of rearwardly extending arms, an inner casing having a plurality of rearwardly extending arms connected with each other by a cross piece near their rear ends and having a point of pivotal attachment to a car, a shock absorbing mechanism seated in the inner case, and a follower having a bearing on arms of the outer casing, the cross piece and on the shock absorbing mechanism.



2. In a radial draft gear, a pair of telescoping casings, a bracket secured to the car having a plurality of forwardly-extending apertured bosses, one of said casings having a plurality of rearwardly-extending apertured projections, a pivot pin seated in the apertures in said bosses and projections, in combination with a container for shock-absorbing mechanism seated in one of said casings, and a follower having a bearing between said last-mentioned casing and the shock-absorbing mechanism, said follower also being actuated during draft to compress the frictional mechanism against the first-mentioned casing.

3. In a radial draft gear, an outer casing attached to a coupler, an inner casing pivotally attached to the car, a container for shock absorbing mechanism positioned within the inner casing, coöperating shoulders upon the outer casing and the inner casing, coöperating projections upon said container and inner casing, said sets of shoulders and projections being brought into engagement at the end of the compressive movement of the shock absorbing mechanism under buffing movement of the gear and being adapted to relieve said shock absorbing mechanism from further stress.

1,209,188. RADIAL-DRAFT GEAR. CHESTER F. MEYER and FRANK R. CAMPBELL, Cleveland, Ohio, assignors to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 18, 1915. Serial No. 28,814. (Cl. 213—42.)



1. In a radial draft gear, a casing pivoted to the car body, containing a shock absorbing mechanism, a second casing having a telescoping engagement with the first named casing, a coupler adapted to move with the second-named casing, and an opening in the first named casing to permit the rear end of the coupler during buffing to move therethrough into direct contact with the shock absorbing mechanism.

2. In a radial draft gear, a casing pivotally connected to a car containing a shock absorbing mechanism, a follower having a bearing on the shock absorbing mechanism and engaging a second casing, the follower and the second named casing having a recess and projection engagement to prevent a twisting movement of the second named casing.

3. In a radial draft gear, a casing adapted to be pivotally mounted on a car and containing a shock-absorbing mechanism, a second casing having a plurality of inwardly-extending lugs, and a follower having a plurality of outwardly-extending flanges, the lugs and flanges being adapted to be rotated into engagement during assembly of the gear.

4. In a radial draft gear, a casing adapted to be pivotally mounted on a car and containing a shock-absorbing mechanism, a second casing having a plurality of lugs, and a follower having a plurality of flanges, the follower being adapted to be inserted into the second casing and to be rotated to bring the flanges into alinement with the lugs, the lugs and flanges comprising means for locking the parts of the gear together.

5. In a radial draft gear, a casing pivotally connected to a car, shock absorbing mechanism contained therein, a second casing having projections, a coupler connected to said second casing, a follower normally in engagement with the car and having projections adapted to have a pulling engagement with the projections on said second casing, a plurality of sets of shoulders on said second casing, one of said sets being adapted to have a buffing engagement with the follower, and another of said sets to have a buffing engagement with the first named casing, whereby excessive buffing shocks are distributed between said follower and said first named casing, to relieve the shock absorbing mechanism of excessive strain.

1,209,189. RADIAL-DRAFT GEAR. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 18, 1915. Serial No. 28,815. (Cl. 213—42.)

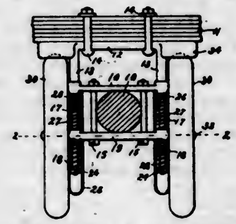


1. In a radial draft gear, a forward member connected to the coupler, a rear member pivotally connected to the car, a container for a shock absorbing mechanism co-operating with both members, the said container having outwardly extending lugs engaging an inwardly extending portion of the rear member during draft, and having at its forward end a bearing with which the forward member coöperates during buffing.

2. In a radial draft gear a forward member connected to the coupler, a rear member having rearwardly extending arms pivotally connected to the car, shock absorbing mechanism, a follower, the said follower having a key connection with one of said members and being adapted under draft to transmit the pulling stresses to the shock absorbing mechanism, and under buffing to transmit the buffing stresses from the shock absorbing mechanism to the car.

3. In a radial draft gear, a forward member connected to the coupler and a rear member connected to the car, and a shock absorbing casing contained in the rear member and having a pulling engagement therewith, the casing being adapted to be inserted into the rear member from the rear and after insertion to be rotated 90 degrees to be brought into pulling engagement therewith.

1,209,190. SHOCK-ABSORBER FOR VEHICLES. ARTHUR E. MILLER, Sacramento, Cal. Filed June 21, 1916. Serial No. 104,912. (Cl. 267—24.)

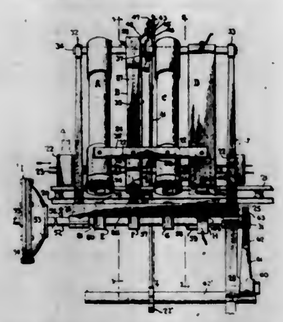


1. The combination with a plate provided with posts projecting therefrom at right angles a plate perforated to receive said posts springs on said posts to resiliently limit the relative movements of said plates, and pneumatic tired disks mounted upon one of said plates in posi-

tion to engage their tires with projections on the other of said plates.

2. The combination with a plate provided with posts projecting therefrom at right angles a plate perforated to receive said posts a third plate also constructed to slide upon said posts, bolts or clips for holding said sliding plates together and confining the axle between them springs upon said posts for limiting the movement of the united plates studs projecting from the ends of the third plate, disks centrally mounted upon said studs, and resilient rings carried on the periphery of said disks for the purpose specified.

1,209,191. BOTTLE-LABELING MACHINE. GEORGE P. MILLER, Govans, Md. Filed Feb. 18, 1915. Serial No. 9,161. (Cl. 216—55.)



1. In a bottle labeling machine, a shelf for supporting a plurality of bottles, means mounted above the shelf to drag the bottles in upright position along on the shelf, step by step, means for applying adhesive material to one bottle at one step in the operation of the feeding means, and means operable at the next step in the operation of the feeding means for simultaneously applying a label to the bottle to which adhesive material has been applied in the previous step and also applying adhesive material to another bottle.

2. In a bottle labeling machine, means for supporting a plurality of bottles, means for feeding the bottles step by step, means for applying adhesive material to one bottle at one step in the operation of the feeding means, means operable at the next step in the operation of the feeding means for simultaneously applying a label to the bottle to which adhesive material has been applied in the previous step and also applying adhesive material to another bottle, and means for moistening the label applied to the bottle.

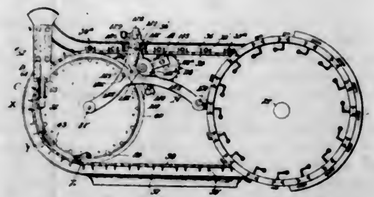
3. In a bottle labeling machine, means for supporting a plurality of bottles, means for feeding the bottles step by step, means for applying adhesive material to one bottle at one step in the operation of the feeding means, means operable at the next step in the operation of the feeding means for simultaneously applying a label to the bottle to which adhesive material has been applied in the previous step and also applying adhesive material to another bottle, means for moistening the label applied to the bottle, and means for drying the moistened label.

4. In a bottle labeling machine, a shelf for supporting a plurality of bottles, means mounted above the shelf to drag the bottles in upright position along the shelf, step by step, means for applying adhesive material to one bottle at one step in the operation of the feeding means, means operable at the next step in the operation of the feeding means for simultaneously applying a label to the bottle to which adhesive material has been applied in the previous step and also applying adhesive material to another bottle, and means for drying the label.

5. In a bottle labeling machine, a shelf for supporting a plurality of bottles, means mounted above the shelf to drag the bottles in upright position along the shelf, step by step, means for applying adhesive material to one bottle at one step in the operation of the feeding means, means operable at the next step in the operation of the feeding means for simultaneously applying a label to the bottle to which adhesive material has been applied in the previous step and also applying adhesive material to another bottle, and a heating device operable to dry the label.

[Claims 6 to 53 not printed in the Gazette.]

1,209,192. BOTTLE-CORKING MACHINE. GEORGE P. MILLER, Govans, Md. Filed Feb. 18, 1915. Serial No. 9,162. (Cl. 226—7.)



1. In a bottle corking machine, means to support a bottle, a rotatable cork carrier provided with cork receiving pockets, means for delivering a cork to each pocket, means to transfer a cork from each pocket of the rotatable carrier to position it over the bottle, and means to eject the cork from the transferring means and force it into the bottle.

2. In a bottle corking machine, means to support a bottle, a rotatable carrier provided with cork receiving pockets, means for delivering corks to the pockets, a rotatable cork transferring device operable between said rotatable carrier and the bottle to be corked, and means for simultaneously delivering a cork to the rotatable transferring device from the rotatable carrier and ejecting a cork from the rotatable transferring device and forcing it into the bottle.

3. In a bottle corking machine, means to support a bottle, a rotatable carrier provided with cork receiving pockets, means for delivering corks to the pockets, and a rotatable transferring device to transfer a cork from one pocket of the rotatable carrier and position it over the bottle, and means to eject the cork from the rotatable transferring means and force it into the bottle.

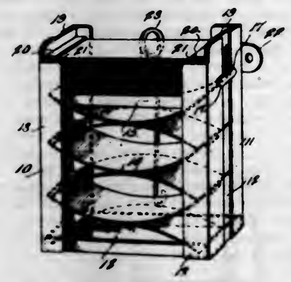
4. In a bottle corking machine, means to support a bottle, a rotatable carrier provided with cork receiving pockets, means for delivering corks to the pockets, a rotatable transferring device to transfer a cork from the rotatable carrier and position it over the bottle, means for centering the cork with relation to the bottle, means for centering the bottle with relation to the cork, and means to eject the cork from the rotatable transferring device and force it into the bottle.

5. In a bottle corking machine, means to support a bottle, a rotatable carrier provided with cork receiving pockets, means for delivering corks to the pockets, a rotatable transferring device to transfer a cork from the rotatable carrier to position it over the bottle, means for centering the bottle with relation to the cork, and means to eject the cork from the rotatable transferring device and force it into the bottle.

[Claims 6 to 46 not printed in the Gazette.]

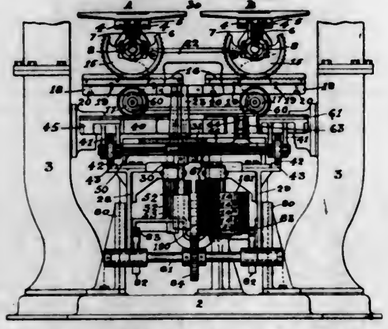
1,209,193. CARD-HOLDER. FRANK A. NEUMANN, Chicago, Ill. Filed May 5, 1914. Serial No. 836,492. (Cl. 211—37.)

In a device of the class described, in combination, a pair of upright channel-shaped members forming the corner sides of a frame, a bottom member having four flanges engaging the inner sides of said channel-shaped members, a pair of angle iron stop members secured at the upper end of each channel-shaped member to provide horizontal strips, the two sides of the channel-shaped member at the front of the bottom member being reduced in length with their upper edges arranged below the plane of said horizontal strips, a channel-shaped plate adapted to contact slidably with the sides of said channel-shaped members, and a series of flat leaf springs oppositely arched with



their ends and center alternately contacting, said channel-shaped plate resting upon the uppermost of said springs, the greater part of the edges of said flat springs being exposed from the open sides of the frame so that a hand inserted between two of said springs will apply manual pressure upon the spring.

1,209,194. BRUSH-MACHINE. HENRY A. OLSSON, Cincinnati, Ohio, assignor to The Bromwell Brush and Wire Goods Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 19, 1913. Serial No. 755,340. (Cl. 15—7.)



1. In an automatic brush machine, the combination of one or more work tables, means for shifting said tables in arcs of a circle in transverse directions, means for shifting said work tables in straight paths in transverse directions, and means for shifting said tables in a vertical path, said shifting means including a rotary pattern wheel and sliding actuators controlled thereby.

2. In an automatic brush machine, the combination of one or more work tables, means for shifting said tables in arcs of a circle in transverse directions, means for shifting said work tables in straight paths in transverse directions, and means for shifting said tables in a vertical path, said shifting means including a rotary pattern wheel and sliding rack bar formed actuators.

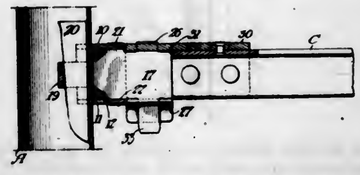
3. In an automatic brush machine, the combination of one or more work tables, and means for shifting said table or tables in arcs of a circle in transverse directions and for shifting said tables in straight paths in transverse directions, said means including a rotary pattern wheel, a series of sliding blocks carried thereby, a series of adjustable push rods carried by said blocks and means actuated thereby.

4. In an automatic brush machine, the combination of one or more work tables, and means for shifting said table or tables in arcs of a circle in transverse directions and for shifting said tables in straight paths in transverse directions, said means including a rotary pattern wheel, a series of sliding blocks carried thereby, a series of adjustable push rods carried by said blocks and sliding means actuated thereby.

5. In an automatic brush machine, the combination of one or more work tables, and means for shifting said table or tables in arcs of a circle in transverse directions and for shifting said tables in straight paths in transverse directions, said means including a rotary pattern wheel, a series of sliding blocks carried thereby, a series of adjustable push rods carried by said blocks and sliding rack bars actuated thereby.

[Claims 6 to 61 not printed in the Gazette.]

1,209,195. BEDSTEAD CORNER-FASTENING. SALVATORE ORILIO and PIETRO ORILIO, Brooklyn, N. Y., assignors to Aaron Wolf, New York, N. Y. Filed Aug. 27, 1914. Serial No. 858,898. (Cl. 5—55.)



1. A bedstead corner bracket including a tubular sleeve adapted to be rigidly secured to a post and extend outwardly therefrom at substantially right angles thereto, a pair of plates extending lengthwise of said sleeve adjacent the opposite sides thereof, and having portions projecting outwardly beyond the end of said sleeve and presenting upwardly extending projections at their upper edges and apertures adjacent to their lower edges, and a side-rail member presenting apertures adapted to receive said projections and projections adapted to enter said aperture.

2. A bedstead corner bracket including a tubular sleeve for attachment to a post a pair of plates extending lengthwise of said sleeve adjacent the opposite sides thereof, and having portions projecting outwardly beyond the end of said sleeve and presenting upwardly extending projections at their upper edges and apertures adjacent to their lower edges, and a member for attachment to a side rail and presenting apertures adapted to receive said projections and projections adapted to enter said apertures, and said plates being integral with each other with their connecting portion rigidly secured to the post.

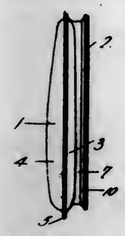
3. A bedstead corner bracket including a tubular sleeve having attachment to a post, a pair of plates extending lengthwise of said sleeve adjacent to the opposite sides thereof, and having portions projecting outwardly beyond the end of said sleeve and presenting projections and apertures, said plates having integral portions extending upwardly and downwardly from the upper and lower sides of said sleeve, and a side-rail member presenting apertures adapted to receive said projections and projections adapted to enter said apertures.

4. A bedstead corner post fastening including a tubular sleeve, means for attaching the same to a corner post with the sleeve extending outwardly substantially at right angles to the post, a pair of plates extending lengthwise of said sleeve and projecting outwardly beyond the end of the latter and each having its upper edge presenting an upwardly extending projection beyond the end of the sleeve and a member for attachment to a side rail and including a top wall and side walls, the said side walls being adapted to engage with the outer surfaces of said plates and said top wall having apertures receiving said projections.

5. A corner post fastening comprising a member formed of a single piece of sheet metal and including a plate portion adapted to engage with one surface of a corner post, a lug integral with said plate portion at one edge thereof and disposed at an angle to said plate portion also for engagement with the corner post, and a second plate portion extending outwardly substantially at right angles from said first mentioned plate portion and having a projection at its upper edge and an offset apertured portion at its lower edge and a side rail member having a projection adapted to enter said aperture, and an aperture adapted to receive said first mentioned projection.

[Claims 6 and 7 not printed in the Gazette.]

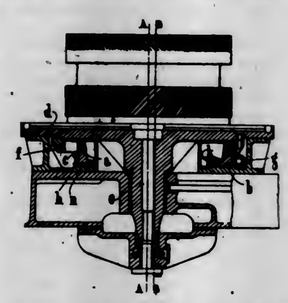
1,209,196. COLLAR. JESSE D. PADGITT, Dallas, Tex. Filed July 27, 1916. Serial No. 111,666. (Cl. 54—19.)



1. A bendable angular horse-collar fore-wale including a strip connecting transversely remote portions of the fore-wale and bridging the inner angle of the fore-wale, the strip being constructed and arranged to be depressed into the angle of the fore-wale by a hame, to bend the fore-wale into hame-gripping position.

2. A bendable angular horse-collar fore-wale including inner and outer walls and a reinforcement between the walls, the reinforcement forming an inner angle in the wale, and the inner wall being connected with the reinforcement at transversely remote points and bridging the inner angle, the inner wall being constructed and arranged to be depressed into the inner angle of the fore-wale by a hame to bend the fore-wale into hame-gripping position.

1,209,197. GEAR-CUTTING MACHINE. CHARLES ALGERNON PARSONS and ALFRED QUINTIN CARNEGIE, Newcastle-upon-Tyne, and STANLEY SMITH COOK, Wallsend, England; said Carnegie and said Cook assignors to said Parsons. Original application filed Feb. 27, 1914, Serial No. 821,500. Divided and this application filed May 1, 1916. Serial No. 94,843. (Cl. 90—4.)

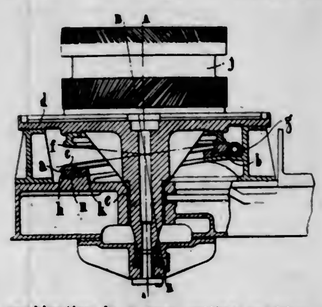


1. In combination in a gear cutting machine, a work table, a ring element, means acting to constrain said element to rotate about an axis inclined to the axis of rotation of said table, teeth upon said ring, driving means engaging said teeth, externally projecting teeth upon said ring, teeth upon said table co-acting with said ring teeth to transmit rotary motion to said table, said co-acting teeth having different pitch circle diameters.

2. In combination in a gear cutting machine a work table, a circular element adapted to rotate about an axis non-coincident with the axis of rotation of said table, means to rotate said element, externally projecting teeth upon said element, internally projecting teeth upon said table, said external and internal teeth coacting to rotate said table at a different rate from said element.

3. In combination in a gear cutting machine a work carrying member, a circular element, means acting to constrain said element to rotate about an axis non-coincident with the axis of rotation of said member, said means comprising a groove in said element coacting with a projection upon the bed of the machine, teeth upon the periphery of said element, a driving worm engaging said teeth, externally projecting teeth upon said element, internally projecting teeth upon said member, said external and internal teeth coacting to rotate said member at a different rate from said element.

1,209,198. GEAR-CUTTING MACHINE. CHARLES ALGERNON PARSONS and ALFRED QUINTIN CARNEGIE, Newcastle-upon-Tyne, and STANLEY SMITH COOK, Wallsend, England; said Carnegie and said Cook assignors to said Parsons. Original application filed Feb. 27, 1914, Serial No. 821,500. Divided and this application filed May 1, 1916. Serial No. 94,844. (Cl. 90—4.)



1. In combination in a gear cutting machine, a work table, a ring element, means acting to constrain said element to rotate about an axis inclined to the axis of rotation of said table, teeth upon said ring, driving means engaging said teeth, bevel teeth upon said table, teeth upon said ring co-acting with said bevel teeth to transmit rotary motion to the teeth, said co-acting teeth having slightly different pitch circle diameters.

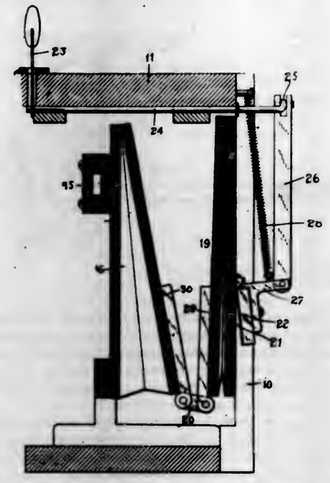
2. In combination in a gear cutting machine, a work table, a ring element, means acting to constrain said element to rotate about an axis non-coincident with the axis of rotation of said table, teeth upon said ring, driving means engaging said teeth, bevel teeth upon said table, teeth upon said ring co-acting with said bevel teeth to transmit rotary motion to the teeth, said co-acting teeth having slightly different pitch circle diameters.

3. In combination a work table, a circular element adapted to rotate about an axis non-coincident with the axis of rotation of said table, means to rotate said element, a ring of teeth upon one face of said element, bevel teeth upon said table, said ring of teeth and said bevel teeth co-acting to rotate said table at a different rate from said element.

4. In combination a work carrying member, a circular element, means acting to constrain said element to rotate about an axis inclined to the axis of rotation of said member, said means comprising a stationary inclined surface, a projection upon said surface, said projection co-acting with a groove in one face of said element, a ring of teeth upon the other face of said element, teeth

upon the periphery of said element, a driving worm engaging said teeth, bevel teeth upon said member, said ring of teeth and said bevel teeth co-acting to rotate said member at a different rate from said element.

1,209,199. ACCENTING DEVICE FOR PLAYER-PIANOS. GEORGE H. PARSONS, Stamford, Conn., assignor to Kroeger Piano Company, Stamford, Conn., a Corporation of New York. Filed Oct. 26, 1914. Serial No. 868,564. (Cl. 84—168.)



1. In a player piano, the combination with main bellows and equalizing bellows, of an accenting bellows, a connection between said accenting bellows and the equalizing bellows, an accent lever, and connections operated by the accent lever for closing said accenting bellows, whereby substantial movement of the equalizing bellows is prevented.

2. In a player piano, the combination with main bellows and equalizing bellows, of an accenting bellows, a pivoted link connecting the swinging members of the accenting bellows and the equalizing bellows, an accent lever and connections operated thereby for closing said accenting bellows to substantially arrest movement of the swinging members of the accenting and the equalizing bellows.

3. In a player piano, the combination with main bellows and equalizing bellows, of an accenting bellows, a link connection between the swinging members of the equalizing and the accenting bellows, a valve controlling the entrance of air to the accenting bellows, an accent lever and operating connections between said lever and the valve.

4. In a player piano, the combination with main bellows and equalizing bellows, of an accenting bellows, a link connection between the swinging members of the accenting and the equalizing bellows, a valve controlling the entrance of air to the accenting bellows, an arm extending from said valve, an accent lever, an oscillatory rod to which said lever is secured and which is provided with an arm, a link connecting the arms of the lever and the valve and a spring acting to retain the valve in the open position and the accent lever in its inoperative position.

1,209,200. LIFE-BELT. JOHN S. PENOTTI, West New York, N. J. Filed Jan. 26, 1916. Serial No. 74,302. (Cl. 9—17.)

1. A life belt comprising a substantially rectangular envelop member having at the center thereof a head opening; a plurality of eyelets disposed at the lateral edges of the end sections of said member; a plurality of strap ends, each permanently connected with one of said sections and adapted for being threaded through said eyelets for lacing said sections in service relation to the body of a wearer; a plurality of flexible members permanently attached to one of the sections of said member for extension below the crotch of said wearer; and means for connecting in service the terminals of said strap ends and said flexible members.



2. A life belt comprising a substantially rectangular envelop member having at the center thereof a head opening; a plurality of eyelets disposed at the lateral edges of the end sections of said member; a plurality of strap ends, each permanently connected with one of said sections and adapted for being threaded through said eyelets for lacing said sections in service relation to the body of the wearer; a plurality of flexible members permanently attached to one of the sections of said member for extension below the crotch of said wearer; means for connecting in service the terminals of said strap ends and said flexible members; and a plurality of reinforcing belt end sections operatively connected with said eyelets for relieving the strain from said rectangular member.

3. A life belt comprising a substantially rectangular envelop member having at the center thereof a head opening; a plurality of eyelets disposed at the lateral edges of the end sections of said member; a plurality of strap ends, each permanently connected with one of said sections and adapted for being threaded through said eyelets for lacing said sections in service relation to the body of a wearer; a plurality of flexible members permanently attached to one of the sections of said member for extension below the crotch of said wearer; means for connecting in service the terminals of said strap ends and said flexible members; a plurality of reinforcing belt end sections operatively connected with said eyelets for relieving the strain from said rectangular member; and means conveniently located to the mouth of the wearer for at will inflating said member.

4. A life belt comprising an elongated approximately rectangular non-elastic base strip; a plurality of belt sections permanently mounted thereon; a plurality of eyelets permanently mounted in the ends of said belt sections; a plurality of flexible strap ends permanently mounted on said base strip adjacent the upper end thereof; and a plurality of straps permanently connected with said strip at the lower end thereof, said straps being provided with fastening devices for engagement with said strap ends when the same are laced through said eyelets, said straps being adapted for passage below and through the crotch of the wearer.

5. A life belt comprising an elongated approximately rectangular non-elastic base strip; a plurality of belt sections permanently mounted thereon; a plurality of eyelets permanently mounted in the ends of said belt sec-

tions; a plurality of flexible strap ends permanently mounted on said base strip adjacent the upper end thereof; a plurality of straps permanently connected with said strip at the lower end thereof, said straps being provided with fastening devices for engagement with said strap ends when the same are laced through said eyelets, said straps being adapted for passage below and through the crotch of the wearer; a pneumatically inflatable bag member mounted on said base strip; and means for at will inflating said bag, said means embodying a tube, the end whereof may be placed in the mouth of the wearer when said belt is in service.

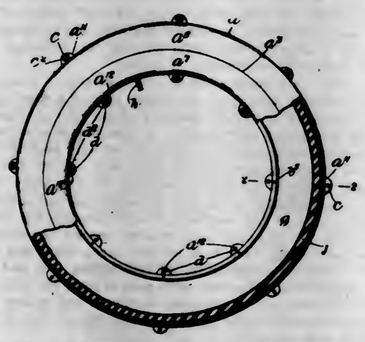
1,209,201. METHOD OF PRODUCING SOLUBLE ALKALINE COMPOUNDS. PAUL RADMANN, Godegård, Sweden. Filed May 23, 1914. Serial No. 840,434. (Cl. 23—22.)

1. A process of producing soluble alkali metal compounds from alkali-metal bearing rock consisting in heating a mixture of the said rock gypsum, and limestone, in the proportion of one part by weight of rock, one half part by weight of gypsum, and three parts by weight of limestone, to a temperature falling slightly below the fusing point of the mixture.

2. A process of producing soluble alkali metal compounds from alkali metal bearing rock consisting in heating a mixture of the said rock, gypsum, and limestone, in the proportions of one part by weight of rock, 0.25 to 1 part by weight of gypsum, and up to 3 parts by weight of limestone, to a temperature of 1100 to 1250 centigrade.

3. A process of producing soluble alkali-metal compounds from alkali-metal bearing rock consisting in heating a mixture of the said rock, gypsum, and limestone, in the proportion of one part by weight of rock, one half part by weight of gypsum, and three parts by weight of limestone, to a temperature of 1150° centigrade.

1,209,202. TIRE-MOLD. HARRY RAFLOVICH, New York, N. Y. Filed June 30, 1916. Serial No. 106,785. (Cl. 18—34.)

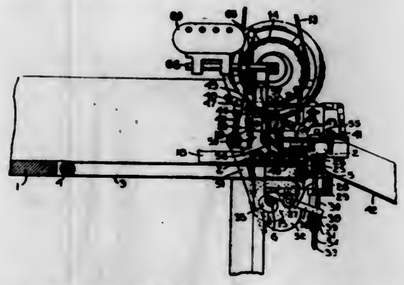


1. In a mold for pneumatic tires, an annular casing, said casing being divided centrally and in the plane of the mold and centrally and concentrically to the axis thereof to form separate parts which are detachably connected with each other, means for locking the parts formed by the first division together, and two annular rings placed between the adjacent faces of the inner separate parts of the casing.

2. In a mold for pneumatic tires, an annular casing, said casing being divided centrally and in the plane of the mold and centrally and concentrically to the axis thereof to form separate parts having a tongue and grooved connection, whereby they are detachably connected with each other, annular members placed on the adjacent faces of the inner parts of the casing, and means for locking the parts formed by the first division together.

3. In a mold for pneumatic tires, an annular casing, said casing being divided centrally and in the plane of the mold and centrally and concentrically to the axes thereof to form separate annular parts which have a tongue and grooved connection with each other, and means for locking the separate parts together.

1,209,203. COUNTING-MACHINE. HOLLON RAWNSLEY, Springvale, Me., assignor to Goodall Worsted Company, Sanford, Me., a Corporation of Maine. Filed Jan. 27, 1916. Serial No. 74,693. (Cl. 235—98.)



1. In a counting machine, a counting instrumentality, reciprocating means to present articles to the counting instrumentality, and means reciprocating in timed relation to said first-mentioned reciprocating means and actuated independently thereof to cause said presented articles to actuate the counting instrumentality.

2. In a counting machine, a counting instrumentality, yieldably actuated means for presenting the articles to said instrumentality and means for causing the articles to operate the counting instrumentality.

3. In a counting machine, a counting instrumentality, a reciprocating block to present articles to the counting instrumentality and means operated independently of the block for causing the presented article to actuate the counting instrumentality.

4. In a counting machine, a counting instrumentality, a yieldably actuated block to present articles to the counting instrumentality and means operated independently of the block for causing the presented article to actuate the counting instrumentality.

5. In a counting machine, a counting instrumentality, a movable block, a movable ram, coördinated means yieldably operable from a single shaft to actuate the block and the ram, and thereby cause articles to be presented to and to actuate the counting instrumentality.

[Claims 6 to 11 not printed in the Gazette.]

1,209,204. ROTARY ENGINE. JAMES H. RICHARDS, Moscow, Idaho. Filed Mar. 16, 1914. Serial No. 825,097. (Cl. 123—8.)



1. An engine including a hollow cylindrical wall having journal bearings, end walls secured to the cylindrical wall, a shaft rotatably guided in the end walls, a head secured to the cylindrical wall and having sliding contact with the shaft, a piston fixed on the shaft, a crank shaft mounted in the bearings of the cylindrical wall, and a pitman connected to the piston and the crank shaft.

2. An engine including a hollow cylinder, two end walls fixedly secured to the cylinder and having each a journal bearing in the inner portion thereof, an axial shaft having two trunnions rotatably mounted in the bearings respectively, a piston fixed to the shaft, a head fixed to the cylinder, a crank shaft mounted on the cylinder, and a pitman connected to the piston and the crank shaft.

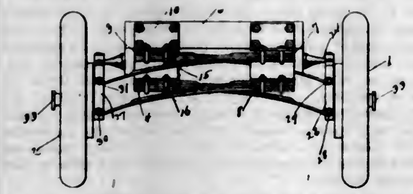
3. An engine including a cylindrical wall having journal bearings, two end walls secured to the cylindrical wall and having each a shaft bearing in the inner portion thereof, an axial shaft rotatably guided in the shaft bearings, a head secured to the cylindrical wall and having journal bearings, a crank shaft mounted in the journal bearings of the cylindrical wall and the head, a piston fixed on the axial shaft, and a pitman connected to the piston and the crank shaft.

4. An engine including a hollow cylinder, two end walls secured to the opposite ends respectively of the cylinder and provided with supporting devices, one of the end walls having a gear housing fixed thereon, an axial shaft rotatably supported in the cylinder by the supporting devices, a piston fixed on the shaft, a head secured to the wall of the cylinder and extending to the shaft, a crank shaft rotatably supported by the wall of the hollow cylinder between the end walls and extending into the gear housing, a pinion in the housing and fixed to the crank shaft, a gear wheel mounted in the housing and in mesh with the pinion, and a pitman connected to the piston and the crank shaft.

5. An engine including a cylinder having a chamber therein, the cylindrical wall of the cylinder having an opening therein in communication with the chamber and a cap covering the opening, a crank shaft rotatably mounted in the opening to operate adjacent the cap, a piston movable in the chamber of the cylinder, and a pitman connected to the crank shaft and the piston.

[Claims 6 to 28 not printed in the Gazette.]

1,209,205. SUSPENSION DEVICE. JOSEPH W. RIDGWAY, Long Island City, N. Y. Filed Oct. 31, 1911. Serial No. 657,786. (Cl. 21—182.)



1. A vehicle suspension including, in combination, a chassis, wheels therefor mounted on stub-axles, and resilient supporting means independently connecting each stub-axle with a side of the chassis remote from its own wheel.

2. A vehicle suspension including, in combination, a chassis, radius bars jointed to opposite sides thereof, resilient supporting members transversely secured to said chassis each by one end and attached each to one of said bars at the other end, stub-axles carried by the bars, and road wheels mounted on said stub-axles.

3. A vehicle suspension including, in combination, a pair of road wheels, radius bars carrying stub-axles upon which said wheels are mounted, a chassis intermediately jointed to said bars, and resilient supporting members secured to the latter and to opposite sides of said chassis respectively.

4. A vehicle suspension including, in combination, a pair of road wheels mounted on stub-axles, radius bars carrying the latter, resilient supporting members respectively attached at one end to said bars and projecting toward the opposite stub-axles at the other end, a chassis secured to the projecting ends of said members, and flexible connections between the radius bars and said chassis.

5. A vehicle suspension including, in combination, a pair of road wheels, stub-axles therefor, radius bars projecting on substantially parallel lines from said stub-axles, crossed springs attached one to each of said bars but terminating short of the other bar between said wheels, a chassis resting upon the crossed portions of said springs, and universal joints between opposite sides of said chassis and the radius bars.

[Claims 6 to 13 not printed in the Gazette.]

1,209,206. VULCANIZING-FUSE. LOREN RISK, Minneapolis, Minn. Filed Sept. 25, 1916. Serial No. 121,921. (Cl. 44—1.)



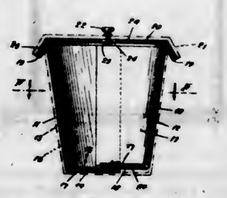
1. A vulcanizing fuse comprising a combustible element made up of a multiplicity of perforated combustible sheets or boards, certain of which are perforated, and certain of which are imperforate.

2. A vulcanizing fuse comprising a combustible element made up of a multiplicity of combustible sheets or boards held together, the bottom board being imperforate and the upper boards being perforate.

3. A vulcanizing fuse comprising a combustible element made up of a multiplicity of perforated combustible sheets or boards, certain of which are perforated, and certain of which are imperforate, and a metal pan containing said combustible element.

4. A vulcanizing fuse comprising a combustible element made up of a multiplicity of combustible sheets or boards held together, the bottom board being imperforate and the upper boards being perforate, and a metal pan containing said combustible element.

1,209,207. LINING FOR PAILS. GEORGE H. RIVES, New York, N. Y. Filed Nov. 24, 1915. Serial No. 63,293. (Cl. 217—3.)



1. In a lining for receptacles, a hollow body composed of two sections each having a bottom member and one of the sections being larger than the other so that the sections will interfit when assembled as well as permitting the lining to be adjusted to various diameters to fit receptacles of different sizes, substantially as set forth and for the purpose specified.

2. In a lining for receptacles, a hollow body composed of two sections each with a substantially semi-circular wall member having on its top edge an outwardly extending overhanging flange, and having on its lower edge a bottom member, and one of the sections being larger than the other so that the sections will interfit when assembled as well as permitting the lining to be adjusted to various diameters to fit receptacles of different sizes, substantially as set forth and for the purpose specified.

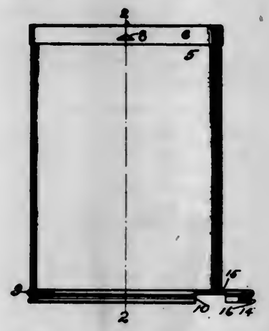
3. In a lining for receptacles, a hollow body composed of two sections each with a vertically disposed substantially semi-circular wall member, and having a longitudinally disposed substantially semi-circular bottom mem-

ber, the bottom member of each section being slitted to provide two portions for being disposed in overlapping arrangement, and one of the sections being larger than the other so that the sections will interfit when assembled as well as permitting the lining to be adjusted to various diameters to fit receptacles of different sizes, substantially as set forth and for the purpose specified.

4. In a lining for receptacles, a hollow body composed of two sections each with a substantially semi-circular wall member having on its top edge an outwardly extending overhanging flange, and having on its lower edge a bottom member, and one of the sections being larger than the other so that the sections will interfit when assembled as well as permitting the lining to be adjusted to various diameters to fit receptacles of different sizes, and a separate cover member for the lining, formed so as to be removably applied to the lid of the receptacle.

5. In a lining for receptacles, a hollow body composed of two sections each with a vertically disposed substantially semi-circular wall member, and having a longitudinally disposed substantially semi-circular bottom member, the bottom member of each section being slitted to provide two portions for being disposed in overlapping arrangement, and one of the sections being larger than the other so that the sections will interfit when assembled as well as permitting the lining to be adjusted to various diameters to fit receptacles of different sizes, and a separate cover member for the lining, said cover member having a downwardly projecting flange for encompassing the top of the lining.

1,209,208. COMBINED TOBACCO-CAN AND MATCH-BOX. HARRY C. ROPER, St. Louis, Mo. Filed Feb. 10, 1915. Serial No. 7,399. (Cl. 131—80.)

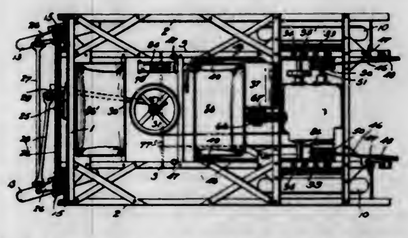


1. In a combined tobacco can and match box, a can, a closure therefor, a can bottom spaced from the ends of the can, the said walls of said can and said bottom being partially removed, a closure near the open end of said bottom, means for slidably connecting said closure with said bottom, said closure carrying a counterpart of the wall removed from the bottom of the can.

2. In a combined tobacco can and match box, a can, a closure therefor, a can bottom spaced from the ends of the can, the said walls of said can and said bottom being partially removed, a closure near the open end of said bottom, means for slidably connecting said closure with said bottom, said closure carrying a counterpart of the wall removed from the bottom of the can, and means for independently locking said closures of the can and bottom.

1,209,209. MOTOR-TRUCK. HARRY B. ROSS, Seattle, Wash. Filed May 11, 1914. Serial No. 837,613. (Cl. 21—90.)

1. In a motor truck, the combination with a vehicle-frame of substantially the shape of an inverted U in transverse section, traction-wheels rotatable in bearing boxes rigidly secured to the rear end of the side members of said frame, and supporting and steering wheels at the forward end of the frame and arranged for independent vertical movements relative to the vehicle frame.



2. In a motor-truck, the combination with a vehicle-body having a frame comprising longitudinal girder members and transverse beam members rigidly secured adjacent to the forward and rear ends of said girder members, the latter being of greater depths than the beam-members and extending below the undersides of the same to afford a body of substantially an inverted U-shape in cross section of traction wheels supporting the rear end of said body and supporting and steering wheels for the forward end of the body, said wheels being disposed at opposite sides of the vehicle to enable the vehicle to carry a load whose forward end will be in advance of the forward wheels and whose rear end will extend a distance behind the rear wheels.

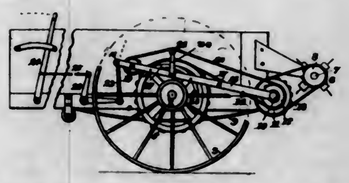
3. In a motor-truck, the combination with the vehicle-body, of steering and body-supporting wheels, a transversely arranged equalizer bar pivotally connected intermediate its length to said body, and yieldable connections between the last-named wheels and the ends of the equalizer-bar.

4. In a motor-truck, the combination with the vehicle-body, traction wheels having individual axles, journal-bearings therefor in the vehicle-body, and means for driving said traction wheels, of steering and body-supporting wheels, a transversely arranged equalizer-bar pivotally connected intermediate its length to said body, and yieldable connections between the last-named wheels and the ends of the equalizer-bar.

5. In a motor-truck, the combination with a vehicle frame of an inverted U-shape in transverse section and constituted of girder members positioned upon its opposite sides and a plurality of transverse beam members connected to said girder members to retain the latter in spaced relations, axles carried by the lower ends of the said respective girder members, traction wheels on said axles, and steering wheels provided below the respective girder members, of a motor carried upon said frame and operative connections between the motor and each of said traction wheels.

[Claims 6 to 8 not printed in the Gazette.]

1,209,210. CHAIN GEARING. JOHN F. RUDE, Liberty, Ind. Filed Sept. 26, 1914. Serial No. 863,688. (Cl. 74—31.)



1. In a chain gearing the combination of, driving and driven wheels, an arm movable in the plane thereof, an idle wheel on the arm, a chain connecting the driven wheel therewith, a curved bar on the arm eccentric with the driving wheel, and means for moving the arm with the bar for ungearing the chain from the driving wheel.

2. A chain gearing comprising driving and driven wheels, an arm swiveled at a fixed point, an idle wheel and curved chain supporting bars on said arm, a chain connecting the idle with the driven wheel, and means for moving the arm with the bars for successively disengaging the links and maintaining the chain out of engagement with the driving wheel.

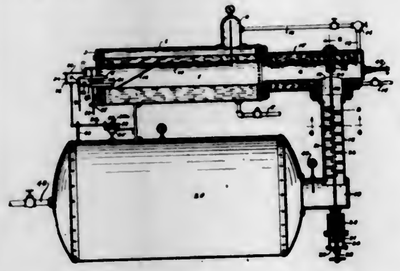
3. A chain gearing comprising driving and driven wheels, an arm movable in the plane of the driving wheel, an idle wheel on said arm, chain connections from said idle wheel to the driven wheel, curved bars secured to the arm eccentric to the driving wheel, and lever connections for actuating the arm with the bars, for gradually moving and maintaining the chain out of engagement with the driving wheel.

4. A chain gearing comprising a driving wheel, a chain movable with one of its stretches into engagement therewith, a curved lifting bar eccentric with the wheel and lever mechanism arranged to move and maintain said bar with the chain out of engagement with the wheel.

5. A chain gearing comprising a driving wheel, an arm swiveled at a fixed point, an idle wheel carried by said arm, a driving chain engaging therewith and movable into detachable engagement with the driving wheel, and a curved lifting bar secured on the arm eccentric to the driving wheel and movable therewith for successively disengaging the links of the chain from the said wheel.

[Claim 6 not printed in the Gazette.]

1,209,211. STEAM-GENERATOR. GEORGE H. SANDS, Electra, Tex. Filed Feb. 8, 1916. Serial No. 76,890. (Cl. 60—31.)



1. In a device of the character described, a combustion chamber, a boiler jacketing the walls of said chamber, a fuel burner extending into the chamber, and a pipe leading from the boiler to said fuel burner, in combination with a pilot burner and a means for feeding fuel and air to said burner.

2. In a device of the character described, a combustion chamber, a mixing chamber in open communication with one end of said combustion chamber, a water jacket surrounding the mixing chamber, a burner extending into the combustion chamber, a boiler jacketing the combustion chamber, a pipe leading from the boiler to the burner and a pipe leading steam from the boiler to the mixing chamber combined with means controlled by the temperature of the mixing chamber and arranged to spray water from the jacket into said mixing chamber.

3. In a device of the character described, a combustion chamber, a mixing chamber in open communication with one end of said combustion chamber, a burner extending into the combustion chamber, a boiler jacketing the combustion chamber, a pipe leading steam from the boiler to the burner, a pipe leading steam from the boiler to the mixing chamber, a water jacket surrounding the mixing chamber and a means controlling the temperature of the mixing chamber and adapted to spray water from said jacket into said mixing chamber.

4. In a device of the character described, a mixing chamber wherein products of combustion and dry steam are commingled, in combination with an auxiliary mixing chamber extending therefrom and a series of superposed baffle plates arranged in said auxiliary mixing chamber and in staggered relationship therein, and a reservoir arranged below the staggered baffle plates.

5. In a device of the character described, a combustion chamber, a mixing chamber in open communication with one end of said combustion chamber, a burner extending into the combustion chamber, a valve controlled exit from the mixing chamber arranged to permit of the exhaust of waste gases at the initial starting of the apparatus, a boiler jacketing the combustion chamber, a water jacket for the mixing chamber, a pipe leading from the steam chest of the boiler to the mixing chamber, a means controlled by the temperature of the mixing chamber, arranged to spray water from the jacket into said mixing chamber and a pipe leading from the steam chest of the boiler to the burner.

1,209,212. MANUFACTURE OF VAT DYESTUFFS OR INITIAL PRODUCTS OF SAME. MAXIMILIAN PAUL SCHMIDT, Biebrich, Germany, assignor to the Firm of Kalle and Company, Aktiengesellschaft, Biebrich, Germany. Filed Apr. 28, 1916. Serial No. 94,237. (Cl. 8—1.)

1. Process of producing vat dye-stuffs or initial products of same, consisting in heating arylamino-derivatives of halogenized benzo-quinones with the addition of a metal-powder in the presence of a suitable solvent or diluent.

2. As new products the vat dye-stuffs or initial products obtainable by heating arylamino derivatives of halogenized benzoquinones with the addition of a metal-powder, being yellow to brown powders, showing no fluorescence, soluble in nitrobenzene, in sulfuric acid with a red color, forming a vat with alkaline reducing agents, from which wool is dyed yellow to brown tints.

3. As new products the vat dye-stuffs or initial products obtainable by heating phenylamino-derivatives of halogenized benzoquinones with the addition of a metal-powder, being yellow to brown powders, showing no fluorescence, soluble in nitrobenzene, in sulfuric acid with a red color, forming a vat with alkaline reducing agents, from which wool is dyed yellow to brown tints.

4. As new products the vat dye-stuffs or initial products obtainable by heating arylamino-derivatives of chlorobenzoquinones with the addition of a metal-powder, being yellow to brown powders, showing no fluorescence, soluble in nitrobenzene, in sulfuric acid with a red color, forming a vat with alkaline reducing agents, from which wool is dyed yellow to brown tints.

5. As new products the vat dye-stuffs or initial products obtainable by heating dichloro-anilidobenzoquinones with the addition of copper-powder, being yellowish brown powders, showing no fluorescence, soluble in nitrobenzene, in sulfuric acid with a red color, forming a vat with alkaline reducing agents, from which wool is dyed yellowish brown tints.

[Claim 6 not printed in the Gazette.]

1,209,213. SPHYGMOMANOMETER. RALPH F. SCHNEIDER, New York, N. Y., assignor to Charles J. Tagliabue, Brooklyn, N. Y. Filed Dec. 2, 1913. Serial No. 804,189. (Cl. 137—69.)



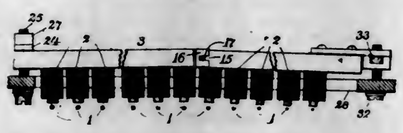
1. A valve of the kind described comprising a casing having an inlet adapted for connection with an inflating

means, and an outlet adapted for connection with the element to be inflated, said casing being further provided with an escape aperture, means for closing said aperture, means for actuating said closing means whereby the escape of air from said casing is accurately controlled in a predetermined manner and means for permitting the instantaneous escape of air through said aperture.

2. A valve of the kind described comprising a casing having an inlet adapted for connection with an inflating means, and an outlet adapted for connection with the element to be inflated, a rotatable screw-threaded member having an axial escape aperture, a valve controlling the communication between said casing and said axial aperture, and adapted to be actuated by said rotatable member whereby the escape of air from said casing is accurately controlled in a predetermined manner and a plunger extending through said axial aperture and adapted to actuate said valve for permitting the instantaneous escape of air through said aperture.

3. A valve of the kind described comprising a casing having an inlet adapted for connection with an inflating means, and an outlet adapted for connection with the element to be inflated, said casing being further provided with an escape aperture, a valve controlling the inlet and preventing back passage of the air therethrough, a screw threaded member rotatable in said escape aperture and having an axial aperture communicating therewith and with the atmosphere, a plunger extending through said axial aperture and having an enlarged inner end, an operating head on the outer end of said plunger and a valve arranged to normally close said escape aperture, said screw thread member being adapted to bear upon the enlarged inner end of said plunger to cause the same to actuate said last named valve whereby the escape of air from the casing is accurately controlled in a predetermined manner and said plunger being arranged to independently actuate said last named valve for permitting the instantaneous escape of air from said casing.

1,209,214. MAGNET-RAIL FOR ELECTRICAL MUSICAL INSTRUMENTS. MELVIN L. SEVERY, Arlington Heights, Mass., and GEORGE B. SINCLAIR, Georgetown, Me., assignors to Choralcelo Company, Boston, Mass., a Corporation of Maine. Filed Jan. 4, 1913. Serial No. 740,201. (Cl. 84—131.)



1. A musical instrument comprising magnetically attractive sonorous bodies and electric means including electromagnets for the vibration of said sonorous bodies; a magnet-rail for the support of said electromagnets; means for adjusting said rail bodily toward and from said sonorous bodies and for angularly adjusting the rail about its longitudinal axis; and means for rigidly securing said rail in adjusted position.

2. A musical instrument comprising magnetically attractive sonorous bodies and electric means including electromagnets for the vibration of said sonorous bodies; a magnet rail for the support of said electromagnets, said magnet-rail being in a plurality of sections adjustable at their proximate ends relative to said sonorous bodies; and means for rigidly securing said proximate ends in adjusted position.

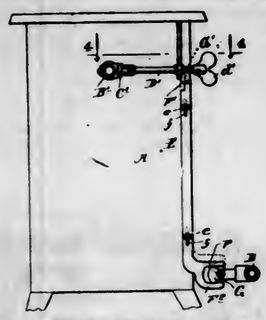
3. A musical instrument comprising magnetically attractive sonorous bodies and electric means including electromagnets for the vibration of said sonorous bodies; a magnet-rail for the support of said electromagnets, said rail being in two sections adjustable at their proximate ends relative to said sonorous bodies; and means for rigidly securing said proximate ends in adjusted position.

4. A musical instrument comprising magnetically attractive sonorous bodies and electric means including electromagnets for the vibration of said sonorous bodies; a megnet-rail for the support of said electromagnets, said rail being in two sections; means for bodily adjusting the rail sections toward and from said sonorous bodies; means for angularly adjusting said rail sections about their longitudinal axes; and means for rigidly securing said sections in their adjusted positions.

5. A musical instrument comprising magnetically attractive sonorous bodies and electric means including electromagnets for the vibration of said bodies; a magnet-rail for the support of said electromagnets; fixed brackets at the ends of said rail for supporting the same; and means connected with said brackets for adjusting said rail bodily toward and from the brackets and angularly with reference thereto, and serving also to secure the rail in its adjusted position.

[Claims 6 to 19 not printed in the Gazette.]

1,209,215. GAS-STOVE. HARRY A. SHUNK, Brooklyn, N. Y., assignor to General Gas Appliance Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 2, 1914. Serial No. 809,812. (Cl. 126—42.)

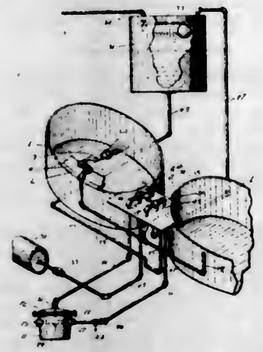


1. In a gas stove having upper and lower burners and gas inlets thereto through adjacent sides of the stove, the combination of valves for said inlets located in close proximity to the burners, stems for said valves extending along adjacent sides of the stove to a corner thereof, a vertically movable member located at said corner and having upper and lower lugs projecting therefrom at right angles to one another, and corresponding positioned projections upon the valve stems, adapted to make contact respectively with said lugs when the valve stems are turned to open the valves.

2. In a gas stove having upper and lower burners and gas inlets thereto through adjacent sides of the stove, the combination of valves for said inlets located in close proximity to the burners, stems for said valves lying in planes which intersect at a corner of the stove, a vertically movable member lying substantially in the line of intersection of said planes and means operated by the movement of said member for locking one of said burners from operation when the other of said burners is in use.

1,209,216. FLUID-TREATING SYSTEM AND ELEMENT THEREOF FOR CENTRIFUGAL SEPARATORS. SIDNEY W. SINSHEIMER, Denver, Colo. Filed Jan. 17, 1916. Serial No. 72,655. (Cl. 137—66.)

1. In a system substantially as set forth, including a treating fluid source, a receptacle for receiving and delivering the treating fluid, and a delivery nozzle, in combination with a source of operating pressure fluid, adapted to co-act with the treating fluid in said receptacle; conduits extending from the said nozzle, the said pressure fluid source, and the said treating fluid source, and communicating respectively with said receptacle; and controlling means, common to all of said conduits, and including valve elements functioning to positively open and close said conduits, regardless of the pressure of said fluids, in the relative relations set forth, substantially as described.



2. In a system substantially as set forth, including a treating fluid source, a receptacle for receiving and delivering the treating fluid, and a delivery nozzle, in combination with a source of operating pressure fluid, adapted to co-act with the treating fluid in said receptacle; conduits extending from the said nozzle, the said pressure fluid source, and the said treating fluid source, and communicating respectively with said receptacle; controlling means, common to all of said conduits, including valve elements functioning, regardless of the pressure of said fluids, to positively open and close said conduits in the relative relations set forth; and a pressure regulator, operable at will, disposed in the line of said pressure fluid conduit, substantially as described.

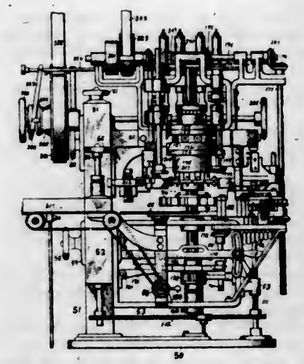
3. In a system substantially as set forth, including a treating fluid source, a delivery nozzle, a measuring pot, and conduits leading from said measuring pot to said treating fluid source and said nozzle, respectively, in combination with a measure regulating element, comprising a movably mounted feed tube, in communication with said conduits, adjustable to variable fixed positions in said pot for the purposes set forth, a source of operating pressure fluid, adapted to co-act with the treating fluid in said pot through a communicating conduit, and controlling means, common to all of said conduits, and including valve elements positively functioning to open and close said conduits in unison, regardless of the pressure of said fluids, in the relative relations set forth, substantially as described.

1,209,217. MACHINE FOR FORMING RECEPTACLES. CHESLEY T. SMALL, St. Louis, Mo., assignor, by mesne assignments, to Automatic Can Filling Machinery Company, Newark, N. J., a Corporation of New Jersey. Filed Nov. 8, 1911. Serial No. 659,224. (Cl. 113—14.)

1. The combination with a rotary member adapted to carry cylindrical receptacles, of means for imparting intermittent motion to said member, a plurality of holders movable with said member and adapted to embrace the receptacles, means for independently moving said holders toward and away from said rotary member to engage and disengage the receptacles carried thereby, means for rotating said receptacles, and a forming tool operating on said receptacles.

2. The combination with a non-rotary table on which receptacles are adapted to move, of a rotary member carrying receptacles on said table, holders adapted to embrace said receptacles, means for moving said holders toward and away from said table to engage and disengage with said receptacles, and a member carrying a tool for operating on said receptacles.

3. The combination with a table on which receptacles are adapted to move, of a movable member adapted to carry cylindrical receptacles on said table, holders adapted to embrace said receptacles, means for moving said holders toward and away from said table to engage and disengage with said receptacles, means for rotating said receptacles on their axes, and a forming tool movable laterally toward and away from said receptacles and adapted to operate thereon.

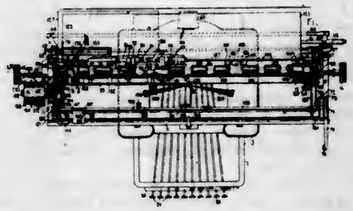


4. The combination with a non-rotary table on which receptacles are adapted to move, of a rotary member adapted to carry cylindrical receptacles on said table, holders adapted to embrace said receptacles, means for moving said holders toward and away from said tabie to engage and disengage with said receptacles, means for rotating said receptacles on their axes, and a forming tool moving laterally toward and away from said receptacles and adapted to operate thereon.

5. The combination with a table on which receptacles are adapted to move, of a movable member carrying receptacles on said table, means for adjusting said movable member toward and away from said table, holders adapted to embrace said receptacles, means for moving said holders toward and away from said table to engage and disengage with said receptacles, and a member carrying a tool for operating on said receptacles.

[Claims 6 to 50 not printed in the Gazette.]

1,209,218. TYPE-WRITING MACHINE. ARTHUR W. SMITH, New York, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Apr. 8, 1915. Serial No. 19,871. (Cl. 197—60.)



1. In a typewriting machine, the combination of a carriage, a platen, a set of paper controlling devices coöperative with one end portion of the platen and releasable by a key at the same end of the platen, another set of paper controlling devices coöperative with the opposite end portion of the platen and releasable by a second key at the opposite end of the platen from the first key, said second key being effective to simultaneously release said both sets of paper controlling devices.

2. In a typewriting machine, the combination of a carriage, a platen, paper controlling devices coöperative with

the left-hand end portion of the platen and releasable by a key at one end of the platen, other paper controlling devices coöperative with the right-hand end portion of the platen and releasable by a second key at the end of the platen opposite from that at which the first key is located, said second key being also effective to release the paper controlling devices at the left-hand end portion of the platen.

3. In a typewriting machine, the combination of a carriage, a platen, paper controlling devices coöperative with the left-hand end portion of the platen, said paper controlling devices being releasable by a key at the left-hand end of the platen, other paper controlling devices coöperative with the right-hand end portion of the platen and releasable by a key at the right-hand end of the platen, said last recited key being also effective to release the paper controlling devices at the left-hand end portion of the platen.

4. In a typewriting machine, the combination of a carriage, a platen thereon, a paper feed roller coöperative with one end portion of the platen, a second paper feed roller coöperative with the opposite end portion of the platen, a release key at one end of the platen for controlling the first recited paper feed roller, and a second release key at the opposite end of the platen for controlling both of said paper feed rollers.

5. In a typewriting machine, the combination of a carriage, a platen, a shaft extending lengthwise of said platen, two sleeves mounted on opposite end portions of said shaft, separate keys for turning said sleeves, connections for transmitting movement from one of said sleeves through said shaft to the other of said sleeves, said connections being ineffective to transmit motion in the opposite direction from the last recited sleeve to the first, a paper feed roller controlled by one of said sleeves, and a second paper feed roller controlled by the other of said sleeves.

[Claims 6 to 86 not printed in the Gazette.]

1,209,219. PROCESS OF MAKING CEMENT. ARTHUR C. SPENCER and EDWIN C. ECKEL, Washington, D. C. Filed June 6, 1910. Serial No. 565,387. (Cl. 106—25.)

1. The process of preparing a cement clinker and by-products which comprises heating a potassiferous natural iron silicate of the glauconite type with a calcerous material until clinkering ensues and the potash is fumed off and recovering the potash evolved in the heat treatment.

2. The process of preparing a cement clinker and by-products which comprises heating a potassiferous natural iron silicate of the glauconite type with a calcareous material until clinkering ensues and the potash is fumed off and recovering the potash evolved in the heat treatment together with evolved dust.

3. The process of preparing a cement clinker and recovering potash which comprises heating together a charge composed substantially of calcerous material and a mineral comprising a double silicate of potassium and cement-forming oxid until clinkering ensues and fumes of potassium compounds are evolved, the heating being continued until a substantial proportion of the potassium compounds present are removed from the mixture, and recovering the fumes of potassium compounds evolved in such clinkering.

4. The process of preparing a cement clinker and recovering potash which comprises heating together a charge composed substantially of calcareous material and a mineral comprising a double silicate of potassium and cement-forming oxid until clinkering ensues and fumes of potassium compounds are evolved, the heating being continued until a substantial proportion of the potassium compounds present are removed from the mixture, and recovering the potassium compounds evolved in such clinkering together with evolved dust.

5. The process of preparing a cement clinker and by-products which comprises heating a double silicate of potassium and a cement-forming oxid together with a calcareous material until clinkering ensues, such heating being done in a plurality of steps and being so controlled in one such step as to liberate more potash than in another such step, and the dust or dust and fume evolved in each such step being separately collected.

[Claims 6 to 24 not printed in the Gazette.]

1,209,220. PROCESS OF MAKING CEMENT AND BY-PRODUCTS. ARTHUR C. SPENCER, Washington, D. C. Filed May 18, 1912. Serial No. 698,192. (Cl. 106—25.)

1. In the manufacture of cement clinker and byproducts, the process which comprises making a mixture in cement-forming proportions comprising comminuted limestone with comminuted rock carrying nephelite minerals and having a lower ratio of silica to alumina than characterizes orthoclase.

2. In the manufacture of cement clinker and byproducts, the process which comprises making a mixture in cement-forming proportions comprising communited limestone and comminuted rock carrying nephelite minerals and having a lower ratio of silica to alumina than characterizes orthoclase, heating said mixture to fume off alkalis and converting the residue into cement clinker.

3. In the manufacture of cement clinker and byproducts, the process which comprises making an alkali-rich mixture adapted to form cement clinker and comprising comminuted limestone and comminuted nephelite-bearing rock, passing the same through a rotary kiln against flame and flame gases till a desired proportion of alkalis is removed and then raising the heat to form cement clinker.

4. In the manufacture of cement clinker and byproducts, the process which comprises making a mixture comprising cement-forming proportions of a comminuted rock carrying nephelite minerals and mica with granulated limestone, roasting the mixture to calcine the lime and dehydrate the mica, fine-grinding, heating to fume off alkalis and converting the residue into cement clinker.

5. In the manufacture of cement clinker and byproducts, the process which comprises making a mixture in cement-forming proportions comprising comminuted limestone with comminuted nephelite syenite.

[Claims 6 to 15 not printed in the Gazette.]

1,209,221. PAPER AND PROCESS OF MAKING THE SAME. NOEL STATHAM, Boonton, N. J., assignor to Industrial Chemical Company, New York, N. Y., a Corporation of New York. Filed Apr. 26, 1916. Serial No. 93,650. (Cl. 92—21.)

1. The high bulk paper containing over twenty per cent. of light precipitated chalk substantially uniformly incorporated therein.

2. The high bulk sized paper containing substantially uniformly incorporated therein a considerable proportion of finely divided light precipitated chalk which had when dry a weight of not more than about twenty pounds per cubic foot.

3. The high bulk paper containing over ten per cent. of light, finely divided calcium carbonate loading material incorporated throughout the body thereof.

4. The high bulk sized wood pulp paper containing over twenty per cent. of finely divided light precipitated chalk loading material having when dry a weight of not more than about eighteen pounds per cubic foot and substantially uniformly incorporated throughout the paper pulp during the formation of the paper so that the weight of the finished paper of standard thickness is substantially unchanged by the loading.

5. The high bulk paper containing over twenty per cent. of finely divided light precipitated chalk loading material having when dry a weight of not more than about eighteen pounds per cubic foot and substantially uniformly incorporated throughout the paper so that the weight of the finished paper of standard thickness is substantially unchanged by the loading.

[Claims 6 and 7 not printed in the Gazette.]

1,209,222. GLAZED PAPER AND COATING COMPOSITION THEREFOR. NOEL STATHAM, Boonton, N. J., assignor to Industrial Chemical Company, New York, N. Y., a Corporation of New York. Filed Apr. 26, 1916. Serial No. 93,651. (Cl. 134—20.)

1. The glazed paper coated with sizing comprising casein and incorporated inorganic loading material consisting substantially of light precipitated chalk.

2. The glazed paper coated with sizing comprising incorported inorganic loading material consisting in greater part of light precipitated chalk.

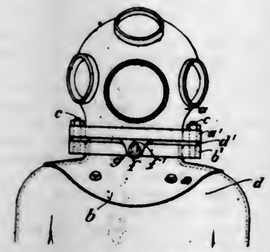
3. The coated paper coated with a sizing composition comprising dissolved organic size and incorporated inorganic loading material consisting in considerable part of finely divided calcium carbonate loading material.

4. The coated fabric coated with sizing comprising inorganic loading material consisting in considerable part of finely divided calcium carbonate loading material.

5. The paper coating composition, adapted for coating glazed paper, which consists of an alkaline solution of casein and incorporated inorganic loading material consisting substantially of light precipitated chalk which had when dry a weight of not more than eighteen pounds per cubic foot.

[Claims 6 to 9 not printed in the Gazette.]

1,209,223. DIVING-DRESS. HERMANN STELZNER, Lübeck, Germany, assignor to the Firm of Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Filed Aug. 17, 1916. Serial No. 115,488. (Cl. 61—7.)

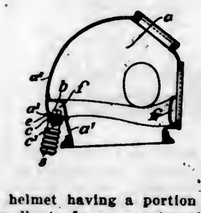


1. The combination of a diving dress having a neck portion, a shoulder piece, a helmet, coöperating means carried by said neck portion and shoulder piece respectively whereby said neck portion and shoulder piece are detachably connected together independently of the helmet and means for detachably connecting said helmet and said shoulder piece, said last named means passing through a part of said neck portion to secure it in position independently of said coöperating means.

2. The combination of a diving dress having a neck portion, a shoulder piece fitting over said neck portion, projections on said shoulder piece, flaps on said neck portion adapted to be detachably connected with said projections whereby said neck portion and shoulder piece are detachably connected together, a helmet, and means whereby said helmet is detachably connected with said shoulder piece.

3. The combination of a shoulder piece, a collar-ring carried thereby and provided with a pair of bolt-holes at diametrically opposite points, projections on said collar-ring at diametrically opposite points between said bolt-holes, a diving dress having a neck portion extending through said shoulder piece, a collar on said neck portion in surface contact with said collar-ring and provided with apertures in registry with the bolt-holes thereof, flaps on said collar adapted to be detachably connected with said projections whereby said diving dress and shoulder piece are detachably connected together, a helmet, an annular flange thereon adapted to rest upon the collar of said neck portion whereby said collar is clamped between said collar-ring and annular flange, the latter being provided with bolt-holes in registry with the bolt-holes and apertures of the collar-ring and collar and a pair of bolts passing through the registering bolt-holes and apertures whereby the collar-ring, collar and annular flange are detachably connected together and the diving dress, shoulder piece and helmet are operatively combined.

1,209,224. DIVING-HELMET. HERMANN STELZNER, Lübeck, Germany, assignor to the Firm of Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Filed Aug. 26, 1916. Serial No. 117,040. (Cl. 61—7.)



1. A diving helmet having a portion of its rear wall extending inwardly to form an external recess and connecting means for attaching helmet fittings to said helmet carried by said inwardly extending offset so as to be located within said external recess.

2. A diving helmet provided in its rear wall with an inwardly extending offset decreasing in area toward the sides of said helmet and forming an external recess and connecting means for attaching helmet fittings to said helmet carried by said inwardly extending offset so as to be located entirely within said external recess.

3. A diving helmet provided in its rear wall with an offset forming an external recess, connecting means for attaching helmet fittings to said helmet located entirely within said external recess and a connecting member detachably secured to said offset whereby said connecting means are fastened in operative position.

4. A diving-helmet having an inverted offset in its rear wall in combination with a connecting piece adapted to carry suitable connecting means for helmet-fittings and screwed against the said offset from the interior of the helmet by means of a screw-bolt passing through a hole in the wall of the offset and engaging a screw-threaded bore in the said connecting piece.

5. A diving helmet provided in its rear wall with an inwardly extending offset forming an external recess, connecting means for attaching helmet fittings to said helmet carried by said inwardly extending offset so as to be located entirely within said external recess and means coöperating interiorly with said offset to form an internal channel extending from the rear toward the front of the helmet.

1,209,225. MACHINE FOR MAKING SHOES. SAMUEL STRAUSS, Los Angeles, Cal. Filed July 13, 1915. Serial No. 39,576. (Cl. 12—1.)

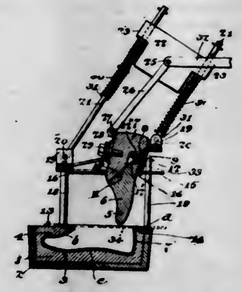
1. In a shoe machine, a female die provided with a cavity open only at its top and having an undercut toe-forming portion, a male die having a toe-forming portion, and means to move the male die downward into the cavity and endwise to bring its toe-forming portion into the undercut portion of the cavity.

2. In a shoe machine, a female die provided with a cavity having an undercut toe-forming portion, a male die having a toe-forming portion, a shiftably mounted follower, and a swinging connection between the male die and follower.

3. In a shoe machine, a female die provided with a cavity having an undercut toe-forming portion, a male die having a toe-forming portion, a shiftably mounted follower, and an arm pivoted to the follower and pivoted to the male die.

4. In a shoe machine, a female die provided with a cavity having an undercut toe-forming portion and having a heel portion, a male die formed of separable toe and heel

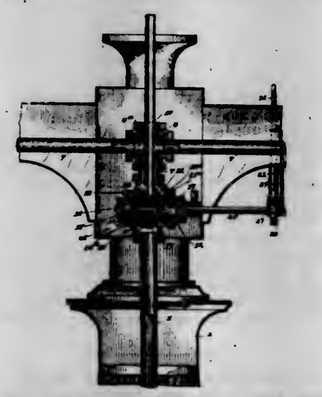
sections, and means to move the male die endwise so as to move the die sections into and out of molding position.



3. In a shoe machine, a female die provided with a cavity having an undercut toe-forming portion and having an undercut heel-forming portion, a male die formed of separable toe and heel sections designed to fit the toe and heel portions respectively of the female die, and means loosely connecting said die sections to one another to allow for independent movement of said die sections.

[Claims 6 to 12 not printed in the Gazette.]

1,209,226. VALVE. HENRY E. STREISER, Canton, Ohio, assignor to The Sun Vapor and Gas Street Light Company, Canton, Ohio, a Corporation of West Virginia. Filed May 20, 1914. Serial No. 839,746. (Cl. 137—26.)

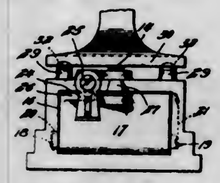


1. A valve case having a plurality of ports in one side adapted to communicate with the main supply pipe, and two ports in another side thereof, a hollow valve rotatable in the case having in one position of rotation a port in one side registering with a corresponding case port and two ports in the other side registering with the two case ports therein, and having in another position of rotation a port in one side registering with a corresponding case port and a port in the other side registering with one only of the case ports, and in another position of rotation having no ports registering with any of the case ports.

2. A valve case having two ports in one side adapted to communicate with the main supply pipe, and two ports in another side thereof, a hollow valve rotatable in the case having in one position of rotation a port in one side registering with one of the case ports and two ports in the other side registering with the two case ports therein, and having in another position of rotation a port in one side registering with one of the case ports and a port in the other side registering with one only of the case ports, and in another position of rotation having no ports registering with any of the case ports.

3. A valve case having one or more ports in one side and two ports in another side thereof, a hollow valve rotatable in the case having in one position of rotation a port in one side registering with a corresponding case port and two ports in the other side registering with the two case ports therein, and having in another position of rotation a port in one side registering with a corresponding case port and a port in the other side registering with one only of the case ports, and in another position of rotation having no ports registering with any of the case ports; there being annular grooves extending from certain of the ports part way around the valve, to keep open communication through said ports during the rotation from the first to the second positions thereof.

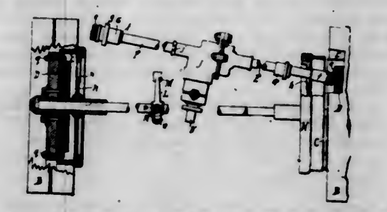
1,209,227. SAD-IRON. MONROE SUNSHINE, New York, N. Y. Filed Feb. 15, 1913. Serial No. 748,765. (Cl. 158—23.1.)



1. In a sad iron, the combination of a hollow body provided with an opening in one of its side walls, said body formed with a circular recess in one edge of said opening and an alined recess formed in the opposite edge, and a door for said opening having oppositely projecting hinge pivots, one of which is adapted to fit loosely in said circular recess and the other of which is adapted to be inserted in the said alined recess by swinging the door about the first pivot after it has been placed in its recess.

2. In a sad iron, the combination of a hollow body provided with an opening in one of its side walls, said body formed with a circular recess and an oppositely arranged elongated recess forming a seat at its lower end alined with the circular recess, and a door for said opening having oppositely projecting hinge pivots, one of which is adapted to fit loosely in said circular recess and the other of which is adapted to be placed in the said seat by sliding the same in the elongated recess after the first pivot has been inserted in its circular recess.

1,209,228. AUTOMOBILE. CECIL HAMELIN TAYLOR and BOUDEWIJN B. NEUTEBOOM, Detroit, Mich. Filed Apr. 5, 1912. Serial No. 688,782. (Cl. 21—90.)



1. In an automobile, an axle, a counter shaft, a casing for said counter shaft, wheels adapted to turn upon the ends of said axle, toothed gear wheels secured to said wheels concentric with said axle, said shaft being provided with pinions adapted to engage said toothed gear wheels, spiders toward the end of said axle mounted thereon, apertures in said spiders, sleeves upon the ends of said casing adapted to be secured to said spider coaxial with said aperture, said aperture being of greater diameter than said casing.

2. In a vehicle, the combination of an axle, a shaft casing having a bracket secured to said axle and secured to said casing at two points at a distance from each other and approximately in the same vertical plane.

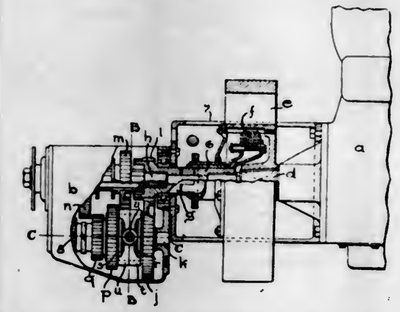
3. In an automobile, an axle, an arm secured to said axle and having a fork at its outer end, a counter shaft, a casing for said counter shaft, said fork being adapted to receive said casing, said casing being provided with lugs adapted to be secured to the side of the fork of said arm.

4. In an automobile, an axle, an arm secured to said axle and having a fork at its outer end, a counter shaft, a casing for said counter shaft, said fork being adapted to receive said casing, said casing being provided with lugs adapted to be secured to the side of the fork of said arm, said arm being keyed to said axle so as to be adjustable longitudinally thereof.

5. In an automobile, an axle, an arm secured to said axle and having a fork at its outer end, a counter shaft, a casing for said counter shaft, said fork being adapted to receive said casing, said casing being provided with lugs adapted to be secured to the side of the fork of said arm, wheels adapted to turn upon the ends of said axle, internal toothed gear wheels secured to said wheels concentric with said axle, said shaft being provided with pinions adapted to engage the teeth of said internal toothed gear wheels.

[Claims 6 to 15 not printed in the Gazette.]

1,209,229. STARTER. CECIL HAMELIN TAYLOR and BOUDEWIJN B. NEUTEBOOM, Detroit, Mich. Filed Aug. 5, 1912. Serial No. 713,246. (Cl. 74—54.)



1. In a starter for an internal combustion engine, the combination of a change-speed gearing, a transmission shaft, a part of said change-speed gearing being connected with the engine and a part with the transmission shaft, and a device adapted to actuate the part of said change-speed gearing connected with the engine.

2. In a starter for an internal combustion engine, the combination of a change-speed gearing connected with said engine, an actuating device connected with said engine and adapted to act through a portion of said change-speed gearing, said actuating device and change-speed gearing having a constituent part in common.

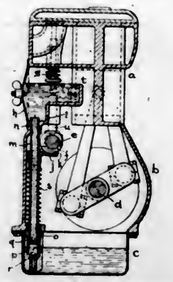
3. In a starter for an internal combustion engine, a change speed gearing connected with said engine, and a mechanical starter, said change speed gear and starter having a constituent part in common.

4. In a starter for an internal combustion engine, a change speed gearing having gear wheels one of said gear wheels being connected to actuate the engine, a part 9 located between said gear wheels, and a spring acting to force one of said gear wheels toward the other to produce frictional engagement between said part and one of said gear wheels and means for actuating the part 9 to start the engine.

5. In a starter for an internal combustion engine, a change speed gearing having gear wheels provided with conical hubs extending toward each other, a part 9 located between said wheels and fitting upon said conical hubs, and a spring acting to force one of said gear wheels toward the other to produce frictional engagement between said part and said conical hubs and means for actuating the part 9 to start the engine.

[Claims 6 to 10 not printed in the Gazette.]

1,209,230. OIL-DISTRIBUTING DEVICE. CECIL HAMELIN TAYLOR and BOUDEWIJN B. NEUTEBOOM, Detroit, Mich. Filed May 11, 1914. Serial No. 837,620. (Cl. 184—13.)

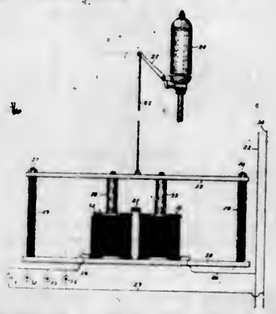


1. In an internal combustion engine, a crank case, a trough at the lower portion of said crank case, an elevated reservoir, a tube forming a conduit between said trough and reservoir, and located in said crank case, a cam shaft, a cam on said shaft and means whereby said cam shall act to reciprocate said tube and means whereby the reciprocation of said tube shall cause a fluid to flow therethrough.

2. In an internal combustion engine, a crank case, a trough at the lower portion of said crank case, an elevated reservoir, a tube forming a conduit between said trough and reservoir, and located in said crank case, a cam shaft, a cam on said shaft, a shoe projecting from said tube to a position to be acted on by said cam to reciprocate said tube, and means whereby the reciprocation of said tube shall cause a fluid to flow therethrough.

3. In an internal combustion engine, a crank case, a trough at the lower portion of said crank case, an elevated reservoir, a tube located in said crank case and opening at one end to said trough and at the other end to said reservoir, means for reciprocating said tube, and means whereby the reciprocation of said tube shall cause a fluid to flow therethrough.

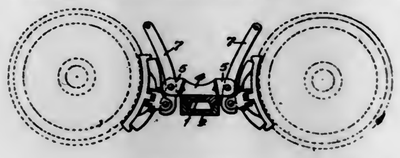
1,209,231. ALARM-CONTROLLER. JOSEPH B. TIBBS, Indianapolis, Ind. Filed Oct. 5, 1911. Serial No. 652,981. (Cl. 177—7.)



An apparatus for operating alarm signals consisting of a bar providing a base, a pair of solenoid magnets ar-

ranged side by side and secured to said base, a pair of vertically disposed posts secured to said base at the respective ends thereof, nuts screw-threaded on said posts at the upper ends thereof providing adjustable stop members, a cross-bar having perforations receiving said pair of posts and mounted to have sliding movement thereon limited by said stop members, said cross-bar secured to operate with the cores of said pair of solenoid magnets; a spring fitted on each of said posts and interposed between said cross-bar and said base and normally acting to hold the cross-bar in contact with said stop members, conductors adapted to connect said solenoids with a source of electrical energy, an alarm signal, and a connection between said alarm signal and the cross-bar, substantially as set forth.

1,209,232. SUPPORTING-BRACKET FOR BRAKE-SHOES. THOMAS F. TOMLINSON, Lamberts Point, Va. Filed May 9, 1916. Serial No. 96,417. (Cl. 188—24.)

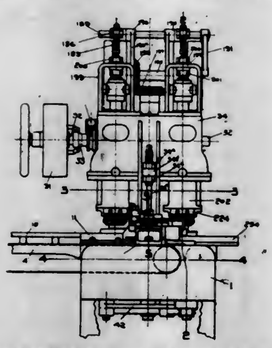


1. A brake shoe bracket including an integral casting consisting of an anchoring portion adapted for securement to the truck frame, and ears projecting above and laterally beyond the portion of the frame upon which said body is mounted for engagement with the brake levers.

2. A brake shoe bracket including, in combination with a spring plank U-shaped in cross section, an inverted U-shaped body mounted on said plank and provided with an enlargement on its upper face with ears projecting therefrom, for pivotal connection with the brake shoe.

3. A brake shoe bracket including a body for engagement with the truck frame, studs formed on the upper face of one end of the bracket to receive the bolster springs thereabout, an enlargement formed on the upper face of the opposite end of said body having portions extending laterally therefrom to provide spaced ears for pivotal connection with the brake shoe levers for suspending the latter in proximity to the wheels of the truck frame.

1,209,238. CAN-HEADING MACHINE. NELSON TROYER, Seattle, Wash., assignor to Seattle Astoria Iron Works, Seattle, Wash., a Corporation of Washington. Filed May 1, 1914. Serial No. 835,639. (Cl. 113—14.)



1. In a can heading machine, the combination of a feed belt adapted to feed can bodies; a reciprocating feed mechanism having a pocket to which the bodies are delivered by the belt; a timing device comprising a finger; a shaft on which the finger is mounted; a rock arm for oscillating the shaft and finger; a spring connection between the rock arm and shaft; and a cam for actuating the rock arm, said cam timing the movement of the rock arm and finger to retard the bodies on the belt and to time them with relation to the reciprocating feed mechanism.

2. In a can heading machine, the combination of a body feeding mechanism; a cover magazine; and selecting devices one of which feeds the cover edgewise comprising reciprocating blades entering between the bottom cover and the next above it at front and rear of the cover to separate the bottom cover from the pack in the magazine.

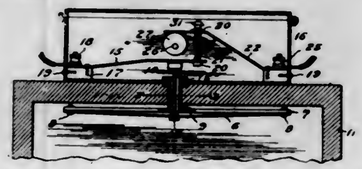
3. In a can heading machine, the combination of a body feeding mechanism; a cover magazine; and selecting devices comprising reciprocating blades entering between the bottom cover and the next above it at the front and rear of the cover, lifting the covers above the bottom away from the bottom cover one of the said devices moving the bottom cover to a can body.

4. In a can heading machine, the combination of a body feeding mechanism; a cover magazine; and selecting devices comprising reciprocating blades entering between the bottom cover and the next above it at front and rear of the cover, lifting the covers above the bottom away from the bottom cover one of said devices moving the bottom cover edgewise into position on a can body.

5. In a can heading machine, the combination of a body feeding mechanism; a cover magazine; a selecting device comprising a plunger carrying a blade adapted to enter between the lowest cover and the next above it at the rear edge of the cover; means continuing the movement of the plunger to carry the cover separated from the pack edgewise into place on a can body; and an auxiliary plunger carrying a separating blade entering between the lowest cover and the cover above it and lifting the covers above to disengage them from the lowest cover.

[Claims 6 to 31 not printed in the Gazette.]

1,209,234. THERMOSTATIC CONTROLLER FOR ELECTRICALLY-HEATED DEVICES. CLARENCE TRUITT, Pomona, Cal. Filed Feb. 4, 1914. Serial No. 816,617. (Cl. 200—31.)



1. In a thermostatic controller for electrically heated devices, a thermostat, a plurality of resilient contact carriers, each of said carriers being provided with an adjustable and removable contact element, one of said contact elements being oppositely positioned to another of said elements, and rotatable means interposed between said carriers to limit the movement and vary the position of one of said carriers.

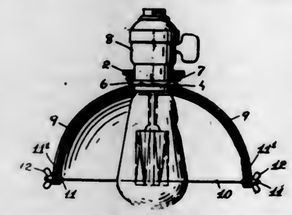
2. A thermostatic controller for electrically heated devices comprising a thermostatic element having a plunger connected therewith for movement by said element, a plurality of resilient contact carriers arranged in spaced relation and each carrier provided with removable contact elements, said contact carriers being maintained in various predetermined spaced positions by a manually controlled rotatable cam interposed between the opposing free ends of the contact carriers and adjacent the contact elements, the plunger of the thermostatic element operating to move one of the contact carriers so that the contact elements may be brought into contact relation.

3. In a thermostatic controller for electrically heated devices, a plurality of contact carriers, and a rotatable disk eccentrically mounted and positioned between said carriers to coöperate with one of said carriers, and a thermostat to coöperate with another of said carriers.

4. In a thermostatic controller for electrically heated devices, a thermostat, a plurality of resilient contact carriers having a plurality of contact elements mounted thereon, one of said contact elements being positioned oppositely to and normally in contact relation with another of said contact elements, rotatable means positioned between said contact carriers to limit the movements and vary the contact relations of said carriers, and a plunger element coöperating with one of said carriers and said thermostat, whereby the effect of the variations of sensible heat above and below a predetermined temperature are directly caused to vary the positions of said contact elements and said carriers to maintain the production of heat at a predetermined and the desired temperature.

5. In a thermostatic controller for electrically heated devices, a plurality of resilient contact carriers, each being fixedly secured at one end and provided with cooperating spaced contact elements near the free ends of the carriers, and a thermostatic element comprising a plurality of metallic plates connected at their ends, one of which plates is movable and sensible to heat, said movable plate being provided with a plunger secured thereto which is adapted to engage one of the resilient contact carriers to produce a contact between the contact elements of the carriers.

1,209,235. ADJUSTABLE ELECTRIC-LIGHT SHADE AND REFLECTOR. RUSH F. VASS, Wilmington, N. C. Filed Aug. 17, 1916. Serial No. 115,426. (Cl. 240—108.)



1. In combination with an electric light socket having an exterior bead, an adjustable shade and reflector, comprising a carrying member provided with an interior groove and having detachable engagement with said bead and depending arms, and two quarter-spherical hollow reflectors normally meeting in a vertical plane, pivoted at their lower inner corners to each other and to said arms and each adjustable vertically.

2. In combination with an electric light socket having an exterior bead, an adjustable shade and reflector, comprising a lower split ring having detachable engagement with said bead and depending arms, an upper securing ring engaging said lower ring, and two quarter-spherical hollow reflectors normally meeting in a vertical plane, pivoted at their lower inner corners to each other and to said arms and each adjustable vertically.

3. In an adjustable electric light shade and reflector, a lamp socket, a carrying member having horizontally adjustable engagement with said lamp socket, and two normally meeting hollow part-spherical reflectors pivoted to said carrying member and to each other and each adjustable pivotally in a vertical direction, said reflectors being adjustable with said carrying member in a horizontal direction.

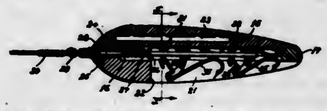
1,209,236. UNCOUPLING DEVICE FOR COUPLINGS. HARRY VISSERING Chicago, Ill., assignor to Harry Vissering and Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 22, 1911. Serial No. 616,253. (Cl. 213—59.)

1. In combination, a coupler having a locking device, a lever for operating said locking device, a disengageable connection between said lever and locking device, and a spring on said connection requiring compression before said lever and said locking device can be disengaged whereby accidental disengagement of said connection is prevented.



2. In combination, a coupler having a locking device, a lever for operating said locking device, a hooked member for disengageably connecting said lever and locking device, and a spring surrounding said member and normally extending beyond the free end of said hook whereby accidental disengagement of said member is prevented.

1,209,237. WEEDLESS ARTIFICIAL BAIT. FRANK WARREN, Seattle, Wash. Filed Dec. 21, 1914. Serial No. 878,296. (Cl. 43—30.)



1. An artificial bait embodying a body portion, a shaft, a plurality of arms fixed in a longitudinal position on said shaft and disposed to project radially therefrom, a fish-hook pivotally attached to the outer end of each of said arms and adapted to swing in a radial plane away from and toward said shaft, an inwardly projecting member extending from the pivoted end portion of each of said fish-hooks, a collar surrounding said shaft through which said shaft may slidably move, said collar being disposed to engage with each of said inwardly projecting members of said fish-hooks, and elastic means operatively associated with said shaft and with said body portion whereby said collar may be caused normally to maintain said hooks in their inwardmost positions.

2. An artificial bait embodying a body portion, a shaft, an arm fixed in a longitudinal position on said shaft and disposed to project therefrom, a fish hook pivotally attached to the outer end of said arm and adapted to swing away from and toward said shaft, an inwardly projecting member extending from the pivoted end portion of said fish-hook, a collar surrounding said shaft through which said shaft may slidably move, said collar being disposed to engage with said inwardly projecting member of said fish-hook, and elastic means operatively associated with said shaft and with said body portion whereby said collar may be caused normally to maintain said hook in its innermost position.

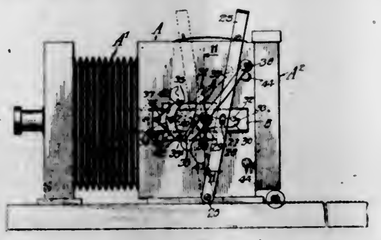
1,209,238. SURFACING MIXTURE FOR PAVEMENTS AND OTHER STRUCTURES. FRANK H. WELSH, Richmond, Cal. Filed Feb. 21, 1916. Serial No. 79,477. (Cl. 106—31.)

An asphaltic surfacing composition devoid of aggregate and comprising a mixture of steam-distilled, crude-petroleum residuum asphalt from which the volatile constituents have been removed, and substantially 20% by weight of a product derived from crude petroleum by treating it while under heat with air under pressure, without removing its volatile constituents, substantially as described.

1,209,239. CAMERA. FRANK J. WENDE, Chicago, Ill. Filed Apr. 27, 1914. Serial No. 834,672. (Cl. 95—31.)

1. In a camera, the combination of a screen-holding frame, means for securing screens to different sides there-

of, a handle applied to said frame for turning the same, stops which define the positions of said frame correspondingly to operative positions of said screens, respectively, locking means for securing said frame against rotation, and means controlled by the initial rotation of said handle for releasing said locking means, substantially as described.



2. In a camera, the combination of a screen-holding frame, means for securing screens to different sides thereof, a handle for turning said frame, the connection between said handle and frame being constructed and arranged for permitting limited rotation of said handle and frame relative to each other, a stop plate secured to rotate with said frame, a pin which projects into the path of travel of rigid parts of said plate and defines the extreme positions of said frame corresponding to operative positions of the screens secured thereto, respectively, a pivoted locking pawl adapted for engagement with rigid parts of said stop plate when said frame is in its extreme positions, means for maintaining said locking pawl yieldingly in operative position, and means controlled by rotation of the frame operating handle relative to said frame for disengaging said locking pawl from said stop plate, and means for securing said handle against rotation when in its extreme positions, substantially as described.

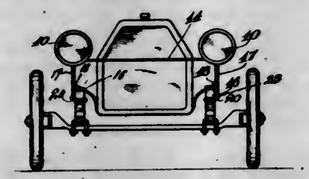
3. In a camera, the combination of a screen-holding frame, means for securing screens to different sides thereof, means for turning said frame to bring different screens into operative position, means for imparting bodily movement to said frame toward and from the plate holder of the camera, and means to prevent turning of said frame when in proximity to said plate holder, substantially as described.

4. In a camera, the combination of a rotatable screen-holding frame, means for securing screens to different sides thereof, whereby turning said frame will bring different screens into operative position, and a shutter for covering the inoperative screen, substantially as described.

5. In a camera, the combination of a rotatable screen-holding frame, means for securing screens to different sides thereof, whereby turning said frame will bring different screens into operative position, a shutter and means for operating said shutter to cause it to cover the inoperative screen, substantially as described.

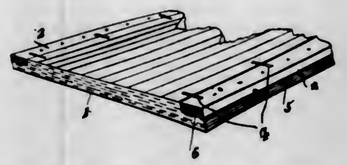
[Claims 6 and 7 not printed in the Gazette.]

1,209,240. HEADLIGHT. CHARLES W. WIDNEY, Melrose Park, Ill. Filed Dec. 13, 1915. Serial No. 66,528. (Cl. 240—61.)



The combination of a pair of vehicle headlights having supporting brackets, upright bearing members carried by the vehicle and having horizontal bearings, a horizontal rock shaft supported in said horizontal bearings, means for fixing the aforesaid lamp brackets to the rock shaft, a rotatable shaft mounted in one of the upright bearing members and having a worm, the rock shaft being provided with teeth which are in mesh with said worm, and actuating means for the rotatable shaft.

1,209,241. DRIVING BELT OR BAND. WALTER EVELYN WRIGHT, Halifax, England. Filed Aug. 11, 1915. Serial No. 44,991. (Cl. 74—63.)



A driving belt having its main or body portion and its driving face formed wholly of textile material, said material being arranged in superposed plies certain of which are wider than others so that the belt is provided with longitudinal recesses at the edges of its rear face, and strips of wear-resisting material relatively stronger and harder than the textile material secured in the said recesses and arranged flush with the edges and face of the main portion so that the normal sectional shape of the belt is preserved.

1,209,242. SECURING MEANS FOR THE COVERS OF DISPLAY-PACKAGES. THEODORE J. ABELE, Peoria, Ill., assignor to Stuber & Kuck Company, Peoria, Ill., a Corporation of Illinois. Filed May 7, 1915. Serial No. 26,550. (Cl. 220—91.)



1. The combination with the lid or cover of a display package including a transparent plate and an opening covered by it, of a securing means for holding said transparent plate upon said lid or cover comprising a member having a portion thereof recurved upon itself, said recurved portion being extended at its extremity away from the said main portion, said member having at its opposite extremity an extension arranged at an angle thereto, the said lid or cover being provided with a part to receive and hold said member in its plate engaging position.

2. The combination with the lid or cover of a display box including a transparent plate, of a part fixed relatively to the lid adjacent the edge of the plate, and a member having its ends recurved and extended toward each other and adapted to engage opposite edges of the said part, one of said ends adapted to lie upon the edge of and hold the plate in position.

3. The combination with the lid or cover of a display box including a transparent plate, of a part fixed relatively to the lid adjacent the edge of the plate, and a member having two of its opposite edges projecting from one side thereof and each extending in the direction of the opposite edge and adapted to be sprung upon the said part and held by frictional engagement therewith.

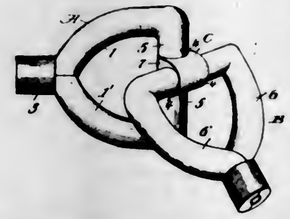
4. The combination with the lid or cover of a display box, including a transparent plate, of a part extending from the inner surface of said lid or cover, and a securing device for said plate adapted to bear thereon and consisting of a spring member having a recurved portion at one end adapted to engage beneath the described part, a portion of the latter lying between the body of the member

and said recurved portion, and having at its other extremity a part also to engage said member.

5. The combination with a lid or cover for a display box, including an opening and a transparent plate to cover the same and also including a U-shaped extension projecting from its surface adjacent the edge of said transparent plate, of a member having at one end a recurved portion adapted to engage and hold said plate and engaging beneath the said U-shaped member, and including at its other end an angled extension to engage an edge of said U-shaped member opposite that engaged by the said recurved portion.

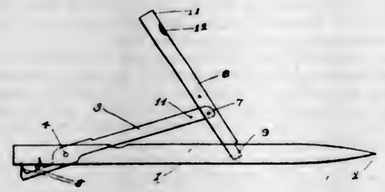
[Claims 6 and 7 not printed in the Gazette.]

1,209,243. FLEXIBLE PIPE JOINT OR COUPLING. EZRA C. ALE, Tyrone, Pa. Filed June 20, 1913. Serial No. 774,756. (Cl. 137—34.)



A flexible joint for pipes comprising two sections, each section consisting of two curved hollow castings, each casting terminating at the outer end of its curved portion with a straight flattened portion extending to its outer extremity, said flattened extensions being firmly secured together to form a passage connecting with a passageway in each of said castings, and the inner end of each casting terminating with an inward lateral extension at a right angle to the casting, and a hollow central member having an enlarged central hub portion provided with projecting shoulders against which the said inward lateral extensions are adapted to contact, said hub portion having lateral reduced integral hollow portions extending therefrom adjacent to and at a right angle to each other and adapted to form two comunicating passage-ways entirely through said central member on a different plane and at a right angle to each other, said lateral reduced extensions forming a swivel connection for the said sections.

1,209,244. BELT-LACING NEEDLE. FRANK J. AUCHLY, Kansas City, Kans. Filed Mar. 9, 1916. Serial No. 83,061. (Cl. 223—38.)



In a belt lacing needle, one end of said needle pointed, the opposite end being round and hollow for the insertion of a lacing, a lever pivoted near the round hollow end of said needle, one end of said lever arranged to swing in one side of said needle and securely hold lacing, the opposite end of said lever arranged to swing into the opposite side of said needle and a lever pivoted to said first lever and arranged to lock said first lever in said needle.

1,209,245. METHOD OF MAKING MAGNESIUM CHLORID AND THE LIKE. EDWIN O. BARSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed Mar. 13, 1916. Serial No. 83,880. (Cl. 23—13.)

1. In a method of making magnesium chlorid from a brine containing sodium chlorid and calcium chlorid in addition to magnesium chlorid, the steps which consist in precipitating the calcium chlorid therein as calcium sulfite, leaving a solution of sodium and magnesium chlorids; and then separating such last-named chlorids, substantially as described.

2. In a method of making magnesium chlorid from a brine containing sodium chlorid and calcium chlorid in addition to magnesium chlorid, the steps which consist in precipitating the calcium chlorid therein as calcium sulfite, leaving a solution of sodium and magnesium chlorids; evaporating such solution to a point where the sodium chlorid crystallizes out; and then separating out such crystallized sodium chlorid, leaving the magnesium chlorid in solution.

3. In a method of making magnesium chlorid from a brine containing sodium chlorid and calcium chlorid in addition to magnesum chlorid, the steps which consist in treating such brine with magnesium sulfite in amount sufficient to react with the calcium chlorid therein, whereby the latter is precipitated as calcium sulfite, leaving a solution of sodium and magnesium chlorids; and then separating such last-named chlorids, substantially as described.

4. In a method of making magnesium chlorid from a brine containing sodium chlorid and calcium chlorid in addition to magnesium chlorid, the steps which consist in treating such brine with magnesium sulfite in amount sufficient to react with the calcium chlorid therein, whereby the latter is precipitated as calcium sulfite, leaving a solution of sodium and magnesium chlorids; evaporating such solution to a point where the sodium chlorid crystallizes out; and then separating such crystallized sodium chlorid, leaving the magnesium chlorid in solution.

5. In a method of making magnesium chlorid from a brine containing sodium chlorid and calcium chlorid in addition to magnesum chlorid, the steps which consist in treating a quantity of such brine with milk of lime, whereby magnesium hydrate is precipitated; separating out such hydrate; treating such hydrate with sulfur dioxid, whereby magnesium sulfite is formed; adding such sulfite to an additional quantity of the brine in amount sufficient to react with the calcium chlorid therein, whereby the latter is precipitated as calcium sufite and leaves a solution of sodium and magnesium chlorids; and then separating such last-named chlorids, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,209,246. METHOD OF MAKING MAGNESIUM CHLORIDS AND THE LIKE. EDWIN O. BARSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed Apr. 17, 1916. Serial No. 91,786. (Cl. 23—13.)

1. In a method of making magnesium chlorid from a solution containing calcium chlorid, the steps which consist in mixing magnesium hydrate with such solution, and then passing in sulfur dioxid, whereby calcium sulfite is precipitated and magnesium chlorid left in solution.

2. In a method of making magnesium chlorid from a brine containing sodium chlorid and calcium chlorid in addition to magnesium chlorid, the steps which consist in mixing magnesium hydrate with such brine, and then passing in sulfur dioxid, whereby the calcium chlorid is precipitated as calcium sulfite, leaving a solution of sodium and magnesium chlorids, and then separating such last-named chlorids, substantially as described.

3. In a method of making magnesium chlorid from a brine containing sodium chlorid and calcium chlorid in addition to magnesium chlorid, the steps which consist in mixing magnesium hydrate with such brine, and then

passing in sulfur dioxid, whereby the calcium chlorid is precipitated as calcium sulfite, leaving a solution of sodium and magnesium chlorids, evaporating such solution to a point where the sodium chlorid crystallizes out, and then separating out such crystallized sodium chlorid, leaving the magnesium chlorid in solution.

1,209,247. PROCESS FOR MANUFACTURING ELECTRIC INCANDESCENCE BODIES. CHARLES ORME BASTIAN, London, England. Filed Sept. 24, 1914. Serial No. 863,390. (Cl. 176—132.)

1. The herein described process of manufacturing electric incandescence bodies, suitable for use in glow lamps; which consists in winding a wire or metallic filament into a closely wound spiral, providing such closely wound spiral either before, or after, or during winding with a coating for the purpose of separating the convolutions from actual electrical contact with one another, and removing said coating from said closely wound spiral only after the latter has been mounted on its final support for use in the lamp, substantially as and for the purposes hereinbefore set forth.

2. The herein described process of manufacturing electric incandescence bodies, suitable for use in glow lamps; which consists in winding a wire or metallic filament into a closely wound spiral, providing such closely wound spiral either before, or after, or during winding with an oxid coating for the purpose of separating the convolutions from actual electrical contact with one another, and removing said coating from said closely wound spiral only after the latter has been mounted on its final support for use in the lamp, substantially as and for the purposes hereinbefore set forth.

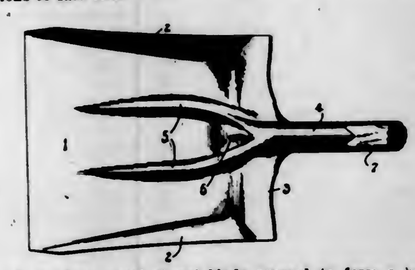
3. The herein described process of manufacturing electric incandescence bodies, suitable for use in glow lamps; which consists in electrolytically coating with another metal a wire or metallic filament, winding said coated wire or metallic filament into a closely wound spiral, providing such closely wound spiral with a coating for the purpose of separating the convolutions from actual electrical contact with one another, and removing said coating from said closely wound spiral only after the latter has been mounted on its final support for use in the lamp, substantially as and for the purposes hereinbefore set forth.

4. The herein described process of manufacturing electric incandescence bodies, suitable for use in glow lamps; which consists in electrolytically coating with another metal a wire or metallic filament, winding said coated wire or metallic filament into a spiral having the convolutions thereof as close to one another as possible without being actually in electrical contact when ready for operation in the lamp, providing such closely wound spiral with a coating for the purpose of separating the convolutions from actual electrical contact with one another, and removing said coating from said closely wound spiral only after the latter has been mounted on its final support for use in the lamp, substantially as and for the purposes hereinbefore set forth.

5. The herein described process of manufacturing electric glow lamps which consists in winding a wire or metallic filament into a closely wound spiral providing such closely wound spiral either before, or after, or during winding with a coating for the purposes of separating the convolutions from actual electrical contact with one another, mounting such coated spiral on its final support for use in the lamp and thereafter removing said coating from said spiral before finally sealing off the lamp substantially as and for the purposes described.

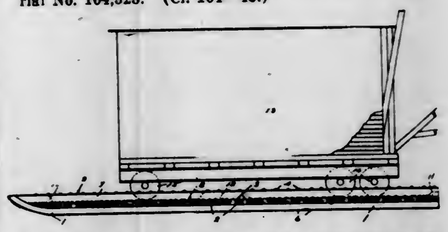
1,209,248. SHOVEL. CHARLES LE ROY BEALL, Aicon, Ill. Filed Feb. 17, 1915. Serial No. 8,803. (Cl. 55—147.)

1. A sheet metal shovel blade pressed to form a bottom, a rear wall, a handle socket merging into said rear wall, and a pair of ribs having crowns which merge into each other and into said handle socket at said rear wall, said ribs being so formed that they diverge from each other at said rear wall and extend along said bottom, and a sloping web being formed between the diverging portions of said ribs.



2. A sheet metal shovel blade pressed to form a bottom, a rear wall, a handle socket terminating at said rear wall, and reinforcing ribs merging into said handle socket and diverging from each other at said rear wall, said reinforcing ribs being separated from each other at the junction of said rear wall and bottom, and the metal being pressed outwardly at the junction of said rear wall and bottom to form a sloping web which lies between and merges into the diverging portions of said ribs.

1,209,249. PORTABLE WHEEL-TRACK. DELL BELANGER, North Branch, Minn., assignor to International Falls Construction Company, International Falls, Minn., a Corporation of Minnesota. Filed June 17, 1916. Serial No. 104,323. (Cl. 104—45.)



1. A portable wheel track comprising longitudinally and transverse timbers secured together to form a skid having a runner-like front end, a pair of laterally spaced guide rails secured to the top of the skid, and a tread plate secured to the skid between the guide rails.

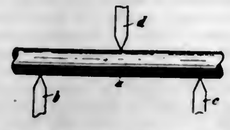
2. A portable wheel track comprising longitudinally and transverse timbers secured together to form a skid having a runner-like front end, a pair of laterally spaced guide rails secured to the top of the skid, and a face plate secured to the skid between the guide rails, and a face plate secured to the bottom of the skid.

3. A portable wheel track comprising longitudinally and transverse timbers secured together to form a skid having a runner-like front end, a pair of laterally spaced guide rails secured to the top of the skid, a tread plate secured to the skid between the guide rails, and a wheel stop extending across the tread plate.

4. A portable wheel track comprising longitudinally and transverse timbers secured together to form a skid having a runner-like front end, a pair of laterally spaced guide rails secured to the top of the skid, a tread plate secured to the skid between the guide rails, and a pair of guard angles having their horizontal flanges secured to the upper faces of the guide rails and having their vertical flanges turned downward over the inner faces thereof.

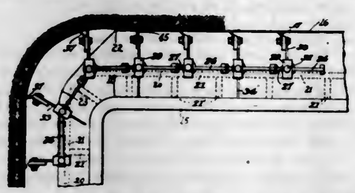
5. A portable wheel track comprising longitudinally and transverse timbers secured together to form a skid having a runner-like front end, a pair of laterally spaced guide rails secured to the top of the skid, a tread plate secured to the skid between the guide rails, a face plate secured to the bottom of the skid, a pair of guard angles having their horizontal flanges secured to the upper faces of the guide rails and having their vertical flanges turned downward over the inner faces thereof, and a wheel stop extending across the tread plate.

1,209,250. PROCESS OF BREAKING STEEL BARS. PIERRE VICTOR LÉON BELLANGER, Paris, France. Filed Apr. 26, 1916. Serial No. 93,775. (Cl. 75—197.)



A process of the character described for breaking metal bars, consisting in subjecting said bars to the action of a reducing flame at the point where the bar is to be broken for changing the consistency of the metal at this place, and finally subjecting the bar to the action of a breaking tool.

1,209,251. COMBINED CONVEYER AND CUTTER CHAIN. JAMES F. BEMIS, New York, N. Y., and CHARLES O. BEMIS, McClellandtown, Pa. Filed Nov. 7, 1910. Serial No. 591,032. (Cl. 125—14.)



1. In an undercutter for coal the combination with a flexible conveyer-cutter chain moving in a horizontal plane and having a series of sections joined by a ball and socket joint, the ball member being provided with a threaded lug and the socket member with a tapped hole, conveyer flights attached to said section, and a cutter secured to each of said flights.

2. In an undercutter for coal the combination with a flexible conveyer chain moving in a horizontal plane and having a series of joined sections having conveyer flights thereon, and trunnion bearing members on said sections, and a cutter secured to each of said flights.

3. In an undercutter for coal the combination with a flexible conveyer chain moving in a horizontal plane and having a series of joined conveyer flights, a ring fitting one end of a flight, and trunnion bearing members on said ring, and a cutter secured to each of said flights.

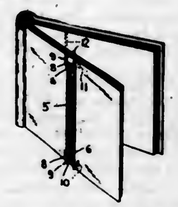
4. In an undercutter for coal the combination with a horizontal conveyer trough, of a flexible conveyer chain therein having flights, a cutter on each of the flights, the trough being reduced to form a guide ledge, and the rear portion of said flights being reduced to work in the reduced portion of said trough.

5. In an undercutter for coal the combination with a horizontal conveyer trough, of a flexible conveyer chain therein having flights, a cutter on each of the flights, the trough being reduced to form a guide ledge, and guide members on said conveyer chain bearing on said guideway and resting on said trough.

[Claims 6 to 10 not printed in the Gazette.]

1,209,252. BOOK-MARK. WILLIAM M. BLATT, Brookline, Mass. Filed Mar. 14, 1916. Serial No. 84,108. (Cl. 11—12.)

1. A book mark comprising hooks engaging the opposite edges of a book cover, a pliant page marking finger formed integral with one of said hooks, and means yieldingly connecting said hooks.

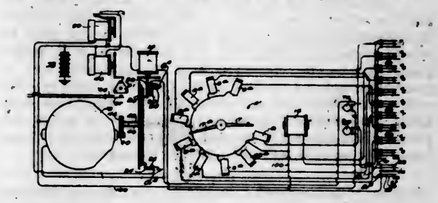


2. A book mark, comprising, spaced hooks engaging the lower edge of the cover of a book, a hook engaging the upper edge of the cover of a book, a contractile strap connecting said upper and lower hooks, and a pliant page marking finger formed integral with said upper hook in spaced relation thereto.

3. A book mark comprising a contractile strap, strands of wire having their intermediate portions secured to the opposite ends of said strap, hooks formed at the ends of one strand of wire, a hook formed at one end of the other strand of wire, and a pliant page marking finger formed at the other end of the second mentioned strand of wire.

4. A book mark comprising a contractile strap, strands of wire having their intermediate portions engaged by the opposite ends of said strap, hooks formed at the ends of one strand of wire with their shanks twisted around one another, a hook formed at one end of the other strand of wire, and a pliant page marking finger formed at the opposite end of the second mentioned strand of wire with its shank and that of the second mentioned hook twisted around one another.

1,209,253. IMPULSE-TRANSMITTING DEVICE. JOHN G. BLESSING, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 9, 1913. Serial No. 740,953. (Cl. 179—90.)



1. An impulse-transmitting device comprising a pair of contact springs, a controlling member carrying a plurality of actuating devices normally in inoperative position and normally at rest, means for moving certain of said devices into operative position, and means for then setting said controlling member in motion, whereby said springs are caused to operate to transmit a plurality of series of impulses.

2. An impulse-transmitting device comprising a pair of contact springs, means for intermittently actuating said springs, means for setting said actuating means in motion, and a movable controlling mechanism carrying a plurality of adjustable devices, whereby said actuating means is automatically stopped for an interval to thereby cause said contact springs to be given a plurality of series of operations.

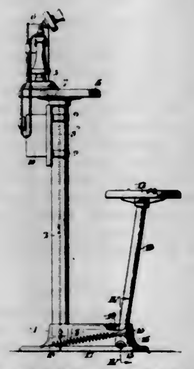
3. An impulse-transmitting device comprising a pair of contact springs, means for intermittently operating said springs, a controlling mechanism adapted to be moved at a predetermined speed, adjustable arms carried by said controlling mechanism, and means for operating certain of said arms, whereby they are brought into position to bring said operating means to a stop at predetermined intervals.

4. In an impulse-transmitting device, a set of contact springs, controlling mechanism therefor normally at rest, said mechanism comprising a rotary member carrying a plurality of arms, means for operating said contact springs, and means for operating certain of said arms to variably control the extent of operation of said contact springs.

5. An impulse-transmitting device consisting of a pair of contact springs, means for intermittently operating said springs, and means for controlling said operation, said controlling means consisting of a rotary member containing a plurality of adjustable controlling arms.

[Claims 6 to 14 not printed in the Gazette.]

1,209,254. TELEPHONE-STAND. JOHN W. F. BLIZARD, Philadelphia, Pa., assignor to Keystone Telephone Company of Philadelphia, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 15, 1912. Serial No. 709,325. (Cl. 45—31.)



A combination of a hollow standard, a supporting base therefor, a table mounted on said standard and adapted to support a telephone, said table being formed with an opening communicating with the interior of said hollow standard whereby the wires from the telephone may be passed through the opening in the table and down through said hollow standard and through said supporting base, and a seat pivotally mounted on said base to swing outwardly from the standard and means for normally yieldingly holding said seat adjacent the standard.

1,209,255. STOCKING-KNITTING MACHINE. GEORGE P. BOSWORTH, Central Falls, R. I., assignor to Hemphill Manufacturing Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed June 4, 1914, Serial No. 843,061. Renewed Oct. 14, 1916. Serial No. 125,701. (Cl. 66—24.)



1. In combination in a circular stocking knitting machine, a needle cylinder, narrowing and widening picks, heel and toe needles including a column of short butt needles and two columns of medium butt needles, one at each end of the column of short butt needles, instep needles having longer butts than the medium butt needles, a cam for elevating the long butt instep needles and the medium butt heel and toe needles at a point at the back of the stocking preceding the formation of the heel pocket, means for controlling the picking to widen on the medium butt needles at said point to make a diagonal gore extending to the point where narrowing begins for the heel pocket, then narrowing and widening on said heel and toe needles, and continuing the widening on the longer butt instep needles, a pivotally mounted raising cam for elevating only the longer butt instep needles, for the formation of the toe, a lowering cam to lower elevated needles, connections for raising said lowering cam independently of the pivotally mounted raising cam and means for operating said pivotally mounted cam independently of the raising cam first mentioned, which remains down during the formation of the toe, substantially as described.

2. In combination in a circular stocking knitting machine, a needle cylinder, narrowing and widening picks, instep needles having butts of a length to permit picking thereon, heel and toe needles including a column of short butt needles, and two columns of medium butt needles, one at each end of the column of short butt needles, said medium butt needles having shorter butts than the instep needles, means for elevating the long butt instep needles and the medium butt heel and toe needles at a point in the leg preceding the heel pocket, means for controlling the picking to widen on the medium butt needles at said point to make a diagonal gore extending to the point where narrowing begins for the heel pocket, then narrowing and widening on the said heel and toe needles, and continuing the widening on the longer butt instep needles, substantially as described.

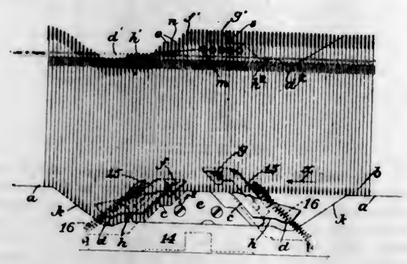
3. In combination in a circular stocking knitting machine, a needle cylinder, narrowing and widening picks, instep needles having butts of a length to permit picking thereon, heel and toe needles including a column of short butt needles and two columns of medium butt needles, one at each end of the short butt needles, a lowering cam for the instep and medium butt needles, a raising cam for the long butt instep needles with means for operating it independently of the said lowering cam, and a supplemental raising cam for the instep needles and the medium butt heel and toe needles, and means to control the picking to widen for a diagonal gore preceding the heel pocket, narrowing and widening for the heel pocket and continued widening on the instep needles and to narrow and widen for the usual toe pocket, substantially as described.

4. In combination in a circular stocking knitting machine, a needle cylinder, a series of instep needles having butts of a length to permit picking thereon, a series of heel and toe needles having two lengths of butts, a raising cam for elevating the long and medium butt needles prior to the formation of the heel pocket, pick mechanism with controlling means for widening on the medium butt needles for making a diagonal gore preceding the heel pocket and the narrowings and widenings for the heel pocket and continue widening on the instep needles, a cam for raising the instep needles at the toe for the formation of the usual toe pocket on the other needles, substantially as described.

5. In combination in a circular stocking knitting machine, a needle cylinder, a series of instep needles having butts of a length to permit picking thereon, a series of heel and toe needles having two lengths of butts, a raising cam for elevating the longer medium butt needles prior to the formation of the heel pocket, pick mechanism with controlling means for widening on the medium butt needles for making a diagonal gore preceding the heel pocket, and then the narrowings and widenings for the heel pocket and continue widening on the instep needles, a cam for raising the instep needles at the toe for the formation of the usual toe pocket on the other needles, a lowering cam for the needles, said raising cam last mentioned, being located adjacent the said lowering cam and the said raising cam first mentioned being located adjacent the widening picks, substantially as described.

1,209,256. KNITTING-MACHINE. GEORGE P. BOSWORTH, Central Falls, R. I., assignor to Hemphill Manufacturing Co., a Corporation of Rhode Island. Filed June 29, 1915. Serial No. 37,022. (Cl. 66—24.)

1. In combination in a circular knitting machine, a needle cylinder having rotary and reciprocating movements, a needle cam set including two stitch cams, with retracting portions, restoring cams, and guard cam means to initiate the retraction of the needles by engaging the needle butts, said guard cam means being formed in two sections, said sections being located on opposite sides of the center of the cam set, and both sections being movable to be lifted by the needle butts, said needle butts passing the cam on the near side of the cam set in respect to the direction of rotation of the needle circle, and passing beyond the center of the cam set to be retracted by the other section of the guard cam means after having passed beyond said center of the cam set, substantially as described.



2. In combination in a stocking knitting machine, a needle cylinder having rotary and reciprocating movements, a cam set including a pair of stitch cams with retracting cam portions, a lower central guard cam, and upper guard cam means formed in sections, said sections being located on opposite sides of the center of the cam set, and each section being pivotally mounted to be raised under the impact of the needle butts, said needle butts raising the cam section on the near side of the cam set in respect to the direction of rotation of the needle circle, and thence passing below said raised section and beyond the center of the cam set before striking the inclined side of the other section of the guard cam means which initiates the retraction of the needles to direct them to the main retracting cam only after the needles have passed beyond the center of the cam set, substantially as described.

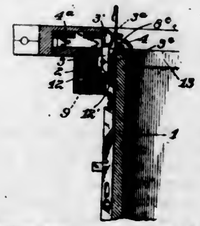
3. In combination in a stocking knitting machine, a needle cylinder having rotary reciprocating movements, a cam set for operating the needles for both round and round and reciprocating knitting, including a pair of stitch cams with retracting cam portions, guard cam means comprising two sections or members movable vertically to overlie the needle butts or to engage and retract the needle butts with the needles to direct them to the main retracting cam, said guard cam sections being located on opposite sides of the center of the cam set, and each section acting to initiate the retraction of the needles only after the said needles have passed the center of the cam set, and pick means for engaging the needle butts, substantially as described.

4. In combination in a stocking knitting machine, a needle cylinder having rotary reciprocating movements, a cam set for operating the needles for both round and round and reciprocating knitting, including a pair of stitch cams, with retracting cam portions, guard cam means comprising two sections or members movable vertically to overlie the needle butts or to engage and retract the needle butts with the needles to direct them to the main retracting cam, said guard cam sections being located on opposite sides of the center of the cam set, and each section acting to initiate the retraction of the needles only after the said needles have passed the center of the cam set, and pick means for engaging the needle butts, said pick means being associated with the sections of the guard cam, substantially as described.

5. In combination in a stocking knitting machine, a needle cylinder having rotary reciprocating movements, a cam set for operating the needles for both round and round and reciprocating knitting, including a pair of stitch cams, with retracting cam portions, guard cam means comprising two sections or members movable vertically to overlie the needle butts or to engage and retract the needle butts with the needles to direct them to the main retracting cam, said guard cam sections being located on opposite sides of the center of the cam set, and each section acting to initiate the retraction of the needles only after the said needles have passed the center of the cam set, and pick means for engaging the needle butts, said pick means being carried by the sections of the guard cam means, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,209,257. KNITTING-MACHINE. GEORGE P. BOSWORTH, Central Falls, R. I., assignor to Hemphill Manufacturing Co., a Corporation of Rhode Island. Original application filed June 29, 1915, Serial No. 37,022. Divided and this application filed May 5, 1916. Serial No. 95,642. (Cl. 66—21.)



1. In combination in a circular spring needle knitting machine, spring beard needles, pressers one for each needle, a ring or cage upon which said pressers are pivotally mounted, and a support for said cage holding the same freely removable whereby the said pressers can be removed or replaced as a series, said pressers being individually removable, substantially as described.

2. In combination in a circular spring needle knitting machine, a needle cylinder, spring beard needles, instruments working between the needles radially of the cylinder, a bed for said instruments, pressers for the needle beards, one for each needle, and a cage or ring upon which the pressers are pivoted, said ring being removably carried by the said bed to permit the pressers to be removed as one body, substantially as described.

3. In combination a needle cylinder, spring beard needles, web holders, a bed for the web holders, supported on the needle cylinder and recessed adjacent said cylinder, said recess being defined by a lower ledge or support extending inwardly and being open at the top, individual pressers for the needles, and a cage or ring carrying said pressers and removably seated in the said recess and upon the said ledge, substantially as described.

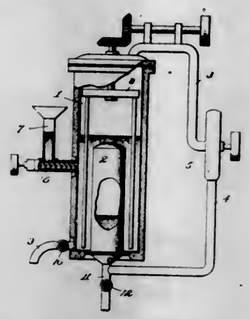
4. In combination in a circular spring needle knitting machine, a needle cylinder, spring beard needles, instruments working between the needles, a bed surrounding the needle cylinder for said instruments to work in, individual pressers for the needles, and a cage or ring for said pressers consisting of a solid ring portion with a slotted portion exterior to said solid ring portion and extending also above the plane of the upper edge thereof, the said pressers having their stems working and guided in the slotted portion, and finding a bearing or fulcrum on the upper edge of the solid ring portion, substantially as described.

5. In combination a needle cylinder, spring beard needles, a bed surrounding the needle cylinder, instruments mounted in said bed and working between the needles, individual pressers for the needle beards, and a cage or ring for the said pressers consisting of a solid ring portion, the upper edge of which forms a fulcrum for the pressers, and a slotted portion to receive the stems of the pressers, and a spring band for holding the pressers to

said cage or ring, said pressers and the walls of said slotted portions being notched on their outer edges to receive the said spring band, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,209,258. METHOD AND APPARATUS FOR CONSERVING HEAT OF CHEMICAL ACTION. CHARLES S. BRADLEY, New York, N. Y. Filed Feb. 26, 1915. Serial No. 10,732. (Cl. 23—21.)



1. The method of conducting chemical processes involving endothermic and exothermic reactions which comprises performing an endothermic dissociation step upon chemical substances and subsequently performing an exothermic recombination of dissociated constituents produced thereby, in heat conductive relation with the dissociating step, whereby the endothermic and exothermic heat quantities are conserved within the system.

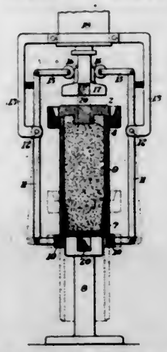
2. The method of conducting chemical processes which comprises performing an endothermic chemical action in which gaseous products are produced, removing the gaseous products therefrom and compressing them into a reaction chamber in heat conductive relation with the endothermic action, and causing an exothermic action involving said gaseous products whereby the chemical heat units are restored to the materials engaged in the endothermic action.

3. The method of conducting reversible chemical processes involving endothermic and exothermic reaction which comprises maintaining with respect to suitable chemical materials the temperature and pressure conditions determinative of an endothermic chemical action, removing from the locus of such action resulting products capable of taking part under suitable physical conditions in an exothermic chemical reversal action, and establishing and maintaining the temperature and pressure of such products determinative of such exothermic reaction while the materials taking part therein are in heat conductive relation with the materials taking part in the endothermic reaction.

4. The method of conducting reversible chemical processes involving endothermic and exothermic chemical action which comprises subjecting suitable materials to proper temperature and pressure to produce gaseous dissociation products in an endothermic reaction, removing the said products therefrom and compressing them in heat conductive relation with the materials taking part in the first reaction to cause an exothermic chemical reversal process involving them, whereby the chemical heat units are restored and conserved within the system.

1,209,259. METHOD OF MAKING COMPOSITE CORKS. HERMAN F. BUSCH, Millvale, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 30, 1915. Serial No. 69,365. (Cl. 18—48.)

1. The herein described method of making composite corks, which consists in compressing a cork mixture between two mold members, one of said mold members being a part of the finished cork, substantially as described.



2. The method of making composite corks, which consists in placing a charge of cork mixture in a container having a mold member at one end, placing the pre-formed top member of a finished cork at the opposite side of the charge, and then moving the top member and the mold member relatively to each other to compress the charge mixture and thereby form the body portion of the composite cork directly upon the top member, substantially as described.

3. The method of making composite corks, which consists in placing a charge of cork mixture in a container having a mold member at one end, placing the pre-formed top member of a finished cork at the opposite side of the charge, then moving the top member and the mold member relatively to each other to compress the charge mixture and thereby form the body portion of the composite cork directly upon the top member, and finally baking the finished article, substantially as described.

4. The method of making composite corks, which consists in placing a charge of cork mixture in a container having a mold member at one end, placing the pre-formed top member of a finished cork at the opposite side of the charge, then moving the top member and the mold member relatively to each other to compress the charge mixture and thereby form the body portion of the composite cork directly upon the top member, and finally baking the finished article while still confined by said mold member, substantially as described.

5. The herein described method of forming composite corks, which consists in providing a top member, and compressing and shaping a mixture of plastic material against and upon said top member, substantially as described.

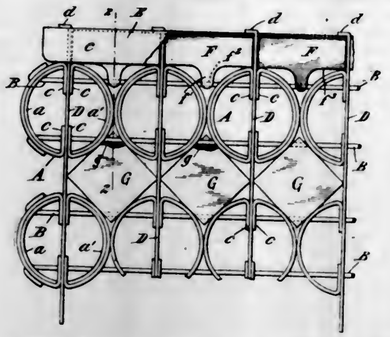
[Claims 6 to 8 not printed in the Gazette.]

1,209,260. METAL FABRIC. SPENCER C. CARY, Brooklyn, N. Y., assignor to Cary Manufacturing Co., Brooklyn, N. Y., a Corporstion of New York. Filed Feb. 6, 1911. Serial No. 606,746. (Cl. 15—63.)

1. In a metal fabric, a row of units, a rod connecting the units of the row, a reinforcing member positioned at an edge of the fabric and exterior to the units, links attached to the reinforcing member and to the units, and metallic stay members coöperating with the reinforcing member, said stay members being connected to the rod and positioned intermediate the links.

2. In a metal fabric, a row of units, rods extending through the units of said row, a reinforcing member positioned at an edge of said fabric, means for attaching the reinforcing member to the units, metallic stay members separate from the attaching means, said stay members cooperating with the reinforcing member and positioned intermediate the points at which the units are attached to said reinforcing member, said stay members being connected to the rods.

3. In a metal fabric, a row of units, a reinforcing member positioned at one edge of the fabric, said member being channeled in cross section, retaining means for said reinforcing member, stay members separate from said retaining means, said metallic stay members being substantially incased within the channel of said reinforcing member, and means independent of the retaining means for connecting said stay members to the row of units.

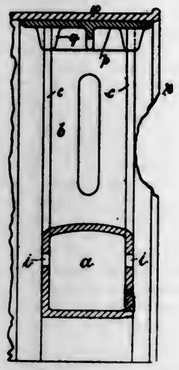


4. A metal fabric embodying units arranged in rows, links for connecting rows of said units, a reinforcing member positioned at one edge of said fabric, said links being attached to the reinforcing member for connecting said member to one row of units, stay members separate from said links, said stay members being positioned intermediate the links, and means independent of said links for attaching the stay members to one row of units.

5. A metal fabric embodying rows of units, links connecting rows of said units, a reinforcing member positioned at one edge of the fabric, said reinforcing member being channeled in cross section and being attached to end portions of said links, metallic stay members separate from the links, said stay members being substantially incased within the channel of the reinforcing member, and means independent of the links for attaching the stay members to a row of units.

[Claims 6 to 10 not printed in the Gazette.]

1,209,261. WHEEL. WALTER CHALLINER, Levenshulme, England. Filed Aug. 8, 1916. Serial No. 113,782. (Cl. 21—69.)

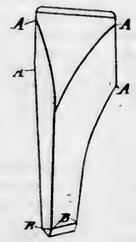


1. A metallic wheel, comprising radial spokes the inner ends of which extend to the central opening of the hub, and suitably shaped hollow hub-blocks arranged circumferentially in and filling the angular spaces between the inner end portions of the said spokes, said blocks being welded directly to the said spokes.

2. A metallic wheel, comprising radial spokes provided with longitudinal flanges and having their inner ends arranged to extend to the central opening of the hub, and hollow hub-blocks provided with recesses for engaging the spoke flanges, said blocks being arranged circumferentially in and filling the angular spaces between the inner end portions of the said spokes and being welded directly to them.

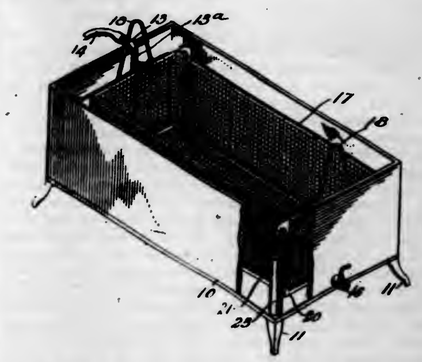
3. A metallic wheel, comprising radial spokes, and a rim formed of rim sections which are welded together and provided with half sockets which fit around the outer end portions of the said spokes, the outer ends of the spokes being arranged to abut against the bottoms of the sockets, and the side portions of the spokes being welded directly to the edges of the half sockets at the radial openings between them.

1,209,262. WEDGE. GEORGE CHURCH, Auckland, New Zealand. Filed Jan. 17, 1914. Serial No. 812,777. (Cl. 254—104.)



A wedge to which a longitudinal twist has been imparted through its whole length.

1,209,263. DISH-WASHER. LOUIS F. CLAUSS, Elizabeth, N. J. Filed July 12, 1916. Serial No. 108,781. (Cl. 141—9.)

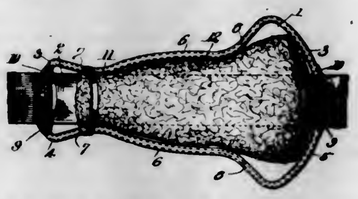


1. A dish washer comprising a tank having spring casings therein, springs within the casings, and an open-work dish holding basket fitting within the tank and having vertically arranged side arms which enter the casings and rest upon the springs.

2. A dish washer comprising a tank, an open work dish holding basket fitting within the tank, arms connected with the upper part of the basket and extending vertically downward essentially parallel with the basket sides, and springs held within the tank to support the aforesaid arms.

8. A dish washer comprising a tank having a cover, a water supply pipe leading into the tank and lying against the wall thereof, an open work dish holding basket held within the tank and having handles projecting up through the cover, arms vertically arranged and connected at their upper parts with the frame of the basket, and springs supporting the said arms.

1,209,264. SANITARY PROTECTOR. PHILIP J. CLUNE, Ottawa, Ill. Filed Nov. 24, 1915. Serial No. 63,328. (Cl. 128—5.)



1. In a device of the class described, the combination with a sanitary napkin, of a protector comprising a receptacle formed of fluid proof material, a flexible frame for supporting said receptacle, reinforcing elements within the ends of said flexible frame, means upon said frame for supporting said receptacle upon said napkin, and means upon said frame for adjustably securing said receptacle to said napkin.

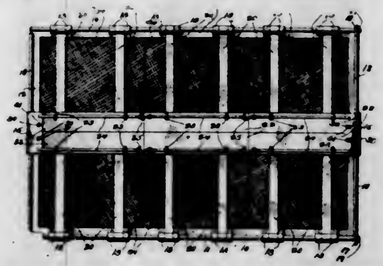
2. In a device of the class described, the combination with a sanitary napkin, of a protector comprising a receptacle formed of fluid proof material, a flexible frame for supporting said receptacle, reinforcing elements within the ends of said flexible frame, means upon said frame for supporting said receptacle upon said napkin, means upon said frame for adjustably securing said receptacle to said napkin, and means upon said frame for preserving the trough-like shape of said receptacle.

3. In a device of the class described, the combination with a sanitary napkin, of a protector comprising a receptacle formed of fluid proof material, a flexible frame for supporting said receptacle, reinforcing elements within the ends of said flexible frame, means upon said frame for supporting said receptacle upon said napkin, means upon said frame for adjustably securing said receptacle to said napkin, an absorbent material within said receptacle and surrounding the portion of said napkin therein, and means upon said flexible frame for preserving the trough-like shape of said receptacle and for embracing the forward portions of said absorbent material for preventing the casual displacement thereof.

4. In a device of the class described, the combination with a sanitary napkin, of a protector comprising a receptacle formed of fluid proof material, a flexible frame for supporting said receptacle, flexible reinforcing elements within the ends of said flexible frame of less flexibility than said flexible frame, loops upon said frame for slidably supporting said receptacle upon said napkin, loops upon said frame having means for adjustably securing said receptacle to said napkin, an absorbent material within said receptacle and surrounding the portion of said napkin therein, and a retractile loop upon said flexible frame for preserving the trough-like shape of said receptacle and for embracing the forward portions of said absorbent material for preventing the casual displacement thereof.

1,209,265. COAL-CAR COVER. THEODORE S. CROWELL, Bruins, Ark. Filed May 11, 1916. Serial No. 96,953. (Cl. 105—78.)

1. A structure of the character described comprising a receptacle having side and end flanges, hinge brackets connected with said side flanges, closure leaves including bars terminating at their outer ends in eyes, rods extending through said hinge brackets and eyes to pivotally mount said bars, cross rods terminating in eyes mounted upon and releasably held upon the end portions of the pivot rods, end bars for said leaves connected with said hinge bars, means for releasably connecting the end bars of the adjoining leaves, overhanging strips secured to said end bars, eyes carried by said overhanging strips, rods extending through said eyes, means releasably connecting said rods, pins extending upwardly from said end flanges through openings formed in the end bars and overhanging strips, and securing hasps pivotally connected with the hinge brackets of the end flanges and extending in overlapping relation to the overhanging strips and provided with openings through which said pins pass, said last mentioned rods extending to engage said hasps when moved to an operative position.



2. A structure of the character described comprising a receptacle, hinge brackets carried by said receptacle, hasps pivotally connected with certain of said hinge brackets, closure leaves including hinge bars pivotally connected with the remaining hinge brackets, end bars for said leaves connected with the hinge bars thereof, tread strips connected with said end bars, means releasably connecting said end bars, pins extending from said receptacle through said end bars and tread bars and through said hasps when the leaves are in a closed position and the hasps in an operative position, securing rods connected with said tread strips and engaging said hasps when the hasps are in an operative position, and means for releasably connecting said rods.

3. A structure of the character described comprising a receptacle, closure leaves hingedly connected with said receptacle and including end bars, tread strips carried by said end bars, securing hasps engaging said tread strips when in an operative position, rods slidably connected with said tread strips and having their outer end portions engaging said hasps to hold the same in an operative position, means releasably connecting said rods, and locking means for said hasps passing through the end bars, tread strips and hasps.

4. A structure of the character described comprising a receptacle, closure leaves hingedly connected with said receptacle and including end bars, tread strips, securing means for said leaves engaging said tread strips, rods slidably connected with said tread strips and having their free end portions engaging said securing means, and means for releasably connecting said rods.

5. A structure of the character described comprising a receptacle, closure leaves hingedly connected with said receptacle and including end bars, tread strips, means for releasably connecting adjoining leaves within said receptacle, fasteners engaging said tread strips to releasably hold the leaves in a closed position, and means carried by said tread strips for engaging said securing means to hold the same in engagement with the tread strips.

[Claim 6 not printed in the Gazette.]

1,209,266. REPEATING COIL. HIRAM D. CURRIER, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 19, 1914. Serial No. 862,406. (Cl. 175—361.)

1. A transformer having a winding, a core of magnetic material for said winding and forming a complete magnetic circuit for said winding, a ring of magnetic material extending out from each of the opposite sides of said core and encircling the protruding portions of said windings, fastening members for securing the said rings in position, and a receptacle for holding said structure.



2. An inductorium provided with primary and secondary coils, a core of soft iron plates extending through and about said winding to form a complete magnetic path for the lines of force, a ring of magnetic material extending out from each of the opposite sides of said core and encircling the protruding portions of said coils, and fastening members extending through apertures in said plates for holding said rings in position.

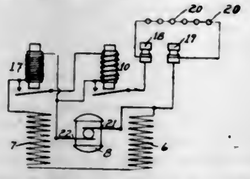
3. An electrical converter provided with primary and secondary coils, a core composed of thin plates forming a complete magnetic circuit for the coils, magnetic rings mounted adjacent the opposite faces of the core of said converter and encircling the protruding ends of said coils, and fastening members extending through circular orifices in said plates and said magnetic rings for holding the same in position.

4. An electrical converter provided with primary and secondary coils, a core of soft iron plates extending through and about said winding to form a complete magnetic circuit for the lines of force, a member of magnetic material mounted adjacent each of the sides of said core and extending out over the protruding portions of said coil, and fastening means extending through apertures in said members for holding said members in position.

5. A transformer provided with a winding, a laminated core of magnetic material for said winding forming a magnetic circuit therefor, a pair of members of magnetic material mounted adjacent the opposite sides of said core and encircling the protruding portions of said winding, and fastening means extending through orifices in said members and said core for securing said members to said core thereby forming a unitary structure.

[Claim 6 not printed in the Gazette.]

1,209,267. ELECTRIC BLASTING-MACHINE. ERNEST W. DAVIS, Chicago, Ill., assignor to The Aetna Powder Company, Chicago, Ill., a Corporation of Indiana. Filed Sept. 28, 1914. Serial No. 863,968. (Cl. 171—315.)



1. The combination with a dynamo comprising an armature and an electro-magnetic field, of a line relay energized by current from said dynamo and connected in such manner that the current generated by said armature is shunted through an external circuit when said line relay is sufficiently energized, the core of said line relay being surrounded by an inductive conductor whereby the release of said line relay is delayed, thus prolonging the discharge through said external circuit.

2. The combination with a dynamo comprising an armature and an electro-magnetic field, of a line relay connected in such manner that the current generated by said armature is shunted through an external circuit when said line relay is sufficiently energized, and means for automatically decreasing the resistance of the field circuit of said dynamo when said armature has attained a given speed.

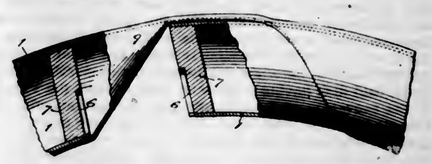
3. The combination with a dynamo comprising an armature and an electro-magnetic field, of a line relay connected in such manner that the current generated by said armature is shunted through an external circuit when said line relay is sufficiently energized, and a field relay connected with the field winding of said dynamo and arranged to decrease the resistance of the field circuit of said dynamo when said field relay is sufficiently energized.

4. The combination with a dynamo comprising an armature and an electro-magnetic field, of a line relay connected in such manner that the current generated by said armature is shunted through an external circuit when said line relay is sufficiently energized, and a field relay connected with the field winding of said dynamo and arranged to supply current to said line relay when said field relay has been sufficiently energized, the core of said field relay being surrounded by an inductive conductor whereby the release of said field relay is delayed.

5. The combination with a dynamo comprising an armature and an electro-magnetic field, of a line relay connected in such manner that the current generated by said armature is shunted through an external circuit when said line relay is sufficiently energized, and a field relay connected with the field winding of said dynamo and arranged to decrease the resistance of the field circuit of said dynamo when said field relay is sufficiently energized, the core of said field relay being surrounded by an inductive conductor whereby the release of said field relay is delayed.

[Claim 6 not printed in the Gazette.]

1,209,268. METHOD OF MAKING AN INNER TUBE FOR TIRES. HENRY DECH, Trenton, N. J., assignor to Mercer Tire Company, Trenton, N. J., a Corporation of New Jersey. Filed Dec. 30, 1914. Serial No. 879,701. (Cl. 154—14.)



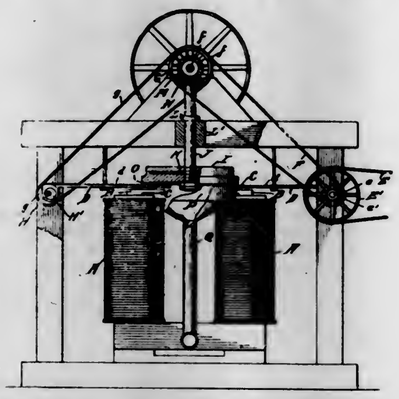
1. The method of making an endless inner tube for pneumatic tires, comprising, first, forming the tube on a circular, sectional mandrel; second, wrapping the tube and mandrel with fabric; third, vulcanizing the tube; fourth, slitting the tube for the insertion of the valve; fifth, withdrawing a section of the mandrel through the said slit; sixth, drawing the tube peripherally off the remainder of the mandrel; and seventh, fitting a valve in said slit.

2. The method of making an endless inner tube for pneumatic tires, comprising first, forming the tube on a circular, sectional mandrel; second, wrapping the tube and mandrel with fabric; third, vulcanizing the tube; fourth, making a round-ended zigzag slit in the tube for the insertion of the valve; fifth, withdrawing a section of the mandrel through the said slit; sixth, drawing the tube peripherally over the remainder of the mandrel; and seventh, fitting a valve in the said slit.

1,209,269. MAGNETIC SEPARATOR. MYRON DINGS and ROBERT A. MANEGOLD, Milwaukee, Wis., assignors to Dings Electro-Magnetic Separator Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 11, 1911. Serial No. 643,504. (Cl. 83—71.)

1. The combination with a set of vertically disposed electromagnetic coils having polar projections of opposite polarity at their upper ends, a horizonally rotating

solid disk of magnetizable material having its outer portions located above said pole pieces and adapted to form a straight path for magnetic lines of force extending directly across from the space above one pole piece to the space above the other, means for rotating said disk and having means for feeding material containing magnetite through the gap between the pole pieces and said disk, said conveying means comprising a thin support for the material having but one thickness in the supporting member, whereby the dimensions of the air gaps are reduced to a minimum and a magnetic separator of high intensity produced in which the solid rotating disk forms an induced magnet rotating in close proximity to the pole pieces.



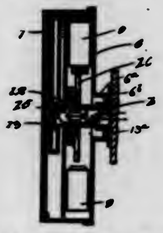
2. The combination with an electromagnet having a set of electromagnetic coils with vertical axes and inwardly projecting pole pieces, a vibratory non-magnetizable conveyer extending inwardly above each pole piece and adapted to deliver material to the spaces between the magnets, a horizontally rotatable solid disk of magnetizable material located immediately above and spanning the pole pieces, with the inner portions of the conveyers interposed, said disk having a diameter greater than the width of the conveyers and constituting an induced magnet in a single magnetic field, which extends from one pole piece to the other through the disk and cuts the conveyers above each pole piece, each of said conveyers comprising a vibratory plate, means for reciprocating said plates, and a set of ribs on each plate extending transversely to the line of reciprocatory movement and having inclined outer surfaces and abrupt inner surfaces, whereby the material will be progressively shifted inwardly by said plates, substantially as described.

3. A magnetic separator, comprising the combination with an electromagnet having an upwardly projecting pole piece, of a vibratory conveyer plate projecting inwardly over said pole piece, means for imparting reciprocal vibrations to said plate, a horizontally rotatable solid disk of magnetizable material having a portion thereof located immediately above the inner end portions of said plate and having a diameter greater than the width of the plate, and a set of conveying ribs on said plate having inclined outer surfaces and abrupt inner surfaces, substantially as described.

4. The combination with a set of electromagnetic polar projections of opposite polarity at their upper ends, a horizontally rotating solid disk of magnetizable material having its outer portions located above said pole pieces and adapted to form a straight path for magnetic lines of force extending directly across from the space above one pole piece to the space above the other, means for rotating said disk and means for feeding material containing magnetite through the gap between the pole pieces and said disk, said conveying means comprising a thin support for the material, whereby the dimensions of the air gaps are reduced to a minimum and a magnetic separator of high intensity produced in which the solid rotating disk forms an induced magnet rotating in close proximity to the pole pieces.

5. Means for separating ore comprising means for establishing a magnetic circuit having magnetic gaps, said circuit including a rotatable disk and a magnet core having each of its pole faces opposing the member to form the gaps, said disk forming a flux travel path between the gaps, and means for positioning the ore material within the gaps.

1,209,270. VEHICLE-SIGNAL. SAMUEL F. DOUGLASS, Prairie du Rocher, Ill., assignor to Vehicle Signal Company, a Corporation of Arizona. Filed Feb. 13, 1914. Serial No. 818,531. (Cl. 177—337.)



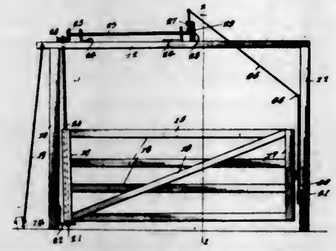
1. In a direction indicator, an attaching plate, a stud rotatably mounted in the attaching plate, a casing attached to the attaching plate, an indicating arm at the forward end of the stud, an annually arranged series of electromagnets within the casing, an armature carried by the stud and adapted to be attracted by the magnets, a gear wheel carried by the stud and means coöperating with the gear wheel to lock the indicating arm at various positions upon energization of the magnets.

2. A direction indicator comprising an attaching plate, a housing carried by the attaching plate, a hollow stud rotatably mounted in the attaching plate and projecting into the housing, an armature carried by the stud, an annular series of electromagnets within the casing, means to selectively energize the magnets, an indicating arm carried by the forward end of the stud, said arm being provided with a transparent front panel, means to lock the indicating arm at various adjusted positions upon the energization of the magnets and illuminating means positioned within the stud and adapted to illuminate the indicating arm.

3. A direction indicator comprising an attaching plate, a casing secured to the attaching plate, a false bottom in the casing separating the same into two separate chambers, a hollow stud rotatably mounted in the attaching plate and through an opening formed centrally in the false bottom, an annular series of independently energizable magnets arranged within the innermost chamber of the casing, an armature carried by the rotatable stud and adapted to be attracted by the magnets, electromagnetic means for locking the stud against rotation when the magnets are being energized, said means being actuated upon the energization of the magnets to release the stud, a transparent front wall for the forward end of the outer chamber, a hollow indicating arm within the outer chamber and mounted on the stud and illuminating means positioned within the hollow stud for illuminating the arm.

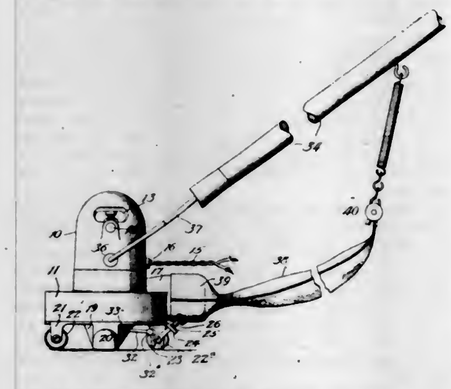
1,209,271. GATE-OPERATING MECHANISM. FRANK DVORAK, Dickinson, N. D. Filed Sept. 14, 1915. Serial No. 50,695. (Cl. 39—33.)

In a device of the character described, upstanding supporting posts, means connecting said posts adjacent their upper ends, a shaft carried by one of said posts and journaled through said connecting means, said shaft extending longitudinally with respect to said posts, a gate bodily movable with said shaft and operating in a path between said posts, a secondary shaft mounted on said connecting means, a beveled gear connection between said shafts, a slotted guide member on said connecting means, operating rods extending through said guide means, the inner ends of said operating rods being bent to form an upstanding portion, a crank at one end of said secondary shaft, means connecting the crank portion of said secondary shaft and said operating rods, whereby a forward or rear-



ward thrust of said operating rods will cause rotation of said secondary shaft, latch means carried by one of said supporting posts, means connecting said latch means and said upstanding portion of said operating rod, and means on said gate to engage said latch means when said gate is in a closed position; whereby upon moving said operating rods said gate may be opened or closed and said latch means operated simultaneously.

1,209,272. SUCTION-CLEANER. FREDERICK A. ENGLISH, Chicago, Ill., assignor to Birtman Electric Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 13, 1914. Serial No. 856,681. (Cl. 15—60.)



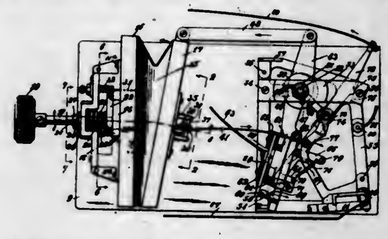
1. In a suction-cleaner, an upright motor-casing, a fan-casing on the lower end of the motor-casing provided with an exhaust-nozzle and a bottom opening, a suction-nozzle extending across the bottom of the fan-casing, forward rollers journaled on the fan-casing, a roller-bearing and a nut-carrying lip centrally on the rear side of the fan-casing, a roller adjustably journaled in said bearing, and a screw working in the nut and connected with the roller for adjusting it to raise and lower the nozzle.

2. In a suction-cleaner, an upright motor-casing, a fan-casing on the lower end of the motor-casing provided with an exhaust-nozzle and a bottom opening, a suction-nozzle extending across the bottom of the fan-casing, forward rollers journaled on the fan-casing, a roller-bearing centrally on the rear side of the fan-casing comprising bifurcated members, a lip extending adjacent said members and provided with a nut, a screw working in said nut, a yoke on said screw and embracing said bearing-members, a journaling pin supported at its ends on the yoke-arms to work in the bifurcations of said members, and a roller on the pin between said bearing-members.

3. In a suction-cleaner, an upright motor-casing, a fan-casing on the lower end of the motor-casing provided with a bottom opening, a suction-nozzle extending across the bottom of the fan-casing, and a slide-valve fitting the mouth of said nozzle and attached thereto to adapt it to be longitudinally adjusted thereon for regulating the size of the mouth-opening to correspond approximately with the dimensions of tuft-buttons and the like to be cleaned by application thereto of the nozzle.

4. In a suction-cleaner, an upright motor-casing, a fan-casing on the lower end of the motor-casing provided with a bottom opening, a suction-nozzle extending across the bottom of the fan-casing and at its ends beyond the same, a slide-valve fitting the mouth of said nozzle and provideded with a recess in one end, and spring fingers on the inner face of said valve to enter said mouth and removably and reciprocably attach the valve in place.

1,209,273. TIME-CONTROLLED ELECTRIC SWITCH. CHARLES FAYER, New York, N. Y., assignor to Wappler Electric Company, Inc., a Corporation of New York. Filed June 12, 1916. Serial No. 103,132. (Cl. 161—25.)



1. In an apparatus of the character described the combination of contact mechanism for opening and closing an electric circuit, a movable member connected to said contact mechanism for the purpose of actuating the same, means for conferring upon said movable member a movement in one direction to cause said contact mechanism to close and open said electric circuit, a pneumatic retarding device connected to said movable member in order to retard the movement thereof in said direction, a setting lever for shifting said movable member in the opposite direction and preventing said contact mechanism from being closed while said movable member is thus being shifted, and trigger mechanism for holding said movable member in the position into which it is thus shifted, said trigger mechanism being controllable at the will of the operator for releasing said movable member.

2. In an apparatus of the character described the combination of contact mechanism for opening and closing an electric circuit, a movable member connected to said contact mechanism in order to actuate the same, means for conferring upon said movable member a movement in one direction to cause said contact mechanism to close and open said electric circuit, a pneumatic retarding device connected to said movable member in order to retard the movement thereof in said direction, a setting lever for shifting said movable member in the opposite direction, and mechanism connected with said setting lever and said pneumatic device and controllable by a movement of said setting lever for venting said pneumatic device while said setting lever is shifting said movable member.

3. In an apparatus of the character described the combination of contact mechanism for closing and opening an electric circuit, a movable member connected to said contact mechanism, means for conferring upon said movable member a movement in one direction to cause said contact mechanism to close and open said electric circuit, a pneumatic retarding device connected to said movable

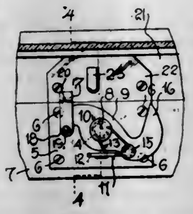
member in order to retard the movement thereof in said direction, a setting lever controllable at the will of the operator for shifting said movable member in the opposite direction, trigger mechanism for holding said movable member when thus shifted, said trigger mechanism being controllable at the will of the operator for releasing said movable member, and means for retracting said setting lever into a predetermined normal position independently of the position in which the rocking lever is set.

4. In an apparatus of the character described the combination of contact mechanism for closing and opening an electric circuit, a movable member connected to said contact mechanism, means for conferring upon said movable member a movement in one direction to cause said contact mechanism to close and open said electric circuit, means for retarding said movable member as it moves in said direction, mechanism controllable at the will of the operator for shifting said movable member in the opposite direction and trigger mechanism for holding said movable member when thus shifted, said trigger mechanism being controllable at the will of the operator for releasing said movable member.

5. In an apparatus of the character described, the combination of contact mechanism for closing and opening an electric circuit, a movable member connected to said contact mechanism, means for shifting the position of said movable member in order to actuate said contact mechanism, a pneumatic retarding device connected with said movable member for retarding the travel thereof, said pneumatic retarding device having an air hole and a channel merging into said air hole for admitting air, said pneumatic device being further provided with a snail cam disposed adjacent said air hole and channel, and adjustable for the purpose of adjusting the capacity thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,209,274. SASH-LOCK. MARSENA G. FINCH, Franklinville, N. Y. Filed May 1, 1916. Serial No. 94,737. (Cl. 16—145.)



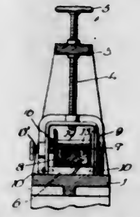
1. In a sash lock, a locking lever pivotally mounted on the top rail of the lower sash, a keeper on the meeting rail of the upper sash, a spring acting to normally hold one end of the lever in engagement with the keeper, and means on the other end of the lever automatically engaging over the outer edge of the rail on the lower sash when said lever is moved out of engagement with the keeper to retain said lever in an inoperative position against the action of said spring.

2. In a sash lock, a locking lever pivotally mounted on the top rail of the lower sash, a keeper on the meeting rail of the upper sash, a spring acting to normally hold one end of the lever in engagement with the keeper, and a yieldable latch element fixed to the other end of the lever and movable therewith having an offset to engage over the outer edge of the lower sash rail and hold said lever in its inoperative position against the action of said spring.

3. In a sash lock, a locking lever pivotally mounted on the top rail of the lower sash, a keeper on the meeting rail of the upper sash, a spring acting to normally hold one end of the lever in engagement with the keeper, and a leaf spring fixed at one of its ends to the other end of the locking lever and having its free end offset for engagement over the outer edge of the lower sash rail to hold said lever in its inoperative position against the action of the first named spring, said offset end of the leaf spring being adapted for engagement by the meeting rail of the upper sash when the latter is moved to its closed position whereby said locking lever is released.

4. In a sash lock, a base plate fixed upon the meeting rail of the lower sash, a spring-pressed locking lever pivotally moutned on said base plate, a lug fixed to said plate and having a lip spaced from the upper surface of the plate, a plate fixed to the meeting rail of the upper sash, a curved keeper rod on said plate, one end of said pivoted lever having a hook bill thereon, and a coil spring acting upon said lever to normally engage the hook bill with the keeper rod and draw the meeting rails of the sashes into tight engagement with each other, the other end of said lever being engaged beneath the lip on said lug.

1,209,275. METHOD OF TREATING JOINT-MEAT AND THE LIKE AND PRODUCT THEREOF. HUGH J. FINN, Kansas City, Mo., assignor to Sulzberger & Sons Company, Chicago, Ill., a Corporation of New York. Filed May 1, 1916. Serial No. 94,827. (Cl. 99—8.)



1. As a new article of manufacture, a cooked meat joint having its bones removed and being compacted in a direction transverse to the length of the fibers to fill the voids caused by the removal of the bones, with its top, bottom and sides flattened, and substantially rectangular in form.

2. The herein described method of treating joint meat which consists in removing the bones, disposing the joint in a suitable mold, subjecting the joint in said mold to compression in directions transverse to the meat fibers while the joint is restrained from expansion longitudinally of said fibers to compact the joint and fill the voids caused by the removal of the bones and to flatten the opposite sides of the joint and cause said sides to assume a rectangular form, and cooking the joint while under compression.

3. The herein described method of treating joint meat which consists in removing the bones, inclosing the joint in a wrapper, disposing the wrapped joint in a suitable mold, subjecting the joint in said mold to compression in directions transverse to the meat-fibers while the joint is restrained from expansion longitudinally of said fibers by said wrapper to compact the joint and fill the voids caused by the removal of the bones and to flatten the opposite sides of the joint and cause said sides to assume a rectangular form, and cooking the joint while under compression.

1,209,276. APPARATUS FOR TREATING HAMS, SHOULDERS, OR JOINT-MEAT IN GENERAL. HUGH J. FINN, Kansas City, Mo., assignor to Sulzberger & Sons Company, Chicago, Ill., a Corporation of New York. Filed May 1, 1916. Serial No. 94,826. (Cl. 99—2.)



1. In an apparatus of the character described, the combination of a mold having a bottom and yielding sides, open ends and a removable top, and means for applying pressure to said sides and top.

2. In an apparatus of the character described, the combination of a mold having a bottom and integral sides, a removable top, means for applying pressure to said sides and top, and means for securing said top and sides in position when the material within said mold has been compressed.

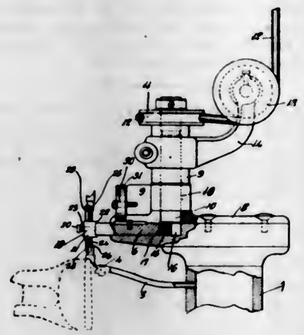
3. In an apparatus of the character described, the combination of a mold having a bottom and integral sides, a removable top, means for applying pressure to said sides and top, said sides being provided with a plurality of alined holes, and bolts for securing said top and sides in position when the material within said mold has been compressed.

4. In an apparatus of the character described, the combination of a mold having a bottom and integral sides, a removable top, clamping members embracing said mold for applying pressure to said sides, means for applying pressure to said top, and means for securing said top and sides in position when the material within said mold has been compressed.

5. In an apparatus of the character described, the combination of a mold having a bottom and integral sides, a removable top, clamping members embracing said mold for applying pressure to said sides, a pressure plate adapted to engage said top, means for applying pressure to said plate, said sides being provided with a plurality of alined openings, and bolts adapted to engage said openings to secure said top in position when the material within said mold has been compressed, said pressure plate having grooves on its under side to allow the insertion of said bolts.

[Claims 6 to 10 not printed in the Gazette.]

1,209,277. SHOE-EDGING MACHINE. FRANK B. FREEMAN, Dayton, Ky., assignor to The Krohn Fechheimer Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 29, 1915. Serial No. 63,917. (Cl. 12—78.)

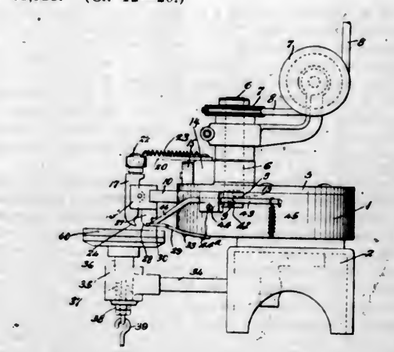


1. In a device of the character described, a base plate, means for mounting the same, a slot in the base plate, a bar in the slot extending beyond the base plate, said bar and slot each having a T-portion, a top plate, means therein for journaling a vertical shaft, a sliding member in the bar, and an eccentric stud on the shaft to engage said sliding member, to cause the bar to slide in the slot, for the purpose described.

2. In a device of the character described, in combination with a casing, and a member slidingly mounted therein so as to slide laterally only, a depending tool secured to said member and against which the work is to be pressed, a roller bearing, and means for mounting the same in the casing so as to contact with the upper side of the sliding member.

3. In a device of the character described, in combination with a casing, and a member slidingly mounted therein so as to slide laterally only, a depending tool secured to said member and against which the work is to be pressed, a roller bearing, and means for mounting the same in the casing so as to contact with the upper side of the sliding member when the said member is strained upwardly by the upward pressure of the work.

1,209,278. MACHINE FOR REINFORCING INSOLES. FRANK B. FREEMAN, Dayton, Ky., assignor to The Krohn Fechheimer Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 29, 1915. Serial No. 63,918. (Cl. 12—20.)



1. In a machine of the character described, the combination with operating mechanism, a vibrating member, a pivoted lip engaging tool on said member, an abutment arranged with the surface thereof at an acute angle to the line of vibration of said member, and means for maintaining one end of said tool against said abutment, to give its working end a diagonal movement toward the lip of an insole being operated upon.

2. In a machine of the character described, the combination with operating mechanism, a horizontal vibrating member actuated thereby to vibrate horizontally, a work support, a pivoted tool on the vibrating member to press the canvas around the inner side of the lip of a reinforced insole, said tool being located over the work support, and means for giving an angular movement with relation to the work to the one end of the tool to cause the other end to have a diagonal movement toward the lip and along the face of the insole, to press down the canvas, and feed the insole over the table.

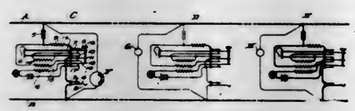
3. In a machine of the character described, the combination with an operating mechanism, a vibrating member actuated thereby to vibrate horizontally, a pivoted lip-engaging tool on said member resting in contact with the work, and means for giving an angular movement, at an acute angle to the lip of an insole being operated upon, to the one end of the tool, to cause the other end to describe a like path, for the purpose described.

4. In a machine of the character described, in combination with an operating mechanism, a tool for pressing the canvas around the inside of an insole lip, means maintaining said tool against the canvas surface of the insole and for intermittently bringing said tool into contact with such lip on the inside, and a tool for intermittently contacting with said lip on the outside simultaneously with the other tool.

5. In a machine of the character described, in combination with an operating mechanism, a tool for pressing the canvas around the inside of an insole lip, means for intermittently bringing said tool into contact with such lip, and a tool for contacting with said lip on the outside simultaneously with the other tool, and another tool for intermittently contacting with the outside of the lip prior to the contact of the other tools.

[Claims 6 to 15 not printed in the Gazette.]

1,209,279. TELEPHONE TRANSMISSION SYSTEM. WILLIAM A. FRICKE, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 17, 1913. Serial No. 754,853. (Cl. 179—28.)



1. In a telephone system, a metallic line circuit, a bridge across said circuit, said bridge including a pair of branches, a winding of an induction coil connected with one of said branches, a telephone transmitter in a local circuit inductively associated with said winding, a receiver connected in the other branch, a switch for disconnecting said receiver from the path of voice currents passing through said winding, a tertiary winding for said induction coil, and means for including said tertiary winding in series with said receiver.

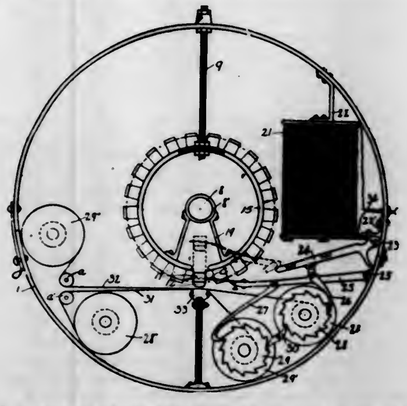
2. In a telephone system, a metallic line circuit, a bridge across said line circuit, said bridge including a condenser and a hook switch, a pair of parallel connections between said condenser and switch, one of said parallel connections including a winding of an induction coil, a transmitter in a local circuit inductively associated with said winding, a receiver in the other branch, and a switch normally maintaining the branch through said receiver closed and the branch through the winding of the induction coil open, said switch adapted when operated to open the normally closed branch and close the normally open branch, whereby said receiver is removed from the path of voice currents passing through said winding, a tertiary winding for said induction coil, normally open connections from said tertiary winding to said receiver, and a switch for closing said normally open connection.

3. In a telephone system, a metallic line circuit, a bridge across said circuit, said bridge including a condenser and a pair of parallel branch connections, a transmitter operatively associated with one of said branches, a receiver operatively connected in the other of said branches, a multiple switch maintaining said transmitter branch normally open and said receiver branch normally closed, means whereby said switch upon operating closes said transmitter branch and opens said receiver branch on both sides of said receiver, a normally open local circuit for said receiver inductively related to said transmitter, and means whereby said multiple switch when operated closes said local circuit.

4. In a telephone system, a metallic line circuit, a bridge across said circuit, said bridge including a condenser and a hook switch, connections between the same including two parallel branches, a winding of an induction coil in one of said branches, a transmitter inductively associated with said winding, a receiver connected in the other of said branches, a multiple switch maintaining said receiver branch normally closed and said transmitter branch normally open, means whereby said switch upon operating closes said transmitter branch and opens said receiver branch on both sides of said receiver, and a tertiary winding for said induction coil, said tertiary winding being included in a normally open local circuit in said receiver, said local circuit adapted to be closed by the operation of said multiple switch.

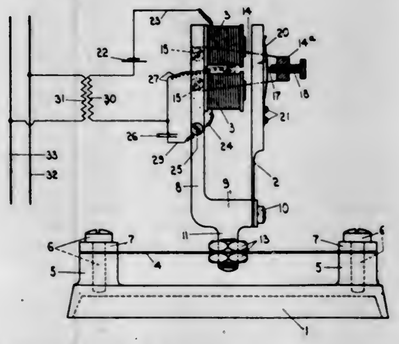
1,209,280. FARE INDICATOR AND RECORDER. CREED C. FRUM, Clarksburg, W. Va. Filed Sept. 30, 1915. Serial No. 53,372. (Cl. 234—3.)

1. A fare indicating and recording machine of the character described, comprising a case having an outer face with fare numerals on the rim thereof and a shaft extending through the center of the said case, a stationary ring support encircling said shaft and centrally suspended within said case and having an open space extending crosswise at the bottom of said ring support, a rotating disk rigidly mounted upon the said shaft, and having a plurality of straight slots spaced apart equal distances from each other upon the face of said disk, the said slots extending from the outer rim of said disk in a central direction to the ring support having, sliding, type-bearing members engaging said slots, and means for turning and rotating said disk around the said ring support substantially as described.



2. A fare indicating and recording machine of the character described, comprising a case having a shaft extending through the center of said case, a ring disk support within said case, a rotating disk mounted on said shaft, and having a plurality of straight slots upon the face of said disk, a plurality of sliding indicating and recording members, which engage the slots of said disk for sliding within said slots, and having inwardly projecting type-bearing portions on the inner end of said sliding members which respectively engage the slot at the bottom of the ring support, and means for raising and dropping by gravitation the said sliding members for indicating and recording fares as shown and set forth.

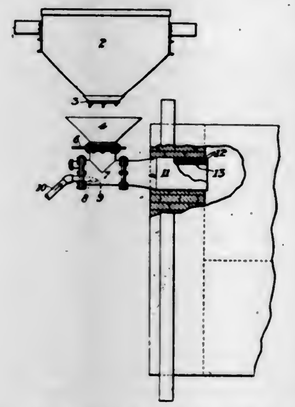
1,209,281. ELECTRICAL VIBRATORY CONTACT MAKER AND BREAKER. JOHN GARDNER, Knott End, near Fleetwood, England, assignor to John Patrick O'Donnell, London, England. Filed Aug. 9, 1915. Serial No. 44,617. (Cl. 175—349.)



1. In a device of the character described, a supporting base provided with projections, a substantially horizontal spring extending between the said projections, a rigid arm having its lower end portion secured to the middle part of the said spring, a vibrating armature carried by the said arm, an electromagnet secured to the upper part of the said arm and arranged between it and the said armature, a support insulated from the electromagnet, and a contact device carried by the said support and armature and operating to close the circuit intermittently.

2. In a device of the character described, a supporting base provided with projections, a substantially horizontal spring extending between the said projections, a rigid arm having its lower end portion secured to the middle part of the said spring, a vibrating armature carried by the said arm, an electromagnet secured to the upper part of the said arm and arranged between it and the said armature, a support secured to the said arm and insulated from the electromagnet and extending crosswise of the said armature, a contact spring secured to the opposite side of the said armature from the electromagnet, and a contact piece carried by the said support and engaging intermittently with the said contact spring.

1,209,282. PROCESS AND APPARATUS FOR CONVERTING MATTE. SAMUEL RICHARD GARR, Garfield, Utah, assignor to American Smelting & Refining Co., a Corporation of New Jersey. Filed Oct. 21, 1915. Serial No. 57,030. (Cl. 75—62.)



1. A process of smelting ores and matte which consists in disseminating fluent silica in a closed space above the material while the same is being treated and allowing said silica to settle in substantially uniform quantities over the surface.

2. In the art of smelting, the process which consists in disseminating silica over the charge during the process of converting.

3. The process of treating ores and matte which consists in forcing fluent silica containing some moisture above the surface of a converter charge and allowing the same to settle on the charge.

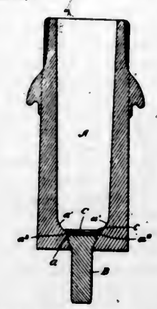
4. In the art of treating ores, the process which consists in blowing silica into a converter containing a bath of ore and into the space therein above the level of the bath.

5. The combination with a converter, of a barrel extending through a wall thereof, means for supplying material to the barrel, means associated with the barrel for cooling the material therein, and means for forcing the material from the barrel into the converter.

[Claims 6 to 10 not printed in the Gazette.]

1,209,283. INGOT-MOLD. EMIL GATHMANN, Baltimore, Md. Filed June 29, 1916. Serial No. 106,601. (Cl. 22—139.)

1. An ingot mold having a bottom opening and a sealing closure for the bottom opening consisting of a plate onto which the metal is poured and which is of larger diameter than said opening and the edge of which rests upon the bottom walls of the mold above the opening therein and seals the mold cavity.



2. An ingot mold having a bottom opening and a necked-in portion provided with a rounded part surrounding the bottom opening and a sealing closure consisting of a plate the edge of which rests upon said rounded portion of the mold walls.

3. An ingot mold having a bottom opening and a necked-in portion at its lower end provided with a rounded portion surrounding the bottom opening and a sealing closure consisting of a plate having a rim engaging said rounded portion and sealing the mold cavity.

4. An ingot mold having a bottom opening, a stripping plug in said opening, a metal sealing plate of larger diameter than the opening and the edge of which engages the mold walls above the bottom opening therein and seals the mold cavity above the plug.

5. An ingot mold having a bottom opening and a necked-in portion surrounding the bottom opening provided with a rounded part around said opening, a stripping plug in the bottom opening of the mold and a sealing plate resting on the plug and having a flange engaging said rounded part of the necked-in portion of the mold.

[Claims 6 to 8 not printed in the Gazette.]

1,209,284. EYE-SHIELD FOR HEAD-COVERINGS. SIMON N. GAZAN, Savannah, Ga. Filed Sept. 18, 1916. Serial No. 120,750. (Cl. 2—149.)



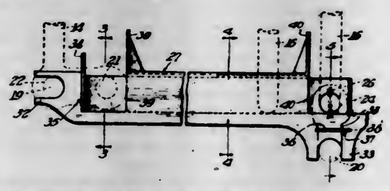
1. The combination with an article of head covering, of an eye-shield pivotally-connected with said head covering interiorly and at the front thereof for movement about an axis perpendicular to the side walls of said head covering adjacent the eye-shield whereby said eye-shield can be moved from operative to inoperative positions without removing the head covering from the head, said eye-shield when in operative position depending from the head covering and when in inoperative position being within the head covering, and means between the eye-shield and the head covering for holding the former in its respective positions.

2. A head covering provided on the inner face around the front part of the rim with three or more fastening members, and an eye-shield provided along its inner edge with a pair of fastening members coacting with the fas-

tening members on the head covering, one of the fastening members between the shield and head covering acting as a pivot on which the shield is swung lengthwise to operative position exteriorly of the head covering and to concealed position interiorly of the head covering, the other fastening member on the shield coacting in the concealed position of the shield with one of the fasteners on the head covering and in the exposed position of the shield with another of said fastening members on the head covering.

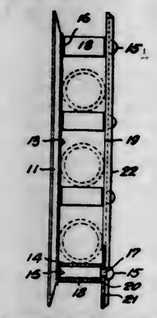
3. A head covering provided within the same with three fastening members placed in a line adjacent the rim and equidistant, and an eye shield provided adjacent the inner edge thereof with two fastening members coacting with the fastening members on the head covering, said fastening members on the eye-shield being placed one near each end of the shield and placed a distance apart equal to the distance between adjacent fastening members on the head covering, one of the fastenings between the shield and head covering acting as a pivot on which the shield is swung lengthwise to engage the other fastening member on the shield with one or the other of the remaining unengaged fastening members on the head covering.

1,209,285. TOP-GUARD FOR AUTOMOBILES. JOHN H. GIRSCH, Aurora, Ill. Filed Dec. 4, 1915. Serial No. 64,954. (Cl. 21—62.)



The combination with the front and rear top bows and their carrying brackets, the rear bows having right angle extensions near their connection with the brackets for engagement with the front bows when the top is collapsed, of a detachable guide member arranged at each end for connection with the said brackets, said member having top, bottom and side walls, with a portion of the top wall removed to form a longitudinal channel in which the lower end of the front bow may be guidedly supported in its movement between its rear collapsed position and its front erected position, the end portion of one wall being cut away to permit insertion in or removal of the bow end from the channel, and a latch pivotally connected with the guide member near the rear thereof for engagement with the right angle extension of the rear bow when in its erected position.

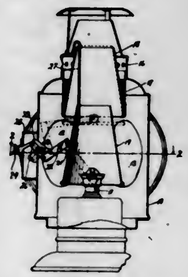
1,209,286. PIPE-HANGER. HERBERT E. GOODWIN, Lachine, Quebec, Canada. Filed Jan. 31, 1916. Serial No. 75,398. (Cl. 248—34.)



1. In a pipe hanger, a base, posts projecting therefrom, a shoulder at the inner end of each post, a groove at the outer end of each post, a revoluble sleeve on each post occupying the space between the shoulder and groove, and a cap member engageable in the post grooves retaining said sleeves.

2. In a pipe hanger, a base, posts thereon, each having a circumferential groove adjacent the free end, a cap member having apertures therein each larger at one end than the other, the larger ends of the apertures being adapted for the passage of the posts.

1,209,287. SIGNAL-LAMP. WILLIAM S. HAMM, Hubbard Woods, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 19, 1914. Serial No. 813,029. (Cl. 240—22.)



1. In a signal lamp, in combination, a casing having a plurality of light-emitting apertures, a burner within the casing, a conical chimney flue above the burner, a conical opaque screen having a lateral light-emitting aperture, such screen being adapted to fit within the chimney and being movable to inclose the burner and bring its aperture into register with a light-emitting aperture of the casing.

2. In a signal lamp, in combination, a casing having a plurality of light-emitting apertures, a burner within the casing, a conical chimney flue above the burner, a conical opaque screen having a lateral light-emitting aperture, such screen being adapted to fit within the chimney and being movable to inclose the burner and bring its aperture into register with a light-emitting aperture of the casing, and means without the casing for moving the screen.

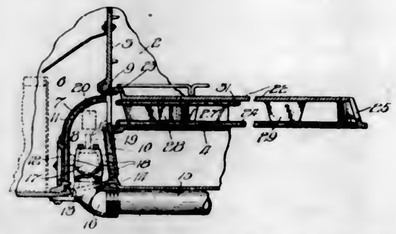
3. In a signal lamp, in combination, a casing having a plurality of light-emitting apertures, a burner within the casing, a conical chimney flue above the burner, a conical opaque screen having a lateral light-emitting aperture, such screen being adapted to fit within the chimney and being movable to inclose the burner and bring its aperture into register with a light-emitting aperture of the casing, a yoke pivotally attached to the screen, a lever pivoted to the casing and to the yoke, and means without the casing for actuating the lever.

4. In a signal lamp, in combination, a casing having a plurality of light-emitting apertures, a burner within the casing, a conical chimney flue above the burner, a conical opaque screen having a lateral light-emitting aperture, such screen being adapted to fit within the chimney and being movable to inclose the burner and bring its aperture into register with a light-emitting aperture of the casing, a yoke pivotally attached to the screen, a lever pivoted to the casing and to the yoke, means without the casing for actuating the lever, and a guide rod depending within the screen.

5. In a lamp, in combination, a casing having a plurality of light-emitting apertures and means for introducing a supply of air in its upper portion, a burner within the casing, a chimney flue, a screen adapted to inclose the burner provided with an aperture adapted to register with one of the casing apertures, its upper end being of less diameter than the lower end of the flue, and means for vertically moving the screen.

[Claim 6 not printed in the Gazette.]

1,209,288. COMBINED COAL AND GAS RANGE. AUGUSTUS F. HARTER, Chicago, Ill., assignor to Cribben & Sexton Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 21, 1914. Serial No. 857,826. (Cl. 126—36.)



1. In a combined coal and gas range, an oven having an elongated opening extending through the wall into the ash pit adjacent to the bottom of the oven, an outwardly and downwardly curved wall extending from the top of said opening to the bottom of the ash pit and forming a combustion chamber, the latter wall having a flange extending through the top of said opening and projecting into the oven.

2. In a combined coal and gas range, an oven having an elongated opening extending through the wall into the ash pit adjacent to the bottom of the oven, an outwardly and downwardly curved wall extending from the top of said opening to the bottom of the ash pit and forming a combustion chamber, the latter wall having a flange extending through the top of said opening and projecting into the oven, a burner in the said combustion chamber, and an oven plate engaging with the aforesaid flange for directing the hot gases from said chamber along the bottom of the oven.

3. The combination with a coal range, of a combustion chamber formed out of the lower corner of the ash pit adjacent to the oven, there being an opening leading from the upper portion of the chamber into the oven just above the oven bottom, and an oven plate comprising a heat insulating member adapted to rest upon and cover the oven bottom and an upper member lying above the other member and adapted to extend from the wall of the oven just above said opening almost across the oven, and said chamber having therein a door leading to the ash pit and large enough to permit the insertion and removal of the burner therethrough.

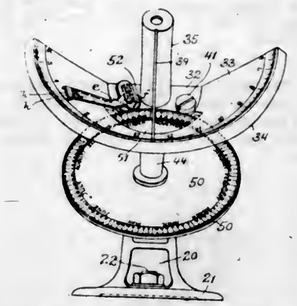
4. The combination with a coal range, of a combustion chamber formed out of the lower corner of the ash pit adjacent to the oven, there being an opening leading from the upper portion of the chamber into the oven just above the oven bottom, and an oven plate comprising a heat insulating member adapted to rest upon and cover the oven bottom and an upper member lying above the other member and adapted to extend from the wall of the oven just above said opening almost across the oven.

5. The combination with a coal range, of a combustion chamber formed out of the lower corner of the ash pit adjacent to the oven, there being an opening leading from the upper portion of the chamber into the oven just above the oven bottom, and an oven plate comprising a heat insulating member adapted to rest upon and cover the oven bottom and an upper member lying above the other member and adapted to extend from the wall of the oven just above said opening almost across the oven, said upper member having an imperforate foot flange along the front edge and adapted to rest on the oven bottom.

[Claim 6 not printed in the Gazette.]

1,209,289. SUN-DIAL. JAMES HARTNESS, Springfield, Vt. Filed Feb. 8, 1915. Serial No. 6,910. (Cl. 33—62.)

1. A sun dial having a dial provided with an hour scale, a gnomon arranged to cast a shadow on said scale to indicate time, and means including a calendar wheel for adjusting the dial to compensate for the equation of time.



2. A sun dial having a dial provided with an hour scale, a gnomon arranged to cast a shadow on said scale to indicate time, a fixed support for the dial, and a calendar wheel for adjusting the dial relatively to the support from time to time to compensate for the equation of time.

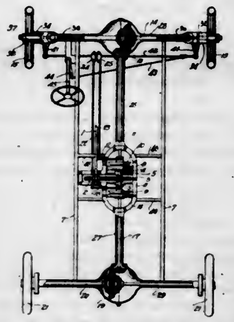
3. A sun dial comprising a dial provided with an hour scale, a gnomon arranged to cast a shadow on said scale to indicate time, and rotatable-adjusting means for adjusting the dial to compensate for the equation of time.

4. A sun dial comprising a dial provided with an hour scale, a gnomon arranged to cast a shadow on said scale to indicate time, a pivot for the dial, and a calendar wheel for adjusting said dial about said pivot to compensate for the equation of time.

5. A sun dial comprising a dial having an hour scale, a gnomon for casting a shadow thereon, a pivot for the dial, and rotatable adjusting means to adjust said dial about its pivot.

[Claims 6 to 15 not printed in the Gazette.]

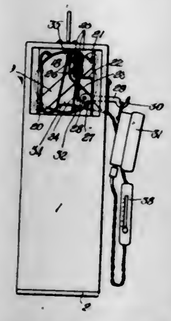
1,209,290. RUNNING-GEAR FOR AUTOMOBILES. WILLIAM A. HASSELL, Jr., Kellerman, Ala., assignor of forty-nine one-hundredths to H. L. Franklin, Kellerman, Ala. Filed Nov. 8, 1915. Serial No. 60,238. (Cl. 21—90.)



In a running gear for automobiles, a main power shaft, a countershaft geared to the main power shaft, clutches at each end of the countershaft, a forward and a rear power transmitting shaft adapted to be connected by said clutches to the countershaft, a rear driving axle and gearing to drive it from the rear transmission shaft, a forward sectional driving shaft, gearing to drive it from the forward transmission shaft, expansion joints between said sections of said forward driving shaft, a universal joint connecting the outer end sections of said forward driving shaft to the portions thereof having the expansion

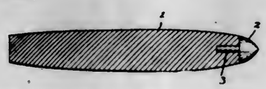
joints, steering knuckles which support the forward wheels and which are U-shaped to receive said universal joints, and a bearing support in the frame for the forward driving axle and said steering knuckles, substantially as described.

1,209,291. TELEPHONE APPARATUS. KENNETH B. HASTINGS, Boston, Mass., assignor to Globe Ear-Phone Company, Boston, Mass., a Corporation of Massachusetts. Filed May 15, 1915. Serial No. 28,329. (Cl. 179—107.)



An apparatus of the kind described to aid defective hearing, adapted for use by the public, comprising a receptacle inclosing and containing a telephone transmitter, sound concentrating means held and concealed in said casing in position for instant use and leading to the transmitter, a source of electrical energy within said receptacle and connected to the transmitter, and adapted to be thrown into and out of circuit by an external switch, a telephone receiver adapted for use at a distance from the receptacle and to control the switch, in combination with a rheostat adjacent the receiver to regulate the current supply to said instrument and thereby adjust the tone to the hearing of said user.

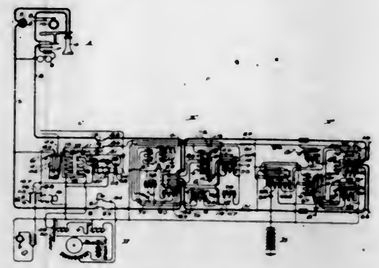
1,209,292. CIGAR-TIP. HARRY N. HEMPSTEAD, Indianapolis, Ind. Filed Mar. 19, 1913. Serial No. 755,321. (Cl. 131—52.)



A removable cigar tip adapted to be separably embodied in the body of the cigar and comprising a conical head shaped to conform to the contour at the head of the cigar and when in use to complete and finish out said head and having a centrally disposed shank adapted to extend into the cigar and to be retained therein by frictional contact only, the shoulder between the shank and the head of said tip being a substantially straight face which when in use is adapted to abut closely against a correspondingly formed straight face on the end of the cigar, whereby the end of the cigar is closed and protected and at the same time a central perforation therein is formed when the tip is removed, substantially as set forth.

1,209,293. AUTOMATIC TELEPHONE SYSTEM. HARRY E. HERSHEY, Whitewater, Kans., and GEORGE A. YANOCHOWSKI, Chicago, Ill., assignors to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 28, 1913. Serial No. 803,525. (Cl. 179—18.)

1. In a telephone system, a series of switches for establishing connection between a calling and a called telephone line, a repeater, and means in said repeater for transmitting back to the switches on the calling side of said repeater a release which is initiated on the called side of said repeater.



2. In a telephone system, a repeater, a connector, and means for opening the line circuit beyond said repeater when the connector strikes a busy line.

3. In a telephone system, a connector, a pair of conductors extending to said connector, a bridge across said conductors, and means for opening said bridge at a point between said conductors when said connector lands on a busy line.

4. In a telephone system, a connector, a pair of conductors extending to said connector, a bridge across said conductors, means for opening said bridge at a point between said conductors when said connector lands on a busy line, and means controlled by the opening of said bridge for releasing said connector.

5. In a telephone system, a connector, a front bridge in said connector, means for opening said bridge when said connector lands on a busy line, and means controlled by the opening of said bridge for releasing said connector and any other switches involved in extending the connection to said connector.

[Claims 6 to 36 not printed in the Gazette.]

1,209,294. WEAR-RESISTING ARM FOR BEETLING-MACHINES. JAMES HEYWOOD, Seedley, Manchester, England. Filed Jan. 23, 1915. Serial No. 3,987. (Cl. 74—1.)



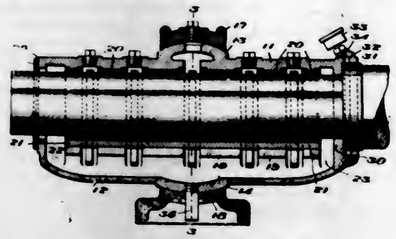
A faller arm for a beetling machine having a screw-threaded hole formed in one end portion of it and arranged crosswise of its length, and a screwthreaded plug of wear-resisting material secured in the said hole and operating to reduce the wear on the end portion of the said arm.

1,209,295. UNIVERSAL BEARING. JOSEPH L. HILLER, Mattapoisett, Mass. Original application filed Jan. 25, 1911, Serial No. 604,621. Divided and this application filed Sept. 25, 1915. Serial No. 52,663. (Cl. 64—24.)

1. A ball and socket bearing comprising upper and lower parts, and a socket for the bearing comprising upper and lower parts, the bearing and socket surfaces having complemental ball surfaces, the ball surface of the lower part being formed on a larger radius than the ball surface of the upper part.

2. A ball and socket bearing comprising two parts having ball portions, the ball portion of one part being formed on a larger radius than the ball portion of the other part.

3. A ball and socket bearing comprising upper and lower parts each provided with ball portions, the ball portion of the lower part being formed on a larger radius than the ball portion of the upper part.

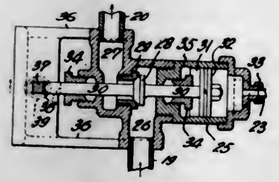


4. A ball and socket bearing comprising upper and lower parts provided with ball portions, the lower ball portion having a bearing surface continuous throughout its length and being provided below such bearing surface with a continuous unbroken oil-well from end to end thereof.

5. A ball and socket bearing comprising upper and lower parts provided with ball portions, the lower part being provided with a plurality of supporting ribs, a bearing member on said ribs on which said shaft rests, and an oil well in said lower part beneath said ribs and said supporting member.

[Claims 6 to 16 not printed in the Gazette.]

1,209,296. AUTOMATIC TRAIN-STOPPING DEVICE. WILLIAM S. HOLDSHIP and FREDERICK L. JONES, Montreal, Quebec, Canada. Filed May 24, 1915. Serial No. 30,043. (Cl. 246—59.)

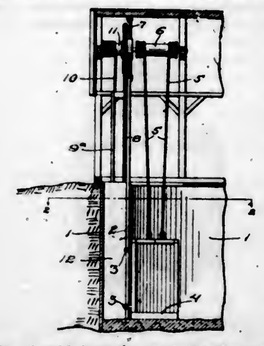


In a device of the character described, the combination with a locomotive and its air brake apparatus, of a signal, a pipe connecting the train pipe with said signal, a valve located in said pipe including a casing, and a spindle projecting therefrom, a yoke carrying said valve, a rod slidable in the yoke and adapted to engage a fixed stop, a cam movable by said rod under the stem to open said valve, means for retracting the rod and cam, and means for closing the valve by the application of air pressure.

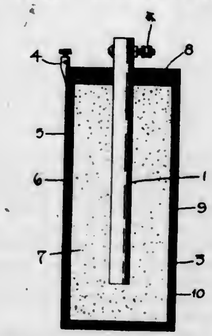
1,209,297. STORAGE-PIT. ELIJAH A. HOLLENBECK and WILBERT G. HUFF, Holdrege, Nebr. Filed May 21, 1915. Serial No. 29,625. (Cl. 187—1.)

1. The combination with a storage pit, a vertically disposed elevator track, a housing adjacent thereto, providing a well, a counterbalance adapted to operate vertically in said well, a control rope depending in said well, an elevator cage mounted to engage with and travel upon the track, and hoisting mechanism located above the well and cage; the wall of the well presented toward the cage being constructed of separately removable and replaceable sections.

2. In combination with a storage pit, a vertically disposed elevator track, a housing adjacent thereto, providing a well, a counterbalance adapted to operate vertically in said well, a control rope depending in said well, an elevator cage mounted to engage with and travel upon the track, and hoisting mechanism located above the well and cage; the wall of the well presented toward the cage being constructed of separately removable and replaceable sections; the track for the elevator cage being mounted on the outside of said housing, and its floor being adapted to descend below the upper edges of the wall sections when in place.



1,209,298. DRY CELL. WILLIAM HOPPIE, Lawndale, Cal., assignor to William J. Latchford, Los Angeles, Cal. Filed Feb. 14, 1916. Serial No. 78,204. (Cl. 204—34.)



1. In a dry cell, a coating for one of the electrodes consisting of an organic viscid substance, a bibulous lining therefor, a viscid coating upon the bibulous lining and a second bibulous lining placed thereon.

2. In a dry cell, a container constituting one of the electrodes, an interior coating for the container consisting of an organic viscid substance, a bibulous lining therefor, a viscid coating upon the inner face of the bibulous lining, and a second bibulous lining placed thereon.

1,209,299. ROTARY BORING-DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Dec. 30, 1914. Serial No. 879,787. (Cl. 255—71.)

1. A disk drill comprising a substantially disk-shaped cutter provided on its periphery with a cutting surface and arranged in such a manner that it forms an annular groove in the bottom of the hole and simultaneously removes the material from the side wall of the hole at a point some distance above the bottom of the hole, one of the upright side faces of said cutter being equipped with a roughened cutting surface, separate and distinct from the cutting surface on the periphery of the cutter that acts on one of the side walls of said groove.

2. A disk drill having a substantially disk-shaped cutter arranged in an upright position and projecting laterally and downwardly from the head of the drill so that the edge portion of same will shear off the material from

the side wall of the hole and form an annular groove in the bottom of the hole some distance inwardly from the side wall, said cutter being provided on one of its upright side faces and on its periphery with separate and distinct sets of cutting teeth.



3. A disk drill having a vertically-disposed, substantially disk-shaped cutter arranged in the head of the drill with its lower portion and one of its side portions projecting from the head, and provided on its periphery with a toothed cutting surface that shears out the material from the side wall of the hole and forms an annular groove in the bottom of the hole, said cutter being provided with an independent toothed cutting surface that acts on the inner side wall of said groove and which is disposed at an angle to the cutting surface on the periphery of the cutter.

4. A disk-drill having a vertically-disposed, disk-shaped cutter that projects from the lower end and from the side of the drill head and thus shears off the material from the side wall of the hole and forms a groove in the bottom of the hole, said cutter being provided on its periphery and on one of its side faces with independent roughened cutting surfaces.

5. A disk drill having a substantially disk-shaped cutter arranged in such a manner that the edge portion of said cutter will shear off the material at the side wall of the hole at a point some distance above the bottom of the hole and form an annular groove on the bottom of the hole at a point some distance inwardly from said side wall, said cutter being provided with a beveled cutting edge and also having a rough cutting surface on one of its upright side faces that acts on one of the side walls of said groove.

[Claims 6 to 17 not printed in the Gazette.]

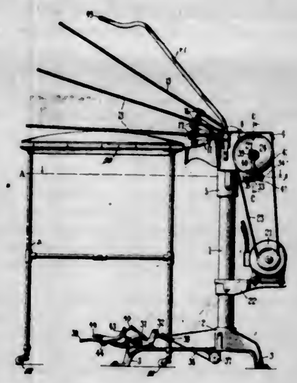
1,209,300. FUR-BEATING MACHINE. SELLMAR M. JACOBY, New York, N. Y. Filed July 28, 1915. Serial No. 42,365. (Cl. 38—12.)

1. A machine of the character described, comprising a casing, levers mounted therein, a series of beaters carried by said levers, means mounted on the casing for limiting the upward movement of the beaters, means for oscillating said levers, a slip clutch arranged to control said oscillating means whereby the speed of the beaters may be varied, and a support for the articles to be beaten.

2. A machine of the character described, comprising a casing, levers mounted therein, a series of beaters carried by said levers, yielding bearings for said beaters on said levers, means mounted on the casing for limiting the upward movement of the beaters, means for oscillating said levers, a slip clutch arranged to control said oscillating means whereby the speed of the beaters may be varied, and a support for the articles to be beaten.

3. A machine of the character described, comprising a casing, levers mounted therein, a series of beaters carried by said levers, yielding bearings having resilient bushings for said beaters, means for oscillating said levers, a slip clutch arranged to control said oscillating means whereby the speed of the beaters may be varied, and a support for the articles to be beaten.

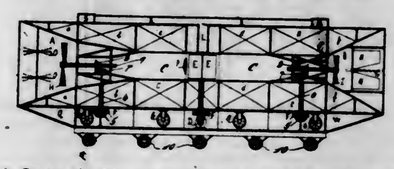
4. A machine of the character described, comprising a casing, levers mounted therein, a motor driven shaft mounted in said casing, means connecting the shaft with the levers for oscillating them, a slip clutch carried by the shaft, means for operating said clutch, a series of beaters carried by the levers, yielding bearings for said beaters on said levers, and a support for the articles to be beaten.



5. A machine of the character described, comprising a casing, levers mounted therein, a motor driven shaft mounted in said casing, means connecting the shaft with the levers for oscillating them, a slip clutch carried by the shaft, a foot controlled means for operating said clutch, a series of beaters carried by the levers, yielding bearings for said beaters on the levers, and a support for the articles to be beaten.

[Claim 6 not printed in the Gazette.]

1,209,301. AIRSHIP. HENRY JANDER, Brooklyn, N. Y. Filed Mar. 21, 1916. Serial No. 85,724. (Cl. 244—10.)



1. In an air-ship, a buoyant body provided with a channel extending longitudinally through said body, a turbine within said channel, and a deflector adjacent said turbine arranged to direct air toward the periphery of said turbine.

2. In an air-ship, a buoyant body provided with a channel extending longitudinally thereof, said channel being provided with wells or pockets, turbines located within said channel and extending into said wells or pockets, and means within said channel arranged to direct air toward the periphery of that part of said turbines that extends into said channel.

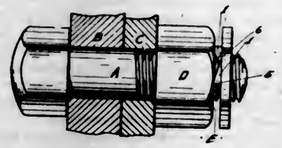
3. In an air-ship, a buoyant body provided with a channel extending longitudinally through said body, a turbine within said channel, a deflector adjacent said turbine arranged to direct air toward the periphery of said turbine, and propellers located at each end of said channel.

4. In an air-ship, a buoyant body provided with a channel extending longitudinally thereof, turbines within said channel, shafts therefor, and fly-wheels carried by said shafts.

5. In an air-ship, a buoyant body provided with a channel extending longitudinally thereof, turbines within said channel, shafts therefor, fly-wheels carried by said shafts, a propeller at each end of said channel, propellers located on each side of said buoyant body, driven shafts to operate said propellers, driving shafts to operate said driven shafts, and fly-wheels carried by the said driving shafts.

[Claims 6 and 7 not printed in the Gazette.]

1,209,302. NUT-LOCKING MEANS. HERMAN J. ZOTTEL, Milwaukee, Wis. Filed July 25, 1913. Serial No. 781,077. (Cl. 151—15.)



1. A nut lock comprising a plate having an opening therethrough, the plate being suitably cut to permit a portion of the material being bent to form one or more projections on one side thereof, and a screw thread being formed in the opening and on the projections with the axis thereof substantially at right angles to the plate.

2. In a nut lock, a plate with an opening therein and with one or more radial cuts extending from the opening outwardly and each continued by a segmental cut concentric with the opening, the material defined thereby being offset from the plate to form projections from the side of the plate, and a screw thread being formed in the opening and continued onto the projections.

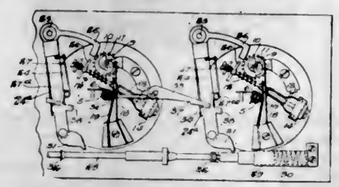
3. A nut lock comprising a plate having an opening therethrough, the plate being suitably cut to permit a portion of the material being bent to form a plurality of projections from the side thereof, and a screw thread being formed in the opening and continued onto the projections with the axis thereof substantially at right angles to an imaginary plane formed by the apexes of the said projections.

4. A nut lock comprising a plate having an opening therethrough, a locking portion being formed thereon by suitably cutting the plate to permit a portion of the material being bent to protrude from the side thereof, and a screw thread being formed in the opening and continued onto the locking portion with the axis thereof substantially at right angles to the general plane of the plate.

5. A nut lock comprising a plate, the plate being suitably perforated to provide an opening therethrough and permit a portion of the material being offset from the plate to form one or more projections from the side thereof, and a screw thread being formed in said opening and continued onto the projections with the axis thereof substantially at right angles to the general plane of said nut lock.

[Claims 6 and 7 not printed in the Gazette.]

1,209,303. MULTIPLE-DIAL CALLING DEVICE. ALEXANDER E. KEITH, Hinsdale, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 28, 1911. Serial No. 635,698. (Cl. 179—90.)



1. In a telephone system, a plurality of calling devices having means for transmitting impulses for a plurality of digits for a called number, and means common to said plurality of calling devices for delaying their operation between any two digits.

2. In a telephone system, a plurality of calling devices provided with means to transmit impulses for a plurality of digits for a called number, and a dash-pot associated with said devices and adapted to delay their operation between any two of said digits.

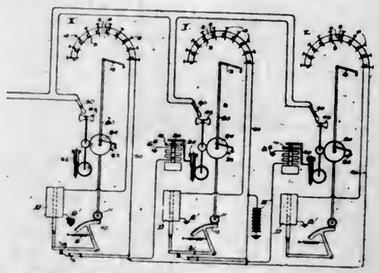
3. In a telephone system, a calling device comprising a plurality of impulse-transmitting devices, an operating dial provided with a series of finger holds for operating each of said devices, and means whereby said impulse devices are adapted to be operated successively, the first transmitter operating as soon as the respective operating dial has been operated.

4. In a telephone system, a calling device provided with a series of impulse-transmitting devices, means for operating each of said transmitting devices independently, and means whereby each of said transmitting devices when in operated position is adapted to lock the next one in the series in an operated position until the first-mentioned device has returned to normal.

5. In a telephone system, a calling device comprising a series of transmitting devices, an operating dial provided with a series of finger holds for each of said impulse transmitting devices, a movable finger stop for each of said dials, and means controlled by one of said stops for locking another of said dials in operated position.

[Claims 6 to 15 not printed in the Gazette.]

1,209,304. IMPULSE-TRANSMITTING DEVICE. ALEXANDER E. KEITH, Hinsdale, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 3, 1913. Serial No. 751,873. (Cl. 179—90.)



1. In an impulse-transmitting device, a plurality of impulse senders, electro-mechanical means for operating said impulse senders, and a plurality of keys associated with each sender for variably placing said operating means in condition to variably operate the respective impulse senders, depending upon the key operated, whereby said impulse sender may transmit a variable number of impulses.

2. In an impulse-transmitting device, a plurality of impulse senders, electro-mechanical means for operating said impulse senders, a plurality of keys associated with each sender for variably placing said operating means in condition to variably operate the respective impulse senders, depending upon the key operated, whereby each impulse sender may transmit a variable number of impulses, and means for preventing more than one of said impulse senders from operating at a time.

3. In an impulse-transmitting device, a plurality of impulse senders, means for operating said impulse senders, a plurality of keys associated with each sender for variably placing said operating means in condition to variably operate the respective impulse senders, depending upon the key operated, whereby each impulse sender may transmit a variable number of impulses, and means for preventing the second of said impulse senders from operating until a predetermined time after said first impulse sender has completed its operation.

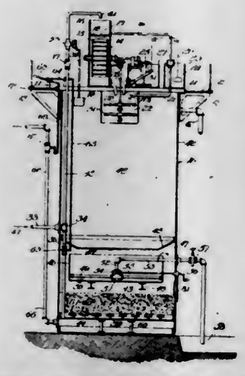
4. An impulse-transmitting device comprising a series of impulse senders, means for operating said impulse senders, a series of keys associated with each of said senders for variably placing said operating means in condition

to variably operate said impulse senders whereby each sender may transmit a variable number of impulses, and means permitting simultaneous operation of said keys but preventing simultaneous operation of said impulse senders.

5. An impulse-transmitting device comprising a plurality of impulse senders, means for operating said impulse senders, a plurality of keys associated with each of said senders, means controlled by said keys for variably placing said operating means in condition to operate said senders, whereby each sender may transmit a variable number of impulses, and means for preventing simultaneous operation of two of said impulse senders.

[Claims 6 to 9 not printed in the Gazette.]

1,209,305. WATER-PURIFYING APPARATUS. CASS L. KENNICOTT, Chicago Heights, Ill. Filed Jan. 27, 1915. Serial No. 4,728. (Cl. 210—1.)



1. In apparatus of the class described and in combination, a tank, means for supplying raw water and chemicals to the top of said tank for reaction therein, a sedimentation chamber located below the top of said tank, a filtering chamber below said sedimentation chamber, a partition between said filtering chamber and said sedimentation chamber and covering substantially the whole of the vertically projected area of the latter, whereby precipitated solid matter will be caught upon the said partition, means forming communication between said sedimentation chamber and filtering chamber through said partition, a filtering medium in said filtering chamber, means for drawing off filtered water through said filtering medium, and means for reversing the flow of water through said filtering medium for cleansing the same, said reverse flow of water passing through said partition and into said sedimentation chamber.

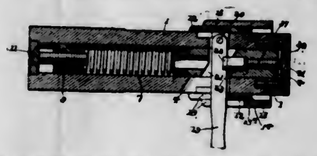
2. In apparatus of the class described, and in combination, a tank, means for supplying raw water or chemicals to the top of said tank for reaction therein, a sedimentation chamber located below the top of said tank, a filtering chamber below said sedimentation chamber, a partition between said filtering chamber and sedimentation chamber and covering substantially the whole of the vertically projected area of the latter, whereby precipitated solid matter may be caught upon the said partition, means for removing the precipitate from the partition, means forming communication between said sedimentation chamber and filtering chamber through said partition, a filtering medium located in said filtering chamber, means for drawing off filtered water through said filtering medium, and means for reversing the flow of water said reverse flow of water passing through said partition and into said sedimentation chamber, for the purpose described.

3. In an apparatus of the class described, and in combination, a tank, means for supplying raw water and chemicals to the top of said tank for reaction therein, a sedimentation chamber located below the top of said tank, a filter chamber below said sedimentation chamber, a partition between said filter chamber and said sedimentation chamber and covering substantially the whole of the vertically projecting area of the latter, means forming communication between said filter chamber and said sedimentation chamber through said partition, a filtering medium located in said filter chamber, a clear water well located beyond said filtering medium, means for drawing off filtered water from said clear water well, and a by-pass connecting said sedimentation chamber and said clear water well, and a pump for forcing water into said clear water well from said sedimentation chamber, whereby a reverse flow of water through said filtering medium, filtering chamber and partition and into said sedimentation chamber is obtained, for the purpose described.

4. In an apparatus of the class described, a tank, means for supplying raw water and chemicals to the top of said tank for reaction therein, a sedimentation chamber located below the top of said tank, a filter chamber located below said sedimentation chamber, a partition between said sedimentation chamber and filter chamber and covering substantially the whole of the vertically projected area of the former, means forming communication between said sedimentation chamber and said filter chamber through said partition, a filtering medium located in said filter chamber, a clear water well beyond said filtering medium, means for drawing off filtered water from said clear water well, means for supplying raw water under pressure to said clear water well, a by-pass communicating at one end with said sedimentation chamber and at the other end with said clear water well, and a pump interposed in said by-pass and adapted to force water from the sedimentation chamber into the clear water well, for the purpose described.

5. In an apparatus of the class described, and in combination, a tank, means for supplying raw water and chemicals to the top of the tank for reaction therein, a sedimentation chamber located below the top of the tank, a downwardly-sloping conical bottom for said sedimentation chamber, a central outlet at the apex of the conical bottom, a drain-pipe communicating with said outlet, a valve controlling the drain-pipe, vertical pipe-sections passing through said conical bottom and open at both ends, hoods mounted over the open upper ends of said pipe-sections, a filter chamber below said bottom, a filtering medium within said filter chamber, a clear water well below said filtering medium, means for drawing off filtered water from said clear well, and means for forcing water into said clear water well under pressure for reverse flow through said filter and into said sedimentation chamber, for the purpose described.

1,209,306. COLLAPSIBLE TAP. VICTOR R. KOONTZ, Waynesboro, Pa., assignor to Victor Tool Company, Waynesboro, Pa., a Corporation of Pennsylvania. Filed Mar. 3, 1916. Serial No. 81,867. (Cl. 10—145.)



1. In a collapsible tap the combination of a stock, a bit supporting member movably mounted in the stock, bits carried by said member, a spring engaging said member and operable to collapse the bits, a lever for moving said member to set the bits, a device for holding said lever to secure the bits in set position, means for automatically actuating said device to release the lever, and means, mounted wholly on the bit supporting member engaging with said lever for determining the working diameter of said bits, substantially as set forth.

2. In a collapsible tap the combination of a stock, a bit supporting member movably mounted in the stock, bits carried by said member, a spring engaging said member and operable to collapse the bits, a lever fulcrumed on the stock and engaging said member to set the bits, a latch for holding said lever to secure the bits in set position, a slidable member carried by the stock automatically operable to move said latch and release the lever, and adjustable means mounted wholly on said bit supporting member engaging with said lever for determining the working diameter of said bits, substantially as set forth.

3. In a tap the combination of a stock, a bit supporting member mounted in the stock, bits carried by said member, a lever fulcrumed on the stock, a stud mounted in said member engaging with the lever for setting the bits, and a screw adjustably mounted in the member engaging with said stud for determining the working diameter of the bits, substantially as set forth.

4. In a collapsible tap the combination of a stock, a bit supporting member mounted in the stock and formed with a slot therethrough, bits carried by said member, a lever fulcrumed on the stock and passing through said slot, a stud adjustably mounted in the member and engaging with said lever for setting and determining the working diameter of said bits, a latch working within a groove in the face of the stock for holding said lever, and a sleeve adjustably mounted on the bit operable to actuate said latch to release the lever and collapse the bits, substantially as set forth.

5. In a collapsible tap the combination of a stock, a plunger movably mounted in the stock, bits carried by the plunger, means for retracting the plunger to collapse the bits, a lever engaging with the plunger to set the bits, a latch mounted on the stock adapted to engage the lever and hold the bits in set position, and a collar mounted on the stock having a cam slot engagement with the latch operable to release the lever and collapse the bits through said plunger, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,209,307. DRIVING MECHANISM FOR PHONOGRAPHS. FREDERICK KRAFT, Highwood Park, N. J. Filed Feb. 19, 1916. Serial No. 79,247. (Cl. 74—7.)



1. A driving mechanism for phonographs comprising a turn table, a spindle depending therefrom, a spring motor and an electric motor, both coupled to the spindle, and means controlled by the spindle for cutting out the electric motor when actuated by the spring motor.

2. A driving mechanism for phonographs comprising a turn table, a spindle depending therefrom, a spring motor and an electric motor, both coupled to the spindle, and means controlled by the spindle for cutting out the spring motor when actuated by the electric motor.

3. A driving mechanism for phonographs comprising a turn table, a spindle depending therefrom, a spring motor and an electric motor, both coupled to the spindle, and means controlled by the spindle for cutting out either one motor when actuated by the other motor.

4. A driving mechanism for phonographs comprising a turn table, a spindle depending therefrom, a spring motor, clutch-controlled coupling means between said motor and spindle, an electric motor, and clutch-controlled coupling means between said last named motor and spindle, one of said clutch-controlled coupling means being in operative engagement while the other is in slidable engagement.

5. A driving mechanism for phonographs comprising a turn table, a spindle depending therefrom, a spring motor, a clutch having a first member intergeared with the spring motor and a second spring-controlled member slidable on the spindle, an electric motor, a shaft on said motor, and a clutch having a first spring-controlled member that is slidable on the shaft and is intergeared with the spindle, and a second member fast on the shaft.

1,209,308. APPARATUS FOR MOLDING OBJECTS BY PRESSURE. EDMOND LANHOFFER, Poissy, France. Filed Mar. 27, 1913. Serial No. 757,173. (Cl. 18—19.)

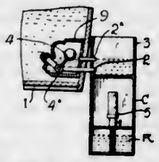


1. A mold press comprising in combination a matrix container, a matrix therein, a sheet of fabric covering said matrix, clamping means adapted for securing said sheet to said container at intervals only along the edges of said sheet, a flexible elastic membrane covering said sheet, a cover for said container and a fluid pressure connection on said cover.

2. A mold press comprising in combination a matrix container, a matrix therein, a cover adapted to be jointed with said container, a sheet of fabric covering said matrix and having its edges entering the joint between said container and said cover, a flexible elastic membrane or diaphragm covering said sheet and having its edges likewise entering said joint, means in said joint adapted to engage the edge portions of said fabric at intervals only, fastening means adapted to secure said cover to said container, and a fluid pressure connection on said cover.

3. A mold press comprising in combination a matrix container, a matrix therein, a flange on the peripheral edge of said container, a sheet of fabric adapted to cover said matrix and to extend with its edge portion over said flange, a number of blocks corresponding to said flange and adapted to be placed on the portion of said fabric covering said flange, a flexible elastic membrane or diaphragm extending with its edge portions over said blocks, a cover for said container, a flange on the periphery of said cover corresponding with the flange on said container, means adapted to fasten the two flanges together with said blocks, sheet of fabric and membrane clamped between and a fluid pressure connection on said cover.

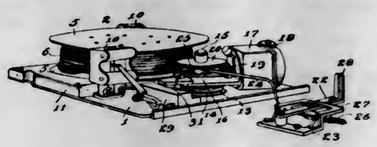
1,209,309. STOCK-WATERER. JAMES H. LATHROP, Oxford Junction, Iowa, assignor of one-half to Novelty Iron Works, Sterling, Ill., a Corporation. Filed Apr. 1, 1916. Serial No. 88,381. (Cl. 119—73.)



In combination with a reservoir, a trough, an inclosed receptacle within the reservoir and in contact with a wall

thereof, a pipe leading from the trough and in communication with the reservoir, said pipe being disposed through the receptacle and affording a supporting means for the receptacle, a pipe in communication with the trough and the receptacle and positioned above the first named pipe, a valve interposed in the first named pipe and arranged within the receptacle, and a float positioned within the receptacle for controlling the valve.

1,209,310. ELECTRIC-CURRENT-SUPPLYING MECHANISM. NILS D. LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Original application filed July 14, 1909, Serial No. 507,635. Renewed Apr. 11, 1914, Serial No. 831,342. Divided and this application filed Aug. 28, 1914. Serial No. 859,095. (Cl. 242—91.)



1. The combination with a vehicle adapted to travel forward and backward and having an electric driving motor, of an electric conductor cable adapted to be connected at its free end to a fixed electric conductor and serving to supply current to the motor during the said forward and backward movement, a reel for winding the cable during movement in one direction and unwinding it during movement in the other direction, the speed of rotation of the reel in both directions being entirely controlled by the cable, a rope sheave connected with the reel to rotate therewith, a power driving means for the reel, a drive sheave connected with the power means, and an endless rope permanently engaging the said sheaves, the said rope serving in combination with the sheaves to provide a friction drive for the reel whereby its speed of rotation can be controlled by the cable irrespective of the speed of the power means.

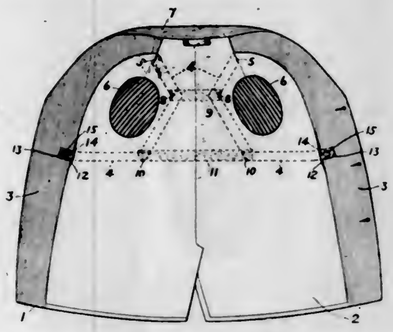
2. The combination with a vehicle adapted to travel forward and backward and having an electric driving motor, of an electric conductor cable adapted to be connected at its free end to a fixed electric conductor and serving to supply current to the motor during the said forward and backward movements, a reel for winding the cable during movement in one direction, and unwinding it during movement in the other direction, the speed of rotation of the reel in both directions being entirely controlled by the cable, a rope sheave connected with the reel to rotate therewith, a power driving means for the reel, a drive sheave connected with the power means, an endless rope permanently engaging the said sheaves, the said rope serving in combination with the sheaves to provide a friction drive for the reel whereby its speed of rotation can be controlled by the cable irrespective of the speed of the power means, and manually controllable means for regulating the tension in the rope.

3. The combination with a vehicle adapted to travel forward and backward and having an electric driving motor, of an electric conductor cable adapted to be connected at its free end to a fixed electric conductor and serving to supply current to the motor during the said forward and backward movement, a reel for winding the cable during the movement in one direction and unwinding it during movement in the other direction, the speed of rotation of the reel in both directions being entirely controlled by the cable, a rope sheave connected with the reel to rotate therewith, a power driving means for the reel, a drive sheave connected with the power means, an endless rope permanently engaging the said sheaves, the said rope serving in combination with the sheaves to provide a friction drive for the reel whereby its speed of rotation can be controlled by the cable irrespective of the speed of the power means, and manually controllable means for moving the drive sheave bodily to change the tension in the rope.

4. The combination with a vehicle adapted to travel forward and backward and having an electric driving motor, of an electric conductor cable adapted to be connected at its free end to a fixed electric conductor and serving to supply current to the motor during the said forward and backward movements, a reel for winding the cable during movement in one direction and unwinding it during movement in the other direction, the speed of rotation of the reel in both directions being entirely controlled by the cable, a rope sheave connected with the reel to rotate therewith, a power driving means for the reel, a drive sheave connected with the power means, an endless rope permanently engaging the said sheaves, the said rope serving in combination with the sheaves to provide a friction drive for the reel whereby its speed of rotation can be controlled by the cable irrespective of the speed of the power means, a brake supplemental to the rope for resisiting the rotation of the reel in the unwinding direction, and means for simultaneously decreasing the tension in the rope and applying the said brake.

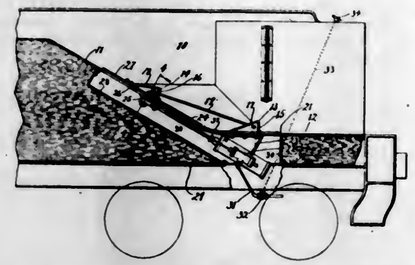
[Claims 6 to 13 not printed in the Gazette.]

1,209,311. BRACE AND COAT-STAY. WOLF LEVINSON, Philadelphia, Pa. Filed Mar. 10, 1913. Serial No. 753,297. (Cl. 2—61.)



In combination with a coat, a brace and stay comprising a pair of straps suspended from the shoulder seams of the coat and having their free ends adapted to be detachably connected with the coat at the front portions thereof, said free ends being provided with means for joining them when detached from the coat, a strap across the back of the coat joined with said suspended straps at about the centers of the shoulder blade portions of the back adapted to cause said suspended straps to diverge therefrom above and below the arm pits, and a strap along the waist line of the back also joined with the suspended straps adapted to form therewith a belt along the waist line of the coat.

1,209,312. LOCOMOTIVE-TENDER. NATHAN M. LOWER, Schenectady, N. Y., assignor to Locomotive Stoker Company, Schenectady, N. Y., a Corporation of Pennsylvania. Filed Sept. 2, 1915. Serial No. 48,618. (Cl. 105—260.)



1. In combination, a locomotive tender having an inclined slotted rear wall and a floor, a casing back of the inclined wall, a fuel pusher reciprocable over the inclined wall, a motor inclosed within the casing, and a connection between the motor piston and pusher and passing through the wall slot.

2. In combination, a locomotive tender having a fuel bin, and a water chamber back of and extending under the bin, the rear wall of the bin being inclined, a compartment back of such wall and extending under the floor of the bin, a reciprocating motor within such compartment and having its axis parallel with the inclined wall, a pusher reciprocable over the inclined wall, and a connection between the piston rod of the motor and the pusher and extending through a slot in the inclined wall.

3. In combination, a locomotive tender having an inclined slotted rear wall and a floor, a casing back of the inclined wall, a fuel pusher reciprocable over the inclined wall and floor and comprising a plurality of pusher heads linked together, a motor inclosed within the casing, and a connection between the motor piston and rear pusher head and passing through the wall slot.

4. In combination, a locomotive tender having an inclined slotted rear wall and a floor, a casing back of the inclined wall, a fuel pusher reciprocable over the inclined wall, a motor inclosed within the casing, a connection between the motor piston and pusher and passing through the wall slot, and means for reversing the motor as the pusher approaches the limit of its movement in either direction.

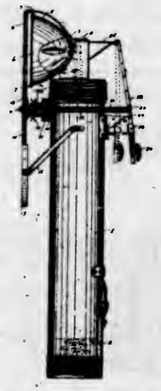
5. In combination, a locomotive tender having a fuel bin, a fuel pusher reciprocable over the floor of the bin and comprising a plurality of heads spaced apart, rigid links pivotally attached to and connecting the heads, and power means connected with the rearward head.

[Claim 6 not printed in the Gazette.]

1,209,313. SIGNAL MECHANISM AND THE LIKE. HENRY S. LYCOE, Pittsburgh, Pa. Filed Aug. 21, 1915. Serial No. 46,716. (Cl. 40—70.)

1. A signaling device comprising a casing carrying means to provide a source of electrical energy, an illuminating device carried by said casing, circuit forming elements carried by said casing and associated with said illuminating device, one of said elements consisting of stepped contacts, a revoluble disk supported from said casing and having a plurality of indices for the passage of light rays from said illuminating device, an operating mechanism supported by said casing for revolving said disk, a manually shifted circuit closing lever element electrically connected with said device and adapted when shifted in one direction to actuate said mechanism to revolve said disk and further associated with said stepped contacts for limiting the movement of the disk to a position with one of the indices in front of the illuminating device and to close the circuit to illuminate said device.

2. A signaling device comprising a casing carrying means to provide a source of electrical energy, an illuminating device carried by said casing, circuit forming elements carried by said casing and associated with said illuminating device, one of said elements consisting of stepped contacts, a revoluble disk supported from said casing and having a plurality of indices for the passage of light rays from said illuminating device, an operating mechanism supported by said casing for revolving said disk, a manually shifted lever element electrically connected with said device and adapted when shifted in one direction to actuate said mechanism to revolve said disk and further associated with said stepped contacts for limiting the movement of the disk to a position with one of the indices in front of the illuminating device and to close the circuit to illuminate said device, said lever element including a shiftable member capable of being positioned to engage any one of the contacts to close the circuit.



3. A signaling device comprising a casing carrying means to provide a source of electrical energy, an illuminating device carried by said casing, circuit forming elements carried by said casing and associated with said illuminating device, one of said elements consisting of stepped contacts, a revoluble disk supported from said casing and having a plurality of indices for the passage of light rays from said illuminating device, an operating mechanism supported by said casing for revolving said disk, a manually shifted circuit closing element electrically connected with said device and adapted when shifted in one direction to actuate said mechanism to revolve said disk and further associated with said stepped contacts for limiting the movement of the disk to a position with one of the indices in front of the illuminating device to close the circuit to illuminate said device, said mechanism including means for restoring said disk to normal position and said lever element to inoperative position when pressure upon the lever element is relieved.

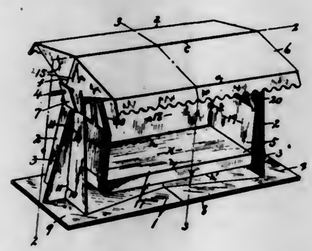
4. A signaling device comprising a casing carrying means to provide a source of electrical energy, an illuminating device carried by said casing, circuit forming elements carried by said casing and associated with said illuminating device, one of said elements consisting of stepped contacts, a revoluble disk supported from said casing and having a plurality of indices for the passage of light rays from said illuminating device, an operating mechanism supported by said casing for revolving said disk, a manually shifted circuit closing lever element electrically connected with said device and adapted when shifted in one direction to actuate said mechanism to revolve said disk and further associated with said stepped contacts for limiting the movement of the disk to a position with one of the indices in front of the illuminating device and to close the circuit to illuminate said device, said lever element including a shiftable member capable

of being positioned to engage any one of the contacts to close the circuit, said mechanism including means for restoring said disk to normal position and said lever element to inoperative position when pressure upon the lever element is relieved.

5. A signaling device comprising a casing carrying means to provide a source of electrical energy, an illuminating device carried by said casing, circuit forming elements carried by said casing and associated with said illuminating device, one of said elements consisting of stepped contacts, a revoluble disk supported from said casing and having a plurality of indices for the passage of light rays from said illuminating device, a spring controlled operating mechanism supported by said casing for revolving said disk, a manually shifted circuit closing lever element electrically connected with said device and adapted when shifted in one direction to actuate said mechanism to revolve said disk and further associated with said stepped contacts for limiting the movement of the disk to a position with one of the indices in front of the illuminating device and to close the circuit to illuminate said device.

[Claim 6 not printed in the Gazette.]

1,209,314. TOY HAMMOCK. CHARLES A. MACCORDY, Syracuse, N. Y. Filed Sept. 27, 1915. Serial No. 52,856. (Cl. 46—37.)



1. A toy hammock comprising a rectangular tubular seat, a back flap and opposite end flaps, all made of a single piece of cardboard or equivalent material and united to form a unitary structure.

2. A card-board blank for toy hammocks having two similar relatively wide portions and two similar relatively narrow portions, all of substantially the same length to form the bottom and top and the front and rear sides, respectively, of a box seat, one of the wide portions having similar opposite end extensions of greater length than the width of the narrower portions to form supporting hangers for the seat.

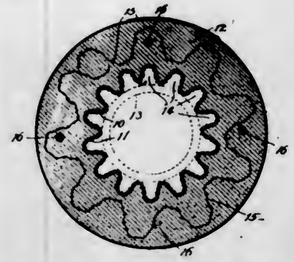
3. In a toy hammock, a box seat having bottom and top walls in spaced relation and front and rear walls uniting the corresponding edges of the top and bottom walls, and end walls united to the ends of the seat and rising therefrom, in combination with upright standards, and means carried thereby for swingingly supporting the seat by the end flaps.

4. A hammock including a base, foldable standards supported by said base, a canopy supported upon the top-ends of said standards, a rod piercing the opposite gable-ends of the canopy and also the top-ends of said standards for holding said parts together, and a swinging seat disposed between said standards having spaced upright arms which are pierced by said rod.

5. A toy hammock comprising a flat base, upright standards and a swinging seat, all made of card-board or equivalent material, the standards being secured to the base and provided with transverse slots and apertures above the slots, V-shaped braces of card-board or equivalent material having their apexes seated in said slots and their opposite arms extending upwardly in diverging planes and also provided with apertures alined with those in the standards, the swinging seat being provided with end curtains having apertures alined with the first-named apertures, and a dowel passed through said apertures for swingingly supporting the seat.

[Claims 6 and 7 not printed in the Gazette.]

1,209,315. REINFORCED FIBROUS MATERIAL OF CONSTRUCTION. MICHAEL J. O. MALLEY, Chicago, Ill. Filed Mar. 20, 1916. Serial No. 85,330. (Cl. 154—45.)



1. A compound sheet comprising a layer of asbestos sheeting and a layer of wire fabric united by sodium silicate.

2. A compound corrugated sheet comprising a layer of asbestos sheeting having one surface impregnated with a cementitious binder and overlaid by a sheet of wire fabric, the said fabric and binder being worked into the said surface.

3. A cast or molded mass of earthy material, having one face corrugated, the said corrugated face having wire fabric integrally united therewith.

4. A cast or molded mass of earthy material integrally bonded with a facing sheet of corrugated asbestos having a wire mesh fabric integrally bonded to its surface by an impregnating cement.

1,209,316. ASBESTOS BASKET. MICHAEL J. O. MALLEY, Chicago, Ill. Filed May 1, 1916. Serial No. 94,640. (Cl. 229—3.)

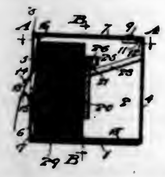


In a basket of the character described, side-walls comprising a plurality of sheets of asbestos hardened by earthy matter and cemented together and having sandwiched between them a foraminous metallic reinforcement, a bottom spaced above the lower edges of the side-walls and comprising upper and lower sheets of asbestos having sandwiched between them metallic reinforcement, and a U-shaped metallic rim embracing the lower edges of the side-walls and extending upwardly and secured to the said bottom for supporting the same.

1,209,317. SHEET-DELIVERY RECEPTACLE. MOSES M. MARCUSE, New York, N. Y., assignor to West Disinfecting Company, New York, N. Y., a Corporation of New York. Filed May 12, 1914. Serial No. 838,081. (Cl. 211—29.)

1. An interfolded sheet delivery receptacle having a transversely arranged delivery slot through its front wall, a follower for automatically pressing the stack of sheets toward the slot, the receptacle and follower having holes

therein arranged to be brought into alinement when the follower is in its retracted position and a removable pin adapted to be inserted into said holes for temporarily holding the follower in its retracted position to permit the ready introduction of a stack of sheets into the receptacle.

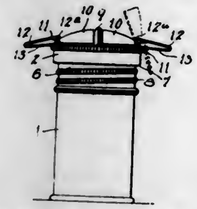


2. An interfolded sheet delivery receptacle having a transversely arranged delivery slot through its front wall, inclined guide plates located within the receptacle above and below the slot, a follower for pressing the stack of sheets toward the slot, downwardly and forwardly inclined tracks located within the receptacle at the opposite ends thereof and wheels on the follower arranged to travel in said tracks.

3. An interfolded sheet delivery receptacle having a transversely arranged delivery slot through its front wall, inclined guide plates located within the receptacle above and below the slot, a follower for pressing the stack of sheets toward the slot, downwardly and forwardly inclined tracks located within the receptacle at the opposite ends thereof, wheels on the follower arranged to travel in said tracks, a cover for the open top of the receptacle and means for temporarily holding the follower at the limit of its rearward and upward movement along the tracks when the cover is open.

4. An interfolded sheet delivery receptacle having a transversely arranged delivery slot through its front wall, a cover for the open top of the receptacle, a lock for the cover, a follower for automatically pressing the stack of sheets toward the slot and a key for the lock, said key having a pin arranged to engage the receptacle and follower when the cover is open for holding the follower in its retracted position to permit the ready introduction of a stack of sheets into the receptacle.

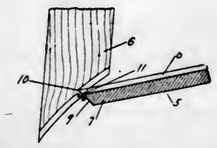
1,209,318. COMBINATION SALT AND PEPPER SHAKER. HALSEY J. MITCHELL, Schenectady, N. Y. Filed May 26, 1916. Serial No. 100,094. (Cl. 65—45.)



1. A combined salt and pepper shaker, including a receptacle subdivided into two independent compartments, a perforate cover applied to the receptacle with substantially one-half thereof closing one of the compartments, while the other half thereof closes the opposite compartment, independent valve plates hingedly connected to diametrically opposite sides of the cover at points slightly spaced from the periphery thereof, said valve plates normally closing the perforations in the respective halves of the cover, finger levers projecting rearwardly from the hinged ends of the valve plates and offset outwardly at their junction with the valve plates to provide a clearance space for the edge of the cover when the finger levers are swung rearwardly to open the valve plates, and springs normally holding the valve plates in a closed position.

2. A combined salt and pepper shaker, including a receptacle subdivided into two independent compartments, a perforate cover applied to the receptacle with substantially one-half thereof closing one of the compartments, while the other half thereof closes the other compartment, independent valve plates hingedly connected to diametrically opposite sides of the cover at points slightly spaced from the periphery thereof, said valve plates normally closing the perforations in the respective halves of the cover, finger levers projecting rearwardly from the hinged ends of the valve plates and offset outwardly at their junction with the valve plates to provide a clearance space for the edge of the cover when the finger levers are swung rearwardly to open the valve plates, the ends of the finger levers being returned to provide spring arms which engage the cover between the edge thereof and the axes of the valve plates, the resiliency of the spring arms normally holding both of the valve plates in a closed position.

1,209,319. MACHINE FOR MAKING SAWDUST. PHILIP S. MITTS, Saginaw, Mich. Filed Apr. 20, 1914. Serial No. 833,124. (Cl. 83—75.)



1. In a machine of the class described, the combination of a revoluble drum, knives secured to and projecting beyond the periphery of said drum, said knives comprising plates having longitudinal ribs and grooves formed on their outer faces, the ends of said knives being beveled to form cutting points and cutting roots, said roots projecting slightly beyond the periphery of the drum; stationary cutter bars having longitudinal ribs and grooves formed in the inner faces thereof, said bars disposed with their ends presented to the path of travel of said knives, the grooves of said bars adapted to receive the said cutting points of the knives.

2. In a machine of the class described, the combination of a revoluble drum having its periphery formed with ribs and grooves, knives secured to and projecting beyond the periphery of said drum, said knives comprising plates having longitudinal ribs and grooves formed on their outer faces and alined with the ribs and grooves of said drum, the ends of said knives being beveled to form cutting points and cutting roots, said roots projecting slightly beyond the periphery of the drum; stationary cutter bars having longitudinal ribs and grooves formed on the inner faces thereof, said bars disposed with their ends presented to the path of travel of said knives, the grooves of said bars adapted to receive the said cutting points of the knives.

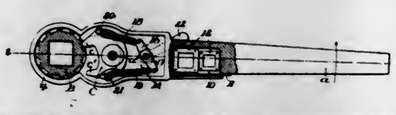
3. The combination of a revoluble drum, knives secured to and projecting beyond the periphery of said drum, said knives comprising plates having longitudinal ribs and grooves formed on their outer faces, the ends of said knives being beveled to form cutting points and cutting roots, said roots projecting slightly beyond the periphery of the drum; wearing blocks inserted in said drum in advance of the cutting edges of said knives, retaining means for said blocks; stationary cutter bars having longitudinal ribs and grooves formed in the inner faces thereof, said bars disposed with their ends presented to the path of travel of said knives, the grooves of said bars adapted to receive the said cutting points of the knives.

4. The combination of a revoluble drum, knives secured to and projecting beyond the periphery of said drum, said knives comprising plates having longitudinal ribs and grooves formed on their outer faces, the ends of said knives being beveled to form cutting points and cutting roots, said roots projecting slightly beyond the periphery

of the drum; a wearing block sunk into the periphery of said drum in advance of the cutting edge of said knife, means for forcing the end of said knife against said wearing block, means for clamping said block to said drum, and means for clamping the knife to the drum.

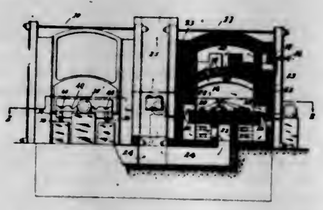
5. In a machine of the class described, the combination of a revoluble drum having its periphery formed with ribs and grooves, knives secured to and projecting beyond the periphery of said drum, said knives comprising members having ribs and grooves formed on their outer faces and alined with the ribs and grooves of said drum, the ends of said knives being beveled to form cutting points and cutting roots, said roots projecting slightly beyond the periphery of the drum; stationary cutters having ribs and grooves formed on the inner faces thereof, said cutters disposed with their ends presented to the path of travel of said knives, the grooves of said bars adapted to receive the said cutting points of the knives.

1,209,320. RATCHET-WRENCH. DAVID MORNEWECK, Fredonia, Pa. Filed July 16, 1914. Serial No. 851,361. (Cl. 81—63.)



A ratchet wrench comprising a body part with a handle at one end and a mechanism containing chamber at the other end, said mechanism containing chamber being formed with one side open, a closure plate for closing said chamber, said body part and closure plate having openings forming annular flanges, a turning head mounted to rotate in said chamber and projecting through said openings at either end, said head formed with shoulders engaging said flanges and constructed with a ratchet, a single bolt securing the plate to the body part and holding said parts and the head in assembled relation, a double-ended pawl pivoted on the assembly bolt within said chamber and adapted to engage the ratchet, a crosshead pivotally mounted in said chamber, connections between said cross-head and the pawl, and a device for actuating said cross-head to operate the pawl, substantially as set forth.

1,209,321. FURNACE. ALBERT W. MOYER, New York, N. Y. Filed Sept. 25, 1915. Serial No. 52,572. (Cl. 263—43.)



1. A gas or oil fired furnace comprising a furnace body having side walls and a perforated arch extending across between said side walls of the furnace body and dividing the interior of the same into a lower heating chamber and an upper combustion chamber disposed directly and wholly above the heating chamber, the combustion chamber thus provided having burner openings therein and the heating chamber having exit flues in both side walls thereof leading from the bottom portion of the chamber, the side walls of the furnace body forming the sides of the heating chamber being otherwise free of perforations therein whereby to retain the temperature uniformly throughout said side walls and thereby radiate heat uniformly from said walls into the heating chamber and burners discharging through the burner openings into the combustion chamber.

2. A gas or oil fired furnace comprising a furnace body having side walls and a perforated arch extending across between the side walls of the furnace body and dividing the interior of the same into a lower heating chamber and an upper combustion chamber disposed directly and wholly above the heating chamber, the combustion chamber thus provided having burner openings therein and the heating chamber having exit flues in both side walls thereof leading from the bottom portion of the chamber, the side walls of the furnace body forming the sides of the heating chamber being otherwise free of perforations therein whereby to retain the temperature uniformly within the heating chamber, a layer of heat insulating material on the furnace body and burners discharging through the burner openings into the combustion chamber.

3. A gas or oil fired furnace comprising a furnace body having side walls and a perforated arch extending across between the side walls of the furnace body and dividing the interior of the same into a lower heating chamber and an upper combustion chamber disposed directly and wholly above the heating chamber, the combustion chamber thus provided having burner openings therein and the heating chamber having exit flues in both side walls thereof leading from the bottom portion of the chamber, the side walls of the furnace body forming the sides of the heating chamber being otherwise free of perforations therein whereby to retain the temperature uniformly within the heating chamber, dampers controlling the flow through the exit flues and disposed adjacent the junctions of said flues with the heating chamber to thereby control the flow substantially at the source and burners discharging through the burner openings into the combustion chamber.

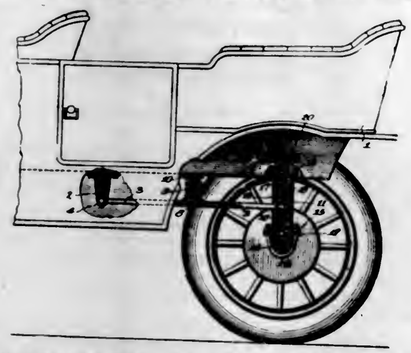
4. A gas or oil fired furnace comprising a furnace body having side walls and perforated arch extending across between said side walls of the furnace body and dividing the interior of the same into a lower heating chamber and an upper combustion chamber disposed directly and wholly above the heating chamber, the combustion chamber thus provided having burner openings therein and the heating chamber having exit flues located in the side walls substantially at the bottom of the heating chamber and said side walls which form the sides of the heating chamber being free of perforations above said exit flues therein to thereby retain heat uniformly throughout the extent of the side walls and to radiate heat uniformly into the heating chamber, the exit flues aforesaid extending downwardly and thence laterally from beneath the furnace body, an upright exhaust vent separated from the furnace body and in communication with the laterally extending portion of the exit flues and pressure burners discharging in through the burner openings into the combustion chamber and forcing gases of combustion down through the perforated arch into the heating chamber and from said heating chamber down and out the exit flues up the upright vent.

1,209,322. AUTOMOBILE-SPRING. ROBERT R. NEAL, Wilbur, Wash. Filed May 11, 1916. Serial No. 96,913. (Cl. 267—8.)

1. A spring for a vehicle comprising a spring supporting lever, a hanger bracket adapted to be secured to the body of a vehicle, means for pivotally connecting said lever to said hanger bracket, said lever provided with a spring engaging cup intermediate the ends thereof, a compression spring seated within said cup, a second cup adapted to be carried by the bottom of the body of a vehicle for receiving the opposite end of said spring, and a spring engaging the outer end of said lever for constituting a yieldable support therefor and yieldably connecting said lever with said axle.

2. A spring for a vehicle comprising a spring supporting lever, resilient buffer means engaging said lever near the center thereof, means for pivotally supporting one end of said lever, a spring supporting casing, a lever, said lever working in said spring supporting casing, a rod passing longitudinally of said spring supporting casing and passing through the rear end of said lever, and a spring placed above and below said lever within said casing for yieldably holding said lever intermediate the ends of said casing and yieldably connecting said lever with said axle.

3. A spring for a vehicle comprising a spring supporting lever, means for pivotally securing said lever in engagement with a support, a spring engaging said lever intermediate the ends thereof a spring supporting casing, said casing provided with a longitudinally extending slot, said lever passing through said slot and provided with an enlarged head, a rod passing longitudinally of said casing and extending through said enlarged head, a spring engaging the top and bottom of said head for yieldably holding said head intermediate the ends of said casing, and means for securing said casing to the axle of a vehicle.



1,209,323. AUTOMATIC ADVANCING AND SPEED-INDICATING COUPLING. EDWARD C. NEWTON, Marysville, Cal., assignor to Automatic Spark Advance Co., San Francisco, Cal., a Corporation of California. Filed Aug. 9, 1915. Serial No. 44,548. (Cl. 64—13.)



1. In a device of the class described, the combination of a driving member having one or more axial extensions, a driven member having axial extensions coöperating with those on the driving member, said extensions having opposing faces normally arranged in angular relation to each other, and centrifugal elements of circular cross-section engaging each pair of said opposing faces and adapted to vary the angular relation of said members by changes in position and means continually acting to resist outward movement of the centrifugal elements.

2. In a device of the class described, the combination of a driving disk having axial extensions, a driven disk provided with axial extensions arranged to form pairs with the extensions on the driving disk, the opposite faces of the extensions forming each pair being arranged in angular relation, and centrifugal elements of circular cross-section arranged between each pair of said extensions and engaging the said faces thereof and adapted to vary the angular relation of said disks by separating said extensions by radial movement and means continually acting to resist outward movement of the centrifugal elements.

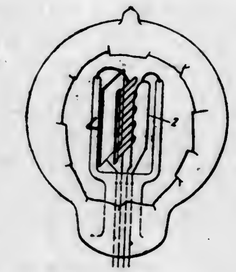
3. In a device of the class described, the combination of a driving disk having one or more axial extensions, a driven disk arranged alongside of the driving disk in axial alinement therewith and provided with axial extensions coöperating with the extensions on the driving disk, centrifugal elements of circular cross-section cooperating with said extensions and adapted to vary the angular relation of the disks by the separation of said axial extensions, springs for opposing the separation of said axial extensions, and latching means for forming a positive connection between said disks when at rest.

4. In a device of the class described, the combination of a driving disk, a driven shaft, an intermediate disk, a ratchet and pawl forming a connection between said intermediate disk and said driven shaft whereby relative movement therebetween in one direction is permitted, and centrifugal disks arranged between said driving and intermediate disks and coöperating with parts on the driving and intermediate disks to vary the angular relation thereof.

5. In a device of the class described the combination of a driving member having a projection, a driven member having a projection, said projections having opposed faces, a centrifugal element interposed between said faces and arranged to separate the projections as it moves outward under the influence of centrifugal force and yielding means for forcing the projections toward each other to thereby resist outward movement of the centrifugal element.

[Claim 6 not printed in the Gazette.]

1,209,324. ELECTRON-EMITTING CATHODES AND THE PROCESS OF MANUFACTURING THE SAME. ALEXANDER MCLEAN NICOLSON, New York, N. Y., and EMERSON CHURCH HULL, Montclair, N. J., assignors, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Dec. 26, 1914. Serial No. 879,208. (Cl. 250—27.)



1. The process of manufacturing an electron-emitting cathode, which consists in applying to an electrical conductor a coating containing a metal of the alkaline earth group; baking said coating; then applying another coating containing another metal of the alkaline earth group; and subsequently subjecting said coatings to prolonged high temperature.

2. The process of manufacturing an electron-emitting cathode, which consists in coating an electrical conductor with an oxid of a metal of the alkaline earth group; then applying another coating consisting of an organic compound of a metal of the alkaline earth group; and subsequently subjecting said coatings to a prolonged high temperature.

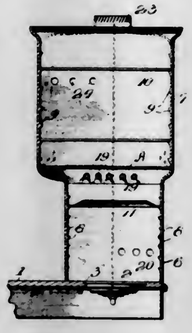
3. The process of manufacturing an electron-emitting cathode, which consists in coating an electrical conductor with the hydroxid of a metal of the alkaline earth group; heating said conductor and thereby converting the hydroxid coating into an oxid coating; then applying another coating consisting of an organic compound containing a metal of the alkaline earth group; and subsequently subjecting said coatings to a high temperature.

4. The process of manufacturing an electron-emitting cathode, which consists in coating an electrical conductor with a coating comprising a fluid medium and an oxid of a metal of the alkaline earth group; drying said coating; then applying a coating consisting of an organic compound of a metal; and subsequently subjecting said coatings to a prolonged high temperature.

5. The process of manufacturing an electron-emitting cathode, which consists in coating an electrical conductor with the hydroxid of strontium; then applying a coating of barium resinate; and finally subjecting said coatings to a high temperature.

[Claims 6 to 17 not printed in the Gazette.]

1,209,325. GAS OR VAPOR STOVE. ANSELM T. NYE, Marietta, Ohio. Filed Jan. 27, 1916. Serial No. 74,646. (Cl. 126—39.)



1. A gas or vapor stove having a pair of superposed ovens separated by a plate, a burner arranged under the upper oven, a broiling pan arranged within said lower oven under said upper burner forming a top for the lower oven chamber, a burner arranged under the lower oven chamber each of said oven chambers being provided with an independent outlet opening communicating with a flue.

2. A gas or vapor stove having a pair of superposed ovens each provided with an independentiy controlled burner, a broiling pan arranged in one of said ovens forming a top therefor, a plate arranged over the upper burner, each of said ovens being provided with an air inlet adjacent the bottom thereof and each of said ovens having an independent outlet communicating with flues formed to the rear of said oven.

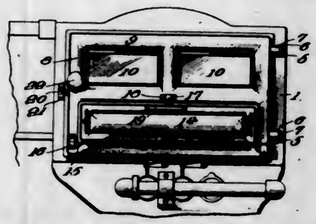
3. A gas or vapor stove having a casing provided with a division plate forming a pair of superposed communicating oven chambers, each oven chamber having a door, the lower door being provided with air inlets, a burner arranged under said plate supplied with air by said air inlets, a broiling pan arranged under said burner and spaced therefrom forming a top for the lower oven chamber, a burner arranged under the lower oven chamber, each of said oven chambers being provided with an independent outlet communicating with a flue.

4. A stove, comprising a support, a grid arranged within said support, detachable baffles for said grid, a casing arranged on said support over said grid having stepped walls, a pan supported by said stepped walls, a plate dividing said casing into chambers, a burner arranged under said grid, and a burner arranged under said plate.

5. A stove, having superposed ovens formed from a casing provided with a division plate, a flue arranged to the rear of said ovens having a central partition forming parallel flues, said flues communicating respectively with said ovens, a door for each of said ovens, one of said doors being provided with air inlets.

[Claims 6 and 7 not printed in the Gazette.]

1,209,326. OVEN-DOOR FOR GAS AND VAPOR STOVES. ANSELM T. NYE, Marietta, Ohio. Filed Apr. 5, 1916. Serial No. 89,162. (Cl. 126—190.)



1. In an oven having a pair of superposed oven chambers, of a main door for closing said oven chambers, said main door having an auxiliary door forming access to the lower oven chamber.

2. In an oven having a flanged division plate forming superposed oven chambers, of an oven door for closing said chambers, said door having an auxiliary door forming access to the lower oven chamber, a flange formed on said door contacting the flange of the division and said doors in closed position.

3. An oven door for ovens having superposed oven chambers, comprising a main door frame having sight openings at the upper portion thereof, and provided with an auxiliary door opening in the lower portion thereof, a door pivotally mounted on the main door frame for closing said auxiliary door opening, glass plates arranged over said side openings, and a frame secured to said door surrounding said glass plates.

4. In an oven having superposed oven chambers formed by a division plate having a vertically disposed flange at its forward edge, of a door for closing said oven chambers, said door having a horizontally disposed flange contacting with the vertically disposed flange of the division plate, and an auxiliary door formed in the main door affording access to the lower oven chamber.

5. The combination with an oven having a horizontally disposed division plate forming superposed oven chambers, of a door for closing said oven chambers, said division plate having a vertically disposed flange, said door having a horizontally disposed flange contacting with the flange of the division plate.

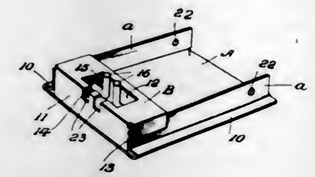
[Claims 6 and 7 not printed in the Gazette.]

1,209,327. PROCESS FOR TREATING THE GREEN JUICE OF TOBACCO-PLANTS. THEODOR OELENHEINZ, Karlsruhe, Germany. Filed July 24, 1912. Serial No. 711,286. (Cl. 131—6.)

A process of treating the expressed green juice of portions of the tobacco plant, which process comprises (a) allowing fermentative decomposition of said juice to be produced by the naturally occurring enzyms and bacterial flora of the natural tobacco leaf, and to proceed up to the production of a brownish color therein, and until a marked reduction of the pungent odor of the raw juice occurs, (b) heating the juice to a temperature of about 80° C., to substantially prevent mildewing of said juice, and then cooling to ordinary temperature, (c) thereafter slowly heating said liquid juice to a temperature of about 60 to 70° C., and maintaining said temperature until a characteristic "fermented tobacco" odor is developed therein.

1,209,328. PRINTER'S GALLEY. ALFRED S. ORCHARD, Philadelphia, Pa., assignor to Keystone Type Foundry, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 21, 1916. Serial No. 79,605. (Cl. 101—53.)

1. A printer's galley comprising a body member with sides upturned at right angles with the floor thereof, and an end member formed to fit between said sides and slide freely lengthwise of said galley and also formed with flanges overhanging the top edges of said body member which serve to guide said end member and connect the same with said body member and prevent the spreading of the sides of said body member, and means for locking said end member in adjusted position on said body member, substantially as set forth.

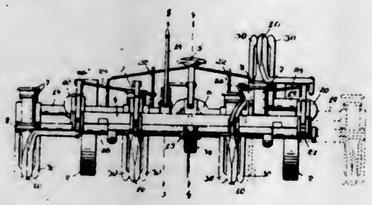


2. A printer's galley comprising a body member having side portions upturned at right angles with the floor thereof, an adjustable end piece therefor constructed of sheet-metal and having side portions inturned to fit between the side portions of the body and with overhanging flanges on its top adapted to hang over the outside of said body portions, the space between the inturned end portions and the overhanging flanges forming ways to receive the top edges of said body side portions and also serving to support said side portions from spreading, and means for locking said end member in adjusted position, substantially as set forth.

3. A printer's galley comprising a body member having side portions, an adjustable end piece therefor constructed of sheet metal having side portions with inturned ends adapted to fit between the adjacent faces of the side portions of said body and a top portion with downwardly disposed flanges at the ends and intermediate said ends, and spring tensioned locking pins mounted on said intermediate flanges and the inturned end portions adapted to engage the side portions of the body member and secure the end piece in position, substantially as set forth.

4. A printer's galley comprising a body member having side portions, an adjustable end piece therefor constructed of sheet metal having a side portion with inturned ends, and a top portion with downwardly disposed flanges at the ends and intermediate said ends, said side portion provided with notches; and a pair of spring tensioned locking pins mounted on said intermediate flanges and the inturned ends for securing the end piece to said body member, said pins having portions adapted to engage within said notches to lock the pins in adjusted position, substantially as set forth.

1,209,329. SEED-PLANTER. WILLIAM H. PETER, Norfolk, Va. Filed Mar. 11, 1916. Serial No. 83,616. (Cl. 111—6.)



1. In a planter, a main frame and a plurality of hopper frames carrying furrow-opening shoes and having a slidable adjustment upon said main frame, the outer of the hopper frames and shoes being hinged to fold upon said main frame.

2. In a planter, a main frame having a transverse bar provided with lateral hinged extensions, and a plurality of hopper members upon said bar and the extensions thereof, said extensions with the hopper members thereupon being foldable to seated position upon said bar.

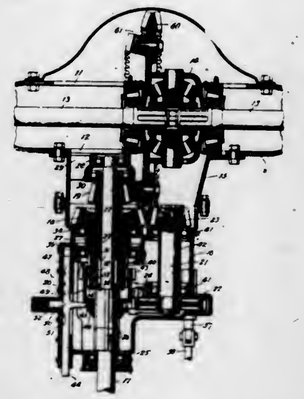
3. In a planter, a main frame having a forward transverse bar and a second transverse bar in rear thereof provided with lateral hinged extensions, hopper members upon said extensions, including furrow-opening shoes having inturned arms capable of attachment to said forward transverse bar in the longitudinal planes of the hinges of said extensions, the extensions with the hopper members and shoes thereupon being foldable to seated position upon said rear transverse bar.

4. In a planter, a main frame having a forward transverse bar and a second transverse bar in rear thereof provided with lateral hinged extensions, hopper members upon said extensions, including furrow-opening shoes having inturned arms, and vertically adjustable attachment means for said arms upon said forward transverse bar, the extensions with the hopper members and shoes thereupon being foldable to seated position upon said rear transverse bar.

5. In a planter, a main frame having a forward transverse bar and a second transverse bar in rear thereof provided with lateral hinged extensions, and a plurality of hopper members upon said bar and the extensions thereof, including furrow-opening shoes having adjustable attachment to said forward transverse bar, said extensions with the hopper members and shoes thereupon being foldable to seated position upon said rear transverse bar, and said hopper members being capable of independent pivotal adjustment upon said rear transverse bar.

[Claim 6 not printed in the Gazette.]

1,209,330. REAR-AXLE TRANSMISSION MECHANISM. IRVIN H. PLEUKHARP, Columbus, Ohio. Filed Sept. 4, 1915. Serial No. 48,964. (Cl. 74—59.)



1. In a transmission gearing and, in combination, a driven shaft, a double-faced gear mounted thereon, a second gear mounted concentrically with said double-faced gear, a driving shaft arranged at right angles to said driven shaft, a pinion sleeved upon said driving shaft and meshing with one face of said double-faced gear, a second pinion sleeved upon the hub of said first named pinion and meshing with said second gear, spaced clutch members carried by the said hub and second pinion respectively, a clutch member connected with said driving shaft and having a clutch element lying between said spaced clutch members whereby the driving shaft clutch element may be moved to selectively drive either of said pinions, a gear carried by said driving shaft clutch element, a lay-shaft mounted parallel to said driving shaft, a gear on said lay-shaft adapted to engage with the gear on said driving shaft, a reverse pinion adapted for engagement with both of said gears when they are out of engagement with one another, and a bevel pinion carried by said lay-shaft and meshing with the other face of the said double-faced gear.

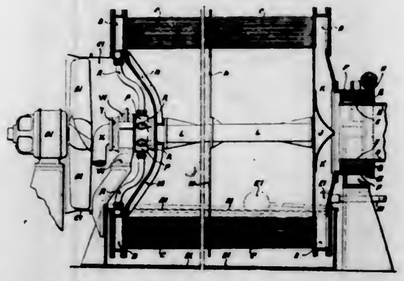
2. In a transmission gearing and, in combination, a driven shaft, a double faced gear mounted thereon, a second gear mounted concentrically with said double-faced gear, a driving shaft arranged at right angles to said driven shaft, a pinion sleeved upon said driving shaft and meshing with one face of said double faced gear, a second pinion sleeved upon said driving shaft and meshing with said second gear, spaced clutch members carried by said pinions, a clutch member connected with said driving shaft and having a clutch element lying between said spaced clutch members, whereby the driving shaft clutch element may be moved to selectively engage either of said pinions, a gear carried by said driving shaft clutch element, a lay-shaft mounted parallel to said driving shaft, a gear slidable on said lay-shaft, and adapted to be moved into engagement with the gear on said clutch, and a bevel pinion carried by said lay-shaft and meshing with the other face of said double-faced gear.

3. In a transmission gearing and, in combination, a driven shaft, a double-faced bevel gear mounted thereon, a second bevel gear mounted concentrically with said double-faced gear, a driving shaft arranged at right-angles to said driven shaft, a pinion sleeved upon said driving shaft and having engagement with one face of said double-faced gear, a second pinion sleeved upon said driving shaft and having engagement with the other of said bevel gears, spaced clutch members carried by said pinions, a clutch member slidable on said driving shaft and having a clutch element lying between said spaced clutch members, whereby said driving shaft clutch element may be moved to selectively engage either of said pinions, a gear formed upon said driving shaft clutch element, a lay-shaft parallel to said driving shaft, a gear splined upon said lay-shaft and adapted to be moved into or out of engagement with the gear formed on said clutch element, a bevel pinion carried by said lay-shaft and adapted to engage the other face of said double-faced gear, and a reverse pinion adapted to transmit motion from said clutch gear to the gear on said lay-shaft when these elements are out of engagement with one another.

4. In a transmission gearing and, in combination, a driven shaft, a double-faced bevel gear carried thereby, a second bevel gear mounted concentrically with said double faced gear, a driving shaft arranged at right-angles to said driven shaft, a bevel pinion sleeved upon said driving shaft and meshing with one face of said double-faced gear, a second bevel pinion sleeved upon said drive shaft and meshing with the other bevel gear, spaced clutch members carried by said pinions, a clutch member carried by said driving shaft having a clutch element lying between said spaced clutch members, whereby said driving shaft clutch member may be moved to selectively engage either of said pinions, a lay-shaft mounted parallel with said driving shaft, a gear splined upon said lay-shaft, a gear carried by said driving shaft and adapted to engage said lay-shaft gear, in one position of the latter, and a reverse gear adapted to be driven from said driving shaft and to engage said lay-shaft gear in a second position of the latter, and a bevel pinion carried by said lay-shaft and adapted to engage the other face of said double-faced gear.

5. In a transmission gearing and, in combination, a driven shaft, a double-faced bevel gear mounted thereon, a second bevel gear mounted concentrically with said double-faced gear, a driving shaft arranged at right-angles to said driven shaft, a bevel pinion sleeved upon said driving shaft and having engagement with one face of said double-faced gear, a second bevel pinion sleeved upon said driving shaft and having engagement with the other bevel gear, spaced clutch members carried by said pinions, a clutch member carried by said driving shaft and having a clutch element lying between said spaced clutch members, a gear carried by said driving shaft clutch, a lay-shaft arranged parallel with said driving shaft, a gear splined upon said lay-shaft, an arm mounted to swing on an axis parallel with said shafts, a reverse pinion carried by said arm and adapted to engage the said clutch gear and said lay-shaft gear, when the latter are out of engagement with each other, a slidable member connected with said lay-shaft gear for shifting the latter, means operable from said sliding member for swinging the said arm, and a pinion carried by said lay-shaft and engaging the other face of said double-faced gear.

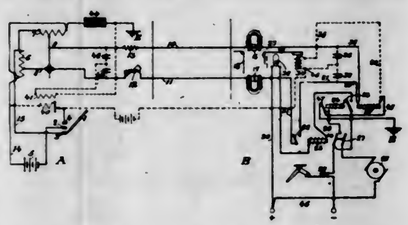
1,209,331. STEAM-CONDENSER. DAVID MCNAB RAMSAY, Mount Florida, Glasgow, Scotland. Filed Apr. 6, 1916. Serial No. 89,428. (Cl. 257—60.)



1. In a condenser having surface heat-exchanging elements, in combination, known means for subjecting the elements (of broadly known form) alternately to an evaporative liquid and when moist therewith to a current of air, known means for supplying steam to be condensed to the elements, means for so segregating and extracting the condensate from the elements that the withdrawal of air is not impeded, means for maintaining a vacuum therein and means for preventing flooding of the elements by the condensate, as set forth.

2. In a condenser, a drum like structure, segmental annular headers formed thereby, tube elements connecting said headers, means for supporting and rotating the drum, means for applying cooling medium to the exterior of the tubes and headers, means for admitting steam to the interior thereof, means for abstracting condensate and air and means for so segregating the condensate and air that the air has at all times unobstructed access to the extracting means as set forth.

1,209,332. SIGNALING DEVICE FOR WRITING OR COPYING TELEGRAPHS. ALPHONS RAPPENECKER, Bremen, Germany, assignor to Telepantograph-Gesellschaft mit beschränkter Haftung, Bremen, Germany, a Corporation of Germany. Filed Oct. 27, 1913. Serial No. 797,686. (Cl. 178—20.)



1. In a writing or copying telegraph of the kind in which a spot of light from an electric lamp connected in an electric circuit at the receiving end follows the movements of the transmitting pencil, the combination with one of the conductors of the electric circuit used for transmitting the writing currents, of a signal device at the transmitter end and means operated by the current in the lamp circuit at the receiving end whereby a gap in the circuit containing the signal is closed when the lamp is lighted and opened when it is not giving light.

2. In a writing or copying telegraph of the kind in which a spot of light from an electric lamp at the receiving end follows the movements of the transmitting pencil, the combination of transmitting conductors for the writing currents, a common return, a relay in series with said return, a holding relay in series with the lamp at the receiving end, means operated by the relay for closing a gap in the circuit of the holding relay, a signal device at the transmitter end in circuit with one of the writing current transmitting conductors and means controlled by the holding relay for closing a gap in the circuit of such transmitting conductor.

3. In a writing or copying telegraph of the kind in which a spot of light from an electric lamp at the receiving end follows the movements of the transmitting pencil, the combination of transmitting conductors for the writing-currents, a common return, a relay in series with said return, a switch in the circuit of said relay and return, a signal device at the transmitter end in circuit with one of the writing-current transmitting conductors, a record strip or band at the receiving end, an electric motor for driving such strip, and electro-magnetic means in circuit with the motor for holding open the switch in the return circuit while current is flowing to the motor thereby giving an indication through the signal at the transmitting end that the apparatus at the receiving end is not in condition for use.

4. In a copying or writing telegraph, the combination with the sending and receiving stations, and an electric lamp at the receiving station for effecting a record of the movements of the transmitting pencil, of a signal at the transmitting station controlled by said lamp to indicate whether or not said lamp is lighted.

1,209,333. PLASTIC COMPOSITION AND PROCESS OF MAKING SAME. LAWRENCE V. REDMAN, Lawrence, Kans., assignor to Redmanol Chemical Products Company, Chicago, Ill., a Corporation of West Virginia. Filed Apr. 4, 1912. Serial No. 688,474. (Cl. 106—22.)

1. An amorphous condensation product of a phenolic body, an active methylene body, and a derivative of a hydroxylated aromatic compound having the general formula R—X, where R represents an aromatic radical and X a non-reactive element or group.

2. An amorphous condensation product of a phenolic body, a methylene-amin body in the form of a solid and in lesser proportion, and a derivative of a hydroxylated aromatic compound having the general formula R—X, where R represents an aromatic radical and X a non-reactive element or group.

3. An amorphous condensation product of a hydroxy aromatic compound, an active methylene body containing nitrogen, and a derivative of a hydroxylated aromatic compound having the general formula R—X, where R represents an aromatic radical and X a non-reactive element or group after subjection to the action of heat and the elimination of nitrogen in the form of ammonia.

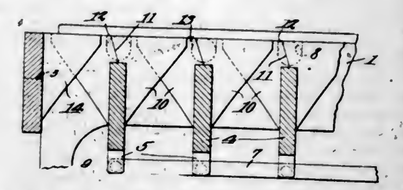
4. An amorphous condensation substance comprising the condensation product of a substantially anhydrous reaction between a phenolic-body, an active methylene body, and a derivative of a hydroxylated aromatic compound having the general formula R—X, where R represents an aromatic radical and X a non-reactive element or group, such reaction carried on substantially in the absence of water.

5. An amorphous condensation product of a phenolic body, hexamethylenetetramin in solid form, and a derivative of a hydroxylated aromatic compound having the general formula R—X, where R represents an aromatic radical and X a non-reactive element or group.

[Claims 6 to 22 not printed in the Gazette.]

1,209,334. GRATE. JOHN W. REYNOLDS, Mount Jewett, Pa. Filed Sept. 14, 1915. Serial No. 50,677. (Cl. 126—176.)

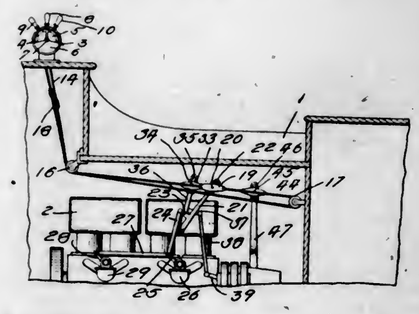
1. A grate including bars mounted for simultaneous rocking movement, and fingers integral with each bar and extending in opposite directions therefrom, to form oppositely extending series, each series of fingers on one bar being adapted to work between one of the series of fingers on the next adjoining bar, the fingers of each series being located entirely beyond one side of their bar and having their upper end portions extending partly over the bar, there being an air space along the top of the bar and past all of the fingers thereon.



2. A grate bar including oppositely extending series of fingers, each finger being substantially triangular in elevation and projecting upwardly beyond the bar, that portion of each finger above the bar being inclined upwardly from the bar to the top of the finger to overhang the bar and provide an air space between the bar and the overhanging portion, the upper edge of said overhanging portion constituting a shearing edge, the fingers of the two series extending in opposite directions from the bar.

3. A grate bar including oppositely extending series of fingers, each finger being substantially triangular in elevation and projecting upwardly beyond the bar, that portion of each finger above the bar being inclined upwardly from the bar to the top of the finger to overhang the bar and provide an air space between the bar and the overhanging portion, the upper edge of said overhanging portion constituting a shearing edge, the fingers of the two series extending in opposite directions from the bar, all of the fingers being disposed in staggered relation with the overhanging portions of one series interposed between the overhanging portions of the opposed series.

1,209,335. MOTOR CONTROL FOR BOATS. GEORGE H. RICHARDSON, Dayton, N. Y. Filed Apr. 7, 1915. Serial No. 19,734. (Cl. 74—5.)



The combination with a lever pivoted at one end and having a longitudinally extending slot in the other end, of a fixed pulley on one side of the lever, a controlling lever having a pair of arms extending outwardly in opposite directions from its pivot point, a cable having its ends secured to said arms and passing around said pulley, a plate interpolated in said cable and having a pin thereon extending into and slidable in the slot in the first mentioned lever and means coöperating with the controlling lever for indicating the position of the first mentioned lever.

1,209,336. PROCESS OF MANUFACTURING CARBURIZING MATERIAL AND OIL DISTILLATES. HUGH RODMAN, Edgewood, Pa., assignor to Rodman Chemical Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 24, 1915. Serial No. 30,039. (Cl. 148—25.)

1. The process of producing petroleum products and carburizing material which consists in adding to the petroleum a finely divided energizing agent, in subjecting the mixture to destructive distillation, in collecting the products driven off and removing the coked residue from the still.

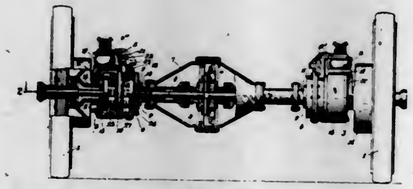
2. The process of producing carburizing material and hydrocarbon distillates, which consists in mixing the petroleum base to be distilled with an energizing agent prior to destructive distillation, finally subjecting the base including the mixture to destructive distillation, in collecting the distillates resulting from the destructive distillation, and then removing the residue containing the energizing agent from the still in which the destructive distillation has been completed.

3. The process of producing oil and carburizing material, which consists in mixing a finely divided energizing agent with a petroleum base, subjecting the petroleum to complete distillation, collecting the distillates, and then breaking up the residue containing the energizing agent.

4. The process of producing carburizing material and oil distillates, which consists in subjecting the oil to distillation, mixing the residue resulting after a partial distillation of the oil with finely divided energizing material, destructively distilling the mixture, and collecting the distillates and then removing the mixture of petroleum coke and energizing material from the still in which the destructive distillation has been carried forward.

5. The process of producing carburizing material, which consists in adding an energizing agent to the petroleum base to be distilled prior to the destructive distillation of the base, in carrying forward the commercial processes of oil distillation, and finally removing the coked residue mixed with energizing agent from the coking still.

1,209,337. POWER-TRANSMISSION MECHANISM FOR MOTOR-VEHICLES. FRANK N. ROEHRICH, Jersey City, N. J. Filed Dec. 26, 1911. Serial No. 667,687. Renewed May 16, 1916. Serial No. 97,959. (Cl. 21—90.)



1. The combination of a driving element, a driven element, relatively movable supports for said elements, a crank member on the driving element, a crank member on the driven element, an intermediate crank member, and a plurality of link connections between the last-named crank member and the other crank members.

2. In power-driven mechanism for motor vehicles, the combination with a running wheel, a support therefor, a driving element, a support therefor, and resilient connections between said supports, of a plurality of crank and link connections between said running wheel and driving element, said connections including succeeding crank members and a set of transmission links of equal length between the same, said links being arranged to travel in intersecting paths when the driving element is actuated.

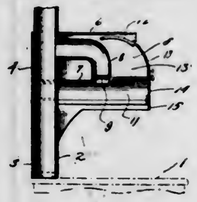
3. In a power-driven mechanism for motor vehicles, the combination with a running wheel, a driving element, pivotally connected supports for said wheel and element, and a resilient connection between said supports, of a plurality of crank and link connections between said running wheel and driving element, said connections including succeeding crank members and a set of transmission links of equal length between the same, said links being arranged to travel in intersecting paths when the driving element is actuated.

4. In a power-driven mechanism for motor vehicles, the combination with a running wheel, a support therefor, a driving element, a support therefor, and resilient connections between said supports, of a crank member for the driving element, a crank member for the running wheel, a crank member mounted to rotate in one of said supports, and a plurality of link connections between the last-named crank member and the other crank members.

5. In a power-driven mechanism for motor vehicles, the combination of a running wheel, an axle therefor, a driving element, a housing provided with a bearing for said axle, a housing provided with a bearing for the driving element, said housings being associated to permit their relative vertical movement, resilient connections between the said housings, and a plurality of crank and link connections between said running wheel and driving element, said connections including succeeding crank members and a set of transmission links of equal length between the same, said links being arranged to travel in intersecting paths when the driving element is actuated.

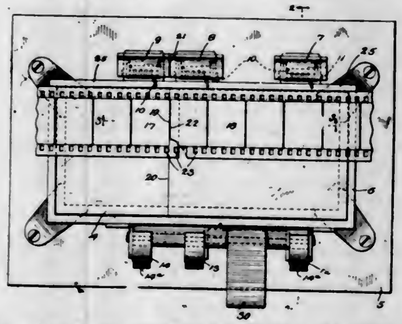
[Claims 6 to 8 not printed in the Gazette.]

1,209,338. VENTILATING-HOOD FOR STOVES. ALVIN RUPPERT, Akron, Mich. Filed May 17, 1916. Serial No. 98,115. (Cl. 126—301.)



In a device of the class described, the combination with a stove having a back plate, an oven supported by the plate, said oven having a false bottom inclined upwardly from each end of the oven, a pipe leading from the highest point of the bottom to the smoke pipe of the stove, a strip supported rigidly and longitudinally of the front of the oven, and a second strip hingedly connected to the first strip, as and for the purpose set forth.

1,209,339. FILM-SPLICER. JOHN W. SCHIPPERS and LAVINA P. SCHIPPERS, Chicago, Ill. Filed Mar. 17, 1916. Serial No. 84,943. (Cl. 154—42.)



1. A film splicer comprising a plate, said plate having a framer line thereon, two clamps adapted to press against said plate, said clamps being positioned on opposite sides of said line, and a key for simultaneously releasing said clamps.

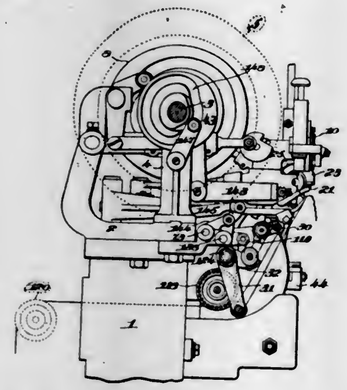
2. A film splicer comprising a plate, said plate having a framer line thereon, two clamps adapted to press against said plate, said clamps being positioned on opposite sides of said line, and the corner of one edge of one of said clamps substantially coinciding with said line.

3. A film splicer comprising a film support, a plurality of means for clamping films on to said support, and means for simultaneously releasing said clamping means.

4. A film splicer comprising a film support, a plurality of means for clamping films on to said support, means for simultaneously releasing said clamping means, and resilient means tending to move each of said clamping means away from said support.

5. A film splicer comprising a film support, a first means for clamping one end of a film on to said support, a second means a material distance from said first means for clamping another film on to said support, a third means adjacent said first means for clamping the ends of both of said films on to said support, and a universal release key for simultaneously releasing said clamping means.

1,209,340. SEWING-MACHINE. AUGUST R. SCHOENKY, Somerville, Mass., assignor to The Reece Shoe Machinery Company, Boston, Mass., a Corporation of Maine. Filed Nov. 8, 1913. Serial No. 799,873. (Cl. 112—20.)

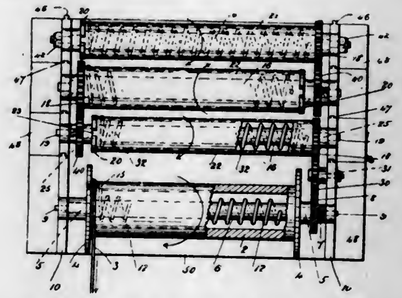


1. In a sewing machine adapted to be stopped with the stitch completed and thread clamp closed, the combination of a presser foot, stitching mechanism, operating mechanism, an automatic thread clamp comprising a movable thread clamping part shifted by connections from said operating mechanism during the formation of each stitch, said connections including a link engaging and actuating an arm, a contrivance intermediate said link and arm permitting relative movement when said operating mechanism is idle, a movable device operable at will as a treadle adapted when shifted to disengage the presser foot from the work, and connections between said device and said contrivance whereby the release of the thread is effected in the same operative shifting movement of said device by which the presser foot is disengaged.

2. In a sewing machine the combination of a presser-foot, stitching mechanism, a thread clamp opened and closed in forming each stitch, a take-up for taking up the thread of each stitch, means for applying the presser-foot to the work, intermittent means for applying heavy pressure to the presser-foot during each stitch and for locking the presser-foot under such heavy pressure and releasing it during each stitch, mechanism for actuating such elements in harmony, the same adapted to be stopped with the stitch completed, the thread clamp closed and the presser-foot locked under heavy pressure against the work, and a device operable at will as a treadle having connections adapted in one operative movement to effect the unlocking of the presser-foot and the opening of the thread clamp.

3. In a sewing machine the combination of a presser-foot, stitching mechanism, a thread clamp opened and closed in forming each stitch, a take-up for taking up the thread of each stitch, means for applying the presser-foot to the work, an intermittent dog and rack device for applying heavy pressure to the presser-foot during each stitch and for locking the presser-foot under such heavy pressure and releasing it during each stitch, mechanism for actuating such elements in harmony, the same adapted to be stopped with the stitch completed, the thread clamp closed and the presser-foot locked, and a device operable at will as a treadle having connections adapted in one operative movement to effect the unlocking of the presser-foot, the opening of the thread clamp, and the lifting of the presser-foot from the work.

1,209,341. SPRING-REEL. WILLIAM SCHULTZ, Curtiss, Wis. Filed May 24, 1916. Serial No. 99,652. (Cl. 242—108.)



1. In a spring reel, a supporting stand, a main roller for holding a cord, a shaft journaled in the stand and having the said roller journaled on it, a spring having its ends connected to the said roller and its shaft respectively, an auxiliary winding device arranged to one side of and parallel to the said main roller and also journaled in the stand, a spring anchored at one end and having its other end connected to the said auxiliary winding device, and means for positively connecting the auxiliary winding device with the said roller so that the springs are wound up as the cord is unwound from the roller.

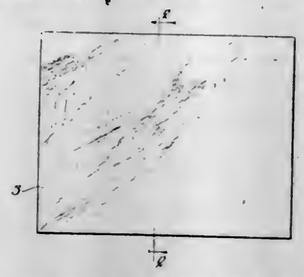
2. In a spring reel, a supporting stand, a main roller for holding a cord, a shaft journaled in the stand and having the said roller journaled on it, a spring having its ends connected to the said roller and its shaft respectively, an auxiliary winding device arranged to one side of and parallel to the said main roller and also journaled in the stand, a spring anchored at one end and having its other end connected to the said auxiliary winding device, intermediate winding devices interposed between the auxiliary winding device and the main roller, each said intermediate winding device comprising a revoluble shaft, a spring casing revoluble on the said shaft, and a spring having its ends secured to the said casing and its shaft, and means for positively connecting all the said winding devices together and with the said roller so that the springs are wound up as the cord is unwound from the roller.

3. In a spring reel, a supporting stand, a main roller for holding a cord, a shaft journaled in the stand and having the said roller journaled on it, a spring having its ends connected to the said roller and its shaft respectively, a series of auxiliary winding devices each comprising a shaft mounted in the said stand, a spring casing

journaled on the said shaft, and a spring having its ends secured to the said casing and its shaft respectively, means for anchoring one end of the spring of the last winding device of the series, and means for positively connecting the casings of all the said winding devices together and with the said roller so that the springs are wound up as the cord is unwound from the roller.

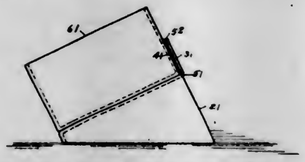
4. In a spring reel, a supporting stand provided with side plates formed in slidable sections connected together by tongues and grooves, said stand having also a base plate to which one end of each side plate is detachably secured, a series of winding devices each comprising a shaft mounted in a pair of the side plate sections, a spring casing having end pieces which are journaled on the said shaft, and a spring having its ends secured to the said casing and its shaft respectively, a winding roller for holding a cord, and means for connecting all the said winding devices together and with the said winding roller.

1,209,342. PROCESS OF MAKING WALL-COVERING. CARL A. SEALANDER, Chicago, Ill. Filed Aug. 23, 1916. Serial No. 116,471. (Cl. 41—22.)



The herein described method of making wall covering consisting in subjecting one surface of a piece of glass to water and powdered aluminum, then placing on said surface a design or designs, then applying an adhesive in a plastic state to said surface, and then applying a body composition in a plastic state to said adhesive.

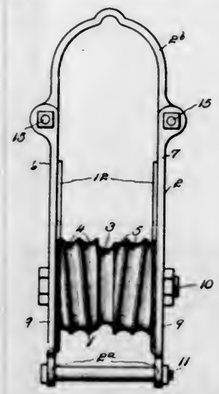
1,209,343. DISPLAY-RECEPTACLE. MANUEL SHAMPANIER, Passaic, N. J. Filed Sept. 28, 1915. Serial No. 53,112. (Cl. 211—28.)



1. A receptacle comprising four sides and bottom portion, a supporting stand therefor consisting of a base having four sides and a top portion, the said four sides lying substantially in the planes of those of the receptacle, and a hinging device constructed and arranged to so attach the receptacle and base together that, when reversed in position, the four side parts of the base shall overlap the four side portions of the receptacle, and the top part of the base shall form the cover of the receptacle, thus forming a closure of the entire upper portion thereof.

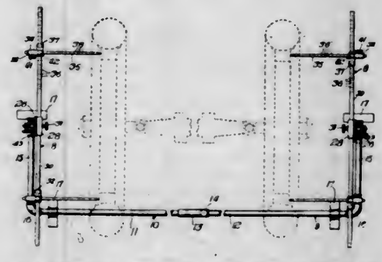
2. A receptacle comprising four sides and bottom portion, a supporting stand therefor consisting of a base having four sides and top portion, the said four sides lying substantially in the planes of those of the receptacle, one side portion of the base being less in height than its opposite one to support the receptacle at an angle, and a hinging device constructed and arranged to so attach the receptacle and base together that, when reversed in position, the four side parts of the base shall overlap the four side portions of the receptacle, and the top part of the base shall form the cover of the said receptacle, thus forming a closure of the entire upper portion thereof having two sides of unequal height and the other two formed with inclined edges.

1,209,344. PULLEY-BLOCK. LYMAN F. SLAVENS, Marshfield, Oreg. Filed Nov. 19, 1913. Serial No. 801,843. (Cl. 254—197.)



A device of the type described, including a yoke and a pulley mounted in said yoke, said pulley having a central annular peripheral groove and lateral spiral peripheral grooves, the trend of said spiral grooves being in opposite directions, the inner terminals of said spiral grooves vanishing or merging into said annular peripheral groove and at out of alinement, and distantly separated points, each of said terminals accordingly having its higher or greater outwardly extended portion upstanding opposite the vanishing portion of the other terminal whereby to guard against the cable casually leaving or escaping from said central groove after having been led thereinto by said spiral grooves, said pulley having flanges at the terminii of its axis, with their inner surfaces or faces rounded next to said pulley spiral-grooves, said yoke having its lateral members equipped to provide for guarding against the hauling line or cable becoming casually wedged between the pulley and yoke.

1,209,345. DEVICE FOR DETERMINING THE TRUENESS OF WHEELS. WILLIAM SMITH, Chicago, Ill. Filed Oct. 7, 1915. Serial No. 54,548. (Cl. 33—180.)



1. In a device of the class described, the combination of a supporting member, detector members, a mounting for the detector members carried by the supporting member, said detector members being adjustable on said mounting both longitudinally of the mounting and longitudinally of themselves and with straight line movements, and said detector members being arranged on said mounting to lie upon opposite sides of the axle of a wheel, substantially as described.

2. In a device of the class described, the combination of a supporting member, detector members, a mounting for the detector members adjustable upon the supporting member, means for permitting adjustment of said detector members on their mounting, both longitudinally of the mounting and longitudinally of themselves and with straight line movements and said members being arranged to lie upon opposite sides of the axle of a wheel, substantially as described.

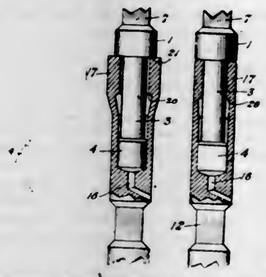
3. In a device of the class described, the combination of a supporting member, detector members, a mounting for said detector members at each end of the supporting member, means for permitting vertical adjustment of said mounting upon the supporting member, means for permitting adjustment of said mounting in a direction longitudinally of itself, means for permitting adjustment of said detectors along the mounting, and means for permitting adjustment of the members in a direction longitudinally of themselves, substantially as described.

4. In a device of the class described, the combination of a supporting member, detector members, a mounting for said detector members at each end of the supporting member, means for permitting vertical adjustment of said mounting upon the supporting member, means for permitting adjustment of said mounting in a direction longitudinally of itself, means for permitting adjustment of said detectors along the mounting, means for permitting adjustment of the members in a direction longitudinally of themselves, and to permit turning of said mounting about a pivotal center, substantially as described.

5. In a device of the class described, the combination of a supporting frame-work, a vertical bar secured to said frame-work, a sleeve vertically adjustable on said bar, a second sleeve pivotally secured to the first mentioned sleeve, detector members, a mounting for the detector members carried by the second sleeve, and on which mounting the detector members are adjustable, means for permitting adjustment of said mounting longitudinally of itself through said sleeve, and means for locking said second sleeve against rotative movement about its pivotal connection with the first mentioned sleeve, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,209,346. METHOD OF MAKING WELL DRILL-JARS. WILLIAM A. SPARKS, Charleston, W. Va., assignor to Sparks Drilling Jar Company, Charleston, W. Va., a Corporation of West Virginia. Filed Oct. 3, 1913. Serial No. 793,202. (Cl. 76—101.)



1. The method of producing well drill jars comprising the formation of a piston member having an elongated shank and a head, forming a socket member with an elongated chamber, inserting the head of the piston member into the socket chamber, and compressing the wall of an end of the socket member around the elongated shank to connect the piston and socket members and permit of reciprocating and rotating movements of the head within said chamber.

2. The method of producing a well drill jar from two pieces of metal comprising the formation of a piston member having an elongated shank and a head, forming a socket member with a chamber of greater length than said head, forming a seat for the head at one end of the chamber, cutting a groove in the wall of the socket member near the other end of the chamber, and compressing the wall of an end of the socket member around the shank of the piston member to connect the piston and socket members and to form a seat for the head at said groove.

3. The method of producing a well drill jar from two pieces of metal comprising the formation of a piston member having an elongated shank and a substantially cylindrical head, forming a socket member having a portion thicker near one end, forming a cylindrical chamber in the thicker end of the socket member of greater length than said head to have the wall of said chamber of varying thicknesses, cutting a groove in the wall of the chamber at a thickened portion to reduce such portion at the groove to substantially the thickness of a thinner part of the wall of the chamber, cvompressing the thicker portion of the wall of the socket member around the shank of the piston member to connect the piston and socket members and ,to form a seat for the head at one end of the chamber by distorting the formation of the grooved portion of the chamber wall.

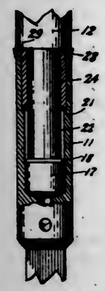
4. The method of producing a well drill jar from two pieces of metal comprising the formation of a piston member having an elongated shank and a substantially cylindrical head thereon, rounding the free end of the head, forming a socket member within an open ended chamber therein of greater length than said head, and with a wall of varying thickness, forming a rounded seat at one end of said chamber for the rounded end of the head, inserting the piston head into the chamber of the socket at a point intermediate the ends of the chamber, and compressing the chamber end of the socket member having the thickened wall, upon the shank of the piston member to house the head within the chamber and serve as a stop to the movement of the piston head in one direction.

5. The method of producing a well drill jar from two pieces of metal comprising the formation of a piston member having a shoulder, an elongated shsank and a substantially cylindrical head thereon, rounding the free end of the head, forming a socket member with an open ended chamber therein of greater length than said head and with a wall of varying thickness, forming a rounded seat at one end of said chamber for the rounded end of the head, forming another seat intermediate the ends of said chamber and into a thickened part of the wall of the socket member, inserting the piston-head into the chamber of the socket member and at a point between said seats, compressing the chamber end of the socket member having the thickened wall upon the shank of the piston member to house the head within the chamber, and thereafter cutting away a portion of the chamber end of the socket member until the shoulder of the piston member engages the chamber end of the socket member simultaneously with the engagement of the rounded end of the piston-head with the rounded seat of the socket member.

1,209,347. WELL DRILL-JAR. WILLIAM A. SPARKS, Charleston, W. Va., assignor to Sparks Drilling Jar Company, Charleston, W. Va., a Corporation of West Virginia. Filed Oct. 3, 1913. Serial No. 793,203. (Cl. 255—27.)

1. A well drill jar comprising a piston member and a socket member permanently coupled to permit of rotating and reciprocating movements, the piston member being provided with a shank and an enlarged head, the socket member being provided with a chamber and a collar adapted to be positioned within said chamber to close one end thereof and secure the piston head within the

chamber, said collar being retained in position by compressing the wall of the socket member around said collar.



2. A well drill jar comprising a piston member and a socket member, the piston member being provided with a shank and a substantially cylindrical head integral therewith, the socket member being provided with a chamber having a seat for the head, and a divided collar to close one end of said chamber and providing another seat for the head.

3. A well drill jar comprising a piston member and a socket member, the piston member being provided with a shank and a substantially cylindrical head integral therewith, the socket member having a chamber provided with a seat at the lower end thereof and a shoulder intermediate the ends of the chamber, and a cylindrical member mounted within said socket member and engaging said shoulder to form a seat for the head.

4. A well drill jar comprising a piston member having a shank and a head formed integral therewith, a socket member provided with a substantially elongated chamber to permit of reciprocating and rotary movement of the piston head therein and a divided cylindrical member retained within said socket member and operating to substantially close the end of said chamber and also form a seat for said head.

5. A well drill jar comprising a piston member having a shank and a head integral therewith, a socket member provided with a cylindrical chamber permitting of reciprocating and rotary movement of the head therein, oppositely positioned seats within said chamber, a sectional cylindrical member at one end of the socket member, and means whereby the sectional member is retained in position on said socket member.

[Claims 6 and 7 not printed in the Gazette.]

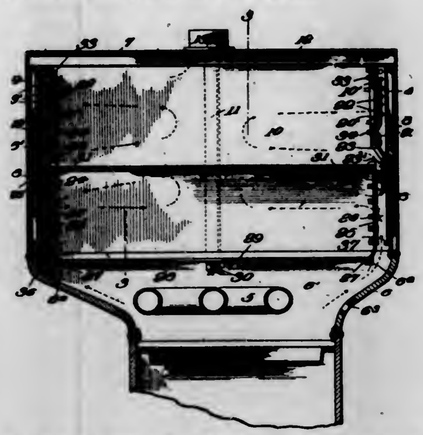
1,209,348. OVEN FOR GAS AND VAPOR STOVES. CHARLES H. STEADMAN, Marietta, Ohio. Filed Apr. 4, 1916. Serial No. 88,858. (Cl. 126—39.)

1. An oven having superposed oven chambers and superposed independent side flues, the lower side flues communicating with the superposed oven chambers, and the upper side flues with the upper oven chamber.

2. An oven having independent upper and lower side flues, a removable plate for dividing said oven into two compartments, said lower side flues communicating respectively with the superposed oven chambers formed by the division plate, and the upper side flues communicating with the upper chamber only.

3. An oven having inner and outer walls separating to form superposed independent flues, a plate for dividing said oven into superposed chambers, said lower flues having communication with said superposed chambers adjacent said plate.

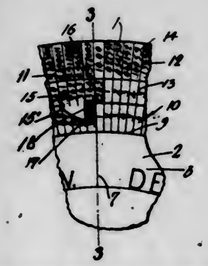
4. In an oven, the combination with inner and outer side walls arranged to form an oven chamber and provided with independent upper and lower side flues, a division plate arranged within said oven chamber forming superposed chambers, the inner walls of the lower side flues being slotted affording communication with the lower chamber and terminating at their upper ends in the upper chamber, the side walls of the upper flues having openings communicating with the upper chamber.



5. An oven comprising a casing having independent upper and lower side flues to form an oven chamber, a removable plate dividing said oven chamber into superposed chambers, said lower side flues terminating in the upper chamber and provided with openings affording communication with the lower chamber.

[Claims 6 to 31 not printed in the Gazette.]

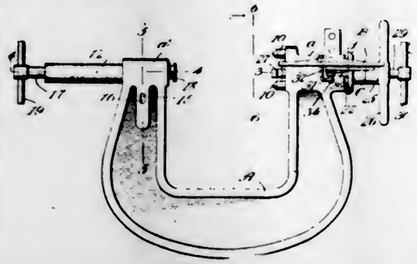
1,209,349. INTEREST-COMPUTING DEVICE. MERRILL STEVENS, Topeka, Kans. Filed July 3, 1916. Serial No. 107,390. (Cl. 235—78.)



A computing device embodying a card and a disk mounted for rotation thereon, said card having a slit whose terminals project radially outward, said slit providing an inwardly projecting spring index tab overlapping the margin of the disk to press the disk upon the card, the card having radial lines providing an annular column of spaces adjacent to the edge of the disk, said spaces being graduated starting from one edge of the tab, the disk having radial lines providing an annular column of spaces at the edge of the disk coöperable with the aforesaid spaces, said tab having a notch at said edge and adjacent to its free end providing an offset edge with which the lines of the disk are registrable, said notch being of a size to receive one of the spaces of the annular column of the disk.

1,209,350. GRINDING-WHEEL GRADER. ULRICH STEINER, Waynesboro, Pa. Filed July 26, 1912. Serial No. 711,702. (Cl. 73—51.)

1. A grading instrument comprising a body, means for clamping said body to the article to be graded, a sliding sleeve mounted in an adjacent part of said body, a grading tool mounted in said sliding sleeve, means for turning said sleeve, means for forcing said grading tool into the article to be tested, an indicator dial, and an indicator arm operatively connected to the sleeve, whereby it is operated by the movement of said sleeve, substantially as set forth.



2. A grading instrument comprising a body, means for clamping said body to the article to be graded, a sliding part in the adjacent portion of said body, a grading tool mounted in said sliding part, means for operating said sliding part to force said grading tool into the article to be tested, an indicator scale, a coöperating indicator arm, an operative connection between said indicator arm and the movable part whereby said indicator arm is operated by said movable part, substantially as set forth.

3. A grading instrument comprising a body, means for clamping said body to the article to be graded, a sliding sleeve mounted to turn in said body, a grading tool carried by said sliding sleeve, means for exerting pressure against said sliding sleeve as it is turned, and an indicator operated by the movement of said sleeve, substantially as set forth.

4. A grading instrument comprising a body, means for clamping said body to the article to be graded, a sleeve mounted in said body, a spring for normally holding said sleeve toward the article to be tested, a grading tool mounted in said sleeve, means for supporting said sleeve and drawing it outward, a spring operatively interposed between said sleeve and the body, means for operating said sleeve, and an indicator connected to be operated thereby, substantially as set forth.

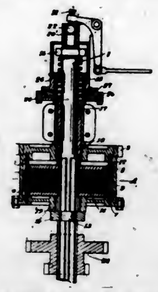
5. A grading instrument comprising a body, means for holding said body to the article to be tested, a grading tool mounted under pressure to bear against said article, means for exerting pressure against said grading tool, means for operating said grading tool to bore into said article, and an indicator mechanism connected to be operated by the inward movement of said tool to measure the same, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

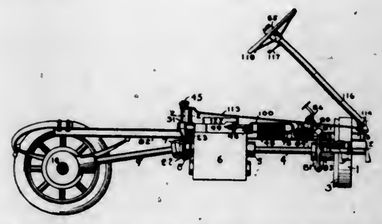
1,209,351. FRICTION-CLUTCH MECHANISM. CHARLES A. STICKNEY, Chicago, Ill. Filed Nov. 12, 1915. Serial No. 61,176. (Cl. 192—10.)

1. In a friction clutch the combination of a shaft, a friction disk adapted to drive said shaft, a thrust sleeve, a drum journaled on said thrust sleeve and carrying a friction disk, a spring coacting with said sleeve and said shaft, means for preventing the lateral movement of said shaft, a releasing case journaled on said thrust sleeve, a releasing collar rigidly attached to said thrust sleeve but adapted to revolve in said releasing case, an opening in one end of said releasing case adapted to serve as a bearing for one end of said shaft, a thrust member impinging on said end of said shaft and pivotally mounted on said releasing case, a shoulder in said thrust sleeve, a spring encircling said shaft, a nut on said shaft retaining said spring between said nut and said shoulder on said thrust sleeve, and means for actuating said thrust member whereby said releasing case and said thrust sleeve may be moved reciprocally with said shaft.

2. In a friction clutch the combination of a shaft, a friction disk adapted to drive said shaft, a thrust sleeve slidable on said shaft, a drum journaled on said thrust sleeve, a friction disk adapted to be driven by said drum, means for engaging said disks, a non-rotatable case surrounding said thrust sleeve, a collar fixed on said thrust sleeve and a frictional collar associated with said case adapted to be engaged with said case and said collar fixed on said thrust sleeve when said disks are disengaged for the purpose of stopping the rotation of said shaft.



1,209,352. SPEED-SELECTOR. JOHN H. STORTZ, Philadelphia, Pa. Filed Dec. 2, 1913. Serial No. 804,170. (Cl. 74—58.)



1. The combination with a power driven machine provided with speed changing devices, an electromagnet adapted to operate each of said devices, and a switch adapted to close and to open the circuit of each electromagnet, said switch comprising relatively movable members, the movement of one of said members depending upon the speed of the machine.

2. In combination with a power driven machine provided with speed changing devices and with a power controller, an electromagnet adapted to operate each of said devices, and a switch adapted to close and to open the circuit of each magnet comprising relatively movable members, one of said members depending for its movement upon the speed of the machine, and a second member depending for its movement upon that of the controller.

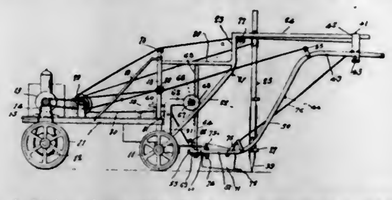
3. In combination with a power driven machine provided with speed changing devices and with a power controller, an electromagnet adapted to operate each of said devices, and a switch adapted to control the current of each electromagnet comprising a member operatively connected with the machine and a member operatively connected with the controller.

4. In combination with a power driven machine provided with speed changing devices and with a power controller, an electromagnet adapted to operate each speed changing device, and a switch adapted to control the circuits of said magnets, said switch comprising a member common to all the circuits and a plurality of members corresponding with the number of circuits, said common member operatively connected with the machine, and said plurality of members operatively connected with the controller.

5. In combination with a power driven machine provided with speed changing devices, electromagnets adapted to operate said devices, a source of electric power, a switch adapted to connect each magnet with the source, and a switch adapted to open the circuit of one of the magnets independently of any of the other magnets.

[Claims 6 to 35 not printed in the Gazette.]

1,209,353. EXCAVATOR. ELA D. STORY, Tyler, Tex. Filed Sept. 1, 1916. Serial No. 118,088. (Cl. 37—16.)



1. A device of the class described comprising a chassis, a motor mounted on said chassis, arms extending upwardly from the forward end of the chassis, said arms projecting forwardly therefrom, a grubber mounted on one of said arms, a bucket frame mounted on the other of said arms, a bucket slidable on the bucket frame and means to move the rear end of the bucket frame transversely of the device to enable the bucket to cut a distance beyond each side of the machine.

2. An excavator of the class described comprising a frame, a bracket mounted at the forward end of the frame, an arm extending forwardly from the bracket, a bucket frame pivotally and slidably mounted on one of the arms, an excavating bucket operable on said frame and means to move the rear end of the frame transversely of the machine to enable the bucket to cut on each side of the machine.

3. In an excavator of the class described, a frame, a bracket extending forwardly from the frame, a bucket supporting frame pivotally and slidably mounted near the forward end of the bracket, a carriage movable transversely of the main frame adjacent its forward end, the rear end of the bucket frame being attached to the carriage and means to move said carriage.

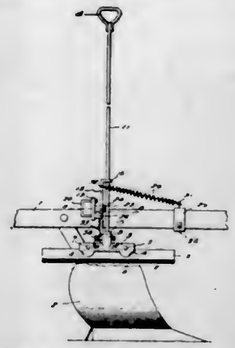
4. In an excavator, a main frame, a bracket at the forward end of the main frame, an arm extending forwardly from the bracket, a bucket frame pivotally and slidably mounted at the forward end of the arm, a carriage movable transversely of the forward end of the main frame, the rear end of the bucket frame being attached to the carriage, a vertical adjustable post operable through the carriage for adjusting the rear end of the bucket frame vertically and means to move the carriage transversely of the main frame.

1,209,354. MOLDBOARD-SCRAPER FOR PLOWS. PEDER O. STRAND, Minnewaukan, N. D. Filed Mar. 3, 1915. Serial No. 11,705. (Cl. 97—3.)

1. A device of the class described including a rod or member movable upwardly and downwardly and provided at the lower portion with a scraper blade, a pivotally mounted bracket guiding the bar or rod in its upward and downward movement, a stop plate for limiting the pivotal movement of the bracket and a spring connected with the bracket for urging the same toward the stop plate.

2. A device of the class described including a clip having a pivot stud and adapted to be mounted on the frame of a plow, a guide bracket pivoted to the clip by the said stud, a slidable rod or bar guided by the said bracket and movable upwardly and downwardly and a scraper carried by the rod or bar and arranged to engage a mold board.

3. A device of the class described including a clip adapted to engage the frame of a plow and provided with a stud or pivot, a guide bracket connected to the clip by the stud or pivot, a rod or bar movable upwardly and downwardly and guided by the said bracket, said bar being provided with means for engaging and cleaning a mold board, an adjustable stop plate mounted on the clip and arranged to limit the movement of the guide bracket in one direction and a spring connected with the guide bracket for urging the same against the stop.

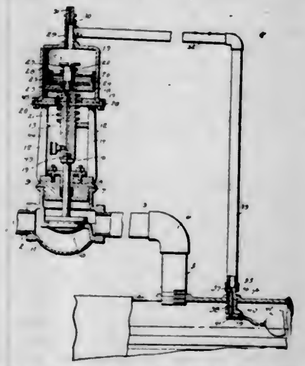


4. A device of the class described including a clip adapted to engage a plow beam, a bracket pivotally mounted on the clip, a bar or member guided by the bracket and provided with means for engaging and cleaning a mold board, a spring connected with the bracket for urging the scraping means in engagement with the mold board and an adjustable bracket provided with means for engaging the frame of the plow and connected with the said spring for varying the tension thereof.

5. A device of the class described including guiding means, a bar or member mounted in the guiding means and movable upwardly and downwardly and provided with a scraper blade and a catch arranged to automatically engage with means carried by the rod or bar for supporting the blade in an elevated position.

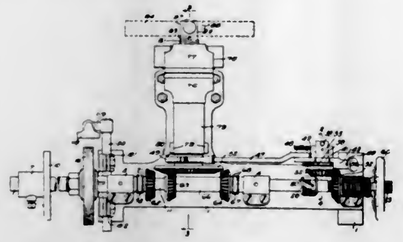
[Claims 6 and 7 not printed in the Gazette.]

1,209,355. FEED-WATER REGULATOR. CHARLES W. SUTHERLAND, Charleroi, Pa. Filed Feb. 17, 1915. Serial No. 8,865. (Cl. 137—101.)



A device of the character set forth comprising a valve casing, a valve mounted therein, a plurality of vertical members secured to the casing, guide members formed on said vertical members, a plate secured to the upper ends of the vertical members and having an opening therein, a cylinder detachably secured to the plate, a piston stem slidable in the plate and guide members, means for adjustably securing the piston stem to the valve, a piston head on said piston stem and located within the cylinder, a washer on said piston head and having its periphery turned upwardly into an engagement with the wall of the cylinder, a metal washer on said washer, a stud extending through the washers and into the piston head, a sliding cap on said stud engaging the upturned peripheral portion of said washer, a spring on the stud for forcing the cap downwardly to hold the said peripheral portion of the washer in engagement with the wall of the cylinder, a spring acting on said piston for unseating the valve, and means for admitting pressure into the cylinder to act on the piston to seat the valve.

1,209,356. COMBINATION-MACHINE. JOHN SYVRET, Sydney, New South Wales, Australia. Filed Sept. 3, 1915. Serial No. 48,877. (Cl. 29—32.)

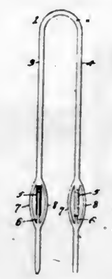


1. In a device of the character described, a tool spindle, a plurality of gears for driving said spindle, said gears including a master gear, an internally threaded sleeve rigidly connected with said master gear, a power shaft having a threaded section fitting into said threaded sleeve, means for permitting longitudinal movement of said threaded sleeve, a sliding clutch arranged on said threaded sleeve, and a sleeve provided with a clutch face rigidly secured to said shaft, whereby the shaft may be connected and disconnected with said internally threaded sleeve.

2. In a device of the character described, a tool spindle, a plurality of driving gears associated with said spindle for operating the same, a vise, a power shaft journaled in the movable jaw of the vise, said shaft being formed with a flange for forcing said vise in one direction, a sleeve rigidly secured to said shaft for forcing said movable jaw in the opposite direction when said shaft is moved in said opposite direction, a clutch face arranged on said vise, a sliding clutch member adapted to coact with said first mentioned clutch face, an internally threaded sleeve fitting over said shaft, said shaft having threads fitting the threads of said sleeve, said sleeve being rigidly connected with one of said gears, means for preventing longitudinal movement of said internally threaded sleeve, a stationary clutch face, a second clutch face on said sliding sleeve adapted to be thrown into and out of engagement with said stationary clutch face, a slide for slidably connecting said clutch member with said internally threaded sleeve, and means for shifting the position of said clutch member so as to cause either face arranged thereon to be interlocked with its coacting clutch face so as to cause said shaft to operate said movable jaw or said gears.

3. In a combination machine of the character described, a horizontally arranged base having an offset portion extending substantially at right angles to the remaining part of the base, a tool spindle rotatably mounted on said base and extending longitudinally thereof, means for feeding said tool spindle longitudinally, a vise arranged on that portion of the base extending at right angles to the remaining part, a power member for rotating said spindle, said power member being arranged adjacent the vise and extending at right angles to the spindle, and a clutch for connecting and disconnecting the movable jaw of the vise with the power member.

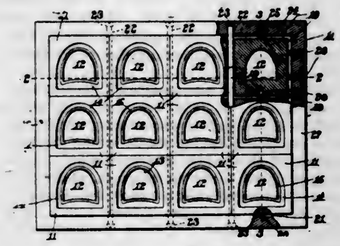
1,209,357. HAIR-PIN. ELMER E. TAYLOR, St. Louis, Mo. Filed Sept. 6, 1916. Serial No. 118,671. (Cl. 132—22.)



1. A hairpin consisting of a length of wire bent into a loop to form legs in substantial parallelism, spring bows on each leg yielding under pressure into flat form, each leg being interrupted in the position of said bows to permit such bow action, and means forming a part of each leg and arranged between the respective bows for preventing the flexing of the axes of said legs in the positions of said bows.

2. A hairpin consisting of a length of wire bent into a loop to form substantially parallel legs each of which is formed of two telescoped members joined by oppositely arranged spring bows.

1,209,358. MOLD. ANDREW TERKELSEN, Everett, Mass. Filed Mar. 29, 1916. Serial No. 88,161. (Cl. 18—42.)



1. In a device of the class described, the combination of a rectangular frame; a plurality of die members having grooves in the edges thereof; and a plurality of members secured to said frame and extending into said grooves.

2. In a device of the class described, the combination of a rectangular frame; a plurality of die members having grooves in the edges thereof; and a plurality of rods secured to said frame and extending into said grooves.

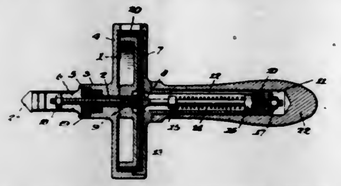
3. In a device of the class described, the combination of a rectangular frame; a plurality of die members having grooves in the edges thereof; a plurality of members secured to said frame and extending into said grooves; and means mounted on and movable relatively to said frame whereby said members may be forced toward each other.

4. In a device of the class described, the combination of a rectangular frame; and a plurality of die members positioned therein and interlocked with each other and said frame.

5. In a device of the class described, the combination of a rectangular frame; and a plurality of die members positioned therein and interlocked with each other and said frame and having provision for slight vertical movement relatively to each other.

[Claims 6 to 9 not printed in the Gazette.]

1,209,359. SPEED-INDICATOR. NIKOLA TESLA, New York, N. Y., assignor to Waltham Watch Company, Waltham, Mass., a Corporation of Massachusetts. Filed May 29, 1914. Serial No. 841,726. (Cl. 264—13.)



1. In combination, fixed supporting means, disconnected alined driving and driven shafts rotatably mounted in said supporting means, relatively thin spaced rigid pieces of material rigidly connected to and arranged coaxially about said driven shaft with broad surfaces opposite each other, and other relatively thin spaced rigid pieces of material rigidly connected to and arranged coaxially with the driving shaft, and being alternated with the first-mentioned pieces between them and having their broad surfaces adjacent to and spaced from the broad surfaces of said other pieces, said pieces all arranged in air, through which torque is frictionally transmitted from the second-mentioned pieces to those first-mentioned.

2. In combination, in a speedometer, disconnected alined driving and driven shafts, a fixed support, said shafts being mounted in said support, a coiled spring having one end secured to said fixed support and the other end secured to said driven shaft, relatively thin spaced rigid pieces of material rigidly connected to and arranged coaxially about said driven shaft with their broad surfaces opposite each other, other relatively thin spaced rigid pieces of material rigidly connected to and arranged coaxially with the driving shaft, and being alternated between said first-mentioned pieces and spaced therefrom, and an air body filling the spaces between said pieces and constituting the torque-transmitting friction medium therebetween.

3. In combination, in a speedometer, disconnected alined driving and driven shafts, a frame having bearings for said shafts, a coiled spring whose inner end is secured to said driven shaft and having its outer end secured to said frame, spaced rigid pieces of material rigidly connected to and arranged about said driven shaft, and other spaced rigid pieces of material rigidly connected to and arranged about said driving shaft, the former pieces being alternated between the latter pieces in spaced relation with their broad surfaces in close juxtaposition, and with the interspaces between said spaced pieces forming a convoluted air-containing channel therebetween open to the surrounding air.

4. In combination, disconnected alined driving and driven shafts, a fixed support, bearings therefor in said support, a coiled spring having one end secured to the driven shaft and its other end secured to said fixed support, a cup-shaped body secured to one end of said driving shaft coaxially, spaced rigid relatively thin plates secured to said body in parallel relation to each other, another cup-shaped body secured coaxially to said driven shaft and inclosing said plates at their outer edges in spaced relation thereto, other spaced rigid relatively thin plates secured to the second-mentioned body and extending between the first-mentioned plates in spaced relation thereto, and an air body filling the spaces between said pieces frictionally to transmit torque from the driving structure to the driven structure.

5. The combination with means for support and driving and driven shafts rotatably supported thereby, of means to transmit torque from the driving shaft to the driven shaft comprising opposed material-pieces respectively connected with the driving shaft and the driven shaft and arranged to present toward each other relatively-extensive, non-contacting, closely-adjacent surfaces, and a gaseous medium in which said pieces work, said gaseous medium serving frictionally to connect the said opposed material-pieces for transmission of torque from the driving shaft to the driven shaft.

[Claims 6 to 32 not printed in the Gazette.]

1,209,360. DOOR. CHARLES C. TOMKINSON, Plainfield, N. J., assignor to George H. Frothingham Company, New York, N. Y., a Corporation of New York. Filed May 14, 1914. Serial No. 838,440. (Cl. 20—20.)



1. A door comprising an upper section pivotally suspended on a fixed pivot at the top, a lower section guided vertically at its bottom end, and links between the sections constituting in conjunction therewith a connection which is arranged to break readily when an upward pressure is applied to the lower end of the lower section.

2. A door comprising an upper section pivotally suspended on a fixed pivot at the top, a lower section guided vertically near its lower end, a pair of links interconnecting the sections and joined to one of them at points laterally offset relative to their pivots of connection with the other section.

3. A door comprising an upper section pivotally suspended on a fixed pivot at the top, a lower section guided vertically near its lower end, a pair of links interconnecting the sections and joined to the edges of the upper section near its lower corners and joined to the lower section at points relatively offset in a lateral direction.

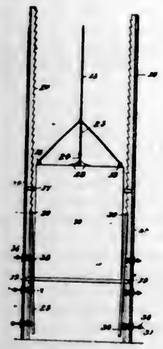
4. A door comprising an upper section, hinged at the top of a door opening, a lower section guided vertically near its lower corners, a pair of links interconnecting adjacent portions of the door sections, said links being pivotally connected to the upper door section at the lower corners thereof and pivotally connected to the lower door section at points below and laterally inside of its upper corners, said links constituting a connection between the adjacent edges of the door sections which is arranged to break in readily when an upward pressure is applied to the lower end of the lower door section.

5. A door comprising an upper section pivotally suspended at the top, a lower section guided vertically near its lower end, a pair of links interconnecting the sections and joined to one of them at laterally offset points, the section to which the links are connected at offset points being provided with stops for limiting the pivotal movement of the links relative thereto in either direction.

[Claims 6 to 16 not printed in the Gazette.]

1,209,361. ELEVATOR SAFETY DEVICE. CARLO TONIELLI, Cherry, Ill. Filed July 31, 1916. Serial No. 112,305. (Cl. 187—67.)

1. A device of the class described, comprising in combination with an elevator shaft and a car vertically movable therein, depending plates hinged at their upper ends to the walls of the shaft, substantially horizontally arranged bolts pivoted to the inner faces of the said plates and freely projecting through the said walls, expansion springs surrounding the said bolts between the said plates and walls, and adjusting nuts upon the said bolts outwardly of the said walls.



2. A cushioning stopping device for elevator cars comprising downwardly convergent pairs of opposite plates hingedly arranged positioned at desirable points in the elevator shaft, positioning springs in tensioned engagement with the said plates, and adjusting means for the said springs whereby the plates are positioned outwardly of the path of travel of the car within the shaft when desired.

3. A cushioning device for elevators comprising in combination with a walled shaft having a car vertically movable therein, upright guide beams for the said car oppositely arranged within the shaft, pairs of depending plates at opposite sides of the said beams, hinge connections between the upper ends of the said plates and the adjacent wall of the shaft, adjusting bolts hinged to the said plates and passed through said shaft walls, springs interposed between the elevator shaft walls and said plates, and retracting adjusting means for the said springs carried by said bolts whereby the plates are flatly positioned against the adjacent wall of the shaft when desired.

4. A safety device for elevators comprising a shaft having side walls, a car vertically movable within the said shaft, depending cushioning plates for the car hinged at their upper ends to the walls at opposite points within the shaft, springs arranged between the said plates and walls, and adjusting means for the said plates.

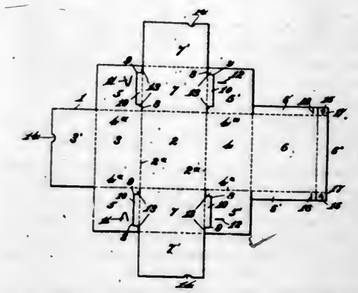
1,209,362. TOOL-SHANK. CLAUDE A. TURNER, Sherbrooke, Quebec, Canada. Filed Mar. 11, 1916. Serial No. 83,671. (Cl. 77—71.)



1. A unitary bit having a portion of its length in close proximity to one end of comparatively large square cross-section adapted to be received in and held by a brace, said end being elongated and of reduced diameter and round cross-section to present a shank adapted to be received in and held by a chuck, substantially as described and for the purpose set forth.

2. A brace and drill bit substantially as described and having a portion of its length in close proximity to one end of comparatively large tapered square cross-section as at *b*, said end being elongated and of comparatively reduced diameter to present a shank *c* projecting in the axial line of the tool and of round cross-section the said shank being adapted when the portion *b* is gripped to coact with the brace in steadying the bit.

1,209,363. FOLDING PAPER BOX. ADOLPH VON SCHLUEMBACH, Altoona, Pa. Filed Dec. 17, 1915. Serial No. 67,400. (Cl. 229—29.)



1. A collapsible paper box formed of a single blank folded to form a bottom, front and back, end flaps on the ends of the front and back portions, means for securing said end flaps together, auxiliary end flaps inclosing the first said end flaps and partition flaps formed on said auxiliary end flaps, substantially as described.

2. A collapsible paper box formed of a single blank and comprising a bottom, front, sides and end flaps on the ends of said front and back respectively, interlocking means on said end flaps, auxiliary end flaps inclosing the first said end flaps, an auxiliary front flap folded inwardly and engaging the first said auxiliary flaps, and partition flaps formed on said auxiliary end and front flaps, substantially as described.

3. A collapsible paper box formed of a single blank and comprising a bottom, front, back and interlocking end flaps, auxiliary end flaps extending from the ends of the bottom and adapted to inclose the first said end flaps and reinforcing flaps on the edges of said auxiliary end flaps, substantially as described.

4. A collapsible paper box formed of a single blank comprising a bottom, front, back and intermediate end flaps, said end flaps extending from the ends of the front and back portions, auxiliary end flaps extending from the ends of the bottom and between said first mentioned end flaps and adapted to inclose the same and reinforcing flaps on the edges of said auxiliary end flaps, said reinforcing flaps being cut from the adjacent edges of the first mentioned end flaps, substantially as described.

5. A collapsible paper box formed of a single blank and comprising a bottom, front, back and interlocking end flaps, auxiliary end flaps extending from the ends of the bottom and adapted to inclose the first said end flaps and reinforcing flaps on the edges of said auxiliary end flaps, said reinforcing flaps being cut from the lower portion of the first mentioned end flaps, said flaps being of less length than the width of said end flaps, providing feet on the lower edge of the latter to engage the bottom of the box, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,209,364. MEANS FOR FORMING FOURDRINIER-WIRE SEAMS. ALBERT B. WEISSENBORN, Appleton, Wis., assignor of one-half to Appleton Wire Works, Appleton, Wis., a Corporation of Wisconsin. Filed Nov. 18, 1914. Serial No. 872,714. (Cl. 140—51.)

1. A clamp for use in forming seams of Fourdrinier wires and the like, comprising a suitably mounted stationary jaw member, a movable jaw member having a universal connection therewith, and means for adjusting the movable jaw member toward the stationary jaw member and laterally with relation thereto.

2. A clamp for use in forming Fourdrinier wire seams, comprising a stationary jaw member, a movable jaw member having a universal connection therewith, set-screws mounted on the stationary jaw member and engaging the sides of the movable jaw member, and a set-screw for mov-

ing the movable jaw member toward the stationary jaw member.



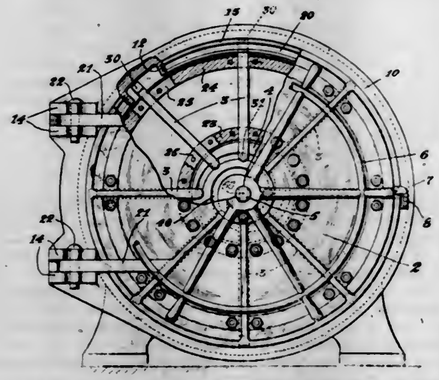
3. A wire clamp for use in making Fourdrinier wire seams and the like, comprising a stationary jaw member a movable jaw member slidably mounted thereon and having a universal joint connection therewith, means for adjusting the movable jaw member laterally, and means for moving the movable jaw member toward the stationary jaw member.

4. A clamp for use in making Fourdrinier wire seams and the like, comprising a stationary jaw member, a screw rod slidably mounted thereon, a nut threaded on the screw rod for adjusting its position, a movable jaw member having a universal joint connection with the screw rod, means for adjusting the movable jaw member laterally, and means for moving the movable jaw member toward the stationary jaw member.

5. A clamp for use in making Fourdrinier wire seams and the like, comprising a stationary jaw member having a pair of lugs standing up therefrom, a screw rod slidably mounted through the pair of lugs, a nut threaded on the screw rod and positioned between the pair of lugs, said screw rod having a pair of ears at its end, a block pivotally mounted between the pair of ears, a movable jaw member having a pair of ears at its end pivotally connected to the block on an axis at right angles to the pivotal axis between the block and the screw rod, an arch on the stationary jaw member spanning the movable jaw member, set-screws in the sides of the arch engaging the sides of the movable jaw member, a set-screw on the arch engaging the back of the movable jaw member, there being a pocket in the stationary jaw member beneath the arch forming a spring seat, and a coil spring contained within the spring seat and bearing against the movable jaw member.

[Claims 6 to 15 not printed in the Gazette.]

1,209,365. RETORT. JOHN FREDERICK WELLS, Seattle, Wash. Filed May 24, 1915. Serial No. 30,199. (Cl. 220—124.)

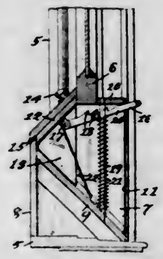


1. A retort of the class described, embodying a door-casing; a door hinged to said door-casing and adapted to be opened outwardly from its closed position; and a yielding ridge of steam packing associated with said door-casing and disposed operatively to engage with, and be compressed by, said door when said door is in its closed position, said packing being composed of material that adapts it to be disrupted and to yield to an abnormal pressure of steam, whereby steam may find passageway between said door and said door-casing to reduce its pressure within said retort only when said pressure is greater than is desired under normal conditions of use.

2. A retort of the class described, which embodies a circular door-casing having an annular flange disposed to project from its internal surface; a circular door hinged to said door-casing and adapted to be opened outwardly from its closed position wherein it is slightly spaced from the front side of said flange; elastic packing material disposed to form a yielding annular ridge on the front side of said flange, which ridge is adapted yieldingly to engage with said door when said door is in its closed position, said packing material being of a character that will adapt said ridge to yield or be disrupted in response to an abnormal pressure within the retort; and a plurality of lock bolts associated with said door and disposed to adapt them to be radially moved to project their outer portions into engagement with the rear side of said flange to lock said door in its closed position, the engaging surfaces of said end portions being beveled, thereby to cause said door to be forced against said yielding ridge in response to the operation of locking said door.

3. A retort of the class described, which embodies a circular door-casing having an inwardly projecting annular flange whose front side is provided with an annular dovetailed groove; a circular door hinged to said door-casing and adapted to be opened outwardly from its closed position wherein it is slightly spaced from the front side of said flange; elastic packing material packed in said dovetailed groove to fill it and to project outwardly therefrom to form an annular yielding ridge with which said door shall engage when said door is in its closed position, said packing material being of a character that will adapt said ridge to yield or be disrupted in response to an abnormal pressure within the retort; and means for releasably clamping said door in its closed position.

1,209,366. WINDOW-VENTILATOR. WILLIS H. WEST, Trinidad, Colo. Filed Dec. 20, 1915. Serial No. 67,765. (Cl. 98—31.)



A ventilator, comprising a casing open at its outer side and adapted to be inserted beneath a window sash to rest upon the window sill, the closed top of said casing having a slot therein to receive said sash in a weatherproof manner, a normally closed lid on the upper inner side of said casing and bearing, when closed, against said sash, and means for adjustably holding said lid in desired open positions, said lid consisting of a board hinged to the inner vertical member of the casing and having depending end members within the casing normally holding the lid in an inwardly and downwardly inclined position against the sash.

1,209,367. MEANS FOR LOCKING TRUNKS. GEORGE HENRY WHEARY, Racine, Wis. Filed Aug. 26, 1914. Serial No. 858,608. (Cl. 70—115.)

1. The combination of a trunk, of a locking means therefor, consisting of a plurality of independent locks for locking the cover to the body portion at different points, one of said locks being controlled by a key and the remaining lock being manually controlled by a means operable when the keyed lock is in unlocked position.



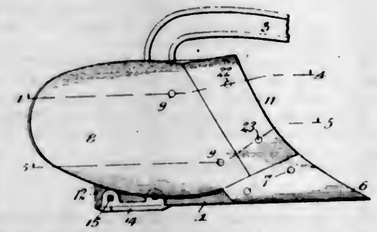
2. The combination of a trunk, of a locking means therefor, comprising a plurality of independent locks for locking the cover to the body portion at different points, one of said locks being controlled by a key and the remaining lock being manually controlled by a slidable means operable when the keyed lock is in unlocked position.

3. A locking means, comprising a keyless hasp member, a bolt member positioned to be engaged by the hasp member, means for yieldingly holding the bolt member in locking position, a keyed hasp member spaced from the keyless hasp member, an escutcheon member engaged by the keyed hasp member when in locked position, and a means held in locked position by the keyed hasp member for moving the bolt to unlocking position.

4. A locking means, comprising a keyless hasp member, a bolt member positioned to be engaged by the hasp member, means for yieldingly holding the bolt member in locking position, a keyed hasp member spaced from the keyless hasp member, an escutcheon member engaged by the keyed hasp member when in locked position, and a slidable member connected to the bolt member and extending to a position adjacent to the keyed hasp and to be immovably held thereby while said keyed hasp member is in locked position.

5. A locking means, comprising a keyless hasp member, a bolt member positioned to be engaged by the hasp member, means for yieldingly holding the bolt member in locking position, a keyed hasp member having a recessed portion, an escutcheon member engaged by the keyed hasp member and having an opening registering with the recess of the keyed hasp member, and a slidable rod having a flexible connection with the bolt and extending to a position adjacent to the keyed hasp member and having a portion which extends through the escutcheon opening and into the recess of the said keyed hasp member to hold the rod in locked position when the said hasp member is in locked position.

1,209,368. PLOW. FREDERICK WIARD, Detroit, Mich., assignor to Wiard Plow Company, Batavia, N. Y., a Corporation of New York. Filed Mar. 20, 1916. Serial No. 85,274. (Cl. 97—21.)



1. A plow comprising a frog constructed of a sheet of metal by bending the same to form two rearwardly diverging wings, a landside mounted on one of said wings, a mold board mounted on the other wing, and one of said wings having an attaching ear struck out of the same and bent forwardly, and a shin piece fastened to said ear.

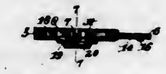
2. A plow comprising a frog constructed of a sheet of metal which is bent to form a landside wing and a mold board wing which are connected at their front ends and diverge rearwardly, and an attaching ear struck out of one of said wings and bent forward flush with said mold board wing, and a shin piece fastened to said ear.

3. A plow comprising a frog constructed of a sheet of metal by bending the same to form two rearwardly diverging wings, a landside mounted on one of said wings, a mold board mounted on the other wing, an upper attaching ear struck out of one of said wings, a lower attaching ear struck out of the other wing, said ears being arranged at the front ends of said wings and projecting forwardly therefrom, and a shin piece mounted on said ears.

4. A plow comprising a frog constructed of a sheet of metal by bending the same to form two rearwardly diverging wings, a landside supported on one of said wings, a mold board supported on the other wing, an upper attaching ear struck out of one of said wings, a lower attaching ear struck out of the other wing, said ears being arranged at the front ends of said wings and projecting forwardly flush with said mold board wing, a shin piece, bolts connecting said ears and shin piece, said ear which is struck from the mold board wing having a cavity which faces toward the landside wing and which receives the nut of the bolt connecting the shin piece to said last mentioned ear.

5. A plow comprising a frog bent from a sheet of metal to form rearwardly diverging landside and mold board wings, two attaching ears arranged one above the other at the front ends of said wings, one ear being struck out of said landside wing and bent forwardly and the other ear being struck out of said mold board wing and bent forwardly and both ears being flush with said mold board wing, a mold board mounted on the outer side of said mold board wing, a shin piece mounted on said attaching ears flush with said mold board, and a landside mounted on the outer side of said landside wing.

1,209,369. SNAP. BERT BENSON WOOD, Madison, Wis. Filed Jan. 31, 1916. Serial No. 75,353. (Cl. 24—211.)



1. The herein described snap including a casing consisting of a pair of circular plates having marginal flanges engaging one within the other, the flange of one plate being crimped over the opposite plate, said casing being provided at one point in its periphery with a mouth and at a diametrically opposed point with a plate consisting of extensions of the plates forming the casing laid face to face, said extensions being provided with an opening therethrough, one of the extensions having a flanged portion crimped upon the opposite extension, a plurality of spring controlled latches arranged within the casing and having arms extending outwardly through slots provided in the walls of the casing, and a removable member adapted to be engaged with the latches through the opening provided at the mouth of the casing.

2. A snap comprising a circular casing having a mouth portion provided at one point in its periphery and having a single centrally arranged pivot, a pair of latches arranged in opposed relation within the casing and having feet portions slidably engaging the pivot, said latches having their body portions provided with curved outer edges slidably engaging the peripheral wall of the casing, said latches being further provided at one end with arms extending out through slots provided in the peripheral wall of the casing, and at their opposite ends with opposed hooks arranged adjacent the mouth portion of the casing, spring means engaging the latches for normally forcing the hook portions toward each other, and a detachable member having opposed shoulders movable through the mouth portion into locking engagement with said hooks.

3. The herein described snap including a circular casing having a mouth portion provided at one point in its peripheral wall, said casing being provided centrally with a pivot, a pair of opposed latches arranged within the casing and having feet portions engaging the pivot for centering the latches thereon, said latches being provided with out-

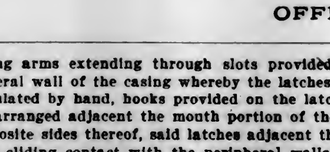
standing arms extending through slots provided in the peripheral wall of the casing whereby the latches may be manipulated by hand, hooks provided on the latches and being arranged adjacent the mouth portion of the casing on opposite sides thereof, said latches adjacent the hooks having sliding contact with the peripheral walls of said casing for relieving strain upon the hook portions, spring means engaging the latches for normally maintaining the hook portions in alinement with the mouth of the casing, said casing being stamped to provide a recess for receiving the spring means, and a detachable member having a shank provided with notches for receiving the hook portions when the shank is inserted within the mouth of the casing.

4. The herein described snap including a casing having a pair of opposed latches arranged therein for oscillation about a common pivot, said latches being provided with opposed hooks and being further provided with means whereby the latches may be manually operated, a detachable member movable into the casing and provided with means adapted to be interengaged by the hook portions of the latches, a spiral spring interposed between the latches within the casing bearing directly at its ends against said latches and having its axis arranged concentric with the pivot, said spring normally tending to move the hook portions toward each other and being adapted when one only of the latches is moved to detach its hook from the detachable member, to exert a tension upon the opposite latch for increasing its grip upon the detachable member, and arcuately arranged indentations concentric with the pivot formed in the opposing walls of the casing and within which the said spring rests, for retaining and guiding the spring.

5. The herein described snap including a casing having a pair of latches arranged therein for oscillation about a common pivot, a compressed spiral spring interposed between the latches arranged with its axis concentric with the pivot, and opposed arcuate indentations formed in the walls of the casing concentric with the pivot and into which the spring projects whereby the spring will be properly positioned and guided.

[Claims 6 to 12 not printed in the Gazette.]

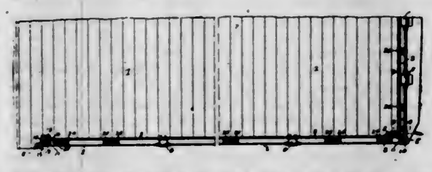
1,209,370. TRACTION MECHANISM. JAMES M. WORTH, Chicago, Ill. Filed May 1, 1915. Serial No. 25,096. (Cl. 21—150.)



1. Traction mechanism, comprising a pair of wheels each having double peripheral portions spaced apart and provided with a plurality of flat-engaging surfaces, said peripheral portions being formed integral with a hub provided with a central flange, an endless tractor element extending about the peripheral portions of the wheels and adapted to span the intervening spaces, said element consisting of a plurality of cleats having alternating extended sides and recesses, with the recesses of one cleat adapted to receive the extended portions or sides of an adjacent cleat, the extended portions being provided with registering holes to receive connecting pins, both ends of each cleat being provided with inwardly presented tapering arms or strut-braces disposed on opposite sides of the central flange on the hub of each wheel, an endless element or truss adapted to move about the hubs of the wheels intermediate of the peripheral portions and pivotally connected with the inner ends of both arms of each cleat to prevent spreading movement of the arms or strut-braces of adjacent cleats, said inner element being also provided with intermediate yielding points formed by transversely extending pins adapted to extend across said hub-flange and be engaged thereby so as to cause said intermediate yielding points to move off "dead center" in a predetermined manner during travel of both elements about the wheels.

2. Traction mechanism, comprising a pair of wheels, each composed of spaced disks or felly-portions which are provided with engaging surfaces, a tractor element composed of cleats having alternating extended sides and recesses, with the recesses of one cleat adapted to receive the extended portions of an adjacent cleat, the extended portions being provided with registering holes to receive connecting pins, each cleat being provided with a pair of inwardly extending tapering arms or strut-braces arranged so as to provide spaces intermediate of the inner ends of the arms of adjacent cleats, and an inner endless element pivotally secured between the ends of the pair of arms of each cleat and arranged to maintain the arms of adjacent cleats against spreading beyond the maximum spaced relation, said element being arranged to permit movement of the arms or strut-braces of adjacent cleats toward each other during movement of the tractor element about the wheels.

1,209,371. LINING FOR CARS. JOHN S. WORTH, Coatesville, Pa., assignor to himself and William P. Worth, Coatesville, Pa. Filed Dec. 31, 1915. Serial No. 69,672. (Cl. 105—192.)



1. The combination in a freight car, of a body portion; a lining therefor; straps on the car body; and blocks located back of the straps, said blocks being detachably secured to the lining.

2. The combination in a freight car, of a body portion; a detachable lining therefor; a pair of straps secured to the sides and to the ends of the car at intervals; blocks adapted to the space back of the straps; and means for attaching the lining to the blocks.

3. The combination in a freight car, of a body portion; a lining made in sections; blocks secured to the body portion; said blocks extending across the joint between the sections of the lining and secured to the two adjoining sections.

4. The combination in a freight car, of a body portion; a lining consisting of a series of horizontal sections, one placed above another; battens on the linings; straps on the car arranged in pairs at the joints between the sections of the lining; blocks mounted in the space between each pair of straps; and means for detachably fastening the sections of the lining to the blocks.

5. The combination of a car body; vertical posts forming part of the car frame and located within the car body; side walls secured to the outer surfaces of the posts; blocks secured to the side walls between the posts; and a lining bearing upon the posts and secured to the blocks.

[Claims 6 to 13 not printed in the Gazette.]

1,209,372. ELECTRICAL MEASURING APPARATUS. FELIX WUNSCH, Philadelphia, Pa.,, assignor to The Leeds & Northrup Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Mar. 4, 1915, Serial No. 11,945. Divided and this application filed Aug. 11, 1915. Serial No. 44,852. (Cl. 73—32.)

1. The combination with a thermo-couple, of a reading instrument comprising a potentiometer, a slide wire resistance in the circuit of said potentiometer, a scale associated therewith, a contact movable with respect to said scale in engagement with said slide wire, a compensating

resistance in the potentiometer circuit subjected to the temperature of the cold junction of said thermo-couple, said resistance having a temperature co-efficient such that the fall of potential across said resistance compensates for variation in the electro-motive-force of said thermo-couple due to change of temperature of the cold junction of said thermo-couple from calibration temperature.



2. The combination with a thermo-couple, of a reading instrument associated therewith comprising a potentiometer, a slide wire resistance in the circuit of said potentiometer, a scale associated therewith, a contact movable with respect to said scale in engagement with said slide wire resistance, a compensating resistance in the circuit of said potentiometer subjected to the temperature of the cold junction of said thermo-couple, said resistance having a temperature co-efficient great with respect to the other resistance of the potentiometer circuit, the fall of potential across said resistance compensating for the variation in the electro-motive-force of said thermo-couple due to change of temperature of the cold junction of said thermo-couple from the calibration temperature.

3. The combination with a thermo-couple, of a reading instrument associated therewith comprising a split circuit potentiometer, a slide wire resistance in one of the circuit branches of said potentiometer, a scale associated with said slide wire resistance, a contact movable with respect to said scale on said slide wire resistance, a compensating resistance in another circuit branch subjected to the temperature of the cold junction of said thermo-couple, said resistance having a temperature co-efficient such that the fall of potential across said resistance compensates for effects of variation of the cold junction of said thermo-couple from calibration temperature.

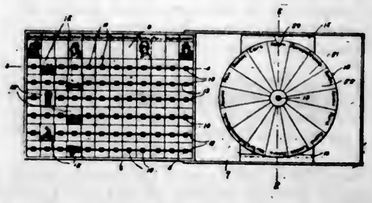
4. The combination with a thermo-couple, of a reading instrument associated therewith comprising a split circuit potentiometer, a slide wire resistance in one of the circuit branches of said potentiometer, a scale associated with said slide wire resistance, a contact movable with respect to said scale on said slide wire resistance, a compensating resistance in another circuit branch subjected to the temperature of the cold junction of said thermo-couple, said resistance having a temperature co-efficient such that the fall of potential across said resistance compensates for effects of variation of the cold junction of said thermo-couple from calibration temperature, and additional resistance in said second named branch great compared with said compensating resistance.

5. The combination with a thermo-couple, of a reading instrument associated therewith comprising a split circuit potentiometer, a slide wire resistance in one of the circuit branches of said potentiometer, a scale associated with said slide wire resistance, a contact movable with respect to said scale on said slide wire resistance, a compensating resistance in another circuit branch subjected to the temperature of the cold junction of said thermo-couple, said resistance having a positive temperature co-efficient such that the fall of potential across said resistance compensates for effects of variation of the cold junction of said thermo-couple from calibration temperature.

[Claims 6 to 36 not printed in the Gazette.]

1,209,373. GAME APPARATUS. JOHN J. ZARKER, Wiconisco, Pa. Filed July 1, 1916. Serial No. 107,047. (Cl. 46—63.)

1. A game apparatus including a body, a game board supported in said body, a cover hinged to said body and adapted to close the latter, a relatively narrow board hinged in said cover, a pointer carried by said board, means for supporting said board in inclined position, and a disk rotatably secured to said board.

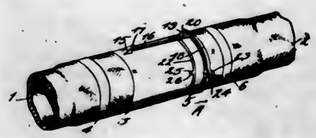


2. A game apparatus including a game board having rows of openings therein, a flexible member extending across the openings of each row, and counters adapted for insertion in said openings and slidable longitudinally of said flexible members.

3. A game apparatus including a game board having rows of openings therein, an elastic member extending across the openings of each row, a counter, and a stem carried by said counter slidably secured to said elastic member and adapted for insertion in any one of the several openings in each row.

4. A game apparatus including a body, a cover hinged thereto, a relatively narrow board hinged to the cover, means for supporting said board in inclined position, a pointer carried by said board, a disk rotatably secured to said board and associated with said pointer and having markings thereon, a game board supported in said body and having markings thereon corresponding to certain of the markings on said disk and having a plurality of rows of openings therein, an elastic member extending across the openings in each row, counters corresponding in number to the number of rows, and a stem carried by each counter adapted for insertion in any one of the openings in said row and slidably mounted upon said elastic member.

1,209,374. HOSE-COUPLING. ANGELO ANDREOLLI, Meadow Lands, Pa. Filed May 26, 1916. Serial No. 99,955. (Cl. 137—28.)



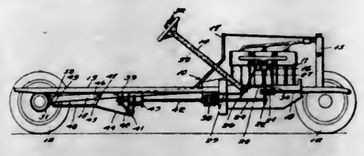
A pipe coupling comprising a pair of coupling sections, said sections being reduced at their outer ends to receive hose, one section being reamed at its inner end and the other reduced to fit within the reamed portion of the first-named section, packing between the sections, oppositely arranged links pivoted to the first-named section, a yoke pivoted to the ends of the links and shaped to fit and adapted to engage around the other section, said section having lugs for engagement by the yoke, and a cam lever pivoted to the yoke and adapted to engage behind the shoulder formed between the body of the section and the reduced portion.

1,209,375. AUTOMOBILE-BRAKE. CARROLL M. AUMENT, Strasburg, Pa., assignor of one-half to Norman T. Whitaker, New York, N. Y. Filed Aug. 23, 1915. Serial No. 47,013. (Cl. 21—8.)

1. An automobile brake including a power transmitting shaft actuated by the automobile motor, a rotatable shaft mounted to the rear of said first mentioned shaft to actuate said brake, and a slipping clutch interposed between said shafts, said clutch being operated by the driver.

2. The combination with a motor vehicle having a brake, of rotatable shafts being actuated by the motor, a slipping clutch interposed between said shafts, said clutch

being actuated by a linkage, said linkage being adapted to be operated by the driver.

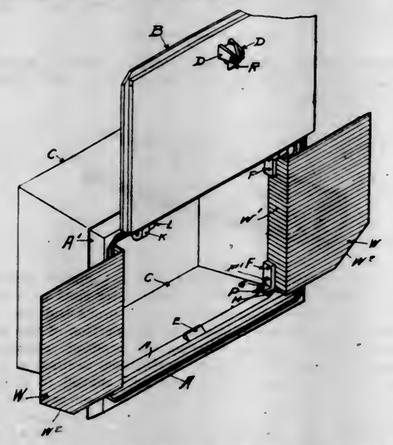


3. In an automobile brake, a rod mounted in the steering column, a handle mounted on said rod to actuate the same, a rotatable shaft receiving power from the automobile motor, a rotatable shaft to actuate the brake, a slipping clutch mounted between said shafts, and linkage between the rod in the steering column and said clutch whereby the brake will be actuated upon movement of the handle.

4. In an automobile, a brake, said brake being actuated by the motor of the automobile, and means to slightly increase the power of the motor when said brake is applied to prevent the stopping of said motor.

5. An automobile brake including a power transmitting shaft actuated by the automobile motor, a rotatable shaft mounted to the rear of said first mentioned shaft to actuate said brake, a clutch interposed between said shafts, and means to slightly increase the power of the motor when said brake is applied to prevent the stopping of said motor.

1,209,376. CHUTE. ROBERT WILLIAM BAILY, Oskaloosa, Iowa, assignor to Interstate Manufacturing Company, Oskaloosa, Iowa, a Corporation of Iowa. Filed May 6, 1915, Serial No. 26,371. Renewed July 5, 1916. Serial No. 107,692. (Cl. 193—33.)

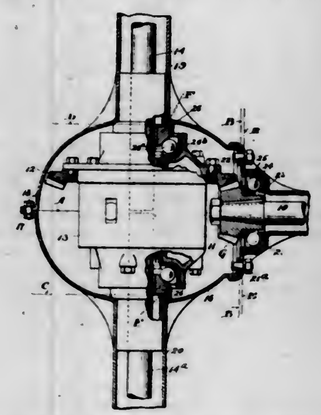


1. A device of the character specified, comprising a frame adapted to fit within an opening in a wall and having a marginal flange adapted to engage the wall outside the opening, a body of approximately rectangular cross section and frusto-pyramidal connected with the frame at the inner side thereof, the small end of the body being connected to the frame and said body being adapted to extend through the opening, a door hinged to the upper side of the frame to close downwardly into the frame or upward against the wall, and a wing at each end of the frame, pivoted to the frame to swing inward into the body or outward to extend approximately parallel with the wall, each wing having an angular flange at its inner end, hinge lugs secured to the upper and lower end of the flange and having angular bearing lugs at their outer ends, the frame having pivot pins for engaging the lugs, and cam lugs on the frame for lifting the wings as they are swung outward, said wings being adapted to drop behind the cam lugs to hold the wings in open position.

2. A device of the character specified, comprising a frame adapted to fit within an opening in a wall and having a marginal flange adapted to engage the wall outside the opening, a body of approximately rectangular cross section and frusto-pyramidal connected with the frame at the inner side thereof, the small end of the body being connected to the frame and said body being adapted to extend through the opening, a door hinged to the upper side of the frame to close downwardly into the frame or upward against the wall, and a wing at each end of the frame pivoted to the frame to swing inward into the body or outward to extend approximately parallel with the wall, and means for holding the wings in open position.

3. A device of the character specified, comprising a frame adapted to fit within an opening in a wall and having a marginal flange adapted to engage the wall outside of the opening, a body of approximately rectangular cross section connected with the frame at the inner side thereof and adapted to extend through the opening, a door hinged to the upper side of the frame to close downwardly into the frame or upwardly against the wall, and a wing at each end of the frame and pivoted to the frame to swing inward into the body or outward to extend approximately parallel with the wall, and means for holding the wings in open position.

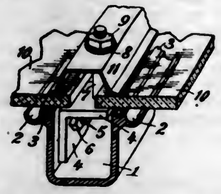
1,209,377. METHOD OF ACCURATELY LOCATING CO-OPERATING GEARS. WALTER C. BAKER, Lakewood, Ohio. Filed June 17, 1910. Serial No. 567,372. (Cl. 33—1.)



1. The method of correctly locating a pinion and gear in the pinion and gear inclosure which consists in measuring the distances of abutments for the pinion and gear respectively from assumed datum surfaces on the inclosure, adjusting the pinion and gear each along one of two properly arranged axes outside the inclosure until the pinion and gear are in their correct relative positions, measuring the extent of the adjustments, and from the abutment measurements and adjustment measurements determining the thickness of spacing members to be placed between the pinion and its abutment and the gear and its abutments.

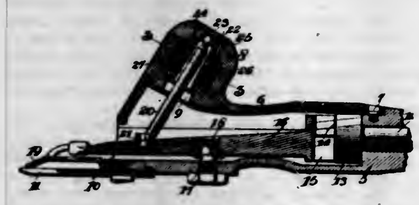
2. The method of determining the correct positions of two gears in the inclosure for the gears which consists in determining the positions of gear abutments in the inclosure with reference to assumed datum surfaces of the inclosure, determining the position of each gear with reference to the axis of the other gear when said gears are in their correct relative positions outside of the inclosure, determining the positions of the permanent gear axes with reference to the datum surfaces, and thence determining the thicknesses of spacing members to be inserted between the abutments and the adjacent ends of the gears to bring and maintain said gears in their correct positions in the inclosure.

1,209,378. ROOFING-BAR. THOMAS L. BARKS, London, England. Filed Oct. 21, 1914. Serial No. 867,719. (Cl. 108—16.)



The combination in a roofing bar, of a bar of channel or trough section fitted with condensation channels equipped at the lower ends thereof with slots adapted to receive and hold an end plate, an end plate equipped at the sides thereof with lugs adapted to pass through the said slots and providing means for fastening the said end plate at the end of the said bar; the said bar also fitted with channels for supporting cushioning on which the roofing material rests, tubular cushioning, brackets with means of affixing the same at intervals inside the trough of the said bar, each of the said brackets being equipped with means of receiving and holding fast an upright post or stud, posts or studs with means of affixing the same to the said brackets and being provided with threads at their upper ends, a resilient bar of channel section having apertures at intervals, adapted to receive the said posts, washers, and nuts fitting the threads of the upper ends of the said studs adapted to hold in place the said resilient channel bar against the upper surface of the roofing material used.

1,209,379. ANIMAL-SHEARS. EDWIN STANLEY BARTLETT, Sr., Butte, Mont., assignor of one-half to The Sheep Shearers' Merchandise and Commission Company, a Corporation of Montana. Filed Oct. 5, 1915. Serial No. 54,171. (Cl. 30—1.)



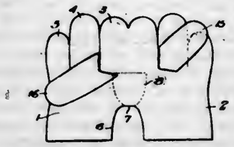
1. In animal shears, the combination with a casing having a dome portion provided with a smooth exterior surface and having a bore and fixed and movable cutters carried by the casing; of a dolly pin having one end mounted in said bore for applying a uniform pressure to said movable cutter, an adjustable tension device including a sleeve mounted in said bore and having its outer end surrounded by the outer end of said dome portion, and a removable bearing member for said pin mounted in the outer end of the interior surface of said sleeve.

2. In animal shears, the combination with a casing having a dome portion provided with a smooth exterior surface and having a bore and fixed and movable cutters carried by the casing; of a dolly pin having one end mounted in said bore for applying a uniform pressure to said movable cutter, an adjustable tension device including a sleeve mounted in said bore and having its outer end surrounded by the outer end of said dome portion, a removable bearing member for said pin mounted in the outer end of the interior surface of said sleeve, and means mounted in said dome portion and engaging the sleeve intermediate its ends for adjusting the same to regulate said pressure.

3. In animal shears, the combination with a casing having a dome portion provided with a smooth exterior surface and an internal bore, and fixed and movable cutters mounted in said casing; of a dolly pin for applying a uniform pressure to said movable cutter and having one end extending into said bore, a tension device including a sleeve mounted in said bore and provided with screw threads for a portion of its length, means for permitting rotation of said sleeve in said bore, a detachable bearing mounted in the outer end of said sleeve and adapted to receive therein the outer end of said dolly pin, and a milled nut mounted in said dome portion and engaging the threads of said sleeve intermediate its ends and also intermediate the ends of the dolly pin for adjusting said sleeve longitudinally of the bore to regulate the pressure on said dolly pin.

4. In animal shears, the combination with a casing having a dome portion, and fixed and movable cutters carried by the casing; of a dolly pin having one end mounted in said dome portion for applying a uniform pressure to said movable cutter, an adjustable tension device including a sleeve mounted in said dome portion and having its outer end surrounded by the outer end of said dome portion, and means mounted in said dome portion and engaging the sleeve intermediate its ends for adjusting the same to regulate said pressure.

1,209,880. GLOVE. EDWIN T. BASKIN, Independence, Mo. Filed Sept. 3, 1915. Serial No. 48,906. (Cl. 2—9.)

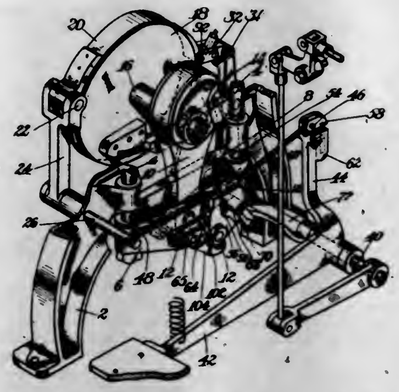


1. A hand covering comprising body and thumb blanks, each provided with slits defining ears and thumb recesses, said ears being connected to their body blanks at the inner edges of the recesses, and turned back upon such blanks and attached thereto to form reinforcing members in the completed article.

2. In a glove, a body blank comprising integral finger sections and independent finger sections, one of the independent sections having an incised V-shaped end with the point of the incision at the base of the crotch between adjacent integral finger sections of the body blank, and the sides of the incised end stitched to the edges of the adjacent finger blanks, whereby the independent finger section is centered relative to the integral finger sections, substantially as set forth.

3. In a glove, a body blank comprising integral finger sections and independent finger sections, one of the independent finger sections having an incised V-shaped end, with the point of the incision located at the base of the crotch between integral finger sections, and the sides of said incised end being attached to the edges of adjacent integral finger sections, the opposite independent finger section having a protruding V-shaped end, with the point of said end located at the base of the crotch between the said adjacent finger sections, and the sides of said end fixed to the sides of the said adjacent sections, the edges of said independent finger sections being stitched together to form a finger member, the V-shaped ends of the independent finger sections effecting the centering or placement of said independent sections between the adjacent integral finger sections, substantially as set forth.

1,209,381. STARTING AND STOPPING MECHANISM FOR PRESSES. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 9, 1914. Serial No. 817,543. (Cl. 74—46.)



1. Starting and stopping mechanism comprising, in combination, clutch controlling means, means for automatically restoring said clutch controlling means to clutch releasing position at the end of a single operation of the machine, a brake, connections between said clutch controlling means and said brake comprising a toggle arranged to be moved toward straightened position to apply the brake as the clutch controlling means moves into clutch releasing position and to be broken as the clutch controlling means is moved into clutch applying position, and means brought into operative condition as the clutch controlling means is moved into clutch releasong position for moving said toggle farther toward straightened position if the initial braking action fails to stop the machine at the end of one cycle of operations.

2. In a machine of the class described, comprising a driving shaft and a reciprocating part operated from said shaft, clutch controlling means comprising a member connected to said reciprocating part and operating upon the return of said part to its normal position of rest to move said clutch controlling means into clutch releasing position to stop the machine at the end of a single reciprocation of said part, a brake, connections between said brake and said clutch controlling means comprising a toggle arranged to be moved toward straightened position as said clutch controlling means is moved into its clutch releasing position, a stop member connected to the knee joint of said toggle, a second stop member arranged to turn with said shaft, and means operating to move the first stop member into the path of the second stop member as said clutch controlling means is moved into clutch releasing position, whereby said toggle will be moved farther toward straightened position to increase the braking action if said shaft does not stop at the end of a complete rotation.

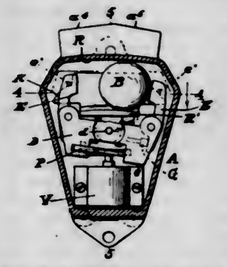
3. In a machine of the class described, clutch controlling means, means for automatically and positively moving said clutch controlling means into clutch releasing position at the end of a single operation of the machine, a brake, means for operating said brake comprising a toggle, and means connected to the knee joint of said toggle and automatically interposed in the path of a moving part of said machine, as the clutch is released, for increasing the brake applying operation of said toggle in the event that the machine does not stop at the end of a single operation.

4. Starting and stopping mechanism comprising, in combination, a brake, brake applying means including a toggle arranged to be moved toward straightened position to apply the brake, and means connected to said toggle and automatically moved into the path of a moving part of the machine as the brake is applied, said means being so constructed and arranged that the toggle is moved farther toward straightened position to increase the braking action in the event that said moving part of the machine tends to move beyond its normal position of rest.

5. In a machine of the class described, a brake drum, a brake band, and means for tightening said brake band upon said brake drum to exert a braking action comprising a toggle arranged to be moved toward straightened position for this purpose, a stop upon said brake drum, and a second stop connected to the knee joint of said toggle and adapted to be moved into the path of movement of the stop on said drum whereby the toggle may be moved farther toward straightened position to increase the braking action in the event that said drum turns beyond its normal position of rest.

[Claims 6 and 7 not printed in the Gazette.]

1,209,382. CYCLOMETER. FRIEDRICH W. BAUMGARTNER, Cleveland, Ohio, assignor to Arthur J. Halle, Cleveland, Ohio. Filed Aug. 14, 1914. Serial No. 856,718. (Cl. 235—95.)



1. The combination with a rotatable body whose rotations are to be counted, and a registering device thereon, of an oscillating weight which is supported on said rotatable body and is adapted to actuate said registering device, means for compelling said weight to move in a short path approximately concentric with the axis of said rotatable body, and means for confining the movement of said weight within such limits that its center of gravity cannot move so far outside of a line drawn from the center of oscillation of the weight to the center of rotation of said body, that the centrifugal force acting on the weight plus the frictional resistance to the gravity induced movement of the weight plus the force required to actuate the registering device, will exceed the force of gravity acting upon said weight.

2. The combination with a rotatable body whose rotations are to be counted, and a registering device mounted on said body, of an oscillating device adapted to actuate said registering device, an oscillating weight adapted to move said member backward and forward, and means, operable by the weight in the unlocking direction, for temporarily locking said movable member at the ends of its path.

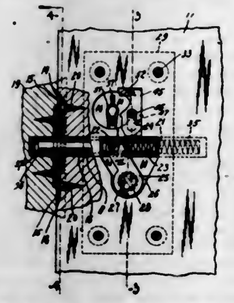
3. The combination with a rotatable body whose rotations are to be counted, of a short ball raceway fixed to said body and having an outer wall which is approximately concentric with said body, a ball which is freely movable in said raceway, an oscillating member having arms which project into the path of said ball at opposite ends of said raceway, and a registering device adapted to be actuated by said oscillating member.

4. The combination with a rotatable body whose rotations are to be counted, of a ball raceway fixed to said body and having an outer wall which is approximately concentric with said body, a ball which is freely movable in said raceway, an oscillating member having arms which project into the path of said ball at opposite ends of said raceway, a registering device adapted to be actuated by said oscillating member, and means for temporarily locking said movable member at the ends of its path of travel,—which means are operable in the unlocking direction by said ball.

5. A cyclometer comprising in combination a casing and the following mechanism therein contained, to wit, a raceway having a concave outer wall, a ball freely movable in said raceway, an oscillating member, two arms pivotally connected with the ends of said oscillating member and extended therefrom part way across the ends of the ball raceway and into the path of the ball therein, notched flanges fixed to the casing, a pin fixed to each of said arms for engagement with said notched flanges, springs acting upon said arms to swing them toward each other and the interposed ball, means limiting the opposite movement of said arms relative to the oscillating member by which they are supported, and a registering device adapted to be operated by said oscillating member.

[Claims 6 and 7 not printed in the Gazette.]

1,209,383. LOCK. JOHN BELLEY, Passaic, N. J., assignor of one-half to Paul Miller, Newark, N. J. Filed Aug. 15, 1916. Serial No. 115,000. (Cl. 70—64.)

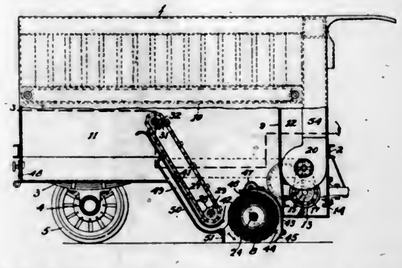


1. In a latch, the combination with a casing, of a spring-actuated bolt therein, a knob-spindle oscillatably mounted in proximity of said casing, an actuating lever carried by said spindle and pivotally connected with said bolt for retracting the same, a spring-pressed detent extending in a plane at right angles to the longitudinal axis of said bolt for holding the latter retracted against the action of the spring coöperating with said bolt, said detent having an extension adapted to project beyond one of the faces of the door and to strike against the door-jamb, whereby said detent is disengaged from said bolt upon closing the door, a dead-locking member shiftably arranged upon the door adapted to be brought into contact with said lever to prevent a motion of the latter, said member having shoulders adapted to be engaged by a key from the outside of the door, and a knob upon the inner face of the door for manually controlling said member from the inside.

2. In a latch, the combination with a casing, of a spring-actuated bolt therein, a knob-spindle oscillatably mounted in proximity of said casing, an actuating lever carried by said spindle and pivotally connected with said bolt for retracting the same, a dead-locking member shiftably arranged upon the door adapted to be brought into contact with said lever to prevent a motion of the latter, said member having shoulders adapted to be engaged by a key from the outside of the door, and a knob upon the inner face of the door for manually controlling said member from the inside.

1,209,384. STREET-SWEEPING MACHINE. WILLIAM T. BLANEY, Windsor, Ontario, Canada. Filed Aug. 20, 1915. Serial No. 46,430. (Cl. 15—17.)

1. In a street sweeper, a vehicle frame, a housing mounted on said frame and having a storage chamber provided with an inlet opening, a rotary brush in said opening journaled in bearings mounted to move up and down in the arc of a circle in the sides of said housing, a hood carried by said bearings and overlying the upper forward portion of said brush, a wiping strip hingedly connected to the forward edge of said hood and yieldably engaging the periphery of said brush, and an inclined table having its lower end adjacent said brush and adapted to receive the sweepings discharged therefrom.



2. In a street sweeper, a vehicle frame, a housing mounted on said frame and having a storage chamber provided with an inlet opening, a rotary brush in said opening journaled in bearings mounted to move up and down in the arc of a circle in the sides of said housing, a hood carried by said bearings and overlying the upper forward portion of said brush, an upwardly inclined table having an upturned trough at its lower end adjacent said brush and adapted to receive the sweepings therefrom, and a conveyer mounted above said table and adapted to convey the sweepings from said trough into said storage chamber.

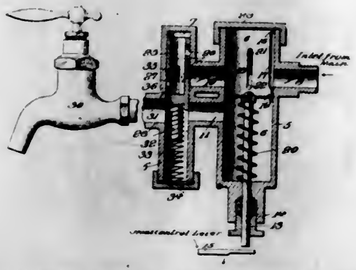
3. In a street sweeper, a vehicle frame, a housing mounted on said frame and having an inlet opening therein, a rotary sweeping brush mounted in said opening, an inclined table mounted in said opening and forming at its lower end an up-turned trough adjacent said brush to receive the sweepings discharged thereby, a suction conduit formed in conjunction with the under face of said table and having an inlet throat beneath said trough to receive the dust raised by said brush, a conveyer mounted above said table and associated with said trough for conveying the sweepings therefrom, means for operating said brush and conveyer, and means for inducing suction in said conduit to draw the dust from about said trough.

4. In a street sweeper, a vehicle frame, a housing mounted on said frame and having a storage chamber provided with an inlet opening, a sweeping brush mounted to rotate in said opening, an inclined table mounted in said opening to extend into said storage chamber and forming at its lower end an up-turned trough adjacent said brush to receive the sweepings discharged therefrom, a suction conduit formed on the under face of said table and having an inlet throat conforming with said trough and opening at the edge thereof adjacent said brush to receive the dust raised thereby, means for directing the delivery of the sweepings from said brush toward said trough and throat, means for conveying the sweepings from said trough into said storage chamber, and means for inducing suction in said throat to draw the dust from about said trough and brush.

5. In a street sweeper, a vehicle frame, a housing mounted on said frame and having a storage chamber provided with an inlet opening, a rotary sweeping brush mounted in said opening, an inclined table formed to provide an upturned trough at its lower end adjacent said brush to receive the sweepings discharged therefrom, a suction conduit extending across the under face of said table and having an inlet throat conforming with said trough and opening at the lower edge thereof adjacent said brush to receive the dust raised theerby, a connecting conduit communicating with said suction conduit and

having an inlet port communicating with said storage chamber above said brush, means for conveying the sweepings from said trough into said storage chamber, and means for inducing suction in said conduits to draw the dust from about said brush.

1,209,385. AUTOMATIC WATER-HEATER VALVE. PRENTICE H. BOTTOMS, Fresno, Cal. Filed Mar. 29, 1916 Serial No. 87,601. (Cl. 126—351.)



1. In a device of the character described, in combination, a heating means control, a spigot, a plurality of water passages leading to said spigot through said device and means controlled by the turning of said spigot to direct a full flow of water through either passageway and to actuate the heating means control or not, as desired.

2. In a device of the character described, in combination, a heating means control, a spigot, two water passages leading to said spigot, and means controlled by the manner of turning on said spigot to direct the water through either of said passageways to the exclusion of the other and to actuate the heating means control or not, as desired.

3. In a device of the character described, in combination, a heating means control, a spigot, two passageways leading to said spigot including separate chambers and pistons in said chambers controlled by the turning of said spigot to direct the water through either chamber to the exclusion of the other, thereby to actuate the heating means control or not, as desired.

4. In a device of the character described, in combination, a heating means control, a spigot, two water passageways leading to said spigot including chambers and spring actuated pistons constituting valves for closing and opening said passageways, said valves being adapted to be actuated by the manner in which said spigot is actuated to direct the water through either passageway and to actuate said heating means control or not, as desired.

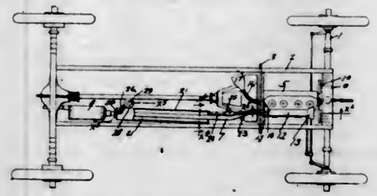
5. In a device of the character described, heating means control, a spigot, two water passageways leading to said spigot including separate chambers, flanged pistons within said chambers, springs for holding said pistons in normally raised position, ports in the flanges of said pistons communicating with the inlets and outlets of the passages whereby either piston is actuated according to the manner of turning on the spigot to actuate the heating means control or not, as desired.

[Claim 6 not printed in the Gazette.]

1,209,386. AUTOMOBILE-HEATER. ROBERT S. BRICKEY, Aberdeen, S. D. Filed June 24, 1915. Serial No. 36,069. (Cl. 237—21.)

1. The combination with the explosive engine and body of a motor driven vehicle, of an open bottom casing applied over the exhaust pipe of the engine with its sides closely engaging the sides thereof, said casing being open to the atmosphere, and a flexible hot air conduit leading from said casing, extending into said body and having at its outer end an open hot air discharge nozzle.

2. The combination with the exhaust pipe of an explosive engine, said exhaust pipe having an upwardly inclined bend, of a casing applied to the bend in said exhaust pipe and through which air passes, said casing arranged to draw the air in passing therethrough onto the highest point of the bend in said exhaust pipe.



3. The combination with the exhaust manifold and radiator of an explosive engine, said exhaust manifold being upwardly inclined with a downwardly projecting discharge end, of a casing applied to said exhaust manifold and having an open end in the vicinity of the radiator, said casing arranged to draw the air passing therethrough onto the highest point of the exhaust manifold, and a hot air conduit leading from said casing.

4. The combination with the exhaust manifold, radiator, and fan of an explosive engine, said exhaust manifold being upwardly inclined with a downwardly projecting discharge end, of a casing applied to said exhaust manifold and having an open end in the vicinity of the radiator, with said fan working between the radiator and the open end of said casing, and a hot air conduit leading from said casing, said casing arranged to draw the air passing therethrough onto the highest point of the exhaust manifold.

5. The combination with the explosive engine, radiator, and body of an automobile, of a casing applied to the exhaust manifold of the explosive engine and having an open end in the vicinity of said radiator, a hot air conduit leading from said casing and having a discharge nozzle extending into the said body, a secondary casing applied to the exhaust pipe of said engine, a hot air conduit connecting said two casings, and a hot air conduit leading from said secondary casing and arranged to discharge into the said body.

[Claims 6 to 10 not printed in the Gazette.]

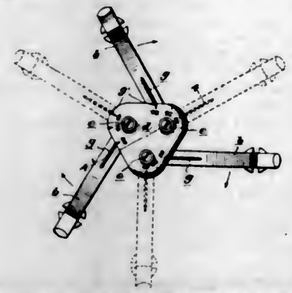
1,209,387. FASTENER. EDWARD F. BRIGHAM, Bloomfield, N. J., assignor to Benjamin & Johnes, a Corporation of New Jersey. Filed Apr. 11, 1914. Serial No. 831,120. (Cl. 24—228.)



1. In a fastener of the character described, the combination of an eye member having a transverse end bar, and a hook member comprising a U-shaped piece with its closed end returned in a hook adapted to engage said transverse end bar of the eye member, the extremity of the returned portion of the hook having a shoulder projecting toward the body of the hook and the middle portion of the transverse end bar of the eye member having a stop projecting between the side pieces of the returned portion of the hook when the members are in substantially the same plane, whereby means are provided on both members to prevent disengagement of them when in substantially the same plane.

2. In a fastener of the character described, the combination of an eye member having a transverse end bar, and a hook member comprising a U-shaped piece of wire with its closed end returned in a hook adapted to engage said transverse end bar of the eye member, the extremity of the returned portion of the hook being bent longitudinally of the wire toward the body of the hook and the middle portion of the transverse end bar of the eye member being bent longitudinally of itself toward the returned portion of the hook when the members are in substantially the same plane, whereby stops are provided on both members to prevent disengagement of them when in substantially the same plane.

1,209,388. BOILER-STAND. HERBERT L. BROWN, Richmond, Va. Filed Aug. 17, 1916. Serial No. 115,395. (Cl. 248—41.)



1. In a device of the class set forth, a plurality of supporting members each having an inwardly-extending arm, a connecting plate, and means pivotally connecting the same to said inwardly-extending arms, said means embodying a series of vertical pivots arranged around the center of the plate and at equidistant points from each other and said center, means being provided whereby the supporting members are fastened in their adjusted positions.

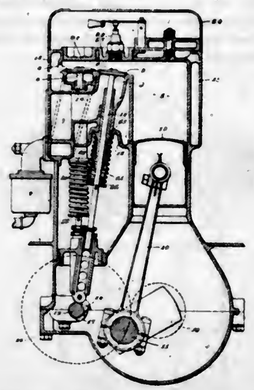
2. In a device of the class set forth, the combination of a plurality of supporting members, each being provided with an inwardly-extending arm at a point between its ends, a connecting plate, vertical pivots connecting said plate to said inwardly-extending arms, said pivots being located at points away from the center of said plate, for the purpose set forth, and means for locking the supporting members with respect to each other and said plate.

3. In a device of the class set forth, the combination of a plurality of supporting members, each being provided with an inwardly-extending arm at a point between its ends, a connecting plate, vertical pivots connecting said plate to said inwardly-extending arms, said pivots being located at points away from the center of said plate, for the purpose set forth, and means for locking the supporting members with respect to each other and said plate, said locking means consisting of a series of notches and an interlocking rib carried by the connecting plate and said arms respectively.

4. In a device of the class set forth, a plurality of supporting members each having an inwardly-extending arm, a connecting plate, pivot bolts extending through said connecting plate and said inwardly-extending arms, nuts on the lower ends of said bolts, said nuts being prevented from turning with respect to the arms by means of grooves in the under sides of the arms, and means for locking the arms in their adjusted positions with respect to the plate.

5. In a device of the class set forth, a plurality of supporting members each having an inwardly-extending arm, a connecting plate, vertical pivot bolts extending through said connecting plate and said inwardly-extending arms, nuts on the lower ends of said bolts, said nuts being prevented from turning with respect to the arms by means of grooves in the under sides of the arms, and means for locking the arms in their adjusted positions with respect to the plate, each of said arms being provided with a semi-cylindrical cup-like housing at its inner end, for the purpose set forth.

1,209,389. INTERNAL-COMBUSTION ENGINE. JULIAN S. BROWN, Syracuse, N. Y. Filed Apr. 18, 1913. Serial No. 761,941. (Cl. 123—84.)



1. An internal combustion engine comprising a cylinder having a passage opening into the piston chamber thereof and extending laterally therefrom, and inlet and exhaust ports opening into the passage and arranged side by side in a line extending laterally of the engine whereby the gas, passing by one valve, passes over the other valve, inlet and exhaust valves for controlling said ports, and a single cam shaft having means arranged to operate both valves, the cam shaft being offset from the crank shaft out of the vertical plane of the crank shaft and extending substantially from end to end of the engine, said cam shaft extending under the valves, substantially as and for the purpose specified.

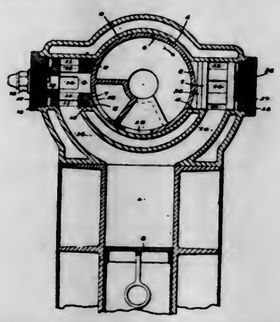
2. An internal combustion engine comprising a cylinder formed with a laterally extending passage opening into the piston chamber, inlet and exhaust ports opening into the passage on the under side thereof, the ports being arranged side by side in a direction laterally relatively to the cylinder, and the exhaust port and valve being arranged between the inlet port and valve and the piston chamber whereby the cool incoming charge passes over the exhaust valve, the valves being formed with vertically extending stems, and a single cam shaft offset from the crank shaft and located at one side of the cylinder and under the laterally extending passage, the cam shaft extending from end to end of the engine, and having means for actuating the stem, substantially as and for the purpose set forth.

3. In an internal combustion engine, a cylinder formed with a laterally extending passage opening into the cylinder chamber, inlet and exhaust ports opening into the passage on the under side thereof, the ports being arranged side by side in a direction laterally relatively to the engine, and one port and valve being arranged between the other port and valve and the cylinder chamber, said valves being formed with vertically extending stems, and a single cam shaft arranged on one side of the engine and having means for actuating said stems, the stem of one valve being inclined relatively to the stem of the other valve whereby the stems converge toward their lower ends near which is located the cam shaft, substantially as and for the purpose described.

1,209,390. ROTARY-VALVE MECHANISM FOR INTERNAL-COMBUSTION ENGINES. JULIAN S. BROWN, Syracuse, N. Y. Filed Jan. 8, 1914. Serial No. 810,995. (Cl. 123—190.)

1. In an internal combustion engine, a cylinder, a valve casing mounted on the cylinder and having a cylindrical valve chamber and a passage extending laterally from the valve chamber, a rotary valve journaled in the chamber, a plug slidable in said passage and having its

inner end concave and engaging the periphery of the valve, the plug also having a gas passage therethrough, the passage opening through the concave face, and a piston ring encircling the plug near the concave face, the valve having a port movable into and out of registration with the inner end of the passage of the plug, substantially as and for the purpose described.



2. In an internal combustion engine, a cylinder, a valve casing mounted on the cylinder and having a cylindrical valve chamber, and a passage extending laterally from the valve chamber and opening through the outer face of the casing, a rotary valve in the valve chamber, a plug slidable in said passage and engaging at its inner end with the valve, the plug having a gas passage therethrough opening through the inner end face of the plug, the gas passage also communicating with the cylinder and opening through the outer end of the plug, the valve having a port movable into and out of register with the inner end of the gas passage, a retaining member in the outer end of the lateral passage of the casing and having a hollow stem extending into said passage of the plug, a spring encircling the stem and interposed between the retaining member and the plug, and a spark plug extending into the hollow stem of the retaining member, substantially as and for the purpose described.

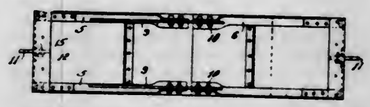
3. In an internal combustion engine, a cylinder, a valve casing mounted on the cylinder and having a cylindrical valve chamber, and a passage extending laterally from the valve chamber and opening through the outer face of the casing, a rotary valve journaled in the valve chamber, a plug slidable in the passage and having a concave face at its inner end engaging the periphery of the valve, the plug being formed with a gas passage opening through the concave face and through the periphery of the plug and communicating with the cylinder at the point said passage opens through the periphery of the plug, said passage also opening through the outer end of the plug, the valve having a port movable into and out of register with the inner end of the gas passage, a piston ring encircling the plug near the inner concave end thereof, a retaining member in the outer end of the lateral passage of the casing, the retaining member having a hollow stem extending into the passage of the plug, a spring inserted between the retaining member and the plug and encircling the stem, and a spark plug extending in the hollow stem of the retaining member, substantially as and for the purpose set forth.

4. In an internal combustion engine, a cylinder, a valve casing mounted on the cylinder and having a cylindrical valve chamber, and a passage extending outwardly from the valve chamber and opening through the outer face of the casing, a rotary valve in the valve chamber, a plug slidable in the passage and engaging at its inner end with the periphery of the valve, the plug having a gas passage therethrough opening through the inner end face of the plug and also through the outer end of the plug, the gas passage of the plug also communicating with the engine cylinder, the valve having a port movable into and out of register with the inner end of the gas passage, a retaining member in the outer end of the outwardly extending passage of the casing and having a passage opening into the plug, and a spark plug carried by the retaining member and having its electrodes exposed in the passage of the retaining member, substantially as and for the purpose described.

5. In an internal combustion engine, a cylinder, a valve casing mounted on the cylinder and having a cylindrical valve chamber and a passage extending laterally from the valve chamber, a rotary valve journaled in the chamber, a plug slidable in said passage and engaging at its inner end with the periphery of the valve, the plug having a peripheral annular channel, and an internal lengthwise passage opening through its inner end and also into the channel, the valve having a port movable into and out of registration with the inner end of the passage of the plug and the casing having a passage communicating with the cylinder and opening through the side of the lateral passage of the casing in registration with said annular channel of the plug, and a spring arranged to force the plug inwardly against the valve, substantially as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

1,209,391. FORM FOR CONCRETE CONSTRUCTION. CHRISTIAN BAYNOLDT, Pittsburgh, Pa., assignor to Blaw Steel Construction Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 19, 1915. Serial No. 15,465. (Cl. 25—131.5.)



1. In combination a panel comprising a pair of overlapping crown sheets, means whereby they may be held together at their overlapping portions in various positions of adjustment, a side sheet depending from the outer edge of each crown sheet, and having a relatively smooth outer mold surface forming a continuation of the outer mold surface of the crown sheet, a diagonal corner brace extending from each crown sheet to its side sheet and provided with a series of perforations, a transverse brace extending from one corner brace to the other and provided with a plurality of perforations at its ends, and securing means for extending through the perforations in the ends of the transverse brace and those in the corner braces.

2. In combination, a bulkhead panel comprising a pair of overlapping crown sheets, a back sheet depending from each crown sheet with the inner portions thereof overlapping, and a built up outer portion carried by each sheet and comprising a plurality of overlapping sheets bent at substantially right angles so that the portions thereof secured to the back plate constitute a continuation of such back plate and the portions bent at an angle thereto together constitute a side plate depending from the crown sheet.

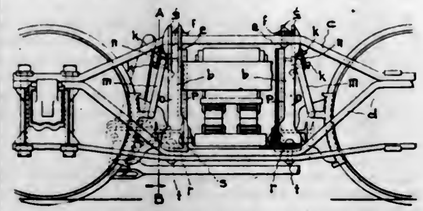
3. In combination, a panel comprising a pair of overlapping crown sheets, a side sheet extending inwardly from the outer edge of each crown sheet, a beam extending transversely past the edges of the side sheets and secured thereto, and a securing member projecting outwardly from each side sheet for engaging a support and movable laterally to disengage it from the support.

4. In combination, a panel comprising a pair of overlapping crown sheets, a side sheet depending from the outer edge of each crown sheet, a beam extending transversely past the edges of the side sheets and secured thereto, a guide means carried intermediate the ends of the said beam, means carried by the overlapping portions of the crown sheets for slidably engaging the said guide means, and a securing member projecting outwardly from each side sheet for engaging a support and movable inwardly to disengage it from the support.

5. In combination, a panel comprising a pair of coöperating crown sheets movable toward and from each other, means whereby the adjacent edges of the crown sheets are guided relatively, a side sheet extending inwardly from the outer edge of each crown sheet, a beam extending transversely past the edges of the side sheets and secured thereto, and a securing member projecting laterally from each side sheet for engaging a support and movable laterally to disengage it from the support.

[Claim 6 not printed in the Gazette.]

1,209,392. COLUMN OF RAILWAY-CAR TRUCKS. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed Feb. 19, 1914. Serial No. 819,746. (Cl. 105—243.)

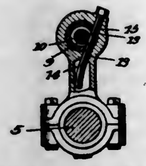


1. In a railway car truck of the type having upper and lower arch bars; an integral column for spreading the arch bars, said column consisting of a member of box-like form having a comparatively large opening near its upper end to permit the passage therethrough of the upper arch bar; means for securing the upper arch bar to the column and means independently of said just-mentioned means for securing the lower arch bar to the column and continuous strengthening ribs extending up one side and across the top of the column.

2. In a railway car truck of the type having upper and lower arch bars, an integral column for spreading the arch bars, said column consisting of a member of box-like form having a comparatively large opening near its upper end to permit the passage therethrough of the upper arch bar and having a recess in its opposite end for the purpose of straddling the lower arch bar, and continuous strengthening ribs extending up one side and across the top of the column.

3. In a railway car truck of the type having upper and lower arch-bars, and an integral column for spreading the arch-bars such column consisting of a casting having an opening near its upper end formed by an integral strap, continuous strengthening ribs extending from one side of the upper end of the column over the strap and down the opposite side, such column being in the main of channel cross-section and the lower end thereof having base-plate *r* and wings *s*.

1,209,393. WRIST-PIN CONNECTION. ALFRED L. CAMPBELL, Elmhurst, N. Y., assignor to Brewster & Co., a Corporation of New York. Filed Aug. 22, 1916. Serial No. 116,302. (Cl. 74—8.)

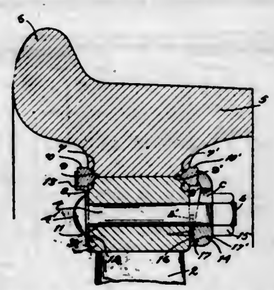


1. The combination, with a wrist pin and a pitman having a cross pin-way leading by the wrist pin and bent beyond said wrist pin, of a locking pin forced by said wrist pin in said pin-way and doubly deflected by the wrist pin and the bend in the pin-way.

2. The combination, with a wrist pin having a peripheral groove and a pitman having a cross pin-way leading through said groove and bent beyond said groove, of a locking pin driven through said cross pin-way and peripheral groove and bent beyond the groove by the bend in the pin-way.

3. The combination, with a wrist pin and wrist pin bearings, a sleeve on the wrist pin between the bearings, and a pitman having a hub surrounding the sleeve, and a cross pin-way extending through the hub and the sleeve by the wrist pin and bent beyond the wrist pin, of a locking pin driven into the pin-way by the wrist pin and bent by the bend in the pin-way.

1,209,394. WHEEL FOR RAILWAY-AUTOMOBILES. FRANK E. CHAPIN, San Jose, Cal. Filed July 17, 1916. Serial No. 109,640. (Cl. 105—143.)



The combination with an automobile wheel, of a flanged metallic rail running rim fitted to the felly thereof, centering rings adapted to engage the felly and rim at each side thereof, a series of supporting clamp plates for one of said rings, a series of slotted clamp lugs for the opposing ring, and means for securing said plates and lugs in clamped position relative to the said rings and the felly.

1,209,395. DISTANCE-FINDER. ARTHUR W. CHURCH, Jefferson City, Mont., assignor of one-half to Clarence C. Sinnott, Jefferson City, Mont. Filed July 13, 1915. Serial No. 39,617. (Cl. 33—71.)



1. In a distance finder, a body having two sighting places spaced apart, and a pendulum pivoted to the body intermediate of the sighting places and having distance marks indicated thereon around the axis of the pendulum, the distance marks being disposed in front of one of the sighting places and at one side of the plane extending from one sighting place to the other, for observation through a sighting place.

2. In a distance finder, a hollow body having two sighting openings, and a pendulum mounted in the body, there being distance marks on the pendulum around the axis of the pendulum for observation through one of the sighting openings.

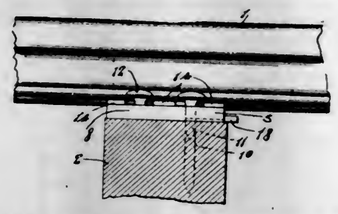
3. In a distance finder, a hollow body having two sighting openings, a pendulum mounted in the body, there being distance marks on the pendulum around the axis of the pendulum, for observation through one of the sighting openings, and a brake for holding the pendulum relatively to the body.

4. In a distance finder, a hollow body having two sighting openings spaced apart in its sides, and a pendulum mounted in the body, for observation through a sighting opening for indicating distances by the relationship of its position relatively to the body.

5. In a distance finder, a hollow body having two sighting openings spaced apart in its sides, and a pendulum mounted in the body and provided with a flange for moving adjacent one of the openings, there being distance marks indicated on the flange for observation through a sighting opening.

[Claims 6 to 17 not printed in the Gazette.]

1,209,396. RAILWAY-TIE PLATE AND SPIKE. JOHN COLLINS and ALFRED SHEPEARD, Hancock, N. Y. Filed May 9, 1916. Serial No. 96,357. (Cl. 238—2.)



1. In a device as set forth, the combination, of a spiking plate having a pair of openings therein, a spike, a relatively long and a relatively short shank formed upon said spike, said shanks adapted for insertion through said openings, said plate being provided with a key way formed in its under surface, a key for insertion in said key way, said short spike shank provided with a notch for receiving one edge of said key for locking said spike against accidental movement.

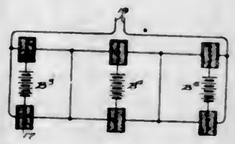
2. In combination, a spiking plate adapted for resting upon the upper surface of a railway tie, a plurality of substantially pyramidal lugs formed upon the under surface of said plate and adapted for embedding in said tie, said plate being provided with a plurality of openings arranged in pairs, railway spikes, each of said spikes provided with a long shank and a short shank, said shanks adapted for insertion through the pairs of openings for locking said plate in engagement with a tie and for holding an ordinary T-rail thereon.

3. In combination, a spiking plate adapted for resting upon the upper surface of a railway tie, a plurality of substantially pyramidal lugs formed upon the under surface of said plate and adapted for embedding in said tie, said plate being provided with a plurality of openings arranged in pairs, railway spikes, each of said spikes provided with a long shank and a short shank, said shanks adapted for insertion through the pairs of openings for locking said plate in engagement with a tie and for holding an ordinary T-rail thereon, said plate having a shoulder formed thereon adapted for abutment with one edge of the base of a T-rail.

4. In combination, a spiking plate adapted for resting upon the upper surface of a railway tie, a plurality of substantially pyramidal lugs formed upon the under surface of said plate and adapted for embedding in said tie, said plate being provided with a plurality of openings arranged in pairs, railway spikes, each of said spikes provided with a long shank and a short shank, said shanks adapted for insertion through the pairs of openings for locking said plate in engagement with a tie and for holding an ordinary T-rail thereon, said plate having a shoulder formed thereon adapted for abutment with one edge of the base of a T-rail, said plate having a key way formed in its under surface, a key for insertion in said key way, the short shank of said spike provided with a notch for receiving a portion of said key for locking the spikes against accidental withdrawal.

1,209,397. TRANSMITTING APPARATUS. JOHN J. COMER, Chicago, Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 24, 1914. Serial No. 820,692. (Cl. 179—81.)

1. In an electrical system, a plurality of units consisting each of a Wheatstone bridge having battery permanently connected at the juncture of two of the arms and terminating at the juncture of the other two arms in a movable element, a separate source of wave energy for each element in each unit for operating the element associated therewith to disturb the potential at the other two junctures of the other two arms in each unit, said bridges connected in series.



2. In an electrical system, a unit having a multiple circuit, a battery bridged across the sides of said multiple circuit dividing the multiple circuit into two divisions, a point in each division at the point of juncture of the two branches of the multiple, said points normally of the same potential, a plurality of such units, a main circuit, said units permanently connected in series in the main circuit using said points of normal potential as terminals, the battery in each unit terminating in a permanent connection on one side of the bridge and terminating in the other side in a movable element operable by wave energy to disturb the balance of the voltage at said points of juncture, each unit thereby impressing corresponding potential variations to the main circuit, thereby producing a variation in the main circuit equal to the algebraic sum of the individual variations of the units.

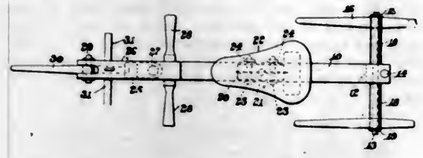
3. In an electrical system, a unit having a multiple circuit, a battery bridged across the sides of said multiple circuit dividing the multiple circuit into two divisions, a point in each division at the point of juncture of the two branches of the multiple, said point normally of the same potential, a plurality of such units in one group, a plurality of such groups, a main circuit, said units connected in series in said main circuit using said points of normal potential as terminals, one terminal of the battery in each unit terminating in a movable element operable by wave energy to disturb the balance of the voltage at the said points of juncture, each unit thereby impressing the corresponding potential variations on the main circuit, a separate source of wave energy for each group of units for affecting all of the variable elements similarly, thereby impressing upon the main circuit the arithmetic sum of all the variations in the group and the several groups impressing upon the main circuit the algebraic sum of the variations produced by each group.

4. In an electrical system, a plurality of units consisting each of a Wheatstone bridge having battery connected at the juncture of two of the arms and terminating at the juncture of the other two arms in a movable element, a separate source of wave energy for each element in each unit for operating the element associated therewith to disturb the potential at the other two junctures of the other two arms in each unit, a main circuit terminating at said terminals and an electrical reproducer or repeater on said line for receiving and responding to the algebraic sum of said variations.

5. In an electrical system, a unit having a multiple circuit, a battery bridged across the sides of said multiple circuit dividing the multiple circuit into two divisions, a point in each division at the point of juncture of the two branches of the multiple, said points normally of the same potential, a plurality of such units, a main circuit, said units connected in series in the main circuit using said points of normal potential as terminals, the battery in each unit terminating in a connection on one side of the bridge and terminating in the other side in a movable element operable by wave energy to disturb the balance of the voltage at said points of juncture, each unit thereby impressing corresponding potential variations to the main circuit, thereby producing a variation in the main circuit equal to the algebraic sum of the individual variations of the units, and an electrical reproducer or repeater on said line for receiving and responding to said variations.

[Claims 6 to 26 not printed in the Gazette.]

1,209,398. VEHICLE. ATHERTON D. CONVERSE, Winchendon, Mass. Filed June 5, 1916. Serial No. 101,851. (Cl. 21—94.)



In a device of the class described, an inclined beam having a transverse slit in its lower end; a steering member pivoted to the forward end of said beam and perpendicular thereto; a rod positioned in the slit at the rear end of said beam; means for clamping said rod in position; traction members on said rod and the lower end of said steering member; and sleeves surrounding the opposite ends of said rods between said beam and said traction members.

1,209,399. PROCESS WHEREBY A VALUABLE AND NUTRITIOUS EXTRACT IS PRODUCED FROM FISH OR OTHER AQUATIC ANIMALS. WILLIAM VINCENT COONS and BERT HEWITT, Victoria, British Columbia, Canada. Filed Nov. 6, 1915. Serial No. 60,069. (Cl. 99—11.)

1. The herein described process of producing an extract from fish or other aquatic animals, which consists in cleaning the fish, cutting the fish up or comminuting the same, treating the cut up portions with cold water to dissolve out the albumin, adding fresh water to the material from which the albumin has been dissolved, heating the material while keeping the temperature below the boiling point, separating the material from the heated liquid, skimming off the oil, mixing the cold liquid containing the dissolved albumin with the heated liquid and boiling the mixture, whereby the coagulated albumin precipitates impurities, drawing off the clear liquid from the impurities, and evaporating the same.

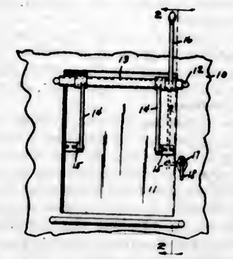
2. The herein described steps in a process of preparing an extract from fish or other aquatic animals, which consists in cutting up the fish, treating the cut up material with cold water to dissolve out the albumin, heating the albumin-free material with fresh water to a temperature below boiling point, separating the solid material from the liquid, mixing the cold liquid containing the soluble albumin with the heated liquid, and boiling the mixture.

3. The herein described steps in a process of preparing an extract from fish or other aquatic animals, which consists in treating cut up fish or similar material with cold water to dissolve the albumin, and subsequently heating the remaining material with water to dissolve the extractives, mixing the albumin solution with the extractive solution, and heating the mixture to the boiling point whereby the coagulated albumin will precipitate the impurities.

1,209,400. SILO-DOOR OPERATOR. ERWIN COX, Westfield, Ind. Filed Feb. 28, 1916. Serial No. 80,945. (Cl. 268—1.)

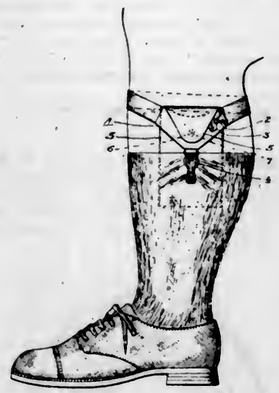
1. The combination with a door frame and a door, of a hinging member having a pair of L-shaped arms pivoted to the door near the middle thereof and, when the door is closed, extending upwardly, means for pivotally connecting the hinging member near the top of the door frame, and a handle rigidly secured to the upper end of said arms, the length of the upper section of each of said arms being substantially the same as the thickness of the door frame, whereby when the door is open the other ends of said arms and the door will lie against the inner surface of the frame above the door.

2. The combination with a silo door frame and a door, a transverse rod secured near the top of the door frame, a tube thereon, L-shaped arms secured to said tube and extending down when the door is closed and pivoted



to the door near the middle thereof, and a handle rigidly secured to said tube, substantially as set forth.

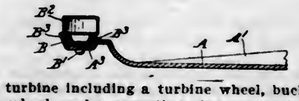
1,209,401. GARTER-POCKET. EDWARD V. CROUSE, Chicago, Ill. Filed June 7, 1915. Serial No. 32,521. (Cl. 224—26.)



1. An integral pocket and garter having the garter secured to the front wall of the pocket below its mouth with the pocket disposed in rear of the body of the garter, hose engaging means depending from the body of the garter and adapted to retain a stocking in a pocket concealing position.

2. The combination of a garter and a pocket integral therewith and disposed in rear of the body of the garter, a flap having a button member adapted to coact with a securing member carried by the body of the garter, and hose engaging means depending from the body of the garter and adapted to retain a stocking in a pocket concealing position.

1,209,402. TURBINE. CHARLES W. DAKE, Chicago, Ill., assignor to Pyle-National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Dec. 7, 1914. Serial No. 875,758. (Cl. 253—77.)



1. A turbine including a turbine wheel, buckets for the turbine wheel, and a mounting ring separably secured to the turbine wheel and to which mounting ring the buckets are separably secured, said buckets having rearwardly extending ears embracing the ring.

2. A turbine including a rotor, turbine buckets, and a mounting ring separably secured to the rotor at a face thereof that lies in the plane of rotation of the rotor and upon which mounting ring the buckets are separably secured to one side of the rotor, the mounting ring and buckets having interconnection permitting the buckets to be moved along the mounting ring, while supportingly engaged therewith, for the purpose of mounting and demounting the buckets.

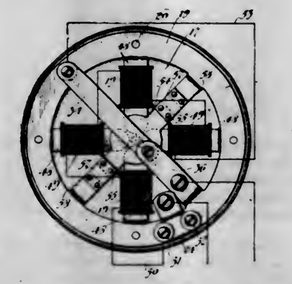
3. A turbine including a rotor, turbine buckets and a mounting ring carried by the rotor at a face thereof that lies in the plane of rotation of the rotor and upon the outer side of which mounting ring the buckets are separably secured to one side of the rotor and ring, the mounting ring and buckets having interconnection permitting the buckets to be moved along the mounting ring, while supportingly engaged therewith, for the purpose of mounting and demounting the buckets.

4. A turbine including a rotor, turbine buckets, and a mounting ring carried by the rotor at a face thereof that lies in the plane of rotation of the rotor and upon the outer side of which mounting ring the buckets are separably secured to one side of the rotor and ring, said buckets having rearwardly extending ears embracing the ring.

5. A turbine including a rotor, turbine buckets, and a mounting ring separably secured to the rotor at a face thereof that lies in the plane of rotation of the rotor and upon the outer side of which mounting ring the buckets are separably secured to one side of the rotor and ring, said buckets having rearwardly extending ears embracing the ring.

[Claims 6 to 8 not printed in the Gazette.]

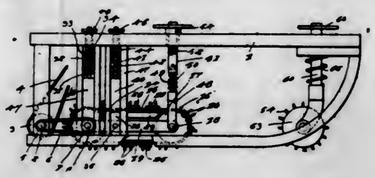
1,209,403. ELECTRIC HORN. WILLIAM W. DEAN, Chicago, Ill., assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 15, 1913. Serial No. 795,348. Renewed May 22, 1916. Serial No. 99,215. (Cl. 177—7.)



In an electric horn, the combination with a diaphragm of an electromagnet for operating said diaphragm comprising a ring having a plurality of inwardly projecting pole pieces, energizing windings surrounding said pole pieces, make and break contacts for said magnet comprising an inwardly extending stationary arm carried by said ring and supporting a stationary contact, and an inwardly extending vibratory arm carrying a contact and supported by said ring.

1,209,404. MOTOR-SLED. JOHN O. DECKER, Orafino, Nebr. Filed July 11, 1916. Serial No. 108,616. (Cl. 21—47.)

1. In a motor sled structure, the combination with a supporting frame, of an auxiliary frame adjustably carried by said supporting frame for vertical adjustment with respect to the supporting frame, a caterpillar tread structure carried by said auxiliary frame and including sprocket chains, a plurality of flights connected to said sprocket chains, a plurality of spurs attached to said flights and arranged in staggered rows, means for propelling said sprocket chains, a plurality of guide bars carried by said adjustable frame, rollers carried by said caterpillar treads and engaging said guide bars for guiding the travel of the sprocket chains of the caterpillar tread, and means for moving the front end of the caterpillar tread structure vertically independently of vertical movement of the rear end of the caterpillar tread structure.



2. In a motor sled structure, the combination, of a supporting frame, an auxiliary frame, a pair of shafts rotatably carried by said auxiliary frame, balls rotatably carried by said auxiliary frame and provided with diametrically extending bores forming journals for said shafts for permitting movement of one end of the shaft independent of movement of the other end of the shaft, and a caterpillar tread structure carried by said auxiliary frame and operable by the rotation of one of said shafts.

3. In a motor sled structure, a supporting frame, an auxiliary frame adjustably carried by said supporting frame for vertical adjustment with respect thereto, a caterpillar tread structure carried by said auxiliary frame, means for propelling said caterpillar tread, means for adjusting the ends of said auxiliary frame independently of each other, and means for yieldably holding said caterpillar tread in engagement with the ground.

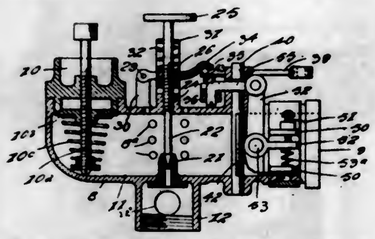
4. In a motor sled structure, a supporting frame, an auxiliary frame adjustably carried by said supporting frame for vertical adjustment with respect to the supporting frame, a caterpillar tread structure carried by said auxiliary frame and including sprocket chains, a plurality of flights connected to said sprocket chains, a plurality of spurs attached to said flights and arranged in staggered rows, means for propelling said sprocket chains, a plurality of guide bars carried by said adjustable frame, rollers carried by said caterpillar treads and engaging said guide bars for guiding the travel of the sprocket chains of the caterpillar tread, means for moving the front end of said caterpillar tread structure vertically independently of the vertical movement of the rear end of the caterpillar structure, and means for yieldably holding said caterpillar tread in engagement with the ground.

5. In a motor sled structure, a supporting frame, an auxiliary supporting frame, vertical guide bars carried by said supporting frame, blocks carried by said auxiliary frame and engaging said guide bars, means connected to said blocks for moving said auxiliary frame vertically independently of said supporting frame, a caterpillar tread carried by said auxiliary frame, coil springs engaging said blocks for yieldably holding said caterpillar tread in engagement with the ground.

[Claims 6 to 9 not printed in the Gazette.]

1,209,405. CARBURETER. IRVING W. DILLON, Lawrence, Mass. Filed Dec. 14, 1915. Serial No. 66,804. (Cl. 261—50.)

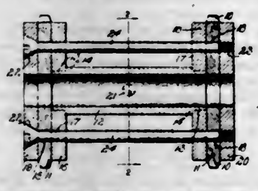
1. In a carbureter, a body having a plurality of auxiliary air ports formed therein, a sleeve rotatably mounted upon said body having a plurality of air ports therein adapted to be moved into registration with the first-mentioned air ports, a pair of spaced laterally projecting arms carried by said sleeve, a bell crank pivotally secured to said body having one of the arms thereof engaged between the first-mentioned arms, an adjustable stop carried by one of the first-mentioned arms engaged by the arm of said bell crank, means normally retaining the arm of said bell crank in engagement with the said adjustable stop, a throttle valve rotatably mounted in said body, and a connection between said throttle valve and said bell crank.



2. In a carbureter, a body having an internal mixing chamber and a plurality of air ports formed therein, a nozzle arranged within said body adjacent said air intake ports, a needle valve associated with said nozzle, a nut adjustably fitted upon said valve and having a pair of diametrically opposed grooves therein, an arm pivotally secured to said body and having one end bifurcated and engaged in the grooves in said nut, a throttle valve rotatably mounted in said body, a segmental plate carried by said throttle valve, a flexible track secured to the surface of said segmental plate, means for adjusting said strip, said strip constituting an adjustable support for the free end of said arm, said body having a plurality of auxiliary air ports therein, a rotatable sleeve engaged with said body having a plurality of apertures therein adapted to be moved into registration with said auxiliary air ports, and means connecting said throttle valve with said sleeve.

3. In a carbureter, a body having an internal mixing chamber and a plurality of auxiliary air ports formed therein, a nozzle arranged in said body, a needle valve associated with said nozzle, an arm pivotally secured to said body and engaged with said needle valve, a sleeve rotatably mounted upon said body having a plurality of air ports therein adapted to be moved into registration with the first mentioned air ports, a pair of spaced laterally projecting arms carried by said sleeve, a bell crank pivotally secured to said body having one of the arms thereof engaged between the first-mentioned arms, an adjustable stop carried by one of the first-mentioned arms engaged by the arm of the bell crank, means normally retaining the arm of said bell crank in engagement with said adjustable stop, a throttle valve rotatably mounted in said body, a connection between said throttle valve and said bell crank, and adjustable means carried by said connection and engaged with said arm for adjusting said needle valve simultaneously with said throttle valve.

1,209,406. SPROCKET-WHEEL. JOHN DOMERHUIZEN, New York, N. Y. Filed July 6, 1916. Serial No. 107,753. (Cl. 74—31.)

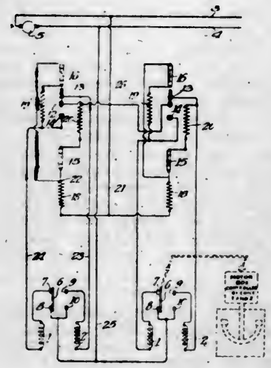


1. In a sprocket wheel, the combination of a hub having rabbeted ends, a pair of disks fitted upon said rabbeted ends, a pair of toothed disks lying against the outer faces of the first mentioned disks, a pair of end members abutting against the outer faces of the toothed disks, all of said disks and end members having longitudinally alined holes, and a plurality of clamping members extending through said holes and securing the disks and end members together and locking the same to the hub.

2. In a sprocket wheel, the combination of a hollow cylindrical hub having rabbeted ends, a pair of disks fitted upon said rabbeted ends, a pair of toothed members lying against the outer faces of said disks, a pair of end disks lying against the outer faces of said members, said latter mentioned disks and members having axial holes of the same diameter as the interior diameter of the hub, all of said disks and members having longitudinally alined holes, one of the end disks having its holes countersunk and the other end disk having its holes tapped, and a pair of clamping bolts extending through all of said holes from one end disk to the other, said bolts having heads located in said countersunk holes, and threaded ends coöperating with the said tapped holes and serving to clamp all of the parts together, substantially as set forth.

3. In a sprocket wheel, the combination of a hub, a pair of flat members carried on the ends of the hub, said members having coaxially arranged holes unequally spaced circumferentially, a pair of toothed disks lying against the outer faces of the members aforesaid, a pair of end members abutting against the outer faces of the disks, said latter mentioned members and the disks having holes registering with the holes first mentioned, and a plurality of binding screws passing through said members and disks to secure all the parts rigidly together.

1,209,407. TEST SYSTEM. ALFRED H. DONAHOE, Chicago, Ill., assignor to Associated Engineers Company, Chicago, Ill. Filed Oct. 16, 1915. Serial No. 56,228. (Cl. 177—334.)



1. A signaling system of the character described comprising a translating device, remotely located circuit controlling means for controlling the selective operation of said translating device, switching mechanism at said translating device and operable into its alternative positions in accordance with the actuations of said translating device, for controlling the character of actuation of said translating device, a plurality of signals in proximity to said circuit controlling means and selectively controlled by said circuit controlling means and said switching mechanism, resistances for said signals, and a panel board upon which said signals, resistances, and circuit controlling means are mounted, said signals and circuit controlling means being mounted on the front face of said panel board, and said resistances being mounted rearwardly of said panel board.

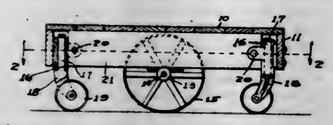
2. A signaling system of the character described comprising a translating device, remotely located circuit controlling means for controlling the selective operation of said translating device, switching mechanism at said translating device and operable into its alternative positions in accordance with the actuations of said trans-

lating device, for controlling the character of actuation of said translating device, a plurality of signals in proximity to said circuit controlling means and selectively controlled by said circuit controlling means and said switching mechanism, said circuit controlling means and said switching mechanism controlling said signals over common circuits, resistances for said signals, and a panel board upon which said signals, resistances, and circuit controlling means are mounted, said signals and circuit controlling means being mounted on the front face of said panel board, and said resistances being mounted rearwardly of said panel board.

3. A signaling system of the character described comprising a translating device, remotely located circuit controlling means for controlling the selective operation of said translating device, switching mechanism at said translating device and operable into its alternative positions in accordance with the actuations of said translating device, for controlling the character of actuation of said translating device, a plurality of signals in proximity to said circuit controlling means and selectively controlled by said circuit controlling means and said switching mechanism, said circuit controlling means when actuated into one or the other of its positions serving to short circuit one or the other of said signals, resistances for said signals, and a panel board upon which said signals, resistances, and circuit controlling means are mounted, said signals and circuit controlling means being mounted on the front face of said panel board, and said resistances being mounted rearwardly of said panel board.

4. A signaling system of the character described comprising a translating device, remotely located circuit controlling means for controlling the selective operation of said translating device, switching mechanism at said translating device and operable into its alternative positions in accordance with the actuations of said translating device, for controlling the character of actuation of said translating device, a plurality of signals in proximity to said circuit controlling means and selectively controlled by said circuit controlling means and said switching mechanism, said circuit controlling means and said switching mechanism controlling said signals over common circuits, said circuit controlling means when actuated into one or the other of its positions serving to short circuit one or the other of said signals, resistances for said signals, and a panel board upon which said signals, resistances, and circuit controlling means are mounted, said signals and circuit controlling means being mounted on the front face of said panel board, and said resistances being mounted rearwardly of said panel board.

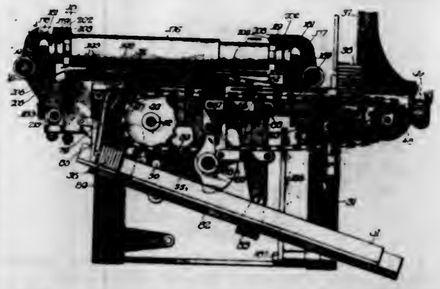
1,209,408. TRUCK. ROBERT L. DORSEY, Indianapolis, Ind., assignor to Tucker & Dorsey Manufacturing Company, Indianapolis, Ind., a Corporation. Filed Apr. 27, 1916. Serial No. 94,003. (Cl. 21—65.)



1. A truck having depending end braces, a platform thereon, bearings secured to said braces, rollers on said bearings, and a longitudinal center brace adjacent the underside of the platform and extending between said bearings and adapted to engage and wedge said bearings securely against said end braces and support said platform.

2. A truck having end braces thereon, bearings secured to said end braces, rollers on said bearings, a center brace adapted to engage said bearings and wedge them securely against said end braces, and an extension on said bearings to which said center brace is firmly secured.

1,209,409. PRINTING-MACHINE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed July 29, 1912. Serial No. 711,979. (Cl. 101—1.)



1. In a printing machine, the combination of a stationary letter form, a magazine, a plurality of address forms arranged in said magazine, means including a reciprocatory frame for moving said address forms consecutively to printing position, a plurality of salutation forms, means carried by said frame and controlled by the address forms for selecting and positioning the required salutation form in printing position, a rotatable platen, and automatic means for operating said platen after the forms have been properly positioned to cause the printing of the letter, address and salutation at one operation of the platen.

2. In a printing machine, the combination of a stationary form, a magazine, a plurality of address forms disposed in said magazine, a movable form bed, means for conveying said address forms consecutively from the magazine to the bed, means for elevating the bed to aline an address form with the stationary form, a plurality of salutation forms, and means controlled by the address forms for positioning the desired salutation form in alinement with said stationary and address forms.

3. In a printing machine, the combination of a magazine, a plurality of printing devices disposed therein, a movable bed, a plurality of links pivotally connected to the bed frame and to the main frame of the machine for guiding said bed during its movement, an intermittently operated conveyer adapted to convey the address forms consecutively from the magazine to position over said bed, mechanism for elevating said bed whereby to lift an address form from the conveyer into printing position, a plurality of salutation forms, and means for alining a selected one of said salutation forms with said address form in printing position.

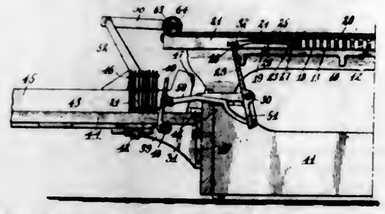
4. In a printing machine, the combination of a stationary printing form, a plurality of salutation forms, means for reciprocating said salutation forms transversely of the stationary form, and means dependent upon the position of the salutation forms for elevating one of said forms during its travel in either direction into alinement with the face of the stationary form.

5. In a printing machine, the combination of a stationary form, a plurality of salutation forms arranged in alinement adjacent the stationary form, means for imparting a reciprocatory movement to all of said salutation forms simultaneously, and means for elevating one of said salutation forms relatively to the others and into alinement with the face of the stationary form.

[Claims 6 to 36 not printed in the Gazette.]

1,209,410. ADDRESSING ATTACHMENT FOR DUPLICATING-MACHINES. CHARLES ELLSWORTH ADAMSON, Shelton, Conn., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 1, 1912. Serial No. 680,843. (Cl. 101—1.)

1. The combination with a printing machine having a flat type-bearing member and a reciprocating impression member, of an auxiliary type-bearing member normally positioned on said flat type-bearing member, mechanism for moving said auxiliary type-bearing member out of normal position and adapted to be actuated by said reciprocating impression-member, and means for positioning said mechanism to hold said type-bearing member out of normal position and to prevent actuation of said mechanism by said impression-member.



2. An addressing attachment for a machine of the character described, comprising a frame, a rock-shaft journaled in said frame, a spring-positioned lever secured to said rock-shaft and adapted to be actuated in one direction by a part of said machine, a second lever secured to said rock-shaft, and an auxiliary type-bearing member connected with said last-mentioned lever so as to be moved into and out of printing position.

3. An addressing attachment comprising a frame, a rock-shaft mounted in said frame, a lever secured to said rock-shaft and having a right-angle extension, a retractable spring secured with one end to said extension, a swinging arm to which the other end of said spring is secured, a second lever on said rock-shaft, and a type-bearing member connected to said last mentioned lever so as to be moved into and out of printing position.

4. In combination with a type-form receiving-rack, an addressing attachment comprising a frame, a rock-shaft mounted in said frame, a lever secured to said rock-shaft and extending in two directions therefrom, a type-bearing member secured to one end of said lever, a pusher-head in said receiving rack pivotally mounted to swing therein, and a link connecting said pusher-head with the opposite end of said lever.

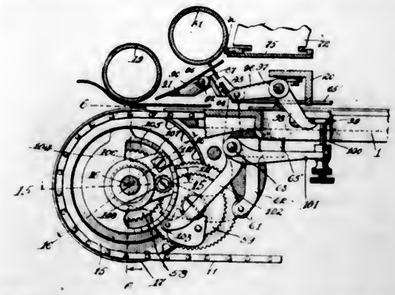
5. In a machine of the character described, the combination with a main type-form and an impression member cooperating therewith, of changeable auxiliary type-forms adapted to be successively used with said main type-form, a swinging frame, a ribbon spool rotatable in said swinging frame, an inking ribbon wound around said spool and normally passing over said type-forms, and means for causing said swinging frame to carry said ribbon spool beyond the auxiliary type-form in use.

[Claims 6 to 13 not printed in the Gazette.]

1,209,411. AUTOMATIC FEEDER FOR ADDRESSING-MACHINES AND THE LIKE. DAVYDD C. HUGHES, Chicago, Ill., assignor, by mesne assignments, to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed July 26, 1910. Serial No. 574,005. (Cl. 101—1.)

1. In a printing machine a frame and a printing mechanism comprising a rotary drum and a pressure roll, a carriage in which said pressure roll is mounted and maintained in relative position above said drum, said carriage being adapted to be raised or lowered to separate the pressure roll and drum, means for locking said carriage in position, means for raising and lowering said carriage to adjust the pressure roll relatively to the rotary drum, and automatic paper feed mechanism positioned on and movable with said carriage at the "intake" side of said printing mechanism.

2. In a printing machine a frame and a printing mechanism supported therein comprising a rotary drum, a carriage, a pressure roll mounted in said carriage and maintained in relative position above said drum, said carriage being adapted to be raised and lowered to separate the pressure roll and drum, means for locking said carriage in position, means for raising and lowering said carriage and the pressure roll relatively to the rotary drum, and automatic feed mechanism positioned on and movable with said carriage at the "intake" side of said printing mechanism.



3. In a printing machine a frame and a printing mechanism supported therein comprising a rotary drum, a carriage, a pressure roll mounted in said carriage and maintained in relative position above said drum, said carriage being swingable relatively to said frame to separate and to relatively adjust the pressure roll and drum and an adjustable automatic feed mechanism positioned on and movable with said carriage at the "intake" side of said printing mechanism for periodically feeding pieces of printable material to said printing mechanism.

4. In a printing machine a frame and a rotary drum supported therein, a swingable carriage bridging the upper portion of said frame, a pressure roll rotatably mounted in said carriage and positioned above the rotary drum, spring tension members locking said carriage in position, and means for raising and lowering said carriage against the tension of said spring members to relatively adjust the pressure roll with respect to said drum.

5. In a printing machine a frame and a rotary drum supported therein, a swingable carriage bridging the upper portion of said frame, a pressure roll rotatably mounted in said carriage and positioned above the rotary drum, spring tension members locking said carriage in position and cam operated jack pins for raising and lowering said carriage against the tension of said spring members to vary the space between said pressure roll and said drum.

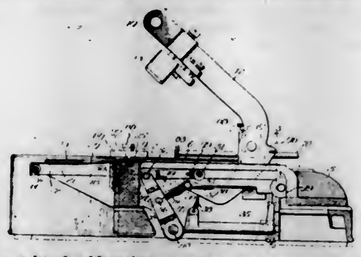
[Claims 6 to 28 not printed in the Gazette.]

1,209,412. SECTIONAL PRINTING-FORM. HENRY E. HUBBARD, Oak Park, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 13, 1913. Serial No. 794,799. (Cl. 101—169.)



A sectional printing form comprising a bed provided with a plurality of spaced grooves, a plurality of printing form sections consisting of thin metal plates having printing characters struck up from the body thereof, said sections being provided with depending flanges along the longitudinal edges thereof and being arranged side by side on said bed in abutting relation with said flanges disposed in said grooves, depressions in said bed transversely of said sections, the ends of said sections being inclined downwardly and bent outwardly in substantial parallelism with said bed, fastening strips in said grooves provided with rabbeted edges overlying the ends of a plurality of said sections, and means for securing said strips to said bed with the upper surfaces thereof below the plane of the printing surfaces of said sections.

1,209,413. HAND ADDRESSING-MACHINE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 17, 1913. Serial No. 801,326. (Cl. 101—1.)



1. In a hand addressing machine, the combination of a movable platen adapted when manually actuated to strike an impression blow, a stationary bed adapted to support a printing device in printing position and to absorb the shock of the platen blow, and means actuated by the movement of said platen for moving the printing device from changing position onto said bed and returning said device from said bed to changing position at each cycle of said platen.

2. In a hand addressing machine, the combination of a movable platen adapted when manually actuated to strike an impression blow, a stationary bed adapted to support a printing device in printing position and to absorb the shock of the platen blow, a slide adapted to carry the printing device, and means actuated by the movement of said platen for actuating said slide to move the printing device from changing position onto said bed and to return said device from said bed to changing position at each cycle of the platen.

3. In a hand addressing machine, the combination of a movable platen adapted when manually actuated to strike an impression blow, a stationary bed adapted to support a printing device in printing position and to absorb the shock of the platen blow, a slide adapted to carry the printing device, means to support and guide said slide, and means actuated by the movement of said platen for actuating said slide to move said printing device from changing position onto said bed and to return said device from said bed to changing position at each cycle of the platen.

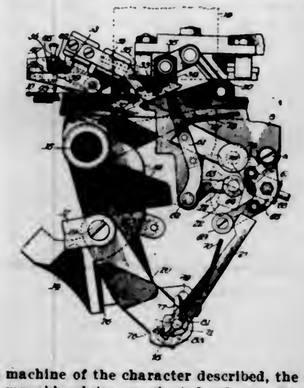
4. In a hand addressing machine, the combination of a frame, a platen movably mounted on said frame, a stationary bed disposed in said frame and adapted to support a printing device in printing position and to absorb the shock of the platen blow, a slide adapted to carry the printing device, rollers mounted on said frame to support and guide said slide, and means actuated by the movement of said platen for actuating said slide to move said printing device from changing position onto said bed and to return said device from said bed to changing position at each cycle of said platen.

5. In a hand addressing machine, the combination of a frame, a platen movably mounted on said frame, a stationary bed disposed in said frame and adapted to support a printing device in printing position and to absorb the shock of the platen blow, a slide adapted to carry the printing device and comprising a pair of members extending longitudinally of said frame and connecting means therebetween, rollers mounted on said frame to support and guide said slide, and means actuated by the movement of said platen for actuating said slide to move said printing device from changing position onto said bed and to return said device from said bed to changing position at each cycle of said platen.

[Claims 6 to 12 not printed in the Gazette.]

1,209,414. ADDRESSING-MACHINE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed July 6, 1914. Serial No. 849,086. (Cl. 101—1.)

1. In a machine of the character described, the combination of a movable platen, a selector frame and a selector bar carried thereby, said frame and bar being movable conjointly and relatively, a selector pin on the bar adapted to engage a printing device to provide relative movement of the frame and bar, and means for utilizing said relative movement to control the movement of said platen.



2. In a machine of the character described, the combination of a movable platen, a pivoted selector frame and a selector bar pivotally mounted on the frame, said frame and bar being movable conjointly and relatively, a selector pin on the bar adapted to engage a printing device to provide relative movement of the frame and bar, and means for utilizing said relative movement to control the movement of said platen.

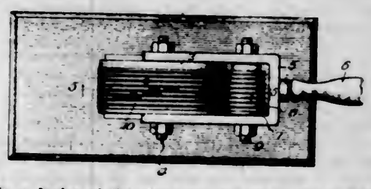
3. In a machine of the character described, the combination of a main frame, a movable platen, a selector frame pivotally mounted on said frame, a selector bar pivotally mounted on the frame in front of the pivot of said frame, said frame and bar being movable conjointly and relatively, a selector pin on the bar adapted to engage a printing device to provide relative movement of the frame and bar, and means for utilizing said relative movement to control the movement of said platen.

4. In a machine of the character described, the combination of a main frame, a carrier traveling on the frame and carrying printing devices, a selector frame pivotally mounted on the main frame above the carrier, a selector bar pivotally mounted on the selector frame in front of the pivot of said frame and extending across the path of travel of the carrier, and a selector pin on the bar adapted to engage a printing device to provide relative movement of the frame and bar.

5. In a machine of the character described, the combination of a selector frame and a plurality of selector bars carried thereby, said frame and bars being movable conjointly and relatively, and selector pins on the bars adapted to engage a printing device to provide said relative movement.

[Claims 6 to 20 not printed in the Gazette.]

1,209,415. MACHINE FOR PREPARING PRINTING-PLATES. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 8, 1915. Serial No. 12,755. (Cl. 153—46.)



1. In a device of the character described, the combination of a curved base, and a member mounted to move concentrically about said base and provided with a plurality of spaced flanges to engage a printing plate between the lines of printing characters thereon and bend it about said base as said member is moved.

2. In a device of the character described, the combination of a curved base, and a roller mounted to move concentrically about said base and provided with a plurality of spaced flanges to engage a printing plate between the lines of printing characters thereon and bend it about said base as said roller is moved.

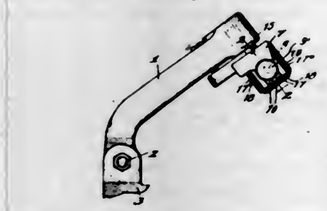
3. In a device of the character described, the combination of a curved base, a roller having a plurality of spaced flanges adapted to engage between the lines of printing characters on a printing plate disposed on said base, and means for moving said roller concentrically about said base to bend said printing plate to conform with said base.

4. In a device of the character described, the combination of a support, a curved base fixedly mounted thereon, a roller having a plurality of spaced flanges adapted to engage between the lines of printing characters on a printing plate disposed on said base, and means for moving said roller concentrically about said base to bend said printing plate to conform with said base.

5. In a device of the character described, the combination of a curved base, means for securing one end of a printing plate to said base, and a member mounted to move concentrically about said base and provided with a plurality of spaced flanges to engage said printing plate between the lines of printing characters and bend it about said base as said member is moved.

[Claims 6 to 23 not printed in the Gazette.]

1,209,416. PLATEN FOR ADDRESS-PRINTERS AND THE LIKE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed June 28, 1915. Serial No. 36,694. (Cl. 101—1.)

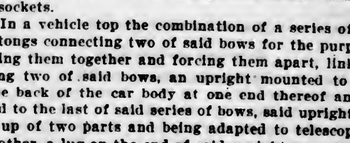


1. A platen for address printers and the like, comprising a rigid supporting head, bearings therein, a shaft rotatably mounted on said bearings and movable with respect to said head, resilient means to maintain said shaft in engagement with said bearings, a member secured to said shaft and provided with a plurality of resilient faces, and means for rotating said shaft to selectively place one of said faces in operative position.

2. A platen for address printers and the like, comprising a rigid supporting head, bearings therein, elongated guide members at either side of each of said bearings, a shaft rotatably mounted in said bearings and movable therefrom between said guide members, springs normally maintaining said shaft in engagement with said bearings, a member secured to said shaft and having a plurality of resilient faces, and means for rotating said shaft to selectively place one of said faces in operative position.

3. A platen for address printers and the like, comprising a rigid supporting head, bearings therein, elongated guide members at either side of each of said bearings, a shaft rotatably mounted in said bearings and movable therefrom between said guide members, springs to normally maintain said shaft in engagement with said bearings, a rectangular member secured to said shaft and having a plurality of resilient faces, each adapted to be so cut as to present surfaces of varying area and relative position, and means for rotating said shaft to selectively place one of said faces in operative position.

1,209,417. TOP FOR VEHICLES. ANDREW F. DUNN, Cortland, N. Y., assignor of one-fourth to Daniel Kernan, Cortland, N. Y. Filed Dec. 2, 1915. Serial No. 64,753. (Cl. 21—62.)



1. In a vehicle top the combination of a series of bows, lazy tongs connecting all of said bows, toggles connecting two of said bows for the purpose of drawing them together or forcing them apart, said toggles operating directly to separate two of said bows and operating indirectly to separate the remaining bows through said lazy tongs, and a U shaped piece rigidly connected to two of said toggles by which said toggles may be operated in unison.

2. In a vehicle top the combination of a series of bows, lazy tongs connecting all of said bows, toggles connecting two of said bows for the purpose of drawing them together or forcing them apart, said toggles operating directly to separate two of said bows and operating indirectly to separate the remaining bows through said lazy tongs, and links for supporting two of said bows and the toggles connecting them, said links being mounted to swing on studs mounted on the car body, said links, toggles, lazy tongs and bows being adapted to be all folded up together at the back of the car.

3. In a vehicle top the combination of a series of bows, lazy tongs connecting all of said bows, toggles connecting two of said bows for the purpose of drawing them together or forcing them apart, said toggles operating directly to separate the remaining bows through said lazy tongs, and links for supporting two of said bows and the toggles connecting them, said links being mounted to swing on studs mounted on the car body, said links, toggles, lazy tongs and bows being adapted to be all folded up together at the back of the car, and a bracket at the back of the car for supporting said parts when folded.

4. In a vehicle top the combination of a series of bows, lazy tongs connecting all of said bows, toggles connecting two of said bows for the purpose of drawing them together or forcing them apart, said toggles operating directly to separate two of said bows and operating indirectly to separate the remaining bows through said lazy tongs, links for supporting two of said bows and the toggles connecting them, said links being mounted to swing on studs mounted on the car body, uprights mounted to swing at one end on one of said bows and sockets on the car body adapted to receive the other ends, and shoulders on said ends that limit the engagement of said ends with said sockets.

5. In a vehicle top the combination of a series of bows, lazy tongs connecting two of said bows for the purpose of drawing them together and forcing them apart, links supporting two of said bows, an upright mounted to swing on the back of the car body at one end thereof and connected to the last of said series of bows, said upright being built up of two parts and being adapted to telescope into each other, a lug on the end of said upright near the pivot thereof to support said upright on the body of the car when in a horizontal position, said lug also supporting said bows and said links when folded up, said upright being adapted to rest against the rear of the car body and hold said bows in a horizontal position when extended over the top of the car.

[Claim 6 not printed in the Gazette.]

1,209,418. BUTTON FOR SHOES, &c. WILLIAM E. ELLIOTT, Grand Rapids, Mich. Filed Jan. 17, 1916. Serial No. 72,648. (Cl. 24—90.)



1. A button comprised of a head having an opening therethrough, a loop formed of a piece of wire having the ends thereof brought together and inserted into said opening at one end, and a plug inserted into the opening at the other end connected with said ends of the loop, substantially as described.

2. A button comprised of a head having an opening therethrough, a loop formed from a piece of wire fashioned into a substantially circular loop with the ends of the wire brought together parallel to each other and inserted into one end of said opening, said circular loop being partially received within the button head, and a plug inserted into the opening at the opposite end connected with the ends of said wire, substantially as described.

3. A button comprised of a head having an opening therethrough with an enlargement thereto at each end, a piece of wire bent centrally into a substantially circular loop with the ends brought together and inserted into the opening from one end, the loop being partially received within the enlargement at said end of the opening, and a plug provided with an enlarged head inserted into the opening at the other end, said plug and ends of the wire engaging and being welded together, substantially as described.

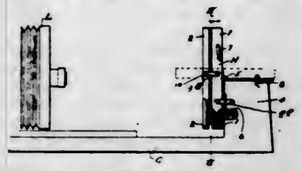
4. A button comprised of a head having a projecting portion located centrally and on the underside of the head, the outer surface of said portions curving upwardly and outwardly and forming a continuous curved surface with the remainder of the head, said head also being bored centrally from the upper to the lower side and the opening thus formed having a conical enlargement at each end, an annular shoulder on said projecting portion bordering the conical enlargement of the opening, a piece of wire formed centrally into a curved loop, then with oppositely located shoulders adapted to position under the said annular shoulders, then bent inwardly toward each other to follow the sides of the conical enlargement the ends of the wire then lying in parallelism and inserted in the opening from one end thereof, and a plug having a conically formed head inserted in the opposite end of the opening and seating in the conical enlargement thereof, said plug engaging with the ends of the wire and secured thereto, substantially as described.

5. A button composed of a head having an opening therethrough, a loop formed from a piece of wire having the ends thereof brought together and inserted into said opening at one end, and a plug inserted into the opening at the other end, said plug and ends of the loop being connected together within the head, substantially as described.

[Claim 6 not printed in the Gazette.]

1,209,419. PHOTOGRAPHIC DEVICE. HARRY D. FARQUHAR, New York, N. Y. Filed Sept. 15, 1915. Serial No. 50,755. (Cl. 88—24.)

1. A holder comprising a pair of frames adapted to receive "copy" between them, and pneumatic means carried by one of said frames for engaging said "copy" to press said "copy" into close contact with a part carried by the other frame, said pneumatic means comprising a sheet of relatively stiff material forming a backing, a sheet of relatively flexible material overlying said backing, a gasket interposed between said backing and said flexible sheet so as to space said flexible sheet from said backing and define a compartment between said flexible sheet and said backing, clamping means engaging over the outer surface of said flexible sheet and extending into engagement with said backing for clamping said gasket between said flexible sheet and said backing in air tight relation, and means for supplying air pressure into the compartment between said sheet of flexible material and said backing.



2. A holder comprising a pair of frames adapted to retain "copy" between them, means whereby said holder is pivotally mounted to swing from a vertical position to a horizontal position, and means whereby one of said frames is pivotally connected to the other of said frames to swing into position to comprise a table adjacent said second frame.

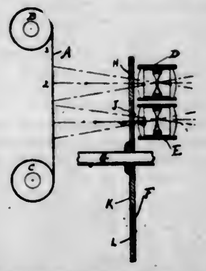
3. In a device of the class described, the combination with a camera and a bed therefor, of a standard formed upon said bed having a relatively vertical surface portion fronting toward the camera and having a relatively horizontal surface at its upper end, and a "copy" holder pivotally carried by said standard so as to swing from a substantially horizontal position of rest upon the upper end of the standard to a substantially vertical operative position resting against the mentioned vertical surface portion of said standard.

4. In a device of the class described, the combination with a camera and a bed therefor, of a standard formed upon said bed, a "copy" holder pivotally carried by said standard to swing into two positions, and the top of the standard being formed to comprise a support for the "copy" holder when the "copy" holder is in one of its positions.

5. In a device of the class described, a "copy" holder, a standard upon which the "copy" holder is pivotally supported to swing into and out of a position in which "copy" may be arranged therein, and means comprised in the "copy" holder for providing a table adjacent the standard when the "copy" holder is in position to receive "copy" therein.

[Claims 6 to 9 not printed in the Gazette.]

1,209,420. ART OF RECORDING COLORS. WILLARD B. FEATHERSTONE, Washington, D. C. Filed Nov. 19, 1915. Serial No. 62,297. (Cl. 88—16.4.)



1. The art of recording colors which comprises making a series of photographic negatives representing successive aspects of a scene, each negative being the result of a plurality of exposures, substantially according to the following procedure; each image area is passed in succession into the focal fields of two or more lenses, each of which transmits, by virtue of shifting color filters, the same or similarly colored light to a given area, the next area receiving another color from each lens alike, each area receiving as many monochromatic exposures as there are lenses, while the areas are advanced one at a time between exposures.

2. A series of photographic negatives representing successive aspects of a scene, said negatives being arranged in a plurality of sub-series, each sub-series representing color values corresponding to one of the primary colors, and each negative being the result of a plurality of exposures, made each through a separate lens, each exposure representing an aspect of the scene slightly different from that represented by the other exposures blended with it.

3. A series of photographic negatives representing successive aspects of a scene, said negatives being arranged in a series of groups, the first negative of each group being limited in its representation to a single primary color or an approximation thereto, the second negative of each group being likewise limited to a different primary color, and the third, if any, to a still different color; each negative being a composite of a plurality of exposures made through a group of lenses equal in number to the number of negatives in a group, and spaced apart a like distance.

4. A cinematographic film comprising a series of photographs representing successive aspects of a scene, each photograph being a composite representation, from two or more slightly different viewpoints, of two or more successive aspects, every second or third photograph being limited in its representation to a single primary color or an approximation thereto, the intermediate photographs being likewise limited to another primary color or colors.

1,209,421. PAPER-HANGER'S TABLE-TOP. GEORGE J. FERGUSON, Olyphant, Pa. Filed Feb. 17, 1916. Serial No. 79,006. (Cl. 45—116.)



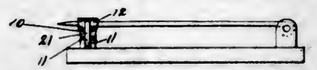
1. A folding table top composed of sections meeting at the inner ends thereof, one of said sections having a central recess and lateral projections at the sides of said recess and another of said sections having a central tongue fitting in said recess and lateral notches engaged by said lateral projections, and a hinge for the sections having a pivot pin located midway of and supporting said tongue and said lateral extensions.

2. A folding table top composed of sections meeting at the inner ends thereof, one of said sections having a central recess and lateral projections at the sides of said recess, and another of said sections having a central tongue fitting in said recess and lateral notches engaged by said lateral projections, a hinge for the sections having a pivot pin located midway of and supporting said tongue and said lateral extensions, and means for preventing upward movement of the sections.

3. A folding table top, comprising longitudinal leaves each composed of sections having a tongue and recess joint, the tongued sections being located diagonally opposite and the recessed sections being similarly located and having lateral projections at the sides of the recesses thereof, a hinge for the sections of each leaf located midway of the length of and supporting the tongue of the joint, and dowel pins at opposite sides of the hinge and connecting the inner of the lateral projections of one section with the similarly located lateral projection of the diagonally opposite section.

1,209,422. SAFETY-CATCH. JOHN FIELDING, Providence, R. I. Filed May 24, 1916. Serial No. 99,561. (Cl. 24—157.)

1. A safety catch comprising a body member having an attaching base and a pin-tongue receiving opening, a keeper pivoted in said body having two arms, one or more protuberances on said body member for engaging the extremity of one of said arms, said keeper being split from its margin into its pivot eye, whereby the arm engaging the protuberance is permitted to yield in passing to closed position and resist movement to open position.



2. A safety catch comprising a body member having a portion bent over into a hook form and having two side wings near its base folded forward and spaced apart from each other, a keeper pivoted between said wings and having a lock arm extending up beneath the hook shaped portion of said body and an operating arm for also closing the mouth of the hook, and one or more protuberances on the inner surface of the hook portion arranged to engage the end of the lock arm to normally hold the same against an opening action, said keeper being split from its margin into its pivot eye, whereby the arm engaging the protuberance is permitted to yield in passing to closed position and resist movement to open position.

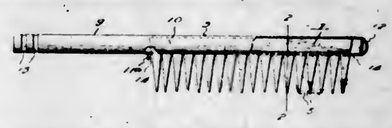
1,209,423. DYAD DYE. ARTHUR W. FISHER, Pultneyville, N. Y. Filed Apr. 1, 1916. Serial No. 88,315. (Cl. 8—6.)

1. A dyad dye consisting of crystal violet and malachite green, substantially as described.

2. The herein described dye and admixture of dyestuffs consisting of one part of crystal violet and seventeen parts of malachite green, substantially as described.

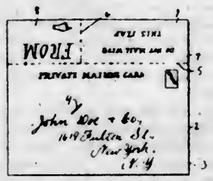
1,209,424. COMB. JOHN F. FOLEY, St. Paul, Minn. Filed Aug. 10, 1915. Serial No. 44,770. (Cl. 132—3.)

1. A comb body comprising a plate of sheet metal, said plate being bent longitudinally to form a pair of spaced walls, the joined edges of said comb body being formed with spaced openings to provide teeth.



2. A comb body comprising a plate of sheet metal, said plate being bent longitudinally to form a pair of spaced walls, the joined edges of said walls being formed with spaced openings to provide teeth, the space between the walls opening through the side edges of the teeth and into the spaces therebetween.

1,209,425. POSTAL CARD. HUGO GERNSBACK, New York, N. Y. Filed June 7, 1913, Serial No. 772,291. Renewed May 15, 1916. Serial No. 97,728. (Cl. 120—74.)

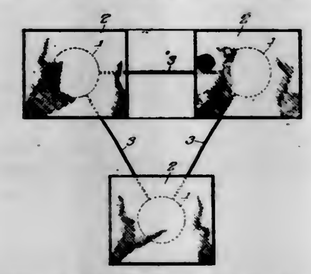


1. A postal card formed from a single piece of suitable material having transverse perforations to form a body, and an extension, said extension having transverse perforations therein to form two flaps arranged longitudinally of each other, said body having a slot therein to receive

one corner of one of the flaps after the other has been taken off, and the remaining flap folded upon the reverse side of the body, the front face of the body containing the address of the original sender and a space for a stamp, the reverse face of the body having a place for the recipient's name and address, a place for correspondence, directions to the postmaster and a space for a postage stamp, the flap to be removed containing directions for removing the same and the other flap containing on one face directions for the use of the postal card, and on the other face suitable indications that the card is from the address upon the reverse side of the body, the last mentioned flap and that portion of the body not containing the recipient's name and address being removable, so that it may be used as a label.

2. An article of the class described comprising a body or postal card and an extension, the latter divided into two flaps arranged longitudinally of each other, the body containing the addressee's name and a place for a postage stamp on the obverse face and containing a place for the addressor's name and a stamp upon the reverse face, the extension when folded upon the body obscuring the addressor's name, one of the flaps when the other is detached to be folded over upon the reverse face of the body to protect the stamp upon the reverse face of the body, the exposed face of said remaining flap containing the legend "from," and means for retaining said remaining flap over the stamp against accidental displacement while the card is passing through the mail to prevent the cancellation of said stamp.

1,209,426. AEROPLANE. HYMAN ELI GOLDBERG, Chicago, Ill. Continuation of application Serial No. 692,269, filed Apr. 22, 1912. This application filed Apr. 15, 1916. Serial No. 91,289. (Cl. 244—12.)



1. An aeroplane wherein approximately the total mass thereof including the load is distributed to surround the total mass center at a distance therefrom to thereby secure a large moment of inertia to resist angular displacement of the structure, substantially as described.

2. An aeroplane wherein approximately the total mass thereof including the load is divided into subsidiary locally-concentrated masses distributedl around the total mass center at a distance therefrom to thereby secure a large moment of inertia to resist angular displacement of the structure, substantially as described.

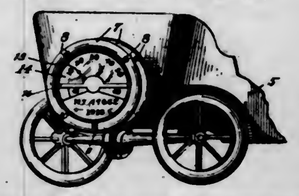
3. An aeroplane wherein substantially the total load is divided into substantially equal subsidiary masses distributed to surround the total mass center at a distance therefrom to thereby secure a large moment of inertia to resist angular displacement of the structure, substantially as described.

4. An aeroplane constructed to resist angular displacement thereof wherein substantially the total load mass of the aeroplane is divided into three separate concentrated subsidiary masses located in triangular arrangement whereby to secure a relatively large moment of inertia, substantially as described.

5. An aeroplane constructed to resist angular displacement thereof, wherein substantially the total load mass of the aeroplane is divided into widely-separated, locally-concentrated, relatively-large subsidiary masses whereby to secure a large moment of inertia to resist angular displacement of the device, the lines joining the centers of such masses forming a convex polygon, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,209,427. COMBINED CARRIER FOR A SPEEDOMETER, LICENSE-PLATE, SIGNAL, AND TIRES. WALTER E. GOLDSWORTHY, Dover, N. J. Filed June 5, 1916. Serial No. 101,859. (Cl. 21—90.)



1. A casing adapted to carry a speedometer mechanism, one end of the casing being arranged to constitute a combined indicating dial for the speedometer and a symbol carrier, and said casing adapted to fit within a tire and serve as a carrier therefor, substantially as and for the purpose specified.

2. A casing adapted to carry a speedometer mechanism, one side of said casing being arranged to serve as an indicating dial for the speedometer, and said casing adapted to fit within the inner circumference of a tire, and means to secure and carry a tire on the exterior of the casing, substantially as and for the purpose specified.

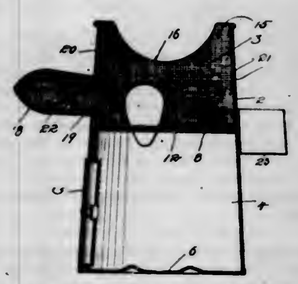
3. A circular casing adapted to carry a speedometer mechanism, one end of said casing having transparent means to serve as an indicating dial for the speedometer, and said casing adapted to engage within the inner circumference of a tire to serve as a carrier therefor, and means to illuminate the interior of the casing, substantially as and for the purpose specified.

4. A casing adapted to carry a speedometer mechanism, transparent means in one end of said casing constituting an indicating dial for the speedometer, and a symbol carrying plate, and said casing adapted to engage within the inner circumference of a tire and serve as a carrier for a tire, substantially as and for the purpose specified.

5. The combination of a casing adapted to carry a speedometer mechanism, transparent means on one end of said casing to constitute an indicating dial for the speedometer, and a symbol carrying plate, and semaphore signaling means carried by said casing, substantially as and for the purpose specified.

[Claims 6 to 14 not printed in the Gazette.]

1,209,428. EGG-CANDLER. JESSE R. GRANT, Kokomo, Ind. Filed Nov. 1, 1915. Serial No. 59,070. (Cl. 99—6.)



1. An egg candler having an inspection compartment formed of a division wall with an egg opening in it and a surrounding wall extending from said division wall and without any wall opposite said division wall and with an inspection opening in said surrounding wall, and a light compartment behind said division wall.

2. An egg candler having a light compartment with an egg opening in the wall thereof, a wall surrounding said egg opening and extending from said light compartment to form a dark compartment with the outer end thereof open, and an inspection opening in said surrounding wall.

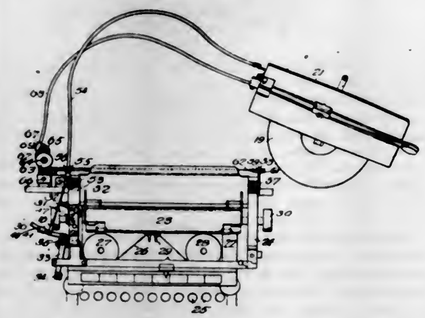
3. An egg candler having an inspection compartment formed of a division wall with an egg opening in it and a surrounding wall extending from said division wall and without any wall opposite said division wall and with an inspection opening in said surrounding wall near said division wall, and a light compartment behind said division wall.

4. An egg candler having an inspection compartment formed of a division wall with an egg opening in it and a surrounding wall extending from said division wall for a distance greater than the length of the eggs to be candled and without any wall opposite said division wall and with an inspection opening in said surrounding wall, and a light compartment behind said division wall.

5. An egg candler having an inspection compartment formed of a division wall with an egg opening in it and a surrounding wall extending from said division wall and without any wall opposite said division wall and the outer end of said surrounding wall being wider at one point than at the middle thereof, an inspection opening in the side portion of said surrounding wall, and a light compartment behind said division wall.

[Claims 6 to 8 not printed in the Gazette.]

1,209,429. COPY-HOLDER ATTACHMENT FOR TYPEWRITERS. WILLIAM ERNEST GRAY, Boise, Idaho, assignor to Gray Automatic Copy Indicator Co., Boise, Idaho, a Corporation of Idaho. Filed Sept. 13, 1913. Serial No. 789,650. (Cl. 120—34.)



1. In a copy holder attachment for typewriters, the combination with the line spacing lever of a typewriter having a vertical pivot bolt, of an arcuate arm having a plurality of notches and engaging the pivot bolt at one end and having a wing projecting along the lever, a hook bolt connecting the wing with the lever, a clip adjustable on the said arm, a spring wire secured to and carried by the clip and engageable within a selected notch of the arm to hold the clip in desired position, a copy holder plate, an indicating bar movable thereon, mechanism for shifting said bar with respect to the said plate, and flexible means connecting said clip with the said shifting mechanism whereby to actuate the latter when the line spacing lever is moved.

2. In a copy holder attachment for typewriters, the combination with the line spacing lever of a typewriter having a vertical pivot bolt, of an arcuate arm having a plurality of notches and having a wing extending along and bolted to the said lever, a clip adjustable on said arm, a spring wire carried by the clip and engageable within a selected notch of the arm to hold the clip in desired position, a copy holder plate, an indicating bar movable thereon, mechanism for shifting said bar with respect to the plate, and flexible means connecting said clip with the said shifting mechanism whereby to actuate the latter when the line spacing lever is moved.

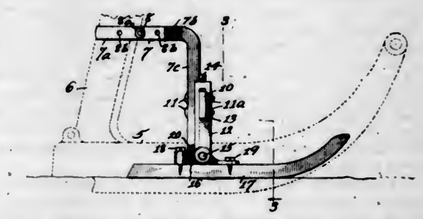
3. In a copy holder attachment for typewriters, the combination with the line spacing lever of a typewriter, of an arcuate arm having a plurality of notches and provided with an extension secured to the lever, a clip adjustable on said arm and having means engageable within a selected notch of the arm in order to hold the clip in desired position, a copy holder plate, an indicating bar movable thereon, mechanism for shifting said bar with respect to the plate, and flexible means connecting said clip with the said shifting mechanism whereby to actuate the latter when the line spacing lever is moved.

4. In a copy holder attachment for typewriters, the combination with the line spacing mechanism of a typewriter of a copy holder plate, a rack bar mounted upon the plate, an indicating bar extending across the plate, mechanism for adjusting the indicating bar on the plate actuated from said line spacing mechanism and including a casing slidably disposed upon one edge of the plate, a shaft mounted in the casing, a gear wheel mounted on the shaft and engaging the rack bar, a ratchet wheel rigid with the said gear wheel, a yoke journaled on the shaft and provided with a laterally projecting lug, a lever pivoted at its inner end upon the yoke and having its outer end extending exteriorly of the casing, said lever being provided with an intermediate tooth constituting a pawl and in engagement with the ratchet wheel, and a flexible connection attached to the said line spacing mechanism and secured to the yoke for actuating the same, said lever having a limited movement between the ratchet wheel and the said lug of the yoke in order to disengage the same from the ratchet wheel and permit of sliding movement of the casing independent of the said flexible connection.

5. In a copy holder attachment for typewriters, the combination with the line spacing mechanism of a typewriter of a copy holding plate, a rack bar carried by the plate, an indicating bar extending across the plate, mechanism for adjusting the indicating bar with respect to the said plate actuated from said line spacing mechanism and including a casing having sliding movement along one side of the plate, a shaft mounted in the casing, a gear wheel mounted on the shaft and in engagement with the said rack bar, a ratchet wheel rigid with the gear wheel, a yoke journaled on the shaft, a lever pivoted on the yoke and having an intermediate tooth movable into and out of engagement with the ratchet wheel, a spring carried by the yoke and engaging the lever to normally hold the latter in engagement with the ratchet wheel, and a flexible connection from the said yoke to the line spacing lever of a typewriter.

[Claim 6 not printed in the Gazette.]

1,209,430. GAGE ATTACHMENT FOR PLANTERS. BENJAMIN F. GREIMANN, Garner, Iowa. Filed Apr. 7, 1916. Serial No. 89,551. (Cl. 111—11.)

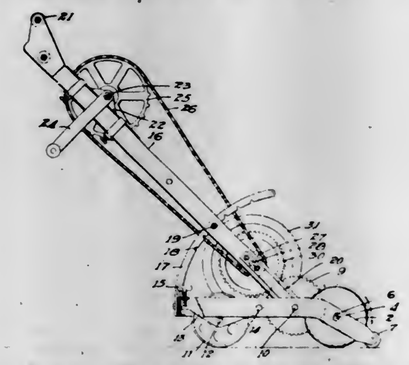


1. The combination with a planter shoe, of a gage comprising clamping bars having vertical portions, a cross-bar vertically adjustable on said vertical portions, a standard on each arm of said cross-bar and adjustable longitudinally thereof, and runners carried by said standards.

2. The combination with a planter shoe, of a gage comprising clamping bars having vertical portions, a cross-bar vertically adjustable thereon, a standard longitudinally adjustable on each arm of said cross-bar, and a runner in pivotal connection with each standard.

3. The combination with a planter shoe, of a gage comprising clamping bars having vertical portions, a cross-bar vertically adjustable thereon, a standard longitudinally adjustable on each arm of said cross-bar, a runner in pivotal connection with each standard, and means for limiting the movement of said runners on their pivots.

1,209,431. MACHINE FOR SURFACING, SMOOTHING, AND POLISHING FLOORS AND OTHER LIKE SURFACES. WILLIAM H. HAIGHT, Northfield, Minn. Filed Feb. 17, 1915. Serial No. 8,750. (Cl. 51—13.)



1. A manually operated floor smoothing machine comprising a frame, rolls journaled therein having abrading surfaces, said rolls being of equal length and weight and arranged end to end, means for applying driving power to said rolls between their abutting ends and midway between the outer ends thereof, means supporting the rear portion of said frame and handle bars for said frame, the outer ends of said abrading rolls being adjacent to the outer faces of the side rails of said frame, whereby said rolls may be operated on the floor close to the base board.

2. A manually operated floor smoothing machine comprising a frame, rectangular, substantially, in form and a bearing roll mounted in the forward portion of said frame, smoothing rolls journaled in said frame in the rear of said bearing roll, hangers pivoted on the side rails of said frame in the rear of said smoothing rolls, carrying wheels mounted in said hangers and means for raising or lowering said hangers independently of one another to adjust the bearing of said smoothing rolls with respect to the floor surface.

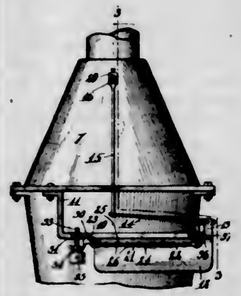
3. A manually operated floor smoothing machine comprising a frame having side rails, a bearing roll mounted in the forward portion of said side rails, smoothing rolls journaled in the forward portion of said side rails in the rear of said bearing roll and adjacent thereto, hangers pivotally supported at their forward ends in said side rails, carrying wheels mounted in said hangers, thumb screws mounted in the rear portion of said frame and engaging the rear ends of said hangers for vertical adjustment thereof to raise or lower said carrying wheels with respect to the floor surface.

4. A manually operated floor smoothing machine comprising a frame having a rear end rail and substantially parallel side rails secured thereto, a bearing wheel mounted in the forward portion of said side rails, a shaft loosely journaled in the forward portion of said side rails and having freedom of vertical movement in its bearings in said rails, smoothing rolls arranged end to end on said shaft with a space between them and of substantially the same length and diameter, a driving mechanism geared to the middle portion of said shaft between said smoothing rolls, and suitable carrying wheels supporting the rear portion of said frame.

5. A manually operated floor smoothing machine comprising a frame having rear carrying wheels and a forward bearing roll mounted in said frame, a shaft mounted transversely in said frame in the rear of said bearing roll, smoothing rolls mounted end to end on said shaft and having their abutting ends spaced apart, a pinion secured on said shaft between said smoothing rolls, a second shaft journaled in said frame in the rear of said smoothing rolls, handle bars pivoted on said second shaft, a driving shaft mounted in said handle bars, and a driving connection between said driving shaft and said second shaft and said pinion.

[Claims 6 to 8 not printed in the Gazette.]

1,209,432. THERMOSTATIC REGULATOR FOR HEATING APPARATUS. FRANK F. HALL, Little Falls, N. Y. Filed Feb. 28, 1913. Serial No. 751,231. (Cl. 236—5.)



1. In combination with a damper or the like of a heater, a regulator comprising a support having a shield extending therefrom, a regulator bar formed of metals of different expanding quality secured together throughout their length, said shield being situated between said regulator bar and said heater, a fulcrum head secured to said regulator bar and having a bifurcated portion, an adjusting screw engaging said bifurcated portion and threaded into said support, and connection between the opposite end of said regulator bar and the damper.

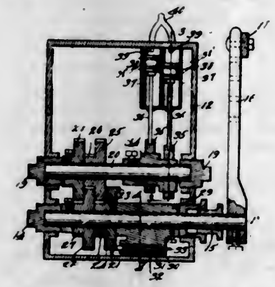
2. In combination with a damper or the like of a heater, a regulator comprising a support secured to the heater and having a depending shield, a regulator bar lying in front of said shield, a fulcrum head secured to one end of said regulator bar having a pair of upstanding ears straddling said support and being pivotally connected therewith and a bifurcated segmental portion, an adjusting screw straddled by said bifurcated segmental portion and adjustably engaging into said support, and operative connection between the opposite end of said regulator bar and the damper.

3. In combination with a damper or the like of a heater, a regulator comprising a support secured to the heater and having an opening therethrough and an upstanding lug, a regulator bar formed of metals of different expanding qualities secured together and having one end adjustably secured to said support, a link pivotally secured to the opposite end of said regulator bar and extending upwardly through the opening in said support, an operating lever pivotally secured to the upstanding lug of said support to which the opposite end of said link is pivotally secured, and an operating connection between said lever and the damper.

4. In combination with a damper or the like of a heater, a regulator comprising a support secured to the heater and having a depending shield, an opening in the support near one end and an upstanding lug, a regulator bar underneath said support and outside of said shield, said regulator bar having one end adjustably secured to said support, an operating lever pivotally secured at one end to said upstanding lug, a link passing through the opening in said support and having one end pivotally secured to the free end of said regulator bar and its other end pivotally secured to said operating lever near its connection with said lug, an operating rod pivotally secured to the free end of said operating lever in operative connection between said rod and the damper.

5. In combination with a damper or the like of a heater, a regulator comprising a regulator bar formed of metals of different expanding qualities, a fulcrum head having a flat portion secured to one end of said regulator bar and provided with a lug for pivotally securing said head to a fixed point and also with a bifurcated segmental portion, an adjusting screw provided with an annular groove to receive the segmental portion of said fulcrum head, said adjusting screw being adapted to be threaded into a fixed object, and means of connection between said regulator bar and the damper.

1,209,433. LUBRICATING-PUMP. EVERETT W. HARMON, Shoffner, Ark. Filed Apr. 7, 1916. Serial No. 89,628. (Cl. 184—27.)



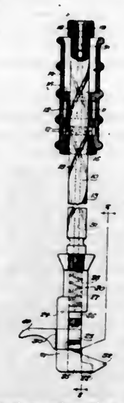
1. A lubricant pumping device comprising a lubricant container, pumps in the container for forcing lubricant from the container, a rotary shaft for driving the pumps, an oscillatable shaft, driving connections between the shafts comprising a ratchet element, a pawl carried by the oscillatable shaft and engaging the ratchet element, and a lever carried by the oscillatable shaft for moving the said shaft.

2. A lubricant pumping device comprising a lubricant container, pumps in the container for forcing lubricant from the container, parallel shafts in the container, intermeshing loosely mounted gears on the shafts, means on one of the shafts for actuating the pumps, a rigidly mounted gear on the pump shaft, one of the loose gears being formed with ratchet teeth, an oscillatable member mounted on the other shaft, a spring-pressed pawl for the ratchet teeth carried by the oscillatable member, and means for moving the oscillatable member.

1,209,434. TOOL FOR TWISTING WIRE TIES. DAVID H. HAYDEN, New York, N. Y. Filed Dec. 14, 1914. Serial No. 877,098. (Cl. 140—93.)

1. A tool for twisting wire ties, comprising a spindle, means for rotating said spindle, coöperating jaw members for gripping the ends of the wire mounted on said spindle, one of said jaw members being fixed to the spindle, and the other movably mounted thereon and spring-pressed toward said fixed jaw member and a finger piece for shifting said movable jaw member away from said fixed jaw member.

2. A tool for twisting wire ties comprising a spindle, means for rotating said spindle, a jaw fixed to said spindle, a coöperating jaw movably mounted thereon and spring-pressed toward said fixed jaw member, and a guiding abutment for said movable jaw, the working portion of said movable jaw being arranged between said fixed jaw and said abutment.



3. A tool for twisting wire ties comprising a threaded spindle, a shiftable nut for rotating said spindle, a head fixed to said spindle having two laterally projecting fixed jaws, and a jaw member movably mounted on said head and coöperating with said fixed jaws to grip the ends of the tie wire.

4. A tool for twisting wire ties comprising a spindle, means for rotating the same, a head on said spindle having a fixed jaw, and a jaw member guided to slide axially on said head, spring-pressed toward said fixed jaw and arranged to coöperate therewith to grip the ends of the tie wire said jaws having working edges transverse to the axis of said spindle.

5. A tool for twisting wire ties comprising a spindle, means for rotating the same, a head on said spindle having a fixed jaw, and a jaw member movably mounted on said head, provided with a projecting finger-piece and arranged to coöperate with said fixed jaw to grip the ends of the tie wire said jaws having working edges transverse to the axis of said spindle.

[Claims 6 to 12 not printed in the Gazette.]

1,209,435. METALLIC CAR END. OSCAR HOCHBERG, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 19, 1915. Serial No. 9,262. (Cl. 105—192.)



1. A car end composed of three conjoined sheet metal sections the form and arrangement of which is such that the intermediate section coöperates with both of the other sections to form a pair of box girder members extending

longitudinally of the sections adjacent a joint between two thereof.

2. A car composed of three sheet metal sections each conjoined to both the others, one of which has a corrugated portion lying intermediate the edges of the intermediate section, and the intermediate section having a corrugated portion lying intermediate the edges of the third section.

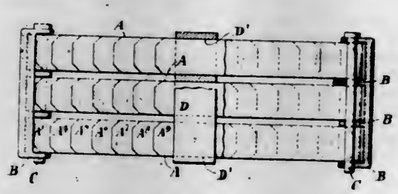
3. A car end structure including three sheet metal sections overlapped *seriatum* and secured together, the exterior overlapped portions of said sections being corrugated to form substantially parallel strengthening members disposed adjacent a junction line of said sections.

4. In a car end, three sheet metal sections the middle one of which has a portion extending behind a corrugated portion of the section at one side thereof and a corrugated portion overlapping the section at the other side thereof, and fastening means securing each of the sections to both the others intermediate said corrugated portions.

5. In a car end, the combination of a first section of sheet metal formed with a corrugation extending longitudinally adjacent an edge thereof, an intermediate section having a portion overlapping the said corrugation and secured to the first section at the inner side of said corrugation, said intermediate section being formed with a corrugation extending longitudinally adjacent the edge of the first section, and a third section having a portion overlapping the corrugated portion of the intermediate section and secured to said intermediate section at both sides of the corrugation therein.

[Claims 6 and 7 not printed in the Gazette.]

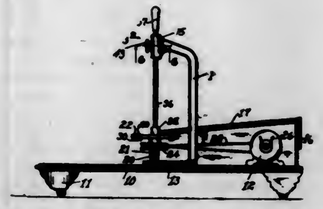
1,209,436. ELLIPTICAL SPRING. HARRY A. HOKE, Altoona, Pa. Filed June 3, 1916. Serial No. 101,441. (Cl. 267—35.)



1. A spring structure comprising in combination a plurality of elliptical spring units arranged side by side and each consisting of an opposing pair of bunches of spring leaves, means connecting the different bunches of spring leaves at their opposite ends, and an integral member connecting one spring leaf bunch of each unit with the corresponging bunches of the other units and formed with individual open ended passages for the different bunches connected by said member, each of said passages receiving, and the walls thereof closely surrounding the central portion of the corresponding bunch of spring leaves.

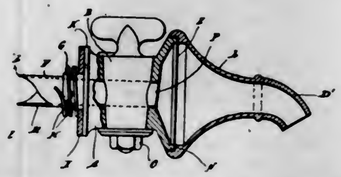
2. A spring structure comprising in combination a plurality of elliptical spring units arranged side by side and each consisting of an opposing pair of bunches of spring leaves, a chambered member at each end of the spring structure for connecting the corresponding ends of the different bunches of spring leaves together, said member being formed with transverse webs interposed between the different units, and a pair of integral members one connecting one spring leaf bunch of each unit with the corresponding bunches of the other units and the other similarly connecting the other spring leaf bunches, each of said integral members being formed with individual open ended passages for the different bunches connected by it, each of said passages receiving, and the walls thereof closely surrounding, the central portion of the corresponding bunch of spring leaves.

1,209,437. MACHINE FOR POLISHING HOLLOW ARTICLES. JAMES I. HOLCOMB and JESSE I. ANDERSON, Indianapolis, Ind.; said Anderson assignor to said Holcomb. Filed July 16, 1914. Serial No. 851,318. (Cl. 141—7.)



A machine for polishing articles, comprising a movable platform having rollers thereon, an upright mounted on the platform, vertically alined bearings carried by the upright, a spindle mounted in the lower bearing, a disk carried by said spindle, means carried by the platform for driving said disk, article clamping arms carried by the disk, a vertically slidable rod, mounted in the upper bearing, an enlarged head journaled on the lower end thereof for engaging the article and preventing its upward movement, and thrust bearings associated with said rod and head, and means on said upright for securing said rod in position.

1,209,438. DEVICE FOR DRAWING OFF LIQUIDS FROM CONTAINERS. AUBREY HOUSTON, Christchurch, New Zealand. Filed Aug. 5, 1916. Serial No. 113,322. (Cl. 137—129.)



1. In a device of the kind described, the combination of a tubular piercer provided with a pair of diametrically opposite piercing points together providing a pair of parallel longitudinal edges adapted to cut in the direction of the plane of the sheet of material to be cut and in the same direction of rotation when the tubular piercer is rotated, each point being also provided with a spiral edge adapted, when the piercer is forced into said material, to aid in giving the piercer a rotary motion, whereby a hole for the piercer is easily cut; means for retaining the piercer in said hole; and a cock connected to the piercer.

2. In a device of the class described, in combination, a piercer point comprising a tubular cylinder open and free from obstructions throughout and provided with diametrically opposite piercing points together providing a pair of parallel longitudinal cutting edges and a pair of spiral edges extending from one longitudinal edge to the other, a straining chamber, a passage through said piercer point to said straining chamber, a tap or cock controlling said passage and means for retaining said device in a position upon and liquid tight with a container, substantially as set forth.

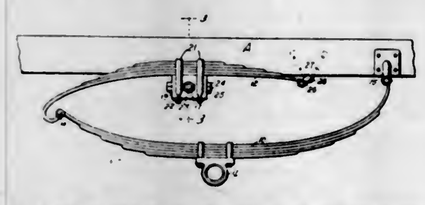
3. In a device of the class described, in combination, a piercer point comprising a tubular cylinder open and free from obstructions throughout and provided with diametrically opposite piercing points together providing a pair of parallel longitudinal cutting edges and a pair of spiral edges extending from one longitudinal edge to the other, a passage leading from said piercer point to a straining chamber, a tap controlling said passage, a screw thread upon said piercer point whereby the device may be retained in position upon the container, and means for making a liquid tight joint with the container, substantially as set forth.

4. In a device for the purpose indicated, in combination, a piercer point comprising a tubular cylinder open and free from obstructions throughout and provided with diametrically opposite piercing points together providing a pair of parallel longitudinal cutting edges and a pair of spiral edges extending from one longitudinal edge to the other, a strainer chamber connected to the passage through said piercer point to said straining chamber, a tap controlling said passage and means for retaining said device in a position upon and liquid tight with the container, substantially as set forth.

5. In a device of the class described, the combination, of a piercer point comprising a tubular cylinder open and free from obstructions throughout and provided with diametrically opposite piercing points together providing a pair of parallel longitudinal cutting edges and a pair of spiral edges extending from one longitudinal edge to the other, said piercer point being connected to a straining chamber, a tap controlling said passage, a screw thread upon the neck of said piercer whereby the device may be retained in position upon the container, and means for making a liquid tight joint with the wall of the container, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,209,439. VEHICLE-SPRING. CHARLES FRANCIS HOWELL, Watertown, N. Y. Filed Jan. 8, 1916. Serial No. 70,962. (Cl. 267—31.)



1. A spring means for vehicles including semi-elliptic spring members, means to mount said members between the ends thereof on a chassis, at opposite sides to constitute cantaliver springs, means to connect one arm of each of said cantaliver springs with the relatively movable running gear of a vehicle, and an equalizer connecting the opposite arms of said cantaliver springs.

2. A vehicle spring means comprising elliptic springs including upper and lower semi-elliptical spring members, means to mount the same between the ends, on an axle, at opposite sides of the vehicle, means to connect one arm of each of said members with the chassis, the opposite arms of each of said members being connected with one end of the adjacent upper spring member, means to mount said upper spring members between the ends thereof, on the chassis, to constitute cantaliver springs, and an equalizing connection between said upper springs at the opposite ends from the connection with the lower spring members.

3. A vehicle spring including separate side springs, a transverse rod, means to rockably mount said rod on a vehicle, means to secure said side springs to the ends of said rod near the center of the said springs, a transverse rock-bar having offset arms thereon to which said springs are connected at one end, means to mount said rock-bar on a vehicle, and means to connect the opposite end of each spring with a relatively movable part of a vehicle.

4. A vehicle spring including separate side springs, means to rockably mount said side springs on a vehicle at about the centers of the springs, means to connect one end of each spring with a relatively movable part of a vehicle, and an equalizer connection extending transversely between the opposite ends of the said springs.

5. A vehicle spring means including separate side springs, means to mount said side springs at about the centers thereof on a vehicle, means to connect said springs at one end with an axle and equalizing means at the opposite ends of the springs, said last-mentioned means consisting of a transverse rockably mounted bar having offset members to which the springs are respectively connected.

[Claims 6 and 7 not printed in the Gazette.]

1,209,440. TOY BLOCKS. RICHARD EDWARD HUMBERT, Montclair, N. J. Filed Aug. 24, 1916. Serial No. 116,595. (Cl. 46—35.)



1. In a set of blocks, a head block having an eye opening extending entirely through the same and of uniform diameter throughout its length and an eye-piece set therein and frictionally held in the opening in any position of adjustment.

2. In a set of blocks, a head block having an eye opening and an eye-piece set therein, said eye-piece being formed of a body portion representing the ball of an eye and an inserted pupil portion.

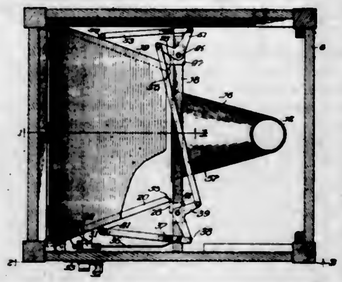
3. In a set of blocks, a block having an eye opening and an eye-piece set therein, said eye-piece being formed of a body section provided with an eccentric opening, and a pupil-forming section disposed in the opening.

4. In a set of blocks, a head block having an opening extending therethrough, and an eye-piece longitudinally and rotatably adjustable in the opening.

5. A head block having apertures extending therethrough, and independently adjustable cylindrical eye-pieces in the apertures and frictionally held therein.

[Claims 6 to 12 not printed in the Gazette.]

1,209,441. TALKING-MACHINE AMPLIFIER. ALBERT A. HUSEBY, Chicago, Ill. Filed July 3, 1916. Serial No. 107,296. (Cl. 181—27.)



1. In a talking machine, the combination with a sound tube, of an amplifier having a contractible and expansible receiving mouth located opposite and registering with the delivery mouth of said sound tube.

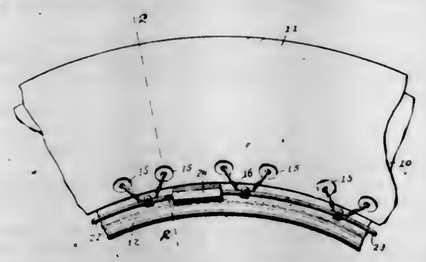
2. In a talking machine, the combination with a sound tube, of an amplifier located opposite the delivery mouth of said sound tube and having hinged walls permitting adjustment of the transverse dimensions of the receiving mouth of said amplifier.

3. In a talking machine, the combination with a sound tube, of an amplifier located opposite the delivery mouth of said sound tube, said amplifier having laterally swinging side walls hinged at the outer vertical edges whereby their inner vertical edges are adjustable transversely of the delivery mouth of said sound tube.

4. In a talking machine, the combination with a sound tube, of an amplifier located opposite the delivery mouth of said sound tube, said amplifier having laterally swinging side walls formed with inwardly and downwardly inclined upper edges and hinged at their outer vertical edges, and a top wall hinged at its outer horizontal edge and resting on the inclined edges of said side walls, whereby the inner vertical and horizontal edges of said side walls and top wall respectively are capable of adjustment transversely of the delivery mouth of said sound tube.

5. In a talking machine, the combination with a sound tube, of an amplifier located opposite the delivery mouth of said sound tube, said amplifier having laterally swinging side walls formed with inwardly and downwardly inclined upper edges and hinged at their outer vertical edges, and a top wall hinged at its outer horizontal edge and resting on the inclined edges of said side walls, and manually operable means for swinging said side walls inwardly and outwardly whereby to contract or expand the area of the receiving mouth of said amplifier.

1,209,442. DOUBLE-TREAD TIRE. JOHN F. JABLONSKI, Irvington, N. J. Filed Sept. 20, 1915. Serial No. 51,554. (Cl. 152—17.)



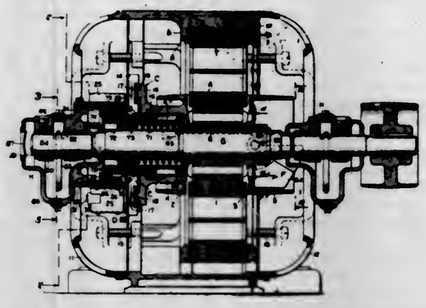
A continuous tread covering for a tire provided about its margin with a series of apertures arranged in pairs, a series of hooks comprising hooked arms diverging from one another and an intermediate eye, each of said hooks having its arms hooked through the body of the tire covering in a pair of said apertures, a ring extending through the eyes, and means for making the ring tight, substantially as set forth.

1,209,443. ALTERNATING-CURRENT MOTOR. HARRY WALLACE JEANNIN, Warren, Ohio. Filed Aug. 24, 1915. Serial No. 47,040. (Cl. 172—279.)

1. In an electric motor, the combination of an armature cimmutator, a short-circuiting device movable into and out of engagement with the commutator, a speed responsive device, and a yielding means between the two devices whereby the speed responsive device acts through the yielding means to maintain the short-circuiting device in engagement with the commutator at normal speed.

2. In an electric motor, the combination of an armature, a commutator therefor, a short-circuiting device including loosely mounted segments adapted to engage the bars of the commutator, means for moving the short-circuiting device into and out of engagement with the commutator, and a yielding element interposed between the said means and device whereby the latter is maintained in intimate contact with the commutator at normal speed.

3. In an electric motor, the combination of an armature, a commutator therefor having the contacting faces in a plane transverse to the axis of rotation, an axially movable supporting element, a short-circuiting device movable longitudinally of the element to engage and disengage the commutator, a spring interposed between the said device and element for urging the device against the commutator, and a speed responsive device connected with the said element for moving the same to throw the short-circuiting device into and out of engagement with the commutator.

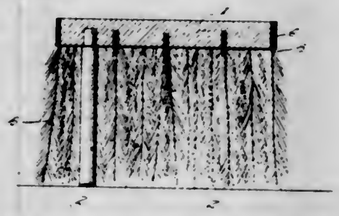


4. In an electric motor, the combination of a commutator comprising a circle of radial bars having their inner ends beveled, with a short-circuiting device having loosely mounted segments provided with beveled surfaces to engage and disengage the beveled ends of the bars.

5. In an electric motor, the combination of a commutator comprising a circle of radial bars having their inner ends beveled, with a short-circuiting device having loosely mounted segments provided with beveled surfaces to engage and disengage the beveled ends of the bars, and a wire passing through the segments and permitting the latter to move outwardly under centrifugal force and move inwardly by the wedging action incident to the beveled surfaces of the segments engaging the beveled ends of the commutator bars as the said device short-circuits the commutator.

[Claims 6 to 12 not printed in the Gazette.]

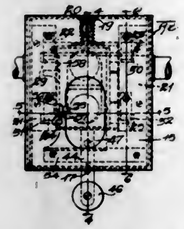
1,209,444. CHICKEN-BROODER. GUSTAVE JESSE, Wray, Colo. Filed Sept. 6, 1916. Serial No. 118,739. (Cl. 119—33.)



A chicken brooder comprising a circular cover, means for supporting said cover in spaced relation to the ground, said cover having a central recess, a tuft of feathers secured within said recess, said cover having a plurality of circular arranged recesses in spaced relation to the central recess, tufts of feathers secured within said circular arranged recesses to form a passage way between the central tuft and the circular arranged tufts, a plurality of feathers secured to the periphery of the cover, and a metallic band secured to the periphery of the cover for securing and protecting the quills of the feathers secured to the periphery of the cover.

1,209,445. SERVICE SWITCH AND FUSE MECHANISM. JOHN A. JESSEN, Winthrop, Mass., assignor to The Palmer Electric & Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed July 16, 1914. Serial No. 851,295. (Cl. 175—292.)

1. A box, a movable carrier, a fuse thereon and movable by the carrier from electrically active position to electrically inactive position, a movable shield for the fuse registering with the fuse only when said fuse is in said active position, and means for locking said shield against movement when the fuse is in electrically active position, and unlocking said shield when the fuse is in said inactive position.



2. A box, a cover therefor, a fuse, a fuse carrer movable to locate the fuse in active and inactive positions, said cover having an opening for exposing said fuse, a movable shield normally closing said opening, and interlocking means between said carrier and said shield to lock the shield against movement except when the fuse is in its inactive position.

3. A box, a cover therefor, a fuse, a fuse carrier movable to locate the fuse in active and inactive positions, said cover having an opening for exposing said fuse, a movable shield normally closing said opening, and interlocking means between said carrier and said shield to lock the shield closed when the fuse is in active position and to lock the fuse carrier with the fuse in inactive position when the shield is in open position.

4. A switch box, a cover therefor having an opening, a sliding shield for closing the opening, a switch and an associated fuse movable into open and closed positions, and a member on said shield arranged to engage the switch and hold the shield closed when the switch and fuse are in active position.

5. A switch box, a cover therefor having an opening, a sliding shield for closing the opening, a switch and an associated fuse movable into open and closed positions, and a member on said shield arranged to stand in the path of closing movement of the switch when said shield is open, to prevent closing of the switch when the shield is open.

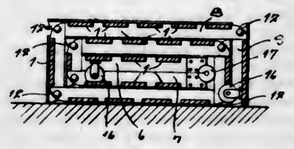
[Claim 6 not printed in the Gazette.]

1,209,446. TOY TOP. GEORGE JOHN, Detroit, Mich., assignor of one-half to Elees Amouney and one-sixth to George Assed, Detroit, Mich. Filed Sept. 8, 1916. Serial No. 119,007. (Cl. 46—32.)



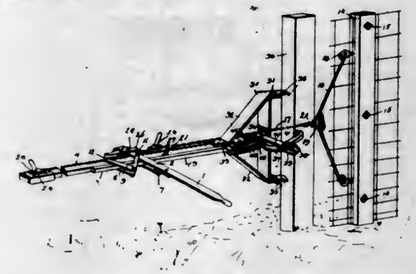
A top spinning device comprising a handle having a longitudinal recess, a spiral member extending into the recess of said handle and having the inner end thereof fixed in the closed end of said recess, a sleeve loose upon said spiral member and provided with an annular shoulder, said sleeve having a recess in the inner end thereof, a coiled compression spring having the outer end thereof mounted in the recess of said sleeve and the inner end thereof fixed in the inner end of the recess of said handle, and adapted to be housed thereby, a ferrule on said handle, a pivoted latch carried by said ferrule and adapted to engage the shoulder of said sleeve and hold said spring under compression, a top having a longitudinal bore, and a nut in the inner end of said bore threaded on said spiral member and providing a bearing point for engagement with the outer end of said sleeve so that by releasing said latch, said sleeve may eject said top from said spiral member.

1,209,447. FOLDING CRADLE. VICTOR R. JOHNSON, Somerville, Mass. Filed Sept. 29, 1914. Serial No. 864,145. (Cl. 5—9.)



In a cradle, for use by autoists, a plurality of relatively large and small sections hingedly connected adapted to form when folded a substantially rectangular object, the relatively large sections forming the top and bottom and the small sections forming the sides, and casters secured on the under side of said sections, said sections having recesses formed in their upper surface to receive said casters when the sections are folded for the purpose specified.

1,209,448. WIRE-STRETCHER. WILLIAM E. JOHNSON, Dale, Tex. Filed Apr. 8, 1916. Serial No. 89,804. (Cl. 254—72.)



1. A wire stretcher of the class described including a bar, rigid arms composed of spaced engaging portions provided with teeth for engaging a fence post at one side thereof, said arms being also provided with converging portions secured to the said bar at a point intermediate of the ends thereof, a brace located at one end of the bar and connecting the said arms, a pivoted lever carried by the bar and provided with means for engaging the opposite side of the post and means for operating the said lever.

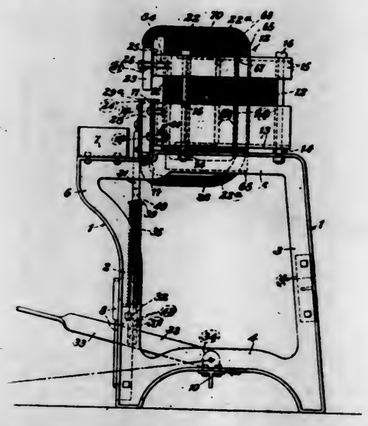
2. A wire stretcher of the class described including a bar provided with fixed means for engaging one side of a fence post, laterally projecting supporting means extending from the bar, an angle lever fulcrumed intermediate of its ends on the said supporting means and provided at one of its arms with means for engaging the other side of the fence post and operating means connected with the other arm of the lever.

3. A wire stretcher of the class described including a bar provided with fixed means for engaging one side of a fence post, laterally projecting supporting means extending from the bar, an angle lever fulcrumed intermediate of its ends on the said supporting means and provided at one of its arms with means for engaging the other side of the fence post, an operating lever pivotally connected with the said bar, and a lever movable along the bar and having a loop receiving the said operating lever.

4. A wire stretcher of the class described including a ratchet bar provided with ratchet teeth, spaced rigid arms provided with teeth for engaging one side of a fence post and having converging portions secured to the ratchet bar between the ends thereof, a brace located at one end of the ratchet bar connecting the said arms, plates extending from the said bar, at the end thereof adjacent to the said brace, an angle lever pivotally mounted between the said plates and provided with front and rear arms, the front arm having means for engaging the other side of the fence post, an operating lever or member connected with the said lever at rear arm thereof and means carried by the ratchet bar for securing the operating lever or member against movement and for coacting with the ratchet bar for stretching a wire.

5. A wire stretcher including a ratchet bar provided with fixed means for engaging one side of a fence post, an operating lever having a loop slidably arranged on the said bar and carrying means for engaging the teeth thereof, an angle lever mounted at one side of the ratchet bar and having one of its arms arranged to engage the other side of the fence post and an operating member connected with the other arm of the angle lever and extending through the loop of the operating lever.

1,209,449. ELECTRIC RIVET-HEATER. WILLIAM S. JOHNSON and JOHN W. SHEFFER, Berwick, Pa., assignors to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 25, 1916. Serial No. 80,421. (Cl. 219—11.)



1. In combination in an electric heating apparatus, a transformer comprising a primary winding and an open secondary coil comprising electrodes and continuous uninterrupted conductors extending therebetween and connected thereto, said coil constituting a complete secondary circuit adapted to be closed by work, and a source of electrical energy in circuit with said primary winding.

2. In combination in an electric heating apparatus, a transformer comprising a primary winding and a unitary secondary coil provided with a plurality of mutually connected branches and constituting a coil-contained complete work-circuit, each branch being adapted to receive work, and a source of electrical energy.

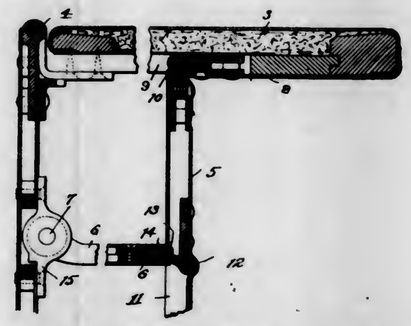
3. In combination in an electric heating apparatus, a transformer provided with a secondary coil comprising a main portion branched within itself and having terminals and electrodes at the terminals and forming a coil-contained work-circuit, and a source of electrical energy for said transformer.

4. In combination in an electric heating apparatus, a transformer secondary coil comprising laminated and conjoined portions, the former having a main portion and branches and the conjoined portions forming electrodes, said laminated and conjoined portions constituting a coil-contained work-circuit adapted to receive a plurality of pieces of work.

5. In combination in an electric heating apparatus, a transformer provided with a secondary coil comprising a portion forming in part a single current path and branched in part to form a plurality of current paths and electrodes conjoined to said single and plural path portions, means for adjusting predetermined electrodes to work and a source of electrical energy.

[Claims 6 to 26 not printed in the Gazette.]

1,209,450. SEAT. WILNER E. JOHNSON, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed Jan. 18, 1915. Serial No. 2,869. (Cl. 155—22.)



1. The combination with a fixed seat, of a leaf seat hinged to one edge of said fixed seat, said leaf seat being movable to and from vertical position in which it extends upwardly from the fixed seat from and into a horizontal position in which it constitutes an extension to said fixed seat, a strut hinged to the outer swinging end of said movable leaf seat, and a connecting link pivotally connected at one end to said fixed seat and pivotally connected at its other end to said strut, said movable seat leaf being provided with a recess in its lower surface to accommodate said strut and link in the raised position of said seat leaf, said strut being provided with a recess to accommodate said connecting link when they are brought together into substantially the same plane, and said seat leaf being provided with a recess within which said strut and link nest when the seat leaf is in raised position.

2. In a car provided with a rigid partition, a seat hinged to said rigid partition to be movable from a vertical to a horizontal position and vice versa, means for supporting the swinging end of said seat in horizontal position, said means being suitably connected to said seat to swing into a position against said seat in vertical position and into seat supporting position when said seat is horizontal, said supporting means comprising parts which nest one within the other when said seat is in vertical position, said seat having an exposed under side provided with a recess for receiving said supporting means when the seat is in vertical position.

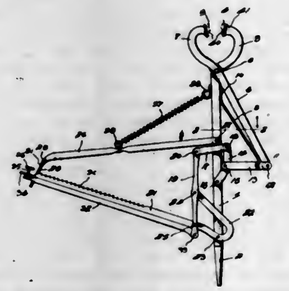
3. In combination with a car seat, a seat leaf hinged thereto, said seat leaf being provided with a bottom recess comprising a relatively broad portion adjacent the swinging end of said seat leaf and a relatively narrow portion extending from the first mentioned portion to the hinge, a relatively broad strut having its upper end hinged to said seat leaf within the outer end of the broad portion of said recess, said strut being adapted to fit entirely within said recess when the seat leaf is raised, and a connecting link hinged at one end to said car seat, said strut being provided with a recess which houses a portion of the length of said connecting link and within which the outer end of said connecting link is hinged to said strut, the outer end of said connecting link being housed between said strut and seat leaf when said seat leaf is in raised position.

4. The combination with a fixed support, of a seat pivotally connected thereto, a seat supporting strut swingingly suspended from said seat, and a link pivotally connected at opposite ends to said strut and support respectively, said strut and link being suitably formed to have one nested within the other when the seat is in raised position, said seat having an exposed under surface suitably recessed to receive said strut and link.

5. The combination with a fixed support, of a seat hinged at one end thereto, said seat being provided with an exposed under surface having a recess, a strut swingingly connected to said seat in suitable position to be swung into and out of said recess, said strut being recessed, and a link pivotally connected at opposite ends to said support and strut respectively and suitably arranged to fit into said recessed strut when the seat is raised.

[Claim 6 not printed in the Gazette.]

1,209,451. VISE AND SAW-CLAMP. WILLIAM THOMAS KING, Rosanky, Tex. Filed Aug. 27, 1915, Serial No. 47,696. Renewed July 6, 1916. Serial No. 107,878. (Cl. 81—21.)



1. In a vise, the combination with a standard having a clamping jaw, and a lever pivoted to the standard and having a clamping jaw, means pivotally connecting one end of the lever to the standard, a foot lever having one end pivotally connected to the standard and provided with ratchet teeth, means pivotally connecting the foot lever to the first-mentioned means, an arm having one end pivoted to the standard and having its opposite end extending in the direction of the free end of the foot lever and provided with an elongated opening slidably receiving the free end of the foot lever, the said arm having a pawl thereon normally held out of engagement with the teeth on the foot lever, an operating lever disposed below the foot lever and having pivotal connection with the last-mentioned means and having one end extending through the elongated opening in the said arm, the said operating lever being adapted when operated to force the arm downwardly in the direction of the foot lever, whereby to cause the pawl to engage the teeth on the foot lever, as and for the purpose specified.

2. In a vise, the combination with a standard having a clamping jaw, and a lever pivoted to the standard and having a clamping jaw, means pivotally connecting one end of the lever to the standard, a foot lever having one end pivotally connected to the standard, the said foot lever having rack teeth formed thereon, means pivotally connecting the foot lever to the first-mentioned means, an arm having one end pivoted to the standard and having its opposite end extending in the direction of the free end of the foot lever, and provided with an elongated opening slidably receiving the free end of the foot lever, the said arm having a pawl thereon normally held out of engagement with the rack teeth on the lever, an operating lever disposed below the foot lever and having pivotal connection with the last-mentioned means, and having one end extending through the elongated opening in the arm, a foot rest formed on the foot lever, means slidable through the foot rest and connected to the operating lever, the said last-mentioned means being adapted when operated to operate the foot lever so as to cause the pawl on the arm to engage the rack teeth on the foot lever, as and for the purpose specified.

3. A vise comprising a standard having a jaw formed thereon, a lever pivoted to the standard and provided with a jaw, a vertically disposed arcuate shaped link having its lower end pivoted to the standard, a horizontal link having one end pivoted to the lower end of the lever and its opposite end pivoted to the arcuate link at a point intermediate the ends of the arcuate link, a third link having one end pivoted to the upper end of the arcuate shaped link, a vertically disposed rod having its upper end pivoted to the opposite end of the third link, a foot lever having one end pivoted to the lower end of the standard and having connection with the lower end of the vertical rod, the said foot lever having rack teeth formed thereon, an arm pivoted to the standard and having one end extending in the direction of the foot lever, a pawl carried by the arm and normally held out of engagement with the rack teeth, an operating lever disposed below the foot lever and having one end pivoted to the lower end of the vertically disposed rod and having its opposite end slidably connected with the pivoted arm and adapted when operated to cause the pivoted arm to move in the direction of the foot lever so as to cause the pawl to engage the rack teeth on the lever, as and for the purpose set forth.

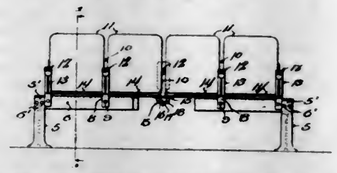
4. In a vise, the combination with a standard having a clamping jaw, and a lever pivoted to the standard and having a clamping jaw, means pivotally connecting one end of the lever to the standard, a foot lever having one end pivotally connected to the standard, the said foot lever being provided with rack teeth, means pivotally connecting the foot lever to the first-mentioned means, an arm having one end pivoted to the standard and having its opposite end extended in the direction of the free end of the foot lever and provided with an elongated opening slidably receiving the free end of the foot lever, the said arm having a pawl thereon normally held out of engagement with the rack teeth on the foot lever, an operating lever disposed below the foot lever and having pivotal connection with the last-mentioned means and having one end extending through the elongated opening in the pivoted arm, a foot rest formed on the foot lever, a pin slidable through the foot rest and connected to the operating lever, and having its upper end provided with a head normally held in spaced relation above the foot rest, the said pin being adapted when slid downwardly through the foot rest, to cause the operating lever to be moved downwardly whereby to rock the arm in the direction of the foot lever so as to engage the pawl in the rack teeth, and to cause the head to engage the foot rest, as and for the purpose specified.

1,209,452. MULTIPLE-SEAT UNIT. ROBERT E. KIRSCH, Milwaukee, Wis. Filed Jan. 22, 1916. Serial No. 73,519. (Cl. 155—13.)

1. A seat structure comprising a body bar, members extending laterally in spaced relation from said bar, back portions carried by said members, and seat portions pivotally carried by said members and adapted to rest on the body bar.

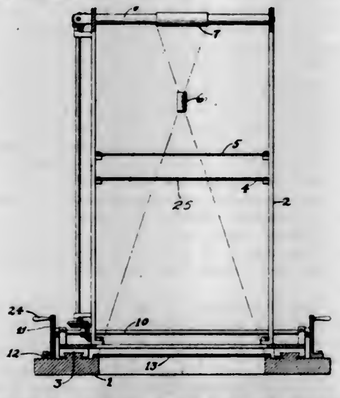
2. A seat structure comprising a channeled body bar, members extending laterally therefrom and including por-

tions embracing and seating on said bar, and seat and back portions carried by said members.



3. A seat structure comprising a body bar, members extending laterally therefrom and provided with pivot openings, seat portions provided at their sides with pivot openings, pivot shafts disposed in the openings of the said members, and reduced extensions at the ends of the shafts engaging in the openings of the seat portions.

1,209,453. COLOR PHOTOGRAPHY. ISIDOR KITSEE, Philadelphia, Pa. Filed Mar. 3, 1916. Serial No. 81,879. (Cl. 95—5.4.)



1. In the art of color photography the method which consists in first producing a series of images, differently colored, on a suitable surface, photographing then said images on a series of blanks suitably sensitized, each through a filter of different color, developing the surfaces of said blanks in a manner so as to produce therefrom surfaces suitable for printing, and printing with said blanks simultaneously on a film later on to be used for photographic purposes, each blank provided with a different color.

2. The method which consists in, first photographing a surface provided with the required color scheme on a series of rollers, provided each with a separate lens system and filter of a different color, developing the photographed surfaces, and preparing the surface of each of said rollers for the process of printing.

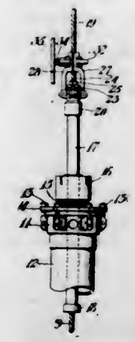
3. The method which consists in: first providing a suitable surface with lines of dots or squares of required color value in required sequence, photographing then said dots or squares simultaneously on a series of rollers suitably sensitized, developing then said rollers and differentiating in height between the places acted upon by the rays of light and the places not acted upon by said rays.

4. In the art of producing color filters for photographic blanks the steps which consists in securing a series of rollers mechanically as to each other, photographing on each of said rollers a multicolored screen, each roller through a different color filter and developing and preparing said rollers for the process of printing.

5. In the art of producing color filters for moving picture films the improvement which consists in providing the surfaces of a series of rollers with suitably sensitized layers, securing said rollers mechanically as to each other, photographing a color screen on each of said rollers with the interposition of a color filter differing for each of said rollers, developing said rollers and preparing then the surfaces of each of said rollers for printing purposes.

[Claims 6 and 7 not printed in the Gazette.]

1,209,454. OIL OR GAS SAVER. WILLIAM G. KNAPP, Alhambra, Cal., assignor of one-half to Arthur G. Willard, Los Angeles, Cal. Filed Jan. 3, 1916. Serial No. 70,060. (Cl.166—14.)



1. An oil or gas saver comprising a plunger of suitable size to surround a drilling line, said plunger being somewhat longer than the stroke of the drilling tools, means for making a gas tight joint between the outer surface of said plunger and the casing head of the well in which it operates, a plunger packing box for making a gas tight joint between the upper end of the plunger and the drilling line, and grips pivoted to said plunger packing box below said plunger packing box and adapted to grip said drilling line above said plunger packing box.

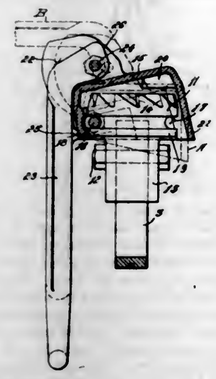
2. An oil or gas saver comprising a plunger of suitable size to surround a drilling line, said plunger being somewhat longer than the stroke of the drilling tools, means for making a gas tight joint between the outer surface of said plunger and the casing head of the well in which it operates, a plunger head secured to the upper end of said plunger, a plunger head stuffing box in said plunger head so formed that it makes a gas tight closure between said plunger and said drilling line, and grips pivoted to said plunger head and adapted to grip said drilling line above said plunger head stuffing box.

3. An oil or gas saver comprising a plunger of suitable size to surround a drilling line, said plunger being somewhat longer than the stroke of the drilling tools, means for making a gas tight joint between the outer surface of said plunger and the casing head of the well in which it operates, a plunger head secured to the upper end of said plunger, a plunger head stuffing box in said plunger head so formed that it makes a gas tight closure between said plunger and said drilling line, grips pivoted to said plunger head so formed as to engage said drilling line above said plunger head stuffing box, and a clamp adapted to cause said grips to grip said line.

1,209,455. BRAKE RATCHET MECHANISM. WILLIAM J. KNOX, Dubois, Pa. Filed Sept. 20, 1916. Serial No. 121,160. (Cl. 74—54.)

1. In combination, a brake shaft, a ratchet wheel nonrotatably secured to the brake shaft, a pawl pivoted to the ratchet wheel for vertical oscillation, and having rotary movement therewith adapted to engage the teeth of the ratchet wheel, and a handle for rotating the brake shaft secured to the pawl whereby the pawl may be moved into or out of engagement with the teeth of the ratchet wheel.

2. In combination, a brake shaft, a ratchet wheel nonrotatably secured to the brake shaft, a pawl pivoted to the ratchet wheel and having vertical and rotary movement with respect thereto adapted to normally engage the teeth of the ratchet wheel, and a handle pivoted to the pawl and adapted in its lower position to disengage the pawl from the teeth of the ratchet wheel, and in its upper position to permit the engagement of the pawl with the teeth of the ratchet wheel.



3. In combination, a brake shaft, a ratchet wheel nonrotatably secured to the upper end of the brake shaft, a cap covering the ratchet wheel pivoted thereto for vertical oscillation and having rotary movement with respect thereto, a pawl secured to the cap adapted to engage the teeth of the ratchet wheel, and a handle for rotating the brake shaft secured to the cap for moving the pawl into or out of engagement with the teeth of the ratchet wheel.

4. In combination, a brake shaft, a ratchet wheel nonrotatably secured to the brake shaft, a pawl pivoted to the ratchet wheel and having vertical and rotary movement with respect thereto adapted to normally engage the teeth of the ratchet wheel, and a handle pivoted to the pawl normally held in its lower position by gravity and adapted in its lower position to disengage the pawl from the teeth of the ratchet wheel and in its upper position to permit the engagement of the pawl with the teeth of the ratchet wheel.

5. In combination, a brake shaft, a ratchet wheel nonrotatably secured to the brake shaft, a pawl pivoted to the ratchet wheel and having vertical and rotary movement with respect thereto adapted to normally engage the teeth of the ratchet wheel, and a handle operatively connected with the pawl having greater weight on one side of the pawl pivot than on the other for normally holding the pawl out of engagement with the teeth of the ratchet wheel and adapted to move the pawl into engagement with the teeth when the handle is moved to operative position.

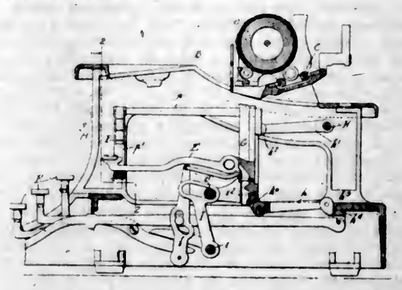
[Claims 6 to 9 not printed in the Gazette.]

1,209,456. TYPE-BAR REST. EMMIT G. LATTA, Syracuse, N. Y. Original application filed Feb. 15, 1911, Serial No. 608,657. Divided and this application filed Oct. 16, 1914. Serial No. 866,936. (Cl. 197—42.)

1. The combination with a series of movable type-bars, of a flexible back stop suspended from its ends and comprising a plurality of separate rigid parts flexibly connected end to end to form a yielding substantially inelastic rest for the type-bars.

2. The combination with a series of movable type-bars, of a jointed, flexible, substantially inelastic back stop for the type-bars suspended by its ends.

3. The combination with a series of movable type-bars, of a flexible articulated, substantially inelastic back stop for arresting the type-bars as they return to normal position, said back stop being constructed and adapted to distribute some of the force of the returning bars to other bars of the series.

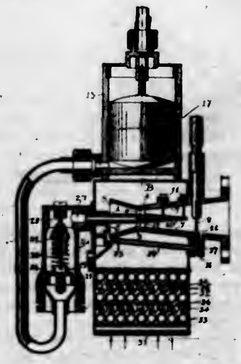


4. The combination with a series of movable type-bars, of an articulated back stop of rigid component sections for arresting the type-bars as they return to normal position having a surface of non-resonant character for contact with said type-bars.

5. The combination with a series of pivoted type-bars, and a supporting segment therefor, of a curved, flexible articulated, substantially inelastic back stop for the type-bars pivotally connected in fixed relation to the segment.

[Claims 6 to 14 not printed in the Gazette.]

1,209,457. CARBURETER. HENRI ALFRED ARMAND JOSEPH LELARGE, Paris, France; Blanche Alphonsine Lelarge, *née* Tapin, Sèvres, France, executrix of said Henri Alfred Armand Joseph Lelarge, deceased. Original application filed July 1, 1913, Serial No. 776,785. Divided and this application filed Apr. 11, 1914, Serial No. 831,116. Renewed Aug. 4, 1916. Serial No. 113,206. (Cl. 261—60.)



1. A carbureter for explosive engines, embodying therein a constant level fuel tank and a spraying nozzle arranged in superposed relation, with their axes at a right angle to each other, a conduit for conducting fuel from said tank to said nozzle, a valve for controlling the discharge of fuel from said conduit, and a weighted spring for normally yieldingly seating said valve under a substantially constant pressure over the discharge end of said conduit.

2. A carbureter for explosive engines, embodying therein a constant level fuel tank and a spraying nozzle arranged in superposed relation with their axes at a right angle to each other, a conduit for conducting fuel from said tank to said nozzle, a fuel control valve interposed between the discharge end of said conduit and the intake end of said nozzle, and a weighted spring for normally

yieldingly seating said valve under a substantially constant pressure over the discharge end of said conduit.

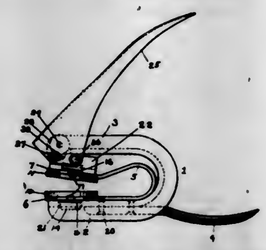
3. A carbureter for explosive engines, embodying therein a constant level fuel tank and a spraying nozzle, arranged in superposed relation with their axes at a right angle to each other, a conduit for conducting fuel from said tank to said nozzle, a valve for controlling the discharge of fuel from said conduit, a spring tending to yieldingly force said valve to its seat over the discharge end of said conduit, and a freely movable weight tending to maintain the tension of said spring substantially constant.

4. A carbureter for explosive engines, embodying therein a constant level fuel tank and a spraying nozzle arranged in superposed relation with their axes at a right angle to each other, a conduit for conducting fuel from said tank to said nozzle, a valve controlling the discharge of fuel from said conduit, means whereby said valve is normally yieldingly seated under a substantially constant pressure over the discharge end of said conduit, and means for permitting the discharge of a limited quantity of fuel from said conduit when said valve is seated.

5. A carbureter for explosive engines, embodying therein a constant level fuel tank and a spraying nozzle arranged in superposed relation with their axes at a right angle to each other, a conduit for conducting fuel from said tank to said nozzle, a valve for controlling the discharge of fuel from said conduit, there being an orifice of small capacity in said valve for permitting the discharge of a limited quantity of fuel from said conduit when said valve is seated, and means whereby said valve is normally yieldingly seated under a substantially constant pressure over the discharge end of said conduit.

[Claim 6 not printed in the Gazette.]

1,209,458. SEAL-PRESS. MARCUS S. LEVÉ, Oakland, Cal. Filed Sept. 15, 1914. Serial No. 861,779. (Cl. 101—56.)

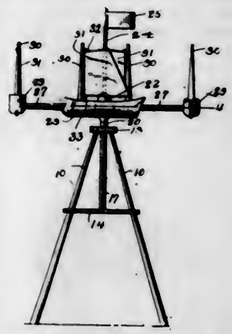


1. In a seal press a pair of coöperating dies, a pair of die holders adapted to guide said dies, means for pivoting said dies to said holders, so as to permit the former to turn in their own planes, means for locking said dies to their respective holders and operating means adapted to bring said dies together.

2. In a seal press a frame provided with upper and lower branches, a die holder comprising a pair of die supporting plates held together by a connecting resilient portion, one of said plates being rigidly secured to the lower branch of said frame, while the second plate is being forced toward the upper branch by the said resilient portion, an operating lever pivoted to said second plate at its middle and carrying a pin which bears against the said upper branch, when the lever is being operated, and which is held firm between the said branch and the top of said second plate when the lever is at rest in its upward position, and a pair of coöperating dies carried by the said die supporting plates.

3. In a seal press a frame provided with upper and lower branches, a pair of coöperating dies, the lower die being secured to the lower branch of said frame, means for guiding the upper die and an operating lever pivoted to said upper die and carrying a pin adapted to slide in contact with the upper branch of said frame.

1,209,459. TOY. ALBERT A. LIGHT, Harrisville, Mich. Filed Aug. 3, 1915. Serial No. 43,435. (Cl. 46—14.)



A toy including a central structure, a series of arms projecting outward from the structure and arranged to rotate about a center on said structure, and sail boats each connected to a respective arm and having a mast, staples projecting sternwardly from the mast, and a metallic fore and aft main sail having laterally bent portions at its upper and lower forward corners projecting in opposite directions and each engaged by the bight of a respective staple whereby the forward edge of the sail engages against opposite sides of the respective staples at the limit of movement to left and right whereby said staple legs constitute stops for said movement.

1,209,460. RECOVERY MEANS FOR MACHINE-CONSTRUCTION DEVICES. GUSTAVE F. LOWE, Morristown, N. J. Filed Nov. 19, 1915. Serial No. 62,332. (Cl. 85—1.)



The combination of a temporarily removably, rotatively applied device for use in machine construction, said device having an annular groove; and a keeper rotatively mounted in said groove, said keeper having an extended portion for engagement by a flexible recovery device.

1,209,461. SAMPLE-CARD. HARRY MACCANLIS, New York, N. Y. Filed Nov. 11, 1915. Serial No. 60,872. (Cl. 211—34.)



A sample card provided with a sample-carrying tab provided at its ends with tongues and at its sides with flanges bent onto the back, and a sample extending over the face of the tab and secured at its edges to the said flanges.

1,209,462. COMBINED PERCH AND TRAP. WILLIAM MACK, New York, N. Y. Filed May 19, 1916. Serial No. 98,593. (Cl. 119—25.)

1. A combined perch and mite trap, comprising a bar provided with a passage for the mites to travel in, a tubular breeding chamber held on the end of the bar and into which leads the said passage, the said breeding chamber projecting beyond the end of the bar and a loose nesting material held removable within the said breeding chamber at the end of the bar.



2. A combined perch and mite trap, comprising a bar provided with a passage for the mites to travel in, a breeding chamber held on the bar end into which leads the said passage, a stopper held removable on the outer end of the said breeding chamber, and a loose nesting material held on the said stopper and extending within the said breeding chamber.

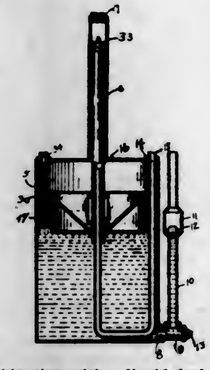
3. A combined perch and mite trap, comprising a bar provided with passageways for the mites to travel in toward the ends of the bar, breeding chambers held at the ends of the bar and removable stoppers closing the outer ends of the chambers, and loose nesting material held on the inner ends of the stoppers and extending within the said chambers.

4. A combined perch and mite trap, comprising a bar provided with passageways for the mites to travel in toward the ends of the bar, breeding chambers held at the ends of the bar and removable stoppers closing the outer ends of the chambers and having their outer ends provided with diametrical slots adapted to engage the upright wires of a bird cage to support the combined perch and trap within the bird cage, and loose nesting material held on the inner ends of the stoppers and extending within the said chambers.

5. A combined perch and mite trap, comprising a bar provided with a passage for the mites to travel in, a breeding chamber held on the bar and into which leads the said passage, a stopper held removable on the outer end of the said breeding chamber, a loop held on the inner end of the said stopper, and a loose nesting material held on the said loop within the said breeding chamber.

[Claim 6 not printed in the Gazette.]

1,209,463. CARBURETER. CHARLES CAREY MANKER, Ogden, Utah, assignor to Globe Heat, Light and Power Company, Ogden, Utah, a Corporation of Utah. Filed Jan. 3, 1916. Serial No. 70,073. (Cl. 261—120.)

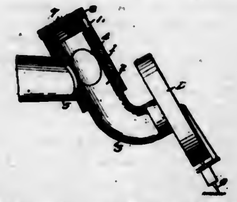


1. The combination with a liquid fuel containing chamber, of a U-shaped pipe mounted within the chamber for conducting air thereinto, a tube telescopically engaged with the inner-end of the U-shaped pipe and having its upper end closed, a buoyant member fixed to the tube and having a cavity in its upper face thereof, the bottom of said cavity constituting a liquid fuel containing chamber, and a plurality of blades fixed to the tube and positioned within the cavity.

2. The combination with a liquid fuel containing chamber, of a U-shaped pipe mounted within the chamber for conducting air within the same, a vertically movable tube telescopically engaged with the inner end of the U-shaped pipe and having its upper end closed and its lower end perforated, a buoyant member secured to the lower end of the tube, the upper face of the buoyant member being provided with a relatively large cavity, the bottom of the cavity constituting a liquid fuel holding chamber, and a plurality of blades fixed to the tube and positioned within the cavity.

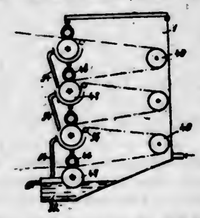
3. The combination with a liquid fuel containing chamber, of an air conducting pipe mounted therein, a tube telescopically engaged with the pipe having perforations at its lower end, and its upper end closed, an annular buoyant member secured to the tube adjacent the perforations and having a relatively large conical cavity in its upper face, the bottom of the cavity constituting a liquid fuel containing chamber, and a plurality of curved blades extending radially from the tube adapted to rotate said tube and buoyant member upon the injection of air in the air conducting pipe.

1,209,464. UNIVERSAL TONE-ARM. LEONARD MARKELS, New York, N. Y., assignor to Champion Graphaphone Company, Inc., New York, N. Y. Filed Apr. 16, 1915. Serial No. 21,719. (Cl. 274—24.)



A phonograph tone arm having a socket on its extremity and open at its top and bottom and inclined at an angle to the axis of the arm, an elbow member having a straight portion slidable longitudinally and rotatably in the socket, a reproducer on the said elbow member, said socket having in its upper end a pair of slots extending vertically, a pin on the elbow member engageable in either of the said slots, the said pin being removable to permit the removal of the member from the socket, and a screw plug threaded in the upper end of the said member and having a head of larger diameter than the external diameter of the socket to form means whereby the member can be gripped for adjusting the same.

1,209,465. APPARATUS FOR LEACHING AND RINSING MERCERIZED FABRICS AND RECOVERING THE LYE. JULIUS MATTER, Laaken, near Barmen-Rittershausen, Germany, assignor to I. P. Bemberg, Aktien-Gesellschaft, Barmen-Rittershausen, Germany. Filed Jan. 28, 1913. Serial No. 744,633. (Cl. 8—20.)



1. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, devices

for guiding the fabrics into, through and out of said steam chamber, certain of said devices being adapted to cool said fabrics alternately with the steaming thereof on their way through said steam chamber.

2. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, devices for guiding the fabrics into, through and out of said steam chember, certain of said devices being adapted to cool said fabrics alternately with the steaming thereon on their way through said steam chamber, and certain of said devices being adapted to remove from said fabrics the liquid they carry.

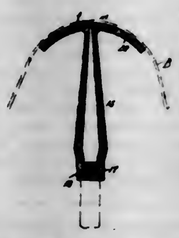
3. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, devices for guiding the fabrics into, through and out of said steam chamber, certain of said devices comprising cooling rollers adapted to cool said fabrics alternately with steaming them on their way through said steam chamber and certain of the devices comprising squeezing rollers for removing from said fabrics the liquid they carry.

4. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, cooling rollers over which the fabrics are guided and squeezing rollers for removing from said fabrics the liquid they carry, said cooling rollers being arranged in one of the walls of said steam chamber in such a manner that the steam contained in said steam chember has access to that part of their surfaces which is directed toward said steam chamber.

5. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, cooling rollers over which the fabrics are guided and squeezing rollers for removing from said fabrics the liquid they carry, said cooling rollers being arranged in one of the walls of said steam chamber in such a manner that the steam contained in said steam chamber has access to that part of their surfaces which is directed toward said steam chamber, and a roller seal for guiding said fabrics into said steam chember.

[Claims 6 to 16 not printed in the Gazette.]

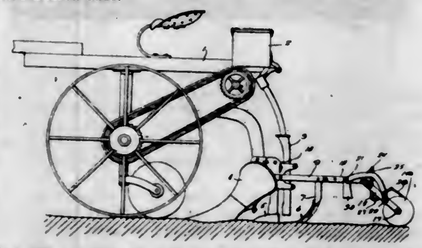
1,209,466. STEAMING AND SMOOTHING DEVICE. WALTER S. MAY, San Francisco, Cal. Filed Apr. 11, 1916. Serial No. 90,491. (Cl. 26—7.)



A steaming and smoothing device for attachment to radiators to receive steam therefrom, said attachment comprising a base having means to connect the same with a radiator, a steaming head, and a pipe connecting the base with the said head, the said head presenting a body flattened and tapering toward the upper end and having an elongated steam outlet at the center, the top surface of the head being rounded transversely, said head presenting side wings in the form of curved solid flanges extending laterally from the flattened body at the upper end and free at their outer ends from the same forming reëntrant clearance spaces beneath said wings.

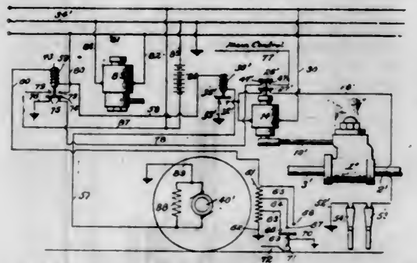
1,209,467. ROLLER ATTACHMENT FOR LISTERS. JOHN MEIXNER, Traer, Kans. Filed July 30, 1915, Serial No. 42,776. Renewed June 21, 1916. Serial No. 105,084. (Cl. 111—6.)

1. The combination with an ordinary lister embodying a seed dropping spout, a pair of covering shovels positioned rearwardly of said spout, and a pair of bars for supporting said covering shovels, of a substantially U-shaped member having the forward ends of its legs detachably connected to said bars, a pair of bars connected to said legs and extending rearwardly and downwardly therefrom, a roller rotatably carried by the lower downward ends of said last named bars, and arcuate bracing arms connected to said legs of said U-shaped member and said last named bars.



2. The combination with an ordinary lister embodying a seed dropping spout, a pair of covering shovels positioned rearwardly of said spout, and a pair of bars for supporting said covering shovels, of a substantially U-shaped member having the forward ends of its legs detachably connected to said bars, a pair of bars connected to said legs and extending rearwardly and downwardly therefrom, a roller rotatably carried by the lower downward ends of said last named bars, arcuate bracing arms connected to said legs of said U-shaped member and said last named bars, a bar secured to the vertex of said U-shaped member and extending downwardly therefrom, said downwardly extending bar having its end bent angularly with respect to the body portion of the bar and positioned a short distance above the uppermost portion of said roller, for forming a scraper for preventing the accumulation of dirt upon the surface of the roller.

1,209,468. SYSTEM OF CONTROLLING RAILWAY-CARS. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed June 6, 1914. Serial No. 843,441. (Cl. 246—58.)



1. In a vehicle, the combination of speed control means adapted to prevent the speed of said vehicle rising above a predetermined maximum or falling below a predetermined minimum, an operating circuit for said speed control means, emergency means of relatively higher power than said speed control means, for bringing said vehicle to rest, an operating circuit for said emergency means, and means depending upon the movement of said vehicle for co-operatively controlling said operating circuits.

2. In a vehicle, the combination of speed control means adapted to prevent the speed of said vehicle rising above a predetermined maximum or falling below a predetermined minimum, emergency means for bringing said vehicle to rest, an operating circuit for said emergency means, another circuit for operating said speed control means independently of said emergency means, and means depending upon the movement of said vehicle for co-operatively controlling the operation of said speed control means and said emergency stopping means.

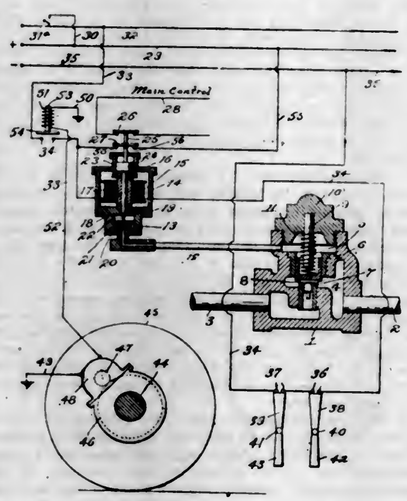
3. In a vehicle, the combination of speed control means adapted to prevent the speed of said vehicle rising above a predetermined maximum or falling below a predetermined minimum, emergency means for bringing said vehicle to rest, operating circuits for said emergency means, and said speed control means respectively, and means depending upon the movement of said vehicle for controlling said operating circuits.

4. The combination with a vehicle, of braking mechanism therefor, a control circuit for said braking mechanism, a relay in said control circuit, a circuit breaker also in said control circuit, means depending upon the movement of the vehicle for operating said circuit breaker, a relay circuit controlled by said relay, a circuit breaker other than said relay for said relay circuit, and a main operating circuit for said vehicle controlled by said relay.

5. The combination with a vehicle, of an emergency air-release valve for applying brakes on said vehicle, an emergency magnet valve for controlling said air-release valve, a circuit for controlling said magnet valve, said control circuit being provided with a circuit breaker controlled by the movement of said vehicle, a branch line leading from said control circuit and excinding said circuit breaker, said branch line being provided with a circuit breaker operated by said magnet valve, and automatic means operatable from without the vehicle for breaking the branch line circuit.

[Claims 6 to 27 not printed in the Gazette.]

1,209,469. SYSTEM OF CONTROLLING RAILWAY-CARS. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed June 17, 1914. Serial No. 845,615. (Cl. 246—58.)



1. In a system of operating railway cars, cars, an instrumentality on each car, adapted when operated to bring the cars to rest, a circuit for initially energizing said instrumentality, a circuit breaker in said circuit, a circuit for holding said instrumentality energized, and means depending on the movement of said cars for holding said circuit breaker in open position, said circuit including a conductor provided with a normally open switch.

2. In a system of operating railway cars, cars, an instrumentality on each car, adapted when operated to bring the cars to rest, a circuit for initially energising said instrumentality, a circuit breaker in said circuit, depending on the movement of said cars for holding said circuit breaker in open position, said circuit including a conductor provided with a normally open switch, a circuit for holding said instrumentality energised, and circuits controlled by said switch for simultaneously resetting the instrumentalities on all of said cars.

3. In a system of operating cars, a car, an emergency device for bringing the car to rest, an energising circuit for said device provided with two positive branches, each of said branches being provided with a brake adapted to be controlled by said device, one of said branches being provided with an additional circuit breaker, and means energized by said car in movement for normally retaining said additional circuit breaker in circuit breaking position.

4. In a train of cars, a motive power control circuit extending through the several cars of said train, said circuit embodying a circuit breaker for each car, an emergency device on one of said cars for bringing said train to rest, means operated by said emergency device for operating all of said circuit breakers in the train, and brake-applying means operatively connected to said circuit-breaker operating means.

5. In a car, an emergency device adapted when actuated to bring said car to rest, an energizing circuit for controlling the operation of said device, said circuit being provided with spaced contacts, a movable contact normally bridging said contacts when the car is at rest, a speed control instrumentality, an energizing circuit therefor embodying spaced contacts, a bridge contact adapted to bridge said contacts in the speed control energizing circuit, a solenoid, a plunger in said solenoid connected to the last mentioned bridge contact, said plunger being normally held in position to remove the connected bridge contact to circuit breaking position, and a dynamo driven by the movement of said car and connected up to said solenoid, said plunger being adapted to be shifted by said solenoid under a predetermined speed of said car, the first said movable contact being suitably disposed with respect to said plunger to be attracted thereby to break the emergency control circuit when the car is in motion.

[Claims 6 to 19 not printed in the Gazette.]

1,209,470. PRESS-BUTTON. MAX MENKIN and SIGISMUND FISCHER, New York, N. Y. Filed Dec. 4, 1915. Serial No. 65,005. (Cl. 24—218.)



1. In a press button or separable fastener, a female member, consisting of two centrally perforated plates clenched together and formed with a socket, and a split ring loosely borne in said socket, one of said plates being provided with a projecting part adjacent to its central perforation and the other plate with a depression adapted to engage said part, said projecting part serving to form an obstruction between the plates when separated near their inner edges and to prevent the said split ring from entering the formed slit.

2. In a press button or separable fastener, a female member, consisting of two centrally perforated plates clenched together and formed with a socket, and a split ring loosely borne in said socket, one of said plates being formed with an annular projection and the other plate with an annular depression adapted to snugly engage

for guiding the fabrics into, through and out of said steam chamber, certain of said devices being adapted to cool said fabrics alternately with the steaming thereof on their way through said steam chamber.

2. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, devices for guiding the fabrics into, through and out of said steam chember, certain of said devices being adapted to cool said fabrics alternately with the steaming thereon on their way through said steam chamber, and certain of said devices being adapted to remove from said fabrics the liquid they carry.

3. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, devices for guiding the fabrics into, through and out of said steam chamber, certain of said devices comprising cooling rollers adapted to cool said fabrics alternately with steaming them on their way through said steam chamber and certain of the devices comprising squeezing rollers for removing from said fabrics the liquid they carry.

4. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, cooling rollers over which the fabrics are guided and squeezing rollers for removing from said fabrics the liquid they carry, said cooling rollers being arranged in one of the walls of said steam chamber in such a manner that the steam contained in said steam chember has access to that part of their surfaces which is directed toward said steam chamber.

5. In an apparatus for leaching and rinsing mercerized fabrics and recovering the lye, a steam chamber, cooling rollers over which the fabrics are guided and squeezing rollers for removing from said fabrics the liquid they carry, said cooling rollers being arranged in one of the walls of said steam chamber in such a manner that the steam contained in said steam chamber has access to that part of their surfaces which is directed toward said steam chamber, and a roller seal for guiding said fabrics into said steam chember.

[Claims 6 to 16 not printed in the Gazette.]

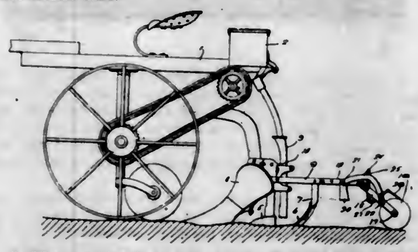
1,209,466. STEAMING AND SMOOTHING DEVICE. WALTER S. MAY, San Francisco, Cal. Filed Apr. 11, 1916. Serial No. 90,491. (Cl. 26—7.)



A steaming and smoothing device for attachment to radiators to receive steam therefrom, said attachment comprising a base having means to connect the same with a radiator, a steaming head, and a pipe connecting the base with the said head, the said head presenting a body flattened and tapering toward the upper end and having an elongated steam outlet at the center, the top surface of the head being rounded transversely, said head presenting side wings in the form of curved solid flanges extending laterally from the flattened body at the upper end and free at their outer ends from the same forming reëntrant clearance spaces beneath said wings.

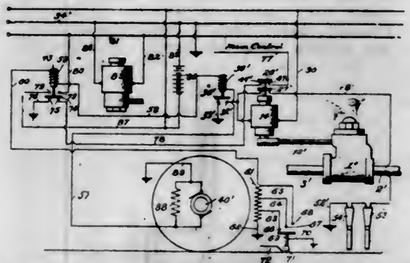
1,209,467. ROLLER ATTACHMENT FOR LISTERS. JOHN MEIXNER, Tracy, Kans. Filed July 30, 1915, Serial No. 42,776. Renewed June 21, 1916. Serial No. 105,084. (Cl. 111—6.)

1. The combination with an ordinary lister embodying a seed dropping spout, a pair of covering shovels positioned rearwardly of said spout, and a pair of bars for supporting said covering shovels, of a substantially U-shaped member having the forward ends of its legs detachably connected to said bars, a pair of bars connected to said legs and extending rearwardly and downwardly therefrom, a roller rotatably carried by the lower downward ends of said last named bars, and arcuate bracing arms connected to said legs of said U-shaped member and said last named bars.



2. The combination with an ordinary lister embodying a seed dropping spout, a pair of covering shovels positioned rearwardly of said spout, and a pair of bars for supporting said covering shovels, of a substantially U-shaped member having the forward ends of its legs detachably connected to said bars, a pair of bars connected to said legs and extending rearwardly and downwardly therefrom, a roller rotatably carried by the lower downward ends of said last named bars, arcuate bracing arms connected to said legs of said U-shaped member and said last named bars, a bar secured to the vertex of said U-shaped member and extending downwardly therefrom, said downwardly extending bar having its end bent angularly with respect to the body portion of the bar and positioned a short distance above the uppermost portion of said roller, for forming a scraper for preventing the accumulation of dirt upon the surface of the roller.

1,209,468. SYSTEM OF CONTROLLING RAILWAY-CARS. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed June 6, 1914. Serial No. 843,441. (Cl. 246—58.)



1. In a vehicle, the combination of speed control means adapted to prevent the speed of said vehicle rising above a predetermined maximum or falling below a predetermined minimum, an operating circuit for said speed control means, emergency means of relatively higher power than said speed control means, for bringing said vehicle to rest, an operating circuit for said emergency means, and means depending upon the movement of said vehicle for cooperatively controlling said operating circuits.

2. In a vehicle, the combination of speed control means adapted to prevent the speed of said vehicle rising above a predetermined maximum or falling below a predetermined minimum, emergency means for bringing said vehicle to rest, an operating circuit for said emergency means, another circuit for operating said speed control means independently of said emergency means, and means depending upon the movement of said vehicle for cooperatively controlling the operation of said speed control means and said emergency stopping means.

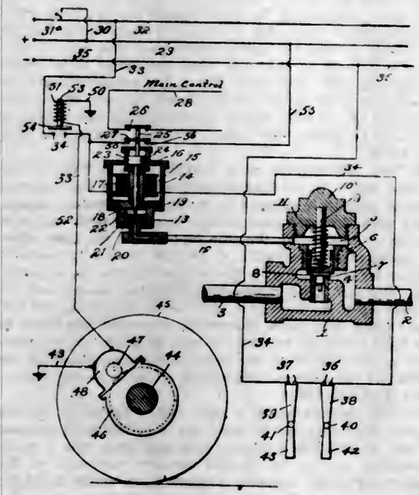
3. In a vehicle, the combination of speed control means adapted to prevent the speed of said vehicle rising above a predetermined maximum or falling below a predetermined minimum, emergency means for bringing said vehicle to rest, operating circuits for said emergency means, and said speed control means respectively, and means depending upon the movement of said vehicle for controlling said operating circuits.

4. The combination with a vehicle, of braking mechanism therefor, a control circuit for said braking mechanism, a relay in said control circuit, a circuit breaker also in said control circuit, means depending upon the movement of the vehicle for operating said circuit breaker, a relay circuit controlled by said relay, a circuit breaker other than said relay for said relay circuit, and a main operating circuit for said vehicle controlled by said relay.

5. The combination with a vehicle, of an emergency air-release valve for applying brakes on said vehicle, an emergency magnet valve for controlling said air-release valve, a circuit for controlling said magnet valve, said control circuit being provided with a circuit breaker controlled by the movement of said vehicle, a branch line leading from said control circuit and excluding said circuit breaker, said branch line being provided with a circuit breaker operated by said magnet valve, and automatic means operatable from without the vehicle for breaking the branch line circuit.

[Claims 6 to 27 not printed in the Gazette.]

1,209,469. SYSTEM OF CONTROLLING RAILWAY-CARS. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed June 17, 1914. Serial No. 845,615. (Cl. 246—58.)



1. In a system of operating railway cars, cars, an instrumentality on each car, adapted when operated to bring the cars to rest, a circuit for initially energizing said instrumentality, a circuit breaker in said circuit, a circuit for holding said instrumentality energized, and means depending on the movement of said cars for holding said circuit breaker in open position, said circuit including a conductor provided with a normally open switch.

2. In a system of operating railway cars, cars, an instrumentality on each car, adapted when operated to bring the cars to rest, a circuit for initially energizing said instrumentality, a circuit breaker in said circuit, depending on the movement of said cars for holding said circuit breaker in open position, said circuit including a conductor provided with a normally open switch, a circuit for holding said instrumentality energized, and circuits controlled by said switch for simultaneously resetting the instrumentalities on all of said cars.

3. In a system of operating cars, a car, an emergency device for bringing the car to rest, an energizing circuit for said device provided with two positive branches, each of said branches being provided with a brake adapted to be controlled by said device, one of said branches being provided with an additional circuit breaker, and means energized by said car in movement for normally retaining said additional circuit breaker in circuit breaking position.

4. In a train of cars, a motive power control circuit extending through the several cars of said train, said circuit embodying a circuit breaker for each car, an emergency device on one of said cars for bringing said train to rest, means operated by said emergency device for operating all of said circuit breakers in the train, and brake-applying means operatively connected to said circuit-breaker operating means.

5. In a car, an emergency device adapted when actuated to bring said car to rest, an energizing circuit for controlling the operation of said device, said circuit being provided with spaced contacts, a movable contact normally bridging said contacts when the car is at rest, a speed control instrumentality, an energizing circuit therefor embodying spaced contacts, a bridge contact adapted to bridge said contacts in the speed control energizing circuit, a solenoid, a plunger in said solenoid connected to the last mentioned bridge contact, said plunger being normally held in position to remove the connected bridge contact to circuit breaking position, and a dynamo driven by the movement of said car and connected up to said solenoid, said plunger being adapted to be shifted by said solenoid under a predetermined speed of said car, the first said movable contact being suitably disposed with respect to said plunger to be attracted thereby to break the emergency control circuit when the car is in motion.

[Claims 6 to 19 not printed in the Gazette.]

1,209,470. PRESS-BUTTON. MAX MENKIN and SIGISMUND FISCHER, New York, N. Y. Filed Dec. 4, 1915. Serial No. 65,005. (Cl. 24—218.)

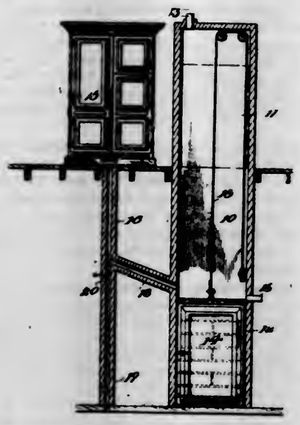


1. In a press button or separable fastener, a female member, consisting of two centrally perforated plates clenched together and formed with a socket, and a split ring loosely borne in said socket, one of said plates being provided with a projecting part adjacent to its central perforation and the other plate with a depression adapted to engage said part, said projecting part serving to form an obstruction between the plates when separated near their inner edges and to prevent the said split ring from entering the formed slit.

2. In a press button or separable fastener, a female member, consisting of two centrally perforated plates clenched together and formed with a socket, and a split ring loosely borne in said socket, one of said plates being formed with an annular projection and the other plate with an annular depression adapted to snugly engage

said projection, said projection serving to form an obstruction between the said plates when separated near their inner edges and to prevent the split ring from entering the formed slit.

1,209,471. COLD-STORAGE APPARATUS. CHARLES L. MERITHEW, Buckley, Mich. Filed Jan. 26, 1916. Serial No. 74,414. (Cl. 62—57.)



1. In an apparatus of the class described, the combination with a refrigerator, of an auxiliary chamber removed from said refrigerator, a water-tight container within said chamber and movable vertically thereof, means for raising and lowering said container within said chamber, and means for discharging the drip-water and a portion of the cold air from said refrigerator into said chamber.

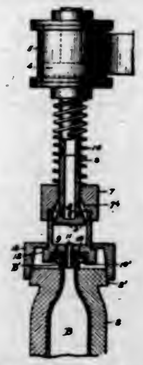
2. In an apparatus of the class described, the combination with a refrigerator, of an auxiliary chamber removed from said refrigerator, a water-tight container within said chamber and movable vertically thereof, means for raising and lowering said container within said chamber, means for discharging the drip-water and a portion of the cold air from said refrigerator into said chamber, an air outlet connecting the upper portion of said chamber, and a water discharge outlet opening through the wall of the lower portion of said chamber.

3. In an apparatus of the class described, the combination with a refrigerator, of an auxiliary chamber removed from said refrigerator, a water-tight container within said chamber and movable vertically thereof, means for raising and lowering said container within said chamber, means for discharging the drip-water and a portion of the cold air from said refrigerator into said chamber, an air outlet connecting the upper portion of said chamber to atmosphere, a water discharge outlet opening through the wall of the lower portion of said chamber, and means for deflecting the flow of water from said chamber.

4. A refrigerator having an ice chamber disposed in the upper portion thereof, a partition wall dividing the lower portion of said refrigerator into oppositely disposed storage compartments, a drip pipe carried in said partition and connecting with said ice chamber and extending through the bottom wall of said refrigerator, and a soil trap carried by said drip pipe and opening through the walls of said partition.

5. A refrigerator having an ice chamber disposed in the upper portion thereof, a partition wall dividing the lower portion of said refrigerator into oppositely disposed storage compartments, a drip pipe carried in said partition and connecting with said ice chamber and extending through the bottom wall of said refrigerator, a pipe connecting said drip pipe with the upper portion of said ice chamber for conducting cooled air downward therethrough, and soil traps carried by said air and drip pipes and opening through the walls of said partition.

1,209,472. BLOW-HEAD FOR BOTTLE-BLOWING MACHINES. JOHN J. MEYER, Jr., Glenshaw, Pa. Filed Apr. 7, 1916. Serial No. 89,590. (Cl. 49—18.)



1. The combination of a hollow head having an outlet in its bottom wall and with the external face of said wall adapted to make seal forming engagement with the open extremity of a glass blank and with the latter comprising the sole support for the head when in engagement therewith, a vertically movable carrier for the head, the carrier having unimpeded downward movement relatively to the head when the latter is in sealed engagement with the blank, and means for admitting compressed air to the blank-sustained head.

2. The combination of a hollow head having a contracted outlet in its bottom wall and with the external face of said wall adapted to make seal forming engagement with the open extremity of a glass blank and with the latter comprising the sole support for the head when in engagement therewith, a vertically movable carrier for the head, the carrier having unimpeded downward movement relatively to the head when the latter is in sealed engagement with the blank, and means for admitting compressed air to the head cavity, the air pressure on the bottom wall of the head cavity supplementing the weight of the head in holding the latter in sealed engagement with the blank.

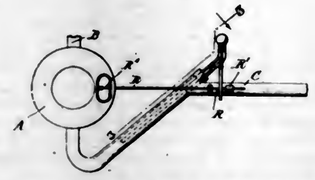
3. The combination of a hollow head having a contracted outlet in its bottom wall and with the external face of said wall adapted to make seal forming engagement with the open extremity of a glass blank and with the latter comprising the sole support for the head when in engagement therewith, a tubular vertically movable carrier for the head with the carrier adapted to communicate with the head cavity for admitting compressed air thereto when the head is in position on the blank, the carrier having unimpeded downward movement relatively to the head when the latter is in said position, the air pressure on the bottom of the head cavity supplementing the weight of the head in holding the latter in sealed engagement with the blank.

4. The combination of a glass mold adapted to contain a glass article having an open end, a hollow head adapted to seat on and communicate with said open end, a mold-embracing cap carried by and movable vertically on the head, a vertically movable support from which the head depends and with the support and head adapted for relative vertical movement, and means controlled by such relative vertical movement for controlling the admission of compressed air to the head.

5. The combination of a tubular vertically movable support ported at its lower end, a hollow head depending from and slidable on the support and adapted when in lowered position to close said ports, the head formed with an external shoulder, a mold-embracing cap movable vertically on the head and held thereon by said shoulder, the head open at its lower end and at said end adapted to connect with the open end of a glass article.

[Claim 6 not printed in the Gazette.]

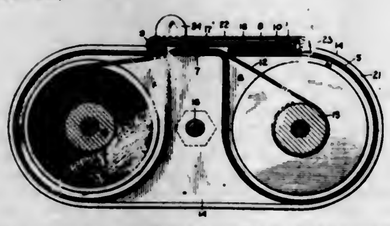
1,209,473. THERMOSTATIC REGULATOR. FRANK WARD MILLS, Little Falls, N. Y. Filed Jan. 8, 1916. Serial No. 71,069. (Cl. 236—5.)



1. The combination with a heater and a pipe communicating therewith and through which the heated liquid courses, a damper regulating the draft of the heater and a lever mechanism pivotally connected to said damper, a thermostatic tube, a carbon mounted in said tube, a member engageable with said carbon, a pivotally mounted lever having one arm engageable with said member, a pivotally mounted lever controlled by the movement of the first-named lever, a weighted lever pivotally mounted upon the second-named lever between its ends and controlled by the second-named lever and operatively connected with the damper mechanism, and means carried by the second-named lever and engageable with the first-named lever for adjustment of the first-named lever.

2. A thermostatic heat regulating apparatus comprising, in combination with a heater, a pipe communicating therewith and through which liquid courses, a frame, a tube having an opening therein fitted within said pipe and provided with a threaded end and extending within said pipe, a carbon within the tube and bearing against the opposite ends thereof, its opposite end being tapered, a movable member within said opening and against which said tapering end bears, an angle lever pivoted to the frame, a bracket upon the latter, a lever fitted to said bracket and having a threaded aperture, a set screw mounted in the latter and engaging said frame, a weighted lever mounted upon said tilting lever, the two levers forming clamping jaws, a damper regulating an opening in the heater, a lever pivoted to the damper, a tilting lever mounted upon the frame and connected to the damper regulating levers and having a weight thereon and designed to be engaged by the clamping levers which are mounted upon said frame.

1,209,474. COMPUTER. GUY MELVILLE MILNER, Buhl, Idaho. Filed Dec. 29, 1915. Serial No. 69,162. (Cl. 235—86.)

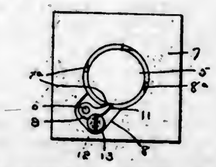


1. A computer comprising a casing having an opening in its top and a bridge in said opening, rollers mounted in the casing at each side of the bridge, a chart carried by the rollers and passing over the bridge the edges of the said opening disposed adjacent the sides of the bridge forming guide throats for the said chart, a scale at one side of the said opening, an open frame secured to the top of the casing and a transparent plate carried by the frame and overlying the aforesaid opening and said scale.

2. In a computer, a casing having an opening in its top, the edges of said opening folded outwardly and spaced from the top of the casing, one of which folded edges is adapted to support a scale, an open frame having its longitudinal edges folded inwardly and extending between the folded edges of the opening and the top of the case, and a transparent plate carried by the frame.

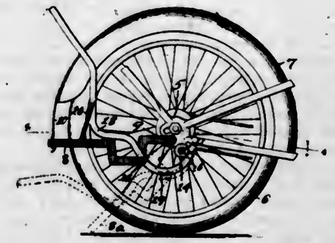
3. In a computer, a casing having a longitudinal opening in its top, the edges of the opening being folded outwardly and spaced from the top of the casing, a scale on one of the folded edges, an elongated open frame having its longitudinal edges folded inwardly and extending between the folded edges of the opening and the top of the casing, and a transparent plate having its edges clamped between the top of the frame and the folded edges of the said opening.

1,209,475. NUT-LOCK. PATRICK F. MORRIS, Butte, Mont. Filed June 7, 1916. Serial No. 102,249. (Cl. 151—12.)



A nut lock including a bolt having a series of longitudinal grooves, a nut fitted upon said bolt, a pawl pivotally secured to said nut adapted to engage in one of said grooves to lock said nut against rotary movement upon the bolt, a screw fitted in said nut engaging and retaining said pawl in operative engagement with said bolt and having a portion thereof cut away to accommodate and permit said pawl to swing out of engagement with said bolt, and a head on said screw movable against the outer face of said pawl.

1,209,476. MOTOR-CYCLE STAND. ALFRED WATSON MOULTON, Derby Line, Vt. Filed Apr. 5, 1916. Serial No. 89,032. (Cl. 208—78.)



1. The combination with a motor cycle and its stand, of a yoke-shaped, foot-actuated, lever in pivotal connection with said stand for raising said motor cycle thereonto, and rollers on said motor cycle against which said lever bears in raising said motor cycle.

2. The combination with a motor cycle and its stand, of a yoke-shaped, foot-actuated, lever in pivotal connection with said stand and provided with a hook-shaped cam at each side of said motor cycle, and rollers on said motor cycle against which said cams bear in raising said motor cycle.

3. As an article of manufacture, for use with a motor cycle and its stand; a yoke-shaped lever provided with a hook-shaped cam at the outer end of each arm, and pivot pins intermediate the lengths of said arms for attachment to said stand.

1,209,477. RAILROAD-TIE. EDWARD ARTHUR MUSE, Hamlet, N. C. Filed Mar. 18, 1916. Serial No. 83,874. (Cl. 238—5.)

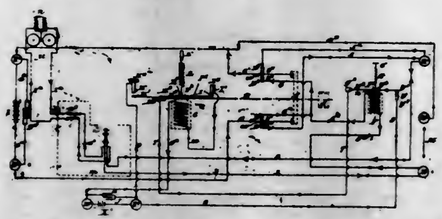
A hollow metal tie having the bottom and sides corrugated for a certain distance of its length with its top

smooth and having end corner braces, integral rail engaging portions formed on the top of said tie near each end, and removable rail engaging portions arranged and secured to the top of the tie, parallel with said integral



portions, said tie having squared openings, bolts having squared portions fitted in said openings, and having threaded ends, and nut locks and nuts fitting on said threaded ends.

1,209,478. AUTOMATIC RINGING MECHANISM FOR TELEPHONE SYSTEMS. CARWITT E. MYERS, Ironton, Mo., assignor of one-half to George D. Ash, Lansing, Mich. Filed Aug. 30, 1913. Serial No. 787,533. (Cl. 179—84.)



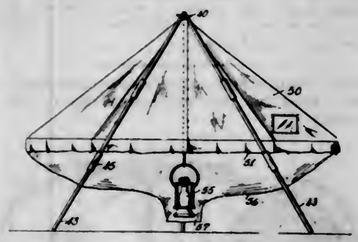
1. In a telephone system, a central station provided with a pair of terminals, a relay at said central station, a vibrator arm having a pair of movable contacts, a source of current having one pole connected to one of said movable contacts, the other pole being connected to the other of said movable contacts, a pair of stationary contacts adapted to be engaged by each of said movable contacts, one contact of each pair of said stationary contacts having electrical connection with one of said terminals, the other stationary contact being connected with the relay coil on one side, the opposite side of the relay coil being connected to the other terminal, a vibrator coil controlled by the relay, a portion of the control circuit including said vibratory arm, a second source of current for energizing said vibrator coil, and means for short circuiting said vibrator coil across said relay during the reciprocatory movement of the vibrator arm.

2. In a telephone system, a central station provided with a pair of terminals, a relay at said central station, a vibrator arm having a pair of movable contacts, a source of current having one pole connected to one of said movable contacts, the other pole being connected to the other of said movable contacts, a pair of stationary contacts adapted to be engaged by each of said movable contacts, one contact of each pair of said stationary contacts having electrical connection with one of said terminals, the other stationary contact being connected with the relay coil on one side, the opposite side of the relay coil being connected to the other terminal, a vibrator coil controlled by the relay, a portion of the control circuit including said vibratory arm, a second source of current for energizing said vibrator coil, and means for short circuiting said vibrator coil across said relay during the reciprocatory movement of the vibrator arm, said means comprising a contact on said vibrator arm, a stationary contact engaged by said last named contact, and a connection between said last named stationary contact and said second named source of current.

3. In a telephone system, a central station provided with a pair of terminals, a relay at said central station, a vibrator arm having a pair of movable contacts, a source of current having one pole connected to one of said movable contacts, the other pole being connected to the other of said movable contacts, a pair of stationary contacts adapted to be engaged by each of said movable contacts, one contact of each pair of said stationary contacts having electrical connection with one of said terminals, the other stationary contact being connected with the relay coil on one side, the opposite side of the relay coil being connected to the other terminal, a vibrator coil controlled by the relay, a portion of the control circuit including said vibratory arm, a second source of current for energizing said vibrator coil, and means for short circuiting said vibrator coil across said relay during the reciprocatory movement of the vibrator arm, said means comprising a contact on said vibrator arm, a stationary contact engaged by said last named contact, a connection between said last named stationary contact and said second named source of current, and means for adjusting the rate of vibration of the arm.

4. In a telephone system, a central station provided with a pair of terminals, a relay at said central station, a vibrator arm having a pair of movable contacts, a source of current having one pole connected to one of said movable contacts, the other pole being connected to the other of said movable contacts, a pair of stationary contacts adapted to be engaged by each of said movable contacts, one contact of each pair of said stationary contacts having electrical connection with one of said terminals, the other stationary contact being connected with the relay coil on one side, the opposite side of the relay coil being connected to the other terminal, a vibrator coil controlled by the relay, a portion of the control circuit including said vibratory arm, a second source of current for energizing said vibrator coil, means for short circuiting said vibrator coil across said relay during the reciprocatory movement of the vibrator arm, said means comprising a contact on said vibrator arm, a stationary contact engaged by said last named contact, a connection between said last named stationary contact and said second named source of current, and means for adjusting the rate of vibration of the arm, said adjusting means comprising a weight shiftable along said arm, and means for securing the weight in its shifted position.

1,209,479. SUSPENDED OUTING-TENT. THOMAS NESON, Indianapolis, Ind.; Julia V. Brodbeck administratrix of said Thomas Neson, deceased. Filed Nov. 13, 1914. Serial No. 871,892. (Cl. 5—10.)

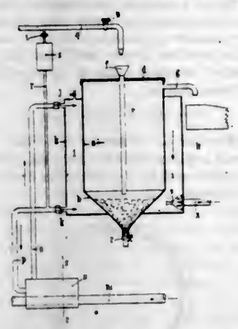


1. A hammock including a frame formed of sections, and hinges for uniting the sections, said hinges having inclined pivots whereby the hammock sections may be folded at an angle to each other, substantially as set forth.

2. A hammock including a hammock frame, central overhead supporting means, cables extending from the frame up to said supporting means, a canvas covering over said cable and extending below the sides of said hammock, a bottom covering secured to said hammock frame and tapering outward, and heating means suspended to said hammock and within said bottom covering.

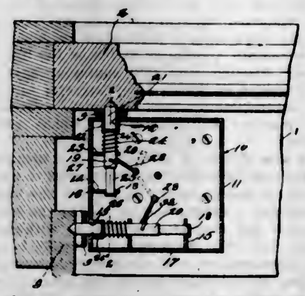
1,209,480. APPARATUS FOR PURIFYING INDUSTRIAL OILS AND FATS. LOUIS JULES NOËL, Epernay, France. Filed May 14, 1914. Serial No. 838,487. (Cl. 87—12.)

An apparatus for purifying oils and fats, comprising a jacketed vat having an oil discharge at its upper end and a sediment discharge in its bottom, a water pipe extending into the vat, a boiler, pipes leading from the boiler into the upper and lower portions of water jacket of the vat, a water supply pipe adapted to discharge into the pipe of



the vat, an expansion vessel connected with the water pipe, and a pipe leading from the expansion vessel and connected with the pipe leading from the boiler to the lower portion of the water jacket.

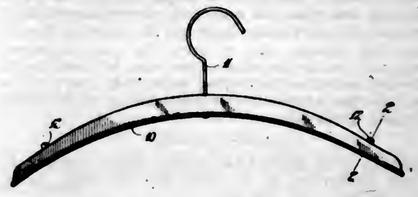
1,209,481. WINDOW-LOCK. OSCAR A. NORRING, New York, N. Y. Filed Sept. 11, 1915. Serial No. 50,226. (Cl. 16—52.)



In a window lock structure, the combination with a window structure including upper and lower sashes, and a frame carried stop, of a keeper carried by one of the side rails of said upper sash, said keeper being provided with a plurality of spaced locking bolt receiving openings, a second keeper carried by said stop, said second named keeper being provided with a plurality of locking bolt receiving openings, a locking structure carried by the upper rail of said lower sash, said locking structure including a housing, a plurality of ears extending inwardly from the walls of said housing, sleeves formed upon and extending inwardly from the walls of said housing, locking bolts slidably carried by said ears and said sleeves and positioned substantially at right angles with respect to each other, spiral springs coiled about said locking bolts for normally holding them in a locking position, projections formed upon said locking bolts and adapted for engagement with a key for moving said locking bolts into an unlocking position against the tension of said springs, heads formed upon the inner ends of said locking bolts and adapted for engagement with certain of said ears for limiting the outward movement of said bolts, and collars mounted upon said bolts and engaging the inner ends of said sleeve.

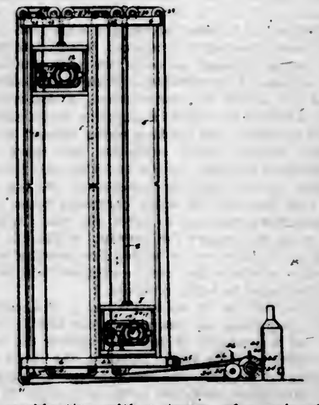
1,209,482. GARMENT-HANGER. EMIL THEO. PALMENBERG, New York, N. Y. Filed Dec. 27, 1915. Serial No. 68,901. (Cl. 211—13.)

1. A garment hanger comprising a hanger bar having a continuous arched upper face, a supporting means projecting upwardly from the center thereof, hemispherical rubber buttons projecting upwardly from the upper face of the bar intermediate the center and each end thereof, said buttons adapted to have frictional contact with the material of a garment to aid in retaining in place and to prevent accidental slipping from the hanger.



2. A garment hanger comprising an arched hanger bar, the upper face of which presents an unbroken continuous curve and rounded ends, an upwardly extending supporting hook at the center of the bar, hemispherical rubber buttons secured to the upper face of the bar adjacent each end of said bar, and nails having pointed shanks projecting from the flat lower face of the buttons and their heads embedded in said buttons below the spherical surface thereof whereby said buttons may be secured to the bar and present an unbroken frictional surface to the material of a garment to prevent its slipping therefrom and from the bar.

1,209,483. COMBINED CONCRETE MIXING AND ELEVATING APPARATUS. CHARLES W. PARSONS, Washington, D. C. Filed Mar. 18, 1916. Serial No. 85,171. (Cl. 83—73.)



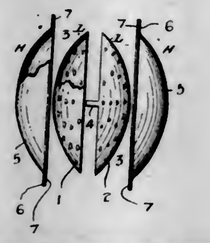
1. The combination with a tower, of a pair of cages mounted therein, means for connecting said cages so that they counterbalance each other, means for alternately raising and lowering said cages, a concrete mixer in each of said cages, a rotative element for each of said concrete mixers and through which movement is imparted to said mixers, a driving cable passing through each of said elements, means for driving said cable and means for holding said cable against movement, whereby when the cages are being raised and lowered their respective concrete mixers are driven by the movement of said concrete mixers with relation to said driving cable and said concrete mixers may be driven when the cages are at rest, by the bodily movement of the driving cable.

2. In a device of the character described, the combination with a tower, of a pair of cages mounted therein, and connected to counterbalance each other, a concrete mixer carried by each of said cages, a driving cable connected to said concrete mixers, and common to both of them and a

lifting cable connected to said cages and common to both of them and means for driving said cables.

3. In a device of the character described, the combination with a tower, of a pair of cages mounted therein and connected to counterbalance each other, a concrete mixer carried by each of said cages, a driving cable connected to said concrete mixers and a lifting cable connected to said cages, and means for holding the driving cable against movement during the movement of the cages to thereby cause said driving cable to drive the concrete mixers through the bodily movement of the cages with relation to said cable and means for driving the driving cable to cause it to drive the concrete mixers independently of the bodily movement of the cages.

1,209,484. NON-REFILLABLE TEA-BALL. GEORGE H. PEAL, Rutherford, N. J. Filed July 23, 1914. Serial No. 852,560. (Cl. 206—46.)



1. As an article of manufacture, a non-refillable tea package adapted to contain a quantity of tea sufficient for a single brewing, said package being formed of an inner container and an outer container, the inner container being adapted to hold the tea and walls thereof being perforated to facilitate the brewing of the tea while the tea is held therein, and the outer container being detachable and having parts disposed to cooperate with the inner container to close the perforations of the inner container.

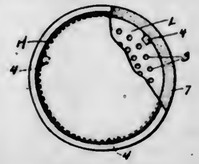
2. As an article of manufacture, a non-refillable tea package adapted to contain a quantity of tea sufficient for a single brewing, said package being formed of an inner container and an outer container, the inner container being adapted to hold the tea and the wall thereof being perforated to facilitate the brewing of the tea while the tea is held therein, the outer container being non-perforated and being disposed to cover and seal the inner container so as to prevent the brewing of the tea but being adapted to be removed to permit the brewing of the tea, and means whereby the outer container will be at least partly destroyed in being removed.

3. As an article of manufacture, a non-refillable tea package comprising an inner container and an outer container and a quantity of tea held within the inner container sufficient for a single brewing, the inner container being adapted to carry the tea into the brewing pot, the wall of said inner container being perforated to facilitate the brewing operation, and the outer container constituting a seal inclosing the inner container to preserve the inner container against contamination from outside influences and to preserve the quality of the tea, the outer container being removable when it is desired to brew the tea.

4. As an article of manufacture, a non-refillable tea package from which a single brewing of tea may be made, said package comprising three essential elements: first, a quantity of tea; second, a perforated non-refillable container for directly containing the tea and for carrying the tea into the brewing pot; and third, a sealing cover for inclosing the container to preserve the same against contamination from outside influences and to preserve the quality of the tea, said sealing cover being removable when it is desired to brew the tea.

5. As an article of manufacture, a non-refillable tea package comprising an inner container and an outer container and a quantity of tea held within the inner container sufficient for a single brewing, the inner container being adapted to carry the tea into the brewing pot, the wall thereof being perforated to facilitate the brewing operation, and the outer container constituting a seal inclosing the inner container to preserve the inner container against contamination from outside influences and to preserve the quality of the tea, and said outer container comprising a detachable paper shell having parts pasted together whereby the shell cannot be detached except by partial destruction thereof.

1,209,485. TEA-BALL. GEORGE H. PEAL, Rutherford, N. J. Original application filed July 23, 1914, Serial No. 852,560. Divided and this application filed June 6, 1916. Serial No. 101,895. (Cl. 53—3.)



1. As a new article of manufacture, a dispensing and brewing package for tea or the like adapted to contain and protect the tea and to carry the tea into the brewing pot and to continue to confine the tea during the entire brewing operation and thereafter and to be withdrawn from the brewing pot after the brewing operation is completed with the exhausted tea still confined, said new article of manufacture comprising a perforated insoluble container adapted to contain a quantity of tea or the like sufficient for a single brewing, and said container having means formed integrally therewith of a character to render the container non-refillable, except by rupture of a part of the container, whereby the container may not be refilled without detection.

2. As a new article of manufacture, a dispensing and brewing package for tea or the like adapted to contain and protect the tea and to carry the tea into the brewing pot and to continue to confine the tea during the entire brewing operation and thereafter and to be withdrawn from the brewing pot after the brewing operation is completed with the exhausted tea still confined, said new article of manufacture comprising a perforated insoluble container adapted to contain a quantity of tea or the like sufficient for a single brewing, said container having an integral bendable portion bent for sealing the container, and said bendable portion being disruptable and being adapted to be disrupted if unbent, whereby to render the container non-refillable except with detection.

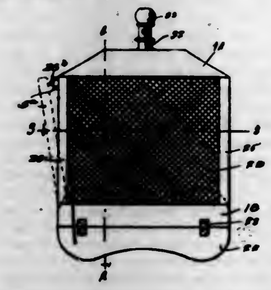
3. As an article of manufacture, a dispensing and brewing package for tea or the like adapted to contain and protect the tea and to carry the tea into the brewing pot and to continue to confine the tea during the entire brewing operation and thereafter and to be withdrawn from the brewing pot after the brewing operation is completed with the exhausted tea still confined, said new article of manufacture comprising a perforated insoluble container adapted to contain a quantity of tea or the like sufficient for a single brewing, said container having means formed integrally therewith of a character to render the container non-refillable except by rupture of a part of the container, whereby the container may not be refilled without detection, and removable means for at least partially closing the perforations of the container to preserve the quality of the tea.

4. As a new article of manufacture, a dispensing and brewing package for tea or the like adapted to contain and protect the tea and to carry the tea into the brewing pot and to continue to confine the tea during the entire brewing operation and thereafter and to be withdrawn from the brewing pot after the brewing operation is completed with the exhausted tea still confined, said new article of manufacture comprising a perforated insoluble container adapted to contain a quantity of tea or the like sufficient for a single brewing, said container being formed of at least two parts, connected together by means rendering the container non-refillable except with detection, said means comprising a plurality of locking elements, said locking elements being spaced apart and being correlated to each other and to the container so that each is dependent upon the others for its effectiveness.

5. As a new article of manufacture, a dispensing and brewing package for tea or the like adapted to contain and protect the tea and to carry the tea into the brewing pot and to continue to confine the tea during the entire brewing operation and thereafter and to be withdrawn from the brewing pot after the brewing operation is completed with the exhausted tea still confined, said new article of manufacture comprising a perforated insoluble container adapted to contain a quantity of tea or the like sufficient for a single brewing, said container having means formed integrally therewith of a character to render the container non-refillable except by rupture of a part of the container, whereby the container may not be refilled without detection, and a separately formed handle member fixed to said container by said last mentioned means.

[Claim 6 not printed in the Gazette.]

1,209,486. RADIATOR. SAMUEL S. PETTICORD, Wheeling, W. Va. Filed Sept. 9, 1914. Serial No. 860,864. (Cl. 257—129.)



A radiator comprising a pair of plates arranged one above the other, an end wall permanently secured to said plates, a plurality of water tubes arranged in rows and connecting said plates, hollow members arranged above and below said plates and communicating with said water tubes, a removable end wall engaged between said plates and arranged in spaced relation to the first-mentioned end wall, and screen sections removably positioned between the rows of tubes and secured against removal by the relatively stationary and removable end walls.

1,209,487. MOUNTING OF ENTOMOLOGICAL SPECIMENS. THEOPHIL PFISTER, New York, N. Y. Filed Mar. 27, 1916. Serial No. 86,886. (Cl. 35—12.)



1. A mounted specimen of the character described having wing reinforcements formed from thin resistant material extended across the surface of the wing structure at one side thereof to strengthen the same against injury without obliteration of the natural wing markings.

2. A mounted specimen of the character described having a body, and wing reinforcements at its opposite sides each formed from thin resistant material extended across the surface of the wing structure at one surface thereof to strengthen the same against injury without obliteration of the natural wing markings and affording secure attachment of the wing structure to the body of the specimen.

3. A mounted specimen of the character described having oppositely arranged similar wing structures each provided with a reinforcement extended across one of its surfaces to strengthen the structure without obliteration of the natural wing markings, and a body to which the respective wing structures are attached, capable of being bent to cause said wing structures to stand at desired angles.

4. A mounted specimen of the character described having oppositely arranged similar wing structures each provided with a reinforcement of thin resistant material extended across one of its surfaces to strengthen the structure without obliteration of the natural wing markings, and a body formed from two attached members between which the inner adjacent edge portions of the respective wing structures are held.

5. A mounted specimen of the character described having oppositely arranged similar wing structures each provided with a reinforcement of thin resistant material extended across one of its surfaces to strengthen the structure without obliteration of the natural wing markings, and a body to which the respective wing structures are attached provided with an attached reinforcement capable of being bent to cause said wing structures to stand at desired angles.

[Claims 6 and 7 not printed in the Gazette.]

1,209,488. LADY'S UNDERGARMENT AND METHOD OF MAKING SAME. ELMER H. PHILLIPS, New York, N. Y., and ARTHUR J. DOSCHER, Newark, N. J. Filed Mar. 10, 1916. Serial No. 83,286. (Cl. 2—41.)



1. A garment of the class described comprising a body section and a bust section of smaller size than the body section united to the body section by a transverse reinforcing joint at the breast line of the garment which prevents the material from stretching to excess.

2. A method of manufacturing ladies' undergarments, which consists in knitting a garment of predetermined size up to the breast line, forming from the breast line an independent bust section of the garment of smaller size than the knitted part of the garment, seaming the two unequally sized sections at the breast line, and reinforcing the seam.

1,209,489. ADJUSTABLY-LOCKED FASTENER. FRANCIS WILLIAM PIERPONT, Pittsburgh, Pa. Filed Mar. 16, 1916. Serial No. 84,587. (Cl. 85—39.)

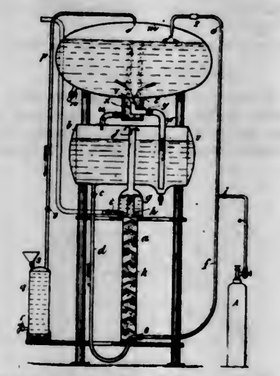
1. A fastener of the character described comprising a pair of relatively adjustable fastening members threaded in connection with one another, and each of which is pro-

vided with engaging means at its outer end, one of said members being tubular in form to receive the other member and having an integral locking finger projecting from its inner end for engagement with the other member to prevent relative displacement of said members in adjusted position.



2. A fastener of the character described comprising a pair of relatively adjustable members, one of which is tubular and internally threaded and the other of which is externally threaded to screw within the first member, and is provided at its outer end with a slotted head, said tubular member being provided at its inner end with an integral locking finger bendable into engagement with the slot of the head of the other member whereby to prevent relative displacement of the members in adjusted position.

1,209,490. APPARATUS FOR IMPREGNATING LIQUIDS WITH CARBONIC ACID OR OTHER GASES. ANDERS ANDERSEN PINDSTOFTE, Copenhagen, Denmark. Filed Sept. 17, 1914. Serial No. 862,149. (Cl. 209—1.)



1. In carbonating apparatus, the combination of a closed, vertical impregnating chamber; a supply pipe for carbonic acid leading into the bottom of said chamber; a liquid reservoir above said chamber; a pipe connection between the bottom of said reservoir and the bottom of said chamber; an air outlet pipe leading from the top of said chamber to the top of said reservoir; and a discharge pipe for the carbonated liquid leading from the top of said chamber, said chamber having gable-shaped partitions arranged above one another therein in spaced relation throughout its entire extent, one wing of each partition being perforated and the other wing imperforate, the perforated wing of each partition directly overlying the imperforate wing of the next lower partition, and the imperforate wing of each partition directly overlying the perforated wing of the next lower partition, whereby the ascending carbonic acid and liquid currents are caused to follow the same zigzag course during their passage through said chamber so that all portions of said liquid come into contact with and are impregnated by said carbonic acid.

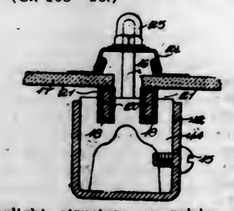
2. In carbonating apparatus, the combination of a closed, vertical impregnating chamber; a supply pipe for carbonic acid leading into the bottom of said chamber; a liquid reservoir above said chamber; a pipe leading from the bottom of said reservoir to the bottom of the impregnating chamber; an air outlet pipe leading from the top of said chamber to the top of said reservoir; a discharge pipe for the carbonated liquid leading from the top of said chamber, said chamber having gable-shaped partitions arranged above one another therein in spaced relation throughout its entire extent, one wing of each partition being perforated and the other wing imperforate, the perforated wing of each partition directly overlying the imperforate wing of the next lower partition, and the imperforate wing of each partition directly overlying the perforated wing of the next lower partition, whereby the ascending carbonic acid and liquid currents are caused to follow the same zigzag course during their passage through said chamber so that all portions of said liquid come into contact with and are impregnated by said carbonic acid; a supply reservoir arranged over the first-named reservoir; a pipe leading from the bottom of the second-named reservoir to the bottom of said first-named reservoir; a partition having holes along its edge and surrounding the upper end of said pipe; and a pipe leading from the top of the said first-named reservoir and debouching below the last-named partition.

3. In carbonating apparatus, the combination of a closed, vertical impregnating chamber; a supply pipe for carbonic acid leading into the bottom of said chamber; a liquid reservoir above said chamber; a pipe leading from the bottom of said reservoir to the bottom of said chamber; an air outlet pipe leading from the top of said chamber to the top of said reservoir; a discharge pipe for the carbonated liquid leading from the top of said chamber, said chamber having gable-shaped partitions arranged above one another therein in spaced relation throughout its entire extent, one wing of each partition being perforated and the other wing imperforate, the perforated wing of each partition directly overlying the imperforate wing of the next lower partition, and the imperforate wing of each partion directly overlying the perforated wing of the next lower partition, whereby the ascending carbonic acid and liquid currents are caused to follow the same zigzag course during their passage through said chamber so that all portions of said liquid come into contact with and are impregnated by said carbonic acid; an air discharge controller adapted to be filled with liquid and having a cock at its bottom for enabling the liquid to be discharged therefrom in drops; and a pipe connection between said reservoir and said controlled for supplying air from the former to the latter.

4. In carbonating apparatus, the combination of a closed, vertical impregnating chamber; a supply pipe for carbonic acid leading into the bottom of said chamber; a liquid reservoir above said chamber; a pipe leading from the bottom of said reservoir to the bottom of said chamber; an air outlet pipe leading from the top of said chamber to the top of said reservoir; a discharge pipe for the carbonated liquid leading from the top of said chamber, said chamber having gable-shaped partitions arranged above one another therein in spaced relation throughout its entire extent, one wing of each partition being perforated and the other wing imperforate, the perforated wing of each partition directly overlying the imperforate wing of the next lower partition, and the imperforate wing of each partition directly overlying the perforated wing of the next lower partition, whereby the ascending carbonic acid and liquid currents are caused to follow the same zigzag course during their passage through said chamber so that all portions of said liquid come into contact with and are impregnated by said carbonic acid; a supply reservoir arranged over the first-named reservoir; a pipe leading from the bottom of the second-named reservoir to the bottom of said first-named reservoir; a partially perforated partition surrounding the upper end of said pipe; a pipe leading from the top of the first-named reservoir and debouching below the last-named partition; a carbonic acid discharge pipe leading from the upper part of the second-named reservoir to the carbonic acid supply pipe of the said chamber; an air discharge controller adapted to be filled with liquid and having a cock at its bottom for enabling the liquid to be discharged therefrom in drops; and a pipe leading from the top of the second-named reservoir to said controller for supplying air from the former to the latter.

5. In carbonating apparatus, the combination of a vertical, tubular impregnating chamber; separate means for supplying the liquid to be carbonated and carbonic acid to the bottom of said chamber; and a pipe leading from the top of said chamber for discharging the carbonated liquid therefrom, said chamber having gable-shaped partitions arranged above one another therein in spaced relation throughout its entire extent, one wing of each partition being perforated and the other wing imperforate, the perforated wing of each partition directly overlying the imperforate wing of the next lower partition, and the imperforate wing of each partition directly overlying the perforated wing of the next lower partition, whereby the ascending carbonic acid and liquid currents are caused to follow the same zigzag course during their passage through said chamber so that all portions of said liquid come into contact with and are impregnated by said carbonic acid.

1,209,491. SKYLIGHT STRUCTURE. WILLIAM F. PLASS, New York, N. Y. Filed May 26, 1916. Serial No. 99,988. (Cl. 108—16.)



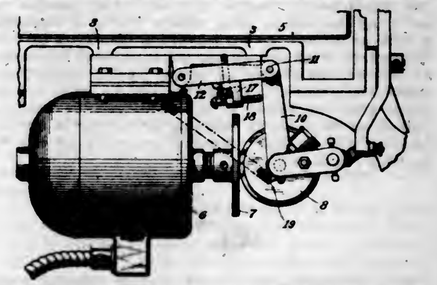
1. A skylight structure comprising inclined channel rafters forming troughs, stirrups secured in the channels of said rafters and provided with bar-receiving slots, and glass-supporting bars provided with sheet-lead wrappings, the wrapped bars being inserted in and closely fitting said slots so that the wrappings are confined between the bars and the walls of the slots, portions of said wrappings projecting above the stirrups and forming compressible liquid-tight seats for lights of glass supported by said bars.

2. A skylight structure comprising inclined channeled rafters forming troughs, stirrups secured in the channels of said rafters and provided with vertically elongated slots, and glass-supporting bars, oblong in cross section, and provided with sheet lead wrappings, the wrapped bars being inserted in and closely fitting said slots so that the wrappings are confined between the bars and the walls of the slots, portions of said wrappings projecting above the stirrups and forming compressible liquid-tight seats for lights of glass supported by said bars.

1,209,492. MOTOR-DRIVING MECHANISM FOR MOVING-PICTURE MACHINES. NICHOLAS POWER, Brooklyn, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 14, 1913. Serial No. 754,239. (Cl. 88—17.)

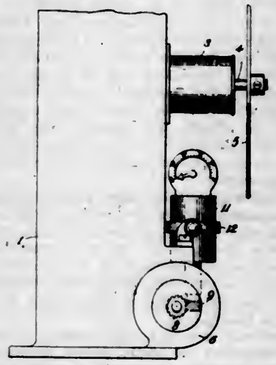
1. In a moving picture machine the combination of a substantially rectangular hollow frame with two vertical and two horizontal sides, a film magazine inclosed in said frame, a projecting apparatus mounted on the upper horizontal side of said frame, a driving motor suspended from the lower horizontal side of said frame, supporting legs at each corner of such side and connected thereto above the center of gravity of the motor, a variable speed gear having driving connection with said motor, also suspended from said frame, a driving connection between said variable speed gear and said projecting apparatus, and means for adjusting said speed gear comprising a lever pivotally mounted on the vertical face of said frame.

2. In a moving picture machine the combination of a substantially rectangular hollow metal frame having a rigid base, a film magazine inclosed in said frame, a projecting apparatus supported on the upper member of said frame and having a driving pulley projecting beyond the face of said magazine, an electric motor rigidly attached to and suspended from the base of said frame, supporting legs at each corner of such side and connected thereto above the center of gravity of the motor, and a variable



speed gear having driving connection with said motor, also suspended from said frame, and having a driven pulley beyond the face of said magazine with a driving belt connected with said pulleys.

1,209,493. TIME-INDICATOR FOR MOVING-PICTURE MACHINES. NICHOLAS POWER, Brooklyn, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 2, 1913. Serial No. 792,927. (Cl. 88—16.)



1. The combination in a moving picture machine having a projection aperture and means for feeding the film through said machine, of a shutter for intercepting the light through said aperture and an indicator driven by said film feeding mechanism and having its dial positioned in the path of light reflected from said shutter.

2. The combination of a moving picture machine embodying a frame and having a driving shaft extending across said frame, a shutter mounted in front of said frame for intercepting the light through said machine, and a speed indicator supported by said frame in a position in front of the front wall thereof and to the rear of the plane of the shutter.

3. The combination of a moving picture machine embodying a frame and having a driving shaft extending across said frame, a shutter mounted in front of said frame for intercepting the light through said machine, and a speed indicator supported by said frame in a position in front of the front wall, to the rear of the plane of the shutter and beyond the side wall of the frame, and having its dial on the side to be visible from the opposite side of said casing.

1,209,494. FENDER. RODERICK MALLIATT PRICE, New Orleans, La. Filed June 24, 1916. Serial No. 105,551. (Cl. 105—250.)

1. In combination with a motor vehicle, a fender, a carriage to which the fender is connected and comprising a

pair of parallel spaced connected supporting bars, guides on the vehicle on which the bars of the carriage are slidable, said bars having outwardly extending rollers, and the guides having longitudinally extending passages for receiving the rollers, each passage having a depending portion at its rear end for permitting the rollers to move downwardly when they engage therewith, each bar having at the rear end thereof an oblique portion supporting a brake shoe, adapted to engage between the wheel and the track when the fender is in lowered position, resilient mechanism for normally retaining the carriage in forward position, and manually operated means for moving the carriage rearwardly.



2. In combination with a motor vehicle, a fender, a carriage to which the fender is connected and comprising a pair of parallel spaced connected supporting bars, guides on the vehicle on which the bars of the carriage are slidable, said bars having outwardly extending rollers, and the guides having longitudinally extending passages for receiving the rollers, each passage having a depending portion at its rear end for permitting the rollers to move downwardly when they engage therewith, each bar having at the rear end thereof an oblique portion supporting a brake shoe, adapted to engage between the wheel and the track when the fender is in lowered position.

3. In combination with a motor vehicle, a fender, a carriage for supporting the fender, said carriage having brake shoes at its rear end, guides on the vehicle, the carriage being movable on the guides, and the guides having means for constraining the carriage to move horizontally and then vertically to lower the fender and to engage the brake shoes with the wheels, the carriage being moved by the impact of an obstruction, and manually operated means under control of the motorman or chauffeur for moving the carriage rearwardly.

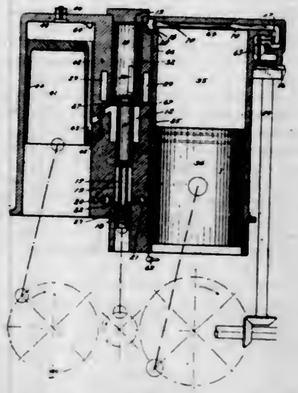
4. In combination with a motor vehicle, a fender, a carriage for supporting the fender, said carriage having brake shoes at its rear end, guides on the vehicle, the carriage being movable on the guides, and the guides having means for constraining the carriage to move horizontally and then vertically to lower the fender and to engage the brake shoes with the wheels, the carriage being moved by the impact of an obstruction.

5. In combination with a motor vehicle, a fender, a carriage for supporting the fender, guides on the vehicle, the carriage being movable on the guides, and the guides having means for constraining the carriage to move horizontally and then vertically to lower the fender, the carriage being moved by the impact of an obstruction against the fender, and resilient means for normally holding the carriage in elevated position.

1,209,495. INTERNAL-COMBUSTION ENGINE. ALFRED W. PROCTOR, Brooklyn, N. Y.; Georgietta H. Proctor administratrix of said Alfred W. Proctor, deceased. Filed Feb. 9, 1912. Serial No. 676,498. (Cl. 123—36.)

1. An internal combustion engine comprising an air compressor, a high pressure cylinder, a displacement piston therein, a low pressure cylinder, a passageway between the compressor and high pressure cylinder, a passageway between the high pressure cylinder and low pressure cylinder, an oil pump attached to displacement piston and adapted to pump oil into high pressure cylinder, and means adapted to open communication between high and low pressure cylinders at proper intervals.

2. An internal combustion engine comprising an air compressor, a high pressure cylinder, a displacement piston therein, a low pressure cylinder, a passageway between the compressor and high pressure cylinder, a passageway between the high pressure cylinder and low pressure cylinder, an oil pump, actuated to displace oil into the passageway between the compressor and the high pressure cylinder during the power stroke thereof, and means adapted to open communication between the high and low pressure cylinders, at proper intervals.



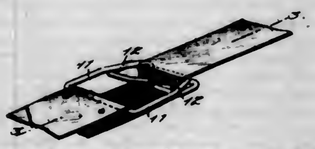
3. An internal combustion engine comprising an air compressor, a high pressure cylinder, a displacement piston therein, a low pressure cylinder, a passageway between the compressor and high pressure cylinder, a passageway between the high pressure cylinder and low pressure cylinder, an oil pump, means for actuating said oil pump during the power stroke to pump oil into the high pressure cylinder, and means adapted to open communication between high and low pressure cylinders at proper intervals.

4. An internal combustion engine comprising an air compressor, a high pressure cylinder, a piston therein, a low pressure cylinder, a passageway between the compressor and high pressure cylinder, a passageway between the high pressure cylinder and low pressure cylinder, a crank shaft having crank connections with the various pistons, the low pressure cylinder having its crank position as much more than 180 degrees in advance of the high pressure crank, as the auxiliary pressure cylinder has its crank position behind the said high pressure crank, and means adapted to open communication between high and low pressure cylinders at proper intervals.

5. An internal combustion engine comprising an air compressor having a piston, a high pressure cylinder, a displacement piston therein, a low pressure cylinder, a passageway between the compressor and high pressure cylinder, a passageway between the high pressure cylinder and low pressure cylinder, said air compressor and displacement pistons mutually coöperating to control the passage between the compressor and the high pressure cylinder, and means adapted to open communication between high and low pressure cylinders at proper intervals.

[Claims 6 to 8 not printed in the Gazette.]

1,209,496. BALE-BAND BUCKLE. WILLIAM C. RAGSDALE, Weatherford, Tex. Filed Dec. 7, 1915. Serial No. 65,488. (Cl. 24—26.)



1. A bale band buckle consisting of a loop constructed of a length of wire and provided with side bars and a rigid cross bar at one end for permanent attachment to one end of a bale band, a second cross bar at the opposite end, arms projecting inwardly from the side bars toward the center of the loop, said arms having their ends bent downwardly toward the second cross bar and beyond the plane of the loop, said ends adapted to gouge into and bend the band when the loop is swung forwardly and the bale permitted to expand.

2. A bale band buckle consisting of a loop having a rigid cross bar at one end for permanent attachment to one end of a bale band, side bars projecting from said cross bar, the free ends of said side bars bent inwardly toward each other to form a laterally expansible cross bar, and means carried at the extremities of the side bars projecting toward the laterally movable cross bar and outside the plane of the loop and adapted to gouge into and bend the other end of the bale band when the loop is swung forwardly and the bale permitted to expand.

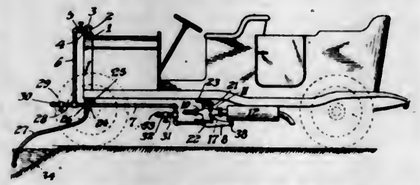
3. A bale band buckle comprising a loop made of a length of wire and consisting of a rigid cross bar at one end for permanent attachment to one end of a bale band, side bars at each end of said cross bar, said side bars bent in opposite directions and across each other to form the opposite end bar, then bent back alongside the side bars and inwardly toward the center of the loop and terminating in spurs projecting obliquely in a direction away from the rigid cross bar and outside the plane of the loop.

4. A bale band buckle comprising a loop like member made from a single length of bar material and consisting of a rigid cross bar at one end for connection with one end of a bale band, side bars extending from the ends of said cross bar, the side bars bent laterally in opposite directions toward and alongside each other to form an expansible cross bar, each side member bent back to lie alongside a side bar, then toward the center of the loop and the terminals disposed toward the expansible cross bar at an angle to the plane of the loop to form locking spurs or lugs adapted to gouge into the opposite end of the aforesaid bale band.

5. A bale band buckle comprising a loop shaped frame made from a length of wire and consisting of a rigid cross bar for connection with one end of a bale band and side bars extending from the ends thereof, the side bars having inwardly bent portions lying adjacent and crossing each other to form a second cross bar, and provided at their free ends with a locking spur or lug lying between the side bars and projecting at an angle from the plane of the loop and toward the second cross bar.

[Claims 6 to 8 not printed in the Gazette.]

1,209,497. MECHANISM FOR GAS-ENGINES. HARRY C. REAGAN, Philadelphia, Pa. Filed Jan. 12, 1914. Serial No. 811,524. (Cl. 21—90.)



1. In a device of the character stated, a radiator having an inlet and an outlet, a filling device for said inlet adapted to communicate with a source of cooling medium, a casing adapted to receive an engine exhaust and having an outlet, a nozzle communicating with said casing through said outlet, means forming a communication between said radiator outlet and said nozzle, and means to control the opening and closing of the exhaust casing outlet to said nozzle.

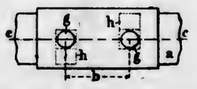
2. In a device of the character stated, a radiator having an inlet and outlet, a filling device connected to said inlet and adapted to communicate with a source of cooling medium, a casing having communication with the exhaust of an engine, a nozzle connected to said casing, a fluid conducting medium having communication with said radiator outlet and projecting into said nozzle, and a valve for controlling communication between said casing and said nozzle.

3. In a device of the character stated, a radiator having an inlet and an outlet, a filling device connected to said inlet and adapted to communicate with a source of cooling medium, a valve for said filling device, a casing adapted to receive the exhaust of an engine, a nozzle communicating with said casing, a fluid conducting medium having communication with said radiator outlet and projecting into said nozzle, a valve for controlling the inlet to said medium, a muffler communicating with said exhaust casing, and means operable at will to by-pass a portion or all of said exhaust from said muffler to said nozzle.

4. In a device of the character stated, a casing adapted to receive the exhaust of an engine and having a plurality of outlets, a muffler connected to one of said outlets, a discharge nozzle connected to another of said outlets, a conduit member connected to the remaining outlet, means operable at will for directing the engine exhaust to any of said outlets, in combination with a radiator, connections between said radiator and said nozzle for producing a partial vacuum in said radiator wh n the exhaust passes through said nozzle and a filling device connected to said radiator and having communication with a source of cooling medium.

5. In a device of the character stated, a casing adapted to receive the exhaust of an engine and having a plurality of outlets, a muffler connected to one of said outlets, a discharge nozzle connected to another of said outlets, means operable at will for directing the engine exhaust to either of said outlets in combination with a radiator, connections between said radiator and said nozzle for producing a partial vacuum in said radiator when the exhaust passes through said nozzle, a filling device connected to said radiator and having communication with a source of cooling medium and a suction device having communication with said casing for causing a circulation of air within the body of a vehicle.

1,209,498. STEREOSCOPIC CINEMATOGRAPH. JULES RICHARD and LOUIS JOSEPH EMMANUEL COLARDEAU, Paris, France. Filed June 1, 1910. Serial No. 564,467. (Cl. 88—16.6.)



1. In an apparatus for obtaining stereoscopic views by direct vision, the combination with a horizontal band carrying two parallel rows of stereoscopic images taken in pairs in which the right and left hand images of the same pair are displaced, of two objectives, and means for bringing back the images of the same pair opposite the axis of the objectives.

2. In an apparatus for obtaining stereoscopic views by direct vision, the combination with a horizontal band carrying two parallel rows of stereoscopic images taken in pairs in which the right and left hand images of the same pair are displaced, of two objectives, and prisms having the shape of straight parallelepipedons with a parallelogram base for bringing back the images of the same pair opposite the axis of the objectives.

3. In an apparatus for obtaining stereoscopic views by direct vision, the combination with a horizontal band carrying two parallel rows of stereoscopic images taken in pairs in which the right and left hand images of the same pair are displaced, of two objectives, and prisms having the shape of straight parallelepipedons with a parallelogram base and inclined with regard to one another for bringing back the images of the same pair opposite the axis of the objectives.

4. In an apparatus for obtaining stereoscopic views by direct vision, the combination with the band mounted to move longitudinally and provided with a plurality of se-

ries or rows of stereoscopic images, the images of one series being above the central line of the band and the images of the other series being below the central line of the band, the images of the upper series corresponding to the images of the lower series, the images of one series being spaced apart from the corresponding images of the other series a distance corresponding approximately to the normal distance between the eyes, of a pair of objectives arranged at the central line of the band and spaced apart laterally from each other a distance corresponding to the distance between corresponding images of the two series, and means between each objective and the adjacent series of images for bringing the said images opposite the axis of the objective, each of the said means comprising a prism having the shape of a straight parallelepipedon with a parallelogram base, the prisms being inclined with respect to each other for the purpose specified.

5. In an apparatus for obtaining stereoscopic views by direct vision, the combination with the band mounted to move longitudinally and provided with a plurality of series of rows of stereoscopic images, the images of one series being above the central line of the band and the images of the other series being below the central line of the band, the images of the upper series corresponding to the images of the lower series, the images of one series being spaced apart from the corresponding images of the other series a distance corresponding approximately to the normal distance between the eyes, of a pair of objectives arranged at the central line of the band and spaced apart laterally from each other a distance corresponding to the distance between corresponding images of the two series, and means between each objective and the adjacent series of images for bringing the said images opposite the axis of the objective, each of the said means comprising a prism having the shape of a straight parallelepipedon with a parallelogram base.

[Claim 6 not printed in the Gazette.]

1,209,499. DENTAL-MATRIX RETAINER. NAPOLEON B. RIDDLS, Slaughter, La. Filed Sept. 24, 1915. Serial No. 52,473. (Cl. 32—17.)
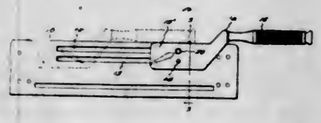


1. A matrix retainer comprising a pair of spaced guide bars, a pair of transversely extending cross bars connecting one end of said guide bars, said cross bars having alined transverse openings, a sleeve connecting the other end of said guide bars, the openings in said cross bars alining with the bore of said sleeve, a matrix operating member having a threaded portion extending through the openings in the cross bars and having a front portion thereon located within the sleeve, a nut fitted on said threaded portion of said operating member and positioned between said cross bars to adjust said operating member, and means carried by said matrix operating member to engage a matrix.

2. A matrix retainer comprising an elongated body having a sleeve at one end thereof, said sleeve having a substantially rectangular bore and a pair of oppositely disposed grooves extending at right angles to said bore, a matrix operating member associated with said body and having a cylindrical portion formed thereon and threadedly mounted within the body, said operating matrix member having a flattened front portion thereon located within the bore of said sleeve, and a pin extending through the back portion of the operating member and adapted to engage the matrix, said pin being adapted to engage the grooves in said sleeve for the purpose set forth.

3. A matrix retainer comprising an elongated body having a sleeve at one end thereof, said sleeve having a transverse rectangular bore and a pair of oppositely disposed grooves extending at right angles to said bore, a matrix operating member associated with said body and having a cylindrical portion formed thereon and threadedly mounted within the body, said operating matrix member having a flattened front portion thereon located within the bore of said sleeve, a matrix having an inverted U-shaped body, the legs of said U-shaped body engaging the opposite sides of the flattened front portion of the matrix operating member, and a pin extending through the front portion of the operating member and the legs of the matrix, said pin being adapted to engage the grooves in said sleeve for the purpose set forth.

1,209,500. RAZOR HONING AND STROPPING DEVICE. WILLIAM M. ROHN, Detroit, Mich. Filed Mar. 22, 1916. Serial No. 85,827. (Cl. 51—16.)



1. In a device of the character described, a frame, a carriage mounted therein for reciprocation, a shaft journaled in the carriage, a blade carrying clamp also journaled in the carriage, coöperative transmission means between the clamp and the shaft, a honing and stropping member carried by the frame and interposed between the shaft and the clamp, and means disposed in the path of the shaft for coöperating therewith to rotate the same at the initial movement of the carriage and for maintaining the clamp with its free edge toward and upon the stropping and honing member.

2. In a device of the character described, a frame having two side plates provided each with two longitudinal parallel slots therethrough, a carriage having two side members fitting astride of said plates for reciprocation, a shaft journaled in said side members in the carriage and projected transversely in the frame through the lower slots thereof, a blade carrier journaled in said carriage and spaced from the shaft, transmission means between the shaft and the blade carrier, whereby the blade carrier is rotated through the shaft, resiliently supported friction means mounted within the frame and in contact with the shaft, whereby as the carriage is reciprocated, said shaft is rotated, and a razor stropping and honing member mounted in the frame, between the shaft and blade carrier.

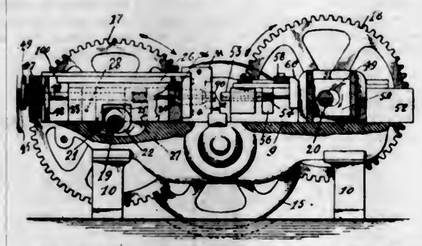
3. In a device of the character described, a frame having two side plates provided each with two longitudinal parallel slots therethrough, a carriage having two side members fitting astride of said plates for reciprocation, a shaft journaled in said side members in the carriage and projected transversely in the frame through the lower slots thereof, a blade carrier journaled in said carriage and spaced from the shaft, transmission means between the shaft and the blade carrier, whereby the blade carrier is rotated through the shaft, resiliently supported friction means mounted within the frame and in contact with the shaft, whereby as the carriage is reciprocated, said shaft is rotated, a flexible strop passed between the shaft and blade carrier and mounted within the frame, and a spring connecting the terminals of said strop to impart a resilient tautness to the strop.

4. In a device of the character described, a frame composed of two side plates and two transverse retaining plates, a carriage mounted for movement upon the side plates, a shaft carried by the carriage, a blade carrier also carried by the carriage and operably connected to the shaft, a resiliently supported member connected to the retaining plates and disposed longitudinally within the frame and for contact with the shaft whereby at the initial movement of the carriage in either direction, the shaft is rotated to project the blade carrier in an opposite direction to the movement of the carriage.

5. In a device of the character described, a frame composed of two side plates and two transverse retaining plates, a carriage mounted for movement upon the side plates, a shaft carried by the carriage, a blade carrier also carried by the carriage and operably connected to the shaft, a resiliently supported member connected to the retaining plates and disposed longitudinally within the frame and for contact with the shaft whereby at the initial movement of the carriage in either direction, the shaft is rotated to project the blade carrier in an opposite direction to the movement of the carriage, and a flexible honing and stropping member disposed around the retaining plates and between the shaft and blade carrier for receiving the cutting edge of the blade during the reciprocation of the carriage.

[Claims 6 and 7 not printed in the Gazette.]

1,209,501. APPARATUS FOR MANUFACTURING GRIP-NUTS. CHARLES RICHARD ROOF, Los Angeles, Cal. Filed Sept. 7, 1915. Serial No. 49,186. (Cl. 10—78.)



1. In a machine for making grip nuts, the combination of a frame, a die-box, a slide, means for reciprocating said slide, a crowner secured to said slide slidably mounted in said die-box, a cut-off tool coacting with said crowner, said crowner being provided on its face with an expanding rib and said cut-off tool being provided with a convex face whereby the nut is pressed into shape and expanded at its crowned end.

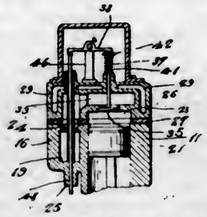
2. In a machine for making grip nuts, the combination of a frame, a die-box, a slide mounted thereon, means for reciprocating said slide, a crowner secured to said slide slidably mounted in said die-box, a cut-off tool, means for reciprocating said cut-off tool, said cut-off tool being adapted to coact with said crowner, said crowner being provided on its face with an expanding rib whereby the nut is pressed into shape and expanded.

3. In a machine for making grip nuts, the combination of a frame, a crowner provided with nut expanding means on its face mounted thereon, means for reciprocating said crowner, a cut-off tool having a convex face, means for reciprocating said cut-off tool, said cut-off tool coacting with said crowner to press and expand the nut.

4. In a machine for making grip nuts, the combination of a pair of reciprocating coacting devices adapted to cut-off a section of a metal bar and to press the same into the shape of a nut, to form a groove and to expand the upper end of the nut in one operation.

1,209,502. INTERNAL-COMBUSTION ENGINE. GEORGE B. ROYSA, Bloomington, Ind. Filed Feb. 9, 1916. Serial No. 77,257. (Cl. 123—84.)

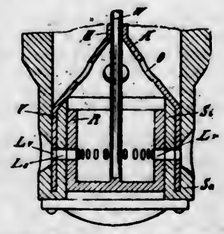
1. In an internal combustion engine, a cylinder head having a cavity in the lower portion thereof constituting a combustion chamber and adapted to register with the bore of an engine cylinder, said head having L-shaped inlet and exhaust chambers therein; and ports connecting said chambers with said combustion chamber, outwardly closing valves adapted to close said ports, stems carried by said valves projecting upwardly through said head, a shaft, rocker arms pivotally mounted upon said shaft and adapted to engage and operate said valve stems, and push rod sections engaged with said rocker arms and extending downwardly through said cylinder head and said L-shaped chambers.



2. In an internal combustion engine, a cylinder having an internal bore and laterally projecting hollow housing, partitions arranged in said housing dividing the latter into inlet and exhaust chambers, a head arranged over said cylinder having a cavity therein communicating with the bore of the cylinder, and L-shaped chambers communicating at one end with the inlet and exhaust chambers in said housing and communicating at their opposite ends with said combustion chamber by ports formed in the upper wall of said combustion chamber, outwardly closing valves adapted to close said ports, stems carried by said valves extending upwardly through said cylinder head, a shaft, rocker arms pivotally mounted upon said shaft and adapted to actuate said valve stems, and push rod sections engaged with said rocker arms and extending downwardly through the L-shaped chambers in the head and the inlet and exhaust chambers in the housing.

3. A cylinder head adapted for connection with the cylinder of an internal combustion engine having a bore and lateral inlet and exhaust chambers, said cylinder head having a cavity in the lower portion thereof constituting a combustion chamber adapted to register with the bore of the cylinder, said head having L-shaped inlet and exhaust ports therein communicating with the inlet and exhaust chambers of the cylinder, and ports connecting the last-mentioned chambers with said combustion chamber, outwardly closing valves adapted to close the ports in said head, a shaft, rocker arms pivotally mounted upon said shaft adapted to engage and operate said valves, tubular guides extending through and secured in the chambers in the cylinder and the cylinder head, and push rod sections slidably mounted in said guides and engaged with said rocker arms.

1,209,503. SUBAQUEOUS MOTOR-DRIVEN SIREN WITH INTERNAL ROTOR. FERDINAND SCHENKELBERGER, Kiel, Germany. Filed Mar. 31, 1914. Serial No. 828,627. (Cl. 116—18.)



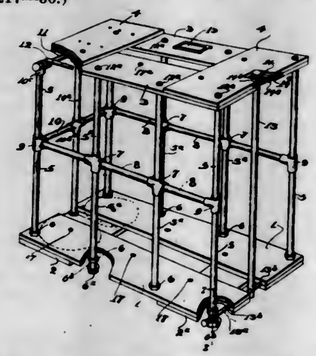
1. A subaqueous motor-driven siren comprising a casing, a rotor arranged within said casing, an internal and

an external stator forming one piece, a valve for giving signals guided between the internal and external stator and having sound openings at one end corresponding to and coöperating with like openings of the double stator and of the rotor, the rotor being surrounded by the said double stator and the valve, and the valve being contained in the inside of the said casing and having rotating means within said casing enabling the valve to be rotated from a distant place.

2. Subaqueous motor-driven siren comprising a casing, a rotor arranged within said casing, a stator, a valve for giving signals which is formed at one end in the shape of a cylinder perforated by sound openings corresponding to and coöperating with like openings of the stator and of the rotor, the rotor being surrounded by the stator and the valve, an annular groove in the said stator which is closed at the bottom and into which the cylinder shaped end of the valve is movably fitted, the entire valve being contained in the inside of the said casing and having a hollow rotating shaft surrounding the shaft of the rotor.

3. Subaqueous motor-driven siren comprising a casing, a rotor arranged within said casing, a stator, a valve for giving signals which is formed at one end in the shape of a cylinder perforated by sound openings corresponding to and coöperating with like openings of the stator and of the rotor, the rotor being surrounded by the stator and the valve, the stator being formed in the shape of an internal and an external ring joined at their bottom ends so as to form an annular space into which the cylinder shaped end of the valve is movably fitted, the entire valve being contained in the inside of the said casing and having a hollow rotating shaft surrounding the shaft of the rotor, and the said external ring of the stator joining directly on to the casing.

1,209,504. SPOOL-CRATE. WALTER SHARPE, Providence, R. I. Filed Aug. 20, 1915. Serial No. 46,570. (Cl. 217—36.)



1. A spool crate comprising a base, vertical rods connected to the base and forming the sides and rear of the crate, lock nuts securing said rods to said base, horizontal rods connected to the vertical rods by couplings intermediate the ends thereof, a pintle bar rotatably mounted in the upper ends of the rear rods, a cover having one end hinged to the pintle bar, a second pintle bar in the forward end of the base, a front rod having its lower end connected to the said pintle bar, means carried by the cover and coöperating with the front rod to hold the same closed.

2. A spool crate comprising a base formed of longitudinally and transversely extending members, vertical rods connected to the base by lock nuts forming the rear and sides of the same, four-way couplings connected to the vertical rods intermediate the ends thereof, horizontal rods connected to the vertical rods by said couplings, a pintle bar journaled in the upper ends of the rear rods, a cover hinged to the pintle bar, a second pintle bar secured to the forward end of the base, a rod pivoted centrally to said pintle bar, and means to hold said cover connected to the upper end of the pivoted rod.

3. A spool crate comprising a base consisting of two longitudinally extending members connected by transversely extending cross members, vertical rods connected to the base forming the sides and rear of the crate, said vertical rods connected to the base by lock nuts, horizontal rods connected to the vertical rods intermediate their ends, a pintle bar in the upper ends of the rear rods, a cover hingedly secured to the pintle bar, a second pintle bar secured transversely across the forward end of the base, a pivoted rod connected centrally to the second pintle bar, and means carried by the cover coöperating with the pivoted rod for removably securing the cover closed.

4. A crate comprising a base consisting of a pair of longitudinally extending members having secured on their under face transversely extending cross members, a plurality of vertical rods secured to said base forming the sides and rear of the crate, a pintle bar secured to the base at its forward end at a point below the plane of its upper surface thereof, a front end rod pivotally secured at its lower end to the central portion of the pintle bar, a second pintle bar secured to the upper ends of the rear rod, a cover hingedly secured to the second pintle bar, and means for securing the cover to the upper end of the front rod.

5. A spool crate comprising a base having openings, sleeves mounted within the openings, said sleeves being smaller in diameter than the openings, side and rear end rods having their lower ends positioned in the sleeves, retaining means carried by the rods and engaging the base, a cover pivotally secured to certain of said rods, a front end rod pivotally secured to the base and means for securing the cover and front end rod in closed position.

1,209,505. WELL-FLOWING DEVICE. EDWARD J. SINCLAIR, New Kensington, Pa. Filed Aug. 10, 1915. Serial No. 44,796. (Cl. 103—67.)



1. In a well flowing mechanism, a delivery pipe, a plurality of pressure actuated valves therein, said valves having openings communicating with the delivery pipe and openings communicating with the well-casing, said valves automatically operated as said fluid reaches them.

2. A well flowing mechanism, comprising a delivery pipe, a series of pressure actuated valves therein, said valves comprising a casing, a member reciprocally mounted therein, the said member having two compartments, one communicating with the delivery pipe and the other compartment communicating with the well-casing, the said members reciprocated as the fluid under pressure reaches them.

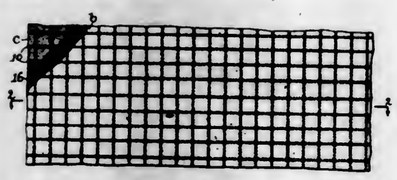
3. A well flowing mechanism, comprising a delivery pipe, a series of actuated valves therein, said valves comprising a hollow casing communicating at the upper and lower ends with the delivery pipe, a reciprocating member within the said casing, the said member having two chambers, an opening in the wall of one chamber, a plurality of by-pass channels in the casing, the said opening adapted to communicate with the said channels when the member is in its uppermost position, and means for supplying air under pressure to the other chamber of the member for the purpose described.

4. A well flowing mechanism comprising a delivery pipe, a series of pressure actuated valves therein, said valves comprising a hollow casing, a member reciprocally mounted therein, the said member comprising two chambers, one chamber communicating with the delivery pipe, the other chamber communicating with the well-casing, the last named chamber having a reduced opening communicating with the delivery pipe, the parts arranged as and for the purpose described.

5. A well flowing mechanism comprising a delivery pipe, a series of pressure actuated weighted valves therein, said valves comprising a hollow casing communicating at its upper and lower ends with the delivery pipes, a reciprocating member mounted therein, said member comprising two chambers, the lower chamber communicating with the delivery pipe, an opening in the said chamber, a plurality of by-pass channels in casing, said opening and channels adapted to communicate when the reciprocating chamber is in its uppermost position, whereby the fluid in the delivery pipe is by-passed from the lower chamber to the section of the delivery pipe above the upper chamber, and means for supplying air to the upper chamber for the purpose described.

[Claims 6 to 11 not printed in the Gazette.]

1,209,506. FLEXIBLE COMPOSITE SHEET AND METHOD OF MAKING THE SAME. FRANK O. SMALL, Boston, Mass. Filed Mar. 17, 1916. Serial No. 84,959. (Cl. 154—40.)



1. A flexible composite sheet comprising layers of fibrous material, an interposed layer of material in a loosely divided nonadhesive state, which is capable of being converted into a substantially rigid layer by heat and cold, and means for securing said fibrous layers together and said interposed layer in practically fixed position with relation to said fibrous layers, while the greater portion of the interposed layer remains in its non-adhesive condition.

2. A flexible composite sheet comprising layers of fibrous material, and an interposed layer of material in a loosely divided state which is capable of being converted into a substantially rigid layer by heat and cold, and means for sub-dividing said loosely divided material between said fibrous layers.

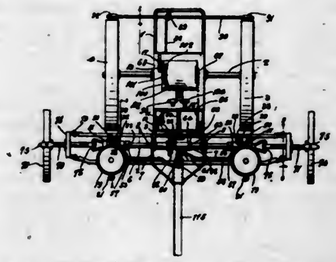
3. A flexible composite sheet comprising layers of fibrous material, and an interposed layer of shellac in a loosely divided nonadhesive state, and means for securing said fibrous layers together to form cells between them in which the loose shellac is confined.

4. A flexible composite sheet comprising layers of fibrous material, and an interposed layer of shellac having portions cemented to said fibrous layers to secure them together and to form cells in which other portions of said shellac layer are confined in a loosely divided state.

5. A flexible composite article comprising layers of non-metallic material, and an interposed layer of material in a loosely divided state and capable of coalescing under heat, said layers of non-metallic material having portions cemented together by portions of said interposed layer while other portions of the latter are in their loosely divided state.

[Claims 6 to 9 not printed in the Gazette.]

1,209,507. CORN-PLANTER. CHARLES H. SMALLWOOD, Independence, Mo. Filed Mar. 29, 1916. Serial No. 87,493. (Cl. 111—6.)



1. In a corn planter structure, the combination, of a supporting frame, seed dispensing means carried by said supporting frame, a pivoted pawl for controlling the dispensing of seeds, a lever pivotally connected to said supporting frame, said lever being operatively connected to said pivoted pawl, a shaft rotatably supported by said frame, a cam mounted upon said shaft and provided for engagement with said pivoted lever for rocking the lever for operating said pivoted pawl, said cam having two faces of unequal circumference for regulating the operation of said pawl for regulating the number of seeds deposited upon each operation of the pawl.

2. In a corn planter structure, the combination, of a supporting frame, seed dispensing means carried by said supporting frame, a pivoted pawl for controlling the dispensing of seeds, a lever pivotally connected to said supporting frame, said lever being operatively connected to said pivoted pawl, a shaft rotatably supported by said frame, a cam mounted upon said shaft and provided for engagement with said pivoted lever for rocking the lever for operating said pivoted pawl, said cam having two faces of unequal circumference for regulating the operation of said pawl for regulating the number of seeds deposited upon each operation of the pawl, and manually operable means for shifting said cam upon said shaft, furrow opening shoes carried by said frame, a grain guiding and delivering spout carried by said furrow opening shoes, a valve positioned in the lower end of said spout for controlling the delivery of seeds therefrom, and a cam mounted upon said shaft for operating said valve.

3. In a corn planter structure, seed dispensing means carried by said frame and including a rotary seed dropping plate, a pivotally mounted pawl for operating said rotary seed dropping plate, a lever pivotally carried by said supporting frame and operatively connected to said pawl, a shaft rotatably supported by said frame, a cam slidably mounted upon said shaft and adapted for engagement with said pivoted lever for rocking the lever for operating said pivoted pawl for rotating said seed dropping plate, stub axles connected to the ends of said shaft by means of universal joints, supporting wheels mounted upon said stub axles for rotating the axles and said shaft upon travel of the planter.

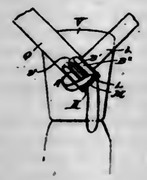
4. In a corn planter structure, a supporting frame, a seed dispensing mechanism carried by said frame, a shaft for operating said seed dispensing mechanism, a furrow opening shoe carried by said frame, a seed guiding and delivering spout carried by said furrow opening shoe, a pivoted valve mounted in the lower end of said spout, a rod connected to said valve, a cam lever pivotally carried by said frame and connected to said rod, a cam mounted upon said shaft for rocking said lever to operate said valve, an operating rod for said seed dispensing mechanism, a lever pivotally carried by said frame and

connected to said rod for operating the seed dispensing mechanism upon rocking of the lever, a multiple face cam carried by said shaft, one end of said last mentioned lever engaging one of the faces of said cam for rocking the lever during rotation of said shaft.

5. In a corn planter structure, a supporting frame, a seed dispensing mechanism carried by said frame, a shaft for operating said seed dispensing mechanism, a furrow opening shoe carried by said frame, a seed guiding and delivering spout carried by said furrow opening shoe, a pivoted valve mounted in the lower end of said spout, a rod connected to said valve, a cam lever pivotally carried by said frame and connected to said rod, a cam mounted upon said shaft for rocking said lever to operate said valve, an operating rod for said seed dispensing mechanism, a lever pivotally carried by said frame and connected to said rod for operating the seed dispensing mechanism upon rocking of the lever, a multiple face cam carried by said shaft, one end of said last mentioned lever engaging one of the faces of said cam for rocking the lever during rotation of said shaft, said cam and said multiple face cam being arranged so that said dispensing mechanism operating lever will be operated when said valve is in a closed position.

[Claims 6 to 16 not printed in the Gazette.]

1,209,508. BAND-HOLDER FOR NECKTIES. THOMAS C. SPELLING, New York, N. Y. Filed May 29, 1916. Serial No. 100,721. (Cl. 2—11.)

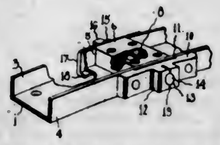


1. A tie fastener of the class described, comprising in combination with a tie and neckband, a plate having thread holes for insertion in one end of the neckband attached to the tie, and a fastener having thread holes therein in registration with those in said plate to receive the same threads for fastening, said fastener having bars extending therefrom, said bars being in close parallel relation, and said bars having the adjacent faces beveled to frictionally grip the free end of the neckband therebetween.

2. A tie fastener of the class described, comprising in combination with a tie and neckband, a plate having thread holes formed therein for insertion in one end of the neckband, a fastener comprising a base, bars extending from said base in close parallel relation, said base and one of said bars having thread holes formed therein in registration with the thread holes in said plate to receive the fastening threads for said fastener, plate and the end of the neckband to the tie, said bars having the adjacent faces beveled to frictionally grip the free end of the neckband by being laced therebetween, one of said bars having its face adjacent to said plate formed in a series of projections, another of said bars being bent forwardly of the other bars, said forwardly bent bar serving to bind the neckband against the end of said plate and to aline the two ends of the neckband, and a resilient tongue formed on the lower edge of said base to hold the end of the neckband after it has been passed between said bars.

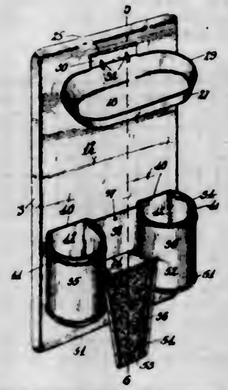
1,209,509. DEMOUNTABLE RIM. FRANK SPRANGER and NICHOLAS M. SPRANGER, Detroit, Mich., assignors to Spranger Rim and Wheel Co., Detroit, Mich., a Corporation of Michigan. Filed Sept. 30, 1915. Serial No. 53,588. (Cl. 152—21.)

1. The combination of a fixed channel rim, a demountable rim adapted to fit thereon, spaced members carried by said demountable rim adapted to extend into said fixed channel rim with the ends of each member abutting the inner walls of said fixed channel rim, clips at the outer side of said fixed channel rim, clamping members on the inner side of said fixed channel rim, fastening means for said clamping members fixed to said rim at the sides of said spaced members, said clamping members having central yieldable boss portions, and bolts adapted to extend through said clips and said spaced members and engage between said boss portions to spring said boss portions toward said rim so that said bolts will become automatically locked therebetween by turning said bolts against said clips.



2. In a wheel, a fixed channel rim, clamping members at the inner side of said fixed channel rim, fastening means connecting said clamping members to said fixed channel rim and protruding therein, a demountable rim adapted to fit on said fixed channel rim, members carried by said demountable rim and adapted to fit in said fixed channel rim, between the fastening means of said clamping members, and bolts extending through said fixed channel rim and said members into said clamping members.

1,209,510. MATCH-SAFE. JOHN A. STABEL, Buffalo, N. Y. Filed Apr. 22, 1915. Serial No. 23,262. (Cl. 206—30.)



1. A match safe comprising a support, holding means for holding a safety-match box; combined with an auxiliary match safe having two match receptacles spaced apart and connected by a member adapted to coöperate with said holding means whereby said auxiliary match safe may be substituted for a safety-match box.

2. A convertible match safe comprising a suitable support formed of sheet metal, a holder also formed of sheet metal secured to said support near its lower end and being spaced therefrom to permit a safety-match box to be held thereon; combined with an auxiliary match safe adapted to be substituted for the safety-match box, said auxiliary match safe comprising two spaced receptacles connected by a retaining wall adapted to fit behind said holder.

3. A match safe comprising a support having slits formed therein near its lower end, a holder formed of sheet metal stamped to provide two vertically-disposed parallel members connected at their upper ends by a horizontal member, the lower ends of the vertically-disposed members terminating in two horizontal members provided with clench ears adapted to be passed through said slits to secure the holder to the front face of said support, the clench ears of one of said horizontal members being spaced from those of the other to brace said holder.

4. A match safe comprising a support having a transverse slot provided with a V-shaped notch in its lower edge, a receptacle for burned matches secured to said support and provided with an extension at its upper edge having a rebent portion adapted to be passed through said slot, said extension having a vertically-disposed rib at the point of its connection to the body of said receptacle and the latter being adapted to be placed with its open end against said support and its extension entered in said slot so that said rib enters the V-shaped notch of said slot.

5. A match safe comprising a support, a holder secured to said support and spaced therefrom, a pair of spaced match receptacles connected by an intermediate wall adapted to fit behind said holder, and a match scratch arranged between said receptacles in advance of said intermediate wall.

[Claims 6 to 9 not printed in the Gazette.]

1,209,511. SHIPPING-CASE-COVER-SEALING FASTENER. HARRISON L. STALEY, Martinsville, Ind., assignor to Richmond Cedar Works, Richmond, Va., a Corporation of Virginia. Filed June 16, 1913. Serial No. 773,881. (Cl. 70—80.)



1. An improved sealing fastener appliance comprising two wire sections that are each bent to form a loop, the sections being adapted to be connected to a receptable body, and a connecting and sealing device composed of a sheet metal plate bent over at two portions and constituting a tie portion having two loops adapted to be connected to the respective loops of the wire sections, the device having two end portions adapted to be superimposed on the tie portion, portions of the metal of the tie portion and the two end portions of said device being adaptable for non-detachable locking engagement each with the other.

2. In a sealing fastener, the combination with a plurality of fastening wires having each a loop, of a connecting and sealing device formed of a sheet metal plate bent over at two portions and constituting a tie portion having two loops connected to the respective loops of the wires, the device having end portions superimposed on the tie portion, one end portion being fixedly and nondetachably locked to the tie portion and also to the remaining end portion.

1,209,512. PROCESS FOR PRODUCING FATTY ACIDS OF HIGH PURITY AND MELTING-POINT. JOEL STARRELS, New York, N. Y. Filed Mar. 1, 1916. Serial No. 81,336. (Cl. 87—12.)

1. The process of making white fatty acids suitable for the manufacture of high grade toilet soaps which comprises hardening a liquid oil, separating the fatty acid by twitchellizing and subjecting such fatty acid to the action of solvent material capable of removing the unsaponifiable matter formed during the hardening operation.

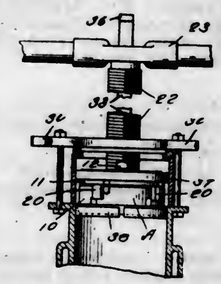
2. The process of making fatty acids suitable for the manufacture of high grade toilet soaps which comprises subjecting a liquid fatty glycerid to the action of hydrogen in the presence of nickel whereby the liquid glycerid is converted into a solid glycerid, in forcing the hydrogenation to almost completely reduce the iodin number to zero; whereby hydrocarbon bodies and coloring matters are formed, in subjecting the resulting hard glycerid to a fat splitting process whereby the glycerin is separated from the fatty acids and in eliminating the hydrocarbons and coloring matter formed by the hydrogenation stage whereby pure fatty acids of high melting point are obtained.

3. The process of making stearic acid, light in color, suitable for the manufacture of candles, which comprises subjecting a liquid fatty glycerid to the action of hydrogen in the presence of nickel whereby the liquid glycerid is converted into a solid glycerid, in forcing the hydrogenation to almost completely reduce the iodin number to zero whereby hydrocarbon bodies and coloring matters are formed, in subjecting the thus obtained fatty glycerid to a fat splitting process whereby the glycerin is separated from the fatty acids, and in eliminating the hydrocarbons and coloring matters formed by the hydrogenation stage whereby pure fatty acids of high melting point and good color are obtained.

4. The process of making stearic acid suitable for the manufacture of candles or high grade toilet soaps which comprises subjecting an unsaturated solid fat or semi-solid fat such as tallow or grease to the action of hydrogen in the presence of finely divided nickel whereby the unsaturated fat is saturated with hydrogen, thereby reducing its iodin number to zero, or very near it, and raising its melting point to around 62° C. or thereabout, whereby hydrocarbon bodies and coloring matters are produced, and in subjecting the fatty glycerid thus obtained to a fat splitting process, thereby separating the glycerin from the fatty acids and in removing the coloring matter formed by the hydrogenation stage whereby pure fatty acids of high melting point and good color are obtained.

5. The process of making fatty acids adapted for use in the manufacture of high grade toilet soaps, candles and the like, which comprises hydrogenating a fatty oil containing unsaturated material, separating the fatty acid by twitchellizing, subjecting such fatty acid to the action of volatile solvent material capable of dissolving impurities and in removing the solvent material with such impurities.

1,209,513. BORING-MACHINE. ADOLPH STORM and EDWARD C. O'HAIR, Thompson, Iowa, assignors to Storm and O'Hair Company, a Copartnership consisting of Oscar W. Nelson and Edward C. O'Hair, Thompson, Iowa. Filed Jan. 5, 1916. Serial No. 70,451. (Cl. 77—2.)

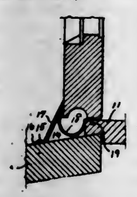


1. In a boring machine of the class described, a cutter head comprising a pair of sections arranged end to end, locking screws for clamping said sections together, said sections being provided with alined longitudinal threaded passages, one of said sections having its inner end provided with a plurality of radial grooves, cutters adjustably mounted in said grooves and having beveled inner end portions, a tapered adjusting member threaded in one of said longitudinal passages and coacting with the beveled inner ends of the cutters to force the latter outwardly

when said member is rotated in one direction, and a tubular thread bar engaged in the other longitudinal passage and through the bore of which the adjusting member extends.

2. In a boring machine of the class described the combination of a head having a longitudinally threaded passage therein adapted to receive a thread bar, one of the ends of said head being circumferentially beveled to receive a correspondingly beveled lead ring, and cutters adjustably mounted in said head.

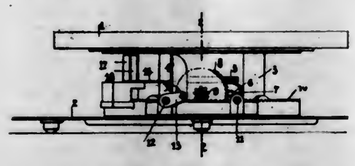
1,209,514. WEATHER-GUARD. ARTHUR BURNSIDE STURGES, Los Angeles, Cal. Filed Oct. 25, 1915. Serial No. 57,721. (Cl. 20—69.)



1. A window guard formed of a single strip of resilient sheet metal of a length to guard the desired portion of the window, said metal at one edge being formed to fit upon and along the window frame adjacent the outer surface of the sash when in its closed position, and to be secured to said frame, said metal then being bent on a slant to a little beyond the outer edge of the sash when in its closed position, said metal then being bent downwardly and inwardly and upwardly to the plane of the inner portion of the frame and then bent inwardly and secured to said frame.

2. A window guard formed of a single strip of resilient metal of a length to guard the bottom of the window, said metal at one edge being formed to fit upon and be secured to the window sill adjacent to the outer surface of the sash when in its closed position, said metal then being bent upwardly on a slant inwardly to a point a little above and inwardly of the outer edge of the bottom of the sash when closed, said metal then being bent downwardly and inwardly and then upwardly and inwardly to the outer edge of the window stool, said metal then being bent to be secured to the window stool.

1,209,515. APPARATUS FOR MARKING OFF THE LOWER PARTS OF SKIRTS. JOSEPH JEAN BAPTISTE TARTARA, Aix-Les-Bains, France. Filed Aug. 19, 1913. Serial No. 785,552. (Cl. 33—10.)



1. In a skirt marker, a stationary draping platform, a marking apparatus rotatable around the same, and comprising an abutment drum lying within the skirt and bearing against the same, means for positively rotating said drum during the operation of the apparatus and a marker adapted to bear against the outer face of the skirt opposite said drum, substantially as described.

2. In a skirt marker, a stationary draping platform, a marking apparatus rotatable around the same, and comprising an abutment drum lying within the skirt and bearing against the same, and a marker adapted to bear against the outer face of the skirt opposite said drum, in combination with means for positively driving said abutment drum at a peripheral speed such that the material is maintained quiescent at the marking point and pulling is avoided, substantially as described.

3. In a skirt marker, a stationary draping platform, a marking apparatus rotatable around the same, and comprising an abutment drum lying within the skirt and bearing against the same, means for positively rotating said drum during the operation of the apparatus, a marker adapted to bear against the outer face of the skirt opposite said drum, and means to intermittently interrupt the bearing of said marker against the material, substantially as described.

4. In a skirt marker, a stationary draping platform, a marking apparatus rotatable around the same, and comprising an abutment drum lying within the skirt and bearing against the same, means for positively rotating the same during the operation of the apparatus, a marker adapted to bear against the outer face of the skirt opposite said drum, and means for rotating said marker at a different peripheral speed from the drum, substantially as described.

5. In a skirt marker, a stationary draping platform, marking apparatus rotatable around the same, and comprising an abutment drum lying within the skirt and bearing against the same, means for positively rotating the same during the operation of the apparatus, and a rotatable marker adapted to bear against the outer face of the skirt opposite said drum, together with a scraper mounted on the apparatus and bearing against the marker to maintain the working edge of said marker sharp.

[Claim 6 not printed in the Gazette.]

1,209,516. TOOTH-BRUSH. CHARLES E. THOMPSON, Troy, N. Y., assignor of one-half to Francis H. Wager, Troy, N. Y. Filed Oct. 19, 1915. Serial No. 56,671. (Cl. 15—39.)



1. A rubber tooth brush having a series of acute angle, triangular, prism-shaped prongs arranged in rows running lengthwise of the body thereof, and having their flat, tapering sides set transversely thereto.

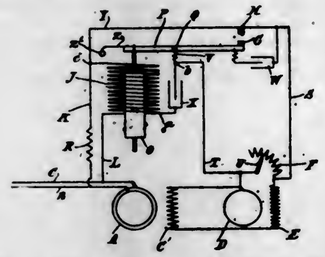
2. A tooth brush comprising a handle; a rubber tube having at one end a restricted neck, one of the walls of the cavity through the tube straight and parallel to the axis of the tube on the inner side and concave on the outer side; and a series of prongs on the said concave surface of the tube, said prongs sharpened at one end and differing in diameter gradually from their base to the sharpened end, substantially as described.

3. A rubber tooth brush having a longitudinal cavity in its body adapted to receive the end of a supporting handle and having one of the walls of the cavity straight parallel to the axis of the tubular body on its inner side and concave on its outer side, said concave side having a series of wedge-shaped prongs projecting therefrom, substantially as described.

4. A hollow-bodied rubber tooth brush having wedge-shaped prongs integral with the body thereof and projecting from a concaved face, having its inner surface a plane parallel with the upper or opposite wall of the chamber, or hollow interior of the brush body.

5. A rubber tooth brush having a longitudinal chamber in its body, and provided with two or more rows of acute angle, triangular, prism-shaped prongs running lengthwise, with their flat sides set crosswise of, and projecting from one side of the brush body and being integral therewith, combined with a handle having its supporting end inserted in the chamber in the brush body.

1,209,517. ELECTRIC REGULATOR. LOUIS WILLARD THOMPSON, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 26, 1915. Serial No. 10,694. (Cl. 171—229.)



1. The combination with an alternating current circuit to be regulated, of a regulator comprising electro-responsive means, responsive to a departure from a desired condition, for restoring said desired condition, and means comprising a condenser for impressing an oscillatory current upon said electro-responsive means.

2. The combination with an alternating current circuit to be regulated, of a regulator comprising electro-responsive means, responsive to a departure from a desired condition for restoring said desired condition, an oscillatory circuit controlled by the regulator and including said electro-responsive means for impressing an oscillatory current upon said electro-responsive means.

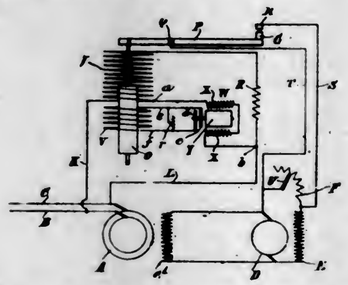
3. The combination with an alternating current circuit to be regulated, of a regulator comprising electro-responsive means, responsive to a departure from a desired condition, for restoring said desired condition, and an oscillatory circuit controlled by the regulator for modifying the restoring action of said regulator.

4. The combination with an alternating current circuit to be regulated, of a regulator comprising an electro-responsive device and an oscillatory circuit adapted to be closed by said regulator, for influencing and modifying the action of said electro-responsive device.

5. The combination with an alternating current generator and its circuit to be regulated, of an electro-magnet responsive to the voltage in said circuit, contacts controlled by said magnet for regulating the voltage of the generator, and a condenser shunting the magnet and controlled by said contacts.

[Claims 6 to 18 not printed in the Gazette.]

1,209,518. ELECTRIC REGULATOR. LOUIS WILLARD THOMPSON, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 26, 1915. Serial No. 10,695. (Cl. 171—229.)



1. The combination with an alternating current circuit to be regulated, of a regulator comprising electro-responsive means responsive to a departure from a desired circuit condition, for restoring said desired condition, and means for constantly subjecting said electro-responsive means to an alternating current of very low frequency compared to the frequency of the circuit to be regulated.

2. The combination with an alternating current circuit to be regulated, of a regulator comprising electro-responsive means responsive to a departure from a desired circuit condition, for restoring said desired condition, and means for continuously subjecting said electro-responsive means to a substantially constant alternating current of lower frequency than that of the circuit to be regulated.

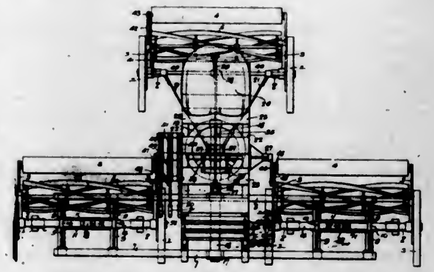
3. The combination with an alternating current circuit to be regulated, of a regulator comprising electro-responsive means responsive to a departure from a desired circuit condition, for restoring said desired condition, a constantly operative source of current of lower frequency than that of the circuit to be regulated, and connections for continuously impressing said low frequency current upon the said electro-responsive regulating means, and thereby influencing and modifying the action of said electro-responsive means.

4. The combination with an electric circuit to be regulated, of a regulator comprising a fixed contact, a movable contact associated therewith, a coil responsive to an electrical condition of said circuit, a core for said coil controlling said movable contact, and electromagnetic means, the control of which is independent of the regulator, for continuously imparting a vibratory force in said core.

5. In a regulator, the combination of an electro-responsive device, means for impressing variable alternating current of a given frequency upon said device, means for continuously impressing a substantially constant alternating current of lower frequency upon said device, and regulating means controlled by said device.

[Claims 6 to 12 not printed in the Gazette.]

1,209,519. COMBINATION-MOWER. SAMUEL P. TOWNSEND, Orange, N. J. Filed May 29, 1914. Serial No. 841,861. (Cl. 56—19.)



1. A lawn mowing machine, having rows of mowers, each of said mowers comprising a rotary cutter and a coacting cutter bar, and a frame carried solely by said mowers and having a unitary pivoted connection for the several rows of mowers located back of one row of mowers and in advance of the next row, said connection enabling one row of mowers to assume and operatively maintain a different horizontal angle from the other.

2. A lawn mowing machine, having rows of mowers, each of said mowers comprising a rotary cutter and a coacting stationary cutter bar, and a horizontal unitary fifth wheel structure for the several rows of mowers, said structure being located back of one row of mowers and in advance of the next row, said fifth wheel enabling one row of mowers to assume and operatively maintain a different horizontal angle from the other.

3. A lawn mowing machine having in combination a frame; a plurality of longitudinally alined mowers attached to said frame in position to leave an uncut swath between them; a third mower connected to the frame in rear of the first named mowers so as to cut said swath; and a fifth-wheel structure located substantially midway

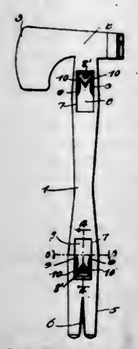
of the front and rear rows of mowers to enable one row of mowers to assume and operatively maintain a different horizontal angle from the other, said frame being carried solely by the mowers and each of said mowers comprising a rotary cutter and a co-acting stationary cutter bar.

4. The combination in a mowing machine of a frame; two mowers attached to the frame in position to leave an uncut swath between them; a third mower attached to the frame in position to cut such swath; and a fifth-wheel between the third mower and the frame and located substantially midway of the rows of mowers.

5. The combination in a mowing machine of a frame; two mowers attached to said frame in line with each other but spaced apart; a fifth-wheel connected to the frame in the rear of said mowers; and a third mower attached to the frame through said fifth wheel.

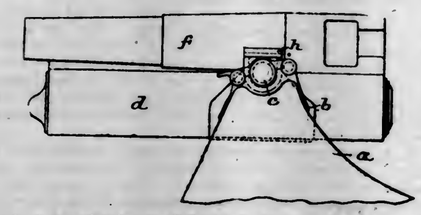
[Claims 6 to 16 not printed in the Gazette.]

1,209,520. BOX AND CRATE OPENER. DAVID VICTOR, St. Louis, Mo. Filed June 1, 1916. Serial No. 101,148. (Cl. 254—25.)



A tool of the class described having a handle flat on its opposite sides and provided with a longitudinally extending rectangular opening therein, a relatively thin tongue extending into said opening from one end wall thereof, the bottom of said tongue being in the plane of the bottom of the handle, the inner edge of the tongue being V-shaped with the apex therein extending inwardly, said tongue being less than one-half the length of said opening, and wings of a thickness equal to that of the tongue formed on the side walls of said opening adjacent each side of said tongue, the inner edges of said wings being arcuate, thereby forming diverging notches between the edges of said tongue and said wings, said wings being substantially equal in length to one-half the length of said opening, the edges of said wings and the tongue being inclined downwardly.

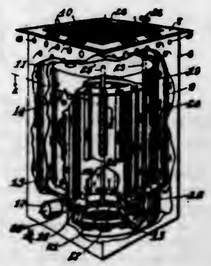
1,209,521. GUN WITH SLIDING BARREL. KARL VÖLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Oct. 16, 1913. Serial No. 795,556. (Cl. 89—37.)



1. A gun having a sliding barrel, a cradle therefor, a pivoted member for said cradle, said barrel having a sliding movement relatively to said cradle and pivoted member, and bearings for the barrel, independent of said cradle, located adjacent to and in the same vertical plane with the pivots of said member, said bearing being designed to partially support said barrel when the latter is at rest.

2. A gun having a sliding barrel, a cradle therefor, a carrier for the cradle having trunnions, bearings for said trunnions, said carrier having projections adjacent to said trunnions, and claws extending laterally from the barrel for engaging said projections when the barrel is at rest.

1,209,522. HOT-BLAST FURNACE. RAYMOND H. VONDENBOSCH, Hollywood, Cal. Filed Dec. 14, 1915. Serial No. 66,687. (Cl. 126—116.)



1. A heating device, comprising a housing forming a combustion chamber having a relatively large air inlet, a fuel burner mounted adjacent said air inlet, an air housing spaced from said combustion chamber housing and forming therewith an air heating chamber adapted to be connected to a room for indirect heating of air, means disposed adjacent the fuel burner placing the combustion chamber and air heating chamber in communication and providing for direct heating of air, and means for the exit of burnt gases communicating with said combustion chamber and closed from said air heating chamber.

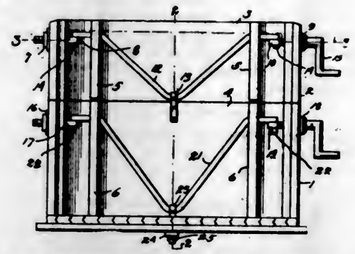
2. A heating device, comprising a housing forming a combustion chamber having a relatively large air inlet, a fuel burner mounted in said combustion chamber adjacent said air inlet, an air housing spaced from said combustion chamber housing and forming therewith an air heating chamber adapted to be connected to a room for indirect heating of air, ports in the combustion chamber housing disposed adjacent the fuel burner and connecting the combustion chamber and air heating chamber and providing for direct heating of air, and means for the exit of burnt gases communicating with said combustion chamber and closed from said air heating chamber.

3. A heating device, comprising a housing forming a combustion chamber having a relatively large air inlet, a fuel burner mounted in said combustion chamber adjacent said air inlet, ports in said combustion chamber housing adjacent the fuel burner, a second housing surrounding said combustion chamber and forming therewith an air heating chamber for indirect heating of air, tubes for the burnt gases disposed in the air heating chamber and communicating with said combustion chamber, openings in the second housing for the admission and outlet of air to the air heating chamber for indirect heating of air, and a flue for the exit of burnt gases communicating with said tubes.

4. A heating device, comprising a base provided with an annular smoke box and a combustion chamber opening at the center, a burner in said combustion chamber, a combustion chamber housing mounted on said base and having air outlet openings adjacent the base, an air heating chamber housing mounted on the base and spaced from said combustion chamber housing and provided with openings adjacent the base and the top, tubes disposed in the chamber formed between said combustion chamber housing and air heating chamber housing for the passage of burnt gases from the combustion chamber to the smoke box, and a flue for the exit of burnt gases communicating with said tubes.

5. A heating device, comprising a base provided with an annular smoke box and combustion chamber opening at the center, a burner in said combustion chamber, a cylindrical combustion chamber housing open at the upper and lower ends and mounted on said base and having air outlet openings in the walls thereof adjacent the base, a cylindrical air heating chamber housing mounted on the base and spaced therefrom and closed at the upper end provided with openings adjacent the base and the top, a ring disposed at the top of the combustion chamber housing completing an annular air heating chamber, tubes disposed between said ring and said smoke box in the air heating chamber for the passage of burnt gases, and a flue for the exit of burnt gases connected to said smoke box.

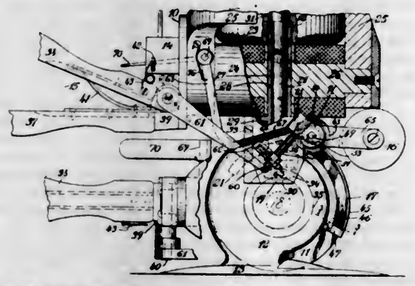
1,209,523. END-GATE FASTENER FOR WAGONS. JAMES W. WAGGONER, Mountain View, Okla. Filed June 14, 1915. Serial No. 33,949. (Cl. 21—21.)



1. In an end gate fastener adapted to secure a pair of end gates in place, a V-shaped locking bar for the upper end gate, eyes engaging the ends of the locking bar and adjustably engaged with the side boards, a hook for securing the locking bar to the lower end gate, means for drawing the side boards in engagement with the lower end gate, and means for drawing the lower end gate in engagement with the bottom of the wagon.

2. In an end gate fastener adapted to maintain a pair of end gates in place on a wagon in superposed relation, means for drawing the upper side boards of the wagon tightly into contact with the ends of the upper end gate, means for drawing the lower side boards of the wagon tightly into engagement with the ends of the lower end gate, means for fastening the first mentioned means positively to the lower end gate and means for adjustably and positively fastening the last mentioned tightening means for the lower side boards of the wagon to the bottom of the wagon.

1,209,524. CLOTH-CUTTING MACHINE. EDWARD M. WARING, Brooklyn, N. Y. Filed July 22, 1914. Serial No. 852,415. (Cl. 164—76.)



1. The combination of a standard, a knife mounted thereon, a motor for driving said knife, a supporting member for said motor projecting through a portion of the same and means for clamping said supporting member to the said standard.

2. The combination of a standard, a knife, a motor for operating said knife, and comprising a field coil and core, supporting means for said motor, means for securing said field coil and core to the said supporting means and means for securing the latter to the said standard.

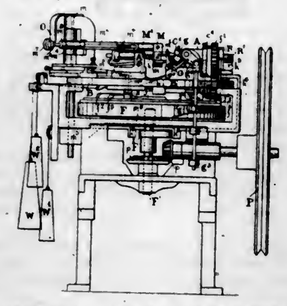
3. The combination of a standard, a knife, a motor for operating said knife and comprising a shaft, a field coil and core, a member disposed within the filed coil and core and adapted to receive the said motor shaft to support the motor, means for securing said field coil and core to the said member and means for securing the latter to the said standard.

4. The combination of a standard, a knife, a motor for driving said knife and comprising an armature, a vertically disposed armature shaft and a horizontal field coil and core, a bushing extending through said field coil and core and surrounding the said armature shaft, means for securing the field coil and core to the said bushing and means for securing the latter to the said standard.

5. The combination of a standard, a knife, a motor comprising an armature, an armature shaft and a field coil and core, said armature shaft extending downwardly through said field coil and core, and a sleeve clamped to said standard and extending upwardly through said field coil and core, and adapted to receive said armature shaft and to support said motor.

[Claims 6 to 31 not printed in the Gazette.]

1,209,525. APPARATUS FOR MAKING BOWS OR LOOPED KNOTS. CYRUS WEBB, Hazel Grove, England, assignor to The Hat Manufacturers Supply Company, Limited, Stockport, England. Filed Nov. 25, 1914. Serial No. 874,034. (Cl. 223—52.)



1. Apparatus for tying and forming small ornamental bows or looped knots from a strip of material comprising in its construction fixed means provided with a rotary arm having loop formers to fold the material into loops, sliding means movable toward the fixed means to form a knot around the loops and means to operate the loop formers.

2. Apparatus for tying and forming small bows or looped knots from a strip of material comprising in its construction a fixed headstock provided with a rotary arm with fingers or loop formers at the end thereof, and a sliding headstock carrying a rotary arm with fingers or loop formers at the end thereof and means to cause one headstock to approach the other and to effect a rotation in unison of the rotary arms with the fingers.

3. Apparatus for tying and forming small bows or looped knots from a strip of material comprising in its construction a fixed headstock provided with a rotary arm with fingers or loop formers at the end thereof, and a sliding headstock carrying a rotary arm with fingers or loop formers at the end thereof a rocking finger adjacent thereto to raise the material to form the second loop, and shears to sever the material when the loop is formed.

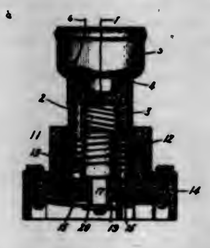
4. Apparatus for tying and forming small ornamental bows or looped knots from a strip of material comprising

in its construction fixed means provided with a rotary arm having loop formers to fold the material into loops, sliding means movable toward the fixed means for forming the knot, means for drawing one loop through the knot and tightening the knot around the loops, means for carrying away the finished bows and drawing forward the material for the next bow and means for severing the finished bow.

5. Apparatus for tying and forming small bows or looped knots from a strip of material comprising in its construction a fixed headstock carrying a rotary arm with fingers or loop formers at the end thereof, and a sliding headstock carrying a rotary arm with fingers or loop formers at the end thereof, a rocking finger adjacent thereto to raise the material to form the second loop, and a swinging arm and gripper to seize and carry away the finished bow and draw forward the next length of material.

[Claims 6 and 7 not printed in the Gazette.]

1,209,526. CURRENT CONNECTION FOR ELECTRIC LAMPS. FREDERICK H. WESTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 26, 1914. Serial No. 879,051. (Cl. 173—342.)



1. A connection comprising a socket or receptacle device having terminals with coacting screw threaded contact surfaces and a base or plug device for said socket having terminals with corresponding screw threaded contact surfaces, the terminals of one of said devices being movable relatively to one another.

2. A connection device comprising terminals with coacting screw threaded contact surfaces, said terminals being movable relatively to one another when coming into engagement with those of a corresponding connection device.

3. A connection device comprising terminals with coacting coaxial screw threaded contact surfaces, one of said terminals being axially movable by a corresponding connection device.

4. A socket or receptacle comprising terminals with coacting coaxial screw threaded contact surfaces of different diameters, said terminals being axially movable relatively to one another when coming into engagement with those of a corresponding base.

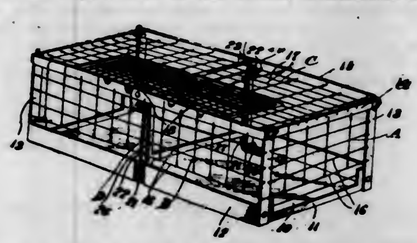
5. A socket or receptacle comprising terminals with coacting screw threaded contact surfaces, said terminals being resiliently yielding relatively to one another when coming into engagement with those of a corresponding base.

[Claims 6 to 8 not printed in the Gazette.]

1,209,527. COLLAPSIBLE COOP. HERBERT WILBERN, Concordia, Mo. Filed Feb. 7, 1916. Serial No. 76,717. (Cl. 220—132.)

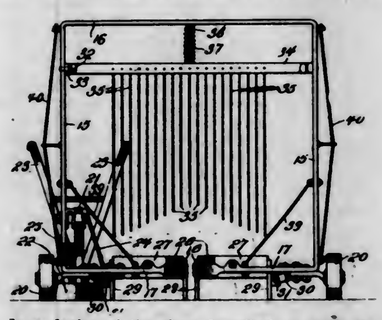
1. A crate comprising a bottom, side and end walls pivotally connected together with said bottom to fold as a unit transversely across the latter, intermediate side posts pivotally associated with the bottom and forming a part of said side walls, a vertical partition adapted to fold upon said bottom, and means for locking said partition with one of said intermediate posts whereby the component parts of the crate are rigidly held in set up position.

2. A crate comprising a bottom, side and end flanges rising from the edges thereof, side and end walls pivotally connected together and mounted upon said end flanges to fold as a unit transversely across said bottom, opposed lugs secured to said bottom, intermediate side



posts forming a part of said side walls pivotally connected to said lugs and adapted to fold through slots in said side flanges, a vertical partition hinged to said bottom, and means for locking said partition to said posts whereby the various parts of the crate are held rigidly in set up position.

1,209,528. BOLL-WEEVIL EXTERMINATOR. SILAS W. WILLIAMS and THOMAS H. MARTIN, Gordo, Ala. Filed Oct. 14, 1916. Serial No. 125,616. (Cl. 43—1.)



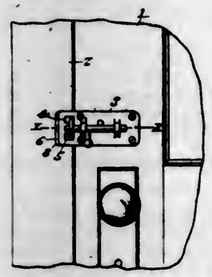
1. In a device of the class described, a vertically disposed frame comprising a top bar, side members and spaced bottom members having rearwardly extending guides, in combination with spaced pans or receptacles flexibly connected with the bottom members, and spring bars connected with the bottom members and extending rearwardly in engagement with the pans, said spring bars serving also to maintain the frame in an upright position.

2. In a device of the class described, a main frame comprising a top bar, side members and spaced bottom members having rearwardly extending guides, pans or receptacles flexibly connected with the bottom members and adapted to drag on the ground, runners adjustably connected with the outer side walls of the pans, and spring bars connected with and extending rearwardly from the bottom members of the frame.

3. In a device of the class described, a substantially vertical frame having ground engaging supporting means and spaced bottom members provided with rearwardly extending guides, pans or receptacles flexibly connected with the bottom members, a horizontal frame adjustably connected with the side members of the main frame and having a cross bar, and rods or wires depending from said cross bar and constituting beaters, the top bar of the main frame being provided with a rearwardly extending arm, and a spring connecting said arm with the beater carrying cross bar of the auxiliary frame.

4. In a device of the class described, a substantially vertical main frame including a top cross bar, side members and spaced bottom members having rearwardly extending guides, a draft beam or pole connected with one of the bottom members, spaced pans or receptacles flexibly connected with the bottom members, an auxiliary horizontal frame pivotally and adjustably connected with the side members of the main frame and having a cross bar, beaters depending from said cross bar, and resilient supporting means connecting the beater carrying cross bar with the main frame.

1,209,529. DOOR-PLATE. SAMUEL E. WILSON, New York, N. Y., assignor of one-fourth to William R. Van Slingerlandt and one-fourth to George S. Van Slingerlandt, New York, N. Y. Filed Apr. 28, 1916. Serial No. 94,199. (Cl. 16—65.)



1. In a device for the purpose set forth, a movable member and a stationary member providing an abutment for the movable member, of plates upon both of the members, one of said plates having an elongated slot to receive the projecting end of the second plate, said first mentioned plate having a tongue projecting within the slot thereof and the second plate having a slot to receive the said tongue when the abutment member is moved laterally from the movable member.

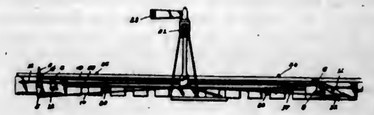
2. In a device for the purpose set forth, the combination of a swinging door and a door jamb therefor, of a plate secured upon the door and projecting beyond the end thereof, said plate having its projecting end formed with an elongated slot and being provided with a tongue projecting inwardly of said slot, a bracket secured to the door jamb and having a projecting end adapted to be received in the slot of the said plate, said projecting end of the bracket having a slot which is disposed opposite the tongue of the plate and adapted to receive said tongue when the jamb or the door are moved laterally away from each other.

3. In a device for the purpose set forth, the combination with a swinging door and a jamb therefor, of a flat plate secured upon the inner face of the door at the free end thereof and projecting beyond the said end, the projecting portion of the plate having an elongated slot and having a tongue projecting within the slot, a bracket member comprising a face plate and an angle plate let into the jamb and secured thereto, the projecting end of the face plate of the bracket having a slot, said end adapted to be received in the slot of the door plate and to have its flange contact with the door plate to arrange the lug of the door plate in a line with the slot of the bracket, as and for the purpose set forth.

1,209,530. TRACK-SIGNAL. PETER WILVERT and NICK WAGNER, Tintah, Minn. Filed Oct. 16, 1915. Serial No. 56,263. (Cl. 246—48.)

1. A railway signal comprising a rotatable standard, signaling means carried thereby, a pair of pivoted trips spaced an equal distance from the opposite sides of said standard and operatively connected thereto, locking levers coöperating with said trips each of which having a connection with a remote trip, and rotatable means coöperating with each locking lever whereby a locking lever may be thrown to an inoperative position from an adjacent point.

2. A railway signal comprising a rotatable standard, signaling means carried thereby, a pair of pivoted trips spaced an equal distance from the opposite sides of said standard and operatively connected thereto, a shoulder



formed on each trip, locking levers each mounted for pivotal swinging movement and adapted when in one position to engage the shoulder on the associated trip, and independent rotatable means for each lever whereby the lever may be disconnected from a trip.

1,209,531. METHOD OF MAKING HEELS. ERASTUS E. WINKLEY, Lynn, Mass. Filed Apr. 2, 1915. Serial No. 18,686. (Cl. 12—147.)



1. The method of making shoe-heels which consists in building a heel-body of a plurality of heel lifts so selected as to provide a definite mass and compressing said body to a substantially uniform density.

2. The method of making shoe-heels which consists in grading heel-lifts in accordance with their thickness when subjected to a definite pressure per unit of area, building heel-bodies of definite members and grades of such heel-lifts, and compressing said bodies throughout under substantially the said pressure per unit of area.

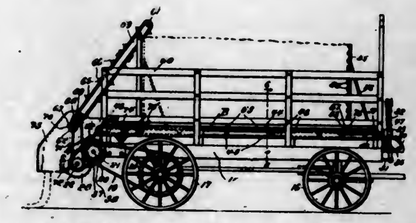
3. The method of making shoe-heels which consists in building a heel-body of a plurality of lifts selected to produce a definite total mass but an indefinite total thickness, and compressing said body to a definite thickness.

4. The method of making shoe-heels which consists in grading heel-lifts in substantial accordance with their mass per unit of area, building heel-bodies of definite numbers and grades of such heel-lifts, and subjecting said bodies to a uniform compressing operation.

5. That step in the manufacture of shoe-heels which consists in grading heel-lifts heterogeneous as to both thickness and density substantially in accordance with their mass per unit of area.

[Claims 6 to 10 not printed in the Gazette.]

1,209,532. STRAW AND MANURE SPREADER. ARTHUR WONDERLICH and HENRY A. CROZIER, Genoa, Nebr. Filed May 31, 1916. Serial No. 100,941. (Cl. 111—40.)



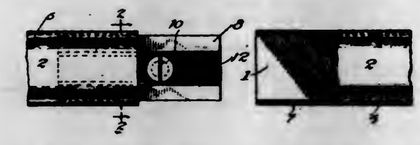
1. In a machine of the class described, a rack having a front and rear supporting wheels, a platform composed of two lateral members mounted on the rack, each member consisting of a rectangular wooden frame, sheet metal flooring secured thereon, and guard flanges at the sides of the frame, shafts supported for rotation at the front and

rear ends of the platform, endless conveyer chains trained over the shafts, and means for operating the endless conveyer chains by power derived from the rear supporting wheels.

2. In a machine of the class described, a rack having front and rear supporting wheels, a transverse main shaft supported for rotation adjacent to the rearward end of the rack and receiving motion from the rear supporting wheels, a counter shaft, means for transmitting motion at various speeds from the main shaft to the counter shaft, a sprocket wheel revoluble on the main shaft and receiving motion from the counter shaft, a platform mounted on the rack and having shafts at its front and rear ends, endless conveyer chains trained over the platform shafts, and means including a clutch device for transmitting motion from the sprocket wheel on the main shaft to the rearward platform shaft, in combination with a follower connected with the conveyer chains, and means including a tappet on the follower, and a rock shaft mounted on the platform and having an arm extending in the path of the tappet member for actuating the clutch to interrupt the transmission of motion to the platform shafts.

3. In a machine of the class described, a rack having front and rear supporting wheels, a transverse main shaft supported adjacent to the rear end of the rack and receiving motion from the rear supporting wheels, a counter shaft having sprocket wheels at the ends thereof, means for transmitting motion at variable speed from the main shaft to the counter shaft and for interrupting such motion, a platform supported on the rack, endless conveyer chains guided over the platform, means for driving said conveyer chains and for interrupting the motion thereof, a spreader frame supported in a downwardly and rearwardly inclined position at the rearward end of the rack, shafts at the upper and lower ends of said spreader frame, endless chains trained over said shafts and carrying spiked slats, spur wheels mounted on the lower spreader shaft at the ends thereof, stub shafts mounted on the spreader frame, hubs mounted on the stub shafts, each hub having a spur wheel meshing with a spur wheel on the lower spreader shaft and each hub having also a sprocket wheel, and chains trained over the last mentioned sprocket wheels and over the sprocket wheels on the counter shaft.

1,209,533. METAL CONDUIT FOR ELECTRIC WIRES. CHAUNCEY W. ABBOTT, Pittsburgh, Pa., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 18, 1915. Serial No. 46,064. (Cl. 247—8.)



1. In an electrical conduit, the combination of a substantially flat base, a cover member of general U or channel shape whose edges embrace the edges of the base, and a separate integral coupling member having laterally projecting edge portions substantially parallel to and spaced from the supporting surface and lying within the edges of adjacent cover members.

2. In an electrical conduit, the combination of a base consisting of a plurality of sections disposed end to end and having laterally projecting edge portions lying parallel to the supporting surface, a separate straight coupling member lying upon the ends of contiguous base sections, and a cap or cover of general U or channel shape having at its edges inwardly extending projections arranged to engage back of the edges of the base and coupling.

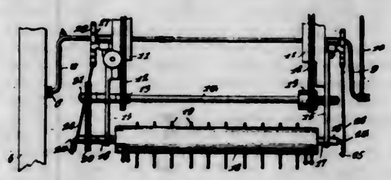
3. A conduit for electric conductors comprising a plurality of sections disposed end to end and each section consisting of a substantially flat base member, a U shaped cover member having inwardly cupped seats along the edges thereof for engagement with the lateral edges of the base member, and a coupling member for adjacent conduit sections lying upon the external surfaces of the base members, said coupling member lying wholly within the channel defined by the U shaped cover member and having its lateral edges engaged within the seats of the said cover members.

4. A conduit for electric conductors comprising a flat base, a channel cover having parallel edges overlapping the lateral edges of said base and means to secure said conduit to a flat supporting surface so that the overlapping edges of the cover engage the supporting surface throughout the length of the conduit.

5. In a conduit for electric conductors the combination of a base member extending over a supporting surface and consisting of a plurality of substantially flat sections disposed end to end, a channel cover overlapping the lateral edges of the base and a coupling member lying against the ends of contiguous base sections, said coupling member lying between the base and the supporting surface and having parallel lateral edges and an offset central portion for spacing the lateral edges thereof from the supporting surface.

[Claims 6 to 13 not printed in the Gazette.]

1,209,534. SHOCK-LOADER. MARTIN C. ALBERTSON, Gray, Saskatchewan, Canada, assignor to Albertson Product Co., Minneapolis, Minn., a Corporation of Minnesota. Filed Mar. 17, 1914, Serial No. 825,363. Renewed May 17, 1916. Serial No. 98,216. (Cl. 56—63.)



1. In combination with a vehicle having an endless carrier mounted thereon, a revoluble elongated hollow drum extending transversely of said carrier adjacent and in advance of the receiving end, a bar mounted in said drum, having portions extended therefrom to provide tangs, the latter adapted to reciprocate in unison to be extended or retracted relative to the periphery of said drum, a shaft carried by each end of said drum and extending thereinto, and having their axes coincident with the axis of said drum, said shaft being in connection with the tang bar at a point eccentric to the axes of the former, means for rotating said shafts independently of said drum, a link carried by each of said shafts on the interior of said drum to reciprocate the tangs as said drum revolves.

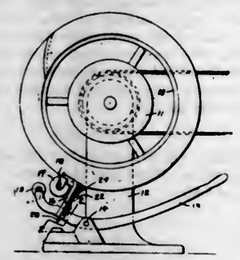
2. In combination with a vehicle having an endless carrier mounted thereon, a pick-up mechanism associated with the receiving end of said carrier, said mechanism comprising a hollow drum extending transversely of said carrier and in proximity to said receiving end, a bar in said drum, a plurality of tangs associated with said bar and adapted to reciprocate in unison and to be extended or retracted relative to the periphery of said drum, a shaft carried by each end of said drum and extending thereinto, the axes of said shafts being coincident with the axis of said drum, said shaft being in connection with the tang bar at a point eccentric to the axes of the former, means for rotating said shafts independently of said drum, a link carried by each of said shafts on the interior of said drum, each of said links being in connection with certain of said tangs to reciprocate the latter as said drum revolves, and a driven shaft supported by said carrier and operable thereby, said shaft being in connection with said drum for operating the latter, for the purpose specified.

1,209,535. TOY. EDWIN E. ALLSTATTER, Hamilton, Ohio. Filed Apr. 11, 1916. Serial No. 90,456. (Cl. 46—40.)



A toy of the character described comprising a pair of spaced figures, one indicative of a mouse and the other indicative of a cat, said figures being disposed to resemble the cat chasing the mouse, a propelling mechanism associated with the figure indicative of the cat, and a connection between said figures whereby the latter are held in proper relative positions upon the surface over which they travel.

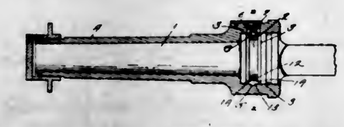
1,209,536. TIRE-BUILDER'S TOOL. CLARENCE A. ARNOLD, Hartford, Conn., assignor to The Hartford Rubber Works Company, a Corporation of Connecticut. Filed Aug. 25, 1916. Serial No. 116,794. (Cl. 154—9.)



1. A tire builder's tool comprising a pair of rollers adapted to contact with a tire, means for yieldingly holding the rollers adjacent each other, means for forcing the rollers against the tire, and pivots upon which the rollers move apart in curved paths in conforming to the surface of the tire.

2. A tire builder's tool comprising a pair of rollers pressed toward each other and adapted to engage the tread of the tire, means for forcing the rollers against the tire, pivots upon which the rollers move apart in curved paths in conforming to the transverse curvature of the tire, means for locking the rollers at their outer limit of movement, and means for releasing said locking means.

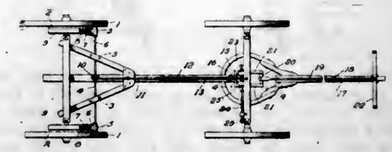
1,209,537. BALL-BEARING. SULLIVAN H. ATKINS, Melrose, Mass. Filed Apr. 27, 1916. Serial No. 93,979. (Cl. 64—59.)



1. In combination with an axle spindle having an annular groove formed at its inner end, a spindle sleeve engaged in the spindle, and having a groove therein for registering with the first named groove, a plurality of balls engaged in the registered grooves, and a plurality of slugs for spacing the balls, said slugs having oppositely directed webs carried thereby and extending beyond the sides of the grooves.

2. In combination with an axle spindle and its sleeve, each having confronting grooves adjacent their inner ends, a plurality of balls and slugs mounted in the grooves to prevent relative endwise movement of the spindle and sleeve, lubricating devices arranged between the balls and slugs, said devices being formed from felt and having wire cages therearound, said devices being adapted to be saturated with a lubricant and are provided with webs which extend beyond the sides of the grooves, as and for the purpose set forth.

1,209,538. AUTOMATIC VEHICLE-BRAKE. SYLVESTER J. BAILEY, Clark, S. D. Filed May 18, 1916. Serial No. 98,404. (Cl. 21—9.)



1. In a device of the class described, the combination of a member mounted on the front bolster of a wagon and slidable longitudinally of the latter, a rod arranged alongside the tongue of the wagon and connected to said member, said rod being also connected to the harness of the draft animals, brake means connected with said member, a rock shaft mounted on said bolster and having an operating handle extending therefrom within reach of the driver of the wagon, and a member carried by said shaft and positioned for hooking over the edge of the aforesaid slidable member for locking the same against movement.

2. In a device of the class described the combination of a substantially U-shaped member mounted in notches in the front bolster of a wagon and slidable longitudinally of the latter, the free ends of the parallel arms of said U-shaped member extending forwardly through said notches, a cross bar rotatably mounted between the free ends of said arms, a rod arranged alongside of the tongue of the wagon and having one end secured to said cross bar and the other end thereof secured to the harness of the animals, a rearwardly extending lug on the rear transverse bar of the U-shaped member, a brake operating rod secured to said lug and extending rearwardly therefrom, a rock shaft mounted on said bolster and having a handle extending therefrom within reach of the driver of the wagon, a pair of lugs mounted on said rock shaft, said lugs having their free ends bent downwardly to form hooks adapted for engagement with the outer faces of the aforesaid rear transverse bar, and a coiled spring connecting the brake operating rod with the front bolster of a wagon whereby the brake is normally held in inoperative position.

1,209,539. PROCESS FOR TREATING CASEIN. AMANDUS BARTELS, Harburg-on-the-Elbe, Germany. Filed Dec. 28, 1915, Serial No. 69,104. Renewed Aug. 16, 1916. Serial No. 115,334. (Cl. 252.)

1. A process for treating casein for the purpose specified which consists in heating and agitating a mixture including casein, alcohol and a fat extractive.

2. A process for treating casein for the purpose specified which consists in subjecting a mixture including casein and alcohol to rotative agitation in a heated vessel.

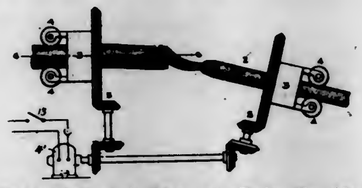
3. A process for treating casein for the purpose specified which consists in agitating and heating a mixture of casein, alcohol and benzol.

4. A process for treating casein for the purpose specified which consists in agitating and heating casein with an alcoholic fat extracting mixture containing benzol.

5. A process for treating casein for the purpose specified which consists in first heating the casein with an alcoholic fat extracting mixture containing benzol in a quickly revolving vessel which is heated to 80 or 90 degrees centigrade, drawing off the extracting agent, and finally drying the casein while still within the rotating vessel.

[Claims 6 to 8 not printed in the Gazette.]

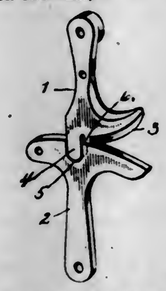
1,209,540. ELECTRIC-ARC LAMP. HEINRICH BECK, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 23, 1915. Serial No. 23,349. (Cl. 176—51.)



1. The method of checking and effacing the side burning of the anode of an arc lamp, which consists in directing the arc from the cathode at such an acute angle upwardly against the upper portion of the face of the anode as to just touch its upper edge and rotating the anode about its axis, observing the effect of side burning at its initial stage, stopping the rotation of the anode with the side burned portion outside the region of the arc until the anode face is squared, and then continuing the rotation of the anode.

2. The method of checking and effacing the side burning of the anode of an arc lamp, which consists in so directing the arc from the cathode eccentrically against the face of the anode as to just touch the edge of the latter and rotating the anode about its axis, observing the effect of side burning at its initial stage, stopping the rotation of the anode with the side burned portion outside the region of the arc until the anode face is squared, and then continuing the rotation of the anode.

1,209,541. TRIMMING MECHANISM FOR SEWING-MACHINES. JOSEPH BERGER, Jr., Utica, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 16, 1912. Serial No. 737,045. (Cl. 112—16.)



1. A trimming device for sewing machines including upper and lower coöperating members, said members lying in the same plane, one of said members having a substantially flat co-acting surface, and the other a substantially sharp severing surface, said severing surface terminating at the rear end thereof in a substantially flat surface adapted to take the blow due to sudden impact of the two members.

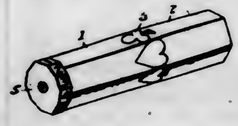
2. A trimming device for sewing machines including upper and lower coöperating pivoted members, said pivoted members lying in the same plane and having rolling contact with each other, one of said members having a substantially flat coacting surface, the other a substantially sharp severing surface, said cutting surface terminating at the rear end thereof in a substantially flat striking surface adapted to take the blow due to sudden impact of the two members.

3. A trimming device for sewing machines including upper and lower coöperating pivoted members, said pivoted members lying in the same plane and having rolling contact with each other, one of said members having a substantially flat coacting surface, the other a substantially sharp severing surface, said cutting surface terminating at the rear end thereof in a substantially flat striking surface adapted to take the blow due to sudden impact of the two members, said member with the severing surface having a cut away portion along the side face thereof adjacent the flat portion to permit the passing of the severed material.

4. A trimming device for sewing machines including an upper and lower pivoted member having rolling contact with each other, one of said members having a recess and the other member having a heel adapted to engage said recess whereby the motion of one member may be imparted to the other, one of said members also having a severing surface adapted to coöperate with a substantially smooth surface on the other member, said severing surface terminating in a substantially flat surface which is cut away at one side to permit one edge of the material to pass the same, said heel having a groove formed therein for the edge of the material.

5. A trimming device for sewing machines including an upper and lower pivoted member having rolling contact with each other, said lower member having a substantially flat coöperating surface, and said upper member having a substantially sharp cutting surface extending from the front end thereof to the point where said upper member contacts with the lower member when said cutting members are moved to the extreme forward position for receiving the material, said cutting surface terminating in a substantially flat portion.

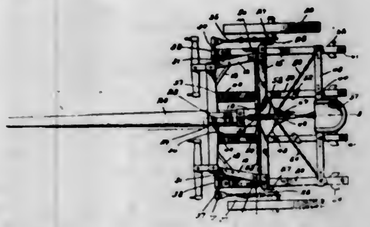
1,209,542. TRUMP AND BID INDICATOR. CHARLES D. BEAT, Lincoln, Nebr. Filed Apr. 15, 1916. Serial No. 91,403. (Cl. 46—55.)



1. A trump indicator comprising a polygonal body having its faces inscribed with pips or the like indicating trumps.

2. A trump indicator comprising a polygonal body having its faces inscribed with pips or the like indicating trumps, and provided at one end with a pivotally mounted disk, said disk having faces numbered to indicate bids and any one of which may be turned into alinement with any one of the trump indicating faces of the body.

1,209,543. LAND-MARKER. ROYAL H. BLAND, Taylor, Tex. Filed Aug. 30, 1916. Serial No. 117,732. (Cl. 111—24.)



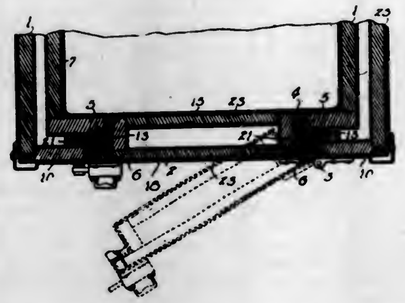
1. In a machine of the class described, a wheeled frame structure, a supporting member rigidly connected therewith and including a plurality of bridge pieces and spindles, coupling members pivoted on the bridge pieces and spindles, each for swinging movement in a vertical plane, beams having standards equipped with marking elements, and vertical pivots connecting the beams with the coupling members.

2. In a machine of the class described, a wheeled frame structure, a supporting member rigidly connected therewith and including a plurality of bridge pieces and spindles, coupling members pivoted on the bridge pieces and spindles, each for swinging movement in a vertical plane, beams having standards equipped with marking elements, vertical pivots connecting the beams with the coupling members, and a cross bar with which each of the beams is pivotally connected to maintain said beams in substantial parallelism.

3. In a machine of the class described, a frame including an axle bar, side members and a front bar, a supporting member connected with the front bar and including a plurality of bridge pieces and spindles arranged in substantial axial alinement, brace rods connecting the bridge pieces and spindles with the axle bar, axle members journaled on the axle bar and having cranks each provided with a wheel carrying spindle, and bars pivoted on the spindles of the supporting members each of said bars having a plurality of apertures, one of which engages one of the wheel carrying spindles.

4. In a machine of the class described, a frame including an axle bar, side members and a front bar, a supporting member connected with the front bar and including a plurality of bridge pieces and spindles arranged in substantial axial alinement, brace rods connecting the bridge pieces and spindles with the axle bar, axle members journaled on the axle bar and having cranks each provided with a wheel carrying spindle, and bars pivoted on the spindles of the supporting members each of said bars having a plurality of apertures, one of which engages one of the wheel carrying spindles; in combination with beams connected with the bridge pieces and the spindles of the supporting member for free universal movement, said beams having standards equipped with marking elements, and means for effecting adjustment laterally and vertically of said beams.

1,209,544. REFRIGERATOR CONSTRUCTION. THOMAS P. BOLGER, Gloucester, Mass. Filed Mar. 2, 1916. Serial No. 81,693. (Cl. 220—5.)



1. A refrigerator including a body having a door opening, a swinging door hinged to the body and adapted to close the door opening, a sheet metal lining applied to the body and having the edges thereof carried into the door opening, a sheet metal outer covering applied to the body and also having the edges thereof carried into the door opening, strips of non-heat conducting molding applied to the sides of the door opening and fitting over the edges of the sheet metal lining and sheet metal outer covering, said edges being held in a spaced relation to each other so that there is no continuous metal wall between the outside and the inside of the refrigerator, and corresponding strips applied to the door for engagement with the strips of the door opening to form a tight joint when the door is closed.

2. A refrigerator including a body having a door opening, a swinging door hinged to the body and adapted to close the door opening, a sheet metal lining applied to the body and door and having the edges thereof carried into the door opening and around the edges of the door respectively, a sheet metal outer covering applied to the body and door and having the edges thereof carried into the door opening and around the edges of the door, respectively, and spaced from the corresponding edges of the lining, and corresponding strips of non-heat conducting molding applied to the sides of the door opening and the edges of the door, respectively, said strips holding the edges of the lining and the outer covering in a spaced relation to each other so that there is no continuous metal wall between the outside and the inside of the refrigerator, and engaging each other to form a tight joint when the door is closed.

3. A refrigerator including a body having a door opening formed with an outwardly facing shoulder, a door formed with a flange, a sheet metal lining applied to the body and door and formed with lips at the edges thereof fitting against the shoulder of the door opening and the flange of the door, respectively, a sheet metal outer covering applied to the body and door and provided at the edges thereof with lips fitting against the shoulder of the door opening and flange of the door, respectively, and spaced from the corresponding lips of the lining, and corresponding strips of non-heat conducting molding applied to the shoulder of the door opening and flange of the door, respectively, said strips engaging each other to form a tight joint when the door is closed and clamping the lips of the lining and outer covering in a spaced relation to each other so that there is no continuous metal wall between the outside and the inside of the refrigerator.

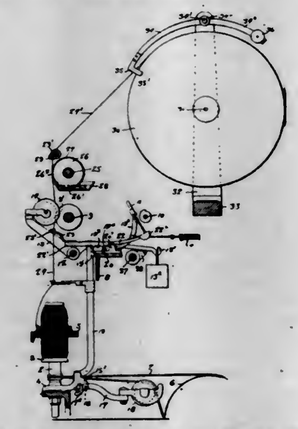
4. A refrigerator including a body having a door opening formed with an outwardly facing shoulder, a door formed with a flange, a sheet metal lining applied to the body and door and provided at the edges thereof with lips fitting against the shoulder of the door opening and flange of the door, respectively, a sheet metal outer covering applied to the body and door and provided at the edges thereof with lips fitting against the shoulder of the door opening and flange of the door, respectively, and corresponding strips of non-heat conducting molding applied to the shoulder of the door opening and flange of the door, respectively, said molding clamping the lips of the lining and outer covering in position and holding them in a spaced relation to prevent the formation of a continuous metal wall between the outside and the inside of the refrigerator, and the opposed faces of the strips of molding being formed with corresponding ribs and grooves.

5. A refrigerator including a body having a door opening formed with an outwardly facing shoulder, a door formed with a flange, a sheet metal lining applied to the body and door and having the edges thereof extended into the door opening to the shoulder and around the edges of the door to the flange, a sheet metal outer covering applied to the body and door and having the edges thereof extended into the door opening to the shoulder and around the edges of the door to the face of the flange, and corresponding strips of non-heat conducting molding applied to the shoulder of the door opening and the face of the door flange so as to secure the edges of the sheet metal lining and sheet metal outer covering in a spaced relation and prevent the formation of a continuous metal wall between the outside and the inside of the refrigerator, said strips of molding upon the shoulder and door flange fitting against each other to form a tight joint when the door is closed.

1,209,545. MACHINE FOR SPINNING OR TWISTING STRIPS OF PAPER INTO YARN. THOMAS ALEXANDER BOYD and HAROLD ARTHUR BOYD, Glasgow, Scotland. Filed Apr. 27, 1915. Serial No. 24,278. (Cl. 28—21.)

1. In a machine for spinning or twisting paper strips into yarn, a twisting mechanism, a damping device past

which the strip is delivered to the twisting mechanism, means having a twist-restraining engagement with the strip at a point between the damping device and twisting mechanism so that the strip normally passes the damping device in flat condition, and means for nullifying said twist-restraining engagement on the halt of the delivery to permit a twist to be imparted to the strip at the point at which it is in contact with the damping device, for the purpose described.



2. In a machine for spinning or twisting paper strips into yarn, a twisting mechanism, a damping device past which the strip is delivered to the twisting mechanism, means having a twist-restraining engagement with the strip at a point between the damping device and twisting mechanism so that the strip normally passes the damping device in flat condition, and means for nullifying said twist-restraining engagement on the halt of the delivery to permit a twist to be imparted to the strip at the point at which it is in contact with the damping device, together with means arranged in advance of the damping device and engaging the paper strip to prevent a twist being imparted to the strip at a point in advance of said last-named means.

3. In a machine for spinning or twisting paper strips into yarn, a twisting mechanism, a damping device past which the strip is delivered to the twisting mechanism, means having a twist-restraining engagement with the strip at a point between the damping device and twisting mechanism so that the strip normally passes the damping device in flat condition, and means for nullifying said twist-restraining engagement on the halt of the delivery to permit a twist to be imparted to the strip at the point at which it is in contact with the damping device, together with a slit guide through which the strip passes to the damping device and serving to limit the length of the twisted strip in advance of the damping device.

4. In a machine for spinning or twisting paper strips into yarn, a twisting mechanism, a damping device past which the strip is delivered to the twisting mechanism, cooperating, separable delivery rollers associated with said damping device and twisting mechanism, means having a twist-restraining engagement with the strip at a point between the damping device and twisting mechanism so that the strip normally passes the damping device in flat condition, and means operative upon the separation of the delivery rollers and the consequent halt of delivery, to nullify said twist-restraining engagement.

5. In a machine for spinning or twisting paper strips into yarn, a twisting mechanism, a damping device past which the strip is delivered to the twisting mechanism, a strip guide interposed between the damping device and twisting mechanism and having a twist-restraining engagement with the strip to prevent the passage thereby of the twist during the normal operation of the machine, and means for displacing said guide to nullify the twist-restraining engagement thereof with the strip on the halt of delivery of the latter.

[Claims 6 to 10 not printed in the Gazette.]

1,209,546. PROCESS FOR TREATING FLAX-PLANTS. JONAS BROLIN, Sioux Falls, S. D., assignor of one-half to Lenious E. Baker, Baker, Mont. Filed Aug. 21, 1916. Serial No. 116,097. (Cl. 92—4.)

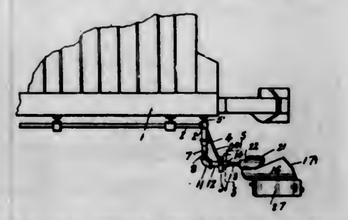
1. The process of treating flax plants when grown for seed, which consists in removing the heads from the mature plants, leaving the stalks stand exposed to the retting action of the elements for several months, harvesting, and separating the fiber, from the shive, for spinning.

2. The process of treating mature flax plants, which consists in removing the heads at such a height as to leave the tubular stalks standing with open upper ends, thereby permitting the entrance of rain and frost, to effect the destruction and removal of natural resins and gums, and after said retting has been effected, reaping the stalks and removing the fiber.

3. The process of obtaining flax fiber and flax seed from the same plant, which consists in allowing the growing plant to reach full maturity, heading to remove the mature seed, at a point which permits rain to penetrate the ends of the stalks, leaving the stalks stand exposed to the natural retting effects of weather, until the fiber becomes loose, harvesting, and hackling.

4. The process of obtaining from the mature flax plant useful products, which consists in heading the full grown and mature paints, threshing the heads, to separate the seed for oil and the chaff for fodder, allowing the headed stalks to stand with their open ends exposed to the weather, for several months of frost and rain, then cutting the stalks, and finally reducing them to tow.

1,209,547. AUTOMATIC TRAIN-PIPE COUPLING. WALTER I. BROWNS, Bristol, Vt., assignor of one-half to Frank J. Brady, Montreal, Quebec, Canada. Filed Dec. 16, 1915. Serial No. 67,260. (Cl. 188—13.)

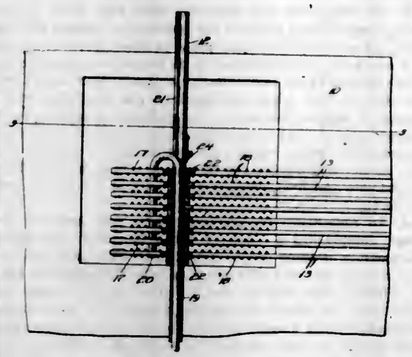


1. A train pipe coupling comprising an interlockable head having a boss formed with a shoulder, a casing disposed on the head, a plunger having a pointed end projecting through an opening provided in the head and having an inclined wall, a spring under the plunger, a rod disposed transversely through the plunger and a spring on the rod.

2. A train pipe coupling comprising an interlockable head, a longitudinally adjustable pipe connected to one end of said head, a vertically adjustable pipe connected to the opposite end of said longitudinally arranged pipe, a support, and coil springs connecting said longitudinally adjustable pipe to said support substantially as and for the purpose specified.

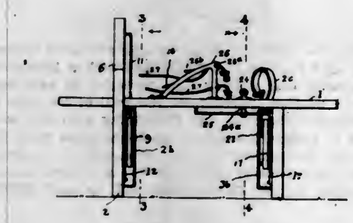
3. A train pipe coupling comprising a coupling head, said coupling head comprising a flared semicircular portion, a boss formed with said head and provided with a shoulder, a casing secured to said flared semicircular portion, a spring actuated plunger arranged within said casing and adapted to normally project within said flared semicircular portion, and the opposite walls of said plunger being inclined substantially as and for the purpose specified.

1,209,548. MUSIC-LEAF TURNER. EUGENE BROWN, Earlsboro, Okla. Filed Apr. 17, 1916. Serial No. 91,783. (Cl. 84—135.)



A music leaf turner comprising a support, a guide tube located centrally of the support and having a slot in the side thereof, a plurality of music leaf turning arms journaled upon the tube and in spaced parallel relation to each other and having inner end extensions, coiled retractile springs connected to the support and to the end extensions to move the arms, a rod slidable through the tube and having an upper gooseneck extension passed through the slot to engage with the inner end extensions of the arms, ratchet teeth formed near opposite ends of the rod within the tube, a spring latch mounted on the tube and engageable with certain of the teeth, an operating key pivoted to the lower end of the tube and having a catch for engagement with the other teeth upon said rod, a spring acting upon the key, a spring acting upon the catch to hold the same in position for positive engagement with the teeth, and an adjusting screw carried by the spring latch and working against the tube for moving said latch out of engagement with the teeth on the rod.

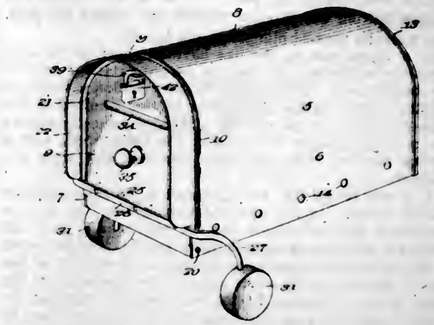
1,209,549. OPERATING-TABLE. WALTER E. BROWN and ALPHA L. HOLADAY, Muncie, Ind. Filed Nov. 29, 1915. Serial No. 63,961. (Cl. 119—103.)



1. In an operating table, the combination of means to hold the animal's head, an eye block capable of being adjusted to different positions on the table top, a flexible band having its free end adapted to be detachably connected to the eye block, and means operable from below the table top to tighten and hold the band.

2. An operating table comprising a pair of head blocks, means operable from underneath the table to move the head blocks to and to hold same at closed position, an eye block capable of being adjusted to different positions on the table top, a flexible band having its free end adapted to be detachably connected to the eye block, and means operable from below the table top to tighten and hold the said band.

1,209,550. MAIL-BOX. SAMUEL W. BUCKWALTER, Dayton, Ohio. Filed Nov. 20, 1915. Serial No. 62,605. (Cl. 232—45.)



1. In combination, a mail box comprising side and top walls instruck to provide a continuous beading, a closure for said box, and means mounted on the closure for swinging the latter into engagement with the beading and rendering the box moisture proof.

2. In combination, a mail box embodying side and top walls instruck to provide a continuous beading, a closure for said box, and means mounted on the closure for automatically swinging the latter into engagement with the beading and rendering the box moisture proof.

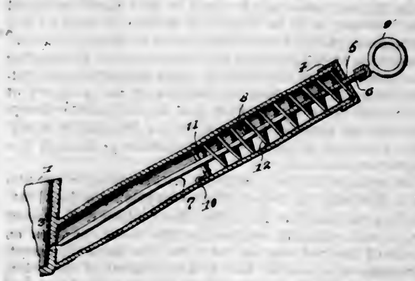
3. In combination, a mail box embodying side and top walls, a closure for said box, means for hingedly connecting the closure to said box for a vertical swinging movement, and means mounted transversely of the closure at a point adjacent the lower edge thereof for automatically closing said closure.

4. In combination, a mail box embodying side and top walls, a closure for said box formed at a point adjacent its upper edge with a slot, means for hingedly connecting the closure to said box for vertical swinging movement, means mounted transversely of the closure for automatically swinging the closure to a closed position, and means carried by the box and protruding through the slot of the cover for locking the closure.

5. In a device of the class described, a mail box, a closure therefor, and means for swinging the closure into closed position, said means embodying a substantially U-shaped bar mounted upon and transversely of said closure, and grooved weights mounted on the terminals of the limbs of said bar, the limbs of the bar engaging the grooves of the wedges and preventing any accidental rotation of the latter with respect to said limbs.

[Claim 6 not printed in the Gazette.]

1,209,551. FRYING-PAN. JOHN D. BURNS, Victor, Colo. Filed Jan. 24, 1916. Serial No. 73,939. (Cl. 53—7.)



1. A frying pan or the like having a port, a hollow handle secured to the pan and surrounding the port, a

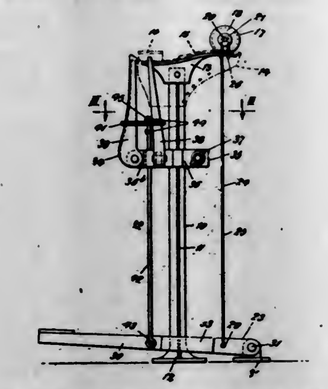
cap closing the hollow handle, a longitudinally adjustable member connected with the cap for closing the port.

2. A frying pan or the like having a port, a hollow handle surrounding the port, a valve in the handle and operative from the exterior thereof for closing the port, and a spring pressed plunger in the handle.

3. A frying pan or the like having a port on its side, a hollow handle surrounding the port, a rotatable cap for the handle, said cap having a threaded orifice, a valve including a stem having a threaded portion received in the threaded orifice of the cap and said valve normally closing the port, a plunger surrounding the valve stem, and a spring member connected with the cap and with the plunger.

4. A pan or the like having a port in its side, a hollow handle secured to the pan and surrounding the port, a removable and adjustable cap for the handle, said cap having a threaded opening, a valve for the port including a threaded stem engaging in the threaded opening of the cap, a handle for the valve stem, transverse lugs on the valve stem, a plunger having an elongated opening arranged upon the stem and contacted by the lugs when in one position and a helical spring arranged between the cap and plunger and secured to the plunger, as and for the purpose set forth.

1,209,552. APPARATUS FOR APPLYING SOLES AND HEELS TO FOOTWEAR. JOHN S. BUSKY, New York, N. Y., assignor to Ever-Last Cotton Shoe Corporation, a Corporation of New York. Filed Apr. 22, 1915. Serial No. 23,099. (Cl. 12—34.)



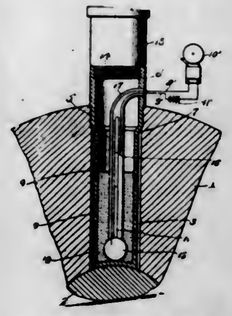
1. An apparatus for applying soles and heels to footwear, comprising a support with a last for allowing footwear to be removably held thereon, a roller having a concaved periphery, adapted to be manually rolled under pressure in contact with a sole or heel having an adhesive material thereon whereby the sole or heel when arranged on the footwear will be caused to adhere thereto by the pressure produced by the presser device as well as preventing the edges of the sole and heel from curling, a swinging bracket connected to the roller, a lever on the bracket, fulcrumed so as to be moved for regulating the pressure of the roller on the sole and heel, and an adjustable clamping mechanism operable by the lever for detachably engaging the footwear so as to be held against accidental displacement on the last.

2. An apparatus for applying anti-slipping soles and heels to footwear by cementation, comprising a jack having a last thereon for receiving the footwear, a presser roller, a rod rotatably supporting the roller, handles on the ends of the rod beyond the roller for manually exerting pressure on a sole or heel by engagement of the roller therewith, a foot lever, connections between the lever and the rod on either side of the roller whereby pressure may be exerted on the roller, a bracket connected to the jack, gripping fingers pivoted to said bracket and adapted to engage the footwear for securing the latter on the last and means operative with the foot lever for moving said fingers into and out of operative positions.

3. An apparatus for applying soles and heels to footwear, comprising a support for removably holding the footwear, an adjustable foot-actuated presser device consisting of a rotatable drum adapted to be moved into contact with a sole or heel having an adhesive material thereon whereby the sole or heel when arranged on the footwear will be caused to adhere thereto by the pressure produced by the presser device, and a foot-operated clamping device connected to the foot-actuated presser device for retaining the sole on the last during the operation of the presser device on the sole and heel, substantially as and for the purposes set forth.

4. An apparatus for applying soles and heels to footwear, comprising a support for removably holding the footwear, a presser device adapted to be moved into contact with a sole or heel having an adhesive material thereon whereby the sole or heel when arranged on the footwear will be caused to adhere thereto by the pressure produced by the presser-device, and a foot-operable adjustable clamp on the support, said clamp consisting of a plurality of gripping fingers adapted to be moved into engagement with the heel of the footwear when the presser-device is operated for detachably holding the footwear against accidental movement on the support, substantially as and for the purposes set forth.

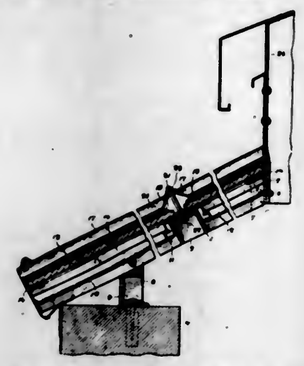
1,209,553. COMBINED OIL-CUP AND CIRCUIT-CLOSER. JAMES E. CAMPBELL, Greenville, Miss. Filed Mar. 21, 1916. Serial No. 85,691. (Cl. 200—32.)



In combination with a bearing, an axle rotatably mounted therein, said bearing being provided with a bore communicating with said axle, a tube threaded in said bore and having a portion spaced from the wall of the bore to form an annular chamber, the tube being provided with an opening to permit permanent communication with the chamber and the interior of the tube, plastic material arranged in the bottom of the tube below said opening, and a thermostatic circuit closer supported by said plastic material.

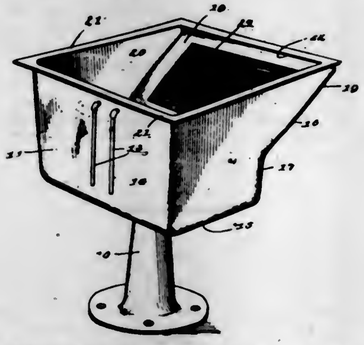
1,209,554. SKYLIGHT STRUCTURE. CHARLES M. CARLL, Trenton, N. J. Filed Aug. 7, 1915. Serial No. 44,258. (Cl. 108—16.)

1. In a structure of the class described the combination of a bar, a sheet metal plate thereon having condensation gutters arranged on opposite sides of the bar, a second sheet metal plate on the first named sheet metal plate and having downwardly extending deflectors at its sides arranged above the condensation gutters, a cushioning sheet on the uppermost sheet metal plate, glass panes bearing on the cushioning sheet, corrugated cushioning sheets on said glass panes, a cap plate having depending side walls bearing in the corrugations of the last named cushioning sheets and a common securing bolt connecting said bar, metal sheets, the first named cushioning sheets and cap plate together and also clamping the cap plate firmly on the last named cushioning sheets, a nut bearing on the cap plate and also having a nut bearing on the first named cushioning sheet and hence enabling the cap plate, last named cushioning plates and glass plates to be loosened or removed independently of the first named cushioning sheets and sheet metal plates.



2. In a structure of the class described the combination of a bar, a sheet metal plate thereon having condensation gutters arranged on opposite sides of the bar, a second sheet metal plate on the first named sheet metal plate and having downwardly extending deflectors at its sides arranged above the condensation gutters, a cushioning sheet on the uppermost sheet metal plate, glass panes bearing on the cushioning sheet, corrugated cushioning sheets on said glass panes, a cap plate having depending side walls bearing in the corrugations of the last named cushioning sheets and a common securing bolt connecting said bar, metal sheets, the first named cushioning sheets and cap plate together and also clamping the cap plate firmly on the last named cushioning sheets, a nut bearing on the cap plate and also having a nut bearing on the first named cushioning sheet and hence enabling the cap plate, last named cushioning plates and glass plates to be loosened or removed independently of the first named cushioning sheets and sheet metal plates.

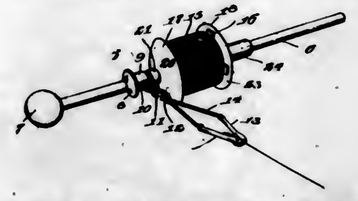
1,209,555. WASHTUB. MILLIE JEAN CARLSON, South Pasadena, Cal. Filed May 29, 1914. Serial No. 841,853. (Cl. 68—31.)



In a device of the class described, a casing having an inclined wall, a corrugated surface on said inclined wall, and a pocket formed at the upper end of said inclined wall and in advance of said corrugated surface, said pocket extending inwardly and around said inclined side.

1,209,556. WIRE-STRETCHER. JOSEPH A. CECIL, Dott, W. Va. Filed Sept. 30, 1916. Serial No. 128,117. (Cl. 254—64.)

1. A combined wire stretcher and wire carrier embodying a rod, a wire grip loosely mounted on said rod, a spool for holding the reel of wire on said rod, said spool including an adjustable disk and a loosely mounted disk, the latter mentioned disk being provided with a hand grip and serving as a shield.



2. A combined wire stretcher and wire carrier embodying a rod, a wire grip loosely mounted on said rod, a spool for holding the reel of wire on said rod, said spool including an adjustable disk and a loosely mounted disk, the latter mentioned disk being provided with a hand grip and serving as a shield, and a stop formed integral with the rod for limiting the movement of the wire grip in one direction, the adjustable disk serving to prevent a movement of the grip in the opposite direction.

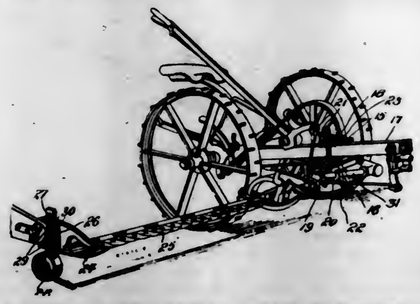
3. A combined wire stretcher and wire carrier embodying a rod, a collar loosely mounted on said rod, a wire grip swiveled to said collar, a spool for holding the reel of wire on said rod, said spool including an adjustable disk and a loosely mounted disk, the latter mentioned disk being provided with a hand grip and serving as a shield, and a stop formed integral with the rod for limiting the movement of the collar in one direction, the adjustable disk serving to prevent a movement of the collar in the opposite direction.

1,209,557. BRUSH-HOLDER. JOSEPH CHABOT, Onaway, Mich. Filed July 14, 1916. Serial No. 109,344. (Cl. 15—54.)



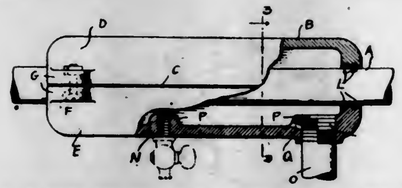
A holder for scrubbing brushes comprising a bar adapted to extend lengthwise of and bear against the rear edge of the brush back, said bar having means of attachment to a handle, short legs at the lower corner portions of the bar and projecting at right angles therefrom to extend beneath the rear edge of the brushback, long arms projecting in vertical alinement with said short arms forwardly from the upper corners of the bar and adapted to extend over the top of the brush back to a point in close proximity to the front edge thereof, said arms having rectangular rear portions of greater depth than the body portions of the arms and formed with bolt holes above the plane of the upper surfaces of said arms, the arms being provided with flanges extending between said rectangular rear portions and their free forward ends and sloping in a downward and forward direction between said points, said flanges forming channels above the upper surfaces of the arms registering with the said bolt holes, and bolts resting upon the upper surfaces of the arms in said channels and having threaded ends extending through the bolt holes in the rectangular enlargements, the forward ends of said bolts being provided with hooked portions extending downward over and under the front edge of the brush back, and nuts engaging the threaded ends of the bolts and bearing against the back of the car to draw the bar and hook ends of the bolts into clamping engagement with the brush back.

1,209,558. MOWING-MACHINE. JOHN B. CHANDLER, Campbellsburg, Ky. Filed Feb. 9, 1915. Serial No. 7,089. (Cl. 56—33.)



A mowing machine having a tongue, in combination with an attachment for said tongue, the same comprising two plates engaging, respectively, the top and bottom faces of the tongue, a bolt connecting said plates adjacent to one side of the tongue and having a nut, a screw threaded rod extending vertically through the plates adjacent to the other side of the tongue, and nuts on said screw threaded rod engaging the top and bottom faces of the upper and lower plates, respectively; the screw threaded rod having a hook at its lower end; the nuts on the threaded rod serving in connection with the nut and bolt to clamp the plates securely on the tongue and said nuts on the threaded rod serving also to secure the threaded rod at various vertical adjustments.

1,209,559. WATER-HEATING DEVICE. ALBERT B. CLAY, Scranton, Pa. Filed Nov. 18, 1915. Serial No. 62,218. (Cl. 257—241.)



1. A water heating device adapted to be attached to a feed pipe of a range boiler, comprising a split sleeve, said sleeve having a steam inlet opening and an air discharge opening, said openings being provided with raised flanges formed on the inside of the sleeve, and a transverse discharge duct provided in the flange of the steam inlet opening for draining the sleeve through said opening.

2. A water heating device adapted to be attached to a feed pipe of a range boiler comprising a split sleeve, said sleeve having a steam inlet opening and an air discharge opening, said openings being arranged on the same side of the split sleeve and provided with raised flanges on the inside of the sleeve and a discharge duct provided in the raised flange of the steam inlet opening for draining the sleeve through said opening.

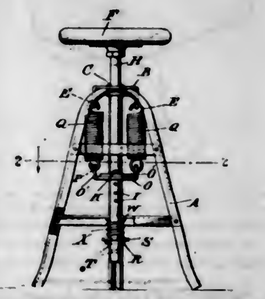
3. A water heating device adapted to be attached to a feed pipe of a range boiler comprising a sleeve split longitudinally of the pipe to which it is to be attached, a steam inlet opening and an air discharge opening in said sleeve, said openings being provided with raised flanges formed on the inside of the sleeve and arranged in the same section of said sleeve, a discharge duct in the raised flange of the steam inlet opening for draining the sleeve through said opening, said sleeve embodying in its construction packing means comprising a tongue and groove provided on opposite sides of one section, suitable packing in said grooves; the tongue and groove on one section being arranged to receive a groove and tongue on the other section when the sections are joined together, and openings in said sections for receiving and surrounding the feed pipe of the boiler when the device is attached thereto, said openings having grooves which are continuations of the aforesaid grooves with suitable packing provided in said grooves, comprising a continuation of the packing provided in the grooves of one of said sections.

1,209,560. SIGN-HOLDER. FANE H. COSNER, Copen, W. Va. Filed Apr. 11, 1916. Serial No. 90,450. (Cl. 40—125.)



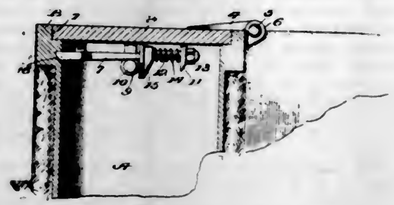
A sign holding device comprising a vertically disposed bracket bar having end attaching portions, said bar also having a longitudinally extending slot and short imperforate portions between the ends of said slot and said attaching portions, a lower channeled holding bar extending transversely of said bracket bar and provided with a medial ear, said bar and ear being arranged to bear against the lower imperforate portion of the bracket bar, fastening means passing through said ear and said imperforate portion of the bracket bar and rigidly securing said channeled bar in position, an upper channeled holding bar extending transversely across the slotted portion of the bracket bar and parallel with the first-named channeled bar and also provided with a medial ear, the channeled faces of said bars being arranged opposite each other and the inner walls of the channels thereof being disposed to lie in contact with the bracket bar, a bolt passing through the ear of the upper channeled bar and slidably engaging the slot in the bracket plate, whereby the upper channeled bar is adjustable substantially the full length of the body of the bracket bar toward and from the lower channeled bar, a clamping nut engaging said bolt, and clamping members upon the outer walls of the channels of the channeled bars for clamping the edges of a sign plate against the inner walls of said channels.

1,209,561. STOOL. ALFRED JOSEPH CRAGG, Cleveland, Ohio. Filed Jan. 21, 1916. Serial No. 73,489. (Cl. 155—25.)



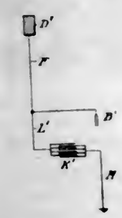
A stool comprising legs, crosspieces connecting said legs, an apertured plate secured to said crosspieces, an apertured plate fixed to the upper end of said legs, a seat and apertured post supporting the same, a movable plate having an aperture therein for the reception of said post, a pin passing through registering apertures in the post and positioned above said plate through which the post passes, springs connecting the stationary plate at the top of the legs with the plate through which the post passes, a pin passed through an aperture in the post below the apertured plate which is fastened to said cross-pieces, and a spring interposed between said last referred to pin and the adjacent apertured plate.

1,209,562. LOCKING MECHANISM FOR STOP-COCK BOXES. JOHN J. CUNNINGHAM, Gadsden, Ala. Filed Sept. 20, 1912. Serial No. 721,447. (Cl. 70—27.)



A locking mechanism for stop-cock boxes comprising a cover, a bolt mounted upon the inner surface of the cover, said bolt provided with an elongated slot, a pin projecting from the cover through said slot, said pin provided with a central portion substantially coinciding with said slot in thickness and with laterally extending lugs of less diameter which support the sides of the bolt, a bracket secured to the cover through which the stem of the bolt slides, a shoulder secured on the bolt, a spring mounted on the stem of the bolt between the shoulder and bracket, said shoulder resting against the pin as a stop in its normal position and a key adapted to turn in the cover in contact with the shoulder whereby to withdraw the bolt and unlock the cover.

1,209,563. APPARATUS FOR STRENGTHENING THE SPARKS OF IGNITION FOR INTERNAL-COMBUSTION ENGINES. LOUIS C. DAUCHER, Suresnes, France. Filed July 3, 1914. Serial No. 848,819. (Cl. 123—148.)



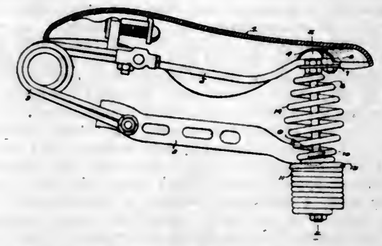
1. In combination with an electric circuit, a main spark gap, and a condenser and a plurality of auxiliary spark gaps in shunt with said main spark gap circuit.

2. In combination with an electric circuit, a primary spark gap in said circuit, a shunt from said circuit, a plurality of spark gaps in said shunt circuit arranged in parallel with said primary spark gap.

3. In combination with an electric circuit, a spark gap in said circuit, and a condenser in parallel with said spark gap; with auxiliary spark gaps in parallel with said first mentioned spark gap substantially as described.

4. In combination with an electric circuit, a spark gap in said circuit, and a condenser in parallel with said spark gap; with auxiliary spark gaps arranged in parallel with said first mentioned spark gap, said auxiliary spark gaps being of various size and variably arranged, substantially as described.

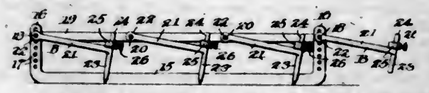
1,209,564. CYCLE-SADDLE. MILLER M. DUNN, Reading, Pa., assignor to The Reading Saddle & Manufacturing Company, Reading, Pa., a Corporation of Pennsylvania. Filed Nov. 12, 1913. Serial No. 800,616. (Cl. 208—15.)



1. In a cycle saddle, the combination with the saddle seat and main frame, of tension and compression springs supporting said saddle seat from said main frame, and a plate carried by the uppermost coil of the tension spring and serving as a seat for the lowermost coil of the compression spring.

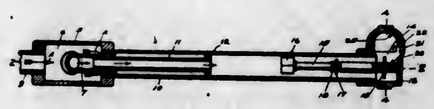
2. In a cycle saddle, the combination with the saddle seat and main frame, of a rod depending from the saddle seat, a tension spring supported at its upper end by the main frame and at its lower end secured to the lower end of said rod, a compression spring mounted between said seat and frame, and a cap plate carried by said tension spring and serving as a base plate for said compression spring.

1,209,565. HARROW. KYLE R. DICKINSON, Ballinger, Tex. Filed Nov. 26, 1915. Serial No. 63,650. (Cl. 55—7.)



In a harrow of the character described, a tooth member comprising a shank having an eye at its forward end and provided at its rearward end with a scarifier having a downwardly extending ground engaging portion and an upwardly extending portion, and a weight mounted on the upwardly extending portion of the scarifier.

1,209,566. OIL-BURNER. EDWARD WILLIAM DISCHER, Seattle, Wash. Filed May 20, 1916. Serial No. 98,850. (Cl. 158—75.)



1. An oil burner of the class described, comprising a burner pipe provided with vapor and oil inlet means, a nozzle on the end of said pipe, said nozzle having a cylindrical chamber and a horizontally disposed fuel discharge slot, a rod secured to said nozzle and adapted to project rearwardly into said burner pipe in axial alinement therewith, washers of smaller diameter than said burner pipe adjustably secured on said rod within said burner pipe and a washer of substantially the same diameter as said burner pipe adjustably secured on said rod within said nozzle.

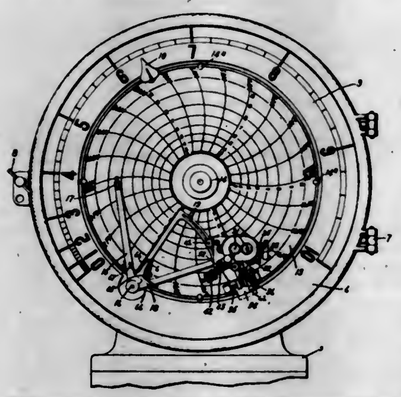
2. An oil burner of the class described comprising a burner pipe, a casing connected with one end thereof, a vapor inlet pipe connected with said casing, a fuel inlet conductor having an open discharge end and disposed to pass into said casing and extend axially within said burner pipe, the portion of said fuel conductor within said burner

pipe being of smaller diameter than said burner pipe, a nozzle on the end of said burner pipe, said nozzle having a cylindrically formed chamber disposed in a plane at right angles to said burner pipe and being provided with a horizontal discharge slot, a rod secured to said nozzle and adapted to project axially into said burner pipe, and a washer of substantially the same diameter as said burner pipe adjustably secured on said rod within said nozzle and adjacent the end of said burner pipe to serve as a deflector plate for fuel discharged into said nozzle.

3. An oil burner of the class described comprising a burner pipe provided with vapor and oil inlet means, a nozzle on the end of said burner pipe, said nozzle having a cylindrical chamber disposed at right angles to said burner pipe and being provided with a horizontal fuel discharge slot located opposite and slightly above the end of said burner pipe, a cylindrical washer of substantially the same diameter as said burner pipe and means connected with said nozzle for supporting said washer within said nozzle and in alinement with the end of said burner pipe to form a deflector plate for fuel that may be discharged into said nozzle.

4. An oil burner of the class described, comprising a casing having a chamber formed therein, a vapor inlet pipe connected with one end of said casing, a burner pipe connected with the other end of said casing, an integrally formed elbow member within said casing, a fuel supply pipe communicating with said elbow member, a fuel conductor pipe connected with said elbow and disposed to extend axially within said burner pipe, said fuel conductor pipe being of smaller diameter than said burner pipe to leave an annular passageway around the outer walls thereof, a washer on the end of said fuel conductor pipe, a nozzle on the end of said burner pipe, said nozzle having a cylindrical chamber disposed at right angles to said burner pipe, and being provided with a horizontally arranged discharge slot, a rod secured to said nozzle and adapted to project into said burner pipe in axial alinement therewith, a hexagonal nut on the end of said rod, a washer adjustably secured medially of said rod and a washer of substantially the same diameter as said burner pipe adjustably secured on said rod within said nozzle and adapted to deflect fuel from said burner pipe against the walls of said nozzle before it is emitted from said nozzle.

1,209,567. **FLOW-METER.** AUSTIN R. DODGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 6, 1915. Serial No. 65,245. (Cl. 234—6.)



1. The combination with an indicating instrument having a rotating member, of an integrating mechanism having a measuring wheel adapted to engage the member and have motion imparted to it therefrom, said integrating mechanism being arranged so that it may be moved to bring the measuring wheel into and out of engagement with the rotating member, means for so moving the integrating mechanism, and means for locking the measuring wheel before it is moved from the rotating member.

2. The combination with an indicating instrument having a rotating member, of an integrating mechanism having a measuring wheel adapted to engage the member and have motion imparted to it therefrom, said integrating mechanism being arranged so that it may be moved to bring the measuring wheel into and out of engagement with the rotating member, means for so moving the integrating mechanism, and means for locking the measuring wheel before it is moved from the rotating member and maintaining it locked until it is moved back into engagement therewith.

3. The combination in an indicating instrument, of a rotating chart, a pivoted integrating mechanism having a measuring wheel which engages the chart, said mechanism being adapted to be turned on its pivot to bring the measuring wheel into and out of engagement with the chart, means for so turning it, and a locking member controlled by said means for locking the measuring wheel before it is moved from the chart and maintaining it locked until it is again moved back into engagement therewith.

4. The combination in an indicating instrument, of a rotating chart, a pivoted integrating mechanism having a measuring wheel which engages the chart, said mechanism being adapted to be turned on its pivot to bring the measuring wheel into and out of engagement with the chart, and means including a locking device for the integrating mechanism for so turning it.

5. The combination with an indicating instrument having a rotating chart, of a pivoted integrating mechanism having a measuring wheel which engages the chart, said mechanism being adapted to be turned on its pivot to bring the measuring wheel into and out of engagement with the chart, means for so turning it, and means for locking the integrating mechanism against movement when out of engagement with the chart.

[Claims 6 to 17 not printed in the Gazette.]

1,209,568. **RESISTANCE UNIT.** GEORGE H. DORGELOH and EUGENE PONS, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed Oct. 25, 1915. Serial No. 57,720. (Cl. 219—71.)



1. In a resistance unit, a spiral base of insulating material and a septum of insulating material received between the turns of the base to form a spacer for the resistance element.

2. A resistance unit comprising a spiral base of insulating material, a resistance element wound spirally thereon, and a septum of insulating material between the turns of the base and forming a spacer for the turns of the resistance element.

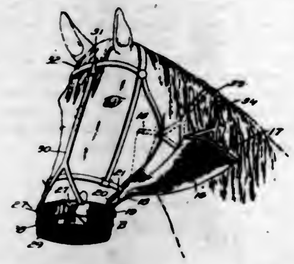
3. A resistance unit comprising a spiral base of insulating material, a rigid member extending through said base, and a septum of insulating material between the turns of the base support and forming a spacer for the resistance element.

4. A resistance unit comprising a spiral base of insulating material formed in sections, and a septum of insulating material between the turns of the spiral support also formed in sections and forming a spacer for the resistance element.

5. A resistance unit comprising a spiral base of insulating material formed in sections, and a septum of insulating material formed from insulating annuli with sectors cut away, and received between the turns of the base support.

[Claims 6 to 8 not printed in the Gazette.]

1,209,569. **FEED-BAG.** IRVING EISENSTAT, New York, N. Y. Filed Aug. 29, 1916. Serial No. 117,513. (Cl. 119—66.)



1. A feed bag having an outlet duct, a nozzle adjustable thereon, a feed tray connected with the nozzle, and auxiliary supporting means for the feed tray.

2. A feed bag having an outlet duct, a nozzle adjustable thereon and provided with a hinged lid, a feed tray connected with the nozzle, and auxiliary supporting means for the tray.

3. A feed bag having an outlet duct, a nozzle adjustable thereon, a feed tray connected with the nozzle, said feed tray including an annular top member and a baseket shaped bottom member, means for detachably connecting the bottom member with the top member of the feed tray, and auxiliary supporting means for the feed tray.

4. A feed bag having an outlet duct, a nozzle adjustable on said duct, a lid hinged on the nozzle, a spring actuating the lid to sustain said lid in an open or closed position, a feed tray into which the nozzle discharges, and means for supporting the tray.

5. A feed bag having an outlet duct, a nozzle adjustable on the duct and having a spring actuated lid, a two-part feed tray detachably connected with the nozzle, and auxiliary supporting means for the tray.

1,209,570. **ARTIFICIAL TOOTH AND DENTURE.** WILLIAM SAINT GEORGE ELLIOTT, Jr., New York, N. Y. Filed Jan. 20, 1916. Serial No. 73,134. (Cl. 32—9.)



1. An article of manufacture consisting of an artificial tooth having a front resembling a natural tooth, and a flat back provided with an annular groove adapted to engage with a similar male portion attached to the denture, to hold said facing to the denture.

2. An article of manufacture consisting of a metal backing having an annular metal collar on its front face, adapted to fit into an annular groove in a facing to hold the facing.

3. The combination of an artificial tooth having a front resembling a natural tooth and provided with an annular groove in its back; with a supporting member having an annular collar on its front face adapted to enter said recess whereby said tooth is secured to a denture.

4. An artificial tooth having a front resembling a natural tooth, a shallow recess in its back and a deeper groove in said recess; with a plate or bridge and a male member on said plate or bridge adapted to enter said groove to secure said tooth thereto.

5. An artificial denture comprising a support having a flat surface and an annular collar projecting from said flat surface, and an artificial tooth or facing having a flat back, and an annular groove in said back corresponding with and adapted to engage the collar on the denture, said collar having openings for the escape of surplus cement.

[Claims 6 to 8 not printed in the Gazette.]

1,209,571. **PATTERN-CUTTER.** THOMAS J. FEGLEY and GEORGE O. LEOPOLD, Philadelphia, Pa., assignors to North Bro's M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 19, 1916. Serial No. 79,367. (Cl. 164—119.)



1. The combination in a pattern cutter, of a base having an extended bearing surface and open at the center; a threaded plunger having a cutting tool extending into the open center of the base; a handle; a nut thereon adapted to the threaded plunger; a spring for returning the handle; and a spring for returning the cutter after a cut has been made.

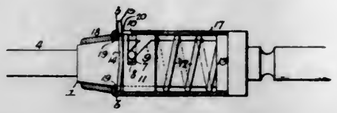
2. The combination in a pattern cutter, of a base having an open ring; a shell supported by the base; a plunger carrying a cutting tool and having a screw threaded periphery; a handle mounted on the shell and having a tube secured thereto extending within the shell and having a nut, the threads of the nut meshing with the threads of the plunger; and a spring located between the handle and the plunger.

3. The combination in a pattern cutter, of a base; a tube secured thereto; a tubular plunger carrying a cutting tool located within the base and having a screw threaded periphery; a handle; a tube secured to the handle and extending between the shell and the plunger and having a nut, the threads of the nut meshing with the threads of the plunger; a rod secured to the handle and extending into the tubular plunger; and a spring located in the plunger and bearing against the rod so that, as the handle is forced down, the spring will be compressed and the plunger will be turned.

4. The combination in a pattern cutter, of a base formed of a ring and uprights; a shell secured to the base; a tubular plunger having external screw threads and located within the shell; a cutting tool secured to the end of the plunger; a handle located on the shell; a plug at the upper end of the handle; a tube located in the handle and secured to the plug and extending into the shell; a nut on the tube engaging the threads of the plunger and having a guide ring at its lower end; a rod loosely hung from the plug of the handle and extending into the upper end of the plunger; and a spring located in the plunger and bearing against the lower end of the rod so that, when the handle is pushed down, the spring will be compressed and the plunger will be turned and, when the handle is released, the spring will return it to its normal position.

5. The combination in a pattern cutter, of a base having an open center; a shell supported by the base; a plunger carrying a cutting tool and having a screw thread on its periphery; a handle extending over the shell; a tube secured to the handle and extending into the space between the shell and the plunger and having a nut thereon meshing with the threads on the periphery of the plunger; a spring located between the plunger and the handle; and a second spring located between the shell and the handle, said springs tending to raise the handle after it has been depressed to punch the pattern.

1,209,572. CHUCK. THOMAS J. FEGLEY, Philadelphia, Pa., assignor to North Bro's M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 24, 1916. Serial No. 80,224. (Cl. 29—145.)



1. The combination in a chuck, of a body portion having an opening therein and having a notched bit, said body portion having an inclined way; a bearing located in the way; a sleeve mounted on the body portion and slotted to receive the ends of the bar; and a releasing device in the form of a rocking ring having one bearing against the forward end of the sleeve and another bearing against the shell and arranged to be turned to cause the sleeve to move the bar in the way.

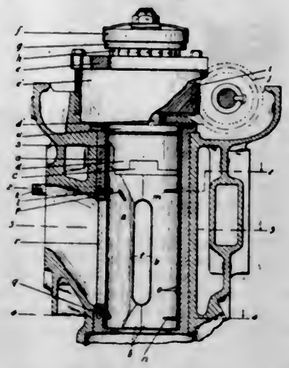
2. The combination in a chuck, of a body portion having an opening therein for a notched bit, said body portion having an inclined way; a sleeve mounted on the body portion; a spring back of the sleeve, said sleeve having a slot; a cross bar extending through the inclined way and into the slot of the sleeve; a releasing device in the form of a ring having a projecting finger hold; and a shell having a slot through which the finger hold extends so that on pushing the finger hold toward the rear of the chuck the bit will be released.

3. The combination in a chuck, of a body portion having an opening to receive a notched bit and having an inclined way therein; a bar located in the way and arranged to extend into the notch of the bit; a sleeve mounted on the body portion and slotted to receive the ends of the bar; a spring tending to force the sleeve forward; a releasing device in the form of a ring having a projecting portion; and a shell through which the projecting portion extends, the shell having a bearing point and the releasing device bearing against the sleeve at the center so that when the releasing device is retracted it will move the sleeve to withdraw the bar from engagement with the bit.

1,209,573. LUBRICATING MEANS FOR ROTATORS AND THEIR CASINGS. WILLIAM A. GILL, Portland, Oreg., assignor to Gill-Cook Valve Co., Portland, Oreg., a Corporation of Oregon. Filed Mar. 15, 1915. Serial No. 14,623. (Cl. 64—56.)

1. In a device of the character described, a casing made with a port for lubricant, leading from the exterior into the interior, a rotator, in the casing, provided with a circumferential lubricant groove located to pass over said port of the casing; the rotator being further provided with one or more longitudinal lubricant grooves; the casing being provided on its inner face with a connector lubricant groove, spaced from said lubricant port of the casing, and located intermediate of, and having its extremities extending to, said circumferential groove and said longitudinal groove of the rotator.

2. In a device of the character described, a casing made with a port for lubricant, leading from the exterior into the interior, a rotator in the casing, such rotator made of longitudinally divided sections, each of which is provided with a circumferential groove located between, but not extending to, the dividing faces of said sections, said groove located to pass over said port of the casing; each of said rotator sections being further provided with one or more longitudinal lubricant grooves located medially between the dividing faces of said sections, the casing being provided on its inner face with a connector lubricant-groove, spaced from said lubricant port of the casing, and located intermediate of, and having its extremities extending to, said circumferential groove and said longitudinal groove of the rotator.



3. In a device of the character described, a casing provided with a port for lubricant leading from the exterior into the interior, a rotator in the casing, provided with a circumferential segmental lubricant groove located to pass over said port of the casing, the rotator being further provided with a longitudinal lubricant groove; the casing being provided on its inner face with a connector lubricant groove spaced from said lubricant port of the casing, and located intermediate of, and having its extremities extending to said circumferential groove and said longitudinal groove of the rotator.

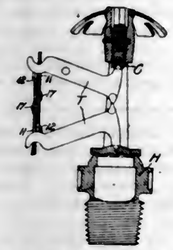
4. In a device of the character described, a casing provided with a port for lubricant leading from the exterior into the interior, a rotator in the casing, provided with a circumferential segmental lubricant groove located to pass over said port; the rotator being further provided with a series of longitudinal grooves, the casing being provided on its inner face with a connector lubricant groove, spaced from said lubricant port of the casing, and located intermediate of, and having its extremities extending to said circumferential groove and said longitudinal grooves of the rotator.

5. In a device of the character described, a casing provided with a port for lubricant leading from the exterior into the interior, a rotator in the casing, provided with a circumferential segmental lubricant groove located to pass over said port; the rotator being further provided with a longitudinal lubricant groove, the casing being provided on its inner face with a helically disposed connector lubricant groove, spaced from said lubricator port of the casing and located intermediate of, and having its extremities extending to said circumferential groove and said longitudinal groove of the rotator.

[Claims 6 and 7 not printed in the Gazette.]

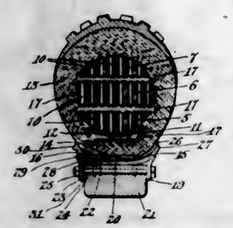
1,209,574. LINK FOR SPRINKLER-HEADS. LESTER A. GRIMES, Orange, N. J. Filed July 5, 1916. Serial No. 107,534. (Cl. 236—16.)

In a link for automatic sprinkler heads, the combination of a pair of duplicate plates substantially flat throughout their main portions, each provided with projections and sockets of the form of hemi-spherical segments, one of said sockets merging into an adjacent projection in a continuous compound curve, all of the compound curved surface of one plate fitting directly against



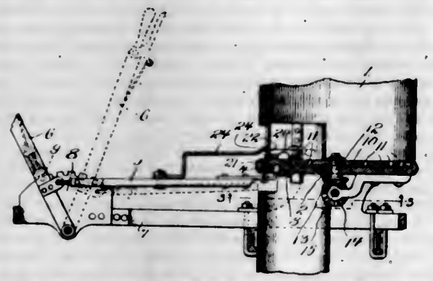
a similar surface of the other plate, and fusible metal connecting the flat portion of one plate to the flat portion of the other.

1,209,575. VEHICLE-TIRE. NELS H. HASSEL, Beverly Hills, Cal. Filed Mar. 13, 1915. Serial No. 14,256. (Cl. 152—5.)



A tire comprising a rubber body, a series of rings of elastic material in said body, said rings each having a plurality of cells formed therein, a metallic band embedded wholly within said rubber body forming a seat for said rings, and a fabric reinforcement within said body wound around the respective rings and said band to bind the same together and to hold said rings against the seat in said band.

1,209,576. PLANTER. SCOTT A. HASTIN, Benton, Ky. Filed June 24, 1916. Serial No. 105,623. (Cl. 111—6.)



1. A seed dropping mechanism comprising a hopper provided with an opening located in its bottom, a disk turnably mounted in the opening and having an aperture, a plate turnably mounted in the hopper and provided with several series of apertures, an arm, a knocker pivotally mounted in the hopper above the plate and having an end portion vertically above the apertures in the disk and means for turning the disk and knocker simultaneously.

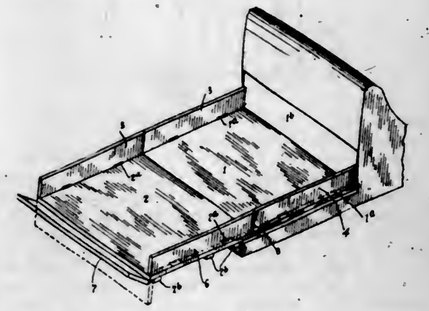
2. A seed planting mechanism comprising a hopper provided with an opening located in its bottom, a disk turnably mounted in said opening and having an aperture, a plate turnably mounted in the hopper and having several series of apertures, a partition located in the hopper above the plate and having a recess located at one side, a knocker pivoted in the hopper between the sides of the partition and means for turning the knocker and disk simultaneously.

3. A seed dropping mechanism comprising a hopper having an opening located in its bottom, a disk turnably mounted in the said opening and having an aperture, a plate turnably mounted in the hopper and provided with several series of apertures, a partition located in the hopper above the plate and having a recess provided at its side, a gate shiftably mounted upon the partition and adapted to increase or diminish the passage way through the said recess, a knocker pivoted between the sides of the said partition, and means for turning the knocker and disk simultaneously.

4. A seed dropping mechanism comprising a hopper having an opening located in its bottom, a disk turnably mounted in said opening and having an aperture, a plate turnably mounted in the hopper and having several series of apertures, a knocker turnably mounted in the hopper and provided at its free end with a head which is in alinement with the aperture in the disk and means for turning the knocker and disk simultaneously.

5. A seed planting mechanism comprising a hopper having an opening located in its bottom, a disk turnably mounted in the opening and having an aperture, a plate turnably mounted in the hopper and provided with several series of apertures, a knocker pivotally mounted in the hopper, an angularly disposed arm carried by the knocker, a rod connected with the disk, an operating lever connected with said rod, means for holding the said lever at an adjusted position and a rod connecting the first mentioned rod with the said knocker.

1,209,577. COLLAPSIBLE VEHICLE-BOX. FRANK HEATH, National City, Cal. Filed June 30, 1915. Serial No. 37,255. (Cl. 21—7.)



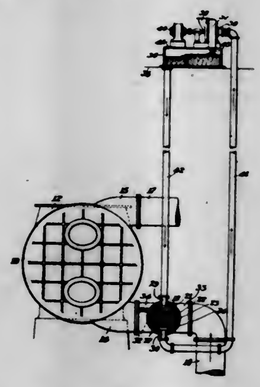
1. In a device of the class described, the combination of an automobile body frame, a stationary floor part for the rear end thereof secured thereto, side pieces foldable inwardly onto said stationary part, similar side pieces connected to the extended ends thereof by means of hinges, another floor part connected to said latter mentioned side pieces by hinges whereby when said side pieces are folded down, said latter mentioned piece will fold up over said sationary piece, an end-gate hinged to said latter mentioned floor part, and a rear seat frame provided with inwardly extending flanges adapted to slide between the side edges of said floor parts when they are in their folded position.

2. In a device of the class described, the combination with the rear end of the frame of a vehicle, of a bottom part rigidly secured thereto extending from the back of the front seat to near the rear end of said frame, side pieces mounted thereon foldable inwardly against said bottom part, similar side pieces with their ends hinged to the outwardly extending ends of said first mentioned

side pieces so as to fold upon said side pieces when they are folded down on said bottom part, another bottom part hinged to said last mentioned side pieces adapted to fold with said pieces and when in its extended position said last mentioned body part is supported by the rear end frame of said vehicle.

3. In a device of the class described, the combination with the rear end of the frame of a vehicle, of a bottom part rigidly secured thereto extending from the back of the front seat to near the rear end of said frame, side pieces mounted thereon foldable inwardly against said bottom part, similar side pieces with their ends hinged to the outwardly extending ends of said first mentioned side pieces so as to fold upon said side pieces when they are folded down on said bottom part, another bottom part hinged to said last mentioned side pieces adapted to fold with said pieces and when in its extended position said last mentioned body part is supported by the rear end frame of said vehicle and an end-gate hinged to said body part whereby it forms an end-gate when folded against the ends of said side pieces and a foot rest when in its folded position.

1,209,578. CONDENSING APPARATUS. HERMAN C. HEATON, Berwyn, Ill. Filed Mar. 16, 1915. Serial No. 14,642. (Cl. 257—44.)

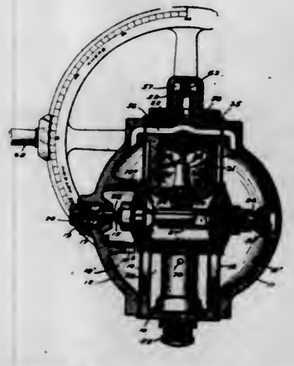


1. A condensing apparatus comprising a condenser placed at a predetermined level, connections for a circulating medium leading to and from the condenser, a hydraulic air pump at a predetermined and materially different level, a tank into which said air pump discharges, a cooler located in the circulating medium pipe connections of the condenser, and pipe connections forming substantially balanced columns between said tank and the inlet to the cooler and between the outlet from the cooler and the suction of said air pump so that the air pump may be located any distance above or below the said condenser.

2. A condensing apparatus comprising a condenser placed at a predetermined level, circulating water pipes leading to and from the condenser, a hydraulic air pump placed at a material distance above the condenser, a tank adjacent said air pump and into which it discharges, a cooler located in the circulating water pipe connections to the condenser, and pipe connections forming substantially balanced columns, the one leading from the tank to the inlet of said cooler and the other from the outlet of the cooler to the suction of said pump.

3. A condensing apparatus comprising a condenser placed at a predetermined level, circulating water pipes leading to and from the said condenser, a hydraulic air pump placed at a material distance above the condenser, a tank adjacent the air pump and into which said pump discharges, a cooler in the circulating water pipe connection to the said condenser, the said cooler including a plurality of compartments around which the circulating water passes and through which hurling water employed in the pump passes so as to effectually lower the temperature of the hurling water by the circulating water, and pipe connections forming substantially balanced columns, the one extending between the said tank and the inlet to the said cooler and the other extending from the outlet from the tank to the suction of said pump.

1,209,579. FLUID-DISTRIBUTER. HERBERT T. HERR, Pittsburgh, Pa., assignor, by mesne assignments, to The Westinghouse Machine Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 1, 1913. Serial No. 764,846. (Cl. 188—7.)



1. In a pressure distributing device, a casing having a central chamber and two end chambers, flexible walls separating the end chambers from the central chamber, means for admitting pressure to the two end chambers and connected to one of the flexible walls, means for exhausting pressure from the end chambers and connected to one of the flexible walls, and means within the casing for controlling the delivery of air pressure to the central chamber.

2. In a pressure distributing device, a casing having a central chamber and two end chambers, said chambers being separated by flexible walls, port closing valves connected to said flexible walls and means for admitting pressure to said central chamber, said means being contained within the casing and having a sliding port closing valve.

3. In a device of the class described, a casing having a central chamber and two end chambers separated by flexible walls, port closing valves connected to said flexible walls for admitting and exhausting pressure to and from said end chambers, a plurality of ports in communication with the end chambers, means for valving said ports, means for admitting a determined air pressure to the central chamber, and a manually controlled means connected to the air admission means for the central chamber and to the means for valving the said ports so as to direct the air from the end chambers to a determined port.

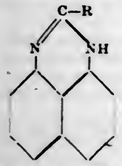
4. An apparatus for controlling the delivery of fluid under pressure to a fluid actuated mechanism, comprising a chamber from which pressure is delivered to the mechanism, pressure responsive means for controlling the degree of pressure within the chamber, a manually adjustable pressure control valve for controlling the delivery of actuating pressure to said pressure responsive means, and a device, movable in response to variations of pressure to which said pressure responsive means are subjected, for controlling the delivery of fluid past said valve.

5. An apparatus for controlling the delivery of fluid under pressure to a fluid actuated mechanism, comprising a pressure chamber from which fluid is delivered, a control mechanism for controlling the amount of pressure in said chamber, a valve for controlling the delivery of pressure to said control mechanism, and pressure responsive means coöperating with said valve for maintaining different determined fluid pressures on said control mechanism for each position of said valve.

[Claims 6 to 10 not printed in the Gazette.]

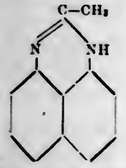
1,209,580. SULFUR DYES. WILHELM HERZBERG, Berlin-Wilmersdorf, and OSWALD SCHARFENBERG, Berlin-Schöneberg, Germany, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Original application filed Feb. 26, 1912, Serial No. 679,993. Patent No. 1,102,171, dated June 30, 1914. Divided and this application filed Mar. 22, 1913. Serial No. 756,283. (Cl. 8—1.)

1. As new articles of manufacture new sulfur dyes, being sulfur containing derivatives of the indophenols obtainable from a perimidin compound of the general formula:



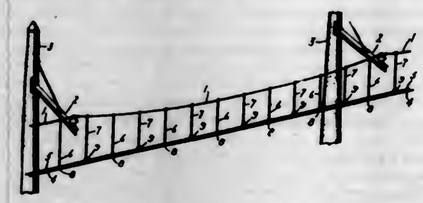
in which R means an organic radical, and from a para-aminophenol, these new dyes being in the dry shape when pulverized dark powders insoluble in the usual solvents, but being soluble in an alkali-sulfid solution to green solutions and being soluble in an alkaline hydrosulfite solution to, generally speaking, brown to yellow solutions, and these new sulfur dyes producing on cotton from a bath containing an alkali-sulfid, generally speaking, full green tints.

2. As a new article of manufacture the new sulfur dye being a sulfur containing derivative of the indophenol obtainable from methyl-perimidin having the formula:



and from 2.6-dichloro-para-aminophenol, which new dye is when dried and pulverized a black powder, practically insoluble in concentrated sulfuric acid, alcohol, benzene, nitrobenzene, ether and the other usual solvents, and which new dye is soluble in a sodium-sulfid solution to a green solution and is soluble in an alkaline hydrosulfite solution to a brownish yellow solution, and this new dye producing on cotton from a bath containing an alkali-sulfid a full dark green possessing a good fastness.

1,209,581. TROLLEY SYSTEM. CLINTON J. HIXSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 6, 1914. Serial No. 855,502. (Cl. 191—41.)



1. A catenary trolley system comprising a plurality of horizontally stretched conductors for supplying current to the same contact device suspended from the messenger means in alternation.

2. A catenary trolley system comprising a pair of horizontally stretched conductors for supplying current to the same contact device suspended side by side from a common messenger, the points of suspension of each of said conductors alternating with those of the other.

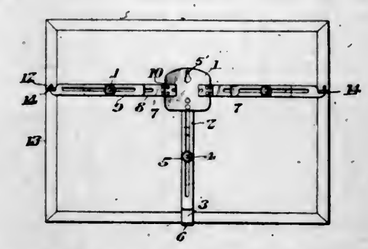
3. A catenary trolley system comprising a plurality of horizontally stretched conductors for supplying current to the same contact device suspended side by side and free to come in contact at their adjacent sides but unattached to one another, the successive points of suspension of the respective conductors from the messenger means being themselves arranged in recurrent succession.

4. A catenary trolley system comprising a pair of horizontally stretched conductors for supplying current to the same contact device independently suspended side by side from a common messenger and free to come in contact but unattached to one another, the points of suspension of each of said conductors being midway between those of the other.

5. The combination with a messenger cable and a pair of trolley conductors, of means for freely suspending each of said conductors from said messenger cable whereby said conductors tend to lie in contact with each other.

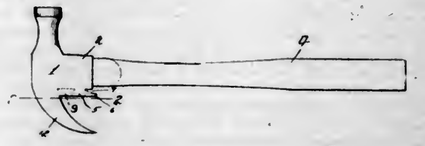
[Claim 6 not printed in the Gazette.]

1,209,582. PICTURE-HANGER. KARL WILLIAM ARTHUR HOERNEGEL, Point Roberts, Wash. Filed Nov. 18, 1915. Serial No. 61,328. (Cl. 40—145.2.)



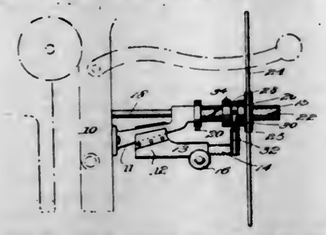
The combination with a picture frame, of eyes secured to the opposed sides of the frame at the rear thereof, a plate provided with a key-hole slot adjacent one edge thereof, arms hingedly connected to the plate at opposed sides thereof for swinging movement, a third arm depending from the lower edge of the plate, said arms including a relatively adjustable section, the said adjustable sections of the first mentioned arms terminating in hooks for engagement with said eyes, and the adjustable section of said third arm terminating in a flange to engage the lower edge of the picture frame, and means for holding said adjustable sections of said arms in fixed position.

1,209,583. HAMMER-HEAD. MONVILLE HOLMDAHL, Oakland, Cal. Filed Jan. 27, 1915. Serial No. 4,968. (Cl. 254—26.)



A hammer head comprising a handle socket, a curved claw, a thickened wall on the side of said socket adjacent the claw, said wall having a transverse slot forming an overhanging lip and a notch in said lip extending from said slot to the outer surface of said socket.

1,209,584. MOTION-PICTURE SHUTTER. JOHN J. HUGHES, Philadelphia, Pa. Filed May 26, 1916. Serial No. 100,073. (Cl. 88—19.3.)



1. A motion picture shutter and operating device for motion picture machines, including a shutter driving shaft, and a sleeve, said sleeve having a spiral groove, a shutter carrying element extending into the spiral groove, a movable rack, means for operating said rack and a yoke pivoted upon said rack and connected with the shutter supporting element to actuate the same forwardly or backwardly upon the sleeve and simultaneously rotate the element, when the rack is actuated.

2. A motion picture shutter and operating device for a motion picture machine, including a shutter driving shaft provided with a spiral groove, comprising a shutter carrying element rotated by the shaft when the latter is rotated, a movable rack, means for actuating said rack, a yoke pivoted on said rack and connected with the shutter carrying element to move the same backwardly and forwardly when the rack is actuated, without impairing the rotation of the element by the rotating action of the shaft and a projection on the element and extending into the spiral groove to insure an independent rotation of the element when the rack is actuated.

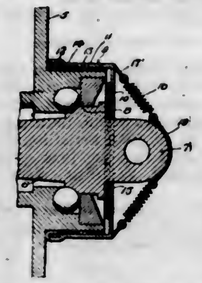
3. In combination with a motion picture apparatus including a driving shaft, a spirally grooved sleeve mounted to rotate with said shaft, a shutter carrying element mounted loosely on the sleeve, a projection on the element and extending into the spiral groove, a pivoted yoke connecting with the element to move the same forwardly or backwardly when the yoke is moved, independently of the rotation of the sleeve by the action of the shaft and means connecting with the yoke to operate the same.

4. A motion picture shutter and operating device for a motion picture machine including a shutter driving shaft, comprising a bracket on the machine and having the shaft journaled therein, a supplementary bracket rigid with the first mentioned bracket, a sleeve on the driving shaft and rotatable therewith, said sleeve having a spiral groove, a shutter carrying element mounted on said sleeve, a projection on the element and extending into the groove whereby said element will be rotated with the sleeve and means for advancing or retreating the element upon the sleeve to follow the line of the spiral groove and thus impart an independent rotary movement to the element.

5. A motion picture shutter and operating device for a motion picture machine, including a shutter driving shaft, comprising a bracket on the machine with an end of the shaft projecting from an end of the bracket, a supplementary bracket secured to the first named bracket, a spirally grooved sleeve on the forward projecting end of the shaft, a shutter carrying element loosely mounted on said sleeve, a projection on the element and extending into the spiral groove of the sleeve, a U-shaped yoke in loose contact with said element, a rack mounted to slide on the supplementary bracket and having the yoke pivoted thereto, and a pinion journaled on the supplementary bracket and co-acting with the rack to actuate the same when said pinion is actuated.

1,209,585. SAND-BAND. WILLIAM E. HUTCHINSON, Harborton, Va. Filed Feb. 29, 1916. Serial No. 81,253. (Cl. 21—40.)

1. The combination with a vehicle stub axle including a knuckle, of a sand band associated with said axle, and means bridging said knuckle and connected to said band for holding the latter in operative position.



2. The combination with a vehicle stub axle including a knuckle, of a sand band associated with said axle, and yieldable means carried by said band and bridging said knuckle, whereby said band is held immovably fixed in operative position.

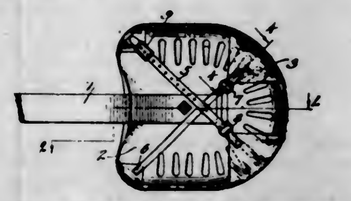
3. The combination with a vehicle axle, of a sand band including an end wall having an enlarged opening for the reception of said axle, means for reducing the size of said opening and effecting a dust proof joint between said end wall and axle, and yieldable means bridging the end of said axle for holding said band fixed relatively to the axle.

4. The combination with a vehicle axle and hub therefor, of a sand band comprising a cup-shaped member fitted on said axle and embracing said hub, an inwardly extending flange on one end of the member, packing clamped between said flange and member and concentrically disposed about the hub and means for holding said band fixed relatively to said axle.

5. The combination with a vehicle axle, of a sand band including an end wall having a relatively large opening for the reception of said axle, a pair of crescent-shaped plates engaging said end wall and having their meeting edges conforming to the configuration of the axle to provide a dust proof joint between said wall and axle, and yieldable means bridging the end of said axle, and connected to the band for holding said latter fixed relatively to the axle.

[Claims 6 to 8 not printed in the Gazette.]

1,209,586. SEAT-COVER. ANDREW JENSEN, Round Lake, Minn. Filed Mar. 22, 1916. Serial No. 85,856. (Cl. 155—26.)

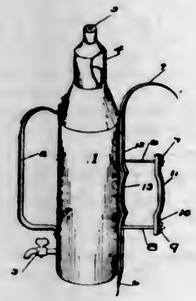


1. A cover for seats of agricultural implements, the same comprising a body of suitable fabric material, and attaching means for securing said body over a seat consisting of fastening members secured to the corners of the material, and a strap fastened to one forward corner, said strap passing across beneath the seat and through the fastening member in the diagonally opposite rear corner, thence through the fastening member in the other rear corner and finally back diagonally across the seat, crossing itself at approximately right angles to the fastening member on the remaining forward corner.

2. A cover for the seats of agricultural implements, the same comprising a bag-like body open at one end, a mat received within the body through said open end, and attaching means for said body connected with the corner portions thereof and adjustable to pull the corner portions of the body at the open end so as to lap beneath a seat over which the cover is disposed, whereby to partially close the open end of the body and prevent displacement of the mat therein.

3. As a new article of manufacture, a cover for seats of agricultural implements, the same comprising a bag-like body open at one end and made of fabric material, a protective mat disposed within said body, and attaching means for connecting said body to a seat over which it may be disposed including a strap permanently connected at one end with one of the open corner portions of the body, loops connected with the rear corner portions of the body and through which said strap passes loosely, and a buckle connected with the other corner portion at the open end of the body for adjustable connection with the free end of the strap, said attaching means being operable to pull the corner portions of the body beneath a seat to which the cover may be attached so that the opening of the body is partially closed by certain of said corner portions and unauthorized displacement of the mat prevented.

1,209,587. OIL-CAN. CARL JOHANSON, Cherry Grove, Oreg. Filed Mar. 1, 1915. Serial No. 11,145. (Cl. 221—32.)

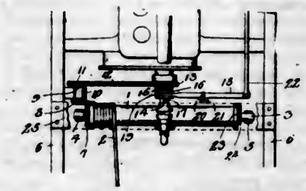


1. The combination with an oil can, of a single strip of metal secured to said oil can in such a manner as to extend parallel to the longitudinal axis thereof, rods secured to said strip and extending outwardly at right angles thereto, the outer ends of said rods being formed with screw threads, a bar formed with openings adjacent its extremity, the rods being adapted to project through said openings, and means engaging the screw threads whereby, upon the actuation thereof, to impart a certain movement of the bar along the rods.

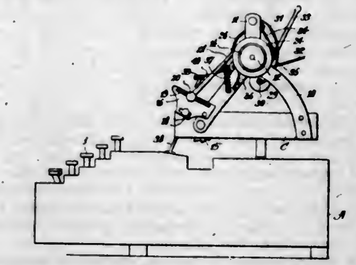
2. The combination with an oil can, a single strip of metal secured to the oil can in such a manner as to extend substantially parallel to the longitudinal axis thereof, such strip being formed with a curved portion approximately intermediate the ends, rods secured to said strip and extending outwardly at right angles thereto, the outer ends of said rods being formed with screw threads, a bar formed with openings between its extremities, and being provided with a curved portion, the rods being adapted to project through said openings and means engaging the screw threads whereby, upon the actuation thereof, to impart movement of the bar along the rods.

1,209,588. AUTOMOBILE-EXTRACTOR. HENRY R. JOHNSON, Newell, S. D. Filed Mar. 14, 1916. Serial No. 84,149. (Cl. 254—166.)

The combination with the frame and engine of a motor vehicle, of a rotary drum, a flexible cable wound thereon, a shaft on which said drum is normally loose, means for connecting said drum to said shaft and disconnecting the same therefrom, a sprocket wheel normally loose on the engine shaft, a clutch keyed to and slidable upon the engine shaft and movable into and out of engagement with said sprocket wheel, clutch operating means, a countershaft extending at right angles to the drum shaft and geared thereto, a sprocket wheel fast on said countershaft, and a chain extending around said sprocket wheels.

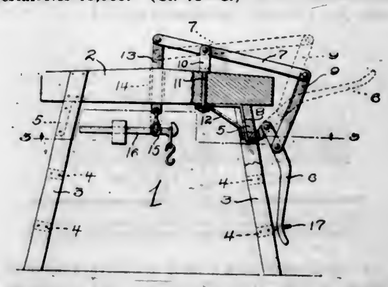


1,209,589. COPY-HOLDER ATTACHMENT FOR TYPEWRITERS. WILLIAM F. JOHNSON, Basin, Wyo. Filed Aug. 2, 1915. Serial No. 43,220. (Cl. 120—32.)



The combination with the platen carriage and platen of a typewriter, of an automatic copy holder comprising supports fixed to the carriage, a feed roller journaled in the supports, a ratchet spacing wheel connected with the feed roller, a trip arm swingingly mounted upon one of the supports, a ratchet member carried by said arm and adapted to be operated by the platen, said trip arm being formed with an elongated slot, an adjustable pivot engaged in said slot, a ratchet dog carried by said pivot and having ratchet teeth for engagement with the ratchet wheel, and resilient means connected with the support and the ratchet dog for holding the latter in operative relation to the ratchet wheel.

1,209,590. LEVER-HOISTING SUPPORT FOR SCALES. DAVID M. JONES, Gastonia, N. C. Filed Jan. 29, 1916. Serial No. 75,066. (Cl. 73—3.)



1. In combination with a weighing device having means for receiving material to be weighed, of a support, means on said support adapted to control the elevation of the weighing device relatively to the support; said means comprising a double set of levers, one of which is fulcrumed to the support and comprises means for balancing the weighing device, and said other lever comprises a

manipulating handle pivoted to said support and connected to said fulcrumed lever.

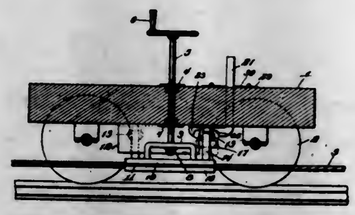
2. In combination with a weighing device having means for receiving material to be weighed, of a support, means on said support adapted to control the elevation of the weighing device relatively to the support; said means comprising a double set of levers, one of which is fulcrumed to the support and comprises means for balancing the weighing device, and said other lever comprises a manipulating handle pivoted to said support and connected to said fulcrumed lever; and means coacting with said manipulating handle for retaining the weighing device in elevated position.

3. In combination with a weighing device having means for receiving material to be weighed, of a support for said device, means for elevating the weighing device to weighing position, comprising a double set of levers, one of said levers being fulcrumed on the support and having a balance for the weighing device; said other lever being pivoted to the support and connected to the fulcrumed lever through a link connection and adapted to control the elevation of the weighing device to weighing position through the medium of its connection with said fulcrumed lever.

4. In combination with a weighing device having means for receiving material to be weighed, of a support for said device, means for elevating the weighing device to weighing position, comprising a double set of levers, one of said levers being fulcrumed on the support and having a balance for the weighing device; said other lever being pivoted to the support and connected to the fulcrumed lever through a link connection and adapted to control the elevation of the weighing device to weighing position through the medium of its connection with said fulcrumed lever, and a catch on said support adapted to coact with said pivoted lever to retain the weighing device in elevated position relatively to the support.

5. In a weighing device, the combination of a support comprising a horisontal beam having an opening extending transversely there through, of a double set of levers adapted to suspend the weighing device from said support and through said transverse opening, one of said levers being fulcrumed on said support and said other lever being pivoted to said support and connected to said fulcrumed lever through a link connection; said pivoted lever comprising a manipulating handle adapted to control the elevation of the weighing device relatively to the support, and means on said support coacting with said manipulating handle for retaining the weighing device in elevated position.

1,209,591. CABLE-GRIP FOR BOGIE-TRUCKS. WALTER JOYCE, Fernie, British Columbia, Canada, assignor of one-half to Thomas A. Spruston, Beven, near Cumberland, British Columbia, Canada. Filed July 21, 1916. Serial No. 110,613. (Cl. 104—130.)



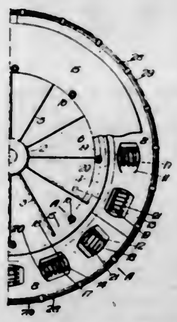
1. In combination with a cable and a truck mounted for movement, a cable grip comprising a jaw located at the side of the cable, a screw shaft mounted upon the truck and connected with said jaw for raising and lowering the same, arms pivoted upon the truck, a jaw carried by said arms and lying at the opposite side of the cable from the first mentioned jaw, and a bar movably mounted upon the truck and adapted to engage the arms to hold the jaw carried thereby in gripping position against the cable.

2. In combination with a cable and a truck mounted for movement, a gripping mechanism comprising a jaw movably mounted upon the truck, means for guiding the movement of said jaw, a screw shaft threaded upon the truck and operatively connected with said jaw, arms pivoted upon the truck and carrying a jaw which lies at the side of the cable, a bar movably mounted upon the truck and having an extension provided with notches and intervenings lugs adapted to engage the said arms and means mounted upon the truck for temporarily holding the bar against movement.

3. In combination with a cable and a truck mounted for movement, a gripping mechanism comprising a jaw, a shaft screw-threaded upon the truck and operatively connected with said jaw, arms pivoted upon the truck, a jaw carried by the said arms and lying at the side of the cable, a bar connecting said arms together, a bar movably mounted upon the truck and provided with an angularly disposed extension having spaced recesses with lugs positioned between the said recesses, the said lugs adapted to engage the arms and hold the jaw mounted upon the arms in contact with the cable and means mounted upon the truck for temporarily holding the bar which is movably mounted upon the truck against movement.

4. In combination with a cable and a truck mounted for movement, a gripping device comprising a jaw, means mounted upon the truck for raising and lowering said jaw, arms pivoted upon the truck, a jaw carried by the arms and lying at the side of the cable, a bar movably mounted upon the truck and having notches with intervening lugs adapted to engage the arms to hold the jaw carried thereby in engagement with the cable, and tongues pivotally mounted upon the truck and lying at the opposite sides of the said bar and adapted to temporarily hold the said bar against movement.

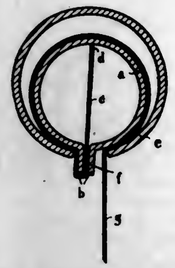
1,209,592. RESILIENT TIRE FOR VEHICLE-WHEELS. GUSTAV KANTER, Essendon, Melbourne, Victoria, Australia. Filed Apr. 22, 1914. Serial No. 833,734. (Cl. 152—37.)



1. A resilient tire for vehicle wheels comprising in combination a wheel rim, a series of circumferential plates adjacent said rim provided with a plurality of radial and tangential spring apertures and having spaces therebetween, a second series of plates adapted to alternately engage said first named series and having a plurality of radial and tangential spring apertures therein and a plurality of radial and tangential springs disposed within said apertures.

2. A resilient tire for vehicle wheels comprising in combination a wheel rim, a series of inner circumferential split rings, a series of circumferential plates separated by said rings, a second series of circumferential plates adapted to move between the first series, a series of outer circumferential rings alternately disposed between the plates of the second series, the first and second series of plates having formed therein a series of radial spring apertures provided with curved ends, a spring disposed within each radial aperture and provided with curved bearing members adapted to fit the curved ends of said apertures, said first and second series of plates having a series of tangential spring apertures provided with curved ends, a spring disposed within each tangential aperture and provided with curved bearing members adapted to fit the curved ends of said apertures.

1,209,593. CLAMP. JAN KEISER, The Hague, Netherlands. Filed Mar. 30, 1916. Serial No. 87,786. (Cl. 242—74.)



1. A gripping device of the character described, comprising a slotted support and a clamping rod having a split projecting element extending into said slot, said rod, in operating position, having passed between the jaws of its split projecting element, one end of the material engaged and said rod lying within a bight of said material entered through the slot in the support, whereby under strain on the material beyond the support, said material is gripped not only between the projecting element of the rod and one side of the slot in the support but also between the jaws of the projecting element of the rod, substantially as described.

2. A gripping device of the character described, comprising a slotted support and a cylindrical clamping rod having a split fin extending into said slot, said rod, in operating position, having passed between the jaws of its split fin, one end of the material engaged and said rod lying within a bight of said material entered through the slot in the support, whereby under strain on the material beyond the support, said material is gripped not only between the projecting element of the rod and one side of the slot in the support but also between the jaws of the projecting element of the rod, substantially as described.

3. A gripping device of the character described, comprising a cylindrical support longitudinally slotted in combination with a cylindrical clamping rod of less diameter lying within said support and having a split fin projecting into the slot of the support, said rod, in operating position, having passed between the jaws of its split fin, one end of the material engaged and said rod lying within a bight of said material entered through the slot in the support, whereby under strain on the material beyond the support, said material is gripped not only between the projecting element of the rod and one side of the slot in the support but also between the jaws of the projecting element of the rod, substantially as described.

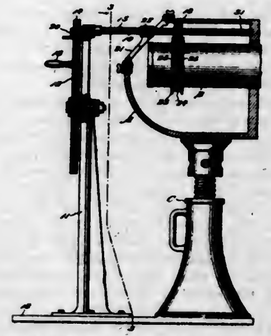
4. A gripping device of the character described, comprising a supporting member having a slot, in combination with a clamping bar carried by said supporting member and having a split fin projecting into said slot, for the purpose described.

5. A gripping device of the character described, comprising a supporting member having a slot, in combination with a hollow clamping bar carried by said supporting member and having a split fin the slot in which communicates with the interior of said clamping bar.

[Claims 6 to 8 not printed in the Gazette.]

1,209,594. AXLE-TRUING DEVICE. ANDREW H. KLING, Clinton, Conn. Filed May 23, 1916. Serial No. 99,413. (Cl. 51—4.)

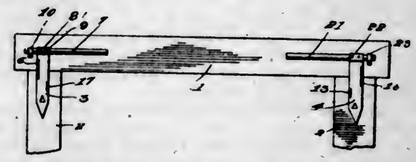
1. A machine of the class described comprising a stand, a driven shaft journaled in said stand, a bracket for connecting the shaft to a journal box, a gear slidable on to the shaft, a rotatable truing element adapted to embrace the car journal within the journal box and operated by the gear, emery blocks detachably and yieldably supported internally of said element, means on the element and engageable with the gear to hold the same in meshing relation with each other, and means for rotating the shaft and supported by the stand.



2. A machine of the class described comprising a stand, a driven shaft journaled in said stand, a bracket for connecting the shaft to a journal box, a gear slidable on to the shaft, a rotatable truing element adapted to embrace the car journal within the journal box and operated by the gear, emery blocks detachably and yieldably supported internally of said element, means on the element and engageable with the gear to hold the same in meshing relation with each other, means for rotating the shaft and supported by the stand, and means for feeding the gear longitudinally on the shaft.

3. A machine of the class described comprising a stand, a driven shaft journaled in said stand, a bracket for connecting the shaft to a journal box, a gear slidable on to the shaft, a rotatable truing element adapted to embrace the car journal within the journal box and operated by the gear, emery blocks detachably and yieldably supported internally of said element, means on the element and engageable with the gear to hold the same in meshing relation with each other, means for rotating the shaft and supported by the stand, means for feeding the gear longitudinally on the shaft, and a bearing point removably fitted in the shaft and engageable with the journal box.

1,209,595. CURTAIN AND SHADE HANGER. ABRAHAM KRIEGER, Atlanta, Ga. Filed June 15, 1916. Serial No. 103,788. (Cl. 156—24.)



1. The combination, in a curtain and shade hanger, of a pair of alined bars, brackets carried thereby, curtain and shade supporting members extending from said brackets, and sharpened tongue members extending inwardly from said brackets for engagement with the window frame to rigidly support the brackets.

2. In a curtain and shade hanger, the combination with a pair of bars demountably arranged on a window frame in alined relation, of a pair of bracket members slidably arranged on said bars, means for adjusting said brackets, and rearwardly extending lateral extensions carried by said brackets to engage the window frame and support the brackets against displacement.

1,209,596. CIGAR-HOLDER. ADAM KRYSTYNIAK, Greensburg, Pa. Filed Feb. 7, 1916. Serial No. 76,735. (Cl. 131—10.)



1. A cigar holder comprising a mouth piece, a piercing element connected with the mouth piece, a receiving member carried by the piercing element, and a flexible casing formed from absorbent material and interposed between the mouth piece and receiving member.

2. A cigar holder comprising a mouth piece, a piercing element extending from the mouth piece, a receiving member mounted upon the piercing element distant from the mouth piece, and a flexible casing formed from absorbent material terminally connected with the mouth piece and receiving member, said casing being collapsible.

3. A cigar holder comprising a mouth piece, a piercing element extending centrally therefrom, a collapsible casing formed from absorbent material and having one end connected with the mouth piece, and a receiving element connected with the other end of the casing and mounted to slide upon the piercing element to collapse or extend said casing.

4. A cigar holder comprising a mouth piece, a piercing element extending centrally therefrom, a collapsible casing formed from absorbent material surrounding the piercing element and spaced therefrom, said casing being tapered and having its larger end secured to the mouth piece, a receiving element connected with the other end of the casing and mounted to slide on the piercing element to collapse said casing, and a spring interposed between the mouth piece and the receiving member to normally hold the casing in extended position.

5. A cigar holder comprising a mouth piece, a piercing element extending centrally therefrom, a collapsible casing formed from absorbent material surrounding the piercing element and spaced therefrom, said casing being tapered and having its larger end secured to the mouth piece, a receiving element connected with the other end of the casing and slidably mounted on the piercing element, and a coil spring interposed between the mouth piece and the receiving member, said spring having the convolutions thereof wound spirally about the piercing element in spaced relation thereto and adapted to prevent contact of the inner peripheral surface of said casing when collapsed.

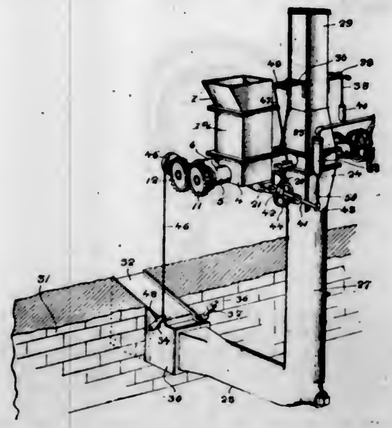
1,209,597. FUEL FEEDER AND CONTROLLER. COLUMBUS K. LASSITER, Richmond, Va. Filed Dec. 9, 1914. Serial No. 876,320. (Cl. 110—104.)

1. In a fuel feeding apparatus for coal dust, the combination with a mixing and delivery conduit, of a feeder for supplying the coal dust thereto, a valve for regulating the amount of fuel delivered by the feeder to the conduit, a valve for regulating the admission of air to the conduit, a valve in the conduit for governing the velocity of the delivered fuel mixture, and means for simultaneously and coördinately adjusting said valves.

2. In a fuel feeding apparatus for coal dust, the combination of a mixing and delivery conduit, a feeder having an outlet in communication with the conduit, a valve controlling said outlet, a valve for controlling the supply of air to the conduit, a valve for regulating the delivery velocity of the mixture, and automatic means for simultaneously and coördinately adjusting said valves.

3. In a fuel feeding apparatus for coal dust, the combination of a mixing and delivery conduit, a valve controlling the supply of air thereto, a feeder having a delivery opening communicating with the conduit, and means coöperating with said opening for drawing the fuel charged by suction into the conduit, a valve controlling said opening, a valve for regulating the delivery velocity of the fuel mixture, and means for simultaneously and coördinately adjusting said valves.

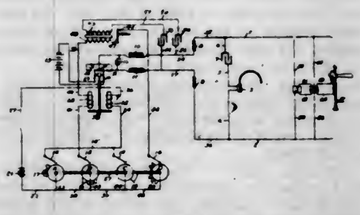
4. In a fuel feeding apparatus for coal dust, the combination with a fuel feeder, of means for discharging predetermined quantities of fuel therefrom, means for supplying air for admixture with the fuel charge, means for governing the delivery velocity of the fuel mixture, and means for simultaneously and coördinately governing the fuel discharge, air supplying and velocity regulating means.



5. In a fuel feeding apparatus for coal dust, the combination with a fuel feed chamber having a discharge outlet, of a combustion chamber, a mixing and delivery conduit between said feed and combustion chambers, said conduit comprising an inextensible vertical mixing portion and a horizontal delivery portion, a feeder operating in the feed chamber for delivering the fuel to the discharge opening thereof, a valve controlling said opening, air supplying means communicating with the mixing chamber and including means for producing a suction action to draw the fuel charges into the conduit, a valve for controlling the inlet of air, a valve in the delivery portion of the conduit for controlling the delivery velocity of the fuel mixture, and means for simultaneously and coördinately adjusting said valves.

[Claims 6 to 27 not printed in the Gazette.]

1,209,598. SELECTIVE SIGNALING SYSTEM. RICHARD C. LEAKE, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Dec. 11, 1914. Serial No. 876,636. (Cl. 177—343.)



1. In a selective signaling system, in combination: a remote control device; means for controlling said remote control device from a central station; means controlled by said remote control device for giving a code indication at the central station of the movements of said remote control device; and means operated by said first mentioned means for giving preliminarily at the central station, the same code indication distinctive from the indication given by the means controlled by said remote control device.

2. In a selective signaling system, in combination: a remote control device; means for controlling said remote control device from a central station; a pair of line wires; a telephone receiver bridged across said line wires and adapted to receive indications from said line wires; means controlled by said remote control device for sending a code indication over said line wires to the telephone receiver for each movement of said device; and means operated by said first mentioned means for giving preliminarily at the central station an indication of the same code as the first mentioned indication but of a different tone.

3. In a selective signaling system, in combination: a remote control device; a selector for controlling said remote control device; an impulse transmitter for controlling said selector from a central station; a pair of line wires; means controlled by said remote control device for giving a code indication over said line wires at the central station, of the movements of the remote control device; and means operated by said impulse transmitter for giving preliminarily at the central station an indication of the same code over said line wires, distinctive from the indication given by the means controlled by said remote control device.

4. In a selective signaling system, in combination: a remote control device; a selector for controlling said remote control device; an impulse transmitter for controlling said selector from a central station; a pair of line wires; means controlled by said remote control device for giving over said line wires to the central station, a code indication of the movements of the said remote control device; vibrating means for giving preliminarily at the central station the same code indication distinctive from the indication given by the means controlled by said remote control device; means governed by said impulse transmitter for operating said vibrating means subsequent to the operation of said impulse transmitter; and a telephone receiver bridged across said line wires for receiving said indications.

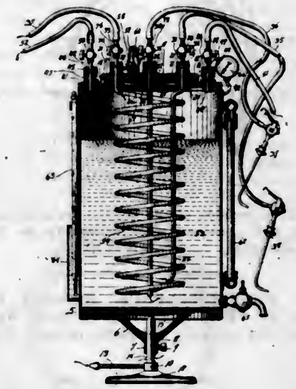
5. In a signaling system, in combination: two line wires; a telephone receiver bridged across said line wires; a remote control device; means governed by said remote control device for sending over said line wires to a central station a code indication of the operated condition of said device; a selector for governing said remote control device; a calling key for controlling said selector; means operated by said calling key for applying to said line wires impulses in the same code as said indication; and means for modifying the electrical character of said impulses, whereby said impulses can be distinguished from the indication given by the means governed by said remote control device.

[Claims 6 and 7 not printed in the Gazette.]

1,209,599. HOT WATER AND AIR TANK FOR DENTISTS' USE. HARRY W. LE FEVRE, Denver, Colo. Filed June 14, 1915. Serial No. 33,925. (Cl. 32—28.)

1. A combined apparatus for supplying warm water and warm air, comprising a tank adapted to contain water, a coil of pipe therein adapted to be submerged by the water, the extremities of the pipe passing through the top of the tank, and respectively connected with a source of air under pressure, and an instrument for controlling the escape of air, a conduit in communication with the water of the tank at one extremity and connected at its opposite extremity with an instrument for controlling the escape of water, and means for introducing air under pressure into the tank above the water.

2. Apparatus of the class described comprising a tank adapted to contain water, three pipes passing through the top of the tank, means for forming fluid tight joints around the said pipes, a coil of pipe within the tank, two of said pipes forming the terminals of said coil and being respectively in communication with a source of air under pressure and an instrument for dispensing air after passing through the coil, the third pipe being in communication with the water of the tank at one extremity and at the opposite extremity with an instrument for dispensing water, and means carried by one of said coil terminals for controlling the passage of air.



3. Apparatus of the class described comprising a tank adapted to contain water, three pipes passing through the top of the tank, a coil of pipe within the tank, two of said pipes forming the terminals of said coil and being respectively in communication with a source of air under pressure and an instrument for dispensing the air after passing through the coil, the third pipe being in communication with the water of the tank at one extremity and at the opposite extremity with an instrument for dispensing water, and means for introducing air under pressure into the top of the tank above the water.

4. Apparatus of the class described comprising a tank adapted to contain water, three pipes passing through the top of the tank, a coil of pipe within the tank, two of said pipes forming the terminals of said coil, these terminals being respectively in communication with a source of air under pressure and an instrument for dispensing the air after passing through the coil, the third pipe being in communication with the water of the tank at one extremity and at its opposite extremity with an instrument for dispensing water, and valve-controlled means for introducing air under pressure to the top of the tank above the water.

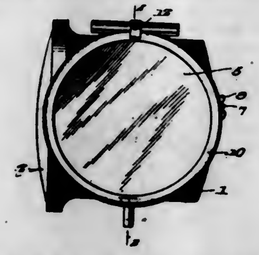
5. Apparatus of the class described comprising a tank adapted to contain water, three pipes passing through the top of the tank, two of said pipes forming the terminals of the said coil and being respectively in communication with a source of air under pressure and an instrument for dispensing the air after passing through the said coil, the third pipe being in communication with the water of the tank at one extremity and at the opposite extremity with an instrument for dispensing water, valve-controlled means for introducing air under pressure to the tank above the water, and valve-controlled means for introducing water to the tank.

[Claims 6 to 8 not printed in the Gazette.]

1,209,600. HEAD-LAMP. LUCKEY D. LONG, Bronson, Kans. Filed July 2, 1915. Serial No. 37,732. (Cl. 240—44.)

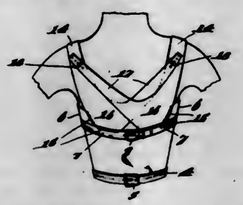
In a headlamp of the class described, a lamp body embodying a vertically curvilinear rear wall formed with a vertically extending slot, a translucent front panel, a main reflector arranged within the body of the lamp and adjacent to said rear wall, a threaded stem projecting rearwardly from said reflector and movable lengthwise of said slot, a clamping nut on said stem located exteriorly of said rear wall, whereby said main reflector may be adjusted

from the outside of the body upwardly or downwardly to project the rays of light at a corresponding angle, a hinged



door at the outer side of the body, a translucent panel in said door, and a second reflector within the lamp body opposite said door.

1,209,601. SHOULDER-BRACE. HELENE V. A. LORING, Chicago, Ill. Filed Aug. 31, 1914, Serial No. 859,400. Renewed May 3, 1916. Serial No. 95,255. (Cl. 2—93.)



1. A shoulder brace comprising a belt adapted to encircle the chest; a loop on said belt at the back; and a strap passed through said loop and slidable therein, each end of said strap passing thence over the corresponding shoulder, thence downwardly and inwardly over the bust and attached to said belt and thence inclined upwardly toward the opposite shoulder and detachably secured to the other end of said strap, substantially as described.

2. A shoulder brace comprising a belt adapted to encircle the chest; the front part of said belt being made of elastic material; a loop on said belt at the back; and a strap passed through said loop, each end of said strap passing thence over the corresponding shoulder, thence downwardly and inwardly over the bust and attached to said belt and thence inclined upwardly toward the opposite shoulder and detachably secured to the other end of said strap, substantially as described.

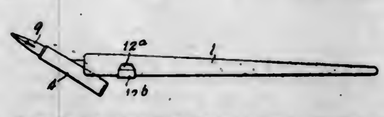
3. A shoulder brace comprising a belt adapted to encircle the chest; a loop on said belt at the back; a strap passed through said loop, each end of said strap passing thence over the corresponding shoulder, thence downwardly and inwardly over the bust and attached to said belt and thence inclined upwardly toward the opposite shoulder and detachably secured to the other end of said strap; a belt encircling the waist; and a yieldable connection between said belts at the back, substantially as described.

4. A shoulder brace comprising a belt adapted to encircle the chest, the front part of said belt being made of elastic material; a loop on said belt at the back; a strap passed through said loop, each end of said strap passing thence over the corresponding shoulder, thence downwardly and inwardly over the bust and attached to said belt and thence inclined upwardly toward the opposite shoulder and detachably secured to the other end of said strap; a belt encircling the waist; and a yieldable connection between the belts at the back, substantially as described.

5. A shoulder brace comprising a belt adapted to encircle the chest, the front part of said belt being made of elastic material and the rear of non-elastic material; a member secured to the bottom of said belt centrally at the back, said member comprising an upper and larger loop and a lower and smaller loop; a strap passed through said upper loop, each end of said strap passing thence over the corresponding shoulder, thence downwardly and inwardly and enlarged and outwardly bulged over the bust and attached to said belt and thence inclined upwardly toward the opposite shoulder and detachably secured to the other end of said strap; a belt encircling the waist; and an elastic strap passed through the lower of said loops and having its ends adjustably secured to said waist belt, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,209,602. PEN. RODERICK R. MACKENZIE, Wallace, Idaho. Filed June 3, 1916. Serial No. 101,535. (Cl. 120—100.)



1. A pen holder including a stem having a longitudinally extending and radially disposed slot in the base thereof, a barrel, a wing projecting laterally from one side of the barrel and arranged at an acute angle to the axis thereof, said wing being adapted to be received within the slot of the stem, and a substantially U-shaped clip, one of the arms of the clip being adapted to enter the slot of the stem, while the other arm provides a finger receiving seat on the exterior of the stem.

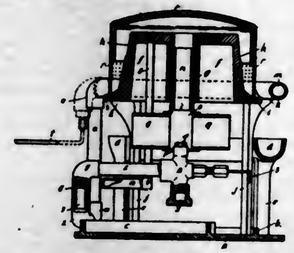
2. A pen holder including a stem having a longitudinally extending and radially disposed slot in the base thereof, a barrel, a wing projecting from one side of the barrel and extending at an acute angle thereto, said wing being adapted to be inserted in the slot of the stem, and a finger engaging clip mounted upon the stem and formed with an arm projecting into the slot thereof, said clip being also formed with a pair of angularly disposed finger receiving seats.

3. A pen holder including a stem having a longitudinally extending and radially disposed slot in the base thereof, a barrel, a wing projecting laterally from one side of the barrel and arranged at an acute angle to the axis thereof, said wing being adapted to be received within the slot of the stem, and a substantially U-shaped spring clip formed with an arm adapted to enter the slot of the stem and an arm adapted to engage the exterior of the stem, the latter mentioned arm being formed with a pair of angularly disposed finger receiving seats.

4. A pen holder including a stem provided at the base thereof with an axial bore and a radially disposed slot, a barrel, a wing projecting laterally from one side of the barrel and disposed at an acute angle to the axis thereof, said wing being adapted to enter the slot of the stem and being provided with a rib adapted to enter the bore of the stem, and a reversible finger piece adjustably mounted upon the stem, said finger piece including an arm which enters the slot of the stem, and being formed with angularly disposed finger receiving seats adapted to be positioned upon either side of the stem.

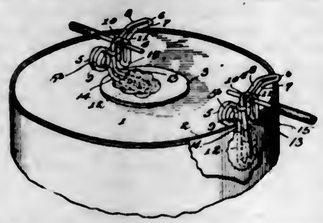
1,209,603. OIL-BURNER. HARRY W. MANNING, Portland, Oreg. Filed Apr. 27, 1916. Serial No. 94,070. (Cl. 158—61.)

1. In an oil burner of the character mentioned, the combination of an auxiliary vaporizing chamber provided with the burner nozzle at its outlet end, and a check valve controlling the inlet end of such auxiliary vaporising chamber, said check valve being normally open and adapted to be closed by the drag of the fluid flowing through the same, said auxiliary vaporizing chamber being heated by the burner during the operation of the latter, whereby, in the normal action of the burner, a back pressure of gas is maintained in said auxiliary vaporising chamber sufficient to resist the closing of the check valve, but permitting the latter to close when the heating of said vaporizing chamber is discontinued.



2. In an oil burner of the character mentioned, the combination of an auxiliary vaporizing chamber provided with the burner nozzle at its outlet end, a check valve controlling the inlet end of such auxiliary vaporizing chamber, said check valve being normally open and adapted to be closed by the drag of the fluid flowing through the same, and an auxiliary burner arranged for heating said auxiliary vaporizing chamber and supplied with fuel from the gas chamber of the burner, whereby, in the normal action of the burner, a back pressure of gas is maintained in said auxiliary vaporizing chamber sufficient to resist the closing of the check valve, but permitting the latter to close when the heating of said vaporizing chamber is discontinued.

1,209,604. CONNECTOR FOR ELECTRIC CONDUCTORS. HOSEA F. MAXIM, Norfolk, Va. Filed Oct. 28, 1914. Serial No. 869,047. (Cl. 173—250.)



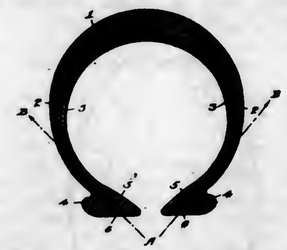
1. A connector for electric conductors consisting of a single integral piece of wire formed into a coil, the wire at one side of the coil being doubled back upon itself to form a two part conductor engaging arm and being provided at the end with a pivot extending into and abutting against the coil, and the wire at the other side of the coil being bent to form a conductor engaging hook positioned to project between the parts of the arm when the latter is depressed against the spring action of the coil.

2. A conductor connector formed of a single wire bent upon itself to form one or more approximately closed coils, the wire from one side of the coils being bent to form a vibratable arm 6 with two bars 7 and 8 parallel and close together, the terminal bar 8 engaging with the coil to maintain parallelism with the bar 7 and the wire from the other side of the coils being extended outwardly approximately radially to form a fastener 12 having two parallel legs 13, 14, the leg 13 being positioned to extend between the bars 7 and 8 and turned outward to form a hook with an abutment at 15.

3. A conductor connector formed of a single wire having a fastener 12 with two or more parallel legs 13, 14, the leg 13 terminating in one or more approximately closed coils from which the wire is carried outward to form a vibratable arm 6 with two bars 7 and 8 close together and the end of one of the bars being arranged to bear upon the coils to maintain parallelism of the bars, and the leg 14 of the fastener being bent to provide both a wire holding loop 10, and an abutment at the end of the wire to take the strain when pressure is applied to the vibrating arm 6.

4. A conductor connector formed of a single piece of wire having both of its ends free, one end being formed with an abutment 15 and a hook loop 10, the other end part of the wire being shaped to form a vibrating arm 6 with two closely adjacent parallel bars 7 and 8, the central part of the wire between the said vibrating arm and the said loop hook being bent to form a fastener next to the hook and to form one or more approximately closed spring coils between the fastener and the vibrating arm.

1,209,605. BEAD FOR TIRE-CASINGS. TOD J. MELL, Youngstown, Ohio, assignor to The Republic Rubber Company, Youngstown, Ohio, a Corporation of Ohio. Filed Feb. 5, 1916. Serial No. 76,888. (Cl. 152—13.)

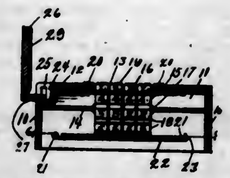


1. A bead for tire casings bisected circumferentially by a wear resisting material the individual strands whereof are oppositely folded beneath the base of said bead.

2. A tire carcass including fastening beads at its base, in combination with suitable wear-resisting material extending from the body of said carcass through its fastening beads in substantially straight lines and terminating in oppositely disposed folds embracing the base of said beads.

3. A tire carcass including fastening beads comprising a cluster of parallel bead members, in combination with wear-resisting cords extending from the body of said carcass through its fastening beads in substantially straight lines and terminating in oppositely disposed cord strands embracing the base of said beads.

1,209,606. CHECK-PROTECTOR. THEODORE F. MEUSCH, Winnfield, La. Filed May 19, 1916. Serial No. 98,685. (Cl. 101—57.)



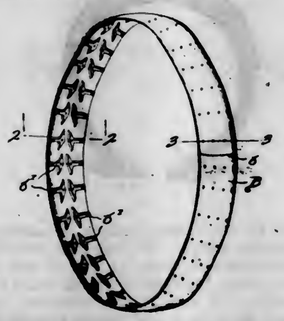
1. In a check protector, a hollow base having a top provided with a slot, said base having at one end adjacent the top of a pair of ears provided with vertically elongated openings, a platen having a downturned end flange extending over the ear provided end of the base and lying between said ears, journal ends formed on said flange and rotatable and slidable in said slots, and number wheels rotatably mounted in the base and having portions on their peripheries projecting through the first slot.

2. In a check protector, a hollow base having a top provided with a slot, said base having at one end adjacent the top a pair of ears provided with vertically elongated openings, a platen having a downturned end flange extending over the ear provided end of the base and lying between said ears, journal ends formed on said flange and rotatable and slidable in said slots, number wheels rota-

tably mounted in the base and having portions of their peripheries projecting through the first slot, spaced bars in said base and extending between the side walls thereof, an inking pad pivoted to one of said bars and engageable with the peripheries of the wheels, and a catch carried by the free end of the pad and detachably engageable with the other bar.

3. In a check protector, a stamping character formed from a series of punching projections each consisting of a truncated pyramid having its truncated end parallel to its base to provide an ink carrying surface.

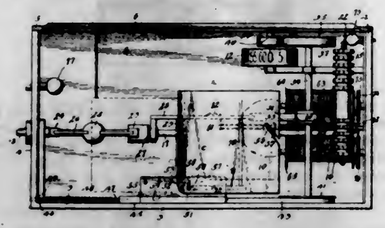
1,209,607. APPARATUS FOR MOLDING FANCY-TREAD TIRES. JULES HAUVETTE MICHELIN, New Brunswick, N. J., assignor to Michelin Tire Company, Milltown, N. J., a Corporation of New Jersey. Filed Jan. 10, 1916, Serial No. 71,288. Renewed Sept. 14, 1916. Serial No. 120,195. (Cl. 18—42.)



1. A mold for tires comprising two detachable side members or shells, and a thin split resilient metal band of substantially the width of the tread of the tire, and provided with a design in relief formed of a series of separate pieces secured on the interior of said band, said band being mounted between said shells and forming therewith a mold for the tread of the tire, substantially as described.

2. As an article of manufacture for use in molds for fancy tread tires, a thin split resilient metal band of substantially the width of the tread of the tire and provided with a design in relief formed of a series of separate pieces secured on the interior of said band.

1,209,608. SPEED AND MILEAGE REGISTER AND RECORDER. ARTHUR J. MOELLER and EDWARD A. ROTTER, Chicago, Ill. Filed Nov. 4, 1915. Serial No. 59,631. (Cl. 116—65.)



1. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion-transmitting means connecting said slidable member and rack plate, tensioning means for said rack plate, and a series of speed-indicating panels mounted for independent movement from a concealed to an exposed position and having means to be engaged by said rack plate whereby said panels are successively moved.

2. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion-transmitting means connecting said slidable member and rack plate, tensioning means for said rack plate, a series of speed-indicating panels mounted for independent movement from a concealed to an exposed position and having means to be engaged by said rack plate whereby said panels are successively moved, and means for adjusting the tension on said rack plate.

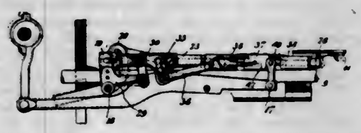
3. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion transmitting means connecting said slidable member and rack plate, tensioning means for said rack plate, a series of speed-indicating panels mounted for independent movement from a concealed to an exposed position and having means to be engaged by said rack plate whereby said panels are successively moved, and an odometer geared to and operated by said driving shaft.

4. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion-transmitting means connecting said slidable member and rack plate, tensioning means for said rack plate, a series of speed-indicating panels mounted for independent movement to be engaged by said rack plate whereby said panels are successively moved, and means for eliminating and restoring the coöperative relation between said rack plate and movable indicating panels.

5. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion-transmitting means connecting said slidable member and rack plate, and including a pulley, a flexible connection between said pulley and slidable governor member, a second pulley, and a second flexible connection between the second pulley and the rack plate, tensioning means for said rack plate, and a series of speed indicating panels mounted for independent movement from a concealed to an exposed position and having means to be engaged by said rack plate whereby said panels are successively moved.

[Claim 6 not printed in the Gazette.]

1,209,609. FEEDING MECHANISM FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 4, 1912. Serial No. 669,377. (Cl. 112—8.)



1. A machine having a work supporting arm, a looper support arranged longitudinally thereof, a feeding mechanism also arranged longitudinally thereof, including a reciprocating feed dog carrying bar, and a supplemental feed dog carrying frame supported by and reciprocating longitudinally relative to said feed dog carrying bar.

2. A machine having a work supporting arm, a looper shaft arranged longitudinally thereof, a feeding mechanism also arranged longitudinally thereof, including a reciprocating feed dog carrying bar, a supplemental feed dog carrying frame supported by and reciprocating longitudinally relative to said feed carrying bar, both of said feed dogs projecting beyond the end of the work supporting arm, and the looper support on the end of the looper shaft being beneath the same.

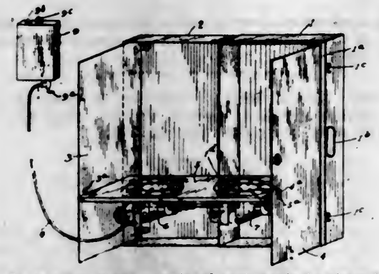
3. A machine having a work supporting arm, a looper shaft arranged longitudinally thereof, a feeding mechanism also arranged longitudinally thereof, including a reciprocating feed dog carrying bar, a supplemental feed dog carrying frame supported by and reciprocating longitudinally relative to said feed dog carrying bar, and means for adjusting the movements of the feed bar and feed frame.

4. In combination with a main feed bar, a supplemental feed frame composed of two parts surrounding the main feed bar adjacent its ends and movable thereon, an intermediate bar connecting the two parts and a supporting bearing for said main feed bar between the parts of the supplemental feed frame.

5. In combination with a main feed bar, a supplemental feed frame composed of two parts surrounding the main feed bar adjacent its ends and movable thereon, and an intermediate bar pivoted to both of said parts.

[Claims 6 to 22 not printed in the Gazette.]

1,209,610. CAMP-STOVE. ADOLPH MUEHLEISEN, San Diego, Cal. Filed Apr. 24, 1915. Serial No. 23,557. (Cl. 126—38.)

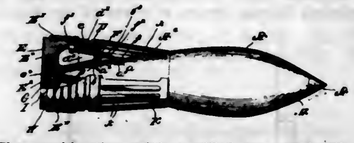


1. In a camp stove, a pair of rectangularly shaped metallic boxes hinged together so they will fold with their open sides together, a metallic support hinged at the bottom near one side of each of said boxes, a rectangularly shaped plate adapted to fit into either of said boxes provided with means for engagement with said supports for supporting said plate, a plurality of gasolene burners mounted in said plate and means for conducting fuel to said burners adapted to be folded into one of said boxes, whereby said supports, plate, burners and fuel conductor may be folded into said boxes and said boxes folded together in the form of a case for carrying the same.

2. In a device of the class described, the combination of a pair of rectangularly shaped boxes hinged together at one side and provided with handles on their opposite sides, a pair of rectangularly shaped flaps foldably mounted one in each of said boxes at the bottom at one side thereof adapted to fold down against the bottom of said boxes and when unfolded extend past the outer sides of said boxes and a gasolene stove plate so shaped as to fit into either of said boxes provided with means on each end adapted to engage with said flaps when in their unfolded position for supporting said stove plate.

3. In a device of the class described, the combination of a pair of rectangularly shaped boxes hinged togethed at one side and provided with handle on their opposite sides, a pair of rectangularly shaped flaps foldably mounted one in each of said boxes at the bottom at one side thereof adapted to fold down against the bottom of said boxes and when unfolded extend past the outer sides of said boxes and a gasolene stove plate so shaped as to fit into either of said boxes, provided with means on each end adapted to engage with said flaps when in their unfolded position for supporting said stove plate, an oil supply tank adapted to fit in either of said boxes and a flexible tube extending from said oil supply tank to said stove plate adapted to fold into either of said boxes, whereby said stove plate, flaps, supply tank and flexible tube may be inclosed in said boxes forming a case for carrying the same or when open forming a stove for cooking purposes.

1,209,611. PROJECTILE. HENRY C. MUSTIN, U. S. Navy, and WALTER R. BROOKINS, Dayton, Ohio. Filed Feb. 29, 1916. Serial No. 81,217. (Cl. 102—40.)



1. The combination with a rifled gun projectile, of a base detachably secured thereto, and means operated by the inertia of the projectile and the centrifugal force imparted by the rifling, for automatically detaching said base immediately after the projectile has left the bore of the gun.

2. The combination with a rifled gun projectile, of a flat base serving as a gas check for the powder gases, detachably secured thereto, and means operated by the inertia of the projectile and the centrifugal force imparted by the rifling, for automatically detaching said base immediately after the projectile has left the bore of the gun.

3. The combination with a rifled gun projectile, of substantially stream line shape, of a base detachably secured thereto, and means operated by the inertia of the projectile and the centrifugal force imparted by the rifling, for automatically detaching said base immediately after the projectile has left the bore of the gun.

4. A rifled gun projectile of substantially stream line shape with a detachable base, and automatic means for releasing said base by utilizing the inertia of the projectile and the centrifugal force due to the rotation imparted by the rifling.

5. The combination with a projectile of substantially stream line shape for use in rifled guns, of a detachable base carrying the rifling band, means for normally holding said base attached to said projectile, and automatic means for releasing said base from the projectiles after the projectile leaves the muzzle of the gun, said releasing means being actuated by the inertia of the projectile and the centrifugal force due to the rotation imparted by the rifling.

[Claims 6 to 18 not printed in the Gazette.]

1,209,612. EDUCATIONAL DEVICE. ORVILLE E. NEAL, Clearwater, Nebr. Filed Mar. 10, 1916. Serial No. 83,414. (Cl. 35—9.)

1. In a device of the character described, a casing having observation openings at different points, traveling belts within the casing bearing main display indicia adapted to be exposed at one of said display openings and duplicate indicia adapted to be simultaneously displayed at the other display openings, and means for imparting motion to said belts.

2. In an apparatus of the character described, a casing provided with display openings, belts movable in parallel planes for travel past said openings, said belts carrying matter to be displayed through the openings, and an operating device common to said belts and operative for transmitting motion to either belt independently of the other.

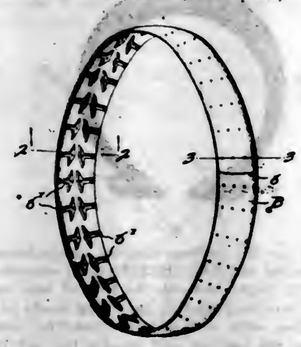
3. In a device of the character described, a casing provided with observation openings, belts movable in parallel planes past said openings, sets of pulleys for supporting, guiding and driving the belts, one of said sets of pulleys having hollow hubs or sleeves, and a drive shaft movable longitudinally within said hubs or sleeve and provided with a clutch device for independent engagement therewith, whereby either belt may be driven independently of the other.

4. In a device of the character described, a casing having observation openings, a pair of belts bearing matter to

tably mounted in the base and having portions of their peripheries projecting through the first slot, spaced bars in said base and extending between the side walls thereof, an inking pad pivoted to one of said bars and engageable with the peripheries of the wheels, and a catch carried by the free end of the pad and detachably engageable with the other bar.

8. In a check protector, a stamping character formed from a series of punching projections each consisting of a truncated pyramid having its truncated end parallel to its base to provide an ink carrying surface.

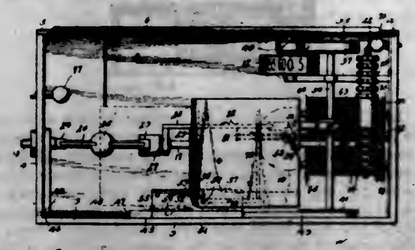
1,209,607. APPARATUS FOR MOLDING FANCY-TREAD TIRES. JULES HAUVETTE MICHELIN, New Brunswick, N. J., assignor to Michelin Tire Company, Milltown, N. J., a Corporation of New Jersey. Filed Jan. 10, 1916, Serial No. 71,288. Renewed Sept. 14, 1916. Serial No. 120,195. (Cl. 18—42.)



1. A mold for tires comprising two detachable side members or shells, and a thin split resilient metal band of substantially the width of the tread of the tire, and provided with a design in relief formed of a series of separate pieces secured on the interior of said band, said band being mounted between said shells and forming therewith a mold for the tread of the tire, substantially as described.

2. As an article of manufacture for use in molds for fancy tread tires, a thin split resilient metal band of substantially the width of the tread of the tire and provided with a design in relief formed of a series of separate pieces secured on the interior of said band.

1,209,608. SPEED AND MILEAGE REGISTER AND RECORDER. ARTHUR J. MOELLER and EDWARD A. ROTTER, Chicago, Ill. Filed Nov. 4, 1915. Serial No. 59,631. (Cl. 116—65.)



1. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion-transmitting means connecting said slidable member and rack plate, tensioning means for said rack plate, and a series of speed-indicating panels mounted for independent movement from a concealed to an exposed position and having means to be engaged by said rack plate whereby said panels are successively moved.

2. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion transmitting means connecting said slidable member and rack plate, tensioning means for said rack plate, a series of speed-indicating panels mounted for independent movement from a concealed to an exposed position and having means to be engaged by said rack plate whereby said panels are successively moved, and means for adjusting the tension on said rack plate.

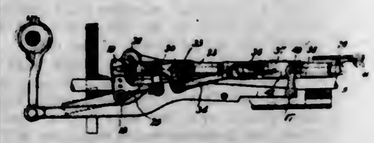
3. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion transmitting means connecting said slidable member and rack plate, tensioning means for said rack plate, a series of speed-indicating panels mounted for independent movement from a concealed to an exposed position and having means to be engaged by said rack plate whereby said panels are successively moved, and an odometer geared to and operated by said driving shaft.

4. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion-transmitting means connecting said slidable member and rack plate, tensioning means for said rack plate, a series of speed-indicating panels mounted for independent movement to be engaged by said rack plate whereby said panels are successively moved, and means for eliminating and restoring the coöperative relation between said rack plate and movable indicating panels.

5. In mechanism of the character specified, the combination of a variable speed driving shaft, a governor carried by said shaft and embodying a member slidable longitudinally of said shaft, a slidable rack plate, motion-transmitting means connecting said slidable member and rack plate, and including a pulley, a flexible connection between said pulley and slidable governor member, a second pulley, and a second flexible connection between the second pulley and the rack plate, tensioning means for said rack plate, and a series of speed indicating panels mounted for independent movement from a concealed to an exposed position and having means to be engaged by said rack plate whereby said panels are successively moved.

[Claim 6 not printed in the Gazette.]

1,209,609. FEEDING MECHANISM FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 4, 1912. Serial No. 669,377. (Cl. 112—8.)



1. A machine having a work supporting arm, a looper support arranged longitudinally thereof, a feeding mechanism also arranged longitudinally thereof, including a reciprocating feed dog carrying bar, and a supplemental feed dog carrying frame supported by and reciprocating longitudinally relative to said feed dog carrying bar.

2. A machine having a work supporting arm, a looper shaft arranged longitudinally thereof, a feeding mechanism also arranged longitudinally thereof, including a reciprocating feed dog carrying bar, a supplemental feed dog carrying frame supported by and reciprocating longitudinally relative to said feed carrying bar, both of said feed dogs projecting beyond the end of the work supporting arm, and the looper support on the end of the looper shaft being beneath the same.

3. A machine having a work supporting arm, a looper shaft arranged longitudinally thereof, a feeding mechanism also arranged longitudinally thereof, including a reciprocating feed dog carrying bar, a supplemental feed dog carrying frame supported by and reciprocating longitudinally relative to said feed dog carrying bar, and means for adjusting the movements of the feed bar and feed frame.

4. In combination with a main feed bar, a supplemental feed frame composed of two parts surrounding the main feed bar adjacent its ends and movable thereon, an intermediate bar connecting the two parts and a supporting bearing for said main feed bar between the parts of the supplemental feed frame.

5. In combination with a main feed bar, a supplemental feed frame composed of two parts surrounding the main feed bar adjacent its ends and movable thereon, and an intermediate bar pivoted to both of said parts.

[Claims 6 to 22 not printed in the Gazette.]

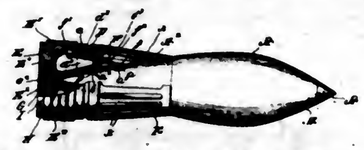
1,209,610. CAMP-STOVE. ADOLPH MUEHLEISEN, San Diego, Cal. Filed Apr. 24, 1915. Serial No. 23,557. (Cl. 126—38.)

1. In a camp stove, a pair of rectangularly shaped metallic boxes hinged together so they will fold with their open sides together, a metallic support hinged at the bottom near one side of each of said boxes, a rectangularly shaped plate adapted to fit into either of said boxes provided with means for engagement with said supports for supporting said plate, a plurality of gasolene burners mounted in said plate and means for conducting fuel to said burners adapted to be folded into one of said boxes, whereby said supports, plate, burners and fuel conductor may be folded into said boxes and said boxes folded together in the form of a case for carrying the same.

2. In a device of the class described, the combination of a pair of rectangularly shaped boxes hinged together at one side and provided with handles on their opposite sides, a pair of rectangularly shaped flaps foldably mounted one in each of said boxes at the bottom at one side thereof adapted to fold down against the bottom of said boxes and when unfolded extend past the outer sides of said boxes and a gasolene stove plate so shaped as to fit into either of said boxes provided with means on each end adapted to engage with said flaps when in their unfolded position for supporting said stove plate.

3. In a device of the class described, the combination of a pair of rectangularly shaped boxes hinged togethed at one side and provided with handle on their opposite sides, a pair of rectangularly shaped flaps foldably mounted one in each of said boxes at the bottom at one side thereof adapted to fold down against the bottom of said boxes and when unfolded extend past the outer sides of said boxes and a gasolene stove plate so shaped as to fit into either of said boxes, provided with means on each end adapted to engage with said flaps when in their unfolded position for supporting said stove plate, an oil supply tank adapted to fit in either of said boxes and a flexible tube extending from said oil supply tank to said stove plate adapted to fold into either of said boxes, whereby said stove plate, flaps, supply tank and flexible tube may be inclosed in said boxes forming a case for carrying the same or when open forming a stove for cooking purposes.

1,209,611. PROJECTILE. HENRY C. MUSTIN, U. S. Navy, and WALTER R. BROOKINS, Dayton, Ohio. Filed Feb. 29, 1916. Serial No. 81,217. (Cl. 102—40.)



1. The combination with a rifled gun projectile, of a base detachably secured thereto, and means operated by the inertia of the projectile and the centrifugal force imparted by the rifling, for automatically detaching said base immediately after the projectile has left the bore of the gun.

2. The combination with a rifled gun projectile, of a flat base serving as a gas check for the powder gases, detachably secured thereto, and means operated by the inertia of the projectile and the centrifugal force imparted by the rifling, for automatically detaching said base immediately after the projectile has left the bore of the gun.

3. The combination with a rifled gun projectile, of substantially stream line shape, of a base detachably secured thereto, and means operated by the inertia of the projectile and the centrifugal force imparted by the rifling, for automatically detaching said base immediately after the projectile has left the bore of the gun.

4. A rifled gun projectile of substantially stream line shape with a detachable base, and automatic means for releasing said base by utilizing the inertia of the projectile and the centrifugal force due to the rotation imparted by the rifling.

5. The combination with a projectile of substantially stream line shape for use in rifled guns, of a detachable base carrying the rifling band, means for normally holding said base attached to said projectile, and automatic means for releasing said base from the projectiles after the projectile leaves the muzzle of the gun, said releasing means being actuated by the inertia of the projectile and the centrifugal force due to the rotation imparted by the rifling.

[Claims 6 to 18 not printed in the Gazette.]

1,209,612. EDUCATIONAL DEVICE. ORVILLE E. NEAL, Clearwater, Nebr. Filed Mar. 10, 1916. Serial No. 83,414. (Cl. 35—9.)

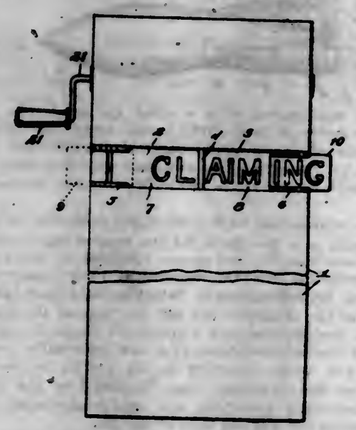
1. In a device of the character described, a casing having observation openings at different points, traveling belts within the casing bearing main display indicia adapted to be exposed at one of said display openings and duplicate indicia adapted to be simultaneously displayed at the other display openings, and means for imparting motion to said belts.

2. In an apparatus of the character described, a casing provided with display openings, belts movable in parallel planes for travel past said openings, said belts carrying matter to be displayed through the openings, and an operating device common to said belts and operative for transmitting motion to either belt independently of the other.

3. In a device of the character described, a casing provided with observation openings, belts movable in parallel planes past said openings, sets of pulleys for supporting, guiding and driving the belts, one of said sets of pulleys having hollow hubs or sleeves, and a drive shaft movable longitudinally within said hubs or sleeve and provided with a clutch device for independent engagement therewith, whereby either belt may be driven independently of the other.

4. In a device of the character described, a casing having observation openings, a pair of belts bearing matter to

be displayed through said openings and movable in parallel relation, an upper set of pulleys for supporting and guiding the belts, a lower set of pulleys for supporting and guiding the belts, the latter-named pulleys being arranged in pairs, with the pulleys of each pair arranged one in rear of the other, and said belt having a portion looped between said pairs of pulleys, tension pulleys around which the looped portions of the belt pass, a spring actuated shaft carrying said pulleys, and means for imparting driving motion to either of the first-named pulleys.



5. In a device of the character described, a casing having observation openings, belts bearing matter to be displayed movable in parallel relation past said openings, lower guiding, supporting and tensioning pulleys for the belts, upper driving, supporting and guiding pulleys for the belts, said upper pulleys being provided with tubular hubs having clutch portions, tubular spindles on the casing on which said hubs turn, a spring pressed follower within one of said spindles, and a shaft journaled in the spindles and provided with a clutch member to engage the clutch portion of the hub of either upper pulley, said shaft being normally held by said follower in clutch engagement with one of said pulleys and being longitudinally movable against the resistance of the follower into clutched engagement with the other spindle.

1,209,613. CLOTHES-HOOK. LAWRENCE NEUMASTER, Evansville, Ind. Filed Apr. 17, 1916. Serial No. 91,683. (Cl. 248—24.)

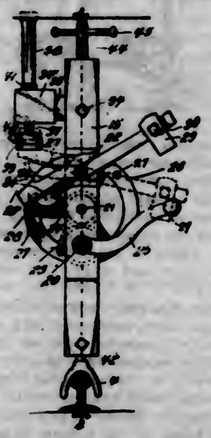
1. A clothes hook, comprising a frame formed from a single strand of wire including side limbs, the upper extremities of the side limbs being bent to provide an upper hook, the lower extremity of one of the side limbs being looped around the other of the side limbs of the frame, forming the frame with a lower cross bar, the lower terminal of the other of said side limbs of the frame being bent to provide a stationary hook, the strand of wire forming the stationary hook being looped around the cross bar of the frame and extended rearwardly to provide an attaching member, and a clamping hook pivotally mounted on the frame of said hook for a vertical swinging movement.

2. A clothes hook, comprising a frame formed from a single strand of wire including side limbs, the upper extremities of the side limbs being bent to provide an upper hook; the lower extremity of one of the side limbs being looped around the other of the side limbs of the frame, forming the frame with a lower cross bar, the lower terminal of the other of said side limbs of the frame being bent to provide a stationary hook, the strand of wire forming the stationary hook being looped around the cross bar of the frame and extended rearwardly to provide an attaching member, an upper cross bar connecting the limbs of the frame together, and formed with trun-



nions, a clamping hook pivotally mounted on the trunnions of the uppermost cross bar for a vertical swinging movement.

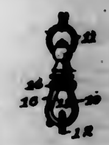
1,209,614. ROCK-DRILL. THOMAS J. OSBORNE and GRANVILLE J. BRAGG, Premier, W. Va. Filed Jan. 15, 1915. Serial No. 2,433. (Cl. 255—41.)



In a device of the class described, a supporting frame, a laterally extending arm adjustably connected therewith, said arm having a head provided with a vertical aperture enlarged at its upper end to form a socket, a drilling tool gravitationally seated in the socket and having a shank extending through the aperture, a spring seated in the socket surrounding the shank and exerting upward tension on the tool, and means carried by the frame for striking intermittent blows whereby the tool will be forced upward, the shank of the tool being provided with a detachable cap to receive the impact of the blows at various adjustments of the laterally extending arm.

1,209,615. SAFETY COUPLING DEVICE FOR JEWELRY. THOMAS M. OMSBOUM, Chicago, Ill., assignor of one-half to John Zvetina, Chicago, Ill. Filed Feb. 23, 1916. Serial No. 79,840. (Cl. 24—241.)

1. In an article of jewelry, a body portion having an open space between its ends, a spring-pressed dog arranged to close said space, a guard exteriorly positioned with respect to said dog and pivoted at one end to the body portion and arranged to open outwardly from the latter, said guard extending across the said space, and means near the free end of said guard for detachably securing said guard to the body at the opposite side of said space.

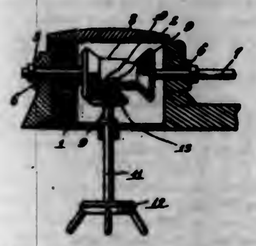


2. An article of jewelry comprising a ring-like body interrupted to provide a space through which an article may be passed within the body, a spring-pressed dog arranged to close said space, a guard pivoted at one end adjacent to said space and extending across the space at the outer side of said dog, and a coöperating projection and opening on the body and the free end of said guard arranged to interlock to hold the guard in operative position, but detachable to permit opening of the guard.

3. An article of jewelry comprising a hook having a space through which a device may be passed into the hook, a dog pivoted near one end to the body on one side of said space, a spring acting on the end of the dog adjacent to its pivot and tending to swing the dog into position to close said space, a guard pivoted at one end adjacent to the pivot of said dog, said guard extending at the outer side of said dog and overlapping the portion of the body at the opposite side of said space from said pivot, the body at this point having an opening, and a yieldable hooked projection on the dog adapted to pass through said opening and engage the wall at one edge of the opening for detachably securing the dog in its operative position.

4. An article of jewelry comprising a ring-like body having a space through which an article may be passed within the body, a spring-pressed dog arranged to close said space, a guard pivoted at one of its ends to the body near one end of the dog and adjacent to said space, said guard extending across said space, means for detachably securing the free end of said guard to the body at the opposite side of said space, and means for detachably securing said dog and said guard together.

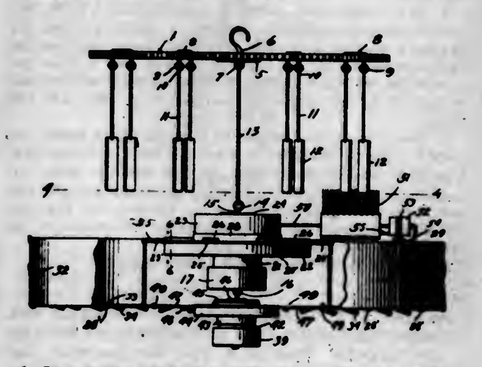
1,209,616. WASHING-MACHINE GEARING. JOHN A. PARMENTIER, St. Louis, Mo. Filed May 3, 1916. Serial No. 95,225. (Cl. 74—80.)



Washing machine gearing comprising a vertical dasher shaft, a horizontal main shaft, a spool shaped casting splined upon said main shaft and having the end pieces thereof formed with sets of teeth respectively and the central portion formed with a spiral groove that receives the upper end of the main shaft, a bevel gear on the upper end of said main shaft adapted to be engaged by said sets of teeth alternately, means for rotating said main shaft whereby said casting will be revolved and moved longitudinally to alternately engage said sets of teeth with said bevel gear whereby an oscillatory motion will be imparted to said dasher shaft, a cylindrical housing inclosing the connections between said main shaft and dasher shaft and

having a closed lower end and the upper end provided with a hinged cover, said housing being formed with diametrically opposed bearing openings in which said main shaft is journaled, a bracket arm projecting outwardly from said housing, a bearing on the outer end of said arm alining with said bearing opening and receiving one end portion of said main shaft, and thrust collars secured to said main shaft at the outer ends of said bearing openings.

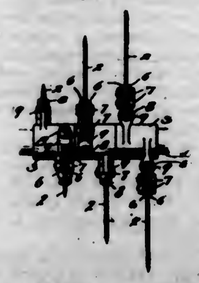
1,209,617. POST-CARD-DISPLAY RACK. ERIC PETERSON, Lougheed, Alberta, Canada. Filed Sept. 17, 1915. Serial No. 51,244. (Cl. 40—39.)



1. In a post card display rack, the combination with a vertically extending rod, of a casing mounted on the rod and having a bearing plate therein, a disk rotatably mounted on the rod and having a bearing plate thereon, ball bearings interposed between the said bearing plates to permit the disk to rotate freely, the said rod having an eye on the lower end thereof against which the first mentioned plate bears, a second rod secured to the eye at lower end of the first rod, a disk rotatably mounted on the second rod and post card carrying members extending from each of said disks.

2. In a display device, the combination with a disk, of a second disk of less diameter than the first mounted on the upper face of the first disk, pairs of spaced plates arranged on the upper face of the first mentioned disk and extending radially from its periphery inwardly and terminating in spaced relation to the second mentioned disk, the said second mentioned disk having apertures in its periphery arranged adjacent each pair of plates, arms extending between said plates and having upturned ends in said apertures and a band encircling the second mentioned disk and engaging the upturned ends of the arms.

1,209,618. ROTARY CANE-CUTTER. WILLIAM ARTHUR RAMSAY, Honolulu, Hawaii. Filed June 8, 1916. Serial No. 102,555. (Cl. 146—26.)



1. In a rotary cane cutter, in combination, a shaft, a knife, and a knife holder mounted upon the shaft and having a pivot from which the knife projects radially

of the shaft as a center and about which the knife may swing laterally.

2. In a rotary cane cutter, in combination, a shaft, a knife, and a knife holder mounted upon the shaft and having a pivot from which the knife projects radially of the shaft as a center and about which the knife may swing laterally and a second pivot about which the knife may swing in the direction of its plane.

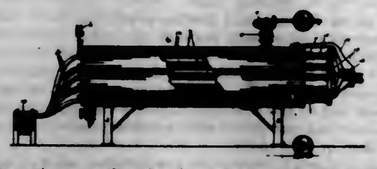
3. In a rotary cane cutter, in combination, a knife, and a knife holder comprising a sleeve, a knife carrying jaw, and a pivot connection between the jaw and the sleeve arranged to permit lateral swinging movement of said jaw and knife.

4. In a rotary cane cutter, in combination, a knife, and a knife holder comprising a sleeve, a knife carrying jaw having a bearing and ears projecting from said bearing and between which the knife is secured and a pivot pin carried by the sleeve and projecting through said bearing to permit lateral swinging movement of said jaw and knife.

5. In a rotary cane cutter, in combination, a knife, and a knife holder comprising a sleeve, a knife carrying jaw, a pivotal connection between the jaw and the sleeve arranged to permit lateral swinging movement of said jaw and knife and a pivotal connection between the jaw and the knife arranged to permit swinging movement of the knife in the direction of its plane.

[Claims 6 to 10 not printed in the Gazette.]

1,209,619. AUTOMATIC CONTINUOUS COOKER FOR FOOD PRODUCTS IN HERMETICALLY-SEALED CONTAINERS. EDWARD S. REA, San Francisco, and WILLIAM S. REA, Jr., Oakland, Cal. Filed Feb. 29, 1916. Serial No. 81,214. (Cl. 126—272.)



1. In a steam cooker for food products in hermetically sealed containers, a cylinder adapted to sustain internal pressure and provided with a suitable steam intake, a series of open tubes within said cylinder and adapted to serve as conduits for said containers during their passage through said cylinder, in combination with a time-regulated automatic ram for advancing said containers through said tubes.

2. In a cooker for food products in hermetically sealed containers, a cylinder adapted to sustain internal pressure and provided with a series of open tubes extending longitudinally through the length thereof, said tubes adapted to serve both as cooking chambers for said food products and as conduits for said containers during their passage through said cylinder, and a ram for advancing said containers through said tubes.

3. In a cooker for food products in hermetically sealed containers, a cylinder adapted to receive steam, a series of open tubes extending through said cylinder and adapted to serve as cooking chambers for said food products and as conduits for said containers during their passage through said cylinder, in combination with propelling means for said containers.

4. In a cooker for food products in hermetically sealed containers, the combination of a cylinder adapted to receive steam under pressure, a series of open tubes extending through the heads of said cylinder, and an intermittently operating ram, substantially as shown, and for the purposes set forth.

5. In a cooker for food products in hermetically sealed containers, a cylinder adapted to receive steam, a series of open tubes extending through the heads of said cylinder and adapted to serve as cooking chambers for said food products and as conduits for said containers during their passage through said tubes, in combination with a ram adapted to automatically advance said containers through said cylinder.

1,209,620. PEDAL TRACTION-WHEEL. WILLIAM A. RIDER, Los Angeles, Cal. Filed Apr. 5, 1916. Serial No. 89,105. (Cl. 21—150.)



1. A device of the character described, comprising a wheel, a plurality of pedals secured to said wheel and means for causing adjacent pedals to assume a position of alinement with the ground and interengaging shrouds carried by said pedals.

2. A device of the character described comprising a wheel having a toothed periphery and a plurality of toothed pedals engaging said wheel, yieldable means normally tending to draw said pedals toward said wheel and interengaging means between the ends of contiguous pedals for moving said pedals into alinement with each other as they come in contact with the ground.

3. A device of the character described comprising a wheel having a toothed periphery and a plurality of toothed pedals engaging said wheel, yieldable means normally tending to draw said pedals toward said wheel and means for adjusting the tension of said yieldable means and interengaging means between the ends of contiguous pedals for moving said pedals into alinement with each other as they come in contact with the ground.

4. A device of the character described comprising a wheel having a plurality of pockets formed in its periphery, which pockets open through the felly of said wheel, in combination with a plurality of pedals having teeth which intermesh with said pockets.

5. A device of the character described comprising a wheel having a plurality of pockets formed in its periphery, which pockets open through the felly of said wheel, in combination with a plurality of pedals having teeth which intermesh with said pockets and interengaging means between the ends of said pedals arranged to bring adjacent pedals in horizontal alinement with each other.

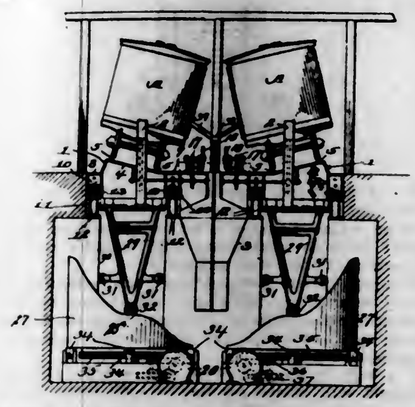
[Claims 6 to 8 not printed in the Gazette.]

1,209,621. APPARATUS FOR UNLOADING CARS. HENRY RICHARDSON, Passaic, N. J. Filed Jan. 17, 1916. Serial No. 72,519. (Cl. 214—11.)

1. In a car unloading apparatus, a table tiltable only in a vertical longitudinal plane and having parallel rails for the car arranged at different elevations whereby the car will be supported in a transversely inclined plane in any position of said table.

2. In a car unloading apparatus, a table tiltable only in a vertical longitudinal plane along an arc whose center is the approximate center of gravity of the car and having parallel rails for the car arranged at different elevations whereby the car will be supported in a transversely inclined plane in any position of said table.

3. In a car unloading apparatus, a car supporting table provided with rocker members having their rolling faces arranged along an arc whose center is the approximate center of gravity of the car and horizontal members upon which said rocker members operate whereby the table is tiltable only in a vertical longitudinal plane in combination with parallel rails for the car arranged at different elevations on said table whereby the car will be supported in a transversely inclined plane in any position of said table.

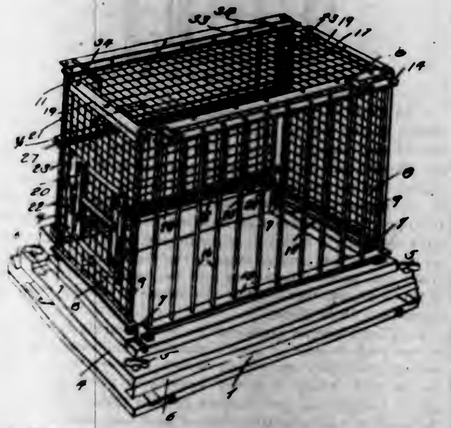


4. In a car unloading apparatus, a car supporting table tiltable in a longitudinal plane, a pair of vertically reciprocatory cross heads connected to said table at opposite sides of its fulcrum, and a rotatable cylinder having its upper end formed as a cam and engaging the lower ends of said cross heads.

5. In a car unloading apparatus, a tiltable car supporting table, a pair of bumpers, one at each end of the table, the bumpers being movable into and out of car-engaging positions, operating mechanisms for the table, a motor for the operating mechanism and devices under the control of said bumpers in accordance with their positions for controlling the starting and stoppage of said motor.

[Claims 6 to 14 not printed in the Gazette.]

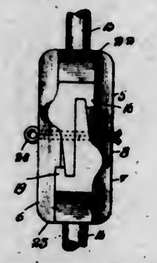
1,209,622. COOP. GEORGE T. ROYER, Garfield, Utah, assignor of one-sixth to Theo. Peterson, Garfield, Utah. Filed Jan. 20, 1916. Serial No. 73,202. (Cl. 217—47.)



1. In a coop, the combination with a base, of a frame detachably mounted thereon, folding sides, ends and top mounted on the frame, a receptacle of which said base forms the cover, and guide strips secured to the base to position the frame thereon and to position the receptacle on the cover.

2. In a coop, the combination with a base, of a frame detachably mounted thereon, end pieces hinged to the frame, a back piece hinged to the frame, a front piece hinged to the frame and a cover hinged to the front piece, the said cover having channel members thereon for the reception of the upper ends of the end pieces, the back piece being formed in two sections hinged together and rods for securing the said sections in rigid relation and simultaneously attaching the back piece to the cover.

1,209,623. CLAMP. CHARLES B. RUSH, Kiefer, Okla. Filed Mar. 10, 1916. Serial No. 83,391. (Cl. 255—30.)



1. A clamp of the character set forth embodying a pair of identically constructed sections, each section being provided at one end with a pair of diverging L-shaped holding members, said holding members of one section receiving the portion of the other section for retaining the said sections in clamping position.

2. A clamp of the character set forth embodying a pair of identically constructed sections, each section comprising a body having a pocket, a headed rod mounted within the pocket of the body portion of the clamp and means formed contiguous with each of said sections at one end thereof and diverging in a direction beyond said pocket for holding the sections in clamping position.

3. A device of the class described comprising a pair of identically constructed sections, each of said sections being provided with a pair of L-shaped holding members at one end thereof, the opposite end of each section being formed with beveled extensions, said beveled extensions adapted to fit under the horizontal portion of the holding members for retaining the sections in superposed clamping relation one to the other.

4. A clamp of the character set forth embodying a pair of identically constructed sections, each section being provided at one end with a pair of L-shaped diverging holding members, the holding diverging members of one section receiving a portion of the other section for retaining the same sections in clamping position, and a cotter pin passing through said sections for preventing the displacement of said sections.

5. A clamp embodying a pair of identically constructed sections, each of said sections having their top wall formed with a pair of extensions at one end thereof, the extensions being provided by the beveling of a portion of the top wall, and L-shaped holding members formed contiguous with each section at the opposite end thereof, the extensions of one section being defined within the holding members of its adjacent section with a portion of the holding members disposed in binding engagement with the beveled portion of the section, whereby limiting the endwise movement of the sections with respect to one another.

1,209,624. COLLAR-BUTTON. JENNIE E. RUSHA, Oldtown, Me. Filed Mar. 13, 1916. Serial No. 83,911. (Cl. 24—99.)

In a collar button, a base, a shank extending therefrom having the upper ends bifurcated to provide spaced arms, a pin carried by the arms, a pair of coöperating wings, the said wings being adapted to be folded and when in the said folded position rest against the shank with their ends pointing toward the base, one of said wings having a tongue portion centrally thereof rolled, the edge portions

of the shaft as a center and about which the knife may swing laterally.

2. In a rotary cane cutter, in combination, a shaft, a knife, and a knife holder mounted upon the shaft and having a pivot from which the knife projects radially of the shaft as a center and about which the knife may swing laterally and a second pivot about which the knife may swing in the direction of its plane.

3. In a rotary cane cutter, in combination, a knife, and a knife holder comprising a sleeve, a knife carrying jaw, and a pivot connection between the jaw and the sleeve arranged to permit lateral swinging movement of said jaw and knife.

4. In a rotary cane cutter, in combination, a knife, and a knife holder comprising a sleeve, a knife carrying jaw having a bearing and ears projecting from said bearing and between which the knife is secured and a pivot pin carried by the sleeve and projecting through said bearing to permit lateral swinging movement of said jaw and knife.

5. In a rotary cane cutter, in combination, a knife, and a knife holder comprising a sleeve, a knife carrying jaw, a pivotal connection between the jaw and the sleeve arranged to permit lateral swinging movement of said jaw and knife and a pivotal connection between the jaw and the knife arranged to permit swinging movement of the knife in the direction of its plane.

[Claims 6 to 10 not printed in the Gazette.]

1,209,619. AUTOMATIC CONTINUOUS COOKER FOR FOOD PRODUCTS IN HERMETICALLY-SEALED CONTAINERS. EDWARD S. REA, San Francisco, and WILLIAM S. REA, Jr., Oakland, Cal. Filed Feb. 29, 1916. Serial No. 81,214. (Cl. 126—272.)



1. In a steam cooker for food products in hermetically sealed containers, a cylinder adapted to sustain internal pressure and provided with a suitable steam intake, a series of open tubes within said cylinder and adapted to serve as conduits for said containers during their passage through said cylinder, in combination with a time-regulated automatic ram for advancing said containers through said tubes.

2. In a cooker for food products in hermetically sealed containers, a cylinder adapted to sustain internal pressure and provided with a series of open tubes extending longitudinally through the length thereof, said tubes adapted to serve both as cooking chambers for said food products and as conduits for said containers during their passage through said cylinder, and a ram for advancing said containers through said tubes.

3. In a cooker for food products in hermetically sealed containers, a cylinder adapted to receive steam, a series of open tubes extending through said cylinder and adapted to serve as cooking chambers for said food products and as conduits for said containers during their passage through said cylinder, in combination with propelling means for said containers.

4. In a cooker for food products in hermetically sealed containers, the combination of a cylinder adapted to receive steam under pressure, a series of open tubes extending through the heads of said cylinder, and an intermittently operating ram, substantially as shown, and for the purposes set forth.

5. In a cooker for food products in hermetically sealed containers, a cylinder adapted to receive steam, a series of open tubes extending through the heads of said cylinder and adapted to serve as cooking chambers for said food products and as conduits for said containers during their passage through said tubes, in combination with a ram adapted to automatically advance said containers through said cylinder.

1,209,620. PEDAL TRACTION-WHEEL. WILLIAM A. RIDER, Los Angeles, Cal. Filed Apr. 5, 1916. Serial No. 89,105. (Cl. 21—150.)



1. A device of the character described, comprising a wheel, a plurality of pedals secured to said wheel and means for causing adjacent pedals to assume a position of alinement with the ground and interengaging shrouds carried by said pedals.

2. A device of the character described comprising a wheel having a toothed periphery and a plurality of toothed pedals engaging said wheel, yieldable means normally tending to draw said pedals toward said wheel and interengaging means between the ends of contiguous pedals for moving said pedals into alinement with each other as they come in contact with the ground.

3. A device of the character described comprising a wheel having a toothed periphery and a plurality of toothed pedals engaging said wheel, yieldable means normally tending to draw said pedals toward said wheel and means for adjusting the tension of said yieldable means and interengaging means between the ends of contiguous pedals for moving said pedals into alinement with each other as they come in contact with the ground.

4. A device of the character described comprising a wheel having a plurality of pockets formed in its periphery, which pockets open through the felly of said wheel, in combination with a plurality of pedals having teeth which intermesh with said pockets.

5. A device of the character described comprising a wheel having a plurality of pockets formed in its periphery, which pockets open through the felly of said wheel, in combination with a plurality of pedals having teeth which intermesh with said pockets and interengaging means between the ends of said pedals arranged to bring adjacent pedals in horizontal alinement with each other.

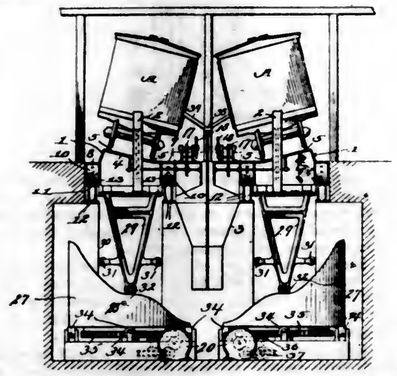
[Claims 6 to 8 not printed in the Gazette.]

1,209,621. APPARATUS FOR UNLOADING CARS. HENRY RICHARDSON, Passaic, N. J. Filed Jan. 17, 1916. Serial No. 72,519. (Cl. 214—11.)

1. In a car unloading apparatus, a table tiltable only in a vertical longitudinal plane and having parallel rails for the car arranged at different elevations whereby the car will be supported in a transversely inclined plane in any position of said table.

2. In a car unloading apparatus, a table tiltable only in a vertical longitudinal plane along an arc whose center is the approximate center of gravity of the car and having parallel rails for the car arranged at different elevations whereby the car will be supported in a transversely inclined plane in any position of said table.

3. In a car unloading apparatus, a car supporting table provided with rocker members having their rolling faces arranged along an arc whose center is the approximate center of gravity of the car and horizontal members upon which said rocker members operate whereby the table is tiltable only in a vertical longitudinal plane in combination with parellel rails for the car arranged at different elevations on said table whereby the car will be supported in a transversely inclined plane in any position of said table.

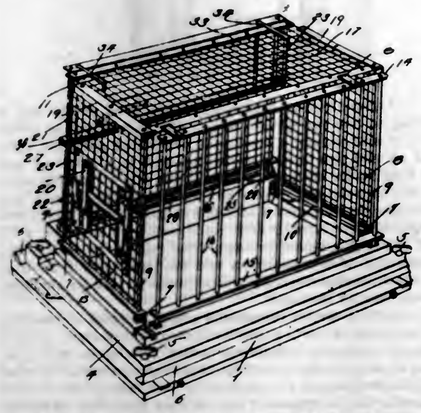


4. In a car unloading apparatus, a car supporting table tiltable in a longitudinal plane, a pair of vertically reciprocatory cross heads connected to said table at opposite sides of its fulcrum, and a rotatable cylinder having its upper end formed as a cam and engaging the lower ends of said cross heads.

5. In a car unloading apparatus, a tiltable car supporting table, a pair of bumpers, one at each end of the table, the bumpers being movable into and out of car-engaging positions, operating mechanisms for the table, a motor for the operating mechanism and devices under the control of said bumpers in accordance with their positions for controlling the starting and stoppage of said motor.

[Claims 6 to 14 not printed in the Gazette.]

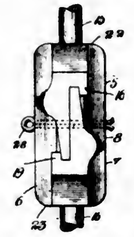
1,209,622. COOP. GEORGE T. ROYER, Garfield, Utah, assignor of one-sixth to Theo. Peterson, Garfield, Utah. Filed Jan. 20, 1916. Serial No. 73,202. (Cl. 217—47.)



1. In a coop, the combination with a base, of a frame detachably mounted thereon, folding sides, ends and top mounted on the frame, a receptacle of which said base forms the cover, and guide strips secured to the base to position the frame thereon and to position the receptacle on the cover.

2. In a coop, the combination with a base, of a frame detachably mounted thereon, end pieces hinged to the frame, a back piece hinged to the frame, a front piece hinged to the frame and a cover hinged to the front piece, the said cover having channel members thereon for the reception of the upper ends of the end pieces, the back piece being formed in two sections hinged together and rods for securing the said sections in rigid relation and simultaneously attaching the back piece to the cover.

1,209,623. CLAMP. CHARLES B. RUSH, Kiefer, Okla. Filed Mar. 10, 1916. Serial No. 83,391. (Cl. 255—30.)



1. A clamp of the character set forth embodying a pair of identically constructed sections, each section being provided at one end with a pair of diverging L-shaped holding members, said holding members of one section receiving the portion of the other section for retaining the said sections in clamping position.

2. A clamp of the character set forth embodying a pair of identically constructed sections, each section comprising a body having a pocket, a headed rod mounted within the pocket of the body portion of the clamp and means formed contiguous with each of said sections at one end thereof and diverging in a direction beyond said pocket for holding the sections in clamping position.

3. A device of the class described comprising a pair of identically constructed sections, each of said sections being provided with a pair of L-shaped holding members at one end thereof, the opposite end of each section being formed with beveled extensions, said beveled extensions adapted to fit under the horizontal portion of the holding members for retaining the sections in superposed clamping relation one to the other.

4. A clamp of the character set forth embodying a pair of identically constructed sections, each section being provided at one end with a pair of L-shaped diverging holding members, the holding diverging members of one section receiving a portion of the other section for retaining the same sections in clamping position, and a cotter pin possing through said sections for preventing the displacement of said sections.

5. A clamp embodying a pair of identically constructed sections, each of said sections having their top wall formed with a pair of extensions at one end thereof, the extensions being provided by the beveling of a portion of the top wall, and L-shaped holding members formed contiguous with each section at the opposite end thereof, the extensions of one section being defined within the holding members of its adjacent section with a portion of the holding members disposed in binding engagement with the beveled portion of the section, whereby limiting the endwise movement of the sections with respect to one another.

1,209,624. COLLAR-BUTTON. JENNIE E. RUSHA, Oldtown, Me. Filed Mar. 13, 1916. Serial No. 83,911. (Cl. 24—99.)

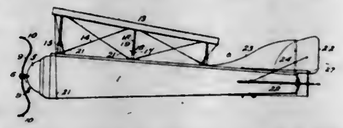
In a collar button, a base, a shank extending therefrom having the upper ends bifurcated to provide spaced arms, a pin carried by the arms, a pair of coöperating wings, the said wings being adapted to be folded and when in the said folded position rest against the shank with their ends pointing toward the base, one of said wings having a tongue portion centrally thereof rolled, the edge portions

adjacent the tongue providing shoulders, the other wing member having a pair of tongues on one end thereof rolled to form means for hingedly connecting the said wings to



the spaced arms, a shoulder formed intermediate the tongue portions, the said shoulders providing means for limiting the upward movement of the wings when the said wings have been raised in parallel relation with the base.

1,209,625. TORPEDO. GEORGE F. RUSSELL, Hoboken, N. J. Filed Nov. 9, 1915. Serial No. 60,544. (Cl. 102—2.)



1. An aerial torpedo comprising a body, a sustaining plane pitched at an inclined angle with relation to the axis of the body, uprights connecting said sustaining plane with the body, and means arranged in the length of and forming part of said uprights for varying the effective length of said uprights, whereby to bodily adjust the plane to vary the distance between the same and the body without changing the pitch of said plane, or to both vary the distance and inclination of the plane with respect to the axis of the body.

2. An aerial torpedo comprising a body, a sustaining plane located over the forward portion thereof and pitched at an inclined angle with relation to the axis of the body, rigid and vertically movable horizontal planes at the rear end of the body and disposed substantially in line with the horizontal longitudinal center of the body, and vertically disposed fixed and movable vanes upon the rear portion of the body disposed substantially above the horizontal plane of the body and extending vertically to a point substantially in horizontal alinement with the trailing portion of the inclined sustaining plane.

3. An aerial torpedo comprising a body, a sustaining plane located over the forward portion thereof and pitched at an inclined angle with relation to the axis of the body, socket members upon the upper surface of the body, threaded rods slidably engaging said socket members and adjustably supporting the sustaining plane, adjusting nuts engaging the threaded rods, and clamping members upon the sockets and engaging said rods.

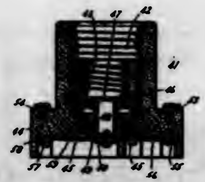
4. An aerial torpedo comprising a body having its stern portion formed to provide a light chamber having a light transmitting lens, and illuminating means inclosed within said light chamber.

5. An aerial torpedo comprising a longitudinally tapered body having its reduced stern portion provided with a partition forming an illuminating chamber, a lens closing the outer side of said illuminating chamber, and an illuminating device disposed within said chamber and supported by said partition.

[Claims 6 to 12 not printed in the Gazette.]

1,209,626. CURRENT CONNECTION FOR ELECTRIC LAMPS. HOWARD R. SARGENT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 26, 1914. Serial No. 879,030. (Cl. 173—342.)

1. A high current lamp connection comprising a socket or receptacle device having electrically separate terminals with coacting screw threaded contact surfaces of different diameters and a base or plug device for said socket having terminals with corresponding screw threaded contact surfaces.



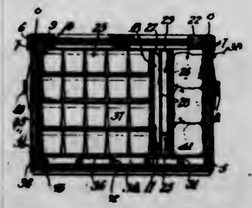
2. A high current lamp connection device comprising electrically separate terminals with coacting screw threaded contact surfaces of different diameters for concurrent threaded engagement with threaded terminals of a corresponding connection device.

3. A high current socket or receptacle comprising electrically separate terminals with coaxial coacting screw threaded contact surfaces of different diameters for concurrent threaded engagement with threaded terminals of a corresponding base.

4. A high curent base comprising electrically separate terminals with coaxial coacting external screw threaded contact surfaces of different diameters for concurrent threaded engagement with terminals of a corresponding socket.

5. A high current base comprising in one unitary structure terminals for the lamp circuit having coacting screw threaded contact surfaces and a body of insulating material serving to unite said terminals mechanically while separating them electrically, said base having a cavity for the end of the lamp.

1,209,627. FRUIT-CARRIER. ETHELBERT E. SAUNDERS, Gardena, Cal. Filed Oct. 4, 1915. Serial No. 54,086. (Cl. 217—7.)

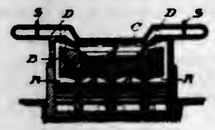


1. A fruit carrier comprising a box open at the top, a casing in one end of said box, a pan formed in the lower end of said casing, a removable perforated partition resting on said pan in said casing adapted to divide said box to form an ice chamber in said casing and a fruit chamber in the opposite end of said box, an outlet pipe for said pan arranged in the bottom of said box extending through the fruit chamber, a series of trays in said fruit chamber, a lid for said box adapted to engage the top of the casing, the upper end of said partition and the uppermost fruit tray in the fruit chamber, and access means to said ice chamber when said lid is closed.

2. A fruit carrier comprising a box, a casing in said box at one end thereof, a pan formed in the bottom of said casing, vertically extending guides formed in the open end of said casing, a hollow perforated partition in said guides forming an ice chamber in said casing and a fruit chamber in the opposite end of said box, said partition having an open bottom arranged to deliver the contents thereof into said pan, drainage means for said pan, and a lid for said carrier adapted to engage the upper end of said partition.

3. A fruit carrier comprising a box, open at the top, a casing open at its inner end arranged in one end of said box, a pan formed in the bottom of said casing, guides formed in said casing, a vertically movable hollow partition in said guides dividing said box to form an ice chamber in said casing and a fruit chamber in the opposite end of said box, extensions on said partition supporting said partition in said pan, said partition consisting of walls spaced apart each having perforations therein, said partition being open at the bottom to deliver the contents thereof into said pan, and a lid for said box adapted to close said fruit chamber and said ice chamber.

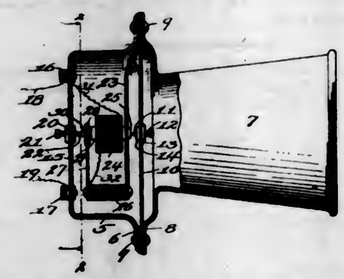
1,209,628. PROCESS OF MANUFACTURING IRON FROM THE SCRAP OF ZINCED SHEET-IRON. OTTO SCHLEIMER, Neuss, Germany, assignor to the Firm of Dr. Kurt Albert Chemische Fabrik, Neuss, Germany. Filed Nov. 13, 1914. Serial No. 872,033. (Cl. 75—55.)



1. A process of manufacturing iron or steel from galvanized iron in open-hearth or electric furnaces consisting in preparing a highly heated iron bath rich in carbon, charging and melting down galvanized iron in said bath, and continuing the process in the known manner.

2. A process of manufacturing iron or steel from galvanized iron in open-hearth or electric furnaces consisting in preparing a highly heated iron bath rich in carbon, charging and melting down galvanized iron in said bath, removing and recovering the zinc, and continuing the process in the known manner.

1,209,629. AUTOMOBILE VIBRATING HORN. SALVATORE SCOGNAMILLO, New York, N. Y. Filed July 1, 1915. Serial No. 37,569. (Cl. 177—7.)



1. In an automobile horn of the class specified, the combination of a casing, a resonator secured thereto, a diaphragm between the casing and resonator provided with a rear projection at the center thereof, a main suspending and carrying spring secured to the upper portion of the casing within the latter and having an electromagnet attached to the rear side thereof and an impacting disk at the front side of the spring in line with the projection of the diaphragm, an insulating connector secured to and projecting from the free end of the said main spring, an upwardly extending spring arm secured to the insulating connector and spaced from the said main spring and provided with an armature at its upper free end in operative adjacency to the pole of the magnet, the armature also carrying a contact projection, a contact adjustably mounted in the rear of the casing and normally in engagement with the contact on the armature, and electrical connections for the electro-magnet and armature whereby when the circuit is closed a vibration of the main spring will be set up by the action of the magnet and the armature to effect a rapid impact of the disk on the said latter spring with the projection on the diaphragm.

2. In an automobile horn of the class specified, a casing, a reasonator, a diaphragm held between the casing and resonator and provided with a rearwardly extending projection, a vibrating organization suspended within the casing in rear of the diaphragm and comprising an elongated main suspending and carrying spring with an impacting disk to engage the projection of the diaphragm, an electro-magnet secured to and movable with said main spring, and a yieldingly supported armature secured to the lower end of and spaced from the said main spring in rear of the electro-magnet and carrying a contact forming part of a circuit breaker, a contact held by the rear portion of the casing and normally in engagement with the contact on the armature and completing the circuit breaker, and electrical connections for the electro-magnet and armature.

3. In an automobile horn of the class specified, a casing, a resonator, a diaphragm held between the casing and resonator and having a projection, a main carrying spring depending into the casing and having an impacting disk to engage the projection on the diaphragm and also provided with an electro-magnet, and a yieldingly supported armature in rear of the magnet and connected to the free end of the main spring and carrying a contact to form part of the circuit breaker, the spring with the electro-magnet and armature all regularly vibrating as a unit within the casing, the armature being insulated from the said main spring, a circuit breaking contact carried by the casing and normally engaging the contact of the armature, and electrical connections for the electro-magnet and armature.

4. In an automobile horn of the class specified, a casing, a resonator, a diaphragm between the casing and resonator, a magnetic vibrating means suspended within the casing and comprising a main spring arm carrying an electro-magnet and an impacting device to engage a portion of the diaphragm and a supplemental spring arm disposed in rear of and projecting upwardly parallel to said main spring arm and carrying an armature in rear of the electro-magnet, said supplemental spring arm being insulated from the main spring arm, a circuit breaker in part carried by the casing and the said armature, and electrical connections for the electro-magnet and armature, the main spring arm, supplemental spring arm, electro-magnet and armature all vibrating bodily by the action of the electro-magnet on the armature to cause the impacting device on the main spring arm to strike a portion of the diaphragm.

1,209,630. PIPE-TONGS. RANDOLPH W. SHIPLEY, Drumright, Okla. Filed Sept. 12, 1916. Serial No. 119,796. (Cl. 81—80.)



1. A pipe wrench comprising a shank having a stationary jaw, a movable jaw pivoted at one end to the shank and having a jaw face on its other end opposing the stationary jaw, an operating lever pivoted between its ends to the shank, said lever having its outer end terminating adjacent the outer end of the movable jaw, and a link ar-

ranged transversely of the shank and connecting the said outer end of the lever to the said outer end of the movable jaw to exert a tangential push on said movable jaw.

2. Pipe tongs comprising a shank having a fixed jaw on one end, a movable jaw pivoted to the end of said shank adjacent the fixed jaw and provided with a face overhanging and opposing the latter, and an operating lever pivoted to the shank and connected to the movable jaw, the latter serving as a stop for the pivotal movement of the lever.

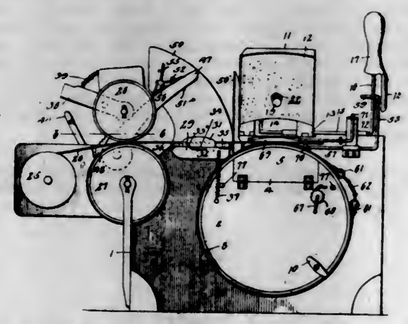
3. Pipe tongs comprising a shank having a fixed jaw on one end, a movable jaw pivoted to the end of said shank adjacent the fixed jaw and provided with a face overhanging and opposing the latter, an operating lever pivoted to the shank and extended to a point substantially opposite the outer end of the movable jaw whereby a force exerted on the lever will be transmitted substantially tangential to the movable jaw, and a connecting link between the outer end of the movable jaw and said extended end of the lever.

4. In a pipe wrench, a shank having a fixed jaw, a movable jaw having a bifurcated part straddling the shank and pivoted thereto, an operating lever pivoted to the shank and having its outer end disposed approximately opposite to the outer end of the movable jaw, and a link connected to the lever and outer end of the movable jaw.

5. In a pipe wrench, a shank having a fixed jaw to grip one face of a pipe, a pivoted jaw connected to said shank to grip the opposite face of the pipe, and means for applying a tangential clamping force to the pivoted jaw at a point including a rigid link disposed at points outwardly beyond and opposite said second named face of the pipe.

[Claim 6 not printed in the Gazette.]

1,209,631. PHOTOGRAPHIC-PRINTING MACHINE. ALBERT SLETTEN, Fargo, N. D. Filed Nov. 27, 1915. Serial No. 63,778. (Cl. 95—73.)



1. In a photographic printing machine, a light box having a light transmitting opening, a cylinder having masking portions and revolubly mounted on said box to bring different masking portions thereof into line with said opening, relatively adjustable shutters within the cylinder, said shutters being relatively adjustable in an arc concentric with the cylinder to vary the size of said opening, and means for relatively adjusting said shutters.

2. In a photographic printing machine, a light box having a light transmitting opening, paper feeding mechanism for feeding paper to said opening, a combined paper and negative clamping device movable toward and from the opening, and mechanism for simultaneously actuating the paper feeding mechanism and clamping device, said mechanism being operative to move the paper and clamping device in planes substantially at right angles to each other.

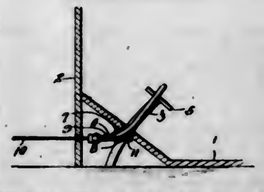
3. In a photographic printing machine, a light box having a light transmitting opening, paper feeding mechanism, a paper and negative clamping device, mechanism for simultaneously actuating the feeding mechanism and clamping device, and means forming part of said mechanism for varying the throw thereof.

4. In a photographic printing machine, a light box having a light transmitting opening, a cylinder having masking portions and revolubly mounted on said box to bring different masking portions thereof into line with said opening, relatively movable segmental shutters within the cylinder adjustable on arcs concentric with the cylinder with relation to said light opening, and means for simultaneously adjusting said shutters.

5. In a photographic printing machine, a light box having a light transmitting opening, a mask cylinder having masking portions revolubly mounted on said box to bring different masking portions thereof into line with said opening, and means on said box for holding a negative and sheet of paper in position for printing.

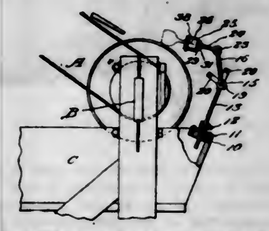
[Claims 6 to 14 not printed in the Gazette.]

1,209,632. AUTOMATIC FOOT-THROTTLE FOR AUTOMOBILES. FRANK L. SMITH, Chicago, Ill. Filed June 10, 1916. Serial No. 102,919. (Cl. 74—81.)



The combination with a brake pedal, of a throttle lever located at one side of the brake pedal and pivotally mounted on an axis which permits the free end of the throttle lever to be moved laterally with relation to the movement of the brake pedal, a throttle valve-operating rod attached to said throttle lever, and a spring acting to yieldingly hold the free end of the throttle lever toward the center of the brake pedal.

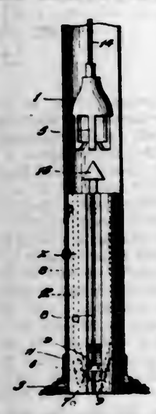
1,209,633. WORK-HOLDER. WINFIELD S. SNYDER and JAMES B. KERSEY, Columbia, Pa. Filed May 1, 1916. Serial No. 94,725. (Cl. 51—3.)



1. A holder of the class described comprising a stationary base, a post slidable through said base, means in the base for engagement with the post to prevent rotation thereof and to lock the same in its adjusted position, an arm, a socket member formed on the upper end of the post, a companion member formed on the arm and frictionally engaged within the socket member, means passed through said members for holding the same joined to each other, L-shaped stops adjustably connected to said means and limiting the throw of the arm, a stem adjustably supported on the arm, a stationary head on the stem, a cup shaped holder having its circular wall longitudinally slitted to form resilient gripping sectors, said cup shaped member being formed with an internal seat for an article engaged therein, a ratchet gear fixed to the base of the cup shaped member and rotatably mounted upon the stem, and a latch pawl pivoted upon the head and engageable with the ratchet gear.

2. A holder of the class described comprising a stationary base, a post slidable through said base, means in the base for engagement with the post to prevent rotation thereof and to lock the same in its adjusted position, an arm, a socket member formed on the upper end of the post, a companion member formed on the arm and frictionally engaged within the socket member, means passed through said members for holding the same joined to each other, L-shaped stops adjustably connected to said means and limiting the throw of the arm, a stem adjustably supported on the arm, a stationary head on the stem, a cup shaped holder having its circular wall longitudinally slitted to form resilient gripping sectors, said cup shaped member being formed with an internal seat for an article engaged therein, a ratchet gear fixed to the base of the cup shaped member and rotatably mounted upon the stem, a latch pawl pivoted upon the head and engageable with the ratchet gear, said cup shaped member being formed with an annular groove in the outer surface of the circular wall adjacent to the internal seat, and a convoluted spring ring disposed concentrically about the cup shaped member and movable into the annular groove for holding the resilient gripping sectors in clamping position.

1,209,634. WATER-STOPPING DEVICE FOR OIL AND OTHER WELLS. CALVIN SWEET, Half Moon Bay, Cal. Filed Oct. 24, 1914. Serial No. 868,516. (Cl. 166—10.)



1. In a packing device for oil well casings, the combination of a flexible sleeve packing attached to the lower end of the casing, means arranged inside the casing for holding the packing extended while being lowered into the well, and means for withdrawing the said holding means and leaving the packing free to be distended by the weight of the casing.

2. In a packing device for oil well casings, a flexible sleeve packing attached to the lower end of the casing, means movable within the casing and arranged to project below the lower end thereof and hold the packing in an extended condition while being lowered into the well, the said means being free to move into the casing when they come into engagement with the bottom of the well, thereby causing the packing to be laterally distended and assume packing conditions, and means for withdrawing said means upward through the casing.

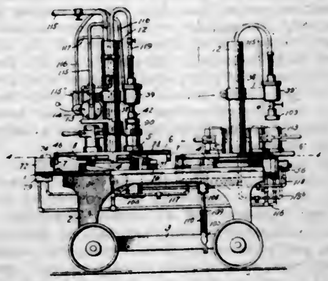
3. In a packing device for oil well casings, the combination of a flexible sleeve securely attached to the lower end of the casing, a plunger slidably disposed in the end of the casing and adapted to extend beyond the lower end thereof, means for securing the packing sleeve to the portion of the plunger that extends beyond the lower end of the casing, arranged to permit the sleeve being stripped off from the plunger when the latter is forced into the casing upon contact with the bottom of the well, and means for withdrawing the plunger from the casing.

4. In a packing device for oil well casings, the combination of a flexible sleeve attached to the lower end of the casing, a plunger slidably disposed in the lower end of the casing, provided with longitudinal channels, wedges slidable in said channels to secure the plunger to the lower end of the casing, means to slidably attach the packing to the plunger, and means to withdraw the plunger from the casing.

5. In a packing device for oil well casings, the combination of a flexible sleeve attached to the lower end of the casing, a plunger movable through the casing, provided with longitudinal channels that converge inwardly at the lower end of the plunger toward the longitudinal axis thereof, wedges mounted in the said channels and arranged to secure the said plunger to the lower end of the casing with its lower portion extending beyond the said lower end, means for securing the packing to the plunger, adapted to be stripped off when the plunger is moved into the casing, and means for withdrawing the plunger from the casing.

[Claim 6 not printed in the Gazette.]

1,209,635. GLASS-BLOWING MACHINE. LORENZO WOLFORD, Alexandria, Va., assignor to Old Dominion Glass Corporation, Alexandria, Va., a Corporation of Virginia. Filed Apr. 24, 1915. Serial No. 23,000. (Cl. 49—5.)



1. In a glass blowing machine, a platform, a mold carrying table rotatably mounted thereon, said table being provided with radially disposed bores, a source of fluid pressure supply, means engaging the edge of said table to communicate the fluid pressure, through said bores, to the molds, mechanism for revolving the table, and means, actuated by said mechanism, for controlling the supply of fluid pressure to said table engaging means.

2. In a glass blowing machine, a platform, a mold carrying table rotatably mounted on said platform, said table being provided with suitable bores, a block beside the table, a resiliently retained table engaging member mounted in said block, a source of fluid pressure supply connected to said block, and means for automatically controlling the supply of fluid pressure to said block.

3. In a glass blowing machine, a platform, a mold carrying table rotatably mounted on said platform, said table being provided with bores connecting the periphery of the table with the molds, a block secured to said platform adjacent the periphery of said table, a table engaging member carried by said block, said member being provided with a bore adapted to aline with the bores in the table, a source of fluid pressure supply, connections between said source and said block, and an automatically actuated valve situated in said connections for controlling the supply of fluid pressure to said block.

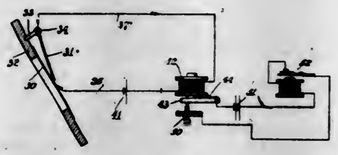
4. In a glass blowing machine, a suitable platform, a mold carrying table rotatably mounted thereon, a mold carried by said table, a mouth forming finger extending within said mold, mechanism for revolving said table, and fluid pressure controlling means, actuated by said mechanism to withdraw the finger from the mold.

5. In a glass blowing machine, a platform, a mold carrying table rotatably mounted on said platform, a mold

carried by said table, a mouth forming finger extending within said mold, a mold closure cap adapted to engage said mold, means connected to said cap for compressing the charge in the mold, mechanism for revolving the table, and means actuated by said mechanism for stopping the compression and withdrawing said finger.

[Claims 6 to 9 not printed in the Gazette.]

1,209,636. SOUND-OPERATED CIRCUIT-CONTROLLER. CHRISTIAN BERGER, New York, N. Y., assignor to Submarine Wireless Company, New York, N. Y., a Corporation of New York. Filed May 19, 1916. Serial No. 98,520. (Cl. 177—339.)



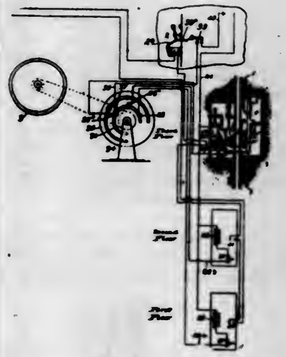
1. A sound operated circuit controller comprising in conbination, an acoustically vibratable diaphragm member, and an opposed pendulous contact member arranged to normally bear against said diaphragm member and to be bodily thrown off by the vibrations of the diaphragm member so as to interrupt an electric circuit, the normal contact pressure of said contact member being at least as great as the critical pressure of conductivity for such a contact, whereby resumption of continuous normal contact restores the maximum and therefore a substantially constant conductivity and current.

2. In combination with an electromagnetic relay, a sound operated controller therefor in the primary relay circuit, the same comprising an acoustically vibratable diaphragm member, and an opposed pendulous contact member arranged to normally bear against said diaphragm member and to be bodily thrown off by the vibrations of the diaphragm member so as to interrupt the primary circuit, the normal contact pressure of said contact member being at least as great as the critical pressure of conductivity for such a contact, whereby resumption of continuous normal contact restores the maximum and therefore a substantially constant conductivity and current in the primary circuit.

3. In combination with an electromagnet and its armature adapted for the control of various mechanisms or instruments, a sound operated controller in circuit with said magnet, the same comprising an acoustically vibratable diaphragm member, and an opposed pendulous contact member arranged to normally bear against said diaphragm member and to be bodily thrown off by the vibrations of the diaphragm member so as to interrupt the circuit, the normal contact pressure of said contact member being at least as great as the critical pressure of conductivity for such a contact, whereby resumption of continuous normal contact restores the maximum and therefore a substantially constant normal conductivity, current and magnet pull; and said armature having a counterforce less than such normal magnet pull.

4. In combination with an electromagnet and its armature adapted for the control of various mechanisms or instruments, a sound operated controller in circuit with said magnet, the same comprising an acoustically vibratable diaphragm member, and an opposed pendulous contact member arranged to normally bear against said diaphragm member and to be bodily thrown off by the vibrations of the diaphragm member so as to interrupt the circuit, the normal contact pressure of said contact member being at least as great as the critical pressure of conductivity for such a contact, whereby resumption of continuous normal contact restores the maximum and therefore a substantially constant normal conductivity, current and magnet pull; and said armature having a counterforce less than such normal magnet pull, and extent of movement insufficient to carry it beyond the operative influence of the magnet.

1,209,637. DOOR-LOCK AND DOOR-SWITCH FOR ELECTRIC ELEVATORS. RICHARD BRENNE, Chicago, Ill., assignor to Kaestner & Hecht Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 26, 1915. Serial No. 47,548. (Cl. 187—31.)



1. An elevator system having, in combination, a door-locking member, a handle for operating said member, a lock for said member, an electromagnet for operating the lock, a circuit for the electromagnet, a switch in said circuit arranged to be closed by said handle, a controller, a switch in said circuit arranged to be opened by the controller, a hoisting drum, and a circuit-closer operated by the drum and included in said circuit.

2. In an elevator system, a pivoted latch, a casing having a portion adapted to be engaged by the latch, a member chambered to receive the end of the latch, said member being movable in said casing, a spring tending to move said member in one direction, a dog arranged to lock said member against such movement, an electromagnet for withdrawing the dog, a circuit for the electromagnet, a switch in said circuit, a hand lever for disengaging the latch from the casing, a member connected to the hand lever for closing the switch, and a spring for moving the latch into engaging position, the last mentioned spring being stronger than the other spring.

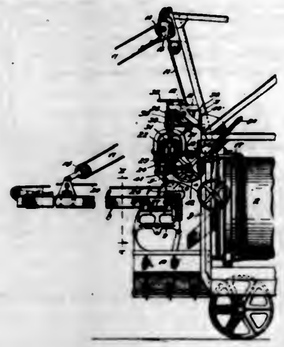
3. In an elevator system, a pivoted latch, a casing having a portion adapted to be engaged by the latch, a member chambered to receive the end of the latch, said member being movable in said casing, a dog arranged to lock said member, an electromagnet for withdrawing the dog, a circuit for the electromagnet, a switch in said circuit, a hand lever for disengaging the latch from the casing, and a member connected to the hand lever for closing the switch.

4. An elevator system having, in combination, a door jamb, a door, a door-locking member on the door, a handle for operating said member and for moving the door, a lock for said member on the door jamb, an electromagnet for operating the lock, a circuit for the electromagnet, and a switch on the door jamb, said switch being included in said circuit and being arranged to be closed by said handle.

5. An elevator system having, in combination, a door-locking member, a member associated therewith, a lock for said door-locking member, an electromagnet for operating the lock, a circuit for the electromagnet, a normally open switch in said circuit adapted to be closed by said associated member, a controller, and a normally closed switch in said circuit arranged to be held open by the controller while the motor is running.

[Claims 6 to 12 not printed in the Gazette.]

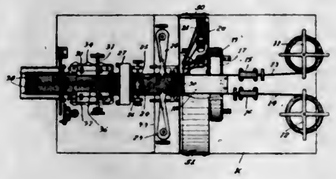
1,209,638. CONVEYING AND DISTRIBUTING APPARATUS. JAMES W. BROWN, Milwaukee, Wis., assignor to Chain Belt Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed May 17, 1915. Serial No. 28,693. (Cl. 214—14.)



1. In a conveying and distributing apparatus, the combination of a rigid boom, a conveying receptacle supported by the boom and adapted to traverse the same, a horizontal pivot on which the boom is mounted, a cable connected with the boom for sustaining it in an extended position, a winding drum to which the cable is secured, means for causing traverse of the conveying receptacle along the boom, driving gearing for the said means, and gearing for driving the said winding drum, taking power from the gearing that causes the traverse of the conveying receptacle and including a clutch by means of which the connection with the drum may be made or broken at will.

2. In a conveying and distributing apparatus, the combination of a rigid boom supported upon a horizontal pivot, a receptacle supported by the boom and adapted to traverse the same, a cable connected with the boom for sustaining it in an extended position, a winding drum to which the cable is secured, a power driven shaft, a train of gearing for causing the traverse of the receptacle along the boom connected directly with the said shaft, and another train of gearing extending directly between the said power driven shaft and the said cable drum including a manually operated clutch by which the driving connection with the drum may be completed or broken at will.

1,209,639. PROCESS OF MAKING HEADS FOR MOPS, DUSTERS, OR SIMILAR ARTICLES. CLARENCE W. CARTER, Minneapolis, Minn., assignor to National Novelty Company, Minneapolis, Minn., a Corporation. Filed Aug. 20, 1914. Serial No. 857,706. (Cl. 15—7.)



1. A method of making brushing material for mop heads or the like which consists in holding a pair of receiving wires in spaced parallel relation, progressively winding about said receiving wires a flexible strand, securing the portions of the flexible strand tot he receiving wires inside of the points where the same are looped over the receiving wires, cutting the strands of flexible material midway between the receiving wires, and thereafter winding the receiving wires about a mandrel with the cut strands extending radially therefrom.

2. A method of making brushing material for mop heads or the like which consists in holding a pair of receiving wires in spaced parallel relation, progressively winding about said receiving wires a flexible strand, sewing the portions of the flexible strand to the receiving wires inside of the points where the same are looped over the receiving wires, cutting the strands of flexible material midway between the receiving wires, and thereafter winding the receiving wires about a mandrel with the cut strands extending radially therefrom.

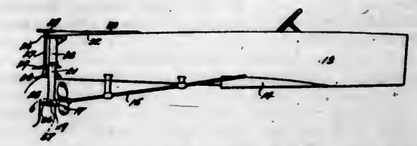
3. A method of making brushing material and the like which consists in holding a pair of receiving wires in spaced parallel relation, progressively winding about said receiving wires a flexible strand and advancing the wires and wound strand as the same are wound, sewing the portions of the flexible strand to the receiving wires inside of the points where the same are looped over the receiving wires, as the wires and wound material are fed, cutting the strands of flexible material midway between the receiving wires while the same are being advanced, and thereafter winding the receiving wires about a mandrel with the cut strands extending radially therefrom.

4. A method of making mop heads which consists in holding and feeding a pair of receiving wires in spaced parallel relation, progressively winding a flexible strand about said receiving wires and sewing the portions of the flexible strand to the receiving wires while the same are being fed, cutting the strands of flexible material midway between the receiving wires, thereafter winding the receiving wires about a metallic core with the cut strands extending radially therefrom, and securing the ends of said receiving wires to the core.

5. A method of making mop heads which consists in holding and feeding a pair of receiving wires in spaced parallel relation, progressively winding flexible strands about said receiving wires at a rate proportional to the rate of feed of the receiving wires, securing the looped portions of the flexible strands to the receiving wires, cutting the strands of flexible material between the receiving wires, and thereafter winding the receiving wires about a mandrel with the cut strands extending radially therefrom.

[Claim 6 not printed in the Gazette.]

1,209,640. HYDROPLANE-BOAT. CLINTON H. CRANE, Hewlett, N. Y., assignor to J. Frederic Tams and Charles King, doing business under the firm-name of Tams, Lemoine & Crane, New York, N. Y. Filed Feb. 19, 1915. Serial No. 9,246. (Cl. 114—66.5.)



1. A hydroplane boat provided with a fixed forward plane member, a wholly submerged after plane member secured to the propeller struts, and rigidly set at a predetermined angle in conjunction with the angle of the forward plane member, a second after plane member directly superimposed above, and of larger area than, said submerged plane member secured to the propeller struts and rudder post, and adapted to rise to, or above, the surface of the water as the speed of the boat increases, and a rudder mounted between said after plane members.

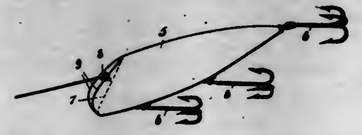
2. A hydroplane boat provided with a fixed forward plane member, a wholly submerged after plane member secured to the propeller struts, and rigidly set at a predetermined angle in conjunction with the angle of the forward plane member, a second after plane member directly superimposed above, and of larger area than, said sub-

merged plane member secured to the propeller struts and rudder post and rigidly set at a predetermined angle in conjunction with the angle of the forward plane member and with the submerged member, and adapted to rise to, or above, the surface of the water as the speed of the boat increases, and a rudder mounted between said after plane members.

3. A hydroplane boat provided with a fixed forward plane member, a wholly submerged after plane member secured to the propeller struts, and rigidly set at a predetermined angle in conjunction with the angle of the forward plane member, a second after plane member directly superimposed above, and of larger area than, said submerged plane member secured to the propeller struts and rudder post, and adapted to rise to, or above, the surface of the water as the speed of the boat increases, and a plurality of rudders secured to said propeller struts mounted between and beyond the zone of said after plane member.

4. A hydroplane boat provided with a fixed forward plane member, a wholly submerged after plane member secured to the propeller struts and rigidly set at a predetermined angle in conjunction with the angle of the forward plane member, a second after plane member directly superimposed above, and of larger area than, said submerged plane member secured to the propeller struts and rudder post and rigidly set at a predetermined angle in conjunction with the angle of the forward plane member and with the submerged member, and adapted to rise to, or above, the surface of the water as the speed of the boat increases, and a plurality of rudders secured to said propeller struts mounted between and beyond the zone of said after plane members.

1,209,641. FISH BAIT OR LURE. JAMES S. OLDS, Benton Harbor, Mich., assignor to South Bend Bait Company, South Bend, Ind., a Corporation of Indiana. Filed June 28, 1915. Serial No. 36,755. (Cl. 43—30.)

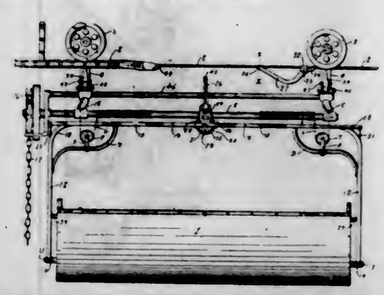


A fish bait or lure, including a body having a head end formed by a cylindrical cut on a line diagonal to the longitudinal horizontal plane of the body and extending only between opposite curved surfaces of the body, whereby to preserve the longitudinal surface of the body unbroken from end to end and to provide at the head end deflecting side ridges forwardly of and in coincidence with the plane of the body surface.

1,209,642. LITTER-CARRIER. JOHN OLSON and DAVID D. JAMES, Fort Atkinson, Wis., assignors to James Manufacturing Company, Fort Atkinson, Wis., a Corporation of Wisconsin. Filed Oct. 11, 1913. Serial No. 794,619. (Cl. 212—137.)

1. The combination with a litter carrier having a receptacle and a bail pivotally connected therewith at its respective ends, and adapted to permit the receptacle to tilt by gravity to an inverted position, of latch mechanism adapted to retain the receptacle in an upright position, a latch retracting lever pivotally connected with the bail, an upwardly projecting operating piece also pivoted to the bail and adapted, when tilted longitudinally of the bail, to actuate said lever to latch retracting position, said operating piece being jointed at an intermediate point, whereby its upper end may swing transversely of the bail.

2. The combination with a litter carrier having a receptacle and a bail pivotally connected therewith at its respective ends, and adapted to permit the receptacle to tilt by gravity to an inverted position, of latch mechanism adapted to retain the receptacle in an upright position, a latch retracting lever pivotally connected with the bail, an upwardly projecting operating piece also pivoted to the bail and adapted, when tilted longitudinally of the bail, to actuate said lever to latch retracting position, said operating piece being jointed at an intermediate point, whereby its upper end may swing transversely of the bail, the jointed members of said operating piece being provided with mutually engaging stops adapted to limit the transverse movement of the upper end portion, a spring adapted to normally retain said stop in a position covering said recess, said stop being adapted when in normal position to prevent said locking lug from entering said recess.



3. The combination with a litter carrier having a receptacle and a bail pivotally connected therewith at its respective ends, and adapted to permit the receptacle to tilt by gravity to an inverted position, of latch mechanism adapted to retain the receptacle in an upright position, a latch retracting lever pivotally connected with the bail, an upwardly projecting operating piece also pivoted to the bail and adapted, when tilted longitudinally of the bail, to actuate said lever to latch retracting position, said operating piece being jointed at an intermediate point, whereby its upper end may swing transversely of the bail, the jointed members of said operating piece being provided with mutually engaging stops adapted to limit the transverse movement of the upper end portion.

4. In a litter carrier, the combination of a litter receptacle, provided with an end bracket, a locking lug, a projection connected with the end of said litter receptacle adjacent to the bracket, and provided with a recess, a stop pivotally connected with said bracket above said recess, a spring adapted to normally retain said stop in a position covering said recess, said stop being adapted when in normal position to prevent said locking lug from entering said recess.

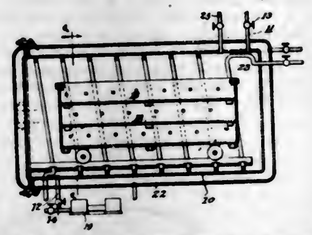
5. In a litter carrier, the combination with a track having a projection, of a litter receptacle, a bail pivotally connected with the receptacle and provided with a movable member adapted to engage the track projection when the receptacle is being supported and conveyed along the track, latch mechanism adapted in one position to hold the receptacle in an upright position, connections between said movable member and the latch mechanism adapted to retract the latter when said member is actuated by said track projection, a relatively quick moving stop adapted to automatically move into the path of the latch mechanism when retracted, to prevent the same from retracting to holding position.

[Claim 6 not printed in the Gazette.]

1,209,643. METHOD OF DRYING MATERIALS. RAYMOND B. PRICE, New York, N. Y., assignor to Rubber Regenerating Company, a Corporation of Indiana. Filed Feb. 3, 1913. Serial No. 745,972. (Cl. 34—24.)

1. The method of treating rubber to prevent its oxidation while drying which consists in enveloping the rubber in a heated non-oxidizing vapor atmosphere for a part of the treatment below the saturation point and for another part of the treatment above the saturation point.

2. The method of treating pulverized reclaimed rubber to prevent its oxidation and spontaneous combustion while drying which consists in enveloping the rubber in a heated non-oxidizing vapor atmosphere maintained for a part of the treatment below the saturation point and for another part of the treatment above the saturation point.



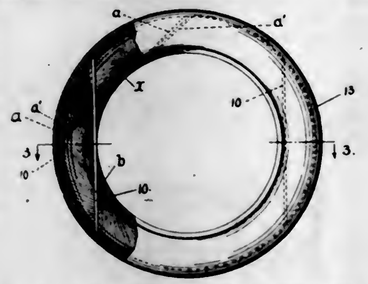
3. The method of treating pulverized reclaimed rubber to prevent its oxidation and spontaneous combustion while maintaining it in a state of agitation which consists in enveloping the rubber in a heated non-oxidizing vapor atmosphere maintained for a part of the treatment below the saturation point and for another part of the treatment above the saturation point.

1,209,644. MANUFACTURE OF HOLLOW RUBBER ARTICLES. RAYMOND B. PRICE, New York, N. Y., assignor to Rubber Regenerating Company, a Corporation of Indiana. Filed Apr. 19, 1915. Serial No. 22,805. (Cl. 18—59.)

1. A method of making hollow articles which consists in forming the wall of the article of sections of vulcanizable plastic material, applying a plastic skin having no or at least very little sulfur to the confronting edges of respective sections, vulcanizing said sections, moistening said skins with sulfur chlorid, and assembling and uniting the sections by pressing the moistened skins together.

2. A method of making hollow articles which consists in forming the wall of the article of sections of vulcanizable plastic material, applying plastic skin having no or at least very little sulfur to the confronting edges of respective sections, partially vulcanizing the sections, moistening said skins with sulfur chlorid, assembling and uniting the sections to form the final product by pressing the moistened skins together, and finally vulcanizing the product.

1,209,645. TIRE. RAYMOND B. PRICE, New York, N. Y., assignor to Rubber Regenerating Company, a Corporation of Indiana. Filed Apr. 24, 1915. Serial No. 23,573. (Cl. 152—13.)



1. A tire embodying a plurality of independent, closed loop elements, the ends of each element passing across the tread of the tire and the sides passing along the opposite sides of the tire and extending substantially tangential to the inner edges of the tire.

2. In a tire, a double ply formed of separate, contiguous closed loop elements, the ends of each element passing across the tread of the tire and the sides passing along the opposite sides of the tire and extending substantially tangential to the inner edges of the tire.

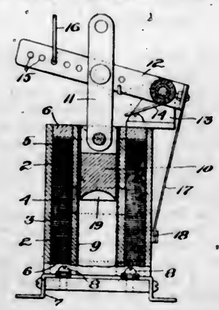
3. A tire embodying a plurality of separate, closed loop elements extending substantially tangential to the inner edges of the tire and crossing each other near their points of tangency.

4. A tire embodying uniformly tensioned closed loop elements, the ends of each element passing across the tread of the tire and the sides passing along the opposite sides of the tire and extending substantially tangential to the inner edges of the tire.

5. A tire embodying similar closed loop elements of material arranged contiguously and crossing each other upon the sides of the tire, the ends of each element passing across the tread of the tire and the sides passing along the opposite sides of the tire and extending substantially tangential to the inner edges of the tire.

[Claim 6 not printed in the Gazette.]

1,209,646. ELECTROMAGNET. WALTER C. REED, Dalton, Mass., assignor to The Telelectric Company, Pittsfield, Mass., a Corporation of Massachusetts. Filed Jan. 30, 1913. Serial No. 745,095. (Cl. 175—21.)

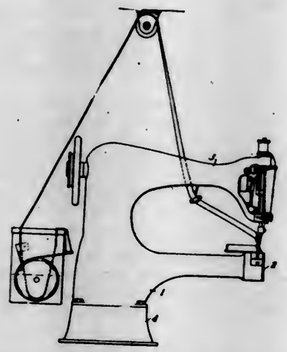


1. An electro-magnet comprising a cylindrical coil, a soft iron casing including a tubular core and completely inclosing the coil externally and internally except for an annular gap within the coil, the width of the gap being much less than the length of said coil, a soft iron plunger arranged to slide longitudinally within the tubular core and substantially filling the latter transversely, said plunger having a greater length than the gap and being movable across the latter, means for connecting the plunger to the part to be operated thereby, and a spring for normally maintaining said plunger with its forward end located opposite said gap.

2. An electro-magnet comprising a cylindrical coil, a soft iron casing including a tubular core and completely inclosing the coil externally and internally except for a gap within the coil, the width of the gap being much less than the length of said coil, a soft iron plunger arranged to slide longitudinally within the tubular core and substantially filling the latter transversely, said plunger being movable across the gap and having a greater length than the latter and a cross-sectional area not exceeding the cross-sectional area of the casing at any point in the magnetic circuit, means for connecting the plunger to the part to be operated thereby, and a spring for normally maintaining said plunger with its forward end located opposite said gap.

3. An electro-magnet comprising a cylindrical coil, a soft iron casing completely inclosing the same externally and internally except for a gap the width of which is much less than the length of the coil, a soft iron plunger movable across the gap in proximity to the casing, a pivotally-mounted arm and connections between the same and the plunger, means for elevating said plunger, and a spring strip secured to said arm and constituting a stop located in position to maintain the forward end of the plunger opposite said gap.

1,209,647. STRIP HOLDING AND GUIDING MECHANISM FOR SEWING-MACHINES. ALFRED B. WALES, Whitman, Mass., assignor to Lorenz Muther, Newton, Mass. Filed June 16, 1916. Serial No. 104,086. (Cl. 112—9.)



1. In a sewing machine, means for feeding sheet material; means for guiding the edge of sheet material; and means for stitching, combined with a strip guide for positioning and guiding a strip of material so that a small portion of one of the edges of said strip of material will be held substantially parallel to the sheet material and near the edge thereof while being stitched, and the greater portion of the strip of material held at an angle to the plane of the sheet material.

2. In a sewing machine comprising means for feeding sheet material therethrough; stitching means, combined with a guide for guiding a strip of material to said stitching means, said guide being provided with a slot, the greater portion of which is at an angle to the plane of the sheet material, and the lower portion of said slot being curved outwardly so as to hold a small portion near the edge of the strip of material substantially parallel to the sheet material while the two are being stitched together.

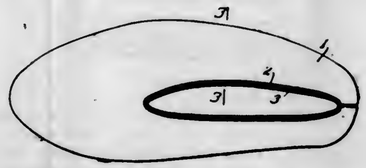
3. A sewing machine comprising means for feeding a sheet of material therethrough; a guide for holding and guiding a strip of material, said guide having a slot through which said strip travels, said slot being at an angle to the plane of the sheet material; means for guiding the sheet material; and means for stitching said strip to said sheet material while the greater portion of the strip of material is held at an angle with relation to the sheet material.

4. A sewing machine comprising means for feeding a sheet of material therethrough; stitching means combined with a guide for guiding a strip of material to said stitching means, said guide being provided with a slot the greater portion of which is at an angle to the plane of the sheet material, a small portion of the lower edge of said slot being curved outwardly and positioned so as to lay contiguous to the edge of the sheet material while the stitching operation is taking place.

1,209,648. METHOD OF FINISHING THE EDGES OF BOOTS AND SHOES. ALFRED B. WALES, Whitman, Mass., assignor to Lorenz Muther, Newton, Mass. Filed June 16, 1916. Serial No. 104,088. (Cl. 12—142.)

1. The method of binding the edge of sheet material, comprising securing a strip of material near one of its longitudinal edges to one side of the edge portion of said sheet material while the greater portion of said strip is held at an angle to the material being bound, then folding said strip of material over the edge of said material being bound and securing the free portion of said strip of material in position upon the other side of the edge portion of said material being bound.

2. The method of binding the edge of sheet material, comprising securing a strip of material near one of its longitudinal edges to one side of the edge portion of said sheet while the greater portion of said strip is held at an angle to said sheet, said strip and sheet being so arranged that the stitched edge of said strip will be concealed when said strip is folded over the edge of said sheet, then folding said strip over the edge of said sheet and securing the free edge portion of said strip upon the other side of the edge portion of said sheet.



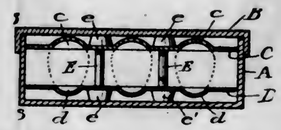
3. The method of binding the edge of sheet material comprising securing to one side of the edge portion of said sheet material a strip of material by a row of stitching passing through one of the longitudinal edge portions of said strip of material and the edge portion of the sheet material, then folding said strip of material over the edge of the sheet material and slitting the free edge portion of the strip material where concave portions of the sheet material occur and securing the free edge portion of said strip of material upon the other side of the edge portion of said sheet material.

4. The method of binding the edge of sheet material, comprising securing a strip of material near one of its longitudinal edges to one side of the edge portion of said sheet while the greater portion of said strip is held at an angle to said sheet, then folding said strip of material over the edge of said sheet of material and securing the free edge portion of said strip of material upon the other side of said sheet of material by cement.

5. The method of binding the edge of a sheet of material comprising cementing one side of the edge portion of the sheet of material and one side of suitable material in strip form, permitting the same to dry partially, then securing said strip of material to said sheet of material near the edge to be bound while said sheet and the greater portion of said strip are held at an angle to each other, said strip and sheet being so arranged that the cemented side of said strip will be adjacent the cemented side of said sheet when said strip is folded over the edge of said sheet, then folding said strip of material over the edge of said sheet of material so the cemented side of the strip is adjacent the sheet, and finally securing it permanently to the sheet of material by pressure while the cement is tacky.

[Claim 6 not printed in the Gazette.]

1,209,649. EGG-CONTAINER. FERDINAND KRONENBERGER, New York, N. Y., assignor to Frederic B. Clark, Englewood, N. J. Filed Mar. 8, 1913. Serial No. 752,812. (Cl. 217—26.)



1. An egg carrier embodying a plurality of substantially rigid egg gripping sheets positioned one over the other, said sheets having direct frictional engagement with rows of eggs at the extreme ends thereof, and means whereby said gripping sheets are movable relatively to each other for securing pressure upon the extreme ends of the eggs.

2. An egg carrier embodying a plurality of substantially rigid egg gripping sheets positioned one above the other, said sheets having direct frictional engagement with rows of eggs at the extreme ends thereof, and means whereby said gripping sheets are moved relatively to each other and thereby brought forcibly into contact with all the eggs so as to apply pressure upon the extreme ends of the eggs through the medium of the sheets themselves, the line of direction of such pressure being lengthwise of the eggs.

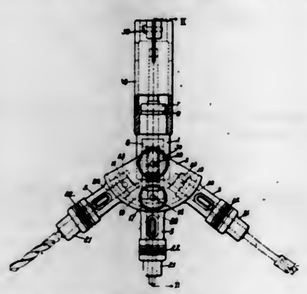
3. An egg carrier embodying a plurality of substantially rigid egg gripping sheets positioned one above the other, said sheets having depressions integral therewith and positioned for direct frictional engagement with rows of eggs at the extreme ends thereof, and means for bodily moving the sheets so as to force the depressions thereof toward the eggs positioned between them, whereby positive pressure is applied to the eggs at the extreme ends thereof through the medium of the sheets themselves, the line of such pressure being in the direction of the longitudinal axis of the eggs.

4. An egg carrier embodying substantially rigid plates having rows of pockets integral therewith and positioned for direct frictional contact with rows of eggs at the respective end portions thereof, and means for bodily moving said plates so as to forcibly engage with the end portions of the eggs whereby pressure is applied upon the extreme ends of the eggs and in the direction of their longitudinal axes.

5. An egg carrier embodying substantially rigid gripping plates having rows of pockets integral therewith and positioned for direct frictional engagement with the eggs at their ends, and tie bars connected to said gripping plates for forcibly applying pressure upon the extreme ends of the eggs by the contact therewith of said pockets.

[Claims 6 to 10 not printed in the Gazette.]

1,209,650. TURRET ATTACHMENT FOR MACHINE-TOOLS. CHARLES EISLER, Bloomfield, N. J. Filed Jan. 18, 1916. Serial No. 72,743. (Cl. 77—25.)



1. A turret attachment for machine tools comprising a support, a segmental member pivotally attached to the said support and adapted to receive a plurality of tools in radial relation to the pivotal axis of the said member and also adapted to swing across the end of the said support, and means for adjustably fixing the position of the said member.

2. A turret attachment for machine tools comprising a support, a segmental member pivotally attached to the said support and adapted to receive a plurality of tools in radial relation to the pivotal axis of the said member and disposed with their central axes in a common plane including the central axis of the said support, and means for securing the said member in any one of a plurality of positions, to bring a selected one of the said tools into working position.

3. A turret attachment for machine tools comprising a support, a segmental member pivotally attached to the said support and adapted to swing across the end of the said support and to receive a plurality of tools in radial relation to the pivotal axis of the said member, and means for securing the said member in any one of a plurality of positions, to bring a selected one of the said tools into axial alinement with the said support.

4. A turret attachment for machine tools comprising an elongate support, a segmental member pivotally attached to one end of the said support and adapted to swing across the end of the said support and to receive a plurality of tools in radial relation to the pivotal axis of the said member, and spring-pressed means for securing the said member in any one of a plurality of positions.

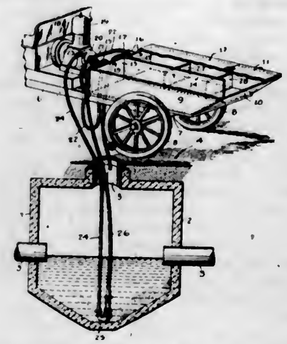
5. A turret attachment for machine tools comprising a support, a driving spindle carried thereby, and a segmental tool-receiving member pivotally attached to the said support for a limited degree of rotation thereon and provided with means for receiving a plurality of rotary tools that are severally adapted to be driven by the said driving spindle and have their axes of rotation dispose substantially in a common plane including the axis of rotation of the said driving spindle.

[Claims 6 to 22 not printed in the Gazette.]

REISSUES.

14,233. [WITHDRAWN.]

14,234. APPARATUS FOR CLEANING OUT CITY CATCH-BASINS. GEORGE W. OTTERSON, Seattle, Wash., assignor to Otterson Auto Eductor Company, Seattle, Wash., a Corporation of Washington. Filed May 2, 1916. Serial No. 94,973. Original No. 1,166,713, dated Jan. 4, 1916, Serial No. 28,788, filed May 17, 1915. (Cl. 37—9.)



1. An apparatus for cleaning out and removing the contents of city catch-basins, comprising a vehicle adapted to go about the streets and provided with tight communicating compartments for deposit of solids and separation of water respectively, the same constituting a settling bed and means for carrying a quantity of priming liquid, a hydraulic ejector elevator mounted on the vehicle and equipped with flexible pressure and discharge lines whereby it may be lowered and raised into and from the catch-basins, a power-driven force pump on the vehicle having its inlet connected with the water compartment and its outlet delivering into the pressure line to create the ejector jet of the ejector, the discharge line thereof leading upward to conduct the stream of water and solids to the solids compartment, and means for returning water from the water compartment into the catch-basin at the conclusion of the operation.

2. An apparatus for cleaning out and removing the contents of city catch-basins, comprising a vehicle adapted to go about the streets and provided with a tight tank body constituting a settling bed of large capacity and means for carrying a quantity of liquid for priming the pump

hereinafter mentioned, a hydraulic ejector elevator provided with pressure and discharge lines and mounted upon the vehicle so that it may be lowered into and raised from the catch-basins, and a power-driven force pump on the vehicle having its inlet supplied from the settling bed and its delivery side connected with the pressure line to force water downward through the same to create the ejector jet of the ejector, the discharge line of the elevator leading upward to deliver the stream of water and solids into the settling bed from which the pump derives its supply, the settling bed having a return for running back into each basin the water in excess of that required for priming the pump at the next operation.

3. Means for cleaning out city catch basins comprising the combination of a force pump and means for driving the same, a hydraulic ejector elevator and means whereby the same may be lowered into the catch basins, said elevator having suitable pressure and discharge lines, the former connecting the ejector jet nozzle with the delivery side of the pump, a portable settling bed to receive the material from the discharge line of the elevator, means for conducting the water from the settling bed to supply the pump, means for returning excess water to the sewer, and vehicular means for transporting the aforesaid apparatus.

4. Apparatus for cleaning out city catch-basins comprising a vehicle provided with a force pump and means for driving the same, and with a hydraulic ejector elevator adapted to be lowered into the catch-basins, said elevator having suitable pressure and discharge lines, the former connecting the ejector jet nozzle with the delivery side of the pump, together with a portable settling bed to receive the material from the discharge line of the elevator, means for conducting water from the settling bed to supply the pump, and an additional line for returning excess water into the sewer.

5. An apparatus for cleaning out city catch-basins comprising, in combination, a vehicle, a settling tank thereon adapted to carry a supply of water to prime the pump hereinafter mentioned, the said settling tank having an inlet region, a water outlet remote in point of flow from the inlet region and baffles in its interior interposed in the path of flow between the inlet and outlet, a force pump and means for driving the same carried by the vehicle, the suction of said pump being connected with the water outlet from the settling tank, and a hydraulic ejector elevator also transported by the vehicle to be lowered into the catch-basins, the said ejector having a suitable pipe connecting the delivery side of the pump with the ejector nozzle and another pipe for conducting the material elevated by the ejector jet to the inlet region of the settling tank, and means for returning liquid from the settling tank into the sewer, in excess of that retained for priming the pump.

6. An apparatus for cleaning out city catch-basins, comprising a vehicle, a settling bed tank body thereon having means dividing its interior longitudinally into spaces communicating toward their rear ends, a hydraulic ejector elevator adapted to be lowered into the catch-basins and being provided with a suitable pressure line leading to its nozzle and a discharge line leading from its intake to discharge the material elevated by the jet into one of said spaces in the tank toward its forward portion, a pump and means for driving the same for forcing water through the pressure line and nozzle to create the ejector jet, a line for conducting liquid from the forward portion of the other space of the tank to the suction of the pump, and means for returning liquid from the same space to the catch-basin at the conclusion of the operation.

7. In apparatus of the class described, a portable settling tank consisting of a body of rectangular form having a slanting rear wall, a rectangular partition extending from the front wall of the body to the junction of the bottom and rear walls to leave a triangular space, baffles vertically disposed between the partition and one side wall and being of less height than the partition, an inlet tube on the front wall on the baffle provided side of the partition and an outlet tube on the opposite side of the front wall.

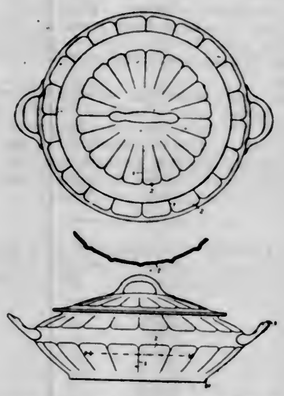
DESIGNS.

50,051. CORK-EXTRACTOR. ANNA ANDERSON, Dassel, Minn. Filed Oct. 20, 1916. Serial No. 126,800. Term of patent 14 years.



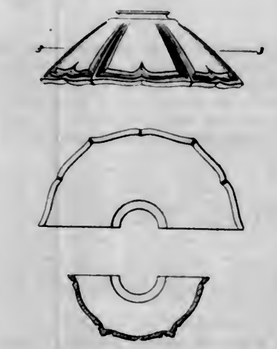
The ornamental design for a cork extractor, as shown.

50,052. DISH OR SIMILAR ARTICLE. THOMAS B. ANDERSON, Chester, W. Va. Filed July 25, 1916. Serial No. 111,251. Term of patent 3½ years.



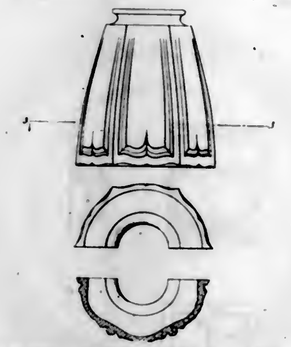
The ornamental design for a dish or similar article, as shown and described.

50,053. SHADE FOR LIGHTING-FIXTURES. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J. Filed Sept. 22, 1916. Serial No. 121,679. Term of patent 7 years.



The ornamental design for a shade for lighting fixtures, as shown.

50,054. SHADE FOR LIGHTING-FIXTURES. ROBERT Y. BARROWS, Rutherford, and GEORGE V. STRAHAN, Newark, N. J. Filed Sept. 22, 1916. Serial No. 121,680. Term of patent 7 years.



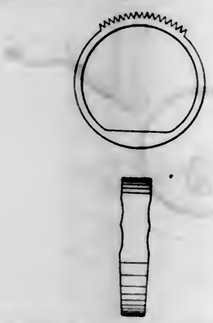
The ornamental design for a shade for lighting fixtures, as shown.

50,055. SAW-SET. CHRISTIAN BODMER, New Britain, Conn., assignor to The Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed June 13, 1916. Serial No. 103,583. Term of patent 14 years.



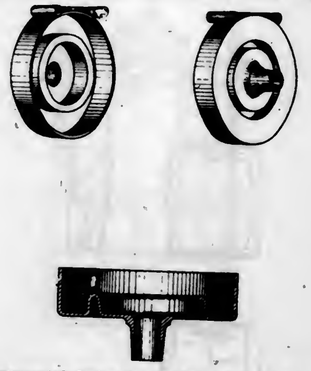
The ornamental design for a saw set as shown.

50,056. FINGER-RING. ANNA S. BONNEVIER, Seattle, Wash. Filed June 28, 1916. Serial No. 106,533. Term of patent 7 years.



The ornamental design for a finger ring as shown.

50,057. CRANK-CASE. WILLIAM HUGHES BUTTERFIELD, Birmingham, England. Filed Aug. 24, 1914. Serial No. 858,373. Term of patent 14 years.



The ornamental design for a crank case, as shown.

50,058. PICTURE-FRAME. ROBERT F. CLEMENT, Chicago, Ill. Filed Nov. 2, 1916. Serial No. 129,240. Term of patent 3½ years.



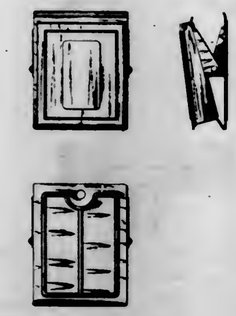
The ornamental design for a picture frame, as shown.

50,059. LIGHTING-POST. GILBERT T. DUNKLIN, South Bend, Ind., assignor to George Cutter Company, South Bend, Ind., a Corporation of Indiana. Filed Oct. 18, 1916. Serial No. 126,442. Term of patent 14 years.



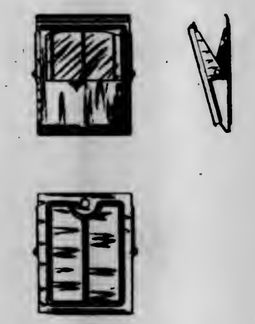
The ornamental design for a lighting post as shown.

50,060. PAPER-CLIP AND PIN BOX. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Oct. 21, 1916. Serial No. 127,020. Term of patent 3½ years.



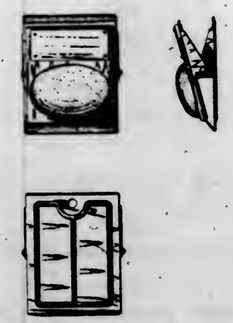
The ornamental design for a paper clip and pin box, as shown.

50,061. PAPER-CLIP. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Oct. 21, 1916. Serial No. 127,021. Term of patent 3½ years.



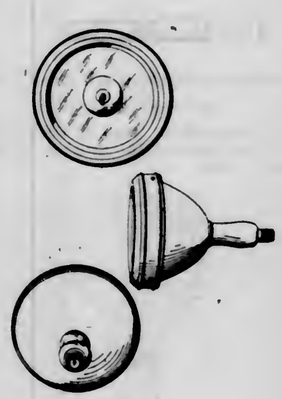
The ornamental design for a paper clip, as shown.

50,062. PAPER-CLIP AND PIN CUSHION. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Oct. 21, 1916. Serial No. 127,022. Term of patent 3½ years.



The ornamental design for a paper clip and pin cushion, as shown.

50,063. VEHICLE-LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Sept. 27, 1916. Serial No. 122,574. Term of patent 14 years.



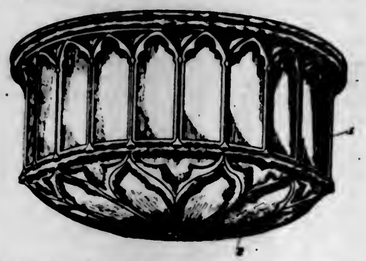
The ornamental design for a vehicle lamp as shown.

50,064. PLATE OR SIMILAR ARTICLE. FRANK G. HOLMES, Trenton, N. J., assignor to Lenox, Incorporated, Trenton, N. J., a Corporation of New Jersey. Filed Oct. 16, 1916. Serial No. 126,029. Term of patent 3½ years.



The ornamental design for a plate or similar article as shown.

50,065. GOTHIC SHADE-BOWL. ERNEST W. HUTTIG, Pittsburgh, Pa., assignor to Gill Brothers Company, Steubenville, Ohio, a Corporation of West Virginia. Filed Sept. 20, 1916. Serial No. 121,322. Term of patent 7 years.



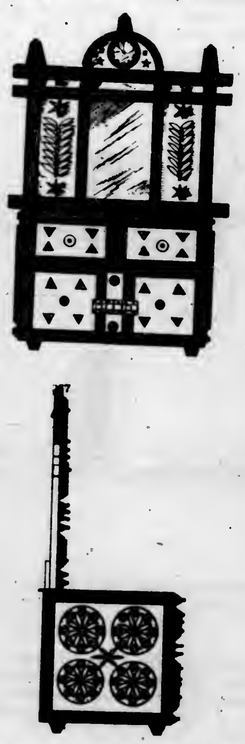
The ornamental design for a Gothic shade bowl, substantially as shown and described.

50,066. CHAIR. RICHARD G. KENNEDY, Morris, Tex. Filed Sept. 23, 1916. Serial No. 121,890. Term of patent 14 years.



The ornamental design for a chair, as shown.

50,067. SIDEBOARD. BELA MARTON KISH, Duquesne, Pa. Filed Sept. 20, 1916. Serial No. 121,823. Term of patent 7 years.



The ornamental design for a sideboard as shown.

50,068. HANDLE FOR A SPOON, FORK, OR SIMILAR ARTICLE. SAMUEL J. LARGE, Bristol, Conn., assignor to The American Silver Company, Bristol, Conn., a Corporation of Connecticut. Filed Sept. 23, 1916. Serial No. 121,895. Term of patent 7 years.



The ornamental design for a handle for a spoon, fork or similar article, substantially as shown.

50,069. HANDLE FOR A SPOON, FORK, OR SIMILAR ARTICLE. SAMUEL J. LARGE, Bristol, Conn., assignor to The American Silver Company, Bristol, Conn., a Corporation of Connecticut. Filed Sept. 23, 1916. Serial No. 121,896. Term of patent 7 years.



The ornamental design for a handle for a spoon, fork or similar article, substantially as shown.

50,070. HANDLE FOR A SPOON, FORK, OR SIMILAR ARTICLE. SAMUEL J. LARGE, Bristol, Conn., assignor to The American Silver Company, Bristol, Conn., a Corporation of Connecticut. Filed Sept. 23, 1916. Serial No. 121,897. Term of patent 7 years.



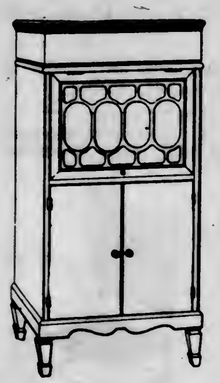
The ornamental design for a handle for a spoon, fork or similar article, substantially as shown.

50,071. HANDLE FOR A SPOON, FORK, OR SIMILAR ARTICLE. SAMUEL J. LARGE, Bristol, Conn., assignor to The American Silver Company, Bristol, Conn., a Corporation of Connecticut. Filed Sept. 23, 1916. Serial No. 121,898. Term of patent 7 years.



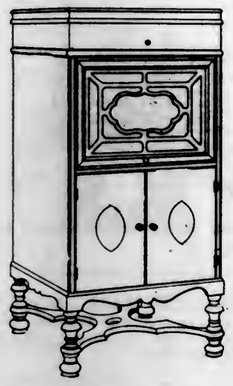
The ornamental design for a handle for a spoon, fork or similar article, substantially as shown.

50,072. CASING FOR SOUND-PRODUCING INSTRUMENTS. LACHLAN MACLACHLAN, Grand Rapids, Mich. Filed Oct. 30, 1916. Serial No. 128,627. Term of patent 3½ years.



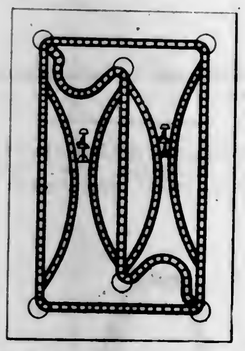
The ornamental design for a casing for sound producing instruments, as shown.

50,073. CASING FOR SOUND-PRODUCING INSTRUMENTS. LACHLAN MACLACHLAN, Grand Rapids, Mich. Filed Nov. 1, 1916. Serial No. 129,023. Term of patent 3½ years.



The ornamental design for a casing for sound producing instruments, as shown.

50,074. GAME-BOARD. IVY G. MAYWALD, Tucumcari, N. Mex. Filed Oct. 27, 1916. Serial No. 128,139. Term of patent 14 years.



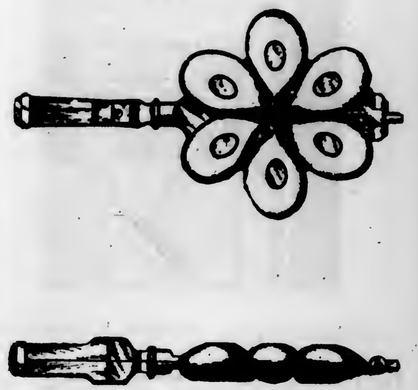
The ornamental design for a game board, as shown.

50,075. PIANO-CASE. FRED O. PFANNSTIEHL, Leonia, N. J., assignor to Kohler & Campbell, Inc., New York, N. Y., a Corporation of New York. Filed Oct. 9, 1916. Serial No. 124,742. Term of patent 7 years.



The ornamental design for a piano case as shown.

50,076. BAKING-PAN. PAUL RIESS, New Orleans, La. Filed July 28, 1916. Serial No. 111,951. Term of patent 14 years.



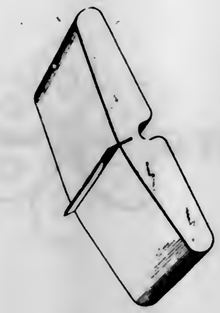
The ornamental design for a baking pan as shown and described.

50,077. DISPLAY-RACK OR CHRISTMAS TREE. EMIL ROMM, Hilltop, W. Va. Filed Oct. 27, 1916. Serial No. 128,136. Term of patent 14 years.



The ornamental design for a display rack or "Christmas tree" as shown.

50,078. SCRAPER. FREDERICK J. SCHMITT, Petoskey, Mich. Filed Aug. 12, 1916. Serial No. 114,647. Term of patent 14 years.



The ornamental design for a scraper, as shown.

50,079. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Oct. 23, 1916. Serial No. 127,272. Term of patent 3½ years.

The ornamental design for embroidered lace substantially as shown.

50,080. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Oct. 23, 1916. Serial No. 127,271. Term of patent 3½ years.



The ornamental design for embroidered lace substantially as shown.

50,081. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Oct. 23, 1916. Serial No. 127,273. Term of patent 3½ years.



The ornamental design for embroidered lace substantially as shown.

50,082. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Oct. 23, 1916. Serial No. 127,274. Term of patent 3½ years.



The ornamental design for embroidered lace substantially as shown.

50,083. TAPE-MEASURE HOLDER AND PINCUSHION. MABEL H. SLATER, Webster, Mass. Filed Sept. 22, 1916. Serial No. 121,677. Term of patent 14 years.



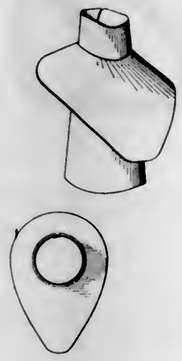
The ornamental design for a tape measure holder and pin cushion, as shown.

50,084. EMBLEM OR SIMILAR ARTICLE. PAUL R. SMITH, New York, N. Y., assignor to Toy Manufacturing Association of the U. S. A., New York, N. Y. Filed Oct. 7, 1916. Serial No. 124,431. Term of patent 14 years.



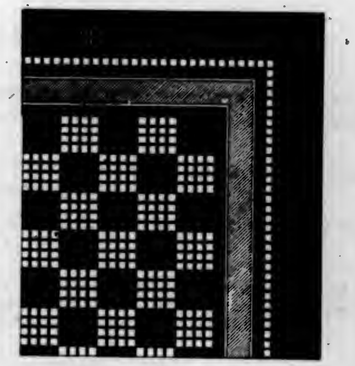
The ornamental design for an emblem or similar article, as shown.

50,085. DISPLAY-STAND. MORRIS TRATTLER, New York, N. Y., assignor to George Freydberg, Herman Freydberg, and Ethel Freydberg, Copartners trading as G. H. & E. Freydberg, New York, N. Y. Filed Apr. 3, 1916. Serial No. 88,726. Term of patent 14 years.



The ornamental design for a display stand, as shown.

50,086. RUG. HARRY ULMER, Philadelphia, Pa., assignor to Hardwick & Magee Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 31, 1916. Serial No. 128,798. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

50,087. BOOK-COVER. CHARLES C. WILSON, Salem, W. Va. Filed Sept. 15, 1916. Serial No. 120,404. Term of patent 14 years.



The ornamental design for a book cover as shown.

TRADE-MARKS

PUBLISHED DECEMBER 19, 1916.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 83,167. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE UNION SWITCH & SIGNAL COMPANY, Swissvale, Pa. Filed Dec. 8, 1914.



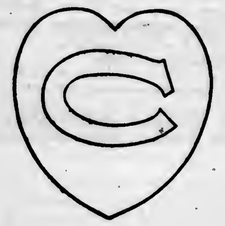
Particular description of goods.—Apparatus and Machinery Used in Connection with Railway Signaling and Interlocking Systems.
Claims use since Feb. 1, 1909.

Ser. No. 93,030. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) STARK BRO'S. NURSERIES & ORCHARDS CO., Louisiana, Mo. Filed Feb. 21, 1916.



No claim being made to the words "Stark Trees," "Stark Trade Mark," and "Fruit" apart from the mark shown in the drawing.
Particular description of goods.—Fruit-Trees, Fruit-Plants, and Hardy Ornamentals.
Claims use since Sept. 1, 1900.

Ser. No. 93,891. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CAPITAL CANDY & CRACKER CO., Sacramento, Cal. Filed Mar. 27, 1916.



Particular description of goods.—Candy and Crackers.
Claims use since February, 1913.

Ser. No. 94,441. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WENZELL SPECIALTY COMPANY, Philadelphia, Pa. Filed Apr. 14, 1916.

GAR-VAN

Particular description of goods.—A Gear-Shift for Machine Parts.
Claims use since about Aug. 1, 1914.

Ser. No. 95,792. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW ORLEANS COFFEE CO. LTD., New Orleans, La. Filed June 10, 1916.

BREAKFAST BELL

Particular description of goods.—Coffee.
Claims use since May 15, 1916.

Ser. No. 95,997. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DERRICK F. FRYER, Santa Rosa, Cal. Filed June 20, 1916.

·FRYER'S·
ABIETENE

Particular description of goods.—Cough Remedy, Ointment for Chapped Hands and Burns, Medicinal Chewing-Gum, Liniment for Rheumatism and Bruises, and Perfumery.

Claims use since Oct. 1, 1880.

Ser. No. 96,315. (CLASS 5. ADHESIVES.) BALES PUNCTURE PLUGGER COMPANY, Indianapolis, Ind. Filed July 5, 1916.



No claim is made to the representation of a pneumatic tire or to the wording "95% Air," "5% Plugger," "Not a Filler," "Puncture Plugger," and "95% Air, 5% Puncture Plugger, 100% Tire Efficiency" apart from the mark shown in the drawing. The portrait at the center of the trade-mark is that of Edgar L. Bales, president of the said corporation.

Particular description of goods.—Puncture-Pluggers for Tires.

Claims use since March, 1916.

Ser. No. 96,401. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RAFAEL DEL CASTILLO & COMPANY, New York, N. Y. Filed July 7, 1916.



Particular description of goods.—Cotton Piece Goods.

Claims use since June 1, 1916.

Ser. No. 96,524. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) KEMOSHYNE MANUFACTURING COMPANY, INC., Rochester, N. Y. Filed July 12, 1916.

KEMOSHYNE

Particular description of goods.—Piano and Furniture Polish and Automobile-Body Polish.

Claims use since Dec. 26, 1911.

Ser. No. 96,903. (CLASS 17. TOBACCO PRODUCTS.) Y. PENDAS & ALVAREZ, New York, N. Y. Filed July 27, 1916.



The applicant makes no exclusive claim to the words "Havana—Mild Quality Smokes."

Particular description of goods.—Cigars.

Claims use since about Oct. 12, 1899.

Ser. No. 97,070. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WHOLE WHEAT COFFEE COMPANY, INC., Jersey City, N. J., and New York, N. Y. Filed Aug. 3, 1916.



Particular description of goods.—Coffee and Substitutes for Coffee.

Claims use since July 20, 1916.

Ser. No. 97,111. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE BORGFELDT & Co., New York, N. Y. Filed Aug. 5, 1916.

Madame Vendome

Particular description of goods.—Face-Powder, Toilet Powder, Tooth Powder and Pastes, Rice Powder, Smelling-Salts, Talcum Powder, Sachets, Bath-Salts, Perfumes Used Either Pure or as an Ingredient in Toilet Preparations in Admixture with Suitable Substances in the Form of Pastes, Salves, Soaps, Powders, Pencils, and Liquids, Nail-Enamels, Eyebrow-Pencils, Rouges, (Liquid, Powder, and Compact,) Pomade Sticks and Hair-Wax and Pomades, Toilet Waters, Nail-Polishes, Toilet Creams, Hair-Tonics, Hair Dyes and Bleaches.

Claims use since July 15, 1916.

Ser. No. 97,257. (CLASS 2. RECEPTACLES.) RIVERSIDE BOILER WORKS, INC., Cambridgeport, Mass. Filed Aug. 10, 1916. Under ten-year proviso.

RIVERSIDE

Particular description of goods.—Tanks and Tanks for Hot Water, Commonly Known as Stand or Range Boilers.

Claims use since 1888.

Ser. No. 97,409. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PLATT & Co. INC., Baltimore, Md. Filed Aug. 17, 1916.



Particular description of goods.—Canned Oysters.

Claims use since 1849.

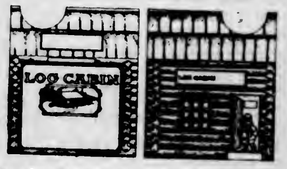
Ser. No. 97,720. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed Aug. 30, 1916.

DIASORCYM

Particular description of goods.—A Pharmaceutical Product—viz., the Combination of Metal-Organic Albumin Applicable as Substance for Serological Examinations.

Claims use since June 25, 1915.

Ser. No. 97,776. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE TOWLE MAPLE PRODUCTS COMPANY, Wilmington, Del., and St. Paul, Minn. Filed Sept. 2, 1916.



Particular description of goods.—Syrup and Molasses.

Claims use since on or about Jan. 1, 1915.

Ser. No. 97,935. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALEXANDER C. TERWILLIGAR, Mims, Fla. Filed Sept. 11, 1916.



No claim being made to the words "Fancy Indian River" apart from the mark shown in the drawing.

Particular description of goods.—Oranges and Grape-Fruit.

Claims use since Nov. 15, 1915.

Ser. No. 97,940. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) R. C. WILLIAMS & COMPANY, New York, N. Y. Filed Sept. 11, 1916.



Particular description of goods.—Mayonnaise Dressing.
Claims use since November, 1914.

Ser. No. 98,017. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE TYPOLITH COMPANY, Battle Creek, Mich. Filed Sept. 15, 1916.

„TYPOLITH„

Particular description of goods.—Overlays, Sheet-Rubber and Rubber Fabric.
Claims use since March, 1916.

Ser. No. 98,274. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THEODORE J. SNYDER, Chicago, Ill. Filed Sept. 27, 1916.

EUREKA

Particular description of goods.—Combined Bottle-Stoppers and Droppers.
Claims use since Sept. 15, 1916.

Ser. No. 98,359. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KIBBE BROS. COMPANY, Springfield, Mass. Filed Oct. 2, 1916.



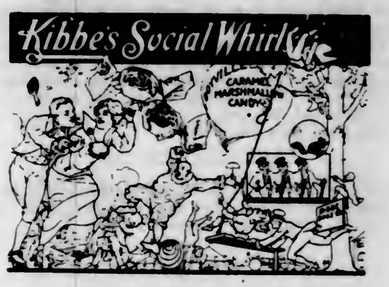
No rights other than those conferred by the common law are at present claimed for the use of the word "Kibbe's" except as associated with the other features of the mark.
Particular description of goods.—Candy, Particularly Caramel Candy.
Claims use since on or about Sept. 20, 1916.

Ser. No. 98,360. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KIBBE BROS. COMPANY, Springfield, Mass. Filed Oct. 2, 1916.



No rights other than those conferred by the common law are at present claimed for the use of the word "Kibbe's" except as associated with the other features of the mark. The exclusive right to the use of the words "Caramel Marshmallow Candy" is hereby disclaimed except as associated with the other features of the mark.
Particular description of goods.—Candy, Particularly Caramel Candy.
Claims use since on or about Sept. 20, 1916.

Ser. No. 98,361. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KIBBE BROS. COMPANY, Springfield, Mass. Filed Oct. 2, 1916.



No rights other than those conferred by the common law are at present claimed for the use of the word "Kibbe's" except as associated with the other features of the mark. The exclusive right to the use of the words "Caramel Marshmallow Candy" is hereby disclaimed except as associated with the other features of the mark.
Particular description of goods.—Candy, Particularly Caramel Candy.
Claims use since on or about Sept. 20, 1916.

Ser. No. 98,362. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KIBBE BROS. COMPANY, Springfield, Mass. Filed Oct. 2, 1916.



No rights other than those conferred by the common law are at present claimed for the use of the word "Kibbe's" except as associated with the other features of the mark. The exclusive right to the use of the words "Caramel Marshmallow Candy" is hereby disclaimed except as associated with the other features of the mark.
Particular description of goods.—Candy, Particularly Caramel Candy.
Claims use since on or about Sept. 20, 1916.

Ser. No. 98,363. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KIBBE BROS. COMPANY, Springfield, Mass. Filed Oct. 2, 1916.



No rights other than those conferred by the common law are at present claimed for the use of the word "Kibbe's" except as associated with the other features of the mark. The exclusive right to the use of the words "Caramel Marshmallow Candy" is hereby disclaimed except as associated with the other features of the mark.
Particular description of goods.—Candy, Particularly Caramel Candy.
Claims use since on or about Sept. 20, 1916.

Ser. No. 98,364. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KIBBE BROS. COMPANY, Springfield, Mass. Filed Oct. 2, 1916.



No rights other than those conferred by the common law are at present claimed for the use of the word "Kibbe's" except as associated with the other features of the mark. The exclusive right to the use of the words "Caramel Marshmallow Candy" is hereby disclaimed except as associated with the other features of the mark.
Particular description of goods.—Candy, Particularly Caramel Candy.
Claims use since on or about Sept. 20, 1916.

Ser. No. 98,398. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ASEPTIC PRODUCTS COMPANY, Long Island City, N. Y. Filed Oct. 2, 1916.

A·P·C·

Particular description of goods.—Medical and Surgical Plasters, Plain and Medicated; Medical Porous Plasters, Plain and Medicated with Belladonna, Arnica, and the Like; Court-Plasters; Mustard Plasters; Formaldehyde Fumigators.
Claims use since Sept. 1, 1910.

Ser. No. 98,504. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STROHMEYER & ARPS COMPANY, New York, N. Y. Filed Oct. 7, 1916.

Flora
Bella

Particular description of goods.—Canned Fish, Canned Vegetables, Canned Fruits, and Preserved Fruits.
Claims use since Sept. 15, 1916.

Ser. No. 98,509. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) GRINNELL WASHING MACHINE COMPANY, Grinnell, Iowa. Filed Oct. 7, 1916.

ELECTRIC MAID

No claim being made to the word "Electric" apart from the mark shown in the drawing.
Particular description of goods.—Laundry-Washing Machine.
Claims use since May 1, 1915.

Ser. No. 98,592. (CLASS 39. CLOTHING.) JOSEPH FELS COMPANY, Chicago, Ill. Filed Oct. 12, 1916.

High NEWMARKET Grade

No claim is made to the words "High Grade" or "Newmarket" apart from the mark shown in the drawing.

Particular description of goods.—Dress, Work, and Negligée Shirts and Men's Athletic Underwear of Textile Material.

Claims use since Sept. 15, 1916.

Ser. No. 98,681. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAGDALENA CHEJLAVÁ, Chicago, Ill. Filed Oct. 16, 1916.

CHEJ-LOVA

Particular description of goods.—A Salve for Cuts, Bruises, Lacerations, and Skin and Muscular Injuries.

Claims use since Oct. 7, 1916.

Ser. No. 98,695. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE H. & D. COMPANY, Goodland, Ind. Filed Oct. 16, 1916.

HAND D

"Hand D."

Particular description of goods.—Shock-Absorbers.

Claims use since Aug. 1, 1914.

Ser. No. 98,753. (CLASS 5. ADHESIVES.) THE HOLLISTON MILLS, Norwood, Mass. Filed Oct. 18, 1916.

GLUTINO.

Consisting of the word "Glutino."

Particular description of goods.—A Glue Compound of Animal and Vegetable Matter.

Claims use since about the year 1893.

Ser. No. 98,774. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILTON STUBBS, Meridian, Miss. Filed Oct. 19, 1916.

THOROUGH-BRED

Particular description of goods.—Cereal Feed for Horses, Mules, Cattle, and Chickens.

Claims use since about October, 1910.

Ser. No. 98,802. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MINT PRODUCTS COMPANY, INCORPORATED, New York, N. Y. Filed Oct. 24, 1916.

ENJOYMINT

Applicant disclaims the word "Mint" except in connection with the other features of the mark.

Particular description of goods.—Chewing-Gum, Candy, Sweetmeats, and Confections.

Claims use since Oct. 14, 1916.

Ser. No. 98,873. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ALEXANDER E. BLOCK, St. Louis, Mo. Filed Oct. 25, 1916.

WIZARD

Particular description of goods.—Shoe-Stretchers.

Claims use since Jan. 1, 1911.

Ser. No. 98,915. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ARMSTRONG CORK COMPANY, Pittsburgh, Pa. Filed Oct. 27, 1916.

ACCO

Particular description of goods.—A Cork Composition for Gaskets and Washers.

Claims use since Jan. 1, 1914.

Ser. No. 98,954. (CLASS 38. PRINTS AND PUBLICATIONS.) HENRY ROMEIKE, INC., New York, N. Y. Filed Oct. 28, 1916. Under ten-year proviso.

HENRY ROMEIKE

Particular description of goods.—Press-Clippings.

Claims use since the year 1881.

Ser. No. 98,959. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) WALDES & Co., Prague-Wrschowitz, Austria-Hungary. Filed Oct. 28, 1916.

ANTOB

Particular description of goods.—Cigarette-Papers.

Claims use since Jan. 3, 1916.

Ser. No. 98,968. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) B. D. G. LINIMENT Co., New Haven, Conn. Filed Oct. 30, 1916.



Particular description of goods.—A Remedy (in Liquid Form) for Muscular, Acute, or Chronic Rheumatism, Aching or Stiff Joints, Backache, Lame Back or Lumbago, Sprains, Strains, and Stiff Neck.

Claims use since Aug. 10, 1916.

Ser. No. 99,048. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GUSTAV A. STRAHLKE, Alton, Ill. Filed Nov. 2, 1916.



The portrait being that of the applicant, Gustav A. Strahlke.

Particular description of goods.—Hair Growers and Tonics.

Claims use since Jan. 10, 1916.

Ser. No. 99,083. (CLASS 10. FERTILIZERS.) CHEMICAL LIME & SAND COMPANY, Huntington, W. Va., and Lawton, Ky. Filed Nov. 4, 1916.

AGRICO REG. U. S. PAT. OFF.

No claim being made to the exclusive use of the words "Reg. U. S. Pat. Off."

Particular description of goods.—Ground Lime.

Claims use since May, 1916.

Ser. No. 99,093. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PRANGE MILLING COMPANY, New Douglas, Ill. Filed Nov. 4, 1916.

RESERVE

Particular description of goods.—Wheat-Flour.

Claims use since Aug. 24, 1916.

Ser. No. 99,099. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL THOMAS, Lebanon, Oreg. Filed Nov. 4, 1916.



SAM THOMAS

The portrait shown being that of myself.

Particular description of goods.—A Preparation for the Kidneys.

Claims use since on or about the 1st day of June, 1916.

Ser. No. 99,111. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COLUMBUS P. ASHBURN, Bristol, Va. Filed Nov. 6, 1916.

NODIPITOL

Particular description of goods.—A Remedy for Diphtheria and Sore Throat.

Claims use since Mar. 1, 1916.

Ser. No. 99,117. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. F. BLANKE TEA & COFFEE Co., St. Louis, Mo. Filed Nov. 6, 1916.



Particular description of goods.—Rice.

Claims use since Oct. 1, 1916.

Ser. No. 99,155. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNITED DYESTUFF AND PHOTOCHEMICAL CO., INC., Brooklyn, N. Y. Filed Nov. 7, 1916.

HYDRONOL

Particular description of goods.—Photographic Developers.
Claims use since Sept. 25, 1916.

Ser. No. 99,172. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES MCADAM CO., Chicago, Ill. Filed Nov. 8, 1916.

SOUP

Particular description of goods.—Bleaching and Cleaning Compounds.
Claims use since about May 1, 1916.

Ser. No. 99,200. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROSENTHAL MANUFACTURING COMPANY, West Allis and Milwaukee, Wis. Filed Nov. 9, 1916.

RED ROBIN

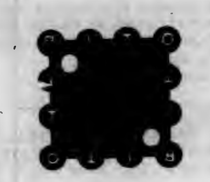
Particular description of goods.—Cleansers for the Removal of Carbon.
Claims use since about Oct. 20, 1916.

Ser. No. 99,216. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE PORTER CHEMICAL COMPANY, Hagerstown, Md. Filed Nov. 10, 1916.

CHEMCRAFT

Particular description of goods.—Chemical Apparatus Used as a Game or Toy.
Claims use since Nov. 1, 1915.

Ser. No. 99,414. (CLASS 10. FERTILIZERS.) THE MOLASSINE COMPANY, LTD., Greenwich and London, England. Filed Nov. 20, 1916.



Particular description of goods.—Fertilizer.
Claims use since the 17th of April, 1916.

Ser. No. 99,496. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SIMEON C. ALLEN, Rochester, N. Y. Filed Nov. 23, 1916.



Consisting of the words "Ship-A-Hoy" printed across the pictorial representation of a sailor dancing.
Particular description of goods.—Non-Alcoholic Beverages Sold as Soft Drinks and Syrups Used in the Making Thereof.
Claims use since Nov. 1, 1916.

TRADE-MARK REGISTRATIONS GRANTED

DECEMBER 19, 1916.

114,403. ANTISEPTIC MEDICAMENTS — NAMELY, ABSORBENT COTTON AND GAUZE—FOR THERAPEUTIC APPLICATION. THE ABBOTT LABORATORIES, Chicago, Ill.
Filed July 8, 1916. Serial No. 96,420. PUBLISHED OCTOBER 17, 1916.

114,404. SALVE. FRANK W. ALDEN, Pasadena, Cal.
Filed July 22, 1916. Serial No. 96,741. PUBLISHED OCTOBER 10, 1916.

114,405. SHIPPING-CANS. AMERICAN CAN CO., New York, N. Y.
Filed August 25, 1915. Serial No. 88,798. PUBLISHED OCTOBER 17, 1916.

114,406. AUTOMOBILES. AMERICAN MOTORS, INCORPORATED, New York, N. Y.
Filed September 26, 1916. Serial No. 98,237. PUBLISHED OCTOBER 17, 1916.

114,407. CARRIAGE-CLOTH. AMERICAN RUBBER COMPANY, Boston, Mass.
Filed April 25, 1916. Serial No. 94,695. PUBLISHED JUNE 27, 1916.

114,408. [WITHDRAWN.]

114,409. HOG-FATTENING PREPARATION. EDWARD J. ANDERSON, Chicago, Ill.
Filed May 23, 1916. Serial No. 95,361. PUBLISHED OCTOBER 10, 1916.

114,410. CLIPPED WHITE OATS. ARMOUR GRAIN COMPANY, Jersey City, N. J., and Chicago, Ill.
Filed August 14, 1916. Serial No. 97,314. PUBLISHED OCTOBER 17, 1916.

114,411. CLIPPED WHITE OATS. ARMOUR GRAIN COMPANY, Jersey City, N. J., and Chicago, Ill.
Filed August 14, 1916. Serial No. 97,316. PUBLISHED OCTOBER 17, 1916.

114,412. CERTAIN NAMED MEDICINES AND PHARMACEUTICAL PREPARATIONS. ASSOCIATED PHARMACISTS, San Francisco, Cal.
Filed February 26, 1916. Serial No. 93,114. PUBLISHED OCTOBER 17, 1916.

114,413. BRICK. JOHN BAKER, Jr., New York, N. Y., and Chicago, Ill.
Filed August 9, 1916. Serial No. 97,204. PUBLISHED OCTOBER 10, 1916.

114,414. PREPARED CEREAL FOOD. BALLARD & BALLARD CO., Louisville, Ky.
Filed August 8, 1916. Serial No. 97,162. PUBLISHED OCTOBER 17, 1916.

114,415. NUTS, PARTICULARLY CULTIVATED PECANS. SARAH J. BANNING, Robertsdale, Ala.
Filed September 7, 1916. Serial No. 97,837. PUBLISHED OCTOBER 17, 1916.

114,416. BASE FOR OINTMENTS. THE BAYER COMPANY, INC., New York, N. Y.
Filed September 2, 1916. Serial No. 97,766. PUBLISHED OCTOBER 17, 1916.

114,417. DISINFECTANT AND ANTISEPTIC. THE BAYER COMPANY, INC., New York, N. Y.
Filed September 2, 1916. Serial No. 97,767. PUBLISHED OCTOBER 17, 1916.

114,418. CERTAIN NAMED FOODS. AUGUST F. BECKMANN, New York, N. Y.
Filed October 23, 1915. Serial No. 90,044. PUBLISHED MAY 2, 1916.

114,419. SILK AND SATIN GOODS IN THE PIECE. BENTLEY & TWOHEY SILK CO., New York, N. Y.
Filed September 11, 1916. Serial No. 97,892. PUBLISHED OCTOBER 17, 1916.

114,420. CANDY. BLANKE-WENNEKER CANDY COMPANY, St. Louis, Mo.
Filed September 7, 1916. Serial No. 97,832. PUBLISHED OCTOBER 17, 1916.

114,421. HAIR-RESTORER. NAPOLEON BLEAU, Somerset, Mass.
Filed September 6, 1916. Serial No. 97,818. PUBLISHED OCTOBER 17, 1916.

114,422. CERTAIN NAMED JEWELRY AND PRECIOUS-METAL WARE. GEO. BORGFELDT & CO., New York, N. Y.
Filed April 15, 1915. Serial No. 85,956. PUBLISHED OCTOBER 10, 1916.

114,423. CERTAIN NAMED BAGGAGE, PORTFOLIOS, AND POCKET-BOOKS. GEO. BORGFELDT & CO., New York, N. Y.
Filed January 19, 1916. Serial No. 92,224. PUBLISHED OCTOBER 10, 1916.

114,424. CERTAIN NAMED TOYS AND SPORTING GOODS. GEORGE BORGFELDT & CO., New York, N. Y.
Filed August 5, 1916. Serial No. 97,112. PUBLISHED OCTOBER 17, 1916.

114,425. CERTAIN PHARMACEUTICAL PREPARATIONS FOR TOILET PURPOSES. GEORGE BORGFELDT & CO., New York, N. Y.
Filed September 1, 1916. Serial No. 97,745. PUBLISHED OCTOBER 17, 1916.

114,426. LEATHER SUBSTITUTES. BOSTON BELTING COMPANY, Boston, Mass.
Filed August 1, 1916. Serial No. 97,012. PUBLISHED OCTOBER 17, 1916.

114,427. ONION-SKIN PAPER. BOSTON INDEX CARD COMPANY, Boston, Mass.
Filed May 1, 1916. Serial No. 94,813. PUBLISHED JULY 4, 1916.

114,428. VIOLIN-MUTE. RENE BRIAIS, Jamaica, N. Y.
Filed August 5, 1915. Serial No. 88,428. PUBLISHED OCTOBER 17, 1916.

114,429. ELECTRICAL ATTACHMENT PLUGS AND RECEPTACLES. THE BRYANT ELECTRIC COMPANY, Bridgeport, Conn.
Filed August 29, 1916. Serial No. 97,678. PUBLISHED OCTOBER 17, 1916.

114,430. CHEMICALS, DYESTUFFS, OILS AND CHEMICALS USED IN DYEING, AND PHARMACEUTICAL PREPARATIONS. JOHN CAMPBELL & CO. INC., New York, N. Y.
Filed September 20, 1916. Serial No. 98,111. PUBLISHED OCTOBER 17, 1916.

114,431. PHONOGRAPHS. THE CAROLA COMPANY, Cleveland, Ohio.
Filed May 25, 1916. Serial No. 95,414. PUBLISHED JULY 4, 1916.

114,432. CREAM-SEPARATORS AND PARTS THEREOF. THE CHAMPION BLOWER & FORGE CO., Lancaster, Pa.
Filed January 20, 1915. Serial No. 83,967. PUBLISHED AUGUST 3, 1915.

114,433. FRESH FRUITS AND VEGETABLES. CHASE & COMPANY, Jacksonville, Fla.
Filed June 9, 1916. Serial No. 95,744. PUBLISHED OCTOBER 17, 1916.

114,434. MEDICINE FOR RHEUMATISM. JAMES CLARK, Providence, R. I.
Filed August 19, 1916. Serial No. 97,442. PUBLISHED OCTOBER 10, 1916.

114,435. SOLID-GOLD CHAINS AND BRACELETS. JOS. COHN & BRO., New York, N. Y.
Filed May 25, 1916. Serial No. 95,415. PUBLISHED OCTOBER 17, 1916.

114,436. CANNED SALMON. COLUMBIA RIVER PACKERS ASSOCIATION, Astoria, Oreg.
Filed July 28, 1916. Serial No. 96,914. PUBLISHED OCTOBER 10, 1916.

114,437. PREPARED TEA-TONIC PLANTS AND LEAVES, RECOMMENDED FOR BLADDER, KIDNEY, AND INTESTINAL AFFECTIONS. WARREN CONKLIN, Toms River, N. J.
Filed April 3, 1916. Serial No. 94,063. PUBLISHED OCTOBER 10, 1916.

114,438. BLOWERS, TURBO-BLOWERS, TURBINES FOR TURBO-BLOWERS, AND GRATE-BLOWERS. COPPUS ENGINEERING AND EQUIPMENT COMPANY, Worcester, Mass.
Filed June 7, 1915. Serial No. 87,162. PUBLISHED OCTOBER 10, 1916.

114,439. PAPER BAGS. CROWN WILLAMETTE PAPER CO., San Francisco, Cal.
Filed September 11, 1916. Serial No. 97,896. PUBLISHED OCTOBER 10, 1916.

114,440. COTTON-WASTE. DE GRAUW, AYMAR & COMPANY, New York, N. Y.
Filed July 29, 1916. Serial No. 96,951. PUBLISHED OCTOBER 17, 1916.

114,441. SNUBBERS OR SHOCK-ABSORBERS. THE DETROIT ENGINEERING PRODUCTS COMPANY, Detroit, Mich.
Filed September 18, 1916. Serial No. 98,043. PUBLISHED OCTOBER 17, 1916.

114,442. OINTMENT FOR STRAIGHTENING KINKY HAIR. DIXIE MANUFACTURING CO., Birmingham, Ala.
Filed July 31, 1916. Serial No. 96,985. PUBLISHED OCTOBER 10, 1916.

114,443. SUITS, COATS, VESTS, TROUSERS, AND OVERCOATS. THE DOUGLAS TAILORING COMPANY, Akron, Ohio.
Filed January 6, 1916. Serial No. 91,955. PUBLISHED OCTOBER 17, 1916.

114,444. CERTAIN NAMED JEWELRY AND PRECIOUS-METAL WARE. THE O. M. DRAPER COMPANY, North Attleboro, Mass.
Filed April 3, 1916. Serial No. 94,064. PUBLISHED OCTOBER 17, 1916.

114,445. ENAMELED BOOK-PAPER. DUBOC PAPER CO., Chicago, Ill.
Filed August 1, 1916. Serial No. 97,013. PUBLISHED OCTOBER 10, 1916.

114,446. CERTAIN NAMED CLOTHING. THE DUNHAM MILLS INC., Hartford, Conn.
Filed May 26, 1916. Serial No. 95,440. PUBLISHED OCTOBER 17, 1916.

114,447. COTTON PIECE GOODS AND GINGHAMS. ELMIRA COTTON MILLS CO., Burlington, N. C.
Filed August 26, 1916. Serial No. 97,636. PUBLISHED OCTOBER 17, 1916.

114,448. MONTHLY MAGAZINE OR JOURNAL. THE EMPLOYER PUBLISHING COMPANY, Oklahoma, Okla.
Filed May 5, 1916. Serial No. 94,019. PUBLISHED OCTOBER 17, 1916.

114,449. CERTAIN NAMED ORNAMENTS USED IN CONNECTION WITH BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS. THE ENTERPRISE MANUFACTURING COMPANY, Akron, Ohio.
Filed July 24, 1916. Serial No. 96,781. PUBLISHED OCTOBER 17, 1916.

114,450. BOND, LEDGER, BOOK, COVER, AND WRITING PAPER. FISCHEL PAPER CO., INC., Albany, N. Y.
Filed January 27, 1916. Serial No. 92,438. PUBLISHED OCTOBER 17, 1916.

114,451. VARNISH. FLOOR-SHINE MANUFACTURING COMPANY, St. Louis, Mo.
Filed September 5, 1916. Serial No. 97,786. PUBLISHED OCTOBER 17, 1916.

114,452. DRESS-SHIELDS. FORBES & WALLACE, Springfield, Mass.
Filed March 31, 1916. Serial No. 94,010. PUBLISHED OCTOBER 17, 1916.

114,453. CUFF-BUTTONS. FREEMAN-DAUGHADAY CO., Chartley, Mass.
Filed July 17, 1916. Serial No. 96,624. PUBLISHED OCTOBER 10, 1916.

114,454. COTTON PIECE GOODS. SOL FRIEDMAN & CO., New York, N. Y.
Filed August 29, 1916. Serial No. 97,682. PUBLISHED OCTOBER 17, 1916.

114,455. FINGER-RINGS. VALENTINE LINDA FULTON, Hot Springs, Ark.
Filed July 3, 1916. Serial No. 96,292. PUBLISHED OCTOBER 17, 1916.

114,456. PARCEL-POST CASE. CHARLES T. GOSWEY, South Bend, Ind.
Filed August 23, 1916. Serial No. 97,574. PUBLISHED OCTOBER 10, 1916.

114,457. CERTAIN NAMED CLOTHING. GOLDENBERG'S, Washington, D. C.
Filed July 26, 1916. Serial No. 96,869. PUBLISHED OCTOBER 17, 1916.

114,458. SOLES COMPOSED PARTLY OF RUBBER, FOR BOOTS AND SHOES. THE B. F. GOODRICH COMPANY, New York, N. Y.
Filed August 22, 1916. Serial No. 97,550. PUBLISHED OCTOBER 17, 1916.

114,459. SOLES COMPOSED PARTLY OF RUBBER, FOR BOOTS AND SHOES. THE B. F. GOODRICH COMPANY, New York, N. Y.
Filed August 22, 1916. Serial No. 97,552. PUBLISHED OCTOBER 17, 1916.

114,460. GAME APPARATUS. WILLIAM M. GRANT, Holly, Colo.
Filed June 3, 1915. Serial No. 87,071. PUBLISHED OCTOBER 10, 1916.

114,461. PREPARATION FOR USE IN DRESSING AND GROWING HAIR ON HUMAN HEADS. ADELIA D. GRAVES, St. Louis, Mo.
Filed April 27, 1916. Serial No. 94,743. PUBLISHED OCTOBER 17, 1916.

114,462. FRESH-KILLED, FROZEN, AND DRESSED POULTRY AND FRESH AND STORAGE EGGS. WM. F. GRAVINS, Richmond, Va.
Filed August 16, 1916. Serial No. 97,371. PUBLISHED OCTOBER 10, 1916.

114,463. CIGARS, CIGARETTES, CHEROOTS, AND MANUFACTURED TOBACCO. HORACE LE GRIS, New York, N. Y.
Filed August 19, 1916. Serial No. 97,453. PUBLISHED OCTOBER 17, 1916.

114,464. GRAPE BEVERAGE. J. GROSSMAN'S SONS, New Orleans, La.
Filed September 22, 1916. Serial No. 98,164. PUBLISHED OCTOBER 17, 1916.

114,465. DENTIFRICES AND MOUTH-WASHES. HENRI GRUNER, Paris, France.
Filed December 5, 1913. Serial No. 74,399. PUBLISHED OCTOBER 10, 1916.

114,466. DENTIFRICES AND MOUTH-WASHES. HENRI GRUNER, Paris, France.
Filed December 5, 1913. Serial No. 74,400. PUBLISHED OCTOBER 10, 1916.

114,467. DENTIFRICES AND MOUTH-WASHES. HENRI GRUNER, Paris, France.
Filed December 5, 1913. Serial No. 74,401. PUBLISHED OCTOBER 10, 1916.

114,468. HAIR-TONICS. JOHN M. HALL, Toronto, Ontario, Canada.
Filed April 20, 1916. Serial No. 94,572. PUBLISHED OCTOBER 10, 1916.

114,469. PLOWS. THE HAPPY FARMER TRACTOR CO., Minneapolis, Minn.
Filed August 26, 1916. Serial No. 97,640. PUBLISHED OCTOBER 17, 1916.

114,470. CERTAIN FOODS FOR INFANTS. RICHARD HAUGHTON, Paoli, Pa.
Filed September 14, 1916. Serial No. 97,989. PUBLISHED OCTOBER 17, 1916.

114,471. GOLF-BALLS. W. T. HENLEY'S TELEGRAPH WORKS CO. LD., London Wall, London, England.
Filed August 8, 1916. Serial No. 97,164. PUBLISHED OCTOBER 17, 1916.

114,472. GOLF-BALLS. W. T. HENLEY'S TELEGRAPH WORKS CO. LD., London Wall, London, England.
Filed August 23, 1916. Serial No. 97,576. PUBLISHED OCTOBER 17, 1916.

114,473. METALLIC CHECK-VALVES. JAMES E. HOEKEN, San Francisco, Cal.
Filed August 9, 1916. Serial No. 97,212. PUBLISHED OCTOBER 17, 1916.

114,474. PHOTOGRAPHIC PRINTS. OSCAR A. HOFFMANN AND BRO., Cincinnati, Ohio.
Filed July 17, 1916. Serial No. 96,627. PUBLISHED OCTOBER 17, 1916.

114,475. BOOK-COVERS. THE HOLDEN PATENT BOOK COVER CO., Springfield, Mass.
Filed June 12, 1916. Serial No. 95,821. PUBLISHED OCTOBER 17, 1916.

114,476. COTTON DUCK. WM. E. HOOPER & SONS CO., Baltimore, Md.
Filed August 12, 1916. Serial No. 97,307. PUBLISHED OCTOBER 17, 1916.

114,477. FACE-POWDER. HOPFINGER & ROTH, St. Louis, Mo.
Filed December 4, 1915. Serial No. 91,164. PUBLISHED OCTOBER 10, 1916.

114,478. ROOFING MATERIAL IN THE FORM OF WATERPROOFED SHEETS. H. H. HOPKINS COMPANY, Chicago, Ill.
Filed August 24, 1916. Serial No. 97,599. PUBLISHED OCTOBER 10, 1916.

114,479. TOILET-FLUSH COMPOSITION AND PIPE-CLEANER COMPOSITIONS OF STRONGLY-CAUSTIC PROPERTIES. DENNIS HOWARTH, Los Angeles, Cal.
Filed June 12, 1916. Serial No. 95,818. PUBLISHED OCTOBER 10, 1916.

114,480. INDEXES, FILES, RECORD-CARDS, CARD-HOLDERS, AND METAL CARD-SUPPORTING GUIDE-STRIPS. INDEX VISIBLE, INCORPORATED, New Haven, Conn.
Filed June 30, 1916. Serial No. 96,252. PUBLISHED OCTOBER 10, 1916.

114,481. PHOTO-ENGRAVINGS, PAMPHLETS, AND PERIODICALS PUBLISHED MONTHLY. INTERNATIONAL PHOTO-ENGRAVERS' UNION OF NORTH AMERICA, Philadelphia, Pa.
Filed May 31, 1916. Serial No. 95,551. PUBLISHED OCTOBER 17, 1916.

114,482. CERTAIN NAMED FOODS. THE W. K. JAHN COMPANY, Chicago, Ill.
Filed July 27, 1916. Serial No. 96,890. PUBLISHED OCTOBER 10, 1916.

114,483. CERTAIN NAMED FOODS. JEFT & WOOD, Wichita, Kans.
Filed September 1, 1916. Serial No. 97,753. PUBLISHED OCTOBER 17, 1916.

114,484. GAS WATER-HEATER. JIFFY WATER HEATER COMPANY, St. Louis, Mo.
Filed July 31, 1916. Serial No. 96,991. PUBLISHED OCTOBER 17, 1916.

114,485. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. SAMUEL KAUFMAN, Elizabeth, N. J.
Filed August 7, 1916. Serial No. 97,137. PUBLISHED OCTOBER 10, 1916.

114,486. FROZEN EGG. H. J. KEITH COMPANY, Boston, Mass.
Filed August 25, 1915. Serial No. 88,803. PUBLISHED OCTOBER 10, 1916.

114,487. MEDICINAL OIL COMPOUND FOR USE IN CERTAIN NAMED DISEASES. GEORGE C. KEITH, Chatfield, Minn.
Filed April 17, 1916. Serial No. 94,474. PUBLISHED OCTOBER 10, 1916.

114,488. CHEMICAL PREPARATION IN POWDERED FORM USED AS AN INGREDIENT IN MAKING BREAD. KELLOGG-BIRGE CO., Keokuk, Iowa.
Filed August 18, 1916. Serial No. 97,424. PUBLISHED OCTOBER 10, 1916.

114,489. AIR-VALVES AND RETURN-LINE VALVES FOR STEAM-HEATING SYSTEMS AND REPAIR PARTS THEREFOR. KELLY BRASS WORKS, Chicago, Ill.
Filed July 26, 1916. Serial No. 96,871. PUBLISHED OCTOBER 17, 1916.

114,490. GRAPE-FRUIT. SAMUEL JOSEPH KELLY, Miami, Fla.
Filed August 26, 1916. Serial No. 97,643. PUBLISHED OCTOBER 10, 1916.

114,491. GRAPE-FRUIT. SAMUEL JOSEPH KELLY, Miami, Fla.
Filed August 26, 1916. Serial No. 97,644. PUBLISHED OCTOBER 10, 1916.

114,492. NAILING-BASE FOR FLOOR AND ROOF CONSTRUCTION. DAVID E. KENNEDY, INC., New York, N. Y.
Filed September 2, 1915. Serial No. 88,985. PUBLISHED OCTOBER 17, 1916.

114,493. HAIR-TONIC. ROSE KLEIN, Seattle, Wash.
Filed September 5, 1916. Serial No. 97,795. PUBLISHED OCTOBER 17, 1916.

114,494. WATCHES. KNICKERBOCKER WATCH CO., New York, N. Y.
Filed September 2, 1916. Serial No. 97,771. PUBLISHED OCTOBER 10, 1916.

114,495. CONCRETE-MIXERS, CONCRETE-DISTRIBUTING MACHINES, LOADING-SKIPS, CONCRETE-DISTRIBUTING CHUTES, PAVING-MACHINES. KOEHRING MACHINE CO., Milwaukee, Wis.
Filed September 18, 1916. Serial No. 98,051. PUBLISHED OCTOBER 17, 1916.

114,496. LIQUID PREPARATION USED FOR NEUTRALIZING ALKALINITY, REMOVING STAINS, AND SETTING BLUE. H. KOHNSTAMM & CO., New York, N. Y.
Filed April 13, 1916. Serial No. 94,384. PUBLISHED OCTOBER 10, 1916.

114,497. APPAREL-CORSETS. KOPS BROS., New York, N. Y.
Filed August 15, 1916. Serial No. 97,350. PUBLISHED OCTOBER 17, 1916.

114,498. PILE-OINTMENT AND HEALING-SALVE. KO-PYNB MANUFACTURING COMPANY, Richmond, Va.
Filed September 12, 1916. Serial No. 97,952. PUBLISHED OCTOBER 17, 1916.

114,499. PREPARATION FOR THE TREATMENT OF CONSTIPATION. KRONBERGER'S POLYGLOT PHARMACY, San Francisco, Cal.
Filed September 9, 1916. Serial No. 97,877. PUBLISHED OCTOBER 17, 1916.

114,500. PROTECTIVE SURGICAL COVERING. HARRY F. KUHN, Closter, N. J., assignor to The Drug Products Co., Inc., New York, N. Y.
Filed August 7, 1916. Serial No. 97,161. PUBLISHED OCTOBER 17, 1916.

114,501. ONE-PIECE PROTECTIVE GARMENTS FOR MEN, WOMEN, AND CHILDREN. LA CROSSE CLOTHING COMPANY, La Crosse, Wis.
Filed August 12, 1915. Serial No. 88,572. PUBLISHED JANUARY 4, 1916.

114,502. BOOTS, SHOES, SANDALS, AND SLIPPERS OF LEATHER, EITHER ALONE OR IN COMBINATION WITH CLOTHS. LEE BROTHERS COMPANY, Boston and Athol, Mass.
Filed August 21, 1916. Serial No. 97,514. PUBLISHED OCTOBER 17, 1916.

114,503. BOTTLE-BRUSHES. GEORGE S. LEHNER & COMPANY, New York, N. Y.
Filed August 9, 1916. Serial No. 97,217. PUBLISHED OCTOBER 17, 1916.

114,504. TONIC MEDICINES. BENIAMINO LEO, Chicago, Ill.
Filed February 2, 1916. Serial No. 92,579. PUBLISHED OCTOBER 17, 1916.

114,505. MEDICINAL PREPARATION FOR THE TREATMENT OF CONSTIPATION AND DISEASES OF THE LIVER AND STOMACH. ROBERT LICH, Sutton, Nebr.
Filed August 23, 1916. Serial No. 97,583. PUBLISHED OCTOBER 17, 1916.

114,506. MEDICINAL PREPARATION FOR THE TREATMENT OF CERTAIN NAMED DISEASES. ROBERT LICH, Sutton, Nebr.
Filed August 23, 1916. Serial No. 97,584. PUBLISHED OCTOBER 17, 1916.

114,507. BOTTLED ROYAL ANNE CHERRIES AND BOTTLED PRESERVED FRUITS. LONG FRUIT PRODUCTS CO., Portland, Oreg.
Filed September 11, 1916. Serial No. 97,913. PUBLISHED OCTOBER 17, 1916.

114,508. DYES. FRANK A. MCJUNKIN, Chicago, Ill.
Filed August 7, 1916. Serial No. 97,143. PUBLISHED OCTOBER 10, 1916.

114,509. CANDY, BONBONS, POWDERED AND CAKE CHOCOLATE, AND COCOA. HENRY MAILLARD, New York, N. Y.
Filed September 22, 1916. Serial No. 98,150. PUBLISHED OCTOBER 17, 1916.

114,510. TALKING-MACHINES AND TALKING-MACHINE PARTS. MAJESTIC PHONOGRAPH COMPANY, Chicago, Ill.
Filed April 28, 1916. Serial No. 94,774. PUBLISHED JULY 4, 1916.

114,511. VARNISH. MANHATTAN VARNISH CO. INC., New York, N. Y.
Filed July 20, 1916. Serial No. 96,695. PUBLISHED AUGUST 22, 1916.

114,512. CANDY. F. MARROQUIN & CO., San Antonio, Tex.
Filed September 16, 1916. Serial No. 98,028. PUBLISHED OCTOBER 17, 1916.

114,513. MALT TONIC. MASSACHUSETTS BREWERIES COMPANY, Alexandria, Va., and Boston, Mass.
Filed May 23, 1916. Serial No. 95,385. PUBLISHED OCTOBER 17, 1916.

114,514. HAIR-TONICS, SCALP-STIMULANT, AND DANDRUFF-PREVENTIVE. MATTHEWS & LIVELY, Atlanta, Ga.
Filed August 19, 1916. Serial No. 97,455. PUBLISHED OCTOBER 10, 1916.

114,515. MATERNITY-CORSETS. BERTHE MAY, INC., New York, N. Y.
Filed July 19, 1916. Serial No. 96,674. PUBLISHED OCTOBER 17, 1916.

114,516. GERMICIDAL SUTURE AND LIGATURE MATERIALS. MEINECKE & COMPANY, New York, N. Y.
Filed June 27, 1916. Serial No. 96,181. PUBLISHED OCTOBER 17, 1916.

114,517. TOILET-PAPER. THE MEYER BROS. PAPER CO., Cincinnati, Ohio.
Filed August 11, 1916. Serial No. 97,277. PUBLISHED OCTOBER 17, 1916.

114,518. PAPER BOXES. MILWAUKEE PAPER BOX CO., Milwaukee, Wis.
Filed August 9, 1916. Serial No. 97,222. PUBLISHED OCTOBER 10, 1916.

114,519. PRINTING-PAPER FOR PRESS-PRINTING TRADES. THE MEAD PULP AND PAPER COMPANY, Dayton, Ohio.
Filed September 5, 1916. Serial No. 97,803. PUBLISHED OCTOBER 17, 1916.

114,520. CERTAIN NAMED FOODS. MODEL PICKLE & VINEGAR WORKS, Tacoma, Wash.
Filed September 18, 1916. Serial No. 98,053. PUBLISHED OCTOBER 17, 1916.

114,521. BUCKWHEAT-FLOUR, SELF-RAISING-FLOUR, AND PANCAKE-FLOUR. FRANK V. MOFFET, Seattle, Wash.
Filed September 1, 1916. Serial No. 97,756. PUBLISHED OCTOBER 10, 1916.

114,522. CERTAIN NAMED ARTICLES MADE OF OR PLATED WITH PRECIOUS METAL AND CERTAIN SILVER ARTICLES. ALLYN STEPHEN MORGAN, Winona, Minn.
Filed June 19, 1916. Serial No. 95,973. PUBLISHED OCTOBER 10, 1916.

114,523. CERTAIN NAMED FOODS. MORRIS & COMPANY, Chicago, Ill.
Filed June 12, 1916. Serial No. 95,823. PUBLISHED OCTOBER 17, 1916.

114,524. COTTON YARN AND THREAD. MOUNT VERNON-WOODBERRY MILLS, INCORPORATED, Baltimore, Md.
Filed November 13, 1915. Serial No. 90,631. PUBLISHED OCTOBER 17, 1916.

114,525. MEAT AND FISH PRESERVER IN THE FORM OF A WOOD-DISTILLATE. BOISE R. MURPHY, Meade, Kans.
Filed May 24, 1916. Serial No. 95,402. PUBLISHED OCTOBER 10, 1916.

114,526. GLASS REFLECTORS. NATIONAL X-RAY REFLECTOR COMPANY, Chicago, Ill.
Filed July 27, 1916. Serial No. 96,897. PUBLISHED OCTOBER 17, 1916.

114,527. CANNED PEAS, CANNED CORN, AND CANNED TOMATOES. NAU-MURRAY CO., San Bernardino, Cal.
Filed September 11, 1916. Serial No. 97,923. PUBLISHED OCTOBER 17, 1916.

114,528. BASKETS. THE NEEDHAM BASKET CO., Peterboro, N. H.
Filed April 6, 1916. Serial No. 94,207. PUBLISHED OCTOBER 10, 1916.

114,529. WHISKY AND COCKTAILS. HILDA H. NETTER, Philadelphia, Pa.
Filed September 15, 1916. Serial No. 98,013. PUBLISHED OCTOBER 17, 1916.

114,530. SALINE LAXATIVES. N. Y. INTERNATIONAL CHEMICAL CO. INC., New York, N. Y.
Filed August 18, 1916. Serial No. 97,428. PUBLISHED OCTOBER 17, 1916.

114,531. PREPARED MILK WITH EGG ALBUMEN. NEZEN COMPANY, Cleveland, Ohio.
Filed July 5, 1916. Serial No. 96,331. PUBLISHED OCTOBER 10, 1916.

114,532. CANNED FRUITS, CANNED VEGETABLES, CANNED SALMON, AND TOMATO CATSUP. NIESS GROCER COMPANY, St. Louis, Mo.
Filed September 11, 1916. Serial No. 97,920. PUBLISHED OCTOBER 17, 1916.

114,533. LAUNDRY-WASHING MACHINES. THE NINETEEN HUNDRED WASHER COMPANY, Binghamton, N. Y.
Filed November 13, 1915. Serial No. 90,634. PUBLISHED MAY 23, 1916.

114,534. CIGARS, CHEROOTS, AND LITTLE CIGARS. NORMAN BROS., Detroit, Mich.
Filed August 1, 1916. Serial No. 97,022. PUBLISHED OCTOBER 17, 1916.

114,535. BRICK. NORTH BEND FIRE BRICK CO., Gleasonton, Pa.
Filed August 1, 1916. Serial No. 97,021. PUBLISHED OCTOBER 17, 1916.

114,536. CITRUS FRUITS—NAMELY, ORANGES AND GRAPE-FRUIT. ALVIN J. NYE, Orlando, Fla.
Filed September 11, 1916. Serial No. 97,921. PUBLISHED OCTOBER 17, 1916.

114,537. TABLEWARE AND FLAT-WARE OF PRECIOUS-METAL-PLATED WARE. ONEIDA COMMUNITY, LIMITED, Oneida, N. Y.
Filed July 28, 1916. Serial No. 96,931. PUBLISHED OCTOBER 17, 1916.

114,538. TABLE AND FLAT WARE OF PRECIOUS-METAL-PLATED WARE. ONEIDA COMMUNITY, LIMITED, Oneida, N. Y.
Filed July 28, 1916. Serial No. 96,932. PUBLISHED OCTOBER 17, 1916.

114,539. TABLEWARE AND FLAT-WARE OF PRECIOUS-METAL-PLATED WARE. ONEIDA COMMUNITY, LIMITED, Oneida, N. Y.
Filed August 4, 1916. Serial No. 97,002. PUBLISHED OCTOBER 17, 1916.

114,540. COMPOUND FOR ENRICHING AND PURIFYING THE BLOOD AND RELIEVING NERVOUSNESS. JOSEPH E. PARENT, Arctic, R. I.
Filed July 27, 1916. Serial No. 96,904. PUBLISHED OCTOBER 10, 1916.

114,541. CERTAIN NAMED CLOTHING. F. A. PATRICK & Co., Duluth, Minn.
Filed June 29, 1916. Serial No. 96,239. PUBLISHED OCTOBER 17, 1916.

114,542. LEATHER. PENN LEATHER CO., Philadelphia, Pa.
Filed March 11, 1916. Serial No. 93,471. PUBLISHED OCTOBER 17, 1916.

114,543. HEPATIC INSUFFICIENCY, INTESTINAL PUTREFACTION, HABITUAL CONSTIPATION, AND GALL-STONES. THE PAUL PLESSNER CO., Detroit, Mich.
Filed February 25, 1916. Serial No. 93,108. PUBLISHED OCTOBER 10, 1916.

114,544. OIL FOR CLEANING AND POLISHING VENEERED OR VARNISHED SURFACES AND WOODWORK GENERALLY. WILLIAM PETERMAN INC., Passaic, N. J., and New York, N. Y.
Filed September 19, 1916. Serial No. 98,095. PUBLISHED OCTOBER 17, 1916.

114,545. HAIR-DRESSING. ABE PLOUGH, Memphis, Tenn.
Filed August 10, 1916. Serial No. 97,253. PUBLISHED OCTOBER 10, 1916.

114,546. PHONOGRAPHS AND TALKING-MACHINES. THE PREMIER CABINET COMPANY, Williamsport, Pa.
Filed June 20, 1916. Serial No. 96,009. PUBLISHED OCTOBER 10, 1916.

114,547. CORN-PLASTERS. ALBERT RATHMYL, Philadelphia, Pa.
Filed July 26, 1916. Serial No. 96,880. PUBLISHED OCTOBER 10, 1916.

114,548. BLEACHER AND WATER-SOFTENER. AUBREY LOWELL RICE, New York, N. Y.
Filed September 16, 1916. Serial No. 98,032. PUBLISHED OCTOBER 17, 1916.

114,549. KNIVES, FORKS, AND SPOONS PLATED WITH OR MADE OF PRECIOUS METAL OR SUBSTITUTES THEREFOR. WILLIAM H. ROGERS, Plainfield, N. J.
Filed May 4, 1916. Serial No. 94,902. PUBLISHED OCTOBER 10, 1916.

114,550. FACIAL OIL. LINA L. RUPPEL, Chicago, Ill.
Filed September 18, 1916. Serial No. 98,056. PUBLISHED OCTOBER 17, 1916.

114,551. ELASTIC TAPES AND TAFFETA SEAM-BINDINGS. SAMSTAG & HILDER BROS., New York, N. Y.
Filed August 31, 1916. Serial No. 97,740. PUBLISHED OCTOBER 17, 1916.

114,552. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed March 18, 1916. Serial No. 93,667. PUBLISHED OCTOBER 10, 1916.

114,553. CANDY. HARRY L. SCHLESINGER, Atlanta, Ga.
Filed September 6, 1916. Serial No. 97,824. PUBLISHED OCTOBER 17, 1916.

114,554. CANDY. HARRY L. SCHLESINGER, Atlanta, Ga.
Filed September 6, 1916. Serial No. 97,826. PUBLISHED OCTOBER 17, 1916.

114,555. CIGARS, CHEROOTS, AND LITTLE CIGARS. E. M. SCHWARZ & CO., New York, N. Y.
Filed August 3, 1916. Serial No. 97,059. PUBLISHED OCTOBER 17, 1916.

114,556. CIGARS, CHEROOTS, AND LITTLE CIGARS. E. M. SCHWARZ & CO., New York, N. Y.
Filed August 3, 1916. Serial No. 97,061. PUBLISHED OCTOBER 17, 1916.

114,557. CIGARS, CHEROOTS, AND LITTLE CIGARS. E. M. SCHWARZ & CO., New York, N. Y.
Filed August 3, 1916. Serial No. 97,063. PUBLISHED OCTOBER 17, 1916.

114,558. WHISKY. CHAS. SEHLINGER'S SONS, Louisville, Ky.
Filed September 16, 1916. Serial No. 98,034. PUBLISHED OCTOBER 17, 1916.

114,559. GIN. CHAS. SEHLINGER'S SONS, Louisville, Ky.
Filed September 16, 1916. Serial No. 98,035. PUBLISHED OCTOBER 17, 1916.

114,560. BRAN-FLOUR. MARY E. & EUGENE A. SIEFFERT, New York, N. Y.
Filed August 21, 1916. Serial No. 97,524. PUBLISHED OCTOBER 17, 1916.

114,561. WATER BOTTLES AND CUSHIONS, SURGICAL AND INVALID, ALL BEING GOODS MANUFACTURED FROM INDIA-RUBBER. SANGERS, London, England.
Filed July 21, 1916. Serial No. 96,737. PUBLISHED OCTOBER 17, 1916.

114,562. BUTTER. ADDISON A. SPAUGH, Douglas, Wyo.
Filed May 3, 1916. Serial No. 94,880. PUBLISHED OCTOBER 17, 1916.

114,563. ASPHALTUM. STANDARD OIL COMPANY, Richmond, Cal.
Filed August 29, 1916. Serial No. 97,693. PUBLISHED OCTOBER 10, 1916.

114,564. NEWSPAPERS. STAR CHRONICLE PUBLISHING COMPANY, St. Louis, Mo.
Filed August 22, 1916. Serial No. 97,564. PUBLISHED OCTOBER 17, 1916.

114,565. REMEDY FOR CONSTIPATION. FREDERICK STEARNS & Co., Detroit, Mich.
Filed August 21, 1916. Serial No. 97,526. PUBLISHED OCTOBER 17, 1916.

114,566. FLASH-LIGHT BATTERIES. EDWARD WILLIAM STEVENSON, New York, N. Y.
Filed August 7, 1916. Serial No. 97,155. PUBLISHED OCTOBER 17, 1916.

114,567. FOOT-BALM. STOCKLIN LABORATORIES COMPANY, Menominee, Mich.
Filed August 14, 1916. Serial No. 97,342. PUBLISHED OCTOBER 10, 1916.

114,568. COAL AND COKE. STONEGA COKE & COAL CO., Big Stone Gap and Wise and Lee counties, Va.
Filed July 27, 1916. Serial No. 96,908. PUBLISHED OCTOBER 10, 1916.

114,569. PRINTING AND WRITING PAPER, LETTER-HEADS, BILL-HEADS, ENVELOPS, CHECKS, NOTES, DRAFTS, AND BLANK LABELS. THE STROBRIDGE LITHOGRAPHING CO., Cincinnati, Ohio.
Filed May 23, 1916. Serial No. 95,374. PUBLISHED OCTOBER 10, 1916.

114,570. PROCESS-BUTTER. SULZBERGER & SONS COMPANY, New York, N. Y., and Illinois and Kansas.
Filed August 20, 1914. Serial No. 80,711. PUBLISHED OCTOBER 10, 1916.

114,571. CERTAIN NAMED ACCESSORIES FOR AUTOMOBILES. SUPERIOR LAMP MFG. CO., New York, N. Y.
Filed June 14, 1916. Serial No. 95,877. PUBLISHED OCTOBER 17, 1916.

114,572. ADHESIVE MATERIAL USED FOR REPAIRING RUBBER GOODS, ESPECIALLY RUBBER TIRES. ALBERT SWANSON, Seattle, Wash.
Filed March 20, 1916. Serial No. 93,724. PUBLISHED OCTOBER 17, 1916.

114,573. WATERPROOFED SKINS AND LEATHERS. TATE ELECTROLYTIC WATERPROOFING COMPANY, INCORPORATED, New York, N. Y.
Filed August 10, 1916. Serial No. 97,241. PUBLISHED OCTOBER 10, 1916.

114,574. REMEDY FOR ECZEMA AND OTHER SKIN DISEASES. TAYLOR CHEMICAL CO., Washington, D. C.
Filed September 20, 1916. Serial No. 98,124. PUBLISHED OCTOBER 17, 1916.

114,575. SHAMPOO-POWDER. HENRY TETLOW CO., Philadelphia, Pa.
Filed September 18, 1916. Serial No. 98,066. PUBLISHED OCTOBER 17, 1916.

114,576. WHISKY. JAMES THOMPSON & BRO., Louisville, Ky.
Filed September 15, 1916. Serial No. 98,016. PUBLISHED OCTOBER 17, 1916.

114,577. WATCHES. MAURICE TIGNER, New York, N. Y.
Filed August 31, 1916. Serial No. 97,742. PUBLISHED OCTOBER 10, 1916.

114,578. LADDERS AND SCAFFOLDS. THE JOHN S. TILLEY LADDERS CO., Watervliet, N. Y.
Filed August 21, 1916. Serial No. 97,468. PUBLISHED OCTOBER 17, 1916.

114,579. LADDERS AND SCAFFOLDS. THE JOHN S. TILLEY LADDERS CO., Watervliet, N. Y.
Filed August 21, 1916. Serial No. 97,469. PUBLISHED OCTOBER 17, 1916.

114,580. CARBON-REMOVER. TIMBROOK & CRAIL, Fort Wayne, Ind.
Filed March 18, 1916. Serial No. 93,679. PUBLISHED OCTOBER 10, 1916.

114,581. CERTAIN NAMED CONSTRUCTION MATERIALS. TOCH BROTHERS, New York, N. Y.
Filed July 15, 1916. Serial No. 96,607. PUBLISHED OCTOBER 10, 1916.

114,582. MEDICINAL COMPOUNDS FOR THE TREATMENT OF ECZEMA, DANDRUFF, AND SKIN DISEASES. ROSENDO TORRAS, Brunswick, Ga.
Filed September 2, 1916. Serial No. 97,775. PUBLISHED OCTOBER 17, 1916.

114,583. FERTILIZERS. THE J. E. TYGERT COMPANY, Philadelphia, Pa.
Filed September 11, 1916. Serial No. 97,936. PUBLISHED OCTOBER 10, 1916.

114,584. SEWING-MACHINES AND PARTS THEREOF. UNION SPECIAL MACHINE COMPANY, Chicago, Ill.
Filed September 9, 1916. Serial No. 97,884. PUBLISHED OCTOBER 17, 1916.

114,585. CIGARS. UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y.
Filed April 26, 1916. Serial No. 94,734. PUBLISHED OCTOBER 17, 1916.

114,586. CIGARS. UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y.
Filed August 21, 1916. Serial No. 97,480. PUBLISHED OCTOBER 10, 1916.

114,587. CAST-IRON-PIPE COLUMNS AND COLUMN PARTS AND FITTINGS. UNITED STATES CAST IRON PIPE AND FOUNDRY COMPANY, Burlington, N. J.
Filed July 29, 1916. Serial No. 96,970. PUBLISHED OCTOBER 10, 1916.

114,588. HAMES. U. S. HAME COMPANY, Buffalo, N. Y.
Filed August 4, 1916. Serial No. 97,100. PUBLISHED OCTOBER 10, 1916.

114,589. CERTAIN NAMED CEREAL PRODUCTS. UTAH CEREAL FOOD COMPANY, Ogden, Utah.
Filed July 3, 1916. Serial No. 96,307. PUBLISHED OCTOBER 10, 1916.

114,590. POCKET-KNIVES. VALLEY FORGE CUTLERY COMPANY, New York, N. Y.
Filed September 1, 1916. Serial No. 97,760. PUBLISHED OCTOBER 17, 1916.

114,591. SOLE-LEATHER. GEORGE C. VAUGHAN, Peabody, Mass.
Filed July 31, 1916. Serial No. 97,009. PUBLISHED OCTOBER 17, 1916.

114,592. REMEDY FOR GONORRHEA AND GLEET. VEGOLA SPECIALTY COMPANY INC., Buffalo, N. Y.
Filed September 7, 1916. Serial No. 97,846. PUBLISHED OCTOBER 17, 1916.

114,593. CITRUS FRUITS. VERO CITRUS GROWERS ASS'N. CO., Vero, Fla.
Filed July 8, 1916. Serial No. 96,446. PUBLISHED OCTOBER 10, 1916.

114,594. CANDY. THE VON BRECHT CANDY COMPANY, Denver, Colo.
Filed September 9, 1916. Serial No. 97,885. PUBLISHED OCTOBER 17, 1916.

114,595. CORSETS AND BRASSIÈRES. WADE CORSET COMPANY, Portland, Me., and New York, N. Y.
Filed January 11, 1916. Serial No. 92,073. PUBLISHED MAY 30, 1916.

114,596. CERTAIN NAMED LADIES' NECKWEAR. WALDES & COMPANY, Prague-Wrschowitz, Austria-Hungary.
Filed October 15, 1914. Serial No. 81,923. PUBLISHED OCTOBER 17, 1916.

114,597. HAIR PREPARATION BENEFICIAL FOR THE GROWTH, GLOSS, AND SHAMPOO OF THE HAIR. MME. WALKER WEST MFG. CO., Pittsburgh, Pa.
Filed August 9, 1916. Serial No. 97,230. PUBLISHED OCTOBER 10, 1916.

114,598. VASELINE PETROLATUM OR PETROLEUM JELLY. WARREN OIL COMPANY, Warren, Pa.
Filed July 29, 1916. Serial No. 96,971. PUBLISHED OCTOBER 10, 1916.

114,599. IGNITION-MAGNETOS. WEBSTER ELECTRIC COMPANY, Racine, Wis.
Filed July 19, 1916. Serial No. 96,681. PUBLISHED OCTOBER 17, 1916.

114,600. CLOTH FOR BAGGING. WERTHAN BAG COMPANY, St. Louis, Mo.
Filed July 31, 1916. Serial No. 97,010. PUBLISHED OCTOBER 17, 1916.

114,601. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed August 11, 1916. Serial No. 97,286. PUBLISHED OCTOBER 10, 1916.

114,602. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed September 19, 1916. Serial No. 98,108. PUBLISHED OCTOBER 17, 1916.

114,603. COFFEE SUBSTITUTE MADE OF WHEAT. WHOLE WHEAT COFFEE CO., INC., Mount Vernon, N. Y.
Filed August 30, 1916. Serial No. 97,725. PUBLISHED OCTOBER 17, 1916.

114,604. CERTAIN NAMED CONSTRUCTION MATERIALS. THE A. WILHELM COMPANY, Reading, Pa.
Filed July 10, 1916. Serial No. 96,480. PUBLISHED OCTOBER 17, 1916.

114,605. CERTAIN NAMED CONSTRUCTION MATERIALS. THE A. WILHELM COMPANY, Reading, Pa.
Filed July 10, 1916. Serial No. 96,481. PUBLISHED OCTOBER 17, 1916.

114,606. SNAP-FASTENERS FOR GARMENTS, DRESSES, AND WEARING-APPAREL GENERALLY. THE WILSON FASTENER COMPANY, Cleveland, Ohio.
Filed July 8, 1916. Serial No. 96,447. PUBLISHED OCTOBER 10, 1916.

114,607. NEGLIGÉE AND WORK SHIRTS, UNDERSHIRTS, OVERALLS, JUMPERS, COATS, TROUSERS, BLOUSES, SHIRT-WAISTS, AND ROMPERS. WISE BROTHERS, Baltimore, Md.
Filed February 24, 1915. Serial No. 84,750. PUBLISHED APRIL 4, 1916.

114,608. MEDICINE FOR THE TREATMENT OF CERTAIN NAMED DISEASES. WOLF & TAYLOR, Monongahela, Pa.
Filed August 30, 1916. Serial No. 97,724. PUBLISHED OCTOBER 17, 1916.

114,609. LEATHER. WORSDELL & CO., New York, N. Y.
Filed June 14, 1916. Serial No. 95,878. PUBLISHED OCTOBER 17, 1916.

114,610. TOILET-PAPER AND PAPER TOWELS. WORTENDYKE MANUFACTURING CO., Richmond, Va.
Filed August 29, 1916. Serial No. 97,697. PUBLISHED OCTOBER 17, 1916.

114,611. TONIC FOR CERTAIN NAMED PHYSICAL CONDITIONS. DAVID WRÓBLEWSKI, New York, N. Y.
Filed August 8, 1916. Serial No. 97,174. PUBLISHED OCTOBER 10, 1916.

114,612. PNEUMATIC RUBBER AUTOMOBILE-TIRES. BEACON TIRE COMPANY, INC., Beacon, N. Y.
Filed August 17, 1916. Serial No. 97,390. PUBLISHED OCTOBER 17, 1916.

TRADE-MARK REGISTRATIONS RENEWED.

13,792. COOKING-STOVES, RANGES, AND FURNACES. CO-OPERATIVE FOUNDRY COMPANY, Rochester, N. Y.
Registered November 9, 1886. Renewed November 9, 1916.

13,855. COTTON AND SILK ON SPOOLS, YARNS, AND TWISTS. ISAAC EINHORN, New York, N. Y.
Registered December 7, 1886. Renewed December 7, 1916.

13,856. COTTON AND SILK ON SPOOLS, YARNS, BUTTONS, TAPES, BRAIDS, AND TWISTS. ISAAC EINHORN, New York, N. Y.
Registered December 7, 1886. Renewed December 7, 1916.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

CONRAD *v.* KRAUS AND MAILEY.

Decided April 19, 1915.

PRIORITY—DILIGENCE IN REDUCING TO PRACTICE—DUE DILIGENCE REQUIRES ACTIVITY PROXIMATELY RELATED TO THE INVENTION ITSELF.

If an inventor permits details pertaining essentially to the marketability of a device to turn him aside from a demonstration of the operativeness of the invention, he takes the risk that a more alert inventor may reach such a demonstration earlier and secure a superior right to a patent.

APPEAL from Examiners-in-Chief.

VAPOR ELECTRIC APPARATUS.

Mr. Wesley G. Carr for Conrad.

Messrs. Roberts, Roberts & Cushman for Kraus and Mailey.

EWING, *Commissioner:*

This is an appeal by Kraus and Mailey from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention as to all the counts of the issue, twelve in number, to Conrad, the junior party.

Counts 1, 3, 5, and 12 are illustrative of the scope of the invention and read as follows:

1. A vapor converter comprising a conducting casing, and a vaporizable electrode within and insulated from the casing.

3. A vapor converter comprising a conducting casing, a vaporizable electrode within and insulated from the casing, a conductor projecting from one side of the casing into the vaporizable electrode at the opposite side thereof, and an insulating sheath for said conductor.

5. A vapor converter comprising a conducting casing, a vaporizable electrode within and insulated from the casing, a conductor projecting from one side of the casing into the vaporizable electrode at the opposite side thereof, and an insulator surrounding the conductor and separating it from the casing and also extending into the vaporizable electrode.

12. In a vapor electric apparatus, a closed metal container, anodes suspended therein, a mercury cathode and a cup to contain the latter composed of insulating material lodged in the bottom of the container.

The difficulty of reaching a conclusion on this record arises mainly out of the fact that the parties approached the problem of rectifier construction along different lines. Kraus and Mailey are experimenters and investigators. Conrad is a commercial engineer. The Westinghouse Company, which owns Conrad's application, is vitally interested in problems of manufacturing, which interested Kraus and Mailey only incidentally. I think it must be said that Conrad had to give careful consideration to certain matters which Kraus and Mailey could let pass unnoticed. For example, it was a normal step in Conrad's development to try out the cast-iron bowl because of the cheapness of such a container and the readiness with which it could be manufactured. To Kraus and Mailey, on the other hand, such a suggestion would probably not occur, and if it did it would be rejected as rather obviously likely to give an unsatisfactory result. It was also quite natural that Conrad should try a type of seal which would not appear to Kraus and Mailey as likely to prove satisfactory.

It follows from this difference of the parties, among other things, that Conrad might well require more time for development than Kraus and Mailey required, since he was dealing with the problem of producing a rectifier which could be manufactured commercially, and cheapness and simplicity of manufacture were with him matters of investigation as well as mere operativeness.

Nevertheless, a man in Conrad's position, who struggles against no adverse circumstances other than pressure of work and the inertia of a large institution and who delays coming to definite conclusions, takes a risk that an alert inventor may cut the ground out from under him. On full consideration I have concluded that that is what has happened.

The tribunals below have found unanimously that Conrad has no reduction to practice prior to the filing of his application. There is nothing in the record here presented which would justify a reversal of these findings of fact.

There has been no finding below as to whether Kraus and Mailey have a reduction to practice, nor is the determination of the question whether their rectifiers were reductions to practice essential to their case.

Kraus and Mailey worked in the fall of 1909 upon the construction of certain seals. In their note-book B, on page 6, there is a sketch dated January 11, 1909, which in a rough way indicates the issues. On their time-slips of February 15 and February 19 there are still more detailed sketches. With all of these it is fairly established that somewhere during the latter part of January or the first part of February, 1909, they had a complete conception of the invention here in issue.

The construction of Exhibit Units A—B followed, and these exhibits were tested in April and May. I think those tests clearly demonstrate that the construction which they had conceived and embodied in these units was workable. Whether such rectifiers would supplant, commercially, rotary converters is another question, and, as Mr. Green said, "Only time will tell this story." (Kraus and Mailey record, page 177.)

Having satisfied themselves that their construction was workable, the applicants in May, 1909, took up with their attorneys the drafting of an application, filed August 27, 1909, Serial No. 514,908, a certified copy of which is in evidence. Figure 1 of this application is substantially a cross-section of one of the units A—B, with unimportant differences, and in the specification the device is described in detail and is properly claimed.

At this date, August 27, 1909, Kraus and Mailey's rights became vested. The work which they did thereafter with units 1—2 and 3—4 verifies and emphasizes somewhat the results attained with units A—B, but is not relied upon as a basis for the conclusion reached herein.

In view of the completeness of Kraus and Mailey's experimentation and disclosure in their application Conrad must prove by convincing evidence not merely his earlier conception, but his diligence, in reducing to practice. (*Thayer* v. *Hart*, 20 Fed. Rep., 693, and *Hart* v. *Thayer*, 20 Fed. Rep., 696; *Brooks* v. *Sacks*, 81 Fed. Rep., 408; *Torrey* v. *Hancock*, 184 Fed. Rep., 61.)

Prior to Kraus and Mailey's date of conception Conrad had made drawings of a full-sized rectifier, such as he afterward built. Besides these drawings Conrad had made drawings from which Exhibit Small Rectifier was built and had constructed the small rectifier and had tested it in so far as it was tested at all. This had all been done by January, 1909, and at that time Conrad also determined to go ahead with the manufacture of one of the large rectifiers, and new drawings for this purpose were started.

The first of the large rectifier units was completed in September, 1909, the second in 1910, and the sheet-steel rectifier was completed later in 1910, about August. There can be no doubt that the small rectifier is substantially the same in construction as the large rectifier disclosed in the application, and this, taken with the drawings of the large rectifier, made before the small rectifier was built, demonstrates that his statement is correct that he adopted the plan of building a small rectifier because it was cheaper; but the seals which he adopted for the anodes and cathode, however they might work if applied on a scale of large commercial machinery, probably could not be made to seal satisfactorily and were not expected to seal satisfactorily in miniature. (Kraus and Mailey record, pages 84, 85.) This would seem to account for the fact that the small rectifier was not seriously tested.

The behavior of the cast-iron units, I think, unquestionably left Conrad still in doubt, and apparently he was not prepared to file his application until the sheet-steel rectifier had been produced and tested. Sheet metal is, in fact, the only material for the bowl mentioned in his specification, and this would naturally be taken to mean sheet-steel, especially in view of the specific mention of sheet-steel for the vanes of electrodes 30.

I do not think that it can be held that Conrad has not demonstrated the practicability of his seals, nor can it be held that the specification is an inadequate disclosure. Farnsworth has stated that the sheet-steel rectifier is illustrated in Figs. 3 and 4 of Conrad's application, and his report, dated December 6–23, 1910, (Conrad's Exhibit, Farnsworth's Summaries of Tests,) is entitled to consideration in spite of the fact that the rectifier itself was not produced, its non-production being explained by the statement that it embodies other inventions.

But the fact remains that Kraus and Mailey in about ten months from the date of their conception, according to their own claimed date, and in about six months from the date of conception which I have indicated above, had built, tried out, and filed an application upon their embodiment of the invention in issue, whereas for more than a year after this work on their part Conrad's prior conception was still in a state of uncertainty and experiment.

It is of course true that the diligence involved is not relative diligence, but actual diligence; but Conrad was dealing with a conception which could not be satisfactorily presented in a specification until the essential features had been physically embodied and tried out. Instead of making this his main object he first turned aside to build a mere working machine and then attempted to use a material which proved unsatisfactory and left the question of the operativeness of his construction unsettled.

On consideration of this case in all its different phases it seems to me that Conrad has failed to carry the burden resting upon him of establishing reasonable diligence in his reduction to practice following his prior conception. (*Courson* v. *O'Connor*, 181 O. G., 544; 38 App. D. C., 484.)

The decision of the Examiners-in-Chief is reversed, and priority is awarded to Kraus and Mailey, the senior party.

ADJUDICATED PATENTS.

(U. S. D. C.) The Goddard patent, No. 801,078, for a clamping device for lens-fronts for cameras, *Held* infringed by defendant's device manufactured under the Miller patent, No. 1,042,023, being a mere colorable alteration of complainant's device, using the same principles to achieve the same result. *Seneca Camera Mfg. Co.* v. *Gundlach-Manhattan Optical Co.*, 236 Fed. Rep., 141.

(U. S. C. C. A.) The Nielsen patent, No. 771,441, for a phonograph-horn, *Held* not anticipated by the Gersdorff patent, No. 453,798, for an improved funnel. *Columbia Graphophone Co.* v. *Searchlight Horn Co.*, 236 Fed. Rep., 135.

(U. S. D. C.) The Skinner patent, No. 962,723, for an auxiliary tool for use in connection with spades, *Held*, in view of prior art and common usage, to be invalid for want of invention and also not to be infringed. *United States Drainage Co.* v. *Manahan*, 236 Fed. Rep., 144.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 12, 1916.

Joseph P. McHugh, his heirs, successors, or assigns, take notice:

An interference having been declared by this Office between the application of Liberty & Co., Limited, Warwick and Regent streets, London, England, for registration of a trade-mark and trade-mark registered April 2, 1895, No. 26,341, to Joseph P. McHugh, 504 Fifth avenue, New York, N. Y., and the said Joseph P. McHugh being deceased, notice is hereby given that unless his heirs, successors, or assigns shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 24, 1916.

James Marshall, his heirs, successors, or assigns, take notice:

An interference having been declared by this Office between the application of Gimbel Brothers, of Twenty-third and Broadway, New York, N. Y., the application of Ariston Hat Mfg. Co., of Peekskill, N. Y., for registration of trade-marks, and two trade-marks registered June 5, 1894, Nos. 24,808 and 24,809, to James Marshall, foot of Shaw street, Fall River, Mass., and the said James Marshall being deceased, notice is hereby given that unless his heirs, successors, or assigns shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

THE

OFFICIAL GAZETTE

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CONTENTS.

	Page.
Issue of December 26, 1916	1111
Notice	1111
Notice—Assistant Examiner Examination	1111
Adverse Decisions in Interference	1111
Applications Under Examination	1112
Patents Granted	1113
Reissues	1365
Designs	1378
Trade-Marks—Registration Applied for	1391
Trade-Mark Registrations Granted	1399
Trade-Mark Registrations Renewed	1402
Labels	1401
Prints	1402
Commissioner's Decisions—	
Ex parte Vanderhoef and Johnson	1403
Decisions of the U. S. Courts—	
Gothen Manufacturing Company v. Hubert A. Myers Manufacturing Company and Hubert A. Myers	1404
Adjudicated Patents	1405
Foreign Patents, Taxes, Fees, Etc.—Great Britain	1406
Interference Notices	1408

ISSUE OF DECEMBER 26, 1916.

Patents	788	No. 1,209,651 to No. 1,210,388,	inclusive.
Designs	20	No. 50,088 to No. 50,116,	inclusive.
Trade-Marks	62	No. 114,613 to No. 114,674,	inclusive.
Labels	32	No. 10,791 to No. 10,822,	inclusive.
Prints	10	No. 4,849 to No. 4,858,	inclusive.
Reissues	3	No. 14,235 to No. 14,237,	inclusive.
Total	872		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	2	....	North Carolina	4	....
Arizona	....	....	North Dakota	2	....
Arkansas	3	....	Ohio	49	4
California	36	9	Oklahoma	11	....
Colorado	4	....	Oregon	8	....
Connecticut	18	5	Pennsylvania	65	4
Delaware	1	1	Rhode Island	7	1
Florida	3	1	South Carolina	2	2
Georgia	2	....	South Dakota	1	....
Idaho	3	....	Tennessee	2	2
Illinois	95	13	Texas	10	1
Indiana	13	....	Utah	1	....
Iowa	17	....	Vermont	1	....
Kansas	7	....	Virginia	2	....
Kentucky	1	....	Washington	12	2
Louisiana	5	2	West Virginia	6	....
Maine	2	....	Wisconsin	26	....
Maryland	4	....	Wyoming	....	....
Massachusetts	41	10	Alaska, District of	....	....
Michigan	20	....	Canal Zone	1	....
Minnesota	15	2	District of Columbia	12	....
Mississippi	3	1	Hawaii Territory	1	....
Missouri	28	2	Philippine Islands	....	....
Montana	5	....	Porto Rico	....	....
Nebraska	7	....	U. S. Army	1	....
Nevada	3	....	U. S. Navy	....	....
New Hampshire	2	....	Total to residents of the United States	705	100
New Jersey	27	5			
New Mexico	5	....			
New York	109	33			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	....	Natal	....	....
Austria-Hungary	1	1	Netherlands	....	....
Belgium	2	....	New South Wales	1	....
British India	....	....	New Zealand	....	....
British West Indies	....	....	Norway	4	....
Canada	14	....	Queensland	....	....
Cape Colony	....	....	Roumania	....	....
Chile	....	....	Russia	....	....
Costa Rica	....	....	Scotland	1	....
Cuba	....	....	South Australia	....	....
Denmark	1	....	Spain	....	....
England	14	1	Sweden	1	....
Finland	....	....	Switzerland	1	....
France	5	....	Transvaal, South Africa	1	....
Germany	8	....	Tunis	....	....
Guatemala	....	....	Victoria	1	....
India	....	....	Wales	4	....
Iceland	....	....	Total to residents of foreign countries	62	2
Italy	2	....			
Japan	....	....			
Mexico	....	....			

Notice.

Department of the Interior,
United States Patent Office,
Washington, D. C., December 26, 1916.

Patent No. 1,209,920, to John W. Young, assignor of one-half to Charles N. Morgan, of Albany, New York, for Toys, on application Serial No. 70,267, filed January 4, 1916, has been issued this day. It was not possible to include this patent in the regular order.

THOMAS EWING,
Commissioner of Patents.

Notice—Assistant Examiner Examination.

The Civil Service Commission has announced an open competitive examination for Assistant Examiner in the Patent Office on January 17, 18, and 19, 1917. Qualified persons are urged to enter this examination.

Application blanks and information as to where the examination will be held may be obtained from the Civil Service Commission, Washington, D. C.

Adverse Decisions in Interference.

PATENT No. 1,191,029.

On November 21, 1916, a decision was rendered that James P. Norwood was not the first inventor of the subject-matter covered by claims substantially the same as and not patentably different from claims 2, 3, 4, 6, 23, and 24 of his Patent No. 1,191,029, subject, "Bread wrapping, labeling, and sealing machine," and no appeal having been taken within the time allowed such decision has become final.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 22, 1916.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Seeders and Planters; Trees, Plants, and Flowers.	Oct. 9	Oct. 16	264
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 23	Oct. 26	646
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Dec. 7	Dec. 8	76
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Devices; Railway Mail Delivery; Store-Service; Traversing Hoists.	Oct. 18	Nov. 24	205
167	5. Bookbinding; Harvesters; Jewelry; Music	Aug. 10	Oct. 21	294
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Aug. 24	Nov. 10	227
312	7. Educational Appliances; Cinches; Games and Toys; Motors; Optics; Velocipedes	Aug. 3	Oct. 3	434
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 2	Sept. 14	1260
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps	June 10	Nov. 7	542
235	10. Carriages and Wagons; Spring Devices	July 5	Nov. 20	795
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 9	Dec. 7	84
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements	Aug. 11	Dec. 15	562
279	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 18	Nov. 28	475
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Aug. 4	Nov. 29	266
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 28	Dec. 8	212
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	June 17	Oct. 10	560
303	17. Matrix-Making; Ornamentation; Paper Manufactures; Printing; Type-Bar Making	Oct. 10	Dec. 7	140
327	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 31	Nov. 22	157
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Aug. 1	Sept. 5	434
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Dec. 1	Dec. 5	169
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Sept. 19	Nov. 9	297
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	July 31	Nov. 14	476
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 29	July 25	410
144	24. Apparel; Apparel Apparatus; Sewing-Machines	May 25	Oct. 14	260
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Oct. 28	Oct. 31	157
106	26. Electricity, Generation; Motive Power	Apr. 4	Sept. 13	654
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Nov. 20	Nov. 28	228
65	28. Internal-Combustion Engines	July 10	Sept. 12	576
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	July 13	Oct. 21	338
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Oct. 12	Dec. 6	277
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gins; Sugar and Salt.	July 28	Oct. 17	309
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	June 1	Nov. 15	570
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Sept. 7	Nov. 3	354
04	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	June 1	Oct. 28	300
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet	May 2	Dec. 5	600
64	36. Driers; Geometrical Instruments; Measuring Instruments; Photography	Aug. 12	Nov. 24	705
07	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	May 15	Nov. 7	603
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Dec. 1	Dec. 1	135
221	39. Water Distribution	June 7	Nov. 10	274
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Aug. 25	Nov. 15	543
125	41. Railway Draft Appliances; Resilient Tires and Wheels	Aug. 14	Nov. 6	300
244	42. Electricity, Conductors; Railway Signaling; Signals; Electricity-Transmission to Vehicles	May 26	Nov. 1	340
362	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 31	Nov. 20	166

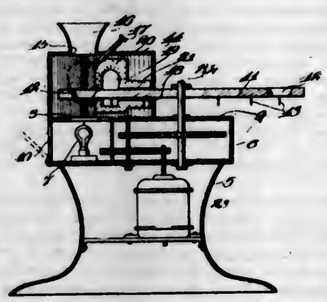
Oldest new case, Apr. 4; oldest amended, Sept. 5.
Total number of applications awaiting action 17,903

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Nov. 11	Dec. 8	725
	Designs	Nov. 6	Nov. 28	400
	Labels and Prints	Nov. 25	Nov. 27	105

PATENTS

GRANTED DECEMBER 26, 1916.

1,209,651. EGG-TESTER. GEORGE ADELMO and JOHN MIGNONE, Springvalley, Ill. Filed Aug. 28, 1916. Serial No. 117,216. (Cl. 99—6.)



1. An egg-tester comprising an inclosure having a sight opening and a source of light, a rotatable egg-carrier positioned to carry the eggs through the inclosure between the sight opening and the source of light, the inclosure having openings through which the carrier and the eggs pass into and out of the inclosure, and light shields around said openings.

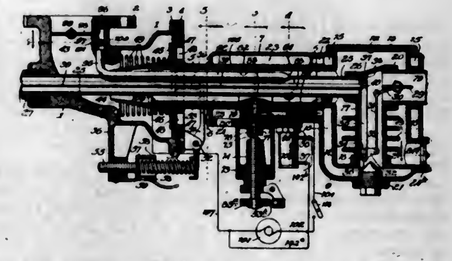
2. An egg-tester comprising an inclosure having a sight opening and a source of light, a rotatable egg-carrier positioned to carry the eggs through the inclosure between the sight opening and the source of light, a motor for driving the carrier, motor-controlling means, and a brake for the carrier.

3. An egg-tester comprising an inclosure having a sight opening and a source of light, a rotatable egg-carrier positioned to carry the eggs through the inclosure between the sight opening and the source of light, a motor for driving the carrier, a brake for the carrier, and means carried by the brake for controlling the motor.

1,209,652. CARBURETER. GUSTAV A. F. AHLBERG, Pittsburgh, Pa. Filed Mar. 6, 1914. Serial No. 822,875. (Cl. 261—12.)

1. A carbureter having a carbureting chamber, a mixing chamber, said mixing chamber having an outlet adapted to lead to a motor, a separate conduit leading to a discharge port in immediate communication with said outlet, a primary fuel jet leading to said conduit, means for admitting air to said conduit and carbureting chamber, a main fuel jet in communication with said carbureting chamber, a source of liquid fuel supply in communication with each of said jets, an electric heating coil in a normally open circuit for heating said conduit and a valve located in the outlet of said mixing chamber, said valve being disposed, when slightly opened, to cause a suction to be maintained through said conduit while substantially closing the outlet from said mixing chamber, and when further opened to permit the suction to act upon the mixing chamber, whereby a heated mixture is first drawn through said conduit to start the motor and then through said chambers to continue its operation.

2. A carbureter having in combination therewith a starting device comprising a fuel reservoir, a fuel jet in communication with said reservoir, a conduit leading from the outlet of said jet to a mixture discharge port, said jet being arranged to discharge into the open end of said conduit, means for admitting air around said jet into said open end, a throttle valve located at the outlet of said carbureter, adapted when partially open to subject said discharge port to the suction of a motor while substantially closing the main discharge opening from said carbureter, a source of electricity, an electric heating coil for heating the contents of said fuel reservoir, and means for closing an electric circuit therewith.



3. A carbureter having a carbureting chamber therein for the reception of liquid fuel and air, an air inlet leading thereto, a discharge outlet leading therefrom, a source of liquid fuel supply, a main jet leading therefrom to said chamber, an intervening passage leading from the body of said jet between the inlet and discharge openings thereof to a starting jet, a starting jet, an open-mouthed tube leading therefrom to a port opening into the discharge outlet of said carbureting chamber, to convey commingled fuel and air thereto, a throttle valve in said discharge outlet adapted when in a predetermined partially open position to expose said discharge port to the suction of a motor while substantially closing the outlet from said carbureting chamber, and when in a more open position, to permit a full suction from said discharge outlet, a source of electricity, electrical heating means for heating said fuel and tube, and means for opening and closing said circuit whereby when said circuit is closed and said throttle partially opened, an explosive mixture may be drawn through said starting jet and tube to start a motor and when further opened, the suction may be through said main jet and carbureting chamber.

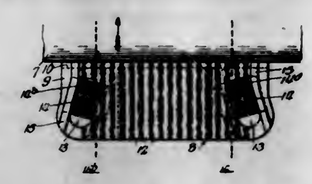
4. A carbureter having an air inlet and a discharge outlet in combination with intervening alternative carbureting passages one of which is inclosed within the other, with a space between them, a source of liquid fuel supply, two fuel jets in communication therewith, one being arranged to discharge into one and the other into the other of said passages, a source of electrical energy, an electrical heating coil arranged to form a lining for the larger of said carbureting passages whereby both may be heated and means located in the discharge outlet of the carbureter for shifting the motor suction from one to the other of said passages.

5. A carbureter having an air inlet and a discharge outlet, intervening alternative main and auxiliary carbureting passages in communication therewith, a source of

liquid fuel supply, a main fuel jet in communication therewith and with said main carbureting passage, a valve for controlling the same, a continuously open starting jet in open communication with said auxiliary carbureting passage, said starting jet having a branch fuel passage leading thereto from a point in the fuel supply conduit connected with said main jet in advance of said controlling valve, an emergency fuel reservoir in communication with said branch passage, and a valve located in said discharge outlet for shifting the motor suction from one of said carbureting passages to another, whereby when said suction causes a fuel discharge from said starting-jet, fuel may be drawn in said emergency reservoir, as well as to said starting jet and when said discharge outlet valve is reversed, fuel may be drawn from said emergency reservoir through said branch to said main jet to supplement the latter and meet excessive fuel demands.

[Claims 6 to 8 not printed in the Gazette.]

1,209,653. RAIL-ANCHOR. TOBIAS H. ALFREDS, Chicago, Ill. Filed Jan. 19, 1914. Serial No. 812,883. (Cl. 238—4.)



1. A rail anchor comprising a tie abutting member and a rail base engaging member, means carried by said rail base engaging member providing a rolling pinching action on the lateral upper edges of said rail base and a rolling gripping action on the lateral edges of said rail base, said means being capable of bodily movement toward said tie abutting member.

2. A device of the kind described, comprising a tie abutting member and a rail base engaging member, said rail base engaging member being provided with oppositely inclined slots, rolling gripping members vertically arranged in said slots and adapted to engage the lateral edges of said rail, means carried by said rolling gripping members engaging the lateral upper edges of said rail base, said means serving to draw the rail base engaging member in closer contact with said rail when said rolling gripping members are actuate.

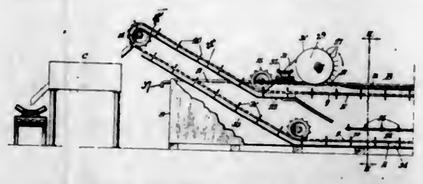
3. A device of the kind described comprising a tie abutting and a rail base engaging member provided with inwardly inclined slots, rolling gripping members interposed in said slots between the lateral edges of the rail base and one wall of said slots, and means provided on the upper surface of said plate for preventing shearing of said rolling bearing member.

4. A device of the kind described comprising a tie abutting and a rail base engaging member, provided with inwardly inclined slots, rolling gripping members interposed in said slots between the lateral edges of the rail base and one wall of said slots, and means provided on the upper surface of said plate for preventing shearing of said rolling bearing member, said means comprising a shoulder extending parallel with said slot and one wall of said shoulder being in the same vertical plane as that of one wall of said slot.

5. A rail anchor comprising a rail engaging member, means carried by said member providing a rolling gripping action on said rail, a tie abutting member made integral with said rail base engaging member and extending at a right angle thereto, said rail engaging member being provided with a plurality of contact surfaces, said contact surfaces being formed by corrugating the upper surface of said rail engaging member.

[Claims 6 to 16 not printed in the Gazette.]

1,209,654. APPARATUS FOR SEPARATING GARBAGE. JAMES A. ANDERSON, Barren Island, N. Y. Filed Jan. 29, 1916. Serial No. 74,974. (Cl. 83—85.)



1. An apparatus for separating garbage comprising a water tank, an endless open horizontally movable conveyer arranged therein, and a water jet arranged in said tank near the intake end thereof and below the water level and directing a jet of water upwardly into the garbage to disintegrate the same and separate the heavier materials from the lighter portions of the garbage.

2. An apparatus for separating garbage comprising a water tank, an endless open horizontally movable conveyer arranged therein, and a horizontal submerging plate in the tank to hold the conveyer and the garbage below the water level for a portion of its travel through the tank.

3. An apparatus for separating garbage comprising a water tank, a conveyer arranged therein, a perforated submerging plate in said tank adapted to hold the conveyer and the garbage below the water level, and a series of air jets below the water level and directing air upwardly to the conveyer through the perforated submerging plate.

4. An apparatus for separating garbage comprising a water tank, a conveyer arranged therein, a submerging plate in said tank adapted to hold the conveyer and the garbage below the water level, and a series of air jets below the water level and directing air upwardly to the submerging plate.

5. An apparatus for separating garbage comprising a water tank, an open horizontally movable endless conveyer therein with its upper run near the water level and its lower run at the bottom of the tank, a horisontal submerging plate near the water level and serving to submerge the upper run of the conveyer and the garbage, means for maintaining the lighter portions of the garbage near the surface of the water and against the under side of the submerging plate, whereby the said lighter portions will be carried through the tank by the upper run of the conveyer and the heavier portions will be conveyed out of the tank by the lower run thereof.

[Claims 6 to 12 not printed in the Gazette.]

1,209,655. LAMP-SOCKET. WILLIAM F. ANKLAM, Detroit, Mich., assignor to C. M. Hall Lamp Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 31, 1914. Serial No. 859,433. (Cl. 173—328.)



1. A lamp socket, comprising a sheet metal blank struck out to form a plurality of slots therein and bent into cylindrical form, the abutting edge of said blank being bent outward to form a locking flange.

2. A lamp socket, comprising a sheet metal blank struck out to form a plurality of slots at one end, and a notched projection at one side, said blank being bent into cylindrical form, and said projection being bent to form an outwardly-extending locking flange.

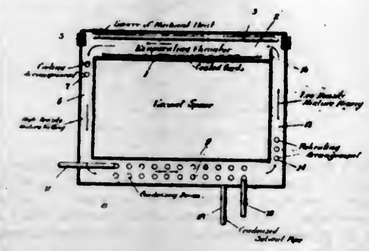
1,209,656. SANITARY COMMODE-PROTECTOR. SADIE F. BAILEY, North Warren, Pa. Filed Aug. 25, 1914. Serial No. 858,458. (Cl. 4—18.)

1. As an article of manufacture, a protective covering for a commode seat comprising a ring formed of rubber and adapted to seat on the horizontal outer peripheral portion of the top of a commode seat and a downwardly inclined web formed integrally therewith at its inner periphery and of lesser thickness than the ring and provided with an opening coincident with the inner periphery of the seat.



2. A commode protector comprising an integral rubber ring having a relatively flexible inner portion and a relatively stiff outer portion.

1,209,657. APPARATUS FOR RECOVERING SOLVENTS. THEODORE BAKER, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Oct. 7, 1912. Serial No. 724,309. (Cl. 34—8.)



1. In a device of the character described, means for heating a traveling web, an evaporating chamber inclosing the web and heater, and means located below the evaporating chamber for circulating a current of a gas through the same by convection, comprising a passageway of restricted cross-sectional area located below the evaporating chamber and connected by its two ends to the chamber at its opposite sides, and a condenser located in the lowest available part of said passageway.

2. In a device oft he character described, an evaporating chamber, means for circulating a current of a gas through the same by convection, comprising a passageway of restricted cross-sectional area located below the evaporating chamber and connected by its two ends to the chamber at its opposite sides, a preliminary cooler located in the passageway at the outlet from and below the evaporating chamber, and a condenser located in the lowest available part of the passageway.

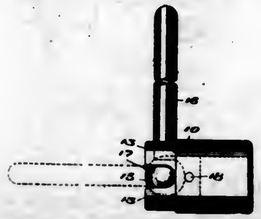
3. In a device of the character described, means for heating a traveling web, an evaporating chamber inclosing the web and heater, and means for circulating a current of a gas through the same by convection, comprising a passageway of restricted cross-sectional area, located below the evaporating chamber and connected by its two ends to the chamber at its opposite sides, a preliminary cooler located in the passageway at the outlet from and below the evaporating chamber, and a condenser located in the lowest available part of the passageway.

4. In a device of the character described, an evaporating chamber and means for circulating a current of a gas through the same by convection, comprising a passageway of restricted cross-sectional area located below the evaporating chamber and connected by its two ends to the chamber at its opposite sides, a preliminary cooler located in the passageway at the outlet from and below the evaporating chamber, a preliminary heater located in the passageway in advance of the evaporating chamber, and a condenser located in the lowest available part of the passageway.

5. In a device of the character described, means for heating a traveling web, an evaporating chamber inclosing the web and heater, and means for circulating a current of a gas through the same by convection, comprising a passageway of restricted cross-sectional area located below the evaporating chamber and connected by its two ends to the chamber at its opposite sides, a preliminary cooler located in the passageway at the outlet from and below the evaporating chamber, a preliminary heater located in the passageway in advance of the evaporating chamber, and a condenser located in the lowest available part of the passageway.

[Claim 6 not printed in the Gazette.]

1,209,658. TOOL. OREN F. BALTELSY, Hagerstown, Md. Filed Feb. 18, 1916. Serial No. 79,085. (Cl. 81—177.)



1. In combination, an operating member and a rotatable member, one of said members having an enlarged portion, and the other of said members having a socket receiving said enlarged portion, one of said members also having a plurality of notches any one of which is adapted to receive the other member when the members are in position for turning the rotatable member.

2. In combination, an operating member and a rotatable member, one of said members having an enlarged portion, and the other of said members having a socket receiving said enlarged portion, the member having said socket also having a plurality of notches any one of which is adapted to receive the other member when the members are in position for turning the rotatable member.

3. In combination, an operating member and a rotatable member, one of said members having an enlarged portion, and the other of said members having a socket for receiving said enlarged portion, said member having said socket also having projections thereabout against any one of which said member having said enlarged portion is adapted to engage to permit turning of the rotatable member.

4. In combination, a handle having an enlarged end, and a rotatable member having a socket receiving said enlarged end, said rotatable member also having a plurality of notches in any one of which said handle is adapted to engage to permit turning of said rotatable member.

5. In combination, a handle having an enlarged end, and a rotatable member having a socket for receiving said enlarged end, and projections about said socket against any one of which the handle is adapted to engage to permit turning of said rotatable member.

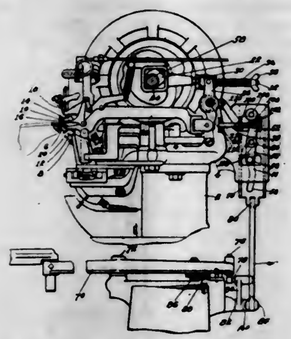
[Claims 6 to 12 not printed in the Gazette.]

1,209,659. LASTING AND SEWING MACHINE. ARTHUR BATES and JOSEPH GOULDBOURN, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 27, 1914. Serial No. 827,595. (Cl. 12—6.)

1. In a step-by-step type of lasting machine, the combination of pincers and operating mechanism for causing the pincers to seize and pull an upper, means for shortening the pulling stroke of the pincers, additional means for rendering the pincer movements ineffective, a single controller for said two means, and a lost motion connection between the controller and the second means to delay the operation of the latter while the first-mentioned means is operated.

2. In a step-by-step type of lasting machine, the combination of pincers and operating mechanism for causing the pincers to seize and pull an upper, of adjusting means

for changing the pulling stroke of the pincers first by progressively shortening the stroke and thereafter by transferring both extremes of the stroke farther from the work.



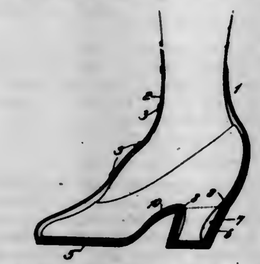
3. In a step-by-step type of lasting machine, the combination with pincers and operating mechanism for causing the pincers to seize and pull an upper, of adjusting means for changing the pulling stroke of the pincers first by locating the point of termination closer to the work and later by locating the point of beginning more remote from the work.

4. In a step-by-step type of lasting machine, the combination of pincers and operating mechanism for causing the pincers to seize an upper and move in a plane substantially parallel with the plane of the shoe bottom to pull the upper, said mechanism including a lever and an actuator therefor, and means for shifting the fulcrum of the lever to withdraw the pincers along said plane from position to seize the upper.

5. In a step-by-step type of lasting machine, the combination with pincers and operating mechanism for causing the pincers to seize and pull an upper, of means for regulating the length of the pulling movement, means for changing the fulcrum of the pincers, and connected devices for imparting to said two means successively their operative movements.

[Claims 6 to 24 not printed in the Gazette.]

1,209,660. SHOE. LEOPOLD A. BAUM, Newark, N. J. Filed Mar. 28, 1916. Serial No. 87,148. (Cl. 36—72.)



1. An over-shoe comprising a body portion open down the front, closure flaps therefor, a rigid sole, a rigid hollow heel adapted to receive a slipper heel, and elastic cushion material in the shoe at the heel portion thereof.

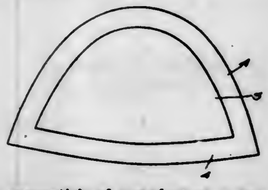
2. A shoe comprising a body part open down the front and provided with closure flaps, a rigid sole, a hollow rigid heel, adapted to receive a slipper heel, a metal socket in said heel, laterally extending flanges on the upper end of said socket, and means for securing said flanges in the shoe structure.

3. A shoe comprising a body part, a rigid sole, a rigid hollow heel adapted to receive a slipper heel, a cushion at the back of the shoe and serving to support the rear portion of a slipper, and a cushion adapted to support a slipper under the arch thereof.

4. A shoe comprising a body part, a rigid sole, a hollow rigid metal heel socket adapted to receive a slipper heel, a rigid casing inclosing said metal socket, means for securing the metal socket to the shoe, and elastic cushion material in the shoe at the heel portion thereof above the heel socket.

5. A shoe comprising a body part, a rigid sole, a hollow rigid metal heel socket adapted to receive a slipper heel, laterally extending flanges at the upper end of said metal heel socket, and means for securing said flanges in the shoe structure.

1,209,661. SHOE-STIFFENER. HARRY H. BECKWITH, Brookline, Mass. Filed July 28, 1915. Serial No. 42,330. (Cl. 36—77.)



1. As a new article of manufacture, a shoe stiffener, consisting of a skived blank of fibrous material containing a stiffening compound adapted to be softened by moderate heat, said blank including its skived portion being compacted by pressure applied subsequently to the skiving of the blank.

2. As a new article of manufacture, a shoe stiffener consisting of a skived-edge blank formed of fibrous material impregnated with a stiffening compound adapted to be softened by moderate heat, said blank having on its body and skived portions an additional coating of stiffening material adapted to be softened by heat.

3. As a new article of manufacture, a shoe stiffener, consisting of a skived edge blank of fibrous material containing a stiffening compound adapted to be softened by moderate heat, said blank including its skived edge being compacted and having a surface coating of stiffening material additional to said stiffening compound adapted to be softened by heat.

4. The herein described process which consists in impregnating a fibrous body with a stiffening compound adapted to be softened by moderate heat, cutting a shoe stiffener blank from said body, and then compacting such blank under conditions of heat and pressure.

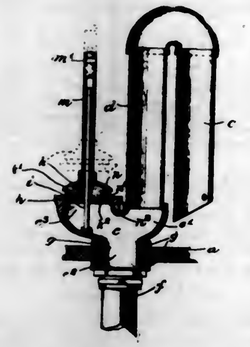
5. The herein described process which consists in skiving a shoe stiffener blank of fibrous material saturated with a stiffening compound adapted to be softened under moderate heat, and then subjecting the skived blank to heat and pressure to compact the same.

[Claim 6 not printed in the Gazette.]

1,209,662. VALVE FOR FLUSH-TANKS. MARTIN BEHREE, Queens, N. Y. Filed Mar. 15, 1912. Serial No. 683,964. (Cl. 4—5.)

1. A valve for flush tanks, embodying therein a siphon tube, a flush pipe normally in communication therewith, a siphon jet lead discharging into said flush pipe below said siphon tube and across the outlet thereof, said lead having a seat about the inlet thereof, the space above said siphon jet lead and about said seat being entirely unobstructed, an elongated guide rod secured at the bottom of and projecting axially of said siphon jet lead, a weighted valve block slidably mounted upon said guide rod, an elongated stem carried by said block and inclosing said rod, and means in conjunction with said stem for raising said valve block.

2. A valve for flush tanks embodying therein a siphon tube, a flush pipe normally in communication therewith, a siphon jet lead discharging into said flush pipe below said siphon tube and across the outlet thereof, said lead having a seat about the inlet thereof, the space above said siphon jet lead and about said seat being entirely unobstructed, an elongated guide rod secured at the bottom of and projecting axially of said siphon jet lead, a weighted valve block slidably mounted upon said guide rod, a detachable packing ring carried by said block and adapted to engage the seat about said siphon jet lead, an elongated stem carried by said block and inclosing said rod, and means in conjunction with said stem for raising said valve block.



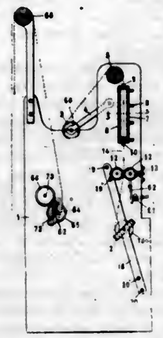
3. A valve for flush tanks, embodying therein a siphon tube, a three-way fitting, one lead of which is in communication with said tube, a flush pipe in communication with another lead of said fitting, an elongated guide rod secured at the bottom of and projecting axially of the third lead of said fitting, the inlet of said lead being unobstructed above and about the edge thereof, a weighted valve block slidably mounted upon said guide rod, an elongated stem carried by said block and inclosing said rod, and means in conjunction with said stem for raising said valve block, whereby water may be admitted to said fitting in a manner to cause it to flow across the lead thereof communicating with said siphon tube and to discharge into said lead in communication with said flush pipe.

4. A valve for flush tanks embodying therein a siphon tube, a flush pipe normally in communication therewith, a siphon jet lead discharging into said flush pipe below said siphon tube and across the outlet thereof, said lead having a seat formed about the inlet thereof, the space above said siphon jet lead and about said seat being entirely unobstructed, an elongated guide rod secured at the bottom of and projecting axially of said siphon lead, a weighted valve block slidably mounted upon said guide rod, said block having a channel in the sides thereof forming oppositely disposed shoulders, and a detachable annular packing seated in said channel, and having an overhung rim, an elongated stem carried by said block and having a loose sliding fit with said rod whereby slight movement of said block is afforded to permit said packing to automatically seat itself, and means in conjunction with said stem for raising said block.

1,209,663. CLOTH STEAMING AND PRESSING MACHINE. BARNEY BENNETT, New York, N. Y. Filed Feb. 10, 1913. Serial No. 747,284. (Cl. 26—7.)

1. In a machine of the character described, the combination of a guide, a vertically disposed steam chest below the guide and arranged for passage of the cloth therethrough, pressing rolls below the steam chest arranged to maintain the cloth substantially vertical in its passage from the guide, through the steam chest to the pressing rolls, and a winding device below the pressing rolls.

2. In a machine of the character described, the combination of a guide roller, a vertically disposed steam chest arranged below the same, heated pressing rolls disposed below the steam chest and a winding device below the pressing rolls whereby the material is maintained substantially vertical from the guide roller through the steam chamber, between the pressing rolls and to the winding device.

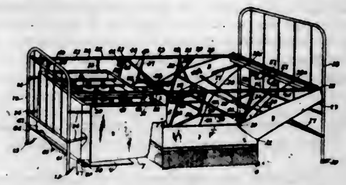


3. In a machine of the character described, a steam chamber, steam supplying devices leading to the front and back of said steam chamber at both ends and means for pressing the steamed material.

4. In a machine of the character described, the combination of a steam chest arranged for passage of the cloth therethrough, independently controlled steam supplying devices at the front and back of the steam chest and at both ends thereof whereby to treat the cloth on one or both faces and from one or both side edges thereof and means for advancing the cloth through the steam chest.

5. In a machine of the character described, the combination of means for guiding a web of material in a substantially vertical plane and a vertically disposed steam chest arranged for passage of the web of material therethrough, said steam chest having a part hinged along one edge on a vertical axis so that it may be swung to one side when positioning the web of material within the steam chest.

1,209,664. INTERCHANGEABLE FURNITURE. FRANK BLANDO, New York, N. Y. Filed Feb. 28, 1916. Serial No. 80,932. (Cl. 5—48.)



1. In a folding sofa bed, the combination, with a base member, of a top member hinged to the front edge of the base member and adapted to swing through an arc of substantially 180 degrees to form a front extension for the bed, a back member hinged to the rear edge portion of the base member and adapted to swing rearwardly to an inclined position when the device is arranged as a bed, a continuous bed-spring frame made in sections which are made independent of the base, top and back members but carried thereby, means for supporting the top and back members in position to support the bed-spring frame, and means for automatically folding the bed-spring frame, the supports and the back member when the top member is folded into position to form a sofa.

2. In a folding sofa bed, the combination, with a base member, of a top member constituting the upholstered portion of the sofa and hinged to the front edge portion of the base member, a back member hinged to the rear

edge portion of the base member, a continuous bed-spring frame made in sections independent of but carried by the base, top and back members, and adapted to be folded with said members when brought into position to form a sofa, supports for the top and back members when in position to form a bed, and means for automatically unfolding the bed-spring frame or extending it into horizontal position as the top member is swung forwardly through an arc of substantially 180 degrees.

3. In a folding sofa bed, the combination, with a base member, of a top member hinged to the front edge portion of the base member, a foot piece similar to that of an ordinary bed carried by the top member, a back member hinged to the rear edge portion of the base member, a head piece similar to that of an ordinary bed carried by the back member, a continuous bed-spring frame made in sections independent of but carried by the base, top and back members and adapted to be folded with said members into position to form a sofa, and means for automatically folding the bed-spring frame, the back member and the head and foot pieces when the top member is folded into position to form a sofa.

4. In a folding sofa bed, the combination, with a base member, of a top member hinged to the front edge portion of the base member, a back member hinged to the rear edge portion of the base member, supports for the top and back members when in position to form a bed, a continuous bed-spring frame made in sections independent of but carried by the base, top and back members and adapted to be folded with them when brought into position to form a sofa, and means for automatically unfolding the bed-spring frame or extending it into horizontal position when the top section is swung forwardly to an inverted position.

5. In a folding sofa bed, the combination, with a base member, of a top member hinged to the front edge portion of the base member, a back member hinged to the rear edge portion of the base member, supports for the top and back members when in position to form a bed, a continuous bed-spring frame made in sections independent of but carried by the base, top and back members and adapted to be folded with said sections when brought into position to form a sofa, the connecting means between the end portions of the bed-spring frame and the top member and back member, respectively, also serving to support said end portions of the bed-spring frame in horizontal position when the device is arranged as a bed, a folding supporting frame for the middle portion of the bed-spring frame resting upon the base member, means for automatically folding said supporting frame as the device is converted from a bed into a sofa, and means for automatically unfolding the bed-spring frame and extending it into horizontal position as the top member is swung forwardly to inverted position.

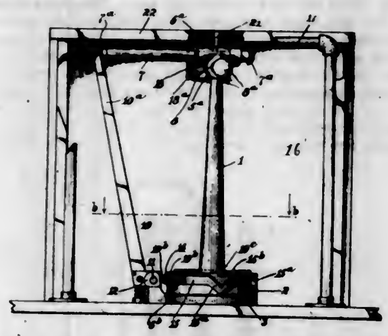
[Claims 6 to 17 not printed in the Gazette.]

1,209,665. TURNSTILE. FRED E. BRIGHT, Philadelphia, Pa. Filed Apr. 6, 1912. Serial No. 688,820. (Cl 39—3.)

1. In a turnstile, the combination of a rotary support, barrier arms carried by the support and movable endwise relatively to the same, and a non-rotatable movable lever, actuated positively by the rotary support and disconnected from the barrier arms, said lever adapted in its movements to engage the barrier arms in succession and shift the same endwise.

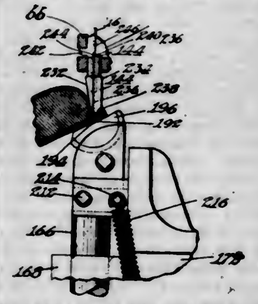
2. In a turnstile, the combination of a rotary support, barrier arms carried by the support and movable endwise relatively to the same, and a non-rotatable movable member operated automatically and positively by the movable support, and disconnected from the barrier arms, said member acting when operated, to successively engage the barrier arms and move the same endwise.

3. In a turnstile, the combination of a rotary support provided with a cam, barrier arms carried by said support and movable bodily therewith, said arms being movable also endwise relatively to said support, and a movable member operated by the cam and adapted to engage and move the arms endwise.



4. In a turnstile, the combination of an upright rotary support provided with a cam track, barrier arms carried by and movable with said support and movable also relatively to the same, and a swinging lever for moving said arms in relation to the support, the said lever being operated by the cam track in the rotation of the support.

1,209,666. LASTING-MACHINE. LOUIS M. BROWN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 8, 1915. Serial No. 20,008. (Cl. 12—2.)



1. A lasting machine comprising staple forming and inserting mechanism including a staple forming member having a staple guide together with a lasting tool having a staple guiding nozzle, said forming member and said lasting tool being constructed and arranged to cause the guide of the forming member and the nozzle of the lasting tool to constitute a staple passage having continuous uninterruped walls while a staple is being driven.

2. A lasting machine comprising staple forming and inserting mechanism including a staple forming member having a staple guide, together with a lasting tool having a staple guiding nozzle, said forming member and said lasting tool having overlapping terminal portions constructed and arranged to cause the guide of the forming member and the nozzle of the lasting tool to constitute a continuous uninterrupted staple passage.

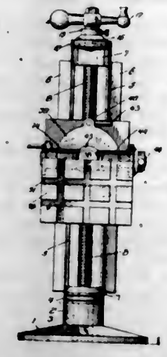
3. A lasting machine comprising staple forming and inserting mechanism including a staple forming member having a staple guide together with a lasting tool having a staple guiding nozzle, said forming member having a cutaway terminal part and said tool having a complementary projection or lip constructed and arranged relatively to the cutaway part of the forming member to aline the nozzle of the lasting tool and the guide of the forming member end to end, whereby a continuous uninterrupted staple passage is formed.

4. A machine for lasting stitch-down shoes comprising staple forming and inserting mechanism, a lasting tool having a staple guiding nozzle and an upper clamping end constructed and shaped to hold the upper down and press it substantially across the entire margin of the sole, and a work support having a sole engaging face substantially parallel to the end of said lasting tool.

5. In a machine of the class described, a lasting tool formed to force the upper into the angle between the last and the sole margin, said lasting tool having a shoe upper engaging end constructed and shaped to hold the upper down and press it positively upon the margin of the sole.

[Claims 6 to 13 not printed in the Gazette.]

1,209,667. WORK-HOLDER. JOSEPH F. BUHR, Detroit, Mich., assignor to American Pattern Works, Detroit, Mich., a Corporation of Michigan. Filed Mar. 12, 1914. Serial No. 824,333. (Cl. 90—58.)

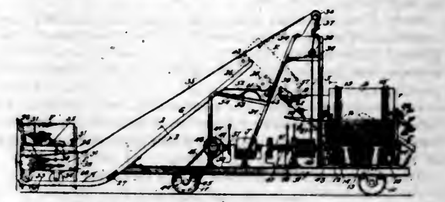


1. A work holder comprising a pedestal, a column supported thereby, a slidable block on said column, means in said column operable in the upper end thereof and adapted for moving said block longitudinally of said column, a scale in the rear face of said column and adjustable longitudinally thereof, an indicating finger on said block and engaging said scale, a revoluble vertically disposed bearing plate on the front of said block, bosses on said bearing plate, a trunnion work holding plate supported by said bosses and means carried by said work holding plate adapted to hold said plate in adjusted position relative to said bearing plate.

2. A work holder comprising a pedestal, a revoluble column supported thereby, a feed screw throughout the length of said column and operable from the upper end thereof, a slidable block on said column and having a nut engagement with said feed screw, a scale in the rear face of said column, and adjustable longitudinally thereof, an indicating finger on said block and engaging said scale, a revoluble vertically disposed bearing plate on the front of said block, means carried by said bearing plate engaging said block and adapted to lock said bearing plate relative to said block, bosses on said bearing plate, a trunnion work holding plate supported by said bosses, and means carried by said work holding plate adapted to hold said plate in adjusted position relative to said bearing plate.

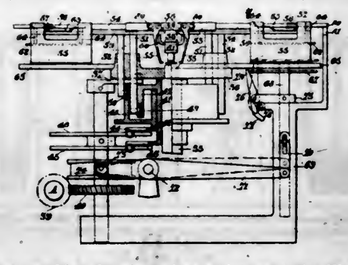
1,209,668. CONCRETE-MIXING APPARATUS. HORACE M. CAPRON, Winnetka, Ill., assignor to The Marsh Capron Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 28, 1910. Serial No. 546,356. (Cl. 214—8.)

In concrete mixing apparatus, the combination with a main truck, of a receptacle on said truck, a supplementary truck, a bin on the latter truck, said trucks being removably secured together, tracks on said trucks which aline, a carrier adapted to be moved back and forth on said tracks and to be charged from the bin and to discharge



into said receptacle, the tracks on the two trucks being pivoted together, and means for adjusting the level of the track on the supplementary truck.

1,209,669. MACHINE FOR WRAPPING TABLETS. MARIUS CHAMBON, Paris, France. Filed Apr. 27, 1915. Serial No. 24,370. (Cl. 93—7.)



1. In a machine for wrapping tablets and the like, the combination of an intermittently rotated transporter comprising arms having tablet receiving recesses over which recesses wrappers are placed; a distributing mechanism for moving tablets to the recesses; pushers carried by the transporter for pushing the tablets into the recesses; lateral clips for folding down the sides of the wrappers upon the tablet; and means for folding the ends of the wrappers.

2. In a machine for wrapping tablets and the like, the combination of an intermittently rotated transporter comprising arms having tablet receiving recesses over which recesses wrappers are placed; a distributing mechanism for moving tablets to the recesses; pushers carried by the transporter for pushing the tablets into the recesses; lateral clips for folding down the sides of the wrappers upon the tablet; end clips for raising the ends of the wrappers; and hooks for folding down said ends.

3. In a machine for wrapping tablets and the like, the combination of an intermittently rotated X-shaped transporter and receiver comprising arms having recesses; a distributing mechanism for presenting tablets to the receiver; means for applying inner wrappers to the tablets while in said recesses; a second means for applying wrappers; means for raising the wrapped tablets from the recesses; and clips for lifting tablets from said distributing mechanism and dropping them in the recesses to be wrapped and from said raising means and dropping them into the recesses again for applying the second wrapper.

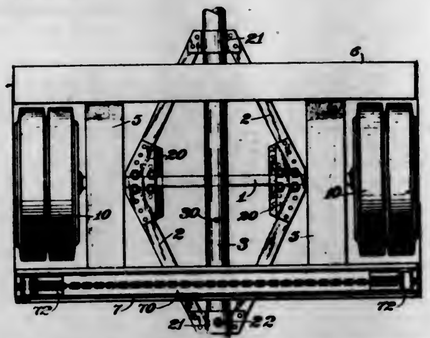
4. In a machine for wrapping tablets and the like, the combination of an intermittently rotated X-shaped transporter and receiver comprising arms having recesses; a distributing mechanism for presenting tablets to the receiver; means for applying inner wrappers to the tablets while in said recesses; a second means for applying wrappers; means for raising the wrapped tablets from the recesses; clips for lifting tablets from said distributing mechanism and dropping them in the recesses to be wrapped and from said raising means and dropping them into the

recesses again for applying the second wrapper; a traveling rack for carrying away the wrapped tablets; and means for pushing the wrapped tablets from the recesses to said rack.

5. In a machine for wrapping tablets and the like, the combination of an intermittently rotated transporter comprising arms having tablet receiving recesses over which recesses wrappers are placed; a distributing mechanism for moving said tablets to the recesses; clips carried by said transporter for seizing the tablets from the distributing mechanism and depositing them over the recesses and the wrapper thereon; and means for folding the ends and sides of the wrapper over on the tablet.

[Claims 6 to 12 not printed in the Gazette.]

1,209,670. TRAILER FOR TRUCKS. FREDERICK W. CHRISWELL, Seattle, Wash., assignor to Seattle Car & Foundry Co., Seattle, Wash., a Corporation of Washington. Filed July 5, 1916. Serial No. 107,505. (Cl. 21—137.)



1. A trailer truck comprising an axle, two wheels thereon, a reach, a load supporting frame having fore-and-aft-separated load engaging members located well above the axle, and supporting means for said frame normally holding it in a central position and permitting a limited rocking movement about the axle independent of the reach.

2. A trailing truck for logging comprising an axle, wheels thereon, two transverse bunks fixedly secured together and located above and respectively before and behind the wheels and extending to substantially the outer edges of the wheels and springs supporting said bunks from the axle and permitting a limited rocking movement about the axle.

3. A trailer truck comprising an axle, wheels thereon, a reach, fixed relative to the axle when in use, a load supporting frame comprising two bunks located respectively in front of and to the rear of the axle and means supporting said frame from the axle and permitting a limited rocking movement of the frame about the axle and independent of the reach.

4. In a trailing truck, in combination, an axle, two wheels thereon, a reach, hounds having guides for the reach, semi-elliptical springs mounted on the axle just within each wheel, a beam extending from front to rear over and supported by each spring, two transverse bunks supported by the ends of said beams and having their ends extending to the outside limits of the wheels and their upper surfaces above the tops of the wheels.

5. A trailer having a single axle, load carrying wheels thereon, a reach, two beams extending from front to rear at opposite sides of the trailer, means yieldingly supporting said beams from the axle to permit a limited rocking movement upon the axle, and two bunks carried by the ends of said beams at an elevation to maintain their tops above the tops of the wheels respectively to the front and to the rear thereof, the ends of said bunks extending to the outer side limits of the wheels.

[Claims 6 to 9 not printed in the Gazette.]

1,209,671. FORM FOR VULCANIZABLE PLASTIC ARTICLES. MYRON H. CLARK, Hastings-upon-Hudson, N. Y., assignor to Boston Rubber Shoe Company, a Corporation of Massachusetts. Filed Mar. 2, 1915. Serial No. 11,607. (Cl. 18—46.)



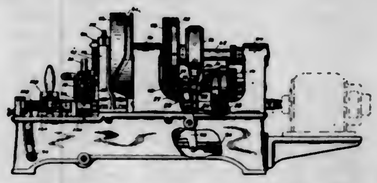
1. A hollow form for supporting a vulcanizable plastic article during a differential pressure cure, means for exposing the interior and exterior of the form to a differential of pressure, and an impervious material sealing and preventing leakage through the pores of the form so that the internal and external pressure upon the form may be accurately controlled.

2. A hollow metallic form for supporting a vulcanizable plastic article during a differential pressure cure, means for exposing the interior of the form to a lesser pressure than the exterior of the form, and an impervious coating, sealing and preventing leakage through the pores of the form so that the internal and external pressure upon the form may be accurately controlled.

3. A hollow form for supporting a vulcanizable plastic article having a passage way affording communication between the interior and exterior of the form within the area adapted to be covered by the article, and a superficial coating for the form to enhance its imperviousness.

4. A hollow form for supporting a vulcanizable plastic article having a passage way affording communication between the interior and exterior of the form within the area adapted to be covered by the article, and a coating upon the interior of the form to enhance its imperviousness.

1,209,672. SHEET-SEPARATING MECHANISM. HENRY L. CHENEY, Portland, Me., assignor to Southworth Machine Company, a Corporation of Maine. Filed Oct. 9, 1913, Serial No. 794,273. Renewed Nov. 9, 1916. Serial No. 130,477. (Cl. 101—40.)



1. In a machine for separating sheets of paper from a stack, the combination of a blade, a guide disposed in a different plane from that of said blade and positioned to bear on the outer sheet of the stack and arranged to determine the position of the blade to separate a definite number of sheets from the stack, means for inserting the blade into the edge of the stack and for withdrawing the same and means for removing the sheet or sheets separated.

2. In a machine for separating sheets of paper from a stack, the combination of a blade, a guide disposed in a different plane from that of said blade and positioned to rest by gravity on the upper sheet of the stack and arranged to determine the position of the blade to separate a definite number of sheets from the stack, means for inserting the blade into the edge of the stack and for withdrawing the same and means for removing the sheet or sheets separated.

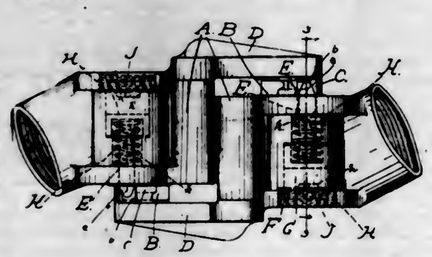
3. In a machine for separating sheets of paper from a stack, the combination of a blade, a guide disposed in a different plane from that of said blade and positioned to bear on the outer sheet of the stack and arranged to determine the position of the blade to separate a definite number of sheets from the stack, means for simultaneously moving the blade and guide to insert the blade into the edge of the stack and to withdraw it therefrom and means for removing the sheet or sheets separated.

4. In a machine for separating sheets of paper from a stack, the combination of a guide positioned to rest on the upper sheet of the stack, a blade connected to said guide and beneath the same and spaced therefrom by a space equal to a definite number of sheets, means for inserting the blade into the edge of the stack and withdrawing it therefrom and means for removing the sheet or sheets separated.

5. In a machine for separating sheets of paper from a stack, the combination of a rotary blade adjacent to the edge of the stack, a guide disposed in a different plane from that of said blade and positioned to bear on the outer sheet of the stack and arranged to determine the position of the blade to separate a definite number of sheets from the stack and means for removing from the blade the separated sheets.

[Claims 6 to 48 not printed in the Gazette.]

1,209,673. LOCK FOR HOSE-COUPLINGS. FRANK F. COGGIN, Matawan, N. J., and EGBERT H. GOLD, Chicago, Ill. Filed May 15, 1914. Serial No. 838,753. (Cl. 137—89.)



1. The combination with a hose coupling comprising mating elements provided with fixed interlocking lugs, of a locking member in each element for preventing the accidental disengagement of said elements which is made effective by direct contact with the fluid passing through said coupling, said locking members being adapted to permit automatic disengagement of said mating elements when the fluid pressure in said coupling is reduced.

2. The combination with a hose coupling comprising mating elements provided with fixed interlocking lugs, of a locking member in each element for preventing the accidental disengagement of said elements which is made effective by the pressure of and direct contact with the fluid passing through said coupling, said locking members being adapted to permit automatic disengagement of said mating elements when the fluid pressure in said coupling is reduced.

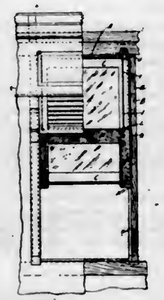
3. The combination with a hose coupling comprising mating elements provided with fixed interlocking lugs, of a locking member arranged in each of said elements which is actuated to operatively engage the other element by the presence of and direct contact with the fluid which said coupling is designed to pass, said locking member being adapted to permit automatic disengagement of said mating elements when the fluid pressure in said coupling is reduced.

4. The combination with a hose coupling comprising mating elements provided with fixed interlocking lugs, of a locking member arranged in each of said elements in position to engage the other of said elements, contact with the fluid in the coupling; and so as to be made operative by fluid pressure in said coupling, said locking members being adapted to permit automatic disengagement of said mating elements when the fluid pressure in said coupling is reduced.

5. The combination with a hose coupling comprising mating elements adapted to be rocked into and out of engagement, of locking means in each element for preventing the accidental rocking open or disengagement of said elements which is made effective by the pressure of the fluid passing through said coupling, and a spring in each element against the force of which said pressure operates to effect the locking operation of said locking means.

[Claims 6 to 12 not printed in the Gazette.]

1,209,674. WINDOW. ROBERT FRANCIS COLBORNE, Strathfield, near Sydney, New South Wales, Australia. Filed Oct. 20, 1911. Serial No. 655,748. (Cl. 20—52.)



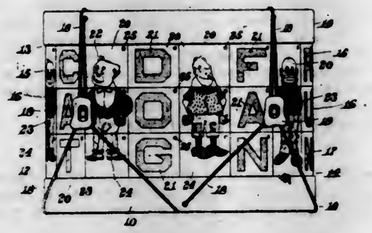
1. In a balanced sash window construction for railway cars, in combination, a frame, a window sash slidably mounted within the frame, the parting beads of the vertical frame stiles adjacent to the said sash being cut short to provide guide-ways extending downwardly from the lintel of the frame, a substantially U-shaped counter-weight mounted for sliding movement within the frame and having its side horns working within the said guide-ways and protecting the portions of the side rails of the sash which are situated above the existing portions of the said parting beads, and means for connecting the counter-weight operatively with the said sash for relative counterbalancing movement.

2. In a balanced sash window construction for railway cars, in combination, a frame, a window sash slidably mounted within the frame, a louvered sash mounted similarly in the frame, a substantially U-shaped inverted counter-weight mounted to slide between the said sashes, means for connecting the counter-weight operatively with the said window sash for relative counterbalancing movement, and a stop for the counter-weight positioned so that the latter will have its cross portion partially shielded by the louvered sash, when the latter is in its highest position, and so that it will be completely shielded thereby at all other positions.

1,209,675. DRUM. ATHERTON D. CONVERSE, Winchendon, Mass. Filed June 1, 1915. Serial No. 32,010. (Cl. 46—41.)

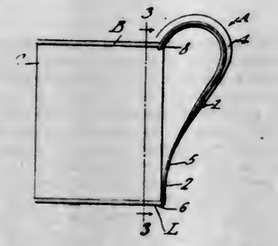
1. In a toy puzzle drum, the combination of a cylindrical shell having enlarged end portions; a sounding head set into each end portion; and a plurality of abutting rings independently movable around the periphery of said shell, each ring being provided with a plurality of characters adapted to register with the characters on the other rings and all of which are continuously exposed to view.

2. In a toy puzzle drum, the combination of a cylindrical shell having end portions extending outwardly beyond the intermediate portion; a sounding head set into each end portion; a plurality of independently movable rings surrounding said shell between said heads, each ring being U-shaped in cross section; and a plurality of characters on said rings adapted to coact with each other with the tops and bottoms of said characters adjacent the edges of said rings.



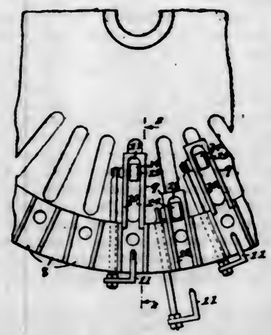
3. In a toy puzzle drum, the combination of a cylindrical member having end portions extending outwardly beyond the intermediate portion; a sounding head set into each end portion; a plurality of rings surrounding said member between said shoulders and having their outer faces continuously exposed to view; a plurality of characters on said exposed faces with their tops and bottoms adjacent the edges of said rings; and means whereby each ring may be moved about the axis of said cylindrical member.

1,209,676. DETACHABLE HANDLE. ALBERT N. COOPER, Davis, Cal. Filed June 14, 1915. Serial No. 34,008. (Cl. 53—3.)



The combination with a receptacle, of a detachable handle formed of sheet metal and having a curved rigid upper portion and a resilient lower portion, the curved portion having a rib which is arcuate in cross section extending throughout the length of the curved portion and blend at its lower end onto the said resilient portion, the lateral edges of the handle being turned upon themselves to provide flat reinforcing ribs which extend along each side of the handle throughout its entire length, a rigid hook extending from the lower terminal of the resilient portion of the handle, said hook being reinforced by the flat reinforcing ribs and adapted to rigidly engage the lower edge of the receptacle, a rigid tapered securing finger projecting from the upper terminal of the arcuate rib, the said rigid finger being arcuate in cross section to conform to the cross section of the said arcuate rib, resilient fingers extending from the upper terminal of the curved portion of the handle and being reinforced by the upper terminals of the flat ribs, the said resilient fingers being adapted to engage and flex against the outer wall of the receptacle when the hook has been moved to engagement with the lower edge of the receptacle, thereby coöperating with the said rigid fingers to rigidly secure the handle to the receptacle.

1,209,677. NUT-TAPPING MACHINE. THOMAS MARION DANIELS and JULIUS C. HOLSCHEMACHER, Chicago, Ill. Filed July 8, 1915. Serial No. 38,667. (Cl. 10—132.)



1. In a nut tapping machine, the combination with a evoluble nut carrying table provided with open ended slideways, of a movable slide extending through each slideway, adapted to engage opposite sides of the blank to hold the blank in nut tapping position, and actuating means constructed and arranged for reciprocating said slides successively in their slideways in one direction to position incoming blanks on said table and in the opposite direction to discharge tapped nuts therefrom in the travel of said table.

2. In a nut tapping machine, the combination with a nut carrying table provided with slideways, of a movable slide in each slideway adapted to engage side portions of the blank and coöperating with said slideway to hold the blank during the tapping of the same, and positive actuating means for successively causing said slides to reciprocate in their slideways in one direction to position incoming blanks in their pockets and in the opposite direction to discharge tapped nuts therefrom.

3. The combination in a nut tapping machine provided with a revolving table having radially arranged pockets therein, of a slide movable in the walls of each pocket, means on said slide for holding a nut blank, a cam for moving said slides outwardly individually and successively to discharge the tapped nuts from said table, a cam for moving said slides into nut blank receiving position individually and successively, a cam for returning said slides to normal nut holding positions, and means on each slide in operative connection with said cams.

4. The combination in a nut tapping machine provided with a revolving table having radially arranged pockets therein, of a slide movable in each pocket, means thereon for holding a nut blank, a plate adjacent said table provided with a continuous groove concentric with the center of said plate for a portion of its length and inclined in reverse directions for other portions of its length, a lever in pivotal connection with said table and with the respective slide, and a roller on said lever arranged in said groove.

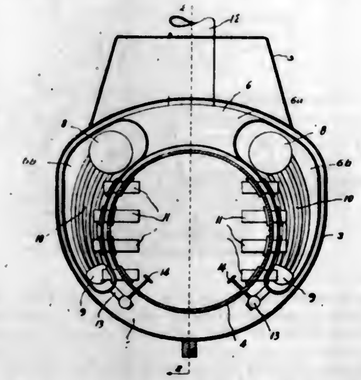
5. In a nut tapping machine provided with a revolving table, a slide movable thereon and having oppositely disposed arms adapted to receive and hold a nut blank, cam means for moving the tapped slide to discharge said nut from said table, and cam means for returning said slide to normal blank holding position.

[Claims 6 and 7 not printed in the Gazette.]

1,209,678. WATER-TUBE BOILER FOR SUBMARINES. GREGORY C. DAVISON, New London, Conn., assignor to Electric Boat Company, a Corporation of New Jersey. Filed Mar. 25, 1916. Serial No. 86,653. (Cl. 114—16.)

1. In a submarine boat of the double hull type, a water-tube boiler in the inter-hull space.

2. In a submarine boat of the double hull type, in combination, a compartment in the inter-hull space, and a water-tube boiler in said compartment.



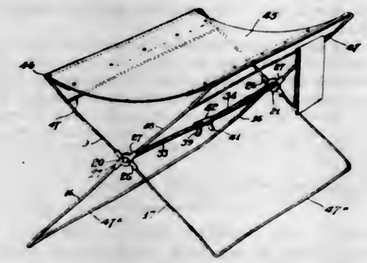
3. In a submarine boat of the double hull type, in combination, a saddle-shaped compartment in the inter-hull space each depending end portion of which establishes a boiler sheath, and a water-tube boiler unit in each sheath.

4. In a submarine boat of the double hull type, in combination, a saddle-shaped compartment in the inter-hull space and taking about the roof and sides of the inner hull, and a water-tube boiler in said compartment.

5. In a submarine boat of the double hull type, in combination, a saddle-shaped compartment in the inter-hull space each depending end portion of which establishes a boiler sheath, separate water-tube boiler units in each sheath, and an uptake from the compartment located above the hump of the compartment.

[Claims 6 to 14 not printed in the Gazette.]

1,209,679. INTERLOCKING FRAME FOR STANDS AND THE LIKE. HAROLD E. DECKER, Cynwyd, Pa. Filed Sept. 2, 1914. Serial No. 859,739. (Cl. 5—58.)



1. In a supporting structure, the combination of cooperating frame sections, one section movable relatively to another, locking means operating between frame section sides, one element of said means provided with a groove deeper toward one end than toward the other and with a recess, and a coöperating element of said locking means provided with groove and recess engaging means.

2. In a supporting structure, the combination of cooperating frame sections, one section movable relatively to another, locking means operating between adjacently disposed frame section sides, one element of said means provided with a groove deeper toward one end than toward the other and with a recess, a coöperating element of said locking means provided with groove and recess engaging means, and means for controlling the engagement between recess engaging means and recess.

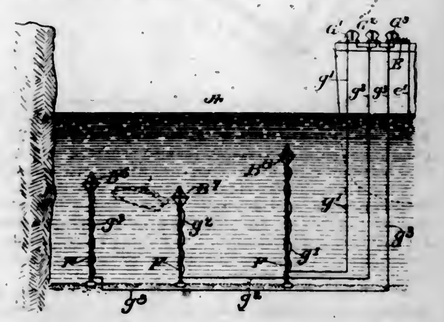
3. In a supporting structure, the combination of cooperating frame sections, one section movable about the axis of another, locking means operating between frame section sides, one element of said means provided with a groove in an arc concentric with the axis of movement of a frame section and of gradually varying depth, a cooperating element of said locking means provided with a groove engaging portion, and means between oppositely disposed frame section sides for controlling the engagement between groove engaging portion and groove.

4. In a supporting structure, the combination of cooperating frame sections normally freely movable about a common axis, each frame section provided at opposite sides with a hinge element coöperating with a hinge element of a coöperating frame section, recess and projection means of engagement between coöperating hinge elements of coöperating frame sections, and means between oppositely disposed frame section sides for disengaging said engaging means.

5. In a supporting structure, the combination of cooperating frame sections movable about a common axis, each frame section provided at opposite sides with a hinge element coöperating with a hinge element of a coöperating frame section, recess and projection means of engagement between coöperating hinge elements of coöperating frame sections, a rod transverse the frame sections, said rod connected at opposite ends to oppositely disposed frame section sides, and a slide element relatively movable with respect to said rod secured to another frame section side.

[Claims 6 to 19 not printed in the Gazette.]

1,209,680. METHOD OF AND APPARATUS FOR DETECTING THE PRESENCE AND LOCATION OF SUBMERGED METALLIC BODIES. PATRICK B. DELANY, South Orange, N. J. Filed Apr. 30, 1915. Serial No. 24,978. (Cl. 177—337.)



1. The herein described method of determining the presence of a metallic body in the vicinity of a plurality of stationary electrodes in and connected by water forming closed circuits of high resistance, which consists in varying the resistance of one or more of said closed circuits by the contact of said body with one or more of said electrodes, and producing an indication of said variation.

2. The herein described method of detecting the presence or location of a submerged object of conducting material such as a submarine vessel in proximity to a plurality of electrodes in and connected by water forming a plurality of closed circuits of high resistance, which consists in varying the resistance of one of said circuits by the contact of such object with one of said electrodes, and producing an indication of such variation.

3. An apparatus for detecting the presence of metallic objects, comprising a series of submerged electrodes disposed in different vertical planes, indicating devices respectively connected with said electrodes by a series of

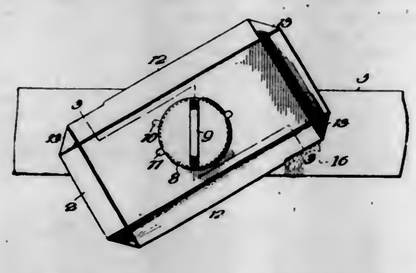
metallic conductors of low resistance, and connections between said electrodes and said indicating devices comprising the body of water in which the electrodes are disposed.

4. A device for indicating the presence of submarine vessels, comprising a submerged floating electrode, a remote indicating station, means constituting a circuit of low resistance connecting said electrode to said indicating station, and a circuit of high resistance between said electrode and said indicating station comprising the body of water in which the electrode is disposed, said indicating station operated by the inclusion in said last named circuit of a submarine vessel whereby the resistance of said circuit is decreased.

5. An apparatus for detecting the presence of metallic objects, comprising a plurality of submerged electrodes disposed in different zone areas, an indicating station, a plurality of low resistance circuits leading to said indicating station, and a plurality of high resistance circuits including said electrodes, said indicating station being operated by the inclusion in one or more of said last named circuits of said metallic object.

[Claim 6 not printed in the Gazette.]

1,209,681. NAIL-DISPENSING CONTAINER. HERMAN E. DE PEW, Fresno, Cal. Filed June 27, 1916. Serial No. 106,224. (Cl. 1—6.)



1. A dispensing container of the class described, including a body having side and end walls, and top and bottom walls, said top and bottom walls being provided with a plurality of parallel V-shaped channel members, said members being provided at their vertices with outlet openings.

2. In a dispensing container for nails and the like, a body having side and end walls, and top and bottom walls, said top and bottom walls having parallel V-shaped channel members, said members having outlet openings, and a supporting member providing means for rotatably mounting the said container.

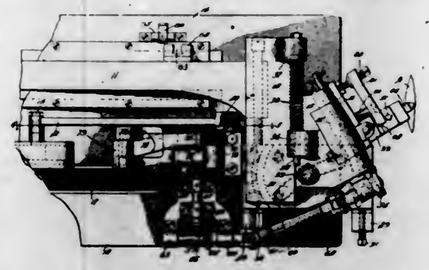
3. A dispensing container of the class described, including a body having channeled top and bottom walls, and having side walls, said body being rotatably supported, said channels having elongated outlet openings associated therewith, and a removable closure member in one side wall of said body for the purpose specified.

4. In a dispensing container of the class described, a body having channeled top and bottom walls, the channels in each wall being V-shaped in cross section and each having an outlet opening in its vertex at one end thereof, the outlet openings in the channels of one wall being diagonally opposite those in the channels of the other wall, said body being rotatably supported, and an inlet through which said body may be filled.

5. A dispensing container of the class described, including a body having channeled top and bottom walls, and having side walls, the channels in each wall being V-shaped in cross section and each having an outlet opening in its vertex at one end thereof, the outlet openings in the channels of one wall being diagonally opposite those in the channels of the other wall, one side wall of said body having an opening therein, and a closure for said opening.

[Claim 6 not printed in the Gazette.]

1,209,682. GEAR-CUTTING MACHINE. CHARLES E. DEAR, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 11, 1913. Serial No. 747,677. (Cl. 90—10.)



1. In a gear cutting machine, the combination of a ram, means for reciprocating the ram, a tool carriage slidably mounted on the ram, means for causing transverse sliding action of the carriage as the ram is reciprocated, said means including a stationary member mounted directly beneath the tool carriage.

2. In a gear cutting machine, the combination of a ram, means for reciprocating the ram, a tool carriage slidably mounted on the ram, means for causing transverse sliding action of the carriage as the ram is reciprocated, said means including a stationary member mounted directly beneath the tool carriage, and a pin extending downwardly from said carriage and having a roller cooperating with said member.

3. In a gear cutting machine, the combination of a frame, a ram slidably arranged thereon, means for reciprocating the ram, a tool carriage slidably mounted on the ram, means for causing transverse sliding action of the carriage as the ram is reciprocated, said means including a cam member mounted on the frame beneath the carriage, and a pin extending downwardly from said carriage and having a roller coöperating with said cam member.

4. In a gear cutting machine, the combination of a frame, a ram slidably mounted thereon, means for reciprocating the ram, a tool carriage slidably mounted on the ram, a plate pivotally mounted on said frame and having a curved cam slot therein, a roller on said carriage arranged in said slot, and means for swinging said plate on its pivot.

5. In a gear cutting machine, the combination of a ram, means for reciprocating the ram, a tool carriage slidably mounted on the ram, cam means for moving the tool carriage transversely of the direction of movement of the ram to move the tool in a curved path, alined brackets on the ram and carriage, and a spring coacting with said brackets to yieldably hold said cam means in operative relation.

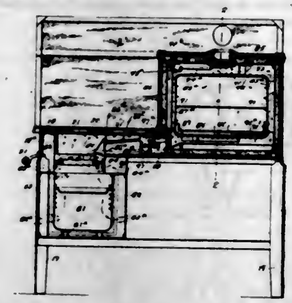
[Claim 6 not printed in the Gazette.]

1,209,683. GAS COOKING-STOVE. FORREST V. DETWILER, Grand Rapids, Mich. Filed Apr. 21, 1915. Serial No. 22,938. (Cl. 126—39.)

1. In an oven, the combination of an outer casing having an outlet opening at the top thereof, an inner casing spaced therefrom, a flue leading to said space, a damper controlling said outlet opening, a damper controlling said flue, and operating connections in said space, between the dampers, and an operating handle connected to one of said dampers.

2. In a gas stove, the combination of a pair of reversible burners, a supporting bar extending between the same and having a bearing for said burners, and a rotary key mounted in said bearing and connecting the burners.

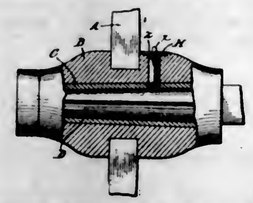
3. In a gas stove, the combination of a pair of reversible burners, a supporting bar extending between the same and having a bearing for said burners, and a rotary key mounted in said bearing and connecting the burners said key having interlocking engagement with the burners and also having a stop to limit rotation thereof.



4. In a stove, the combination of a cooking top, an oven located beside said top, a burner under the top, a flue leading from the burner to the oven, and an air passage adjacent to said flue and adapted to be heated thereby, and leading to the oven.

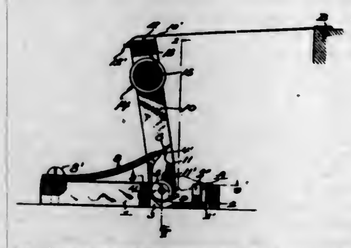
5. In a stove, the combination of a cooking top, an oven located at the back of said top, a burner under the front part of said top, a flue leading from said burner and extending under the back part of said top to the oven, and a fresh air supply compartment located under said flue and heated thereby, and communicating with the oven.

1,209,684. OILING OR LUBRICATING AXLE OR SPINDLE. JOHN HARRY DICKBRADER, Washington, Mo. Filed Apr. 15, 1915. Serial No. 21,584. (Cl. 64—26.)



The combination with a radially perforated wheel hub and a spindle housing having a threaded alined opening, of a tube in the perforated hub having external threads at both ends and screwed into the housing, internal threads at the outer end of the tube and a plug screwed therein, and a lock nut engaging the outer external threaded end of the tube and in contact with the wheel hub.

1,209,685. AUDIBLE ALARM. RICHARD F. DOWNEY, Milwaukee, Wis., assignor to Hugo Loewenbach, Milwaukee, Wis. Filed Jan. 20, 1915. Serial No. 3,207. (Cl. 116—42.)

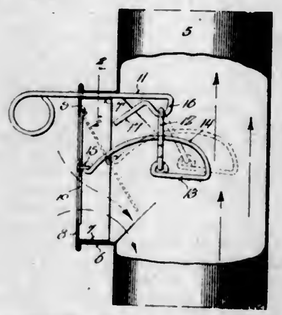


1. An alarm comprising a bed-piece, a cartridge receiving member carried thereby, a hammer pivoted to the bed-piece having a firing head in juxtaposition to the member, a spring having means for locking and engaging the firing head, a tripping finger projecting from the hammer, a gravity-actuated trigger-arm pivotally associated with the hammer adapted to extend beyond a vertical line through its pivot when the mechanism is set for firing, means carried by the trigger arm for engagement with the hammer finger when said arm is swung downward from its set position, whereby the hammer is released, a thread-like runner having one end secured to the trigger arm and adapted to be arbitrarily extended over a field, and a fastening means for the opposite end of said runner.

2. An alarm comprising a bed-piece having a cartridge-holding block in connection therewith, the said block being provided with a cartridge-receiving recess, a hammer in pivotal union with the bed-piece, a firing head and a tappet-finger, on the hammer, a spring secured to the bed-piece having its free end engageable with the hammer head and adapted to hold the hammer in cocked position, an arm in pivotal union with the bed-piece, means extending from the arm for engagement with a head and finger of the hammer, a spool mounted upon the trigger arm, a runner carried by the spool, and means in connection with said trigger arm for preventing unwinding of the runner.

3. An alarm comprising a bed-piece, means carried thereby for holding a cartridge, a pivot shaft carried by the bed-piece, a hammer pivoted on said shaft for movement adjacent said cartridge holding means to operatively engage a cartridge carried thereby, spring means engageable with said hammer to hold it in a cocked position and to urge it to said engaging position, a trigger arm also pivoted on the shaft, including portions for engaging the hammer to move it from said engaging position and for initially moving it toward engaging position, and a member connected with the trigger arm for moving said arm to effect such initial movement of the hammer.

1,209,686. FLUE-DRAFT-CONTROLLING DAMPER. HERBERT H. DREW, Waterloo, Wis. Filed Apr. 21, 1916. Serial No. 92,592. (Cl. 236—2.)

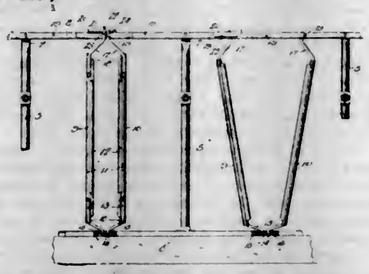


1. The combination with a horizontally swinging damper plate of a rod slidable in the direction of swinging movement of the plate, a link pivotally connected with the rod, and a weight member pivoted to the link and to the damper plate.

2. The combination with a horizontally swinging damper plate of a rod slidable in the direction of movement of the plate, a loop member pivotally depending from the rod, an upwardly bowed weight member extending through the loop and having one end pivoted to the plate and an arm extending inwardly from the other end of the member and pivotally connected with the loop.

3. The combination with a horizontally disposed pipe member of an apertured body plate, a sleeve extending from the body plate and engageable in the pipe portion, a damper pivoted thereto to close the aperture thereof, said plate and sleeve being provided with a guide channel, a control rod slidably passed through said channel, a link pivotally connected with the rod and a weight pivoted to the link and to the damper plate.

1,209,687. STANCHION. HERBERT H. DREW, Waterloo, Wis. Filed Apr. 21, 1916. Serial No. 92,593. (Cl. 119—147.)



1. A stanchion comprising a base plate provided with a series of openings, a pair of neck bars having their lower end portions directed inwardly with their extremities directed outwardly, and engageable selectively in the openings, and means for adjustably securing the upper ends of the bars together.

2. A stanchion comprising a pair of neck bars, means for pivotally securing the lower ends of the bars, a guide channel for the upper ends of the bars, and a latch plate carried by the upper end of one bar and having its end adjacent the other bar upwardly inclined and provided with an opening inwardly of said inclined portion.

3. A stanchion comprising a pair of neck bars, means pivotally securing the lower ends of said bars, a latch plate provided with a series of openings receiving the upper end of one of said bars, the end of the plate adjacent the other bar being inclined upwardly and provided with an opening inwardly of said inclined portion and a stop on the plate inwardly of the opening.

4. A stanchion comprising a pair of neck bars, means pivotally securing the lower ends of the neck bars, a pair of horizontally disposed guide bars forming a channel receiving the upper ends of the neck bars, a latch plate having depending portions embracing the channel bars, and provided with an opening, the end of one neck bar extending above the other neck bar and passed through said opening, and the end of the latch plate adjacent the said other neck bar being inclined upwardly and provided with an opening inwardly of said inclined portion.

5. A stanchion comprising a pair of neck bars each comprising a body pipe section having an open longitudinal slot in each end portion, a pad carried at one side of the pipe section, an angular lower pivot rod fitted in the lower end of the pipe and having a portion extending through the slot to prevent relative rotation of the pipe member, an angular rod engaged in the upper end of the pipe member and having a portion extending through the slot to prevent relative rotation, means for pivotally securing the lower rods, means for guiding the upper rods and a latch means for securing said upper rods together.

1,209,688. COW-STALL. HERBERT H. DREW, Waterloo, Wis. Filed May 13, 1916. Serial No. 97,246. (Cl. 119—27.)

1. In a cow stall the combination with a stall body of longitudinal guide bars at the sides thereof, a U-shaped rear end retaining member having the free ends of its legs pivotally and slidably secured to the guide bars and means for holding said retaining member against sliding movement.

2. In a cow stall the combination with a stall body of longitudinal guide bars at the sides thereof, a U-shaped rear end retaining member having the free ends of its legs pivotally and slidably secured to the guide bars, a holding loop at a rear side portion of the stall and a projection on one arm of the retaining member engageable in the loop.

3. In a cow stall, a bed, a transverse trough, side frames including bars extending forwardly of the trough, a connecting member at the forward ends of the bars a grid plate pivotally suspended above said connecting member and a detachable chute member having its upper portion laterally directed to seat on said connecting member, with its lower portion extending into the trough.

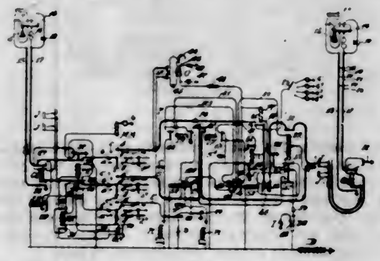


4. A cow stall comprising front and rear stall posts, top rails connecting the posts and having their rear portions downwardly offset and a rear end retaining member including side portions slidably and pivotally mounted below said rails and adapted to swing to extend upwardly at the rear portions of the rails.

5. A cow stall comprising front and rear stall posts, top rails connecting the posts and having their rear portions downwardly offset, a rear end retaining member including side portions slidably and pivotally mounted below said rails and adapted to swing to extend upwardly at the rear portions of the rails, a grid member pivotally suspended at the forward ends of the top rails, and holding bars pivoted to the forward ends of the rear offset portions of the top rails and adjustably connected with the grid member.

[Claim 6 not printed in the Gazette.]

1,209,689. TELEPHONE SYSTEM. FRANCIS W. DUNBAR, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed May 28, 1909. Serial No. 498,896. Renewed May 21, 1912. Serial No. 698,837. (Cl. 179—27.)



1. A telephone system comprising calling and called telephone lines, a link-circuit and connection terminals for uniting said lines, means other than said link-circuit for rendering said called line busy, manually controlled means operative upon the connection of said link-circuit to said called line when idle to transmit ringing current over said called line, and means dependent upon the non-exercise of said manual control and upon the connection of said link-circuit to said called line when busy to transmit a busy signal from said link circuit back over said calling line.

2. A telephone system comprising calling and called telephone lines, a link-circuit and connection terminals for uniting said lines, other terminals for said called line, other link-circuits for connecting through said terminals to said called line, manually controlled means for applying ringing current to said called line whenever said first link-circuit is connected to it while it stands disconnected from said other link-circuits, and a busy back device for transmitting a busy signal back over said first link-circuit and the calling line whenever said first link-circuit is connected to the calling line while it stands connected to one of said other link-circuits and before said manual control has been exercised.

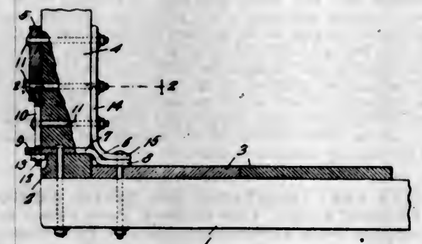
3. A telephone system comprising calling and called telephone lines, a link-circuit and connection terminals for uniting said lines, means for establishing other connections with said called line, a ringing relay, manually controlled means for operating said ringing relay, a ringing current source connected by the operation of said ringing relay and the connection of said link-circuit to said called line to supply ringing current to said called line, a busy relay operated in response to the connection of said link-circuit to said called line, when busy, before the operation of said manually controlled means, and a busy back device operated by said busy relay to send a busy signal from said link circuit over said calling line.

4. A telephone system comprising calling and called telephone lines, a link-circuit and connection terminals for uniting said lines to establish a talking circuit, means for establishing other connections with said called line, means for supplying ringing current and a busy back signal, ringing and busy back connections extending to said link circuit, a pair of relays for controlling said connections, and an energizing circuit for one of said relays including a portion of the talking circuit.

5. A telephone system comprising calling and called telephone lines, a link-circuit and connection terminals for uniting said lines to establish a talking circuit, means for establishing other connections with said called line, means for supplying ringing current and a busy back signal, ringing and busy back connections, a pair of relays for controlling said connections, and an energizing circuit for both of relays including a portion of the talking circuit.

[Claims 6 to 27 not printed in the Gazette.]

1,209,690. HAY-RACK. GALY M. EDVENSON, Williams, Iowa. Filed June 1, 1916. Serial No. 101,078. (Cl. 21—74.)



1. A structural element for hay racks comprising in combination with the body and the vertical posts of a hay rack, base plates secured to the body along its longitudinal edges and overhanging the latter, supporting plates upon the outer faces of said posts and projecting through the overhanging ends of said base plates, and bracket plates secured to the inner faces of said posts and having feet overlying the inner ends of said bracket plates, and means securing said feet to said bracket plates.

2. A structural element for hay racks comprising in combination with the rack body including longitudinal stringers and floor boards of a hay rack body, base plates carried by said longitudinal stringers and having their outer ends overhanging the free edges of said stringers, foot plates formed upon the inner ends of said base plates, vertical posts resting upon said base plates, supporting plates upon the outer faces of said posts having their lower ends extending through said overhanging ends of the base plates, bracket plates upon the inner faces of said posts, and out-turned feet upon said bracket plates overlying the feet upon said base plates, and means securing said bracket plates to said base plates and the rack body.

1,209,691. PENCIL ATTACHMENT. CLAUD B. ELLIOTT and SYLVESTER MYERS, Hempstead, Tex. Filed Feb. 24, 1916. Serial No. 80,203. (Cl. 15—66.)

The herein described attachment, comprising a tubular body having an intermediate partition adapted to bear against a pencil end and form the bottom of a mucilage reservoir, a tubular member having at an intermediate point of its length an interior sponge-holding portion;



said tubular member being removably arranged on the upper portion of the tubular body, and a cap removably-arranged on the tubular member.

1,209,692. BINDING COMPOUND AND PROCESS OF MAKING SAME. ARCHIBALD CLAUDE EVANS, Hampton Wick, and PERCY JOSE MITCHELL, Westminster, London, England. Filed Sept. 7, 1915. Serial No. 49,349. (Cl. 87—17.)

1. A process for the manufacture of binding materials for briqueting, road making and the like which includes removing the light oils from coal tar, treating said tar while hot with finely divided coal dust or hydrocarbon soot, cooling the resulting product to 100° C. and then treating with a small quantity of thickening agent.

2. A process for manufacturing binding materials for briqueting, road making and the like which includes distilling coal tar at a temperature of 270° C. until the light oils have been removed, cooling the product to approximately 250° C., adding finely divided coal dust or hydrocarbon soot, stirring the mixture and heating to a minimum temperature of 270° C. until the volatile matter begins to pass off from the added material, cooling the mixture to 100° C. and adding a small quantity of sulfuric acid or a specified equivalent thickening agent.

3. A process for the manufacture of binding materials for briquenting, road making and the like which includes removing the light oils from shale oil distillate or its specified equivalent, treating the same while hot with finely divided coal dust or its specified equivalent, cooling the mixture to 100° C., and adding a small quantity of sulfuric acid or its specified equivalent thickening agent.

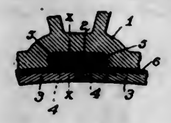
4. The process for the manufacture of binding materials for briquenting, road making and the like which includes distilling shale oil distillate or its specified equivalent at a temperature of 270° C. until the light oils have been removed, cooling the product to approximately 250° C., adding finely divided coal dust or its specified equivalent, thoroughly stirring the mixture and heating the same to a minimum temperature of 270° C., maintaining the temperature of 270° C. until the volatile matter of said added material begins to pass off, cooling the mixture to 100° C., and adding a small quantity of sulfuric acid or its specified equivalent thickening agent.

5. A binding material for briqueting, road making and the like consisting of the residue from coal tar after the light oils have been removed, said residue being thickened with coal dust or its specified equivalent and a small quantity of sulfuric acid or its specified equivalent.

1,209,693. REINFORCED SEWER CONSTRUCTION. WILLIAM C. FERGUSON, Champaign, Ill. Filed Mar. 18, 1915, Serial No. 15,231. Renewed June 10, 1916. Serial No. 103,019. (Cl. 72—51.)

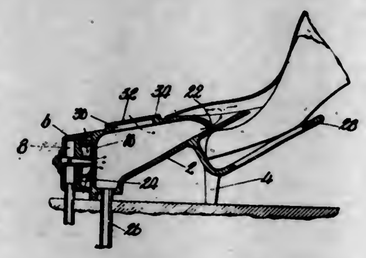
1. The combination in a sewer construction comprising outer blocks having a longitudinal recess in its inner side, lining plates having longitudinal edge ribs adapted to enter said recesses, and locking means for retaining said ribs in said recesses, of continuous transversely extending elements for supporting said locking means, said ribs and

said plates being channeled for the reception of said elements.



2. The combination in a sewer construction comprising outer blocks having a longitudinal recess in its inner side, lining plates having longitudinal edge ribs adapted to enter said recesses, and continuous locking means for retaining said ribs in said recesses, of combined supporting means for said locking means and transverse reinforcement comprising flat plates of greater length than two lining plates inserted transversely at intervals immediately under said locking means in channels in said ribs and plates.

1,209,694. APPARATUS FOR SOFTENING SHOES. FREDERICK M. FURBER, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 29, 1912. Serial No. 706,660. (Cl. 12—1.)



1. An apparatus for treating shoes, comprising shoe supporting means, a chamber in communication with a steam supply and with the atmosphere, the pressure of the steam in said chamber being less than that of the atmosphere, whereby a substantial current of air into said chamber is provided and said air and steam are intimately mixed, and means for directing the contents of said chamber on a shoe supported on said means.

2. An apparatus for treating shoes, comprising shoe supporting means, a steam chamber having an opening communicating with the atmosphere, the pressure in said chamber in the vicinity of said opening being less than that of the atmosphere, whereby a substantially uniform current of air flows into said chamber, and is intimately mixed with said steam, and means for directing the mixed air and steam on to a part of a shoe sustained by said means.

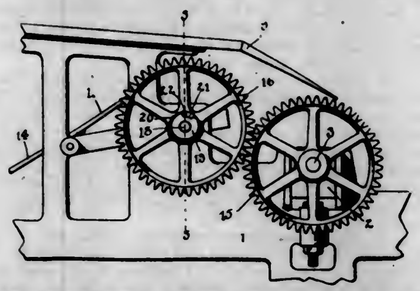
3. An apparatus for treating shoes, comprising a casing constructed to direct vapor on the part of the shoe to be treated, means for supplying steam to said casing, and means for utilizing the action of the steam while it is at a pressure greater than that of the atmosphere to cause it to become intimately mixed with air before it strikes the shoe.

4. An apparatus for treating shoes comprising a casing, a steam nozzle projecting into said casing, said casing being constructed and arranged to direct air against the steam as it emerges from said nozzle, and means for holding a shoe with a part thereof in position to be acted on by the vapor passing through the casing.

5. An apparatus for treating shoes, comprising a hollow casing having a long, narrow outlet in its upper surface, a steam inlet-nozzle positioned in the back of said casing, said casing being constructed and arranged to admit air around the nozzle, and a rest located below the outlet of the casing in position to support a plurality of lasts with the shoe uppers supported on said lasts extending over said outlet.

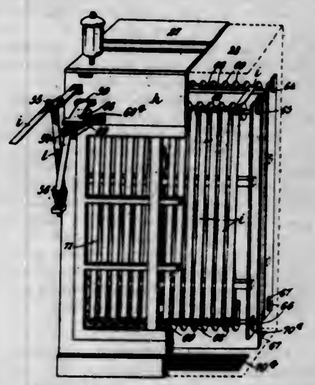
[Claims 6 to 10 not printed in the Gazette.]

1,209,695. DELIVERY-REEL FOR PRINTING-PRESSES. MARK J. GARLICK, Dallas, Tex. Filed Mar. 2, 1914. Serial No. 821,985. (Cl. 101—29.)



In a printing press, a frame, a shaft journaled in the frame, a cylinder mounted on the shaft, a second shaft rotatably mounted in the frame, parallel with the aforesaid shaft, a delivery reel fixed on the second shaft, a reciprocatory bed beneath the cylinder and reel, a gear fixed on the cylinder shaft, a gear loosely mounted on the delivery reel shaft and meshing with the aforesaid gear and including a hub, a relatively small collar fixed on the delivery reel shaft adjacent the hub of said loosely mounted gear and whose periphery is provided with a recess forming shoulders, a pin projecting laterally from the hub of the gear on the delivery reel shaft and extending into the recess of said collar to ride thereon between said shoulders and engaging the latter alternately whereby the momentum attained by the delivery reel shaft and the delivery reel will rotate the same a part of a revolution as said gears have stopped, and whereby said shoulders of the collar will arrest the independent revolution of the delivery reel and its shaft.

1,209,696. APPARATUS FOR DRYING PHOTOGRAPHIC FILMS. LÉON GAUMONT, Paris, France, assignor to Societe Etablissements Gaumont, Paris, France, a Corporation of France. Original application filed Feb. 17, 1909, Serial No. 478,454. Divided and this application filed July 22, 1915. Serial No. 41,871. (Cl. 34—48.)



1. A drying device for photographic films or prints comprising means for passing the photographic film or print through said drying device, and means within the drier to supply moisture to the film passing therethrough.

2. A drying device for photographic films or prints comprising means for passing the photographic film or print through said drying device, and means within the drier to supply moisture to the prepared face of the film passing therethrough.

3. A drying device for photographic films or prints comprising means for passing the photographic film or print through said drying device, and means to supply moisture to the prepared face of the film passing therethrough.

4. A drying device for photographic films or prints comprising means for passing a film or print through the drying device, and means within the drier movable relatively to the film or print to be dried to supply moisture thereto.

5. An apparatus of the character described, including a drying device, means for passing photographic prints or films therethrough, and means within the drier to supply moisture to the prints or films passing therethrough.

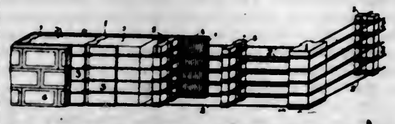
[Claims 6 to 17 not printed in the Gazette.]

1,209,697. FABRIC-FASTENER. GUSTAVUS H. GRAY, St. Louis, Mo. Filed Feb. 2, 1914. Serial No. 815,880. (Cl. 24—81.)



A fabric fastener comprising two loop-elements; a central brace-plate having two parallel slots; two button-elements each having a base containing two slots; a tape whose ends are so mounted through the slots of said button-elements as to be secured in place therein without other fastening means, the central portion of said tape being passed through the slots of the brace-plate and through the inner ends of said loop-elements.

1,209,698. CONSTRUCTION OF BUILDINGS. CARL GEORG GULBRAND, Slemdal, near Christiania, Norway. Filed Mar. 8, 1913. Serial No. 753,092. (Cl. 72—30.)



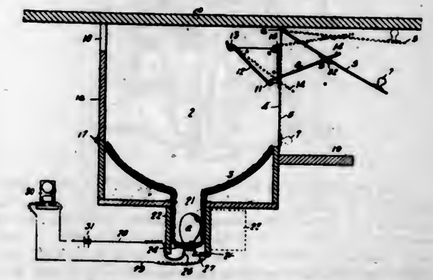
1. In the construction of buildings, the combination of a plurality of structural members, a plurality of wires extending across said members on both sides thereof and forming a layer of wires on each side of said plurality of members, an imperforate sheeting on the inside of one of said layers of wires, a cast filling body between said sheeting and the other of said layers of wires, and coatings secured to said layers of wires.

2. In the construction of buildings, the combination of a plurality of structural members, a plurality of wires extending across said members on both sides thereof and forming a layer of wires on each side of said plurality of members, imperforate sheetings on the inside of said layers of wires, a cast filling body between said sheetings, and coatings secured to said layers of wires.

3. In the construction of buildings, the combination of a plurality of structural members, a plurality of wires extending across said members on both sides thereof and held against movement with respect thereto whereby a layer of wires is formed on each side of said plurality of structural members, a sheeting on the inside of one of said layers of wires, a cast filling body between the sheeting and the other of said layers of wires, and coatings engaging said layers of wires and locked in position thereby.

4. In the construction of buildings the combination of a plurality of posts with a plurality of substantially parallel wires stretched continuously across said posts passing successively and between the individual posts and around the same forming on each side of the said plurality of posts a layer of wires, sheetings on the inside of said layers of wires and a cast filling body between said sheetings and coatings fastened to said layers of wires on the outside of said sheetings and said posts.

1,209,699. TRAP-NEST. GEORGE W. GUTHRIE, Emsworth borough, Pa. Filed Feb. 12, 1916. Serial No. 77,881. (Cl. 119—47.)



1. A trap nest of the class described having a main nesting chamber, and an entrance door provided with a transverse adjustable holding arm operable by upward pressure, and having a supplemental lifting terminal, and receiving sockets for said arm on the side walls of the nest.

2. A trap nest of the class described having a main nesting chamber, and an entrance door thereto provided with a transverse adjustable holding arm operable by upward pressure, and receiving sockets for each end of said arm adapted to engage the arm at different positions and to positively hold the door either open or closed.

3. In combination with a nest construction of the type described having an entrance opening, a pivotally mounted closing door, a supporting frame pivoted to the door having an externally extending lifting terminal and an internally extending transverse locking arm, and a plurality of sockets on the side walls of the nest adapted to engage and hold said arm and the door in varying positions.

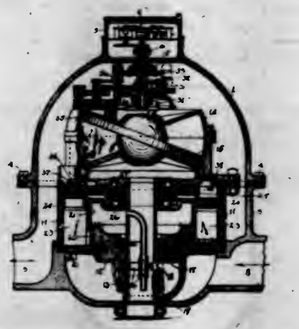
4. In combination with a nest construction of the type described having an entrance opening, a pivotally mounted closing door, a supporting frame pivoted to the door having an exiernally extending transverse lifting terminal and an internally extending locking arm, and sockets on the sides of the nest adapted to engage and hold said arm at a position above the bottom of the entrance opening adapting the arm to be released by upward pressure of a fowl upon entering the nest.

5. In a nest of the class described, a chamber-inclosing casing having an entrance opening and a door therefor, and provided at its lower portion with a nest compartment having at its central portion a downwardly extending egg receptacle of reduced area approximating the dimensions of an egg, and provided with a relatively movable bottom having a depressible supporting spring.

1,209,700. WATER-METER. FREDERICK W. HANKS, Cleveland, Ohio. Filed Mar. 16, 1915. Serial No. 14,812. (Cl. 73—167.)

1. In mechanism of the character described, the combination of a casing; a partition in said casing having an opening; a high-duty measuring device arranged to be operated by flow of fluid through such opening; a low-duty measuring device; a tubular member extending cen-

trally through such opening and connected with said low-duty device; an annular valve reciprocably mounted upon said member and adapted to seat in such opening, said valve being adapted when thus seated to open said member to the flow of fluid and when raised to close the same; and a fluid-pressure actuated device adapted to raise said valve.



2. In mechanism of the character described, the combination of a casing; a partition in said casing having an opening; a high-duty measuring device arranged to be operated by flow of fluid through such opening; a low-duty measuring device; a tubular member extending centrally through such opening and connected with said low-duty device; an annular valve reciprocably mounted upon said member and adapted to seat in such opening, said valve being adapted when thus seated to open said member to the flow of fluid and when raised to close the same; and a fluid-pressure actuated device adapted to raise said valve, operation of said last-named device being dependent upon the loss of head created by said low-duty device.

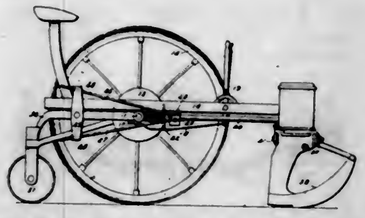
3. In mechanism of the character described, the combination of a casing; a partition in said casing having an opening; a high-duty measuring device arranged to be operated by flow of fluid through such opening; a low-duty measuring device; a tubular member extending centrally through such opening and connected with said low-duty device; an annular valve reciprocably mounted upon said member and adapted to seat in such opening, said valve being adapted when thus seated to open said member to the flow of fluid and when raised to close the same; and an annular pressure-chamber surrounding said member, said chamber communicating with the interior of said member and a portion of said valve being fitted as a piston therein.

4. In mechanism of the character described, the combination of a casing having an inlet and an outlet opening; a partition in said casing located between such inlet and outlet openings and itself having an opening; a tubular member extending through the opening in said partition; a low-duty measuring device connected with said member on the outlet side of said partition; an annular valve reciprocably mounted upon said member and adapted to seat in such partition opening, said valve being adapted when thus seated to open said member to the flow of fluid and when raised to close the same; an annular pressure-chamber surrounding said member between said low-duty device and said partition, said chamber communicating with the interior of said member and a portion of said valve being fitted as a piston therein; and a turbine-wheel, constituting a high-duty measuring device, rotatably supported in the space between said chamber and the casing-wall.

5. In mechanism of the character described, the combination of a casing having an inlet and an outlet opening; a partition in said casing located between such inlet and outlet openings and itself having an opening; a tubular member extending through the opening in said partition; a low-duty measuring device connected with said member on the outlet side of said partition; an annular valve reciprocably mounted upon said member and adapted to seat in such partition opening, said valve being adapted when thus seated to open said member to the flow of fluid and when raised to close the same; an annular pressure-chamber surrounding said member between said low-duty device and said partition, said chamber communicating with the interior of said member and a portion of said valve being fitted as a piston therein; a turbine-wheel, constituting a high-duty measuring device, rotatably mounted upon said member between said chamber and low-duty device and extending into the space between said chamber and the casing-wall; and anti-friction bearings disposed between said wheel and said device and chamber, respectively.

[Claim 6 not printed in the Gazette.]

1,209,701. WIRELESS CHECK-ROW PLANTER. JOHN B. HARNES, Advance, Mo., assignor of one-third to Leonard J. Harnes and one-third to John Henry Schomhoff, Advance, Mo. Filed July 2, 1914. Serial No. 848,593. (Cl. 111—6.)



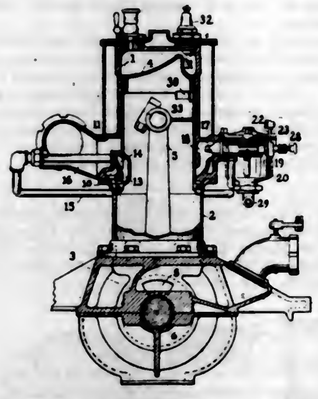
1. In a check row planter, a pivoted member, means for actuating the pivoted member when the frame of the machine varies from the horizontal, rod connections from either end of said pivoted member, a lever pivoted at one end on the frame of the machine and connected at its other to the rod connections, and a variable speed transmission mechanism actuated by said lever.

2. In a check row planter, seed releasing means, a tripper for actuating said means, a drive shaft, a driven shaft, transmission mechanism between the tripper and the driven shaft, a variable speed mechanism between the drive shaft and the driven shaft comprising a fixed disk on the drive shaft, a second disk slidably mounted on the driven shaft and having its periphery in engagement with the face of the first disk, and a swinging frame carried by the planter and having connection with said slidable disk to move the same radially relative to said first disk and thus vary the speed of the driven shaft.

3. In a check row planter, seed releasing means, a tripper for actuating said means, a drive shaft, a driven shaft, gears between the driven shaft and the tripper, a disk on the drive shaft, a slidable disk on the driven shaft having its periphery in engagement with the face of the first disk, a member pivoted intermediate its ends, rod connections on both ends of said pivoted member, a lever pivoted to the frame of the machine and connected to the rod connections and said slidable disk, and means for actuating the pivoted member when the frame of the machine varies from a horizontal.

1,209,702. INTERNAL-COMBUSTION ENGINE. WILLIAM HARPER, Jr., New Bloomfield, Pa., assignor, by mesne assignments, to James A. Carey, New York, N. Y. Filed June 18, 1913. Serial No. 774,273. (Cl. 123—59.)

1. The combination of a plurality of internal-combustion engines operating in spaced phase, an atomizer for each engine for supplying a charge thereto, an air-compression means, a connection from the air-compression means of each engine to the atomizer of a different engine, and means for cutting off the discharge of the air from each engine until it is highly compressed and immediately thereafter releasing it to the atomizer, substantially as described.



2. The combination of a plurality of internal-combustion engines operating in spaced phase, an atomizer for each engine for supplying a charge thereto, an exhaust connection, an air-compression means, and a separate connection from the air compression means of each engine leading through the exhaust connection of said engine and to the atomizer of a different engine, substantially as described.

3. The combination of a plurality of internal-combustion engines operating in spaced phase, each engine comprising tandem communicating cylinders of different diameters, a piston fitting both cylinders and forming a power-chamber in the smaller cylinder and an annular compression-chamber between the walls of the piston and the walls of the larger cylinder, an atomizer for each engine, a connection from each compression-chamber to the atomizer of a different engine, and a valve formed in the wall of the piston for cutting off the discharge of the air from each compression-chamber until it is highly compressed and immediately thereafter releasing it to the atomizer, substantially as described.

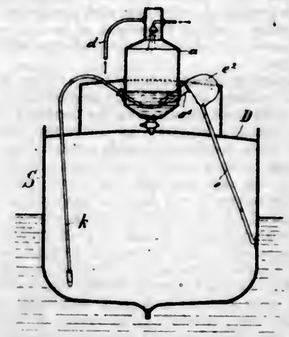
4. The combination of a plurality of internal-combustion engines operating in spaced phase, each engine comprising tandem communicating cylinders of different diameters, a piston fitting both cylinders and forming a power-chamber in the smaller cylinder and an annular compression-chamber between the walls of the piston and the walls of the larger cylinder, an atomizer for each engine, an exhaust connection, and a separate connection from each compression-chamber leading through the exhaust connection of the corresponding engine and to the atomizer of a different engine, substantially as described.

5. The combination of a plurality of internal combustion engines operating in spaced phase, an atomizer for each engine for supplying thereto a charge, an air-compression means, an exhaust connection, a connection from the air-compression means to each engine leading through the exhaust connection of said engine to the atomizer of a different engine, and means for cutting off the discharge of the air from each engine until it is highly compressed and immediately thereafter releasing it to the atomizer, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

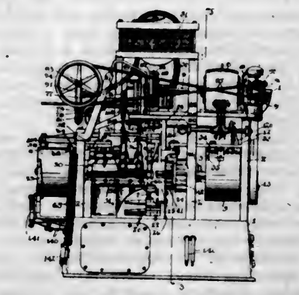
1,209,703. ASH-EJECTING MECHANISM. WILHELM HARTMANN, Offenbach-on-the-Main, Germany. Filed Nov. 16, 1914. Serial No. 872,500. (Cl. 114—186.)

1. In an ash ejecting mechanism, the combination with a container and a water supply, of a suction chamber, a conveyer pipe leading from the container through said chamber, a discharge pipe leading from the water supply and formed with a wider part communicating with the said chamber and into which said first pipe projects, both said pipes being exposed to the suction action created in said suction chamber and the discharge pipe being adapted under the suction action to draw water from the water supply to such a level as to surround the mouth of the said conveyer pipe, so that the material conveyed from the container by suction is thrust through the water surrounding the mouth of the conveyer pipe into the discharge pipe while the air traveling with the material is purified.



2. In an ash ejecting mechanism, the combination with a floating vessel, of a suction chamber, a conveyer pipe leading from the interior of the vessel through said chamber, a discharge pipe, one end of which communicates with the water outside of the vessel and the other end of which has a wider portion which communicates with the suction chamber and into which the conveyer pipe terminates, both said pipes being exposed to the suction action in said suction chamber, and the discharge pipe being adapted under the suction action to draw water from the outside to a level at which it surrounds the mouth of the conveyer pipe, so that the material conveyed through the conveyer pipe will be ejected into the said discharge pipe through the water surrounding the mouth of the conveyer pipe, while the air traveling with it is purified.

1,209,704. METHOD OF AND APPARATUS FOR ELECTRIC WELDING. CHARLES L. HAWES, Ashtabula, Ohio, assignor to The American Fork & Hoe Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 6, 1914. Serial No. 829,758. (Cl. 219—6.)



1. The method of electrically welding an article, which consists in suitably supporting the same on a mandrel constituting one terminal of a heating electric circuit; then passing an electrode, which constitutes the other terminal of such circuit, along the seam of such article and simultaneously positively moving such electrode across such article.

2. The method of electrically welding articles of tubular form, which consists in fitting the preliminarily formed article onto a mandrel constituting one terminal of a heating electric circuit; and then passing an electrode, which constitutes the other terminal of such circuit, along the seam of such article, the electrode and article being given a positive double relative movement.

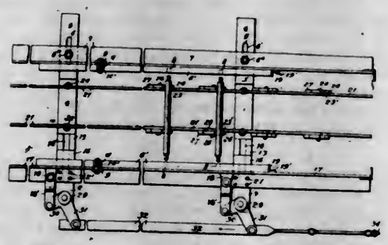
3. The method of electrically welding articles of tubular form, which consists in fitting the preliminarily formed article onto a mandrel constituting one terminal of a heating electric circuit; and then passing an electrode, which constitutes the other terminal of such circuit, along the seam of such article, the electrode and article being given a positive double relative movement so as to cause said electrode to move in a diagonal or helical line with respect to such article.

4. The method of electrically welding articles of tubular form, which consists in fitting the preliminarily formed article onto a mandrel constituting one terminal of a heating electric circuit; bringing an electrode, which constitutes the other terminal of such circuit, into contact with the seam of such article; and then simultaneously positively moving said electrode and article relatively to each other transversely and longitudinally of such seam.

5. The method of electrically welding articles of tubular form, which consists in fitting the preliminarily formed article onto a mandrel constituting one terminal of a heating electric circuit; bringing an electrode, which constitutes the other terminal of such circuit, into contact with the seam of such article; and then simultaneously positively moving said electrode transversely of such seam, and moving said electrode and article relatively to each other longitudinally of such seam.

[Claims 6 to 98 not printed in the Gazette.]

1,209,705. LADDER-ASSEMBLING MACHINE. VERNER E. HAYWARD, Davenport, Iowa. Filed Sept. 18, 1915. Serial No. 51,388. (Cl. 144—2.)



1. In a machine of the class described, the combination with a supporting frame, means for supporting a ladder stile thereon, including clamping bars, a rung support arranged between said clamping bars, a pivoted supporting finger upon which the rung rests attached to the rung support and capable of a slight rocking movement, and means for moving one of said clamping bars into an open or closed position.

2. In a machine of the class described, the combination with a supporting frame, means for supporting ladder stiles thereon, including clamping bars, a longitudinally extending rung support having mounted thereon a series of rocking supporting fingers, whereby the rung is capable of a slight bodily movement, and means for moving one of said clamping bars into open or closed position.

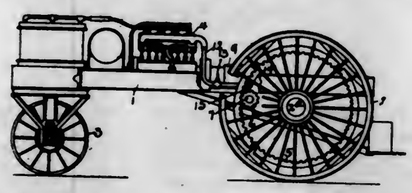
3. In a machine of the class described, the combination with a supporting frame, means for supporting ladder stiles thereon, including clamping bars, a rung support arranged between said clamping bars comprising a member having attached thereto a pivoted supporting finger upon which the rung rests, and means for moving one of said clamping bars into an open and closed position.

4. A machine of the class described, the combination with a supporting frame, means for supporting ladder stiles thereon, including clamping bars, a plurality of longitudinally extending rung supports having a series of pivoted counterweighed supporting fingers thereon to allow a slight bodily movement of the rungs, and means for moving one of said clamping bars into an open or closed position.

5. A machine of the class described, the combination with a supporting frame, means for supporting a ladder stile thereon, including clamping bars, a vertically adjustable rung support arranged between said clamping bars, movable fingers carried by said rung supports and upon which the rung rest, and means for moving one of said clamping bars into an open or closed position.

[Claims 6 to 16 not printed in the Gazette.]

1,209,706. TRACTION-ENGINE. ROBERT OSCAR HENDRICKSON, Portland, Oreg., assignor, by mesne assignments, to Wallis Tractor Company, Racine, Wis., a Corporation of Wisconsin. Filed Jan. 25, 1911. Serial No. 604,539. (Cl. 21—114.)

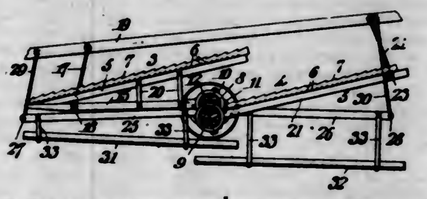


1. In a traction engine the drive of which includes a pair of intermeshing gears and which is driven by a fluid actuated motor, a pipe connected to the exhaust of the motor at one end and the other end of which is open and directed against the engaging surfaces of the gears, substantially as described.

2. In a traction engine, the driving mechanism of which comprises intermeshing gear wheels and which is driven by a fluid actuated motor, a connection from the exhaust of said motor arranged to direct the exhaust from the motor into the bite of said intermeshing gears, substantially as described.

3. In a traction engine, circular racks upon the traction wheels thereof, pinions engaging such racks, the racks and pinions being fully exposed, an internal combustion engine for driving the traction engine and a connection leading from the exhaust of said traction engine adapted to direct the products of combustion into the bite of the rack and gear.

1,209,707. STRAW-CARRIER AND GRAIN-SEPARATOR. HENRY HOEPKER, Addieville, Ill. Filed Mar. 1, 1915. Serial No. 11,427. (Cl. 130—24.)

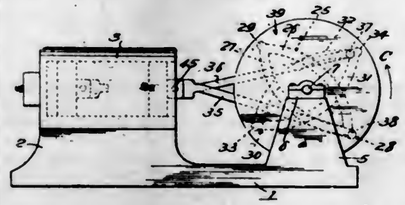


1. In a grain separating machine, a straw carrier, said straw carrier comprising a pair of inclined flights, the uppermost end of one of said flights overlying and extending beyond the lowermost end of the other flight, a power shaft mounted for rotation beneath said overlying end and in the same horizontal plane with the lowermost ends of said flights, eccentrics on said shaft, connecting rods connected at one end with said eccentrics and extending beneath and supporting said flights, and the opposite end of said connecting rods mounted for rocking movement, substantially as described.

2. The combination with a grain separator comprising a plurality of shakers; of a pair of grain pans mounted one beneath each of said shakers with the end of one overlying the adjacent end of the other, a power shaft, eccentrics on said shaft, connecting rods each connected at one end with one of said eccentrics and supported for rocking movement at its opposite end, and means for supporting said grain pans on said connecting rods, substantially as described.

3. In combination, a straw carrier, said straw carrier comprising a pair of inclined flights, the uppermost end of one of said flights overlying and extending beyond the lowermost end of the other flight; with a power shaft mounted for rotation beneath said overlying end, eccentrics on said shaft, means connecting certain of said eccentrics with said flights, a grain pan mounted for reciprocation beneath each of said flights and said shaft with their adjacent ends overlapping, and means connecting said pans and certain other of said eccentrics, substantially as described.

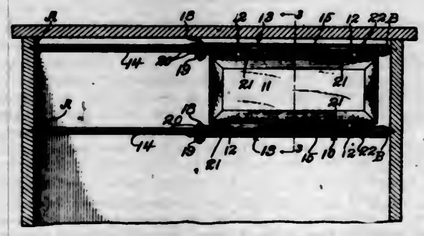
1,209,708. MECHANICAL MOVEMENT. JOHN HOULEHAN, East Ely, Nev. Filed Apr. 10, 1916. Serial No. 90,228. (Cl. 74—14.)



1. In an engine, a cylinder; a piston working in the cylinder; a disk supported for rotation and provided with lenticular guides, the axes of the guides being at right angles to each other; and pitmen, the inner ends of which are pivoted to the piston, the outer ends of which are provided with means for traversing the respective guides.

2. In an engine, a cylinder; a piston working in the cylinder; a disk supported for rotation and provided with lenticular guides having seats at their ends, the axes of the guides being disposed at right angles to each other; and pitmen, the inner ends of which are pivoted to the piston, the outer ends of the pitmen being provided with means for traversing the guides, respectively, and for engaging alternately in the seats of the respective guides.

1,209,709. ADJUSTABLE FEED BOX OR PAN. CALVIN C. HOWARD, Park City, Mont. Filed July 1, 1916. Serial No. 107,074. (Cl. 119—69.)



1. A removable feed box, adjustable means disposed longitudinally thereof and adapted to support said feed box therebetween and means for permitting the last mentioned means to be substantially wedged and held in position between two suitable members.

2. A removable feed box, a plurality of longitudinally disposed rods composed of a plurality of sections pivotally connected and adapted to support said feed box longitudinally therebetween and a means carried at opposite ends of said rods for engagement with a vertically disposed object.

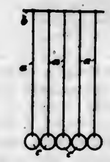
3. A removable feed box, a plurality of horizontally disposed rods supporting said feed box therebetween, means for adjusting said plurality of horizontally disposed rods relative their length and means provided at opposite ends of said horizontally disposed rods for sufficiently penetrating a vertically disposed object at opposite ends of said rods as a means for substantially securing said rods therebetween.

4. A removable feed box, a plurality of horizontally disposed rods composed of a plurality of sections supporting said feed box therebetween, means for adjusting said horizontally disposed rods relative to their length, a means for substantially locking each plurality of sections composing each of said horizontally disposed rods to limit the undesired movement of said sections and means provided at opposite ends of said rods for engagement with a plurality of vertically disposed objects.

5. A removable feed box, a plurality of rods supporting the same, each of said rods composed of a plurality of sections, one of said sections being longer than the other section and having a series of apertures formed therein at one end thereof, the other section having a seat formed therein for the reception of part of the last-mentioned section, a plurality of ears formed at one end of said section, a point formed upon one end of each section, a plurality of grooves suitably spaced and formed upon the last-mentioned section, between the plurality of ears and the pointed end, for the reception of a like number of oppositely disposed tongues formed upon the feed box.

[Claim 6 not printed in the Gazette.]

1,209,710. WIRE ELECTRODE FOR ELECTROLYTIC PURPOSES. MAX HUTH, Charlottenburg, Germany, assignor to Siemens & Halske Aktiengesellschaft, Berlin, Germany, a Corporation of Germany. Filed July 7, 1916. Serial No. 108,081. (Cl. 204—4.)



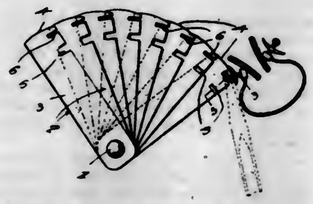
1. In a wire electrode in combination, a plurality of wires suitably supported to freely hang downward, spacers attached to the free ends of said wires, the weight of said spacers sufficing to keep the wires straight and means for conducting current to said wires.

2. In a wire electrode in combination, a plurality of wires suitably supported to freely hang downward, said wires being divided into single groups, a spacer of sufficient weight to keep the wires straight being fastened to the ends of the wires of each group and means for conducting current to said groups.

3. In a wire electrode in combination, a plurality of wires suitably supported to freely hang downward, said wires being divided into single groups, a spacer of sufficient weight to keep the wires straight being fastened to the ends of the wires of each group, grooves on said spacer adapted to receive the lower portions of the wires, and means for conducting current to said groups.

4. In a wire electrode in combination, a plurality of wires, means for supporting each wire in the middle to permit its ends to freely hang down from the support at opposite sides, a spacer of sufficient weight to keep the wires straight being attached to each end of each wire and means to supply current to said wires.

1,209,711. LENS AND STRAP GAGE. PETER W. JACOBY, York, Pa. Filed Jan. 22, 1916. Serial No. 73,745. (Cl. 33—174.)



1. A lens and strap gage comprising a plurality of leaves of various thicknesses, each leaf being provided with slots in one edge of a width equal to its thickness.

2. A lens and strap gage comprising a plurality of leaves of various thicknesses, each leaf being provided in one edge with a slot of a width equal to the thickness of the leaf and means pivotally securing the leaves at one end.

3. A lens and strap gage comprising a plurality of leaves of various thicknesses, each leaf having a gage slot in one edge, of a width equal to the thickness of the leaf, said leaf also having a guide slot intermediate the gage slot and the end, a curved end on each leaf and means pivotally holding the leaves together near the end opposite the curved end.

1,209,712. VEHICLE-TIRE. JOHN ROBT. JOHNSTON, Hammond, Ind. Filed May 12, 1916. Serial No. 97,012. (Cl. 152—8.)



1. A vehicle tire comprising a mass of radially disposed bristles, and means dividing said mass for causing the bristles to bulge outward.

2. A vehicle tire comprising a mass of radially disposed bristles, means for holding the outer ends of said bristles together in compact form, means for rigidly securing the inner ends of said bristles, and a ring located in the middle of said mass of bristles for causing said bristles to bulge outward intermediate their ends when subjected to pressure.

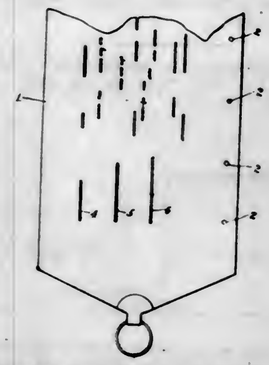
1,209,713. CURB-BAR. THOMAS HENRY KANE, Youngstown, Ohio, assignor to Trussed Concrete Steel Company, Detroit, Mich., a Corporation of Michigan. Filed July 24, 1914. Serial No. 852,779. (Cl. 94—2.)



1. A curb bar comprising a body portion, and a web extending outwardly therefrom, the outer edge of the web being laterally extended at intervals to form a serrated anchoring surface, and the web having apertures formed therein between said serrated outer edge and the body portion and extending into the laterally extended portion, the laterally extended portions of the outer edge of said web allowing a bending of the said web for corners and the like.

2. A curb bar, comprising a segmental body portion and a web projecting radially from the concave side thereof, the base of said web being thicker than the main part of it, said main part having a row of apertures formed therein, the metal left between the outer sides of said apertures and the outer edge of the web being displaced outwardly to increase the size of the apertures and to form a serrated web edge.

1,209,714. PERFORATED MUSIC-SHEET. GEORGE B. KELLY, Jamaica Plain, Mass., assignor to Aeolian Company, Garwood, N. J., a Corporation of Connecticut. Filed Dec. 27, 1913, Serial No. 808,983. Renewed May 16, 1916. Serial No. 97,956. (Cl. 84—162.)



1. A perforated music sheet in which the perforations control the playing on a piano of a portion of a musical composition, these perforations being so located as to bear a fixed relation to the musical composition of a particular phonographic record, and also provided with indicia indicating the progress of the rotating phonographic record, substantially as set forth.

2. A perforated music sheet provided with indicia produced on the same to indicate rotations of a phonograph disk or record and which indicia have precisely the same relation to the music slots in said perforated sheet as the rotations of the phonograph or talking machine record had to the musical sounds manually produced on a piano or organ while accompanying the melody produced by the phonographic record disk during such rotations of the record disk while the accompaniment was being played manually, substantially as set forth.

1,209,715. RUBBER TIRE AND ITS ATTACHMENT TO WHEELS. EDWARD BRICE KILLEN, London, England. Filed Jan. 6, 1912. Serial No. 669,754. (Cl. 152—1.)

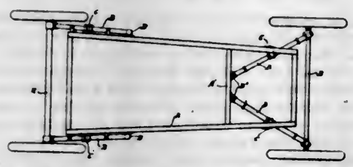
1. A rubber tire having an annular air chamber of gable-like cross section which is not inflated and has a base constituted by a floating endless metal rim which is in itself airtight, and means for making said air chamber airtight, said means comprising hookable base beads having extended rubber toes on which toes the endless metal rim is airtightly floated and an endless metal bonding rim formed with two hooking flanges and separated from the floating endless metal rim by an annular narrow space, the extended toes lying jammed in said annular narrow space between the floating endless metal rim and the endless metal bonding rim and forming airtight joints with the floating rim and the bonding rim on the outer and inner circumferences of the toes, as set forth.

2. A rubber tire having an annular air chamber of gable-like cross section which is not inflated and has a base constituted by a floating endless metal rim which is in itself airtight, means for making said air chamber airtight, said means comprising base-beads with hooking heels and extended rubber toes on which toes the endless metal rim is airtightly floated and an endless bonding rim having hooking flanges and separated from the floating endless metal rim by an annular narrow space, the extended toes lying jammed in said annular narrow space between the



floating endless rim and the endless bonding rim and forming airtight joints with the floating rim and also with the bonding rim and annular strengthening beads (8) provided on the tire outside the hooking heels in the proximity of the hooking flanges of the bonding rim, for the purpose of enabling the fabricless rubber walls to flow inward instead of outward under load, as set forth.

1,209,716. SPRING SUSPENSION FOR VEHICLES. CHARLES B. KING, Detroit, Mich. Filed July 6, 1914. Serial No. 849,136. (Cl. 267—27.)



1. A vehicle spring, comprising a cantaliver spring arm, means intermediate the ends of the spring arm for limiting the rocking movement of said cantaliver, and an auxiliary spring of lighter tension for resisting the rocking of said spring arm within the limits of its movement.

2. A vehicle spring, comprising a cantaliver spring arm tensioned for heavy shocks, a fulcrum upon which said arm is pivotally supported, means intermediate the ends of the spring arm and upon both sides of said fulcrum for limiting the rocking movement of said arm, and an auxiliary spring of lesser tension for resisting rocking movement of said arm within its limits.

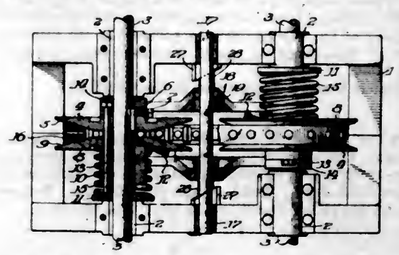
3. A vehicle spring, comprising a cantaliver spring arm, a fulcrum upon which said arm is freely rockable, an auxiliary spring of lesser tension for resisting rocking movement of said arm, and a stop for limiting the free movement of said arm on its fulcrum.

4. A vehicle spring, comprising a cantaliver spring arm, a fulcrum upon which said arm is rockable, means for limiting the rocking movement of one end of said arm, and means intermediate the ends of said arm for further limiting the rocking movement thereof, said means permitting flexing movement thereof.

5. A vehicle spring, comprising a cantaliver spring arm, a fulcrum upon which said arm is rockable, and a series of stops for successively contacting with said arm at different points in the length thereof, to successively limit the rocking movement of said arm.

[Claims 6 to 16 not printed in the Gazette.]

1,209,717. VARIABLE-SPEED-TRANSMISSION MECHANISM. ROY D. KING, Chicago, Ill. Filed May 8, 1915. Serial No. 26,705. (Cl. 64—8.)



1. In a speed varying mechanism, the combination of a pair of parallel shafts, a pair of cone-shaped driving disks mounted on each of said shafts, one of each pair of said disks being fixedly secured to its respective shaft and the complementary disks being movable longitudinally of said shafts, means for biasing said movable disks toward said fixed disks, power transmitting means between the respective pairs of disks, and adjustable means engaging said power transmitting means and adapted to regulate its radial distance from the respective shafts, whereby the diameters of the effective driving portions of the respective pairs of disks may be varied inversely with respect to each other.

2. In a speed varying mechanism, the combination of a pair of parallel shafts, a pair of cone-shaped driving disks mounted on each of said shafts, one of each pair of said disks being fixedly secured to its respective shaft and the complementary disks being movable longitudinally of said shafts, means for biasing said movable disks toward said fixed disks, power transmitting means between the respective pairs of disks, a plurality of rollers engaging said power transmitting means, and means for adjusting said rollers to regulate the radial distance of said power transmitting means from the respective shafts, whereby the diameters of the effective driving portions of the respective pairs of disks may be varied inversely with respect to each other.

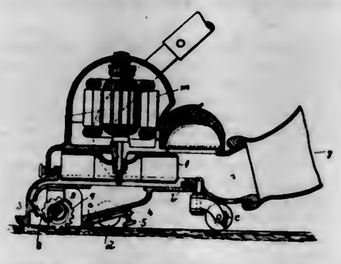
3. In a speed varying mechanism, the combination of a pair of parallel shafts, a pair of cone-shaped driving disks mounted on each of said shafts, one of each pair of said disks being fixedly secured to its respective shaft and the complementary disks being movable longitudinally of said shafts, means for biasing said movable disks toward said fixed disks, power transmitting means between the respective pairs of disks, a pair of pivotally mounted yokes, a pair of rollers supported by each of said yokes and engaging said power transmitting means, and means for swinging said yokes about their pivots to regulate the radial distance of said power transmitting means from the respective shafts, whereby the diameters of the effective driving portions of the respective pairs of disks may be varied inversely with respect to each other.

4. In a speed varying mechanism, the combination of a pair of parallel shafts, a pair of cone-shaped driving disks mounted on each of said shafts, one of each pair of said disks being fixedly secured to its respective shaft and the complementary disks being movable longitudinally of said shafts in opposite directions, springs for biasing said movable disks toward said fixed disks, power transmitting means between the respective pairs of disks, and adjustable means engaging said power transmitting means and adapted to regulate its radial distance from the respective shafts, whereby the diameter of the effective driving portions of the respective pairs of disks may be varied inversely with respect to each other.

5. In a speed varying mechanism, the combination of a pair of parallel shafts, a pair of cone-shaped driving disks mounted on each of said shafts, one of each pair of said disks being fixedly secured to its respective shaft and the complementary disks being movable longitudinally of said shafts in opposite directions, springs for biasing said movable disks toward said fixed disks, a power transmitting belt between the respective pairs of disks, and adjustable rollers engaging said belt and adapted to regulate its radial distance from the respective shafts, whereby the diameter of the effective driving portions of the respective pairs of disks may be varied inversely with respect to each other.

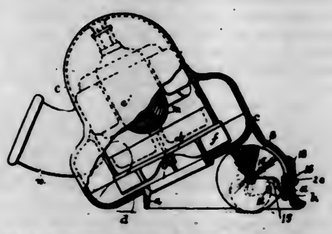
[Claims 6 and 7 not printed in the Gazette.]

1,209,718. VACUUM CLEANING-MACHINE. JAMES B. KIRBY, Cleveland, Ohio. Original application filed Mar. 30, 1912, Serial No. 687,510. Divided and this application filed Nov. 1, 1912, Serial No. 728,994. Renewed June 24, 1915. Serial No. 30,153. (Cl. 15—60.)



The combination with the suction shoe of a vacuum cleaner, of a floor engaging support carried thereby at a distance from the inlet mouth, a crank shaft journaled to said shoe upon a transverse axis between said support and inlet mouth, wheels journaled upon said crank shaft, one on each side of the center line of the shoe, an arm projecting from said shaft, and means for securing said arm at a plurality of adjusted positions whereby the height of said inlet mouth can be regulated.

1,209,719. VACUUM CLEANING-MACHINE. JAMES B. KIRBY, Cleveland, Ohio. Filed Apr. 4, 1913. Serial No. 758,804. (Cl. 15—60.)



1. In a suction cleaner, a casing having a collecting nozzle formed with a downwardly facing inlet mouth, a pair of frusto conical brushes located within said nozzle with the larger ends adjacent to each other, and their curved surfaces tangent to the same plane, floor-engaging traction wheels rigidly connected to the smaller ends of said brushes and having a diameter substantially equal to the portion of the brush adjacent thereto, and means journaling said brushes inside said nozzle whereby said casing is supported by said wheels.

2. In a suction cleaner, a collecting nozzle and a movable frame therein, carrying wheels journaled to said frame, agitating devices carried by said frame, and means for raising and lowering said frame relatively to said nozzle so as to support said nozzle at different heights above the working surface.

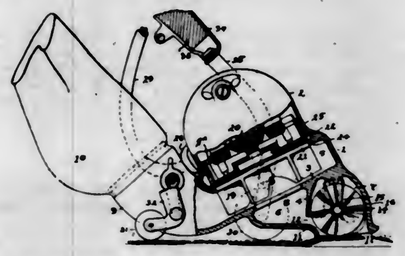
3. In a suction cleaner, a casing, an elongated nozzle carried thereby and transversely arranged relatively thereto, a frame adjustably pivoted to said nozzle, carrying wheels journaled to said frame, agitating devices located in said nozzle and operatively connected to said carrying wheels, and means for raising and lowering said frame relatively to said nozzle so as to support said nozzle at different heights above the working surface.

4. In a suction cleaner, a casing having an inlet mouth, a frame inside said inlet mouth, a brushing device journaled in said frame, carrying wheels pivoted to said frame, said frame being pivoted inside said casing eccentrically of said brush and wheels, and means for adjusting said frame about its pivot axis so as to raise and lower said casing.

5. A suction cleaner, comprising a casing, a pair of tapered brushes therein, and floor engaging traction wheels mounted directly on the shafts of said brushes, having substantially the same size as the smaller ends of the brushes.

[Claims 6 to 8 not printed in the Gazette.]

1,209,720. VACUUM CLEANING-MACHINE. JAMES B. KIRBY, Cleveland, Ohio. Filed Sept. 15, 1913. Serial No. 789,745. (Cl. 15—60.)



1. In a vacuum cleaning machine, a hollow body having therein a fan chamber, a brush chamber, and a triangular suction chamber located therebetween, there being a central opening into said fan chamber communicating with the apex of said suction chamber, and a wall between said suction chamber and brush chamber defining a communicating slot which is narrower than the suction chamber and extends throughout substantially the entire length of said suction chamber upon the side opposite said opening, the length of said slot being greater than the diameter of said fan chamber.

2. In a vacuum cleaning machine, a casing having three chambers therein consisting of a circular fan chamber, a wedge shaped suction chamber, and an elongated brush chamber, the fan chamber and suction chamber being connected by an opening at the point of the wedge, and the suction chamber and brush chamber being connected by an elongated slot along the base of the wedge, said slot being narrower than the suction chamber and closely adjacent to the mouth of the brush chamber.

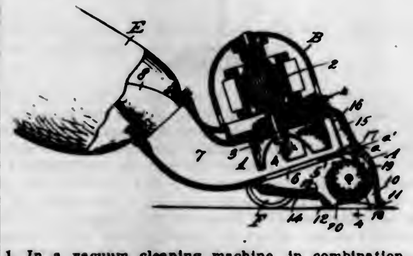
3. In a vacuum cleaning machine, a casing having a circular fan chamber inclined relatively to a horizontal plane and provided with an elongated collecting nozzle transversely arranged beneath the elevated portion of the same and communicating with the central part of the fan chamber, the length of said nozzle being greater than the diameter of said fan chamber, an inclined motor receiving dome of smaller diameter than the fan chamber secured to the top thereof and projecting rearwardly at the same inclination, said casing also having a wall depending inside said nozzle between its inlet mouth and the fan chamber opening, and defining a suction chamber, there being an elongated passageway past said wall throughout the entire length thereof which is narrower than the height of said suction chamber.

4. In a vacuum cleaning machine, a base section having a fan chamber, a suction chamber, and an extended brush chamber, the bottom of said brush chamber being open and tapering from the middle to its ends, in combination with a pair of round tapering brushes removably mounted within said brush chamber.

5. In a vacuum cleaning machine, a casing having a fan chamber and a brush chamber extended transversely at either side thereof, and provided with an elongated suction chamber between said fan chamber and the brush, in combination with a pair of round tapering brushes mounted with their larger ends opposite each other in said brush chamber.

[Claims 6 to 10 not printed in the Gazette.]

1,209,721. VACUUM CLEANING DEVICE. JAMES BLAINE KIRBY, Cleveland, Ohio. Original application filed Mar. 30, 1912, Serial No. 687,510. Renewed Jan. 19, 1914, Serial No. 813,110. This continuation application filed Nov. 15, 1913. Serial No. 801,125. (Cl. 15—60.)



1. In a vacuum cleaning machine, in combination, a fan chamber, a centrifugal fan therein, said chamber having an inlet adjacent to the low pressure region of said fan chamber and an outlet in one part of the high-pressure region thereof, a shoe having therein an air inlet passage, floor engaging agitating mechanism in said shoe, a connection between said inlet passage and a part of said high-pressure region removed from said outlet, whereby a blast of air is diverted into said shoe, and driving devices operatively connected to said agitating mechanism and located in the line of said blast.

2. A vacuum cleaning machine having a fan chamber and a shoe, said shoe having therein an air inlet passage communicating with the low-pressure region of said fan chamber, agitating devices located in said shoe, a connection between the high-pressure region of said chamber and said inlet passage, and operating devices arranged in line with said connection and operatively connected to said agitating devices.

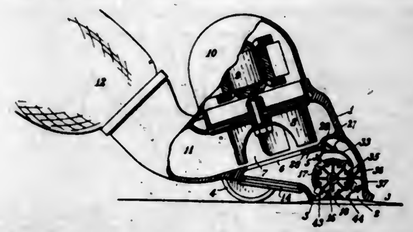
3. A vacuum cleaning machine having a fan chamber and a shoe, said shoe having therein an inlet passage communicating with the low pressure region of said fan chamber, a shaft journaled in said shoe, vanes mounted on said shaft, an air duct connected with the high pressure region of said fan chamber and arranged to direct upon said vanes the air passing therethrough, and agitating devices operatively connected to said shaft.

4. A vacuum cleaning machine having a fan chamber and an elongated, downwardly facing inlet mouth, an exhaust fan in said chamber, said inlet mouth communicating with said chamber adjacent to the low pressure region of said fan and said chamber having a discharge outlet at one point in the high-pressure region thereof, a rotatable agitating device located in said inlet mouth, and an air motor operatively connected to said agitating device, there being a pressure-air duct communicating with the high-pressure region of said fan chamber at a point removed from said discharge outlet and arranged to supply air to said motor.

5. In a vacuum cleaner, the combination of a fan and its chamber, a shoe communicating with said chamber and having an inlet mouth, an agitating device in said mouth, adapted to operate on the surface to be cleaned, an air motor driven by the blast from said fan, said chamber communicating with said shoe to deliver the blast to the motor, and the motor being operatively connected to the agitating device.

[Claims 6 to 13 not printed in the Gazette.]

1,209,722. VACUUM CLEANING-MACHINE. JAMES B. KIRBY, Cleveland, Ohio. Filed Mar. 28, 1914. Serial No. 827,785. (Cl. 15—60.)



1. In a device of the character described, a shoe adapted to be moved about the floor, an agitating device carried by said shoe and adapted to operate upon the floor, a power source carried by said shoe and operatively connected to said agitating device, the operation of said power source being independent of the motion of said shoe, and means for preventing the driving of said agitating device by said power source when said shoe is at rest.

2. In a suction cleaner, a shoe having an inlet mouth adapted to be moved about over the floor, an agitating device located within said mouth and adapted to operate upon the floor, a power source carried by said shoe, a non-positive power transmitting device operatively connecting said power source with said agitating device, and means actuated by the movement of said shoe along the floor for alternately permitting and preventing the operation of said agitating device.

3. A vacuum cleaning machine, comprising a fan chamber and a fan therein, a shoe having an exhaust passage opening into the low pressure region of said fan chamber and also having an air passage opening into the high pressure region of said fan chamber, agitating devices carried by said shoe and arranged to be operated by the air passing through said last named passage, and means associated with said agitating devices for preventing the operation of the same except when said shoe is in motion.

4. In a device of the character described, the combination, with a supporting casing arranged to be drawn across the floor, a continuously operating power source carried by said casing and a brushing device carried by said casing and arranged to operate upon said floor, of impositive power transmitting devices connecting said power source and said brushing device, and means operative during a uniform movement of said casing for driving said brushing device intermittently.

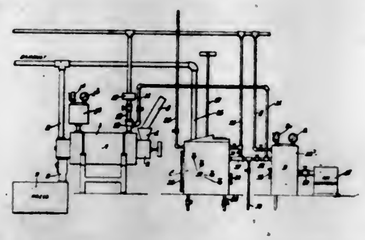
5. In a vacuum cleaning machine, the combination, with a shoe, a power operated suction fan in said shoe, a collecting mouth communicating with said fan, a brushing device in said mouth, and means operated by power derived from said fan for driving said brushing device, of means operative during the movement of said shoe across the floor for moving said brushing device alternately nearer to and farther from the floor, said brush being held immovable at the time of its nearest approach to the floor.

[Claims 6 to 12 not printed in the Gazette.]

1,209,723. FATTY PRODUCT FROM FIXED OILS AND FATS AND PROCESS OF MANUFACTURING SAME. EMANUEL KLEIN, New York, N. Y. Filed Jan. 12, 1916. Serial No. 71,637. (Cl. 87—12.)

1. A fatty product constituting an odorless, permanently water-white, tasteless, constant liquid, nonabsorbent

as to oxygen and moisture, whereby it is non-rancifiable and will not turn opaque upon standing at ordinary temperatures, insoluble in dilute alcohol, having a specific gravity at 15° Cent. of 0.901–0.914, a solidifying point at −2° to 3° above Cent., decomposing when distilled *in vacuo*, and sparingly soluble in absolute alcohol and readily soluble in ether.



2. A fatty product constituting an odorless, permanently water-white, tasteless, constant liquid solidifying point at −2° to 3° above C., non-absorbent as to oxygen and moisture, whereby it is non-rancifiable and will not turn opaque upon standing at ordinary temperatures, decomposing when distilled *in vacuo*, and sparingly soluble in absolute alcohol and readily soluble in ether and ineffective on blue litmus paper.

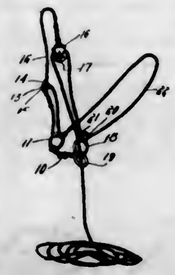
3. A fatty product constituting an odorless, permanently water-white, tasteless, constant liquid, non-rancifiable, insoluble in dilute alcohol, having a specific gravity at 15° Cent. of 0.901–0.914, a solidifying point at −2° to 3° above Cent., decomposing when distilled *in vacuo*, and sparingly soluble in absolute alcohol and readily soluble in ether.

4. The process of treating fatty matter consisting in placing the oil-bearing material in a vessel in which is placed KOH, NaOH, Na_2CO_3, and salt, agitating the mass and subjecting it to a heating medium and to hot compressed air and steam delivered directly into the mass at the bottom of the tank, and to the action of a cooling medium to maintain the temperature of the mass at about 58° Cent., continuing this operation for a suitable time and then permitting the mixture to stand and separate into layers, then decanting the upper layer and again placing it in a tank and forming and separating out higher fatty acids in the mass, then adding fiber, then decanting the unsolidified mass, then placing the decanted mass again in a receptacle and subjecting it to indirect steam, and steam injected therein together with hot air at a temperature of about 93° to 110° Cent., and agitating the mass, then subjecting the mass to a decolorizing and bleaching agent together with hot compressed air and a heating medium at a temperature of about 110° Cent., then permitting the mass to settle, and then decanting the liquid after settlement.

5. The process of treating fatty matter consisting in placing the oil-bearing material in a vessel containing KOH, NaOH, Na_2CO_3 and natural or artificial Seignette, sea or rock salt water, agitating the mass and subjecting it to a heating medium and to hot compressed air and steam delivered directly into the mass at the bottom of the tank, and to the action of a cooling medium to maintain the temperature at about 58° Cent., continuing this operation for about two hours and then permitting the mixture to stand and separate into layers, then decanting the upper layer and again placing it in a tank to form and separate out higher fatty acids in the mass, then adding fiber, then decanting the unsolidified mass, then placing the decanted mass again in a receptacle and subjecting it to indirect steam in a coil, and steam injected therein together with hot air at a temperature of about 93° to 110° Cent., and agitating the mass, then subjecting the mass to the action of the constituents of powdered oyster shells and coal ashes, together with hot compressed air and indirect superheated steam and agitation at a temperature of about 110° Cent., then permitting the mass to settle, and then decanting the liquid after settlement.

[Claims 6 to 17 not printed in the Gazette.]

1,209,724. LEADING AND SUBDUING BRIDLE. FRANK L. KOEPKE, Whitehall, Wis. Filed Mar. 31, 1916. Serial No. 88,080. (Cl. 54—6.)



A leading and subduing bridle, comprising a halter including a bit member, a ring movably connected to one end of the bit, a pair of rings movably connected to the other end thereof, a cord engaged through the single ring and passed over the animal's head, a pulley carried by the end of the cord, adjusting means carried by the other end of the cord and engaging therewith, intermediate the ends thereof, a pulley carried by one of the said pair of rings, and a cord secured to the first-named ring and engaging both of the pulleys and passing through the other of the pair of rings and adapted to pass over the neck of the animal.

1,209,725. KITCHEN-KNIFE. WILLIAM KRIZ, St. Louis, Mo. Filed June 25, 1915. Serial No. 36,166. (Cl. 30—20.)



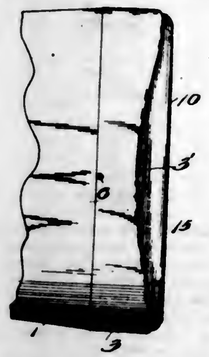
A paring knife formed from a rectangular blank with a gouge extension projecting from one corner of one end thereof and a handle shank extending from the diagonally opposite corner of the other end, said blank being provided with a rectangular slot and having its opposite side edges sharpened and being adapted to have its narrower side portion bent upon itself to extend partially over the rectangular slot to form a paring blade and the wider side portion forming a cutting blade, said blades being transversely curved.

1,209,726. RECOIL-PAD. PAUL J. KRUEGER, Blue Island, Ill. Filed May 26, 1916. Serial No. 100,024. (Cl. 42—74.)

1. The combination with a gun stock of an outer metallic casing secured thereto and open at its outer end, an inner casing having a flexible cover closing its outer open end, and a pneumatic tube inclosed between the inner casing and its flexible covering.

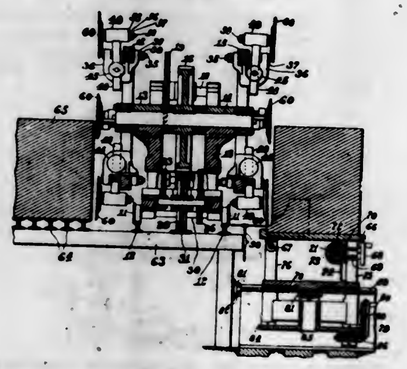
2. The combination with a gun stock, of an outer metallic open end casing provided with a flange and perforated for screws to secure it to the gun stock, an inner casing

secured to the outer casing and provided with a flexible cover, a pneumatic tube between a flanged portion of the



inner casing and the flexible cover, and said inner casing having an opening for passage of the tube.

1,209,727. STONE-CUTTING MACHINE. EDWARD M. KING, Milford, Mass., assignor to King Granite Machine Company, Milford, Mass., a Corporation of Massachusetts. Filed Nov. 27, 1915. Serial No. 64,186. (Cl. 125—6.)



1. In a machine of the class described, the combination of a revoluble wheel; a support mounted on said wheel; a radial arm mounted on said support and adjustable outwardly from the plane of rotation of said wheel; and a rotary cutting disk on the outer end of said arm with the cutting edge outside the periphery of said wheel.

2. In a machine of the class described, the combination of a revoluble wheel; a forked support mounted on said wheel and secured thereto by a pin parallel to the axis of said wheel; an arm mounted on said support and adjustable outwardly from the plane of rotation of said wheel; and a rotary cutting disk on the outer end of said arm.

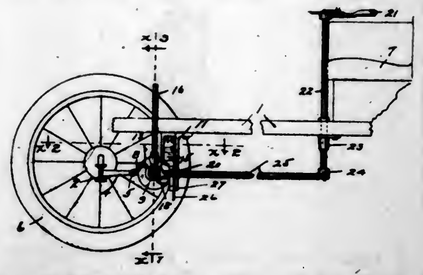
3. In a machine of the class described, the combination of a revoluble wheel; a support adjustably mounted thereon and movable in a direction parallel to the axis of said wheel; an arm pivotally mounted on said support; a rotary cutting disk mounted on the outer end of said arm; and means for clamping said arm in adjusted position.

4. In a machine of the class described, the combination of a revoluble wheel; a support adjustably mounted thereon and movable in a direction parallel to the axis of said wheel; an oscillating block on said support; an arm radially positioned on said block; a rotary cutting disk mounted on the outer end of said arm; and means for clamping said block in adjusted position.

5. In a machine of the class described, the combination of a revoluble wheel; a support mounted thereon having a conical opening therein and adjustable transversely of said wheel; a block fitting said opening in said support; an arm radially positioned on said block; a rotary cutting disk mounted on the outer end of said arm; and means for clamping said block in adjusted position.

[Claims 6 to 17 not printed in the Gazette.]

1,209,728. STEERING-GEAR FOR MOTOR-DRIVEN VEHICLES. JOHN R. KUNZELMAN, Duluth, Minn. Filed Nov. 26, 1915. Serial No. 63,422. (Cl. 21—199.)



1. The combination with a motor driven vehicle having steering elements, of a rotatable steering rod secured with respect to the steering elements, a stationary nut block having screw-threaded engagement with said steering rod, a gear keyed to the steering rod and through which said steering rod is free to slide longitudinally, a pinion secured against radial movement, means for driving the pinion, and means for sliding the gear on the steering rod into and out of operative engagement with said pinion.

2. The combination with a motor driven vehicle having steering elements, of a rotatable steering rod secured with respect to the steering elements and having a knuckle joint, a stationary nut block having screw-threaded engagement with said steering rod, a gear keyed to the steering rod and through which said steering rod is free to slide longitudinally, a pinion secured against radial movement, means for driving the pinion, and means for sliding the gear on the steering rod into and out of operative engagement with said pinion.

3. The combination with a motor driven vehicle having steering elements, of a rotatable steering rod secured with respect to said steering elements, a stationary nut block having screw-threaded engagement with said steering rod, a pair of gears keyed to the steering rod and through which said steering rod is free to slide longitudinally, a pinion secured against radial movement, means for driving the pinion, and means for moving either of said gears, at will, into operative engagement with said pinion.

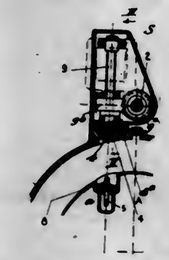
4. The combination with the chassis of a motor driven vehicle having a rigid front axle, arm-equipped stub axles pivoted to said rigid axle, wheels journaled on said stub axles, and a tie rod connecting the arms of said stub axles, of a rotatable steering rod secured in respect to said tie rod, a stationary nut block secured to said chassis and having screw-threaded engagement with said steering rod, a pair of bevel gears keyed to said steering rod and through which said steering rod is free to slide longitudinally, an engine driven pinion, and means for moving either of said gears, at will, into operative engagement with said pinion.

5. The combination with the chassis of a motor driven vehicle having a rigid front axle, arm-equipped stub axles pivoted to said rigid axle, wheels journaled on said stub axles, and a tie rod connecting the arms of said stub axles, of a steering rod secured in respect to said tie rod, a nut block secured to said chassis and having screw-threaded

engagement with said steering rod, a pair of bevel gears keyed to said steering rod and through which said steering rod is free to slide longitudinally, an engine driven pinion, yielding means tending to hold said pinion in a neutral position, and means for moving either of said gears, at will, into operative engagement with said pinion.

[Claim 6 not printed in the Gazette.]

1,209,729. TORPEDO-TUBE. CESARE LAURENTI, Spezia, Italy, assignor to Società Anonima Fiat-San Giorgio, Spezia, Italy. Filed Jan. 13, 1916. Serial No. 71,977. (Cl. 114—238.)



1. Apparatus for launching torpedoes, comprising a tube, and a stop adjustable longitudinally of the tube for coöperating with means on the torpedoes to position torpedoes of different dimensions in the tube.

2. Apparatus for launching torpedoes, comprising a tube, and a stop adjustable longitudinally of the tube for coöperating with means on the torpedoes to position torpedoes of different dimensions in the tube, and means for displacing said stop in launching the torpedo.

3. Apparatus for launching torpedoes, comprising a tube, means for adjusting the gyroscope setting mechanism of the torpedo, and a stop adjustable longitudinally of the tube for coöperating with means on the torpedoes to position torpedoes of different dimensions in the tube with respect to said gyroscope setting adjusting means.

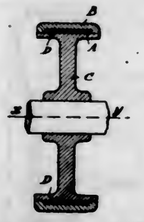
4. Apparatus for launching torpedoes, comprising a tube, and a stop adjustable longitudinally of the tube for coöperating with means on the torpedoes to position torpedoes of different dimensions in the tube, means for adjusting said stop, and means for displacing said stop to release the torpedo, said displacing means having a part having a compensatory movement when said stop is adjusted.

5. Apparatus for launching torpedoes, comprising a tube, a stop for coöperating with means on the torpedoes to position torpedoes therein, and means for adjusting said stop longitudinally of the tube, said means comprising an operating rod having a rotary and a sliding movement, a slide carrying said stop, and means operated by a rotary movement of the operating rod for displacing said slide, and means for displacing said stop to release the torpedo, said means comprising a part displaceable with said slide and adapted when operated by a sliding movement of said operating rod to displace said stop.

[Claims 6 to 18 not printed in the Gazette.]

1,209,730. AUTOMATIC BALANCER FOR ROTATING BODIES. MAURICE LEBLANC, Paris, France, assignor to Société Anonyme pour l'Exploitation des Procédés Westinghouse-Leblanc, Paris, France. Filed July 23, 1912. Serial No. 711,177. (Cl. 74—6.)

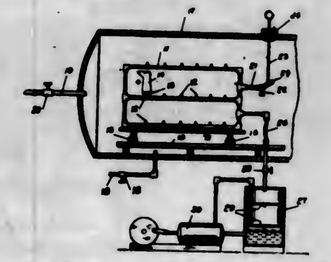
1. The combination with a rotor shaft which is adapted to be freely displaced so as to be capable of rotation about a principal axis of inertia through its center of gravity, of balancers comprising masses secured to the rotor shaft and having a circular channel for every balancer, a dense material the particles of which are mobile partly filling the said channels and a viscous liquid filling the spaces left in the channels.



2. The combination with a rotor shaft which is adapted to be freely displaced so as to be capable of rotation about a principal axis of inertia through its center of gravity, of balancers comprising masses secured to the rotor shaft and having a circular channel for every balancer, and a substance partly filling the said channels, which substance is liquid so as to assume a counterbalancing shape when in rotation.

3. The combination with a rotor shaft which is adapted to be freely displaced so as to be capable of rotation about a principal axis of inertia through its center of gravity, of balancers comprising masses secured to the rotor shaft and having a circular channel for every balancer, a dense material the particles of which are mobile partly filling the said channels and fixed guard rings surrounding the rotor shaft with a certain amount of clearance between the rings and the shaft.

1,209,731. EXHAUSTING APPARATUS FOR VULCANIZING. CLIFFORD LEE, Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Company, a Corporation of Connecticut. Filed Apr. 10, 1916. Serial No. 90,107. (Cl. 18—6.)



1. An apparatus of the class described, comprising a vulcanizer, a hollow form therein, means for filling the form with a medium, a container for a medium having a chemical affinity for the first named medium, and means for establishing communication between said container and the interior of said form.

2. An apparatus of the class described, comprising a vulcanizer, a hollow form therein, means for filling the vulcanizer with a medium, means for establishing and then cutting off communication between the interior of the form and the interior of the vulcanizer whereby to fill the form with said medium, a container for a medium having a chemical affinity for the first named medium, and means for establishing communication between said container and the interior of said form.

3. An apparatus of the class described, comprising a vulcanizer, a hollow form therein, means for exhausting the vulcanizer, means for filling the exhausted vulcanizer with a medium, means for establishing and cutting off communication between the interior of the form and the interior of the vulcanizer, whereby the form may be exhausted during exhaust of the vulcanizer and may be filled with said medium and sealed during filling of the vulcanizer, a container for a medium having a chemical affinity for the first named medium, and means for establishing communication between said container and the interior of the form.

4. An apparatus of the class described, comprising a vulcanizer, a hollow form therein, means for filling the form with a medium, a container for a medium having a chemical affinity for the first named medium, means for agitating the medium in said container, and means for establishing communication between said container and the interior of said form.

5. An apparatus of the class described, comprising a vulcanizer, a hollow frame removably disposed in the vulcanizer, hollow forms on and communicating with the frame, means for filling the frame and the forms with a medium, a container for a medium having a chemical affinity for the first named medium, and means for establishing communication between said container and the interiors of said frame and forms.

1,209,732. FRUIT-PICKER. FRANK B. LEONARD, Utica, N. Y. Filed June 2, 1916. Serial No. 101,275. (Cl. 56—99.)



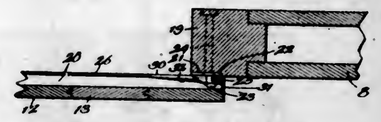
1. In a device of the character described, a supporting rod, a tubular rod mounted on the upper end of the supporting rod, and provided with a fixed jaw, a swinging jaw, a spring housed within said tubular rod for operating said swinging jaw, said tubular rod protecting said spring against accidental derangement through contact with the trees.

2. In a device of the character described, a supporting rod, a tubular rod mounted upon the upper end of said supporting rod, a jaw fixed to the tubular rod, a swinging jaw pivoted to the tubular rod and having an arm projecting into the rod, a spring housed within the tubular rod and connected with the arm for forcing the swinging jaw into engagement with the fixed jaw and a flexible tube connected with the swinging jaw for conveying the fruit.

3. In a device of the character described, a supporting rod, a tubular rod mounted on the upper end of said supporting rod, a jaw fixed to the tubular rod, a swinging jaw pivoted to the tubular rod and having an arm projecting into the tubular rod, a spring housed within the tubular rod and connected with the arm for forcing the swinging jaw into engagement with the fixed jaw and means carried by said spring for engagement with means carried by the tubular rod for adjusting the tension of said spring.

4. In a device of the character described, a supporting rod, a tubular rod mounted on the upper end of said supporting rod, and provided with a fixed jaw, a swinging jaw, a spring housed within the tubular rod for forcing the swinging jaw into engagement with the fixed jaw, and a flexible tube connected with the swinging jaw for conveying the fruit, said tube being adapted to be operated for forcing said swinging jaw away from engagement with said fixed jaw.

1,209,733. CAR-DOOR-LOCKING DEVICE. FREDERICK A. LESTER, Chicago, Ill., assignor to Chicago Standard Equipment Company, Chicago, Ill., a Corporation of Maine. Filed July 25, 1916. Serial No. 111,166. (Cl. 70—102.)

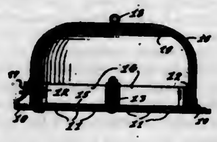


1. In a device of the character described, the combination with a car door and car body having a doorway opening, of a bolt member secured to said car body adjacent the doorway opening and provided with an outwardly projecting locking portion, said door having its inner face provided intermediate its ends with a longitudinal recess within which said outwardly projecting locking portion in varying positions of the door is normally positioned, and a bracket member secured to the rear end of the door and formed with an open ended slot in alinement with said recess and an inner seat disposed in said recess adapted to be engaged by said outwardly projecting locking portion, said locking portion slidable in said longitudinal recess in the opening and closing of the door to engage with and disengage from said seat, the slot providing access from the recess to said seat; substantially as and for the purpose set forth.

2. In a device of the character described, the combination with a sliding car door and car body having a doorway opening therein adapted to be closed by said door, of a bolt member secured to said car body adjacent the rear side of the doorway opening and formed with an outwardly projecting locking portion, said door having its inner face provided with a recess extending longitudinally intermediately the front and rear edge portions of the door and into which said locking portion projects for travel therein as the door has sliding movement, means on said door for maintaining the head in said recess, and a bracket member carried by the door at the rear end of said recess and provided with an inner seat for said locking portion, said bracket member disposed in the plane of the inner face of the door and formed with a slot providing access from said recess to said seat.

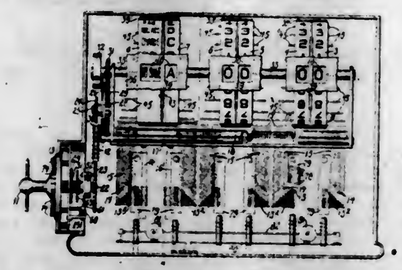
3. In a door closure and lock device, the combination of a bracket member composed of a substantially flat base body portion provided at one end with an angularly disposed terminal plate and formed with an open ended slideway slot and inclined ribs extending inwardly from the opposite end to provide a stop seat adjacent said terminal plate, and a bolt member having angularly disposed locking portions adapted to enter said slideway slot and engage with such stop seat.

1,209,734. SAD-IRON HEATER. CARRIE L. LONG, Gibbon, Nebr. Filed Sept. 2, 1915. Serial No. 48,708. (Cl. 126—228.)



A sad iron heater comprising a perforated disk having a vertical surrounding flange inwardly of the peripheral edge thereof, a vertical post in the center of the disk, radial partitions connected to the post, and to the flange and being of a height equal to the flange and a movable imperforate dome-shaped cover movably connected to one edge of the disk and embracing the flange.

1,209,735. REGISTERING, RECORDING, AND COMPUTING SYSTEM. GEORGE W. LORIMER, Piqua, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Original application filed July 12, 1912, Serial No. 709,042. Divided and this application filed Nov. 27, 1914. Serial No. 874,280½. (Cl. 178—23.)



1. In a cash register system, a main operating mechanism having an invariable operation upon each operation thereof, an impulse transmitter adapted to transmit impulses in series or sets upon each operation of the main operating mechanism; a keyboard for determining the number of impulses in each set; an impulse receiving device responsive successively to each of said sets of impulses; a plurality of printing elements, and means for operating one of said printing elements after each operation of said impulse receiving device, the selection of said printing elements being determined by the position of said impulse receiving device.

2. In a cash register system, a main operating mechanism having an invariable operation upon each operation thereof; an impulse transmitter adapted to transmit impulses in series or sets upon each operation of the main operating mechanism; a keyboard for determining the number of impulses in each set; an impulse receiving device moved successively by each of said sets of impulses, the amount of its movement depending on the number of impulses in each set; a plurality of printing elements; means for operating one of said printing elements after each movement of said impulse receiving device, the selection of said printing elements being determined by the amount of movement of said impulse receiving device, and means for returning said impulse receiving device to its normal position after each printing operation.

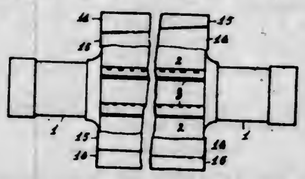
3. In a system of cash registers, a main operating mechanism having an invariable operation upon each operation thereof; an impulse transmitter adapted to transmit impulses in series or sets upon each operation of the main operating mechanism; an impulse receiver; a step-by-step printing apparatus under the control of said impulse receiver, and means for advancing said printing apparatus one step between each series or set impulses.

4. In a cash register system, a main operating mechanism having an invariable operation upon each operation thereof; an impulse transmitter adapted to transmit impulses in series or sets upon each operation of the main operating mechanism; an impulse receiving apparatus movable in response to said impulses; a step-by-step printing apparatus having a plurality of printing elements; means whereby the amount of movement of said impulse receiving apparatus determines the printing element to be operated, and means for advancing the printing apparatus one step between each series or set of impulses.

5. In a cash register system, a main operating mechanism having an invariable operation upon each operation thereof; an impulse transmitter adapted to transmit impulses in series or sets upon each operation of the main operating mechanism; an impulse receiving apparatus movable in response to said impulses; a printing apparatus having a plurality of printing elements; a step-by-step mechanism for determining the spacing of the imprints of said elements; means whereby the amount of movement of said impulse receiving apparatus determines the selection of the printing elements, and means for advancing the step-by-step mechanism between each set of impulses.

[Claims 6 to 18 not printed in the Gazette.]

1,209,736. PRESS-ROLL FOR PAPER-MAKING MACHINES. ANTON T. LUECKENBACH, Neenah, Wis. Filed May 29, 1916. Serial No. 100,630. (Cl. 92—49.)



1. A wood surfaced paper machine roll comprising a metallic core adapted for revolution in journal bearings and having a comparatively smooth outer surface, a plurality of ribs longitudinally arranged and parallel, along the outer surface, a T head upon each rib adapted to retain a stave between the T heads of two adjoining ribs, and staves fitted upon their inner surfaces to contact with the outer surface of said core between the webs of adjoining ribs and under the flanges of the T heads of said ribs and their outer portion provided with radially formed edges which taper from one end to the other and are adapted to be driven in between adjoining ribs around the roll with the wide ends of the staves alternately arranged.

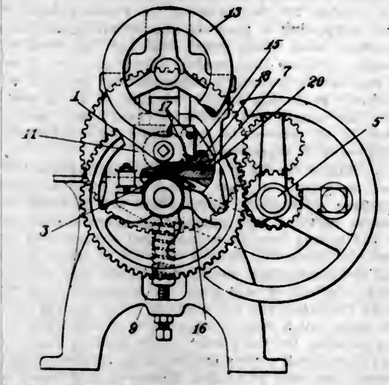
2. In a wood surfaced roll for a paper making machine having a metallic core and a plurality of ribs having T shaped heads upon their outer ends, a stave for covering said core of a length equal to the length of the finished roll having a groove upon its opposite edges adapted to be engaged by the T head of a rib, the part of the stave inside of said grooves having parallel edges adapted to fit in between the webs of adjoining ribs and the inner surface of the stave to lie in close contact with the outer surface of the core, and the part that is outside of said ribs having its edges made radial and tapering from one end of the stave to the other.

3. A stave for the outer surface of a paper making machine roll which is adapted to be retained upon the outer surface of a metallic roll core between parallel ribs having T shaped heads for retaining the staves upon the core, consisting of a plank formed of wood of a length equal to the length of the finished roll, its inner face being adapted to lie in contact with the outer surface of said core between two of said ribs, a groove along opposite edges of the stave in parallel relation, the edges of the stave inside of the grooves being fitted for being driven in between the webs of adjoining ribs, and the part of the staves that is outside of the ribs having its edges projecting an equal distance outside of the edges of the part that is inside of the grooves formed radially and made tapering from one end of the stave to the other.

4. A wood surfaced paper machine roll comprising a metallic core adapted for revolution in journal bearings and having a compartively smooth outer surface, a plurality of ribs each having a thin connecting web extending at equal spaced distances apart, radially from around said outer surface arranged longitudinally and parallel, a T head upon the outer extremity of each web, the connections of said heads with the webs and around said T heads being curved surfaces for their less tendency to start a split in the wood covering than if there were sharp angles upon the T heads.

1,209,737. SPLITTING-MACHINE. THOMAS LUND, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 28, 1915. Serial No. 69,000. (Cl. 69—13.)

1. A machine of the class described having, in combination, a pair of rolls for feeding a piece of stock, a splitting knife located in the rear of said rolls and having its edge close to the bite of the rolls whereby as the piece is split a bend or curl is imparted to it, and means located in the rear of said rolls for removing said curl or bend and thereby straightening said piece.



2. A machine of the class described having, in combination, a pair of rolls for feeding a piece of stock, a splitting knife located in the rear of said rolls and having its edge close to the bite of the rolls whereby as the piece is split a bend or curl is imparted to it, and a member arranged in the rear of said rolls in position to exert pressure upon said piece in a direction and with sufficient force to straighten it.

3. A machine of the class described having, in combination, a pair of rolls for feeding a piece of stock, a splitting knife located in the rear of said rolls and having its edge close to the bite of the rolls whereby as the piece is split a bend or curl is imparted to it, and means located in the rear of said rolls and arranged to engage both sides of said piece to straighten it.

4. A machine of the class described having, in combination, a splitting knife for splitting a piece of stock, a pair of rolls for feeding said stock to said knife, adjustable bearings for one of said rolls, and a presser located in the rear of said rolls, the operative face of said presser being substantially parallel to the adjacent surface of the knife.

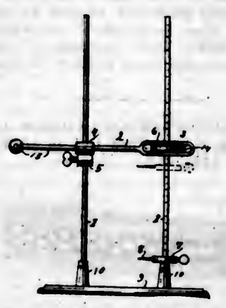
5. A machine of the class described, having, in combination, a pair of rolls for feeding a piece of stock, a splitting knife located in the rear of said rolls and having its edge close to the bite of the rolls whereby as the piece is split a bend or curl is imparted to it, and means for holding the piece flat during the splitting operation.

1,209,738. DRESS-GAGE. CHARLES MCARTHUR, Grand Rapids, Mich. Filed Sept. 16, 1915. Serial No. 51,089. (Cl. 33—9.)

1. In a dress gage, a base, two standards secured into, and extending upward from said base, parallel with each other, an arm pivotally mounted on one of said standards at right angles therewith, and having an open loop in one end, a gage plate mounted on the other of said standards in position so the loop may be passed over it and secure a piece of a dress skirt to be held thereby in position to insure the proper gaging thereof.

2. In a dress gage, a base, two parallel standards extending upward from the base, an arm pivotally mounted on one of said standards and having a loop in one end thereof, a gage plate mounted on the other of said standards in position so the loop may be passed over it to secure a dress skirt between them for proper marking, and an adjustable clamp mounted on one standard to support the arm in any desired position on the standard.

3. In a dress gage, a base, uprights securely connected with said base, standards extending upward from the said uprights, an arm pivotally mounted on one of said standards and vertically adjustable thereon, means for securing the arm in the desired position on said standard, said arm having a loop in one end, a gage plate mounted



on the other of said standards in position so the loop in the end of the arm may be passed over it, and means for marking the desired length of a skirt thereby.

1,209,739. DRAFT-HOOK. EDWARD W. MARVIN, Brooklyn, N. Y., assignor to J. Edward Ogden, Brooklyn, N. Y. Filed Nov. 25, 1912. Serial No. 733,248. (Cl. 254—194.)

1. The combination with a sheave block comprising a U-shaped frame having a hook supporting member with a supporting projection at one end and a laterally projecting lug at the other and a sheave rotatably mounted between the arms of the U-shaped frame, of a hook pivotally connected to the supporting member having a perforated projection adapted to receive the lug of the frame when the hook is loaded, the end of the hook and the end of the supporting projection of the supporting member being adapted to interlock whereby the supporting member sustains a material proportion of the load on the hook independently of said pivotal connection.

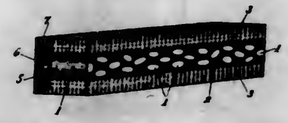
2. The combination with a sheave block comprising a U-shaped frame having a hook supporting member with a supporting projection at one end and a laterally projecting lug at the other and a sheave rotatably mounted between the arms of the U-shaped frame, of a hook pivotally connected to the supporting member having a perforated projection adapted to receive the lug of the frame when the hook is loaded, the end of the hook and the end of the supporting projection of the supporting member being provided wth coöperating shoulders.

3. A pair of pivotally connected single hooks arranged on opposite sides of their connecting pivot, each having a rigid arm or projection adapted to coöperate with the end

of the other hook, each pair of coöperating parts being respectively provided with a key and slot.

4. A pair of pivotally connected single hooks arranged on opposite sides of their connecting pivot, each having a rigid supporting projection adapted to interlock with the end of the other hook, one of the hooks being provided with a sheave block and sheave, the supporting projection of the other being adapted to close the sheave block.

1,209,740. PISTON-PACKING. CHARLES I. E. MASTIN, Midland Park, N. J. Filed Oct. 6, 1915. Serial No. 54,291. (Cl. 154—45.5.)



1. A packing strip comprising metal inserts, rubber-coated fabric wrapped around said inserts, and layers of rubber-coated fabric covering the wrapped metal inserts, the ends of said inserts being exposed upon the wearing face of the packing.

2. A packing strip comprising corrugated metal inserts, rubber-coated fabric wrapped around each of said inserts, and rubber-coated fabric layers forming the flat surfaces of the packing, the individually wrapped metal inserts lying between said fabric layers, and the ends of the metal inserts being exposed at the wearing face of the packing.

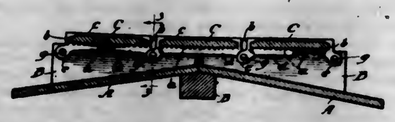
3. A packing comprising metal inserts, rubber-coated fabric wrapped around each of said inserts, and flat layers of rubber-coated fabric, the metal inserts and their wrappings being arranged in a mass between said flat fabric layers, the ends of the metal inserts being exposed upon the wearing face of the packing.

4. A packing comprising metal inserts, rubber-coated fabric inclosing said inserts and separating them from each other, the said inserts being arranged to provide a substantially continuous metal bearing surface around the part packed, and layers of rubber-coated fabric forming the flat surfaces of the packing, the inclosed inserts lying between said layers of rubber-coated fabric, the ends of the inserts being exposed on the wearing face of the packing.

5. A packing comprising corrugated metal inserts, rubber-coated fabric wrapped around each of said inserts, said wrapped inserts being arranged in a mass, rubber-coated fabric layers forming the flat sides of the packing and between which the mass of wrapped inserts is fixed, a hollow rubber core along the outer surface of the packing forming a cushion, and a binding strip of fabric covering the flat sides of the packing and inclosing the rubber core, the ends of the inserts being exposed upon the wearing face of the packing.

[Claims 6 and 7 not printed in the Gazette.]

1,209,741. RUNNING-BOARD RETAINER. FRED MATHEWS, Chicago, Ill. Filed Oct. 19, 1916. Serial No. 126,474. (Cl. 105—194.)



1. A retainer for the planks of the running-boards of a box-car comprising upwardly projecting longitudinal members whose upper edges are provided with horizontal portions the undersides of which are beveled and are adapted to overlap the side edges of said planks, and downwardly projecting lugs that are adapted to be secured to the saddles supporting said running-boards.

2. A retainer for the planks of the running-boards of a box-car consisting of a plate having upwardly projecting longitudinal sides whose upper edges are provided with horizontal portions that project toward each other therefrom, and having transverse edges that are provided with downwardly projecting attaching members.

3. A retainer for the planks of the running-board of a box-car comprising a plate having upwardly projecting longitudinal sides whose upper edges are provided with horizontal portions that project therefrom toward each other and having transverse edges that are provided with downwardly projecting flanges the ends of which project beyond the longitudinal sides of said plate and are adapted to be secured to the saddle upon which said running-board is supported.

4. A retainer for the planks of the running-board of a box-car comprising a plate having upwardly projecting longitudinal sides whose upper edges are provided with horizontal portions that project therefrom toward each other and having transverse edges that are provided with downwardly projecting flanges the ends of which project beyond the longitudinal sides of said plate and form lugs which at one end of said plate are separated more than those at the other and are adapted to be secured to the saddle upon which said running-board is supported.

5. A retainer for the planks of the running-board of a box-car comprising a rectangular tubular retainer adapted to receive the ends of alining planks of said board and having its transverse edges flanged downward and adapted to be secured to the saddle upon which said running-board is supported.

[Claims 6 and 7 not printed in the Gazette.]

1,209,742. METHOD OF BONDING RAILS. GEORGE A. MEAD, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed June 21, 1916. Serial No. 104,853. (Cl. 113—112.)



1. A method of bonding rails consisting in applying to the rail-end a shelf of heat resisting material, passing the end of a rail bond composed of a body encircled by a sleeve of ferrous material through a slot in the shelf and allowing the end of the bond body and collar to extend above the shelf, applying heat produced by a gas flame to the ends of the bond body and sleeve and to the adjacent rail surface until proper temperature is reached, and applying attaching-metal to the area thus heated, repeating the heating and application of attaching-metal until the bond is secured to the rail as described, and removing the shelf.

2. A method of bonding rails consisting in applying to the rail-end a shelf of heat resisting material, passing the end of a rail bond composed of a body encircled by a sleeve of ferrous material through a slot in the shelf and allowing the end of the bond body and sleeve to extend above the shelf, applying a means of heat to the ends of the bond body and to the adjacent rail surface until proper temperature is reached, and applying attaching-metal sufficient to efficiently apply the body to the rail, and then removing the shelf.

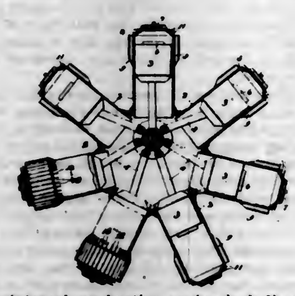
3. A method of bonding rails consisting in applying to the rail-end a shelf, passing the end of a rail bond composed of a body encircled by a sleeve having a higher melting point than the body through a passage in the shelf and beyond its surface, applying a heating-flame to the end of the bond body, the sleeve and the adjacent rail surface until a temperature sufficient is reached, applying attaching-metal sufficient to the bond end and rail, uniting the bond to the rail.

4. A method of bonding rails consisting in applying to the rail end a shelf, passing the end of a rail bond through a passage in the shelf and above its surface applying heat to the bond-end and adjacent rail surface and applying attaching-metal to the heated area thereby forming an integral attachment between the bond and rail.

5. The method of applying bonds to rail ends consisting in arranging the bond end having a sleeve with a higher melting point than the bond body in juxtaposition to the rail surface, applying a heating flame to the bond end and adjacent rail surface, and applying attaching metal to the face of the bond end and the adjacent rail surface.

[Claims 6 to 26 not printed in the Gazette.]

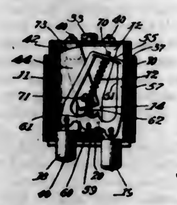
1,209,743. INTERNAL-COMBUSTION ENGINE. ROBERT S. MOORE, Washington, D. C., assignor to Gyro Motor Company, Washington, D. C., a Corporation of Delaware. Filed Jan. 29, 1913. Serial No. 744,973. (Cl. 123—44.)



1. An internal combustion engine including a rotating casing, cylinders carried thereby and projecting radially therefrom, each cylinder having an enlarged portion adjacent its outer end, said enlarged portion being bored out longitudinally of the cylinder to provide a series of tubes open at the top and bottom to the atmosphere.

2. An internal combustion engine including a rotating casing, cylinders carried thereby and projecting radially therefrom, each cylinder having an enlarged portion adjacent its outer end, said enlarged portion being bored out longitudinally of the cylinder to provide a series of tubes open at the top and bottom to the atmosphere, said enlarged portion of each cylinder being provided with grooves between the tubes to form a scalloped periphery.

1,209,744. ELECTRIC SWITCH. HARRY J. MOREY and FAY A. BROGDEN, Syracuse, N. Y., assignors to Pass and Seymour, Inc., Solvay, N. Y., a Corporation of New York. Filed Nov. 29, 1912. Serial No. 734,175. (Cl. 175—293.)



1. In an electric switch, the combination of switch contacts, a hollow rockable frame, a switch member movably mounted on said frame, said switch member having a part extending through the hollow portion of the frame and also having parts adapted to engage said switch contacts, a spring adapted to throw the switch member when said frame is rocked and also adapted to hold the switch in either of the positions into which it is thrown, and two push buttons connected to said frame for rocking it alternately in opposite directions.

2. In an electric switch, the combination of switch contacts, a pivotally supported frame, an insulating element supported on the frame, a switch member carried by said element and insulated by the latter from said frame, means for rocking said frame on its pivot, and a spring actuated device engaging said insulating element and frame and arranged to impart a snapping movement to the switch member to make or break the circuit at the switch contacts when the frame is rocked.

3. In an electric switch, the combination of a U-shaped switch member, a rockable frame, a notched insulating cross-bar supported on the frame and supporting the switch member, a spring-pressed pin coöperating with the notched cross-bar, and means for rocking the frame to oscillate the cross-bar carrying the switch member, whereby the spring-pressed pin is alternately released to operate the switch member.

4. In a two-button electric switch, the combination of switch contacts, a pivotally mounted frame, a trough-like support rigidly connected to the frame, a switch member, a notched insulating bar supporting the switch member and having one edge resting in the trough-like support, a pin straddling the insulating bar at one end and extending through an opening in the frame at the opposite end, a spring surrounding the pin and tending to force the insulating bar out of alinement therewith, and means for rocking the frame to oscillate the switch member and make and break the circuit at the switch contacts.

5. In an electric switch, the combination of a pivoted operating member having a hollow part within its margin, an insulating member supported in the hollow part in the operating member, a switch member carried by said insulating member, a snapping spring interposed between said insulating member and operating member and adapted to throw the switch independently of the operating member when said operating member is rocker, and means for rocking said operating member on its pivot.

[Claims 6 to 11 not printed in the Gazette.]

1,209,745. CAMERA-OPERATING DEVICE. WESLEY H. MORRIS, Richmond, Va. Filed Sept. 18, 1915. Serial No. 51,441. (Cl. 161—26.)



1. In a camera operating device, a rotary member having actuating and stop lugs upon its opposite faces, means for rotating said member at a predetermined speed, a sliding trip rod provided with a lateral projection to be engaged by said actuating lug, and a sliding controlling stop disposed to engage said stop lug.

2. In a camera operating device, a rotatable disk, a driving spring connected thereto through retarding means, projections upon the opposite faces of said disk, a sliding trip rod provided with an extension adapted to be engaged by one of said lugs, a restoring spring for said rod, a sliding controlling stop adapted to be withdrawn from the path of travel of the other lug upon said disk, and a spring for projecting said stop into the path of said last mentioned lug.

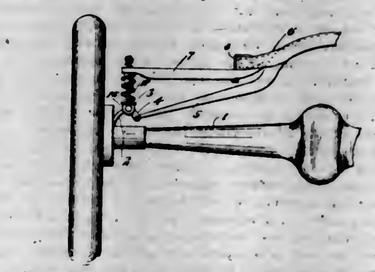
3. In a camera operating device, a rotatable disk, a driving spring connected thereto, projections upon the opposite faces of said disk, a sliding trip rod provided with an extension adapted to be engaged by one of said lugs, a restoring spring for said rod, a sliding controlling

stop adapted to be withdrawn from the path of travel of the other lug upon said disk, a spring for projecting said stop into the path of said last mentioned lug, and a system of resistance gearing meshing with said disk to retard the travel thereof.

4. In a camera operating device, a casing provided with a connection adapted for application to a lens casing, a spring actuated rotary member, a trip member extending through said connection and adapted to release a camera shutter, means carried by said rotary member to actuate said trip member, and means for controlling the movement of said rotary member.

5. In a camera operating device, the combination of a lens casing having a cable release connection, of a casing provided with an exteriorly threaded connection adapted for application at said connection, a spring actuated rotary member, a trip rod extended through and beyond said threaded connection and adapted to release a camera shutter, means carried by said rotary member to actuate said trip rod, and means for controlling the movement of said rotary member.

1,209,746. LOAD-SUSTAINING DEVICE. WILLIAM H. MORSE, Detroit, Mich. Filed May 27, 1916. Serial No 100,175. (Cl. 267—19.)



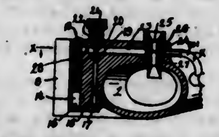
1. A load sustaining device comprising an arm adapted for attachment to a chassis frame to extend outwardly from the side thereof above a rear axle casing, a stirrup adapted for attachment to a spring shackle bracket, a cup connected to the outer end of said arm, a rod connected to said stirrup and extending through said cup, a spring between said stirrup and said arm, and a spring between said cup and the upper end of said rod.

2. A load sustaining device comprising an arm adapted to have the inner end thereof connected to a chassis frame, a stirrup adapted for attachment to a shackle bracket, a cup connected to the outer end of said arm, a rod connected to said stirrup and extending through said cup and the outer end of said arm, a spring around said rod and cup between said stirrup and said arm, a head on said rod, and a spring around said rod between said head and the bottom of said cup.

3. A load sustaining device comprising an arm adapted to have the inner end thereof extend between a body spring and a body frame and be connected to said frame, a stirrup adapted for attachment to a spring shackle bracket, a depending cup connected to the outer end of said arm, a rod connected to said stirrup and extending through said cup and the outer end of said arm, a spring around said rod between said stirrup and the upper end of said cup, a head on the upper end of said rod, and a spring in said cup between the bottom thereof and the head on said rod.

1,209,747. CARBURETER. JAMES W. MOWBRAY, Windsor, Ontario, Canada, assignor, by mesne assignments, to George L. Brown, Port Huron, Mich. Filed Nov. 9, 1914, Serial No. 870,963. Renewed Sept. 8, 1916. Serial No. 119,137. (Cl. 261—41.)

1. In a carbureter, an air conduit, a fuel conduit subject to the influence of air passing through the air conduit, a suction controlled fuel feed, a fuel feed giving a constant supply per unit of time, both said feeds being in communication with the fuel conduit, and a restricted air passage leading into the fuel conduit adjacent the points of communication of the fuel feeds therewith.



2. In a carbureter, an air conduit, a secondary air conduit leading thereinto, a fuel conduit discharging into said secondary conduit, a fuel feed variable per unit of time and a fuel feed constant per unit of time both discharging into the fuel conduit, and an air passage leading into the fuel conduit in proximity to the points of communication of the fuel feeds therewith.

3. In a carbureter, an air conduit having the form of a Venturi tube, a secondary air conduit leading thereinto substantially at the point of greatest restriction, a fuel conduit discharging into the secondary conduit, a fuel supply variable per unit of time and a fuel supply constant per unit of time both communicating with the fuel conduit, and a restricted air passage leading into the fuel conduit in proximity to the points of communication of the fuel supplies therewith.

4. In a carbureter, an air conduit having the form of a Venturi tube, a secondary air conduit leading thereinto substantially at the point of greatest restriction, said secondary conduit being of two parts spaced a slight distance apart and so formed as to provide a fuel channel about the said conduit communicating with the air conduit through the interstice between the said parts, a fuel conduit communicating with the said channel, a fuel supply variable per unit of time and a fuel supply constant per unit of time both communicating with the fuel conduit at separate points, and a restricted air passage leading into the fuel conduit between the points of communication of the fuel supplies therewith.

5. In a carbureter, an air conduit having the form of a Venturi tube, a secondary air conduit leading thereinto substantially at the point of greatest restriction therein, said secondary conduit being formed of two parts having cone-shaped ends providing sharp edges about the conduit opening and spaced a short distance apart forming a channel in communication with the secondary conduit, a fuel conduit communicating with said channel, a fuel supply variable per unit of time and a fuel supply constant per unit of time, both communicating with the fuel conduit, and a restricted air passage leading into the fuel conduit in proximity to the points of communication of the fuel supplies therewith.

[Claims 6 to 11 not printed in the Gazette.]

1,209,748. TIME-CONTROLLED MECHANISM. JOHN J. NORTH, Chicago, Ill. Filed Jan. 19, 1916. Serial No. 72,964. (Cl. 161—16.)

1. A time-controlled mechanism comprising a hoisting device having article-supporting means at one end, a weight connected to the other end of the hoisting device, an element for checking the descent of the weight, means for coupling the weight to said element upon elevating the latter, the ascent of the weight being variable, and said weight being freed from the checking element after having made a partial descent and thereafter being left unsupported and free to drop by gravity, and a motor for actuating the checking element controlled by the weight.

2. A time-controlled mechanism comprising a hoisting device having article-supporting means at one end, a weight connected to the other end of the hoisting device, an element for checking the descent of the weight, means for coupling the weight to said element upon elevating the latter, the ascent of the weight being variable, and said weight being freed from the checking element after having made a partial descent and thereafter being left unsupported and free to drop by gravity, an electric motor for actuating the checking element, a switch controlling the motor circuit, and actuating means for said switch controlled by the weight.



3. A time-controlled mechanism comprising a hoisting device having article-supporting means at one end, a weight connected to the other end of the hoisting device, an element for checking the descent of the weight, means for coupling the weight to said element upon elevating the latter, the ascent of the weight being variable, and said weight being freed from the checking element after having made a partial descent and thereafter being left unsupported and free to drop by gravity, an electric motor for actuating the checking element, a switch controlling the motor circuit, a swinging member in the path of the weight and actuated thereby, and operating means for the aforesaid switch connected to said member.

4. A time-controlled mechanism comprising a hoisting device having article-supporting means at one end, a weight connected to the other end of the hoisting device, an element for checking the descent of the weight, means for coupling the weight to said element upon elevating the latter, the ascent of the weight being variable, and said weight being freed from the checking element after having made a partial descent and thereafter being left unsupported and free to drop by gravity, an electric motor for actuating the checking element, a switch controlling the motor circuit, a rock shaft, a rocker arm carried by said shaft, a member carried by said arm and extending into the path of the weight, and operating means for the aforesaid switch carried by the shaft.

5. A time-controlled mechanism comprising a hoisting device having article-supporting means at one end, a weight connected to the other end of the hoisting device, an element for checking the descent of the weight, means for coupling the weight to said element upon elevating the latter, the ascent of the weight being variable, and said weight being freed from the checking element after having made a partial descent and thereafter being left unsupported and free to drop by gravity, an electric motor for actuating the checking element, a switch controlling the motor circuit, a rock shaft, a rocker arm carried by said shaft, a member carried by said arm and extending into the path of the weight, a second rocker arm on the shaft, and an actuating member for the aforesaid switch engageable by said second rocker arm.

[Claims 6 to 11 not printed in the Gazette.]

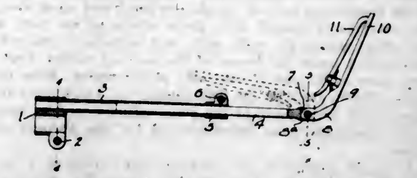
1,209,749. MUSIC-LEAF TURNER. HUGO A. OBERG, Preston, Wash. Filed Aug. 26, 1915. Serial No. 47,507. (Cl. 84—135.)

A music leaf turner comprising a series of arms mounted side by side upon a pivot pin to rotate in one plane; a pair of paper-clamping jaws attached to each arm as an extension thereof, the jaws being U-shaped and secured together at each end by a spring and pivotally secured to the arm to swing away from the paper; a spring to rotate each arm; a stud projecting from each arm to one side of the plane of rotation; a detent having a hook and an escapement catch located to enter the path of the said



studs at opposite sides and mounted to slide radially across the path; a spring impelling the hook into the said path and means for sliding the hook out of the said path at the will of the operator.

1,209,750. MUSIC-RACK ATTACHMENT FOR SLIDE-TROMBONES AND LIKE INSTRUMENTS. HARRY J. O'LEARY, Indianapolis, Ind. Filed Apr. 6, 1915. Serial No. 19,583. (Cl. 45—58.)



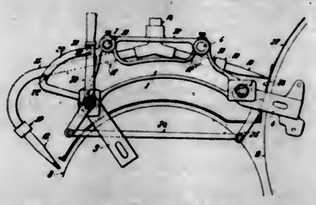
1. A music rack attachment for slide trombones and like instruments, including a tubular stock mounted to extend longitudinally of the instrument, an instrument engaging clamp applied to one end of the tubular stock and projecting laterally therefrom, a rod telescopically mounted within the opposite end of the tubular stock and also adapted to have a rotary movement therein, means for locking the rod in an adjusted position within the stock, an elbow having one arm thereof pivotally connected to the projecting end of the rod, a music holder applied to the opposite arm of the elbow, and means for locking the elbow against swinging movement, the music holder being adapted to be folded toward the rod and the rod being adapted to be telescoped within the tubular stock and rotated therein to bring the music holder on the same side thereof as the instrument engaging clamp.

2. A music rack attachment for slide trombones and like instruments, including a tubular stock mounted to extend longitudinally of the instrument, an instrument engaging clamp applied to one end of the tubular stock and projecting laterally therefrom, a clamping sleeve at the opposite end of the tubular stock, a rod telescopically mounted within the tubular stock and projecting through the clamping sleeve, said rod being also susceptible of a rotary movement, an elbow having one arm thereof pivotally connected to the projecting end of the rod, a music holder carried by the opposite arm of the elbow, stop means for limiting the swinging movement of the elbow when the pivot arm thereof is moved into alinement with the rod, and means for locking the elbow against swinging movement, the music holder being adapted to fold toward the rod and the rod being adapted to be telescoped within the tubular stock and rotated therein to bring the music holder on the same side thereof as the instrument engaging clamp.

1,209,751. APPARATUS FOR CLEANING CARD-CYLINDERS. ALFRED OLIVIER, Neuilly-sur-Seine, France, assignor to Société "Philaure," Levallois-Perret, France. Filed Apr. 15, 1915. Serial No. 21,570. (Cl. 19—15.)

1. In an apparatus for cleaning card cylinders, a suction nozzle, means for creating a suction through said nozzle, a carriage supporting the nozzle, two bars parallel to the generating lines of the cylinder and upon which the carriage is guided, one of said bars being screw threaded, means on the carriage for engaging with the screw thread, means for rotating the screw threaded bar, and a lever

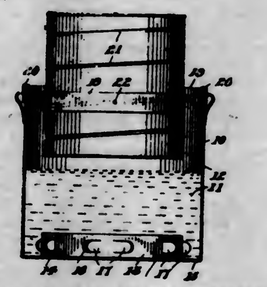
pivotally supported adjacent said last named means remote from the main cylinder and through the intermediary of which lever the door in the cover plate of the main cylinder may be operated, substantially as described and for the purpose set forth.



2. In an apparatus for cleaning card cylinders, a suction nozzle, means for creating a suction through said nozzle, a carriage supporting the nozzle, two bars parallel to the generating lines of the card cylinder and upon which the carriage is guided, side plates carrying the bars at the ends, means for removably and adjustably securing said plates, upon the frame of the carding engine, and a lever pivoted to one of said side plates remote from the main cylinder through the intermediary of which lever the door in the cover plate of the main cylinder may be operated, substantially as described and for the purpose set forth.

3. In an apparatus for cleaning card cylinders, a suction pipe divided into two branches, means for creating a suction through said pipe, a carriage supporting the two branches so that one of the same lies in front of the doffing cylinder of the card, below the cover plate while the other lies in front of the main cylinder in the space which is uncovered by the door of the corresponding cover plate when it is opened, two bars parallel to the generating lines of the card cylinders and upon which the carriage is guided, side plates carrying the bars at the ends, a lever pivoted on one of said side plates at a point remote from the main cylinder, and means for operatively connecting the lever to the door in the cover plate of the main cylinder, substantially as described and for the purpose set forth.

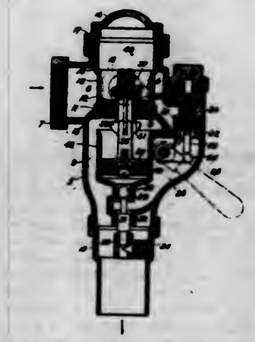
1,209,752. MILK-BOILER. FRANK PANTLIK, Barrackville, W. Va. Filed Sept. 11, 1916. Serial No. 119,503. (Cl. 53—1.)



1. A device of the class described comprising a receptacle, an annular water circulator arranged upon the bottom thereof, a ring removably positioned within the said receptacle and supported by the receptacle adjacent the upper end thereof and an adjustable container carried by the said ring and seated upon the said circulator when in its normal lowered position, the said container being vertically adjustable relative to the circulator and ring.

2. A device of the class described comprising a receptacle, a mounting ring having inwardly struck lugs, hooks carried by the said ring removably mounted upon the top edge of the receptacle, a container arranged within the said ring and having a spiral peripheral groove within which the said lugs are positioned, whereby the container is vertically shiftable during the relative rotation of the container within the said ring and a bail for the said container, an annulus seated upon the bottom of the said receptacle and having alternate oppositely struck lips forming a plurality of perforations therethrough and outwardly extending radial base plates carried by the said annulus seated upon the said receptacle bottom, the said container being normally positioned upon said annulus during the operation of the device.

1,209,753. FLUSHING-VALVE. CHARLES H. PHILLIPS, Malden, Mass., assignor to Phillips Flushing Tank Company, Portland, Me., a Corporation of Maine. Filed Feb. 14, 1916. Serial No. 78,186. (Cl. 137—93.)



1. A flushing-valve having, in combination, a main valve-member; a dashpot, connected with said valve-member, for causing its opening movement and retarding its closing movement, the dashpot having an opening for the inflow and escape of water; a passage connected with said opening and also provided with a restricted escape-opening; manually operable means for admitting water into the passage at a rate faster than it can escape through said escape-opening, whereby the water is caused to fill the dashpot and open the main valve-member; and a check-valve controlling the opening in the dashpot and movable, by the inflow of water, to a comparatively open position, and, by the outflow of water, to a more nearly, but not entirely, closed position.

2. A flushing-valve having, in combination, a body provided with a valve-seat and with inlet and outlet passages; a main valve coöperating with said seat and arranged to open against the direction of flow; a hydraulic device connected with the main valve and adapted to act as a motor, to move the valve from its seat, and as a dash-pot, to retard the return of the valve to its seat; and manually-controlled means for admitting water to the hydraulic device, from the inlet, to cause it to act as a motor; the cylinder of the hydraulic device being provided with an escape-opening located in position to be uncovered by the piston near the completion of its operative stroke as a motor, said opening communicating with the outlet-passage.

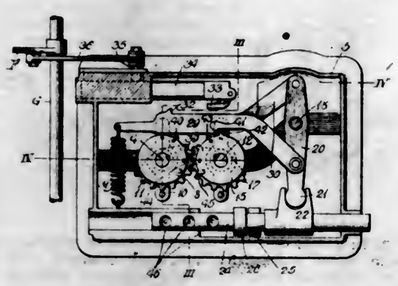
3. In a flushing-valve, a hydraulic motor and dashpot, for controlling the valve proper, provided with a tapering inlet-and-outlet passage; a combined check-valve and regulating-valve in the form of a ball movable in said passage; a support, for the ball, extending into engagement therewith when the ball is in position to check the outflow through the opening; and manually-operable means for moving the support to adjust the position in which the ball is arrested.

4. A flushing-valve having, in combination, a single-seated balanced main valve; a relief-valve seated in the main valve; a hydraulic motor and dashpot connected with the relief-valve and the main valve to open them in sequence; and a spring tending to move the relief-valve to closed position with respect to the main valve and in opposition to the action of the motor.

5. A flushing-valve having, in combination, a main valve; a dashpot for producing resistance to the closing movement of the main valve; and means for subjecting the main valve to a closing pressure regulated automatically to a predetermined amount regardless of variations in the pressure in the water-supply.

[Claims 6 to 8 not printed in the Gazette.]

1,209,754. GEAR-SHIFTING MECHANISM. ETIENNE PLANCHE, Flint, Mich. Filed July 28, 1914. Serial No. 852,562. (Cl. 74—58.)



1. The combination with power transmitting mechanism including a plurality of speed changing elements, of an actuating member, a series of members each operatively connected to one of said elements, a series of selector members, and means for simultaneously actuating said selector members to bring one of the series in operative position relative to one of said members and effect an operative connection between said member and said actuating member.

2. The combination with power transmitting mechanism including a plurality of shiftable speed changing elements, of a plurality of members corresponding in number to the number of said elements and operatively connected thereto to shift the same, means connecting said members to cause adjacent members to move in opposite directions, an operating member, and means for mechanically operating said members to operatively connect said members and said actuating member.

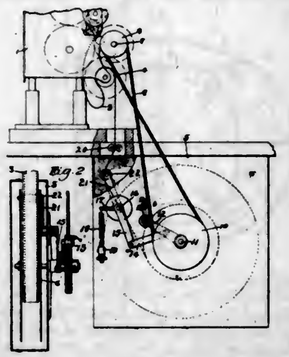
3. The combination with power transmitting mechanism including speed changing elements shiftable into operative position in opposite directions, of shifting members for shifting each of said elements, which members are simultaneously movable in opposite directions, an actuating member, selective means for moving said shifting members to effect an operative connection between the same and said actuating member, and means actuated simultaneously with the actuation of the selective means for moving certain of said shifting members.

4. The combination with power transmitting mechanism including a plurality of shiftable change speed elements, a shifter, means for actuating the shifter, a tumbler operatively connected to each of the change speed elements to shift the same, selector members for moving the tumblers into operative position to be actuated by the shifter, and means for actuating the selector members.

5. The combination with power transmitting mechanism including a plurality of shiftable change speed gears, of a shifting member, a plurality of tumblers operatively connected with the gears to shift the same, means on the shifter for engaging the tumblers, and means for selectively moving the tumblers into the path of the means on the shifter to cause the tumblers to be moved by a movement of the shifter.

[Claims 6 to 21 not printed in the Gazette.]

1,209,755. TENSION DEVICE FOR MOVING-PICTURE-FILM REELS. NICHOLAS POWER, Brooklyn, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed June 4, 1913. Serial No. 771,589. (Cl. 242—75.)



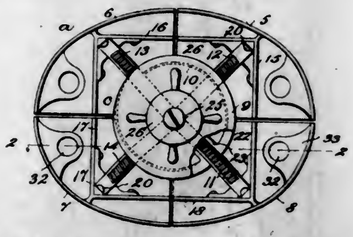
1. In a mechanism of the class described, the combination of a magazine for receiving the film from a moving picture projection machine, a shaft for supporting the receiving reel for the film in the wall of the magazine, a driving pulley attached to the shaft outside of said magazine, a belt therefor and a belt-tightening roll engaging said belt, a support for said belt-tightening roll comprising an arm pivotally mounted on the outside of said magazine, a rock shaft mounted in the wall of said magazine, an arm attached to said rock shaft within said magazine and a film engaging roll carried by said arm in position to engage the film between the winding reel and its point of entrance to the magazine, an arm connected to said rock-shaft without said magazine and operatively connected to said belt-tightening arm and a spring connected to said rock-shaft tending to turn the same in a direction to yieldingly press said belt-tightening roll against the belt.

2. In a mechanism of the class described, the combination of a magazine for receiving the film from a moving picture projecting apparatus, a shaft rotatably mounted in the wall of said magazine at about the center thereof for supporting the film-receiving reel, a guide for directing the film into the magazine near one corner thereof, a driving pulley on the reel-shaft without the magazine, a belt therefor, an arm pivotally mounted on the reel-shaft adjacent the pulley and a belt-tightening roll carried by the end of said arm, a rock-shaft mounted in the wall of the magazine and an arm attached to the rock-shaft within the magazine, a film engaging roll supported in the free end of said last mentioned arm and adapted to engage the film adjacent the film guide, a second arm attached to the rock-shaft without the magazine, a link connecting the second arm with the arm of the belt-tightening roll and a spring operatively connected to the rock-shaft and acting to turn the latter in a direction to yieldingly press the belt-tightening roll against the belt.

1,209,756. HAT-PATTERN BLOCK. IRA K. PRESCOTT, Arlington, N. J., assignor to Alfred K. Levy, New York, N. Y. Filed Dec. 16, 1915. Serial No. 67,119. (Cl. 223—21.)

1. In a pattern for use in connection with the manufacture of braided hats of various sizes, a brim board, a crown block superimposed on the brim board and detachably connected thereto, and coöperating therewith to conform to the contour of a braided hat said crown block including a plurality of sections arranged in spaced relation one to the other, a fillet disposed in the spaces between the said sections and means for moving the said sections radially.

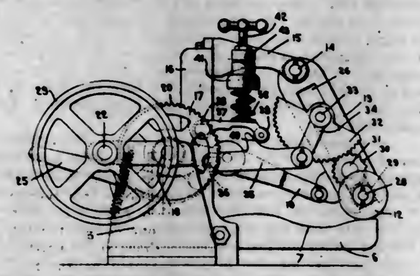
2. A pattern for use in connection with the manufacture of braided hats of various sizes, the combination of a brim board provided with sockets, an expansible crown block superimposed on the brim board and including a plurality of sections having perforate lugs, and pins passing through the said lugs and into the sockets of the brim board.



3. A pattern for use in connection with the manufacture of braided hats, the combination of a brim board provided with sockets, a crown block suprimposed on the brim board and including a plurality of sections and pins disposed in the sockets of the brim board and connected to the sections of the crown block.

4. In a pattern for braided hats a brim board having a plurality of sockets disposed for different distances from the center thereof and pins arranged in two of said sockets, an expansible crown superimposed on the brim board and connected to said pins.

1,209,757. MACHINE FOR PRESSING SEAMS. THOMAS QUINN, Milford, Mass. Filed Apr. 24, 1916. Serial No. 93,152. (Cl. 69—7.)



1. The combination with a work support, of a seam-pressing roll, a swinging carrier in which the roll is mounted, means to swing the carrier to cause the roll to pass over the work support, and means actuated by the swinging movement of the carrier to rotate the roll positively as the carrier moves.

2. In a device for pressing seams, the combination with a work support, of a seam-pressing roll, a swinging carrier in which said roll is mounted, means to swing said carrier to cause the roll to pass back and forth over the work support, and means actuated by the swinging movement of the carrier to rotate said roll positively as the carrier is thus moved and at a faster speed than that which would result from its rolling contact with the work whereby an ironing effect is produced.

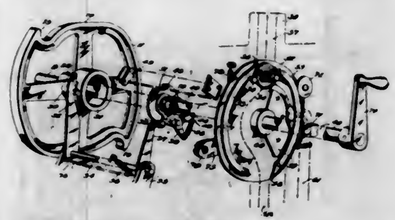
3. In a device for pressing seams, the combination with a work support, of a pivotally-mounted carrier, a seam-pressing roll journaled therein, means to swing said carrier about its pivotal support to cause the roll to pass back and forth over the work support, and means actuated by the movement of the carrier to rotate said roll positively.

4. In a device for pressing seams, the combination with a work support, of a pivotally-mounted arm, a carrier slidably mounted in said arm, a seam-pressing roll journaled in the carrier, and means to swing said arm thereby to move the roll back and forth over the work support.

5. In a device for pressing seams, the combination with a work support, of a pivotally-mounted arm, a carrier slidably mounted in said arm, a seam-pressing roll journaled in the carrier, means to swing said arm thereby to move the roll back and forth over the work support, and means to rotate the roll positively as the arms swings.

[Claims 6 to 13 not printed in the Gazette.]

1,209,758. VENDING-MACHINE. CHARLES F. RICHARDSON, Woonsocket, R. I., assignor to Wm. Filene's Sons Company, Boston, Mass., a Corporation of Massachusetts. Filed June 16, 1915. Serial No. 34,448. (Cl. 211—8.)



1. In a device of the class described in combination, a main frame, a magazine removably mounted upon said main frame and adapted to contain articles arranged in a stack, a main shaft beneath said magazine, delivery wheels carried by said shaft, ejector projections provided upon said delivery wheels, a barrier normally preventing the delivery of packages from said magazine, a cam mounted upon said delivery shaft to permit said barrier to move to inoperative position when said main shaft is turned, locking devices normally preventing rotary motion of said main shaft, means for operating said locking devices to release said main shaft, said means including a driving shaft, a clutch intermediate said driving shaft and said main shaft, and means for rendering said clutch inoperative when the main shaft has been rotated through a predetermined rotative distance.

2. In a device of the class described in combination, a main frame, a magazine removably mounted upon said main frame and adapted to contain articles arranged in a stack, a main shaft, delivery wheels carried by said main shaft, ejector projections provided upon said delivery wheels, a gate having a barrier on the end thereof normally in the path of the package delivered from said magazine, a cam mounnted upon said main shaft to permit said gate to drop and remove said barrier from the specified path, locking devices normally preventing rotation of said main shaft, means for unlocking said locking devices, a driving shaft, a clutch intermediate said driving shaft and said main shaft, and a stationary cam coöperating with one member of said clutch to render said clutch ineffective when the main shaft has rotated through a predetermined rotative distance.

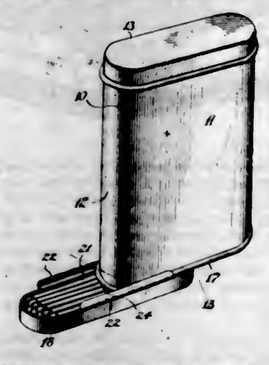
3. In a vending machine in combination, a main frame, a magazine removably secured to said main frame, a main shaft, a pair of delivery devices mounted upon said main shaft, a gate provided with a barrier for normally preventing the exit of packages from said magazine, a cam mounted on said main shaft and operatively connected with said gate to permit said gate to drop the barrier to inoperative position when said main shaft is actuated, a lock for normally preventing actuation of the main shaft, a driving shaft, a clutch intermediate said driving shaft and said main shaft, and means to release said lock prior to the effective operation of said clutch.

4. In a device of the class described in combination, a main frame, a magazine removably secured to said main frame, a main shaft, a pair of delivery devices mounted upon said main shaft, a barrier normally preventing the exit of packages from said magazine, means operated by said main shaft to move said barrier to inoperative position when said main shaft is actuated, a lock for normally preventitng the actuation of said main shaft, a driving shaft, a clutch intermediate said driving shaft and said main shaft, and means to release said locking devices prior to the effective operation of said clutch.

5. In a device of the class described in combination, a main frame, a magazine removably secured to said main frame, a main shaft, a pair of delivery wheels mounted upon said main shaft, supporting means carried by said magazine and adapted to retain packages within said magazine adjacent to said delivery wheels, a barrier normally preventing the removal of packages from said magazine, a cam carried upon said main shaft and effective to permit said barrier to be moved to an ineffective position, a lock for normally preventing rotative movement of said main shaft, a driving shaft, means for releasing said lock when said driving shaft has been rotated a predetermined amount, and a clutch for transmitting power from said driving shaft to said main shaft.

[Claims 6 to 23 not printed in the Gazette.]

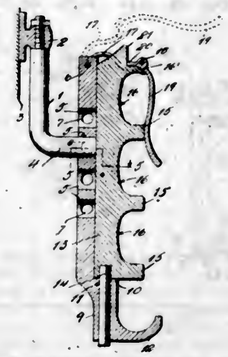
1,209,759. RECEPTACLE AND MATCH-HOLDER. HANS F. RICHTER, Winston-Salem, N. C., assignor to R. J. Reynolds Tobacco Company, Winston-Salem, N. C., a Corporation of New Jersey. Filed June 14, 1915. Serial No. 33,941. (Cl. 206—38.)



The combination with a relatively wide tin receptacle-body having a hinged closure at the top thereof and a bottom wall seamed thereto, said seam providing a pair of longitudinally extending, externally projecting parallel beads at opposite sides of the receptacle, of a match pan comprising a bottom wall having an upstanding continuous marginal flange of uniform height throughout, said flange carrying at opposite side portions thereof a pair of opposing cleats, which cleats and the flange form entrant ways, adapting the pan for sliding engagement with the beads for the connection or disconnection of said pan from the receptacle-body in either of two opposite directions, the bottom wall of the receptacle constituting a cover for the pan when the latter is connected with and positioned beneath the receptacle body.

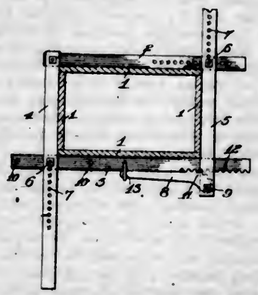
1,209,760. SWIVEL AUTOMOBILE-BOW SEPARATOR. GEORGE EWARD ROBINSON, Eugene, Oreg., assignor of one-half to Albert C. Finseth, Eugene, Oreg. Filed May 18, 1915. Serial No. 28,925. (Cl. 21—61.)

1. In a swivel bow separator of the class described, the combination of a body having a flat forward face, means for supporting said body, an enlarged shoulder formed upon the lower end of said body and extending beyond the forward face thereof, said shoulder provided with a vertical bore, a vertical bar positioned upon said shoulder, a depending pin carried by said bar and fitting within said bore, whereby said bar may be turned to one side, said bar having a rounded rear portion fitting against said flat forward face of said body, whereby foreign objects will be prevented from passing between said body and bar, means formed upon said bar for carrying bows, and means for holding said bows in a set position.



2. In a swivel bow separator of the class described, the combination of a body having a flat forward face, means for supporting said body, an enlarged shoulder formed upon the lower end of said body and extending beyond the forward face thereof, said shoulder provided with a vertical bore, a vertical bar positioned upon said shoulder, a depending pin carried by said bar and fitting within said bore, whereby said bar may be turned to one side, said bar having a rounded rear portion fitting against said flat forward face of asid body, whereby foreign objects will be prevented from passing between said body and bar, said bar being substantially rectangular in cross-section, thereby extending for a considerable distance beyond the forward face of said body when in a normal position, thereby forming spaced projections, said bar being formed in one piece so as to positively operate as a unit, said pockets being adapted to receive bows, and means for holding said bar in a releasable set position.

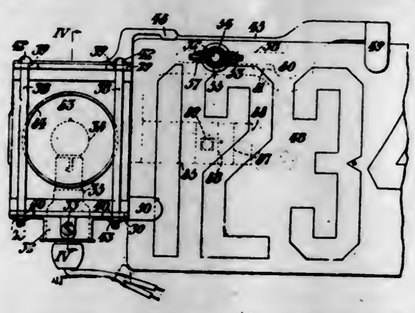
1,209,761. CLAMPING MECHANISM. HENRY W. ROOS and WILLIAM D. ROOS, Cincinnati, Ohio. Filed Mar. 25, 1916. Serial No. 86,751. (Cl. 144—291.)



1. A column clamp including a pair of separable members, one of which is provided with a series of rack teeth and an operating lever pivotally mounted on the other of said members and including a toothed segmentaf portion having engagement with the aforesaid teeth for effecting bodily movement of the clamping members at substantially right angles to each other.

2. A column clamp including a pair of separable members adapted to be arranged at right angles to each other, one being provided with a series of rack teeth extending upon opposite sides of the other member when in assembled relation, and an operating lever pivotally mounted upon the last mentioned member including a curved tooth portion having engagement with the aforesaid teeth on the other member and operating to progressively engage said other member with a positive locking action.

1,209,762. LAMP AND NUMBER-PLATE SUPPORT FOR VEHICLES. EDWIN M. ROSENBLUTH, Philadelphia, Pa. Filed Oct. 23, 1913. Serial No. 796,765. (Cl. 240—11.)



1. The combination with a lamp casing including a rectangular body with metal walls, having an opening in one wall thereof, covered with a translucent element; of brace plates within respectively opposite ends of said body; caps respectively fitted upon the opposite ends of said body, forming end walls and having flanges respectively extending parallel with the side walls of said body and overlapping the exterior thereof; a frame holding said lamp casing in assembled position, including a metal bracket with flanges embracing said casing between them; means extending through said frame flanges, whereby said flanges are drawn toward each other and clamped upon said lamp casing; an incandescent electric lamp having a holder fitted in said casing; and clamping means carried by said frame, whereby said lamp may be detachably secured in rigid relation with said casing and frame.

2. The combination with a lamp casing including a rectangular body with metal walls, having an opening in one wall thereof, covered with a translucent element; of brace plates within respectively opposite ends of said body; caps respectively fitted upon the opposite ends of said body, forming end walls and having flanges respectively extending parallel with the side walls of said body and overlapping the exterior thereof; a frame holding said lamp casing in assembled position, including a metal bracket with flanges embracing said casing between them; means extending through said frame flanges, whereby said flanges are drawn toward each other and clamped upon said lamp casing; an incandescent electric lamp having a holder fitted in said casing; and means whereby said lamp may be detachably secured in rigid relation with said casing and frame.

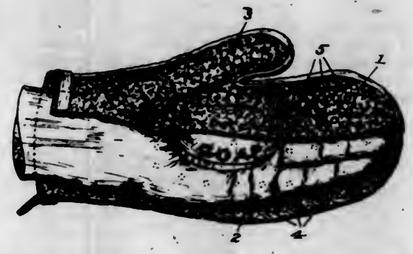
3. The combination with a lamp casing including a rectangular body with metal walls, having an opening in one wall thereof, covered with a translucent element; of brace plates within respectively opposite ends of said body; caps respectively fitted upon the opposite ends of said body, forming end walls and having flanges respectively extending parallel with the side walls of said body and overlapping the exterior thereof; a frame holding said lamp casing in assembled position, including a metal bracket with flanges embracing said casing between them; and means extending through said frame flanges, whereby said flanges are drawn toward each other and clamped upon said lamp casing.

4. The combination with a lamp casing including a rectangular body with metal walls, having an opening in one wall thereof, covered with a translucent element; of brace plates within respectively opposite ends of said body; caps respectively fitted upon the opposite ends of said body, forming end walls and having flanges respectively extending parallel with the side walls of said body and overlapping the exterior thereof; and a frame holding said lamp casing in assembled position including opposite end members independent of said body, and rods detachably connecting said end members.

5. A lamp casing including two distinct pieces of sheet metal forming opposite walls, each having parallel flanges at two opposite edges thereof, wall panels fitted inside of said flanges forming a rectangular body; brace plates within respectively opposite ends of said body, overlapping the ends of said panels, having inwardly turned flanges bearing against the inner faces of said panels, and inwardly turned flanges bearing upon the inner faces of said metal walls; caps respectively fitted upon the opposite ends of said body, forming end walls and having flanges respectively extending parallel with the side walls of said body and overlapping the exterior thereof; and a frame holding said lamp casing in assembled position.

[Claims 6 and 7 not printed in the Gazette.]

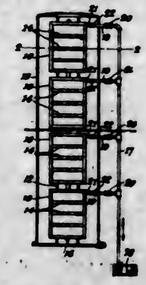
1,209,763. BATH-MITTEN. CARL A. ROSENGREN, Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Co., a Corporation of Connecticut. Filed Sept. 1, 1915. Serial No. 48,415. (Cl. 2—100.)



1. A hand-covering for bathing or similar purposes comprising a portion formed of a sheet of thin, non-absorbent waterproof material for covering the palm of the hand having a roughened surface provided with a plurality of perforations, and a portion united with the sheet at opposite edges thereof and adapted to extend over the back of the hand for holding said sheet in position upon the hand, said covering being made elastic so as to adjustably hold a detergent or cleansing substance between it and the hand.

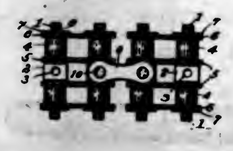
2. A hand-covering for bathing or similar purposes comprising sheets of thin rubber having roughened surfaces and provided each with a plurality of perforations, said sheets being secured together along margins thereof to adapt the covering to be used similarly on either hand and to inclose a detergent or cleansing substance.

1,209,764. VULCANIZING APPARATUS. EUGENE W. RUTHERFORD, Naugatuck, Conn., assignor to Boston Rubber Shoe Company, a Corporation of Massachusetts. Filed Feb. 6, 1915. Serial No. 6,418. (Cl. 18—6.)



A vulcanizing apparatus comprising a vulcaniser, a plurality of independent pipes entering the vulcaniser, respective valves for controlling said pipes, a common pipe connected with said valve controlled pipes, an exhaust device connected with said common pipe, a plurality of units formed of tubing, means for supporting vulcanisable plastic articles upon said units, and establishing communication between said articles and said tubing, and respective couplings between said valve controlled pipes and said tubing units.

1,209,765. SPROCKET-CHAIN. JOHN M. SCHENK, Waterloo, Iowa. Filed Mar. 3, 1916. Serial No. 81,887. (Cl. 74—32.)



1. A sprocket-chain, comprising a plurality of sections linked together to rock laterally relatively to each other, each section composed of bodies linked together, said sections having transversely separated tooth-engaging sockets adapted to receive laterally-spaced teeth on a sprocket-wheel.

2. A sprocket-chain, comprising a plurality of sections linked together to rock in different angular directions, each section comprising pairs of connected transverse bodies, said bodies linked together to provide transversely-separated tooth-engaging closed end spaces therebetween, and anti-friction rollers mounted rotatably on said bodies at opposite sides of said spaces to engage a double row of sprocket-teeth.

3. A sprocket-chain, comprising a plurality of sections linked together to rock in different angular directions, each section comprising a pair of pivotally connected central blocks having oppositely-directed lateral pintles, and anti-friction rollers rotatably mounted on said pintles, said pintles and rollers positioned to furnish laterally-separated tooth-engaging sockets, and links pivotally connected between adjacent blocks of adjacent sections adapted to permit lateral play of the sections relative to each other.

4. A sprocket-chain, comprising a plurality of sections linked together to rock in different angular directions, each section comprising a pair of central blocks having oppositely-directed lateral pintles, a link pivotally connecting said pintles on each side of said blocks, anti-friction rollers mounted on said pintles outside of said links, other links pivotally connecting said pintles outside of said rollers, and securing-means on said pintles to retain said links and rollers thereon, each of said blocks having an orifice through it perpendicular to its plane of movement, pintles mounted rotatably in said orifices and projecting therefrom, and links pivotally connecting each end of said pintles of one section to the corresponding end of a pintle in an adjacent section, to permit of lateral play of the sections relative to each other.

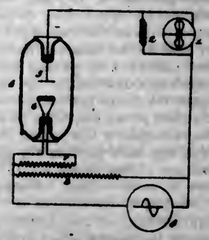
1,209,766. APPARATUS FOR MEASURING THE MAXIMUM VALUES OF ALTERNATING-CURRENT VOLTAGES. CLAYTON H. SHARP, White Plains, N. Y. Filed Oct. 26, 1914. Serial No. 868,679. (Cl. 175—183.)

1. The combination with an alternating line, of an electrostatic voltmeter connected across the same, and an electric valve in series with said voltmeter.

2. The combination with an alternating line, of an electrostatic voltmeter connected across the same, a condenser in parallel with the voltmeter, and an electric valve in series with said voltmeter.

3. An apparatus for measuring the maximum values of alternating current voltages, which includes an electric valve in series with an electrostatic measuring instrument.

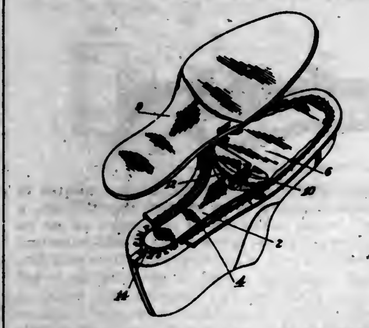
4. An apparatus for measuring the maximum values of alternating current voltages, which includes an electric valve in series with a measuring instrument, and a condenser in parallel with the said measuring instrument.



5. In an apparatus for measuring the maximum values of alternating current voltages, the combination with a condenser, and an indicating device responsive to an electrical charge, of means for charging the condenser and indicating device to the full peak voltage of the wave with current flowing in one direction, and means for preventing flow of current in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

1,209,767. SHANK FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. WALTER SHAW, Dedham, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 21, 1915. Serial No. 29,546. (Cl. 36—77.)



1. As an article of manufacture a shank stiffener for location between the insole and outsole of boots and shoes comprising a body portion of soft rubber shaped to conform to the longitudinal and the transverse curvatures of the shank portion of the last and of the outsole, and a stiffening element secured against displacement on said body portion and adapted to maintain the longitudinal curvature of the shank.

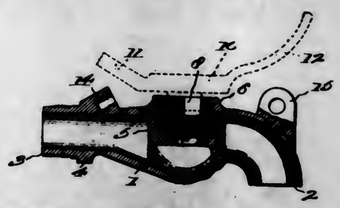
2. As an article of manufacture a shank stiffener for location between the insole and outsole of boots and shoes comprising a body portion of yielding, elastic material shaped to conform to the longitudinal and the transverse curvatures of the shank portion of the last and of the outsole and having its forward end formed and arranged to support the tread portion of the outsole in a substantially horizontal plane, and a stiffening element secured to said body portion and adapted to maintain the longitudinally arched portion of the stiffener.

3. As an article of manufacture a shank stiffener for location between the insole and outsole of boots and shoes comprising a body portion of comparatively soft rubber shaped to conform to the longitudinal and the transverse curvatures of the shank portion of the last and of the outsole and having its forward end formed and arranged to provide a substantially level tread surface for the outsole, and a stiffening element secured to said body and adapted to reinforce the longitudinally arched portion of the shank stiffener.

4. As an article of manufacture a shank stiffener for location between the insole and outsole of boots and shoes comprising a body portion of yielding, elastic material shaped to conform, on its upper side, to the longitudinal and transverse curvatures of the shank portion of the last and, on its under side to the longitudinal and transverse curvatures of the outsole and having its forward end formed and arranged to extend on to the tread portion of the last and support the tread portion of the outsole in a substantially horizontal plane relatively to the corresponding portion of the last, and a flat spring member secured to the upper side of the body portion for maintaining the longitudinal curvature of the shank.

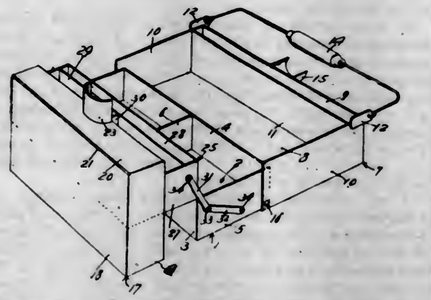
5. As an article of manufacture a shank stiffener for location between the insole and outsole of boots and shoes comprising a body portion of comparatively soft rubber shaped to conform to the longitudinal and the transverse curvatures of the shank portion of the last and of the outsole, the forward end of said body portion being formed and arranged to provide a substantially flat surface for the support of the ball portion of the outsole in the plane of the tread portion of the outsole, and a flat spring stiffener secured to said body portion for maintaining the longitudinal curvature of the shank stiffener.

1,209,768. LOCK-FAUCET. HARRY C. SHOEMAKER, Freeport, Ill., assignor to The Chambers, Bering, Quinlan Co., Decatur, Ill., a Corporation of Illinois. Filed Mar. 18, 1915. Serial No. 15,870. (Cl. 137—4.)



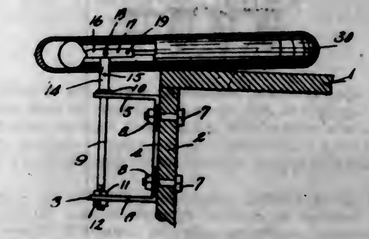
A lock faucet comprising a casing, a valve located in said casing and having a recess exposed therethrough, a socket on said casing to one side of said valve, an ear on said casing arranged at the opposite side of said valve and adapted to receive a lock, a key detachable from said faucet casing and comprising a head for covering the socket in said valve, a projection for occupying said socket, a slotted handle arranged to engage said ear, and a lug on said head adapted to fit the recess in said valve for operating the same, substantially as described.

1,209,769. FOLDING PAIL. JAMES M. SHOOK, Asheville, N. C. Filed May 18, 1916. Serial No. 98,376. (Cl. 220—50.)



A dinner pail including a box-like bottom comprising sides, a base and ends; a side member including a top, an outer wall and ends, and a partition extended between the ends and defining an open sided compartment adjacent the top of the side member; pivot elements uniting the lower outer corners of the ends of the side member and of the bottom; a second side member including a box-like extension located above the bottom, an outer wall, ends, and a top hinged to the upper edge of the outer wall and including a depending lip, the depending lip constituting a closure for the side of the compartment in the first specified side member, when the dinner pail is closed; and links connecting the ends of the bottom with the ends of the extension.

1,209,770. TIRE-SUPPORT. LEONARD G. SHREVE, Iowa City, Iowa. Filed July 19, 1916. Serial No. 110,155. (Cl. 154—9.)



1. In a device of the class described, a bracket; a standard carried by the bracket; a support mounted to tilt on the standard; a tire mandrel carried by the support; and means for holding the support against tilting movement with respect to the standard.

2. In a device of the class described, a bracket; a standard journaled in the bracket; a support mounted to tilt on the standard; a tire mandrel carried by the support; and means for holding the support against tilting movement with respect to the standard.

3. In a device of the class described, a bracket; a standard carried by the bracket; a support mounted to tilt on the standard; a tire mandrel journaled for rotation on the support; and means for holding the support against tilting movement with respect to the standard.

4. In a device of the class described, a bracket; a standard journaled in the bracket; a support mounted to tilt on the standard; a tire mandrel journaled on the support; and means for holding the support against tilting movement with respect to the standard.

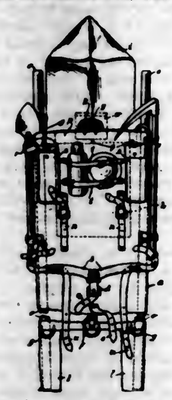
5. In a device of the class described, a bracket; a standard journaled for rotation in the bracket; means for holding the standard against rotation with respect to the bracket; a support mounted to tilt on the standard; a tire mandrel carried by the support; and means for holding the support against tilting movement with respect to the standard.

[Claims 6 to 11 not printed in the Gazette.]

1,209,771. COMBINED SLEEPING-BAG AND KNAPSACK. ROALD SKANCKE, Christiania, and JENS FREDRIK AASNÆS, Selvig, in Sande, Norway. Filed May 1, 1913. Serial No. 764,837. (Cl. 224—9.)

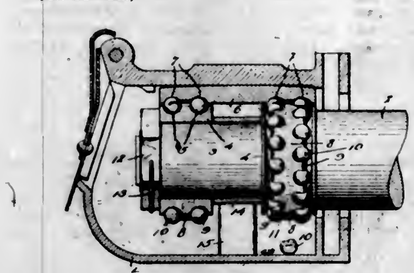
1. A combined sleeping bag and knapsack adapted to be used as a stretcher, the said bag being provided at the lower closed corners with pockets, said pockets after being turned inside out being adapted to receive carrying poles.

2. A combined sleeping bag and knapsack adapted to be used as a stretcher, comprising in combination a tubular foldable bag adapted to be folded and fastened to form a knapsack, said bag being provided with a pocket at the upper end of said bag, a flap at the upper edge of said bag for said pocket, a flap formed as a hood, carrying-traps connected to the edges of the upper half, a strap fitted to the middle of the cover, a buckle therefor at the top edge of said bag, cartridge pockets arranged on said cover, and pockets at the lower closed corners of said bag adapted to be turned inside out, and adapted to receive



detachable carrying poles passed through said cover and fitting into said corner pockets, substantially as described.

1,209,772. BALL-BEARING. THOMAS B. SLATE, Washington, D. C. Filed May 27, 1916. Serial No. 100,287. (Cl. 64—59.)



1. In a device of the class described, the combination of an inner bearing member having ball grooves, an outer grooved bearing member positioned to engage over the portion of the journal subject to load pressure, a ball container consisting of a ring having inwardly curved flanges arranged in staggered relation to engage around an outer portion of the balls, spaced balls retained in position by the container during the time that the balls are out of engagement with the outer bearing member, as and for the purposes described.

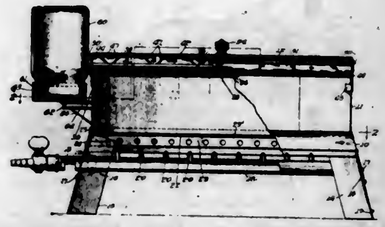
2. In a device of the class described, the combination of an inner bearing member having a plurality of ball grooves, an outer bearing member extending only over the upper portion of the inner bearing member and having a plurality of corresponding ball grooves, the ball grooves in the upper bearing member being spaced slightly less distant from each other than the opposed grooves in the inner bearing member to permit of a tilting movement of the upper bearing member without interfering with the operation of the ball bearing, a ball container ring engaging over the outer portions of balls to hold same in position when out of engagement with the outer bearing member, and a plurality of balls mounted in spaced relation in the container.

3. In a device of the class described, the combination of a journal box, a journal, grooved bearing members mounted in spaced relation on the journal, an upper grooved bearing member mounted over and in spaced relation to the first mentioned grooved bearing members, a ring-shaped ball container having inwardly curved ends engaging over the outer portions of the respective balls to retain same in position when out of engagement with the upper bearing member the balls being positioned at their lowest station in the container to dip in oil carried in the journal box, and a plurality of balls in the container, substantially as described.

4. In a device of the class described, the combination of a journal box, a journal, bearing rings having a plurality of ball races the bearing members being mounted in spaced relation to each other, a journal, a load-supporting bearing member extending over only the upper portion of the bearing rings, a ball container consisting of a ring having staggered openings therein to receive the balls and having inwardly curved flanges to engage the outer portions of the balls to retain same in operative position and to permit of the dropping of any broken balls to the bottom of the journal box, and a plurality of balls for each ball race engaged by the container, substantially as and for the purposes described.

5. In a device of the class described, the combination of an inner bearing member having ball grooves, an outer grooved bearing member positioned to engage and extending only over the portion of the journal subject to load pressure, a ball container consisting of a ring having ball engaging flanges supporting the balls in engagement with the inner bearing member the flanges being disposed in staggered relation, balls in the container, and means retaining the outer bearing member against longitudinal movement, substantially as shown.

1,209,773. APPARATUS FOR TREATING FABRICS. MATH SMITH, Davenport, Iowa. Filed Mar. 31, 1916. Serial No. 87,890. (Cl. 26—7.)



1. A device of the character described, comprising a generator, provided with an arched top wall having a trough-like depression extending substantially its full length and into said generator and perforated in its bottom wall for egress of steam, or vapor, into said trough, whereby to evenly distribute it unobstructedly to the superposed fabric under treatment; a surrounding trough-like trap, within said generator, having its side walls perforated for communication with the generator and its bottom wall having relatively small perforations whereby to entrain the liquid of condensation, and means for heating the liquid within the generator.

2. A device of the character described, comprising a generator, provided with an arched top wall having a trough-like depression extending substantially its full length and into said generator and perforated in its bottom wall for egress of steam, or vapor, into said trough, whereby to evenly distribute it unobstructedly to the superposed fabric under treatment; a superposed cover for overlying said fabric under treatment; an absorbent, yielding sheet normally covering said trough, carried by said cover, and a guide for holding the cover on said generator and spacing it thereabove.

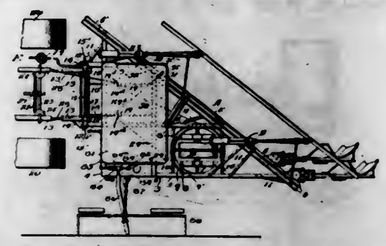
3. A device of the character described, comprising a burner-supporting frame structure; a separable steam generator, removably mounted thereon, said generator having a continuous elongated slot formed in its top wall; a water trap extending under said slot, within said generator, having openings to entrain water into said generator and to permit only steam or vapor to escape through said elongated slot.

4. A device of the character described, comprising a burner-supporting frame structure; a separable steam generator, removably mounted thereon, said generator having a continuous elongated slot formed in its top wall; a water trap extending under said slot, within said generator, having openings to entrain water into said generator and other openings to permit steam, or vapor to escape through said elongated slot and means to automatically maintain water level in said generator below said trap.

5. A device of the character described comprising a burner-supporting frame structure; a separable generator, removably mounted thereon, said generator having a continuous elongated slot formed in its top wall; a water trap extending under said slot within said generator, having openings to entrain water into said generator and other openings to permit steam or vapor to escape from said elongated slot into contact with the cloth being treated; means to automatically maintain water level in said generator, below said trap and a removable top or cover having a yielding moisture-absorbing fabric normally covering said slot and to overlie the cloth being treated by use of the device.

[Claims 6 to 8 not printed in the Gazette.]

1,209,774. COUPLED VEHICLE. WILLIAM N. SPRINGER, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Original application filed Mar. 8, 1906. Serial No. 304,855. Divided and this application filed Oct. 10, 1908, Serial No. 457,115. Renewed May 16, 1916. Serial No. 97,962. (Cl. 21—114.)



1. The combination of a tractor having drive wheels and steering wheels, a trailing vehicle having a main frame flexibly coupled to the tractor, a supporting and steering wheel for said frame turnable about a vertical axis, a non-yielding steering mechanism for angling the steering wheels of the tractor, a train of power transmitting elements interposed between said steering mechanism for the tractor wheels and the steering wheel of the trailing vehicle, and a resilient abutment which is secured against relative bodily movement and which connects one of the elements of the said train with a relatively stationary part.

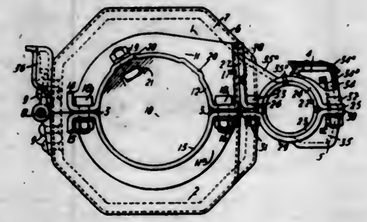
2. The combination of a tractor having driving wheels and steering wheels, a trailing vehicle having a main frame flexibly coupled to the tractor, a supporting and steering wheel for said main frame, a frame for the said wheel turnable relative to the main frame about a vertical axis, two lines of steering chain connected to said steering wheel frame and extending from opposite sides thereof, each line of chain having its extended end secured by a yieldable connection to said main frame, and flexible connections between the steering wheels of the tractor and each of said lines of steering chain.

3. The combination of a tractor having driving wheels and steering wheels, a trailing vehicle having a main frame flexibly coupled to the tractor, a supporting and steering wheel for said main frame, a horizontally rotatable frame in which said steering wheel is mounted, a chain extending around said wheel-carrying frame and having the ends of its lines leading from opposite sides thereof connected to the main frame, a horizontally swingable bar connected to the steering wheels of the tractor, and means connecting said bar with both lines of the steering chain extending from either side of said rotatable steering wheel frame to the main frame.

4. The combination of a tractor having drive wheels and steering wheels, a trailing vehicle having a main frame flexibly coupled to the tractor, a horizontally rotatable steering wheel frame, a ball bearing mounted between said steering wheel frame and said main frame, a supporting and steering wheel for the main frame mounted in said rotatable frame, a steering chain secured to said steering wheel frame and having lines extending from either side of said frame and secured to the main frame, and means connecting the steering wheels of the tractor with the said lines of chain which extend from opposite sides of the said steering frame to the said main frame.

5. The combination of a tractor having drive wheels and steering wheels, a trailing vehicle having a main frame flexibly coupled to the tractor, a supporting and steering wheel for said main frame, a frame for the said wheel turnable relative to the main frame about a vertical axis, two lines of steering chain connected to said steering wheel frame and extending from opposite sides thereof, each line of chain having its extended end secured by a yieldable connection to said main frame, a horizontally swingable bar connected to the steering wheels of the tractor, and flexible connections leading from said horizontally swingable bar to each of said lines of steering chain on the main frame of the trailing vehicle.

1,209,775. DYNAMO-ELECTRIC MACHINE. CHARLES W. STARKER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 1, 1915. Serial No. 18,479. (Cl. 105—241.)



1. A pressed-metal dynamo-electric machine frame of the split type comprising a plurality of complementary main incasing members, a plurality of coöperating axle-inclosing members and means for securing the various pressed-metal frame parts together.

2. A pressed-steel dynamo-electric machine frame of the split type comprising an upper and a lower main incasing member, axle-inclosing members comprising an axle bracket and a coöperating axle cap, means for securing the axle-inclosing members together, means for securing at least one of said members to the corresponding main incasing member and means for securing said incasing members together.

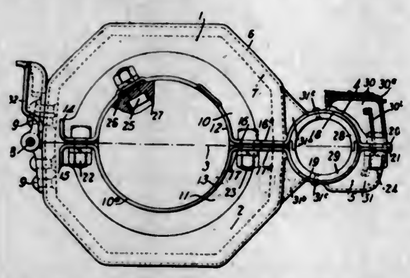
3. A frame for dynamo-electric machines of the split type comprising a peripherally disposed split magnetizable band, a pair of complementary pressed-steel members therefor, axle-inclosing members comprising an axle bracket and a coöperating axle cap, means for removably securing the axle-inclosing members together, means for non-integrally securing at least one of said last members to the corresponding incasing member, and means for detachably securing said incasing members together.

4. A frame for dynamo-electric machines of the split type embodying a plurality of main incasing members having complementary end openings, split reinforcing bands having extending lips surrounding said openings and means associated with said lips for detachably securing said members together.

5. A frame for dynamo-electric machines of the split type comprising a pair of main incasing members having complementary end openings, split reinforcing bands surrounding said openings and having longitudinally-extending lips, a pair of axle-inclosing members, means for securing said last members together, means extending through said lips for detachably holding said main incasing members together and means for non-integrally securing at least one of said axle-inclosing members to one of said lips.

[Claims 6 to 26 not printed in the Gazette.]

1,209,776. DYNAMO-ELECTRIC MACHINE. CHARLES W. STARKER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 1, 1915. Serial No. 18,480. (Cl. 105—241.)



1. A pressed steel incasing member of the split type for dynamo-electric machines comprising a split axle-inclosing member, at least one part of said last member being integrally formed with the corresponding part of said incasing member.

2. A frame for dynamo-electric machines comprising a peripherally disposed split magnetizable member and a correspondingly split-incasing member and axle-inclosing member, at least one part of said last member being integrally formed with the corresponding part of said incasing member.

3. A frame for dynamo-electric machines comprising a peripherally disposed split magnetizable band of relatively large cross-section and a correspondingly split pressed steel incasing member and axle-inclosing member, at least one part of said last member being integrally formed with the corresponding part of said incasing member.

4. A dynamo-electric machine frame of the split type, the frame parts respectively embodying an integrally formed axle bracket and axle cap.

5. A dynamo-electric machine frame of the split type, the frame parts being substantially identical and respectively embodying an integrally formed axle bracket and axle cap.

[Claims 6 to 10 not printed in the Gazette.]

1,209,777. SHOE-SHANK. EDWIN BALL STIMPSON, New York, N. Y. Filed Mar. 20, 1914. Serial No. 825,953. (Cl. 36—76.)

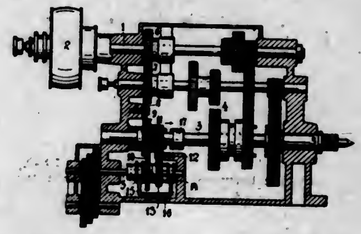


1. The combination with a shoe-shank having a generally flattened end, of a unitary sheath having portions overlying the opposite faces and other portions overlying the side edges of said end.

2. The combination with a shoe-shank having a generally flattened extremity, of a unitary sheath having portions overlying the opposite faces, other portions overlying the side edges, and another portion overlying the end, of said flattened extremity.

3. In a shoe, two superposed layers of material, a generally flat shank positioned between the two layers, and a unitary sheath over one end of the shank, and within which the said end is longitudinally movable, said sheath having no direct positive connection with either layer of material, the end of the shank being capable of moving in the sheath as the shank is flexed in the act of walking, and the sheath being longer than the distance traveled by the end of the shank in the flexing of the latter.

1,209,778. LATHE-GEARING. ANDREAS SUNDT, Christiania, Norway. Filed June 15, 1916. Serial No. 103,790. (Cl. 74—58.)



1. In a lathe gearing or the like, a change gear case comprising a driving shaft, a main spindle, and a counter shaft for transmitting motion to a feed screw, change gears for driving the main spindle from the driving shaft at different speeds, gears for driving the feed screw counter shaft from the main spindle and auxiliary gears for driving the counter shaft directly from the driving shaft independent of the main spindle.

2. In a lathe gearing or the like, a change gear case comprising a driving shaft, a main spindle, and a counter shaft for transmitting motion to a feed screw, change gears for driving the main spindle from the driving shaft at different speeds, gears for driving the feed screw counter shaft directly from the driving shaft independent of the main spindle said gears comprising a gear wheel loosely mounted on the main spindle, means for coupling said gear wheel with the main spindle and simultaneously disengaging it from direct connection with the driving shaft, without disengaging it from the feed screw counter shaft.

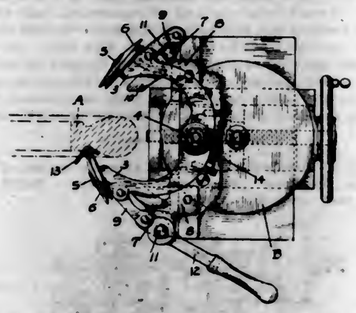
1,209,779. TIRE-BUILDING APPARATUS. RYLAND L. TAFT, Hartford, Conn., assignor to The Hartford Rubber Works Company, a Corporation of Connecticut. Filed May 25, 1915. Serial No. 30,257. (Cl. 154—10.)

1. In a tire building machine having a support, means mounted on said support for setting a bead wire in position in a tire carcass, a lever fulcrumed on said support and adapted to swing through an arc of substantially 180° a link connecting said means and said lever, a spring for normally holding said setting means in inoperative position, in which position said link and lever are substantially parallel, whereby said setting means is positively maintained at the limit of its outward motion by said spring.

2. In a tire building machine having a support, means mounted on said support for setting a bead core in position in a tire carcass, a bracket mounted on said support for supporting said means against downward displacement, a lever fulcrumed on said support, a toggle connection between said means and said lever, and means for normally maintaining said setting means in inoperative position.

3. In combination with a tire building machine having a turret, an arm pivotally mounted on said turret, a disk

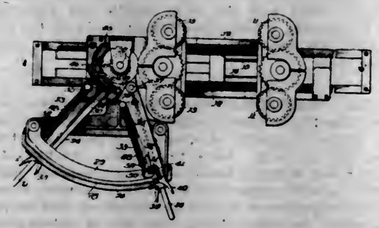
revolubly mounted on the free end of said arm, a lever fulcrumed on said turret, means for turning said lever, a toggle connection between said lever and said arm whereby a relative turn of said lever will act to force said arm against a tire core, and means on said turret for supporting said arm against downward displacement.



4. In combination with a tire building machine having a turret, an arm pivotally mounted on said turret, a disk revolubly mounted on the free end of said arm, a lever fulcrumed on said turret, means for turning said lever, a toggle connection between said lever and said arm whereby a relative turn of said lever will act to force said arm against a tire core, and means for normally maintaining said arm in inoperative position.

5. In combination with a tire building machine having a turret, an arm pivotally mounted on said turret, a disk revolubly mounted on the free end of said arm, a lever fulcrumed on said turret, means for turning said lever, a toggle connection between said lever and said arm whereby a relative turn of said lever will act to force said arm against a tire core, means on said turret for supporting said arm against downward displacement, and means for normally maintaining said arm in inoperative position.

1,209,780. RESAW-ROLL-SETTING MECHANISM. IRA M. THURLOW, Beloit, Wis., assignor to P. B. Yates Machine Company, Beloit, Wis., a Corporation of Wisconsin. Filed Feb. 9, 1916. Serial No. 77,343. (Cl. 143—4.)



1. In re-saw roll setting mechanism, the combination of a pair of feed rolls arranged on two sides of the saw line, a carriage for each roll movable along ways transversely of the saw line, co-axially arranged shafts, gearing connecting each of the shafts with one of the carriages, a hub member fixed on each shaft, a lever pivoted to each hub member, means to hold the free end of the lever in a selected position, and a yielding connection between the lever and hub at a point forming a triangle with the pivot and shaft.

2. In re-saw roll setting mechanism, the combination of a pair of feed rolls arranged on two sides of the saw line, a carriage for each roll movable along ways transversely of the saw line, co-axially arranged shafts, gearing connecting each of the shafts with one of the carriages, a hub member fixed on each shaft and provided with peripherally spaced notches, a lever pivoted to each hub member and including a releasable catch adapted to alternately engage one of the notches, means to hold the free end of the lever in a selected position, and a yielding connection between the lever and hub at a point forming a triangle with the pivot and shaft.

3. In a re-saw roll setting mechanism, the combination of a pair of feed rolls arranged on two sides of the saw line, a carriage for each roll movable along ways transversely of the saw line, co-axially arranged shafts, gearing connecting each of the shafts with one of the carriages, a hub member fixed on each shaft, a lever pivoted to each hub member, means to hold the free end of the lever in a selected position, a yielding connection between the lever and hub at a point forming a triangle with the pivot and shaft, and means to transform the yielding connection to a rigid one.

4. In re-saw roll setting mechanism, the combination of a pair of feed rolls arranged on two sides of the saw line, a carriage for each roll movable along ways transversely of the saw line, co-axially arranged shafts, gearing connecting each of the shafts with one of the carriages, a hub member fixed on each shaft, a lever pivoted to each hub member, means to hold the free end of the lever in a selected position, a yielding connection between the lever and hub at a point forming a triangle with the pivot and shaft, and means to couple the hub members together in fixed relation.

5. In re-saw roll setting mechanism, the combination of a pair of feed rolls arranged on two sides of the saw line, a carriage for each roll movable along ways transversely of the saw line, co-axially arranged shafts, gearing connecting each of the shafts with one of the carriages, a hub member fixed on each shaft, a lever pivoted to each hub member, means to hold the free end of the lever in a selected position, a yielding connection between the lever and hub at a point forming a triangle with the pivot and shaft, means to transform the yielding connection to a rigid one, and means to couple the hub members together in fixed relation.

[Claims 6 to 13 not printed in the Gazette.]

1,209,781. RAILROAD-TIE. PAUL V. TROUPE, Gary, S. D. Filed Apr. 28, 1916. Serial No. 94,198. (Cl. 238—5.)

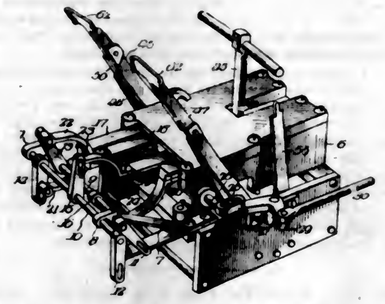


A railroad tie comprising an elongated hollow body, enlargements at opposite ends of the body, said body being provided with transversely extending rail slots, the slots extending down into the side walls of the body for a short distance, cushioning blocks positioned within opposite ends of the body and beneath the rail slots to form supports for railroad rails, lugs on the interior of the body to limit the inward movement of the blocks, inwardly extending wedge shaped lugs formed integrally with the body at the lower terminals of the slots in the side walls of the body, the last named lugs being adapted to engage in the sides of the cushioning blocks to hold said block in place.

1,209,782. CONTROLLING MEANS FOR MOTOR-DRIVEN VEHICLES. WILLIAM E. TULLAR, Chicago, Ill. Filed Sept. 28, 1914. Serial No. 863,966. (Cl. 74—81.)

1. In a device of the character described, the combination of means for operating a service brake, means for operating an emergency brake, and a single means for successively actuating said operating means.

2. In a device of the character described, the combination of a service brake operating lever, an emergency brake operating lever, and a single means for successively actuating said levers.



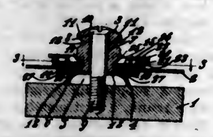
3. In a device of the character described, the combination of a service brake operating lever, an emergency brake operating lever, and a single lever adapted to successively actuate said operating lever.

4. In a device of the character described, the combination of a service brake operating lever, an emergency brake operating lever, a single lever adapted to successively actuate said operating levers, and means on each of said operating levers adapted to be interengaged with said actuating lever during a part of the movement thereof.

5. In a device of the character described, the combination of means for operating a service brake, means for operating an emergency brake, a single means for successively actuating said operating means, and means for locking said service brake operating means in set position.

[Claims 6 to 10 not printed in the Gazette.]

1,209,783. FASTENER FOR VEHICLE-CURTAINS. ROBERT ROSS VAN HORN, Columbus, Ohio. Filed Apr. 4, 1916. Serial No. 88,876. (Cl. 24—221.)



1. In a device of the class described, a back plate having an opening; a face plate spaced from the back plate to admit between the plates the material to be held, the face plate being provided with peripheral notches and having upstanding tongues at the bases of the notches, the face plate having an opening including a lateral extension; a rotatable button including a bottom and an upstanding flange, the bottom having an opening corresponding to the opening in the face plate and being provided with arcuate slots defining ribs connecting the bottom with the flange, the tongues on the face plate extending into the slots in the bottom of the button; a fastener located within the flange of the button and including prongs which pass through the slots in the bottom of the button and through the notches in the face plate in contact with the tongues of the face plate, the prongs being clenched upon the back plate and coöperating with the ribs of the slots to aline the extensions of the openings in the bottom of the button and in the face plate; and a stud wherewith the button interlocks when the button is rotated to dispose the extensions of said openings out of alinement.

2. In a device of the class described, the combination with a piece of material to be held, of a face plate resting on the material, the face plate being provided with peripheral notches and having upstanding tongues at the bases of the notches, the face plate having an opening including a lateral extension; a rotatable button including a bottom and an upstanding flange, the bottom having an opening corresponding to the opening in the face plate and being provided with arcuate slots defining ribs connecting the bottom with the flange, the tongues of the face plate extending into the slots in the bottom of the button; a fastener located within the flange of the button and including prongs which pass through the slots in the bottom of the button and through the notches in the face plate in contact with the tongues of the face plate, the prongs being clenched to coöperate with the rear face of the material to be held and coöperating with the ribs of the button to aline the extensions of the openings in the bottom of the button and in the face plate; and a stud wherewith the button interlocks when the button is rotated to dispose the extensions of said openings out of alinement.

3. In a device of the class described, a back plate having an opening; a face plate spaced from the back plate to admit between the plates the material to be held, the face plate being provided with peripheral notches and being provided with an opening including a lateral extension; a rotatable button including a bottom and an upstanding flange, the bottom having an opening corresponding to the opening in the face plate and being provided with arcuate slots defining ribs connecting the bottom with the flange; a fastener located within the flange of the button and including prongs which pass through the slot in the bottom of the button and through the notches in the face plate, the prongs being clenched upon the back plate and coöperating with the ribs of the slots to aline the extensions of the openings in the bottom of the button and in the face plate; and a stud wherewith the button interlocks when the button is rotated to dispose said openings out of alinement.

4. In a device of the class described, a stud provided in its bottom with a cavity defining a marginal flange adapted to bite into the material wherewith the stud is assembled, the stud having a bore opening into the cavity; a fastening means movably mounted in the bore and extended through the cavity; the stud having external longitudinal ribs provided with opposed, transverse notches; and a holding means including a rotary element adapted to coact with the notches.

5. In a device of the class described, a back plate having an opening; a button having an opening adapted to be alined with the opening in the back plate when the button is rotated; and an annular retainer located within the contour of the button and provided with prongs coacting with the back plate, the button being provided with openings receiving the prongs and permitting a rotation of the button.

1,209,784. PLASTIC COMPOSITION FOR MAKING FIRE-BRICKS. EARL V. WAGNER, Scranton, Pa., assignor to Wagner Fire Brick Company, Helena, Mont. Original application filed Jan. 8, 1916, Serial No. 70,983. Divided and this application filed Aug. 5, 1916. Serial No. 113,221. (Cl. 106—11.)

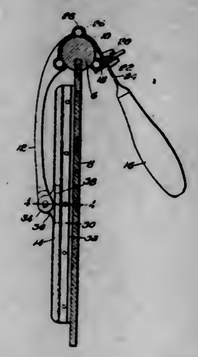
The herein described plastic composition for making fire bricks, consisting of coal ashes, one hundred pounds; alumina two pounds; water two to two and one-half gallons, substantially as described.

1,209,785. WIND-SHIELD CLEANER. HARRY P. WEBB, Dedham, Mass. Filed May 5, 1916. Serial No. 95,692. (Cl. 15—59.)

1. A wind-shield cleaner comprising a semi-tubular portion adapted to be mounted on the frame of the wind-shield and provided with ball-bearings in engagement with said frame, means carried by said semi-tubular portion for cleaning the wind-shield, a handle for moving said cleaner back and forth on said frame and means for locking said cleaner upon the frame of said wind-shield.

2. A wind-shield cleaner comprising a semi-tubular portion adapted to be mounted on the frame of the wind-shield and provided with ball-bearings in engagement with said frame, means carried by said semi-tubular portion for cleaning the wind-shield, a handle for moving said cleaner back and forth on said frame and adjustable means for locking said cleaner upon the frame of said wind-shield.

3. A wind-shield cleaner comprising a semi-tubular portion adapted to be mounted on the frame of the wind-shield, means carried by said semi-tubular portion for cleaning the wind-shield when said tubular portion is moved to and fro on said frame, a handle for moving said cleaner to and fro on said frame and adjustable means for locking said cleaner upon the frame of said wind-shield.

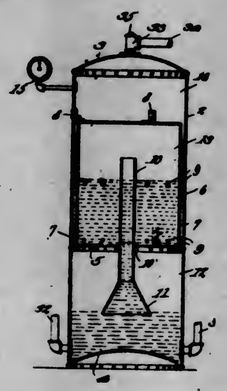


4. A wind-shield cleaner comprising a semi-tubular portion adapted to be mounted on the frame of the wind-shield, means carried by said semi-tubular portion for cleaning the wind-shield when said tubular portion is moved to and fro on said frame, a handle for moving said cleaner to and fro on said frame and a locking-bar for locking said cleaner upon the frame of said wind-shield.

5. A wind-shield cleaner comprising a semi-tubular portion adapted to be mounted on the frame of the wind-shield, means carried by said semi-tubular portion for cleaning the wind-shield when said tubular portion is moved to and fro on said frame, a handle for moving said cleaner to and fro on said frame and an adjustable locking-bar for locking said cleaner upon the frame of said wind-shield.

[Claims 6 to 8 not printed in the Gazette.]

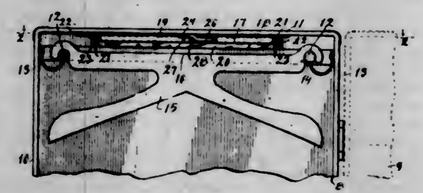
1,209,786. CARBURETER. HENRY ELLIS WEAVER, Denver, Colo. Filed Nov. 27, 1915. Serial No. 63,806. (Cl. 261—124.)



1. In a carbureter, a tank having a partition therein between its upper and lower ends defining a liquid holding chamber below the partition, means for injecting air into said chamber, a hood seating upon said partition and having its rim provided with apertures, the tank being adapted to be filled with a volatile liquid within and around the hood above the partition, the tank having an upper outlet, and means for conducting air upwardly from said chamber through said partition into said hood.

2. A carbureter embodying an upright tank having a partition therein between its upper and lower ends, a hood seated upon said partition and having its rim provided with apertures below its upper end, a vertical pipe engaged through said partition and projecting within the hood, the tank being adapted to be filled with a volatile liquid within its lower portion and within and around the hood above the partition, the tank having an upper outlet, and means for injecting air into the lower portion of the tank, said pipe having a flared mouth at its lower end and apertures immediately above said partition.

1,209,787. MOVABLE PAD FOR TRUNKS. GEORGE HENRY WHEARY, Racine, Wis. Filed Aug. 7, 1915. Serial No. 44,849. (Cl. 190—13.)



1. A movable pad for trunks provided with garment hangers, comprising a supporting member having means for attachment to a trunk, a pad member relatively movably connected thereto and movable to a garment hanger engaging and a disengaging position and means for holding the pad member in one of its positions.

2. A movable pad for trunks provided with garment hangers, comprising a supporting member having means for attachment to a trunk, a pad member relatively movably connected thereto and movable to a garment hanger engaging and a disengaging position, and means for holding the pad member in either one of its positions.

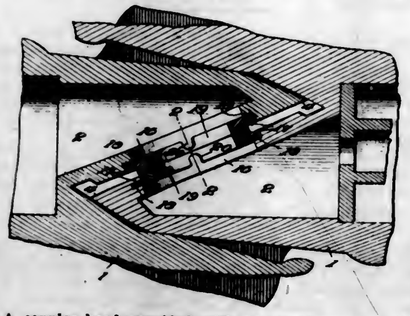
3. A movable pad for trunks provided with garment hangers, comprising a supporting means provided with guide means, a pad member slidably mounted on the guide means and movable to a garment hanger engaging and a disengaging position, means for yieldingly holding the pad member in one of its positions, and other means for holding the pad member in its other position.

4. A movable pad for trunks provided with garment hangers, comprising a supporting means provided with guide pins, a pad member slidably mounted on the guide pins and movable to a garment hanger engaging and a disengaging position, coiled springs surrounding the pins and interposed between the supporting means and the pad member for yieldingly holding the pad member in its disengaging position, and means for holding the pad member in its other position.

5. A movable pad for trunks provided with garment hangers, comprising a supporting means provided with guide pins, a pad member slidably mounted on the guide pins and movable to a garment hanger engaging and a disengaging position, coiled springs surrounding the pins and interposed between the supporting means and the pad member for yieldingly holding the pad member in its disengaging position, and a lever means interposed between the pad member and the trunk portion to which the supporting means is connected for holding the pad member in its other position.

[Claims 6 to 12 not printed in the Gazette.]

1,209,788. GASKET FOR TRAIN-PIPE COUPLINGS. WALTER C. WHITE, Los Angeles, Cal., assignor to International Couplers Company, Los Angeles, Cal., a Corporation of California. Original application filed Mar. 20, 1913, Serial No. 755,697. Divided and this application filed Nov. 25, 1913, Serial No. 802,955. Renewed May 20, 1916. Serial No. 98,952. (Cl. 137—28.)



A coupler head provided with an elongated port, said port having a seat formed in its wall and having segmental flanges across its ends co-acting with said seat to form pockets, an elongated gasket fitting to said seat and provided at its ends with flanges engaging said pockets, and a retainer extending from the seat between the pockets over the edge of the gasket.

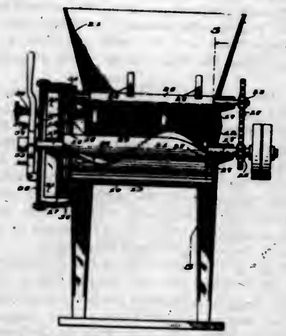
1,209,789. DENTAL INSTRUMENT. WILLIAM E. WILSON, San Diego, Cal. Filed May 24, 1916. Serial No. 99,527. (Cl. 32—10.)



A dental instrument for the purpose described, comprising a handle member and a resilient metal holder member provided at one end with a threaded portion adapted to be screwed into a threaded recess in said handle member and at the other end with a holder portion having a longitudinal recess therein which narrows toward the shaft of said holder member and is adapted to receive and hold various articles, the wall of said recess being split horizontally into said recess and provided with a projection near the base of said recess which projects into said recess and is adapted to prevent the article inserted therein from passing by said projection.

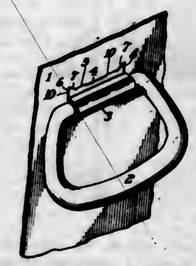
1,209,790. FEED-GRINDER. JOHN C. WOODCOCK, Oklahoma, Okla. Filed May 11, 1915. Serial No. 27,435. (Cl. 83—8.)

1. A feed grinding machine, including a horizontally disposed conveyer box having a semi-cylindrical bottom, a screw conveyer mounted within the semi-cylindrical bottom of the box, a hopper arranged over the conveyer box and terminating in a narrow discharge opening extending longitudinally of the conveyer, and an enlarged expanding chamber interposed between the hopper and the top of the spiral conveyer, the side walls of the enlarged expanding chamber being inclined upwardly and downwardly respectively toward the hopper and the semi-cylindrical bottom of the box from an intermediate point in the height thereof, the material being adapted to spread out within the expanding chamber after passing through the discharge opening of the hopper and before being acted upon by the conveyer.



2. A feed grinding machine, including a conveyer box formed with a substantially semi-cylindrical bottom and with upwardly diverging side walls, a screw conveyer mounted within the semi-cylindrical bottom of the box, a separate hopper section arranged over the conveyer box and provided in the bottom thereof with a narrow discharge opening extending longitudinally of the conveyer, and an independent intermediate section fitted between the bottom of the hopper and the top of the box, the side walls of the section converging upwardly toward the discharge opening of the hopper and coöperating with the upwardly diverging side walls of the box to provide an expanding chamber above the conveyer, the material being adapted to spread out within the expanding chamber after passing through the discharge opening of the hopper and before being acted upon by the conveyer.

1,209,791. HANDLE CONNECTION. CHARLES T. WOOTTEN, Haddon Heights, N. J., assignor to Artemas P. Richardson, Philadelphia, Pa. Filed Oct. 21, 1915. Serial No. 57,026. (Cl. 16—10.)



1. A device for fastening handles to receptacles comprising a U-shaped member the sides of which terminate in laterally extending flanges said flanges being provided with projections which extend through openings formed in the walls of the receptacles, the said projections terminating in T-shaped heads against or in proximity to the inside surface of the said walls.

2. A device for fastening handles to receptacles comprising a member having a U-shaped portion the sides of which terminate in laterally extending flanges which flanges are provided with projections at their side edges and which are also provided with projections at their opposite ends said projections being adapted to extend through openings formed in the walls of receptacles and terminate with retaining means inside of the said receptacles.

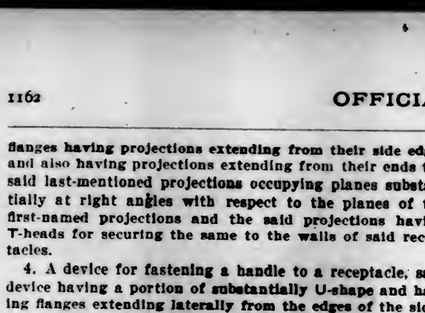
3. A device for fastening handles to receptacles comprising a member having a U-shaped portion with flanges extending laterally from the opposite sides thereof said

flanges having projections extending from their side edges and also having projections extending from their ends the said last-mentioned projections occupying planes substantially at right angles with respect to the planes of the first-named projections and the said projections having T-heads for securing the same to the walls of said receptacles.

4. A device for fastening a handle to a receptacle, said device having a portion of substantially U-shape and having flanges extending laterally from the edges of the sides of said U-shaped portions said flanges being provided with flexible projections which extend substantially at right angles to said projections, said flanges being adapted to extend through openings in the walls of said receptacle and being provided respectively with means upon the inside of said receptacle which means operate to securely connect the said device to the said receptacle.

5. A device for connecting a handle to a receptacle consisting of a sheet metal member comprising a U-shaped portion having flanges extending laterally from the edges of the sides of said U-shaped portion said flanges being provided at their edges and ends with projections which extend through slots in the wall of a receptacle, said projections each extending outwardly from the slot through which it is extended and then inwardly so as to overlie the said outwardly extending portion and the said slot and the extreme end of each of said projections being then extended downwardly and reversely underneath the inwardly extended portion whereby T-heads are formed upon the said projections to retain the said device in engagement with the said receptacle.

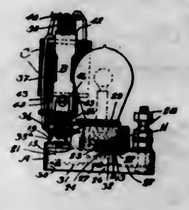
1,209,792. SWITCH. HERBERT W. YOUNG, Chicago, Ill., assignor to Delta-Star Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 11, 1913. Serial No. 805,938. (Cl. 175—282.)



1. In an electric switch, the combination of a flexible elongated coil having a plurality of turns arranged in series side by side, means for fixing one end of said coil in position, an arcing horn rising from the other end of said coil and held yieldingly in position thereby, and a second arcing horn movable into and out of contact with said first-named arcing horn for closing and opening the switch respectively, the arrangement being such that the operation of closing the switch has the effect of displacing the first-named arcing horn slightly from normal position against the resilient action of the coil.

2. In an electric switch, the combination of a flexible elongated coil having a plurality of turns arranged in series side by side, means for fixing one end of said coil in position, an arcing horn of comparatively great length as compared to the diameter of the coil formed integrally with the coil and rising from the free end thereof, and a second arcing horn movable into and out of contact with said first-named arcing horn for closing and opening the switch respectively, the contact of the second arcing horn with said first-named arcing horn upon the closing of the switch having the effect of displacing the first-named arcing horn longitudinally of the coil out of normal position by a slight compression of the upper portion of the coil.

1,209,793. SIGNAL-LANTERN. ALFRED A. ZIEGLER, Boston, Mass. Filed Nov. 6, 1915. Serial No. 60,106. (Cl. 175—279.)



1. In an electrical illuminating-unit, a lamp-block, lamp-sockets thereon, conductors leading from the lamp-sockets, electro-magnetic mechanism controlling the circuits through the lamp-sockets, and means for removably securing the said mechanism upon the lamp-block, said means forming the conductors for electrically connecting the said mechanism and conductors of the lamp-sockets.

2. A lamp-block, having a pair of lamp-sockets, automatic electro-magnetic means controlling the circuits of the two lamp-sockets, a supporting-frame for the said means, a plurality of terminals carried by the frame and a plurality of spring-terminals mounted upon the block to receive the first-mentioned terminals, and thereby removably support the said means upon the block, said spring-terminals being connected in the circuits of the two lamps for electrically connecting the said means in the circuits of the two lamp-sockets.

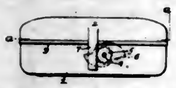
3. In an electrical illuminating-unit, a lamp-block having a pair of lamp-sockets, a plurality of conductors included in the circuits of the two sockets, a plurality of spring-clips forming terminals for said conductors, an automatic electro-magnetic means for controlling the circuits in the two sockets, a frame supporting the means, and a plurality of cylindrical terminals for the circuits through said means, said cylindrical terminals being receivable in the spring-terminals whereby the said means is removably secured upon the block, and the circuits of the means connected in the circuits of the sockets.

4. In an electric illuminating-unit, a base-block, lamp-sockets therein, a pair of binding-posts, a conductor connecting the first of said binding-posts with both of said sockets, conductors leading from each of said sockets and insulated from said first-mentioned conductor, an automatic electro-magnetic mechanism operable for controlling the circuits through the lamp-sockets and a plurality of separated spring-terminals mounted upon the base-block and engageable with the said mechanism for removably securing the same upon the base-block, certain of said spring-terminals being positioned to electrically connect the mechanism with the conductors leading from the lamp-sockets, and another spring-terminal serving to electrically connect the mechanism with the second binding-post.

5. An electrical illuminating-unit including a lamp-block having a pair of lamp-sockets, an automatic electro-magnetic circuit controlling means for the circuits of the sockets, a frame supporting said means and with respect to which said means is fixed, a plurality of cylindrical terminals attached to the frame and the circuits thereof, a plurality of spring-clips secured upon the lamp-block and forming terminals for the circuits of the two sockets, said spring-clips being adapted to receive the cylindrical terminals for detachably securing the said means upon the block and for connecting the circuits through said means with the circuits of the two sockets, each of said spring-clips comprising a pair of opposed resilient clamping-jaws adapted to embrace a cylindrical terminal.

[Claims 6 to 8 not printed in the Gazette.]

1,209,794. LID-OPENER FOR BOXES. CHARLES R. ALLISON, Port Carbon, Pa. Filed Feb. 21, 1916. Serial No. 79,742. (Cl. 220—6.)

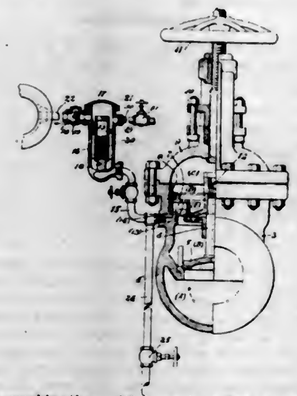


1. The combination of a box; a lid fitting the box; a handled, toothed wheel on one element and a rack on the other element arranged to mesh with the wheel so that, on turning the handle, the lid can be forced to the closed position or opened, as desired.

2. The combination in a box, of a body portion having a lid; a toothed wheel pivotally mounted on the body portion and having a handle; a rack secured to the lid and having teeth arranged to engage the teeth of the wheel; and means for locating the rack in respect to the wheel.

3. The combination in a box, of a body portion; a flanged lid; a handled, toothed wheel on one element; a rack on the other element arranged to engage the wheel; and a projection at the back of the body portion, the flange of the lid having a recess adapted to receive the projection whereby the rack is located in respect to the wheel.

1,209,795. PILOT-VALVE. EDWARD V. ANDERSON, Monessen, Pa., assignor of one-half to Charles E. Golden, Crafton, Pa. Filed Sept. 16, 1914. Serial No. 862,009. (Cl. 137—4.)

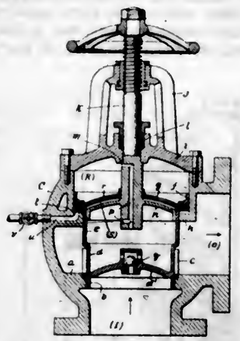


1. The combination with a main valve having a dash-pot device for balancing the valve in open position, of a pilot valve connected with the under chamber of said dash pot and arranged to relieve the pressure thereof when the relative pressure on top of the pilot valve is decreased beyond a predetermined limit and a valved test pipe connected to communicate with the top of said pilot valve whereby to manually operate both the pilot valve and the main valve for testing in service.

2. A pilot valve for operating a main valve by release of pressure, comprising a casing having a perforated partition forming the valve seat, a valve seated thereon provided with means to adjust its weight, a connection from the top of the casing to the low pressure side of the main valve, and a supplementary test pipe connected with the top of the pilot valve casing and provided with a valve, substantially as described.

1,209,796. CUSHIONED VALVE. EDWARD V. ANDERSON, Monessen, Pa., assignor of one-half to Charles E. Golden, Crafton, Pa. Filed July 14, 1915. Serial No. 39,778. (Cl. 137—4.)

1. A valve comprising a closed hollow body, forming, in conjunction with a valve casing, a piston dashpot cushioning device, a relatively stationary piston in said valve body and dividing it into two chambers, suitable ports through the valve to normally balance it under live pressure, and means to unbalance and close it by exhaust of pressure above said stationary piston.



2. A valve comprising a casing with an apertured diaphragm and valve seat therein and a cylinder arranged concentrically with said valve seat, a cylindrical closed hollow valve having an enlarged portion coöperating with said casing cylinder to form a dash-pot, a stem extending into said valve and provided with a piston fitting the inside of the hollow valve, ports to supply the dash-pot piston chamber and the inside of the valve body with pressure fluid from the inlet of the casing, and means to release the pressure between said internal piston and the external piston whereby to close the valve by pressure on the full area of the dash-pot piston.

3. In a valve a cushioning and closing means comprising a casing having a valve seat and a cylinder, a hollow valve body engaging said seat and having a piston engaging said cylinder and coöperating therewith to form a dash-pot, a fixed piston located inside the valve body and engaging the walls thereof, a check valve inlet to the valve body, a port through the fixed inside piston communicating with the dash-pot, and a valve escape port arranged to exhaust pressure between the top of the valve body and said interior piston, substantially as described.

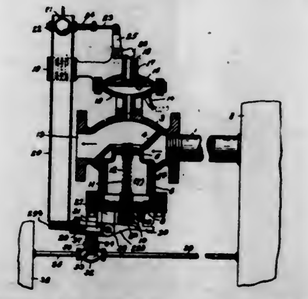
4. A valve comprising a casing having a perforated partition with a valve seat and a cylindrical portion above the valve seat, a cylindrical hollow valve body working in and forming a dashpot with said casing cylinder, a supplemental and relatively stationary piston working in and forming a dash-pot with the valve body and dividing the latter into two chambers, suitable passages and ports through the valve body and stem of the stationary piston adapted to normally equalize pressure on both said dashpot pistons, and means to exhaust the pressure in both dashpots so as to close the valve, substantially as described.

5. A double-cushioned valve comprising the combination with a casing having a valve seat and a cylindrical portion with its axis in the axis of the valve seat, of a closed hollow cylindrical valve body engaging said seat and having a larger piston attached thereto and engaging the cylinder in the casing, a fixed shaft projecting through an opening in the top of said valve body and a supplemental piston on said shaft engaging the inside of the valve body, and suitable ports to introduce live pressure through the valve body and said shaft to both sides of the enlarged piston of the valve body, whereby to cushion the valve on the both movements and allow closing the valve under full pressure of live steam when pressure is exhausted under the enlarged piston.

1,209,797. FIRE-SERVICE VALVE. EDWARD V. ANDERSON, Monessen, Pa., assignor of one-half to Charles E. Golden, Crafton, Pa. Filed Apr. 3, 1916. Serial No. 88,483. (Cl. 169—28.)

1. A fire service valve comprising a casing provided with a perforated partition and a cylinder, of a hollow

cylindrical valve body forming a dashpot with said cylinder, an outlet to the atmosphere from said dashpot, a pilot valve normally closing the same, a suspended weight and associated devices adapted to open said pilot valve when the weight drops, and means maintained by the pressure on the outlet side of the main valve casing to normally retain said weight in place, but to drop it immediately and suddenly upon dropping of the pressure therein.



2. The combination with a main valve casing and a direct seating valve therein held closed by means of live pressure under the valve, of a normally closed pilot valve connecting said pressure chamber with the outside air, a pressure chamber connected with the outlet side of the valve casing and provided with a diaphragm, a suspended weight held in place by a trip attached to said diaphragm when the latter is in normal position, a lever in the path of said weight adapted when tripped by impact of the falling of the weight to open said outlet pilot valve, and a trip to maintain the pilot valve open when once opened by the falling of said weight.

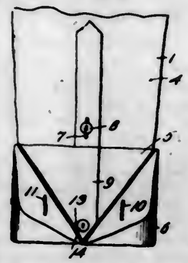
3. A fire service valve comprising a casing and a main valve held closed by the inlet pressure, a trip device adapted to relieve said pressure, and a supplementary source of pressure and valve for re-supplying high pressure to the inlet side of the main valve, said supplementary valve being provided with automatic opening devices operated by the same trip device which operates to open the main valve, substantially as described.

4. A fire service valve comprising a casing having a cylinder, a valve body forming in conjunction with said cylinder a dashpot adapted to normally hold the valve closed, an escapement valve from said dashpot to the atmosphere, a suspended weight and means to open said escapement by dropping the weight, a pressure operated trigger device holding the weight normally suspended, and a supplementary pressure supply valve also operated by the dropping of said weight.

5. A fire service valve comprising a casing having a perforated partition and a cylinder, a hollow direct seating valve body in said cylinder forming therewith a pressure chamber, a relief valve from said chamber to the atmosphere, and a trigger supported suspended weight and associated devices adapted to open said relief valve by impact upon dropping of pressure on the outlet side of the main valve.

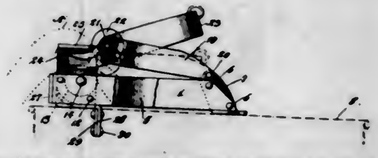
1,209,798. CUFF FOR MEN'S SHIRTS. BRIGET APICHELLA, Marion Heights borough, Pa. Filed May 31, 1916. Serial No. 100,750. (Cl. 2—79.)

1. A cuff of the turn-down variety for shirts comprising a cuff body including an inner fold and an outer fold, the inner fold having edge extensions which are adapted to overlap with the inner face of the outer extension lying in contact with the outer face of the inner extension when said extensions are brought into overlapping engagement, said extensions being provided with means for securing the same in overlapping relation, and the meeting edges of the outer fold being arranged to extend laterally beyond the line of the overlapping edges of the inner fold and provided with button holes, whereby said meeting edges of the outer fold may be connected independently of the meeting edges of the inner fold by an ordinary form of cuff button laterally beyond the overlapped and secured meeting edges of the inner fold.



2. A soft cuff of the turn-down variety for shirts comprising a cuff body including an inner fold and an outer fold, the inner fold having edge extensions which are adapted to overlap with the inner face of the outer extension lying in contact with the outer face of the inner extension when said extensions are brought into overlapping engagement, one of said extensions being provided with a button-hole and the other with a button to engage said button-hole, and the meeting edges of the outer fold being provided with button-holes to receive an ordinary form of cuff button.

1,209,799. MOP-WRINGER. JOSEPH E. AUB, New York, N. Y. Filed Sept. 11, 1915. Serial No. 50,179. (Cl. 15—12.)



1. In a mop wringer the combination of a main frame, a roller pivotally mounted therein, a second frame hinged to the first frame, a roller pivotally mounted in the second frame and adapted to coöperate with the first named roller, a bail lever having its arms pivotally connected to said second frame at the roller end thereof, and fulcrums secured to the main frame, said fulcrums being adapted to coöperate with the arms of the bail lever to cause one roller to be forced toward the other when pressure is applied to the bail lever.

2. In a mop wringer the combination with a main frame and an auxiliary frame hinged together, a pivoted roller in each frame, a bail lever having its arms pivoted on said auxiliary frame, fulcrum means on said main frame adapted to coöperate with the arms of the bail lever to cause one roller to be forced toward the other when pressure is applied to the bail lever, and means for turning said roller.

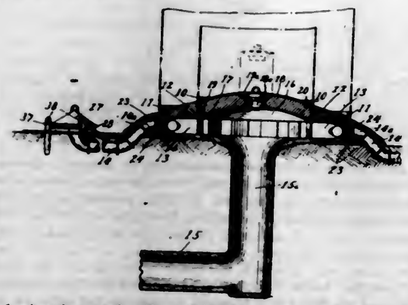
3. In a mop wringer the combination of a main frame adapted to be placed over a pail comprising malleable metal strips secured together, said strips being united to brace each other, a roller pivotally mounted in said frame and horizontally disposed plates secured to said frame under the ends of said roller for deflecting water into the pail.

4. In a mop wringer the combination of a main frame comprising end members of malleable metal strips secured together, a roller having pivotal bearings on said end members, a brace bar parallel with and located on a level below said roller and deflecting plates secured to the respective end members and to said brace bar.

5. In a mop wringer the combination of a main frame comprising end members of malleable metal strips secured together, one of said strips of each end member being bent at right angles and extended so that the two end members may be united to form a U-shaped frame, a roller pivotally mounted between said end members, a brace strip parallel with and below the level of said roller securing said end members together, an auxiliary frame pivotally connected at the free ends of said end members, a roller rotatably mounted in said auxiliary frame in parallel relation to said first named roller, a bail lever pivotally connected on said auxiliary frame and fulcrum elements on said main frame coöperating with said bail lever for pressing said rollers together for wringing a mop.

[Claim 6 not printed in the Gazette.]

1,209,800. SUBMERGED CRIB AND INTAKE. WILLIAM D. BARBER, Chicago, Ill. Filed Dec. 29, 1913. Serial No. 809,394. (Cl. 137—78.)



1. A submerged crib and intake, comprising an intake-shaft leading to shore, the inlet end of said shaft terminating in a chamber, a cover for said chamber, inlet ports for said chamber, inlet conduits extending predetermined distances from the crib and intake, and deflecting means removably arranged about the inlet orifices of said inlet conduits, said means being composed of a foraminated bottom portion adapted to constitute a basin occupying a plane lower than that of the orifice of the conduit, and a top portion removably secured to the bottom portion.

2. A submerged crib and intake, comprising an intake-shaft leading to shore, the inlet end of said shaft terminating in a chamber, a cover for said chamber, inlet ports for said chamber, inlet conduits communicating with said inlet ports and arranged to extend predetermined distances from the crib and intake, the inlet orifices of said conduits being presented upwardly and provided with means whereby the water is induced to flow from a point below the plane of the orifices, said means being composed of a bottom or basin member having a foraminated side, a top member removably secured to the bottom or basin-member and a screen in advance of the inlet orifices of the inlet conduits.

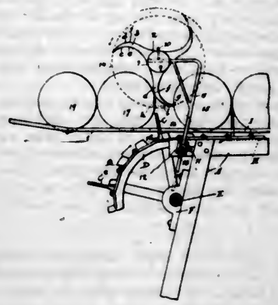
3. A submerged crib and intake, comprising an intake-shaft leading to shore, a pair of shells arranged one within the other and surrounding the inlet end of said intake-shaft, the inner shell constituting a chamber communicating with said intake-shaft, a cover arranged within said inner shell and supported thereon, a series of ports arranged between the shells and communicating with said chamber and the exterior of the outer shell, a series of conduits adapted to connect with said ports, and means intermediate of the ports and said conduits for effecting connection between the conduits and ports.

4. A submerged crib and intake, comprising an intake-shaft leading to shore, a pair of concentrically arranged shells surrounding the inlet end of said intake-shaft, the inner shell being adapted to form a chamber communicating with said intake-shaft, a cover for said chamber supported on said inner shell, inlets or ports intermediate of the shells and communicating with said chamber, inlet conduits extending predetermined distances from the outer shell, and means removably mounted intermediate of the conduits and said inlets or ports whereby communication may be effected.

5. A submerged crib and intake, comprising a pair of spaced shell sections, a series of conduits arranged intermediate of the sections, a covering for the space within the inner shell section, said covering being provided with a man-hole, and means for closing said man-hole.

[Claims 6 to 9 not printed in the Gazette.]

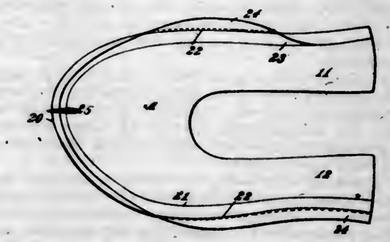
1,209,801. SPACING DEVICE FOR CAN-CLEANING MACHINES. WILLIAM AUSTON BECKETT, Kingsville, Ontario, Canada. Filed May 31, 1916. Serial No. 100,896. (Cl. 193—24.)



1. The combination with an endless carrier belt, provided with a plurality of flights, spaced apart; supporting and operating means for said belt; and a track held by said supporting means, of an idler rotary device provided with a plurality of curved radiating arms which consecutively move between two moving articles, moving along said track on their way to be carried forward by said belt so as to retard the movement of one of said articles, to insure the passage of one of said articles at a time into each of the pockets between said flights, and means whereby said rotary device is mounted in position.

2. As a new article of manufacture, an idler spacing device comprising a member provided with a plurality of radiating arms describing substantially the same arc, the inner and outer sides of the major portion of each arm being formed of eccentric arcs which touch to provide each arm with pointed ends, the said arcs having radii less than the radius of any arc on the surface of any of the cans to be separated.

1,209,802. SHOE-UPPER AND PROCESS OF MAKING THE SAME. BENJAMIN BEHRMANN, Manchester, N. H. Filed June 26, 1916. Serial No. 105,959. (Cl. 36—45.)



1. A shoe upper comprising a body portion of leather having a channel on the under side which extends from within the outer edge outward to a line approximate to and substantially parallel with the outer edge to form a lip connected to the upper by sufficient material to withstand the pulling over operation.

2. A shoe upper comprising a body portion of leather having a channel on the under side which extends from within the outer edge outward to a line approximate to and substantially parallel with the outer edge to form a lip connected to the upper by sufficient material to withstand the pulling over operation, said lip being bent outwardly to form a pulling-over extension.

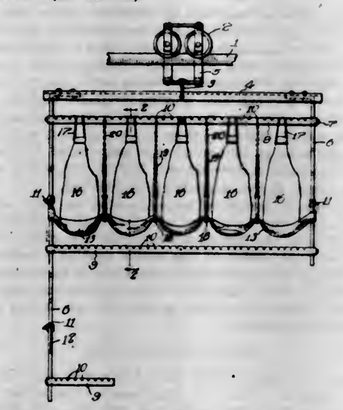
3. A shoe upper comprising a body portion of leather stitched through and through approximate to and parallel with its outer edge, and having a channel on the under side which extends from within the outer edge outward to a line approximate to and substantially parallel with the stitching to form a lip.

4. A shoe upper comprising a body portion of leather stitched through and through approximate to and parallel with its outer edge and having a channel on the under side which extends from within the outer edge outward to a line approximate to and substantially parallel with the stitching to form a lip, said lip being bent outwardly to form a pulling-over extension.

5. A shoe upper comprising a body portion of leather stitched over the edge and through and through approximate to and parallel with its outer edge and having a channel on the under side which extends from within the outer edge outward to a line approximate to and substantially parallel with the stitching to form a lip.

[Claims 6 and 7 not printed in the Gazette.]

1,209,803. PROCESS FOR TREATING AND CURING MEATS AND FOOD PRODUCTS. ALONZO NEWTON BENN, Chicago, Ill. Filed May 2, 1916. Serial No. 94,991. (Cl. 99—8.)



1. A process of curing or treating meats which consists in holding in a desired position and protecting the fleshy parts of the product while the skin portions thereof remain free and curing or treating the same while so held and protected.

2. A process for curing or treating meat food products which consists in binding the softer portions thereof with a holding and protecting covering, while allowing the tougher and self-sustaining portions to remain free and curing or treating the same while the said parts are so bound, held and protected.

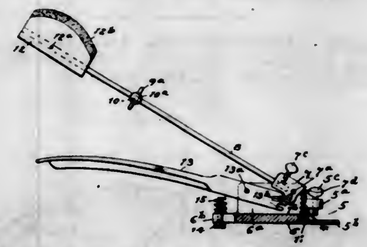
3. A process of treating or curing meats and food products which consists in supporting the same in holding devices adapted to shape and protect the softer and more tender portions while the tougher and self-sustaining portions are exposed and treating or curing the same while so supported and held.

4. A process of treating or curing meats which consists in binding or holding certain portions of the pieces most liable to injury while allowing the self-sustaining portions to be free and curing or treating the same while so bound or held.

5. A process of treating or curing meats which consists in applying a cloth over the softer parts of the meat to cause those portions to receive the treatment in approximately an equal ratio with the skin covered or tougher portions which remain uncovered and curing or treating the same while the cloth is so applied.

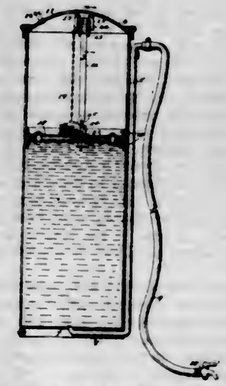
[Claims 6 to 11 not printed in the Gazette.]

1,209,804. DRUM AND CYMBAL BEATER. ROBERT A. BESSINGER, Wellington, Ohio. Filed July 16, 1915. Serial No. 40,176. (Cl. 84—10.)



In a drum beater, the combination of a base, a hammer block pivoted to the base, said block having a hammer rod projecting from its rear end, a spring pressing against the front end, and teeth projecting from the underside of the hammer block, at an angle to the axis of the hammer rod and adjacent the front end of the block, and a pedal lever the upper side of which normally rests against the under side of the block, said lever having forwardly projecting teeth at its front end adapted to engage the teeth on the block as the latter is swung up on its pivot.

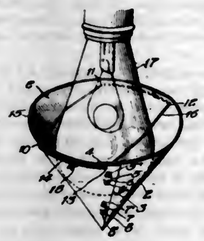
1,209,805. GREASE-GUN. HANS M. BOE, Minneapolis, Minn. Filed Jan. 22, 1915. Serial No. 3,737. (Cl. 221—78.)



1. A device of the class described, comprising a container provided with a removable cover, a discharge valve, a piston, means for admitting air under pressure thereto, means connected with said piston for indicating the quantity of contents forced from said container, and means for releasing said measuring means from said piston when the latter reaches the bottom of said container.

2. A device of the class described, comprising a container provided with a removable cover, a discharge valve, a piston, means for admitting air under pressure thereto, a tape connected with said cover and with said piston for indicating the quantity of contents forced from said container, and means for releasing said tape from said piston when the latter reaches the bottom of said container.

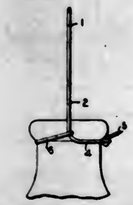
1,209,806. LAMP ATTACHMENT. HERMAN J. BRENNECKE and FRANK IHRCKE, Chicago, Ill. Filed Dec. 27, 1915. Serial No. 68,704. (Cl. 240—108.)



1. The combination with a lamp, of a colored and transparent conical cap formed out of a segmental disk having straight edges which overlap and integral fasteners to retain the conical form of said disk, and a pair of parallel spring wires or cords spanning the opening into said cap and engageable with said lamp to be supported thereby.

2. A colored transparent cap for a lamp consisting of a disk cut and bent to conical form, and flexible wires loosely mounted in perforations near the edges of said cap, said wires adapted to be sprung apart over a lamp and having projecting slidable end portions which are free of cap contracting engagement with said cap when bent apart as specified.

1,209,807. CARRIER FOR BOTTLES. GEORGE E. BROWN, Lowell, Mass. Filed Apr. 27, 1914. Serial No. 834,660. (Cl. 215—1.)

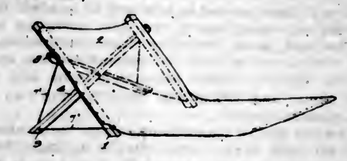


1. A carrier for bottles comprising a wire having one portion bent to form a bail and another portion bent to form a fixed jaw of permanent shape to fit against the neck of the bottle and a second wire bent to form a gravity-actuated jaw which is slidable bodily on the bail, whereby when the carrier is applied to the neck of a bottle the gravity-actuated jaw will automatically come into operative position by the act of bringing the bail into a vertical position.

2. A carrier for bottles comprising a bail presenting substantially parallel side members, a fixed jaw of permanent shape secured to the lower ends of said side members and a movable jaw slidable bodily on said parallel side members and loosely connected thereto so as to permit said jaw to rock as well as to slide whereby when the carrier is applied to the neck of a bottle the bodily slidable jaw will automatically come into operative position by the act of bringing the bail into a vertical position.

3. In a carrier for bottles the combination with a wire having one portion bent to form a bail presenting substantially parallel side members and another portion bent to provide a fixed jaw and having its end bent to provide a piercing member projecting laterally from said jaw; of a second wire bent to form a coöperating jaw and having its ends loosely engaging and slidably mounted on said side members whereby the slidable jaw will be moved to operative position by gravity when the bail is brought into a vertical or inclined position.

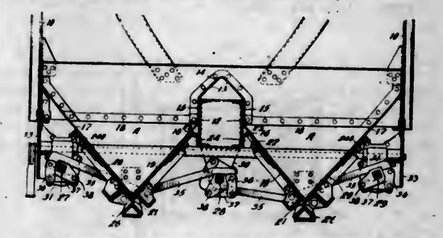
1,209,808. BEACH-REST. CHARLES V. BURGESS, Swampscott, Mass. Filed Oct. 9, 1914. Serial No. 865,959. (Cl. 155—22.)



1. A beach rest comprising a pair of frame bars, a canvas structure attached to the frame bars and terminating at its lower end in a rug portion, a pair of crossed brace bars, means to adjustably secure the brace bars together in crossed relation, the upper ends of said brace bars having channels, said brace bars having bores communicating with one end of the channels, cords attached to the frame bars and extending through said channels and bores, additional cords extending from the upper ends of the brace bars through the lower ends of the brace bars and into engagement with the lower ends of the frame bars, a cord from the upper end of one brace bar extending through the lower end of the opposed brace bar.

2. In a beach rest, the combination with a pair of frame bars, a canvas structure attached to said frame bars, said canvas structure terminating in a rug section, of a pair of crossed brace bars, flexible means for attaching the upper ends of the brace bars to the frame bars, means to adjustably secure the brace bars together in crossed relation, cords extending from the upper ends of the brace bars through the lower ends of the brace bars and into engagement with the lower ends of the frame bars, a cord from the upper end of one brace bar extending through the lower end of the opposed brace bar.

1,209,809. DUMP-CAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 26, 1916. Serial No. 80,559. (Cl. 105—185.)



1. In a car of the class described, the combination with a car body provided with longitudinally arranged hoppers disposed on each side of the center sill, each hopper having a pair of door openings, oppositely swinging doors for each pair of openings thus forming four longitudinally arranged sets of doors, longitudinally extending diverting partitions at the bottoms of said hoppers, and two sets of independently operable mechanisms for controlling said four sets of doors, one of said mechanisms including one longitudinally extending shaft and the other mechanism including two longitudinally extending shafts.

2. In a car of the class described, the combination with a car body provided with longitudinally arranged hoppers disposed on opposite sides of the center sill, each of said hoppers being provided with a pair of door openings for side and center dumping, of doors hinged along their upper edges for closing said door openings, and mechanism for operating said doors, said mechanism including three longitudinally arranged shafts, connections from one of said shafts to the side dumping doors, connections from the other two shafts to the center dumping doors, and transversely arranged auxiliary shafts for actuating said longitudinally arranged shafts.

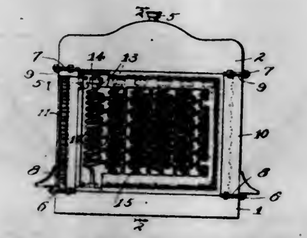
3. In a car of the class described, the combination with a car body having a plurality of hoppers, each hopper being provided with door openings, of hinged doors for each of said openings and so arranged as to adapt the car for center or side dumping, and door operating mechanisms for said doors including three longitudinally arranged shafts, one between the hoppers and one on each outer side thereof, flexible connections from said shafts to the doors, and means for operating the two outer shafts simultaneously.

4. In a car of the character described, the combination with a car body having longitudinally arranged hoppers on opposite sides of the center sill thereof, each hopper being provided with an outwardly and an inwardly swinging door, of mechanism for operating said outwardly swinging doors simultaneously which includes a longitudinal shaft, flexible connections from said shaft to said doors, a transverse shaft, flexible connections between said transverse shaft and the longitudinal shaft; and mechanism for operating the inwardly swinging doors which includes a pair of longitudinally extending shafts, flexible connections from each of said shafts to the nearest set of inwardly swinging doors, a transverse shaft, and rality of radiating units connecting the two reservoirs shaft and said pair of longitudinally extending shafts.

5. In a car of the character described, the combination with a car body having hoppers provided with sets of oppositely swinging doors, of means for operating one set of said doors which includes a pair of longitudinally arranged shafts, a transverse shaft and worm gearing between said transverse shaft and both of said longitudinal shafts; and means for operating the other set of doors including a longitudinal shaft, a transverse shaft, and flexible connections between the last named transverse shaft and the longitudinal shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,209,810. RADIATOR FOR AUTOMOBILES. ALBERT CARO, Maywood, and ABE BERLINER, Chicago, Ill., assignors to Caro-Berliner Radiator Corporation, a Corporation of Illinois. Filed Apr. 5, 1915. Serial No. 19,300. (Cl. 257—125.)

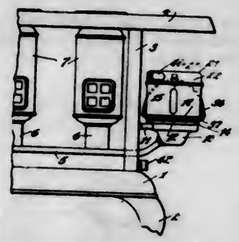


1. A radiator comprising an upper and a lower reservoir for liquid, connection to the upper reservoir for receiving heated liquid from a liquid heating element such as a hydro-carbon motor, connection to the lower reservoir for returning cooled liquid to the heating element, and a plurality of radiating units connecting the two reservoirs and through which the liquid flows from the upper reservoir to the lower reservoir, said units constituting the only passages through which the liquid can flow from the upper to the lower reservoir standards rigidly supporting the upper reservoir above the lower reservoir, large free air inlet openings in said standards and inwardly curved foraminous plates preventing free access to said units through said standards.

2. A radiator comprising two reservoirs for liquid connected to discharge into and receive liquid from a liquid heating element such as a hydro-carbon motor, standards supporting one of said reservoirs at an elevation above and upon the other, the opposing walls of said reservoirs and the opposed standards bordering a rectangular space, and a plurality of radiator units disposed in said space and detachably connected at opposite ends with said reservoirs and foraminous plates removably mounted between said standards and said reservoirs for inclosing the said space containing said radiator units and a plate adapted to be disposed between one of said foraminous plates and the parts against which the same is adapted to abut for preventing free passage of air for circulation around said units.

3. A radiator comprising two reservoirs for liquid connected to discharge into and receive liquid from a liquid heating element such as a hydro-carbon motor, skeleton standards supporting one of said reservoirs at an elevation above and upon the other, the opposing walls of said reservoirs and the opposed standards bordering a rectangular space, and a plurality of radiator units disposed in said space and detachably connected at opposite ends with said reservoirs and foraminous plates removably mounted between said standards and said reservoirs for inclosing the said space containing said radiator units and a plate adapted to be disposed between one of said plates and the parts against which the same is adapted to abut for preventing free passage of air for circulation around said units and foraminous protectors preventing free access to the raditor units through said standards.

1,209,811. LIQUID-DISPENSING APPARATUS. LEE S. CHADWICK, East Cleveland, Ohio, assignor to The Cleveland Foundry Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 27, 1916. Serial No. 122,408. (Cl. 158—41.)



1. In a liquid dispensing apparatus, the combination of a distributing receptacle, a carrier pivotally supported to swing from a position at one side of to an inverted position over the distributing receptacle, a dispensing receptacle adapted to be placed in the carrier when the latter is in the first position and swung therewith to inverted position, the dispensing receptacle having a bail and being capable of a downward movement with respect to the carrier as they assume inverted position, the carrier having a keeper wherewith the bail of the dispensing receptacle engages during the aforesaid downward movement of the dispensing receptacle.

2. In a liquid dispensing apparatus, the combination of a distributing receptacle, a carrier pivotally supported to swing from a position at one side of, to an inverted position over the distributing receptacle, a dispensing receptacle adapted to be placed in the carrier when the latter is in the first position and to be swung therewith to inverted position, the dispensing receptacle being capable of a downward movement with respect to the carrier as they assume inverted position, the dispensing receptacle having a bail and the carrier a keeper wherewith the bail engages during the aforesaid downward movement of the dispensing receptacle, the dispensing receptacle and carrier having portions which coöperate to locate the bail in proper relation to the keeper.

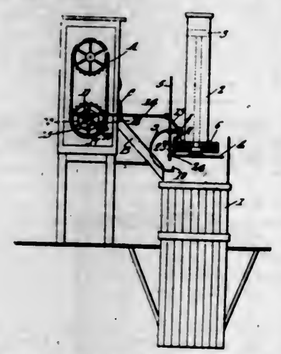
3. In a liquid dispensing apparatus, the combination of a distributing receptacle, a carrier pivoted to said distributing receptacle and adapted to swing from a position at one side of, to an inverted position over the distributing receptacle, a dispensing receptacle adapted to be placed in the carrier and swung therewith to inverted position, means for properly locating the dispensing receptacle within the carrier, the dispensing receptacle having a pivoted bail, and the carrier having a keeper and an operating handle that are located at a point diagonally opposite its pivoted portion, the bail assuming a position adjacent said keeper when the dispensing receptacle is placed within the carrier and adapted to engage the same when the carrier is swung to inverted position.

4. In a liquid dispensing apparatus, the combination of a distributing receptacle, a carrier pivotally supported to swing from a position at one side of, to an inverted position over the distributing receptacle, a dispensing receptacle adapted to be placed in the carrier and swung therewith to inverted position, the dispensing receptacle having a bail and the carrier a keeper therefor wherewith the bail automatically engages during the inversion of the carrier.

5. In a liquid dispensing apparatus, the combination of a distributing receptacle, a carrier pivotally supported to swing from a position at one side of, to an inverted position over the distributing receptacle, a dispensing receptacle adapted to be placed in the carrier and swung therewith to inverted position, the dispensing receptacle having a bail and the carrier a keeper therefor.

[Claims 6 to 16 not printed in the Gazette.]

1,209,812. FEEDING AND PACKING MECHANISM FOR BALING-PRESSES. GILES V. CHRISTOPHER, Midland, Tex. Filed Mar. 31, 1915. Serial No. 18,362. (Cl. 100—25.)

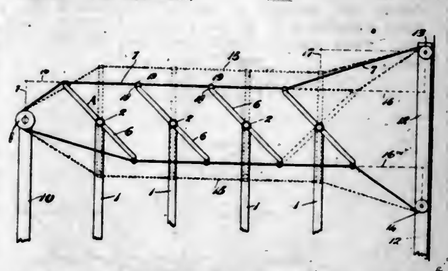


1. The combination with a feed chute, a press box, a shaft, and means for continuously oscillating the shaft, of a feed member adapted to work within the chute and into and out of position across the end of the press box, means for coupling said feed member to the shaft, a follower operating independently of the shaft and movable into and out of the press box, and means operated by the movement of the follower toward the press box for uncoupling the feed member from the shaft.

2. The combination with a feed chute, a press box, a shaft, and means for continuously oscillating the shaft, of a feed member adapted to work within the chute and into and out of position across the end of the press box, means for coupling said feed member to the shaft, a follower operating independently of the shaft and movable into and out of the press box, means operated by the movement of the follower toward the press box for uncoupling the feed member from the shaft, and means upon the shaft for automatically shifting the released feed member out of the path of the follower.

3. The combination with a press box, a follower normally arranged thereabove, and a feed chute for directing material into the press box, of a shaft, an arm mounted to oscillate upon the shaft, means for transmitting motion to the arm, means for coupling the arm to the shaft, a feeding member fixedly connected to the shaft and adapted to work within the chute and into and out of position between the follower and press box, and means operated by the movement of the follower toward the press box for uncoupling the arm from the shaft, and means on the shaft for automatically rotating the shaft when released from the arm to shift the feeding member out of the path of the follower.

1,209,813. IRRIGATION APPARATUS. WALTER H. COLES, Troy, Ohio. Filed Feb. 2, 1916. Serial No. 75,727. (Cl. 137—66.)



1. In an irrigating system, a plurality of oscillating sprinkler pipes supported over the surface to be irrigated, each pipe provided with an arm for oscillating the same, and an endless cable connecting the ends of the arms, for the purpose of oscillating the pipes in unison, with fixed means independent of the arms to compensate for any variation in the tautness of cable resulting from the variation in the angular adjustment of the arms.

2. In an irrigating system, a plurality of oscillating sprinkler pipes supported at uniform height over the surface to be irrigated, each pipe provided with an arm for oscillating the same, with the arms of the respective pipes arranged in line, and an endless cable connecting the ends of the arms, with fixed means independent of the arms to compensate for a variation in the tautness of cable resulting from the variation in the angular adjustment of the arms.

3. In an irrigating system, a plurality of oscillating sprinkler pipes supported over the surface to be irrigated, each pipe provided with an arm for oscillating the same, and an endless cable connecting the ends of the arms for the purpose of oscillating the said pipes in unison, with means to compensate for variation in the tautness of the cable required for variation in the angular adjustment of the arms, comprising a cable holding member at one end and cable holding means at the other over which the cable runs, said cable holding means positioned so as to receive the cable at a point outside of the highest position of the arms.

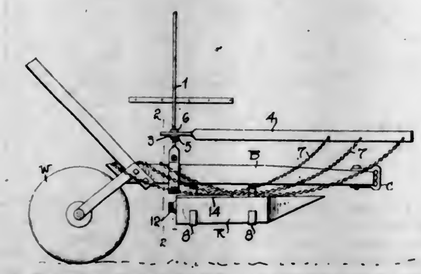
4. In an irrigating system, a plurality of oscillating sprinkler pipes supported over the surface to be irrigated, each pipe provided with an arm for oscillating the same, and an endless cable connecting the ends of the arms for the purpose of oscillating the said pipes in unison, with means to compensate for a variation in the tautness of cable which would otherwise be required for variation in the angular adjustment of the arms, comprising a pulley device at one end and another pulley device at the other over which the cable runs, the second pulley device being so disposed with relation to the first that the variations in length of cable between the ends of the adjacent arm and the first pulley as the arms are oscillated and the variation in length between the ends of the adjacent arm and the second pulley device will result in a compensation.

5. In an irrigating system, a plurality of oscillating sprinkler pipes supported over the surface to be irrigated, each pipe provided with a cross arm for oscillating the same, and an endless cable connecting the ends of the arms, with means to compensate for variation in the tautness of cable required for variation in the angular

adjustment of the cross arms, comprising a single pulley at one end and a pair of pulleys at the other over which the cable runs, the pair of pulleys being so disposed with relation to the single pulley that the variations in length of cable between the ends of the adjacent arm and the single pulley as the arms are oscillated and the variation in length between the ends of the adjacent arm and the pair of pulleys will result in a compensation.

[Claims 6 to 10 not printed in the Gazette.]

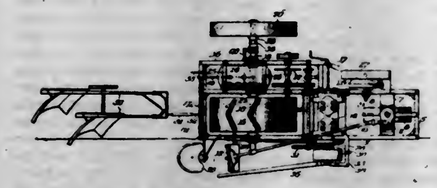
1,209,814. INSECT-DESTROYER. WALTER T. CULLIFER, Ozark, Ala., assignor of one-half to Smith & Co., a Firm composed of H. R. Smith and J. A. Smith, Ozark, Ala. Filed Aug. 9, 1916. Serial No. 113,987. (Cl. 43—1.)



1. In combination with a beam, an upright carried thereby, an arm operatively engaged with the upright and extending laterally from the beam, a second arm pivotally engaged with the outer extremity of the first named arm whereby the outer extremity of said second named arm may be adjusted relative to the beam, a plurality of flexible striking members secured to the forward end portion of the second named arm and to the rear portion of the beam, and a collecting receptacle carried by the beam and positioned below the striking members.

2. In combination with a beam, an upright carried thereby, an arm operatively engaged with the upright and extending laterally from the beam, a second arm pivotally engaged with the outer extremity of the first named arm whereby the outer extremity of said second named arm may be adjusted relative to the beam, a plurality of striking members secured to the forward end portion of the second named arm and to the beam rearwardly of the upright carried by the beam, and a collecting receptacle carried by the beam and positioned below the striking members at a point in advance of the upright.

1,209,815. TRACTION-ENGINE. DAVID P. DAVIES, Racine, Wis., assignor to J. I. Case Threshing Machine Company, Racine, Wis., a Corporation. Filed Oct. 28, 1914. Serial No. 869,127. (Cl. 21—114.)



1. In a traction engine, the combination of a main frame, an auxiliary frame rigidly connected therewith, a drive wheel axle secured by said frames, a drive wheel on said axle within said main frame, and a convertible traction and guide wheel of substantially the same diameter as said drive-wheel mounted on said axle adjacent said auxiliary frame.

2. In a traction engine, the combination of a main frame, an auxiliary frame associated therewith, a drive wheel axle supported by said frames, a drive wheel on said axle within said main frame, a guide and traction wheel on said axle adjacent said auxiliary frame, and means associated with said axle and guide-wheel for converting the same into an idler or traction wheel.

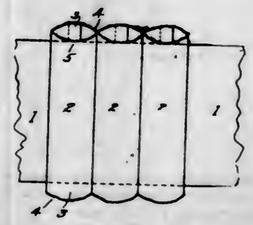
3. In a traction engine, the combination of a main frame, a steering wheel, motor and drive wheel mounted in said frame in tandem, an axle supporting said drive wheel, an auxiliary frame associated with said main frame, and a guide and traction wheel of substantially the same diameter as said guide-wheel mounted on said axle adjacent said auxiliary frame.

4. In a traction engine, the combination of a main frame, an auxiliary frame associated therewith, a drive wheel axle supported by said frames, a drive wheel on said axle within said main frame, a guide and traction wheel on said axle adjacent said auxiliary frame, a motor mounted on said main frame in advance of said drive wheel, a steering wheel mounted in said main frame in advance of said motor, means associated with said motor and said drive wheel for imparting motion to the latter, means associated with said axle and adjustable in relation thereto for converting said guide wheel into an idler or traction wheel.

5. A traction engine comprising a main frame, an auxiliary frame at one side thereof, a steering wheel and a drive wheel mounted in said main frame in tandem to travel over unplowed soil, an axle carried by said frames for supporting said drive-wheel, a guide and traction wheel mounted upon said axle and adjustable in relation thereto and positioned adjacent said auxiliary frame to maintain said traction engine in a straight line of travel, and means for converting said guide wheel into a traction wheel to assist said drive wheel in propelling said engine.

[Claims 6 to 9 not printed in the Gazette.]

1,209,816. PROTECTING-CELL FOR CIGARS. JOHN J. DITTGEN, Cincinnati, Ohio. Filed June 24, 1915. Serial No. 36,131. (Cl. 131—11.)

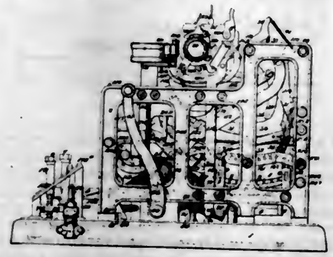


1. A series of open, tubular pouches for use in supporting and protecting cigars packed in sales-receptacles and to permit the ready withdrawal of each cigar from its particular pouch, such series comprising an imperforate, flexible backing-strip and a longitudinally contiguous but disconnected series of parallel, elongated tubes whose backs are each attached along one face of said backing-strip and the latter adapted to be flexed in either direction between said disconnected tubes whereby the disconnected series of tubes may be tightly wound into a spiral bunch with the cigars held longitudinally upright within the said sales-receptacles to facilitate their inspection and, also, their removal therefrom, the latter either singly or as an entire unwound bunch, as desired.

2. A series of open, tubular pouches for supporting and protecting cigars packed in sales-receptacles, comprising a flexible, imperforate, continuous paper backing-strip and a longitudinally contiguous but disconnected series of elongated, paper tubes whose backs are stuck transversely along one face of said flexible backing-strip, whereby the pliability of said backing-strip between the contiguous but disconnected tubes facilitates and permits the

rolling of the series of mounted tubes for ready and compact insertion in said sales-receptacles with their cigar-contents longitudinally disposed in an upright, endwise-display position therein and for ready individual removal of said cigar-contents from the respective tubes free from abrading-contact with each other and from leaning or falling sidewise at any time in the said sales-receptacles.

1,209,817. ADDING AND RECORDING MACHINE. SAMUEL GERRY DORMAN, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 16, 1906. Serial No. 339,230. (Cl. 235—60.)



1. In an adding machine, the combination with numeral keys, and a total key, of a series of independently movable locking plates pivoted between said numeral keys, a sliding plate, a spring actuating said sliding plate toward said total key, a cam on said sliding plate whereby said sliding plate will be moved when said total key is depressed, and a projection on said sliding plate arranged to prevent said first-named plates from being moved in one direction when said total key is depressed, substantially as specified.

2. In an adding machine, a plate provided with notches, key levers operating in said notches, swinging plates pivoted to said plate between said notches and between said key levers, total recording mechanism, a sliding member supported by said first named plate, a projection on said sliding member, a spring actuating said sliding member to hold said projection disengaged from said swinging plates, and means for actuating said sliding member to engage said projection against one of said swinging plates incidentally to the operation of said total recording mechanism, and thereby lock said key levers, substantially as specified.

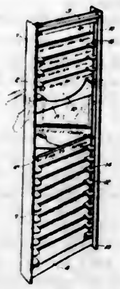
3. In an adding machine, the combination with a platen arranged to hold paper, a ribbon having two longitudinal strands of distinctive colors, ribbon guides holding said ribbon, and type-carriers operable to record numbers, in combination with adding mechanism for adding the numbers recorded, means for moving said ribbon guides, a stop limiting movement of said ribbon guides whereby the item numbers will be recorded in one color, a total key operable to cause said adding mechanism and said type-carriers to coöperate to record the totals represented in said adding mechanism, and a connection operated by said key for moving said stop to enable said ribbon guides to position a distinctive color of ribbon at the recording line, and means for operating said ribbon guides for said purpose, substantially as specified.

4. In an adding machine, the combination with a platen arranged to hold paper, type-carriers, and a ribbon, of guides for holding and moving said ribbon, a lever controlling said type-carriers, a bell crank lever engaging said first-named lever, a link connecting one of said ribbon guides and said bell crank lever, mechanism for operating said lever and said type-carriers to record numbers, and a spring for actuating said bell crank lever and thereby said ribbon guides when said first-named lever and said type-carriers are operated, substantially as specified.

5. In an adding machine, a platen arranged to hold paper, a ribbon, guides for holding and moving said ribbon, and type-carriers for recording numbers, in combination with a lever holding said type-carriers in idle position, a bell crank lever engaging said first named lever, a link connecting one of said guides with said bell crank lever, means for operating said lever and thereby said ribbon guides to place the ribbon in recording position, and a stop engaged by said bell crank lever to limit movement of said ribbon guides, substantially as specified.

[Claims 6 to 38 not printed in the Gazette.]

1,209,818. DIRECTORY-RACK. JOSEPH R. DUMONT, Kansas City, Mo. Filed Jan. 17, 1916. Serial No. 72,440. (Cl. 129—16.)



1. The combination with a frame, of a plurality of card traps slidably mounted in the frame, and having forwardly projecting members engaging the upper edges of traps lower in the frame for the purpose set forth.

2. In a directory rack, the combination with a frame, of a card trap comprising a back and a front member downcut from its upper edge to expose the back, and having a forwardly directed finger grip.

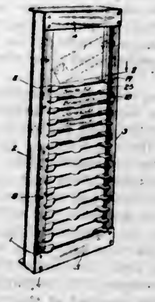
3. In a directory rack, the combination with a frame, of a card trap comprising a back and a front member downcut from its upper edge to expose the back, and having a forwardly directed finger grip, having slidable, locking engagement into the frame.

4. The combination with spaced rails, each having a fin at its inner side, a card trap comprising ears, each having a laterally opening slit and adapted to receive the rail fin to slidably retain the trap between the rails.

5. The combination with spaced rails, each having a fin at its inner side, of a transverse bottom plate attached to the fins on opposite rails, and a card trap having forwardly directed ears adapted for engaging said base plate to support the trap.

[Claims 6 to 15 not printed in the Gazette.]

1,209,819. DIRECTORY-RACK. JOSEPH R. DUMONT, Kansas City, Mo. Filed Apr. 6, 1916. Serial No. 89,310. (Cl. 129—16.)



1. A rack trap comprising means for suspending a card and means for supporting the trap.

2. A rack trap comprising a back member, means at the front of said back for confining a card and means for suspending a card below the bottom of the trap.

3. A rack trap comprising spaced front and back portions, and a bottom having a longitudinally extending slot therein.

4. A rack trap comprising spaced front and back portions and a bottom having a longitudinal slot therein, the front of the trap being downcut from its upper edge, and having supporting ears at the ends of the side portions.

5. The combination with a suitable frame, of a trap comprising a pocket forming member, and a card having a head supported by the pocket forming member and a body extending below the trap.

[Claims 6 to 9 not printed in the Gazette.]

1,209,820. SPARK-PLUG. DAVID M. DUNNING, Jr., Auburn, N. Y. Filed Aug. 24, 1910, Serial No. 578,779. Renewed Nov. 15, 1916. Serial No. 131,568. (Cl. 123—169.)

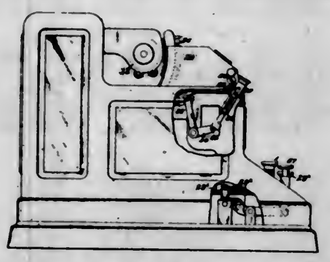


1. A spark plug comprising the combination of an externally threaded electrode-bearing shell having a tapered bore extending to the outer end of the shell, a correspondingly tapered sleeve of rolled sheet mica in said bore, a similarly tapered electrode-bearing core within said sleeve, a solid collar of non-vitreous compressible insulating material surrounding and protecting the mica sleeve which projects from the outer end of the shell, a clamp nut threaded to the core for drawing the tapered parts together and compressing said collar against the shell, said shell and core being provided with projecting spurs which are forced into the outside and inside of the sleeve when the parts are drawn together by said nut, and a terminal attachment nut on the core.

2. A spark-plug comprising a threaded shell having a recess in its threaded end and a tapered bore of less diameter than the recess extending therefrom to and through the outer end of the shell, a correspondingly tapered electrode-bearing core in said bore, a similarly tapered rolled sheet mica sleeve between the core and bore extended into and terminating in the said recess at a point beyond the inner end of the said tapered core, thereby forming two concentric, open compartments and electrodes respectively secured to said shell and core and separated by the two open insulating compartments and the end of the mica sleeve, in combination with a solid collar of non-vitreous compressible insulating material surrounding and protecting the end of the mica sleeve and bearing against the outer end of the shell, the sleeve embracing hole therethrough being slightly longer than the projecting end of the sleeve, a clamp nut threaded on said core and clamping the parts together, and a terminal attachment-nut on said core.

3. A spark-plug comprising an electrode-bearing threaded shell having a recess in its threaded end and a tapered bore of less diameter than the recess extending therefrom to and through the outer end of the shell, a correspondingly tapered electrode-bearing core in said bore, and a similarly tapered rolled sheet mica sleeve between the core and bore extended into and terminating in the said recess at a point beyond the inner end of the said tapered core, thereby forming two concentric, open compartments, the larger end of said core projecting beyond the bottom of the recess in the shell, in combination with a solid collar of non-vitreous compressible insulating material surrounding and protecting the end of the mica sleeve, and a nut threaded on said core beyond said collar and clamping the parts together.

1,209,821. ADDING AND RECORDING MACHINE. BERNEY DYSART, St. Louis, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 6, 1909. Serial No. 505,972. (Cl. 235—60.)



1. In an adding machine, adding wheels arranged in numerical orders, racks for operating said adding wheels, mechanism for reciprocating said racks to operate said adding wheels in adding operations, a pivoted member limiting movement of the rack in units order in one direction, means for positioning said pivoted element in different positions to enable said units rack to move varying distances while actuating the corresponding adding wheel in adding operations, and a device for holding said pivoted element in its different positions.

2. In a machine of the character described, devices adjustable to represent numbers, adding mechanism operable to add said numbers, recording mechanism operable to record said numbers, and mechanism for causing said recording mechanism to record a number of greater numerical value than the number represented by said devices or said adding mechanism in certain operations of the machine.

3. In a machine of the character described, a carriage, devices in said carriage adjustable to represent numbers, and recording mechanism operable to record numbers represented in said carriage, in combination with means for causing said recording mechanism to record a number of greater numerical value than the number represented in said carriage.

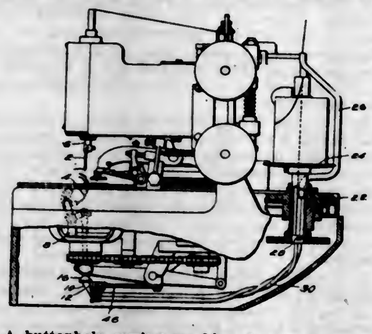
4. In an adding machine, the combination of a series of racks, an element for holding said racks in their idle positions, a device for moving said element in one direction to release predetermined numbers of said racks for adding operations, adding mechanism operated by said racks in adding and clearing operations and means for moving said element in another direction to release said racks for adding operations in any position of said device.

5. In an adding machine, the combination of a series of adding wheels, a series of racks for operating said adding wheels in adding operations, an element holding said racks in idle position, a device for moving said element in one direction to release predetermined numbers of said racks in adding operations and an independently operable device for moving said element in another direction to release said racks for adding operations in any position of said first-named device.

[Claims 6 to 22 not printed in the Gazette.]

1,209,822. BUTTONHOLE-SEWING MACHINE. HENRY W. EASTHAM, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 6, 1915. Serial No. 12,539. (Cl. 112—4.)

1. A buttonhole sewing machine, having, in combination, stitch forming mechanism, a rotary turrent in which the mechanism is mounted, two thread guides connected to rotate with the turret, thread supply guides through which the threads lead to the turret guides mounted to rotate about an axis different from that of the turret guides, thread separating guides intermediate the axis of the thread supply guides and the axis of the turret guides, and means for rotating said separating guides rotation for rotation with the turret and thread supply guides.



2. A buttonhole sewing machine, having, in combination, stitch forming mechanism, a rotary turret in which the mechanism is mounted, two thread guides connected to rotate with the turret, an oppositely rotating vertical tube having guides for two threads, and rotary thread separating guides through which the threads pass horizontally between the tube and turret.

3. A buttonhole sewing machine, having, in combination, stitch forming mechanism, a rotary turret in which the mechanism is mounted, two thread guides connected to rotate with the turret, a rotary tube provided with guides for two threads, and two flexible guide tubes connected at one end with said tube and at the other end with a rotary head adjacent the turret thread guides.

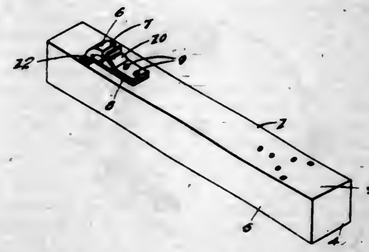
4. A buttonhole sewing machine, having, in combination, stitch forming mechanism, mechanism for rotating the stitch forming mechanism in the same direction rotation after rotation in sewing about successive buttonholes, guides for the sewing and stay threads rotating with the stitch forming mechanism, thread supply guides through which the sewing and stay threads lead to the guides on the stitch forming mechanism, means for rotating the thread supply guides in a direction opposite to that in which the stitch forming mechanism is rotated, and thread separating guides intermediate the thread supply guides and the guides on the stitch forming mechanism connected to rotate with the thread supply guides.

5. A button hole sewing machine, having, in combination, stitch forming mechanism including upper and under thread handling devices, a turret in which the under devices are mounted, mechanism for rotating the turret in the same direction rotation after rotation in sewing about successive buttonholes, guiding devices on the turret for the sewing and stay threads, a vertical guide tube provided with guides at its lower end for the under and stay threads, a thread supply support on the tube, means for rotating the tube in a direction opposite to that in which the turret is rotated, and thread separating guides intermediate the tube and turret connected to rotate with the guide tube.

[Claims 6 and 7 not printed in the Gazette.]

1,209,823. METALLIC RAIL-TIE COVER. MARCELLUS B. EDWARDS, Charlotte, N. C. Filed June 15, 1914. Serial No. 845,290. (Cl. 238—5.)

The combination with a rail tie, of a casing fitted over the tie, rail-securing members mounted on the upper side of the casing and each consisting of an elongated base plate having openings therein and having one end provided with a rail-clamping member integrally formed therewith and having one end overlying certain of the openings, fastening elements extending through the last-mentioned openings and through the casing and engaging in the tie, apertured lugs formed on the base plate and extending laterally therefrom and located at the point of juncture between the base plate and the rail-clamping member, fastening elements extending through the lugs and the casing and engaging in the tie, a second elongated plate overlying the first-mentioned plate and having openings therein registering with certain of the openings in the first-mentioned plate, fastening elements extending through



the registering openings in the plates, the said last-mentioned plate having one end provided with a rail-clamping member arranged in spaced relation with the clamping member on the first-mentioned plate.

1,209,824. JEWELRY-PIN AND PROCESS OF MAKING SAME. BYRON E. ELDRED, New York, N. Y., assignor to The Commercial Research Company, a Corporation of New York. Filed Nov. 10, 1914. Serial No. 871,316. (Cl. 24—150.)



1. As a new article of manufacture, a jewelry pin comprising an elongated body of noble metal containing a core of stiff and strong metal united thereto, said core being located axially of said body and extending nearly but not quite to its end, and the point of said pin being wholly of noble metal.

2. As a new article of manufacture, a jewelry pin comprising an elongated body of platinum containing a core of stiff and strong metal united thereto, said core being located axially of said body and extending nearly but not quite to its end, and the point of said pin being wholly of platinum.

3. As a new article of manufacture, a jewelry pin comprising an elongated body of platinum containing a core of nickel steel united thereto, said core being located axially of said body and extending nearly but not quite to its end, and the point of said pin being wholly of platinum.

4. The process of making jewelers' pins which comprises producing a wire of noble metal with a core of stiff and strong metal welded thereto, uniting to the end a prolongation of the same noble metal and shaping such united end to adapt the article for fastening purposes.

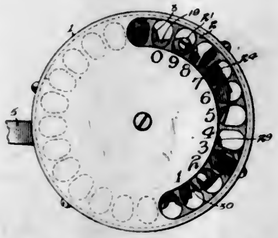
5. The process of making jewelers' pins which comprises producing a wire of platinum with a core of stiff and strong metal united thereto, uniting to the end a prolongation of platinum and shaping such united end to adapt the article for fastening purposes.

[Claim 6 not printed in the Gazette.]

1,209,825. TELEPHONE SYSTEM. JOHN ERICKSON, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 18, 1908, Serial No. 468,141. Renewed May 29, 1916. Serial No. 100,702. (Cl. 179—90.)

1. In a calling device, an electrical impulse-transmitting mechanism, a rotatable dial connected for operating said mechanism, means for permitting the dial to rotate backward only a portion of its forward rotation, and means governed by the said limited backward rotation of the dial for causing the said mechanism to transmit the impulses.

2. In a calling device, an electrical impulse-transmitting mechanism, a dial rotatable to cause the operation of said mechanism, and means for preventing said dial from returning to normal position, the latter having an impulse wheel rotatable only in one direction.



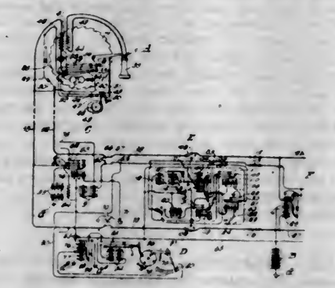
3. In a calling device, a rotary impulse wheel, a calling dial connected for operating said wheel to transmit a plurality of series of impulses, means for preventing said dial from returning to normal position during said operation, means operative to cause the wheel to rotate in the same direction as the dial, after the latter has reached the limit of its rotation, and means for limiting the rotation of the wheel to the distance traveled by the dial, whereby the dial rotates first and the wheel afterward in the same direction.

4. In a calling device, a rotary impulse wheel rotatable in but one direction, a calling dial having no normal position, a spring arranged to be placed under tension by the forward rotation of the dial, and means for then permitting said spring to rotate the wheel in the same forward direction when the dial is released.

5. In a calling device, a manually-operated dial and an impulse wheel rotatable only in one direction, a spring for rotating the wheel a distance each time equal to the forward rotation of the dial, means for holding said wheel against rotation, and means for automatically releasing the wheel when the dial is released, whereby the dial and wheel always rotate successively and in the same direction.

[Claims 6 to 14 not printed in the Gazette.]

1,209,826. TELEPHONE SYSTEM. JOHN ERICKSON, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Original application filed Dec. 18, 1908, Serial No. 877,266. Divided and this application filed May 22, 1916. Serial No. 99,108. (Cl. 179—9.)



1. In a common battery telephone system, a subscriber's station having a circuit including a talking transmitter and an impulse transmitter in series, means for shunting the talking transmitter, and means for operating the said impulse transmitter, together with a line terminating at one end in said telephone and at the other end in an automatic switch responsive to the impulses of said impulse transmitter.

2. In a common battery telephone system, a subscriber's station having a circuit including a talking transmitter and an impulse transmitter in series, means for shunting the talking transmitter, said means controlled by the impulse transmitter, and means for operating the said impulse transmitter, together with a line terminating at one end in said subscriber's station and at the other end in an automatic switch responsive to the impulses of said impulse transmitter.

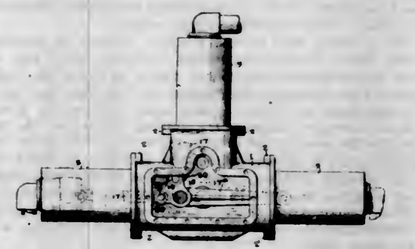
3. In a common battery telephone system, a subscriber's station having a circuit including a talking transmitter and an impulse transmitter in series, a circuit for shunting the talking transmitter, said circuit controlled by the impulse transmitter, and means for operating said impulse transmitter, together with a line terminating at one end in said subscriber's station and at the other end in an automatic switch responsive to the impulses of said impulse transmitter.

4. In a common battery telephone system, a subscriber's station having a circuit including a talking transmitter and an impulse transmitter in series, a push button at the subscriber's station, a circuit for shunting the talking transmitter, said circuit controlled by both the impulse transmitter and the subscriber's push button, and means for operating said impulse transmitter, together with a line terminating at one end in said subscriber's station and at the other end in an automatic switch responsive to the impulses of said impulse transmitter.

5. In a common battery telephone system, a subscriber's station having a circuit including a talking transmitter and an impulse transmitter in series, a push button at the subscriber's station, a circuit for shunting the talking transmitter, said circuit controlled by the subscriber's push button, means for operating said impulse transmitter, together with a line terminating at one end in said subscriber's station and at the other end in an automatic switch responsive to the impulses of said impulse transmitter.

[Claims 6 to 18 not printed in the Gazette.]

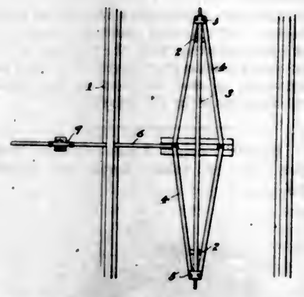
1,209,827. HYDROCARBON-ENGINE. MARTIN V. B. ETHRIDGE, Brooklyn, N. Y., assignor to Vehicle Power Company, a Corporation of New York. Filed Apr. 2, 1913. Serial No. 758,449. (Cl. 123—55.)



1. In a hydro-carbon engine, three cylinders at right-angles to one another and in a single plane, a shaft having a single crank portion, pistons and pitmen for the various cylinders, one of said pitmen being sleeved to said crank and having a yoke thereon, the other pitmen being connected to said yoke, the pitmen of the middle cylinder having an offset connection with said yoke whereby the power stroke is in substantial alinement with the crank portion.

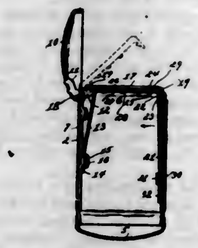
2. In a hydro-carbon engine, three cylinders at right-angles to one another and in a single plane, a crank shaft having a single crank portion, pistons and pitmen for the cylinders, one of said pitmen having an integral sleeve and a yoke with pairs of projecting plates integral therewith, and pins passed through the projecting plates of each pair, the other pitmen being connected to said pins, the pitmen of the middle cylinder having an offset connection with said yoke whereby the power stroke is in substantial alinement with the crank portion.

1,209,828. TRAIN-STOPPING APPARATUS. JONAH W. FRANK, Newton, Wis. Filed Aug. 8, 1914. Serial No. 855,838. (Cl. 246—59.)



In a device of the class described, in combination a pair of rails, reinforcing members secured against opposite sides of one of said rails, and having openings, said rail having an opening registering with said first-named openings, said openings inclining upwardly, a rod sliding in said openings, a bracket supported adjacent one of said rails, a pivot in said bracket, a lever fulcrumed upon said pivot between its ends and pivoted at one end to one end of said rod for actuating the same, said lever coming to a stop in its downward movement in pulling said rod rearwardly by engaging the road bed in common with said rod, toggle levers supported between said rails and adapted to open and close, said rod being pivotally secured to one of said toggle levers for operating both, and a longitudinal bar against which said toggle levers close and by which they are limited in movement.

1,209,829. COIN-HOLDER OR OTHER RECEPTACLE. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 5, 1914. Serial No. 875,569. (Cl. 206—4.)

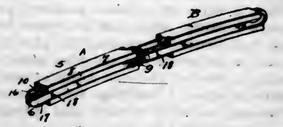


1. A holder or receptacle for coins or other articles, comprising a main body having a mouth, an outer lid arranged over said mouth, a spring in said body in engagement with said outer lid, an inner lid arranged between said outer lid and the mouth of said body, provided with a coin-receiving opening and a key-receiving aperture, a catch on said inner lid, and a releasing spring in said body normally in holding engagement with said catch, said releasing spring being provided with a free end extending into the inner lid, said free end being provided with an aperture, said aperture being in alinement with the key-receiving aperture of said inner lid to receive a key for releasing the free end of said spring from the inner lid.

2. A holder or receptacle for coins or other articles, comprising a main body having a mouth, an outer lid arranged over said mouth, a spring in said body in engagement with said outer lid, an inner lid arranged between said outer lid and the mouth of said body, and provided with a key-receiving aperture, a catch on said inner lid, and a releasing spring in said body normally in holding engagement with said catch, said releasing spring being provided with an offset extending into the inner lid and said offset being provided with an aperture which is in alinement with the key-receiving aperture of said inner lid.

3. A holder or receptacle for coins or other articles, comprising a main body having a mouth, an outer lid arranged over said mouth, a spring in said body in engagement with said outer lid, an inner lid arranged between said outer lid and the mouth of said body, said inner lid being provided with a coin-receiving opening and a key-receiving aperture, a resilient guard secured to the said inner lid and normally closing said opening, and a releasing spring in said body normally in holding engagement with said catch, said releasing spring being provided with an offset, said offset extending into the inner lid and being provided with an aperture which is in alinement with the key-receiving aperture of said inner lid.

1,209,830. EXPANSIBLE BRACELET OR CHAIN. HARRY GARABEDIAN, Providence, R. I., assignor to Rex Manufacturing Company, a Corporation of Rhode Island. Filed Apr. 13, 1916. Serial No. 90,964. (Cl. 59—79.)



1. A link comprising a sheathing and a link loop slidable into and out of said sheathing, one side of said link loop being split at such a point that when the link loop is retracted into its sheathing said split portion lies within said sheathing.

2. A link comprising a sheathing consisting of opposed side plates having inturned flanges at their outer edges and link loops having oppositely extending ribs which engage behind said flanges, the outer faces of said link loops being substantially flush with the outer faces of the flanges.

3. A link comprising a sheathing consisting of opposed side plates having inturned flanges at their outer edges and link loops having oppositely extending ribs which engage behind said flanges, the outer faces of said link loops being substantially flush with the outer faces of the flanges, said link loops being split at one side.

4. A link comprising a sheathing consisting of opposed side plates having inturned flanges at their outer edges and link loops having oppositely extending ribs which engage behind said flanges, the outer faces of said link loops being substantially flush with the outer faces of the flanges, said link loops being split upon a bevel at one side.

5. A link comprising a sheathing consisting of opposed side plates having inturned flanges at their outer edges and link loops having oppositely extending ribs which engage behind said flanges, the outer faces of said link loops being substantially flush with the outer faces of the flanges, said link loops being each split at one side at such a point that the split portion normally lies within said sheathing.

[Claim 6 not printed in the Gazette.]

1,209,831. PROCESS FOR PRODUCING ABRASIVE DISKS FOR DISK GRINDERS. FREDERIC E. GARDNER, Beloit, Wis., assignor of one-half to Louis Waldo Thompson, Beloit, Wis. Filed Mar. 20, 1914. Serial No. 825,960. (Cl. 51—1.)

1. The process of producing abrasive disks, consisting in forming a layer of abrasive material on a backing sheet,

forming a distinct layer of bonding material, placing the layer of bonding material on the layer of abrasive material, and melting the layer of bonding material, thus allowing the bonding material to percolate through the layer of abrasive material, the abrasive material remaining in a layer upon the upper side of the backing sheet.



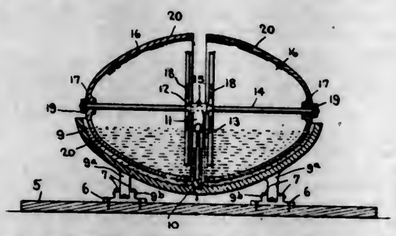
2. The process of producing abrasive disks, consisting of placing a disk of backing material in a mold, depositing abrasive material on said backing disk, to produce a layer of the form of the mold, placing bonding material on the top of said layer of abrasive material, and allowing the bonding material to percolate through the layer of abrasive material, the abrasive material remaining in a layer upon the upper side of the backing sheet.

3. The process of producing an abrasive sheet, consisting in producing a layer of partially congealed glue, placing said layer upon a layer of abrasive material supported upon a backing, and melting the glue.

4. The process of producing abrasive disks, consisting of superposing a layer of abrasive material and a layer of glue upon a backing, subjecting the whole to action of moist steam, and thereafter causing the glue to set.

5. The process of producing abrasive disks, consisting of superposing a layer of abrasive material and a layer of bonding material upon a backing, heating the whole to cause the bonding material to melt, and thereafter allowing the bonding material to set.

1,209,832. HOG-OILER. FRANK C. GEORGE, New Salem, Ind., assignor to Carlton Chaney, Ralph B. Armstrong, and Harry B. Armstrong, a Copartnership doing business under the firm-name and style of The Flat Rock Remedy Company, Rushville, Ind. Filed June 3, 1916. Serial No. 101,522. (Cl. 119—157.)



1. An insecticide distributing device, comprising a reservoir having an open top, a central standard projecting upwardly in the reservoir and having a shaft mounted in the upper portion and projecting on opposite sides thereof, and independently rotatable animal engaged distributing members mounted on the shaft on opposite sides of the standard and extending downwardly into the reservoir.

2. An insecticide distributing device, comprising a bowl substantially the form of a semi-ellipse cut on the plane of its major axis, a central upstanding standard mounted in the bowl, a shaft fixed on the upper end of the standard and projecting on opposite sides thereof, and independently rotatable outwardly tapered animal engaged distributing members mounted on the shaft and depending within the bowl.

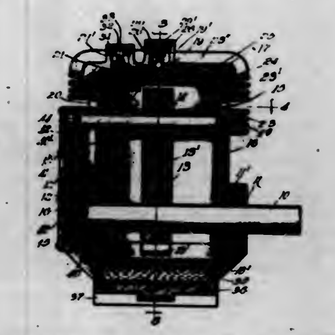
3. An insecticide distributing device, comprising a base having a plurality of upstanding ears at spaced points, a bowl having depending lugs on opposite portions, certain of which overlap and are pivotally connected to certain of the upstanding ears, a device detachably passing through the remaining of said lugs and ears to prevent the pivotal movement of the bowl, and animal engaged distributing means mounted in the bowl.

4. In an insecticide distributing device, the combination with a reservoir, of rotatable animal actuated distributing means in said reservoir, and supporting means for the distributing means, comprising a water outlet from the reservoir.

5. In an insecticide distributing device, the combination with a reservoir, of a hollow standard therein having a water inlet communicating with the interior of the reservoir and an outlet discharging exteriorly of said reservoir, and a distributing member mounted on the standard.

[Claim 6 not printed in the Gazette.]

1,209,833. PUMP. OSCAR LEROY GLASER, Oak Park, Ill. Filed Apr. 26, 1915. Serial No. 23,806. (Cl. 230—27.)



1. In a pump, a casing having a cylinder portion at one end and an oil well portion therebelow, a main shaft traversing said casing between said portions, a multiple lobe cam on said shaft, a piston in the cylinder provided with a roller for coaction with said cam, a spring chamber external to said casing but in open communication therewith, there being an oil return duct from said spring chamber to said oil well portion of the casing, and a spring in said casing acting on said piston constantly to maintain it in coaction with its cam.

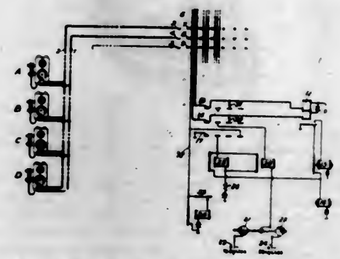
2. In a pump the combination of a cylinder, a hollow cup shaped piston therein, a pin mounted at its end portions in opposite walls of the piston and projecting at one end through a vertical slot in the cylinder wall, a roller journaled on said pin within the piston, a drive shaft parallel with said pin, a cam on said shaft contacting with the roller, and a spring positioned outside of the cylinder and secured at one end to the projecting end of the aforesaid pin to maintain the roller in contact with the cam.

3. In an air pump the combination of a frame providing a cylinder portion, a chamber below said cylinder portion, and an external spring chamber, having communication with the chamber below the cylinder, through a slot 41, a main shaft, a cam thereon, a piston, a roller for coaction with the cam, a shaft connecting said roller with the piston and extending through said slot 41 into the spring chamber, a spring in said chamber acting on the shaft extension to maintain the roller in contact with the cam, and a removable cover plate for said spring chamber.

4. A large bore, short stroke air pump, the operating parts of which are completely inclosed, comprising a one piece frame, open at its lower and upper ends and providing in its upper end a cylinder, a piston reciprocable therein, a cylinder head secured on the upper end of the frame, a closure plug secured to the opening in the lower end of the frame, opposite shaft bearings in the side walls of the frame, a straight shaft of uniform diameter journaled in said bearings, a roller carried by the piston, a piston actuating cam mounted on the shaft for engagement with the roller and means for maintaining the roller in engagement with the cam.

5. A large bore, short stroke air pump, the operating parts of which are completely inclosed, comprising a one piece frame, open at its upper and lower ends and providing in its upper end a cylinder, a hollow cup shaped piston reciprocable therein, a cylinder head screw threaded over the upper end of the frame, a closure plug screw threaded into the opening in the lower end of the frame, opposite shaft bearings in the side walls of the frame, a straight shaft of uniform diameter journaled in said bearings, a roller journaled within the cup shaped piston, a roller actuating cam mounted on the shaft within the frame, whereby the piston is reciprocated by rotation of the shaft and means for maintaining the roller in engagement with the cam.

1,209,834. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed May 10, 1915. Serial No. 27,053. (Cl. 179—17.)



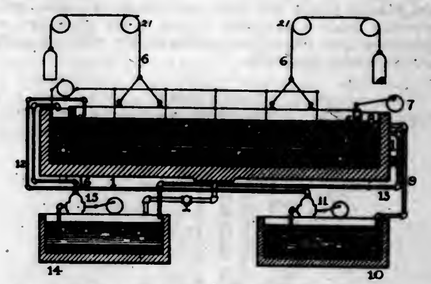
1. In a party line telephone system, a line, a plurality of stations connected thereto, a switching device having three operating positions, means for extending said line to said switching device, signaling current sources of different frequencies, means controlled by said device for associating the current sources with the line, and a switchhook at each station for controlling means for moving said device successively into said positions.

2. In a party line telephone system, a line, a plurality of stations connected thereto, a switching device having three operating positions, means for extending said line to said switching device, signaling current sources of different frequencies, a switchhook for each station, means operative upon the first actuation of said switchhook for moving said device into its first position whereby said current sources are connected with said line, means operative upon a second actuation of said switchhook for moving said device into its second position for disconnecting said current sources, and a releasing means for said device actuated in the third position of said device, following a third actuation of said switchhook.

3. In a party line telephone system, a line, a plurality of stations connected thereto, a step-by-step switching device having three operating positions, signaling current sources of different frequencies, a releasing means for said switching device, means controllable at said stations for stepping said device into its various positions whereby the current sources are associated with the line in the first and disassociated from the line in the second, and the releasing means is operated in the third position of said device, respectively.

1,209,835. PROCESS OF TREATING MATERIALS ELECTROLYTICALLY. WILLIAM E. GREENAWALT, Denver, Colo. Filed May 13, 1913. Serial No. 767,392. (Cl. 204—15.)

1. An electrolytic process which consists in maintaining separate the anolyte and catholyte with a suitable diaphragm, simultaneously agitating both the anolyte and catholyte and withdrawing the electrolyte from one compartment and passing it through the other compartment without mingling with the electrolyte of the other compartment.



2. A process which consists in electrolyzing metallic salts in a finely divided condition which consists in simultaneously agitating both the anolyte and catholyte while maintaining separate the anolyte from the catholyte, and while maintaining a relative motion between the electrodes and the metallic salts being electrolyzed.

3. A process which consists in electrolyzing finely divided material in which the anolyte is separated by a diaphragm from the catholyte, and agitating the material to keep it in suspension during electrolysis, and maintaining a relative motion between the electrodes and the finely divided material being electrolyzed.

4. A process which consists in electrolyzing finely divided material and agitating the material to keep it in suspension in the electrolyte during electrolysis while maintaining the anolyte separate from the catholyte, and withdrawing the electrolyte from one compartment and passing it through the other compartment without mingling with the electrolyte in the other compartment.

5. An electrolytic process which consists in maintaining separate the anolyte from the catholyte with a suitable diaphragm, simultaneously agitating both the anolyte and catholyte, subjecting the material being treated to the action of electrolysis with a direct current with insoluble anodes thus causing a disintegration of the anode material, and facilitating the loosening of the disintegrated anode material by the action of an alternating current working in connection with the direct current.

1,209,836. WATER-HEATER AND REGULATOR THEREFOR. CHARLES C. HANSEN, New York, N. Y., assignor to Thermal Appliance Company, Inc., a Corporation of New York. Filed May 6, 1915. Serial No. 26,274. (Cl. 236—5.)

1. A water heater comprising spaced headers, each header having separate chambers, steam pipes connecting a chamber of one header with a chamber of the other header, water pipes extending through said steam pipes and having their opposite ends opening into the other chamber of said headers, a valve controlling the admission of steam into one of said headers whereby the water pipes may be subjected to expansion, a lever for operating the valve, a connection between said lever and a water pipe whereby the said expansion may actuate the lever, and means including a second water pipe for multiplying the effect of said expansion upon the lever.

2. A water heater comprising spaced headers each divided by a diaphragm into separate chambers, stem pipes connecting a chamber of one header with the corresponding chamber of the other header, water pipes extending through said steam pipes and said diaphragms, one of said water pipes having one end fixed to an end wall of one header and the opposite end projecting slidably through the end wall of the other header, a second water pipe extending through one of said steam pipes and having one end anchored in the end wall of said other

header and projecting through the end wall of the header to which said first-named water pipe is anchored, a valve controlling flow to said steam pipes, a lever for operating said valve and having one end connected to the slidable end of one of said water pipes and connections between the slidable end of said other water pipe and said lever, whereby relative movement of said water pipes due to expansion and contraction multiplies the effect of each pipe to operate said valve.



3. In a water heater, spaced headers each separated by a diaphragm into a steam chamber and a water chamber, steam pipes connecting the steam chambers of said headers and fixed to a wall thereof, water pipes extending through said steam pipes, steam chambers and diaphragms, and opening at their ends into said water chambers, means for anchoring the end of one water pipe to the end wall of one header, and the end of another water pipe to an end wall of the other header, the opposite ends of said water pipes carrying thrust rods freely slidable through the end walls of the opposite header from that to which said pipes are anchored, respectively, a valve for controlling flow to one of said headers, and means actuated by the relative movement of said water pipes due to expansion and contraction to operate said valve.

4. A water heater comprising spaced headers, each header being sub-divided into steam chambers, steam pipes secured in the walls of said headers and said pipes and chambers alternating in serial connection for the serial flow of steam therethrough, each header being further sub-divided into water chambers, water pipes mounted in the walls of said headers, said water pipes and said water chambers alternating in serial connection for the serial flow of water therethrough, said water pipes extending through the steam chambers and steam pipes whereby the water is heated, a valve for controlling the flow of steam through the steam chambers and pipes, controlling members connected with said valve and subjected to the temperature of the water flowing through the water pipes to be expanded or contracted, and means for causing the expansion and contraction of one of said members to be added to the expansion or contraction of the other member whereby to multiply the power and range of adjustment and control of said valve.

5. A water heater comprising spaced headers, each header being sub-divided into steam chambers, steam pipes secured in the walls of said headers and said pipes and chambers alternating in serial connection for the serial flow of steam therethrough, each header being further sub-divided into water chambers, water pipes mounted in the walls of said headers, said water pipes and said water chambers alternating in serial connection for the serial flow of water therethrough, said water pipes extending through the steam chambers and steam pipes, whereby the water is heated, a valve for controlling the flow of steam through the steam chambers and pipes, said water pipes being free to expand and some of said water pipes being connected with said valve to effect control thereof by their expansion or contraction, and means for causing the expansion or contraction of said pipes to be added whereby to multiply the power and distance of adjustment of said valve.

1,209,837. OPERATING MECHANISM FOR PUMPS. WILLIAM A. HARRIS, Greenville, S. C., assignor of one-fourth to William D. Rock, Charlotte, N. C. Filed May 22, 1915. Serial No. 29,792. (Cl. 74—14.)



1. In a pump, a floor plate, a standard, gearing carried by said standard, a plunger rod, a pitman connecting said gearing with said plunger rod for operating the latter, means for operating the said gearing, a spring attached to said standard at one end and to said plunger rod at the other end, and adapted to be put under tension during the downward movement of the rod, and a bracket secured to said standard, said bracket being provided with an opening to permit the passage of said spring and having a second opening for receiving and guiding said plunger rod.

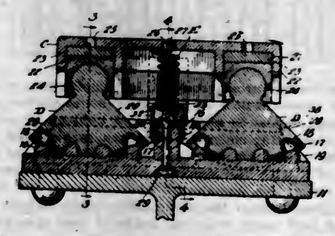
2. In a pump, a floor plate, a standard, gearing carried by said standard, a plunger rod, a pitman connecting said gearing with said plunger rod for operating the latter, means for operating the said gearing, a spring attached to said standard at one end and to said plunger rod at the other end and adapted to be put under tension during the downward movement of the rod, and a bracket secured to said standard, said bracket being provided with an opening to permit the passage of said spring and having a second opening for receiving and guiding said plunger rod, said pitman having a forked end, one leg of which passes through said first named opening, the other leg passing outside of the bracket, the forked portion of the pitman being arranged to straddle the upper end of the plunger rod in the movement of the pitman.

3. In a pump, a floor plate, a standard, gearing carried by said standard, a plunger rod, a pitman connecting said gearing with said plunger rod for operating the latter, means for operating the said gearing, a spring attached to said standard at one end and to said plunger rod at the other end and adapted to be put under tension during the downward movement of the rod, and a bracket secured to said standard, said bracket being provided with an opening to permit the passage of said spring and having a second opening for receiving and guiding said plunger rod, said pitman having a forked end, one leg of which passes through said first named opening, the other leg passing outside of the bracket, the forked portion of the pitman being arranged to straddle the upper end of the plunger rod in the movement of the pitman, a guide rod secured at one end to said bracket and at the other end to said floor plate, and a roller secured to said plunger rod and bearing on said guide rod.

4. In a pump, a floor plate, a standard, gearing carried by said standard, a plunger rod, a pitman connecting said gearing with said plunger rod for operating the latter, means for operating said gearing, and a bracket secured to said standard, said bracket being provided with an opening for receiving and guiding said plunger rod, said bracket having an elongated opening, said pitman having a forked end, one leg of which passes through said elongated opening, the other leg passing outside of the bracket, the forked portion of the pitman being arranged to straddle the upper end of the plunger rod in the movement of the pitman.

5. In a pump, a floor plate, a standard, gearing carried by said standard, a plunger rod, a pitman connecting said gearing with said plunger rod for operating the latter, means for operating said gearing, and a bracket secured to said standard, said bracket being provided with an opening for receiving and guiding said plunger rod, said bracket having an elongated opening, said pitman having a forked end, one leg of which passes through said elongated opening, the other leg passing outside of the bracket, the forked portion of the pitman being arranged to straddle the upper end of the plunger rod in the movement of the pitman, a guide rod secured at one end to said bracket and at the other end to said floor plate, and a roller secured to said plunger rod and bearing on said guide rod.

1,209,838. ADJUSTABLE ROCKER SIDE BEARING. JOHN J. HENNESSEY, Milwaukee, Wis. Filed Apr. 17, 1916. Serial No. 91,593. (Cl. 64—65.)



1. The combination in a side bearing of a base member, a top plate, rockers interposed between said top plate and base member, and means for adjusting the operative height of said top plate relatively to the base member.

2. The combination in a side bearing of a base member, a top plate, rockers interposed between said top plate and base member, and means for adjusting the operative height of said top plate relatively to the base member, said means including displaceable shims.

3. The combination in a side bearing of a base member, a top plate, rockers interposed between said top plate and base member, and means for adjusting the operative height of said top plate relatively to the base member, said means including removable shims interposed between the rockers and said top plate.

4. The combination in a side bearing of a base casting, a top plate, one of said members having flanged side walls, flanged retaining plates adjustably secured to the other of said members, the flanges over-lapping, and rockers interposed between said base casting and top plate.

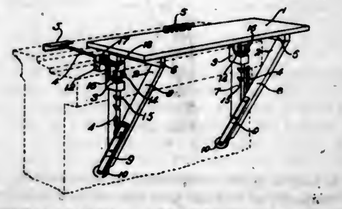
5. The combination in a side bearing of a base member, a reciprocating top plate, rockers interposed between said top plate and base member, spring means connecting said top plate and base member adapted to automatically return the top plate to normal position after each actuation of the said bearing, and means for adjusting said top plate vertically relatively to the base member.

[Claims 6 and 7 not printed in the Gazette.]

1,209,839. WINDOW-SCAFFOLD. EMIL HOKENSON, Chicago, Ill., assignor of one-half to Lars Lindskog, Chicago, Ill. Filed Jan. 15, 1915. Serial No. 2,341. (Cl. 20—87.)

1. A window scaffold, comprising a platform and supports carrying said platform, said supports having horizontal parts arranged for engagement with a window ledge so as to normally rest thereupon and having other parts below normally arranged to bear upon the wall under the window ledge, said platform and horizontal parts being relatively adjustable whereby the elevation of said platform with respect to the window ledge may be altered.

2. A window scaffold, comprising a platform, supports carrying said platform and having their lower ends arranged to bear against the wall adjacent to a window, and brackets carried by said supports and adapted to rest upon a horizontal part at one side of the window, said brackets and platform being relatively adjustable whereby the elevation of said platform with respect to the window ledge may be altered.



3. A window scaffold, comprising a platform, a pair of supports carrying said platform and having their lower ends arranged to bear against the wall adjacent to a window, brackets slidably mounted on said supports and adapted to rest upon a horizontal part at one side of the window, a pair of clips adapted to engage a part at the opposite side of the window, and means connecting said clips and brackets, said brackets being adjustable along said supports so as to alter the elevation of said platform with respect to the window ledge.

4. A window scaffold, comprising a platform, a pair of supports carrying said platform and having their lower ends arranged to bear against the wall adjacent to a window, brackets slidably mounted on said supports and adapted to rest upon a horizontal part at one side of the window, said supports having notches formed therein, pawls on said brackets engaging said notches for locking said supports to said brackets, clips adapted to engage a part at the opposite side of the window, and means connecting said clips and brackets.

5. A window scaffold, comprising a platform, a pair of supports carrying said platform and having their lower ends arranged to bear against the wall adjacent to a window, brackets slidably mounted on said supports and adapted to rest upon a horizontal part at one side of the window, said supports having notches formed therein, pawls on said brackets engaging said notches for locking said supports to said brackets, a gravity latch on each of said brackets adapted to lock the respective pawls in said notches, clips adapted to engage a part at the opposite side of the window, and means connecting said clips and brackets.

[Claim 6 not printed in the Gazette.]

1,209,840. GARMENT. BERTHA HERBERT HOLLEY, New York, N. Y. Filed Dec. 21, 1915. Serial No. 68,016. (Cl. 2—145.)

1. A lady's gown, comprising a substantially tubular body portion formed of quadrilateral pieces of fabric having corners connected together across the front and back of the body, and angular portions connected between said pair of quadrilateral portions.

2. A lady's gown comprising a substantially tubular body composed of two substantially square and two substantially triangular portions connected together on the straight of the fabric and hanging on the bias.

3. A lady's gown comprising a pair of substantially rectangular pieces of fabric having corners connected together across the front and back of the body, and sleeve portions constituted by portions of the material connected together intermediate two of the corners of each of the portions.

4. In combination with a lady's gown, sleeves therefor formed from a substantially rectangular piece of material having a central opening for the head and overlapping on a diagonal line, the adjacent edges being partially and centrally stitched leaving body and arm holes.



5. A lady's gown comprising a substantially tubular body composed of angular portions on each side connected across the front and back of the gown, and angular bottom portions between said angular side portions.

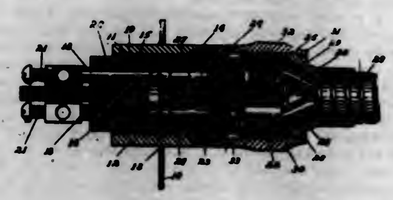
[Claim 6 not printed in the Gazette.]

1,209,841. WELDING COMPOSITION. JOHN A. HOPE, Montreal, Quebec, Canada. Filed Apr. 10, 1916. Serial No. 90,252. (Cl. 75—187.)

1. A high-speed steel and low carbon iron welding composition consisting of 80% ferro-manganese, 60 parts; 50% ferro-silicon, 20 parts; and burnt borax 20 parts.

2. A high-speed steel and low carbon iron welding composition consisting of ferro-manganese, ferro-silicon and burnt borax.

1,209,842. WIRE-CONNECTOR. ORMOND E. HUNT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 24, 1914. Serial No. 820,603. (Cl. 173—328.)



1. A wire connector comprising a socket member interiorly threaded and having terminals, a plug member adapted to fit in the socket member and having coöperating terminals, and a sleeve threaded into said socket member and removably securing the members together.

2. A wire connector comprising a socket member interiorly threaded and having spring pressed terminals, a plug member having coöperating terminals and having a cap, and a sleeve threaded into said socket member, said spring-pressed terminals tending to hold said cap against the end of said sleeve.
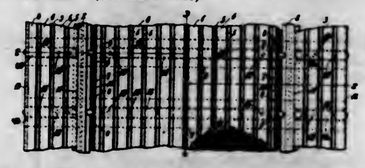
3. A wire connector comprising a socket member having a casing, an insulation block therein, and terminals in the block, and a plug member having an insulation block with fixed coöperating terminals, a cap over the outer end thereof, and a flange sleeve threaded into said casing and securing the members together.

4. A wire connector comprising a socket member having a casing, an insulation block therein, and spring-pressed terminals in the block, and a plug member having an insulation block with fixed coöperating terminals, a cap over the outer end thereof, and a flanged sleeve threaded into said casing and securing the plug member to the socket member, said spring-pressed terminals tending to hold the cap against the flange of the sleeve.

5. A wire connector comprising a socket member having an outer casing for attachment to a support, an inner casing fitted in the outer casing and separated therefrom adjacent one end, an insulation block secured within the casings, and terminals in the block, and a plug member having an insulation block adapted to slide in the inner casing of the socket member, terminals adapted to coöperate with the terminals of the socket member, a cap over the outer end of said insulation block and having an opening for the passage of wires, and a sleeve engaging said cap and screw threaded to said socket member in the space between the inner and outer casing thereof to secure the members together.

[Claim 6 not printed in the Gazette.]

1,209,843. RAILWAY ROAD-CROSSING. HARRY C. INNES, Cincinnati, Ohio. Filed Nov. 11, 1916. Serial No. 130,785. (Cl. 104—14.)



1. In a railway road-crossing, in combination with the rails and cross-ties of a track, a sheet metal surface structure having means to afford tractive hold on its exposed surface, supporting means for said structure on said cross-ties, curbs extending down along the sides of said structure parallel with and spaced away from the track rails, leaving spaces for passage of wheel flanges, and ballast under and up against the lower side of said surface structure, and held away from the heads of said rails by said curbs.

2. In a railway road-crossing, in combination with the rails and cross-ties of a track, a sheet metal surface structure comprising a plurality of sections having means to afford tractive hold on their exposed surfaces, supporting means for said sections on said cross-ties, curbs extending down along the sides of some of said sections parallel with and spaced away from the track rails, leaving spaces for the passage of wheel flanges, and ballast under and up against the lower side of said surface structure and held away from the heads of said rails by said curbs.

3. In a railway road-crossing, in combination with the rails and cross-ties of a track, a sheet metal surface structure comprising a middle section and end sections having means to afford tractive hold on their exposed surfaces, supporting means for said structure on said cross-ties, curbs extending down along the sides of said end sections parallel with and spaced away from the track rails, leaving spaces for passage of wheel flanges, and ballast held under and up against the lower side of said surface structure, and held away from the heads of said rails by said curbs.

4. In a railway road-crossing, in combination with the rails and cross-ties of a track, a sheet metal surface structure having means to afford tractive hold on its exposed surface, supporting means for said structure on said cross-ties, curbs extending down along the sides of said structure parallel with and spaced away from the track rails and extending transversely under the heads of the rails, leaving spaces for passage of wheel flanges, and ballast held under and up against the lower side of said surface structure, and held away from the heads of said rails by said curbs.

5. In a railway road-crossing, in combination with the rails and cross-ties of a track, a sheet metal element of substantially uniform thickness throughout and provided with means to afford tractive hold on its exposed surface, supporting strips for said element mounted on said cross-ties, means fastening said element to said strips, a downwardly extended curb integral with said element along a side thereof parallel with and spaced away from the track rail, leaving a space for passage of wheel flanges, and ballast under and up against the lower side of said element, and held away from the head of said rail by said curbs.

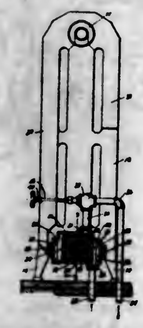
[Claims 6 to 10 not printed in the Gazette.]

1,209,844. CONCRETE-MIXING DRUM. HERMAN JUILFS, White Oak, Ohio. Filed Oct. 4, 1915. Serial No. 54,019. (Cl. 83—73.)



A horizontal rotary cement mixing drum comprising a pair of flat opposed sides of equal width lying parallel with and spaced equidistantly from the axis of the drum, said sides being disposed in approximately upright planes but having their upper edges spaced apart a greater distance than their lower edges, a bottom connecting said lower edges of the sides and joining the latter at obtuse angles thereto, said bottom lying parallel to the aforesaid axis and being curved in transverse section on an arc described around the same, a removable top extending between the upper edges of the sides and lying parallel to the drum axis, said top being curved in transverse section on an arc described around a point below said axis on a vertical line passing through the latter, and a pair of ends between which the sides, bottom and top extend, said ends being disposed in parallel planes at right angles to the drum axis.

1,209,845. RADIATOR. AUGUST KEHM, Chicago, Ill. Filed June 23, 1915. Serial No. 35,796. (Cl. 237—71.)



1. In a radiator, in combination, a pair of chambered water sections, a chambered heater section located between the water sections and a pair of alined oppositely facing nipples each connecting the heater section with one of the said water sections, the said two nipples being the only means connecting the heater section with the water sections.

2. In a radiator, in combination, a pair of upright chambered water sections, a horizontal spacing nipple having oppositely threaded ends connecting the upper ends of the water sections, a chambered heater section located between the lower ends of the water sections, and a pair of horizontally alined, oppositely threaded nipples each connecting the heater section with the water section at one side of the heater.

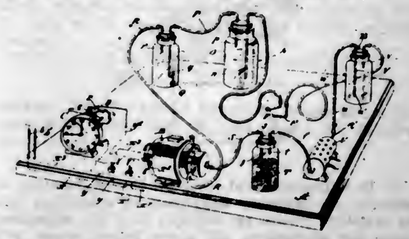
3. In a radiator, in combination, a plurality of like upright water columns and a chambered heater, the water columns being arranged side by side with the heater interposed between two adjacent columns, a set of horizontally alined nipples directly connecting all of the water columns at the top of the radiator and a second set of horizontally alined nipples connecting all of the water columns and the heater at the bottom of the radiator, the nipples of the last mentioned set being the only means connecting the heater with the water columns.

4. In a radiator, in combination, a pair of chambered water sections, a chambered heater body located between the said water sections and having a pair of oppositely facing horizontally alined nipples, one connected with each of the said water sections, a heater tube extending through the chamber of the heater body, steam supply and return connections communicating with the opposite ends of the said heater tube, and means connecting the chambers of the water sections above the level of the said heater body.

5. In a radiator, in combination, a pair of upright chambered water sections, means connecting the two water sections at the top of the radiator, a heater section located between the said two water sections at the bottom of the radiator, said heater section comprising a pair of non-communicating passages having a common wall, a pair of horizontally alined oppositely threaded nipples communicating with the two ends of one of the said passages of the heater section and each connecting the heater section with the water section at one side of the heater section, and a pair of nipples for connection with steam supply and return pipes communicating with the two ends of the other one of the said passages of the heater section.

[Claims 6 to 17 not printed in the Gazette.]

1,209,846. SURGICAL CLEANSING APPARATUS. CHARLES EDMUND KELLS, New Orleans, La. Filed Mar. 4, 1916. Serial No. 82,174. (Cl. 128—28.)



1. An apparatus for treating wounds or cavities, comprising a tip adapted to be inserted into the wound or cavity, a receiving jar to which the tip is connected, an electrically driven vacuum pump connected with said jar, and time-controlled circuit making and breaking devices connected with the motor for successively and automatically closing the circuit of the motor for definite lengths of time between periods when the circuit is open.

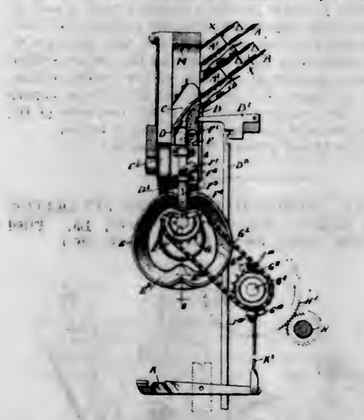
2. An apparatus for treating wounds and cavities, comprising a tip adapted to be inserted into the wound or cavity, a receiver to which the tip is connected, an electrically driven vacuum pump connected with the receiver, a contact disk, time controlled mechanism connected therewith, adjustable contact devices carried by the disk, a contact finger adapted to engage said contact devices, and circuit connections whereby the motor circuit is automatically opened and closed at intervals and during predetermined periods.

3. An apparatus for treating wounds and cavities, comprising a tip adapted to be inserted into the wound or cavity, a receiver connected therewith, a vacuum pump connected with the receiver, a container for an anesthetic, connections between the container and the outlet side of the pump, and connections between said container and said tip whereby fluids may be passed through the trip into the wound or cavity and be also withdrawn therefrom.

4. An apparatus for treating wounds and cavities, comprising an electrically driven vacuum pump, a tip adapted to be inserted into a wound or cavity, a receiver connected with said tip, a container for a washing fluid connected with said receiver, a connection between said container and the inlet side of the pump, a container for an anesthetic connected with the tip, a connection between said last mentioned container and the outlet side of the pump, and a heater interposed in said connection for raising the temperature of the fluid passing from the pump to said last mentioned container.

5. A tip for surgical apparatus comprising an inner outlet tube open at its inner end, an outer perforated tube of greater diameter than the inner tube, a sleeve attached to the outer tube through which air is admitted to the inside of the outer tube, and means carried by the sleeve for attaching it in operative position.

1,209,847. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 10, 1913. Serial No. 741,164. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of stationary magazines, an assembling throat or switch to receive the matrices from the magazines, a finger key mechanism, and power driven means, acting under the control of the finger key mechanism, to shift the assembling throat into operative relation to one or another of the magazines.

2. In a typographical machine, the combination of two stationary magazines, an assembling throat or switch to receive the matrices from the magazines, a single finger key, and power driven means acting in response to the repeated actuations of the key to shift the assembling throat into operative relation to first one magazine and then the other alternately.

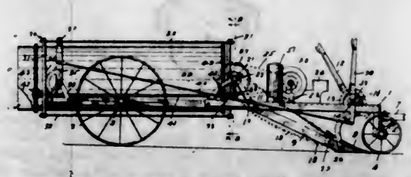
3. In a typographical machine, the combination of a plurality of stationary magazines each provided with a series of escapements, a single series of relatively adjustable actuating connections, a finger key mechanism, and power driven means, acting under the control of the finger key mechanism, to shift the actuating connections into operative relation to the escapements of one or another of the magazines,

4. In a typographical machine, the combination of two stationary magazines each provided with a series of escapements, a single series of relatively adjustable actuating connections, a single finger key, and power driven means, acting in response to the repeated actuations of the finger key, to shift the actuating connections into operative relation to the escapements of the two magazines alternately.

5. In a typographical machine, the combination of a plurality of stationary magazines each provided with a series of escapements, an assembling throat or switch to receive the matrices from the magazines, a single series of actuating devices, a movable supporting frame carrying the assembling throat and actuating devices, a finger key mechanism, and power driven means, acting under the control of the finger key mechanism, to shift the supporting frame relatively to the magazines so as to locate the assembling throat and the actuating devices in operative relation to one or another thereof.

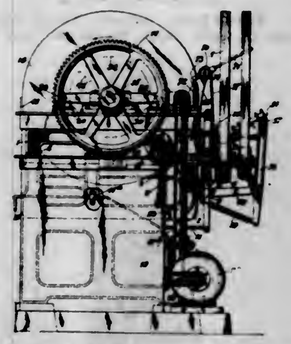
[Claims 6 to 14 not printed in the Gazette.]

1,209,848. APPARATUS FOR TREATING THE SOIL. THOMAS KERNAN and WILLIAM J. ALLEN, St. Cloud, Minn. Filed Feb. 23, 1915. Serial No. 9,837. (Cl. 55—57.)



In a machine of the kind described, the combination with an imperforate drum, of means for rotating said drum, means for digging up and elevating the soil and delivering the same into the drum, and a burner at the receiving end of the drum for heating the same, through the flame from which burner the soil is precipitated under the rotation of the drum.

1,209,849. BOTTLE-WASHING MACHINE. JULIUS H. KINTZELE, St. Louis, Mo. Filed Feb. 6, 1915. Serial No. 6,482. (Cl. 141—7.)



1. In a bottle washing machine, a casing adapted to contain soaking liquid, a revoluble carrier in said casing, compartments in said carrier adapted to receive the bottles, a vertically movable shelf at the side of said casing adapted to support the bottles to be delivered into said carrier, levers for supporting and moving said shelf vertically, means for holding the bottles on said shelf spaced according to said compartments, means for actuating said levers to raise said shelf to release the bottles from said holding means, and mechanism for moving said bottles from said shelf into said compartments after said shelf has been raised.

2. In a bottle washing machine, a casing adapted to contain liquid to soak the bottles, a revoluble carrier in said casing, compartments in said carrier adapted to receive the bottles to be soaked in the liquid in said casing, a vertically movable shelf adapted to support the bottles to be delivered into said compartments, means for holding the bottles on said shelf, means for moving said shelf

vertically to release the bottles from said holding means, automatic mechanism for moving the bottles from said shelf into said compartments after movement of said shelf, means for lowering said shelf after the bottles have been moved therefrom, and mechanism for operating said carrier to carry the bottles through the liquid in said casing.

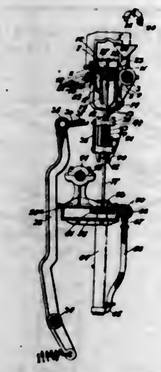
3. In a bottle washing machine, a casing adapted to contain a soaking liquid, a carrier operable to carry the bottles through soaking liquid in said casing, a vertically movable shelf for the bottles to be delivered to said carrier, levers for supporting said shelf, means for actuating said levers to raise said shelf, additional means for actuating said levers to lower said shelf, actuators for moving the bottles from said shelf into said carrier when said shelf is in raised position, and mechanism for operating said actuators.

4. In a bottle washing machine, a casing adapted to contain soaking liquid, a revoluble carrier in said casing, a shelf for the bottles to be delivered to said carrier, levers supporting said shelf, mechanism for moving said levers in one direction to deliver bottles to said carrier, actuators for moving the bottles from said shelf into said carrier, mechanism for operating said actuators to move said bottles from said shelf into said carrier, and actuators for actuating said levers in another direction to place said shelf in position to receive bottles.

5. In a bottle washing machine, a casing adapted to contain soaking liquid, a shaft in said casing, a revoluble carrier in said casing operated by said shaft, levers pivoted at the side of said casing, a shaft carried by said levers and arranged to hold bottles to be delivered to said carrier, springs in connection with said levers for holding said shelf out of position to deliver bottles to said carrier, means operated by said shaft for actuating said levers to move said shelf to position to deliver bottles to said carrier, and actuators controlled by said carrier for moving the bottles from said shelf when said shelf is in position to deliver bottles to the carrier.

[Claims 6 to 23 not printed in the Gazette.]

1,209,850. BOTTLE RINSING AND BRUSHING MECHANISM. JULIUS H. KINTZELE, St. Louis, Mo. Filed Feb. 6, 1915. Serial No. 6,483. (Cl. 141—7.)



1. The combination with bottle supporting and positioning mechanism, of devices for directing jets of water against the bottles in said supporting and positioning mechanism, endwise movable rods, brushes on said rods, an actuator for moving each rod and brush endwise to place the brushes in the bottles, locking latches for holding the brushes against endwise movement, and means for releasing said latches located in line with the bottle support and positioned to be actuated by the bottles therein.

2. In a bottle washing machine, the combination of a series of brushes movable into and out of bottles, mechanism for moving said brushes into the bottles, mechanism for revolving the brushes after they enter the bottles, and means for preventing operation of brushes which cannot enter bottles.

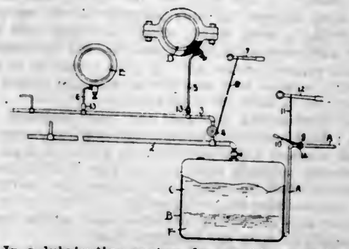
3. In a bottle washing machine, the combination of a bottle supporting device operable to position the bottles for the brush mechanism, endwise movable brush rods, brushes on said rods, guides in which said rods and brushes are movable, an independently releasable latch for holding each of said rods against endwise movement, a support on which said guides are mounted, mechanism for moving said support to engage said guides with the bottles, elements for releasing said latches located in line with the bottle support and positioned to be actuated by bottles therein, and means for holding said latches in engagement with the rods which have no bottles in line with them in the bottle supporting device.

4. In a bottle washing machine, a bottle support operable to position the bottles for operation of the brushes, guides adapted to engage the bottles after they have been positioned, brushes supported in said guides, an actuator for moving each brush into the bottle in line therewith in the support, latch devices holding and preventing movement of the brushes which have no bottles in line with them in the support, and elements for releasing said latches located in line with the bottle support and positioned to be actuated by contact with the bottles in the support whereby brushes which have bottles in line with them in the support will be enabled to move.

5. In a bottle washing machine, a support for bottles, endwise movable rods, brushes on said rods, guides in which said brushes and rods are movable, cylinders, pistons in said cylinders for supporting and moving said rods, spraying devices alternating with the operation of said brushes to spray the bottles, means holding the rods against endwise movement, and releasing means for said holding means lying in the path of movement of said rods and adapted to be actuated by contact with bottles in the support, whereby brushes which have no bottles in line with them in the support will be held against endwise movement.

[Claims 6 to 27 not printed in the Gazette.]

1,209,851. LUBRICATING SYSTEM. FRITZ KOCH, St. Paul, Minn. Filed May 25, 1914. Serial No. 840,914. (Cl. 184—6.)



1. In a lubricating system for machinery the combination, with machine bearings to be lubricated, of a central source of oil supply having flowage connection with said bearings, means for applying fluid pressure directly on said oil supply, and means controlling said fluid pressure to cut the latter off simultaneously with the stoppage of the machinery.

2. In a lubricating system for machinery, the combination with machine bearings to be lubricated, of a common source of oil supply having flowage connection with said bearings, means for applying fluid pressure directly on said oil supply, means between the bearings and said oil supply for controlling the flow of oil from the oil supply to said bearings, and means for controlling said fluid pressure to cut the latter of simultaneously with the stoppage of the machinery.

3. In a lubricating system for machinery, the combination with machine bearings to be lubricated, of a central

oil supply, means for distributing the oil from said supply to the several bearings, means interposed between said supply and the bearings for controlling the flow of oil thereto, means for applying fluid pressure behind said oil supply to lift the latter to said bearings, and means to cut off said fluid pressure.

4. In a lubricating system for machinery, the combination with machine bearings to be lubricated, of a common source of oil supply having flowage connection with said bearings, a central source of fluid pressure controlling the flow of oil, and means for relieving the system of back pressure directly the fluid pressure is taken off.

5. In a lubricating system for machinery, the combination with machine bearings arranged at different levels, of a comman source of oil supply having flowage connection with said bearings, means for exerting fluid pressure upon said oil, whereby to cause it to flow to all said bearings, means for removing said pressure whereby to stop the flow of oil, and means for preventing the back-flow of oil from the higher bearings to the lower bearings when the pressure has been removed.

[Claims 6 to 8 not printed in the Gazette.]

1,209,852. ILLUMINATING DEVICE FOR TALKING-MACHINE RECORDS. CHESTER A. KOTTEMAN, Washington, D. C. Filed June 12, 1916. Serial No. 103,188. (Cl. 240—8.5.)



1. An illuminating device of the class described comprising a holder carrying a source of electrical energy and a switch contact, a top piece for the holder, and an extended lamp support, movably mounted on the top piece, and carrying a lamp socket offset therefrom, said lamp support also carrying a switch member, the movement of said lamp support on the said top piece actuating to bring the switch member into engagement with the switch contact and also to shift the lamp position.

2. An illuminating device of the class described comprising a holder carrying a source of electrical energy and a switch contact, a top piece for the holder, a lamp support movably mounted upon the top piece and carrying a lamp socket offset therefrom, said support also carrying a switch member adapted to engage said switch contact, and a reflector also carried by the offset part of the support and adapted to cover the lamp position.

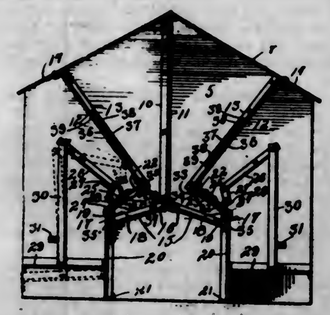
3. An illuminating device of the class described comprising a container body carrying a source of electrical energy and a switch contact, a cap for said body, and a lamp shifting post rotatably fitted to the cap and extending outwardly therefrom, said post carrying a lamp socket offset therefrom and also carrying a switch member, the rotation of the post operating to actuate the switch and also to shift the lamp position.

4. An illuminating device of the class described comprising a container body carrying a source of electrical energy and a switch contact, a cap for said body, a lamp shifting post rotatably fitted to the cap and extending outwardly therefrom and also carrying a switch member, said post carrying a lamp socket offset therefrom, and a downwardly reflecting reflector carried by the post over the lamp position.

5. An illuminating device of the class described comprising a container body, a cap therefor, an upstanding sleeve carried by said cap, a post rotatably held in said sleeve, a lamp carried by one end of said post, and a spring confined between said switching arm and the cap and surrounding the lower end of the post to frictionally hold the latter to the cap.

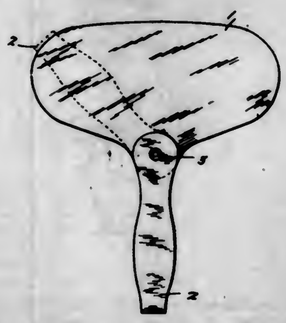
[Claim 6 not printed in the Gazette.]

1,209,853. FOOD-HOPPER. FRANKLYN N. KOHNEN, Blasdell, N. Y. Filed Oct. 28, 1913. Serial No. 797,889. (Cl. 119—55.)



A feeding device comprising a roof and side walls, a central partition wall secured thereto and terminating short of the bottoms thereof, a hopper wall on each side of the central partition wall converging toward and terminating short of the lower edge thereof, outwardly and downwardly extending plates secured to the lower edge of the central partition and to the side walls and having their outer sides upwardly directed to form troughs, hinged covers for each of said troughs, screens arranged over each trough beneath the cover, supporting plates arranged beneath the outer edges of the troughs, bodily depressible platforms arranged between the said plates and the outer edges of the side walls, and means including a guiding element fixed to the platform for connecting each platform to the hinged covers for the purpose set forth.

1,209,854. GLARE-SHIELD. OTTO A. KUBAT, Owatonna, Minn. Filed Jan. 26, 1916. Serial No. 74,480. (Cl. 2—149.)



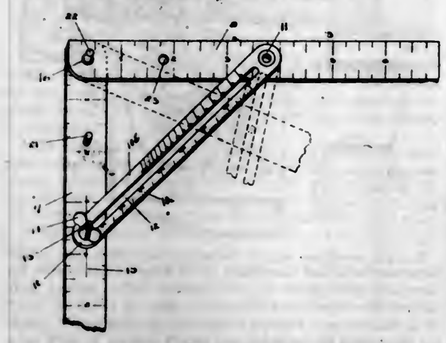
1. A glare shield formed from a single piece of flexible translucent material, and a handle pivotally secured to the lower extremity of said glare shield and frictionally held in different angular positions with respect thereto.

2. A glare shield formed from a single piece of flexible translucent material, and a handle formed from a single piece of material doubled upon itself with its ends embracing the glare shield and pivotally secured thereto.

3. A glare shield formed from a single piece of flexible translucent material, and a handle formed from a single piece of material doubled upon itself with its ends embracing the blare shield and pivotally secured to the lower evtremity thereof, the body of the glare shield arranged to be turned within its handle.

4. A glare shield having a handle, said glare shield and handle being formed, each from a single piece of translucent material, the material for the handle being doubled upon itself with its ends embracing the glare shield and pivotally and frictionally secured to the lower extremity thereof.

1,209,855. FOLDING SQUARE. JOSEPH LA FOLLETTE, Portland, Oreg., assignor of forty-nine one-hundredths to Elmer E. McClaran, Portland, Oreg. Filed Apr. 5, 1916. Serial No. 89,118. (Cl. 33—98.)



1. In a folding square, a duality of scale bearing blades pivotally connected; a bar pivotally connected to one of said blades and adapted to be slidably connected to the opposite blade; means to secure said bar upon said opposite blade; and means whereby said bar may rigidly secure said blades in the form of a straight edge or rule.

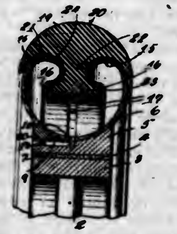
2. In a folding square, a duality of scale bearing blades; a pivot connecting said blades having thereon an extension above the surface of one of said blades; a bar having therein a longitudinal slot, and engraved thereon a protractor scale and an inclination scale; a tubular pivot connecting said bar to one of said blades; a stud secured to one of said blades and adapted to coact with the slot in said bar and also with said tubular pivot; and a stud secured to one of said blades intermediate said first mentioned stud and said extension upon the pivot connecting said blades.

3. In a folding square, a duality of blades pivotally connected; a bar pivotally connected to one of said blades; means whereby said bar is guided upon said opposite blade so that for any setting of said blades an isosceles triangle is formed by said blades and said bar; means to clamp said bar in said guiding means; means whereby said bar may secure said blades in a straight line one extended from the other upon opposite sides of their pivotal point; and means whereby said bar may secure said blades in a position folded one upon the other about their pivotal point.

4. A mechanic's folding square comprising a duality of scale bearing blades pivotally connected; a stud upon one of said blades; a pivot upon the other of said blades; said stud and said pivot being equi-distant from the pivotal connection of said blades; a slotted bar mounted upon said pivot and coacting with said stud to slide substantially transversely upon the stud bearing blade; said bar having engraved thereon a protractor scale and an inclination scale, the latter being adapted to register with said stud bearing blade.

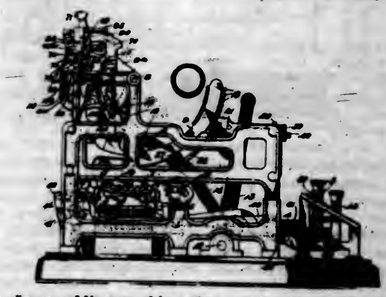
5. A mechanic's folding square comprising a duality of scale bearing blades pivotally connected; a slotted bar pivotally connected to one of said blades; a stud upon one of said blades adapted to coact with said slotted bar, and to cause said blades and said bar always to preserve the geometrical relation of the three sides of an isosceles triangle; said slotted bar having thereon a protractor scale and an inclination scale, the latter adapted to register with the stud bearing blade.

1,209,856. AUTOMOBILE-TIRE. WILLIAM FRANCIS LAHEY, East Hartford, Conn., assignor of one-third to Archibald H. Miller, Holyoke, Mass. Filed Oct. 21, 1915. Serial No. 57,144. (Cl. 152—8.)



In a tire of the class described, the combination of a resilient tread-supporting tube, said tube being adapted to fit upon the rim of a wheel, said tube being substantially semi-circular in cross-section, said tube being curved inwardly at its outer portions, thereby forming a reduced entrance into said tube, said tube being further curved in opposite directions to form pockets, said pockets being oppositely arranged with respect to each other, and being farther apart than the distance between the inwardly curved outer portions of said tube at said entrance, lips formed upon the inwardly curved portions of said tube adjacent said pockets, a tread positioned upon said tube, said tread having a pair of annular sockets, a neck extending from the center of said tread, a flat head formed upon said neck, said inwardly curved outer portions fitting within said sockets and gripping said neck, said head fitting within said pockets and bearing upon said lips, whereby said tread is demountably held by said tube without the employment of secondary securing means.

1,209,857. ADDING AND RECORDING MACHINE. HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 19, 1912. Serial No. 692,215. (Cl. 235—60.)



1. In an adding machine, the combination with a series of adding wheels arranged in numerical orders, and mechanism for operating said adding wheels as a series or in groups at the will of the operator, of mechanism for clearing selected groups of said adding wheels independently of any other groups, mechanism settable incidentally to the clearing operation of one of said groups of wheels to represent the total or number cleared, means for adjusting said settable mechanism in coöperative relation with another group of adding wheels, and means for operating said coöperative group of adding wheels to add the total or number represented by said settable mechanism.

2. In an adding machine, the combination with a series of adding wheels, arranged in numerical orders, and mechanism for operating said adding wheels as a series or in groups at the will of the operator, of mechanism for clearing one of said groups of adding wheels independently of any other group in the series of wheels, mechanism settable incidentally to the clearing operation of said group of wheels to represent the number cleared, and means for causing coöperation of said settable mechanism and the adding wheels of another group whereby said adding wheels will add the number represented by said settable mechanism.

3. In an adding machine, the combination with a series of adding wheels arranged in numerical orders, mechanism for operating said wheels in separate groups to add separate series or lists of numbers and retain separate totals of the different series or lists of numbers at the same time, of mechanism adjustable to represent the total of one of said series or lists of numbers, means for moving said adjustable mechanism to position to coöperate with another group of wheels, containing another total in said series of wheels, and mechanism for coöperating said last-named group of wheels with said mechanism to add to said other total that total which is represented by said adjustable mechanism.

4. In an adding machine, the combination with recording and adding and clearing mechanisms, and means for operating said mechanisms in recording and adding and clearing operations, of a paper carriage shiftable to present different columns of paper to the recording mechanism, mechanical elements supported independently of said paper carriage settable incidentally to the clearing operation to represent the number cleared, additional mechanism for adding the number represented by said elements, and devices for moving said elements from position to coöperate with said first-named adding mechanism to position to coöperate with said additional mechanism.

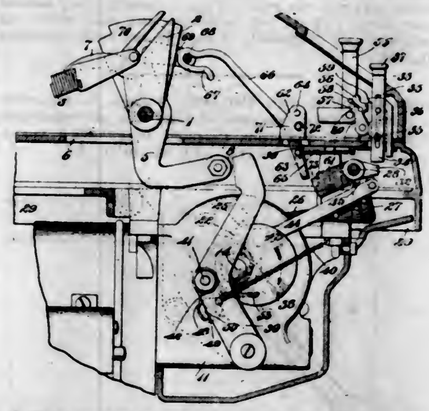
5. In an adding machine, the combination with recording mechanism, a paper carriage for feeding paper to said recording mechanism, adding and clearing mechanisms, and means for operating said mechanism in recording, adding and clearing operations, of mechanical elements settable incidentally to the clearing operation to represent the number cleared, a shiftable support for said elements independent of said paper carriage, additional mechanism for adding the number represented by said elements, and devices for moving said elements from position to coöperate with said first-named adding mechanism to position to coöperate with said additional mechanism.

[Claims 6 to 79 not printed in the Gazette.]

1,209,858. MOTOR MECHANISM FOR ADDING-MACHINES. HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 6, 1912. Serial No. 702,113. (Cl. 74—46.)

1. In a machine of the character described, the combination with a lever to be actuated, and a spring for restoring said lever to idle position after it has been actuated, of a shaft, a constantly running motor, optionally operable means for imparting an intermittent rotary motion to said shaft from said motor and for stopping said shaft in the same position after each movement thereof, a lever for actuating said first-named lever, a spring for returning said second-named lever after positive movement thereof in one direction, and an element on said shaft arranged to actuate said second-named lever positively in one direction after which said second-named lever is returned by said spring.

2. In a machine of the character described, the combination with a shaft arranged to be rocked, a lever on said shaft for rocking said shaft in one direction, and a spring for rocking said shaft in the opposite direction after operation of said lever, of a lever arranged to engage with and actuate said first-named lever, a continuously running motor, a revoluble shaft, optionally operable means for imparting an intermittent rotary motion to said revoluble shaft from said motor and for stopping said shaft in the same position after each movement thereof, means for actuating said second-named lever in one direction from said revoluble shaft, and independent means for restoring said second-named lever to idle position after operating as aforesaid.



3. In a machine of the character described, the combination with a shaft arranged to be rocked, and means for restoring said shaft to idle position after having been rocked, of a lever for rocking said shaft, a revoluble shaft for actuating said lever, a constantly running motor, means for imparting an intermittent rotary motion to said revoluble shaft from said motor and for stopping said shaft in the same position after each movement thereof, and means for restoring said lever to idle position after being operated by said shaft.

4. In a machine of the character described, the combination with a rock shaft, and a lever for actuating said rock shaft in one direction, of a continuously running motor, a revoluble element, means for imparting an intermittent rotary movement to said revoluble element from said motor and for stopping said element in the same position after each movement thereof, means for actuating said lever in one direction by said element, means for restoring said lever to idle position after each actuation thereof, and another means for restoring said rock shaft to idle position after each operation thereof by said lever.

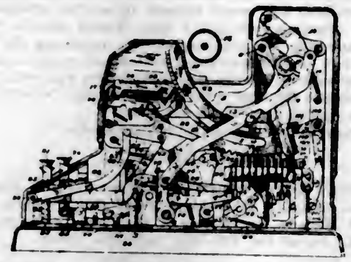
5. In a machine of the character described, the combination with a lever to be actuated, and a spring for restoring said lever to idle position after each actuation, of a second lever adapted to engage with and actuate said first-named lever, a shaft, mechanism for imparting an intermittent rotary motion to said shaft and for stopping said shaft in the same position after each movement thereof, means for driving said second named lever in one direction from said shaft effectively to engage with and actuate said first-named lever, and independent means for restoring said second-named lever to idle position after each operation.

[Claims 6 to 20 not printed in the Gazette.]

1,209,859. ADDING AND RECORDING MACHINE. HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 12, 1912. Serial No. 730,888. (Cl. 235—60.)

1. In an adding machine, a series of stops, mechanism for selecting and positioning said stops, a device for actuating said mechanism, keys determining when said actuating device may operate, and a series of magazines arranged to receive said stops and to contain said stops in their idle positions.

2. In an adding machine, a series of movable stops, stationary supports for said stops, and means for selecting and moving from said supports certain of said stops while the remaining stops remain in idle position on said supports.



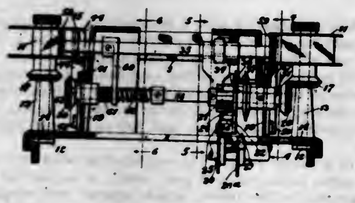
3. In an adding machine, a series of laterally movable stops, stationary supports for said stops, and mechanism for selecting and moving laterally from said supports selected one of said stops while the remaining stops remain in idle position on said supports.

4. In an adding machine, series of laterally movable stops adapted to be positioned to represent numbers, stationary supports for said stops, a rotary positioning device for each series of stops, and mechanism for operating said positioning device effectively to move said stops from said supports and to position said stops to represent numbers.

5. In an adding machine, series of laterally movable stops, a rotary positioning device for each series of stops, and mechanism for operating said positioning devices to position said stops to represent numbers.

[Claims 6 to 51 not printed in the Gazette.]

1,209,860. RECORDING-MACHINE. HARRY LANDSIEDEL, Cincinnati, Ohio, assignor to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 28, 1916. Serial No. 80,940. (Cl. 197—160.)



1. In a recording machine, the combination of a pair of rotatable spools for the ribbon, a shaft shiftable into connection with said spools alternately to revolve said spools alternately in opposite directions, a lever, means for actuating said lever, connections operated by said lever for revolving said shaft and thereby the spools to move the ribbon, latches for holding the shaft from axial movement, means operated by the ribbon for releasing said latches, springs for actuating said shaft axially when said latches are released, and a device actuated by the windings of the ribbon independently of the latch releasing means for energizing said springs alternately to shift said shaft alternately in opposite directions.

2. In a recording machine, the combination of a pair of spools for the ribbon, a revoluble shaft shiftable axially into communication with said spools alternately to operate said spools alternately in opposite directions, a lever, means for oscillating said lever, a pawl actuated by the lever for revolving the shaft, a ratchet wheel on the shaft engaged by said pawl, latches for holding the shaft from axial movement, means operated by the ribbon for releasing said latches, springs for actuating said shaft axially when said latches are released, and a device actuated by the windings of the ribbon independently of the latch releasing means for energizing said springs alternately to shift said shaft alternately in opposite directions.

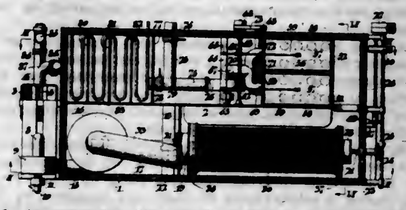
3. In a recording machine having a ribbon, mechanism for moving the ribbon comprising spools for the ribbon, a shaft for revolving said spools, an oscillating lever, means for operating said lever in opposite directions, connections for revolving said shaft to actuate said spools by movement of said lever in one direction, latches for holding the shaft from axial movement, means operated by the ribbon for releasing said latches, springs encircling said shaft, a device for energizing said springs, and means actuated by the windings of the ribbon independently of said latch releasing means for actuating said device to energize said springs alternately.

4. In a recording machine, spools adapted to receive the ribbon, a pinion for revolving each spool, an axially movable shaft pinions on said shaft adapted to mesh with the pinions for revolving said spools alternately, means for revolving said shaft, springs for actuating said shaft axially to mesh the pinions thereon alternately with the pinions for revolving said spools, latch devices for preventing premature axial movement of said shaft, a device actuated by the windings of the ribbon on said spools for tensioning said springs, and additional means under control of the ribbon for releasing said latch devices.

5. In a recording machine, spools for the ribbon, pinions in connection with said spools, an axially movable revoluble shaft, pinions on said shaft adapted to mesh respectively at alternate times with the pinions in connection with said spools, means for revolving said shaft to revolve the spools, releasable latch devices for preventing premature axial movement of said shaft, springs for moving said shaft axially to engage alternately with the pinions in connection with the spools, a device under control of the windings of the ribbon on the spools for tensioning said springs, and additional means actuated by the ribbon independently of said tensioning device for releasing said latch devices to enable said springs to move said shaft axially.

[Claims 6 to 25 not printed in the Gazette.]

1,209,861. APPARATUS FOR MANUFACTURING COCOA. GEORGE GURDON LENNIG, Philadelphia, Pa. Continuation in part of application Serial No. 727,104, filed Oct. 22, 1912. This application filed July 17, 1914. Serial No. 851,465. (Cl. 83—39.)



1. An apparatus for manufacturing cocoa including in combination means for pulverizing the cocoa, means for cooling the pulverized cocoa, and means for bolting said cooled pulverized cocoa.

2. An apparatus for manufacturing cocoa including in combination a conveyer pipe through which the cocoa is conveyed by air, means for pulverizing the cocoa as it is conveyed by said air through said pipe, means for separating the air from the cocoa, and means for bolting the cocoa.

3. An apparatus for manufacturing cocoa including in combination a conveyer pipe through which the cocoa is conveyed by air, means for pulverizing the cocoa as it is conveyed by said air through said pipe, means for separating the air from the cocoa, means for cooling the cocoa, and means for bolting the cocoa.

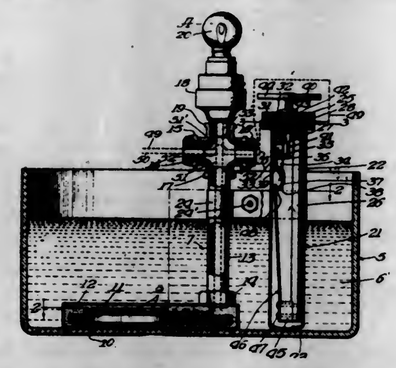
4. An apparatus for manufacturing cocoa including in combination a conveyer pipe through which the cocoa is conveyed by air, means for pulverizing the cocoa, a separator for separating the air from the cocoa, a cooling

chamber through which the cocoa is conveyed from the separator, and a bolting screen for receiving and bolting the cocoa.

5. An apparatus for manufacturing cocoa including in combination a conveyer pipe through which the cocoa is conveyed by air, means for pulverizing the cocoa, a separator for separating the air from the cocoa, a cooling chamber through which the cocoa is conveyed from the separator, a bolting screen for receiving and bolting the cocoa, and means for rotating said cooling chamber and bolting screen, said cooling chamber having means for stirring the cocoa and for conveying the same through the chamber as it is rotated.

[Claims 6 to 20 not printed in the Gazette.]

1,209,862. ELECTRIC HEATING APPLIANCE. TIODOLF LIDBERG, Chicago, Ill., assignor to Chicago Surgical & Electrical Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 19, 1916. Serial No. 72,892. (Cl. 219—41.)



1. In a portable electric heater, the combination of a relatively broad flat casing, a heating coil inclosed therein, a conductor carrying tube projecting upwardly from the casing, and a thermostatic controller supported by the tube.

2. In a portable electric heater, the combination of a relatively broad flat casing, a heating coil inclosed therein, a conductor carrying tube projecting upwardly from the casing, a substantially air-tight tube supported by the first mentioned tube, and a thermostatic controller contained within the last mentioned tube.

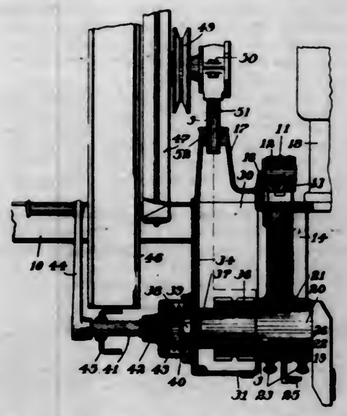
3. In a portable electric heater, the combination of a relatively broad flat casing, a heating coil inclosed therein, a conductor carrying tube projecting upwardly from the casing, a substantially air-tight tube supported by the first mentioned tube, and extending downwardly to a point adjacent the flat casing, a thermostatic controller contained within the last mentioned tube, and an electric circuit connecting the heating coil and thermostatic controller in series.

4. A device of the character described comprising a heater provided with a relatively broad flat heating element; a vertically disposed tube extending therefrom; an indicating lamp, mounted on the top of the tube; in combination with, a thermo-responsive device, for controlling the heat produced by said heater, said thermo-responsive device comprising a closed tube, parallel with the heater tube and connected thereto; an expansion bar carrying a contact, and a coöperating contact, within the latter tube; a screw at the top of the latter tube to adjust the position of the coöperating contact, and wires passing through the heater tube to connect said thermo-responsive device and lamp in circuit with said heater.

5. A device of the character described comprising an electric heater element; a vertically disposed tube connected therewith; a cruciform fitting on the upper end of the tube; a socket for a lamp mounted on one arm of the fitting, conducting wires extending through the horizontal arms of the fitting; branch wires in said tube connecting said lamp and heater element in parallel relation; a thermo responsive device; a tube thereof parallel with the heater tube and attached thereto, containing the heat responsive, circuit controlling switch and wires connecting said switch in series with said heater and said lamp to extinguish the lamp when circuit through the heater is thereby opened.

[Claims 6 and 7 not printed in the Gazette.]

1,209,863. MOTOR-VEHICLE. ALLEN LOOMIS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 6, 1912. Serial No. 729,787. (Cl. 123—195.)



1. The combination with a motor crank case comprising a support for the crank and auxiliary shafts and a timing gear case at its end, shafts in said supports, power transmitting mechanism connecting said shafts and adapted to be removed laterally of the shafts, said gear case having a top opening, a removable cover for said opening, and a fan mounted on said cover and driven by said auxiliary shaft.

2. In a motor vehicle, the combination with the frame, of a motor having an end gear casing, a supporting member secured to the frame, a pin between the supporting member and the motor for supporting the latter, and a cover for said gear casing having a part adapted to hold said pin in position.

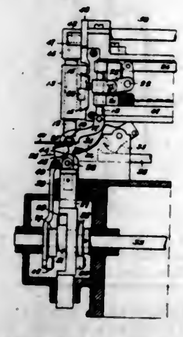
3. In a motor vehicle, the combination with the frame, of a motor having an end gear casing with a top opening therein, a cross beam resting on the frame adjacent the gear end of the motor, a pin forming a pivotal connection between the motor and said beam, and a cover for said casing having a lug in contact with the head of said pin to prevent the removal of the latter.

4. In a hydrocarbon motor, the combination with a crank shaft, a cam shaft, an auxiliary shaft, and chain driving connections between said shafts, of a crank case supporting said shafts and having walls extending at the sides and bottom of the shaft ends and driving connections, and a removable top cover for said wall extensions.

5. In a hydrocarbon motor, the combination with a crank shaft, a cam shaft, an auxiliary shaft, and chain driving connections between said shafts, of a crank case supporting said shafts and having walls extending at the sides and bottom of the shaft ends and driving connections, a removable front cover therefor, and a removable top cover for said wall extensions.

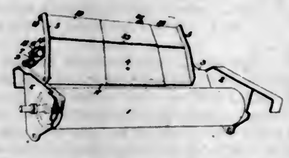
[Claims 6 to 11 not printed in the Gazette.]

1,209,864. HOOK-SETTING MACHINE. FREDERICK W. LUSCOMB, New Bedford, Mass., assignor to Atlas Tack Company, Fairhaven, Mass., a Corporation of New Jersey. Filed Oct. 8, 1915. Serial No. 54,773. (Cl. 218—17.)



In a hook-setting machine, a carrier, a hook-sustaining member pivotally mounted thereon, a setting tool arranged to coact with said hook-sustaining member to set a hook, hook-feeding means, means arranged to move said carrier to carry a hook from said hook-feeding means to said setting tool, a link pivotally connected to said hook-sustaining member, a spring attached to said link and arranged to act thereon to tilt said hook-sustaining member to hook-sustaining position, and a cam arranged to act on said link to retract said hook-sustaining member from hook-sustaining position.

1,209,865. TYPE-WRITING MACHINE. JOHN C. MCLAUGHLIN, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 22, 1913. Serial No. 780,429. (Cl. 197—140.)



1. In a typewriting machine, the combination with a platen and a paper-shelf at the introductory side of the platen forming a chute for the work-pieces, of a rail extending along said shelf, carriers splined to said rail, two telescoping auxiliary paper-shelf sections hinged to said carriers to coöperate with said paper-shelf, guides along a side edge of each of said sections, and means for locking said sections together.

2. In a typewriting machine, the combination with a platen and a paper-shelf at the introductory side of the platen, of a rail extending along said shelf, carriers splined to said rail, an auxiliary paper-shelf forming a chute for work-sheets as they are advanced to the platen, said auxiliary shelf hinged to said carriers and comprising two gaging sections provided along their outer edges with gages for the lateral edges of the work-sheets, said sections relatively movable laterally to move the gages toward and from each other and having their inner edges overlapped to form a continuous support for the work-sheets between the gages, and means to permit said sections to be moved unitedly into an inoperative position.

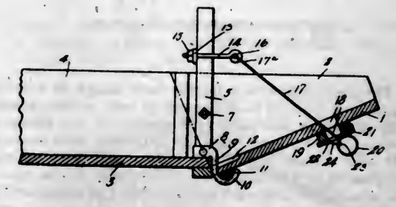
3. In a typewriting machine, the combination with a rotary platen, of a paper-shelf at the introductory side thereof comprising sections, and a slidable connection between said sections, rendering them evenly adjustable in a single operation toward and from each other, said sections carrying gages for the side edges of a work-sheet and forming a chute for guiding the work-sheet to the introductory side of the platen.

4. In a typewriting machine, the combination with a rotary platen, of a paper-shelf at the introductory side thereof comprising sections, and a slidable connection between said sections, rendering them evenly adjustable in a single operation toward and from each other, said sections carrying gages for the side edges of a work-sheet, and adjustable together along the platen, thereby forming a chute adjustable in width, and also adjustable bodily along the platen, said chute serving to gage and guide the work-sheets as they are introduced to the platen.

5. In a typewriting machine, the combination with a rotatable platen, of a paper-shelf forming a chute for supporting and guiding work-sheets at the introductory side of the platen and comprising overlapping sections, each section provided with an end-flange forming a gage for the work-sheets, and a slidable connection between said sections, whereby they are laterally and evenly adjustable relatively to each other in a single operation.

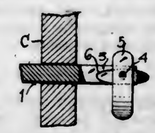
[Claims 6 to 26 not printed in the Gazette.]

1,209,866. SHOVELING-BOARD. OSCAR R. MANVILLE, Breckenridge, Mo. Filed Apr. 22, 1916. Serial No. 92,933. (Cl. 21—21.)



A device of the character described comprising a pair of posts attachable to the rear ends of the sides of a wagon body, a shoveling board hingedly connected with the rear ends of said posts, said shoveling board having apertures adjacent its free portion, members attached to said posts to project through said apertures when the board is swung upwardly, resilient rods loosely connected with said members and projecting through said apertures, said rods having portions at their free ends for supporting the board when it is swung downwardly, plates attached to the board having shoulders, and a member carried by the board between said plates under which the rods are engageable when the board is swung upwardly, the free portions of said rods being seatable upon said shoulders.

1,209,867. FASTENING-PIN. ELMER E. MCGUIRE, Anaconda, Mont., assignor of one-third to Joseph Smith, Anaconda, Mont. Filed May 12, 1915, Serial No. 27,653. Renewed Apr. 29, 1916. Serial No. 94,482. (Cl. 85—3.)



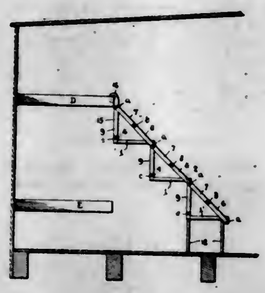
1. As a new article of manufacture, a fastening pin bifurcated at one extremity, locking pintles pivotally mounted within the bifurcated portion of the pin and normally disposed in angular relation to each other, said pintles being capable of independent movement.

2. As a new article of manufacture, a fastening pin bifurcated at one extremity, locking pintles pivotally

mounted within the bifurcated portion of the pin and normally disposed in angular relation to each other, said pintles being capable of independent gravital movement.

3. As a new article of manufacture, a fastening pin having one end portion bifurcated, a pivot pin intersecting the kerf of the bifurcated end portion, locking pintles rotatably supported by the pivot pin and independently movable therearound, one of said pintles being provided with a transversely disposed elongated opening through which the pivot pin is disposed.

1,209,868. FOLDING BUNK-STAIRS. ELLA E. MAY, Del Rio, Tex. Filed Nov. 11, 1914. Serial No. 871,504. (Cl. 155—21.)

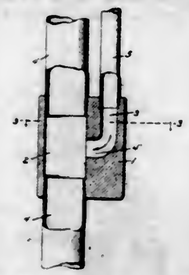


1. The combination in a folding bunk stairs, of a stool comprising a top and four supporting legs, of two downwardly extending apertured ears secured to the forward corners of said top, two upwardly extending ears secured to the rear corners of said top each of said ears having a securing base, of a plurality of treads of a size equal to the size of said top, each tread having two downwardly extending apertured ears at its forward corners and two upwardly extending apertured ears at its rear corners, of a plurality of risers each being of a size equal to the size of said top and treads each riser being provided with two outstanding ears at its lower corners and two outstanding ears at its upper corners, each riser being secured to two treads by means of pins passing through its ears and through the ears of said treads, two pivotally connected toggle bars each having one end pivotally secured to the pins connecting said treads to said risers at their forward corners, two side bars each ending in a hook adapted to engage the edge of a bunk secured to the uppermost tread and to the rear ears, two toggle bars connecting said side bars to the uppermost tread, whereby all of said treads and risers may be compactly folded upon said stool top said toggle bars being held against the outer ends of said treads and risers, as, and in the manner set forth.

2. The combination with a stool comprising a top and four supporting legs, of a plurality of treads and risers said risers being operatively connected to said treads, a set of hook ended bars secured to the uppermost tread, and a plurality of toggle bars connecting each of said treads and risers whereby all of said treads, risers, and toggle bars may be compactly folded upon said stool top, as, and in the manner set forth.

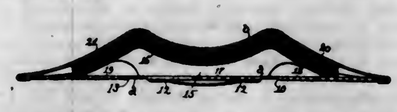
1,209,869. STEAMING-PLUG. JOHN A. MURPHY, Philadelphia, Pa. Filed Apr. 29, 1916. Serial No. 94,375. (Cl. 137—75.)

The combination with two vertically-disposed and vertically alined sections of an oil-well suction-pipe, the adjacent ends of said sections being exteriorly screw-threaded, of a cylindrical casting having a longitudinally-extending bore, the wall of which, at each end, is screw-threaded and engaged by the threaded ends of said pipe-sections, said casting having, also, a port extending parallel, and at its inner end communicating, with said bore, the wall of said port, at the outer end, being screw-threaded, and a



vertically-disposed steam-pipe having an exteriorly-threaded end screwed into the threaded outer end of said port.

1,209,870. BILL-FOLDER. MATTHEW A. NATHANSON, Boston, Mass. Filed May 4, 1916. Serial No. 95,461. (Cl. 150—38.)



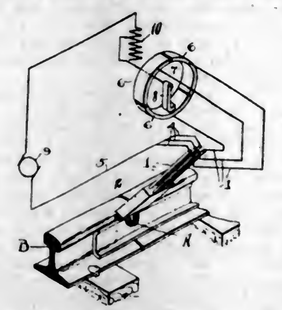
1. A combined card case and bill folder, comprising an inner member provided with pockets for the reception of cards and the like and capable of being folded to form a center section and overlapping side sections, and a cover or back member of greater length than said inner member and having its opposite ends secured to the opposite ends of the inner member and its rear edge secured at its center section to the center section of the inner member and having the surplus material in the back member forming a substantially wide mouth or opening between the front edge of the inner and back members, and enabling the folder to hold a substantially large number of bills and be folded into a substantially flat condition without damage to the inner member.

2. A bill folder comprising an inner member provided with a center section and side sections capable of being overlapped, and a back or cover member of greater length than said inner member and having its ends attached to the ends of the inner member and its rear edge attached to the center section of the inner member and unattached from the rear edge of the side sections of the inner member.

3. A folder comprising an inner member provided with a center section and side sections capable of being overlapped, and a back or cover member of greater length than said inner member and having its ends attached to the ends of the inner member and having a portion of its rear edge secured to the rear edge of the inner member and having another portion of its rear edge unsecured to the rear edge of said inner member.

1,209,871. METHOD OF AND APPARATUS FOR ELECTRIC WELDING. FRANK H. NEFF, Cleveland, Ohio, assignor to The Electric Railway Improvement Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 15, 1915. Serial No. 34,166. (Cl. 219—4.)

1. The method of homogeneously uniting metal bodies, which consists in holding said bodies in contact at the desired point of union; and directly heating one of said bodies by pressing against the same an electrode composed of a plurality of electrically separated resistance elements, and thereupon passing an electric current in recurring cycles successively through different pairs of said resistance elements and said first body arranged in series, whereby said first body and the contacting face of the second body are brought to a welding temperature.



2. The method of homogeneously uniting metal bodies having unlike characteristics as to fusibility, the more readily fusible body having also the greater heat conductivity, which consists in holding said bodies in contact at the desired point of union; and directly heating the first or more readily fusible body by pressing against the same an electrode composed of a plurality of electrically separated resistance elements, and thereupon passing an electric current in recurring cycles successively through different pairs of said resistance elements, and thereupon passing an electric current through different pairs of said resistance elements and said first body arranged in series, whereby said first body and the contacting face of the second body are brought to a welding temperature.

3. The method of homogeneously uniting metal bodies of unlike masses and different temperatures of fusion, the smaller body having both the lower temperature of fusion and greater heat conductivity, which consists in holding said bodies in contact at the desired point of union; and directly heating one of said bodies by pressing against the same an electrode composed of a plurality of electrically separated resistance elements, and thereupon passing an electric current in recurring cycles successively through different pairs of said resistance elements and said first body arranged in series, whereby said first body and the contacting face of the second body are brought to a welding temperature.

4. The method of homogeneously uniting a bond to a rail, which consists in holding the bond in contact with the rail at the desired point of union; directly heating said bond by pressing against the same an electrode composed of a plurality of electrically separated resistance elements, and thereupon passing an electric current in recurring cycles successively through different pairs of said resistance elements and said bond arranged in series, whereby said bond and the contacting face of the rail are brought to a welding temperature.

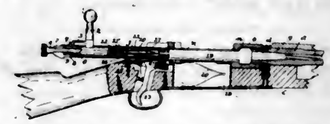
5. In apparatus of the character described, the combination of a source of current, a composite electrode made up of a plurality of electrically separated resistance elements, and means adapted to connect successive pairs of said elements in series with said source of current.

[Claim 6 not printed in the Gazette.]

1,209,872. FIREARM. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Company, Utica, N. Y., a Corporation of New York. Filed Apr. 20, 1915. Serial No. 22,536. (Cl. 42—16.)

1. In combination, the receiver, a breech-bolt having two parts one of which is movable relatively to the other into interlocked relation with the receiver, firing mechanism, and firing-mechanism-controlled means movable in said other part to lock said first-named part in the interlocked relation with the receiver.

2. In combination, the receiver, a breech-bolt having two parts one of which is movable relatively to the other into interlocked relation with the receiver, firing mechanism including a striker, and striker-controlled means movable in said other part to lock said first-named part in the interlocked relation with the receiver.



3. In combination, the receiver, a breech-bolt having two parts one of which is rotatable relatively to the other, firing mechanism, and firing-mechanism-controlled means movable in said other part to lock said first-named part against rotation.

4. In combination, the receiver, a breech-bolt having two parts one of which is rotatable and the other held by the receiver against rotation, firing mechanism, and firing-mechanism-controlled means, movable in one of said parts, for interlocking said parts together against relative rotation.

5. In combination, the receiver, a breech-bolt having a part thereof movable into interlocked relation with the receiver, a lockable firing mechanism, and means, controlled by the locked firing mechanism, for locking said part in the interlocked relation with the receiver.

[Claims 6 to 14 not printed in the Gazette.]

1,209,873. HOOD FOR PNEUMATIC STACKERS. GEORGE B. NELSON, Redfield, Iowa. Filed May 12, 1913. Serial No. 766,971. (Cl. 193—21.)

1. In a stacker hood, a collar adapted to be attached to a conveyer tube, said collar being provided with a channel at its outer end, a hood provided with a head set at substantially right angles to said collar and having an opening to communicate with the tube, said head being provided at its opening with an outwardly projecting flange at substantially right angles thereto to travel in the channel of said collar.

2. In a pneumatic stacker hood, an adjustable collar adapted to be attached to various size conveyer tubes, a channel provided in the outer end of said collar, a hood having the head set at right angles to said collar and provided with an opening to communicate with the tube, said head being provided at its opening with an outwardly extending flange at substantially right angles thereto to travel in said channel whereby the hood may be revolved.

3. In a pneumatic stacker hood, a collar adapted to be attached to a conveyer tube, a channel provided in the outer end of said collar, a head set at substantially right angles to said tube and provided with an opening to communicate with the conveyer tube, said head having at its opening an outwardly extending flange at substantially right angles thereto designed to travel in said channel.

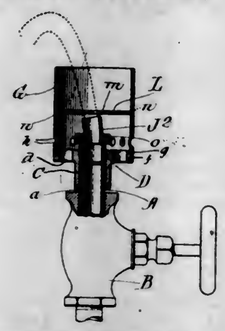
4. An adjustable collar for conveyer tubes composed of a band to receive a hood, strips rigidly connected to said band, plates connected to said strips, said plates being adapted to receive the conveyer tube, and means for clamping said plates tightly around said conveyer tube.

5. A collar for the outer end of conveyer tubes composed of a band provided with a channel to receive a stacker hood, flexible strips rigidly connected to said band, plates

connected to said stripe, said plates being adapted to receive the conveyer tube, and tie-rods connected to said strips for clamping said plates around said conveyer tube.

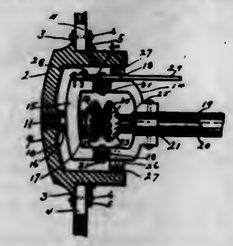
[Claim 6 not printed in the Gazette.]

1,209,874. SANITARY DRINKING-FOUNTAIN. ALBERT S. NEWTON, Providence, R. I. Filed June 26, 1916. Serial No. 105,804. (Cl. 137—110.)



In a stationary drinking fountain, a base, a vertical shield rotatably adjustable on said base, a nozzle rotatably adjustable in the base and having an inclined bore, said nozzle being of less height than the shield, and a plate within the shield above the nozzle and having an eccentric opening, the adjustment of the shield accommodating the said opening to the adjusted position of the nozzle to throw the stream outward beyond the periphery of the shield.

1,209,875. FRONT-WHEEL DRIVE FOR AUTOMOBILES. ELI NOEL, Kansas City, Mo. Filed Feb. 24, 1916. Serial No. 80,205. (Cl. 21—90.)



1. In a front wheel drive for automobiles, the combination, of a cup-shaped hub having within a stub-shaft fixed to its closed end, a gear wheel mounted on the inner end of said stub-shaft and having radially extending convex cogs, a drive shaft projected within said hub, a gear wheel mounted on the inner end of said drive shaft and having radially extending convex cogs engaged by the cogs on the wheel on said stub-shaft, a supporting frame having a rigid portion supporting said drive shaft and a hingedly mounted portion supporting said stub-shaft, a rack mounted on the hinged portion of said supporting frame, and a pivotally mounted lever having cogs engaged by said rack and adapted to steer the automobile wheel.

2. In a front wheel drive for automobiles, the combination, of a cup-shaped hub having within a stub-shaft fixed to its closed end, said stub shaft having cogs on the vertical face of its inner end, a gear wheel mounted on the inner end of said stub shaft and having radially extending convex cogs, a drive shaft projected within said hub and having cogs on the vertical face of its inner end engaged by the cogs on the vertical face of the inner end of said stub-shaft, a gear wheel mounted on the inner end of said drive shaft and having radially extending convex cogs engaged by the cogs on the gear wheel on said stub-shaft, a supporting frame having a rigid portion supporting said drive shaft and a hingedly mounted portion supporting said stub-shaft, and a bearing frame carrying ball bearings impinging on the inner side of said hub.

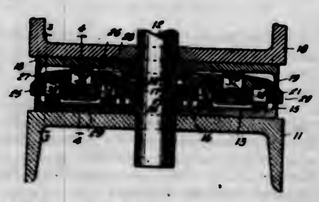
3. In a front wheel drive for automobiles, the combination, of a cup-shaped hub having within a stub-shaft fixed to its closed end, a gear wheel mounted on the inner end of said stub-shaft and having radially extending convex cogs, a drive shaft projected within said hub, a gear wheel mounted on the inner end of said drive shaft and having radially extending convex cogs engaged by the cogs on the wheel on said stub-shaft, a supporting frame having a rigid portion supporting said drive shaft and a hingedly mounted portion supporting said stub-shaft, a rack mounted on the hinged portion of said supporting frame, and a pivotally mounted lever having cogs engaged by said rack and adapted to steer the automobile wheel.

4. In a front wheel drive for automobiles, the combination, of a cup-shaped hub having within a stub-shaft fixed to its closed end, said stub-shaft having cogs on the vertical face of its inner end, a gear wheel mounted on the inner end of said stub-shaft and having radially extending convex cogs, a drive shaft projected within said hub and having cogs on the vertical face of its inner end engaged by the cogs on the vertical face of the inner end of said stub-shaft, a gear wheel mounted on the inner end of said drive shaft and having radially extending convex cogs engaged by the cogs on the gear wheel on said stub-shaft, a supporting frame having a rigid portion supporting said drive shaft and a hingedly mounted portion supporting said stub-shaft, a rack mounted on the hinged portion of said supporting frame, and a pivotally mounted lever having cogs engaged by said rack and adapted to steer the automobile wheel.

5. In a front wheel drive for automobiles, the combination, of a cup-shaped hub having within a stub-shaft fixed to its closed end, said stub shaft having cogs on the vertical face of its inner end, a gear wheel mounted on the inner end of said stub-shaft and having radially extending convex cogs, a drive shaft projected within said hub and having cogs on the vertical face of its inner end engaged by the cogs on the vertical face of the inner end of said stub-shaft, a gear wheel mounted on the inner end of said drive shaft and having radially extending convex cogs engaged by the cogs on the gear wheel on said stub-shaft, a supporting frame having a rigid portion supporting said drive shaft and a hingedly mounted portion supporting said stub-shaft, a bearing frame pivotally mounted on said supporting frame and having ball bearings impinging on the inner side of said hub, a rack mounted on the hingedly mounted portion of said supporting frame, and a pivotally mounted lever having cogs engaged by said rack and adapted to steer the automobile wheel.

[Claim 6 not printed in the Gazette.]

1,209,876. ANTIFRICTION-BEARING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 14, 1916. Serial No. 91,204. (Cl. 64—64.)



1. In a bearing of the character described, the combination with opposed bearing plates, of two series of anti-friction members in engagement with one of said plates, another series of anti-friction members in engagement with the other of said plates, a floating plate interposed between said series of members, and chocks for said anti-friction members, the chocks for one series being arranged to limit the rotation of said anti-friction members in one direction and the chocks of the other series being arranged to limit the rotation of the anti-friction members thereof in the opposite direction.

2. In an anti-friction bearing of the character described, the combination with opposed relatively movable bearing plates, of two series of anti-friction members in engagement with one of said plates, another series of anti-friction members in engagement with the other of said plates, and a floating plate interposed between said series of members, said interposed plate having three annular channels, one on one side and two on the opposite side and within which are disposed said series of anti-friction members.

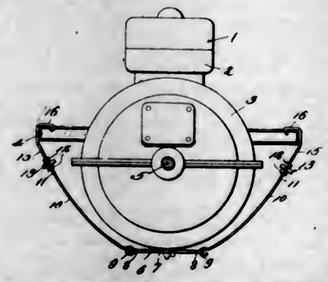
3. In an anti-friction bearing of the character described, the combination with opposed relatively movable bearing plates, of two series of anti-friction members in engagement with one of said plates, another series of anti-friction members in engagement with the other of said plates, and a floating plate interposed between said series of members, said interposed plate having three annular channels, one on one side and two on the opposite side and within which are disposed said series of anti-friction members, and two series of chocks associated with two of the series of anti-friction members, one series of chocks being oppositely arranged to the other.

4. In a center bearing for railway cars, the combination with opposed bearing plates, of two annularly arranged series of anti-friction rollers in engagement with one of said plates, another series of annularly arranged anti-friction rollers in engagement with the other of said plates, a floating plate interposed between said series of anti-friction rollers, and two sets of oppositely disposed chocks coöperating with two of the series of said anti-friction rollers.

5. In an anti-friction center bearing for railway cars, the combination with two opposed plates adapted to be secured to body and truck bolsters, of a floating plate interposed between said bearing plates, said floating plate having two annular channels on one side thereof and an annular channel on the opposite side, the latter being located between said two channels, and series of anti-friction members disposed in each of said channels.

[Claim 6 not printed in the Gazette.]

1,209,877. SUPPORT FOR TRANSMISSION-CASINGS FOR AUTOMOBILES. JOHN OLIVER, Ekalaka, Mont., assignor of one-half to John W. Hatton and one-half to William Mowbray, Ekalaka, Mont. Filed Sept. 11, 1915. Serial No. 50,275. (Cl. 29—89.)

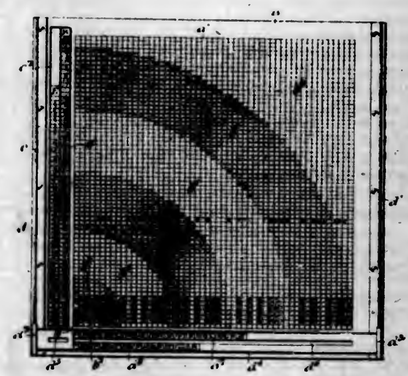


1. A device of the character described comprising a supporting disk for the crank case of a motor vehicle, rods extending upwardly from the crank case supporting member, U-shaped hangers on the upper ends of the rods adapted to engage the side bars of the chassis of a motor vehicle, and means to adjustably secure the rods on the arms of the hangers to permit the device to be used with a different sized motor.

2. A device of the character described comprising a disk provided with a central opening, apertured ears formed at diametrically opposite points on the periphery thereof, rods swivelly connected to the ears and extending upwardly therefrom, threads on the upper ends of the rods, U-shaped hanger plates fitted on each rod, said hanger plates provided with a central opening, a nut on the rods adjustably holding the same in position on the hanger plates, and a hook on the opposite ends of the arms of the hanger plate to engage the side bars of the chassis of a motor vehicle.

3. A device of the character described comprising a disk, ears formed at diametrically opposite points on the periphery of the disk and extending laterally therefrom and in the same plane thereof, rods swivelly connected to the ears and extending upwardly therefrom, threads on the upper ends of the rods, U-shaped hanger plates fitted on the threaded ends of said rods, said hanger plates provided with central openings, a nut on the rods adjustably holding the same in position on the hanger plates, and hooks on the opposite ends of the arms of the hanger plates to engage the side bars of the chassis of a motor vehicle for steadying the same.

1,209,878. LOCATING-CHART DEVICE. WILLIAM B. OLIVER, Collingswood, N. J. Filed Mar. 17, 1913. Serial No. 754,691. (Cl. 235—89.)



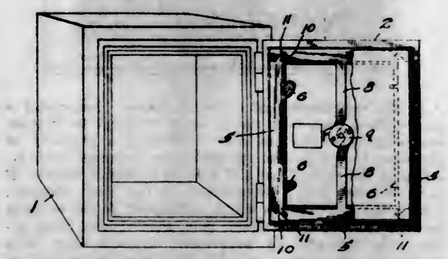
1. The combination of a chart element, comprising a geographical area laid out in units arranged in latitude and longitude belts and also comprising a plurality of indicated zone quadrants progressively arranged with relation to one of said units of area as a central region; of a two-section scale, independent of the chart element, and having subdivisions which correspond to the latitude subdivisions upon the chart, said subdivisions being respectively indicated by progressive symbols upon each section but diminishing in value upon one section and increasing in value upon the other section from a starting symbol common to both; and a two-section scale independent of the chart element, having subdivisions which correspond to the longitude subdivisions upon the chart, said subdivisions being respectively indicated by progressive symbols upon each section, but diminishing in value upon one section and increasing in value upon the other section from a starting point common to both.

2. The combination of a chart element, comprising a geographical area laid out in units arranged in latitude and longitude belts and also comprising a plurality of indicated zone quadrants progressively arranged with relation to one of said units of area as a central region; of a two-section scale, independent of the chart element, and having subdivisions which correspond to the latitude subdivisions upon the chart, said subdivisions being re-

spectively indicated by progressive symbols upon each section, but diminishing in value upon one section and increasing in value upon the other section from a starting point common to both; and a two-section scale independent of the chart element, and having subdivisions which correspond to the longitude subdivisions upon the chart, said subdivisions being respectively indicated by progressive symbols upon each section, but diminishing in value upon one section and increasing in value upon the other section from a starting numeral common to both; and means for movably supporting one of said two-section scales to move in a definite path parallel to the appropriate belt upon the chart element; whereby said movable scale may be shifted to bring its symbols into immediate juxtaposition with different points of the respective zones, while maintaining its own coördinate relation to the zone center.

3. The combination of a chart element mounted upon a rotatable cylinder, said chart comprising a geographical area laid out in units arranged in latitude and longitude belts and also comprising a plurality of indicated zone quadrants progressively arranged with relation to one of said units of area as a central region; of a two-section scale, independent of the chart element, and having subdivisions which correspond to the latitude subdivisions upon the chart, said subdivisions being respectively indicated by progressive symbols upon each section but diminishing in value upon one section and increasing in value upon the other section from a starting point common to both; a two-section scale, independent of the chart element, and having subdivisions which correspond to the longitude subdivisions upon the chart said subdivisions being respectively indicated by progressive symbols upon each section but diminishing in value upon one section and increasing in value upon the other section from a starting point common to both; a rotatable drum carried co-axially by said cylinder; and a stationary elongated member arranged parallel to the axis of said cylinder; one of said two-section scales being mounted upon said drum and the other being mounted upon said stationary member.

1,209,879. SAFE AND THE LIKE. FRANK PACKINGER, Cleveland, Ohio, assignor of one-half to J. C. Sparrow, Cleveland, Ohio. Filed May 18, 1916. Serial No. 98,365. (Cl. 109—3.)



1. In a safe or the like, the combination of a body having an opening, a door movable therein, opposite continuous bolt sockets in the door and casing, horizontal and vertical bolt bars carried by the door sockets, and angular cam connections between the vertical and horizontal bars to actuate one set of bars directly by the movement of the other set.

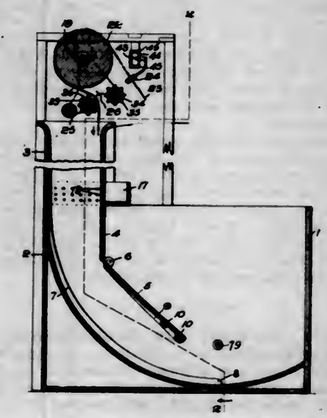
2. In a safe or the like, the combination of a body having an opening, a door hinged therein, opposite bolt sockets in the door and casing, horizontal and vertical bolt bars carried by the door sockets, cam connections between the vertical and horizontal bars to actuate one set of bars directly by the movement of the other set, and means for moving one set of bars.

3. In a safe or the like, the combination of a safe body having a door-opening, a door hinged therein, continuous bolt sockets provided in the opening, horizontal and vertical bolts carried by the door at its edges, connections between two opposite bolts and the handle for operating the same, and angular tongue and groove connections between the ends of said first pair of bolts and the ends of the other pair of bolts whereby the second pair is operated directly by the movement of the first pair.

4. In a safe or the like, the combination of a body having an opening, a door hinged therein, opposite continuous bolt sockets in the door and casing, horizontal and vertical bolt bars carried by the door sockets, means for moving one pair of the bars directly by the action of a suitable handle, and cam connections between said pair and the other pair of bars for operating the second pair directly by the action of the first pair.

5. In a safe or the like, the combination of a body having an opening, a door hinged therein, opposite continuous bolt sockets in the door and casing, horizontal and vertical bolt bars carried by the door sockets, pins upon the vertical bars entering holes in the door to support the bars, and angular cam connections between the vertical and horizontal bars to actuate one set of bars directly by the movement of the other set.

1,209,880. AUTOMATIC TEXTILE RECEIVING AND DELIVERING APPARATUS. ISAAC E. PALMER, Middletown, Conn.; Townsend Palmer and Nathalie T. Palmer, administrators of Isaac Emerson Palmer, deceased. Filed Dec. 20, 1911. Serial No. 667,029. (Cl. 8—19.)



1. An automatic textile receiving and delivering apparatus comprising a chute having an upturned material in-take end and a lower angularly directed discharge end having a delivery mouth, the rear and bottom wall of said chute between said in-take end and the delivery mouth being of greater length than the front and upper wall thereof between said points, said rear and bottom wall having friction reducing material supporting and contacting ribs extending longitudinally of the chute and into the said angularly directed discharge end.

2. An automatic textile receiving and delivering apparatus comprising a chute having an upturned material in-take end and a lower angularly directed discharge end having a delivery mouth, the rear and bottom wall of said chute between said in-take end and the delivery mouth being of greater length than the front and upper wall thereof between said points, said rear and bottom wall having friction reducing ribs extending longitudinally thereof and of decreasing width in the direction of passage of the material through the chute.

3. An automatic textile receiving and delivering apparatus comprising a chute having an upturned material in-take end and a lower angularly directed discharge end having a delivery mouth, the rear and bottom wall of said chute between said in-take end and the delivery mouth being of greater length than the front and upper wall thereof between said points, said rear and bottom wall having friction reducing ribs extending longitudinally thereof and of increasing height in the direction of movement of the material through the chute.

4. An automatic textile receiving and delivering apparatus comprising a chute having an upturned material in-take end having a delivery mouth, the rear and bottom wall of said chute between said in-take end and delivery mouth being of greater length than the front and upper wall thereof between said points, said rear and bottom wall having friction reducing ribs of decreasing width and increasing height in the direction of passage of the material through the chute.

5. Apparatus for treating textile material in lengths comprising a chute having an upturned material in-take end and a lower discharge end, said chute having one or more walls thereof provided with downwardly directed ribs of decreasing width in the direction of the passage of the material through the chute.

[Claims 6 to 20 not printed in the Gazette.]

1,209,881. TEETER-BOARD. GEORGE STEPHEN POLLEY, Ashtabula, Ohio. Filed July 5, 1916. Serial No. 107,628. (Cl. 46—22.)



1. A teeter device embodying a pair of standards, a vertically adjustable axle carried thereby, a rocking member mounted between its ends upon said axle, the upper ends of said standards having seats, a winding member seatable in said seats, and cables attached to said winding member and having means for engaging the axle, said winding member being removable.

2. A teeter device embodying a rocking member fulcrumed between its ends, seats movably carried by the ends of said member, an over-balancing weight movable toward and away from the ends of said member for over-balancing the arms thereof, and means for operatively connecting said weight and seats.

3. A teeter device embodying a rocking member fulcrumed between its ends, seats carried by the ends of said member, a pendulum having an over-balancing weight and mounted adjacent the fulcrum of said member, said weight being movable toward and away from the ends of said member, and means for operating said pendulum from the seats.

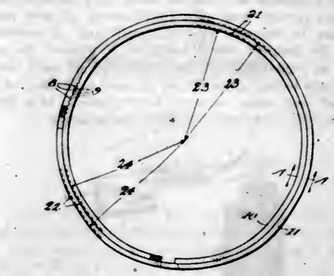
4. A teeter device embodying a rocking member fulcrumed between its ends, seats pivoted to said members adjacent the ends thereof, an over-balancing weight movable toward and away from the ends of said member, and operative connections between said seats and weight for moving it.

5. A teeter device embodying an axle, a rocking member mounted upon the axle between its ends, seats pivoted to said member adjacent the ends thereof, a pendulum carried by said axle and having an over-balancing weight movable toward and away from the ends of said member, and operative connections between said seats and pendulum.

[Claims 6 and 7 not printed in the Gazette.]

1,209,882. PISTON-RING. LEO PONDELICK, Chicago, Ill. Filed Mar. 25, 1915. Serial No. 16,961. (Cl. 121—108.)

1. In a packing ring, the combination with a pair of split annular members, one thereof substantially encircling the other thereof, of means for preventing relative circumferential motion of said members, said means comprising relatively intermeshing, minute, integral teeth extending substantially parallel to the common axis of the said members and disposed upon opposed substantially cylindrical surfaces of the respective members.



2. A packing ring including an annular member equipped at one end with a flange extending radially outward of the main portion of said member, and a second annular member encircling the main portion of the first-named member, said flange and the adjacent end of the second member presenting smooth opposed surfaces disposed conically about the common axis of the said members, the periphery of the main portion of the first member and the bore of the second member equipped with relatively intermeshing teeth disposed substantially parallel to the common axis of the said members.

3. A packing ring comprising a plurality of parts including main and auxiliary split annular members, the former encircled by the latter and each having a portion of its periphery equipped with teeth, all of said teeth extending substantially parallel to the common axis of the said members and each group thereof disposed adjacent to the gap therein and one side thereof, the teeth of all of said members interengaging to restrict the maximum relative circumferential motion of said main and auxiliary members with respect to each other substantially to that end portion of each of said members which is circumferentially farthest removed from the point of its interengagement with its companion member.

4. A packing ring comprising a pair of concentric split rings having contacting cylindrical surfaces each provided with a set of very minute teeth integral therewith and extending through a very short arc, the respective sets of teeth adapted to interengage to prevent relative rotation of said rings.

5. A packing ring comprising a pair of concentric split rings having contacting annular surfaces, each of the latter provided with sets of minute integral teeth extending through relatively short arcs thereof and adapted to interengage for preventing relative rotation of said rings, said sets of teeth held in engagement with each other by yielding pressure of the contacting surfaces against each other in a direction substantially radially of the rings.

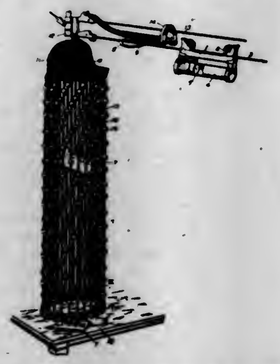
[Claims 6 to 13 not printed in the Gazette.]

1,209,883. CARRIER-SYSTEM CHUTE FOR LIGHT ARTICLES. FRANK D. POWELL, Boston, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Apr. 29, 1914. Serial No. 835,074. (Cl. 186—2.)

1. An open walled chute for paper sheets and the like comprising a head having an opening therein adapted for the reception of said sheets, a series of depending elements having at spaced intervals along the lengths of said elements, but distinct therefrom, means to deflect a falling paper sheet to prevent said sheet from emerging from said chute between said elements, said elements and means being free from recesses which might receive and hold the corners of said paper sheet.

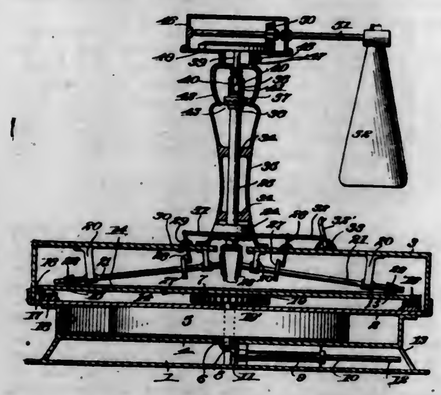
2. An open walled chute for paper sheets and the like comprising a series of substantially vertically disposed

weighted elements having at spaced intervals along the lengths of said elements, but distinct from the latter, means to deflect a falling paper sheet to prevent said sheet from emerging from said chute between said elements, said elements and means being free from recesses which might receive and hold the corners of said paper sheet, means to support said elements and to normally hold them in definite relationship with respect to each other, and a repository at the lower end of said chute, said repository being spaced from at least a portion of the lower end of said chute to permit the removal of a fallen paper sheet while leaving the chute undisturbed.



3. An open walled chute for paper sheets and the like comprising a series of substantially vertically disposed elements having at spaced intervals along the lengths of said elements balls to deflect a falling paper sheet to prevent said sheet from emerging from said chute between said elements, said elements and balls being free from recesses which might receive and hold the corners of said paper sheet, means to support said elements and to normally hold them in definite relationship with respect to each other.

1,209,884. GEARING. MORRIS RAKOWSKY, (now by change of name Morris Rockford,) Utica, N. Y. Filed Jan. 29, 1914. Serial No. 815,114. (Cl. 74—7.)



1. Apparatus of the class described having a driven gear wheel, a gear plate, a driving member on said plate in mesh with said gear wheel and a shaft driven from said plate, and means to mount said plate for rotation, comprising a bearing and said plate having means overlapping and engaging said bearing to prevent displacement.

2. Apparatus of the class described having a driven gear wheel, a gear plate, a driving member on said plate in mesh with said gear wheel and a shaft driven from said plate and means to mount said plate for rotation, comprising an annular bearing, rollers on said bearing on which said plate rests and a wall depending from said plate overlapping and surrounding said bearing to prevent displacement.

3. Apparatus of the class described having a driven gear member, a plurality of shafts driven therefrom, a shaft driven by said shafts, brake members on each of said plurality of shafts brake members engageable with said brake members a connecting member for the last mentioned brake members, a link on said connecting member and on operating member connected to said link.

4. Apparatus of the class described, having a first shaft a second shaft, intermeshing gear wheels driven from said shafts, one of said gear wheels slidable relatively to the other, and means to fasten said shafts at angular adjustment.

5. Apparatus of the class described having a shaft, a shaft member, a gear wheel on said shaft a slidable gear member driven from said shaft member in mesh with said gear wheel, one of said members having a groove and the other having a projection and means to fasten said shaft and shaft member at angular adjustment.

1,209,885. FASTENING DEVICE. CLIFFORD D. RAREY, Kennewick, Wash. Filed Feb. 18, 1915. Serial No. 9,072. (Cl. 85—28.)



1. A new article of manufacture comprising a fastening device provided with a head and a central shank, said head having a flat top surface carrying a permanently open eye disposed close to the top of said head, said eye consisting of a separately formed narrow metal member permanently secured to said head.

2. A new article of manufacture comprising a fastening device provided with a head and a pointed central shank, said head having an eye permanently secured to the top thereof, said eye consisting of a length of wire bent intermediate its ends and having its ends secured to said head.

3. A fastening device having a head and a shank, the head being provided with a transversely extending recess, and a bent member secured to said head and having a part terminating in said recess said bent member being disposed within the margin of said head and having a portion thereof disposed above the plane of the head to form a permanent eye on said head.

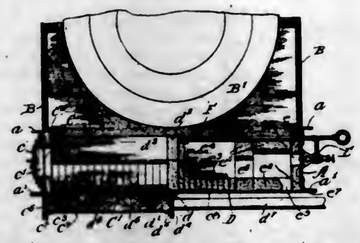
4. A fastening device having a head and a screw threaded shank, and an eye on said head comprising a wire spaced intermediate its ends from the top of said head and united at both ends to said head.

5. The combination with a fastening device formed with a slot extending across one end thereof, of a substantially U-shaped member having its ends secured in said slot, and a second slot intersecting the first-mentioned slot.

[Claims 6 and 7 not printed in the Gazette.]

1,209,886. FIRE-BOX CONSTRUCTION. NILS M. ROSENDAHL, Winthrop Harbor, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Sept. 28, 1914. Serial No. 863,849. (Cl. 110—22.)

1. In a portable paving-plant, a fire-box comprising a substantially flat metal main under-frame, composed of horizontally disposed longitudinal side-members adapted to support the entire fire-box in an elevated position above the ground, means for forming a combustion chamber between the sides of said frame, extending transversely thereof, a grate for said chamber, devices for supporting said grate on said frame, a fuel door in one side-member of said frame, a container for the materials to be heated, disposed immediately above said chamber, and means to burn a different kind of fuel at the other side of said fire box.



2. In a portable paving-plant, a fire-box comprising a substantially flat metal main under-frame, composed of horizontally disposed longitudinal side-members adapted to support the entire fire-box in an elevated position above the ground, means for forming a combustion chamber between the sides of said frame, extending transversely thereof, a fluid burner disposed on the side of said frame and in position to direct the flame into said chamber, one of said members having an opening for said burner, a container for the materials to be heated, disposed immediately above said chamber, and means to burn a different kind of fuel at the other side of said fire box.

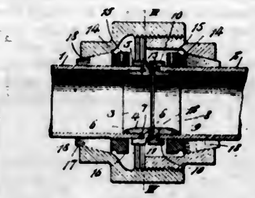
3. In a portable paving-plant, a fire-box comprising a main under frame, means for forming a combustion chamber between the sides of said frame, extending transversely thereof, a grate for said chamber, devices for supporting said grate on said frame, a fuel door in the side of said frame, and a container for the materials to be heated, disposed immediately above said chamber, said means including a fire wall for the inner end of said chamber, said frame having a second combustion chamber between said wall and the other side of the frame, the two chambers being arranged end to end, and a fluid burner for directing a flame into the second chamber, said frame having an opening for said burner.

4. In a portable paving-plant, a fire-box comprising a main under frame, means for forming a combustion chamber between the sides of said frame, extending transversely thereof, a fluid burner disposed on the side of said frame and in position to direct the flame into said chamber, and a container for the materials to be heated, disposed immediately above said chamber, said means including a back wall for said chamber, said frame having a second combustion chamber between said wall and the other side of the frame, a grate for the second chamber, the two chambers being arranged end to end, and a fuel door for the second chamber, located in the side of the frame, said first mentioned chamber having a bottom wall in the plane of said grate.

5. In a portable paving plant, a fire-box comprising a main under frame, means for forming a combustion chamber between the sides of said frame, extending transversely thereof, a grate for said chamber, devices for supporting said grate on said frame, a fuel door in the side of said frame, and a container for the materials to be heated, disposed immediately above said chamber, said means including a fire wall for the inner end of said chamber, said frame having a second combustion chamber between said wall and the other side of the frame, the two chambers being arranged end to end, and a fluid burner for directing a flame into the second chamber, said frame having an opening for said burner, said wall being disposed centrally of said container, and side walls extending upwardly from said frame, the latter being of a length to accommodate a plurality of said chambers at each side thereof, the fire-box thus equipped for either solid or fluid fuel being built into said frame and supported thereby a distance above the ground.

[Claims 6 to 8 not printed in the Gazette.]

1,209,887. PIPE-UNION. GEORGE E. R. ROTHENBUCHER, New York, N. Y. Filed Feb. 26, 1914. Serial No. 821,117. (Cl. 187—28.)

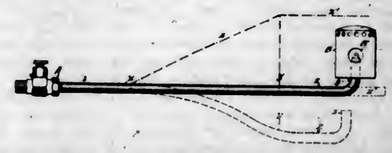


1. A pipe union comprising two clamping sleeves having slotted outwardly tapered outer ends and solid untapered inner ends, means in the unslotted end of each sleeve for securing said sleeve to the pipe end, a pair of coupling members adapted to bear on the slotted tapered parts of the clamping sleeves and to be threaded into each other to draw the pipe ends toward each other, said coupling members clamping the slotted portions of the sleeves around the pipe ends, and compressible means between the pipe ends to form a liquid-tight joint.

2. A pipe union comprising two clamping sleeves adapted to be secured to pipe ends, two relatively rotatable coupling members adapted to engage each other and the clamping sleeves to draw said sleeves toward each other and clamp them about the pipe ends, a ring-like cap for the end of each pipe to be connected together, each cap being formed with an annular channel to receive the pipe end, and soft metal washers interposed in said channels and between the abutting faces of said caps.

3. A pipe union comprising two conical clamping sleeves having radially slotted outer ends, means for securing one of said clamping sleeves to each of the pipe ends to be connected together, a pair of ring-like caps one for the end of each pipe to be connected together, each cap being formed with a channel to receive a pipe end, said caps having correspondingly beveled outer ends, a soft metal washer interposed between said beveled surfaces of said caps, a pair of coupling members having internal annular beveled surfaces adapted to bear on the tapered parts of the clamping sleeves and to be threaded into each other to draw the clamping sleeves and the pipe ends toward each other and to compress the slotted portions of the clamping sleeves around the pipe ends.

1,209,888. ANNEALING METHOD FOR METALLIC TUBES. ARNOLD O. RUTZ, Milwaukee, Wis. Filed May 28, 1915. Serial No. 30,993. (Cl. 148—22.)



1. A method of annealing lengths of hardened brass consisting of subjecting the length to a gradually increasing annealing temperature starting from a point predeterminedly selected from one end of said length of brass.

2. A method of annealing lengths of hardened brass consisting of subjecting the length to a gradually increasing annealing temperature starting from a point predeterminedly selected from one end of said length of brass and finishing the annealing method by subjecting the remainder of the length to the even maximum high temperature.

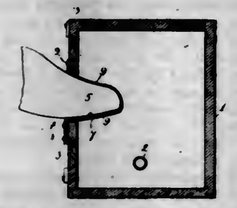
3. A method of annealing lengths of brass tubing consisting of subjecting the tubing to a gradually increasing annealing temperature from one end.

4. A method of annealing lengths of hardened brass tubing consisting of subjecting the tubing to a gradually in-

creasing annealing temperature starting from a point distant from one end to a predetermined distance from the opposite end, from which point the remainder of the pipe is subjected to the uniform high annealing temperature.

5. A method of annealing lengths of hardened brass consisting of subjecting the tube to a gradually increasing temperature from one end, whereby the tube when treated is progressively softened from the starting point of annealing to cause the same to be bent in a uniform curve described tangentially from the base when subjected to pressure.

1,209,889. SOFTENING DEVICE FOR SHOES. NAZZARENO SCARPONI, Dover, N. H. Filed Aug. 14, 1916. Serial No. 114,742. (Cl. 12—1.)



1. In a device of the character specified, the combination comprising a receptacle having in it an opening through which the toe portion of a shoe may be inserted to lie within the chamber of said receptacle, means whereby steam may be supplied to the chamber of said receptacle, a guard impervious to the passage of steam arranged to closely engage the sole of said inserted toe portion of the shoe whereby the steam or hot aqueous vapor arising therefrom may not engage said sole and soften the same, and a curtain arranged to envelop the upper of said inserted sole portion of the shoe for protecting the same from the direct contact of the steam but permitting the passage through it of heated aqueous vapor sufficient to soften said upper without injuring it.

2. In a device of the character specified, the combination comprising a steam box having in it an opening through which the toe portion of a shoe may be inserted to lie within the chamber of said box, means whereby steam may be supplied to the chamber of said box, a metallic guard arranged to closely engage the sole of said inserted toe portion of the shoe, and a cloth curtain arranged to envelop the upper of said inserted sole portion of the shoe.

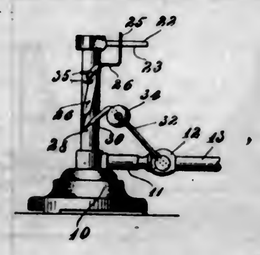
3. In a device of the character specified, the combination comprising a receptacle adapted to receive the toe portion of a shoe within the chamber therein, means for supplying said chamber with a softening agent, and a guard impervious to the passage of said softening agent covering the sole of said inserted toe portion of the shoe and in close contact therewith whereby the softening agent cannot contact with the sole and soften it.

4. In a device of the character specified, the combination comprising a receptacle adapted to receive the toe portion of a shoe inside the chamber thereof, means for supplying steam to said receptacle, and a pocket forming a curtain arranged to envelop the upper of said inserted sole portion of the shoe for protecting it from the direct contact of the steam but permitting the passage of heated aqueous vapor therethrough sufficient to soften said upper without injuring it.

5. In a device of the character specified, the combination comprising a receptacle having in it an opening through which the toe portion of a shoe may be inserted to lie within the chamber of said receptacle, means whereby steam may be supplied to the chamber of said receptacle, and a curtain having the general form of a pocket for receiving within it said inserted portion of the shoe and making closed contact with said receptacle around the edge of the opening therein.

[Claims 6 to 8 not printed in the Gazette.]

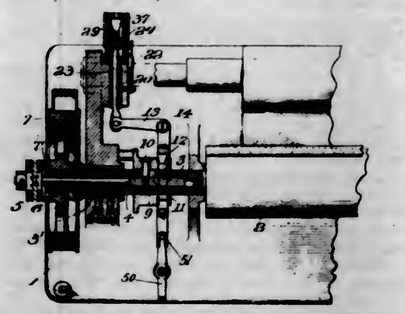
1,209,890. AUTOMATIC GAS-EXTINGUISHER. GEORGE PHILIPP SCHMITT, New York, N. Y. Filed Mar. 24, 1916. Serial No. 86,874. (Cl. 67—117.)



1. In a device of the class described, the combination with a standard, an inlet pipe connected therewith, a valve in said inlet pipe, and a vertical burner tube engaged with said standard remote from said valve, of an expansible coil passing through said burner, an arm extending therefrom, a post attached to said burner tube parallel with said arm when the latter is in a normal position, a lever pivoted on said post, means combined with said arm adapted to actuate said lever when moving in one direction, a second lever operatively engaged with the stem of said valve, a weight adjustable thereon, and means combined with said arm adapted to hold the valve lever in a raised position when in a normal position.

2. In a device of the class described, the combination with a standard, a gas supply pipe entering said standard, a valve in said gas pipe, and a vertical burner tube on said standard remote from said valve, of a plurally coiled control comprised of two different metals engaged at the top of said burner tube having a part entered therein, an arm formed with said control extending laterally outward, a ratchet pawl pivoted to said arm, a lever pivoted to said vertical tube, having its upper end engageable with said pawl, a second lever operatively combined with said valve having a part engageable with the lower end of the first mentioned lever, means for depressing said second lever when free, said means being adjustable, and means combined with the first mentioned lever for holding the valve lever in a normally open position.

1,209,891. DICTAPHONE ATTACHMENT. JOHN J. SCULLY, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Nov. 15, 1915. Serial No. 61,541. (Cl. 192—9.)



1. In a start-and-stop device for talking-machines, the combination of a driven pulley having a clutch member, a mandrel shaft having a second clutch member slidable into and out of engagement with the clutch member on the pulley, a lever operatively connected to said second clutch member, a plug socket, a rod connected to said lever and projecting from said plug-socket and provided at its outer end with means for engaging interchangeably with either a pneumatic actuator or a manually-operated actuator, whereby said rod can be actuated to shift said clutch.

2. In a start-and-stop device for talking-machines, the combination of a mandrel shaft and a stub-shaft slidably mounted in the axis of said mandrel shaft and revolving therewith, a sleeve slidably mounted on the mandrel shaft and connected to said stub-shaft, a loosely-mounted driving-member, interlocking clutch members mounted respectively on said stub-shaft and driving member, and actuating-means connected operatively to said sleeve and provided at its outer end with means for engaging interchangeably with either a pneumatic actuator or a manually-operated actuator, whereby said rod can be actuated to shift said clutch.

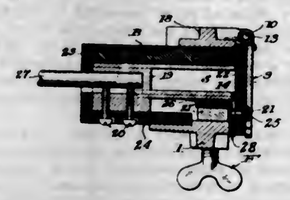
3. In a start-and-stop device for talking-machines, the combination of a mandrel shaft, a driving element therefor, and clutch members on said shaft and element, with a shouldered rod operatively connected with one of said clutch members to shift the same, a head having spring clips engaging the shoulder on said rod, and manually operated means connected to said head for actuating said rod to throw the clutch.

4. In a start-and-stop device for talking-machines, the combination of a mandrel shaft and a driving element therefor, clutch members on said shaft and element, a lever for shifting one of said clutch members into operative relation with the other, a rod operatively connected to said lever and having a clip-receiving end, a spring clip engaging said clip-receiving end, and means actuating said clip to throw the shiftable clutch-member.

5. In a start-and-stop device for talking-machines, the combination of a mandrel shaft, a stub-shaft mounted to slide in the axis of said mandrel shaft and revolve therewith, a loosely-mounted driving member, corresponding clutch members on said driving member and stub-shaft, a plug-socket, a shiftable member projecting through said plug-socket and coöperatively connected to said stub-shaft, a plug, and manually operated means carried by said plug and engaging said shiftable member, whereby the clutch is operated.

[Claims 6 to 9 not printed in the Gazette.]

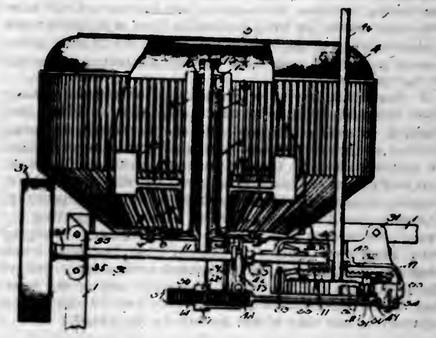
1,209,892. ELECTRICAL CONNECTOR. AUGUST J. SEEMANN, Milwaukee, Wis., assignor to Loeffelholz and Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 22, 1915. Serial No. 62,690. (Cl. 173—332.)



1. The combination with the open member of an electric connector of an inclosing yoke provided upon one side with a removable member, a plurality of binding screws having threaded bearings in said removable member, said last named member being adapted in case it or either of said binding screws are broken to be readily removed without disturbing the other parts of said connector.

2. The combination with the open member of an electric connector, of a door, a yoke, a separate plate hinged to said door, means for temporarily connecting said plate to the yoke of said connector, and means for yieldingly retaining said door when closed in its closed position against the open end of said first named member.

1,209,893. GEARING. HOWARD F. SNYDER, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a Corporation of Iowa. Filed Mar. 11, 1915. Serial No. 13,560. (Cl. 74—50.)



1. A gearing for washing machines comprising a driving shaft, a driven gear, a pinion on said driven gear, an internal gear with which said pinion meshes and an operating member connected to said pinion, the pitch circle of said pinion not intersecting the axis of the internal gear, whereby said pinion does not keep the same relative position during successive revolutions of the gear.

2. A gearing for washing machines comprising a driving shaft, a driven gear, a pinion on said driven gear, an internal gear having a number of teeth unequal to twice the number of teeth in the pinion with which said pinion meshes and an operating member connected to said pinion, and a clutch for operatively connecting and disconnecting said shaft and said driven gear.

3. In a gearing for washing machines, a shaft, a vertically arranged reciprocating operating member, gear connections between said shaft and said vertically arranged reciprocating operating member including means to cause the traverse of said operating member in addition to its normal operating motion.

4. In a gearing for washing machines, an oscillatory shaft having a pinion thereon, a rack bar in mesh with said pinion, means to reciprocate said rack bar including means to cause different regions of said bar to engage said pinion during different reciprocations of said bar.

5. In a gearing for washing machines, an oscillatory shaft, a rotary shaft, connections between said rotary shaft and said oscillatory shaft including means whereby a periodic oscillatory movement is given to said shaft in addition to the successive oscillations thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,209,894. PADLOCK. LOUIS SNYDER, Hartford, Conn. Filed Oct. 25, 1916. Serial No. 127,568. (Cl. 70—105.)

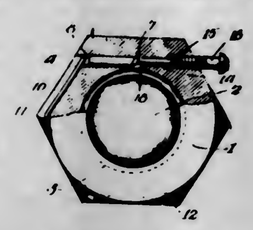


1. A padlock having a casing with a keyhole, a hasp with one end pivoted in the casing and its other end adapted to swing into and out of the casing, a spring tending to throw the hasp open, a pivoted tumbler having an end designed to engage the pivoted end of the hasp and hold it closed and having an end extending into the line

with the keyhole, a spring tending to retain the tumbler in locking position, a spring guard having one end fixed and the other end yielding transversely with relation to the plane of movement of the tumbler, said yielding end having a barrier normally projecting against the side of the casing between the keyhole and the end of the tumbler, and a wedging wing projecting from said barrier and designed, when properly engaged, to lift the barrier transversely out of the path from the keyhole to the lower end of the tumbler.

2. A padlock having a casing with a keyhole, a hasp with one end pivoted in the casing and its other end adapted to swing into and out of the casing, a spring tending to throw the hasp open, a pivoted tumbler having an end designed to engage the hasp and hold it closed and having an end extending into line with the keyhole, a spring tending to retain the tumbler in locking position, a spring guard having a barrier normally projecting between the keyhole and the end of the tumbler, a wedging wing projecting from said barrier and designed, when properly engaged, to lift the guard transversely out of the path from the keyhole to the lower end of the tumbler, and a shield extending from the wall of the casing adjacent to the edge of the keyhole to the guard.

1,209,895. NUT-LOCK. AUGUST SOBECK, Chicago, Ill. Filed Aug. 12, 1916. Serial No. 114,512. (Cl. 151—25.)



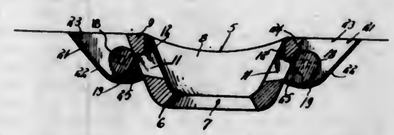
1. A device of the character described, comprising a nut having two registering perforations therein of unequal diameters, a pawl having portions of unequal diameters received within said perforations, a tooth formed upon that part of the pawl having the greater diameter, and means coöperating with that part of the pawl having the lesser diameter and adapted to move said pawl to inoperative position.

2. A device of the character described, comprising a nut provided with two registering perforations, a pawl having a toothed body portion received within one of said perforations and a stem received within the other of said perforations, a spring adapted normally to push said pawl in one direction and retain the same in operative position, and means adapted to engage said stem and force said pawl against the resistance of said spring, thereby to move said pawl to inoperative position.

3. A device of the character described, comprising a nut having two registering perforations therein, a pawl, the body portion of which is received within one of said perforations, a stem upon said pawl received within the other of said perforations, means coöperating with the stem adapted to force the pawl to inoperative position, a spring coöperating with the body portion and tending to force the pawl to operating position, a tooth carried upon the body portion of the pawl, the perforation which receives said body portion being substantially the same diameter as said pawl at the point where it is toothed and being slightly greater in diameter than the remainder of the body portion of the pawl, and the perforation which receives said stem being slightly greater in diameter than said stem.

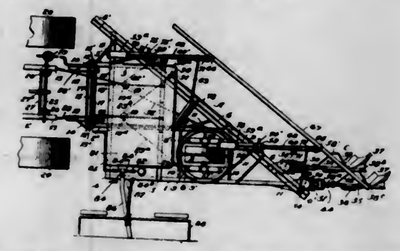
4. The combination with a nut and its screw, of a toothed pawl mounted within the nut for movement therein tangentially of the screw and toward and from the same, resilient means pressing the pawl in one direction, a stem on the pawl, and a device adjustably mounted in the nut and engaging the stem to limit movement of the pawl in said one direction, said stem having its axis eccentric to that of the pawl.

1,209,896. FIRE-POT. WILLIAM N. SOPHER, Beatrice, Nebr. Filed Mar. 7, 1916. Serial No. 82,664. (Cl. 110—3.5.)



In a device of the class described, a fire pot having an opening in one end, ears arranged to project from the outer face of said end adjacent said opening, the said ears being provided with bearings, a rocker bar mounted in said bearings, a head and detent on said rocker bar for covering said opening when said bar is rocked in one direction, a hopper provided in its forward edges with slots for engagement over said rocker bar adjacent the ends of said head, and the bottom portion of said hopper being curved downwardly and forwardly to communicate with the lowermost wall of said opening, substantially as described.

1,209,897. STEAM-PLOW. WILLIAM N. SPRINGER, Peoria, Ill., assignor, by mesne assignments, to Avery Company, a Corporation of Illinois. Filed Mar. 8, 1906. Serial No. 304,855. (Cl. 97—67.)



1. The combination with a tractor of a rigid plow frame comprising a beam disposed obliquely to the lines of travel, a series of plows connected to the beam, pivotal connections between the tractor and the front of the plow frame adapted to support the front side of said frame, and a single supporting wheel for said frame disposed approximately midway between transverse vertical planes through the front and rear ends of the said frame beam.

2. The combination with a tractor, of a rigid plow frame comprising a beam disposed obliquely to the lines of travel, a series of plows connected to the said beam, pivotal connections between the tractor and the front of the plow frame adapted to support the front side of said frame and cause it to swing in unison with the tractor when the course of the latter is changed, and a single supporting wheel for the frame disposed approximately midway between transverse vertical planes through the front and rear ends of the said frame beam and mounted to swing about an upright axis.

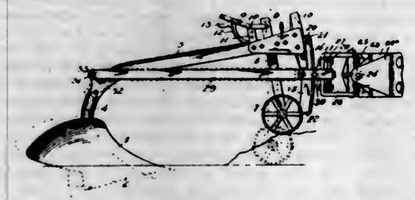
3. The combination with a tractor, of a rigid plow frame comprising a beam disposed obliquely to the lines of travel, a series of plows each having a universal connection with said frame beam, pivotal connections between the tractor and the front of the plow frame adapted to support the front side of said frame and cause it to swing in unison with the tractor when the course of the latter is changed, and a single supporting wheel for the frame disposed approximately midway between transverse vertical planes through the front and rear ends of the said frame beam and mounted to swing about an upright axis.

4. The combination with a tractor, of a rigid plow frame comprising a beam disposed obliquely to the lines of travel, laterally extended two point draft connections between the tractor and frame adapted to cause the frame to swing in unison with the tractor when the course of the latter is changed, means comprising a swiveling wheel for supporting the rear part of the frame, and a series of plows each having a universal connection with the aforesaid beam of the plow frame which permits it to freely swing both vertically in relation to the plow frame and laterally around a single vertical pivot which is fixed relatively to the frame and said connection holding the beam against angular movement about a longitudinal axis.

5. The combination with a tractor, of a rigid plow frame suitably supported from the ground and comprising a beam disposed obliquely to the lines of travel, laterally extended two point draft connections between the tractor and the frame adapted to cause the frame to swing in unison with the tractor when the course of the latter is changed, and a series of plows each having a universal connection with the aforesaid beam of the plow frame which permits it to freely swing both vertically in relation to the plow frame and laterally around a single vertical pivot which is fixed relatively to the frame and said connection holding the beam against angular movement about a longitudinal axis.

[Claims 6 and 7 not printed in the Gazette.]

1,209,898. PLOW. WILLIAM N. SPRINGER, Peoria, Ill., assignor, by mesne assignments, to Avery Company, a Corporation of Illinois. Filed Aug. 9, 1907, Serial No. 387,896. Renewed May 16, 1916. Serial No. 97,961. (Cl. 97—69.)



1. In a gang plow, the combination of a main frame, a draft bar pivoted to the main frame with freedom to swing vertically about the pivotal connection, a plow comprising a body part and a beam, a ground abutting device mounted on the beam in front of the plow body, and a pivotal connection between the draft bar and plow beam at a point to the rear of the ground abutting device, the said pivotal connection permitting the plow body and beam to swing in longitudinal vertical planes relatively to the draft bar under the control of the said ground abutting device.

2. In a gang plow, the combination of a main frame, a draft bar pivoted to the main frame with freedom to swing vertically about the pivotal connection, a plow comprising a body part and a beam, a ground abutting device mounted on the beam in front of the plow body, means for adjusting the ground abutting device up and down relatively to the plow beam, and a pivotal connection between the draft bar and the plow beam at a point to the rear of the ground abutting device, said pivotal connection permitting the plow body and beam to swing in vertical planes relative to the draft bar.

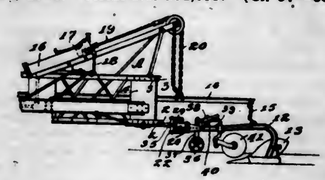
3. In a gang plow, the combination of a main frame, a draft bar pivotally connected to the main frame with freedom to swing in longitudinal vertical planes and horizontal planes, a plow comprising a body part and a beam, a ground abutting device mounted on the beam in front of the plow body, and a pivotal connection between the draft bar and the plow beam at a point to the rear of the ground abutting device, the said pivotal connection permitting the plow body and the beam to swing in longitudinal vertical planes relative to the draft bar.

4. In a gang plow, the combination of a main frame, a draft bar pivoted to the main frame with freedom to swing vertically about the pivotal connection, a plow comprising a body part and a beam, a ground abutting device mounted on the beam in front of the plow body, a pivotal connection between the draft bar and the plow beam at a point to the rear of the ground abutting device, the said pivotal connection permitting the plow body and the beam to swing in vertical planes relative to the draft bar, and means permitting adjustment of the draft bar about a longitudinal axis to effect winging of the plow.

5. In a gang plow, the combination of a main frame, a draft bar pivotally connected to the main frame with freedom to swing in longitudinal vertical planes and longitudinal horizontal planes, a plow comprising a body part and a beam, a ground abutting device mounted on the beam in front of the plow body, a pivotal connection between the draft bar and the plow beam at a point to the rear of the ground abutting device, the said pivotal connection permitting the plow body and the beam to swing in longitudinal vertical planes relative to the draft bar, and means permitting adjustment of the draft bar about a longitudinal axis to effect winging of the plow.

[Claims 6 to 9 not printed in the Gazette.]

1,209,899. GANG-PLOW. WILLIAM N. SPRINGER, South Bend, Ind., assignor to Avery Company, Peoria, Ill., a Corporation of Illinois. Original application filed Mar. 8, 1906, Serial No. 304,855. Divided and this application filed Dec. 2, 1913, Serial No. 804,213. Renewed June 16, 1916. Serial No. 104,099. (Cl. 97—69.)



1. The combination in a gang plow, of a main draft frame, a series of plowing units each connected to the draft frame for movement laterally with respect to the frame and for movement vertically in fixed relationship to a transverse axis normally fixed in relation to the ground, and spacing devices carried solely by the plowing units independently of the frame for normally holding the units at fixed transverse distances from each other, the said plowing units as they move vertically serving to hold the spacing devices against transverse angular movement tending to decrease their effective widths.

2. The combination in a gang plow, of a main draft frame, a series of plowing units, a series of universal couplings between the draft frame and the several plowing units respectively, each coupling having a vertical pivotal axis about which the corresponding unit can move laterally and a transverse pivotal axis about which the corresponding unit can move vertically, and spacing devices carried solely by the plowing units independently of the frame for normally holding the units at fixed transverse distances from each other, the said plowing units as they move vertically serving to hold the spacing devices against transverse angular movement tending to decrease their effective widths.

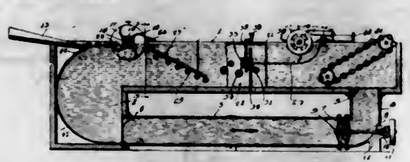
3. The combination in a gang plow, of a main draft frame, a series of plowing units each connected to the draft frame for movement laterally with respect to the frame and for movement vertically in fixed relationship to a transverse axis normally fixed in relation to the ground, and spacing devices carried solely by the plowing units independently of the frame for normally limiting the approach of any beam to the next and adapted to permit its lateral separation therefrom.

4. The combination in a gang plow, of a main draft frame, a series of plowing units each connected to the draft frame for movement laterally about a vertical axis and for movement vertically in fixed relationship to an axis normally fixed in relation to the ground, and spacing devices each carried by one of the plowing units and normally engaging the next adjacent unit but free to move away therefrom.

5. The combination in a gang plow, of a main draft frame, a series of plowing units each connected to the draft frame for movement laterally with respect to the frame and for movement vertically in fixed relationship to a transverse axis normally fixed in relation to the ground, spacing devices carried solely by the plowing units independently of the frame for normally holding the units at fixed transverse distances from each other, the said plowing units as they move vertically serving to hold the spacing devices against transverse angular movement tending to decrease their effective widths, and means for permitting individual adjustment of the several plowing units angularly about longitudinal axes and adapted to lock them after adjustment against such angular movement.

[Claims 6 to 9 not printed in the Gazette.]

1,209,900. FRUIT-SEPARATOR. FRED STEBLER and FRANK F. CHASE, Riverside, Cal.; said Chase assignor to said Stebler. Filed Dec. 21, 1915. Serial No. 68,004. (Cl. 130—32.)



1. A fruit separator comprising a tank containing a liquid, means to create a circulation of the liquid, a submerged separating member mounted within the tank, means to hold fruit submerged and to release fruit from submergence at a point below and in advance of the separating member.

2. In a fruit separator, a tank containing a liquid, means to create a circulation of the liquid in one direction, a separating member mounted within the tank, and means to release fruit from a given point of submergence below and in advance of the separating member.

3. A fruit separator comprising a tank having a liquid therein, means to create a circulation of the liquid in one direction, separating means within the tank, means to drop the fruit from a predetermined elevation into the liquid in advance of the separating means, and means between the dropping means and separating means for directing the fruit downwardly after it is dropped and releasing it from submergence at a point below the separating means.

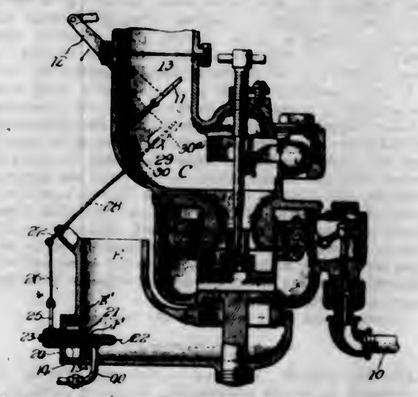
4. In a fruit separator, a tank containing a liquid, means to circulate the liquid, a submerged separating member, means to drop the fruit into the liquid, and means to hold the fruit submerged and release it at a point of submergence in advance of the separating member.

5. A fruit separator comprising a tank containing a liquid, means to circulate the liquid in the tank, a submerged separating member, means to vertically adjust said separating member, and means to submerge the fruit and release it from submrgence at a point below and in advance of the separating member.

[Claims 6 to 33 not printed in the Gazette.]

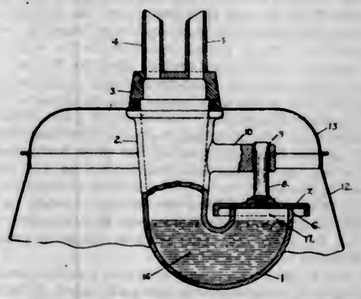
1,209,901. AIR, AND WATER-ADMISSION VALVE. CHESTER N. STEVENS, Kenilworth, Ill. Filed Jan. 2, 1915. Serial No. 228. (Cl. 261—49.)

1. In an internal combustion engine, a mixing chamber, an air admission element to said mixing chamber, an outlet from said chamber, a throttle valve in said outlet, means for actuating said throttle valve, a tubular extension on said air admission element, a nozzle centrally located in said extension, said nozzle being supported in said extension by a series of arms affording inlets to said extension, a valve in said nozzle, there being a chamber in said nozzle, a source of water connected to said chamber, a rotatable disk in front of said tubular extension, said disks having openings registering with the inlets to said extension, said disk being connected to said valve, and means for connecting said disk to said throttle valve.



2. In an internal combustion engine, a mixing chamber, an air admission tube on said mixing chamber, an outlet from said chamber, a throttle valve in said outlet, means for actuating said throttle valve, a tubular side extension on said air admission tube, a nozzle centrally located in said extension, said nozzle being supported in said extension by a series of arms affording inlets to said extension, a valve in said nozzle, there being a chamber in said nozzle, a source of water connected to said chamber, a rotatable disk in front of said tubular extension, said disk having openings registering with the inlets to said extension, said disk being connected to said valve, and means for connecting said disk to said throttle valve, the connection between these valves being such that the throttle valve will be partly opened or closed before the valve in the nozzle and the disk on the extension will begin to open and close.

1,209,902. MILKING MACHINERY. HECTOR STEWART, Galt, Ontario, Canada. Filed Mar. 24, 1916. Serial No. 86,530. (Cl. 31—98.)



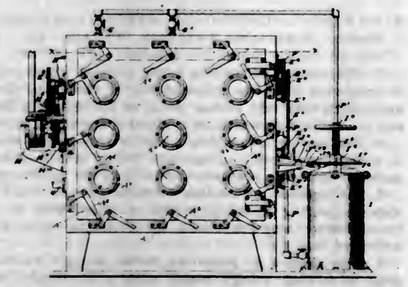
1. The combination in a milking machine of a valve chamber, having one vertically disposed chamber communicating with another vertically disposed chamber of less height, the upper end of the longer chamber being closed and provided with a perpendicular air exhaust and milk nipples with openings entering into the milk chamber and said longer chamber having a horizontal arm connected thereto and provided with a vertical bearing; the shorter chamber being open at the top, a cap engaging the open end of the shorter chamber and being provided with a perpendicular guide arm, the upper end of which being slidable in the said bearing, the rising and falling of said cap being controlled by gravity by the outflow of milk from the milk chamber, and the forces of air in the milk chamber.

2. A milking machine valve chamber, comprising a vertically disposed chamber extended at its lower extremity into an upward extending chamber of less height, a valveless air exhaust connection entering the milk chamber, the shorter chamber being open at its top, a self-closing valve for the said opening to prevent the entrance of air to the milk chamber, and means whereby milk may be admitted to the milk chamber from the cow, whereby a trapped quantity of milk and an air space between the said valve and milk is maintained in the milk chamber and the longer chambr is rendered air-tight.

3. In a milking machine, a U-shaped valve chamber having one long chamber and one short chamber, connected at their lower extremities by a U-shaped chamber, a removable top so adapted as to be put into air-tight connections with the long chamber, opposite perpendicular nipples, with open air and milk passages extending outward from the said top, said short chamber having a discharge opening, a gravity cap for said opening for rendering the valve chamber air-tight, a perpendicular guide arm for said cap, a horizontal arm extending from the long chamber through which the guide arm has vertical movements.

4. In a milking machine, a valve chamber comprising a long milk chamber of U-shaped formation so designed as to form a trap and closed at one end, and having an outlet at the other end, a gravity cap for the outlet of said chamber, whereby a trapped quantity of milk, and an air space between the cap and milk is maintained in the milk chamber, and the valve chamber is rendered air-tight.

1,209,903. MACHINE FOR CONSTRUCTING LAMINATED-COHESIVE-INTERWOUND BANDS HAVING VARYING LIMITS OF ELASTICITY. LAWRENCE A. SUMMS, East Cleveland, Ohio. Substitute for application Serial No. 725,100, filed Oct. 10, 1912. This application filed Oct. 7, 1914. Serial No. 865,535. (Cl. 28—21.)



1. In a machine for the manufacture of an interwound fabric tube composed of fibrous elements and for flattening the same to form a band, the combination with a closed vacuum chamber, of a series of concentrically arranged reels therein, spools spaced on said reels, a central tubular mandrel or forming tube about which said reels are revoluble, alternate reels revolving in opposite directions, an elongated guide roller for each fibrous element as it is fed from its respective spool, flanged guide rolls and a guiding finger for each fibrous element, automatically acting means for pulling the completed band off from the mandrel, said mandrel having a tapered portion and cylindrical outer extremity of smaller diameter, means for injecting fluid rubber into the tubular fabric, means for compressing the tubular fabric to form a band, and means for coating both sides of the compressed band with liquid rubber or other adhesive material.

2. In combination in an automatically acting machine for the manufacture of a flattened tubular band composed of flexible fabric elements, the combination with a stationary tubular mandrel having a preferably tapered extremity, of means for winding said fabric elements on said mandrel, one series thereof in one direction and another series in an opposite direction, means for pulling said tubular fabric from said mandrel and for flattening the same, means for injecting liquid rubber through said tubular mandrel into said tubular fabric, means for compressing and flattening said fabric to incorporate the liquid rubber therein, means for coating said flattened band on both sides with liquid rubber, a vacuum chamber inclosing said mandrel, and winding, pulling and compressing devices for said band.

3. In combination, in an automatically acting machine for the manufacture of a flattened tubular band composed of laminated-cohesive-interwound flexible fabric elements, an inclosing vacuum chamber, a tubular mandrel, a series of co-axially arranged reels and spaced spools thereon, said reels rotatable about said mandrel, alternate reels moving in opposite directions, means for injecting liquid rubber into the interior of said tubular band, means for flattening said band, means for operating said reels, means for pulling said band at relative predetermined rates of speed, and means for coating the exterior surfaces of the band.

4. In combination, in an automatically operating machine for the manufacture of a flattened tubular band composed of laminated-cohesive-interwound flexible fabric elements, a vacuum chamber, a series of concentrical reels and spools spaced thereon inclosed in said chamber, a frame on which said reels are rotatably mounted, a central tubular mandrel or forming tube, said mandrel having a tapered portion, the said reels arranged to wind said flexible band elements upon the larger diameter of said mandrel, pulling and compressing devices for the band, said tubular mandrel adapted to convey liquid rubber to the interior of said tubular band, and rollers on which said reels are mounted, said rollers mounted upon said frame.

5. In an automatic machine for the purpose described, a frame, rollers mounted on said frame, a series of coaxially arranged reels mounted on said rollers, spools on said reels, means for revolving alternate reels in opposite directions on said rollers, eccentric spindles for said rollers adjustable in said frame, a stationary central tubular mandrel about which said reels revolve, guide and compression rolls adapted to receive the tubular band as it passes from the mandrel, annular ribbed pulling drums about which said band is passed, pressure rollers adapted to flatten the band as it passes about said pulling drums, said tubular mandrel adapted to inject liquid rubber into said tubular band as it passes from said mandrel, and means for applying rubber to both sides of the flattened band.

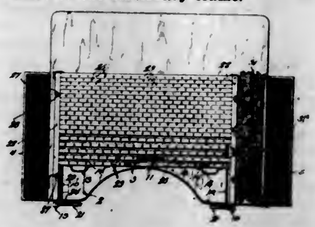
[Claims 6 to 27 not printed in the Gazette.]

1,209,904. MACHINE FOR MAKING ORNAMENTAL LININGS FOR RECEPTACLES. WARREN E. SWARTZ, Milwaukee, Wis., assignor to Milwaukee Casket Company, Milwaukee, Wis. Filed June 25, 1915. Serial No. 36,208. (Cl. 223—52.)

1. A machine of the character described comprising a support, a stationary lower frame mounted thereon and provided with transversely movable slats having flexible connections, an upper frame having complementary slats transversely movable thereon, sleeves carried by the slats, pins carried by the lower slats engageable with the sleeves to cause the slats of the upper and lower frames to move in unison, and means for vertically moving the upper frame relatively to the lower frame.

2. A machine of the character described comprising a stationary and a vertically movable frame, each frame

including transversely movable slats, means for flexibly connecting the slats of one of the frames, guide sleeves carried by the slats of one of said frames, pins carried by the slats of the other frame and telescoping with said sleeves, and means for raising and lowering the movable frame relative to the stationary frame.



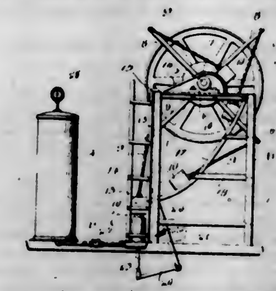
3. A machine of the character described comprising a support, a stationary frame mounted thereon, said frame including transversely movable slats provided with pins, means for connecting said slats to permit the slats to have a limited relative movement, an upper movable frame including transversely movable slats provided with means that are engaged by the pins of the lower slats to cause the upper and lower slats to have transverse movement in unison, and means carried by the support for causing the upper frame to have vertical movement relative to the lower frame.

4. A machine of the character described comprising a support having a stationary frame seated thereon, an upper frame movable vertically relative to the lower frame, the frames being provided with transversely movable pin carrier slats and sleeve carrier slats, respectively, means for connecting the pin carrier slats to permit them to have a limited relative movement, sleeves carried by the sleeve carrier slats, pins carried by the pin carrier slats for engaging the sleeves to cause the two sets of carrier slats to move in unison, and means for vertically moving the upper frame relative to the lower frame.

5. A machine for forming ornamental linings for receptacles comprising a support provided with mechanism having projections for producing staggered projecting portions in the lining, and mutually relatively independent weight-rods disposed transversely of said projections for holding the depressed portions of the lining between the projecting portions while a backing is being applied to said projecting portions, the weight-rods being wholly supported by the lining to assume by gravity a central position between its high points.

[Claim 6 not printed in the Gazette.]

1,209,905. AIR-COMPRESSOR. WARRINGTON W. SWETLAND, Los Angeles, Cal. Filed July 19, 1915. Serial No. 40,541. (Cl. 230—27.)



1. An air compressor comprising a compressing cylinder, a piston reciprocally mounted in the cylinder, means to intermittently strike said piston and move it downwardly in the cylinder, said cylinder having an air intake and an air outlet therein, and means actuated by the last named means to move the piston to up position after it has been struck.

2. An air compressor comprising a compressing cylinder, a piston in said cylinder, a rotary weight carrying member, weights carried by said member, means to guide said weights during the rotation of the weight carrying member to cause the weights to intermittently strike the piston and move it downwardly in the cylinder, and means actuated by the weights to move the piston into up position after it is struck by each weight.

3. An air compressor comprising an upright compressing cylinder having an air inlet, a storage tank connected with the cylinder, a piston in said cylinder, a supporting frame, a shaft rotatably mounted in the frame, a plurality of radially extending weight-carrying arms secured to the shaft, flexible members secured to the free ends of the arms, weights carried by said flexible members and adapted to intermittently engage the piston and force it downwardly in the cylinder, and guide means carried by the frame to guide said weights into position to engage the piston.

4. An air compressor comprising an upright compressing cylinder having an air inlet, a storage tank connected with the cylinder, a piston in said cylinder, a supporting frame, a shaft rotatably mounted in the frame, a plurality of radially extending weight-carrying arms secured to the shaft, flexible members secured to the free ends of the arms, weights carried by said flexible members and adapted to intermittently engage the piston and force it downwardly in the cylinder, guide means carried by the frame to guide said weights into position to engage the piston, and means actuated by said weights to move the piston into up position after it has been engaged by each weight.

5. An air compressor comprising an upright cylinder, having a valve seat in the lower end thereof, a tank connected with the cylinder, a piston reciprocally mounted in the cylinder, a support, a bell crank pivoted on the support, a valve mounted in the cylinder and having a stem extending through the seat and pivoted to the bell crank, a rotary weight-carrying member mounted on the support, weights carried by said member and adapted to intermittently engage the piston and move it downwardly in the cylinder, said bell crank having one end in the path of said weights, and adapted to be moved when engaged by the weights to force the stem upwardly in the cylinder, said valve adapted to engage and push the piston into up position when the stem is pushed up in the cylinder.

1,209,906. METHOD OF MAKING GOLD INLAYS. FREDUS ALEXANDER THURSTON, Chicago, Ill. Filed July 26, 1911. Serial No. 640,595. (Cl. 18—48.)

1. The method of making metal articles which consists in preparing a porous metal sponge of the shape desired, and fusing into said sponge metal to fill the pores thereof and to enable it to retain its original shape under pressure.

2. The method of making metal articles which consists in preparing a metal sponge and fusing into said sponge metal of the same character but of a lower melting point.

3. The method of making metallic sponge which consists in mixing metal particles or fibers with a semiliquid binder and subjecting the resulting mass to the action of heat.

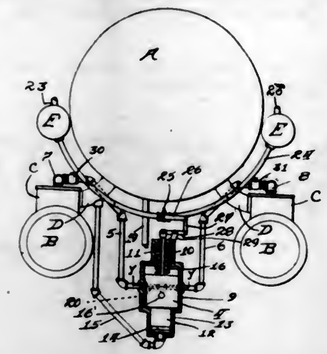
4. The method of preparing metal sponge which consists in mixing spongy metal with a semiliquid binder and subjecting the resulting mass to the action of heat.

5. The method of making a metallic sponge which consists in preparing a semiliquid binder by dissolving resin in cocoanut oil, adding said binder to spongy metal and subjecting the resulting mass to the action of heat.

[Claims 6 to 14 not printed in the Gazette.]

1,209,907. VALVE MECHANISM FOR LOCOMOTIVES. WILLIAM J. TREMAIN, Minneapolis, Minn. Filed Jan. 19, 1916. Serial No. 73,046. (Cl. 121—14.)

1. In combination with a locomotive and its boiler, main cylinder and a duct for the admission of steam from the boiler to the main cylinder, an auxiliary cylinder having an exhaust through which spent steam and lubricating oil are expended, means for conducting said waste steam and oil into said main cylinder for lubricating the same, valve mechanism for controlling the supply of said expended lubricating oil and steam, and means actuated by the admission of steam from the boiler to the main cylinder for operating said valve mechanism to automatically govern the admission of the lubricating supply to said main cylinder.



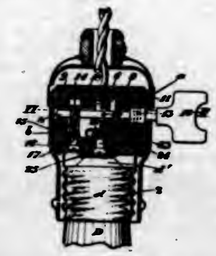
2. In combination with a main cylinder and its piston and valve chest, an auxiliary cylinder having an exhaust through which spent steam and lubricating oil therefrom are expended, means for conducting said waste steam and oil into one of said ports for lubricating the same, valve mechanism for controlling said supply of said expended steam and oil, and means for automatically operating said valve mechanism to shut off said lubricating supply when said main cylinder is operating under steam pressure.

3. In combination with a locomotive and its main steam cylinders, valve chambers for said cylinders having steam supply ducts and air pump operating cylinder having an exhaust outlet for spent operating medium and waste lubricating oil, a passage leading from said exhaust outlet into said valve chambers for conducting said waste medium and oil for lubricating purposes into said valve chambers, a steam valve interposed in said duct and having operative connection with said steam supply ducts to automatically shift said valve and close the supply of waste medium and oil into said chests when the main cylinders are operating under steam pressure and permitting the valve to open said duct and admit said medium and oil into said chests when the supply of live steam is cut off from said chests and the locomotive is drifting.

4. In combination with a locomotive and its main steam cylinders, valve chambers for said cylinders having steam supply ducts, an air pump having an operating cylinder provided with an exhaust outlet for spent operating medium and waste lubricating oil, and an air supply tank maintained under a substantially steady air pressure by said air pump, a passage leading from said exhaust outlet into said valve chambers for conducting said waste medium and oil for lubricating purposes into said valve chambers, a steam valve interposed in said passage adapted in one position to connect said exhaust outlet with said valve chambers and in another position to close said connection and complete a passage from said exhaust outlet to the outer atmosphere, said valve being connected with live steam supplied to said main cylinders and adapted to be urged into a position admitting said waste oil into said chests, a spring against which said valve is urged under steam pressure and adapted to return the valve, and an escape valve arranged when open to permit the escape of air from said tank, so that the air pump cylinder is continuously operated to supply waste oil to said chests when the locomotive is at rest or drifting, said waste valve being operatively connected with said main valve to operate simultaneously therewith.

5. In combination with a locomotive and its boiler, a main cylinder and a duct for the admission of steam from the boiler to the main cylinder, an auxiliary cylinder having an exhaust through which spent steam and lubricating oil are expended, means for conducting said waste steam and oil into said main cylinder for lubricating the same, valve mechanism for controlling the supply of said expended lubricating oil and steam, and means actuated by the cutting off of the steam supply from the boiler to the main cylinder for operating said valve mechanism to automatically govern the admission of the lubricating supply to said main cylinder.

1,209,908. LAMP-SOCKET. CLARENCE A. VETTER, Pittsburgh, Pa. Filed Dec. 26, 1913. Serial No. 808,664. (Cl. 173—351.)



1. In a lamp socket, the combination of a two-part insulating base, one part thereof having external lamp connecting terminals and each part having a circuit wire terminal, centrally arranged conducting springs, a rotatable elongated hexagonal block therebetween for making and breaking the circuit to one of the lamp terminals, an actuating stem having a lost motion pin-and-shoulder connection with said block, a terminal finger key having a lost-motion connection to the stem, and a spring actuated device for accelerating and arresting the rotation of said stem, substantially as set forth.

2. In a lamp socket, the combination of a two-part insulating base, one part thereof having external lamp connecting terminals and each part having a circuit wire terminal, centrally arranged conducting springs, a rotatable elongated hexagonal block therebetween for making and breaking the circuit to one of the lamp terminals, an actuating stem having a lost motion pin-and-shoulder connection with said block, an actuating finger terminal having a lost motion connection with the key, and a spring actuated device for accelerating and arresting the rotation of said stem, substantially as set forth.

1,209,909. LAMP-SOCKET. CLARENCE A. VETTER, Pittsburgh, Pa. Filed Dec. 26, 1913. Serial No. 808,665. (Cl. 173—354.)

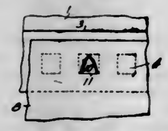


1. A lamp socket consisting of a two-part insulating base having external contacts for a lamp and internal circuit terminals, an actuating stem, a hexagonal conductor block loosely mounted on the stem and adapted to engage

said terminals, a ratchet wheel fixed on the stem, a pawl piece loosely mounted on the stem and adapted to be engaged by the ratchet wheel and operatively connected to the conductor block, a spring coiled about the stem having one end fixed to a rigid member and the other end attached to and pressing against the pawl piece, whereby to force the ratchet wheel and pawl piece into engagement and to return the pawl piece to normal position after each operation, and means externally operative to turn the pawl piece.

2. A lamp socket consisting of a two-part insulating base having external lamp contacts and internal spring contacts, a hexagonal conductor block adapted to engage said spring contacts having a central opening and transverse shoulders, an actuating stem extending through the conductor block, a pin through the stem adapted to engage the shoulders of the conductor block on partial rotation of the stem, a ratchet wheel fixed on the stem, a pawl piece loosely mounted on the stem and adapted to engage the ratchet wheel, a spring coiled about the stem having one end fixed to a rigid member and the other end attached to and pressing against the pawl piece, whereby to hold the pawl piece and ratchet wheel in engagement and to return the pawl piece to normal position after each operation, and means externally operative to actuate the pawl piece, whereby the conductor block is successively thrown into and out of engagement with the spring terminals.

1,209,910. LAMP-SOCKET. CLARENCE A. VETTER, Pittsburgh, Pa. Filed Jan. 16, 1915. Serial No. 2,569. (Cl. 173—362.)



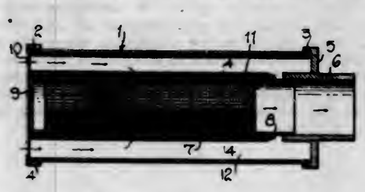
1. An electric lamp socket having a cap and shell, one thereof being provided with a plurality of openings and the other with a plurality of coöperating projections having abrupt rearward locking edges and inclined portions, the cap being elongated to allow insertion of the shell therein beyond the locking position, whereby to disengage the projections from the openings.

2. An electric lamp socket having a cap and shell, one thereof being provided with a plurality of openings and the other with a plurality of coöperating projections having abrupt rearward locking edges and inclined portions, one of the members being elongated to allow insertion of the other member therein beyond the locking position, whereby to disengage the projections from the openings.

3. An electric lamp socket having a cap and shell, one thereof being provided with a plurality of openings and beyond them with an abutment and the other with a plurality of projections having abrupt locking edges, the distance between the edges of said projections and the end edge of the member bearing the same being less than the distance between the outer end edges of said openings and the abutment on the other member whereby said members when locked together may be disengaged by successive longitudinal and rotative movement.

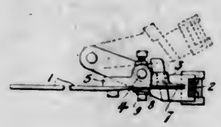
1,209,911. AIR-FILTER FOR CARBURETERS. FRED WAGNER, Miami, Okla., assignor of one-fourth to John Ritchey and one-fourth to Clyde Wagner, Joplin, Mo. Filed Oct. 11, 1915. Serial No. 55,252. (Cl. 98—48.)

An air filtering device for carbureters comprising a tubular member having one end open and its opposite end provided with an eduction opening, a reticulated fabric overlying the open end of the member and detachably engaged with the member, a tubular reticulated member detachably supported within the first named member and in communication with the eduction opening, said second named member being of a diameter less than the diameter of the first named member, an imperforate cap insertible within the outer end of the second member for closing



the same, and a pervious and absorbent outer covering for the second named member.

1,209,912. GRIPPER-FED PLATEN PRINTING-MACHINE. FRED WAITE, Otley, near Leeds, England. Filed Feb. 17, 1916. Serial No. 78,867. (Cl. 101—36.)



1. In a gripper-fed platen printing machine; a feed plate formed with a thin front extension reaching approximately up to the feed gage, the front edge of such extension being serrated so as to present a series of shallow substantially V shaped projections to not only support the front edge of the fed sheet but to also allow the latter to be freely moved sidewise thereon and at the same time give a free passage for grippers when taking the sheet.

2. In a gripper-fed platen printing machine; the combination with the feed plate of a thin front extension plate reaching approximately up to the feed gage, the front edge of said extension plate being serrated so as to present a series of shallow substantially V shaped projections to not only support the front edge of the fed sheet but to also allow the latter to be freely moved sidewise thereon and at the same time give a free passage for grippers when taking the sheet.

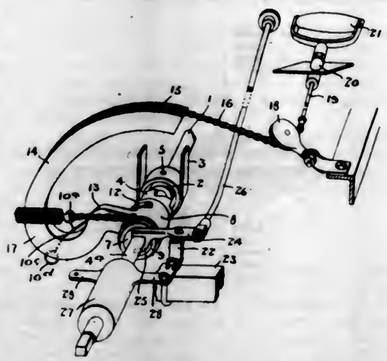
3. In a gripper-fed platen printing machine; the combination with the feed plate of a thin front extension plate removably fixed thereto and reaching approximately up to the feed gage, the front edge of said extension plate being serrated so as to present a series of shallow substantially V shaped projections to not only support the front edge of the fed sheet but also allow the latter to be freely moved sidewise thereon and at the same time give a free passage for grippers when taking the sheet.

1,209,913. STARTER FOR MOTOR-CARS. SIDNEY ALFRED WATSON, Toronto, Ontario, Canada, assignor, by mesne assignments, to Universal Appliance Manufacturing Company, Limited, Toronto, Canada. Filed Oct. 25, 1915. Serial No. 57,630. (Cl. 123—185.)

1. In a starter for motor cars, the combination with an engine shaft having a clutch member thereon, and a starter shaft having a coöperating clutch member adapted to engage the engine shaft clutch, of a sleeve surrounding the starter shaft, a cam shaped lever projecting from said sleeve and integrally connected therewith, means for holding the sleeve fixed relatively to said shaft for partial rotation therewith, means for operating the lever to rotate the shaft, and manually controlled means for disconnecting said first means and holding the latter inoperative to permit rotation of the starter shaft independently of said lever and sleeve.

2. In a starter for motor cars, the combination with an engine shaft having a clutch member thereon, and a

starter shaft having a coöperating clutch member adapted to engage the engine shaft clutch, of a sleeve surrounding said starter shaft and having an opening registering with the opening in said shaft, a pin passed through said opening to hold said sleeve fixed relatively to said shaft for partial rotation therewith, a crank arm projecting from said sleeve, means for operating the arm to rotate said shaft, a spring for retaining said pin within said openings, and manually controlled means for withdrawing and holding said pin disengaged from said shaft to permit rotation of the latter independently of said sleeve.



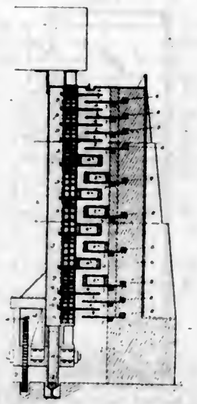
3. In a starter for motor cars, the combination with an engine shaft having a clutch member thereon, and a starter shaft having a coöperating clutch member adapted to engage the engine shaft clutch, of a sleeve surrounding the starter shaft and having an opening registering with an opening in said shaft, a pin passed through said openings to hold said sleeve fixed relatively to the shaft for partial rotation therewith, a crank arm projecting from said sleeve, means for operating the arm to rotate said shaft, a flexible element secured to said pin, guides on said arm through which said element is passed, and a manipulating member on the free end of said element for withdrawing and holding said pin disengaged from the shaft to permit rotation of the latter independently of said sleeve.

4. In a starter for motor cars, the combination with an engine shaft having a clutch member thereon, and a starter shaft having a coöperating clutch member adapted to engage the engine shaft clutch, of a sleeve surrounding said starter shaft and having an opening registering with an opening in said shaft, a pin passed through said openings to hold the sleeve fixed relatively to said shaft for partial rotation therewith, a crank arm projecting from said sleeve, means for operating the arm to rotate said shaft, a flexible element secured to said pin, and a manipulating member on the free end of said element adapted to be normally seated in a recess in said arm, and to rest against the latter when withdrawn from the recess to hold said pin disengaged from the shaft.

5. In a starter for motor cars, the combination with an engine shaft having a clutch member thereon, and a starter shaft having a coöperating clutch member adapted to engage the engine shaft clutch, of means on the starter shaft for rotating the latter, a bracket arm, a sleeve encircling the outer end of the shaft, means common to both the said arm and sleeve for fastening the same to the frame of the car, a lever fulcrumed upon said arm and engaging the starter shaft to move the latter into clutch ing engagement with said engine shaft, means for operating said lever, and means within said sleeve for moving the starter shaft outwardly away from the engine shaft in event of engine back-firing.

[Claims 6 to 8 not printed in the Gazette.]

1,209,914. MOUNTING FURNACE-HEARTHS. UTLEY WEBOR, Ardmore, Pa. Filed Apr. 13, 1915. Serial No. 21,062. (Cl. 263—22.)



1. The combination, in a furnace, of a wall having projecting hearths and cantaliver supports therefor comprising fulcrum members on the under sides of the hearths and retaining members on the upper sides of the hearths in a different vertical plane from that of said fulcrum members.

2. The combination, in an annular furnace, of the outer fixed structure, hearths projecting inwardly therefrom, and means contained in said outer structure for mounting said hearths, said means comprising fulcrum blocks on which the hearths rest and retainer blocks bearing upon the upper surfaces of the hearths and disposed outwardly beyond said fulcrum blocks.

3. The combination, in an annular furnace, of the outer fixed structure, hearths projecting inwardly therefrom, and means contained in said outer structure for mounting said hearths, said means comprising fulcrum blocks on which the hearths rest and retainer blocks bearing upon the upper surface of the hearths and disposed outwardly beyond said fulcrum blocks, said outer structure comprising an inner member in which the fulcrum blocks are contained and an outer member containing the retainer blocks.

4. The combination, in an annular furnace, of the inner rotating member having an annular wall, and hearths passing through said wall and projecting outwardly beyond the same, those portions of said hearths which project inwardly beyond the wall being provided with members which bear against the inner face of said wall.

5. An annular furnace having a rotating member provided with an annular wall carrying projecting annular hearths, said wall being composed of blocks filling the spaces between adjoining hearths.

[Claim 6 not printed in the Gazette.]

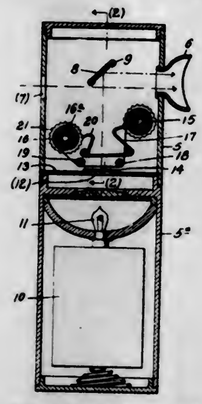
1,209,915. PYROMETER. JOSEPH W. WEITZENKORN, Pittsburgh, Pa., assignor to Gibb Instrument Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 24, 1916. Serial No. 86,505. (Cl. 88—14.)

1. In a pyrometer, a comparison color device composed of two superposed translucent bodies of which one has a fixed standard color and the other is of graduated color.

2. In an optical pyrometer a source of comparison colored light consisting of a source of white light, a fixed film of translucent orange and a movabe film of diffused black cloud of varying intensity superposed on the orange film.

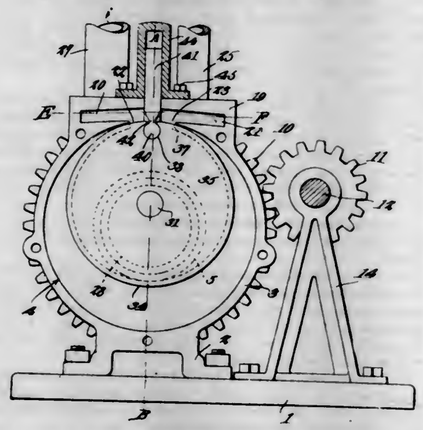
8. In an optical pyrometer, as a source of comparison colored light, comprising a lamp and two superposed

translucent films of which one is a standard color and the other a changeable cloud combining with the first to



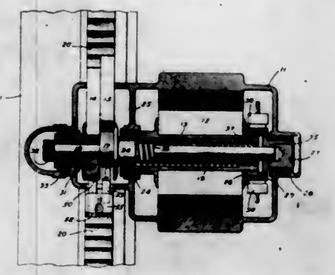
give the color of heated metal at various definite temperatures.

1,209,916. ROTARY PUMP. OLE WENSLAY, Enid, Okla., assignor of one-fifth to Benjamin F. Gilpin, one-fifth to Clarence M. Cook, one-fifth to Laurence Cook, and one-fifth to John Cook, Garber, Okla. Filed Oct. 22, 1915. Serial No. 57,808. (Cl. 103—44.)



A rotary pump including a casing having an integral head and a removable head, a concentric bearing within the casing and formed with said integral head, a cylindrical housing formed with said integral head and concentric with but spaced from the bearing, a hollow drum-like piston surrounding said housing and having an open end bearing against the integral head of the casing and a closed end bearing against and closing one end of the housing, a fixed abutment radiating from the housing and bisecting a peripheral opening in the piston, there being ports in said casing constantly in communication with the interior of the piston at opposite sides of the abutment, a slidable abutment mounted upon the fixed abutment and pivotally engaged by the piston, a shaft journaled within the bearing and terminating in the space between said bearing and the closed end of the piston, a collar secured to said projecting portion of the shaft, a cam pivotally mounted on the collar, a stud projecting from the cam and journaled within the center of the closed end of the piston, and a spring carried by the collar and engaging the cam to hold said stud eccentric with the collar, said collar, cam and spring being interposed between the inner or free end of the bearing and the closed end of the piston.

1,209,917. ENGINE-STARTER. GEORGE WESTINGHOUSE, Pittsburgh, Pa.; Henry Herman Westinghouse, Charles A. Terry, and Walter D. Uptegraff executors of said George Westinghouse, deceased. Filed Dec. 21, 1912. Serial No. 738,017. (Cl. 74—54.)



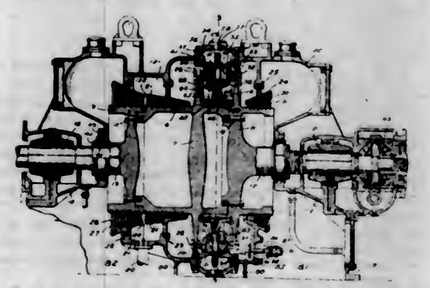
1. In combination in an engine starter, a ratchet for imparting motion to a moving part of the engine to be started, a rotary shaft carrying eccentrics, pawls actuated by said eccentrics for engaging said ratchet and imparting motion thereto, means for actuating said shaft and means for normally holding said pawls out of engagement with said ratchet.

2. In combination in an engine starter, a ratchet for imparting motion to a moving part of an engine to be started, a motor driven shaft, a pawl for imparting motion to said ratchet and eccentrics for actuating the pawl and a yielding connection between said motor driven shaft and said eccentrics.

3. In combination in an engine starter, a ratchet for imparting motion to a movable part of the engine, a pawl for imparting motion to the ratchet, a rotatable shaft for actuating said pawl, a motor having a hollow shaft into which said rotatable shaft extends and a yielding connection between said motor shaft and said rotatable shaft.

4. In an engine starter, a ratchet, a pawl for imparting motion to the ratchet, an eccentric for actuating the pawl, a motor for driving the eccentric and a shaft on which the eccentric is mounted and which projects into the hollow shaft of the motor to which it is connected.

1,209,918. MARINE TURBINE. GEORGE WESTINGHOUSE, Pittsburgh, Pa., assignor to The Westinghouse Machine Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 7, 1913. Serial No. 766.139. (Cl. 253—70.)



1. In an elastic fluid turbine, a rotor, a casing, a steam chest, a portion of which is formed in said casing, a nozzle block bolted to said casing and completing said steam chest, and a labyrinth packing one portion of which is carried by said nozzle block and interleaves with a portion carried on the rotor.

2. In an elastic fluid turbine, a rotor, a casing therefor, a valve formed so as to slide on the arc of a circle between said casing and said rotor, and rollers engaging the inner peripheral face of the valve for supporting said valve radially.

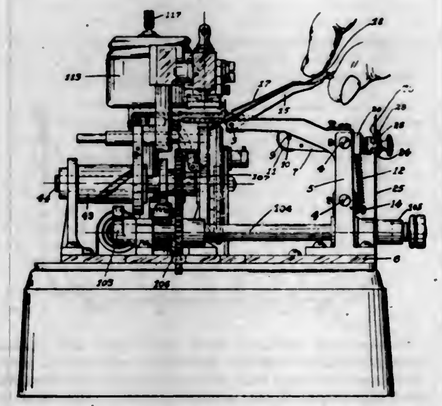
3. In an elastic fluid turbine, a rotor, a casing, a valve adapted to slide on the arc of a circle between said rotor and casing, and rollers mounted on the casing and engaging the inner and outer peripheral faces of the valve, for supporting the valve.

4. In a marine turbine having an ahead section and an astern section with a packing between said sections, a valved passage between the steam space of the astern section and the astern section exhaust, and means for closing said passage simultaneously with the admission of steam through the astern section.

5. In a marine turbine, ahead and astern sections, a labyrinth packing between said sections, and a partition for preventing the exhaust passages of the ahead and the astern sections from communicating within the turbine casing.

[Claims 6 to 18 not printed in the Gazette.]

1,209,919. STAMP-AFFIXING MACHINE. THOMAS WHALEY, Rochester, N. Y. Filed Dec. 16, 1915. Serial No. 67,204. (Cl. 216—30.)



1. A stamp affixing machine comprising a receiving member, means for holding a plurality of strips of stamps, separate guides for each strip, the guides being movable to present any one of the strips to the receiving member, means for moving the stamps one at a time to the receiving member, means for severing a stamp from the strip while the latter is on the receiving member, and an affixing device movable to carry the stamps from the receiving member to the envelops.

2. A stamp affixing machine comprising a receiving member, means for holding a plurality of strips of stamps, separate guides for each strip, the guides being movable to present any one of the strips to the receiving member, means for moving the stamps one at a time to the receiving member, means for severing a stamp from the strip while the latter is on the receiving member, an affixing device movable to carry the stamps from the receiving member to the envelops, and a moistening device acting on the stamp while the latter is being carried by the affixing device to the envelop.

3. A stamp affixing machine comprising an affixing device, means for holding a plurality of strips of stamps, separate guides for each strip, the guides being movable relatively to the affixing device to present any one of the strips to the affixing device, and a pair of clamping jaws for engaging opposite faces of the strip while the latter is on the guide to move the stamps one at a time to the affixing device.
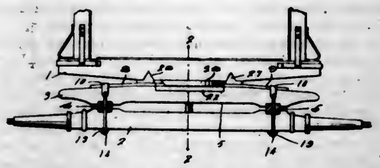
4. In a stamp affixing machine, a receiving member, means for holding a roll of stamps, a stamp guide leading from said roll to the receiving member, a reciprocating carrier movable to draw the stamps along the guide to the receiving member, including two jaws arranged to clamp the end stamp of the strip between them and an affixing device movable to carry a stamp from the receiving member to the envelop.

5. In a stamp affixing machine, an affixing device, a roll holder for the stamps, a guide for directing said stamps from the roll holder to the affixing device, and mounted to turn about an axis situated at right angles to the line of feed, and means for feeding the stamps along the guide to the affixing device.

[Claims 6 to 29 not printed in the Gazette.]

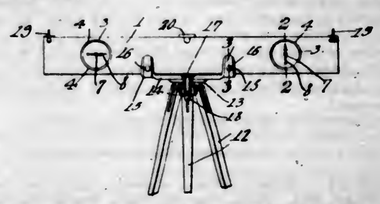
1,209,920. [WITHDRAWN.]

1,209,921. BOLSTER-IRON FOR WAGONS. JAMES R. WILLIAMS, Scipio, Okla. Filed July 3, 1915. Serial No. 37,850. (Cl. 21—24.)



The combination with a bolster and the sand-board of a wagon, of a plate mounted on the upper side of the sand board, a second and circular plate carried by the under side of the bolster and overlying the first-mentioned plate and provided with recesses, a bar extending diametrically of the second mentioned plate, lateral extensions carried by the bar and extending into the recesses in the second-mentioned plate, the said bar having an opening therein located between the extensions, means depending from the second-mentioned plate and engaging over the edge of the first-mentioned plate, and attaching arms carried by the second-mentioned plate.

1,209,922. LEVEL. THOMAS M. WOODELL, Glenwood, N. C., assignor of one-half to Charles W. Jennings, Greensboro, N. C. Filed Jan. 3, 1916. Serial No. 69,949. (Cl. 33—72.)



A level embodying a tripod having a head and legs pivoted thereto, an elongated turret having U-shaped socket members at its ends, said turret seating between its ends upon said head, a vertical bolt extending through said head and turret between the ends of the turret for mounting it for rotation, the upper end of the bolt having a countersunk head flush with said turret, a nut threaded upon the lower end of the bolt and seating upwardly against said head between the tripod legs, an elongated horizontal stock having its lower edge fitted adjustably in

said socket members, set screws carried by said socket members for clamping the stock therein, and means carried by the stock for indicating the position thereof.

1,209,923. AEROPLANE. CHARLES ARTHUR WRAGG, Melbourne, Victoria, Australia. Filed Oct. 21, 1915. Serial No. 57,062. (Cl. 244—29.)



1. In aeroplanes having two or more planes arranged one bhind the other with a space between, means whereby the space between any two planes may be adjustably inclosed to provide an increased surface area, in combination with means whereby the rearward or trailing plane or planes may be adjusted in angle of incidence relative to the forward or leading plane or planes.

2. In aeroplanes having two or more planes arranged one behind the other with a space between, means whereby the space between any two planes may be adjustably inclosed to provide an increased surface area in combination with means whereby the surface area of the rearward or trailing plane can be adjustably increased, in combination with means whereby the rearward or trailing plane or planes may be adjusted in angle of incidence relative to the forward or leading plane or planes.

3. In aeroplanes two main planes arranged one behind the other the leading edge of one being in line with the trailing edge of the other with a space between, the forward or leading plane having a sliding shutter adapted to inclose the said space and thereby increase the surface area, the rearward or trailing plane being hinged or tilting, with means for adjusting and regulating the angle of incidence thereof in conjunction with the movement of the said shutter, substantially as described.

4. In aeroplanes two main planes arranged one behind the other the leading edge of one being in line with the trailing edge of the other with a space between, the forward or leading plane having a sliding shutter adapted to inclose the said space and thereby increase the surface area, the rearward or trailing plane having a sliding shutter whereby the surface area of the same can be adjustably increased and means for adjusting and regulating the angle of incidence of the trailing plane in conjunction and in relation to the movement of the said shutters, substantially as described.

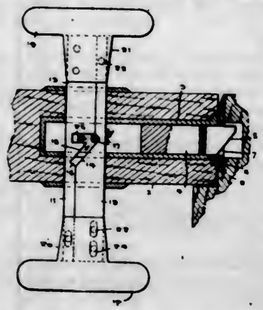
5. In aeroplanes the combination of a forward or leading plane and a rearward or trailing hinged or tilting plane and a sliding shutter between the said planes with mechanism for adjusting the angle of the rear or trailing plane and for operating the sliding shutter, comprising a vertical sliding frame or cabane connected to the trailing plane, a screw rod mounted on the machine frame and adapted to engage a nut on the sliding frame or cabane and furnished with a toothed wheel gearing with a toothed pinion mounted on a driving shaft, hinged arms hinged to the machine frame and connected to the cabane and operating draw wires attached to the shutter, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

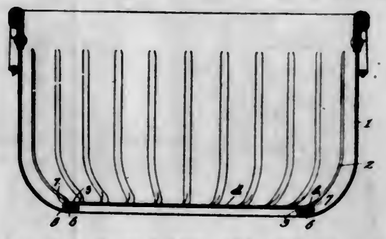
1,209,924. DOOR-LOCK. CASHUS ELWOOD ACKLEY, Trego, Wis. Filed May 16, 1916. Serial No. 97,846. (Cl. 70—42.)

1. In a lock structure, the combination with a casing, a latch slidably mounted in the casing, and a pin carried by the latch, of a bar formed in two sections, said sections adjacent their longitudinal centers having inclined shoulders spaced apart to form a channel, said channel being adapted to receive said pin, one of said sections having a channel extending in line with the travel of the latch into which said pin may move, and means engaging the ends of the bar whereby said bar may be operated.

2. In a lock structure, the combination with a casing, a latch slidably mounted therein, and a pin carried by the latch, of a bar disposed transversely through the casing, said bar having an inclined slot therein adapted to receive said pin whereby when the bar is moved endwise in one direction the latch will be retracted, said bar also having a channel in line with the travel of said latch into which said pin may move, a spring actuated pawl adapted to engage said latch and normally hold the same against endwise movement, a handle structure rigidly attached to one end of said bar and a handle structure adjustably attached to the opposite end of said bar, whereby the longitudinal movement of said bar may be regulated.



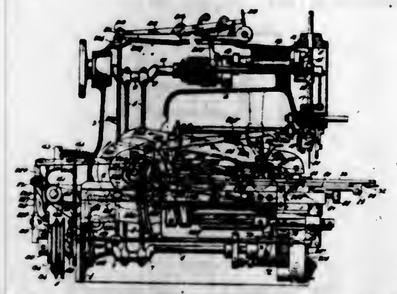
1,209,925. BOTTOM STRUCTURE FOR METALLIC RECEPTACLES. ALBERT L. ADAMS, Cedar Rapids, Iowa. Filed June 9, 1913. Serial No. 772,653. (Cl. 220—137.)



A receptacle having a sheet metal body and a sheet metal bottom, the adjacent portions of which lie in parallel planes, the lower edge of the body being inturned and provided with an upper outwardly bent portion, and the bottom having its marginal edge bent downwardly and inwardly and interlocking with said edge of the body, the inwardly bent margin of the bottom being provided with a series of incisions extending inwardly from the periphery and terminating short of the bend to provide a continuous or unbroken portion of the metal at the bend and adjacent to the continuous margin of the lower edge of the body, and cement interposed between the adjacent portions of the body and bottom, and covering that portion of the bottom provided with said incisions.

1,209,926. BUTTONHOLE CUTTING AND STITCHING MACHINE. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Sept. 6, 1912. Serial No. 718,804. (Cl. 112—4.)

1. In a buttonhole sewing machine, the combination with stitch-forming mechanism and a cutting device normally spaced apart laterally, and a work-holder, of means whereby said work-holder and cutting device are caused to assume operative relation in a position intermediate the stitch-forming mechanism and the normal position of the cutting device, and actuating means for said cutting device.



2. In a buttonhole sewing machine, the combination with stitch-forming mechanism, and a traveling cutting device normally occupying a retracted position remote from the stitch-forming mechanism, of a work-holder, means for imparting thereto feeding movements to space the stitches, means for shifting the work-holder into and out of cutting position intermediate the stitch-forming mechanism and the retracted position of the cutting device, and means for moving the cutting device into cutting position in operative relation with the work-holder.

3. In a buttonhole sewing machine, the combination with stitch-forming mechanism, of a cutting device comprising opposed cutting elements normally retracted from cutting position, a work-holder adapted to be shifted into and out of said cutting position, and means for imparting to said work-holder and both cutting elements of the cutting device traveling movements laterally toward said cutting position preparatory to each cutting action.

4. In a buttonhole sewing machine, the combination with stitch-forming mechanism including a reciprocating needle and means for interrupting the action of the same, of a cutting device movable toward and from said needle and in a direction at an angle with the same, a work-holder, and means acting while the stitch-forming mechanism is inactive and preparatory to each cutting action for imparting to said work-holder and cutting device traveling movements toward each other and subsequent return movements toward and from the needle-path.

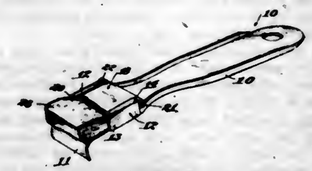
5. In a buttonhole sewing machine, the combination with stitch-forming mechanism including a reciprocating needle and means for interrupting the action of the same, of a cutting device movable toward and from said needle and in a direction at an angle with the same, a work-holder, and means acting while the stitch-forming mechanism is inactive and preparatory to each cutting action for imparting to said work-holder and cutting device traveling movements toward each other and for imparting thereto simultaneous retractive movements after each cutting action, said traveling and retractive movements being performed in directions at a substantial angle with the needle-path.

[Claims 6 to 59 not printed in the Gazette.]

1,209,927. COMBINED PAN GREASER AND SCRAPER. WALTER F. BAILEY, Los Angeles, Cal., assignor to John H. Janssen, Los Angeles, Cal. Filed Oct. 18, 1915. Serial No. 56,625. (Cl. 65—12.)

1. In a device of the character as disclosed, a handle, a blade, a pair of parallel clamp-engaging channels extending upwardly from said handle and spaced from said blade, the top members of said channels being inclined toward the front, a pair of flanges to the rear of said channels, the upper edge of said flanges being inclined in the same direction as said top members, a fibrous pad removably mounted between said channels and extending in front thereof, a clamp member slidably mounted in said channels, said clamp having pad-engaging teeth and a flange-engaging member, and means on said clamp to limit its forward movement.

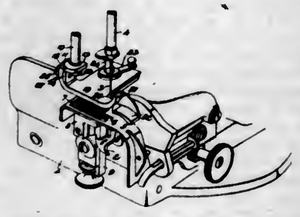
2. In a device of the character as disclosed, a handle, a blade, a pair of clamp-engaging members spaced from said blade, a fibrous pad removably mounted between said members and extending therefrom, a clamp slidably mounted in said members, means on said clamp for engaging said pad, and means for limiting the forward movement of said clamp.



3. In a device of the character disclosed, a handle bent downwardly at its forward end, a grease-spreading pad, means on said handle for detachably clamping the rear portion of said pad on the upper face of said handle so that the forward end thereof will extend substantially to the forward end of said handle and over the bent portion thereof to provide for a yielding action of the forward end of the pad.

4. In a device of the character disclosed, a handle, a pair of clamp-engaging channels at the forward part of said handle, the top members of said channels being inclined downwardly toward the forward end of the handle, a pad adapted to be placed between said channels so as to extend forwardly thereof, a clamp slidably mounted in said channels adapted to engage and clamp said pad against the handle when said clamp is moved forwardly within said channels, and means to limit the forward movement of said clamp.

1,209,928. PRESSER-FOOT FOR SEWING-MACHINES. RUDOLPH BECKER, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 20, 1915. Serial No. 3,218. (Cl. 112—13.)



1. A presser-foot for sewing machines comprising a sole-portion and a shank constructed in separate parts fitted together for tilting adjustment of the sole-portion both lengthwise and crosswise of its work-engaging face relatively to one of the component parts of the shank, and means for rigidly securing said parts together in adjusted operative position.

2. A presser-foot for sewing machines comprising a sole-portion and a shank portion constructed in separate parts formed respectively with convex and concave seats curved in two directions at right angles to each other thereby permitting universal adjustment of said sole-portion relative to said shank-portion, and means for rigidly securing said portions together in adjusted operative positions.

3. A presser-foot for sewing machines comprising a sole-portion and a shank constructed in separate parts formed respectively with convex and concave seats and adjustable both upon and crosswise of a radius of curvature of said seats, one of said parts being formed with an elongated slot disposed transversely to the work-engaging face of the sole-portion and a clamp-screw passing through said slot in one part and tapped into the other

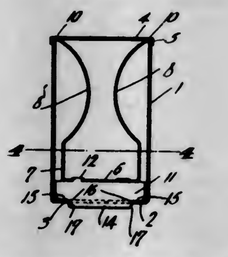
part of said shank for rigidly securing them in different positions of relative adjustment.

4. In a sewing machine, the combination with a work-plate and a presser-bar, of a presser-foot comprising a sole-portion and a shank portion rigidly connected therewith and provided with means whereby said sole-portion may be tilted both longitudinally and laterally with respect to its length and with means for adjustably and rigidly securing it in different operative positions of angular adjustment relative to the work-plate.

5. In a sewing machine, the combination with a work-plate and a presser-bar, of a presser-foot comprising a sole-portion and a shank constructed in separate parts of which one is formed integral with the sole-portion, said parts being provided respectively with convex and concave seats and adjustable both upon and crosswise of a radius of curvature of said seats, means for rigidly securing them together, and means for securing the second of said parts rigidly upon the presser-bar.

[Claim 6 not printed in the Gazette.]

1,209,929. ENVELOP-SEALER AND STAMP-MOISTENER. ALBERT L. BENNETT, Chicago, Ill., assignor to The American Sealer Co., Kansas City, Mo., a Corporation. Filed May 22, 1916. Serial No. 99,153. (Cl. 91—67.4.)

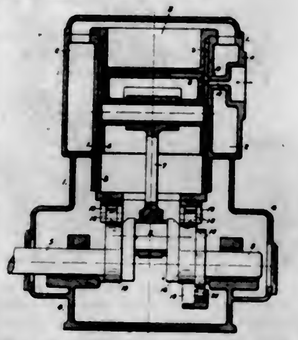


1. A moistener comprising a case including a forward end wall and a rear end wall, the forward end wall having an opening; a closure in the case and including an extension projecting through the opening, the closure having a shoulder engaging the forward end wall to limit the outward movement of the closure; and a spring wherewith the closure is directly connected, the spring abutting against the rear end wall of the case and constituting the sole support and guiding means for the closure within the case, the closure being inwardly and laterally movable independently of the case to permit the outer end of the extension to engage the inner face of the forward end wall, thereby to uncover the opening, and the forward end wall being disposed at right angles to the axis of the case to retain the closure in retracted position, the closure being laterally and outwardly movable independently of the case, to permit the extension to enter the opening.

2. A moistener comprising a casing having an opening; a plate within the case including an extension located in the opening, the plate engaging the case at each end of the extension to limit the outward movement of the plate, the end edges of the extension being parallel adjacent the plate, to constitute a closure for the opening, and being beveled adjacent the outer end of the extension, to permit a partial operation of the opening when the plate is retracted; and spring means within the case and engaging the plate, to advance the plate.

3. A moistener comprising a case having opposed end walls and side walls, one end wall being provided with an opening; a plate within the case and provided with an extension projecting through the opening, the plate engaging said end wall at the opposite ends of the opening; and a spring including a base secured to the plate and arms curved toward the longitudinal center of the case, the extremities of the arms being engaged in the angles defined by the other end wall and by the side walls.

1,209,930. AIR OR GAS COMPRESSOR. TYRUS DOUGLAS BERKELEY, Ruabon, Wales. Filed Dec. 18, 1914. Serial No. 877,944. (Cl. 230—34.)



1. An air or gas compressor comprising in combination a sleeve valve 8 working between a stationary cylinder wall and a movable piston, having a single set of ports 15 which are adapted to communicate with the cylinder, and alternately with separate air or gas inlet and discharge ports 10, 12 in the cylinder directly above or beyond one another; substantially as set forth.

2. In an air or gas compressor of the type herein referred to, the combination of a sleeve 8 having a single set of ports 15 in it; a cylinder having an inlet port 10, below or within the end of the cylinder and a delivery port 12 over or beyond the end, said ports being directly over or beyond one another in parallel planes, and the said single set of ports 15 being adapted to communicate permanently with the interior of the cylinder, and alternately with the inlet port 10, and with the delivery port 12; substantially as described.

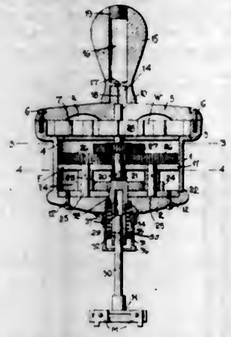
3. An air or gas compressor comprising a cylinder having an inlet port, and a discharge port fitted with a non-return valve, the inlet and discharge ports being above or beyond one another; a sleeve valve disposed within the cylinder and having a single set of ports which communicate with the interior and alternately communicate with the inlet and discharge ports; and a piston which operates within the sleeve; substantially as described.

4. An air or gas compressor, comprising a cylinder having an inlet port near its end and a discharge port beyond the inlet port; a sleeve valve disposed within the cylinder, and reciprocated positively in each direction by cam mechanism and having a set of ports through which the inlet and exhaust occur, the same ports which communicate with the discharge communicating with the inlet alternately; and a piston disposed within the sleeve valve.

1,209,931. GRINDING-TOOL. GROVENOR W. BOULDS, Island Pond, Vt. Filed Aug. 2, 1916. Serial No. 112,776. (Cl. 51—12.)

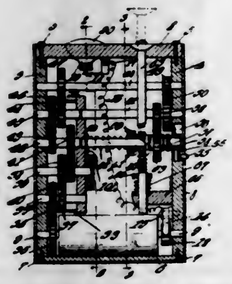
1. A device of the character described comprising a casing, a bushing rotatably supported by the casing and extending therebeyond, a grinding member operatively engaged with the bushing, a continuously driven member rotatably supported within the casing, means co-acting with said continuously driven member for rotating the bushing, said grinding member having limited independent movement longitudinally of the bushing, and an expansible member for controlling said movement.

2. A device of the character described comprising a casing, a bushing rotatably supported by the casing and extending therebeyond, a grinding member operatively engaged with the bushing, a gear fixed to said bushing, two shafts rotatably supported within the casing, segmental gears fixed to the shaft and adapted to mesh with the gear of the bushing, a segmental gear of one of the shafts being in mesh with the gear of the bushing when the gear of a second shaft is out of mesh therewith, intermeshing gears fixed to said shafts, and a continuously driven member in mesh with one of said last named gears.



3. A device of the character described comprising a casing, a bushing rotatably supported by the casing and extending therebeyond, the extended portion of the bushing being provided with a socket and with longitudinally disposed slots in communication with said socket, a grinding member including a stem insertible within the socket of the bushing and capable of independent movement longitudinally of the bushing, a sleeve loosely mounted on the extended portion of the bushing, a pin disposed through the sleeve and the longitudinal slots of the bushing and through the stem, and an expansible member interposed between the sleeve and the casing.

1,209,932. HAND-GENERATOR. CHARLES P. BRADLEY, Pemberton, N. J. Filed Nov. 24, 1914. Serial No. 873,761. (Cl. 171—76.)



1. In a device of the class described, a pair of permanent magnets; a yoke connecting the ends of the magnets; supports lying between the magnets; an armature journaled in the supports and located between the magnets; a bracket projecting from one support; a plunger mounted to slide in the yoke and the bracket; yieldable means co-acting with the bracket and with the plunger for moving the plunger in one direction; a gear train operatively connected with the armature; and means for connecting one member of the gear train operatively with the plunger.

2. In a device of the class described, a frame; a dynamo carried thereby and including an armature; a bearing plate supported by the frame; a main shaft journaled in the frame; a gear train operatively connecting the main shaft with the armature and including rotatable elements journaled in one side of the frame and in the bearing plate; a second shaft journaled in the other side of the frame and in the bearing plate; a gear train operatively connected with the main shaft and including a wheel journaled on the second shaft, the wheel being provided with clutch elements on its opposite sides; an actuating member slidable longitudinally of the second shaft and including a clutch element adapted to coact with one of the clutch elements of the wheel; a pinion movable longitudinally of the shaft and including a clutch element adapted to coact with the other clutch element of the wheel; a slidable, frame-supported rack bar wherewith the pinion coacts; and a compression spring abutting against the pinion and the bearing plate and surrounding the second shaft.

1,209,933. DOUBLE-ROLLER DOOR-HANGER. JAMES THOMAS BRADY, Shawnee, Okla., assignor of one-half to James Henry Milton, Chicago, Ill. Filed May 2, 1916. Serial No. 94,970. (Cl. 16—7.)

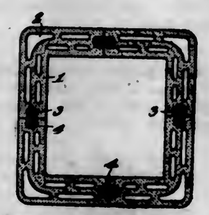


1. A one piece door hanger comprising a vertical plate with upper and lower openings in its opposite ends, a horizontal rib extending across the inner face and near the lower end of the plate, and upper and lower integral ears overturned inwardly and in spaced relation from the opposite ends of the plate, the ears each having an opening in its free end registering with the adjacent opening in the plate, a pin secured in each pair of openings, an upper roller mounted on the upper pin for rolling contact upon the upper face of a Z-bar track, a lower roller mounted on the lower pin for engagement beneath the track and having a flat outer face for engagement with said rib whereby to space the lower roller inwardly from the lower end of the vertical plate and provide a space for the reception of the depending flange of the Z-bar track, and a supporting bracket upon the lower end of the vertical plate for securement against the outer side of a door to hold the same beneath the Z-bar, said plate further having a drain opening through its lower end leading from the bottom of the space between the plate and the lower ear, whereby to drain off moisture entering into the space from beneath the depending flange of the Z-bar in front of the lower roller and from the top of the door behind said roller.

2. The combination with a Z-bar track, and a door, of a bracket secured against the outer side of the door, a plate rising from the bracket and having rearwardly spaced overturned ears upon the upper and lower ends thereof, the lower ear providing with the plate a chamber closed at its bottom and being mortised into the outer face and upper edge of the door, rollers arranged between the opposite ends of the plate and the respective ears for engagement with the upper and lower faces of the horizontal portion of the Z-bar track, pivots secured at their opposite ends to the plate and to the ears to rotatably support the rollers therebetween, the lower roller having a flat outer side, and means spaced above the bottom of said chamber and arranged between the lower end of the plate and said flat side of the roller to space the latter inwardly toward the lower ear and provide a transverse space between the plate and the lower roller to receive the

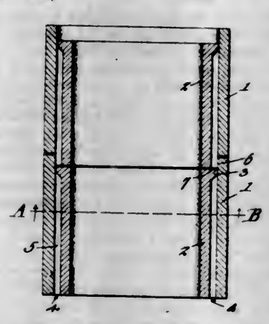
depending flange of said track, said plate also having an opening through its lower end opposite to the closed bottom of said chamber to drain off accumulations in the chamber about and beneath the lower roller.

1,209,934. FLUE. EDWIN M. CAMPFIELD, Richmond, Ind. Filed Jan. 9, 1914. Serial No. 811,226. (Cl. 72—91.)



A chimney flue formed of sections of plastic material, each section being made up of separate members having longitudinally extending air cells in the walls thereof, said cells extending throughout the length of the walls, there being grooves in the meeting faces of the members, a plastic key within the grooves for holding the members together, the sections of the flue being placed one above the other, and means interposed between the sections for closing the ends of the cells and for sealing the joints between the sections, said means including projecting portions extending into the cells, and washers upon the upper and lower faces of said means and engaging the adjacent ends of the sections.

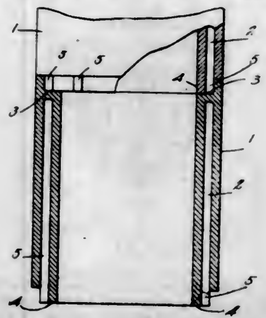
1,209,935. FLUE-LINING. EDWIN M. CAMPFIELD, Richmond, Ind. Filed Oct. 7, 1915. Serial No. 54,696. (Cl. 72—94.)



A flue lining section including an outer member, a separate inner member having an outstanding flange extending continuously around one end portion thereof and of uniform width, and longitudinal ribs extending longitudinally along the outer sides of the inner member and merging at one end into the flange, said flange and the ribs fitting snugly against the inner faces of the wall of the outer member to form non-communicating longitudinal air cells open at one end and closed at their outer ends, the flanged end of the inner member being arranged within the outer member and between the ends of said outer member thereby to form a seat in one end of the lining section.

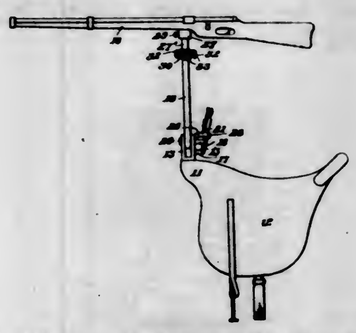
1,209,936. FLUE. EDWIN M. CAMPFIELD, Richmond, Ind. Original application filed Jan. 9, 1914, Serial No. 811,226. Divided and this application filed June 24, 1916. Serial No. 105,668. (Cl. 72—92.)

A chimney flue section consisting of a hollow tile having air spaces extending longitudinally within the walls thereof and separated by partitions, said air spaces being closed at one end, the outer portion of the hollow tile being cut away at one end to expose the air spaces and to form a continuous shoulder which surrounds the hollow tile, the partitions between the exposed portions of the spaces forming exposed longitudinal ribs extending from the shoulder to the end of the tile, the other end of the tile being formed with a recess of the same proportions



as the reduced end of the tile whereby, when said tile is superposed upon another like tile, the inner faces of the hollow tiles will be flush and the exposed portions of the ribs on one tile will engage the wall of the recess in the adjoining tile and the air spaces will be extended into the joint to constitute insulating means.

1,209,937. SADDLE-MOUNT FOR GUNS. FRANK CUCUGA, Cranberry, W. Va. Filed Jan. 21, 1916. Serial No. 73,391. (Cl. 89—40.)



1. A saddle mount for guns comprising a bracket secured to the pommel of the saddle, a post laterally adjustably carried by the said bracket, a stub post having universal connection with the afore-mentioned post, and a gun swivelly mounted on the free end of the said stub post.

2. A gun mount comprising a substantially U-shaped bracket having a transverse perforation therethrough, an axle longitudinally shiftably positioned through the said perforation and having a squared portion positionable intermediate the sides of the said bracket, longitudinal adjusting means for the said axle, the forward side of the said bracket having a recess therein, a squared head upon the adjacent free end of the said axle, and a gun support post provided with an octagonal perforation therethrough and journaled upon the said axle.

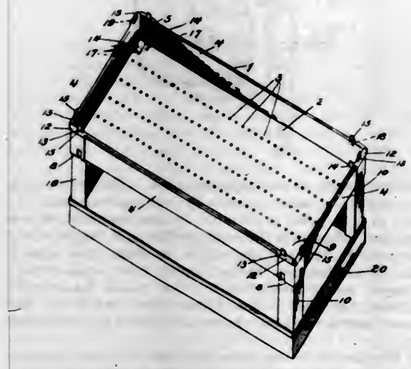
3. A gun mount comprising a substantially U-shaped bracket having a transverse perforation therethrough, an axle longitudinally shiftably positioned through the said perforation and having a squared portion positionable intermediate, the sides of the said bracket, longitudinal adjusting means for the said axle, the forward side of the said bracket having a recess therein, a squared head upon the adjacent free end of the said axle, a gun support post

provided with an octagonal perforation therethrough and journaled upon the said axle, a gun, a stub post removably and swivelly carried by the said gun, and a frictionally locked universal joint connection between the said post and stub post.

4. A gun mount for saddles comprising a post, locking laterally adjustable mounting connections between the said saddle and post, a stub post, a frictional joint between the said post and stub post, and a detachable swivel connecting means carried by the said stub post.

5. A gun mount comprising a supporting bracket, an axle mounted for longitudinal shifting in said bracket, means carried by the bracket and connected to said axle for shifting the same, a gun support pivotally mounted on said axle, and means for locking the gun support.

1,209,938. GRAIN-SPROUTER. WALTER H. COLLINS, Summit, N. J. Filed Nov. 17, 1915. Serial No. 61,883. (Cl. 47—30.)



1. In a grain sprouter, a pan having slots adjacent to its four corners, and angular supporting and spacing legs embracing the corners of the pan, said legs being provided with struck-up tongues on both of their members, said tongues extending through said slots and bent over into locking connection with the walls of the pan.

2. In a grain sprouter, a pan having slots through its bottom adjacent to the ends of its ends and sides and also having slots in the upper edges of its sides and ends; and angular legs embracing the corners of the pan, said legs being provided with vertically disposed upper and lower tongues on both of their members, said tongues extending through said slots and bent over into locking position.

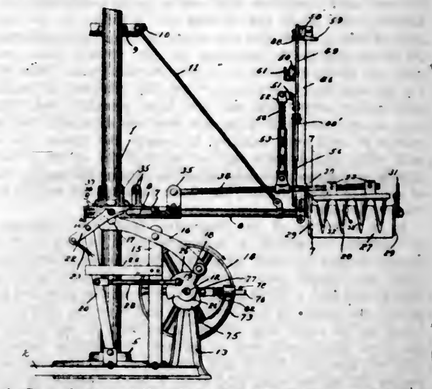
3. In a grain sprouter, a pan having its upper edge bent outwardly and provided in the bend adjacent to the corners with upper slots and having slots in its bottom below said upper slots, and legs, said legs being provided with vertically disposed struck-up upper and lower tongues, said tongues extending through said upper and lower slots, respectively, and bent over into locking engagement with the pan.

4. A grain sprouter including in combination a perforate pan to be supported, said pan having its walls bent up but not united, and corner pieces at the corners of the walls serving to tie the adjacent walls together, said corner pieces being vertically angled to embrace the adjacent edges of two walls, and extending downwardly and being bent inwardly to stand within another pan and support the first pan in elevated position therewithin.

5. A grain sprouter including in combination a plurality of superimposed pans, flat, angled supporting legs for a pan, said legs resting within and at the corners of another pan, the upper pan having a perforate bottom, said pan and legs being connected by tongue and slot joints.

[Claims 6 to 9 not printed in the Gazette.]

1,209,939. BAKING-MACHINE. CHARLES A. COSTIGAN and JAMES DENARO, Oakland, Cal. Filed Mar. 27, 1914. Serial No. 827,691. (Cl. 107—58.)



1 In a device of the character described, comprising a segmental gas heated oven, open at the ends, a plurality of molds revolubly mounted and adapted to pass through said oven, means for imparting an intermittent forward movement to the revoluble structure carrying said molds, each of said molds consisting of two side plates and a cover plate, said side plates being pivotally mounted and provided with alining recesses in which the baking takes place, a toggle joint connecting said side plates adapted to swing said side plates apart, close said plates and to hold the same against internal pressure during the baking operation, a cam adapted to operate said toggle-joint, means for placing a measured quantity of batter in said molds during the period when the said revoluble structure is at rest, and means for clamping said lid on said side plates before said molds enter said oven.

2. In a device of the character described, comprising a plurality of molds mounted upon a revoluble structure, an oven through which said molds are carried by the rotation of said structure, each of said molds having two pivotally mounted side plates, having alining recesses formed partly in each plate and open at the top, a toggle joint connecting said side plates, a cam adapted to operate said toggle joint, the latter being so disposed that the common pivoted ends of the links move past the center of the outer ends thereof forming a lock to prevent the internal pressure forcing the mold halves apart, a cover plate adapted to close said recesses, depending projections from said cover adapted to enter within said recesses and form a thin annular space therebetween.

3. A baking oven of the character described comprising a rotatable support provided with radiating members, molds carried by said radiating members, an oven through which said molds are caused to travel, a rotatable shaft provided with a cam, a lever pivoted contiguous to said cam, means connected with said shaft for oscillating said lever, a pawl carried by said lever for engaging the radiating members to impart step-by-step movement to said support, and a latch operated by said cam to successively engage said radiating members.

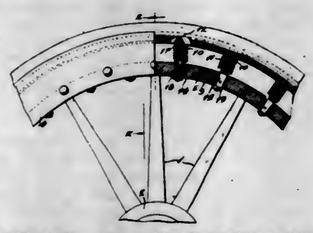
4. In a device of the character described comprising a revoluble structure, a plurality of molds carried by said structure, a segmental oven through which said molds are adapted to move, means for imparting an intermittent rotative movement to said structure and means for locking said structure during its periods of rest, said molds being formed of two pivotally mounted side plates, alining recesses between said plates, means for opening and closing said plates, a cover plate for said molds adapted to enter said recesses and form an annular recess therebetween and the walls of said recess, said cover plate being mounted upon a rod pivotally mounted adjacent the center of said rotative structure, a bar slidably mounted above said rod,

a sleeve pivotally attached to said rod, a rod pivotally attached to said bar, said rod having a limited sliding movement in said sleeve, a compression spring interposed between said sleeve and said rod, a spring controlled latch adjacent the upper end of said bar, a roller on the back of said bar, a fixed cam bar mounted upon the supporting frame of said device adjacent the exit of said oven, said cam bar being adapted to withdraw said latch from the top of said bar, a stationary cam bar adapted to engage said roller after said bar has been released and raise said cover plate and a second cam bar adjacent the entrance of said oven adapted to engage the upper side of said roller and depress said bar against the action of said spring and allow the said latch to engage the upper end of said bar, thus holding the cover plate closed during the travel through said oven.

5. In a device of the character described comprising, a revoluble structure, a segmental oven, a plurality of molds carried by said structure, in alinement with said oven, said molds each comprising two pivotally mounted side plates and a cover plate, a rod pivotally mounted adjacent the center of said structure and carrying said cover plate on its outer end, a cam operated lock bar slidably mounted above said rod, a resilient connection between said rod and said bar, a cam adapted to depress said bars before the molds enter said oven, a latch adapted to hold said bar depressed and means for releasing said latch when the molds leave said oven.

[Claim 6 not printed in the Gazette.]

1,209,940. SPRING-WHEEL. JACOB T. CROCKER, Lonelm, Ark. Filed Sept. 7, 1915. Serial No. 49,356. (Cl. 152—37.)



1. A vehicle tire, in combination with a felly having annular flanges thereon and a tread carrying outer rim therein, a shock absorbing element for said outer rim including a wire strand bent upon itself and coiled to provide double springs having their convolutions alternately arranged.

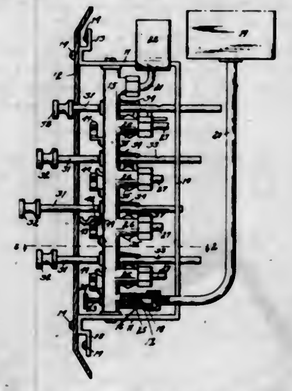
2. A cushioning device for vehicle tires including a wire strand bent to form a plurality of coiled springs having their convolutions alternately arranged, the free extremities of said springs being formed with tread receiving portions.

3. A cushioning device for vehicle tires formed of a strand of wire bent upon itself to provide a loop, said strand having portions thereof formed into coiled springs having their convolutions alternately arranged, and means associated therewith for attaching said springs on the felly.

4. A cushioning device, comprising a strand of wire bent to form a loop and coiled to provide springs having their convolutions alternately arranged, a squared tapering block having a recess therein to receive said loop, a threaded shank thereon and a pin extending transversely of said block and through said loop to insure connection of the former with the latter.

1,209,941. FUEL AND SPARK CONTROLLING MECHANISM. JOEL BENJ. DALBEY, Nevada, Iowa, assignor of one-half to Jay A. King, Nevada, Iowa. Filed May 18, 1915. Serial No. 28,965. (Cl. 67—41.)

1. In a device of the class described, a fixture comprising a frame, a pair of fuel supply tubes thereon, and spring controlled valves in said tubes, a movable member mounted on said frame and adapted in different positions of its movement to selectively operate the valves in said tubes against the action of their spring elements, means for holding said movable member in either of its valve operating positions, a contact point on said frame, and a contact point carried by said movable member and adapted to engage said first contact point when said member is in a position intermediate of its valve controlling position.



2. In a device of the class described, a fixture comprising a frame, a pair of tubes thereon, spring controlled valves in said tubes, a movable member mounted on said frame and adapted in different positions of its movement to selectively operate the valves in said tubes against their spring elements, a fuel supply tank located above the upper end of one of said tubes, means for carrying fuel from said tank to one of said tubes, and an air tank communicating with the upper end of said last mentioned tube.

3. In a device of the class described, a fixture, comprising a frame, a manually movable member mounted thereon, and suitable supply tubes, valves for controlling the flow of fuel from said tubes, arms projecting from said movable member, said valves having stems projecting into the paths of said arms, whereby when the movable member is moved to one position one of said valves is open, and when the movable member is moved to another position another of said valves is open.

4. In a device of the class described, a support, a tube mounted thereon, a valve for controlling the discharge of fluid from said tube, a tank, a tube leading from said tank to said first tube, a comparatively small passage for admitting fuel from said second tube to said first tube, an air tank communicating at its lower end with said first tube, means for yieldingly holding said valve in closed position, and movable means for moving said valve to open position.

5. In a device of the class described, a support, a tube mounted thereon, a valve for controlling the discharge of fluid from said tube, a tank, a tube leading from said first tube, a comparatively small passage for admitting fuel from said second tube to said first tube, an air tank communicating with said first tube, a movable member for operating said valve, and a cleaning device capable of being operated from outside of said tubes, and adapted to be moved into and out of said contracted passage for cleaning the same.

[Claim 6 not printed in the Gazette.]

1,209,942. SAFETY DEVICE FOR POCKETS. JAMES C. DARST, Portsmouth, Va. Filed Dec. 29, 1915. Serial No. 69,237. (Cl. 2—153.)

1. A protecting attachment for pockets consisting of a rigid member adapted to be attached to the inside of the pocket, and a retaining member hingedly secured at the upper end to the upper end of the rigid member, a spring device normally tending to swing the lower end of the retaining member outward from the rigid member, the said retaining member being adapted to fit over the article held in the pocket, and a finger releasable means for locking the lower end of the retainer to the rigid member.



2. A protecting attachment for pockets consisting of a rigid member adapted to be attached to the inside of the pocket, and a retaining member, said retaining member being composed of two sections each hingedly secured at the upper end to the upper end of the rigid member, a spring device for each section normally tending to swing the lower ends of the said sections outward from the rigid member, the said retaining members being adapted to fit over the article to be protected, and finger releasable means for locking the lower ends of the retainer sections to the rigid member.

3. A protecting attachment for pockets, consisting of a rigid member adapted to be attached to the inside of the pocket, and a retaining member, said retaining member being composed of two sections each hingedly secured at the upper end to the upper end of the rigid member, a spring device for each section normally tending to swing the lower ends of the said sections outward from the rigid member, the said retaining members being adapted to fit over the article to be protected, finger releasable means for locking the lower ends of the retainer sections to the rigid member, the said retaining sections having their adjacent ends cut out so as to form an elongated slot for the passage of the ring-post of the watch.

4. A protecting attachment for pockets consisting of two members of substantially rigid material, one of such members having its upper edge joined to the upper edge of the other member by a spring hinge connection, said other member being adapted to be secured flatwise on one inside face of the pocket and a finger manipulated locking means for holding the hinged member flatwise against the other member.

5. A protecting attachment for pockets consisting of two members of substantially rigid material, one of such members having its upper edge joined to the upper edge of the other member by a spring hinge connection, said other member being adapted to be secured flatwise on one inside face of the pocket; a finger manipulated locking member for holding the hinged member flatwise against the other member, and said hinge member being composed of two sections, each independently closable against the other member, and a spring hinge connection between each of the said sections and the base member, the opposing edges of the said sections having alining elongated recesses, near their hinged ends.

1,209,943. CONCENTRATING-TABLE. EMIL DEISTER, Fort Wayne, Ind., assignor to Deister Machine Company, Fort Wayne, Ind., a Corporation of Indiana. Filed June 15, 1916. Serial No. 103,809. (Cl. 83—88.)

1. A transversely inclined concentrating-table having a deck, means for vibrating the deck, riffles arranged on the deck substantially parallel with the direction of vibration, means for feeding the material onto the head of the table, said table being downwardly inclined from the head to the tailings discharge edge, but substantially level in the direction of vibration, the riffles having their upper surfaces in a plane substantially parallel with the main surface of the deck for substantially their entire length, in combination with a plateau, substantially parallel with the main surface of the table and arranged along the mineral discharge edge, and an inclined surface arranged diagonally across the deck for causing the valves to move up above the surface of the material overlying the main surface of the deck and onto the plateau.

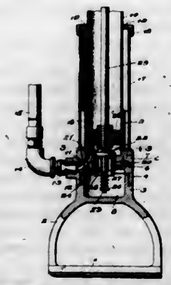


2. The combination of a transversely inclined concentrating table, with a plateau having an inclined approach and riffles arranged on said table, and extending only to the line of junction of the plateau and its inclined approach, the upper edges of the riffles and the surface of the plateau being substantially parallel, and the surface of the plateau being raised above the edges of the riffles a distance equal to the desired depth of material above said edges, whereby the surface of the material in the main portion of the table will be in a plane coinciding with the surface of the plateau.

3. The combination of a transversely inclined concentrating table, having an inclined raised portion arranged along a diagonal line relative to the line of movement of the table and in proximity to the concentrates discharge edge, and riffles arranged on the surface of said table and extending from the rear end of said table and terminating in a diagonal line, said riffles being of substantially uniform height for a major portion, and in the direction of the length thereof, said riffles being provided with a beveled portion extending toward one end thereof from said portion of uniform height, said beveled portion of the riffles corresponding approximately with said inclined raised portion of the table, and means for reciprocating said table in the direction of the length of said riffles.

4. The combination of a transversely inclined concentrating-table having an upwardly inclined portion arranged along a diagonal line relative to the line of movement of the table and in proximity to the concentrates discharge edge, riffles arranged on the surface of said table and extending toward the mineral discharge edge, said riffles being provided with an abruptly beveled portion extending toward one end thereof to maintain their upper edges and the surface of the deck substantially parallel in proximity to the inclined portion, said beveled portion of the riffles corresponding approximately with said upwardly inclined portion of the table, and means for reciprocating said table.

1,209,944. PNEUMATIC PUMP. CHARLES A. DE RIGNE, Los Angeles, Cal. Filed Feb. 28, 1916. Serial No. 81,030. (Cl. 200—27.)



In an air pump, the combination of a hollow base having a tubular sleeve extending from the upper end thereof,

a cylinder fixed at its lower end to said base, a valve opening inwardly into the lower end of said cylinder from the interior of said base, longitudinally extending circumferentially spaced ribs on the outer side of said sleeve, a tubular jacket surrounding said cylinder and said sleeve and having an air inlet therein, the inner side of said jacket engaging the outer sides of said ribs, said base being provided with an annular series of air ducts leading from the interior thereof into the lower end of said jacket and an air outlet passage leading from the lower end of said cylinder, and a piston reciprocating in said cylinder.

1,209,945. BOLT. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Oct. 19, 1914. Serial No. 867,411. (Cl. 85—1.5.)



1. A bolt formed of a single bar of metal, the shank of the bolt having a slot extending longitudinally of the same and inwardly past the center but stopping short of the opposite side, the said shank being twisted not more than a quarter turn.

2. A bolt formed of a single bar of steel and having a plurality of oppositely disposed slots extending more than half the diameter of the bar the bar being twisted less than a half turn.

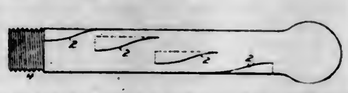
3. A bolt formed of a single bar of steel and having a plurality of oppositely disposed slots extending more than half the diameter through the bar, the said bolt having a head at one end and threaded at the other end.

4. As a new article of manufacture a stay bolt having a plurality of slots extending part way through the shank of the same from opposite sides thereof, and past the transverse center, the shank of the bolt being twisted.

5. As a new article of manufacture a stay bolt, the shank of which has a plurality of spiral slots extending past the transverse center of the shank.

[Claim 6 not printed in the Gazette.]

1,209,946. STAY-BOLT FOR BOILERS. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Oct. 19, 1914. Serial No. 867,412. (Cl. 85—1.5.)



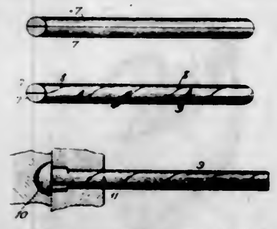
1. A stay bolt having a series of slots, said slots extending longitudinally and said series arranged spirally around the bolt, the said slots extending only part way through the bolt.

2. A stay bolt having a series of slots said slots extending longitudinally and said series arranged in spiral form, the said slots passing the center of the bolt shank but not passing through the same.

1,209,947. METHOD OF MANUFACTURING BOLTS. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Mar. 27, 1915. Serial No. 17,524. (Cl. 10—27.)

1. The method herein described of making flexible bolts, consisting in assembling two semi-cylindrical bars to form a cylindrical bar, spirally twisting the bar thus formed throughout its length, upsetting and welding an end of the bar to form a head for a bolt, severing the bar a bolt's length from the head, and repeating the operation of heading and severing throughout the length of the bar.

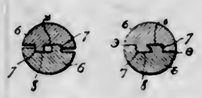
2. The method herein described of making flexible bolts, consisting in assembling two semi-cylindrical bars to form a cylindrical bar, spirally twisting the bar throughout its length, rolling the twisted bar, welding and upsetting an end of the bar to form a head, severing the bar a bolt's length from the head and repeating the operation of heading and severing throughout the length of the bar.



3. The method herein described of making flexible bolts, consisting in assembling two semi-cylindrical bars to form a cylindrical bar, spirally twisting the bar thus formed, upsetting and welding an end of the bar to form a head for a bolt, severing the bar a bolt's length from the head, repeating the operations throughout the length of the bar, and threading the bolts.

4. The method herein described of making bolts consisting in assembling two semicylindrical bars to form a cylindrical bar, upsetting and welding an end thereof to form a head for a bolt, severing the bar a bolt's length from the head, repeating the operation throughout the length of the bar and threading the bolts.

1,209,948. BAR FOR BOLT-BLANKS. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Original application filed June 15, 1915, Serial No. 34,267. Divided and this application filed Sept. 14, 1915. Serial No. 50,661. (Cl. 29—148.)



1. A bar for bolt blanks composed of two semi-cylindrical members interlocked by a longitudinal rib on one member within a longitudinal groove in the other member, the said bar having oppositely disposed longitudinal slots extending from the outer surface of the bar inwardly toward the said rib and groove.

2. A bar for bolt blanks composed of two members interlocked by a longitudinal rib on one member within a longitudinal groove in the other member, the said bar having oppositely disposed longitudinal slots extending from the outer surface of the bar inwardly toward the said rib and groove.

3. A bar for bolt blanks composed of two semi-cylindrical members interlocked by a longitudinal rib on each member within a longitudinal groove in the other member, the said bar having oppositely disposed longitudinal slots extending from the outer surface of the bar inwardly toward the said rib and groove.

1,209,949. BLANK FOR FLEXIBLE BOLTS. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Original application filed June 15, 1915, Serial No. 34,264. Divided and this application filed Sept. 14, 1915. Serial No. 50,663. (Cl. 29—148.)

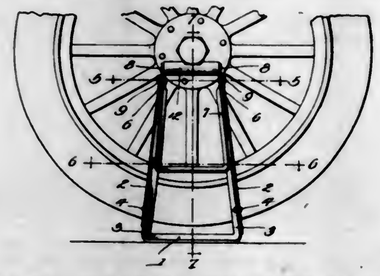


1. A bar from which bolt blanks are cut, composed of two semi-cylindrical members connected at one edge, one member having a longitudinal rib resting within a groove in the adjacent face of the other member.

2. A bar from which bolt blanks are cut, composed of two members connected at one edge, one member having a longitudinal rib resting within a groove in the adjacent face of the other member.

3. A bar from which bolt blanks are cut composed of two members connected at one edge, each member having a longitudinal rib resting within a groove in the adjacent face of the other member.

1,209,950. AUTOMOBILE-JACK. WESLEY DOTY, Oshkosh, Wis. Filed Oct. 5, 1916. Serial No. 123,862. (Cl. 254—131.)

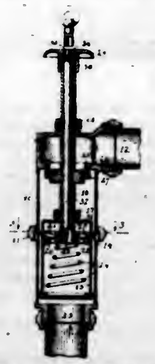


1. A jack comprising a U-shaped supporting frame whose arms are formed of L-iron or steel, the upper end of one flange of each arm being bent into the plane of the other flange thereof to form flat terminals greater in width than said arms, a U-shaped lifting frame whose arms are also formed of L-iron or steel capable of nesting in the angles of the first named arms, the upper end of one flange of each of the arms of said lifting frame being bent into the plane of the other flange thereof to form additional flat terminals greater in width than said arms of the lifting frame, pivots passing through the rear edge of said additional terminals and through the first named terminals, and a hub rest extending between the front edges of said additional terminals above said pivots.

2. A jack comprising a length of L-iron or steel bent into the form of a U, a pair of side bars of L-iron or steel in whose angles the arms of said U are nested, and bolts securing said bars and arms together for relative vertical adjustment, one flange of each of said side bars, at the upper end thereof, being bent into the plane of the other flange to form flat terminals greater in width than said side bars; a lifting frame formed of a single length of L-iron or steel bent into the form of a U with its arms positioned for nesting in the angles of the aforesaid side bars, one flange at the upper end of each arm of said lifting frame being bent into the plane of the other flange thereof to form additional flat terminals greater in width than the arms of said frame, pivots passing through the rear edges of said additional terminal and through the first named terminals, and a hub rest extending between the front edges of said aditional terminals above said pivots.

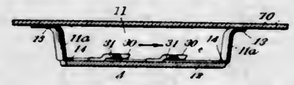
1,209,951. FLUSHING DEVICE. WARREN F. DRAW, New York, N. Y. Filed Aug. 6, 1915. Serial No. 44,188. (Cl. 137—93.)

A device of the character set forth, comprising a casing having an inlet, an outlet and a valve seat between the two, said casing comprising separable sections, a cylinder mounted within the casing in spaced relation to the walls thereof, and having an outstanding supporting flange clamped between the casing sections, said flange permitting the passage of liquid, a tubular valve stem mounted in the casing and having an open inner end terminating in the cylinder, said end having a lateral port opening into the cylinder, a piston mounted in the cylinder and having means for permitting the free passage of liquid therethrough in one direction and preventing such passage in the opposite direction, a plunger rod slidable in the tubular stem, and having its inner end movable across the



lateral port, means for adjusting the rod, means mounted on the said rod externally of the casing for operating the rod, and a valve on the rod coöperating with the valve seat.

1,209,952. MEANS FOR SECURING NAME-PLATES TO THE RADIATORS OF AUTOMOBILES. WILLIAM C. DURANT, New York, N. Y., assignor to Chevrolet Motor Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 14, 1914. Serial No. 877,034. (Cl. 40—125.)



1. In combination a support, a skeleton frame provided with a base and a front face, said frame being fixedly secured at its base to the support, a plate, means on the skeleton frame and means on the plate to coöperatively engage with said first mentioned means, to hold the said plate to the front face of the skeleton frame.

2. The combination of a support with a frame secured thereto, provided with a cross-piece or bridge, a plate the outer edge of which is substantially the same shape as the contour of the outer edge of the frame, said plate having a spring prong or arm secured to its inner side arranged to coöperate with the cross-piece or bridge of the frame.

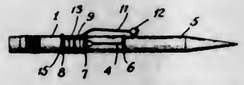
3. The combination of a support with a skeleton frame fixedly secured thereto provided with a cross piece or bridge, a plate having a spring prong or arm secured to its inner side, the said cross piece or bridge and coöperative arm provided with coöperating notches.

4. The combination of a support with a skeleton frame fixedly secured thereto provided with a cross piece or bridge, a plate having a spring prong or arm secured to its inner side, said cross piece or bridge and coöperative arm provided with coöperating notches, a side of the notch on the spring prong or arm being beveled.

1,209,953. PENCIL-HOLDER AND CLIP. LOTHAR W. FABER, New York, N. Y., assignor to Eberhard Faber Pencil Company, Brooklyn, N. Y., a Corporation of New York. Filed June 30, 1915. Serial No. 37,215. (Cl. 24—11.)

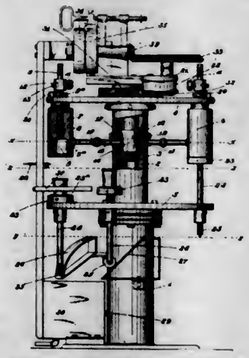
1. A pencil-holder comprising a tube of thin resilient metal, split longitudinally from one end to a point intermediate the ends, having a pair of parallel beads pressed outwardly therefrom to extend around the same, one of said beads being adjacent to the inner end of the split, and a clip member of resilient metal comprising a sleeve fitted about the holder between said beads, and held against longitudinal movement thereby, and a spring

tongue integral therewith and extending longitudinally therefrom and adapted to press against a pencil in the holder, substantially as set forth.



2. A pencil-holder comprising a tube of thin resilient metal, split longitudinally from one end to a point intermediate the ends, having a pair of parallel beads pressed outwardly therefrom to extend around the same, one of said beads being adjacent to the inner end of the split, and an inwardly extending bead intermediate said outwardly extending beads, and a clip member of resilient metal comprising a sleeve fitted about the holder between said outwardly extending beads, and held against longitudinal movement thereby, and a spring tongue integral therewith and extending longitudinally therefrom and adapted to press against a pencil in the holder, substantially as set forth.

1,209,954. MACHINE FOR EXHAUSTING AIR FROM PRESERVING VESSELS. WILLIAM B. FENN, Columbus, Ohio, assignor, by mesne assignments, to The Wedoit Co., Columbus, Ohio. Filed Mar. 21, 1906, Serial No. 307,280. Renewed May 18, 1916. Serial No. 98,442. (Cl. 220—97.)



1. In a machine for exhausting air from vessels, the combination of a rotary carrier, a series of receivers supported thereby, a hollow spindle for said carrier, pipes connecting said receivers and spindle, a tapering stationary ported valve within the spindle adapted to open and close said pipes, and an axially adjustable packing sleeve between said valve and hollow spindle, said packing sleeve being provided with openings to establish communication of the pipes with the ports of the valve, and means in the spindle for adjusting the packing sleeve.

2. In a machine for exhausting air from vessels, the combination of a rotary carrier, a series of vessel confining receivers supported thereby, a hollow spindle for said carrier, pipes connecting said receivers and spindle, a tapering stationary valve within the spindle adapted to open and close said pipes, said valve having a horizontal elongated port adapted to keep several of said pipes open simultaneously for exhaustion of air and an air admission port beyond said horizontal port.

3. In a machine ofthe character set forth, the combination of a base having an upright chambered standard, a stationary valve on the upper end of said standard having a passage communicating with the chamber of the standard, a casing rotatably mounted on the standard and surrounding the stationary valve, a series of vessel receiving casings supported by the rotary casing, a series of vessel supports carried by the rotary casing and arranged to cooperate with said receiving casings, ducts leading from the latter casings to the rotary casing and arranged to be moved into and out of register with the passage of the valve, and air exhausting means in communication with the chamber of the standard.

4. In a machine for exhausting air from vessels, the combination of a receiver, a vessel support adapted to open and close said receiver, means for exhausting air from the receiver and a vessel therein, a reciprocable plunger or capping device in said receiver having a cavity in its lower end adapted to inclose the vessel, said plunger being readily removable, whereby a different plunger having a different sized cavity may be substituted for treating vessels of a different size.

1,209,955. ROOFING. SILAS M. FORD, St. Paul, Minn. Filed Feb. 21, 1916. Serial No. 79,608. (Cl. 108—7.)



1. As an article of manufacture a double shingle or shingle strip having a fold running transversely thereof, at substantially the center thereof, slots running longitudinally thereof in the lower half of said double shingles or shingles strips, a tongue formed by the cutting of said slots being bent back toward the upper portion of said double shingles or shingle strips, a series of rectangular apertures in the upper half of said double shingles or shingle strips adapted to be covered and closed by the tongues bent backwardly toward the top of said double shingles or shingle strips.

2. As an article of manufacture a double shingle or shingle strip having a fold running transversely thereof at substantially the center thereof, slots running longitudinally thereof in the lower half of said double shingles or shingle strips, a tongue formed by the cutting of said slots being bent back toward the upper portion of said double shingles or shingle strips, a series of rectangular apertures in the upper half of said double shingles or shingle strips adapted to be covered and closed by the tongues bent backwardly toward the top of said double shingles or shingle strips, and a reinforcing strip running transversely along the butt of said double shingle or shingle strip for reinforcing the tabs formed by said slots in the lower half of said double shingle or shingle strips, said reinforcing strip being formed downwardly at an angle of substantially 90 degrees with said double shingles or shingle strips, said longitudinal slots extending into said reinforcing strip a distance substantially equal to the thickness of the stock of said reinforcing strip.

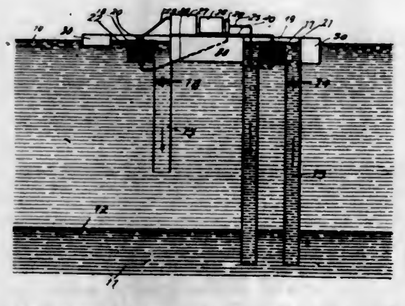
3. As an article of manufacture a shingle strip formed of water-proofed material having a dam running transversely across said shingle strip at approximately the point where the butt of the shingle above will be positioned when laid shingle fashion on a roof and having a strip along the top thereof folded back toward the top surface of said shingle strip, said dam and said fold being so positioned that the fold on one shingle strip will lock with the dam of the shingle strip superimposed above, and the dam and the folded strip being surfaced with a tackey surfacing.

4. As an article of manufacture a shingle or shingle strip having a dam formed by a transverse fold of said shingle or shingle strip intermediate of the top and bottom of said shingle or shingle strip, the fold of said dam being so positioned that the dam of one of said shingles or shingle strips will register and lock with the folds of a shingle or shingle strip placed above when laid upon a roof, and said dam and said fold having the top surface of the shingle forming said dam and said fold coated with a tacky substance.

5. As an article of manufacture a shingle or shingle strip having a fold running transversely intermediate of the ends thereof, the material forming said fold being coated with a tacky substance, and a strip running transversely along the butt thereof formed downwardly at substantially 90 degrees with said shingle or shingle strip.

[Claims 6 to 9 not printed in the Gazette.]

1,209,956. APPARATUS FOR UTILIZING RADIANT HEAT. CARLOS IDAHO GESELL, Buenos Aires, Argentina. Filed Aug. 9, 1916. Serial No. 113,855. (Cl. 60—2.)



1. An improved system for vaporizing a vaporizable medium, comprising a large expanse of water exposed to the effect of the sun's rays, means for hindering the loss of heat over a portion of said expanse of water, means for segregating said portion of warm water from the surrounding cooler water, comprising a confining wall floating within said expanse of water, and a vaporizer affected by said warm water.

2. An improved system for vaporizing a vaporizable medium, comprising a large expanse of water, exposed to the effect of the sun's rays, means for hindering the loss of heat over a portion of said expanse of water, means for segregating said portion of warm water from the surrounding cooler water, comprising a confining wall floating within said expanse of water, provided with a dead water space for isolating against heat conduction, and a vaporizer affected by said warm water.

3. An improved system for condensing vapors, comprising a large expanse of water having the lower layers protected from the sun's rays by the upper layers, said lower layers remaining cool, means for bringing the water from the lower layers toward the surface comprising a conduit, means for generating a water circulation through said conduit, and condensing means within said cool water containing a condensable medium which condenses as it gives up heat to the cool water.

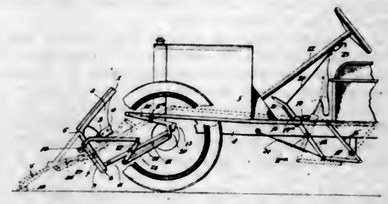
4. An improved system for vaporizing a vaporizable medium, which comprises an expanse of warm water exposed to the effect of the sun's rays, movable means over the said expanse for hindering the loss of heat and adapted to be extended over said water, and a vaporizer affected by said warm water, said vaporizer containing a vaporizable medium which vaporizes as it absorbs heat from said water.

5. An improved system for vaporizing a vaporizable medium which comprises a body of water exposed to the effect of the sun's rays and provided with means for keeping it warm, said means being supported by means supported by said warm water and a vaporizer affected by said warm water, said vaporizer containing a vaporizable medium which vaporizes as it absorbs heat from said warm water.

[Claims 6 to 8 not printed in the Gazette.]

1,209,957. AUTOMOBILE-FENDER. FRANCK GIRARDI, Detroit, Mich. Filed May 11, 1916. Serial No. 96,767. (Cl. 105—252.)

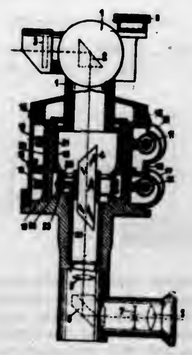
1. A fender adapted for attachment to the forward ends of the side frame of an automobile, comprising an upper fender section having brackets adapted to be rigidly secured to the forward ends of side frames, a lower section pivotally connected to the lower section and normally folded relative thereto, spring actuated means adapted to move said lower section in one direction relative to said upper section, and means set in motion by the first mentioned means adapted to move said bottom section relative to said lower section.



2. An automobile fender comprising an upper section having brackets adapted for attachment to the forward ends of an automobile side frames, a lower section connected to said upper section and held normally out of alinement therewith, a bottom section connected to said lower section and folded normally against the front side thereof, spring actuated means adapted to be manually released to swing said lower section in alinement with said upper section, and means set in motion by the first mentioned means adapted to extend the bottom section relative to said lower section.

3. An automobile fender comprising an upper section having brackets adapted for attachment to the forward ends of automobile side frames, a lower section having rule joint connection with said upper section, a bottom section pivotally connected to the lower edge of said lower section, a rod connected to one side of said lower section, a lever adapted to be pivotally mounted upon an automobile side frame and connected to said rod, a bell crank adapted to be pivotally mounted on said automobile frame, and having one end thereof connected to said lever, an operating lever adapted to be pivotally connected to said automobile side frame, a link connecting the lower end of said operating lever to said bell crank, and means actuated by a movement of the first mentioned lever adapted to move said bottom section relative to said lower section.

1,209,958. PANORAMIC TELESCOPE. FRANZ GRAUL, Vienna, Austria-Hungary, assignor to the Firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Filed July 21, 1915. Serial No. 41,200. (Cl. 88—33.)



1. A panoramic telescope comprising a hollow bearing in firm connection with the casing of the instrument, two rotatable bodies mounted on coaxial parts of the surface

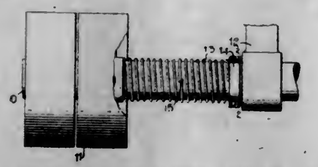
of said hollow bearing, actuating members for said rotatable bodies, the actuating member for the one rotatable body mounted in bearings firmly connected to the casing of the instrument and the actuating member for the other rotatable body mounted in bearings of the first-named rotatable body, the last named rotatable body-carrying light receiving elements, and indicating means adapted to indicate the actual position of the first named rotatable element with relation to the casing of the instrument and the position of the last named rotatable body with relation to the first named rotatable body.

2. A panoramic telescope comprising a hollow bearing in firm connection with the casing of the instrument, two rotatable bodies mounted on coaxial parts of the outer surface of said hollow bearing, actuating members for said rotatable bodies, the actuating member for the one rotatable body mounted in bearings firmly connected to the casing of the instrument and the actuating member for the other rotatable body mounted in bearings of the first named rotatable body, the last named rotatable body carrying light receiving elements, a rotatable image erecting prism in the path of the rays coming from said light receiving elements, actuating means for said image erecting prism comprising a member connected to said light receiving elements carrying rotatable body and mounted within said hollow bearing so as to secure coincidence of its axis of rotation with the axes of rotation of said two rotatable bodies mounted on the outside of said hollow bearing, and indicating means adapted to indicate the actual position of the first named rotatable element with relation to the casing of the instrument and the position of the last named rotatable body with relation to the first named rotatable body.

3. In a panoramic telescope a cylindrical bearing member with the casing, a lower worm wheel mounted thereon and an upper worm wheel likewise mounted on said cylindrical bearing member and resting on said lower worm wheel, said upper worm wheel in connection with a reflector head, actuating worms for said worm wheels, the worm meshing with the lower wheel adapted to rotate both said worm wheels simultaneously about said cylindrical bearing, and the worm meshing with the upper worm wheel adapted to rotate this last named worm wheel and indicating means for ascertaining the position of the lower worm wheel with relation to the casing and the position of upper worm wheel with relation to the lower worm wheel.

4. In a panoramic telescope a hollow shaft integral with the casing, two worm wheels mounted thereon one above the other forming the rotatable elements of angle measuring devices and in mesh with actuating worms, the upper worm wheel in firm connection with the rotatable reflector head of the instrument and the lower worm wheel provided with a hub extension forming a casing for the upper worm wheel and a bearing for its actuating worm.

1,209,959. SHAFT-GUARD. ELMER S. GROSS, Milwaukee, Wis. Filed May 29, 1916. Serial No. 100,644. (Cl. 64—12.)

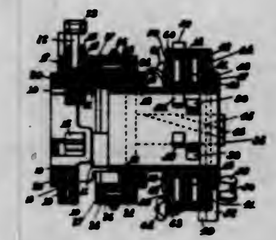


1. The combination with a shaft end, of a protector comprising a closely coiled sleeve surrounding the shaft end, a member projecting from the axial center of the shaft end, the extremity of the coil forming the sleeve being rotatably engaged with said member.

2. The combination with a shaft end, of a protector therefor comprising a coil of soft wire loosely surrounding the shaft, one end of the wire being bent across the shaft end and formed with an eye, and a fastening device passing loosely through the eye and into engagement with the shaft at its axial center.

3. The combination with a shaft end, of a protector therefor comprising a coil of soft wire loosely surrounding the shaft, one end of the wire being bent across the shaft end and formed with an eye, and a screw passing into the shaft at its axial center, the screw having a head, the screw passing through the eye of the coil, and means being provided to space the head from the end of the shaft to permit the free rotation of the coil with relation to the screw and shaft.

1,209,960. DIE-STOCK. LORENZO T. HAMMOND, Cotuit, Mass. Filed Mar. 29, 1916. Serial No. 87,876. (Cl. 10—127.)



1. In a device of the class described, the combination of a housing; a plurality of radial cutting tools therein; means for adjusting said tools for different sizes of pipes; a plurality of radial pipe centering devices mounted in said housing adjacent to said cutting tools; means for adjusting said centering devices for various sizes of pipes; means for rotating said housing; and means for continuously moving said cutting tools outwardly during the rotation of said housing.

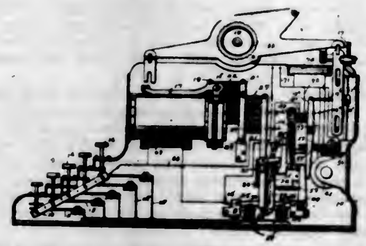
2. In a device of the class described, the combination of an annular frame; means for centering a pipe therein; means for clamping said frame to said pipe; a nut secured to said frame; a housing provided with a tubular portion threaded to said nut; means for rotating said housing; a plurality of radial cutting tools mounted in said housing; a plurality of radial centering devices also mounted in said housing between said cutting tools and said threaded tubular portion; independent means for adjusting the positions of said cutting tools and centering devices; and a locking device for each adjusting means.

3. In a device of the class described, the combination of an annular frame; means for centering a pipe therein; means for clamping said frame to said pipe; a nut secured to said frame; a housing provided with a tubular portion threaded to said nut; means for rotating said housing; a plurality of radial cutting tools mounted in said housing; a plurality of radial centering devices also mounted in said housing between said cutting tools and said threaded tubular portion; independent means for adjusting the positions of said cutting tools and centering devices; a locking device for each adjusting means; and means for constantly moving said cutting tools outwardly during the rotation of said housing.

1,209,961. ELECTRICALLY-OPERATED TYPEWRITER. ERNEST HAUSBERG, Charles City, Iowa. Filed July 25, 1912. Serial No. 711,602. (Cl. 197—14.)

1. In an electrically operated typewriter, the combination of keys, type bars, a power magnet for operating the type bars, an electric circuit for the power magnet, means operated upon the movement of a key for closing the said circuit, and means independent of the key and operated by the power magnet for breaking the said circuit.

2. In an electrically operated typewriter, the combination of keys, a series of selective magnets electrically connected with the keys, type bars, a power magnet for operating a type bar when the power magnet is energised and an electrically operated circuit closer, energised upon the completion of a circuit through any selective magnet, for completing a circuit through the power magnet and means automatically operated upon the movement of any type bar, for breaking the circuit through the power magnet.



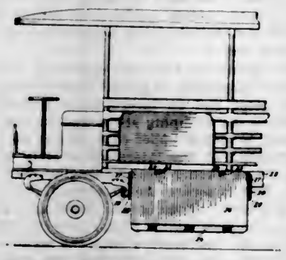
3. In an electrically operated typewriter, the combination of keys, type bars, a power magnet for operating the type bars, an electric circuit for the power magnet, means operated upon the movement of a key for closing the said circuit, means independent of the key for so maintaining the said circuit during the progress of a type bar stroke, and means operated by the power magnet for breaking the said circuit.

4. In an electrically operated typewriter, the combination of keys, selective magnets, means for energizing a selective magnet when a key is depressed, a relay magnet, means for energizing the same when a selective magnet is energised, type bars, a power magnet, means operated by the relay magnet for establishing a circuit through the power magnet, when the relay magnet is energised, and means for breaking the circuit through the power magnet when a type bar is being operated.

5. In an electrically operated typewriter, the combination of keys, selective magnets, means for energizing a selective magnet when a key is depressed, a relay magnet, means for energising same when a selective magnet is energized, type bars, a power magnet, an armature for the power magnet, means for operatively connecting the power armature with the type bars, a switch device actuated by the relay magnet to close a circuit through the power magnet, and means operated by the power armature for breaking the circuit through the power magnet.

[Claims 6 to 25 not printed in the Gazette.]

1,209,962. BATTERY-CRADLE FOR ELECTRIC VEHICLES. HARRY E. HEATH, Newark, N. J., assignor to Lansden Company, Inc., a Corporation of New York. Filed Sept. 5, 1912. Serial No. 718,726. Renewed Jan. 31, 1916. Serial No. 75,489. (Cl. 105—267.)



1. In an electric vehicle, in combination a battery cradle comprising a door frame, a door hinged thereto and adapted in its open position to form a continuation of the floor of said cradle, braces secured to said door having their inner ends free, means at the free ends of said braces for limiting the outward movement of said door, means for guiding said free ends in the movement of said door, and means for guiding said limiting means into position and supporting the same whereby to maintain the outer end of said door against further downward movement when the same is fully opened to its horizontal position, substantially as specified.

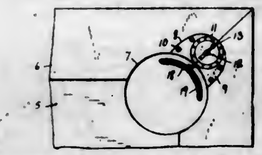
2. In an electric vehicle, in combination, a battery cradle comprising a door frame, guides arranged at the ends of said frame, a door hinged to said frame and adapted in its open position to form a continuation of the floor of said cradle, braces secured to the outer ends of said door and having their inner ends free and extending through said guides, means at the free ends of said braces adapted to contact with said frame to limit the outward movement of said door, and inclined members arranged adjacent to the upper ends of said guides for guiding said limiting means into position and supporting the same whereby to maintain the outer end of said door against further downward movement when the same is fully opened to its horizontal position, substantially as specified.

3. In an electric vehicle, in combination, a battery cradle comprising a door frame, vertical slotted members arranged adjacent to the opposite upper ends of said frame, a door hinged to said frame and adapted in its open position to form a continuation of the floor of said cradle, braces secured to the outer ends of said door and having their inner ends free and extending through said vertical slotted members, projections at the free ends of said braces adapted to contact with said slotted members to limit the outward movement of said door, lugs extending inwardly from said frame having cam surfaces at their upper ends arranged adjacent to the upper ends of said slotted members for guiding the inner free ends of said braces and the projections thereon into position and supporting the same thereon in order to maintain the outer end of said door against further downward movement when the same is fully opened to its horizontal position, substantially as specified.

4. In an automobile vehicle, the combination of a body with a continuous fixed floor, a battery cradle suspended underneath said floor, a hinged door at one side of said cradle and means attached to said cradle and door for limiting the downward movement of said door to a level with the bottom of said cradle, said door and said means being capable of supporting the entire weight of said battery.

5. In an automobile vehicle, the combination of a chassis, a closed storage battery cradle suspended beneath said chassis and having a plurality of reinforcing members to give the same great strength and rigidity, a hinged door at one end of said cradle provided with reinforcing members and means attached to said cradle and door to hold firmly said door at a level with the bottom of said cradle when said door is fully opened, said door being capable of supporting the entire weight of said batteries.

1,209,963. GAME DEVICE. WILLIAM H. HEFFLEY, Duncannon, Pa. Filed Jan. 27, 1916. Serial No. 74,661. (Cl. 46—61.)



1. The combination with a table having a ball receiving pocket, of a rotary indicator mounted upon the table adjacent to said pocket, and operating means for said indicator having an impact receiving member projecting into the pocket.

2. The combination with a table having a ball receiving pocket, of a rotary indicator mounted upon the table ad-

jacent to the outer side of the pocket, and means for operating the indicator including an impact receiving member adapted to be engaged by the ball when driven into the pocket.

3. The combination with a table having a pocket, of a game device including a dial and a rotatable pointer movable thereover, and means for operating said pointer including an actuator extending radially into the pocket for engagement by a ball.

4. The combination with a table having a pocket, of a game device including a dial permanently mounted in the surface of the table contiguous to said pocket, a rotatable pointer movable over the dial, and means for operating said pointer including a spring held actuator projecting radially into the pocket for engagement by a ball.

5. The combination with a table having a pocket, of a casing permanently mounted in the table and having a dial face flush with the surface of the table, a shaft rotatably mounted in the casing, a pointer on said shaft movable over the dial, and means for rotating said shaft including a rectilinearly movable actuating element projecting into the pocket for engagement by a ball.

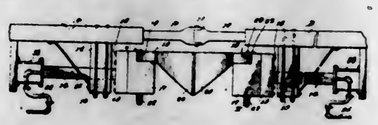
[Claim 6 not printed in the Gazette.]

1,209,964. ROPE. GEORGE F. HOFFMAN, Philadelphia, Pa. Filed Mar. 20, 1915. Serial No. 15,893. (Cl. 28—5.)



A water repellent white twisted rope consisting of low grade dark colored cotton, as waste or linters, and having its plies primarily, *i. e.*, before they are twisted, superficially impregnated or coated with a dry coating of glue and a white mineral pigment, whereby strength is imparted to the low grade cotton and collection of the coating in the crevices is avoided and an attractive appearance imparted, substantially as described.

1,209,965. AUTOMATIC AIR-LINE COUPLING. FLAVIOUS J. HOLLCROFT, Jenks, Okla. Filed Nov. 30, 1914. Serial No. 874,806. (Cl. 188—13.)



1. In an auxiliary coupling device of the type set forth, a stepped head, a conical passage formed in said head, a coupling head, and a stem formed on said coupler adapted to be supported in said passage to pivotally mount the coupler.

2. In an auxiliary coupler of the type set forth, a stepped head, a coupler resting in the stepped portion of said head, a conical passageway formed in said head, an integral stem formed on said coupler and extending into said passageway to pivotally mount said coupler, and means preventing the unseating of said stem from said passage.

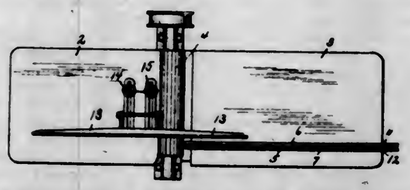
3. In an auxiliary coupler of the type set forth, including a stepped head, a conical passageway formed in said head, a recessed coupler resting on the stepped portion of said head, a stem formed integrally with said coupler and seated in said passageway, and a passage connecting through said stem and said coupler with the recess of the latter.

4. In an auxiliary coupler of the type set forth including a stepped head, a conical passageway formed in said head, a coupler provided with a pyramidal recess and resting on the stepped portion of said head, a stem formed integrally with said coupler and seated in said passageway, a passage connecting through said stem and said coupler with said recess, and a resilient gasket adapted to inclose said recess to form an air tight contact with a similar coupling device.

5. In an auxiliary coupler of the type set forth, a stepped head, a coupler resting in the stepped portion of said head, a conical passageway formed in said head, an integral stem formed on said coupler and extending into said passageway to pivotally mount said coupler for a swinging movement, means preventing the unseating of said stem from said passageway, and stop means limiting such swinging movement.

[Claims 6 to 8 not printed in the Gazette.]

1,209,966. VENEER-TRIMMING AND STICK-JOINTING ATTACHMENT FOR PLANERS. CHARLES ROBT. HOOPER, Salamanca, N. Y. Filed Apr. 9, 1915. Serial No. 20,208. (Cl. 144—253.)



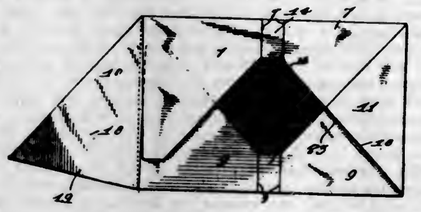
1. In a machine of the class described, a main planer bed, a cutter projecting up through the same, a relatively long narrow supplementary planer bed in connection therewith and having its upper longitudinal edge V-shaped in cross section and sufficiently sharp to cut through the glue on a veneered stick resting thereon, said cutter constituting means for trimming the edge of the veneer and for jointing the stick upon the side of said stick in contact with said V-shaped edge, means for holding the stick in vertical position on said V-shaped edge, and means for securing the supplementary bed to the main planer bed.

2. In a machine of the class described, a supplemental planer bed comprising opposed longitudinally extending clamping strips and an intermediate metallic strip projecting above the clamping strips and having a longitudinal inverted V-shaped upper edge, means for securing the clamping strip and the intermediate strip together, said clamping strips having means engaging over the edge of the planer bed to secure the supplemental bed in place.

3. In a veneer trimming and jointing attachment for planers, a supplementary planer bed having its upper edge formed for line contact with the material to be supported thereby, said supplementary bed sufficiently flexible so as to be bent into arcs of various radii.

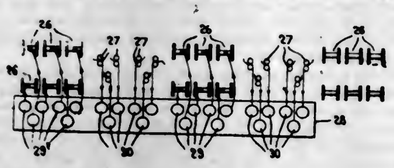
4. In a planer, the combination with a vertically adjustable planer bed of a supplementary flexible bed having one end secured to the planer bed and its opposite end free for lateral movement, whereby the bed may be bent into arcs of various radii.

1,209,967. BOOK-COVER PROTECTOR. REBECCA C. HOWARD, Otay, Cal. Filed Oct. 7, 1914. Serial No. 865,534. (Cl. 11—4.)



A book-cover protector, comprising a body portion, pairs of top and bottom flaps, and a pair of opposing side flaps attached to the body portion, all of said flaps lying in overlapped relation to the body portion, the bottom flap of each pair lying between the corresponding flap of the top pair and the body portion, and the corresponding side flap overlying the top flap, the ends of each of said side flaps lying between the top and bottom flaps.

1,209,968. PROCESS OF AND APPARATUS FOR HANDLING YARN. CHARLES W. HUBBARD, Weston, Mass. Filed Dec. 4, 1913. Serial No. 804,754. (Cl. 118—49.)

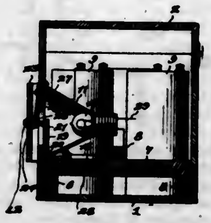


1. In a device of the class described, the combination with a plurality of sets of drawing rolls, of a plurality of sets of drums or spools, said sets of drawing rolls and sets of drums or spools being alternately arranged, a plurality of sets of yarn receivers, and means to shift the relative position of the yarn receivers and the drawing rolls and spools, the alternate sets of yarn receivers being situated in one relative position to receive yarn from the drawing rolls, and the other sets of yarn receivers being situated to deliver yarn to the spools or drums, and in another relative position the first-named sets of yarn receivers being adapted to deliver yarn to the spools or drums, and the other yarn receivers being adapted to receive yarn from the drawing rolls.

2. In a device of the class described, the combination with two sets of yarn receivers, drawing rolls coöperating with the yarn receivers of one set, spools coöperating with the yarn receivers of the other set, means associated with each of the yarn receivers of the first-named set to twist the yarn delivered thereto and to build up a yarn mass therein, the yarn from the yarn receivers of the other set being delivered to the spools and wound thereon, said yarn receivers and the spinning rolls being movable relative to each other whereby when the yarn receivers of one set are filled and those of the other empty the spinning rolls and yarn receivers may be moved relative to each other to bring the empty yarn receivers into coördination with the drawing rolls and the filled yarn receivers into coördination with the spools.

1,209,969. EGG-TESTER. WILLIAM HUMPHREY, Auburn, Nebr. Filed July 13, 1914. Serial No. 850,654. (Cl. 99—6.)

1. An egg tester comprising a casing having an opening in its front side and an electric light in rear of said opening, a flexible sheet secured over said opening and having one or more egg receiving apertures, a spring finger secured at one end to the casing above the opening by means of a binding post, a contact bolt passing through the center of the sheet and through the free end of said spring finger, nuts on said bolt on opposite sides of said finger, a contact finger in rear of said bolt and having a binding post, a battery in the casing, and wiring from said battery to the two binding posts.



2. An egg tester comprising a casing having an opening in its front side, a reflector secured to said front side in rear of said opening, an electric light carried by said reflector, a flexible sheet secured over said opening and having one or more egg receiving apertures, a spring finger secured at one end to the front of the casing above the opening thereof by means of a binding post, a contact bolt passing through the center of the flexible sheet and through the other end of said spring finger, nuts threaded on said bolt on opposite sides of said finger, a right-angular contact finger whose vertical portion rises through the lower side of the reflector and is disposed in rear of the contact bolt, a binding post on the horizontal portion of said contact finger, a pair of crossed horizontal bars in the lower end of the casing and forming pockets for a plurality of batteries, said contact finger being secured to one of said bars, batteries in the aforesaid pockets, and wiring from said batteries to the two binding posts.

1,209,970. SANITARY HIGH CHAIR. HORACE W. JENNER, Lawrenceville, Ill. Filed Jan. 26, 1916. Serial No. 74,489. (Cl. 155—12.)



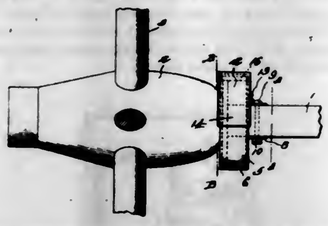
1. In a device of the class described, the combination of a plurality of tray supporting arms, said arms being secured together at their outer ends by means of a transversely extending bar, a tray supported upon said arms, said arms being circular in cross-section, a plurality of concavo-convex plates secured to said tray and fitting snugly around said arms for holding said tray against accidental removal from said arms, and a detachable locking means engaging said tray and carried by said arms.

2. A device of the class described, comprising a plurality of supporting arms, said arms provided with longitudinally extending slots formed therein upon the side portions thereof, a locking plate carried upon said arms, springs positioned within said arms and engaging the ends of said locking plate, a tray carried upon said arms, and said locking plate adapted to engage said tray for detachably holding said tray in engagement with said arms.

1,209,971. DUST-GUARD. JOHN D. JONES, Sparta, Wis. Filed Apr. 15, 1916. Serial No. 91,388. (Cl. 21—40.)

1. The combination with an axle and a hub having a collar thereon, of a dust band comprising a cupped shaped member having laterally extending arms engaging the axle,

means for securing the arms to the axle, and a hinged cover engaging the collar.

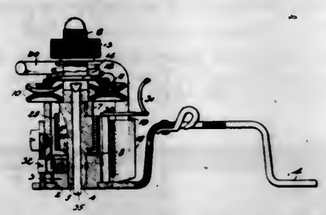


2. The combination with an axle and a hub having a collar thereon, of a dust band secured to the axle and overlying the collar, said band comprising a cupped shaped member having an opening in its lower extremity, and a cover hingedly connected to said member.

3. The combination with an axle and a hub having a collar thereon, and scraping means attached to the collar, of a dust band comprising a cup secured to the axle, and engaging with the scraping means, and a hinged cover secured to the cup and engaging with the collar.

4. The combination with an axle and a hub having a collar thereon and a laterally extending arm secured to the collar, of a dust band having an opening in the lower portion thereof secured to the axle and engaging with the arm whereby the band is cleaned of accumulated matter.

1,209,972. SEWING-MACHINE SLACK-THREAD CONTROLLER. JOHN D. KARLE, Roselle Park, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 30, 1915. Serial No. 17,962. (Cl. 112—26.)



1. In a sewing machine, in combination, a support, a bushing secured to said support and provided with a bearing aperture, a cylindrical casing secured to said support independently of said bushing and concentrically with the bearing aperture of the latter, a shouldered stop-member concentric with and fitted to one of the cylindrical faces of said casing, a stud fitted to the bearing aperture of said bushing, a thread-controller spring surrounding and having one end connected to said stud and provided at the other end with a lateral thread-arm resting against the shoulder of said stop-member, a set-screw accessible through said casing and entering the bushing for securing said stud adjustably within the latter, and a clamp-screw for securing said stop-member adjustably to said casing.

2. In a sewing machine, in combination, a support, a bushing secured to said support and provided with a bearing aperture, a cylindrical casing secured to said support independently of said bushing and concentrically with the bearing aperture of the latter and formed at one side thereof with a loop affording an adjacent integral socket, a shouldered stop-member concentric with and fitted to one of the cylindrical faces of said casing, a stud fitted to the bearing aperture of said bushing, a thread-controller spring surrounding and having one end connected to said stud and provided at the other end with a lateral thread-arm resting against the shoulder of said stop-member, a set-screw accessible through said casing and entering the bushing for securing said stud adjustably within the latter, a clamp-screw for securing said stop-member adjustably to said casing, and a rigid thread-guard pin secured within said socket of the casing by a fusible metal bond.

3. In a sewing machine, in combination, a support, a bushing secured to said support and provided with a bearing aperture, a cylindrical sheet-metal casing provided at one end with prongs entering and riveted within apertures of said support concentrically with the bearing aperture of said bushing, a shouldered stop-member concentric with and fitted to one of the cylindrical faces of said casing, a stud fitted to the bearing aperture of said bushing, a thread-controller spring surrounding and having one end connected to said stud and provided at the other end with a lateral thread-arm resting against the shoulder of said stop-member, a set-screw accessible through said casing and entering the bushing for securing said stud adjustably within the latter, and a clamp-screw for securing said stop-member adjustably to said casing.

4. In a sewing machine, in combination, a sheet-metal face-plate formed with a circular series of apertures and with a central aperture, a bushing formed with a bearing aperture and with a stud entering the central aperture of said face-plate in which it is secured, a cylindrical sheet-metal casing provided at one end with prongs entering the apertures of said circular series in the face-plate in which they are secured, a tubular shouldered stop-member concentric with and fitted within said casing, means for securing it adjustably within said casing, a stud fitted within the bearing aperture of said bushing, means for securing it adjustably therein, and a thread-controller spring surrounding and having one end connected to said last-named stud and provided at the other end with a lateral thread-arm resting against the shoulder of said stop-member.

5. In a sewing machine slack-thread controller, the combination with a stud and a controller-spring having at one end a connection therewith and at the other end a lateral thread-arm, of a cylindrical sheet-metal casing inclosing the spring, a fixed support to which said casing is secured, a bushing secured within said casing to said support and provided with an axial bearing aperture for said stud, a set-screw applied to said bushing for securing the stud adjustably in its bearing aperture, a tubular stop-member fitted within said casing and surrounding said bushing and provided with a shoulder for engagement with the lateral thread-arm of said spring, and a clamp-screw for securing said stop-member in circularly adjustable position upon said casing.

[Claims 6 and 7 not printed in the Gazette.]

1,209,973. POULTRY-FEEDER. CHARLES DUTTON KARR, Holland, Mich. Filed Apr. 15, 1916. Serial No. 91,236. (Cl. 119—70.)

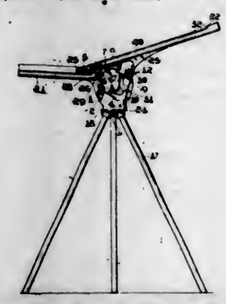


1. In a poultry feeder, a feed receptacle having an opening at the lower end and having a hole through the side, a coiled wire spring valve adjustably screwed through said hole and a distributer and bait suspended from the bottom of the coiled wire valve.

2. In a poultry feeder, a receptacle having an opening at the lower end and having a hole through the side, a valve made of spring wire with the coils close together at the lower end and gaged farther apart as they approach the upper end of the valve, the free end of the valve wire passed through the hole in the side of the receptacle and the valve made vertically adjustable by screwing the wire into, or out of the receptacle, and a distributer and bait suspended below the valve.

3. In a poultry feeder, a food receptacle and a bait-holder, in combination with a conically formed coiled wire spring valve having its larger end adjustably connected with the receptacle, and its smaller end connected with the bait so that any agitation of the bait will operate the valve to discharge food, the size of the food discharged being regulated by the relative position of the valve with the receptacle.

1,209,974. MAGAZINE PEA-SHOOTER. LOUIS A. KERWIN, Toronto, Ontario, Canada. Filed May 20, 1916. Serial No. 98,872. (Cl. 124—13.)



1. In a pea shooter, the combination of a barrel having a slot in its rear end and an opening in the upper side adjacent the rear end for the admission of a pea; a magazine with its rear end over the breech of the barrel; a slide adapted when reciprocated to admit peas one by one to said barrel through the opening therein; a crank handle; means whereby the crank handle actuates said slide in one direction; a spring tending to move the slide in the opposite direction; a spring arm connected with said crank handle to rotate therewith; and an abutment behind the slot in the end of the barrel adapted to engage the end of the spring arm and past which said end may be forced by the continued movement of the arm to pass through the slot in the end of the barrel.

2. In a pea shooter, the combination of a barrel having a slot in its rear end and an opening in the upper side adjacent the rear end for the admission of a pea; a magazine with its rear end over the breech of the barrel; a slide adapted when reciprocated to admit peas one by one to said barrel through the opening therein; a crank handle; a lever of the first order; a projection on the slide engageable by said lever to retract the slide; a spring tending to return said slide to its normal position; a projection on the crank handle adapted to rock the other end of said lever and pass by; a spring arm connected to said crank handle to rotate therewith; and an abutment behind the slot in the end of the barrel adapted to engage the end of the spring arm and past which said end may be forced by the continued movement of the arm to pass through the slot in the end of the barrel.

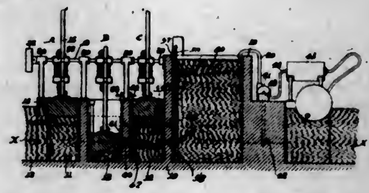
3. In a pea shooter, the combination of a barrel having a slot in its rear end and an opening in the upper side adjacent the rear end for the admission of a pea; a magazine with its rear end over the breech of the barrel; a slide adapted when reciprocated to admit peas one by one to said barrel through the opening therein; a crank handle; a yoke-shaped lever of the first order; a projection on the slide engageable by said lever to retract the slide; a spring tending to return said slide to its normal position; a projection on the crank handle adapted to rock the other end of said lever and pass by; a spring arm connected with said crank handle to rotate therewith and pass between the parts of the yoke-shaped lever; and an abutment behind the slot in the end of the barrel adapted to engage the end of the spring arm and past which said end may be forced by the continued movement of the arm to pass through the slot in the end of the barrel.

4. In a pea shooter, the combination of a barrel having an opening in the upper side adjacent the rear end; an upwardly and rearwardly inclined tubular magazine having the opening of its lower end just in front of the opening into the barrel; a slide adapted to reciprocate between said openings and provided with a hole of sufficient size to receive a pea, the forward side of the hole in the slide and the rearward side of the said opening of the magazine being beveled; and means actuated by a crank handle for reciprocating said slide.

5. In a pea shooter, the combination of a barrel having a slot in its rear end and an opening in the upper side adjacent the rear end for the admission of a pea; means for automatically feeding peas thereto including a rocking lever; cap-feeding and exploding means including a rocking lever; a crank handle; wipers actuated by said crank handle adapted respectively to actuate said levers, said wipers and the lever ends engaged thereby lying in different planes so that each wiper actuates its proper lever and no other; a spring arm connected with said crank handle to rotate therewith; and an abutment behind the slot in the end of the barrel adapted to engage the end of the spring and past which said end may be forced by the continued movement of the arm to pass through the slot in the end of the barrel.

[Claims 6 to 10 not printed in the Gazette.]

1,209,975. TIDE-MOTOR. JOHN A. KNOWLTON, Dorchester, Mass. Filed Apr. 7, 1914. Serial No. 830,543. Renewed May 11, 1916. Serial No. 96,946. (Cl. 253—9.)



1. In a tide motor, the combination with a float of means for transmitting power from the float as the tide rises, means for transmitting power from the float as the tide falls, and means for causing the float to fall at less speed relatively to the speed of the driven mechaniam than it rises.

2. In a tide motor, the combination with a float, of means for transmitting power from the float as the tide rises, means for transmitting power from the float as the tide falls, and means for causing the float to fall at less speed than the fall of the tide.

3. A tide motor comprising a float, a rack movable with the float, a shaft having a loosely mounted gear in mesh with the rack, means for operatively connecting the shaft and the gear when the gear rotates in one direction only, a second gear on the shaft, means for operatively connecting the gear and the shaft when the gear rotates in one direction only, and speed increasing gears connecting the rack and the second gear whereby equal movements of the rack in opposite directions will impart a greater movement to the second gear than to the first.

4. A tide motor comprising a float freely movable with the tide, a second float movable independently of the tide, means for supplying water to the last named float whereby the float is moved at tide speed indepedently of the movement of the tide and means for transmitting power from the floats.

5. A tide motor comprising a float freely movable with the tide, a float arranged to be lifted at tide speed during an ebb tide, a float arranged to be lifted at tide speed during the next ebb tide and means for transmitting power from the floats to the driven mechanism.

[Claims 6 to 10 not printed in the Gazette.]

1,209,976. PROCESS OF MANUFACTURING DRAWING-PINS. ARNO WILLY KRAUSS, deceased, Schwarzenberg-Sachsenfeld, Germany, by Alma Paula Krauss, *née* Wolf, Schwarzenberg-Sachsenfeld, Germany, heiress, assignor to Metallstanzwerk G. M. B. H., Schwarzenberg, Germany. Filed Jan. 4, 1916. Serial No. 70,307. (Cl. 10—34.)



1. The process of forming a disk a drawing pin having a prong greater than the radius of the disk, which consists in stamping from said disk a shank with a thickening on its length, then bending off said shank with its thickening from said disk and subsequently removing said thickening of said shank by stretching it out, whereby the shank itself is lengthened.

2. The process of forming from a disk a drawing pin having a prong greater than the radius of the disk, which consists in stamping from said disk a shank with a thickening arranged behind the point proper of said shank, then bending off said shank with its thickening from said disk and subsequently removing said thickening of said shank by stretching it out, whereby the shank itself is lengthened.

3. The process of forming from a disk a drawing pin having a prong greater than the radius of the disk, which consists in stamping from said disk a shank with a thickening on its length, said thickening having a shoulder at its inner end, then bending off said shank with its thickening from said disk, and removing said thickening of the shank by stretching it out.

4. A drawing pin, comprising a circular disk-like head, having a prong struck out therefrom, a slot-shaped hole in said head and an enlargement in said slot, said prong having a length which is greater than that of said slot left by its being struck out from the head.

1,209,977. CLIP FOR FOUNTAIN-PENS. DAVID J. LA FRANCE, Somerville, Mass. Filed Feb. 15, 1916. Serial No. 78,511. (Cl. 24—11.)

1. A fountain-pen cap having formed in the wall thereof two holes spaced from each other in the direction of the length of the cap, and a resilient clip having a bent portion extending loosely through one hole and a soft end extending through the other and clenched against the wall of said cap.

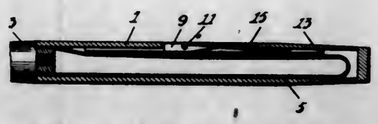
2. A fountain-pen cap having formed in the wall thereof an upper and a lower hole, and a resilient clip of tempered metal having a portion bent in one direction, an upright extension, and a soft end bent in a direction opposite to that of the first-named bend protruding through the upper hole and clenched against the cap, the lower hole being sufficiently large to permit the extension to be inserted through it so as to cause the softened end to protrude through the upper hole preparatory to being clenched.

3. As an article of manufacture a clip for a fountain-pen cap said clip being of tempered metal comprising a portion adapted to lie alongside the outer wall of the cap, a portion bent in one direction and adapted to enter a hole



in the cap, an upright extension adapted to lie alongside the inner wall of the cap, and a softened end bent in a direction opposite to that of the first-named bend and adapted to extend out through a second hole in the cap and to be clenched in position.

1,209,978. SELF-FILLING FOUNTAIN-PEN. DAVID J. LA FRANCE, Somerville, Mass., assignor to Charles Brandt, Boston, Mass. Filed May 1, 1916. Serial No. 94,676. (Cl. 120—46.)



1. A fountain pen comprising a barrel having an elongated slot in the wall thereof, a collapsible ink reservoir in said barrel, a presser bar located between said slot and said reservoir, a lever in said slot, a pivot extending into the walls of said slot intermediate the ends thereof by which said lever is connected to said barrel, and a spring fastened at one end to said pivot and at the other to said presser bar in such manner that the slot receives a portion of the spring.

2. A fountain pen comprising a barrel having an elongated slot in the wall thereof, a collapsible ink reservoir in said barrel, a presser bar located between said slot and said reservoir, a lever in said slot, a pivot extending into the walls of said slot intermediate the ends thereof by which said lever is connected to said barrel, and a spring fastened at one end to said pivot and at the other to said presser bar in such manner that the slot receives a portion of the spring, a portion of the spring being constructed and arranged to serve as a stop to limit the movement of the lever to operative position.

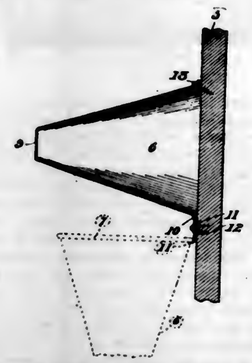
3. A fountain pen comprising a barrel having a slot in the wall thereof, a collapsible ink reservoir in said barrel, a presser bar located between said slot and said reservoir, a lever in said slot, a pivot by which said lever is connected to said barrel, and a resilient member connected to said pivot, extending down through said presser bar at a point near one end thereof, running along the under side of said presser bar and up through said presser bar at a point near the middle thereof to form a stop to limit the movement of said lever to operative position.

4. A fountain pen comprising a barrel, a collapsible ink reservoir in said barrel, a presser bar located between said slot and said reservoir, a lever in said slot, a pivot by which said lever is connected to said barrel, and a resilient member connected to said pivot and to said presser bar, said lever being substantially U-shaped in cross section so that the sides thereof extend down past a portion of the resilient member when the lever is in inoperative position.

5. A fountain pen comprising a barrel having a slot in the wall thereof, a collapsible ink reservoir in said barrel, a presser bar located between said slot and said reservoir, said presser bar having upstanding ribs, a lever U-shaped in cross section, a pivot by which said lever is connected to said barrel, and a spring connected to said pivot and to said presser bar.

[Claims 6 to 8 not printed in the Gazette.]

1,209,979. BIRD-HOUSE. LOUIS T. LARSON, Stanton, Iowa. Filed Sept. 25, 1916. Serial No. 121,979. (Cl. 119—28.)



In combination with a support, a bird house comprising a casing of frusto-conical form, an annular bead formed at the larger end thereof, a hinge connection between the beaded end of the casing and the support, and means carried by the casing for engaging said support for retaining the casing in operative position.

1,209,980. BOTTLE-SEALING CAP. CLARENCE J. LAWSON, Yonkers, N. Y. Filed Feb. 29, 1916. Serial No. 81,077. (Cl. 215—9.)



1. A bottle sealing cap comprising a circular metal shell, a sealing gasket and a collet, the collet having two parallel sides which are located at the extremities of and are perpendicular to a line passing through the center of the collet, such collet being interposed between the gasket and the shell and adapted to center in the shell.

2. A bottle sealing cap comprising a circular metal shell, a sealing gasket and a collet having two sets of parallel sides, the sides of each set being at right angles to the sides of the other set and the collet being interposed between the gasket and the shell and adapted to center in the shell.

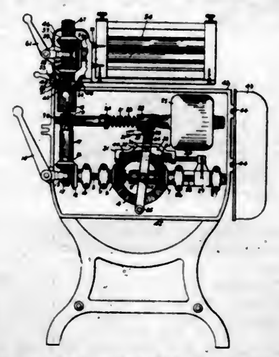
3. A bottle sealing cap comprising a circular metal shell, a sealing gasket and a collet, the collet having four corners substantially corresponding to the corners of a square and having a perimeter wherein the lines of two of the sides of the collet are counterparts respectively of the lines of the two opposite sides of the collet, such collet being interposed between the gasket and the shell and adapted to center in the shell.

4. A bottle sealing cap comprising a circular metal shell, a sealing gasket and a collet, the collet having four corners substantially corresponding to the corners of a square and having a perimeter wherein the line of one side of the collet is a counterpart of the line of the opposite side of the collet, such collet being interposed between the gasket and the shell and adapted to center in the shell.

5. A bottle sealing cap comprising a circular metal shell, a sealing gasket and a square-shaped self-centering collet interposed between the gasket and the shell.

[Claims 6 to 10 not printed in the Gazette.]

1,209,981. GEARING FOR WASHING-MACHINES. HALVOR H. LYCHE, Chicago, Ill., assignor to The Odin Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 20, 1916. Serial No. 73,262. (Cl. 74—60.)



1. In a reversing mechanism, the combination of a drive shaft, pinions loose on said shaft, one of said pinions provided with a shaft extension, a driven gear adapted to be alternately rotated in opposite directions by said shaft through said pinions, a clutch device for alternately locking the pinions to the shaft including a shiftable lever, and a shifting device for said lever mounted on and actuated by said shaft extension.

2. In a device of the character described, the combination of a driving shaft, a driven shaft, reversing gearing therefor actuated by said driving shaft and comprising meshed driving and driven gear elements and a clutch therefor, a reciprocable nut operated by one of said gear elements, and a shifting device for said clutch adapted to be actuated by said nut to shift the clutch.

3. In a driving mechanism, the combination of a driven element, a driving shaft, driving elements on said shaft and meshing with said driven element, a clutch device for said driving elements, a shifting device directly actuated by one of said driving elements and constructed for shifting the clutch into alternate engagement with the driving elements and thereby impart opposite rotation to said driven element, and means for yieldingly holding the clutch device in a shifted position.

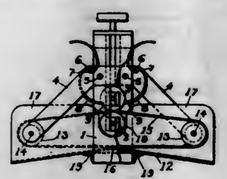
4. In a device of the class described, the combination of a support, a sectional shaft journaled thereon, a nut movable on one shaft part and having a rod fixed thereto, a driven gear on the support, driving gears loosely carried by the said sectional shaft and in mesh with the driven gear, a clutch device for said gears, a lever pivotally connected to the support and operable to actuate the clutch device to alternately rotate the gears in opposite directions, means carried by the rod for alternately shifting the lever, means for alternately holding the lever in shifted position, and means for driving said shaft.

5. The combination with a support, of a gear rotatably mounted on the support, a sectional driving shaft mounted on the support and having pinions in mesh with said gear, a nut movable along the said shaft, a rod carried by the nut, a cam bracket fixed to the rod, a lever having its lower end pivotally connected to the support, a spring pressed latch carried by the upper end of the lever, said rod being slidable through the lever, springs on the rod and having their inner ends engaging the

lever and their outer ends engaging the said cam bracket, a plate fixed to the support and having recesses formed therein, means for rotating the shaft, means carried by the lever for alternately driving the pinions in opposite directions for correspondingly rotating said gears, said nut being movable longitudinally on the shaft whereby the cam bracket actuates the latch to alternately engage said recesses.

[Claims 6 and 7 not printed in the Gazette.]

1,209,982. CLOTHES-WRINGER. HALVOR H. LYCHE, Chicago, Ill., assignor to The Odin Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 12, 1916. Serial No. 79,769. (Cl. 68—32.)



1. In combination, a wringer frame provided with upper and lower wringer rolls, a drainboard carried by the frame and having a base and side frame members extending outwardly from each side of the frame, spaced rollers terminally carried by said outwardly extending side frame members, and an endless belt conveyer extending around the rollers and having its upper stretch disposed in the pass of the rolls and its lower stretch in juxtaposition with the base of the drainboard.

2. In combination, a wringer frame provided with upper and lower wringer rolls, a drainboard carried by the frame having a base and side frame members, spaced rollers carried by said side frame members, and an endless belt conveyer extending around the rollers and having its upper stretch disposed in the pass of the rolls and its lower stretch intermediate the lower roll and the base of the drainboard, the upper stretch of the belt conveyer and the base of the drainboard substantially correspondingly inclined whereby to shed the water in a direction away from the rolls.

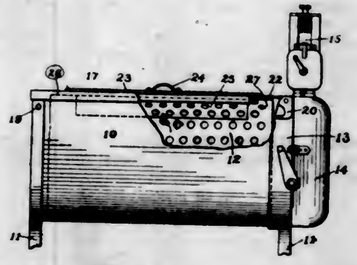
3. In combination, a wringer frame provided with upper and lower wringer rolls, a drainboard carried by the frame having outwardly extending side frame members, spaced rollers terminally carried by said side frame members, and an endless belt conveyer extending around said rollers and having its upper stretch disposed in the pass of the rolls and its lower stretch below the lower roll, and a stripper guard member pivotally carried by said side frame members and having its lower free edge portion extending toward the pass of the rolls to contact peripherally with the upper roll, said edge portion slightly removed from the upper stretch of the belt conveyer.

4. In combination, a wringer drainboard comprising side frame members and a base connecting said members, spaced rollers having bearing members projecting laterally through the side frame members, and attaching brackets extending longitudinally of the side frame members and constructed to terminally engage the projecting bearing members of the rollers.

5. In combination, a wringer frame provided with upper and lower wringer rolls, a drainboard having an arched base constituting a water shed for said rolls and side frame members therefor extending outwardly at each side of the wringer frame, spaced rollers terminally carried by said outwardly extending side frame members, an endless belt conveyer extending around the rollers and having its upper stretch disposed in the pass of the rolls and its lower stretch extending horizontally and adjacently across the apex of the arched base, and means for detachably connecting the drainboard to the wringer frame.

[Claim 6 not printed in the Gazette.]

1,209,983. WASHING-MACHINE. HALVOR H. LYCHE, Chicago, Ill., assignor to The Odin Company, Chicago, Ill., a Corporation of Illinois. Filed May 20, 1916. Serial No. 98,821. (Cl. 68—18.)



1. In laundry apparatus, the combination of a washing machine body having an open top substantially co-extensive with the length and breadth of said body, a substantially flat removable main cover for closing said open top provided with a centrally disposed port in its flat surface, a barrel for said body insertible thereinto through said open top and having an opening disposed intermediate side and end portions of the same, a closure section for said opening and liftable bodily through said port, and a supplementary removable cover for said port superposed upon said main cover, the side and end portions of the main cover about said port projecting inwardly of the body of the machine to extend over those side and end portions of the barrel about its opening, and one of the said end portions of the main cover adapted to serve as a retaining apron upon removal of the supplementary cover, substantially as and for the purpose set forth.

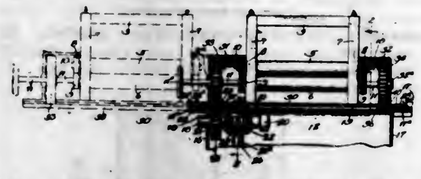
2. A washing machine comprising in combination a body formed with an open top containing a barrel provided with a segmental opening and a lid for said opening, a main cover for said body constructed to permit removal of the barrel through said open top, said main cover substantially horizontally disposed in a plane above the peripheral boundary of said barrel and having a port constructed to permit removal of the lid, side and end portions of said main cover extending inwardly from said body over corresponding portions of the barrel about said opening, and a supplementary portable cover for said port.

3. In laundry apparatus, the combination of a washing machine body having side and end walls, a barrel longitudinally disposed in the body, said body provided with an open top disposed in a horizontal plane and through which said barrel is designed to be inserted, a removable substantially flat main cover for closing said open top supported by said walls and formed with a centrally disposed port whereby to provide a retaining apron adjacent one end wall of the said body, said barrel having arcuate bridging end portions and a segmental closure section intermediate said end portions and removable bodily through said port, said retaining apron extending over one of said end portions, and a supplementary removable cover for the said port.

1,209,984. CLOTHES-WRINGER. HALVOR H. LYCHE, Chicago Ill., assignor to The Odin Company, Chicago, Ill., a Corporation of Illinois. Filed July 6, 1916. Serial No. 107,738. (Cl. 68—32.)

1. In a machine of the character described, the combination of a wringer provided with rolls and gears for said rolls, a carrier frame secured to the wringer, a support on which the carrier frame is slidably mounted for movement from one operative position to another in a substantially horizontal plane, and gearing operatively carried by said carrier frame and support for actuating the said gears in either position of the carrier frame.

2. In a machine of the character described, the combination of a wringer provided with rolls, a support therefor, a two part carrier frame for said wringer composed of relatively slidable parts, whereby the wringer is adapted to be moved in a substantially horizontal plane from one operative position to another, one part of said frame being associated with the wringer and provided with a pair of gears operatively connected with said rolls, and the other part mounted on the said support and provided with a driving element adapted to engage with either of said gears in the movement of the wringer frame.



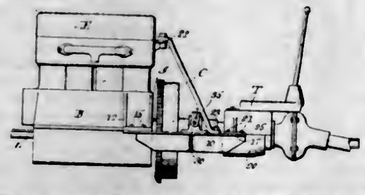
3. In a machine of the character described, the combination of a support provided with a power shaft, a wringer provided with rolls, gears for imparting rotation to the rolls, a carrier frame secured to the wringer, and provided with a base, a supporting frame secured to said support in which the base of the carrier frame is slidably mounted for substantially horizontal movement from one operative position to another with reference to said support, and gearing driven from said power shaft for actuating the said gears in either position of the carrier frame.

4. In a device of the character described, the combination of a wringer comprising a frame and its rolls, said wringer adapted to be moved in a substantially horizontal plane from one limiting position to another, a driving element, and driven gearing for said rolls and means by which it may be driven by said element in one position, or when the wringer is moved to the other of its limiting positions, said gearing carried by the frame and disconnectible from the driving element in the horizontal movement of said wringer.

5. In a device of the character described, the combination of a wringer provided with rolls and a base, a support for said base, said wringer adapted for movement relative to said support in a substantially horizontal plane from one operative position to another, a driving element, and driven gearing for said rolls adapted to be actuated by said driving element when the wringer is moved to either of its operative positions, said driven gearing being disconnectible from the driving element in the horizontal movement of said wringer.

[Claims 6 to 8 not printed in the Gazette.]

1,209,985. UNIT POWER PLANT FOR MOTOR-VEHICLES. ARTHUR C. MASON, Flint, Mich., assignor, by mesne assignments, to Chevrolet Motor Company, a Corporation of Delaware. Filed Aug. 14, 1915. Serial No. 45,589. (Cl. 21—90.)



1. In an automobile, a supporting frame consisting of a plurality of parts, a center frame consisting of two parts one upon each side of the engine each of which is removably supported upon the chassis.

2. In an automobile, a supporting frame consisting of a plurality of parts, a center frame consisting of two separate parts one upon each side of the engine, each of which is removably supported upon the chassis and a V-shaped strut removably secured at its apex to the upper part of the engine frame and removably secured at the extremities of its supporting arms respectively to the parts forming the center frame.

3. In an automobile, a supporting frame consisting of a plurality of parts, a center frame consisting of two separate parts, one upon each side of the engine, each of which is movably supported upon the chassis and a strut removably secured to the engine and to the center frame.

4. In an automobile, a supporting frame consisting of a plurality of parts, a center frame consisting of two separate side parts each of which is removably supported upon the chassis, and a self starter removably secured to one of the side central frames.

1,209,986. RUBBERIZED SHEET FOR TRUNK-PANELS AND THE LIKE. CLAUDE D. MASON, Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Company, a Corporation of Connecticut. Continuation of application Serial No. 15,694, filed Mar. 30, 1915. This application filed Sept. 22, 1916. Serial No. 121,539. (Cl. 154—53.)

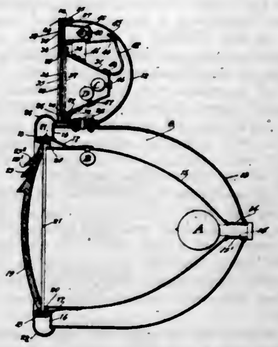


1. A broad flat sheet of material adapted to be used as a trunk panel or the like comprising layers of wire-cloth embedded in and forming a unitary structure with layers of rubber and rubberized fabric.

2. A broad flat sheet of material adapted for use as a trunk panel or the like comprising separated layers of woven wire-cloth, layers of rubberized fabric therebetween, layers comprising rubber covering the outer faces of said layers of wire-cloth and a layer of rubber covering the edges thereof.

3. A broad flat sheet of material adapted for use as a trunk panel or the like comprising two layers of woven wire-cloth, layers of rubberized fabric therebetween, and layers comprising rubber covering the outer faces of said layers of wire-cloth, said layers of wire cloth being disposed on either side of the medial line of bending within the material.

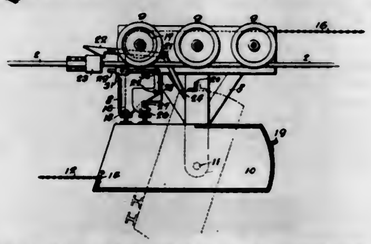
1,209,987. AUTOMOBILE-HEADLIGHT. GILBERT ROBERT MATHESON and JOSEPH BERTRAM SHAW, Winnipeg, Manitoba, Canada. Filed Apr. 27, 1915. Serial No. 24,304. (Cl. 40—132.)



The combination with an automobile headlight, of a casing mounted on the top of the headlight, a removable closure plate closing the front side of the casing and having the lower portion thereof for the greater part open and the upper portion thereof for the greater part closed, save for the exception of a signaling slot, a removable

auxiliary deflector contained within the casing and located to the rear of the opening in the lower portion of the plate, a lens inserted in the latter opening and closing the front side of the auxiliary deflector, a number plate located to the rear of the lens, a removable top deflector within the casing, mounted on the auxiliary deflector and located to the rear of the upper slotted portion of the closure plate and illuminating lights contained within the auxiliary and top deflectors.

1,209,988. EXCAVATING-BUCKET. JAMES MATTHEWS, Vancouver, British Columbia, Canada. Filed Sept. 11, 1916. Serial No. 119,502. (Cl. 37—19.)



1. An excavating and conveyer bucket, comprising the combination with a carriage adapted to travel on an overhead track, said carriage having relatively rigid dependent arms spaced apart, of an excavator bucket pivotally mounted to and between said arms, said carriage having a depending bucket engaging abutment to engage the forward end of the bucket and limit its elevating movement, a latch device mounted on said carriage, a bail on said bucket to engage with said latch device, an adjustable shoulder member adapted to be secured to the overhead track, a latch releasing rod connected with said latch and adapted to engage said shoulder member to release said latch and a carriage latching device for latching the carriage to said shoulder member at the time of release of said bucket latch, and holding lines connected with said bucket and carriage.

2. An excavator and conveyer bucket, comprising the combination with a carriage adapted to travel on an overhead track, of an excavator bucket pivotally suspended from the carriage, means for automatically latching the front or excavating end of the bucket to the carriage to sustain the bucket in an unstable position, and means secured on the overhead track for automatically effecting release of the bucket retaining means, said bucket latching means comprising a weighted latch lever pivotally mounted on the carriage, a reciprocating latch release rod mounted on the carriage and adapted to move said latch lever to the releasing position, said latch release rod adapted to engage said release effecting means when the carriage is drawn into juxtaposition thereto.

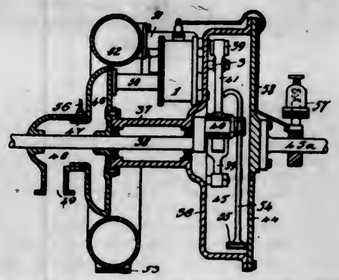
3. An excavating and conveyer bucket, comprising the combination with a carriage adapted to travel on an overhead track, said carriage having relatively rigid depending arms, of an excavator bucket pivotally mounted on and between said arms to swing from the carriage, means for latching the front or excavating end of the bucket to the carriage, means for effecting release of the bucket latching means, and a stop carried by and projecting between said arms, together with a stop on the rear end of the bucket, said bucket stop adapted to engage said arm carried stop with jarring impact when said bucket is released.

4. An excavating and conveyer bucket, comprising the combination with a carriage adapted to move on an overhead track, of an excavator bucket pivotally mounted to swing from the carriage, a latch member pivotally mounted adjacent the front end of the carriage and adapted to engage a shouldered projection secured on the overhead track, said latch member being downwardly produced from its pivot to project in the path of the after end of the bucket when the same swings free on its pivot to the emptying position.

5. An excavating and conveyer bucket, comprising the combination with a carriage adapted to move on an overhead track, of an excavator bucket pivotally mounted to swing from the carriage, a hauling line directly connected to the front end of the bucket and a haul-back line passing from the rear end of the carriage over sheaves adjacent the front end of the same and connected to the front end of the bucket.

[Claim 6 not printed in the Gazette.]

1,209,989. INTERNAL-COMBUSTION ENGINE. ERNEST EDWARD EDGAR MULLIN, near Chorley, England. Filed Aug. 6, 1915. Serial No. 44,125. (Cl. 123—43.)



1. A two stroke internal combustion engine comprising a pivotally mounted piston, a piston chamber within which the piston oscillates and which has on one side a cylindrically shaped chamber within which the piston is pivoted, a sleeve valve on the piston which fits in said cylindrical chamber, an exhaust port and an inlet port in the wall of such cylindrical chamber, a port in the sleeve valve on one side of the piston for placing the exhaust port in communication with the space on one side the piston, and a port in the sleeve valve for placing the inlet port into communication with the space on the other side of the piston, substantially as set forth.

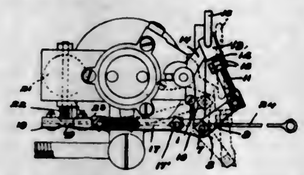
2. A rotary multiple cylinder internal combustion engine comprising a plurality of pivotally mounted pistons, a piston chamber for each of such pistons within which the piston oscillates and which has a cylindrically shaped chamber within which the piston is pivoted, a sleeve valve on the piston which fits in said cylindrical chamber, an exhaust port and an inlet port in the wall of such cylindrical chamber, a port in the sleeve valve on one side of the piston for placing the exhaust port in communication with the space on one side the piston, and a port in the sleeve valve for placing the inlet port into communication with the space on the other side the piston, rocking shafts on which the pistons are mounted, a rotary mounted support for said piston chambers, a stationary crank shaft, and crank arms and connecting rods connecting the rocking shaft and crank shaft, substantially as set forth.

3. A rotary multiple cylinder internal combustion engine comprising a plurality of pivotally mounted pistons, a piston chamber for each of such pistons within which the piston oscillates and which has a cylindrically shaped chamber within which the piston is pivoted, a sleeve valve on the piston which fits in said cylindrical chamber, an exhaust port and an inlet port in the wall of such cylindrical chamber, a port in the sleeve valve on one side of the piston for placing the exhaust port into communication with the space on one side of the piston, a port in the sleeve valve for placing the inlet port into communication with the space on the other side of the piston, and a conduit rotating with the piston chambers for passing the combustible gas to the inlet ports, substantially as set forth.

4. A rotary multiple cylinder internal combustion engine comprising a plurality of pivotally mounted pistons, a piston chamber for each of such pistons within which

the piston oscillates and which has a cylindrically shaped chamber, an exhaust port and an inlet port in the wall of such cylindrical chamber, a port in the sleeve valve on one side of the piston for placing the exhaust port into communication with the space on one side of the piston, and a port in the sleeve valve for placing the inlet port into communication with the space on the other side the piston, rocking shafts on which the pistons are mounted, a rotary mounted support for said piston chambers, a stationary crank shaft, crank arms and connecting rods connecting the rocking shaft and the crank shaft, a conduit rotating with the piston chambers for passing the combustible gas to the inlet ports from a stationary intake, and a rotating exhaust tube connected to the exhaust ports.

1,209,990. VALVE-OPERATING MECHANISM. CHARLES A. NEVINS, Great Falls, Mont. Filed Mar. 6, 1916. Serial No. 82,447. (Cl. 74—39.)



1. A lever mechanism for operating a plurality of control devices, comprising a member adapted to be secured in fixed position, a rocker arm pivoted to said member, a link pivoted to one end of said rocker arm, a second link pivoted to the first link and having a limited movement in one direction, attaching means on the outer end of said second link, a sleeve pivotally connected to the opposite end of the rocker arm, a rod carried in said sleeve and nuts on said rod for regulating the movement of the sleeve, substantially as described.

2. A lever mechanism for operating a plurality of control devices, comprising a member adapted to be secured in fixed position, a rocker arm pivoted to said member, a link pivoted to one end of said rocker arm and having attaching means on its outer end, a sleeve pivoted to the opposite end of the rocker arm, a rod carried therein having attaching means on its outer end, and a slip joint connection with said sleeve on its outer end, substantially as described.

1,209,991. ENVELOP-OPENING DEVICE. RAYMOND R. NORDSTROM, Litchfield, Minn. Filed July 19, 1916. Serial No. 110,213. (Cl. 164—58.)



1. In an envelop opener, the combination with a base, a knife movable in a vertical plane above the base to and from the same, a cutting surface on the base for coöperating with said knife, a stop for positioning an envelop to be opened behind said cutting surface, and means by which a blast of air may be directed in front of said stop and longitudinally over the cutting surface to remove the severed end of the envelop.

2. In an envelop opener, the combination of a base, a vertically movable knife at one end of said base and adapted to travel to and from the same, means for guiding said knife in its travel, a casing inclosing said knife and having an opening on one side and on one end at the bottom of the casing, a stop block fixed to the base within the casing parallel to and back from the plane of movement of the knife adapted to arrest an envelop to be opened in its proper position beneath said knife, and manually operable means for forcing a blast of air at an angle against the side and longitudinally of said block to force the strips cut from the envelop out of the casing through the opening in the end.

3. In an envelop opener, the combination of a base, a transverse cutting surface on said base, a casing secured to said base at one end above the cutting surface having a horizontal slot in one side and one end and a vertical slot in each of its ends, a knife movable vertically within said casing toward and from the cutting surface and guided by said vertical slot, a stop block in rear of the cutting surface for limiting the position of an envelop inserted through one of said horizontal slots, resilient means for holding said knife above the plane of said slot, and means for directing a blast of air within said casing toward the other horizontal slot.

4. In an envelop opener, the combination of a base, a casing secured to said base at one end having a horizontal slot through the bottom of the front and one side of said casing and a central vertical slot in each of its sides, a knife extending longitudinally of the casing and movable vertically therein, said knife having a cutting edge directed downwardly, a laterally extending rib on each face and projecting fingers on its ends extending through and guided by said vertical slots, a knife carrier having a longitudinal slot of proper shape extending from end to end into which said knife and its ribs are seated, a stem projecting upwardly from said carrier and having a knob on its upper end, and resilient means for normally holding said knife blade in elevated position.

5. In an envelop opener, the combination with a base, a casing secured to said base at one end having a horizontal slot in the front thereof, and in the plane of the base, and a similar slot in one side of the casing, vertical slots being formed in the opposite ends, a vertically reciprocating knife extending horizontally from end to end of the casing and having fingers riding in said vertical slots to guide the knife in its movement, a knife carrier in which said knife is removably secured, a stem projecting upwardly from said knife carrier through the casing and having means on its upper end for manually depressing the knife, resilient means for normally maintaining the knife in elevated position above the top of the horizontal slot, and a stop block to limit the inward movement of envelops inserted through one of said horizontal slots.

[Claims 6 and 7 not printed in the Gazette.]

1,209,992. DYNAMO-ELECTRIC MACHINE. HENRY V. NYE, West Allis, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Nov. 9, 1910. Serial No. 591,427. (Cl. 171—252.)

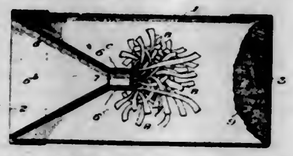


1. In combination, a dynamo-electric machine having a shaft and an overhanging commutator, and a unit comprising another dynamo-electric machine and a fan connected thereto, the rotatable element of said unit being mounted on and independently rotatable about said shaft

within said overhanging commutator for cooling said first dynamo-electric machine.

2. In a dynamo-electric machine, a shaft and a bearing therefor, the rotating part of said machine being secured on said shaft, an electric motor, the rotor of which is mounted to rotate relatively to said shaft, and a ventilating fan mounted on the rotor of said motor, the stator of said motor being supported by said bearing and said motor and fan being disposed beneath a projecting part of said rotating part.

1,209,993. ROACH, BUG, AND INSECT TRAP. EDWARD E. OETTINGER, Chicago, Ill. Filed Apr. 11, 1916. Serial No. 90,392. (Cl. 43—22.)



1. A roach or insect trap having an entrance opening and provided with a guard or barrier for said entrance opening comprising a bunch of numerous thin, tissue-like flexible strips or members freely interlaced with each other adapted to permit entry of the roaches or insects into the trap and to automatically close together in bunched and interlaced arrangement to prevent exit therefrom.

2. A roach or insect trap having a body and an entry portion therefor provided with inwardly converging walls having an entrance opening for the admission of roaches or insects into the trap, and a guard or barrier carried by said entry portion and projecting freely and within the body in the region of the entrance opening comprising a bunch of numerous light, flexible tissue strips freely interlaced with each other and contained within the trap and adapted to spread to permit roaches and insects to enter the trap and to close to bar their exit therefrom.

3. A roach or insect trap having an entrance opening and lips thereat which project freely into the interior of the trap, and a guard or barrier for said entrance opening comprising a bunch of numerous thin, light, flexible, tissue strips projecting from said lips and freely interlaced with each other and adapted to permit passage of the roaches or insects into the trap and to close together in interlaced and bunched arrangement to prevent exit therefrom.

1,209,994. DUPLICATING-MACHINE. KATHERINE R. O'KANE, Philadelphia, Pa. Filed Apr. 10, 1914. Serial No. 830,946. (Cl. 101—169.



1. In a duplicating machine, the combination with a rotary printing drum having a plurality of undercut channels in its periphery; of individual character type each having flanges fitted in said channels and a groove parallel with said channels, exterior thereto; a bridge type including a stamped sheet metal body having a series of peripheral recesses, and ribs adapted to fit said type grooves, and a cover-plate for said recesses; said cover plate having means detachably connecting it with said body, including a resilient member; said bridge type extending circumferentially on said drum transversely to a plurality of said channels, and having flanges fitted in said channels, engaging the undercut portions thereof; a plurality of distinct printing faces, separably mounted in said bridge type respectively radially coincident with said channels; whereby said faces may be set in variable order on said bridge type, and respectively presented in alinement with said individual character type set in said channels.

2. In a duplicating machine, the combination with a rotary printing drum having a plurality of undercut channels in its periphery; of individual character type each having flanges fitted in said channels and a groove parallel with said channels, exterior thereto; a bridge type including a metal body having a series of peripheral recesses, and ribs adapted to fit said type grooves, and a cover plate for said recesses; said bridge type extending circumferentially on said drum transversely to a plurality of said channels, and having flanges fitted in said channels, engaging the undercut portions thereof; a plurality of distinct printing faces, separably mounted in said bridge type respectively radially coincident with said channels; whereby said faces may be set in variable order on said bridge type, and respectively presented in alinement with said individual character type set in said channels.

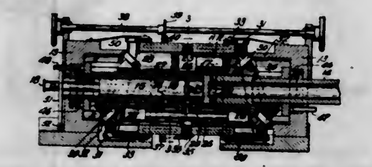
3. In a duplicating machine, the combination with a rotary printing drum having a plurality of undercut channels in its periphery; of a bridge type including a metal body having a series of peripheral recesses, and ribs adapted to fit said type grooves; said bridge type extending circumferentially on said drum transversely to a plurality of said channels, and having flanges fitted in said channels, engaging the undercut portions thereof; a plurality of distinct printing faces, separably mounted in said bridge type respectively radially coincident with said channels; whereby said faces may be set in variable order on said bridge type, and respectively presented in alinement with said channels.

4. In a duplicating machine, the combination with a rotary printing drum having a plurality of undercut channels in its periphery; of a bridge type including a metal body having a series of peripheral recesses; said bridge type extending circumferentially on said drum transversely to a plurality of said channels, and having flanges fitted in said channels, engaging the undercut portions thereof; a plurality of distinct printing faces, separably mounted in said bridge type respectively radially coincident with said channels; whereby said faces may be set in variable order on said bridge type, and respectively presented in alinement with said channels.

5. In a duplicating machine, the combination with a rotary printing drum having a plurality of channels in its periphery; of a bridge type including a metal body having a peripheral recess; said bridge type extending circumferentially on said drum transversely to a plurality of said channels, and having a projection fitted in one of said channels; and a printing face, separably mounted in said bridge type radially coincident with one of said channels.

[Claims 6 to 14 not printed in the Gazette.]

1,209,995. ROTARY EXPLOSIVE-ENGINE. CRAVEN ROBERT ORD, McAdam Junction, New Brunswick, Canada. Filed May 24, 1915. Serial No. 30,019. (Cl. 123—43.)



1. In an engine, a rotor having a bore parallel with the axis thereof, a piston of smaller diameter than the bore rigidly mounted at its center in the bore, a fixed cam ring, a sleeve having its outer end closed mounted in each end of the bore and slidably engaging the rotor and piston, a movable cam ring, a roller on the outer end of the sleeve engaging the fixed cam ring, and a second roller on the outer end of the sleeve engaging the movable cam ring.

2. In an engine, a rotor having a pair of bores parallel with the axis thereof, a tubular piston of smaller diameter than the bore fixed in each bore, a sleeve slidable in each bore engaging the rotor and fixed piston, hollow shafts passing into the rotor, an exhaust port in each bore a predetermined distance from the center thereof communicating with one hollow shaft, a gas port connecting the hollow-shaft and tubular piston, a second gas port a predetermined distance from the first, and a valve in the other hollow shaft arranged to cover and uncover said gas ports.

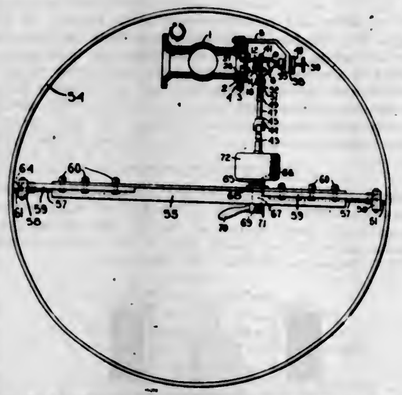
3. In an engine, a rotor having a bore parallel with the axis thereof, a fixed piston, and a pair of moving pistons in said bore, a passage extending concentrically through the rotor, a valve in said passage, an exhaust port connecting the bore and passage and controlled by one moving piston, and a plurality of gas ports connecting the bore and passage and controlled jointly by the other moving piston and the valve.

4. In an engine, a rotor having a pair of bores parallel with the axis thereof, a passage formed concentrically through the rotor, a tubular piston of smaller diameter than the bore fixed in each bore, a sleeve in each bore slidably engaging the bore, and piston, a port connecting the interior of the piston with the rotor passage, a port connecting the annular space between the piston and rotor with the rotor passage, a valve in said passage, a port therein arranged to communicate with the first mentioned rotor ports alternately, and a transfer port in said valve arranged to connect the first mentioned rotor port of one bore with the second mentioned rotor port of the other bore intermediate the communication of the first mentioned valve port with the first mentioned rotor port.

5. In an engine, a rotor having a bore parallel with the axis thereof, a member slidable in said bore, a fixed cam ring, a roller mounted on the slidable member engaging said cam ring and arranged to drive the member into the rotor, a yieldably mounted cam ring, a second roller on the slidable member engaging the yieldably mounted cam ring and arranged to withdraw the slidable member from the rotor, and means for limiting the yield of said second cam ring.

[Claims 6 to 9 not printed in the Gazette.]

1,209,996. JOINT-GRINDER. EDWIN L. PALMBORG, Forest Hills, Mass. Filed June 1, 1915. Serial No. 31,329. (Cl. 51—4.)



1. In a grinding machine, a rotatable grinding element, means for positioning said element against the surface to be ground, means for changing the contacting portions of the element and the surface while said surface is being ground.

2. In a grinding machine, a rotatable grinding element, a support for said element adapted yieldably to position the same against the surface to be ground, a handle on said support whereby said element and support may be moved to vary the contacting portions of the element and of said surface while said element is operatively held against said surface.

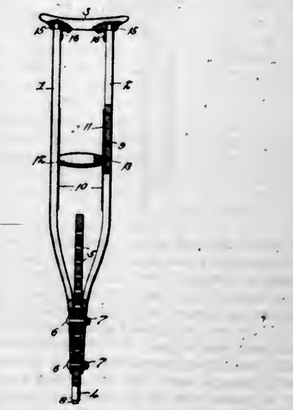
3. In a grinding machine, a frame, a grinding element adjustably mounted on said frame, a handle on said frame, a support for said frame, means carried by said support yieldably and movably to retain the grinding element against the surface to be ground whereby the contacting portions of the element and the surface may be varied while the surface is being ground.

4. In a grinding machine, a rotatable grinding element, a holder for said element adapted yieldably to position the element against the surface to be ground, a plurality of engaging means on said holder adapted selectively and interchangeably to receive a handle whereby said holder support may be manipulated when said element is operatively held against said surface.

5. A grinding machine comprising a frame, a grinding member mounted upon a shaft in said frame, a bearing member on said frame in axial alinement with the shaft and having a spherical bearing head, supporting means adapted to be secured to the object to be ground, a socket on said means adapted to engage said spherical bearing head, and means on the frame to change the contacting portions of the grinding member and the object ground while in operation.

[Claims 6 to 11 not printed in the Gazette.]

1,209,997. CRUTCH. JAMES C. PETTINGILL, Hyde Park, Mass. Filed June 20, 1916. Serial No. 104,734. (Cl. 135—51.)



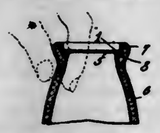
1. A crutch including side members, and a hand grip member, one of said members having studs projecting therefrom, said studs terminating in elongated heads, the other member having elongated openings formed therein to permit the heads of the studs to be passed therethrough, the stud carrying member being adapted for rotation after the heads have been passed through the openings to lock the members together.

2. A crutch including a side member and an arm rest member, a latch pivoted to one of said members, and a pin carried by the other member, said latch being bent intermediate its ends to provide a substantially right angular extension for engagement with said pin, for the purpose set forth.

1,209,998. MILK-CHECK. FRANK PINCKERT, Carthage, Mo. Filed Feb. 28, 1916. Serial No. 80,014. (Cl. 40—2.)

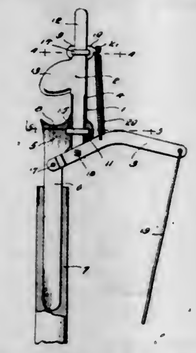
1. A milk check embodying a flat ring adapted to seat within the mouth of a milk bottle, the ring being suffi-

ciently wide to overhang the interior of the bottle and its aperture being adapted to receive the finger of a hand whereby the ring can be readily removed from the bottle, one edge of the ring being so formed, as to indicate by the sense of touch, the amount for which it is good.



2. A milk check embodying a flat ring adapted to seat within the mouth of a milk bottle, the ring being of sufficient width that its inner edge portion overhangs the interior of the bottle and the aperture of the ring being dapted to receive the finger of a hand, whereby the ring can be readily removed from the bottle, the inner edge of the ring being so formed, as to indicate by the sense of touch, the amount for which the check is good.

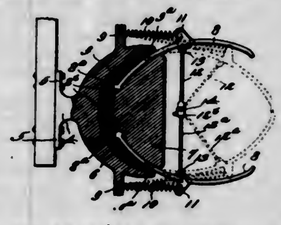
1,209,999. TREE-TRIMMER. GEORGE E. POWERS, Xenia, Ohio. Filed May 15, 1916. Serial No. 97,629. (Cl. 30—11.)



A tree trimming device comprising a fixed cutting member formed of a single metal plate and comprising a post having a laterally directed lower end and an attaching shank depending from said end, the upper edge of the latter being concave and constituting a fixed cutting blade and the upper end of said post having ears formed on its front and rear edges, the rearmost ear having a rearwardly projecting apertured lug, a U-bolt whose ends are passed through said ears, a vertical bar contacting slidably with one side of the post and having its upper end received in said U-bolt, another U-bolt straddling the lower end of said bar and having its ends passed through the lower end of the post, the intermediate portion of this U-bolt being in contact with the outer face of said vertical bar, while the arms thereof are spaced from the edges of said bar to permit the latter to move edgewise with the first-named U-bolt as a pivot, a second blade projecting from the front edge of said vertical bar for cooperation with the first-named blade, an operating lever fulcrumed at one end to the shank and pivoted to the lower end of said bar, and a coil spring secured at one end to the aforesaid apertured lug and at its other end to said lever.

1,210,000. MAIL-BAG RECEIVER. JAMES W. PULLIAM, Max, Nebr. Filed Aug. 11, 1916. Serial No. 114,440. (Cl. 258—20.)

1. In a mail bag receiver, the combination of a supporting head provided with an integral approximately semi-elliptical guide head, and an arcuate slot extending about the guide head, a pair of opposed arms slidably mounted in the supporting head at the sides of the guide head, means for normally securing the arms in retracted position and in spaced relation, and means for forcing the arms outwardly from the head and toward each other when released from said securing means.



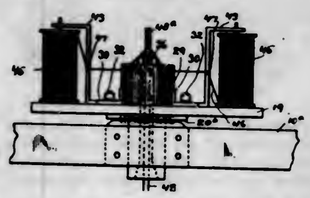
2. In a mail bag receiver, the combination of a supporting head, arms carried thereby and slidable in said head, means for normally holding the arms in retracted position in the head, means for holding the arms in spaced relation when in retracted position, and means carried by the head for forcing the arms outward and toward each other when released from the means for holding them in retracted position.

3. In a mail bag receiver, the combination of a supporting head, a pair of opposed arms slidably mounted therein, means for normally holding the arms in retracted position in the head and in spaced relation, a foldable spacing member pivotally connected to the said arms and adapted to be engaged by a mail sack so as to cause inward movement of the arms whereby said arms are released from the holding means, and means for forcing the arms outward when so released.

4. In a mail bag receiver, the combination of a supporting head, a pair of opposed arms slidably mounted therein, means for normally holding the arms in retracted position in the head and in spaced relation, an inwardly foldable spacing rod pivotally connected at its ends to said arms, respectively, and means carried by the head for forcing the arms outward.

5. In a mail bag receiver, the combination of a supporting head having an arcuate slot and laterally extending lugs, a semi-elliptical guide head formed integral with the supporting head, opposed arcuate arms extending into said slot and curved to fit the guide head, said arms being provided with shouldered heads on their inner ends and the supporting and guide heads being provided with shoulders and recesses, respectively, adapted to cooperate with the heads of said arms to limit the outward movement of the arms and to secure the arms in retracted position in the supporting head, said arms being further provided with laterally extending lugs, an inwardly foldable spacing rod pivotally secured at its ends to the arms, and expansion springs confined between the lugs carried by the supporting head and the lugs carried by the arms.

1,210,001. WIRE-COVERING MACHINE. FRANKLIN S. RANDALL, Jersey City, N. J., assignor of one-third to Ivan L. C. Gooding, Summit, N. J., and one-third to Chauncey V. Yates, Jersey City, N. J. Filed Feb. 10, 1916. Serial No. 77,375. (Cl. 28—6.)



1. A machine of the kind described comprising a plurality of rotatable spool carrying tables arranged one above the other and spaced apart, means for drawing a wire longitudinally through the tables, a guide head having slots and recesses therein to guide the material from the spools to the wire, and a vertically adjustable member arranged within the guide head, said member having a bore for the passage of the wire, and slots in its upper end to act as guides for the material as it is delivered to the wire.

2. A machine of the kind described comprising a series of rotatable tables arranged one above the other and spaced apart, spools of wire covering material supported on the tables, guide heads for each table having slots to guide the stock from the spools, and a member in each guide head having an internally corrugated surface to engage the covering on the wire.

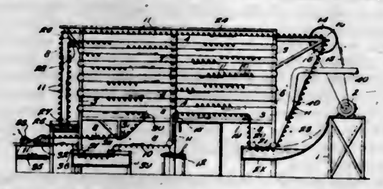
3. A machine of the kind described comprising means for moving a wire longitudinally, a series of hollow members spaced apart through which the wire passes, said members having guide slots therein to direct the covering material to the wire and having internally corrugated parts to engage the covering of the wire.

4. A machine of the kind described comprising means for moving a wire longitudinally, means for guiding covering material to the wire, and ironing members clasping the wire at intervals, said members having internally corrugated portions to engage and smooth the wire.

5. A machine of the kind described comprising means for moving a wire longitudinally, means for feeding covering material to the wire, means for winding the material upon the wire, and an ironing member clasping the covered wire and having an internally corrugated surface to engage and smooth the covering on the wire.

[Claims 6 and 7 not printed in the Gazette.]

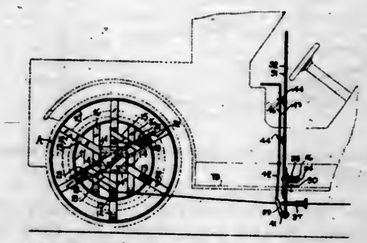
1,210,002. MACHINE FOR COATING CAKES, &c. LYMAN C. REED and OWEN P. SMITH, New Orleans, La. Filed Oct. 28, 1915. Serial No. 58,474. (Cl. 91—4.)



1. In a machine for coating cakes and other edibles the combination of an endless belt comprising a single chain; means for driving said belt over a predetermined path, one portion of which is inclined; a plurality of pins arranged in pairs projecting laterally from said belt; an L-shaped cake holder secured to one end of each pair of pins; a vessel having an extension located under the inclined portion of said path, for holding a coating fluid through which said holders pass; means for delivering a blast of air to the cakes while traversing the inclined portion of said path; a second vessel for containing cold icing material through which said holders pass; a rotating drum provided with radial stripper arms traveling at a speed greater than that at which said belt and holders travel, and adapted to strip the cakes from said holders; and a third vessel for containing hot water for cleansing said holders, substantially as described.

2. In a machine for coating cakes and other edibles the combination of an endless moving conveyer provided with offset depending cake holders; means for supplying a coating material to said cakes as they are moved by said conveyer; a guide around which said conveyer and coated cakes are moved; a pulley driven by said guide; a belt passing over said pulley; a second pulley of a smaller diameter than said first named pulley, over which said belt passes; and a stripping device comprising arms driven faster than said conveyer adapted to strike said coated cakes as they move around said guide and to strip them from said conveyer, substantially as described.

1,210,003. WIRE-REEL. CHRISTIAN G. REUTTER, Liberty, Mo. Filed Jan. 8, 1916. Serial No. 71,022. (Cl. 242—95.)



1. The combination with a wire reel, of a wire guide therefor comprising a lever pivoted for oscillation parallel to the axis of the reel and perforated for the passage of a wire, and a spring actuated tensioning member mounted upon said lever and bearing against the wire.

2. The combination with a wire reel, of a wire guide therefor comprising a lever pivoted for oscillation parallel to the axis of the reel and perforated for the passage of a wire, a spring actuated member mounted upon said lever and bearing against the wire, and means for increasing or decreasing the engagement of said member with the wire.

3. The combination with a wire reel, of a guide comprising a lever pivoted for oscillation parallel to the axis of the reel and having a guide member mounted thereon formed with a central bore through which the wire passes, a plate hingedly mounted upon the lower end of the lever for movement parallel to the wire passing through the guide, said plate having a notch engaging with the wire, the distance between the hinged end of the plate and the apex of the notch being greater than the distance between the hinged end of the plate and the bore, and a spring urging the plate into parallel relation to the lower end of the lever.

4. The combination with a wire reel, of a guide comprising a lever pivoted for oscillation parallel to the axis of the reel and having a guide member, mounted thereon formed with a central bore through which the wire passes, a plate hingedly mounted upon the lower end of the lever for movement parallel to the wire passing through the guide, said plate having a notch engaging with the wire, the distance between the hinged end of the plate and the apex of the notch being greater than the distance between the hinged end of the plate and the bore, a spring urging the plate into parallel relation to the lower end of the lever, and manually operable means for increasing or decreasing the tension of the spring.

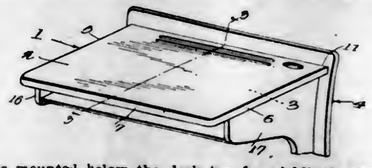
5. The combination with a wire reel, of a wire guide and controller therefor comprising a support, a lever pivoted thereon for oscillation parallel to the axis of the reel, said lever having a tubular guiding member at its lower end, a bolt forming the pivotal axis for the lever and passing through the support and lever, and a spring engaging the bolt and bearing against the support and resisting the oscillation of the lever.

1,210,004. ENVELOP FOR DESK-TOPS AND THE LIKE. SAMUEL E. ROE, South Pasadena, Cal. Filed Mar. 15, 1916. Serial No. 84,411. (Cl. 45—6.)

1. In combination with a desk top, a removable envelop made of one piece of fibrous sheet material, comprising a top portion, downwardly extending side pieces and a front piece, inwardly extending flanges formed with the side pieces and front piece, said envelop having an opening at one end opposite to said front piece for the reception of the desk top, and separate envelop retaining means mounted below the desk to hold the envelop in place.

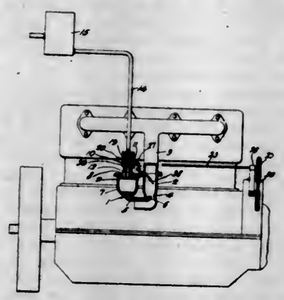
2. In combination with a desk top, a removable envelop made of one piece of fibrous sheet material, comprising a top portion, downwardly extending side pieces and a front piece, inwardly extending flanges formed with the side

pieces and front piece, said envelop having an opening at one end for the reception of the desk top, and spring



clips mounted below the desk top for yieldingly holding the envelop in place.

1,210,005. FUEL-CONTROLLING MECHANISM FOR ENGINES. WILLIAM ROSS, Chicago, Ill. Filed June 1, 1916. Serial No. 101,124. (Cl. 123—138.)



1. A fuel supplying mechanism for an internal combustion engine, embodying an air suction passage, a fuel cup having an air vent, a fuel nozzle communicating with the bottom of said cup and projecting within said passage for conducting the fuel from the cup by gravity into said passage, the fuel being atomized within said passage, means for conducting fuel into said cup, and means adapted to be operated by an engine for controlling the flow of fuel into the cup so that the fuel is delivered into the cup intermittently.

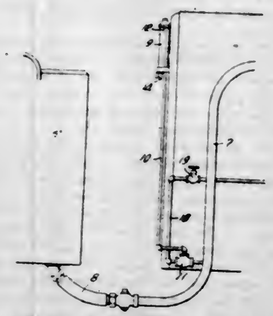
2. A fuel supplying mechanism for an internal combustion engine, embodying an air suction passage, a funnel-shaped fuel cup having an air vent, the spout of said cup terminating in a nozzle in said passage whereby the fuel flows by gravity from the cup to said nozzle to be atomized within said passage, a cap for said cup having a valve casing, means for supplying fuel through the valve casing to the cup, and a valve movable within the valve casing for delivering the fuel intermittently into the cup.

1,210,006. SAFETY-RAZOR. JOHN H. SCHMITT, Emporia, Kans. Filed Sept. 1, 1916. Serial No. 118,079. (Cl. 30—12.)



In a device of the class described, a razor blade frame constructed of a single piece of wire, the intermediate portion of said wire forming a guard, the ends of said wire being bent inwardly toward each other and then upwardly at right angles to said guard to form a pair of gripping fingers, then downwardly toward said guard to provide an additional pair of gripping fingers for coaction with the first pair, the ends of wire being bent laterally inwardly toward each other and then upwardly away from the guard and substantially parallel to the first mentioned pairs of fingers to form a third pair of gripping fingers then downwardly toward the guard to provide a fourth pair of fingers for coaction with the third pair, the ends of the wire being bent laterally away from the last mentioned pair of fingers and then upwardly substantially parallel thereto to provide a pair of U-shaped springs, a handle connected to the ends of said springs, and a razor blade held in said frame by said gripping fingers.

1,210,007. WATER-INDICATOR FOR LOCOMOTIVE-TENDERS. MICHAEL P. SHIELDS, Quebec, Quebec, Canada. Filed Nov. 7, 1913. Serial No. 799,733. (Cl. 73—54.)



1. A device of the character described comprising a tank, a gage tube, a pipe remote from said tank and adapted to contain a depth of water equal to the depth of water in the tank, means normally preventing the water from the tank from being forced into said gage tube, and pneumatic means for forcing water from said pipe into the gage tube.

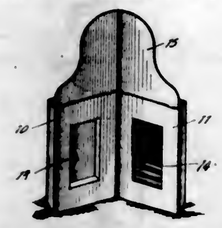
2. A device of the character described comprising a graduated tube having an air vent at the top thereof, a tank, a pipe adapted to contain a column of water equal in height to the height of water in the tank, said pipe projecting into the graduated tube and terminating adjacent the upper portion thereof, means normally preventing the water from said pipe being forced into the graduated tube, and an air pipe connected to said means whereby water from said pipe will be pneumatically forced into the graduated tube.

3. In a device of the character described, the combination of a tank, of a water column pipe normally communicating with the tank and adapted to contain a column of water equal in height to the depth of water in the tank, a graduated tube surrounding the upper portion of said water column pipe, an air pipe connected to the bottom of said water column pipe, and a valve connecting the water column pipe, air pipe and water supply pipe adapted to close the air pipe against entry of water during the flow of water from the water supply pipe to the water column pipe and to close communication between the water supply pipe and water column pipe during air flow through the air pipe.

4. The combination with a tank of a gage tube and water connections between the tank and gage tube, a graduated scale on said gage tube spaced according to the capacity of the tank at different levels, a water column pipe leading from the water connection and adapted to contain a column of water equal in height to the height of water in the tank, pneumatic means for forcing said column of water into the gage tube, and a valve operating automatically to sever communication between the tank and water column pipe during said water forcing operation.

1,210,008. DISPLAY DEVICE. JOSEPH B. SINGER, Brooklyn, and ARTHUR B. LEVY, New York, N. Y. Filed Jan. 28, 1916. Serial No. 74,811. (Cl. 211—24.)

1. In a display device of the character described, hinged containers, and a display member adapted to be rigidly held in upright display position in open position of the device when the said containers are moved at an angle to each other, and adapted to be placed in between the containers when the containers are in closed position.

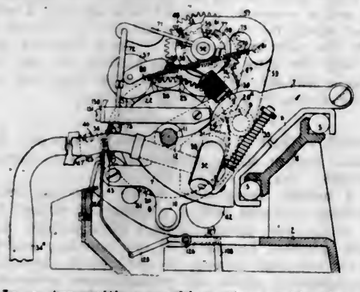


2. In a display device of the character described, containers hinged along their abutting edges, a display member hinged to the upper part of both of said containers adapted to be folded at said part and along a median line of the member, and movable to a position between both containers, and to be held in upright position in open position of the device, when the said containers are moved at an angle to each other.

3. In a display device of the character described, containers hinged at adjacent edges, having openings adapted to display goods, a display member hinged to the upper part of said containers, and hinged centrally in line with the hinges of the said containers, the said member being adapted to be held in upright display position in open position of the device, when the said containers are moved at an angle to each other, and adapted to be folded at its meeting line with the containers from its upright display position to a position between the containers covering the openings in the containers.

4. In a display device of the character described, matching containers, each consisting of a box-like structure, and each having in its front wall a pocket for the goods, and hinged to each other at adjacent edges of the said front wall, a display member hinged to the upper edges of the front wall and hinged in line with the hinge of the containers, adapted to foldingly position between the containers, and to extend over the pockets, and to stand in upright display position when the containers are in open display position angularly to each other.

1,210,009. TYPE-WRITING MACHINE. ARTHUR W. SMITH, New York, N. Y., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Oct. 10, 1912. Serial No. 724,914. (Cl. 199—127.)



1. In a typewriting machine, the combination of a traveling carriage, a platen, a shield covering the printing point and connected with said platen, said shield being mounted to participate in the traveling movements of said carriage, and means operative to move said platen and cause said shield to uncover the printing point.

2. In a typewriting machine, the combination of a traveling carriage, a platen, a shield for covering the printing point thereon, said shield being mounted to participate in the traveling movements of said carriage, and means operating automatically to move said platen and cause said shield to uncover the printing point.

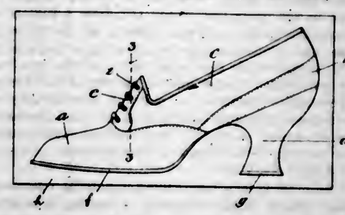
3. In a typewriting machine, the combination of a traveling carriage, a platen, printing types, a shield normally covering the printing line and receiving the impact of the types during the writing of the line, said shield being mounted to participate in the traveling movements of said carriage, and means for moving said shield to uncover the printing line on the platen.

4. In a typewriting machine, the combination of a platen, printing types, a shield normally covering the printing line and receiving the impact of the types during the writing of the line, means for moving said shield out of the path of the types, and stop devices for said shield.

5. In a typewriting machine, the combination of a platen, printing types, a shield normally covering the printing line and receiving the impact of the types during the writing of the line, means for moving said shield out of the path of the types and also back again into the path of the types, and stop devices for limiting the movement of said shield in one direction.

[Claims 6 to 75 not printed in the Gazette.]

1,210,010. SHOE-EXHIBITING DEVICE. VINAL W. SMITH, Haverhill, Mass., assignor to Simplex Sample System Inc., Haverhill, Mass., a Corporation. Filed Jan. 18, 1915. Serial No. 2,812. (Cl. 35—17.)



A dummy for exhibiting laced shoes, comprising a substantially flat mount, attached sections representing the profile of a shoe and disposed on the surface of the mount, one of said sections having the lacing eyelets adjacent the edge thereof and a lacing passing through the eyelets and the portions of the mount therebeneath and about the adjacent edge of the section.

1,210,011. COMB-MOLDING. HERBERT SIEGHOLTZ, Allentown, Pa. Filed Feb. 4, 1914. Serial No. 816,488. (Cl. 132—11.)

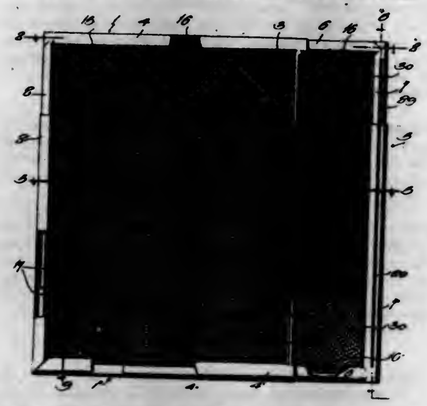


The combination with a comb, of a receptacle having flanges clamped on the comb, said receptacle fashioned with transverse partitions forming compartments each having an opening in its side and formed with curled walls surrounding the opening, and a slidable closure for each compartment formed with curled flanges to frictionally engage the curled edges of said walls.

1,210,012. ADJUSTABLE WINDOW-SCREEN. JOHN H. SNELL, Belleville, N. J. Filed May 4, 1916. Serial No. 95,425. (Cl. 156—38.)

1. A window screen formed of a number of sections, a frame for said screen adjustable both vertically and hori-

zontally, and spring wound rollers carried by the sides of the frame, the sections of the screen being secured at one end to said rollers and at their other ends to the frame, whereby the active area of said screen will vary automatically as the size of the frame is increased or decreased.



2. A window screen comprising a pair of opposed rigid U-frames whose arms telescope, a spring wound roller mounted in the cross bar of one U-frame, a screen wound on said roller at one end and secured at its other end to the cross bar of the other U-frame, a third U-frame whose arms telescope with the cross bars of the first named frames, said third frame having its cross bar formed of two telescoping sections, a pair of overlapping spring wound rollers mounted one in each of said sections, and lengths of screen wound at one end on said rollers and secured at their other ends to the adjacent arms of the first named U-frames.

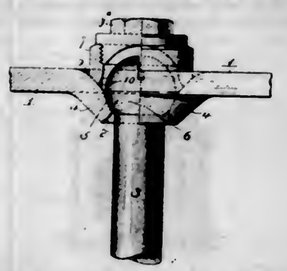
3. A window screen comprising a pair of opposed rigid U-frames whose arms telescope, a spring wound roller mounted in the cross bar of one U-frame, a screen wound on said roller at one end and secured at its other end to the cross bar of the other U-frame, a third U-frame whose arms telescope with the cross bars of the first named frames, said third frame having its cross bar formed of two telescoping tubes provided with registering longitudinally disposed slots, a pair of overlapping spring wound rollers mounted one in each tube and connected at their outer ends to the outer ends of said tubes, a pair of slide plates mounted one in each tube and each connected with the inner end of the roller of the other tube, said plates having notches receiving the rollers loosely and opening into the slots of the tubes, and lengths of screen wound at one end on said rollers and secured at their other ends to the adjacent arms of the first named U-frames, said lengths extending through the aforesaid slots and notches.

1,210,013. STAY-BOLT CONNECTION FOR BOILERS. BENJAMIN E. D. STAFFORD and FREDERICK K. LANDGRAF, Pittsburgh, Pa., assignors to Flannery Bolt Company, Pittsburgh, Pa. Filed Nov. 6, 1915. Serial No. 60,051. (Cl. 85—1.5.)

1. In stay bolt connection for a boiler, the combination of a boiler plate having a depressed seat for the head of the stay bolt and a bolt opening at the bottom of the depression, a housing welded to the plate around the depression, and a screw cap for closing said housing.

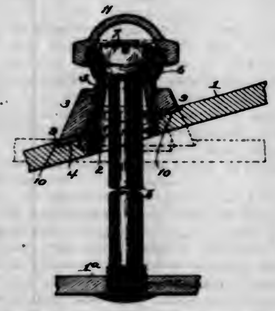
2. In stay bolt connection for a boiler, the combination of a boiler plate having a depressed seat for the head of the stay bolt, and a bolt opening at the bottom of the depression, a sleeve welded to said plate around the depressed seat, and a screw cap closing the outer end of the sleeve.

3. In stay bolt connection for a boiler, the combination of a boiler plate having a depressed seat for the head of the stay bolt, and a bolt opening at the bottom of the depression, a housing welded to said plate around the



depression and open for the passage of the bolt, a bolt the head of which is seated in said depression, and a screw cap closing the opening in the housing.

1,210,014. FLEXIBLE STAY-BOLT CONNECTION FOR BOILERS. BENJAMIN E. D. STAFFORD, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Nov. 6, 1915. Serial No. 60,052. (Cl. 85—1.5.)



1. In stay bolt connection for boilers, the combination of a boiler plate having an opening for the passage of a bolt, a bushing welded to the outer face of the plate around the opening therein, and a sleeve having a threaded connection with the outer end of the bushing, the said sleeve having a seat for the head of the stay bolt.

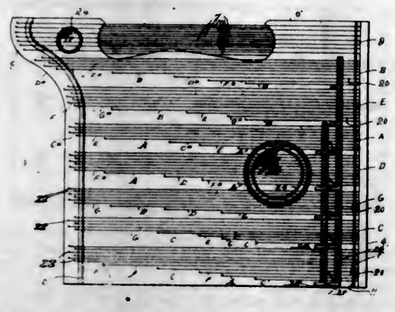
2. In stay bolt connection for boilers, the combination of a boiler plate having an opening for the passage of a bolt, and a counterbore around said opening, a bushing welded within the counterbore and around the bolt opening in the plate and a sleeve having a threaded connection with the outer end of the bushing, the said sleeve having a seat for the outer end of the stay bolt, and a cap for closing the outer end of the sleeve.

1,210,015. HARP. ADOLPH J. STRANDBERG and KNUTE BERVA, Duluth, Minn. Filed Mar. 13, 1914. Serial No. 824,483. (Cl. 84—14.)

1. A musical instrument of the character described comprising a sound box, a plurality of strings drawn taut across one surface thereof, two parallel trough-shaped members arranged on the sounding board and adjacent one edge thereof, revoluble pitch changing elements mounted within the trough-shaped members and beneath the strings, whereby the said strings are engaged or disengaged for the purpose of changing the key thereof.

2. A musical instrument of the character described comprising a sound box, a plurality of strings drawn taut across one surface thereof, two parallel trough-shaped members arranged on the upper face of the sound box and beneath the strings, one of the said members

longer than the other, revoluble key changing elements within the said trough-shaped members, the said members adapted to be moved to occupy three different positions for changing the key of the strings.



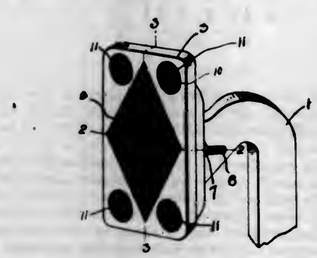
3. A musical instrument of the character described, comprising a sound box, a plurality of strings drawn taut across one surface thereof, a plurality of horizontal revoluble rods mounted upon the box and positioned intermediate the strings and the box, said rods mounted to assume three different positions whereby the strings are engaged or disengaged by the rods at will.

4. A musical instrument of the character described, comprising a sound box, a plurality of strings drawn taut across one surface thereof and arranged in groups, a plurality of horizontal revoluble pitch-changing rods for each group of strings, the pitch-changing rods being mounted upon the box intermediate the strings and the latter and each of said rods being mounted to assume three different positions, whereby the strings are engaged or disengaged by the rods for the purpose of changing the key thereof.

5. A musical instrument, comprising a sound box, a plurality of strings drawn taut across one surface thereof, and resting upon fixed bridges one adjacent each end of the box, a plurality of horizontal revoluble bridges having a plurality of differently arranged notches thereon, said bridges mounted upon the box intermediate the fixed bridges and engaging the strings in such a manner that the key thereof may be modified by adjustment of the revoluble bridges.

[Claim 6 not printed in the Gazette.]

1,210,016. TREAD-PLATE FOR PEDALS. OTTO F. SUNDEN, Brockton, Mass. Filed June 25, 1915. Serial No. 36,273. (Cl. 74—81.)



In combination, an operating pedal including a shank and an oblong head in outline having pairs of oppositely disposed openings, of an oblong tread plate in outline and of larger dimenisons than the head, said tread plate having a centrally arranged diamond shaped recess and circular recesses arranged adjacent each corner thereof, said diamond shaped recess having formed in the bottom wall thereof and adjacent each corner a squared counter-sunk aperture adapted to register with the openings formed in the head, bolts having squared heads received within the counter-sunk apertures and extending through the openings in the head, nuts threaded to the bolts for retaining the tread plates upon the head, said squared heads of the bolts lying flush with the face of the bottom wall of the diamond shaped recess to present a smooth bearing surface, a diamond shaped non-slipping block secured within the diamond shaped recess and projecting above the bearing plate, and circular non-slipping blocks secured within the circular recesses and projecting above the bearing plate to coöperate with the diamond shaped block for providing a friction surface of a maximum area with the use of a minimum amount of material.

1,210,017. ELECTROLYTIC RECOVERY OF ZINC FROM ORES AND OTHER ZINC-BEARING MATERIALS. URLYN CLIFTON TAINTON, Johannesburg, Transvaal, South Africa. Filed Aug. 10, 1915. Serial No. 44,837. (Cl. 204—15.)

1. A continuous electrolytic process for the extraction of zinc from a zinc-bearing material which consists in forming therefrom a concentrated solution of a zinc-salt containing an excess of acid, electrolyzing the solution with a current of high density, regenerating the said solution by dividing it into two portions in such proportions that, when the acid in one portion is neutralized by the addition to it of a charge of zinc-bearing material and the resulting solution separated from the residue and mixed with the other portion of the electrolyzed solution which has been retained, the acid-content of the final solution shall be approximately the same as that of the original solution, and then electrolyzing the regenerated solution with a current of high density.

2. A continuous process for the electrolytic extraction of metallic zinc from a zinc-bearing material, which consists in adding sufficient of the zinc-bearing material to an acid to make a neutral solution, separating the neutral solution from the residue, adding an excess of acid and a small proportion of a colloid, electrolyzing said solution by means of a current of high density and thus removing part of the zinc; then removing the solution now strongly acid and dividing it into two portions, neutralizing one portion by a further addition of zinc-bearing material, separating the neutral solution from the residue, adding the other portion of the removed solution and electrolyzing the acid solution so formed; and thereafter repeating the regenerating and electrolyzing process as described.

3. A continuous process for the electrolytic extraction of metallic zinc from a zinc-bearing material which consists in adding sufficient of the zinc-bearing material to an acid to make a neutral solution, separating the neutral solution from the residue, adding an excess of acid, and electrolyzing said solution by means of a current of high density and thus removing part of the zinc; then removing the solution now strongly acid and dividing it into two portions, neutralizing one portion by a further addition of zinc-bearing material, adding a slight excess of zinc-bearing material to the neutral solution to remove any iron or other impurities present, separating the neutral solution from the residue, adding the other portion of the removed solution, and electrolyzing the acid solution so formed; and thereafter repeating the regenerating and electrolyzing process as described.

4. A continuous process for the electrolytic extraction of metallic zinc from a zinc-bearing material, which consists in adding sufficient of the zinc-bearing material to an acid to make a neutral solution containing the colloid required in the production of smooth zinc deposits, separating the neutral solution from the residue, adding an excess of acid, and electrolyzing said solution by means of a current of high density and thus removing part of the zinc; then removing the solution now strongly acid and dividing it into two portions, neutralizing one portion by a further addition of zinc-bearing material, separating the neutral solution from the residue, adding

the other portion of the removed solution, and electrolyzing the acid solution so formed; and thereafter repeating the regenerating and electrolyzing process as described.

5. A continuous electrolytic process for the extraction of zinc from its ores which consists in forming therefrom a concentrated solution of a zinc-salt containing from 50–300 grams of free acid per liter, electrolyzing the solution with a current of high density, regenerating the said solution by dividing it into two parts in such proportions that, when the acid in one portion is neutralized by the addition to it of a charge of ore and the resulting solution separated from the residue and mixed with the other portion of the neutralized solution which has been retained, the acid content of the final solution shall be approximately the same as that of the original solution, and then electrolyzing the regenerated solution with a current of high density.

[Claims 6 to 9 not printed in the Gazette.]

1,210,018. CURLING-IRON. SAMUEL TROOD, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 4, 1913. Serial No. 746,218. (Cl. 219—24.)



1. In an electric apparatus, the combination with an electrically-heated implement, of an auxiliary member rotatably associated with the said implement and a plurality of rotatably engaging contact members inclosed within the said auxiliary member.

2. An electrically-heated implement comprising a resiliently-supported heating element, and concentrically disposed resilient means for making electrical connections thereto and permitting movement of said element with respect to said resilient means.

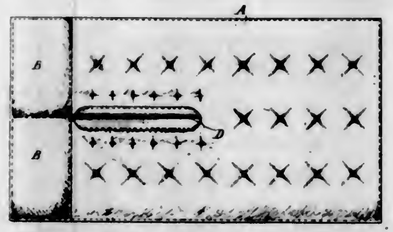
3. An electrically-heated implement comprising a resiliently-supported heating element, and concentrically-disposed resilient means for detachably making electrical connections thereto and permitting rotative movement of said element with respect to said resilient means without interruption of the circuit.

4. In a heating apparatus, the combination with an electric heater element and a supporting handle therefor, of a movable auxiliary member, and resilient means inclosed within the said auxiliary member for making electrical connections to said heater element and permitting movement thereof with respect to said handle member.

5. In a heating apparatus, the combination with an electric heater element and a supporting handle therefor, of a rotatable auxiliary member, and concentrically-disposed resilient means associated with said auxiliary member for detachably making electrical connections to said heater element and permitting rotative movement thereof with respect to said auxiliary member without interruption of the circuit.

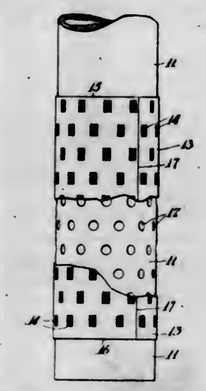
[Claims 6 to 17 not printed in the Gazette.]

1,210,019. MATTRESS. ELAM L. TRUMAN and MARTHA H. TRUMAN, Spring Valley, Ohio. Filed Apr. 14, 1915. Serial No. 21,384. (Cl. 5—13.)



A mattress having a longitudinal pocket near one end formed centrally of the width of the mattress and extending from a point adjacent one end of the mattress partially the length of the mattress and entirely through the filling of the mattress, the inner end of the pocket being fastened to the lower side of the mattress tick and the edges of the upper side of the mattress tick adjacent the pocket being turned into rolls and secured to the upper edges of the walls of the pocket, the said walls flaring outward toward their upper edges, the said pocket serving to relieve pressure and permit free circulation of blood through the main arteries and veins adjacent the spinal column for the purpose described.

1,210,020. WELL-SCREEN. MILON J. TRUMBLE, Alhambra, Cal., assignor to McEvoy Wireless Well Strainer Co., Los Angeles, Cal., a Corporation of California. Filed May 31, 1916. Serial No. 100,987. (Cl. 166—5.)



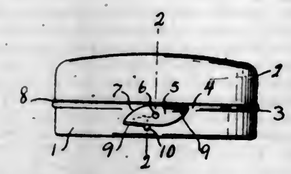
1. A well screen comprising a pipe having circular perforations therein, and a thin sheet metal jacket secured to said pipe and provided with a series of series of narrow slotted openings, each of said series being so placed as to register with one of said circular perforations in said pipe.

2. A well screen comprising a pipe having circular perforations therein, and a thin sheet metal jacket formed of a single sheet of metal bent around and secured to said pipe and provided with a series of series of narrow slotted openings, each of said series being so placed as to register with one of said circular perforations in said pipe.

3. A well screen comprising a pipe having circular perforations therein, and a thin sheet metal jacket secured by having its edges welded to said pipe and provided with a series of series of narrow slotted openings, each of said series being so placed as to register with one of said circular perforations in said pipe.

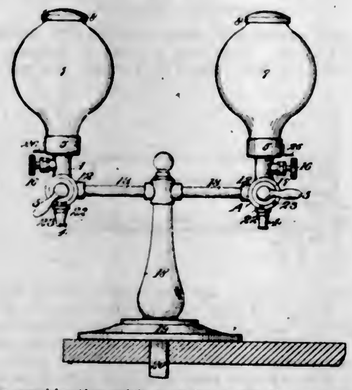
4. A well screen comprising a pipe having circular perforations therein, and a thin sheet metal jacket formed of a single sheet of metal bent around and secured by having its edges welded to said pipe and provided with a series of series of narrow slotted openings, each of said series being so placed as to register with one of said circular perforations in said pipe.

1,210,021. BOX-OPENER. AMEDEO L. UBERTO, Oakland, Cal. Filed Feb. 7, 1916. Serial No. 76,755. (Cl. 220—6.)



In combination with a box comprising a pair of members arranged so that one partly overlaps the other, an elongated opener pivotally mounted intermediate its length on the overlapped member and presenting a rounded cam edge to the edge of the overlapping member, the overlapped member being provided with a stop at one side of the pivotal connection of the opener for limiting the downward movement of the opener and to prevent said opener passing beyond a center when rotated toward the overlapping member, whereby the overlapping member when applied to the overlapped member automatically returns the elongated opener to its inoperative position, said stop also serving to prevent movement of the rounded cam edge in a direction away from the overlapping member.

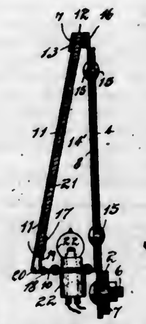
1,210,022. DISPENSING AND MIXING DEVICE. LEON M. VOORSANGER, San Francisco, Cal. Filed Nov. 15, 1915. Serial No. 61,458. (Cl. 225—26.)



1. In combination with a casing having a vertical passage extending through its top and bottom and a right-angular passage leading into said vertical passage and through a side of the casing, a syrup reservoir communicating with the upper end of the vertical passage, means to connect said right-angular passage to a source of pressure, and a valve at the intersection of said two passages, said valve having a substantially straight diametrical passage and an inclined passage leading from said diametrical passage through a side of the valve whereby in one position the inclined passage extends downwardly from the right-angular passage to convey fluid pressure to the lower end of the vertical casing passage, and in a second position extends upwardly from the right angular passage so as to convey fluid pressure to the upper end of the vertical casing passage and into the reservoir to cleanse the latter.

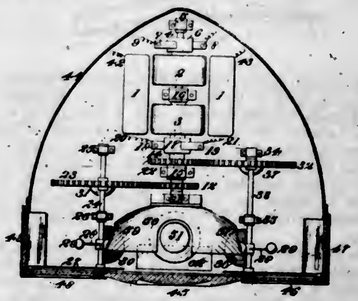
2. In a dispensing device, a casing having a vertical and a lateral passage which meet at a common point, a syrup reservoir connected to the upper end of the vertical passage and the lateral passage being for connection to a source of pressure, and a valve at said common point having passages which in one position communicate with each of the vertical and lateral passages to discharge from each and which in a second position establishes communication between the source of pressure and syrup reservoir to allow cleaning of the latter and closes the lower end of said vertical passage.

1,210,023. ILLUMINATED SAFETY-BRACKET FOR AUTOMOBILES. CHARLES N. WAGNER, Knoxville, Ill. Filed Feb. 7, 1916. Serial No. 76,635. (Cl. 40—132.)



In a device of the nature described, a frame including a back, an open front, and a bottom; a transparent number-plate arranged in rear of said front; a spring guide-strip having a shelf-like portion on which the number plate rests, resilient means for holding the top of the plate in position, and means for illuminating said plate.

1,210,024. AUTO TAIL-LAMP SIGNAL. GEORGE F. WAKEFIELD, San Jose, Cal. Filed Dec. 27, 1915. Serial No. 68,716. (Cl. 177—337.)



1. In an automobile direction and like indicator, a closed case having an interior lamp and openings with glazing to expose the light, a motor having contiguous armatures mounted upon concentrically journaled shafts, pinions upon the motor shafts, parallel shafts having gears, one of each engaging with one of the motor shaft pinions, disks fixed upon said gear shafts and adapted to revolve and intercept light to the glazed openings, and switch connections to control the movements of the motor.

2. An automobile tail light and movement indicator, including a casing having indicating openings, an inclosed

light, a motor, shafts and connected gearing, disks mounted thereon and controlled to expose or conceal the light through the openings, a bell within the casing, and hammers carried by the gear shafts and acting to give audible signals in unison with the visible ones.

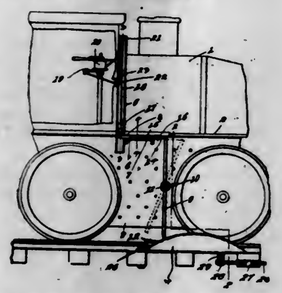
3. In an automobile direction and like indicator, an inclosing casing having a central colored tail light, and crescent shaped opaque disks fixed to parallel shafts at opposite sides of the center, said disks being turnable to register with the central portion and expose the crescent cut-away portions for the passage of light.

4. In an automobile direction and like indicator, an inclosing casing having a central colored tail light, crescent shaped opaque disks fixed to parallel shafts at opposite sides of the center, said disks being turnable to register with the central portion and expose the crescent cut-away portions for the passage of light, and means whereby the disks are returned to their normal positions when the power is cut off.

5. In an automobile tail light and direction indicator of the character described, a closed case having a central rear opening and colored tail light, parallel glazed openings upon either side, crescent shaped, opaque disks, shafts upon which said disks are mounted and revoluble so that either crescent may register with and obscure the exterior openings or be turned to expose said openings, an electric motor and gearing by which the disks may be independently revolved, and weighted means to return the disks to their normal condition.

[Claims 6 to 13 not printed in the Gazette.]

1,210,025. AUTOMATIC TRAIN-STOP. GEORGE F. WARREN, Double Bayou, Tex., assignor of one-half to Elton L. Mitchell, Double Bayou, Tex. Filed Oct. 2, 1915. Serial No. 53,809. (Cl. 246—59.)



1. In an automatic stop of the character described the combination with a locomotive, of a lever pivotally secured thereto intermediate its ends, a slide plate, a connection between the said lever and slide plate, a weight supported by the slide plate, and a flexible member connected at one end to the weight and at its other end to the handle of the engineer's brake valve, said lever being adapted to engage an obstacle, whereby the slide plate is withdrawn from under the weight, allowing the latter to drop.

2. In an automatic stop of the character described the combination with a locomotive, of a vertical lever pivoted intermediate its ends thereto, a slide plate horizontally movable along the underside of the running board, said board being formed with an opening, a weight positioned within said opening and resting upon the slide plate, a flexible member connected at one end to the weight and at its other end to the handle of the engineer's brake valve, a connection between the upper end of the lever and the slide plate, whereby said plate will be drawn from under the weight when the lever is actuated, and spring means for returning the plate to its normal position under the opening formed in the running board.

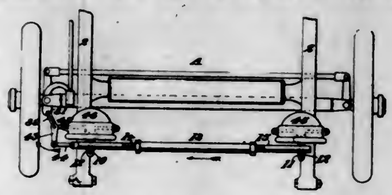
3. In a stop of the character described the combination with a locomotive, of a vertical lever pivoted intermediate its ends thereto, a slide plate movable upon the underside of the running board, a connection between said slide plate and lever, spring means for returning the slide plate to its normal position when actuated by the lever, the running board being formed with an opening, a weight positioned within said opening and resting upon the slide plate, a flexible connection secured at one end to the weight and at the other end to the engineer's brake valve, and guide rollers for said connection, a dropping of the weight causing the valve to be opened, whereby the airbrakes are applied.

4. In an automatic stop of the character described, the combination with a locomotive, of a vertical casing secured to said locomotive, said casing having an aperture formed in one side thereof intermediate its ends and a similar aperture formed on the opposite side adjacent the lower end thereof, a weight slidably mounted in said casing, a sliding plate extending through the lower aperture and supporting said weight, a pulley secured to the upper portion of said casing, a similar pulley secured to one side of said casing adjacent the upper aperture, and a cord having one end secured to said weight and passed over the upper pulley and then under the other pulley and through said adjacent aperture and having its opposite end secured to an air brake valve for the purpose specified.

5. In an automatic stop of the character described, the combination with a locomotive, of a vertical casing, a weight slidably mounted in said casing, a cord having one of its ends secured to said weight and the opposite end to an air brake valve, a horizontal casing, a plate slidably mounted in said horizontal casing, said plate adapted to extend into said vertical casing and support said weight, a rod secured to said plate and extending outward of said casing, a spring coiled around said rod having one end engaging said sliding plate and the opposite end engaging said casing to normally hold said sliding plate into said vertical casing, and means secured to the free end of said rod to move said sliding plate against the tension of the spring.

[Claim 6 not printed in the Gazette.]

1,210,026. STEERING ATTACHMENT FOR AUTOMOBILE-LAMPS. BENJAMIN F. WELCH, Oakland, Cal. Filed Nov. 14, 1914. Serial No. 872,100. (Cl. 240—62.)



1. The combination with the steering mechanism of a vehicle of a pair of lamp forks turnably mounted thereon, a crank arm secured to each fork, a bar connecting said crank arms, said bar comprising a central tubular member, tubes adjustable in each end of said central member, and springs carried in said tubes forming a yielding connection between said arms and said bar, means for connecting said bar to the steering mechanism to move it longitudinally, and independently adjustable means carried by each fork for locking either crank arm against movement in one direction.

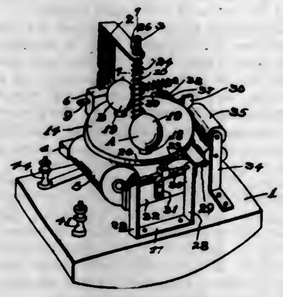
2. The combination with the steering mechanism of a vehicle, of a lamp supported for turning movements adjacent each side of the vehicle, connections between said mechanism and lamps to cause the lamps to turn simultaneously in the same direction that the vehicle is turned, and means adjustable at will to render the movement imparted to said lamps from the steering mechanism effective to turn one lamp only when the vehicle turns in one direction and the other lamp only when the vehicle turns in the other direction.

3. The combination with the steering mechanism of a vehicle, of a pair of lamps turnably mounted thereon, means connecting the steering mechanism with the lamps for simultaneously turning both lamps in unison therewith, and means for limiting the movement of said lamps whereby when the vehicle is turned to the left the right hand lamp will turn to the left and the left hand lamp will remain stationary to project its light straight ahead, and when the vehicle is turned to the right the left hand lamp will turn to the right and the right hand lamp will remain stationary.

4. The combination with the steering mechanism of a vehicle, of a pair of lamp forks turnably mounted thereon, a lamp in each fork, a crank arm secured to each fork, a bar connecting said crank arms, a yielding connection formed between each crank arm and bar, means for transmitting movement from the steering mechanism to move the bar longitudinally for simultaneously turning said lamps when the vehicle is turned, and means for locking either of the crank arms against movement in one direction.

5. The combination with the steering mechanism of a vehicle, of a pair of lamp forks turnably mounted thereon, a lamp in each fork, a crank arm secured to each fork, a bar connecting said crank arms, a yielding connection formed between each crank arm and the bar, means for transmitting movement from the steering mechanism to move the bar longitudinally, and selective means for locking either crank arm against movement in one direction.

1,210,027. SIGNAL-LAMP. LEE H. WILBUR and WALTER F. WILBUR, Dunkirk, N. Y. Filed Mar. 5, 1915. Serial No. 12,372. (Cl. 175—279.)



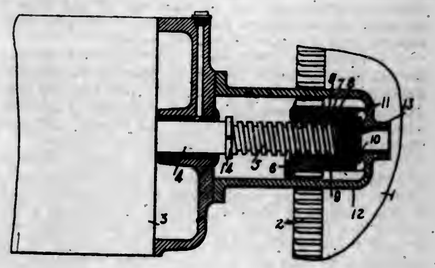
1. In combination, an electric circuit, a disk, lamps carried by the disk, means to swing said lamps into said circuit, a horizontally extending lug secured to the periphery of said disk, a U-shaped support, a latch pivotally mounted between the legs of the U-shaped support and adapted to engage said lug to normally hold one of the lamps in circuit, electromagnet means controlling the releasing of the latch, a circuit controller cutting in the electromagnetic latch releasing means automatically upon the extinguishing of the lamp in circuit and thereby permitting the coöperating lamp to swing into operative position.

2. In combination, an electric circuit, a disk, lamps carried by said disk and arranged to be swung into said circuit, a vertical shaft extending transversely through said disk, a U-shaped bracket, adjustable bearings mounted in the terminals of the legs of the U-shaped bracket, said shaft journaled in said bearings, a spring coiled about said shaft and having one of its terminals secured to said disk and the opposite terminal secured to the upper leg of said U-shaped bracket, said spring being adapted to rotate said disk, a latch to hold said disk against rotation, means carried by the web of the U-shaped bracket to limit the rotary movement of said disk, a circuit controller and electromagnetic means controlled by the circuit closer to cause the latch to be released upon the extinguishing of the lamp in circuit.

3. In combination, an electric circuit, a disk, lamps carried by the disk and arranged to be swung into said circuit, a horizontally extending lug secured to the periphery of said disk, a latch adapted to engage the horizontally extending lug to normally hold one of the lamps in circuit, electromagnetic means controlling the releasing of the latch, a circuit controller cutting in the electromagnetic latch releasing means automatically upon the extinguishing of the lamp in circuit, and thereby permitting the coöperating lamp to swing into operative position, and a spring buffer to engage said lug to limit the rotary movement of said disk.

4. In combination, an electric circuit, a disk, lamps carried by the disk and arranged to be swung into said circuit, a horizontally extending lug secured to the periphery of said disk, a latch adapted to engage the horizontally extending lug to normally hold one of the lamps in circuit, electromagnetic means controlling the releasing of the latch, a circuit controller cutting in the electromagnetic latch releasing means automatically upon the extinguishing of the lamp in circuit, and thereby permitting the coöperating lamp to swing into operative position, a horizontally sliding rod, a guide for said rod, a spring normally holding said rod in an extended position, and a shoulder formed on said rod adapted to engage said lug forming a spring buffer to limit the rotary movement of said disk.

1,210,028. STARTING MECHANISM. JAMES L. ADAMS, Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 23, 1915. Serial No. 23,343. (Cl. 74—7.)



1. In a starting mechanism, the combination with two coacting gear wheels, and means for automatically actuating one gear wheel into and out of mesh with the other, of speed-controlled means for locking said gear wheels in operative position.

2. In a starting mechanism, the combination with an engine shaft, a starting motor, and means for operatively connecting the motor to said shaft, of means for locking said connecting means in operative position while the engine rotates below a predetermined speed.

3. In a starting mechanism, the combination with two coacting gear wheels, and means comprising a screw-threaded shaft for effecting the meshing and demeshing of said gear wheels, of automatic means for preventing movement of one of said gear wheels relatively to said shaft, under predetermined conditions.

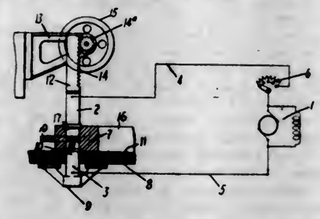
4. In a starting mechanism, the combination with a gear wheel, a pinion coacting therewith, and means for actuating said pinion into and out of mesh with said gear wheel according as the pinion constitutes the driving or the driven member, of means for automatically locking said pinion in its operative position.

5. In a starting mechanism, the combination with an engine, a gear wheel operatively connected thereto, a pinion, and a motor having a screw-threaded shaft for actu-

ating said pinion into and out of mesh with said gear wheel, of centrifugally actuated means for locking said pinion in its operative position.

[Claims 6 and 7 not printed in the Gazette.]

1,210,029. BRUSH FOR DYNAMO-ELECTRIC MACHINES AND METHOD OF ATTACHING CONDUCTORS THERETO. CARL B. AUEL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 28, 1912. Serial No. 722,972. (Cl. 200—26.)



1. A method of attaching a conductor to a dynamo-electric machine brush having an opening therethrough which consists in inserting metallic members into the opposite ends of said opening, interposing a portion of said conductor between the adjacent ends of said metallic members, and uniting said parts by means of heat and pressure.

2. A method of attaching a conductor to a dynamo-electric machine brush having an opening therethrough which consists in inserting metallic members into the opposite ends of said opening, placing a portion of said conductor in contact with at least one of said metallic members, and fusing said parts together to form a homogeneous mass of high electrical conductivity.

3. A method of attaching a conductor to a dynamo-electric machine brush having an opening therethrough which consists in inserting metallic rivets into the opposite ends of said opening, placing a portion of said conductor in contact with said rivets, and welding said parts together to form a unitary homogeneous structure.

4. A method of attaching a flexible copper conductor to a carbon brush having an opening therethrough, which consists in inserting copper rivets into the opposite ends of said opening in abutting relation, interposing a portion of said flexible conductor between the adjacent ends of said rivets, and welding said parts together by the application of heat and pressure to form a homogeneous mass of high electrical conductivity.

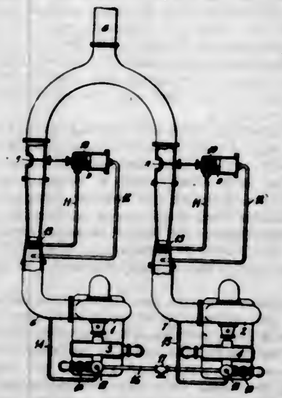
5. A brush for dynamo-electric machines comprising a main body member having a lateral opening therethrough, metallic rivets of good conducting material respectively having an enlarged portion in engagement with said body member and other portions thereof disposed in said opening, and a flexible conductor of similar material projecting longitudinally into said body member and united to said rivets at their adjacent ends to form a homogeneous body of high electrical conductivity.

[Claim 6 not printed in the Gazette.]

1,210,030. BLOWER SYSTEM. KARL BAUMANN, Chorlton cum Hardy, England, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 22, 1912. Serial No. 732,884. (Cl. 230—24.)

1. In combination, a plurality of prime movers operating in parallel and means for insuring the equality of the fractional outputs of the several prime movers, said means comprising a plurality of regulators and an equalizing pipe connecting the inlets of said prime movers.

2. In combination, a plurality of prime movers operating in parallel and adapted to be actuated by fluid pressure, and means for equalizing the pressures of the fluid supplied to the several prime movers, said means comprising a regulator for each of said prime movers and a pipe connecting the respective inlets of said prime movers.



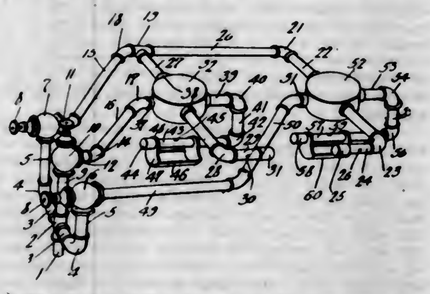
3. In combination, a plurality of devices for supplying fluid under pressure to a common main, a separate prime mover for actuating each of said devices, and means for supplying motive fluid to each of said prime movers at equal pressures, said means comprising a regulator for each of said prime movers and controlled by the pressure generated by the corresponding device, and means for equalizing the pressures of the motive fluid between the regulators and the inlets of said prime movers.

4. In combination, a plurality of devices for supplying fluid under pressure to a common main, a separate prime mover for actuating each of said devices, and means for maintaining an equality between the outputs of the several prime movers, said means comprising a regulator for each of said prime movers controlled by the pressure generated by the corresponding device and an equalizing pipe connected between the fluid inlets of said prime movers.

5. In combination, a plurality of centrifugal pumps adapted to supply fluid under pressure to a common main, a separate fluid-operated prime mover for actuating each pump, and means comprising an equalizing pipe connected between the fluid inlets of the said prime movers for maintaining an equality between the fractional outputs of the several prime movers, said means being controlled by the pressures generated by the several pumps.

[Claims 6 to 13 not printed in the Gazette.]

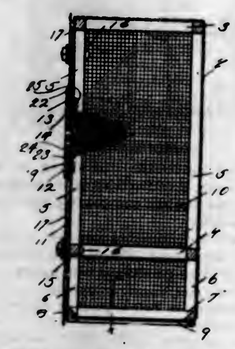
1,210,031. HYDROCARBON-BURNER. JOHN W. BEARD, Indianapolis, Ind. Filed Apr. 20, 1916. Serial No. 92,506. (Cl. 158—63.)



1. In a device of the class described, a generator comprising a chamber and including a top having a depending rib provided with a smooth opening therethrough; a first fuel pipe located in advance of the generator and opening into the chamber; a U-shaped pipe located opposite to the first pipe and opening into the chamber, the U-shaped pipe including a burner tube disposed below the generator and having a combustion orifice located below the generator; a second fuel pipe located to one side of the generator and disposed approximately parallel to the first pipe; a cross pipe slidable freely through the smooth opening in the generator and detachably assembled at one end with the said second fuel pipe; a transverse burner tube at the other end of the cross pipe and provided with a burner orifice; and means for supplying fuel to the first and second pipes.

2. In a device of the class described, a generator comprising a chamber and including a top having a depending rib provided with a smooth opening therethrough; a first fuel pipe located in advance of the generator and opening into the chamber; a U-shaped pipe located opposite to the first pipe and opening into the chamber, the U-shaped pipe including a burner tube disposed below the generator and having a combustion orifice located below the generator; a second fuel pipe located to one side of the generator and disposed approximately parallel to the first pipe; a cross pipe slidable freely through the smooth opening in the generator and detachably assembled at one end with said second fuel pipe; a transverse burner tube at the other end of the cross pipe and provided with a burner orifice; and means for supplying fuel to the first and second pipes, the first and second pipes being upwardly inclined, at an angle of approximately 45°, from said means toward the generator.

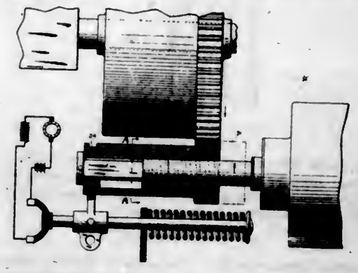
1,210,032. INSECT-TRAP. FRANK BEDORE, Gagetown, Mich. Filed Mar. 28, 1916. Serial No. 87,326. (Cl. 43—22.)



An insect trap comprising a box like casing, the inner wall of the casing having an opening formed therein, an entrance cone, a sheet metal ring, said ring having its periphery provided with a plurality of tangs, the ends of said tangs being bent in opposite directions and into engagement with the cone to attach the cone to said ring, a plurality of pliable fingers carried by the ring and adapted to be bent into engagement with the outer surface of said inner wall to hold the cone with the minor end projected into the casing, said ring resting flush against the inner surface of the screen of a door or window, and means carried by the casing for detachably connecting the same to the window or door screen.

1,210,033. STARTING APPARATUS FOR INTERNAL-COMBUSTION ENGINES. JOSEPH BIJUR, New York, N. Y., assignor to Bijur Motor Lighting Company, Hoboken, N. J., a Corporation of New York. Filed Feb. 10, 1915. Serial No. 7,228. (Cl. 74—7.)

1. In apparatus of the class described, in combination, an internal combustion engine, an electric motor, a gear connected with said engine, a gear mounted to be moved into mesh therewith, a member connected with said electric motor, means adapted to move said member bodily to bring said second gear into mesh with said first gear, a connection between said second gear and said member adapted to cause said second gear to move away from said member, out of mesh with said first gear, by the starting of said engine. Means comprising an electric switch adapted to lead current to said motor, and means actuated upon movement of said member adapted to close said switch.



2. In apparatus of the class described, in combination, an internal combustion engine, an electric motor, a gear connected with said engine, a gear mounted to be moved into mesh therewith, a member connected with said electric motor, means adapted to move said member bodily to bring said second gear into mesh with said first gear, and a connection between said second gear and said member adapted to cause said second gear to move out of mesh with said first gear by the starting of said engine.

3. In apparatus of the class described, in combination, an internal combustion engine, a source of power, a gear connected with said engine, a gear mounted to be moved into mesh therewith, a member connected with said source of power, means adapted to move said member bodily to bring said second gear into mesh with said first gear, a connection between said second gear and said member adapted to cause said second gear to move out of mesh with said first gear by the starting of said engine, and a spring tending to retract said member and adapted to throw said second gear out of mesh with said first gear.

4. In apparatus of the class described, in combination, an internal combustion engine, an electric motor, a gear connected with said engine, a gear mounted to be moved into mesh therewith, a member connected with said electric motor and having a threaded connection with said second gear, and means adapted to move said member bodily to bring said second gear into mesh with said first gear, said threaded connection being shaped to tend to move said second gear out of mesh with said first gear as it is driven thereby upon the starting of the engine and said second gear being free to move with respect to said member in said unmeshing direction.

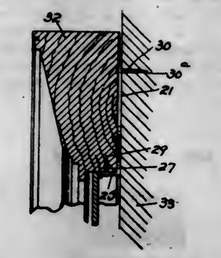
5. In apparatus of the class described, in combination, an internal combustion engine, an electric motor, a gear connected with said engine, a gear mounted to be moved into mesh therewith, a member connected with said electric motor and having a threaded connection with said second gear, and means adapted to move said member to bring said second gear from normal position into mesh with said first gear, the threads of said connection being inclined less than 45° with a plane transverse to the axes of the member and formed to adapt said second gear to be moved out of mesh with said first gear as it is driven thereby upon the engine being started.

[Claims 6 to 20 not printed in the Gazette.]

1,210,034. HANGER FOR PICTURES. ANNIE G. BISHOP, New York, N. Y. Filed June 23, 1914. Serial No. 846,820. (Cl. 40—145.1.)

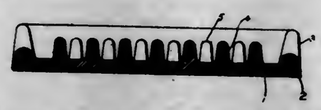
A hanger for pictures comprising a flat vertical body portion having an outturned horizontal flange along its lower front edge, a prong projecting rearwardly from the

rear face of the body portion at the upper portion thereof and upstanding prongs carried by the horizontal flange which lie substantially at right-angles to the first named



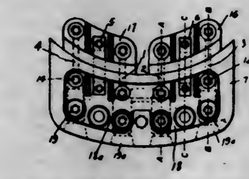
prong, said first named prong serving to pierce a wall or other support and said last named prongs serving to prevent movement of a picture frame supported upon the flange, away from the body portion.

1,210,035. SOAP-DISH. CHARLES C. BLAKE, Brookline, Mass. Filed Sept. 2, 1915. Serial No. 48,749. (Cl. 45—28.)



As an article of manufacture a one piece soap dish comprising a body portion having a peripheral wall forming a catch basin, a plurality of posts integral with and rising from the bottom of the catch basin for supporting the soap and draining the water from the soap into the catch basin, portions of said wall being cutaway and forming spillways, the bottoms of the spillways being intermediate the tops and bases of the posts whereby the water level in the catch basin is maintained below the soap supported on said posts.

1,210,036. TERMINAL BLOCK FOR ELECTRICAL MEASURING INSTRUMENTS. WILLIAM M. BRADSHAW, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 19, 1914. Serial No. 819,705. (Cl. 173—324.)



1. A terminal block comprising a plurality of electrical connectors having oppositely disposed and laterally extending arms, a molded insulating member disposed around the said connectors, the outer ends of each of the said arms being disposed above and insulated from the main portion of the adjacent connector.

2. A terminal block comprising a plurality of connectors and an insulating block molded around the same, said connectors severally having three openings at the top and one opening at one end, said openings extending through the said block.

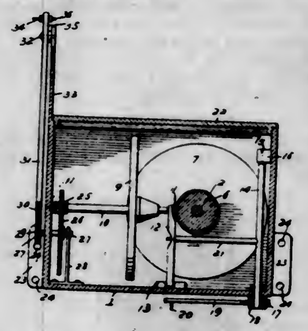
3. In a terminal block, the combination with a plurality of parallel connectors severally having binding screw holes therein and openings for receiving electrical conductors, two of the said connectors having laterally disposed and oppositely projecting arms, the ends of which are disposed substantially above the other connector, of a molded structure of non-absorbent insulating material for supporting and insulating the said connectors.

4. A terminal block comprising two connectors having laterally extending arms, the ends of each of the said arms being disposed above the other connector and a molded structure disposed around the connectors for supporting the same and for insulating the connectors from each other.

5. A terminal block comprising a molded insulation member having a recess in the top portion thereof and a plurality of openings in the recessed portion and in one side thereof, a plurality of connectors disposed in the molded member, said connectors severally having three binding screw holes at the top and one opening at one end that are adapted to register with the openings in the molded member.

[Claims 6 and 7 not printed in the Gazette.]

1,210,037. MECHANICAL MOVEMENT. GEORGE P. BRAND, New York, N. Y. Filed July 19, 1915. Serial No. 40,624. (Cl. 74—26.)



1. A mechanical movement embodying an oscillatory web-actuated member, a roll-actuating member, and an interposed friction mechanism and control device embodying an oscillatory member.

2. An oscillatory web-actuated member, a roll-actuating member, and an interposed friction mechanism and control device embodying a pendulous oscillatory member.

3. A mechanical movement embodying an oscillatory web-actuated member, a roll-actuating member, and an interposed automatically reversible friction mechanism with one of its members oscillatorily mounted, and an oscillatory control mechanism actuated by the automatic oscillation of one of the members of said friction mechanism.

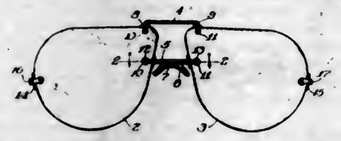
4. A mechanical movement embodying an oscillatorily mounted member, gearing coöperating therewith and a friction reverse mechanism one member of which is oscillatorily mounted and operatively connected with said gearing and actuating said first-named member.

5. A mechanical movement embodying an oscillatorily mounted member, gearing coöperating therewith, a friction reverse mechanism one member of which is operatively connected with said gearing and a web-controlled oscillatory support for said last-named member.

[Claims 6 to 19 not printed in the Gazette.]

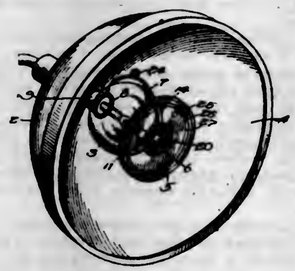
1,210,038. EYEGLASSES. HERMAN J. BRENNECKE, Chicago, Ill., assignor of one-half to Robert Malcom, Chicago, Ill. Filed Aug. 6, 1915. Serial No. 43,936. (Cl. 88—41.)

The combination with a pair of lenses, of an upper and a lower bridge, each having rigid jaw ends, the jaws of the upper bridge extending at right angles thereto and gripping the lenses from above, the jaws of the lower bridge engaging the adjacent edges of the lenses, and a nose-piece which is substantially an integral part of the



lower bridge, said bridges having a construction sufficiently rigid to carry the weight of one lens upon the other without flexing, and yet permitting relative angular movement of the lenses.

1,210,039. LAMP-GLARE REDUCER. HERMAN J. BRENNECKE, Chicago, Ill., assignor of one-half to Robert Malcom, Chicago, Ill. Filed Jan. 27, 1916. Serial No. 74,526. (Cl. 240—48.6.)

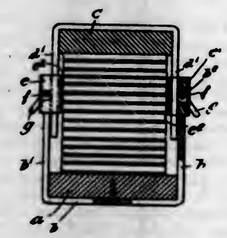


1. The combination with a lamp casing having a glass front, of a light bulb inclosed within said casing, a dimmer for said bulb, a flexible holder supported at its ends on, respectively, the bulb socket and the tip of the bulb, and friction clasp members on said holder and dimmer removably holding same together.

2. The combination with a lamp body having a transparent front thereon and a lamp therewithin, of a dimmer disk removably attached to said lamp, said disk having circular incisions which form rings which may be removed to reduce the size of said disk.

3. A dimmer disk having a series of removable ring sections thereon, and means for mounting said disk.

1,210,040. HOLDER FOR CEMENTED SOLES. GEORGE E. BRITTAIN, St. Louis, Mo., assignor to Irving L. Keith, Haverhill, Mass. Filed Jan. 27, 1914. Serial No. 814,641. (Cl. 100—57.)



1. A compressible holder for a stack of cemented soles comprising a sole-supporting member and a presser member arranged theerover, oppositely disposed arms engaging said members and arranged to overlap in longitudinal sliding relation, and frictional engaging devices interposed between said arms and constructed and arranged to be gravity actuated, when the holder is in upright position, to lock said arms to prevent separation of said members in the different positions of pressing relation to which they may be forced and to be similarly actuated to release said members when the holder is inverted.

2. In combination with a pair of members connected telescopically with one another, a dog operating to grip one of the members and prevent movement between the members in one direction for a given position of the assembled members, and for releasing said members for an inverted position of the members.

3. In combination with a pair of members connected telescopically with one another, a cam operating to grip one of the members and prevent movement between the members in one direction for a given position of the assembled members, and for releasing said members for an inverted position of the members.

4. A compressible sole-holder comprising a pair of superimposed sole-engaging members, an arm arranged to engage one member and extending toward the other member, a frictional locking device connected to the latter member constructed and arranged to be gravity actuated, when said holder is in upright position to engage said arm and lock said members in the different relative positions of pressure to which said members may be forced, and to be similarly actuated to release said members when said holder is inverted.

5. A compressible sole-holder comprising a pair of superimposed sole-engaging members, an arm arranged to engage one member and extending toward the other member, and a locking-lever, having a cam-shaped head, pivoted on the latter member, constructed and arranged to be gravity actuated, when said holder is in upright position, to engage said arm and lock said members in the different relative positions of pressure to which said members may be forced, and to be similarly actuated to release said members when said holder is inverted.

[Claims 6 to 19 not printed in the Gazette.]

1,210,041. SHOE CONSTRUCTION. JOHN BUCKLEY, Lynn, Mass. Filed Mar. 13, 1915. Serial No. 14,060. (Cl. 36—17.)



A shoe construction comprising an upper, an insole provided with a tapering flange adapted to be turned into any angular relation with respect to the body of the insole in order that said upper and insole when joined may be utilized for different types of shoes, said insole flange being provided with slits or notches, and a strip of material folded to form a double welt and united to said upper and insole by a line of stitches substantially along the fold of the welt.

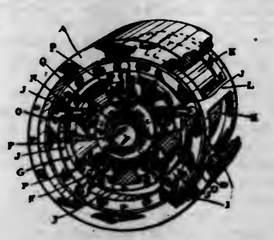
1,210,042. FLUID ENGINE AND PUMP. HERBERT A. BULLARD, San Francisco, Cal. Filed Aug. 4, 1915. Serial No. 43,618. (Cl. 121—66.)

1. A rotary engine including an inclosing case; a rotor eccentrically rotatable in said case; and a carrier interposed between said case and said rotor and worm mechanism for varying the axis of eccentricity of said rotor.

2. A rotary engine including an inclosing case; a rotor eccentrically rotatable in said case; a carrier interposed between said case and said rotor; and vanes pivotally engaging at one end said carrier, and slidable in said rotor.

3. A rotary engine including an inclosing case; a shaft journaled axially in said case; a carrier having side plates fixed on said shaft concentric with said case; a rotor eccentrically mounted in said casing; driving means interposed between said carriage and said rotor; and vanes

pivotally engaging at one end said carrier and slidable in said rotor.

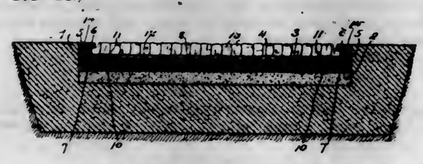


4. A rotary engine including an inclosing case having inlet and outlet openings; a shaft journaled axially in said casing; a rotor eccentrically mounted on said shaft; a carrier mounted axially on said shaft; vanes engaging said carrier and slidable in said rotor; and worm mechanism for varying the axis of eccentricity of said rotor.

5. A rotary engine including an inclosing case; a shaft journaled axially in said case; a rotor eccentrically mounted on said shaft and having transverse openings therethrough; a carrier mounted on said shaft concentric with said case; studs on said carrier engaging said openings; and vanes engaging said carrier and slidable in said rotor.

[Claims 6 to 8 not printed in the Gazette.]

1,210,043. RAILWAY ROAD-BED. ASA M. BUNN, Kansas City, Mo., assignor of one-half to Frederick J. Close, Kansas City, Kans. Filed Jan. 7, 1915, Serial No. 929. Renewed June 5, 1916. Serial No. 101,869. (Cl. 104—14.)



1. In a railway road bed, the combination with a holding trench, of a resilient foundation in said trench, cross ties mounted on said foundation and having their ends engaged by the side walls of said trench, and rails supported by and secured to said cross ties.

2. In a railway road bed, the combination with a holding trench, of a resilient foundation in said trench, cross ties mounted on said foundation and held by the side walls of said trench from lateral movement in said trench and provided with upwardly and inwardly turned ends, and rails supported by said cross ties and having their bases overlapped at the outer sides thereof by said inwardly turned ends.

3. In a railway road bed, the combination with a holding trench, of a bituminous foundation in said trench, cross ties mounted on said foundation and held from lateral movement by the side walls of said trench, and rails supported by and secured to said cross ties.

4. In a railway road bed, thec ombination with a holding trench, of a foundation of asphaltic material in said trench, cross ties mounted on said foundation and held from lateral movement by the side walls of said trench, and rails supported by and secured to said cross ties.

5. In a railway road bed, the combination with a holding trench, of a resilient foundation in said trench, cross ties mounted on said foundation and held by the side walls of said trench from lateral movement relative thereto, rails supported by and secured to said cross ties, and clamping plates secured to said ties and respectively overlapping the joints between said ties and having their outer ends respectively overlapping and embracing the bases of said rails.

[Claims 6 to 10 not printed in the Gazette.]

1,210,044. CLOTH POLISHER FOR SHOE-DRESSING MACHINES. CHARLES F. BURKHART, New York, N. Y., assignor to Burkhart Corporation, Buffalo, N. Y., a Corporation of New York. Filed Feb. 3, 1914. Serial No. 816,272. (Cl. 15—61.)



1. In a cloth polisher for shoe dressing machines, a polishing head embodying supporting members spaced apart, means to engage a fabric along the supporting members, means to exert tension through the supporting members upon the fabric, and means to vary the tension so exerted.

2. In a polisher for shoe dressing machines, a plurality of pairs of supports movable toward and away from each other; means to engage a fabric upon the supports; and means to exert varying degrees of tension upon each pair tending to move the supports away from each other.

3. In a polisher for shoe dressing machines, a pair of attaching members spaced apart; means to exert variable expanding tensions upon corresponding ends of the attaching members; and means to limit the expanding movement of the attaching members under the action of the tensions.

4. In a polisher for shoe dressing machines, spaced attaching members arranged approximately in parallelism; means tending to force the corresponding ends of the attaching members apart; flexible means connecting the corresponding ends and limiting the movement; and means to attach a polisher to the attaching members.

5. In a polisher for shoe dressing machines, a pair of attaching members disposed approximately in parallelism; means for yieldingly forcing the corresponding ends apart with adjustable and independent tension; flexible members connecting the corresponding ends of the attaching members; and means to vary the length of the flexible members.

[Claims 6 to 13 not printed in the Gazette.]

1,210,045. THERMOSTAT. MILLARD BUTTS, New York, N. Y., assignor, by mesne assignments, to Intertype Corporation, a Corporation of New York. Filed May 16, 1914. Serial No. 839,152. (Cl. 236—5.)



1. The combination of a valve casing having an inlet and an outlet, a valve seat through which the inlet passes, a groove being formed within and surrounded by the valve seat and communicating with the inlet, said groove having a greater discharge area than said inlet, and relatively expansible members connected to said casing and valve, respectively.

2. A valve casing having an inlet and an outlet, a single unattached member having a spring operative thereon to cover said inlet, and an adjustable abutment against which said member is fulcrumed loosely, said member being controlled to regulate the opening of the inlet by expansion and contraction of the casing.

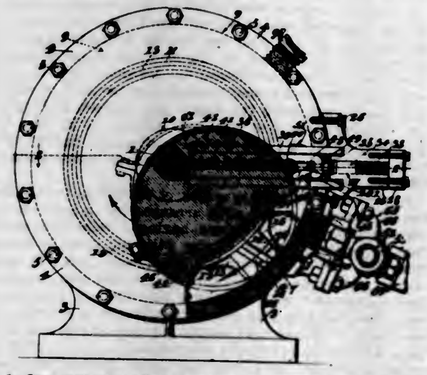
3. In a thermostat for regulating the flow of gas to a burner, the combination with a hollow casing through which the gas flows and provided with an interior valve seat, a valve adapted to coöperate with said valve seat and having a spring acting to move it toward said seat, a projection against which said valve abuts loosely as a fulcrum, the valve having a transverse projecting flange, and a movable rod unattached to but abutting against said flange and actuated by expansion and contraction of a part of the casing.

4. The combination of a valve casing having an inlet and an outlet both located at the same side thereof and formed with a valve seat common to said inlet and outlet, a valve coöperative with said valve seat, and relatively expansible members connected to said casing and valve respectively.

5. The combination of a valve casing having an inlet and an outlet, a valve seat for said inlet formed with a groove communicating with said inlet, a valve coöperative with said valve seat and operative to cover and uncover said groove, and relatively expansible members connected to said casing and valve, respectively.

[Claims 6 to 8 not printed in the Gazette.]

1,210,046. ROTARY ENGINE. GEORGE A. CATHEY and ELZA DELNO JOHNSON, Klamath Falls, Oreg. Filed Mar. 1, 1915. Serial No. 11,281. (Cl. 60—4.)



1. In a rotary engine, a casing inclosing a piston chamber, an ignition chamber mounted on said casing and adapted to communicate with the same, a rotatable shaft, a web on said shaft, a piston carried by said web and operating in said chamber, an abutment coöperating with said piston, a steam pipe delivering into said chamber between said abutment and said piston after said piston has passed said abutment, a compressor for compressing explosive gases, operative connections between said shaft and said compressor, a valved duct connecting said compressor with said ignition chamber to admit explosive gases into said chamber, ignition devices piston, and mechanism for timing said duct valve and said ignition devices.

2. In a rotary engine, a casing inclosing a piston chamber, an ignition chamber mounted on said casing and adapted to communicate with the same, a rotatable shaft, a web on said shaft, a piston carried by said web and operating in said chamber, an abutment coöperating with said piston, a steam pipe delivering into said chamber between said abutment and said piston after said piston has passed said abutment, a compressor for compressing explosive gases, operative connections between said shaft and said compressor, a valved duct connecting said compressor with said ignition chamber to admit explosive gases into said chamber, ignition devices piston, mechanism for timing said duct valve and said ignition devices, a valve for controlling the steam admission, and mechanism for controlling the action of said steam valve.

3. In a rotary engine, a casing inclosing a piston chamber, an ignition chamber mounted on said casing and adapted to communicate with the same, a rotatable shaft, a web on the said shaft, a piston carried by said web and operating in said chamber, an abutment coöperating with said piston, a steam pipe delivering into said chamber between said abutment and said piston after said piston has passed said abutment, a compressor for compressing explosive gases, operative connections between said shaft and said compressor, a valved duct connecting said compressor with said ignition chamber to admit explosive gases into said chamber, ignition devices piston, and mechanism for timing said duct valve and said ignition devices, to admit the explosive gases into said chamber during the time the steam is impelling said piston.

4. In a rotary engine, a casing having an annular working chamber, a rotator including a piston head operating in said chamber, an abutment chamber on said casing, an abutment, mechanism for moving said abutment into and out of said abutment chamber at intervals, means for admitting working agent into said working chamber, means for exhausting working agent from the same, said working agent admitting means including a steam inlet duct, a back check valve in said duct, a cutoff valve and means for operating said cutoff valve, mechanism for admitting explosive agent into said working chamber, said last named mechanism comprising a charge compressor, an explosion chamber, a duct for conveying the compressed charge to the explosion chamber, means for admitting working agent into the compressor, a duct for conveying the working agent from the explosive chamber into the working chamber, and a valve mechanism for controlling the admission of working agent to said compressor, for controlling the passage of the compressed charge from the compressor to the explosion chamber, and for controlling the passage of the charge from the explosion chamber to the working chamber.

5. In a rotary engine, a casing having an annular working chamber, a rotator including a piston head operating in said chamber, an abutment chamber on said casing, an abutment, mechanism for moving said abutment into and out of said abutment chamber at intervals, means for admitting working agent into said working chamber, means for exhausting working agent from the same, said working agent admitting means including a steam inlet duct, a back check valve in said duct, a cutoff valve, and means for operating said cutoff valve, mechanism for admitting explosive agent into said working chamber, said last named mechanism comprising a charge compressor, an explosion chamber, a duct for conveying the compressed charge to the explosion chamber, means for admitting working agent into the compressor, a duct for conveying the working agent from the explosive chamber into the working chamber, a valve mechanism for controlling the admission of working agent to said compressor, for controlling the passage of the compressed charge to the explosion chamber, and for controlling the passage of the charge from the explosion chamber to the working chamber, said last named valve mechanism including a rotary valve element, and an intermittently operating valve gear for imparting rotation to said element.

[Claims 6 to 9 not printed in the Gazette.]

1,210,047. LOCK. JULIUS CHEIN, Montclair, N. J. Filed Mar. 7, 1916. Serial No. 82,594. (Cl. 70—78.)

1. In a device of the character described, a case, a bolt therein provided with a key aperture, a rotatable

cover formed with a boss adapted to engage the key aperture of the bolt to prevent accidental displacement substantially as shown and described.



2. In a device of the character described, a case, a bolt therein provided with a key aperture, a cover plate rotatable in the movement of the key and bosses in the cover plate adapted to engage the key aperture of the bolt to prevent accidental displacement substantially as shown and described.

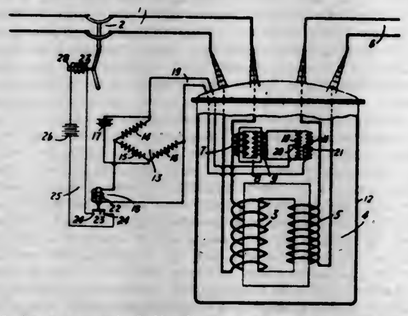
3. In a device of the character described, a case, a bolt therein provided with a key aperture, a downwardly bent notched section adjacent the key aperture forming shoulders adapted to engage a key and a cover plate to be turned by the key and having an offset adapted to engage the bolt to prevent accidental displacement substantially as shown and described.

1,210,048. VEHICLE-TIRE. HENRY Z. COBB, Winchester, Mass., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed July 17, 1914. Serial No. 851,438. (Cl. 152—14.)



In a vehicle tire, the combination with a series of projecting studs or lugs, cores for said studs radially disposed therein comprising a composite material having successive layers of intimately interwoven fibrous transverse binding strands and wire, said layers being bent to form laterally projecting flanges at the bases of said cores and projecting beneath the bases of said studs within the material of the tire.

1,210,049. ELECTRICAL PROTECTIVE DEVICE. ALMON W. COPLEY, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 14, 1915. Serial No. 66,769. (Cl. 175—294.)



1. In a system of distribution, the combination with an electro-responsive device and a resistor adapted to be heated in accordance with the current that traverses the system, of a plurality of resistors constituting three arms of a Wheatstone bridge, the fourth arm of which comprises that part of the first-mentioned resistor between equal-potential points thereof, the electro-responsive device being operatively connected to the bridge.

2. The combination with a translating device, a resistor adapted to be maintained at a temperature corresponding to the temperature of the translating device, and an electro-responsive device, of a Wheatstone bridge one arm of which constitutes that part of the resistor between equal-potential points thereof, the electro-responsive device being operatively connected to the Wheatstone bridge.

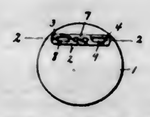
3. A protective system for a translating device comprising a resistor adapted to be maintained at a temperature proportional to the temperature of the translating device, a Wheatstone bridge one arm of which comprises that part of the resistor between equal-potential points thereof, and an electro-responsive device operatively connected to the bridge and adapted to operate under predetermined conditions.

4. The combination with a resistor, of a Wheatstone bridge one arm of which comprises the resistance of the resistor between equal-potential points thereof.

5. In a protective system for a translating device, the combination with two parallel-connected resistors heated in accordance with the temperature of the translating device, of a Wheatstone bridge, one arm of which comprises the resistance between two equal-potential points of the said resistors, and means adapted to be actuated by the unbalancing of the current traversing the bridge.

[Claims 6 to 9 not printed in the Gazette.]

1,210,050. EXTRACTOR-CAP. HAROLD D. CORNWALL, Lowville, N. Y. Filed Nov. 1, 1915. Serial No. 59,073. (Cl. 215—14.)



1. A closure comprising a disk of flexible material having an elongated metal strip arranged flat face down on the top face of the disk and having a relatively short central portion secured to the disk by spurs punched from the strip and positioned on opposite sides of said central portion and passed through the disk and clenched into engagement with the lower face thereof, and opposite relatively long free end parts adapted to be bent respectively about the said central portion and having portions adapted to be brought into contact to form a unitary gripping handle.

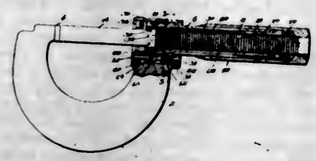
2. A closure comprising a disk of flexible material having an elongated metal strip arranged flat face down on the top face of the disk and having a relatively short central portion secured to the disk by spurs punched from the strip and positioned on opposite sides of said central portion and passed through the disk and clenched into engagement with the lower face thereof, and opposite relatively long free end parts adapted to be bent respectively about the said central portion and having portions adapted to be brought into contact to form a unitary gripping handle, said free end parts having openings adapted to register when the said portions are in contact.

3. A closure comprising a disk of flexible material having an elongated metal strip arranged flat face down on the top face of the disk and having a relatively short central portion secured to the disk by spurs punched from the strip and positioned on opposite sides of said central portion and passed through the disk and clenched in opposite directions toward the edge of the disk and into engagement with the lower face thereof, and opposite relatively long free end parts adapted to be bent respectively about the said central portion and having portions adapted to be brought into contact to form a unitary gripping handle.

4. A closure comprising a disk of flexible material having an elongated metal strip arranged flat face down on the top face of the disk and having a relatively short central portion secured to the disk at an eccentric point thereon and near one edge of the disk, a pair of spurs

punched from the strip and positioned on opposite sides of said central portion and passed through the disk and clenched into engagement with the lower face thereof, and opposite relatively long free end parts extending longitudinally of a chord of the disk and terminating adjacent the edge of the disk and adapted to be bent respectively about the said central portion into contact with each other to form a unitary gripping handle.

1,210,051. DIRECT-READING MICROMETER-CALIPER. WILLIAM S. DAVENPORT, New Bedford, Mass. Filed June 16, 1915. Serial No. 34,417. (Cl. 33—166.)



1. A micrometer caliper, having, in combination, a frame provided with an anvil and a hub, a nut fixed in the hub, a spindle within the hub having a screw engaging the nut, a thimble secured to the spindle and surrounding the hub, a short projection on the spindle, a sleeve mounted to turn in the hub between the same and the threaded part of the spindle and provided interiorly with a longitudinal recess along which the projection on the spindle travels as the spindle is turned, an indicating dial turning with the sleeve, indicating dials concentric with the sleeve and spindle, and carrying mechanism between the dials.

2. A micrometer caliper, having, in combination, a frame provided with an anvil and a hub, a nut in the hub at the outer end thereof, a spindle within the hub having a screw engaging the nut, a thimble secured to the spindle and surrounding the hub, a short projecting key on the spindle at the inner end of the screw, a rotatable sleeve within the hub having a keyway in its inner surface along which the key travels as the spindle is turned, an indicating dial carried by the sleeve, indicating dials surrounding the sleeve and spindle, and carrying mechanism between the dials.

3. A micrometer caliper, having, in combination, a frame provided with an anvil and a hub, a nut in the hub, a spindle within the hub having a screw engaging the nut, a thimble secured to the spindle and surrounding the hub, a sleeve within the hub provided interiorly with a keyway, a collar on the spindle slidable in the sleeve and provided with a key engaging the keyway, and indicating dials actuated by the rotation of the sleeve.

4. A micrometer caliper, having, in combination, a frame provided with an anvil and a hub, a nut in the hub, a spindle within the hub having a screw engaging the nut, a sleeve within the hub having an interior keyway, a collar on the spindle slidably fitting the sleeve and provided with a key engaging the keyway, and indicating dials actuated by the rotation of the sleeve.

5. A micrometer caliper, having, in combination, a frame provided with an anvil and a hub, a bore being formed in the hub, a nut in the outer end of the bore, a spindle provided with a screw engaging the nut, a counterbore being formed in the frame at the inner end of the bore in the hub, indicating dials within the counterbore, a removable bushing fitted in the end of the counterbore surrounding the spindle, a sliding coupling between one dial and the spindle, and carrying devices connecting the dials.

[Claims 6 to 10 not printed in the Gazette.]

1,210,052. GRINDING DEVICE. CHARLES H. DAVIS, Worcester, Mass. Filed July 11, 1911. Serial No. 638,028. (Cl. 82—13.)

1. In a device of the class described, the combination of a driving shaft and a driven wheel carried thereby, with a plurality of projections on one of these members adapted to engage the other member, and means for resiliently retaining said members in engagement.



2. In a device of the class described, the combination of a driving shaft and a driven wheel carried thereby, with a plurality of fingers about the axis of one of these members adapted to enter corresponding sockets in the other member, and means for resiliently retaining said members in engagement.

3. In a device of the class described, the combination of a driving shaft, a driven disk mounted thereon and free to rock relative thereto, a plurality of fingers on one of these members adapted to enter corresponding sockets in the other member, and means for retaining said fingers within said sockets.

4. In a device of the class described, the combination of a mandrel provided at one extremity with a plurality of projections, a threaded hole in said extremity concentric with said mandrel, a wheel provided with a central orifice therethrough, a headed screw adapted to pass through said orifice and have a portion thereof fit within said threaded hole, and sockets in said wheel to receive the opposing projections on said mandrel.

5. In a device of the class described, the combination of a mandrel provided at one extremity with a plurality of tapering fingers projecting longitudinally therefrom and concentric therewith, a threaded hole in said extremity concentric with said mandrel, an abrasive disk provided with an inserted hub having a central orifice therethrough, a binding screw adapted to pass through said orifice and have a portion thereof fit within said threaded hole, and a plurality of sockets in said hub adapted to receive the opposing fingers on said mandrel and to be held in coactive relation therewith by said binding screw.

[Claim 6 not printed in the Gazette.]

1,210,053. PROCESS OF MANUFACTURING A VACCIN FOR THE PREVENTION OF HOG-CHOLERA AND PRODUCT THEREFROM. CHARLES WARREN DUVAL, New Orleans, La., assignor of two-thirds to Maurice J. Couret, New Orleans, La. Filed Mar. 22, 1916. Serial No. 85,960. (Cl. 167—10.)

1. The process for the production of a vaccin product for the prevention of hog cholera which consists in removing from the infected hog parts containing the virulent virus, desiccating the mass so secured, and converting same into the powdered form, and finally mixing this product with inactivated antitoxic serum, and sensitizing the same.

2. The process for the production of a vaccin product for the prevention of hog cholera which consists in removing from the infected hog parts containing the virulent virus, desiccating the mass so secured, and converting same into the powdered form, attenuating the virus of the desiccated powder so secured, and finally mixing this product with inactivated antitoxic serum, and sensitizing the same.

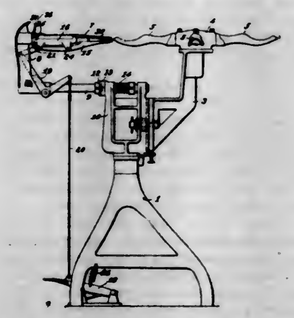
3. The process for the production of a vaccin product for the prevention of hog cholera which consists in removing from the infected hog parts containing the virulent virus, desiccating the mass so secured, and converting same into the powdered form, killing the virus of the desiccated powder so secured, and finally mixing this product with inactivated antitoxic serum, and sensitizing the same.

4. The process for the production of a vaccin product for the prevention of hog cholera which consists in removing from the infected hog parts containing the virulent virus, desiccating the mass so secured, and converting same into the powdered form, and finally mixing this product while suspended in sterile water with inactivated antitoxic serum, also in the desiccated and powdered form, and sensitizing the same.

5. The process for the production of a vaccin product for the prevention of hog cholera which consists in removing from the infected hog parts containing the virulent virus, desiccating the mass so secured, and converting same into the powdered form, attenuating the virus of the desiccated powder so secured, and finally mixing this product, while suspended in sterile water, with inactivated antitoxic serum, also in the desiccated and powdered form, and sensitizing the same.

[Claims 6 to 27 not printed in the Gazette.]

1,210,054. FOREPART-TURNING MACHINE. ANDREW EPPLER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 27, 1916. Serial No. 74,574. (Cl. 12—57.)



1. A shoe turning machine, having in combination, a shoe supporting form, a turning iron coöperating with the form and engaging with the toe portion of the shoe during the turning operation, and a member engaging with the outside of the toe portion of the upper and arranged to maintain the upper stretched over the form during the turning operation.

2. A shoe turning machine, having in combination, a shoe supporting form, a turning iron coöperating with the form, an upper engaging member, and means for moving the upper engaging member into contact with the toe portion of the upper above the form.

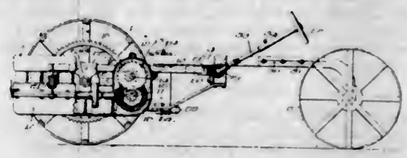
3. A shoe turning machine, having in combination, a shoe supporting form, a turning iron coöperating with the form, an auxiliary turning iron, an upper engaging member connected with the auxiliary turning iron, and means for moving the auxiliary turning iron and upper engaging member into contact with the shoe on opposite sides of the form.

4. A shoe turning machine, having in combination, a shoe supporting form, a turning iron coöperating with the form, an auxiliary turning iron, an upper engaging member, yielding connections between the auxiliary turning iron and upper engaging member, and means for advancing the auxiliary turning iron and upper engaging member into contact with a shoe.

5. A shoe turning machine, having in combination, a shoe supporting form, a turning iron coöperating with the form, a carrier slidingly supported upon the iron, an auxiliary turning iron mounted upon the carrier, an upper engaging member supported upon the carrier, yielding connections between the carrier and upper engaging member, means for limiting the advancing movement of the upper engaging member, and means for advancing the carrier.

[Claims 6 and 7 not printed in the Gazette.]

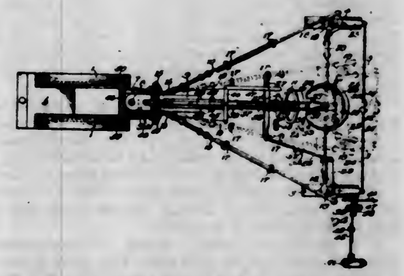
1,210,055. SELF-PROPELLED VEHICLE. HARRY B. FAIRMAN, Davenport, Iowa. Filed Dec. 18, 1911. Serial No. 666,551. (Cl. 21—114.)



1. A self-propelled vehicle including a wheel portion having two closely approached wheel members; a truck in which said wheel members are journaled, this truck being adapted for swinging adjustment to change the planes in which said wheel members rotate; a motor carried by said wheel members so as to swing therewith; and power transmission mechanism located between the wheel members and intervening between the motor and said wheel members whereby said wheel members may be driven, this power transmission mechanism and motor being located in tandem to permit of the close approach of the wheels.

2. A self-propelled vehicle including a wheel portion having two closely approached wheel members; a truck in which said wheel members are journaled, this truck being adapted for swinging adjustment to change the planes in which said wheel members rotate; a motor; and power transmission mechanism located between said wheel members and intervening between the motor and said members whereby said wheel members may be driven, this power transmission mechanism and motor being located in tandem to permit of the close approach of the wheels.

1,210,056. VEHICLE. HARRY E. FAIRMAN, Davenport, Iowa. Filed July 13, 1914. Serial No. 850,560. (Cl. 21—114.)



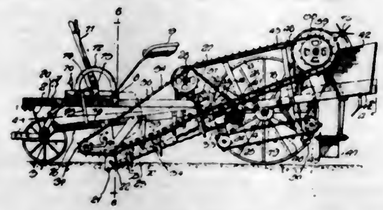
1. A vehicle having two side frame members extending between forward and rear portions of the vehicle and adjustable laterally of the vehicle with respect to each other and whose effective length is adjustable; and vehicle wheels supporting said members and adjustable therewith.

2. A vehicle having two side frame members that converge forwardly; a frame with which the forward ends of these frame members are connected; a beam extending rearwardly from this frame; vehicle wheels upon which the rear ends of the frame members are mounted; and a strut serving to space said wheels apart and connected with the rear end of the beam.

3. A vehicle having two side frame members; a frame with which the forward ends of these frame members are swingingly connected; a beam extending rearwardly from this frame; vehicle wheels upon which the rear ends of the frame members are mounted; and a strut serving to space said wheels apart and connected with the rear end of the beam, said frame members and strut having their effective lengths adjustable whereby the spacing between said vehicle wheels may be regulated.

4. A vehicle having two side frame members; a frame with which the forward ends of these frame members are swingingly connected; vehicle wheels upon which the rear ends of the frame members are mounted; and a strut serving to space said wheels apart, said frame members and strut having their effective lengths adjustable whereby the spacing between said vehicle wheels may be regulated.

1,210,057. BEET-HARVESTER. JOHN A. FANGER, Kalida, Ohio; Maria Anna Fanger, executrix of said John A. Fanger, deceased, assignor, by direct and mesne assignments, to The Fanger Beet Harvester Co. Filed Apr. 26, 1915. Serial No. 24,079. (Cl. 55—9.)



1. In combination, a portable frame, a pair of spaced upright guides carried thereby, vertically movable knife carriages on said guides, a vertically adjustable knife secured to said carriages, belt guides carried by the carriages, and a feed belt having a vertically movable stretch passing through said guides.

2. In combination, a portable frame, a pair of upright guides carried thereby and movable toward and away from each other, knife carriages slidable vertically on said guides, a knife having slidable normally locked connections at its ends with said carriages, belt guides carried by the carriages, and a feed belt having a vertically movable portion received by said belt guides.

3. In combination, a portable frame, a pair of upright guides carried thereby and movable toward and away from each other, a pair of knife carriages slidable vertically on the guides, a knife having slots at its ends, fasteners passing through said slots into the carriages, belt guides carried by the carriages, and a feed belt having a vertically movable portion received by said guides.

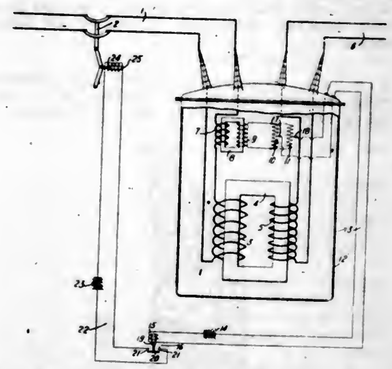
4. In combination, a portable frame, a pair of upright carriage guides carried thereby, a pair of vertically movable carriages disposed on said guides, vertically adjustable upright bolts carried by the carriages and having heads, a knife secured at its ends to said heads, belt guides carried by the two carriages, and a feed belt having a vertically movable portion received by said belt guides.

5. In combination, a portable frame, a vertically movable vertically slotted knife carriage carried thereby and having belt guides, an upright vertically adjustable bolt carried by the knife carriage and having a nut for adjusting it vertically, a stud projecting laterally from the bolt through the slot in the carriage, a lock nut on said stud, a knife secured to the bolt, and a feed belt having a vertically movable portion received by the aforesaid belt guides.

[Claims 6 to 8 not printed in the Gazette.]

1,210,058. ELECTRICAL PROTECTIVE DEVICE. CHARLES LE G. FORTESCUE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 21, 1915. Serial No. 51,867. (Cl. 175—294.)

1. In a system of distribution, the combination with an electro-responsive device, of a resistor having a negative temperature coefficient and adapted to be heated in accordance with the current that traverses the system, a source of constant potential connected to the said resistor and to the electro-responsive device for actuating the same when the resistor is of a predetermined temperature.



2. In a system of distribution, the combination with a translating device and an electro-responsive device, of a resistor having a negative temperature co-efficient and adapted to be heated in accordance with the temperature of the translating device, a source of constant potential connected to the said resistor and to the electro-responsive device for actuating the same when the resistor reaches a predetermined temperature.

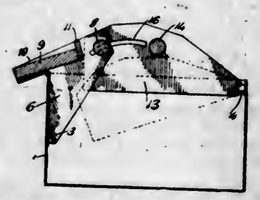
3. In a system of distribution, the combination with a translating device and a protective device, of a resistor adapted to be heated in accordance with the temperature of the said translating device, a source of constant potential, an electro-responsive device connected in circuit with the source of constant potential, the circuit thus constituted being connected to the resistor and so proportioned as to actuate the protective device when the translating device reaches a predetermined temperature.

4. The combination with a translating device and a protective device therefor, of a resistor adapted to be maintained at a temperature proportional to the temperature of the translating device, a source of constant potential, and an electro-responsive device connected to the said resistor and adapted to actuate the protective device under predetermined conditions.

5. The combination with a translating device and a circuit interrupter therefor, of a resistor adapted to be maintained at a temperature corresponding to the temperature of the translating device, an electro-responsive device, and a source of electromotive force, said electro-responsive device being so connected to the resistor and a source of electromotive force that the current traversing the same is proportional to the temperature of the translating device.

[Claims 6 to 18 not printed in the Gazette.]

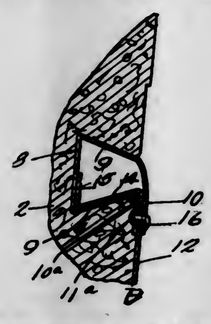
1,210,059. MOP-WRINGER. WILLIAM FROHNE, Cincinnati, Ohio. Filed Aug. 30, 1916. Serial No. 117,798. (Cl. 15—12.)



A device of the character specified, comprising a vessel, plates pivotally mounted near one end of said vessel, a roller journaled between said plates, plates pivotally mounted near the opposite end of said vessel, a second

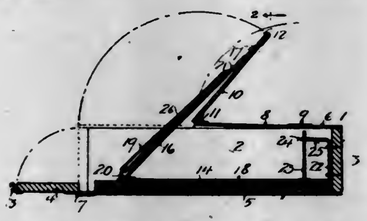
roller journaled between said plates, means for the rocking of said first roller, and means, upon the rocking of said first roller, whereby said second roller may be oppositely actuated, substantially as and for the purpose described.

1,210,060. COUNTER-FLASHING ATTACHMENT. HENRY SUMNER GARDNER, Binghamton, N. Y. Filed Oct. 6, 1916. Serial No. 124,127. (Cl. 108—26.)



The combination with a wall, of a channel embedded therein and having upstanding and depending flanges; securing elements connected with the flanges and constituting means for attaching the channel to a mold; a flashing including an extension prolonged into the channel, the outstanding flange being bendable to constitute a closure for the channel and to overlie the outer face of the flashing; the securing element of the upstanding flange being removable to form a hole, and the securing element of the lower flange being extended through the flashing and through the hole, and being clenched on the outer face of the upstanding flange after the said flange has been bent downwardly.

1,210,061. RECEPTACLE. JAMES E. GRANT, Newark, N. J. Filed Sept. 15, 1915. Serial No. 50,795. (Cl. 129—15.)



1. A device of the class described comprising a receptacle, a hinged cover, and a member attached to and substantially parallel with the cover, adapted to form a support for holding the cover in an inclined position when open and adapted to be moved with the cover and to be inclosed within the receptacle by the closing of the cover.

2. A device of the class described comprising a receptacle, a cover member hinged to the receptacle, a second cover member hinged to said first cover member to form a continuation thereof, a supporting member attached to the second cover member and movable therewith, said supporting member being adapted to support said second cover member in open position and to form a support for a sheet.

3. A device of the class described comprising a receptacle, a cover member hinged to the receptacle, a second cover member hinged to said first cover member to form a continuation thereof, a supporting member forming a continuation of said second cover member and adapted to rest within the receptacle and to support the second cover member in an inclined position when open and adapted to lie below said first cover member when the cover is closed.

4. A device of the class described comprising a receptacle, a hinged front, 4, a cover member hinged to the receptacle for partly closing a side of the receptacle lying at right angle to the side closed by said hinged front, a second cover member hinged to said first cover member, a member forming a continuation of the second cover member and adapted to hold the latter in inclined position when open and adapted to lie close under said first cover member when the cover is closed.

5. A device of the class described, comprising a receptacle, a cover member hinged thereto, a second cover member hinged to said first cover member to form a continuation thereof, a supporting member forming a continuation of the second cover member within the receptacle and adapted to retain the second cover member in inclined position and a stop member for said supporting member.

[Claims 6 and 7 not printed in the Gazette.]

1,210,062. ELECTRICALLY-HEATED CULINARY APPARATUS. WILLIAM S. HADAWAY, Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 25, 1910. Serial No. 568,871. (Cl. 219—41.)



1. An electric heating device comprising a body member, a set of supply conductors, a set of terminal conductors, an inclosing tube for the terminal conductors that terminates in a metal strip, a set of insulated binding posts secured to said strip in a longitudinal row and serving to connect the ends of the supply conductors at one side of said strip with the ends of the terminal conductors at the other side thereof, and a hollow handle removably secured to the outer end of the tube and inclosing the binding posts.

2. An electric heating device comprising a body member, a set of supply conductors, a metallic strip interposed between the said conductors, a set of binding posts secured to the said strip and insulated therefrom by means of insulating washers, the said binding posts serving to connect the ends of the supply conductors at one side of the said strip with the ends of the terminal conductors at the other side thereof, and a hollow handle surrounding the said binding posts and the said strip.

1,210,063. SHUTTER FOR USE WITH MOTION-PICTURE APPARATUS HAVING INTERLOCKING PARTS. FRANK C. HAMILTON, New York, N. Y., assignor to Eureka Projector Device Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 30, 1915. Serial No. 53,233. (Cl. 88—19.3.)



1. In a rotatable shutter having a plurality of removable vanes, a rotatable seat member from which said vanes project and provided with recesses removed from and opening away from the center of rotation of said member, each of said vanes having a shank so conformed that with said shank sidewisely advanced to become seated in one of said recesses said vane is locked in said recess against withdrawal radially of said center of rotation.

2. In a rotatable shutter having a plurality of removable vanes, a rotatable seat member from which said vanes project and provided with recesses removed from and opening away from the center of rotation of said member, each of said vanes having a shank so conformed that with said shank sidewisely advanced to become seated in one of said recesses said vane is locked in said recess against withdrawal radially of said center of rotation, said recesses all being similar and said shanks all being similar.

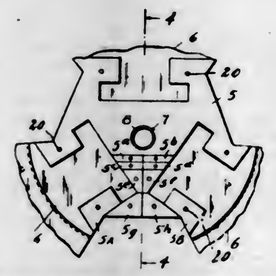
3. In a rotatable shutter having a plurality of removable vanes, a rotatable seat member from which said vanes project and provided with recesses removed from and opening away from the center of rotation of said member, each of said vanes having a shank so conformed that with said shank sidewisely advanced to become seated in one of said recesses said vane is locked in said recess against withdrawal radially of said center of rotation, in combination with a pair of duplicate side shields each overlapping said recesses.

4. In a rotatable shutter having a plurality of removable vanes, a rotatable seat member from which said vanes project and provided with recesses removed from and opening away from the center of rotation of said member, each of said vanes having a shank so conformed that with said shank sidewisely advanced to become seated in one of said recesses said vane is locked in said recess against withdrawal radially of said center of rotation, in combination with a pair of duplicate side shields each overlapping said recesses, and fastening means for attaching said side shields one on each side of said seat member.

5. In a rotatable shutter having a plurality of removable vanes, a rotatable seat member from which said vanes project and provided with recesses removed from and opening away from the center of rotation of said member, each of said vanes having a shank so conformed that with said shank sidewisely advanced to become seated in one of said recesses said vane is locked in said recess against withdrawal radially of said center of rotation, said seat member being composed of some cushioning material.

[Claim 6 not printed in the Gazette.]

1,210,064. BALANCING MEANS FOR SHUTTERS INTENDED FOR USE WITH MOTION-PICTURE-PROJECTION APPARATUS. FRANK C. HAMILTON, New York, N. Y., assignor to Eureka Projector Device Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 30, 1915. Serial No. 53,234. (Cl. 88—19.3.)



1. In a rotatable shutter, a plurality of adjustable piles of laminæ, carried by the shutter at various locations all removed from the center of rotation of the shutter, each of said piles being spaced differently from said center of rotation.

2. In a rotatable shutter carrying a plurality of vanes so arranged that the center of gravity of said shutter is removed from the center of rotation thereof, a plurality of adjustable piles of laminæ carried by the shutter, at different radial distances from the center of rotation and at different angular distances from a line joining said two centers.

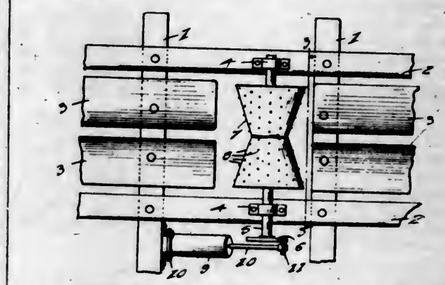
3. In a rotatable shutter carrying a plurality of vanes so arranged that the center of gravity of said shutter is removed from the center of rotation thereof, an adjustable pile of removable laminæ removed from said two centers.

4. In a rotatable shutter carrying a plurality of vanes so arranged that the center of gravity of said shutter is removed from the center of rotation thereof, an adjustable pile of removable laminæ removed from said two centers, the pile being built up in a direction parallel with the axis of rotation of the shutter.

5. In a rotatable shutter, a plurality of adjustable piles of laminæ, carried by the shutter at various locations all removed from the center of rotation of the shutter, each of said piles being spaced differently from said center of rotation, each pile being built up in a direction parallel with the axis of rotation of the shutters.

[Claim 6 not printed in the Gazette.]

1,210,065. ROLLER AND ROLLER-RETARDING DEVICE FOR LOG-CHUTES. ROBERT J. HAMILTON, Enaville, Idaho. Filed Nov. 19, 1915. Serial No. 62,355. (Cl. 198—1.)



1. In combination, a log chute having cross ties, outer boards and inner boards provided with a cut-away portion to form an opening, of a transversely extending shaft journaled to the outer boards and extending across the opening, a double cone-shaped roller secured to the shaft within the opening, a fly wheel secured to one end of the shaft, a cylinder pivoted to one of the ties, a piston slidable within said cylinder and eccentrically connected to the fly wheel, said cylinder provided with an internally screw-threaded opening adjacent its pivoted end, and a bolt threaded in said opening of the cylinder and provided with a slot from the inner end to a point midway of the length thereof to provide means for reducing and increasing the pressure within the cylinder as desired.

2. In combination, a log chute comprising slide boards having their adjacent ends relatively spaced, a roller journaled between said spaced ends and extending transversely of said boards, the upper side of the roller being located above said slide boards and means for retarding the speed of rotation of the roller so that the engagement of a log with the roller will affect the reduction in the speed of the log.

3. In combination, a log chute comprising pairs of slide boards having their upper faces inclined downwardly and inwardly and their adjacent ends relatively spaced, a double cone-shaped roller journaled between said spaced ends and extending transversely of said slide boards, the upper sides of said roller being located above the upper faces of said boards and means for retarding the speed of the rotation of the roller so that the engagement of a log with the roller will affect the reduction of the speed of the log.

1,210,066. INSOLE. SHINGO HARA, Oakland, Cal. Filed Mar. 13, 1916. Serial No. 83,793. (Cl. 36—71.)



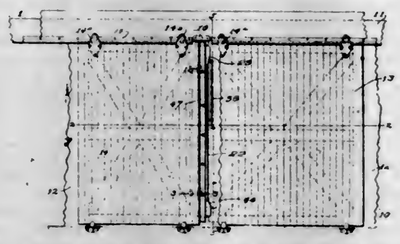
1. An insole of uneven thickness having normally a flat upper surface, and having its maximum thickness at the heel and at two points near its edges and on a line substantially coinciding with the ball portion of the foot.

2. An insole having normally a flat upper surface, the thickness of the sole increasing gradually from the toe end of the sole toward its ball portion and increasing abruptly at this portion to its maximum.

3. An insole having a heel portion and spaced portions on the opposite sides of the ball of like thickness, and the remaining portions of the insole of lesser thickness and disposed normally and entirely in a flat plane with the upper surface of the heel and ball portions whereby the remaining portions will be free to yield.

4. An insole having an uninterrupted flat upper surface and the undersurface abruptly reduced at the forward end beneath the toes to form a toe support, the under surface being further attenuated to provide the greatest thicknesses of the insole at the center of the heel and in a forwardly directed V immediately behind the abruptly reduced forward end, the heel and ball being connected by a narrow strip.

1,210,067. SIDE-DOOR POST FOR CARS. CHARLES HARTER, St. Louis, Mo. Filed July 3, 1916. Serial No. 107,287. (Cl. 20—22.)



1. A car provided with a door opening, a post spanning said opening and having sliding connection with a portion of the car body, socket blocks on the car body above and below the door opening, and a pair of jaws pivotally mounted on each end of the post which jaws are adapted to engage the socket blocks to lock the post to the car body.

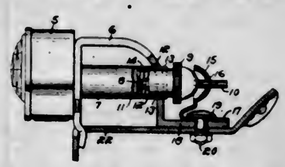
2. A car provided with a door opening, a post spanning said opening and having sliding connection with a portion of the car body, socket blocks on the car body above and below the door opening, a pair of jaws pivotally mounted on each end of the post which jaws are adapted to engage the socket blocks to lock the post to the car body, and a latching member adapted to engage one of the jaws of each pair to hold the same in locked position.

3. A car provided with a door opening, a post spanning said opening and having sliding connection with a portion of the car body, a pair of pivotally mounted jaws on each end of the post, the members of each pair of jaws being connected so as to operate simultaneously, and means on the car body above and below the door opening for receiving the outer ends of said jaws and to coöperate therewith to hold the post in locked position.

4. A car provided with a door opening, a pair of sliding doors adapted to normally close said opening, a post spanning said opening and having sliding connection with the car body independently of said doors, pivotally mounted jaws on each end of the post, means on the car body above and below the door opening for receiving the outer ends of said jaws to maintain the post in position between the sliding doors, and readily releasable latching means for securing said post to one of said doors.

5. A car provided with a door opening, a post spanning said opening and having sliding connection with a portion of the car body, blocks above and below the door opening, each of which blocks is provided with a pair of recesses, and a pair of locking jaws pivotally mounted on each end of the post, the outer ends of which jaws are adapted to engage in the recesses of the blocks to hold the post locked to the car body.

1,210,068. CABLE-TERMINAL-PLUG RETAINER. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed June 22, 1914. Serial No. 846,499. (Cl. 175—283.)



1. The combination of a cable; a pair of coöperating disconnectible members one of which is attached to said cable, said members having means for causing their connection in operative relation to each other; a support to which one of said members is secured; and means attached to said support independently of both members and permitting a limited relative movement of one member with relation to the other while preventing such member from becoming detached from said support.

2. The combination of a cable; a cable terminal plug attached thereto; a socket member to receive said plug; a support for said socket member; and a plug-retainer secured to said support independently of said socket.

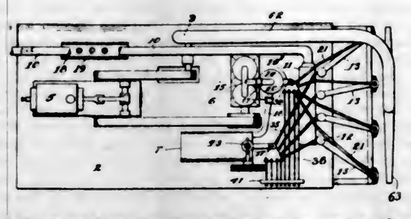
3. The combination of a cable; a cable terminal plug attached thereto; a socket member to receive said plug; a support for said socket member; and a plug-retainer secured to said support and disposed so that it is normally out of engagement with said plug but prevents unintentional escape of said plug from said socket member.

4. The combination of a cable; a cable terminal plug attached thereto; a socket member to receive said plug; said parts being provided with terminals one of which is normally spring-pressed against the other; said parts having means providing for separation of said terminals by relative axial movement; and means providing for limited separating movement of said terminals while having provision to prevent accidental withdrawal of said plug from said socket member in all relative positions of said parts.

5. The combination of a cable; a cable terminal plug attached thereto; a socket member to receive said plug; a support on which said socket member is mounted; and means secured to said support beyond the outer end of said plug to prevent its accidental withdrawal therefrom.

[Claims 6 to 11 not printed in the Gazette.]

1,210,069. OIL-DISTRIBUTING APPARATUS. NATHAN V. HENDRICKS, Meridian, Miss., assignor to Uniform Asphalt Distributor Company, Meridian, Miss., a Corporation of Mississippi. Filed Nov. 17, 1914. Serial No. 872,609. (Cl. 137—63.)



1. In a machine for distributing oil to road surfaces, the combination of a traveling vehicle, oil distributing nozzles, oil conductors leading thereto, compressed air conductors leading to the nozzles, fluid pressure actuated valves governing the supply of oil through said oil conductors, compressed air conductors leading to said valves, and an independent valve mechanism governed automatically by the speed of the vehicle for regulating the supply of air through said compressed air conductors leading to said valves.

2. In a machine for distributing oil to road surfaces, the combination of a traveling vehicle, oil distributing nozzles, oil conductors leading thereto, compressed air conductors leading to the nozzles, fluid pressure operated valves controlling the flow of oil through said oil conductors, compressed air conductors leading to the valves, a valve mechanism governing the flow of air through said compressed air conductors leading to said fluid pressure operated valves, and an automatic governor for actuating said valve mechanism.

3. In a machine for distributing oil to road surfaces, the combination of a traveling vehicle, oil distributing nozzles, an air blast nozzle within each distributing nozzle, means for supplying heated air to the air blast nozzles, oil conductors leading to the oil distributing nozzles, fluid pressure valves controlling the supply of oil to said conductors, and means governed by the speed of the vehicle, for controlling the supply of fluid pressure to said fluid pressure valves.

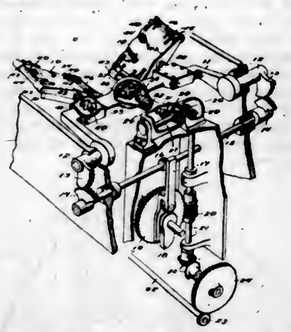
4. In a machine for distributing oil to road surfaces, the combination of a traveling vehicle, oil distributing nozzles, oil conductors leading to said nozzles, air blast nozzles within the distributing nozzles, compressed air supply pipes leading to the air blast nozzles, fluid pressure controlled valves governing the flow of oil to the oil conductors, air conductors for conveying compressed air to the valves whereby to operate them, and means controlled by the running speed of the vehicle for regulating the supply of air to the valves through said conductors.

5. In a machine for distributing oil to road surfaces, an oil distributing nozzle, an air blast nozzle within said distributing nozzle, an oil conductor leading to the distributing nozzle, a fluid pressure controlled valve governing the supply of oil from said conductor to the nozzle, and automatic means governed by the speed of the vehicle for controlling the supply of pressure fluid to said valve.

[Claims 6 to 13 not printed in the Gazette.]

1,210,070. SHOE-POLISHING MECHANISM. FERDINAND G. HENRY, New York, N. Y., assignor to Burkhart Corporation, Buffalo, N. Y., a Corporation of New York. Filed May 19, 1914. Serial No. 839,587. (Cl. 15—61.)

1. In a shoe polishing mechanism, a yoke mounted to oscillate upon alined trunnions; a shaft in alinement with the axis of the trunnions; polishing heads carried upon shafts journaled in the yoke at right angles to the first mentioned shaft; means to rotate the first mentioned shaft; and means to convert the rotary motion of such shaft to oscillating motion and transmit it to the said polishing heads.



2. In a shoe polishing mechanism, a frame adapted to be raised and lowered; polishing heads carried by the frame and adapted to oscillate; a shaft extending between the polishing heads; means connecting the shaft with the polishing heads to transmit motion to such heads; a second shaft journaled at right angles to the first mentioned shaft; and means carried by the shafts to convert rotary motion from such second shaft into oscillating motion transmitted to the first mentioned shaft.

3. In a shoe polishing mechanism, a frame adapted to be raised and lowered; spaced polishing heads carried by the frame and journaled to oscillate; a shaft carried by the frame and intergeared with the polishing heads; a second shaft journaled in the frame; means to apply rotary motion to the second mentioned shaft; and means connecting the second mentioned shaft with the first mentioned shaft for converting such rotary motion into oscillating motion upon the first mentioned shaft.

4. In a shoe polishing mechanism; a frame adapted to be raised and lowered; a shaft journaled in the frame and adapted to oscillate; a cross-bar carried by the shaft; pins carried by and extending from the cross-bar; fabric carriers hinged upon the pins; and a fabric secured to and extending between the fabric carriers.

5. In a shoe polishing mechanism, a frame adapted to be raised and lowered; a shaft journaled to oscillate in the frame; a cross-bar carried by the shaft; pins carried by the cross-bar in parallelism; sleeves mounted to rotate upon the pins; fabric carriers yieldingly connected with the sleeves; and a fabric secured to and extending between the fabric carriers.

[Claims 6 to 8 not printed in the Gazette.]

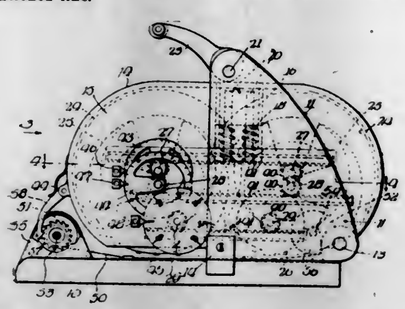
1,210,071. COUPON-TICKET-PRINTING MACHINE AND REGISTER. MORRIS J. HOFFMAN, Chicago, Ill. Filed June 28, 1916. Serial No. 106,290. (Cl. 101—161.)

1. In a machine of the class described, series of rotatory type carriers arranged in groups, side by side, there being at least two type carriers in each group, and each having type characters thereon, and the type carriers of each series being in alinement and eccentrically disposed with respect to those of the other series, and means for independently bringing the type characters of each series into printing position in alinement with each other.

2. In a machine of the class described, series of rotatory type carriers having type characters disposed on their peripheries, shafts one supporting each series of type carriers, the one shaft being arranged eccentric with respect to the other, and located within the periphery of the other series of type carriers, and means for independently turning said type carriers of each series to bring the characters thereof into printing position in alinement with each other.

3. In a machine of the class described, adjacent groups of rotatory type carriers, each bearing type characters on

its periphery, and there being three type carriers of differing radii in each group, shafts carrying said type carriers, each shaft carrying type carriers having the same radii, two of said shafts being in vertical alinement, and the third shaft being disposed at one side of said other shafts and below the same, and means for independently turning said shafts to bring certain type characters of all the type carriers into printing position with the type characters of two carriers of each goup in alinement and the type characters of the third type carrier of each group in alinement, but in a line disposed to one side of the first mentioned line.

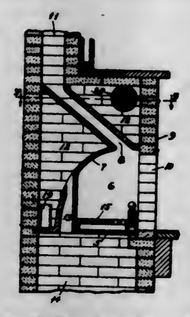


4. In a machine of the class described, a plurality of groups of rotatory type carriers, each type carrier bearing type characters on its periphey, shafts carrying said type carriers, the one shaft being eccentrically disposed with respect to the other, but contained within the periphery of the type carriers carried by said other shaft, means for turning said type carriers to present the type characters in printing position in at least two closely spaced separate lines, and means for pressing said type characters against an object to be printed upon.

5. In a machine of the class described, a plurality of contiguous groups of rotatory type carriers, each type carrier bearing type characters on its periphery, and at least one type carrier of each group being of less radius than another type carrier of said group, shafts, one for the type carriers having the same radii, all of said shafts being located within the periphery of the type carriers having the largest radius, and an indicating dial for each shaft whereby the type carriers may be adjusted to present the desired type characters in printing position.

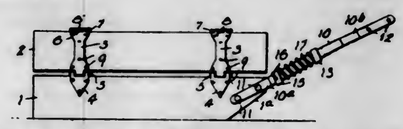
[Claims 6 to 18 not printed in the Gazette.]

1,210,072. FIREPLACE. OTTO F. HORNSCHUCH, Seattle, Wash. Filed Mar. 25, 1915. Serial No. 16,845. (Cl. 126—121.)



In a fireplace of the character described, a substantially rectangular casing of refractory material having an opening in its front wall and provided with a vertically-disposed rear wall, a flue leading upwardly from the casing, the back wall of the flue forming a continuation of the back wall of the casing, a fire receptacle held within the casing and comprising a bed plate extending across and closing the bottom of the casing, vertical walls rising at each side of the bed plate, a curved rear wall extending upward from adjacent the back of the bed plate and closing the space between the vertical side walls, said curved rear wall and bed plate having alined openings, an air flue carried by the curved wall and projecting forwardly into the heat and combustion chamber of the fire receptacle, a back diagonal wall extending downward and forward from the back wall of the casing to the curved rear wall, and a front diagonal wall extending downward and forward in parallel spaced relation to the back rear wall to form a smoke passage leading to the tube, the bed plate formed with openings and carrying vertical thimbles positioned in the casing over said openings rearwardly of the fire receptacle for the admission of air, the outlets for the thimbles being positioned above the bed plate and below the adjacent curved portion of the receptacle back to cause circulation of air from the bottom to the top of the casing, the openings in the casing leading to the exterior.

1,210,073. CULTIVATOR-FENDER. ROY O. HUNTER, Venus, Nebr. Filed Nov. 20, 1915. Serial No. 62,526. (Cl. 97—13.)



1. A device of the character described including side plates, and a top or conopy hingedly connected to both of the side plates.

2. A device of the character described including a pair of side plates adapted to be arranged upon opposite sides of a plant, and a pair of top plates, each of which is hingedly connected to one of the side plates, the said top plates being adapted to be arranged over the top of the plant.

3. A device of the character described including a pair of side plates adapted to be arranged upon opposite sides of a plant, a top or conopy hingedly connected to both of the side plates, and yielding means for normally holding the top in an elevated position over the plant.

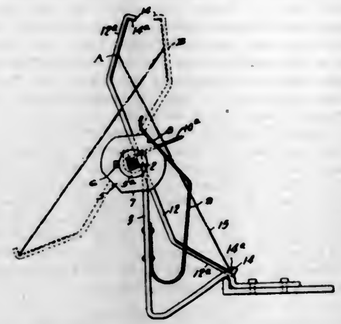
4. A device of the character described including a pair of side plates adapted to be arranged upon opposite sides of a plant, and a pair of top plates adapted to be arranged over the top of the plant and connected to said side plates, said top plates being also hingedly connected together.

5. A device of the character described including a pair of side plates adapted to be arranged upon opposite sides of a plant, a pair of top plates hingedly connected together, and each of which is hingedly conected to one of the side plates, and spring means for holding the top plates in an elevated position over the top of the plant.

1,210,074. TILTING MECHANISM. DAVID R. JENKINS and RAYMOND MCELHANEY, Morgantown, W. Va. Filed June 30, 1916. Serial No. 106,909. (Cl. 91—59.1.)

1. A plate tilting mechanism comprising a rocking shaft, procilvous guide bars on the shaft, transversely expending procilvous arms on said shaft, said arms having hooks in the outer ends thereof, and said arms and bars having beveled edges adapted to have a point contact with the edges of plates supported thereon, and means for rocking said shaft to tilt plates supported on the arms and guide bars.

2. A plate tilting mechanism comprising a rocking shaft, procilvous guide bars on the shaft, transversely extending procilvous arms on said shaft, said arms having hooks in the outer ends thereof, means for rocking said shaft to tilt plates supported on said arms and guide bars, and yielding means for holding said shaft in tilted position.



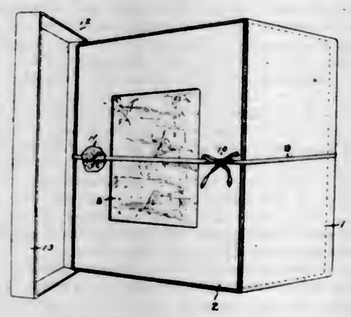
3. A plate tilting mechanism comprising a rocking shaft, procilvous guide bars on the shaft, transversely extending procilvous arms on said shaft, said arms having hooks in the outer ends thereof, and said arms and bars having beveled edges adapted to have a point contact with the edges of plates supported thereon, means for rocking said shaft to tilt plates supported on the arms and guide bars, and yielding means for holding said tilting mechanism in a plurality of tilted positions.

4. A plate tilting mechanism comprising a rocking shaft, procilvous guide bars on the shaft, transversely extending procilvous arms on said shaft, said arms having hooks in the outer ends thereof, and said arms and bars having beveled edges adapted to have a point contact with the edges of a plate supported thereon, and a crank for turning said rocking shaft to tilt plates supported on the tilting mechanism.

5. A plate tilting mechanism comprising a rocking shaft, procilvous guide bars on the shaft, transversely extending procilvous arms on said shaft, said arms having hooks in the outer ends thereof, and said arms and bars having beveled edges adapted to have a point contact with the edges of a plate supported thereon, a crank for turning said rocking shaft to tilt plates supported on the tilting mechanism, and a spring to hold the tilting mechanism in tilted position.

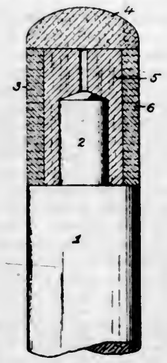
[Claim 6 not printed in the Gazette.]

1,210,075. CONTAINER. SAMUEL P. JOHNSTON, San Mateo, Cal., assignor to California Cotton Mills Company, San Francisco, Cal., a Corporation of California. Filed Feb. 23, 1915. Serial No. 10,128. (Cl. 229—6.)



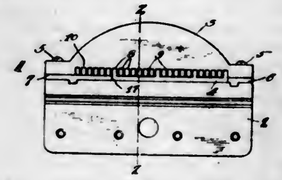
A container including an outer and inner casing telescoping together, an opening in one of said casings, a sheet of transparent material sealing said opening, a tape surrounding said casing, a seal secured to said tape and said casing, said container being openable without breaking the seal, and a detachable supplementary covering engaging and covering said outer casing.

1,210,076. REINFORCED FERRULE FOR CUES. HARRY A. JOST, Chicago, Ill. Filed Apr. 10, 1916. Serial No. 90,020. (Cl. 46—9.)



A ferrule for billiard cues, formed of non-metallic material of a fibrous nature, and comprising inner and outer annular sections associated together, the inner section having its direction of checking longitudinal of the section and the outer section having its direction of checking transverse of the section, substantially as set forth.

1,210,077. SLUG-MOLD. JOHN KEENAN, Chicago, Ill., assignor, by mesne assignments, to Intertype Corporation, a Corporation of New York. Filed Apr. 22, 1912. Serial No. 692,432. (Cl. 199—13.)



1. A slug mold having opposed sides spaced apart to form a slug space for casting a slug having recesses in one side to produce a thin portion in the slug body, recesses in one side of the mold extending partially through the mold transversely and opening through the face of the mold to form a slug having a face wider than the thickness of said slug space, and partitions extending to the face of the mold separating said recesses.

2. A slug mold having opposed sides spaced apart to provide a slug-forming space for casting a slug having recesses in one side to produce a thin portion in the slug body, there being spaced recesses in one side extending partially through the mold transversely and opening through the forward face of the mold to form a slug having an effective face wider than the thickness of said thin portion of the slug body, said spaced recesses being separated by relatively thin partitions, the edges of which are flush with the adjacent surfaces of the mold.

3. A slug mold having opposed sides and liners spacing said sides apart to form a slug space for casting a slug having recesses in one side to produce a thin portion in the slug body, substantially uniformly and relatively wide spaced recesses in one side and extending partially through the mold transversely, the majority thereof opening into the slug space and through the front face only

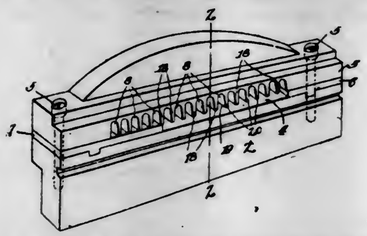
of the mold to form a slug having a face wider than the thickness of said thin portion of the slug body, and relatively thin partitions between said recesses having their edges flush with the adjacent surfaces of the mold and being substantially uniformly spaced apart.

4. A slug mold having opposed substantially parallel sides spaced apart to form a relatively thin slug space for casting a slug having recesses in one side to produce a thin portion in the slug body, said sides being held in such spaced relation by liners arranged between the ends of said sides, one of said sides being provided with uniformly spaced recesses at its front edge extending partially through the mold transversely, said recesses opening into the slug space and through the front face of the mold and adapting the mold to form a slug having a face wider than the thickness of said thin portion of the body of the slug, certain of said spaces extending substantially through the body of the mold to the rear face thereof to form parallel ribs on one side of said thin portion of the slug body and partitions extending to the front face of the mold and spacing the recesses apart.

5. A slug mold having opposed substantially parallel sides spaced apart to cast a slug recessed in one side of its body to form a thin portion in the body of the slug, in combination with liners arranged between said sides and holding them in spaced relation to form a slug space, one of said sides being provided with substantially uniformly spaced recesses opening into the slug space and the major portion thereof opening through the front face only of the mold adapting the mold to produce a slug having a relatively thin portion in its body and a relatively wide face, and thin partitions separating said spaces and having their edges flush with the adjacent faces of the mold side.

[Claims 6 to 20 not printed in the Gazette.]

1,210,078. SLUG-MOLD. JOHN KEENAN, Chicago, Ill., assignor, by mesne assignments, to Intertype Corporation, a Corporation of New York. Filed Feb. 25, 1913. Serial No. 750,531. (Cl. 199—13.)



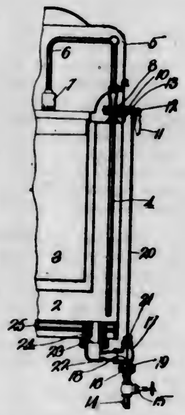
1. A slug mold having opposed sides spaced apart to form a slug having recesses in one side thereof to provide a thin portion in the slug body, one side of said mold being provided with a series of recesses extending inwardly from the forward face thereof, said recesses being separated by relatively thin walls and adapted to form a continuous series of relatively shallow projections providing a substantially continuous support for type bases which are higher than the thickness of the thin portion of the slug body as formed by the mold.

2. A slug mold in combination with a series of character forming matrices adapted for the formation of a printing slug, the mold having a space adapted to produce a slug recessed in one side to form a thin portion in the slug body and certain of said matrices having character forming spaces higher than the thickness of the mold space which forms the thin portion of the slug body, the mold being provided with laterally extending longitudinally spaced relatively shallow recesses in its forward face adapted to form laterally extending projections on the character bearing edge of the slug for supporting said high characters.

3. A mold for casting slugs for character forming matrices having character forming recesses of different heights, said mold having a space for forming a slug having recesses in one side to produce a thin portion in the slug body, said space being thinner than the height of the character forming recesses in certain of said matrices, said mold being provided with a series of spaced recesses in its forward face extending transversely from the body portion of the mold and adapted to provide transversely extending character supporting projections on the character bearing edge of the slug for supporting the characters formed in said line of matrices.

4. A slug mold adapted to coöperate with a line of character forming matrices having character forming recesses of various heights, said mold having a space adapted to form a slug having recesses in one side to produce a thin portion in the slug body, said space being thinner than the height of the character forming recesses of certain of said matrices, and the mold being provided with a series of spaced recesses in its forward face extending upwardly from the body portion of the mold and adapted to provide character supporting projections.

1,210,079. COFFEE-URN. HENRY D. KELLY, Kansas City, Mo. Filed Mar. 8, 1915. Serial No. 12,836. (Cl. 53—3.)



1. A coffee urn provided with a boiler chamber and a beverage jar, a water pipe communicating at its receiving end with the said chamber and terminating at its discharge end over said jar, a valve controlling the passage of said pipe and provided with an operating handle exterior to the urn, a cold water supply pipe connection for the water chamber, a valve in said connection, and means whereby the opening or closing of the first-named valve shall respectively close or open the other valve.

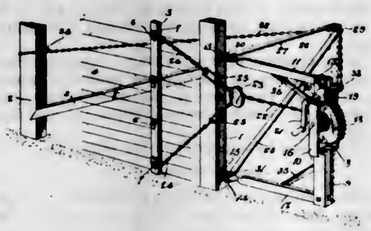
2. A coffee urn provided with a boiler chamber and a beverage jar, a water pipe communicating at its receiving end with the said chamber and terminating at its discharge end over said jar, a valve controlling the passage of said pipe and provided with an operating handle exterior to the urn, a cold water supply pipe connection for the water chamber, a valve in said connection, a lever connected to the valve in said connection, and means whereby the opening or closing operation of said first-named valve shall operate said lever to effect the closing or opening respectively of the other valve.

3. A coffee urn provided with a boiler chamber and a beverage jar, a water pipe communicating at its receiving end with the said chamber and terminating at its discharge end over said jar, a valve controlling the passage of said pipe and provided with an operating handle exterior to the urn, a cold water supply pipe connection for the water chamber, a valve in said connection, a crank on the first-named valve, a lever operable by turning movement of said crank, and means whereby the operation of said lever through the closing or opening of the first-named valve shall respectively open or close the valve in said connection.

4. A coffee urn provided with a boiler chamber and a beverage jar, a water pipe communicating at its receiving end with the said chamber and terminating at its discharge end over said jar, a valve controlling the passage of said pipe and provided with an operating handle exterior to the urn, a cold water supply pipe connection for the water chamber, a valve in said connection, a rod connected to said last-named valve to seat or unseat the same, a lever pivotally connected at one side of its pivot to said rod, and a crank formed on the first-named valve and operably engaging the said lever at the opposite side of its pivotal point from said rod; said crank when turned by the closing or the opening operation of the first-named valve, transmitting power through said lever and rod to respectively open or close the valve in said connection.

5. A coffee urn provided with a boiler chamber and a beverage jar, a water pipe communicating at its receiving end with said chamber near the bottom thereof and terminating at its discharge end over said jar, a valve controlling said pipe, a cold water supply pipe connection for said chamber, a valve controlling said supply pipe connection, a second valve in said connection between the first-named valve and said chamber, and means whereby the opening or closing of the valve controlling the pipe which terminates over the said jar, shall respectively close or open the said connection valve arranged between the other connection valve of the said chamber.

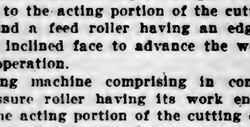
1,210,080. WIRE-FENCE STRETCHER. ALLEN KENWORTHY, Earlham, Iowa. Filed June 16, 1915. Serial No. 34,453. (Cl. 254—102.)



A wire stretcher of the class described including a pair of vertical members, each having a substantially U-shaped offset portion near its upper end, the web of the U-shaped portion being parallel with the vertical member forming a housing, upper and lower thrust arms secured to the upper and lower ends of the vertical members and extending horizontally therefrom, their free ends being adapted to be secured to a supporting post, a drum journaled within said U-shaped portions, means by which said drum may be rotated, a substantially V-shaped brace rod secured at its ends to the free ends of the thrust arms and extending at right angles therefrom, and a supporting chain connected at one end to a post and slidable through the apex of the brace and having its opposite end connected to the frame.

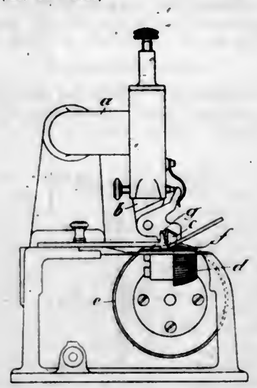
1,210,081. CUFF-FASTENER. STANISLAW KIELAR, Milwaukee, Wis., assignor of one-third to Stanley Pawelczyk, Milwaukee, Wis. Filed July 29, 1915, Serial No. 42,553. Renewed Nov. 21, 1916. Serial No. 132,717. (Cl. 2—79.)

A device of the class described, comprising in combination with a cuff, a pair of pockets secured to the same face of the cuff adjacent each end thereof and open from end to end, a fastening member including stiffened end portions and a flexible central portion adapted to have the stiffened end portions received in the pockets, and lugs carried by the free ends of the fastening member



adapted to slightly project beyond the inner ends of the pockets.

1,210,082. SKIVING-MACHINE. HERMANN KLEMER, Stuttgart, Germany, assignor to the Firm of Fortuna-Werke, Specialmaschinenfabrik, G. M. B. H., Stuttgart-Cannstatt, Germany. Filed May 13, 1915. Serial No. 27,838. (Cl. 69—9.5.)



1. A skiving machine comprising in combination a knife, a pressure roller having its work engaging face inclined to the acting portion of the cutting edge of said knife, and a feed roller having an edge operating against the portion of such inclined face intermediate its ends to advance the work through the cutting operation.

2. A skiving machine comprising in combination a knife, a pressure roller having a straight work engaging face inclined to the acting portion of the cutting edge of said knife, and a feed roller having an edge operating against such inclined face to advance the work through the cutting operation.

3. A skiving machine comprising in combination a knife, a pressure roller having its work engaging face inclined to the acting portion of the cutting edge of said knife, and a feed roller having an edge engaging the lower face of the work at a distance from the lower edge of said work, and operating against said inclined face to advance the work through the cutting operation.

1,210,083. APPAREL-BELT. CHARLES L. KNOWER, St. Louis, Mo. Filed Apr. 1, 1915. Serial No. 18,434. (Cl. 241—8.)

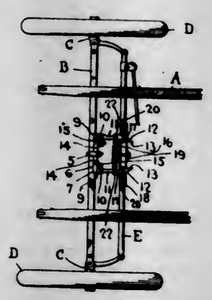


1. A multiple ply, stitched, apparel belt having a cover ply and a backing ply, said backing ply blind stitched to the cover ply to leave extending beyond the edge of the backing ply a border portion of the cover ply and said border portion lapped around and secured over the blind stitching.

2. An apparel belt comprising multiple plies, a backing ply being superimposed on a facing ply to leave the border of said facing ply extending beyond the side edge of said backing ply, a series of sewed stitches, blind in the facing ply and exposed on the back of the backing ply, securing said plies together, and an adhesive body securing said border portion of the facing ply in position lapped around the edge and back of said backing ply and covering the stitches.

3. A multiple ply stitched apparel belt comprising a facing ply and a backing ply narrower than the facing ply and superimposed thereon, leaving a border of facing ply extending beyond each side of the backing ply, a series of sewed stitches securing the two plies together and extending along each edge of the backing ply, said stitches being blind in the outer surface of the facing ply, and exposed only on the back surface of the backing ply, and an adhesive body securing the border portions of the facing ply in position lapped over the edge and back of said backing ply and completely covering the stitches.

1,210,084. AUTOMATIC STEERING DEVICE. PETER KOTZ, Worthington, Iowa. Filed May 25, 1916. Serial No. 99,891. (Cl. 21—200.)



1. A device of the character described comprising a channel bar fixed to the front axle of an automobile and surrounding a portion thereof, a channel member fixed to the connecting rod of the steering wheels of an automobile and surrounding a portion thereof, spaced ears carried by said channel bar and extending toward said connecting rod, spaced rollers carried by said channel member, bell-crank levers pivotally carried by said ears with their arms directed inwardly, adjusting screws carried by certain of said arms of the bell-crank levers and contacting with said channel bar, and a retractile spring connecting the other arms of said bell-crank levers.

2. A device of the character described, comprising a channel bar fixed to the front axle of an automobile, bell-crank levers pivoted to said channel bar, clevises carried by certain of said arms of said bell-crank levers, spaced rollers engaging the edges of said arms of the bell-crank levers, a retractile spring secured to said clevises, a channel member supporting said rollers, guards secured at one end to said channel member and projecting in spaced parallel relation thereto with their free ends terminating beyond those of said channel member, and adjusting means carried by the remaining arms of said bell-crank levers.

1,210,085. METHOD OF AND MEANS FOR BALANCING ROTATING BODIES. MAURICE LEBLANC, Val sur Seine, par Croissy, France, assignor to Société Anonyme pour l'Exploitation des Procédés Westinghouse-Leblanc, Paris, France. Filed Oct. 9, 1913. Serial No. 794,290. (Cl. 64—48.)

1. Method of balancing a rotary body designed for high angular velocities, which consists in journaling said body in yieldingly supported bearings, rendering at least one of said bearings immovable while the speed of rotation of the body is below a determined speed, and releasing said bearing when the body exceeds the determined speed.



2. In combination with a yieldingly supported bearing, abutments for clamping said yielding bearing in a determined position located around the bearing, at least one of which is movable radially with relation to the others.

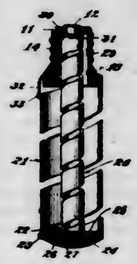
3. In combination with a yieldingly supported bearing, three movable abutments arranged 120° apart for clamping the bearing in a determined position, a rotatable ring having three eccentrically located pin-engaging slots formed therein, and a separate pin carried by each abutment engaging one of said slots.

4. In combination with a yieldingly supported bearing, movable abutments for confining the movement of said bearing, and means for actuating said abutments comprising a piston, a cylinder in which said piston operates, means for controlling the delivery of actuating fluid to and the discharge of fluid from said cylinder, and a tachometer for controlling the operation of said last mentioned means.

5. In combination with a yieldingly supported bearing, movable abutments for limiting the motion of said bearing, and means responsive to the speed of the element journaled in the bearing for controlling the operation of said abutments.

[Claims 6 and 7 not printed in the Gazette.]

1,210,086. ELECTRIC WATER-HEATER. JAMES C. LEITCH, Los Angeles, Cal. Filed July 6, 1915. Serial No. 38,042. (Cl. 219—40.)



1. In an immersion electric heating device, the combination of an inner helical electrode and an outer helical electrode concentric with said inner electrode and dielectrically mounted therefrom, the space intervening between the convolutions of the material from which the electrodes are formed being open and less than the width of said material between the spaces.

2. In an immersion electric heating device, the combination of an inner helical electrode, an outer helical electrode concentric with said inner electrode, an electrical contact plug secured to one end of each of said electrodes, and a dielectric base secured to the opposite ends of said electrodes, said inner and outer electrodes being composed of metallic ribbon, the width of which is greater than the space between the convolutions thereof, the spaces between said convolutions being open.

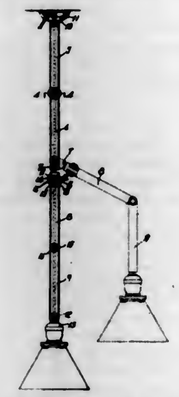
3. In an immersion electric heating device, the combination of an inner electrode of helical form, an outer electrode of the same form encompassing said inner electrode and spaced therefrom, the spaces between the convolutions of said helices being open, electrical connections secured to one end of each of said electrodes, and an insulating base securing the opposite ends of the electrodes.

4. In an electric heating device, the combination of an inner cylindrical electrode and an outer cylindrical electrode encompassing and insulated from the inner electrode, said cylindrical electrodes being formed with a helical opening extending the length thereof, and means whereby the inner and outer electrodes may be electrically connected.

5. A water heating device comprising an inner conducting helix and an outer electric conducting helix encircling the inner helix concentric therewith and insulated therefrom, having the spaces between its coils open to permit the passage of fluid therethrough.

[Claims 6 to 8 not printed in the Gazette.]

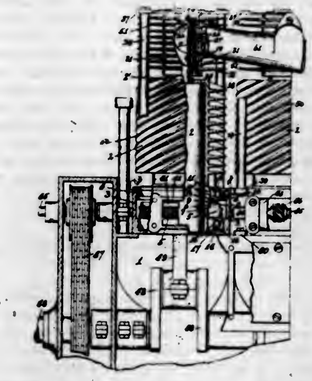
1,210,067. ADJUSTABLE SUPPORT FOR ELECTRIC LAMPS. KNUT F. M. LINDBLAD, Everett, Mass. Filed Feb. 26, 1916. Serial No. 80,721. (Cl. 248—8.)



1. An adjustable support for electric lamps having, in combination, a plurality of tubular links, each link terminating at its opposite ends in a pair of ears and pivots connecting said ears together, said pivots each consisting of a head and a shank, said shank being cylindrical adjacent to said head and flat at its ends, said flat end projecting through a corresponding hole in one ear of said pair of ears and being secured thereto, the other ear of said pair of ears being rotatably mounted on said cylindrical portion of said shank and a spring washer on said shank and bearing against one of said ears.

2. An adjustable support for electric lamps having, in combination, a plurality of tubular links, each link terminating at its opposite ends in a pair of ears and pivots connecting said ears together, said pivots each consisting of a head and a shank, said shank being cylindrical adjacent to said head and flat at its end, said flat end projecting through a corresponding hole in one ear of said pair of ears and being riveted thereto, the other ear of said pair of ears being rotatably mounted on said cylindrical portion of said shank and a spring washer interposed between said head and said last named ear.

1,210,088. GAS-ENGINE. CHARLES A. LUNDY, Reno, Nev., assignor to Lundy Gas Engine Company, Reno, Nev., a Corporation. Filed Oct. 25, 1915. Serial No. 57,710. (Cl. 123—43.)



1. In a gas-engine having a cylinder adapted for rotation on its axis, and means called into timely action by the rotation of the cylinder for admitting an explosive mixture, exploding said mixture and exhausting the products of explosive combustion, the means for revolubly mounting said cylinder comprising a fixed housing in which the cylinder is seated, said housing having an internal lug in its upper portion, a gear fitted upon the end of the cylinder within the housing, said gear having a ball race in its top, a lock-ring detachably engaging under the lug of the housing, an adjustable ring screwed into the lock-ring around the cylinder, said adjusting ring having a complemental ball race in its undersurface, balls between the two surfaces, and an anti-friction bearing carried in the base of the housing and supporting the gear of the cylinder.

2. In a gas-engine having a cylinder adapted for rotation on its axis, and means called into timely action by the rotation of the cylinder for admitting an explosive mixture, exploding said mixture and exhausting the products of explosive combustion, the means for revolubly mounting said cylinder comprising a fixed housing in which the cylinder is seated, said housing having an internal lug in its upper portion, a gear fitted upon the end of the cylinder within the housing, said gear having a ball race in its top, a lock-ring detachably engaging under the lug of the housing, an adjusting ring screwed into the lock-ring around the cylinder, said adjusting ring having a complemental ball race in its under surface, balls between the two surfaces, a free ring carried in the base of the housing, the cylinder-gear resting on said ring, an opposing taper faced ring in the housing base, and taper rollers between said rings.

3. In a gas engine, the combination of a cylinder having a centrally extending reduced neck portion forming the charging, compression and firing chamber and the controlling valve therefor, said neck portion having in its wall a single port; a non-rotating valve-seat sleeve fitted over said cylinder valve neck and having a spark plug hole in its top and separate ports in its sides with which the port in the cylinder valve neck successively registers as the cylinder rotates; suitable packing between the valve neck and seat-sleeve; a non-rotating head fitted over said seat sleeve and having inlet and exhaust passages communicating with the ports of said seat-sleeve; means for revolubly mounting said cylinder to adapt it for rotation on its axis; and means driven by the engine for effecting the timely rotation of the cylinder.

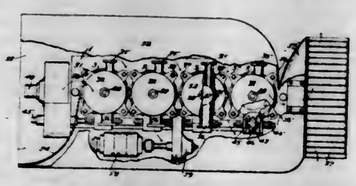
4. In a gas-engine, the combination of a cylinder having a centrally extending reduced neck portion forming the charging, compression and firing chamber and the controlling valve therefor, said neck portion having in its

wall a single port; a series of packing rings seated about the lower portion of said valve neck, and a lock nut carrying a packing ring, screwed upon the upper end of the valve neck; a nest of concentric closely interfitting expansible packing sleeves freely embracing and secured to the valve neck between the packing rings and lock nut, said sleeves having a port alined with the port of said valve neck; a non-rotating valve seat-sleeve fitted over the packing rings and packing sleeves, and having a spark-plug hole in its top and separate ports in its sides with which the ports in the cylinder valve neck and packing sleeves successively register as the cylinder rotates; a non-rotating head fitted over said valve-seat sleeve and having inlet and exhaust passages communicating with the ports of said seat-sleeve; means for revolubly mounting said cylinder to adapt it for rotation on its axis; and means driven by the engine for effecting the timely rotation of the cylinder.

5. In a gas-engine, the combination of a cylinder having a centrally extending reduced neck portion forming the charging, compression and firing chamber and the controlling valve therefor, said neck portion having in its wall a single port; a series of packing rings seated about the lower portion of said valve neck, and a lock nut carrying a packing ring, screwed upon the upper end of the valve neck; a nest of concentric closely interfitting expansible packing sleeves freely embracing and secured to the valve neck between the packing rings and lock nut, said sleeves having a port alined with the port of said valve neck, and each of said sleeves being severed longitudinally with its severed edges spaced apart and the inner sleeve spaced from the valve neck; a non-rotating valve-seat sleeve fitted over the packing rings and packing sleeves, and having a spark-plug hole in its top and separate ports in its sides with which the ports in the cylinder valve neck and packing sleeves successively register as the cylinder rotates; a non-rotating head fitted over said valve-seat sleeve and having inlet and exhaust passages communicating with the ports of said seat-sleeve; means for revolubly mounting said cylinder to adapt it for rotation on its axis; and means driven by the engine for effecting the timely rotation of the cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,210,089. GAS-ENGINE. CHARLES A. LUNDY, Reno, Nev., assignor to Lundy Gas Engine Company, Reno, Nev., a Corporation of Nevada. Original application filed Oct. 25, 1915, Serial No. 57,710. Divided and this application filed Apr. 18, 1916. Serial No. 91,908. (Cl. 123—171.)



1. In a gas-engine having a cylinder mounted for rotation on its axis and means called into timely action by said rotation for admitting and exploding a gaseous mixture and exhausting the products of explosive combustion, a housing inclosing said cylinder, said housing at one end being open for receiving a current of air in line with one side of the cylinder and closed to the air in line with the other side thereof, and at its other end being open for discharging the current of air in line with the second side of the cylinder and closed to the discharge of the air in line with the first side thereof.

2. In a gas-engine having a cylinder mounted for rotation on its axis and means called into timely action by said rotation for admitting and exploding a gaseous mixture and exhausting the products of explosive combustion, a housing inclosing said cylinder, said housing at one end being open for receiving a current of air in line with one side of the cylinder and closed to the air in line with the other side thereof, and at its other end being open for discharging the current of air in line with the second side of the cylinder and closed to the discharge of the air in line with the first side thereof, and means associated with the cylinder for assisting in directing the current of air from one side to the other.

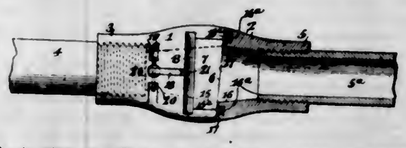
3. In a gas-engine having a cylinder mounted for rotation on its axis and means called into timely action by said rotation for admitting and exploding a gaseous mixture and exhausting the products of explosive combustion, a housing inclosing said cylinder, said housing at one end being open for receiving a current of air in line with one side of the cylinder and closed to the air in line with the other side thereof, and at its other end being open for discharging the current of air in line with the second side of the cylinder and closed to the discharge of the air in line with the first side thereof, and spirally directed fins carried by the rotatable cylinder for assisting in directing the current of air from one side to the other.

4. In a gas-engine having a cylinder mounted for rotation on its axis and means called into timely action by said rotation for admitting and exploding a gaseous mixture and exhausting the products of explosive combustion, a housing inclosing said cylinder, said housing at one end being open for receiving a current of air in line with one side of the cylinder and closed to the air in line with the other side thereof, and at its other end being open for discharging the current of air in line with the second side of the cylinder and closed to the discharge of the air in line with the first side thereof, spirally directed fins carried by the rotatable cylinder for assisting in directing the current of air from one side to the other, and a fan blower associated with said housing for inducing the flow of the air therethrough.

5. In a gas-engine, the combination of a cylinder mounted for rotation on its axis and having a port in its upper portion; a non-rotatable sleeve and associated non-rotatable head fitted to the upper portion of the cylinder and having inlets and exhausts with which the cylinder port is adapted to successively register; a series of exterior fins carried by the non-rotatable head; a series of exterior helically directed fins carried by the rotatable cylinder about its lower portion below said head, said helically directed fins being pitched to draw the air from about the head and valve region of the cylinder; and a housing inclosing the whole of said cylinder with its associated sleeve and head, said housing at one end being open for receiving a current of air in line with one side of the cylinder and closed to the air in line with the other side thereof, and at its other end being open for discharging the current of air in line with the second side of the cylinder and closed to the discharge of the air in line with the first side thereof, the spirally directed fins of the rotatable cylinder assisting in directing the current of air from one side to the other.

[Claim 6 not printed in the Gazette.]

1,210,090. PIPE-JOINT. LORENZO O. MARKHAM, Aberdeen, Wash. Continuation in part of application Serial No. 11,770, filed Mar. 3, 1915. This application filed Dec. 28, 1915. Serial No. 69,057. (Cl. 137—28.)

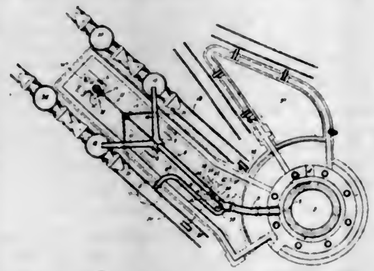


1. A pipe coupling comprising two members having tongue and groove connections extending laterally of the length of the coupling with the meeting ends of the coupling beveled with respect to the direction of movement of the coupling members together, and with the meeting faces ground to provide a fluid-tight joint, said coupling being of elliptical cross-section at the meeting ends of its members and with the fluid conducting passages through the coupling members of elliptical form at the meeting ends of said members to provide a cross-sectional area as great as that at the outer ends of these members.

2. A pipe coupling comprising two members having tongue and groove connections extending laterally of the length of the coupling with the meeting ends of the coupling beveled with respect to the direction of movement of the coupling members together and with the meeting faces ground to provide a fluid tight joint, one of said meeting faces having a dove-tailed annular groove therein, which is flared at its outer side, a gasket fitted in the dove-tailed groove and adapted to be compressed between said faces, and to expand in the flared outer side of the groove to seal the joint, said coupling being of elliptical cross-section at the meeting ends of its members, and with the fluid conducting passages through the coupling members of elliptical form at the meeting ends of said members, to provide a cross-sectional area as great as that at the outer ends of these members.

3. In a pipe coupling including two members having tongue and groove connections extending laterally of the length of the coupling, a latch pivotally mounted in countersunk relation in the side of one of the members, said member having a pocket beneath the pivoted end of said latch and having a recess extending longitudinally of the latch, the opposite member having a corresponding recess in its outer face in registry with the first recess to receive the outer end of said latch when the members are coupled, whereby the latch spans the tongue and groove connection, a spring in said pocket, and a cap mounted on the outer end of the spring for movement in the pocket, and provided with a recess in its upper face to receive the heel of said latch.

1,210,091. BLAST-FURNACE CASTING APPARATUS. THOMAS MCDONALD, Youngstown, Ohio. Filed Apr. 5, 1913. Serial No. 759,262. (Cl. 22—79.)



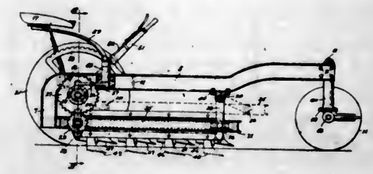
1. The combination with a blast furnace having a tapping hole, a skimmer trough leading from said tapping hole, and a main trough leading from the skimmer trough, of car tracks having ladle cars thereon, an adjustable trough leading from the main trough to said ladle cars, and means for moving said adjustable trough to divert and control the flow of molten metal from the main trough into either or both of two of said ladle cars.

2. The combination with a blast furnace having a tapping hole, a skimmer trough leading from said tapping hole, and a main trough leading from the skimmer trough, of a car track on each side of the main trough, ladle cars on the tracks, metal conducting means leading from the main trough and adjustable to deliver metal into a car on either track, and means for adjusting said metal conducting means to divert and control the flow of metal into either or both of two said ladle cars.

3. The combination with a blast furnace having a tapping hole, a skimmer trough leading from said tapping hole, and a main trough leading from said skimmer trough, of car tracks having ladle cars thereon, an adjustable trough leading from the main trough to said ladle cars, means for moving said adjustable trough to divert and control the flow of molten metal in either or both of two of said ladle cars, and means for adjusting the cars on said car tracks into metal receiving position during the furnace tapping operation.

4. The combination with a blast furnace having a tapping hole, a skimmer trough leading from said tapping hole, and a main trough leading from said skimmer trough, of car tracks having ladle cars thereon, an adjustable trough leading from the main trough to said ladle cars, means for moving said adjustable trough to divert and control the flow of molten metal into either or both of two said ladle cars, and means for adjusting the position of said ladle cars on said car tracks during the furnace casting operation, said means being contiguous to said trough manipulating means.

1,210,092. WEEDER. ANDREW E. MCKAY, Wilbur, Wash. Filed Mar. 20, 1916. Serial No. 85,521. (Cl. 97—25.)

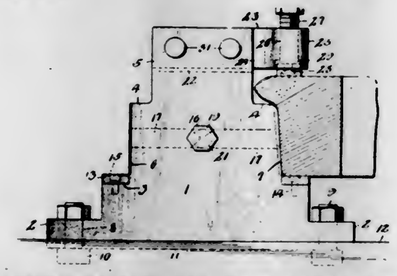


1. In a weeder of the class described, the combination with a frame, of a truck whose axle is disposed to support the forward end of said frame; a second truck whose axle is rotatably associated with the rearward portion of said frame and whose wheels are rigidly secured to its said axle; two suspension links freely suspended by the axle of said second truck and disposed normally to extend downwardly each from a point thereon adjacent to a different one of the opposite side rails of said frame; a crank-shaft rotatably mounted in the lower end portions of said links, said crank-shaft being provided with a plurality of off-set cranks; a pinion securely mounted on one end of said crank-shaft; a gearwheel freely mounted on the axle of said second truck and disposed to engage with said pinion, said gearwheel being provided with a hub having sidewise projecting teeth; a lever-actuated clutch member mounted on said axle of said truck and adapted operatively to engage and disengage the teeth of the hub of said gearwheel; mechanism, including a hand-lever, associated with said axle of said second truck and with said crank-shaft whereby said crank-shaft may be swingingly moved to and be secured in a desired angular position; two additional suspension links disposed with their upper end portions pivotally connected each with a forward portion of a different one of the opposite side rails of said frame; a second crank-shaft having off-set cranks corresponding in shape and numbers to the off-set cranks of said first named crank-shaft, and being rotatably mounted in the lower end portions of said additional suspension links; a rectangular connecting frame having its rearward end portion articulated with said first named crank-shaft, and its forward end portion articulated with said second named crank-shaft; blade-supporting bars disposed each with one of its end portions articulated to a different one of the off-set cranks of said first named crank-shaft, and with its other end portion articulated with the corresponding one of the off-set cranks of said second named crank-shafts; and blades attached to said blade-supporting bars to extend downwardly therefrom.

2. A weeder of the class described, which embodies a frame mounted on a forward truck and a rearward truck, the axle of said rearward truck being rotatable with respect to said frame and the wheels of said rearward truck being rigidly attached to its axle; a pair of suspension bars swingingly attached to the axle of said rearward truck to extend downwardly therefrom; a second pair of suspension bars swingingly attached to a forward portion of the side rails of said frame to extend downwardly

therefrom; a separate crank-shaft provided with a plurality of off-set cranks rotatably mounted in the lower portions of each of said pairs of suspension bars; separate blade-carrying connecting bars having their opposite ends articulated with respectively corresponding ones of the off-set cranks of said crank-shafts; blades rigidly attached to said blade-carrying connecting bars to extend downwardly therefrom; and controllable means for communicating rotary motion from the axle of said rearward truck to the adjacent one of said crank-shafts.

1,210,093. CHUCK. LUTHER MIDDLETON, Little Rock, Ark. Filed Dec. 13, 1915. Serial No. 66,607. (Cl. 82—40.)



1. A chuck block, oppositely disposed stay plates carried thereby, said block being formed with tire engaging surfaces above the stay plates, adjusting pins operating through said surfaces, and a head stay removably coöperating with said block, said stay including a tire engaging means designed to be disposed above either stay plate.

2. A chuck block, oppositely disposed stay plates carried thereby, said block being formed with tire engaging surfaces above the stay plates, adjusting pins operating through said surfaces, a head stay removably coöperating with said block, said stay including a tire engaging means designed to be disposed above either stay plate, and means for securing the head stay in either position.

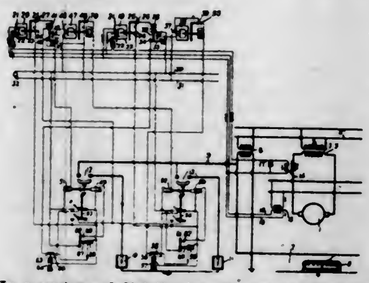
3. A chuck for use as an attachment for locomotive driving wheel tire machines including a block formed with shoulders, removable stay plates secured upon the shoulders, the upper edge of the block being formed with a longitudinally extending channel, a head stay removably secured in said channel, and a clamping means carried by the head stay.

4. A chuck for use as an attachment for locomotive driving wheel tire machines including a block formed with shoulders, removable stay plates secured upon the shoulders, the upper edge of the block being formed with a longitudinally extending channel, a head stay removably secured in said channel, a clamping means carried by the head stay, and adjusting pins movable longitudinally of the block in opposite directions, and adapted to be projected beyond the surface intermediate the stay plates and head stay.

1,210,094. SYSTEM OF DISTRIBUTION. CHARLES MCL. MOSS, Pittsburgh, and HENRY A. TRAVERS, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 4, 1915. Serial No. 65,068. (Cl. 175—294.)

1. An electrical-distribution system comprising a source of power, a distributing circuit, energy-absorbing means, circuit interrupters between the energy-absorbing means and the circuit, and reverse-energy relays so connected to the said circuit and adapted to so control the operation of the circuit interrupters that reverse energy exceeding a predetermined value shall be absorbed by the energy-absorbing means.

2. In a system of distribution, the combination with a source of energy and a load adapted to regenerate energy under predetermined conditions, of a plurality of energy-absorbing devices, circuit interrupters operatively connected between the system of distribution and the absorbing devices, and a relay device adapted to so control the operation of the interrupters that, when the regenerated energy exceeds a predetermined value, it shall be absorbed by the absorbing devices.



3. In a system of distribution, the combination with a source of energy and a load adapted to regenerate energy under predetermined conditions, of an energy-absorbing device, a circuit interrupter operatively connected between the system of distribution and the absorbing device, and a reverse-energy relay device adapted to so control the operation of the interrupter that, when the regenerated energy exceeds predetermined values, it shall be absorbed by the absorbing device.

4. In a system of distribution, the combination with a source of energy, a feeder circuit and means operatively connected to the feeder circuit for regenerating energy, of resistors, circuit interrupters operatively connected between the resistors and the feeder circuit, two sets of reverse-energy relays, one for controlling the closure of the interrupters and the other tripping thereof when the regenerated energy varies from a predetermined value.

5. In a system of distribution, the combination with a source of energy, a feeder circuit and means operatively connected thereto for regenerating energy, under predetermined conditions, of resistors, circuit interrupters for operatively connecting the resistors to the circuit, a time-limit reverse-energy relay for effecting closure of the interrupters when the regenerated energy exceeds predetermined values and another time-limit reverse-energy relay for effecting the opening of the interrupters when the regenerated energy decreases to predetermined values.

[Claims 6 and 7 not printed in the Gazette.]

1,210,095. CABINET IRONING-BOARD. WILLIAM A. NOACK, San Francisco, Cal. Filed Apr. 5, 1916. Serial No. 89,064. (Cl. 68—10.)



1. The combination with a cabinet having a supporting member foldable into, and out of, the cabinet, of a pair of link members pivotally secured at one end to the sides of the cabinet and having their opposite ends pivotally secured to the sides of the cabinet near its inner end, a second pair of links pivotally secured to the sides of the cabinet and having their opposite ends pivotally secured to the supporting member approximately central thereof, and a stop member on the supporting member engageable with the first named links to secure the supporting member with relation to the links when in a horizontal position.

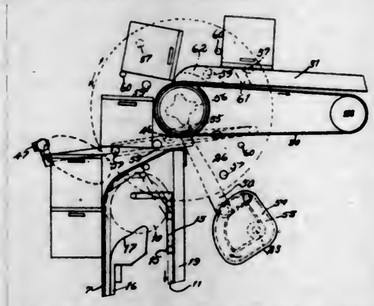
2. The combination with a cabinet having a supporting member foldable into, and out of, the cabinet, of a link member pivotally secured at one end to the cabinet and having the opposite end pivotally secured to the supporting member near its inner end, means pivotally mounted on the cabinet, below the first named link, and having pivotal connection with the supporting member approximately central thereof for supporting said members horizontally, and a stop member on the supporting member engageable with the link to secure the supporting member with relation to the link when in a horizontal position.

3. The combination with the cabinet having an ironing board mounted therein, adapted to be folded into or out thereof, of a pair of side-plates secured to the inner end of the board, a pair of link members pivotally secured at one end to the sides of the cabinet and having their opposite ends pivotally secured to the outer ends of the side-plates, a second pair of links pivotally secured to the sides of the cabinet below the first named links and having their opposite ends pivotally secured to the ironing board approximately central thereof, and a stop member secured on each side-plate engageable with the first named links to secure the inner end of the ironing board against upward movement when this is swung out to assume a horizontal position.

4. In a device of the character described, an upright support, a member movable relative thereto, a link support pivoted at fixed points to the upright support and member for supporting the inner end of the latter for folding downwardly whereby the outer end of said member may be swung upwardly against the upright support from a horizontal position, and a second link support pivoted at one end to the upright support at a fixed point below the member and pivoted at its opposite end at a fixed point to the under side of the member, when the latter is horizontally disposed, for supporting said member so disposed and for being arranged outwardly of the member when the latter is folded against the upright support.

5. The combination with the ironing board, the cabinet and the inner and outer links supporting the board with relation to the cabinet of a pair of side-plates secured to the inner end of the board and an outwardly extending lug on each side plate engageable with the inner links.

1,210,096. RECEPTACLE-INVERTING MECHANISM. GEORGE D. PARKER, Riverside, Cal. Filed Nov. 26, 1915. Serial No. 63,617. (Cl. 214—12.)



1. An apparatus for the described purpose comprising an endless elevator for receiving and elevating filled receptacles, an inverting mechanism without the path of the elevated receptacles for receiving the filled receptacles from the elevating means and inverting the same to dump their contents therefrom, and means operating in timed relation with the elevating and the inverting mechanism for removing the uppermost receptacle from the elevator and placing the same within the sphere of the inverting mechanism.

2. An apparatus for the described purpose comprising an endless elevator for receiving and elevating filled receptacles, an inverting mechanism without the path of the elevated receptacles for receiving filled receptacles from the elevating means and inverting the same to dump the contents therefrom, means operating in timed relation with the elevator and the inverting mechanism for removing the uppermost receptacle from the elevator and placing the same within the sphere of the inverting mechanism, means for conveying the inverted receptacles from the apparatus, and means for receiving the contents as dumped therefrom and for conveying the same from the apparatus.

3. An apparatus for the described purpose comprising an endless elevator for receiving and elevating filled receptacles, an inverting mechanism without the path of the elevated receptacles for receiving the filled receptacles from the elevating means and inverting the same to dump the contents therefrom, and reciprocating means operating in timed relation with the elevating and the inverting mechanism for engaging and moving the uppermost elevated receptacle within the sphere of the inverting mechanism.

4. An apparatus for the described purpose comprising an endless elevator for receiving and elevating filled receptacles, a rotating inverting mechanism without the path of the elevated receptacles for receiving the filled receptacles from the elevating means and inverting the same to dump the contents therefrom, and reciprocating means movable within the path of the receptacle elevating and operating in timed relation with the elevator and the inverting mechanism for engaging and moving the uppermost elevated receptacle to within the sphere of the inverting mechanism.

5. An apparatus for the described purpose comprising a rotary receptacle inverting mechanism for receiving filled receptacles and inverting the same to dump the contents therefrom, horizontally reciprocting means operating in timed relation with the rotary inverting mechanism for engaging a receptacle and moving the same into the sphere of the inverting mechanism, and upwardly movable means for positioning receptacles to be successively engaged by the receptacle moving means.

[Claims 6 to 13 not printed in the Gazette.]

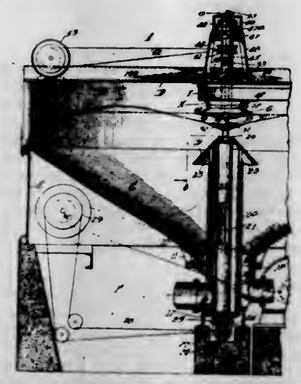
1,210,097. PROCESS AND APPARATUS FOR PREPARING HARD COMMERCIAL PITCH. RAY P. PERRY, Montclair, and EDWIN F. STEWART, Woodcliffe, N. J., assignors to Barrett Manufacturing Company, New York, N. Y., a Corporation of West Virginia. Filed Feb. 16, 1916. Serial No. 78,643. (Cl. 83—91.)

1. The process of preparing pitch and the like in the form of small particles which consists in independently introducing molten pitch and a cooling agent into a vessel, subjecting said pitch and cooling agent to centrifugal action of different intensity, and causing the commingling of said pitch with said cooling agent.

2. The process of preparing pitch and the like in the form of small particles which consists in independently introducing molten pitch and a cooling agent into a vessel, subjecting said pitch and said cooling agent to centrifugal action of different intensity, causing the passage of said pitch through said cooling agent, and finally commingling said pitch with said cooling agent.

3. The process of preparing pitch and the like in the form of small particles which consists in independently introducing molten pitch and a cooling agent into a vessel, subjecting said pitch to centrifugal action, and said cooling agent to like centrifugal action, but of different intensity, causing the projection of said agent through a curved path, causing the passage of said pitch through

said cooling agent, and finally commingling said pitch with said cooling agent, and then removing said commingled pitch particles and cooling agent from said vessel.



4. The process of preparing pitch and the like in the form of small particles which consists in introducing molten pitch and water into a vessel and subjecting the same to centrifugal action; in projecting said pitch through an upwardly curved path; in causing its passage through said centrifugalized water, and finally in commingling said pitch and water.

5. The process of preparing pitch and the like in the form of small particles which consists in independently introducing molten pitch and water into a vessel and subjecting the same to independent centrifugal action; in projecting said pitch through an upwardly curved path; in causing its passage through said centrifugalized water, and finally in commingling said pitch and water.

[Claims 6 to 20 not printed in the Gazette.]

1,210,098. TOP. FREDERICK A. PICKETT, Baltimore, Md., assignor of one-eighth to Carl Varrelmann and one-eighth to Ferdinand Varrelmann, Brooklyn, N. Y. Filed July 17, 1915. Serial No. 40,452. (Cl. 46—32.)

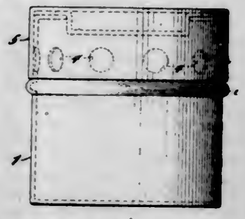


1. A device of the character set forth comprising a handle, a spirally formed rod swiveled to said handle, a second spirally formed rod interlaced with the first mentioned rod and having its lower end bent at right angles to form a stop, a nut mounted on said rods for rotating the rods upon sliding of the nut, and means for detachably securing the first mentioned rod with a top.

2. A device of the character set forth comprising a handle, a spiral rod swiveled to said handle, a nut mounted on said rod, a coil wire within said nut for an engagement with the spiral rod to rotate said rod upon sliding the nut, and means for detachably securing the rod to a top.

3. A device of the character set forth comprising a handle, a spiral rod swiveled to said handle, means for detachably securing a top to the rod, a substantially cylindrical nut mounted on said rod and provided with a groove, a coiled wire within said nut for an engagement with the spiral rod and having its lower end bent to extend into the groove, and a staple for securing the end of the coiled wire in the groove.

1,210,099. PROCESS OF BURNING FUEL. EDWARD POHL, New York, N. Y. Filed Feb. 2, 1916. Serial No. 75,774. (Cl. 158—117.5.)



1. The process of producing heat from a liquid or solid fuel which vaporizes slowly at ordinary temperatures and gives off an inflammable vapor, which consists in burning the vapor at an exposed surface thereof and causing a portion of the heat generated to heat the fuel and increase its rate of vaporization, then extinguishing the flame from the surface of the fuel and inclosing the entire quantity of collecting vapor given off by the fuel, then burning the collecting vapor in a plurality of independent jets directed to impart heat to the fuel.

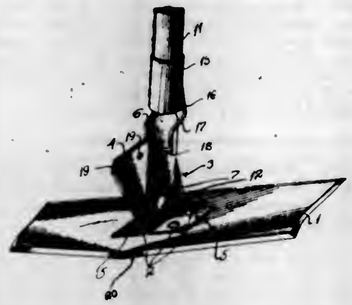
2. The process of burning a fuel which slowly gives off an inflammable vapor at ordinary temperatures, which consists in igniting and burning the vapor at an exposed surface of a body of the fuel contained in an open receptacle having heat-conducting walls, until the heat communicated to the walls sufficiently heats the body of the fuel to cause a rapid evaporation thereof, then extending the walls of the receptacle to form a closed chamber above the body of the fuel and simultaneously extinguishing the flame from the surface of the body of the fuel, and finally burning the vapor collecting in the closed chamber in a plurality of independent jets while causing the heat therefrom to heat the walls of the receptacle and the body of the fuel to cause a continued rapid evaporation of the fuel.

3. The process of producing heat from a liquid or solid fuel which vaporizes slowly at ordinary temperatures and gives off an inflammable vapor, which consists in burning the vapor at an exposed surface thereof and causing a portion of the heat generated to heat the fuel and increase its rate of vaporization, then extinguishing the flame from the surface of the fuel and inclosing the entire quantity of collecting vapor given off by the fuel under pressure, then burning the collecting vapor under pressure in a plurality of independent jets directed to impart heat to the fuel.

1,210,100. ADJUSTABLE HOE. DANIEL ALBERT POTTORF, Milton, Oreg. Filed Apr. 17, 1916. Serial No. 91,729. (Cl. 55—42.)

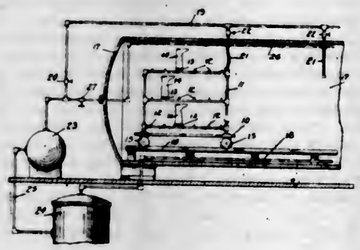
1. In combination, a hoe blade having an attaching flange, a shank pivotally secured thereto, said flange having a series of apertures radially disposed with respect to the pivotal point of said shank, a handle having a ferrule and having one end receiving a part of said shank, and means holding said shank, handle and ferrule in fixed relation relative to each other and having an end for engagement with any one of said apertures to hold said handle and shank in an adjusted position relative to said blade.

2. In combination, a hoe blade, an attaching flange comprising a piece of metal bent double and thence outwardly on either side and secured to said hoe blade, a shank comprising an arm disposed on either side of said flange and pivoted thereto, said flange having a series of apertures radially disposed with respect to the pivotal



point of said shank, a handle having a ferrule and having one end receiving a part of said shank, and means holding said shank, handle and ferrule in fixed relation relative to each other and having one end extending through the shank and its other end positioned for engagement with any one of said apertures to hold said handle and shank in an adjusted position relative to said blade.

1,210,101. CIRCULATION AND EXHAUSTING APPARATUS FOR VULCANIZING. CHESTER J. RANDALL, Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Co., a Corporation of Connecticut. Filed Feb. 5, 1916. Serial No. 76,368. (Cl. 18—6.)



1. An apparatus of the class described, comprising a vulcanizer, a hollow form therein, means for exhausting the form, and means for directing the exhaust from the form into the vulcanizer.

2. An apparatus of the class described, comprising a vulcanizer, means for admitting a fluid medium into the vulcanizer, a hollow form in the vulcanizer, means for exhausting the form and withdrawing some of said medium from the vulcanizer, and means for directing the exhaust from the form and said withdrawn medium into the vulcanizer.

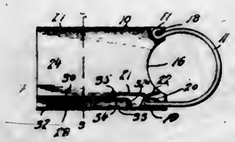
3. An apparatus of the class described, comprising a vulcanizer, means for admitting a fluid medium into the vulcanizer, a hollow frame in the vulcanizer, hollow forms detachably mounted on and communicating with the frame, means for exhausting the forms and the frame, and means for directing the exhaust from the forms and frame together with any of the fluid medium which may leak into the forms and frame back into the vulcanizer.

4. An apparatus of the class described, comprising a vulcanizer, means for admitting a fluid medium into the vulcanizer, a hollow frame in the vulcanizer, hollow forms mounted on and communicating with the frame, an exhaust device, means establishing intake communication to the exhaust device from the frame and from the interior of the vulcanizer, and means establishing return communication from the exhaust device to the interior of the vulcanizer.

5. An apparatus of the class described, comprising a vulcanizer, means for admitting a fluid medium into the vulcanizer, a hollow frame in the vulcanizer, hollow forms mounted on and communicating with the frame, an exhaust device, means establishing intake communication to the exhaust device from the frame, means establishing intake communication to the exhaust device from the interior of the vulcanizer, a valve for controlling the passage of the medium from the vulcanizer through the last named means, and means establishing return communication from the exhaust device to the interior of the vulcanizer.

[Claims 6 to 9 not printed in the Gazette.]

1,210,102. BOTTLE-HOLDER. DAVID E. RIGGINS, Perry, Okla. Filed Apr. 13, 1916. Serial No. 90,928. (Cl. 232—41.)



1. A bottle holder comprising a lock case provided with means for rigidly supporting it in a horizontal position and having a concave depression in one end thereof, locking mechanism within said case and integrally formed therewith, said mechanism including a spring tongue having thereon a projecting lug and a finger piece, and a curved bail hinged upon said case and having a hooked shaped end to engage and be locked by the lug on said spring tongue.

2. A bottle holder comprising a lock case formed of a single sheet of metal with which are integrally formed a spring locking tongue, and ears for securing the lock to a support, a curved bail hinged to said case and having a hook on its free end for engaging the said locking tongue, and means integral with the tongue for disengaging the same in case the bail should become locked without embracing a bottle.

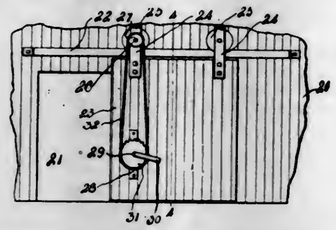
3. A bottle holder comprising a lock case formed of a sheet metal blank, supporting ears integral with one end of said blank, a spring tongue integral with the blank and having a locking lug thereon formed by folding the material of the tongue, a brace plate integral with the opposite end of the blank for strengthening the case and sustaining the spring tongue and a curved bail hinged to said lock and having a hook on its free end to engage with and be locked by the lug on said spring tongue.

4. A bottle holder comprising a lock case formed by a substantially rectangular sheet metal blank folded on transverse lines and in the same direction to form the top, bottom and sides of the case and a double partition wall near one side, a spring locking tongue integral with one part of said partition wall having an integral locking lug thereon, and integral ears on the top and bottom of the case for securing the same to a support.

1,210,103. SLIDING-DOOR OPERATOR. JOSEPH B. RITTER, Hastings, Fla. Filed July 16, 1915. Serial No. 40,308. (Cl. 268—6.)

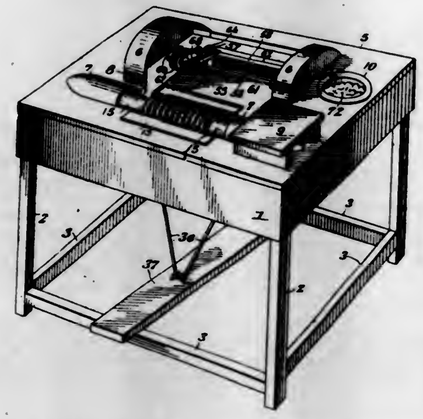
A sliding door operator, comprising the combination of a track-way, a sliding door, brackets on said door, rollers operative on said track-way, and provided with shafts journaled in said brackets, a bracket mounted on the face of said door, a pinion having an elongated shaft journaled

in the last mentioned bracket, said elongated shaft being downturned to provide a crank, and a pinion carried by



one of said roller shafts and geared to the first mentioned pinion.

1,210,104. PACKAGE FORMING AND SEALING MACHINE. PHILIP SCHILLAT, Scranton, Pa. Filed Jan. 18, 1916. Serial No. 72,793. (Cl. 93—2.)



1. A package wrapping and sealing machine comprising means for supporting wrapping papers, movable devices for holding articles upon said wrapping papers while being wrapped, means for applying paste to said wrapping papers, means for actuating said article-holding devices and means for simultaneously operating both of said means.

2. A package wrapping and sealing machine comprising a block having a trough formed therein, means for applying paste to papers resting in said trough, means for holding articles to be wrapped upon said papers, means for operating the last mentioned means and connections between the last mentioned means and the paste applying means.

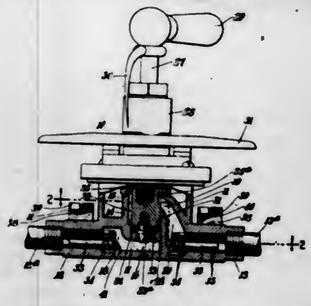
3. A package wrapping and sealing machine comprising a base, a trough positioned upon said base to support wrapping papers, means for supporting articles upon said wrapping papers, means for applying paste to one edge of said wrapping papers, operative connections between the paste applying means and the article holding means, and means for operating said paste applying means and said article supporting means.

4. A package wrapping and sealing machine comprising a base, supporting means for said base, a treadle mounted on said supporting means, wrapping papers supporting means carried by said base, article holding means mounted on said base, operative connection between said article holding means and said treadle, paste applying means for said wrapping papers, operative connection between said paste applying means and the operating means for the article holding means, and means for reversing the paste applying means.

5. A package wrapping and sealing machine comprising wrapping paper supporting means, movable article holding means normally projecting over said wrapping paper supporting means, means to hold articles in position while being wrapped, means for withdrawing said members, means for applying paste to the wrapping papers upon said wrapping paper supporting means, means for operating the paste applying means, and connections between the last mentioned means and the withdrawing means for the article holding means.

[Claims 6 to 15 not printed in the Gazette.]

1,210,105. MIXING-VALVE. MILTON SCHNAIER, New York, N. Y., assignor to Milton Schnaier Contracting Corp., a Corporation of New York. Filed Apr. 6, 1914. Serial No. 829,874. (Cl. 137—26.)

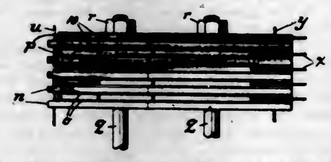


1. A valve comprising a casing provided with an inlet passage and an outlet, a valve member within said casing to control the flow of fluid from said inlet passage through said casing to said outlet, a hollow longitudinally-movable regulating member disposed within said passage, said regulating member having a closed inner end and having openings in its side adjacent said closed end, said regulating member being provided adjacent its outer end with a plurality of circumferential annular ribs forming a rack, and a pinion rotatably mounted upon said casing and engaging said rack whereby said regulating member may be moved back and forth in a longitudinal direction to cause said openings to be moved into and out of register with the wall of said inlet passage to control the volume of fluid admitted through said passage, substantially as specified.

2. A valve comprising a casing provided with an inlet passage and an outlet, a valve member within said casing to control the flow of fluid from said inlet passage through said casing to said outlet, a longitudinally-movable regulating member disposed within said inlet passage to control the volume of fluid admitted therethrough, said regulating member being provided adjacent its outer end with a plurality of circumferential annular ribs forming a rack, and a toothed member rotatably mounted upon said casing and engaging said rack whereby said regulating member may be moved back and forth within said inlet passage, substantially as specified.

3. A valve comprising a casing provided with a plurality of inlet passages and an outlet, a valve member within said casing to control the flow of fluid from said inlet passages through said casing to said outlet, each of said inlet passages having disposed therein a regulating member to control the volume of fluid admitted therethrough, and independent means operatively connected to each of said regulating members for positively actuating the same, whereby the volumes of fluid admitted to the casing through said inlet passages may be controlled to insure a proper mixture thereof, substantially as specified.

1,210,106. FLAT-KNITTING MACHINE. HERMAN SCHWARTZ, Philadelphia, Pa., and ALFRED A. GRUNDY, Brooklyn, N. Y., assignors to themselves, and Samuel Grushlaw, Philadelphia, Pa. Filed Aug. 11, 1915. Serial No. 44,871. (Cl. 66—28.)



1. In a flat knitting machine, the combination with the needles, of a plurality of separate needle rest sections and a plurality of spacing sections spacing apart the needle rest sections, certain of the spacing sections having jacks, each needle rest section being of a fractional part of the thickness of a single needle rest and each spacing section being of a fractional part of the width of a single space between needle rests, a support for, and separate from, the sections, and means to detachably secure said sections to their support in different predetermined relations, whereby the various sections may be variously arranged and distributed to adapt them to produce needle beds of different gages.

2. In a flat knitting machine, the combination with the needles, of a multitude of separate needle rest sections, sinker sections and divider sections arranged on edge, each of said sections being of the fractional part of the thickness of a needle, a support underlying said sections, and means to hold said sections in fixed relation to each other and to the support, whereby the arrangement of the sections may be varied to produce needle beds of different gages.

3. In a flat knitting machine, the combination with the needles, of a multitude of separate needle rest sections, sinker sections and divider sections, a longitudinally recessed frame, a longitudinally extending bar and a gib secured thereto, slidable in the frame and forming between them a dove-tail recess, all of said sections having along their lower edges integral dove-tail flanges of similar contour adapted to the dove-tail recess, and means to hold all of said sections in fixed relation to said bar.

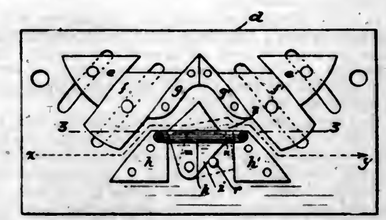
4. In a flat knitting machine, the combination with the needles, of a multitude of separate needle rest sections and a multitude of sections spacing apart the needle rest sections, certain of the last named sections having jacks, whereby the arrangement of the sections may be varied to produce needle beds of different gages, a frame recessed in the direction of its length, a longitudinally extending bar and a detachable gib slidable longitudinally in said recess and forming between them a recess, all of said sections having along their lower edges integral flanges of similar contour adapted to the last-named recess, and means to hold said sections in fixed relation to each other and in fixed relation to the bar.

5. In a flat knitting machine, the combination with the needles, of a multitude of separate needle rest sections, sinker sections and divider sections, a frame having a longitudinally extending recess, a recessed bar slidable longitudinally in said frame, said sections having flanges extending into the recess on the bar, and means securing said sections in position.

[Claims 6 to 10 not printed in the Gazette.]

1,210,107. CAM FOR FLAT-KNITTING MACHINES. HERMAN SCHWARTZ, Philadelphia, Pa., and ALFRED A. GRUNDY, Brooklyn, N. Y., assignors to themselves, and Samuel Grushlaw, Philadelphia, Pa. Filed Aug. 11, 1915. Serial No. 44,872. (Cl. 66—29.)

1. In knitting machine cams, the combination of the cam plate, the two lower cams spaced apart, the upper cams coöperating with the lower cams to guide the needle butts, a bridge-piece connecting the said two lower cams, and a third pivoted lower cam located between the said two lower cams and extending between the cam plate and the bridge-piece.



2. In knitting machine cams, the combination of the cam plate, the two lower cams spaced apart, the upper cams coöperating with the lower cams to guide the needle butts, a bridge piece connecting the said two lower cams, and a third lower cam located between the first named two lower cams and extending between the cam plate and the bridge piece, the third cam being pivoted to the cam plate on a level with the lower parts of the two first-mentioned lower cams and nearer to one cam than to the other.

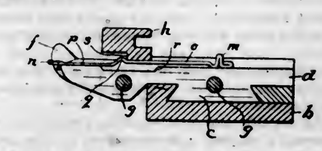
3. In knitting machine cams, the combination of the cam plate, the two lower cams spaced apart, the upper cams coöperating with the lower cams to guide the needle butts, a bridge piece connecting the said two lower cams, and whose upper face is flush with the adjacent horizontal edges thereof, and a third pivoted cam located between said two lower cams and extending between the cam plate and the bridge-piece.

4. In knitting machine cams, the combination of the cam plate, the two lower fixed cams spaced apart, the upper cams coöperating with the lower cams to guide the needle butts, a movable cam located between the two fixed lower cams, said movable cam being pivoted to the cam plate relatively close to the lower part of the inner straight edge of one of the two fixed lower cams and adapted, when swung against either of the lower fixed cams, to leave a substantial space between itself and the other lower fixed cam, and a bridge piece spanning the space between the two lower fixed cams and overlying the movable pivoted cam.

5. In knitting machine cams, the combination with the cam plate, of two interchangeable lower cams spaced apart, two central abutting and interchangeable upper cams, two interchangeable upper cams adjacent to the respective central cams, and a pivoted lower cam arranged between the first-named two lower cams.

[Claims 6 and 7 not printed in the Gazette.]

1,210,108. NEEDLE-RETAINING MECHANISM FOR FLAT-KNITTING MACHINES. HERMAN SCHWARTZ, Philadelphia, Pa., and ALFRED A. GRUNDY, Brooklyn, N. Y., assignors to themselves, and Samuel Grushlaw, Philadelphia, Pa. Filed Feb. 2, 1916. Serial No. 75,822. (Cl. 66—28.)



1. In a flat knitting machine, the combination with a needle base having a depression, of a rail above the depression, and a needle having a butt and a resilient offset portion between its butt and its head adapted to cooperate with the rail to normally hold the needle in active position, said depression permitting the needle, when suitably positioned, to be tilted and withdrawn.

2. In a flat knitting machine, the combination with a needle having an offset portion and a hump in such offset portion, of a device forming a shoulder and adapted to cooperate with the hump to normally hold the needle from

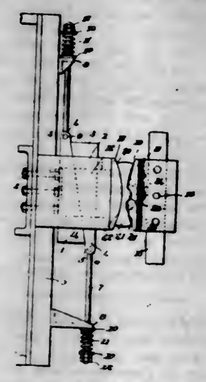
moving out of active position, and a needle base having a depression beneath the shoulder to allow the needle to be tilted and then withdrawn.

3. In a flat knitting machine, the combination with a needle base having a depression and a rail above said depression cut away to form an upwardly or inwardly facing shoulder, of a needle provided with a butt, an offset portion between the butt and the head and a hump near the front of the offset portion.

4. In a flat knitting machine, the combination with the needle bed, of a pair of longitudinally extending rails one of which overlies the upper or inner portion of the needle bed and is provided with a shoulder, a reciprocatory cam plate slidable within and between guides in the rails, the needle bed having depressions underlying the upper rail to permit removal and replacement of needles without removing said rail, and a needle having a part thereof adapted to engage said shoulder and thereby held from dropping out of operative position.

5. In a flat knitting machine, the combination with the needle bed, of a pair of longitudinally extending rails one of which overlies the upper or inner portion of the needle bed and is provided with a shoulder, a reciprocatory cam plate slidable within and between guides in the rails, the needle bed having depressions underlying the upper rail to permit removal and replacement of needles without removing said rail, and a needle having a butt and an offset portion between the butt and the head of the rail and a hump near the forward end of the said offset portion adapted for engagement with said shoulder.

1,210,109. DRAW-BAR-SLACK ADJUSTABLE SAFETY APPLIANCE. GEORGE SELLS, East Las Vegas, N. Mex. Filed Feb. 18, 1914. Serial No. 819,511. (Cl. 213—3.)



1. A buffer for railroad cars including a buffer block carried by one car, a chafing iron carried by an adjacent car, a casting removably disposed between said block and said iron and having a freely disengageable and pivoted bearing against said iron, and said casting being automatically disengageable from the block upon the separation of the car yet retained in a supported position with respect to the iron.

2. A buffer for railroad cars including a buffer block carried by one car, a chafing iron carried by an adjacent car provided with a flared recess, a casting disposed between the block and iron, and a neck extending from the casting and pivoting against the inner end of the recess.

3. A buffer for railroad cars including a buffer block carried by one car, a chafing iron carried by an adjacent car provided with an inwardly extending tapering recess having a rounded end, a casting disposed between the block and iron, a tapering rounded neck extending laterally from the casting and pivoting against the rounded end of the recess, and means on the casting for guiding the casting when in engagement with the iron.

4. A buffer for railroad cars including a buffer block carried by one car having a convex bearing surface, a chafing iron carried by an adjacent car having a convex bearing surface symmetrical with respect to the bearing surface of the block, said iron further provided with a recess, a casting having complemental concave bearing surfaces on the opposite sides thereof interposed between the block and iron for movable engagement with the convex bearing surfaces thereof, means formed integral with and extending laterally from one of the curved surfaces of the casting and freely carried and separable from said recess for supporting said casting, and means formed integral with the upper and lower surfaces of the casting and in engagement with the iron for guiding the casting during its movement.

5. A buffer for railroad cars including a buffer block having a convex bearing surface, a chafing iron carried by an adjacent car having a convex bearing surface symmetrical with respect to the bearing surface of the block, said iron further provided on the curved bearing surface thereof with a laterally disposed inwardly extending and rounded recess, a casting having complemental concave bearing surfaces on the opposite sides thereof, interposed between the block and iron for movable engagement with the convex bearing surfaces thereof, a tapering and rounded neck extending laterally from one of the curved surfaces of the casting and freely carried by and separable from said recesses for supporting said casting, and laterally extending flanges formed integral with the upper and lower surfaces of the casting and arranged in engagement with the upper and lower surfaces of the iron for guiding the casting during its movement.

1,210,110. UNIVERSAL CABLE-TIP. FRANK W. SMITH, Kansas City, Mo., assignor of one-half to William K. Trimble, Kansas City, Mo. Filed Mar. 29, 1915. Serial No. 17,801. (Cl. 173—269.)



1. A cable tip comprising a pair of spring metal jaws, one of the jaws having a tooth for engagement with the other to limit approaching movement of the front ends of the jaws and the other jaw having a bifurcation extending from its front extremity to a point rearward of said tooth.

2. A cable tip comprising a pair of spring metal jaws, one of the jaws having a tooth for engagement with the other to limit approaching movement of the front ends of the jaws and the other jaw having a bifurcation extending from its front extremity to a point rearward of said tooth; said jaws being outwardly bowed at opposite points rearward of said bifurcation.

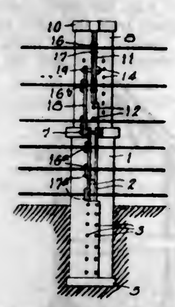
3. A cable tip, comprising a pair of spring metal jaws having registering openings at their front ends, and a tooth projecting from one of said jaws toward the other forward of one of said openings.

4. A cable tip, comprising a pair of spring metal jaws having registering openings at their front ends, and a tooth projecting from one of said jaws toward the other forward of one of said openings, said jaws at opposite points rearward of said openings being bowed outwardly.

5. A cable tip comprising a pair of spring metal jaws, one provided at its front end with a forwardly opening bifurcation and the other near its front end with an opening registering with the rear portion of said bifurcation and with a transverse tooth projecting toward the bifurcated jaw and bridging the bifurcation thereof; said tooth having an extension diverging forward with respect to the front extremity of the bifurcated jaw and constituting a flaring mouth for the jaws.

[Claims 6 and 7 not printed in the Gazette.]

1,210,111. EXTENSIBLE FENCE-POST. NOAH SMITH, Roderfield, W. Va. Filed Aug. 5, 1916. Serial No. 113,274. (Cl. 256—48.)



1. A fence post including a tubular lower section having a longitudinal slot in the upper portion thereof, a split clamping band applied to the upper end of the lower section, and an upper section mounted to telescope within the lower section and formed with a longitudinally extending rib adapted to be received within the slot of the lower section when the two sections are collapsed.

2. A fence post including a tubular lower section having a longitudinal slot in the upper portion thereof and provided with outstanding flanges at the edges of the slot, a split clamping band applied to the upper end of the lower section, an upper section mounted to telescope within the lower section and formed with a longitudinal rib adapted to be received within the slot of the lower section when the two sections are collapsed, the rib of the upper section and the flanges of the lower sections being formed with fence wire receiving notches, and latch members for holding the fence wires in position within the said notches.

3. A fence post including upper and lower sections each formed by rolling a piece of sheet metal and the upper section telescoping within the lower section, the upper section having the meeting edges of the sheet metal extended outwardly at the upper portion to provide a fence wire engaging rib and overlapped at the lower portion below the rib, while the lower section has the edges of the sheet metal spaced at the upper portion thereof to provide a slot to receive the rib of the upper section when the sections are collapsed, the edges at the lower portion of the lower section being overlapped, and means for locking the two post sections in an adjusted position.

4. A fence post including a tubular lower section having a longitudinal slot in the upper portion thereof, a split clamping band applied to the upper end of the lower section and formed with studs projecting into the lower section, and an upper section mounted to telescope within the lower section and formed with a longitudinal rib adapted to be received within the slot thereof when the sections are collapsed, said upper section being also provided with depressions, selected ones of which are adapted to be engaged by the studs of the split clamping band.

5. A fence post including upper and lower telescoping sections, the upper section being provided with a longitudinal wire engaging rib extending downwardly from the top to an intermediate portion thereof, while the lower section is provided at the top thereof with a longitudinal slot adapted to receive the rib of the upper section when the two sections are collapsed, a split clamping band at the upper end of the lower section, and a fence wire engaging bar extending between the clamping band and the rib of the upper section when the said upper section is extended.

[Claim 6 not printed in the Gazette.]

1,210,112. ELECTRIC PROD-POLE. WILLIAM A. SMITH, San Angelo, Tex. Filed Aug. 9, 1915. Serial No. 44,585. (Cl. 175—265.)

1. An electric prod pole containing a constant potential source of current, means within the pole for raising the voltage of the current, and means for locally discharging such high voltage current through the skin of an animal.

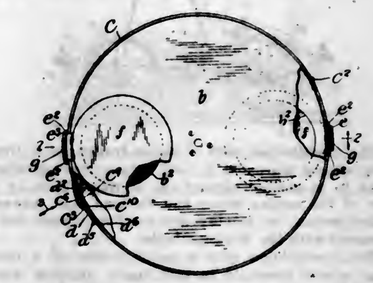


2. An electric prod pole comprising a handle section, a battery in said section, a push button carried by such section for controlling the circuit of said battery, a body section, prod points carried by said body section, and means for raising the voltage of the battery current and supplying such higher voltage to said prod points.

3. A prod pole, made up of a plurality of tubular sections, a battery in one section, an induction coil in another section, and prod points carried by a third section, all of said parts being operatively connected.

4. A prod pole made up of a plurality of tubular sections, of insulating material, screw-threaded metal ferrules carried by the ends of the sections and serving to mechanically unite them, and electrical apparatus inclosed within said sections and having its connections completed through said ferrules.

1,210,113. REEL FOR MOVING-PICTURE FILMS. LOUIS SOLLISCH, Brooklyn, N. Y., assignor of one-half to Gaetano Albanese, New York, N. Y. Filed Feb. 15, 1916. Serial No. 78,401. (Cl. 206—52.)



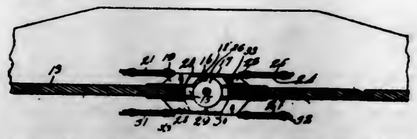
1. In a device of the class described, a reel comprising side plate members each of which is provided with an aperture or opening, a detachable band member adapted to inclose the perimeter of said reel, and cap plates pivotally mounted on said band member and adapted to close said apertures, said band member being composed of separate parts hinged together.

2. In a device of the class described, a reel comprising side plate members each of which is provided with an aperture or opening, a detachable band member adapted to inclose the perimeter of said reel, and cap plates pivotally mounted on said band member and adapted to close said apertures, said band member being composed of separate parts hinged together, and the separate parts of said band member being secured together by a spring lock device.

3. In a device of the class described, a reel comprising side plate members each of which is provided with an aperture or opening, a detachable band member adapted to inclose the perimeter of said reel, cap plates pivotally mounted on said band member, tensional devices for holding said cap plates in position to close said apertures, said band member being composed of separate parts hinged together and the separate parts of said band member being secured together by a spring lock device.

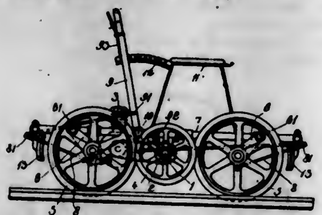
4. In a device of the class described, a reel, comprising side plate members each of which is provided with an aperture or opening, a band member composed of separate parts hinged together and adapted to inclose the perimeter of said reel, and spring-controlled cap plates mounted on said band member and adapted to close the apertures in the sides plate members of said reel.

1,210,114. ANIMAL-TRAP. GEORGE STREMBERGER, Butte, Mont. Filed Apr. 4, 1916. Serial No. 88,877. (Cl. 43—24.)



An animal trap comprising a base board adapted to be placed on a receptacle, and having an elongated opening formed therein, vertical parallel guard walls disposed at the sides of the opening, a rigidly mounted shaft extending transversely across the center of the opening, a revoluble platform mounted on the shaft and movable through the openings, ratchet disks on the shaft having oppositely directed teeth, tilting arms pivoted to the platform on opposite sides of the shaft, and hook members on the arms engaging respective disks.

1,210,115. MOTOR-TROLLEY AND SIMILAR VEHICLE. HELGE SUNDBERG, Ljusne, Sweden. Filed Apr. 19, 1916. Serial No. 92,260. (Cl. 105—224.)



1. The combination with a motor trolley, of a frame, driving wheels journaled in said frame, traction wheels adapted to be pressed against the driving wheels by the weight of the trolley frame and its load, and manually operated means for moving the traction wheels out of engagement with the driving wheels.

2. The combination with a motor trolley of a frame, driving wheels journaled in said frame, traction wheels journaled in arms that are capable of swinging, and adapted to be pressed against the driving wheels by the weight of the trolley frame and its load, and manually operated means for moving the traction wheels out of engagement with the driving wheels.

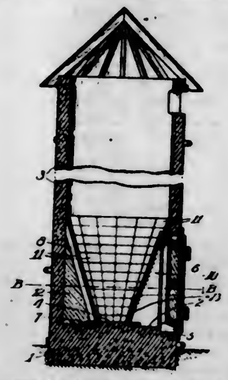
3. The combination with a motor trolley of a frame, brake shoes carried thereby, driving wheels journaled in said frame, traction wheels adapted to be pressed against the driving wheels by the weight of the trolley frame and its load, and manually operated means for moving the traction wheels out of engagement with the driving wheels and into engagement with the brake shoes.

4. The combination with a motor trolley of a frame, brake shoes carried thereby, driving wheels journaled in said frame, traction wheels journaled in arms capable of swinging, and adapted to be pressed against the driving wheels by the weight of the frame and its load, and manually operated means for moving the traction wheels out of engagement with the driving wheels and into engagement with the brake shoes.

1,210,116. BOTTOM-DELIVERY SILO. JOSIAH G. SWAIN, Mooresville, Ind. Filed Sept. 27, 1915. Serial No. 52,920. (Cl. 20—1.4.)

1. A silo appliance comprising an annular supporting frame, a plurality of studs secured to the frame and extending upwardly and outwardly therefrom, two partitional walls secured to two adjacent ones of the studs and extending outwardly therefrom, and a covering secured to the inner sides of the studs and covering the spaces between them excepting the space between the two adjacent ones.

2. A silo comprising a bottom, a main wall and an inclined inner wall supported on the bottom, the upper portion of the inner wall having support against the inner side of the main wall, the lower portion of the inner wall being spaced apart from the main wall to provide a workman's shelter chamber, there being a doorway in each of the walls communicating with the chamber.



3. A silo comprising a bottom, a main wall and an inner wall on the bottom, the inner wall being funnel-shaped and having a doorway in the side of its lower smaller portion, the main wall having a doorway in its lower portion opposite the doorway of the inner wall, there being a passageway to shelter a workman between the two doorways, a closure for the doorway of the main wall, a closure for the doorway of the inner wall, and a packing on the bottom and between the inner wall and the main wall.

4. A silo comprising a bottom, a vertical main wall on the bottom with a main doorway therein adjacent to the bottom, a door hinged to the main wall to close the doorway, an inner wall within the main wall and extending at an inclination from the bottom of the silo upwardly and outwardly to the main wall above the main doorway to provide a workman's safety chamber, the inner wall having a doorway therein opposite to the main doorway, and a plurality of superimposed closure boards in the doorway of the inner wall and removably connected with the inner wall.

1,210,117. END SILL FOR FLAT-CARS. JOHN J. TATUM, Baltimore, Md. Filed Feb. 17, 1916. Serial No. 78,856. (Cl. 105—15.)



1. A cast metal end sill for flat cars, an upwardly projecting load retaining member formed on said sill, said sill being provided with a series of stake pockets and an apron hinged to the top of said sill between the load retaining member and said stake pockets.

2. A cast metal end sill for flat cars having an integral upwardly projecting load retaining member, said sill being provided with a series of stake pockets and an apron hinged to the top of said sill between the load retaining member and said stake pockets.

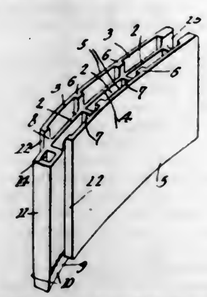
3. The combination with a flat car underframe and flooring, of an end sill fixed to said underframe and provided with a portion which extends a substantial distance above the surface of the flooring, there being a series of stake pockets formed in said end sill and an apron hinged to the top of said sill between the upwardly projecting portion and the stake pockets.

4. The combination with a flat car underframe and its flooring, of an end sill fixed to said underframe, a flange integral with the top of said end sill, which flange projects a substantial distance above the surface of the flooring, there being a series of stake pockets formed in said end sill and a metal apron hinged to the top of the sill between the flange and the series of stake pockets.

5. A cast metal car end sill provided with a longitudinally disposed row of stake pockets, an upwardly projecting load retaining member formed on said sill adjacent to said pockets, and an apron hinged to said sill between said pockets and load retaining member.

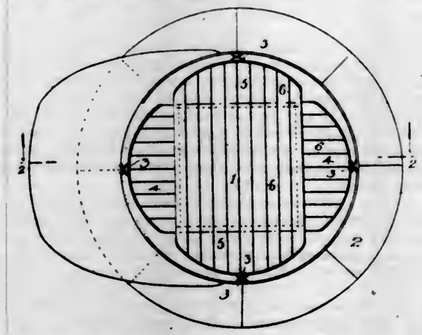
[Claims 6 and 7 not printed in the Gazette.]

1,210,118. SEWER-BLOCK. NIC W. TRAUTNER, Red Wing, Minn., assignor to Red Wing Sewer Pipe Company, Red Wing, Minn. Filed Oct. 30, 1915. Serial No. 58,863. (Cl. 72—38.)



In a device of the class described, a block having a side groove along one longitudinal edge and provided along its opposite longitudinal edge with a side tongue adapted to be received in the side groove of a like block, the block being provided at one extremity with an end groove and being provided at its opposite extermity with an end tongue adapted to be received in the end groove of a like block, the side and end tongues being of a like contour, whereby the blocks of adjoining courses may be placed with their ends alined or in break-joint order, the block having spaced passages defining inner walls, outer walls, inner ribs connecting the inner walls, and outer ribs connecting the outer walls with the inner walls, the outer ribs being extended onto the inner faces of the outer walls, beyond the base of the side groove, to form reinforcements at the extremities of the outer walls, and to form reinforcements between the extremities of the outer walls, the inner ribs terminating at the base of the side groove.

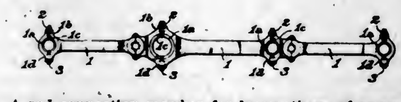
1,210,119. DETACHABLE RESILIENT SUPPORT FOR CAPS. MORRIS WEBER, New York, N. Y. Filed Sept. 25, 1915. Serial No. 52,554. (Cl. 2—106.)



1. A detachable resilient stiffener and crown support for caps having cross strips made of hair cloth and means at the ends of the strips for securing the same to a cap.

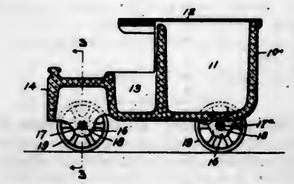
2. A detachable resilient stiffener and crown support for caps composed of cross strips and fasteners with male and female members adapted to secure the ends of said strips to a cap.

1,210,120. ROD CONNECTION FOR LOCOMOTIVES. CHARLES E. WEIDAW and WILLIAM R. OWENS, Scranton, Pa., assignors of one-third to Herbert R. Jones, Scranton, Pa. Filed May 27, 1916. Serial No. 100,315. (Cl. 64—24.)



A rod connection member for locomotives, of symmetrical form on either side of a central horizontal plane and having an eye at its end for the reception of a crank pin, diametrically opposite, bored and threaded bosses on said end, the upper of which in use receives a lubricating cup and the lower of which in use is closed by a cap or plug.

1,210,121. COMMODITY-CONTAINER. GEORGE R. WEST, Pittsburgh, Pa. Filed June 25, 1915. Serial No. 36,350. (Cl. 46—48.)

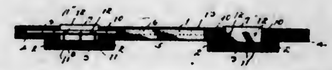


1. A combined commodity container and wheeled toy comprising a glass body having a commodity-receiving chamber, axles extending through and loosely mounted in said body, and wheels carried by the axles.

2. A combined commodity container and wheeled toy comprising a glass body having a commodity receiving chamber and having integral depending lugs each having a lateral opening, said lugs being arranged in pairs with the openings in alinement, and a wheeled axle loosely mounted in and extending through each pair of lugs, the axle and its wheels being formed to rotate in unison, whereby the walls of said openings will form bearings within which the axles are free to rotate.

3. A wheeled commodity container comprising a glass body portion and having a commodity receiving chamber, said body portion having integral depending lugs arranged in pairs, each pair having alined openings, and a wheel unit carried by each pair of lugs with the axle extending through the alined openings, said wheel structure embodying an axle having reduced ends, a wheel mounted on each reduced end with the end of the axle riveted on the outer side of the wheel to firmly unite the axle and wheel to provide wheel and axle movements in unison, said axles being loosely mounted in and free to rotate within said lugs.

1,210,122. CONCRETE TIE. RALPH J. WELLS, Dayton, Ohio. Filed Mar. 16, 1914. Serial No. 825,184. (Cl. 238—3.)



1. In a railway tie construction, a main body having a recess or cavity therein, a sleeper block having length and width substantially equal to the dimensions of the cavity or recess in which said sleeper block is fitted and for which it forms a closure, and a body of semiplastic resilient material within the cavity beneath the sleeper block

the relative proportions of the sleeper block and the cavity being such as to prevent the oozing of the plastic material from the cavity through the crevice between the block and body when subjected to the pressure of traffic.

2. In a railway tie construction, a main body having a cavity or recess therein, a body of semi fluid or plastic resilient material located within the cavity or recess, and a semiresilient sleeper block fitted within the cavity or recess resting upon the resilient material and so proportioned in relation to said cavity as to confine the resilient material therein and prevent the oozing thereof from the cavity intermediate the walls of the cavity and the block.

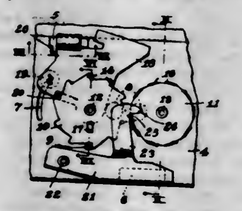
3. In a concrete railway tie, rail seats of wood embedded in the tie body, longitudinally disposed reinforcing bars extending on opposite sides of the rail seats, and transversely disposed U shaped reinforcing members suspended on the longitudinal bars and extending beneath the rail seats, substantially as specified.

4. In a concrete railway tie, a concrete body, longitudinally disposed parallel reinforcing bars embedded therein, wooden rail seats embedded in the body intermediate the bars, and transverse reinforcing members embedded in the body passing beneath the rail seats and attached to the bars on opposite sides thereof, and connections between the rail seats and the reinforcing bars.

5. In a railway tie construction, a main body having spaced recesses or cavities therein, semiresilient sleeper blocks seated in said cavities, parallel reinforcing bars embedded in the tie body and extending on opposite sides of the sleeper blocks, and transverse bolts detachably engaging the sleeper blocks with the tie body and with said reinforcing bars.

[Claim 6 not printed in the Gazette.]

1,210,123. REGISTERING-BANK. GEORGE R. WEST, Pittsburgh, and TURNEY H. STOUGH, Jeannette, Pa. Filed Apr. 12, 1913. Serial No. 760,669. (Cl. 235—100.)



1. In a registering bank, the combination with a casing having a coin admission slot and an inwardly projecting tongue at one end of said slot, a pivoted member positionable opposite the slot to receive the coin through the slot, said member having a configuration whereby said tongue will act to limit the pivotal movement of the member in one direction when the member is in coin receiving position, said member and the coin slot coacting with the coin to move the member beyond the tongue and permit the complete movement of the member, and registering mechanism operated by said member when given its complete movement.

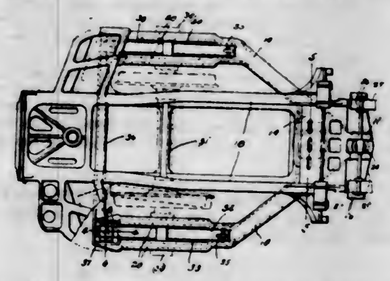
2. In a registering bank, the combination of a casing having a coin admission slot and a coin removal slot, indicating mechanism carried by the casing, said mechanism including a pair of indicating wheels operatively connected to provide a decimal relation, one of said wheels bearing the units indications, means for operating the indicating wheels, and a pivoted member adapted to be actuated independently by both wheels for controlling the coin removal slit, said member being moved to open the slot when said wheels have been actuated to indicate the maximum amount.

3. In a registering bank, the combination of a casing having a coin admission slot and a coin removal slot, indicating mechanism carried by the casing, said mechanism including a pair of indicating wheels operatively connected to provide a decimal relation, one of said wheels bearing the units indications, means for operating said indicating wheels, and a pivoted member controlling the coin removal slot, said wheels carrying means for moving said member to successively open and close the coin removal slot.

4. In a registering bank, the combination of a casing having a coin admission slot and a coin removal slot, indicating mechanism carried by the casing, said mechanism including a pair of indicating wheels operatively connected to provide a decimal relation, one of said wheels bearing the units indications, means for operating said indicating wheels, and a pivoted member controlling the coin removal slot, said wheels carrying means for moving said member to successively open and close the coin removal slot, said means including a tooth carried by the tens wheel adapted to move the member to open said slot, said tooth being positioned to provide this movement during the movement of both wheels to reset the indicating mechanism at zero.

5. In a registering bank, the combination of a casing having a coin admission slot and a coin removal slot, indicating mechanism carried by the casing, said mechanism including a pair of indicating wheels operatively connected to provide a decimal relation, one of said wheels bearing the units indications, means for operating said indicating wheels, and a pivoted member controlling the coin removal slot, said wheels carrying means for moving said member to successively open and close the coin removal slot, said means including a tooth carried by the tens wheel adapted to move the member to open said slot, said tooth being positioned to provide this movement during the movement of both wheels to reset the indicating mechanism at zero, the units wheel having a tongue adapted to return said member to slot closing position during the succeeding rotation of the wheel.

1,210,124. TRAILER-TRUCK FOR LOCOMOTIVES. CHARLES T. WESTLAKE and CHARLES F. FREDE, St. Louis, Mo., assignors to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 7, 1916. Serial No. 113,564. (Cl. 105—226.)



1. The combination with a locomotive frame, of a trailer truck frame, a combined hanger and pivot between the forward end of said truck frame and locomotive frame, and flexible bearings between the rear portions of the trailer truck frame and locomotive frame, parts of which bearings are transversely curved with respect to the longitudinal axis of the trailer truck frame so as to permit independent vertical movement of the sides of the trailer truck frame.

2. The combination with a locomotive frame, of a trailer truck frame, a combined hanger and pivot between the forward end of the trailer truck frame and locomotive frame, a combined flexible bearing, and friction pads between said frames to the rear of the combined hanger and pivot, flexible bearings between the rear portion of the trailer truck frame and locomotive frame, which flexible bearings permit independent vertical movement of the sides of said trailer truck frame.

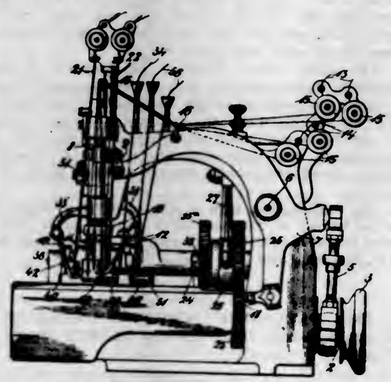
3. The combination with a locomotive frame, of a trailer truck frame, a combined hanger and pivot between the forward end of the trailer truck frame and locomotive frame, and combined flexible bearings and friction pads between the rear portion of the trailer truck frame and locomotive frame.

4. The combination with a locomotive frame and trailer truck frame, which latter is pivotally connected to the locomotive frame at its forward end, of flexible bearings between the rear end of the trailer truck frame and the locomotive frame, parts of which bearings are transversely curved with respect to the longitudinal axis of the trailer truck frame so as to permit independent vertical movement of the sides of said truck frame.

5. The combination with a locomotive frame, of a trailer truck frame, a pivot pin connecting the forward end of the trailer truck frame with the locomotive frame, and flexible connections between said pivot pin and certain of the locomotive springs.

[Claims 6 to 13 not printed in the Gazette.]

1,210,125. BAR-EDGING SEWING-MACHINE. FRITZ WEVER, Stuttgart, Germany, assignor to Union Special Maschinenfabrik, G. M. B. H., Stuttgart, Germany, a Corporation of Germany. Filed Aug. 26, 1913. Serial No. 786,731. (Cl. 112—7.)



1. A sewing machine including in combination pairs of needles, a thread carrying looper coöperating with each pair of needles, a thread guide coöperating with each pair of needles above the work support, and a third thread guide coöperating with the inside needles of each pair of needles, whereby the groups of loops formed by the respective pairs of needles and their coöperating devices are connected.

2. A sewing machine including in combination pairs of needles, a thread carrying looper coöperating with each pair of needles, a thread guide coöperating with each pair of needles above the work support, and a third thread guide coöperating with the inside needles of each pair of needles, whereby the groups of loops formed by the respective pairs of needles and their coöperating devices are connected, said third thread guide being timed so that the connecting threads are spaced two or more stitches apart.

3. A sewing machine including in combination pairs of needles, a thread carrying looper coöperating with each pair of needles, a thread guide coöperating with each pair of needles above the work support, a third thread guide coöperating with the inside needles of each pair of needles, whereby the groups of loops formed by the respective pairs of needles and their coöperating devices are connected, and a fourth thread laying member coöperating with the outside needle of one pair of needles for forming a scalloped edging.

4. A sewing machine including in combination pairs of needles, a thread carrying looper coöperating with each pair of needles for forming loops connecting the needle loops, a thread guide coöperating with each pair of needles above the work support for forming loops connecting the lines of stitching produced by the respective pairs of needles, independent means for pivotally supporting said thread guides, the pivot for each thread guide being disposed centrally in rear of the pair of needles with which its coöperates.

5. A sewing machine including in combination a plurality of pairs of needles, a thread carrying looper beneath the work support for each pair of needles, a thread guide coöperating with each pair of needles above the work support, a third thread guide coöperating with the inside needles of each pair, the throw of each thread guide being such that two groups of loops are formed and connected by a thread lying in the plane of the body fabric.

[Claims 6 to 8 not printed in the Gazette.]

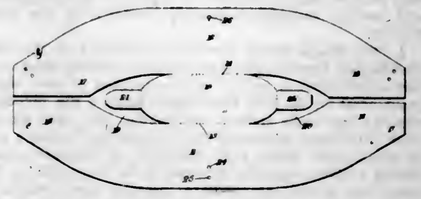
1,210,126. UMBRELLA. CHARLES W. WILSON, New York, N. Y. Filed Dec. 9, 1915. Serial No. 65,882. (Cl. 135—35.)



1. An umbrella having a pair of spaced sight openings formed in the cover thereof and a pair of normally arched sheets of flexible transparent material covering said openings and adapted to nest one within the other and conform to the roll of the cover when the umbrella is closed.

2. An umbrella having a pair of spaced sight openings therein and a normally arched transparent sheet or pane of flexible material for covering each opening, said sheets or panes being adapted to nest one within the other and conform to the roll of the cover when the umbrella is closed.

1,210,127. PAPER BASKET. RALPH A. WOOD, Amsterdam, N. Y., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y., a Corporation of New York. Filed Apr. 29, 1914. Serial No. 835,238. (Cl. 229—30.)



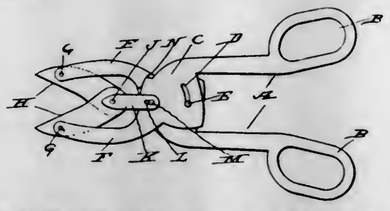
1. A blank for paper baskets, comprising a bottom section and sides joined to the bottom section and having end extensions projecting beyond the ends of the bottom section and adapted to be folded into overlapping arrangement to form the ends of the basket, the blank being provided with substantially V-shaped openings separating said extensions from the ends of the bottom section and forming tabs projecting from the ends of the bottom section.

2. A blank for paper baskets, comprising a bottom section and sides joined to the bottom section and having end extensions projecting beyond the ends of the bottom section and adapted to be folded into overlapping arrangement to form the ends of the basket, the blank being provided with substantially V-shaped openings separating

said extensions from the ends of the bottom section and forming tabs projecting from the ends of the bottom section, said extensions being separated from each other by a narrow opening.

3. A blank for paper baskets comprising a bottom section having curved ends and sides joined to the bottom section and having end extensions projecting beyond the ends of the bottom section and adapted to be folded into overlapping arrangement to form the ends of the basket, said sides having handle openings substantially midway between said extensions and the said extensions of each side section, having handle openings corresponding with the opening or openings of the opposite side section.

1,210,128. SHEARS. CHARLES E. WOOLF, Wynnewood, Pa. Filed Apr. 29, 1916. Serial No. 94,398. (Cl. 30—13.)



1. The shears herein described, consisting of the handles having the finger loops, fulcrum enlargements and arms, the pair of cutting blades pivoted at or near their upper ends to said arms, and links having their outer ends pivoted to the inner ends of said blades and their inner ends movably mounted on the fulcrum of the shears.

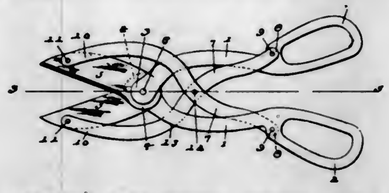
2. The shears herein described, consisting of the handles having the finger loops, fulcrum enlargements and arms, the pair of cutting blades pivoted at or near their upper ends to said arms, and links having their outer ends pivoted to the inner ends of said blades and their inner ends movably mounted on the pivot or fulcrum of the shears, said handles having the fulcrum enlargements limited and guided in their movement by a pin and slot connection.

3. The shears herein described, consisting of the handles having the finger loops, fulcrum enlargements and arms, the pair of cutting blades pivoted at or near their upper ends to said arms, and links having their outer ends pivoted to the inner ends of said blades and their inner ends movably mounted on the fulcrum of the shears, said handles being connected by a pin and slot connection and having shouldered guiding portions on the arms thereof.

4. The shears herein described consisting of the handles having finger loops, intermediate enlarged heads and bifurcated arms, a pair of blades pivoted in said bifurcated arms at or near their upper ends, a pin pivotally securing the inner ends of said blades, and links having their outer ends pivoted to the said pin and having a slot in their inner ends, said intermediate enlarged heads having a pivot engaging the slots in the inner ends of the links, one of the intermediate enlarged heads having a curved slot therein and the other carrying a pin engaging said slot for limiting the opening of the blades, substantially as described.

5. The shears herein described consisting of the handles having finger loops, intermediate enlarged heads and bifurcated arms, said arms being formed with a guiding shoulder, a pair of blades pivoted in said bifurcated arms at or near their outer free ends, a pin pivotally securing the inner ends of said blades, and links having their outer ends pivoted to the said pin and having a slot in their inner ends, the pivot of said intermediate enlarged heads engaging said slots, one of the intermediate enlarged heads having a curved slot therein and the other carrying a pin, said pin engaging the last-named slot for limiting the opening of the blades, substantially as described.

1,210,129. SHEARS. CHARLES E. WOOLF, Wynnewood, Pa. Filed July 10, 1916. Serial No. 108,410. (Cl. 30—13.)



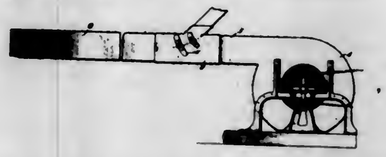
1. The shears herein described, consisting of the handles having finger loops formed on their outer free ends, the pair of cutting blades having their inner ends pivoted to the inner ends of said handles, and a pair of oppositely curved levers connected to said blades at or near their outer free ends and to said handles near their outer free ends.

2. The shears herein described, consisting of the handles having finger loops, the pair of cutting blades having their inner ends pivoted to the inner ends of said handles, and a pair of crossed oppositely curved levers having one end connected at or near the outer free end of said blades and the other connected to said handles at or near their outer free ends.

3. The shears herein described, consisting of the handles having finger loops, the pair of cutting blades having their inner ends pivoted to the inner ends of said handles, and a pair of crossed oppositely curved levers having their ends pivoted to the blades near their outer free ends and to the handles near their outer free ends, said crossed oppositely curved levers being pivoted at their point of intersection.

4. The combination with a pair of cutting blades and handles having a common pivot center, of a pair of crossed levers each pivoted at one end to a cutting blade and at the other end to a handle.

1,210,130. PNEUMATIC CONVEYER. JAMES ALVIN WORSHAM, Maroa, Ill. Filed May 22, 1915. Serial No. 29,807. (Cl. 193—10.)



1. In a pneumatic conveyer, the combination of a tubular casing having an inlet for granular material, a blower associated with one end of said casing, a spout associated with the other end thereof, an adjustable baffle-plate within the casing at the inlet tending to deflect the air current flowing through the casing from the inlet, the end of the baffle-plate in its various operative positions extending beyond the inlet opening in the direction of the air flow within the casing, and means for adjusting the baffle-plate within the casing so that the size of the air passage within the casing can be varied inversely to the size of the inlet for granular material.

2. In a pneumatic conveyer, a tubular casing, means for directing air therethrough, said casing having an inlet for granular material, a baffle plate in the casing at the inlet for directing the granular material coming from the inlet into the casing and for deflecting the air flowing through the casing from the said inlet, said plate having a movable end extending beyond the inlet opening in the various operative positions of the plate, and means for adjusting said end of plate whereby the inlet opening is varied inversely to the cross section of the air passage within the casing at the movable end of said plate.

1,210,131. CONE-CLUTCH LINING. WILLIAM ACHTMEYER, Middletown, Conn. Filed July 10, 1916. Serial No. 108,435. (Cl. 192—8.)



1. As an article of manufacture, a webbing of textile material and gradually denser in texture in a direction transverse to the length of the webbing.

2. As an article of manufacture, a flat straight webbing of textile material and having its texture varying in density in a direction transverse to the length of the webbing.

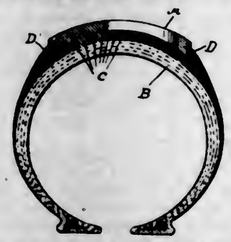
3. As an article of manufacture, a flat straight webbing of textile material and comprising interwoven parallel portions extending lengthwise of the webbing and of different density in the texture.

4. As an article of manufacture, a flat straight webbing of textile material and comprising interwoven parallel portions extending lengthwise of the webbing, one of the portions being close woven and the next adjacent one being less close woven.

5. As an article of manufacture, a flat straight webbing of textile material and comprising interwoven parallel portions extending lengthwise of the webbing, the warp of one outer portion being close and the warp in the next adjacent portion being less close than the first one.

[Claims 6 to 15 not printed in the Gazette.]

1,210,132. TIRE. ISAAC E. ASH, Athens, Ohio. Filed Jan. 10, 1916. Serial No. 71,306. (Cl. 152—14.)

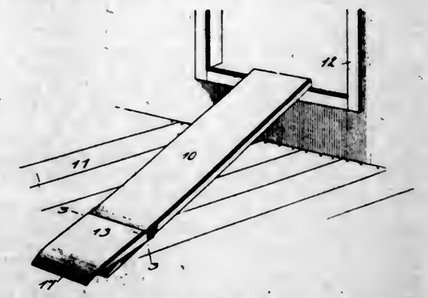


1. A tire of the character described, consisting of the usual fabric carcass and outer rubber tread thereon, an antiskid strip embedded in the outer rubber tread in a tortuous line with continuous return bends, and means for anchoring the antiskid strip in the outer rubber tread consisting of lacings passing through the strip at its successive folds and bends and through the outer rubber tread.

2. A tire of the character described, consisting of the usual fabric carcass having an outer rubber tread thereon, an antiskid strip embedded in said rubber tread in a tortuous line with continuous return bends, and lacings passing through the antiskid strip at its successive folds and bends and through the outer rubber tread longitudinally around the tire, said lacings securely anchoring the strip in the tire.

3. The combination with a tire consisting of the fabric carcass and the rubber tread thereon, of an antiskid strip embedded therein composed of closely woven fiber strands and disposed in said rubber tread in a tortuous line with continuous return bends, and means for anchoring the antiskid strip in the tread consisting of lacings passing through the successive folds and bends of the strip and the rubber tread, said rubber tread being almost flush with the outer sides of the strip to act as a reinforcement.

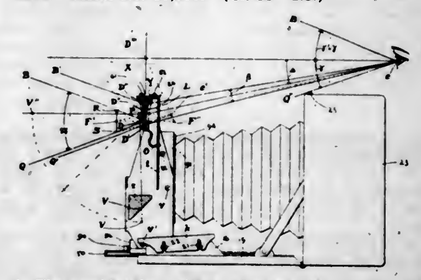
1,210,133. TRUCKING-SKID. ELLINGTON A. BAKER, Mayfield, Ga. Filed May 1, 1916. Serial No. 94,669. (Cl. 57—18.)



1. A skid board having at one end a metallic apron disposed thereon and projecting therebeyond in the direction of the length of the skid, provided with side flanges lapping the side edges of the skid adjacent the said end, a pivot bolt extending through the said flanges and through the skid whereby to permit the apron to automatically adjust itself in use, the said side flanges tapering toward the outer end of the apron and terminating some distance short of the said outer end thereof, and the outer portion of the body of the apron being bent downwardly for the purpose described.

2. A skid having an apron disposed upon and projecting beyond one end thereof and provided with side flanges pivotally connected at the inner end of the apron, to the side edges of said skid, the outer portion of the apron being downturned at a point beyond the end of the skid, for the purpose described.

1,210,134. FINDER. JOSEPH BECKER, Washington, D. C. Original application filed June 4, 1901, Serial No. 63,106. Divided and this application filed Mar. 31, 1916. Serial No. 87,977. (Cl. 88—1.5.)



1. The combination with a photographic camera, of a finder therefor, such finder comprising a divergent lens mounted on the camera with its axis substantially parallel to the axis of the camera lens; also means for directing the line of sight through the central point F' of the finder image and through an eccentric point of the lens.

2. The combination with a photographic camera, of a finder therefor, such finder comprising a divergent lens mounted on the camera with its axis substantially parallel to the axis of the camera lens; also means for directing

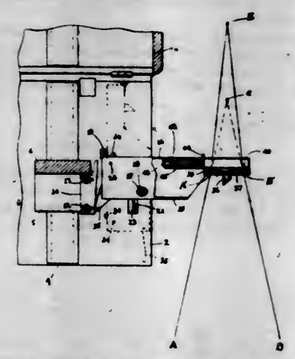
the line of sight through the central point F' of the finder image and through an eccentric point ofthe lens; such directing means consisting in range points located in the region containing the incidental part of the finder rays.

3. The combination with a photographic camera, of a finder therefor, such finder comprising a divergent lens mounted on the camera with its axis substantially parallel to the axis of the camera lens; also means for directing the line of sight through the central point F' of the finder image and through an eccentric point of the lens; such directing means comprising range points, and means for adjusting the relative position of said range points to make the central part of the finder field as nearly as possible identical with the central part of the camera field.

4. The combination with a photographic camera, of a finder therefor, such finder comprising a divergent lens mounted on the camera with its axis substantially parallel to the axis of the camera lens; also means for directing the line of sight through the central point F' of the finder image and through an eccentric point of the lens; such lens being composed of at least two simple lenses, one of which is adapted to be removed to reduce the extent of the finder field for long focus work.

5. The combination with a photographic camera, of a finder therefor, such finder comprising a divergent lens mounted on the camera with its axis substantially parallel to the axis of the camera lens; also means for directing the line of sight through the central point F' of the finder image and through an eccentric point of the lens; said divergent lens being trimmed so as to limit it in size to the eccentrically utilized part thereof.

1,210,135. FINDER. JOSEPH BECKER, Washington, D. C. Original application filed July 8, 1901, Serial No. 67,469. Renewed Jan. 12, 1916, Serial No. 71,809. Divided and this application filed July 20, 1916. Serial No. 110,310. (Cl. 88—1.5.)



1. A photographic finder comprising a minus lens of finite focus adapted to be removed out of the path of the rays that pass through the finder, in order to change the scale of the finder image, or ratio of a linear dimension in the finder image to the same dimension in the object.

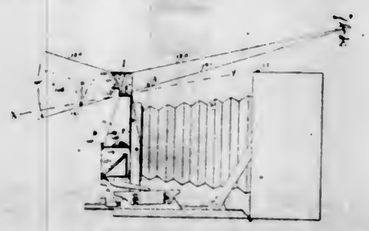
2. A photographic finder comprising a finite focus lens adapted to be removed to change the scale of the finder image, or ratio of a linear dimension in the finder image to the same dimension in the original object.

3. The combination with a photographic finder of means for changing the scale of the finder image, that is the ratio of a linear dimension in the finder image to the same dimension in the original object, substantially as and for the purpose set forth.

4. A photographic finder comprising a centric minus lens of finite focus adapted to be removed out of the path of the rays that pass through the finder, in order to change the scale of the finder image, or ratio of a linear dimension in the finder image to the same dimension in the object.

5. A photographic finder comprising a centric finite focus lens adapted to be removed to change the scale of the finder image, or ratio of a linear dimension in the finder image to the same dimension in the original object.

1,210,136. FOCUS AND FIELD FINDER. JOSEPH BECKER, Washington, D. C. Filed Feb. 17, 1905. Serial No. 246,169. (Cl. 95—44.)



1. As an optical element of focus and field finding means the combination consisting of an eccentric lens having its outer face concave and a prism cemented on such face, said prism having its dioptric cemented face ground to the same curvature as the outer face of the said lens to fit the same and its other dioptric face ground concave to the same curvature.

2. The combination with a camera and an eccentric divergent lens finder, of a sight on the camera to determine one plane of the sighting line, and sights in fixed relation to the finder to determine an intersecting plane.

3. The combination with a camera and its objective having an optical element thereof hinged thereon to permit of turning said element from its position of use into a position of non-use in order to change the focal length of the camera objective and the extent of the camera field, of a finder having an optical element thereof hinged thereon to permit of turning said element from its position of use to a position of non-use in order to produce a similar change in the extent of the finder field.

4. The combination with a camera and its objective having an optical element thereof hinged thereon to permit of turning said element from its position of use into a position of non-use in order to change the focal length of the camera objective, of a finder having an optical element thereof hinged thereon to permit of turning said element from its position of use to a position of non-use in order to change the extent of the finder field, and a link connecting the said hinged finder element with the said hinged objective element to cause the two movable elements to move simultaneously.

5. The combination with a camera objective having an optical element thereof adapted to be moved for the purpose of changing the focal length of the objective, and a finder having an optical element thereof adapted to be moved for the purpose of changing the extent of the finder field, of mechanical connections to cause the said movable elements to move simultaneously.

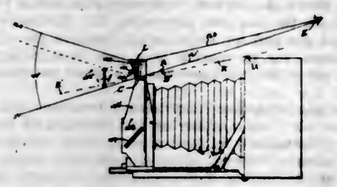
[Claims 6 and 7 not printed in the Gazette.]

1,210,137. FINDER. JOSEPH BECKER, Washington, D. C. Original application filed Feb. 17, 1905, Serial No. 246,169. Divided and application filed Oct. 10, 1916, Serial No. 124,832. Divided and this application filed Nov. 23, 1916. Serial No. 133,093. (Cl. 88—1.5.)

1. The combination with a photographic camera, of a finder mounted thereon consisting of an eccentric lens set with its principal axis inclined with respect to the principal axis of the camera.

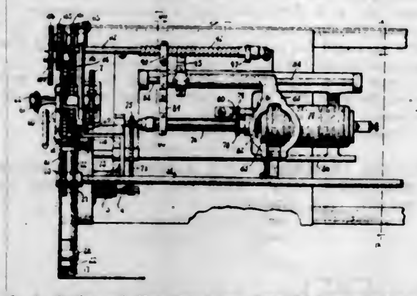
2. The combination with a camera, of a compound eccentric lens finder, such lens having the line joining the optical centers of its elements inclined with respect to the principal axis of the camera.

3. The combination with a camera of a compound eccentric lens finder therefor mounted on the camera so as to admit finder rays distinct from the camera rays that



are directed to enter the camera objective, said finder having one of its elements hinged to permit of turning said element out of the path of the rays through the finder or back into said path.

1,210,138. TALKING-MACHINE. BERNARD BENEDICT, New York, N. Y., assignor to National Talking Clock Company, Jefferson City, Mo., a Corporation of Missouri. Filed Jan. 22, 1915. Serial No. 3,775. (Cl. 274—22.)



1. A device of the character described comprising a phonograph having a reproducer carriage, and power mechanism for feeding said carriage step by step and for restoring said carriage after it has traveled a predetermined number of steps, said power mechanism including an operating wheel, a drive wheel adapted to be driven by said operating wheel so as to restore the carriage and means for causing said drive wheel to partake of the movement of said operating wheel after the carriage has traveled said predetermined number of steps.

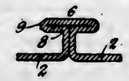
2. A device of the character described comprising a phonograph having a reproducer carriage, and a power mechanism for feeding said carriage step by step and for restoring said carriage after it has traveled a predetermined number of steps, said power mechanism including a gear wheel provided with a projection, a mutilated drive wheel adapted to mesh with said gear wheel so as to restore the carriage, means for locking said mutilated wheel while said carriage is moving step by step, a yieldable member carried by said mutilated wheel and means for shifting said yieldable member into the path of said projection to engage said mutilated wheel with the teeth of said gear wheel after the carriage has traveled a predetermined number of steps.

3. A talking machine having a reproducer carriage, power mechanism for feeding said carriage step by step to a predetermined position, said power mechanism including an operating wheel, and means for transmitting movement from said operating wheel to said carriage so as to advance the latter to said predetermined position, restoring mechanism for returning said carriage after it reaches said predetermined position, said restoring mechanism including a drive wheel associated with said operating wheel, said drive wheel being idle while the carriage is advancing to said predetermined position, and a controlling device for causing said drive wheel to partake of the movement of said operating wheel when the carriage reaches said predetermined position.

4. A talking machine having a reproducer carriage, power mechanism including a master wheel and means for operating said master wheel continuously, means for transmitting movement from said master wheel to said carriage so as to advance the latter step by step to a predetermined position, and restoring mechanism for returning said carriage after it reaches said predetermined position, said restoring mechanism including a drive wheel associated with said master wheel, said drive wheel being idle while the carriage is advancing to said predetermined position, and a controlling device for causing said drive wheel to partake of the movement of said master wheel after the carriage reaches said predetermined position.

5. A talking machine having a reproducer carriage, power mechanism including a master wheel and means for operating said master wheel continuously, means for transmitting movement from said master wheel to said carriage so as to advance the latter step by step to a predetermined position, and restoring mechanism for returning said carriage after it reaches said predetermined position, said restoring mechanism including a drive wheel associated with said master wheel, said drive wheel being idle while the carriage is advancing to said predetermined position, and a controlling device for causing said drive wheel to partake of the movement of said master wheel after the carriage reaches said predetermined position, said controlling device including a controller wheel movable in unison with said master wheel while the carriage is advancing to said predetermined position.

1,210,139. OPENING DEVICE FOR TINS AND SHEET-METAL BOXES. HANS BERGRAF, Stavanger, Norway. Filed June 1, 1916. Serial No. 101,046. (Cl. 220—69.)



1. In a sheet metal receptacle having a wall provided with a weakened, tearing portion integral therewith, an outwardly projecting gripping member integral with said tearing portion and including side walls folded against each other.

2. In a sheet metal receptacle having a wall provided with a weakened, tearing portion integral therewith, a projecting, gripping member formed integral with the said tearing portion and having in itself a weakened part connecting it with the strong part of the said receptacle wall.

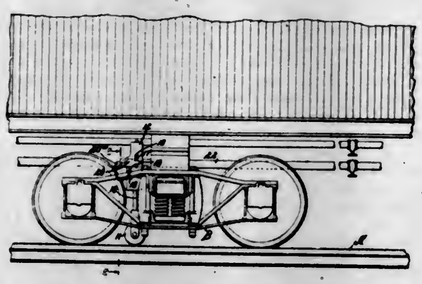
3. In a sheet metal receptacle having a wall provided with a weakened, tearing portion integral therewith, an outwardly projecting gripping member integral with said tearing portion and including side walls folded against each other, said member itself being weakened along a line of its fold.

1,210,140. AUTOMATIC TRAIN-STOP. JAMES BAYARD BLACKSHEAR, Honolulu, Hawaii. Filed June 23, 1916. Serial No. 105,328. (Cl. 188—2.)

1. The combination with a car and its train pipe, of a branch pipe extending laterally from the train pipe to a truck of the car, a fitting mounted on the said truck, a valve on said fitting controlling the said branch pipe to release the air therein, a spring-pressed plunger vertically movable on said fitting and having an element in the lower end adapted to travel on a track rail, and means associated with said valve and plunger to cause an opening of the valve by a depression of the plunger, said means including coacting trip members on the plunger and valve.

2. A train stop including means to establish connection with the train pipe, said means having an outlet, a valve controlling said outlet and detachable under the pressure in the said connection, said valve being mounted to be turned, means detachably retaining the valve in posi-

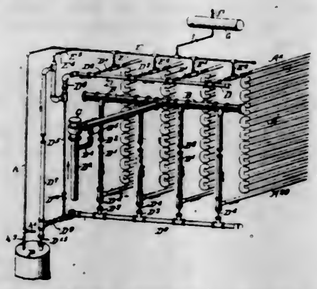
tion against the said pressure, a depressible plunger adapted to run on a track rail, said plunger and valve having co-acting members adapted for engagement by depression of the plunger to turn the valve to a position to disengage said retaining means to cause detachment of the valve by the air pressure thereon.



3. A train stop including a vertically movable plunger adapted to run on a track rail, a spring tending to depress the plunger upon leaving the rail, a lateral arm on said plunger, a valve mounted to turn and having an arm in the path of movement of said plunger, means to establish communication with a train pipe, said means having an outlet controlled by said valve, a bayonet connection between the valve and outlet end of said connection to detachably retain the valve in position, said valve having an arm disposed in the path of the arm on the plunger and being subject to the air pressure at said outlet to detach the valve when turned by the plunger.

4. In a train stop, a fitting having means whereby to secure the same to a car truck, said fitting having a transverse air outlet, and a nipple on said outlet, means to connect the train pipe with said nipple, a cap fitting over the end of said nipple to turn thereon and constituting a valve controlling said outlet, a plunger vertically movable in said fitting and adapted to run on a track rail, a spring tending to depress said plunger, a lateral arm on the plunger, the said fitting having a vertical slot in which the said arm is movable, a spring tending to depress said plunger upon the latter leaving the track rail, the said valve having a lateral arm in the path of the plunger arm, and a lateral pin on the nipple, the said cap having a bayonet slot receiving the said pin.

1,210,141. APPARATUS FOR CONDENSING AMMONIA. LOUIS BLOCK, Mamaroneck, N. Y. Filed Dec. 2, 1912. Serial No. 734,650. (Cl. 257—40.)



1. A gas condenser comprising a plurality of superimposed horizontally arranged pipes having the gas inlet approximately at the bottom and the final liquid discharge outlet above the highest condenser pipe and a trap connected at the top for preventing the discharge of unliquefied gas and for maintaining liquid in the condenser, as and for the purpose set forth.

2. A gas condenser comprising a plurality of superimposed horizontally arranged pipes having the gas inlet approximately at the bottom and the final liquid discharge outlet above the highest condenser pipe and a trap connected at the top for preventing the discharge of unliquefied gas and for maintaining liquid in the condenser and means for preventing back flow of said liquid ammonia out of the inlet passage as and for the purpose set forth.

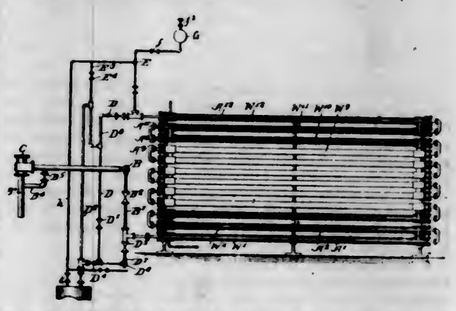
3. A gas condenser comprising a trombone coil having the gas inlet substantially at the bottom and the liquid outlet substantially at the top with means for preventing the discharge forward of unliquefied gas, and a valved drain at the bottom of the condenser to empty the same of liquid when required, in combination with means for showering water over the condenser.

4. In ammonia condensers, trombone coils of pipe, means for introducing the gas near the bottom thereof, means for taking the liquid away near the top, a header connected with the several coils, a trap on the pipe which leads to the liquid away, and means for preventing siphoning of the liquid through the trap, in combination with means for showering water over the coils.

5. In an ammonia condenser, trombone coils of pipes and means for bringing the gas from a higher level to the lowest pipes thereof, in combination with means by the drum "G" at a higher level and a connecting passage for purging the condenser of non-condensable gases, a check valve arranged for positively preventing any return flow, a pipe arranged for taking away the condensed and cooled ammonia at a high point, and a trap to prevent accidental forward flow of uncondensed gas and means for showering water over the coils.

[Claims 6 to 14 not printed in the Gazette.]

1,210,142. CONDENSER FOR AMMONIA. LOUIS BLOCK, Mamaroneck, N. Y. Filed Dec. 2, 1912. Serial No. 734,651. (Cl. 257—40.)



1. A double pipe ammonia condenser comprising a plurality of superimposed horizontally arranged double pipes in the form of an ordinary trombone coil, means arranged to bring the gas from a higher level to a low point in the coils, a check valve for positively preventing any return flow, a passage arranged for taking away the condensed and cooled ammonia, and means for preventing the discharge of uncondensed gas.

2. A double pipe condenser in the form of a plurality of coils side by side, one pipe lying concentrically within the other, a connection for introducing gaseous ammonia at a low point in the inner pipe of each coil, so arranged that it will ascend through the convolutions of the pipe, and means for cooling said gas by the influences of colder water, and means for causing said water to pass in a counter-current to said gas.

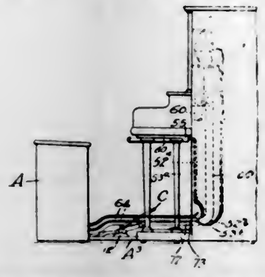
3. A double pipe condenser in the form of a plurality of coils side by side, provisions for introducing gaseous ammonia at the bottom, means for retaining the condensed particles as they ascend and means for agitating them during their passage, by non-condensed gas, in combination with a pipe connecting high and low points arranged for leading downward a portion of the contents of the liquefied gas discharge pipe and introducing it again at the bottom, and a controlling valve and means for operating it to determine the quantity thus used.

4. An ammonia condenser having double tubes arranged one above the other and connected at their ends to form a continuous coil, means for delivering a gas to the lowermost end of said coil of inner tubes from a point above said lowermost end, and means for passing a portion of said condensed gas from the upper end of the coil of inner tubes and means for causing it to enter the lower end of said coil of inner tubes.

5. A double pipe counter current condenser having superimposed tubes, means for introducing gas at the lower end of said condenser and means for passing a portion of the condensed gas from the upper end of said condenser to a point lower than the lowermost end of said condenser, and means for introducing it with the gas at the lowermost end of said condenser as specified.

[Claims 6 to 10 not printed in the Gazette.]

1,210,143. AUTOMATIC PLAYER EXHAUST AND CONTROLLING MECHANISM. CHARLES S. BURTON, Oak Park, Ill. Filed Feb. 8, 1915. Serial No. 6,720. (Cl. 84—233.)



1. A musical instrument player's bench having a chamber under the seat; a pumper and a rotary motor for operating it mounted in said chamber; speed-reducing connections from the motor to the pumper, comprising a crank shaft and a pitman mounted upon the crank thereof and connected with the moving wall of the pumper; said pitman having for said connection with the pumper wall a terminal open toward and in the direction of thrust of the pitman; a pivot stud connected with the pumper wall for moving the same positioned for the lodgment thereon of said terminal; a spring to retract the said moving wall, and means for causing the pitman to be disengaged from said pivot stud.

2. A musical instrument player's bench having a chamber under the seat; a pumper bellows and rotary motor for operating the same mounted in said chamber; a member which is connected operatively with the moving wall of the pumper bellows for operating the same, having a pivot stud projecting for engagement with the pitman, the pitman having an open bearing for engaging said pivot stud, and means for holding the pitman out of engagement with the stud.

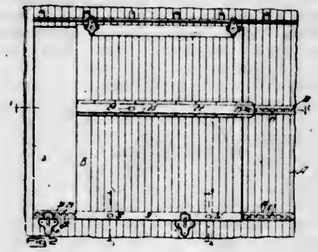
3. A musical instrument player's bench having a chamber under the seat; a pumper bellows and rotary motor for the same mounted in said chamber; operating connections from the motor to the pumper, comprising a crank shaft; a pitman on the crank shaft and a member connected with the moving wall of the bellows for operating the same having a pivot stud which is engaged by the pitman; pedals and operating connections therefrom to the moving wall of the pumper bellows, said pedal connections being adapted for positively operating the moving wall of the pumper bellows in one direction only, and a spring which retracts said moving wall; the pitman having an open bearing for engaging the pivot stud for operating the pumper bellows, and means for causing the pitman to be disengaged from said stud.

4. In combination with a player's bench having a chamber under the seat; a pumper bellows in said chamber; a member hinged at the forward side of the chamber for folding downward forwardly toward horizontal position; a pedal mounted upon the inner side of said member; a lever operatively connected with the pedal mounted on said member; a second lever mounted in the chamber and connections therefrom for operating the pumper bellows, said first mentioned lever having its rear end positioned for engaging under the second mentioned lever when said hinged member is at horizontal position, and a spring for retracting the moving wall of the bellows.

5. In combination with a player's bench having a chamber under the seat; a pumper bellows in said chamber; a member hinged at the forward wall of the chamber for folding down from upright toward horizontal position; a pedal mounted on the inner side of said hinged member; lever connections from the pedal to the moving wall of the pumper bellows for operating the latter in one direction, and a spring for retracting it in the opposite direction, said lever connections comprising one part mounted on the hinged member and another part mounted within the chamber, said two levers having their proximate ends articulated for communication of motion from one to the other only in the direction for operating the moving wall of the bellws in opposition to said spring, said parts being so articulated at a point near to the hinge line of said hinged member.

[Claims 6 to 16 not printed in the Gazette.]

1,210,144. FREIGHT-CAR ATTACHMENT. DANIEL HAYS BUTTS, Freehold, N. J. Filed Mar. 15, 1916. Serial No. 84,318. (Cl. 268—6.)



1. In a freight car, means for the engagement of a door-opening lever, said means comprising an element on the car adjacent to the doorway, said element having a longitudinal series of fulcrum members disposed lengthwise on the car, adapted to be engaged by the end of the lever, and a door having openings transversely therein, said openings being in a position for the lever to be passed through the openings and engage one of said members on the car, a wall of said openings forming a bearing surface for the lever when the latter is in engagement with one of said members.

2. In a freight car, means for the engagement of a door-opening lever, including a longitudinal series of members on the car adjacent to the door opening adapted to afford a fulcrum for the point of the door-opening lever, and a door having openings adapted to permit the passage of the lever, said openings being positioned to be alined with successive members on the car as the door is moved and thereby permit the lever to be engaged in succession with different members.

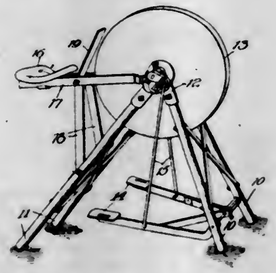
3. In a freight car, means for the engagement of a door-opening lever, said means including a longitudinal series of members on the car on a line adjacent to the bottom line of the door, and a second longitudinal series of members on the car above the first series, each of said members being adapted to constitute a fulcrum for the end of a lever, said door having openings therethrough adapted to permit the passage of the lever to engage the members of either of said series, the openings being posi-

tioned to pass in succession in front of and in line with the respective car members as the door is moved.

4. In a freight car, means for the engagement of a door-opening lever, said means including a longitudinal series of members on the car, each adapted to constitute a fulcrum for the point of the lever, said members being disposed in a line at one side of the door opening near the bottom and continuing across the bottom of said opening, the door having openings extending therethrough and so located as to be brought in succession in front of said members as the door is moved by the lever, a second longitudinal series of members on the car above the first series, and at one side of the door opening, each adapted to constitute a fulcrum member for the point of the lever, and an element on the car door and projecting beyond the adjacent vertical edge of the door to overlap said last-mentioned series of members on the car when the door is closed, said door element having an opening in line with the adjacent car members, walls of the openings in said element forming bearing surfaces for the lever when the latter is engaged with an adjacent fulcrum member.

5. In a freight car, means for the engagement of a door-opening lever, said means comprising a longitudinal series of members on the car at a side of the door opening, and an element on the car door and projecting laterally beyond the adjacent vertical edge of the door to overlap said series of members on the car when the door is closed, said door element having an opening in line with the adjacent car members and walls of the said opening forming bearing surfaces for the lever when the latter is entered through the opening and engaged with an adjacent fulcrum member on the car.

1,210,145. FOLDING GRINDSTONE - FRAME. LAWRENCE V. CALHOUN, Glenellyn, Ill., assignor to Sears, Roebuck & Company, Chicago, Ill., a Corporation of New York. Filed Sept. 7, 1916. Serial No. 118,905. (Cl. 51—7.)



1. In combination, a hinge member and bearing support for a folding grindstone frame, comprising a pair of pivoted leg members having seat portions adapted to embrace a cylindrical bearing bushing arranged on the opposing faces of their upper ends, and a bushing lying in the seat formed by the said portions, whereby downward pressure upon the bushing will cause the latter to be grasped by the seat portions.

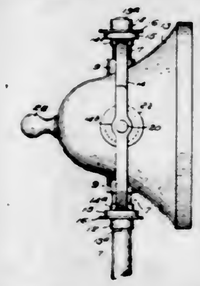
2. A hinge member and bearing support for a folding grindstone frame and comprising a pair of leg members hinged together intermediate their lengths, the said members having seat portions adapted to embrace a bearing bushing arranged on the opposing faces of their upper ends and extending around more than 180° of the periphery of the bushing, and a bushing lying in the said seat portions, whereby downward pressure upon the bushing will cause the latter to be grasped and locked in place by the seat portions.

3. A hinge member and bearing support for a folding grindstone frame and comprising a pair of leg members, a pivot bolt securing said leg members in hinged relationship, means for limiting the relative movement of said leg sections, bearing seat portions carried by said legs above said pivot bolt, and a cylindrical bearing bushing mounted in said seat, the relative movement of said leg members being sufficient to permit them to grasp the said bushing.

4. In combination a bearing support having a cylindrical bearing seat therein, and a bearing bushing mounted for rotation in the said seat, the said bushing having its internal bore eccentric to its outer cylindrical surface.

5. A hinge member and bearing support for a folding grindstone frame and comprising, in combination, a pair of leg sections, a non-circular lug formed on one of said sections, and a mating recess formed in the opposite section, said lug and recess fitting loosely to permit a limited hinging movement of the two sections, a pivot bolt securing the two sections together and holding the said lug in engagement with the said recess, quadrant-shaped cylindrical seats arranged facing one another on the upper ends of said leg-sections, and an eccentrically bored bearing bushing mounted in the said seats.

1,210,146. AUTOMOBILE-LAMP. CARLTON W. CANFIELD, Brownton, Minn. Filed July 1, 1915. Serial No. 37,498. (Cl. 240—41.)



1. In an automobile lamp, the combination of a supporting frame, a lamp body carried by said supporting frame, spring connections intermediate said frame and said lamp body for automatically restoring said lamp body into a predetermined position from which it may be displaced by hand, and adjusting means whereby the normal position assumed by the lamp body may be changed.

2. An automobile lamp, comprising a yoke, a gimbal ring movable relatively to said yoke, a spring connection between said gimbal ring and said yoke, a lamp body journaled upon said gimbal ring, and a spring connection between said lamp body and said gimbal ring.

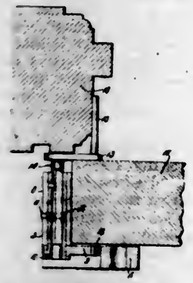
3. A device of the character described, comprising a yoke, a gimbal ring mounted to turn relatively to said yoke, a spring connection between said gimbal ring and said yoke for the purpose of restoring said gimbal ring to a predetermined position relatively to said yoke, a lamp body journaled upon said gimbal ring, a spring connection between said lamp body and said gimbal ring, and mechanism operable at the will of the operator for adjusting said spring mechanism between said gimbal ring and said yoke in order to cause said gimbal ring to normally assume a predetermined position relatively to said yoke.

4. A device of the character described, comprising a yoke, a gimbal ring movable relatively to said yoke, a lamp casing journaled upon said gimbal ring, a spring connection between said lamp casing and said gimbal ring, and mechanism controllable at the will of the operator for adjusting said spring connection in order to confer upon said lamp casing a tendency to normally assume a predetermined position relatively to said gimbal ring.

5. A device of the character described, comprising a standard, a yoke mounted thereupon and having substantially a crescent form, the general plane of said yoke being vertical, a gimbal ring journaled upon said yoke and free to swing in a horizontal plane, a lamp casing journaled upon said gimbal ring and adapted to swing in a vertical plane, a spring connection between said lamp casing and said gimbal ring, and another spring connection between said gimbal ring and said yoke.

[Claims 6 to 8 not printed in the Gazette.]

1,210,147. DOOR-SCRIBER AND GAGE. ERNEST CEDERBERG, New York, N. Y. Filed Mar. 25, 1916. Serial No. 86,593. (Cl. 33—194.)



1. In a tool of the class described, a frame having a pair of walls at right angles to each other, a marker arm mounted to revolve in one of the walls, a marking point carried by said marker arm, a crank, means coupling the crank to the arm so that it is constrained to revolve with the marker arm but is free to move to and from the marker arm, and a pin projecting from the crank in a direction away from the marker arm and disposed to aline with the marking point of the arm.

2. In a tool of the class described, a frame having a pair of walls disposed at right angles to each other, one of said walls having an arcuate cut-out adjacent the other wall, a sleeve mounted to revolve in the other wall, the axis of rotation of said sleeve being in the plane of said wall and substantially in the center of curvature of said cut-out, a marker arm in said cut-out secured to the sleeve so as to participate in the rotary movement thereof, means preventing an axial displacement of said sleeve in the wall, a shaft mounted to slide within said sleeve and constrained to revolve therewith, and a crank connected to the shaft to participate in the movement thereof and in a plane with the marker arm.

3. In a tool of the class described, a frame having a pair of walls disposed at right angles to each other, one of said walls having an arcuate cut-out, a sleeve mounted to revolve in the other wall, the axis of rotation of said sleeve being in the plane of the wall and substantially in the center of curvature of said cut-out, a marker arm in said cut-out secured to the sleeve to participate in the rotary movement thereof, a marking point on said arm, means permitting said shaft to slide in the sleeve but preventing the rotatory movement thereof relative to the sleeve, a crank mounted to participate in the movement of the shaft, and a crank pin extending from the crank in a direction away from the marker arm and disposed to aline with the marking point.

4. In a device of the class described, a frame having a pair of walls disposed at right angles to each other, one of said walls having an arcuate cut-out, a marker arm in said cut-out mounted to revolve in the plane of said wall, a crank, and means associated with the other wall for coupling the crank to the arm so that said crank is constrained to rotate with said arm but is free to move to and from said arm, said coupling means adapted to maintain said crank and arm in a plane with the marker arm.

5. In a tool of the class described, a revoluble marker arm, a crank spaced from said arm, and means coupling the arm to the crank so that said crank is constrained to rotate with said arm but is free to move to and from said arm, said coupling means maintaining said crank and arm in a common plane, the effective radius of said arm and crank being substantially the same.

[Claims 6 and 7 not printed in the Gazette.]

1,210,148. SHOE-SOLE CUTTER. ERVIN CESAR, Ponca City, Okla., assignor to Progressive Shoe Machinery Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 8, 1916. Serial No. 96,176. (Cl. 164—70.)



1. In a leather working machine, the combination with a support, of a pair of coöperating rotary disks having circular cutting edges, each of said disks having a flat face, which faces contact, and having also a series of serrations for engaging the material to feed it between the disks and means for rotating the disks in opposite directions.

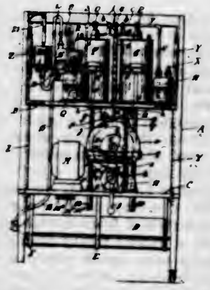
2. In a leather working machine, the combination with a support, of a pair of coöperating rotary disks having circular cutting edges, one of said disks having a beveled serrated face remote from the other disk and the other of said disks having a serrated peripheral face extending at right angles to the face thereof which is adjacent to the other disk and means for rotating the disks in opposite directions.

3. In a leather working machine, the combination with a support, of a pair of coöperating rotary disks having circular cutting edges, one of said disks having a beveled serrated face remote from the other disk and the other of said disks having a serrated peripheral face extending in angular relation to the face thereof which is adjacent to the other disk and means for rotating the disks in opposite directions.

4. In a leather or rubber cutting machine, the combination of a circular cutter having a smooth face above coöperating with a circular cutter having a smooth face below, each cutter being corrugated so as to feed the leather or rubber between the cutting edges.

5. In a leather working machine, the combination with a support, of a pair of coöperating rotary disks, which disks overlap and have flat contacting faces, the adjacent edges of the disks being circular and unbroken, one of said disks having a peripheral face extending at right angles to the aforementioned face thereof and provided with serrations which terminate short of said aforementioned face and the other of said disks having a plurality of radial ribs on the face opposite to its flat face, which ribs terminate short of the edge of the disk and means for rotating the disks in opposite directions.

1,210,149. APPARATUS FOR ARTIFICIAL RESPIRATION. WALTER G. CLARK, New York, N. Y. Filed Dec. 26, 1912. Serial No. 738,661. (Cl. 128—13.)



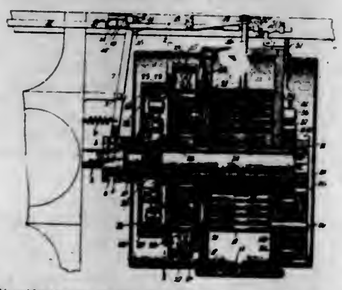
1. Power driven apparatus for producing artificial respiration, comprising a pressure pump, an exhaust pump, a variable speed motor operatively connected to actuate said pumps, said operative connections including adjustable means for varying the stroke of said pumps, a com-

mon connection adapted to communicate with said pumps, means for alternately connecting said pumps to said common connection, and an automatic gear actuated by a moving part of the operative connections between the motor and the pumps for controlling the operation of said alternate connecting means.

2. Power driven apparatus for producing artificial respiration, comprising a pressure pump, an exhaust pump, a variable speed motor operatively connected to actuate said pumps, said operative connections including adjustable means for varying the stroke of said pumps, a common connection adapted to communicate with said pumps, means for alternately connecting said pumps to said common connection, and an automatic gear actuated by a moving part of the operative connections between the motor and the pumps for controlling the operation of said alternate connecting means, said automatic gear including means for adjusting the gear to variably time the operation of the pumps.

3. Power driven apparatus for producing artificial respiration, comprising a pressure pump, an exhaust pump, a variable speed reversible motor operatively connected to actuate said pumps, said operative means including adjustable means for varying the stroke of said pumps, a common connection adapted to communicate with said pumps, means for alternately connecting said pumps to said common connection, an automatic gear actuated by a moving part of the operative connection between the motor and the pumps for controlling the operation of said alternate connecting means, and means for alternately reversing the motor, said reversing means being controlled by a moving part of the apparatus in accordance with the operation of the pumps.

1,210,150. STARTING APPARATUS FOR INTERNAL-COMBUSTION ENGINES. WILLETT FLETCHER CLARK, Pine Bluff, Ark. Filed July 25, 1911, Serial No. 640,448. Renewed Nov. 4, 1915. Serial No. 59,699. (Cl. 123—187.)



1. Starting apparatus for internal combustion engines, comprising a motor, a rotary member operated by said motor, centrifugally-operated friction shoes connected to said rotary member, a second rotary member mounted to have movement relative to the first rotary member, and means for connecting said second rotary member to the crank-shaft of the engine, whereby, when the motor is thrown into operation, the friction shoes thereof will transmit motion from the first member to the second member to rotate the crank-shaft.

2. Starting apparatus for internal combustion engines, comprising a motor, a rotary member operated by said motor, centrifugally-actuated friction shoes mounted upon said rotary member, a second rotary member, and clutch means for connecting said second rotary member to the engine crank-shaft, whereby, when the motor is thrown into operation, the first member will transmit motion to the second member through the friction shoes, to set the crank-shaft into operation.

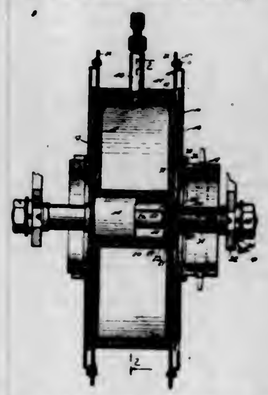
3. Starting apparatus for internal combustion engines, comprising a spring motor, means for transmitting motion from said motor in one direction, to rotate the engine crank-shaft, centrifugal means actuated by the crank-shaft when the speed of the same reaches a certain value, to transmit motion from the crank-shaft to the motor to rewind the same, and means connected to the motor spring and actuated thereby when the operation of rewinding is finished, to disengage the crank-shaft and the motor.

4. Starting apparatus for internal combustion engines, comprising a spring motor, means for transmitting motion from said motor in one direction, to rotate the engine crank-shaft, centrifugal means actuated by the crank-shaft when the latter speeds up to transmit motion to the motor spring to rewind the same, means actuated by the motor spring when the operation of rewinding is finished, to disengage the crank-shaft from the motor spring, and means for locking the spring when the rewinding is finished.

5. Starting apparatus for internal combustion engines, comprising a spring motor, means for connecting the same to the crank-shaft, said means comprising a transmission mechanism for rotating the crank-shaft in one direction, a clutch for connecting said crank-shaft and said means together, means mounted upon said first-named means and actuated by centrifugal force when the speed of the crank-shaft increases, to rewind the motor spring, and means connected to the motor spring and actuated there by to throw out the clutch and disengage the crank-shaft from the motor when the rewinding of the spring is finished.

[Claims 6 to 20 not printed in the Gazette.]

1,210,151. VEHICLE-WHEEL HUB. PAUL DE PFEFFER, Kelowna, British Columbia, Canada. Filed Jan. 21, 1915. Serial No. 3,651. (Cl. 152—41.)

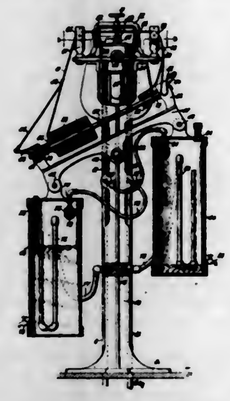


1. In a vehicle wheel hub, a hub section, a casing disposed around the hub section and spaced therefrom, the casing having sides spaced apart, a cushioning member disposed within the sides and between the hub section and the casing, and disks secured to the hub section disposed at the inner side of the sides of the casing and extending to the outer edge of the cushioning member for engaging the outer sides of the cushioning member to support the latter and for guiding the casing to which the spokes are normally secured.

2. In a vehicle wheel hub, a hub section, a casing disposed around the hub section and spaced therefrom, the casing having sides spaced apart, a cushioning member disposed within the sides and between the hub section and the casing, disks secured to the hub section disposed at the inner side of the sides of the casing and extending to the outer edge of the cushioning member for engaging the outer sides of the cushioning member to support the latter and for guiding the casing to which the spokes are normally secured, and ball bearings disposed between the sides of the casing and the disks.

3. In a vehicle wheel hub, a spindle, a hub section disposed around the spindle and spaced therefrom, the hub section having inner threads adjacent its ends, bearing members disposed within the hub section and having outer threads meshing with the threads on the hub section, cones mounted on the spindle and disposed at the outer sides of the bearing members, a casing disposed around the hub section and having sides, a cushioning member disposed between the sides of the casing to normally engage the hub section and the casing, and radial disks secured to the bearing members and extending substantially to the outer edge of the cushioning member, the disks being disposed within the sides of the casing for supporting the cushioning member and for holding the outer casing in position.

1,210,152. PUMP. GEORGE DORFFEL, Oakland, Cal. Filed Mar. 30, 1916. Serial No. 87,716. (Cl. 103—8.)



1. In a pump, a plurality of partially submerged tubular members, air operated means in each of said tubular members for controlling the flow of water therefrom, an oscillating valve for controlling the air admitted to said tubular members, a pair of feed pipes for driving air from said valve into said tubular members for alternately supplying and exhausting the air, and means for moving said valve so that compressed air will be alternately supplied to said air pipes and alternately exhausted therefrom, said means comprising a pivotally mounted beam, a member for connecting the opposite ends of said beam to said valve so that when the beam is moved to one position the valve will be turned to a corresponding position and when the beam is moved to the other position the valve will be turned to its opposite position, a pair of buckets pivotally connected to said beam, tubular members connecting said buckets so that the contents of one bucket may pass into the opposite bucket, a by-pass connected to said buckets and to the first mentioned air pipes whereby when the first mentioned air pipes are being exhausted a corresponding bucket will be exhausted and when the air pipe contains air under pressure some of the air will move into one of the buckets for forcing the liquid therein into the other bucket for overbalancing the lever and thereby turning the valve.

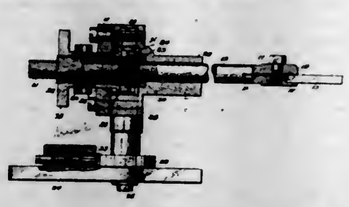
2. In a pump of the character described, a pair of tubular members having the lower ends submerged in water, part of said lower ends being perforated for allowing the water to enter the members, an upwardly opening check valve arranged in each of the tubular members above the apertures therein, a discharge outlet member arranged above said valve, a division member arranged above each of said discharge outlet members, each of said division members having a passageway therethrough, a plurality of uprights connected with said division members and acting as a guide, a float arranged within said guide, said float being formed with a packing on the lower end adapted to rest against said division member and closing the passageway therein after a predetermined amount of water has been forced from the tubular members, upwardly opening check valves in the discharge members for preventing the return of the water passed therethrough, and means for alternately supplying and exhausting compressed air in the upper part of each of the tubular members.

3. In a pump of the character described, water elevating means, a valve for supplying at different times compressed air to said means, a mechanism for swinging said valve from one position to another, said mechanism comprising a walking beam, means for connecting the walking beam with the valve so that the valve will be turned upon each movement of the walking beam, a bucket pivotally connected to each end of said walking beam, a liquid weight arranged in one of said buckets, a pipe connecting said buckets together so that said liquid may be forced from one bucket to the other so as to overbalance said walking beam and thereby shift said valve, and means connecting the outlet ports of said valve with said buckets so that the lower bucket may receive air under pressure for forcing the liquid into the other bucket, and a sliding weight associated with the walking beam for assisting said buckets by giving a quick turning movement to the walking beam after the same has reached a substantially horizontal position.

4. In a pump of the character described, a pumping mechanism adapted to be partially submerged in water, a valve for directing air to said pumping mechanism for operating the same, a pair of pipes for leading the air from the valve to the pumping mechanism, said valve when in one position supplying compressed air to one of the pipes and exhausting the other, when in the opposite position, the operation being reversed, and means for moving said valve from one position to the other, said means comprising a walking beam, flexible means connecting said walking beam with the valve so that when the walking beam is moved from one extreme position to the other the valve will be correspondingly moved, a closed bucket or container pivotally mounted at each end of said walking beam, one of said buckets being adapted to contain a predetermined quantity of liquid, means defining a by-pass for each of the buckets extending from the air supply pipes to the pumping mechanism to the respective buckets so that the bucket containing the liquid will be supplied with air under pressure simultaneously with part of the pumping mechanism and thereby cause the empty bucket to become filled and overbalance the walking beam which automatically reverses the valve and thereby the air supply to all parts of the device so that the action is repeated.

5. In a pump of the character described, a pumping mechanism arranged to be partially submerged, a pair of air pipes leading to said mechanism, a valve for alternately supplying and exhausting said air pipes whereby the pumping mechanism will operate alternately, and means for moving said valve from one position to the other for causing an alternate supply of air to be turned on to said pipes, said means comprising a pivotally mounted walking beam, a member connecting the ends of said walking beam with the valve so that when the walking beam is moved from one extreme position to the other the valve will be likewise moved, a container pivotally mounted at each end of said walking beam, one of said containers being adapted to contain a predetermined quantity of liquid, means defining a by-pass from said air pipes to said containers, there being an independent by-pass for each container, the respective by-passes communicating with different air pipes whereby the containers are supplied with air and exhausted simultaneously with the air pipes, and means providing a communication between the containers for directing the water from one container to the other when air is forced into the container carrying the liquid, thus causing the containers to alternately overbalance the walking beam and thereby automatically shift at predetermined intervals the valve from one position to the other.

1,210,153. TOOL-POST FOR PEARL-BUTTON MACHINES. PAUL F. DUSHA and ANTON FEYK, New York, N. Y., assignors to Holub-Dusha Company, New York, N. Y., a Corporation of New York. Filed July 5, 1916. Serial No. 107,547. (Cl. 79—7.)



1. A tool post comprising a supporting structure, a tool bar slidably mounted thereon and having a threaded portion, a sleeve having an internal threaded connection with the said threaded portion of the tool bar, a wheel surrounding the sleeve, there being surfaces on the wheel and sleeve for clutching the two together by relative longitudinal movement, means for moving the wheel into and out of clutching engagement with the sleeve, means for intermittently turning the wheel, and a manually actuated element adapted to be connected with the sleeve when the wheel is unclutched therefrom for permitting the sleeve to be manually turned.

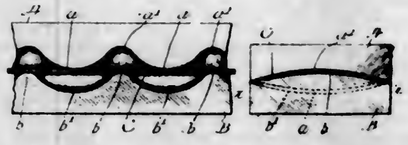
2. A tool post for a button machine comprising a support, a plate pivoted intermediate its ends on the support and having a longitudinal channel, means for clamping the plate on the support, a tool bar slidable in the channel and having means for gripping a tool, a cap plate extending across the channel and fastened to the first-mentioned plate and under which the tool is disposed, and adjustable means mounted on the plates for engaging the tool adjacent its cutting end.

3. A tool post comprising a supporting structure, a tool bar slidably mounted thereon and having a threaded portion, a sleeve having an internal threaded connection with the tool bar and also having an external thread, a gear wheel surrounding the sleeve, there being surfaces on the gear wheel and sleeve for clutching the two together by relative longitudinal movement, a jam nut threaded on the sleeve and engageable with the gear wheel for clutching and unclutching the latter with respect to the sleeve, an element meshing with the gear wheel for turning the same intermittently, and means for periodically operating the element.

4. A tool post comprising a supporting structure, a tool bar slidably mounted thereon and having a threaded portion, a sleeve having an internal threaded connection with the tool bar and also having an external thread, a gear wheel surrounding the sleeve, there being surfaces on the gear wheel and sleeve for clutching the two together by relative longitudinal movement, a jam nut threaded on the sleeve and engageable with the gear wheel for clutching and unclutching the latter with respect to the sleeve, an element meshing with the gear wheel for turning the same intermittently, and a ratchet and pawl mechanism for actuating the element at a certain point in the travel of the tool post.

5. A tool post comprising a supporting structure, a tool bar slidably mounted thereon and having a threaded portion, a sleeve having an internal threaded connection with the tool bar and also havingg an external thread, a gear wheel surrounding the sleeve, there being surfaces on the gear wheel and sleeve for clutching the two together by relative longitudinal movement, a jam nut threaded on the sleeve and engageable with the gear wheel for clutching and unclutching the latter with respect to the sleeve, an element meshing with the gear wheel for turning the same intermittently, means for periodically operating the element, and a handwheel loosely threaded on the sleeve and arranged to be clamped thereto by the said nut when the latter is released from clutching engagement with the gear wheel.

1,210,154. PROCESS OF AND MEANS FOR MAKING RUBBER-TIRE ARTICLES. JOHN L. G. DYKES, Chicago, Ill. Filed Jan. 29, 1914. Serial No. 815,174. (Cl. 154—12.)



1. The process of making a rubber tire article for vehicle wheels from previously prepared sheet material, which comprises the molding of said article by the distortion of said material in a substantially flat or spread out condition thereof, but with resilient compound curves or undulations therein, thus forming alternate elevations and depressions along the tread, and then reversing one or more of said curves by flexing the material to cause the article to assume and thereby retain the shape necessary for the tread of the wheel.

2. The process of making a rubber tire article for vehicle wheels, from previously prepared sheet material, which comprises the molding of said article by the distortion of said material in a substantially flat or spread out condition thereof, but with resilient compound curves or undulations therein, thus forming alternate elevations and depressions along the tread, and then reversing one or more of said curves by flexing the material to cause the article to assume and thereby retain the shape necessary for the tread of the wheel, said molding operation also involving the stretching of the sheet material along the longitudinal center of the article, but not along the sides thereof, to insure the formation of substantially straight edges for said article, whereby the pressing outward of every other curve causes the said edges to move toward each other.

3. The process of making a rubber tire article for vehicle wheels, which comprises the molding of said article in a substantially flat or spread out condition, but with resilient compound curves or undulations therein, thus forming alternate elevations and depressions along the tread, and then reversing one or more of said curves by flexing the material to cause the article to assume and thereby retain the shape necessary for the tread of the wheel, serving also to place the tread portion under tension, said molding operation also involving the stretching of some portion of the sheet material and the formation of substantially straight edges for the sides of said article, whereby the subsequent pressing outward of one or more curves to complete the process causes the article to assume the curve of the wheel.

4. The process of making a rubber tire article for vehicle wheels, which comprises the molding of said article in a substantially flat or spread out condition, but with resilient compound curves or undulations therein, thus forming alternate elevations and depressions along the tread, and then reversing one or more of said curves by flexing the material to cause the article to assume and thereby retain the shape necessary for the tread of the wheel, the said molding operation being preceded by the superimposing of layers of plain sheet material in the plane of said operation, said molding operation involving the distortion of said layers to produce said curves or undulations therein.

5. A mold for making rubber articles from flat strips, comprising members formed with opposing surfaces, each surface having alternate depressions and elevations to distort the strips between the side edges thereof, the elevations of one member being opposite the depressions of the other member, and said depressions and elevations being disposed between and terminating at their opposite ends on lines which, when viewed from the side, intersect all said elevations and depressions, thereby to prevent longitudinal stretching of said edges.

[Claims 6 and 7 not printed in the Gazette.]

1,210,155. RUBBER-TIRE ARTICLE. JOHN L. G. DYKES, Chicago, Ill. Original application filed Jan. 29, 1914, Serial No. 815,174. Divided and this application filed Apr. 24, 1916. Serial No. 93,090. (Cl. 154—52.)

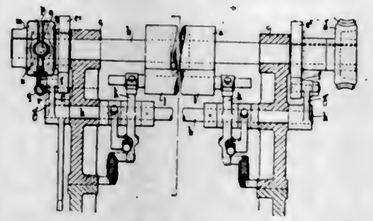


1. A rubber tire article comprising a strip of rubber and fabric of a length suitable for the particular use to be made thereof, said strip having straight edges at the sides thereof, and having a transversely corrugated tread portion extending along the strip between said edges, the depressions on the outer surface of the strip forming the elevations on the inner surface thereof, whereby said strip is convertible into a tire or some element thereof by outward displacement of the elevations on said inner surface, said corrugations being capable of retaining themselves in said displaced condition.

2. A rubber tire article comprising a strip of rubber and fabric of a length suitable for the particular use to be made thereof, said strip having straight edges at the sides thereof, and having a transversely corrugated tread portion extending along the strip between said edges, the depressions on the outer surface of the strip forming the elevations on the inner surface thereof, whereby said strip is convertible into a tire or some element thereof by outward displacement of the elevations on said inner surface, said corrugations being capable of retaining themselves in said displaced condition, and said corrugations being of maximum height at the center of the strip and gradually becoming less toward the sides.

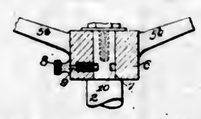
3. A rubber tire article comprising a strip of rubber and fabric of a length suitable for the particular use to be made thereof, said strip having straight edges at the sides thereof, and having a transversely corrugated tread portion extending along the strip between said edges, the depressions on the outer surface of the strip forming the elevations on the inner surface thereof, whereby said strip is convertible into a tire or some element thereof by outward displacement of the elevations on said inner surface, said corrugations being capable of retaining themselves in said displaced condition, said strip comprising superimposed layers of rubber and fabric, with sections of the rubber held under tension by said outward displacement of certain of the corrugations.

1,210,156. INKING MECHANISM FOR PRINTING MACHINERY. THOMAS FRANK ELSWORTH, Leeds, England, assignor to George Mann & Company, Limited, Leeds, England. Filed Apr. 2, 1915. Serial No. 18,727. (Cl. 101—71.)



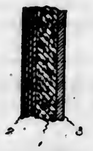
In printing machinery, means for varying the dwell of a vibrating roller on an ink fountain roller, comprising in combination a continuously rotating driving shaft, an ink fountain roller fixed to said shaft, a cam positively secured to one end of said shaft, a second cam loosely mounted on said shaft, a train of wheels adapted to rotate said cam relatively to said shaft in a direction opposite to the direction of rotation of said shaft, one of said wheels being secured to said shaft and another of said wheels being held by a member adjustable about the axis of said shaft, means in a fixed position relatively to the machine for adjusting said member, a rocking shaft, a vibrating roller carried by arms on said rocking shaft and means for rocking said shaft actuated by both said cams, as set forth.

1,210,157. STEERING-WHEEL. JAMES MURRAY FAHNESTOCK, Pittsburgh, Pa. Filed Dec. 11, 1913. Serial No. 805,962. (Cl. 74—33.)



In an automobile, a driver's seat, a steering shaft having a pair of diametrically opposed apertures adjacent the end thereof, a steering wheel mounted on said steering shaft so as to be accessible from said seat, said steering wheel having an eccentric hub, and a pin carrier by said hub and adapted to enter one or the other of said apertures, for the purposes set forth.

1,210,158. METHOD OF MAKING INTERIOR FINISH AND TRIM. SANTO CALOGERO FARANDA, Burnside, Conn. Filed Sept. 7, 1916. Serial No. 118,830. (Cl. 41—17.)



1. The method of finishing walls which consists in applying to a plaster foundation a liquid composition of marble dust, lime and Keene's cement, veining and mottling said composition before it is dry with a pigment, rubbing said pigment into the composition before it is dry, brushing over said painted composition with a solution of lime and water, and polishing the surface down before it dries.

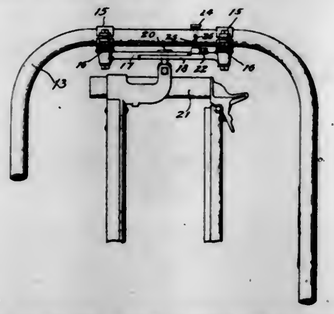
2. The method of treating walls which consists in applying to a base a liquid composition of marble dust, lime and Keene's cement, smoothing the outer surface of said composition after it is set but before it is dry, veining with a brush and mottling with a sponge the surface of said composition before it is dry with a suitable pigment, rubbing said veining and mottling into the composition, applying a solution of lime and water to the veined and mottled surface, and polishing said surface until it is smooth.

3. The method of treating walls which consists in applying to a base a liquid composition of marble dust, lime and Keene's cement, smoothing the outer surface of said composition after it is set but before it is dry, veining with a brush and mottling with a sponge the surface of said composition with a suitable pigment, rubbing said veining and mottling into the composition, applying a solution of lime and water to the veined and mottled surface, troweling said surface until it shines, and finally polishing said surface with wax and turpentine.

1,210,159. ANIMAL-STALL. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed May 4, 1916. Serial No. 95,434. (Cl. 119—27.)

1. In combination, a stall provided with a gutter, a pair of arms each pivoted at its outer end to the stall, the pivots being in a line extending transversely of the stall and the arms having their inner ends overlapping, a stanchion-carrying member supported at the point of intersection of the arms, and means for locking the arms in

a variety of angular positions corresponding to positions of longitudinal adjustments of the stanchion, said means being constructed to be quickly released and locked while an animal is held thereby.



2. In combination, a stall provided with a gutter, a pair of arms pivoted thereto at their outer ends and having their inner ends overlapping and provided with slots, the said pivots lying on a line transversely of the stall, a stanchion, a stanchion-carrying member held in the said slots at their point of intersection, a quadrant carried by one of said arms, and a locking member carried by the stall and adapted for engagement with said quadrant and adapted to release and lock the same quickly to permit of adjustment of the stanchion while an animal is held thereby.

1,210,160. TUBING FOR BORING. EDGARD FRANKIGNOUL, Liege, Belgium. Filed Dec. 2, 1914. Serial No. 875,196. (Cl. 61—13.)



1. Apparatus for boring or sinking holes in soil, comprising in combination, a plurality of telescoping tubes, means for imparting blows to the said tubes, means for distributing the blows to all the tubes so as to sink the came in the collapsed condition into the soil and means for imparting the subsequent blows to the inner tubes so as to extend the same in sequence one after the other until the whole series is fully extended.

2. Apparatus for boring or sinking holes in soil, comprising in combination, a plurality of telescoping tubes, collars secured to the upper ends of said tubes, a detachable ring seating on said collars, an anvil or top piece resting on said ring, and a monkey for imparting blows to the anvil so as to sink the tubes in the collapsed condition into the soil and to subsequently extend the inner tubes one after the other when said ring is removed.

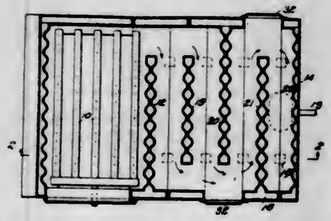
3. Apparatus for boring or sinking holes in soil, comprising in combination, a plurality of telescoping tubes, collars secured to the upper ends of said tubes, a detachable ring seating on said collars when the tubes are in the collapsed condition, an anvil resting on said ring, a monkey for imparting blows to the anvil so as to sink the tubes in the collapsed condition into the soil and to subsequently extend the inner tubes one after the other when said ring is removed, a boring head inserted in the bottom of the innermost telescoping tube and a rod or distance piece between said boring head and the said anvil.

4. Apparatus for boring or sinking holes in soil, comprising in combination, a plurality of telescoping tubes, collars secured to the upper ends of said tubes, a detachable ring seating on said collars when the tubes are in the collapsed condition, an anvil resting on said ring, an annular enlargement on said anvil having an external diameter equal to the diameter of the ring on the tube adjacent the outer tube of the apparatus, a monkey for imparting blows to the anvil so as to sink the tubes in the collapsed condition into the soil and to subsequently extend the inner tubes one after the other when said detachable ring is removed, a boring head closing the bottom of the innermost telescoping tube, a rod or distance piece between said boring head and the said anvil and a rod passing through the interior of the apparatus for guiding the movements of the monkey.

5. Apparatus for boring or sinking holes in soil, comprising in combination, a plurality of telescoping tubes, collars secured to the upper ends of said tubes, a detachable ring seating on said collars during the initial period of the sinking operation and adapted to be subsequently removed, an anvil resting on said ring, an annular enlargement on said anvil which is a working fit in the interior of the outer tube, a monkey for imparting blows to the anvil and through the latter to the upper ends of the tubes so as to sink the tubes as a collapsed unit into the soil and subsequently extend the inner tubes one after the other until the whole series is fully extended, a boring head closing the bottom of the innermost telescoping tube, a rod or distance piece between said boring head and the said anvil and a rod passing through the interior of the apparatus for guiding the movements of the monkey.

[Claim 6 not printed in the Gazette.]

1,210,161. HEATER. LOUIS LAWRENCE GORR, Marshfield, Oreg., assignor of one-half to Abram L. Houseworth, Marshfield, Oreg. Filed Sept. 21, 1915. Serial No. 51,746. (Cl. 122—225.)

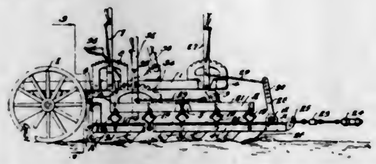


1. A heater comprising a plurality of separable sections, said sections forming a box-like continuous walled chamber, each of said sections having a hollow top and bottom, a vertical hollow end connecting the top and bottom, and a vertical hollow partition wall connecting the hollow top and bottom of each section and in communication with the interior thereof, a heating section at the front end of the heater and having a hollow front wall curved at the top, and a hollow side wall, a generator for heat delivering medium located in said heating section, the said hollow partitions being arranged in said sections to form a sinuous passage around the outside of the partitions, the passage communicating with the heating section and leading therefrom through the sections of the heater to the rear thereof, an outlet for the heat delivering medium leading from the rear of the heater to cause the said medium to circulate in contact with the hollow walls of the sections, means connected with the rear of the heater for supplying a heat absorbing medium to the interior of said hollow sections, an outlet for the heat absorbing medium leading from the said front end section, and means connecting the hollow walls of the sections for controlling the circulation therethrough and to compel the heat absorbing medium to pass vertically through said hollow partitions.

2. A heater comprising a box-like chamber having continuous walls and embodying a plurality of hollow walled sections forming when united horizontally extended transverse sinuous passages disposed in a vertical plane, said sections being grouped to form vertically extended transverse sinuous passages disposed in a horizontal plane; means for circulating a heat-absorbing medium through said first-mentioned sinuous passages, said means embodying an inlet and an outlet for said medium, said inlet and outlet being disposed adjacent the opposite ends of said passages; a heat generator located in said chamber and at the end thereof adjacent the outlet of said heat-absorbing medium; and means for drawing the products of said generator through the second-mentioned passages for transferring the heat to said absorbing medium through the walls forming said passages.

3. A heater comprising hollow-walled front and rear end sections, the front end section forming a heat generating chamber, a heat generator in said chamber, a plurality of hollow walled sections arranged between the end sections and each having a hollow top and bottom, a hollow vertical partition formed of pairs of corrugated walls arranged between the hollow top and bottom and communicating therewith, and a hollow vertical member connecting the top and bottom at one side of the said partition, the said partitions being arranged to form a zigzag passage leading from the heat generating chamber to the rear of the heater, an outlet for the products of the heat generator leading from the rear of said passage, an inlet for heat absorbing medium connected with the bottom of the hollow rear end section, an outlet for said medium leading from the space between the walls of the hollow front end section at the top thereof, and means for connecting the several sections with each other to cause the heat absorbing medium to pass through the hollow walls of the sections from the inlet to the said outlet and for controlling the direction of flow of the medium through the said vertical partitions.

1,210,162. HARROW. GUST GUNDERSON, Mountain Home, Idaho. Filed July 12, 1916. Serial No. 108,928. (Cl. 55—19.)



1. In a harrow of the class described, the combination of a wheeled frame, harrow sections suspended from said frame, forward connecting means for said sections, surface engaging elements secured to said connecting means, and means on the wheeled frame to operate the connecting means for raising or lowering the forward portions of the sections by the surface engaging elements.

2. In a harrow of the class described, the combination of a wheeled frame, harrow sections suspended from said frame, forward connecting means for said sections comprising alined rod sections, a flexible coupling to which the contiguous ends of the rod sections are fixed, and adjusting means connected to the coupling for actuating the rod sections to raise or lower the forward portion of the harrow sections.

3. In a harrow of the class described, the combination of a wheeled frame, harrow sections suspended from said frame, forward connecting means for said sections, surface engaging elements secured to said connecting means, means on the wheeled frame to operate the connecting means for raising or lowering the forward portions of the sections by the surface engaging elements, and means for adjusting the rear portion of the harrow sections upwardly or downwardly.

4. In a harrow of the class described, the combination of a frame, harrow sections, a supporting member on the frame to which the harrow sections are independently connected at their forward portions, a connecting member suspended from the frame to which each harrow section is shiftably connected at its rear portion, and means for rendering the sections rigid with respect to the connecting member.

5. In a harrow of the class described, the combination of a frame, harrow sections, a supporting member on the frame to which the harrow sections are independently connected at their forward portions, a connecting member suspended from the frame to which each harrow section is shiftably connected at its rear portion, means for rendering the sections rigid with respect to the connecting member, and means for adjusting the connecting member to raise or lower the harrow sections.

[Claims 6 to 12 not printed in the Gazette.]

1,210,163. PUMP. GUSTAV E. HAAR, Washington, D. C., assignor of one-half to John H. Stephens, Vernon, Tex. Filed Feb. 25, 1916. Serial No. 80,511. (Cl. 103—62.)



1. In a pump, a casing, a support for the casing, a piston rod in the casing, a sleeve mounted on said support and embracing the lower end of the casing and fixed thereto and provided with a lateral projection, a shaft journaled in said projection, arms secured to the shaft, a cross-head secured to the piston rod, relatively long links pivotally connected to said arms and to said cross-head, and a handle secured to said shaft adjacent one of said arms.

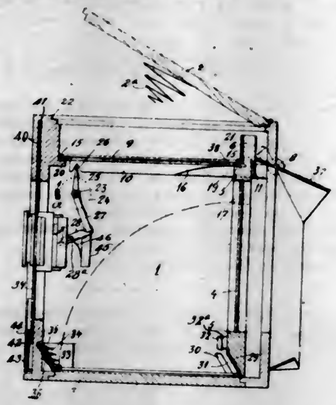
2. In a pump, a casing, a support for the casing, a piston rod in the casing, a sleeve mounted on said support and embracing the lower end of the casing and fixed thereto and provided with a lateral projection, a shaft journaled in said projection, a double-armed lever connected to said shaft, another arm connected to said shaft, a cross-head secured to the piston rod, links pivotally connected to said arms and to said cross-head, and means connected to the double armed lever to rock said shaft to reciprocate said links and said piston rod.

1,210,164. MAGAZINE-CAMERA. JENS PETER HANSEN, Copenhagen, Denmark. Filed May 10, 1912. Serial No. 696,434. (Cl. 95—19.)

1. In a photographic magazine camera, a shutter, a plate carrier, a focusing hood, a movable ground glass frame, and means whereby the shutter, carrier and hood may be operated from the ground glass frame to close the shutter and hood and to swing the carrier in front of the lens frame and after exposure to swing the said carrier in reverse position on the bottom of the camera.

2. In a photographic magazine camera, a movable ground glass frame, plate carriers, and means for operating the carriers from the ground glass frame, each carrier comprising rectangular frames on both sides, said upstanding frames inclosing light excluding strips, the sides of the frames being longer in one direction than the corre-

sponding sides of the plate, whereby the underlying plate will be surrounded by the frame on the underside of the overlying plate, thereby permitting the underlying plate to be displaced without exposure to light.



3. In a photographic magazine camera, a box having grooves on its inner face, a movable ground glass frame having a notch, a plate carrier having at its sides projecting pins resting in the notch of the said frame, means for supporting the front end of the carrier, a fork secured to the frame, and means for operating the frame, said fork having prongs at the ends of its members adapted to engage the pins of the carrier and move them into the said grooves.

4. In a photographic magazine camera, a box having grooves on its inner surface, a movable ground glass frame having a notch, a plate carrier having at its sides pins resting in the notch of the frame, a fork secured to the frame, means for operating the frame, said fork having prongs at the ends of its members adapted to engage the pins of the carrier and to move them into the said groove, a guideway at the bottom of the box in front of the ground glass frame, and spring hooks on the said frame for engaging the pins of the carrier and guiding the pins into the said guideway.

5. In a magazine camera a box having grooves in its inner surface, a movable ground glass frame having a notch, a plate carrier having pins at its sides projecting into the notch of the said frame, means for supporting the front end of the carrier, a member secured to the frame and having prongs adapted to engage the pins of the carrier and move them into the groove, and a rock shaft having an arm engaging the said member to operate it and thereby the frame.

[Claims 6 to 8 not printed in the Gazette.]

1,210,165. NAVIGATOR'S DISTANCE AND BEARING TAKER. EDWARD Y. HASKELL, New London, Conn. Filed June 27, 1916. Serial No. 106,120. (Cl. 33—46.)

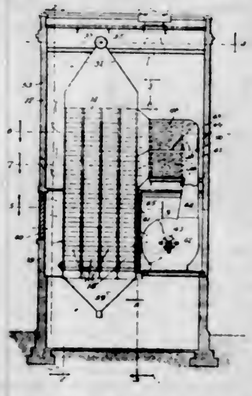
1. In a device of the class set forth, the combination with a ship's binnacle and bearing taking devices mounted for movement around a vertical axis thereon, of a distance finder comprising an arm mounted upon the top of the binnacle and held at a definite angle with respect to the path of the ship but movable forwardly and backwardly, and a marking member journaled for movement around the axis of the bearing taker and adapted to intersect the aforesaid arm at a definite angle whereby the distance of the object will be determined according to the angular movement of the ship with respect to the object during a definite interval of time.

2. The combination with a ship's binnacle and a bearing taker mounted thereon including a vertical rod, of distance finding devices comprising a distance member held in a horizontal plane non-rotarily upon said rod but movable rearwardly in said plane, said distance member including a graduated tongue for determining the displacement of the distance member rearwardly and also including an arm extending at a definite angle laterally from the axis of the tongue, and a marking member journaled for rotation around the fixed axis of the bearing taker and adapted to intersect said arm at a definite angle according to the rearward displacement of the distance member.



3. In a device of the character set forth, the combination with a ship's binnacle and a bearing taker secured thereto and including a vertical axis, of distance finding devices mounted upon said axis, said latter devices including a distance member having two arms arranged at right angles to each other and a pair of tongues extending forwardly midway between said arms, said tongues being graduated forwardly from the point of intersection of the arms to indicate intervals of distance traveled by the ship, and a marking member fitted upon the axis aforesaid, said marking member having a graduated edge coöperating with either distance member arm to indicate directly the distance as determined by the extent of rearward adjustment of the distance member.

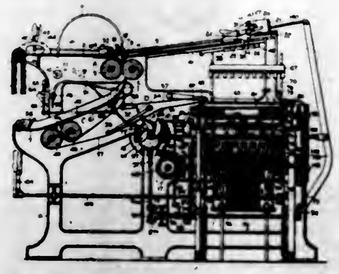
1,210,166. APPARATUS FOR DRYING AND COOLING SUBSTANCES. GEORGE H. HESS, La Grange Park, Ill. Filed Mar. 20, 1915. Serial No. 15,732. (Cl. 34—84.)



1. Apparatus of the character set forth, formed of a rack adapted to permit of the passage of air therethrough, with downwardly inclined plates adapted to support the material introduced into the rack, the inner ends of said plates extending short of the vertical median line of the rack, with the distances between the inner ends of adjacent plates gradually decreasing from the bottom to the top of the rack.

2. In apparatus of the character set forth, the combination of a rack adapted to permit of the passage of air therethrough, with downwardly inclined plates adapted to support the material introduced into the rack, the inner ends of said plates extending short of the vertical median line of the rack, with the distance between the inner ends of adjacent plates gradually decreasing from the bottom to the top of the rack, means providing continuous feed into said rack of material to be dried therein, and means providing for the continuous discharge of the material from the rack at a controlled rate of flow.

1,210,167. NAPKIN-FOLDING MACHINE. WILLIAM HEYER, New York, N. Y. Filed Aug. 6, 1915. Serial No. 43,984. (Cl. 101—152.)



1. In a folding machine, the combination of a device for producing a fold in an article, a chute down which the article slides by gravity, a device for producing a second fold in the article after moving down the chute, an endless conveyer having one end disposed adjacent the second device for receiving the folded article, whereby the latter travels by the upper flight of the conveyer, and means between the first device and chute for shunting the article to an intermediate portion of the upper flight of the endless conveyer when the second folding device is not required.

2. In a folding machine, the combination of a device for producing a fold in an article, a chute down which the article slides by gravity, a device for producing a second fold in the article after moving down the chute, an endless conveyer having one end disposed adjacent the second device for receiving the folded article, whereby the latter travels by the upper flight of the conveyer, means between the first device and chute for shunting the article to an intermediate portion of the upper flight of the endless conveyer when the second folding device is not required, a third folding device for producing a fold in the article transverse to the first fold, a fourth folding device for folding the article with a fold parallel to the fold made by the third device, and means for rendering the fourth folding device inoperative when a second transverse fold is not required.

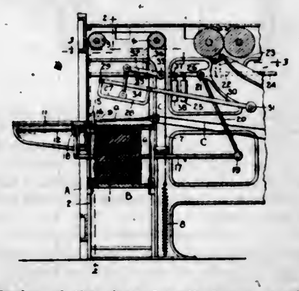
3. A folding machine comprising a frame, a table thereon and having a slot through which is drawn an article to be folded, a feeder movable over the rear portion of the table toward and from the slot, a gage in front of the slot for gaging the positioning on the front part of the table of the article to be folded, said feeder including jaws adapted to automatically open and close to grip and release the article, a stop device for determining the time of opening of the jaws to release the article when over the slot, means at the front of the table for adjusting the position of the said stop, and a holder adjacent the said means for holding the articles to be folded and from which the operator places the articles successively on the table against said gage.

4. A folding machine including a table, a device associated therewith for producing a fold in an article, an inclined chute down which the folded article is adapted to pass by gravity, a second folding device arranged to receive the article from the chute to produce another fold, an endless conveyer for conveying away the article from the second folding device, and a switch at the upper end of the chute for directing the article directly from the first device to the conveyer, said switch being located over an intermediate portion of the endless conveyer, whereby the switch discharges the article on the upper flight of the latter.

5. A folding machine including a folding device, a chute for receiving articles therefrom, an endless conveyer, a pivoted switch at the top of the chute for permitting articles to pass to the chute when the switch is in one position and permitting the articles to pass directly to the conveyer without entering the chute when the switch is in its other position, a second folding device adjacent the bottom of the chute and comprising a pair of rolls, one of which forms the support for one end of the endless conveyer and the upper flight of the endless conveyer passing between the rolls.

[Claims 6 to 11 not printed in the Gazette.]

1,210,168. PILING DEVICE FOR NAPKIN-FOLDING MACHINES. WILLIAM HEYER, New York, N. Y. Original application filed Aug. 6, 1915, Serial No. 43,984. Divided and this application filed Dec. 18, 1915. Serial No. 67,572. (Cl. 101—31.)



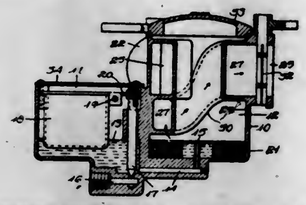
1. A device of the class described comprising a yieldingly mounted vertically movable horizontal follower on which a pile of articles is adapted to be formed, a conveying means for horizontally supplying articles successively on the follower, a horizontal grid overlying the follower or pile thereon and arranged to receive an article from the conveyer, said grid and conveying means being disposed in meeting relation for permitting articles to pass directly to the grid from the conveying means, means for moving the grid parallel with the plane of the article thereon, means for holding the article from moving with the grid, and a device for engaging the article and moving the same out of the plane of the grid to permit the latter to return to its former position for receiving the next article.

2. A device of the class described comprising a yieldingly mounted vertically movable horizontal follower on which a pile of articles is adapted to be formed, a conveying means for horizontally supplying articles successively on the follower, a horizontal grid overlying the follower or pile thereon and arranged to receive an article from the conveyer, said grid and conveying means being disposed in meeting relation for permitting articles to pass directly to the grid from the conveyng means, means for moving the grid parallel with the plane of the article thereon, means for holding the article from moving with the grid, a device for engaging the article and moving the same out of the plane of the grid to permit the latter to return to its former position for receiving the next article, and a device disposed at the side of the grid opposite from the follower and movable toward and from the follower and having members disposed parallel with and engageable between the members of the grid for pressing the pile of articles downwardly when the grid is withdrawn for permitting the grid to return to normal position and engage the top of the pile.

3. A pile-forming device comprising a horizontally movable element having a plurality of spaced finger-like bars, a conveyer located at the top side of the bars to deliver articles successively on the element, stationary means extending upwardly between the bars to form stops to ar-

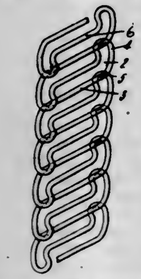
rest the articles delivered upon the element, a yielding follower at one side of the element, means for reciprocating the element toward and from the conveyer, and a grid element movable toward and from the first-mentioned element to engage an article thereon and move such article and pile or articles on the follower, whereby the first-mentioned grid can return to a position over the top of the pile of articles, the free ends of the bars being arranged to meet the delivery end of the conveyer for permitting articles to pass directly from the latter to the said bars.

1,210,169. CARBURETER. WILLIAM B. HIDDEN, Boston, Mass. Filed June 15, 1915. Serial No. 34,537. (Cl. 261—79.)



A carbureter comprising an evaporating chamber having a substantially circular upstanding wall, means arranged to maintain a pool of liquid hydrocarbon in said chamber, an air inlet duct arranged to emit the air contiguous to and circumferentially of said wall, and an outlet duct arranged to deflect downwardly the air emitted from said inlet duct.

1,210,170. GARMENT-STAY. ELBERT L. HYDE, Pittsburgh, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed July 21, 1914. Serial No. 852,257. (Cl. 2—76.)



1. A garment stay, comprising wire bent back and forth from edge to edge of the stay along diagonal lines to form a series of longitudinally extending loops or eyes lying along the edges of the stay and connected by straight parallel diagonally extending crossings, the loops or eyes along opposite edges of the stay extending toward the opposite ends thereof and overlapping the next adjacent crossing portions of the wire.

2. A garment stay, comprising wire bent back and forth from edge to edge of the stay to form a series of longitudinally extending loops or eyes lying along the edges of the stay and connected by straight parallel diagonally extending crossings, the loops or eyes along opposite edges of the stay being substantially opposite each other and extending in opposite directions longitudinally of the stay.

1,210,171. DISPLAY DEVICE. GEORGE F. KARBE, Brooklyn, N. Y. Filed Jan. 10, 1916, Serial No. 71,249. Renewed Nov. 18, 1916. Serial No. 132,181. (Cl. 35—17.)

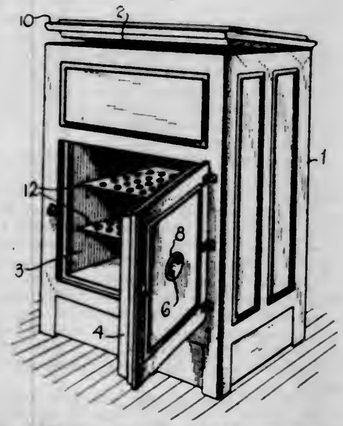
1. In a device of the character described, a manikin device, having the figure of a young woman, provided at the upper portion with the representation of outer garments, and at the lower portion with the representation of lingerie garments, and a fabric skirt portion secured at the front immediately below the lower edge of said representation of said outer garments, and at the edges secured to the rear portion of said device, the skirt adapted to be supported in draped position by said device.



2. In a device of the character described, a manikin device provided with an outstanding portion having a relatively short inclined edge, and a relatively long fabric member representing an outer garment secured to said manikin device, and folded at a portion thereof around said inclined edge, said inclined edge adapted to support the length of said fabric portion in inclined position.

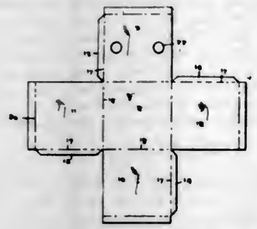
3. In a device of the character described, a manikin device, provided at the upper portion with the representation of outer garments, and at the lower portion with the representation of lingerie garments, and provided with an outstanding portion at one side of said lower portion, having an inclined edge, a fabric skirt portion secured to said manikin device immediately below the lower edge of said representation of said outer garments, and adapted to be held in flared position by said outstanding portion, and means secured to the back of said device for supporting the same in standing position.

1,210,172. REFRIGERATOR. JOHN L. KESL, Roswell, N. Mex. Filed Mar. 1, 1915. Serial No. 11,359. (Cl. 45—71.)



In a ventilating device for refrigerators, the combination with a refrigerator having a provision compartment and a hinged door therefor provided with a central opening; of a metal sleeve extending through said opening and permanently fixed therein, said sleeve being provided upon its outer end with an outturned bead engaging the face of the door, a wall of reticulated material permanently secured within the sleeve in spaced relation to its outer end, and an imperforate closure cap having an annular flange for frictional engagement upon said bead, said cap completely closing the outer end of the sleeve and cutting off communication between the provision chamber and the atmosphere.

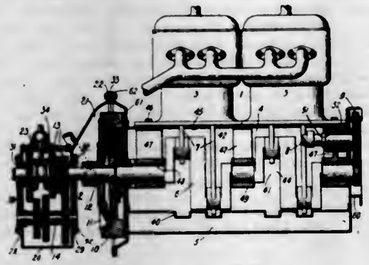
1,210,173. GAS-TRAP. PAUL KEEVER, Weston, W. Va. Filed Apr. 5, 1916. Serial No. 89,185. (Cl. 23—3.)



1. A gas trap formed from a sheet of metal and bent into cubical formation and the overlapping parts thereof secured together, one face wall of the trap being formed of transparent material, an inlet pipe for the trap, and an outlet nozzle communicating with the upper portion of the trap.

2. A trap for gases, comprising a hollow receptacle, the upper and lower walls and side walls of the receptacle being formed integral with the rear wall, said walls being bent at right angles to the rear wall and having extensions thereon, the extension of one wall being adapted to overlap with the contiguous wall and be secured thereto, the front wall of the receptacle being formed of transparent material, the ends of the top and bottom and side walls being bent inwardly to form a frame to which the transparent wall is secured.

1,210,174. SHEET-METAL MACHINE-FRAME CONSTRUCTION. PHILIP KEMPTER, Milwaukee, Wis., assignor to Geuder, Paeschke & Frey Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 30, 1916. Serial No. 106,784. (Cl. 74—56.)



1. In a support for shafting and the like, the combination of a sheet metal casing and cast metal bearing carrying members attached thereto and supported thereby.

2. In a sheet metal housing for machine elements, such as shafting, gearing, etc., the combination of a sheet metal casing and rigid bearing supporting frames rigidly attached thereto and supported thereby.

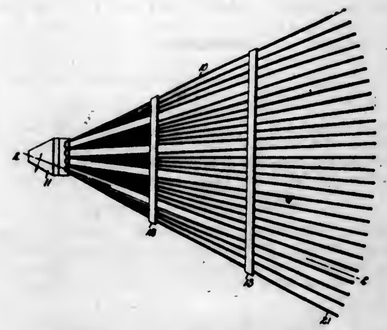
3. The combination with a sheet metal housing for machine elements, including a plurality of rotatable shaft members, of rigid frames secured to said housing and supported thereby, and bearings for a plurality of said rotatable members carried by said frames, said bearings being located in predetermined rigid relation to each other.

4. A sheet metal housing of the character described, reinforcing plates rigidly secured thereto, the surfaces of said plates being machined to predetermined dimensions, and cast metal bearing supporting frames rigidly attached to said housing.

5. In automobile construction, the combination of an engine crank case including an upper half crank case member of sheet metal and the sheet metal gear box attached to said crank case.

[Claims 6 to 17 not printed in the Gazette.]

1,210,175. RAKE. HERBERT G. KIMBER, Oakland, Cal. Filed Sept. 6, 1916. Serial No. 118,660. (Cl. 55—114.)



1. A rake including U-shaped double tines, an attaching device for said tines presenting a transverse series of holes, the tines being passed through the said holes in groups, the adjacent members of adjacent groups passing through the same hole, means on the attaching device to prevent displacement of the tines, and transverse bars in front of the attaching device, constituting braces and spreaders for the tines, one bar being forward of the other, the front bar being of greater length than the rear bar, the said bars being of sheet metal returned on itself presenting a cross section approximately U-shape, the bars being flattened, the said bars having holes through which the individual tines extend, the holes in the front transverse bar being spaced a greater distance than the holes in the rear transverse bar.

2. A rake of the class described including wire double tines, an attaching device presenting a transverse series of holes through which the double tines extend in groups, the adjacent tines of adjacent groups passing through the same hole, and a transverse spreader and brace bar having holes therethrough for receiving individual tines.

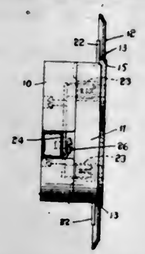
3. A rake of the class described including wire double tines, an attaching device presenting a transverse series of holes through which the double tines extend in groups, the adjacent tines of adjacent groups passing through the same hole, transverse bars constituting spreaders and braces in front of the attaching device, the said bars having each a series of holes to receive the individual tines, the front bar being of greater length than the rear bar, and the holes therein being spaced a greater distance than the holes in the rear bar.

1,210,176. DUPLEX RECEPTACLE. GEORGE P. KNAPP, Bridgeport, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a Corporation of Connecticut. Filed June 19, 1915. Serial No. 35,075. (Cl. 173—330.)

1. A receptacle of the character described comprising a body having a flat outer face, a pair of spaced apart connecting plates attached to the said outer face, spring contact plates attached to said connecting plates and projecting beyond the outer face of said body, and a top block attached to said base and having recesses in its inner face to receive said spring contact plates, and also having slots extending from the outer face to said recesses.

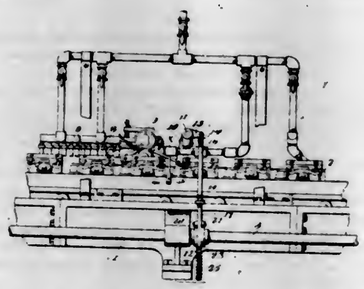
2. A receptacle of the character described comprising

a body, connecting plates secured thereto, triple spring contact plates secured to the connecting plates, a binding screw in each connecting plate intermediate the spring



contact plates, and a top block secured to the body and provided with a plurality of pairs of T-slots adapted to receive either parallel or alined knife blade contacts and corresponding with the triple spring contact plates.

1,210,177. SOLDERING-MACHINE. ALFRED L. KRONQUEST, Chicago, Ill., assignor, by mesne assignments, to Continental Can Company, Inc., a Corporation of New York. Filed Sept. 27, 1912. Serial No. 722,698. (Cl. 113—62.)



1. A soldering machine including in combination, means for supporting and continuously traveling a can body, and means for applying solder to the side seam of the can body, said last-named means including a soldering iron, and means for moving the soldering iron into initial contact with the can body in rear of the advance edge of the side seam and during the travel thereof.

2. A soldering machine including in combination, means for supporting and continuously traveling a can body, and means for applying solder to the side seam of the can body, said last-named means including a soldering iron, and means for moving the soldering iron into initial contact with the can body in rear of the advance edge of the side seam and during the travel thereof, and for moving said iron out of contact with the can body at a point in advance of the rear end of the side seam.

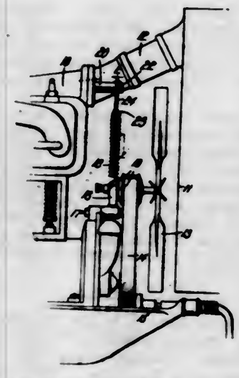
3. A soldering machine including in combination, means for supporting and moving endwise a can body, and means for applying the solder to the side seam thereof, said means including a soldering iron, means for moving said iron into initial contact with the can body at a point in rear of the advanced end of the side seam, and to cause said iron to travel with the can body and at a greater speed than the can body until said iron is brought to a point directly in rear of the advanced end of the side seam, and to dwell while the can body is passing underneath the same.

4. A soldering machine including in combination, means for supporting and moving endwise a can body, means for applying the solder to the side seam thereof, said means including a soldering iron, means for moving said iron into initial contact with the can body at a point in rear of the advanced end of the side seam, and to cause said iron to travel with the can body and at a greater speed than the can body until said iron is brought to a point directly in rear of the advanced end of the side seam, and to dwell while the can body is passing underneath the same, and for causing said iron to be retracted from the can body at a point directly in advance of the rear end of the side seam.

5. A soldering machine including in combination, a plurality of traveling horns, means for clamping a can body on each horn with the side edges thereof overlapping, means for soldering said overlapped edges including a soldering iron, and means for moving said soldering iron into initial contact with the can body at a point in rear of the advanced end of the side seam.

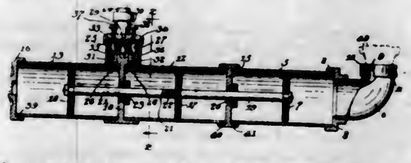
[Claims 6 to 10 not printed in the Gazette.]

1,210,178. FAN-BELT ADJUSTMENT. EDWIN C. LANE, Mahwah, N. J. Filed Feb. 2, 1916. Serial No. 75,754. (Cl. 123—171.)



In a fan belt adjustment for motor cars, the combination with the hot water pipe and the engine body, of a bolt to connect the pipe to the body, said bolt comprising a long prismatic rigid support whose outer end has a plurality of holes formed diametrically therethrough in a plane widely spaced from the engine body, a rotary threaded connection adapted to be journaled in any one of said holes with its axis lying in said plane, a coil spring, means whereby one end of the spring acts upon the bolt, and a nut secured to the other end of the spring and adapted to receive the free end of said threaded connection.

1,210,179. GREASE-GUN. WILLIAM H. LEWIS, Los Angeles, Cal. Filed Oct. 18, 1915. Serial No. 56,488. (Cl. 221—47.)



1. A grease gun having a lubricant moving member and means for forcing said member back and forth by fluid pressure to discharge or draw in lubricants.

2. A grease gun having a lubricant moving piston, means for applying fluid pressure to the device for moving the piston in one direction for drawing a lubricant into the gun and in the other direction for forcing said lubricant out of the gun.

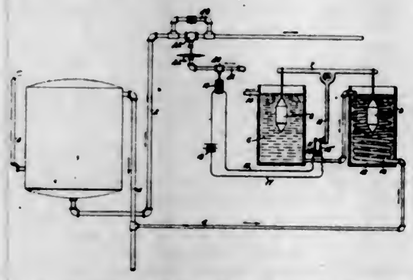
3. A grease gun having a grease moving piston, a power piston connected therewith and means for delivering fluid pressure to either side of said power piston to move a firm lubricant either by pressure or by suction.

4. A grease gun having a barrel portion, a pneumatically reciprocated piston therein and a nozzle having a joint forming means adapted to form a tight joint with the device that is to receive the grease and means for delivering air under pressure into said grease gun.

5. A grease gun having a cylinder, a grease moving piston therein, a power piston connected with the grease moving piston, means for driving the power piston in either direction under fluid pressure, air inlet and exhaust valves for controlling the admission of air to either side of said piston and permitting the exhaust of air therefrom, a nozzle having an automatic joint forming end portion whereby a tight joint may be made for delivering the grease to a receptacle to be charged, by pressing the nozzle against the inlet opening of said receptacle.

[Claim 6 not printed in the Gazette.]

1,210,180. SOLUTION-SPECIFIC-GRAVITY-REGULATING APPARATUS. LLOYD LOGAN, Syracuse, N. Y. Filed July 12, 1916. Serial No. 108,967. (Cl. 23—3.)



1. An apparatus regulating the density of solutions comprising separate means for supplying material to produce continuously a solution or a liquid mixture, a device responsive to the specific gravity of the solution, and means controlled by the device for controlling the materials to maintain the specific gravity of the solution approximately constant.

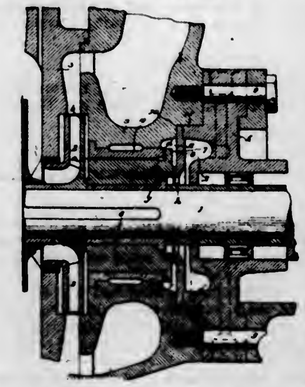
2. An apparatus regulating the density of solutions comprising separate means for supplying materials to be combined as a solution or liquid mixture, a receptacle through which the solution continuously passes, a device in the receptacle and movable under changes of specific gravity, and electrical means controlled by such device for regulating the relative supplies of the materials to maintain the specific gravity of the solution substantially constant.

3. An apparatus regulating the density of solutions comprising means for continuously supplying materials to produce a solution, a specific gravity balance responsive to the specific gravity of the solution, an electric circuit controlled by the balance, a fluid supply valve controlled by the circuit, and a valve controlled by the said valve to regulate the relative supplies of the materials to maintain the specific gravity substantially constant.

4. An apparatus regulating the density of solutions comprising separate means for supplying materials to produce a solution, a receptacle through which the solution flows continuously, a receptacle containing a standard solution and maintained at substantially the same temperature as the solution supplied to the first-mentioned receptacle, a balance beam, bobs on the beam and submerged in the receptacles, and means controlled by the beam for regulating the supplies of material to maintain the specific gravity of the solution substantially constant.

5. An apparatus regulating the density of solutions comprising means for supplying materials to produce a solution, means for regulating the relative supplies of material, and a specific gravity balance controlling the last-mentioned means, said balance comprising a receptacle through which a continuous flow of the solution is maintained, a receptacle containing a standard solution, a coil through which the solution flows in transit to the first-mentioned receptacle, whereby the solutions in the two receptacles are maintained at substantially the same temperature, a balance beam, and bobs on the balance beam and submerged in the separate receptacles respectively.

1,210,181. MEANS FOR AUTOMATICALLY BALANCING THE ROTORS OF PUMPS, TURBINES, BLOWERS, AND THE LIKE. FRIEDRICH LORENZ, Wildau, near Berlin, Germany, assignor to Thomas P. Kingsford and Virginia K. Higgins, Oswego, N. Y. Filed Aug. 22, 1914. Serial No. 858,081. (Cl. 103—43.)



1. Means for automatically balancing the end thrust of rotors, comprising a balancing piston on the rotor axis, and means providing a passage for liquid under pressure embodying an annular pressure chamber surrounding said piston to resist axial movement of the rotor in one direction, a constant capacity sealing fissure discharging into said chamber, an outwardly radially discharging transverse throttle fissure surrounding and forming the discharge from said chamber, an annular pressure chamber at the outer end face of said piston to resist undue axial movement thereof in the opposite direction from that hereinbefore mentioned and into which said throttle fissure discharges, and an inwardly radially discharging transverse throttle fissure surrounded by and forming the discharge from said last mentioned chamber.

2. Means for automatically balancing the end thrust of rotors comprising a balancing member on the rotor axis surrounded by an annular pressure chamber and by a sealing fissure through which liquid constantly leaks into said chamber, means providing a transverse throttle fissure outlet from said chamber controlled as to capacity by the axial movement of said axis, and means providing a pressure chamber at the outer end face of said member and into which said throttle fissure discharges and a transverse throttle fissure outlet from said last mentioned chamber controlled by the axial movement of said axis, the liquid in said chambers acting in opposite directions on said balancing member.

3. Means for automatically balancing the end thrust of rotors comprising a balancing member on the shaft, and means providing pressure chambers at opposite faces thereof, a transverse throttle fissure outlet from one of said chambers to the other, a liquid-flow retarding or pressure reducing liquid passage to said first mentioned chamber, and a transverse throttle fissure outlet from said last mentioned chamber, said throttle fissures being controlled by longitudinal movement of said member.

4. Means for automatically balancing the end thrust of rotors comprising a balancing piston on the rotor axis

having an enlarged outer end, and means providing liquid pressure chambers at opposite faces of said enlarged end, a sealing fissure discharging into one of said chambers, a transverse throttle fissure outlet from said one chamber and discharging directly into the other chamber, and a transverse throttle fissure outlet from the last mentioned chamber, said last mentioned throttle fissure being normally open.

5. In combination, a casing having a removable end head, an open-center vertical ring removably held in the casing by said head, a rotor, a balancing piston on the rotor axis and having an outer end enlargement adjacent to said ring and in connection therewith forming a pressure chamber at the outer end of the piston and a transverse throttle fissure outlet therefrom, the casing and piston forming a sealing fissure, and the casing and inner side face of said piston enlargement forming a transverse throttle fissure opening into said pressure chamber and controlling the leakage from the sealing fissure into said chamber.

1,210,182. GOLF-CLUB. PATRICK H. LYNCH, New York, N. Y. Filed June 24, 1916. Serial No. 105,554. (Cl. 46—4.)



1. A golf club including a head and a shaft connected therewith, said shaft being slotted longitudinally adjacent its handle portion, and the slot being substantially parallel with the striking face of the head.

2. A golf club including a head and a shaft connected therewith, said shaft being slotted longitudinally adjacent its handle portion, and the slot being substantially parallel with the striking face of the head, and a weight in the butt of the shaft.

3. A golf club comprising a head and a shaft connected therewith, said shaft being longitudinally slotted in a plane approximately parallel with the plane of the head, and a resilient insert in said slot, the slot of the shaft extending from a point adjacent the middle thereof to the handle portion.

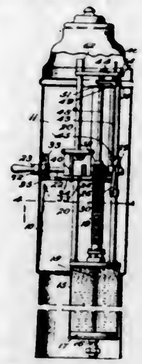
4. A golf club comprising a head and a shaft connected therewith, said shaft being longitudinally slotted in a plane approximately parallel with the plane of the head, a resilient insert in said slot, and a weight applied to the butt of the shaft, the slot of the shaft extending from a point adjacent the middle thereof to the handle portion.

5. A golf club shaft having a longitudinal slot, a resilient insert interlocking with one end of the slot, and a grip member bound around the handle portion of the shaft and overlapping the insert to retain the same in place.

1,210,183. MEASURING-PUMP. HERBERT W. MCCOY and WILLIAM H. CHAPMAN, Peekskill, N. Y. Filed Dec. 7, 1914. Serial No. 875,760. (Cl. 221—102.)

1. In a measuring pump a cylinder, a piston movable therein, a piston rod thereon carrying an abutment, actuating means for said rod and piston, connecting means adapted to establish operative relation between said actuating means and said piston, a locking device adapted to hold said connecting means in its operative position, and means located in the path of movement of said abutment on the piston rod and mechanically connected with said locking device, said last named means being adapted, when moved by said abutment, to unlock said connecting means when said piston reaches a predetermined position in said cylinder.

2. In a measuring pump, a liquid expelling means, a revoluble shaft, a driving pinion, for the expelling means, normally loose on the shaft, a clutch on said shaft adapted to connect the same with said pinion, means operated by movement of the shaft for engaging said clutch, a lock for the clutch, an adjustable automatic means for producing a direct mechanical connection at a predetermined position of said expelling device between said expelling device and said lock, to unlock said clutch.



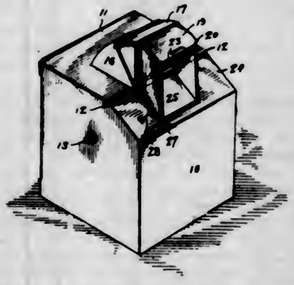
3. In a measuring pump, a liquid expelling means, a revoluble shaft, a driving pinion for the expelling means, normally loose on the shaft, a clutch on said shaft adapted to connect the same with said pinion, a swinging frame operatively connected with said clutch for engaging the same, a member on the shaft adapted to swing said frame, a lock for said clutch, and means mechanically connected with said expelling means for operating said lock to free said clutch, substantially as described.

4. In a measuring pump, a liquid expelling means, a revoluble shaft, a driving pinion for the expelling means normally loose on the shaft, a clutch on said shaft adapted to connect the same with said pinion, a swinging frame operatively connected with said clutch for engaging the same, a member on the shaft adapted to swing said frame, a lock for the clutch and automatic means operated by movement of the expelling means for unlocking said clutch, substantially as described.

5. In a measuring pump, a liquid expelling means, a revoluble shaft, a driving pinion for the expelling means normally loose on the shaft, a clutch on said shaft adapted to connect the same with said pinion, a shifting lever for the clutch, a cable having one end fixed and the other attached to said lever, a frame adapted to swing at right angles to said cable and connected therewith, and means on the shaft adapted to swing said frame, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,210,184. RECEPTACLE. MALCOLM MCINTYRE, New York, N. Y., and JOHN FROHLIN, Bayonne, N. J., assignors to Bergen Point Iron Works, Bayonne, N. J., a Corporation of New Jersey. Filed May 7, 1915. Serial No. 26,558. (Cl. 220—115.)



1. In apparatus of the type described, a receptacle having a fill opening, a hood pivoted at said opening, said hood having a bottom on which a can may be temporarily supported on its side, and having also wing parts extending upward from the bottom and between which the dumping end of the can lies in dump position, for the purpose described.

2. In apparatus of the type described, a receptacle having a fill opening, a hood pivoted at said opening, said hood having a bottom on which a can may be temporarily supported on its side, and having also wing parts extending uppward from the bottom and between which the dumping end of the can lies in dump position, together with a gate pivoted to said hood and normally closing the fill opening of the receptacle.

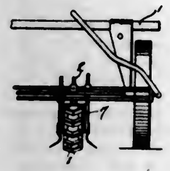
3. In apparatus of the type described, a receptacle having a fill opening, a hood therefor comprising telescopic sections adapted to be relatively displaced during the dumping of the contents of a can through said fill opening and a gate normally closing said fill opening but automatically opening on the dump of said can.

4. In apparatus of the type described, a receptacle having a fill opening, a hood at said opening, said hood comprising a stationary section and a pivoted section with sides between which the open end of a barrel lies during its dumping operation, together with a gate carried by said pivoted section and normally closing said fill opening.

5. In apparatus of the type described, a receptacle having a top with fill opening therein, an upwardly inclined section leading thereto, a hood at said fill opening, a pivoted carrier associated with said hood and having a bottom normally resting on said inclined section and upon which the side of a barrel is temporarily supported, said pivoted carrier moving with the barrel on the uptilting of the latter for discharge.

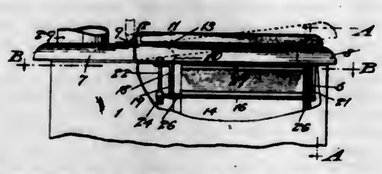
[Claims 6 to 12 not printed in the Gazette.]

1,210,185. SUGAR-BEET-CULTIVATOR ATTACHMENT. ROYAL MCLEOD, Fort Collins, Colo. Filed Apr. 18, 1916. Serial No. 92,002. (Cl. 97—38.)



A crust breaker comprising a shank, arms secured to the shank, an axle supported by the arms, wheels rotatably engaged with the axle, cutters formed from angle metal and bent to provide angularly disposed sections, the webs of certain of the sections constituting blades, the other webs of said sections having their ends engaged with the rims of the wheels, means for connecting the last named webs to the rims, and means for attaching the shank to a cultivator.

1,210,186. COMMODE. MOSES M. MARCUSE, New York, N. Y., assignor to West Disinfecting Company, New York, N. Y., a Corporation of New York. Filed Aug. 20, 1913. Serial No. 785,721. (Cl. 4—32.)



1. A commode comprising a casing, a tubular body having oppositely inclined bottom edges, a seat, a cover for said seat, a pair of coacting flaps having weights affixed to their outer ends to normally close them upon said inclined bottom edges, and means for opening said flaps.

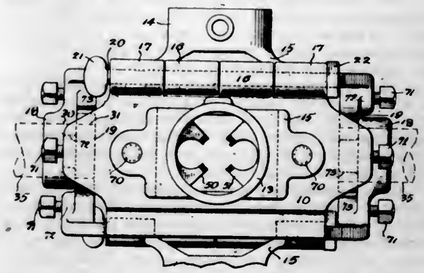
2. A commode comprising a casing, a top therefor, a tubular body depending from said top, said body having oppositely inclined bottom edges, a seat, a cover for said seat, a pair of coacting flaps having weights affixed to their outer ends to normally close them upon said tubular body and plungers connected to said flaps and arranged to slide in said top for opening said flaps.

1,210,187. CONDUIT-FORMING DEVICE. JAMES E. MARQUISS, Monticello, Ill. Filed May 29, 1916. Serial No. 100,673. (Cl. 37—53.)



In a conduit forming device, the combination with a jack having a plunger and a lever for operating the plunger, of a rod in sections, means for securing the sections together, a head at one end of the rod, a socket removably attached to the opposite end of the rod, said socket being adapted to engage the plunger of the jack and means to guide said rod.

1,210,188. DIE-STOCK. JOHN B. MARTENS, Cleveland, Ohio, assignor to Morris Cramer. Filed May 4, 1916. Serial No. 95,462. (Cl. 10—114.)



1. In a multiple die stock, the combination of a plurality of separable frame members, dies carried by the frame members, said frame members having overlapping end portions, and handles for the die stock each closely engaging the corresponding overlapping end portions.

2. In a multiple die stock, the combination with a plurality of separable members adapted to form a hollow frame, sets of dies carried by said members, each of said members having inwardly extending end portions, handles for the die stock, each threaded into the adjacent end portions and thereby preventing relative movement of the parts.

3. In a multiple die stock, the combination of a hollow polygonal frame, dies carried thereby on the inner sides of the frame, and means for holding radial bushings on the outer sides of the frame and respectively on the same side of the frame axis as the dies with which they cooperate.

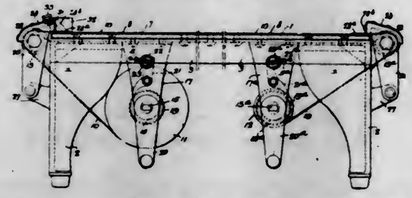
4. In a die stock, the combination of a hollow frame having a plurality of substantially flat sides, dies secured to the inner face of said sides, rigidly held radial sleeves on the outer side of the respective dies, and handles secured to the ends of the frame.

5. In a multiple die stock, the combination of a hollow frame having a plurality of interior faces, guide ribs along the edges of such faces, sets of dies between such ribs and clamped against the faces from the inner side of the

frame, and guide sleeves carried radially on the outer face of the same side of the frame opposite the center of said interior faces.

[Claims 6 to 28 not printed in the Gazette.]

1,210,189. HECTOGRAPH. RICHARD MARX, Philadelphia, Pa., assignor, by mesne assignments, to Evans Products Corporation, New York, N. Y., a Corporation of New York. Filed May 29, 1915. Serial No. 31,253. (Cl. 101—172.)



1. The combination in a hectograph of a table; spindles supported under the table; guide rollers respectively at the ends of the table; a duplicating web passing from one spindle around one of the rollers across the table, over the second roller and to the second spindle; with sheet guiding and supporting covers for each of said rollers.

2. The combination in a hectograph of a table; rollers at opposite ends of said table; a duplicating web extending over the table and around said rollers; with covers for the rollers including portions serving as sheet guiding means hinged to the table structure.

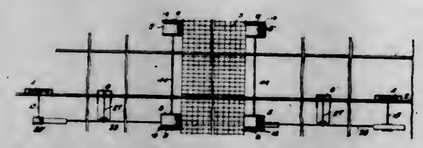
3. The combination in a hectograph of a table; rollers at opposite ends of said table; a duplicating web extending over the table and around said rollers; with a cover for one of said rollers having a portion placed to position upon the web the sheets to be printed.

4. The combination in a hectograph of a table; guide rollers at opposite ends of the table; a duplicating web extending over the table and around the rollers; with covers for said rollers each having a portion extending substantially parallel to the web surface adjacent the ends of the table respectively.

5. The combination in a hectograph of a table; guide rollers at opposite ends of the table; a duplicating web extending over the table and around the rollers; a transversely extending structure projecting over one of the rollers and including a portion shaped to position the end of a sheet to be printed; and an abutment on said structure for engaging one side of such sheet.

[Claims 6 to 9 not printed in the Gazette.]

1,210,190. RAILROAD-GATE. WILLIAM MAXWELL, Bloomington, Ill. Filed Feb. 29, 1916. Serial No. 81,143. (Cl. 269—5.)



1. A gate for railroad crossings, comprising a pivoted barrier normally held locked in open position and adapted to swing into closed position by its own weight, a counterweight device connected with the barrier to normally hold the latter in open position and to return the closed barrier to normal open position, an actuating device along the track at one side and a distance from the crossing and adapted to be actuated by an approaching train for actuating the said counterweight device to allow the barrier to swing into closed position, a locking device for locking said counterweight device in position at the time the barrier moves into closed position, and a releasing device for the said locking device arranged along the track on the other side of the crossing to be engaged by the departing train after the latter has left the crossing to release the barrier and allow it to swing back into its normal open position, the said releasing device including a flexible member attached to the said locking device.

2. A gate for railroad crossings, comprising a counterweighted barrier mounted to swing by its own weight from normal raised position to closed position across the crossing, a drum loose on the pivot of the said barrier and provided with a pin, a disk rotating with the said pivot and having a projection engaged by the said pin, a countershaft having a pulley and belt connection with the said drum, a flexible member engaging the said drum, a weight attached to the said flexible member, a pinion on the said countershaft, a spring-pressed rack adapted to mesh with the said pinion, a second rack a distance to one side of the crossing and rigidly connected with the first-named rack, a revoluble member controlled by an approaching train, a second pinion in mesh with the said second rack, and a pawl and ratchet mechanism connecting the said second pinion with the said revoluble member.

3. A gate for railroad crossings, comprising a counterweighted barrier mounted to swing by its own weight from normal raised position to closed position across the crossing, a counterweighted drum loose on the pivot of the said barrier and provided with a pin, a disk rotating with the said pivot and having a projection engaged by the said pin, a countershaft having a pulley and belt connection with the said drum, a pinion on the said countershaft, a spring-pressed rack adapted to mesh with the said pulley, a second rack a distance to one side of the crossing and rigidly connected with the first-named rack, a revoluble member controlled by an approaching train, a second pinion in mesh with the said second rack, a pawl and ratchet mechanism connecting the said second pinion with the said revoluble member, a pawl and ratchet mechanism connected with the said counterweighted drum, and a releasing device along the track on the other side of the crossing and connected with the said pawl and ratchet mechanism of the counterweighted drum, the said releasing device being controlled by the departing train.

4. A gate for railroad crossings, comprising a counterweighted barrier mounted to swing by its own weight from normal raised position into closed position, a shaft carrying the said barrier, a drum loose on the said shaft and having a pin and a notched segment, a notched disk fixed on the said shaft and having a lug engaged by the said pin, a flexible connection engaging the said drum and carrying a weight, a pawl engaging the notched disk, a block on the said flexible connection and adapted to engage the said pawl, an actuating device along the track at one side of the crossing and connected with said drum, a pawl engaging the said ratchet segment, and a releasing device along the track on the other side of the crossing and connected with the said notched segment and pawl.

5. In a device of the kind described, a gate, a gate operating means comprising a revoluble member having arms arranged to receive successive impulses from an approaching train, mechanism for holding the gate normally in open position, the said mechanism being controlled by the impulses of the revoluble member to permit the gate to close, and a unitary impulse gate returning means.

[Claims 6 to 13 not printed in the Gazette.]

1,210,191. SIGHT FOR FIREARMS. ROBERT A. MOORE, New York, N. Y., assignor to The Moore Rifle and Arms Company, Inc., New York, N. Y. Filed Feb. 1, 1916. Serial No. 75,553. (Cl. 33—57.)

1. In a gun sight, the combination of a base, a frame mounted on said base, a slider mounted on said frame and movable with the latter into operative and inoperative positions, spring pressed pins mounted on the slider so as to engage the frame and hold the slider at predetermined adjustments on the frame, said slider being provided with sight means, and means common to the pins to control the action of the same.

2. In a gun sight, the combination of a base, a frame mounted on said base, a slider mounted on said frame and movable with the latter into operative and inoperative positions, a sight member carried by the base, the slider being formed with sight means adapted to be adjusted for coöperation with the sight member aforesaid, and holding means for maintaining the slider at predetermined adjustments on the frame.



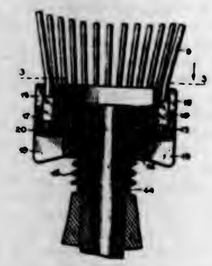
3. In a gun sight, the combination of a base having a sight member provided with a sight notch, a frame movably mounted upon said base, a slider carried by said frame and provided with a peep-sight, and holding means for maintaining the slider at predetermined adjustments upon the frame adapted to interlock the slider and frame so that the slider is positioned with its peep-sight alined with the sight notch of said sight member.

4. In a gun sight, the combination with a base, of a sight frame supported thereon, a slider mounted on said frame and having sight means, spaced locking pins mounted on the slider and engageable with the frame, a plunger mounted between said pins, and means to operate said plunger to control the coaction between the said locking pins and the frame.

5. In a gun sight, the combination with a base, of a sight frame supported thereon, a slider mounted on said frame and having sight means, a locking pin mounted on the slider and engageable with the frame, a plunger mounted on the slider, a finger piece for moving the plunger transversely to the line of movement of the locking pin for actuation of the latter, and means for holding the plunger in a position whereby to normally maintain coaction between the locking pin and said frame.

[Claims 6 and 7 not printed in the Gazette.]

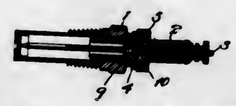
1,210,192. EGG-BEATER. ALBERT MOSES, New York, N. Y. Filed July 27, 1916. Serial No. 111,605. (Cl. 259—126.)



1. An implement as characterized comprising a plurality of flexible loops; a circular socket plate having edge-opening recesses; removable means for detaining the ends of said loops in said recesses; and a collar operatively engaging said plate, said collar being provided with an annular flange for covering the entrance edges of the recesses in said plate for holding the ends of the loops in said recesses, said flange being provided with oppositely-disposed gates adapted to register with oppositely-disposed recesses.

2. An implement as characterized comprising a plurality of beater loops, each having adjacent the opposite ends thereof, rectangular contracted sections; a circular socket plate having annularly disposed outwardly-opening recesses shaped in correspondence with said contracted sections; means for preventing the withdrawal of said contracted sections from said recesses in a direction parallel to the axis of said plate; a screw-threaded collar for holding the ends of said loops within said recesses, said collar having an annular flange for enfolding said plate in juxtaposed relation thereto; and means embodying a gate in the upper edge of said flange adapted to register with said recesses *seriatim* for permitting the withdrawal of said ends singly from said recesses, the remainder of said flange preventing the withdrawal of the ends of other loops.

1,210,193. GASKET. ARTHUR R. MOSLER, New York, N. Y., assignor to A. R. Mosler & Co., New York, N. Y., a Corporation of New York. Original application filed Nov. 19, 1908, Serial No. 463,475. Divided and this application filed Feb. 23, 1912. Serial No. 679,384. (Cl. 137—121.)



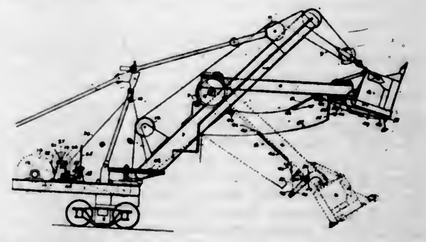
1. A packing ring composed of a cord of suitable material coiled in the direction of the axis of the ring, said coils being bound together by an outer wrapping of similar material applied spirally and in an annular course.

2. A packing ring composed of an asbestos cord coiled in the direction of the axis of the ring, said coils being bound together by an outer wrapping of similar material applied spirally and in an annular course.

3. A packing ring composed of a cord, having a copper wire center, coiled in the direction of the axis of the ring, said coils being bound together by an outer wrapping of similar material applied spirally and in an annular course.

4. A packing ring composed of an asbestos cord, having a copper wire center, coiled in the direction of the axis of the ring, said coils being bound together by an outer wrapping of similar material applied spirally and in an annular course.

1,210,194. STEAM-SHOVEL. EUGENE J. MOYNIHAN, San Francisco, Cal. Filed Apr. 12, 1916. Serial No. 90,624. (Cl. 37—16.)



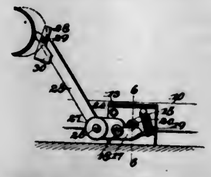
1. In combination with the dipper of an apparatus of the character described having a door for closing the bottom of the dipper, and unitary means operated from the frame work of the apparatus whereby the door of the dipper may be positively held open when the dipper is close to the ground, and whereby the bucket may be drawn rearwardly.

2. In combination with the dipper of an apparatus of the character described having a door for closing the bot-

tom of the dipper, means operated from the frame work of the apparatus whereby the door of the dipper may be positively held open when the dipper is close to the ground and a spring-actuated latch adapted to be engaged by the door when swinging wide open to hold the door in the open position.

3. In combination with the dipper of an apparatus of the character described having a door for closing the bottom of the dipper, means operated from the frame work of the apparatus whereby the door of the dipper may be positively held open when the dipper is close to the ground, means automatically engaged by the door when swinging wide open to hold the door in the open position, and means for releasing said automatically engaged means.

1,210,195. AUTOMATIC STOP FOR TALKING-MACHINES. CLARENCE H. MURPHY, Point Pleasant, N. J. Filed May 15, 1916. Serial No. 97,611. (Cl. 74—46.)



1. In an automatic stop device for talking machines, the combination with a turn-table and a tone arm; of a brake member slidable radially relative to the axis of rotation of said turn-table for engaging the same to stop rotation thereof, an adjustable trip mechanism arranged in the path of movement of said tone arm and engaging said brake member to retain the same out of braking position, and an adjusting device carried by said trip mechanism and adapted to be moved temporarily into engagement with the tone arm to adjust said mechanism with respect to the tone arm and then disengaged from the tone arm to permit said mechanism to be operated, by contact with the tone arm, to release said brake member at a predetermined point in the reproduction of a record.

2. In an automatic stop device for talking machines, the combination with a turn-table and a tone arm; of a brake member for engaging said turn-table to stop rotation thereof, an adjustable trip mechanism arranged in the path of movement of said tone arm and engaging said brake member to retain the same out of braking position, and an adjusting device pivoted to said trip mechanism and normally maintained, by gravity, out of adjusting position, said adjusting device being adapted to contact the tone arm to adjust said trip mechanism to a position to be operated, by contact with the tone arm, to release said brake member at a predetermined point in the reproduction of a record.

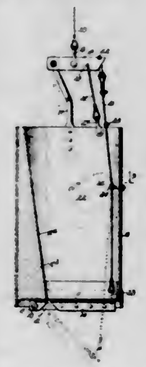
3. In an automatic stop for talking machines, the combination of a brake member for normally engaging the turn table having a locking portion, a trip mechanism adapted to engage said locking portion to retain the brake member out of braking position and having a portion extending into the path of the tone arm, an adjusting device carried by the portion of the trip mechanism, extending into the path of the tone arm and adapted to be temporarily moved into engagement with the tone arm to adjust the said portion with respect to the tone arm and then disengaged from the tone arm to permit said portion to be operated by contact with the tone arm, and means for withdrawing said brake member from braking position, whereby said trip mechanism will be moved into engagement with the locking portion of the brake members and the portion thereof carrying the adjusting device moved into engagement with the tone arm.

4. In an automatic stop for talking machines, the combination of a support, a turn-table, a brake member carried by said support, a latching element pivoted to said support for retaining said brake member out of braking position and having its axis of rotation transverse to that of said turn-table, a trip member connected to said latching element, for operating the same and adjustable into the path of a movable part of the machine, an adjusting device carried by said trip member and contacted by said movable part when initially adjusting said trip member, and means for shifting said brake member out of braking position whereby to permit said latching element to move about its pivot and said trip member to assume the position of initial adjustment of said adjusting device.

5. In an automatic stop for talking machines, the combination of a support, a turn-table, a brake member carried by said support, a latching element pivoted to said support for retaining said brake member out of braking position, a trip member connected to said latching element, for operating the same and adjustable into the path of a movable part of the machine, an adjusting device carried by said trip member and contacted by said movable part when initially adjusting said trip member, means for shifting said brake member out of braking position whereby to permit said latching element to move about its pivot and said trip member to assume the position of initial adjustment of said adjusting device, and tension means connecting said support with said brake member for throwing the same to braking position when released by said latching element.

[Claims 6 to 13 not printed in the Gazette.]

1,210,196. CONCRETE-BUCKET. CLYDE ALSTON NELSON, Cristobal, Canal Zone. Filed Sept. 21, 1916. Serial No. 121,454. (Cl. 57—13.)



1. In a bucket of the class described, a bucket body, a bottom for said bucket connected therewith to dump by gravity, pivoted means on the bucket for connection with a lowering and hoisting cable, and means connected with the dumping bottom and detachably engaging the first-mentioned means to subject said first means to the load imposed on the dumping bottom and exert a downward pull on said first means, said second means being adapted to completely detach itself from the first means when said first means is relieved of the weight of the load by the bucket coming to rest in the lowered position.

2. A bucket of the class described having a dumping bottom, a lever fulcrumed on the bucket and provided with cable attaching means, and an element connected with said bottom and adapted to detachably engage the said lever to hold the bottom in the closed position.

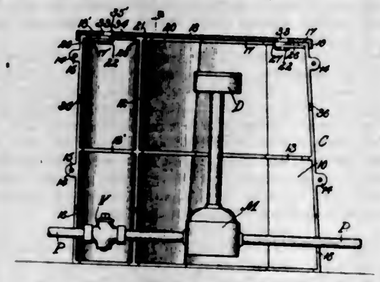
3. A bucket of the class described having a bucket bottom and a bail, a lever pivoted at one end on said bail and provided, between the ends of said lever, with means for connection with a cable, said lever being adapted to drop when the cable is relieved of the weight of the bucket, and adapted to be swung upwardly by the cable when the latter is subjected to the weight of the bucket, an element connected with said dumping bottom, and means to detachably engage said element with said lever at the end opposite the pivot.

4. A bucket of the class described having a dumping bottom and a bail, a lever pivoted at one end on said bail, and provided, between the ends of the lever, with means for connection with a cable, said lever being adapted to drop when the cable is relieved of the weight of the bucket, and to be swung upwardly by the cable when the latter is subjected to the weight of the bucket, an element connected with said dumping bottom, means to detachably engage said element with the lever at the opposite end from the pivot, and means independent of said element to limit the upward movement of the lever.

5. A bucket of the class described having a dumping bottom and a bail, a lever pivoted at one end on said bail, and provided, between the ends of the lever, with means for connecting with a cable, said lever being adapted to drop when the cable is relieved of the weight of the bucket, and to be swung upwardly by the cable when the latter is subjected to the weight of the bucket, an element connected with the dumping bottom and extending upwardly therefrom, means on said element at the upper end to detachably engage the lever at the opposite end from the pivot, said element when released from the lever being adapted to be carried downward by the bottom when dumping, and co-acting means on the bucket and on said element to arrest the downward movement of said element and limit the downward movement of the said bottom.

[Claim 6 not printed in the Gazette.]

1,210,197. WATER-METER BOX. JAMES F. O'CONNOR, El Reno, Okla., assignor to El Reno Foundry & Machine Co., El Reno, Okla., a Corporation of Oklahoma. Filed July 6, 1916. Serial No. 107,749. (Cl. 137—13.)



In a meter box of the character set forth, the combination of a rigid casing having an inwardly projecting flange at its top at one side and having inwardly projecting lips at its other side, a cover for the casing having outwardly and downwardly projecting claws coöperating with said lips and having a downwardly projecting flange embracing the top of the casing, a movable bolt connected to the under surface of the cover remote from the claws, and means projecting through the cover to manipulate the bolt to cause the bolt to engage with or disengage from said inwardly projecting flange, said bolt turning means comprising a handle for lifting the cover when unlocked.

1,210,198. CIGARETTE. OLE A. OWEN, New York, N. Y. Filed Dec. 22, 1915. Serial No. 68,132. (Cl. 131—52.)



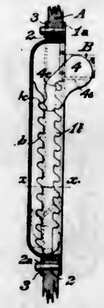
1. An article of manufacture comprising a cigarette having at its outer end a combustible cigarette holder.

2. An article of manufacture comprising a cigarette with a tubular combustible wrapper inclosing tobacco, the wrapper at the outer end of the cigarette extending outwardly beyond the tobacco, and forming a combustible socket adapted to receive and retain the end of another cigarette.

3. An article of manufacture comprising a cigarette with a tubular combustible wrapper inclosing tobacco, the wrapper at the outer end of the cigarette extending outwardly and flaring beyond the tobacco, and forming a combustible socket adapted to receive and retain the end of another cigarette.

4. An article of manufacture comprising a cigarette with a tubular combustible wrapper inclosing tobacco, the wrapper at the outer end of the cigarette extending outwardly beyond the tobacco, and forming a combustible socket adapted to receive and retain the end of another cigarette, the inner end of the cigarette being tapered so as to form a mouth end of decreased diameter.

1,210,199. STRINGER-SUPPORT FOR FREIGHT-CARS. CARL F. PASSECK, Alameda, Cal. Filed Sept. 21, 1915. Serial No. 51,831. (Cl. 20—94.)



1. A device for adjustably supporting stringer bars or shelves, comprising a case or pocket adapted to be mounted on a wall, the vertical sides of said case having formed therein two rows of oppositely facing, inclined recesses, and a bracket, adapted to support the end of a bar or shelf, and having two lugs projecting laterally from each side to simultaneously engage one recess in each of said rows.

2. A device for adjustably supporting the end of a bar or shelf, comprising a case or pocket adapted to be secured to a vertical surface and having two rows of oppositely facing recesses formed in its side walls, and a bracket or seat member comprising two parallel plates, a horizontal seat plate between the same, and two lugs projecting laterally from the outer side of each parallel plate, said lugs adapted to engage recesses in said opposite rows to support the bar or shelf at any desired height, and said bracket being adapted to be tilted back and entirely contained within the case or pocket when not in use.

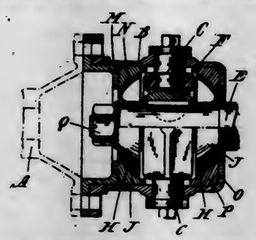
1,210,200. UNIVERSAL JOINT. RICHARD PENTONY, Stafford, England. Filed Aug. 17, 1916. Serial No. 115,370. (Cl. 74—19.)

1. In a universal joint, an outer casing member having parti-spherical inner surfaces, an inner forked member, driving pins on said outer member engaging said inner member, and loose parti-spherical washers engaging said surfaces, substantially as set forth.

2. In a universal joint, an outer casing member, an inner forked member, driving pins on said outer member engaging said inner member, loose rings on the interior of said outer member having parti-spherical surfaces, and loose parti-spherical washers engaging said rings, substantially as set forth.

3. In a universal joint, an outer casing member having parti-spherical inner surfaces, a shaft entering said cas-

ing, a forked inner member on said shaft, driving pins on said outer member engaging said forked member, and loose



parti-spherical washers on said shaft engaging said surfaces, substantially as set forth.

1,210,201. TRAP FOR WASTE-WATER PIPES. WALTER H. PERKINS, Watertown, N. Y., assignor to J. B. Wise Inc., Watertown, N. Y., a Corporation. Filed Dec. 6, 1915. Serial No. 65,387. (Cl. 182—12.)



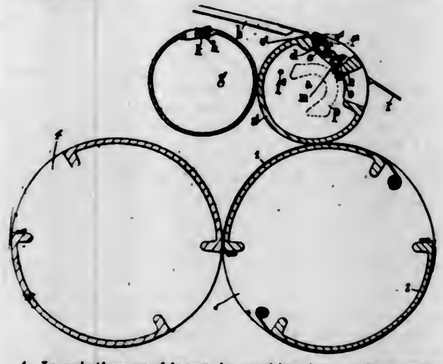
In a non-siphoning sanitary waste-pipe trap, the combination with a disk-shaped trap-cover, of an inlet-pipe mounted therein and extending downwardly therefrom in a substantially straight line, an outlet-pipe also mounted in the said cover and extending upwardly therefrom, the discharge-end of the inlet-pipe being smaller than the receiving-end of the outlet-pipe, and a depending, domical trap-body removably connected with the said cover and housing the discharge-end of the inlet-pipe, whereby siphoning is avoided, and whereby when the said domical body is removed from the said cover, the inlet-pipe, being straight, may be readily cleaned.

1,210,202. PRINTING MACHINERY. CHARLES POLLARD, Wembley, London, and ARTHUR BURROUGHES EVANS, Leeds, England, assignors to George Mann & Company Limited, Hunslet, Leeds, England. Filed Mar. 30, 1915. Serial No. 18,034. (Cl. 101—89.)

1. In printing machinery, in combination, an impression cylinder, an impression surface on said cylinder, means for feeding sheets to said impression surface, means for final delivery of said sheets from said cylinder, and a carrying cylinder adapted to receive sheets from said impression surface, and re-deliver said sheets to said impression surface.

2. In printing machinery, in combination, an impression cylinder, an impression surface on said cylinder, a feed-board at the upper side of said impression cylinder, means for stripping completely printed sheets from said cylinder, and a carrying cylinder adapted to receive sheets from said impression surface and re-deliver said sheets to said impression surface.

3. In printing machinery, in combination, an impression cylinder, an impression surface on said cylinder, a feed-board at the upper side of said impression cylinder, means for stripping completely printed sheets from said cylinder, said feed-board and stripping means being approximately in a plane tangential to said impression cylinder, and a carrying cylinder adapted to receive sheets from said impression surface, and re-deliver said sheets to said impression surface.

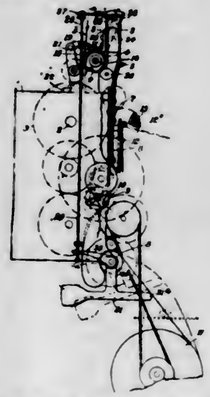


4. In printing machinery, in combination, an impression cylinder, an impression surface on said cylinder, means for feeding sheets to said cylinder, means for final delivery of said sheets from said impression cylinder, grippers adapted to hold sheets on said impression surface during printing, and grippers adapted to hold sheets on said impression surface during their travel from said carrying cylinder to said delivery means.

5. In printing machinery, in combination, an impression cylinder, an impression surface on said cylinder, means for feeding sheets to said impression cylinder, means for final delivery of said sheets from said impression cylinder, a carrying cylinder adapted to receive sheets from said impression surface and re-deliver said sheets to said impression surface, and grippers on said carrying cylinders adapted to hold a sheet on said carrying cylinder during the feeding of the next sheet to said impression cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,210,203. SAFETY DEVICE FOR MOTION-PICTURE MACHINES. NICHOLAS POWER, Brooklyn, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 18, 1913. Serial No. 749,238. (Cl. 88—17.)



1. In a motion picture projecting machine, the combination of a frame having a projection aperture, film feeding mechanism for feeding the film across said aperture, an automatic shutter for cutting off the light from the film at the aperture when the machine is stopped, said film feeding mechanism embodying a normally rotating part, and means for stopping said machine comprising a trip member mounted to be shifted into engagement with said rotating part and an operating member for said trip positioned to be actuated by the end thrust of the film on departing from its normal path of movement.

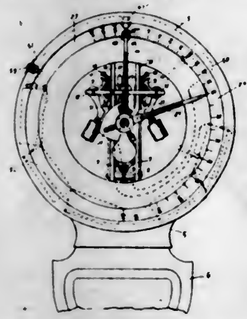
2. In a motion picture machine the combination of a film feed mechanism comprising successive film feeding devices and operating means therefor, said mechanism embodying a normally rotating part, means for engaging and stopping said part, and means out of engagement with the film in its normal path of movement and operated by the thrust of the film on a departure from such path to actuate said stopping means.

3. In a motion picture machine the combination of a plurality of successive film feeding devices, a guide inclosing a loop of film between said devices, said guide having opposite stationary guiding surfaces for directing said film in a predetermined direction upon enlargement of said loop, and means operated by the enlargement of said loop for stopping said machine.

4. In a motion picture machine having a film feeding mechanism comprising a continuously driven sprocket, an intermittent sprocket, a second continuous sprocket beyond said intermittent sprocket and a receiving reel beyond said last mentioned sprocket, the combination of means for stopping said machine and means operated by an abnormal accumulation of film between two of said sprockets for actuating said stopping means, and means between said last mentioned sprocket and said reel for actuating said stopping means.

5. In a motion picture machine the combination of a plurality of successive film feeding devices, a guide for causing the film to be projected in a predetermined direction upon enlargement of a loop of film between such devices, said guide having opposite stationary film engaging surfaces, a movable member adjacent said loop-guiding means, and in the path of the enlargement of the loop controlled by such means, and means for cutting off the light from the film actuated by said movable member.

1,210,204. WEIGHING-SCALE. ORWELL C. REEVES, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Mar. 4, 1915. Serial No. 11,949. (Cl. 73—101.)



1. In a scale and in combination with the weighing mechanism thereof, a pair of indicator hands adapted to be driven from the weighing mechanism, means for locking one of said indicator hands in any adjusted position, and means for moving the other of said indicator hands relatively to the locked indicator hand.

2. In a scale and in combination with the weighing mechanism thereof, a pair of indicator hands adapted to be driven from the weighing mechanism, electrically-actuated means for locking one of said indicator hands in any adjusted position, and means for moving the other of said indicator hands relatively to the locked indicator hand.

3. In a scale and in combination with the weighing mechanism thereof, a pair of indicator hands adapted to be driven from the weighing mechanism, electrically-actuated means for locking one of said indicator hands in any adjusted position, and manually-operated means for moving the other of said indicator hands relatively to the locked indicator hand.

4. In a scale and in combination with the weighing mechanism thereof, a pair of indicator hands arranged to be simultaneously driven from the weighing mechanism, electrical mechanism and connections whereby one of the indicator hands may be held in any adjusted position, and means for moving the other of said indicator hands while the first-mentioned indicator hand is so held.

5. In a scale and in combination with the weighing mechanism thereof, indicating mechanism comprising a pair of indicator hands, one of which is arranged to be driven from the weighing mechanism of the scale, means normally holding the second of said indicator hands in position to be driven from the first-mentioned indicator hand, and means for allowing independent movement of the second indicator hand relatively to the first indicator hand in any adjusted position of the latter.

[Claims 6 to 22 not printed in the Gazette.]

1,210,205. DENTAL-FLOSS CARRIER. CHAUNCEY E. RICHARDSON, Washington, D. C. Filed June 28, 1916. Serial No. 106,449. (Cl. 132—12.)



1. A dental floss carrier comprising a container for dental floss having an interiorly tapered end provided with an apertured apex for passage of the floss, and internal movable means for interiorly clamping the floss in such aperture.

2. A dental floss carrier comprising a cylindrical container for dental floss having an interiorly tapered end provided with an apertured apex for the passage of the floss, internal movable means for interiorly clamping the floss in such aperture, and a removable cap adapted to fit over either end of the said container.

3. A dental floss carrier comprising a container, a spindle therein for a cop or reel of dental floss, an interiorly tapered end for said container provided with an apertured apex for passage of the floss, and movable means for relatively shifting said tapered end and spindle for interiorly clamping the latter and the floss in said apertured tapered end.

4. A dental floss carrier comprising a container, a spindle therein for a cop or reel of dental floss, an interiorly tapered end for said container provided with an apertured apex for passage of the floss, an internal movable means for positively shifting said spindle toward and into said tapered end to release the floss for withdrawal and to interiorly clamp the floss in said tapered end.

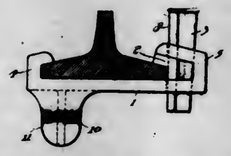
5. A dental floss carrier comprising a container for the floss and clamping means for the floss arranged wholly therein.

[Claims 6 to 10 not printed in the Gazette.]

1,210,206. ANTICREEPER. LOUIS J. RIEGLER, Ben Avon, Pa., assignor to The P. & M. Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 5, 1914. Serial No. 810,489. (Cl. 238—4.)

1. A rail anchor comprising a transverse element having a tie abutting extension near one end thereof, a jaw at one end adapted to receive one side of the rail base, and a vertically arranged wedging pin at the other end of said element, said pin having substantially a line contact with the edge of said rail base, whereby it may be driven downward readily to insure a powerful grip of said rail between itself and said jaw.

2. An anti-creeper comprising a yoke having an opening at one end, a vertically arranged pin fitting in said opening and having an edge in contact with one side of the rail base and a jaw at the other end of said yoke adapted to fit over the other side of said rail base, whereby said anti-creeper may pivot about said edge to increase the grip on the rail base.



3. A rail anchor comprising a yoke having a jaw at each end thereof, one of said jaws being larger than the corresponding side of the rail base, a filler block interposed between said jaw and the rail base, and a pin passing through said jaw, said pin bearing directly against said rail base.

4. A rail anchor comprising a yoke having a jaw at each end thereof, one of said jaws being larger than the corresponding side of the rail base, said jaw having an upper and a lower opening in substantial alinement with each other, a wedge shaped pin passing through said openings, said pin having an edge adapted to cut into the rail base and a filler block between said jaw and said rail base, said filler block straddling said pin.

5. An anti-creeper comprising an element arranged substantially transversely beneath the rail base, a rail gripping jaw at one end of said element, a tie abutting flange at the same end thereof, an enlarged jaw at the other end thereof, a filler block conforming to the outer and upper surfaces of the rail base and arranged between the latter and said enlarged jaw, said filler block having a cut away portion to expose part of the outer edge of the rail base and a pentagonal pin of tapering outline passing vertically through holes in said outer jaw and arranged with one of its edges cutting into the exposed portion of said rail base edge, whereby said cutting edge acts as a pivotal point for the anti-creeper and whereby said filler block is locked in position by said pin.

[Claims 6 to 8 not printed in the Gazette.]

1,210,207. DENTAL-FLOSS HOLDER. BENJAMIN P. ROACH, Birmingham, Ala. Filed Apr. 24, 1916. Serial No. 93,259. (Cl. 132—12.)



1. A floss holder having divergent arms at one end forming a yoke, a floss guide notch in the end of each arm, a floss guide at the crotch of the yoke for directing the floss with approximately a right angle turn to one side of the yoke, a short post-like extension at the end of the holder about which the returning end of a strand of floss is adapted to be wrapped, and clamp means on the holder spaced from the post-like extension and adapted to receive and hold the ends of the strand of floss in service on the holder.

2. A dental floss holder comprising a member having at one end laterally and outwardly curved divergent arms forming a yoke, floss guide notches at the ends of the yoke arms, and a guide and double fastening means for the floss at the end of said member comprising a guide about which one end of the strand of floss can be passed upwardly and guided over the outer side of one yoke arm, a stud lying in the plane of the arm and disposed to receive and have wound about it the other end of the floss strand after crossing the yoke and passing up along the other yoke arm, and means spaced from the end of said member and adapted to receive and hold the ends of the floss strand.

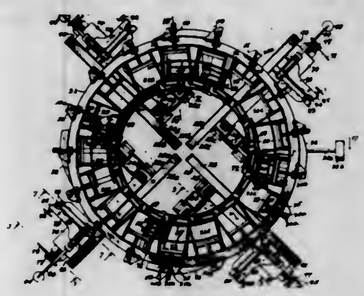
3. A dental floss holder comprising a tubular floss holding handle, a member hinged to the handle and adapted to fold against it, a yoke on said member formed by divergent arms adapted to embrace and clasp the handle in folded position, and means to hold a strand of floss stretched across the ends of said yoke arms.

4. A dental floss holder comprising a handle, a yoke arm connected to the handle and adapted with the handle to form a clamp for one end of a piece of dental floss, said arm having at its outer end a yoke and a guide, said guide being in position to hold the floss disposed to be passed around one arm of the yoke, a stud adapted to receive the floss after it has been passed across the neck of the yoke and around the other yoke arm, and a clamp near the end of the arm to receive and hold the free end of the floss.

5. In a dental floss holder, in combination, a tubular handle adapted to contain a coil of dental floss, said handle having an opening through which the floss can be drawn out, an arm comprising a yoke-like member at one end pivoted to the handle and adapted to receive and clamp the floss between it and the handle, a yoke at the other end of said arm, there being a notch, a stud, and a clamp near the free yoke end of the arm for guiding and holding the floss stretched across the neck of the yoke.

[Claims 6 to 9 not printed in the Gazette.]

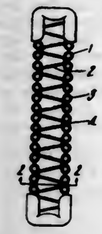
1,210,208. SHINGLE-MACHINE. THOMAS WILBY ROACH, Lyman, Wash. Filed Dec. 22, 1915. Serial No. 68,170. (Cl. 143—8.)



1. In a shingle machine, a base, a plurality of saws, a rotatable shingle block carrier open at its center and provided with a plurality of shingle block pockets, saw actuating means extended through said open center, and means for rotating said carrier to present a shingle block to each of said saws successively.

2. A shingle machine, comprising a base, a plurality of saws spaced thereon, a rotatable carrier provided with a plurality of pockets open at top and bottom, a head-block guided in each pocket, means for normally holding said head-blocks in inner positions, means for moving the same outwardly of said carrier at intervals, a set of ways arranged between adjacent saws, beneath said carrier, consisting of two tracks arranged in parallelism, supporting posts for the ends of each track, and means for raising or lowering both ends of each track simultaneously and independently of the other track.

1,210,209. GARMENT-STAY. WILLIAM J. ROCHE, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed June 22, 1914. Serial No. 846,591. (Cl. 2—76.)

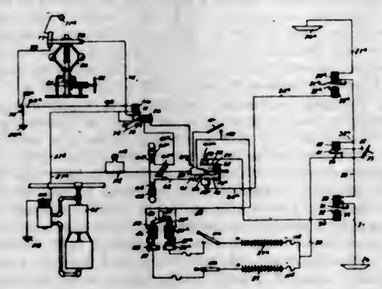


1. A garment stay, comprising wire bent back and forth to form a series of transverse intermediate portions extending from edge to edge of the stay, adjacent intermediate portions at the edges of the stay being connected by arched portions extending longitudinally of the stay and out of the plane of the intermediate portions, and all of which arched portions being on the same face of the stay.

2. A garment stay, comprising wire bent back and forth to form a series of transverse portions or crossings extending from edge to edge of the stay, the wire at the ends of the crossings being deflected toward the center line of the stay to form a loop or eye at the end of each crossing, the loops or eyes at the ends of successive crossings being connected by arched portions extending longitudinally of the stay and out of the plane of the intermediate portions, and all of which arched portions being on the same face of the stay.

3. A garment stay, comprising wire bent back and forth to form a series of transverse portions or crossings extending from edge to edge of the stay, the wire at the ends of the crossings being deflected toward the center line of the stay to form a loop or eye at the end of each crossing, the loops or eyes at the ends of successive crossings being connected by arched portions extending longitudinally of the stay, said portion being arranged in two parallel longitudinal rows, the intermediate portions or crossings being deflected out of the plane of the stay from a straight line to form a series of loops or convolutions lying along the center line of the stay between said rows of arched portions.

1,210,210. AUTOMATIC TRAIN-CONTROL SYSTEM. STEWART D. RODGERS, Pittsburgh, Pa., assignor of one-fourth to Clarence G. Hildreth, Pittsburgh, Pa. Filed Apr. 24, 1915. Serial No. 23,710. (Cl. 246—58.)



1. Train control apparatus, comprising a brake controlling valve, a magnet arranged to normally hold said valve out of operation, a signal circuit, and means for controlling said magnet, comprising circuits on the train and including a portion of the track, said last named circuits being adapted on a first interruption to close said signal circuit and on a succeeding interruption to deënergize said magnet and allow the valve to operate.

2. Train control apparatus, comprising a brake controlling valve, a magnet arranged to normally hold said valve out of operation, a signal circuit, means for controlling said magnet, comprising circuits on the train and including a portion of the track, said last named circuits being adapted on a first interruption to close said signal circuit and on a succeeding interruption to deënergize said magnet and allow the valve to operate, and means for energizing said magnet to release the brakes.

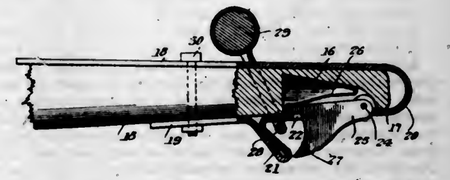
3. Train control apparatus, comprising a brake operating device on the engine, normally closed circuits including a portion of the track for controlling said brake operating device, two signal devices on the engine, a normally open circuit through each of said signals, means for closing one of said open circuits on a first interruption of said normally closed circuit, and means for closing the other open circuit on a succeeding interruption of said normally closed circuit.

4. Train control apparatus, comprising a brake operating device on the engine, normally closed circuits including a portion of the track for controlling said brake operating device, two signal devices on the engine, a normally open circuit through each of said signals, means for closing one of said open circuits on a first interruption of said normally closed circuit, and means for closing the other open circuit on a succeeding interruption of said normally closed circuit and for simultaneously causing actuation of said brake operating device.

5. Train control apparatus, comprising a train pipe, valve mechanism operated by train pipe pressure and arranged when operated to produce several successive reductions in train pipe pressure, a controlling device therefor arranged to normally hold said valve mechanism in position with the exhaust closed, and means for operating said controlling device, comprising electrical circuits on the train and including a portion of the track and arranged when interrupted to allow said controlling device to operate and cause said successive reductions in train pipe pressure.

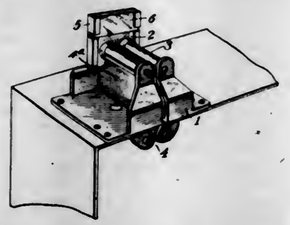
[Claims 6 to 22 not printed in the Gazette.]

1,210,211. POLE-TIP AND HOLDBACK. SEYMOUR D. ROGERS, Erin, N. Y. Filed Nov. 26, 1915. Serial No. 63,503. (Cl. 21—92.)



The combination with a pole-tip having near its forward end a longitudinal recess in the under face thereof and a transverse recess at the front end of and communicating with and intersecting said longitudinal recess, in combination with a hold-back attachment comprising a yoke having upper and lower limbs abutting on the top and bottom faces of the pole-tip, said lower limb having intermediate the ends thereof a forwardly extending hook, a slot extending forwardly with respect to said hook, and eyes on the upper face of the limb at the forward end of said slot, a bolt engaging said eyes, and a safety catch pivoted on said bolt and coöperating with said hook, said catch adapted to be retracted within the longitudinal recess of the pole-tip and the eyes on the upper face of the lower limb forming closures for the ends of the transverse recess in the pole-tip; and an actuating spring for the safety catch positioned within said recess.

1,210,212. FILM-GUIDING DEVICE. JAMES G. G. ROSS, New York, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of New York. Filed Nov. 16, 1912. Serial No. 731,684. (Cl. 88—17.)



1. In a motion picture projecting machine, the combination with a film-guide member having a passage way for the film, of means for engaging the edge of the film and holding it out of contact with the end of said passage way.

2. In a moving picture projecting machine the combination of a member having a film guide-way closed at one end, and means comprising a member having a glazed wearing surface for engaging the edge of a film and holding it out of contact with the end of said guide-way.

3. An attachment for film-guides, comprising a member having a glazed wearing surface and means for attaching the same to the guide-way in such manner that its glazed surface projects beyond the surface of the end wall of the guide-way.

4. An attachment for magazine valves having an end wall with oppositely projecting edges comprising a supporting member having ways for detachably engaging the projecting edges of the valve, and a piece of glass carried by said member above said ways and having its face projecting beyond the surface of said valve adjacent the path of the film.

1,210,213. LENS-FASTENING. FREDERICK RUNKEL, Waukegan, Ill. Filed Feb. 18, 1916. Serial No. 79,120. (Cl. 88—47.)



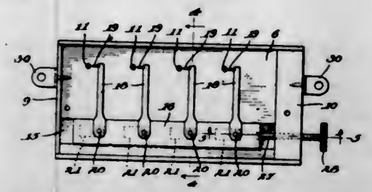
1. In eye glasses, the combination with one of the lenses thereof, of a connecting element fastened to said lens; an elongated brace on said connecting element cooperating with the lens and extending partially around the periphery thereof; and a reinforcing member interposed between the lens and said brace and connected with the latter for preventing outward bending of the lens of said brace, substantially as described.

2. In eye glasses, the combination with one of the lenses thereof, of a connecting element fastened to said lens; an elongated brace on said connecting element coöperating with the lens and extending partially around the periphery thereof; and a reinforcing member interposed between the lens and said brace and connected with the ends of the latter for preventing outward bending of the end portions of the brace, substantially as described.

3. In eye glasses, the combination with one of the lenses thereof, of a connecting element fastened to said lens; an elongated brace on said connecting element cooperating with the lens and extending partially around the periphery thereof; and an elongated comparatively thin reinforcing member interposed between the lens and said brace and connected with the ends of the brace for preventing outward bending of the end portions of said brace, substantially as described.

4. In eye glasses, the combination with one of the lenses thereof, of a nose bridge connected at one end to said lens; ears on said end of said bridge engaging against opposite sides of the lens; a fastening member connecting said ears and passing through the lens; a brace coöperating with the lens and extending partially around the periphery thereof; and an elongated comparatively thin reinforcing member arranged between said ears and interposed between the lens and said brace and connected with the ends of said brace for preventing outward bending of the end portions of said brace, substantially as described.

1,210,214. SPARKING INDICATOR. HERBERT J. SASS and OLIVER H. SHAW, Chicago, Ill. Filed Feb. 29, 1916. Serial No. 81,111. (Cl. 175—183.)



1. A sparking indicator comprising, in combination, a stationary holder of insulating material; a channel provided in one side of said stationary holder; a movable holder of insulating material adjustably mounted in said channel; a plurality of sparking points carried by the stationary holder; a plurality of sparking points carried by the movable holder adapted to be carried toward and from said first mentioned sparking points by movement of said movable holder; and means for moving said movable holder, substantially as described.

2. A sparking indicator comprising, in combination, a stationary holder of insulating material; a channel provided in one side of said stationary holder; a movable holder of insulating material adjustably mounted in said channel; a plurality of sparking points carried by the stationary holder; a plurality of sparking points carried by the movable holder adapted to be carried toward and from said first mentioned sparking points by movement of said movable holder; and a manually adjustable screw coöperating with said movable holder for adjusting the same, substantially as described.

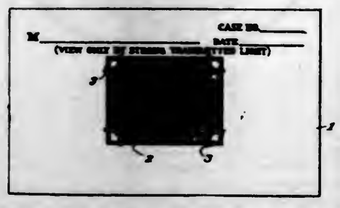
3. A sparking indicator comprising, in combination, a stationary holder of insulating material; a channel provided in one side of said stationary holder; a movable holder of insulating material adjustably mounted in said channel; a plurality of sparking points carried by the stationary holder; a plurality of sparking points carried by the movable holder adapted to be carried toward and from said first mentioned sparking points by movement of said movable holder; a manually adjustable screw coöperating with said movable holder for adjusting the same; binding posts on said stationary holder; and spring pressed brushes for connecting said binding posts with the sparking points of said movable holder, substantially as described.

4. A sparking indicator comprising, in combination, a stationary holder of insulating material; a channel provided in one side of said stationary holder; a movable holder of insulating material adjustably mounted in said channel; a plurality of sparking points carried by the stationary holder; a plurality of sparking points carried by the movable holder adapted to be carried toward and from said first mentioned sparking points by movement of said movable holder; means for moving said movable holder; binding posts on said stationary holder; means electrically connecting said binding posts with the sparking points of said movable holder, said means comprising elongated contact plates at the under side of said movable holder electrically connected with the sparking points thereof; and spring pressed brushes mounted in said stationary holder adapted to constantly engage with said plates and electrically connect the same with said binding posts, substantially as described.

5. A sparking indicator comprising, in combination, a stationary holder of insulating material; a movable holder of insulating material adjustably mounted on said stationary holder; a plurality of sparking points carried by the stationary holder; a plurality of sparking points carried by the movable holder adapted to be carried toward and from said first mentioned sparking points by movement of said movable holder; means for moving said movable holder; and a cover plate arranged over said sparking points having spaced openings through which said sparking points may be viewed, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,210,215. SUPPORT FOR X-RAY NEGATIVES. FRANCIS LE ROY SATTERLEE, Jr., Flushing, N. Y. Filed June 3, 1914. Serial No. 842,577. (Cl. 41—21.)



The combination with a translucent celluloid support having a dull mat surface and a glossy surface, of a radiograph negative flexible celluloid film having an image-bearing surface and a glossy surface, the said dull mat surface of the support and the image-bearing surface of the radiograph negative being in contact, means lying substantially distant from the margin of said support for holding the said support and negative thus in contact and suitable indicia intermediate said retaining means and the margin of said support, adapted to serve as a suitable record of the negative secured to said support.

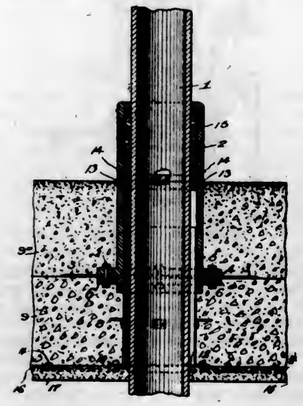
1,210,216. SAFETY-RAZOR. FRANK SCHLATTAU, Los Angeles, Cal. Filed Jan. 4, 1916. Serial No. 70,191. (Cl. 30—12.)



1. In a razor of the class described, a head having its upper side transversely convex, the ends of the said head being arcuate and beveled in the direction of the upper face of the head, a cap plate disposed upon the upper face of the head and having its underside concave to conform to the convexity of the said face of the head, the cap plate being provided at each end with a flange projecting from the underside thereof, the inner face of each flange being arcuate to conform to the corresponding end of the head, the said face of each flange being further beveled in the direction of its lower edge to snugly fit the bevel of the corresponding end of the head whereby the head is adapted to have wedging reception between the flanges of the said cap plate, and means for securing the head and cap plate together in assembled relation.

2. In a razor of the class described, a head having beveled ends and provided in its under face at one end with a seat, a slidable latch member arranged at the other end of the head and having a portion projecting beyond the beveled edge thereof, a cap plate disposed upon the upper surface of the head and having beveled flanges fitting the said beveled end edges of the head, the flange at one end of the cap plate being provided with a lug engaging in the said seat in the under-side of the head and the other flange of the cap plate being provided with a socket to receive the projecting end of the latch member.

1,210,217. PIPE-SLEEVE. GEORGE W. SCHODDE, New York, N. Y. Filed Apr. 21, 1916. Serial No. 92,632. (Cl. 126—314.)



1. The combination of a molded floor, a pipe fitted freely therein, and a sleeve embedded in the floor and extending above the same and freely surrounding the pipe, permitting expansion and contraction of the pipe within the sleeve, said sleeve having an extension extending laterally around the sleeve, said sleeve and extension embedded in the floor to prevent leakage of water through the floor along the exterior of the sleeve.

2. The combination of a molded floor, a pipe fitted freely therein, a sleeve embedded in the floor and freely surrounding the pipe, permitting expansion and contraction of the pipe within the sleeve, and a supplemental sleeve embedded in the floor and loosely receiving said pipe, said sleeves being fitted one to the other, one of said sleeves having a laterally disposed extension surrounding the sleeve embedded in the floor to prevent leakage of water through the floor along the exterior of the sleeve.

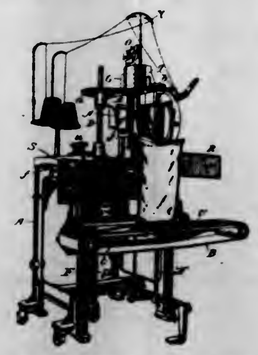
3. The combination of a floor, a pipe fitted freely therein, a sleeve fitted in the floor and extending above the same, and freely surrounding the pipe, permitting expansion and contraction of the pipe within the sleeve, said sleeve having a flange, and a flashing secured to said flange, the flange and said flashing being embedded in the floor.

4. The combination of a molded floor, a pipe fitted freely therein, and a sleeve embedded in the floor and extending above the same and freely surrounding the pipe, permitting expansion and contraction of the pipe within the sleeve, and having an inturned end portion surrounding the pipe, said sleeve having an outward extension surrounding the sleeve and embedded in the floor between the upper and lower surfaces thereof to prevent leakage along the sleeve within the floor.

5. The combination of a molded floor, a pipe fitted freely therein, and a sleeve embedded in the floor and extending above the same and freely surrounding the pipe, permitting expansion and contraction of the pipe within the sleeve, said sleeve having an outwardly disposed extension embedded in the floor, the floor having a raised

curb-like portion surrounding the upper portion of the sleeve above the floor level to prevent leakage of water from the floor level between the sleeve and the floor.

1,210,218. APPARATUS FOR FEEDING AND SEWING FILLED SACKS. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 6, 1910. Serial No. 536,765. (Cl. 112—24.)



1. In an organized apparatus for feeding and sewing filled bags, a supporting framework, a sewing head overhanging the edge thereof, means for supporting the sewing head, means for raising and lowering it and for clamping it in position, and a conveyer belt with means for raising and lowering it, and means for driving the stitch-forming mechanism of the sewing head and for driving the conveyer belt.

2. In an organized apparatus for feeding and sewing filled bags, a supporting framework, a sewing head overhanging the edge thereof, means for supporting the sewing head, means for raising and lowering it and for clamping it in position, a conveyer belt with means for raising and lowering it, and a single upright driving shaft, a bracket supporting the sewing head and having a portion sleeved on said shaft, said shaft also carrying a worm gear, and connections between the shaft and the sewing head for driving the sewing mechanism, and between the worm gear and the conveyer belt for driving the latter.

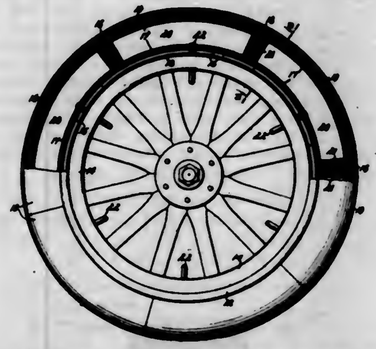
3. In an organized apparatus for feeding and sewing filled bags, a supporting framework, a sewing head overhanging the edge thereof, means for supporting the sewing head including a bracket, means for raising and lowering said bracket, a conveyer belt with means for raising and lowering it, and a single upright driving shaft, said bracket being vertically movable on said upright shaft, and said conveyer belt being also vertically movable with respect thereto, with means for driving the sewing mechanism and for driving the conveyer belt.

4. In an organized apparatus for feeding and sewing filled bags, a supporting framework, a standard thereon, a bracket vertically movable on said standard, a sewing head carried by said bracket, and a lever pivoted to the standard, and having a link connection with the bracket for effecting the vertical movement of said bracket.

5. In an organized apparatus for feeding and sewing filled bags, a supporting frame, a conveyer mounted on said supporting frame and projecting forwardly therefrom, a sewing head mounted on said supporting frame and overhanging said conveyer, means for adjusting said sewing head vertically on the frame including a lever located above said conveyer projecting toward the front of the machine to a position convenient for the hand of the operator, and means for controlling the sewing head and the conveyer including a lever mounted on the supporting frame and projecting toward the front of said frame to a position convenient for the foot of the operator.

[Claims 6 to 37 not printed in the Gazette.]

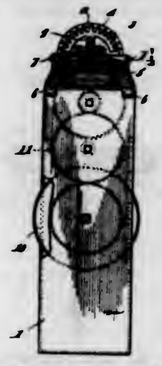
1,210,219. SECTIONAL VEHICLE-TIRE. GEORGE SHEELY and JOSEPH H. SHEELY, Marshalltown, Iowa. Filed June 6, 1916. Serial No. 101,900. (Cl. 152—22.)



1. A sectional vehicle tire, comprising a shoe, sleeves fitting into the said shoe with their open ends abutting, each sleeve having a transverse partition intermediate its ends, and inflatable inner segmental tubes having closed ends, each tube fitting into corresponding ends of adjacent sleeves with the closed ends at the said partitions.

2. A sectional vehicle tire, comprising a shoe, sleeves fitting into the said shoe with their open ends abutting, each sleeve having a transverse partition intermediate its ends and nearer one end than the other, and inflatable inner segmental tubes having closed ends, each tube fitting into corresponding ends of adjacent sleeves with the closed ends at the said partitions.

1,210,220. RAZOR. FRANK A. SHIMANS, Chicago, Ill. Filed Apr. 20, 1916. Serial No. 92,368. (Cl. 30—12.)



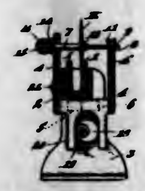
1. A razor comprising a hollow comparatively flat body; a stud rotatably mounted in said body on one wall of said body at one end thereof; a circular blade mounted on said stud, the opposite will of said body being hingedly mounted; and means for normally holding said last mentioned wall in operative position, substantially as described.

2. A razor comprising a hollow comparatively flat body; a stud rotatably mounted in said body on one wall of said body at one end thereof; a circular blade mounted on said stud, the opposite wall of said body being hingedly mounted and adapted, when in operative position, to hold said blade in position on said stud; and means for normally holding said last mentioned wall in operative position, substantially as described.

3. A razor comprising a hollow comparatively flat body; a stud rotatably mounted in said body on one wall of said body at one end thereof; a circular blade mounted on said stud, the opposite wall of said body being hingedly mounted; and keepers engaging with the lateral edges of said last mentioned wall for normally locking the same in operative position, substantially as described.

4. A razor comprising a hollow body adapted to constitute a handle; a circular blade rotatably mounted in said body and having a portion projecting from said body; cleaning devices in said body engaging with opposite sides of the cutting edge of said blade to prevent the entrance of foreign matter into said body; and means in said body for rotating said blade, substantially as described.

1,210,221. RAZOR-HONE. FRANK A. SHIMANS, Chicago, Ill. Filed Apr. 20, 1916. Serial No. 92,369. (Cl. 51—16.)



1. A razor hone comprising a pair of spaced sharpening elements; a support for said sharpening elements; a plurality of rotatable holders for the blades to be sharpened arranged above said sharpening elements and extending transversely thereof; a support for said holders mounted for transverse shifting relative to said first mentioned support, whereby the blades may be carried into engagement with either of said sharpening elements; means for shifting said second mentioned support; and means for simultaneously rotating all of said blade holders, substantially as described.

2. A razor hone comprising a pair of spaced sharpening elements; a support for said sharpening elements; a plurality of rotatable holders for the blades to be sharpened arranged above said sharpening elements and extending transversely thereof; a support for said holders mounted for transverse shifting relative to said first mentioned support, whereby the blades may be carried into engagement with either of said sharpening elements; means for shifting said second mentioned support; means for simultaneously rotating all of said blade holders, said last mentioned means comprising a shaft extending along said second mentioned support; and a gear connection between said shaft and all of said blade holders, substantially as described.

3. A razor hone comprising a pair of spaced sharpening elements; a support for said sharpening elements; a plurality of rotatable holders for the blades to be sharpened arranged above said sharpening elements and extending transversely thereof; a support for said holders mounted for transverse shifting relative to said first mentioned support, whereby the blades may be carried into engagement with either of said sharpening elements; means for shifting said second mentioned support; means for simultaneously rotating all of said blade holders; and means for releasably mounting in operative position the ends of said blade holders at one side of said second mentioned support, the opposite ends of said blade holders being mounted in the opposite side of said support, said last mentioned side of said support being hingedly mounted, substantially as described.

4. A razor hone comprising a pair of spaced sharpening elements; a support for said sharpening elements; a plurality of rotatable holders for the blades to be sharpened arranged above said sharpening elements and extending transversely thereof; a support for said holders mounted for transverse shifting relative to said first mentioned support, whereby the blades may be carried into engagement with either of said sharpening elements; means for shifting said second mentioned support; means for releasably mounting in operative position the ends of said blade holders at one side of said second mentioned support, the opposite ends of said blade holders being mounted in the opposite side of said support, said last mentioned side of said support being hingedly mounted; means for simultaneously rotating all of said blade holders, said last mentioned means comprising a shaft extending along and mounted upon said hinged side of said second mentioned support; and a gear connection between said shaft and all of said blade holders, substantially as described.

1,210,222. STROPPING-MACHINE. FRANK A. SHIMANS, Chicago, Ill. Filed Apr. 20, 1916. Serial No. 92,370. (Cl. 51—16.)



1. A stropping machine comprising an elongated flexible sharpening element; longitudinally movable means for supporting a razor blade and holding the same in engagement with said sharpening element; and means carried by the blade supporting means for curving said sharpening element transversely, substantially as described.

2. A stropping machine comprising an elongated flexible sharpening element; a carriage movable longitudinally of said sharpening element; longitudinally extending guides for coöperation with said carriage; means on said carriage for supporting a razor blade and holding the same in engagement with said sharpening element; and means on said carriage engaging with said sharpening element for imparting transverse curvature to said sharpening element in the movement of said carriage, substantially as described.

3. A stropping machine for the sharpening of circular blades comprising an elongated flexible sharpening element; a carriage movable longitudinally of said sharpening element; longitudinally extending guides for coöperation with said carriage; means on said carriage for supporting a razor blade and holding the same in engagement with said sharpening element; and inwardly extending fingers on said carriage engaging under the longitudinal edges of said sharpening element for transversely curving said sharpening element adjacent the carriage, in the movement of the latter, to conform with the curvature of the periphery of the blade, substantially as described.

4. A stropping machine for the sharpening of circular blades comprising an elongated flexible sharpening element; a carriage movable longitudinally of said sharpening element; longitudinally extending guides for coöperation with said carriage; means on said carriage for supporting a razor blade and holding the same in engagement with said sharpening element; and inwardly extending fingers on said carriage engaging under the longitudinal edges of said sharpening element for transversely curving said sharpening element adjacent the carriage, in the movement of the latter, to conform with the curvature of the periphery of the blade, said guides being inclined outwardly at their ends to adapt the same, upon said carriage approaching the ends of said sharpening element, to move the same outwardly from said element to allow for revolving of the blade, substantially as described.

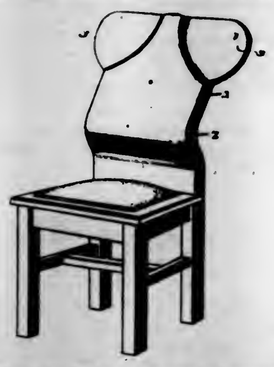
5. A stropping machine for the sharpening of circular blades comprising an elongated sharpening element; a carriage movable longitudinally of said sharpening element; means on said carriage for rotatably supporting a razor blade and holding the same in engagement with said sharpening element; and means for rotatably adjusting said blade, substantially as described.

[Claim 6 not printed in the Gazette.]

1,210,223. CHAIR-BACK. AUGUST SILBERT, Fort Stanton, N. Mex. Filed July 3, 1914. Serial No. 848,879. (Cl. 155—3.)

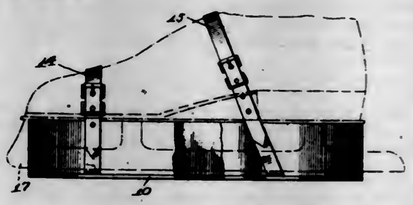
A chair back comprising a substantially perpendicularly disposed single piece of material bent transversely adja-

cent its base to provide a bulged portion on the front side thereof, the upper end of the back being relatively wider than the remainder of the material and recessed upon the



opposite sides of the longitudinal medial portion of the back, the confronting edges of the recesses being reversely curved in the form of an arc.

1,210,224. SKATER'S SANDAL. WILLIAM H. SILK, New York, N. Y. Filed Feb. 21, 1916. Serial No. 79,536. (Cl. 46—53.)



1. A skater's sandal comprising a comparatively thin sole portion, and a slotted standard thereon comprising two continuous portions secured side by side on the sole portion to form the slot, said portion of the standard having an upper surface corresponding to the foot plate of a skate and the slot corresponding to the depth of a skate blade, and means for securing the sandal over the skate to the foot of the wearer.

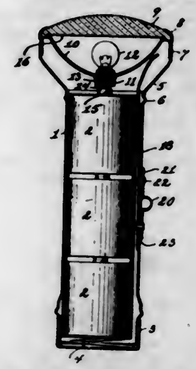
2. A skater's sandal comprising a bifurcated standard of a light material on which the foot is supported, said standard having a slot corresponding in depth to the depth of a skate blade, and spring clips within the slot to snap over the skate blade to secure the sandal thereto so as to enable a person to walk on the sandal with skates on.

3. A skater's sandal comprising a base portion, a slotted standard mounted thereon, the slot corresponding in depth to the depth of a skate blade, means for uniting the standards adjacent the top thereof to leave the slot open for the passage of the skate blade, and means for attaching the sandal over the skates to the foot of the wearer.

1,210,225. FLASH-LIGHT DEVICE. PAUL C. SMALLEY, Newark, N. J. Filed Feb. 13, 1915. Serial No. 7,919. (Cl. 240—8.5.)

1. In a flash light device of the class described, the combination of a casing, batteries and a lamp therein, a contact device for establishing electrical connections between said batteries and said lamp, a plano-convex lens, the plane side of said lens having a projecting portion to secure a reflector to the lens and holding it circumferentially free within said casing, and insulating the reflector from the casing.

2. In a flash light device of the class described, the combination of a casing, batteries and a lamp therein, a contact device for establishing electrical connections between said batteries and said lamp, a plano-convex lens,



the plane side of said lens having a circular integral stepped portion to receive and position a reflector circumferentially spaced within said casing and insulating the reflector from the casing.

1,210,226. FRAMING OR MOUNTING OF PHOTOGRAPHS, PICTORIAL CARDS, AND THE LIKE. ARTHUR EDWARD BARTON SMITH, Handsworth, Birmingham, England. Filed Sept. 7, 1915. Serial No. 49,276. (Cl. 40—156.)

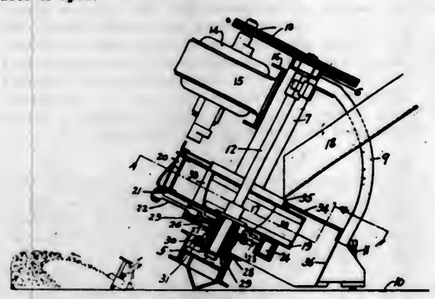


In a picture frame of the character described, in combination, a frame of channeled sections adapted to receive the glass, picture and backing, and provided with slots, strips passed through said slots and tabs to which the ends of said strips are secured adapted to be secured to the backing of the picture, substantially as described and for the purpose set forth.

1,210,227. DISTRIBUTING APPARATUS. AUGUSTUS SMITH, Roselle, N. J., assignor to Bergen Point Iron Works, Bayonne, N. J., a Corporation of New Jersey. Filed July 13, 1915. Serial No. 39,604. (Cl. 193—19.)

1. Apparatus of the type described comprising a rotary support having a peripheral wall, a door therein, means controlling the opening of said door at a predetermined point in the revolution of the support to permit the centrifugal discharge through said door of material resting on said support, and guide means leading to the door-opening and so arranged as to direct the material therethrough when the door is open.

2. Apparatus of the type described comprising a rotary support having a peripheral wall, a door therein, means controlling the opening of said door at a predetermined point in the revolution of the support to permit the centrifugal discharge through said door of material resting on said support, and guide means extending from one side of the door-opening into the sector defined by the latter and serving to direct the material therethrough when the door is open.



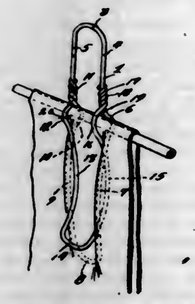
3. Apparatus of the type described comprising a rotary support having a peripheral wall, a door therein, means controlling the opening of said door at a predetermined point in the revolution of the support to permit the centrifugal discharge through said door of material resting on said support, and a curved guide leading to one side of the door-opening and presenting its convex side toward the latter to direct the material therethrough when the door is open.

4. Apparatus of the type described, comprising a rotary support having a peripheral wall, a door therein, means controlling the opening of said door at a predetermined point in the revolution of the support to permit the centrifugal discharge through said door of material resting on said support, and a curved guide leading to the door-opening and extending into the sector defined by the latter, and serving to direct the material therethrough when the door is opened.

5. Apparatus of the type described, comprising upper and lower cross beams, end uprights between the same, and an intermediate leg supporting said frame in inclined position, a spindle extending between said cross beams, a rotary support carried in inclined position by said spindle, and means insuring centrifugal discharge of material from only the raised margin of said support.

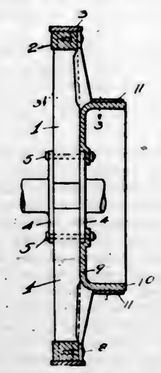
[Claim 6 not printed in the Gazette.]

1,210,228. CLOTHES-PIN. HERMAN STALB, Port Jefferson, N. Y. Filed Mar. 29, 1916. Serial No. 87,488. (Cl. 24—139.)



A clothes pin constructed from a single length of spring wire material bent substantially midway its ends to form a loop handle, one side of the loop handle in front elevation extending downwardly and bent to form a clothes clamping loop, one side of which extending upwardly and coiled about the other side of said handle loop, the other side of said handle loop extending downwardly and bent to form a second clothes clamping loop, one side of which extending upwardly and coiled about the first side of said handle loop, the opposite sides of both clothes clamping loops near said coils bulged outwardly from each other, thereby forming recesses to receive the clothes line, the opposite sides of the clothes clamping loops bulged or curved toward and overlie each other, to form a fold in the clothes.

1,210,229. WHEEL. FRANK P. STONE, Chicago, Ill. Filed Oct. 2, 1913. Serial No. 792,930. (Cl. 21—69.)



1. A wheel comprising a series of spokes, a felly with which said spokes are connected, a spider comprising a central part fastened to the wheel, a series of strengthening parts projecting from the central part along the spokes, said strengthening parts extending to a point opposite the felly of the wheel.

2. A wheel comprising a series of spokes, a felly to which said spokes are connected, an outer metal tire, a strengthening spider connected with one face of said wheel, said spider comprising a central part connected to the wheel hub and a series of strengthening parts projecting along the spokes of the wheel, said strengthening parts being dished.

3. A wheel comprising a series of spokes, a felly to which said spokes are connected, an outer metal tire, a strengthening spider connected with one face of said wheel, said spider comprising a central part and a series of strengthening parts projecting along the spokes of the wheel, said strengthening parts being dished, the ends of the strengthening parts engaging said tire so as to be forced thereagainst when pressure is applied to the wheel.

4. A wheel comprising a series of spokes, hub flanges connecting the spokes together at the center, a felly connecting the spokes together at their outer ends and strengthening device connected with one face of the wheel and comprising a central part connected with one of the hub flanges and a series of projecting strengthening parts extending along the spokes.

5. A wheel comprising a series of spokes, hub flanges connecting the spokes together at the center, a felly connecting the spokes together at their outer ends and strengthening device connected with one face of the wheel and comprising a central part connected with one of the hub flanges and a series of projecting strengthening parts extending along the spokes, said projecting strengthening parts fastened to said felly.

[Claims 6 to 11 not printed in the Gazette.]

1,210,230. STICKER. WALTER G. STRINGER, Philadelphia, Pa. Filed Jan. 25, 1916. Serial No. 74,248. (Cl. 24—67.)

1. A sticker composed of a single flat piece of paper gummed on one face of its central portion and on the op-

posite face elsewhere, and perforations along the periphery of the central gummed area.



2. A sticker composed of a single flat piece of paper having a ring of perforations, the portions inside and outside said ring being gummed on respectively opposite faces.

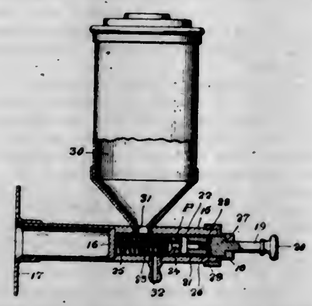
3. A sticker composed of a single flat piece of paper and comprising two substantially circular members having adhesive elements on their opposite faces, and an integral connection between said members provided with a line of perforations across it along the edge of the gummed area of one member.

4. A sticker composed of a single piece of paper and comprising a circular member gummed on one face, a second member having an adhesive element on its opposite face, and a straight neck radial to and integrally uniting both members and narrower than either, said neck having a transverse weakened line across it at the periphery of the gummed area of the first member so that no portions of the neck remain attached thereto when the second member is torn away.

5. A sticker composed of a single flat piece of paper and comprising a central disk-like body gummed on one face, an annular member surrounding the body and having an adhesive element on the other face, and a plurality of elongated narrow necks radial to the body and integrally connecting it with said member and each having a transverse weakened line.

[Claim 6 not printed in the Gazette.]

1,210,231. SOAP-DISPENSING DEVICE. EVERETT F. TAWNEY, Winona, Minn. Filed Aug. 20, 1914. Serial No. 857,742. (Cl. 221—103.)

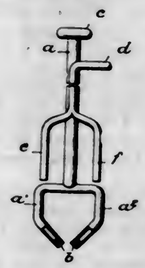


1. In a device of the class described, a cylinder having non-registering inlet and outlet ports, a hollow piston having an annular reduced portion and a transverse passage establishing continuous communication between the reduced portion of the piston and the cylinder, and a spring seated within the piston to normally project the latter, said piston having means to vary its effective length for the purpose of varying the area of the inlet port, as set forth.

2. In a device of the class described, a cylinder having non-registering inlet and outlet ports, a hollow piston having an annular reduced portion and a transverse passage establishing continuous communication between the reduced portion of the piston and the cylinder, and a spring seated within the piston to normally project the latter; the inlet port being partly overlapped by the piston when the latter is in normally projected position, said piston being provided with means whereby the amount of the overlap may be varied.

3. In a device of the class described, a cylinder having non-registering inlet and outlet ports, a hollow piston having an annular reduced portion and a transverse passage establishing continuous communication between the reduced portion of the piston and the cylinder, and a spring seated within the piston to normally project the latter; the inlet port being partly overlapped by the piston when the latter is in normally projected position, said piston being provided with detachable washers, whereby the amount of the overlap may be varied by varying the thickness of the washer, said washer operating to create a suction upon the return stroke of the piston.

1,210,232. SPRAY-PRODUCER OR ATOMIZER FOR LIQUIDS. DAVID HIBBERT THOMAS, Morriston, Wales, ARTHUR DOUGLAS BERK, London, England, and FREDERICK JOHN MORGAN, Swansea, Wales. Filed Dec. 29, 1915. Serial No. 69,201. (Cl. 137—80.)



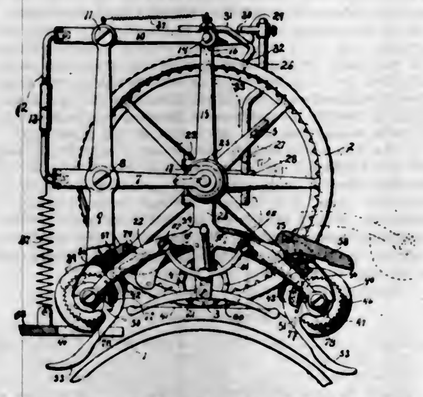
1. An atomizer for liquids comprising a tube for conveying a gas under pressure, said tube having one end forked to form branches and the free ends of said branches being disposed in convergence, and means for delivering liquid to be atomized to the surfaces of said branches whereby said liquid will flow along said surfaces to the point of atomization at the free ends of said branches.

2. An atomizer for liquids comprising a tube for conveying a gas under pressure, said tube having one end forked to form branches and the free ends of said branches being disposed in convergence, a receptacle for receiving the liquid to be atomized surrounding said tube, and nozzles leading from said receptacle and positioned to deliver the material in the receptacle upon the surface of the branches of the first tube whereby said liquid will flow along said surfaces to the point of atomization at the free ends of said branches.

1,210,233. TIME-RECORDER. CHARLES E. TOMLINSON, Syracuse, N. Y., assignor, by mesne assignments, to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed Nov. 12, 1910. Serial No. 591,943. (Cl. 234—46.)

1. In a recording machine, a printing couple including two members, one member being movable toward and from the other and including two type wheels of dissimilar diameters and movable about different axes and printing at a common point, an axle carrying the wheel of larger diameter, a stationary frame member, means for carrying the axle including a lever pivotally connected to the stationary frame member, a supporting member connected to the axle, a second axle carried by said supporting member and having the smaller type wheel mounted thereon, and a second lever arranged parallel to the first and pivotally connected to the supporting member and stationary frame member, substantially as and for the purpose described.

2. In a recording machine, a printing couple including two members, one being movable toward and from the other and including two type wheels of dissimilar diameters and movable about different axes, an axle carrying the wheel of larger diameter, a stationary frame member, means for carrying the axle including a lever pivotally connected to the stationary frame member, a supporting member connected to the axle, a second axle carried by said supporting member and having the smaller type wheel mounted thereon, ribbon mechanism also carried by said supporting member and a second lever arranged parallel to the first and pivotally connected to the supporting member and stationary frame member, substantially as and for the purpose specified.



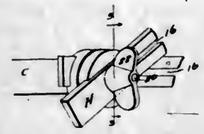
3. In a recording machine, a stationary frame member, a printing couple including two members, one movable toward and from the other and including two type wheels of dissimilar diameters and movable about different axes, an axle carrying the wheel of larger diameter, a rocking frame pivoted to said stationary frame and carrying said axle, ribbon mechanism, a supporting member connected to the axle and having portions extending above and below the same, the portion extending below the axle carrying the wheel of smaller diameter and the ribbon mechanism, and a connection between the stationary frame member and the portion of the supporting member extending above the axle, substantially as and for the purpose described.

4. In a recording machine, a frame, a printing couple including two elements, one being movable toward and from the other, and one of the elements including two type wheels of dissimilar diameters and movable about different axes, supporting means comprising two sets of levers pivoted to the frame, the levers of each set extending substantially parallel to each other, and one set being spaced apart from the other, a shaft extending between corresponding levers of the sets, an axle supported by the other levers of the sets, said axle carrying the wheel of larger diameter, a member having bearings on the shaft and axle, a second axle supported by said member and carrying the wheel of smaller diameter, and actuating means for moving the movable element of the printing couple toward the other element, substantially as and for the purpose specified.

5. In a recording machine, a frame, a printing couple including two elements, one being movable toward and from the other, and one of the elements including two type wheels of dissimilar diameters and movable about different axes, a rack carried by the wheel of larger diameter, supporting means comprising two sets of levers pivoted to the frame, the levers of each set extending substantially parallel to each other, and one set being spaced apart from the other, a shaft extending between corresponding levers of the sets, a pawl carried thereby for coöperating with said rack, an axle supported by the other levers of the sets, said axle carrying the wheel of larger diameter, a member having bearings on the shaft and axle, a second axle supported by said member and carrying the wheel of smaller diameter, and actuating means for moving the movable element of the printing couple toward and from the other element, and for moving the pawl into engagement with the rack, substantially as and for the purpose set forth.

[Claims 6 to 19 not printed in the Gazette.]

1,210,234. LOCK-HINGE. DANIEL QUIGLEY TOWLES, Yonges Island, S. C. Filed Feb. 28, 1916. Serial No. 80,968. (Cl. 116—111.)



1. A hinge for connecting two members comprising two washers having their inner faces in contact and their outer faces provided with transverse channels of a size to loosely receive said members, and a bolt extending through said washers and their channels with its head outside one member and its nut outside the other.

2. A hinge for connecting two longitudinally slotted members comprising two washers having their inner faces in contact and their outer faces provided with transverse channels extending diametrically across the washer-holes and of a size to loosely receive said members, and a bolt extending through said holes in the washers and slots in the members, for the purpose set forth.

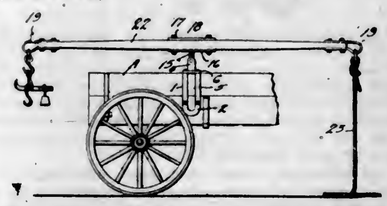
3. A hinge for connecting two members comprising two washers having their inner faces roughened and in frictional contact and their outer faces transversely channeled to loosely receive the respective members, and means for clamping the members in the channels and for increasing the friction between said roughened faces.

4. A lock hinge comprising two washers having their outer faces channeled to engage the members which are to be connected, a pintle pivotally uniting said washers, and clamping means on the pintle for simultaneously holding said members in engagement with the channels and bearing said washers into frictional contact with each other.

5. A friction lock hinge comprising a bolt and its nut, a spring on the bolt, and two washers also on the bolt having their inner faces roughened and adapted to make contact with each other and their outer faces channeled and adapted to adjustably receive the members which are to be connected, the setting up of the nut putting said spring under tension and clamping all parts frictionally in their adjusted positions.

[Claims 6 to 10 not printed in the Gazette.]

1,210,235. LOAD-LIFTING DEVICE. VAN H. TRIGG, Milford, Tex. Filed Apr. 3, 1916. Serial No. 88,714. (Cl. 212—62.)



In a load lifting device; the combination of a two part clamp comprising a substantially triangular member bent to form lateral supports on which the other member bent at right angles is secured, said members having their depending portions spaced apart to form a jaw; a swivel member mounted on the angular member of the clamp; and a load lifting device mounted on the swivel member.

1,210,236. HOBBLE. FOREST L. VARS, Nile, N. Y. Filed May 18, 1915. Serial No. 28,883. (Cl. 119—128.)

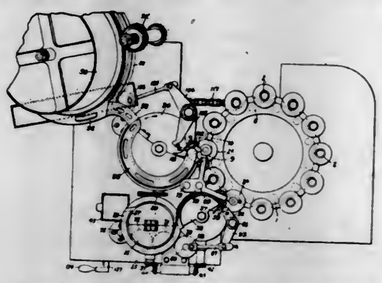


1. A hobble comprising a band-like structure with snap hooks at the ends and formed with elongated loops extending oppositely from the middle of the hobble, and rings individual to and movable along the elongated loops, whereby either ring may be engaged by either snap hook, with the rings crossed when engaged by the snap hooks at the ends of the hobble.

2. A hobble comprising a two-ply band or strap with snap hooks at the ends, the two plies of the band or strap being connected at intervals to form elongated loops extending oppositely from the middle of the hobble, and rings engaged in and individual to and movable along the elongated loops, whereby either ring may be engaged by either snap hook, with the rings crossed when engaged by the snap hooks at the ends of the hobble.

3. A hobble comprising an elongated band or strap with snap hooks at the extremities, and with rings on opposite sides of a mid point and having a range of movement away from each other for a limited distance and also toward each other to permit the rings to be crossed with one entering the other, whereby the hobble may be formed into two large loops with the snap hooks engaging the rings when the latter are crossed or into two small loops with the snap hooks engaged in the rings on the same sides of the mid-point of the hobble as such snap hooks.

1,210,237. FEEDING MECHANISM FOR LAMP-BASE MACHINES. THOMAS I. WALKER and JULIUS A. AKEROYD, Providence, R. I., assignors, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Feb. 3, 1911. Serial No. 606,401. (Cl. 49—2.)



1. An automatic feeding mechanism comprising a hopper for holding a supply of the parts to be fed, a transfer mechanism, a guide-way adjacent said hopper and leading toward said transfer mechanism, means for causing the discharge of parts from said hopper along said guide-way in excess of the requirements of said transfer mechanism and an exit through said guide-way to divert the excess number of parts therefrom.

2. An automatic feeding mechanism comprising a stationary hopper for holding a supply of parts to be fed and having openings therein, a transfer mechanism, a guideway with which the said openings communicate leading toward said transfer mechanism, means for causing the discharge of parts through said openings and along said guide-way in excess of the requirements of said transfer mechanism and an exit through said guideway adjacent to said apertures to divert the excess number of parts.

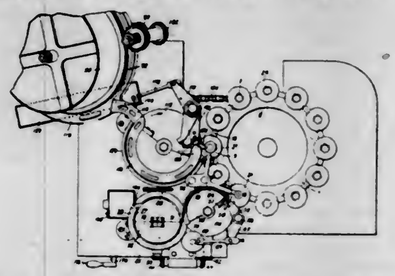
3. An automatic feeding mechanism comprising a hopper for holding a supply of parts to be fed, a traveling wall on which the parts are delivered from said hopper, a guide-way toward the outlet of which the parts are carried by the traveling wall, and an exit in said guide-way through which parts in excess of the feed requirements may be diverted.

4. An automatic feeding mechanism comprising a hopper for holding a supply of parts to be fed, a traveling wall surrounding said hopper on which the parts are adapted to be delivered from the hopper, a guide-way having an outlet end toward which the articles are forced by the traveling wall, a second traveling wall comprising a rotary plate along the edge of which the said guide- way extends, said plate receiving the articles from the traveling wall and forcing them toward the guide-way outlet, said articles being delivered to the traveling wall in excess of requirements, means for diverting the excess to a suitable receptacle and means adapted to transfer the parts in succession from the outlet of the guide-way.

5. An automatic feeding mechanism comprising a hopper for holding a supply of parts to be fed and having openings therein, a traveling wall on which the parts are delivered from said hopper through said openings, a guide-way toward the outlet of which the parts are carried by the traveling wall, and an exit in said guide-way adjacent to said openings through which parts in excess of the feed requirements may be diverted.

[Claims 6 to 10 not printed in the Gazette.]

1,210,238. FEEDING MECHANISM FOR BASE-MAKING MACHINES AND THE LIKE. THOMAS I. WALKER and JULIUS A. AKEROYD, Providence, R. I., assignors to General Electric Company, a Corporation of New York. Original application filed Feb. 3, 1911, Serial No. 606,401. Divided and this application filed Aug. 16, 1916. Serial No. 115,186. (Cl. 49—2.)



1. In a feeding mechanism for automatically feeding and presenting articles to a given operation, the combination with an inclined rotary hopper, of a guideway partly surrounding the same, said hopper having openings in the lower edge to permit the escape of articles from the hopper to the guideway, the guideway being so formed as to cause the gradual emergence of said articles through said openings thereby to force the preceding articles along on said guideway, said hopper being adapted to deliver articles to the guideway in excess of the requirements of the machine, and means providing for the escape from said guideway of the excess of articles so delivered.

2. In an automatic feeding mechanism for feeding articles to a given operation, the combination with a discharge hopper, having a series of openings through which the said articles are adapted to be discharged, and a toothed clearing wheel journaled on a swinging arm adjacent said hopper whereby said wheel may be caused to engage the openings in said hopper.

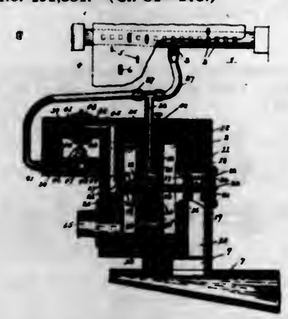
3. In a feeding mechanism, the combination with a hopper having a rotatable cylindrical body, discharge openings in the lower edge thereof through which the articles contained in the hopper may be discharged, said hopper being supported at an inclination, and a guideway partly encircling said hopper, the walls of said guideway converging toward said hopper near the lowermost portion thereof, whereby the discharged articles are allowed to emerge gradually iinto the guideway and cause the forcible advance of the preceding articles contained in the guideway.

4. In a feeding mechanism the combination with a receptacle, a guidaway into which articles are discharged from the receptacle, means for forcing the articles along the guideway, said guideway having an inclined portion to form a gravity chute and having an abrupt turn at the beginning of said chute, and a lateral exit in said guideway located opposite said turn to permit the escape of articles fed thereto to excess of the requirements of the mechanism.

5. In a feeding mechanism an inclined hopper for holding the articles to be fed having a rotary cylindrical wall and a stationary bottom extending from wall to wall, said wall having discharge openings at the bottom thereof and means for directing the said articles toward said openings.

[Claims 6 to 14 not printed in the Gazette.]

1,210,239. PNEUMATIC PIANO-PLAYER. EUGENE C. WAMELINK, Cleveland, Ohio. Filed Apr. 24, 1909. Serial No. 491,884. (Cl. 84—178.)



1. In a player action, a tracker bar, means whereby the effective opening to each tracker duct may be independently varied, a power pneumatic for each tracker opening, a vacuum chest having communication with each power pneumatic, vacuum valve mechanism for each power pneumatic and controlling the exhaust of the same, motor means for actuating said valve mechanism and actuated by air admitted through the corresponding opening in the tracker, and means for governing each vacuum valve mechanism to cause it to control the exhaust of its corresponding power pneumatic in direct accordance with the volume of air admitted to the corresponding opening in the tracker.

2. In a pneumatic piano player, in combination, a tracker board, a power pneumatic, a vacuum chest, said power pneumatic and said chest being connected by a suitable opening, a single device in said opening for controlling the exhaust of the power pneumatic, motor means therefor having a variable operation according to the volume of air admitted from a corresponding single opening in the tracker, and means for varying the volume of air admitted by the tracker board to each action and independently of the vacuum in the player.

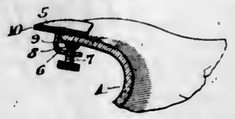
3. In a piano player action, in combination, a power pneumatic, a vacuum chest, said parts being connected by a suitable opening, a single valve for controlling the exhaust of the power pneumatic, motor means connected to a single opening in the tracker for controlling said valve and for actuating it varying amounts in accordance with variations in the volume of outside air admitted at the corresponding opening in the tracker, and means for varying the volume of air admitted at such single opening and independently of the vacuum in the chest.

4. In a piano player, in combination, a tracker board, a power pneumatic, a vacuum chest, said power pneumatic and said chest being connected by a suitable opening, a single vacuum valve for controlling said opening, an outside air valve free to open and permit the power pneumatic to assume normal position, means for closing the outside air valve upon the operation of the action, motor means for operating the vacuum valve and connected to a single opening in the tracker and varying in its operation with the volume of air admitted at the corresponding single opening in the tracker, and means for admitting varying volumes of air to the several openings in the tracker board independently of the vacuum in the chest.

5. In a piano player, in combination, a tracker board, a power pneumatic, a vacuum chest, said power pneumatic and said chest being connected by a suitable opening, a single valve for closing such opening, an outside air valve for admitting outside air to the power pneumatic to permit it to assume normal position, means actuated by the admission of air by the tracker board for holding said outside air valve closed, a motor device connected with the single opening in the tracker and varying in its operation with the volume of air at the corresponding single opening in the tracker, and means for varying the volume of outside air admitted by the tracker to such device.

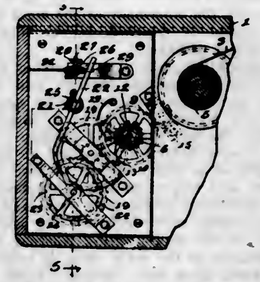
[Claims 6 to 15 not printed in the Gazette.]

1,210,240. ATTACHMENT FOR PITCHERS. WILLIAM M. WEMETT, Valley City, N. D. Filed May 25, 1915. Serial No. 30,411. (Cl. 65—31.)



An attachment for a pitcher comprising a lip formed from a thin resilient plate for conforming to the contour of the pouring spout of said pitcher and being of substantially segmental shape for presenting front convexed and rear concaved edges, the convexed edge being adapted to protrude beyond the free edge of the spout, said plate being formed with an opening medially therein, a U-shaped clip removably passed through the opening to straddle the plate and spout of said pitcher, and a set screw threaded in one limb of the clip and engaging the spout to clamp the clip thereon for fixing the plate thereto.

1,210,241. BRAKE FOR AUTOMATIC FILM-ROLLERS. ROSS N. WILKINSON, Jr., Lincoln, Nebr. Filed Jan. 4, 1916. Serial No. 70,102. (Cl. 74—13.)

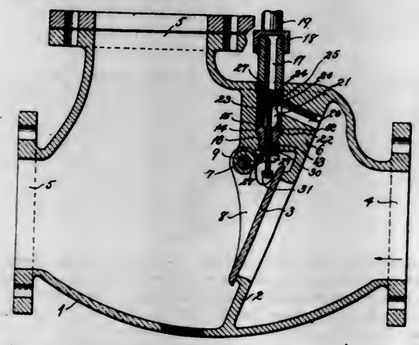


1. In combination with a spring actuated train of gears, a catch mechanism engageable with the said gears for holding the same against rotation, said catch mechanism including a spring actuated pivoted lever, a button movably mounted adjacent the lever, a pawl pivoted upon the button and engageable with the lever, a spring operatively engaging the pawl, the spring which operates the lever being stronger than the spring which operates the pawl.

2. In a device of the character described a train of gear wheels, spring means for turning the same, a catch mechanism for holding the gear wheels inactive, said catch mechanism including a pivoted lever, a spring engaging the lever to hold the same in position to retain the gear wheels inactive, a button slidably mounted, a pawl pivoted to the button and engageable with the lever, a spring engaging said pawl, the spring which engages the lever being stronger than the spring which engages the pawl.

3. In a device of the character described a train of gear wheels, a lever pivotally mounted, a spring engaging the lever for holding the same in a position to retain the gear wheels inactive, a button movably mounted, a pawl pivoted to the button and having a pointed edge with an adjacent notch, a pointed edge portion of the pawl adapted to engage the lever, and a spring engaging the said pawl, the spring which engages the lever being stronger than the spring which engages the pawl.

1,210,242. AUTOMATIC ALARM-VALVE. DAVID WILLIAMS, New Orleans, La. Filed Mar. 28, 1916. Serial No. 87,317. (Cl. 169—23.)



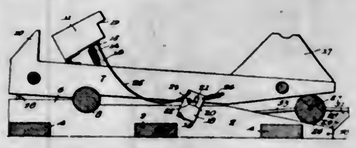
1. The combination with a valve casing and a main valve normally closing the passage through said casing, said valve casing being provided with an auxiliary outlet passage; of a secondary valve normally sustained in position by the pressure of water through said auxiliary passage to close the outlet end of the passage, said secondary valve having a stem, and means on the main valve having an initial movement with said valve independently of the secondary valve and adapted to operatively engage the valve stem and move the secondary valve to its open position whereby the movement of the main valve to its full open position is retarded by the water pressure through the outlet passage.

2. The combination with a valve casing and a valve normally closing the passage through said casing, said valve casing having an auxiliary outlet passage; of a secondary valve normally sustained in position by the water pressure through the outlet passage to close said passage, said valve having a stem and an abutment on the end of said stem, and a bifurcated arm on the main valve movable with respect to said valve stem in the initial opening movement of the main valve and adapted to subsequently engage said abutment and move the secondary valve to its open position whereby the further opening movement of the main valve is retarded by the pressure of water upon said secondary valve.

3. The combination with a valve casing and a main valve normally closing the passage through said casing, said valve casing having an auxiliary outlet passage, a secondary valve and casing therefor mounted in the main valve casing, said secondary valve being normally sustained by the water pressure through the outlet passage in position to close said passage, the casing of the secondary valve having an opening communicating with the interior of the main valve casing, and means operatively connecting the main valve and the secondary valve and permitting of an initial independent opening movement of the main valve and a subsequent movement of the secondary valve against the pressure of water through the outlet passage whereby the further opening movement of the main valve is retarded, the water collecting in the casing of the secondary valve draining through the opening thereof into the main valve casing.

4. The combination with a valve casing and a pivoted flap valve normally closing the passage through said casing, said casing having an auxiliary outlet passage; of a secondary valve casing mounted in the main casing and having a bore communicating with said passage and with the interior of the main valve casing, a secondary valve normally held in its closed position by the pressure of water through said outlet passage, a stem connected to the secondary valve and provided with means closing communication between the secondary valve casing and the main valve casing when said secondary valve is in its closed position, an abutment on the end of the valve stem, and means on the pivoted end of the flap valve movable independently of the valve stem in the initial opening movement of the flap valve and adapted to subsequently engage the abutment and move the secondary valve to its open position against the pressure of water through the outlet passage whereby the further opening movement of the flap valve is retarded.

1,210,243. AUTOMOBILE-JACK. GRIFFITH E. WILLIAMS, Cambria, Wis. Filed May 20, 1916. Serial No. 98,888. (Cl. 254—89.)



1. In an automobile jack, a base, a rocker member pivotally mounted thereon, the pivotal connection between the rocker member and the base being near the rear end of the jack, a pivotally mounted lifting block on the rear portion of the rocker, and a pillar block on the front portion of the rocker.

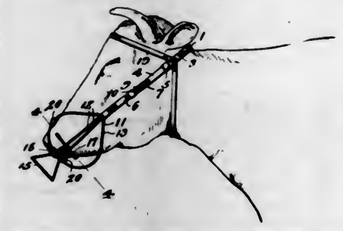
2. In an automobile jack, a base, a rocker member pivotally mounted thereon, the pivotal connection between the rocker member and the base being near the rear end of the jack, a pivotally mounted lifting block on the rear portion of the rocker, a pillar block on the front portion of the rocker, means to normally turn the lifting block forwardly to initial lowered position, and locking means including a movable element connected to and operated by the lifting block.

3. In an automobile jack, a base having an inclined plane, a rocker element pivotally mounted on the base, the pivot of the rocker element being near the rear end of the jack, a lifting block pivotally mounted on the rear portion of the rocker, a pillar block on the front portion of the rocker, a chock roll arranged to operate on the inclined plane, and means actuated by the rocker element to cause said chock roll to be moved upwardly on the inclined plane and chock the rocker element, when the latter is arranged with its front end in raised position.

4. In an automobile jack, a base having an inclined plane, a rocker element pivotally mounted on the base, the pivot of the rocker element being near the rear end of the jack, a lifting block pivotally mounted on the rear portion of the rocker, a pillar block on the front portion of the rocker, a chock roll arranged to operate on the inclined plane, and means actuated by the rocker element to cause said chock roll to be moved upwardly on the inclined plane and chock the rocker element, when the latter is arranged with its front end in raised position, said means comprising a bell crank mounted on the base, a connection between the bell crank and the rocker, and a connection between the bell crank and the chock roll.

5. In an automobile jack, a base having an inclined plane, a rocker element pivotally mounted on the base, the pivot of the rocker element being near the rear end of the jack, a lifting block pivotally mounted on the rear portion of the rocker, a pillar block on the front portion of the rocker, a chock roll arranged to operate on the inclind plane, and means actuated by the rocker element to cause said chock roll to be moved upwardly on the inclind plane and chock the rocker element, when the latter is arranged with its front end in raised position, said means comprising a bell crank mounted on the base, a connection between the bell crank and the rocker, a connection between the bell crank and the chock roll, and a rock shaft at the front end of the base having a rock arm connected to the chock roll to move the latter to release position, said rock shaft having also an operating lever.

1,210,244. ANIMAL-MUZZLE. JOHN H. WILLIAMS, Shelby, Miss. Filed May 12, 1916. Serial No. 97,134. (Cl. 119—130.)



1. A muzzle comprising pairs of jaws adapted to be disposed at the opposite sides of the head of the animal, means for supporting said jaws upon the head of the animal, cross bars carried by the corresponding jaws of the pairs and acting normally to prevent opening of the mouth of the animal, and wedging elements carried by said jaws and adapted to open the latter upon contact with the ground whereby said bars will be spread apart.

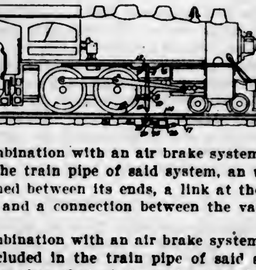
2. A muzzle comprising pairs of jaws adapted to be disposed at the opposite sides of the head of the animal, means for supporting said jaws upon the head of the animal, cross bars carried by the corresponding jaws of the pairs and acting normally to prevent opening of the mouth of the animal, and triangular shaped wedging elements carried by said pairs of jaws and adapted to move upwardly upon contact with the ground to open the jaws to spread apart said bars.

3. An adjustable muzzle for animals comprising pairs of jaws adapted to be disposed at the opposite sides of the head of the animal, the jaws of each pair embodying vertical strips placed face to face, and semicircular strips having the ends thereof secured to the ends of said vertical strips respectively and projecting in opposite directions, means for holding said jaws in proper position upon the head of the animal, bars carried by the corresponding jaws of the pairs and acting normally to hold the mouth of the animal closed, and wedging elements carried by said vertical strips and normally depending below the jaws and adapted to pass between the jaws upon contact with the ground whereby the jaws will be opened and said bars spread apart.

1,210,245. ELECTRIC-BELL ATTACHMENT. THOMAS C. WILLIAMS, Washington, D. C., assignor of one-half to John Robinson Elder, Washington, D. C. Filed June 2, 1916. Serial No. 101,401. (Cl. 177—7.)

1. The combination with a unitary electric bell structure, of a support for receiving the same, and hooks on one of said elements adapted rigidly but removably to engage lugs on the other element to connect said elements.

2. The combination with a unitary electric bell structure, of a support for receiving the same, hooks on one of said elements adapted to engage lugs on the other element to connect said elements, and spring plates for maintaining said hooks and lugs in engagement.



3. The combination with a unitary electric bell structure, of a support for receiving the same, hooks on one of said elements adapted to engage lugs on the other element to connect said elements, and spring plates carried by said hook supporting element for maintaining said hooks and lugs in engagement.

4. The combination with a unitary electric bell structure, of a support for receiving the same, hooks on one of said elements adapted wedgingly to engage lugs on the other element to connect said elements, and means for establishing operative electric connections automatically with said bell through the engagement of said elements.

5. The combination with a unitary electric bell structure, of a support for receiving the same, hooks on one of said elements adapted rigidly to engage lugs on the other element to connect said elements, a spring tongue carried by but insulated from said support, a projection on said bell structure adapted to engage said spring tongue when said bell structure and support are engaged, and an operative electric circuit established through said spring tongue and projection to the bell magnet and from said bell magnet through the bell base and support.

[Claims 6 to 9 not printed in the Gazette.]

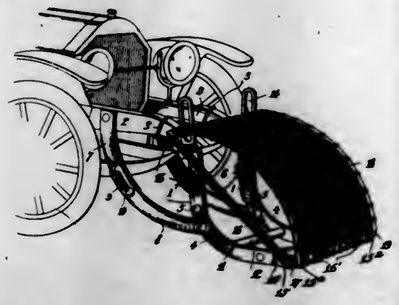
1,210,246. AUTOMATIC TRAIN-STOP. CHARLES W. WILSON, Berea, Ohio, assignor, by mesne assignments, of two-thirds to Caroline Geiger, Berea, Ohio. Filed Aug. 17, 1915. Serial No. 45,894. (Cl. 246—59.)

1. The combination with an air brake system, of a valve included in the train pipe of said system, an upright trip lever fulcrumed between its ends, a link at the upper end of the lever, and a connection between the valve and the link.

2. The combination with an air brake system, of a turning valve included in the train pipe of said system at a level not lower than that of the train pipe of the system, and upright trip lever fulcrumed between its ends, a link at the upper end of the lever, and a crank arm for the turning valve and connected to the link.

3. The combination with an air-brake train line, and a turning valve therein having a projecting operating arm, of a toggle comprising an upright trip lever and a link, the link being connected to said arm and the lever being pivoted between its ends to swing and flex the toggle in either direction upon contact of the lower end of the lever with a track device, whereby the valve is turned the same way in either instance.

1,210,247. MOTOR-VEHICLE FENDER. OSCAR H. WISENANT, La Salle, Ill., assignor to Wellington J. Hughey, Chicago, Ill. Filed Feb. 27, 1914. Serial No. 821,481. Renewed Nov. 10, 1916. Serial No. 130,653. (Cl. 105—252.)



1. In a fender for a vehicle, a supporting framework for a net, such framework comprising upper and lower side bars, the latter having their rear portions curving upward and their lower portions normally extending horizontally and such lower side bars having pivotal connection near their upper ends with the lower ends of the upper side bars to admit of the lower side bars folding upward, stops projecting from one set of bars to engage the other to hold the lower side bars in a given position, a rod supported in the forward ends of the lower bars, a second rod supported by the upper side bars and having a limited movement, a net secured at its ends to the said rods and normally bulging forward, and spring means connecting the said rods and normally exerting force thereon to hold the net forwardly bulged.

2. In a fender for a vehicle, the combination of upper side bars, lower side bars pivotally connected to the upper side bars, stops projecting laterally from the lower side bars to engage the upper side bars and normally hold the lower side bars in a given position, brace members pivotally connected to the lower side bars and having longitudinal slots, other brace members secured to the frame work of the vehicle, headed studs attached to the last mentioned brace members and entering the longitudinal slots of the first mentioned brace members, and a net secured to the before mentioned upper and lower side bars.

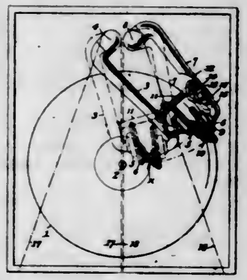
3. In a fender for a vehicle, the combination of upper and lower side bars pivotally connected, plates secured to the upper side bars and having longitudinal slots in their upper ends and having offsets intermediate of their ends to throw the end portions of the plates in different vertical planes, and upper transverse rod supported in the longitudinal slots of the plates, a lower transverse rod supported in the lower side bars of the frame, a spring-supported net attached at its ends to the upper and lower transverse rods and normally bulged forward and adapted to be reversely bulged, and contractile helical springs connecting the ends of the said upper and lower transverse rods.

1,210,248. GRAPHOPHONE. CLINTON E. WOODS, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Mar. 8, 1915. Serial No. 12,845. (Cl. 274—23.)

1. The combination, in a talking-machine, of a turntable, two arms pivoted on separate axes at equal distances from the center of said turn-table to swing freely over the same, and a stylus carried by each arm at that same distance from its axis.

2. The combination, in a talking-machine, of a turntable, a plurality of independent arms mounted upon vertical axes located adjacent each other and on the same side of the turn-table, whereby said arms can swing freely in a horizontal plane, a stylus carried by each arm equidistant from the axis thereof, and said axes being equidistant from the center of said turn-table, whereby said styli can be propelled in continuously-converging paths.

3. The combination, in a talking-machine, of a turntable, a plurality of rigid arms pivoted upon separate axes located adjacent each other on the same side of the turn-table and equidistant from the center of said turntable, and an independent sound-box and stylus carried upon each arm and adapted to be propelled in continuously-converging paths as well as vibrated by a record-groove carried by said turn-table.

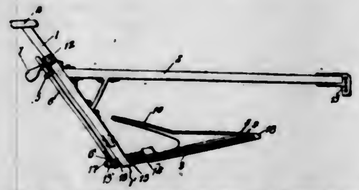


4. The combination, in a talking-machine, of a turntable, a plurality of freely-swinging arms each pivoted separately on a fixed axis, said axes being located adjacent each other on the same side of the turn-table, and a stylus on the free end of each arm equidistant from the axis thereof, said styli adapted to simultaneously engage a record-groove carried by said turn-table and to be propelled in continuously-converging paths as well as vibrated thereby.

5. The combination, in a talking-machine, of a disk-record and a plurality of independent sound-boxes swinging upon separate axes that are located adjacent each other on the same side of the disk and equidistant from the center of said disk, whereby the styli of said sound-boxes are propelled in continuously-converging paths.

[Claims 6 to 13 not printed in the Gazette.]

1,210,249. PLOW. MASAKICHI YAMAGUCHI, Seattle, Wash. Filed Nov. 24, 1915. Serial No. 63,279. (Cl. 97—27.)



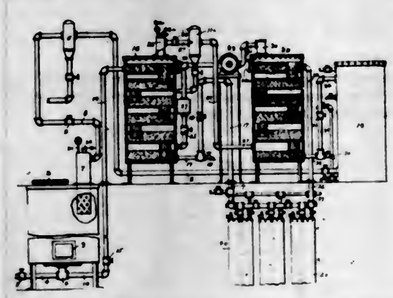
1. In a plow, a standard having a bearing near its lower end; combined with a shovel having a shank projecting to the rear from its transverse center and mounted for oscillation in said bearing, a coiled spring surrounding the shank between the shovel-body and standard, a lever rigidly secured to and rising from the rear end of the shank and adapted to be swung from side to side to oscillate the shovel, and means carried by the standard for holding said lever in its adjusted position.

2. In a plow, a standard having a bearing near its lower end; combined with a shovel having a shank projecting to the rear from its transverse center and mounted for oscillation in said bearing, a shock absorber between the rear end of the shovel and the standard, a lever rigidly mounted on the rear end of the shank and adapted to be swung from side to side to oscillate the shovel, a cross bar carried by the standard and along which the lever moves, and means for fastening the lever to the cross bar in its adjusted positions.

3. In a plow, a standard having a bearing near its lower end; combined with a round shank projecting to the rear from the shovel and mounted for rotation in said bearing, its rear extremity having a tenon of angular cross section, a lever having an angular hole engaging said tenon, means for holding it removably thereon, a latch pin near the upper end of the lever, and a cross bar carried by the standard and having holes with which said pin engages in the adjusted positions of the lever.

4. In a plow, a standard having a bearing near its lower end; combined with a round shank projecting to the rear from the shovel and mounted for rotation in said bearing, its rear extremity having a tenon of angular cross section, a lever having an angular hole engaging said tenon, means for holding it removably thereon, a spring-actuated latch pin through the lever near its upper end, a cross bar carried by the standard and having holes with which said pin is adapted to engage in the adjusted positions of the lever, and a loop carried by the cross bar and serving as a guide for the lever.

1,210,250. METHOD OF AND APPARATUS FOR MANUFACTURING ALCOHOL FROM GARBAGE. FRANK E. YOUNG, Canton, Ohio. Filed Aug. 9, 1915. Serial No. 44,467. (Cl. 195—6.)



1. The method of manufacturing alcohol from garbage, consisting in cooking the garbage in a closed tank by forcing steam therethrough, separating the grease from the steam, and condensing the alcohol carried by the steam.

2. The method of manufacturing alcohol from garbage, consisting in cooking the garbage by forcing steam therethrough and pressing the garbage water therefrom, fermenting the garbage water or mash, and distilling the wort.

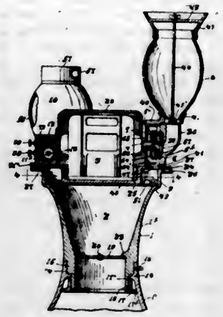
3. The method of manufacturing alcohol from garbage, consisting in cooking the garbage and pressing the garbage water therefrom, mechanically separating the grease from the garbage water, fermenting the garbage water or mash, and distilling the wort.

4. The method of manufacturing alcohol from garbage, consisting in cooking the garbage and pressing the water therefrom, drying the tankage, separating the vegetable matter from the tankage, converting the vegetable matter into glucose, fermenting the glucose, and distilling off the alcohol.

5. The method of manufacturing alcohol from garbage, consisting in cooking the garbage in a closed tank by forcing steam therethrough, separating the grease from the steam and condensing the alcohols carried by the steam; in pressing the garbage water from the cooked garbage or tankage, separating the grease from the garbage water, fermenting the garbage water or mash, and distilling the wort; and in drying the tankage, separating the vegetable matter from the tankage, converting the vegetable matter into glucose, fermenting the glucose with the wort, and distilling off the alcohol.

[Claims 6 to 23 not printed in the Gazette.]

1,210,251. GRINDING-MILL. FRANK E. YOUNG, Canton, Ohio. Filed Dec. 27, 1915. Serial No. 68,644. (Cl. 83—18.)



1. A grinding mill including a hollow base having a receiving chamber therein, grinding means on the base including a bur case, a dust collector on the base, and a separating chamber in the upper portion of the base above the receiving chamber and communicating at one end with the bur case and at its other end with the dust collector.

2. In a grinding mill, means for grinding coffee or the like, and means for separating refuse therefrom including a separating chamber, means for driving a current of air through the separating chamber, and a closed receiving chamber into which the ground coffee falls from the separating chamber, there being a valved outlet in the lower portion of the receiving chamber.

3. In a grinding mill, means for grinding coffee or the like, and means for separating refuse from the ground coffee including a separating chamber having a plurality of perforations and deflectors in its bottom wall, and means for driving a current of air through said separating chamber, the ground coffee falling by gravity through said perforations and the refuse being deflected and carried with the current of air from the separating chamber.

4. A grinding mill including a base having a closed receiving chamber therein, grinding means on the base, a dust collector, a separating chamber in the upper portion of the base communicating with the receiving chamber, the grinding means and dust collector respectively, and means for driving a current of air through the separating chamber into the dust collector.

5. In a grinding mill, means for grinding coffee and separating refuse therefrom including a bur case, a stationary bur and a rotary bur operatively mounted within the case, means for driving the rotary bur including a shaft extending therethrough into the bur case, a separating chamber communicating with the bur case, and a fan wheel on the shaft within the bur case for driving a current of air through the separating chamber, there being a plurality of air inlet openings in the bur case adjacent the shaft.

[Claims 6 to 17 not printed in the Gazette.]

1,210,252. ELEVATING-TRUCK. WILLIAM J. ADAM, Norwood, Mass., assignor to Plimpton Press, Norwood, Mass., a Corporation of Massachusetts. Filed Nov. 28, 1913. Serial No. 803,613. (Cl. 254—5.)



1. An elevating truck, having, in combination, a carriage, a vertically movable table, a front wedge plate provided with two wedges having upper and lower inclined edges, two rear wedges having upper and lower inclined

edges, rods connecting the rear wedges to the wedge plate, a cross rod connecting the rear wedges, rolls on the carriage provided with flanges embracing the lower edges of the wedges, rolls on the table provided with flanges embracing the upper edges of the wedges, guiding devices for preventing longitudinal movement of the table, and means for moving the wedge frame longitudinally.

2. An elevating truck, having, in combination, a carriage, a vertically movable table, a vertically movable wedge frame provided with two rear and two front wedges having upper and lower inclined edges, rolls on the carriage engaging the under edges of the wedges and provided with flanges for preventing transverse movement of the frame, rolls on the table engaging the upper edges of the wedges and provided with flanges for preventing transverse movement of the table, and means for moving the wedge frame longitudinally.

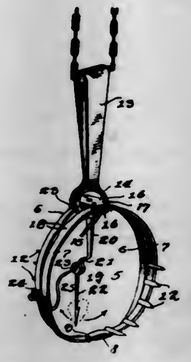
3. An elevating truck, having, in combination, a carriage, a vertically movable table, a vertically movable wedge frame provided with two rear and two front wedges having upper and lower inclined edges, one set of wedges being provided with locking recesses at their large ends, rolls on the carriage engaging the under edges of the wedges and provided with flanges for preventing transverse movement of the frame, rolls on the table engaging the upper edges of the wedges and provided with flanges for preventing transverse movement of the table, and means for moving the wedge frame longitudinally.

4. An elevating truck, having, in combination, a carriage, a vertically movable table, a vertically movable wedge frame provided with wedges having upper and lower inclined edges, rolls on the carriage and table respectively between which the wedges play, an operating lever normally connected to move the wedge frame in a direction to raise the table, and means under the control of the operator for connecting the lever to move the frame in the opposite direction.

5. An elevating truck, having, in combination, a carriage, a vertically movable table, mechanism for raising and lowering the table including a wedge frame provided with a projection, an operating lever provided with an arm engaging the projection to move the frame in a direction to raise the table, and normally inactive means adapted to be set by the operator for connecting the wedge frame with the lever to move the frame in the opposite direction.

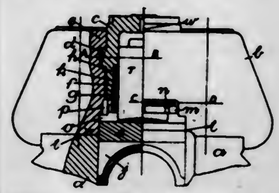
[Claims 6 to 12 not printed in the Gazette.]

1,210,253. TRAP. ANDERS G. AHLENIUS, Meadowlands, Minn. Filed July 25, 1916. Serial No. 111,247. (Cl. 43—23.)



An animal trap comprising a pair of pivotally connected jaws each having offset faces, means for tensioning said jaws, means for pivotally connecting the jaws to one another, an inwardly extending bar, a trigger pivotally mounted on the free end of said bar and having a notched disk, a locking hook pivotally connected with one of said jaws for inward horizontal movement, the active end of said hook engaging in the notch of the disk of said lever for holding the jaws in set position.

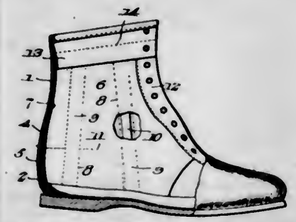
1,210,254. PRESSURE-REGULATING DEVICE FOR THE ROLLERS OF SUGAR-CANE MILLS. HUGH WALLACE AITKEN, Glasgow, Scotland. Filed Oct. 10, 1914. Serial No. 866,092. (Cl. 100—47.)



1. In a sugar cane mill, a headstock cap having an opening through its side wall, a ram packing within the headstock cap, and a gland to adjust the ram packing and accessible through said opening for adjustment.

2. In a sugar cane mill, a headstock cap, a ram packing within said headstock cap, and a gland for said ram packing, said headstock cap having a lateral cut away portion for rendering said gland accessible for adjustment.

1,210,255. ARCH AND ANKLE SUPPORTING SHOE. JULIUS ALTSCHUL, Brooklyn, N. Y. Filed Feb. 13, 1915. Serial No. 8,004. (Cl. 36—71.)



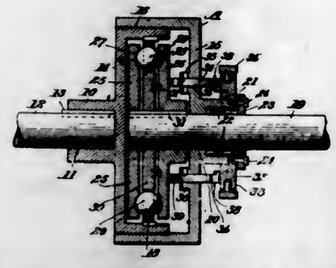
As an article of manufacture a corset for shoes, comprising a lining sheet, a flexible body sheet secured to the lining sheet by rows of stitches forming stay-receiving pockets, stays inserted in said pockets, and eyelet straps folded around the edges of said lining sheet and flexible body and stitched thereto, the whole being formed separately from the shoe and being adapted to be secured to the shoe by the usual eyelets.

1,210,256. LAMP-EXTINGUISHER. MASAICHI AOYAMA and JUICHI HIGASHINO, Sacramento, Cal. Filed July 5, 1916. Serial No. 107,666. (Cl. 67—79.)



In combination with a lamp burner, having a perforated base portion, and also having a pivotally mounted extinguishing hood, a rocker element comprising an axle portion, a depending weighted arm, and a substantially horizontal operating arm, and bearings on said perforated portion of the burner and in which the axle portion of said rocker is mounted, the weighted arm of the rocker extending downwardly from said perforated portion, the arm of said rocker slidably engaging under the hood and the axle portion of said rocker being arranged at right angles to the pivot axis of the hood.

1,210,257. CLUTCH. BENJAMIN F. AUGUSTINE, Buffalo, N. Y. Filed July 2, 1915. Serial No. 37,744. (Cl. 192—7.)



1. A clutch comprising a driven shaft, a casing to which said shaft is rigidly secured, a driving shaft having one end projecting into said casing, and by the casing spaced from the driven shaft, a ball spacer connected to the casing and located therein, balls supported loosely in the spacer, and means slidable on the driving shaft and arranged within the casing to grip the balls and thereby connect the driving and driven shafts operatively together.

2. A clutch comprising a driven means including a ball spacer, driving means, balls supported loosely in the spacer and means carried by the driving means to grip the balls tightly and cause them to rotate the spacer and thereby drive the driven means.

3. A clutch, comprising a driven means including a ball spacer and balls mounted in the spacer, a drive shaft, and means movable longitudinally on the drive shaft and operable to hold the balls against rotation to effect an operative connection between the drive shaft and the driven means.

4. A clutch comprising a driven means including a casing, a ball spacer rigidly secured thereto, and a shaft fixedly secured to the casing; and means for rotating said driving means including a driving shaft projecting at one end into the casing, balls supported on the spacer, and means within the casing and operable longitudinally on the driving shaft to grip the balls tightly to effect positive operative connection between the driving and driven means.

5. A clutch comprising a driving shaft, a driven means including a casing, a ball spacer, balls loosely supported in the spacer, and means arranged within the casing and operable longitudinally of the shaft to grip the balls tightly through their centers to hold the same in engagement with the spacer and thereby effect an operative connection between the driving and driven means.

[Claims 6 to 12 not printed in the Gazette.]

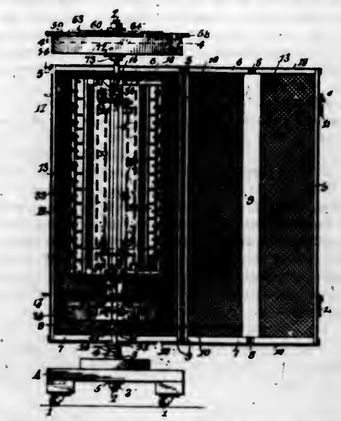
1,210,258. CORN-RACK. HARRY EDWARD BABIONE, Woodville, Ohio. Filed June 17, 1915. Serial No. 34,695. (Cl. 34—26.)

1. The combination with a shaft, of a corn rack, and hook bolts carried by the corn rack and engaging the shaft to detachably support the corn rack thereon.

2. The combination with a shaft, of a sectional corn rack, means for securing the sections together, and supporting means on one of the sections and engaging the shaft to support the entire corn rack thereon.

3. The combination with a shaft, of a cylinder, and hook bolts carried by the cylinder and engaging the shaft to detachably support the cylinder thereon.

4. The combination with a shaft, of a sectional cylinder, means for securing the sections of the cylinder together, and supporting means on one of said sections and engaging the shaft to support the entire cylinder thereon.



5. The combination with a shaft, of an inclosing cylinder mounted on the shaft, a sectional corn rack adapted to be assembled within the cylinder about the shaft, and detachable securing means carried by the corn rack and engaging the shaft to support the corn rack therein independently of and within the cylinder.

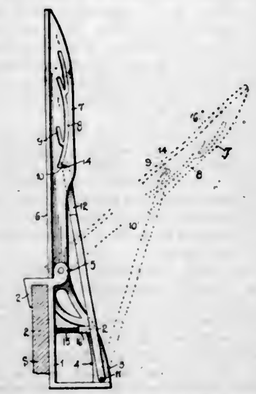
[Claims 6 to 25 not printed in the Gazette.]

1,210,259. TANNING COMPOUND. GEORGE T. BALL, Foss, Okla. Filed Apr. 6, 1914, Serial No. 829,999. Renewed May 26, 1916. Serial No. 100,157. (Cl. 149—4.)

1. A tanning solution consisting of August flower, gum gambier, and Glauber's salt.

2. A tanning solution including a solution of six pounds of August flower in ten gallons of water, with the addition of six pounds of gum bambier, the subsequent addition of five gallons of water, and the subsequent addition of two pounds of Glauber's salt.

1,210,260. ADJUSTABLE BRACKET OR STANDARD FOR HAY OR STOCK RACKS OR THE LIKE. GEORGE F. BAUER, Linwood, N. Y. Filed Mar. 25, 1916. Serial No. 86,761. (Cl. 21—74.)

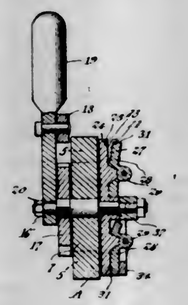


1. A wagon standard comprising two members pivoted together, one of said members being provided with a longi-

tudinally disposed slot provided with a recess in one of its side walls, a brace pivoted to the second member and comprising two parallel bars having their outer ends connected with a cross member disposed through the slot of the first named pivoted member and adapted to be seated within the recess, a yoke member contacting with the bars of the brace, and an expansible member coacting with the yoke member and constantly urging the same outwardly.

2. A wagon standard comprising members pivoted together, one of said members being cut away to afford a flange, the second member being provided with a slot provided with a recess in one of its walls, bars pivotally engaged with the flange of the first named member at opposite sides thereof, a member connecting the outer portions of the bars and disposed through the slot of the second member and adapted to be seated within the recess, a yoke straddling the inner marginal portion of the flange and adapted for contact with the bars, and an expansible member coacting with the yoke for normally urging the same upwardly.

1,210,261. WIRE-STRETCHER. MAURICE J. BEONEAUD, La Fayette, La. Filed Jan. 4, 1916. Serial No. 70,121. (Cl. 254—163.)



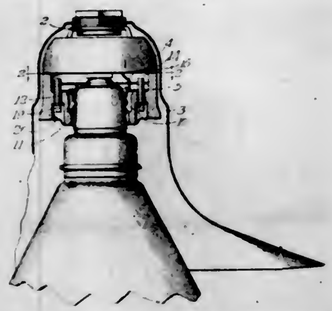
1. A wire stretcher comprising a frame, means for supporting the same, a pulley journaled in said frame and having a peripheral groove, wire gripping members pivotally associated with said pulley, stationary means for automatically moving said members into operative position as the pulley is rotated, and means for rotating said pulley.

2. A wire stretcher comprising a frame, means for supporting the latter, a pulley journaled upon said frame and having a peripheral groove, teeth on said pulley disposed at one side of the groove, gripping members pivotally associated with said pulley, stationary means for successively moving said members into gripping relation with respect to said teeth upon rotation of the pulley, and means for operating the latter.

3. A wire stretcher comprising a frame, a pulley mounted for rotation thereon, and having a peripheral wire receiving groove, means for rotating said pulley, gripping members pivotally associated with said pulley, and stationary means for successively rocking said members on their pivots in opposite directions to move each member into and out of gripping position within the groove during the rotation of said pulley.

4. A wire stretcher comprising a frame, supporting means therefor, a pulley mounted for rotation thereon and having a peripheral wire receiving groove, means for rotating the pulley, gripping members pivotally associated with the pulley, a stationary arcuate shaped member disposed above said members and adapted to be engaged and moved thereby upon partial rotation of the pulley into operative position within said groove, and means on said arcuate member for moving said members to inoperative position upon further rotation of said pulley.

1,210,262. LAMP-LOCK SOCKET. REUBEN B. BENJAMIN and JAMES IMBODEN, Chicago, Ill., assignors to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 3, 1914. Serial No. 829,212. (Cl. 173—356.)



1. In a lamp lock for sockets, the combination with a lamp socket, of a movable spur-carrying member in the inner part of said socket having a plurality of outwardly extending spurs, on opposite sides of the axis of said socket and means operable from the exterior of the socket to move said member outward to force said spurs into the base of said lamp and hold the spur in locking position.

2. In a lamp lock, the combination with a lamp socket, of a spur-carrying member mounted in the inner part of the socket having a central opening to permit the center contact of the lamp to project therethrough and engage the center contact of the socket, an outwardly extending spur on said member, and means operable from the exterior of the socket for operating said member to force the spur into the top of the base of the lamp.

3. In a lamp lock, the combination with a lamp socket, of a spur-carrying member mounted in the inner part of the socket having a central opening to permit the center contact of the lamp to project therethrough and engage the center contact of the socket, an outwardly extending spur on said member, and means operable from the exterior of the socket only by a specially formed key for operating said member to force the spur into engagement with the base of the lamp.

4. In a lamp lock, the combination with a lamp socket, of a movable spur-carrying member in the inner part of said socket having an outwardly extending spur, and means operable from the outer side of the socket for moving said member to force said spur into the base of the lamp and hold said spur in locking position.

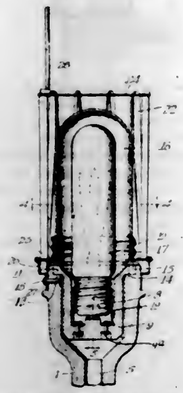
5. In a lamp lock, the combination with a lamp socket, of a spur-carrying member mounted in the inner part of said socket having an outwardly extending spur, a shade secured over said socket, means operable from the outer side of the socket for operating said spur-carrying member to force the spur thereof into the base of the lamp, said means including a screw located at one side of the axis of said socket, and an operating member having a flexible shaft for operating said means insertible between the lamp and said shade.

[Claims 6 to 8 not printed in the Gazette.]

1,210,263. PORTABLE HOLDER FOR ELECTRIC LAMPS. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 17, 1914. Serial No. 845,577. (Cl. 240—54.)

1. The combination with a lamp socket comprising an insulating member and a shell contact supported thereby, said insulating member having a seat associated therewith, of a gasket on said seat, a globe, and means for clamping said gasket tightly between said globe and member thereby to form a gas-tight joint.

2. The combination with a lamp socket comprising an insulating member and a shell contact supported thereby, said insulating member having a seat associated therewith, of a gasket on said seat, a globe, means for clamping said gasket tightly between said globe and member, and a gas-tight connection associated with said socket for feed wires.



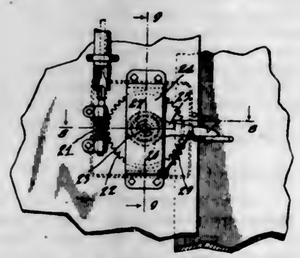
3. The combination with a lamp socket comprising an insulating member and a shell contact supported thereby, said insulating member having a seat thereon, of a gasket on said seat, a globe, and means for drawing said globe down tightly onto said gasket thereby forming a gas-tight joint.

4. In a portable lamp holder, the combination with a handle, of a lamp-receiving socket comprising an insulating member and a shell contact supported thereby, said insulating member associated with said handle, a globe associated with said socket, said globe and member having adjacent opposed portions and sealing means adjacent said opposed portions whereby a gas-tight chamber is formed for the light by said member and globe.

5. In a portable lamp holder, the combination with a lamp socket, of a handle associated with said socket, a seat formed by the top of said socket and of said handle, a gasket on said seat, a globe, and means for drawing said globe down on said gasket thereby forming a gas-tight joint.

[Claims 6 to 11 not printed in the Gazette.]

1,210,264. FREIGHT-CAR AND LOCK FOR FREIGHT-CAR DOORS. ARTHUR W. BERRESFORD, Milwaukee, Wis. Filed May 22, 1911. Serial No. 628,838. (Cl. 70—102.)



1. In a lock for freight car doors, in combination, a latch, a releasing member for said latch operable only from the top of the car and a slow motion connection between said latch and said releasing member, said latch being operable to locking position from the side of the car.

2. A lock for freight car doors having in combination a latch, an operating member for releasing said latch, said member being accessible only from the top of the car, a motion reducing connection between the latch and said operating member to prolong the time required to withdraw said latch, and means by which the latch may be quickly operated to locking position from the side of the car.

3. A freight car having a door and a locking mechanism therefor having a revolnble part requiring a number of turns to unlock the same and operable only from the top of the car, said locking mechanism having means permitting a quick locking of the door from the side of the car.

4. In a lock for freight car doors, in combination, a latch and operating means insuring a slow release thereof but permitting a quick operation of the same to locking position.

5. In a lock for freight car doors, a latch, a releasing member therefor accessible only from the top of the car, a slow motion connection between said releasing member and said latch and means on the side of the car for disconnecting said latch from said releasing member to permit a quick operation of said latch to locking position.

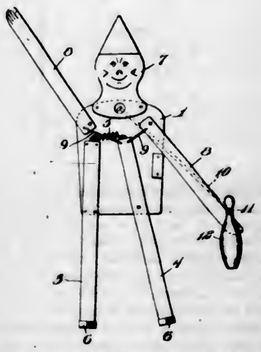
[Claims 6 to 16 not printed in the Gazette.]

1,210,265. RADIATOR. RUDOLF BEZVODA, Chicago, Ill. Filed Oct. 23, 1915. Serial No. 57,462. (Cl. 257—124.)



The combination with a radiator comprising a plurality of vertical coils in open communication with each other at their lower ends; an inlet for the heating fluid communicating with the lower ends of said coils at one end of the radiator; and a pipe communicating at one end with said inlet and extending into the lower ends of said coils, said pipe being coextensive with the length of the radiator and having a longitudinally extending opening at its upper side for the escapement of the heating fluid, said opening being restricted at the middle of said pipe and enlarging gradually toward the ends thereof, substantially as described.

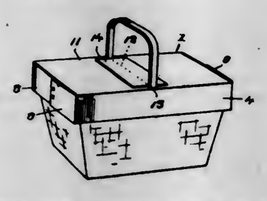
1,210,266. FIGURE TOY. MILES H. BICKELHAUPT, Utica, N. Y. Filed Aug. 16, 1916. Serial No. 115,307. (Cl. 46—40.)



1. A toy in the form of a figure having a body portion, a leg fixed with relation to the body portion, a leg pivoted to the body portion, a spring connecting the legs together, arms pivoted to the body portion, links connecting the arms with the said pivoted leg, a rod pivoted to the body portion and having an angularly disposed end located in the path of movement of the said arm.

2. A toy in the form of a figure having a body portion, a leg fixed to the body portion, a leg pivoted to the body portion, a spring connecting said legs together, arms pivoted to the body portion, links pivotally connecting the arms with the pivoted leg, a rod pivoted to the body portion and having an angularly disposed extremity located in the path of movement of the arms and a club pivoted on said extremity.

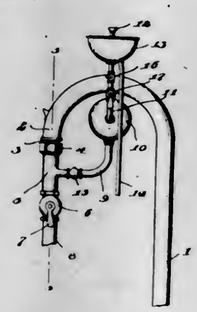
1,210,267. BASKET-COVER. JACOB F. BIXLER, Kansas City, Kans., assignor of one-half to Jerry Rellihan, Kansas City, Kans. Filed Apr. 17, 1916. Serial No. 91,707. (Cl. 217—124.)



1. A basket cover comprising sides, ends, and a central or top portion, said central or top portion having a straight transverse slit to clear a basket handle and having slots at the ends of said slit to receive and clear the sides of the basket handle.

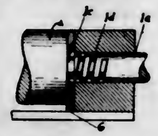
2. A basket cover comprising sides, ends, and a central or top portion, said central or top portion having a straight transverse slit to clear a basket handle and having slots at the ends of said slit to receive and clear the sides of the basket handle, and a flap secured on said central or top portion of the cover at a point spaced from one side of the slit and arranged to close over said slit.

1,210,268. DRINKING ATTACHMENT. LEWIS H. BLOOD, Foxcroft, Me. Filed Sept. 18, 1914. Serial No. 862,381. (Cl. 137—109.)



In a device of the class described, in combination, a hydrant comprising an inverted U-shaped pipe, a T-coupling connected to said pipe and having its right angular portion of a lesser diameter than its main portion, a valve carried below said T-coupling, an upwardly curved pipe connected to said right angular portion of said T-coupling and being of a uniform diameter with respect thereto, a check valve at the point of connection of said curved pipe and said right angular portion of the coupling, a reservoir secured to the upper end of said curved pipe and extending immediately under the bend of said hydrant pipe, a pipe extending upwardly from said reservoir, a cup secured to the upper end of said last named pipe, above said hydrant, but below the extreme end of said pipe, a nozzle projecting above said cup and secured to said cup-carrying pipe, and a controlling valve and a check valve mounted upon said cup-carrying pipe.

1,210,269. MACHINE FOR PASTING BOXES. RICHARD BURPEE BOHAKER, Lynn, Mass. Filed Jan. 12, 1915. Serial No. 1,892. (Cl. 91—51.)



1. In a machine of the class described, rolls mounted on shafts, plates at the ends of the rolls and a paste box beneath the rolls, annular channels in the shafts, spiral channels in the shafts, channels in the plates, the annular and spiral shaft channels and plate channels being so connected and related to each other and to the paste box that, when the machine is in operation, the pasting material is prevented from escaping along the shafts and is forced back into the paste box.

2. In an apparatus of the class described, a paste box and pasting rolls, the rolls having shafts extending from each end thereof, short spiral channels in the shafts, annular channels in the shafts, vertical plates through which the shafts pass, channels in the plates, the spiral and annular channels and the plate channels being connected with each other, the spiral channels being so related to the direction of motion of the rolls that, when the apparatus is in operation, the pasting material is prevented from escaping along the shafts and is forced back into the paste box by said motion.

3. In a device for preventing the escape of pasting material from a machine of the class described, a shaft, a vertical plate with a channel in its face, a roll on the shaft, and an annular channel and a spiral channel in the shaft, the annular and spiral channels being connected with each other and the plate channel so as to comprise a continuous channel, the channels being so made that, when the machine is in operation, the spiral channel tends to force the pasting material which accumulates on the shaft toward and into the paste box of the machine through the annular channel and the plate channel.

4. In a device for preventing the escape of pasting material from a machine of the class described, a shaft, a roll on the shaft, an annular channel and a spiral channel in the shaft at each end of the roll, vertical plates at each end of the roll, channels in the plates, each annular channel and its adjacent spiral channel being so connected with each other and with its adjacent plate channel as to comprise a continuous passage, the spiral channels being so made that when the machine is in operation the spiral channel tends to force back into the paste box of the machine, through the annular channels and plate channels, any pasting material which escapes along the shaft.

5. In a device for preventing the escape of pasting material from a machine of the class described, a vertical plate, a channel in the plate, shafts, rolls on the shafts, an annular channel and a spiral channel in each shaft, the annular channel and the spiral channel being so connected with each other and the plate channel as to comprise a continuous channel for each roll, the channels being so made that, when the machine is in operation, the spiral channels tend to force the pasting material which accumulates on the shafts toward and into the paste box of the machine, through the annular channels and the plate channels.

[Claim 6 not printed in the Gazette.]

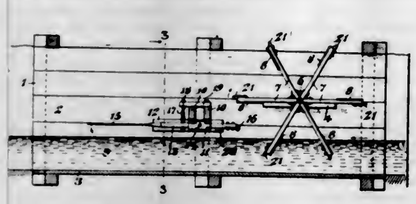
1,210,270. MORTISING-MACHINE. FRED A. BRACKETT, Lancaster, Wis. Filed Nov. 25, 1914. Serial No. 873,989. (Cl. 144—84.)

In a machine as set forth, the combination of a hollow standard having its side walls provided with interior vertical guides and its front and rear walls provided with substantially registering elongated slots and a tool supporting frame having a shank provided with an elongated slot and side ribs engaging said vertical guides, of a work support having a depending part provided with a segment slot, a cross head mounted in said hollow standard and having side channels to be engaged by the opposing walls of the slot in said shank, means extending through the slot of the rear wall and through the cross head of the depending part of the support for clamping the cross head in



vertical adjusted positions and pivotally mounting said support, means extending through the slot of said rear wall and the cross head and through the segment slot, whereby the support may be held in adjusted positions on its pivot, and means for actuating the tool supporting frame.

1,210,271. FISH-DEFLECTING MEANS FOR THE OUTLETS OF IRRIGATION-DITCHES. JOHN W. BURGESS, Sault Ste. Marie, Mich. Filed July 25, 1916. Serial No. 111,318. (Cl. 61—5.)



1. A fish deflector for irrigation ditches or canals, comprising actuating means responsive to the flow of water through the ditch or canal, and water impact means normally located above the surface of the water out of the path of debris floating on the water and normally constrained to remain in such location, said water impact means being in the path of the actuating means for movement by the latter into impact with the surface of the water flowing through the ditch or canal.

2. A fish deflector for irrigation ditches comprising a rotor responsive to flowing water in the ditch, and a series of blades having a normal constraint to remain out of the water and having means in the path of the rotor for impact by the latter to cause movements of the blade into contact with the surface of the water.

3. A fish deflector for irrigation canals or ditches, comprising a paddle wheel adapted to be rotated by water flowing through the ditch, and a series of blades in the path of the water wheel and arranged to be normally above the surface of the water, said blades being movable on engagement by the paddle wheel into impact with the surface of the water.

4. A fish deflector for irrigation ditches or canals, comprising a paddle wheel adapted to dip into and be rotated by flowing water in the ditch, and a series of blades associated with the paddle wheel for actuation by contact of the paddle wheel therewith, the blades having means constraining them to remain normally out of the water.

5. A fish deflector for irrigation ditches or canals, comprising a paddle wheel adapted to dip into and be rotated by a stream of water flowing through the ditch or canal, and a series of blades and pivotal supports therefor having a normal position above the surface of the flowing water, the supports having means for normally holding the blades above the water, and means in the path of the paddle wheel for actuating the supports and moving the blades against their normal tendency into contact with the surface of the flowing water.

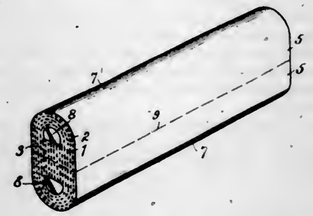
[Claims 6 and 7 not printed in the Gazette.]

1,210,272. HEADLIGHT-SHIELD. JAMES BURN, Chester, Pa. Filed June 9, 1916. Serial No. 102,748. (Cl. 240—48.4.)



A motor vehicle headlight shield comprising a relatively narrow semicylindrical frame adapted to bear against the front of the lamp, a light obscuring element having its marginal edge secured to the frame and shaped to cover approximately one-half of the glass, offset portions forming part of said frame of the lamp, and set screws passed through said offsets for threaded engagement with the lamp to hold the shield fixed thereon.

1,210,273. PACKING AND METHOD OF MAKING SAME. ROBERT T. CAMPBELL, Kansas City, Mo. Filed Mar. 30, 1916. Serial No. 87,752. (Cl. 154—2.)



1. A packing having two sides at right angles to its inner side and having an outer side other than flat, the packing comprising laminations the longitudinal edges of which form said inner side.

2. A packing having two sides at right angles to its inner side and having an arcuate outer side, the packing comprising laminations the longitudinal edges of which form said inner side.

3. A packing having two sides at right angles to its inner side and having a convex outer side, the packing comprising laminations the longitudinal edges of which form said inner side.

4. A packing having a flat inner side and two sides at right angles to the inner side, and having an outer side other than flat, the packing comprising laminations the longitudinal edges of which form said inner side.

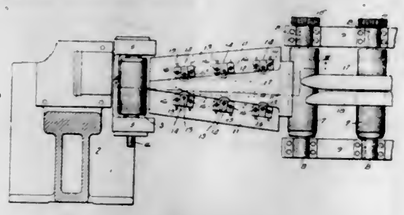
5. A packing having a flat inner side and two sides at right angles to the inner side, and having an arcuate outer side, the packing comprising laminations the edges of which form said inner side.

[Claims 6 to 10 not printed in the Gazette.]

1,210,274. PLATE-PILING MECHANISM. HOWARD D. COOK, Lorain, Ohio. Filed Aug. 25, 1915. Serial No. 47,328. (Cl. 193—1.)

1. A skelp piling mechanism comprising in combination means for moving a plurality of pipe skelp lengthwise side

by side, and a series of sets of axially vertical rotatable rollers forming a converging path and arranged to engage the edges of the lengthwise moving skelp to thereby move said skelp sidewise and pile one on another during the lengthwise movement thereof.



2. A skelp piling mechanism comprising in combination means for moving a plurality of pipe skelp lengthwise side by side, a series of sets of axially vertical rotatable rollers forming a converging path and arranged to engage the edges of the lengthwise moving skelp to thereby move said skelp sidewise and pile one on another during the lengthwise movement thereof, and means for adjusting said rollers to vary the angle and width of said converging path.

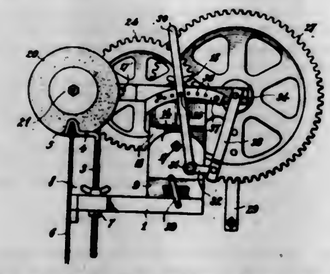
3. A skelp piling mechanism comprising a series of sets of axially vertical, rotatable rollers arranged to engage the edges of a plurality of lengthwise moving pipe skelp, said sets of rollers being arranged to form a converging path for the lengthwise moving skelp and by engagement therewith move the lengthwise traveling skelp sidewise into overlapping engagement and pile the skelp one on another in the lengthwise movement thereof.

4. A skelp piling mechanism comprising a series of sets of axially vertical, rotatable rollers arranged to engage the edges of a plurality of lengthwise moving pipe skelp, said sets of rollers being arranged to form a converging path for the lengthwise moving skelp and by engagement therewith move the lengthwise traveling skelp sidewise into overlapping engagement and pile the skelp one on another in the lengthwise movement thereof, and means for moving said pipe skelp lengthwise into engagement with said rollers.

5. A skelp piling mechanism comprising a series of sets of axially vertical, rotatable rollers arranged to engage the edges of a plurality of lengthwise moving pipe skelp, said sets of rollers being arranged to form a converging path for moving the lengthwise traveling skelp into overlapping engagement and pile the skelp one on another, and means for adjusting said vertical rollers to vary the angle and width of said converging path.

[Claim 6 not printed in the Gazette.]

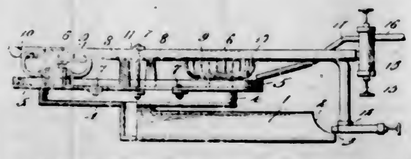
1,210,275. SAW-SHARPENING MACHINE. WILLIAM F. COUGHENOUR, Scottdale, Pa. Filed Nov. 6, 1914. Serial No. 870,662. (Cl. 76—40.)



1. In a saw sharpening machine, a base, a plurality of hook shaped hangers for supporting said base on a saw blade, means adjustably connecting said hangers to the base to permit the base to be moved in a plane parallel to the saw blade for varying the distance between the base and the saw teeth, and saw sharpening means carried by said base and comprising a rotary sharpening member and driving means therefor.

2. In a saw sharpening machine, a base, a plurality of hook shaped hangers for supporting said base on a saw blade, means adjustably connecting said hangers to the base to permit the base to be moved in a plane parallel to the saw blade for varying the distance between the base and the saw teeth, means permitting said hangers to be adjusted toward and away from each other, and saw sharpening means carried by said base and comprising a rotary sharpening member and driving means therefor.

1,210,276. HYDROCARBON-BURNER. LEMUEL P. COULTER, Wichita, Kans. Filed Oct. 6, 1916. Serial No. 124,140. (Cl. 158—65.)



1. A hydro-carbon burner comprising a tube provided with an opening at one end, and having a trough located at its other end, a pan mounted upon the trough and having nipples which communicate with the interior thereof, caps located over the nipples, said pan having a peripheral flange located beyond the sides of the caps, a pipe in the form of a loop passing around the cups, valves for controlling the admission of oil into the pipe and for controlling the exit of gas therefrom, the said opening in the tube being located at a point remote from the heating zone of the caps.

2. A hydro-carbon burner comprising a tube provided with an opening at one end and having an upstanding flange at the lower edge of the opening, a trough mounted at the other end of the tube, a pan located upon the trough and having upstanding nipples which communicate with the interior thereof, caps located over the nipples, and a pipe in the form of a loop extending around the caps and supported upon the pan, and valves for controlling the admission of oil into the pipe, and for controlling the exit of gas therefrom, the said opening in the tube being located at a point remote from the heating zone of the caps.

1,210,277. FLOOR-LAYING TOOL. LOXLEY C. CULP, Deer River, Minn. Filed Apr. 26, 1916. Serial No. 93,693. (Cl. 254—12.)



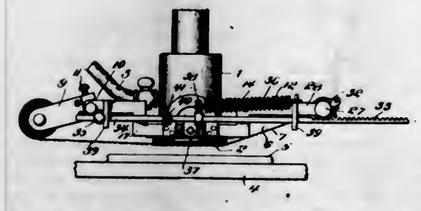
1. A tool for laying floors comprising a base, a draw bar slidably mounted in the base, means for moving said bar, and a second bar carried by the base and engageable with the floor to hold the base against movement during the clamping operation, said bar being adjustable longitudinally and pivotally mounted upon said base.

2. In combination with a floor laying tool of the type described, a bar having one end thereof pivotally and adjustably mounted on the tool and extending longitudinally of the same, its free end being curved downwardly and terminating in a head, and spurs formed on two faces of the head.

3. In combination, a floor laying tool, a shaft secured to the tool, a yoke mounted upon the shaft, a bar having one end thereof formed with spaced notches and extending through the yoke, said notches being engageable with said shaft, the opposite ends of said bar being curved downwardly and provided with spurs.

4. In combination, a tool for laying floors, and comprising a base, a draw bar slidably mounted in the base, means for moving the bar toward the base, and a bar having one end adjustable longitudinally and pivotally mounted upon the base, its opposite end being disposed in horizontal alinement with said draw bar for the purpose described.

1,210,278. FEEDER FOR STAMPING-PRESSES. FRANK H. DAVIS, Brooklyn, N. Y. Filed Feb. 6, 1915. Serial No. 6,647. (Cl. 273.)



1. In a device of the character described, the combination of a support adapted to be secured to the reciprocating die of a stamping press; revoluble rolls mounted upon said support on opposite sides of said die, said rolls carrying a ribbon movable beneath the face of said die; a stop member adjustable on said frame to regulate the amount of movement of said ribbon; a manually controlled member supported by said frame and movable relatively thereto, said movement being limited in one direction by said stop member; and means for rotating one of said rolls by the movement of said manually controlled member.

2. In a device of the character described, the combination of a frame; means disposed at or near the center of the frame for securing the same to a plunger or die; rolls upon the ends of the frame for the extension of the ribbon strip; a ratchet wheel associated with one of said rolls; a dog for actuating said ratchet wheel; a pinion for actuating the dog; a longitudinally movable rack bar for actuating the pinion; an adjustable stop device for regulating and varying the stroke of the rack bar; a retracting spring secured at one end to the frame; and a slidably adjustable connection between the rack bar and the other end of the spring.

1,210,279. METHOD OF PRODUCING SPECIAL EFFECTS IN BATIK-WORK. ARTHUR ERICH DIENER, Fürstenberg, Germany. Filed Dec. 29, 1914. Serial No. 879,610. (Cl. 8—5.)

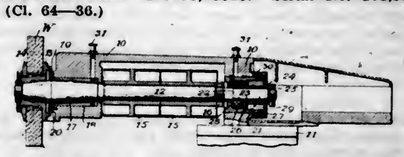
1. The method of preparing the fabric for producing special effects in batik work, which consists in treating the fabric with a wax repelling substance in the form of designs, and then applying to the fabric wax or the like.

2. The method of preparing the fabric for producing special effects in batik work, which consists in applying to the fabric a dye containing wax repelling substance in the form of a design, and thereupon applying to the fabric wax or the like.

3. The method of producing special effects in batik work, which consists in applying to the fabric a dye containing wax repelling substance in the form of a design, and thereupon applying to the fabric wax or the like, and finally breaking the wax, and dyeing in the usual way.

4. The method of preparing the fabric for producing special effects in batik work, which consists in applying water to those parts of the fabric at which it is desired that the wax should not adhere, and then applying the wax to the fabric.

1,210,280. ADJUSTABLE SHAFT-BEARING. ALDEN M. DRAKE, Worcester, Mass., assignor to Heald Machine Company, Worcester, Mass., a Corporation of Massachusetts. Filed June 13, 1916. Serial No. 103,569. (Cl. 64—36.)

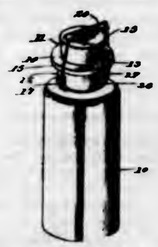


1. In a grinding machine, the combination of a rotatable shaft, a supporting frame, a tapered main bearing for said shaft non-adjustably fixed in said frame, and a take-up bearing for the opposite end of said shaft, said take-up bearing comprising a threaded sleeve longitudinally adjustable in said frame and having provision at its outer end for adjustment thereof, an outer ball race, means accessible from the outer end of said bearing for securing said race in said sleeve, an inner ball race, means at the end of said shaft for securing said race to said shaft, and a series of balls in said races.

2. In a grinding machine, in combination, a shaft, a frame member, a tapered main bearing for said shaft and a take-up bearing for said shaft, said latter bearing comprising an inner ball race fixed to said shaft, an outer ball race mounted in a sleeve, a series of balls in said races, and means for adjusting said sleeve in said frame member, whereby the end play of said shaft may be controlled.

3. In a grinding machine, in combination, a frame member, a shaft, a tapered bearing for said shaft and a take-up bearing for said shaft, said-bearings being separated and said latter bearing comprising an inner ball race fixed to said shaft, a sleeve threaded in said frame member, an outer ball race fixed in said sleeve, and a series of balls in said races, angular adjustment of said sleeve being effective to positively control the end play of said shaft in said frame member.

1,210,281. BOTTLE ATTACHMENT. WILLIAM L. DROUILHET, Galveston, Tex. Filed Nov. 13, 1915. Serial No. 61,378. (Cl. 215—113.)



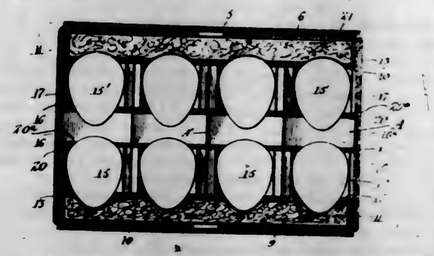
1. In combination with a bottle having a cork, a member having a portion thereof arranged in obstructing relation with respect to the cork and adapted to be moved to a position to permit of the removal of the cork from the bottle, said member consisting of an integral strand of spring-like wire bent to provide a U-shaped member, the limbs of the member being bent to form a plurality of opposed springs, and also a continuous neck encircling portion whereby the member will be detachably supported on the bottle.

2. In combination with a bottle having a cork, a member movably supported on the bottle and normally lying in obstructing relation with respect to the cork, said mem-

ber comprising a cross piece bent to form offset portions and adapted to be moved to a position to permit of the withdrawal of the cork from the bottle, a label on the cross piece and secured to the oppositely bent offset portions thereof, with the label lying above and over the vertical center of the cork.

3. In combination with a bottle having a cork, a member movably supported on the bottle and normally lying above and over the cork, said member embodying a diagonally extending cross piece, terminally bent to provide oppositely extending offset portions, a label on the cross piece of the member and secured to the oppositely extending offset portions of the cross piece.

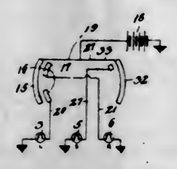
1,210,282. EGG-SHIPPING CASE. JOSEPH I. EDWARDS, Livermore, Cal. Filed Dec. 13, 1915. Serial No. 66,591. (Cl. 217—35.)



1. A shipping case for eggs comprising an outer casing including flaps which are adapted to overlie each other to provide the top and bottom of the casing, pads in the casing at the top and bottom thereof, perforated flanged trays arranged over the pads, nest members arranged one against each of the trays, said nests having longitudinal and transverse intersecting members dividing the same into cells, a yieldable sleeve within each of the cells, a perforated plate arranged upon the nests, a spacing member between the plates, and said spacing member being divided into a plurality of partitions corresponding in number and alining with the cells of the nests and the perforations in the partitions and trays.

2. A shipping case for eggs comprising an outer casing formed from a double thickness of material including flaps which are adapted to overlie each other to provide the top and bottom of the casing, pads in the cells at the said top and bottom thereof, perforated trays arranged over the pads, nest members arranged upon the trays, perforated partition plates for the nests, and a spacer member disposed between the partition plates, and said spacer member being divided into a number of compartments, corresponding to and alining with the perforations in the plates, the nests and the perforations in the trays.

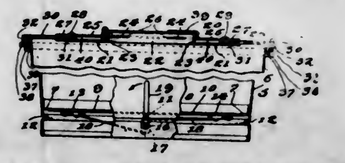
1,210,283. SIGNALING APPARATUS. CARL G. ENDER and GUY A. BARBER, Wilkinsburg, Pa. Filed Feb. 18, 1916. Serial No. 79,187. (Cl. 177—337.)



1. A signaling system for automobiles comprising a pair of arcuate contact strips, a pair of spaced contacts associated with one strip, a single contact associated with the other strip, conductors each having one terminal grounded and the other connected to a contact, a signal lamp in each conductor, a battery having one terminal grounded and the other terminal connected to both strips, and switch blades for independently bridging the distance between the strips and their associated contacts.

2. A signaling system for automobiles comprising a pair of arcuate contact strips, a pair of spaced contacts associated with one strip, a single contact associated with the other strip, conductors each having one terminal grounded and the other connected to a contact, a signal lamp in each conductor, a battery having one terminal grounded and the other terminal connected to both strips, switch blades for independently bridging the distance between the strips and their associated contacts, and rods connecting said blades with the butterfly valve arm and with a portion of the steering mechanism of the automobile.

1,210,284. PAIL. GEORGE ENTWISTLE, Jersey City, N. J. Filed Feb. 2, 1916. Serial No. 75,827. (Cl. 220—22.)



1. A closure for receptacles providing a main disk having a central opening, the walls forming the opening being slotted, an auxiliary disk, means carried by said auxiliary disk and extending through the said slots for connecting the auxiliary disk in spaced relation with the former mentioned disk, and a plurality of loosely assembled lapped segmental sections interposed between the main and auxiliary disks and capable of expansion and contraction.

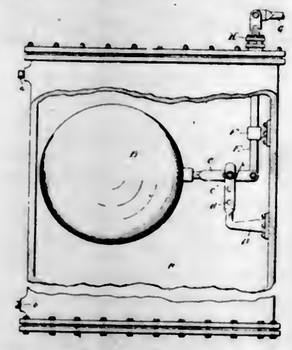
2. In combination with a receptacle having a flanged top, of a closure therefor, said closure embodying a plurality of loosely assembled lapped segmental sections, said sections being formed at their outer ends with a flange adapted to receive the flange of the receptacle, loops carried by said segmental sections, and means extending through said loops for permitting of the expansion or contraction of the segmental sections.

3. A closure for receptacles embodying a main disk, an auxiliary disk arranged above and in spaced relation with the main disk and detachably connected thereto and provided with a concentric series of radial slots, a plurality of segmental sections interposed between the main and auxiliary disks, and means extending through the slot of the auxiliary disk and having connection with each of the segmental sections for loosely connecting the sections between said disks.

4. A closure for receptacles embodying a main disk, an auxiliary disk arranged above and in spaced relation with the main disk and detachably connected thereto and provided with a concentric series of radial slots, a plurality of segmental sections interposed between the main and auxiliary disks, means extending through the slot of the auxiliary disk and having connection with each of the segmental sections for loosely connecting the sections between said disks, and means having connection with the segmental disks for causing the expansion and contraction thereof.

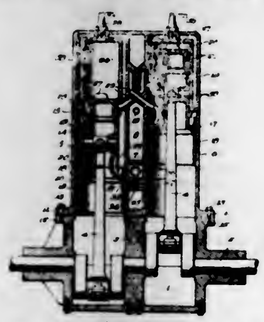
1,210,285. AUTOMATIC PUMP-REGULATOR. JOHN L. ESLINGER, Tucumcari, N. Mex., assignor of one-half to Charles L. McCrae, Tucumcari, N. Mex. Filed Nov. 18, 1913. Serial No. 801,735. (Cl. 137—101.)

In a device of the class described, in combination, a cylinder, a pair of brackets secured upon the inner wall of said cylinder, one of said brackets forming a guide, the other bracket being L-shaped, a rod passing through said guide and projecting above said cylinder, said L-shaped bracket being provided with a plurality of openings upon its vertical arm, a pin passing through one of said openings, a lever pivoted upon said pin and also upon the lower end of said rod, a float secured to said lever, a plate closing the top of said cylinder and having a stuffing box through which said rod passes, an arm extending from the



side of said cylinder above said top plate, and a lever pivoted upon this last named arm between its ends and also pivoted to said rod at the upper end of the latter.

1,210,286. INTERNAL-COMBUSTION ENGINE. HERBERT O. EWING, Middelport, Ohio, assignor of one-half to Thomas W. Field, Middleport, Ohio. Filed Apr. 26, 1916. Serial No. 93,689. (Cl. 123—59.)

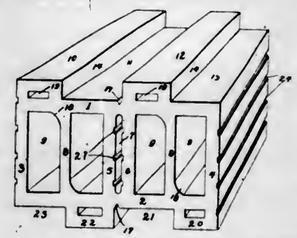


1. In a two cycle internal combustion engine, an air compression crank case, a cylinder in communication therewith, a reciprocatory piston working in said cylinder, and a deflector mounted on and projecting from the piston head and formed with an air inlet passage extending therethrough, the cylinder wall being formed with a by-pass adapted to communicate with the crank case and to be covered by the piston when at the inner limit of its movement, said by-pass being also adapted to register with the air inlet passage in the deflector on the piston head before the piston reaches the inner limit of its movement.

2. In a two cycle internal combustion engine, an air compression crank case, a cylinder in communication therewith, a reciprocatory piston working in said cylinder, and a deflector mounted on and projecting from the piston head and formed with an air inlet passage extending therethrough, the cylinder wall being formed with a by-pass adapted to communicate with the crank case and to be covered by the piston when at the inner limit of its movement, said by-pass being also adapted to register with the air inlet passage in the deflector on the piston head before the piston reaches the inner limit of its movement, said deflector being arranged to cover said by-pass when the piston reaches the final limit of its inward movement.

3. In a two cycle internal combustion engine, the combination of a pair of companion cylinders each embodying a combustion chamber and a compression chamber, the compression chamber being arranged closer to the crank case than the combustion chamber and being of larger diameter than the combustion chamber, pistons working in said cylinders and each embodying a portion operating in the combustion chamber and a relatively larger portion operating in the compression chamber, and a mixture admission and distributing chamber located between said compression chambers and ported into each of said compression chambers, each of said pistons being formed with a by-pass communicating with the respective compression chamber, the cylinders being formed with transfer passages which cross each other and lead from one cylinder to the other, each of said transfer passages being adapted to register with the by-pass of one of the pistons, the cylinder block being formed with a compressed air equalization passage extending from one cylinder to the other, and the pistons being formed with ports to register with the last named passage when at the inner limit of their movement.

1,210,287. BUILDING-BLOCK. JOSEPH E. EXNER, Coffeyville, Kans. Filed Sept. 21, 1915. Serial No. 51,849. (Cl. 72—43.)



1. A building block comprising a rectangular body having ribs rising from the first and third quarters of its upper face and depending from the second and fourth quarters of its lower face, all ribs being slightly narrower than the space between them, for the purpose set forth.

2. A hollow building block having a pair of slightly spaced webs connecting its top and bottom walls midway between its side walls and defining a slot between said webs, the outer face of the top and bottom walls being grooved on lines parallel with such slot; and ribs rising from the first and third quarters of the top wall and depending from the second and fourth quarters of the lower wall, all ribs being slightly narrower than the spaces between the ribs and the innermost ribs standing alongside said grooves.

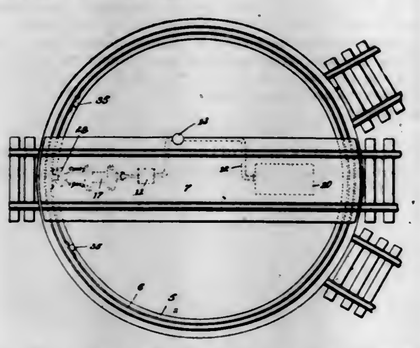
3. A hollow building block comprising top, bottom, and side walls, a pair of slightly spaced upright main webs midway between the side walls and defining a slot between them, and single webs midway between the main webs and the side walls, all webs uniting the top and bottom walls and the outer faces of the latter and having grooves parallel with said slot; two spaced ribs rising from the top wall, and two spaced ribs depending from the bottom wall, each rib on one wall being opposite to and slightly narrower than a space on the other and the inner ribs standing alongside said grooves.

4. A hollow building block comprising top, bottom, and side walls, a pair of slightly spaced upright main webs midway between the side walls and defining a slot between them, and other and single webs midway between the main webs and the side walls and having their upper and lower extremities widened, the outer faces of the top and bottom having grooves parallel with said slot; ribs rising from the first and third quarters of the top wall with their own right walls above the widened portions at the upper ends of said single webs, and ribs depending from the second and fourth quarters of the lower wall with their own left walls underlying the widened portions at the lower ends of said single webs.

5. A building block made up of two like halves, each having a rib rising from one half of its upper face and another rib depending from the other half of its lower face, said halves having their top and bottom walls integrally united and grooved alongside one rib on each half and the block containing a break-slot between and in line with said grooves.

[Claim 6 not printed in the Gazette.]

1,210,288. TURN-TABLE LOCK. CORNELIA ELLIS FARR, Madison Station, Miss. Filed June 20, 1916. Serial No. 104,756. (Cl. 104—215.)



1. A turn table lock including a casing formed with guide slots, a latch bolt slidably mounted within the casing and having laterally extending lugs, fitting in the slots of the casing, a latch head, and means for yieldably connecting the latch head to the lugs of the latch bolt, and means for automatically operating the latch bolt.

2. A turn table lock including a casing formed with guide slots, a latch bolt slidably mounted within the casing and having laterally extending lugs, fitting in the slots of the casing, a latch head, and means for yieldably connecting the latch head to the lugs of the latch bolt, and means for operating the latch bolt in opposite directions.

3. A turn table lock including a casing formed with guide slots, a latch bolt slidably mounted within the casing and having laterally extending lugs, fitting in the slots of the casing, a spring pressed latch head connected with the lugs of the latch bolt and slidably mounted within said casing, and means for operating the latch bolt.

4. In a turn table, a base, having a series of laterally extending catches, a platform rotatably supported upon the base, locking mechanism carried by the platform and disposed below and in a horizontal plane with respect to the platform, and means carried by the platform for throwing the locking mechanism into and out of contact with the laterally extending projections of the base, substantially as and for the purpose specified.

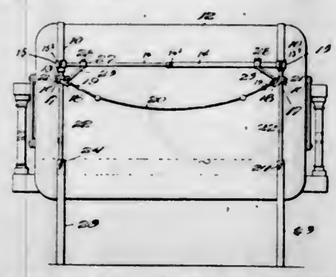
5. A device of the class described, a base, a platform rotatably mounted upon the base, means for locking the platform to the base, a latch bolt, a latch head, means connecting the latch head to one end of the bolt, resilient means encircling the latter mentioned means and defined between the confronting ends of the latch bolt and latch head.

[Claim 6 not printed in the Gazette.]

1,210,289. CHILD'S CARRIER AND SLEEPER. EMMA C. FARRER and MATHEW P. FARRER, Lordsburg, N. Mex. Filed Mar. 14, 1916. Serial No. 84,190. (Cl. 5—59.)

1. A device of the class described comprising hangers spaced apart and adapted to engage a support, a stay member connecting said hangers, an arm extending laterally from each of said hangers and adapted to support a hammock device, and braces connecting said arms to said stay member.

2. A device of the class described comprising hangers spaced apart and adapted to engage a support, a stay member connecting said hangers, an arm extending laterally from each of said hangers and rotative thereon and adapted to support a hammock device, braces between said stay member and arms, means for clamping said arms to said supports, and a leg device depending from the free end of each of said arms.



3. A device of the class described comprising hangers spaced apart and adapted to engage a support, a stay member connecting said hangers, an arm extending from each of said hangers and rotative thereon and adapted to support a hammock device, and means for clamping said arms to said hangers.

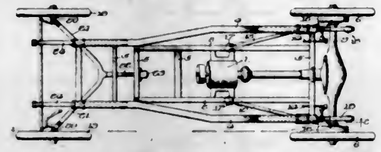
1,210,290. INCANDESCENT-LAMP SOCKET. GEORGE HERBERT FEICK, Baltimore, Md. Filed Nov. 29, 1915. Serial No. 64,196. (Cl. 173—322.)



1. The combination with an electric cord, of a protector therefor including a semi-conical sleeve having a longitudinal arcuate depression substantially centrally therein and extending lengthwise thereof, circular collars formed at each end in one piece with said sleeve and encircling the electric cord, a locking key complemental to said sleeve and completing the conical contour therewith, said sleeve having its ends abutting against said collars, a bulged portion on said key disposed opposite the depression in said sleeve, a casing snugly fitting over said sleeve and key and binding the same closely together with the bulge portion forcing the electric cord into said arcuate depression, and means for holding said casing in place about said sleeve and key.

2. The combination with an electric cord, of a protector therefor including, a sleeve having a depression therein and a cut-away portion opposite said depression, integral collars at the ends of said sleeve encircling the electric cord, one of said collars being beveled, a locking key fitted in the cut-away portion of said sleeve and engaging against the inner ends of said collars, one end wall of said key being beveled to conform to the beveled wall of said collar, a bulged portion on said key disposed opposite said depression, and a casing snugly fitted over said sleeve and key and binding the same closely together with the bulged portion pressing the electric cord into said depression.

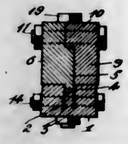
1,210,291. WHEELED VEHICLE. ROLAND S. FEND, Chicago, Ill. Filed Oct. 23, 1913. Serial No. 796,768. (Cl. 21—90.)



1. A vehicle including a vehicle body carrying frame, rear vehicle wheels for supporting the rear of said frame, a rear axle housing extending substantially horizontally between the hubs of the rear wheels, a pair of substantially straight reach rods extending diagonally from points on said frame to more widely separated points on said rear axle housing and a spring between said frame and each of said reach rods bearing upon said reach rods at a point between the ends thereof located in a vertical plane passing through the two points of attachment of said reach rods.

2. A vehicle including a vehicle body carrying frame, rear vehicle wheels for supporting the rear of said frame, a rear axle housing extending substantially horizontally between the hubs of the rear wheels, a pair of substantially straight reach rods extending diagonally from points on said frame to more widely separated points on said rear axle housing and a full elliptic spring between said frame and each of said reach rods bearing upon said reach rods at a point between the ends thereof located in a vertical plane passing through the two points of attachment of said reach rods.

1,210,292. MOLD FOR MAKING INDIVIDUAL TEETH FOR DIAMOND SAWS. LEO M. FINK, Montreal, Quebec, Canada. Continuation of application Serial No. 42,439, filed July 28, 1915. This application filed Apr. 17, 1916. Serial No. 91,834. (Cl. 22—122.)



1. A mold for saw teeth comprising a sectional frame consisting of side blocks and a base block and means for contracting the base block whereby one of said side blocks will be connected thereto.

2. A mold for saw teeth comprising a sectional frame consisting of separable side blocks and a detachable base block, means for connecting the side blocks togther and a flexible connection between one of the side blocks and the base block whereby the side blocks will be held in position upon the base block.

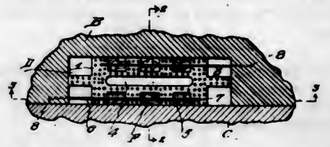
3. A mold for forming individual saw teeth comprising a sectional frame consisting of two separable side blocks and a base block adapted to be detached therefrom and means for contracting the side walls of the base block together whereby one of the side blocks will be connected thereto.

4. A mold for saw teeth comprising a sectional frame consisting of side blocks and a base block, means for connecting the side blocks together, ribs depending from one of the side blocks and means whereby said ribs will be frictionally held within the base block.

5. A mold of the character described, comprising side blocks and a base block adapted to coöperate with each other to form a plurality of independent chambers, means for securing the side blocks together and coupling means formed integral with the base block for detachably connecting the side blocks thereto.

[Claims 6 to 15 not printed in the Gazette.]

1,210,293. DIAMOND-RETAINER FOR DIAMOND-SAW MOLDS. LEO M. FINK, Montreal, Quebec, Canada. Filed Apr. 17, 1916. Serial No. 91,835. (Cl. 22—122.)



1. In a mold for saw teeth means for confining individual pieces of abrasive material to the opposite sides of the mold cavity comprising a single foraminous partition arranged in a horizontal plane within the mold cavity and extending across the mold cavity and means for retaining the partition in spaced relation with the bottom of the mold.

2. In a mold for making individual saw teeth means for separating and confining individual pieces of abrasive material adjacent to the side walls of the mold cavity comprising a single perforated plate and means for supporting and retaining said plate in spaced relation and in a parallel plane with the bottom of the mold cavity for the purpose set forth.

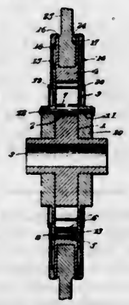
3. In a mold for saw teeth, means for confining loose abrasive material to a portion of the mold cavity, said means comprising a plate having recesses arranged alternately within the opposite sides thereof.

4. A device of the character described comprising a perforated notched holding plate having end supporting members for the purpose set forth.

5. A device of the character described comprising a rectangular plate, the side walls of the plate being notched and supporting members carried by the plate.

[Claims 6 to 10 not printed in the Gazette.]

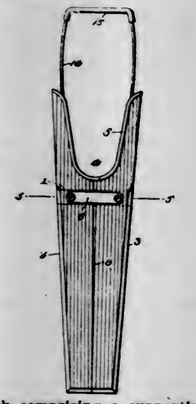
1,210,294. SHOCK-ABSORBER. CHARLES L. FLORA, Toledo, Ohio, assignor of one-half to Fred N. Laubenthal, Toledo, Ohio. Filed Nov. 24, 1914. Serial No. 873,785. (Cl. 152—44.)



In a device of the kind described in combination, a disk having opposing integral concentric hub portions and a central bore registering therewith, a wheel having a series of spokes, a circular ring into which the inner ends of the spokes project and being of a larger diameter than said disk but of equal width with respect thereto, a pair of shields engaging the opposite sides of said ring, each of said shields having an annular member providing a cir-

cular opening of larger diameter than said disk, said shields having right angular flanges fitting over said ring and inner circular ledges disposed laterally of the ring so as to space said shields from the rings, a buffer-ring seated against each of said circular ledges and engaging the shields and ring respectively, a pair of end plates slidably engaging said ring and said shields, a pair of integral oppositely extending bosses formed upon said plates and having openings through which the hub sections project, a series of tie bolts passing through the bosses of the plate for holding them against transverse displacement, said bolts projecting through the ring, and a series of leaf springs secured between said plate and at one end to said tie bolts and at their opposite ends to the said ring.

1,210,295. BOOTJACK. CLARENCE A. FOGELSTROM and EMIL J. KUHN, Junction City, Kans.; said Kuhn assignor to said Fogelstrom. Filed June 9, 1916. Serial No. 102,786. (Cl. 132—30.)



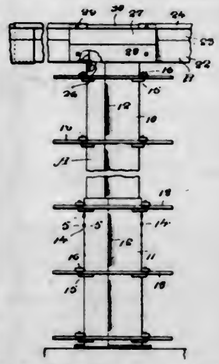
1. A boot jack comprising a supporting cleat, a pair of members pivotally mounted upon the cleat intermediate their ends, each member being cut away at one end whereby the cut away portions of said members will form a U-shaped recess, a continuous trip secured to the edge of said recess, one of said members being formed with socket in its inner edge, pins fixed in the other member at its inner edge and engaged in said socket, a U-shaped spring having its limbs carried by said member, and means for adjusting the members toward and away from each other.

2. A boot jack comprising a cleat, a pair of members pivoted to the cleat, a link connected to the pivot for the members, means on one member and engaged in the other member for preventing relative longitudinal movement of said members, said members being cut to form a recess therebetween, means for adjusting the members relative to each other, and a U-shaped spring having its limbs fixed to the members and coacting with the cut away portions of said members.

1,210,296. FALSE WORK FOR CONCRETE CONSTRUCTION. HERMAN FOUSE, Akron, Ohio. Filed July 5, 1916. Serial No. 107,619. (Cl. 25—131.)

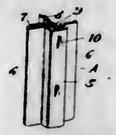
1. A false work for concrete construction comprising upper and lower series of substantially L-shaped sections assembled to provide casements telescoping one within the other, pins permanently secured to the said sections for engagement with adjustable bars for clamping said sections together, means for adjustably connecting the upper sections to the lower sections, and means for permitting adjustment of the first named sections.

2. A false work for concrete construction comprising upper and lower series of substantially L-shaped sections assembled to provide casements telescoping one within the other, means exteriorly of the sections for clamping the same together, means for adjustably connecting the upper sections to the lower sections, means for permitting adjustment of the first named sections, said sections each being formed at one edge with a flange at right angles thereto, and extensible plates detachably engaged with the flanges for varying the sizes of the casements.



3. A false work for concrete construction comprising upper and lower series of substantially L-shaped sections assembled to provide casements telescoping one within the other, means exteriorly of the sections for clamping the same together, means for adjustably connecting the upper sections to the lower sections, means for permitting adjustment of the first named means, said sections each being formed at one edge with a flange at right angles thereto, extensible plates detachably engaged with the flanges for varying the sizes of the casements, and a beam form provided with downwardly turned flanges for engagement with the upper casement and including a plurality of extensible sections arranged in overlapping relation to each other.

1,210,297. METALLIC STUDDING. THOMAS J. FRASER, Washington, D. C. Filed May 24, 1916. Serial No. 99,604. (Cl. 72—115.)



A stud comprising a U-shaped portion having side flanges made from sheet metal, one of said flanges being formed with a continuation parallel therewith and bent inwardly in the direction of the U-shaped portion, a wing formed on the continuation at right angles thereto and provided with an angular portion, the angular portion of the wing insetting the wing centrally within the U-shaped portion, integral fastening protuberances projecting from the U-shaped portion, said wing being formed at intervals with apertures.

1,210,298. AUTOMATIC TRAIN-STOPPING APPARATUS. SAMUEL FRANK, New York, N. Y. Filed Apr. 17, 1916. Serial No. 91,660. (Cl. 246—58.)

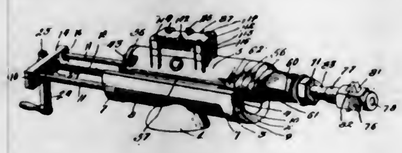
1. In automatic train stopping apparatus, the combination with a trackway having one line of rails provided with short sections insulated from the remaining portion of said line of rails and spaced apart, contact rails arranged between each insulated section and the adjacent portion of the other line of rails, connections between one of said contact rails and the portion of the line of rails at opposite ends of the adjacent insulated sections, sources of energy each having one side connected to the other line of rails and the other side connected to the other contact rail, and car carried mechanism adapted to be energized from any one of said sources when the car passes over the corresponding contact rails.



2. In automatic train stopping apparatus, the combination with a trackway having one line of rails provided with short sections insulated from the remaining portion of said line of rails and spaced apart, contact rails arranged between each insulated section and the adjacent portion of the other line of rails, connections between one of said contact rails and the portion of the line of rails at opposite ends of the adjacent insulated sections, sources of energy each having one side connected to the other line of rails and the other side connected to the other contact rail, car carried mechanism adapted to be energized from any one of said sources when the car passes over the corresponding contact rails, and means for energizing said contact rails independently of said sources.

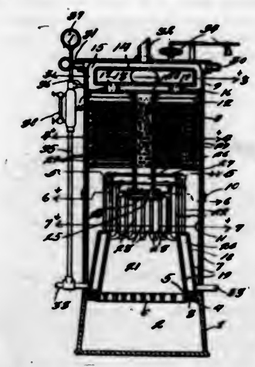
3. In automatic train stopping apparatus, the combination with a trackway having one line of rails provided with short sections insulated from the remaining portion of said line of rails and spaced apart, contact rails arranged between each insulated section and the adjacent portion of the other line of rails, connections between one of said contact rails and the portion of the line of rails at opposite ends of the adjacent insulated section, sources of energy each having one side connected to the other line of rails and the other side connected to the other contact rail, car carried mechanism adapted to be energized from any one of said sources when the car passes over the corresponding contact rails, other sources of energy, connections between said other sources of energy and said contact rails whereby the latter may be energized independently of said first mentioned sources, and switches in said last-named connections respectively.

1,210,299. PNEUMATIC OR STEAM DRILL. RICHARD CLAYTON FRASER, Central City, Colo., assignor of one-third to W. R. Fraser, Durango, Colo. Filed Aug. 20, 1914. Serial No. 857,639. (Cl. 121—11.)



In a rock drill; the combination of a cylinder and a piston operable in said cylinder; of a valve casing on the cylinder, provided with branch inlet ports; the valve casing near the center having an exhaust duct, and two passages extending to the ends of the cylinder chamber; a valve in the valve casing having a pair of ports, each alternately registering with the branch inlet ports, and terminating in branch ports registering with the exhaust and one of said passages, as one of the branches of the other valve port registers with the other passage; and means of communication connecting the end of the valve casing chamber and the cylinder chamber, whereby the motive medium behind the piston, when it reaches one of the ends of the cylinder chamber, will enter the valve casing and operate the valve.

1,210,300. HEATER. JOHN W. GALLAGHER, Seneca Falls, N. Y. Filed Mar. 14, 1916. Serial No. 84,074. (Cl. 122—314.)



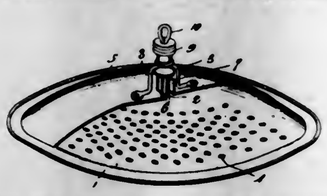
1. In a heater as set forth, a casing, a second casing on the interior of the first casing adjacent its lower part and rising upwardly and having a fire pot in the interior thereof, the second casing consisting of an inner and outer wall having therebetween a water chamber which surrounds the fire box, the upper part of the first casing having a steam dome casing provided on the interior thereof with a products of combustion chamber, an auxiliary tubular water chamber extending downwardly and centrally from the steam dome casing and in communication with the dome and provided with a multiplicity of radial water tubes, a plurality of water tubes connecting the main water chamber and the auxiliary tubular water chamber, said products of combustion chamber having communications with the upper interior of the first casing, into which the products of combustion from the fire pot pass and thence in the products of combustion chamber, said water tubes being in the direct path of the products of combustion, so that the water in said tube will be auxiliary heated to being heated in the main water chamber, and an outlet for the products of combustion chamber.

2. In a heater of the kind set forth, the combination of a base having an ash pit and a grate and a cylindrical casing provided with a steam dome at its top rising upwardly from the base, of a conical fire pot casing rising upwardly from the base adjacent the grate, the wall of the fire pot casing having a water chamber, an auxiliary tubular water chamber disposed vertically and concentric with the fire pot casing and having its upper end connected to the steam dome, the lower end of the auxiliary water chamber having a plurality of radial water tubes provided with vertical water tube connections with the first water chamber, said auxiliary water chamber between the steam dome and said radial tubes having a plurality of radial water tubes, through which the water circulates, means for carrying off the steam from the dome, and means for carrying the condensed steam back to the first water chamber.

1,210,301. LID FOR CULINARY ARTICLES. VINCENZO GALLETTA, Long Beach, Cal. Filed July 10, 1916. Serial No. 108,510. (Cl. 53—8.)

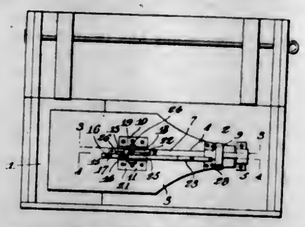
1. The combination with a lid for cooking utensils having apertures to one side of its center and being centrally provided with a handle comprising a flanged stud which is cylindrical in cross section, of a plate covering the apertures in the lid, said plate having one of its edges centrally provided with a slot to receive the stud, a spring centrally secured to the plate and surrounding the slot and having its ends disposed at the opening in the slot, said spring adapted to frictionally engage with the stud to contact with the flange of the said stud to removably sustain the plate upon the lid.

2. The combination with a lid for cooking utensils having apertures to one side of its center and its said center provided with a handle comprising a cylindrical stud having its outer edge flanged, of a plate for closing the apertures of the lid, said plate having one of its edges centrally slotted and a rounded split spring centrally secured to the plate and surrounding the slot and having its ends flared



away from each other and arranged at the opening of the slot whereby the arms of the spring will frictionally contact with the opposite sides of the stud and underlie the flange of the said stud, a resilient element straddling the spring and having its ends secured to the plate, the central portion of the said resilient element being extended outwardly and provided with an eye, and a knob member arranged upon the said extension of the said element.

1,210,302. BOLT. CHESTER GILES, Mowequa, Ill., assignor of one-half to Cyrus S. Weakly, Mowequa, Ill. Filed Aug. 30, 1916. Serial No. 117,748. (Cl. 16—64.)

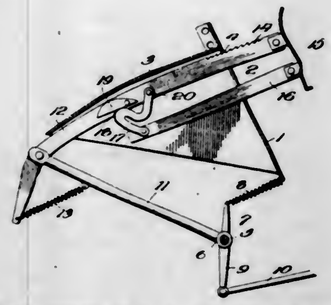


1. The combination with a notched bolt and a keeper therefor and guide brackets for the bolt and a pintle passing through one of the brackets and engaging with the outer face of the bolt, of a lever having an opening adjacent one of its ends receiving the pintle, a rounded surface upon the lever arranged eccentrically of the pintle and disposed within the notch of the bolt to contact with the end walls provided by the notch, a spring arranged over a depression beneath the lever and contacting with the inner end of the lever, as and for the purpose set forth.

2. The combination, a slidable bolt and a keeper therefor, said bolt having one of its sides notched, lugs upon the outer face of the bolt in a line with the end walls provided by the notch, guide members for the bolt including brackets disposed to the opposite sides of the bolt at the inner end thereof, a pintle passing through the brackets and contacting with the bolt between the lugs thereof, a lever pivotally connected with the pintle between one of the brackets and the notched side of the bolt, an annular member formed upon one side of the lever and received in the notch of the bolt and receiving the pintle, a roller upon the inner end of the lever, a flat spring member having one of its ends secured below the lever and contacting with the roller at the end of said lever.

1,210,303. CONTROLLING MECHANISM. FRED F. GILLETT, Halfway, Oreg. Filed July 24, 1915, Serial No. 41,706. Renewed May 24, 1916. Serial No. 99,705. (Cl. 74—81.)

1. A mechanism for the purpose set forth comprising an oscillatory lever, means for connecting said lever to a mechanism to be controlled thereby, a pair of reciprocatory bars, one of said bars being connected to said lever, means for holding said bar in a set position, a manipulating device connected with each of said bars, and connections between the bars whereby to release the bar connected to the lever.



2. The combination of an oscillatory lever, connections between said lever and a device to be controlled, a setting bar connected to said lever, a releasing bar, connections between the releasing bar and the setting bar, and a manipulating member common to the setting and releasing bar.

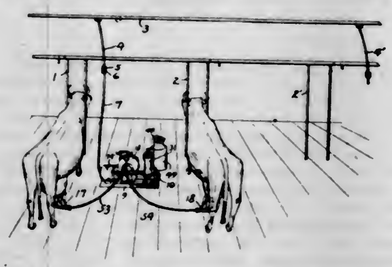
3. The combination of a sleeve mounted for rotary movement, connections between said sleeve and a device to be controlled, yieldable means acting upon said sleeve to hold said device in a normal position, a lever carried by said sleeve, a setting bar connected with said lever, means for holding said setting bar in an adjusted position, a releasing bar, and connections between said releasing bar and the setting bar whereby to release said holding means.

4. The combination of a setting bar, means whereby movement of said setting bar will operate a mechanism to be controlled, a releasing bar, means for operating the setting bar and the releasing bar, and cam connections between the said bars whereby operation of the releasing bar will move the setting bar to inoperative position.

5. The combination of a setting bar, a lever pivoted to said bar between the ends thereof, connections between said lever and a device to be controlled, a spring connecting the lever with one end of said bar, means acting upon the opposite end of said bar to actuate the same, means near the last named end of the bar to hold the same in a set position, and means acting upon an intermediate portion of the bar to release the same.

[Claims 6 to 9 not printed in the Gazette.]

1,210,304. MILKING-MACHINE. JAMES N. GILMAN, Berkeley, Cal. Filed Apr. 26, 1915. Serial No. 23,974. (Cl. 31—99.)



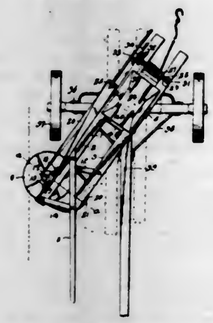
1. A milking machine comprising a base, a motor thereon, a pump connected with the motor, a vacuum chamber adjacent the pump, a pulsator casing supported on the base, a pulsator in said casing, a pipe extending from the pulsator casing to the vacuum chamber, vacuum milking cups, a tube extending from the milking cups to the pulsator casing, the milk from the milking cups passing through the pulsator, vacuum chamber and pump, and a discharge pipe extending from said pump to a suitable receptacle for the milk.

2. A milking machine comprising a base, a motor thereon, an air pump operated by the motor, a pulsator casing, a rotary pulsator therein adapted to break the vacuum intermittently, a pipe extending from said pulsator casing to a series of vacuum milking cups, a vacuum chamber, a pipe connecting the pulsator casing and vacuum chamber, a pipe connecting the vacuum chamber and pump, a discharge pipe extending from the pump to a suitable receptacle for the milk, the pulsator casing having an opening whereby the vacuum in the milking cups may be broken without breaking the vacuum in the pipe leading to the vacuum chamber.

3. A milking machine comprising a base, a motor thereon, a pump operated by the motor and directly connected therewith, a vacuum chamber connected with the pump, an inwardly opening valve to determine the pressure within the vacuum chamber, a pulsator casing, a pipe connecting the pulsator casing and vacuum chamber, a revoluble pulsator within the casing having an opening therethrough to break the vacuum in the pipe to which the milking tubes are to be connected without breaking the vacuum in the vacuum chamber, mechanical means to rotate said pulsator, a series of milking cups having suitable pipe connections with the pulsator, and a discharge pipe connected with the pump for discharging the milk into a suitable receptacle.

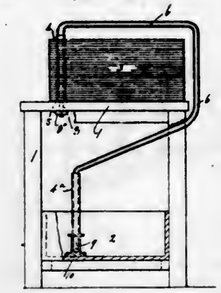
4. A milking machine comprising a base having a motor thereon, a vacuum pump operated by said motor, a vacuum chamber connected with the pump, a pulsator casing, milking cups, a tube extending from the milking cups to the pulsator casing, a pipe extending from the pulsator casing to the vacuum chamber, and a mechanically operated rotary disk in the pulsator casing having a channel to deliver the milk from the milking cups to the vacuum chamber and also having an opening therein to break the vacuum in the milking cups once during each revolution of the disk without breaking the vacuum in the vacuum chamber, the milk passing from the pulsator to the vacuum chamber and then to the pump.

1,210,305. PORTABLE SAWING-MACHINE. ALFRED HAGERMAN, Chanute, Kans. Filed Apr. 5, 1916. Serial No. 89,157. (Cl. 143—43.)



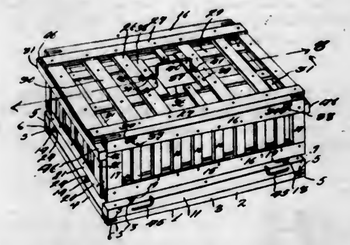
A support, a frame pivotally mounted on the support and having a controlling lever, a circular saw having its arbor vertically arranged and mounted in bearings on the outer side and near the rear end of the frame, a motor mounted on the frame and having a pulley, a belt connecting said pulley to the saw arbor and a drum shiftably mounted on the frame and having a friction gear adapted to be engaged with or disengaged from the belt pulley.

1,210,306. TOWEL-HOLDER. JOHN C. HAMMOND, Seattle, Wash. Filed Jan. 21, 1915. Serial No. 3,461. (Cl. 45—32.)



In a device for holding soiled and clean towels, the combination of a holder rod bent so as to allow the soiled towel holder to be directly beneath the block of clean towels, whereby both end portions of the rod are straight, parallel and substantially in line vertically, and having a shoulder on the same rod adjacent the upper end of the upper holder, a pair of tubular towel holders, one for each end of the said rod, whereby clean towels may be held on the upper holder and soiled towels will automatically bunch upon the lower holder, a shoulder on the upper end of said rod and adjacent the lower end of the upper holder, the upper end of the rod being threaded, and a nut adapted to screw onto the said threaded end, whereby the said rod may be rigidly secured to a table through which the said upper end is adapted to pass.

1,210,307. POULTRY-COOP. FRANK COOPER HANNA, Ashbyburg, Ky. Filed Feb. 9, 1916. Serial No. 77,186. (Cl. 217—47.)

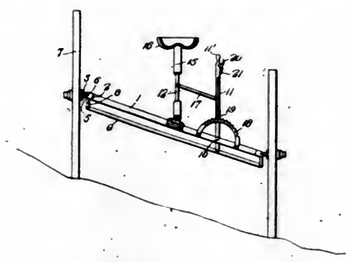


A collapsible coop, comprising a bottom section, side and end pieces hingedly connected to the bottom section whereby the side pieces may be collapsed toward and upon the end pieces subsequently to folding the end pieces upon the bottom section, a top section interposed between the upper portions of the side pieces and having bolt connections therewith, the top section upon its under surface adjacent its ends having inner and outer cleats, between which the upper edge portions of the end pieces engage, thereby preventing the end pieces from collapsing inwardly, said outer cleats being extended at their ends and overlying the ends of the side pieces, thereby insuring rigidity, said bottom section having hooks designed to engage the bolt connections of the top section, when the side and end pieces are collapsed.

1,210,308. HARROW-CART. AAGE HANSEN, Walla Walla, Wash. Filed Apr. 17, 1916. Serial No. 91,813. (Cl. 21—5.)

1. A harrow cart comprising an axle, stub axles pivotally mounted in the end of said axle for vertically swinging movement, said stub axles being rigidly connect-

ed to each other, a lever fulcrumed to said axle and connected to the stub axles and a seat swingingly mounted on said axle for horizontal movement and rigidly connected to said lever for the purpose described.

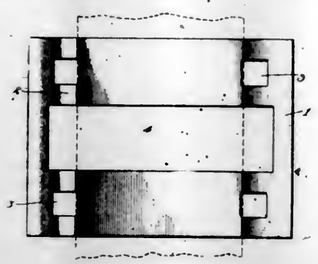


2. A harrow cart comprising an axle, stub axles pivoted to the ends of said axle for vertical swinging movement, said stub axles being rigidly connected to each other, a seat pivotally mounted on said axle for horizontal swinging movement, said seat being connected to said axle, means for adjusting the position of said seat and stub axles simultaneously, and means for locking the seat and stub axles in adjusted positions.

3. A harrow cart comprising an axle, stub axles pivotally mounted on the ends of said axles for vertically swinging movement, said stub axles being rigidly connected with each other, a seat pivotally mounted on said axle for horizontal swinging movement and connected to said stub axles and means for adjusting the position of said seat and stub axles simultaneously.

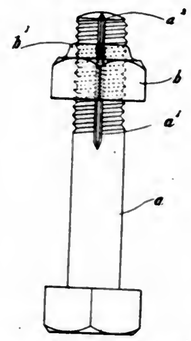
4. A harrow cart comprising an axle, stub axles pivotally mounted on the ends of said axles for vertically swinging movement, said stub axles being rigidly connected to each other, a lever fulcrumed to said axle and connected to the stub axles, a seat swingingly mounted on said axle for horizontal swinging movement and rigidly connected to said lever and means on said axle for locking the lever against movement.

1,210,309. TIE-PLATE. ROYAL D. HAWLEY, San Francisco, Cal., assignor to The P. & M. Company, Chicago, Ill., a Corporation of Illinois. Filed May 11, 1914. Serial No. 837,687. (Cl. 238—2.)



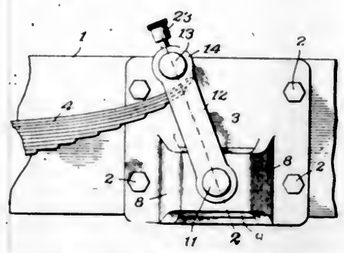
A tie-plate consisting of a rectangular plate having an area of substantial thickness beneath the rail base and tapering at the sides, said plate being provided also with a slot having a wall at right angles to the length of the rail extending completely across said thick area and beyond at both sides into said tapering areas, thereby providing sufficient clearance for the jaws of an anti-creeper to grip opposite edges of the rail base independently of said slot, said wall receiving the creeping thrust from said anti-creeper, and a rib on one side of said tie-plate against which said rail base abuts.

1,210,310. LOCK-NUT. ALBERT EDGAR HICKLING and HARRY LAMB, Eccles, near Manchester, England. Filed Feb. 27, 1914. Serial No. 821,479. (Cl. 151—21.)



In combination a bolt having a longitudinal locking groove and an end face groove arranged radially of the bolt and communicating with said longitudinal groove, and a nut having a collar adapted to be keyed into said longitudinal groove.

1,210,311. SPRING SUSPENSION FOR VEHICLES. ARTHUR O. HIGINBOTHAM, Worcester, Mass., assignor to Charles B. Foster and Company, Worcester, Mass., a Copartnership consisting of Charles B. Foster, Arthur O. Higinbotham, and Jerome R. George. Filed Aug. 3, 1914. Serial No. 854,629. (Cl. 267—37.)

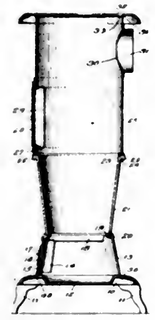


In a spring suspension for vehicles, the combination, with a spring supporting member having a bore, of suspension devices for pivotal attachment to said spring supporting member at opposite ends of said bore, a bolt extending through said bore and through said suspension devices, a tubular member surrounding said bolt with its ends providing pivotal supports for said suspension devices, and an anti-friction bushing interposed between said tubular member and the bore of said spring supporting member.

1,210,312. STOVE. EDWARD F. HILL, Peekskill, and WILLIAM HERBERT MYERS, Brooklyn, N. Y., assignors to Union Stove Works, New York, N. Y., a Corporation of New York. Filed Feb. 23, 1916. Serial No. 80,020. (Cl. 126—58.)

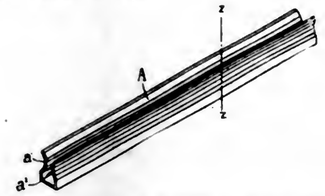
1. A stove comprising a firepot, ashpit and shell forming a combustion chamber, closures for said combustion chamber and ashpit, said firepot and ashpit being of reduced proportions to telescope in said combustion chamber, and said closures for said combustion chamber and ashpit being interchangeable in altered positions of the parts.

2. A stove comprising a firepot, and ash pit carried thereby, a shell forming a combustion chamber detachably carried by said firepot, a bead formed on said firepot to receive said shell, and said firepot adapted to be inserted in said shell and suspended by said bead formed thereon.



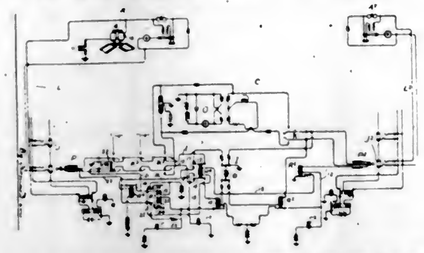
3. A stove comprising a bottom, a firepot and ashpit, a shell forming a combustion chamber and a top, a bead formed on said firepot to engage one or the other of the ends of said shell, said firepot and ashpit being insertible in said shell, and said top and bottom members being interchangeably carried by said shell and firepot in the different assembly thereof.

1,210,313. WIND-SCREEN FOR MOTOR-VEHICLES. JAMES HODGSON, Carlisle, England. Filed June 23, 1913. Serial No. 775,313. (Cl. 21—148.)



A frame for the glass screens of motor and other vehicles comprising a single trough-shaped member having outwardly-flaring flexible spring metal sides which are concave on the outside and convex on the inside to directly clamp and hold the glass.

1,210,314. TELEPHONE TOLL SYSTEM. ALFRED U. HOEFER, East Orange, N. J., and HENRY M. BASCOM, New York, N. Y., assignors to American Telephone and Telegraph Company, a Corporation of New York. Filed Oct. 30, 1914. Serial No. 869,478. (Cl. 179—6.3.)



1. A telephone toll system comprising substations and a central station, lines connecting the central and substations, a toll apparatus at a substation, switching means at the central station for joining substation lines, automatic means acting upon the switching means to prevent communication between substations after the switching together of their lines and before the operation of the toll apparatus, and means under the control of a central station operator for rendering said communication-preventing means ineffective

2. A telephone toll system comprising substations and a central station, lines connecting the central and substations, a toll apparatus at a substation, switching means at the central station for joining substation lines, automatic means acting upon the switching means to prevent communication between substations after the switching together of their lines and before the operation of the toll apparatus, means under the control of a central station operator for rendering said communication-preventing means ineffective, and a signal controlled by said communication-preventing means.

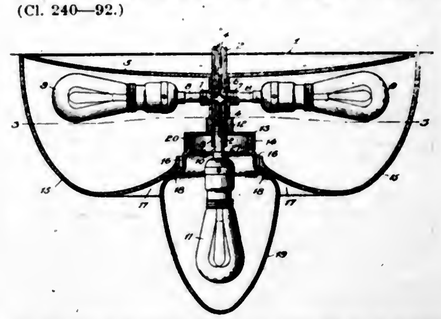
3. A telephone toll system comprising substations and a central station, lines connecting the central and substations, a toll apparatus at a substation, switching means at the central station for joining substation lines, a relay operable after the connection of the switching means with the called line and before the operation of the toll apparatus associated with the calling line to prevent communication between the united substations, an operator's signal for indicating the condition of the toll apparatus, and a circuit for the signal controlled by said relay.

4. A telephone toll system comprising substations and a central station, lines connecting the central and substations, a toll apparatus at a substation, switching means at the central station for joining substation lines, automatic means acting upon the switching means to prevent communication between substations after the switching together of their lines and before the operation of the toll apparatus, and means under the control both of a central station operator and a calling subscriber for rendering said communication-preventing means ineffective.

5. A telephone toll system comprising substations and a central station, lines connecting the central and substations, a toll apparatus at a substation, a link circuit for joining substation lines, a relay operable after the connection of the link circuit with the called line and before the operation of the toll apparatus associated with the calling line to open the link circuit, a second relay controlling the first-named relay, and a circuit including a central station operator's key for controlling the second relay.

[Claims 6 to 12 not printed in the Gazette.]

1,210,315. LIGHTING-FIXTURE. EUGENE E. HOFFMAN, Coraopolis, Pa., assignor to Consolidated Lamp and Glass Company, Coraopolis, Pa., a Corporation of West Virginia. Filed June 22, 1916. Serial No. 105,225. (Cl. 240—92.)



1. A lighting fixture including in combination a suitable hanger, a shade section depending from said hanger, a second shade section resting upon and supported by the first mentioned section, and a reflector positioned within the second shade section aforesaid.

2. A lighting fixture including in combination a vertically adjustable hanger having depending flanges, a shade section detachably secured to the flanges of said

hanger and an independent shade section having a central opening adapted to receive the upper portion of the first mentioned shade section and to rest thereon.

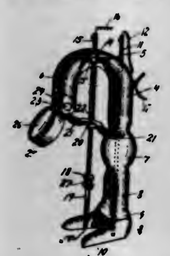
3. A lighting fixture including in combination a suitable hanger adapted for screw threaded connection with a fixed support, a vertically adjustable central shade member carried by said hanger, and an independent shade member surmounting the first mentioned shade member and with it adjustable vertically by agency of the screw threaded connection aforesaid.

4. A lighting fixture including in combination a suitable hanger adapted for screw threaded connection with a fixed support, a vertically adjustable central shade member carried by said hanger, an independent shade member superimposed in concentric relation with the first mentioned shade member and with it adjustable vertically by agency of the screw threaded connection aforesaid.

5. A lighting fixture including in combination a suitable hanger adapted for screw threaded connection with a fixed support, a vertically adjustable central shade member carried by said hanger, an independent shade member having a central opening supported upon the first mentioned shade member and with it adjustable vertically by agency of the screw threaded connection aforesaid.

[Claims 6 to 9 not printed in the Gazette.]

1,210,316. DEPILATORY APPARATUS. WILLIAM B. HOLLINGSHEAD, Mount Vernon, N. Y. Filed Nov. 23, 1912. Serial No. 733,092. (Cl. 174—89.)



1. In a device of the class described, in combination, a needle-carrier and a supporting means for the same including a resilient mounting for said needle.

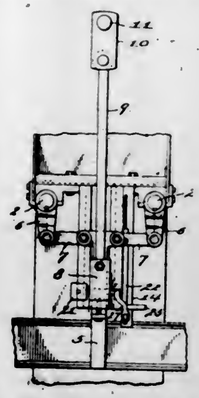
2. In a device of the class described, in combination, a needle carrier including an enlarged portion, a supporting means for said carrier, said supporting means having an upwardly extending recess, and a resilient means adapted normally to urge said enlarged portion upwardly to approach the bottom of said recess.

3. In a device of the class described, in combination, a supporting member, a needle-carrier resiliently mounted for relative adjustment with relation to said support, and manipulative means adapted to be actuated to place or maintain said needle-carrier in any such relative adjustment against the tendency of such resilient mounting.

1,210,317. BRICK-MACHINE. CHARLES H. HORTON, Painesville, Ohio. Original application filed Mar. 19, 1915, Serial No. 15,347. Divided and this application filed Dec. 23, 1915. Serial No. 68,403. (Cl. 25—103.)

1. In a brick machine, in combination, a mud press, a reciprocatory bar for effecting the operation thereof, a reciprocatory head having a sliding fit on and working in parallel relation to said bar, an internally arranged clamp carried by said head for engagement with said bar at a period of the movement of said head, a weighted rock shaft for operating said clamp, an arm projecting from said rock shaft, and a member adjustable in the direction of the movement of said head for engaging said arm and thereby operating the clamp to release said bar.
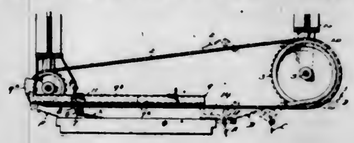
2. In a brick machine, in combination, a mud press, a reciprocatory bar for effecting the operation thereof, a reciprocatory head having a sliding fit on said bar and provided with an internally arranged clamp for engagement with said bar at a period of the movement of said head, and means adjustable in either direction of movement of said head for controlling the operation of said clamp during periods of movement of said head, said bar having a shoulder above and overhanging said head for engagement thereby in order that said head may positively return said bar to an invariable normal position.



3. In a brick machine, in combination, a mud press, a pair of fixed vertical guideways, a reciprocatory head having a sliding fit in said guideways, a reciprocatory bar extending through said head and having a sliding fit therein, said bar effecting the operation of said mud press, an internally arranged clamp carried by said head for engagement with said bar at a period of the movement of said head, and means adjustable in either direction of movement of said head for controlling the operation of said clamp during periods of movement of said head.

4. In a brick machine, in combination, a mud press having a rock shaft for effecting the operation thereof, a reciprocatory head, fixed guides for said head, a reciprocatory bar extending through said head and having a sliding fit therein, toggle links connecting said bar at its upper end and said rock shaft, an internally arranged clamp carried by said head for engagement with said bar at a period of the movement of said head, and means adjustable in either direction of movement of said head for controlling the operation of said clamp during periods of the movement of said head.

1,210,318. MOLD-SCRAPER. CHARLES H. HORTON, Painesville, Ohio. Original application filed Mar. 19, 1915, Serial No. 15,347. Divided and this application filed Dec. 23, 1915. Serial No. 68,404. (Cl. 25—104.)



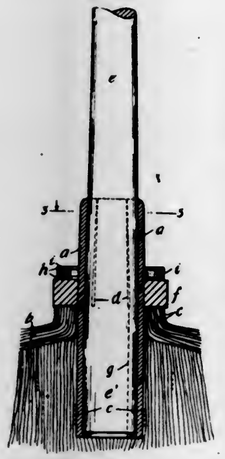
1. A mold scraping mechanism comprising movable chains traveling in a horizontal path, scraping blades carried by said chains and pivotally mounted on transverse axes whereby said blades assume perpendicular positions when they have passed beyond the molds, and fixed means engaging the blades in the perpendicular positions thereof for scraping clay therefrom, the blades yielding on their pivotal axes to pass said means.

2. A mold scraping mechanism comprising movable endless chains, blades having scraping edges, bars supported by and extending transversely between the chains and upon which the blades are mounted, arms projecting from the bars, and rails which engage said arms during periods of their movement to regulate the angular disposition of the blades.

3. A mold scraping mechanism comprising movable endless chains, blades having scraping edges, bars supported by and extending between the chains and upon which the blades are mounted, arms projecting from the bars, a fixed scraper which is engaged by the blades subsequent to the operation thereof and which removes clay therefrom, rails which are engaged by said arms to positively and operatively position the blades during a period of the movement of said chains, said rails having upwardly directed curved portions at their outer ends, and other rails distant from said first-named rails and located beyond said scraper, said last-named rails conforming in curvature to the arc through which the chains travel beyond said scraper and also being engaged by said arms whereby to regulate the angular disposition of the blades during their movement from the lower to the upper run of said chains, the blades resting on said chains throughout the upper run thereof.

4. A mold scraping mechanism comprising blades having scraping edges, a carrier therefor, and means engaging said blades during a period of the movement of said carrier for removing clay therefrom.

1,210,319. DETACHABLE-HANDLE BROOM. ROSS HOUSTON, Tacoma, Wash. Filed May 11, 1915. Serial No. 27,450. (Cl. 15—24.)



1. A broom-head including a hollow core having a longitudinal bore, the broom-head being formed on said hollow core and the latter constituting a socket for the handle of the broom, said handle having a tapered butt-end, the hollow core projecting beyond the broom-head, and such projecting portion being longitudinally slotted substantially the full length thereof, whereby said slotted end of the core is adapted to be given a locking contraction about the tapered butt end of the broom handle.

2. A broom-head including a hollow core having a longitudinal bore and made of a plurality of members having longitudinal abutting faces, the broom-head being formed on said hollow core and the latter constituting a socket for the handle of the broom, said handle having a tapered butt-end, the hollow core projecting beyond the broom-head, and such projecting portion being longitudinally slotted substantially the full length thereof, whereby said slotted end of the core is adapted to be given a locking contraction about the tapered butt end of the broom-handle.

3. A broom consisting of a broom-head including a hollow core having a longitudinal bore and made of a plurality of members having longitudinal abutting faces, the broom-head being formed on said hollow core, and the latter constituting a socket for the butt end of the handle of the broom, the hollow core projecting beyond the broom-head and such projecting portion being longitudinally slotted substantially the full length thereof, a broom handle inserted in said hollow core, the handle having an inwardly tapered portion adjacent to its butt end, and means for contracting said slotted end of the hollow core about said tapered portion of the broom handle, said means at the same time causing the lower ends of the hollow members to expand in the broom material.

4. A broom consisting of a broom-head including a hollow core having a longitudinal bore and made of a plurality of members having longitudinal abutting faces, the broom-head being formed on said hollow core, and the latter constituting a socket for the butt end of the handle of the broom, the hollow core projecting some distance beyond the broom-head and such projecting portion being longitudinally slotted substantially the full length thereof, a broom handle inserted in said hollow core, and means for contracting said slotted end of the hollow core about the butt end of the broom handle, said means at the same time tending to cause the lower ends of the core members to expand in the broom material.

5. A broom-head made with a hollow core having a longitudinal bore made of a plurality of members having longitudinal abutting faces, the broom-head being formed on said hollow core and the latter constituting a socket in which to insert the butt end of the handle of the broom, said hollow core projecting some distance beyond the broom head, such projecting portion being adapted to be contracted about and for locking engagement with the butt end of the handle inserted in said socket, and such contraction at the same time tending to cause the lower ends of said core members to expand in the broom material.

1,210,320. TENSIONING DEVICE FOR CROCHETING. FRANK STEWART HUGHES, Pine Grove, Pa. Filed July 19, 1916. Serial No. 110,174. (Cl. 66—17.)



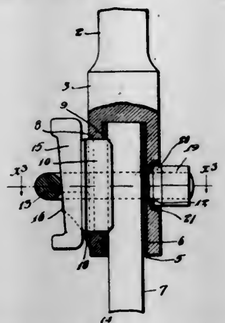
1. A tensioning device comprising a ring having a series of radial fingers formed on opposite edges thereof and offset with relation to each other, a leaf spring secured to the ring beyond the fingers and having its free end resting upon the surface of the ring between the fingers, and a spring adjusting element engaging the ring and spring intermediate the secured end of the spring and the adjacent finger.

2. A tensioning device including a ring or like member, having a series of radial fingers formed on opposite edges thereof, and offset with relation to each other, and a leaf spring secured to the ring beyond the fingers and having its free end resting on the surface of the ring between the fingers, that portion of the spring between the fingers being of less width than the similar dimension of the space between the fingers, whereby to permit the application of the thread beneath the free end of the spring, and to a position between the fingers.

1,210,321. ROCK-DRILL CHUCK. CHARLES A. HULTQUIST, Los Angeles, Cal. Filed Aug. 12, 1916. Serial No. 114,561. (Cl. 255—57.)

1. In combination, a socket member having a key slot, a tool in the socket member, a key in the slot engaging the

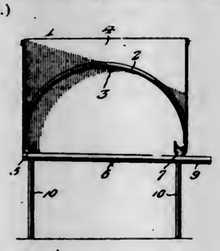
tool, lugs on the socket member at both sides of the key, a U-bolt passing through the socket member and seated against the lugs, and a wedge between the key and intermediate portion of the U-bolt.



2. In combination, a socket member having a channel, a tool in the socket member, a key to hold said tool in place, a U-bolt projecting from the socket member astride of said channel, the material forming the sides of the channel engaging and preventing bending of the U-bolt and a wedge accommodated in said channel between the key and U-bolt.

3. In combination, a socket member, a tool in the socket member, a U-bolt projecting from the socket member, means including a wedge retained by the U-bolt to hold the tool in place, and means to prevent bending of the U-bolt when the wedge is being driven in.

1,210,322. STEAM-CONDENSER. CLIFFORD G. JACK, Garrison, Nebr. Filed Apr. 1, 1916. Serial No. 88,313. (Cl. 203—5.)



A device of the character described comprising a rectangular receptacle open at top and bottom and having arranged therein a dome-shaped partition extending between the side walls of said receptacle and abutting against the end walls thereof, said partition providing upper and lower sloping surfaces leading to said side walls, and dividing the receptacle to form an upper chamber to receive a cooling liquid and a lower condensing chamber, a discharge gutter formed upon one of the end walls, gutters formed upon the sides of said receptacle at the bottom thereof and sloping toward the first-named gutter, and a gutter upon the front end wall of the receptacle inclining toward one of said side gutters.

1,210,323. SYNCHRONIZING APPARATUS. LOUIS JANSSENS, Brussels, Belgium. Filed Apr. 10, 1913. Serial No. 760,281. (Cl. 88—16.2.)

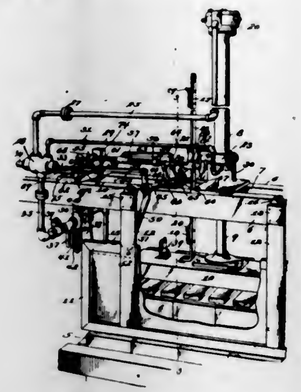
1. An arrangement for maintaining synchronism between the music sheet of a tracker-board musical instrument and a cinematograph film comprising motors for driving the sheet and the film, a synchronising apparatus acting automatically to maintain the continuous agreement of the passage of the reference marks of the music strip with the passage of the points of the film, which apparatus is characterized by a mechanism having two movable members, each provided with an indicator, means for giving one of said members a certain displacement at each passage of a reference mark on the music strip, and the other of said members an equal displacement in the same direction at each passage of a corresponding point of the film; this mechanism being combined with two electric resistances carried by one of the two members and two electric contacts carried by the other member and capable of being displaced over the resistance in one direction or the other according as the displacement of one member is in advance of or behind, the displacement of the other; the circuits of the motors which actuate respectively, the music strip and the film strip, each including one of said sliding contacts and a portion of the above mentioned resistances whereby said portion varies with the position of the contact on the resistance, substantially as described.



2. In apparatus of the class described in combination, two members, means giving each member the same displacement at each passage of a reference mark on the music strip and for giving the other member an equal displacement in the same direction upon the passage of a corresponding point on the film strip, said members comprising two concentric shafts mounted after the manner of the shafts of the hands of a watch, the outer shaft carrying two diametrically opposite sectors on each of which are wound the coils of a resistance, so arranged that a variable portion may be inserted in the circuit of one of the two motors driving the strips, while the inner shaft carries two diametrical insulated arms forming contacts sliding over the coils of the two resistances, which arms serve as connections between the resistances and the motors, in such a manner that if one shaft turns in advance of the other the displacement of the arms upon the coils produces simultaneous and inverse variations in the said resistances so as to slow down the motor driving the strip which is in advance, and to accelerate the motor driving the strip which is behind, substantially as described.

1,210,324. AUTOMATIC MECHANISM FOR TRAMPER BALING-PRESSES. SEVERIN JOHANSEN, Atlanta, Ga. Filed Mar. 7, 1916. Serial No. 82,742. (Cl. 100—25.)

1. In operating mechanism for a tramper baling press including a baling box, a power cylinder having a reciprocating rod therein, a tramper block or platen secured to the said rod, a pressure medium circuit including a valve connected to the upper and lower ends of the cylinder and having an exhaust outlet and a longitudinally sliding piston to control the feed and exhaust of the pressure medium relatively to the said cylinder, a circulation controlling valve coöperating with the said valve connected to the cylinder, automatically operating mechanism connected to the piston of said cylinder valve and actuated and set by the descent and ascent of the tramper block and platen, and automatically operating means for releasing said mechanism and the cylinder valve when the baling box is filled.



2. In operating mechanism for a tramper baling press including a baling box, a tramper including a pressure cylinder for causing the alternate descent and ascent of the tramper platen relatively to the baling box, a pressure medium circuit including a cylinder valve having communication with the upper and lower portions of the said pressure cylinder and a circulation valve connected to and coöperating with the cylinder valve and pressure circuit for modifying the circulation of the pressure medium relatively to the cylinder valve, automatically operating mechanism connected to the cylinder valve for modifying the action of the latter, and means movable with the tramper platen to alternately release and set the said mechanism.

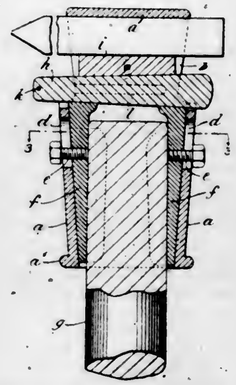
3. In operating mechanism for a tramper baling press including a baling box, a tramper organization including a pressure cylinder operative for causing the alternate descent and ascent of the tramper platen relatively to the baling box, a pressure medium circuit including a four-way valve with a piston and an exhaust outlet, the said valve being connected to the upper and lower portions of the cylinder, pressure circulating means including an automatically operating valve connected to the said four-way valve for modifying the circulation of the pressure medium relatively to the latter valve, and means movable with the tramper platen to alternately release and set the said mechanism.

4. In operating mechanism for a tramper baling press, a tramper organization including a pressure cylinder operable for causing the alternate descent and ascent of the tramper platen relatively to a baling box, a baling box disposed under the tramper organization, a gravitating gate suspended over the front portion of the baling box, a pressure medium circuit including a valve connected to the upper and lower portions of the cylinder, and automatically operating mechanism connected to the valve for modifying the action of the latter and including release means engaging the upper portion of the gate, said release means being thrown out of engagement with the gate by the pressure of the overflow cotton in the baling box.

5. In an automatic mechanism for a tramper baling press, a tramper organization including means for causing the alternate descent and ascent of the tramper platen, a baling box mounted under the tramper organization, a gravitating gate depending over the front portion of the baling box and movable by the overflow cotton in the latter, and automatically operating mechanism associated with the tramper organization for controlling the actuation of the latter and including a lock device to engage the upper portion of the gate to hold the said mechanism for instant operation when the lock device is released from the upper portion of the gate by the overflow of cotton in the baling box.

[Claims 6 to 18 not printed in the Gazette.]

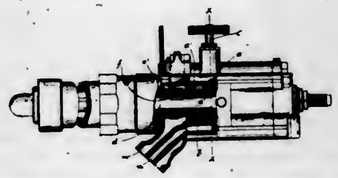
1,210,325. MINER'S PICK. THOMAS GEORGE JONES, Ynishir, Rhondda, EBENEZER GEORGE CROSS, Wattstown, and DAVID JOHN JONES, Ynishir, Rhondda, Wales. Filed Mar. 27, 1916. Serial No. 86,930. (Cl. 125—19.)



1. In a miner's pick the combination of a helve box having a blade receiving stirrup on its outer end, securing wedges slidably mounted within the box for movement longitudinally of the latter and adapted to receive a helve therebetween, and a wedge key mounted in the stirrup for movement transversely of the box and adapted when moved in one direction to coact with a blade and the outer ends of the securing wedges to force the latter in the direction of the helve end of the box.

2. In a miner's pick, the combination of a helve box having a blade receiving stirrup on its outer end and further having oppositely disposed longitudinal slots therein, securing wedges slidably mounted within the box for movement longitudinally of the latter, set screws threaded in said securing wedges and engaged through said slots respectively, and a wedge key mounted in the stirrup for movement transversely of the box and adapted when moved in one direction to coact with a blade and the outer ends of the securing wedges to force the latter into the direction of the helve end of the box.

1,210,326. WATER-DRIVEN TURBINE. MOSES KELLOW, Penrhyndendraeth, Wales. Filed July 11, 1914. Serial No. 850,454. (Cl. 253—2.)



1. A compound water-driven turbine constructed substantially as herein described, same comprising a first-stage turbine wheel having blades adapted for a tangential application of the water-jet, a second-stage turbine wheel adjacent the first-stage wheel, a nozzle adapted to apply water to the periphery of the first-stage turbine wheel, and reversing vanes arranged between the latter and the second-stage turbine wheel.

2. A compound axial-flow water-driven turbine comprising a runner having peripheral blades to which the water jet is applied tangentially, and means for so applying the jet, substantially as described.

3. In a water-driven turbine, a driven shaft, sleeves arranged around said shaft, a plurality of impeller vanes mounted on said sleeves, the bore of said sleeves being formed with a slight taper from end to end with respect to said shaft.

4. In a water-driven turbine, a driven shaft, sleeves arranged around said shaft, a plurality of impeller vanes mounted on said sleeves, a portion of the bore of one of said sleeves being enlarged, and a loose sleeve arranged in said enlarged portion of the bore between said sleeve and said shaft.

5. In a multi-stage axial-flow water-driven turbine, a plurality of wheels carrying blades constituting the various stages of the turbine, said blades adapted for axial flow of the driving fluid, reversing vanes arranged between each stage, each of said vanes adapted to introduce the driving fluid to the next set of blades in the direction of the axis of the wheel, and means for introducing the driving fluid to the first stage blades in a direction tangential to and in the plane of the first stage wheel.

1,210,327. VEHICLE-TIRE. GEORGE KELLY, Hinsdale, Ill. Filed Sept. 24, 1915. Serial No. 52,427. (Cl. 152—5.)



1. A filler for casings of vehicle tires, comprising a spongy mass composed of elastic fibers and an elastic binder partly filling the interstices of the fibrous mass and leaving numerous spaces free.

2. A filler for casings of vehicle tires, comprising a mass of horsehair containing so much gum as will cling to the horsehair when the mass is infiltrated by a solution of the gum and drained and dried.

3. A filler for casings of vehicle tires, comprising a mass of horsehair containing so much soft rubber as will cling to the horsehair when the mass is infiltrated with a solution of soft rubber and drained and dried.

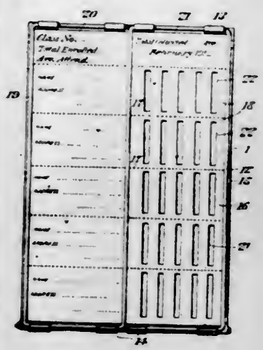
4. A tire for vehicles, comprising a casing and a filler therefor consisting of a compressed spongy mass of normally elastic fibers and an elastic gum adherent to the fibers and incompletely filling the interstices of the mass before compression, and said mass being of greater cross-sectional area before compression than that of the interior of said casing.

5. A vehicle tire comprising a casing and a filler therefor consisting of a compressed mass composed of horsehair and an elastic gum incompletely filling the interstices of the mass of horsehair before compression.

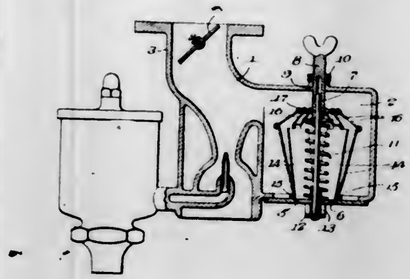
[Claims 6 to 13 not printed in the Gazette.]

1,210,328. CASH-COLLECTOR AND AUTOMATIC ATTENDANCE-RECORDER. JACOB GARRETT KEMP, Stillwater, Okla. Filed Mar. 14, 1916. Serial No. 84,146. (Cl. 133—11.)

A cash collecting vessel having a series of cash receiving compartments and provided with oppositely arranged walls, each wall having a series of coin slots communicating with one of the compartments and also having an unslotted portion at one side of another compartment, the said coin slots of the respective walls being reversely arranged on said opposite sides of the vessel and a readily puncturable recording member on each of said walls, said recording member having identifying portions on the unslotted portion of the wall and also having a portion to extend across and close the slots of said wall.



1,210,329. CARBURETER. FRANK C. KLEMA, Wilson, Kans. Filed June 22, 1915. Serial No. 35,632. (Cl. 137—26.)



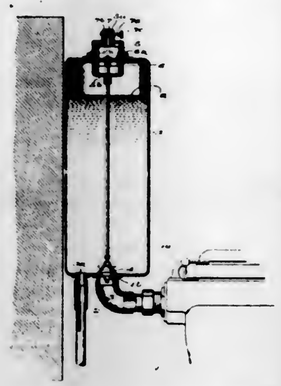
1. The combination with a carbureter, of an air inlet valve adapted to open in proportion to the suction thereon, and a damper surrounding the air inlet zone and embodying a plurality of blades having their adjacent edges divergent to leave V-shaped air spaces.

2. The combination with a carbureter, of an air inlet valve adapted to open in proportion to the suction thereon, and a damper surrounding the air inlet zone and embodying a plurality of blades having their adjacent edges divergent to leave V-shaped air spaces, said blades being simultaneously adjustable toward and away from the path of movement of the valve to vary the area of the spaces between the edges of the blades.

3. The combination with a carbureter, of an air inlet valve adapted to open in proportion to the suction thereon, a damper surrounding the air inlet zone and embodying a circular series of blades attached at one end to the interior of the carbureter, and means for adjusting the opposite ends of the blades toward and away from each other and the path of movement of said valves.

4. The combination with a carbureter, of an air inlet valve adapted to open in proportion to the suction thereon, a spring for closing said valve, means for adjusting the tension of said spring, and a damper surrounding the air inlet zone and embodying a plurality of blades having their adjacent edges divergent to leave V-shaped air spaces.

1,210,330. FLUSHING APPARATUS. WILLIAM FRANKLIN KNELL, Detroit, Mich. Filed Oct. 20, 1916. Serial No. 126,658. (Cl. 4—5.)



1. Flushing apparatus comprising a chamber having a fluid inlet and outlet, a closure for the outlet, a member adapted to be actuated by the air confined in the chamber, a passage for equalizing pressure on the opposite sides of the member, operative connections between the member and the said closure, a vent opening at the outer side of the member, means controlling the vent opening, the parts being so arranged that when the vent is opened the compressed air trapped in the chamber causes the member to open the outlet.

2. In flushing apparatus, the combination of a chamber having a fluid inlet and outlet, a closure for the outlet, a piston adapted to be actuated by air pressure in the chamber, a restricted air passage for equalizing pressure on opposite sides of the piston, operative connections between the piston and the outlet closure, a vent opening at the outer side of the piston and means controlling the vent opening, the parts being so arranged that when the vent is opened the compressed air trapped in the chamber causes the piston to open the outlet.

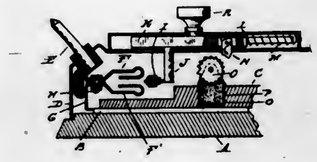
3. In a flushing apparatus the combination of a chamber having a water inlet and outlet, a valve for closing the outlet, a member in the upper end of the chamber adapted to be actuated by air pressure, connections between the member and the outlet valve, a vent at the side of the member opposite the outlet valve, means controlling the vent, a restricted air passage for equalizing pressure on opposite sides of the member; the parts being so constructed and arranged that when the vent is opened the compressed air trapped in the chamber moves the member and causes it to open the outlet valve, substantially as described.

4. Flushing apparatus comprising a chamber having a water inlet and an outlet, a closure for the outlet, a cylinder having a restricted opening communicating with the chamber, and a larger vent; means controlling the vent, a piston in said cylinder intermediate said openings, a passage for equalizing the air pressure in the cylinder on opposite sides of the piston, and connections between the piston and the outlet closure, whereby when the vent is opened the piston will be moved by the pressure of air so as to open the outlet.

5. In a flushing apparatus the combination of a chamber having a water inlet and outlet, a valve for closing the outlet, a piston in the upper end of the chamber adapted to be actuated by air pressure, and connections between the piston and the outlet valve, a vent opening at the side of the piston opposite the outlet valve, a valve controlling the vent opening, a restricted air passage equalizing the air pressure on opposite sides of the piston; the parts being so constructed and arranged that when the vent is opened the compressed air trapped in the chamber moves the piston and causes it to open the outlet valve, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,210,331. THERMAL CIRCUIT-CONTROLLER. FRANK KUHN, Detroit, Mich. Filed Mar. 8, 1913. Serial No. 752,876. (Cl. 175—275.)



1. A thermal cut-out comprising an automatically opening switch and means controlling said switch including a cup containing a fusible element, a toothed wheel mounted upon said cup and having its teeth engaging said fusible element and said switch, said means being operative to release said switch upon the fusing of said element.

2. A thermal circuit controller comprising a receptacle, a fusible element therein and a tooth member controlling an electric switch adjacent said receptacle and having a portion of the teeth engaging said fusible element, said fusible element holding said tooth member from movement when solidified and releasing the same when fused.

1,210,332. ARCHER'S BOW. PAUL E. KVISTAD, Spokane, Wash. Filed July 25, 1916. Serial No. 111,187. (Cl. 124—7.)



1. An archer's bow comprising a split tension member, a bow-string and a split lever pivotally mounted thereon for bending the tension member, and means for retaining and releasing the bow-string.

2. An archer's bow comprising a split tension member, a bow-string and a split lever pivotally mounted thereon for bending the tension member, and retaining and releasing means for the bow-spring consisting of separate contacting elements carried by the said split lever.

3. An archer's bow comprising a split tension member, a bow-string and a split lever pivotally mounted thereon for bending the tension member, and a retaining and re-

leasing means for the bow-string consisting of two oppositely disposed contacting members carried by the split lever and means for disengaging said contacting members.

4. An archer's bow comprising a split tension member, a bow string and grooved split lever pivotally mounted thereon for bending the tension member, a bow-string retaining and releasing means, and a projectile magazine and serving contrivance carried by the said split lever, consisting of a spring retainer and a pivoted releasing member coöperating therewith.

5. In an archer's bow, the combination with a tension member, a bow-string, and a lever for bending the bow, of a projectile retaining and serving contrivance mounted upon the said lever.

1,210,333. WOODEN COLUMN FOR PORCHES. GEORGE KYLE, Philadelphia, Pa., assignor of one-half to George H. Sperry, Philadelphia, Pa. Filed Aug. 18, 1916. Serial No. 115,596. (Cl. 20—97.)



1. A column of the character stated, composed of a core extending throughout the length of the column, and an exterior surface, therefor composed of alternate staves and fillers and means for securing said fillers and staves to said core, said staves and fillers being curved to conform to the curvature of the core and said fillers being composed of tongues which are disposed between adjacent staves and heads on the outer ends of said tongues, said heads being provided with laterally extending shoulders which are adapted to overlap the adjacent side portions of said staves.

2. A column of the character stated constructed of an inner annular core extending throughout the length of the column, and a surface on the exterior thereof composed of alternate staves and fillers curved to conform to the curvature of the core, means for securing said fillers and staves separately from each to said core admitting of expansion and contraction of said staves and fillers, said fillers having on their outer ends laterally extending shoulders which are adapted to overlap freely the exteriors of the side portions of said staves and the joints of the staves and fillers and cover the heads of the securing devices of said staves.

3. A column comprising an annular core and alternate curved staves with tongues, and fillers abutting each other, said tongues and fillers having tapered sides with spaces between said tapered sides respectively to permit expansion, said staves and fillers being curved to conform to the curvature of the core and the core extending continuously throughout the height of the column and said staves and fillers being independently secured thereto at intervals throughout their length.

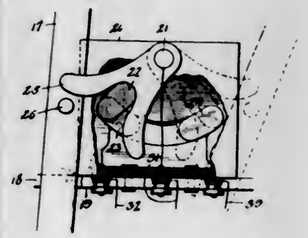
4. A column comprising an annular core extending throughout the length of the column and alternate curved staves with tongues and fillers abutting each other, said tongues and fillers having tapered sides with spaces between said tapered sides respectively to permit expansion, the portions of the fillers between the staves being of less length than the thickness of the staves and the staves and fillers being curved to conform to the curvature of the core, and means passed through the staves and fillers into the core, the fastenings of the staves being concealed by the lateral portions of the fillers overlapping the adjacent edges of the staves.

1,210,334. SWINGLETREE-HOOK. FERDINAND LEHMAN, Osseo, Minn. Filed May 15, 1914. Serial No. 838,824. (Cl. 21—79.)



In a device of the class described, in combination, a swingletree, a ferrule surrounding one end of said swingletree and having an axially-disposed screw projecting into the swingletree, an integral angular shank having its inner end formed upon the ferrule at a point below the center and below said screw, said shank having its outer end in the form of a hook gradually flaring and widening toward its outer end so as to form a relatively broad and flat head.

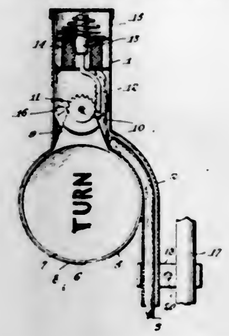
1,210,335. LIGHTING SYSTEM FOR MOTOR-VEHICLES. CHARLES T. LEMON, Ripley, Ohio. Filed Jan. 12, 1916. Serial No. 71,746. (Cl. 200—27.)



The combination with the reversing lever of a motor vehicle, of a circuit closer comprising a casing, a horizontal shaft journaled in said casing and having one end projecting through the casing, a switch arm secured to said shaft and depending therefrom within the casing and capable of swinging movement, contact segments disposed at the ends of the path of movement of the switch arm and adapted to engaged thereby, a Y-shaped arm fixed to the outer end of said shaft, and a pin on said reversing lever adapted to enter said Y-shaped arm in the movement of the reversing lever to reversing position to swing said Y-shaped arm, said shaft and said switch arm.

1,210,336. TRAFFIC-SIGNAL. JAMES A. MCINTOSH, Portland, Oreg. Filed Feb. 16, 1916. Serial No. 76,698. (Cl. 177—329.)

In a traffic signal, the combination of a casing, a tubular support for said casing forming a conduit for circuit wires, a housing in the form of a hollow disk-shaped body having a fixed relation to said casing and its support and formed with an opening in the periphery thereof, a movable signaling member in the form of a hollow disk normally concealed in said housing and adapted to be moved outwardly through the peripheral opening of the housing to an exposed position, said signaling member embodying a transparent panel, a hollow arm on said signaling member terminally pivoted in the casing and provided with a sector gear face, and an electrically operated rack bar meshing



with said sector gear face, and a lamp contained within said hollow arm for illuminating the interior of said signaling member.

1,210,337. FASTENER. HUGH J. MCINTYRE, Winnipeg, Manitoba, Canada. Filed Aug. 11, 1916. Serial No. 114,443. (Cl. 24—211.)

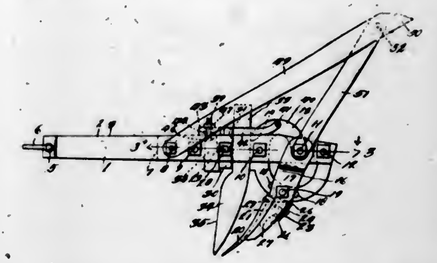


1. In fasteners, the combination of a socket having a reduced neck portion and an enlarged body portion provided with an inner annular channel of approximately semi-circular cross section, a cylindrical casing positioned above said socket, two diametrically opposite spring clasp members secured at their upper ends to said casing and each bent, at its lower end, to provide an integral approximately semi-circular head adapted to fit snugly into the channel of said socket, and a rod slidably mounted in the casing between the said clasp members and provided on its inner end with a member adapted to engage the heads of said clasp members so as to force the same apart when the rod is depressed.

2. In fasteners, the combination of a socket having an inner annular shoulder adjacent its upper end, a casing diametrically opposite spring clasp members secured in said casing at their upper ends and each provided at its lower end, with a head of a height corresponding to the distance between the said annular shoulder and the bottom of said socket, and a member operable within the casing and adapted, when depressed, to force the heads of said clasp members apart whereby said heads are secured between the annular shoulder and the bottom of said socket and in engagement therewith.

3. In fasteners, the combination of a socket having an inner annular shoulder, a flat bottom, and an annular channel intermediate said shoulder and bottom; a casing positioned above said socket; depending spring clasp members secured in said casing and adapted to fit into said socket, each of said members being bent at its lower portion to provide a head adapted to fit into the channel of the socket, a horizontal inwardly directed portion contiguous with said head and adapted to engage the bottom of the socket when the head is in operative position within said socket, and an upwardly and outwardly directed tongue contiguous with said horizontal portion and provided with an arcuate recess intermediate its ends; and a rod slidable in said casing between the said clasp members and provided with a ball adapted to engage between the tongues of the clasp members so as to force said heads apart.

1,210,338. PLOW. JAMES MCSWEENEY, Crete, W. Va. Filed Sept. 27, 1916. Serial No. 122,413. (Cl. 97—6.)



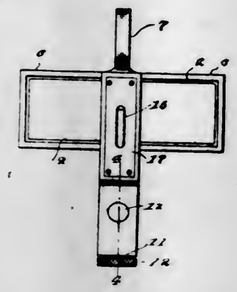
1. In a plow, the combination of a plow beam consisting of opposing elongated side plates and an arched brace secured between the rear portions of said side plates and provided with an upwardly protruding extension and having a forward vertically disposed flat edge, of a filler plate secured between said opposing side plates of the beam substantially midway the ends of the beam, thereby affording a space between the filler plate and forward vertical edge of said brace, a filler block arranged substantially intermediate the ends of said space and having teeth on its rear edge, a cutter having a shank arranged between the toothed edge of the filler block and the forward vertical edge of the brace, a wedge between the filler block and filler plate to force the filler block against the shank of the cutter, to clamp the cutter shank in place, and means for drawing the wedge upwardly to cause the clamping action of the filler block on the shank.

2. In a plow, the combination of a plow beam consisting of opposing elongated side plates and an arched brace secured between the rear portions of said side plates and provided with an upwardly protruding extension and having a forward vertically disposed flat edge, of a filler plate secured between said opposing side plates of the beam substantially midway the ends of the beam, thereby affording a space between the filler plate and forward vertical edge of said brace, a filler block arranged substantially intermediate the ends of said space and having teeth on its rear edge, a cutter having a shank arranged between the toothed edge of the filler block and the forward vertical edge of the brace, a wedge between the filler block and filler plate to force the filler block against the shank of the cutter, to clamp the cutter shank in place, and means for drawing the wedge upwardly to cause the clamping action of the filler block on the shank, said means comprising a reduced extension on the upper end of the wedge, a slotted plate pivoted on the extension of the brace and having an aperture in its free end to receive the reduced extension of the wedge, and a nut threaded on the reduced extension to hold the plate in place and draw the wedge upwardly, a bolt extending through the filler block and the elongated side plates of the beam, said filler block having an elongated slot through which said last named bolt may extend, whereby the filler block may move toward the cutter shank.

1,210,339. JOINT-GAGE, LEVEL, AND MITER-SQUARE. THOMAS ROSS MADDOX, Canyon City, Tex. Filed Oct. 23, 1915. Serial No. 57,509. (Cl. 33—85.)

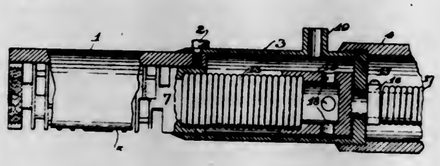
1. The herein described brick layer's tool comprising a longitudinal arm having plane parallel upper and lower faces, cross arms extending from opposite sides of the

first-named arm and at right angles thereto, a vertical arm depending from the outer end of the first-named arm, a gage screw in the lower end of said vertical arm, and levels in the upper side and outer end of the first-named arm.



2. The herein described brick layer's tool comprising a longitudinal arm having plane parallel upper and lower faces, cross arms extending from opposite sides of the first-named arm and at right angles thereto, a vertical arm depending from the outer end of the first-named arm, a gage screw in the lower end of said vertical arm, levels in the upper side and outer end of the first-named arm, and a handle knob at the outer end and on the upper side of the first-named arm, and a set screw to secure the gage screw in adjusted position.

1,210,340. SAFETY-RAZOR. CHARLES I. MATSON, Chicago, Ill. Filed May 20, 1916. Serial No. 98,933. (Cl. 30—12.)



1. A rotary cutting element comprising a plurality of longitudinally spaced cutting edges; and guards interposted between said cutting edges, substantially as described.

2. A rotary cutting element comprising a plurality of longitudinally spaced cutting edges; and circular guards interposed between said cutting edges, substantially as described.

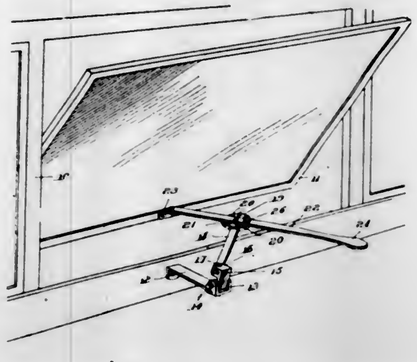
3. A rotary cutting element comprising a plurality of longitudinally spaced cutting edges; and circular guards interposed between said cutting edges and having their peripheries substantially flush with said cutting edges, substantially as described.

4. A rotary cutting element comprising a plurality of longitudinally extending cutting edges; and circular guards interposed between said cutting edges, said cutting edges being longitudinally and circumferentially spaced, and each of said cutting edges being positioned to overlap circumferentially with one of said guards, substantially as described.

5. A rotary cutting element comprising a plurality of longitudinally extending cutting edges; and circular guards interposed between said cutting edges, said cutting edges being longitudinally and circumferentially spaced and staggered, relatively to said guards, whereby each of said cutting edges overlaps circumferentially with one of said guards, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,210,341. SASH-OPERATING DEVICE. JOSEPH MATTHEWS, EDWARD W. FREEMAN, and WILLIAM H. S. BATEMAN, Philadelphia, Pa. Filed Sept. 19, 1914. Serial No. 862,575. (Cl. 16—28.)



1. In an operating device for a sash mounted on its frame, a bracket terminating at its free end in opposed ears, a pin passing through said ears, a knuckle pivotally mounted on the pin and between said ears for vertical swinging movement and provided with spaced laterally extending ears, an arm connected between the laterally extending ears of the knuckle to swing in an arcuate path at right angles to the path of movement of the knuckle, and a lever connected with the sash and the arm to swing in a plane at right angles to the plane of movement of the knuckle.

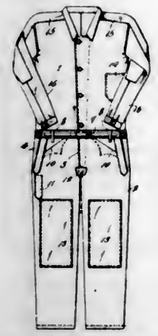
2. In an operating device for a sash mounted on its frame, a bracket terminating at its free end in opposed ears, a pin passing through said ears, a knuckle pivotally mounted on the pin and between said ears for vertical swinging movement and provided with spaced laterally extending ears, an arm connected between the laterally extending ears of the knuckle to swing in an arcuate path at right angles to the path of movement of the knuckle, a lever mounted with the sash and the arm to swing in a plane at right angles to the plane of movement of the knuckle, and locking means for said lever.

3. In an operating device for sashes mounted on their frame, brackets on said frame and each provided with horizontal extensions, a knuckle member pivoted on one of the projecting ends of said extensions for vertical swinging movement, an arm connected with the knuckle to swing in an arcuate path at right angles to the path of movement of the knuckle, a lever connected with the sash on a side thereof and with each knuckle.

4. In an operating device for sashes mounted on their frame, brackets on said frame and each provided with horizontal extensions, a knuckle member pivoted on one of the projecting ends of said extensions for vertical swinging movement, an arm connected with the knuckle to swing in an arcuate path at right angles to the path of movement of the knuckle, a lever connected with the sash on a side thereof and with each knuckle, spaced upper and lower rods for imparting movement to said levers, the ends of said levers being offset and having connection with the respective rods.

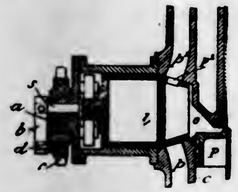
1,210,342. OUTER GARMENT. JAMES E. MERRITT, Fargo, N. D., assignor to Michael J. McQuire, Superior, Wis. Filed Oct. 3, 1913. Serial No. 793,238. Renewed Oct. 30, 1916. Serial No. 128,631. (Cl. 2—144.)

1. A garment of the class described having a continuous reinforcing strip secured to the upper side of the shoulder and sleeve of the garment and extending from the collar to the cuff, said reinforcing strip having flaps formed integral therewith and co-acting with the strip to inclose the sleeve from the elbow to the cuff.



2. A garment having a continuous reinforcing strip extending from the collar to the cuff on the sleeve of the garment and secured to the upper face of the shoulder and sleeve, said reinforcing strip having flaps formed integral therewith and extending between the elbow and cuff, said flaps having their meeting edges stitched together on the underside of the sleeve.

1,210,343. VALVE-OPERATING MECHANISM. EDMUND HAWTHORNE MICKLEWOOD, Devon, England. Filed Jan. 30, 1912. Serial No. 674,304. (Cl. 137—139.)



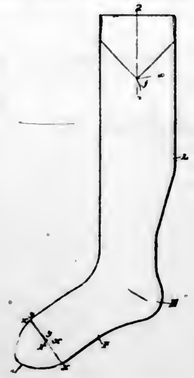
1. The combination of a rotary port-controlling valve, and means adapted to impart a variable rotary speed to the valve, said means consisting of a stationary cylindrical boss carried by the engine, a spindle operatively connected with the valve and journaled in the boss in eccentric relation with the axis thereof, a revoluble member mounted co-axially on the boss, a rotary member secured to the spindle, a driving connection between the said two members, and means for driving the first said member.

2. The combination of a rotary port-controlling valve, and means adapted to impart a variable rotary speed to the valve, said means consisting of a stationary cylindrical boss carried by the engine, a spindle operatively connected with the valve and journaled in the boss in eccentric relation with the axis thereof, a revoluble member mounted co-axially on the boss, a rotary member secured to the spindle, a driving connection between the said two members, comprising a pin on the revoluble member slidably engaging a slot in said rotary member, and means for driving the first said member.

1,210,344. KNIT FABRIC. MAX C. MILLER, Providence, R. I., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Aug. 11, 1913. Serial No. 784,234. (Cl. 66—4.)

1. A stocking comprising an integrally knit closed toe and a turned welt, the end or selvage loops of which are integrally united with the body of the leg.

2. A stocking comprising an integrally knit closed toe and a welt integrally united with the body of the leg and having its selvage loops interlocked with each other.



3. A stocking comprising an integrally knit closed toe and a welt, the selvage loops of which are interlocked with loops in the leg fabric and with each other.

4. A knit fabric having a turned welt integrally connected with the body web by loops which pass through loops in the body wales and are united to adjacent wales.

5. A knit fabric having a turned welt integrally united with the body web by an angular juncture.

[Claims 6 to 19 not printed in the Gazette.]

1,210,345. KNIT FABRIC. MAX C. MILLER, Providence, R. I., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Aug. 11, 1913. Serial No. 784,235. (Cl. 66—4.)



1. A stocking comprising an integrally knit closed toe and a welt having a course of locking loops which pass through a course of welt attaching loops in the leg, and having its selvage loops interlocked.

2. A stocking comprising an integrally knit closed toe and a welt having a course of locking loops which pass through a course of welt attaching loops in the leg and are interlocked with each other.

3. A knit fabric having a turned welt attached to the body web by a course of loops which pass through a course of loops in the body web and are interlocked with each other.

4. A knit fabric having a turned welt attached to the body web by a course of loops engaging a course of loops in the body web and having its selvage loops interlocked with each other.

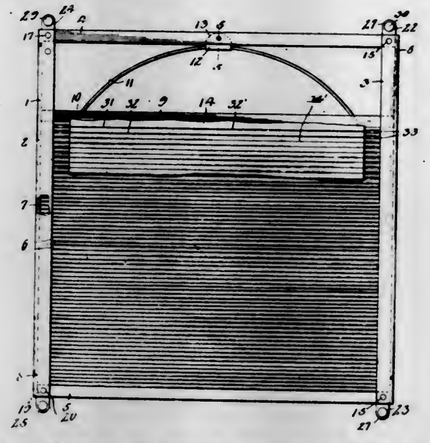
5. The method of knitting a stocking which consists in knitting a closed toe, foot, heel and leg, forming a course of welt attaching loops, knitting a welt web beyond the loops, knitting a course in the welt web through the course of welt attaching loops, and interlooping the selvage loops of the welt web.

[Claims 6 to 10 not printed in the Gazette.]

1,210,346. FLUTING AND PLAITING DEVICE. ZULAH MITCHELL, Seligman, Mo. Filed Nov. 22, 1915. Serial No. 62,875. (Cl. 223—40.)

1. A device of the character described comprising an open rectangular frame having guideways along the sides thereof, said frame including a side bar hinged for open-

ing and closing movements, needles slidably fitted in the guideways of the frame, a spring actuated follower movable in said guideways, and means for locking the hinged side bar in closed condition.



2. A device of the character described comprising an open rectangular frame formed of side bars and end pieces connecting said side bars, said side bars being provided with guideways, and one of the side bars being hinged for opening and closing movements, means for locking said hinged bar in closed position, needles detachably engaging the guideways in the side bars, a follower movable in the guideways and arranged to hold the needles in compact condition, and a spring yieldingly backing the follower.

3. A device of the character described comprising an open rectangular frame and formed of side bars and end, pieces connecting said side bars, said side bars being provided with guideways and one of the side bars being hinged for opening and closing movements, means for securing said side bar in closed position, needles slidably engaging the guideways, a spring pressed follower for yieldingly holding the needles in position against separation, and adjustable supports carried by said brackets for adjustably mounting the frame upon a base support.

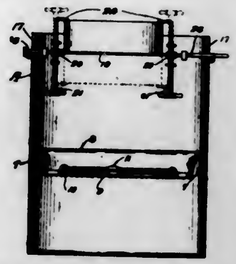
4. A device of the character described comprising an open rectangular frame having guideways therein, and provided with a hinge section movable to open and close the frame, needles fitted in the guideways of the frame, a follower movable in said guideways and arranged to hold the needles in a compact condition, and a spring detachably connected with the frame and bearing on said follower.

5. A device of the character described comprising an open rectangular frame formed of channeled side bars and end pieces connecting said bars, one of said side bars being hinged for opening and closing movements, means for locking said hinged bar in closed position, needles detachably engaging the guideways formed by the channels in the side bars, a follower movable in said guideways and arranged to hold the needles in compact condition, and a spring detachably connected with one of the end pieces and yieldingly backing the follower.

[Claim 6 not printed in the Gazette.]

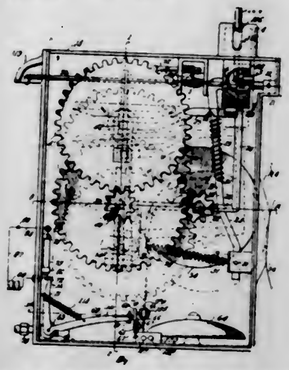
1,210,347. COMBINED ASH CAN AND SIFTER. ADA E. MOORE, St. Anthony, Idaho. Filed Apr. 4, 1916. Serial No. 88,895. (Cl. 83—60.)

1. The combination with a receptacle adapted to be supported in a can, of a supporting frame having spaced parallel side guide rods and trunnions at opposite ends for detachable and rotatable engagement in diametrically opposite points of the can, slides movable on the rods, adjusting screws threaded centrally in the slides, cross pieces swiveled on the adjusting screws, and jaw clamps carried by the cross pieces, each being formed from a relatively stiff wire.



2. The combination with a can having a plurality of brackets interiorly thereof forming a bearing, of a sifter body removably engaged with the bearings and having a foraminous bottom, a ring-like member movable over the bottom, a wire wrapped about the ring-like member and forming a triangle centrally thereof, said ring-like member having a threaded eye, and a lever slidable through the can and sifter and detachably engaged in the threaded end.

1,210,348. AUTOMATIC ALARM APPARATUS. LESLIE E. MOORE, Long Beach, Cal. Filed Apr. 21, 1914. Serial No. 833,404. (Cl. 116—1.)



1. In an alarm mechanism for power propelled vehicles, the combination with a rotary member on the vehicle, of an alarm mechanism, a threaded shaft, a revoluble shaft carried by said threaded shaft, means for advancing said threaded shaft, means for rotating the revoluble shaft, and means on said revoluble shaft for actuating the alarm mechanism when said revoluble shaft has been advanced a predetermined distance.

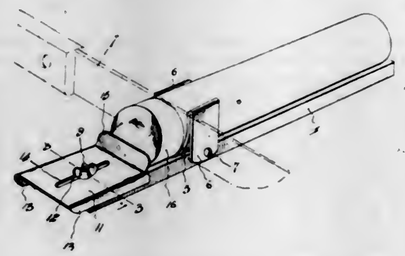
2. In an alarm mechanism for power propelled vehicles, the combination with a rotary member, of a threaded shaft, means for slowly advancing said threaded shaft actuated by said rotary member, a revoluble shaft carried by said threaded shaft, means for rotating said revoluble shaft by the rotary member, an alarm mechanism, means on the rotary shaft for actuating the alarm mechanism, and means for throwing the threaded shaft and rotary shaft into and out of operative connection with said rotary member.

3. In an alarm mechanism for power propelled vehicles, the combination with a rotary member, of a threaded shaft, means for slowly advancing said threaded shaft actuated by said rotary member, a revoluble shaft carried by said threaded shaft, means for rotating said revoluble shaft by the rotary member, an alarm mechanism, means on the rotary shaft for actuating the alarm mechanism, and means for throwing the threaded shaft and rotary shaft into and out of operative connection with said rotary member, and a permutation device controlling the operation of said last named means.

4. In a device for preventing the theft of power propelled vehicles, the combination with a rotary member on said vehicle, a case, a shiftable frame in said case, a threaded shaft adapted to be advanced in relation to said frame, a rotary shaft carried by the threaded shaft, a friction disk on said frame, means controlled by said disk for advancing the threaded shaft, means actuated by said disk for revolving the rotary shaft, means for shifting the frame to move the friction disk into and out of engagement with the rotary member on said vehicle, locking means to hold said last mentioned means in position such that the friction disk is engaged with said rotary member, and an alarm mechanism controlled by the advancement and rotation of said rotary shaft.

5. In a device for preventing the theft of power propelled vehicles, the combination with a rotary member on said vehicle, a case, a shiftable frame in said case, a threaded shaft adapted to be advanced in relation to said frame, a rotary shaft carried by the threaded shaft, a friction disk on said frame, means controlled by said disk for advancing the threaded shaft, means actuated by said disk for revolving the rotary shaft, a cam disk for shifting the frame to move the friction disk into and out of engagement with the rotary member, an alarm mechanism controlled by the advancement and rotation of the revoluble shaft, permutation means for locking the frame against movement, reciprocal locking bars for engaging said cam-disk to hold it against movement, a hand lever for operating the disk, and means coöperating with the hand lever for inhibiting movement of the cam disk.

1,210,349. DEVICE FOR USE IN CUTTING PAPER IN ROLLS. WALTER E. MOORE, Memphis, Tenn. Filed Mar. 7, 1916. Serial No. 82,734. (Cl. 164—78.)



1. In a device for the purpose set forth, the combination of a base plate having a recess in its upper side, a holder comprising a U-shaped portion having its center seated in said recess flush with the upper surface of the base plate and secured at its ends to the base plate.

2. In a device for the purpose set forth, the combination of a base plate, a stop thereon, and a transverse holder consisting of a U-shaped member having its ends doubled upon themselves and depending to fit against the side edges of the base plate, and means for securing said ends to the base plate.

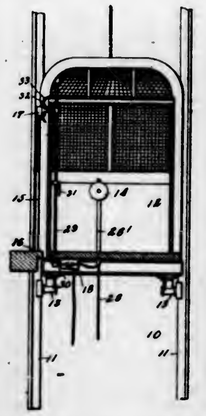
1,210,350. PLOW. WILLIAM F. MOORE, Votaw, Tex. Filed May 4, 1916. Serial No. 95,412. (Cl. 97—11.)

As an improved article of manufacture, a plow including a blade transversely curved to provide a convex upper surface, and wings projecting laterally and downwardly in opposite directions from the upper longitudinal edges of the blade and gradually increasing in width from their inner to their outer ends, said wings being spirally



curved and having the upper portions of their outer ends projecting forwardly toward the point of the blade.

1,210,351. SAFETY DEVICE FOR ELEVATORS. OMAR I. NIOH, Washington, D. C. Filed Feb. 11, 1915. Serial No. 7,524. (Cl. 187—47.)



1. In an elevator, the combination with a car, and a door, of normally inoperative power controlling mechanism for operating said car located at one side of the doorway thereof, a safety device on the opposite side of said doorway adapted to be manually operated and maintained for rendering said car operative whereby the operator is compelled to stand in said doorway to manipulate said car, and means rendering said safety device operative while the door is open.

2. In an elevator, the combination with a car, and a door, of normally inactive power controlling mechanism for operating said car at one side of the doorway thereof, a safety device on the opposite side of said doorway which must be manually operated and manually maintained in a predetermined position to render and continue active said power controlling mechanism, and means adapted to be engaged by said door when the latter is open whereby to prevent manipulation of said safety device while the door is open.

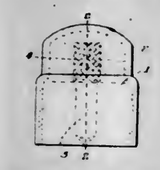
3. In an elevator, the combination with a car, and a door, of normally inactive power controlling mechanism for operating said car located at one side of the doorway thereof, a safety device on the opposite side of said doorway adapted to be manually operated and maintained to render active said power controlling mechanism, means to maintain said safety device normally in an inactive posi-

tion, and means for locking said safety device against actuation while the door is open.

4. In an elevator, the combination with a shaft, a shaft door and a car, of a mechanical controlling mechanism for operating said car, a gripping mechanism normally rendering said controlling mechanism inoperative, operating means for said gripping mechanism which must be manually operated and manually maintained in a predetermined position for releasing said gripping mechanism to render and continue said controlling mechanism capable of operation, said operating means for said gripping mechanism being located on the side of the elevator door opposite to the controlling mechanism, whereby the operator is compelled to stand in the doorway to manipulate the car, and means on said operating means for preventing the operation of the latter when the door is open.

5. In an elevator, the combination with a shaft, a shaft door and a car, of a mechanical controlling mechanism for operating said car located on one side of the doorway of the car, a gripping mechanism normally rendering said controlling mechanism inoperative, a rock shaft on the opposite side of said doorway connected to said gripping mechanism and which must be manually rocked and manually maintained in a predetermined position to release said gripping mechanism to render and continue said controlling mechanism capable of operation, and means on said rock shaft adapted to engage the door when the latter is open to prevent the operation of said rock shaft when the door is open.

1,210,352. GREASE-CUP CAP. EDMUND NOLAN, Detroit, Mich., assignor to George W. Bowen, Auburn, N. Y. Filed Oct. 27, 1915. Serial No. 58,194. (Cl. 184—48.)



1. A grease cup cap formed with a member located on the top thereof and having opposing walls, the space between which opens into the interior of the cap, and a rod extending lengthwise of the interior of the cap and having a portion extending between the opposing walls of said member, the walls being compressed upon the rod, substantially as and for the purpose set forth.

2. A grease cup cap including a portion formed with a double wall and a member extending lengthwise of the interior of the cap and having means clamped between said double wall, substantially as and for the purpose described.

3. A grease cup cap formed with a double walled wing on the top thereof, and a rod extending lengthwise of the interior of the cap and having a poriton extending between the walls of the wing, substantially as and for the purpose specified.

4. A grease cup cap formed with a double walled wing on the top thereof and a rod extending lengthwise of the interior of the cap and having a portion extending between the walls of the wing, the walls of the wing being compressed onto the rod, substantially as and for the purpose set forth.

5. A grease cup cap having a double walled wing on the top thereof, and a rod extending lengthwise of the interior of the cap and having a roughened head inserted between the walls of the wing, said walls being compressed upon said head, substantially as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

1,210,353. MECHANICAL MOVEMENT. ORVILLE P. NORMAN, Los Angeles, Cal. Filed Aug. 17, 1916. Serial No. 115,403. (Cl. 74—98.)

1. A mechanical movement, comprising the combination of a pair of screws spaced from each other, a conveyer therebetween having threads thereon and arranged to be moved into engagement with either of said screws, a holder for maintaining said conveyer in engagement with either screw, means on said holder to transfer said conveyer from one screw to the other, and means to move said holder relatively to said conveyer to effect said transfer.



2. A mechanical movement, comprising the combination of a pair of screws spaced from each other, a conveyer having threads arranged to be swung into engagement with either screw, a holder for said conveyer arranged to hold the latter in engagement with either screw, means on said holder to transfer said conveyer from one screw to the other, and means to move said holder relative to said conveyer to effect said transfer.

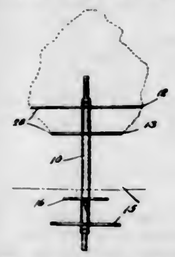
3. A mechanical movement, comprising the combination of a pair of screws spaced from each other, a conveyer arranged therebetween having threads thereon and arranged to be moved into engagement with either of said screws, a holder for maintaining said conveyer in engagement with either of said screws, said holder slidably arranged with respect to said conveyer, means on said holder to transfer said conveyer from one screw to the other, and means to slide said holder for effecting said transfer.

4. A mechanical movement, comprising the combination of a pair of screws spaced from each other, a rod disposed below and between said screws, a conveyer pivotally and slidably mounted thereon, said conveyer having threads arranged to be moved into engagement with the threads of either screw, a holder for maintaining said conveyer in engagement with either of said screws, said holder slidably arranged with respect to said conveyer, means on said holder to transfer said conveyer from one screw to the other, and means to slide said holder for effecting said transfer.

5. A mechanical movement, comprising the combination of a pair of screws spaced from each other, a rod disposed below and between said screws, a conveyer pivotally and slidably mounted thereon, said conveyer having threads and arranged to be moved into engagement with either of said screws, a holder bar slidably disposed with respect to said conveyer and arranged to engage and hold said conveyer in engagement with either screw, said bar having a pair of openings through which said conveyer may pass from one side to the other, means adjacent said openings and on said bar to transfer said conveyer from one side of said bar to the other, and means to slide said bar for effecting said transfer.

[Claims 6 and 7 not printed in the Gazette.]

1,210,354. SAND TOY. MURIEL V. NOYES, Boston, Mass. Filed Apr. 6, 1916. Serial No. 89,478. (Cl. 46—37.)



1. A device for simulating distinctive objects of sand, comprising a stem and one or more supporting-plates arranged thereon, said plates adapted to receive upon them the sand.

2. A device for simulating distinctive objects of sand, comprising a stem and one or more supporting-plates arranged thereon at approximately right angles thereto, said plates adapted to receive upon them the sand.

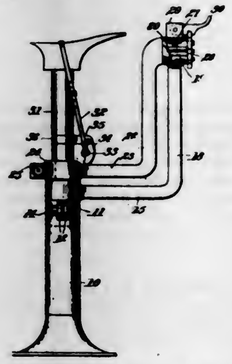
3. A device for simulating distinctive objects of sand, comprising a stem and one or more supporting-plates rotatably arranged thereon, said plates adapted to receive upon them the sand.

4. A device for simulating distinctive objects of sand, comprising a stem and one or more supporting-plates arranged thereon, having arms extended in various directions, said plates adapted to receive upon them the sand.

5. A device for simulating distinctive objects of sand, comprising a stem and one or more resilient supporting-plates arranged thereon, said plates adapted to receive upon them the sand.

[Claims 6 to 22 not printed in the Gazette.]

1,210,355. SHOE-REPAIR JACK. JOHN H. O'BRIEN, Fort Wayne, Ind., assignor of one-half to Jesse E. Mills, Fort Wayne, Ind. Filed Apr. 5, 1916. Serial No. 89,190. (Cl. 12—123.)



1. A lasting jack comprising a base, an arm rotatably supported on the base, said arm having a vertical extension, and a second arm rotatably mounted on the said extension to swing about a horizontal axis and in a plane parallel with the plane of the vertical extension.

2. A lasting jack comprising a base, an arm rotatably supported on the base, said arm having a vertical extension, a second arm rotatably mounted on the said extension to swing about a horizontal axis and in a plane parallel with the plane of the vertical extension, and means for locking said second arm against movement.

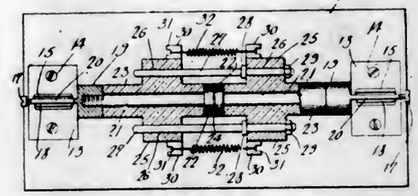
3. A shoe repairing jack comprising a base having a tubular extension, one end of said extension being open the extension adjacent said open end being slotted, means for contracting said open end, an L-shaped arm having an extension received within the open end of the base, the terminal of said arm remote from said extension being split to provide a bearing, a second L-shaped arm having an extension received within said bearing, the end of said extension projecting beyond the bearing and being squared, a notched disk arranged on said squared end, a dog carried by the bearing and engaging in the notches of said disk and a last support carried by said second mentioned arm.

4. A lasting jack comprising a base, an arm rotatably supported on the base, said arm having a vertical extension, a second arm rotatably mounted on the said extension to swing about a horizontal axis and in a plane parallel with the plane of the vertical extension, means for locking said second arm against movement and a last support carried by the second arm and adjustable thereon.

5. A lasting jack comprising a base, an arm rotatably supported on the base, said arm having a vertical extension, a bearing formed at one end of said extension, and a second arm rotatably mounted on the said extension to swing about a horizontal axis and in a plane parallel with the plane of the vertical extension, said second arm being formed with an extension adapted to be received within the bearing of the vertical extension, whereby said second arm is rotatably mounted on the said vertical extension.

[Claim 6 not printed in the Gazette.]

1,210,356. CIRCUIT-CLOSING DEVICE. EDWARD PAUL, New Bremen, Ohio. Filed Apr. 3, 1916. Serial No. 88,653. (Cl. 175—276.)



1. A circuit closing device embodying a base having a pair of posts, a pair of members having blades engageable with said posts, parts carried by said members having portions adjacent one another to provide an arc gap therebetween, a spring connecting said members for drawing said parts toward one another, and an insulating member disposed between said portions to separate them.

2. A circuit closing device embodying a pair of members, rods attached thereto and having heads at their adjacent ends, insulating sleeves upon said rods between said heads and members, spring means connecting said sleeves for drawing them toward one another, and an insulating member disposed between said heads to separate them and provide an arc gap.

3. A circuit closing device embodying a base, a pair of posts carried thereby having slots, a pair of members having blades engageable in said slots, a pair of rods attached to said members and projecting toward one another, said rods having heads at their adjacent ends, insulating sleeves upon said rods between said members and heads, an insulating washer between said heads, and spring means connecting said sleeves for drawing them toward one another.

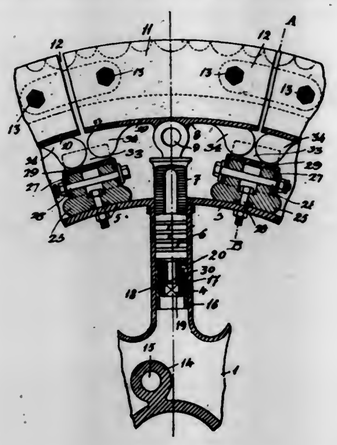
4. A circuit closing device embodying a pair of members, rods attached thereto and having heads at their adjacent ends, an insulating member disposed between said heads, insulating sleeves upon said rods between said heads and members, means connecting said sleeves for guiding them for straight line movement toward and away from one another, and preventing the relative rotation thereof, and spring means connecting said sleeves for drawing them toward one another.

5. A circuit closing device embodying a pair of members, a pair of rods attached thereto and having heads at their adjacent ends, an insulating washer between said heads, insulating sleeves upon said rods between said heads and members, said sleeves having opposite outstanding lugs, guide rods attached to certain lugs and slidable through the others to guide said sleeves for straight line movement toward and away from one another and to prevent the relative rotation of said sleeves, and retractile springs connected to said lugs for drawing the sleeves toward one another.

1,210,357. PNEUMATIC WHEEL. FRANCESCO PERSONÉ, Nardo, Italy. Filed July 13, 1915. Serial No. 39,683. (Cl. 152—30.)

In a wheel, the combination of the hub, hollow spoke sections extending from the hub, a channel rim supported

on the hollow spoke sections, an outer rim formed in sections and fitting in the channel of the inner rim, links pivotally connecting adjacent outer rim sections, a spoke portion pivoted to each section of the outer rim and fitting in the hollow spoke portions of the inner rim, means forming a cushion between the spoke portions, each section of the outer rim having a depending lug at opposite ends,



cushions secured in the channel of the inner rim, there being a cushion located below the meeting ends of each pair of sections of the outer rim, each cushion comprising a hollow resilient body and a cap fastened thereto, the lugs on the sections engaging said cap.

1,210,358. PROCESS OF FORMING ABRASIVE WHEELS AND PRODUCT THEREOF. CARL A. PFANSTIEHL, Waukegan, Ill., assignor to Pfanstiehl Company, a Corporation of Illinois. Filed May 4, 1914. Serial No. 836,384. (Cl. 51—1.)

1. The process which consists in mixing rubber gum, sulfur and granules of an abrasive material, forming the mixture into an annular disk of substantially uniform thickness, and coating the surfaces of the disk with a mixture of glassy binder and an abrasive in granular form.

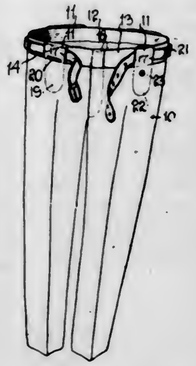
2. The process which consists in mixing rubber gum, sulfur, and granules of an abrasive material, forming the mixture into an annular disk of substantially uniform thickness, and coating the surface of the disk with a mixture of sodium silicate and a granular abrasive.

3. The product which consists of an annular disk of granules of an abrasive material embedded in a binder, and granules of abrasive material embedded in a coating of sodium silicate adhering to the sides of said annular disk.

1,210,359. TROUSERS. WILLIAM C. PIXLEY, Franklinville, N. Y., assignor of one-half to William H. Adams, Franklinville, N. Y. Filed Apr. 26, 1916. Serial No. 93,723. (Cl. 2—143.)

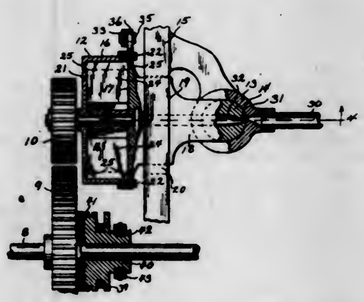
1. A pair of trousers having the upper end of its body formed with a plurality of tabs integral with the body of the trousers and extending above the upper edge of the trousers, a strip of fabric extending behind the tabs and behind the openings between the tabs and suitably stitched to the ends of the tabs and to the body of the trousers, the side edges of the tabs being free from engagement with the strip whereby to provide a plurality of belt-retaining loops integral with the body of the trousers.

2. In a pair of trousers, a belt-retaining loop, the upper edge of the loop being spaced intermediate its ends from the waist-band of the trousers to form a pocket opening at the upper edge of the trousers, and a pocket having its upper end opening into the space between the belt-retaining loop and the waist-band.



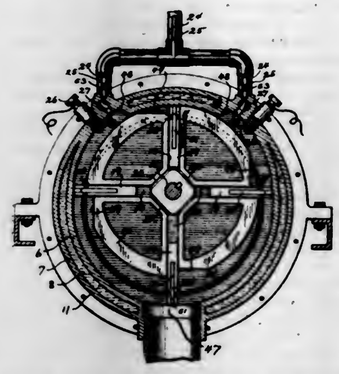
3. In a pair of trousers, a belt-retaining loop, the upper corners of the loop being attached to the waist-band of the trousers, the middle of the loop being free from engagement with the trousers, and a pocket having its upper end opening into the space between the belt-retaining loop and the waist-band, the outer and inner walls of the pocket being provided with coacting fastening members disposed just below the belt-retaining loop.

1,210,360. GAS-ENGINE STARTER. BRITTON POULSON, Chicago, Ill., assignor, by mesne assignments, to Edward W. Rogers, Chicago, Ill. Filed Nov. 10, 1911. Serial No. 659,664. (Cl. 123—179.)



In a device of the class described, an internal combustion engine having a shaft, a gear rigidly mounted on said shaft, a second gear normally out of mesh with said first named gear arranged to be moved into mesh therewith, a fluid pressure motor mounted to rotate said second named gear and provided with a pivot about which it swings, said pivot provided with a passageway communicating with the fluid pressure motor, a source of pressure fluid supply, a suitable socket into which said pivot is fitted provided with a passageway communicating with said source of pressure fluid supply, said passageways in the pivot and the socket arranged to act as a valve which is normally closed and is opened when the second named gear is moved into mesh with the first named gear.

1,210,361. ROTARY INTERNAL-COMBUSTION ENGINE. BRITTON POULSON, Chicago, Ill., assignor, by mesne assignments, to Edward W. Rogers, Chicago, Ill. Filed Dec. 26, 1911. Serial No. 667,995. (Cl. 123—16.)

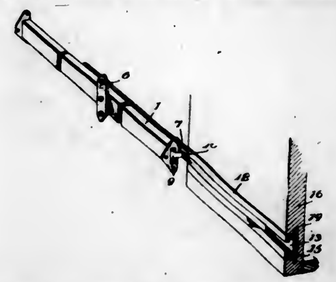


1. In a device of the class described, a suitable frame provided with an interior circular chamber, a hub rotatably mounted within said circular chamber arranged to engage the top of said chamber and provided with a plurality of radial slots, a suitable wing fitted to slide in each of said slots, said frame provided with an exhaust port leading from the lower side of said chamber to form an explosion chamber on each side of the hub, and with valved intake ports leading to each of said explosion chambers, a spark plug provided in each explosion chamber, a rocking beam pivotally mounted at its center and provided with an electric contact brush at each free end, a rotatable electric contact member to coöperate with said electric contacts on the beam and means whereby the valves on the intake ports are operated simultaneously with the rocking of the beam whereby the engine can be made to run in either direction.

2. In a device of the class described, a suitable frame provided with an interior circular chamber, a hub rotatably mounted within said circular chamber arranged to engage the top of said chamber and provided with a plurality of radial slots, a suitable wing fitted to slide in each of said slots, communicating passages connecting the bottom of said slots so that the air in lower ends of the slots is free to pass from one slot to another as the wings slide in and out of said slots, a groove in the edge of each wing, a metal packing bar fitted into each of said grooves and passageways leading from the bottoms of said grooves to one side of the wing so that pressure fluid applied to one side of said wing will force the packing bars in the grooves outward against the surface of the circular chamber.

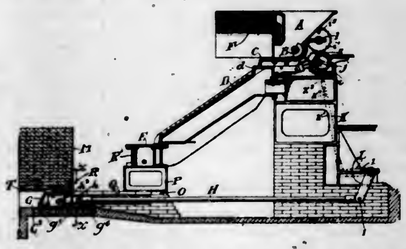
1,210,362. DRAWER-SLIDE. JOHN R. RAPLEE, Shelbina, Mo. Filed May 25, 1915. Serial No. 30,460. (Cl. 45—77.)

In a drawer slide, a guide rail, a supporting rail, a rail connecting the first-mentioned rails and having portions slidably engaging the said guide and supporting rails, the connecting rail being formed at its forward end and in its underside with a notch, a pawl pivotally mounted within the supporting rail and having its end at one side of its pivot arranged to engage within the said notch in the connecting rail upon sliding movement of the supporting rail in one direction whereby to connect the said rails for movement in unison, the said supporting rail being formed in its side with a recess located opposite the said end of the pawl and being provided in the bottom wall of its



recess with a notch, and a pin projecting laterally from the said end of the pawl into the said recess and adapted, in the inactive position of the pawl, to seat within the said notch.

1,210,363. BOILER AND OTHER FURNACE. JAMES REAGAN, Philadelphia, Pa. Filed May 5, 1916. Serial No. 95,705. (Cl. 110—165.)



1. The combination with an inclined grate adapted to discharge substantially the whole body of ashes from the rear end thereof, a bridge wall separated from said grate so as to leave a space for the ashes delivered from said grate, and an ash-remover consisting of a reciprocating ash-drawer adapted to be retracted from and drawn through the lower portion of said body of ashes and a floor for sustaining the ashes over which said ash-drawer reciprocates.

2. The combination with an inclined grate adapted to discharge substantially the whole body of ashes from the rear end thereof, a bridge wall separated from said grate so as to leave a space for the ashes delivered from said grate, and an ash-remover consisting of a reciprocating ash-drawer having front and rear floating scrapers, and adapted to be retracted from and drawn into the lower portion of a body of ashes.

3. An ash-drawer, the body of which is adapted to move ashes and having front and rear floating scrapers which have a free vertical movement independent of the drawer.

4. An ash-drawer composed of transversely disposed sections in combination with a bar extending through said sections and pull rods connected to said bar.

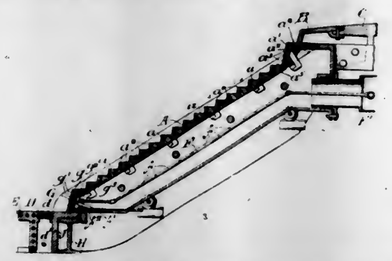
5. An ash-drawer having a pull rod in combination with a loose protective sleeve for said rod.

[Claims 6 and 7 not printed in the Gazette.]

1,210,364. BOILER AND OTHER FURNACE. JAMES REAGAN, Philadelphia, Pa. Filed May 5, 1916. Serial No. 95,706. (Cl. 110—38.)

1. The combination with a stepped reciprocatory grate, of a stationary head block disposed at the bottom of

a coking chamber, the upper step of the grate being of greater height than the other steps, and the grate actuating mechanism being so adjusted as to always expose a fuel supporting surface of the upper step.



2. The combination with a stepped reciprocatory grate having alternately acting sections, of a stationary head block disposed at the bottom of the coking chamber, the upper step of the grate being of greater height than the other steps, and the grate actuating mechanism being so adjusted as to always expose a fuel supporting surface of the upper step.

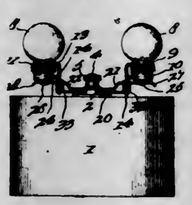
3. The combination of an inclined reciprocating grate, a rest grate situated at the lower end of said inclined grate and adapted to unobstructively discharge material rearward, the lower end of the inclined grate being perforated, vertically disposed and shaped to act as an ash pusher.

4. A lower grate section comprising two parts, one of which is a stepped plate having a perforated flange and the other is a vertical perforated plate fitting said flange.

5. The combination with a grate having hollow spaced and perforated bars, of steam supply pipes adapted to supply steam to the perforations in and the spaces between said bars and means for supplying air under pressure to said bars.

[Claims 6 to 8 not printed in the Gazette.]

1,210,365. LAMP ATTACHMENT FOR CELLS. MICHAEL C. REGAN, U. S. Army. Filed Jan. 7, 1916. Serial No. 70,791. (Cl. 240—8.5.)



1. The combination with a cell having projecting terminals, of a connector secured in electrical connection with one of said terminals and comprising a single length of wire bent centrally into a series of convolutions to provide a bearing, a lamp holder formed from a single length of wire separate from said connector and including a journal fitted to swing in said bearings, a series of convolutions arranged to provide a lamp socket, coils bent from said wire holder intermediate the journal and lamp socket, and a lamp removably fitted in said socket and having a projecting terminal adapted to electrically contact with the other terminal of the cell, substantially as described.

2. The combination with a cell having projecting terminals, of a connector bent from a single length of wire having one end coiled about one of the cell terminals, a series of convolutions bent intermediately of said wire connector to provide a bearing, an arm bent from the opposite end of said connector and extending from said bearing, a reflector holder carried on said arm and bent from the extremity of said wire connector, a lamp holder formed of a single length of wire having one end arranged to provide a journal fitted to swing in said bearing, a series of convolutions bent from the opposite free end of said wire holder and constituting a lamp socket, a coil bent from said wire holder between said journal and lamp socket, and a lamp fitted in said socket and having a projecting terminal adapted to electrically contact with the other cell terminal, substantially as described.

3. The combination with a cell having projecting terminals, of a connector consisting of a single length of wire bent to encircle one cell terminal, a series of convolutions bent from said wire connector to provide a vertically disposed bearing, a lamp holder consisting of a single length of wire bent at one end to provide a journal fitted to swing horizontally in said bearing, a series of coils bent from the opposite end of said wire holder to provide a lamp socket, coils bent from said wire holder intermediate said journal and socket to impart resiliency thereto, a lamp fitted in said socket and having a projecting headed terminal, and a resilient arm disposed in electrical contact with the other cell terminal and having a depression in its free end arranged to be occupied by the headed terminal of said lamp, substantially as described.

4. The combination with a dry cell having terminals projecting from the upper end thereof, a connector formed of a single length of wire bent to engage one of said cell terminals, series of convolutions bent from said wire connector and providing vertically disposed bearings, lamp holders comprising each a single length of wire bent at one end to form journals fitted to swing horizontally in said bearings, series of convolutions wound from the opposite ends of said wire holders, coils bent from said wire holders intermediate said journals and sockets, lamps fitted in said sockets and having projecting headed terminals, and a resilient arm in connection with the other cell terminal and having depressions for receiving the headed terminals on said lamps to removably and yieldingly secure the lamps in circuit with the cell, substantially as described.

1,210,366. DIPPER-TOOTH. MOSES E. REISINGER, Olivebridge, N. Y. Filed Apr. 14, 1915. Serial No. 21,347. (Cl. 37—16.)



1. A dipper tooth, comprising a tooth body connected to the dipper, said body having a reduced portion, the upper and lower faces of the reduced portion being concaved, forming shoulders, a tooth point bifurcated correspondingly to and fitting the reduced part of the body, to provide oppositely disposed forks, the adjacent faces of said forks being convexed to form shoulders to interengage with the shoulders of the reduced portion of the body to hold the tooth point to the body and to prevent longitudinal movement of the point, and a cross key fastening between one of the inner faces of one of the forks and one of the outer faces of the reduced portions to additionally hold the tooth point to the reduced portion.

2. A dipper tooth, comprising a tooth body having a reduced portion, the upper and lower faces of which are concaved, forming shoulders, a tooth point bifurcated correspondingly to and fitting the reduced part of the body, to provide oppositely disposed forks, the adjacent faces of said forks being convexed, forming shoulders to interengage with the shoulders of the reduced portions of the body to hold the tooth point to the body and to prevent longitudinal mvement of the point, said upper and lower faces of the reduced portion of the body and the extremities of the forks having interengaging means to prevent lateral movements of said forks.

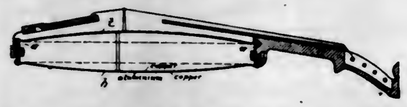
3. A dipper tooth, comprising a tooth body having a reduced portion, the upper and lower faces of which are concaved, forming shoulders, a tooth point bifurcated correspondingly to and fitting the reduced part of the body, to provide oppositely disposed forks, the adjacent faces of said forks being convexed, forming shoulders to interengage with the shoulders of the reduced portions of the body to hold the tooth point to the body and to prevent longitudinal movement of the point said concavities and convexities preventing lateral movement of said forks, the outer end of the reduced portion and the crotch of the bifurcation of the tooth point having interengaging means to prevent lateral movement of the outer end of the reduced portion.

1,210,367. METHOD OF MAKING CATALYZERS. MERCER REYNOLDS, St. Elmo, Tenn. Filed Feb. 18, 1916. Serial No. 79,177. (Cl. 23—28.)

1. The hereinbefore described method of producing a catalyzer which consists in subjecting the unreduced catalytic material to the action of a reducing gas non-explosive in the presence of oxygen.

2. The hereinbefore described method of producing a catalyzer which consists in subjecting the unreduced catalytic material to the action of a reducing gas including carbon monoxid, said reducing gas being non-explosive in the presence of oxygen.

1,210,368. RESONANCE-BODY FOR MUSICAL INSTRUMENTS. HEINRICH WACHWITZ, Nürnberg, Germany, assignor to Heinrich Wachwitz & Co., Nürnberg, Germany. Filed Jan. 26, 1914, Serial No. 814,416. Renewed Nov. 22, 1916. Serial No. 132,917. (Cl. 84—44.)



1. A resonance body for musical instruments which consists of aluminium coated with a metal of a greater specific gravity than that of aluminium.

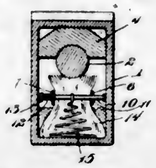
2. A resonance body for musical instruments which consists of aluminium coated on both of its surfaces with a metal of a greater specific gravity than that of aluminium.

3. A violin having its top, bottom, rim and wall made of aluminium sheet which is coated on both of its surfaces with copper.

1,210,369. LUBRICATING DEVICE. WASHINGTON J. DOZIER, Ehren, Fla., assignor of one-half to J. M. Weeks, Pasco county, Fla., and one-half to W. A. Gower and George Broadhurst, Hillsborough county, Fla. Filed June 16, 1916. Serial No. 104,044. (Cl. 64—35.)

1. A device of the class described comprising a plate, rods mounted thereon, a spring pressed plate movably mounted on said rods and co-acting with the first mentioned plate in providing a clamp, absorbent material interposed between said plates, and a yieldable support arranged at right-angles to said plates and having an end connected therewith.

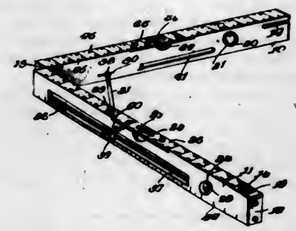
2. A device of the class described comprising a plate, rods extending laterally from one side of said plate, a second plate movably mounted on said rods, springs on the rods bearing against the second mentioned plate and co-acting therewith and with the first mentioned plate in providing a clamp, absorbent material interposed between said plates, and a yieldable support connected with the plates and having an end extending beyond the same for contact with a support.



3. A device of the class described comprising a plate, rods extending laterally from one side of said plate, expansion springs carried by said rods, a second plate movably mounted on said rods and contacting with said springs to co-act with the first mentioned plate in providing a clamp, absorbent material interposed between said plates, a rod on the second mentioned plate extending through and beyond the first mentioned plate, and a yieldable support having an end arranged between said plates and connected with the rod on the second mentioned plate.

4. A device of the class described comprising a plate having an opening therein, rods extending laterally from one side of said plate upon opposite sides of said opening, a second plate movably mounted on said rods, a rod carried by the second mentioned plate and extending through the opening in the first mentioned plate, actuating members for the second mentioned plate mounted upon the first mentioned rod, absorbent material interposed between said plates, and a helical expansion spring having its smaller end interposed between said plates and connected with the rod on the movable plate.

1,210,370. COMBINED LEVEL AND SQUARE. JARSLEY DVORAK, Melvin, Iowa. Filed Jan. 15, 1916. Serial No. 72,269. (Cl. 33—88.)

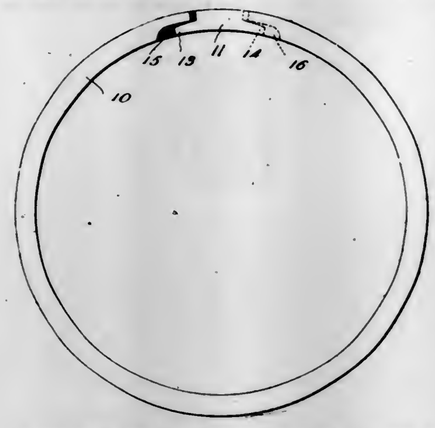


A combined level and square including hingedly connected level sections, each provided with bubble tubes and sight openings, a brace hingedly connected at one end to one section, the opposite section being formed longitudinally with a slot, a guide rod extending throughout the length of the slot, a guide block slidably mounted upon the rod, means for clamping the guide block at any desired point along the rod, and pivotal connection between the free end of the brace and guide block.

1,210,371. ELASTIC PACKING-RING. EDWIN R. GILL, Yonkers, N. Y. Filed July 26, 1915. Serial No. 41,871. (Cl. 121—108.)

1. An elastic packing ring having a joint formed by two meeting ends having cheek pieces adapted to overlap side by side and fitted together with sliding contact, each meeting end of said ring having a suitably formed recess behind and opposite its own cheek piece and opposite the

cheek piece on the other meeting end, and each cheek piece having a slightly tapering underhung projection formed by an extension of its inner portion and adapted to slide within its opposite recess while preserving a close fit with the top of said recess.



2. An elastic packing ring having a joint formed by two meeting ends having cheek pieces adapted to overlap side by side and to fit together with sliding contact, said cheek pieces each having behind and at one side of it a suitable recess and each having an underhung projection formed by an extension of its lower part whose upper surface slopes slightly toward the center of the ring to adapt it to preserve a proper fit with the top of its opposed recess.

3. An elastic packing ring having a joint formed by two meeting ends having cheek pieces adapted to overlap side by side and fit together with sliding contact, said cheek pieces having substantially one half the thickness of the ring and each remaining half thickness presenting a recess behind and at one side of the corresponding cheek pieces closed at its base by a short inward circular arc, and slightly tapering underhung projections formed by extensions of the inner portions of said cheek pieces, adapted to preserve a sliding fit with said recesses respectively, substantially as described.

4. An elastic packing ring having a joint formed by overlapping cheek pieces having underhung projections whose upper surfaces are formed to depart inward from the normal circular form, said ring having suitably formed recesses adapted to receive said projections and to form a tight fit therewith when the joint is closed by compression of said ring.

1,210,372. POST. HENRY KROPP BENTE, Sedalia, Mo., assignor of thirty-three one-hundredths to John L. Guerrant, sixteen and one-half one-hundredths to Edward D. Bosserman, and sixteen and one-half one-hundredths to Melville T. Henderson, Sedalia, Mo. Filed Jan. 4, 1916. Serial No. 70,208. (Cl. 189—23.)



1. A metal post including a trough-shaped body comprising an intermediate portion and side walls projecting in a common direction from the intermediate portion, the longitudinal edges of the side walls being provided with oppositely extended flanges disposed approximately parallel to the intermediate portion, the flanges being dished longitudinally toward the intermediate portion to form outstanding ribs adjacent the free longitudinal edges of the flanges, and to form outstanding ribs at the places of juncture between the flanges and the side walls.

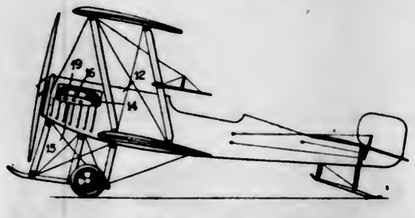
2. A metal post including a trough-shaped body comprising an intermediate portion and side walls projecting in a common direction from the intermediate portion, the longitudinal edges of the side walls being provided with oppositely extended flanges disposed approximately parallel to the intermediate portion, the intermediate portion and the flanges being dished longitudinally toward each other to form outstanding ribs adjacent the free longitudinal edges of the flanges, to form outstanding ribs at the places of juncture between the flanges and the side walls, and to form outstanding ribs at the places of juncture between the side walls and the intermediate portion.

3. A metal post made up of two Z-members including flanges which are overlapped to cause the post to comprise a trough-shaped body and oppositely projecting flanges on the longitudinal edges of the body; and means for uniting the overlapped flanges.

4. A metal post including a trough-shaped body and oppositely projecting flanges at the free edges of the body, the post being made up of a pair of Z-members having overlapped flanges provided with openings; and a wire holding means located in the openings.

5. A metal post including a trough-shaped body and oppositely projecting flanges at the longitudinal edges of the body, the post being made up of a pair of Z-members having overlapped flanges, the overlapped flanges being provided along their longitudinal edges with inter-engaged longitudinal ribs; and means for uniting the overlapped flanges of the Z-members.

1,210,373. EXHAUST-HEATER FOR AIR-INLETS. GLENN H. CURTISS, Buffalo, N. Y. Filed Sept. 18, 1915. Serial No. 51,477. (Cl. 244—25.)



1. In combination, a multiple cylinder motor, exhaust conduits therefrom occupying positions substantially in the same longitudinally extending plane, and a heater casing having a longitudinal section of streamline form inclosing said conduits in battery.

2. In combination an air craft, a driving motor therefor having an exhaust conduit, a stream-line heater casing disposed in a longitudinally extending plane incasing said exhaust conduit, a carbureting device for said motor, and a conduit connecting one end of said casing with said carbureter, said casing having an induction opening at its opposite end.

3. In combination an air craft having an inclosed body, a motor located in said body and having an exhaust conduit projecting beyond the same, a streamline heater casing disposed in a longitudinally extending plane and incasing said exhaust conduit, a carbureting device for the motor located within the body of said air craft, and an intake air conduit interconnecting said carbureter and one end of said heater casing, said heater casing having an induction port at its opposite end.

4. In combination an air craft, a multiple cylinder motor therefor, exhaust conduits for said motor lying approximately in a longitudinally extending plane, a streamline heater casing, the body of which is pierced transversely by said exhaust conduits, a carbureting device for said motor, an air intake conduit connecting said carbureter with one end of said heater casing, said heater casing having an induction opening at its opposite end.

5. In an air craft having a streamline body in combination, an internal combustion motor located in the body of said air craft and having a multiple number of cylinders, exhaust conduits projecting without said body casing and lying approximately in the same longitudinally extending plane, an air heater casing having a streamline form, transversely pierced through by said exhaust conduits in battery, a carbureting device within the body of said air craft, and an air intake connecting the said carbureter with one end of said heater casing, said casing having an air induction port at its opposite end.

[Claims 6 to 8 not printed in the Gazette.]

1,210,374. HULL FOR FLYING-BOATS. GLENN H. CURTISS, Buffalo, N. Y. Filed Oct. 18, 1915. Serial No. 56,603. (Cl. 244—2.)



1. In a hull for flying boats, a V-shaped hydroplaning bottom, and a forwardly located longitudinally elongated fin member of substantially uniform thickness in lateral extension of the V-sides of said bottom.

2. A boat hull for flying boats having a hydroplaning bottom of substantially the same width as the beam of the boat, and relatively thin fin members in lateral extension of the hydroplaning bottom, each fin tapering forwardly in substantially streamline form.

3. A hull for flying boats having a forwardly disposed V-shaped hydroplaning bottom, and fin members co-extensive with said bottom in the form of longitudinally laid planks of substantially no displacement, the width of which planks are in lateral extension of the V-sides of said bottom.

4. A hull for flying boats having a hydroplaning bottom, longitudinally elongated relatively thin fin members in lateral extension of the bottom of the boat, and exposed struts bracing the fins to the sides of the boat above the chines thereof.

5. A hull for flying boats having a hydroplaning bottom, a fin member in lateral extension thereof, a stringer laid longitudinally of the fin at a point removed from the side of the boat, and strut braces between the said stringer and the side of the boat.

[Claims 6 to 21 not printed in the Gazette.]

1,210,375. COATED FABRIC. AMMIEL F. DECKER, Brooklyn, N. Y., assignor to Tingue, Brown & Co., New York, N. Y., a Corporation of New York. Filed July 15, 1916. Serial No. 109,505. (Cl. 154—54.5.)



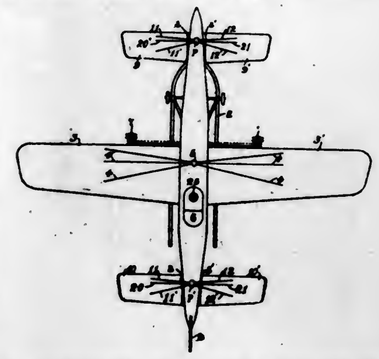
1. A printer's blanket, comprising a flexible base or body member having a coating of oil-repellent material sprayed against one face thereof.

2. A printer's blanket, comprising a flexible base or body member having a metallic coating applied to one face thereof.

3. A printer's blanket, comprising a flexible base or body member having a coating of metallic particles applied to one face thereof.

1,210,376. AEROPLANE. WILLIAM MORTON JAMES, Manchester, England, assignor of one-half to Ridley J. Urquhart, Liscard, near Birkenhead, England. Filed June 15, 1915, Serial No. 34,227. Renewed May 27, 1916. Serial No. 100,360. (Cl. 244—29.)

1. In aeroplanes, the combination with a fixed main supporting plane area, of laterally extending control planes in pairs forward and aft of said main supporting plane area, each of said control planes being pivotally attached to the body framework with the axis of rotation longitudinal, and means to support said control planes and to vary their angle simultaneously so that when said forward control planes are elevated said after control planes are depressed and vice versa.



2. In aeroplanes, the combination with fixed main supporting plane areas, of laterally extending control planes in pairs forward and aft of said main supporting plane areas, each of said control planes being pivotally attached to the body framework with the axis longitudinal, and means to support said control planes and to vary their angles simultaneously so that when said forward control planes are elevated, said after control planes are depressed and vice versa.

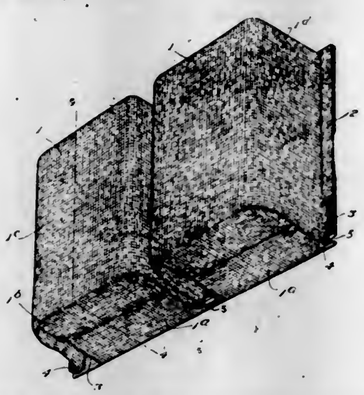
3. In aeroplanes, the combination with a fixed main supporting plane area comprising two wings, of a pair of laterally extending control planes forward of said main supporting plane area and a pair of similar control planes aft of said main supporting plane area, each pair of said control planes being pivotally attached to the body framework with the axis longitudinal, all the control planes having the same angle of incidence as that of the main supporting plane area and a normal positive dihedral angle of from 15° to 25° and means for supporting said control planes, and for simultaneously varying the angles of each pair in opposite directions so that when the front pair is elevated the after pair is depressed and vice versa.

4. In aeroplanes, the combination with fixed main supporting plane areas comprising wings in an uneven number of pairs, of two pairs of laterally extending control planes forward of said fixed supporting plane areas and two pairs of laterally extending control planes aft of said fixed supporting plane areas, each pair of said control planes being pivotally attached to the body frame work with the axis longitudinal, all the control planes having the same angle of incidence as that of the main supporting plane areas, said control planes being normally supported with a positive dihedral angle of a few degrees, and means for varying said angles from the horizontal plane to the maximum angles provided for in such a manner that when the front pairs of control planes are elevated, the after pairs are correspondingly depressed and vice versa.

5. In aeroplanes, the combination with fixed main supporting planes of laterally extending control planes forward and aft of said main supporting planes, said control planes being pivotally secured to the body framework in pairs with the axis longitudinal in each case, each pair of said control planes being supported so that each one of the pair rises and falls from and to the horizontal plane uniformly with the other and the forward and after control planes being connected with an intermediate control device so that when the forward control planes are elevated, the after control planes are depressed and vice versa.

[Claims 6 to 8 not printed in the Gazette.]

1,210,377. WOVEN CARRIER. VICTOR H. JENNINGS, Worcester, Mass., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass., a Corporation of Massachusetts. Filed June 3, 1916. Serial No. 101,451. (Cl. 224—23.)



1. A pocketed carrier having the lower margin of the laterally-extending web thereof externally of the pocket divided in thickness alongside the bottom of the pocket, and having the eyelet or the like which receives the suspensory device of other equipment set in one only of the said divisions.

2. A pocketed carrier having the laterally-extending web thereof externally of the pocket divided in thickness into two divisions alongside the bottom of the pocket, at least one division having a free edge or margin of its own, and at least one of the divisions furnished with the eyelet or the like device which receives the suspensory device of other equipment.

3. A woven pocketed carrier having the laterally-extending web thereof divided in thickness laterally alongside the bottom of the pocket into two divisions respectively constituting direct continuations of the front and back of the pocket and movable therewith apart from each other.

4. A woven carrier having an integral bellows-bottom pocket, and having the web externally of the pocket, at and alongside the bottom of the latter, divided into two divisions integral with and direct continuations of the pocket-front and adjacent bottom-section, and pocket-back and adjacent bottom-section, respectively.

5. A woven carrier having a series of pockets integral therewith, and having the body-web divided in thickness at and between the successive pockets, with at least one of the divisions having a free lower margin, and also having the eyelets or the like which receive the suspensory devices of other equipment set in one only of the said divisions.

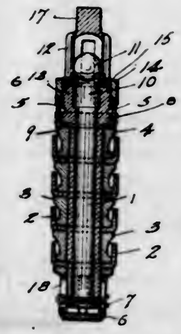
[Claims 6 to 10 not printed in the Gazette.]

1,210,378. PISTON. JOHN R. KIRLEY, New Straitsville, Ohio. Filed Jan. 25, 1915. Serial No. 4,258. (Cl. 103—63.)

1. In a device of the class described, a barrel, a crown forming a valve-cage screwed to the upper end of the barrel and provided with a lock notch, said barrel having a seat groove, a key mounted in said groove and engageable with said notch, and means from below for holding the key in engaged position with said notch.

2. The combination with a stem and a cage screwed thereon and formed with a castellated lower edge, of a collar slidable on the stem and having tongues engaging the castellated cage and the stem, whereby the cage and collar are locked against rotary movement on the stem.

3. The combination with a stem and a cage screwed thereon and formed with a castellated lower edge, a notched flange on the stem, and a collar on the stem having tongues in said flange and engaging the castellated edge of the cage.

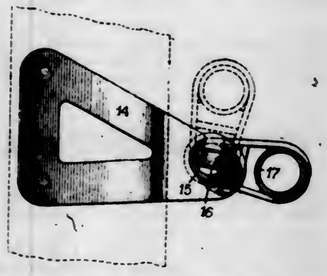


4. In a device of the class described, a barrel, a crown forming a valve cage, screwed to the upper end of the barrel and provided with a lock notch, said barrel having a seat groove, a key mounted in said groove and engageable with said notch, cups and rings on said barrel and arranged with one of the cups bearing against the lower end of the key to hold the latter in locking position and a perforated bottom detachably secured to the barrel and holding the cups and rings.

5. In a device of the class described, a barrel, a crown forming a valve cage, screwed to the upper end of the barrel and provided with a lock notch, said barrel having a seat groove, a key mounted in said groove and engageable with said notch, cups and rings on said barrel and arranged with one of the cups bearing against the lower end of the key to hold the latter in locking position and a perforated bottom detachably secured to the barrel and holding the cups and rings, the said perforated bottom being screwed to the lower end of the barrel and a cotter pin locking the perforated bottom to the barrel.

[Claims 6 and 7 not printed in the Gazette.]

1,210,379. AILERON SYSTEM. HENRY KLECKLER, Hammondsport, N. Y. Filed Jan. 28, 1915. Serial No. 4,839. (Cl. 244—31.)



1. In an aeroplane, main supporting planes, laterally disposed detachable balancing planes pivotally connected therewith normally occupying a position substantially parallel to said main planes and having an operative range limited to acute angles with said normal position, and removable by operation to a position at right angles to said main plane and bodily movement substantially vertical thereto.

2. In an aeroplane, main supporting surfaces, laterally disposed balancing rudders therefor normally lying in a plane substantially parallel to the main plane of the craft, locked pivotally to said main plane in said normal position and through operative ranges extending through an acute angle thereto, and rendered detachable by a bodily movement edgewise at substantially right angles to said main plane.

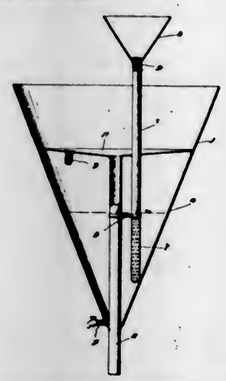
3. In an aeroplane, main support surfaces, lateral balancing surfaces pivotally connected thereto and normally occupying positions in planes substantially parallel to the planes of said main surfaces, in said position and throughout the normal operative range thereof pivotally locked to said main surface, but detachable by bodily movement in a plane substantially at right angles to said main supporting surfaces.

4. In an aeroplane, main supporting surfaces, lateral balancing surfaces pivotally connected thereto and normally occupying positions in planes substantially parallel to the planes of said main surfaces, in said position and throughout the normal operative range thereof pivotally locked to said main surface, but detachable by bodily movement in a plane substantially at right angles to said main supporting surfaces, together with operating cables to said balancing rudders including a snap connection.

5. In an aeroplane, a plurality of main supporting surfaces spaced apart by vertically extending posts, lateral balancing rudders pivotally connected directly with said posts intermediate the top and bottom supporting surfaces, normally occupying a position in a plane substantially parallel to the planes of said main supporting surfaces and movable about their pivotal axes through ranges making an acute angle with their normal planes, but detachable by a bodily movement in a plane substantially parallel to the plane of the spacing posts irrespective of the angle which the rudder makes with the main supporting surfaces.

[Claims 6 to 8 not printed in the Gazette.]

1,210,380. GASOLENE-FILTER. GUY D. LOCHRAY, Fort Dodge, Iowa, assignor of one-half to A. P. Morrey, Fort Dodge, Iowa. Filed June 22, 1916. Serial No. 105,223. (Cl. 210—16.)

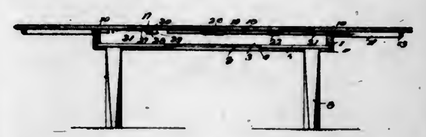


1. A device for the purpose set forth comprising an inverted conical body, a dished partition extending across the same near the upper end thereof, an inlet pipe passing through said partition and terminating near the lower end of the body, a filter in the upper end of said inlet pipe, an outlet pipe leading from the partition through the lower end of the body, a filter depending from said partition, a support for the inlet pipe projecting from the outlet pipe, and a drain leading from the lower end of the body.

2. In a device for the purpose set forth, the combination of a pipe through which fluid to be filtered is caused to flow, of a reticulated cylinder removably secured in the upper end of said pipe, a filtering medium within said reticulated cylinder, a reticulated cup fitted in the upper end of said cylinder and bearing upon said filtering medium, and a closure for the upper end of said cup.

3. In a device for the purpose set forth, the combination with a tube through which the fluid to be filtered is caused to flow, of a ring adapted to be screwed into the upper end of said tube, a reticulated cylinder having its upper end secured to said ring, a reticulated closure for the lower end of said cylinder, a filtering medium within said cylinder, a reticulated cup bearing upon the said filtering medium, and a second ring secured within the first-mentioned ring and securing said cup.

1,210,381. EXTENSION-TABLE. GEORGE A. MOORE, Tarpon Springs, Fla., assignor of one-half to R. E. Parrott, Bristol, Tenn. Filed Oct. 13, 1915. Serial No. 55,710. (Cl. 45—112.)



1. In an extension table, a frame, main leaves slidably supported upon the said frame, a plurality of extension leaves mounted within the frame for movement into and out of position for use and when in position for use being arranged to lie between the adjacent edges of the main leaves, an abutment carried by the underside of one of the extension leaves, and a resilient finger carried upon the underside of the adjacent main leaf and arranged to extend beneath the said abutment and provided with a terminal portion spaced from the abutment when the extension leaf or leaves are in position for use and designed to engage against the said abutment when the said extension leaf is moved in a direction away from the said adjacent main leaf.

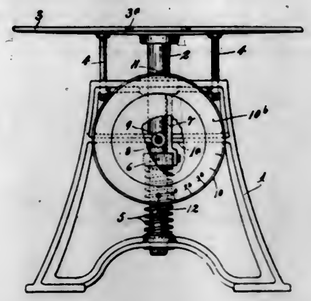
2. In an extension table, a frame, main leaves slidably supported upon said frame, a plurality of extension leaves mounted within the frame for movement into and out of position for use and when in position for use being arranged to lie between the adjacent edges of the main leaves, an abutment carried by the underside of one of the extension leaves near the edge thereof which is presented toward the adjacent main leaf, and a resilient finger upon the underside of the said adjacent main leaf, the said finger extending beyond the inner edge of the said main leaf, whereby when the extension leaf is in position for use the finger will extend therebeneath and beneath the said abutment, the said finger having an upstanding terminal portion located beyond and in spaced relation to the abutment when the extension leaf is in position for use and being arranged to engage the said abutment after the said main leaf has been slidably separated from the said extension leaf.

1,210,382. WEIGHING-SCALE. MATHIAS J. WEBER, Chicago, Ill., assignor to Mason, Davis & Co., Chicago, Ill., a Corporation of Maine. Filed Nov. 20, 1915. Serial No. 62,513. (Cl. 73—46.)

1. In a scale, the combination with a frame, of a spring-supported platform movable vertically on said frame, a dial set in an approximately vertical plane and rotatably mounted on said frame, connections between said dial and platform whereby the former will be rotated by vertical movement of the latter, and a pointer secured in respect to said frame and overlying said dial, and the front end of said platform projecting over said dial but having a notch directly above said pointer, whereby the said pointer and extreme upper portion of said dial may be seen by a person standing on the platform.

2. In a scale, the combination with a frame, of a spring-supported platform movable vertically on said frame, a dial set approximately on a vertical plane and mounted to rotate on said frame, connections between said dial and platform whereby the former will be rotated by vertical movements of the latter, said dial being in the form of a

wheel having a graduated peripheral cylindrical surface and a graduated annular face surface, and pointer secured in respect to said frame and coöperating, one with each of the graduated surfaces of said dial.



3. In a scale, the combination with a frame, of a spring-supported platform movable vertically on said frame, a dial rotatably mounted on said frame, connections between said dial and platform whereby the former will be rotated by vertical movements of the latter, the said dial being in the form of a wheel having a graduated peripheral cylindrical flange and a graduated conical web, and pointers secured in respect to said frame and coöperating one with said graduated peripheral flange and one with said graduated conical surface.

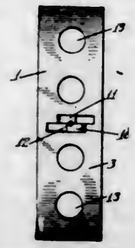
1,210,383. BRAKE-SHOE BACK. CHARLES W. ARMBRUST, Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 3, 1916. Serial No. 70,017. (Cl. 188—82.)



1. A brake shoe back comprising a plate which is constructed to be bent to form a holding member and to produce apertures therein when bent, said apertures forming a means through which the metal of said shoe may pass to form a means whereby said shoe and back are held together, said apertures and said holding member being formed from a blank which is composed of laterally separated recessed portions and a member which extends across and connects said laterally separated members, which when bent causes the recessed portions to be brought together and form said apertures.

2. A brake shoe back comprising a plate having recessed portions, said plate being constructed to be bent to form an apertured projection to receive a key, said recessed portions forming an aperture when said plate is bent through which the metal of the shoe may pass to secure said shoe and back together, and downwardly extending strengthening ribs at the side edges of said plate.

1,210,384. BRAKE-SHOE. CHARLES W. ARMBRUST, Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Filed Feb. 19, 1916. Serial No. 79,237. (Cl. 188—82.)



1. A back for a brake shoe provided with a key lug, said key lug consisting of two untwisted fingers drawn out of the body of the back without bending the remaining portions of the said back.

2. A back for a brake shoe provided with a key lug, said key lug consisting of two coöperating, interlocking fingers formed out of the body of the back.

3. A back for a brake shoe provided with a key lug, said key lug consisting of two oppositely extending untwisted fingers drawn out of the body of the back without bending the remaining portions of the said back.

4. A back for a brake shoe provided with a key lug, said key lug consisting of two coöperating, interlocking oppositely extending fingers formed out of the body of the back.

5. A back for a brake shoe provided with a key lug, said key lug consisting of two untwisted fingers drawn out of the body of the back, each forming a portion of said lug without bending the remaining portions of the said back.

[Claims 6 to 13 not printed in the Gazette.]

1,210,385. LIQUID-GAGE. FRANZ HUNZIKER, Lucerne, Switzerland. Filed Apr. 24, 1915. Serial No. 23,675. (Cl. 73—54.)



1. A liquid gage comprising in combination a tube having an opening at its top, and two sockets at the lower end, a hollow bolt passing through said sockets, means to fix said tube on said bolt and means for attaching said bolt on the liquid container.

2. A liquid gage comprising in combination a tube having an opening in its top, and two sockets at the lower end, a hollow bolt passing through said sockets provided with cross borings, a nut adapted to hold said tube on said bolt, and adapted to close said cross borings substantially as described and for the purpose set forth.

3. A liquid gage comprising in combination a tube having an opening in its top, and two sockets at the lower end, a hollow bolt passing through said sockets provided with cross borings, a nut adapted to hold said tube on said bolt, a cap screwed on said bolt closing the boring of the shaft substantially as described and shown and for the purpose set forth.

4. A liquid gage comprising in combination, a translucent tube open at the top and closed at the bottom, with lateral openinga intermediate its ends for the introduction of the liquid, and a bolt passing through said openings adapted to secure said gage to a liquid container.

1,210,386. AUTOMATIC TELEPHONE SYSTEM. WILLIAM KAIBLING, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed June 5, 1911, Serial No. 631,480. Renewed Apr. 4, 1913. Serial No. 758,964. (Cl. 179—18.)



1. A telephone system including a line switch, a substation telephone line connected thereto, a pair of relays energized responsive to removal of the receiver upon initiation of a call over said line for controlling the selecting movement of said switch, said relays being mechanically associated with said switch whereby said switch is restored when the receiver of the calling substation is again replaced upon its switchhook.

2. A telephone system including a substation telephone line, a line switch for said line comprising multiply connected contacts, wipers for said switch connected with said line, a pair of electromagnets energized upon initiation of a call over said line, means for advancing said wipers into successive engagement with said contacts, responsive to said electromagnets, and release mechanism for said wipers jointly controlled by said electromagnets.

3. A telephone system including a substation telephone line, a line switch for said line comprising multiply connected contacts, wipers for said switch connected with said line, a pair of electromagnets energized upon initiation of a call over said line, means for advancing said wipers into successive engagement with said contacts, said means being jointly controlled by said electromagnets upon their said energization, and release mechanism for said wipers mechanically associated with said electromagnets and jointly controlled thereby.

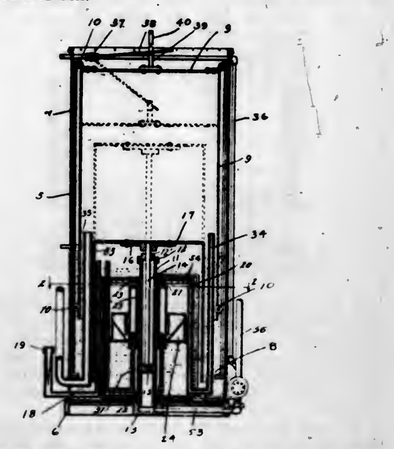
4. A telephone system including a substation telephone line, a line switch for said line comprising multiply connected contacts, wipers for said switch connected with said line, a pair of relays energized upon initiation of a call over said line, an electromagnet and associated mechanism for advancing said wipers into successive engagement with said contacts, said electromagnet having its circuit jointly controlled through contacts of the relays upon their said energization, resilient means for restoring said wipers, and mechanism controlling said resilient means, mechanically associated with said means and relays and jointly controlled by said relays.

5. A telephone system comprising individual line switches, sets of multiply connected bank terminals therefor, wiper sets for each of said switches, a motor magnet for each of said switches adapted for advancing their wipers to connect with the associated contact sets successively, a pair of relays for each switch energized upon initiation of a call over the associated line, for controlling the selection of an idle one of said contact sets, and resilient release means for each wiper set jointly controlled by the associated pair of relays.

[Claims 6 to 22 not printed in the Gazette.]

1,210,387. AIR-PUMP. CHARLES CAREY MANKER, Ogden, Utah, assignor to Globe Heat Light and Power Company, Ogden, Utah, a Corporation of Utah. Filed Feb. 5, 1916. Serial No. 76,498. (Cl. 230—17.)

1. The combination with a tank and a vertically movable bell mounted therein, of a cylinder mounted in the tank and extending vertically therein and provided with an inlet port at one end thereof and an outlet port at its opposite end, a piston and piston rod movable within the cylinder, a hood carried by the piston rod adapted to draw air within the bell upon its upward movement and to force the air into a receptacle upon its downward movement, a valve mechanism controlling a fluid under pressure and having communication with the inlet and outlet ports, the valve mechanism being actuated to cut off the supply of fluid from the cylinder when the piston has passed the outlet port upon its upward movement, the descending of the piston forcing compressed fluid through the outlet to retain the valve mechanism open to exhaust to allow the descent of said bell.



2. The combination with a tank and a vertically movable bell mounted therein, of a hollow member disposed below the bottom of the tank, a cylinder threaded into the hollow member and extending vertically within the tank having a fluid inlet and a fluid outlet, a piston and piston rod movable within the cylinder, a plate mounted upon the upper end of the piston rod, a hood secured to said plate and adapted to draw air within the bell upon its upward movement and to force the air into a receptacle upon its downward movement, a valve mechanism controlling a fluid under pressure and having communication with the inlet and outlet ports, the valve mechanism being actuated to cut off the supply of fluid from the cylinder when the piston has passed the outlet port upon its upward movement, the descending of the piston forcing compressed fluid through the outlet to retain the valve mechanism open to exhaust to allow the descent of said bell.

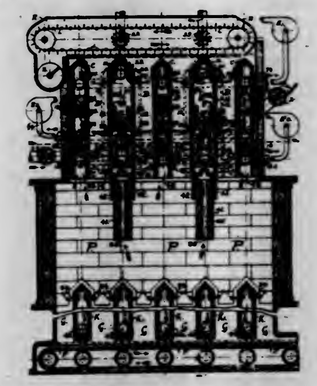
1,210,388. APPARATUS FOR DISTILLING FUEL. HENNING FRIEDRICH WALLMANN, Chicago, Ill. Filed May 9, 1912. Serial No. 696,720. (Cl. 48—73.)

1. In an apparatus for fractionally distilling solid fuel, a distillation conduit constructed to convey solid fuel from a locality of lower toward one of higher temperature, means for heating fuel conveyed within said conduit, an inlet for fuel and an outlet for solid combustible into and out of respectively said conduit, a plurality of outlets for distillates from said conduit and intermediate between said inlet and said outlet at localities of temperatures different from each other, and a plurality of canals each communicating through one of said outlets for distillates with said conduit, and said canals adapted to keep apart distillates of different chemical character.

2. In an apparatus for distilling fuel, a distillation conduit, a movably supported heating vessel adapted to transfer heat to solid fuel in said conduit, a movably supported vessel for the discharge of distillates from the said conduit, and mechanical means for moving the two said vessels for agitating fuel in said conduit.

3. In an apparatus for distilling fuel, a distillation conduit, two movable side-walls of the said conduit on opposite sides thereof, means for transferring heat to solid

fuel in said conduit, a canal for the discharge of distillates from the said conduit, and mechanical means for moving said two side-walls and for thereby agitating fuel in said conduit.



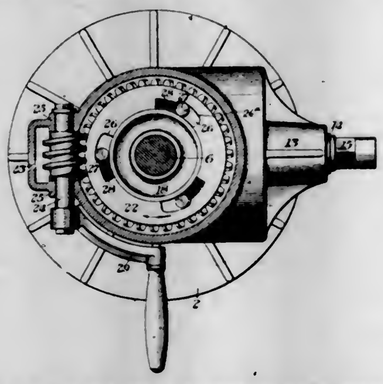
4. In an apparatus for distilling fuel, a distillation conduit, a movably supported heating vessel adapted to transfer heat to fuel in said conduit, a combustion chamber within said vessel, means for supplying fuel and air into said combustion chamber, and mechanical means adapted to be continuously in operation for moving said vessel and for thereby agitating fuel in said conduit.

5. In an apparatus for distilling fuel, a distillation conduit for distilling fuel, two stationary side-walls of the said conduit on opposite sides thereof, two movable side-walls of the said conduit on opposite sides thereof, and mechanical means adapted to move the said two movable side-walls for thereby agitating fuel in said conduit.

[Claims 6 to 60 not printed in the Gazette.]

REISSUES.

14,235. LIFTING-JACK. ISAIAH E. HINDMAN, Crafton, Pa., assignor to The Duff Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 24, 1916. Serial No. 99,704. Original No. 1,052,921, dated Feb. 11, 1913, Serial No. 719,018, filed Sept. 6, 1912. (Cl. 254—103.)



1. A lifting jack having an elevating screw, means for actuating said screw to elevate it, an automatic clutch for preventing the rotation of the screw in one direction, and means for rotating the clutch to permit the screw to move downwardly under the action of the load; substantially as described.

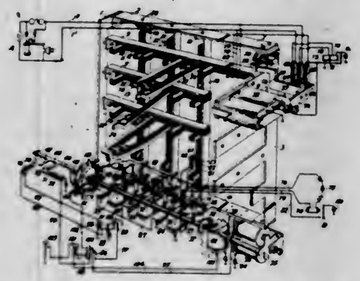
2. A lifting jack having an elevating screw, beveled gears for rotating the screw to elevate it, a worm and worm wheel connection with said screw, and an automatic clutch connection between the worm wheel and the screw for preventing the rotation of the screw in one direction relative to the worm wheel but which will permit free movement of the screw relative to the worm wheel in the other direction; substantially as described.

3. A lifting jack having an elevating screw, gearing for rotating the screw to elevate it, a worm wheel, a clutch connection between said worm wheel and the screw arranged to prevent the screw from rotating relative to the worm wheel under the action of the load, a worm engaging said worm wheel and normally preventing rotation thereof, and means for actuating said worm to rotate the worm wheel; substantially as described.

4. A lifting jack having a lifting screw, two independent sets of mechanisms connected to the screw, one of said sets of mechanisms including an automatic clutch to prevent the screw from rotating in one direction and to permit free rotation of the screw in the other direction by the other mechanism; substantially as described.

5. A lifting jack having an elevating screw, means for rotating said screw to elevate it, a rotatable, but normally stationary clutch connected to said screw and arranged to permit the screw to rotate in a direction to elevate it but to prevent it from rotating in the opposite direction, and means to rotate said clutch to permit the screw to rotate it in said opposite direction to lower it lower; substantially as described.

14,236. LINE-SWITCH. JOHN NEWBERRY REYNOLDS, Greenwich, Conn., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed June 8, 1915. Serial No. 32,977. Original No. 1,131,734, dated Mar. 16, 1915, Serial No. 766,879, filed May 10, 1913. (Cl. 179—27.5.)



1. In a switch, a group of terminals at said switch, a group of other circuit terminals for engagement with said first circuit terminals, groups of rotatable shafts corresponding to said groups of terminals, and means whereby the successive rotation of a shaft of each group will cause interengagement of a pair of terminals.

2. In combination telephone circuits, a switch associated therewith, terminals of said circuits at said switch, other circuit terminals for engagement with said first circuit terminals, groups of rotatable shafts corresponding to said circuits adjacent and at an angle to each other, and means whereby the successive rotation of a pair of intersecting shafts will cause interengagement of the corresponding terminals.

3. In a switch, a group of line terminals, other circuit terminals arranged for engagement with said line terminals respectively, groups of bars arranged adjacent to each other in intersecting planes, and means for rotating a bar of each group in a predetermined order, whereby engagement of a line terminal with one of said other circuit terminals will be effected.

4. In a telephone system, subscribers' lines and trunk lines, an exchange, terminals of said lines and trunk lines respectively at said exchange, and means for connecting said line terminals to said trunk terminals, said means comprising rotatable bars individual to said subscribers' lines and said trunk lines respectively.

5. In a switch, a plurality of line bars and trunk bars pivotally mounted adjacent each other in intersecting planes, multipled terminals of said lines and of said trunks on said line bars and trunk bars respectively, and means for successively rotating said bars, whereby engagement between said line terminals and trunk terminals may be effected.

6. In a switch, the combination of sets of intersecting shafts, contact sets at the intersections of said shafts, means, effective upon successive angular displacement of a shaft of one set and a shaft of the other set, but ineffective upon such displacement of the shafts in reverse order, for operating a contact set.

7. In a switch, the combination of sets of intersecting shafts, contact sets at the intersections of said shafts, means effective upon conjoint angular displacement of two intersecting shafts for operating a contact set, and electromagnets for rocking said shafts.

8. In combination a pair of telephone circuits, a switch associated therewith, rotatable shafts, terminals of said circuits carried by said shafts respectively, said terminals being so arranged that the successive rotation of said shafts will cause interengagement thereof.

9. In combination, two groups of circuits, a switch associated therewith, terminals of each group at said switch, sets of rotatable shafts, the shafts of one set being at an angle to those of the other, and means whereby the selective and successive rotation of a shaft of each set will effect interengagement of the terminals of a predetermined circuit of each group.

10. In combination, two groups of circuits, a switch comprising sets of rotatable shafts, the shafts of one set being at an angle to those of the other, multiple terminals of the circuits of said groups carried by the shafts of said sets respectively, and means whereby the selective and successive rotation of a shaft of each set will effect interengagement of the terminals of a predetermined circuit of each group.

11. In combination, two groups of telephone circuits, a switch comprising sets of rotatable shafts, the shafts of one set being at an angle to those of the other, multiple terminals of the circuits of said groups carried by the shafts of said sets respectively, and means whereby the selective and successive rotation of a shaft of each set in a predetermined order only will effect interengagement of the terminals of a predetermined circuit of each group.

12. In combination, two groups of circuits, a switch comprising sets of rotatable shafts, the shafts of one set being at an angle to those of the other, multipled terminals of the circuits of said groups carried by the shafts of said sets respectively, means whereby the selective and successive rotation of a shaft of each set will effect interengagement of the terminals of a predetermined circuit of each group, and means whereby some one of the shafts of one set is normally maintained rotated to a set or selected position.

13. In combination, two groups of circuits, a switch comprising sets of rotatable shafts, the shafts of one set being at an angle to those of the other, multipled terminals of the circuits of said groups carried by the shafts of said sets respectively, means whereby the selective and successive rotation of a shaft of a set will effect interengagement of the terminals of a predetermined circuit of each group, and means for then actuating said shafts to move their respective terminals out of the line of travel of the terminals carried by the shafts of the other sets.

14. In combination, two groups of circuits, a switch comprising two sets of rotatable shafts, the shafts of one set being at an angle to those of the other, contact terminals of the circuits of said groups carried by the shafts of said sets respectively, at adjacent points, means whereby the rotation of a shaft of each set in a definite order will effect engagement of their respective contacts, and means comprising a rotatable and longitudinally movable rod whereby some one of the shafts of one set is normally maintained rotated to a set or selected position.

15. In combination, two groups of circuits, a switch comprising two sets of rotatable shafts, the shafts of one set being at an angle to those of the other, contact terminals of the circuits of said groups carried by the shafts of said sets respectively, means whereby the rotation of a shaft of each set in a definite order will effect engagement of their respective contacts, a lever projecting from each of the shafts of one set, a rotatable and longitudinally movable rod adjacent said levers, spirally arranged pins on said rod, one for each lever, means for rotating said rod to place a pin in operative relation to one of said levers, and means for moving said rod longitudinally whereby some one of said shafts is normally maintained rotated to a set or selected position.

16. In combination, two groups of circuits, a switch comprising two sets of rotatable shafts, the shafts of one set being at an angle to those of the other, contact terminals of the circuits of said groups carried by the shafts of said sets respectively, means whereby the rotation of a shaft of each set in a definite order will effect engagement of their respective contacts, the shafts of one set being provided with spring retracted levers, a rotatable and longitudinally movable rod adjacent to said levers, a series of spirally arranged pins on said rod, one for each lever, means for rotating said rod to position one of said pins in operative relation to a lever, means for longitudinally moving said rod against said lever to rotate the shaft of a selected trunk, a catch for engaging said lever to retain said shaft in set position, and means for disengaging said catch upon completing a connection, whereby the other terminals of said shaft will be positioned out of the line of travel of other terminals.

17. In combination, two groups of circuits, a switch comprising sets of rotatable shafts, multiple terminals of the circuits of said groups carried by the shafts of said sets, respectively, means for rotating a shaft of each set whereby interengagement of the terminals of a circuit of each group will be effected, and means for thereupon moving said shafts to position the unengaged terminals of each out of the line of travel of the terminals carried by the shafts of the other set.

18. In combination, two groups of circuits, a switch comprising sets of rotatable shafts, multiple terminals of the circuits of said groups carried by the shafts of said sets respectively, means for rotating a shaft of each set whereby interengagement of the terminals of a circuit of each group will be effected, and means for thereupon moving one of said shafts longitudinally and for reversely rotating the other to position the unengaged terminals of each out of the line of travel of the terminals carried by the shafts of the other set.

19. In combination, a group of calling lines, a group of trunks, automatic switching means for extending any of said calling lines to any of said trunks, means for preselecting a plurality of said trunks for seizure in succession by calling lines, and electrical testing means for controlling the operation of said last mentioned means.

20. In combination, two groups of lines, a plurality of switching means for connecting a line of one group to a free line of the other group, mechanical means for preselecting one of said switching means for operation, and electrical testing means for selecting another one of said switching means for the successive operation.

21. In combination, incoming lines and outgoing lines, terminals for said incoming lines, switching devices each carrying the movable terminals of one of said outgoing lines, electromagnetic means for actuating said movable terminals adapted to connect a calling incoming line to an outgoing line, means for physically preselecting one of said switching devices and means for electrically allotting for preselection another of said switching devices.

22. In combination, two groups of lines, means for extending a calling line of one group to a free line of the other group, mechanical means for preselecting one line

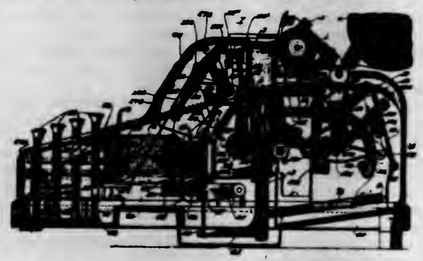
of said other group and electrical testing means for definitely allotting for mechanical preselection another line of said other group.

23. In a telephone exchange system, incoming lines and outgoing lines, normally inactive contacts for each of said lines, actuating devices for causing engagement of the contacts of said incoming lines with the contacts of said outgoing lines, means for maintaining an idle one of said contacts in an actuated position for first operation, and electrical testing means for predetermining an idle inactive contact for second operation.

24. In combination, incoming lines and outgoing lines, terminals for said incoming lines, switching devices, each carrying movable terminals of one of said outgoing lines, electromagnetic means for actuating said movable terminals to connect with the terminals of calling incoming lines, an electromagnetic mechanism for moving an idle one of said movable terminals into a position in which it may engage the terminals of a calling incoming line, and electrical testing means for definitely allotting another one of said movable terminals for said movement.

25. In combination, incoming lines and outgoing lines, a switch comprising two sets of rotatable shafts, the shafts of one set being at an angle to those of the other, contact terminals of said incoming and outgoing lines carried by the shafts of said sets respectively, means whereby the rotation of a shaft of each set in a definite order will effect engagement of their respective contacts, and means comprising a movable rod whereby some one of the shafts of one set is normally maintained rotated to a set position and another one of the shafts of said set is preselected for rotation.

14,237. ADDING AND LISTING MACHINE. GUSTAF DAVID SUNDSTRAND, Rockford, Ill., assignor to Rockford Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Nov. 13, 1916. Serial No. 131,160½. Original No. 1,198,487, dated Sept. 19, 1916, Serial No. 824,610, filed Mar. 14, 1914. (Cl. 235—60.)



1. In an adding machine, a plurality of actuators, each having a movable stop portion, a stationary group of stops, means for setting the stops, and means for moving said movable stop portions into operative alinement with the set stops.

2. In an adding machine, a plurality of actuators, an arm pivoted to each actuator, a stop on each arm, a stationary group of stops, means for setting the stops, and means for swinging said arms to place the stops on said arms in operative alinement with the set stops.

3. In an adding machine, a plurality of vertically movable actuators, each having a stop portion movable in a horizontal plane, a stationary group of stops, means for setting the stops, and means for moving said stop portions into operative alinement with the set stops.

4. In an adding machine, a plurality of vertically movable actuators, an arm pivoted to each actuator to swing in a horizontal plane, a stop portion on each arm, a stationary group of stops, means for setting the stops, and means for swinging said arms into operative alinement with the set stops.

5. In an adding machine, a plurality of actuators, an arm pivoted to each actuator, a stop on each arm, a group of stops, means for setting the stops, the stops on the arms being normally at one side of the group of stops, and means for swinging said arms toward the group of stops to place the stops on said arms in operative alinement with the set stops.

6. In an adding machine, a plurality of vertically movable actuators, each having a stop portion movable in a horizontal plane, a group of stops located above the normal horizontal plane of the stop portions, means for setting the stops, and means for moving said stop portions into operative alinement with the set stops.

7. In an adding machine, a plurality of vertically movable actuators, an arm connected to each actuator to swing in a horizontal plane, a stop portion on each arm, a group of stops, means for setting the stops, and means for swinging said arms into operative alinement with the set stops.

8. In a stop mechanism for adding machines, a stationary group of stops, a plurality of push pins, means to cause the series of push pins to swing as a unit across the series of stops, and means for actuating the push pins to set the stops.

9. In a stop mechanism for adding machines, a stationary group of stops, a plurality of push pins mounted to swing on a common axis, means for swinging the free ends of said push pins into position adjacent the various stops, and means for actuating said push pins to set the stops.

10. In a stop mechanism for adding machines, a stationary group of stops, a pivoted bracket, a plurality of key-actuated levers, a push pin pivoted to each lever, the free ends of said push pins being supported by said bracket, means for swinging said bracket to carry the free ends of the push pins into operative relation to the various stops, and means for moving said bracket in the opposite direction.

11. In a stop mechanism for adding machines, a group of stops, a push pin, means to cause the free end of the push pin to swing across the group of stops, and means for projecting the push pin against the stops.

12. In a stop mechanism for adding machines, a stationary group of stops, a plurality of push pins, means for moving said push pins into position adjacent the various stops, and means for projecting said push pins against the stops.

13. In a stop mechanism for adding machines, a stationary group of stops, a pivoted bracket, a plurality of key-actuated levers, a stop-setting member connected to each lever, the free ends of said members being supported by said bracket, and means for swinging said bracket to carry the free ends of the members into and out of operative relation to the various stops.

14. In a stop mechanism for adding machines, a stationary group of stops, a movable support, a plurality of stop-setting members carried by said support, means for moving said support to carry said members into and out of operative relation to the various stops, and means for actuating said stop-setting members.

15. In a stop mechanism for adding machines, a stationary group of stops arranged in tiers, a pivoted bracket, a tier of push pins supported by said bracket, means for swinging said bracket to carry said push pins into and out of operative relation to the several tiers of stops, and means for projecting the push pins against the stops.

16. In a stop mechanism for adding machines, a stationary group of stops arranged in tiers, a tier of push pins, means for moving said push pins into and out of operative relation to the several tiers of stops, and means for projecting said push pins against the stops.

17. In a stop mechanism for adding machines, a stationary group of stops arranged in tiers, a movable support, a tier of push pins carried by said support, means for moving said support to carry said push pins into and out of operative relation to the several tiers of stops, and means for projecting the push pins against the stops.

18. In a stop mechanism for adding machines, a plurality of key-actuated levers having a common axis, a push pin connected to each lever, a group of stops adapted to be set by said pins, and means for causing relative movement between the push pins on the one hand and the group of stops on the other.

19. In a stop mechanism for adding machines, a plurality of key-actuated levers having a common axis, a push pin pivoted to each lever, the pivotal axes of said pins being equidistant from the axis of said levers, a group of stops adapted to be set by said push pins, and means for causing relative movement between the push pins on the one hand and the group of stops on the other.

20. In a stop mechanism for adding machines, a stationary group of stops, a pivoted support, a plurality of key-actuated levers, a push pin pivoted to each lever and adapted to set the stops, the free ends of said push pins being supported by said support, a spring tending to move said support in one direction, a ratchet bar, a tooth on said support arranged to engage said bar, and means carried by said support for disengaging said ratchet bar from said tooth.

21. In a stop mechanism for adding machines, a stationary group of stops, a pivoted support, a plurality of key-actuated levers, a push pin pivoted to each lever and adapted to set the stops, the free ends of said push pins being carried by said support, a spring tending to move said support in one direction, a ratchet bar, a tooth on said support adapted to engage said bar, another lever arranged to be moved by any of the key-actuated levers, and a part pivoted to said other lever, adapted to disengage the ratchet bar from said tooth.

22. In a stop mechanism for adding machines, a stationary group of stops, a pivoted support, a plurality of key-actuated levers having a common axis, a stop-setting pin pivoted to each lever, the free ends of said push pins being carried by said support, a spring tending to move said support in one direction, another lever pivoted on the same axis as the key-actuated levers, a ratchet bar, a tooth on said support arranged to engage said bar, and a push pin on said other lever, arranged to disengage said bar from said tooth.

23. In a stop mechanism for adding machines, a plurality of key-actuated levers having a common axis, a group of stops, a stop-setting device connected to the free end of each lever, and means for causing relative movement between the push pins on the one hand and the group of stops on the other.

24. In a stop mechanism for adding machines, a stationary group of stops, a movable support, a plurality of key-actuated levers, a stop-setting device connected to each lever, said devices being supported by said support, a spring tending to move said support in one direction, a ratchet bar, a tooth on said support arranged to engage said bar, and means carried by said support for disengaging said ratchet bar from said tooth.

25. In a stop mechanism for adding machines, a stationary group of stops, a movable support, a plurality of key-actuated levers, a stop-setting push pin pivoted to each lever, the free ends of said push pins being carried by said support, a spring tending to move said support in one direction, a ratchet bar, a tooth on said support adapted to engage said bar, another lever arranged to be moved by any of the key-actuated levers, and a push-pin pivoted to said other lever, adapted to disengage the ratchet bar from said tooth.

26. In a stop mechanism for adding machines, a stationary group of stops, a movable support, a plurality of key-actuated levers having a common axis, a push pin pivoted to each lever and adapted to set said stops, the free ends of said push pins being carried by said support, a spring tending to move said support in one direction, another lever pivoted on the same axis as the key-actuated levers, a universal rod connected to said other lever and extending adjacent to the first mentioned levers, a ratchet bar, a tooth on said support arranged to engage said bar, and a push pin on said other lever, arranged to disengage said bar from said tooth.

27. In an adding machine, a stationary group of stops, a plurality of push pins, means for moving said push pins into position adjacent the various stops, means for projecting said push pins against the stops, a plurality of actuators each having a movable stop portion, said push-pin-moving means being arranged to move said movable stop portions into operative alinement with the stops.

28. In an adding machine, a stationary group of stops, a pivoted bracket, a plurality of key-actuated levers, a stop-setting member connected to each lever, the free ends of said members being supported by said bracket; means for swinging said bracket to carry the free ends of said members into and out of operative relation to the various stops, a plurality of actuators, each having a movable stop portion; and means connecting said stop portions to said support, whereby said stop portions are moved into operative alinement with the stops.

29. In an adding machine, a group of stops, a push pin, means to cause the free end of the push pin to swing across the group of stops, means for projecting the push pin against the stops, a plurality of actuators, each having a movable stop portion, and means connecting said movable stop portions to said pin-swinging means, whereby said stop portions are moved into operative alinement with the stops.

30. In an adding machine, a stationary group of stops, a bracket pivoted to swing in a horizontal plane, stop-setting members supported by said bracket, means for actuating said members, means for swinging said bracket to carry said members into and out of operative relation to the various stops, a plurality of actuators, each having a movable stop portion, and means connecting said movable stop portions to said bracket for synchronous movement, whereby said stop portions are moved into and out of operative alinement with the stops.

31. In an adding machine, a stationary group of stops, a pivoted bracket, a plurality of key-actuated levers, a push pin pivoted to each lever, the free ends of said push pins being supported by said bracket, means for swinging said bracket to carry the free ends of the push pins into and out of operative relation to the various stops, a plurality of actuators, an arm pivoted to each actuator, a stop on each arm, a slide engaging the last mentioned stops, said slide being movable transversely of the first mentioned stops, and a connection between said slide and said swinging bracket for effecting synchronous movement of said slide and bracket.

32. In an adding machine, a plurality of vertically movable actuators, an arm pivoted to each actuator to swing in a horizontal plane, a stop on each arm, a group of stops, means for setting the last mentioned stops, a slide movable in a horizontal plane adjacent to the group of stops, the stops on said arms being guided in said slide, and means for moving the slide to carry the stops on said arms into operative alinement with the second mentioned stops.

33. In an adding machine, a group of stops, a plurality of push pins at one side of said group of stops, means for projecting said push pins against the stops, a plurality of actuators each having a movable stop portion, said actuators being located at the other side of said group of stops, and mechanism for moving said movable stop portions and said push pins alongside the group of stops.

34. In an adding machine, a stationary group of stops, a support movable alongside the group of stops, a plurality of key-actuated levers, a stop-setting member connected to each lever, the free ends of said members being supported by said support; means for moving said support to carry the free ends of said members into and out of operative relation to the various stops, a plurality of actuators, each having a movable stop portion; and means to cause said movable stop portions to move with said support.

35. In an adding machine, a group of stops, a push pin, means to cause the free end of the push pin to swing along one side of the group of stops, means for projecting the push pin against the stops, a plurality of actuators at the other side of the group of stops, each actuator having a movable stop portion, and means connecting said movable stop portion to said pin-swinging means, whereby said stop portions are moved into operative alinement with the stops.

36. In an adding machine, a stationary group of stops, a pivoted bracket, a plurality of stop-setting members sup-

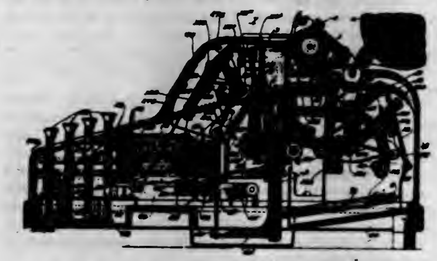
of said other group and electrical testing means for definitely allotting for mechanical preselection another line of said other group.

23. In a telephone exchange system, incoming lines and outgoing lines, normally inactive contacts for each of said lines, actuating devices for causing engagement of the contacts of said incoming lines with the contacts of said outgoing lines, means for maintaining an idle one of said contacts in an actuated position for first operation, and electrical testing means for predetermining an idle inactive contact for second operation.

24. In combination, incoming lines and outgoing lines, terminals for said incoming lines, switching devices, each carrying movable terminals of one of said outgoing lines, electromagnetic means for actuating said movable terminals to connect with the terminals of calling incoming lines, an electromagnetic mechanism for moving an idle one of said movable terminals into a position in which it may engage the terminals of a calling incoming line, and electrical testing means for definitely allotting another one of said movable terminals for said movement.

25. In combination, incoming lines and outgoing lines, a switch comprising two sets of rotatable shafts, the shafts of one set being at an angle to those of the other, contact terminals of said incoming and outgoing lines carried by the shafts of said sets respectively, means whereby the rotation of a shaft of each set in a definite order will effect engagement of their respective contacts, and means comprising a movable rod whereby some one of the shafts of one set is normally maintained rotated to a set position and another one of the shafts of said set is preselected for rotation.

14,237. ADDING AND LISTING MACHINE. GUSTAF DAVID SUNDSTRAND, Rockford, Ill., assignor to Rockford Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Nov. 13, 1916. Serial No. 131,160½. Original No. 1,198,487, dated Sept. 19, 1916, Serial No. 824,610, filed Mar. 14, 1914. (Cl. 235—60.)



1. In an adding machine, a plurality of actuators, each having a movable stop portion, a stationary group of stops, means for setting the stops, and means for moving said movable stop portions into operative alinement with the set stops.

2. In an adding machine, a plurality of actuators, an arm pivoted to each actuator, a stop on each arm, a stationary group of stops, means for setting the stops, and means for swinging said arms to place the stops on said arms in operative alinement with the set stops.

3. In an adding machine, a plurality of vertically movable actuators, each having a stop porfion movable in a horizontal plane, a stationary group of stops, means for setting the stops, and means for moving said stop portions into operative alinement with the set stops.

4. In an adding machine, a plurality of vertically movable actuators, an arm pivoted to each actuator to swing in a horizontal plane, a stop portion on each arm, a stationary group of stops, means for setting the stops, and means for swinging said arms into operative alinement with the set stops.

5. In an adding machine, a plurality of actuators, an arm pivoted to each actuator, a stop on each arm, a group of stops, means for setting the stops, the stops on the arms being normally at one side of the group of stops, and means for swinging said arms toward the group of stops to place the stops on said arms in operative alinement with the set stops.

6. In an adding machine, a plurality of vertically movable actuators, each having a stop portion movable in a horizontal plane, a group of stops located above the normal horizontal plane of the stop portions, means for setting the stops, and means for moving said stop portions into operative alinement with the set stops.

7. In an adding machine, a plurality of vertically movable actuators, an arm connected to each actuator to swing in a horizontal plane, a stop portion on each arm, a group of stops, means for setting the stops, and means for swinging said arms into operative alinement with the set stops.

8. In a stop mechanism for adding machines, a stationary group of stops, a plurality of push pins, means to cause the series of push pins to swing as a unit across the series of stops, and means for actuating the push pins to set the stops.

9. In a stop mechanism for adding machines, a stationary group of stops, a plurality of push pins mounted to swing on a common axis, means for swinging the free ends of said push pins into position adjacent the various stops, and means for actuating said push pins to set the stops.

10. In a stop mechanism for adding machines, a stationary group of stops, a pivoted bracket, a plurality of key-actuated levers, a push pin pivoted to each lever, the free ends of said push pins being supported by said bracket, means for swinging said bracket to carry the free ends of the push pins into operative relation to the various stops, and means for moving said bracket in the opposite direction.

11. In a stop mechanism for adding machines, a group of stops, a push pin, means to cause the free end of the push pin to swing across the group of stops, and means for projecting the push pin against the stops.

12. In a stop mechanism for adding machines, a stationary group of stops, a plurality of push pins, means for moving said push pins into position adjacent the various stops, and means for projecting said push pins against the stops.

13. In a stop mechanism for adding machines, a stationary group of stops, a pivoted bracket, a plurality of key-actuated levers, a stop-setting member connected to each lever, the free ends of said members being supported by said bracket, and means for swinging said bracket to carry the free ends of the members into and out of operative relation to the various stops.

14. In a stop mechanism for adding machines, a stationary group of stops, a movable support, a plurality of stop-setting members carried by said support, means for moving said support to carry said members into and out of operative relation to the various stops, and means for actuating said stop-setting members.

15. In a stop mechanism for adding machines, a stationary group of stops arranged in tiers, a pivoted bracket, a tier of push pins supported by said bracket, means for swinging said bracket to carry said push pins into and out of operative relation to the several tiers of stops, and means for projecting the push pins against the stops.

16. In a stop mechanism for adding machines, a stationary group of stops arranged in tiers, a tier of push pins, means for moving said push pins into and out of operative relation to the several tiers of stops, and means for projecting said push pins against the stops.

17. In a stop mechanism for adding machines, a stationary group of stops arranged in tiers, a movable support, a tier of push pins carried by said support, means for moving said support to carry said push pins into and out of operative relation to the several tiers of stops, and means for projecting the push pins against the stops.

18. In a stop mechanism for adding machines, a plurality of key-actuated levers having a common axis, a push pin connected to each lever, a group of stops adapted to be set by said pins, and means for causing relative movement between the push pins on the one hand and the group of stops on the other.

19. In a stop mechanism for adding machines, a plurality of key-actuated levers having a common axis, a push pin pivoted to each lever, the pivotal axes of said pins being equidistant from the axis of said levers, a group of stops adapted to be set by said push pins, and means for causing relative movement between the push pins on the one hand and the group of stops on the other.

20. In a stop mechanism for adding machines, a stationary group of stops, a pivoted support, a plurality of key-actuated levers, a push pin pivoted to each lever and adapted to set the stops, the free ends of said push pins being supported by said support, a spring tending to move said support in one direction, a ratchet bar, a tooth on said support arranged to engage said bar, and means carried by said support for disengaging said ratchet bar from said tooth.

21. In a stop mechanism for adding machines, a stationary group of stops, a pivoted support, a plurality of key-actuated levers, a push pin pivoted to each lever and adapted to set the stops, the free ends of said push pins being carried by said support, a spring tending to move said support in one direction, a ratchet bar, a tooth on said support adapted to engage said bar, another lever arranged to be moved by any of the key-actuated levers, and a part pivoted to said other lever, adapted to disengage the ratchet bar from said tooth.

22. In a stop mechanism for adding machines, a stationary group of stops, a pivoted support, a plurality of key-actuated levers having a common axis, a stop-setting pin pivoted to each lever, the free ends of said push pins being carried by said support, a spring tending to move said support in one direction, another lever pivoted on the same axis as the key-actuated levers, a ratchet bar, a tooth on said support arranged to engage said bar, and a push pin on said other lever, arranged to disengage said bar from said tooth.

23. In a stop mechanism for adding machines, a plurality of key-actuated levers having a common axis, a group of stops, a stop-setting device connected to the free end of each lever, and means for causing relative movement between the push pins on the one hand and the group of stops on the other.

24. In a stop mechanism for adding machines, a stationary group of stops, a movable support, a plurality of key-actuated levers, a stop-setting device connected to each lever, said devices being supported by said support, a spring tending to move said support in one direction, a ratchet bar, a tooth on said support arranged to engage said bar, and means carried by said support for disengaging said ratchet bar from said tooth.

25. In a stop mechanism for adding machines, a stationary group of stops, a movable support, a plurality of key-actuated levers, a stop-setting push pin pivoted to each lever, the free ends of said push pins being carried by said support, a spring tending to move said support in one direction, a ratchet bar, a tooth on said support adapted to engage said bar, another lever arranged to be moved by any of the key-actuated levers, and a push-pin pivoted to said other lever, adapted to disengage the ratchet bar from said tooth.

26. In a stop mechanism for adding machines, a stationary group of stops, a movable support, a plurality of key-actuated levers having a common axis, a push pin pivoted to each lever and adapted to set said stops, the free ends of said push pins being carried by said support, a spring tending to move said support in one direction, another lever pivoted on the same axis as the key-actuated levers, a universal rod connected to said other lever and extending adjacent to the first mentioned levers, a ratchet bar, a tooth on said support arranged to engage said bar, and a push pin on said other lever, arranged to disengage said bar from said tooth.

27. In an adding machine, a stationary group of stops, a plurality of push pins, means for moving said push pins into position adjacent the various stops, means for projecting said push pins against the stops, a plurality of actuators each having a movable stop portion, said push-pin-moving means being arranged to move said movable stop portions into operative alinement with the stops.

28. In an adding machine, a stationary group of stops, a pivoted bracket, a plurality of key-actuated levers, a stop-setting member connected to each lever, the free ends of said members being supported by said bracket; means for swinging said bracket to carry the free ends of said members into and out of operative relation to the various stops, a plurality of actuators, each having a movable stop portion; and means connecting said stop portions to said support, whereby said stop portions are moved into operative alinement with the stops.

29. In an adding machine, a group of stops, a push pin, means to cause the free end of the push pin to swing across the group of stops, means for projecting the push pin against the stops, a plurality of actuators, each having a movable stop portion, and means connecting said movable stop portions to said pin-swinging means, whereby said stop portions are moved into operative alinement with the stops.

30. In an adding machine, a stationary group of stops, a bracket pivoted to swing in a horizontal plane, stop-setting members supported by said bracket, means for actuating said members, means for swinging said bracket to carry said members into and out of operative relation to the various stops, a plurality of actuators, each having a movable stop portion, and means connecting said movable stop portions to said bracket for synchronous movement, whereby said stop portions are moved into and out of operative alinement with the stops.

31. In an adding machine, a stationary group of stops, a pivoted bracket, a plurality of key-actuated levers, a push pin pivoted to each lever, the free ends of said push pins being supported by said bracket, means for swinging said bracket to carry the free ends of the push pins into and out of operative relation to the various stops, a plurality of actuators, an arm pivoted to each actuator, a stop on each arm, a slide engaging the last mentioned stops, said slide being movable transversely of the first mentioned stops, and a connection between said slide and said swinging bracket for effecting synchronous movement of said slide and bracket.

32. In an adding machine, a plurality of vertically movable actuators, an arm pivoted to each actuator to swing in a horizontal plane, a stop on each arm, a group of stops, means for setting the last mentioned stops, a slide movable in a horizontal plane adjacent to the group of stops, the stops on said arms being guided in said slide, and means for moving the slide to carry the stops on said arms into operative alinement with the second mentioned stops.

33. In an adding machine, a group of stops, a plurality of push pins at one side of said group of stops, means for projecting said push pins against the stops, a plurality of actuators each having a movable stop portion, said actuators being located at the other side of said group of stops, and mechanism for moving said movable stop portions and said push pins alongside the group of stops.

34. In an adding machine, a stationary group of stops, a support movable alongside the group of stops, a plurality of key-actuated levers, a stop-setting member connected to each lever, the free ends of said members being supported by said support; means for moving said support to carry the free ends of said members into and out of operative relation to the various stops, a plurality of actuators, each having a movable stop portion; and means to cause said movable stop portions to move with said support.

35. In an adding machine, a group of stops, a push pin, means to cause the free end of the push pin to swing along one side of the group of stops, means for projecting the push pin against the stops, a plurality of actuators at the other side of the group of stops, each actuator having a movable stop portion, and means connecting said movable stop portion to said pin-swinging means, whereby said stop portions are moved into operative alinement with the stops.

36. In an adding machine, a stationary group of stops, a pivoted bracket, a plurality of stop-setting members sup-

ported by said bracket, means for actuating said members to set the stops, means for swinging said bracket to carry said members into and out of operative relation to the various stops, a plurality of actuators, each having a movable stop portion, a slide engaging said stop portions, said slide being movable transversely of the first mentioned stops, and a connection between said slide and said swinging bracket for effecting synchronous movement of said slide and bracket.

37. In an adding machine, a plurality of vertically movable actuators, each having a movable stop portion, a group of stops, means for setting said stops, a slide movable in a horizontal plane adjacent to the group of stops, said stop portions being guided in said slide, and means for moving the slide to carry the stop portions into operative alinement with the stops.

38. In an adding machine, two actuators, a slide having a stop to limit movement of one of the actuators, a spring tending to move said slide in the direction to withdraw the stop, means for holding the slide in operative position, and means operated by the other actuator for rendering said holding means ineffective.

39. In an adding machine, two actuators, a slide having a stop to limit movement of one of the actuators, a spring tending to move said slide in the direction to withdraw the stop, a dog pivoted on the slide, a stationary part arranged to be engaged by said dog for locking the slide in operative position, and means operated by the other actuator for disengaging the dog from said part.

40. In an adding machine, two actuators, a slide having a stop to limit movement of one of the actuators, a dog pivoted on said slide, a stationary part arranged to be engaged by the said dog for locking said slide in operative position, a spring tending to hold said dog in engagement with said part, and also tending to move said slide to place said stop against said part, and means operated by the other actuator for disengaging the dog from the said part.

41. In an adding machine, a plurality of actuators, means for imparting the working stroke to said actuators, carrying means, a universal rod for restoring said carrying means, an arm connected to said rod, said arm being arranged to be engaged and moved by said first mentioned means, and means for disengaging said arm from said first mentioned means after the carrying means have been restored.

42. In an adding machine, a plurality of actuators, means for imparting the working stroke to said actuators, carrying means, a universal rod for restoring said carrying means, an arm connected to said rod, said arm being arranged to be engaged and moved by said first mentioned means, and means for disengaging said arm from said first mentioned means, after the carrying means have been restored, and a spring tending to move said restoring rod away from the carrying means.

43. In an adding machine, a plurality of actuators, means for reciprocating said actuators, adding wheels operated in the return stroke of said actuators, carrying means including slidable members, and means actuated in the forward stroke of the actuators for moving the slidable members into normal position.

44. In an adding machine, a plurality of actuators, means for imparting the working stroke to said actuators, carrying means including slidable members, a universal rod for moving said slides into normal position, an arm connected to said rod, said arm being arranged to be engaged and moved by said first mentioned means, and means for disengaging said arm from said first mentioned means after said slidable members have been moved into normal position.

45. In an adding machine, a plurality of actuators, means for imparting the working stroke to said actuators, carrying means including slidable members, a universal rod for moving said slides into normal position, an arm connected to said rod, said arm being arranged to be engaged and moved by said first mentioned means, means for disengaging said arm from said first mentioned means after said slidable members have been moved into normal position, and a spring tending to move said restoring rod away from said slidable members.

46. In an adding machine, a stationary group of stops, a pivoted support, means on the said support for setting the stops, a spring tending to swing said support in one direction, an escapement for controlling the action of the spring, a part connected to said support, a reciprocatory member arranged to engage said part to swing said support against the tension of the spring, and means for disengaging said member from said part after said member has swung the support.

47. In an adding machine, a stationary group of stops, a pivoted support, means on the said support for setting the stops, a spring tending to swing said support in one direction, an escapement for controlling the action of the spring, a part connected to said support, a reciprocatory member arranged to engage said part to swing said support against the tension of the spring, said member having a cam surface thereon, and a stationary element arranged to be engaged by said surface for moving said reciprocatory member out of engagement with said part.

48. In an adding machine, a group of stops, a movable support, means on the said support for setting the stops, a spring tending to move said support in one direction, an escapement for controlling the action of the spring, a part connected to said support, a reciprocatory member arranged to engage said part to restore support, and means for moving said member aside, out of the path of movement of said part, upon the completion of such restoring movement.

49. In an adding machine, a group of stops, a movable support, means on the said support for setting the stops, a spring tending to swing said support in one direction, an escapement for controlling the action of the spring, a part connected to said support, a reciprocatory member arranged to engage said part to swing said support against the tension of the spring, said member having a cam surface thereon, a stationary element arranged to be engaged by said surface for moving said reciprocatory member aside, out of the path of movement of said part.

50. In an adding machine, a stationary group of stops, a pivoted support, means on said support for setting said stops, a spring tending to swing said support in one direction, an escapement for controlling the action of the spring, a part connected to said support, an actuating handle, an arm arranged to move with said handle, a bell crank lever, one arm of which is arranged to be moved by the first mentioned arm, a bar connected to the other arm of said bell crank lever, said bar being arranged to engage said part for swinging said support against the tension of the spring, means for disengaging said bar from said part, and means for moving said bar in the direction opposite to the direction of movement imparted by the first mentioned arm.

51. In an adding machine, a group of stops, a movable support, means on said support for setting said stops, a spring tending to move said support in one direction, an escapement for controlling the action of the spring, a part connected to said support, an actuating handle, a member arranged to move with said handle, a bell crank lever, one arm of which is arranged to be moved by said member, a bar connected to the other arm of said bell crank lever, said bar being arranged to engage said part for moving said support against the tension of the spring, means for disengaging said bar from said part, and a spring for moving said bar in the direction opposite to the direction of movement imparted by said member.

52. In an adding machine, a group of stops, a movable support, means on said support for setting the stops, a spring tending to move said support in one direction, an escapement for controlling the action of the spring, a bar connected to said support for rectilinear movement, a member arranged to reciprocate adjacent to and parallel with said bar, a part on said bar arranged to be engaged by said member, and means for moving said member aside, out of the path of movement of said part.

53. In an adding machine, a stationary group of stops, a pivoted support, means on said support for setting the stops, a spring tending to swing said support in one direction, an escapement for controlling the action of the spring, a bar connected to said support for rectilinear movement, a member arranged to reciprocate adjacent to and parallel with said bar, a part on said bar arranged to be engaged by said member, and means for disengaging said member from said part.

54. In an adding machine, a group of stops, means for setting the stops, a spring tending to cause relative movement of the group of stops on the one hand and the setting means on the other, an escapement for controlling the action of the spring, means for restoring the group of stops and the setting means to normal position, said restoring means including a bar, means for moving said bar against the tension of the spring, said bar having teeth thereon, an error key, and a dog connected to said error key and arranged to engage said teeth and thus move said bar.

55. In an adding machine, a stationary group of stops, a pivoted support, means on the said support for setting the stops, a spring tending to swing the support in one direction, an escapement for controlling the action of the spring, a bar connected to said support for rectilinear movement, means for moving said bar to swing said support against the tension of the spring, said bar having teeth thereon, an error key, and a dog connected to said error key and arranged to engage said teeth and thus move said bar.

56. In a repeat mechanism for adding machines, a part to be restored, a reciprocatory bar arranged to restore said part, said bar having a cam surface and a recess, and a stationary pin arranged to be engaged by said surface for moving said reciprocatory bar out of engagement with said part, said pin passing into said recess and holding the bar out of engagement with said part.

57. In a repeat mechanism for adding machines, a part to be restored, a reciprocatory bar arranged to restore said part, and a repeat key having a stem arranged to move said bar out of the plane of said part, said bar being free to reciprocate while out of such plane.

58. In a repeat mechanism for adding machines, a part to be restored, a reciprocatory bar arranged to engage and restore said part, said bar having a cam surface thereon, a stationary element arranged to be engaged with said surface for moving said bar out of engagement with said part upon the completion of the restoring movement, and a repeat key for keeping said bar out of engagement with said part.

59. In an adding machine, stops, stop-setting means, and means for restoring the stop-setting means, comprising a part connected to the stop-setting means, a reciprocatory member arranged to engage and restore said part, said member having a cam surface thereon, and a stationary element arranged to be engaged by said surface for moving the reciprocatory member out of engagement with said part.

60. In an adding machine, stops, stop-setting means, and means for restoring the stop-setting means to normal position comprising a bar connected to the stop-setting means for rectilinear movement, a member arranged to reciprocate adjacent to and parallel with said bar, said member being arranged to engage and restore said bar, said member having a cam surface thereon, a stationary element arranged to be engaged by said surface for moving said reciprocatory member out of engagement with said bar, and a repeat means arranged to keep said member out of engagement with said bar.

61. In an adding machine, stops, stop-setting means, and means for restoring the stop-setting means to normal position, comprising a part connected to said stop-setting means, a bell crank lever, a bar connected to one arm of said bell crank lever, said bar being arranged to engage and restore said part, means for disengaging said bar from said part, means engaging the other arm of said bell crank lever for moving said bar to restore said part, and a spring for moving said bar in the opposite direction.

62. In a repeat mechanism for adding machines, a part to be restored, a reciprocatory bar arranged to restore said part, said bar having a cam surface thereon, and a stationary element arranged to be engaged by said surface for moving said reciprocatory bar out of engagement with said part.

63. In a repeat mechanism for adding machines, a part to be restored, a reciprocatory bar arranged to restore said part, means for disengaging said bar from said part upon the completion of the restoring movement, and a repeat key having a stem arranged to hold said bar out of engagement with said part.

64. In a repeat mechanism for adding machines, a part to be restored, a reciprocatory bar arranged to engage and restore said part, said bar having a cam surface thereon, a stationary element arranged to be engaged by said surface for moving said bar out of engagement with said part upon the completion of the restoring movement, and means for keeping said bar out of engagement with said part.

65. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding said separating means out of action, a member arranged to engage said latch, means for moving said member into position to engage said latch, and means for moving said member into engagement with said latch to render the latch ineffective.

66. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding the said separating means out of action, a total bar supported for pivotal and sliding movement, means for pivotally moving said bar into contact with the latch, means for sliding said bar into position to engage the latch, and means for sliding said bar in the opposite direction into engagement with the latch to render the latch ineffective.

67. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding said separating means out of action, a total bar mounted for pivotal and sliding movement, a stud on the latch, said total bar having a shoulder arranged to engage the stud, means for tilting the bar into contact with the stud, means for sliding the bar to place the shoulder in line with the stud, and means for sliding the bar to carry the shoulder against the stud and thus move the latch.

68. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding said separating means out of action, a total bar mounted for pivotal and sliding movement, a stud on the latch, said total bar having a shoulder arranged to engage the stud, a total key for pivotally moving the total bar into contact with the stud, means for sliding said bar to place the shoulder in line with the stud, and means for sliding the bar in the opposite direction to move the shoulder against the stud and thus move the latch.

69. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding said separating means out of action, a total bar mounted for pivotal and sliding movement, a stud on the latch, said total bar having a shoulder arranged to engage the stud, means for pivotally moving the total bar into contact with the stud, a main actuating handle, an arm arranged to move with said handle, said arm being arranged to slide said total bar to place the shoulder in line with the stud, and means for sliding the total bar in the opposite direction to carry the shoulder against the stud.

70. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding said separating means out of action, a total bar mounted for pivotal and sliding movement, said latch having a stud arranged to be engaged by the shoulder on said bar, means for pivotally moving said bar against the stud, means for sliding the bar to place the shoulder in line with the stud, and a spring for sliding the bar in the opposite direction to carry the shoulder against the stud and thus render the latch ineffective.

71. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding said separating means out of action, a substantially horizontal total bar having a longitudinal slot therein, a pivot extending through said slot, a stud on the latch arranged to be engaged by the shoulder on the total bar, means for tilting said bar to place the latter against the stud, a main actuating handle, an arm moving with

said handle and arranged to engage said total bar at a point between the shoulder and the pivot for moving the total bar to place the shoulder in front of the stud, and a spring for sliding said total bar to carry the shoulder against the stud.

72. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding said separating means out of action, a substantially horizontal total bar having a longitudinal slot therein, a pivot extending through said slot, a stud on the latch arranged to be engaged by the shoulder on the total bar, a total key for tilting said bar to place the latter against the stud, a main actuating handle, means for moving the total bar to place the shoulder in front of the stud, and a spring for sliding said total bar to carry the shoulder against the stud.

73. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, a latch for holding said separating means out of action, a lever arranged to engage said latch, means for tilting said lever, means for sliding said lever into position in which it may engage the latch, and means for sliding the lever into engagement with the latch to render the latch ineffective

74. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, said means including a pivoted lever, an arm fixed to said lever, a latch for engaging said arm to hold the rack and pinion intermeshed, a hook pivoted to said lever, a crank-arm arranged to engage said hook and thus move said lever to intermesh the pinion and the rack, and means for disengaging the hook from said crank-arm after the pinion and the rack have been intermeshed.

75. In an adding machine, actuating racks, means for controlling the movement of the racks in the adding operation, said means including a member movable transversely of the racks, adding pinions, means tending to separate the pinions and racks, said means including a lever, an arm rigid with said lever, a latch arranged to engage said arm and thus hold the pinions and the racks in mesh, a pivoted hook on said lever, a crank-arm arranged to engage said hook to move said lever in the direction to intermesh the pinions and the racks, and means for disengaging the hook from the crank-arm.

76. In an adding machine, actuating racks, stops for controlling the extent of movement of the racks in the adding operation, stop-setting means, adding pinions, means tending to separate the pinions and the racks, and means controlled by the stop-setting means for holding said separating means out of action.

77. In an adding machine, actuating racks, stops for controlling the extent of movement of the racks in the adding operation, stop-setting means, adding pinions, means tending to separate the pinions and the racks, a latch for holding said separating means out of action, a spring tending to move said latch into operative position, and means actuated by the stop-setting means for moving said latch out of operative position.

78. In an adding machine, actuating racks, stops for controlling the extent of the movement of the racks in the adding operation, stop-setting means, adding pinions, means tending to separate the pinions and the racks, a latch tending to hold the separating means out of action, and a frame arranged to be swung by the stop-setting means and adapted when so swung to move the latch out of operative position.

79. In an adding machine, actuating racks, means for controlling the movement of the racks in the adding operation, said means including a member movable transversely of the racks, adding pinions, means tending to separate the pinions and the racks, and means controlled by said member for holding said separating means out of action.

80. In an adding machine, actuating racks, means for controlling the movement of the racks in the adding operation, said means including a member movable transversely of the racks, adding pinions, means tending to separate the pinions and the racks, a latch for holding said separating means out of action, and means actuated by said member for moving said latch out of operative position.

81. In an adding machine, actuating racks, means for controlling the movement of the racks in the adding operation, said means including a slide movable transversely of the racks, adding pinions, means tending to separate the pinions and the racks, a latch for holding said separating means out of action, and a part arranged to be moved by said slide, said part in turn being arranged to move said latch out of operative position.

82. In an adding machine, actuating racks, means for controlling the movement of the racks in the adding operation, said means including a member movable transversely of the racks, adding pinions, means tending to separate the pinions and the racks, a latch for holding said separating means out of action, and a frame arranged to be moved by said member, said frame having a part thereon lying in contact with said latch.

83. In an adding machine, a group of stops, a plurality of actuators each having a stop portion, means for causing relative movement between the group of stops and the plurality of stop portions, a detent member for preventing an operating movement of said stop portions, stop-setting means, and means actuated by said movement-causing means for placing said detent member in operative position.

84. In adding machine, a group of stops, a plurality of actuators each having a stop portion, means for causing relative movement between the group of stops and the plurality of stop portions, a detent member adapted to prevent an operating movement of said stop portions, stop-setting means, and a pivoted frame connected to said detent member and arranged to be swung by said movement-causing means.

85. In an adding machine, a stationary group of stops, a plurality of actuators, each having a movable stop portion, a slide for causing relative movement between the group of stops and the plurality of stop portions, a detent member adapted to prevent an operating movement of said stop portions, stop-setting means, and a pivoted frame connected to said detent member and arranged to be swung by said slide.

86. In an adding machine, a stationary group of stops, a plurality of actuators, each having a movable stop portion, said stop portions normally being located at one side of the group of stops, a detent member at said side of the group of stops, stop-setting means, means for causing synchronous movement of the stop-setting means and the plurality of stop portions relatively to the group of stops, a part arranged to be moved in such synchronous movement, and a connection between said part and said detent member.

87. In an adding machine, a main rock shaft, a crank-arm fixed on said shaft, an actuating shaft pivotally mounted on said shaft, a yielding connection between the handle and the crank-arm, operating mechanism connected to the crank-arm, and means operated by said mechnaism for controlling the movement of said handle in one direction.

88. In an adding machine, a rock shaft, a crank-arm fixed on said shaft, an actuating handle, a yieldable connection between the crank-arm and the handle, a spring tending to swing the handle in one direction, mechanism connected to the crank-arm, and a detent controlled by the mechanism for controlling the movement of the handle under the action of the spring.

89. In an adding machine, a rock shaft, a crank-arm fixed on said shaft, an actuating handle, a spring tending to swing the handle in one direction, a yieldable connection between the crank-arm and the handle, a part arranged to be moved by the crank-arm, a lever arranged to be moved by said part, and a detent on said lever for controlling the movement of the handle under the action of the spring.

90. In an adding machine, a main rock shaft, a crank-arm fixed on said shaft, an actuating handle pivotally mounted on said shaft, a spring tending to swing the handle in one direction, a yieldable connection between the crank-arm and the handle, a part arranged to be moved by the crank-arm, a cam lever arranged to be moved by said part, and a spring-held detent on said lever for controlling the movement of the handle under the action of the spring.

91. In an adding machine, a main rock shaft, an actuating member on said shaft, stop-setting means, and a member arranged to lock the stop-setting means, said member being operated by said actuating member.

92. In an adding machine, a rock shaft, an actuating member on said shaft, stop-setting means, and a pivoted lever, one end of which is arranged to lock the stop-setting means, said actuating member being arranged to engage the other end of said lever to move said lever into locking position.

93. In a two-color mechanism for adding machines, the combination of a ribbon carrier, means for moving the ribbon carrier, a yieldable connection between the ribbon carrier and the moving means, stop-setting means, and means actuated by the stop-setting means for holding the ribbon carrier against movement.

94. In a two-color mechanism for adding machines, a ribbon carrier, means tending to move said ribbon carrier, a member for locking the ribbon carrier against movement, stop-setting means, and a part arranged to have a step-by-step movement as the stop-setting means is actuated, said part being arranged to actuate the locking member.

95. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, said means including a pivoted lever, a hook pivoted to said lever, a crank arm arranged to engage said hook to intermesh the pinion and the rack, and key-actuated means for pivotally moving said hook out of the range of action of said crank-arm.

96. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, said means including a pivoted lever, a hook pivoted to said lever, a member arranged to engage said hook and thus move said lever to intermesh the pinion and the rack, and means for pivotally moving said hook out of the range of action of said member.

97. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, said means including a pivoted lever, an arm fixed to said lever, a latch for engaging said arm to hold the rack and pinion intermeshed, a hook pivoted to said lever, a crank arm arranged to engage said hook and thus move said lever to intermesh the pinion and the rack, a lever pivoted intermediate its ends, one end of the last mentioned lever being arranged to engage said hook, and a non-add key arranged to engage the other end of the last mentioned lever to move said lever to remove the hook from the range of action of the crank-arm.

98. In an adding machine, a rack, an adding pinion, means for separating the rack and the pinion, said means including the pivoted lever, an arm fixed to said lever, a latch for engaging said arm to hold the rack and pinion intermeshed, a hook pivoted to said lever, a crank-arm arranged to engage said hook and thus move said lever to intermesh the pinion and the rack, and a second latch arranged to engage said arm to hold the rack and pinion intermeshed, said crank arm being arranged to engage said arm and disengage the second latch from said arm.

99. In an adding machine, actuating racks, means for controlling the movement of the racks in the adding operation, said means including a member movable transversely of the racks, adding pinions, means tending to separate the pinions and the racks, said separating means including a lever, an arm rigid with said lever, a latch arranged to engage said arm and thus hold the pinions and the racks in mesh, said member being adapted to hold the latch out of operation, a pivoted hook on said lever, a crank-arm arranged to engage said hook to move said lever in the direction to intermesh the pinions and the racks, means for disengaging the hook fro mthe crank-arm after the pinions and the racks have been intermeshed, said crank-arm being arranged to engage said arm, and a second latch arranged to engage said arm to hold the racks and the pinions intermeshed, said crank-arm being arranged to move said second latch out of operative position.

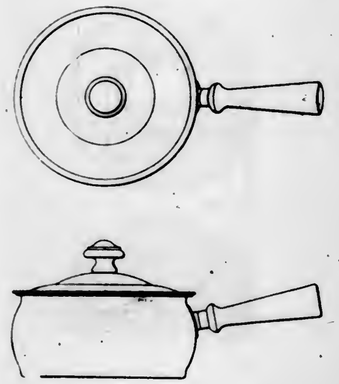
DESIGNS.

50,088. DOLL. GEORGENE AVERILL, New York, N. Y., assignor to Averill Manufacturing Corporation, New York, N. Y., a Corporation of New York. Filed Nov. 7, 1916. Serial No. 130,075. Term of patent 3½ years.



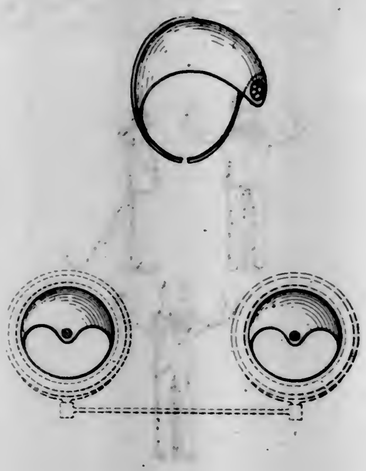
The ornamental design for a doll, as shown.

50,089. CULINARY UTENSIL. HENRY PRICE BALL, Brooklyn, N. Y., assignor to S. Sternau & Co., (a Copartnership composed of Sigmund Sternau and Lionel Strassburger,) Brooklyn, N. Y. Filed Mar. 17, 1916. Serial No. 84,988. Term of patent 7 years.



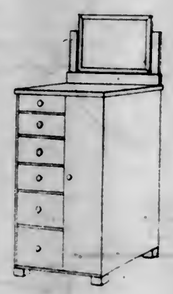
The design for a culinary utensil substantially as shown.

50,090. GLARE-GUARD FOR HEADLIGHTS. FREDERICK W. BEAUCHAMP, Indianapolis, Ind. Filed Sept. 18, 1916. Serial No. 120,899. Term of patent 14 years.



The ornamental design for a glare guard for headlights, as shown.

50,091. CHIFFONNIER. JOHN BOOTH, Indianapolis, Ind. Filed Sept. 16, 1916. Serial No. 120,572. Term of patent 7 years.



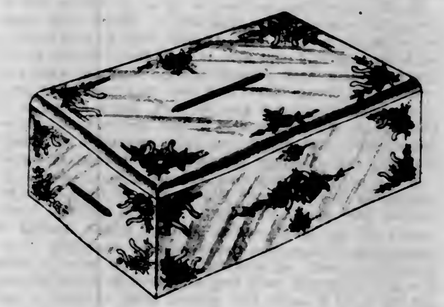
The ornamental design for a chiffonnier, as shown.

50,092. SCALE-FRAME. ADOLPH A. CAILLE, Detroit, Mich. Filed Nov. 4, 1916. Serial No. 129,621. Term of patent 14 years.



The ornamental design for a scale frame, as shown.

50,093. BUTTER-PRESERVER. CHARLES R. CHENERY, Buffalo, N. Y. Filed Oct. 3, 1916. Serial No. 123,598. Term of patent 14 years.



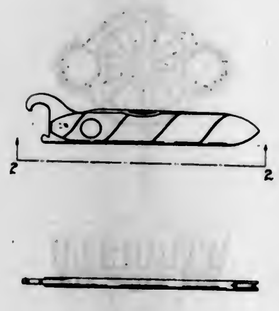
The ornamental design for a butter preserver, as shown.

50,094. LAMP-CASING. JOHN L. DAWES, Pittsburgh, Pa. Filed Oct. 9, 1916. Serial No. 124,731. Term of patent 7 years.



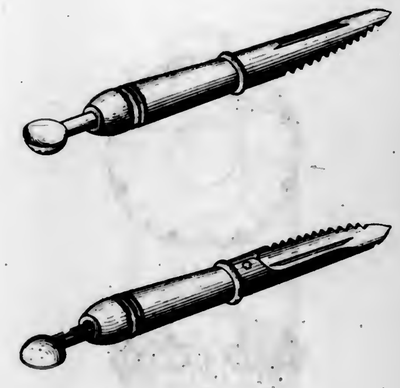
The ornamental design for a lamp casing, as shown.

50,095. COMBINED CIGAR-CUTTER, KNIFE, AND BOTTLE-OPENER. STANLEY FIRBAS, Chicago, Ill. Filed Oct. 14, 1916. Serial No. 125,747. Term of patent 3½ years.



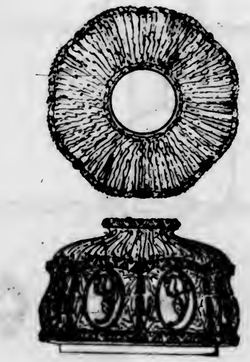
The ornamental design for a combined cigar cutter, knife, and bottle opener, as shown.

50,096. CULINARY IMPLEMENT. JOHN C. FORSTER, Pittsburgh, Pa. Filed Sept. 29, 1916. Serial No. 122,945. Term of patent 7 years.



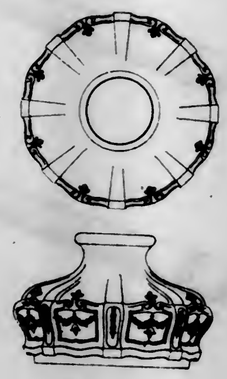
The ornamental design for a culinary implement substantially as shown.

50,097. SHADE. IRA L. FRENCH, Chicago, Ill., assignor to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Sept. 26, 1916. Serial No. 122,286. Term of patent 14 years.



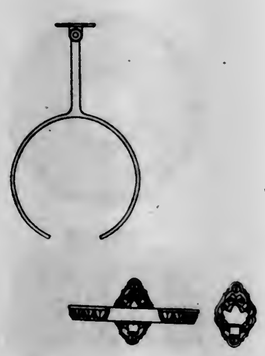
The ornamental design for a shade as shown.

50,098. SHADE. IRA L. FRENCH, Chicago, Ill., assignor to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Sept. 27, 1916. Serial No. 122,566. Term of patent 14 years.



The ornamental design for a shade as shown.

50,099. WALL-BRACKET. IRA L. FRENCH, Chicago, Ill., assignor to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Sept. 27, 1916. Serial No. 122,567. Term of patent 14 years.



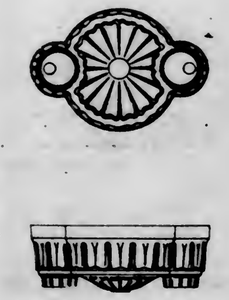
The ornamental design for a wall bracket, as shown.

50,100. LAMP. IRA L. FRENCH, Chicago, Ill., assignor to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Sept. 27, 1916. Serial No. 122,568. Term of patent 14 years.



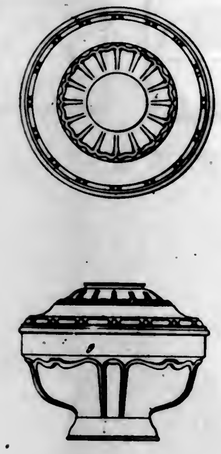
The ornamental design for a "lamp" as shown.

50,101. LAMP-SUSPENSION DEVICE. IRA L. FRENCH, Chicago, Ill., assignor to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Sept. 27, 1916. Serial No. 122,569. Term of patent 14 years.



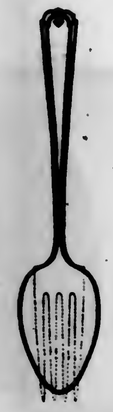
The ornamental design for a "lamp suspension device" as shown.

50,102. LAMP-FONT. IRA L. FRENCH, Chicago, Ill., assignor to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Sept. 30, 1916. Serial No. 123,184. Term of patent 14 years.



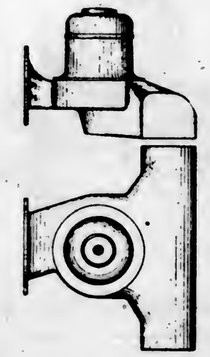
The ornamental design for a "lamp font" as shown.

50,103. HANDLE OF A SPOON, FORK, OR SIMILAR ARTICLE. JOHN H. HARMSTONE, Attleboro, Mass., assignor to Fessenden and Company, Inc., Providence, R. I., a Corporation of Rhode Island. Filed Sept. 1, 1916. Serial No. 118,154. Term of patent 3½ years.



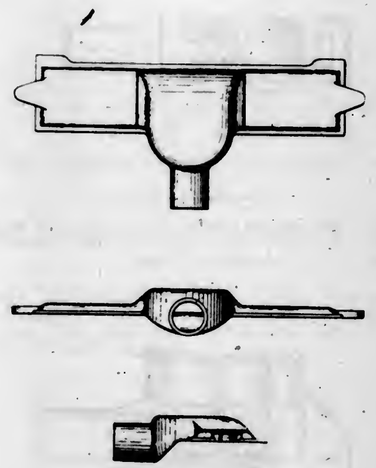
The ornamental design for the handle of a spoon, fork, or similar article as shown.

50,104. SUCTION-SWEEPER CASE. HOWARD EARL HOOVER, Chicago, Ill., assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio, a Corporation of Ohio. Filed Oct. 9, 1916. Serial No. 124,738. Term of patent 14 years.



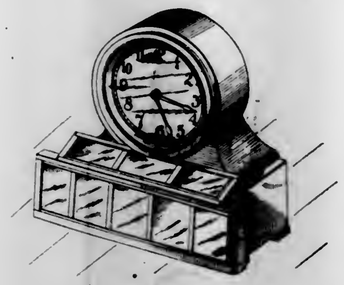
The ornamental design for a suction sweeper case as shown.

50,105. SUCTION-SWEEPER CONVERTER. HOWARD EARL HOOVER, Chicago, Ill., assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio, a Corporation of Ohio. Filed Oct. 16, 1916. Serial No. 126,030. Term of patent 14 years.



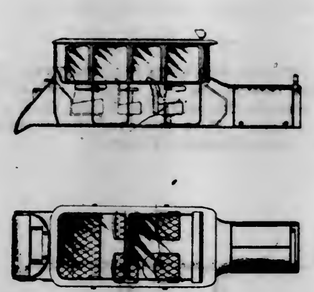
The ornamental design for a suction sweeper converter as shown.

50,106. CLOCK. WILLIAM T. HUNTER and FLOYD R. HUNTER, Ann Arbor, Mich. Filed June 7, 1916. Serial No. 102,343. Term of patent 7 years.



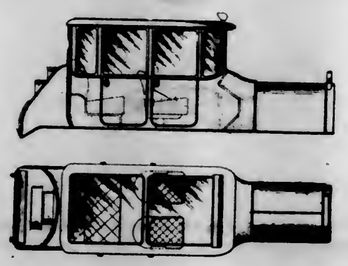
The ornamental design for a clock as shown.

50,107. AUTOMOBILE-BODY. WILLIAM J. P. MOORE, New York, N. Y. Filed Sept. 30, 1916. Serial No. 123,187. Term of patent 7 years.



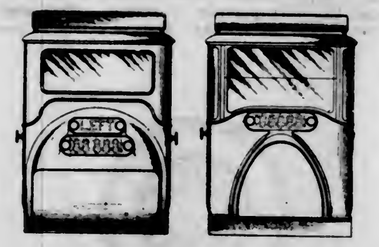
The ornamental design for an automobile body, as shown.

50,108. AUTOMOBILE-BODY. WILLIAM J. P. MOORE, New York, N. Y. Filed Sept. 30, 1916. Serial No. 123,188. Term of patent 7 years.



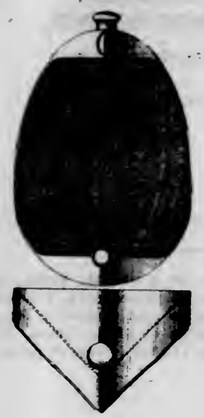
The ornamental design for an automobile body, as shown.

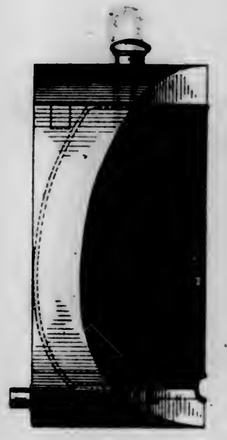
50,108.



The ornamental design for an automobile body, as shown.

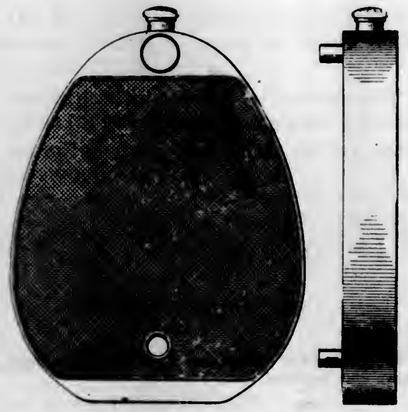
50,109. RADIATOR FOR AUTOMOBILES AND OTHER VEHICLES. WILLIAM J. P. MOORE, New York, N. Y. Filed Sept. 30, 1916. Serial No. 123,189. Term of patent 7 years.





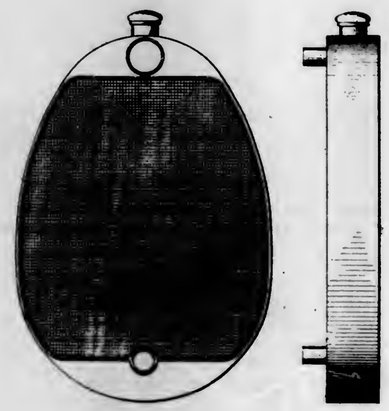
The ornamental design for a radiator for automobiles and other vehicles, as shown.

50,110. RADIATOR FOR AUTOMOBILES AND OTHER VEHICLES. WILLIAM J. P. MOORE, New York, N. Y. Filed Sept. 30, 1916. Serial No. 123,190. Term of patent 7 years.



The ornamental design for a radiator for automobiles and other vehicles, as shown.

50,111. RADIATOR FOR AUTOMOBILES AND OTHER VEHICLES. WILLIAM J. P. MOORE, New York, N. N. Y. Filed Sept. 30, 1916. Serial No. 123,191. Term of patent 7 years.



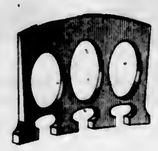
The ornamental design for a radiator for automobiles and other vehicles, as shown.

50,112. INDIVIDUAL FLOWER-HOLDER. ROBERT STUART OWENS, Brooklyn, N. Y. Filed Mar. 24, 1916. Serial No. 86,515. Term of patent 3½ years.



The ornamental design for an individual flower holder, as shown and described.

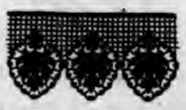
50,113. VIOLIN-BRIDGE. EMERY G. RESSLER, Stevens Point, Wis. Filed Oct. 13, 1916. Serial No. 125,514. Term of patent 14 years.





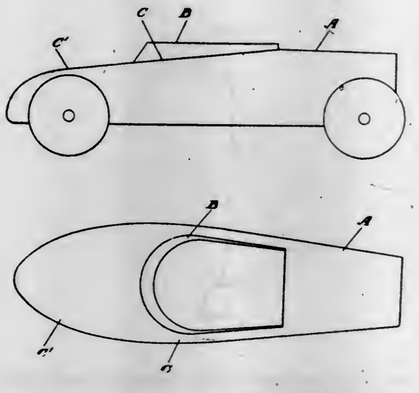
The ornamental design for a violin bridge, as shown.

50,114. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Nov. 6, 1916. Serial No. 129,890. Term of patent 8½ years.



The ornamental design for embroidered lace substantially as shown.

50,115. AUTOMOBILE-BODY. HROLF VON DEWITZ, New York, N. Y. Filed Sept. 9, 1916. Serial No. 119,316. Term of patent 3½ years.



The ornamental design for an automobile body, as shown and described in the annexed specification.

50,116. GAME-PLAYING PIECE. JOHN LLOYD WRIGHT, Chicago, Ill. Filed Sept. 25, 1916. Serial No. 122,173. Term of patent 7 years.



The ornamental design for a game-playing piece, as shown and described.

TRADE-MARKS

PUBLISHED DECEMBER 26, 1916.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 76,409. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) MEINECKE & COMPANY, New York, N. Y. Filed Mar. 6, 1914.

PERFECTION

Particular description of goods.—Bed and Douche Pans.
Claims use since the year 1900.

Ser. No. 82,284. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN STERLING ROYAL REMEDY CO., Kansas City, Mo. Filed Oct. 30, 1914.



Particular description of goods.—A Remedy for Catarrh, Syphilis, and Rheumatism.
Claims use since 1872.

Ser. No. 87,695. (CLASS 39. CLOTHING.) SEGAL AND PRANSKY, Philadelphia, Pa. Filed July 1, 1915.



No claim being made for the use of the word "Kno-Tair" apart from the mark shown in the drawing.
Particular description of goods.—Overalls.
Claims use since Sept. 26, 1914.

Ser. No. 87,703. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHANE BROS. & WILSON COMPANY, Philadelphia, Pa. Filed July 6, 1915.



Particular description of goods.—Wheat-Flour.
Claims use since about May 5, 1915.

Ser. No. 89,088. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE SUNRISE SHOE POLISH COMPANY, Chicago, Ill. Filed Sept. 7, 1915.



Particular description of goods.—A Dressing for White Leather Shoes.
Claims use since Sept. 1, 1912.

Ser. No. 89,386. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE NATIONAL SAFETY APPLIANCE COMPANY, San Francisco, Cal. Filed Sept. 22, 1915.



Particular description of goods.—Mechanical Train-Stop Appliances, Air-Strainers Used on Same, Seals, Seals for Stop-Cocks, Seals for Train-Stop Covers, and Valves for Mechanical Train-Stop Appliances.
Claims use since Aug. 5, 1915.

Ser. No. 89,760. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HART SALES COMPANY, INC., New York, N. Y. Filed Oct. 9, 1915.



No claim being made to the exclusive use of the words appearing on the drawing aside from the word "Jack's," except as associated with other features of the mark.

Particular description of goods.—A Cleaning Paste for Removing Dirt and Grease and Stains Caused by Oil, Ink, and the Like from Canvas and Leather Shoes.

Claims use since about Aug. 23, 1915.

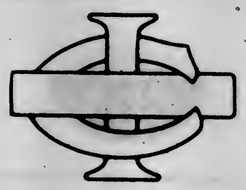
Ser. No. 90,285. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) RUBLY COMPANY, INC., New York, N. Y. Filed Nov. 1, 1915.

TUCKAHOE

Particular description of goods.—Toggle-Bolts.

Claims use since Nov. 13, 1912.

Ser. No. 90,650. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) INTERNATIONAL COLOR & CHEMICAL CO., INC., Detroit, Mich. Filed Nov. 15, 1915.



Particular description of goods.—Scarlet Chromes in Oil, Basic Chromes in Oil, White Lead in Oil.

Claims use since Mar. 1, 1915.

Ser. No. 90,836. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE MADDEN COMPANY, Chicago, Ill. Filed Nov. 22, 1915.

BLUE FLAG

Particular description of goods.—Metal Derails.

Claims use since October, 1915.

Ser. No. 91,027. (CLASS 39. CLOTHING.) UNION SPECIAL MACHINE COMPANY, Chicago, Ill. Filed Nov. 29, 1915.



Particular description of goods.—Dress and Negligée Shirts, Knitted Underwear, Hosiery, Bathing-Suits, Gloves and Mittens, Hats and Caps, Outer and Under Skirts, Sweaters, Coats and Overcoats, Vests, Jackets, Fascinators, Jerseys, Mackinaws, Mufflers, Bath Robes and Wrappers, Textile Underwear, Uniforms, and Athletic Underwear—viz., Gymnasium-Suits, Undershirts, Drawers, and Trunks.

Claims use since about December, 1893.

Ser. No. 91,229. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WILLIAM S. MERRELL CHEMICAL COMPANY, Cincinnati, Ohio. Filed Dec. 6, 1915. Under ten-year proviso.

NORMAL

Particular description of goods.—Fluid Medicines Made from Plant Drugs and Known as Tinctures, of the Character Disclosed in the Catalogue Filed and Made Part of the Record in This Case.

Claims use since January, 1895.

Ser. No. 91,438. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) H. R. MALLINSON & CO., New York, N. Y. Filed Dec. 13, 1915.

KHAKI-KOOL

Consisting of the arbitrary combination "Khaki-Kool," no claim being made to the exclusive use of either of the words except as part of the combination constituting the trade-mark, applicant expressly disclaiming the words apart from their association with each other.

Particular description of goods.—Silk Piece Goods.

Claims use since April, 1913.

Ser. No. 91,461. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) R. & H. SIMON COMPANY, Union Hill, N. J., and New York, N. Y. Filed Dec. 13, 1915.

Armure Rousseau

Consisting of the arbitrary term "Armure Rousseau," no claim being made to either the word "Armure" or the word "Rousseau" except in the combination and order of words as shown.

Particular description of goods.—Silk Piece Goods.

Claims use since about May, 1915.

Ser. No. 91,876. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KOLOMAN KOVACS, Duquesne, Pa. Filed Jan. 3, 1916.



The portrait and autograph of the applicant.

Particular description of goods.—Remedies for Rheumatism, Headache, Roughness and Dryness of the Skin, Lotions and Creams for Facial and Bodily Massages; Remedies for Coughs, Colds, Hoarseness, Whooping-Cough, Catarrh, Bronchitis, Cramps, and Disorders of the Stomach and Liver; Remedies for Corns, Calluses, Toothache; Ointments for Cuts and Wounds; Salves for Burns and Scalds, and Remedies for Colic and Disorders Consequent Upon Teething in Infants.

Claims use since May 1, 1913.

Ser. No. 93,146. (CLASS 39. CLOTHING.) MORRIS, GOLDSCHMIDT AND COMPANY INCORPORATED, Chicago, Ill. Filed Feb. 28, 1916.



No claim is made to the words "Always a Step Ahead" apart from the mark shown in the drawing.

Particular description of goods.—Men's Cloth Outer Garments—Namely, Suits, Overcoats, Jackets, Mackinaws, and Ulsters.

Claims use since Aug. 15, 1915.

Ser. No. 93,243. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE STAMFORD FOUNDRY COMPANY, Stamford, Conn. Filed Mar. 2, 1916.



Particular description of goods.—Wood and Coal Burning Ranges and Wood and Coal Burning Stoves.

Claims use since about Mar. 25, 1913.

Ser. No. 94,538. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HIKELL MFG. CO., Omaha, Nebr. Filed Apr. 19, 1916.



The picture being fanciful.

Particular description of goods.—Talcum Powder, Liquid Face-Powder, Beauty-Creams, Skin-Lotion, Liquid Shampoo, Dandruff-Remover and Hair-Tonic, Depilatory, and Rouge.

Claims use since Feb. 18, 1916.

Ser. No. 95,080. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) ARTHUR H. LEMON, Chicago, Ill. Filed May 11, 1916.



The word "Metal" being hereby disclaimed.

Particular description of goods.—Babbitt Metal.

Claims use since Mar. 1, 1916.

Ser. No. 95,083. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE PATTERSON-SARGENT COMPANY, Cleveland, Ohio. Filed May 11, 1916.

HULLEAD

Particular description of goods.—Dry and Ready-Mixed Paints, Driers, Enamels, Stains, Wall-Paints, Lacs, Fillers, and Varnishes.

Claims use since Apr. 25, 1916.

Ser. No. 95,399. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KINGSPORT EXTRACT CORPORATION, Kingsport, Tenn. Filed May 24, 1916.

KEX

Particular description of goods.—Extracts Derived from Chestnut Woods.

Claims use since Jan. 1, 1916.

Ser. No. 95,730. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) STAMFORD ROLLING MILLS COMPANY, New York, N. Y. Filed June 8, 1916.



No claim being made to the words "Stamford," "Springdale, Conn.," "Superior Stock," or "Stamford Rolling Mills Co., Inc.," except as associated with the other features shown in the drawing.

Particular description of goods.—Brass, Copper, Cupro-Nickel, Gilding Metal, and German Silver in Sheets and other Forms.

Claims use since Sept. 1, 1915.

Ser. No. 95,879. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BRITISH MILK PRODUCTS COMPANY LIMITED, London, England. Filed June 15, 1916.

SANAPHOS

Particular description of goods.—A Tonic Food.

Claims use since the 7th of September, 1914.

Ser. No. 96,038. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed June 21, 1916.

Pastime

Particular description of goods.—Boots and Shoes of Rubber, Leather, and Canvas.

Claims use since September, 1912.

Ser. No. 96,450. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WINDSOR PRINT WORKS, North Adams, Mass., and New York, N. Y. Filed July 8, 1916.



No claim being made to the word "Windsor" apart from the mark shown in the drawing.

Particular description of goods.—Cotton Piece Goods and Mixed Silk and Cotton Piece Goods.

Claims use since the 10th day of April, 1907.

Ser. No. 96,461. CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARNOLD CARSON, Philadelphia, Pa. Filed July 10, 1916.



Particular description of goods.—Salves for Healing Wounds and Skin Diseases.

Claims use since July 1, 1916.

Ser. No. 96,594. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MINT PRODUCTS COMPANY, INCORPORATED, New York, N. Y. Filed July 15, 1916.

LIFE SAVERS

Particular description of goods.—Chewing-Gum, Candy, Sweetmeats, and Confections.

Claims use since July 11, 1916.

Ser. No. 96,742. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) T. E. BISSELL COMPANY LIMITED, Elora, Ontario, Canada. Filed July 22, 1916.



Particular description of goods.—Disk Harrows and Land-Rollers.

Claims use since the 4th day of July, 1894.

Ser. No. 96,760. (CLASS 17. TOBACCO PRODUCTS.) CHRISTIAN PEPER TOBACCO CO., St. Louis, Mo. Filed July 22, 1916.

REAL SMOKE

The trade-mark consisting of the words "Real Smoke," no claim being made to the word "Smoke" apart from the mark shown in the drawing.

Particular description of goods.—Smoking and Chewing Tobacco.

Claims use since June 23, 1916.

Ser. No. 96,947. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON BARON, New York, N. Y. Filed July 29, 1916.

REZUM

Particular description of goods.—Inflammations, Eruptions, and Irritations of the Skin.

Claims use since on or about Nov. 1, 1910.

Ser. No. 97,006. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) WILLIAM TONK & BRO., INC., New York, N. Y. Filed July 31, 1916. Under ten-year proviso.

Tonk

Particular description of goods.—Grand Pianos, Upright Pianos, Player-Pianos, and Electric Player-Pianos.

Claims use since Oct. 6, 1888.

Ser. No. 97,354. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) L. F. ROBERTSON & SONS, New York, N. Y. Filed Aug. 15, 1916.

ALABASTER

The word "Alabaster."

Particular description of goods.—Calf, Elk, and Side Upper-Leather.

Claims use since Mar. 29, 1916.

Ser. No. 97,355. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) N. J. REILLY & COMPANY, Boston, Mass. Filed Aug. 15, 1916.

PALISADE

The word "Palisade."

Particular description of goods.—Kid, Calf, Patent, Sheep, Cabritas, Splits, and Sole Leather.

Claims use since Nov. 1, 1914.

Ser. No. 97,356. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOUTH TEXAS GRAIN COMPANY, Houston, Tex. Filed Aug. 15, 1916.



Particular description of goods.—Cornmeal, Cream-Meal, and Grits.

Claims use since Aug. 8, 1916.

Ser. No. 97,410. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PLASTIC CEMENTS & FIBRASTIC LTD., Westminster, London, England. Filed Aug. 17, 1916.

CUTELINE

Particular description of goods.—Preservative Dressings or Compositions for Wood, Stonework, Brickwork, and Metal.

Claims use since the 14th day of June, 1916.

Ser. No. 97,451. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE FAULTLESS RUBBER CO., Ashland, Ohio. Filed Aug. 19, 1916.

Reliance
De Luxe

No claim being made to the words "De Luxe" apart from the mark shown in the drawing.

Particular description of goods.—Ice-Caps, Invalid-Rings, Bandages, Breast-Pumps, Bulbs, Rubber Crutch-Tips, Nursing-Bottles and Fittings, Stomach-Tubes and Water-Bottle Stoppers, Breast-Shields, Colon-Tubes, Water-Bottles, Fountain-Syringes, Combination Water-Bottles and Fountain-Syringes, Finger-Cots, Invalid-Cushions, Operating-Cushions, Ice-Bags, Water-Caps, Face-Masks, Medicine-Droppers, Nipples, Nipple-Shields, Rectal Tubes, Socket Ends in Syringe-Tubings, Syringes, and Rubber Syringe-Tubing.

Claims use since Aug. 7, 1916.

Ser. No. 97,472. (CLASS 17. TOBACCO PRODUCTS.) THEOBALD AND OPPENHEIMER COMPANY, Philadelphia, Pa., and New York, N. Y. Filed Aug. 21, 1916.



The picture shown in the drawing being fanciful.
Particular description of goods.—Cigars.
Claims use since the year 1892.

Ser. No. 97,473. (CLASS 17. TOBACCO PRODUCTS.) THEOBALD AND OPPENHEIMER COMPANY, Philadelphia, Pa., and New York, N. Y. Filed Aug. 21, 1916.



The picture in the drawing being fanciful.
Particular description of goods.—Cigars.
Claims use since the year 1899.

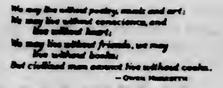
Ser. No. 97,479. (CLASS 17. TOBACCO PRODUCTS.) UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y. Filed Aug. 21, 1916.



The portrait shown in the drawing being that of Lawrence Barrett.
Particular description of goods.—Cigars.
Claims use since the year 1884.

Ser. No. 97,701. (CLASS 38. PRINTS AND PUBLICATIONS.) EDGAR W. BRIGGS, San Francisco, Cal. Filed Aug. 30, 1916.





No claim being made to the words "America's Standard" or to the quotation and name "Owen Meredith" apart from the mark shown in the drawing.
Particular description of goods.—A Weekly Publication.
Claims use since May 1, 1910.

Ser. No. 97,860. (CLASS 11. INKS AND INKING MATERIALS.) DE LUXE MFG. CO., Chicago, Ill. Filed Sept. 8, 1916.



Exclusive right to the use of the words "De Luxe" apart from the remainder of the mark being disclaimed.
Particular description of goods.—Writing-Ink and Drawing-Ink in Both Liquid and Soluble Tablet Form.
Claims use since February, 1915.

Ser. No. 97,883. (CLASS 39. CLOTHING.) UNION SPECIAL MACHINE COMPANY, Chicago, Ill. Filed Sept. 9, 1916.

THE SEAM
THAT TOOK THE
"itch"
OUT OF STITCH

Particular description of goods.—Knitted Underwear, Sweaters, and Stockings, and Corsets.
Claims use since Aug. 15, 1916.

Ser. No. 97,984. (CLASS 15. OILS AND GREASES.) HARRISON B. DENTON, Beardstown, Ill. Filed Sept. 14, 1916.

TREX

Particular description of goods.—Polishing-Oils.
Claims use since Feb. 1, 1916.

Ser. No. 98,044. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) EMERSON-BRANTINGHAM COMPANY, Rockford, Ill. Filed Sept. 18, 1916.



The trade-mark consists of the letters "E-B" surrounded by a diamond-shape border, no exclusive claim being made to the use of the words "The," "Line," "Emerson," "Brantingham," "Farm," and "Machinery" apart from the mark as shown.
Particular description of goods.—Wagons, Buggies, Sleds, Auto-Trailers, Pole-Trucks, Transportation-Trucks, and Harrow-Carts.
Claims use since Jan. 1, 1916.

Ser. No. 98,072. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUSTIN, NICHOLS & CO. INC., Brooklyn and New York, N. Y. Filed Sept. 19, 1916.

CARMELO

Particular description of goods.—Macaroni, Preserved Figs, Ripe Olives.
Claims use since Jan. 1, 1914.

Ser. No. 98,214. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT CO., New York, N. Y., and Kansas City, Mo. Filed Sept. 25, 1916.



Particular description of goods.—Cakes of the Kind Known as Cookies.
Claims use since about July 21, 1916.

Ser. No. 98,254. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE HAWTHORNE MANUFACTURING COMPANY, INCORPORATED, Bridgeport, Conn. Filed Sept. 27, 1916.

OLD SOL

Particular description of goods.—Display Stands, Cases, and Supports for Electric-Light Outfits and for Battery-Cases, Generator-Cases, Brackets, Clamps, Switches, and Connections for Electric Hand and Vehicle Lamps.
Claims use since Oct. 1, 1910.

Ser. No. 98,263. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) P. MAX KUEHNRICH, Los Angeles, Cal. Filed Sept. 27, 1916.

SALT O' the EARTH

Particular description of goods.—Gluten Bread, Wheat Bread, Rye Bread, Whole-Wheat Bread, Graham Bread, Bran Bread, Phosphate Bread, Pumpernickel Bread, Zwieback, Rolls, Biscuits, Crackers, Cookies, Cakes, Wafers, Potato-Flour, Gluten-Flour, Wheat-Flour, Rye-Flour, Whole-Wheat Flour, Graham Flour, Bran-Flour, Phosphate-Flour, Sweet Milk, Sweet Cream, Sour Milk, Sour Cream, Buttermilk, Condensed Milk, Condensed Cream, Evaporated Milk, Evaporated Cream, Powdered Milk, Malted Milk, Cocoa, Chocolate, Candy, Chewing-Gums, Canned and Dried Vegetables, and Fruits.
Claims use since June 17, 1916.

Ser. No. 98,265. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) P. MAX KUEHNRICH, Los Angeles, Cal. Filed Sept. 27, 1916.

SALT O' SALTS

Particular description of goods.—Gluten Bread, Wheat Bread, Rye Bread, Whole-Wheat Bread, Graham Bread, Bran Bread, Phosphate Bread, Pumpernickel Bread, Zwieback, Rolls, Biscuits, Crackers, Cookies, Cakes, Wafers, Potato-Flour, Gluten-Flour, Wheat-Flour, Rye-Flour, Whole-Wheat Flour, Graham Flour, Bran-Flour, Phosphate-Flour, Sweet Milk, Sweet Cream, Sour Milk, Sour Cream, Buttermilk, Condensed Milk, Condensed Cream, Evaporated Milk, Evaporated Cream, Powdered Milk, Malted Milk, Cocoa, Chocolate, Candy, Chewing-Gum, Canned and Dried Vegetables, and Fruits.
Claims use since June 17, 1916.

Ser. No. 98,267. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) P. MAX KUEHNRICH, Los Angeles, Cal. Filed Sept. 27, 1916.

SALT O' LIFE

Particular description of goods.—Gluten Bread, Wheat Bread, Rye Bread, Whole-Wheat Bread, Graham Bread, Bran Bread, Phosphate Bread, Pumpernickel Bread, Zwieback, Rolls, Biscuits, Crackers, Cookies, Cakes, Wafers, Potato-Flour, Gluten-Flour, Wheat-Flour, Rye-Flour, Whole-Wheat Flour, Graham Flour, Bran-Flour, Phosphate-Flour, Sweet Milk, Sweet Cream, Sour Milk, Sour Cream, Buttermilk, Condensed Milk, Condensed Cream, Evaporated Milk, Evaporated Cream, Powdered Milk, Malted Milk, Cocoa, Chocolate, Candy, Chewing-Gum, Canned and Dried Vegetables, and Fruits.
Claims use since June 17, 1916.

Ser. No. 98,292. (CLASS 39. CLOTHING.) ALEXANDER HINCHUK & Co., New York, N. Y. Filed Sept. 28, 1916.



No claim is made to the letters "U. S. A." apart from the mark as shown.

Particular description of goods.—Men's, Women's, and Children's Leather Boots and Shoes.

Claims use since the 1st day of September, 1916.

Ser. No. 98,449. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS AND PARTS THEREOF.) F. L. SMIDTH & Co., New York, N. Y. Filed Oct. 5, 1916.

DANULA

Particular description of goods.—Machines for Grinding and Pulverizing Limestones, Oyster-Shells, and Clay for the Manufacture of Portland Cement.

Claims use since about Jan. 29, 1916.

Ser. No. 98,452. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) HARRY B. WALLACE, St. Louis, Mo. Filed Oct. 5, 1916.

RHINOS

Particular description of goods.—Rubber Tires.

Claims use since on or about the 25th day of September, 1916.

Ser. No. 98,454. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WASHBURN CROSBY COMPANY, Minneapolis, Minn. Filed Oct. 5, 1916.

MERIT

Particular description of goods.—Blended Wheat and Rye Flour.

Claims use since about 1908.

Ser. No. 98,492. (CLASS 6. CHEMICALS, MEDICINES AND PHARMACEUTICAL PREPARATIONS.) CORDELIA LOUISE CARON-MORIN, Manchester, N. H. Filed Oct. 7, 1916.

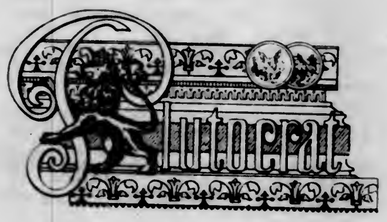


The photograph being that of the applicant.

Particular description of goods.—Nerve Medicine.

Claims use since the 4th day of September, 1916.

Ser. No. 98,580. (CLASS 17. TOBACCO PRODUCTS.) UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y. Filed Oct. 11, 1916.



The lining appearing in the drawing submitted upon this application is not intended to represent color, but merely shading.

Particular description of goods.—Cigars.

Claims use since the year 1891.

Ser. No. 98,597. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE R. L. KENYON CO., Waukesha, Wis. Filed Oct. 12, 1916.

Luxfibre

Particular description of goods.—Fiber Lawn and Porch Tables, Chairs, Settees, and Swings; Fiber Library Chairs and Tables; Fiber Dining-Room Chairs and Tables, Fiber Beds and Dressers, Fiber Book-Stands, Magazine-Stands, Jardinières, Desks, and Tea-Wagons.

Claims use since June 1, 1916.

Ser. No. 98,647. (CLASS 39. CLOTHING.) BROWNSTEIN-LOUIS COMPANY, Los Angeles, Cal. Filed Oct. 14, 1916.



The trade-mark comprising a picture illustrating a coatless man pointing upward with his right hand at a bridge in the background, there being a dredger and a building appearing through one of the arches of the bridge, a derrick on the bridge, and a building to the right of the bridge shown in the accompanying drawings.

Particular description of goods.—Shirts.

Claims use since Mar. 1, 1916.

Ser. No. 98,657. (CLASS 17. TOBACCO PRODUCTS.) EDWARD A. FILENE, Boston, Mass. Filed Oct. 14, 1916.

TIDBITS

The word "Tidbits."

Particular description of goods.—Cigars.

Claims use since July 27, 1916.

Ser. No. 98,678. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUNT JEMIMA MILLS COMPANY, St. Joseph, Mo. Filed Oct. 16, 1916.

A-J

No claim being made to the use of the words "Trade Mark Reg. U. S. Pat. Off."

Particular description of goods.—Cornmeal.

Claims use since Feb. 1, 1914.

Ser. No. 98,684. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) DURKEE-ATWOOD CO., Minneapolis, Minn. Filed Oct. 16, 1916.

RieNie

Particular description of goods.—Air-Drying Black Enamel, Cylinder-Enamel, Aluminum Enamel, Rim-Paint, Refinishing-Paint, a Rubber Paint for Renewing Tires, a Gum-Shellac Dip.

Claims use since the 11th day of December, 1911.

Ser. No. 98,703. (CLASS 39. CLOTHING.) THE NATIONAL GARMENT COMPANY, Massillon, Ohio. Filed Oct. 16, 1916.



Particular description of goods.—Petticoats.

Claims use since June, 1916.

Ser. No. 98,718. (CLASS 17. TOBACCO PRODUCTS.) M. A. GUNST & Co., INCORPORATED, Portland, Me., and New York, N. Y. Filed Oct. 17, 1916.



The lining appearing in the drawing upon this application is used merely for the purpose of shading and not to indicate color.

Particular description of goods.—Cigars.

Claims use since the year 1904.

Ser. No. 98,733. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) JENSEN CREAMERY MACHINERY COMPANY, New York, N. Y. Filed Oct. 17, 1916.



Particular description of goods.—Heaters and Can-Driers, Being Essentially Parts of Dairy Machines or Equipments.

Claims use since Dec. 1, 1915.

Ser. No. 98,745. (CLASS 12. CONSTRUCTION MATERIALS.) DAVIS CARPENTER & CO., INC., New York, N. Y. Filed Oct. 18, 1916.



Particular description of goods.—Vault-Light Panels or Slabs.

Claims use since on or about the 1st day of March, 1916.

Ser. No. 98,752. (CLASS 39. CLOTHING.) HALL, HARTWELL & Co., Troy, N. Y. Filed Oct. 18, 1916.

Beaux Arts

Particular description of goods.—Collars and Shirts.
Claims use since about Sept. 25, 1915.

Ser. No. 98,780. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE ANDERSON ROLLED GEAR COMPANY, Lakewood, Ohio. Filed Oct. 20, 1916.

ROLLED TEETH
THE ANDERSON PROCESS
GEARS
H. N. Anderson

Said trade-mark containing the autograph signature of H. N. Anderson; but no claim is made for the words "Rolled Teeth Gears, The Anderson Process."
Particular description of goods.—Gears.
Claims use since about June, 1916.

Ser. No. 98,804. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK W. S. ELSTROTH, Brooklyn, N. Y. Filed Oct. 21, 1916.

Old Clove Road

Under ten-year proviso.
The trade-mark consists of the arbitrarily-designated words "Old Clove Road," which had grown to be a distinguishing-mark of the goods in the mind of the public for more than ten years prior to February 20, 1905.
Particular description of goods.—Salve Used as an Emollient in Treating Burns, Scalds, Cuts, Bruises, Piles, Felons, Gout, Bunions, Corns, Chilblains, Varicose Ulcer, Insect-Bites, and Old Sores.
Claims use since June 26, 1886.

Ser. No. 98,810. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LESHER, WHITMAN & Co., INC., New York, N. Y. Filed Oct. 21, 1916.

Golden Glow

Particular description of goods.—Piece Goods with Cotton Warp and Filling of Wool, Mohair, or Alpaca.
Claims use since Aug. 19, 1916.

Ser. No. 98,811. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) LEXINGTON BREWING COMPANY, Lexington, Ky. Filed Oct. 21, 1916.

Kenlee

The background being in red.
Particular description of goods.—Non-Alcoholic Beverage, a Soft Drink.
Claims use since on or about the month of August, 19[illegible]

Ser. No. 98,813. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THORBURN BRAILSFORD ROBERTSON, Berkeley, Cal. Filed Oct. 21, 1916.

TETHELIN

Particular description of goods.—A Growth-Controlling Substance Derived from the Anterior Lobe of the Pituitary Gland.
Claims use since about the 15th day of January, 1916.

Ser. No. 98,854. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) AJAX RUBBER COMPANY, INC., Millbrook, N. Y. Filed Oct. 24, 1916.

PARAGON

Particular description of goods.—Automobile and Bicycle Tires of Rubber and Fabric.
Claims use since September, 1916.

Ser. No. 98,866. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS J. STERN, Boston, Mass. Filed Oct. 24, 1916.

X

Particular description of goods.—A Composition for Internally Stopping Leaks in Radiators, Boilers, &c., for Eliminating Rust, for Preventing Corrosion of Substantially All Metals, and for Preventing Formation of Scale in Boilers.
Claims use since Jan. 1, 1914.

Ser. No. 98,973. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DEFIANCE CHECK WRITER CORPORATION, Rochester, N. Y. Filed Oct. 30, 1916.

Defiance

Particular description of goods.—Printing-Machines, and More Particularly Checkwriters and Check-Protectors.
Claims use since June, 1900.

Ser. No. 98,981. (CLASS 39. CLOTHING.) THE KAUT-REITH SHOE COMPANY, Carthage, Mo. Filed Oct. 30, 1916.



Particular description of goods.—Boots and Shoes of Kid, Leather, and Canvas.
Claims use since Sept. 12, 1916.

Ser. No. 98,989. (CLASS 38. PRINTS AND PUBLICATIONS.) SCHOOL OF APPLIED ART, Battle Creek, Mich. Filed Oct. 30, 1916.



Particular description of goods.—Instruction-Books and Advertising-Booklets.
Claims use since January, 1904.

Ser. No. 98,999. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GLOBE CANNING CO., Eastport, Me. Filed Oct. 31, 1916.

LURE

Particular description of goods.—Canned Sardines.
Claims use since Sept. 21, 1916.

Ser. No. 99,000. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GLOBE CANNING CO., Eastport, Me. Filed Oct. 31, 1916.

HERA

Particular description of goods.—Canned Sardines.
Claims use since Sept. 21, 1916.

Ser. No. 99,004. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GLOBE CANNING CO., Eastport, Me. Filed Oct. 31, 1916.

DRESDA

Particular description of goods.—Canned Sardines.
Claims use since Sept. 21, 1916.

Ser. No. 99,005. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GLOBE CANNING CO., Eastport, Me. Filed Oct. 31, 1916.

ALINE

Particular description of goods.—Canned Sardines.
Claims use since Sept. 22, 1916.

Ser. No. 99,012. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) R. H. MACY & Co., New York, N. Y. Filed Oct. 31, 1916.

JESSAMINE

Particular description of goods.—Canned Goods—to wit, Syrup, (for Table Purposes.) Black Cherries, White Cherries, Grated Pineapple, Green-Gage Plums, Egg-Plums, Stringless Beans, Cut Tomatoes, Green Asparagus, Marrowfat Peas, Lima Beans, Sugar-Corn, White Asparagus, California Apricots, Bartlett Pears, Yellow Cling-Peaches, Lemon Cling-Peaches.
Claims use since 1896.

Ser. No. 99,018. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEPHEN F. WHITMAN & SON, INCORPORATED, Philadelphia, Pa. Filed Oct. 31, 1916.



Particular description of goods.—Chocolates and Candy.
Claims use since about July 30, 1916.

Ser. No. 99,040. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich. Filed Nov. 2, 1916.

Kellogg's

The trade-mark is a facsimile of the surname, in the possessive case, of the president of applicant corporation, whose full name is Will K. Kellogg, in his handwriting.

Particular description of goods.—A Drug Specifically Described as Soda Mints.

Claims use since about May, 1907.

Ser. No. 99,100. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TASTY BAKING COMPANY, Philadelphia, Pa. Filed Nov. 4, 1916.

THE CAKE THAT MADE MOTHER STOP BAKING

Particular description of goods.—Bread, Cake, and Crackers.

Claims use since May 1, 1916.

Ser. No. 99,107. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE LOWE BROTHERS COMPANY, Dayton, Ohio. Filed Nov. 4, 1916.

Mellotone

Particular description of goods.—Ready-Mixed Paints.

Claims use since Aug. 1, 1909.

Ser. No. 99,112. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ARVAC MANUFACTURING COMPANY, Anderson, Ind. Filed Nov. 6, 1916.

ARVAC

Particular description of goods.—Universal Joints.

Claims use since Mar. 31, 1916.

Ser. No. 99,113. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) ARVAC MANUFACTURING COMPANY, Anderson, Ind. Filed Nov. 6, 1916.

ARVAC

Particular description of goods.—Gray-Iron-Metal Castings.

Claims use since Mar. 31, 1916.

Ser. No. 99,119. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ECKMAN MANUFACTURING COMPANY, Camden, N. J., and Philadelphia, Pa. Filed Nov. 6, 1916.

Calcerbs

Particular description of goods.—Tablets for Coughs, Colds, Asthmatic and Bronchial Troubles.

Claims use since on or about Nov. 1, 1916.

Ser. No. 99,134. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Nov. 6, 1916.

TREKKER

Particular description of goods.—Plows.

Claims use since September, 1908.

Ser. No. 99,136. (CLASS 38. PRINTS AND PUBLICATIONS.) THE STERN & SAALBERG COMPANY, New York, N. Y. Filed Nov. 6, 1916.

The SALES ROLLER

Comprising the words "The Sales Roller."

Particular description of goods.—A Monthly Publication.

Claims use since January, 1916.

Ser. No. 99,143. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) THE BELBER TRUNK & BAG COMPANY, Philadelphia, Pa. Filed Nov. 7, 1916.



Particular description of goods.—Trunks, Traveling-Bags, and Suitcases.

Claims use since the year 1911.

Ser. No. 99,145. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BLACKMER ROTARY PUMP CO., Petoskey, Mich. Filed Nov. 7, 1916.

Blackmer Maid

Particular description of goods.—Rotary Pumps.

Claims use since May 1, 1915.

Ser. No. 99,150. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) LUYTIES BROTHERS, New York, N. Y. Filed Nov. 7, 1916.

La Fontaine



Particular description of goods.—Cordials.

Claims use since Sept. 18, 1916.

Ser. No. 99,151. (CLASS 38. PRINTS AND PUBLICATIONS.) THE MONEYBACK CORPORATION, New York, N. Y. Filed Nov. 7, 1916.

MONEY BACK

Particular description of goods.—Trading-Stamps.

Claims use since May 29, 1916.

Ser. No. 99,157. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ARMSTRONG BROS. TOOL CO., Chicago, Ill. Filed Nov. 8, 1916. Under ten-year proviso.

ARMSTRONG

Particular description of goods.—Tool-Holders for Lathe, Planer, and Shaper Tools, Tool-Posts, Drill Sleeves and Sockets, Bolt-Drivers, Planer-Jacks, Drill-Vises, Wrenches, Clamps, Lathe-Dogs, Drill-Drifts, Drilling-Posts, and Ratchet-Drills.

Claims use since 1892.

Ser. No. 99,166. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GENERAL TIRE & RUBBER COMPANY, Akron, Ohio. Filed Nov. 8, 1916.

JUMBO

Particular description of goods.—Rubber Tires or Tire-Casings of Rubber with Suitable Strengthening Material and Inner Tubes for Pneumatic Tires.

Claims use since about Aug. 1, 1916.

Ser. No. 99,170. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ABRAHAM M. MALOUF, Salt Lake City, Utah. Filed Nov. 8, 1916.

The First National Stores

"The First National Stores." The words "The" and "Stores" are disclaimed.

Particular description of goods.—Ribbons, Silk and Cotton Handkerchiefs, Sheets and Pillow-Cases, Silk Dress Goods by the Yard, Elastic Webs and Elastic Rubber Webs, Bedspreads Made of Cotton and Wool, Wool Blankets, and Laces Made of Cotton and Silk.

Claims use since the 3d day of January, 1916.

Ser. No. 99,191. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KENTUCKY WAGON MANUFACTURING CO., Louisville, Ky. Filed Nov. 9, 1916.

OLD HICKORY

Particular description of goods.—Lime-Sowers, Manure-Spreaders, Fertilizer-Sowers.

Claims use since Jan. 1, 1916.

Ser. No. 99,202. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WELLINGTON, SEARS & COMPANY, Boston, Mass. Filed Nov. 9, 1916.

OCEANIC

Particular description of goods.—Cloth Known as Cotton Duck.

Claims use since about Apr. 1, 1906.

Ser. No. 99,205. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BRIDGEPORT BRASS COMPANY, Bridgeport, Conn. Filed Nov. 10, 1916.

"Aeolus"

Particular description of goods.—Automobile-Tire Pumps.

Claims use since on or about the 1st day of January, 1891.

Ser. No. 99,221. (CLASS 39. CLOTHING.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Nov. 10, 1916.

CONVINCER

Particular description of goods.—Men's, Women's, and Children's Leather Shoes.
Claims use since June 1, 1905.

Ser. No. 99,222. (CLASS 39. CLOTHING.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Nov. 10, 1916.

AZTEC

Particular description of goods.—Men's Leather Shoes.
Claims use since July 29, 1916.

Ser. No. 99,223. (CLASS 39. CLOTHING.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Nov. 10, 1916.

ALADDIN

Particular description of goods.—Men's Leather Shoes.
Claims use since July 29, 1916.

Ser. No. 99,224. (CLASS 39. CLOTHING.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Nov. 10, 1916.

POTENTATE

Particular description of goods.—Men's Leather Shoes.
Claims use since July 28, 1916.

Ser. No. 99,225. (CLASS 28. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Nov. 10, 1916.

THERMOIL

Particular description of goods.—Oil-Engines.
Claims use since Aug. 16, 1916.

Ser. No. 99,246. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) IMPERIAL CANDY CO., Seattle, Wash. Filed Nov. 11, 1916.

BLACK & WHITE

Particular description of goods.—Chocolates and Bonbons.
Claims use since October, 1915.

Ser. No. 99,267. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EMIL SPITZER, Los Angeles, Cal. Filed Nov. 8, 1916.

Bakers

Particular description of goods.—Candies and Confections.
Claims use since Apr. 1, 1916.

Ser. No. 99,282. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) A. S. ROSENTHAL CO., New York, N. Y. Filed Nov. 13, 1916.

ROSCO

Particular description of goods.—Cotton and Silk Piece Goods.
Claims use since 1907.

Ser. No. 99,307. (CLASS 39. CLOTHING.) THE ADAMS & FORD COMPANY, Cleveland, Ohio. Filed Nov. 15, 1916.

Goody 2 Shoes

The word "Shoes" is hereby disclaimed except when used in connection with the other features of the trade-mark.
Particular description of goods.—Leather Boots and Shoes.
Claims use since July, 1914.

Ser. No. 99,312. (CLASS 39. CLOTHING.) MANHATTAN PETTICOAT CO. INC., New York, N. Y. Filed Nov. 15, 1916.

Manpeco

Comprising the word "Manpeco."
Particular description of goods.—Petticoats.
Claims use since Oct. 13, 1916.

Ser. No. 99,318. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE D. H. ARNOLD CO., New York, N. Y. Filed Nov. 16, 1916.

DURABILITY STRENGTH VENICE THE D A C SATIN PERMANENCY GUARANTEED

The words "Venice Satin," "Durability," "Strength," "Permanency," and "Guaranteed" are disclaimed.
Particular description of goods.—Mercerized Cotton for Linings.
Claims use since Nov. 9, 1916.

Ser. No. 99,336. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLARENCE A. CRANE, Cleveland, Ohio. Filed Nov. 17, 1916.

CANARY COTTAGE

Particular description of goods.—Chocolate.
Claims use since Sept. 9, 1916.

Ser. No. 99,346. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FORT WAYNE DRUG COMPANY, Fort Wayne, Ind. Filed Nov. 17, 1916.

MARNOLAC

Particular description of goods.—Colored-Varnish Finish.
Claims use since Oct. 19, 1916.

Ser. No. 99,349. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) INDIA RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed Nov. 17, 1916.

62-B

Particular description of goods.—Battery-Jars.
Claims use since Sept. 13, 1915.

Ser. No. 99,351. (CLASS 39. CLOTHING.) KINGSBERY MANUFACTURING CO., Fort Worth, Tex. Filed Nov. 17, 1916.

BELL

Particular description of goods.—Overalls, Jumpers, Trousers, and Boys' Overalls.
Claims use since Feb. 1, 1903.

Ser. No. 99,352. (CLASS 39. CLOTHING.) KINGSBERY MANUFACTURING CO., Fort Worth, Tex. Filed Nov. 17, 1916.

FAWN

Particular description of goods.—Overalls, Jumpers, Trousers, and Boys' Overalls.
Claims use since Feb. 1, 1903.

Ser. No. 99,361. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SEARS AND NICHOLS CANNING CO., Chillicothe, Ohio. Filed Nov. 17, 1916.

SWEETLAND

Particular description of goods.—Canned String-Beans, Canned Corn, Canned Peas, Canned Red Beets, Canned Spinach, Canned Sauer-Kraut, Canned Pumpkin, and Canned Hominy.
Claims use since Aug. 19, 1916.

Ser. No. 99,363. (CLASS 39. CLOTHING.) A. V. VICTORIUS & CO., New York, N. Y. Filed Nov. 17, 1916.

Blue Bird Infant Hose

No claim being made to the exclusive use of the words "Infant's Hose."
Particular description of goods.—Hosiery.
Claims use since July 12, 1916.

Ser. No. 99,372. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ELYSÉE OLIVE OIL CO., New York, N. Y. Filed Nov. 18, 1916.

ELYSÉE PALACE



Particular description of goods.—Olive-Oil.
Claims use since Nov. 10, 1916.

Ser. No. 99,373. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GLENCREST FOOD CO., Chicago, Ill. Filed Nov. 18, 1916.

PINECOT

Particular description of goods.—Marmalades and Jams.
Claims use since Sept. 1, 1916.

Ser. No. 99,382. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PRATT-LOW PRESERVING COMPANY, Santa Clara, Cal. Filed Nov. 18, 1916.

GOLD LETTER

Particular description of goods.—Canned Fruits and Vegetables, Including Apricots, Pears, Peaches, Cherries, Plums, Blackberries, Grapes, Tomatoes, and Asparagus.
Claims use since Oct. 28, 1916.

Ser. No. 99,385. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEINWENDER-STOFFREGEN COFFEE CO., St. Louis, Mo. Filed Nov. 18, 1916.

FRIENDSHIP CUP

Consisting of the words "Friendship Cup."
Particular description of goods.—Roasted Coffee.
Claims use since Oct. 31, 1916.

Ser. No. 99,425. (CLASS 39. CLOTHING.) THOMAS G. PLANT COMPANY, Boston, Mass. Filed Nov. 20, 1916.



Particular description of goods.—Boots and Shoes of Leather, Rubber, Felt, or other Fabric Construction.
Claims use since Aug. 25, 1916.

Ser. No. 99,428. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & CO. INC., New York, N. Y. Filed Nov. 21, 1916.

"Arthur"

Particular description of goods.—Plush Lap-Robes.
Claims use since the 27th day of March, 1915.

Ser. No. 99,443. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) HENRY A. GARDNER, Washington, D. C. Filed Nov. 21, 1916.

ASBESTOGARD

Particular description of goods.—Paints, Especially Shingle-Paint.
Claims use since Nov. 7, 1916.

Ser. No. 99,444. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JESSE SPAULDING MERRILL, Washington, D. C. Filed Nov. 21, 1916.

Umustav

Particular description of goods.—Water and Soft Drinks.
Claims use since Oct. 11, 1916.

Ser. No. 99,451. (CLASS 47. WINES.) RIPIN & COMPANY, New York, N. Y. Filed Nov. 21, 1916.

Ruby Top

Particular description of goods.—Bottled Sparkling Wines.
Claims use since Jan. 1, 1906.

Ser. No. 99,498. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) W. B. CRANE & COMPANY, Portland, Oreg. Filed Nov. 23, 1916.

PORT-O

Particular description of goods.—A Non-Alcoholic Carbonated Tonic Beverage to be Sold as a Soft Drink.
Claims use since Nov. 3, 1915.

Ser. No. 99,501. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE GORDON'S DRY GIN CO., LTD., New York, N. Y. Filed Nov. 23, 1916.



Particular description of goods.—Scotch Whisky.
Claims use since Nov. 9, 1916.

Ser. No. 99,512. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHN WANAMAKER, NEW YORK, New York, N. Y. Filed Nov. 23, 1916.

Down Stairs and Down Price Store

Particular description of goods.—Dress Goods in the Piece, Flannels, White Goods in the Piece, Silk Fabrics in the Piece, Velvets, Linings, Linens in the Piece, Tapestry Fabrics in the Piece, Armure Fabrics in the Piece, Cretonne Fabrics in the Piece, Rep Fabrics in the Piece, Swiss Fabrics in the Piece, Madras Fabrics in the Piece, Laces, Veilings, Chiffons, Ribbons, Handkerchiefs, Sheets, Pillow and Bolster Cases, Pillow-Covers, Cushion-Covers, Bedspreads, Blankets, Quilts, Table-Covers, Table-Cloths, Centerpieces, Table-Runners, Napkins, Doilies, Towels, Bureau-Scarfs, Bureau-Covers, Bureau Sets, Washstand-Covers, Washstand-Splashers, Washstand Sets, Curtains, Lace Curtains, Madras Curtains, Tapestry Curtains, Velour Curtains, Lace Panels, Mosquito-Netting, Awning Fabrics in the Piece, Textile Rugs, Carpets, Mattings.
Claims use since about Oct. 9, 1916.

Ser. No. 99,550. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) KEYSTONE VARNISH COMPANY, Brooklyn, N. Y. Filed Nov. 25, 1916.

LUX

Particular description of goods.—Enamel Paints.
Claims use since about Oct. 18, 1916.

Ser. No. 99,551. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) KEYSTONE VARNISH COMPANY, Brooklyn, N. Y. Filed Nov. 25, 1916.

INCREESALITE

Particular description of goods.—Enamel Paints.
Claims use since about Oct. 18, 1916.

Ser. No. 99,552. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) KEYSTONE VARNISH COMPANY, Brooklyn, N. Y. Filed Nov. 25, 1916.

REFLEXALITE

Particular description of goods.—Enamel Paints.
Claims use since about Oct. 18, 1916.

Ser. No. 99,566. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHALLENGE TRACTOR COMPANY, Minneapolis, Minn. Filed Nov. 27, 1916.

CHALLENGE

Particular description of goods.—Traction-Engines.
Claims use since about Oct. 1, 1916.

Ser. No. 99,589. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE S. & S. WATER COMPANY, Philadelphia, Pa. Filed Nov. 27, 1916.

S qua S

Particular description of goods.—Soft Drinks—Namely, Ginger-Ale, Sarsaparilla, Lemon and Cream Soda, Root and Birch Beer, Carbonated Water, and other Soft-Drink Beverages.
Claims use since Apr. 8, 1913.

Ser. No. 99,595. (CLASS 48. MALT EXTRACTS AND LIQUORS.) ALONZO G. VAN NOSTRAND, Boston, Mass. Filed Nov. 27, 1916.



Particular description of goods.—Non-Intoxicating Malt Beverages.
Claims use since Nov. 11, 1916.

Ser. No. 99,609. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WENZELL SPECIALTY COMPANY, Philadelphia, Pa. Filed Nov. 28, 1916.

GAR-VAN

Particular description of goods.—A Gear-Shift.
Claims use since about Aug. 1, 1914.

TRADE-MARK REGISTRATIONS GRANTED

DECEMBER 26, 1916.

114,613. COTTON-SEED OIL FOR ORE FLOTATION AND FOR USE IN THE MANUFACTURE OF CERTAIN NAMED GOODS. THE AMERICAN COTTON OIL COMPANY, Guttenberg, N. J., and New York, N. Y.
Filed May 10, 1916. Serial No. 95,020. PUBLISHED OCTOBER 24, 1916.

114,614. SUBSTANCE FOR EXTERMINATING RATS AND MICE. THE BAYER COMPANY, INC., New York, N. Y.
Filed August 25, 1916. Serial No. 97,609. PUBLISHED OCTOBER 24, 1916.

114,615. PREPARATION FOR HARDENING HIGH-SPEED STEEL. WILLIAM R. BENNETT, Elmwood, Conn.
Filed July 17, 1916. Serial No. 96,614. PUBLISHED OCTOBER 24, 1916.

114,616. COMBUSTION-INCREASING AND CARBON-ELIMINATING CHEMICALS FOR HYDROCARBON-MOTORS. THE BERG & BEARD MANUFACTURING CO., Brooklyn, N. Y.
Filed August 25, 1916. Serial No. 97,610. PUBLISHED OCTOBER 24, 1916.

114,617. KNITTED VESTS, UNION-SUITS, AND PANTS. BERGER BROS., Schuylkill Haven, Pa.
Filed March 4, 1916. Serial No. 93,295. PUBLISHED OCTOBER 24, 1916.

114,618. CORSETS. THE BERGER BROS. CO., New Haven, Conn.
Filed August 30, 1916. Serial No. 97,700. PUBLISHED OCTOBER 24, 1916.

114,619. GLOVES MADE OF CANVAS OR COTTON AND IN PART OF CANVAS OR COTTON. THE BOSS MANUFACTURING COMPANY, Kewanee, Ill.
Filed December 18, 1914. Serial No. 83,398. PUBLISHED FEBRUARY 2, 1915.

114,620. SILK FABRICS IN THE PIECE. THE BRAINERD AND ARMSTRONG CO., New London, Conn.
Filed August 12, 1915. Serial No. 88,557. PUBLISHED OCTOBER 24, 1916.

114,621. LINOLEUMS AND OIL-CLOTHS. THE BUCKLEY-NEWHALL COMPANY, New York, N. Y.
Filed April 5, 1915. Serial No. 85,697. PUBLISHED OCTOBER 24, 1916.

114,622. LINOLEUMS AND OIL-CLOTHS. THE BUCKLEY-NEWHALL COMPANY, New York, N. Y.
Filed April 5, 1915. Serial No. 85,698. PUBLISHED OCTOBER 24, 1916.

114,623. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE GOODS. THE BUCKLEY-NEWHALL COMPANY, New York, N. Y.
Filed April 5, 1915. Serial No. 85,703. PUBLISHED OCTOBER 24, 1916.

114,624. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE GOODS. THE BUCKLEY-NEWHALL COMPANY, New York, N. Y.
Filed April 5, 1915. Serial No. 85,704. PUBLISHED OCTOBER 24, 1916.

114,625. SKIN PREPARATION. LOTTIE M. BUELL, Sacramento, Cal.
Filed August 23, 1916. Serial No. 97,572. PUBLISHED OCTOBER 24, 1916.

114,626. LINIMENT. BURDELL D. WILLIAMS, Mineral, Ill.
Filed August 23, 1916. Serial No. 97,592. PUBLISHED OCTOBER 24, 1916.

114,627. RUBBER GLOVES FOR DOMESTIC USE. FRANK CHAPMAN, Providence, R. I.
Filed August 11, 1916. Serial No. 97,269. PUBLISHED OCTOBER 24, 1916.

114,628. MEDICINE FOR CERTAIN NAMED DISEASES. CHRISTOE CHEMICAL COMPANY, Alton, Ill.
Filed June 28, 1916. Serial No. 96,197. PUBLISHED OCTOBER 24, 1916.

114,629. TREATMENT FOR SKIN DISEASES, INCLUDING SCABIES AND ECZEMA. PAULO CUSANELLI, St. Louis, Mo.
Filed September 21, 1916. Serial No. 98,184. PUBLISHED OCTOBER 24, 1916.

114,630. HOSIERY. DREIFUS, TICHNER & ECKSTEIN, New York, N. Y.
Filed September 12, 1916. Serial No. 97,951. PUBLISHED OCTOBER 24, 1916.

114,631. CORDED COTTON OR SILK PIECE GOODS. N. ERLANGER, BLUMGART & CO., New York, N. Y.
Filed September 30, 1915. Serial No. 89,541. PUBLISHED OCTOBER 24, 1916.

114,632. COTTON AND LINEN HANDKERCHIEFS, PILLOW-CASES, AND WHITE PIECE GOODS. MAX FIX, New York, N. Y.
Filed June 8, 1916. Serial No. 95,703. PUBLISHED OCTOBER 24, 1916.

114,633. SYNTHETIC PERFUME-OILS AND CONCENTRATED FLAVORS FOR MANUFACTURING PURPOSES. FRIES & FRIES, Cincinnati, Ohio.
Filed August 26, 1916. Serial No. 97,637. PUBLISHED OCTOBER 24, 1916.

114,634. PREPARATION FOR THE TREATMENT OF RHEUMATISM. FLORENCE A. GRIGER, Tampa, Fla.
Filed August 3, 1916. Serial No. 97,047. PUBLISHED OCTOBER 24, 1916.

114,635. HATS. HENRY GOODMAN, Baltimore, Md.
Filed August 25, 1916. Serial No. 97,625. PUBLISHED OCTOBER 24, 1916.

114,636. COLORING-MATTER FOR THE HAIR. ANNIE F. HARRE, New York, N. Y.
Filed October 2, 1916. Serial No. 98,355. PUBLISHED OCTOBER 24, 1916.

114,637. REPAIR PARTS FOR AUTOMOBILES. THE HILL-SMITH METAL GOODS COMPANY, Boston, Mass.
Filed May 4, 1916. Serial No. 94,899. PUBLISHED OCTOBER 17, 1916.

114,638. RUBBER BOOTS AND SHOES, RUBBER OVERSHOES, AND RUBBER-SOLE CANVAS SHOES. HOOD RUBBER COMPANY, Watertown, Mass.
Filed August 26, 1916. Serial No. 97,642. PUBLISHED OCTOBER 24, 1916.

114,639. BOOTS AND SHOES OF LEATHER, RUBBER, FELT, OR OTHER FABRIC CONSTRUCTION. GEO. E. KEITH COMPANY, Brockton, Mass.
Filed August 21, 1915. Serial No. 88,740. PUBLISHED OCTOBER 24, 1916.

114,640. BOOTS AND SHOES OF LEATHER, RUBBER, FELT, OR OTHER FABRIC CONSTRUCTION. GEO. E. KEITH COMPANY, Brockton, Mass.
Filed August 21, 1915. Serial No. 88,741. PUBLISHED OCTOBER 24, 1916.

114,641. HOSIERY AND KNITTED AND FLAT UNDERWEAR IN ONE AND TWO PIECE GARMENTS. KUTTNER & SIEGEL INC., Pleasantville and New York, N. Y.
Filed August 30, 1916. Serial No. 97,708. PUBLISHED OCTOBER 24, 1916.

114,642. CHEMICAL PREPARATION FOR ENRICHING GASOLENE. LENOLITE ACCESSORIES CO., Chicago, Ill.
Filed August 30, 1916. Serial No. 97,710. PUBLISHED OCTOBER 24, 1916.

114,643. CORSETS. LILY OF FRANCE CORSET CO., New York, N. Y.
Filed August 28, 1916. Serial No. 97,667. PUBLISHED OCTOBER 24, 1916.

114,644. CORSETS. LILY OF FRANCE CORSET CO., New York, N. Y.
Filed August 28, 1916. Serial No. 97,668. PUBLISHED OCTOBER 24, 1916.

114,645. BOOTS AND SHOES OF LEATHER AND OF LEATHER AND FABRIC. W. H. MCELWAIN COMPANY, Boston, Mass.
Filed August 29, 1916. Serial No. 97,689. PUBLISHED OCTOBER 24, 1916.

114,646. SOFT HATS. E. A. MALLORY AND SONS, INCORPORATED, Danbury, Conn., and New York, N. Y.
Filed September 7, 1916. Serial No. 97,843. PUBLISHED OCTOBER 24, 1916.

114,647. RUBBER COMPOSITION IN THE SHAPE OF SOLES AND HEELS FOR SHOES. THE MANHATTAN RUBBER MFG. CO., New York, N. Y.
Filed July 25, 1916. Serial No. 96,845. PUBLISHED OCTOBER 24, 1916.

114,648. OUTER GARMENTS—NAMELY, RAIN-COATS AND OVERCOATS. MOTOR TAILORING CO., Chicago, Ill.
Filed August 7, 1916. Serial No. 97,142. PUBLISHED OCTOBER 24, 1916.

114,649. NON-ALCOHOLIC CARBONATED SOFT DRINK AND THE SYRUP FOR MAKING THE SAME. NATIONAL CARBONATING SYRUP COMPANY, Wilmington, Del., and Evansville, Ind.
Filed October 2, 1916. Serial No. 98,371. PUBLISHED OCTOBER 24, 1916.

114,650. FACE-POWDERS. JOSEPH J. NELSON, Philadelphia, Pa.
Filed July 26, 1916. Serial No. 96,876. PUBLISHED OCTOBER 24, 1916.

114,651. JAPANESE CRAPE USED PRINCIPALLY FOR DRESS MATERIAL. NIPPON DRY GOODS CO., San Francisco, Cal.
Filed June 26, 1916. Serial No. 96,155. PUBLISHED OCTOBER 24, 1916.

114,652. JAPANESE CRAPE USED PRINCIPALLY FOR DRESS MATERIAL. NIPPON DRY GOODS CO., San Francisco, Cal.
Filed June 26, 1916. Serial No. 96,154. PUBLISHED OCTOBER 24, 1916.

114,653. NEGLIGÉE SHIRTS AND ATHLETIC UNDERWEAR MADE OF TEXTILE MATERIAL. OPPENHEIM, OBERNDORF & CO. INC., Baltimore, Md.
Filed April 21, 1916. Serial No. 94,598. PUBLISHED OCTOBER 24, 1916.

114,654. CERTAIN NAMED WATERPROOF CLOTHING. PEARSON BROTHERS, London and Bournemouth, England.
Filed July 15, 1916. Serial No. 96,597. PUBLISHED OCTOBER 24, 1916.

114,655. ITALIAN RED AND WHITE WINE. PESSAGNO & MONTRESSOR, New York, N. Y.
Filed September 27, 1916. Serial No. 98,268. PUBLISHED OCTOBER 24, 1916.

114,656. FACE-POWDER. W. RIZCALLAH & CO., New York, N. Y.
Filed June 8, 1916. Serial No. 95,729. PUBLISHED OCTOBER 24, 1916.

114,657. CERTAIN NAMED GAMES, TOYS, AND SPORTING GOODS. SCHMELZER ARMS CO., Kansas City, Mo.
Filed April 18, 1916. Serial No. 94,517. PUBLISHED OCTOBER 3, 1916.

114,658. RUBBER OVERSHOES AND BOOTS. SEARS, ROEBUCK AND CO., Chicago, Ill.
Filed September 11, 1916. Serial No. 97,932. PUBLISHED OCTOBER 24, 1916.

114,659. WOVEN COTTON FABRICS IN THE PIECE. GEORGE ALBERT STAFFORD, New York, N. Y.
Filed September 18, 1916. Serial No. 98,064. PUBLISHED OCTOBER 24, 1916.

114,660. WOVEN COTTON FABRICS IN THE PIECE. GEORGE ALBERT STAFFORD, New York, N. Y.
Filed September 18, 1916. Serial No. 98,065. PUBLISHED OCTOBER 24, 1916.

114,661. PETTICOATS. STERNS & KLEIN CO., Chicago, Ill.
Filed August 4, 1916. Serial No. 97,097. PUBLISHED OCTOBER 24, 1916.

114,662. REMEDIES FOR BRIGHT'S DISEASE, DROPSY, AND DIABETES. ERNEST H. TAYLOR, Minneapolis, Minn.
Filed September 19, 1916. Serial No. 98,105. PUBLISHED OCTOBER 24, 1916.

114,663. NON-INTOXICATING MALT BEVERAGES. ALONZO G. VAN NOSTRAND, Boston, Mass.
Filed September 11, 1916. Serial No. 97,937. PUBLISHED OCTOBER 17, 1916.

114,664. CERTAIN NAMED NECKWEAR FOR LADIES. WALDES & COMPANY, Prague-Wrschowitz, Austria-Hungary.
Filed October 9, 1914. Serial No. 81,777. PUBLISHED OCTOBER 24, 1916.

114,665. SHIRT-WAISTS. YELLIN & AMSTERDAM, Philadelphia, Pa.
Filed July 24, 1916. Serial No. 96,809. PUBLISHED OCTOBER 24, 1916.

TRADE-MARK REGISTRATIONS RENEWED.

13,718. SQUARE AND UPRIGHT PIANOS. THE JOHN CHURCH COMPANY, Cincinnati, Ohio.
Registered October 12, 1886. Renewed October 12, 1916.

13,897. MEDICINAL PLASTERS. GROSVENOR & RICHARDS, Boston, Mass.; Johnson & Johnson, New Brunswick, N. J., a Corporation of New Jersey, assignee.
Registered December 21, 1886. Renewed December 21, 1916.

LABELS

REGISTERED DECEMBER 26, 1916.

19,791.—*Title:* "ALBANO'S." (For Tomatoes.) FRANCESCO ALBANO, New York, N. Y. Filed December 9, 1916.

19,792.—*Title:* "COFFEE." (For Coffee.) AUSTIN, NICHOLS & CO., INC., Brooklyn and New York, N. Y. Filed December 4, 1916.

19,793.—*Title:* "TURTLE BACK." (For Snap-Fasteners.) THE AUTOTYE CO., Oakville, Conn. Filed November 22, 1916.

19,794.—*Title:* "PANO-VINUM." (For a Medicinal Compound.) GEORGE E. BRIERRE, New Orleans, La. Filed October 5, 1916.

19,795.—*Title:* "SAL-LAXIVE." (For a Medicinal Compound.) GEORGE E. BRIERRE, New Orleans, La. Filed October 5, 1916.

19,796.—*Title:* "ROUNDHEAD." (For Beer.) BURKHARDT BREWING COMPANY, Boston, Mass. Filed November 28, 1916.

19,797.—*Title:* "BOB." (For Stock-Ale and Extra Porter.) CONSOLIDATED BOTTLING CO., Newark, N. J. Filed November 16, 1916.

19,798.—*Title:* "ANTI-HOG-CHOLERA SERUM." (For a Remedy for Hog-Cholera.) CORN BELT SERUM COMPANY, East St. Louis, Ill. Filed September 25, 1916.

19,799.—*Title:* "2 IN 1 BLACK COMBINATION." (For a Preparation for Cleaning and Polishing Black Shoes and Leather Goods.) F. F. DALLEY CO. OF NEW YORK, INC., Buffalo, N. Y. Filed November 28, 1916.

19,800.—*Title:* "2 IN 1 TAN COMBINATION." (For a Preparation for Cleaning and Polishing Tan and Russet Leather Shoes and Leather Goods.) F. F. DALLEY CO. OF NEW YORK, INC., Buffalo, N. Y. Filed November 28, 1916.

19,801.—*Title:* "2 IN 1 WHITE LIQUID SHOE DRESSING." (For a Preparation for Cleaning Shoes and other Goods Made of White Canvas, White Leather, and the Like.) F. F. DALLEY CO. OF NEW YORK, INC., Buffalo, N. Y. Filed November 28, 1916.

19,802.—*Title:* "2 IN 1 TAN CLEANER." (For a Preparation for Cleaning and Polishing Tan and Russet Leather Shoes and Leather Goods.) F. F. DALLEY CO. OF NEW YORK, INC., Buffalo, N. Y. Filed November 28, 1916.

19,803.—*Title:* "2 IN 1 WHITE LIQUID SHOE DRESSING." (For a Preparation for Cleaning Shoes and other Articles.) F. F. DALLEY CO. OF NEW YORK, INC., Buffalo, N. Y. Filed November 28, 1916.

19,804.—*Title:* "2 IN 1 BLACK DRESSING." (For a Preparation for Cleaning Black Leather Shoes and Black Leather Goods.) F. F. DALLEY CO. OF NEW YORK, INC., Buffalo, N. Y. Filed November 28, 1916.

19,805.—*Title:* "REWARD." (For Coffee.) EARL COWAN COMPANY, Los Angeles, Cal. Filed November 29, 1916.

19,806.—*Title:* "SKIPPER." (For Coffee.) ALEX J. GEISENBERGER, Natchez, Miss. Filed December 7, 1916.

19,807.—*Title:* "LA GERONA." (For Cigars.) A. C. HENSCHEL & CO., Chicago, Ill. Filed November 29, 1916.

19,808.—*Title:* "HOOD TIRES." (For Motor-Vehicles.) HOOD TIRE CO. INC., Watertown, Mass. Filed November 20, 1916.

19,809.—*Title:* "BLACK & WHITE." (For Confectionery.) IMPERIAL CANDY CO., Seattle, Wash. Filed December 4, 1916.

19,810.—*Title:* "AUTO FINISHES." (For a Finishing Material for Metal or Wood.) THE R. F. JOHNSTON PAINT CO., Cincinnati, Ohio. Filed December 8, 1916.

19,811.—*Title:* "KRANK'S HAIR-ROOT-OIL." (For a Preparation for Dandruff and Falling Hair.) ALFRED J. KRANK, St. Paul, Minn. Filed December 1, 1916.

19,812.—*Title:* "EUREKA RHEUMATISM CURE." (For a Remedy.) MARY BANKS KRASKY, Boulder Creek, Cal. Filed September 5, 1916.

19,813.—*Title:* "EUBION." (For a Medical Preparation.) MARTINO MARIANI, New York, N. Y. Filed October 31, 1916.

19,814.—*Title:* "DIUROGEN." (For a Medical Preparation.) MARTINO MARIANI, New York, N. Y. Filed October 31, 1916.

19,815.—*Title:* "MORMOGEN." (For a Medical Preparation.) MARTINO MARIANI, New York, N. Y. Filed October 31, 1916.

19,816.—*Title:* "TRICOPHOGEN." (For a Hair-Tonic Preparation.) MARTINO MARIANI, New York, N. Y. Filed October 31, 1916.

19,817.—*Title:* "NERVOGEN." (For a Medical Preparation.) MARTINO MARIANI, New York, N. Y. Filed October 31, 1916.

19,818.—*Title:* "FLUFF." (For a Shampoo-Soap.) THE NATIONAL CLOCK AND MANUFACTURING CO., Chicago, Ill. Filed November 16, 1916.

19,819.—*Title:* "SUFFRAGETTE." (For Canned Salmon.) NATIONAL INDEPENDENT FISHERIES CO., Seattle, Wash. Filed December 1, 1915.

19,820.—*Title:* "TELAMOL." (For a Tonic and System-Purifier.) JOHN SAADI, Allentown, Pa. Filed December 8, 1916.

19,821.—*Title:* "S & M." (For Select-Stock Very Fine Old Whisky.) SWOPE & MANGOLD, INC., Dallas, Tex. Filed December 4, 1916.

19,822.—*Title:* "GOLDEN POPPY." (For Cigars.) TESTA CIGAR CO., San Francisco, Cal. Filed December 8, 1916.

19,823.—*Title:* "EL CERRIDO." (For Cigars.) TESTA CIGAR CO., San Francisco, Cal. Filed December 8, 1916.

19,824.—*Title:* "TONOP." (For a Medicinal Tonic.) TONOP MANUFACTURING CO., Chicago, Ill. Filed November 29, 1916.

19,825.—*Title:* "SET-LENGTH PUMP." (For Electric Deep-Well Power-Head.) THE VAILE-KIMBS CO., Dayton, Ohio. Filed September 5, 1916.

19,826.—*Title:* "MARTINI." (For Spaghetti.) VINELAND PRESERVING COMPANY, Jersey City, N. J. Filed December 4, 1916.

19,827.—*Title:* "YAM NUTS." (For Yam Nuts.) JOSHUA HUDSON WILLIAMS, Greenville, S. C. Filed June 19, 1916.

19,828.—*Title:* "YAM FLAKES." (For a Food Product Having Its Principal Ingredients Sweet Potatoes and Flour.) JOSHUA HUDSON WILLIAMS, Greenville, S. C. Filed September 22, 1916.

19,829.—*Title:* "WILSON'S PINAYA DIGESTIVE TABLETS." (For Digestive Tablets.) ORIN B. WILSON, Los Angeles, Cal. Filed October 24, 1916.

PRINTS

REGISTERED DECEMBER 26, 1916.

4,589.—*Title:* "TRY A NIP OF 'BOB.'" (For Stock-Ale and Extra Porter.) CONSOLIDATED BOTTLING Co., Newark, N. J. Filed November 16, 1916.

4,590.—*Title:* "TIME'S ADVICE TO BEAUTY." (For Cold-Cream.) DAGGETT & RAMSDELL, New York, N. Y. Filed November 21, 1916.

4,591.—*Title:* "STYLES FOR SEASON 1917." (For Hats.) LEO GALITZKI, Chicago, Ill. Filed November 20, 1916.

4,592.—*Title:* "GUND'S 'CLEVELANDER.'" (For Beer.) THE GUND BREWING Co., Cleveland, Ohio. Filed November 13, 1916.

4,593.—*Title:* "IDEAL INTERNAL BATH." (For Ideal Internal Bath.) IDEAL MEDICAL APPLIANCE Co., New York, N. Y. Filed October 21, 1916.

4,594.—*Title:* "KOHN'S TRIP REGISTER FOR TRAVELING MEN." (For Kohn's Trip-Register for Traveling Men.) A. E. KOHN, San Antonio, Tex. Filed November 25, 1916.

4,595.—*Title:* "FOR A SOUND SLEEP A SANOTUF MATTRESS." (For a Mattress.) ROBERTS BROS., Los Angeles, Cal. Filed September 5, 1916.

4,596.—*Title:* "THE ARKANSAS HOUSE." (For Whisky.) THE SANDEFUR JULIAN COMPANY, Memphis, Tenn. Filed November 27, 1916.

4,597.—*Title:* "SMOKY-HOLLER." (For Toy Games.) WILLIS G. YOUNG, Chicago, Ill. Filed December 1, 1916.

4,598.—*Title:* "FOREST HAIR TONIC." (For Hair-Tonic.) EDWARD WILHELM, Stoneharbor, N. J. Filed October 10, 1916.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE VANDERHOEF AND JOHNSON.

Decided December 19, 1914.

PATENTABILITY—SEPARABLE AND INTEGRAL PARTS.

The making of certain teeth-supporting ribs on applicants' excavating-dipper integral, instead of having them riveted or otherwise secured in place, *Held* patentable.

APPEAL from Examiners-in-Chief.

DIPPER-FRONT.

Mr. George Cook for the applicants.

WHITEHEAD, *Assistant Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the action of the Primary Examiner in finally rejecting the claims of this application, four in number, of which the following is illustrative:*

1. A single piece cast metal front for dippers for excavating machines, the same having a plurality of longitudinally extending ribs formed integrally therewith and each of which ribs has a seat at its upper or free end whereby a series of detachable dipper teeth may be secured one to the end of each of said ribs, said seats extending below the upper edge of the front; and means located below the edge of the front whereby a series of detachable dipper teeth may be secured in place upon said seats.

The references relied upon are: Hammer, 467,971, February 2, 1892; Conibear, 916,271, March 23, 1909; Mason, Jr., 981,666, January 17, 1911; McKee *et al.*, 1,001,289, August 22, 1911.

The subject-matter of the claims is described by the Examiners-in-Chief as follows:

The construction covered by the claims is a cast metal front for an excavating dipper having formed integrally therewith a series of ribs projecting beyond the edge of the dipper and provided at their forward ends with top and bottom seats located principally in rear of the edge for attachment of separate points or teeth which seat themselves upon the ribs and are riveted therethrough.

The claims were rejected on the ground that there was no invention in making in one piece that which had before been made in two. The patent to Hammer was cited as showing a hand-shovel in which a spur or projecting arm is attached, this spur either being made integral with the shovel or riveted thereto.

That there is no invention in making in one part that which was before made in detachable parts when there is no further consequence is of course well settled; but there may be invention if the change produces a more useful result. (*Canda* v. *Michigan Malleable Iron Co.*, 124 Fed. Rep., 486–493.)

One of the results which applicants claim would follow from the constructions in this case is that by making the ribs integral with the dipper the points may be brought nearer to the edge of the dipper. The Examiners-in-Chief stated that the integrality of the ribs had nothing to do with the relation of the points relative to the dipper and that in the construction shown in the patent to Mason the teeth could be set farther back by notching in the front of the rib and the edge of the dipper.

Applicants point out, however, that where the ribs are detachable, as in the patent to Mason or in the patent to Thomas, No. 783,764, they must extend beyond the slot which fits over the edge of the dipper a certain amount in order to give sufficient strength to support the teeth. Lengthening the slot in the end of the rib shown in the patent to Mason will not result in reducing this distance, since the points of the ribs must extend as far as before; nor can this be accomplished by slotting the edge of the bucket and setting the ribs back into these slots, since this would leave the portions of the dipper edge between the ribs unsupported.

By making the ribs integral applicants have therefore been able to shorten the teeth, and thereby reduce the risk of breaking them when the bucket is suddenly lowered. Also with the teeth extending a given distance beyond the edge of the dipper a larger proportion thereof can be used up in work, and less has to be thrown away as scrap. The high points of the teeth are brought well within the bucket, enabling it to be filled more quickly.

In view of these advantages, it is thought that the claims are allowable.

The decision of the Examiners-in-Chief is reversed.

* This application has eventuated in Patent No. 1,126,819.

DECISIONS OF THE U. S. COURTS.

Supreme Court of the United States.

GOSHEN MANUFACTURING COMPANY *v.* HUBERT A. MYERS MANUFACTURING COMPANY AND HUBERT A. MYERS.

On writ of certiorari to the United States Circuit Court of Appeals for the Seventh Circuit.

Decided December 11, 1916.

PATENTS—SUITS FOR INFRINGEMENT—EQUITY JURISDICTION.

Where in a suit for infringement of a patent it appeared that the defendant company had stopped manufacturing the alleged infringement and sold its entire physical property some time before the beginning of the suit, but retained title to a patent under which it was sought to justify the alleged infringement and had prosecuted the plaintiff some time after selling its property, as aforesaid, because of a newspaper advertisement denouncing the alleged infringement, which was said to have compelled defendant company to quit business, *Held* that there was a continuing menace of infringement, such as to give a court of equity jurisdiction of the case.

Mr. Justice MCKENNA delivered the opinion of the Court.

Suit for infringement of a patent brought by petitioner, whom we shall call complainant, against the respondents, whom we shall call defendants, in the Circuit Court for the District of Indiana, October 3, 1910.

The device of the controversy is a new and useful improvement in hoisting-pulleys. It is alleged to have been invented by Hubert A. Myers, one of the defendants, who, after his application for a patent but before the issue thereof, assigned all of his right and title to one Allen P. Boyer, to whom a patent was issued January 21, 1908. Boyer, on the 28th of September, 1910, sold and assigned his right and title to the patent to complainant—

together with all rights and choses in action which had accrued to him, as well as those which might accrue for infringement thereof, and all rights to sue for and recover damages or profits for the same.

It is alleged that after the issue of the patent and before the commencement of the suit defendants infringed the invention by constructing and selling a large number of the pulleys, the exact number not known, and discovery is therefore prayed; and it is alleged that defendants have a large number on hand which they are offering for sale.

It is further alleged that large profits have been realized by defendants which might have been obtained by complainant; how much exactly, however, is unknown, and discovery is prayed. An accounting is also prayed and preliminary and final injunctions.

It is alleged that Myers took part in promoting and organizing the defendant corporation, that he is a large stockholder and is actively engaged in directing and managing the affairs of the company, being its general manager.

It is also alleged that the trade and public have recognized the value and validity of the patent.

The defendants answered separately. Myers' answer is not in the record. The defendant company's is, and denies that the company had in any manner infringed the rights of the complainant under the patent or that any great loss or injury had accrued or will accrue to complainant by reason of anything theretofore done by defendant or that complainant had been or is being deprived of any gains or profits to which it is lawfully entitled, by reason of any act or any manufacture, use or sale of hoisting devices by defendant.

And defendant alleges that it has not manufactured any hoisting device of any kind since October, 1909, or sold or had for sale any hoisting device since March, 1910, and that complainant had knowledge of such facts before bringing this suit; and denies that it was receiving or enjoying great gains or profits or had avowed its determination to continue manufacturing and selling any such devices.

It admits that Myers took part in organizing the defendant corporation but denies that he is a stockholder or in management of its affairs; alleges that he ceased to be a stockholder on November 19, 1909, and that he has not been a director or other officer since December 17 of that year, or connected with the company or interested therein.

The answer denies the other allegations of the bill, including the novelty of the device, specifically alleging that it was not the result of invention but merely of mechanical skill in bringing together parts of hoisting devices long previously well known and described and published in prior patents, a list of which is given, and that hoisting devices in all substantial and patentable respects similar to the alleged invention were known and publicly sold and used in the United States, the instances of which are related.

Abandonment of the alleged invention by Myers is alleged, that complainant is estopped by reason of actions had in the Patent Office from claiming a device other than in the specific form shown and described in the patent, that Myers was not the first inventor or discoverer of a material and substantial part of the device of the patent and that neither he nor the complainant has ever made or filed a disclaimer thereof, to the great injury of defendants.

There was a replication filed to the answer.

Upon the issues thus formed by the pleadings proofs were taken and a decree was entered that the suit be dismissed for want of equity. The decree gives no information upon which it was based.

The complainant took the case to the circuit court of appeals and that court affirmed the decree. Stating the question presented, the court said:

The first and decisive question in this appeal from a decree dismissing a bill in equity after a full hearing, is whether a court of equity or a court of law is the proper forum in which to determine complainant's rights.

It will be observed that defendant puts in issue the title of complainant, the novelty of the device described in the patent, alleges anticipation and precludes or narrows it by the condition of the prior art. It denies infringement and also irreparable loss or injury to complainant by anything theretofore done by defendant or that complainant was deprived or is being deprived of any great gains or

profits to which it is lawfully entitled by reason of any act or any manufacture, use or sale of hoisting devices by defendant.

It appears from the facts found that Myers was the inventor of complainant's device and that he subsequently claimed to have invented another different from and superior to that of complainant, which he assigned to Boyer and that the defendant company which Myers had helped to organize began to manufacture the device of the alleged second invention of Myers and made twenty-five in the spring of 1908, and the following fall prepared to make 500 more, 300 of which were sold and the rest not completed. In August, 1909, it (the defendant company) contracted to manufacture and sell to one Diedrich 500 additional carriers for the season of 1910. It was in testimony that the 300 carriers sold by defendant were sold through Diedrich as its agent.

In October, 1909, complainant published a newspaper advertisement declaring defendant company to be an infringer of complainant's device and also sent a direct notice to defendant to the same effect. In consequence of this it is testified that the defendant company was unable to proceed and it fulfilled its contract with Diedrich by giving him permission to use its shop and materials to finish the 200 uncompleted carriers and to manufacture the 300 more called for by his contract.

In December, 1909, Myers sold his stock to the other stockholders and thereafter had no connection with the company, and it is testified that the company neither manufactured nor sold carriers after the notice of infringement, except as stated above, and that its president and general manager notified complainants in February, 1911, that the company was practically dead. In March, 1910, it is further testified, it sold its entire plant and all of its property except only the Letters Patent No. 942,735, that is, the patent for the second invention of Myers, since which time it has been out of business and without factory or office. It is also testified that in the latter part of 1909, after notice of infringement, it had decided not to manufacture any more carriers.

From this testimony the circuit court of appeals deduced that clearly as to Myers, after December, 1909, and as to the defendant company, after March, 1910, at the latest, no infringement of complainant's rights had been committed or threatened.

We are unable to concur in the conclusion as to the company. It sold its plant in March, 1910, but it retained the patent under which prior alleged infringements had been practised and justified, and the right to proceed under it is neither given up nor the intention to do so denied. Besides, in September, 1910, the company sued Boyer in the State court for the injury to its business by the advertisement of infringement published a year before, and in that suit the company made the following allegation: That it—

is a corporation duly organized under the laws of the State of Indiana and is now and has been for more than five years last past engaged in the business of manufacturing hay cars.

We cannot ascribe this to the inadvertence or improvidence of counsel, for which the company was not responsible, as an expression of its intention. It had infringed (we assume this for the sake of argument only), it retained the patent under which it asserted the right to infringe; there was injury inflicted, therefore, and the means retained of further infringement; a denial of complainant's right, and the assertion of a countervailing right submitted for legal judgment in the case under review and besides in an independent action. We must regard this conduct as a continuing menace, and we think complainant had a right to arrest its execution and recover as well the profits of which it had been deprived, if any. The case, therefore, does not fall within the rules of the cases cited by the circuit court of appeals and those cited by defendants. In other words, further infringement was in effect threatened and could be reasonably apprehended.

We have assumed that there was infringing done and threatened, and, of course, both assumptions are based on the validity and novelty of the device and that the defendant company's device—that is, the device of Patent No. 942,735—is an unsubstantial variation of it. Whether the assumption is justified is yet to be decided and, in the first instance, should be decided by the circuit court of appeals.

Its decree dismissing the case is reversed and the case is remanded for further proceedings in accordance with this opinion.

Reversed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Bump patents, Nos. 1,009,644 and 1,065,903, for devices for fastening together sheets of paper by means of incisions and flaps made in the sheets, *Held* limited by the prior art, and, as limited, not infringed by defendant. *Bump's Perfected Paper Fastener Co.* v. *Max Gessler, Inc.*, 236 Fed. Rep., 242.

(U. S. C. C. A.) The Drake and Folsom patent, No. 727,313, for a folding-machine, *Held* not infringed. *Peerless Machinery Co.* v. *United Shoe Machinery Co.*, 236 Fed. Rep., 234.

(U. S. D. C.) The Foster patent, No. 875,339, relating to machines for sewing filled bags, *Held* limited by the prior art and proceedings in the Patent Office, and, as so limited, not to be infringed. *Union Special Mach. Co.* v. *Quaker City Flour Mills Co.*, 236 Fed. Rep., 246.

(U. S. D. C.) Kempshall patent, No. 670,080, *Held* limited by claims, proceedings in Patent Office, and prior art to particular device described for heating motor-vehicles from exhaust of internal-combustion engines, and, as so limited, not infringed. *Perfection Spring Service Co.* v. *American Auto Heater Co.*, 236 Fed. Rep., 256.

(U. S. C. C. A.) The Maenche patent, No. 753,281, for a rivet-setting machine, *Held* not infringed. *Judson L. Thomson Mfg. Co.* v. *Clark*, 236 Fed. Rep., 230.

(U. S. C. C. A.) The Rosenbaum patent, No. 807,967, and the Haiman patent, No. 815,698, for cultivators or harrows, *Held* invalid in view of the prior art, not showing invention, but mere mechanical skill. *Southern Plow Co.* v. *Benton Mfg. Co.*, 236 Fed. Rep., 238.

(U. S. C. C. A.) The Tompkins patent, No. 458,135, for a process of making paper-pulp, *Held* void for lack of patentable novelty and also not infringed. *Tompkins* v. *St. Regis Paper Co.*, 236 Fed. Rep., 221.

(U. S. D. C.) The Turner patent, No. 985,119, for steel-skeleton concrete construction, *Held* void for lack of invention in view of the prior art. *Turner* v. *Lauter Piano Co.*, 236 Fed. Rep., 252.

(U. S. D. C.) The Turner patent, No. 1,003,384, for steel-skeleton concrete construction, *Held* invalid for anticipation and infringement of the Norcross patent, No. 698,542. *Turner* v. *Lauter Piano Co.*, 236 Fed. Rep., 252.

Foreign Patents, Taxes, Fees, Etc.—Great Britain.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 20, 1916.

The following letter from the American Ambassador at London and the inclosure referred to therein, which has been received from the Secretary of State, are published for the information of those concerned.

THOMAS EWING,
Commissioner.

[Copy.]

LONDON, *November 24, 1916.*

The honorable the Secretary of State, Washington.

SIR: With reference to the Department's circular instruction of October 7, 1916, inquiring as to the privileges extended by the British Government to applicants for patents so as to obviate the payment of penalties for delays arising out of the present war, I have the honor to inclose herewith a copy of a note I have just received from the Foreign Office in reply to the representations I made in the premises.

For the guidance of the Department I venture to add that a copy of Viscount Grey's note of November 8, 1914, to which reference is made in the second paragraph of the inclosed note, was communicated to the Department under cover of my despatch No. 554 of November 4, 1914.

I have the honor to be, sir, your obedient servant,

WALTER HINES PAGE.

[Copy.]

No. 230319/C. FOREIGN OFFICE,
November 22, 1916.

YOUR EXCELLENCY: I did not fail to refer to the competent department of His Majesty's Government the note (No. 842) which your excellency was good enough to address to me on the 1st instant, inquiring as to the privileges extended by His Majesty's Government to applicants for patents so as to obviate the payment of penalties for delays arising out of the present war.

2. I have now the honor to state that power is given to the Comptroller-General of Patents, Designs and Trade-Marks by the act and rules specified in the memorandum inclosed in my note of November 3d, 1914, (209 O. G., 1054,) to extend in certain cases the time prescribed for (*a*) the filing of applications for patents under the International Convention; (*b*) the taking of actions in patent applications pending in the Patent Office; (*c*) the payment of fees pertaining to pending applications; (*d*) the payment of fees, taxes or fines pertaining to patents issued; (*e*) the recording of assignments, licenses, disclaimers, concessions, etc., and (*f*) the defense of suits, interference or opposition proceedings affecting patent rights.

3. Full effect is being given by the Comptroller to Rule 3, which was quoted in the memorandum referred to above, and the most generous treatment is accorded in all cases which can possibly be held to come within the rule. United States citizens will in every case be granted extensions of time where their cases can be brought within the rule, and His Majesty's Government are therefore of opinion that the "substantially similar privileges" which the United States law demands are extended in this country to citizens of the United States.

4. As regards the "working" of patents, I would point out that section 27 of the Patents and Designs Acts, 1907, which provides for the revocation of patents worked exclusively or mainly outside the United Kingdom, has been directly suspended for the period of the war and six months thereafter by the Patents and Designs (Partial Suspension) Act, 1915. (5 and 6 Geo. V. Ch., 85.)

5. The bringing of suits against infringers or for annulment of interfering patents and the filing of applications for the extension of patents concern the procedure of the High Court of Justice, and have not hitherto been dealt with under the Patents, Designs and Trade-Marks (Temporary Rules) Act, 1914, but the courts would doubtless consider favorably applications for extensions of time necessitated by the war.

I have the honor to be, with the highest consideration,
Your excellency's most obedient, humble servant,
(Signed) VICTOR WELLESLEY.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 16, 1916.

John F. Doty, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Maryland Rubber Company, of 37 Hopkins Place, Baltimore, Md., for registration of a trade-mark and trade-mark registered July 12, 1887, No. 14,581, to John F. Doty, of 8 College Place, New York, N. Y., and a notice of such declaration sent by registered mail to said John F. Doty at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John F. Doty, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 12, 1916.

Joseph P. McHugh, his heirs, successors, or assigns, take notice:

An interference having been declared by this Office between the application of Liberty & Co., Limited, Warwick and Regent streets, London, England, for registration of a trade-mark and trade-mark registered April 2, 1895, No. 26,841, to Joseph P. McHugh, 504 Fifth avenue, New York, N. Y., and the said Joseph P. McHugh being deceased, notice is hereby given that unless his heirs, successors, or assigns shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD, *First Assistant Commissioner.*

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

DECEMBER, 1916.

[Decisions of the Supreme Court of the United States are indicated by two stars (**).]

TABLE OF CASES.

	Page.
Conrad r. Kraus and Malley	1107
Durant. *Ex parte*	351
Dyson. *Ex parte*	755
Enberg. *Ex parte*	351
Fisher. *Ex parte*	351
Foley and Baker. *Ex parte*	352
**Goshen Manufacturing Company v. Hubert A. Myers Manufacturing Company and Hubert A. Myers	1404
Hecht. *Ex parte*	353
Jung. *Ex parte*	352
Ravier. *Ex parte*	352
Schlumpf. *Ex parte*	353
Vanderhoef and Johnson. *Ex parte*	1403
Victorero. *Ex parte*	353

SUBJECT-MATTER INDEX.

	Page.
Delay in filing applications due to state of war, *ex parte* Foley and Baker	352
Ex parte Ravier	352
Delay in payment of final fee due to state of war, *ex parte* Jung	352
Dilatory prosecution resorted to by applicants and attorneys in telephone cases reviewed and condemned, *ex parte* Dyson	755
Extension of time for paying final fees and filing applications under act of August 17, 1916, reciprocal privileges by foreign Governments, Belgian, *ex parte*, Durant	351
British, *ex parte* Foley and Baker	352
Danish, *ex parte* Fisher	351
French, *ex parte* Ravier	352
German, *ex parte* Jung	352
Hungarian, *ex parte* Hecht	353
Spanish, *ex parte* Victorero	353
Swedish, *ex parte* Enberg	351
Swiss, *ex parte* Schlumpf	353
**Jurisdiction of courts, further infringement in effect threatened and to be reasonably apprehended gives a court of equity jurisdiction, Goshen Manufacturing Company *v.* Hubert A. Myers Manufacturing Company and Hubert A. Myers	1404
Patentability, making certain parts integral instead of riveting or otherwise securing, *ex parte* Vanderhoef and Johnson	1403
Reduction to practice, activity proximately related to the invention itself required to establish diligence, Conrad *v.* Kraus and Malley	1107
**Suits for infringement, brought against company which had discontinued manufacture and sold plant, but retained title to patent under which justification of infringement was sought, Goshen Manufacturing Company *v.* Hubert A. Myers Manufacturing Company and Hubert A. Myers	1404
Withdrawing application from issue, application pending for ten years, request to withdraw for interference and to draw proper line between it and a divisional application refused, interference not justified, and line of division can be drawn by amendment under Rule 78, *ex parte* Dyson	755

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

DECEMBER, 1916.

[Decisions of the Supreme Court of the United States are indicated by two stars (**).]

AMENDMENT UNDER RULE 78.

See Prosecution of Applications, 2.

ATTORNEYS.

See Delay in Paying Final Fee; Prosecution of Application, 1.

CONDITIONS DUE TO STATE OF WAR.

See Construction of Statutes; Delay in Filing Application; Delay in Paying Final Fee.

CONSTRUCTION OF STATUTES.

See Delay in Filing Application; Delay in Paying Final Fee.

1. EXTENSION OF TIME UNDER ACT OF AUGUST 17, 1916—RECIPROCAL PRIVILEGES.
Held that the Belgian Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916. [*Ex parte* Durant, 351.

2. SAME—SAME.
Held that the Swedish Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916. [*Ex parte* Enberg, 351.

3. SAME—SAME.
Held that the Danish law grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916. [*Ex parte* Fisher, 351.

4. SAME—SAME.
Held that the British Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916.
[*Ex parte* Foley and Baker, 352.

5. SAME—SAME.
Held that the German Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916. [*Ex parte* Jung, 352.

6. SAME—SAME.
Held that the French Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916. [*Ex parte* Ravier, 352.

7. SAME—SAME.
Held that the Swiss Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916. [*Ex parte* Schlumpf, 353.

8. SAME—SAME.
Held that the Spanish Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916. [*Ex parte* Victorero, 353.

9. SAME—SAME.
Held that the Hungarian Government grants to citizens of the United States substantially "similar privileges" within the meaning of the act of August 17, 1916. [*Ex parte* Hecht, 353.

DELAY IN FILING APPLICATION.

See Construction of Statutes.

1. DUE TO WAR.
Where the failure to receive and file the application within a year of the date of the British application was shown to be due to failure in the mails, and possibly to the sinking of a mail-steamer, *Held* that the delay would be regarded as due to the war.
[*Ex parte* Foley and Baker, 352.

2. SAME.
Where it appeared that the applicant was in the French Navy and that his signature to the United States application could not be obtained until very shortly before expiration of the year following the French filing date, *Held* that the delay would be regarded as due to the war. [*Ex parte* Ravier, 352.

DELAY IN PAYING FINAL FEE.

See Construction of Statutes.

DUE TO WAR.
Where it appeared that a letter was sent to the German attorney three months before the time for paying the final fee expired, but was lost in the mails, and that the instructions to pay the fee were mailed more than a month before the time expired, *Held* that the delay would be regarded as due to the war.
[*Ex parte* Jung, 352.

DELAY IN PROSECUTING APPLICATION.

See Prosecution of Applications.

DIVISIONAL APPLICATIONS.

See Prosecution of Applications, 2.

DILIGENCE.

See Priority of Invention.

FOREIGN PATENT LAWS

See Construction of Statutes.

INFRINGEMENT.

See Suits for Infringement.

INTERFERENCE.

See Prosecution of Applications, 2.

INVENTION.

See Patentability.

JURISDICTION OF COURTS.

See Suits for Infringement.

OPERATIVENESS.

See Priority of Invention.

PATENTABILITY.

SEPARABLE AND INTEGRAL PARTS.

The making of certain teeth-supporting ribs on applicants' excavating-dipper integral, instead of having them riveted or otherwise secured in place, *Held* patentable.

[*Ex parte* Vanderhoef and Johnson, 1403.

PRIORITY OF INVENTION.

DILIGENCE IN REDUCING TO PRACTICE—DUE DILIGENCE REQUIRES ACTIVITY PROXIMATELY RELATED TO THE INVENTION ITSELF.

If an inventor permits details pertaining essentially to the marketability of a device to turn him aside from a demonstration of the operativeness of the invention, he takes the risk that a more alert inventor may reach such a demonstration earlier and secure a superior right to a patent.

[Conrad *v.* Kraus and Malley, 1107.

PROSECUTION OF APPLICATIONS.

1. PRACTICE—OLD APPLICATIONS—DILATORY PROSECUTION.

The policy of delaying the issuance of patents on applications in the telephone art commonly pursued by applicants and their attorneys in those cases reviewed and condemned.

[*Ex parte* Dyson, 755.

2. SAME—SAME—SAME—WITHDRAWING FROM ISSUE.

Where an applicant whose case had been pending in the Office for over ten years and had been once forfeited and renewed requested that it be withdrawn from issue for the purposes of interference and to draw a proper line between it and a divisional application, *Held* that the circumstances of the case did not justify withdrawal for interference purposes and that the line of division could be drawn by amendment under Rule 78, and the petition was accordingly denied.

[Id.

RECIPROCAL PRIVILEGES.

See Construction of Statutes.

REDUCTION TO PRACTICE.

See Priority of Invention.

RIGHT TO PATENT.

See Priority of Invention.

SUITS FOR INFRINGEMENT.

PATENTS—EQUITY JURISDICTION.

Where in a suit for infringement of a patent it appeared that the defendant company had stopped manufacturing the alleged infringement and sold its entire physical property some time before the beginning of the suit, but retained title to a patent under which it was sought to justify the alleged infringement and had prosecuted the plaintiff some time after selling its property, as aforesaid, because of a newspaper advertisement denouncing the alleged infringement, which was said to have compelled defendant company to quit business, *Held* that there was a continuing menace of infringement, such as to give a court of equity jurisdiction of the case.

[*See* Goshen Manufacturing Company *v.* Hubert A. Myers Manufacturing Company and Hubert A. Myers, 1404.

WITHDRAWING ALLOWED APPLICATION FROM ISSUE.

See Prosecution of Applications, 2.

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ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF DECEMBER, 1916.

[Abbreviations: "Gaz."—Official Gazette.]

A. Mecky Company. (See Gerson, Nikolaus, assignor.)
A. Stein & Company. (See Haurath, Theodore W., assignor.)
A. C. Cheney Piano Action Co. (See Sampere, Jose, assignor.)
A. F. Meisselbach & Brother. (See Poeter, Louis, assignor.)
A. R. Mosier & Co. (See Mosier, Arthur R., assignor.)
Aarno, George E., Springfield, Mass. Reversing mechanism. No. 1,206,459; Dec. 12; Gaz. vol. 233; p. 623.
Aasnaes, Jens F. (See Skancke and Aasnaes.)
Abbott, Charles C., assignor to Robbins, Gamwell and Company, Pittsfield, Mass. Automatic sprinkler. No. 1,206,072; Dec. 12; Gaz. vol. 233; p. 488.
Abbott, Chauncey W., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa. Conductor for systems of electrical distribution. No. 1,208,884; Dec. 19; Gaz. vol. 233; p. 820.
Abbott, Chauncey W., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa. Metal conduit for electric wires. No. 1,209,533; Dec. 19; Gaz. vol. 233; p. 1042.
Abele, Theodore J., assignor to Stuber & Kuck Company, Peoria, Ill. Securing means for the covers of display-packages. No. 1,209,242; Dec. 19; Gaz. vol. 233; p. 998.
Abrahams, Julius, Philadelphia, Pa. Pin-fastener for tags and other articles. No. 1,208,073; Dec. 12; Gaz. vol. 233; p. 489.
Achtmeyer, William, Middletown, Conn. Cone-clutch lining. No. 1,210,131; Dec. 26; Gaz. vol. 233; p. 1281.
Ackels, Charles, and B. F. Thomas, Cody, Wyo. Mail-bag catcher. No. 1,207,461; Dec. 5; Gaz. vol. 233; p. 234.
Acker, Clive S. (See Arseneau, Thomas P., assignor.)
Ackley, Cashus E., Trego, Wis. Door-lock. No. 1,209,924; Dec. 26; Gaz. vol. 233; p. 1210.
Acme Steel Goods Company. (See Englert, Joseph J., assignor.)
Acomb, F. G., *et al.* (See Lord, Lewis P., assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Haugwitz, Rudolf, assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Herzberg and Scharfenberg, assignors.)
Adair, Clinton L., assignor of one-half to K. Z. Hess, Benton, Pa. Demountable-rim retainer. No. 1,206,439; Dec. 12; Gaz. vol. 233; p. 623.
Adam, William J., assignor to Plimpton Press, Norwood, Mass. Elevating-truck. No. 1,210,252; Dec. 26; Gaz. vol. 233; p. 1323.
Adams, Albert L., Cedar Rapids, Iowa. Bottom structure for metallic receptacles. No. 1,209,925; Dec. 26; Gaz. vol. 233; p. 1210.
Adams, Herbert M., Pawtucket, R. I. Water-circulating system. No. 1,206,789; Dec. 5; Gaz. vol. 233; p. 3.
Adams, James L., Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Starting mechanism. No. 1,210,028; Dec. 26; Gaz. vol. 233; p. 1245.
Adams & Westlake Company, The. (See Hamm, William S., assignor.)
Adams, William H. (See Pixley, William C., assignor.)
Adamson, Charles E., Shelton, Conn., assignor to Addressograph Company, Chicago, Ill. Addressing attachment for duplicating-machines. No. 1,209,410; Dec. 19; Gaz. vol. 233; p. 998.
Adder Machine Company. (See Küntzler, Henry, assignor.)
Adder Machine Company, The. (See Pentecost, Arthur, assignor.)
Addressograph Company. (See Adamson, Charles E., assignor.)
Addressograph Company. (See Duncan, Joseph S., assignor.)
Addressograph Company. (See Hubbard, Henry E., assignor.)
Addressograph Company. (See Hughes, Davydd C., assignor.)
Adelmo, George, and J. Mignone, Springvalley, Ill. Egg-tester. No. 1,209,651; Dec. 26; Gaz. vol. 233; p. 1113.
Adkins, Frank A., *et al.* (See Wilsey, Irven H., assignor.)
Adler, Herman S. Z., New York, N. Y. Robe for automobiles. No. 1,208,440; Dec. 12; Gaz. vol. 233; p. 628.
Aeolian Company. (See Kelly, George B., assignor.)
Aeroplane Destroyer Company. (See Lazarte, Enrique, assignor.)
Aetna Powder Company, The. (See Davis, Ernest W., assignor.)
Agnelli, Carlo. (See Fabiani and Agnelli.)
Ahlberg, Gustav A. F., Pittsburgh, Pa. Carbureter. No. 1,209,652; Dec. 26; Gaz. vol. 233; p. 1113.
Ahlenius, Anders G., Meadowlands, Minn. Trap. No. 1,210,253; Dec. 26; Gaz. vol. 233; p. 1324.
Ahlenius, Carl G., Zim, Minn. Game apparatus. No. 1,207,462; Dec. 5; Gaz. vol. 233; p. 235.
Aitken, Hugh W., Glasgow, Scotland. Pressure-regulating device for the rollers of sugar-cane mills. No. 1,210,254; Dec. 26; Gaz. vol. 233; p. 1324.
Akeroyd, Julius A. (See Walker and Akeroyd.)
Albanese, Gaetano. (See Sollisch, Louis, assignor.)
Albert Chemische Fabrik, Dr. Kurt. (See Schleimer, Otto, assignor.)
Alberts & Meyer Manufacturing Company. (See Miller, Ole C., assignor.)
Albertson, Martin C., Gray, Saskatchewan, Canada, assignor to Albertson Product Co., Minneapolis, Minn. Shock-loader. No. 1,209,534; Dec. 19; Gaz. vol. 233; p. 1042.
Albertson Product Co. (See Albertson, Martin C., assignor.)
Alderman, Dallas R., and W. E. Tyler, Kansas City, Mo. Portable operating-table. No. 1,208,885; Dec. 19; Gaz. vol. 233; p. 820.
Ale, Ezra C., Tyrone, Pa. Flexible pipe joint or coupling. No. 1,209,243; Dec. 19; Gaz. vol. 233; p. 939.
Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. High-speed rotating body. No. 1,208,441; Dec. 12; Gaz. vol. 233; p. 624.
Alfreds, Torris H., Chicago, Ill. Rail-anchor. No. 1,209,653; Dec. 26; Gaz. vol. 233; p. 1114.
Alger, Charles H., Manchester, Okla. Disconnecting device for telephones. No. 1,207,463; Dec. 5; Gaz. vol. 233; p. 235.
Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Buttonhole cutting and stitching machine. No. 1,209,926; Dec. 26; Gaz. vol. 233; p. 1210.
Allen, Frank R., Passaic, N. J. Invalid-supporter. No. 1,208,442; Dec. 12; Gaz. vol. 233; p. 624.
Allen, Frederick G., Erie, Pa. Electrical connecting device. No. 1,208,074; Dec. 12; Gaz. vol. 233; p. 489.
Allen, Henry, Gainesville, Fla. Roller grinding-mill. No. 1,207,831; Dec. 12; Gaz. vol. 233; p. 406.
Allen, William J. (See Kernan and Allen.)
Alling, James H., *et al.* (See Hussey, William A., assignor.)
Alling, James H., Columbia, assignor of one-half to F. M. Wright, San Francisco, Cal. Recovering gold. No. 1,207,261; Dec. 5; Gaz. vol. 233; p. 164.
Allington, William E., Saginaw, Mich. Pressure-system charger. No. 1,207,832; Dec. 12; Gaz. vol. 233; p. 406.
Allis-Chalmers Manufacturing Company. (See Newhouse, Ray C., assignor.)
Allis-Chalmers Manufacturing Company. (See Nye, Henry V., assignor.)
Allis-Chalmers Manufacturing Company. (See Ohlsen, William, assignor.)
Allis-Chalmers Manufacturing Company. (See Williamson, Robert B., assignor.)
Allison, Charles R., Port Carbon, Pa. Lid-opener for boxes. No. 1,209,794; Dec. 26; Gaz. vol. 233; p. 1163.
Allison, Harvey, West Orange, N. J. Toy. No. 1,207,464; Dec. 5; Gaz. vol. 233; p. 235.
Allstatter, Edwin E., Hamilton, Ohio. Toy. No. 1,209,535; Dec. 19; Gaz. vol. 233; p. 1043.
Allsteadt, John E., Hastings, Nebr. Door structure for metallic storage-bins. No. 1,208,075; Dec. 12; Gaz. vol. 233; p. 489.
Altgelt, Herman E., New Braunfels, Tex. Traction-engine. No. 1,207,695; Dec. 12; Gaz. vol. 233; p. 357.
Altschul, Julius, Brooklyn, N. Y. Arch and ankle supporting shoe. No. 1,210,255; Dec. 26; Gaz. vol. 233; p. 1324.
Alwart, Paul J., Chicago, Ill. Coal-screen. No. 1,207,262; Dec. 5; Gaz. vol. 233; p. 164.

American Advertising Clocks. (See Fotheringham and Laing, assignors.)
American Brake Shoe & Foundry Company, The. (See Armbrust, Charles W., assignor.)
American Brake Shoe & Foundry Company, The. (See Gallagher, Joseph D., assignor.)
American Brake Shoe & Foundry Company, The. (See Hoffhine, John, assignor.)
American Can Company. (See Cereghino, Joseph, assignor.)
American Car and Foundry Company. (See Beard, Paul M., assignor.)
American Car and Foundry Company. (See Cooper, James J., assignor.)
American Car and Foundry Company. (See Dooley, Thomas A., assignor.)
American Car and Foundry Company. (See Ellis, Robert G., assignor.)
American Car and Foundry Company. (See Hochberg, Oscar, assignor.)
American Car and Foundry Company. (See Johnson and Sheffer, assignors.)
American Car and Foundry Company. (See Rohlfing, John M., assignor.)
American Car and Foundry Company. (See Welsbrod, Jacob H., assignor.)
American Conduit Manufacturing Company. (See Abbott, Chauncey W., assignor.)
American Fork & Hoe Company, The. (See Hawes, Charlie L., assignor.)
American Fork and Hoe Company, The. (See Russell, Thomas H., assignor.)
American Graphophone Company. (See Scully, John J., assignor.)
American Graphophone Company. (See Woods, Clinton E., assignor.)
American Hardware Corporation, The. (See Hurd, Norman B., assignor.)
American Key Can Company. (See McColl, Francis P., assignor.)
American Lady Corset Company. (See Siegel, Joseph, assignor.)
American Lady Corset Company. (See Smith, Herbert C., assignor.)
American Laundry Machinery Company. (See Cooper, Daniel M., assignor.)
American Manganese Steel Company. (See Johnson, Frank E., assignor.)
American Manganese Steel Company. (See Rush, Fred O., assignor.)
American Manganese Steel Company. (See Vanderhoef, Ellison E., assignor.)
American Optical Company. (See Bugbee, Lucian W., assignor.)
American Optical Company. (See Maynard, Albert E., assignor.)
American Pattern Works. (See Buhr, Joseph F., assignor.)
American Pulley Company, The. (See Bowen, Russell H., assignor.)
American Rolling Mill Company, The. (See Freeze, Johnathan R., assignor.)
American Sealer Co., The. (See Bennett, Albert L., assignor.)
American Smelting & Refining Co. (See Garr, Samuel R., assignor.)
American Smelting and Refining Company. (See Whitehead, Robert L., assignor.)
American Steel Package Company, The. (See Kruse, August M., assignor.)
American Telephone and Telegraph Company. (See Barrows, Leon D., assignor.)
American Telephone and Telegraph Company. (See Hoefer and Bascom, assignors.)
American Telephone and Telegraph Company. (See Persson, Frans, assignor.)
American Telephone and Telegraph Company. (See Van Deusen and Persson, assignors.)
American Warp Drawing Machine Company. (See Hathaway, Edgar F., assignor.)
American Well Works, The. (See Sperry, John B., assignor.)
Ames Steel Lath Company. (See Curtis, Lewis E., assignor.)
Ammon, John, assignor to H. Christman, New York, N. Y. Pedal for musical instruments. No. 1,208,076; Dec. 12; Gaz. vol. 233; p. 490.
Amouney, Elees. (See John, George, assignor.)
Anchor Cap & Closure Corporation. (See Hull, Joseph V., assignor.)
Andersen, Harry A., Jamaica, N. Y. Reinforcing device for supporting material around beams. No. 1,208,886; Dec. 19; Gaz. vol. 233; p. 821.
Anderson, Andrew A. (See Anderson, Carl A. and A. A.)
Anderson, Carl A. and A. A., Worcester, Mass. Tool-rest for grinding-machines. No. 1,206,791; Dec. 5; Gaz. vol. 233; p. 4.
Anderson, Charles M., Denver, Colo. Siren. No. 1,208,887; Dec. 19; Gaz. vol. 233; p. 821.
Anderson, Charles V., Cincinnati, Ohio. Mop-head. No. 1,208,443; Dec. 12; Gaz. vol. 233; p. 624.
Anderson, Edward V., Monessen, assignor of one-half to C. E. Golden, Crafton, Pa. Pilot-valve. No. 1,209,795; Dec. 26; Gaz. vol. 233; p. 1163.
Anderson, Edward V., Monessen, assignor of one-half to C. E. Golden, Crafton, Pa. Cushioned valve. No. 1,209,796; Dec. 26; Gaz. vol. 233; p. 1163.
Anderson, Edward V., Monessen, assignor of one-half to C. E. Golden, Crafton, Pa. Fire-service valve. No. 1,209,797; Dec. 26; Gaz. vol. 233; p. 1163.
Anderson, Emil, New York, N. Y., assignor to The Universal Turbine Company, Jersey City, N. J. Turbine-engine. No. 1,208,888; Dec. 19; Gaz. vol. 233; p. 821.
Anderson, Ernst G., Westfield, N. J., assignor to National Pneumatic Action Co., Inc., New York, N. Y. Automatic musical instrument. No. 1,208,723; Dec. 19; Gaz. vol. 233; p. 761.
Anderson, Forest H., and E. McClinton, Clarksville, Tex. Mattress. No. 1,208,889; Dec. 19; Gaz. vol. 233; p. 822.
Anderson, James A., Barren Island, N. Y. Apparatus for separating garbage. No. 1,209,654; Dec. 26; Gaz. vol. 233; p. 1114.
Anderson, Jesse I. (See Holcomb and Anderson.)
Anderson, John P., assignor of one-third to M. Green, Los Angeles, Cal. Combination gas filler and gage for automobiles. No. 1,209,100; Dec. 19; Gaz. vol. 233; p. 891.
Anderson, Oliver P., Nashville, Tenn. Detachable tyre. No. 1,206,972; Dec. 5; Gaz. vol. 233; p. 65.
Andreolli, Angelo, Meadow Lands, Pa. Hose-coupling. No. 1,209,374; Dec. 19; Gaz. vol. 233; p. 985.
Andrews, Al. Moorcroft, Wyo., assignor to Portable Pull and Push Irrigating Pump Company, of Wyoming. Portable irrigating-machine. No. 1,206,790; Dec. 5; Gaz. vol. 233; p. 3.
Andrews, Charles B., assignor to Taylor-Wharton Iron and Steel Company, High Bridge, N. J. Fuller-mill pusher. No. 1,209,101; Dec. 19; Gaz. vol. 233; p. 892.
Andrews, John M. (See Andrews, Lee A., assignor.)
Andrews, Lee A., assignor of one-half to J. M. Andrews, Benbaden, Fla. Rail-joint. No. 1,207,696; Dec. 12; Gaz. vol. 233; p. 357.
Andrus, Charles H., and C. A. Plank, Harrisburg, Pa. Dumping-car. No. 1,207,122; Dec. 5; Gaz. vol. 233; p. 115.
Angus, Arthur R., Minehead, England. Railway safe-running device. No. 1,207,676; Dec. 5; Gaz. vol. 233; p. 309.
Anklam, William F., assignor to C. M. Hall Lamp Company, Detroit, Mich. Lamp-socket. No. 1,209,655; Dec. 26; Gaz. vol. 233; p. 1114.
Anschutz, Carl H., Wilson, Kans. Lid for cooking utensils and retaining device therefor. No. 1,207,699; Dec. 12; Gaz. vol. 233; p. 358.
Anschütz-Kaempfe, Hermann, Neumühlen, near Kiel, Germany. Apparatus for determining deviations of boreholes from the vertical. No. 1,209,102; Dec. 19; Gaz. vol. 233; p. 892.
Aoyama, Masaichi, and J. Higashino, Sacramento, Cal. Lamp-extinguisher. No. 1,210,256; Dec. 26; Gaz. vol. 233; p. 1324.
Apichella, Briget, Marion Heights borough, Pa. Cuff for men's shirts. No. 1,209,798; Dec. 26; Gaz. vol. 233; p. 1164.
Applegate, Earl C. (See Smiley, Applegate, and Bennett.)
Appleton Wire Works. (See Weissenborn, Albert B., assignor.)
Arbuthnot, Earl H., *et al.* (See Graybill, John F., assignor.)
Archibald, Charles E., New Brunswick, N. J. Machine for inking ribbons. No. 1,207,263; Dec. 5; Gaz. vol. 233; p. 165.
Archer, Henry C., Fort Wayne, Ind. Rail-joint. No. 1,208,444; Dec. 12; Gaz. vol. 233; p. 625.
Archibald, James F. J., New York, N. Y. Mirror attachment for dirigible automobile spot-lights. No. 1,206,978; Dec. 5; Gaz. vol. 233; p. 65.
Arden, Thomas R. (See Heyman and Arden.)
Armbrust, Charles W., Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del. Brake-shoe back. No. 1,210,383; Dec. 26; Gaz. vol. 233; p. 1364.
Armbrust, Charles W., Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del. Brake-shoe. No. 1,210,384; Dec. 26; Gaz. vol. 233; p. 1364.
Armstrong Cork Company. (See Busch, Herman F., assignor.)
Arnold, Clarence A., Hartford, Conn., assignor to The Hartford Rubber Works Company. Tire-builder's tool. No. 1,209,536; Dec. 19; Gaz. vol. 233; p. 1043.
Arnold, Harry E. (See Wear, Tandy, assignor.)
Arnold, Norvill P., Rector, Ark. Collapsible bucket. No. 1,208,445; Dec. 12; Gaz. vol. 233; p. 625.
Arnold, Willis E., St. Cloud, Fla. Container-pump. No. 1,208,446; Dec. 12; Gaz. vol. 233; p. 625.
Arnone, Cyrus, New York, N. Y. Bottle-stopper. No. 1,208,447; Dec. 12; Gaz. vol. 233; p. 625.
Arnott, Robert F. (See Stutz and Arnott.)
Arsneau, Thomas P., Portland, Oreg., assignor of one-third to C. S. Acker, Leola, S. D. Door lock and latch. No. 1,207,123; Dec. 5; Gaz. vol. 233; p. 115.
Art Metal Manufacturing Company, The. (See Cochran, Wesley E., assignor.)
Arthur, Walter, Schenectady, N. Y., assignor to General Electric Company. Electric cut-out. No. 1,208,448; Dec. 12; Gaz. vol. 233; p. 626.
Ash, George D. (See Myers, Carwitt E., assignor.)

Ash, Isaac E., Athens, Ohio. Tire. No. 1,210,132; Dec. 26; Gaz. vol. 233; p. 1281.
Ashley, Frank M., New York, N. Y., assignor to Cadwell Company, trustee. Violin. No. 1,208,077; Dec. 12; Gaz. vol. 233; p. 490.
Assed, George, *et al.* (See George, John, assignor.)
Associated Engineers Company. (See Donahoe, Alfred H., assignor.)
Atkins, Sullivan H., Melrose, Mass. Ball-bearing. No. 1,209,537; Dec. 19; Gaz. vol. 233; p. 1043.
Atlas Tack Company. (See Luscomb, Frederick W., assignor.)
Atterbury, Grosvenor, New York, N. Y. Apparatus for molding or casting. No. 1,207,697; Dec. 12; Gaz. vol. 233; p. 357.
Atterbury, Grosvenor, New York, N. Y. Apparatus for molding or casting. No. 1,207,698; Dec. 12; Gaz. vol. 233; p. 358.
Atterbury, Thomas W., Dansville, N. Y., and P. W. Matthews, assignors of five-twelfths to said Matthews, five-twelfths to F. E. Bedale, Scottdale, Pa., and one-sixth to J. F. Brandenburg, Mahwah, N. J. Rotary grate. No. 1,207,358; Dec. 5; Gaz. vol. 233; p. 196.
Attwasser, Frederick G., Saco, Mont. Automobile-tool. No. 1,208,449; Dec. 12; Gaz. vol. 233; p. 626.
Auchly, Frank J., Kansas City, Kans. Belt-lacing needle. No. 1,209,244; Dec. 19; Gaz. vol. 233; p. 939.
Aue, Joseph E., New York, N. Y. Mop-wringer. No. 1,209,799; Dec. 26; Gaz. vol. 233; p. 1164.
Auel, Carl B., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Brush for dynamo-electric machines and attaching conductors thereto. No. 1,210,029; Dec. 26; Gaz. vol. 233; p. 1246.
Auñero, Emanuel, Brooklyn, N. Y. Hand-operated signal. No. 1,207,833; Dec. 12; Gaz. vol. 233; p. 407.
Auñero, Emanuel, Brooklyn, N. Y. Hand-operated signal. No. 1,207,834; Dec. 12; Gaz. vol. 233; p. 407.
Auñero, Michael, Brooklyn, N. Y. Commutator. No. 1,207,359; Dec. 5; Gaz. vol. 233; p. 106.
Augenbraun, Peter F., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Means for attaching a lock-cylinder to a plate or other similar article. No. 1,207,465; Dec. 5; Gaz. vol. 233; p. 236.
Augustine, Benjamin F., Buffalo, N. Y. Clutch. No. 1,210,257; Dec. 26; Gaz. vol. 233; p. 1325.
Aument, Carroll M., Strasburg, Pa., assignor of one-half to N. T. Whitaker, New York, N. Y. Automobile-brake. No. 1,209,375; Dec. 19; Gaz. vol. 233; p. 985.
Aumuller, Otto J., Brooklyn, assignor of fifty one-hundredths to L. S. Stiles, Kings county, N. Y. Bottle-indicator. No. 1,206,792; Dec. 5; Gaz. vol. 233; p. 4.
Aurora Automatic Machinery Company. (See Levedahl, Axel, assignor.)
Austin, Ernest C., Chicago, Ill. Nut-lock. No. 1,206,793; Dec. 5; Gaz. vol. 233; p. 4.
Austin, Frank W., Cabool, Mo. Semi-automatic steering-gear-operating mechanism. No. 1,208,450; Dec. 12; Gaz. vol. 233; p. 626.
Austin, Frederick C. (See Rosendahl, Nils M., assignor.)
Austin, James B., Dolgeville, N. Y. Wall-paper pasting and trimming machine. No. 1,208,890; Dec. 19; Gaz. vol. 233; p. 822.
Automatic Addressing Machine Company, The. (See Thomas, Richard G., assignor.)
Automatic Can Filling Machinery Company. (See Small, Chesley T., assignor.)
Automatic Electric Company. (See Blessing, John G., assignor.)
Automatic Electric Company. (See Erickson, John, assignor.)
Automatic Electric Company. (See Fricke, William A., assignor.)
Automatic Electric Company. (See Hershey and Yanochowski, assignors.)
Automatic Electric Company. (See Keith, Alexander E., assignor.)
Automatic Enunciator Company. (See Comer, John J., assignor.)
Automatic Shaft Coupling Co. (See Cathcart, Frank H., assignor.)
Automatic Spark Advance Co. (See Newton, Edward C., assignor.)
Automatic Utilities Co. (See Honecker, Charles A., assignor.)
Automatic Weighing Machine Company. (See Evans, Fred, assignor.)
Autossales Gum and Chocolate Company. (See Patterson, James W., assignor.)
Averill, Charles C., Trees, La. Well-drilling rig. No. 1,208,891; Dec. 19; Gaz. vol. 233; p. 822.
Averill, William H., Boston, Mass. Loose-leaf binder. No. 1,208,724; Dec. 19; Gaz. vol. 233; p. 761.
Avery Company. (See Springer, William N., assignor.)
Avis, Samuel W., assignor to The Merrow Machine Company, Hartford, Conn. Fabric-guide. No. 1,206,974; Dec. 5; Gaz. vol. 233; p. 65.
Avis, Samuel W., assignor to The Merrow Machine Company, Hartford, Conn. Fabric-uncurling device for sewing-machines. No. 1,206,975; Dec. 5; Gaz. vol. 233; p. 65.
Ayres, Napoleon B., Sapulpa, Okla. Railway-car brake. No. 1,208,705; Dec. 12; Gaz. vol. 233; p. 714.
B. F. & H. L. Sweet Company. (See Sweet and Hutchins, assignors.)
B. F. Sturtevant Company. (See Middleton, Harry N., assignor.)
Bablone, Harry E., Woodville, Ohio. Corn-rack. No. 1,210,258; Dec. 26; Gaz. vol. 233; p. 1325.
Bachman, Frank H. and R. H., Allentown, Pa. Antislipping device. No. 1,209,103; Dec. 19; Gaz. vol. 233; p. 892.
Bachman, Reuben H. (See Bachman, Frank H. and R. H.)
Badische Anilin & Soda Fabrik. (See Bosch, Mittasch, and Beck, assignors.)
Badische Anilin & Soda Fabrik. (See Isler, Max H., assignor.)
Badische Anilin & Soda Fabrik. (See Meiser and Krauch, assignors.)
Badische Anilin & Soda Fabrik. (See Neresheimer, Heinrich, assignor.)
Badische Anilin & Soda Fabrik. (See Schmidt, Otto, assignor.)
Badische Company. (See Schutz, Otto, assignor.)
Bailey, Oliver J., Florence, Mass. Silencer for firearms. No. 1,207,264; Dec. 5; Gaz. vol. 233; p. 165.
Bailey, Sadie F., North Warren, Pa. Sanitary commode-protector. No. 1,209,656; Dec. 26; Gaz. vol. 233; p. 1114.
Bailey, Sylvester J., Clark, S. D. Automatic vehicle-brake. No. 1,209,538; Dec. 19; Gaz. vol. 233; p. 1043.
Bailey, Walter F., assignor to J. H. Janssen, Los Angeles, Cal. Combined pan greaser and scraper. No. 1,209,927; Dec. 26; Gaz. vol. 233; p. 1211.
Baily, Robert W., assignor to Interstate Manufacturing Company, Oskaloosa, Iowa. Chute. No. 1,209,376; Dec. 19; Gaz. vol. 233; p. 986.
Baines, Joseph B., Berryville, Ark. Game-board. No. 1,207,466; Dec. 5; Gaz. vol. 233; p. 236.
Baird, John W., Chicago, Ill. Spark-plug. No. 1,206,794; Dec. 5; Gaz. vol. 233; p. 5.
Baker, Ellington A., Mayfield, Ga. Trucking-skid. No. 1,210,133; Dec. 26; Gaz. vol. 233; p. 1281.
Baker, Lenious E. (See Brolin, Jonas, assignor.)
Baker, Theodore, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Apparatus for recovering solvents. No. 1,209,657; Dec. 26; Gaz. vol. 233; p. 1115.
Baker, Walter C., Lakewood, Ohio. Accurately locating coöperating gears. No. 1,209,377; Dec. 19; Gaz. vol. 233; p. 986.
Balderston, Henry L., Llanerch, Pa. Continuous indicating and recording micrometer. No. 1,208,725; Dec. 19; Gaz. vol. 233; p. 762.
Baldwin, Frank S. and G. H., East Orange, N. J. Calculating-machine. No. 1,207,700; Dec. 12; Gaz. vol. 233; p. 358.
Baldwin, George H. (See Baldwin, Frank S. and G. H.)
Baldwin, James L., Chicago, Ill. Traveling and elevating parcel-carrier. No. 1,207,677; Dec. 5; Gaz. vol. 233; p. 310.
Baldwin Locomotive Works, The. (See Deans and Kirk, assignors.)
Baldwin Locomotive Works, The. (See Rushton, Kenneth, assignor.)
Baldwin, William D., New York, N. Y., and F. C. Furlow, Montclair, assignors to Otis Elevator Company, Jersey City, N. J. Elevator. No. 1,208,451; Dec. 12; Gaz. vol. 233; p. 627.
Ball, Charles F., New York, assignor to Ball & Jewell, Brooklyn, N. Y. Rotary cutter. No. 1,207,360; Dec. 5; Gaz. vol. 233; p. 197.
Ball, George T., Foss, Okla. Tanning compound. No. 1,210,259; Dec. 26; Gaz. vol. 233; p. 1325.
Ball, Herman F., Bronxville, N. Y., and H. R. Stafford, Plainfield, N. J. Locomotive-engine. No. 1,208,078; Dec. 12; Gaz. vol. 233; p. 490.
Ball & Jewell. (See Ball, Charles F., assignor.)
Ballard, William N., Kansas City, Kans. Combination wet and dry pipe valve. No. 1,208,452; Dec. 12; Gaz. vol. 233; p. 627.
Ballenger, Minor M., Clayton, W. Va. Seed-planter. No. 1,207,467; Dec. 5; Gaz. vol. 233; p. 237.
Balmer, Calvin R. (See Lonaberger and Balmer.)
Baltsley, Oren F., Hagerstown, Md. Tool. No. 1,209,658; Dec. 26; Gaz. vol. 233; p. 1115.
Bamfield, Thomas C., and G. Rechter, Angel Island, Cal. Double-comb cleaner. No. 1,207,468; Dec. 5; Gaz. vol. 233; p. 237.
Banas, Stanley, Buffalo, N. Y. Combined chair and ironing-board. No. 1,207,469; Dec. 5; Gaz. vol. 233; p. 237.
Banks, Charles E., Pittsburgh, Pa. Attachment for forks and the like. No. 1,207,470; Dec. 5; Gaz. vol. 233; p. 237.
Banks, John D., Colwyn, Pa. Steam-trap valve. No. 1,208,726; Dec. 19; Gaz. vol. 233; p. 762.
Bar-Lock Typewriter Company Limited, The. (See Etheridge, Herbert, assignor.)
Barber Asphalt Paving Company, The. (See Forrest, Charles N., assignor.)
Barber-Colman Company. (See Colman, Howard D., assignor.)
Barber, Guy A. (See Ender and Barber.)
Barber, William D., Chicago, Ill. Submerged crib and intake. No. 1,209,800; Dec. 26; Gaz. vol. 233; p. 1165.
Barden, Clifford A. (See Barden, Henry B. and C. A.)
Barden, Henry B. and C. A., Wallingford, Vt. Hanger for storm-windows. No. 1,207,471; Dec. 5; Gaz. vol. 233; p. 238.

Barette, Ernest O., Montreal, Quebec, Canada. Garter. No. 1,207,265; Dec. 5; Gaz. vol. 233; p. 166.
Barks, Thomas L., London, England. Roofing-bar. No. 1,209,378; Dec. 19; Gaz. vol. 233; p. 987.
Barley, William B., Rochester, N. Y. Dish-washing machine. No. 1,208,727; Dec. 19; Gaz. vol. 233; p. 763.
Barnard and Leas Manufacturing Company. (See Cornwall, John B., assignor.)
Barnedt, Adolph, and G. Flower, Bickleton, Wash. Sack-jigger. No. 1,207,835; Dec. 12; Gaz. vol. 233; p. 408.
Barnes, Charles H., assignor to Remington Arms & Ammunition Company, Ilion, N. Y. Extractor and ejector mechanism for firearms. No. 1,208,892; Dec. 19; Gaz. vol. 233; p. 823.
Barnes, James W., Lake Charles, La. Apparatus for destructive distillation. No. 1,208,453; Dec. 12; Gaz. vol. 233; p. 627.
Barnett, Otto R. (See Scott, John M., assignor.)
Barney, William J., New York, and A. M. Brothers, Brooklyn, assignors to General Contracting and Engineering Company, New York, N. Y. Pier and dock construction. No. 1,209,104; Dec. 19; Gaz. vol. 233; p. 893.
Barnhart, John E. (See Hayes, John P., assignor.)
Barr, Wilson, Trenton, Ontario, Canada. Account-file. No. 1,208,264; Dec. 12; Gaz. vol. 233; p. 560.
Barrell, William L., Lawrence, Mass. Loom. No. 1,207,124; Dec. 5; Gaz. vol. 233; p. 116.
Barrett Company, The. (See Weiss, John M., assignor.)
Barrett Manufacturing Company. (See Perry and Stewart, assignors.)
Barrington, Horace G. J., New York, N. Y. Educational appliance. No. 1,206,795; Dec. 5; Gaz. vol. 233; p. 5.
Barrows, Leon D., New York, N. Y., assignor to American Telephone and Telegraph Company. Connecting system for telephone-stations. No. 1,207,836; Dec. 12; Gaz. vol. 233; p. 408.
Barry, Thomas W., Keweenaw, Mich. Logging-wheel. No. 1,207,701; Dec. 12; Gaz. vol. 233; p. 359.
Barstow, Edwin O., assignor to The Dow Chemical Company, Midland, Mich. Making magnesium chlorid and the like. No. 1,209,245; Dec. 19; Gaz. vol. 233; p. 939.
Barstow, Edwin O., assignor to The Dow Chemical Company, Midland, Mich. Making magnesium chlorid and the like. No. 1,209,246; Dec. 19; Gaz. vol. 233; p. 939.
Bartels, Amandus, Harburg-on-the-Elbe, Germany. Treating casein. No. 1,209,539; Dec. 19; Gaz. vol. 233; p. 1043.
Barth, John F., Cleveland, Ohio. Finger-support for writing instruments. No. 1,206,976; Dec. 5; Gaz. vol. 233; p. 65.
Bartholomew, Bert E., Algona, Iowa. Combined dump endgate and scoop-board. No. 1,207,266; Dec. 5; Gaz. vol. 233; p. 166.
Bartholomew, Charles L., Minneapolis, Minn. Portable drawing-board. No. 1,207,702; Dec. 12; Gaz. vol. 233; p. 360.
Bartlett, Edwin S., Sr., Butte, Mont., assignor of one-half to The Sheep Shearers' Merchandise and Commission Company. Animal-shears. No. 1,209,379; Dec. 19; Gaz. vol. 233; p. 987.
Bartlett, Frederick W., Caldwell, R. B. Grant, Orange, and E. P. Cooke, Paterson, N. J. Supporting-case for vacuum-jars. No. 1,208,728; Dec. 19; Gaz. vol. 233; p. 763.
Bartmer, Paul P., Denver, Colo. Lock for the hoods of automobiles. No. 1,208,893; Dec. 19; Gaz. vol. 233; p. 823.
Barton, Louis E., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Obtaining titanic oxid. No. 1,206,796; Dec. 5; Gaz. vol. 233; p. 5.
Barton, Louis E., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Obtaining titanic oxid. No. 1,206,797; Dec. 5; Gaz. vol. 233; p. 5.
Barton, Louis E., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Obtaining titanic oxid. No. 1,206,798; Dec. 5; Gaz. vol. 233; p. 6.
Barton, Theodore P., Keene, N. H. Shovel. No. 1,207,472; Dec. 5; Gaz. vol. 233; p. 238.
Bartrum, Charles W., Newburgh, assignor to Sweet-Orr & Company, Incorporated, New York, N. Y. Overalls for women. No. 1,208,715; Dec. 12; Gaz. vol. 233; p. 718.
Bartz, Paul H., Altura, Minn. Saw-tooth set. No. 1,207,837; Dec. 12; Gaz. vol. 233; p. 409.
Bascom, Henry M. (See Hoefer and Bascom.)
Basehore, Horace E., and E. L. Kraft, York, Pa. Amalgam-mixer. No. 1,207,703; Dec. 12; Gaz. vol. 233; p. 360.
Baskerville, Charles, New York, assignor to S. Sternan & Company, Brooklyn, N. Y. Fuel and making the same. No. 1,208,265; Dec. 12; Gaz. vol. 233; p. 560.
Baskin, Edwin T., Independence, Mo. Undergarment. No. 1,207,125; Dec. 5; Gaz. vol. 233; p. 116.
Baskin, Edwin T., Independence, Mo. Glove. No. 1,209,380; Dec. 19; Gaz. vol. 233; p. 987.
Basler, George, assignor to Basler Machinery Company, Lynn, Mass. Stitch-separating machine. No. 1,208,079; Dec. 12; Gaz. vol. 233; p. 491.
Basler Machinery Company. (See (Basler, George, assignor.)
Bast, Henry E., Lawler, Iowa. Vulcanizing device. No. 1,206,799; Dec. 5; Gaz. vol. 233; p. 6.
Bastian, Charles O., London, England. Manufacturing electric incandescence bodies. No. 1,209,247; Dec. 19; Gaz. vol. 233; p. 940.
Bateman, William H. S. (See Matthews, Freeman, and Bateman.)
Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Valve-bag. No. 1,207,267; Dec. 5; Gaz. vol. 233; p. 166.
Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Valve-bag-filling machine. No. 1,209,105; Dec. 19; Gaz. vol. 233; p. 893.
Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Starting and stopping mechanism for presses. No. 1,209,381; Dec. 19; Gaz. vol. 233; p. 988.
Bates, Arthur, and J. Gouldbourn, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Lasting and sewing machine. No. 1,209,659; Dec. 26; Gaz. vol. 233; p. 1115.
Bates, George E., Syracuse, N. Y. Disinfecting device. No. 1,208,894; Dec. 19; Gaz. vol. 233; p. 824.
Bates, John F., Philadelphia, Pa. Station-indicator. No. 1,208,729. Dec. 19; Gaz. vol. 233; p. 764.
Bates Valve Bag Company. (See Bates, Adelmer M., assignor.)
Batt, Charles F., New York, N. Y. Engine. No. 1,206,800; Dec. 5; Gaz. vol. 233; p. 6.
Battenfeld, John N., Cleveland, Ohio. Molding-machine. No. 1,207,361; Dec. 5; Gaz. vol. 233; p. 197.
Battenfeld, John N., Cleveland, Ohio. Molding-machine. No. 1,207,362; Dec. 5; Gaz. vol. 233; p. 197.
Batter, Frank, Linnton, Oreg. Controlling the humidity of the atmosphere. No. 1,206,977; Dec. 5; Gaz. vol. 233; p. 66.
Bauer & Black. (See Bauer, Perry S., assignor.)
Bauer, George F., Linwood, N. Y. Adjustable bracket or standard for hay or stock racks or the like. No. 1,210,260; Dec. 26; Gaz. vol. 233; p. 1325.
Bauer, Perry S., assignor to Bauer & Black, Chicago, Ill. Non-raveling bandage. No. 1,206,801; Dec. 5; Gaz. vol. 233; p. 6.
Baum, Edward, Philadelphia, Pa. Artificial ear-drum. No. 1,207,704; Dec. 12; Gaz. vol. 233; p. 360.
Baum, Leopold A., Newark, N. J. Shoe. No. 1,209,660; Dec. 26; Gaz. vol. 233; p. 1116.
Baumann, Arthur C. (See Michener and Baumann.)
Baumann, Karl, Chorlton cum Hardy, England, assignor to Westinghouse Electric and Manufacturing Company. Blower system. No. 1,210,030; Dec. 26; Gaz. vol. 233; p. 1246.
Baumeyer, William F., Sparta, Ill. Hub-liner. No. 1,206,454; Dec. 12; Gaz. vol. 233; p. 628.
Baumgaertner, Friedrich W., assignor to A. J. Halle, Cleveland, Ohio. Cyclometer. No. 1,209,382; Dec. 19; Gaz. vol. 233; p. 988.
Bausch & Lomb Optical Company. (See Fiske, Bradley A., assignor.)
Bausch & Lomb Optical Company. (See Hommel, Kandler, and Patterson, assignors.)
Bausch & Lomb Optical Co. (See Saegmuller and Kellner, assignors.)
Baxter, William C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leveling-machine. No. 1,208,895; Dec. 19; Gaz. vol. 233; p. 824.
Bazzoni, Lewis J., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for buttoning shoes. No. 1,207,730; Dec. 12; Gaz. vol. 233; p. 370.
Beach, Clarence E., and L. J. Voorhees, Binghamton, N. Y., assignors, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company. Non-interference signal-box. No. 1,207,838; Dec. 12; Gaz. vol. 233; p. 409.
Beall, Charles L., Alton, Ill. Shovel. No. 1,209,248; Dec. 19; Gaz. vol. 233; p. 940.
Beard, John W., Indianapolis, Ind. Hydrocarbon-burner. No. 1,210,031; Dec. 26; Gaz. vol. 233; p. 1246.
Beard, Paul M., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end construction. No. 1,208,896; Dec. 19; Gaz. vol. 233; p. 825.
Beard, Paul M., assignor to American Car and Foundry Company, St. Louis, Mo. Metallic car end. No. 1,208,897; Dec. 19; Gaz. vol. 233; p. 825.
Beard, Paul M., assignor to American Car and Foundry Company, St. Louis, Mo. Car end construction. No. 1,208,898; Dec. 19; Gaz. vol. 233; p. 826.
Beard, Paul M., assignor to American Car and Foundry Company, St. Louis, Mo. Car end construction. No. 1,208,899; Dec. 19; Gaz. vol. 233; p. 826.
Beardsley, Elmer O., and W. F. Piper, Klamath Falls, Oreg. Molding apparatus for founding. No. 1,207,939; Dec. 12; Gaz. vol. 233; p. 409.
Beaumont, George B., Moncton, New Brunswick, Canada. Section-liner. No. 1,208,266; Dec. 12; Gaz. vol. 233; p. 560.
Beck, Charles W., Rockville Center, N. Y., assignor, by mesne assignments, to The Beck-Frost Corporation, Detroit, Mich. Tire-carrier for automobiles. No. 1,206,802; Dec. 5; Gaz. vol. 233; p. 7.
Beck, Christoph. (See Bosch, Mittasch, and Beck.)
Beck-Frost Corporation, The. (See Beck, Charles W., assignor.)
Beck, Heinrich, Schenectady, N. Y., assignor to General Electric Company. Electric-arc lamp. No. 1,209,540; Dec. 19; Gaz. vol. 233; p. 1044.

Beck, Henry, Andrews, Ind., assignor to Wasmuth-Endicott Company, Latch. No. 1,208,716; Dec. 12; Gaz. vol. 233; p. 718.
Beck, Henry E., assignor to The Dennison Foundry and Machine Company, Dennison, Ohio. Fire-pot for furnaces. No. 1,209,106; Dec. 19; Gaz. vol. 233; p. 894.
Becker, Emilius C. F., Milledgeville, Ga. Plow. No. 1,208,267; Dec. 12; Gaz. vol. 233; p. 561.
Becker, Joseph, Washington, D. C. Finder. No. 1,210,134; Dec. 26; Gaz. vol. 233; p. 1281.
Becker, Joseph, Washington, D. C. Finder. No. 1,210,135; Dec. 26; Gaz. vol. 233; p. 1282.
Becker, Joseph, Washington, D. C. Focus and field finder. No. 1,210,136; Dec. 26; Gaz. vol. 233; p. 1282.
Becker, Joseph, Washington, D. C. Finder. No. 1,210,137; Dec. 26; Gaz. vol. 233; p. 1282.
Becker, Rudolph, Elizabeth, N. J., assignor to The Singer Manufacturing Company. Presser-foot for sewing-machines. No. 1,209,928; Dec. 26; Gaz. vol. 233; p. 1211.
Beckett, William A., Kingsville, Ontario, Canada. Spacing device for can-cleaning machines. No. 1,209,801; Dec. 26; Gaz. vol. 233; p. 1165.
Beckman, Fritz O., Grundy Center, Iowa. Corn-planter harrow. No. 1,207,473; Dec. 5; Gaz. vol. 233; p. 238.
Beckwith, Harry H., Brookline, Mass. Shoe-stiffener. No. 1,209,661; Dec. 26; Gaz. vol. 233; p. 1116.
Bedale, Frederick E., *et al.* (See Atterbury and Matthews, assignors.)
Bedard, Ludger J., Minneapolis, Minn. Edge-trimming rotary cutter. No. 1,207,474; Dec. 5; Gaz. vol. 233; p. 239.
Bedford, George, Brooklyn, N. Y. Automatic winding device for phonographs. No. 1,208,455; Dec. 12; Gaz. vol. 233; p. 628.
Bedigrew, John C. (See Thomason, William, assignor.)
Bedore, Frank, Gagetown, Mich. Insect-trap. No. 1,210,032; Dec. 26; Gaz. vol. 233; p. 1247.
Begneaud, Maurice J., La Fayette, La. Wire-stretcher. No. 1,210,261; Dec. 26; Gaz. vol. 233; p. 1326.
Behrer, Martin, Queens, N. Y. Valve for flush-tanks. No. 1,209,662; Dec. 26; Gaz. vol. 233; p. 1116.
Behrmann, Benjamin, Manchester, N. H. Shoe-upper and making the same. No. 1,209,802; Dec. 26; Gaz. vol. 233; p. 1165.
Belanger, Dell, North Branch, assignor to International Falls Construction Company, International Falls, Minn. Portable wheel-track. No. 1,209,249; Dec. 19; Gaz. vol. 233; p. 940.
Belden, Jose. (See Castañeda, Eduardo, assignor.)
Belknap, Edwin D., East Orange, N. J. Printing mechanism. No. 1,208,268; Dec. 12; Gaz. vol. 233; p. 561.
Belknap, Edwin D., East Orange, N. J. Record-bearing stencil card. No. 1,208,269; Dec. 12; Gaz. vol. 233; p. 562.
Belknap, Edwin D., East Orange, N. J. Inking apparatus. No. 1,208,270; Dec. 12; Gaz. vol. 233; p. 562.
Bell, Andrew F., assignor of one-sixth to E. C. Heidler, Stapleton, N. Y. Clothes-line attachment. No. 1,208,080; Dec. 12; Gaz. vol. 233; p. 491.
Bell, Harmon. (See Loftus, Thomas J., assignor.)
Bell, Louis, West Newton, Mass. Headlight. No. 1,208,456; Dec. 12; Gaz. vol. 233; p. 629.
Bellanger, Pierre V. L., Paris, France. Breaking steel bars. No. 1,209,250; Dec. 19; Gaz. vol. 233; p. 941.
Belley, John, Passaic, assignor of one-half to F. Miller, Newark, N. J. Lock. No. 1,209,383; Dec. 19; Gaz. vol. 233; p. 989.
Bellville, William M., Cannelton, Ind. Rotary display-table for store-windows. No. 1,208,457; Dec. 12; Gaz. vol. 233; p. 629.
Belton, John D., assignor of one-half to J. Frankel, Crowley, La. Nether garment. No. 1,206,979; Dec. 5; Gaz. vol. 233; p. 66.
Bemies, Charles O. (See Bemies, James F. and C. O.)
Bemies, James F., New York, N. Y., and C. O. Bemies, McClellandtown, Pa. Combined conveyer and cutter chain. No. 1,209,251; Dec. 19; Gaz. vol. 233; p. 941.
Benedict, Bernard, New York, N. Y., assignor to National Talking Clock Company, Jefferson City, Mo. Talking-machine. No. 1,210,138; Dec. 26; Gaz. vol. 233; p. 1283.
Benham, Edgar M., Norwood, assignor to The Nydia Bank Lock Company, Cincinnati, Ohio. Auxiliary motor for time-locks. No. 1,206,803; Dec. 5; Gaz. vol. 233; p. 7.
Benjamin Electric Manufacturing Company. (See Benjamin and Imboden, assignors.)
Benjamin Electric Manufacturing Company. (See Benjamin, Reuben B., assignor.)
Benjamin Electric Manufacturing Company. (See Dean, William W., assignor.)
Benjamin, George H., New York, N. Y. Treating sugar-beets and the product derived therefrom. No. 1,207,840; Dec. 12; Gaz. vol. 233; p. 410.
Benjamin & Johnes. (See Brigham, Edward F., assignor.)
Benjamins, Israel, Bath Beach, N. Y. Mechanism for supporting and hoisting loads and sundry articles. No. 1,208,458; Dec. 12; Gaz. vol. 233; p. 629.
Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Portable holder for electric lamps. No. 1,210,263; Dec. 26; Gaz. vol. 233; p. 1326.
Benjamin, Reuben B., and J. Imboden, assignors to Benjamin Electric Manufacturing Company, Chicago, Ill. Lamp-lock socket. No. 1,210,262; Dec. 26; Gaz. vol. 233; p. 1326.
Benn, Alonso N., Chicago, Ill. Treating and curing meats and food products. No. 1,209,803; Dec. 26; Gaz. vol. 233; p. 1166.
Bennett, Albert L., Chicago, Ill., assignor to The American Sealer Co., Kansas City, Mo. Envelop-sealer and stamp-moistener. No. 1,209,929; Dec. 26; Gaz. vol. 233; p. 1212.
Bennett, Barney, New York, N. Y. Cloth steaming and pressing machine. No. 1,209,663; Dec. 26; Gaz. vol. 233; p. 1117.
Bennett, George E., Brooklyn, N. Y., assignor to Pittsburgh Can Company, Pittsburgh, Pa. Sheet-metal can. No. 1,208,081; Dec. 12; Gaz. vol. 233; p. 491.
Bennett, Guy R. (See Smiley, Applegate, and Bennett.)
Bennett, Robert, New York, N. Y., and R. E. Cox, Annapolis, Md. Range-finder. No. 1,207,475; Dec. 5; Gaz. vol. 233; p. 239.
Benson, Ary A., assignor to Benson, Flick & Solberg, Inc., Seattle, Wash. Speed-indicating device for motor-vehicles. No. 1,207,126; Dec. 5; Gaz. vol. 233; p. 116.
Benson, Erling C., Albuquerque, N. Mex. Automobile-lamp deflector. No. 1,206,980; Dec. 5; Gaz. vol. 233; p. 67.
Benson, Flick & Solberg. (See Benson, Ary A., assignor.)
Benson, John F., Portsmouth, Va. Traverse-machine. No. 1,208,459; Dec. 12; Gaz. vol. 233; p. 630.
Bente, Henry K., assignor of thirty-three one-hundredths to J. L. Guerrant, sixteen and one-half one-hundredths to E. D. Bosserman, and sixteen and one-half one-hundredths to M. T. Henderson, Sedalia, Mo. Post. No. 1,210,372; Dec. 26; Gaz. vol. 233; p. 1360.
Bentley, Charles S., Plattsburg, N. Y. Fiber picture and making the same. No. 1,207,841; Dec. 12; Gaz. vol. 233; p. 410.
Bergen Point Iron Works. (See McIntyre and Frohlin, assignors.)
Bergen Point Iron Works. (See Smith, Augustus, assignor.)
Berger, Christian, assignor to Submarine Wireless Company, New York, N. Y. Sound-operated circuit-controller. No. 1,209,636; Dec. 19; Gaz. vol. 233; p. 1076.
Berger, Joseph, Jr., Utica, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Trimming mechanism for sewing-machines. No. 1,209,541; Dec. 19; Gaz. vol. 233; p. 1044.
Berger, Louis H., Boston, Mass. Surveying instrument. No. 1,209,107; Dec. 19; Gaz. vol. 233; p. 894.
Berger, Paul H., assignor to Carlin Calculator Company, Chicago, Ill. Calculating-machine. No. 1,208,271; Dec. 12; Gaz. vol. 233; p. 562.
Berger, Paul H., assignor to Carlin Calculator Company, Chicago, Ill. Calculating-machine. No. 1,208,272; Dec. 12; Gaz. vol. 233; p. 562.
Berggraf, Hans, Stavanger, Norway. Opening device for tins and sheet-metal boxes. No. 1,210,139; Dec. 26; Gaz. vol. 233; p. 1283.
Berglund, Edward S., assignor to Trollhättans Elektrothermiska Aktieboing, Trollhattan, Sweden. Method of and apparatus for obtaining zinc. No. 1,207,127; Dec. 5; Gaz. vol. 233; p. 117.
Bergman, Frederick H., Newton, Iowa. Mechanical movement for washing-machines. No. 1,208,273; Dec. 12; Gaz. vol. 233; p. 563.
Bergren, John A., assignor of one-half to H. S. Wilson, Lake Park, Minn. Grain-tank. No. 1,207,842; Dec. 12; Gaz. vol. 233; p. 410.
Bergstrom, Victor E., New York, N. Y. Combined clipper and hair-cutting scissors. No. 1,207,476; Dec. 5; Gaz. vol. 233; p. 240.
Berk, Arthur D. (See Thomas, Berk, and Morgan.)
Berkeley, Tyrus D., Ruabon, Wales. Air or gas compressor. No. 1,209,930; Dec. 26; Gaz. vol. 233; p. 1212.
Berliner, Abe. (See Caro and Berliner.)
Berresford, Arthur W., Milwaukee, Wis. Freight-car and lock for freight-car doors. No. 1,210,264; Dec. 26; Gaz. vol. 233; p. 1327.
Berry, Joseph E., *et al.* (See Johnson, Edwin A., assignor.)
Bertram, Clarence C. (See Helmholtz and Bertram.)
Besler, Charles L., Winfield, Kans. Fluid-regulating device. No. 1,208,274; Dec. 12; Gaz. vol. 233; p. 563.
Bessinger, Robert A., Wellington, Ohio. Drum and cymbal beater. No. 1,209,804; Dec. 26; Gaz. vol. 233; p. 1166.
Best, Charles D., Lincoln, Nebr. Trump and bid indicator. No. 1,209,542; Dec. 19; Gaz. vol. 233; p. 1044.
Best, Charles J., Delphos, Ohio. Motor-generator set. No. 1,208,730; Dec. 19; Gaz. vol. 233; p. 764.
Betar, James G. (See Prasil and Betar.)
Betz, William G., Buffalo, N. Y. Tracker-bar for pneumatic musical instruments. No. 1,208,275; Dec. 12; Gaz. vol. 233; p. 563.
Bezvoda, Rudolf, Chicago, Ill. Radiator. No. 1,210,265; Dec. 26; Gaz. vol. 233; p. 1327.
Bickelhaupt, Miles H., Utica, N. Y. Figure toy. No. 1,210,266; Dec. 26; Gaz. vol. 233; p. 1327.
Bida, Frank, Thurber, Tex. Automatic switch-throwing apparatus. No. 1,206,981; Dec. 5; Gaz. vol. 233; p. 67.
Bierbanm, Christopher H., Buffalo, N. Y. Making lubricants and products thereof. No. 1,207,843; Dec. 12; Gaz. vol. 233; p. 411.
Bigelow, Owen, Momence, Ill. Drifting-valve for locomotives. No. 1,206,982; Dec. 5; Gaz. vol. 233; p. 68.

Bignell, James R., assignor to The Fabric Patch Company, Grand Rapids, Mich. Label-cutting machine. No. 1,207,477; Dec. 5; Gaz. vol. 233; p. 240.

Bijur, Joseph, New York, N. Y., assignor to Bijur Motor Lighting Company, Hoboken, N. J. Starting apparatus for internal-combustion engines. No. 1,210,033; Dec. 26; Gaz. vol. 233; p. 1247.

Bijur Motor Lighting Company. (See Bijur, Joseph, assignor.)

Bildt, Carl K. E., Norrviken, assignor to C. G. Timm, Engelsberg, and H. J. D. Braune, Stockholm, Sweden. Steam-boiler. No. 1,208,082; Dec. 12; Gaz. vol. 233; p. 492.

Billberg, Henry. (See Gill, John J., assignor.)

Billhimer, Herschel, New Madison, Ohio. Shock-absorber. No. 1,208,276; Dec. 12; Gaz. vol. 233; p. 564.

Billow, Newton K., Columbus, Ohio. Pillow. No. 1,208,277; Dec. 12; Gaz. vol. 233; p. 564.

Bird, Mark G., Regina, Saskatchewan, Canada. Babbitting-jig for journal-boxes. No. 1,207,128; Dec. 5; Gaz. vol. 233; p. 117.

Birkigt, Marc, Bois-Colombes, France. Joint. No. 1,207,478; Dec. 5; Gaz. vol. 233; p. 240.

Birtman Electric Co. (See English, Frederick A., assignor.)

Bisbee, De Witt W., and P. A. Cressey, Nacozari, Mexico. Expansion-ring for electric motors. No. 1,208,400; Dec. 12; Gaz. vol. 233; p. 630.

Bisgaard, Holger, Glamsbjerg, Denmark. Self-retaining catheter. No. 1,207,479; Dec. 5; Gaz. vol. 233; p. 241.

Bishop, Annie G., New York, N. Y. Hanger for pictures. No. 1,210,034; Dec. 26; Gaz. vol. 233; p. 1247.

Bixler, Jacob F., assignor of one-half to J. Rellihan, Kansas City, Kans. Basket-cover. No. 1,210,267; Dec. 26; Gaz. vol. 233; p. 1328.

Black, Ashley V., assignor to Grain Products Company, St. Louis, Mo. Food product. No. 1,206,804; Dec. 5; Gaz. vol. 233; p. 8.

Blackman, Mabel, New York, N. Y. Talking-machine-needle magazine. No. 1,208,900; Dec. 19; Gaz. vol. 233; p. 826.

Blackshear, James B., Honolulu, Hawaii. Automatic train-stop. No. 1,210,140; Dec. 26; Gaz. vol. 233; p. 1283.

Blaine, Joseph R., Oak Park, assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Adjustable gripper-pad. No. 1,208,731; Dec. 19; Gaz. vol. 233; p. 764.

Blaisdell Machinery Co. (See Titus and Schwab, assignors.)

Blake, Benjamin F., Marion, Ohio. Combined suction-cleaner, blower, and polishing device. No. 1,207,480; Dec. 5; Gaz. vol. 233; p. 241.

Blake, Charles C., Brookline, Mass. Soap-dish. No. 1,210,035; Dec. 26; Gaz. vol. 233; p. 1248.

Blakesley, William A., Baker, Oreg. Apparatus for raising submerged vessels. No. 1,207,481; Dec. 5; Gaz. vol. 233; p. 241.

Blanc, Francois, St. Etienne, France. Classifying apparatus for coal, ores, and other materials. No. 1,208,461; Dec. 12; Gaz. vol. 233; p. 630.

Blanchard, Edwin A., San Diego, Cal. Combined ironing-board and cabinet. No. 1,207,268; Dec. 5; Gaz. vol. 233; p. 167.

Blanchard, Harold F. (See Bryan and Blanchard.)

Bland, Royal H., Taylor, Tex. Land-marker. No. 1,209,543; Dec. 19; Gaz. vol. 233; p. 1044.

Blando, Frank, New York, N. Y. Interchangeable furniture. No. 1,209,664; Dec. 26; Gaz. vol. 233; p. 1117.

Blaney, William T., Windsor, Ontario, Canada. Street-sweeping machine. No. 1,209,384; Dec. 19; Gaz. vol. 233; p. 989.

Blatt, William M., Brookline, Mass. Book-mark. No. 1,209,252; Dec. 19; Gaz. vol. 233; p. 941.

Blaw Steel Construction Company. (See Brynoldt, Christian, assignor.)

Blecher, Carl, Berlin-Dahlem, assignor to Rotophot Akt. Ges. für graphische Industrie, Berlin, Germany. Device for grinding cylindrical rotating bodies by means of a plane grinding-tool. No. 1,208,278; Dec. 12; Gaz. vol. 233; p. 565.

Blessing, John G., assignor to Automatic Electric Company, Chicago, Ill. Impulse-transmitting device. No. 1,209,253; Dec. 19; Gaz. vol. 233; p. 941.

Bliss, William L., Niagara Falls, assignor by mesne assignments to U. S. Light and Heat Corporation, Niagara Falls, N. Y. Separator for storage batteries. No. 1,206,983; Dec. 5; Gaz. vol. 233; p. 68.

Blizard, John W. F., assignor to Keystone Telephone Company of Philadelphia, Philadelphia, Pa. Telephone-stand. No. 1,209,254; Dec. 19; Gaz. vol. 233; p. 942.

Block, Louis, Mamaroneck, N. Y. Apparatus for condensing ammonia. No. 1,210,141; Dec. 26; Gaz. vol. 233; p. 1284.

Block, Louis, Mamaroneck, N. Y. Condenser for ammonia. No. 1,210,142; Dec. 26; Gaz. vol. 233; p. 1284.

Blondel, André, Paris, France. Photometer. No. 1,208,279; Dec. 12; Gaz. vol. 233; p. 565.

Blood, Lewis H., Foxcroft, Me. Drinking attachment. No. 1,210,268; Dec. 26; Gaz. vol. 233; p. 1328.

Bloom, Adolph C. R., Des Moines, Iowa. Projecting apparatus. No. 1,206,984; Dec. 5; Gaz. vol. 233; p. 68.

Bloom, Edgar J., Tiffin, Ohio. Hot and cold water mixer. No. 1,207,482; Dec. 5; Gaz. vol. 233; p. 241.

Blything, John F. (See Glaser, John F., assignor.)

Bockstahler, Louis A., East Cleveland, Ohio. Grease-cup. No. 1,208,732; Dec. 19; Gaz. vol. 233; p. 765.

Bodge, William, Nutley, N. J., and J. B. Weismiller, New York, N. Y. Counting device. No. 1,208,083; Dec. 12; Gaz. vol. 233; p. 492.

Boe, Hans M., Minneapolis, Minn. Grease-gun. No. 1,209,805; Dec. 26; Gaz. vol. 233; p. 1166.

Boernstein, Sigismond G., Washington, D. C. Advertising apparatus. No. 1,208,462; Dec. 12; Gaz. vol. 233; p. 631.

Bohaker, Richard B., Lynn, Mass. Machine for pasting boxes. No. 1,210,269; Dec. 26; Gaz. vol. 233; p. 1328.

Bohmker, John C., Bradley, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill. Colter. No. 1,208,463; Dec. 12; Gaz. vol. 233; p. 631.

Bohuszewicz, Oskar v., Kiel, Germany. Gearing. No. 1,209,108; Dec. 19; Gaz. vol. 233; p. 894.

Bolander, John A., San Francisco, Cal. Tone-reflector for musical instruments. No. 1,207,678; Dec. 5; Gaz. vol. 233; p. 311.

Bolger, Thomas P., Gloucester, Mass. Refrigerator construction. No. 1,209,544; Dec. 19; Gaz. vol. 233; p. 1045.

Bollg, Andrew. (See Goodnough, Edward S., assignor.)

Bolus, Glenn H., assignor to The Ohio Brass Company, Mansfield, Ohio. Catenary hanger. No. 1,207,483; Dec. 5; Gaz. vol. 233; p. 242.

Bolus, Glenn H., assignor to The Ohio Brass Company, Mansfield, Ohio. Catenary hanger. No. 1,207,484; Dec. 5; Gaz. vol. 233; p. 242.

Bond, Herbert W., *et al.* (See Warriner, Walter, assignor.)

Bonduran, Jesse M., Figsboro, Va. Baling-press. No. 1,207,269; Dec. 5; Gaz. vol. 233; p. 167.

Bonnell, William A., New York, N. Y. Outlet-box. No. 1,207,705; Dec. 12; Gaz. vol. 233; p. 361.

Bonner, Julius, Brooklyn, N. Y. Link jewelry. No. 1,207,844; Dec. 12; Gaz. vol. 233; p. 411.

Bonnet, Arthur, assignor to Bonnet-Brown Sales Service Co., Chicago, Ill. Means for supplying designs for advertising purposes or the like. No. 1,206,805; Dec. 5; Gaz. vol. 233; p. 8.

Bonnet-Brown Sales Service Co. (See Bonnet, Arthur, assignor.)

Bonstein, Edward B., West Pittston, Pa. Acid-proof coating for metals. No. 1,207,845; Dec. 12; Gaz. vol. 233; p. 411.

Bonte, George W., New York, N. Y. Toy. No. 1,207,129; Dec. 5; Gaz. vol. 233; p. 118.

Bookman, Seymour. (See Manahan, Joseph A., assignor.)

Booth, Dailey, and J. Douglas, Lexington, Ky. Monkey-wrench. No. 1,208,464; Dec. 12; Gaz. vol. 233; p. 631.

Borden, Moro M., Collingswood, N. J., assignor to Simplex Valve & Meter Company, Philadelphia, Pa. Liquid-rate controller. No. 1,206,806; Dec. 5; Gaz. vol. 233; p. 8.

Boreham, Vernon T., Roxbury, Mass. Counting apparatus. No. 1,208,465; Dec. 12; Gaz. vol. 233; p. 631.

Bosch, Carl, A. Mittasch, and C. Beck, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Manufacture of oxids of nitrogen. No. 1,207,706; Dec. 12; Gaz. vol. 233; p. 361.

Bosch, Carl, A. Mittasch, and C. Beck, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Manufacture of oxids of nitrogen. No. 1,207,707; Dec. 12; Gaz. vol. 233; p. 361.

Bosch, Carl, A. Mittasch, and C. Beck, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Manufacture of oxids of nitrogen. No. 1,207,708; Dec. 12; Gaz. vol. 233; p. 361.

Bosch, Henry, assignor to Henry Bosch Company, Chicago, Ill. Feeding mechanism. No. 1,208,084; Dec. 12; Gaz. vol. 233; p. 492.

Bossart, Hans, San Francisco, Cal. Safety-envelop. No. 1,209,109; Dec. 19; Gaz. vol. 233; p. 894.

Bosserman, Edward D., *et al.* (See Bente, Henry K., assignor.)

Bostaph Engineering Company. (See Ramage, Alexander S., assignor.)

Boston Rubber Shoe Company. (See Clark, Myron H., assignor.)

Boston Rubber Shoe Company. (See Rutherford, Eugene W., assignor.)

Bosworth, George P., Central Falls, assignor to Hemphill Manufacturing Company, Pawtucket, R. I. Stocking-knitting machine. No. 1,209,255; Dec. 19; Gaz. vol. 233; p. 942.

Bosworth, George P., Central Falls, R. I., assignor to Hemphill Manufacturing Co., Knitting-machine. No. 1,209,256; Dec. 19; Gaz. vol. 233; p. 942.

Bosworth, George P., Central Falls, R. I., assignor to Hemphill Manufacturing Co. Knitting-machine. No. 1,209,257; Dec. 19; Gaz. vol. 233; p. 943.

Bothwell, Fred A., Locke, N. Y. Hay-press. No. 1,208,466; Dec. 12; Gaz. vol. 233; p. 632.

Bottoms, Prentice H., Fresno, Cal. Automatic water-heater valve. No. 1,209,385; Dec. 19; Gaz. vol. 233; p. 990.

Bouffier, Charles, New York, N. Y. Broom-bridle. No. 1,208,733; Dec. 19; Gaz. vol. 233; p. 765.

Boulds, Grovenor W., Island Pond, Vt. Grinding-tool. No. 1,209,931; Dec. 26; Gaz. vol. 233; p. 1212.

Bowen, George W. (See Nolan, Edmund, assignor.)

Bowen, Russell H., assignor to The American Pulley Company, Philadelphia, Pa. Guard for pulleys. No. 1,207,485; Dec. 5; Gaz. vol. 233; p. 243.

Bowerman, John C., Cedaredge, Colo. Insect-destroyer. No. 1,208,467; Dec. 12; Gaz. vol. 233; p. 632.

Bowers Can Seal Company, The. (See Christiansen and Guppey, assignors.)

Bowers, Frank E., Indianapolis, Ind. Heating system for incubators and other apparatus. No. 1,208,280; Dec. 12; Gaz. vol. 233; p. 565.

Bowler, Frank W. (See Bowler, Harry L. W. and F. W.)

Bowler, Harry L. W. and F. W., Chicago, Ill. Mold. No. 1,208,281; Dec. 12; Gaz. vol. 233; p. 566.

Bowles, Noble G., Paden, Okla. Well-bucket. No. 1,208,901; Dec. 19; Gaz. vol. 233; p. 827.

Boyajean, John A. (See Craddock, Edward S., assignor.)

Boyce, Harry, Detroit, Mich. Valve construction. No. 1,208,468; Dec. 12; Gaz. vol. 233; p. 633.

Boyd, Harold A. (See Boyd, Thomas A. and H. A.)

Boyd, Harry E., Akron, Ohio. Elastic vehicle-tire. No. 1,208,902; Dec. 19; Gaz. vol. 233; p. 827.

Boyd, Moody, Louisville, Ky. Refrigerating-machine. No. 1,207,130; Dec. 5; Gaz. vol. 233; p. 118.

Boyd, Thomas A. and H. A., Glasgow, Scotland. Machine for spinning or twisting strips of paper into yarn. No. 1,209,545; Dec. 19; Gaz. vol. 233; p. 1045.

Boye, James H., and E. S. Hagen, assignors to James H. Boye Manufacturing Company, Chicago, Ill. Sash-holding device. No. 1,208,734; Dec. 19; Gaz. vol. 233; p. 765.

Boyer, David L., assignor of one-half to C. Henning, Jr., Solomon, Kans. Wrench. No. 1,208,903; Dec. 19; Gaz. vol. 233; p. 827.

Boyer, Frank M. (See Schleicher and Boyer.)

Boylan, Aaron F., Denison, Iowa. Supply-reservoir. No. 1,207,679; Dec. 5; Gaz. vol. 233; p. 311.

Boylan, Joseph S., Ponca City, Okla. Fuel-delivery apparatus for railway-trains. No. 1,208,904; Dec. 19; Gaz. vol. 233; p. 828.

Boyle, Homer L., assignor of one-half to S. H. Davis, Lansing, Mich. Vacuum-cleaner. No. 1,208,735; Dec. 19; Gaz. vol. 233; p. 766.

Brackett, Fred A., Lancaster, Wis. Mortising-machine. No. 1,210,270; Dec. 26; Gaz. vol. 233; p. 1328.

Bradbury, Frederick B. (See Sorg, William A., assignor.)

Bradford, Robert D., London, England. Rotary and reciprocating internal-combustion engine. No. 1,207,846; Dec. 12; Gaz. vol. 233; p. 411.

Bradley, Andrew H., Kansas City, Mo. Ice breaking, salting, and feeding machine. No. 1,208,469; Dec. 12; Gaz. vol. 233; p. 633.

Bradley, Charles P., Pemberton, N. J. Hand-generator. No. 1,209,932; Dec. 26; Gaz. vol. 233; p. 1218.

Bradley, Charles S., New York, N. Y. Method and apparatus for conserving heat of chemical action. No. 1,209,258; Dec. 19; Gaz. vol. 233; p. 944.

Bradley, Jacob A., assignor of two-thirds to J. G. Harter and O. S. Tenley, Wabeno, Wis. Clothes-pin. No. 1,207,486; Dec. 5; Gaz. vol. 233; p. 243.

Bradshaw, Frank R., London, England. Apparatus for carving and ornamenting wood moldings and the like. No. 1,208,470; Dec. 12; Gaz. vol. 233; p. 633.

Bradshaw, Harry, assignor to F. C. Caswell, Richmond, Va. Paper-feeding machine. No. 1,209,110; Dec. 19; Gaz. vol. 233; p. 895.

Bradshaw, William M., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Terminal block for electrical measuring instruments. No. 1,210,036; Dec. 26; Gaz. vol. 233; p. 1248.

Brady, Frank J. (See Browne, Walter I., assignor.)

Brady, James T., Shawnee, Okla., assignor of one-half to J. H. Milton, Chicago, Ill. Double-roller door-hanger. No. 1,209,933; Dec. 26; Gaz. vol. 233; p. 1213.

Bragg, Granville J. (See Osborne and Bragg.)

Bragg, Thomas A., assignor to The Toledo Glass Company, Toledo, Ohio. Feeding device for leers. No. 1,206,807; Dec. 5; Gaz. vol. 233; p. 9.

Braine, Bancroft G., New York, N. Y., assignor to The Rail Joint Company, Insulated rail-joint. No. 1,207,131; Dec. 5; Gaz. vol. 233; p. 118.

Braine, Lawrence F., assignor to The Rail Joint Company, New York, N. Y. Insulated rail-joint. No. 1,207,487; Dec. 5; Gaz. vol. 233; p. 243.

Braithwaite, Charles W., Chicago, Ill. Hinge. No. 1,207,270; Dec. 5; Gaz. vol. 233; p. 167.

Brand, George P., New York, N. Y. Mechanical movement. No. 1,210,037; Dec. 26; Gaz. vol. 233; p. 1248.

Brandenburg, Joseph F., *et al.* (See Atterbury and Mathews, assignors.)

Brandt Cashier Company. (See Brandt, Edward J., assignor.) (Reissue.)

Brandt, Charles. (See La France, David J., assignor.)

Brandt, Edward J., Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Coin-delivery machine. (Reissue.) No. 14,227; Dec. 12; Gaz. vol. 233; p. 721.

Brandt, Heinrich O., Manchester, England. Tubular sleeve or cover for the rollers of wringing, scouring, washing, paper-making, and similar machines. No. 1,208,471; Dec. 12; Gaz. vol. 233; p. 634.

Branley, Harry, Honesdale, Pa. Thread-guide. No. 1,208,085; Dec. 12; Gaz. vol. 233; p. 493.

Brantingham, Allen C., Toledo, Ohio, assignor to Nordyke & Marmon Company, Indianapolis, Ind. Self-balancing sifter. No. 1,207,847; Dec. 12; Gaz. vol. 233; p. 412.

Braun, Jacob G., Chicago, Ill. Corner-protector anchor. No. 1,208,736; Dec. 19; Gaz. vol. 233; p. 766.

Braun, Jacob G., Chicago, Ill. Anchor for casings and the like. No. 1,208,737; Dec. 19; Gaz. vol. 233; p. 767.

Braun, Jacob G., Chicago, Ill. Anchor for casings and the like. No. 1,208,738; Dec. 19; Gaz. vol. 233; p. 767.

Braun, Philip N., assignor to National Chemical Company, Syracuse, N. Y. Collar-ironing machine. No. 1,208,086; Dec. 12; Gaz. vol. 233; p. 493.

Braune, Hjalmar J. D., *et al.* (See Bildt, Carl K. E., assignor.)

Brawner, H. N., Jr. (See Coppage, William R., assignor.)

Bray, Nelson H., San Francisco, Cal. Carbonizing and hardening metal. No. 1,207,848; Dec. 12; Gaz. vol. 233; p. 412.

Breisfoard, Sophia D., Maroa, Ill. Cover for tooth-brushes. No. 1,209,111; Dec. 19; Gaz. vol. 233; p. 895.

Brennan, Margaret F. (See Coder, Frederick C., assignor.)

Brennan, William J., Dannemora, N. Y. Skee attachment. No. 1,207,132; Dec. 5; Gaz. vol. 233; p. 119.

Brenne, Richard, assignor to Kaestner & Hecht Company, Chicago, Ill. Door-lock and door-switch for electric elevators. No. 1,209,637; Dec. 19; Gaz. vol. 233; p. 1076.

Brennecke, Herman J., Chicago, Ill. Safety-goggles. No. 1,207,849; Dec. 12; Gaz. vol. 233; p. 413.

Brennecke, Herman J., and F. Ihrcke, Chicago, Ill. Lamp attachment. No. 1,209,806; Dec. 26; Gaz. vol. 233; p. 1167.

Brennecke, Herman J., assignor of one-half to R. Malcom, Chicago, Ill. Eyeglasses. No. 1,210,038; Dec. 26; Gaz. vol. 233; p. 1248.

Brennecke, Herman J., assignor of one-half to R. Malcom, Chicago, Ill. Lamp-glare reducer. No. 1,210,039; Dec. 26; Gaz. vol. 233; p. 1249.

Brent Company Inc., The. (See Brent, James A., assignor.)

Brent, James A., New York, N. Y., assignor to The Brent Company Inc. Means for supporting bed-coverings. No. 1,206,808; Dec. 5; Gaz. vol. 233; p. 9.

Breva, Knute. (See Strandberg and Breva.)

Brewster, Arthur P. (See Roberts, Brewster, and Bryson.)

Brewster & Co. (See Campbell, Alfred L., assignor.)

Brewster, Elmer J., and J. Murrin, Chicago, Ill. Mechanism for reclaiming defective locomotive and steam cylinders. No. 1,209,112; Dec. 19; Gaz. vol. 233; p. 895.

Brewster, Percy D., East Orange, N. J. Color photography. No. 1,208,739; Dec. 19; Gaz. vol. 233; p. 767.

Brickey, Robert S., Aberdeen; S. D. Automobile-heater. No. 1,209,386; Dec. 19; Gaz. vol. 233; p. 990.

Bridges, Orville A., assignor of one-half to The Kearns-Gorauch Bottle Company, Zanesville, Ohio. Apparatus for severing molten glass. No. 1,207,363; Dec. 5; Gaz. vol. 233; p. 198.

Bried, Julien A., Oakland, Cal. Screen-frame. No. 1,207,850; Dec. 12; Gaz. vol. 233; p. 413.

Brigham, Edward F., Bloomfield, N. J., assignor to Benjamin & Johnes. Fastener. No. 1,209,387; Dec. 19; Gaz. vol. 233; p. 990.

Bright, Fred E., Philadelphia, Pa. Turnstile. No. 1,209,665; Dec. 26; Gaz. vol. 233; p. 1118.

Brinkman, Charles, Chicago, Ill. Toy boat. No. 1,208,282; Dec. 12; Gaz. vol. 233; p. 566.

Bristol, Edgar H., assignor to The Foxboro Company, Foxboro, Mass. Gage. No. 1,208,905; Dec. 19; Gaz. vol. 233; p. 828.

Brittain, George E., St. Louis, Mo., assignor to I. L. Keith, Haverhill, Mass. Holder for cemented soles. No. 1,210,040; Dec. 26; Gaz. vol. 233; p. 1249.

Britton, Willis N., Rochester, N. Y. Mold. No. 1,208,283; Dec. 12; Gaz. vol. 233; p. 566.

Brixey, Austin D., New York, N. Y. Framing device for moving-picture machines. No. 1,208,740; Dec. 19; Gaz. vol. 233; p. 768.

Broadhurst, George, *et al.* (See Dozier, Washington J., assignor.)

Broadmeyer, Albert, assignor to W. O. Hickok Manufacturing Co., Harrisburg, Pa. Paper-engaging element for paper-feeding machines. No. 1,207,364; Dec. 5; Gaz. vol. 233; p. 198.

Broadmeyer, Albert, assignor to W. O. Hickok Manufacturing Co., Harrisburg, Pa. Paper-stack-agitating means for paper-feeding machines. No. 1,207,365; Dec. 5; Gaz. vol. 233; p. 199.

Brock, James H., Jarvis, Ontario, Canada. Root-puller. No. 1,207,488; Dec. 5; Gaz. vol. 233; p. 243.

Brodbeck, Julia V., administratrix. (See Neson, Thomas.)

Broderick, Ernest N., assignor to Detroit Carbureter Company, Detroit, Mich. Carbureter. No. 1,207,680; Dec. 5; Gaz. vol. 233; p. 311.

Broderick, Ernest N., Detroit, Mich. Carbureter. No. 1,207,681; Dec. 5; Gaz. vol. 233; p. 312.

Broderick, Ernest N., Detroit, Mich. Carbureter. No. 1,207,682; Dec. 5; Gaz. vol. 233; p. 312.

Brogden, Fay A. (See Morey and Brogden.)

Broherd, James M., Oskaloosa, Iowa. Steam or hot-water boiler. No. 1,207,489; Dec. 5; Gaz. vol. 233; p. 244.

Brolin, Jonas, Sioux Falls, S. D., assignor of one-half to L. E. Baker, Baker, Mont. Treating flax-plants. No. 1,209,546; Dec. 19; Gaz. vol. 233; p. 1046.

Bromwell Brush and Wire Goods Company, The. (See Olsson, Henry A., assignor.)

Brookins, Walter R. (See Mustin and Brookins.)

Brooks, Fitzhugh L., Moffitt, N. C. Attachment for starting-cranks. No. 1,207,490; Dec. 5; Gaz. vol. 233; p. 244.

Brophy, James P., Birmingham, Ala. Inner tube for pneumatic tires. No. 1,208,906; Dec. 19; Gaz. vol. 233; p. 828.

Brothers, Arthur M. (See Barney and Brothers.)

Brothers, Thomas. (See Merryweather, James, assignor.)

Brotherton, Eugene. (See Mong, Bert B., assignor.)

Brown, Earl J., Chicago, Ill. Optical instrument. No. 1,207,271; Dec. 5; Gaz. vol. 233; p. 168.

Brown, Eugene, Earlsboro, Okla. Music-leaf turner. No. 1,209,548; Dec. 19; Gaz. vol. 233; p. 1047.

Brown, George E., Lowell, Mass. Carrier for bottles. No. 1,209,807; Dec. 26; Gaz. vol. 233; p. 1167.

Brown, George L. (See Mowbray, James W., assignor.)

Brown, Herbert L., Richmond, Va. Boiler-stand. No. 1,209,388; Dec. 19; Gaz. vol. 233; p. 991.

Brown, Horace A, Ottumwa, Iowa. Pipe pushing and pulling machine. No. 1,208,472; Dec. 12; Gaz. vol. 233; p. 634.

Brown, James W., assignor to Chain Belt Company, Milwaukee, Wis. Conveying and distributing apparatus. No. 1,209,638; Dec. 19; Gaz. vol. 233; p. 1077.

Brown, John, New York, N. Y. Grass-edge-trimming machine. No. 1,208,741; Dec. 19; Gaz. vol. 233; p. 768.

Brown, Julian S., Syracuse, N. Y. Internal-combustion engine. No. 1,209,389; Dec. 19; Gaz. vol. 233; p. 991.

Brown, Julian S., Syracuse, N. Y. Rotary valve mechanism for internal-combustion engines. No. 1,209,390; Dec. 19; Gaz. vol. 233; p. 991.

Brown, Louis M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,209,666; Dec. 26; Gaz. vol. 233; p. 1118.

Brown, Walter E., and A. L. Holaday, Muncie, Ind. Operating-table. No. 1,209,549; Dec. 19; Gaz. vol. 233; p. 1047.

Browne, Arthur B., Branford, Conn. Carbureter. No. 1,208,087; Dec. 12; Gaz. vol. 233; p. 493.

Browne, Walter I. Bristol, Vt., assignor of one-half to F. J. Brady, Montreal, Quebec, Canada. Automatic train-pipe coupling. No. 1,209,547; Dec. 19; Gaz. vol. 233; p. 1046.

Browning, George, Chicago, Ill. Computing-machine. No. 1,208,742; Dec. 19; Gaz. vol. 233; p. 768.

Brückner, Josef, Brooklyn, N. Y. Record-disk clamp. No. 1,206,809; Dec. 5; Gaz. vol. 233; p. 9.

Brumback, Thomas R., St. Joseph, Mo. Fastener for grain-doors. No. 1,206,810; Dec. 5; Gaz. vol. 233; p. 9.

Bruner, Simon, New York, N. Y. Expansible bracelet. No. 1,207,366; Dec. 5; Gaz. vol. 233; p. 190.

Brunswick-Balke-Collender Company, The. (See Nystrom, Martin, assignor.)

Brunswick-Balke-Collender Company. (See Whelan, Michael J., assignor.)

Brunson, Earl W., St. Louis, Mo. Rail-joint. No. 1,208,284; Dec. 12; Gaz. vol. 233; p. 567.

Bryan, Daniel B., deceased, Lexington, Ky., and H. F. Blanchard, New York, N. Y.; M. B. Bryan, administratrix, assignors to The Kinnear Manufacturing Company, Columbus, Ohio. Fire-shutter. No. 1,208,088; Dec. 12; Gaz. vol. 233; p. 494.

Bryan, Mary B., administratrix. (See Bryan and Blanchard.)

Bryant Electric Company, The. (See Goodridge, Gilbert W., assignor.)

Bryce, James W., Bloomfield, N. J., assignor to International Time Recording Company of New York, Endicott, N. Y. Punching workmen's cards. No. 1,207,491; Dec. 5; Gaz. vol. 233; p. 244.

Brynoldt, Christian, assignor to Blaw Steel Construction Company, Pittsburgh, Pa. Form for concrete construction. No. 1,209,391; Dec. 19; Gaz. vol. 233; p. 992.

Bryson, Boyd. (See Roberts, Brewster, and Bryson.)

Büchner, Louis F. A. (See Greene and Büchner.)

Buck, Fredrick W., Flagler, Colo. Automatic gravity-stabilizer for aerial torpedoes and aeroplanes. No. 1,207,492; Dec. 5; Gaz. vol. 233; p. 245.

Buckley, John, Lynn, Mass. Shoe construction. No. 1,210,041; Dec. 26; Gaz. vol. 233; p. 1241.

Buckley, Joseph L., Davenport, Iowa. Brick-machine. No. 1,207,272; Dec. 5; Gaz. vol. 233; p. 168.

Buckwalter, Samuel W., Dayton, Ohio. Mail-box. No. 1,209,550; Dec. 19; Gaz. vol. 233; p. 1047.

Buerke, Jesse C., Tampa, Fla. Submarine vessel. No. 1,207,851; Dec. 12; Gaz. vol. 233; p. 413.

Buffington, Roscoe P., Baltimore, Md. Sanitary bottle-stopper. No. 1,208,089; Dec. 12; Gaz. vol. 233; p. 494.

Bugbee, Lucian W., assignor to American Optical Company, Southbridge, Mass. Grinding-machine. No. 1,208,907; Dec. 19; Gaz. vol. 233; p. 828.

Buhr, Joseph F., assignor to American Pattern Works, Detroit, Mich. Work-holder. No. 1,209,667; Dec. 26; Gaz. vol. 233; p. 1119.

Bulkley, M. S. (See Rider, William A., assignor.)

Bullard, Herbert A., San Francisco, Cal. Fluid engine and pump. No. 1,210,042; Dec. 26; Gaz. vol. 233; p. 1249.

Bunn, Asa M., assignor of one-half to F. J. Close, Kansas City, Kans. Railway road-bed. No. 1,210,043; Dec. 26; Gaz. vol. 233; p. 1250.

Burch, Orson G., Grand Rapids, Mich. Carburetor. No. 1,208,908; Dec. 19; Gaz. vol. 233; p. 829.

Burger, Remy C., Toronto, Ontario, Canada. Confectionery-mold. No. 1,207,852; Dec. 12; Gaz. vol. 233; p. 413.

Burgess, Charles V., Swampscott, Mass. Beach-rest. No. 1,209,806; Dec. 26; Gaz. vol. 233; p. 1167.

Burgess, John W., Sault Ste. Marie, Mich. Fish-deflecting means for the outlets of irrigation-ditches. No. 1,210,271; Dec. 26; Gaz. vol. 233; p. 1329.

Burke, Thomas J., New Orleans, La. Toy bowling-alley. No. 1,209,113; Dec. 19; Gaz. vol. 233; p. 896.

Burkhart, Charles F., New York, assignor to Burkhart Corporation, Buffalo, N. Y. Cloth-polisher for shoe-dressing machines. No. 1,210,044; Dec. 26; Gaz. vol. 233; p. 1250.

Burkhart Corporation. (See Burkhart, Charles F., assignor.)

Burkhart Corporation. (See Henry, Ferdinand G., assignor.)

Burkholder, John H., assignor to The Elite Manufacturing Company, Ashland, Ohio. Lift-jack. No. 1,206,265; Dec. 12; Gaz. vol. 233; p. 567.

Burn, James, Chester, Pa. Headlight-shield. No. 1,210,272; Dec. 26; Gaz. vol. 233; p. 1329.

Burnet, Harold, Port Haney, British Columbia, Canada. Spare-tire carrier for automobiles. No. 1,207,493; Dec. 5; Gaz. vol. 233; p. 245.

Burnett, Richard W., Montreal, Quebec, Canada. Column of railway-car trucks. No. 1,209,392; Dec. 19; Gaz. vol. 233; p. 993.

Burnham, George A., Saugus, Mass., assignor, by mesne assignments, to General Electric Company. Protecting means for electric distribution systems. No. 1,208,478; Dec. 12; Gaz. vol. 233; p. 634.

Burns, John D., Victor, Colo. Frying-pan. No. 1,209,551; Dec. 19; Gaz. vol. 233; p. 1047.

Burrell, Ernest L., Chicago, Ill. Splicing belting material. No. 1,207,853; Dec. 12; Gaz. vol. 233; p. 414.

Burroughs Adding Machine Company. (See Rinsche, Frank C., assignor.)

Burroughs, Charles F., East Orange, N. J. Press with duplicate molds. No. 1,208,090; Dec. 12; Gaz. vol. 233; p. 494.

Burt, Grinnell. (See Burt, Howard P. and G.)

Burt, Howard P. and G., Palermo, Cal. Packing ripe olives. No. 1,208,909; Dec. 19; Gaz. vol. 233; p. 829.

Burton, Charles S., Oak Park, Ill. Automatic player-exhaust and controlling mechanism. No. 1,210,148; Dec. 26; Gaz. vol. 233; p. 1285.

Busch, Herman F., Millvale, assignor to Armstrong Cork Company, Pittsburgh, Pa. Making composite cork. No. 1,209,259; Dec. 19; Gaz. vol. 233; p. 944.

Busch, Sam, *et al.* (See Ruzicska, Odo, assignor.)

Bush, Hazel B., Redlands, Cal. Safety hot-wire cutter. No. 1,206,085; Dec. 5; Gaz. vol. 233; p. 90.

Busky, John S., New York, N. Y., assignor to Ever-Last Cotton Shoe Corporation. Apparatus for applying soles and heels to footwear. No. 1,209,552; Dec. 19; Gaz. vol. 233; p. 1048.

Bussel, Herman, El Paso, Tex. Metal-bending machine. No. 1,208,091; Dec. 12; Gaz. vol. 233; p. 495.

Buswell, Fred A., Chattanooga, Okla. Repairing-tool for barb-wire fences. No. 1,207,367; Dec. 5; Gaz. vol. 233; p. 200.

Butler, William M., assignor to The Whitney Manufacturing Company, Hartford, Conn. Automatic metal-turning machine. No. 1,208,910; Dec. 19; Gaz. vol. 233; p. 829.

Butts, Daniel H., Freehold, N. J. Freight-car attachment. No. 1,210,144; Dec. 26; Gaz. vol. 233; p. 1285.

Butts, Millard, New York, N. Y., assignor, by mesne assignments, to Intertype Corporation. Thermostat. No. 1,210,045; Dec. 26; Gaz. vol. 233; p. 1250.

Butz, Walter D., Norristown, Pa., assignor, by mesne assignments, to Paramount Hosiery Form Drying Co., Chicago, Ill. Apparatus for drying and shaping stockings. No. 1,207,494; Dec. 5; Gaz. vol. 233; p. 245.

Butz, Walter D., Norristown, Pa., assignor, by mesne assignments, to Paramount Hosiery Form Drying Co., Chicago, Ill. Casting metals. No. 1,207,495; Dec. 5; Gaz. vol. 233; p. 246.

Butz, Walter D., Norristown, Pa., assignor to Paramount Hosiery Form Drying Co., Chicago, Ill. Hosiery shaping and drying apparatus. No. 1,207,496; Dec. 5; Gaz. vol. 233; p. 247.

Butz, Walter D., Norristown, Pa., assignor to Paramount Hosiery Form Drying Co., Chicago, Ill. Stocking-drying form. No. 1,207,497; Dec. 5; Gaz. vol. 233; p. 247.

Byard, Charles, Onconta, N. Y. Milk cooler and aerator. No. 1,207,133; Dec. 5; Gaz. vol. 233; p. 119.

Byrd, Renier. (See Byrd, William H. and R.)

Byrd, William H. and R., Pelham, Ga. Weighting system for textile fly-frames. No. 1,206,811; Dec. 5; Gaz. vol. 233; p. 10.

Byron, Oscar. (See Sachs and Byron.)

C. F. Massey Co. (See Everett, Robert T., assignor.)

C. M. Hall Lamp Company. (See Anklam, William F., assignor.)

Cadman, John, Edgbaston, England. Absorbent medium for carbonic-acid gas. No. 1,207,273; Dec. 5; Gaz. vol. 233; p. 168.

Cadwell Company, trustee. (See Ashley, Frank M., assignor.)

Caldwell, Eugene W., New York, N. Y. X-ray screening apparatus. No. 1,208,474; Dec. 12; Gaz. vol. 233; p. 635.

Calhoun, Lawrence V., Glenellyn, assignor to Sears, Roebuck & Company, Chicago, Ill. Folding grindstone-frame. No. 1,210,145; Dec. 26; Gaz. vol. 233; p. 1286.

California Cotton Mills Company. (See Johnston, Samuel P., assignor.)

Callan, Ray H., Trenton, Mo. Atomizer. No. 1,208,475; Dec. 12; Gaz. vol. 233; p. 636.

Callaway, George E., De Soto parish, La. Pneumatic type-writer carriage. No. 1,208,477; Dec. 12; Gaz. vol. 233; p. 636.

Callaway, William, Wichita, Kans. Wire-holding clip. No. 1,206,812; Dec. 5; Gaz. vol. 233; p. 10.

Callow, William J., Toronto, Ontario, Canada. Flush-tank control. No. 1,207,854; Dec. 12; Gaz. vol. 233; p. 414.

Calwell, John A., assignor of one-half to A. W. Gleason, Chicago, Ill. Flexible joint for rolling-mill spindles and the like. No. 1,208,476; Dec. 12; Gaz. vol. 233; p. 636.

Cameron, Clint P., Mount Vernon, Ind. Lock. No. 1,207,368; Dec. 5; Gaz. vol. 233; p. 200.

Cameron, William J., Chicago, Ill. Incandescent electric lamp. No. 1,208,743; Dec. 19; Gaz. vol. 233; p. 769.

Camp, Percy B., assignor to Universal Draft Gear Attachment Co., Chicago, Ill. Carrier for draft-gear yokes. No. 1,208,911; Dec. 19; Gaz. vol. 233; p. 830.

Camp, Percy B., assignor to Universal Draft Gear Attachment Co., Chicago, Ill. Carrier for draft-gear yokes. No. 1,208,912; Dec. 19; Gaz. vol. 233; p. 830.

Campbell, Alfred L., Elmhurst, N. Y., assignor to Brewster & Co. Lubricating device for motor-cars. No. 1,208,286; Dec. 12; Gaz. vol. 233; p. 568.

Campbell, Alfred L., Elmhurst, N. Y., assignor to Brewster & Co. Wrist-pin connection. No. 1,209,393; Dec. 19; Gaz. vol. 233; p. 993.

Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Dump-car. No. 1,209,809; Dec. 26; Gaz. vol. 233; p. 1167.

Campbell, Charles A., Philadelphia, Pa. Horseshoe. No. 1,207,498; Dec. 5; Gaz. vol. 233; p. 247.

Campbell, Frank R. (See Meyer and Campbell.)

Campbell, James C. (See Golly, Louis, assignor.)

Campbell, James E., Greenville, Miss. Combined oil-cup and circuit-closer. No. 1,209,553; Dec. 19; Gaz. vol. 233; p. 1048.

Campbell, Leon J., Chicago, Ill. Fabric for tires. No. 1,207,709; Dec. 12; Gaz. vol. 233; p. 361.

Campbell, Robert T., Kansas City, Mo. Packing and making same. No. 1,210,273; Dec. 26; Gaz. vol. 233; p. 1329.

Campfield, Edwin M., Richmond, Ind. Flue. No. 1,209,934; Dec. 26; Gaz. vol. 233; p. 1214.

Campfield, Edwin M., Richmond, Ind. Flue-lining. No. 1,209,935; Dec. 26; Gaz. vol. 233; p. 1214.

Campfield, Edwin M., Richmond, Ind. Flue. No. 1,209,936; Dec. 26; Gaz. vol. 233; p. 1214.

Canfield, Carlton W., Brownton, Minn. Automobile-lamp. No. 1,210,146; Dec. 26; Gaz. vol. 233; p. 1286.

Canhac, George E., assignor to Societe Anonyme Des Etablissements Delaunay-Belleville, St.-Denis, France. Liner for the cylinders of internal-combustion engines. No. 1,208,744; Dec. 19; Gaz. vol. 233; p. 709.

Cantwell, William P., Lima, Ohio. Mausoleum. No. 1,207,855; Dec. 12; Gaz. vol. 233; p. 415.

Canty, John W., Oskaloosa, Iowa. Locking and sealing device for friction-clutches. No. 1,208,478; Dec. 12; Gaz. vol. 233; p. 637.

Capron, Horace M., Winnetka, Ill., assignor to The Marsh Capron Manufacturing Company. Concrete-mixing apparatus. No. 1,209,668; Dec. 26; Gaz. vol. 233; p. 1119.

Carey, James A. (See Harper, William, Jr., assignor.)

Carlin Calculator Company. (See Berger, Paul H., assignor.)

Carlin Calculator Company. (See Carlin, Samuel H., assignor.)

Carlin, Samuel E., assignor to Carlin Calculator Company, Chicago, Ill. Calculating-machine. No. 1,208,287; Dec. 12; Gaz. vol. 233; p. 568.

Carlin, Samuel E., assignor to Carlin Calculator Company, Chicago, Ill. Calculating-machine. No. 1,208,288; Dec. 12; Gaz. vol. 233; p. 568.

Carlisle, Ernest T., Livingston, Mont. Detachable sleigh-runner. No. 1,207,856; Dec. 12; Gaz. vol. 233; p. 415.

Carll, Charles M., Trenton, N. J. Skylight structure. No. 1,209,554; Dec. 19; Gaz. vol. 233; p. 1048.

Carlson, Fredrick, North Easton, Mass. Spark-plug. No. 1,208,479; Dec. 12; Gaz. vol. 233; p. 637.

Carlson, Magnus, Joaquin, Tex. Garment-stretcher. No. 1,207,857; Dec. 12; Gaz. vol. 233; p. 415.

Carlson, Millie J., South Pasadena, Cal. Washtub. No. 1,209,555; Dec. 19; Gaz. vol. 233; p. 1049.

Carmichael, James B., assignor of one-half to H. J. Harper, Seattle, Wash. Composition of matter to be used for preserving graphite crucibles. No. 1,207,858; Dec. 12; Gaz. vol. 233; p. 416.

Carnegie, Alfred G. (See Parsons, Carnegie, and Cook.)

Caro, Albert, Maywood, and A. Berliner, Chicago, Ill., assignors to Caro-Berliner Radiator Corporation. Radiator for automobiles. No. 1,209,810; Dec. 26; Gaz. vol. 233; p. 1168.

Caro-Berliner Radiator Corporation. (See Caro and Berliner, assignors.)

Carpenter, Amos H., Stockton, Cal. Nut-locking washer. No. 1,207,859; Dec. 12; Gaz. vol. 233; p. 416.

Carpenter, Fred W., Linden Heights, Ohio. Mail-box. No. 1,207,490; Dec. 5; Gaz. vol. 233; p. 248.

Carreira, Joao G. (See De Carvalho and Carreira.)

Carroll, Fred M., Dayton, Ohio, assignor of one-half to E. S. Swift, New Haven, Conn. Gun-barrel-drilling machine. No. 1,208,289; Dec. 12; Gaz. vol. 233; p. 569.

Carroll, Lewis R., Charlotte, N. C. Power-transmission device. No. 1,208,290; Dec. 12; Gaz. vol. 233; p. 569.

Carson, Clark, Los Angeles, Cal. Internal-combustion-engine starter. No. 1,206,986; Dec. 5; Gaz. vol. 233; p. 69.

Carter, Adrian E., Manchester, assignor to Hans Renold Limited, Didsbury, Manchester, England. Appliance for extracting or inserting studs of driving-chains. No. 1,208,092; Dec. 12; Gaz. vol. 233; p. 495.

Carter Carburetor Company. (See Carter, William C., assignor.)

Carter, Clarence W., assignor to National Novelty Company, Minneapolis, Minn. Making beads for mops, dusters, or similar articles. No. 1,209,639; Dec. 19; Gaz. vol. 233; p. 1077.

Carter, Horace A. Needham Heights, Mass. Undergarment. No. 1,208,291; Dec. 12; Gaz. vol. 233; p. 570.

Carter, William C., St. Louis, Mo. Spraying or atomizing device. No. 1,207,274; Dec. 5; Gaz. vol. 233; p. 168.

Carter, William C., assignor to Carter Carburetor Company, St. Louis, Mo. Carbureter. No. 1,207,134; Dec. 5; Gaz. vol. 233; p. 119.

Caruguss Manufacturing Co. (See Floren, Siegwart A., assignor.)

Cary, Henry B., assignor of one-half to A. W. Frost, Los Angeles, Cal. Word-counting attachment for type-writing machines. No. 1,207,275; Dec. 5; Gaz. vol. 233; p. 169.

Cary Manufacturing Co. (See Cary, Spencer C., assignor.)

Cary, Spencer C., and C. S. Weeks, Brooklyn, N. Y.; said Weeks assignor to said Cary. Machine for dispensing and moistening gummed tapes. No. 1,208,745; Dec. 19; Gaz. vol. 233; p. 769.

Cary, Spencer C., assignor to Cary Manufacturing Co., Brooklyn, N. Y. Metal fabric. No. 1,209,260; Dec. 19; Gaz. vol. 233; p. 944.

Casey, Marion R., assignor to Clinton Cam Company, Clinton, S. C. Loom-cam. No. 1,208,913; Dec. 19; Gaz. vol. 233; p. 830.

Casey, Mark J., New Richmond, Wis. Garment-hanger. No. 1,207,360; Dec. 5; Gaz. vol. 233; p. 200.

Casey, Thomas F., assignor of one-half to O. Horstman, New York, N. Y. Control apparatus for fuel-supply for internal-combustion engines. No. 1,208,480; Dec. 12; Gaz. vol. 233; p. 638.

Cashion, Elbert T. (See King, Jeremiah A., assignor.)

Cass, Thomas M., Tyler, Tex. Seed-cotton cleaner. No. 1,209,114; Dec. 19; Gaz. vol. 233; p. 896.

Cassing, Frederick J. (See Roepe and Cassing.)

Castañeda, Eduardo, assignor of one-half to J. Belden, Monterey, Mexico. Type-writer carriage-return mechanism. No. 1,209,115; Dec. 19; Gaz. vol. 233; p. 897.

Castañeda, Eduardo, assignor of one-half to J. Belden, Monterey, Mexico. Casting-machine. No. 1,209,116; Dec. 19; Gaz. vol. 233; p. 897.

Castle, Mabel W., administratrix. (See Wing, Leander J.)

Caswell, Frederick C. (See Bradshaw, Harry, assignor.)

Cathcart, Frank H., Trenton, N. J., assignor to Automatic Shaft Coupling Co., Alexandria, Va. Shaft-coupling. No. 1,208,481; Dec. 12; Gaz. vol. 233; p. 638.

Cathey, George A., and E. D. Johnson, Klamath Falls, Oreg. Rotary engine. No. 1,210,046; Dec. 26; Gaz. vol. 233; p. 1251.

Cavanagh, John W., New York, N. Y., assignor to M. E. Gugel, Oakhurst, N. J. Reversing mechanism for electrically-operated washing-machines. No. 1,208,746; Dec. 19; Gaz. vol. 233; p. 770.

Cecil, Joseph A., Dott, W. Va. Wire-stretcher. No. 1,209,556; Dec. 19; Gaz. vol. 233; p. 1049.

Cecuga, Frank, Cranberry, W. Va. Saddle-mount for guns. No. 1,209,937; Dec. 26; Gaz. vol. 233; p. 1214.

Cederberg, Ernest, New York, N. Y. Door scriber and gage. No. 1,210,147; Dec. 26; Gaz. vol. 233; p. 1287.

Central Scientific Company. (See De Khotinsky, Achilles, assignor.)

Ceramic Machinery Company. (See Goldsmith, Frederick E., assignor.)

Cereghino, Joseph, Los Angeles, assignor to American Can Company, San Francisco, Cal. Lined end for sanitary cans. No. 1,207,500; Dec. 5; Gaz. vol. 233; p. 248.

Cesar, Ervin, Ponca City, Okla., assignor to Progressive Shoe Machinery Company, Minneapolis, Minn. Shoe-sole cutter. No. 1,210,148; Dec. 26; Gaz. vol. 233; p. 1287.

Chabot, Joseph, Onaway, Mich. Brush-holder. No. 1,209,557; Dec. 19; Gaz. vol. 233; p. 1049.

Chace, William E. (See Lake, Francis W., assignor.)

Chadwick, Lee S., East Cleveland, assignor to The Cleveland Foundry Company, Cleveland, Ohio. Liquid-dispensing apparatus. No. 1,209,811; Dec. 26; Gaz. vol. 233; p. 1168.

Chaffin, Horatio C., *et al.* (See Grabill, John F., assignor.)

Chain Belt Company. (See Brown, James W., assignor.)

Chain Belt Company. (See Reynolds, Benjamin S., assignor.)

Chalasiewicz, Antoni, Philadelphia, Pa. Railway-tie. No. 1,208,093; Dec. 12; Gaz. vol. 233; p. 495.

Challiner, Walter, Levenshulme, England. Wheel. No. 1,209,261; Dec. 19; Gaz. vol. 233; p. 945.
Chambers, Bering, Quinlan Co., The. (See Shoemaker, Harry C., assignor.)
Chambers, John S., assignor to Chambers Valve Company, New York, N. Y. Superheater-header. No. 1,209,117; Dec. 19; Gaz. vol. 233; p. 897.
Chambers Valve Company. (See Chambers, John S., assignor.)
Chambon, Marius, Paris, France. Machine for wrapping tablets. No. 1,209,669; Dec. 26; Gaz. vol. 233; p. 1119.
Champion, Albert J. (See Schmidt, Albert, assignor.)
Champion Graphaphone Company. (See Markels, Leonard, assignor.)
Champion Shoe Machinery Company. (See Dobyne, Stephen A., assignor.)
Chandler, Daniel L., Ayer, and J. H. Trayne, Groton, Mass. Lighter. No. 1,208,747; Dec. 19; Gaz. vol. 233; p. 770.
Chandler, John B., Campbellsburg, Ky. Mowing-machine. No. 1,209,558; Dec. 19; Gaz. vol. 233; p. 1050.
Chapin, Frank E., San Jose, Cal. Wheel for railway-automobiles. No. 1,209,394; Dec. 19; Gaz. vol. 233; p. 993.
Chapman, C. A. (See Glocker, Gustave, assignor.)
Chapman, William H. (See McCoy and Chapman.)
Chapman, William H., Portland, Me. Elevator-brake. No. 1,207,861; Dec. 12; Gaz. vol. 233; p. 417.
Chapman, William H., Portland, Me. Process and apparatus for neutralising static electricity. No. 1,207,862; Dec. 12; Gaz. vol. 233; p. 417.
Chardonnet, Hilaire de, Paris, France. Machine for spinning artificial silk. No. 1,209,133; Dec. 19; Gaz. vol. 233; p. 903.
Chase, Frank F. (See Stebler and Chase.)
Chasseigne, Louis E. (See Venot and Chasseigne.)
Chatelain, Alex, Akron, Ohio, assignor to The Mechanical Rubber Co. Making doll-heads. No. 1,209,118; Dec. 19; Gaz. vol. 233; p. 898.
Chein, Julius, Montclair, N. J. Lock. No. 1,210,047; Dec. 26; Gaz. vol. 233; p. 1251.
Chemische Fabrik Griesheim-Elektron. (See Marburg and Münch, assignors.)
Chenault, Colby B., Oklahoma, Okla. Bed. No. 1,208,094; Dec. 12; Gaz. vol. 233; p. 495.
Chenery, Henry L., Portland, Me., assignor to Southworth Machine Company. Sheet-separating mechanism. No. 1,209,672; Dec. 26; Gaz. vol. 233; p. 1120.
Cheney, Charles D., Lyndhurst, N. J. Bee-escape. No. 1,208,482; Dec. 12; Gaz. vol. 233; p. 638.
Chesbrough, Fremont B., Boston, Mass. Cup. No. 1,208,483; Dec. 12; Gaz. vol. 233; p. 639.
Chevrolet Motor Company. (See Durant, William C., assignor.)
Chevrolet Motor Company. (See Mason, Arthur C., assignor.)
Chew, Harry I., Washington, D. C., assignor of one-half to A. D. Trempe, Utica, N. Y. Testing-machine. No. 1,208,748; Dec. 19; Gaz. vol. 233; p. 771.
Chicago Electric Meter Company. (See Hall, Chester I., assignor.)
Chicago Railway Equipment Company. (See Williams, Charles H., assignor.)
Chicago Standard Equipment Company. (See Lester, Frederick A., assignor.)
Chicago Surgical & Electrical Company. (See Lidberg, Theodolf, assignor.)
Chicago Table Steel Slide Co. (See Roginger, John, assignor.)
Childress, Henderson P., Memphis, Tenn. Bale-tie buckle. No. 1,209,119; Dec. 19; Gaz. vol. 233; p. 898.
Chisholm, Charles, New York, N. Y. Folding stand. No. 1,207,863; Dec. 12; Gaz. vol. 233; p. 417.
Chism, Sylvester J., Krum, assignor of one-half to L. M. Hayes, Slidell, Tex. Automatic gas-valve. No. 1,207,135; Dec. 5; Gaz. vol. 233; p. 119.
Chopourian, Hagop N., Bridgewater, Mass. Top plate for shoe-lasts. No. 1,207,864; Dec. 12; Gaz. vol. 233; p. 418.
Choquette, Napoleon, St. Ludger, Quebec, Canada. Butter-forming machine. No. 1,207,865; Dec. 12; Gaz. vol. 233; p. 418.
Choraicelo Company. (See Severy and Sinclair, assignors.)
Christiansen, Hans, Bedford, and J. P. Guppey, assignors, by mesne assignments, to The Bowers Can Seal Company, Boston, Mass. Can-sealing machine. No. 1,207,370; Dec. 5; Gaz. vol. 233; p. 200.
Christiansen, Hans, Bedford, and J. P. Guppey, assignors, by mesne assignments, to The Bowers Can Seal Company, Boston, Mass. Can-sealing machine. No. 1,207,371; Dec. 5; Gaz. vol. 233; p. 201.
Christman, Henry. (See Ammon, John, assignor.)
Christopher, Giles V., Midland, Tex. Feeding and packing mechanism for baling-presses. No. 1,209,812; Dec. 26; Gaz. vol. 233; p. 1169.
Chriswell, Frederick W., assignor to Seattle Car & Foundry Co., Seattle, Wash. Trailer for trucks. No. 1,209,670; Dec. 26; Gaz. vol. 233; p. 1120.
Church, Arthur W., assignor of one-half to C. C. Sinnott, Jefferson City, Mont. Distance-finder. No. 1,209,395; Dec. 19; Gaz. vol. 233; p. 903.
Church, Charles F., Pittsburgh, Pa. Toilet-seat. No. 1,207,710; Dec. 12; Gaz. vol. 233; p. 362.
Church, Edmund S., assignor to The National Cash Register Company, Dayton, Ohio, (incorporated in 1906.) Cash and credit register. No. 1,206,813; Dec. 5; Gaz. vol. 233; p. 10.
Church, George, Auckland, New Zealand. Wedge. No. 1,209,262; Dec. 19; Gaz. vol. 233; p. 945.
Cirelli, Francesco, Philadelphia, Pa. Automatic brake for talking-machines. No. 1,208,749; Dec. 19; Gaz. vol. 233; p. 771.
Clark, Charles A., New York, N. Y., assignor to Wood River Iron Works, Inc. Oil-switch. No. 1,208,095; Dec. 12; Gaz. vol. 233; p. 496.
Clark, Frederic B. (See Kronenberger, Ferdinand, assignor.)
Clark, Myron H., Hastings-upon-Hudson, N. Y., assignor to Boston Rubber Shoe Company. Form for vulcanizable plastic articles. No. 1,209,671; Dec. 26; Gaz. vol. 233; p. 1120.
Clark, Richard W., Chicago, Ill. Changeable sign-board. No. 1,207,711; Dec. 12; Gaz. vol. 233; p. 362.
Clark, Rhodolphus P., Shelter Island, N. Y. Lightning-arrester. No. 1,208,484; Dec. 12; Gaz. vol. 233; p. 639.
Clark, Walter G., New York, N. Y. Apparatus for artificial respiration. No. 1,210,149; Dec. 26; Gaz. vol. 233; p. 1287.
Clark, Willett F., Pine Bluff, Ark. Starting apparatus for internal-combustion engines. No. 1,210,150; Dec. 26; Gaz. vol. 233; p. 1288.
Clarke, Justin A., Vincennes, Ind. Counter appliance. No. 1,208,485; Dec. 12; Gaz. vol. 233; p. 639.
Clarke, Marcellus B., Canton, Ohio. Making rubber water-bottles. No. 1,207,372; Dec. 5; Gaz. vol. 233; p. 202.
Clary, John B., assignor to G. G. Prentice, San Diego, Cal. Lamp-reflector. No. 1,208,914; Dec. 19; Gaz. vol. 233; p. 831.
Clausen, Henry P., Mount Vernon, N. Y., assignor, by mesne assignments, to Western Electric Company. Dictating phonograph system. No. 1,206,987; Dec. 5; Gaz. vol. 233; p. 69.
Clauss, Louis F., Elizabeth, N. J. Dish-washer. No. 1,209,263; Dec. 19; Gaz. vol. 233; p. 945.
Clawson, Charles F., Mount Pleasant, Iowa. Anticreeping-rail clamp. No. 1,207,136; Dec. 5; Gaz. vol. 233; p. 120.
Clay, Albert B., Scranton, Pa. Water-heating device. No. 1,209,559; Dec. 19; Gaz. vol. 233; p. 1050.
Clayberg, Clarence C., Mill City, Oreg. Automatic compensating mechanism for differential driving systems of automobiles. No. 1,207,501; Dec. 5; Gaz. vol. 233; p. 240.
Clemens, John G., Buffalo, N. Y. Electrical alarm. No. 1,206,988; Dec. 5; Gaz. vol. 233; p. 70.
Clements Company, The. (See Kennedy, Joseph, assignor.)
Cleveland-Akron Bag Company, The. (See Scherf, Theodore, assignor.)
Cleveland-Akron Bag Company, The. (See Schmidt, Steffens, and Reinke, assignors.)
Cleveland Foundry Company, The. (See Chadwick, Lee S., assignor.)
Cleveland Rock Drill Company, The. (See Greve, Louis W., assignor.)
Clifford, Clarence E., Albany, Oreg. Cash-register. No. 1,208,486; Dec. 12; Gaz. vol. 233; p. 640.
Clinton Cam Company. (See Casey, Marion R., assignor.)
Clore, Johnson, Crawfordsville, Ind. Sweat-band for hats. No. 1,207,137; Dec. 5; Gaz. vol. 233; p. 120.
Close, Frederick J. (See Bunn, Asa M., assignor.)
Clune, Philip J., Ottawa, Ill. Sanitary protector. No. 1,209,264; Dec. 19; Gaz. vol. 233; p. 946.
Coakley, Henry L., New York, N. Y. Aeroplane. No. 1,207,373; Dec. 5; Gaz. vol. 233; p. 202.
Cobb, Henry Z., Winchester, Mass., assignor to Revere Rubber Company. Vehicle-tire. No. 1,210,048; Dec. 26; Gaz. vol. 233; p. 1252.
Cobb, Sylvanus H., Boston, Mass. Ruling-machine. No. 1,206,989; Dec. 5; Gaz. vol. 233; p. 70.
Cochran, Eugene, Cleveland, Ohio. Lamp-globe fixture. No. 1,208,750; Dec. 19; Gaz. vol. 233; p. 772.
Cochran, Jennie R., Jacksonville, Ill. Mop-wringer. No. 1,207,374; Dec. 5; Gaz. vol. 233; p. 202.
Cochran, Wesley E., assignor to The Art Metal Manufacturing Company, Cleveland, Ohio. Dimmer. No. 1,208,487; Dec. 12; Gaz. vol. 233; p. 640.
Coder, Frederick C., Edgewater, N. J., assignor of one-half to M. F. Brennan, South Ozone Park, Long Island, N. Y. Device for laying out and adjusting cutters in cutter-heads. No. 1,207,712; Dec. 12; Gaz. vol. 233; p. 362.
Coen, Garnet W., San Francisco, Cal. Valve. No. 1,208,292; Dec. 12; Gaz. vol. 233; p. 570.
Coffin, James G., trustee. (See Long, William H., assignor.)
Coggin, Frank F., Matawan, N. J., and E. H. Gold, Chicago, Ill. Lock for hose-couplings. No. 1,209,673; Dec. 26; Gaz. vol. 233; p. 1121.
Coghlan, Harold. (See Coghlan, Henry and H.)
Coghlan, Henry and H., Stockport, England. Machine for grading and separating cereals and other granular substances or materials. No. 1,209,120; Dec. 19; Gaz. vol. 233; p. 898.
Cogswell, Arthur C., Detroit, Mich. Shoe-polisher. No. 1,207,276; Dec. 5; Gaz. vol. 233; p. 169.
Cohen, Leon, St. Louis, Mo. Combined hat-lining and bandeau. No. 1,209,121; Dec. 19; Gaz. vol. 233; p. 899.

Colardeau, Louis J. E. (See Richard and Colardeau.)
Colborne, Robert F., Strathfield, near Sydney, New South Wales, Australia. Window. No. 1,209,674; Dec. 26; Gaz. vol. 233; p. 1121.
Cole, Alonzo E., assignor to Sears, Roebuck and Company, Chicago, Ill. Bill and correspondence sheet. No. 1,208,293; Dec. 12; Gaz. vol. 233; p. 571.
Cole, Frederick W., Newton Highlands, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Sounder. No. 1,208,096; Dec. 12; Gaz. vol. 233; p. 496.
Coleman, Mary J., New York, N. Y. Carrying-loop for folding umbrellas. No. 1,208,488; Dec. 12; Gaz. vol. 233; p. 640.
Coleman, Thomas A., assignor to P. Vredenburgh, Jr., Vredenburgh, Ala. Feed-roller for lumber-machines. No. 1,208,294; Dec. 12; Gaz. vol. 233; p. 571.
Coles, Walter H., Troy, Ohio. Irrigation apparatus. No. 1,209,813; Dec. 26; Gaz. vol. 233; p. 1169.
Colligan, Patrick J., Chicago, Ill. Bearing device. No. 1,207,713; Dec. 12; Gaz. vol. 233; p. 363.
Collins, Cap B., Des Moines, Iowa, and J. T. H. Paterson, Chicago, Ill. Vehicle-top. No. 1,208,097; Dec. 12; Gaz. vol. 233; p. 497.
Collins, Clyde C., South Lebanon, Ohio, assignor, by mesne assignments, to The Superior Tire & Rubber Company, Augusta, Me. Resilient tire for vehicle-wheels. No. 1,206,990; Dec. 5; Gaz. vol. 233; p. 70.
Collins, Herbert G., assignor to Sargent & Company, New Haven, Conn. Night-latch. No. 1,206,814; Dec. 5; Gaz. vol. 233; p. 11.
Collins, John, and A. Shepard, Hancock, N. Y. Railway tie-plate and spike. No. 1,209,396; Dec. 19; Gaz. vol. 233; p. 994.
Collins, Walter H., Summit, N. J. Grain-sprouter. No. 1,209,938; Dec. 26; Gaz. vol. 233; p. 1215.
Colman, Howard D., assignor to Barber-Colman Company, Rockford, Ill. Warping apparatus. No. 1,207,138; Dec. 5; Gaz. vol. 233; p. 120.
Colman, Howard D., assignor to Barber-Colman Company, Rockford, Ill. Warping apparatus. No. 1,208,295; Dec. 12; Gaz. vol. 233; p. 572.
Colman, Howard D., assignor to Barber-Colman Company, Rockford, Ill. Warping apparatus. No. 1,209,122; Dec. 19; Gaz. vol. 233; p. 899.
Combs, John W., Marionville, Mo. Combined automobile puller and brake-drum. No. 1,208,489; Dec. 12; Gaz. vol. 233; p. 641.
Comer, John J., assignor to Automatic Enunciator Company, Chicago, Ill. Repeater. No. 1,208,296; Dec. 12; Gaz. vol. 233; p. 572.
Comer, John J., assignor to Automatic Enunciator Company, Chicago, Ill. Transmitting apparatus. No. 1,209,397; Dec. 19; Gaz. vol. 233; p. 994.
Commercial Research Company, The. (See Eldred, Byron E., assignor.)
Commonwealth Steel Company. (See Westlake and Frede, assignors.)
Compton, Lewis R., East Orange, N. J. Power and transmission mechanism. No. 1,208,751; Dec. 19; Gaz. vol. 233; p. 772.
Comstock, Daniel F., Brookline, assignor, by mesne assignments, to Technicolor Motion Picture Corporation, Boston, Mass. Auxiliary registering device for simultaneous projection of two or more pictures. No. 1,208,490; Dec. 12; Gaz. vol. 233; p. 641.
Conill, Fernan, New York, N. Y. Safety-razor. No. 1,208,491; Dec. 12; Gaz. vol. 233; p. 641.
Connell, Edward P., assignor of one-fourth to J. I. Miller and one-fourth to C. T. Taylor, Huntington, W. Va. Miner's check-holder. No. 1,209,123; Dec. 19; Gaz. vol. 233; p. 899.
Connell, J. Weed, Nashville, Ga. Gas-generator. No. 1,207,502; Dec. 5; Gaz. vol. 233; p. 249.
Conner, Abner F., and G. L. Willett, Indianapolis, Ind., assignor to Thos. Cusack Company, Chicago, Ill. Illuminated-sign device. No. 1,208,492; Dec. 12; Gaz. vol. 233; p. 642.
Connet, Frederick N., Providence, R. I. Fluid-meter. No. 1,208,494; Dec. 12; Gaz. vol. 233; p. 642.
Connor, George W., Bearwallow, N. C., assignor of one-half to F. Lamb, Chester, W. Va. Street-sweeping machine. No. 1,208,495; Dec. 12; Gaz. vol. 233; p. 642.
Conover, Cairy C., and A. N. Detweiler, Springfield, Ill. Recovering clay and slag from used retorts. No. 1,207,503; Dec. 5; Gaz. vol. 233; p. 249.
Conrad, Albert E., assignor of one-half to A. F. Reed, Vanport, Pa. Sash-fastener. No. 1,208,495; Dec. 12; Gaz. vol. 233; p. 642.
Consolidated Car-Heating Company. (See McElroy, James F., assignor.)
Consolidated Lamp and Glass Company. (See Hoffman, Eugene E., assignor.)
Consolidated Wafer Company. (See Winder, Samuel E., assignor.)
Continental Can Company. (See Kronquest, Alfred L., assignor.)
Converse, Atherton D., Winchendon, Mass. Set of toy building-blocks. No. 1,207,504; Dec. 5; Gaz. vol. 233; p. 250.
Converse, Atherton D., Winchendon, Mass. Vehicle. No. 1,209,398; Dec. 19; Gaz. vol. 233; p. 995.
Converse, Atherton D., Winchendon, Mass. Drum. No. 1,209,675; Dec. 26; Gaz. vol. 233; p. 1121.
Cook, Clarence M., *et al.* (See Wenslay, Ole, assignor.)
Cook, Howard D., Lorain, Ohio. Plate-piling mechanism. No. 1,210,274; Dec. 26; Gaz. vol. 233; p. 1329.
Cook, John, *et al.* (See Wenslay, Ole, assignor.)
Cook, Laurence, *et al.* (See Wenslay, Ole, assignor.)
Cook Railway Signal Company. (See Fallek, Nathan, assignor.)
Cook, Stanley S. (See Parsons, Carnegie, and Cook.)
Cook, Stanley S. (See Parsons, Cook, and Douglas.)
Cook, Thomas H., Sarnia, Ontario, Canada. Savings-deposit-account device. No. 1,207,714; Dec. 12; Gaz. vol. 233; p. 365.
Cook, Thomas R., Pittsburgh, Pa. Smoke-abating device. No. 1,208,098; Dec. 12; Gaz. vol. 233; p. 497.
Cooke, Albert G., Regina, Saskatchewan, Canada. Carpet-fastener. No. 1,208,496; Dec. 12; Gaz. vol. 233; p. 643.
Cooke, Edward P. (See Bartlett, Grant, and Cooke.)
Cookerley, John, Inglenook, assignor of eighty one-hundredths to E. Shelton, Birmingham, Ala. Melting of metals which fuse at high temperatures in iron or steel ladles. No. 1,208,717; Dec. 12; Gaz. vol. 233; p. 718.
Coons, William V., and B. Hewitt, Victoria, British Columbia, Canada. Process whereby a valuable and nutritious extract is produced from fish or other aquatic animals. No. 1,209,399; Dec. 19; Gaz. vol. 233; p. 995.
Cooper, Albert N., Davis, Cal. Detachable handle. No. 1,209,676; Dec. 26; Gaz. vol. 233; p. 1122.
Cooper, Daniel M., Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Ironing-machine. No. 1,209,124; Dec. 19; Gaz. vol. 233; p. 900.
Cooper, David W., Ruston, La. Rod-joint. No. 1,209,125; Dec. 19; Gaz. vol. 233; p. 900.
Cooper, Frederick H., Walkerville, Ontario, Canada. Ragtying device. No. 1,206,991; Dec. 5; Gaz. vol. 233; p. 71.
Cooper, James J., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end. No. 1,208,915; Dec. 19; Gaz. vol. 233; p. 831.
Cooper, James J., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end construction. No. 1,208,916; Dec. 19; Gaz. vol. 233; p. 831.
Cooper, James J., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end. No. 1,208,917; Dec. 19; Gaz. vol. 233; p. 831.
Cooper, James J., assignor to American Car and Foundry Company, St. Louis, Mo. End construction for box-cars. No. 1,208,918; Dec. 19; Gaz. vol. 233; p. 832.
Copithorn, Walter E., Natick, Mass. Rim for pneumatic tires. No. 1,207,277; Dec. 5; Gaz. vol. 233; p. 170.
Copley, Almon W., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,210,049; Dec. 26; Gaz. vol. 233; p. 1252.
Coppage, William R., assignor of one-half to H. N. Brawner, Jr., Washington, D. C. Bottle-washing machine. No. 1,207,866; Dec. 12; Gaz. vol. 233; p. 418.
Corcoran, Cornelius B., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,209,126; Dec. 19; Gaz. vol. 233; p. 900.
Corcoran-Victor Company, The. (See Kuen, Eugene A., assignor.)
Cordes, John W., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Glass-casting table. No. 1,207,867; Dec. 12; Gaz. vol. 233; p. 419.
Cordley, Henry G., Glen Ridge, N. J. Dispensing-stand. No. 1,207,278; Dec. 5; Gaz. vol. 233; p. 170.
Cordley, Henry G., Glen Ridge, N. J. Dispensing-stand for inverted bottles. No. 1,207,505; Dec. 5; Gaz. vol. 233; p. 250.
Corell, Clifton B., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Computing-machine. No. 1,208,919; Dec. 19; Gaz. vol. 233; p. 832.
Corey, Edgar A., Berkeley, Cal. Toy. No. 1,209,127; Dec. 19; Gaz. vol. 233; p. 901.
Corley, John T., Providence, R. I. Brake-rod guide for automobiles. No. 1,209,128; Dec. 19; Gaz. vol. 233; p. 901.
Cornell, Christopher, New York, N. Y. Condiment-dispenser. No. 1,208,099; Dec. 12; Gaz. vol. 233; p. 497.
Cornwall, George R., Rye, N. Y. Making printing-plates. No. 1,207,506; Dec. 5; Gaz. vol. 233; p. 250.
Cornwall, Harold D., Lowville, N. Y. Extractor-cap. No. 1,210,050; Dec. 26; Gaz. vol. 233; p. 1252.
Cornwall, John B., assignor to Barnard and Leas Manufacturing Company, Moline, Ill. Gyratory driving mechanism. No. 1,208,100; Dec. 12; Gaz. vol. 233; p. 498.
Cosner, Fane H., Copen, W. Va. Sign-holder. No. 1,209,560; Dec. 19; Gaz. vol. 233; p. 1050.
Coss, Frank, Greencastle, assignor to McDougall Company, Frankfort, Ind. Kitchen-cabinet. No. 1,209,129; Dec. 19; Gaz. vol. 233; p. 902.
Costigan, Charles A., and J. Denaro, Oakland, Cal. Baking-machine. No. 1,209,939; Dec. 26; Gaz. vol. 233; p. 1215.
Coughenour, William F., Scottdale, Pa. Saw-sharpening machine. No. 1,210,275; Dec. 26; Gaz. vol. 233; p. 1330.
Coulter, Lemuel P., Wichita, Kans. Hydrocarbon-burner. No. 1,210,276; Dec. 26; Gaz. vol. 233; p. 1330.

Counts, Charles B., assignor of one-half to W. B. Wooldridge, Hampton, Ark. Rail-joint. No. 1,206,992; Dec. 5; Gaz. vol. 233; p. 71.
Couret, Maurice J. (See Duval, Charles W., assignor.)
Courtice, Richard W. (See Taylor, Charles H., assignor.)
Courtney, George G. (See Nickerson and Courtney.)
Cowley, James T., Minot, assignor to The Lamson Company, Boston, Mass. Pneumatic-despatch apparatus. No. 1,208,497; Dec. 12; Gaz. vol. 233; p. 643.
Cox, Erwin, Westfield, Ind. Silo-door operator. No. 1,209,400; Dec. 19; Gaz. vol. 233; p. 995.
Cox, John H., Hot Springs, Ark. Car-replacer. No. 1,206,993; Dec. 5; Gaz. vol. 233; p. 71.
Cox, Robert E. (See Bennett and Cox.)
Coyle, Andrew M., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Governor-retarding device for elevator-safeties. No. 1,208,498; Dec. 12; Gaz. vol. 233; p. 644.
Coyle, Robert C., assignor to E. C. Atkins & Co., Indianapolis, Ind. Saw-guard. No. 1,207,683; Dec. 5; Gaz. vol. 233; p. 313.
Craddock, Edward S., New York, N. Y., assignor to J. A. Boyajean, Jersey City, N. J. Pile fabric. No. 1,208,101; Dec. 12; Gaz. vol. 233; p. 498.
Craddock Terry Company. (See Jansen, Walter C., assignor.)
Craig, Edward, St. Joseph, Mich. Box and manufacture thereof. No. 1,208,297; Dec. 12; Gaz. vol. 233; p. 573.
Craig, John S., *et al.* (See Knox, Luther L., assignor.)
Craighead, Thomas G., Seattle, Wash. Spherical blackboard. No. 1,207,868; Dec. 12; Gaz. vol. 233; p. 419.
Craigmile, Charles L., North Syracuse, N. Y. Emergency-carriage for broken railway-trucks. No. 1,206,984; Dec. 5; Gaz. vol. 233; p. 72.
Cramer, Anthon W. P., Westfield, N. J. Tobacco-pipe cleaner. No. 1,207,375; Dec. 5; Gaz. vol. 233; p. 203.
Cramer, Morris. (See Martens, John B., assignor.)
Crane, Clinton H., Hewlett, assignor to Tama, Lemoine & Crane, New York, N. Y. Hydroplane-boat. No. 1,209,640; Dec. 19; Gaz. vol. 233; p. 1077.
Cranmer, Martin L., Chicago, Ill. Illuminated oil-gage. No. 1,206,815; Dec. 5; Gaz. vol. 233; p. 11.
Cranshaw, John, Denver, Colo. Freight-car. No. 1,207,869; Dec. 12; Gaz. vol. 233; p. 419.
Craven, James F., Crafton, Pa. Receptacle for containing and discharging semisolid and pasty substances. No. 1,207,870; Dec. 12; Gaz. vol. 233; p. 419.
Crawford, Raymond R., assignor of one-half to J. Weiderman, Cilo, La. Harrow-tooth and pivotal pin therefor. No. 1,207,507; Dec. 5; Gaz. vol. 233; p. 251.
Crawford, Terrence L., Grafton, W. Va., assignor of one-half to W. T. Crawford, Pensacola, Fla. Car-coupling. No. 1,207,871; Dec. 12; Gaz. vol. 233; p. 420.
Crawford, William T. (See Crawford, Terrence L., assignor.)
Crease, Alfred J., Cleveland, Ohio. Stool. No. 1,209,561; Dec. 19; Gaz. vol. 233; p. 1050.
Creek, Allen B., San Jose, Cal. Type-pallet. No. 1,207,508; Dec. 5; Gaz. vol. 233; p. 251.
Creighton, Elmer E. F., Schenectady, N. Y., assignor to General Electric Company. Means for protecting electric systems. No. 1,208,499; Dec. 12; Gaz. vol. 233; p. 644.
Cressey, Peter A. (See Bisbee and Cressey.)
Cribben & Sexton Company. (See Harter, Augustus F., assignor.)
Criner, Harry J., Burlington, Iowa, assignor to Hampton Planter Company, Lomax, Ill. Hog-oiler. No. 1,208,102; Dec. 12; Gaz. vol. 233; p. 499.
Crippen Company, The. (See Crippen, Walter R., assignor.)
Crippen, Walter R., assignor to The Crippen Company, New York, N. Y. Musical apparatus. No. 1,206,995; Dec. 5; Gaz. vol. 233; p. 72.
Crippen, Walter R., assignor to The Crippen Company, Inc., New York, N. Y. Tracker adjustment and transposing apparatus. No. 1,206,996; Dec. 5; Gaz. vol. 233; p. 72.
Crites, Edson, and H. Gribler, Van Wert, Ohio. Can-opener. No. 1,208,500; Dec. 12; Gaz. vol. 233; p. 644.
Crocker, Jacob T., Lonelm, Ark. Spring-wheel. No. 1,209,940; Dec. 26; Gaz. vol. 233; p. 1216.
Crocker, Samuel A., Jr., assignor to The Samuel A. Crocker Company, Cincinnati, Ohio. Dental tool. No. 1,208,501; Dec. 12; Gaz. vol. 233; p. 644.
Crookston, Charles E., *et al.* (See Hungerford, Oliver F., assignor.)
Cross, Ebenezer G. (See Jones, Cross, and Jones.)
Crouch, Logan R., Ulmer, Iowa. Transmission for motor-vehicles. No. 1,207,715; Dec. 12; Gaz. vol. 233; p. 363.
Crouse, Edward V., Chicago, Ill. Garter-pocket. No. 1,209,401; Dec. 19; Gaz. vol. 233; p. 995.
Crowell, Theodore S., Bruins, Ark. Coal-car cover. No. 1,209,265; Dec. 19; Gaz. vol. 233; p. 946.
Crowley, Charles H., New York, N. Y. Crochet-ball holder. No. 1,208,502; Dec. 12; Gaz. vol. 233; p. 645.
Crowley, John E. (See Reed, Harry L., assignor.)
Crozier, Henry A. (See Wonderlich and Crozier.)
Crucible Steel Company of America. (See Shonnard, Harold W., assignor.)
Cruice, Daniel, assignor of one-half to H. A. Soffer, New York, N. Y. Burglar-alarm. No. 1,208,503; Dec. 12; Gaz. vol. 233; p. 645.
Cruikshank, James W., Pittsburgh, Pa. Apparatus for carrying glass sheets. No. 1,206,816; Dec. 5; Gaz. vol. 233; p. 11.
Crum, Winfield S., La Fayette, Ind. Basket-runner. No. 1,207,279; Dec. 5; Gaz. vol. 233; p. 170.
Cullifer, Walter T., assignor of one-half to Smith & Co., Ozark, Ala. Insect-destroyer. No. 1,209,814; Dec. 26; Gaz. vol. 233; p. 1170.
Culp, Loxley C., Deer River, Minn. Floor-laying tool. No. 1,210,277; Dec. 26; Gaz. vol. 233; p. 1330.
Cummings, Pierce F. (See Parker, Edwin B., assignor.)
Cummings, Robert A., Pittsburgh, Pa. Sifting or screening mechanism. No. 1,207,139; Dec. 5; Gaz. vol. 233; p. 121.
Cunniff, Edward A., New Bedford, and J. V. Cunniff, Fall River, assignors to J. K. Lanning, Boston, Mass. Filling-feeler mechanism for replenishing looms. No. 1,206,997; Dec. 5; Gaz. vol. 233; p. 73.
Cunniff, John V. (See Cunniff, Edward A. and J. V.)
Cunningham, Alonzo C., Norma, Tenn. Gate-operator. No. 1,208,103; Dec. 12; Gaz. vol. 233; p. 499.
Cunningham, John J., Gadsden, Ala. Locking mechanism for stop-cock boxes. No. 1,209,562; Dec. 19; Gaz. vol. 233; p. 1051.
Cunningham, Percy E., Waverly, Tenn. Track-brace for railways. No. 1,207,140; Dec. 5; Gaz. vol. 233; p. 121.
Cunny, Louis S., Niagara Falls, assignor to U. S. Light and Heat Corporation, Niagara Falls, N. Y. Tension-limit for springs. No. 1,208,298; Dec. 12; Gaz. vol. 233; p. 573.
Cuno, Charles F., assignor to The Cuno Engineering Corporation, Meriden, Conn. Combined dash and trouble lamp. No. 1,208,504; Dec. 12; Gaz. vol. 233; p. 645.
Cuno Engineering Corporation, The. (See Cuno, Charles F., assignor.)
Cupp, J. S., *et al.* (See Lilly, George W., assignor.)
Currie, Otis C., assignor to E. N. Hayes, Detroit, Mich. Paper-roll holder. No. 1,207,280; Dec. 5; Gaz. vol. 233; p. 170.
Currier, Hiram D., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Repeating coil. No. 1,209,266; Dec. 19; Gaz. vol. 233; p. 946.
Currier, Paul B., Amesbury, Mass. Friction transmission. No. 1,208,505; Dec. 12; Gaz. vol. 233; p. 646.
Curry, Alexander D., Hawkinsville, Ga. Soap-holder. No. 1,206,998; Dec. 5; Gaz. vol. 233; p. 73.
Curtis, Harry B. (See Griscom, Alfred C., assignor.)
Curtis, Lewis E., Kenilworth, Ill., assignor to Ames Steel Lath Company, St. Louis, Mo. Machine for making expanded metal. No. 1,207,716; Dec. 12; Gaz. vol. 233; p. 364.
Curtis, Wallace B., Hamburg, N. Y. Garment-stretcher. No. 1,208,506; Dec. 12; Gaz. vol. 233; p. 646.
Curtiss, Glenn H., Buffalo, N. Y. Exhaust-heater for air-inlets. No. 1,210,373; Dec. 26; Gaz. vol. 233; p. 1360.
Curtiss, Glenn H., Buffalo, N. Y. Hull for flying-boats. No. 1,210,374; Dec. 26; Gaz. vol. 233; p. 1361.
Cushman, John A., assignor to Frank Prox Co., Terre Haute, Ind. Automatic car-stop for mine-cages. No. 1,207,084; Dec. 5; Gaz. vol. 233; p. 313.
Cushman Motor Works. (See Weber, Alexander, assignor.)
Cuthbert, John, Chicago, Ill. Hinge construction. No. 1,206,817; Dec. 5; Gaz. vol. 233; p. 12.
Cutler, Willis L., Legrand, assignor of one-half to F. B. Ensminger, Gilman, Iowa. Block-mold. No. 1,208,299; Dec. 12; Gaz. vol. 233; p. 573.
D'Ollier, Henry Jr., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn. Reflector. No. 1,208,759; Dec. 19; Gaz. vol. 233; p. 776.
Daglish, Ernest E., and W. L. Lorkin, London, England. Winding mechanism. No. 1,207,141; Dec. 5; Gaz. vol. 233; p. 121.
Dahl, Alvin, Yardley, Pa. Tire-protector. No. 1,209,130; Dec. 19; Gaz. vol. 233; p. 902.
Daisy Manufacturing Company. (See Lefever, Charles F., assignor.)
Dake, Charles W., assignor to Pyle-National Electric Headlight Company, Chicago, Ill. Turbine. No. 1,209,402; Dec. 19; Gaz. vol. 233; p. 995.
Dalbey, Joel B., assignor of one-half to J. A. King, Nevada, Iowa. Fuel and spark controlling mechanism. No. 1,209,941; Dec. 26; Gaz. vol. 233; p. 1216.
Dalby, Agnes, London, England. Preparation for silvering or gilding metal articles. No. 1,208,507; Dec. 12; Gaz. vol. 233; p. 646.
Dally, Algernon H., Seattle, Wash. Antiskidding device for automobiles. No. 1,208,920; Dec. 19; Gaz. vol. 233; p. 833.
Dalton Adding Machine Co. (See Dorman, Samuel G., assignor.)
Dalton Adding Machine Company, The. (See Dorman and Magnus, assignors.)
Dalton Adding Machine Company, The. (See Dysart, Birney, assignor.)
Dalton Adding Machine Company, The. (See Landsiedel, Harry, assignor.)
Dalton, William, Schenectady, N. Y. Projectile-fuse. No. 1,208,104; Dec. 12; Gaz. vol. 233; p. 500.
Dalton, William, Schenectady, N. Y. Projectile-fuse. No. 1,208,105; Dec. 12; Gaz. vol. 233; p. 500.
Damascus Brake Beam Co., The. (See Schroeder, Frederick J., assignor.)

Damm, Peter, assignor of one-third to S. Liss, New York, one-third to L. Tropp, and one-third to M. M. Turitz, Brooklyn, N. Y. Lock for vehicles. No. 1,206,818; Dec. 5; Gaz. vol. 233; p. 12.
Daniels, Thomas M., and J. C. Holschemacher, Chicago, Ill. Nut-tapping machine. No. 1,209,677; Dec. 26; Gaz. vol. 233; p. 1122.
Dare, Stockwell G., Whitestone, N. Y. Tire-deflating indicator. No. 1,208,508; Dec. 12; Gaz. vol. 233; p. 646.
Darrow, Ben O., Sacramento, Cal. Automatic highway-crossing warning-signal for railways. No. 1,209,131; Dec. 19; Gaz. vol. 233; p. 902.
Darrow, Henry W., Chicago, Ill., assignor, by mesne assignments, to F. Muser, New York, N. Y. Driving mechanism for washing-machines. No. 1,207,142; Dec. 5; Gaz. vol. 233; p. 122.
Darst, James C., Portsmouth, Va. Safety device for pockets. No. 1,209,942; Dec. 26; Gaz. vol. 233; p. 1216.
Dartt, Roy O., Montello, Wis. Angle-gage for drills. No. 1,207,717; Dec. 12; Gaz. vol. 233; p. 364.
Darwin, Arthur L., Mayflower, Ark. Animal-trap. No. 1,208,106; Dec. 12; Gaz. vol. 233; p. 501.
Dauch, Jacob J. (See Kennedy, George A., assignor.)
Daucher, Louis C., Suresnes, France. Apparatus for strengthening the sparks of ignition for internal-combustion engines. No. 1,209,563; Dec. 19; Gaz. vol. 233; p. 1051.
Daum, George W. (See Lewis, Seneca G., assignor.) (Reissue.)
Davenport, William S., New Bedford, Mass. Direct-reading micrometer-caliper. No. 1,210,061; Dec. 26; Gaz. vol. 233; p. 1253.
Davidian, Caspar S., Lawrence, Mass. Machine for making concrete blocks. No. 1,207,509; Dec. 5; Gaz. vol. 233; p. 251.
Davidson, Charles L., New York, N. Y. Screen. No. 1,207,376; Dec. 5; Gaz. vol. 233; p. 203.
Davie, James B., New York, N. Y. Pipe-molding machine. No. 1,208,107; Dec. 12; Gaz. vol. 233; p. 501.
Davies, David P., assignor to J. I. Case Threshing Machine Company, Racine, Wis. Traction-engine. No. 1,209,815; Dec. 26; Gaz. vol. 233; p. 1170.
Davies, William R. (See Thomas and Davies.)
Davis, Bethuel M., assignor, by mesne assignments, to Post-Card Vending Machine Co., Chicago, Ill. Vending-machine. No. 1,208,921; Dec. 19; Gaz. vol. 233; p. 833.
Davis, Charles H., Worcester, Mass. Grinding device. No. 1,210,052; Dec. 26; Gaz. vol. 233; p. 1253.
Davis, Ernest W., assignor to The Aetna Powder Company, Chicago, Ill. Electric blasting-machine. No. 1,209,267; Dec. 19; Gaz. vol. 233; p. 947.
Davis, Frank H., Brooklyn, N. Y. Feeder for stamping-presses. No. 1,210,278; Dec. 26; Gaz. vol. 233; p. 1331.
Davis, Hugh, Melvin, Mich. Dirt-machine. No. 1,206,819; Dec. 5; Gaz. vol. 233; p. 13.
Davis, Noah W., assignor of one-half to E. M. Markel, Des Moines, Iowa. Machine for subjecting air to violet and ultra-violet rays. No. 1,209,132; Dec. 19; Gaz. vol. 233; p. 903.
Davis, Samuel H. (See Boyle, Homer L., assignor.)
Davis, William E., New Ipswich, N. H. Strap-clamp. No. 1,208,108; Dec. 12; Gaz. vol. 233; p. 502.
Davis, William E., Kiefer, Okla. Pipe-line trap. No. 1,208,509; Dec. 12; Gaz. vol. 233; p. 647.
Davison, Gregory C., New London, Conn., assignor to Electric Boat Company. Water-tube boiler for submarines. No. 1,209,678; Dec. 26; Gaz. vol. 233; p. 1122.
Dawkins, Gordie, Truxno, La. Drenching-bottle. No. 1,208,922; Dec. 19; Gaz. vol. 233; p. 833.
Day, Albert V. T., New Rochelle, assignor, by mesne assignments, to Hall Switch & Signal Company, New York, N. Y. Block-signaling system for railways. No. 1,208,752; Dec. 19; Gaz. vol. 233; p. 773.
De Carvalho, Raul, and J. G. Carreira, Lisbon, Portugal. Portable apparatus for the instantaneous production of fresh solutions. No. 1,207,860; Dec. 12; Gaz. vol. 233; p. 416.
De Falco, Joseph, Vineland, N. J. Rail-joint. No. 1,208,110; Dec. 12; Gaz. vol. 233; p. 502.
De Francisci, Ignazio, New York, N. Y. Dough-kneading machine. No. 1,207,143; Dec. 5; Gaz. vol. 233; p. 122.
De Hlebdon, James J., Kansas City, Mo. System for burning oils. No. 1,207,873; Dec. 12; Gaz. vol. 233; p. 420.
De Khotinsky, Achilles, assignor to Central Scientific Company, Chicago, Ill. Electric heating unit. No. 1,208,756; Dec. 19; Gaz. vol. 233; p. 775.
De Lamater, Claude A., assignor of one-half to H. K. Webb, Kansas City, Mo. Tamping-tool. No. 1,206,999; Dec. 5; Gaz. vol. 233; p. 73.
De Pew, Herman E., Fresno, Cal. Nail-dispensing container. No. 1,209,681; Dec. 26; Gaz. vol. 233; p. 1124.
De Polo, Robert, Connellsville, Pa. Heating-system attachment for ranges. No. 1,208,300; Dec. 12; Gaz. vol. 233; p. 574.
De Rigne, Charles A., Los Angeles, Cal. Pneumatic pump. No. 1,209,944; Dec. 26; Gaz. vol. 233; p. 1217.
Deagan, John C., assignor to J. C. Deagan Musical Bells, Chicago, Ill. Musical instrument of xylophone type. No. 1,207,281; Dec. 5; Gaz. vol. 233; p. 171.
Deal, A. L. (See Troup, Guy, assignor.)
Dean, William W., assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill. Electric horn. No. 1,209,403; Dec. 19; Gaz. vol. 233; p. 996.
Deane, Albert W., Joliet, Ill. Stove-lid lifter. No. 1,208,510; Dec. 12; Gaz. vol. 233; p. 647.
Deans, Frank B., Sharon Hill, and B. K. Kirk, assignors to The Baldwin Locomotive Works, Philadelphia, Pa. Clutch and brake mechanism in reels for mine-locomotives. No. 1,208,511; Dec. 12; Gaz. vol. 233; p. 648.
Dech, Henry, assignor to Mercer Tire Company, Trenton, N. J. Making an inner tube for tires. No. 1,209,268; Dec. 19; Gaz. vol. 233; p. 947.
Decker, Ammiel F., Brooklyn, assignor to Tingue, Brown & Co., New York, N. Y. Coated fabric. No. 1,210,376; Dec. 26; Gaz. vol. 233; p. 1301.
Decker, Frederick J., assignor to Shafer-Decker Company, Rochester, N. Y. Electric switch. No. 1,207,718; Dec. 12; Gaz. vol. 233; p. 364.
Decker, Frederick J., assignor to Shafer-Decker Company, Rochester, N. Y. Mechanical foot-operated clutch. No. 1,208,753; Dec. 19; Gaz. vol. 233; p. 773.
Decker, Harold E., Cynwyd, Pa. Interlocking frame for stands and the like. No. 1,209,679; Dec. 26; Gaz. vol. 233; p. 1123.
Decker, John O., Orafino, Nebr. Motor-sled. No. 1,209,404; Dec. 19; Gaz. vol. 233; p. 996.
Decker, William A., Hastings, Nebr. Combined table and settee. No. 1,207,510; Dec. 5; Gaz. vol. 233; p. 252.
Decker, William M., Buffalo, N. Y. Nursing-bottle. No. 1,207,377; Dec. 5; Gaz. vol. 233; p. 203.
Decker, William M., Buffalo, N. Y. Baby-cart. No. 1,208,109; Dec. 12; Gaz. vol. 233; p. 502.
Deem, Miller M., assignor to The Reading Saddle & Manufacturing Company, Reading, Pa. Cycle-saddle. No. 1,209,564; Dec. 19; Gaz. vol. 233; p. 1051.
Deere & Company. (See Wilson, Frederick D., assignor.)
Degen, Nicklous, Austin, Minn. Wire-fence fastener. No. 1,207,872; Dec. 12; Gaz. vol. 233; p. 420.
Degener, Gustave O., assignor to Underwood Computing Machine Company, New York, N. Y. Combined typewriting and computing machine. No. 1,208,754; Dec. 19; Gaz. vol. 233; p. 773.
Deheck, Jacob. (See Hasenohr, Otto R., assignor.)
Dehls, John C., Brooklyn, assignor to National Pneumatic Action Co., Inc., New York, N. Y. Automatic musical instrument. No. 1,208,755; Dec. 19; Gaz. vol. 233; p. 774.
Deister, Emil, assignor to Deister Machine Company, Fort Wayne, Ind. Concentrating-table. No. 1,209,945; Dec. 26; Gaz. vol. 233; p. 1217.
Deister Machine Company. (See Deister, Emil, assignor.)
Delany and Company. (See Maussner, Frederick, assignor.)
Delany, Patrick B., South Orange, N. J. Method of and apparatus for detecting the presence and location of submerged metallic bodies. No. 1,209,680; Dec. 26; Gaz. vol. 233; p. 1123.
Delaunay-Belleville, Robert, assignor to Société Anonyme des Etablissements Delaunay-Belleville, St. Denis, France. Fuel-atomizer. No. 1,206,978; Dec. 5; Gaz. vol. 233; p. 66.
Dell, Archie. (See Dell, Thomas C., assignor.)
Dell, Thomas C., assignor to A. Dell, Niagara Falls South, Ontario, Canada. Broom-rack. No. 1,208,923; Dec. 19; Gaz. vol. 233; p. 834.
Delory, Michael P., Concord, Mass. Spring suspension. No. 1,207,144; Dec. 5; Gaz. vol. 233; p. 123.
Delphey, John P., Toledo, Ohio. Wire-payout reel. No. 1,207,874; Dec. 12; Gaz. vol. 233; p. 420.
Delta-Star Electric Company. (See Young, Herbert W., assignor.)
Deming, William L., Salem, Ohio. Knockdown table. No. 1,208,924; Dec. 19; Gaz. vol. 233; p. 834.
Demore, George. (See Lemon and Warner, assignors.)
Dempster, John T., Schenectady, N. Y., assignor to General Electric Company. Method of and apparatus for recording electrical quantities. No. 1,208,512; Dec. 12; Gaz. vol. 233; p. 648.
Denaro, James. (See Costigan, Charles A., assignor.)
Denison, Howard P. (See Llewellyn and Doyle, assignors.)
Denning, Joseph M., Cedar Rapids, Iowa. Tractor. No. 1,207,875; Dec. 12; Gaz. vol. 233; p. 421.
Dennis, Adolphus S., Lakewood, Ohio, assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,208,757; Dec. 19; Gaz. vol. 233; p. 775.
Dennis, Arthur C., Glacier, British Columbia, Canada. Ventilating tunnels. No. 1,207,145; Dec. 5; Gaz. vol. 233; p. 123.
Dennis, Samuel K., Chicago, Ill., assignor to International Harvester Corporation. Manure-spreader. No. 1,207,000; Dec. 5; Gaz. vol. 233; p. 74.
Dennison Foundry and Machine Company, The. (See Beck, Henry E., assignor.)
Denver Rock Drill Manufacturing Company, The. (See Gustafson, Hjalmer C., assignor.)
Denver Rock Drill Manufacturing Company, The. (See Smith, William A., assignor.)
Derby, Ashton P., assignor to P. Derby & Company, Inc., Gardner, Mass. Corner-joint. No. 1,207,001; Dec. 5; Gaz. vol. 233; p. 74.

Derr, Charles E., assignor to Packard Motor Car Company, Detroit, Mich. Gear-cutting machine. No. 1,209,682; Dec. 26; Gaz. vol. 233; p. 1124.
Derry, Charles F., Adair, Ill. Stock-watering device. No. 1,208,513; Dec. 12; Gaz. vol. 233; p. 648.
Des Moines Refining Company. (See Widner, George H., assignor.)
Des Rosiers, John B., Providence, R. I. Detonating fuse. No. 1,207,511; Dec. 5; Gaz. vol. 233; p. 252.
Desormeau, Adolphus, assignor of one-half to D. E. Seller, Manistique, Mich. Wrench. No. 1,208,925; Dec. 19; Gaz. vol. 233; p. 834.
Despard, Harry C., Syracuse, N. Y. Electrical attachment. No. 1,207,876; Dec. 12; Gaz. vol. 233; p. 421.
Dessauer Vertikal Ofen Gesellschaft. (See Geipert, Rudolf, assignor.)
Detlaff, Anthony J. (See Hays, Henry C., assignor.)
Detroit Carbureter Company. (See Broderick, Ernest N., assignor.)
Detroit Dental Manufacturing Company. (See Holmes, Clarence A., assignor.)
Detroit Pressed Steel Company. (See Putnam, Alden L. assignor.)
Detweiler, Alfred N. (See Conover and Detweiler.)
Detwiler, Forest V., Grand Rapids, Mich. Gas cooking-stove. No. 1,209,683; Dec. 26; Gaz. vol. 233; p. 1124.
Deutsch, Adolph, New York, N. Y. Suspensory. No. 1,208,758; Dec. 19; Gaz. vol. 233; p. 775.
Devendorf, Benjamin F., Grandville, Mich. Machine for removing surplus plants. No. 1,208,514; Dec. 12; Gaz. vol. 233; p. 649.
Dexter Folder Company. (See Ehlig, Harry, assignor.)
Diamond Match Company, The. (See Donnelly, Joseph C., assignor.)
Diamond Match Company, The. (See Fairburn, William A., assignor.)
Diamond Match Company, The. (See Paridon, Michael, assignor.)
Dick, Burns, and V. A. Fynn, assignors to Wagner Electric Manufacturing Company, St. Louis, Mo. Ignition device. No. 1,208,926; Dec. 19; Gaz. vol. 233; p. 834.
Dick, Samuel M., Minneapolis, Minn. Locking device for automobiles. No. 1,207,877; Dec. 12; Gaz. vol. 233; p. 421.
Dickbrader, John H., Washington, Mo. Oiling or lubricating axle or spindle. No. 1,209,684; Dec. 26; Gaz. vol. 233; p. 1125.
Dickerson, Eustice E., Fort Worth, Tex. Cotton-cleaner. No. 1,207,878; Dec. 12; Gaz. vol. 233; p. 422.
Dickinson, Harry S., Moline, Ill., assignor to Moline Plow Company. Tillage implement. No. 1,207,146; Dec. 5; Gaz. vol. 233; p. 123.
Dickinson, Kyle R., Ballinger, Tex. Harrow. No. 1,209,565; Dec. 19; Gaz. vol. 233; p. 1051.
Dickson, Francis C., assignor of one-half to G. S. Zorn, Louisville, Ky. Apparatus for cleaning grain. No. 1,207,512; Dec. 5; Gaz. vol. 233; p. 252.
Dickson, Stewart. (See Mastin, Charles I. E., assignor.)
Diehl, Frederick, Elizabeth, and H. L. Zabriskie, Westfield, assignors to Diehl Manufacturing Company, Elizabeth, N. J. Portable motor-support. No. 1,207,719; Dec. 12; Gaz. vol. 233; p. 365.
Diehl Manufacturing Company. (See Diehl and Zabriskie, assignors.)
Diehl Manufacturing Company. (See Zabriskie and Marx, assignors.)
Diener, Arthur E., Fürstenberg, Germany. Producing special effects in batik-work. No. 1,210,279; Dec. 26; Gaz. vol. 233; p. 1331.
Dilg, Charles H. J., New York, N. Y. Washing-machine. No. 1,207,720; Dec. 12; Gaz. vol. 233; p. 365.
Dilley, William H., Muir, Mich. Grease-pump. No. 1,208,515; Dec. 12; Gaz. vol. 233; p. 649.
Dillon, Irving W., Lawrence, Mass. Carbureter. No. 1,209,405; Dec. 19; Gaz. vol. 233; p. 996.
Diment, Edwin P., Newberg, Oreg. Necktie supporter and stretcher. No. 1,208,516; Dec. 12; Gaz. vol. 233; p. 649.
Dings Electro-Magnetic Separator Co. (See Dings and Manegold, assignors.)
Dings, Myron, and R. A. Manegold, assignors to Dings Electro-Magnetic Separator Co., Milwaukee, Wis. Magnetic separator. No. 1,209,269; Dec. 19; Gaz. vol. 233; p. 947.
Dinsmoor, Clarissa B. (See Dinsmoor, John L., assignor.)
Dinsmoor, John L., Brooklyn, N. Y., assignor to C. B. Dinsmoor, Windham, N. H. Arc-lamp. No. 1,208,517; Dec. 12; Gaz. vol. 233; p. 649.
Discher, Edward W., Seattle, Wash. Oil-burner. No. 1,209,566; Dec. 19; Gaz. vol. 233; p. 1051.
Diskin, Moses B., New York, N. Y. Paper-box-taping machine. No. 1,207,378; Dec. 5; Gaz. vol. 233; p. 203.
Distler, Frank, O'Fallon, Ill. Bottle-case. No. 1,207,379; Dec. 5; Gaz. vol. 233; p. 204.
Dittbenner, Hermann G. (See Walker and Dittbenner.)
Dittgen, John J., Cincinnati, Ohio. Protecting-cell for cigars. No. 1,209,816; Dec. 26; Gaz. vol. 233; p. 1170.
Dixon, Laurens P., New York, N. Y. Vehicle-lamp. No. 1,207,721; Dec. 12; Gaz. vol. 233; p. 366.
Doble, William A., San Francisco, Cal. Intake-valve. No. 1,207,002; Dec. 5; Gaz. vol. 233; p. 74.
Doble, William H., assignor of one-fourth to Pneumatic Scale Corporation, Limited, Quincy, Mass. Shipping-case. No. 1,208,301; Dec. 12; Gaz. vol. 233; p. 574.
Dobson, Donald N. (See Mackay, Alexander J., assignor.)
Doby, Joseph C., Grand Valley, Colo. Gambrel. No. 1,206,820; Dec. 5; Gaz. vol. 233; p. 13.
Dobyne, Stephen A., assignor to Champion Shoe Machinery Company, St. Louis, Mo. Edge-setting machine. No. 1,207,879; Dec. 12; Gaz. vol. 233; p. 422.
Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Bolt. No. 1,209,945; Dec. 26; Gaz. vol. 233; p. 1218.
Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt for boilers. No. 1,209,946; Dec. 26; Gaz. vol. 233; p. 1218.
Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Manufacturing bolts. No. 1,209,947; Dec. 26; Gaz. vol. 233; p. 1218.
Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Bar for bolt-blanks. No. 1,209,948; Dec. 26; Gaz. vol. 233; p. 1218.
Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Blank for flexible bolts. No. 1,209,949; Dec. 26; Gaz. vol. 233; p. 1218.
Dodge, Austin R., Schenectady, N. Y., assignor to General Electric Company. Measuring instrument. No. 1,208,518; Dec. 12; Gaz. vol. 233; p. 650.
Dodge, Austin R., Schenectady, N. Y., assignor to General Electric Company. Flow-meter. No. 1,209,567; Dec. 19; Gaz. vol. 233; p. 1052.
Dodge Brothers. (See Dodge, John F. and H. E., assignors.)
Dodge Brothers. (See Huff, Russell, assignor.)
Dodge, Horace E. (See Dodge, John F. and H. E.)
Dodge, John F., Detroit, and H. E. Dodge, Grosse Pointe, assignors to Dodge Brothers, Detroit, Mich. Transmission-gear mechanism. No. 1,207,722; Dec. 12; Gaz. vol. 233; p. 366.
Dodge, John F., Detroit, and H. E. Dodge, Grosse Pointe, assignors to Dodge Brothers, Detroit, Mich. Axle-housing. No. 1,209,134; Dec. 19; Gaz. vol. 233; p. 903.
Dodson, William E., and E. E. Powell, assignors of one-third to B. E. Rosendahl, Checotah, Okla. Automobile attachment. No. 1,208,927; Dec. 19; Gaz. vol. 233; p. 835.
Doerr, Fred H., Grand Rapids, Mich. Coiling-machine. No. 1,207,880; Dec. 12; Gaz. vol. 233; p. 422.
Doerr, George W. (See Simonds and Doerr.)
Doherty, Henry L., New York, N. Y. Producing a diffused flame with producer-gas. No. 1,206,821; Dec. 5; Gaz. vol. 233; p. 13.
Doherty, Henry L., New York, N. Y. Carbonizing fuel. No. 1,207,723; Dec. 12; Gaz. vol. 233; p. 367.
Doherty, Henry L., New York, N. Y. Making combustible gas. No. 1,207,724; Dec. 12; Gaz. vol. 233; p. 368.
Doherty, Henry L., New York, N. Y. Smelting metallic ores. No. 1,207,881; Dec. 12; Gaz. vol. 233; p. 423.
Doherty, William H., Charlestown, Mass. Color-photographing apparatus. No. 1,207,513; Dec. 5; Gaz. vol. 233; p. 253.
Dole, Frank B. (See Harriman, John E., Jr., assignor.)
Domerhuizen, John, New York, N. Y. Sprocket-wheel. No. 1,209,406; Dec. 19; Gaz. vol. 233; p. 997.
Donahoe, Alfred H., assignor to Associated Engineers Company, Chicago, Ill. Test system. No. 1,209,407; Dec. 19; Gaz. vol. 233; p. 997.
Donaldson, George M., Boston, Mass., assignor, by mesne assignments, to Floating Wedge Lock Nut Co., Inc. Nut-lock. No. 1,206,822; Dec. 5; Gaz. vol. 233; p. 14.
Donnelly, Joseph C., Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Feed mechanism for match-packing machines. No. 1,206,823; Dec. 5; Gaz. vol. 233; p. 14.
Donner, Percy E. (See Snyder, Jacob R., assignor.)
Dooley, Thomas A., assignor to American Car and Foundry Company, St. Louis, Mo. Metallic car end. No. 1,208,928; Dec. 19; Gaz. vol. 233; p. 835.
Dorff, Conrad J., Chicago, Ill. Tire-valve. No. 1,207,882; Dec. 12; Gaz. vol. 233; p. 424.
Dorffel, George, Oakland, Cal. Pump. No. 1,210,152; Dec. 26; Gaz. vol. 233; p. 1289.
Dorgeloh, George H., and E. Pons, Schenectady, N. Y., assignors to General Electric Company. Resistance unit. No. 1,209,568; Dec. 19; Gaz. vol. 233; p. 1052.
Dorman, Samuel G., Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Co., Cincinnati, Ohio. Adding and recording machine. No. 1,209,817; Dec. 26; Gaz. vol. 233; p. 1171.
Dorman, Samuel G., and J. H. Magnus, Poplar Bluff, Mo., assignors, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Recording-machine. No. 1,207,147; Dec. 5; Gaz. vol. 233; p. 124.
Dornin, George A., Baltimore, Md. Ingot-mold. No. 1,208,519; Dec. 12; Gaz. vol. 233; p. 650.
Dorsey, Robert L., assignor to Tucker & Dorsey Manufacturing Company, Indianapolis, Ind. Truck. No. 1,209,408; Dec. 19; Gaz. vol. 233; p. 998.
Doscher, Arthur J. (See Phillips and Doscher.)
Dose, Charles C. (See Rockafellow, Louis H., assignor.)
Doty, Wesley, Oshkosh, Wis. Automobile-jack. No. 1,209,950; Dec. 26; Gaz. vol. 233; p. 1219.
Douglas, Charles H., Springfield, assignor to Douglas Saw & Machinery Company, Boston, Mass. Saw-sharpener. No. 1,208,521; Dec. 12; Gaz. vol. 233; p. 650.
Douglas, John J. (See Booth and Douglas.)
Douglas, Louis M. (See Parsons, Cook, and Douglas.)

Douglas Saw & Machinery Company. (See Douglas, Charles H., assignor.)
Douglass, Samuel F., Prairie du Rocher, Ill., assignor to Vehicle Signal Company. Vehicle-signal. No. 1,209,270; Dec. 19; Gaz. vol. 233; p. 948.
Dow Chemical Company, The. (See Barstow, Edwin O., assignor.)
Downey, Richard F., assignor to H. Loewenbach, Milwaukee, Wis. Audible alarm. No. 1,209,685; Dec. 26; Gaz. vol. 233; p. 1125.
Downin, George. (See Richardson, Thomas, assignor.)
Doyle, Edward P., Wheaton, assignor to W. T. Van Dorn, Chicago, Ill. Coupling device for vehicles. No. 1,208,929; Dec. 19; Gaz. vol. 233; p. 835.
Doyle, James J. (See Llewellyn and Doyle.)
Dozier, Washington J., Ehren, assignor of one-half to J. M. Weeks, Pasco county, and one-half to W. A. Gower and G. Broadhurst, Hillsborough county, Fla. Lubricating device. No. 1,210,369; Dec. 26; Gaz. vol. 233; p. 1359.
Dragerwerk, Heinr. & Bernh. (See Stelzner, Hermann, assignor.)
Drake, Alden M., assignor to Heald Machine Company, Worcester, Mass. Adjustable shaft-bearing. No. 1,210,280; Dec. 26; Gaz. vol. 233; p. 1331.
Draper Company. (See Rhoades, Alonzo E., assignor.)
Draper, William H., Kansas City, Mo. Antilock-picking device. No. 1,208,930; Dec. 19; Gaz. vol. 233; p. 836.
Dresser, Charles A. (See Walser and Dresser.)
Drew, Herbert H., Waterloo, Wis. Flue-draft-controlling damper. No. 1,209,686; Dec. 26; Gaz. vol. 233; p. 1126.
Drew, Herbert H., Waterloo, Wis. Stanchion. No. 1,209,687; Dec. 26; Gaz. vol. 233; p. 1126.
Drew, Herbert H., Waterloo, Wis. Cow-stall. No. 1,209,688; Dec. 26; Gaz. vol. 233; p. 1126.
Drew, James C., New Orleans, La. Candy-cooling pan. No. 1,207,148; Dec. 5; Gaz. vol. 233; p. 124.
Drew, Warren F., New York, N. Y. Flushing device. No. 1,209,951; Dec. 26; Gaz. vol. 233; p. 1219.
Drey, Wilfred J., assignor of one-half to E. J. Wilks, Carlisle, Pa. Detachable covering for the heels of shoes and applying the same. No. 1,208,760; Dec. 19; Gaz. vol. 233; p. 776.
Drinkard, Ithamar B., Mart, Tex. Telpherage apparatus. No. 1,207,514; Dec. 5; Gaz. vol. 233; p. 253.
Drought, Joseph. (See Dugan and Drought.)
Drouilhet, William L., Galveston, Tex. Bottle attachment. No. 1,210,281; Dec. 26; Gaz. vol. 233; p. 1331.
Du Pont, Ernest, assignor, by mesne assignments, to F. I. Du Pont and E. Du Pont, Wilmington, Del. Explosive charge for the central tubes of shrapnel-shells and preparing same. No. 1,207,884; Dec. 12; Gaz. vol. 233; p. 424.
Du Pont, Francis I., *et al.* (See Du Pont, Ernest, assignor.)
Duff Manufacturing Company, The. (See Hindman, Isaiah E., assignor.) (Reissue.)
Duffy, Patrick J., Massillon, Ohio. Shower-bath apparatus. No. 1,207,380; Dec. 5; Gaz. vol. 233; p. 204.
Dugan, Dominick, and J. Drought, Bryn Mawr, Pa. Adjustable support for receptacles. No. 1,207,883; Dec. 12; Gaz. vol. 233; p. 424.
Duggan, Jeremiah L., and J. D. Maynard, New London, Conn. Train-stopping apparatus. No. 1,207,515; Dec. 5; Gaz. vol. 233; p. 253.
Duley, George W. (See Updegraph, Harry, assignor.)
Dull, Raymond W., Chicago, Ill. Excavating apparatus. No. 1,207,688; Dec. 5; Gaz. vol. 233; p. 315.
Dumont, Joseph R., Kansas City, Mo. Directory-rack. No. 1,209,818; Dec. 26; Gaz. vol. 233; p. 1171.
Dumont, Joseph R., Kansas City, Mo. Directory-rack. No. 1,209,819; Dec. 26; Gaz. vol. 233; p. 1171.
Dunbar, Francis W., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone system. No. 1,209,689; Dec. 26; Gaz. vol. 233; p. 1126.
Duncan, John C., Pittsburgh, Pa. Screw and rivet holder. No. 1,208,522; Dec. 12; Gaz. vol. 233; p. 651.
Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing-machine. No. 1,209,409; Dec. 19; Gaz. vol. 233; p. 998.
Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Hand addressing-machine. No. 1,209,413; Dec. 19; Gaz. vol. 233; p. 1000.
Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Addressing-machine. No. 1,209,414; Dec. 19; Gaz. vol. 233; p. 1000.
Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Machine for preparing printing-plates. No. 1,209,415; Dec. 19; Gaz. vol. 233; p. 1000.
Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Platen for address-printers and the like. No. 1,209,416; Dec. 19; Gaz. vol. 233; p. 1001.
Dunkelsberg, Louis, Brooklyn, N. Y. Article of manufacture. No. 1,207,725; Dec. 12; Gaz. vol. 233; p. 369.
Dunn, Andrew F., assignor of one-fourth to D. Kernan, Cortland, N. Y. Top for vehicles. No. 1,209,417; Dec. 19; Gaz. vol. 233; p. 1031.
Dunning, David M., Jr., Auburn, N. Y. Spark-plug. No. 1,209,820; Dec. 26; Gaz. vol. 233; p. 1172.
Durant, William C., assignor to Chevrolet Motor Company, New York, N. Y. Means for securing name-plates to the radiators of automobiles. No. 1,209,952; Dec. 26; Gaz. vol. 233; p. 1219.
Durden, Perry M., Lufkin, Tex. Washboard. No. 1,207,516; Dec. 5; Gaz. vol. 233; p. 253.
Duryea, Charles E., Philadelphia, Pa. Motor-vehicle. No. 1,208,111; Dec. 12; Gaz. vol. 233; p. 502.
Duryea, Robert F., San Francisco, Cal. Vehicle signaling device. No. 1,208,302; Dec. 12; Gaz. vol. 233; p. 574.
Dusha, Paul F., and A. Feyk, assignors to Holub-Dusha Company, New York, N. Y. Tool-post for pearl-button machines. No. 1,210,153; Dec. 26; Gaz. vol. 233; p. 1290.
Duval, Charles W., assignor of two-thirds to M. J. Courot, New Orleans, La. Manufacturing a vaccine for the prevention of hog-cholera and product therefrom. No. 1,210,053; Dec. 26; Gaz. vol. 233; p. 1253.
Duvall, James, Camas, Wash. Pneumatic press-feeding means. No. 1,207,149; Dec. 5; Gaz. vol. 233; p. 124.
Dvorak, Frank, Dickinson, N. D. Gate-operating mechanism. No. 1,209,271; Dec. 19; Gaz. vol. 233; p. 948.
Dvorak, Jarsley, Melvin, Iowa. Combined level and square. No. 1,210,370; Dec. 26; Gaz. vol. 233; p. 1359.
Dyer, Ernest L., Oakland, Cal. Dehydrating and refining hydrocarbon oils. No. 1,207,381; Dec. 5; Gaz. vol. 233; p. 205.
Dyer, Harry W., assignor to Van Kannel Revolving Door Company, New York, N. Y. Revolving door. No. 1,206,824; Dec. 5; Gaz. vol. 233; p. 15.
Dykes, John L. G., Chicago, Ill. Process of and means for making rubber-tire articles. No. 1,210,154; Dec. 26; Gaz. vol. 233; p. 1290.
Dykes, John L. G., Chicago, Ill. Rubber-tire article. No. 1,210,155; Dec. 26; Gaz. vol. 233; p. 1291.
Dysart, Birney, St. Louis, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding and recording machine. No. 1,209,821; Dec. 26; Gaz. vol. 233; p. 1172.
Dyson, Alfred H., Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Automatic telephone-switching system. No. 1,207,150; Dec. 5; Gaz. vol. 233; p. 125.
Dyson, Alfred H., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone system. No. 1,208,718; Dec. 12; Gaz. vol. 233; p. 718.
E. C. Atkins & Co. (See Coyle, Robert C., assignor.)
E. H. King Company. (See Gaines, Thomas R., assignor.)
E. I. du Pont de Nemours Powder Company. (See Baker, Theodore, assignor.)
E. W. Bliss Company. (See Klocke, William, assignor.)
Eades, Charles V., assignor to Standard Asphalt & Rubber Company, Chicago, Ill. Waterproofing. No. 1,207,726; Dec. 12; Gaz. vol. 233; p. 369.
Eames, James L., Jr., assignor of one-half to T. Eames, Millville, N. J. Ash-receptacle. No. 1,208,761; Dec. 19; Gaz. vol. 233; p. 776.
Eames, Thomas. (See Eames, James L., Jr., assignor.)
Earl, George G., and A. B. Wood, New Orleans, La. Regulating and proportioning the feed of chemicals or like substances to water or other fluid. (Reissue.) No. 14,230; Dec. 12; Gaz. vol. 233; p. 723.
Easterline, Jacob W. (See Lonaberger and Balmer, assignors.)
Eastham, Henry W., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Buttonhole-sewing machine. No. 1,209,822; Dec. 26; Gaz. vol. 233; p. 1172.
Eberhard Faber Pencil Company. (See Faber, Lothar W., assignor.)
Ebner, Herbert, Vienna, Austria-Hungary. Making scythes. No. 1,207,517; Dec. 5; Gaz. vol. 233; p. 254.
Eckberg, Rudolph A., Des Moines, Iowa. Demountable rim. No. 1,208,932; Dec. 19; Gaz. vol. 233; p. 836.
Eckel, Edwin C. (See Spencer and Eckel.)
Eckel, Edwin C., and A. C. Spencer, Washington, D. C. Making cement. No. 1,209,135; Dec. 19; Gaz. vol. 233; p. 904.
Eckland, Charles M. (See Kellogg and Eckland.)
Eddy, Ray L., Chicago, Ill. Recording apparatus. No. 1,207,518; Dec. 5; Gaz. vol. 233; p. 254.
Edison, Thomas A., Llewellyn Park, assignor to New Jersey Patent Company, West Orange, N. J. Primary battery. No. 1,207,382; Dec. 5; Gaz. vol. 233; p. 206.
Edison, Thomas A., Llwellyn Park, assignor to New Jersey Patent Company, West Orange, N. J. Sound-record tablet. No. 1,207,383; Dec. 5; Gaz. vol. 233; p. 206.
Edlund, Henry J., Burlington, Vt. Broom. No. 1,208,523; Dec. 12; Gaz. vol. 233; p. 651.
Edvenson, Galy M., Williams, Iowa. Hay-rack. No. 1,209,690; Dec. 26; Gaz. vol. 233; p. 1127.
Edward Schroeder Lamp Works, The. (See Stevens, Merton P., assignor.)
Edwards, Joseph I., Livermore, Cal. Egg-shipping case. No. 1,210,282; Dec. 26; Gaz. vol. 233; p. 1332.
Edwards, Marcellus B., Charlotte, N. C. Metallic rail-tie cover. No. 1,209,823; Dec. 26; Gaz. vol. 233; p. 1178.
Edwards, Robert L., Asher, Okla. Sack-baler. No. 1,208,524; Dec. 12; Gaz. vol. 233; p. 652.
Edwards, William D., Portland, Oreg. Internal-combustion engine. No. 1,208,933; Dec. 19; Gaz. vol. 233; p. 838.
Egerton, Henry C., Passaic, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Electric amplifier. No. 1,207,384; Dec. 5; Gaz. vol. 233; p. 206.

Eggart, Karl, assignor to Firma A. Saurer, Arbon, Switzerland. Embroidering-machine. No. 1,207,727; Dec. 12; Gaz. vol. 233; p. 370.
Ehlig, Harry, assignor to Dexter Folder Company, Pearl River, N. Y. Counter-operating attachment. No. 1,206,825; Dec. 5; Gaz. vol. 233; p. 15.
Eilers, Albert W., Cloquet, Minn. Saw-straightening device. No. 1,208,525; Dec. 12; Gaz. vol. 233; p. 652.
Eisenstat, Irving, New York, N. Y. Feed-bag. No. 1,209,569; Dec. 19; Gaz. vol. 233; p. 1053.
Eisler, Charles, Bloomfield, N. J. Turret attachment for machine-tools. No. 1,209,650; Dec. 19; Gaz. vol. 233; p. 1081.
Eklund, Joel, Chicago, Ill. Steam-turbine. No. 1,208,762; Dec. 19; Gaz. vol. 233; p. 777.
El Reno Foundry & Machine Co. (See O'Connor, James F., assignor.)
Elder, John R. (See Williams, Thomas C., assignor.)
Eldred, Byron E., New York, N. Y., assignor to The Commercial Research Company. Jewelry-pin and making same. No. 1,209,824; Dec. 26; Gaz. vol. 233; p. 1173.
Electric Auto-Lite Company, The. (See Peters, John B., assignor.)
Electric Boat Company. (See Davison, Gregory C., assignor.)
Electric Railway Improvement Company, The. (See Neff, Frank H., assignor.)
Electric Service Supplies Company. (See Pike, Lorenzo H., assignor.)
Electric Spark Appliance Co. (See Grubman, Leo, assignor.)
Electrical Safety Appliance Company. (See Wake, Frederick N., assignor.)
Elite Manufacturing Company, The. (See Burkholder, John H., assignor.)
Ellingson, Gabriel, Kimball, S. D. Track. No. 1,207,728; Dec. 12; Gaz. vol. 233; p. 370.
Elliott, Claud B., and S. Myers, Hempstead, Tex. Pencil attachment. No. 1,209,691; Dec. 26; Gaz. vol. 233; p. 1127.
Elliott-Fisher Company. (See Foothorap, Harry A., assignor.)
Elliott, Milton, Mossyrock, Wash. Crank-shaft connection. No. 1,207,003; Dec. 5; Gaz. vol. 233; p. 75.
Elliott, William E., Grand Rapids, Mich. Shoe-button. No. 1,208,934; Dec. 19; Gaz. vol. 233; p. 837.
Elliott, William E., Grand Rapids, Mich. Button for shoes, &c. No. 1,209,418; Dec. 19; Gaz. vol. 233; p. 1002.
Elliott, William S., Jr., New York, N. Y. Artificial tooth and denture. No. 1,209,570; Dec. 19; Gaz. vol. 233; p. 1053.
Ellis, Alvarado L. R., Lynn, Mass., assignor to General Electric Company. Pivot and jewel for measuring instruments. No. 1,208,526; Dec. 12; Gaz. vol. 233; p. 652.
Ellis, Robert G., University City, assignor to American Car and Foundry Company, St. Louis, Mo. Car end reinforcement. No. 1,208,935; Dec. 19; Gaz. vol. 233; p. 837.
Elsworth, Thomas F., assignor to George Mann & Company, Limited, Leeds, England. Inking mechanism for printing machinery. No. 1,210,156; Dec. 26; Gaz. vol. 233; p. 1291.
Emerson-Brantingham Company. (See Hurthal, Frederick K., assignor.)
Emerson, William M. (See La Rue, Willis E., assignor.)
Emminger, Frank, Cincinnati, Ohio. Sharpening-tool. No. 1,207,282; Dec. 5; Gaz. vol. 233; p. 171.
Ender, Carl G., and G. A. Barber, Wilkinsburg, Pa. Signaling apparatus. No. 1,210,283; Dec. 26; Gaz. vol. 233; p. 1332.
Enghauser, Winford L., Winslow Park, Ohio. Cleaning, plating, drying, and burnishing machine. No. 1,207,283; Dec. 5; Gaz. vol. 233; p. 171.
Engine Holdings Company, The. (See Goby, Clifford S., assignor.)
England, Arthur E., Detroit, Mich. Thermostatic control for carbureters. No. 1,208,112; Dec. 12; Gaz. vol. 233; p. 503.
England, H ary, Chicago, Ill. Fish-hook. No. 1,208,936; Dec. 19; Gaz. vol. 233; p. 837.
Englert, Charles, Rochester, N. Y. Lamp-bracket. No. 1,206,826; Dec. 5; Gaz. vol. 233; p. 16.
Englert, Joseph J., assignor to Acme Steel Goods Company, Chicago, Ill. Machine for making saw-toothed metal fasteners. No. 1,208,527; Dec. 12; Gaz. vol. 233; p. 652.
English, Frederick A., assignor to Birtman Electric Co., Chicago, Ill. Suction-cleaner. No. 1,209,272; Dec. 19; Gaz. vol. 233; p. 949.
Enslin, Herbert E., Malden, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Buttoning-machine. No. 1,207,151; Dec. 5; Gaz. vol. 233; p. 128.
Enslin, Herbert E. Malden, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Buttoning-machine. No. 1,207,729; Dec. 12; Gaz. vol. 233; p. 370.
Ensminger, Frank R. (See Cutler, Willis L., assignor.)
Enterprise Manufacturing Company, The. (See Pflueger, Charles T., assignor.)
Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)
Entwisle, Ernest J., East Ham, London, England. Loom for the manufacture of mats of coir yarn or other coarse materials. No. 1,208,528; Dec. 12; Gaz. vol. 233; p. 653.
Entwistle, George, Jersey City, N. J. Pail. No. 1,210,284; Dec. 26; Gaz. vol. 233; p. 1332.
Entz, Justus B., Cleveland, Ohio. Motor-vehicle control. No. 1,207,732; Dec. 12; Gaz. vol. 233; p. 371.
Entz, Justus B., assignor to E. L. Thurston, trustee, Cleveland, Ohio. Starting and reversing means for internal-combustion engines. No. 1,208,113; Dec. 12; Gaz. vol. 233; p. 503.
Eppler, Andrew, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Forepart-turning machine. No. 1,210,054; Dec. 26; Gaz. vol. 233; p. 1254.
Erickson, Edward, Cliftondale, and P. Sjostrom, Maplewood, Mass. Lifting-jack. No. 1,207,519; Dec. 5; Gaz. vol. 233; p. 255.
Erickson, John, assignor to Automatic Electric Company, Chicago, Ill. Telephone system. No. 1,209,825; Dec. 26; Gaz. vol. 233; p. 1173.
Erickson, John, assignor to Automatic Electric Company, Chicago, Ill. Telephone system. No. 1,209,826; Dec. 26; Gaz. vol. 233; p. 1174.
Eshelman, Howard D., Woodbine, Iowa. Automobile-lock. No. 1,207,004; Dec. 5; Gaz. vol. 233; p. 75.
Eslinger, John L., assignor of one-half to C. L. McCrae, Tucumcari, N. Mex. Automatic pump-regulator. No. 1,210,285; Dec. 26; Gaz. vol. 233; p. 1332.
Estabrook, Horace G., West Summerland, British Columbia, Canada. Door. No. 1,207,885; Dec. 12; Gaz. vol. 233; p. 425.
Esterline, John W., Indianapolis, Ind. Dead-beat-recording instrument. No. 1,208,304; Dec. 12; Gaz. vol. 233; p. 575.
Etheridge, Herbert, Ealing, London, assignor to The Bar-Lock Typewriter Company Limited, London, England. Shift-key mechanism of type-writers. No. 1,207,385; Dec. 5; Gaz. vol. 233; p. 207.
Ethridge, Martin V. B., Brooklyn, N. Y., assignor to Vehicle Power Company. Hydrocarbon-engine. No. 1,209,827; Dec. 26; Gaz. vol. 233; p. 1174.
Eureka Projector Device Co. (See Hamilton, Frank C., assignor.)
Eureka Smokeless Furnace Company, The. (See Foltz, Ira W., assignor.)
Evans, Archibald C., Hampton Wick, and P. J. Mitchell, Westminster, London, England. Binding compound and making same. No. 1,209,692; Dec. 26; Gaz. vol. 233; p. 1127.
Evans, Arthur B. (See Pollard and Evans.)
Evans, Cullen C., Los Angeles, Cal. Band-brake. No. 1,208,937; Dec. 19; Gaz. vol. 233; p. 838.
Evans, Fred, Summit, assignor to Automatic Weighing Machine Company, Newark, N. J. Machine for securing metallic screw-caps to bottles, jars, and the like. No. 1,208,529; Dec. 12; Gaz. vol. 233; p. 654.
Evans Products Corporation. (See Marx, Richard, assignor.)
Ever-Last Cotton Shoe Corporation. (See Busby, John S., assignor.)
Everett, Robert T., assignor to C. F. Massey Co., Chicago, Ill. Concrete smoke-jack. No. 1,208,114; Dec. 12; Gaz. vol. 233; p. 504.
Everglades Sugar & Land Co., The. (See Miller, Henry J., assignor.)
Ewing, Herbert O., assignor of one-half to T. W. Field, Middleport, Ohio. Internal-combustion engine. No. 1,210,286; Dec. 26; Gaz. vol. 233; p. 1333.
Excelsior Steel Furnace Company. (See Scherer, Albert G., assignor.)
Exner, Joseph E., Coffeyville, Kans. Building-block. No. 1,210,287; Dec. 26; Gaz. vol. 233; p. 1333.
Eynon, Harold G. (See Eynon, Thomas M. and H. G.)
Eynon, Thomas M. and H. G., Philadelphia, Pa. Starter for automobiles. No. 1,208,115; Dec. 12; Gaz. vol. 233; p. 504.
F. Rudnick, Inc. (See Rudnick, Herman, assignor.)
F. Wesel Manufacturing Company. (See Rockstroh, Charles F., Jr., assignor.)
Faber, Lothar W., New York, assignor to Eberhard Faber Pencil Company, Brooklyn, N. Y. Pencil-holder and clip. No. 1,209,953; Dec. 26; Gaz. vol. 233; p. 1219.
Fabiani, Pietro, and C. Agnelli, Genoa, Italy. Percussion-shell. No. 1,207,520; Dec. 5; Gaz. vol. 233; p. 255.
Fabric Patch Company, The. (See Bignell, James R., assignor.)
Faccioli, Giuseppe, Pittsfield, Mass., assignor to General Electric Company. System of distribution. No. 1,208,530; Dec. 12; Gaz. vol. 233; p. 654.
Fache, Harvey A., Thornton, Iowa. Safety device for overshoes. No. 1,207,005; Dec. 5; Gaz. vol. 233; p. 75.
Faerber, Charles, and J. H. Smith, Alexandria, La. Garbage-can. No. 1,207,006; Dec. 5; Gaz. vol. 233; p. 75.
Fageol, Rollie B., Oakland, Cal. Support for bumper-bars. No. 1,207,007; Dec. 5; Gaz. vol. 233; p. 76.
Fahnestock Electric Company. (See Schade, John, Jr., assignor.)
Fahnestock, James M., Pittsburgh, Pa. Steering-wheel. No. 1,210,157; Dec. 26; Gaz. vol. 233; p. 1291.
Fair, Andrew A., near Pierson, Iowa. Hog-trough. No. 1,207,733; Dec. 12; Gaz. vol. 233; p. 372.

Fairburn, William A., Short Hills, N. J., assignor to The Diamond Match Company, Chicago, Ill. Match-ignition material. No. 1,206,827; Dec. 5; Gaz. vol. 233; p. 16.
Fairburn, William A., Short Hills, N. J., assignor to The Diamond Match Company, Chicago, Ill. Drying the composition heads of matches. No. 1,206,828; Dec. 5; Gaz. vol. 233; p. 16.
Fairman, Harry E., Davenport, Iowa. Self-propelled vehicle. No. 1,210,055; Dec. 26; Gaz. vol. 233; p. 1254.
Fairman, Harry E., Davenport, Iowa. Vehicle. No. 1,210,056; Dec. 26; Gaz. vol. 233; p. 1254.
Fallek, Nathan, assignor to Cook Railway Signal Company, Denver, Colo. Storage-battery compound. No. 1,207,521; Dec. 5; Gaz. vol. 233; p. 256.
Fanger Beet Harvester Co., The. (See Fanger, John A., assignor.)
Fanger, John A., deceased, Kalida, Ohio; M. A. Fanger, executrix, assignor to The Fanger Beet Harvester Co. Beet-harvester. No. 1,210,057; Dec. 26; Gaz. vol. 233; p. 1255.
Fanger, Maria A., executrix. (See Fanger, John A.)
Faranda, Santo C., Burnside, Conn. Making interior finish and trim. No. 1,210,158; Dec. 26; Gaz. vol. 233; p. 1291.
Farbwerke Vorm. Meister Lucius & Brüning. (See Feldt and Fritzsche, assignors.)
Farbwerke Vorm. Meister Lucius & Brüning. (See Homolka, Benno, assignor.)
Farkas, Karl, New York, N. Y., assignor of one-half to A. B. Lisle, Providence, R. I. Metallic-filament lamp. No. 1,207,886; Dec. 12; Gaz. vol. 233; p. 425.
Farnsworth, Illiland R., assignor, by mesne assignments, to The Threading Machine Company, Sandusky, Ohio. Oiling device for pipe-threading and similar machines. No. 1,207,887; Dec. 12; Gaz. vol. 233; p. 425.
Farnsworth, Sidney W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Vapor-rectifier. No. 1,208,305; Dec. 12; Gaz. vol. 233; p. 575.
Farnum, Leroy, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Buttoning-machine. No. 1,207,731; Dec. 12; Gaz. vol. 233; p. 371.
Farquhar, Harry D., New York, N. Y. Photographic device. No. 1,209,419; Dec. 19; Gaz. vol. 233; p. 1002.
Farr, Cornelia E., Madison Station, Miss. Turn-table lock. No. 1,210,288; Dec. 26; Gaz. vol. 233; p. 1334.
Farrel Foundry & Machine Company. (See Schnuck, Carl F., assignor.)
Farrer, Emma C. and M. P., Lordsburg, N. Mex. Child's carrier and sleeper. No. 1,210,289; Dec. 26; Gaz. vol. 233; p. 1334.
Farrer, Mathew P. (See Farrer, Emma C. and M. P.)
Fasoldt, Charles, Grand Rapids, Mich. Garment-buckle. No. 1,208,531; Dec. 12; Gaz. vol. 233; p. 654.
Fauteux, Henry A., Ottawa, Ontario, Canada. Shoe-fastener. No. 1,206,829; Dec. 5; Gaz. vol. 233; p. 16.
Fawcus, Thomas, Pittsburgh, Pa. Gear-cutting machine. No. 1,208,532; Dec. 12; Gaz. vol. 233; p. 655.
Fay, Alpheus, Louisville, Ky. Apparatus for operating upon composite substances. No. 1,207,888; Dec. 12; Gaz. vol. 233; p. 426.
Fayer, Charles, New York, N. Y., assignor to Wappler Electric Company, Inc. Time-controlled electric switch. No. 1,209,273; Dec. 19; Gaz. vol. 233; p. 949.
Featherstone, Willard B., Washington, D. C. Recording colors. No. 1,209,420; Dec. 19; Gaz. vol. 233; p. 1002.
Feeley, Frank G., Chicago, Ill., assignor to M. D. Knowlton Company, Rochester, N. Y. Joint for corrugated paper-board. No. 1,207,734; Dec. 12; Gaz. vol. 233; p. 372.
Fegley, Thomas J., assignor to North Bro's M'f'g Co., Philadelphia, Pa. Chuck. No. 1,209,572; Dec. 19; Gaz. vol. 233; p. 1054.
Fegley, Thomas J., and G. O. Leopold, assignors to North Bro's M'f'g Co., Philadelphia, Pa. Pattern-cutter. No. 1,209,571; Dec. 19; Gaz. vol. 233; p. 1053.
Feick, George H., Baltimore, Md. Incandescent-lamp socket. No. 1,210,290; Dec. 26; Gaz. vol. 233; p. 1334.
Feix, Otto F., West Hoboken, N. J. Leather-dressing machine. No. 1,208,116; Dec. 12; Gaz. vol. 233; p. 504.
Feldt, Adolf, Frankfort-on-the-Main, and P. Fritzsche, assignors to Farbwerke Vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Auromercaptobenzenes and making same. No. 1,207,284; Dec. 5; Gaz. vol. 233; p. 172.
Fend, Roland S., Chicago, Ill. Wheeled vehicle. No. 1,210,291; Dec. 26; Gaz. vol. 233; p. 1335.
Fenn, William B., assignor, by mesne assignments, to The Wedolt Co., Columbus, Ohio. Machine for exhausting air from preserving vessels. No. 1,209,954; Dec. 26; Gaz. vol. 233; p. 1220.
Ferguson, George J., Olyphant, Pa. Paper-hanger's table-top. No. 1,209,421; Dec. 19; Gaz. vol. 233; p. 1003.
Ferguson, William C., Champaign, Ill. Reinforced sewer construction. No. 1,209,693; Dec. 26; Gaz. vol. 233; p. 1127.
Ferris, Henry L., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Animal-stall. No. 1,210,159; Dec. 26; Gaz. vol. 233; p. 1291.
Ferrer, Maxime, New York, assignor of one-half to T. Tollefsen, Brooklyn, N. Y. Painting-machine. No. 1,207,386; Dec. 5; Gaz. vol. 233; p. 207.
Ferris, Henry L., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Hay-carrier. No. 1,207,285; Dec. 5; Gaz. vol. 233; p. 172.
Ferris, Howard J., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Stall construction. No. 1,207,286; Dec. 5; Gaz. vol. 233; p. 172.
Ferris, Howard J., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Stall construction. No. 1,208,118; Dec. 12; Gaz. vol. 233; p. 505.
Fessenden, Reginald A., Brookline, Mass., assignor to Submarine Signal Company, Waterville, Me. Apparatus and method for producing vibratory motions. No. 1,207,387; Dec. 5; Gaz. vol. 233; p. 208.
Fessenden, Reginald A., Brookline, Mass., assignor to Submarine Signal Company, Waterville, Me. Method and apparatus for submarine signaling. No. 1,207,388; Dec. 5; Gaz. vol. 233; p. 208.
Fettig, Carl A. (See Mennie, William, assignor.)
Fewell, Cutler S., Canton, Ohio. Button-hook. No. 1,207,522; Dec. 5; Gaz. vol. 233; p. 256.
Feyk, Anton. (See Dusha and Feyk.)
Ficker, Nicholas T., New York, N. Y., assignor to Ficker Recording Machine Company, Inc. Apparatus for recording and computing manufacturing costs. No. 1,208,119; Dec. 12; Gaz. vol. 233; p. 506.
Ficker Recording Machine Company. (See Ficker, Nicholas T., assignor.)
Field, Thomas W. (See Ewing, Herbert O., assignor.)
Fielding, John, Providence, R. I. Safety-catch. No. 1,209,422; Dec. 19; Gaz. vol. 233; p. 1003.
Finch, Emory D., Atlanta, N. Y. Automobile-signal. No. 1,208,938; Dec. 19; Gaz. vol. 233; p. 838.
Finch, Marsena G., Franklinville, N. Y. Sash-lock. No. 1,209,274; Dec. 19; Gaz. vol. 233; p. 950.
Fink, Leo M., Montreal, Quebec, Canada. Mold for making individual teeth for diamond saws. No. 1,210,292; Dec. 26; Gaz. vol. 233; p. 1335.
Fink, Leo M., Montreal, Quebec, Canada. Diamond-retainer for diamond-saw molds. No. 1,210,293; Dec. 26; Gaz. vol. 233; p. 1335.
Finn, Hugh J., Kansas City, Mo., assignor to Sulzberger & Sons Company, Chicago, Ill. Treating joint-meat and the like and product thereof. No. 1,209,275; Dec. 19; Gaz. vol. 233; p. 950.
Finn, Hugh J., Kansas City, Mo., assignor to Sulzberger & Sons Company, Chicago, Ill. Apparatus for treating hams, shoulders, or joint-meat in general. No. 1,209,276; Dec. 19; Gaz. vol. 233; p. 950.
Finseth, Albert C. (See Robinson, George E., assignor.)
Fire-Proof Furniture and Construction Company. (See Millice, Paul S., assignor.)
Fischer, Joseph B., assignor of one-fourth to A. P. D. Meyer, Chicago, Ill. Ballot-box. No. 1,207,008; Dec. 5; Gaz. vol. 233; p. 76.
Fischer, Sigismund. (See Menken and Fischer.)
Fisher, Arthur W., Pultneyville, N. Y. Dyad dye. No. 1,209,423; Dec. 19; Gaz. vol. 233; p. 1003.
Fisher, Frank L., Milwaukee, Wis. Smoke-consuming device for locomotives. No. 1,208,764; Dec. 19; Gaz. vol. 233; p. 778.
Fisher, William C., assignor to The Russell Manufacturing Company, Middletown, Conn. Cartridge receptacle or belt. No. 1,209,136; Dec. 19; Gaz. vol. 233; p. 904.
Fiske, Bradley A., U. S. Navy, assignor to Bausch & Lomb Optical Company, Rochester, N. Y. Instrument for measuring distances optically. No. 1,208,120; Dec. 12; Gaz. vol. 233; p. 506.
Fitzgerald, Daniel E., Ardmore, Okla. Clothes-protector. No. 1,208,121; Dec. 12; Gaz. vol. 233; p. 507.
Fitzgerald, Michael J., Richmond, Cal. Target. No. 1,207,009; Dec. 5; Gaz. vol. 233; p. 77.
Flannery Bolt Company. (See Dodds, Ethan I., assignor.)
Flannery Bolt Company. (See Stafford, Benjamin E. D., assignor.)
Flannery Bolt Company. (See Stafford and Landgraf, assignors.)
Flat Rock Remedy Company, The. (See George, Frank C., assignor.)
Flax, Joseph, Chicago, Ill. Spool. No. 1,207,010; Dec. 5; Gaz. vol. 233; p. 77.
Fleck, Franklin A., Middletown, Pa. Center-suction fan. No. 1,206,830; Dec. 5; Gaz. vol. 233; p. 16.
Fleming, John C., Norwood, Mass. Hygienic drier. No. 1,207,011; Dec. 5; Gaz. vol. 233; p. 77.
Fleming, Luke G., Tarrytown, N. Y. Wheel-rim. No. 1,208,122; Dec. 12; Gaz. vol. 233; p. 507.
Fletcher, Frank, Bowling Green, Ohio. Beet-harvester. No. 1,207,889; Dec. 12; Gaz. vol. 233; p. 426.
Flint, Louis J., Detroit, Mich., assignor to Grip Nut Company, Chicago, Ill. Grip-nut. No. 1,206,831; Dec. 5; Gaz. vol. 233; p. 17.
Floare, Paul E., Kansas City, Mo. Making food from spent yeast. No. 1,207,012; Dec. 5; Gaz. vol. 233; p. 78.
Floating Wedge Lock Nut Co. (See Donaldson, George M., assignor.)
Flora, Charles L., assignor of one-half to F. N. Laubenthal, Toledo, Ohio. Shock-absorber. No. 1,210,294; Dec. 26; Gaz. vol. 233; p. 1335.
Floren, Siegwart A., assignor to Caruguss Manufacturing Co., Bismarck, N. D. Seed-tester. No. 1,207,013; Dec. 5; Gaz. vol. 233; p. 78.
Flower, George. (See Barnedt and Flower.)

Fogelstrom, Clarence A., and E. J. Kuhn, Junction City, Kans.; said Kuhn assignor to said Fogelstrom. Bootjack. No. 1,210,295; Dec. 26; Gaz. vol. 233; p. 1336.
Foley, John F., St. Paul, Minn. Comb. No. 1,209,424; Dec. 19; Gaz. vol. 233; p. 1003.
Foley, Martin F., Geneseo, and L. C. Konitzer, Colona, Ill. Corn-planter. No. 1,207,890; Dec. 12; Gaz. vol. 233; p. 427.
Folger, Harry S., Chicago, Ill. Stamp-holder. No. 1,208,538; Dec. 12; Gaz. vol. 233; p. 655.
Foltz, Ira W., assignor to The Eureka Smokeless Furnace Company, Chicago, Ill. Furnace appliance. No. 1,208,123; Dec. 12; Gaz. vol. 233; p. 507.
Fonyó, Aladar, Chicago, Ill. Grape-juice and preparing same. No. 1,207,014; Dec. 5; Gaz. vol. 233; p. 78.
Foothorap, Harry A., assignor to Elliott-Fisher Company, Harrisburg, Pa. Platen for billing-machines. No. 1,207,152; Dec. 5; Gaz. vol. 233; p. 126.
Foothorap, Harry A., assignor to Elliott-Fisher Company, Harrisburg, Pa. Work-holding device for flat platens. No. 1,207,153; Dec. 5; Gaz. vol. 233; p. 126.
Forbes Lithograph Manufacturing Company. (See Morgan, Hubert S., assignor.)
Ford, Bion D., Cleveland, Ohio. Reamer. No. 1,207,735; Dec. 12; Gaz. vol. 233; p. 373.
Ford, Bruce, Philadelphia, Pa. Storage battery. No. 1,207,287; Dec. 5; Gaz. vol. 233; p. 173.
Ford, Jacob B., Bordelonville, La. Floor-laying tool. No. 1,206,832; Dec. 5; Gaz. vol. 233; p. 17.
Ford, Silas M., St. Paul, Minn. Corrugated lath-board. No. 1,207,389; Dec. 5; Gaz. vol. 233; p. 209.
Ford, Silas M., St. Paul, Minn. Shingle-strip. No. 1,207,523; Dec. 5; Gaz. vol. 233; p. 256.
Ford, Silas M., St. Paul, Minn. Making lath-board. No. 1,208,535; Dec. 12; Gaz. vol. 233; p. 656.
Ford, Silas M., St. Paul, Minn. Roofing. No. 1,209,955; Dec. 26; Gaz. vol. 233; p. 1220.
Ford, William H., assignor of one-half to F. Hanchett, Lowell, Mass. Jeweler's crucible. No. 1,208,124; Dec. 12; Gaz. vol. 233; p. 508.
Foret, Lee J., Lockport, La. Apparatus for bleaching liquids. No. 1,208,534; Dec. 12; Gaz. vol. 233; p. 655.
Forrest, Alfred, Sr., *et al.* (See Forrest, Eugene, assignor.)
Forrest, Carl, *et al.* (See Forrest, Eugene, assignor.)
Forrest, Charles N., Rahway, N. J., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa. Elastic bituminous spacing-plank for pavements. No. 1,207,524; Dec. 5; Gaz. vol. 233; p. 256.
Forrest, Eugene, assignor of two-eighths to T. Forrest, one-eighth to C. Forrest, and one-eighth to A. Forrest, Sr., Brimley, Mich. Sleigh attachment for automobiles. No. 1,207,891; Dec. 12; Gaz. vol. 233; p. 427.
Forrest, Treffey, *et al.* (See Forrest, Eugene, assignor.)
Forsberg, Oscar F., Yonkers, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Electromagnetic device. No. 1,207,736; Dec. 12; Gaz. vol. 233; p. 373.
Forster, Thomas W., San Bruno, Cal. Bread-cutter. No. 1,207,525; Dec. 5; Gaz. vol. 233; p. 256.
Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,210,058; Dec. 26; Gaz. vol. 233; p. 1255.
Fortuna-Werke Specialmaschinenfabrik, G. m. b. H. (See Klaeger, Herman, assignor.)
Foss, Leland L., Vidalia, Ga. Cotton-gin. No. 1,207,288; Dec. 5; Gaz. vol. 233; p. 173.
Foster and Company, Charles B. (See Higinbotham, Arthur D., assignor.)
Foster Bros. Manufacturing Company, The. (See Frank, William E., assignor.)
Foster, George, assignor of one-half to N. Thompson, South Haven, Mich. Hat-pin guard. No. 1,208,939; Dec. 19; Gaz. vol. 233; p. 838.
Fotheringham, Carleton K., and A. R. Laing, assignors to American Advertising Clocks, Montreal, Quebec, Canada. Advertising device. No. 1,207,737; Dec. 12; Gaz. vol. 233; p. 373.
Fouse, Herman, Akron, Ohio. False work for concrete construction. No. 1,210,296; Dec. 26; Gaz. vol. 233; p. 1336.
Fow, Raymond S., assignor to F. X. Mathis, Philadelphia, Pa. Slicing-machine. No. 1,208,765; Dec. 19; Gaz. vol. 233; p. 778.
Fowler, Charles V., Los Angeles, Cal. Jack. No. 1,207,526; Dec. 5; Gaz. vol. 233; p. 256.
Fowler, Joseph A. (See McKinzie, Edward R., assignor.)
Fox, Rosalie A. W., Seattle Wash. Supporting apparatus. No. 1,207,154; Dec. 5; Gaz. vol. 233; p. 127.
Fox, William F., assignor to Kinemacolor Company of America, New York, N. Y. Photographic process. No. 1,207,527; Dec. 5; Gaz. vol. 233; p. 257.
Foxboro Company, The. (See Bristol, Edgar H., assignor.)
Fraber, Thomas J., Washington, D. C. Metallic studding. No. 1,210,297; Dec. 26; Gaz. vol. 233; p. 1336.
Frahm, Carl A., assignor to The Republic Stamping & Enameling Company, Canton, Ohio. Feeding device for presses. No. 1,207,390; Dec. 5; Gaz. vol. 233; p. 209.
Frakes, Alexander, Trenton, Mo. Adjustable headlight. No. 1,207,015; Dec. 5; Gaz. vol. 233; p. 78.
Fraley, George B., Liberty, N. Y. Paving construction. No. 1,207,738; Dec. 12; Gaz. vol. 233; p. 374.
France, Arthur G., Adelphi, London, England. Printing apparatus. No. 1,208,125; Dec. 12; Gaz. vol. 233; p. 508.
Francisco, Jasper E., Sacramento, Cal. Lubricating system for motors. No. 1,208,126; Dec. 12; Gaz. vol. 233; p. 508.
Frank B. Cook Company. (See Johnson, Morton L., assignor.)
Frank, Jonah W., Newton, Wis. Train-stopping apparatus. No. 1,209,828; Dec. 26; Gaz. vol. 233; p. 1175.
Frank, Maxwell C., Piedmont, Cal. Attachment for electric-light switches. No. 1,207,155; Dec. 5; Gaz. vol. 233; p. 127.
Frank Prox Co. (See Cushman, John A., assignor.)
Frank, Samuel, New York, N. Y. Automatic train-stopping apparatus. No. 1,210,298; Dec. 26; Gaz. vol. 233; p. 1336.
Frank, William E., assignor to The Foster Bros. Manufacturing Company, St. Louis, Mo. Folding chair. No. 1,208,127; Dec. 12; Gaz. vol. 233; p. 509.
Frankel, Jack. (See Belton, John D., assignor.)
Frankignoul, Edgard, Liege, Belgium. Tubing for boring. No. 1,210,160; Dec. 26; Gaz. vol. 233; p. 1292.
Franklin, H. L. (See Hassell, William A., Jr., assignor.)
Frankman, Olof, Marieberg, Sweden. Machine for cutting off the tops of beets and the like. No. 1,207,528; Dec. 5; Gaz. vol. 233; p. 257.
Fraser, Richard C., Central City, assignor of one-third to W. R. Fraser, Durango, Colo. Pneumatic or steam drill. No. 1,210,299; Dec. 26; Gaz. vol. 233; p. 1337.
Fraser, W. R. (See Fraser, Richard C., assignor.)
Frasier, Warren, Harrisburg, Pa. Making shoes. No. 1,207,529; Dec. 5; Gaz. vol. 233; p. 258.
Frauenheim, Joseph A., Zelienople, Pa. Stay-bolt. No. 1,207,391; Dec. 5; Gaz. vol. 233; p. 209.
Frazier, James W., and F. E. Hansen, Cleveland, Ohio. Hose connection. No. 1,207,392; Dec. 5; Gaz. vol. 233; p. 210.
Frazier, James W., and F. E. Hansen, Cleveland, Ohio. Coupling device. No. 1,207,739; Dec. 12; Gaz. vol. 233; p. 374.
Frede, Charles F. (See Westlake and Frede.)
Frederick, Howard F., Loretto, Nebr. Odorless cover for garbage-cans. No. 1,208,766; Dec. 19; Gaz. vol. 233; p. 778.
Freeman, Edgar H., Trenton, N. J. Lamp-socket fixture. No. 1,207,156; Dec. 5; Gaz. vol. 233; p. 127.
Freeman, Edward W. (See Matthews, Freeman, and Bateman.)
Freeman, Frank B., Dayton, Ky., assignor to The Krohn Fechheimer Company, Cincinnati, Ohio. Shoe-edging machine. No. 1,209,277; Dec. 19; Gaz. vol. 233; p. 951.
Freeman, Frank B., Dayton, Ky., assignor to The Krohn Fechheimer Company, Cincinnati, Ohio. Machine for reinforcing insoles. No. 1,209,278; Dec. 19; Gaz. vol. 233; p. 951.
Freeze, Johnathan R., Middletown, Ohio, assignor to The American Rolling Mill Company, Newark, N. J., and Middletown, Ohio. Nestable culvert. No. 1,207,740; Dec. 12; Gaz. vol. 233; p. 375.
Frerks, Henry J. (See Reifsnider, John W., assignor.)
Frew, David A. (See Smiley, Applegate, and Bennett, assignors.)
Freyer, Edward, New York, N. Y. Basket. No. 1,207,530; Dec. 5; Gaz. vol. 233; p. 258.
Fricke, William A., assignor to Automatic Electric Company, Chicago, Ill. Telephone transmission system. No. 1,209,279; Dec. 19; Gaz. vol. 233; p. 952.
Friedrich, Charles A., New York, N. Y. X-ray tube. No. 1,208,128; Dec. 12; Gaz. vol. 233; p. 509.
Frisby, Johnathan H. (See Newell, George J., assignor.)
Fritsch, George A., Renfrew, Ontario, Canada. Automatic switch-controller. No. 1,207,531; Dec. 5; Gaz. vol. 233; p. 258.
Fritz, Henry J., Des Moines, Iowa. Window-lock device. No. 1,208,307; Dec. 12; Gaz. vol. 233; p. 575.
Fritz, Louis, Memphis, Tenn. Fishing apparatus. No. 1,209,137; Dec. 19; Gaz. vol. 233; p. 904.
Fritzsche, Paul. (See Feldt and Fritzsche.)
Froesé, Minna, assignor to J. A. Prince, New York, N. Y. Supporter. No. 1,208,768; Dec. 19; Gaz. vol. 233; p. 779.
Frohlin, John. (See McIntyre and Frohlin.)
Frohne, William, Cincinnati, Ohio. Mop-wringer. No. 1,210,059; Dec. 26; Gaz. vol. 233; p. 1255.
Frommann, Franklin A., assignor to O. Frommann, Chicago, Ill. Vehicle-wheel. No. 1,208,940; Dec. 19; Gaz. vol. 233; p. 838.
Frommann, Olive. (See Frommann, Franklin A., assignor.)
Frost, Arba W. (See Cary, Henry B., assignor.)
Frost, Harwood, Chicago, Ill. Warehouse-truck. No. 1,208,117; Dec. 12; Gaz. vol. 233; p. 505.
Frum, Creed C., Clarksburg, W. Va. Fare indicator and recorder. No. 1,209,280; Dec. 19; Gaz. vol. 233; p. 952.
Fryer, Roy C., Detroit, Mich. Circuit-breaking relay. No. 1,207,016; Dec. 5; Gaz. vol. 233; p. 79.
Fuchs, Ernest, assignor to L. Renault, Billancourt, France. Starting device for internal-combustion engines. No. 1,207,157; Dec. 5; Gaz. vol. 233; p. 128.
Fügisang, Christen R. L., Tousig, near Oesterild, Denmark. Potato-planting machine. No. 1,209,138; Dec. 19; Gaz. vol. 233; p. 905.

Fuller, Edward J., New York, N. Y. Alarm for knobs. No. 1,208,129; Dec. 12; Gaz. vol. 233; p. 509.
Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Coin-holder or other receptacle. No. 1,209,829; Dec. 26; Gaz. vol. 233; p. 1175.
Fullerton, Clarence A., New York, N. Y. Deal-plate. No. 1,207,532; Dec. 5; Gaz. vol. 233; p. 258.
Fulton Company, The. (See Fulton, Weston M., assignor.)
Fulton, Weston M., assignor to The Fulton Company, Knoxville, Tenn. Fluid-mixing device. No. 1,208,130; Dec. 12; Gaz. vol. 233; p. 510.
Furber, Frederick M., Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-laying machine. No. 1,208,769; Dec. 19; Gaz. vol. 233; p. 779.
Furber, Frederick M., Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for softening shoes. No. 1,209,694; Dec. 26; Gaz. vol. 233; p. 1128.
Furlow, Floyd C. (See Baldwin and Furlow.)
Furness, Radclyffe. (See Patch and Furness.)
Furness, Radclyffe, Jenkintown, and R. H. Patch, assignors to The Midvale Steel Company, Philadelphia, Pa. Tool-steel alloy. No. 1,206,833; Dec. 5; Gaz. vol. 233; p. 17.
Furness, Radclyffe, Jenkintown, and R. H. Patch, assignors to The Midvale Steel Company, Philadelphia, Pa. Tool-steel alloy. No. 1,206,834; Dec. 5; Gaz. vol. 233; p. 17.
Fynn, Valère A. (See Dick and Fynn.)
Gabel, Charles, Hawkeye, Iowa. Forceps. No. 1,207,892; Dec. 12; Gaz. vol. 233; p. 427.
Gabel, Charles, Hawkeye, Iowa. Veterinary obstetrical forceps. No. 1,208,131; Dec. 12; Gaz. vol. 233; p. 510.
Gaffers, Herman B., assignor to The John S. Tilley Ladders Company, Inc., Watervliet, N. Y. Combined extension-ladder and trestle. No. 1,207,158; Dec. 5; Gaz. vol. 233; p. 128.
Gaines, Thomas R., assignor to E. H. King Company, Pittsburgh, Pa. Waistband for garments. No. 1,208,132; Dec. 12; Gaz. vol. 233; p. 511.
Gaines, Thomas R., assignor to E. H. King Company, Pittsburgh, Pa. Waistband for garments. No. 1,208,133; Dec. 12; Gaz. vol. 233; p. 511.
Gallagher, John W., Seneca Falls, N. Y. Heater. No. 1,210,300; Dec. 26; Gaz. vol. 233; p. 1337.
Gallagher, Joseph D., Glen Ridge, N. J., assignor to The American Brake Shoe & Foundry Company, Wilmington, Del. Interlocking brake-shoe and back therefor. No. 1,208,943; Dec. 19; Gaz. vol. 233; p. 839.
Galletta, Vincenzo, Long Beach, Cal. Lid for culinary articles. No. 1,210,301; Dec. 26; Gaz. vol. 233; p. 1337.
Gamble, Helen C., New York, N. Y. Collapsible traveling-bag. No. 1,207,533; Dec. 5; Gaz. vol. 233; p. 259.
Gamewell Fire Alarm Telegraph Company, The. (See Beach and Voorhees, assignors.)
Gamewell Fire Alarm Telegraph Company. (See Cole, Frederick W., assignor.)
Gamewell Fire Alarm Telegraph Company, The. (See Suren, Nathan H., assignor.)
Gammeter, John R., Akron, Ohio. Fire-extinguisher. No. 1,207,393; Dec. 5; Gaz. vol. 233; p. 210.
Gammeter, John R., Akron, Ohio. Fire-extinguisher. No. 1,207,534; Dec. 5; Gaz. vol. 233; p. 259.
Garabedian, Harry, Providence, R. I., assignor to Rex Manufacturing Company. Expansible bracelet or chain. No. 1,209,830; Dec. 26; Gaz. vol. 233; p. 1175.
Garber, Harry D., Stoughton, assignor to Plymouth Rubber Company, Canton, Mass. Machine for trimming heels and similar articles. No. 1,208,944; Dec. 19; Gaz. vol. 233; p. 839.
Gardner, Frederic E., assignor of one-half to L. W. Thompson, Beloit, Wis. Disk grinder. No. 1,207,535; Dec. 5; Gaz. vol. 233; p. 260.
Gardner, Frederic E., assignor of one-half to L. W. Thompson, Beloit, Wis. Producing abrasive disks for disk grinders. No. 1,209,831; Dec. 26; Gaz. vol. 233; p. 1175.
Gardner, Henry S., Binghamton, N. Y. Counter-flashing attachment. No. 1,210,060; Dec. 26; Gaz. vol. 233; p. 1256.
Gardner, John, Knott End, near Fleetwood, assignor to J. P. O'Donnell, London, England. Electrical vibratory contact maker and breaker. No. 1,209,281; Dec. 19; Gaz. vol. 233; p. 952.
Gardner, John G., New York, N. Y. Shoe-tree. No. 1,206,835; Dec. 5; Gaz. vol. 233; p. 17.
Garlick, Mark J., Dallas, Tex. Delivery-reel for printing-presses. No. 1,209,695; Dec. 26; Gaz. vol. 233; p. 1128.
Garr, Samuel R., Garfield, Utah, assignor to American Smelting & Refining Co. Process and apparatus for converting matte. No. 1,209,282; Dec. 19; Gaz. vol. 233; p. 953.
Garrett, John J., assignor of two-fifths to M. McGrath, Trumann, Ark. Holder for hats, coats, umbrellas, &c. No. 1,208,767; Dec. 19; Gaz. vol. 233; p. 779.
Gasau-Thompson Company. (See McKellar, Judson L., assignor.)
Gateley, John H., Janesville, Wis. Ventilator. No. 1,208,536; Dec. 12; Gaz. vol. 233; p. 656.
Gates, William H., New Haven, Conn. Collapsible tap. No. 1,209,139; Dec. 19; Gaz. vol. 233; p. 905.
Gates, William H., New Haven, Conn. Die-head attachment. No. 1,209,140; Dec. 19; Gaz. vol. 233; p. 905.
Gathmann, Emil, Baltimore, Md. Ingot-mold. No. 1,209,283; Dec. 19; Gaz. vol. 233; p. 953.
Gaumont, Léon, assignor to Societe Etablissements Gaumont, Paris, France. Apparatus for drying photographic films. No. 1,209,696; Dec. 26; Gaz. vol. 233; p. 1128.
Gavin, John H., assignor to L. Wolff Manufacturing Company, Chicago, Ill. Lavatory waste-plug. No. 1,208,770; Dec. 19; Gaz. vol. 233; p. 780.
Gazan, Simon N., Savannah, Ga. Eye-shield for head-coverings. No. 1,209,284; Dec. 19; Gaz. vol. 233; p. 953.
Geiger, Caroline. (See Wilson, Charles W., assignor.)
Geipert, Rudolf, assignor to Dessauer Vertikal Ofen Gesellschaft, Berlin, Germany. Heating coke-ovens and the like. No. 1,208,184; Dec. 12; Gaz. vol. 233; p. 511.
Gell, Chancey L., and L. H. Page, Cathlamet, Wash. Basket-holder. No. 1,208,945; Dec. 19; Gaz. vol. 233; p. 839.
Genilo, Charles, assignor to Strong-Scott Manufacturing Company, Minneapolis, Minn. Back-stop for elevator-head pulleys. No. 1,208,587; Dec. 12; Gaz. vol. 233; p. 657.
Gendron Wheel Company. (See Vogel, Joshua F., assignor.)
General Bakelite Company. (See Jones, Whitney B., assignor.)
General Contracting and Engineering Company. (See Barney and Brothers, assignors.)
General Electric Company. (See Alexanderson, Ernst F. W., assignor.)
General Electric Company. (See Arthur, Walter, assignor.)
General Electric Company. (See Beck, Heinrich, assignor.)
General Electric Company. (See Burnham, George A., assignor.)
General Electric Company. (See Creighton, Elmer E. F., assignor.)
General Electric Company. (See Dempster, John T., assignor.)
General Electric Company. (See Dodge, Austin R., assignor.)
General Electric Company. (See Dorgeloh and Pons, assignors.)
General Electric Company. (See Ellis, Alvarado L. R., assignor.)
General Electric Company. (See Faccioli, Giuseppe, assignor.)
General Electric Company. (See Hixson, Clinton J., assignor.)
General Electric Company. (See Lasche, Oskar, assignor.)
General Electric Company. (See Mackay, George M. J., assignor.)
General Electric Company. (See Mapeladen, Harold H., assignor.)
General Electric Company. (See Oberländer, Otto, assignor.)
General Electric Company. (See Orange, John A., assignor.)
General Electric Company. (See Sargent, Howard E., assignor.)
General Electric Company. (See Steinbecker, Karl, assignor.)
General Electric Company. (See Templin, Joseph H., assignor.)
General Electric Company. (See Thompson, Louis W., assignor.)
General Electric Company. (See Unger, Magnus, assignor.)
General Electric Company. (See Walker and Akeroyd, assignors.)
General Electric Company. (See Weston, Frederick H., assignor.)
General Electric Company. (See Wightman, Merle J., assignor.)
General Gas Appliance Company. (See Shunk, Harry A., assignor.)
General Railway Signal Company. (See Leake, Richard C., assignor.)
Gensecke, Wilhelm. (See Josse and Gensecke.)
George C. Lynch Co. (See Godinez, Francisco L., assignor.)
George E. Lee Company, The. (See Lee, George E., assignor.)
George, Frank C., New Salem, assignor to The Flat Rock Remedy Company, Rushville, Ind. Hog-oiler. No. 1,209,832; Dec. 26; Gaz. vol. 233; p. 1176.
George H. Frothingham Company. (See Tomkinson, Charles C., assignor.)
George Mann & Company Limited. (See Elsworth, Thomas F., assignor.)
George Mann & Company Limited. (See Pollard and Evans, assignors.)
Gerlach, Carl C., Cleveland, Ohio. Compression refrigerating-machine. No. 1,207,893; Dec. 12; Gaz. vol. 233; p. 428.
Gernsback, Hugo, New York, N. Y. Postal card. No. 1,209,425; Dec. 19; Gaz. vol. 233; p. 1003.
Gerson, Nikolaus, assignor to A. Mecky Company, Philadelphia, Pa. Bicycle-saddle. No. 1,209,141; Dec. 19; Gaz. vol. 233; p. 905.

Gesell, Carlos I., Buenos Aires, Argentina. Apparatus for utilizing radiant heat. No. 1,209,956; Dec. 26; Gaz. vol. 233; p. 1221.
Gesellschaft für Kälteindustrie mit beschränkter Haftung. (See Josse and Gensecke, assignors.)
Geuder, Paeschke & Frey Co. (See Kempter, Philip, assignor.)
Geurink, Bernard A., East Cleveland, assignor to The Trenkamp Stove and Manufacturing Company, Cleveland, Ohio. Combined fireless cooker and gas-range. No. 1,207,894; Dec. 5; Gaz. vol. 233; p. 210.
Geyer, Carl F., Akron, Ohio. Resilient vehicle-tire. No. 1,207,894; Dec. 12; Gaz. vol. 233; p. 428.
Gherky, William D., Philadelphia, Pa. Grinding. No. 1,207,159; Dec. 5; Gaz. vol. 233; p. 129.
Gibb Instrument Company. (See Weitzenkorn, Joseph W., assignor.)
Gibson, Harvey V., Washington, Ill. Clutch. No. 1,208,135; Dec. 12; Gaz. vol. 233; p. 512.
Gibson, Harvey V., Peoria, Ill. Clutch. No. 1,208,136; Dec. 12; Gaz. vol. 233; p. 512.
Gibson, Lee S., Winnipeg, Manitoba, Canada. Car-seal. No. 1,207,017; Dec. 5; Gaz. vol. 233; p. 79.
Gierding, Charles E., assignor to The Ohio Brass Company, Mansfield, Ohio. Track-drilling machine. No. 1,207,018; Dec. 5; Gaz. vol. 233; p. 70.
Gilbert, Benjamin L., Silverton, Colo. Weather-strip. No. 1,207,741; Dec. 12; Gaz. vol. 233; p. 375.
Gilbert, Cephas, Jasper, Fla. Interest-calculating system. No. 1,208,538; Dec. 12; Gaz. vol. 233; p. 657.
Gilbert, Edmund D., Philadelphia, Pa., assignor to The S. S. White Dental Manufacturing Company. Tooth shade-guide. No. 1,207,895; Dec. 12; Gaz. vol. 233; p. 428.
Gilbert, Harry E., Conshohocken, Pa. Means for controlling temperatures. No. 1,207,536; Dec. 5; Gaz. vol. 233; p. 260.
Gilbert, Harry E., Conshohocken, Pa. Regulating temperatures. No. 1,207,537; Dec. 5; Gaz. vol. 233; p. 261.
Gilbert, Willis C., Thunder Hawk, S. D. Nut-lock. No. 1,208,539; Dec. 12; Gaz. vol. 233; p. 657.
Giles, Chester, assignor of one-half to C. S. Weakly, Moweaqua, Ill. Bolt. No. 1,210,302; Dec. 26; Gaz. vol. 233; p. 1338.
Giles, Harvey, Brooklyn, assignor to A. Ward, New York, N. Y. Coin-controlled vending-machine. No. 1,208,137; Dec. 12; Gaz. vol. 233; p. 513.
Gilghrist, Lawrence G., Vandergrift, Pa. Tire-filler. No. 1,208,946; Dec. 19; Gaz. vol. 233; p. 839.
Gill-Cook Valve Co. (See Gill, William A., assignor.)
Gill, Edwin R., Yonkers, N. Y. Elastic packing-ring. No. 1,210,371; Dec. 26; Gaz. vol. 233; p. 1359.
Gill, John J., assignor of one-half to H. Billberg, Mullan, Idaho. Attachment for drills. No. 1,207,538; Dec. 5; Gaz. vol. 233; p. 261.
Gill, William A., assignor to Gill-Cook Valve Co., Portland, Oreg. Lubricating means for rotators and their casings. No. 1,209,573; Dec. 19; Gaz. vol. 233; p. 1054.
Gillett, Fred F., Halfway, Oreg. Controlling mechanism. No. 1,210,303; Dec. 26; Gaz. vol. 233; p. 1338.
Gillmor, Horatio G., Washington, D. C. Rail-anchor. No. 1,206,836; Dec. 5; Gaz. vol. 233; p. 18.
Gillmor, Horatio G., Washington, D. C. Rail-anchor. No. 1,207,742; Dec. 12; Gaz. vol. 233; p. 375.
Gilman, George H., Claremont, N. H., assignor, by mesne assignments, to The Sullivan Machinery Company, Boston, Mass. Self-centering chuck for rock-drills. No. 1,207,549; Dec. 5; Gaz. vol. 233; p. 266.
Gilman, James N., Berkeley, Cal. Milking-machine. No. 1,210,304; Dec. 26; Gaz. vol. 233; p. 1338.
Gilpin, Benjamin F., *et al.* (See Wenslay, Ole, assignor.)
Ginther, Otto F., Rippey, Iowa. Stock-watering apparatus. No. 1,208,947; Dec. 19; Gaz. vol. 233; p. 840.
Girardi, Franck, Detroit, Mich. Automobile-fender. No. 1,209,957; Dec. 26; Gaz. vol. 233; p. 1221.
Girsch, John H., Aurora, Ill. Top-guard for automobiles. No. 1,209,285; Dec. 19; Gaz. vol. 233; p. 954.
Giuliana, Joseph, Newark, N. J. Valve for player-pianos and the like. No. 1,208,138; Dec. 12; Gaz. vol. 233; p. 513.
Glaser, John F., Oak Park, assignor of one-half to J. F. Blything, Chicago, Ill. Seat-support for vehicles. No. 1,208,771; Dec. 19; Gaz. vol. 233; p. 780.
Glaser, Oscar L., Oak Park, Ill. Pump. No. 1,209,833; Dec. 26; Gaz. vol. 233; p. 1176.
Gleason, Arthur W. (See Calwell, John A., assignor.)
Glenn, Thomas F., Ardmore, Pa., assignor to The S. S. White Dental Manufacturing Company. Artificial tooth. No. 1,209,142; Dec. 19; Gaz. vol. 233; p. 906.
Glines, Thomas W., Waseca, Minn. Indestructible wick. No. 1,207,160; Dec. 5; Gaz. vol. 233; p. 129.
Globe Ear-Phone Company. (See Hastings, Kenneth B., assignor.)
Globe Heat, Light and Power Company. (See Manker, Charles C., assignor.)
Glocker, Gustave, Washington, D. C., assignor to C. A. Chapman, Chicago, Ill. Jar and closure therefor. No. 1,207,743; Dec. 12; Gaz. vol. 233; p. 376.
Glover, Samuel, St. Helens, and J. West, Southport, England. Discharging apparatus for vertical retorts. No. 1,207,019; Dec. 5; Gaz. vol. 233; p. 80.
Gober, Richard, Alameda, Cal. Toy. No. 1,209,143; Dec. 19; Gaz. vol. 233; p. 906.
Goby, Clifford S., assignor to The Engine Holdings Company, Cleveland, Ohio. Internal-combustion engine. No. 1,208,308; Dec. 12; Gaz. vol. 233; p. 576.
Goddard, Robert H., Worcester, Mass. Rocket apparatus. No. 1,206,837; Dec. 5; Gaz. vol. 233; p. 18.
Godinez, Francisco L., Jersey City, N. J., assignor to George C. Lynch Co., New York, N. Y. Lamp. No. 1,208,540; Dec. 12; Gaz. vol. 233; p. 657.
Gold, Egbert H. (See Coggin and Gold.)
Gold, Jacob N., and H. Segal, Philadelphia, Pa. Motorcycle fuel-tank. No. 1,207,020; Dec. 5; Gaz. vol. 233; p. 80.
Goldberg, Hyman E., Chicago, Ill. Aeroplane. No. 1,209,426; Dec. 19; Gaz. vol. 233; p. 1004.
Golden, Charles E. (See Anderson, Edward V., assignor.)
Goldmerstein, Leon, New York, N. Y. Brake-lock for automobiles. No. 1,207,395; Dec. 5; Gaz. vol. 233; p. 211.
Goldschmidt, Rudolf, Darmstadt, Germany. Asynchronous motor. No. 1,207,744; Dec. 12; Gaz. vol. 233; p. 376.
Goldsmith, Frederick E., assignor to Ceramic Machinery Company, Hamilton, Ohio. Tile-measuring machine. No. 1,207,161; Dec. 5; Gaz. vol. 233; p. 129.
Goldsworthy, Walter E., Dover, N. J. Combined carrier for a speedometer, license-plate, signal, and tires. No. 1,209,427; Dec. 19; Gaz. vol. 233; p. 1004.
Golightly, William J., Kokomo, Ind., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Glass-grinding apparatus. No. 1,207,896; Dec. 12; Gaz. vol. 233; p. 429.
Golly, Louis, Brooklyn, assignor to J. C. Campbell, New York, N. Y. Clutch for power-hammers or the like. No. 1,208,541; Dec. 12; Gaz. vol. 233; p. 658.
Good, John, Brooklyn, N. Y. Heater for combustion-engines. No. 1,207,897; Dec. 12; Gaz. vol. 233; p. 429.
Goodall Worsted Company. (See Rawnsly, Hollon, assignor.)
Goodfellow, Herbert R., assignor to U. S. Slicing Machine Company, Chicago, Ill. Slicing-machine. No. 1,207,745; Dec. 12; Gaz. vol. 233; p. 376.
Gooding, Ivan L. C., *et al.* (See Randall, Franklin S., assignor.)
Goodnight, William M., Montserrat, Mo. Ensilage-tamping machine. No. 1,208,542; Dec. 12; Gaz. vol. 233; p. 658.
Goodnough, Edward S., assignor of one-half to A. Bollg, Ellis, Kans. Combined rule and pencil holder. No. 1,207,746; Dec. 12; Gaz. vol. 233; p. 376.
Goodridge, Gilbert W., assignor to The Bryant Electric Company, Bridgeport, Conn. Lamp-grip. No. 1,208,543; Dec. 12; Gaz. vol. 233; p. 658.
Goodrum, Charles L., New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Telephone-exchange system. No. 1,209,834; Dec. 26; Gaz. vol. 233; p. 1177.
Goodwin, Herbert E., Lachine, Quebec, Canada. Pipe-hanger. No. 1,209,286; Dec. 19; Gaz. vol. 233; p. 954.
Goodyear, Clinton S., Naugatuck, Conn., assignor to L. Candee & Company. Heelless overshoe. No. 1,208,772; Dec. 19; Gaz. vol. 233; p. 780.
Goodyear's Metallic Rubber Shoe Company, The. (See Lee, Clifford, assignor.)
Goodyear's Metallic Rubber Shoe Company, The. (See Mason, Claude D., assignor.)
Goodyear's Metallic Rubber Shoe Co., The. (See Randall, Chester J., assignor.)
Goodyear's Metallic Rubber Shoe Co., The. (See Rosengren, Carl A., assignor.)
Gordon, Preston P., Sorrento, La. Bookkeeper's posting-guide. No. 1,207,396; Dec. 5; Gaz. vol. 233; p. 211.
Gordon, Samuel C., Richmond, Va. Steering-gear. No. 1,209,144; Dec. 19; Gaz. vol. 233; p. 906.
Gorr, Louis L., assignor of one-half to A. L. Houseworth, Marshfield, Oreg. Heater. No. 1,210,161; Dec. 26; Gaz. vol. 233; p. 1292.
Gorton Fence Co. (See Tausch, Joseph H., assignor.)
Goss Printing Press Company, The. (See Walser and Dresser, assignors.)
Gossett, Jonathan R., Marmaduke, Ark. Fence-post. No. 1,207,021; Dec. 5; Gaz. vol. 233; p. 80.
Gould & Eberhardt. (See Zimmermann, William F., assignor.)
Gould Storage Battery Company. (See Hubbard, Albert S., assignor.)
Gouldbourn, Joseph. (See Bates and Gouldbourn.)
Gouldbourn, Joseph, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Splitting-machine. No. 1,208,773; Dec. 19; Gaz. vol. 233; p. 781.
Gower, W. A., *et al.* (See Dozier, Washington J., assignor.)
Grabill, John F., assignor of one-fourth to E. H. Arbuthnot and one-fourth to H. C. Chaffin, Flora, Ill. Steam-valve. No. 1,209,145; Dec. 19; Gaz. vol. 233; p. 906.
Gracely, Harvey T. (See King and Gracely.)
Graham, Florence N., New York, N. Y. Apparatus for improving the contour and condition of the chin and throat. No. 1,208,139; Dec. 12; Gaz. vol. 233; p. 514.
Grain Products Company. (See Black, Ashley V., assignor.)
Grand Rapids Show Case Company. (See Olree, Jacob, assignor.)
Grant, Alexander D., San Jose, Cal. Sanitary toilet and urinal. No. 1,207,289; Dec. 5; Gaz. vol. 233; p. 178.

Grant, James E., Newark, N. J. Receptacle. No. 1,210,061; Dec. 26; Gaz. vol. 233; p. 1256.
Grant, Jesse R., Kokomo, Ind. Egg-candler. No. 1,209,428; Dec. 19; Gaz. vol. 233; p. 1004.
Grant, Richard B. (See Bartlett, Grant, and Cooke.)
Graton and Knight Manufacturing Company. (See Sawyer, Charles A., assignor.)
Graul, Franz, Vienna, Austria-Hungary, assignor to Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Panoramic telescope. No. 1,209,958; Dec. 26; Gaz. vol. 233; p. 1226.
Gravely, Benjamin F., Jr., Charleston, W. Va. Motor-plow. No. 1,207,539; Dec. 5; Gaz. vol. 233; p. 262.
Graves, James W. (See Johnston, Greenhow, assignor.)
Gray Automatic Copy Indicator Co. (See Gray, William E., assignor.)
Gray, Gardner B., Pittsburgh, Pa. Selective means for switches. No. 1,209,146; Dec. 19; Gaz. vol. 233; p. 946.
Gray, Gustavus H., St. Louis, Mo. Fabric-fastener. No. 1,209,697; Dec. 26; Gaz. vol. 233; p. 1129.
Gray Piano Company. (See Salfisberg, Leroy L., assignor.)
Gray, William E., assignor to Gray Automatic Copy Indicator Co., Boise, Idaho. Copy-holder attachment for type-writers. No. 1,209,429; Dec. 19; Gaz. vol. 233; p. 1005.
Grayson, Wilber D., Bogata, Tex. Spring-foot-cultivator attachment. No. 1,207,162; Dec. 5; Gaz. vol. 233; p. 130.
Greco, Gaetano, Pittsburgh, Pa. Resilient wheel. No. 1,208,948; Dec. 19; Gaz. vol. 233; p. 840.
Green, Clifford H., assignor to National Piano Manufacturing Company, Grand Rapids, Mich. Dancing toy. No. 1,207,022; Dec. 5; Gaz. vol. 233; p. 81.
Green, Felix G., Sedalia, Mo. Planter. No. 1,208,309; Dec. 12; Gaz. vol. 233; p. 576.
Green, Max. (See Anderson, John P., assignor.)
Green, Walter H., *et al.* (See Wilsey, Irven H., assignor.)
Green, William W., and H. C. Richards, Niles, Mich. Internal-combustion engine. No. 1,207,290; Dec. 5; Gaz. vol. 233; p. 174.
Greenawalt, William E., Denver, Colo. Treating materials electrolytically. No. 1,209,835; Dec. 26; Gaz. vol. 233; p. 1177.
Greene, James G., and L. F. A. Büchner, Elizabeth, N. J., assignors to The Singer Manufacturing Company. Thread-cutting device. No. 1,208,949; Dec. 19; Gaz. vol. 233; p. 840.
Greene, James G., and L. F. A. Büchner, Elizabeth, N. J., assignors to The Singer Manufacturing Company. Buttonhole-sewing machine. No. 1,208,950; Dec. 19; Gaz. vol. 233; p. 841.
Greene, James G., and L. F. A. Büchner, Elizabeth, N. J., assignors to The Singer Manufacturing Company. Buttonhole stitching and cutting machine. No. 1,208,951; Dec. 19; Gaz. vol. 233; p. 841.
Greengood, Bernard A., New York, N. Y. Tool-handle. No. 1,207,397; Dec. 5; Gaz. vol. 233; p. 211.
Greenleaf, William H., Hartford, Conn. Time-controlled device. No. 1,207,163; Dec. 5; Gaz. vol. 233; p. 130.
Greenstreet, Jason H., Indianapolis, Ind. Paper sheet material for boxes. No. 1,208,952; Dec. 19; Gaz. vol. 233; p. 842.
Greenway, Henry H. (See Lavers, Greenway, and Lowry.)
Greenway, Henry H. (See Lavers, Lowry, and Greenway.)
Gregg, Hermit E., Portland, Oreg. Belt slide-loop. No. 1,208,644; Dec. 12; Gaz. vol. 233; p. 659.
Grégoire, Oscar, Woonsocket, R. I. Meat-tenderer. No. 1,208,953; Dec. 19; Gaz. vol. 233; p. 842.
Gregory, Joseph W., Seat Pleasant, Md. Bill-filing device. No. 1,208,954; Dec. 19; Gaz. vol. 233; p. 842.
Gregur, Frank S., West Brownsville, Pa. Signal-staff for railways. No. 1,207,898; Dec. 12; Gaz. vol. 233; p. 430.
Greimann, Benjamin F., Garner, Iowa. Gage attachment for planters. No. 1,209,430; Dec. 19; Gaz. vol. 233; p. 1005.
Greilner, Joseph C., St. Louis, Mo. Toy or amusement device. No. 1,207,023; Dec. 5; Gaz. vol. 233; p. 81.
Greve, Herman L., New York, N. Y., assignor to International Mailing Tube & Wrapper Company. Mailing-wrapper. No. 1,207,899; Dec. 12; Gaz. vol. 233; p. 430.
Greve, Herman L., New York, N. Y., assignor to International Mailing Tube & Wrapper Company. Mailing-wrapper. No. 1,207,900; Dec. 12; Gaz. vol. 233; p. 430.
Greve, Louis W., assignor, by mesne assignments, to The Cleveland Rock Drill Company, Cleveland, Ohio. Fluid-operated tool. No. 1,208,140; Dec. 12; Gaz. vol. 233; p. 514.
Greve, Louis W., assignor, by mesne assignments, to The Cleveland Rock Drill Company, Cleveland, Ohio. Fluid-operated drilling-machine. No. 1,208,141; Dec. 12; Gaz. vol. 233; p. 514.
Gribler, Howard. (See Crites and Gribler.)
Grieg, William, Newark, N. J. Antiskid tire-chain. No. 1,207,540; Dec. 5; Gaz. vol. 233; p. 262.
Griesche, Gustav, Berkeley, Cal. Granite and stone saw. No. 1,208,774; Dec. 19; Gaz. vol. 233; p. 781.
Grieshamer, John, Jacksonville, Fla. Polish. No. 1,208,545; Dec. 12; Gaz. vol. 233; p. 659.
Griffin, Oscar B., Blasdell, N. Y. Shoe-protector. No. 1,207,024; Dec. 5; Gaz. vol. 233; p. 81.
Griffith, Abrahsm L. (See Shupp, Chauncey D., assignor.)
Grigsby, William W., Winnfield, La. Fork for slingshots. No. 1,207,025; Dec. 5; Gaz. vol. 233; p. 82.
Grimes, Lester A., Orange, N. J. Link for sprinkler-heads. No. 1,209,574; Dec. 19; Gaz. vol. 233; p. 1054.
Grimshaw, Arthur E., Seattle, Wash. Built-in ironing-board. No. 1,207,747; Dec. 12; Gaz. vol. 233; p. 377.
Grip Nut Company. (See Flint, Louis J., assignor.)
Griscom, Alfred C., Sandy Hook, assignor of one-fourth to H. B. Curtis, Bridgeport, Conn. Speed-changing mechanism for motor-vehicles. No. 1,209,147; Dec. 19; Gaz. vol. 233; p. 907.
Grodzki, Edward. (See Rembiszewski and Grodzki.)
Gross, Elmer S., Milwaukee, Wis. Shaft-guard. No. 1,209,959; Dec. 26; Gaz. vol. 233; p. 1222.
Gross, Karl. (See Schmid and Gross.)
Gross, Mannin, Council Grove, Kans. Vapor-burner. No. 1,207,026; Dec. 5; Gaz. vol. 233; p. 82.
Grove, Elmer F. (See Sharp and Grove.)
Groves, Delpha H. and L. P., Terra Alta, W. Va. Wire-stretcher. No. 1,206,838; Dec. 5; Gaz. vol. 233; p. 18.
Groves, Lester P. (See Groves, Delpha H. and L. P.)
Grubman, Leo, Brooklyn, N. Y., assignor to Electric Spark Appliance Co., Inc., New York, N. Y. Diaphragmatic sound-producer. No. 1,209,148; Dec. 19; Gaz. vol. 233; p. 908.
Gruenberg, Raoul J., San Francisco, Cal. Fiber shipping-case. No. 1,206,839; Dec. 5; Gaz. vol. 233; p. 19.
Gruenhagen, Willie H., St. Paul, Minn. Egg-carrier. No. 1,207,027; Dec. 5; Gaz. vol. 233; p. 82.
Gruenhagen, Willie H., St. Paul, Minn. Mop. No. 1,207,028; Dec. 5; Gaz. vol. 233; p. 83.
Grundy, Alfred A. (See Schwartz and Grundy.)
Gruner, Paul, Pinckneyville, Ill. Electric lantern. No. 1,207,748; Dec. 12; Gaz. vol. 233; p. 377.
Grush, Charles E., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Staple-fastening machine. No. 1,207,749; Dec. 12; Gaz. vol. 233; p. 377.
Grushlaw, Samuel. (See Schwartz and Grundy, assignors.)
Guerrant, John L., *et al.* (See Bente, Henry K., assignor.)
Gugel, Mary E. (See Cavanagh, John W., assignor.)
Guichard, Louis, Paris, France. Distribution mechanism of internal-combustion motors. No. 1,207,164; Dec. 5; Gaz. vol. 233; p. 130.
Guinney, James, Larchmont, N. Y. Tea or coffee strainer. No. 1,209,149; Dec. 19; Gaz. vol. 233; p. 908.
Gulbrand, Carl G., Slemdal, near Christiania, Norway. Construction of buildings. No. 1,209,698; Dec. 26; Gaz. vol. 233; p. 1129.
Gulf Refining Company. (See McAfee, Almer M., assignor.)
Gumaer, George S., Coronado, Cal. Ventilating shoe-tip. No. 1,208,955; Dec. 19; Gaz. vol. 233; p. 843.
Gunderson, Gust, Mountain Home, Idaho. Harrow. No. 1,210,162; Dec. 26; Gaz. vol. 233; p. 1293.
Gunn, John A., Des Moines, Iowa. Boiler-feeder. No. 1,208,310; Dec. 12; Gaz. vol. 233; p. 577.
Guppey, John P. (See Christiansen and Guppey.)
Gustafson, Carl J., assignor, by mesne assignments, to Hendee Manufacturing Company, Springfield, Mass. Free-engine clutch. No. 1,207,541; Dec. 5; Gaz. vol. 233; p. 262.
Gustafson, Carl J., assignor to Hendee Manufacturing Company, Springfield, Mass. Clutch for motor-cycles. No. 1,207,542; Dec. 5; Gaz. vol. 233; p. 263.
Gustafson, Hjalmer C., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo. Tool-retainer. No. 1,207,901; Dec. 12; Gaz. vol. 233; p. 431.
Guthrie, George W., Emsworth borough, Pa. Trap-nest. No. 1,209,699; Dec. 26; Gaz. vol. 233; p. 1129.
Guthrie, William S., Detroit, Mich. Carbureter. No. 1,207,029; Dec. 5; Gaz. vol. 233; p. 83.
Gwin, Ira C., Oakland, Cal. Stretcher. No. 1,207,750; Dec. 12; Gaz. vol. 233; p. 378.
Gwyer, Herbert J., New York, N. Y. Refrigerator-drain. No. 1,206,840; Dec. 5; Gaz. vol. 233; p. 19.
Gyro Motor Company. (See Moore, Robert S., assignor.)
H. P. Patents and Processes Company. (See Hochstetter, Frederick W., assignor.)
Haar, Gustav E., Washington, D. C., assignor of one-half to J. H. Stephens, Vernon, Tex. Pump. No. 1,210,163; Dec. 26; Gaz. vol. 233; p. 1293.
Haberman, John B., Heron Lake, Minn. Platform for doorways. No. 1,207,902; Dec. 12; Gaz. vol. 233; p. 431.
Hachmann, Frederick, assignor of one-half to F. C. Schoenthaler, St. Louis, Mo. Furniture-tip. No. 1,208,546; Dec. 12; Gaz. vol. 233; p. 659.
Hadaway, William S., Jr., New Rochelle, N. Y. Electric heater for bonbon-kettles. No. 1,208,142; Dec. 12; Gaz. vol. 233; p. 515.
Hadaway, William S., Jr., New Rochelle, N. Y. Electric heating and lighting apparatus. No. 1,208,143; Dec. 12; Gaz. vol. 233; p. 515.
Hadaway, William S., Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company. Electrically-heated culinary apparatus. No. 1,210,062; Dec. 26; Gaz. vol. 233; p. 1256.
Hadley, Art, Providence, R. I. Bracelet. No. 1,207,903; Dec. 12; Gaz. vol. 233; p. 431.
Hagelin, Berndt O., Aurora, Nebr. Fastening device for wire gates. No. 1,207,543; Dec. 5; Gaz. vol. 233; p. 263.

Hagen, Erik S. (See Boye and Hagen.)
Hager, William E., Chicago, Ill. Ironing-machine. No. 1,208,311; Dec. 12; Gaz. vol. 233; p. 577.
Hagerman, Alfred, Chanute, Kans. Portable sawing-machine. No. 1,210,305; Dec. 26; Gaz. vol. 233; p. 1339.
Haggerty, D. W. (See Locke, Sylvanus D., assignor.)
Hahn, John, Los Angeles, Cal. Oil-well equipment. No. 1,207,689; Dec. 5; Gaz. vol. 233; p. 315.
Haight, William H., Northfield, Minn. Machine for surfacing, smoothing, and polishing floors, and other like surfaces. No. 1,209,431; Dec. 19; Gaz. vol. 233; p. 1006.
Halbertsma, Nicolaas A., Darmstadt, Germany. Arc-lamp. No. 1,208,547; Dec. 12; Gaz. vol. 233; p. 659.
Hall, Burton P., Fanwood, N. J. Fire-extinguisher. No. 1,207,398; Dec. 5; Gaz. vol. 233; p. 211.
Hall, Chester I., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill. Recording mechanism. No. 1,208,144; Dec. 12; Gaz. vol. 233; p. 516.
Hall, Chester I., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill. Printing-meter. No. 1,208,145; Dec. 12; Gaz. vol. 233; p. 516.
Hall, Chester I., assignor to Chicago Electric Meter Company, Chicago, Ill. Maximum-indicator for meters. No. 1,208,146; Dec. 12; Gaz. vol. 233; p. 517.
Hall, Chester I., assignor to Chicago Electric Meter Company, Chicago, Ill. Clock construction. No. 1,208,147; Dec. 12; Gaz. vol. 233; p. 517.
Hall, Frank F., Little Falls, N. Y. Thermostatic regulator for heating apparatus. No. 1,209,432; Dec. 19; Gaz. vol. 233; p. 1006.
Hall, Frederick D. (See Wahlquist and Hall.)
Hall, Joseph B., Chicago, Ill. Liquid-dispenser. No. 1,207,904; Dec. 12; Gaz. vol. 233; p. 432.
Hall, Louis L., Duluth, Minn. Folding miter-box. No. 1,208,150; Dec. 12; Gaz. vol. 233; p. 518.
Hall Manufacturing Company, The. (See Tissot, Harvey G., assignor.)
Hall Switch & Signal Company. (See Day, Albert V. T., assignor.)
Halladay, Richard F., Leominster, Mass. Renewable buttoning device. No. 1,208,148; Dec. 12; Gaz. vol. 233; p. 517.
Hallam, Arthur A., Jacksonville, Fla. Game apparatus. No. 1,207,905; Dec. 12; Gaz. vol. 233; p. 432.
Hallanan, Michael, New York, N. Y. Detachable horse-shoe-calk. No. 1,207,030; Dec. 5; Gaz. vol. 233; p. 84.
Halle, Arthur J. (See Baumgaertner, Friedrich W., assignor.)
Hallenbeck, Barton S. (See Tooker and Hallenbeck.)
Haller, Pearl M., Bay City, Mich. Fire-extinguisher. No. 1,208,548; Dec. 12; Gaz. vol. 233; p. 660.
Haller, Pearl M., Bay City, Mich. Fire-extinguisher. No. 1,208,549; Dec. 12; Gaz. vol. 233; p. 660.
Hallner, Andrew, Arboga, Cal. Crab-lever spring system. No. 1,208,956; Dec. 19; Gaz. vol. 233; p. 843.
Halstead, Rolland J. (See Sheldon and Halstead.)
Hamilton, Frank C., assignor to Eureka Projector Device Co., Inc., New York, N. Y. Shutter for use with motion-picture apparatus having interlocking parts. No. 1,210,063; Dec. 26; Gaz. vol. 233; p. 1256.
Hamilton, Frank C., assignor to Eureka Projector Device Co., Inc., New York, N. Y. Balancing means for shutters intended for use with motion-picture-projection apparatus. No. 1,210,064; Dec. 26; Gaz. vol. 233; p. 1257.
Hamilton, John, Boston, Mass. Electric-circuit controller or switch. No. 1,208,775; Dec. 19; Gaz. vol. 233; p. 781.
Hamilton, Robert J., Enaville, Idaho. Roller and roller-retarding device for log-chutes. No. 1,210,065; Dec. 26; Gaz. vol. 233; p. 1257.
Hamm, William S., Hubbard Woods, assignor to The Adams & Westlake Company, Chicago, Ill. Signal-lamp. No. 1,209,287; Dec. 19; Gaz. vol. 233; p. 954.
Hammond, John C., Seattle, Wash. Towel-holder. No. 1,210,306; Dec. 26; Gaz. vol. 233; p. 1339.
Hammond, Lorenzo T., Cotuit, Mass. Die-stock. No. 1,209,960; Dec. 26; Gaz. vol. 233; p. 1222.
Hampton Planter Company. (See Criner, Harry J., assignor.)
Hanchett, Frank. (See Ford, William H., assignor.)
Hand, Townson, New Haven, Conn. Bolt. No. 1,208,550; Dec. 12; Gaz. vol. 233; p. 660.
Hand, Townson, New Haven, Conn. Rail-joint. No. 1,208,551; Dec. 12; Gaz. vol. 233; p. 661.
Handy, Aaron H., Kansas City, Mo. Automatic paper-cutting mechanism. No. 1,208,957; Dec. 19; Gaz. vol. 233; p. 843.
Haney, George E., Los Angeles, Cal. Lock. No. 1,208,312; Dec. 12; Gaz. vol. 233; p. 578.
Haning, William G., Riverside, Cal. Detachable sand-tread for tires. No. 1,208,149; Dec. 12; Gaz. vol. 233; p. 518.
Hanks, Frederick W., Cleveland, Ohio. Water-meter. No. 1,209,700; Dec. 26; Gaz. vol. 233; p. 1129.
Hann, Max R. (See Hann, William E., assignor.)
Hann, William E., assignor of one-half to M. R. Hann, Chicago, Ill. Landing-gear for aerial vehicles. No. 1,207,690; Dec. 5; Gaz. vol. 233; p. 316.
Hanna, Frank C., Ashbyburg, Ky. Poultry-coop. No. 1,210,307; Dec. 26; Gaz. vol. 233; p. 1339.
Hannold, Harry A., Clarion, Pa. Ironing-table. No. 1,209,150; Dec. 19; Gaz. vol. 233; p. 909.
Hanrath, Theodore W., assignor to A. Stein & Company, Chicago, Ill. Textile-fabric strip. No. 1,207,906; Dec. 12; Gaz. vol. 233; p. 432.
Hans Renold Limited. (See Carter, Adrian E., assignor.)
Hansell, Marcus E., Anamosa, assignor of one-half to G. A. Smith, Marshalltown, Iowa. Grate-bar. No. 1,207,751; Dec. 12; Gaz. vol. 233; p. 378.
Hansen, Aage, Walla Walla, Wash. Harrow-cart. No. 1,210,308; Dec. 26; Gaz. vol. 233; p. 1339.
Hansen, Charles C., New York, N. Y., assignor to Thermal Appliance Company, Inc. Water-heater and regulator therefor. No. 1,209,836; Dec. 26; Gaz. vol. 233; p. 1177.
Hansen, Fred E. (See Frazier and Hansen.)
Hansen, Jens P., Copenhagen, Denmark. Magazine-camera. No. 1,210,164; Dec. 26; Gaz. vol. 233; p. 1298.
Hansen, John F. (See Queenan and Hansen.)
Hanson, Hans C., Albert Lea, Minn. Vapor-burner. No. 1,207,031; Dec. 5; Gaz. vol. 233; p. 84.
Hanson, Hjalmar I., Summit, S. D. Saw-filing machine. No. 1,207,544; Dec. 5; Gaz. vol. 233; p. 264.
Hanson, Peter O., and E. Sweeney, Oregon, Wis. Railway-tie. No. 1,207,545; Dec. 5; Gaz. vol. 233; p. 264.
Hansson, Soren, New Glasgow, Nova Scotia, Canada. Truck side frame. No. 1,208,776; Dec. 19; Gaz. vol. 233; p. 782.
Hanstein, Otfrid von. (See Russak and Hanstein.)
Hanus, Ewald, Tegel, near Berlin, Germany. Ball-grinding machine. No. 1,207,691; Dec. 5; Gaz. vol. 233; p. 316.
Hara, Shingo, Oakland, Cal. Insole. No. 1,210,066; Dec. 26; Gaz. vol. 233; p. 1258.
Hardegen, Theodore, Lonaconing, Md. Railway-switch. No. 1,207,032; Dec. 5; Gaz. vol. 233; p. 84.
Hardesty, Blair, Clifton Forge, Va. Rubber-heel protector. No. 1,207,907; Dec. 12; Gaz. vol. 233; p. 433.
Hards, Edward, Phoenix, Ariz., assignor to E. M. Hards. Centrifugal pump. No. 1,207,546; Dec. 5; Gaz. vol. 233; p. 264.
Hards, Edward M. (See Hards, Edward, assignor.)
Hardwick, Eugene C., Galena, Kans. Automobile-signal. No. 1,207,033; Dec. 5; Gaz. vol. 233; p. 85.
Hardy, Edward, Canton, Mo. Seesaw. No. 1,207,399; Dec. 5; Gaz. vol. 233; p. 212.
Harmon, Everett W., Shoffner, Ark. Lubricating-pump. No. 1,209,433; Dec. 19; Gaz. vol. 233; p. 1007.
Harnes, John B., assignor of one-third to L. J. Harnes and one-third to J. H. Schonhoff, Advance, Mo. Wireless check-row planter. No. 1,209,701; Dec. 26; Gaz. vol. 233; p. 1130.
Harnes, Leonard J., *et al.* (See Harnes, John B., assignor.)
Harness, Elza, Bloomington, Ill. Game and chance device. No. 1,207,908; Dec. 12; Gaz. vol. 233; p. 433.
Harper, Hine J. (See Carmichael, James B., assignor.)
Harper, William, Jr., New Bloomfield, Pa., assignor, by mesne assignments, to J. A. Carey, New York, N. Y. Internal-combustion engine. No. 1,209,702; Dec. 26; Gaz. vol. 233; p. 1130.
Harriman, John E., Jr., deceased; J. L. Harriman, administratrix, assignor to F. B. Dole, Brookline, Mass. Edge-setting machine. No. 1,208,552; Dec. 12; Gaz. vol. 233; p. 661.
Harriman, Julia L., administratrix. (See Harriman, John E., Jr.)
Harrington, Clinton O., Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Signal. No. 1,207,291; Dec. 5; Gaz. vol. 233; p. 174.
Harris, Frederick P., Cleveland, Ohio. Type-writer desk and the like. No. 1,207,400; Dec. 5; Gaz. vol. 233; p. 213.
Harris, Frederick W., Tate, Saskatchewan, Canada. Automobile-fender. No. 1,207,909; Dec. 12; Gaz. vol. 233; p. 433.
Harris, William A., Greenville, S. C., assignor of one-fourth to W. D. Rock, Charlotte, N. C. Operating mechanism for pumps. No. 1,209,837; Dec. 26; Gaz. vol. 233; p. 1178.
Harrison, Theodore M., Hawthorn, Victoria, Australia. Hood-fastener. No. 1,207,547; Dec. 5; Gaz. vol. 233; p. 265.
Harrison, William L., Branford, Conn. Fire-extinguisher. No. 1,207,752; Dec. 12; Gaz. vol. 233; p. 378.
Harry Vissering and Company. (See Vissering, Harry, assignor.)
Harsant, Maybelle J., Selby, Cal. Finger-guard for sewing-machines. No. 1,207,034; Dec. 5; Gaz. vol. 233; p. 85.
Harter, Augustus F., assignor to Cribben & Sexton Company, Chicago, Ill. Combined coal and gas range. No. 1,209,288; Dec. 19; Gaz. vol. 233; p. 955.
Harter, Charles, St. Louis, Mo. Side-door post for cars. No. 1,210,067; Dec. 26; Gaz. vol. 233; p. 1258.
Harter, John G., *et al.* (See Bradley, Jacob A., assignor.)
Hartford Rubber Works Company, The. (See Arnold, Clarence A., assignor.)
Hartford Rubber Works Company, The. (See Nettleton, George E., assignor.)
Hartford Rubber Works Company, The. (See Taft, Ryland L., assignor.)
Hartford Suspension Company. (See Westen, Christian H., assignor.)

Hartman Manufacturing Company. (See Willmore, William M., assignor.)
Hartman, Rudolph B., Milwaukee, Wis. Adjustable panel-mold for concrete floor and roof work. No. 1,209,151; Dec. 19; Gaz. vol. 233; p. 909.
Hartmann, Wilhelm, Offenbach-on-the-Main, Germany. Ash-ejecting mechanism. No. 1,209,703; Dec. 26; Gaz. vol. 233; p. 1131.
Hartness, James, Springfield, Vt. Sun-dial. No. 1,209,289; Dec. 19; Gaz. vol. 233; p. 955.
Harvey Hubbell, Incorporated. (See D'Olier, Henry, Jr., assignor.)
Harvey Hubbell, Incorporated. (See Knapp, George P., assignor.)
Harvey, William A., Scranton, Pa. Lamp attachment for dry cells. No. 1,209,152; Dec. 19; Gaz. vol. 233; p. 909.
Hasenohr, Otto B., assignor of one-half to J. Deheck, Terre Haute, Ind. Crystallizing brass surfaces. No. 1,207,910; Dec. 12; Gaz. vol. 233; p. 434.
Haskell, Edward Y., New London, Conn. Navigator's distance and bearing taker. No. 1,210,165; Dec. 26; Gaz. vol. 233; p. 1204.
Hassel, Nels H., Beverly Hills, Cal. Vehicle-tire. No. 1,209,575; Dec. 19; Gaz. vol. 233; p. 1055.
Hassell, William A., Jr., assignor of forty-nine one-hundredths to H. L. Franklin, Kellerman, Ala. Running-gear for automobiles. No. 1,209,290; Dec. 19; Gaz. vol. 233; p. 955.
Hastin, Scott A., Benton, Ky. Planter. No. 1,209,576; Dec. 19; Gaz. vol. 233; p. 1055.
Hastings, Benjamin, Cleveland, Ohio, assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Rock-drill chuck. No. 1,207,548; Dec. 5; Gaz. vol. 233; p. 265.
Hastings, Benjamin J., Taunton, Mass. Railway-bridge warning. No. 1,207,550; Dec. 5; Gaz. vol. 233; p. 266.
Hastings, Kenneth B., assignor to Globe Ear-Phone Company, Boston, Mass. Telephone apparatus. No. 1,209,291; Dec. 19; Gaz. vol. 233; p. 956.
Hat Manufacturers Supply Company, The. (See Webb, Cyrus, assignor.)
Hatfield, Andrew L., Hillside, N. J. Washing-machine. No. 1,208,706; Dec. 12; Gaz. vol. 233; p. 714.
Hatfield, Schuyler C., Baltimore, Md. Apparatus for making annular tubes. No. 1,208,777; Dec. 19; Gaz. vol. 233; p. 782.
Hathaway, Edgar F., Boston, Mass., assignor to American Warp Drawing Machine Company. Wire-coiling machine. No. 1,207,911; Dec. 12; Gaz. vol. 233; p. 434.
Hatton, John W., *et al.* (See Oliver, John, assignor.)
Haug, Anton J., assignor to Improved Paper Machinery Company, Nashua, N. H. Centrifugal screen. No. 1,209,153; Dec. 19; Gaz. vol. 233; p. 910.
Haugwitz, Rudolf, Friedrichshagen, near Berlin, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Trisazo dyes. No. 1,209,154; Dec. 19; Gaz. vol. 233; p. 910.
Hausberg, Ernest, Charles City, Iowa. Electrically-operated type-writer. No. 1,209,961; Dec. 26; Gaz. vol. 233; p. 1222.
Hausen, Raymond F., Pittsburgh, Pa. Carbon-brush connection. No. 1,207,912; Dec. 12; Gaz. vol. 233; p. 434.
Hawes, Charlie L., Ashtabula, assignor to The American Fork & Hoe Company, Cleveland, Ohio. Method of and apparatus for electric welding. No. 1,209,704; Dec. 26; Gaz. vol. 233; p. 1131.
Hawkins, Ella S., Acton, N. C. Crocheting-needle. No. 1,208,958; Dec. 19; Gaz. vol. 233; p. 843.
Hawksworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Outside car-roof. No. 1,206,841; Dec. 5; Gaz. vol. 233; p. 20.
Hawley, Royal D., San Francisco, Cal., assignor to The P. & M. Company, Chicago, Ill. Tie-plate. No. 1,210,309; Dec. 26; Gaz. vol. 233; p. 1340.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp and number-plate bracket. No. 1,207,292; Dec. 5; Gaz. vol. 233; p. 174.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp. No. 1,208,553; Dec. 12; Gaz. vol. 233; p. 661.
Hawthorne, Ellsworth A., Bridgeport, Conn. Storage battery or housing. No. 1,208,959; Dec. 19; Gaz. vol. 233; p. 844.
Hawthorne, Ellsworth A., Bridgeport, Conn. Cable-terminal-plug retainer. No. 1,210,068; Dec. 26; Gaz. vol. 233; p. 1258.
Hawthorne Manufacturing Company, The. (See Maytrott, Henry, assignor.)
Hayden, David H., New York, N. Y. Tool for twisting wire ties. No. 1,209,434; Dec. 19; Gaz. vol. 233; p. 1007.
Haydon, Walton, Marshfield, Oreg. Surgical bandage. No. 1,208,313; Dec. 12; Gaz. vol. 233; p. 578.
Hayes, Edward N. (See Currie, Otis C., assignor.)
Hayes, George D., Hillsboro, Tex. Adjustable window-shade. No. 1,207,551; Dec. 5; Gaz. vol. 233; p. 267.
Hayes, John P., assignor of one-half to J. E. Barnhart, Pittsburgh, Pa. Switchboard. No. 1,208,151; Dec. 12; Gaz. vol. 233; p. 518.
Hayes, Lawson M. (See Chiam, Sylvester J., assignor.)
Hayes Manufacturing Company. (See Rehbein, Conrad, assignor.)
Hays, Henry C., assignor to A. J. Detlaff, Detroit, Mich. Gear-shifting mechanism. No. 1,207,913; Dec. 12; Gaz. vol. 233; p. 435.
Hayward, Verner E., Davenport, Iowa. Ladder-assembling machine. No. 1,209,705; Dec. 26; Gaz. vol. 233; p. 1132.
Hazen, Jean D., assignor of one-half to J. L. Kerr, South Bocagrande, Fla. Amusement apparatus. No. 1,207,914; Dec. 12; Gaz. vol. 233; p. 435.
Heald Machine Company. (See Drake, Alden M., assignor.)
Heaney, John, Stockton, Cal. Hemp breaking and cleaning machine. No. 1,208,152; Dec. 12; Gaz. vol. 233; p. 519.
Heany, John A., New York, N. Y., assignor to Royalty Company, Chicago, Ill. Timing mechanism for electric welding. No. 1,207,915; Dec. 12; Gaz. vol. 233; p. 435.
Heard, Edmund F., Newport News, Va. Beam-deflector for search-lamps. No. 1,209,155; Dec. 19; Gaz. vol. 233; p. 911.
Heath, Charles B., assignor of one-half to G. W. Quigley, Stockton, Cal. Kitchen-cabinet. No. 1,208,153; Dec. 12; Gaz. vol. 233; p. 519.
Heath, Frank, National City, Cal. Collapsible vehicle-box. No. 1,209,577; Dec. 19; Gaz. vol. 233; p. 1055.
Heath, Harry E., Newark, N. J., assignor to Lansden Company, Inc. Battery-cradle for electric vehicles. No. 1,209,962; Dec. 26; Gaz. vol. 233; p. 1223.
Heaton, Herman C., Berwyn, Ill. Condensing apparatus. No. 1,209,578; Dec. 19; Gaz. vol. 233; p. 1056.
Hedderich, Leander J., Mulberry, Ind. Skimming device for cream-separators. No. 1,208,960; Dec. 19; Gaz. vol. 233; p. 844.
Hedrick, Perry L., El Centro, Cal. Pneumatic flume-gate. No. 1,209,156; Dec. 19; Gaz. vol. 233; p. 911.
Heerdt, Adolf, Frankfort-on-the-Main, Germany. Sheet-iron shelving. No. 1,209,157; Dec. 19; Gaz. vol. 233; p. 911.
Heffley, William H., Duncannon, Pa. Game device. No. 1,209,963; Dec. 26; Gaz. vol. 233; p. 1223.
Heidbreder, George E., Quincy, Ill. Coal and gas range. No. 1,208,314; Dec. 12; Gaz. vol. 233; p. 578.
Heidler, Ernest C. (See Bell, Andrew F., assignor.)
Heinrich Wachwitz & Co. (See Wachwitz, Heinrich, assignor.)
Heinselman, Thomas, Kinsley, Kans. Push-pole. No. 1,208,778; Dec. 19; Gaz. vol. 233; p. 785.
Heinze, John O., assignor to The John O. Heinze Company, Springfield, Ohio. Circuit-controlling device. No. 1,208,961; Dec. 19; Gaz. vol. 233; p. 845.
Heinze, John O., assignor to The John O. Heinze Company, Springfield, Ohio. Starting and lighting system. No. 1,208,962; Dec. 19; Gaz. vol. 233; p. 845.
Heinselmann, Carl, Bird Island, Minn. Necktie-retainer. No. 1,209,158; Dec. 19; Gaz. vol. 233; p. 912.
Heller, Edward, North Bergen, N. J. Rope-clamp. No. 1,207,401; Dec. 5; Gaz. vol. 233; p. 214.
Helmholtz, Henry, and C. C. Bertram, Chicago, Ill. Mechanism for operating valve-gear of locomotives. No. 1,208,554; Dec. 12; Gaz. vol. 233; p. 662.
Helmholtz, Henry, and C. C. Bertram, Chicago, Ill. Locomotive reversing-gear. No. 1,208,555; Dec. 12; Gaz. vol. 233; p. 662.
Helmholtz, Henry, and C. C. Bertram, Chicago, Ill. Locomotive reversing-gear mechanism. No. 1,208,556; Dec. 12; Gaz. vol. 233; p. 663.
Hemphill Manufacturing Company. (See Bosworth, George P., assignor.)
Hempstead, Harry N., Indianapolis, Ind. Cigar-tip. No. 1,209,292; Dec. 19; Gaz. vol. 233; p. 956.
Hendee Manufacturing Company. (See Gustafson, Carl J., assignor.)
Henderson, Melville T., *et al.* (See Bente, Henry K., assignor.)
Hendricks, Nathan V., assignor to Uniform Asphalt Distributor Company, Meridian, Miss. Oil-distributing apparatus. No. 1,210,069; Dec. 26; Gaz. vol. 233; p. 1259.
Hendricks, Rosa B., McClure, Ill. Combined washbasin and cuspidor-support for invalid-beds. No. 1,207,916; Dec. 12; Gaz. vol. 233; p. 436.
Hendricks, Seward D., Buffalo, N. Y. Constructing reinforced-concrete barges, ships, or vessels. No. 1,209,159; Dec. 19; Gaz. vol. 233; p. 912.
Hendrickson, Robert O., Portland, Oreg., assignor, by mesne assignments, to Wallis Tractor Company, Racine, Wis. Traction-engine. No. 1,209,706; Dec. 26; Gaz. vol. 233; p. 1132.
Hennes, Caspar, Scottsville, Kans. Draft appliance. No. 1,207,035; Dec. 5; Gaz. vol. 233; p. 85.
Hennessey, John J., Milwaukee, Wis. Adjustable rocker side bearing. No. 1,209,888; Dec. 26; Gaz. vol. 233; p. 1179.
Hennigh, Henry K., Newcastle, Ind. Photo-film developing or changing box. No. 1,207,036; Dec. 5; Gaz. vol. 233; p. 86.
Henning, Charles, Jr. (See Boyer, David L., assignor.)
Henning, Charles F., assignor to The United States Gypsum Company, Chicago, Ill. Machine for automatically manipulating the core-poles of molding-machines. No. 1,208,557; Dec. 12; Gaz. vol. 233; p. 663.
Henry Bosch Company. (See Bosch, Henry, assignor.)

Henry, Ferdinand G., New York, assignor to Burkhart Corporation, Buffalo, N. Y. Shoe-polishing mechanism. No. 1,210,070; Dec. 26; Gaz. vol. 233; p. 1259.

Herbert, Samuel, assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,206,842; Dec. 5; Gaz. vol. 233; p. 20.

Herden, Henry, Wellsboro, Pa. Money-segregating device. No. 1,207,402; Dec. 5; Gaz. vol. 233; p. 214.

Herle, Chester A., Rochester, N. Y. Air-compressor. No. 1,207,165; Dec. 5; Gaz. vol. 233; p. 131.

Herr, Herbert T., Pittsburgh, assignor, by mesne assignments, to The Westinghouse Machine Company, East Pittsburgh, Pa. Fluid-distributer. No. 1,209,579; Dec. 19; Gaz. vol. 233; p. 1056.

Herrick, Albert B., New York, N. Y., assignor to M. C. Mesaler, Providence, R. I. Igniter for gas-engines. No. 1,207,753; Dec. 12; Gaz. vol. 233; p. 379.

Herron, John, assignor of one-half to J. E. Raby, Marquette, Mich. Rail-anchor. No. 1,208,779; Dec. 19; Gaz. vol. 233; p. 783.

Hershey, Harry E., Whitewater, Kans., and G. A. Yanochowski, assignors to Automatic Electric Company, Chicago, Ill. Automatic telephone system. No. 1,209,293; Dec. 19; Gaz. vol. 233; p. 956.

Herzberg, Wilhelm, Berlin-Wilmersdorf, and O. Scharfenberg, Berlin-Schöneberg, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Sulfur dyes. No. 1,209,580; Dec. 19; Gaz. vol. 233; p. 1057.

Hespe, Alfred T., Weehawken, N. J. Adjustable-contact thermometer. No. 1,207,754; Dec. 12; Gaz. vol. 233; p. 379.

Hess, Edward B., Brooklyn, assignor to Royal Typewriter Company, Inc., New York, N. Y. Line-space device for writing-machines. No. 1,208,154; Dec. 12; Gaz. vol. 233; p. 519.

Hess, Edward B., and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Type-writing machine. No. 1,208,155; Dec. 12; Gaz. vol. 233; p. 520.

Hess, George H., La Grange Park, Ill. Apparatus for drying and cooling substances. No. 1,210,166; Dec. 26; Gaz. vol. 233; p. 1294.

Hess, Karl Z. (See Adair, Clinton L., assignor.)

Heulings, William H., Jr., assignor to The J. G. Brill Company, Philadelphia, Pa. Car signaling system. No. 1,208,780; Dec. 19; Gaz. vol. 233; p. 783.

Hewitt, Bert. (See Coons and Hewitt.)

Hexter, Sanford M., and F. E. Stewart, assignors to The Hexter-Stewart Corporation, Cleveland, Ohio. Fumigating apparatus. No. 1,208,315; Dec. 12; Gaz. vol. 233; p. 579.

Hexter-Stewart Corporation, The. (See Hexter and Stewart, assignors.)

Heyer, William, New York, N. Y. Napkin-folding machine. No. 1,210,167; Dec. 26; Gaz. vol. 233; p. 1295.

Heyer, William, New York, N. Y. Piling device for napkin-folding machines. No. 1,210,168; Dec. 26; Gaz. vol. 233; p. 1295.

Heylman, Edward M., assignor to Oliver Chilled Plow Works, South Bend, Ind. Colter and jointer attachment for plows. No. 1,207,166; Dec. 5; Gaz. vol. 233; p. 131.

Heyman, David, and T. R. Arden, Brooklyn, N. Y.; said Arden assignor to said Heyman. Toy cannon. No. 1,209,160; Dec. 19; Gaz. vol. 233; p. 912.

Heywood, James, Seedley, Manchester, England. Wear-resisting arm for beetling-machines. No. 1,209,294; Dec. 19; Gaz. vol. 233; p. 956.

Hickling, Albert E., and H. Lamb, Eccles, near Manchester, England. Lock-nut. No. 1,210,310; Dec. 26; Gaz. vol. 233; p. 1340.

Hickman, Patrick H., assignor of one-half to T. A. Hickman, Irvington, N. J. Last. No. 1,207,037; Dec. 5; Gaz. vol. 233; p. 86.

Hickman, Patrick H., assignor of one-half to T. A. Hickman, Irvington, N. J. Last. No. 1,207,038; Dec. 5; Gaz. vol. 233; p. 86.

Hickman, Thomas A. (See Hickman, Patrick H., assignor.)

Hickok, Arthur S. (See Myers, Hubert A., assignor.)

Hidden, William B., Boston, Mass. Carbureter. No. 1,210,169; Dec. 26; Gaz. vol. 233; p. 1296.

Hien, Phillip, Chicago, Ill. Auxiliary vehicle-spring. No. 1,208,156; Dec. 12; Gaz. vol. 233; p. 520.

Hien, Phillip, Chicago, Ill. Auxiliary vehicle-spring. No. 1,208,157; Dec. 12; Gaz. vol. 233; p. 521.

Higashino, Juichi. (See Aoyama and Higashino.)

Higgins, Virginia K., *et al.* (See Lorens, Friedrich, assignor.)

Higinbotham, Arthur O., assignor to Charles B. Foster and Company, Worcester, Mass. Spring suspension for vehicles. No. 1,210,311; Dec. 26; Gaz. vol. 233; p. 1340.

Hildreth, Charles, and J. T. Rabus, Staunton, Ill. Plant-protector. No. 1,207,039; Dec. 5; Gaz. vol. 233; p. 86.

Hildreth, Clarence G. (See Rodgers, Stewart D., assignor.)

Hill, Arthur, Colorado Springs, Colo. Combination ladder and trestle. No. 1,207,552; Dec. 5; Gaz. vol. 233; p. 267.

Hill, Charles S., Belmont, Mass. Game. No. 1,208,158; Dec 12; Gaz vol. 233; p. 521.

Hill, Clyde H., Independence, Oreg. Removable automobile-seat. No. 1,207,040; Dec. 5; Gaz. vol. 233; p. 87.

Hill, Edward F., Peekskill, and W. H. Myers, Brooklyn, assignors to Union Stove Works, New York, N. Y. Stove. No. 1,210,312; Dec. 26; Gaz. vol. 233; p. 1340.

Hill, Norfleet, St. Louis, Mo. Camp-stove. No. 1,207,563; Dec. 5; Gaz. vol. 233; p. 268.

Hill, William E., Philadelphia, Pa. Brooder. No. 1,207,403; Dec. 5; Gaz. vol. 233; p. 214.

Hiller, Joseph L., Mattapoisett, Mass. Bearing. No. 1,207,041; Dec. 5; Gaz. vol. 233; p. 87.

Hiller, Joseph L., Mattapoisett, Mass. Universal bearing. No. 1,209,295; Dec. 19; Gaz. vol. 233; p. 956.

Hilpert, Meier G., Harrisburg, Pa. Nursery-gate and window or aperture guard. No. 1,206,843; Dec. 5; Gaz. vol. 233; p. 20.

Hindman, Isaiah E., Crafton, assignor to The Duff Manufacturing Company, Pittsburgh, Pa. Lifting-jack. (Reissue.) No. 14,235; Dec. 26; Gaz. vol. 233; p. 1300.

Hinaelmann, Ernst, Essen-on-the-Ruhr, Germany. Coke-oven. No. 1,208,781; Dec. 19; Gaz. vol. 233; p. 783.

Hires, John E., Malvern, Pa. Stamping-machine. No. 1,207,917; Dec. 12; Gaz. vol. 233; p. 486.

Hixson, Clinton J., Schenectady, N. Y., assignor to General Electric Company. Trolley system. No. 1,209,581; Dec. 19; Gaz. vol. 233; p. 1057.

Hoag, Harry J., Gloversville, N. Y. Electric headlight. No. 1,206,844; Dec. 5; Gaz. vol. 233; p. 21.

Hochberg, Oscar, assignor to American Car and Foundry Company, St. Louis, Mo. Draft-arm. No. 1,208,963; Dec. 19; Gaz. vol. 233; p. 846.

Hochberg, Oscar, assignor to American Car and Foundry Company, St. Louis, Mo. Metallic car end. No. 1,209,435; Dec. 19; Gaz. vol. 233; p. 1007.

Hochsprung, George W., Brooklyn, N. Y., assignor, by mesne assignments, to J. Kothe, Jersey City, N. J. Fire-alarm system. No. 1,206,845; Dec. 5; Gaz. vol. 233; p. 21.

Hochstetter, Frederick W., New York, N. Y., assignor to H. P. Patents and Processes Company, Inc. Composition of matter for developing and fixing photographic exposures. No. 1,207,042; Dec. 5; Gaz. vol. 233; p. 87.

Hockersmith, Earl A. T., Colorado Springs, Colo. Odorless garbage-can. No. 1,207,918; Dec. 12; Gaz. vol. 233; p. 437.

Hockmuth, Frederick J., *et al.* (See Minges, Joseph C., assignor.)

Hodge, Carroll, Radnor, Pa. Storage battery. No. 1,207,293; Dec. 5; Gaz. vol. 233; p. 175.

Hodges, Jesse E., Cincinnati, Ohio. Concrete-conveyer. No. 1,208,964; Dec. 19; Gaz. vol. 233; p. 846.

Hodgson, James, Carlisle, England. Wind-screen for motor-vehicles. No. 1,210,313; Dec. 26; Gaz. vol. 233; p. 1341.

Hoefer, Alfred U., East Orange, N. J., and H. M. Bascom, New York, N. Y., assignors to American Telephone and Telegraph Company. Telephone toll system. No. 1,210,314; Dec. 26; Gaz. vol. 233; p. 1341.

Hoepker, Henry, Addieville, Ill. Straw-carrier and grain-separator. No. 1,209,707; Dec. 26; Gaz. vol. 233; p. 1132.

Hoernegel, Karl W. A., Point Roberts, Wash. Picture-hanger. No. 1,209,582; Dec. 19; Gaz. vol. 233; p. 1057.

Hoffer, Le Roy H. (See Murray and Hoffer.)

Hoffhine, John, New York, N. Y., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del. Reinforcing-back for brake-shoes. No. 1,208,782; Dec. 19; Gaz. vol. 233; p. 784.

Hoffman, Eugene K., assignor to Consolidated Lamp and Glass Company, Coraopolis, Pa. Lighting-fixture. No. 1,210,315; Dec. 26; Gaz. vol. 233; p. 1341.

Hoffman, George F., Philadelphia, Pa. Rope. No. 1,209,964; Dec. 26; Gaz. vol. 233; p. 1224.

Hoffman, Morris J., Chicago, Ill. Coupon-ticket-printing machine and register. No. 1,210,071; Dec. 26; Gaz. vol. 233; p. 1259.

Hoke, Harry A., Altoona, Pa. Elliptical spring. No. 1,209,436; Dec. 19; Gaz. vol. 233; p. 1008.

Hokenson, Emil, assignor of one-half to L. Lindskog, Chicago, Ill. Window-scaffold. No. 1,209,839; Dec. 26; Gaz. vol. 233; p. 1179.

Holaday, Alpha L. (See Brown and Holaday.)

Holcomb, James I., and J. I. Anderson, Indianapolis, Ind.; said Anderson assignor to said Holcomb. Machine for polishing hollow articles. No. 1,209,437; Dec. 19; Gaz. vol. 233; p. 1006.

Holding, Richard N., Ingram, Pa. Axle construction. No. 1,208,783; Dec. 19; Gaz. vol. 233; p. 784.

Holdship, William S., and F. L. Jones, Montreal, Quebec, Canada. Automatic train-stopping device. No. 1,209,296; Dec. 19; Gaz. vol. 233; p. 957.

Holec, Anthony V., New York, N. Y. Nail-polishing machine. No. 1,207,755; Dec. 12; Gaz. vol. 233; p. 380.

Holland-Letz, Lud, Chicago, Ill., assignor to International Harvester Company of New Jersey. Switch-controlling mechanism for self-rake reapers. No. 1,207,405; Dec. 5; Gaz. vol. 233; p. 215.

Holland, Newman H., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Phonograph-reproducer. No. 1,207,404; Dec. 5; Gaz. vol. 233; p. 215.

Hollcroft, Flavious J., Jenks, Okla. Automatic air-line coupling. No. 1,209,965; Dec. 26; Gaz. vol. 233; p. 1224.

Hollenbeck, Elijah A., and W. G. Huff, Holdrege, Nebr. Storage-pit. No. 1,209,297; Dec. 19; Gaz. vol. 233; p. 957.

Holley, Bertha H., New York, N. Y. Garment. No. 1,209,840; Dec. 26; Gaz. vol. 233; p. 1179.

Hollingshead, William B., Mount Vernon, N. Y. Depilatory apparatus. No. 1,210,316; Dec. 26; Gaz. vol. 233; p. 1342.

Holmdahl, Monville, Oakland, Cal. Hammer-head. No. 1,209,583; Dec. 19; Gaz. vol. 233; p. 1057.

Holmes, Alfred E., assignor of one-half to W. H. Plunkett, Chicago, Ill. Liquid-dispenser. No. 1,208,784; Dec. 19; Gaz. vol. 233; p. 784.

Holmes, Clarence A., Seattle, Wash., assignor to Detroit Dental Manufacturing Company, Detroit, Mich. Rubber-dam holder. No. 1,207,756; Dec. 12; Gaz. vol. 233; p. 380.

Holmes, Morris P., Claremont, N. H., assignor to Sullivan Machinery Company, Boston, Mass. Rotary engine. No. 1,207,555; Dec. 5; Gaz. vol. 233; p. 268.

Holschemacher, Julius C. (See Daniels and Holschemacher.)

Holst, Lodewyk J. R., assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa. Magazine film-holder for cameras. No. 1,208,558; Dec. 12; Gaz. vol. 233; p. 664.

Holt, Eugene and L., Burlington, N. C. Lead-lined yarn-beam. No. 1,207,043; Dec. 5; Gaz. vol. 233; p. 88.

Holt, Lafayette. (See Holt, Eugene and L.)

Holter, Alfred. (See Kravik, Herbrand T., assignor.)

Holtz, August, Grant Park, Ill. Locking-closure for containers. No. 1,207,044; Dec. 5; Gaz. vol. 233; p. 88.

Holub-Dusha Company. (See Dusha and Feyk, assignors.)

Holway, Charles H., La Crosse, Wis. Liquid-level indicator. No. 1,207,919; Dec. 12; Gaz. vol. 233; p. 437.

Hommel, George, E. Kandler, and W. L. Patterson, assignors to Bausch & Lomb Optical Company, Rochester, N. Y. Supporting device. No. 1,208,965; Dec. 19; Gaz. vol. 233; p. 846.

Homolka, Benno, Frankfort-on-the-Main, assignor to Farbwerke Vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Vat dyestuffs and making same. No. 1,209,163; Dec. 19; Gaz. vol. 233; p. 913.

Honecker, Charles A., Chicago, Ill., assignor to Automatic Utilities Co. Loose-leaf device. No. 1,208,317; Dec. 12; Gaz. vol. 233; p. 579.

Hooper, Charles R., Salamanca, N. Y. Veneer-trimming and stick-jointing attachment for planers. No. 1209,966; Dec. 26; Gaz. vol. 233; p. 1224.

Hooper, William H., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for leveling the soles of boots and shoes. No. 1,208,966; Dec. 19; Gaz. vol. 233; p. 847.

Hope, John A., Montreal, Quebec, Canada. Welding composition. No. 1,209,841; Dec. 26; Gaz. vol. 233; p. 1180.

Hopkins, Roy S., Fairmont, W. Va. Insulator. No. 1,206,846; Dec. 5; Gaz. vol. 233; p. 21.

Hoppie, William, Lawndale, assignor to W. J. Latchford, Los Angeles, Cal. Dry cell. No. 1,209,298; Dec. 19; Gaz. vol. 233; p. 957.

Hopson, Ernest G., Portland, Oreg. Volumeter. No. 1,207,045; Dec. 5; Gaz. vol. 233; p. 88.

Horn, Casper J., and W. E. Simmons, Hicksville, Ohio. Jack. No. 1,207,167; Dec. 5; Gaz. vol. 233; p. 131.

Horn, Frederick W., Lester, Pa. Guard for electric switches. No. 1,208,559; Dec. 12; Gaz. vol. 233; p. 664.

Hornick, Hugo, Rochester, N. Y. Stropping device for safety-razor blades. No. 1,208,318; Dec. 12; Gaz. vol. 233; p. 579.

Hornschuch, Otto F., Seattle, Wash. Fireplace. No. 1,210,072; Dec. 26; Gaz. vol. 233; p. 1260.

Horstman, Oscar. (See Casey, Thomas F., assignor.)

Horton, Charles H., Painesville, Ohio. Brick-machine. No. 1,210,317; Dec. 26; Gaz. vol. 233; p. 1342.

Horton, Charles H., Painesville, Ohio. Mold-scraper. No. 1,210,318; Dec. 26; Gaz. vol. 233; p. 1342.

Horton, John O., Montrose, assignor to National Metal Edge Box Company, Philadelphia, Pa. Safety device for box-staying machines. No. 1,206,847; Dec. 5; Gaz. vol. 233; p. 22.

Hotchkiss, Harry W., and J. Merts, Webster City, Iowa; said Merts assignor to said Hotchkiss. Sanitary hog-trough. No. 1,208,967; Dec. 19; Gaz. vol. 233; p. 847.

Houchin, Alfred W., Greensboro, Md., assignor to Shockless Electric Manufacturing Co. of New Jersey. Automatic switch. No. 1,207,168; Dec. 5; Gaz. vol. 233; p. 132.

Houlehan, John, East Ely, Nev. Mechanical movement. No. 1,209,708; Dec. 26; Gaz. vol. 233; p. 1133.

Houseman, Harry A., assignor to Standard Machine Company, Philadelphia, Pa. Circular-knitting machine. No. 1,206,848; Dec. 5; Gaz. vol. 233; p. 22.

Houseman, Harry A., assignor to Standard Machine Company, Philadelphia, Pa. Circular-knitting machine. No. 1,207,757; Dec. 12; Gaz. vol. 233; p. 380.

Houseworth, Abram L. (See Gorr, Louis L., assignor.)

Housman, William H., Chatham, N. Y. Attachment for steering devices for vehicles. No. 1,207,406; Dec. 5; Gaz. vol. 233; p. 215.

Houston, Aubrey, Christchurch, New Zealand. Device for drawing off liquids from containers. No. 1,209,438; Dec. 19; Gaz. vol. 233; p. 1008.

Houston, Cyrus C. (See Johnson, Arcy H., assignor.)

Houston, Ross, Tacoma, Wash. Detachable-handle broom. No. 1,210,319; Dec. 26; Gaz. vol. 233; p. 1343.

Hovgard, Harry, Brookline, Mass., assignor to Star Instrument Company. Sparking device for hydrocarbon-engines. No. 1,207,160; Dec. 5; Gaz. vol. 233; p. 132.

Howard, Bloomfield H. (See Turner and Howard.)

Howard, Calvin C., Park City, Mont. Adjustable feed box or pan. No. 1,209,709; Dec. 26; Gaz. vol. 233; p. 1132.

Howard, Clarence L., Ottawa, Kans. Automatic train control. No. 1,208,560; Dec. 12; Gaz. vol. 233; p. 664.

Howard, Henry J. M., Washington, D. C. Spanner for hose-pipe couplings. No. 1,207,046; Dec. 5; Gaz. vol. 233; p. 89.

Howard, Rebecca C., Otay, Cal. Book-cover protector. No. 1,209,967; Dec. 26; Gaz. vol. 233; p. 1225.

Howe, Harry, Rockford, Ill. Safety appliance. No. 1,207,920; Dec. 12; Gaz. vol. 233; p. 437.

Howe, James A., assignor to Taylor Instrument Companies, Rochester, N. Y. Connecting device. No. 1,206,849; Dec. 5; Gaz. vol. 233; p. 23.

Howe, William J., Port Dalhousie, Ontario, Canada. Non-refillable bottle. No. 1,207,758; Dec. 12; Gaz. vol. 233; p. 381.

Howell, Charles F., Watertown, N. Y. Vehicle-spring. No. 1,209,439; Dec. 19; Gaz. vol. 233; p. 1009.

Hoyt, Homer J., Detroit, Mich., assignor to Morgan & Wright. Fabric-distorting device for tire-building machines. No. 1,209,161. Dec. 19; Gaz. vol. 233; p. 918.

Hoyt, Homer J., Detroit, Mich., assignor to Morgan & Wright. Vulcanizing apparatus. No. 1,209,162; Dec. 19; Gaz. vol. 233; p. 913.

Hubbard, Albert S., New York, N. Y., assignor to Gould Storage Battery Company. Ventilation system for storage-battery cells. No. 1,206,850; Dec. 5; Gaz. vol. 233; p. 23.

Hubbard, Charles W., Weston, Mass. Process of and apparatus for handling yarn. No. 1,209,968; Dec. 26; Gaz. vol. 233; p. 1225.

Hubbard & Co. (See Peirce, Charles L., Jr., assignor.)

Hubbard, Henry E., Oak Park, assignor to Addressograph Company, Chicago, Ill. Sectional printing-form. No. 1,209,412; Dec. 19; Gaz. vol. 233; p. 999.

Hudgel, Jessie E., Sloan, Iowa. Paper-cutter attachment for paper-roll holders. No. 1,208,968; Dec. 19; Gaz. vol. 233; p. 847.

Huff, Russell, assignor to Dodge Brothers, Detroit, Mich. Oil-guard. No. 1,207,759; Dec. 12; Gaz. vol. 233; p. 381.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,208,969; Dec. 19; Gaz. vol. 233; p. 848.

Huff, Stephen E., Los Angeles, Cal. Sound-box attachment for phonographs. No. 1,208,561; Dec. 12; Gaz. vol. 233; p. 665.

Huff, Wilbert G. (See Hollenbeck and Huff.)

Huggins, Merion J., New York, N. Y. Speed-controlling mechanism for automobiles. No. 1,207,170; Dec. 5; Gaz. vol. 233; p. 133.

Huggins, Merion J., New York, N. Y. Speed-controlling mechanism for automobiles. No. 1,207,760; Dec. 12; Gaz. vol. 233; p. 382.

Hughes, Davydd C., assignor, by mesne assignments, to Addressograph Company, Chicago, Ill. Automatic feeder for addressing-machines and the like. No. 1,209,411; Dec. 19; Gaz. vol. 233; p. 999.

Hughes, Frank S., Pine Grove, Pa. Tensioning device for crocheting. No. 1,210,320; Dec. 26; Gaz. vol. 233; p. 1343.

Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Rotary boring-drill. No. 1,209,299; Dec. 19; Gaz. vol. 233; p. 957.

Hughes, John J., Philadelphia, Pa. Motion-picture shutter. No. 1,209,584; Dec. 19; Gaz. vol. 233; p. 1058.

Hughes, Julian M., Peru, Ind. Motor-vehicle body. No. 1,208,319; Dec. 12; Gaz. vol. 233; p. 580.

Hughey, Wellington J. (See Wisenant, Oscar H., assignor.)

Huiehan, Owen E. (See Severtsen and Schwab, assignors.)

Hull, Emerson C. (See Nicolson and Hull.)

Hull, Joseph V., assignor to Anchor Cap & Closure Corporation, Brooklyn, N. Y. Sealing. No. 1,208,970; Dec. 19; Gaz. vol. 233; p. 848.

Hult, Carl A. and O. W., Stockholm, Sweden. Outboard motor. No. 1,207,761; Dec. 12; Gaz. vol. 233; p. 382.

Hult, Oscar W. (See Hult, Carl A. and O. W.)

Hultquist, Charles A., Los Angeles, Cal. Rock-drill chuck. No. 1,210,321; Dec. 26; Gaz. vol. 233; p. 1343.

Humbert, Richard E., Montclair, N. J. Toy block. No. 1,209,440; Dec. 19; Gaz. vol. 233; p. 1009.

Hummel, George W., Beggs, Okla. Foot-actuated fuel-control attachment for motor-cars. No. 1,208,971; Dec. 19; Gaz. vol. 233; p. 848.

Humphrey, Clifford W., Chicago, Ill. Method and apparatus for measuring the flow of fluids. No. 1,208,159; Dec. 12; Gaz. vol. 233; p. 521.

Humphrey, William, Auburn, Nebr. Egg-tester. No. 1,209,969; Dec. 26; Gaz. vol. 233; p. 1225.

Hungerford, Oliver F., assignor of one-fourth to C. E. Crookston, Middleville, and three-fourths to B. M. Soule, Grand Rapids, Mich. Repairing tires. No. 1,207,294; Dec. 5; Gaz. vol. 233; p. 175.

Hunn, Robert E., Oakland, Cal. Building-tile and wall thereof. No. 1,208,785; Dec. 19; Gaz. vol. 233; p. 785.

Hunt, Alfred T., New York, N. Y. Finger-ring. No. 1,207,047; Dec. 5; Gaz. vol. 233; p. 89.

Hunt, Helm, Ferris & Company. (See Ferris, Henry L., assignor.)
Hunt, Helm, Ferris & Company. (See Ferris, Howard J., assignor.)
Hunt, Ormond E., assignor to Packard Motor Car Company, Detroit, Mich. Wire-connector. No. 1,209,842; Dec. 26; Gaz. vol. 233; p. 1180.
Hunter, Roy O., Venus, Nebr. Cultivator-fender. No. 1,210,073; Dec. 26; Gaz. vol. 233; p. 1260.
Hunziker, Franz, Lucerne, Switzerland. Liquid-gage. No. 1,210,385; Dec. 26; Gaz. vol. 233; p. 1364.
Hurd, Norman B., assignor to The American Hardware Corporation, New Britain, Conn. Panic-bolt holdback. No. 1,207,921; Dec. 12; Gaz. vol. 233; p. 438.
Hurxthal, Frederick K., assignor to Emerson-Brantingham Company, Rockford, Ill. Drag-bar mounting. No. 1,208,786; Dec. 19; Gaz. vol. 233; p. 785.
Huseby, Albert A., Chicago, Ill. Talking-machine amplifier. No. 1,209,441; Dec. 19; Gaz. vol. 233; p. 1009.
Hussey, William A., Oakland, assignor, by mesne assignments, of one-half to J. H. Alling and one-half to F. M. Wright, San Francisco, Cal. Electrolytically recovering metals. No. 1,207,048; Dec. 5; Gaz. vol. 233; p. 89.
Hutchins Car Roofing Company. (See Hawksworth, David W., assignor.)
Hutchins Car Roofing Company. (See Herbert, Samuel, assignor.)
Hutchins Car Roofing Company. (See Whyte, Frederick M., assignor.)
Hutchins, Charles B. T. (See Sweet and Hutchins.)
Hutchinson, Frank A., Grayslake, Ill. Attachment for shoe-soles. No. 1,207,171; Dec. 5; Gaz. vol. 233; p. 133.
Hutchinson, William E., Harborton, Va. Sand-band. No. 1,209,585; Dec. 19; Gaz. vol. 233; p. 1058.
Huth, Max, Charlottenburg, assignor to Siemens & Halske Aktiengesellschaft, Berlin, Germany. Wire electrode for electrolytic purposes. No. 1,209,710; Dec. 26; Gaz. vol. 233; p. 1133.
Hutter, Jacob, New York, N. Y. Frame for women's hats. No. 1,207,407; Dec. 5; Gaz. vol. 233; p. 216.
Hyde, Elbert L., Pittsburgh, assignor to The Spirella Company, Meadville, Pa. Garment-stay. No. 1,210,170; Dec. 26; Gaz. vol. 233; p. 1296.
Hyde, Stanley T. (See Weller, Hyde, and Nsugle.)
I. P. Bemberg, Aktien-Gesellschaft. (See Matter, Julius, assignor.)
Ickes, Raymond N. A., Altoona, Pa. Fire-extinguisher. No. 1,208,562; Dec. 12; Gaz. vol. 233; p. 665.
Ide, Harry L., assignor of one-half to R. W. Ide, Springfield, Ill. Photographic camera. No. 1,208,320; Dec. 12; Gaz. vol. 233; p. 580.
Ide, Harry L., assignor of one-half to R. W. Ide, Springfield, Ill. Photographic camera. No. 1,208,321; Dec. 12; Gaz. vol. 233; p. 580.
Ide, Roy W. (See Ide, Harry L., assignor.)
Ignatius, Ella B., Pittsburgh, Pa. Corset-cover. No. 1,208,787; Dec. 19; Gaz. vol. 233; p. 785.
Ignatowski, Antoni, Chicago, Ill. Babbitting-machine. No. 1,208,788; Dec. 19; Gaz. vol. 233; p. 786.
Ihrcke, Frank. (See Brennecke and Ihrcke.)
Illinois Malleable Iron Co. (See Steneck, John R., assignor.)
Imboden, James. (See Benjamin and Imboden.)
Improved Paper Machinery Company. (See Haug, Anton J., assignor.)
Industrial Chemical Company. (See Statham, Noel, assignor.)
Industrial Development Company, The. (See Trood, Samuel, assignor.)
Ingersoll, Andrew J., Bridgeton, N. J. Dust-cap for air-valves for auto-tires. No. 1,207,408; Dec. 5; Gaz. vol. 233; p. 216.
Ingersoll Milling Machine Company, The. (See Sproul, William C., assignor.)
Inman Manufacturing Company. (See Wood, Ralph A., assignor.)
Innes, Harry C., Cincinnati, Ohio. Railway road-crossing. No. 1,209,843; Dec. 26; Gaz. vol. 233; p. 1180.
International Couplers Company. (See White, Walter C., assignor.)
International Falls Construction Company. (See Belanger, Dell, assignor.)
International Harvester Company of New Jersey. (See Holland-Letz, Lud, assignor.)
International Harvester Company of New Jersey. (See Sharp, Charles S., assignor.)
International Harvester Company of New Jersey. (See Sharp and Grove, assignors.)
International Harvester Corporation. (See Dennis, Samuel K., assignor.)
International Harvester Corporation. (See Kane, Edmund J., assignor.) (Reissue.)
International Harvester Corporation. (See Tinsman, Samuel H., assignor.)
International Mailing Tube & Wrapper Company. (See Greve, Herman L., assignor.)
International Time Recording Company of New York. (See Bryce, James W., assignor.)
International Time Recording Company of New York. (See Tomlinson, Charles E., assignor.)
Interstate Manufacturing Company. (See Baily, Robert W., assignor.)
Intertype Corporation. (See Butts, Millard, assignor.)
Intertype Corporation. (See Keenan, John, assignor.)
Irwin Augur Bit Company, The. (See McPherson, Elmer T., assignor.)
Isherwood, John, New Bedford, Mass. Washer. No. 1,206,851; Dec. 5; Gaz. vol. 233; p. 23.
Isler, Max H., Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthraquinone dyes and making them. No. 1,207,762; Dec. 12; Gaz. vol. 233; p. 382.
Iwanicki, Antoni, New York, N. Y. Theft-preventing device. No. 1,208,563; Dec. 12; Gaz. vol. 233; p. 665.
J. Milhening, Inc. (See Milhening, Frank, assignor.)
J-B. Carburetor Corporation. (See Jensen, Rasmus, assignor.)
J. B. Wise Inc. (See Perkins, Walter H., assignor.)
J. C. Deagan Musical Bells. (See Deagan, John C., assignor.)
J. E. Morgott Company, The. (See Fuller, Frans A., assignor.)
J. G. Brill Company, The. (See Heulings, William H., Jr., assignor.)
J. G. Brill Company, The. (See Kohler, George B., assignor.)
J. H. Sager Company. (See Sager, James H., assignor.)
J. I. Case Threshing Machine Company. (See Davies, David P., assignor.)
J. I. Case Threshing Machine Company. (See MacGregor, Wallace F., assignor.)
Jablonski, John F., Irvington, N. J. Double-tread tire. No. 1,209,442; Dec. 19; Gaz. vol. 233; p. 1010.
Jack, Clifford G., Garrison, Nebr. Steam-condenser. No. 1,210,322; Dec. 26; Gaz. vol. 233; p. 1344.
Jackson, Fred W. (See Welshaar and Jackson.)
Jackson, James, Gregory, Mich. Elevator safety attachment. No. 1,207,049; Dec. 5; Gaz. vol. 233; p. 89.
Jacob, Charles W. (See Schlayer, Charles, assignor.)
Jacob, Ernst A. H., San Antonio, Tex. Double-action well-pump. No. 1,207,050; Dec. 5; Gaz. vol. 233; p. 90.
Jacoby, Peter W., York, Pa. Lens and strap gage. No. 1,209,711; Dec. 26; Gaz. vol. 233; p. 1134.
Jacoby, Sellmar M., New York, N. Y. Fur-beating machine. No. 1,209,300; Dec. 19; Gaz. vol. 233; p. 958.
Jaeger, Adolph, Jackson, assignor of forty-five one-hundredths to A. O. Knight, St. Louis, Mo. Apparatus for treating grains. No. 1,207,763; Dec. 12; Gaz. vol. 233; p. 382.
James, David D. (See Olson and James.)
James H. Boye Manufacturing Company. (See Boye and Jensen, assignors.)
James Manufacturing Company. (See Olson and James, assignors.)
James, William M., Manchester, assignor of one-half to R. J. Urquhart, Liscard, near Birkenhead, England. Aeroplane. No. 1,210,376; Dec. 26; Gaz. vol. 233; p. 1361.
Jander, Henry, Brooklyn, N. Y. Airship. No. 1,209,301; Dec. 19; Gaz. vol. 233; p. 958.
Jansen, Walter C., Louisiana, Mo., assignor of one-half to Craddock-Terry Company, Lynchburg, Va. Shoe. No. 1,208,160; Dec. 12; Gaz. vol. 233; p. 522.
Janssen, John H. (See Bailey, Walter F., assignor.)
Janssens, Louis, Brussels, Belgium. Synchronizing apparatus. No. 1,210,323; Dec. 26; Gaz. vol. 233; p. 1344.
Jeannin, Harry W., Warren, Ohio. Alternating-current motor. No. 1,209,443; Dec. 19; Gaz. vol. 233; p. 1010.
Jeans, Arthur E. (See Perry, William A., assignor.)
Jeavons, William R., Cleveland, Ohio. Window for stoves. No. 1,208,789; Dec. 19; Gaz. vol. 233; p. 786.
Jeffrey Manufacturing Company, The. (See Levin, Nils D., assignor.)
Jeller, Richard, Kenosha, Wis. Making shingles for covering roofs. No. 1,208,972; Dec. 19; Gaz. vol. 233; p. 848.
Jenckes Knitting Machine Company. (See Miller, Max C., assignor.)
Jenkins, David R., and R. McElhaney, Morgantown, W. Va. Tilting mechanism. No. 1,210,074; Dec. 26; Gaz. vol. 233; p. 1260.
Jenkins, John E. (See Richmond, Walter, assignor.)
Jenkins, Thomas, assignor of one-half to J. Milo, New York, N. Y. Continuous trolley connections for bridges. No. 1,208,564; Dec. 12; Gaz. vol. 233; p. 666.
Jenks, Arthur L., Minneapolis, Minn. Battery-economizer. No. 1,207,922; Dec. 12; Gaz. vol. 233; p. 438.
Jenner, Horace W., Lawrenceville, Ill. Sanitary high chair. No. 1,209,970; Dec. 26; Gaz. vol. 233; p. 1225.
Jennings, Charles W. (See Woodell, Thomas M., assignor.)
Jennings, Victor H., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass. Woven carrier. No. 1,210,377; Dec. 26; Gaz. vol. 233; p. 1362.
Jensen, Andrew, Round Lake, Minn. Seat-cover. No. 1,209,586; Dec. 19; Gaz. vol. 233; p. 1058.
Jensen, Rasmus, Milwaukee, Wis., assignor to J-B. Carburetor Corporation, Los Angeles, Cal. Carbureter. No. 1,208,973; Dec. 19; Gaz. vol. 233; p. 849.
Jensen, Robert P., and A. Jessen, Seattle, Wash. Fireplace. No. 1,208,974; Dec. 19; Gaz. vol. 233; p. 849.
Jesse, Gustave, Wray, Colo. Chicken-brooder. No. 1,209,444; Dec. 19; Gaz. vol. 233; p. 1010.
Jessen, Anton. (See Jensen and Jessen.)
Jessen, John A., Winthrop, assignor to The Palmer Electric & Manufacturing Company, Boston, Mass. Service switch and fuse mechanism. No. 1,209,445; Dec. 19; Gaz. vol. 233; p. 1010.

Jewell, Clay, Baltimore, Md. Motor-starter. No. 1,207,923; Dec. 12; Gaz. vol. 233; p. 438.
Jibben, William G., Davis, S. D. Corn-planter attachment. No. 1,207,556; Dec. 5; Gaz. vol. 233; p. 268.
Jibben, William G., Bruce, S. D. Marker for corn-planters. No. 1,207,557; Dec. 5; Gaz. vol. 233; p. 269.
Johanson, Carl, Cherry Grove, Oreg. Oil-can. No. 1,209,587; Dec. 19; Gaz. vol. 233; p. 1059.
Johanson, Carl S., Montclair, N. J. Combination window, screen, and awning. No. 1,209,164; Dec. 19; Gaz. vol. 233; p. 918.
Johansen, Severin, Atlanta, Ga. Automatic mechanism for tramper baling-presses. No. 1,210,324; Dec. 26; Gaz. vol. 233; p. 1344.
John, George, assignor of one-half to E. Amouney, Detroit, Mich. Top-spinning device. No. 1,208,975; Dec. 19; Gaz. vol. 233; p. 849.
John, George, assignor of one-half to E. Amouney and one-sixth to G. Assed, Detroit, Mich. Toy top. No. 1,209,446; Dec. 19; Gaz. vol. 233; p. 1011.
John O. Heinze Company, The. (See Heinze, John O., assignor.)
John S. Tilley Ladders Company, The. (See Gaffers, Herman B., assignor.)
John Thomson Press Company. (See Thomson, John, assignor.)
Johnson, Albert E., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for making soles. No. 1,207,409; Dec. 5; Gaz. vol. 233; p. 216.
Johnson, Arthur A., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,208,322; Dec. 12; Gaz. vol. 233; p. 580.
Johnson, Arcy H., Pulaski, assignor of one-half to C. C. Houston, Lewisburg, Tenn. Telephone repeater or relay. No. 1,207,051; Dec. 5; Gaz. vol. 233; p. 90.
Johnson, Charles E., Fond du Lac, Wis. Suckling device. No. 1,207,052; Dec. 5; Gaz. vol. 233; p. 91.
Johnson, Edward, Bursiem, England. Press. No. 1,207,172; Dec. 5; Gaz. vol. 233; p. 133.
Johnson, Edwin A., assignor of one-fourth to J. E. Berry, one-fourth to C. E. Johnson, and one-fourth to O. Laselle, Minneapolis, Minn. Sliding-door lock. No. 1,208,565; Dec. 12; Gaz. vol. 233; p. 666.
Johnson, Elza D. (See Cathey and Johnson.)
Johnson, Frank E., Salt Lake City, Utah, assignor to American Manganese Steel Company, Augusta, Me. Milliner. No. 1,207,173; Dec. 5; Gaz. vol. 233; p. 134.
Johnson, Frank E., Salt Lake City, Utah, assignor to American Manganese Steel Company, Augusta, Me. Milliner. No. 1,207,174; Dec. 5; Gaz. vol. 233; p. 134.
Johnson, George E., *et al.* (See Johnson, Edwin A., assignor.)
Johnson, Gustave T., assignor to P. B. Yates Machine Company, Beloit, Wis. Pressure-roller construction for saws. No. 1,207,764; Dec. 12; Gaz. vol. 233; p. 383.
Johnson, Henry R., Newell, S. D. Automobile-extractor. No. 1,209,588; Dec. 19; Gaz. vol. 233; p. 1059.
Johnson, Jacob T., Atlanta, Ga. Light-fixture. No. 1,207,175; Dec. 5; Gaz. vol. 233; p. 134.
Johnson, James, Mound Bayou, Miss. Stalk-destroyer. No. 1,208,976; Dec. 19; Gaz. vol. 233; p. 850.
Johnson, John J. J., Bethlehem, Pa. Variable-ringing register. No. 1,208,161; Dec. 12; Gaz. vol. 233; p. 522.
Johnson, Morton L., assignor, by mesne assignments, to Frank B. Cook Company, Chicago, Ill. Telephony. No. 1,208,566; Dec. 12; Gaz. vol. 233; p. 666.
Johnson, Oscar, Chicago, Ill. Means for controlling electrically-propelled vehicles. No. 1,207,295; Dec. 5; Gaz. vol. 233; p. 175.
Johnson, Victor R., Somerville, Mass. Folding cradle. No. 1,209,447; Dec. 19; Gaz. vol. 233; p. 1011.
Johnson, William E., Dale, Tex. Wire-stretcher. No. 1,209,448; Dec. 19; Gaz. vol. 233; p. 1011.
Johnson, William F., Basin, Wyo. Copy-holder attachment for type-writers. No. 1,209,589; Dec. 19; Gaz. vol. 233; p. 1059.
Johnson, William S., and J. W. Sheffer, Berwick, Pa., assignors to American Car and Foundry Company, St. Louis, Mo. Electric rivet-heater. No. 1,209,449; Dec. 19; Gaz. vol. 233; p. 1012.
Johnson, Wilmer E., Brooklyn, N. Y., assignor to Megosin Company, Inc. Seat. No. 1,209,450; Dec. 19; Gaz. vol. 233; p. 1012.
Johnston, Elizabeth A., Providence, R. I. Health food and making same. No. 1,206,852; Dec. 5; Gaz. vol. 233; p. 24.
Johnston, Greenhow, assignor of one-half to J. W. Graves, Richmond, Va. Device for recording telephone conversations. No. 1,207,685; Dec. 5; Gaz. vol. 233; p. 314.
Johnston, James S., Utica, N. Y. Roller. No. 1,208,567; Dec. 12; Gaz. vol. 233; p. 667.
Johnston, John R., Hammond, Ind. Vehicle-tire. No. 1,209,712; Dec. 26; Gaz. vol. 233; p. 1134.
Johnston, Paul H., Davenport, Iowa. Mounting for spectacles, eyeglasses, and the like. No. 1,207,924; Dec. 12; Gaz. vol. 233; p. 439.
Johnston, Samuel P., San Mateo, assignor to California Cotton Mills Company, San Francisco, Cal. Container. No. 1,210,075; Dec. 26; Gaz. vol. 233; p. 1261.
Jonas, Alexander, Philadelphia, Pa., assignor of one-third to C. Smith, Camden, N. J., and one-third to J. Slater, Philadelphia, Pa. Button. No. 1,208,823; Dec. 12; Gaz. vol. 233; p. 581.
Jones, David J. (See Jones, Cross, and Jones.)
Jones, David M., Gastonia, N. C. Lever-hoisting support for scales. No. 1,209,590; Dec. 19; Gaz. vol. 233; p. 1059.
Jones, Edgar M. (See Snyder, Leo A., assignor.)
Jones, Frederick L. (See Holdship and Jones.)
Jones, Herbert M., Peoria, Ill. Nut-cracking machine. No. 1,208,324; Dec. 12; Gaz. vol. 233; p. 581.
Jones, Herbert R. (See Weldaw and Owens, assignors.)
Jones, Hyman, Melbourne, Victoria, Australia. Apparatus for tightening and fastening bands around cases and the like. No. 1,206,853; Dec. 5; Gaz. vol. 233; p. 24.
Jones, James E., Columbus, Ohio. Rail-tie. No. 1,207,558; Dec. 5; Gaz. vol. 233; p. 269.
Jones, John D., Sparta, Wis. Dust-guard. No. 1,209,971; Dec. 26; Gaz. vol. 233; p. 1225.
Jones, John M., Peoria, Ill. Double-acting pump. No. 1,208,977; Dec. 19; Gaz. vol. 233; p. 850.
Jones, Thomas G., Ynishir, Rhondda, E. G. Cross, Wattstown, and D. J. Jones, Ynishir, Rhondda, Wales. Miner's pick. No. 1,210,325; Dec. 26; Gaz. vol. 233; p. 1345.
Jones, Whitney B., Perth Amboy, N. J., assignor to General Bakelite Company, New York, N. Y. Phenolic condensation product. No. 1,209,165; Dec. 19; Gaz. vol. 233; p. 914.
Jordan, William W., Mena, Ark. Watch. No. 1,208,707; Dec. 12; Gaz. vol. 233; p. 715.
Josleyn, Hubbard N., and J. W. Koerner, Syracuse, assignors, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,206,854; Dec. 5; Gaz. vol. 233; p. 24.
Josse, Emil, Berlin-Lankwitz, and W. Genaecke, assignors to Gesellschaft für Kälteindustrie mit beschränkter Haftung, Berlin, Germany. Device for condensing and vacuum-producing. No. 1,208,325; Dec. 12; Gaz. vol. 233; p. 582.
Jost, Harry A., Chicago, Ill. Reinforced ferrule for cues. No. 1,210,076; Dec. 26; Gaz. vol. 233; p. 1261.
Joy, Charles H. (See Rhind, Hugh M., assignor.)
Joyce, Walter, Fernie, assignor of one-half to T. A. Spruston, Beven, near Cumberland, British Columbia, Canada. Cable-grip for bogie-trucks. No. 1,209,591; Dec. 19; Gaz. vol. 233; p. 1060.
Julifs, Herman, White Oak, Ohio. Concrete-mixing drum. No. 1,209,844; Dec. 26; Gaz. vol. 233; p. 1181.
Jungjohann, Henry, Davenport, Iowa. Pressure-recording valve. No. 1,208,162; Dec. 12; Gaz. vol. 233; p. 523.
Junkers, Hugo. (See Scheller, Wilhelm, assignor.)
Junkers, Hugo, Aix-la-Chapelle, Germany. Heating and cooling apparatus. No. 1,208,790; Dec. 19; Gaz. vol. 233; p. 787.
Kaber, George F., Brooklyn, N. Y. Display device. No. 1,210,171; Dec. 26; Gaz. vol. 233; p. 1296.
Kacenga, John, Witt, Ill. Emergency-door lock. No. 1,207,925; Dec. 12; Gaz. vol. 233; p. 439.
Kadel, Byers W., Roanoke, Va. Railway-car. No. 1,207,176; Dec. 5; Gaz. vol. 233; p. 134.
Kadow, August, assignor to The Westlake Machine Company, Toledo, Ohio. Cut-off mechanism for glass-forming apparatus. No. 1,208,791; Dec. 19; Gaz. vol. 233; p. 787.
Kadow, August, assignor to The Westlake Machine Company, Toledo, Ohio. Glass-article discharge and cut-off mechanism. No. 1,208,978; Dec. 19; Gaz. vol. 233; p. 850.
Kaestner & Hecht Company. (See Brenne, Richard, assignor.)
Kahn, Regina, Milwaukee, Wis. Gas-igniter. No. 1,207,926; Dec. 12; Gaz. vol. 233; p. 439.
Kahne, Martin, Detroit, Mich. Zither. No. 1,207,765; Dec. 12; Gaz. vol. 233; p. 383.
Kahre, John F., Vincennes, Ind. Table attachment for beds. No. 1,208,979; Dec. 19; Gaz. vol. 233; p. 851.
Kaiser, George H., Portland, Oreg. Scale. No. 1,207,410; Dec. 5; Gaz. vol. 233; p. 216.
Kaisling, William, assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Automatic telephone system. No. 1,210,386; Dec. 26; Gaz. vol. 233; p. 1365.
Kalle and Company, Aktiengesellschaft. (See Schmidt, Maximilian P., assignor.)
Kandler, Edmund. (See Hommel, Kandler, and Patterson.)
Kane, Edmund J., Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation. Carbureter for internal-combustion engines. (Reissue.) No. 14,224; Dec. 5; Gaz. vol. 233; p. 318.
Kane, Thomas H., Youngstown, Ohio, assignor to Trussed Concrete Steel Company, Detroit, Mich. Building construction. No. 1,208,326; Dec. 12; Gaz. vol. 233; p. 582.
Kane, Thomas H., Youngstown, Ohio, assignor to Trussed Concrete Steel Company, Detroit, Mich. Building construction. No. 1,208,568; Dec. 12; Gaz. vol. 233; p. 667.
Kane, Thomas H., Youngstown, Ohio, assignor to Trussed Concrete Steel Company, Detroit, Mich. Curb-bar. No. 1,209,713; Dec. 26; Gaz. vol. 233; p. 1134.
Kanter, Gustav, Essendon, Melbourne, Victoria, Australia. Resilient tire for vehicle-wheels. No. 1,209,592; Dec. 19; Gaz. vol. 233; p. 1060.
Kantorowicz, Julius, Breslau, Germany. Making soluble starch. No. 1,207,177; Dec. 5; Gaz. vol. 233; p. 135.
Karle, John D., Roselle Park, N. J., assignor to The Singer Manufacturing Company. Sewing-machine slack-thread controller. No. 1,209,972; Dec. 26; Gaz. vol. 233; p. 1226.

Karr, Charles D., Holland, Mich. Poultry-feeder. No. 1,209,973; Dec. 26; Gaz. vol. 233; p. 1226.
Kaspar, Carl, Chicago, Ill. Trolley-supporting mechanism. No. 1,206,855; Dec. 5; Gaz. vol. 233; p. 25.
Kastor, Arthur G., St. Louis, Mo. Combined watchcase and vanity-box. No. 1,207,296; Dec. 5; Gaz. vol. 233; p. 176.
Katzenberger, Charles, Hoboken, N. J. Composition of matter for destroying insects. No. 1,207,766; Dec. 12; Gaz. vol. 233; p. 384.
Kawahara, Frank R., Los Angeles, Cal. Burglar-alarm. No. 1,207,559; Dec. 5; Gaz. vol. 233; p. 270.
Kawahara, Kosa, Los Angeles, Cal. Saw-filing machine. No. 1,209,166; Dec. 19; Gaz. vol. 233; p. 914.
Kearns-Gorsuch Bottle Company, The. (See Bridges, Orville A., assignor.)
Keating, Robert M., Springfield, Mass. Wheel-rim. No. 1,207,927; Dec. 12; Gaz. vol. 233; p. 440.
Keating, Robert M., Springfield, Mass. Spring-wheel. No. 1,207,928; Dec. 12; Gaz. vol. 233; p. 440.
Kearney, George F., Detroit, Mich. Paper-roll holder. No. 1,208,163; Dec. 12; Gaz. vol. 233; p. 523.
Keefe, James F., *et al.* (See Stitt, Washington G., assignor.)
Keefe, Joseph, assignor to The Zee Socket and Manufacturing Company, Boston, Mass. Socket-shell cap and insulating-lining therefor. No. 1,209,167; Dec. 19; Gaz. vol. 233; p. 914.
Keegan, Albertina, Chicago, Ill. Hair-drier. No. 1,208,327; Dec. 12; Gaz. vol. 233; p. 583.
Keel, John L., Roswell, N. Mex. Refrigerator. No. 1,210,172; Dec. 26; Gaz. vol. 233; p. 1298.
Keen, Eliot, New York, N. Y. Shooting-gallery. No. 1,207,411; Dec. 5; Gaz. vol. 233; p. 217.
Keenan, John, Chicago, Ill., assignor, by mesne assignments, to Intertype Corporation. Slug-mold. No. 1,210,077; Dec. 26; Gaz. vol. 233; p. 1261.
Keenan, John, Chicago, Ill., assignor, by mesne assignments, to Intertype Corporation. Slug-mold. No. 1,210,078; Dec. 26; Gaz. vol. 233; p. 1262.
Keeney, Charles H., assignor of one-half to A. L. Morsell, Milwaukee, Wis. Chair-iron. No. 1,207,412; Dec. 5; Gaz. vol. 233; p. 217.
Keeran, Charles R., Chicago, Ill. Appliance for receptacle caps or covers. No. 1,207,560; Dec. 5; Gaz. vol. 233; p. 270.
Keesey, James B. (See Snyder and Keesey.)
Keever, Paul, Weston, W. Va. Gas-trap. No. 1,210,173; Dec. 26; Gaz. vol. 233; p. 1297.
Kehm, August, Chicago, Ill. Radiator. No. 1,209,845; Dec. 26; Gaz. vol. 233; p. 1181.
Kelser, Jan, The Hague, Netherlands. Clamp. No. 1,209,593; Dec. 19; Gaz. vol. 233; p. 1061.
Keith, Alexander E., Hinsdale, assignor to Automatic Electric Company, Chicago, Ill. Multiple-dial calling device. No. 1,209,303; Dec. 19; Gaz. vol. 233; p. 959.
Keith, Alexander E., Hinsdale, assignor to Automatic Electric Company, Chicago, Ill. Impulse-transmitting device. No. 1,209,304; Dec. 19; Gaz. vol. 233; p. 959.
Keith, Irving L. (See Brittain, George E., assignor.)
Kelleher, John L., Le Mars, Iowa. Hay-rack. No. 1,207,929; Dec. 12; Gaz. vol. 233; p. 440.
Kelley, Eugene L., McKinley, Me. Fish-trough. No. 1,207,561; Dec. 5; Gaz. vol. 233; p. 270.
Kelley, Walter S., Brookline, Mass. Railway system. No. 1,207,930; Dec. 12; Gaz. vol. 233; p. 440.
Kellner, Gustav A. H. (See Saegmuller and Kellner.)
Kellogg, Daniel P., Los Angeles, and C. M. Eckland, Stockton, Cal. Bolt. No. 1,207,562; Dec. 5; Gaz. vol. 233; p. 271.
Kellogg Switchboard & Supply Company. (See Currier, Hiram D., assignor.)
Kellogg Switchboard & Supply Company. (See Dunbar, Francis W., assignor.)
Kellogg Switchboard & Supply Company. (See Dyson, Alfred H., assignor.)
Kellogg Switchboard and Supply Company. (See Kaisling, William, assignor.)
Kellow, Moses, Penrhyndendraeth, Wales. Water-driven turbine. No. 1,210,326; Dec. 26; Gaz. vol. 233; p. 1345.
Kells, Charles E., New Orleans, La. Surgical cleansing apparatus. No. 1,209,846; Dec. 26; Gaz. vol. 233; p. 1161.
Kelly, George, Hinsdale, Ill. Vehicle-tire. No. 1,210,327; Dec. 26; Gaz. vol. 233; p. 1346.
Kelly, George B., Jamaica Plain, Mass., assignor to Aeolian Company, Garwood, N. J. Perforated music-sheet. No. 1,209,714; Dec. 26; Gaz. vol. 233; p. 1134.
Kelly, Henry D., Kansas City, Mo. Faucet. No. 1,207,053; Dec. 5; Gaz. vol. 233; p. 91.
Kelly, Henry D., Kansas City, Mo. Coffee-urn. No. 1,210,079; Dec. 26; Gaz. vol. 233; p. 1262.
Kelly, James W., Chicago, Ill. Drill. No. 1,208,164; Dec. 12; Gaz. vol. 233; p. 523.
Kelly, John M., Manitowoc, Wis. Bag-cleaning apparatus. No. 1,206,856; Dec. 5; Gaz. vol. 233; p. 25.
Kelsey, John, Detroit, Mich. Combined spacing and clamping device. No. 1,206,857; Dec. 5; Gaz. vol. 233; p. 25.
Kelso, Ralph S. (See Moffatt and Kelso.)
Kemp, Jacob G., Stillwater, Okla. Cash-collector and automatic attendance-recorder. No. 1,210,328; Dec. 26; Gaz. vol. 233; p. 1346.
Kempter, Philip, assignor to Geuder, Paeschke & Frey Co., Milwaukee, Wis. Sheet-metal machine-frame construction. No. 1,210,174; Dec. 26; Gaz. vol. 233; p. 1297.
Kendall, William G., Newark, N. J. Vanity-box. No. 1,209,168; Dec. 19; Gaz. vol. 233; p. 914.
Kendrick, Fayette D., St. Paul, Minn. Attachment for combining go-carts with sleds. No. 1,207,931; Dec. 12; Gaz. vol. 233; p. 441.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,209,847; Dec. 26; Gaz. vol. 233; p. 1182.
Kennedy, George A., deceased, Massillon; M. Kennedy, administratrix, assignor to J. J. Dauch, Sandusky, Ohio. Clutch mechanism. No. 1,207,707; Dec. 12; Gaz. vol. 233; p. 384.
Kennedy, Joseph, New York, N. Y., assignor to The Clements Company. Socket. No. 1,207,413; Dec. 5; Gaz. vol. 233; p. 218.
Kennedy, Marie, administratrix. (See Kennedy, George A.)
Kenney, Edward F., Westmont borough, Pa. Ingot-mold top. No. 1,207,054; Dec. 5; Gaz. vol. 233; p. 91.
Kenney, William J., Wilmette, assignor to Under-Feed Stoker Company of America, Chicago, Ill. Underfeed stoker. No. 1,207,768; Dec. 12; Gaz. vol. 233; p. 384.
Kenney, William J., Wilmette, assignor to Under-Feed Stoker Company of America, Chicago, Ill. Valve for automatic stoker-controllers. No. 1,207,769; Dec. 12; Gaz. vol. 233; p. 384.
Kennicott, Cass L., Chicago Heights, Ill. Water-purifying apparatus. No. 1,209,305; Dec. 19; Gaz. vol. 233; p. 960.
Kent, Bert M., *et al.* (See Kent, Gordon E., assignor.)
Kent, Fay T., *et al.* (See Kent, Gordon E., assignor.)
Kent, Gordon E., assignor of one-third to F. T. Kent, Rome, N. Y., and one-third to B. M. Kent, Washington, D. C. Vacuum cleaning-tool. No. 1,208,165; Dec. 12; Gaz. vol. 233; p. 524.
Kent, Robert S., Brooklyn, N. Y. Apparatus for revivifying char. No. 1,207,178; Dec. 5; Gaz. vol. 233; p. 135.
Kenville, Paul, Felton, Cal. Shoe attachment. No. 1,208,792; Dec. 19; Gaz. vol. 233; p. 787.
Kenway, Herbert W., Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on heels. No. 1,207,563; Dec. 5; Gaz. vol. 233; p. 271.
Kenway, Herbert W., Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heeling-machine. No. 1,207,564; Dec. 5; Gaz. vol. 233; p. 271.
Kenworthy, Allen, Earlham, Iowa. Wire-fence stretcher. No. 1,210,080; Dec. 26; Gaz. vol. 233; p. 1263.
Keogh, John W., Chicago, Ill. Shredding-machine. No. 1,207,055; Dec. 5; Gaz. vol. 233; p. 92.
Keppler, Frederick L., Berlin, Germany. Paving. No. 1,207,297; Dec. 5; Gaz. vol. 233; p. 176.
Kern, Adolph, Jersey City, N. J. Indicating system. No. 1,207,565; Dec. 5; Gaz. vol. 233; p. 272.
Kernan, Daniel. (See Dunn, Andrew F., assignor.)
Kernan, Thomas, and W. J. Allen, St. Cloud, Minn. Apparatus for treating the soil. No. 1,209,848; Dec. 26; Gaz. vol. 233; p. 1182.
Kerr, Jesse J. (See Pierce and Kerr.)
Kerr, John L. (See Hasen, Jean D., assignor.)
Kertesz, Adolph, Mainkur, near Frankfort-on-the-Main, Germany, and E. Knr, Manchester, England. Finishing materials dyed with vat colors. No. 1,207,414; Dec. 5; Gaz. vol. 233; p. 218.
Kerwin, Louis A., Toronto, Ontario, Canada. Magazine pea-shooter. No. 1,209,974; Dec. 26; Gaz. vol. 233; p. 1227
Keys, William H., St. Louis, Mo. Packing-ring. No. 1,207,770; Dec. 12; Gaz. vol. 233; p. 385.
Keystone Telephone Company of Philadelphia. (See Blizard, John W. F., assignor.)
Keystone Type Foundry. (See Orchard, Alfred S., assignor.)
Kidder, William C., Town Line, N. Y., assignor to H. N. White, Cleveland, Ohio. Brass wind instrument. No. 1,206,858; Dec. 5; Gaz. vol. 233; p. 26.
Kiefer, John, Flinton, Pa. Nut-lock. No. 1,208,980; Dec. 19; Gaz. vol. 233; p. 851.
Kielar, Stanislaw, assignor of one-third to S. Pawelczyk, Milwaukee, Wis. Cuff-fastener. No. 1,210,081; Dec. 26; Gaz. vol. 233; p. 1263.
Kiesel, William F., Jr., Altoona, Pa. Locomotive. No. 1,207,056; Dec. 5; Gaz. vol. 233; p. 92.
Kihlgren, Theodor, assignor to National Equipment Company, Springfield, Mass. Chocolate-stringing machine No. 1,208,328; Dec. 12; Gaz. vol. 233; p. 583.
Killen, Edward B., London, England. Rubber tire and its attachment to wheels. No. 1,209,715; Dec. 26; Gaz. vol. 233; p. 1134.
Killen, W. H., *et al.* (See Lord, Lewis P., assignor.)
Kimber, Herbert G., Oakland, Cal. Rake. No. 1,210,175; Dec. 26; Gaz. vol. 233; p. 1297.
Kimble, Austin, Glenellyn, assignor to W. M. McEwen, Chicago, Ill. Dynamo-electric machine. No. 1,208,981; Dec. 19; Gaz. vol. 233; p. 851.
Kimura, Kenkichi, New York, N. Y. Parallel-ruler. No. 1,208,569; Dec. 12; Gaz. vol. 233; p. 668.
Kimura, Kenkichi, New York, N. Y. Envelop. No. 1,208,793; Dec. 19; Gaz. vol. 233; p. 788.

Kincannon, George C., Excelsior, Wis. Transmission mechanism. No. 1,208,329; Dec. 12; Gaz. vol. 233; p. 583.
Kinemacolor Company of America. (See Fox, William F., assignor.)
King, Charles B., Detroit, Mich. Spring suspension for vehicles. No. 1,209,716; Dec. 26; Gaz. vol. 233; p. 1135.
King, Charles B., and H. T. Gracely, assignors to The Marion Steam Shovel Company, Marion, Ohio. Spud-operating mechanism. No. 1,208,570; Dec. 12; Gaz. vol. 233; p. 668.
King, Clarence R., Worcester, Mass., assignor to Norton Company. Making abrasive wheels. No. 1,208,330; Dec. 12; Gaz. vol. 233; p. 584.
King, Edward D., Lavonia, Ga. Wagon-brake. No. 1,208,794; Dec. 19; Gaz. vol. 233; p. 788.
King, Edward M., assignor to King Granite Machine Company, Milford, Mass. Stone-cutting machine. No. 1,209,727; Dec. 26; Gaz. vol. 233; p. 1139.
King Granite Machine Company. (See King, Edward M., assignor.)
King, Jay A. (See Dalbey, Joel B., assignor.)
King, Jeremiah A., assignor of one-third to E. T. Cashion, Swifton, Ark. Spoke-clip. No. 1,207,932; Dec. 12; Gaz. vol. 233; p. 441.
King, John J., Boston, Mass. Plate-holder. No. 1,208,982; Dec. 19; Gaz. vol. 233; p. 851.
King, Roy D., Chicago, Ill. Variable-speed-transmission mechanism. No. 1,209,717; Dec. 26; Gaz. vol. 233; p. 1135.
King, Samuel F., Birmingham, Ala., assignor to R. C. White. Sectional pipe and clamp connection therefor. No. 1,208,708; Dec. 12; Gaz. vol. 233; p. 715.
King, William M., Poindexter, Ky. Lubricating friction-box. No. 1,208,331; Dec. 12; Gaz. vol. 233; p. 584.
King, William T., Rosanky, Tex. Vise and saw-clamp. No. 1,209,451; Dec. 19; Gaz. vol. 233; p. 1013.
Kingan, Charles, assignor of one-half to J. T. Middleton, Edinburg, Ind. Electric switch mechanism. No. 1,208,571; Dec. 12; Gaz. vol. 233; p. 669.
Kingsbury, Harry T., Keene, N. H. Toy automobile. No. 1,208,572; Dec. 12; Gaz. vol. 233; p. 669.
Kingsford, Thomas P., *et al.* (See Lorenz, Friedrich, assignor.)
Kinnear Manufacturing Company, The. (See Bryan and Blanchard, assignors.)
Kinnear Manufacturing Company, The. (See Smith, Ezra B., assignor.)
Kintzele, Julius H., St. Louis, Mo. Bottle-washing machine. No. 1,209,849; Dec. 26; Gaz. vol. 233; p. 1182.
Kintzele, Julius H., St. Louis, Mo. Bottle rinsing and brushing mechanism. No. 1,209,850; Dec. 26; Gaz. vol. 233; p. 1183.
Kirby, James B., Cleveland, Ohio. Vacuum cleaning-machine. No. 1,209,718; Dec. 26; Gaz. vol. 233; p. 1136.
Kirby, James B., Cleveland, Ohio. Vacuum cleaning-machine. No. 1,209,719; Dec. 26; Gaz. vol. 233; p. 1136.
Kirby, James B., Cleveland, Ohio. Vacuum cleaning-machine. No. 1,209,720; Dec. 26; Gaz. vol. 233; p. 1136.
Kirby, James B., Cleveland, Ohio. Vacuum cleaning device. No. 1,209,721; Dec. 26; Gaz. vol. 233; p. 1137.
Kirby, James B., Cleveland, Ohio. Vacuum cleaning-machine. No. 1,209,722; Dec. 26; Gaz. vol. 233; p. 1137.
Kircher, Wilmer W., Peoria, Ill. Motion-picture-film holder. No. 1,207,298; Dec. 5; Gaz. vol. 233; p. 176.
Kirk, Benjamin K. (See Deans and Kirk.)
Kirkman Engineering Corporation. (See Kirkman, Thomas W., assignor.)
Kirkman, Thomas W., assignor, by mesne assignments, to Kirkman Engineering Corporation, New York, N. Y. Fiber-needle cutter. No. 1,207,299; Dec. 5; Gaz. vol. 233; p. 177.
Kirley, John R., New Straitsville, Ohio. Piston. No. 1,210,378; Dec. 26; Gaz. vol. 233; p. 1362.
Kirsch, Robert E., Milwaukee, Wis. Multiple-seat unit. No. 1,209,452; Dec. 19; Gaz. vol. 233; p. 1013.
Kistler, John C., Clinton, Mo. Tire-saving jack. No. 1,207,179; Dec. 5; Gaz. vol. 233; p. 135.
Kitchen, Joseph M. W., East Orange, N. J. Bottle-closure. No. 1,207,933; Dec. 12; Gaz. vol. 233; p. 441.
Kite, Elizabeth W., assignor of one-half to S. J. Wood, Philadelphia, Pa. Garment or other hook. No. 1,207,415; Dec. 5; Gaz. vol. 233; p. 218.
Kitsee, Isidor, Philadelphia, Pa. Support for disk films. No. 1,208,573; Dec. 12; Gaz. vol. 233; p. 669.
Kitsee, Isidor, Philadelphia, Pa. Color photography. No. 1,209,453; Dec. 19; Gaz. vol. 233; p. 1014.
Klaeger, Hermann, Stuttgart, assignor to Fortuna-Werke Specialmaschinenfabrik, G. m. b. H., Stuttgart-Cannstatt, Germany. Skiving-machine. No. 1,210,082; Dec. 26; Gaz. vol. 233; p. 1263.
Kleckler, Henry, Hammondsport, N. Y. Aileron system. No. 1,210,379; Dec. 26; Gaz. vol. 233; p. 1362.
Klein, Emanuel, New York, N. Y. Fatty product from fixed oils and fats and manufacturing same. No. 1,209,728; Dec. 26; Gaz. vol. 233; p. 1137.
Kleinschmidt, Emil, Frankfort-on-the-Main, Germany. Manufacture of briquets of coal, coke, turf, iron, or other ores or the like. No. 1,207,180; Dec. 5; Gaz. vol. 233; p. 136.
Klema, Frank C., Wilson, Kans. Carbureter. No. 1,210,329; Dec. 26; Gaz. vol. 233; p. 1346.
Kling, Andrew H., Clinton, Conn. Axle-truing device. No. 1,209,594; Dec. 19; Gaz. vol. 233; p. 1061.
Klio-Werk, Fabrik für Gebrauchsgegenstände, G. m. b. H. (See Rauchle and Koehler, assignors.)
Klocke, William, New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Drawing-press. No. 1,206,859; Dec. 5; Gaz. vol. 233; p. 26.
Kloster, John P., Jr. (See Loosbrock and Kloster.)
Knapp, George P., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn. Duplex receptacle. No. 1,210,176; Dec. 26; Gaz. vol. 233; p. 1297.
Knapp, William G., Alhambra, assignor of one-half to A. G. Willard, Los Angeles, Cal. Oil or gas saver. No. 1,209,454; Dec. 19; Gaz. vol. 233; p. 1014.
Knauss, Frank V., Portsmouth, Ohio. Ignition device for gas-stoves. No. 1,208,166; Dec. 12; Gaz. vol. 233; p. 524.
Kneeland, Oscar A., and L. A. Walling, Minneapolis, Minn. Tally for scale-hoppers. No. 1,208,795; Dec. 19; Gaz. vol. 233; p. 788.
Knell, William F., Detroit, Mich. Flushing apparatus. No. 1,210,330; Dec. 26; Gaz. vol. 233; p. 1347.
Knepley, Stephen F. F., Williamsport, Pa. Silo. No. 1,208,332; Dec. 12; Gaz. vol. 233; p. 584.
Knight, Arthur O. (See Jaeger, Adolph, assignor.)
Knisely, William S., Chicago Heights, Ill. Car-coupling. No. 1,207,300; Dec. 5; Gaz. vol. 233; p. 177.
Knotts, Ernest W., Shawnee, Okla. Necktie. No. 1,208,167; Dec. 12; Gaz. vol. 233; p. 524.
Knowlton, John A., Dorchester, Mass. Tide-motor. No. 1,209,975; Dec. 26; Gaz. vol. 233; p. 1227.
Knower, Charles L., St. Louis, Mo. Apparel-belt. No. 1,210,083; Dec. 26; Gaz. vol. 233; p. 1263.
Knox, Luther L., Avalon, assignor of one-third to M. Murray and one-third to J. S. Craig, Pittsburgh, Pa. Manufacture of bosh-plates. No. 1,208,574; Dec. 12; Gaz. vol. 233; p. 670.
Knox, William J., Dubois, Pa. Brake ratchet mechanism. No. 1,209,455; Dec. 19; Gaz. vol. 233; p. 1014.
Koch, Augustus P., New York, N. Y. Airship. No. 1,207,934; Dec. 12; Gaz. vol. 233; p. 442.
Koch, Fritz, St. Paul, Minn. Lubricating system. No. 1,209,851; Dec. 26; Gaz. vol. 233; p. 1183.
Kochendoerfer, Ernst, Frankfort-on-the-Main, Germany. Manufacturing nitrogen compounds. No. 1,207,416; Dec. 5; Gaz. vol. 233; p. 218.
Koehler, Albert. (See Rauchle and Koehler.)
Koepke, Frank L., Whitehall, Wis. Leading and subduing bridle. No. 1,209,724; Dec. 26; Gaz. vol. 233; p. 1138.
Koerner, John W. (See Josleyn and Koerner.)
Kohler, George B., assignor to The J. G. Brill Company, Philadelphia, Pa. Signal device for street-cars. No. 1,208,796; Dec. 19; Gaz. vol. 233; p. 788.
Kohnen, Franklyn N., Blasdell, N. Y. Food-hopper. No. 1,209,853; Dec. 26; Gaz. vol. 233; p. 1184.
Komadina, George, Dawson, N. Mex. Weapon. No. 1,209,169; Dec. 19; Gaz. vol. 233; p. 915.
Konitzer, Leo C. (See Foley and Konitzer.)
Koontz, Victor R., assignor to Victor Tool Company, Waynesboro, Pa. Collapsible tap. No. 1,209,306; Dec. 19; Gaz. vol. 233; p. 960.
Kopf, Henry H., New Haven, Conn. Sanitary carton for the display and sale of fancy fruit. No. 1,206,860; Dec. 5; Gaz. vol. 233; p. 27.
Körbitz, Alfred, Partenkirchen, Germany. Orthodontic appliance. No. 1,207,566; Dec. 5; Gaz. vol. 233; p. 272.
Kothe, Jacob. (See Hochsprung, George W., assignor.)
Kotterman, Chester A., Washington, D. C. Illuminating device for talking-machine records. No. 1,209,852; Dec. 26; Gaz. vol. 233; p. 1184.
Kotz, Peter, Worthington, Iowa. Automatic steering device. No. 1,210,084; Dec. 26; Gaz. vol. 233; p. 1264.
Kowalski-Wierusz, von Joseph; Freibourg, Switzerland. Obtaining ultra-violet rays by spark discharge. No. 1,207,347; Dec. 5; Gaz. vol. 233; p. 193.
Kraemer, Frank, assignor to Pan-American Electric Tool Company, Milwaukee, Wis. Electric switch. No. 1,208,575; Dec. 12; Gaz. vol. 233; p. 670.
Kraemer, Frank, assignor to Pan-American Tool Company, Milwaukee, Wis. Electric switch. No. 1,208,576; Dec. 12; Gaz. vol. 233; p. 671.
Kraemer, Frank, assignor to Pan-American Electric Tool Company, Milwaukee, Wis. Solenoid. No. 1,208,577; Dec. 12; Gaz. vol. 233; p. 671.
Kraft, Edward L. (See Basehore and Kraft.)
Kraft, Frederick, Highwood Park, N. J. Driving mechanism for phonographs. No. 1,209,307; Dec. 19; Gaz. vol. 233; p. 961.
Krage, August, Hermon, Cal. Carpenter's square. No. 1,207,935; Dec. 12; Gaz. vol. 233; p. 442.
Kramer, Simon P., Cincinnati, Ohio. Emulsion. No. 1,207,936; Dec. 12; Gaz. vol. 233; p. 442.
Kranz, William G., Sharon, Pa., assignor to The National Malleable Castings Company, Cleveland, Ohio. Preparing iron for castings. No. 1,206,861; Dec. 5; Gaz. vol. 233; p. 27.
Krauch, Carl. (See Meiser and Krauch.)
Krause, Romanus, assignor of one-half to J. G. Tooly, Belhaven, N. C. Air-cushion for automobiles. No. 1,208,578; Dec. 12; Gaz. vol. 233; p. 671.
Krauss, Alma P., *née* Wolf, heiress. (See Krauss, Arno W.)
Krauss, Arno W., deceased; A. P. Krauss, *née* Wolf, heiress, Schwarzenberg-Sachsenfeld, assignor to Metallstanzwerk, G. m. b. H. Schwarzenberg, Germany. Manufacturing drawing-pins. No. 1,209,976; Dec. 26; Gaz. vol. 233; p. 1228.

Krauth, Albert, Hamilton, Ohio. Web-holder for manifolding devices. No. 1,208,168; Dec. 12; Gaz. vol. 233; p. 524.

Kravik, Herbrand T., Rjukan, Vestfjorddalen, assignor to A. Holter, Rjukan, Norway. Button. No. 1,209,170; Dec. 19; Gaz. vol. 233; p. 915.

Krebs, Louis J., Coffeyville, Kans. Silo construction. No. 1,208,983; Dec. 19; Gaz. vol. 233; p. 852.

Kreidler, William A., Lake Bluff, Ill., assignor, by mesne assignments, to Lackawanna Steel Company, New York, N. Y. Sheet-piling. No. 1,206,862; Dec. 5; Gaz. vol. 233; p. 27.

Kreiter, James, Fredericksburg, Ohio. Flying-machine. No. 1,208,984; Dec. 19; Gaz. vol. 233; p. 852.

Krieger, Abraham, Atlanta, Ga. Curtain and shade hanger. No. 1,209,595; Dec. 19; Gaz. vol. 233; p. 1061.

Kriegsheim, Heinrich, assignor to The Permutit Company, New York, N. Y. Manufacture of base-exchanging silicates. No. 1,208,797; Dec. 19; Gaz. vol. 233; p. 789.

Kriews, Carl F., assignor of one-half to F. C. Kriews, Cleveland, Ohio. Flux for soldering aluminum. No. 1,208,798; Dec. 19; Gaz. vol. 233; p. 789.

Kriews, Carl F., assignor of one-half to F. C. Kriews, Cleveland, Ohio. Flux for soldering aluminum. No. 1,208,799; Dec. 19; Gaz. vol. 233; p. 789.

Kriews, Frank C. (See Kriews, Carl F., assignor.)

Krings, Theodore C., Yorktown, Iowa. Disinfectant-distributer. No. 1,208,985; Dec. 19; Gaz. vol. 233; p. 852.

Kriz, William, St. Louis, Mo. Kitchen-knife. No. 1,209,725; Dec. 26; Gaz. vol. 233; p. 1138.

Krodel, John, Butte, Mont. Combination hinge and rack. No. 1,208,986; Dec. 19; Gaz. vol. 233; p. 853.

Kroeger Piano Company. (See Parsons, George H., assignor.)

Krohn Fechheimer Company, The. (See Freeman, Frank B., assignor.)

Kronenberger, Ferdinand, Hastings, N. Y., assignor to F. B. Clark, Englewood, N. J. Egg-carrier. No. 1,208,800; Dec. 19; Gaz. vol. 233; p. 789.

Kronenberger, Ferdinand, New York, N. Y., assignor to F. B. Clark, Englewood, N. J. Egg-container. No. 1,209,649; Dec. 19; Gaz. vol. 233; p. 1080.

Kronquest, Alfred L., Chicago, Ill., assignor, by mesne assignments, to Continental Can Company, Inc. Soldering-machine. No. 1,210,177; Dec. 26; Gaz. vol. 233; p. 1298.

Krueger, Paul J., Blue Island, Ill. Recoil-pad. No. 1,209,726; Dec. 26; Gaz. vol. 233; p. 1138.

Krumming, Reinhold, Milwaukee, Wis. Leaf or sheet for temporary binders. No. 1,208,169; Dec. 12; Gaz. vol. 233; p. 525.

Kruse, August M., assignor to The American Steel Package Company, Defiance, Ohio. Metallic receptacle. No. 1,207,937; Dec. 12; Gaz. vol. 233; p. 443.

Krystyniak, Adam, Greensburg, Pa. Cigar-holder. No. 1,209,596; Dec. 19; Gaz. vol. 233; p. 1062.

Kubat, Otto A., Owatonna, Minn. Glare-shield. No. 1,209,854; Dec. 26; Gaz. vol. 233; p. 1184.

Kubichek, Enoch J., Horton, Kans. Attachment for furnaces. No. 1,209,171; Dec. 19; Gaz. vol. 233; p. 915.

Kuehn, Paul, Detroit, Mich. Combined check and deposit-slip. No. 1,208,579; Dec. 12; Gaz. vol. 233; p. 671.

Kuen, Eugene A., assignor, by mesne assignments, to The Corcoran-Victor Company, Cincinnati, Ohio. Electric lamp. No. 1,207,771; Dec. 12; Gaz. vol. 233; p. 385.

Kuhn, Emil J. (See Fogelstrom and Kuhn.)

Kuhn, Frank, Detroit, Mich. Thermal circuit-controller. No. 1,210,331; Dec. 26; Gaz. vol. 233; p. 1347.

Kuhns, John M., *et al.* (See Warriner, Walter, assignor.)

Küntz, Friedrich, Stuttgart-Cannstatt, Germany. Charging and emptying device for baking-ovens and the like. No. 1,207,181; Dec. 5; Gaz. vol. 233; p. 136.

Kulhawy, Ferdinand, New York, N. Y. Shuttle for sewing-machines. No. 1,208,333; Dec. 12; Gaz. vol. 233; p. 585.

Küntzler, Henry, Luzerne, assignor to The Adder Machine Company, Wilkes-Barre, Pa. Item-indicator. No. 1,206,863; Dec. 5; Gaz. vol. 233; p. 28.

Kunzelman, John R., Duluth, Minn. Steering-gear for motor-driven vehicles. No. 1,209,728; Dec. 26; Gaz. vol. 233; p. 1139.

Kur, Emanuel. (See Kertesz and Kur.)

Kurowski, Alfred G. F., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,208,580; Dec. 12; Gaz. vol. 233; p. 672.

Kurtz, William F., Forest, Ohio. Permanent bed for railways. No. 1,209,172; Dec. 19; Gaz. vol. 233; p. 916.

Kutcher, Charles A., Sheridan, Wyo. Eyeleting-machine. No. 1,208,581; Dec. 12; Gaz. vol. 233; p. 672.

Kutschka, Karl, Youngstown, Ohio. Mechanical hammer. No. 1,207,417; Dec. 5; Gaz. vol. 233; p. 219.

Kuxmann, Heinrich, Bielefeld, Germany. Automatic food and water supply. No. 1,207,938; Dec. 12; Gaz. vol. 233; p. 443.

Kvistad, Paul E., Spokane, Wash. Archer's bow. No. 1,210,332; Dec. 26; Gaz. vol. 233; p. 1347.

Kyle, George, assignor of one-half to G. H. Sperry, Philadelphia, Pa. Wooden column for porches. No. 1,210,333; Dec. 26; Gaz. vol. 233; p. 1348.

L. Candee & Company. (See Goodyear, Clinton S., assignor.)

L. Wolff Manufacturing Company. (See Gavin, John H., assignor.)

La Follette, Joseph, assignor of forty-nine one-hundredths to E. E. McClaran, Portland, Oreg. Folding square. No. 1,209,855; Dec. 26; Gaz. vol. 233; p. 1185.

La France, David J., Somerville, Mass. Clip for fountain-pens. No. 1,209,977; Dec. 26; Gaz. vol. 233; p. 1228.

La France, David J., Somerville, assignor to C. Brandt, Boston, Mass. Self-filling fountain-pen. No. 1,209,978; Dec. 26; Gaz. vol. 233; p. 1228.

La France, Elzear O., Worcester, Mass. Loom. No. 1,209,173; Dec. 19; Gaz. vol. 233; p. 916.

La Rue, Willis E., Indianapolis, Ind., assignor of one-half to W. M. Emerson, Indianapolis, Ind. Soda-fountain and draft-cock. No. 1,208,709; Dec. 12; Gaz. vol. 233; p. 715.

Lachance, Joseph, Los Angeles, Cal. Wave-motor. No. 1,207,939; Dec. 12; Gaz. vol. 233; p. 443.

Lacht, Jacob, Long Island City, N. Y. Roach-trap. No. 1,208,987; Dec. 19; Gaz. vol. 233; p. 853.

Lackawanna Steel Company. (See Kreidler, William A., assignor.)

Ladd, George T., Pittsburgh, Pa. Water-tube boiler. No. 1,207,301; Dec. 5; Gaz. vol. 233; p. 177.

Lahey, William F., East Hartford, Conn., assignor of one third to A. H. Miller, Holyoke, Mass. Automobile-tire No. 1,209,856; Dec. 26; Gaz. vol. 233; p. 1185.

Laing, Archie R. (See Fotheringham and Laing.)

Lake, Emily. (See Lake, Irving A., assignor.)

Lake, Francis W., assignor of one-half to W. E. Chace, Buffalo, N. Y. Ice-creeper. No. 1,207,940; Dec. 12; Gaz. vol. 233; p. 444.

Lake, Irving A., assignor of one-half to E. Lake, New York, N. Y. Pneumatic cushion. No. 1,207,772; Dec. 12; Gaz. vol. 233; p. 386.

Lake, Wilmot, Washington, D. C. Base-ball score-card. No. 1,208,170; Dec. 12; Gaz. vol. 233; p. 525.

Lally, Edward F., New York, N. Y. Safety-pin. No. 1,208,582; Dec. 12; Gaz. vol. 233; p. 673.

Lamb, Frank. (See Connor, George W., assignor.)

Lamb, Harry. (See Hickling and Lamb.)

Lamb, Henry W., Portsmouth, Va. Making ammonia and compounds thereof. No. 1,207,567; Dec. 5; Gaz. vol. 233; p. 272.

Lamson Company, The. (See Cowley, James T., assignor.)

Lamson Company, The. (See Pearsall, Albert W., assignor.)

Lamson Company, The. (See Powell, Frank D., assignor.)

Land, Gordon. (See Wright and Land.)

Landers, Frary & Clark. (See Warner, Alonzo A., assignor.)

Landgraf, Frederick K. (See Stafford and Landgraf.)

Landgren, Frederick A., Sycamore, Ill. Pneumatic action. No. 1,207,568; Dec. 5; Gaz. vol. 233; p. 273.

Landsiedel, Harry, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding and recording machine. No. 1,209,857; Dec. 26; Gaz. vol. 233; p. 1185.

Landsiedel, Harry, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Motor mechanism for adding-machines. No. 1,209,858; Dec. 26; Gaz. vol. 233; p. 1186.

Landsiedel, Harry, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding and recording machine. No. 1,209,859; Dec. 26; Gaz. vol. 233; p. 1186.

Landsiedel, Harry, assignor to The Dalton Adding Machine Company, Cincinnati, Ohio. Recording-machine. No. 1,209,860; Dec. 26; Gaz. vol. 233; p. 1187.

Landt, Hugo, Pipestone, Minn. Straw-stacker. No. 1,208,988; Dec. 19; Gaz. vol. 233; p. 853.

Lane, Edwin C., Mahwah, N. J. Fan-belt adjustment. No. 1,210,178; Dec. 26; Gaz. vol. 233; p. 1298.

Lang, Ferdinand, Colorado Springs, Colo. Hot-water heating system. No. 1,209,174; Dec. 19; Gaz. vol. 233; p. 916.

Lange, August, Milwaukee, Wis. Ice-skate. No. 1,206,864; Dec. 5; Gaz. vol. 233; p. 28.

Langerfeld, Arthur, Scranton, Pa. Mining and surface support. No. 1,207,569; Dec. 5; Gaz. vol. 233; p. 273.

Lanhoffer, Edmond, Poissy, France. Apparatus for molding objects by pressure. No. 1,209,308; Dec. 19; Gaz. vol. 233; p. 961.

Lanning, James K. (See Cunniff, Edward A. and J. V., assignors.)

Lansden Company. (See Heath, Harry E., assignor.)

Laroche, Olivier. (See Maglil and Laroche.)

Larson, David C., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Switch mechanism. No. 1,208,583; Dec. 12; Gaz. vol. 233; p. 673.

Larson, Louis A., Sioux City, Iowa. Gem-setting. No. 1,207,773; Dec. 12; Gaz. vol. 233; p. 386.

Larson, Louis T., Stanton, Iowa. Bird-house. No. 1,209,979; Dec. 26; Gaz. vol. 233; p. 1229.

Lasche, Oskar, Charlottenburg, Germany, assignor to General Electric Company. Internal-combustion engine. No. 1,207,570; Dec. 5; Gaz. vol. 233; p. 273.

Lasche, Oskar, Charlottenburg, Germany, assignor to General Electric Company. Internal-combustion engine. No. 1,207,571; Dec. 5; Gaz. vol. 233; p. 274.

Laselle, Oliver, *et al.* (See Johnson, Edwin A., assignor.)

Lassiter, Columbus K., Richmond, Va. Fuel feeder and controller. No. 1,209,597; Dec. 19; Gaz. vol. 233; p. 1062.

Latchford, William J. (See Hopple, William, assignor.)

Latham, Albert, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for setting lacing-hooks and the like. No. 1,207,057; Dec. 5; Gaz. vol. 233; p. 92.

Lathrop, James H., Oxford Junction, Iowa, assignor of one-half to Novelty Iron Works, Sterling, Ill. Stock-waterer. No. 1,209,309; Dec. 19; Gaz. vol. 233; p. 961.

Lathrop, Willard O., Cincinnati, Ohio. Spring-bed supporting-hanger. No. 1,209,175; Dec. 19; Gaz. vol. 233; p. 917.

Latta, Emmit G., Syracuse, N. Y. Type-bar rest. No. 1,209,456; Dec. 19; Gaz. vol. 233; p. 1015.

Laubenthal, Fred N. (See Flora, Charles L., assignor.)

Laughlin, Alexander, Jr., Sewickley, Pa. Electrogalvanizing apparatus. No. 1,208,584; Dec. 12; Gaz. vol. 233; p. 673.

Laurenti, Cesare, assignor to Società Anonima Fiat-San Giorgio, Spezia, Italy. Torpedo-tube. No. 1,209,729; Dec. 26; Gaz. vol. 233; p. 1140.

Lautenschlager, William F., Cincinnati, Ohio, assignor to L. Muther, Newton, Mass. Folding-machine. No. 1,207,941; Dec. 12; Gaz. vol. 233; p. 444.

Lavers, Henry, Camberwell, A. H. P. Lowry, Prahran, and H. H. Greenway, Melbourne, Victoria, Australia, assignors, by mesne assignment, to Minerals Separation American Syndicate (1913) Limited, London, England. Concentration of sulfid ores. No. 1,208,171; Dec. 12; Gaz. vol. 233; p. 526.

Lavers, Henry, Camberwell, H. H. Greenway, Melbourne, and A. P. Lowry, Prahran, Victoria, Australia, assignors to Minerals Separation American Syndicate (1913) Limited, London, England. Concentration of ores. No. 1,208,334; Dec. 12; Gaz. vol. 233; p. 585.

Law, Edward F., Manchester, and C. P. Sandberg, Westminster, London, assignors of one-third to Sir W. G. Armstrong, Whitworth and Company, Limited, Newcastle-upon-Tyne, England. Apparatus for casting steel. No. 1,207,572; Dec. 5; Gaz. vol. 233; p. 274.

Lawrence, Charles P., Cheyenne, Wyo. Metallic tie. No. 1,207,573; Dec. 5; Gaz. vol. 233; p. 275.

Lawrence, Edward E., Cambridge, Mass., assignor to Loose-Wiles Biscuit Company, Kansas City, Mo. Sterilizer for removing cake-icing. No. 1,208,335; Dec. 12; Gaz. vol. 233; p. 585.

Lawson, Clarence J., Yonkers, N. Y. Bottle-sealing cap. No. 1,209,980; Dec. 26; Gaz. vol. 233; p. 1229.

Lawson, Dean C., East Rochester, N. Y. Coat-hook. No. 1,208,989; Dec. 19; Gaz. vol. 233; p. 853.

Lawton, Philip J., Jamaica, Iowa. Combined grain-dump and shoveling-board. No. 1,207,182; Dec. 5; Gaz. vol. 233; p. 136.

Laycock, Arthur M., Kingston, Pa. Spring. No. 1,208,990; Dec. 19; Gaz. vol. 233; p. 854.

Lazarte, Enrique, assignor to Aeroplane Destroyer Company, Lima, Peru. Sighting and aiming attachment for guns and other pieces of ordnance. No. 1,207,418; Dec. 5; Gaz. vol. 233; p. 219.

Lazzell, James A., Columbus, Ind. Furnace. No. 1,208,585; Dec. 12; Gaz. vol. 233; p. 673.

Le Fevre, Harry W., Denver, Colo. Hot water and air tank for dentists' use. No. 1,209,599; Dec. 19; Gaz. vol. 233; p. 1063.

Leachman, George, New Cumberland, W. Va. Portable dark cabinet. No. 1,208,586; Dec. 12; Gaz. vol. 233; p. 674.

Leake, Richard C., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Selective signaling system. No. 1,209,598; Dec. 19; Gaz. vol. 233; p. 1062.

Leary, James F., Rochester, N. Y. Cleaner for windshields. No. 1,208,801; Dec. 19; Gaz. vol. 233; p. 790.

Leary, Robert D., Worcester, Mass. Brush. No. 1,209,176; Dec. 19; Gaz. vol. 233; p. 917.

Leatherbee, Clifton F., Newton, Mass., assignor to Painting Machine Company, Kittery, Me. Coating apparatus. No. 1,209,177; Dec. 19; Gaz. vol. 233; p. 917.

Leblanc, Maurice, Val sur Seine par Croissy, assignor to Société Anonyme pour l'Exploitation de Procédés Westinghouse-Leblanc, Paris, France. Method of and means for balancing rotating bodies. No. 1,210,085; Dec. 26; Gaz. vol. 233; p. 1264.

Leblanc, Maurice, assignor to Société Anonyme pour l'Exploitation des Procédés Westinghouse-Leblanc, Paris, France. Automatic balancer for rotating bodies. No. 1,209,730; Dec. 26; Gaz. vol. 233; p. 1140.

Lee, Clifford, Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Company. Exhausting apparatus for vulcanizing. No. 1,209,731; Dec. 26; Gaz. vol. 233; p. 1140.

Lee, George E., assignor to The George E. Lee Company, Cleveland, Ohio. Heat control for linotype melting-pots. No. 1,208,587; Dec. 12; Gaz. vol. 233; p. 674.

Lee, Henry W., St. Louis, Mo. Sash-lock. No. 1,208,336; Dec. 12; Gaz. vol. 233; p. 586.

Leeds & Northrup Company, The. (See Wunsch, Felix, assignor.)

Leedy, Albert O., Bellville, Ohio. Power steering-gear. No. 1,207,058; Dec. 5; Gaz. vol. 233; p. 93.

Leeming, Robert W., Brantford, Ontario, Canada. Resilient wheel. No. 1,208,588; Dec. 12; Gaz. vol. 233; p. 674.

Lees, Kenneth F., New Haven, Conn. Grease-cup. No. 1,207,302; Dec. 5; Gaz. vol. 233; p. 178.

Lees, Kenneth F., New Haven, Conn. Grease-cup. No. 1,207,303; Dec. 5; Gaz. vol. 233; p. 178.

Lees, Kenneth F., New Haven, Conn. Grease-cup. No. 1,207,304; Dec. 5; Gaz. vol. 233; p. 178.

Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Spring-gun. No. 1,206,865; Dec. 5; Gaz. vol. 233; p. 28.

Leggo, William H., assignor to the S. O. & C. Co., Ansonia, Conn. Fastening device. No. 1,206,866; Dec. 5; Gaz. vol. 233; p. 29.

Lehman, Ferdinand, Osseo, Minn. Swingletree-hook. No. 1,210,334; Dec. 26; Gaz. vol. 233; p. 1348.

Lehmann, Christian G., Detroit, Mich. Dispensing-cabinet. No. 1,207,942; Dec. 12; Gaz. vol. 233; p. 444.

Leich, Oscar M., and A. C. Reid, Genoa, Ill. Receiver. No. 1,207,419; Dec. 5; Gaz. vol. 233; p. 220.

Leigh, Charles Q. C., Chicago, Ill. Box. No. 1,209,178; Dec. 19; Gaz. vol. 233; p. 918.

Leinweber, Curt, *et al.*, executors. (See Leinweber, Herman.)

Leinweber, Fred H., *et al.*, executors. (See Leinweber, Herman.)

Leinweber, Herman, deceased, Chicago, Ill.; C. and F. H. Leinweber, executors. Airship. No. 1,208,337; Dec. 12; Gaz. vol. 233; p. 586.

Leitch, James C., Los Angeles, Cal. Electric water-heater. No. 1,210,086; Dec. 26; Gaz. vol. 233; p. 1264.

Leitz, Louis, Stuttgart, Germany. Letter-file. No. 1,207,305; Dec. 5; Gaz. vol. 233; p. 179.

Lekas, Peter S., Portland, Oreg. Match-safe. No. 1,208,991; Dec. 19; Gaz. vol. 233; p. 854.

Lelarge, Blanche A., executrix. (See Lelarge, Henri A. A. J.)

Lelarge, Henri A. A. J., deceased, Paris; B. A. Lelarge, *née* Tapin, Sèvres, France, executrix. Carbureter. No. 1,209,457; Dec. 19; Gaz. vol. 233; p. 1015.

Lemon, Charles T., Ripley, Ohio. Lighting system for motor-vehicles. No. 1,210,335; Dec. 26; Gaz. vol. 233; p. 1348.

Lemon, James F., and A. Warner, assignors to G. Demore, Syracuse, N. Y. Sheet-metal curtain-roller. No. 1,207,943; Dec. 12; Gaz. vol. 233; p. 445.

Lemp, William E., and E. K. McQuillen, Mobile, Ala. Vehicle direction-indicator. No. 1,207,944; Dec. 12; Gaz. vol. 233; p. 445.

Leng, William S., Gateshead, England. Flag-signal for use on railways. No. 1,208,172; Dec. 12; Gaz. vol. 233; p. 526.

Lenhardt, Josef, Chicago, Ill. Skate. No. 1,208,173; Dec. 12; Gaz. vol. 233; p. 526.

Lennig, George G., Philadelphia, Pa. Apparatus for manufacturing cocoa. No. 1,209,861; Dec. 26; Gaz. vol. 233; p. 1187.

Leonard, Eva C., Thompson, Pa. Game. No. 1,208,992; Dec. 19; Gaz. vol. 233; p. 854.

Leonard, Frank B., Utica, N. Y. Fruit-picker. No. 1,209,732; Dec. 26; Gaz. vol. 233; p. 1141.

Leopold, George O. (See Fegley and Leopold.)

Lepper, John J., Milwaukee, Wis. Advertising device. No. 1,207,945; Dec. 12; Gaz. vol. 233; p. 445.

Lestak, Steven T., East Bakersfield, Cal. Motor and pressure-distributer. No. 1,207,306; Dec. 5; Gaz. vol. 233; p. 179.

Lester, Frederick A., assignor to Chicago Standard Equipment Company, Chicago, Ill. Car-door-locking device. No. 1,209,733; Dec. 26; Gaz. vol. 233; p. 1141.

Levanseler, Frank E., Chicago, Ill. Support for hinged covers or members. No. 1,207,946; Dec. 12; Gaz. vol. 233; p. 446.

Levé, Marcus S., Oakland, Cal. Seal-press. No. 1,209,458; Dec. 19; Gaz. vol. 233; p. 1016.

Levedahl, Axel, Aurora, assignor to Aurora Automatic Machinery Company, Chicago, Ill. Connecting-rod for pneumatic drills. No. 1,208,338; Dec. 12; Gaz. vol. 233; p. 586.

Levin, Nils D., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Electric-current-supplying mechanism. No. 1,209,310; Dec. 19; Gaz. vol. 233; p. 962.

Levinson, Abraham O., Chicago, Ill. Hat and cap. No. 1,207,420; Dec. 5; Gaz. vol. 233; p. 220.

Levinson, Wolf, Philadelphia, Pa. Brace and coat-stay. No. 1,209,311; Dec. 19; Gaz. vol. 233; p. 962.

Levy, Alfred K. (See Prescott, Ira K., assignor.)

Levy, Arthur B. (See Singer and Levy.)

Levy, Firm of Henri. (See Tscherne, Alois, assignor.)

Levy, Howard S. and L. F., Philadelphia, Pa. Mechanical sprayer. No. 1,207,774; Dec. 12; Gaz. vol. 233; p. 387.

Levy, Lionel F. (See Levy, Howard S. and L. F.)

Lewis, George W., Grinnell, Iowa. Wringer. No. 1,208,339; Dec. 12; Gaz. vol. 233; p. 587.

Lewis, Jewel, Brooklyn, N. Y. Educational toy. No. 1,206,867; Dec. 5; Gaz. vol. 233; p. 29.

Lewis, Josephine D., Spring Lake Beach, N. J. Hair-band. No. 1,207,574; Dec. 5; Gaz. vol. 233; p. 275.

Lewis, Louis G., London, England. Spring-grip dumb-bell. No. 1,208,589; Dec. 12; Gaz. vol. 233; p. 675.

Lewis, Seneca G., Greensburg, assignor of one-half to G. W. Daum, Jeannette, Pa. Watch holding and attaching device. (Reissue.) No. 14,231; Dec. 12; Gaz. vol. 233; p. 724.

Lewis, Seneca G., Greensburg, assignor of one-half to G. W. Daum, Jeannette, Pa. Support for timepieces. (Reissue.) No. 14,232; Dec. 12; Gaz. vol. 233; p. 724.

Lewis, William H., Los Angeles, Cal. Grease-gun. No. 1,210,179; Dec. 26; Gaz. vol. 233; p. 1298.
Leymarie, Antoine E., Paris, France. Shock-absorber for vehicles. No. 1,207,775; Dec. 12; Gaz. vol. 233; p. 387.
Liberman, Bernard, Philadelphia, Pa. Means for stemming tobacco. No. 1,206,808; Dec. 5; Gaz. vol. 233; p. 29.
Liby, James F., *et al.* (See Piggott, Thomas K., assignor.)
Lidberg, Tiodolf, assignor to Chicago Surgical & Electrical Company, Chicago, Ill. Electric heating appliance. No. 1,209,862; Dec. 26; Gaz. vol. 233; p. 1188.
Lieferant, Henry *et al.* (See Russicska, Ódo, assignor.)
Lienau, Jacob H., and W. Steenken, New York, N. Y.; said Lienau assignor of his one-half to The National Sugar Refining Co., of New Jersey. Sugar tablet or cube boxing machine. No. 1,208,802; Dec. 19; Gaz. vol. 233; p. 790.
Lienau, Jacob H., and W. Steenken, New York, N. Y.; said Lienau assignor of his one-half to The National Sugar Refining Co., of New Jersey. Automatic stacking or boxing machine. No. 1,208,803; Dec. 19; Gaz. vol. 233; p. 791.
Light, Albert A., Harrisville, Mich. Toy. No. 1,209,459; Dec. 19; Gaz. vol. 233; p. 1016.
Likens, Otis G., Brandon, Iowa. Nest. No. 1,208,174; Dec. 12; Gaz. vol. 233; p. 527.
Lilly, George W., assignor of one-fifth to H. B. Norton, one-fifth to H. L. Smith, one-fifth to J. S. Cupp, and one-fifth to A. W. Sapp, Center, Mo. Gravity-hinge. No. 1,206,860; Dec. 5; Gaz. vol. 233; p. 29.
Lilly, William J., Butte, Mont. Valve. No. 1,208,590; Dec. 12; Gaz. vol. 233; p. 675.
Lindblad, Knut F. M., Everett, Mass. Adjustable support for electric lamps. No. 1,210,087; Dec. 26; Gaz. vol. 233; p. 1265.
Lindenberg, Theodore, Grandview Heights, Ohio. Spring attachment. No. 1,207,307; Dec. 5; Gaz. vol. 233; p. 179.
Lindskog, Lars. (See Hokenson, Emil, assignor.)
Link-Belt Company. (See Pratt, Howell D., assignor.)
Linquist, Bertrice E. (See Linquist, William A., assignor.)
Linquist, William A., assignor to B. E. Linquist, Minneapolis, Minn. Automobile-fender. No. 1,208,993; Dec. 19; Gaz. vol. 233; p. 855.
Linse, Abraham S., Philadelphia, Pa. Water-closet. No. 1,208,804; Dec. 19; Gaz. vol. 233; p. 792.
Lion, John C., St. Marys, Pa. Dust-bag. No. 1,208,994; Dec. 19; Gaz. vol. 233; p. 855.
Lipic, Joseph. (See Olive, Frederick W., assignor.)
Lipman, Louis, Seattle, Wash. Preparing food. No. 1,208,175; Dec. 12; Gaz. vol. 233; p. 527.
Lipps, Emory J., Fountain Hill borough, Pa. Tension device. No. 1,206,870; Dec. 5; Gaz. vol. 233; p. 30.
Lipps, Emory J., Fountain Hill, Pa. Tension device. No. 1,209,179; Dec. 19; Gaz. vol. 233; p. 918.
Lisle, Arthur B. (See Farkas, Karl, assignor.)
Liss, Selman, *et al.* (See Damm, Peter, assignor.)
Litchfield, Isaac W., Boston, Mass. Tool. No. 1,207,947; Dec. 12; Gaz. vol. 233; p. 446.
Little, Charles H., Cleveland, Ohio. Drafting-machine. No. 1,208,340; Dec. 12; Gaz. vol. 233; p. 587.
Littman, Julius, New York, N. Y. Foot-form arch-support. No. 1,208,176; Dec. 12; Gaz. vol. 233; p. 527.
Lively, Benjamin F., Lenoir City, Tenn., assignor to Railway Supply and Equipment Company, Atlanta, Ga. Dust-guard for journal-boxes. No. 1,207,183; Dec. 5; Gaz. vol. 233; p. 137.
Livingston, John T., Stanford, Ky. Fender. No. 1,207,575; Dec. 5; Gaz. vol. 233; p. 275.
Llewellyn, Thomas W., and J. J. Doyle, assignors to H. P. Denison, Syracuse, N. Y. Collar-molding machine. No. 1,208,710; Dec. 12; Gaz. vol. 233; p. 716.
Lobdell, Edward J., Onaway, Mich. Cutter-head for jointers. No. 1,209,180; Dec. 19; Gaz. vol. 233; p. 918.
Lochray, Guy D., assignor of one-half to A. P. Morrey, Fort Dodge, Iowa. Gasolene-filter. No. 1,210,380; Dec. 26; Gaz. vol. 233; p. 1363.
Locke, Sylvanus D., assignor of one-half to D. W. Haggerty, Bridgeport, Conn. Means for supporting and carrying search-lights. No. 1,206,871; Dec. 5; Gaz. vol. 233; p. 30.
Lockwood, Edwin F. and H. A., Bellevue, Ky. Baking-pan. No. 1,206,872; Dec. 5; Gaz. vol. 233; p. 30.
Lockwood, Harry A. (See Lockwood, Edwin F. and H. A.)
"Locomobile" Company of America, The. (See Rosner, Adolph, assignor.)
Locomotive Stoker Company. (See Lower, Nathan M., assignor.)
Loeffelholz and Company. (See Seemann, August J., assignor.)
Loewen, Peter, Reinland, Manitoba, Canada. Life-boat. No. 1,206,873; Dec. 5; Gaz. vol. 233; p. 31.
Loewenbach, Hugo. (See Downey, Richard F., assignor.)
Lofland, Alfred M., Lebanon, Ind. Metal wheel. No. 1,209,181; Dec. 19; Gaz. vol. 233; p. 919.
Loftus, Thomas J., Castella, assignor of one-half to H. Bell, Oakland, Cal. Atomizer. No. 1,208,341; Dec. 12; Gaz. vol. 233; p. 587.
Loftus, Thomas J., Castella, assignor of one-half to H. Bell, Oakland, Cal. Filter. No. 1,208,342; Dec. 12; Gaz. vol. 233; p. 588.
Logan, Lloyd, Syracuse, N. Y. Solution-specific-gravity-regulating apparatus. No. 1,210,180; Dec. 26; Gaz. vol. 233; p. 1299.
Lonaberger, Robert F., and C. R. Balmer, assignors of one-third to J. W. Easterline, Reading, Pa. Two-cycle gas-engine. No. 1,208,805; Dec. 19; Gaz. vol. 233; p. 793.
Long, Carrie L., Gibbon, Nebr. Sad-iron heater. No. 1,209,734; Dec. 26; Gaz. vol. 233; p. 1141.
Long, Eli M., assignor to The Standard Optical Company, Geneva, N. Y. Lens centering and transfer device. No. 1,208,343; Dec. 12; Gaz. vol. 233; p. 588.
Long, Fred R., Catawissa, Pa. Forging-machine for making circular caps and analogous metal forms. No. 1,207,948; Dec. 12; Gaz. vol. 233; p. 446.
Long, Frederick S., Calgary, Alberta, Canada. Card-index cabinet. No. 1,207,949; Dec. 12; Gaz. vol. 233; p. 447.
Long, Luckey D., Bronson, Kans. Head-lamp. No. 1,209,600; Dec. 19; Gaz. vol. 233; p. 1063.
Long, Stanley M., *et al.* (See Stitt, Washington G., assignor.)
Long, William H., New York, N. Y., assignor, by mesne assignments, to James G. Cofin, trustee. Machine for producing controllers for typographic machines. No. 1,207,576; Dec. 5; Gaz. vol. 233; p. 275.
Longest, William B., Louisville, Ky. Priming means for internal-combustion engines. No. 1,207,184; Dec. 5; Gaz. vol. 233; p. 137.
Longino, Hugh A., La Grange, Ky. Rain-signal. No. 1,207,950; Dec. 12; Gaz. vol. 233; p. 447.
Loomis, Allen, assignor to Packard Motor Car Company, Detroit, Mich. Gearing. No. 1,207,951; Dec. 12; Gaz. vol. 233; p. 448.
Loomis, Allen, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,209,863; Dec. 26; Gaz. vol. 233; p. 1188.
Loosbrock, Edward, and J. P. Kloster, Jr., Petersburg, Nebr. Hay-stacker. No. 1,207,578; Dec. 5; Gaz. vol. 233; p. 276.
Loose, Kenneth D., Boston, Mass., assignor to Loose-Wiles Biscuit Company, Kansas City, Mo. Biscuit-box-display device. No. 1,207,577; Dec. 5; Gaz. vol. 233; p. 276.
Loose-Wiles Biscuit Company. (See Lawrence, Edward E., assignor.)
Loose-Wiles Biscuit Company. (See Loose, Kenneth D., assignor.)
Lord, Lewis P., assignor of one-third to F. G. Acomb, Minneapolis, Minn., and one-third to W. H. Killen, Appleton, Wis. Berry-box. No. 1,207,421; Dec. 5; Gaz. vol. 233; p. 221.
Lorenz, Friedrich, Wildau, near Berlin, Germany, assignor to T. P. Kingsford and V. K. Higgins, Oswego, N. Y. Means for automatically balancing the rotors of pumps, turbines, blowers, and the like. No. 1,210,181; Dec. 26; Gaz. vol. 233; p. 1299.
Lorimer, George W., Piqua, assignor to The National Cash Register Company, Dayton, Ohio. Registering, recording, and computing system. No. 1,209,735; Dec. 26; Gaz. vol. 233; p. 1142.
Loring, Helene V. A., Chicago, Ill. Shoulder-brace. No. 1,209,601; Dec. 19; Gaz. vol. 233; p. 1064.
Lorkin, Walter L. (See Daglish and Lorkin.)
Lorraine, John S., *et al.* (See Piggott, Thomas K., assignor.)
Lotter, Franklin, Elkton, Mich. Vehicle-tire. No. 1,207,185; Dec. 5; Gaz. vol. 233; p. 137.
Lough, Bert, and R. E. Miller, Morgantown, W. Va. Gas-valve. No. 1,209,182; Dec. 19; Gaz. vol. 233; p. 919.
Lovejoy, Daniel B., Purmela, Tex. Cotton-harvester. No. 1,208,591; Dec. 12; Gaz. vol. 233; p. 676.
Lowe, Ernest A., Plainfield, N. J. Thermally-controlled releasing mechanism for fire-doors and the like. No. 1,208,177; Dec. 12; Gaz. vol. 233; p. 528.
Lowe, Gustave F., Morristown, N. J. Recovery means for machine-construction devices. No. 1,209,460; Dec. 19; Gaz. vol. 233; p. 1016.
Lower, Nathan M., Schenectady, N. Y., assignor to Locomotive Stoker Company, Wilmerding, Pa. Fuel-distributer. No. 1,207,422; Dec. 5; Gaz. vol. 233; p. 221.
Lower, Nathan M., assignor to Locomotive Stoker Company, Schenectady, N. Y. Locomotive-tender. No. 1,209,312; Dec. 19; Gaz. vol. 233; p. 963.
Lowry, Alfred H. P. (See Lavers, Greenway, and Lowry.)
Lowry, Alfred H. P. (See Lavers, Lowry, and Greenway.)
Lowry, John D., Wilmington, N. C. Rotary harrow. No. 1,207,579; Dec. 5; Gaz. vol. 233; p. 277.
Lowy, Adolph, New York, N. Y. Bag-handle. (Reissue.) No. 14,225; Dec. 5; Gaz. vol. 233; p. 319.
Lowy, Morris, New York, N. Y. Bed-spring. No. 1,208,592; Dec. 12; Gaz. vol. 233; p. 676.
Loyer, Mary A., Denver, Colo. Means for charging water with radio-activity. No. 1,208,806; Dec. 19; Gaz. vol. 233; p. 793.
Luce, George D., New Orleans, La. Trash-impeller. No. 1,207,580; Dec. 5; Gaz. vol. 233; p. 277.
Lucke, Emil, Portland, Oreg. Polished plate-glass lens. No. 1,208,807; Dec. 19; Gaz. vol. 233; p. 794.
Ludlow Typograph Company, The. (See Reade, William A., assignor.)
Lueckenbach, Anton T., Neenah, Wis. Press-roll for paper-making machines. No. 1,209,736; Dec. 26; Gaz. vol. 233; p. 1142.

Lund, Thomas, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Splitting-machine. No. 1,209,737; Dec. 26; Gaz. vol. 233; p. 1142.
Lundin, Andreas P., New York, N. Y., assignor to Weiln Marine Equipment Company. Crane or derrick. No. 1,207,423; Dec. 5; Gaz. vol. 233; p. 221.
Lundy, Charles A., assignor to Lundy Gas Engine Company, Reno, Nev. Gas-engine. No. 1,210,088; Dec. 26; Gaz. vol. 233; p. 1265.
Lundy, Charles A., assignor to Lundy Gas Engine Company, Reno, Nev. Gas-engine. No. 1,210,089; Dec. 26; Gaz. vol. 233; p. 1266.
Lundy Gas Engine Company. (See Lundy, Charles A., assignor.)
Luscomb, Frederick W., New Bedford, assignor to Atlas Tack Company, Fairhaven, Mass. Hook-setting machine. No. 1,209,864; Dec. 26; Gaz. vol. 233; p. 1189.
Lyche, Halvor H., assignor to The Odin Company, Chicago, Ill. Gearing for washing-machines. No. 1,209,981; Dec. 26; Gaz. vol. 233; p. 1229.
Lyche, Halvor H., assignor to The Odin Company, Chicago, Ill. Clothes-wringer. No. 1,209,982; Dec. 26; Gaz. vol. 233; p. 1230.
Lyche, Halvor H., assignor to The Odin Company, Chicago, Ill. Washing-machine. No. 1,209,983; Dec. 26; Gaz. vol. 233; p. 1230.
Lyche, Halvor H., assignor to The Odin Company, Chicago, Ill. Clothes-wringer. No. 1,209,984; Dec. 26; Gaz. vol. 233; p. 1230.
Lycoe, Henry S., Pittsburgh, Pa. Signal mechanism and the like. No. 1,209,313; Dec. 19; Gaz. vol. 233; p. 963.
Lynn, Arthur H., Westminster, England. Heat-accumulator. No. 1,207,186; Dec. 5; Gaz. vol. 233; p. 138.
Lynch, Patrick H., New York, N. Y. Golf-club. No. 1,210,182; Dec. 26; Gaz. vol. 233; p. 1300.
Lynch, Thomas B., assignor of one-half to W. C. Morgan, Detroit, Mich. Electric switch and mounting therefor. No. 1,207,952; Dec. 12; Gaz. vol. 233; p. 448.
Lyon, Mart V. B., Jr., assignor of one-half to E. Wagner, Fort Recovery, Ohio. Collapsible form for concrete sewer-pipes. No. 1,208,593; Dec. 12; Gaz. vol. 233; p. 676.
Lyon, William A., Madison, Ind. Golf-teaching instrument. No. 1,208,995; Dec. 19; Gaz. vol. 233; p. 856.
M. D. Knowlton Company. (See Feeley, Frank G., assignor.)
Maas, George H., Milwaukee, Wis. Carbonator and the like. No. 1,207,061; Dec. 5; Gaz. vol. 233; p. 94.
MacCanlis, Harry, New York, N. Y. Sample-card. No. 1,209,461; Dec. 19; Gaz. vol. 233; p. 1016.
MacCordy, Charles A., Syracuse, N. Y. Toy hammock. No. 1,209,314; Dec. 19; Gaz. vol. 233; p. 904.
MacGill, Charles F. (See Smith, Charles G., assignor.)
MacGregor, Wallace F., assignor to J. I. Case Threshing Machine Company, Racine, Wis. Corn husking and shredding machine. No. 1,207,189; Dec. 5; Gaz. vol. 233; p. 139.
MacGregor, Wallace F., assignor to J. I. Case Threshing Machine Company, Racine, Wis. Rotary plow. No. 1,207,310; Dec. 5; Gaz. vol. 233; p. 180.
MacKenzie, Roderick R., Wallace, Idaho. Pen. No. 1,209,602; Dec. 19; Gaz. vol. 233; p. 1064.
MacVicar, Frank, Syracuse, N. Y. Valve. (Reissue.) No. 14,228; Dec. 12; Gaz. vol. 233; p. 722.
Macbeth-Evans Glass Company. (See Miksch, Wenzel A and A. W., assignors.)
Mack, Frank J., Chicago, Ill. Clutch. No. 1,207,190; Dec. 5; Gaz. vol. 233; p. 139.
Mack, William, New York, N. Y. Combined perch and trap. No. 1,209,462; Dec. 19; Gaz. vol. 233; p. 1016.
Mackay, Alexander J., Bourton, England, assignor of one-half to D. N. Dobson, Whitstone, England. Internal-combustion engine. No. 1,208,998; Dec. 19; Gaz. vol. 233; p. 857.
Mackay, George M. J., Schenectady, N. Y., assignor to General Electric Company, Inclosed-arc device and operating the same. No. 1,208,597; Dec. 12; Gaz. vol. 233; p. 677.
Mackey, John C., New York, N. Y., assignor to The Mackey-Reusing Gas Saver Company. Attachment for internal-combustion engines. No. 1,208,598; Dec. 12; Gaz. vol. 233; p. 678.
Mackey-Reusing Gas Saver Company, The. (See Mackey, John C., assignor.)
Macmillan, Marion, New York, N. Y. Milk-can. No. 1,207,963; Dec. 12; Gaz. vol. 233; p. 452.
Madden, Samuel L., Chattanooga, Tenn. Base-ball signaling and indicating system. No. 1,207,191; Dec. 5; Gaz. vol. 233; p. 140.
Maddox, Edward F., Nelson, Wis. Leveler and pulverizer. No. 1,208,599; Dec. 12; Gaz. vol. 233; p. 678.
Maddox, Thomas R., Canyon City, Tex. Joint-gage, level, and miter-square. No. 1,210,339; Dec. 26; Gaz. vol. 233; p. 1349.
Magill, William H., and O. Laroche, Hamilton, Ontario, Canada. Open-mesh fabric and knitting the same. No. 1,207,062; Dec. 5; Gaz. vol. 233; p. 94.
Magnus, John H. (See Dorman and Magnus.)
Maheu, Joseph, assignor of one-half to N. O. Maheu, Waterville, Me. Bow-facing car. No. 1,207,584; Dec. 5; Gaz. vol. 233; p. 278.
Maheu, Napoleon O. (See Maheu, Joseph, assignor.)
Mahler, Carl A., Cleveland, Ohio. Machine for setting eyelets in automobile-curtains. No. 1,207,964; Dec. 12; Gaz. vol. 233; p. 452.
Maier, Louis H., New York, N. Y. Valve mechanism for musical instruments and the like. No. 1,207,779; Dec. 12; Gaz. vol. 233; p. 388.
Maier, Louis H., New York, N. Y. Automatic music-sheet tracker. No. 1,207,965; Dec. 12; Gaz. vol. 233; p. 452.
Maier, Louis H., New York, N. Y. Automatic music-sheet tracker. No. 1,207,966; Dec. 12; Gaz. vol. 233; p. 453.
Maimin, David S., New York, N. Y. Knife-guard and stripper for cloth-cutting machines. No. 1,207,780; Dec. 12; Gaz. vol. 233; p. 389.
Maisby, Ira B., assignor to N. Mellor, Philadelphia, Pa. Wall-anchor. No. 1,208,999; Dec. 19; Gaz. vol. 233; p. 857.
Maicon, Robert. (See Brennecke, Herman J., assignor.)
Malley, Michael J. O., Chicago, Ill. Reinforced fibrous material of construction. No. 1,209,315; Dec. 19; Gaz. vol. 233; p. 964.
Malley, Michael J. O., Chicago, Ill. Asbestos basket. No. 1,209,316; Dec. 19; Gaz. vol. 233; p. 964.
Mallison, George. (See Tesse, Felix J. C., assignor.)
Malpas, Mark G., Morrisville, Pa. Embossing porcelain, stone, and like material. No. 1,209,183; Dec. 19; Gaz. vol. 233; p. 919.
Maltby, Lewis C., assignor to The Stone Straw Company, Washington, D. C. Cut-off mechanism for machines for making artificial straws. No. 1,207,585; Dec. 5; Gaz. vol. 233; p. 278.
Maltby, Lewis C., assignor to The Stone Straw Company, Washington, D. C. Cut-off mechanism for machines for making artificial straws. No. 1,208,600; Dec. 12; Gaz. vol. 233; p. 678.
Manahan, Joseph A., assignor to S. Bookman, New York, N. Y. Curtain-fastener. No. 1,208,001; Dec. 12; Gaz. vol. 233; p. 679.
Manee, Charles I., New York, N. Y. Means for controlling a fuel-oil supply. No. 1,207,781; Dec. 12; Gaz. vol. 233; p. 389.
Manegold, Robert A. (See Dings and Manegold.)
Manges, Duff G., Tellico Plains, Tenn. Spar-pole for log-skidding machines. No. 1,207,192; Dec. 5; Gaz. vol. 233; p. 140.
Manker, Charles C., assignor to Globe Heat, Light and Power Company, Ogden, Utah. Carbureter. No. 1,209,463; Dec. 19; Gaz. vol. 233; p. 1017.
Manker, Charles C., assignor to Globe Heat, Light and Power Company, Ogden, Utah. Air-pump. No. 1,210,387; Dec. 26; Gaz. vol. 233; p. 1365.
Mann, Orville C., Oak Park, Ill. Railway track-spreader. No. 1,208,809; Dec. 19; Gaz. vol. 233; p. 794.
Manning, Harry W., Portland, Oreg. Oil-burner. No. 1,209,603; Dec. 19; Gaz. vol. 233; p. 1064.
Manville, Oscar R., Breckenridge, Mo. Shoveling-board. No. 1,209,866; Dec. 26; Gaz. vol. 233; p. 1189.
Manz, Charles G., New Kensington, Pa. Skeleton lid. No. 1,207,586; Dec. 5; Gaz. vol. 233; p. 279.
Mapelsden, Harold H., Schenectady, N. Y., assignor to General Electric Company. Meter apparatus. No. 1,208,602; Dec. 12; Gaz. vol. 233; p. 679.
Marburg, Eduard, and G. Milnch, Griesheim-on-the-Main, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Production of anhydrous hydrosulfite from aqueous hydrosulfite solutions. No. 1,207,782; Dec. 12; Gaz. vol. 233; p. 389.
Marcuse, Moses M., assignor to West Disinfecting Company, New York, N. Y. Sanitary closet. No. 1,208,181; Dec. 12; Gaz. vol. 233; p. 529.
Marcuse, Moses M., assignor to West Disinfecting Company, New York, N. Y. Sheet-delivery receptacle. No. 1,209,317; Dec. 19; Gaz. vol. 233; p. 964.
Marcuse, Moses M., assignor to West Disinfecting Company, New York, N. Y. Commode. No. 1,210,186; Dec. 26; Gaz. vol. 233; p. 1301.
Marion Steam Shovel Company, The. (See King and Gracely, assignors.)
Markel, Edwin M. (See Davis, Noah W., assignor.)
Markels, Leonard, assignor to Champion Graphophone Company, Inc., New York, N. Y. Adjustable tone-arm and sound-box coupling. No. 1,208,603; Dec. 12; Gaz. vol. 233; p. 680.
Markels, Leonard, assignor to Champion Graphaphone Company, Inc., New York, N. Y. Universal tone-arm. No. 1,209,464; Dec. 19; Gaz. vol. 233; p. 1017.
Markham, Lorenzo O., Aberdeen, Wash. Pipe-joint. No. 1,210,090; Dec. 26; Gaz. vol. 233; p. 1266.
Markiewise, Harry, Park Ridge, N. J. Shoe-lace clasp or fastener. No. 1,208,604; Dec. 12; Gaz. vol. 233; p. 680.
Markwell, George W., Sabula, Iowa. Bucket-holder. No. 1,209,184; Dec. 19; Gaz. vol. 233; p. 919.
Marquand, Frederick F., Northport, N. Y. Holder for crossed flags. No. 1,209,000; Dec. 19; Gaz. vol. 233; p. 857.
Marquardt, Frederick, Brooklyn, N. Y. Measuring-faucet. No. 1,207,783; Dec. 12; Gaz. vol. 233; p. 390.
Marquiss, James E., Monticello, Ill. Conduit-forming device. No. 1,210,187; Dec. 26; Gaz. vol. 233; p. 1301.
Marsh Capron Manufacturing Company, The. (See Capron, Horace M., assignor.)
Marsh, Clifford W., Bridgeport, Conn. Disk-record holder. No. 1,208,346; Dec. 12; Gaz. vol. 233; p. 589.
Martens, John B., Cleveland, Ohio, assignor to M. Cramer. Die-stock. No. 1,210,188; Dec. 26; Gaz. vol. 233; p. 1301.

Martin, Haakon A., assignor to The National Cash Register Company, Dayton, Ohio, (incorporated in 1906.) Cash-register. No. 1,206,878; Dec. 5; Gaz. vol. 233; p. 32.

Martin, Haakon A., assignor to The National Cash Register Company, Dayton, Ohio. Indicator mechanism for cash-registers. No. 1,208,810; Dec. 19; Gaz. vol. 233; p. 745.

Martin, Ida M., St. Louis, Mo. Pen. No. 1,207,311; Dec. 5; Gaz. vol. 233; p. 181.

Martin, Laurin H., Lowell, Mass. Tie-holding device. No. 1,209,001; Dec. 19; Gaz. vol. 233; p. 858.

Martin, Nicholas B., Mount Hope, Kans. Wagon-bed attachment. No. 1,208,182; Dec. 12; Gaz. vol. 233; p. 530.

Martin, Percy A., Columbia, Mo. Wrench. No. 1,209,002; Dec. 19; Gaz. vol. 233; p. 858.

Martin, Thomas H. (See Williams and Martin.)

Martin, William M., Cornwall, England. Apparatus for the water concentration of ores, slimes, and the like. No. 1,207,312; Dec. 5; Gaz. vol. 233; p. 181.

Martin, William M., Redruth, England. Apparatus for the water concentration of ores or the like. No. 1,207,907; Dec. 12; Gaz. vol. 233; p. 453.

Martinez, Victorino, Habana, Cuba. Safety lock-nut. No. 1,207,313; Dec. 5; Gaz. vol. 233; p. 181.

Marvin, Edward W., assignor to J. E. Ogden, Brooklyn, N. Y. Draft-hook. No. 1,209,739; Dec. 26; Gaz. vol. 233; p. 1143.

Marx, Gustave C. (See Zabriskie and Marx.)

Marx, Joe F., Hartington, Nebr. Wheel construction. No. 1,209,185; Dec. 19; Gaz. vol. 233; p. 920.

Marx, Richard, Philadelphia, Pa., assignor, by mesne assignments, to Evans Products Corporation, New York, N. Y. Hectograph. No. 1,210,189; Dec. 26; Gaz. vol. 233; p. 1302.

Mason, Arthur C., Flint, Mich., assignor, by mesne assignments, to Chevrolet Motor Company. Unit power plant for motor-vehicles. No. 1,209,985; Dec. 26; Gaz. vol. 233; p. 1231.

Mason, Carl T., East Orange, assignor to Splitdorf Electrical Company, Newark, N. J. Ignition-dynamo. No. 1,209,003; Dec. 19; Gaz. vol. 233; p. 858.

Mason, Charles T., Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J. Ignition system. No. 1,207,193; Dec. 5; Gaz. vol. 233; p. 140.

Mason, Claude D., Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Company. Rubberized sheet for trunk-panels and the like. No. 1,209,986; Dec. 26; Gaz. vol. 233; p. 1231.

Mason, Davis & Co. (See Weber, Mathias J., assignor.)

Massey, James F., Rock Mart, Ga. Animal-stock. No. 1,209,004; Dec. 19; Gaz. vol. 233; p. 859.

Mastberg, Eric Nelson, British Columbia, Canada. Folding car-step. No. 1,207,587; Dec. 5; Gaz. vol. 233; p. 279.

Mastin, Charles I. E., Midland Park, N. J. Piston-packing. No. 1,209,740; Dec. 26; Gaz. vol. 233; p. 1144.

Mastin, Charles I. E., Midland Park, N. J., assignor to S. Dickson, New York, N. Y. Packing. No. 1,208,605; Dec. 12; Gaz. vol. 233; p. 680.

Maston, Haulsey B., *et al.* (See Tibbitt, William E., assignor.)

Matheson, Gilbert R., and J. B. Shaw, Winnipeg, Manitoba, Canada. Automobile-headlight. No. 1,209,987; Dec. 26; Gaz. vol. 233; p. 1231.

Mathews, Fred, Chicago, Ill. Running-board retainer. No. 1,209,741; Dec. 26; Gaz. vol. 233; p. 1144.

Mathis, Frank X. (See Fow, Raymond S., assignor.)

Mathis, Ralph E., St. Louis, Mo. Journal-box. No. 1,209,005; Dec. 19; Gaz. vol. 233; p. 859.

Matson, Charles I., Chicago, Ill. Safety-razor. No. 1,210,340; Dec. 26; Gaz. vol. 233; p. 1350.

Mattatuck Manufacturing Company, The. (See Peck, Charles W., assignor.)

Matter, Julius, Laaken, near Barmen-Rittershausen, assignor to I. P. Bemberg, Aktien-Gesellschaft, Barmen Rittershausen, Germany. Apparatus for leaching and rinsing mercerized fabrics and recovering the lye. No. 1,209,465; Dec. 19; Gaz. vol. 233; p. 1017.

Matthews, James, Vancouver, British Columbia, Canada. Excavating-bucket. No. 1,209,988; Dec. 26; Gaz. vol. 233; p. 1232.

Matthews, Joseph, E. W. Freeman, and W. H. S. Bateman, Philadelphia, Pa. Sash-operating device. No. 1,210,341; Dec. 26; Gaz. vol. 233; p. 1350.

Matthews, Percy W. (See Atterbury and Matthews.)

Matthews, William S., St. Joseph, Mo. Loose-sheet tablet. (Reissue.) No. 14,229; Dec. 12; Gaz. vol. 233; p. 722.

Mattingley, Vivian A., and W. T. Ridley, St. Joseph, Mo. Permanent river-bank pavement. No. 1,206,879; Dec. 5; Gaz. vol. 233; p. 33.

Mattingly, Albertus B., assignor to R. A. Merrill, New York, N. Y. Machine for treating envelops or paper. No. 1,206,880; Dec. 5; Gaz. vol. 233; p. 33.

Mattman, Emil, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Motor-winding. No. 1,208,183; Dec. 12; Gaz. vol. 233; p. 530.

Maus, Edward J., Joliet, Ill. Artificial bait. No. 1,207,588; Dec. 5; Gaz. vol. 233; p. 279.

Maussner, Frederick, assignor to Delany and Company, Philadelphia, Pa. Machine for interlacing curled hair. No. 1,208,719; Dec. 12; Gaz. vol. 233; p. 719.

Maxim, Hosea F., Norfolk, Va. Connector for electric conductors. No. 1,209,604; Dec. 19; Gaz. vol. 233; p. 1005.

Maximum Electrical Company. (See Mueller, Theodor M., assignor.)

Maxwell, Jessee H., Barboursville, W. Va. Detachable oil-well-casing puller. No. 1,209,006; Dec. 19; Gaz. vol. 233; p. 859.

Maxwell, William, Bloomington, Ill. Railway-gate. No. 1,210,190; Dec. 26; Gaz. vol. 233; p. 1302.

May, Ralph O., Salem, Ind. Automatic stop for sound-reproducing machines. No. 1,207,589; Dec. 5; Gaz. vol. 233; p 280.

May, Walter S., San Francisco, Cal. Steaming and smoothing device. No. 1,209,466; Dec. 19; Gaz. vol. 233; p. 1018.

Mayer, Brantz, Philadelphia, Pa., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,208,606; Dec. 12; Gaz. vol. 233; p. 680.

Mayer, Franc D., Chicago, Ill. Tire-adjusting apparatus. No. 1,208,184; Dec. 12; Gaz. vol. 233; p. 530.

Mayer, Waldemar F., Hoboken, N. J., and A. Sundh, Hastings-upon-Hudson, N. Y. Multiple-car elevator system. No. 1,208,607; Dec. 12; Gaz. vol. 233; p. 681.

Maynard, Albert E., assignor to American Optical Company, Southbridge, Mass. Edging-machine. No. 1,207,590; Dec. 5; Gaz. vol. 233; p. 280.

Maynard, John D. (See Duggan and Maynard.)

Maytag Company, The. (See Snyder, Howard F., assignor.)

Maytrott, Henry, assignor to The Hawthorne Manufacturing Company, Inc., Bridgeport, Conn. Lamp. No. 1,208,347; Dec. 12; Gaz. vol. 233; p. 590.

McAfee, Almer M., New York, N. Y., assignor to Gulf Refining Company, Pittsburgh, Pa. Utilization of aluminum-chlorid residues. No. 1,206,874; Dec. 5; Gaz. vol. 233; p. 31.

McAll, Edward S., Ilion, N. Y. Camera-holding device. No. 1,208,344; Dec. 12; Gaz. vol. 233; p. 588.

McArthur, Charles, Grand Rapids, Mich. Dress-gage. No. 1,209,738; Dec. 26; Gaz. vol. 233; p. 1143.

McCabe, Edward E., Benton, Wis. Tunneling. No. 1,208,178; Dec. 12; Gaz. vol. 233; p. 528.

McClaran, Elmer E. (See La Follette, Joseph, assignor.)

McClay, Clarrence G. (See McClay, William W. and C. G.)

McClay, William W. and C. G., Chicago, Ill. Mailing-card. No. 1,208,179; Dec. 12; Gaz. vol. 233; p. 529.

McClelland, John H., Anamoose, N. D. Base-ball game. No. 1,208,594; Dec. 12; Gaz. vol. 233; p. 676.

McClellon, James M., Everett, Mass. Coal-handling apparatus. No. 1,208,996; Dec. 19; Gaz. vol. 233; p. 856.

McClintock, Charles N., Elwood, Ind. Rope-splicing machine. No. 1,209,186; Dec. 19; Gaz. vol. 233; p. 920.

McClinton, Elmore. (See Anderson and McClinton.)

McClure, Cicero F., Angleton, Tex. Neck-yoke. No. 1,207,059; Dec. 5; Gaz. vol. 233; p. 93.

McClure, Edward, assignor of one-half to F. P. Smith, Chicago, Ill. Ash-receptacle. No. 1,207,953; Dec. 12; Gaz. vol. 233; p. 448.

McClure, Edward, assignor of one-half to F. P. Smith, Chicago, Ill. Fire-escape. No. 1,207,954; Dec. 12; Gaz. vol. 233; p. 449.

McColl, Francis P., St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill. Oil-feeding machine. No. 1,206,875; Dec. 5; Gaz. vol. 233; p. 31.

McColl, Francis P., St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill. Soldering-machine. No. 1,206,876; Dec. 5; Gaz. vol. 233; p. 32.

McColl, Francis P., St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill. Packing and frying fish. No. 1,206,877; Dec. 5; Gaz. vol. 233; p. 32.

McCord, Alvin C., Chicago, Ill. Journal-box lid. No. 1,208,180; Dec. 12; Gaz. vol. 233; p. 529.

McCord Manufacturing Company. (See Schlacks, Joseph T., assignor.)

McCoy, Don A., Miller, S. D. Combined weed-extractor and lawn-rake. No. 1,207,308; Dec. 5; Gaz. vol. 233; p. 180.

McCoy, Herbert W., and W. H. Chapman, Peekskill, N. Y. Measuring-pump. No. 1,210,183; Dec. 26; Gaz. vol. 233; p. 1300.

McCrabbe, Hughbert W., and H. F. Norton, Seattle, Wash. Brooder. No. 1,207,424; Dec. 5; Gaz. vol. 233; p. 222.

McCrae, Charles L. (See Ballinger, John L., assignor.)

McDonald, Donald, Louisville, Ky. Aquatic screen. No. 1,207,776; Dec. 12; Gaz. vol. 233; p. 387.

McDonald, Thomas, Youngstown, Ohio. Blast-furnace casting apparatus. No. 1,210,091; Dec. 26; Gaz. vol. 233; p. 1267.

McDonald, Thorburn D., Ruthven, Ontario, Canada. Coupling for hay-racks. No. 1,207,955; Dec. 12; Gaz. vol. 233; p. 449.

McDougall Company. (See Coss, Frank, assignor.)

McElhaney, Raymond. (See Jenkins, David R., assignor.)

McElroy, James F., deceased, Albany, N. Y.; S. H. McElroy, executrix, assignor to Consolidated Car-Heating Company. Casing for electric switches. No. 1,207,950; Dec. 12; Gaz. vol. 233; p. 449.

McElroy, James F., deceased, Albany, N. Y.; S. H. McElroy, executrix, assignor to Consolidated Car-Heating Company. Thermostat. No. 1,207,957; Dec. 12; Gaz. vol. 233; p. 450.

McElroy, Susie H., executrix. (See McElroy, James F.)

McElveen, Aaron, Stilson, Ga. Honey-bee queen-yard. No. 1,207,425; Dec. 5; Gaz. vol. 233; p. 222.

McEvoy Wireless Well Strainer Co. (See Trumble, Milon J., assignor.)

McEwen, Willard M. (See Kimble, Austin, assignor.)

McGaffee, James F., Des Moines, Iowa. Silo-chute. No. 1,208,345; Dec. 12; Gaz. vol. 233; p. 589.

McGrath, Martin. (See Garrett, John J., assignor.)

McGuigan, Joseph S., St. Louis, Mo. Bolt-nut. No. 1,208,997; Dec. 19; Gaz. vol. 233; p. 856.

McGuire, Elmer E., assignor of one-third to J. Smith, Anaconda, Mont. Fastening-pin. No. 1,209,867; Dec. 26; Gaz. vol. 233; p. 1189.

McIndoe, James W., Medford, and A. E. Whitney, Winchester, Mass. Making wall-coverings. No. 1,208,808; Dec. 19; Gaz. vol. 233; p. 794.

McIntire, James F., assignor to United States Radiator Corporation, Detroit, Mich. Furnace. No. 1,207,777; Dec. 12; Gaz. vol. 233; p. 387.

McIntosh, James A., Portland, Oreg. Traffic-signal. No. 1,210,336; Dec. 26; Gaz. vol. 233; p. 1348.

McIntyre, Hugh J., Winnipeg, Manitoba, Canada. Fastener. No. 1,210,337; Dec. 26; Gaz. vol. 233; p. 1349.

McIntyre, Hugh Y., Milwaukee, Wis. Apparatus for purifying water. No. 1,207,309; Dec. 5; Gaz. vol. 233; p. 180.

McIntyre, Malcolm, New York, N. Y., and J. Frohlin, assignors to Bergen Point Iron Works, Bayonne, N. J. Receptacle. No. 1,210,184; Dec. 26; Gaz. vol. 233; p. 1300.

McKay, Andrew E., Wilbur, Wash. Weeder. No. 1,210,092; Dec. 26; Gaz. vol. 233; p. 1267.

McKay, William F., La Grange, Ill. Prepared roofing. No. 1,208,595; Dec. 12; Gaz. vol. 233; p. 677.

McKellar, Judson L., assignor to Gasau-Thompson Company, Inc., Brooklyn, N. Y. Bedstead. No. 1,207,187; Dec. 5; Gaz. vol. 233; p. 138.

McKenna, Philip M., Washington, D. C. Treating ferro-tungsten. No. 1,208,596; Dec. 12; Gaz. vol. 233; p. 677.

McKinney, Elnathan J., Ozona, Tex. Measuring instrument for curved surfaces. No. 1,207,582; Dec. 5; Gaz. vol. 233; p. 277.

McKinzie, Edward R., assignor of one-half to J. A. Fowler, Memphis, Tenn. Automatic lubricator. No. 1,207,583; Dec. 5; Gaz. vol. 233; p. 277.

McLaughlin, John C., Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,209,865; Dec. 26; Gaz. vol. 233; p. 1189.

McLean, Hilliard N. A., Detroit, Mich. Sanitary closet. No. 1,207,188; Dec. 5; Gaz. vol. 233; p. 139.

McLeod, Royal, Fort Collins, Colo. Sugar-beet-cultivator attachment. No. 1,210,185; Dec. 26; Gaz. vol. 233; p. 1301.

McMaster, James A., Kittanning, Pa. Barrel-hoist. No. 1,207,778; Dec. 12; Gaz. vol. 233; p. 388.

McMeans, Orange E., *et al.* (See Tripp, Charles A., assignor.)

McMurtrie, Adnah, assignor to Thomas & Betts Company, New York, N. Y. Attachment for electrical conduits. No. 1,207,958; Dec. 12; Gaz. vol. 233; p. 450.

McMurtrie, Adnah, assignor to Thomas & Betts Company, New York, N. Y. Pipe-coupling. No. 1,207,959; Dec. 12; Gaz. vol. 233; p. 451.

McNabb, William F., Carthage, Mo. Shock-absorber. No. 1,207,426; Dec. 5; Gaz. vol. 233; p. 222.

McNeill, George, Detroit, Mich., assignor to Morgan & Wright. Fabric centering and stretching device. No. 1,207,602; Dec. 5; Gaz. vol. 233; p. 317.

McNeill, Robert C., Jersey City, N. J. Trick device. No. 1,207,960; Dec. 12; Gaz. vol. 233; p. 451.

McNorton, William, Thompson Falls, Mont. Rail-clamp. No. 1,207,961; Dec. 12; Gaz. vol. 233; p. 451.

McPherson, Elmer T., assignor to The Irwin Auger Bit Company, Wilmington, Ohio. Marking device. No. 1,207,060; Dec. 5; Gaz. vol. 233; p. 93.

McQuillen, Edward K. (See Lemp and McQuillen.)

McQuire, Michael J. (See Merritt, James E., assignor.)

McRae, Walter F., Waynesboro, Miss. Rail-joint bolt. No. 1,207,962; Dec. 12; Gaz. vol. 233; p. 451.

McSweeney, James, Crete, W. Va. Plow. No. 1,210,338; Dec. 26; Gaz. vol. 233; p. 1349.

Mead, George A., assignor to The Ohio Brass Company, Mansfield, Ohio. Bonding rails. No. 1,209,742; Dec. 26; Gaz. vol. 233; p. 1144.

Meadwell, William E., Ithaca, N. Y. Pen and pencil cap. No. 1,208,608; Dec. 12; Gaz. vol. 233; p. 681.

Meaker, Guy L., Joliet, Ill. Furnace for galvanizing wire. No. 1,208,185; Dec. 12; Gaz. vol. 233; p. 531.

Mechanical Rubber Co., The. (See Chatelain, Alex, assignor.)

Megosin Company. (See Johnson, Wilner E., assignor.)

Megosin Company. (See Menden, William S., assignor.)

Meier, Edward C., Phoenixville, Pa. Boiler. No. 1,208,811; Dec. 19; Gaz. vol. 233; p. 795.

Meier, Edward C., Phoenixville, Pa. Upright boiler. No. 1,208,812; Dec. 19; Gaz. vol. 233; p. 796.

Meier, Edward C., Phoenixville, Pa. Box-header. No. 1,208,813; Dec. 19; Gaz. vol. 233; p. 796.

Meier, Hermann F., Brooklyn, N. Y. Clothes-line pulley. No. 1,208,814; Dec. 19; Gaz. vol. 233; p. 797.

Meiser, Wilhelm, and C. Krauch, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Absorbing carbon monoxid. No. 1,207,968; Dec. 12; Gaz. vol. 233; p. 453.

Meixner, John, Traer, Kans. Roller attachment for listers. No. 1,209,467; Dec. 19; Gaz. vol. 233; p. 1018.

Mell, Tod J., assignor to The Republic Rubber Company, Youngstown, Ohio. Bead for tire-casings. No. 1,209,605; Dec. 19; Gaz. vol. 233; p. 1005.

Mellor, Norman. (See Malaby, Ira B., assignor.)

Melrose, Albert G., Carmen, Okla. Power-transmission mechanism. No. 1,207,591; Dec. 5; Gaz. vol. 233; p. 280.

Menco-Elma Syndicate Limited. (See Pollard, George, assignor.)

Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. System of controlling railway-cars. No. 1,209,468; Dec. 19; Gaz. vol. 233; p. 1018.

Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. System of controlling railway-cars. No. 1,209,469; Dec. 19; Gaz. vol. 233; p. 1019.

Menge, Charles F., assignor to Mott Wheel Works, Utica, N. Y. Spoke. No. 1,208,609; Dec. 12; Gaz. vol. 233; p. 682.

Mengel Box Company. (See Schleicher and Boyer, assignors.)

Menkin, Max, and S. Fischer, New York, N. Y. Press-button. No. 1,209,470; Dec. 19; Gaz. vol. 233; p. 1019.

Mennie, William, assignor of one-half to C. A. Fettig, Detroit, Mich. Differential gear. No. 1,209,007; Dec. 19; Gaz. vol. 233; p. 859.

Menzies, John B., Saugus, Cal. Window-sash catch. No. 1,207,969; Dec. 12; Gaz. vol. 233; p. 454.

Mercer Tire Company. (See Dech, Henry, assignor.)

Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)

Merion, J. E., *et al.* (See Tripp, Charles A., assignor.)

Merithew, Charles L., Buckley, Mich. Cold-storage apparatus. No. 1,209,471; Dec. 19; Gaz. vol. 233; p. 1020.

Merrill, Raymond A. (See Mattingly, Albertus B., assignor.)

Merritt, James E., Fargo, N. D., assignor to M. J. McQuire, Superior, Wis. Outer garment. No. 1,210,342; Dec. 26; Gaz. vol. 233; p. 1350.

Merrow, Joseph M., assignor to The Merrow Machine Company, Hartford, Conn. Trimmer-shifting mechanism for sewing-machines. No. 1,207,063; Dec. 5; Gaz. vol. 233; p. 94.

Merrow, Joseph M., Hartford, Conn., assignor to The Merrow Machine Company. Crochet-machine. No. 1,207,314; Dec. 5; Gaz. vol. 233; p. 182.

Merrow, Joseph M., assignor to The Merrow Machine Company, Hartford, Conn. Guide-adjusting mechanism for sewing-machines. No. 1,207,315; Dec. 5; Gaz. vol. 233; p. 182.

Merrow Machine Company, The. (See Avis, Samuel W., assignor.)

Merrow Machine Company, The. (See Merrow, Joseph M., assignor.)

Merryweather, James, assignor of forty one-hundredths to T. Brothers, Greencastle, Ind. Train-controlling apparatus. No. 1,207,970; Dec. 12; Gaz. vol. 233; p. 454.

Mertens, Eduard, Freiburg-im-Breisgau, Germany. Intermediate roll for printing-machines. No. 1,208,815; Dec. 19; Gaz. vol. 233; p. 797.

Mertz, James. (See Hotchkiss and Mertz.)

Messina, Joseph, Benid, Ill. Stovepipe. No. 1,209,008; Dec. 19; Gaz. vol. 233; p. 860.

Messler, Matie C. (See Herrick, Albert B., assignor.)

Metallstanzwerk, G. m. b. H. (See Krauss, Arno W., assignor.)

Metallurgical Engineering & Process Corporation. (See Robinson, Cyrus, assignor.)

Metcalf, Arthur S. E., Driscoll, N. D. Plier-wrench. No. 1,207,004; Dec. 5; Gaz. vol. 233; p. 95.

Metts, Amos B., Grosvenor, Tex. Neck-yoke. No. 1,208,816; Dec. 19; Gaz. vol. 233; p. 798.

Meusch, Theodore F., Winnfield, La. Check-protector. No. 1,209,606; Dec. 19; Gaz. vol. 233; p. 1005.

Mey, Ella E., Del Rio, Tex. Folding bunk-stair. No. 1,209,868; Dec. 26; Gaz. vol. 233; p. 1190.

Meyer, Adam P. D. (See Fischer, Joseph B., assignor.)

Meyer, Chester F., assignor to The National Malleable Castings Company, Cleveland, Ohio. Radial-draft gear. No. 1,209,187; Dec. 19; Gaz. vol. 233; p. 920.

Meyer, Chester F., and F. R. Campbell, assignors to The National Malleable Castings Company, Cleveland, Ohio. Radial-draft gear. No. 1,209,188; Dec. 19; Gaz. vol. 233; p. 921.

Meyer, John J., Jr., Glenshaw, Pa. Blow-head for bottle-blowing machines. No. 1,209,472; Dec. 19; Gaz. vol. 233; p. 1020.

Michelin, Jules H., New Brunswick, assignor to Michelin Tire Company, Milltown, N. J. Apparatus for molding fancy-tread tires. No. 1,209,607; Dec. 19; Gaz. vol. 233; p. 1066.

Michelin Tire Company. (See Michelin, Jules H., assignor.)

Michener, Clarence M., and A. C. Baumann, New York, N. Y. Indicator for automobiles. No. 1,207,194; Dec. 5; Gaz. vol. 233; p. 141.

Micklewood, Edmund H., Devon, England. Valve-operating mechanism. No. 1,210,343; Dec. 26; Gaz. vol. 233; p. 1351.

Middleton, Harry N., Westville, N. J., assignor to B. F. Sturtevant Company, Boston, Mass. Safety tool appliance. No. 1,208,186; Dec. 12; Gaz. vol. 233; p. 531.
Middleton, John T. (See Kingan, Charles, assignor.)
Middleton, Luther, Little Rock, Ark. Chuck. No. 1,210,093; Dec. 26; Gaz. vol. 233; p. 1268.
Midvale Steel Company, The. (See Furness and Patch, assignors.)
Midvale Steel Company, The. (See Patch and Furness, assignors.)
Miehle Printing Press & Manufacturing Company. (See Blaine, Joseph R., assignor.)
Mignone, John. (See Adelmo and Mignone.)
Mihara, Gosaku, Seattle, Wash. Railway-switch. No. 1,208,610; Dec. 12; Gaz. vol. 233; p. 682.
Mikkelsen, Edward M., Chicago, Ill. Holder for individual towels. No. 1,207,971; Dec. 12; Gaz. vol. 233; p. 454.
Miksch, Arthur W. (See Miksch, Kenzel A. and A. W.)
Miksch, Wenzel A. and A. W., Charleroi, assignors to Macbeth-Evans Glass Company, Pittsburgh, Pa. Decorating glassware. No. 1,207,972; Dec. 12; Gaz. vol. 233; p. 455.
Milhening, Frank, assignor to J. Milhening, Inc., Chicago, Ill. Setting for precious stones and the like. No. 1,207,973; Dec. 12; Gaz. vol. 233; p. 455.
Millener, Frederick H., Omaha, Nebr. Apparatus for generating high-frequency electrical oscillations. No. 1,208,187; Dec. 12; Gaz. vol. 233; p. 531.
Miller, Archibald H. (See Lahey, William F., assignor.)
Miller, Arthur E., Sacramento, Cal. Shock-absorber for vehicles. No. 1,209,190; Dec. 19; Gaz. vol. 233; p. 921.
Miller, Calvin C., Summithill, Pa. Figure toy. No. 1,207,195; Dec. 5; Gaz. vol. 233; p. 142.
Miller, Charles A., assignor to Miller Manufacturing Company, Bainbridge, Ga. Bottle rinsing and conveying machine. No. 1,207,592; Dec. 5; Gaz. vol. 233; p. 281.
Miller, C. Wilbur, *et al.* (See Patten, John, assignor.)
Miller, Charles T., Macon, Ga. Valve protector and strainer. No. 1,207,593; Dec. 5; Gaz. vol. 233; p. 281.
Miller, Emery E., Lewisburg, Pa. Pneumatic-tire protector. No. 1,207,594; Dec. 5; Gaz. vol. 233; p. 281.
Miller, Ernest B., *et al.* (See Patten, John, assignor.)
Miller, Frederick H., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Post-type arc-lamp. No. 1,208,188; Dec. 12; Gaz. vol. 233; p. 532.
Miller, George P., Govans, Md. Bottle-labeling machine. No. 1,209,191; Dec. 19; Gaz. vol. 233; p. 922.
Miller, George P., Govans, Md. Bottle-corking machine. No. 1,209,192; Dec. 19; Gaz. vol. 233; p. 922.
Miller, Henry C., Waterford, N. Y. Making diaphragms. No. 1,206,881; Dec. 5; Gaz. vol. 233; p. 34.
Miller, Henry J., assignor of one-fourth to J. H. Miller, Kansas City, Mo., one-half to Safety Manufacturing Company, and one-fourth to The Everglades Sugar & Land Co., Miami, Fla. Safety steering device. No. 1,207,693; Dec. 5; Gaz. vol. 233; p. 317.
Miller, Howard O., Rochester, N. Y. Receptacle for powdered materials, &c. No. 1,208,189; Dec. 12; Gaz. vol. 233; p. 532.
Miller, Jacob C., Omaha, Nebr. Lid-retainer. No. 1,207,974; Dec. 12; Gaz. vol. 233; p. 455.
Miller, James I., *et al.* (See Connell, Edward P., assignor.)
Miller, J. H., *et al.* (See Miller, Henry J., assignor.)
Miller Manufacturing Company. (See Miller, Charles A., assignor.)
Miller, Max C., Providence, assignor to Jenckes Knitting Machine Company, Pawtucket, R. I. Knit fabric. No. 1,210,344; Dec. 26; Gaz. vol. 233; p. 1351.
Miller, Max C., Providence, assignor to Jenckes Knitting Machine Company, Pawtucket, R. I. Knit fabric. No. 1,210,345; Dec. 26; Gaz. vol. 233; p. 1351.
Miller, Ole C., Chicago, Ill., assignor, by mesne assignments, to Alberts & Meyer Manufacturing Company, Two Rivers, Wis. Collapsible bookcase. No. 1,207,595; Dec. 5; Gaz. vol. 233; p. 282.
Miller, Paul. (See Belley, John, assignor.)
Miller, Robert E. (See Lough and Miller.)
Miller, Stanley G., St. Paul, Minn. Swathing attachment for harvesting-machines. No. 1,207,065; Dec. 5; Gaz. vol. 233; p. 95.
Miller, Thomas S., South Orange, N. J. Excavating apparatus and bucket. No. 1,208,348; Dec. 12; Gaz. vol. 233; p. 590.
Miller, Warren C., Medford, Oreg. Water-current motor. No. 1,208,611; Dec. 12; Gaz. vol. 233; p. 682.
Miller, William, Birmingham, England. Spring dress-fastening. No. 1,208,612; Dec. 12; Gaz. vol. 233; p. 682.
Millice, Paul S., Miamisburg, Ohio, assignor to Fire-Proof Furniture and Construction Company, New York, N. Y. File-container. No. 1,207,066; Dec. 5; Gaz. vol. 233; p. 96.
Mills, Frank W., Little Falls, N. Y. Thermostatic regulator. No. 1,209,473; Dec. 19; Gaz. vol. 233; p. 1021.
Mills, Harry, Philadelphia, Pa. Rim construction. No. 1,207,975; Dec. 12; Gaz. vol. 233; p. 455.
Mills, Herbert S. (See Sandell, Henry K., assignor.)
Mills, Jesse E. (See O'Brien, John H., assignor.)
Mills Woven Cartridge Belt Company. (See Jennings, Victor H., assignor.)
Milner, Guy M., Buhl, Idaho. Computer. No. 1,209,474; Dec. 19; Gaz. vol. 233; p. 1021.
Milo, John. (See Jenkins, Thomas, assignor.)
Milton, James H. (See Brady, James T., assignor.)
Milton Schnaier Contracting Corp. (See Schnaier, Milton, assignor.)
Milwaukee Casket Company. (See Swartz, Warren E., assignor.)
Milwaukee Gas Specialty Company. (See Rutz, Arnold O., assignor.)
Minderfer, John W., Lincoln, Nebr. Grease-box-plug lock. No. 1,207,596; Dec. 5; Gaz. vol. 233; p. 282.
Miner, William H. (See O'Connor, John F., assignor.)
Minerals Separation American Syndicate (1913) Limited. (See Lavers, Greenway, and Lowry, assignors.)
Minerals Separation American Syndicate (1913) Limited. (See Lavers, Lowry, and Greenway, assignors.)
Minneapolis Heat Regulator Company. (See Otis, John F., assignor.)
Minneapolis Steel & Machinery Company. (See Ruemelin, Richard, assignor.)
Minges, Alvin C., *et al.* (See Minges, Joseph C., assignor.)
Minges, Joseph C., Highland, Ill., assignor of one-fourth to F. J. Hockmuth and one-fourth to A. C. Minges. Making shoes. No. 1,208,613; Dec. 12; Gaz. vol. 233; p. 682.
Minor, Ralph W., Birmingham, Ala. Segmental grate-bar. No. 1,208,614; Dec. 12; Gaz. vol. 233; p. 683.
Mitchell, Elton L. (See Warren, George F., assignor.)
Mitchell, Halsey J., Schenectady, N. Y. Combination salt and pepper shaker. No. 1,209,318; Dec. 19; Gaz. vol. 233; p. 965.
Mitchell, Harrison J., assignor to P. B. Yates Machine Company, Beloit, Wis. Board-sizing machine. No. 1,207,976; Dec. 12; Gaz. vol. 233; p. 455.
Mitchell, Percy J. (See Evans and Mitchell.)
Mitchell, Zuiah, Seligman, Mo. Fluting and plaiting device. No. 1,210,346; Dec. 26; Gaz. vol. 233; p. 1351.
Mittasch, Alwin. (See Bosch, Mittasch, and Beck.)
Mitts, Philip S., Saginaw, Mich. Machine for making sawdust. No. 1,209,319; Dec. 19; Gaz. vol. 233; p. 965.
Mitzel, Harvey F., Boston, assignor of one-half to W. M. Rose, Hyde Park, Boston, Mass. Dipped rubber hot-water bottle and making. No. 1,208,615; Dec. 12; Gaz. vol. 233; p. 683.
Moeller, Arthur J., and E. A. Rotter, Chicago, Ill. Speed and mileage register and recorder. No. 1,209,608; Dec. 19; Gaz. vol. 233; p. 1066.
Moeller, William E., Chicago, Ill. Nut-lock. No. 1,207,597; Dec. 5; Gaz. vol. 233; p. 282.
Moffat, James W., Toronto, Ontario, Canada. Electric furnace. No. 1,208,817; Dec. 19; Gaz. vol. 233; p. 798.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Folder for sewing-machines. No. 1,207,977; Dec. 12; Gaz. vol. 233; p. 456.
Moffatt, James R., and R. S. Kelso, assignors to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,209,009; Dec. 19; Gaz. vol. 233; p. 860.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for sewing-machines. No. 1,209,609; Dec. 19; Gaz. vol. 233; p. 1066.
Moline Plow Company. (See Dickinson, Harry S., assignor.)
Molkenbur, Henry F., St. Paul, Minn. Tire-pump. No. 1,207,427; Dec. 5; Gaz. vol. 233; p. 223.
Mong, Bert B., assignor of one-half to E. Brotherton, Muncie, Ind. Valve for the fuel-nozzles of internal-combustion engines. No. 1,208,616; Dec. 12; Gaz. vol. 233; p. 684.
Monroe Calculating Machine Company. (See Monroe, Jay R., assignor.)
Monroe Calculating Machine Company. (See Phinney, Edgar E., assignor.)
Monroe, Jay R., assignor to Monroe Calculating Machine Company, New York, N. Y. Carriage-lock for calculating-machines. No. 1,208,190; Dec. 12; Gaz. vol. 233; p. 533.
Monroe, Ralph E. Camp Verde, Ariz. Device for setting up bearings. No. 1,207,602; Dec. 5; Gaz. vol. 233; p. 284.
Montague, John R., Niagara Falls, Ontario, Canada. Camera tripping attachment. No. 1,208,617; Dec. 12; Gaz. vol. 233; p. 684.
Montague, Mosby, Christiansburg, assignor to Wilmont Ventilating Company, Inc., Roanoke, Va. Air-circulating apparatus. No. 1,207,316; Dec. 5; Gaz. vol. 233; p. 182.
Moody, Benjamin F., Huttig, Ark. Fire-extinguishing apparatus. No. 1,208,349; Dec. 12; Gaz. vol. 233; p. 590.
Moon, Charles T., Scottsville, Va. Receptacle support and cover. No. 1,207,598; Dec. 5; Gaz. vol. 233; p. 282.
Moore, Ada E., St. Anthony, Idaho. Combined ash can and sifter. No. 1,210,347; Dec. 26; Gaz. vol. 233; p. 1352.
Moore, Edmund L., Vega Baja, Porto Rico. Nut-lock. No. 1,208,350; Dec. 12; Gaz. vol. 233; p. 591.
Moore, George, Joplin, Mo. Treating pulp. No. 1,207,978; Dec. 12; Gaz. vol. 233; p. 456.
Moore, George A., Tarpon Springs, Fla., assignor of one-half to R. E. Parrott, Bristol, Tenn. Extension-table. No. 1,210,381; Dec. 26; Gaz. vol. 233; p. 1363.
Moore, Leslie E., Long Beach, Cal. Automatic alarm apparatus. No. 1,210,348; Dec. 26; Gaz. vol. 233; p. 1352.
Moore Rifle and Arms Company. (See Moore, Robert A., assignor.)

Moore, Robert A., assignor to The Moore Rifle and Arms Company, Inc., New York, N. Y. Sight for firearms. No. 1,210,191; Dec. 26; Gaz. vol. 233; p. 1302.
Moore, Robert S., assignor to Gyro Motor Company, Washington, D. C. Internal-combustion engine. No. 1,209,743; Dec. 26; Gaz. vol. 233; p. 1145.
Moore, Walter E., Memphis, Tenn. Device for use in cutting paper in rolls. No. 1,210,349; Dec. 26; Gaz. vol. 233; p. 1353.
Moore, William F., Votaw, Tex. Plow. No. 1,210,350; Dec. 26; Gaz. vol. 233; p. 1353.
Moorhead, Albert E., San Francisco, Cal. Vacuum floor-cleaner. No. 1,208,351; Dec. 12; Gaz. vol. 233; p. 591.
Morene, Carl T., Nixon, Tex. Insulating-tube. No. 1,206,882; Dec. 5; Gaz. vol. 233; p. 34.
Morey, Harry J., and F. A. Brogden, Syracuse, N. Y. Electric switch. No. 1,207,603; Dec. 5; Gaz. vol. 233; p. 284.
Morey, Harry J., and F. A. Brogden, Syracuse, assignors to Pass and Seymour, Inc., Solvay, N. Y. Electric switch. No. 1,209,744; Dec. 26; Gaz. vol. 233; p. 1145.
Morgan, Charles N. (See Young, John W., assignor.)
Morgan, Dott J., Indianapolis, Ind. Straight-edge. No. 1,207,428; Dec. 5; Gaz. vol. 233; p. 223.
Morgan Engineering Company, The. (See Taylor, Clarence L., assignor.)
Morgan, Franklyn J., Los Angeles, Cal. Seat. No. 1,207,599; Dec. 5; Gaz. vol. 233; p. 283.
Morgan, Frederick J. (See Thomas, Berk, and Morgan.)
Morgan, Hubert S., assignor to The Forbes Lithograph Manufacturing Company, Boston, Mass. Display-easel. No. 1,207,604; Dec. 5; Gaz. vol. 233; p. 285.
Morgan, Thomas L., New Castle, Pa. Door-check. No. 1,207,600; Dec. 5; Gaz. vol. 233; p. 283.
Morgan, William C. (See Lynch, Thomas B., assignor.)
Morgan & Wright. (See Hoyt, Homer J., assignor.)
Morgan & Wright. (See McNeill, George, assignor.)
Morison, James, Watson, Oreg. Hand-mower. No. 1,208,352; Dec. 12; Gaz. vol. 233; p. 591.
Morison, James C., Memphis, Tenn. Means for equalizing piston displacement. No. 1,207,429; Dec. 5; Gaz. vol. 233; p. 223.
Morneweck, David, Fredonia, Pa. Ratchet-wrench. No. 1,209,320; Dec. 19; Gaz. vol. 233; p. 966.
Morrey, A. P. (See Lochray, Guy D., assignor.)
Morris Cash and Credit Register Company. (See Morris, Joshua L., assignor.)
Morris, Harold B., Glendale, Cal. Manufacture of covered frame-pieces for chairs and other articles. No. 1,207,979; Dec. 12; Gaz. vol. 233; p. 457.
Morris, Joshua L., Council Bluffs, Iowa, assignor to Morris Cash and Credit Register Company, Omaha, Nebr. Apparatus for credit and account systems. No. 1,206,883; Dec. 5; Gaz. vol. 233; p. 34.
Morris, Patrick F., Butte, Mont. Nut-lock. No. 1,209,475; Dec. 19; Gaz. vol. 233; p. 1021.
Morris, Wesley H., Richmond, Va. Camera-operating device. No. 1,209,745; Dec. 26; Gaz. vol. 233; p. 1145.
Morrison, John H., New York, N. Y. Clean-out ferrule. No. 1,208,618; Dec. 12; Gaz. vol. 233; p. 685.
Morrison, Thomas J., Manhattan, Kans. Device for regulating incubators, &c. No. 1,208,619; Dec. 12; Gaz. vol. 233; p. 685.
Morrow, George A., Altoona, Pa. Advertising novelty. No. 1,208,191; Dec. 12; Gaz. vol. 233; p. 533.
Morse, William H., Detroit, Mich. Load-sustaining device. No. 1,209,746; Dec. 26; Gaz. vol. 233; p. 1146.
Morsell, Arthur L. (See Keeney, Charles H., assignor.)
Morton, Charley, Warrensburg, Mo. Ventilator for toilets. No. 1,207,605; Dec. 5; Gaz. vol. 233; p. 285.
Morton, Harry U. (See Paulsen, Paul C., assignor.)
Morton, Henry E., Muskegon Heights, Mich. Draw-cut shaper-head. No. 1,206,884; Dec. 5; Gaz. vol. 233; p. 35.
Moser, Charles E., Boulogne-sur-Seine, France. Vehicle-wheel. No. 1,208,192; Dec. 12; Gaz. vol. 233; p. 533.
Moser, Milton, Juneau, Alaska. Washer. No. 1,208,620; Dec. 12; Gaz. vol. 233; p. 685.
Moses, Albert, New York, N. Y. Egg-beater. No. 1,210,192; Dec. 26; Gaz. vol. 233; p. 1303.
Mosler, Arthur R., assignor to A. R. Mosler & Co., New York, N. Y. Gasket. No. 1,210,193; Dec. 26; Gaz. vol. 233; p. 1303.
Moss, Charles M., Pittsburgh, and H. A. Travers, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. System of distribution. No. 1,210,094; Dec. 26; Gaz. vol. 233; p. 1268.
Mossinghoff, Bernard H., St. Louis, Mo. Flush-valve. No. 1,208,621; Dec. 12; Gaz. vol. 233; p. 685.
Mott Wheel Works. (See Menge, Charles F., assignor.)
Moudy, Frederick B., Portage, Pa. Bolt and rivet cutter. No. 1,207,601; Dec. 5; Gaz. vol. 233; p. 283.
Moulton, Alfred W., Derby Line, Vt. Motor-cycle stand. No. 1,209,476; Dec. 19; Gaz. vol. 233; p. 1021.
Mowbray, James W., Windsor, Ontario, Canada, assignor, by mesne assignments, to G. L. Brown, Port Huron, Mich. Carbureter. No. 1,209,747; Dec. 26; Gaz. vol. 233; p. 1146.
Mowbray, William, *et al.* (See Oliver, John, assignor.)
Moyer, Albert W., New York, N. Y. Furnace. No. 1,209,321; Dec. 19; Gaz. vol. 233; p. 966.
Moynihan, Eugene J., San Francisco, Cal. Steam-shovel. No. 1,210,194; Dec. 26; Gaz. vol. 233; p. 1303.
Mudge, Charles A., assignor to The U. S. Light and Heat Corporation, Niagara Falls, N. Y. Starter for engines. No. 1,208,353; Dec. 12; Gaz. vol. 233; p. 592.
Muehleisen, Adolph, San Diego, Cal. Camp-stove. No. 1,209,610; Dec. 19; Gaz. vol. 233; p. 1067.
Mueller, Franz, Zurich, Switzerland. Weighting silk with hæmatoxylin. No. 1,207,784; Dec. 12; Gaz. vol. 233; p. 390.
Mueller, Mathias G., Colome, S. D. Fowl-boot. No. 1,207,196; Dec. 5; Gaz. vol. 233; p. 142.
Mueller, Theodor M., assignor to Maximum Electrical Company, Detroit, Mich. Armature-winding. No. 1,207,197; Dec. 5; Gaz. vol. 233; p. 142.
Muller, Frank J., Philadelphia, Pa. Display-stand. No. 1,208,622; Dec. 12; Gaz. vol. 233; p. 686.
Mullin, Ernest E. E., near Chorley, England. Internal-combustion engine. No. 1,209,989; Dec. 26; Gaz. vol. 233; p. 1232.
Mummert, Arden J., St. Louis, Mo. Packing-ring. No. 1,207,198; Dec. 5; Gaz. vol. 233; p. 143.
Münch, Gustav. (See Marburg and Münch.)
Munday, William C., Carterville, Mo. Reversible gear mechanism. No. 1,207,606; Dec. 5; Gaz. vol. 233; p. 285.
Municipal Sanitary Devices Company. (See Talbot, Charles L., assignor.)
Murga, Vasil J. (See Phillips and Murga.)
Murphy, Clarence H., Point Pleasant, N. J. Automatic stop for talking-machines. No. 1,210,195; Dec. 26; Gaz. vol. 233; p. 1304.
Murphy, John A., Philadelphia, Pa. Steaming-plug. No. 1,209,869; Dec. 26; Gaz. vol. 233; p. 1190.
Murray, Montgomery, *et al.* (See Knox, Luther L., assignor.)
Murray, Thomas E., New York, N. Y. Electrical edge-welding. No. 1,206,885; Dec. 5; Gaz. vol. 233; p. 35.
Murray, Thomas E., New York, N. Y. Metal vehicle-wheel. No. 1,206,886; Dec. 5; Gaz. vol. 233; p. 36.
Murray, Thomas E., New York, N. Y. Vehicle-wheel. No. 1,206,887; Dec. 5; Gaz. vol. 233; p. 36.
Murray, Thomas E., New York, N. Y. Hub for metal vehicle-wheels. No. 1,206,888; Dec. 5; Gaz. vol. 233; p. 36.
Murray, Thomas E., New York, N. Y. Hub for metal vehicle-wheels. No. 1,206,889; Dec. 5; Gaz. vol. 233; p. 37.
Murray, Thomas E., and L. H. Hoffer, New York, N. Y.; said Hoffer assignor to said Murray. Electric spot-welding. No. 1,206,890; Dec. 5; Gaz. vol. 233; p. 37.
Murrin, John. (See Brewster and Murrin.)
Muse, Edward A., Hamlet, N. C. Railway-tie. No. 1,209,477; Dec. 19; Gaz. vol. 233; p. 1021.
Muser, Fritz. (See Darrow, Henry W., assignor.)
Mustin, Henry C., U. S. Navy, and W. R. Brookins, Dayton, Ohio. Projectile. No. 1,209,611; Dec. 19; Gaz. vol. 233; p. 1067.
Muther, Lorenz. (See Lautenschlager, William F., assignor.)
Muther, Lorenz. (See Wales, Alfred B., assignor.)
Myers, Carwitt E., Ironton, Mo., assignor of one-half to G. D. Ash, Lansing, Mich. Automatic ringing mechanism for telephone systems. No. 1,209,478; Dec. 19; Gaz. vol. 233; p. 1022.
Myers, Hubert A., assignor of one-half to A. S. Hickok, Toledo, Ohio. Roller-bearing. No. 1,208,354; Dec. 12; Gaz. vol. 233; p. 592.
Myers, I. L. (See Stutz and Arnott, assignors.)
Myers, Lewis C. (See Hess and Myers.)
Myers, Lewis C., assignor to Royal Typewriter Company, Inc., New York, N. Y. Label-clip for type-writing machines. No. 1,207,199; Dec. 5; Gaz. vol. 233; p. 143.
Myers, Sylvester. (See Elliott and Myers.)
Myers, William H. (See Hill and Myers.)
Nakashima, George K., Stockton, Cal. Brush. No. 1,208,623; Dec. 12; Gaz. vol. 233; p. 686.
Nance, Turner H., Birmingham, Ala. Melting and pouring ladle. No. 1,207,607; Dec. 5; Gaz. vol. 233; p. 286.
Nash, Charles J., assignor to Universal Draft Gear Attachment Co., Chicago, Ill. Yoke for draft-gears. No. 1,208,818; Dec. 19; Gaz. vol. 233; p. 798.
Nash, Charles J., Chicago, Ill., assignor to Universal Draft Gear Attachment Co. Railway-car. No. 1,209,010; Dec. 19; Gaz. vol. 233; p. 861.
Nash, John, Seattle, Wash. Adjustable triangle or square and protractor. No. 1,207,980; Dec. 12; Gaz. vol. 233; p. 457.
Nasmith, John W., Heaton Mersey, England. Banding-machine. No. 1,208,819; Dec. 19; Gaz. vol. 233; p. 798.
Nathan Manufacturing Company. (See Wood, Robert, assignor.)
Nathanson, Matthew A., Boston, Mass. Bill-folder. No. 1,209,870; Dec. 26; Gaz. vol. 233; p. 1190.
National Cash Register Company, The. (See Church, Edmund S., assignor.)
National Cash Register Company, The. (See Lorimer, George W., assignor.)
National Cash Register Company, The. (See Martin, Hankon A., assignor.)
National Cash Register Company, The. (See Von Pein, Edward J., assignor.)
National Chemical Company. (See Braun, Philip N., assignor.)

National Equipment Company. (See Kihlgren, Theodor, assignor.)
National Malleable Castings Company, The. (See Kranz, William G., assignor.)
National Malleable Castings Company, The. (See Meyer, Chester F., assignor.)
National Malleable Castings Company, The. (See Meyer and Campbell, assignors.)
National Malleable Castings Company, The. (See Schmidt, Ernest H., assignor.)
National Metal Edge Box Company. (See Horton, John O., assignor.)
National Novelty Company. (See Carter, Clarence W., assignor.)
National Piano Manufacturing Company. (See Green, Clifford H., assignor.)
National Pneumatic Action Co. (See Anderson, Ernst G., assignor.)
National Pneumatic Action Co. (See Dehls, John C., assignor.)
National Sugar Refining Co. of New Jersey, The. (See Lienau and Steenken, assignors.)
National Talking Clock Company. (See Benedict, Bernard, assignor.)
Naugle, Philip D. (See Weller, Hyde, and Naugle.)
Neal, Orville E., Clearwater, Nebr. Educational device. No. 1,209,612; Dec. 19; Gaz. vol. 233; p. 1087.
Neal, Robert R., Wilbur, Wash. Automobile-spring. No. 1,209,322; Dec. 19; Gaz. vol. 233; p. 966.
Neal, William F. (See White and Neal.)
Nechamkus, Samuel D., New York, N. Y. Lead-pipe-sealing cap. No. 1,208,355; Dec. 12; Gaz. vol. 233; p. 592.
Needler, Tillfred E., Mobile, Ala. Engine. No. 1,207,608; Dec. 5; Gaz. vol. 233; p. 286.
Neely, Samuel L., Longton, Kans. Collapsible bridge-gate. No. 1,207,609; Dec. 5; Gaz. vol. 233; p. 286.
Neff, Frank H., assignor to The Electric Railway Improvement Company, Cleveland, Ohio. Method of and apparatus for electric welding. No. 1,209,871; Dec. 26; Gaz. vol. 233; p. 1190.
Nelson, Archy M., Salt Lake City, Utah. Covering or mattress for banks or the like. No. 1,206,891; Dec. 5; Gaz. vol. 233; p. 37.
Nelson, Charles A., assignor to Savage Arms Company, Utica, N. Y. Firearm. No. 1,206,892; Dec. 5; Gaz. vol. 233; p. 37.
Nelson, Charles A., assignor to Savage Arms Company, Utica, N. Y. Firearm. No. 1,209,872; Dec. 26; Gaz. vol. 233; p. 1191.
Nelson, Clyde A., Cristobal, Canal Zone. Concrete-bucket. No. 1,210,196; Dec. 26; Gaz. vol. 233; p. 1304.
Nelson, George B., Redfield, Iowa. Hood for pneumatic stackers. No. 1,209,873; Dec. 26; Gaz. vol. 233; p. 1191.
Nelson, Jacob B. (See Paulson and Nelson.)
Nelson, Willie L., Iconium, Okla. Peanut-digger. No. 1,206,893; Dec. 5; Gaz. vol. 233; p. 38.
Neresheimer, Heinrich, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthraquinone dyes and making them. No. 1,207,981; Dec. 12; Gaz. vol. 233; p. 457.
Neresheimer, Heinrich, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthraquinone dyes and making them. No. 1,207,982; Dec. 12; Gaz. vol. 233; p. 457.
Nesbitt, William J., Los Angeles, Cal. Feeding-mechanism gearing. No. 1,208,356; Dec. 12; Gaz. vol. 233; p. 593.
Neson, Thomas, deceased, Indianapolis, Ind.; J. V. Brodbeck, administratrix. Suspended outing-tent. No. 1,209,479; Dec. 19; Gaz. vol. 233; p. 1022.
Nettleton, George E., Hartford, Conn., assignor to the Hartford Rubber Works Company. Indicator for rubber-mills. No. 1,206,894; Dec. 5; Gaz. vol. 233; p. 38.
Neumann, Frank A., Chicago, Ill. Card-holder. No. 1,209,193; Dec. 19; Gaz. vol. 233; p. 922.
Neumaster, Lawrence, Evansville, Ind. Clothes-hook. No. 1,209,613; Dec. 19; Gaz. vol. 233; p. 1068.
Neuteboom, Boudewijn B. (See Taylor and Neuteboom.)
Nevins, Charles A., Great Falls, Mont. Valve-operating mechanism. No. 1,209,990; Dec. 26; Gaz. vol. 233; p. 1233.
New England Confectionery Company. (See Thomas, Frederick J., assignor.)
New Jersey Patent Company. (See Edison, Thomas A., assignor.)
New Jersey Patent Company. (See Holland, Newman H., assignor.)
Newell, George J., Goldfield, assignor of one-half to J. H. Frisby, Tonopah, Nev. Automatic safety mining-cage. No. 1,207,610; Dec. 5; Gaz. vol. 233; p. 287.
Newhouse, Alphonse. (See Roland, Arthur M., assignor.)
Newhouse, Ray C., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. System of control. No. 1,207,983; Dec. 12; Gaz. vol. 233; p. 458.
Newman, Henry E., Lemhi, Idaho. Sheep-hook. No. 1,208,624; Dec. 12; Gaz. vol. 233; p. 686.
Newman, John W., Ridgefield Park, N. J. Separating-trap. No. 1,208,820; Dec. 19; Gaz. vol. 233; p. 799.
Newman, Max H., Atlantic City, N. J. Automobile-signal. No. 1,208,625; Dec. 12; Gaz. vol. 233; p. 687.
Newton, Albert S., Providence, R. I. Sanitary drinking-fountain. No. 1,209,874; Dec. 26; Gaz. vol. 233; p. 1192.
Newton, Edward C., Marysville, assignor to Automatic Spark Advance Co., San Francisco, Cal. Automatic advancing and speed-indicating coupling. No. 1,209,323; Dec. 19; Gaz. vol. 233; p. 967.
Nicholas Power Company. (See Power, Nicholas, assignor.)
Nicholas Power Company. (See Ross, James G. G., assignor.)
Nicholls, Jesse C., U. S. Army. Smokeless powder. No. 1,208,358; Dec. 12; Gaz. vol. 233; p. 594.
Nickerson, Royal H., and G. G. Courtney, Plymouth, Mass. Testing device. No. 1,208,626; Dec. 12; Gaz. vol. 233; p. 687.
Nicoll, Norman G., Brooklyn, N. Y. Convertible lamp and heater device. No. 1,208,357; Dec. 12; Gaz. vol. 233; p. 593.
Nicolson, Alexander M., New York, N. Y., and E. C. Hull, Montclair, N. J., assignors, by mesne assignments, to Western Electric Company, Incorporated. Electron-emitting cathode and manufacturing the same. No. 1,209,324; Dec. 19; Gaz. vol. 233; p. 967.
Nigh, Omar L., Washington, D. C. Safety device for elevators. No. 1,210,351; Dec. 26; Gaz. vol. 233; p. 1353.
Nightingale, Charles, New York, N. Y. Shirt. No. 1,208,193; Dec. 12; Gaz. vol. 233; p. 534.
Nilson, Harold, Wayzata, Minn. Plow-lift. No. 1,207,430; Dec. 5; Gaz. vol. 233; p. 224.
Nilson, Leonard, Wayzata, Minn. Traction-machine. No. 1,206,895; Dec. 5; Gaz. vol. 233; p. 38.
Nilsson, Edwin, Chicago, Ill. Wrench. No. 1,208,627; Dec. 12; Gaz. vol. 233; p. 687.
Nixon, Miles G. (See Smith and Nixon.)
Noack, William A., San Francisco, Cal. Cabinet ironing-board. No. 1,210,095; Dec. 26; Gaz. vol. 233; p. 1268.
Noble, Warren, Detroit, Mich. Internal-combustion engine. No. 1,208,359; Dec. 12; Gaz. vol. 233; p. 594.
Noel, Eli, Kansas City, Mo. Front-wheel drive for automobiles. No. 1,209,875; Dec. 26; Gaz. vol. 233; p. 1192.
Noël, Louis J., Epernay, France. Apparatus for purifying industrial oils and fats. No. 1,209,480; Dec. 19; Gaz. vol. 233; p. 1022.
Noeth, John J., Chicago, Ill. Time-controlled mechanism. No. 1,209,748; Dec. 26; Gaz. vol. 233; p. 1146.
Nolan, Edmund, Detroit, Mich., assignor to G. W. Bowen, Auburn, N. Y. Grease-cup cap. No. 1,210,352; Dec. 26; Gaz. vol. 233; p. 1354.
Nones, Joseph A., New York, N. Y. Display-case. No. 1,207,431; Dec. 5; Gaz. vol. 233; p. 224.
Nones, Joseph A., New York, N. Y. Frame. No. 1,207,432. Dec. 5; Gaz. vol. 233; p. 225.
Nordell, Carl H., Milwaukee, Wis. Aerating apparatus. No. 1,208,821; Dec. 19; Gaz. vol. 233; p. 800.
Nordstrom, Raymond R., Litchfield, Minn. Envelop-opening device. No. 1,209,991; Dec. 26; Gaz. vol. 233; p. 1233.
Nordyke & Marmon Company. (See Brantingham, Allen C., assignor.)
Norman, Orville P., Los Angeles, Cal. Mechanical movement. No. 1,210,353; Dec. 26; Gaz. vol. 233; p. 1354.
Norman, William A., Chicago, Ill. Truck. No. 1,207,433; Dec. 5; Gaz. vol. 233; p. 225.
Noro, William G., San Francisco, Cal. Drawer for cigarette-dispensers. No. 1,209,011; Dec. 19; Gaz. vol. 233; p. 861.
Norring, Oscar A., New York, N. Y. Window-lock. No. 1,209,481; Dec. 19; Gaz. vol. 233; p. 1023.
North Bro's M'f'g Co. (See Fegley and Leopold, assignors.)
North Bro's M'f'g Co. (See Fegley, Thomas J., assignor.)
North, Frederick K., Boston, Mass. Multispindle machine. No. 1,207,611; Dec. 5; Gaz. vol. 233; p. 287.
Northover, Harry R., Winnipeg, Manitoba, Canada. Gas-lever-operating mechanism for use in connection with certain types of machine-guns. No. 1,207,612; Dec. 5; Gaz. vol. 233; p. 287.
Norton Company. (See King, Clarence R., assignor.)
Norton, H. B., *et al.* (See Lilly, George W., assignor.)
Norton, Homer F. (See McCrabbe and Norton.)
Norton, Horatio N. (See Summerll, Frank H., assignor.)
Novák, Joseph, Palmerton, Pa. Spinning toy. No. 1,207,200; Dec. 5; Gaz. vol. 233; p. 143.
Novelty Iron Works. (See Lathrop, James H., assignor.)
Novelty Stropper Co., Inc., The. (See Trosky, Bernhard, assignor.)
Nowell, Edward T., Stotts City, Mo. Combination farming-machine. No. 1,207,984; Dec. 12; Gaz. vol. 233; p. 459.
Noyes, Benjamin H. (See Pillings, John H., assignor.)
Noyes, Muriel V., Boston, Mass. Sand toy. No. 1,210,354; Dec. 26; Gaz. vol. 233; p. 1354.
Nugent, William W., Chicago, Ill. Continuous oiling and filtration apparatus. No. 1,207,067; Dec. 5; Gaz. vol. 233; p. 97.
Null, Charles T., and H. P. Raab, Indianapolis, Ind. Anti-friction-hanger. No. 1,207,985; Dec. 12; Gaz. vol. 233; p. 459.
Nutrizio, Henry J., New York, N. Y. Display-shelf support. No. 1,208,628; Dec. 12; Gaz. vol. 233; p. 688.
Nydia Bank Lock Company, The. (See Benham, Edgar M., assignor.)

Nye, Anselm T., Marietta, Ohio. Gas or vapor stove. No. 1,209,325; Dec. 19; Gaz. vol. 233; p. 968.
Nye, Anselm T., Marietta, Ohio. Oven-door for gas and vapor stoves. No. 1,209,326; Dec. 19; Gaz. vol. 233; p. 968.
Nye, Henry V., West Allis, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Dynamo-electric machine. No. 1,209,992; Dec. 26; Gaz. vol. 233; p. 1233.
Nystrom, Martin, assignor to The Brunswick-Balke-Collender Company, Chicago, Ill. Brake mechanism for talking-machines. No. 1,207,986; Dec. 12; Gaz. vol. 233; p. 459.
O'Brien, Benjiman F., Hastings, Nebr. Flange-union wrench. No. 1,209,012; Dec. 19; Gaz. vol. 233; p. 861.
O'Brien, Daniel P., West Hoboken, N. J. Book-holder. No. 1,207,434; Dec. 5; Gaz. vol. 233; p. 225.
O'Brien, John H., assignor of one-half to J. E. Mills, Fort Wayne, Ind. Shoe-repair jack. No. 1,210,355; Dec. 26; Gaz. vol. 233; p. 1355.
O'Connor, James F., El Reno, Okla., assignor to El Reno Foundry & Machine Co., El Reno, Okla. Water-meter box. No. 1,210,197; Dec. 26; Gaz. vol. 233; p. 1305.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Antifriction-bearing. No. 1,209,876; Dec. 26; Gaz. vol. 233; p. 1192.
O'Connor, William H., East Orange, N. J. Feeding means. No. 1,207,787; Dec. 12; Gaz. vol. 233; p. 391.
O'Donnell, John P. (See Gardner, John, assignor.)
O'Hair, Edward C. (See Storm and O'Hair.)
O'Kane, Katherine R., Philadelphia, Pa. Duplicating-machine. No. 1,209,994; Dec. 26; Gaz. vol. 233; p. 1234.
O'Leary, Harry J., Indianapolis, Ind. Music-rack attachment for slide-trombones and like instruments. No. 1,209,750; Dec. 26; Gaz. vol. 233; p. 1147.
O'Neil, John F., St. Louis, Mo. Crushing-mill. No. 1,208,632; Dec. 12; Gaz. vol. 233; p. 689.
O'Rourke, William F., Chicago, Ill. Sash-lock. No. 1,207,989; Dec. 12; Gaz. vol. 233; p. 460.
Oberg, Hugo A., Preston, Wash. Music-leaf turner. No. 1,209,749; Dec. 26; Gaz. vol. 233; p. 1147.
Oberländer, Otto, London, England, assignor to General Electric Company. Metal-filament manufacture. No. 1,208,629; Dec. 12; Gaz. vol. 233; p. 688.
Oberlin, August H., Long Island City, N. Y. Non-skid appliance. No. 1,207,785; Dec. 12; Gaz. vol. 233; p. 390.
Obert, Casin W., Brooklyn, N. Y. Locking means for internal-combustion motors. No. 1,208,822; Dec. 19; Gaz. vol. 233; p. 800.
Obsboum, Thomas M., assignor of one-half to J. Zvetina, Chicago, Ill. Safety coupling device for jewelry. No. 1,209,615; Dec. 19; Gaz. vol. 233; p. 1068.
Ochs, George F. A., Pompton Plains, N. J. Railway-tie. No. 1,208,630; Dec. 12; Gaz. vol. 233; p. 688.
Odin Company, The. (See Lyche, Halvor H., assignor.)
Oehler, Benjamin A., St. Louis, Mo. Calendar. No. 1,207,987; Dec. 12; Gaz. vol. 233; p. 460.
Oelenheinz, Theodor, Karlsruhe, Germany. Treating the green juice of tobacco-plants. No. 1,209,327; Dec. 19; Gaz. vol. 233; p. 968.
Oettinger, Edward E., Chicago, Ill. Roach, bug, and insect trap. No. 1,209,993; Dec. 26; Gaz. vol. 233; p. 1234.
Ogden, J. Edward. (See Marvin, Edward W., assignor.)
Ohaven, Charles, Galesburg, Ill. Fastening. No. 1,207,613; Dec. 5; Gaz. vol. 233; p. 288.
Ohio Brass Company, The. (See Bolus, Glenn H., assignor.)
Ohio Brass Company, The. (See Gierding, Charles E., assignor.)
Ohio Brass Company, The. (See Mead, George A., assignor.)
Ohio Brass Company, The. (See Starkey, William C., assignor.)
Ohio Brass Company, The. (See Wolfe, Henry R., assignor.)
Ohlsen, William, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Unloading device. No. 1,207,436; Dec. 5; Gaz. vol. 233; p. 226.
Ohmer Fare Register Company. (See Ohmer and Orth, assignors.)
Ohmer, John F., and W. G. Orth, Dayton, Ohio, assignors to Ohmer Fare Register Company, Rochester, N. Y. Interlocking mechanism. No. 1,208,360; Dec. 12; Gaz. vol. 233; p. 594.
Old Dominion Glass Corporation. (See Wolford, Lorenzo, assignor.)
Olds, James S., Benton Harbor, Mich., assignor to South Bend Bait Company, South Bend, Ind. Fish bait or lure. No. 1,209,641; Dec. 19; Gaz. vol. 233; p. 1078.
Olds, Wilson A., Medical Lake, Wash. Electrical-treatment apparatus. No. 1,207,614; Dec. 5; Gaz. vol. 233; p. 288.
Olive, Frederick W., assignor to J. Lipic, St. Louis, Mo. Fountain-pen. No. 1,207,317; Dec. 5; Gaz. vol. 233; p. 183.
Oliver Chilled Plow Works. (See Heylman, Edward M., assignor.)
Oliver, John, assignor of one-half to J. W. Hatton and one-half to W. Mowbray, Ekalaka, Mont. Support for transmission-casings for automobiles. No. 1,209,877; Dec. 26; Gaz. vol. 233; p. 1191.
Oliver, Lavan and T. B., and G. W. West, North Pleasanton, Tex. Railway construction. No. 1,207,615; Dec. 5; Gaz. vol. 233; p. 288.
Oliver, Tilden B. (See Oliver and West.)
Oliver, William B., Collingswood, N. J. Locating chart a device. No. 1,209,878; Dec. 26; Gaz. vol. 233; p. 1193.
Olivier, Alfred, Neuilly-sur-Seine, assignor to Société "Philaure" Levallois-Perret, France. Apparatus for cleaning card-cylinders. No. 1,209,751; Dec. 26; Gaz. vol. 233; p. 1147.
Olmsted, George C., Duluth, Minn. Receptacle. No. 1,207,988; Dec. 12; Gaz. vol. 233; p. 460.
Olney, Harry W., Colfax, Wash. Ruler. No. 1,208,631; Dec. 12; Gaz. vol. 233; p. 688.
Olree, Jacob, assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Drawer-stop. No. 1,207,786; Dec. 12; Gaz. vol. 233; p. 390.
Olson, John, and D. D. James, assignors to James Manufacturing Company, Fort Atkinson, Wis. Litter-carrier. No. 1,209,642; Dec. 19; Gaz. vol. 233; p. 1078.
Olson, Lewis, Madison, Wis. Fence-post brace. No. 1,208,361; Dec. 12; Gaz. vol. 233; p. 595.
Olsson, Henry A., assignor to The Bromwell Brush and Wire Goods Company, Cincinnati, Ohio. Brush-machine. No. 1,209,194; Dec. 19; Gaz. vol. 233; p. 923.
Olver, William H., Oshkosh, Wis. Ironing-machine. No. 1,207,201; Dec. 5; Gaz. vol. 233; p. 143.
Optische Anstalt C. P. Goerz Aktiengesellschaft. (See Graul, Franz, assignor.)
Orange, John A., Schenectady, N. Y., assignor to General Electric Company. Current connection for electric lamps. No. 1,209,014; Dec. 19; Gaz. vol. 233; p. 862.
Orchard, Alfred S., assignor to Keystone Type Foundry, Philadelphia, Pa. Printer's galley. No. 1,209,328; Dec. 19; Gaz. vol. 233; p. 968.
Ord, Craven R., McAdam Junction, New Brunswick, Canada. Rotary explosive-engine. No. 1,209,995; Dec. 26; Gaz. vol. 233; p. 1234.
Orillo, Pietro. (See Orillo, Salvatore and P.)
Orillo, Salvatore and P., Brooklyn, assignors to A. Wolf, New York, N. Y. Bedstead corner-fastening. No. 1,209,195; Dec. 19; Gaz. vol. 233; p. 923.
Orr, Edward E., Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for making soles. No. 1,207,435; Dec. 5; Gaz. vol. 233; p. 225.
Orr, James M., East Point, Ga. Vessel locating and salvaging apparatus. No. 1,208,362; Dec. 12; Gaz. vol. 233; p. 595.
Orth, Frank, Indiana Harbor, Ind. Regenerator construction. No. 1,207,616; Dec. 5; Gaz. vol. 233; p. 288.
Orth, Frank, Indiana Harbor, Ind. Regenerator. No. 1,207,617; Dec. 5; Gaz. vol. 233; p. 289.
Orth, William G. (See Ohmer and Orth.)
Osborne, Thomas J., and G. J. Bragg, Premier, W. Va. Rock-drill. No. 1,209,014; Dec. 19; Gaz. vol. 233; p. 1068.
Ostrander, John E., Staatsburg, N. Y. Ice-creeper. No. 1,208,823; Dec. 19; Gaz. vol. 233; p. 800.
Oswald, Kolmen, New York, N. Y., assignor, by mesne assignments, to C. M. Peabody, South Orange, N. J. Key-actuated mechanism. No. 1,208,194; Dec. 12; Gaz. vol. 233; p. 534.
Otis Elevator Company. (See Baldwin and Furlow, assignors.)
Otis Elevator Company. (See Coyle, Andrew M., assignor.)
Otis Elevator Company. (See Larson, David C., assignor.)
Otis, John F., Oswego, N. Y., assignor, by mesne assignments, to Minneapolis Heat Regulator Company, Minneapolis, Minn. Thermostat for electric heat-regulating systems and the like. No. 1,207,618; Dec. 5; Gaz. vol. 233; p. 289.
Otterson Auto Eductor Company. (See Otterson, George W., assignor.) (Reissue.)
Otterson, George W., assignor to Otterson Auto Eductor Company, Seattle, Wash. Apparatus for cleaning out city catch-basins. (Reissue.) No. 14,234; Dec. 19; Gaz. vol. 233; p. 1081.
Otto, John J., Chicago, Ill. Means for controlling a boat. No. 1,207,990; Dec. 12; Gaz. vol. 233; p. 460.
Owen, Elmer C., Lorain, Ohio. Animal-trap. No. 1,207,991; Dec. 12; Gaz. vol. 233; p. 461.
Owen, Felix S., Billings, Mont. Vehicle-spring. No. 1,207,992; Dec. 12; Gaz. vol. 233; p. 461.
Owen, Ole A., New York, N. Y. Cigarette. No. 1,210,198; Dec. 26; Gaz. vol. 233; p. 1305.
Owens, David C., Cilo, Ala. Level. No. 1,207,202; Dec. 5; Gaz. vol. 233; p. 144.
Owens, William R. (See Weidaw and Owens.)
P. Derby & Company. (See Derby, Ashton P., assignor.)
P. & M. Company, The. (See Hawley, Royal D., assignor.)
P. & M. Co., The. (See Riegler, Louis J., assignor.)
P. B. Yates Machine Company. (See Johnson, Gustave T., assignor.)
P. B. Yeates Machine Company. (See Mitchell, Harrison J., assignor.)
P. B. Yeates Machine Company. (See Thurlow, Ira M., assignor.)
Pacific Commercial Company. (See Van Wickel, Jesse, assignor.)
Packard Motor Car Company. (See Derr, Charles E., assignor.)
Packard Motor Car Company. (See Huff, Russell, assignor.)

Packard Motor Car Company. (See Hunt, Ormond E., assignor.)
Packard Motor Car Company. (See Loomis, Allen, assignor.)
Packer, Eben R., Wilmette, Ill., assignor to Q & C Company, New York, N. Y. Portable derail. No. 1,207,788; Dec. 12; Gaz. vol. 233; p. 391.
Packer, Eben R., Wilmette, Ill. Combined plow and flanger. No. 1,207,789; Dec. 12; Gaz. vol. 233; p. 391.
Packinger, Frank, assignor of one-half to J. C. Sparrow, Cleveland, Ohio. Safe and the like. No. 1,209,879; Dec. 26; Gaz. vol. 233; p. 1194.
Padgitt, Jesse D., Dallas, Tex. Collar. No. 1,209,196; Dec. 19; Gaz. vol. 233; p. 924.
Paevelczyk, Stanley. (See Kielar, Stanislaw, assignor.)
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,206,896; Dec. 5; Gaz. vol. 233; p. 39.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,206,897; Dec. 5; Gaz. vol. 233; p. 39.
Page, Lewis H. (See Gell and Page.)
Pagliarul, Joseph, assignor to J. E. Smyth, Chicago, Ill. Clutch for wire-feeding mechanisms. No. 1,207,068; Dec. 5; Gaz. vol. 233; p. 97.
Painting Machine Company. (See Leatherbee, Clifton F., assignor.)
Palmborg, Edwin L., Forest Hills, Mass. Joint-grinder. No. 1,209,996; Dec. 26; Gaz. vol. 233; p. 1235.
Palmenberg, Emil T., New York, N. Y. Garment-hanger. No. 1,209,482; Dec. 19; Gaz. vol. 233; p. 1023.
Palmer, Devillo, Detroit, Mich. Camera attachment. No. 1,209,015; Dec. 19; Gaz. vol. 233; p. 862.
Palmer Electric & Manufacturing Company, The. (See Jessen, John A., assignor.)
Palmer, Isaac E., deceased, Middletown, Conn.; T. and N. T. Palmer, administrators. Automatic textile receiving and delivering apparatus. No. 1,209,880; Dec. 26; Gaz. vol. 233; p. 1194.
Palmer, Nathalie T., *et al.*, administrators. (See Palmer, Isaac E.)
Palmer, Townsend, *et al.*, administrators. (See Palmer, Isaac E.)
Pan American Electric Tool Company. (See Kraemer, Frank, assignor.)
Pantlik, Frank, Barrackville, W. Va. Milk-boiler. No. 1,209,752; Dec. 26; Gaz. vol. 233; p. 1148.
Paramount Hosiery Form Drying Co. (See Burtz, Walter D., assignor.)
Paridon, Michael, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Making reinforced boxes. No. 1,206,898; Dec. 5; Gaz. vol. 233; p. 39.
Paridon, Michael, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Machine for making boxes. No. 1,206,899; Dec. 5; Gaz. vol. 233; p. 40.
Paridon, Michael, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Treating wooden box-shucks. No. 1,206,900; Dec. 5; Gaz. vol. 233; p. 40.
Paridon, Michael, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Box-filling machine. No. 1,206,901; Dec. 5; Gaz. vol. 233; p. 40.
Paris, George M. (See Paris, Ottes E., assignor.)
Paris, Ottes E., Aurora, Ill., assignor of one-half to G. M. Paris, Montgomery, Ill. Milk-bottle holder. No. 1,208,633; Dec. 12; Gaz. vol. 233; p. 689.
Park, Miles E., Toronto, Ontario, Canada. Pulper for waste wood and waste paper. No. 1,207,069; Dec. 5; Gaz. vol. 233; p. 98.
Park, Richard G., Jr., Philadelphia, Pa. Spring-wheel. No. 1,207,993; Dec. 12; Gaz. vol. 233; p. 461.
Parke, Fred. (See Treeland, Lewis, assignor.)
Parker, Edwin B., Haverhill, assignor of one-half to P. F. Cummings, Lawrence, Mass. Milk-bottle holder. No. 1,207,994; Dec. 12; Gaz. vol. 233; p. 461.
Parker, George D., Riverside, Cal. Receptacle-inverting mechanism. No. 1,210,096; Dec. 26; Gaz. vol. 233; p. 1269.
Parkes, Samuel R., Willenhall, England. Handle for latches. No. 1,207,318; Dec. 5; Gaz. vol. 233; p. 183.
Parkes, William N., Brooklyn, N. Y. Sewing-machine. No. 1,207,437; Dec. 5; Gaz. vol. 233; p. 226.
Parkhill, George E. (See Purcell and Parkhill.)
Parkman, Frank L., Hartland, assignor to M. St. Ledger, Skowhegan, Me. Safety cranking device. No. 1,207,319; Dec. 5; Gaz. vol. 233; p. 183.
Parks, Dennis, St. Louis, Mo. Machine for cutting pieced lifts and for building heel-blanks therefrom. (Reissue.) No. 14,226; Dec. 5; Gaz. vol. 233; p. 319.
Parmentier, John A., St. Louis, Mo. Washing-machine gearing. No. 1,209,616; Dec. 19; Gaz. vol. 233; p. 1069.
Parrott, R. E. (See Moore, George A., assignor.)
Parsons, Charles A., Newcastle-upon-Tyne, England. Turbine installation. No. 1,207,070; Dec. 5; Gaz. vol. 233; p. 98.
Parsons, Charles A., Newcastle-upon-Tyne, England. Thrust-bearing. No. 1,207,071; Dec. 5; Gaz. vol. 233; p. 99.
Parsons, Charles A., S. S. Cook, and L. M. Douglas, Wallsend, England; said Cook and Douglas assignors to said Parsons. Means for determining the relative angular velocity and phase of revolving bodies. No. 1,207,072; Dec. 5; Gaz. vol. 233; p. 99.
Parsons, Charles A., A. Q. Carnegie, Newcastle-upon-Tyne, and S. S. Cook, Wallsend, England; said Carnegie and said Cook assignors to said Parsons. Gear-cutting machine. No. 1,209,197; Dec. 19; Gaz. vol. 233; p. 924.
Parsons, Charles A., A. Q. Carnegie, Newcastle-upon-Tyne, and S. S. Cook, Wallsend, England; said Carnegie and said Cook assignors to said Parsons. Gear-cutting machine. No. 1,209,198; Dec. 19; Gaz. vol. 233; p. 924.
Parsons, Charles W., Washington, D. C. Combined concrete mixing and elevating apparatus. No. 1,209,483; Dec. 19; Gaz. vol. 233; p. 1023.
Parsons, George H., assignor to Kroeger Piano Company, Stamford, Conn. Accenting device for player-pianos. No. 1,209,199; Dec. 19; Gaz. vol. 233; p. 925.
Parsons, Richmond, Philadelphia, Pa. Interlocking device for trunks. No. 1,209,016; Dec. 19; Gaz. vol. 233; p. 862.
Pass and Seymour. (See Morey and Brogden, assignors.)
Passeck, Carl F., Alameda, Cal. Stringer-support for freight-cars. No. 1,210,199; Dec. 26; Gaz. vol. 233; p. 1305.
Patch, Richard H. (See Furness and Patch.)
Patch, Richard H., Philadelphia, and R. Furness, Jenkintown, assignors to The Midvale Steel Company, Philadelphia, Pa. Tool-steel alloy. No. 1,206,902; Dec. 5; Gaz. vol. 233; p. 41.
Paterson, John T. H. (See Collins and Paterson.)
Patten, John, Baltimore, Md., assignor of seventy-five one-hundredths to C. W. Miller and E. B. Miller. Gun. No. 1,207,995; Dec. 12; Gaz. vol. 233; p. 462.
Patterson, George, Manchester, N. H. Vehicle. No. 1,207,203; Dec. 5; Gaz. vol. 233; p. 144.
Patterson, James W., Bronxville, assignor to Autosales Gum and Chocolate Company, New York, N. Y. Vending-machine. No. 1,207,204; Dec. 5; Gaz. vol. 233; p. 144.
Patterson, William L. (See Hommel, Kandler, and Patterson.)
Paul, Edward, New Bremen, Ohio. Circuit-closing device. No. 1,210,356; Dec. 26; Gaz. vol. 233; p. 1355.
Paulsen, Paul C., assignor of one-half to H. U. Morton, Chicago, Ill. Automobile route and mileage indicator. No. 1,208,824; Dec. 19; Gaz. vol. 233; p. 800.
Paulson, Ole, and J. B. Nelson, Rhame, N. D. Oil-can. No. 1,208,634; Dec. 12; Gaz. vol. 233; p. 689.
Pausas, Marie S., administratrix. (See Sampere, Jose.)
Payne, James E., assignor of one-half to M. N. Payne, Campbell, Mo. Shutter-operating attachment for cameras. No. 1,208,711; Dec. 12; Gaz. vol. 233; p. 716.
Payne, Madison N. (See Payne, James E., assignor.)
Peabody, C. Maurice. (See Oswald, Kolmen, assignor.)
Peal, George H., Rutherford, N. J. Non-refillable tea-ball. No. 1,209,484; Dec. 19; Gaz. vol. 233; p. 1024.
Peal, George H., Rutherford, N. J. Tea-ball. No. 1,209,485; Dec. 19; Gaz. vol. 233; p. 1024.
Pearce, Herbert, Brondheath, England, assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Machine for finishing and cooling curved stereotype-plates. No. 1,207,320; Dec. 5; Gaz. vol. 233; p. 184.
Pearsall, Albert W., Lowell, assignor to The Lamson Company, Boston, Mass. Pneumatic-despatch-tube apparatus. No. 1,208,195; Dec. 12; Gaz. vol. 233; p. 535.
Pearson, Parke W., Bloomingdale, Ind. Buckle. No. 1,209,017; Dec. 19; Gaz. vol. 233; p. 863.
Pearson, Ward E., New York, N. Y. Carrier for spare wheels. No. 1,208,825; Dec. 19; Gaz. vol. 233; p. 800.
Peck, Charles W., assignor to The Mattatuck Manufacturing Company, Waterbury, Conn. Fabric-making machine. No. 1,207,205; Dec. 5; Gaz. vol. 233; p. 145.
Peck, Frank M., Millis, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Presser-foot mechanism. No. 1,206,903; Dec. 5; Gaz. vol. 233; p. 41.
Peck, Frank M., Millis, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Presser-foot mechanism. No. 1,206,904; Dec. 5; Gaz. vol. 233; p. 41.
Pedulla, Nicola, MacDonaldton, Pa. Lubricating system for mining-machine gearing. No. 1,208,826; Dec. 19; Gaz. vol. 233; p. 801.
Peerless Motor Car Company, The. (See Wadsworth, George R., assignor.)
Peirce, Charles L., Jr., assignor of one-half to Hubbard & Co., Pittsburgh, Pa. Insulator-support. No. 1,207,321; Dec. 5; Gaz. vol. 233; p. 184.
Pembroke, Charles J., Rochester, N. Y. Primer. No. 1,207,073; Dec. 5; Gaz. vol. 233; p. 99.
Pembroke, Winfield P., Rochester, N. Y. Carbureter. No. 1,208,196; Dec. 12; Gaz. vol. 233; p. 535.
Pembroke, Winfield P., Rochester, N. Y. Carbureter-controlling means. No. 1,208,197; Dec. 12; Gaz. vol. 233; p. 536.
Penksa, Stiney, Glen White, W. Va. Bathing-suit. No. 1,208,198; Dec. 12; Gaz. vol. 233; p. 536.
Pennewell, Charles F., Sacramento, Cal. Manufacture of fertilizer. No. 1,208,199; Dec. 12; Gaz. vol. 233; p. 536.
Pennock, Willard, Minerva, Ohio. Metallic railway-tie. No. 1,208,363; Dec. 12; Gaz. vol. 233; p. 596.
Pennsylvania Wire Glass Company. (See Shuman, Arno, assignor.)

Penny, Lula, Wilson, N. C. Sewing-machine attachment. No. 1,207,619; Dec. 5; Gaz. vol. 233; p. 290.
Pentecost, Arthur, East Orange, N. J., assignor to The Adler Machine Company, Wilkes-Barre, Pa. Paper-carriage. No. 1,206,905; Dec. 5; Gaz. vol. 233; p. 41.
Pentony, Richard, Stafford, England. Universal joint. No. 1,210,200; Dec. 26; Gaz. vol. 233; p. 1305.
Perfect Window Regulator Company. (See Ternstedt, Alvar K., assignor.)
Perkins, Margaret A., Bristol, Conn. Cutting and shaping aprons. No. 1,209,018; Dec. 19; Gaz. vol. 233; p. 863.
Perkins, Walter H., assignor to J. B. Wise Inc., Watertown, N. Y. Trap for waste-water pipes. No. 1,210,201; Dec. 26; Gaz. vol. 233; p. 1306.
Permutit Company, The. (See Kriegsheim, Heinrich, assignor.)
Perotin Company of America. (See Wilkinson, Wilbur B., assignor.)
Perotti, John S., West New York, N. J. Life-belt. No. 1,209,200; Dec. 19; Gaz. vol. 233; p. 925.
Perricone, Michael, Brooklyn, N. Y. Puzzle. No. 1,207,996; Dec. 12; Gaz. vol. 233; p. 462.
Perry, Jasper B., Newberry, Pa. Combined hot and cold water faucet. No. 1,207,997; Dec. 12; Gaz. vol. 233; p. 462.
Perry, Ray P., Montclair, and E. F. Stewart, Woodcliffe, N. J., assignors to Barrett Manufacturing Company, New York, N. Y. Process and apparatus for preparing hard commercial pitch. No. 1,210,097; Dec. 26; Gaz. vol. 233; p. 1269.
Perry, William A., St. Louis, Mo. Fusible link for sprinkler-heads. No. 1,208,200; Dec. 12; Gaz. vol. 233; p. 536.
Perry, William T., Fresno, assignor of one-half to A. E. Jeans, Fresno county, Cal. Leaf-spring. No. 1,208,720; Dec. 12; Gaz. vol. 233; p. 719.
Persone, Francisco, Nardo, Italy. Pneumatic wheel. No. 1,210,357; Dec. 26; Gaz. vol. 233; p. 1355.
Persons, Charles A., Worcester, Mass. Spring-saddle. No. 1,207,322; Dec. 5; Gaz. vol. 233; p. 184.
Persson, Frans. (See Van Deusen and Persson.)
Persson, Frans, Brooklyn, N. Y., assignor to American Telephone and Telegraph Company. Folding scaling-ladder. No. 1,206,906; Dec. 5; Gaz. vol. 233; p. 42.
Peter, William H., Norfolk, Va. Seed-planter. No. 1,209,329; Dec. 19; Gaz. vol. 233; p. 969.
Peterman, Toney S., Kenedale, Tex. Boll-breaker and cotton-cleaner. No. 1,207,438; Dec. 5; Gaz. vol. 233; p. 227.
Peters, John B., assignor to The Electric Auto-Lite Company, Toledo, Ohio. Carbon-brush holder. No. 1,206,907; Dec. 5; Gaz. vol. 233; p. 42.
Peters, Michael. (See Thompson, William H., assignor.)
Petersen, George, Denver, Colo. Resilient doubletree. No. 1,208,635; Dec. 12; Gaz. vol. 233; p. 690.
Petersen, Hans, Davenport, Iowa. Apparatus for the relieving of pressure in melting-pots, &c. No. 1,207,206; Dec. 5; Gaz. vol. 233; p. 145.
Petersen, Magnus B., Seattle, Wash. Key-locking device. No. 1,208,636; Dec. 12; Gaz. vol. 233; p. 690.
Peterson, Aron, Chicago, Ill. Wire mattress fabric. No. 1,207,998; Dec. 12; Gaz. vol. 233; p. 462.
Peterson, Carl E., Kerhoven, Minn. Railway-tie and rail-fastener. No. 1,206,908; Dec. 5; Gaz. vol. 233; p. 43.
Peterson, Eric, Lougheed, Alberta, Canada. Post-card-display rack. No. 1,209,617; Dec. 19; Gaz. vol. 233; p. 1069.
Peterson, John, Lake George, N. Y. Combined spray and sprinkler. No. 1,207,790; Dec. 12; Gaz. vol. 233; p. 392.
Peterson, Theo. (See Royer, George T., assignor.)
Petrie, Frederick B., Rochdale, England. Wool and the like washing machine. No. 1,207,207; Dec. 5; Gaz. vol. 233; p. 146.
Petticord, Samuel S., Wheeling, W. Va. Radiator. No. 1,209,486; Dec. 19; Gaz. vol. 233; p. 1025.
Pettingill, James C., Hyde Park, Mass. Crutch. No. 1,209,997; Dec. 26; Gaz. vol. 233; p. 1235.
Pfaff, Moritz J., Pittsburgh, Pa. Hand drilling-machine. No. 1,207,999; Dec. 12; Gaz. vol. 233; p. 463.
Pfanstiehl, Carl A., Waukegan, Ill., assignor to Pfanstiehl Company. Forming abrasive wheels and product thereof. No. 1,210,358; Dec. 26; Gaz. vol. 233; p. 1356.
Pfanstiehl Company. (See Pfanstiehl, Carl A., assignor.)
Pfeiffer, Fred B., Akron, Ohio. Tire. No. 1,206,909; Dec. 5; Gaz. vol. 233; p. 43.
Pfeiffer, Immanuel, Jr., Bedford, Mass. Snap-fastener. No. 1,209,019; Dec. 19; Gaz. vol. 233; p. 863.
Pfeil, Frank, Staunton, Ill. Fire-escape. No. 1,206,910; Dec. 5; Gaz. vol. 233; p. 43.
Pfister, Theophil, New York, N. Y. Mounting of entomological specimens. No. 1,209,487; Dec. 19; Gaz. vol. 233; p. 1025.
Pflueger, Charles T., assignor to The Enterprise Manufacturing Company, Akron, Ohio. Spoon-hook. No. 1,209,020; Dec. 19; Gaz. vol. 233; p. 864.
Pfyffer, Paul de, Kelowna, British Columbia, Canada. Vehicle-wheel hub. No. 1,210,151; Dec. 26; Gaz. vol. 233; p. 1288.
Phelan, Elizabeth E. (See Wiswell, Frederick A., assignor.)
Phelps, Sebring L., Buchanan, Mich. Electric cooking apparatus. No. 1,208,637; Dec. 12; Gaz. vol. 233; p. 690.
Phillips, Byron B., Hudson, N. Y. Ice-conveyer. No. 1,209,021; Dec. 19; Gaz. vol. 233; p. 864.
Phillips, Charles H., Malden, Mass., assignor to Phillips Flushing Tank Company, Portland, Me. Flushing-valve. No. 1,209,753; Dec. 26; Gaz. vol. 233; p. 1148.
Phillips, Elmer H., New York, N. Y., and A. J. Doscher, Newark, N. J. Lady's undergarment and making same. No. 1,209,488; Dec. 19; Gaz. vol. 233; p. 1025.
Phillips Flushing Tank Company. (See Phillips, Charles H., assignor.)
Phillips, Homer, Viropa, W. Va. Coal-containing bucket for coal-barges. No. 1,207,208; Dec. 5; Gaz. vol. 233; p. 146.
Phillips, Thomas J., and V. J. Murga, McKeesport, Pa. Elevating attachment for marine vessels. No. 1,208,365; Dec. 12; Gaz. vol. 233; p. 596.
Phillips, Tobias N., New York, N. Y. Insole. No. 1,208,638; Dec. 12; Gaz. vol. 233; p. 691.
Phinney, Edgar E., assigner to Monroe Calculating Machine Company, New York, N. Y. Spring-brake for gears. No. 1,208,366; Dec. 12; Gaz. vol. 233; p. 596.
Phinney, Willis E., Coldwater, Mich. Artificial bait. No. 1,209,022; Dec. 19; Gaz. vol. 233; p. 864.
Photo-Reproducer Company. (See Wynkoop, Alexander H., assignor.)
Picciano, Michael, and T. Rubino, Hazleton, Pa. Spring-wheel. No. 1,208,201; Dec. 12; Gaz. vol. 233; p. 537.
Pickard, Greenleaf W., Amesbury, assignor to Wireless Specialty Apparatus Company, Boston, Mass. System of radio communication. No. 1,206,911; Dec. 5; Gaz. vol. 233; p. 43.
Pickering, Edwin G., Montgomery county, near Dayton, Ohio. Identifying mailing-card. No. 1,208,827; Dec. 19; Gaz. vol. 233; p. 801.
Pickett, Frederick A., Baltimore, Md., assignor of one-eighth to C. Varrelmann and one-eighth to F. Varrelmann, Brooklyn, N. Y. Top. No. 1,210,098; Dec. 26; Gaz. vol. 233; p. 1270.
Pico, Albert P. F., Kansas City, Mo. Roll-support. No. 1,207,323; Dec. 5; Gaz. vol. 233; p. 185.
Picolet, Lucien E., Philadelphia, Pa. Calculator. No. 1,207,439; Dec. 5; Gaz. vol. 233; p. 227.
Pidgeon, Charles M., Washington, D. C. Attachment for engineers' transits. No. 1,208,639; Dec. 12; Gaz. vol. 233; p. 691.
Pierce, Talbot E., and J. J. Kerr, Cleveland, Ohio. Radiator-protector. No. 1,207,620; Dec. 5; Gaz. vol. 233; p. 290.
Pierpont, Francis W., Pittsburgh, Pa. Adjustably-locked fastener. No. 1,209,489; Dec. 19; Gaz. vol. 233; p. 1025.
Piggott, Thomas K., assignor of two-thirds to J. F. Liby and one-third to J. S. Lorraine, Seattle, Wash. Shears with detachable cutting-blades. No. 1,208,202; Dec. 12; Gaz. vol. 233; p. 537.
Pike, Lorenzo H., assignor to Electric Service Supplies Company, Philadelphia, Pa. Motorman's car-seat. No. 1,207,074; Dec. 5; Gaz. vol. 233; p. 100.
Pike, Robert D., Richmond, Cal. Recuperative kiln. No. 1,207,209; Dec. 5; Gaz. vol. 233; p. 146.
Pike, Robert D., San Francisco, Cal. Producing granular carbon from gas refuse. No. 1,207,694; Dec. 5; Gaz. vol. 233; p. 318.
Pile, John R., Owensboro, Ky. Plow attachment for road-graders. No. 1,208,367; Dec. 12; Gaz. vol. 233; p. 597.
Pilger, Adolf, Marshwood, Pa. Novelty-case adapted to contain and dispense matches. No. 1,206,912; Dec. 5; Gaz. vol. 233; p. 44.
Pillings, John H., assignor of one-half to B. H. Noyes, Dayton, Ohio. Automatic operating mechanism for type-writers. No. 1,208,640; Dec. 12; Gaz. vol. 233; p. 691.
Pillings, John H., assignor of one-half to B. H. Noyes, Dayton, Ohio. Selective operating mechanism. No. 1,208,641; Dec. 12; Gaz. vol. 233; p. 692.
Pinckert, Frank, Carthage, Mo. Milk-check. No. 1,209,998; Dec. 26; Gaz. vol. 233; p. 1235.
Pindstofte, Anders A., Copenhagen, Denmark. Apparatus for impregnating liquids with carbonic-acid or other gases. No. 1,209,490; Dec. 19; Gaz. vol. 233; p. 1026.
Piper, Walter F. (See Beardsley and Piper.)
Pitney, Arthur H., Joliet, Ill. Parcel-postage meter. No. 1,208,642; Dec. 12; Gaz. vol. 233; p. 693.
Pittsburgh Can Company. (See Bennett, George E., assignor.)
Pittsburgh Plate Glass Company. (See Cordes, John W., assignor.)
Pittsburgh Plate Glass Company. (See Golightly, William J., assignor.)
Pittsburgh Plate Glass Company. (See Spinasse, Arthur E., assignor.)
Pixley, William C., assignor of one-half to W. H. Adams, Franklinville, N. Y. Trousers. No. 1,210,359; Dec. 26; Gaz. vol. 233; p. 1356.
Planche, Etienne, Flint, Mich. Gear-shifting mechanism. No. 1,209,754; Dec. 26; Gaz. vol. 233; p. 1149.
Planco, Vincent M., New York, N. Y. Outer cigar wrapper and cover. No. 1,208,828; Dec. 19; Gaz. vol. 233; p. 802.
Plank, Charles A. (See Andrus and Plank.)
Plant, James E., Buffalo, N. Y. Hair-waving device. No. 1,208,369; Dec. 12; Gaz. vol. 233; p. 597.

Plass, William F., New York, N. Y. Skylight structure. No. 1,209,491; Dec. 19; Gaz. vol. 233; p. 1027.
Pleukharp, Irvin H., Columbus, Ohio. Rear-axle transmission mechanism. No. 1,209,330; Dec. 19; Gaz. vol. 233; p. 969.
Plimley, Frederick A., Coplay, Pa. Tool for removing incrustations in boiler-tubes. No. 1,208,203; Dec. 12; Gaz. vol. 233; p. 537.
Plimpton Press. (See Adam, William J., assignor.)
Plummer, William T. (See Zieber, Edward H., assignor.)
Plunkett, William H. (See Holmes, Alfred E., assignor.)
Plymouth Rubber Company. (See Garber, Harry D., assignor.)
Pneumatic Scale Corporation, Limited. (See Doble, William H., assignor.)
Poeter, Louis, Newark, N. J., assignor to A. F. Meisselbach & Brother. Throw-off mechanism for fishing-reels. No. 1,208,370; Dec. 12; Gaz. vol. 233; p. 597.
Pogue, George D., St. Louis, Mo. Fuel-pump. No. 1,207,324; Dec. 5; Gaz. vol. 233; p. 185.
Pohl, Edward, New York, N. Y. Burning fuel. No. 1,210,099; Dec. 26; Gaz. vol. 233; p. 1270.
Poimiroo, Alfred and A., Seattle, Wash. Auto-fender. No. 1,208,204; Dec. 12; Gaz. vol. 233; p. 537.
Poimiroo, Angelina. (See Poimiroo, Alfred and A.)
Poindexter, William S., and M. E. Wagner, Bridgeport, Ill. Oil-pump jack. No. 1,209,023; Dec. 19; Gaz. vol. 233; p. 864.
Poll, Rae, Chicago, Ill. Ironing board, pad, and cover. No. 1,208,643; Dec. 12; Gaz. vol. 233; p. 693.
Pollard, Charles, Wembley, London, and A. B. Evans, Leeds, assignors to George Mann & Company, Limited, Hunslet, Leeds, England. Printing machinery. No. 1,210,202; Dec. 26; Gaz. vol. 233; p. 1306.
Pollard, George, Piccadilly, assignor to Menco-Elma Syndicate Limited, London, England. Variable-speed gearing. No. 1,208,644; Dec. 12; Gaz. vol. 233; p. 693.
Polley, George S., Ashtabula, Ohio. Teeter-board. No. 1,209,881; Dec. 26; Gaz. vol. 233; p. 1195.
Pollock, Jesse D., Carpenter, Wyo. Safety-crank for internal-combustion motors. No. 1,207,791; Dec. 12; Gaz. vol. 233; p. 392.
Pomeroy, Henry W., Northampton, Mass. Can-nozzle. No. 1,207,210; Dec. 5; Gaz. vol. 233; p. 147.
Pomroy, Le Dru R., Chicago, Ill., assignor, by mesne assignments, to The Toledo Button Machine Company, Toledo, Ohio. Wire-feed stop mechanism for button-setting machines. No. 1,206,913; Dec. 5; Gaz. vol. 233; p. 44.
Pondelick, Leo, Chicago, Ill. Piston-ring. No. 1,209,882; Dec. 26; Gaz. vol. 233; p. 1195.
Pons, Eugene. (See Dorgeloh and Pons.)
Poor, Gilbert H., Milwaukee, Wis. Apparatus for storing and dispensing combustible liquids. No. 1,207,075; Dec. 5; Gaz. vol. 233; p. 100.
Pope, Edward J., Holyoke, Mass. Paper-making machine. No. 1,208,000; Dec. 12; Gaz. vol. 233; p. 463.
Popp, Harry E., Cleveland, Ohio. Current-meter. No. 1,209,024; Dec. 19; Gaz. vol. 233; p. 865.
Portable Pull and Push Irrigating Pump Company of Wyoming. (See Andrews, Al, assignor.)
Porter, Harrison B., Ander, Tex. Lawn-swing fan. No. 1,208,645; Dec. 12; Gaz. vol. 233; p. 694.
Porter, James N. W., Norfolk, Va. Paper-cutter. No. 1,208,829; Dec. 19; Gaz. vol. 233; p. 802.
Porter, Walter S., Leadville, Colo. Valve-spring release. No. 1,209,025; Dec. 19; Gaz. vol. 233; p. 865.
Post-Card Vending Machine Co. (See Davis, Bethuel M., assignor.)
Post, Ernest K., Altoona, Pa. Switch-lock. No. 1,207,325; Dec. 5; Gaz. vol. 233; p. 185.
Potter, Alexander, New York, N. Y. Disposing of sewage. No. 1,207,621; Dec. 5; Gaz. vol. 233; p. 291.
Potter, Charles E., assignor to Potter Electric Signal and Manufacturing Company, St. Louis, Mo. Combined fire-alarm and watchman's signal-transmitter. No. 1,208,205; Dec. 12; Gaz. vol. 233; p. 538.
Potter Electric Signal and Manufacturing Company. (See Potter, Charles E., assignor.)
Pottorf, Daniel A., Milton, Oreg. Adjustable hoe. No. 1,210,100; Dec. 26; Gaz. vol. 233; p. 1270.
Poulson, Britton, assignor, by mesne assignments, to E. W. Rogers, Chicago, Ill. Gas-engine starter. No. 1,210,360; Dec. 26; Gaz. vol. 233; p. 1356.
Poulson, Britton, assignor, by mesne assignment, to E. W. Rogers, Chicago, Ill. Rotary internal-combustion engine. No. 1,210,361; Dec. 26; Gaz. vol. 233; p. 1357.
Powell, Elmer E. (See Dodson and Powell.)
Powell, Frank D., assignor to The Lamson Company, Boston, Mass. Carrier-system chute for light articles. No. 1,209,883; Dec. 26; Gaz. vol. 233; p. 1195.
Power, Nicholas, assignor to Nicholas Power Company, New York, N. Y. Film-winding device for motion-picture machines. No. 1,207,211; Dec. 5; Gaz. vol. 233; p. 147.
Power, Nicholas, Brooklyn, assignor to Nicholas Power Company, New York, N. Y. Indicator for film-magazines. No. 1,208,646; Dec. 12; Gaz. vol. 233; p. 694.
Power, Nicholas, Brooklyn, assignor to Nicholas Power Company, New York, N. Y. Signal device for film-magazines. No. 1,208,647; Dec. 12; Gaz. vol. 233; p. 694.
Power, Nicholas, Brooklyn, assignor to Nicholas Power Company, New York, N. Y. Motor-driving mechanism for moving-picture machines. No. 1,209,492; Dec. 19; Gaz. vol. 233; p. 1027.
Power, Nicholas, Brooklyn, assignor to Nicholas Power Company, New York, N. Y. Time-indicator for moving-picture machines. No. 1,209,493; Dec. 19; Gaz. vol. 233; p. 1027.
Power, Nicholas, Brooklyn, assignor to Nicholas Power Company, New York, N. Y. Tension device for moving-picture-film reels. No. 1,209,755; Dec. 26; Gaz. vol. 233; p. 1149.
Power, Nicholas, Brooklyn, assignor to Nicholas Power Company, New York, N. Y. Safety device for motion-picture machines. No. 1,210,203; Dec. 26; Gaz. vol. 233; p. 1306.
Powers, George E., Xenia, Ohio. Tree-trimmer. No. 1,209,999; Dec. 26; Gaz. vol. 233; p. 1236.
Poynter, Alois, Eden, S. D. Mouse-trap. No. 1,208,206; Dec. 12; Gaz. vol. 233; p. 538.
Prasil, Frank J., and J. G. Betar, Chicago, Ill. Fabric-renovating brush. No. 1,208,001; Dec. 12; Gaz. vol. 233; p. 463.
Pratt, Edmund A., New York, N. Y. Appliance for purification of liquids. No. 1,208,830; Dec. 19; Gaz. vol. 233; p. 802.
Pratt, Howell D., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Floating ice-sawing machine. No. 1,208,648; Dec. 12; Gaz. vol. 233; p. 695.
Pratt, Howell D., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Cutting blocks of ice. No. 1,208,649; Dec. 12; Gaz. vol. 233; p. 695.
Prentice, George G. (See Clary, John B., assignor.)
Prescott, Ira K., Arlington, N. J., assignor to A. K. Levy, New York, N. Y. Hat-pattern block. No. 1,209,756; Dec. 26; Gaz. vol. 233; p. 1149.
Prescott, Sydney I., Brooklyn, N. Y. Carburetion system. No. 1,208,207; Dec. 12; Gaz. vol. 233; p. 538.
Pressed Steel Car Company. (See Streib, John F., assignor.)
Preston, Albert F., Boston, Mass. Cutter-head and cutter. No. 1,208,871; Dec. 12; Gaz. vol. 233; p. 598.
Price, Raymond B., New York, N. Y., assignor to Rubber Regenerating Company. Manufacturing rubber boots. No. 1,206,914; Dec. 5; Gaz. vol. 233; p. 44.
Price, Raymond B., New York, N. Y., assignor to Rubber Regenerating Company. Drying materials. No. 1,209,643; Dec. 19; Gaz. vol. 233; p. 1078.
Price, Raymond B., New York, N. Y., assignor to Rubber Regenerating Company. Manufacture of hollow rubber articles. No. 1,209,644; Dec. 19; Gaz. vol. 234; p. 1079.
Price, Raymond B., New York, N. Y., assignor to Rubber Regenerating Company. Tire. No. 1,209,645; Dec. 19; Gaz. vol. 234; p. 1079.
Price, Roderick M., New Orleans, La. Fender. No. 1,209,494; Dec. 19; Gaz. vol. 233; p. 1027.
Price, Sidney L., Holborn, London, England. Centrifugal speed-regulator. No. 1,208,208; Dec. 12; Gaz. vol. 233; p. 539.
Priebe, Herman C., Blue Island, Ill. Draft-gear. No. 1,208,650; Dec. 12; Gaz. vol. 233; p. 695.
Prince, John A. (See Froesé, Minna, assignor.)
Prince, John D., Boston, Mass. Laminated fabric for shoe-soles and the like. No. 1,208,209; Dec. 12; Gaz. vol. 233; p. 539.
Pritchard, Edward W., Cambria, Wis. Pot lifter, lid, and drainer. No. 1,209,026; Dec. 19; Gaz. vol. 233; p. 865.
Proctor, Alfred W., deceased, Brooklyn, N. Y.; G. H. Proctor, administratrix. Internal-combustion engine. No. 1,209,495; Dec. 19; Gaz. vol. 233; p. 1028.
Proctor, Georgietta H., administratrix. (See Proctor, Alfred W.)
Proebstel, Julius C., Portland, Oreg. Harness-chain. No. 1,208,651; Dec. 12; Gaz. vol. 233; p. 695.
Proebstel, Julius C., Portland, Oreg. Harness hip-pad. No. 1,208,652; Dec. 12; Gaz. vol. 233; p. 695.
Progressive Shoe Machinery Company. (See Cesar, Ervin, assignor.)
Pulliam, James W., Max, Nebr. Mail-bag receiver. No. 1,210,000; Dec. 26; Gaz. vol. 233; p. 1236.
Punt, Johannes P., Chicago, Ill., and S. Punt, Orange City, Iowa. Glazier's fastening device. No. 1,208,368; Dec. 12; Gaz. vol. 233; p. 597.
Punt, Simon. (See Punt, Johannes P. and S.)
Purcell, Frank L., Frederick, Okla. Hoe-clamp. No. 1,207,212; Dec. 5; Gaz. vol. 233; p. 147.
Purcell, Richard L., and G. E. Parkhill, Spokane, Wash. Nut-lock. No. 1,208,210; Dec. 12; Gaz. vol. 233; p. 540.
Putnam, Alden L., assignor to Detroit Pressed Steel Company, Detroit, Mich. Machine for rolling wheel-blanks. No. 1,208,831; Dec. 19; Gaz. vol. 233; p. 802.
Putnam, Fred A., Melrose, Mass. Printing-machine. No. 1,208,832; Dec. 19; Gaz. vol. 233; p. 802.
Pyle-National Electric Headlight Company. (See Dake, Charles W., assignor.)
Q & C Company. (See Packer, Eben R., assignor.)
Quade, Paul R., Wausau, Wis. Knockdown shipping-box. No. 1,209,027; Dec. 19; Gaz. vol. 233; p. 866.
Queenan, William, and J. F. Hansen, Aurora, Ill. Swing-joint connection. No. 1,208,002; Dec. 12; Gaz. vol. 233; p. 464.

Quellennec, Edouard M., Paris, France. Digger for self-propelled harrows. No. 1,207,792; Dec. 12; Gaz. vol. 233; p. 392.
Quickstad, August N., Toronto, S. D. Steam-cylinder. No. 1,209,028; Dec. 19; Gaz. vol. 233; p. 866.
Quigley, G. W. (See Heath, Charles B., assignor.)
Quinn, Thomas, Milford, Mass. Machine for pressing seams. No. 1,209,757; Dec. 26; Gaz. vol. 233; p. 1150.
Raab, Herman P. (See Null and Raab.)
Rabus, John T. (See Hildreth and Rabus.)
Raby, John E. (See Herron, John, assignor.)
Radmann, Paul, Godegård, Sweden. Producing soluble alkaline compounds. No. 1,209,201; Dec. 19; Gaz. vol. 233; p. 926.
Raflovich, Harry, New York, N. Y. Tire-mold. No. 1,209,202; Dec. 19; Gaz. vol. 233; p. 926.
Ragetlie, Henricus M., Baardwijk, Netherlands. Unitary writing-desk and seat. No. 1,208,003; Dec. 12; Gaz. vol. 233; p. 464.
Ragsdale, William C., Weatherford, Tex. Bale-band buckle. No. 1,209,496; Dec. 19; Gaz. vol. 233; p. 1028.
Rail Joint Company, The. (See Braine, Bancroft G., assignor.)
Rail Joint Company, The. (See Braine, Lawrence F., assignor.)
Rail Joint Company, The. (See Schermerhorn, Edwards F., assignor.)
Rail Joint Company, The. (See Thomson, William P., assignor.)
Railway Supply and Equipment Company. (See Lively, Benjamin F., assignor.)
Rakowsky, Morris, now by change of name Morris Rockford, Utica, N. Y. Gearing. No. 1,209,884; Dec. 26; Gaz. vol. 233; p. 1196.
Ramage, Alexander S., assignor to Bostaph Engineering Company, Detroit, Mich. Producing phenols. No. 1,208,833; Dec. 19; Gaz. vol. 233; p. 803.
Ramsay, David M., Mount Florida, Glasgow, Scotland. Steam-condenser. No. 1,209,331; Dec. 19; Gaz. vol. 233; p. 970.
Ramsay, Henry M., Altoona, and J. A. Rickabaugh, Pittsburgh, Pa. Pawl-and-ratchet mechanism. No. 1,207,076; Dec. 5; Gaz. vol. 233; p. 100.
Ramsay, William A., Honolulu, Hawaii. Rotary cane-cutter. No. 1,209,618; Dec. 19; Gaz. vol. 233; p. 1069.
Ramsden, Archibald D., London, England. Top lid for horizontal grand pianos. No. 1,208,211; Dec. 12; Gaz. vol. 233; p. 540.
Ramstad, Charles, Okmulgee, Okla. Automobile-pulling attachment. No. 1,207,793; Dec. 12; Gaz. vol. 233; p. 393.
Randall, Chester J., Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Co. Circulation and exhausting apparatus for vulcanizing. No. 1,210,101; Dec. 26; Gaz. vol. 233; p. 1271.
Randall, Franklin S., Jersey City, assignor of one-third to I. L. C. Gooding, Summit, and one-third to C. V. Yates, Jersey City, N. J. Wire-covering machine. No. 1,210,001; Dec. 26; Gaz. vol. 233; p. 1236.
Raplee, John R., Shelbina, Mo. Drawer-slide. No. 1,210,362; Dec. 26; Gaz. vol. 233; p. 1357.
Rappenecker, Alphons, assignor to Telepantograph-Gesellschaft mit beschränkter Haftung, Bremen, Germany. Signaling device for writing or copying telegraphs. No. 1,209,332; Dec. 19; Gaz. vol. 233; p. 970.
Rarey, Clifford D., Kennewick, Wash. Fastening device. No. 1,209,885; Dec. 26; Gaz. vol. 233; p. 1196.
Rauchle, Karl, Hennef, and A. Koehler, Kolmar, assignors to Kilo-Werk Fabrik (für Gebrauchsgegenstände, G. m. b. H., Hennef, Germany. Fountain-pen. No. 1,208,653; Dec. 12; Gaz. vol. 233; p. 696.
Raudnitz, Frank, New York, N. Y. Automobile-cap. No. 1,207,440; Dec. 5; Gaz. vol. 233; p. 228.
Rawnsley, Hollon, Springvale, assignor to Goodall Worsted Company, Sanford, Me. Counting-machine. No. 1,209,203; Dec. 19; Gaz. vol. 233; p. 926.
Re, Enrico, Camden, N. J. Keyboard for guitars or similar instruments. No. 1,207,213; Dec. 5; Gaz. vol. 233; p. 148.
Rea, Edward S., San Francisco, and W. S. Rea, Jr., Oakland, Cal. Automatic continuous cooker for food products in hermetically-sealed containers. No. 1,209,619; Dec. 19; Gaz. vol. 233; p. 1070.
Rea, William S., Jr. (See Rea, Edward S. and W. S., Jr.)
Reade, William A., assignor to the Ludlow Typograph Company, Cleveland, Ohio. Typograph mechanism. No. 1,207,622; Dec. 5; Gaz. vol. 233; p. 291.
Reading Saddle & Manufacturing Company, The. (See Deem, Miller M., assignor.)
Reagan, Harry C., Philadelphia, Pa. Mechanism for gas-engines. No. 1,209,497; Dec. 19; Gaz. vol. 233; p. 1029.
Reagan, James, Philadelphia, Pa. Boiler and other furnace. No. 1,210,363; Dec. 26; Gaz. vol. 233; p. 1357.
Reagan, James, Philadelphia, Pa. Boiler and other furnace. No. 1,210,364; Dec. 26; Gaz. vol. 233; p. 1357.
Rech-Marbaker Company. (See Wood, Charles S., assignor.)
Rechter, George. (See Bamfield and Rechter.)
Recker, Adolph C., Oakville, assignor to Waterbury Mfg. Co., Waterbury, Conn. Portable electric lamp. No. 1,207,623; Dec. 5; Gaz. vol. 233; p. 291.
Red Wing Sewer Pipe Company. (See Trautner, Nic W., assignor.)
Reddy, Byron H., assignor to The W. W. Sly Manufacturing Company, Cleveland, Ohio. Grading and transferring mechanism for granular material. No. 1,207,794; Dec. 12; Gaz. vol. 233; p. 393.
Redman, Lawrence V., Lawrence, Kans., assignor to Redmanol Chemical Products Company, Chicago, Ill. Plastic composition and making same. No. 1,209,333; Dec. 19; Gaz. vol. 233; p. 971.
Redmanol Chemical Products Company. (See Redman, Lawrence V., assignor.)
Reece Shoe Machinery Company, The. (See Schoenky, August R., assignor.)
Reed, A. F. (See Conrad, Albert E., assignor.)
Reed, Harry L., assignor to J. E. Crowley, Dorchester, Mass. Fuse. No. 1,208,004; Dec. 12; Gaz. vol. 233; p. 465.
Reed, Lyman C., and O. P. Smith, New Orleans, La. Machine for coating cakes, &c. No. 1,210,002; Dec. 26; Gaz. vol. 233; p. 1237.
Reed, Thomas L., Circleville, Kans. Mail-box. No. 1,208,005; Dec. 12; Gaz. vol. 233; p. 465.
Reed, Walter C., Dalton, assignor to The Telelectric Company, Pittsfield, Mass. Electromagnet. No. 1,209,646; Dec. 19; Gaz. vol. 233; p. 1079.
Reese, Harry E., Gypsum, Kans. Motor-cycle support. No. 1,209,029; Dec. 19; Gaz. vol. 233; p. 866.
Reeves, Edwin A., Milford, Conn. Apparatus for mixing gas and air. No. 1,208,654; Dec. 12; Gaz. vol. 233; p. 696.
Reeves, Orwell C., assignor to Toledo Scale Company, Toledo, Ohio. Weighing-scale. No. 1,210,204; Dec. 26; Gaz. vol. 233; p. 1307.
Regan, Michael C., U. S. Army. Lamp attachment for cells. No. 1,210,365; Dec. 26; Gaz. vol. 233; p. 1358.
Rehbein, Conrad, assignor to Hayes Manufacturing Company, Detroit, Mich. Press. No. 1,207,326; Dec. 5; Gaz. vol. 233; p. 186.
Rehbein, Conrad, assignor to Hayes Manufacturing Company, Detroit, Mich. Fluid-press. No. 1,207,624; Dec. 5; Gaz. vol. 233; p. 201.
Reid, Alexander C. (See Leich and Reid.)
Reid, Fred T., Hartford, Conn. Boring and grinding attachment for hollow-spindle lathes. No. 1,207,214; Dec. 5; Gaz. vol. 233; p. 148.
Reid, Harry, Clinton, Ind. Bicycle-stand. No. 1,207,327; Dec. 5; Gaz. vol. 233; p. 186.
Reid, Robert G. (See Ricks and Reid.)
Reifsnider, John W., assignor to H. J. Frerks, Chicago, Ill. Lubricated spring. No. 1,209,030; Dec. 19; Gaz. vol. 233; p. 867.
Reinke, Frank F. (See Schmidt, Steffens, and Reinke.)
Reisinger, Moses E., Olivebridge, N. Y. Dipper-tooth. No. 1,210,366; Dec. 26; Gaz. vol. 233; p. 1358.
Reillhan, Jerry. (See Bixler, Jacob F., assignor.)
Remblaszewski, Jan, and E. Grodzki, Worcester, Mass. Collapsible life-raft. No. 1,208,006; Dec. 12; Gaz. vol. 233; p. 465.
Remington Arms & Ammunition Company. (See Barnes, Charles H., assignor.)
Remington Typewriter Company. (See Josleyn and Koerner, assignors.)
Remington Typewriter Company. (See Smith, Arthur W., assignor.)
Remington Typewriter Company. (See Steele, Herbert H., assignor.)
Renault, Louis. (See Fuchs, Ernest, assignor.)
Republic Rubber Company, The. (See Mell, Tod J., assignor.)
Republic Stamping & Enameling Company, The. (See Frahm, Carl A., assignor.)
Resseguie, Stanley A., Aberdeen, S. D. Bicycle-support. No. 1,207,077; Dec. 5; Gaz. vol. 233; p. 101.
Rettinger, William N., Bourbon, Ind. Traverse mechanism for cable-making machines. No. 1,208,372; Dec. 12; Gaz. vol. 233; p. 598.
Reuckert, Ernest F., Providence, R. I. Key-ring. No. 1,208,663; Dec. 12; Gaz. vol. 233; p. 700.
Reutter, Christian G., Liberty, Mo. Wire-reel. No. 1,210,003; Dec. 26; Gaz. vol. 233; p. 1237.
Revere Rubber Company. (See Cobb, Henry Z., assignor.)
Rex Manufacturing Company. (See Garabedian, Harry, assignor.)
Reynolds, Benjamin S., assignor to Chain Belt Company, Milwaukee, Wis. Flume-screen. No. 1,208,655; Dec. 12; Gaz. vol. 233; p. 697.
Reynolds, John N., Greenwich, Conn., assignor, by mesne assignments, to Western Electric Company, Incorporated. Line-switch. (Reissue.) No. 14,236; Dec. 26; Gaz. vol. 233; p. 1366.
Reynolds, John W., Mount Jewett, Pa. Grate. No. 1,209,334; Dec. 19; Gaz. vol. 233; p. 971.
Reynolds, Mercer, St. Elmo, Tenn. Making catalyzers. No. 1,210,367; Dec. 26; Gaz. vol. 233; p. 1359.
Reynolds, Orville K., Muskogee, Okla. Burglar-alarm. No. 1,208,007; Dec. 12; Gaz. vol. 233; p. 466.
Reynolds Tobacco Company. (See Richter, Hans F., assignor.)
Rheinische Metallwaaren und Maschinenfabrik. (See Völler, Karl, assignor.)
Rhind, Hugh M., assignor to C. H. Joy, Chicago, Ill. Golf-training device. No. 1,209,031; Dec. 19; Gaz. vol. 233; p. 867.

Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Feeler-motion for looms. No. 1,208,712; Dec. 12; Gaz. vol. 233; p. 716.

Rhodes, Clarence E., El Oro, Mexico. Pulp-distributer. No. 1,208,373; Dec. 12; Gaz. vol. 233; p. 599.

Riccio, Ernesto, New York, N. Y. Explosive projectile. No. 1,207,215; Dec. 5; Gaz. vol. 233; p. 148.

Richard, Jules, and L. J. E. Colardeau, Paris, France. Stereoscopic cinematograph. No. 1,209,498; Dec. 19; Gaz. vol. 233; p. 1029.

Richards, Harry C. (See Green and Richards.)

Richards, James H., Moscow, Idaho. Rotary engine. No. 1,209,204; Dec. 19; Gaz. vol. 233; p. 926.

Richardson, Artemas P. (See Wootten, Charles T., assignor.)

Richardson, Charles F., Woonsocket, R. I., assignor to Wm. Filene's Sons Company, Boston, Mass. Vending-machine. No. 1,209,758; Dec. 26; Gaz. vol. 233; p. 1150.

Richardson, Chauncey E., Washington, D. C. Snap-fastener. No. 1,208,009; Dec. 12; Gaz. vol. 233; p. 466.

Richardson, Chauncey E., Chevy Chase, Md. Snap-fastener. No. 1,208,010; Dec. 12; Gaz. vol. 233; p. 466.

Richardson, Chauncey E., Washington, D. C. Dental-floss carrier. No. 1,210,205; Dec. 26; Gaz. vol. 233; p. 1307.

Richardson, Eugene S., Philadelphia, Pa. Cap and seal for jars, bottles, &c. No. 1,208,212; Dec. 12; Gaz. vol. 233; p. 540.

Richardson, George H., Bridgeport, Conn. Punching-machine. No. 1,208,374; Dec. 12; Gaz. vol. 233; p. 599.

Richardson, George H., Dayton, N. Y. Motor control for boats. No. 1,209,335; Dec. 19; Gaz. vol. 233; p. 971.

Richardson, Henry, Passaic, N. J. Apparatus for unloading cars. No. 1,209,621; Dec. 19; Gaz. vol. 233; p. 1070.

Richardson, Morrell A., Indianola, Miss. Rail-joint. No. 1,208,008; Dec. 12; Gaz. vol. 233; p. 466.

Richardson, Thomas, assignor of one-half to G. Downin, New Orleans, La. Signaling device. No. 1,208,656; Dec. 12; Gaz. vol. 233; p. 697.

Richens, John M., Jacksonville, Fla. Corner-holder for frames. No. 1,209,032; Dec. 19; Gaz. vol. 233; p. 867.

Richmond Cedar Works. (See Staley, Harrison L., assignor.)

Richmond, Walter, Memphis, Tenn., assignor to J. E. Jenkins, Chicago, Ill. Electric cooker. No. 1,208,213; Dec. 12; Gaz. vol. 233; p. 540.

Richter, Adolf, Rudolstadt, Germany. Building-box for erecting framework structures. No. 1,208,834; Dec. 19; Gaz. vol. 233; p. 803.

Richter, Hans F., assignor to R. J. Reynolds Tobacco Company, Winston-Salem, N. C. Receptacle and match-holder. No. 1,209,759; Dec. 26; Gaz. vol. 233; p. 1151.

Rickabaugh, Justice A. (See Ramsay and Rickabaugh.)

Ricks, Fred, and R. G. Reid, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Skiving-machine. No. 1,209,915; Dec. 5; Gaz. vol. 233; p. 45.

Riddle, Napoleon B., Slaughter, La. Dental-matrix retainer. No. 1,209,499; Dec. 19; Gaz. vol. 233; p. 1030.

Rider, William A., Los Angeles, Cal. Pedal traction-wheel. No. 1,209,620; Dec. 19; Gaz. vol. 233; p. 1070.

Rider, William A., assignor to M. S. Bulkley, Los Angeles, Cal. Tractor. No. 1,208,657; Dec. 12; Gaz. vol. 233; p. 697.

Ridgway, Joseph W., Long Island City, N. Y. Suspension device. No. 1,209,205; Dec. 19; Gaz. vol. 233; p. 927.

Ridley, William T. (See Mattingley and Ridley.)

Riegler, Louis J., Ben Avon, Pa., assignor to The P. & M. Co., Chicago, Ill. Anticreeper. No. 1,210,206; Dec. 26; Gaz. vol. 233; p. 1307.

Riekenberg, Henry F., Sylvan Grove, Kans. Hay-sling. No. 1,207,795; Dec. 12; Gaz. vol. 233; p. 394.

Rigby, Thomas, Dumfries, Scotland, assignor, by mesne assignments, to Wetcarbonizing Limited, London, England. Fuel-briqueting plant and the like. No. 1,208,658; Dec. 12; Gaz. vol. 233; p. 698.

Riggins, David E., Perry, Okla. Bottle-holder. No. 1,210,102; Dec. 26; Gaz. vol. 233; p. 1271.

Riley, Robert S., assignor to Sanford Riley Stoker Co. Ltd., Worcester, Mass. Coal-agitator for mechanical stokers. No. 1,208,011; Dec. 12; Gaz. vol. 233; p. 467.

Rinehart, James W., *et al.* (See Roth, Charles, assignor.)

Rinsche, Frank C., assignor to Burroughs Adding Machine Company, Detroit, Mich. Line-spacing mechanism for adding or type-writing machines. No. 1,208,375; Dec. 12; Gaz. vol. 233; p. 599.

Rinsche, Frank C., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,208,376; Dec. 12; Gaz. vol. 233; p. 600.

Riotte, Eugene A., Douglaston, N. Y., assignor to Standard Motor Construction Company, Jersey City, N. J. Fuel-feeding apparatus. No. 1,208,012; Dec. 12; Gaz. vol. 233; p. 467.

Risk, Loren, Minneapolis, Minn. Vulcanizing-fuse. No. 1,209,206; Dec. 19; Gaz. vol. 233; p. 927.

Rispel, Alexander, Chicago, Ill. Meat-compressor. No. 1,208,013; Dec. 12; Gaz. vol. 233; p. 468.

Ritchey, Harry, Dwight, Ill. Milk-pail. No. 1,207,625; Dec. 5; Gaz. vol. 233; p. 292.

Ritchey, John, *et al.* (See Wagner, Fred, assignor.)

Ritter, George F., assignor to Stromberg Motor Devices Company, Chicago, Ill. Carbureter. No. 1,206,916; Dec. 5; Gaz. vol. 233; p. 45.

Ritter, Joseph R., Hastings, Fla. Sliding-door operator. No. 1,210,103; Dec. 26; Gaz. vol. 233; p. 1271.

Ritzdorf, Frank J., Dodge, Nebr. Tool for removing wheels from shafts. No. 1,207,626; Dec. 5; Gaz. vol. 233; p. 292.

Rives, George H., New York, N. Y. Lining for pails. No. 1,209,207; Dec. 19; Gaz. vol. 233; p. 927.

Roach, Benjamin P., Birmingham, Ala. Dental-floss holder. No. 1,210,207; Dec. 26; Gaz. vol. 233; p. 1308.

Roach, Thomas W., Lyman, Wash. Shingle-machine. No. 1,210,208; Dec. 28; Gaz. vol. 233; p. 1308.

Robbins, Gamwell and Company. (See Abbott, Charles C., assignor.)

Robbins, Meyer L., New York, N. Y. Expansible bracelet-link. No. 1,207,627; Dec. 5; Gaz. vol. 233; p. 292.

Roberts, Ervin E., San Diego, Cal. Power-transmission mechanism. No. 1,207,216; Dec. 5; Gaz. vol. 233; p. 148.

Roberts, Henry H., Jr., Philadelphia, Pa. Telltale device for automobile-tires. No. 1,208,659; Dec. 12; Gaz. vol. 233; p. 698.

Roberts, John W., A. P. Brewster, and B. Bryson, Passaic, N. J. Sewing-machine installation. No. 1,207,796; Dec. 12; Gaz. vol. 223; p. 394.

Robertson, Clarence H., Shanghai, China. File-cabinet. No. 1,209,033; Dec. 19; Gaz. vol. 233; p. 868.

Robertson, Thomas W., Kansas City, Mo. Shade or curtain holder. No. 1,207,078; Dec. 5; Gaz. vol. 233; p. 101.

Robinson, Arthur W., Montreal, Quebec, Canada. Drain-excavator. No. 1,208,835; Dec. 19; Gaz. vol. 233; p. 803.

Robinson, Cyrus, Mount Vernon, N. Y., assignor to Metallurgical Engineering & Process Corporation. Dehydrater. No. 1,208,014; Dec. 12; Gaz. vol. 233; p. 468.

Robinson, George E., assignor of one-half to A. C. Finseth, Eugene, Oreg. Swivel automobile-bow separator. No. 1,209,760; Dec. 26; Gaz. vol. 233; p. 1151.

Robinson, Miner, Newton, Mass. Hickey. No. 1,208,015; Dec. 12; Gaz. vol. 233; p. 469.

Robinson, Miner, Newton, Mass. Junction or outlet box. No. 1,208,660; Dec. 12; Gaz. vol. 223; p. 698.

Roche, William J., assignor to The Spirella Company, Meadville, Pa. Garment-stay. No. 1,208,836; Dec. 19; Gaz. vol. 233; p. 804.

Roche, William J., assignor to The Spirella Company, Meadville, Pa. Garment-stay. No. 1,208,837; Dec. 19; Gaz. vol. 233; p. 804.

Roche, William J., assignor to The Spirella Company, Meadville, Pa. Garment-stay. No. 1,210,209; Dec. 26; Gaz. vol. 233; p. 1309.

Rock, George L., Jonesville, Mich. Engine-starter. No. 1,208,016; Dec. 12; Gaz. vol. 233; p. 469.

Rock, William D. (See Harris, William A., assignor.)

Rockafellow, Louis H., Seattle, assignor of one-half to C. C. Dose, King county, Wash. Fixture-lamp. No. 1,208,017; Dec. 12; Gaz. vol. 233; p. 470.

Rockford Milling Machine Company. (See Sundstrand, Gustaf D., assignor.) (Reissue.)

Rockstroh, Charles F., Jr., Richmond Hill, assignor to F. Wesel Manufacturing Company, Brooklyn, N. Y. Printing-plate holder and registering device. No. 1,208,721; Dec. 12; Gaz. vol. 233; p. 720.

Rodenbur, John P., Duluth, Minn. Car-step. No. 1,209,034; Dec. 19; Gaz. vol. 233; p. 868.

Roderick Lean Manufacturing Company. (See Warne, Frederick C., assignor.)

Rodgers, Stewart D., assignor of one-fourth to C. G. Hildreth, Pittsburgh, Pa. Automatic train-control system. No. 1,210,210; Dec. 26; Gaz. vol. 233; p. 1309.

Rodman Chemical Company. (See Rodman, Hugh, assignor.)

Rodman, Hugh, Edgewood, assignor to Rodman Chemical Company, East Pittsburgh, Pa. Manufacturing carburizing material and oil distillates. No. 1,209,336; Dec. 19; Gaz. vol. 233; p. 972.

Roe, Samuel E., South Pasadena, Cal. Envelop for desktops and the like. No. 1,210,004; Dec. 26; Gaz. vol. 233; p. 1237.

Roebuck, Alvah C., assignor to Woodstock Typewriter Company, Woodstock, Ill. Paper-feed mechanism. No. 1,207,628; Dec. 5; Gaz. vol. 233; p. 293.

Roebuck, Alvah C., assignor to Woodstock Typewriter Company, Woodstock, Ill. Paper-feed mechanism. No. 1,207,629; Dec. 5; Gaz. vol. 233; p. 293.

Roebuck, Alvah C., assignor to Woodstock Typewriter Company, Woodstock, Ill. Paper-feed mechanism. No. 1,207,630; Dec. 5; Gaz. vol. 233; p. 293.

Roehrich, Frank N., Jersey City, N. J. Power-transmission mechanism for motor-vehicles. No. 1,209,337; Dec. 19; Gaz. vol. 233; p. 972.

Roepe, Walter G., and F. J. Cassing, Concordia, Mo. Wrap-holder for theater and other seats. No. 1,209,035; Dec. 19; Gaz. vol. 233; p. 868.

Rogers, Edward W. (See Poulson, Britton, assignor.)

Rogers, Seymour D., Erin, N. Y. Pole tip and holdback. No. 1,210,211; Dec. 26; Gaz. vol. 233; p. 1309.

Rogginger, John, assignor to Chicago Table Steel Slide Co., Chicago, Ill. Table. No. 1,208,018; Dec. 12; Gaz. vol. 233; p. 470.

Rohifing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Car-end-framing construction. No. 1,209,036; Dec. 19; Gaz. vol. 233; p. 869.

Rohn, William M., Detroit, Mich. Razor honing and stropping device. No. 1,209,500; Dec. 19; Gaz. vol. 233; p. 1030.

Rohrich, Ralph A., Cleveland, Ohio. Combined protractor and T-square. No. 1,207,328; Dec. 5; Gaz. vol. 233; p. 186.

Rokeach, Eugene J., New York, N. Y. Cigar-lighter. No. 1,207,631; Dec. 5; Gaz. vol. 233; p. 294.

Roland, Arthur M., San Francisco, Cal., assignor of two-fifths to A. Newhouse, San Francisco, Cal. Rotary brush. No. 1,208,713; Dec. 12; Gaz. vol. 233; p. 717.

Rolfe, Charles A., Redlands, Cal. Ball-trap. No. 1,208,838; Dec. 19; Gaz. vol. 233; p. 804.

Rolinick, Morris, New York, N. Y. Dress-vest. No. 1,208,661; Dec. 12; Gaz. vol. 233; p. 699.

Roney, Oscar B., Olney, Ill. Apparatus for cutting patterns. No. 1,208,019; Dec. 12; Gaz. vol. 233; p. 470.

Roof, Charles R., Los Angeles, Cal. Apparatus for manufacturing grip-nuts. No. 1,209,501; Dec. 19; Gaz. vol. 233; p. 1031.

Roos, Henry W. and W. D., Cincinnati, Ohio. Clamping mechanism. No. 1,209,761; Dec. 26; Gaz. vol. 233; p. 1151.

Roos, Pierre, New York, N. Y. Hair-curling apparatus. No. 1,206,917; Dec. 5; Gaz. vol. 233; p. 46.

Roos, William D. (See Roos, Henry W. and W. D.)

Roper, Harry C., St. Louis, Mo. Combined tobacco-can and match-box. No. 1,209,208; Dec. 19; Gaz. vol. 233; p. 928.

Rose, Anna E., Geneva, N. Y. Meat-chopper. No. 1,207,632; Dec. 5; Gaz. vol. 233; p. 294.

Rose, William M. (See Mitzel, Harvey F., assignor.)

Rosenbluth, Edwin M., Philadelphia, Pa. Lamp and number-plate support for vehicles. No. 1,209,702; Dec. 26; Gaz. vol. 233; p. 1152.

Rosendahl, B. E. (See Dodson and Powell, assignors.)

Rosendahl, Nils M., assignor to F. C. Austin, Chicago, Ill. Machine for making asphaltic or other mixtures. No. 1,206,918; Dec. 5; Gaz. vol. 233; p. 46.

Rosendahl, Nils M., Winthrop Harbor, assignor to F. C. Austin, Chicago, Ill. Fire-box construction. No. 1,209,886; Dec. 26; Gaz. vol. 233; p. 1196.

Rosenfeld, Mortimer C., Cleveland, Ohio. Floor or ceiling plate. No. 1,209,037; Dec. 19; Gaz. vol. 233; p. 869.

Rosenfeld, Mortimer C., Cleveland, Ohio. Hose-rack. No. 1,209,038; Dec. 19; Gaz. vol. 233; p. 870.

Rosengren, Carl A., Naugatuck, Conn., assignor to The Goodyear's Metallic Rubber Shoe Co. Bath-mitten. No. 1,209,763; Dec. 26; Gaz. vol. 233; p. 1152.

Rosner, Adolph, Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y. Internal-combustion engine. No. 1,208,377; Dec. 12; Gaz. vol. 233; p. 600.

Ross, Harry B., Seattle, Wash. Motor-truck. No. 1,209,209; Dec. 19; Gaz. vol. 233; p. 928.

Ross, James G. G., assignor to Nicholas Power Company, New York, N. Y. Film-guiding device. No. 1,210,212; Dec. 26; Gaz. vol. 233; p. 1310.

Ross, John C., Boston, Mass. Adjustable key-gage. No. 1,207,217; Dec. 5; Gaz. vol. 233; p. 149.

Ross, Walter, Springfield, Ohio. Collapsible market-basket. No. 1,208,020; Dec. 12; Gaz. vol. 233; p. 471.

Ross, William, Chicago, Ill. Fuel-controlling mechanism for engines. No. 1,210,005; Dec. 26; Gaz. vol. 233; p. 1238.

Ross, William H., Holyoke, Mass. Bag and supporting appliance therefor. No. 1,206,919; Dec. 5; Gaz. vol. 233; p. 46.

Rotary Vending Machine Corporation. (See Whitehouse, John N., assignor.)

Roth, Charles, assignor of one-fourth to J. Yaggi and one-fourth to J. W. Rinehart, New Philadelphia, Ohio. Combination-tool. No. 1,208,662; Dec. 12; Gaz. vol. 233; p. 699.

Roth, Pedro, and M. E. Venturino, Buenos Aires, Argentina. Apparatus for converting the heavy products obtained from petroleum. No. 1,208,214; Dec. 12; Gaz. vol. 233; p. 541.

Roth, Pedro, and M. E. Venturino, Buenos Aires, Argentina. Conversion of heavy products of petroleum. No. 1,208,878; Dec. 12; Gaz. vol. 233; p. 601.

Rothenbucher, George E. R., New York, N. Y. Pipe union. No. 1,209,887; Dec. 26; Gaz. vol. 233; p. 1197.

Rotophot Akt. Ges. für graphische Industrie. (See Blecher, Carl, assignor.)

Rotter, Edward A. (See Moeller and Rotter.)

Roush, Squire, San Francisco, Cal. Controller-handle. No. 1,207,329; Dec. 5; Gaz. vol. 233; p. 187.

Roux, François A., assignor to Société L'Aluminium Francais, Paris, France. Producing metallic deposits. No. 1,207,218; Dec. 5; Gaz. vol. 233; p. 149.

Rowley, John T., Pittsburgh, assignor to Superior Pouring Metals Company, Johnstown, Pa. Apparatus for pouring steel and producing ingots, bars, &c. No. 1,209,039; Dec. 19; Gaz. vol. 233; p. 870.

Roy, Elzear, Malden, Mass. Vehicle-spring. No. 1,207,633; Dec. 5; Gaz. vol. 233; p. 294.

Royal Typewriter Company. (See Hess, Edward B., assignor.)

Royal Typewriter Company. (See Hess and Myers, assignors.)

Royal Typewriter Company. (See Myers, Lewis C., assignor.)

Royalty Company. (See Heany, John A., assignor.)

Royalty, George W., Greene, Iowa. Cistern-filter. No. 1,208,021; Dec. 12; Gaz. vol. 233; p. 471.

Royem, Niels C., Niagara, Wis. Device for immersing reproductions. No. 1,208,379; Dec. 12; Gaz. vol. 233; p. 601.

Royer, George B., Bloomington, Ind. Internal-combustion engine. No. 1,209,502; Dec. 19; Gaz. vol. 233; p. 1031.

Royer, George T., assignor of one-sixth to T. Peterson, Garfield, Utah. Coop. No. 1,209,622; Dec. 19; Gaz. vol. 233; p. 1071.

Rubber Regenerating Company. (See Price, Raymond B., assignor.)

Rubenstein, Nathan, New York, N. Y. Apparatus for removing wall-paper. No. 1,208,215; Dec. 12; Gaz. vol. 233; p. 541.

Rubino, Thomas. (See Picciano and Rubino.)

Rude, John F., Liberty, Ind. Chain gearing. No. 1,209,210; Dec. 19; Gaz. vol. 233; p. 928.

Rudnick, Herman, New York, N. Y., assignor to F. Rudnick, Inc. Container. No. 1,209,040; Dec. 19; Gaz. vol. 233; p. 870.

Ruelas, Miguel, Los Angeles, Cal. Spring-hook collar-button. No. 1,207,079; Dec. 5; Gaz. vol. 233; p. 101.

Ruemelin, Richard, assignor to Minneapolis Steel & Machinery Company, Minneapolis, Minn. Plow-hitch. No. 1,208,380; Dec. 12; Gaz. vol. 233; p. 602.

Ruemelin, Richard, assignor to Minneapolis Steel & Machinery Company, Minneapolis, Minn. Tractor. No. 1,208,381; Dec. 12; Gaz. vol. 233; p. 602.

Rugg, Frank D., Greenfield, Mass. Shovel. No. 1,207,634; Dec. 5; Gaz. vol. 233; p. 295.

Ruggaber, John W., Racine, Wis. Finger-nail polisher. No. 1,209,041; Dec. 19; Gaz. vol. 233; p. 871.

Runkel, Frederick, Waukegan, Ill. Lens-fastening. No. 1,210,213; Dec. 26; Gaz. vol. 233; p. 1310.

Ruppert, Alvin, Akron, Mich. Ventilating-hood for stoves. No. 1,209,338; Dec. 19; Gaz. vol. 233; p. 972.

Rush, Charles B., Kiefer, Okla. Clamp. No. 1,209,623; Dec. 19; Gaz. vol. 233; p. 1071.

Rush, Fred O., Wilmington, Del., assignor to American Manganese Steel Company, Augusta, Me. Rail-clamp. No. 1,207,219; Dec. 5; Gaz. vol. 233; p. 150.

Rusha, Jennie E., Oldtown, Me. Collar-button. No. 1,209,624; Dec. 19; Gaz. vol. 233; p. 1071.

Rushton, Kenneth, assignor to the Baldwin Locomotive Works, Philadelphia, Pa. Water-gage. No. 1,207,635; Dec. 5; Gaz. vol. 233; p. 295.

Russak, Hugo, and O. von Hanstein, Berlin-Schöneberg, Germany; said von Hanstein assignor to said Russak. Rendering scratches on cinematograph-films invisible. No. 1,208,664; Dec. 12; Gaz. vol. 233; p. 700.

Russell, George F., Hoboken, N. J. Torpedo. No. 1,209,625; Dec. 19; Gaz. vol. 233; p. 1072.

Russell Manufacturing Company, The. (See Fisher, William C., assignor.)

Russell, Robert C., Pittsburgh, Pa. Index. No. 1,207,220; Dec. 5; Gaz. vol. 233; p. 150.

Russell, Thomas H., Geneva, assignor to The American Fork and Hoe Company, Cleveland, Ohio. Hoe. No. 1,207,636; Dec. 5; Gaz. vol. 233; p. 295.

Ruth, John F., St. Louis, Mo. Sheet-metal door. No. 1,207,080; Dec. 5; Gaz. vol. 233; p. 101.

Rutherford, Eugene W., Naugatuck, Conn., assignor to Boston Rubber Shoe Company. Vulcanizing apparatus. No. 1,209,764; Dec. 26; Gaz. vol. 233; p. 1152.

Rutz, Arnold O., Milwaukee, Wis. Annealing method for metallic tubes. No. 1,209,888; Dec. 26; Gaz. vol. 233; p. 1197.

Rutz, Arnold O., assignor to Milwaukee Gas Specialty Company, Milwaukee, Wis. Igniter-torch for gas-stoves. No. 1,207,441; Dec. 5; Gaz. vol. 233; p. 228.

Ruzsicska, Ódo, assignor of one-sixth to H. Lieferant and one-sixth to S. Busch, Newark, N. J. Fraud-preventive device. No. 1,207,221; Dec. 5; Gaz. vol. 233; p. 150.

Ruzsicska, Ódo, assignor of one-sixth to H. Lieferant and one-sixth to S. Busch, Newark, N. J. Slot-closing device for coin-controlled machines. No. 1,207,222; Dec. 5; Gaz. vol. 233; p. 151.

Rydell, Carl, Manila, assignor of one-fourth to P. J. Wester, Lamao, Philippine Islands. Shoe. No. 1,208,665; Dec. 12; Gaz. vol. 233; p. 700.

Rymer-Jones, John, London, England. Artificial horizon. No. 1,207,797; Dec. 12; Gaz. vol. 233; p. 394.

S. O. & C. Co., The. (See Leggo, William H., assignor.)

S. S. White Dental Manufacturing Company, The. (See Gilbert, Edmund D., assignor.)

S. S. White Dental Manufacturing Company, The. (See Glenn, Thomas F., assignor.)

Sachs, Albert P., and O. Byron, Carnegie, Pa. Manufacturing sodium salts of sulfonic acids. No. 1,207,798; Dec. 12; Gaz. vol. 233; p. 395.

Saegmuller, George N., and G. A. H. Kellner, assignors to Bausch & Lomb Optical Co., Rochester, N. Y. Combined periscope and range-finder. No. 1,208,216; Dec. 12; Gaz. vol. 233; p. 541.

Safety Manufacturing Company *et al.* (See Miller, Henry J., assignor.)

Sager, James H., assignor to J. H. Sager Company, Rochester, N. Y. Spring-bumper. No. 1,208,382; Dec. 12; Gaz. vol. 233; p. 602.

Salisberg, Leroy L., assignor to Gray Piano Company, Piano, Ill. Handle device. No. 1,208,839; Dec. 19; Gaz. vol. 233; p. 805.

Salins, Howard D., Chicago, Ill. Fence-post. No. 1,208,666; Dec. 12; Gaz. vol. 233; p. 701.

Salzer, Frank. (See Salzer, Friedrich J., assignor.)

Salzer, Friedrich J., assignor of one-fourth to F. Salzer, Erie, Pa. Tobacco-stringing machine. No. 1,208,383; Dec. 12; Gaz. vol. 233; p. 602.

Sammel, Frederick S., Bedford, Pa. Anchoring means for heavy articles. No. 1,208,667; Dec. 12; Gaz. vol. 233; p. 701.

Sammons, William H., Ely, Nevada. Window attachment. No. 1,207,330; Dec. 5; Gaz. vol. 233; p. 187.

Sampere, Jose, deceased; M. S. Pausas, administratrix, New York, assignor, by mesne assignments, to A. C. Cheney Piano Action Co., Castleton, N. Y. Sheet-adjusting apparatus. No. 1,208,840; Dec. 19; Gaz. vol. 233; p. 805.

Samuel A. Crocker Company, The. (See Crocker, Samuel A., Jr., assignor.)

Sandberg, Christer P. (See Law and Sandberg.)

Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Rectifier. No. 1,208,384; Dec. 12; Gaz. vol. 233; p. 603.

Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Rectifier. No. 1,208,385; Dec. 12; Gaz. vol. 233; p. 603.

Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Automatic current-reversing mechanism. No. 1,208,386; Dec. 12; Gaz. vol. 233; p. 603.

Sandholm, Oscar W., Rockaway Beach, New York. Window-jack. No. 1,207,442; Dec. 5; Gaz. vol. 233; p. 228.

Sandow, Eugen, London, England. Corset or the like. No. 1,207,637; Dec. 5; Gaz. vol. 233; p. 296.

Sands, George H., Electra, Tex. Steam-generator. No. 1,209,211; Dec. 19; Gaz. vol. 233; p. 929.

Sandt, Frank X., Kenosha, Wis. Suspended bag. No. 1,207,638; Dec. 5; Gaz. vol. 233; p. 296.

Sanford, Joseph R., Salisbury, Conn. Plastic composition. No. 1,206,920; Dec. 5; Gaz. vol. 233; p. 47.

Sanford Riley Stoker Co. (See Riley, Robert S., assignor.)

Sapp, A. W., *et al.* (See Lilly, George W., assignor.)

Sargent & Company. (See Collins, Herbert G., assignor.)

Sargent & Company. (See Page, Albert A., assignor.)

Sargent & Company. (See Voight, Henry G., assignor.)

Sargent, Howard R., Schenectady, N. Y., assignor to General Electric Company. Current connection for electric lamps. No. 1,209,626; Dec. 19; Gaz. vol. 233; p. 1072.

Sass, Herbert J., and O. H. Shaw, Chicago, Ill. Sparking indicator. No. 1,210,214; Dec. 26; Gaz. vol. 233; p. 1310.

Satterlee, Francis L., Jr., Flushing, N. Y. Support for X-ray negatives. No. 1,210,215; Dec. 26; Gaz. vol. 233; p. 1311.

Saunders, Daniel G., Jr., Kansas City, Mo. Vehicle-top. No. 1,207,482; Dec. 5; Gaz. vol. 233; p. 102.

Saunders, Ethelbert E., Gardena, Cal. Fruit-carrier. No. 1,209,627; Dec. 19; Gaz. vol. 233; p. 1072.

Saurer, Firm of Adolph. (See Eggart, Karl, assignor.)

Sauvain, Elmer, Agenda, Kans. Antispreading device for rails. No. 1,207,223; Dec. 5; Gaz. vol. 233; p. 151.

Savage Arms Company. (See Nelson, Charles A., assignor.)

Savage, Arthur J., San Diego, Cal. Tire. No. 1,209,042; Dec. 19; Gaz. vol. 233; p. 871.

Savage, Ralph V., Windsor, Mo. Combination door-lock. No. 1,207,639; Dec. 5; Gaz. vol. 255; p. 296.

Sawyer, Charles A., assignor to Graton and Knight Manufacturing Company, Worcester, Mass. Round belting. No. 1,207,083; Dec. 5; Gaz. vol. 233; p. 102.

Scarborough, Harry Y., Minneapolis, Minn. Urinal. No. 1,206,921; Dec. 5; Gaz. vol. 233; p. 47.

Scarponi, Nazzareno, Dover, N. H. Softening device for shoes. No. 1,209,889; Dec. 26; Gaz. vol. 233; p. 1198.

Schade, John, Jr., New York, N. Y., assignor to Fahnestock Electric Company. Spring fastening device. No. 1,208,217; Dec. 12; Gaz. vol. 233; p. 542.

Scharbach, Peter J., San Francisco, Cal. Clutch. No. 1,206,922; Dec. 5; Gaz. vol. 233; p. 47.

Scharfenberg, Oswald. (See Herzberg and Scharfenberg.)

Scheller, Paul J., assignor to The Slide-O-Graph Company, Evansville, Ind. Motor-operated card and picture display apparatus. No. 1,208,218; Dec. 12; Gaz. vol. 233; p. 542.

Scheller, Wilhelm, assignor to H. Junkers, Aachen, Prussia, Germany. Internal-combustion engine. No. 1,207,799; Dec. 12; Gaz. vol. 233; p. 395.

Schenk, John M., Waterloo, Iowa. Sprocket-chain. No. 1,209,765; Dec. 26; Gaz. vol. 233; p. 1153.

Schenk, Philip P., Utica, S. D. Razor-strop. No. 1,206,923; Dec. 5; Gaz. vol. 233; p. 48.

Schenke, Max E., Brooklyn, N. Y. Slipper-sole. No. 1,208,668; Dec. 12; Gaz. vol. 233; p. 702.

Schenkelberger, Ferdinand, Kiel, Germany. Subaqueous motor-driven siren with internal rotor. No. 1,209,503; Dec. 19; Gaz. vol. 233; p. 1031.

Scherer, Albert G., assignor to Excelsior Steel Furnace Company, Chicago, Ill. Adjustable hot-air boot. No. 1,209,043; Dec. 19; Gaz. vol. 233; p. 872.

Scherf, Theodore, assignor to The Cleveland-Akron Bag Company, Cleveland, Ohio. Dampening device for paper-twine machines. No. 1,206,924; Dec. 5; Gaz. vol. 233; p. 48.

Schermerhorn, Edwards F., Brooklyn, assignor to The Rail Joint Company, New York, N. Y. Insulated rail-joint. No. 1,207,084; Dec. 5; Gaz. vol. 233; p. 102.

Schlekerling, Alfred, Mount Vernon, N. Y. Electric lamp. No. 1,208,387; Dec. 12; Gaz. vol. 233; p. 604.

Schillat, Philip, Scranton, Pa. Package forming and sealing machine. No. 1,210,104; Dec. 26; Gaz. vol. 233; p. 1272.

Schilling, August, Woodside, Cal. Terminal warehouse. No. 1,207,226; Dec. 5; Gaz. vol. 233; p. 152.

Schippers, John W. and L. P., Chicago, Ill. Film-splicer. No. 1,209,339; Dec. 19; Gaz. vol. 233; p. 972.

Schippers, Lavina P. (See Schippers, John W. and L. P.)

Schlacks, Joseph T., Detroit, Mich. Radiator. No. 1,209,044; Dec. 19; Gaz. vol. 233; p. 872.

Schlacks, Joseph T., assignor to McCord Manufacturing Company, Detroit, Mich. Radiator head-sheet. No. 1,208,022; Dec. 12; Gaz. vol. 233; p. 471.

Schlattau, Frank, Los Angeles, Cal. Safety-razor. No. 1,210,216; Dec. 26; Gaz. vol. 233; p. 1311.

Schlayer, Charles, assignor of one-half to C. W. Jacob, New York, N. Y. Carbureter. No. 1,207,224; Dec. 5; Gaz. vol. 233; p. 151.

Schleicher, John W., and F. M. Boyer, St. Louis, Mo., assignors to Mengel Box Company, Louisville, Ky. Machine for cutting boxes. No. 1,206,925; Dec. 5; Gaz. vol. 233; p. 48.

Schleiden, Harold A., Los Angeles, Cal. Valve-grinding tool. No. 1,208,023; Dec. 12; Gaz. vol. 233; p. 472.

Schleimer, Otto, Neuss, assignor to Firm of Dr. Kurt Albert Chemische Fabrik, Neuss, Germany. Manufacturing iron from the scrap of zinced sheet-iron. No. 1,209,028; Dec. 19; Gaz. vol. 233; p. 1073.

Schleusener, Robert, Bancroft, Nebr. Riding attachment for agricultural machines. No. 1,207,225; Dec. 5; Gaz. vol. 233; p. 152.

Schmid, Peter, and K. Gross, Basel, Switzerland; said Gross assignor to said Schmid. Weighting silk. No. 1,207,500; Dec. 12; Gaz. vol. 233; p. 395.

Schmidt, Albert, assignor of one-half to A. J. Champion, Flint, Mich. Vehicle-brake. No. 1,207,801; Dec. 12; Gaz. vol. 233; p. 395.

Schmidt, Edward, W. Steffens, and F. F. Reinke, assignors to The Cleveland-Akron Bag Company, Cleveland, Ohio. Machine for spinning paper. No. 1,206,926; Dec. 5; Gaz. vol. 233; p. 48.

Schmidt, Ernest H., assignor to The National Malleable Castings Company, Cleveland, Ohio. Coupling-yoke. No. 1,208,669; Dec. 12; Gaz. vol. 233; p. 702.

Schmidt, Ernest H., assignor to The National Malleable Castings Company, Cleveland, Ohio. Radial-draft gear. No. 1,209,189; Dec. 19; Gaz. vol. 233; p. 921.

Schmidt, Maximilian P., assignor to Kalle and Company, Aktiengesellschaft, Biebrich, Germany. Manufacture of vat dyestuffs or initial products of same. No. 1,209,212; Dec. 19; Gaz. vol. 233; p. 929.

Schmidt, Otto, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing aromatic amins and catalysts therefor. No. 1,207,802; Dec. 12; Gaz. vol. 233; p. 396.

Schmidt, William F., Green Bay, Wis. Yieldable hook. No. 1,208,841; Dec. 19; Gaz. vol. 233; p. 805.

Schmidt'sche Heissdampf Gesellschaft m. b. H. (See Thomsen, Peter, assignor.)

Schmitt, George P., New York, N. Y. Automatic gas-extinguisher. No. 1,209,890; Dec. 26; Gaz. vol. 233; p. 1198.

Schmitt, John H., Emporia, Kans. Safety-razor. No. 1,210,006; Dec. 26; Gaz. vol. 233; p. 1238.

Schnaier, Milton, New York, N. Y., assignor to Milton Schnaier Contracting Corp. Mixing-valve. No. 1,210,105; Dec. 26; Gaz. vol. 233; p. 1272.

Schneider, Ralph F., New York, assignor to C. J. Tagliabue, Brooklyn, N. Y. Sphygmomanometer. No. 1,209,213; Dec. 19; Gaz. vol. 233; p. 929.

Schnuck, Carl F., assignor to Farrel Foundry & Machine Company, Ansonia, Conn. Clutch. No. 1,208,842; Dec. 19; Gaz. vol. 233; p. 805.

Schodde, George W., New York, N. Y. Pipe-sleeve. No. 1,210,217; Dec. 26; Gaz. vol. 233; p. 1311.

Schoenky, August R., Somerville, assignor to Reece Shoe Machinery Company, Boston, Mass. Insole and making the same. No. 1,206,927; Dec. 5; Gaz. vol. 233; p. 49.

Schoenky, August R., Somerville, assignor to The Reece Shoe Machinery Company, Boston, Mass. Sewing-machine. No. 1,209,340; Dec. 19; Gaz. vol. 233; p. 973.

Schoenthaler, Fred C. (See Hachmann, Frederick, assignor.)

Schofield, Frederick C., Washington, D. C., assignor to The Tobacco Stemming Machine Company, Baltimore, Md. Tobacco-stemming machine. No. 1,207,085; Dec. 5; Gaz. vol. 233; p. 103.

Schonhoff, John H., *et al.* (See Harnes, John B., assignor.)

Schramm, Lawrence H. W., St. Louis, Mo. Signal for motor-vehicles. No. 1,208,219; Dec. 12; Gaz. vol. 233; p. 542.

Schroeder, Frederick J., assignor, by mesne assignments, to The Damascus Brake Beam Co., Cleveland, Ohio. Manufacturing brake-beam fulcrums having integral third-point support. No. 1,206,928; Dec. 5; Gaz. vol. 233; p. 49.

Schuh, Philip, Jr., Keensburg, Ill. Heater for poultry-watering devices. No. 1,209,045; Dec. 19; Gaz. vol. 233; p. 872.

Schultz, William, Curtiss, Wis. Spring-reel. No. 1,209,341; Dec. 19; Gaz. vol. 233; p. 973.

Schulze, Leon F. and R., Cleveland, Ohio. Metal-working machine. No. 1,209,046; Dec. 19; Gaz. vol. 233; p. 872.

Schulze, Robert. (See Schulze, Leon F. and R.)

Schutz, Otto, assignor to Radische Company, New York, N. Y. Apparatus for mixing and distributing liquids. No. 1,208,670; Dec. 12; Gaz. vol. 233; p. 702.

Schuyler, Frank B., Berkeley, Cal. Operating mechanism for washing-machines. No. 1,208,843; Dec. 19; Gaz. vol. 233; p. 806.

Schwab, Delmer B. (See Titus and Schwab.)

Schwab, Louie D. (See Severtsen and Schwab.)

Schwartz, Herman, Philadelphia, Pa., and A. A. Grundy, Brooklyn, N. Y., assignors to themselves, and S. Grushlaw, Philadelphia, Pa. Flat-knitting machine. No. 1,210,106; Dec. 26; Gaz. vol. 233; p. 1273.

Schwartz, Herman, Philadelphia, Pa., and A. A. Grundy, Brooklyn, N. Y., assignors to themselves, and S. Grushlaw, Philadelphia, Pa. Cam for flat-knitting machines. No. 1,210,107; Dec. 26; Gaz. vol. 233; p. 1273.

Schwartz, Herman, Philadelphia, Pa., and A. A. Grundy, Brooklyn, N. Y., assignors to themselves, and S. Grushlaw, Philadelphia, Pa. Needle-retaining mechanism for flat-knitting machines. No. 1,210,108; Dec. 26; Gaz. vol. 233; p. 1273.

Schwartz, Samuel N., Cleveland, Ohio. Means for controlling headlights for automobiles, &c. No. 1,207,331; Dec. 5; Gaz. vol. 233; p. 187.

Scognamillo, Salvatore, New York, N. Y. Automobile vibrating horn. No. 1,209,629; Dec. 19; Gaz. vol. 233; p. 1073.

Scott, David J., *et al.*, executors. (See Scott, Walter C.)

Scott, Isabella, *et al.*, executors. (See Scott, Walter C.)

Scott, John M., Racine, Wis., assignor to O. R. Barnett, Chicago, Ill. Rail-anchor. No. 1,209,047; Dec. 19; Gaz. vol. 233; p. 873.

Scott, Walter C., deceased, assignor to I. Scott and D. J. Scott, executors, Plainfield, N. J. Plate-printing machine. No. 1,206,929; Dec. 5; Gaz. vol. 233; p. 50.

Scovell, Hannibal, Galena, and L. E. Scovell, Columbus, Kans. Ore-concentrator. No. 1,207,803; Dec. 12; Gaz. vol. 233; p. 396.

Scovell, Leslie E. (See Scovell, Hannibal and L. E.)

Scovill Manufacturing Company. (See Stanley, Frederick E., assignor.)

Scully, John J., assignor to American Graphophone Company, Bridgeport, Conn. Holder for talking-machine records. No. 1,208,844; Dec. 19; Gaz. vol. 233; p. 806.

Scully, John J., assignor to American Graphophone Company, Bridgeport, Conn. Dictaphone attachment. No. 1,209,891; Dec. 26; Gaz. vol. 233; p. 1198.

Scully, Thomas E., Napa, Cal. Garment-turner. No. 1,208,388; Dec. 12; Gaz. vol. 233; p. 604.

Sealander, Carl A., Chicago, Ill. Making wall-coverings. No. 1,209,342; Dec. 19; Gaz. vol. 233; p. 974.

Sears, Roebuck and Company. (See Bohmker, John C., assignor.)

Sears, Roebuck & Company. (See Calhoun, Lawrence V., assignor.)

Sears, Roebuck and Company. (See Cole, Alonzo E., assignor.)

Seattle Astoria Iron Works. (See Troyer, Nelson, assignor.)

Seattle Car & Foundry Co. (See Chriswell, Frederick W., assignor.)

Sedita, Salvatore, Brant, N. Y. Plow. No. 1,207,640; Dec. 5; Gaz. vol. 233; p. 296.

Seeger, Charles P., St. Louis, Mo. Tire removing and replacing device. No. 1,207,641; Dec. 5; Gaz. vol. 233; p. 297.

Seemann, August J., assignor to Loeffelholz and Company, Milwaukee, Wis. Electrical connector. No. 1,209,892; Dec. 26; Gaz. vol. 233; p. 1199.

Segal, Herman. (See Gold and Segal.)

Selaw Products Company. (See Wales, Nathaniel B., assignor.)

Seller, Daniel E. (See Desormeau, Adolphus, assignor.)

Sells, George, East Las Vegas, N. Mex. Draw-bar-slack adjustable safety appliance. No. 1,210,109; Dec. 26; Gaz. vol. 233; p. 1274.

Selman, Thomas H., Greenfield, Ind. Automobile dining-table and accessories. No. 1,207,332; Dec. 5; Gaz. vol. 233; p. 187.

Severtsen, Sven A., and L. D. Schwab, assignors of one-half to O. E. Huleban, Deer River, Minn. Fishing device. No. 1,208,671; Dec. 12; Gaz. vol. 233; p. 703.

Severy, Melvin L., Arlington Heights, Mass., and G. B. Sinclair, Georgetown, Me., assignors to Choralcelo Company, Boston, Mass. Magnet-rail for electrical musical instruments. No. 1,209,214; Dec. 19; Gaz. vol. 233; p. 930.

Seybold, Charles, Dayton, Ohio. Machine element. No. 1,207,227; Dec. 5; Gaz. vol. 233; p. 152.

Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Thread-controlling device for sewing-machines. No. 1,207,228; Dec. 5; Gaz. vol. 233; p. 152.

Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Apparatus for feeding and sewing filled sacks. No. 1,210,218; Dec. 26; Gaz. vol. 233; p. 1312.

Seymour, James M., Jr., Newark, N. J. Fire-alarm or signaling system. No. 1,208,389; Dec. 12; Gaz. vol. 233; p. 604.

Seymour, James M., Jr., Newark, N. J. Cooling and humidifying apparatus. No. 1,208,390; Dec. 12; Gaz. vol. 233; p. 605.

Shafer-Decker Company. (See Decker, Frederick J., assignor.)

Shaffer, Thomas, St. Joseph, Mo. Lamplight-deflector and mechanism for operating the same. No. 1,208,845; Dec. 19; Gaz. vol. 233; p. 807.

Shampanier, Manuel, Passaic, N. J. Display-receptacle. No. 1,209,343; Dec. 19; Gaz. vol. 233; p. 974.

Shapera, Harry A., Chicago, Ill. Blouse. No. 1,208,220; Dec. 12; Gaz. vol. 233; p. 543.

Sharp, Charles S., Auburn, N. Y., assignor to International Harvester Company of New Jersey. Disk harrow. No. 1,206,930; Dec. 5; Gaz. vol. 233; p. 50.

Sharp, Clayton H., White Plains, N. Y. Apparatus for measuring the maximum values of alternating-current voltages. No. 1,209,766; Dec. 26; Gaz. vol. 233; p. 1153.

Sharp-Hughes Tool Company. (See Hughes, Howard R., assignor.)

Sharp, James A., and E. F. Grove, Springfield, Ohio, assignors to International Harvester Company of New Jersey. Manure-spreader. No. 1,207,086; Dec. 5; Gaz. vol. 233; p. 103.

Sharp, John W., Swifton, Ark. Animal-trap. No. 1,207,087; Dec. 5; Gaz. vol. 233; p. 104.

Sharp, Samuel J., Wheeling, W. Va. Water-heater. No. 1,207,229; Dec. 5; Gaz. vol. 233; p. 153.

Sharpe, Walter, Providence, R. I. Spool-crate. No. 1,209,504; Dec. 19; Gaz. vol. 233; p. 1032.

Sharples, Laurence P., West Chester, Pa. Centrifugal machine and method. No. 1,207,230; Dec. 5; Gaz. vol. 233; p. 154.

Shatzer, Norman C., Zullinger, Pa. Puzzle. No. 1,209,048; Dec. 19; Gaz. vol. 233; p. 873.

Shaw, Dudley, New York, N. Y. Electrolytic cell. No. 1,208,722; Dec. 12; Gaz. vol. 233; p. 720.

Shaw, Joseph B. (See Matheson and Shaw.)

Shaw, Oliver H. (See Sass and Shaw.)

Shaw, Robert J., Beaumont, Tex. Lubricating apparatus. No. 1,208,672; Dec. 12; Gaz. vol. 233; p. 703.

Shaw, Walter, Dedham, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shank for use in the manufacture of boots and shoes. No. 1,209,707; Dec. 26; Gaz. vol. 233; p. 1153.

Sheely, George and J. H., Marshalltown, Iowa. Sectional vehicle-tire. No. 1,210,219; Dec. 26; Gaz. vol. 233; p. 1312.

Sheely, Joseph H. (See Sheely, George and J. H.)

Sheep Shearers' Merchandise and Commission Company, The. (See Bartlett, Edwin S., Sr., assignor.)

Sheets, William P., Princeton, Mo. Pipe-wrench. No. 1,209,049; Dec. 19; Gaz. vol. 233; p. 874.

Sheffer, John W. (See Johnson and Sheffer.)

Sheldon, Ward J., and R. J. Halstead, Electra, Tex. Fishing-tool for wells. No. 1,208,846; Dec. 19; Gaz. vol. 233; p. 807.

Shelton, Clark, Huntington Beach, Cal. Tandem attachment for motor-cycles. No. 1,209,050; Dec. 19; Gaz. vol. 233; p. 874.

Shelton, Ed. (See Cookerley, John, assignor.)

Shepard, Alfred. (See Collins and Shepard.)

Sherrington, William J., London, England. Mud-guard. No. 1,207,642; Dec. 5; Gaz. vol. 233; p. 297.

Shields, Michael P., Quebec, Quebec, Canada. Water-indicator for locomotive-tenders. No. 1,210,007; Dec. 26; Gaz. vol. 233; p. 1238.

Shimans, Frank, Chicago, Ill. Razor. No. 1,210,220; Dec. 26; Gaz. vol. 233; p. 1312.

Shimans, Frank A., Chicago, Ill. Razor-hone. No. 1,210,221; Dec. 26; Gaz. vol. 233; p. 1313.

Shimans, Frank A., Chicago, Ill. Stropping-machine. No. 1,210,222; Dec. 26; Gaz. vol. 233; p. 1313.

Shipley, Randolph W., Drumright, Okla. Pipe-tongs. No. 1,209,630; Dec. 19; Gaz. vol. 233; p. 1073.

Shockless Electric Manufacturing Co. of New Jersey. (See Honchin, Alfred W., assignor.)

Shoemaker, Harry C., Freeport, assignor to The Chambers, Bering, Quinlan Co., Decatur, Ill. Lock-faucet. No. 1,209,768; Dec. 26; Gaz. vol. 233; p. 1154.

Shonnard, Harold W., Upper Montclair, N. J., assignor to Crucible Steel Company of America, Pittsburgh, Pa. Torpedo construction. No. 1,207,333; Dec. 5; Gaz. vol. 233; p. 188.

Shook, James M., Asbertile, N. C. Folding pail. No. 1,209,769; Dec. 26; Gaz. vol. 233; p. 1154.

Shostrum, John, Tacoma, Wash. Pipe-wrench. No. 1,207,334; Dec. 5; Gaz. vol. 233; p. 188.

Shotwell, Francesca C., Monroe, La. Collapsible funnel. No. 1,209,051; Dec. 19; Gaz. vol. 233; p. 874.

Shreve, Leonard G., Iowa City, Iowa. Tire-support. No. 1,209,770; Dec. 26; Gaz. vol. 233; p. 1154.

Shuman, Arno, assignor to Pennsylvania Wire Glass Company, Philadelphia, Pa. Manufacture of glass. No. 1,207,643; Dec. 5; Gaz. vol. 233; p. 297.
Shunk, Harry A., Brooklyn, assignor to General Gas Appliance Company, New York, N. Y. Gas-stove. No. 1,209,215; Dec. 19; Gaz. vol. 233; p. 930.
Shupp, Chauncey D., assignor of one-third to A. L. Griffith, Nebawka, Nebr. Sash-pulley. No. 1,208,673; Dec. 12; Gaz. vol. 233; p. 703.
Sickert, Charles, Davenport, Iowa. Gas generator and burner. No. 1,206,031; Dec. 5; Gaz. vol. 233; p. 50.
Sidur, John P., Ware, Mass. Firearm attachment. No. 1,208,674; Dec. 12; Gaz. vol. 233; p. 704.
Siebenhaar, Otto W., Rosendale, Wis. Four-wheel drive for tractors. No. 1,207,335; Dec. 5; Gaz. vol. 233; p. 188.
Siegel, Joseph, assignor to American Lady Corset Company, Detroit, Mich. Corset. No. 1,207,231; Dec. 5; Gaz. vol. 233; p. 154.
Siemens & Halske Aktiengesellschaft. (See Huth, Max, assignor.)
Siesholtz, Herbert, Allentown, Pa. Comb-molding. No. 1,210,011; Dec. 26; Gaz. vol. 233; p. 1239.
Sifferman, Harvey E., Dayton, Ohio. Motor-cycle support. No. 1,207,088; Dec. 5; Gaz. vol. 233; p. 104.
Silbert, August, Fort Stanton, N. Mex. Chair-back. No. 1,210,223; Dec. 26; Gaz. vol. 233; p. 1313.
Silk, William H., New York, N. Y. Skater's sandal. No. 1,210,224; Dec. 26; Gaz. vol. 233; p. 1314.
Silknitter, Charles M., Centerville, Iowa. Sample-piece-goods holder. No. 1,207,644; Dec. 5; Gaz. vol. 233; p. 298.
Simmonds, Fernandieze M., Chicago, Ill. Card. No. 1,208,391; Dec. 12; Gaz. vol. 233; p. 606.
Simmons, Charles A., Albany, N. Y. Tire. No. 1,206,932; Dec. 5; Gaz. vol. 233; p. 51.
Simmons, Walter C., Kenton, Ohio. Pressure-controlling device. No. 1,208,392; Dec. 12; Gaz. vol. 233; p. 606.
Simmons, William E. (See Horn and Simmons.)
Simonds, Charles G., Milwaukee, Wis., and G. W. Doerr, Chicago, Ill. Amusement device. No. 1,206,933; Dec. 5; Gaz. vol. 233; p. 51.
Simons, Harry, New York, N. Y., assignor to Wayne Paper Goods Company, Fort Wayne, Ind. Packing device. No. 1,208,221; Dec. 12; Gaz. vol. 233; p. 543.
Simplex Sample System Inc. (See Smith, Vinal W., assignor.)
Simplex Valve & Meter Company. (See Borden, Moro M., assignor.)
Simplex Window Company. (See Soule, Arthur C., assignor.)
Simpson, William F., Knoxville, Tenn. Machine for cutting sheet-form material. No. 1,208,847; Dec. 19; Gaz. vol. 233; p. 807.
Sinclair, Crawford C., Fredonia, Kans. Universal drawing-board. No. 1,208,024; Dec. 12; Gaz. vol. 233; p. 472.
Sinclair, Edward J., New Kensington, Pa. Well-flowing device. No. 1,209,505; Dec. 19; Gaz. vol. 233; p. 1032.
Sinclair, George B. (See Severy and Sinclair.)
Sinclair, James A., Metairie Ridge, La. Veneer-cutting machine. No. 1,209,052; Dec. 19; Gaz. vol. 233; p. 875.
Singer, Joseph B., Brooklyn, and A. B. Levy, New York, N. Y. Display device. No. 1,210,008; Dec. 26; Gaz. vol. 233; p. 1238.
Singer Manufacturing Company, The. (See Allen, Edward B., assignor.)
Singer Manufacturing Company, The. (See Becker, Rudolph, assignor.)
Singer Manufacturing Company, The. (See Greene and Bilchner, assignors.)
Singer Manufacturing Company, The. (See Karle, John D., assignor.)
Sinn, John C., McKeesport, Pa. Door-lock. No. 1,209,053; Dec. 19; Gaz. vol. 233; p. 875.
Sinnott, Clarence C. (See Church, Arthur W., assignor.)
Sinsheimer, Sidney W., Denver, Colo. Fluid-treating system and element thereof for centrifugal separators. No. 1,209,216; Dec. 19; Gaz. vol. 233; p. 930.
Sir W. G. Armstrong, Whitworth and Company. (See Law and Sandberg, assignors.)
Sisson, Albert H., Chicago, Ill., assignor, by mesne assignments, to Waugh Draft Gear Company. Antitelescoping device for railway-cars. No. 1,207,804; Dec. 12; Gaz. vol. 233; p. 396.
Sjauken, John, Hoboken, N. J. Bottled-liquid-mixing machine. No. 1,207,805; Dec. 12; Gaz. vol. 233; p. 397.
Sjostrom, Peter. (See Erickson and Sjostrom.)
Skall, Max A., New York, N. Y. Dispenser for paper napkins. No. 1,209,054; Dec. 19; Gaz. vol. 233; p. 875.
Skancke, Roald, Christiania, and J. F. Aasnæs, Selvig, in Sande, Norway. Combined sleeping-bag and knapsack. No. 1,209,771; Dec. 26; Gaz. vol. 233; p. 1154.
Skillin, Ralph W., Oak Park, Ill. Demountable-rim construction. No. 1,208,222; Dec. 12; Gaz. vol. 233; p. 543.
Slate, Thomas B., Washington, D. C. Ball-bearing. No. 1,209,772; Dec. 26; Gaz. vol. 233; p. 1155.
Slater, Joseph, *et al.* (See Jonas, Alexander, assignor.)
Slavens, Lyman F., Marshfield, Oreg. Pulley-block. No. 1,209,344; Dec. 19; Gaz. vol. 233; p. 974.
Slawson, Thomas, near Rea, Mo. Beet-harvester. No. 1,209,055; Dec. 19; Gaz. vol. 233; p. 876.
Sleight, George A., Hyde Park, N. Y. Sanitary screen. No. 1,208,675; Dec. 12; Gaz. vol. 233; p. 704.
Sletten, Albert, Fargo, N. D. Photographic-printing machine. No. 1,209,631; Dec. 19; Gaz. vol. 233; p. 1074.
Slick, Edwin E., Westmont Borough, Pa. Ingot-mold. No. 1,207,645; Dec. 5; Gaz. vol. 233; p. 298.
Slide-O-Graph Company, The. (See Scheller, Paul J., assignor.)
Sliwinski, Albin. (See Solman and Sliwinski.)
Small, Chesley T., St. Louis, Mo., assignor, by mesne assignments, to Automatic Can Filling Machinery Company, Newark, N. J. Can-capping machine. No. 1,208,848; Dec. 19; Gaz. vol. 233; p. 808.
Small, Chesley T., St. Louis, Mo., assignor, by mesne assignments, to Automatic Can Filling Machinery Company, Newark, N. J. Machine for forming receptacles. No. 1,209,217; Dec. 19; Gaz. vol. 233; p. 931.
Small, Frank O., Boston, Mass. Flexible composite sheet and making the same. No. 1,209,506; Dec. 19; Gaz. vol. 233; p. 1033.
Small, James J., Fairfax, Mo. Railway-gate. No. 1,209,056; Dec. 19; Gaz. vol. 233; p. 876.
Smalley, Paul C., Newark, N. J. Flash-light device. No. 1,210,225; Dec. 26; Gaz. vol. 233; p. 1314.
Smallwood, Charles H., Independence, Mo. Corn-planter. No. 1,209,507; Dec. 19; Gaz. vol. 233; p. 1033.
Smart, Charles, Niagara Falls, N. Y. Scaffold-bracket. No. 1,208,849; Dec. 19; Gaz. vol. 233; p. 808.
Smart, Ezra E., Hartford, Conn. Wall-case. No. 1,208,393; Dec. 12; Gaz. vol. 233; p. 607.
Smiley, Orvall, E. C. Applegate, Indianapolis, and G. R. Bennett, Fort Wayne; said Smiley assignor of his one-third to D. A. Frew, Hartford City, Ind. Electric pneumatic time-switch. No. 1,208,676; Dec. 12; Gaz. vol. 233; p. 704.
Smisek, John, North Bergen, N. J. Safety-sole. No. 1,208,025; Dec. 12; Gaz. vol. 233; p. 472.
Smith, Andrew D., Marion, Ind. Hot-air furnace. No. 1,207,646; Dec. 5; Gaz. vol. 233; p. 298.
Smith, Annesley D., New York, N. Y. Garment-form. No. 1,206,934; Dec. 5; Gaz. vol. 233; p. 51.
Smith, Arthur E. B., Handsworth, Birmingham, England. Framing or mounting of photographs, pictorial cards, and the like. No. 1,210,236; Dec. 26; Gaz. vol. 233; p. 1314.
Smith, Arthur J., Bath, Me. Telemetric system. No. 1,208,026; Dec. 12; Gaz. vol. 233; p. 472.
Smith, Arthur W., New York, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,209,218; Dec. 19; Gaz. vol. 233; p. 931.
Smith, Arthur W., New York, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,210,009; Dec. 26; Gaz. vol. 233; p. 1239.
Smith, Augustus, Roselle, assignor to Bergen Point Iron Works, Bayonne, N. J. Distributing apparatus. No. 1,210,227; Dec. 26; Gaz. vol. 233; p. 1314.
Smith, Charles, *et al.* (See Jonas, Alexander, assignor.)
Smith, Charles G., assignor of one-half to Charles F. MacGill, Cambridge, Mass. Speedometer. No. 1,207,647; Dec. 5; Gaz. vol. 233; p. 299.
Smith, Charles P., Louisville, Ky. Antiskid device for vehicle-wheels. No. 1,207,089; Dec. 5; Gaz. vol. 233; p. 104.
Smith, Charlie W., San Diego, Cal. Steam-engine. No. 1,208,027; Dec. 12; Gaz. vol. 233; p. 473.
Smith, Christopher J., Cleveland, Ohio. Joint safety-lock. No. 1,206,935; Dec. 5; Gaz. vol. 233; p. 52.
Smith & Co. (See Cullifer, Walter T., assignor.)
Smith, Dolph, Clatskanie, Oreg. Friction-throw. No. 1,208,028; Dec. 12; Gaz. vol. 233; p. 473.
Smith Engine Company. (See Smith, John A., assignor.)
Smith, Ezra B., Chicago, Ill., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Fire-curtain. No. 1,207,806; Dec. 12; Gaz. vol. 233; p. 397.
Smith, Fletcher, Dallas, Tex. Plow attachment. No. 1,207,443; Dec. 5; Gaz. vol. 233; p. 228.
Smith, Frank L., Chicago, Ill. Automatic foot-throttle for automobiles. No. 1,209,632; Dec. 19; Gaz. vol. 233; p. 1074.
Smith, Frank W., assignor of one-half to W. K. Trimble, Kansas City, Mo. Universal cable-tip. No. 1,210,110; Dec. 26; Gaz. vol. 233; p. 1274.
Smith, Franklin P. (See McClure, Edward, assignor.)
Smith, Gustavus A. (See Hansell, Marcus E., assignor.)
Smith, Helen E., Kansas City, Mo. Doll-head. No. 1,208,029; Dec. 12; Gaz. vol. 233; p. 473.
Smith, Henry T., Kent, Ill. Mail-carrier. No. 1,209,057; Dec. 19; Gaz. vol. 233; p. 876.
Smith, Herbert C., assignor to American Lady Corset Company, Detroit, Mich. Machine for measuring and testing corsets. No. 1,207,232; Dec. 5; Gaz. vol. 233; p. 154.
Smith, H. L., *et al.* (See Lilly, George W., assignor.)
Smith, Hinsdale, South Hadley, Mass., assignor to Th. Springfield Body Corporation of New York. Guard for an automobile-window. No. 1,208,223; Dec. 12; Gaz. vol. 233; p. 544.
Smith, John A., assignor to Smith Engine Company, San Francisco, Cal. Rotary engine. No. 1,208,030; Dec. 12; Gaz. vol. 233; p. 474.
Smith, John H. (See Faerber, and Smith.)
Smith, Joseph. (See McGuire, Elmer E., assignor.)
Smith, Math, Davenport, Iowa. Apparatus for treating fabrics. No. 1,209,773; Dec. 26; Gaz. vol. 233; p. 1155.
Smith, Mortimer W. (See Strohm, Orrie C., assignor.)

Smith, Noah, Roderfield, W. Va. Extensible fence-post. No. 1,210,111; Dec. 26; Gaz. vol. 233; p. 1275.
Smith, Oberlin, Bridgeton, N. J., and M. G. Nixon, Chicago, Ill. Strap-locking device. No. 1,207,233; Dec. 5; Gaz. vol. 233; p. 154.
Smith, Ona E., San Jose, Cal. Food compound. No. 1,208,850; Dec. 19; Gaz. vol. 233; p. 809.
Smith, Owen P. (See Reed and Smith.)
Smith, Peter J., Kingston, Pa. Coal-drill. No. 1,209,058; Dec. 19; Gaz. vol. 233; p. 877.
Smith, Singleton, assignor to The Wallace & Smith Co., Milwaukee, Wis. Golf-bag. No. 1,208,031; Dec. 12; Gaz. vol. 233; p. 474.
Smith, Thomas M., Baltimore, Md. Signal device for automobile drivers. No. 1,209,059; Dec. 19; Gaz. vol. 233; p. 877.
Smith, Vinal W., assignor to Simplex Sample System Inc., Haverhill, Mass. Shoe-exhibiting device. No. 1,210,010; Dec. 26; Gaz. vol. 233; p. 1239.
Smith, William, Chicago, Ill. Device for determining the trueness of wheels. No. 1,209,345; Dec. 19; Gaz. vol. 233; p. 974.
Smith, William A., San Angelo, Tex. Electric prod-pole. No. 1,210,112; Dec. 26; Gaz. vol. 233; p. 1275.
Smith, William A., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo. Chuck-coupling. No. 1,208,224; Dec. 12; Gaz. vol. 233; p. 544.
Smith, William D., Cynwyd, Pa. Wheeled toy. No. 1,207,648; Dec. 5; Gaz. vol. 233; p. 299.
Smith, William H., Pawtucket, R. I. Bobbin-carriage for lace-machines. No. 1,208,032; Dec. 12; Gaz. vol. 233; p. 474.
Smith, William M., Democrat, Tex. Trap. No. 1,208,677; Dec. 12; Gaz. vol. 233; p. 704.
Smith, William S., Cambridge, Mass. Actuating device for elevator-indicators. No. 1,207,336; Dec. 5; Gaz. vol. 233; p. 189.
Smithey, Marvin, Lawrenceville, Va. Speedometer. No. 1,208,678; Dec. 12; Gaz. vol. 233; p. 705.
Smithey, Marvin, Lawrenceville, Va. Speedometer. No. 1,208,679; Dec. 12; Gaz. vol. 233; p. 705.
Smyth, Joseph E. (See Pagliarul, Joseph, assignor.)
Snell, John H., Belleville, N. J. Adjustable window-screen. No. 1,210,012; Dec. 26; Gaz. vol. 233; p. 1239.
Snow, Arthur E., Erie, Pa., assignor, by mesne assignments, to U. S. Hoffman Company, Syracuse, N. Y. Clothes-pressing machine. No. 1,208,714; Dec. 12; Gaz. vol. 233; p. 717.
Snyder, Howard F., assignor to The Maytag Company, Newton, Iowa. Gearing. No. 1,209,893; Dec. 26; Gaz. vol. 233; p. 1199.
Snyder, Jacob R., assignor to P. E. Donner, Pittsburgh, Pa. Engineer's brake-valve. No. 1,208,033; Dec. 12; Gaz. vol. 233; p. 475.
Snyder, Karl R., Connellsville, Pa. Rail joint and chair. No. 1,207,234; Dec. 5; Gaz. vol. 233; p. 155.
Snyder, Leo A., assignor of one-half to E. M. Jones, Halleyville, Okla. Ignition system. No. 1,208,034; Dec. 12; Gaz. vol. 233; p. 475.
Snyder, Louis, Hartford, Conn. Padlock. No. 1,209,894; Dec. 26; Gaz. vol. 233; p. 1199.
Snyder, Wilbur A., Montoursville, Pa. Lawn-rake. No. 1,209,060; Dec. 19; Gaz. vol. 233; p. 877.
Snyder, Winfield S., and J. B. Keesey, Columbia, Pa. Work-holder. No. 1,209,633; Dec. 19; Gaz. vol. 233; p. 1074.
Sobeck, August, Chicago, Ill. Nut-lock. No. 1,209,895; Dec. 26; Gaz. vol. 233; p. 1200.
Società Anonima Fiat-San Giorgio. (See Laurenti, Cesare, assignor.)
Société Anonyme des Etablissements Delaunay-Belleville. (See Delaunay-Belleville, Robert D., assignor.)
Societe Anonyme Des Etablissements Delaunay-Belleville. (See Canhac, George E., assignor.)
Société Anonyme pour l'Exploitation des Procédés Westinghouse Leblanc. (See Leblanc, Maurice, assignor.)
Societe Etablissements Gaumont. (See Gaumont, Léon, assignor.)
Société, L'Aluminium Francais. (See Roux, François A., assignor.)
Société "Philaure." (See Olivier, Alfred, assignor.)
Soffer, Henry A. (See Cruice, Daniel, assignor.)
Sollisch, Louis, Brooklyn, assignor of one-half to G. Albanese, New York, N. Y. Reel for moving-picture films. No. 1,210,113; Dec. 26; Gaz. vol. 233; p. 1275.
Solman, Anton, and A. Sliwinski, Pittsburgh, Pa. Pistol-sword. No. 1,207,235; Dec. 5; Gaz. vol. 233; p. 155.
Sopher, William N., Beatrice, Nebr. Fire-pot. No. 1,209,896; Dec. 26; Gaz. vol. 233; p. 1200.
Sorg, William A., Minneapolis, assignor, by mesne assignments, to F. B. Bradbury, trustee, St. Paul, Minn. Combustion-engine. No. 1,209,061; Dec. 19; Gaz. vol. 233; p. 877.
Soss, Charles J., assignor of one-third to H. Soss and one-third to S. Soss, New York, N. Y. Hinge. No. 1,208,035; Dec. 12; Gaz. vol. 233; p. 476.
Soss, Charles J., assignor of one-third to H. Soss and one-third to S. Soss, New York, N. Y. Hinge. No. 1,208,036; Dec. 12; Gaz. vol. 233; p. 476.
Soss, Charles J., assignor of one-third to H. Soss and one-third to S. Soss, New York, N. Y. Hinge. No. 1,208,037; Dec. 12; Gaz. vol. 233; p. 476.
Soss, Henry, *et al.* (See Soss, Charles J., assignor.)
Soss, Samuel, *et al.* (See Soss, Charles J., assignor.)
Soule, Arthur C., assignor to Simplex Window Company, San Francisco, Cal. Double-sash-window mounting. No. 1,207,236; Dec. 5; Gaz. vol. 233; p. 155.
Soule, Bell M., *et al.* (See Hungerford, Oliver F., assignor.)
Soule, George H., Fairfield, Vt. Sap-spout. No. 1,207,444; Dec. 5; Gaz. vol. 233; p. 229.
South Bend Bait Company. (See Olds, James S., assignor.)
South, Richard M., Palmyra, Mo. Umbrella. No. 1,207,649; Dec. 5; Gaz. vol. 233; p. 299.
Southworth Machine Company. (See Chenery, Henry L., assignor.)
Spacie, Thomas, Blue Island, Ill. Roller-skate. No. 1,208,681; Dec. 12; Gaz. vol. 233; p. 705.
Sparks Drilling Jar Company. (See Sparks, William A., assignor.)
Sparks, William A., assignor to Sparks Drilling Jar Company, Chafleston, W. Va. Making well-drill jars. No. 1,209,846; Dec. 19; Gaz. vol. 233; p. 975.
Sparks, William A., assignor to Sparks Drilling Jar Company, Charleston, W. Va. Well-drill jar. No. 1,209,847; Dec. 19; Gaz. vol. 233; p. 975.
Sparrow, J. C. (See Packinger, Frank, assignor.)
Speare, Andrew J., Westplains, Mo. Brake for automobiles. No. 1,207,650; Dec. 5; Gaz. vol. 233; p. 299.
Spelling, Thomas C., New York, N. Y. Combination of necktie supporter and retainer. No. 1,208,394; Dec. 12; Gaz. vol. 233; p. 607.
Spelling, Thomas C., New York, N. Y. Band-holder for neckties. No. 1,209,508; Dec. 19; Gaz. vol. 233; p. 1034.
Spencer, Arthur C. (See Eckel and Spencer.)
Spencer, Arthur C., Washington, D. C. Making cement and by-products. No. 1,209,220; Dec. 19; Gaz. vol. 233; p. 932.
Spencer, Arthur C., and E. C. Eckel, Washington, D. C. Making cement. No. 1,209,219; Dec. 19; Gaz. vol. 233; p. 932.
Sperry, George H. (See Kyle, George, assignor.)
Sperry, John B., assignor to The American Well Works, Aurora, Ill. Deep-well pump. No. 1,208,038; Dec. 12; Gaz. vol. 233; p. 476.
Speyer, John A., Chicago, Ill. Antiskidding device for vehicles. No. 1,209,062; Dec. 19; Gaz. vol. 233; p. 878.
Spielman, Maximillian H., New York, N. Y. Electrical switching device. No. 1,208,682; Dec. 12; Gaz. vol. 233; p. 706.
Spillman, Richard M., Poseyville, Ind. Sharpening device for rolling colters. No. 1,208,039; Dec. 12; Gaz. vol. 233; p. 477.
Spinasse, Arthur E., Mount Vernon, Ohio, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Drawing glass. No. 1,208,851; Dec. 19; Gaz. vol. 233; p. 809.
Spinks, John J., Watertown, Mass. Sign. No. 1,208,683; Dec. 12; Gaz. vol. 233; p. 706.
Spirella Company, The. (See Hyde, Elbert L., assignor.)
Spirella Company, The. (See Roche, William J., assignor.)
Splitdorf Electrical Company. (See Mason, Carl T., assignor.)
Splitdorf Electrical Company. (See Mason, Charles T., assignor.)
Spoerr, Louise F., Brooklyn, N. Y. Collapsible receptacle. No. 1,208,040; Dec. 12; Gaz. vol. 233; p. 477.
Sprague Canning Machinery Company. (See Steere, Clarence E., assignor.)
Spranger, Frank and N. M., assignors to Spranger Rim and Wheel Co., Detroit, Mich. Demountable rim. No. 1,209,509; Dec. 19; Gaz. vol. 233; p. 1034.
Spranger, Nicholas M. (See Spranger, Frank and N. M.)
Spranger Rim and Wheel Co. (See Spranger, Frank and N. M., assignors.)
Springer, Ruter W., U. S. Army. Flying-machine. No. 1,208,395; Dec. 12; Gaz. vol. 233; p. 607.
Springer, Ruter W., Springfield, Ill. Aerial navigation. No. 1,208,684; Dec. 12; Gaz. vol. 233; p. 706.
Springer, William N., Peoria, Ill., assignor to Avery Company. Coupled vehicle. No. 1,209,774; Dec. 26; Gaz. vol. 233; p. 1156.
Springer, William N., Peoria, Ill., assignor, by mesne assignments, to Avery Company. Steam-plow. No. 1,209,897; Dec. 26; Gaz. vol. 233; p. 1200.
Springer, William N., Peoria, Ill., assignor, by mesne assignments, to Avery Company. Plow. No. 1,209,898; Dec. 26; Gaz. vol. 233; p. 1201.
Springer, William N., South Bend, Ind., assignor to Avery Company, Peoria, Ill.. Gang-plow. No. 1,209,899; Dec. 26; Gaz. vol. 233; p. 1201.
Springfield Body Corporation of New York, The. (See Smith, Hinsdale S., assignor.)
Sproul, William C., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Adjusting cutter. No. 1,208,852; Dec. 19; Gaz. vol. 233; p. 809.
Spruston, Thomas A. (See Joyce, Walter, assignor.)
St. Ledger, Michael. (See Parkman, Frank L., assignor.)
Stabel, John A., Buffalo, N. Y. Match-safe. No. 1,209,510; Dec. 19; Gaz. vol. 233; p. 1034.
Stafford, Benjamin E. D., assignor to Flannery Bolt Company, Pittsburgh, Pa. Flexible stay-bolt connection for boilers. No. 1,210,014; Dec. 26; Gaz. vol. 233; p. 1240.

Stafford, Benjamin E. D., and F. K. Landgraf, assignors to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt connection for boilers. No. 1,210,013; Dec. 26; Gaz. vol. 233; p. 1240.
Stafford, Hal R. (See Ball and Stafford.)
Stafford, James A. (See Stafford, James M. and J. A.)
Stafford, James M. and J. A., Washington, Ind. Gate-opener. No. 1,207,651; Dec. 5; Gaz. vol. 233; p. 300.
Stalb, Herman, Port Jefferson, N. Y. Clothes-pin. No. 1,210,228; Dec. 26; Gaz. vol. 233; p. 1315.
Staley, Harrison L., Martinsville, Ind., assignor to Richmond Cedar Works, Richmond, Va. Shipping-case-cover-sealing fastener. No. 1,209,511; Dec. 19; Gaz. vol. 233; p. 1035.
Standard Asphalt & Rubber Company. (See Eades, Charles V., assignor.)
Standard Machine Company. (See Houseman, Harry A., assignor.)
Standard Motor Construction Company. (See Riotte, Eugene A., assignor.)
Standard Optical Company, The. (See Long, Eli M., assignor.)
Standard Optical Company, The. (See Van Tassel, John R., assignor.)
Standish, John F., Winthrop, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-compressing machine. No. 1,207,807; Dec. 12; Gaz. vol. 233; p. 397.
Standish, John F., Winthrop, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-attaching machine. No. 1,208,853; Dec. 19; Gaz. vol. 233; p. 810.
Standy, Mekkel O., Homestead, N. D. Wheel-shield attachment for racks. No. 1,208,396; Dec. 12; Gaz. vol. 233; p. 608.
Stanek, Lucian, Boston, Mass. Driving mechanism for a moving-picture film. No. 1,208,685; Dec. 12; Gaz. vol. 233; p. 707.
Stanley, Frederick E., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button setting and riveting machine. No. 1,207,652; Dec. 5; Gaz. vol. 233; p. 300.
Star Instrument Company. (See Hovgard, Harry, assignor.)
Starker, Charles W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,209,775; Dec. 26; Gaz. vol. 233; p. 1156.
Starker, Charles W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,209,776; Dec. 26; Gaz. vol. 233; p. 1157.
Starkey, William C., assignor to The Ohio Brass Company, Mansfield, Ohio. Catenary hanger. No. 1,207,653; Dec. 5; Gaz. vol. 233; p. 301.
Starreis, Joel, New York, N. Y. Producing fatty acids of high purity and melting-point. No. 1,209,512; Dec. 19; Gaz. vol. 233; p. 1035.
Statham, Noel, Boonton, N. J., assignor to Industrial Chemical Company, New York, N. Y. Paper and making the same. No. 1,209,221; Dec. 19; Gaz. vol. 233; p. 932.
Statham, Noel, Boonton, N. J., assignor to Industrial Chemical Company, New York, N. Y. Glazed paper and coating composition therefor. No. 1,209,222; Dec. 19; Gaz. vol. 233; p. 933.
Staude, Edwin G., Minneapolis, Minn. Speed-controlling device for self-propelled vehicles. No. 1,206,936; Dec. 5; Gaz. vol. 233; p. 52.
Steadman, Charles H., Marietta, Ohio. Oven for gas and vapor stoves. No. 1,209,848; Dec. 19; Gaz. vol. 233; p. 976.
Stebler, Fred, and F. F. Chase, Riverside, Cal.; said Chase assignor to said Stebler. Fruit-separator. No. 1,209,900; Dec. 26; Gaz. vol. 233; p. 1202.
Steele, Herbert H., Marcellus, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,206,937; Dec. 5; Gaz. vol. 233; p. 53.
Steenken, William. (See Lienau and Steenken.)
Steere, Clarence E., assignor to Sprague Canning Machinery Company, Chicago, Ill. Process-kettle. No. 1,208,041; Dec. 12; Gaz. vol. 233; p. 477.
Steffens, Walter. (See Schmidt, Steffens, and Reinke.)
Steinbecker, Karl, Charlottenburg, Germany, assignor to General Electric Company. Igniting charge in high-pressure combustion-engines. No. 1,208,686; Dec. 12; Gaz. vol. 233; p. 707.
Steinbrunn, Frederick E., Philadelphia, Pa. Copy-holder. No. 1,208,687; Dec. 12; Gaz. vol. 233; p. 707.
Steiner, Ulrich, Waynesboro, Pa. Grinding-wheel grader. No. 1,209,350; Dec. 19; Gaz. vol. 233; p. 976.
Stelzner, Hermann, assignor to Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Diving-dress. No. 1,209,223; Dec. 19; Gaz. vol. 233; p. 933.
Stelzner, Hermann, assignor to Drägerwerk Heinr. & Bernh. Dräger, Lübeck, Germany. Diving-helmet. No. 1,209,224; Dec. 19; Gaz. vol. 233; p. 933.
Stempel, Herman F., Jr., Fort Madison, Iowa. Producing attrition-sheets and the articles of manufacture produced thereby. No. 1,208,688; Dec. 12; Gaz. vol. 233; p. 708.
Steneck, John R., Oak Park, assignor to Illinois Malleable Iron Co., Chicago, Ill. Circulating boiler-coupling. No. 1,209,063; Dec. 19; Gaz. vol. 233; p. 879.
Stephens, John H. (See Haar, Gustav E., assignor.)
Stephenson, Ida M., Milwaukee, Wis. Combination-suit for women. No. 1,207,654; Dec. 5; Gaz. vol. 233; p. 301.
Steps, Robert A., Los Angeles, Cal. Making screens. No. 1,207,808; Dec. 12; Gaz. vol. 233; p. 398.
Steps, Robert A., Los Angeles, Cal. Screen. No. 1,207,809; Dec. 12; Gaz. vol. 233; p. 398.
Sternau & Company, S. (See Baskerville, Charles, assignor.)
Stevens, Chester N., Kenilworth, Ill. Air and water admission valve. No. 1,209,901; Dec. 26; Gaz. vol. 233; p. 1202.
Stevens, Harvey A., Buffalo, N. Y. Annunciator. No. 1,207,655; Dec. 5; Gaz. vol. 233; p. 302.
Stevens, Merrill, Topeka, Kans. Interest-computing device. No. 1,209,349; Dec. 19; Gaz. vol. 233; p. 976.
Stevens, Merton P., East Orange, assignor to The Edward Schroeder Lamp Works, Jersey City, N. J. Lighting-fixture. No. 1,209,064; Dec. 19; Gaz. vol. 233; p. 879.
Stevens, Samuel M., Asheville, N. C. Combined paper-weight and pencil-sharpener. No. 1,207,810; Dec. 12; Gaz. vol. 233; p. 398.
Stevenson, Eben J., Boston, Mass. Means for ventilating telephone-booths. No. 1,207,090; Dec. 5; Gaz. vol. 233; p. 105.
Stevenson, Samuel P., Chester, Pa. Closure for compartments. No. 1,208,042; Dec. 12; Gaz. vol. 233; p. 478.
Stewart, Carrie M., Los Angeles, Cal. Dress-shield. No. 1,207,656; Dec. 5; Gaz. vol. 233; p. 302.
Stewart, Edwin F. (See Perry and Stewart.)
Stewart, Francis E. (See Hexter and Stewart.)
Stewart, Hector, Galt, Ontario, Canada. Milking machinery. No. 1,209,902; Dec. 26; Gaz. vol. 233; p. 1202.
Stewart, John, Codnor Park, Alfreton, England, and W. Stewart, Motherwell, Scotland. Gas-producer. No. 1,208,689; Dec. 12; Gaz. vol. 233; p. 708.
Stewart, John H., New York, N. Y. Self-closing pendulum-hanger for doors. No. 1,208,690; Dec. 12; Gaz. vol. 233; p. 708.
Stewart, Rossie W., Burr Oak, Kans. Rear-tire holder. No. 1,207,811; Dec. 12; Gaz. vol. 233; p. 399.
Stewart, Roy N., Dorchester, Mass. Pump. No. 1,209,065; Dec. 19; Gaz. vol. 233; p. 879.
Stewart, William. (See Stewart, John and W.)
Stickle, Cole, Indianapolis, Ind. Thermostatic heat-controlling means. No. 1,208,691; Dec. 12; Gaz. vol. 233; p. 709.
Stickney, Charles A., Chicago, Ill. Friction-clutch mechanism. No. 1,209,351; Dec. 19; Gaz. vol. 233; p. 977.
Stiles, Linford S. (See Aumulier, Otto J., assignor.)
Stiles, Thomas G., Arlington, N. J. Circuit-controller. No. 1,207,812; Dec. 12; Gaz. vol. 233; p. 399.
Stilz, Harry B., Philadelphia, Pa. Internal-combustion engine. No. 1,208,225; Dec. 12; Gaz. vol. 233; p. 544.
Stimmel, William G., San Francisco, and J. B. Thompson, Vina, Cal. Churning-pit for irrigation canals, ditches, and other watercourses. No. 1,206,938; Dec. 5; Gaz. vol. 233; p. 53.
Stimpson, Edwin B., Brooklyn, N. Y. Shoe-shank. No. 1,208,397; Dec. 12; Gaz. vol. 233; p. 608.
Stimpson, Edwin B., New York, N. Y. Shoe-shank. No. 1,209,777; Dec. 26; Gaz. vol. 233; p. 1157.
Stitt, Washington G., assignor of one-fourth to J. F. Keefe and one-fourth to S. M. Long, Pittsburgh, Pa. Internal-combustion engine. No. 1,208,854; Dec. 19; Gaz. vol. 233; p. 810.
Stockham, George W., Mankota, Kans. Corn-plow. No. 1,209,066; Dec. 19; Gaz. vol. 233; p. 880.
Stockton, Frank W., Chicago, Ill. Preserving tennis-balls or other objects containing fluid under pressure. No. 1,207,813; Dec. 12; Gaz. vol. 233; p. 399.
Stockton, Frank W., Chicago, Ill. Preserving tennis-balls or other objects containing fluid under pressure. No. 1,207,814; Dec. 12; Gaz. vol. 233; p. 400.
Stoeser, Alexander J., Chicago, Ill. Process and apparatus for erecting concrete structures. No. 1,208,398; Dec. 12; Gaz. vol. 233; p. 608.
Stoffel, William, McHenry, Ill. Rake attachment. No. 1,208,855; Dec. 19; Gaz. vol. 233; p. 810.
Stokes, Francis J., Philadelphia, Pa. Rotary compressor for making perforated tablets. No. 1,207,337; Dec. 5; Gaz. vol. 233; p. 180.
Stone, Frank P., Chicago, Ill. Wheel. No. 1,210,229; Dec. 26; Gaz. vol. 233; p. 1315.
Stone, George A. C., Somerville, Mass. Coat-hanger. No. 1,207,338; Dec. 5; Gaz. vol. 233; p. 190.
Stone Straw Company, The. (See Maltby, Lewis C., assignor.)
Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,208,226; Dec. 12; Gaz. vol. 233; p. 545.
Storey, Norman C., Aguirre, Porto Rico. Motor-driven tilling-machine. No. 1,208,856; Dec. 19; Gaz. vol. 233; p. 810.
Storm, Adolph, and E. C. O'Hair, assignors to Storm and O'Hair Company, Thompson, Iowa. Boring-machine. No. 1,209,513; Dec. 19; Gaz. vol. 233; p. 1035.

Storm, Edwin R., New York, N. Y. Ring connection No. 1,208,692; Dec. 12; Gaz. vol. 233; p. 709.
Storm and O'Hair Company. (See Storm and O'Hair, assignors.)
Storts, John H., Philadelphia, Pa. Speed-selector. No. 1,209,352; Dec. 19; Gaz. vol. 233; p. 977.
Story, Ela D., Tyler, Tex. Excavator. No. 1,209,353; Dec. 19; Gaz. vol. 233; p. 978.
Stough, Turney H. (See West and Stough.)
Strand, Peder O., Minnewauken, N. D. Moldboard-scraper for plows. No. 1,209,354; Dec. 19; Gaz. vol. 233; p. 978.
Strandberg, Adolph J., and K. Breva, Duluth, Minn. Harp. No. 1,210,015; Dec. 26; Gaz. vol. 233; p. 1240.
Stratton, Harper E., Empire, Ohio. Pipe-cutter. No. 1,207,339; Dec. 5; Gaz. vol. 233; p. 190.
Stratton, Harper E., Empire, Ohio. Vehicle-wheel. No. 1,207,340; Dec. 5; Gaz. vol. 233; p. 190.
Strauss, Samuel, Los Angeles, Cal. Machine for making shoes. No. 1,209,225; Dec. 19; Gaz. vol. 233; p. 938.
Strawn, Ora E., Boise, Idaho. Embossing-machine. No. 1,207,091; Dec. 5; Gaz. vol. 233; p. 105.
Streib, John F., Avalon, assignor to Pressed Steel Car Company, Pittsburgh, Pa. Discharge-door-operating mechanism. No. 1,208,857; Dec. 19; Gaz. vol. 233; p. 811.
Streiber, Henry E., assignor to The Sun Vapor and Gas Street Light Company, Canton, Ohio. Valve. No. 1,209,226; Dec. 19; Gaz. vol. 233; p. 934.
Stremberger, George, Butte, Mont. Animal-trap. No. 1,210,114; Dec. 26; Gaz. vol. 233; p. 1276.
Stringer, Walter G., Philadelphia, Pa. Sticker. No. 1,210,230; Dec. 26; Gaz. vol. 233; p. 1315.
Strohm, Orrie C., Philadelphia, Pa., assignor to M. W. Smith, Camden, N. J. Alarm. No. 1,206,939; Dec. 5; Gaz. vol. 233; p. 53.
Stromberg Motor Devices Company. (See Ritter, George F., assignor.)
Strong, Edwin F., Indian Valley, Va. Stock-dipping tank. No. 1,207,815; Dec. 12; Gaz. vol. 233; p. 400.
Strong-Scott Manufacturing Company. (See Gemlo, Charles, assignor.)
Stuart, Francis L., Baltimore, Md. Apparatus for loading and unloading. No. 1,207,237; Dec. 5; Gaz. vol. 233; p. 156.
Stuber & Kuck Company. (See Abele, Theodore J., assignor.)
Sturges, Arthur B., Los Angeles, Cal. Weather-guard. No. 1,209,514; Dec. 19; Gaz. vol. 233; p. 1036.
Sturgis, Frank N., Winnetka, Ill. Buttoner. No. 1,208,043; Dec. 12; Gaz. vol. 233; p. 478.
Sturni, Harry A., New York, N. Y. Dumping freight-car. No. 1,207,445; Dec. 5; Gaz. vol. 233; p. 229.
Stutz, Charles C., Norwood, Ohio, and R. F. Arnott, Upper Montclair, N. J., assignors to I. L. Myers, New York, N. Y. Closure for paper packages. No. 1,207,657; Dec. 5; Gaz. vol. 233; p. 302.
Stuve, Ole M., Brooklyn, N. Y. Packing. No. 1,206,940; Dec. 5; Gaz. vol. 233; p. 54.
Subers, Lawrence A., East Cleveland, Ohio. Device for automatically coating yarn elements from which a laminated cohesive interwound fabric is constructed. No. 1,208,899; Dec. 12; Gaz. vol. 233; p. 609.
Subers, Lawrence A., East Cleveland, Ohio. Machine for constructing laminated cohesive interwound bands having varying limits of elasticity. No. 1,209,903; Dec. 26; Gaz. vol. 233; p. 1203.
Sublette, William M., San Jose, Cal. Rotary internal-combustion engine. No. 1,209,067; Dec. 19; Gaz. vol. 233; p. 880.
Submarine Signal Company. (See Fessenden, Reginald A., assignor.)
Submarine Wireless Company. (See Berger, Christian, assignor.)
Sullivan, Joseph E., Melrose, Mass. Cup-holder. No. 1,207,092; Dec. 5; Gaz. vol. 233; p. 105.
Sullivan Machinery Company, The. (See Gilman, George H., assignor.)
Sullivan Machinery Company. (See Hastings, Benjamin, assignor.)
Sullivan Machinery Company. (See Holmes, Morris P., assignor.)
Sulzberger & Sons Company. (See Finn, Hugh J., assignor.)
Summerll, Frank H., Los Angeles, Cal., assignor of one-half to H. N. Norton, Mount Vernon, N. Y. Starting mechanism for hydrocarbon-engines. No. 1,209,068; Dec. 19; Gaz. vol. 233; p. 881.
Sun Vapor and Gas Street Light Company, The. (See Streiber, Henry E., assignor.)
Sundberg, Helge, Ljusne, Sweden. Motor-trolley and similar vehicle. No. 1,210,115; Dec. 26; Gaz. vol. 233; p. 1276.
Sunden, Otto F., Brockton, Mass. Tread-plate for pedals. No. 1,210,016; Dec. 26; Gaz. vol. 233; p. 1241.
Sunderman, Frederick R., assignor to Sunderman Safety Carburetor Corporation, Newburgh, N. Y. Carbureter. No. 1,208,227; Dec. 12; Gaz. vol. 233; p. 545.
Sunderman Safety Carburetor Corporation. (See Sunderman, Frederick R., assignor.)
Sundh, August. (See Mayer and Sundh.)
Sundly, Odin, Deer Park, Wis. Lock. No. 1,209,069; Dec. 19; Gaz. vol. 233; p. 881.
Sundstrand, Gustaf D., assignor to Rockford Milling Machine Company, Rockford, Ill. Adding and listing machine. (Reissue.) No. 14,237; Dec. 26; Gaz. vol. 233; p. 1368.
Sundt, Andreas, Christiania, Norway. Lathe-gearing. No. 1,209,778; Dec. 26; Gaz. vol. 233; p. 1157.
Sunshine, Monroe, New York, N. Y. Sad-iron. No. 1,209,227; Dec. 19; Gaz. vol. 233; p. 934.
Superior Pouring Metals Company. (See Rowley, John T., assignor.)
Superior Tire & Rubber Company, The. (See Collins, Clyde C., assignor.)
Suren, Nathan H., Needham, Mass., assignor to The Gamewell Fire Alarm Telegraph Company, New York, N. Y. Time-limit device for charging storage batteries. No. 1,208,044; Dec. 12; Gaz. vol. 233; p. 478.
Suren, Nathan H., Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Temperature-indicator. No. 1,208,228; Dec. 12; Gaz. vol. 233; p. 546.
Suren, Nathan H., Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Electric signal system. No. 1,208,229; Dec. 12; Gaz. vol. 233; p. 546.
Sutherland, Charles W., Charlerol, Pa. Feed-water regulator. No. 1,209,355; Dec. 19; Gaz. vol. 233; p. 978.
Swain, Hadwen, San Francisco, Cal. Motor-truck. No. 1,207,658; Dec. 5; Gaz. vol. 233; p. 302.
Swain, Josiah G., Mooresville, Ind. Bottom-delivery silo. No. 1,210,116; Dec. 26; Gaz. vol. 233; p. 1276.
Swainson, George B., Scranton, Pa. Bicycle driving and brake mechanism. No. 1,206,941; Dec. 5; Gaz. vol. 233; p. 54.
Swan, Willis A., Chicago, Ill. Pump. No. 1,208,858; Dec. 19; Gaz. vol. 233; p. 811.
Swanson, John, Mobile, Ala. Boiler-furnace. No. 1,209,070; Dec. 19; Gaz. vol. 233; p. 881.
Swanson, Walter H., St. Paul, Minn. Wagon. No. 1,208,693; Dec. 12; Gaz. vol. 233; p. 709.
Swanstrom, Eric S., Brooklyn, N. Y. Spinning-top. No. 1,206,942; Dec. 5; Gaz. vol. 233; p. 55.
Swart, Clarence H., and A. M. Tailleur, Dayton, Nev Automobile-axle. No. 1,208,045; Dec. 12; Gaz. vol. 233; p. 479.
Swartz, Warren E., assignor to Milwaukee Casket Company, Milwaukee, Wis. Machine for making ornamental linings for receptacles. No. 1,209,904; Dec. 26; Gaz. vol. 233; p. 1203.
Sweeney, Eugene. (See Hanson and Sweeney.)
Sweeney, Stanley L. (See Welch and Sweeney.)
Sweet, Calvin, Half Moon Bay, Cal. Water-stopping device for oil and other wells. No. 1,209,634; Dec. 19; Gaz. vol. 233; p. 1075.
Sweet, Henry L. and W., Fond du Lac, and C. B. T. Hutchins, Menasha, assignors to B. F. & H. L. Sweet Company, Fond du Lac, Wis. Excavating-machine. No. 1,208,230; Dec. 12; Gaz. vol. 233; p. 547.
Sweet, John A., New Kensington, assignor to Window Glass Machine Company, Pittsburgh, Pa. Glass-drawing pot. No. 1,207,659; Dec. 5; Gaz. vol. 233; p. 303.
Sweet-Orr & Company. (See Bartrum, Charles W., assignor.)
Sweet, Waldo. (See Sweet and Hutchins.)
Swetland, Warrington W., Los Angeles, Cal. Air-compressor. No. 1,209,905; Dec. 26; Gaz. vol. 233; p. 1204.
Swett, Caswell D., Redwood City, Cal. Automatic safety-stop for line-shafts. No. 1,207,660; Dec. 5; Gaz. vol. 233; p. 303.
Swickard, Dan B., Galva, Ill. Tool. No. 1,208,694; Dec. 12; Gaz. vol. 233; p. 710.
Swift, Edward S. (See Carroll, Fred M., assignor.)
Swords, Byron R., La Junta, Colo. Rail-joint. No. 1,207,093; Dec. 5; Gaz. vol. 233; p. 106.
Swoyer, John C., Columbus, Ohio. Oil-atomizer. No. 1,207,341; Dec. 5; Gaz. vol. 233; p. 190.
Syvret, John, Sydney, New South Wales, Australia. Combination-machine. No. 1,209,356; Dec. 19; Gaz. vol. 233; p. 979.
Taft, Ryland L., Hartford, Conn., assignor to The Hartford Rubber Works Company. Tire-building apparatus. No. 1,209,779; Dec. 26; Gaz. vol. 233; p. 1157.
Tagliabue, Charles J. (See Schneider, Ralph F., assignor.)
Tailleur, Arthur M. (See Swart and Tailleur.)
Tainton, Urlyn C., Johannesburg, Transvaal, South Africa. Electrolytic recovery of zinc from ores and other zinc-bearing materials. No. 1,210,017; Dec. 26; Gaz. vol. 233; p. 1241.
Takamine, Jokichi, and K. Wooyenaka, New York, N. Y. Aseptic fruit-juice and making the same. No. 1,208,859; Dec. 19; Gaz. vol. 233; p. 812.
Takemi, Karn, New York, N. Y. Dispensing-closure. No. 1,208,695; Dec. 12; Gaz. vol. 233; p. 710.
Talbot, Charles L., Chicago, Ill., assignor to Municipal Sanitary Devices Company, Plymouth, Ind. Street-cleaner. No. 1,208,046; Dec. 12; Gaz. vol. 233; p. 479.
Tams, Lemoine & Crane. (See Crane, Clinton H., assignor.)
Tarbet, Clarence W., Chicago, Ill. Pump. No. 1,206,943; Dec. 5; Gaz. vol. 233; p. 55.
Tartara, Joseph J. B., Aix-les-Bains, France. Apparatus for marking off the lower parts of skirts. No. 1,209,515; Dec. 19; Gaz. vol. 233; p. 1036.

Tate, Alfred O., Montreal, Quebec, Canada, assignor to Tate Electrolytic Waterproofing Company, Incorporated, New York, N. Y. Waterproofed material and producing the same. No. 1,208,400; Dec. 12; Gaz. vol. 233; p. 609.
Tate Electrolytic Waterproofing Company. (See Tate, Alfred O., assignor.)
Tatum, John J., Baltimore, Md. End sill for flat-cars. No. 1,210,117; Dec. 26; Gaz. vol. 233; p. 1276.
Tausch, Joseph H., Winthrop Harbor, Ill., assignor, by mesne assignments, to Gorton Fence Co., Racine, Wis. Gate operating and locking means. No. 1,208,231; Dec. 12; Gaz. vol. 233; p. 548.
Tawney, Everett F., Winona, Minn. Soap-dispensing device. No. 1,210,231; Dec. 26; Gaz. vol. 233; p. 1316.
Taylor, Alfred D., Athol, Mass. Sanitary drinking-fountain. No. 1,207,661; Dec. 5; Gaz. vol. 233; p. 303.
Taylor, Cecil H., and B. B. Neuteboom, Detroit, Mich. Automobile. No. 1,209,228; Dec. 19; Gaz. vol. 233; p. 934.
Taylor, Cecil H., and B. B. Neuteboom, Detroit, Mich. Starter. No. 1,209,229; Dec. 19; Gaz. vol. 233; p. 935.
Taylor, Cecil H., and B. B. Neuteboom, Detroit, Mich. Oil-distributing device. No. 1,209,230; Dec. 19; Gaz. vol. 233; p. 935.
Taylor, Charles G., assignor to The Telegraph Transmitter Company, Los Angeles, Cal. Telegraph-transmitter. No. 1,208,047; Dec. 12; Gaz. vol. 233; p. 480.
Taylor, Charles H., Mere, England, assignor of one-half to R. W. Courtice, Bloemfontein, Orange Free State, South Africa. Two-stroke gas-engine. No. 1,207,342; Dec. 5; Gaz. vol. 233; p. 190.
Taylor, Charles T., *et al.* (See Connell, Edward P., assignor.)
Taylor, Clarence L., assignor to The Morgan Engineering Company, Alliance, Ohio. Bloom-shears. No. 1,207,238; Dec. 5; Gaz. vol. 233; p. 156.
Taylor, Daniel L., Malden, Mass. Automatic vehicle-body-adjusting means. No. 1,207,343; Dec. 5; Gaz. vol. 233; p. 191.
Taylor, Elmer E., St. Louis, Mo. Hair-pin. No. 1,209,357; Dec. 19; Gaz. vol. 233; p. 979.
Taylor, Frank W., Cicero, Ill. Safety device for swimmers and like uses. No. 1,208,232; Dec. 12; Gaz. vol. 233; p. 548.
Taylor Instrument Companies. (See Howe, James A., assignor.)
Taylor, Israel R., Asbury Park, N. J. Garment-form. No. 1,208,233; Dec. 12; Gaz. vol. 233; p. 548.
Taylor, James H., Oak Park, Ill. Corrugating-machine. No. 1,209,071; Dec. 19; Gaz. vol. 233; p. 882.
Taylor-Wharton Iron and Steel Company. (See Andrews, Charles B., assignor.)
Technicolor Motion Picture Corporation. (See Comstock, Daniel F., assignor.)
Tedell, John, Moline, Ill. Clutch mechanism for seed-planters. No. 1,208,696; Dec. 12; Gaz. vol. 233; p. 710.
Telegraph Transmitter Company, The. (See Taylor, Charles G., assignor.)
Telelectric Company, The. (See Reed, Walter C., assignor.)
Telepantograph-Gesellschaft mit beschränkter Haftung. (See Rappenecker, Alphons, assignor.)
Templin, Joseph H., Philadelphia, Pa., assignor, by mesne assignments, to General Electric Company. Vacuum-cleaner muffler. No. 1,207,239; Dec. 5; Gaz. vol. 233; p. 157.
Temte, Otto H., Volga, S. D. Combined garden-weeder and pulverizer. No. 1,209,072; Dec. 19; Gaz. vol. 233; p. 882.
Tenley, Oscar S., *et al.* (See Bradley, Jacob A., assignor.)
Terkelsen, Andrew, Everett, Mass. Mold. No. 1,209,358; Dec. 19; Gaz. vol. 233; p. 979.
Ternstedt, Alvar K., assignor to Perfect Window Regulator Company, New York, N. Y. Automatic slack-take-up for chains. No. 1,208,234; Dec. 12; Gaz. vol. 233; p. 549.
Terry, Charles A., *et al.*, executors. (See Westinghouse, George.)
Terry, Samuel L., Chicago, Ill. Automobile-lock. No. 1,206,944; Dec. 5; Gaz. vol. 233; p. 55.
Tesdell, Edward S., Des Moines, Iowa. Fuel-heater for internal-combustion engines. No. 1,209,073; Dec. 19; Gaz. vol. 233; p. 882.
Tesla, Nikola, New York, N. Y., assignor to Waltham Watch Company, Waltham, Mass. Speed-indicator. No. 1,209,359; Dec. 19; Gaz. vol. 233; p. 980.
Tesse, Felix J. C., La Varenne St. Hilaire, France, assignor of one-half to G. Maillson, Eastbourne, England. Internal-combustion engine. No. 1,208,401; Dec. 12; Gaz. vol. 233; p. 609.
Thayer, Heman D., Conneaut, Ohio. Aerial croquet. No. 1,208,235; Dec. 12; Gaz. vol. 233; p. 549.
Thermal Appliance Company. (See Hansen, Charles C., assignor.)
Thiele, Erich A., Marion, Ohio. Combined post and wire-clamp for erecting wire fences. No. 1,207,344; Dec. 5; Gaz. vol. 233; p. 191.
Thieme, Martin C., Huntington, Ind. Soap-receptacle. No. 1,209,074; Dec. 19; Gaz. vol. 233; p. 883.
Thomas, Benjamin F. (See Ackels and Thomas.)
Thomas & Betts Company. (See McMurtrie, Adnah, assignor.)
Thomas, David H., Morriston, Wales, A. D. Berk, London, England, and F. J. Morgan, Swansea, Wales. Spray-producer or atomizer for liquids. No. 1,210,232; Dec. 26; Gaz. vol. 233; p. 1316.
Thomas, Edwin T. (See Thomas, Genevieve C. and E. T.)
Thomas, Frederick J., Taunton, assignor, by mesne assignments, to New England Confectionery Company, Boston, Mass. Assembling apparatus. No. 1,208,402; Dec. 12; Gaz. vol. 233; p. 610.
Thomas, Genevieve C. and E. T., Chicago, Ill. Automobile-cap. No. 1,208,403; Dec. 12; Gaz. vol. 233; p. 610.
Thomas, Hubert S. (See Thomas and Davies.)
Thomas, Lewis W., assignor of one-half to O. T. Wright, Washington, D. C. Buckle. No. 1,209,075; Dec. 19; Gaz. vol. 233; p. 883.
Thomas, Richard H., London, England, H. S. Thomas, Llandaff, and W. R. Davies, Whitchurch, Wales. Method of manipulating metal articles. No. 1,207,662; Dec. 5; Gaz. vol. 233; p. 304.
Thomas, Richard G., assignor, by mesne assignments, to The Automatic Addressing Machine Company, Cleveland, Ohio. Printing and addressing machine. No. 1,208,860; Dec. 19; Gaz. vol. 233; p. 812.
Thomason, Hjalmar, Los Angeles, Cal. General-utility power-machine. No. 1,207,663; Dec. 5; Gaz. vol. 233; p. 304.
Thomason, William, assignor of one-half to J. C. Bedigrew, Sapulpa, Okla. Electric motor. No. 1,208,404; Dec. 12; Gaz. vol. 233; p. 610.
Thompson, Carl G., Sullivan, Ind. Street-sweeper. No. 1,207,816; Dec. 12; Gaz. vol. 233; p. 400.
Thompson, Charles E., assignor of one-half to F. H. Wager, Troy, N. Y. Tooth-brush. No. 1,209,516; Dec. 19; Gaz. vol. 233; p. 1036.
Thompson, Eugene V., Portland, Oreg. Money-changing machine. No. 1,207,817; Dec. 12; Gaz. vol. 233; p. 401.
Thompson, Frank C. (See Thompson, Frank H. and F. C.)
Thompson, Frank H. and F. C., Philadelphia, Pa. Lock for coupling-nuts. No. 1,208,236; Dec. 12; Gaz. vol. 233; p. 549.
Thompson, James B. (See Stimmel and Thompson.)
Thompson, James C., Lemoyne, Pa. Trolley-switch. No. 1,208,048; Dec. 12; Gaz. vol. 233; p. 480.
Thompson, Louis W. (See Gardner, Frederic E., assignor.)
Thompson, Louis W., New York, N. Y., assignor to General Electric Company. Electric regulator. No. 1,209,517; Dec. 19; Gaz. vol. 233; p. 1037.
Thompson, Louis W., New York, N. Y., assignor to General Electric Company. Electric regulator. No. 1,209,518; Dec. 19; Gaz. vol. 233; p. 1037.
Thompson, Mark W., Vassar, Mich. Sack-holder. No. 1,207,240; Dec. 5; Gaz. vol. 233; p. 157.
Thompson, Nathaniel. (See Foster, George, assignor.)
Thompson, William H., Marinette, Wis., assignor of one-half to M. Peters, Menominee, Mich. Chain-connector. No. 1,208,697; Dec. 12; Gaz. vol. 233; p. 711.
Thomsen, Peter, Cassel, assignor to Schmidt'sche Heissdampf Gesellschaft m. b. H., Cassel-Wilhelmshöhe, Germany. Superheater element for flue-tube boilers. No. 1,208,405; Dec. 12; Gaz. vol. 233; p. 611.
Thomson, John, New York, N. Y., assignor to John Thomson Press Company, Jersey City, N. J. Method of separating fusuable metals by fractional distillation. No. 1,208,237; Dec. 12; Gaz. vol. 233; p. 549.
Thomson, William P., assignor to The Rail Joint Company, New York, N. Y. Rail-joint. No. 1,208,698; Dec. 12; Gaz. vol. 233; p. 711.
Thorson, Samuel T., Boston, Mass. Check-protector. No. 1,209,076; Dec. 19; Gaz. vol. 233; p. 883.
Thos. Cusack Company. (See Conner and Willett, assignors.)
Threading Machine Company, The. (See Farnsworth, Hiland R., assignor.)
Throp, Clarence O., Jefferson, Iowa. Valve-remover. No. 1,208,406; Dec. 12; Gaz. vol. 233; p. 611.
Thurlow, Ira M., assignor to P. B. Yeates Machine Company, Beloit, Wis. Resaw-roll-setting mechanism. No. 1,209,780; Dec. 26; Gaz. vol. 233; p. 1158.
Thurston, Edwin L., trustee. (See Entz, Justus B., assignor.)
Thurston, Fred W., San Francisco, Cal., assignor, by mesne assignments, to Thurston Motor Fuel Gasifier Company of California. Gaseous heater. No. 1,207,664; Dec. 5; Gaz. vol. 233; p. 304.
Thurston, Frelus A., Chicago, Ill. Making gold inlays. No. 1,209,906; Dec. 26; Gaz. vol. 233; p. 1204.
Thurston Motor Fuel Gasifier Company of California. (See Thurston, Fred W., assignor.)
Tibbitt, William E., New Castle, Del., assignor of one-fourth to H. B. Maston and one-fourth to G. L. Townsend, Jr., Wilmington, Del. Train-stopping system. No. 1,208,699; Dec. 12; Gaz. vol. 233; p. 711.
Tibbs, Joseph B., Indianapolis, Ind. Alarm-controller. No. 1,209,231; Dec. 19; Gaz. vol. 233; p. 935.
Tillman Heating Devices Company. (See Tillman, Marshal D., assignor.)
Tillman, Marshal D., Wabash, assignor to Tillman Heating Devices Company, Indianapolis, Ind. Pipe-fitting. No. 1,208,049; Dec. 12; Gaz. vol. 233; p. 480.
Tillner, Johan A., Borås, Sweden. Apparatus for producing pressure-gas. No. 1,208,407; Dec. 12; Gaz. vol. 233; p. 611.
Timm, Clas G., *et al.* (See Bildt, Carl K. E., assignor.)

Tingue, Brown & Co. (See Decker, Ammiel F., assignor.)
Tinsman, Samuel H., Morris, Ill., assignor, by mesne assignments, to International Harvester Corporation. Tillage implement. No. 1,206,945; Dec. 5; Gaz. vol. 233; p. 55.
Tipton, William H., New Site, Miss. Cotton scraper, chopper, and cultivator. No. 1,207,094; Dec. 5; Gaz. vol. 233; p. 106.
Tissot, Harvey G., assignor to The Hall Manufacturing Company, Cleveland, Ohio. Tagging-machine No. 1,207,818; Dec. 12; Gaz. vol. 233; p. 401.
Titanium Alloy Manufacturing Company, The. (See Barton, Louis E., assignor.)
Titus, Frank M., and D. B. Schwab, assignors to Blaisdell Machinery Co., Bradford, Pa. Operating means for compressor-valves. No. 1,209,077; Dec. 19; Gaz. vol. 233; p. 883.
Tobacco Stemming Machine Company, The. (See Schofield, Frederick C., assignor.)
Toledo Button Machine Company, The. (See Pomeroy, Le Dru H., assignor.)
Toledo Button Machine Company, The. (See Waltz, Frank G., assignor.)
Toledo Glass Company, The. (See Bragg, Thomas A., assignor.)
Toledo Scale Company. (See Reeves, Orwell C., assignor.)
Tollefsen, Tollef. (See Ferrer, Maxime, assignor.)
Tomarin, William, Cincinnati Ohio. License-tag holder for automobiles. No. 1,207,345; Dec. 5; Gaz. vol. 233; p. 192.
Tombyll, Thomas H., Montreal, Quebec, Canada. Flax-harvesting machine. No. 1,207,665; Dec. 5; Gaz. vol. 233; p. 305.
Tomkinson, Charles C., Plainfield, N. J., assignor to George H. Frothingham Company, New York, N. Y. Door. No. 1,209,360; Dec. 19; Gaz. vol. 233; p. 980.
Tomlinson, Charles E., Syracuse, assignor, by mesne assignments, to International Time Recording Company of New York, Endicott, N. Y. Time-recorder. No. 1,210,233; Dec. 26; Gaz. vol. 233; p. 1316.
Tomlinson, Thomas F., Lamberts Point, Va. Supporting-bracket for brake-shoes. No. 1,209,232; Dec. 19; Gaz. vol. 233; p. 936.
Tompkins, Willis M., Lonoak, Cal. Rotary internal-combustion engine. No. 1,207,666; Dec. 5; Gaz. vol. 233; p. 305.
Tomsak, Frank, Chicago, Ill. Window-adjusting device. No. 1,207,095; Dec. 5; Gaz. vol. 233; p. 107.
Tonielli, Carlo, Cherry, Ill. Elevator safety device. No. 1,209,361; Dec. 19; Gaz. vol. 233; p. 980.
Tonnemacher, Albert F., Huntingburg, Ind. Brake-shaft mounting for wagon-gear. No. 1,208,050; Dec. 12; Gaz. vol. 233; p. 481.
Tooker, Harry C., and B. S. Hallenbeck, Yonkers, N. Y. Apparatus for neutralizing static charges. No. 1,208,238; Dec. 12; Gaz. vol. 233; p. 550.
Tooly, John G. (See Krause, Romanus, assignor.)
Topiltzky, Harry, Los Angeles, Cal. Disinfectant-distributer. No. 1,207,346; Dec. 5; Gaz. vol. 233; p. 192.
Tossounian, Jacob A., Philadelphia, Pa. Metallic tie. No. 1,209,078; Dec. 19; Gaz. vol. 233; p. 884.
Tourongeau, Joseph R., Martinton, Ill. Heater. No. 1,209,079; Dec. 19; Gaz. vol. 233; p. 884.
Tower, Daniel W., Grand Rapids, Mich. Refrigerator construction. No. 1,209,080; Dec. 19; Gaz. vol. 233; p. 884.
Towles, Daniel Q., Yonges Island, S. C. Lock-hinge. No. 1,210,234; Dec. 26; Gaz. vol. 233; p. 1317.
Townsend, George L., Jr., *et al.* (See Tibbitt, William E., assignor.)
Townsend, Samuel P., Orange, N. J. Combination-mower. No. 1,209,519; Dec. 19; Gaz. vol. 233; p. 1037.
Trautner, Nic W., assignor to Red Wing Sewer Pipe Company, Red Wing, Minn. Sewer-block. No. 1,210,118; Dec. 26; Gaz. vol. 233; p. 1277.
Traver, Frank A., Milwaukee, Wis. Corn-popper and analogous device. No. 1,208,239; Dec. 12; Gaz. vol. 233; p. 550.
Travers, Henry A. (See Moss and Travers.)
Trayne, John H. (See Chandler and Trayne.)
Treadland, Lewis, Moville, assignor of one-third to F. Parke, Woodbury county, Iowa. Hog-oiler. No. 1,207,096; Dec. 5; Gaz. vol. 233; p. 107.
Tregoning, William C., Cleveland, Ohio. Snap-switch for electric uses. No. 1,207,097; Dec. 5; Gaz. vol. 233; p. 107.
Treiber, Louis H., Danbury, Iowa. Automatic feed-carrier. No. 1,208,700; Dec. 12; Gaz. vol. 233; p. 712.
Tremain, William J., Minneapolis, Minn. Valve mechanism for locomotives. No. 1,209,907; Dec. 26; Gaz. vol. 233; p. 1204.
Trempe, Alfred D. (See Chew, Harry I., assignor.)
Trenkamp Stove and Manufacturing Company, The. (See Geurink, Bernard A., assignor.)
Trenner, Simeon, Chicago, Ill. Prophylactic and hygienic art. No. 1,208,701; Dec. 12; Gaz. vol. 233; p. 712.
Trethaway, Richard, Parsons, Pa. Pouring-nozzle. No. 1,207,667; Dec. 5; Gaz. vol. 233; p. 306.
Trigg, Van H., Milford, Tex. Load-lifting device. No. 1,210,235; Dec. 26; Gaz. vol. 233; p. 1317.
Trimble, Frank H., Los Angeles, Cal. Friction-joint. No. 1,208,861; Dec. 19; Gaz. vol. 233; p. 812.
Trimble, William K. (See Smith, Frank W., assignor.)
Trinks, Franz, Brunswick, Germany. Computing-machine. No. 1,208,702; Dec. 12; Gaz. vol. 233; p. 713.
Tripp, Charles A., Indianapolis, Ind., assignor of one-half to J. E. Merion, Pittsburgh, Pa., and one-half to O. E. McMeans and C. A. Tripp, Indianapolis, Ind. Stop-card-inserting machine. No. 1,208,051; Dec. 12; Gaz. vol. 233; p. 481.
Troeller, Wilhelm, Frankfort-on-the-Main, Germany. Furnace. No. 1,207,819; Dec. 12; Gaz. vol. 233; p. 402.
Trollhättans Elektrotherminska Aktiebolag. (See Berglund, Edward S., assignor.)
Trood, Samuel, assignor to The Industrial Development Company, New Castle, Pa. Machine for separating metal sheets. No. 1,207,668; Dec. 5; Gaz. vol. 233; p. 306.
Trood, Samuel, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Curling-iron. No. 1,210,018; Dec. 26; Gaz. vol. 233; p. 1242.
Tropp, Leopold, *et al.* (See Damm, Peter, assignor.)
Trosky, Bernhard, assignor to The Novelty Stropper Co. Inc., New York, N. Y. Razor-stropper. No. 1,207,446; Dec. 5; Gaz. vol. 233; p. 230.
Troubridge, James L., London, England. Toy machine-gun. No. 1,207,669; Dec. 5; Gaz. vol. 233; p. 307.
Troup, Guy, assignor to A. L. Deal, Elkhart, Ind. Clothes-line reel. No. 1,208,052; Dec. 12; Gaz. vol. 233; p. 481.
Troupe, Paul V., Gary, S. D. Railway-tie. No. 1,209,781; Dec. 26; Gaz. vol. 233; p. 1158.
Troyer, Nelson, assignor to Seattle Astoria Iron Works, Seattle, Wash. Can-heading machine. No. 1,209,233; Dec. 19; Gaz. vol. 233; p. 936.
Truitt, Clarence, Pomona, Cal. Thermostatic controller for electrically-heated devices. No. 1,209,234; Dec. 19; Gaz. vol. 233; p. 936.
Truman, Elam L. and M. H., Spring Valley, Ohio. Mattress. No. 1,210,019; Dec. 26; Gaz. vol. 233; p. 1242.
Truman, Martha H. (See Truman, Elam L. and M. H.)
Trumble, Milon J., Alhambra, assignor to McEvoy Wireless Well Strainer Co., Los Angeles, Cal. Well-screen. No. 1,210,020; Dec. 26; Gaz. vol. 233; p. 1242.
Trussed Concrete Steel Company. (See Kane, Thomas H., assignor.)
Tscherne, Alois, assignor to Firm of H. Levy, Rorschach, Switzerland. Apparatus for cutting waste from embroideries. No. 1,206,946; Dec. 5; Gaz. vol. 233; p. 55.
Tucker & Dorsey Manufacturing Company. (See Dorsey, Robert L., assignor.)
Tucker, Roger V., Byers, Tex. Mechanical movement. No. 1,207,241; Dec. 5; Gaz. vol. 233; p. 157.
Tullar, William E., Chicago, Ill. Controlling means for motor-driven vehicles. No. 1,209,782; Dec. 26; Gaz. vol. 233; p. 1158.
Turlitz, Morris M., *et al.* (See Damm, Peter, assignor.)
Turner, Claude A., Sherbrooke, Quebec, Canada. Tool-shank. No. 1,209,302; Dec. 19; Gaz. vol. 233; p. 981.
Turner, Daniel, Peekskill, N. Y. Belt-guide for sewing-machines. No. 1,207,242; Dec. 5; Gaz. vol. 233; p. 157.
Turner, Ernest J., Pittsburgh, and B. H. Howard, Aspinwall, Pa. Feeder for standard ingot-molds. No. 1,208,703; Dec. 12; Gaz. vol. 233; p. 713.
Tyler, Waldo E. (See Alderman and Tyler.)
Tylutki, Jan, and L. Ziemianski, Avoca, Pa. Clothes-mangle. No. 1,209,081; Dec. 19; Gaz. vol. 233; p. 885.
U. S. Hoffman Company. (See Snow, Arthur E., assignor.)
U. S. Light and Heat Corporation. (See Bliss, William L., assignor.)
U. S. Light and Heat Corporation. (See Cunny, Louis S., assignor.)
U. S. Light and Heat Corporation. (See Mudge, Charles A., assignor.)
U. S. Sliding Machine Company. (See Goodfellow, Herbert R., assignor.)
Uberto, Amedeo L., Oakland, Cal. Box-opener. No. 1,210,021; Dec. 26; Gaz. vol. 233; p. 1243.
Ullrich, Emil H. W., Chicago, Ill. Receptacle. No. 1,208,240; Dec. 12; Gaz. vol. 233; p. 550.
Under-Feed Stoker Company of America. (See Kenney, William J., assignor.)
Underwood Computing Machine Company. (See Corell, Clifton B., assignor.)
Underwood Computing Machine Company. (See Degener, Gustave O., assignor.)
Underwood Typewriter Company. (See Corcoran, Cornelius B., assignor.)
Underwood Typewriter Company. (See Dennis, Adolphus S., assignor.)
Underwood Typewriter Company. (See Johnson, Arthur A., assignor.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood Typewriter Company. (See Mayer, Brantz, assignor.)
Underwood Typewriter Company. (See McLaughlin, John C., assignor.)
Underwood Typewriter Company. (See Wernery, Lester A., assignor.)
Unger, Magnus, Pittsfield, Mass., assignor to General Electric Company. Feeder-regulator. No. 1,208,704; Dec. 12; Gaz. vol. 233; p. 713.
Uniform Asphalt Distributor Company. (See Hendricks, Nathan V., assignor.)
Union Special Machine Company. (See Berger, Joseph, Jr., assignor.)

Union Special Machine Company. (See Moffatt, James R., assignor.)
Union Special Machine Company. (See Moffatt and Kelso, assignors.)
Union Special Machine Company. (See Seymour, Dudley S., assignor.)
Union Special Maschinenfabrik G. m. b. H. (See Wever, Fritz, assignor.)
Union Stove Works. (See Hill and Myers, assignors.)
Union Switch & Signal Company, The. (See Harrington, Clinton O., assignor.)
Union Switch & Signal Company, The. (See Wallace, Herbert A., assignor.)
United Shoe Machinery Company. (See Bates, Arthur, assignor.)
United Shoe Machinery Company. (See Bates and Gouldbourn, assignors.)
United Shoe Machinery Company. (See Baxter, William C., assignor.)
United Shoe Machinery Company. (See Bazzoni, Lewis J., assignor.)
United Shoe Machinery Company. (See Brown, Louis M., assignor.)
United Shoe Machinery Company. (See Eastham, Henry W., assignor.)
United Shoe Machinery Company. (See Enslin, Herbert E., assignor.)
United Shoe Machinery Company. (See Eppler, Andrew, assignor.)
United Shoe Machinery Company. (See Farnum, Leroy, assignor.)
United Shoe Machinery Company. (See Furber, Frederick M., assignor.)
United Shoe Machinery Company. (See Gouldbourn, Joseph, assignor.)
United Shoe Machinery Company. (See Grush, Charles E., assignor.)
United Shoe Machinery Company. (See Hooper, William H., assignor.)
United Shoe Machinery Company. (See Johnson, Albert E., assignor.)
United Shoe Machinery Company. (See Kenway, Herbert W., assignor.)
United Shoe Machinery Company. (See Latham, Albert, assignor.)
United Shoe Machinery Company. (See Lund, Thomas, assignor.)
United Shoe Machinery Company. (See Orr, Edward E., assignor.)
United Shoe Machinery Company. (See Peck, Frank M., assignor.)
United Shoe Machinery Company. (See Ricks and Reid, assignors.)
United Shoe Machinery Company. (See Shaw, Walter, assignor.)
United Shoe Machinery Company. (See Standish, John F., assignor.)
United Shoe Machinery Company. (See Wentworth, Samuel J., assignor.)
United States Gypsum Company, The. (See Henning, Charles F., assignor.)
United States Radiator Corporation. (See McIntire, James F., assignor.)
Universal Appliance Manufacturing Company. (See Watson, Sidney, assignor.)
Universal Draft Gear Attachment Co. (See Camp, Percy B., assignor.)
Universal Draft Gear Attachment Co. (See Nash, Charles J., assignor.)
Universal Draft Gear Attachment Co. (See Wrigley, Henry I., assignor.)
Universal Turbine Company, The. (See Anderson, Emil, assignor.)
Updegraph, Harry, assignor of one-half to G. W. Duley, Hoopeston, Ill. Harness-hook. No. 1,208,408; Dec. 12; Gaz. vol. 233; p. 612.
Updike, Rudolph J., Strasburg, Va. Railway-tie. No. 1,207,670; Dec. 5; Gaz. vol. 233; p. 307.
Upson, Wilbur S., Mansfield, Ohio. Wrench. No. 1,206,947; Dec. 5; Gaz. vol. 233; p. 50.
Uptegraff, Walter D., *et al.*, executors. (See Westinghouse, George.)
Urquhart, Ridley J. (See James, William M., assignor.)
Uttz, William A., Fort Worth, Tex. Life-saving attachment for locomotive-cabs. No. 1,207,098; Dec. 5; Gaz. vol. 233; p. 108.
Vadner, Charles S., Butte, Mont. Recovery of metal from ores and the like. No. 1,207,243; Dec. 5; Gaz. vol. 233; p. 158.
Van Allen, Charles H., Paterson, N. J. Automobile-body. No. 1,208,053; Dec. 12; Gaz. vol. 233; p. 482.
Van Auken, Lansing. (See Wilcox, Oscar S., assignor.)
Van Deman, A. N. (See Winter, Edwin M., assignor.)
Van Deusen, Wallace M., and F. Persson, Brooklyn, N. Y., assignors to American Telephone and Telegraph Company. Cable-lubricating wheel. No. 1,207,447; Dec. 5; Gaz. vol. 233; p. 230.
Van Dorn, William T. (See Doyle, Edward P., assignor.)
Van Evera, Dewitt, Chicago, Ill. Humidifier. No. 1,208,409; Dec. 12; Gaz. vol. 233; p. 612.
Van Horn, Robert R., Columbus, Ohio. Fastener for vehicle-curtains. No. 1,209,783; Dec. 26; Gaz. vol. 233; p. 1159.
Van Kannel Revolving Door Company. (See Dyer, Harry W., assignor.)
Van Slingerlandt, George S., *et al.* (See Wilson, Samuel E., assignor.)
Van Slingerlandt, William R., *et al.* (See Wilson, Samuel E., assignor.)
Van Tassel, John R., assignor to The Standard Optical Company, Geneva, N. Y. Goggles. No. 1,208,410; Dec. 12; Gaz. vol. 233; p. 612.
Van Vickle, William H., Craig, Mo. Heater. No. 1,207,671; Dec. 5; Gaz. vol. 233; p. 308.
Van Wagenen, Garrat B., Alstad Center, N. H. Pneumatic tire. No. 1,206,948; Dec. 5; Gaz. vol. 233; p. 56.
Van Wickel, Jesse, New York, N. Y., assignor to Pacific Commercial Company, Manila, Philippine Islands. Plow. No. 1,207,686; Dec. 5; Gaz. vol. 233; p. 314.
Vanderhoef, Ellison E., Ruth, Nev., assignor to American Manganese Steel Company, Augusta, Me. Pulley-block and connection for dipper-buckets. No. 1,207,244; Dec. 5; Gaz. vol. 233; p. 158.
Vanderhoef, Ellison E., Ruth, Nev., assignor to American Manganese Steel Company, Augusta, Me. Ball for dipper-buckets. No. 1,207,245; Dec. 5; Gaz. vol. 233; p. 158.
Vanderhoef, Ellison E., Ruth, Nev., assignor to American Manganese Steel Company, Augusta, Me. Dipper-front. No. 1,208,054; Dec. 12; Gaz. vol. 233; p. 482.
Vanderhoef, Ellison E., Ruth, Nev., assignor to American Manganese Steel Company, Augusta, Me. Dipper-bucket. No. 1,208,055; Dec. 12; Gaz. vol. 233; p. 483.
Vanness, Frank W., Milwaukee, Wis. Washing-machine. No. 1,207,820; Dec. 12; Gaz. vol. 233; p. 402.
Varley, Thomas W., New York, N. Y. Indicator. No. 1,207,099; Dec. 5; Gaz. vol. 233; p. 108.
Varley, Thomas W., New York, N. Y. Making expanded articles. No. 1,208,241; Dec. 12; Gaz. vol. 233; p. 551.
Varrelmann, Carl, *et al.* (See Pickett, Frederick A., assignor.)
Varrelmann, Ferdinand, *et al.* (See Pickett, Frederick A., assignor.)
Vars, Forest L., Nile, N. Y. Hobble. No. 1,210,236; Dec. 26; Gaz. vol. 233; p. 1318.
Vass, Rush F., Wilmington, N. C. Adjustable electric-light shade and reflector. No. 1,209,235; Dec. 19; Gaz. vol. 233; p. 937.
Vaughan, Harry L., Chicago, Ill. Key-holder. No. 1,206,949; Dec. 5; Gaz. vol. 233; p. 57.
Vaughan, Harry L., Chicago, Ill. Bottle-opener. No. 1,207,100; Dec. 5; Gaz. vol. 233; p. 109.
Vehicle Power Company. (See Ethridge, Martin V. B., assignor.)
Vehicle Signal Company. (See Douglass, Samuel F., assignor.)
Vélissaridés, Vélissar, New York, N. Y. Egg-beating implement. No. 1,208,862; Dec. 19; Gaz. vol. 233; p. 813.
Venable, William W., Charleston, W. Va. Exposure-meter. No. 1,207,448; Dec. 5; Gaz. vol. 233; p. 230.
Venot, Désiré A., and L. F. Chasseigne, Pantin, France. Match and making the same. No. 1,208,411; Dec. 12; Gaz. vol. 233; p. 613.
Venturino, Máximo E. (See Roth and Venturino.)
Vernier, Charles P., Cedar Rapids, Iowa. Acetylene-gas apparatus. No. 1,208,412; Dec. 12; Gaz. vol. 233; p. 613.
Vessot, Samuel, Joliette, Quebec, Canada. Flax-pulling machine. No. 1,206,950; Dec. 5; Gaz. vol. 233; p. 57.
Vetter, Clarence A., Pittsburgh, Pa. Lamp-socket. No. 1,209,908; Dec. 26; Gaz. vol. 233; p. 1205.
Vetter, Clarence A., Pittsburgh, Pa. Lamp-socket. No. 1,209,909; Dec. 26; Gaz. vol. 233; p. 1205.
Vetter, Clarence A., Pittsburgh, Pa. Lamp-socket. No. 1,209,910; Dec. 26; Gaz. vol. 233; p. 1206.
Vezina, Antoine E., Montreal, Quebec, Canada. Furnace-door and operating means therefor. No. 1,209,082; Dec. 19; Gaz. vol. 233; p. 885.
Vick, Raymond, Seymour, Ind. Tire-holder. No. 1,206,951. Dec. 5; Gaz. vol. 233; p. 57.
Victor, David, St. Louis, Mo. Box and crate opener. No. 1,209,520; Dec. 19; Gaz. vol. 233; p. 1038.
Victor Tool Company. (See Koontz, Victor E., assignor.)
Vierengel, Matthew, Brooklyn, N. Y. Method of manufacturing envelops. No. 1,208,413; Dec. 12; Gaz. vol. 233; p. 613.
Vining, Robert W., London, England. Motor-vehicle. No. 1,207,246; Dec. 5; Gaz. vol. 233; p. 159.
Vissering, Harry, assignor to Harry Vissering and Company, Chicago, Ill. Uncoupling device for couplings. No. 1,209,236; Dec. 19; Gaz. vol. 233; p. 937.
Vogel, Joshua F., assignor to Gendron Wheel Company, Toledo, Ohio. Hub construction. No. 1,207,449; Dec. 5; Gaz. vol. 233; p. 231.
Vogt, Clarence W., Louisville, Ky. Ammonia-generator. No. 1,208,242; Dec. 12; Gaz. vol. 233; p. 551.
Voight, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,207,450; Dec. 5; Gaz. vol. 233; p. 231.
Voller, Karl, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Gun with recoiling barrel. No. 1,208,414; Dec. 12; Gaz. vol. 233; p. 614.
Völler, Karl, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Gun with sliding barrel. No. 1,209,521; Dec. 19; Gaz. vol. 233; p. 1038.

Von Pein, Edward J., assignor to The National Cash Register Company, Dayton, Ohio. Multiple cash-register. No. 1,206,952; Dec. 5; Gaz. vol. 233; p. 57.
Von Schluembach, Adolph, Altoona, Pa. Folding paper box. No. 1,209,363; Dec. 19; Gaz. vol. 233; p. 981.
Vondenbosch, Edward J., Los Angeles, Cal. Lawn-sprinkler. No. 1,208,243; Dec. 12; Gaz. vol. 233; p. 552.
Vondenbosch, Raymond H., Hollywood, Cal. Hot-blast furnace. No. 1,209,522; Dec. 19; Gaz. vol. 233; p. 1038.
Voorhees, Lee J. (See Beach and Voorhees.)
Voorsanger, Leon M., San Francisco, Cal. Dispensing and mixing device. No. 1,210,022; Dec. 26; Gaz. vol. 233; p. 1243.
Vredenburgh, Peter, Jr. (See Coleman, Thomas A., assignor.)
W. O. Hickok Manufacturing Co. (See Broadmeyer, Albert, assignor.)
W. W. Sly Manufacturing Company, The. (See Reddy, Byron H., assignor.)
Wachwitz, Heinrich, assignor to Heinrich Wachwitz & Co., Nürnberg, Germany. Resonance-body for musical instruments. No. 1,210,368; Dec. 26; Gaz. vol. 233; p. 1359.
Wack, George E., Waterloo, Iowa. Fluid-delivery device for receptacles. No. 1,207,348; Dec. 5; Gaz. vol. 233; p. 193.
Wade, Harold F., Opportunity, Wash. Mail-box. No. 1,207,101; Dec. 5; Gaz. vol. 233; p. 109.
Wadsworth, George B., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Starter for internal-combustion engines. No. 1,207,821; Dec. 12; Gaz. vol. 233; p. 403.
Wager, Francis H. (See Thompson, Charles E., assignor.)
Wagg, James B., administrator. (See Wagg, Solomon R.)
Wagg, Solomon R., deceased, Appleton, Wis.; J. B. Wagg, administrator. Paper-making apparatus. No. 1,207,451; Dec. 5; Gaz. vol. 233; p. 231.
Wagg, Solomon R., deceased, Appleton, Wis.; J. B. Wagg, administrator. Apparatus for treating paper. No. 1,208,415; Dec. 12; Gaz. vol. 233; p. 614.
Waggoner, James W., Mountain View, Okla. End-gate fastener for wagons. No. 1,209,523; Dec. 19; Gaz. vol. 233; p. 1039.
Wagher, Charles N., Knoxville, Ill. Illuminated safety-bracket for automobiles. No. 1,210,023; Dec. 26; Gaz. vol. 233; p. 1243.
Wagner, Charles B., Jr., Burlington, Wis. Bull-ring. No. 1,209,083; Dec. 19; Gaz. vol. 233; p. 885.
Wagner, Clinton D., Cedar Rapids, Iowa. Sheet-metal-forming machine. No. 1,207,349; Dec. 5; Gaz. vol. 233; p. 193.
Wagner, Clyde, *et al.* (See Wagner, Fred, assignor.)
Wagner, Earl V., Scranton, Pa., assignor to Wagner Fire Brick Company, Helena, Mont. Plastic composition for making fire-bricks. No. 1,209,784; Dec. 26; Gaz. vol. 233; p. 1159.
Wagner Electric Manufacturing Company. (See Dick and Fynn, assignors.)
Wagner Electric Manufacturing Company. (See Weichsel, Hans, assignor.)
Wagner, Emil. (See Lyon, Mart V. B., Jr., assignor.)
Wagner Fire Brick Company. (See Wagner, Earl V., assignor.)
Wagner, Fred, Miami, Okla., assignor of one-fourth to J. Ritchey and one-fourth to C. Wagner, Joplin, Mo. Air-filter for carbureters. No. 1,209,911; Dec. 26; Gaz. vol. 233; p. 1206.
Wagner, Myron E. (See Poinderter and Wagner.)
Wagner, Nick. (See Wilvert and Wagner.)
Wagner, Warren, Strawn, Tex. Reversing mechanism for engines. No. 1,207,102; Dec. 5; Gaz. vol. 233; p. 109.
Wagner, Wladyslaw, Lods, Poland. Cupola-furnace. No. 1,208,416; Dec. 12; Gaz. vol. 233; p. 614.
Wahlquist, Alvin B., and F. D. Hall, Chicago, Ill.; said Wahlquist assignor to said Hall. Reproducing-needle. No. 1,207,350; Dec. 5; Gaz. vol. 233; p. 193.
Waidlich, Walter, Detroit, Mich. Hose-coupling. No. 1,208,417; Dec. 12; Gaz. vol. 233; p. 615.
Waite, Fred, Otley, near Leeds, England. Gripper-fed platen printing-machine. No. 1,209,912; Dec. 26; Gaz. vol. 233; p. 1206.
Waite, Harry F., Whitestone Landing, N. Y. High-tension rectifying-switch. No. 1,208,056; Dec. 12; Gaz. vol. 233; p. 483.
Waite, Harry F., Whitestone Landing, N. Y. Dental-film-developing apparatus. No. 1,208,244; Dec. 12; Gaz. vol. 233; p. 562.
Wake, Frederick N., assignor to Electrical Safety Appliance Company, New York, N. Y. Electric fuse. No. 1,207,351; Dec. 5; Gaz. vol. 233; p. 194.
Wakefield, George F., San Jose, Cal. Auto-tail-lamp signal. No. 1,210,024; Dec. 26; Gaz. vol. 233; p. 1243.
Waldow, Alexis F., assignor to The Whitin Machine Works, Whitinsville, Mass. Stop-motion. No. 1,208,863; Dec. 19; Gaz. vol. 233; p. 813.
Wales, Alfred B., Whitman, assignor to L. Muther, Newton, Mass. Folding-machine. No. 1,208,057; Dec. 12; Gaz. vol. 233; p. 484.
Wales, Alfred B., Whitman, assignor to L. Muther, Newton, Mass. Strip holding and guiding mechanism for sewing-machines. No. 1,209,647; Dec. 19; Gaz. vol. 233; p. 1080.
Wales, Alfred B., Whitman, assignor to L. Muther, Newton, Mass. Finishing the edges of boots and shoes. No. 1,209,648; Dec. 19; Gaz. vol. 233; p. 1080.
Wales, Nathaniel B., assignor, by mesne assignments, to Selaw Products Company, Saginaw, Mich. Device for preventing overloading of trucks. No. 1,206,953; Dec. 5; Gaz. vol. 233; p. 58.
Walker, Fletcher L., and H. G. Dittbenner, Minneapolis, Minn. Band-saw mill. No. 1,207,103; Dec. 5; Gaz. vol. 233; p. 109.
Walker, Stuart, New York, N. Y. Theatrical stage and equipment. No. 1,208,245; Dec. 12; Gaz. vol. 233; p. 552.
Walker, Thomas B., Austin, Tex. Making food products. No. 1,206,954; Dec. 5; Gaz. vol. 233; p. 58.
Walker, Thomas I., and J. A. Akeroyd, Providence, R. I., assignors, by mesne assignments, to General Electric Company. Feeding mechanism for lamp-base machines. No. 1,210,237; Dec. 26; Gaz. vol. 233; p. 1318.
Walker, Thomas I., and J. A. Akeroyd, Providence, R. I., assignors to General Electric Company. Feeding mechanism for base-making machines and the like. No. 1,210,238; Dec. 26; Gaz. vol. 233; p. 1318.
Wall, Enos A., Salt Lake City, Utah. Tabular ore washer or concentrator. No. 1,207,452; Dec. 5; Gaz. vol. 233; p. 232.
Wallace, Herbert A., New York, N. Y., assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling. No. 1,206,955; Dec. 5; Gaz. vol. 233; p. 58.
Wallace, Shellie V., Cambridge Springs, Pa. Corset-stay. No. 1,207,104; Dec. 5; Gaz. vol. 233; p. 110.
Wallace & Smith Co., The. (See Smith, Singleton, assignor.)
Walling, Louis A. (See Kneeland and Walling.)
Wallis Tractor Company. (See Hendrickson, Robert O., assignor.)
Wallmann, Henning F., Chicago, Ill. Apparatus for distilling fuel. No. 1,210,388; Dec. 26; Gaz. vol. 233; p. 1365.
Walser, Joseph J., and C. A. Dresser, assignors to The Goss Printing Press Company, Chicago, Ill. Paper-roll mechanism for printing-presses. No. 1,208,418; Dec. 12; Gaz. vol. 233; p. 615.
Walser, Joseph J., Chicago, and C. A. Dresser, Glencoe, assignors to The Goss Printing Press Company, Chicago, Ill. Paper-roll mechanism for printing-presses. No. 1,208,419; Dec. 12; Gaz. vol. 233; p. 616.
Waltham Watch Company. (See Tesla, Nikola, assignor.)
Walton, William F., Springfield, Tenn. Dirigible light for locomotives. No. 1,206,956; Dec. 5; Gaz. vol. 233; p. 59.
Walton, William L., Bantry, N. D. Plow. No. 1,209,084; Dec. 19; Gaz. vol. 233; p. 886.
Waltz, Frank G., assignor, by mesne assignments, to The Toledo Button Machine Company, Toledo, Ohio. Button-placing finger-guide for shoe-button-fastening machines. No. 1,206,957; Dec. 5; Gaz. vol. 233; p. 59.
Wamelink, Eugene C., Cleveland, Ohio. Pneumatic piano-player. No. 1,210,239; Dec. 26; Gaz. vol. 233; p. 1319.
Wanner, Albert, Jr., New York, N. Y. Folding-leaf table. No. 1,208,864; Dec. 19; Gaz. vol. 233; p. 813.
Wappler Electric Company. (See Fayer, Charles, assignor.)
Wappler, Reinhold H., New York, N. Y. Electric ophthalmoscope. No. 1,207,822; Dec. 12; Gaz. vol. 233; p. 403.
Ward, Artemas. (See Giles, Harvey, assignor.)
Waring, Edward M., Brooklyn, N. Y. Cloth-cutting machine. No. 1,209,524; Dec. 19; Gaz. vol. 233; p. 1039.
Warne, Frederick C., assignor to Roderick Lean Manufacturing Company, Mansfield, Ohio. Disk harrow. No. 1,207,672; Dec. 5; Gaz. vol. 233; p. 308.
Warner, Alonzo A., assignor to Landers, Frary & Clark, New Britain, Conn. Safety-razor. No. 1,207,247; Dec. 5; Gaz. vol. 233; p. 159.
Warner, August. (See Lemon and Warner.)
Warner Gear Company. (See White, Samuel O., assignor.)
Warren, Frank, Seattle, Wash. Weedless artificial bait. No. 1,209,237; Dec. 19; Gaz. vol. 233; p. 937.
Warren, George F., assignor of one-half to E. L. Mitchell, Double Bayou, Tex. Automatic train-stop. No. 1,210,025; Dec. 26; Gaz. vol. 233; p. 1244.
Warriner, Walter, assignor of one-half to J. M. Kuhns and H. W. Bond, Fort Wayne, Ind. Feeder for water-softening plants. No. 1,208,058; Dec. 12; Gaz. vol. 233; p. 484.
Warwick, Charles E., Vicksburg, Miss. Grease-gun. No. 1,208,865; Dec. 19; Gaz. vol. 233; p. 814.
Wasmuth-Endicott Company. (See Beck, Henry, assignor.)
Waterbury Mfg. Co. (See Recker, Adolph C., assignor.)
Watkins, William R., Woodlawn, Ala. Collapsible shipping and storage box. No. 1,208,420; Dec. 12; Gaz. vol. 233; p. 616.
Watling, John B., Chicago, Ill. Coin-controlled machine. No. 1,206,958; Dec. 5; Gaz. vol. 233; p. 60.
Watling, John B., Chicago, Ill. Safety-box. No. 1,206,959; Dec. 5; Gaz. vol. 233; p. 60.
Watson, Harry W., Memphis, Tenn. Automobile-jack. No. 1,209,085; Dec. 19; Gaz. vol. 233; p. 886.

Watson, Sidney A., Toronto, Ontario, Canada, assignor, by mesne assignments, to Universal Appliance Manufacturing Company, Limited, Toronto, Canada. Starter for motor-cars. No. 1,209,913; Dec. 26; Gaz. vol. 233; p. 1206.
Watts, Elmer A., Springfield, Ohio. Governor. No. 1,208,421; Dec. 12; Gaz. vol. 233; p. 617.
Waugh Draft Gear Company. (See Sisson, Albert H., assignor.)
Way, John H., Philadelphia, Pa. Adjustable hinge. No. 1,208,422; Dec. 12; Gaz. vol. 233; p. 617.
Wayne Paper Goods Company. (See Simons, Harry, assignor.)
Weakly, Cyrus S. (See Giles, Chester, assignor.)
Wear, Tandy, assignor of one-half to H. E. Arnold, Paris, Ark. Self-adjusting feed attachment for cotton-gins. No. 1,208,423; Dec. 12; Gaz. vol. 233; p. 618.
Weaver, Henry E., Denver, Colo. Carbureter. No. 1,209,786; Dec. 26; Gaz. vol. 233; p. 1160.
Webb, Cyrus, Hazel Grove, assignor to The Hat Manufacturers Supply Company, Limited, Stockport, England. Apparatus for making bows or looped knots. No. 1,209,525; Dec. 19; Gaz. vol. 233; p. 1039.
Webb, Harry P., Dedham, Mass. Wind-shield cleaner. No. 1,209,785; Dec. 26; Gaz. vol. 233; p. 1159.
Webb, Howard K. (See De Lamater, Claude A., assignor.)
Weber, Alexander, assignor to Cushman Motor Works, Lincoln, Nebr. Carbureter. No. 1,207,248; Dec. 5; Gaz. vol. 233; p. 159.
Weber, Mathias J., assignor to Mason, Davis & Co., Chicago, Ill. Weighing-scale. No. 1,210,382; Dec. 26; Gaz. vol. 233; p. 1363.
Weber, Morris, New York, N. Y. Detachable resilient support for caps. No. 1,210,119; Dec. 26; Gaz. vol. 233; p. 1277.
Webster, John F., Lineboro, Md. Annunciator. No. 1,207,823; Dec. 12; Gaz. vol. 233; p. 404.
Wedell, Otto B., Clinton, Iowa. Eyeglass-chain reel. No. 1,208,424; Dec. 12; Gaz. vol. 233; p. 618.
Wedge, Utley, Ardmore, Pa. Rabble-arm and rabble for metallurgical furnaces. No. 1,206,960; Dec. 5; Gaz. vol. 233; p. 60.
Wedge, Utley, Ardmore, Pa. Rabble-arm mounting for metallurgical furnaces. No. 1,206,961; Dec. 5; Gaz. vol. 233; p. 61.
Wedge, Utley, Ardmore, Pa. Furnace and allied structure. No. 1,208,246; Dec. 12; Gaz. vol. 233; p. 553.
Wedge, Utley, Ardmore, Pa. Furnace. No. 1,208,247; Dec. 12; Gaz. vol. 233; p. 553.
Wedge, Utley, Ardmore, Pa. Feeding device for furnaces. No. 1,208,248; Dec. 12; Gaz. vol. 233; p. 553.
Wedge, Utley, Ardmore, Pa. Metallurgical furnace. No. 1,208,249; Dec. 12; Gaz. vol. 233; p. 554.
Wedge, Utley, Ardmore, Pa. Metallurgical furnace. No. 1,208,250; Dec. 12; Gaz. vol. 233; p. 554.
Wedge, Utley, Ardmore, Pa. Mounting furnace-hearths. No. 1,209,914; Dec. 26; Gaz. vol. 233; p. 1207.
Wedolt Co., The. (See Fenn, William B., assignor.)
Weeks, Charles S. (See Cary and Weeks.)
Weeks, Hugh A., Whitakers, N. C. Cushion device for swingletrees. No. 1,207,453; Dec. 5; Gaz. vol. 233; p. 232.
Weeks, J. M., *et al.* (See Dozier, Washington J., assignor.)
Wegner, Arthur H., Washington, D. C., assignor to Wegner Control System, Incorporated, Portsmouth, N. H. System of gun control. No. 1,208,425; Dec. 12; Gaz. vol. 233; p. 618.
Wegner Control System. (See Wegner, Arthur H., assignor.)
Weichsel, Hans, assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Alternating-current motor. No. 1,209,086; Dec. 19; Gaz. vol. 233; p. 886.
Weidaw, Charles E., and W. R. Owens, assignors of one-third to H. R. Jones, Scranton, Pa. Rod connection for locomotives. No. 1,210,120; Dec. 26; Gaz. vol. 233; p. 1277.
Weiderman, Joseph. (See Crawford, Raymond R., assignor.)
Weisbrod, Jacob H., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end construction. No. 1,209,087; Dec. 19; Gaz. vol. 233; p. 887.
Weisbrod, Jacob H., assignor to American Car and Foundry Company, St. Louis, Mo. End construction for box-cars. No. 1,209,088; Dec. 19; Gaz. vol. 233; p. 887.
Weishaar, Fred F., Cleveland, and F. W. Jackson, Elyria, Ohio. Electric switch. No. 1,208,866; Dec. 19; Gaz. vol. 233; p. 814.
Weishaupt, Edward R., Rochester, N. Y. Flash-light igniter. No. 1,207,105; Dec. 5; Gaz. vol. 233; p. 110.
Weismiller, John B. (See Bodge and Weismiller.)
Weiss, John M., assignor to The Barrett Company, New York, N. Y. Improving the color and odor of crude aromatic hydrocarbons. No. 1,206,962; Dec. 5; Gaz. vol. 233; p. 61.
Weissenborn, Albert B., assignor of one-half to Appleton Wire Works, Appleton, Wis. Means for forming Fourdrinier-wire seams. No. 1,209,864; Dec. 19; Gaz. vol. 233; p. 981.
Weitzel, Emil, Philadelphia, Pa. Clamping device for type. No. 1,208,867; Dec. 19; Gaz. vol. 233; p. 814.
Weitzenkorn, Joseph W., assignor to Gibb Instrument Company, Pittsburgh, Pa. Pyrometer. No. 1,209,915; Dec. 26; Gaz. vol. 233; p. 1207.
Welch, Benjamin F., Oakland, Cal. Steering attachment for automobile-lamps. No. 1,210,026; Dec. 26; Gaz. vol. 233; p. 1244.
Welch, Roy C. J., and S. L. Sweeney, Port Coquitlam, British Columbia, Canada. Convertible acetylene-gas and oil lantern. No. 1,208,059; Dec. 12; Gaz. vol. 233; p. 484.
Wellin Marine Equipment Company. (See Lundin, Andreas P., assignor.)
Weller, Robert C., Cleveland, Ohio, S. T. Hyde and P. D. Naugle, Bremerton, Wash. Electrical transportation system. No. 1,208,060; Dec. 12; Gaz. vol. 233; p. 485.
Weller, Victor C., St. Louis, Mo. Water-drain for refrigerator-cars. No. 1,207,454; Dec. 5; Gaz. vol. 233; p. 232.
Weller, William R., Millstone, Md. Wrench. No. 1,208,868; Dec. 19; Gaz. vol. 233; p. 815.
Wells, John F., Seattle, Wash. Retort. No. 1,209,365; Dec. 19; Gaz. vol. 233; p. 982.
Wells, Ralph J., Dayton, Ohio. Concrete tie. No. 1,210,122; Dec. 26; Gaz. vol. 233; p. 1277.
Welsh, Frank H., Richmond, Cal. Surfacing mixture for pavements and other structures. No. 1,209,238; Dec. 19; Gaz. vol. 233; p. 937.
Welsh, Marie L., Richmond, Va. Bread holder or stand. No. 1,207,106; Dec. 5; Gaz. vol. 233; p. 110.
Wemett, William M., Valley City, N. D. Attachment for pitchers. No. 1,210,240; Dec. 26; Gaz. vol. 233; p. 1319.
Wende, Frank J., Chicago, Ill. Camera. No. 1,209,239; Dec. 19; Gaz. vol. 233; p. 937.
Wendt, Gustav A., Spokane, Wash. Water-operated pump. No. 1,207,824; Dec. 12; Gaz. vol. 233; p. 404.
Wensley, Ole, Enid, assignor of one-fifth to B. F. Gilpin, one-fifth to C. M. Cook, one-fifth to L. Cook, and one-fifth to J. Cook, Garner, Okla. Rotary pump. No. 1,209,916; Dec. 26; Gaz. vol. 233; p. 1208.
Wentworth, Samuel J., Newport, Ky., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-leveling machine. No. 1,209,089; Dec. 19; Gaz. vol. 233; p. 887.
Wentz, George F., Lakewood, Ohio. Garbage-incinerator for furnaces. No. 1,207,107; Dec. 5; Gaz. vol. 233; p. 110.
Wenzel, Max, Spremberg, Germany. Apparatus for separating the foremost thread in the lease of textile warps. No. 1,207,249; Dec. 5; Gaz. vol. 233; p. 160.
Werner, Lester A., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,209,090; Dec. 19; Gaz. vol. 233; p. 888.
West, Alice, Riverside, Cal. Dressmaker's form. No. 1,208,251; Dec. 12; Gaz. vol. 233; p. 554.
West Disinfecting Company. (See Marcuse, Moses M., assignor.)
West, George R., Pittsburgh, Pa. Commodity-container. No. 1,210,121; Dec. 26; Gaz. vol. 233; p. 1277.
West, George R., Pittsburgh, and T. H. Stough, Jeannette, Pa. Registering-bank. No. 1,210,123; Dec. 26; Gaz. vol. 233; p. 1278.
West, George W (See Oliver and West.)
West, John. (See Glover and West.)
West, Willis H., Trinidad, Colo. Window-ventilator. No. 1,209,866; Dec. 19; Gaz. vol. 233; p. 982.
Westen, Christian H., West Hoboken, assignor, by mesne assignments, to Hartford Suspension Company, Jersey City, N. J. Shock-absorber. No. 1,207,250; Dec. 5; Gaz. vol. 233; p. 160.
Wester, Peter J. (See Rydell, Carl, assignor.)
Western Electric Company. (See Clausen, Henry P., assignor.)
Western Electric Company. (See Dyson, Alfred H., assignor.)
Western Electric Company. (See Egerton, Henry C., assignor.)
Western Electric Company. (See Foraberg, Oscar F., assignor.)
Western Electric Company. (See Goodrum, Charles L., assignor.)
Western Electric Company. (See Nicolson and Hull, assignors.)
Western Electric Company. (See Reynolds, John N., assignor.) (Reissue.)
Westinghouse Electric and Manufacturing Company. (See Adams, James L., Jr., assignor.)
Westinghouse Electric and Manufacturing Company. (See Anel, Carl R., assignor.)
Westinghouse Electric and Manufacturing Company. (See Baumann, Karl, assignor.)
Westinghouse Electric and Manufacturing Company. (See Bradshaw, William M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Copley, Almon W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Farnsworth, Sidney W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Forteacue, Charles L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hadaway, William S., Jr., assignor.)
Westinghouse Electric and Manufacturing Company. (See Mattman, Emil, assignor.)
Westinghouse Electric and Manufacturing Company. (See Miller, Frederick H., assignor.)
Westinghouse Electric and Manufacturing Company. (See Moss and Travers, assignors.)

Westinghouse Electric and Manufacturing Company. (See Starker, Charles W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Storer, Norman W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Trood, Samuel, assignor.)
Westinghouse Gear and Dynamometer Company. (See Westinghouse, George, assignor.)
Westinghouse, George, Pittsburgh, Pa., assignor to The Westinghouse Gear and Dynamometer Company. Coupling. No. 1,208,252; Dec. 12; Gaz. vol. 233; p. 555.
Westinghouse, George, deceased, Pittsburgh, Pa.; H. H. Westinghouse, C. A. Terry, and W. D. Uptegraff, executors. Engine-starter. No. 1,209,917; Dec. 26; Gaz. vol. 233; p. 1208.
Westinghouse, George, Pittsburgh, assignor to The Westinghouse Machine Company, East Pittsburgh, Pa. Marine turbine. No. 1,209,918; Dec. 26; Gaz. vol. 233; p. 1208.
Westinghouse, Henry H., *et al.*, executors. (See Westinghouse, George.)
Westinghouse Machine Company, The. (See Herr, Herbert T., assignor.)
Westinghouse Machine Company, The. (See Westinghouse, George, assignor.)
Westlake, Albert, New York, N. Y. Fibrous cap for bottles and other containers. No. 1,209,091; Dec. 19; Gaz. vol. 233; p. 888.
Westlake, Charles T., and C. F. Frede, assignors to Commonwealth Steel Company, St. Louis, Mo. Trailer-truck for locomotives. No. 1,210,124; Dec. 26; Gaz. vol. 233; p. 1278.
Westlake Machine Company, The. (See Kadow, August, assignor.)
Weston, Frederick H., Schenectady, N. Y., assignor to General Electric Company. Current connection for electric lamps. No. 1,209,526; Dec. 19; Gaz. vol. 233; p. 1040.
Westphal, George J., Oklahoma, Okla. Cotton-chopper. No. 1,207,455; Dec. 5; Gaz. vol. 233; p. 233.
Wetcarbonizing Limited. (See Rigby, Thomas, assignor.)
Wettengel, George A., St. Louis, Mo. Ladle-stopper-operating mechanism. No. 1,207,251; Dec. 5; Gaz. vol. 233; p. 161.
Wever, Fritz, assignor to Union Special Maschinenfabrik G. m. b. H., Stuttgart, Germany. Bar-edging sewing-machine. No. 1,210,125; Dec. 26; Gaz. vol. 233; p. 1279.
Whaley, Thomas, Rochester, N. Y. Stamp-affixing machine. No. 1,209,919; Dec. 26; Gaz. vol. 233; p. 1209.
Wheary, George H., Racine, Wis. Locking-fixture for trunks. No. 1,208,061; Dec. 12; Gaz. vol. 233; p. 485.
Wheary, George H., Racine, Wis. Means for locking trunks. No. 1,209,367; Dec. 19; Gaz. vol. 233; p. 982.
Wheary, George H., Racine, Wis. Movable pad for trunks. No. 1,209,787; Dec. 26; Gaz. vol. 233; p. 1160.
Wheeler, George B., New York, N. Y. Sifter. No. 1,207,352; Dec. 5; Gaz. vol. 233; p. 194.
Wheeler, Moulton W., San Diego, Cal. Snare for drums. No. 1,207,825; Dec. 12; Gaz. vol. 233; p. 405.
Wheelock, Edwin M., Winona, Minn. Traction-engine. No. 1,208,062; Dec. 12; Gaz. vol. 233; p. 486.
Whelan, Bartholomew H., Roslindale, Mass. Leaf-holder. No. 1,207,456; Dec. 5; Gaz. vol. 233; p. 233.
Whelan, Michael J., Muskegon, Mich., assignor to Brunswick-Balke-Collender Company. Closet-seat. No. 1,208,869; Dec. 19; Gaz. vol. 233; p. 815.
Whitaker, Norman T. (See Aument, Carroll M., assignor.)
White, Braxton C., Mooresboro, N. C. Fertilizing-machine. No. 1,209,092; Dec. 19; Gaz. vol. 233; p. 888.
White, Elmer E., Tillamook, Oreg. Combined propeller and rudder for boats. No. 1,208,063; Dec. 12; Gaz. vol. 233; p. 486.
White, Frank L., Jackson, Miss. Nail-cutting implement. No. 1,207,108; Dec. 5; Gaz. vol. 233; p. 111.
White Flushing Valve Manufacturing Company, (See White, William S., assignor.)
White, Henderson N. (See Kidder, William C., assignor.)
White, Robert C. (See King, Samuel F., assignor.)
White, Samuel O., assignor to Warner Gear Company, Muncie, Ind. Two-wire horn button-switch. No. 1,208,427; Dec. 12; Gaz. vol. 233; p. 619.
White, Walter C., assignor to International Couplers Company, Los Angeles, Cal. Gasket for train-pipe couplings. No. 1,209,788; Dec. 26; Gaz. vol. 233; p. 1161.
White, William J., and W. F. Neal, Birmingham, Ala. Air-compressing pump. No. 1,208,426; Dec. 12; Gaz. vol. 233; p. 619.
White, William S., assignor to White Flushing Valve Manufacturing Company, Denver, Colo. Flushing-valve. No. 1,207,353; Dec. 5; Gaz. vol. 233; p. 194.
Whitehead, Robert L., Perth Amboy, assignor to American Smelting and Refining Company, Maurer, N. J. Electrolytic apparatus. No. 1,206,963; Dec. 5; Gaz. vol. 233; p. 61.
Whitehead, Robert L., Perth Amboy, assignor to American Smelting & Refining Company, Maurer, N. J. Casting electrodes. No. 1,206,964; Dec. 5; Gaz. vol. 233; p. 62.
Whitehead, Robert L., Perth Amboy, assignor to American Smelting & Refining Company, Maurer, N. J. Electrolytic apparatus. No. 1,206,965; Dec. 5; Gaz. vol. 233; p. 62.
Whitehouse, John N., Newark, N. J., assignor, by mesne assignments, to Rotary Vending Machine Corporation. Vending-machine. No. 1,208,253; Dec. 12; Gaz. vol. 233; p. 555.
Whiteside, Robert B., Duluth, Minn. Fishing-tool. No. 1,207,252; Dec. 5; Gaz. vol. 233; p. 161.
Whitin Machine Works, The. (See Waldow, Alexis F., assignor.)
Whiting, William W., Nashua, N. H. Machine for rolling leather. No. 1,207,109; Dec. 5; Gaz. vol. 233; p. 111.
Whitlock, Elliott H., Cleveland, Ohio. Combined light and illuminated sign. No. 1,208,870; Dec. 19; Gaz. vol. 233; p. 815.
Whitlow, Samuel C., Balmville, near Newburgh, N. Y. Hat sweat-band. No. 1,209,093; Dec. 19; Gaz. vol. 233; p. 888.
Whitman, Charles H., Des Moines, Iowa. Target. No. 1,208,254; Dec. 12; Gaz. vol. 233; p. 556.
Whitney, Arthur E. (See McIndoe and Whitney.)
Whitney, Frank, Hubbard Woods, Ill. Roller-bearing. No. 1,208,428; Dec. 12; Gaz. vol. 233; p. 619.
Whitney Manufacturing Company, The. (See Butler, William M., assignor.)
Whyte, Frederick M., Tarrytown, N. Y., assignor to Hutchins Car Rooding Company, Detroit, Mich. Car-roof. No. 1,207,110; Dec. 5; Gaz. vol. 233; p. 111.
Wiard, Frederick, Detroit, Mich., assignor to Wiard Plow Company, Batavia, N. Y. Plow. No. 1,209,368; Dec. 19; Gaz. vol. 233; p. 983.
Wiard Plow Company. (See Wiard, Frederick, assignor.)
Widner, George H., assignor to Des Moines Refining Company, Des Moines, Iowa. Producing a water-softener. No. 1,207,826; Dec. 12; Gaz. vol. 233; p. 405.
Widney, Charles W., Melrose Park, Ill. Headlight. No. 1,209,240; Dec. 19; Gaz. vol. 233; p. 938.
Wightman, Merle J., Seattle, Wash., assignor to General Electric Company. System of electric propulsion. No. 1,208,429; Dec. 12; Gaz. vol. 233; p. 620.
Wigle, Wilson B., Fullerton, Cal. Resilient connector-weight. No. 1,208,430; Dec. 12; Gaz. vol. 233; p. 620.
Wilber, Lyman J., Brockton, Mass. Cleaning device. No. 1,208,064; Dec. 12; Gaz. vol. 233; p. 480.
Wilberger, Sterling E., Julian, Nebr. Auxiliary-air-inlet device for internal-combustion engines. No. 1,207,111; Dec. 5; Gaz. vol. 233; p. 112.
Wilbern, Herbert, Concordia, Mo. Collapsible coop. No. 1,209,527; Dec. 19; Gaz. vol. 233; p. 1040.
Wilbur Lee H. and W. F., Dunkirk, N. Y. Signal-lamp. No. 1,210,027; Dec. 26; Gaz. vol. 233; p. 1245.
Wilbur, Walter F. (See Wilbur, Lee H. and W. F.)
Wilcox, Oscar S., Troy, assignor of one-half to L. Van Auken, Watervliet, N. Y. Holder for spinning-tops. No. 1,208,431; Dec. 12; Gaz. vol. 233; p. 620.
Wilder, Ralph E., Johnstown, Pa. Car-truck. No. 1,208,871; Dec. 19; Gaz. vol. 233; p. 816.
Wiley, Edgar C., assignor of one-third to E. J. F. Wilson, Lynchburg, Va. Draft-regulator. No. 1,208,432; Dec. 12; Gaz. vol. 233; p. 621.
Wiley, Joseph C., Upland, Ind. Washing-machine. No. 1,208,872; Dec. 19; Gaz. vol. 233; p. 816.
Wilkes, Robert W., Yonkers, N. Y. Match-box. No. 1,207,112; Dec. 5; Gaz. vol. 233; p. 112.
Wilkins, Charles L., Peoria, Ill. Duplex motor. No. 1,206,960; Dec. 5; Gaz. vol. 233; p. 63.
Wilkinson, Ross N., Jr., Lincoln, Nebr. Brake for automatic film-rollers. No. 1,210,241; Dec. 26; Gaz. vol. 233; p. 1319.
Wilkinson, Wilbur B., New York, N. Y., assignor to Perotin Company of America, Chicago, Ill. Apparatus for removing scale from boilers. No. 1,207,113; Dec. 5; Gaz. vol. 233; p. 112.
Wilks, Edward J. (See Drey, Wilfred J., assignor.)
Willard, Arthur G. (See Knapp, William G., assignor.)
Willard, Theodore A., Cleveland, Ohio. Machine for making storage-battery jars and the like. No. 1,207,673; Dec. 5; Gaz. vol. 233; p. 308.
Willett, Guy L. (See Conner and Willett.)
William A. Zeidler Co. (See Zeidler, William A., assignor.)
Williams, Brown and Earle, Inc. (See Holst, Lodewyk J. E., assignor.)
Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Third-point support for brake-beams. No. 1,207,253; Dec. 5; Gaz. vol. 233; p. 162.
Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Clasp-brake beam. No. 1,207,254; Dec. 5; Gaz. vol. 233; p. 162.
Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Safety-hanger for brake-beams. No. 1,207,255; Dec. 5; Gaz. vol. 233; p. 162.
Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Spring-plank connection for beam-support springs. No. 1,207,256; Dec. 5; Gaz. vol. 233; p. 162.
Williams, David, New Orleans, La. Automatic alarm-valve. No. 1,210,242; Dec. 26; Gaz. vol. 233; p. 1320.
Williams, David J., assignor of one-third to G. H. Williams, Herrin, Ill. Mine-car coupling. No. 1,207,114; Dec. 5; Gaz. vol. 233; p. 112.
Williams, Frank M., assignor to Wyoming Broom Company, Wilkes-Barre, Pa. Broom. No. 1,207,457; Dec. 5; Gaz. vol. 233; p. 233.
Williams, George H. (See Williams David J., assignor.)

Williams, Green B., Long Lane, Mo. Registering wire-stretcher. No. 1,208,065; Dec. 12; Gaz. vol. 233; p. 486.
Williams, Griffith E., Cambria, Wis. Automobile-jack. No. 1,210,243; Dec. 26; Gaz. vol. 233; p. 1320.
Williams, Harney I., Cincinnati, Ohio. Camera. No. 1,208,066; Dec. 12; Gaz. vol. 233; p. 487.
Williams, James P., Covington, Ky. Oiling system for railway-car journals. No. 1,206,967; Dec. 5; Gaz. vol. 233; p. 63.
Williams, James R., Scipio, Okla. Bolster-iron for wagons. No. 1,209,921; Dec. 26; Gaz. vol. 233; p. 1209.
Williams, John H., Shelby, Miss. Animal-muzzle. No. 1,210,244; Dec. 26; Gaz. vol. 233; p. 1321.
Williams, John S., Cooper, Tex. Convertible washing-machine and canner. No. 1,209,094; Dec. 19; Gaz. vol. 233; p. 889.
Williams, John W., Cozad, Nebr. Feeding device. No. 1,208,067; Dec. 12; Gaz. vol. 233; p. 487.
Williams, Robert, New York, N. Y. Ambulance. No. 1,208,433; Dec. 12; Gaz. vol. 233; p. 621.
Williams, Rudicille B., Denton, Tex. Plow-foot. No. 1,209,095; Dec. 19; Gaz. vol. 233; p. 889.
Williams, Silas W., and T. H. Martin, Gordo, Ala. Boll-weevil exterminator. No. 1,209,528; Dec. 19; Gaz. vol. 233; p. 1040.
Williams, Thomas C., assignor of one-half to J. R. Elder, Washington, D. C. Electric-bell attachment. No. 1,210,245; Dec. 26; Gaz. vol. 233; p. 1321.
Williams, William E., Chicago, Ill. Antisplit device for wood railway-ties. No. 1,208,255; Dec. 12; Gaz. vol. 233; p. 556.
Williamson, Robert B., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Conductor. No. 1,209,096; Dec. 19; Gaz. vol. 233; p. 889.
Willin, Herman W., New York, N. Y. Life-preserver. No. 1,208,256; Dec. 12; Gaz. vol. 233; p. 557.
Willison, Ralph A., Portland, Oreg. Life-saving apparatus for submarines. No. 1,207,115; Dec. 5; Gaz. vol. 233; p. 113.
Willmore, William M., assignor to Hartman Manufacturing Company, Vincennes, Ind. Adjustable riding-cultivator frame. No. 1,208,434; Dec. 12; Gaz. vol. 233; p. 621.
Wilmont Ventilating Company. (See Montague, Mosby, assignor.)
Wilsey, Irven H., assignor of one-half to W. H. Green and one-half to F. A. Adkins, Chicago, Ill. Apparatus for indicating heat ratios. No. 1,206,968; Dec. 5; Gaz. vol. 233; p. 63.
Wilson, Charles W., New York, N. Y. Umbrella. No. 1,210,126; Dec. 26; Gaz. vol. 233; p. 1279.
Wilson, Charles W., assignor, by mesne assignments, of two-thirds to C. Geiger, Berea, Ohio. Automatic train-stop. No. 1,210,246; Dec. 26; Gaz. vol. 233; p. 1321.
Wilson, Ernest J. F. (See Wiley, Edgar C., assignor.)
Wilson, Frederick D., assignor to Deere & Company, Moline, Ill. Bundle-carrier for corn-harvesters. No. 1,208,873; Dec. 19; Gaz. vol. 233; p. 816.
Wilson, Herman S. (See Bergren, John A., assignor.)
Wilson, Samuel E., assignor of one-fourth to W. R. Van Slingerlandt and one-fourth to G. S. Van Slingerlandt, New York, N. Y. Door-plate. No. 1,209,529; Dec. 19; Gaz. vol. 233; p. 1041.
Wilson, William E., Lookout, W. Va. Insulator. No. 1,208,874; Dec. 19; Gaz. vol. 233; p. 817.
Wilson, William E., San Diego, Cal. Dental instrument. No. 1,209,789; Dec. 26; Gaz. vol. 233; p. 1161.
Wilvert, Peter, and N. Wagner, Tintah, Minn. Track-signal. No. 1,209,530; Dec. 19; Gaz. vol. 233; p. 1041.
Wimberly, George R., Mountain Park, Okla. Door-operating device. No. 1,207,458; Dec. 5; Gaz. vol. 233; p. 234.
Winchell, Milton D., Fleischmanns, N. Y. Chalk-line reel. No. 1,208,068; Dec. 12; Gaz. vol. 233; p. 487.
Winder, Samuel E., Chicago, Ill., assignor to Consolidated Wafer Company, Brooklyn, N. Y. Nesting machinery. No. 1,207,257; Dec. 5; Gaz. vol. 233; p. 162.
Window Glass Machine Company. (See Sweet, John A., assignor.)
Windt, Isidor, New York, N. Y. Device for supporting non-swimmers or animals during bathing. No. 1,208,257; Dec. 12; Gaz. vol. 233; p. 557.
Wing, Leander J., deceased; M. W. Castle, Lexington, Mass., administratrix. Rotary steam-engine. No. 1,208,875; Dec. 19; Gaz. vol. 233; p. 817.
Winkley, Erastus E., Lynn, Mass. Making heels. No. 1,209,531; Dec. 19; Gaz. vol. 233; p. 1041.
Winner, Frederick W., Carmi, Ill. Gate-latch. No. 1,207,116; Dec. 5; Gaz. vol. 233; p. 113.
Winter, Edwin M., East Orange, N. J., assignor of one-half to A. N. Van Deman, New York, N. Y. Device for gaging manufactured parts. No. 1,208,258; Dec. 12; Gaz. vol. 233; p. 557.
Winters, Samuel J., Plymouth, Mich. Door-sill. No. 1,207,827; Dec. 12; Gaz. vol. 233; p. 405.
Winton, Alexander, Lakewood, assignor to The Winton Gas Engine & Manufacturing Company, Cleveland, Ohio. Fuel-feed for internal-combustion motors. No. 1,208,259; Dec. 12; Gaz. vol. 233; p. 558.
Winton Gas Engine & Manufacturing Company, The. (See Winton, Alexander, assignor.)
Wireless Specialty Apparatus Company. (See Pickard, Greenleaf W., assignor.)
Wisenant, Oscar H., La Salle, assignor to W. J. Hughey, Chicago, Ill. Motor-vehicle fender. No. 1,210,247; Dec. 26; Gaz. vol. 233; p. 1322.
Wiswell, Frederick A., assignor of two-fifths to E. E. Phelan, Oakland, Cal. Ore grinding or pulverizing machine. No. 1,207,687; Dec. 5; Gaz. vol. 233; p. 314.
Wittwer, John J., Sr., Seattle, Wash. Dry shampoo composition. No. 1,208,069; Dec. 12; Gaz. vol. 233; p. 488.
Wm. Filene's Sons Company. (See Richardson, Charles F., assignor.)
Wolf, Aaron. (See Orillo, Salvatore and P., assignors.)
Wolfe, Henry R., assignor to The Ohio Brass Company, Mansfield, Ohio. Catenary hanger. No. 1,207,450; Dec. 5; Gaz. vol. 233; p. 234.
Wolffgram, Ludwig, Brooklyn, N. Y. Making long seamless thin-rolled tubes out of warm solid blocks of metal. No. 1,208,876; Dec. 19; Gaz. vol. 233; p. 818.
Wolford, Lorenzo, assignor to Old Dominion Glass Corporation, Alexandria, Va. Glass-blowing machine. No. 1,209,635; Dec. 19; Gaz. vol. 233; p. 1075.
Wollenweber, Wilhelm, Bochum, Germany. Manufacture of acid ammonium phosphate. No. 1,208,877; Dec. 19; Gaz. vol. 233; p. 818.
Wonderlich, Arthur, and H. A. Crozier, Genoa, Nebr. Straw and manure spreader. No. 1,209,532; Dec. 19; Gaz. vol. 233; p. 1041.
Wood, Albert B. (See Earl and Wood.) (Reissue.)
Wood, Bert B., Madison, Wis. Snap. No. 1,209,869; Dec. 19; Gaz. vol. 233; p. 983.
Wood, Charles S., Chicago, Ill. Vulcanizing device for tire-casings. No. 1,207,117; Dec. 5; Gaz. vol. 233; p. 114.
Wood, Charles S., Philadelphia, Pa., assignor to Rech-Marbaker Company. Ambulance. No. 1,208,260; Dec. 12; Gaz. vol. 233; p. 558.
Wood, Charles S., Philadelphia, Pa., assignor to Rech-Marbaker Company. Ambulance. No. 1,208,261; Dec. 12; Gaz. vol. 233; p. 550.
Wood, Frank G., San Francisco, Cal. Lawn-sprinkler. No. 1,208,262; Dec. 12; Gaz. vol. 233; p. 559.
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Distributing ink. No. 1,207,258; Dec. 5; Gaz. vol. 233; p. 163.
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Inking device for printing-presses. No. 1,207,259; Dec. 5; Gaz. vol. 233; p. 163.
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Machine for making stereotype printing-plates. No. 1,207,674; Dec. 5; Gaz. vol. 233; p. 309.
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Machine for finishing stereotype printing-plates. No. 1,207,675; Dec. 5; Gaz. vol. 233; p. 309.
Wood, Henry A. W., assignor to Wood & Nathan Company, New York, N. Y. Mechanism for printing from intaglio printing-plates. No. 1,208,878; Dec. 19; Gaz. vol. 233; p. 818.
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Making printers' rollers. No. 1,208,879; Dec. 19; Gaz. vol. 233; p. 818.
Wood & Nathan Company. (See Wood, Henry A. W., assignor.)
Wood Newspaper Machinery Corporation. (See Pearce, Herbert, assignor.)
Wood Newspaper Machinery Corporation. (See Wood, Henry A. W., assignor.)
Wood, Ralph A., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y. Paper basket. No. 1,210,127; Dec. 26; Gaz. vol. 233; p. 1279.
Wood River Iron Works. (See Clark, Charles A., assignor.)
Wood, Robert, Brooklyn, assignor to Nathan Manufacturing Company, New York, N. Y. Lubricating device. No. 1,207,355; Dec. 5; Gaz. vol. 233; p. 195.
Wood, Sallie J. (See Kite, Elizabeth W., assignor.)
Woodard, William E., Schenectady, N. Y. Connecting-rod. No. 1,208,263; Dec. 12; Gaz. vol. 233; p. 559.
Woodbury, John E., Worcester, Mass. Apparatus for printing. No. 1,209,097; Dec. 19; Gaz. vol. 233; p. 890.
Woodbury, John E., Worcester, Mass. Printing. No. 1,209,098; Dec. 19; Gaz. vol. 233; p. 890.
Woodcock, John C., Oklahoma, Okla. Feed-grinder. No. 1,209,790; Dec. 26; Gaz. vol. 233; p. 1161.
Woodell, Thomas M., Glenwood, assignor of one-half to C. W. Jennings, Greensboro, N. C. Level. No. 1,209,922; Dec. 26; Gaz. vol. 233; p. 1209.
Woods, Clinton E., assignor to American Graphophone Company, Bridgeport, Conn. Graphophone. No. 1,210,248; Dec. 26; Gaz. vol. 233; p. 1322.
Woods, Ernest L., Farmer, S. D. Motor-vehicle-locking device. No. 1,208,070; Dec. 12; Gaz. vol. 233; p. 488.
Woodstock Typewriter Company. (See Roebuck, Alvah C., assignor.)
Wooldridge, Walter B. (See Counts, Charles B., assignor.)
Woolf, Charles E., Wynnewood, Pa. Shears. No. 1,210,128; Dec. 26; Gaz. vol. 233; p. 1280.
Woolf, Charles E., Wynnewood, Pa. Shears. No. 1,210,129; Dec. 26; Gaz. vol. 233; p. 1280.

Woolfolk, Paul E., Waco, Tex. Egg-testing globe. No. 1,207,354; Dec. 5; Gaz. vol. 233; p. 195.
Wootten, Charles T., Haddon Heights, N. J., assignor to A. P. Richardson, Philadelphia, Pa. Handle connection. No. 1,209,791; Dec. 26; Gaz. vol. 233; p. 1161.
Wooyenaka, Keizo. (See Takamine and Wooyenaka.)
Worsham, James A., Marca, Ill. Pneumatic conveyer. No. 1,210,130; Dec. 26; Gaz. vol. 233; p. 1280.
Worth, James M., Chicago, Ill. Traction mechanism. No. 1,209,370; Dec. 19; Gaz. vol. 233; p. 984.
Worth, John S., assignor to himself and W. P. Worth, Coatesville, Pa. Lining for cars. No. 1,209,371; Dec. 19; Gaz. vol. 233; p. 984.
Worth, William P. (See Worth, John S., assignor.)
Wortman, James E., Kalispell, Mont. Wrench. No. 1,207,118; Dec. 5; Gaz. vol. 233; p. 114.
Wragg, Charles A., Melbourne, Victoria, Australia. Aeroplane. No. 1,209,923; Dec. 26; Gaz. vol. 233; p. 1210.
Wright, Francis M. (See Alling, James H., assignor.)
Wright, Francis M., et al. (See Hussey, William A., assignor.)
Wright, Herbert B., Chicago, Ill. Lock-nut. No. 1,207,356; Dec. 5; Gaz. vol. 233; p. 195.
Wright, Oscar T. (See Thomas, Lewis W., assignor.)
Wright, Parvin, and G. Land, Seattle, Wash.; said Land assignor to said Wright. Magnetic separator. No. 1,208,880; Dec. 19; Gaz. vol. 233; p. 819.
Wright, Walter E., Halifax, England. Driving belt or band. No. 1,209,241; Dec. 19; Gaz. vol. 233; p. 938.
Wrigley, Henry I., Chicago, Ill., assignor to Universal Draft Gear Attachment Co. Draft-arm for railway-cars. No. 1,208,881; Dec. 19; Gaz. vol. 233; p. 819.
Wunning, Richard, New York, N. Y. Safety elevator attachment. No. 1,209,099; Dec. 19; Gaz. vol. 233; p. 891.
Wunsch, Felix, assignor to The Leeds & Northrup Company, Philadelphia, Pa. Electrical measuring apparatus. No. 1,209,372; Dec. 19; Gaz. vol. 233; p. 984.
Wyckoff, Oliver A., Asbury Park, N. J. Button. No. 1,206,969; Dec. 5; Gaz. vol. 233; p. 64.
Wynkoop, Alexander H., Washington, D. C., assignor to Photo-Reproducer Company, Newark, N. J. Photographic apparatus. No. 1,208,071; Dec. 12; Gaz. vol. 233; p. 488.
Wyoming Broom Company. (See Williams, Frank M., assignor.)
Yaggi, Joseph, et al. (See Roth, Charles, assignor.)
Yale & Towne Manufacturing Company, The. (See Augenbraun, Peter F., assignor.)
Yamaguchi, Masakichi, Seattle, Wash. Plow. No. 1,210,249; Dec. 26; Gaz. vol. 233; p. 1322.
Yanochowski, George A. (See Hershey and Yanochowski.)
Yates, Chauncey V., et al. (See Randall, Franklin S., assignor.)
Yearick, Herbert A., Sunbury, Pa. Electrical switch. No. 1,207,260; Dec. 5; Gaz. vol. 233; p. 163.
Young, Frank E., Canton, Ohio. Method of and apparatus for manufacturing alcohol from garbage. No. 1,210,250; Dec. 26; Gaz. vol. 233; p. 1323.
Young, Frank E., Canton, Ohio. Grinding-mill. No. 1,210,251; Dec. 26; Gaz. vol. 233; p. 1323.
Young, George D., New York, N. Y. Carpenter's plane. No. 1,207,357; Dec. 5; Gaz. vol. 233; p. 196.
Young, Herbert W., assignor to Delta-Star Electric Company, Chicago, Ill. Switch. No. 1,209,792; Dec. 26; Gaz. vol. 233; p. 1162.
Young, Louis E., Wellington, Colo. Article of cutlery. No. 1,208,435; Dec. 12; Gaz. vol. 233; p. 622.
Young, Walter L., Newport, Cal. Undereaming-bit. No. 1,207,119; Dec. 5; Gaz. vol. 233; p. 114.
Young, William M., Victoria, British Columbia, Canada. Domestic water-bag. No. 1,208,882; Dec. 19; Gaz. vol. 233; p. 819.
Younker, Harry H., New York, N. Y. Nipple and comforter for infants. No. 1,207,120; Dec. 5; Gaz. vol. 233; p. 114.
Zabriskie, Henry L. (See Diehl and Zabriskie.)
Zabriskie, Henry L., Westfield, and G. C. Marx, assignors to Diehl Manufacturing Company, Elizabeth, N. J. Portable motor-support. No. 1,207,828; Dec. 12; Gaz. vol. 233; p. 405.
Zaker, John J., Wiconisco, Pa. Game apparatus. No. 1,209,873; Dec. 19; Gaz. vol. 233; p. 985.
Zech, Michael, Enderlin, N. D. Pivoted cover for fodder-cutters. No. 1,207,829; Dec. 12; Gaz. vol. 233; p. 406.
Zee Socket and Manufacturing Company, The. (See Keefe, Joseph, assignor.)
Zieber, Edward H., Philadelphia, assignor to W. T. Plummer, Ardmore, Pa. Adjustable conveyer-roller. No. 1,208,883; Dec. 19; Gaz. vol. 233; p. 820.
Zeidler, Frederick W., Jersey City, N. J. Shaving-brush. No. 1,207,121; Dec. 5; Gaz. vol. 233; p. 115.
Zeidler, William A., assignor to William A. Zeidler Co., New York, N. Y. Edge-ironing machine. No. 1,207,830; Dec. 12; Gaz. vol. 233; p. 406.
Ziegler, Alfred A., Boston, Mass. Signal-lantern. No. 1,209,793; Dec. 26; Gaz. vol. 233; p. 1162.
Ziemianski, Ladislaus. (See Tylutki and Ziemianski.)
Zimmer, Benjamin, Minneapolis, Minn. Table. No. 1,208,436; Dec. 12; Gaz. vol. 233; p. 622.
Zimmer, Benjamin, Minneapolis, Minn. Table. No. 1,208,437; Dec. 12; Gaz. vol. 233; p. 622.
Zimmerman, Henry L. and F. W., Lonetree, Iowa. Stump-pulling apparatus. No. 1,206,970; Dec. 5; Gaz. vol. 233; p. 64.
Zimmerman, Frederick W. (See Zimmerman, Henry L. and F. W.)
Zimmermann, William F., assignor to Gould & Eberhardt, Newark, N. J. Gear-cutting machine. No. 1,206,971; Dec. 5; Gaz. vol. 233; p. 64.
Zindel, Philip A., Lock Haven, Pa. Advertising attachment for tables. No. 1,207,460; Dec. 5; Gaz. vol. 233; p. 234.
Zorn, Garnett S. (See Dickson, Francis C., assignor.)
Zottel, Herman J., Milwaukee, Wis. Nut-locking means. No. 1,209,302; Dec. 19; Gaz. vol. 233; p. 959.
Zvetina, John. (See Obsboum, Thomas M., assignor.)

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Ahrhart, Charles, Jr., Buffalo, N. Y. Paper-fastener. No. 50,008; Dec. 12; Gaz. vol. 233; p. 725.

Altenberg, George P., assignor to The Icy-Hot Bottle Company, Cincinnati, Ohio. Casing for vacuum-insulated pitchers. No. 49,977; Dec. 5; Gaz. vol. 233; p. 321.

Altenberg, George P., assignor to The Icy-Hot Bottle Company, Cincinnati, Ohio. Casing for vacuum-insulated bottles. No. 49,978; Dec. 5; Gaz. vol. 233; p. 321.

American Silver Company, The. (See Large, Samuel J., assignor.)

Anderson, Ann, Dassel, Minn. Cork-extractor. No. 50,051; Dec. 19; Gaz. vol. 233; p. 1082.

Anderson, Thomas B., Chester, W. Va. Dish or similar article. No. 50,052; Dec. 19; Gaz. vol. 233; p. 1082.

Averill, Georgene, assignor to Averill Manufacturing Corporation, New York, N. Y. Doll. No. 50,088; Dec. 26; Gaz. vol. 233; p. 1373.

Averill Manufacturing Corporation. (See Averill, Georgene, assignor.)

Ball, Henry P., New York, assignor to S. Sternau & Co., Brooklyn, N. Y. Culinary utensil. No. 50,089; Dec. 26; Gaz. vol. 233; p. 1373.

Barrows, Robert Y., Rutherford, and G. V. Strahan, Newark, N. J. Bowl for lighting-fixtures. No. 49,979; Dec. 5; Gaz vol. 233; p. 322.

Barrows, Robert Y., Rutherford, and G. V. Strahan, Newark, N. J. Bowl for lighting-fixtures. No. 50,009; Dec. 12; Gaz. vol. 233; p. 725.

Barrows, Robert Y., Rutherford, and G. V. Strahan, Newark, N. J. Shade for lighting-fixtures. Nos. 50,053–4; Dec. 19; Gaz. vol. 233; pp. 1082–3.

Barrows, Robert Y., Rutherford, and G. V. Strahan, Newark, N. J., assignors to The Mitchell Vance Company, New York, N. Y. Lighting-fixture. Nos. 49,980–4; Dec. 5; Gaz. vol. 233; p. 322.

Beauchamp, Frederick W., Indianapolis, Ind. Glare-guard for headlights. No. 50,090; Dec. 26; Gaz. vol. 233; p. 1374.

Bell, Robert E., Detroit, Mich. Bottle. Nos. 50,010–11; Dec. 12; Gaz. vol. 233; p. 725.

Bentley, Frank F., Warren, Ohio, assignor to The Warren Automobile Club. Emblem. No. 49,985; Dec. 5; Gaz. vol. 233; p. 323.

Bigelow Hartford Carpet Company. (See Elliot, William A., assignor.)

Bigelow Hartford Carpet Company. (See Forrester, Charles, assignor.)

Bigelow Hartford Carpet Company. (See Lacouture, Henry C., assignor.)

Bigelow Hartford Carpet Company. (See Lehner, Charles, assignor.)

Bigelow Hartford Carpet Company. (See McCabe, William, assignor.)

Bigelow Hartford Carpet Company. (See Pegel, Julius G., assignor.)

Bigelow Hartford Carpet Company. (See Riddell, Robert F., assignor.)

Bigelow Hartford Carpet Company. (See Schindler, Francis, assignor.)

Bigelow Hartford Carpet Company. (See Spring, William A., assignor.)

Bodmer, Christian, assignor to The Stanley Rule & Level Company, New Britain, Conn. Saw-set. No. 50,055; Dec. 19; Gaz. vol. 233; p. 1083.

Bolles, Robert E., New York, N. Y., assignor to Fownes Brothers & Co., London, England. Glove. No. 49,986; Dec. 5; Gaz. vol. 233; p. 323.

Bonnevier, Anna S., Seattle, Wash. Finger-ring. No. 50,056; Dec. 19; Gaz. vol. 233; p. 1083.

Booth, John, Indianapolis, Ind. Chiffonnier. No. 50,091; Dec. 26; Gaz. vol. 233; p. 1374.

Brown, Leslie, Sag Harbor, N. Y., assignor to Joseph Fahys & Company, New York, N. Y. Hand-mirror. No. 49,987; Dec. 5; Gaz. vol. 233; p. 323.

Butterfield, William H., Birmingham, England. Crank-case. No. 50,057; Dec. 19; Gaz. vol. 233; p. 1083.

Cailie, Adolph A., Detroit, Mich. Scale-frame. No. 50,092; Dec. 26; Gaz. vol. 233; p. 1374.

Campbell, Donald, assignor to Lyon & Healy, Chicago, Ill. Harp. No. 50,012; Dec. 12; Gaz. vol. 233; p. 725.

Chenery, Charles R., Buffalo, N. Y. Butter-preserver. No. 50,093; Dec. 26; Gaz. vol. 233; p. 1374.

Clay, George B., Jenkintown, Pa. Badge, emblem, or similar article. No. 49,988; Dec. 5; Gaz. vol. 233; p. 323.

Clemens, Walter L., Milwaukee, Wis. Washstick-hook. No. 49,989; Dec. 5; Gaz. vol. 233; p. 323.

Clement, Robert F., Chicago, Ill. Picture-frame. No. 50,058; Dec. 19; Gaz. vol. 233; p. 1083.

Cook, Albert, assignor to Nye & Wait-Kilmarnock Corporation, Auburn, N. Y. Rug. Nos. 50,013–14; Dec. 12; Gaz. vol. 233; p. 726.

Cooper, Benjamin H., Denver, Colo. Combination-tool. No. 50,015; Dec. 12; Gaz. vol. 233; p. 726.

Cordley, Henry G., Glen Ridge, N. J. Liquid-dispenser. Nos. 49,990–1; Dec. 5; Gaz. vol. 233; pp. 323–4.

Curtis, William J. (See Tonnele and Curtis.)

Dawes, John L., Pittsburgh, Pa. Lamp-casing. No. 50,094; Dec. 26; Gaz. vol. 233; p. 1375.

Dewitz, Hrolf von, New York, N. Y. Automobile-body. No. 50,115; Dec. 26; Gaz. vol. 233; p. 1380.

Dunklin, Gilbert T., assignor to George Cutter Company, South Bend, Ind. Lighting-post. No. 50,059; Dec. 19; Gaz. vol. 233; p. 1083.

Egeberg, Henry, Henning, Minn. Comb-rack. No. 50,016; Dec. 12; Gaz. vol. 233; p. 726.

Elliot, William A., Yonkers, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. No. 50,017; Dec. 12; Gaz. vol. 233; p. 726.

Fessenden and Company, Inc. (See Harmstone, John H., assignor.)

Firbas, Stanley, Chicago, Ill. Combined cigar-cutter, knife, and bottle-opener. No. 50,095; Dec. 26; Gaz. vol. 233; p. 1375.

Forrester, Charles, Jersey City, N. J., assignor to Bigelow Hartford Carpet Company. Rug. No. 50,018; Dec. 12; Gaz. vol. 233; p. 726.

Forster, John C., Pittsburgh, Pa. Culinary implement. No. 50,096; Dec. 26; Gaz. vol. 233; p. 1375.

Fownes Brothers & Co. (See Bolles, Robert E., assignor.)

Freed, Allie S., New York, N. Y. Embroidered trimming. No. 50,049; Dec. 12; Gaz. vol. 233; p. 733.

French, Ira L., assignor to The Mantle Lamp Company of America, Chicago, Ill. Shade. Nos. 50,097–8; Dec. 26; Gaz. vol. 233; pp. 1375–6.

French, Ira L., assignor to The Mantle Lamp Company of America, Chicago, Ill. Wall-bracket. No. 50,099; Dec. 26; Gaz. vol. 233; p. 1376.

French, Ira L., assignor to The Mantle Lamp Company of America, Chicago, Ill. Lamp. No. 50,100; Dec. 26; Gaz. vol. 233; p. 1376.

French, Ira L., assignor to The Mantle Lamp Company of America, Chicago, Ill. Lamp-suspension device. No. 50,101; Dec. 26; Gaz. vol. 233; p. 1376.

French, Ira L., assignor to The Mantle Lamp Company of America, Chicago, Ill. Lamp-font. No. 50,102; Dec. 26; Gaz. vol. 233; p. 1377.

Freydberg, G. H. & E. (See Trattler, Morris, assignor.)

Friedley-Voshardt Co. (See Wellman, Lester R., assignor.)

Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Paper-clip and pin box. No. 50,060; Dec. 19; Gaz. vol. 233; p. 1084.

Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Paper-clip. No. 50,061; Dec. 19; Gaz. vol. 233; p. 1084.

Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Paper-clip and pin cushion. No. 50,062; Dec. 19; Gaz. vol. 233; p. 1084.

George Cutter Company. (See Dunklin, Gilbert T., assignor.)

Gill Brothers Company. (See Huttig, Ernest W., assignor.)

Giusti, Pedro, San Juan, Porto Rico. Emblem. No. 49,992; Dec. 5; Gaz. vol. 233; p. 324.

Hamilton, Eva C., Hubbard, Oreg. Doll. No. 49,993; Dec. 5; Gaz. vol. 233; p. 324.

Hardie, Robert W., Mount Vernon, N. Y. Air-moistener. No. 50,019; Dec. 12; Gaz. vol. 233; p. 727.

Hardwick & Magee Co. (See Ulmer, Harry, assignor.)

Harmstone, John H., Attleboro, Mass., assignor to Fessenden and Company, Inc., Providence, R. I. Handle of a spoon, fork, or similar article. No. 50,103; Dec. 26; Gaz. vol. 233; p. 1377.

Hawks, Nira J., New York, N. Y. Combination-tool. No. 49,994; Dec. 5; Gaz. vol. 233; p. 324.

Hawthorne, Ellsworth A., Bridgeport, Conn. Vehicle-lamp. No. 50,063; Dec. 19; Gaz. vol. 233; p. 1084.

Holmes, Frank G., assignor to Lenox, Incorporated, Trenton, N. J. Plate or similar article. No. 50,064; Dec. 19; Gaz. vol. 233; p. 1085.

Hoover, Howard E., Chicago, Ill., assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio. Suction-sweeper case. No. 50,104; Dec. 26; Gaz. vol. 233; p. 1377.

Hoover, Howard E., Chicago, Ill., assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio. Suction-sweeper converter. No. 50,105; Dec. 26; Gaz. vol. 233; p. 1377.

Hoover Suction Sweeper Company, The. (See Hoover, Howard E., assignor.)

Hunter, Floyd R. (See Hunter, William T. and F. R.)

Hunter, William T. and F. R., Ann Arbor, Mich. Clock. No. 50,106; Dec. 26; Gaz. vol. 233; p. 1378.

Huttig, Ernest W., Pittsburgh, Pa., assignor to Gill Brothers Company, Steubenville, Ohio. Gothic shade-bowl. No. 50,065; Dec. 19; Gaz. vol. 233; p. 1085.

Icy-Hot Bottle Company, The. (See Altenberg, George P., assignor.)

Inflexible Co. (See Schwarber, Henry, assignor.)

J. E. Mergott Company, The. (See Fuller, Franz A., assignor.)

Joseph Fahys & Company. (See Brown, Leslie, assignor.)

Joseph Fahys & Co. (See Kaupmann, Frederick, assignor.)

Kaufmann, Waller L., Santa Ana, Cal. Electric-lamp bracket. No. 49,995; Dec. 5; Gaz. vol. 233; p. 324.

Kaupmann, Frederick, Brooklyn, assignor to Joseph Fahys & Co., New York, N. Y. Spoon, fork, or the like. No. 50,020; Dec. 12; Gaz. vol. 233; p. 727.

Kaupmann, Frederick, Brooklyn, assignor to Joseph Fahys & Company, New York, N. Y. Spoon, fork, and the like. No. 50,021; Dec. 12; Gaz. vol. 233; p. 727.

Kennedy, Richard G., Morris, Tex. Chair. No. 50,066; Dec. 19; Gaz. vol. 233; p. 1085.

Kish, Bela M., Duquesne, Pa. Sideboard. No. 50,067; Dec. 19; Gaz. vol. 233; p. 1085.

Kohler & Campbell, Inc. (See Pfannstiehl, Fred O., assignor.)

Lacouture, Henry C., Arlington, N. J., assignor to Bigelow Hartford Carpet Company. Rug. No. 50,022; Dec. 12; Gaz. vol. 233; p. 727.

Lakich, Ivan V., St. Louis, Mo. Medal. No. 50,023; Dec. 12; Gaz. vol. 233; p. 727.

Lamb, Erwin W., Lansing, Mich. Lamp. No. 49,996; Dec. 5; Gaz. vol. 233; p. 324.

Landline, Peter N., assignor to The Rostand Manufacturing Company, Milford, Conn. Ornamental tubing. No. 50,050; Dec. 12; Gaz. vol. 233; p. 733.

Large, Samuel J., assignor to The American Silver Company, Bristol, Conn. Handle for a spoon, fork, or similar article. Nos. 50,068–71; Dec. 19; Gaz. vol. 233; pp. 1085–6.

Lee, Truel T., Yarmouth, Iowa. Button-fastener. No. 49,997; Dec. 5; Gaz. vol. 233; p. 324.

Lehner, Charles, New York, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. No. 50,024; Dec. 12; Gaz. vol. 233; p. 728.

Lenox, Incorporated. (See Holmes, Frank G., assignor.)

Lyon & Healy. (See Campbell, Donald, assignor.)

MacLachlan, Lachlan, Grand Rapids, Mich. Casing for sound-producing instruments. Nos. 50,072–3; Dec. 19; Gaz. vol. 233; pp. 1086–7.

Mantle Lamp Company of America, The. (See French, Ira L., assignor.)

Maywald, Ivy G., Tucumcari, N. Mex. Game-board. No. 50,074; Dec. 19; Gaz. vol. 233; p. 1087.

McCabe, William, New York, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. No. 50,025; Dec. 12; Gaz. vol. 233; p. 728.

McCoy, Thomas E., Ickesburg, Pa. Antiskid-chain. No. 50,026; Dec. 12; Gaz. vol. 233; p. 728.

McLaughlin, Charles, Brooklyn, N. Y., assignor to Royal Comb Company, Leominster, Mass. Bow-holder. No. 49,998; Dec. 5; Gaz. vol. 233; p. 325.

Mitchell Vance Company, The. (See Barrows and Strahan, assignors.)

Mohr, Otto H., Chicago, Ill. Stationary lighting-fixture. No. 50,027; Dec. 12; Gaz. vol. 233; p. 728.

Moore, William J. P., New York, N. Y. Automobile-body. Nos. 50,107–8; Dec. 26; Gaz. vol. 233; p. 1378.

Moore, William J. P., New York, N. Y. Radiator for automobiles and other vehicles. Nos. 50,109–11; Dec. 26; Gaz. vol. 233; pp. 1378–9.

Moritz, Joseph, New York, N. Y. Adjustable lamp-fixture. No. 49,999; Dec. 5; Gaz. vol. 233; p. 325.

National Adjustable Bed and Spring Company. (See Tonnele and Curtis, assignors.)

New York Stamping Company. (See Wojidkow, Louis, assignor.)

Nye & Wait-Kilmarnock. (See Cook, Albert, assignor.)

Owens, Robert S., Brooklyn, N. Y. Individual-flower holder. No. 50,112; Dec. 26; Gaz. vol. 233; p. 1379.

Pegel, Julius G., Brooklyn, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. No. 50,028; Dec. 12; Gaz. vol. 233; p. 728.

Pepperday, Thomas M., New York, N. Y. Radiator-casing for automobiles. No. 50,007; Dec. 5; Gaz. vol. 233; p. 327.

Pfannstiehl, Fred O., Leonia, N. J., assignor to Kohler & Campbell, Inc., New York, N. Y. Piano-case. No. 50,075; Dec. 19; Gaz. vol. 233; p. 1087.

Porter, Henry K., Brookline, Mass. Cutting-tool. No. 50,029; Dec. 12; Gaz. vol. 233; p. 729.

Ressler, Emery G., Stevens Point, Wis. Violin-bridge. No. 50,113; Dec. 26; Gaz. vol. 233; p. 1379.

Rhodes, Bert H., Seattle, Wash. Transparent sign. No. 50,030; Dec. 12; Gaz. vol. 233; p. 729.

Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. Nos. 50,031–7; Dec. 12; Gaz. vol. 233; pp. 729–30.

Riess, Paul, New Orleans, La. Baking-pan. No. 50,076; Dec. 19; Gaz. vol. 233; p. 1087.

Romm, Emil, Hilltop, W. Va. Display-rack or Christmas tree. No. 50,077; Dec. 19; Gaz. vol. 233; p. 1087.

Rostand Manufacturing Company, The. (See Landline, Peter N., assignor.)

Royal Comb Company. (See McLaughlin, Charles, assignor.)

Schindler, Francis, Scarsdale, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. No. 50,038; Dec. 12; Gaz. vol. 233; p. 731.

Schmitt, Frederick J., Petoskey, Mich. Scraper. No. 50,078; Dec. 19; Gaz. vol. 233; p. 1088.

Schwarber, Henry, Weehawken, assignor to Inflexible Co., West New York, N. J. Embroidered lace. Nos. 50,079–82; Dec. 19; Gaz. vol. 233; p. 1088.

Schwarber, Henry, Weehawken, assignor to Inflexible Co., West New York, N. J. Embroidered lace. No. 50,114; Dec. 26; Gaz. vol. 233; p. 1379.

Sherer, William G., Chicago, Ill. Drawer-pull. No. 50,040; Dec. 12; Gaz. vol. 233; p. 731.

Signal Motor Truck Company. (See Squires, John, assignor.)

Simms, Charles F., assignor to The Watson Company, Attleboro, Mass. Spoon, fork, or similar article. Nos. 50,041–2; Dec. 12; Gaz. vol. 233; p. 731.

Slater, Mabel H., Webster, Mass. Tape-measure holder and pincushion. No. 50,083; Dec. 19; Gaz. vol. 233; p. 1088.

Smith, Paul R., assignor to Toy Manufacturing Association of the U. S. A., New York, N. Y. Emblem or similar article. No. 50,084; Dec. 19; Gaz. vol. 233; p. 1089.

Spring, William A., Brooklyn, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. Nos. 50,043–4; Dec. 12; Gaz. vol. 233; p. 732.

Squires, John, assignor to Signal Motor Truck Company, Detroit, Mich. Truck-frame. No. 50,045; Dec. 12; Gaz. vol. 233; p. 732.

Stanley Rule & Level Company, The. (See Bodmer, Christian, assignor.)

Sternau & Co., S. (See Ball, Henry P., assignor.)

Strahan, George V. (See Barrows and Strahan.)

Tchelebian, Jacques, Chicago, Ill. Hearse-interior. No. 50,046; Dec. 12; Gaz. vol. 233; p. 732.

Tchelebian, Jacques, Chicago, Ill. Hearse. No. 50,047; Dec. 12; Gaz. vol. 233; p. 732.

Tonnele, Alfred, and W. J. Curtis, assignors to National Adjustable Bed and Spring Company, Wilmington, Del. Bedstead. No. 50,000; Dec. 5; Gaz. vol. 233; p. 325.

Toy Manufacturing Association of the U. S. A. (See Smith, Paul R., assignor.)

Trattler, Morris, assignor to G. H. & E. Freydberg, New York, N. Y. Display-stand. No. 50,085; Dec. 19; Gaz. vol. 233; p. 1089.

Ulmer, Harry, assignor to Hardwick & Magee Co., Philadelphia, Pa. Rug. No. 50,086; Dec. 19; Gaz. vol. 233; p. 1089.

Van Gofre, Emma, Kansas City, Mo. Shoe-fastener. No. 50,006; Dec. 5; Gaz. vol. 233; p. 327.

Warren Automobile Club, The. (See Bentley, Frank F., assignor.)

Watson Company, The. (See Simms, Charles F., assignor.)

Weelman, Lester R., assignor to Friedley-Voshardt Co., Chicago, Ill. Bracket-back for lighting-fixtures. Nos. 50,001–2; Dec. 5; Gaz. vol. 233; p. 325.

Williams, Frank E., Los Angeles, Cal. Set of playing-cards. No. 50,003; Dec. 5; Gaz. vol. 233; p. 325.

Wilson, Charles C., Salem, W. Va. Book-cover. No. 50,087; Dec. 19; Gaz. vol. 233; p. 1089.

Woelz, Frank R., New Brunswick, N. J. Cutter. No. 50,005; Dec. 5; Gaz. vol. 233; p. 326.

Wojidkow, Louis, assignor to New York Stamping Company, Brooklyn, N. Y. Metal tray. No. 50,004; Dec. 5; Gaz. vol. 233; p. 326.

Wright, John L., Chicago, Ill. Game-playing piece. No. 50,116; Dec. 26; Gaz. vol. 233; p. 1380.

Yeakey, Robert L., Cave in Rock, Ill. Violin. No. 50,048; Dec. 12; Gaz. vol. 233; p. 732.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Goodman & Sons, Inc., New York, N. Y. Certain named foods. No. 114,162; Dec. 5; Gaz. vol. 233; p. 346.

A. Wilhelm Company, The, Reading, Pa. Certain named construction materials. Nos. 114,604–5; Dec. 19; Gaz. vol. 233; p. 1105.

Abbott Laboratories, The, Chicago, Ill. Antiseptic medicaments. No. 114,403; Dec. 19; Gaz. vol. 233; p. 1099.

Abenheimer, Louis H., New York, N. Y. Pianos, autopianos, and player-pianos. No. 114,205; Dec. 5; Gaz. vol. 233; p. 347.

Abrams Sisters, Richmond, Va. Cakes. No. 114,314; Dec. 12; Gaz. vol. 233; p. 751.

Adler, Oscar, Chicago, Ill. Stomachic and laxative. No. 114,315; Dec. 12; Gaz. vol. 233; p. 751.

Agasote Millboard Co., The, Trenton, N. J., and New York, N. Y. Homogeneous waterproof and fire-resisting wood substitutes made from pulp. No. 114,316; Dec. 12; Gaz. vol. 233; p. 751.

Alaska Fish Salting & By-Products Co., Portland, Oreg. Preserved herring. No. 114,128; Dec. 5; Gaz. vol. 233; p. 345.

Alden, Frank W., Pasadena, Cal. Salve. No. 114,404; Dec. 19; Gaz. vol. 233; p. 1099.

Alexander Drug Co., Oklahoma, Okla. Certain named chemicals, medicines, and pharmaceutical preparations. No. 114,129; Dec. 5; Gaz. vol. 233; p. 345.

Alexander Drug Co., Oklahoma, Okla. Flavoring extracts, spices, cocoa, bird-seed. No. 114,206; Dec. 5; Gaz. vol. 233; p. 347.

American Alfalfa Products Company, The, Denver, Colo. Candy, tea, wafers, and crackers. No. 114,317; Dec. 12; Gaz. vol. 233; p. 751.

American Ball Company, Minneapolis, Minn. Steel shot. No. 114,207; Dec. 5; Gaz. vol. 233; p. 347.

American Can Co., New York, N. Y. Shipping-cans. No. 114,405; Dec. 19; Gaz. vol. 233; p. 1099.

American Cotton Oil Company, The, Guttenberg, N. J. Cotton-seed oil for use in the manufacture of varnishes, paints, and painters' materials. No. 114,318; Dec. 12; Gaz. vol. 233; p. 751.

American Cotton Oil Company, The, Guttenberg, N. J., and New York, N. Y. Cotton-seed oil for ore flotation and for use in the manufacture of certain named goods. No. 114,613; Dec. 26; Gaz. vol. 233; p. 1399.

American Exchange Cigar Company, New York, N. Y. Cigars. No. 114,208; Dec. 5; Gaz. vol. 233; p. 347.

American Motors, Incorporated, New York, N. Y. Automobiles. No. 114,406; Dec. 19; Gaz. vol. 233; p. 1099.

American Rubber Company, Boston, Mass. Carriage-cloth. No. 114,407; Dec. 19; Gaz. vol. 233; p. 1099.

American Sugar Company, Ltd., Honolulu and Maui county, Hawaii. Honey. No. 114,130; Dec. 5; Gaz. vol. 233; p. 345.

American Wringer Company, The, New York, N. Y. Clothes-wringers and parts thereof. No. 114,209; Dec. 5; Gaz. vol. 233; p. 347.

Ames Shovel & Tool Company, Jersey City, N. J., and Boston, Mass. Shovels, spades, and scoops. No. 114,210; Dec. 5; Gaz. vol. 233; p. 347.

Amsterdamsche Likeurstokerij "'T. Lootsje" der Erven Lucas Bols, Amsterdam, Netherlands. Kümmel liqueur. No. 114,319; Dec. 12; Gaz. vol. 233; p. 751.

Anderson, Edward J., Chicago, Ill. Hog-fattening preparation. No. 114,409; Dec. 19; Gaz. vol. 233; p. 1099.

Armour Grain Company, Jersey City, N. J., and Chicago, Ill. Clipped white oats. No. 114,131; Dec. 5; Gaz. vol. 233; p. 345.

Armour Grain Company, Jersey City, N. J., and Chicago, Ill. Clipped white oats. Nos. 114,410–11; Dec. 19; Gaz. vol. 233; p. 1099.

Aromint Company, The, Cincinnati, Ohio. Candy. No. 114,321; Dec. 12; Gaz. vol. 233; p. 751.

Artophone Company, The, St. Louis, Mo. Phonographs. No. 114,323; Dec. 12; Gaz. vol. 233; p. 751.

Asano Cement Joint Stock Company, Tokyo, Japan. Portland cement. No. 114,324; Dec. 12; Gaz. vol. 233; p. 751.

Asia Company, The, Los Angeles, Cal. Rice. No. 114,325; Dec. 12; Gaz. vol. 233; p. 751.

Associated Pharmacists, San Francisco, Cal. Certain named medicines and pharmaceutical preparations. No. 114,412; Dec. 19; Gaz. vol. 233; p. 1099.

Atlantic Sales Corporation, Boston, Mass. Metal hot-water bottles and syringes. No. 114,212; Dec. 5; Gaz. vol. 233; p. 347.

Automobile Sundries Company, New York, N. Y. Rubber tires and tubes for automobiles, aeroplanes, trucks, &c. No. 114,132; Dec. 5; Gaz. vol. 233; p. 345.

B. F. Goodrich Company, The, New York, N. Y. Soles partly of rubber for boots and shoes. Nos. 114,458–9; Dec. 19; Gaz. vol. 233; p. 1100.

Bain Peanut Co., Inc., The, Wakefield, Va. Peanuts. No. 114,326; Dec. 12; Gaz. vol. 233; p. 751.

Baker, John, Jr., New York, N. Y., and Chicago, Ill. Brick. No. 114,418; Dec. 19; Gaz. vol. 233; p. 1099.

Baker, Le Grande H., New Haven, Conn. Preparation for whipped cream and eggs. No. 114,133; Dec. 5; Gaz. vol. 233; p. 345.

Ballard & Ballard Co., Louisville, Ky. Prepared cereal food. No. 114,414; Dec. 19; Gaz. vol. 233; p. 1099.

Banning, Sarah J., Robertsdale, Ala. Nuts, particularly cultivated pecans. No. 114,415; Dec. 19; Gaz. vol. 233; p. 1099.

Baratta, Assunta, New York, N. Y. Candles used for lighting purposes or for a night-light. No. 114,213; Dec. 5; Gaz. vol. 233; p. 347.

Barewald, Charles L., Davenport, Iowa. Sharpening and abrasive preparation for metal edge-tools. No. 114,214; Dec. 5; Gaz. vol. 233; p. 347.

Baringer, Milton F., Philadelphia, Pa. Certain named foods. No. 114,134; Dec. 5; Gaz. vol. 233; p. 345.

Baum, Edward, Philadelphia, Pa. Ear-phones. No. 114,327; Dec. 12; Gaz. vol. 233; p. 751.

Baum, William A., New York, N. Y. Sphygmomanometers. No. 114,215; Dec. 5; Gaz. vol. 233; p. 347.

Bayer Company, Inc., The, New York, N. Y. Base for ointments. No. 114,416; Dec. 19; Gaz. vol. 233; p. 1099.

Bayer Company, Inc., The, New York, N. Y. Disinfectant and antiseptic. No. 114,417; Dec. 19; Gaz. vol. 233; p. 1099.

Bayer Company, Inc., The, New York, N. Y. Substance for exterminating rats and mice. No. 114,614; Dec. 26; Gaz. vol. 233; p. 1399.

Beacon Tire Company, Inc., Beacon, N. Y. Pneumatic rubber automobile-tires. No. 114,612; Dec. 19; Gaz. vol. 233; p. 1105.

Beckmann, August F., New York, N. Y. Certain named foods. No. 114,418; Dec. 19; Gaz. vol. 233; p. 1099.

Belding Bros. & Co., Rockville, Conn., and New York, N. Y. Textile threads. No. 114,216; Dec. 5; Gaz. vol. 233; p. 347.

Bennett, William R., Elmwood, Conn. Preparation for hardening high-speed steel. No. 114,615; Dec. 26; Gaz. vol. 233; p. 1399.

Bentley & Twohey Silk Co., New York, N. Y. Silk and satin goods in the piece. No. 114,419; Dec. 19; Gaz. vol. 233; p. 1099.

Berg, Bernard, Denver, Colo. Syrups for food-flavoring purposes. No. 114,328; Dec. 12; Gaz. vol. 233; p. 751.

Berg & Beard Manufacturing Co., The, Brooklyn, N. Y. Combustion-increasing and carbon-eliminating chemicals for hydrocarbon-motors. No. 114,616; Dec. 26; Gaz. vol. 233; p. 1399.

Berger Bros., Schuylkill Haven, Pa. Knitted vests, union-suits, and pants. No. 114,617; Dec. 26; Gaz. vol. 233; p. 1399.

Berger Brothers Co., The, New Haven, Conn. Corsets. No. 114,618; Dec. 26; Gaz. vol. 233; p. 1399.

Berrodin Rubber Company, Philadelphia, Pa. Tire-tape, rubber and adhesive patches. No. 114,217; Dec. 5; Gaz. vol. 233; p. 347.

Berthe May, Inc., New York, N. Y. Maternity-corsets. No. 114,515; Dec. 19; Gaz. vol. 233; p. 1102.

Bishop-Babcock-Becker Co., The, Cleveland, Ohio. Metallic valves. No. 114,218; Dec. 5; Gaz. vol. 233; p. 347.

Bishop & Company, Los Angeles, Cal. Candy. No. 114,332; Dec. 12; Gaz. vol. 233; p. 751.

Blanke-Wenneker Candy Company, St. Louis, Mo. Candy. No. 114,420; Dec. 19; Gaz. vol. 233; p. 1099.

Bleau, Napoleon, Somerset, Mass. Hair-restorer. No. 114,421; Dec. 19; Gaz. vol. 233; p. 1099.

Bloomington Wholesale Grocery Co., Bloomington, Ind. Canned vegetables and rolled oats. No. 114,135; Dec. 5; Gaz. vol. 233; p. 345.

Bloomington Wholesale Grocery Co., Bloomington, Ind. Canned vegetables. No. 114,136; Dec. 5; Gaz. vol. 233; p. 345.

Borland, William E., Yonkers, N. Y. Salve for the relief of piles and sores of various kinds. No. 114,329; Dec. 12; Gaz. vol. 233; p. 751.

Boss Manufacturing Company, The, Kewanee, Ill. Gloves and mittens. No. 114,219; Dec. 5; Gaz. vol. 233; p. 347.

Boss Manufacturing Company, The, Kewanee, Ill. Gloves and mittens. No. 114,330; Dec. 12; Gaz. vol. 233; p. 751.

Boss Manufacturing Company, The, Kewanee, Ill. Gloves of canvas or cotton. No. 114,619; Dec. 26; Gaz. vol. 233; p. 1399.

Boston Belting Company, Boston, Mass. Leather substitutes. No. 114,426; Dec. 19; Gaz. vol. 233; p. 1099.

Boston Index Card Company, Boston, Mass. Onion-skin paper. No. 114,427; Dec. 19; Gaz. vol. 233; p. 1099.

Boston Novelty Co., Boston, Mass. Wood construction toy. No. 114,137; Dec. 5; Gaz. vol. 233; p. 345.

Boston-Okanogan Apple Co., Okanogan, Wash. Fresh apples. No. 114,331; Dec. 12; Gaz. vol. 233; p. 751.

Braden Manufacturing Company, Terre Haute, Ind. Certain named construction materials. No. 114,138; Dec. 5; Gaz. vol. 233; p. 345.

Brainerd and Armstrong Co., The, New London, Conn. Silk fabrics in the piece. No. 114,620; Dec. 26; Gaz. vol. 233; p. 1399.

Briars, Rene, Jamaica, N. Y. Violin-mute. No. 114,428; Dec. 19; Gaz. vol. 233; p. 1099.

Briggs, Frederick, Washington, D. C. Certain named foods. No. 114,221; Dec. 5; Gaz. vol. 233; p. 347.

Brodsky Palman Gelber Co., Chicago, Ill. Canned foods. No. 114,333; Dec. 12; Gaz. vol. 233; p. 751.

Brodsky Palman Gelber Co., Chicago, Ill. Canned salmon. No. 114,334; Dec. 12; Gaz. vol. 233; p. 751.

Brunswick-Balke-Collender Co., The, Chicago, Ill. Billiard-cloth. Nos. 114,222–3; Dec. 5; Gaz. vol. 233; p. 347.

Bryant Electric Company, The, Bridgeport, Conn. Electrical attachment plugs and receptacles. No. 114,429; Dec. 19; Gaz. vol. 233; p. 1099.

Buckeye Cotton Oil Company, The, Cincinnati, Ohio. Cotton-seed feed. No. 114,139; Dec. 5; Gaz. vol. 233; p. 345.

Buckley-Newhall Company, The, New York, N. Y. Linoleums and oil-cloths. Nos. 114,621–2; Dec. 26; Gaz. vol. 233; p. 1399.

Buckley-Newhall Company, The, New York, N. Y. Certain named knitted, netted, and textile goods. Nos. 114,623–4; Dec. 26; Gaz. vol. 233; p. 1399.

Buell, Lottie M., Sacramento, Cal. Skin preparation. No. 114,625; Dec. 26; Gaz. vol. 233; p. 1399.

Burd Knitting Mills Co., Philadelphia, Pa. Hosiery. No. 114,224; Dec. 5; Gaz. vol. 233; p. 347.

Byron Weston Co., Dalton, Mass. Writing-paper. No. 114,308; Dec. 5; Gaz. vol. 233; p. 350.

Byron Weston Co., Dalton, Mass. Writing-paper. No. 114,310; Dec. 5; Gaz. vol. 233; p. 350.

Canada Cycle & Motor Co., Ltd., Toronto, Ontario, Canada. Ice-skates and parts and accessories thereof. No. 114,141; Dec. 5; Gaz. vol. 233; p. 345.

Canadian-American Cereal Products Co., The, New York, N. Y. Wheat-flour. No. 114,142; Dec. 5; Gaz. vol. 233; p. 345.

Canadian Mill & Elevator Co., El Reno, Okla. Wheat-flour. No. 114,143; Dec. 5; Gaz. vol. 233; p. 345.

Carola Company, The, Cleveland, Ohio. Phonographs. No. 114,431; Dec. 19; Gaz. vol. 233; p. 1099.

Cawthra, Thomas A., New York, N. Y. Magazine-section issued monthly. No. 114,225; Dec. 5; Gaz. vol. 233; p. 347.

Cham-Pay Products Company, Wilmington, Del., and Evansville, Ind. Non-alcoholic beverage sold as a soft drink. No. 114,335; Dec. 12; Gaz. vol. 233; p. 751.

Champion Blower & Forge Co., The, Lancaster, Pa. Cream-separators and parts thereof. No. 114,432; Dec. 19; Gaz. vol. 233; p. 1099.

Chapman, Frank, Providence, R. I. Rubber gloves. No. 114,627; Dec. 26; Gaz. vol. 233; p. 1399

Charles H. Hess Company, The, Cincinnati, Ohio. Butter. No. 114,352; Dec. 12; Gaz. vol. 233; p. 752.

Charles L. Poor Co., New York, N. Y. Cotton piece goods. No. 114,379; Dec. 12; Gaz. vol. 233; p. 753.

Chase & Company, Jacksonville, Fla. Fresh fruits and vegetables. No. 114,433; Dec. 19; Gaz. vol. 233; p. 1100.

Chinook Packing Company, Chinook, Wash. Canned salmon. Nos. 114,144–5; Dec. 5; Gaz. vol. 233; p. 345.

Christoe Chemical Company, Alton, Ill. Medicine for certain named diseases. No. 114,628; Dec. 26; Gaz. vol. 233; p. 1399.

Citizens' Wholesale Supply Company, The, Columbus, Ohio. Certain named foods. No. 114,336; Dec. 12; Gaz. vol. 233; p. 751.

Clark, James, Providence, R. I. Medicine for rheumatism. No. 114,434; Dec. 19; Gaz. vol. 233; p. 1100.

Cluett, Peabody & Co. Inc., Troy, N. Y. Night-shirts, pajamas, under shirts and drawers, union-suits. No. 114,337; Dec. 12; Gaz. vol. 233; p. 751.

Coen, Pearl A., Columbus, Ohio. Coal. Nos. 114,146–7; Dec. 5; Gaz. vol. 233; p. 345.

Cohn & Bro., Jos., New York, N. Y. Solid-gold chains and bracelets. No. 114,435; Dec. 19; Gaz. vol. 233; p. 1100.

Collis, Henry J., Taunton, Mass. Athletic ankle-supports. No. 114,226; Dec. 5; Gaz. vol. 233; p. 348.

Columbia River Packers Association, Astoria, Oreg. Canned salmon. No. 114,436; Dec. 19; Gaz. vol. 233; p. 1100.

Conklin, Warren, Toms River, N. J. Prepared tea-tonic plants and leaves for bladder, kidney, and intestinal affections. No. 114,437; Dec. 19; Gaz. vol. 233; p. 1100.

Conover, Serenus A., Philadelphia, Pa. Amalgamating preparation of rubber. No. 114,148; Dec. 5; Gaz. vol. 233; p. 345.

Conrey-Davis Mfg. Co., Shelbyville, Ind. Extension-tables. No. 114,227; Dec. 5; Gaz. vol. 233; p. 348.

Coppus Engineering and Equipment Company, Worcester, Mass. Blowers, turbo and grate blowers, and turbines for turbo-blowers. No. 114,438; Dec. 19; Gaz. vol. 233; p. 1100.

Crane Company, Chicago, Ill. Sheet-asbestos packing. No. 114,228; Dec. 5; Gaz. vol. 233; p. 348.

Crown Willamette Paper Co., San Francisco, Cal. Paper bags. No. 114,439; Dec. 19; Gaz. vol. 233; p. 1100.

Cusanelli, Paulo, St. Louis, Mo. Treatment for skin diseases. No. 114,629; Dec. 26; Gaz. vol. 233; p. 1399.

D. Ghirardelli Co., San Francisco, Cal. Chocolate, candy, cocoa, and mustard. No. 114,160; Dec. 5; Gaz. vol. 233; p. 346.

David E. Kennedy, Inc., New York, N. Y. Nailing-base for floor and roof construction. No. 114,492; Dec. 19; Gaz. vol. 233; p. 1101.

De Graaw, Aymar & Company, New York, N. Y. Cotton-waste. No. 114,440; Dec. 19; Gaz. vol. 233; p. 1100.

Del Castillo & Company, Rafael, New York, N. Y. Cotton piece goods. No. 114,278; Dec. 5; Gaz. vol. 233; p. 349.

Detroit Engineering Products Company, The, Detroit, Mich. Snubbers or shock-absorbers. No. 114,441; Dec. 19; Gaz. vol 233; p. 1100.

Detroit Oak Belting Co., Detroit, Mich. Leather belting. No. 114,229; Dec. 5; Gaz. vol. 233; p. 348.

Dixie Manufacturing Co., Birmingham, Ala. Ointment for straightening kinky hair. No. 114,442; Dec. 19; Gaz. vol. 233; p. 1100.

Dixie Refining Co., The, Memphis, Tenn. Shortening composed of cotton-seed oil and cotton-seed-oil stearin. No. 114,149; Dec. 5; Gaz. vol. 233; p. 345.

Domestic Laundry Equipment Corporation, New York, N. Y. Clothes-driers. Nos. 114,150–1; Dec. 5; Gaz. vol. 233; p. 345.

Douglas Tailoring Company, The, Akron, Ohio. Suits, coats, vests, trousers, and overcoats. No. 114,443; Dec. 19; Gaz. vol. 233; p. 1100.

Drake & Company, Easton, Pa. Certain named foods. No. 114,338; Dec. 12; Gaz. vol. 233; p. 751.

Dreifus, Tichner & Eckstein, New York, N. Y. Hosiery. No. 114,630; Dec. 26; Gaz. vol. 233; p. 1399.

Drug Products Co. (See Kuhn, Harry F., assignor.)

Duboc Paper Co., Chicago, Ill. Enameled book-paper. No. 114,445; Dec. 19; Gaz. vol. 233; p. 1100.

Dufur Orchard Co-owners Co., The Dalles, Oreg. Fresh apples. No. 114,339; Dec. 12; Gaz. vol. 233; p. 751.

Dunham Mills Inc., The, Hartford, Conn. Certain named clothing. No. 114,446; Dec. 19; Gaz. vol. 233; p. 1100.

Dworkin, Samuel S., New York, N. Y. Certain named medicines and pharmaceutical preparations. No. 114,152; Dec. 5; Gaz. vol. 233; p. 345.

E. A. Mallory and Sons, Incorporated, Danbury, Conn., and New York, N. Y. Soft hats. No. 114,646; Dec. 26; Gaz. vol. 233; p. 1400.

E. M. Schwarz & Co., New York, N. Y. Cigars, cheroots, and little cigars. Nos. 114,286–9; Dec. 5; Gaz. vol. 233; p. 349.

E. M. Schwarz & Co., New York, N. Y. Cigars, cheroots, and little cigars. Nos. 114,555–7; Dec. 19; Gaz. vol. 233; p. 1103.

Eberle & Cie., Dr. G., Stuttgart, Germany. Tanning substances. No. 114,340; Dec. 12; Gaz. vol. 233; p. 751.

Efficiency Oil Corporation. (See Gas Engine Efficiency Company, assignor.)

Eisenstadt Manufacturing Company, St. Louis, Mo. Charms, pendants, brooch-pins, finger-rings. No. 114,153; Dec. 5; Gaz. vol. 233; p. 345.

Elektrizitatswerk Lonza, Gampel, Switzerland. Artificial emery. No. 114,255; Dec. 5; Gaz. vol. 233; p. 348.

Elmira Cotton Mills Co., Burlington, N. C. Cotton piece goods and ginghams. No. 114,447; Dec. 19; Gaz. vol. 233; p. 1100.

Employer Publishing Company, Oklahoma, Okla. Monthly magazine or journal. No. 114,448; Dec. 19; Gaz. vol. 233; p. 1100.

Engelke & Feiner Mfg. Co., St. Louis, Mo. Cornmeal, cream and yellow meals, cracked corn, and hominy feed. No. 114,230; Dec. 5; Gaz. vol. 233; p. 348.

Enterprise Manufacturing Company, The, Akron, Ohio. Certain named ornaments used in connection with baggage, horse equipments, &c. No. 114,449; Dec. 19; Gaz. vol. 233; p. 1100.

Eradico Company. (See Hilliman, Sarah L., assignor.)

Esterbrook Steel Pen Mfg. Co., The, Camden, N. J. Writing-pens of all kinds. No. 114,154; Dec. 5; Gaz. vol. 233; p. 345.

Everett Packing Co., Everett, Wash. Canned salmon. Nos. 114,341–3; Dec. 12; Gaz. vol. 233; pp. 751–2.

F. Romeo & Co., Inc., New York, N. Y. Macaroni. No. 114,385; Dec. 12; Gaz. vol. 233; p. 753.

F. A. Patrick & Co., Duluth, Minn. Certain named clothing. No. 114,541; Dec. 19; Gaz. vol. 233; p. 1103.

Fairchild Bros. & Foster, New York, N. Y. Certain named foods. No. 114,344; Dec. 12; Gaz. vol. 233; p. 752.

Farmington Shoe Mfg. Co., Dover, N. H. Men's and boys' leather boots and shoes. No. 114,231; Dec. 5; Gaz. vol. 233; p. 348.

Fidelity Cotton Oil Company, Houston, Tex. Peanut-oil. No. 114,155; Dec. 5; Gaz. vol. 233; p. 345.

Fifield & Stevenson, Chicago, Ill. Shirts, hosiery, underwear, clothing, and hats. No. 114,232; Dec. 5; Gaz. vol. 233; p. 348.

Fischel Paper Co., Inc., Albany, N. Y. Bond, ledger, book, cover, and writing paper. No. 114,450; Dec. 19; Gaz. vol. 233; p. 1100.

Fitzpatrick Bros., Chicago, Ill. Cleaning preparation in finely-divided form for household use. No. 114,233; Dec. 5; Gaz. vol. 233; p. 348.

Fix, Max, New York, N. Y. Cotton and linen handkerchiefs, pillow-cases, and white piece goods. No. 114,632; Dec. 26; Gaz. vol. 233; p. 1399.

Flanagan, Mary A., Columbia, Pa. Non-alcoholic carbonated tonic beverages sold as soft drinks. No. 114,346; Dec. 12; Gaz. vol. 233; p. 752.

Floor-Shine Manufacturing Company, St. Louis, Mo. Varnish. No. 114,451; Dec. 19; Gaz. vol. 233; p. 1100.

Forbes & Wallace, Springfield, Mass. Dress-shields. No. 114,452; Dec. 19; Gaz. vol. 233; p. 1100.

Foster, S. A. and Fred, Rochelle, Tex. Soapless liquid washing compound. No. 114,234; Dec. 5; Gaz. vol. 233; p. 348.

Frankenberg & Lempert Hat Company, The, Toledo, Ohio. Hats and caps. No. 114,235; Dec. 5; Gaz. vol. 233; p. 348.

Frederick Stearns & Co., Detroit, Mich. Remedy for constipation. No. 114,565; Dec. 19; Gaz. vol. 233; p. 1103.

Freedman, Casper & Co., Philadelphia, Pa. Men's outer shirts. No. 114,347; Dec. 12; Gaz. vol. 233; p. 752.

Freeman-Daughaday Co., Chartley, Mass. Cuff-buttons. No. 114,453; Dec. 19; Gaz. vol. 233; p. 1100.

Freidenrich-Van Cott, Inc., New York, N. Y. Certain named athletic goods. No. 114,348; Dec. 12; Gaz. vol. 233; p. 752.

Friedman & Co., Sol, New York, N. Y. Cotton piece goods. No. 114,454; Dec. 19; Gaz. vol. 233; p. 1100.

Fries & Fries, Cincinnati, Ohio. Synthetic perfume-oils and concentrated flavors for manufacturing purposes. No. 114,633; Dec. 26; Gaz. vol. 233; p. 1399.

Fulton, Valentine L., Hot Springs, Ark. Finger-rings. No. 114,455; Dec. 19; Gaz. vol. 233; p. 1100.

Garrett & Company, Norfolk, Va. Syrup for lemonade, limeade, and phosphate drinks. No. 114,157; Dec. 5; Gaz. vol. 233; p. 345.

Gas Engine Efficiency Company, assignor to Efficiency Oil Corporation, St. Louis, Mo. Preparations for treating hydrocarbon fuels for internal-combustion engines. No. 114,158; Dec. 5; Gaz. vol. 233; p. 346.

Geiger, Florence A., Tampa, Fla. Preparation for treatment of rheumatism. No. 114,634; Dec. 26; Gaz. vol. 233; p. 1399.

Geo. Borgfeldt & Co., New York, N. Y. Certain named jewelry and precious-metal ware. No. 114,422; Dec. 19; Gaz. vol. 233; p. 1099.

Geo. Borgfeldt & Co., New York, N. Y. Certain named baggage, portfolios, and pocket-books. No. 114,423; Dec. 19; Gaz. vol. 233; p. 1099.

George Borgfeldt & Co., New York, N. Y. Certain named toys and sporting goods. No. 114,424; Dec. 19; Gaz. vol. 233; p. 1099.

George Borgfeldt & Co., New York, N. Y. Certain named pharmaceutical preparations for toilet purposes. No. 114,425; Dec. 19; Gaz. vol. 233; p. 1099.

Geo. E. Keith Company, Brockton, Mass. Boots and shoes of leather, rubber, felt, or other fabric construction. Nos. 114,639–40; Dec. 26; Gaz. vol. 233; p. 1399.

Gem Coal Co., The, Nelsonville, Ohio. Coal. No. 114,159; Dec. 5; Gaz. vol. 233; p. 346.

Glynn Canning Company, Brunswick, Ga. Canned shrimp and oysters. No. 114,161; Dec. 5; Gaz. vol. 233; p. 346.

Goewey, Charles T., South Bend, Ind. Parcel-post case. No. 114,456; Dec. 19; Gaz. vol. 233; p. 1100.

Goldenberg's, Washington, D. C. Certain named clothing. No. 114,457; Dec. 19; Gaz. vol. 233; p. 1100.

Goodale, Frank C., Lowell, Mass. Soft drinks or beverages containing extracts of roots and syrups therefor. No. 114,236; Dec. 5; Gaz. vol. 233; p. 348.

Goodman, Henry, Baltimore, Md. Hats. No. 114,635; Dec. 26; Gaz. vol. 233; p. 1399.

Goodyear Tire & Rubber Company, The, Akron, Ohio. Letters, leaflets, pamphlets, bulletins, and books. No. 114,237; Dec. 5; Gaz. vol. 233; p. 348.

Gottfrid, Dale M., Falls City, Oreg. Playing-cards. No. 114,238; Dec. 5; Gaz. vol. 233; p. 348.

Grant, William M., Holly, Colo. Game apparatus. No. 114,460; Dec. 19; Gaz. vol. 233; p. 1100.

Graves, Adelia D., St. Louis, Mo Preparation to be used in dressing the hair and promoting its growth. No. 114,461; Dec. 19; Gaz. vol. 233; p. 1100.

Grawins, Wm. F., Richmond, Va. Fresh-killed, frozen, and dressed poultry, fresh and storage eggs. No. 114,462; Dec. 19; Gaz. vol. 233; p. 1100.

Grossman's Sons, J., New Orleans, La. Grape beverage. No. 114,464; Dec. 19; Gaz. vol. 233; p. 1100.

Gruner, Henri, Paris, France. Dentifrices and mouth-washes. Nos. 114,465–7; Dec. 19; Gaz. vol. 233; p. 1101.

H. H. Hopkins Company, Chicago, Ill. Roofing material in the form of waterproofed sheets. No. 114,478; Dec. 19; Gaz. vol. 233; p. 1101

H. J. Keith Company, Boston, Mass. Frozen egg. No. 114,486; Dec. 19; Gaz. vol. 233; p. 1101.

Haber, Annie F., New York, N. Y. Coloring-matter for the hair. No. 114,636; Dec. 26; Gaz. vol. 233; p. 1399.

Haidei, Wasyl, Hannastown, Pa. Medicine in the form of an eye-lotion. No. 114,351; Dec. 12; Gaz. vol. 233; p. 752.

Hall, John M., Toronto, Ontario, Canada. Hair-tonics. No. 114,468; Dec. 19; Gaz. vol. 233; p. 1101.

Happy Farmer Tractor Co., The, Minneapolis, Minn. Plows. No. 114,469; Dec. 19; Gaz. vol. 233; p. 1101.

Haughton, Richard, Paoli, Pa. Certain foods for infants. No. 114,470; Dec. 19; Gaz. vol. 233; p. 1101.

Haynes Stellite Co., The, Kokomo, Ind. Metal alloys. No. 114,239; Dec. 5; Gaz. vol. 233; p. 348.

Heckinger & Company, H. E., Cincinnati, Ohio. Soap. No. 114,240; Dec. 5; Gaz. vol. 233; p. 348.

Hero Snap Fastener Company, New York, N. Y. Metal snap-fastening buttons or clasps. No. 114,163; Dec. 5; Gaz. vol. 233; p. 346.

Hill-Smith Metal Goods Company, The, Boston, Mass. Repair parts for automobiles. No. 114,637; Dec. 26; Gaz. vol. 233; p. 1399.

Hilliman, Sarah L., Atlantic City, N. J., assignor to Eradico Company. Cleaning fluid. No. 114,241; Dec. 5; Gaz. vol. 233; p. 348.

Hobbs Manufacturing Company, Worcester, Mass. Flush-meters. No. 114,353; Dec. 12; Gaz. vol. 233; p. 752.

Hocken, James E., San Francisco, Cal. Metallic check-valves. No. 114,473; Dec. 19; Gaz. vol. 233; p. 1101.

Hoffmann & Bro., Oscar A., Cincinnati, Ohio. Photographic prints. No. 114,474; Dec. 19; Gaz. vol. 233; p. 1101.

Holden Patent Book Cover Co., The, Springfield, Mass. Book-covers. No. 114,475; Dec. 19; Gaz. vol. 233; p. 1101.

Holland Shoe Co., Holland, Mich. Leather boots and shoes and boot and shoe soles of leather. No. 114,354; Dec. 12; Gaz. vol. 233; p. 752.

Hood Rubber Company, Watertown, Mass. Rubber boots and shoes, rubber overshoes, and rubber-sole canvas shoes. No. 114,638; Dec. 26; Gaz. vol. 233; p. 1399.

Hoover, Harry J., Cincinnati, Ohio. Gas-ranges. No. 114,164; Dec. 5; Gaz. vol. 233; p. 346.

Hopfinger & Roth, St. Louis, Mo. Face-powder. No. 114,477; Dec. 19; Gaz. vol. 233; p. 1101.

Howarth, Dennis, Los Angeles, Cal. Toilet-flush composition and pipe-cleaner compositions of strongly-caustive properties. No. 114,479; Dec. 19; Gaz. vol. 233; p. 1101.

Hoyt, Frank M., Amesbury, Mass. Salted nuts. No. 114,355; Dec. 12; Gaz. vol. 233; p. 752.

Hubbard, Kin, Chicago, Ill. Newspaper-sections published periodically. No. 114,243; Dec. 5; Gaz. vol. 233; p. 348.

Husqvarna Vapenfabriks Aktiebolag, Husqvarna, Sweden. Meat-choppers. No. 114,356; Dec. 12; Gaz. vol. 233; p. 752.

Index Visible, Incorporated, New Haven, Conn. Indexes, files, record-cards, &c. No. 114,480; Dec. 19; Gaz. vol. 233; p. 1101.

Ingersoll-Rand Company, Jersey City, N. J., and New York, N. Y. Air-feed hammer-drills. No. 114,244; Dec. 5; Gaz. vol. 233; p. 348.

International Photo-Engravers' Union of North America, Philadelphia, Pa. Photo-engravings, pamphlets, and periodicals published monthly. No. 114,481; Dec. 19; Gaz. vol. 233; p. 1101.

Isko, Incorporated, Detroit, Mich. Refrigerating units. Nos. 114,245–6; Dec. 5; Gaz. vol. 233; p. 348.

J. C. Kraus Cast Stone Works, Inc., New York, N. Y. Ornamental bowls and basins for use as bird-baths. No. 114,249; Dec. 5; Gaz. vol. 233; p. 348.

J. E. Tygert Company, The, Philadelphia, Pa. Fertilizers. No. 114,583; Dec. 19; Gaz. vol. 233; p. 1104.

J. K. Armsby Co., The, San Francisco, Cal. Canned tuna. No. 114,822; Dec. 12; Gaz. vol. 233; p. 751.

James Thompson & Bro., Louisville, Ky. Whisky. No. 114,576; Dec. 19; Gaz. vol. 233; p. 1104.

Jas. H. Forbes Tea & Coffee Co., St. Louis, Mo. Coffee. No. 114,156; Dec. 5; Gaz. vol. 233; p. 345.

Jennings, Robert G., Elmira Heights, N. Y. Underwear made of knitted material. No. 114,357; Dec. 12; Gaz. vol. 233; p. 752.

Jett & Wood, Wichita, Kans. Certain named foods. No. 114,483; Dec. 19; Gaz. vol. 233; p. 1101.

Jiffy Water Heater Company, St. Louis, Mo. Gas water-heater. No. 114,484; Dec. 19; Gaz. vol. 233; p. 1101.

John Boyle & Company, Incorporated, New York, N. Y. Certain named textiles of all kinds. No. 114,220; Dec. 5; Gaz. vol. 233; p. 347.

John Campbell & Co. Inc., New York, N. Y. Chemicals, dyestuffs, oils, and chemicals used in dyeing, &c. No. 114,430; Dec. 19; Gaz. vol. 233; p. 1099.

John S. Tilley Ladders Co., The, Watervliet, N. Y. Ladders and scaffolds. Nos. 114,578–9; Dec. 19; Gaz. vol. 233; p. 1104.
Johnson Educator Food Co., Boston, Mass. Crackers and biscuit. No. 114,165; Dec. 5; Gaz. vol. 233; p. 346.
Jose Lovera Company, New York, N. Y. Cigars, cheroots, and little cigars. No. 114,256; Dec. 5; Gaz. vol. 233; p. 348.
Judson Michigbean Company, Durand, Mich. Dried beans. No. 114,166; Dec. 5; Gaz. vol. 233; p. 346.
Juliette Milling Co., Macon, Ga. Cornmeal. No. 114,247; Dec. 5; Gaz. vol. 233; p. 348.
Kaufman, Samuel, Elizabeth, N. J. Certain named pharmaceutical preparations. No. 114,485; Dec. 19; Gaz. vol. 233; p. 1101.
Keith, George C., Chatfield, Minn. Medicinal oil compound for use in certain named diseases. No. 114,487; Dec. 19; Gaz. vol. 233; p. 1101.
Kellogg-Birge Co., Keokuk, Iowa. Chemical preparation used as an ingredient in making bread. No. 114,488; Dec. 19; Gaz. vol. 233; p. 1101.
Kellogg Toasted Corn Flake Co., Battle Creek, Mich. Beverages made partly or wholly of cereals. No. 114,248; Dec. 5; Gaz. vol. 233; p. 348.
Kelly Brass Works, Chicago, Ill. Air and return-line valves and repair parts for same for steam-heating systems. No. 114,489; Dec. 19; Gaz. vol. 233; p. 1101.
Kelly, Samuel J., Miami, Fla. Grape-fruit. Nos. 114,490–1; Dec. 19; Gaz. vol. 233; p. 1101.
Kirkland Distributing Co., The, Columbia, S. C. Self-rising wheat-flour. No. 114,359; Dec. 12; Gaz. vol. 233; p. 752.
Kirschner, J., Savannah, Ga. Overalls. No. 114,360; Dec. 12; Gaz. vol. 233; p. 752.
Klein, Rose, Seattle, Wash. Hair-tonic. No. 114,493; Dec. 19; Gaz. vol. 233; p. 1101.
Knickerbocker Watch Co., New York, N. Y. Watches. No. 114,494; Dec. 19; Gaz. vol. 233; p. 1101.
Ko-Pyne Manufacturing Company, Richmond, Va. Pile-ointment and healing-salve. No. 114,498; Dec. 19; Gaz. vol. 233; p. 1102.
Koehring Machine Co., Milwaukee, Wis. Concrete-mixers, concrete-distributing machines and chutes, &c. No. 114,495; Dec. 19; Gaz. vol. 233; p. 1101.
Kohnstamm & Co., H., New York, N. Y. Liquid preparation for neutralizing alkalinity, removing stains, and setting blue. No. 114,496; Dec. 19; Gaz. vol. 233; p. 1101.
Kops Bros., New York, N. Y. Apparel-corsets. No. 114,497; Dec. 19; Gaz. vol. 233; p. 1101.
Kronberger's Polyglot Pharmacy, San Francisco, Cal. Preparation for the treatment of constipation. No. 114,499; Dec. 19; Gaz. vol. 233; p. 1102.
Kuhn, Harry F., Closter, N. J., assignor to Drug Products Co., Inc., New York, N. Y. Protective surgical covering. No. 114,500; Dec. 19; Gaz. vol. 233; p. 1102.
Kuttner & Siegel, Inc., Pleasantville and New York, N. Y. Hosiery and knitted and flat underwear in one and two piece garments. No. 114,641; Dec. 26; Gaz. vol. 233; p. 1399.
La Crosse Clothing Company, La Crosse, Wis. One-piece protective garments for men, women, and children. No. 114,501; Dec. 19; Gaz. vol. 233; p. 1102.
Lalows Specialty Co., Philadelphia, Pa. Butter. No. 114,250; Dec. 5; Gaz. vol. 233; p. 348.
Lagigila, Anthony, Norfolk, Va. Boots and shoes made of leather. No. 114,361; Dec. 12; Gaz. vol. 233; p. 752.
Lake Keuka Fruit Sales Company, Inc., Penn Yan, N. Y. Fresh fruits. No. 114,167; Dec. 5; Gaz. vol. 233; p. 346.
Laxton, John W. R., Lynn, Mass. Medicines for certain named ailments. No. 114,362; Dec. 12; Gaz. vol. 233; p. 752.
Le Gris, Horace, New York, N. Y. Cigars, cigarettes, cheroots, and manufactured tobacco. No. 114,463; Dec. 19; Gaz. vol. 233; p. 1100.
Leather Food Company, The, Sandy Lake, Pa. Shoe-grease. No. 114,251; Dec. 5; Gaz. vol. 233; p. 348.
Lee Brothers Company, Boston and Athol, Mass. Boots, shoes, sandals, and slippers of leather or leather and cloth. No. 114,502; Dec. 19; Gaz. vol. 233; p. 1102.
Leiner & Company, George S., New York, N. Y. Bottle-brushes. No. 114,503; Dec. 19; Gaz. vol. 233; p. 1102.
Lenolite Accessories Co., Chicago, Ill. Chemical preparation for enriching gasolene. No. 114,642; Dec. 26; Gaz. vol. 233; p. 1400.
Leo, Beniamino, Chicago, Ill. Tonic medicines. No. 114,504; Dec. 19; Gaz. vol. 233; p. 1102.
Leonard & Barrows, Middleboro, Mass. Leather boots and shoes. No. 114,363; Dec. 12; Gaz. vol. 233; p. 752.
Lesher, Whitman & Co., Inc., New York, N. Y. Certain named piece goods. No. 114,252; Dec. 5; Gaz. vol. 233; p. 348.
Lesher, Whitman & Co., Inc., New York, N. Y. Certain named knitted, netted, and textile materials. No. 114,253; Dec. 5; Gaz. vol. 233; p. 348.
Lewis-Weller Mfg. Co., Utica, N. Y. Bed-springs. No. 114,364; Dec. 12; Gaz. vol. 233; p. 752.
Lich, Robert, Sutton, Nebr. Medicinal preparation for constipation and diseases of the liver and stomach. No. 114,505; Dec. 19; Gaz. vol. 233; p. 1102.
Lich, Robert, Sutton, Nebr. Medicinal preparation for the treatment of certain named diseases. No. 114,506; Dec. 19; Gaz. vol. 233; p. 1102.
Lily of France Corset Co., New York, N. Y. Corsets. Nos. 114,643–4; Dec. 26; Gaz. vol. 233; p. 1400.
Lindenberg Piano Company, The, Columbus, Ohio. Pianos and player-pianos. No. 114,254; Dec. 5; Gaz. vol. 233; p. 348.
Lindley & Company, Sacramento, Cal. Certain named foods. No. 114,365; Dec. 12; Gaz. vol. 233; p. 752.
Lindley & Co., Sacramento, Cal. Coffee and tea. No. 114,366; Dec. 12; Gaz. vol. 233; p. 752.
Lobaco Company, Louisa, Ky. Bread. No. 114,367; Dec. 12; Gaz. vol. 233; p. 752.
Loft, Incorporated, New York, N. Y. Candy. No. 114,368; Dec. 12; Gaz. vol. 233; p. 752.
Long Fruit Products Co., Portland, Oreg. Bottled Royal Anne cherries and preserved fruits. No. 114,507; Dec. 19; Gaz. vol. 233; p. 1102.
Loose-Wiles Biscuit Company, Kansas City, Mo. Candy. No. 114,168; Dec. 5; Gaz. vol. 233; p. 346.
Lowe Co., Joe, New York, N. Y. Preparation composed of honey and malt used in the making of bread. No. 114,257; Dec. 5; Gaz. vol. 233; p. 348.
Lyon & Healy, Chicago, Ill. Violins. No. 114,169; Dec. 5; Gaz. vol. 233; p. 346.
M. Getz & Co., Inc., San Francisco, Cal. Syrups for mixture with carbonated water. No. 114,349; Dec. 12; Gaz. vol. 233; p. 752.
M. E. Smith & Co. Inc., Omaha, Nebr. Men's outer shirts and boys' outer waists. No. 114,389; Dec. 12; Gaz. vol. 233; p. 753.
M. O'Connor and Co., Indianapolis, Ind. Canned fruits and vegetables. No. 114,175; Dec. 3; Gaz. vol. 233; p. 346.
Maillard, Henry, New York, N. Y. Candy, bonbons, powdered and cake chocolate, and cocoa. No. 114,509; Dec. 19; Gaz. vol. 233; p. 1102.
Majestic Phonograph Company, Chicago, Ill. Talking-machines and talking-machine parts. No. 114,510; Dec. 19; Gaz. vol. 233; p. 1102.
Manhattan Rubber Mfg. Co., The, New York, N. Y. Rubber composition. No. 114,647; Dec. 26; Gaz. vol. 233; p. 1400.
Manhattan Varnish Co. Inc., New York, N. Y. Varnish. No. 114,511; Dec. 19; Gaz. vol. 233; p. 1102.
Manville Company, Providence, R. I. Cotton and mixed piece goods and draperies. No. 114,259; Dec. 5; Gaz. vol. 233; p. 348.
Marroquin & Co., F., San Antonio, Tex. Candy. No. 114,512; Dec. 19; Gaz. vol. 233; p. 1102.
Marshall Field & Company, Chicago, Ill. Corsets. No. 114,345; Dec. 12; Gaz. vol. 233; p. 752.
Martini & Rossi, Turin, Italy. Vermuth. No. 114,260; Dec. 5; Gaz. vol. 233; p. 349.
Mary Gwenn's Bread Shop, Inc., Patchogue, N. Y. Bread. No. 114,350; Dec. 12; Gaz. vol. 233; p. 752.
Maspero, Carlo, New York, N. Y. Macaroni. No. 114,370; Dec. 12; Gaz. vol. 233; p. 762.
Massachusetts Breweries Company, Alexandria, Va., and Boston, Mass. Malt tonic. No. 114,513; Dec. 19; Gaz. vol. 233; p. 1102.
Mathushek Piano Manufacturing Company, New York, N. Y. Grand and upright pianos and player-pianos. No. 114,261; Dec. 5; Gaz. vol. 233; p. 349.
Matthews & Lively, Atlanta, Ga. Hair-tonics, scalp-stimulant, and dandruff-preventive. No. 114,514; Dec. 19; Gaz. vol. 233; p. 1102.
Maxfer Truck Company, Chicago, Ill. Automobile trucks and units and certain named parts thereof. No. 114,170; Dec. 5; Gaz. vol. 233; p. 346.
McJunkin, Frank A., Chicago, Ill. Dyes. No. 114,508; Dec. 19; Gaz. vol. 233; p. 1102.
Mead Pulp and Paper Company, The, Dayton, Ohio. Printing-paper for press-printing trades. No. 114,519; Dec. 19; Gaz. vol. 233; p. 1102.
Meinecke & Company, New York, N. Y. Germicidal suture and ligature materials. No. 114,516; Dec. 19; Gaz. vol. 233; p. 1102.
Metalkraft-Rochester, Rochester, N. Y. Sewing-basket in table form, and footstools. No. 114,171; Dec. 5; Gaz. vol. 233; p. 346.
Metalkraft-Rochester, Rochester, N. Y. Sewing-basket in table form, and footstools. No. 114,371; Dec. 12; Gaz. vol. 233; p. 752.
Metalyte Company, Inc., The, New York, N. Y. Incandescent electric lamps. No. 114,172; Dec. 5; Gaz. vol. 233; p. 346.
Meyer Bros. Paper Co., The, Cincinnati, Ohio. Toilet-paper. No. 114,517; Dec. 19; Gaz. vol. 233; p. 1102.
Meyers & Son, Louis, New York, N. Y. Leather gloves. No. 114,372; Dec. 12; Gaz. vol. 233; p. 752.
Michigan Limestone & Chemical Company, Buffalo, N. Y. Limestone. No. 114,262; Dec. 5; Gaz. vol. 233; p. 349.
Migel, Julius A., New York, N. Y. Certain named knitted, netted, and textile fabrics. No. 114,263; Dec. 5; Gaz. vol. 233; p. 349.
Milwaukee Paper Box Co., Milwaukee, Wis. Paper boxes. No. 114,518; Dec. 19; Gaz. vol. 233; p. 1102.
Model Pickle & Vinegar Works, Tacoma, Wash. Certain named foods. No. 114,520; Dec. 19; Gaz. vol. 233; p. 1102.

Moffet, Frank V., Seattle, Wash. Buckwheat, self-raising and pancake flours. No. 114,521; Dec. 19; Gaz. vol. 233; p. 1102.
Morgan, Allyn S., Winona, Minn. Certain named articles made of or plated with precious metal and certain silver articles. No. 114,522; Dec. 19; Gaz. vol. 233; p. 1102.
Morris & Company, Chicago, Ill. Certain named goods. No. 114,523; Dec. 19; Gaz. vol. 233; p. 1102.
Motor Tailoring Co., Chicago, Ill. Outer garments—namely, rain-coats and overcoats. No. 114,648; Dec. 26; Gaz. vol. 233; p. 1400.
Mount Vernon-Woodberry Mills, Incorporated, Baltimore, Md. Cotton rope. No. 114,264; Dec. 5; Gaz. vol. 233; p. 349.
Mount Vernon-Woodberry Mills, Incorporated, Baltimore, Md. Cotton yarn and thread. No. 114,524; Dec. 19; Gaz. vol. 233; p. 1102.
Murphy, Boise R., Meade, Kans. Meat and fish preserver in the form of a wood-distillate. No. 114,525; Dec. 19; Gaz. vol. 233; p. 1102.
Mystkowski, Peter V., Chisholm, Minn. Prepared cereal food. No. 114,173; Dec. 5; Gaz. vol. 233; p. 346.
N. Erlanger, Blumgart & Co., New York, N. Y. Cotton or silk piece goods. No. 114,631; Dec. 26; Gaz. vol. 233; p. 1399.
N. Y. International Chemical Co. Inc., New York, N. Y. Saline laxatives. No. 114,530; Dec. 19; Gaz. vol. 233; p. 1102.
National Carbonating Syrup Company, Wilmington, Del., and Evansville, Ind. Non-alcoholic carbonated soft drink and syrup for making same. No. 114,649; Dec. 26; Gaz. vol. 233; p. 1400.
National X-Ray Reflector Company, Chicago, Ill. Glass reflectors. No. 114,526; Dec. 19; Gaz. vol. 233; p. 1102.
Nature Studio, Elkridge, Md. Weather-vanes. No. 114,373; Dec. 12; Gaz. vol. 233; p. 752.
Nau-Murray Co., San Bernardino, Cal. Canned peas, corn, and tomatoes. No. 114,527; Dec. 19; Gaz. vol. 233; p. 1102.
Nave-McCord Mercantile Co., St. Joseph, Mo. Certain named foods. No. 114,174; Dec. 5; Gaz. vol. 233; p. 346.
Needham Basket Co., The, Peterboro, N. H. Baskets. No. 114,528; Dec. 19; Gaz. vol. 233; p. 1102.
Nelson, Joseph J., Philadelphia, Pa. Face-powders. No. 114,650; Dec. 26; Gaz. vol. 233; p. 1400.
Netter, Hilda H., Philadelphia, Pa. Whisky and cocktails. No. 114,529; Dec. 19; Gaz. vol. 233; p. 1102.
Nezen Company, Cleveland, Ohio. Prepared milk with egg albumen. No. 114,531; Dec. 19; Gaz. vol. 233; p. 1103.
Niese Grocer Company, St. Louis, Mo. Canned fruits, vegetables, and salmon, tomato catsup. No. 114,532; Dec. 19; Gaz. vol. 233; p. 1103.
Nineteen Hundred Washer Company, Binghamton, N. Y. Laundry-washing machines. No. 114,533; Dec. 19; Gaz. vol. 233; p. 1103.
Nippon Dry Goods Co., San Francisco, Cal. Japanese crape used principally for dress material. Nos. 114,651–2; Dec. 26; Gaz. vol. 233; p. 1400.
Norman Bros., Detroit, Mich. Cigars, cheroots, and little cigars. No. 114,534; Dec. 19; Gaz. vol. 233; p. 1103.
North American Mercantile Co., San Francisco, Cal. Matches. Nos. 114,265–7; Dec. 5; Gaz. vol. 233; p. 349.
North Rend Fire Brick Company, Gleasonton, Pa. Brick. No. 114,535; Dec. 19; Gaz. vol. 233; p. 1103.
Northwestern Oil Co., Superior, Wis., and Duluth, Minn. Automobile and separator oils. No. 114,374; Dec. 12; Gaz. vol. 233; p. 752.
Nut Cereal Company, The, Wichita, Kans. Cereal breakfast food. No. 114,375; Dec. 12; Gaz. vol. 233; p. 752.
Nye, Alvin J., Orlando, Fla. Oranges and grape-fruit. No. 114,536; Dec. 19; Gaz. vol. 233; p. 1103.
O. B. Andrews' Company, Chattanooga, Tenn. Chick and egg carriers, parcel-post boxes, and egg-trays. No. 114,211; Dec. 5; Gaz. vol. 233; p. 347.
O. B. Andrews' Company, Chattanooga, Tenn. Certain named medicine and pharmaceutical preparations. No. 114,320; Dec. 12; Gaz. vol. 233; p. 751.
O. L. Hinds Company, The, Burlington, Vt. Certain named clothing for men, youths, boys, women, misses, and children. No. 114,242; Dec. 5; Gaz. vol. 233; p. 348.
O. M. Draper Company, The, North Attleboro, Mass. Certain named jewelry and precious-metal ware. No. 114,444; Dec. 19; Gaz. vol. 233; p. 1100.
Ocean Lumber Company, Seattle, Wash. Sawed lumber. No. 114,268; Dec. 5; Gaz. vol. 233; p. 349.
Ogus, Rabinovich & Ogus Co., Chicago, Ill. Bonnets, hats, and hat-frames. No. 114,269; Dec. 5; Gaz. vol. 233; p. 349.
Okonite Company, The, New York, N. Y. Insulated wire and cables. Nos. 114,270–1; Dec. 5; Gaz. vol. 233; p. 349.
Oneida Community, Limited, Oneida, N. Y. Precious-metal-plated table and flat ware. Nos. 114,537–9; Dec. 19; Gaz. vol. 233; p. 1103.
Oneida Knitting Company, Philadelphia, Pa. Hosiery. No. 114,272; Dec. 5; Gaz. vol. 233; p. 349.
Oppenheim, Oberndorf & Co. Inc., Baltimore, Md. Negligée shirts and athletic underwear of textile material. No. 114,653; Dec. 26; Gaz. vol. 233; p. 1400.
Osborn Paper Company, Marion, Ind. Tablets, composition and note books. No. 114,273; Dec. 5; Gaz. vol. 233; p. 349.
Parent, Joseph E., Arctic, R. I. Compound for enriching and purifying the blood and relieving nervousness. No. 114,540; Dec. 19; Gaz. vol. 233; p. 1103.
Park & Tilford, New York, N. Y. Irish whisky. No. 114,274; Dec. 5; Gaz. vol. 233; p. 349.
Parsons & Scoville Co., Evansville, Ind. Coffee. Nos. 114,376–7; Dec. 12; Gaz. vol. 233; pp. 752–3.
Pearson Brothers, London and Bournemouth, England. Certain named waterproof clothing. No. 114,654; Dec. 26; Gaz. vol. 233; p. 1400.
Pecanella Company, Inc., The, Albany, N. Y. Candy. No. 114,176; Dec. 5; Gaz. vol. 233; p. 346.
Penn Leather Co., Philadelphia, Pa. Leather. No. 114,542; Dec. 19; Gaz. vol. 233; p. 1103.
Perlman, Harry, New York, N. Y. Bicycles and motorcycles. No. 114,177; Dec. 5; Gaz. vol. 233; p. 346.
Pessagno & Montresor, New York, N. Y. Wine. No. 114,655; Dec. 26; Gaz. vol. 233; p. 1400.
Phelps Publishing Company, The, Springfield, Mass. Advertising publication which is issued from time to time. No. 114,275; Dec. 5; Gaz. vol. 233; p. 349.
Pinkus, Trading as Jayelpi Freres & Cie., Jacob L. & Frederick, New York, N. Y. Cigarettes. No. 114,178; Dec. 5; Gaz. vol. 233; p. 346.
Pioneer Paper Co., Los Angeles, Cal. Roofing paper and felt, prepared roofing. No. 114,378; Dec. 12; Gaz. vol. 233; p. 753.
Plessner Co., Paul, The, Detroit, Mich. Hepatic insufficiency, intestinal putrefaction, habitual constipation, and gall-stones. No. 114,543; Dec. 19; Gaz. vol. 233; p. 1103.
Plough, Abe, Memphis, Tenn. Hair-dressing. No. 114,545; Dec. 19; Gaz. vol. 233; p. 1103.
Porsdal, Cara, Omaha, Nebr. Seasoning for meats and gravies. No. 114,179; Dec. 5; Gaz. vol. 233; p. 346.
Powell Supply Company, Omaha, Nebr. Certain named tires, inner tubes, and patches. No. 114,276; Dec. 5; Gaz. vol. 233; p. 349.
Powers & Mayer, Inc., New York, N. Y. Necklaces. No. 114,180; Dec. 5; Gaz. vol. 233; p. 346.
Prange Milling Company, New Douglas, Ill. Wheat-flour. No. 114,380; Dec. 12; Gaz. vol. 233; p. 753.
Premier Cabinet Company, The, Williamsport, Pa. Phonographs and talking-machines. No. 114,546; Dec. 19; Gaz. vol. 233; p. 1103.
Puritan Ice Company, Tampa, Fla. Distilled and aerated water. No. 114,381; Dec. 12; Gaz. vol. 233; p. 753.
Pyle, Frank, Osawatomie, Kans. Apple-juice. No. 114,277; Dec. 5; Gaz. vol. 233; p. 349.
R. E. Tongue & Bros. Co., Philadelphia, Pa. Red Mason-jar rings. No. 114,199; Dec. 5; Gaz. vol. 233; p. 347.
Raab, Herman, Philadelphia, Pa. Corsets. No. 114,382; Dec. 12; Gaz. vol. 233; p. 753.
Ransome Concrete Machinery Company, New York, N. Y., and Dunellen, N. J. Concrete-machines. No. 114,279; Dec. 5; Gaz. vol. 233; p. 349.
Rathmyl, Albert, Philadelphia, Pa. Corn-plasters. No. 114,547; Dec. 19; Gaz. vol. 233; p. 1103.
Ravarino & Freschi Importing & Mfg. Co., St. Louis, Mo. Alimentary paste. No. 114,383; Dec. 12; Gaz. vol. 233; p. 753.
Remington Typewriter Company, Ilion and New York, N. Y. Carbon-paper and type-writer ribbons. No. 114,181; Dec. 5; Gaz. vol. 233; p. 346.
Revere Rubber Company, Providence, R. I., and Chelsea, Mass. Certain named packings. No. 114,280; Dec. 5; Gaz. vol. 233; p. 349.
Rice, Aubrey L., New York, N. Y. Bleacher and water-softener. No. 114,548; Dec. 19; Gaz. vol. 233; p. 1103.
Rizcallah & Co., W., New York, N. Y. Face-powder. No. 114,656; Dec. 26; Gaz. vol. 233; p. 1400.
Rogers & Thompson, Inc., New York, N. Y. Silk and satin piece goods. No. 114,281; Dec. 5; Gaz. vol. 233; p. 349.
Rogers, William H., Plainfield, N. J. Knives, forks, and spoons plated with or made of precious metal or substitutes therefor. No. 114,549; Dec. 19; Gaz. vol. 233; p. 1103.
Runyeon, George O., Jr., Jonestown, Pa. Hosiery. No. 114,282; Dec. 5; Gaz. vol. 233; p. 349.
Ruppel, Lina L., Chicago, Ill. Facial oil. No. 114,550; Dec. 19; Gaz. vol. 233; p. 1103.
Samek Bros. Inc., New York, N. Y. Ladies' and misses' shirt-waists. No. 114,386; Dec. 12; Gaz. vol. 233; p. 753.
Sametag & Hilder Bros., New York, N. Y. Lingerie-braid. No. 114,182; Dec. 5; Gaz. vol. 233; p. 346.
Samstag & Hilder Bros., New York, N. Y. Elastic tapes and taffeta seam-bindings. No. 114,551; Dec. 19; Gaz. vol. 233; p. 1103.
Sanborn & Sons, Geo. W., Astoria, Oreg. Canned salmon. No. 114,183; Dec. 5; Gaz. vol. 233; p. 346.
Sangers, London, England. India-rubber surgical and invalid water bottles and cushions. No. 114,551; Dec. 19; Gaz. vol. 233; p. 1103.
Saras, Louis N., Hazleton, Pa. Cigarettes. No. 114,184; Dec. 5; Gaz. vol. 233; p. 346.
Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. No. 114,552; Dec. 19; Gaz. vol. 233; p. 1103.
Schack Artificial Flower Co., Chicago, Ill. Paper-board flooring. No. 114,283; Dec. 5; Gaz. vol. 233; p. 349.

Schlesinger, Harry L., Atlanta, Ga. Candy. Nos. 114,553–4; Dec. 19; Gaz. vol. 233; p. 1103.
Schmelzer Arms Co., Kansas City, Mo. Certain named games, toys, and sporting goods. No. 114,657; Dec. 26; Gaz. vol. 233; p. 1400.
School Arts Publishing Co., Boston, Mass. Monthly publications. No. 114,284; Dec. 5; Gaz. vol. 233; p. 349.
Schuster Company, The, Cleveland, Ohio. Certain named foods. No. 114,285; Dec. 5; Gaz. vol. 233; p. 349.
Sears & Nichols Co., The, Chillicothe, Ohio. Canned vegetables, sauer-kraut, pork and beans, and hominy. No. 114,186; Dec. 5; Gaz. vol. 233; p. 346.
Sears, Roebuck and Co., Chicago, Ill. School-crayons. No. 114,290; Dec. 5; Gaz. vol. 233; p. 349.
Sears, Roebuck and Co., Chicago, Ill. Rubber overshoes and boots. No. 114,658; Dec. 26; Gaz. vol. 233; p. 1400.
Sehlinger's Sons, Chas., Louisville, Ky. Whisky. No. 114,558; Dec. 19; Gaz. vol. 233; p. 1103.
Sehlinger's Sons, Chas., Louisville, Ky. Gin. No. 114,559; Dec. 19; Gaz. vol. 233; p. 1103.
Sepco Chemical Company, Washington, D. C. Antiseptic powder. No. 114,387; Dec. 12; Gaz. vol. 233; p. 753.
Shadbolt & Boyd Iron Co., Milwaukee, Wis. Certain named tires, reliners, tire-patches, &c. No. 114,291; Dec. 5; Gaz. vol. 233; p. 349.
Shepherd Milling Co., Shepherd, Mich. Wheat-flour. No. 114,388; Dec. 12; Gaz. vol. 233; p. 753.
Sheuerman Brothers, Des Moines, Iowa. Ladies' skirts, mackinaw coats, dresses, and capes. No. 114,292; Dec. 5; Gaz. vol. 233; p. 349.
Shrauger & Johnson, Atlantic, Iowa. Windows. No. 114,293; Dec. 5; Gaz. vol. 233; p. 349.
Sieffert, Mary E. & Eugene A., New York, N. Y. Branflour. No. 114,560; Dec. 19; Gaz. vol. 233; p. 1103.
Smart, Richard A., Georgiana, Fla. Citrus fruits. No. 114,187; Dec. 5; Gaz. vol. 233; p. 346.
Sonora Phonograph Corporation, New York, N. Y. Certain named musical instruments and supplies. Nos. 114,188–93; Dec. 5; Gaz. vol. 233; pp. 346–7.
Southwestern Milling Co., Inc., New York, N. Y., and Kansas City, Mo. Wheat, rye, self-rising, and prepared flours. Nos. 114,390–3; Dec. 12; Gaz. vol. 233; p. 753.
Spahr, Harry M., Baltimore, Md. Lime and fertilizer spreaders. No. 114,294; Dec. 5; Gaz. vol. 233; p. 350.
Sparks Milling Company. (See Whitehead, William G., assignor.)
Spaugh, Addison A., Douglas, Wyo. Butter. No. 114,562; Dec. 19; Gaz. vol. 233; p. 1103.
Spencer Kellogg and Sons, Inc., Buffalo, N. Y. Cattle food. No. 114,358; Dec. 12; Gaz. vol. 233; p. 752.
Spindler, Lorenz G., New York, N. Y. Wheat-flour. No. 114,394; Dec. 12; Gaz. vol. 233; p. 753.
Square Deal Market Company, The, Gary, Ind. Tea, canned peaches, tomatoes, and sweet corn, lemon extract, coffee, eggs, and butter. No. 114,194; Dec. 5; Gaz. vol. 233; p. 347.
Stafford, George A., New York, N. Y. Woven cotton fabrics. Nos. 114,659–60; Dec. 26; Gaz. vol. 233; p. 1400.
Standard Oil Co. of New York, New York, N. Y. Heat-transmitting oils. No. 114,295; Dec. 5; Gaz. vol. 233; p. 350.
Standard Oil Company, Richmond, Cal. Asphaltum. No. 114,563; Dec. 19; Gaz. vol. 233; p. 1103.
Standard Woven Fabric Company, Walpole, Mass. Brake-linings. No. 114,296; Dec. 5; Gaz. vol. 233; p. 350.
Star Chronicle Publishing Company, St. Louis, Mo. Newspapers. No. 114,564; Dec. 19; Gaz. vol. 233; p. 1103.
Sterne & Klein Co., Chicago, Ill. Petticoats. No. 114,661; Dec. 26; Gaz. vol. 233; p. 1400.
Stevenson, Edward W., New York, N. Y. Flash-light batteries. No. 114,566; Dec. 19; Gaz. vol. 233; p. 1104.
Stewart Dental Mfg. Company, Pittsburgh and Philadelphia, Pa. Interchangeable teeth and backings. No. 114,297; Dec. 5; Gaz. vol. 233; p. 350.
Stewart-Gwynne Company, Memphis, Tenn. Coffee. No. 114,195; Dec. 5; Gaz. vol. 233; p. 347.
Stewart, Sylvester, Mott, N. D. Wheat-flour. No. 114,395; Dec. 12; Gaz. vol. 233; p. 753.
Stockiin Laboratories Company, Menominee, Mich. Foot-balm. No. 114,567; Dec. 19; Gaz. vol. 233; p. 1104.
Stoddard-Gilbert & Co., Inc., New Haven, Conn. Cigars. No. 114,298; Dec. 5; Gaz. vol. 233; p. 350.
Stonega Coke & Coal Co., Big Stone Gap and Wise and Lee counties, Va. Coal and coke. No. 114,568; Dec. 19; Gaz. vol. 233; p. 1104.
Strobel & Wilken Company, The, Cincinnati, Ohio, and New York, N. Y. Phonographs. No. 114,300; Dec. 5; Gaz. vol. 233; p. 350.
Strobridge Lithographing Co., The, Cincinnati, Ohio. Printing and writing paper, letter and bill heads, envelops, &c. No. 114,569; Dec. 19; Gaz. vol. 233; p. 1104.
Stromberg-Carlson Telephone Manufacturing Co., Rochester, N. Y. Cords, cables, (non-insulated,) and cordage in bulk. No. 114,196; Dec. 5; Gaz. vol. 233; p. 347.
Sugar Creek Creamery Company, Watseka, Danville, and Pana, Ill. Butter. No. 114,197; Dec. 5; Gaz. vol. 233; p. 347.
Sugar Dispenser Co., The, Baltimore, Md. Sugar-dispensing receptacles. No. 114,299; Dec. 5; Gaz. vol. 233; p. 350.
Sulzberger & Sons Company, New York, N. Y. Process-butter. No. 114,570; Dec. 19; Gaz. vol. 233; p. 1104.
Superior Lamp Mfg. Co., New York, N. Y. Accessories for automobiles. No. 114,571; Dec. 19; Gaz. vol. 233; p. 1104.
Swanson, Albert, Seattle, Wash. Adhesive material for repairing rubber goods, especially rubber tires. No. 114,572; Dec. 19; Gaz. vol. 233; p. 1104.
Tate Electrolytic Waterproofing Company, Incorporated, New York, N. Y. Waterproofed cords and twines. No. 114,198; Dec. 5; Gaz. vol. 233; p. 347.
Tate Electrolytic Waterproofing Company, Incorporated, New York, N. Y. Waterproofed skins and leathers. No. 114,573; Dec. 19; Gaz. vol. 233; p. 1104.
Taylor Chemical Co., Washington, D. C. Remedy for eczema and other skin diseases. No. 114,574; Dec. 19; Gaz. vol. 233; p. 1104.
Taylor, Ernest H., Minneapolis, Minn. Remedies for Bright's disease, dropsy, &c. No. 114,662; Dec. 26; Gaz. vol. 233; p. 1400.
Tetlow Co., Henry, Philadelphia, Pa. Shampoo-powder. No. 114,575; Dec. 19; Gaz. vol. 233; p. 1104.
Thomas-Body Co., San Francisco, Cal. Ravioli. No. 114,301; Dec. 5; Gaz. vol. 233; p. 350.
Tide Water Oil Co., New York, N. Y. Certain named oils and greases. No. 114,302; Dec. 5; Gaz. vol. 233; p. 350.
Tigner, Maurice, New York, N. Y. Watches. No. 114,577; Dec. 19; Gaz. vol. 233; p. 1104.
Timbrook & Crall, Fort Wayne, Ind. Carbon-remover. No. 114,580; Dec. 19; Gaz. vol. 233; p. 1104.
Toch Brothers, New York, N. Y. Certain named construction materials. No. 114,581; Dec. 19; Gaz. vol. 233; p. 1104.
Torras, Rosendo, Brunswick, Ga. Medicinal compounds for eczema, dandruff, and skin diseases. No. 114,582; Dec. 19; Gaz. vol. 233; p. 1104.
Tower Varnish & Dryer Company, The, Dayton, Ohio. Paint-oils. No. 114,396; Dec. 12; Gaz. vol. 233; p. 753.
Townsend & Co., E. M., New York, N. Y. Hosiery. No. 114,397; Dec. 12; Gaz. vol. 233; p. 753.
Trabuceo, Gio. B., Olhão, Portugal. Sardines in salt, with bread. No. 114,303; Dec. 5; Gaz. vol. 233; p. 350.
Tremont Stores, Inc., The, Boston, Mass. Skirts, collars, dresses, outer suits, hats, &c. No. 114,304; Dec. 5; Gaz. vol. 233; p. 350.
U. S. Hame Company, Buffalo, N. Y. Hames. No. 114,588; Dec. 19; Gaz. vol. 233; p. 1104.
Union Meat Company, North Portland, Oreg. Butter. No. 114,200; Dec. 5; Gaz. vol. 233; p. 347.
Union Special Machine Company, Chicago, Ill. Sewing-machines and parts thereof. No. 114,584; Dec. 19; Gaz. vol. 233; p. 1104.
United Brotherhood of Carpenters and Joiners of America, Indianapolis, Ind. Printed books, periodicals, (published monthly,) and pamphlets. No. 114,305; Dec. 5; Gaz. vol. 233; p. 350.
United Cigar Manufacturers Company, New York, N. Y. Cigars. Nos. 114,585–6; Dec. 19; Gaz. vol. 233; p. 1104.
United Coffee Company, New Orleans, La., assignor to United Coffee Growers Corporation of Brazil. Coffee and chicory. No. 114,306; Dec. 5; Gaz. vol. 233; p. 350.
United Coffee Growers Corporation of Brazil. (See United Coffee Company, assignor.)
United States Cast Iron Pipe and Foundry Company, Burlington, N. J. Cast-iron-pipe columns and column parts and fittings. No. 114,587; Dec. 19; Gaz. vol. 233; p. 1104.
United States Rubber Company, New Brunswick, N. J. Rain-coats. No. 114,398; Dec. 12; Gaz. vol. 233; p. 753.
Universal Film Manufacturing Company, New York, N. Y. Series of different motion-picture photoplays. No. 114,399; Dec. 12; Gaz. vol. 233; p. 753.
Utah Cereal Food Company, Ogden, Utah. Certain named cereal products. No. 114,589; Dec. 19; Gaz. vol. 233; p. 1104.
Valley Forge Cutlery Company, New York, N. Y. Pocket-knives. No. 114,590; Dec. 19; Gaz. vol. 233; p. 1104.
Van Hoesen, Alice M., Los Angeles, Cal. Mints and candies of all descriptions. No. 114,201; Dec. 5; Gaz. vol. 233; p. 347.
Van Nostrand, Alonzo G., Boston, Mass. Non-intoxicating malt beverages. No. 114,663; Dec. 26; Gaz. vol. 233; p. 1400.
Vaughan, George C., Peabody, Mass. Sole-leather. No. 114,591; Dec. 19; Gaz. vol. 233; p. 1104.
Vegola Specialty Company, Inc., Buffalo, N. Y. Remedy for gonorrhea and gleet. No. 114,592; Dec. 19; Gaz. vol. 233; p. 1104.
Vero Citrus Growers Ass'n Co., Vero, Fla. Citrus fruits. No. 114,593; Dec. 19; Gaz. vol. 233; p. 1104.
Von Brecht Candy Company, The, Denver, Colo. Candy. No. 114,594; Dec. 19; Gaz. vol. 233; p. 1104.
W-B Manufacturing Company, Inc., Binghamton, N. Y. Thread-cutters. No. 114,202; Dec. 5; Gaz. vol. 233; p. 347.
W. F. Schrafft & Sons Corporation, Boston, Mass. Nougat bars and chocolate-covered candies. No. 114,185; Dec. 5; Gaz. vol. 233; p. 346.
W. H. McElwain Company, Boston, Mass. Boots and shoes of leather and of leather and fabric. No. 114,258; Dec. 5; Gaz. vol. 233; p. 348.
W. H. McElwain Company, Boston, Mass. Boots and shoes of leather and of leather and fabric. No. 114,645; Dec. 26; Gaz. vol. 233; p. 1400.
W. K. Jahn Company, The, Chicago, Ill. Certain named foods. No. 114,482; Dec. 19; Gaz. vol. 233; p. 1101.

W. T. Henley's Telegraph Works Co. Ld., London Wall, London, England. Golf-balls. Nos. 114,471–2; Dec. 19; Gaz. vol. 233; p. 1101.
Wade Corset Company, Portland, Me., and New York, N. Y. Corsets and brassières. No. 114,595; Dec. 19; Gaz. vol. 233; p. 1104.
Waldes & Company, Prague-Wrschowitz, Austria-Hungary. Certain named ladies' neckwear. No. 114,596; Dec. 19; Gaz. vol. 233; p. 1104.
Waldes & Company, Prague-Wrschowitz, Austria-Hungary. Certain named ladies' neckwear. No. 114,664; Dec. 26; Gaz. vol. 233; p. 1400.
Walker West Mfg. Co., Mme., Pittsburgh, Pa. Preparation for the growth, gloss, and shampoo of the hair. No. 114,597; Dec. 19; Gaz. vol. 233; p. 1104.
Wall Rope Works, Inc., Beverly, N. J., and New York, N. Y. Fibrous rope and cordage. No. 114,203; Dec. 5; Gaz. vol. 233; p. 347.
Wallerstein, Leo, New York, N. Y. Certain non-alcoholic beverage. No. 114,204; Dec. 5; Gaz. vol. 233; p. 347.
Walter M. Lowney Company, The, Boston, Mass. Candy. No. 114,369; Dec. 12; Gaz. vol. 233; p. 752.
Warrell, Alexander, Worcester, Mass. Lubricants. No. 114,307; Dec. 5; Gaz. vol. 233; p. 350.
Warren Dye Company, Warren, R. I. Dyes and ingredients thereof. No. 114,400; Dec. 12; Gaz. vol. 233; p. 753.
Warren Oil Company, Warren, Pa. Vaseline petrolatum or petroleum jelly. No. 114,598; Dec. 19; Gaz. vol. 233; p. 1104.
Webster Electric Company, Racine, Wis. Ignition-magnetos. No. 114,599; Dec. 19; Gaz. vol. 233; p. 1104.
Werthan Bag Company, St. Louis, Mo. Cloth for bagging. No. 114,600; Dec. 19; Gaz. vol. 233; p. 1104.
Western Clock Co., Peru, Ill. Clocks and watches. Nos. 114,601–2; Dec. 19; Gaz. vol. 233; p. 1105.
Whitehead, William G., Wilmington, N. C., assignor to Sparks Milling Company, Alton, Ill. Wheat-flour. No. 114,309; Dec. 5; Gaz. vol. 233; p. 350.
Whole Wheat Coffee Co., Inc., Mount Vernon, N. Y. Coffee substitute made of wheat. No. 114,603; Dec. 19; Gaz. vol. 233; p. 1105.
Wiedey, John W., Baltimore, Md. Electric hand lights and lamp sockets. No. 114,401; Dec. 12; Gaz. vol. 233; p. 753.
Wilcox & White Company, Meriden, Conn. Mechanical music-playing instruments and music-sheets therefor. No. 114,311; Dec. 5; Gaz. vol. 233; p. 350.
William Peterman, Inc., Passaic, N. J., and New York, N. Y. Oil for cleaning and polishing veneered or varnished surfaces and woodwork generally. No. 114,544; Dec. 19; Gaz. vol. 233; p. 1103.
Williams, Burdell D., Mineral, Ill. Liniment. No. 114,626; Dec. 26; Gaz. vol. 233; p. 1399.
Williams & Company, R. C., New York, N. Y. Grape-juice. No. 114,402; Dec. 12; Gaz. vol. 233; p. 753.
Wilson and Bradbury, New York, N. Y. Sheets and pillow-cases. No. 114,312; Dec. 5; Gaz. vol. 233; p. 350.
Wilson Fastener Company, The, Cleveland, Ohio. Snap-fasteners for garments, dresses, and wearing-apparel generally. No. 114,606; Dec. 19; Gaz. vol. 233; p. 1105.
Wise Brothers, Baltimore, Md. Negligée, work, and under shirts, overalls, coats, shirt-waists, &c. No. 114,607; Dec. 19; Gaz. vol. 233; p. 1105.
Wm. Cameron & Co. Inc., Waco, Tex. Certain named construction materials. No. 114,140; Dec. 5; Gaz. vol. 233; p. 345.
Wm. C. Robinson & Son Co., Baltimore, Md. Oil to be mixed with water and used as a lubricant for metal-cutting tools. No. 114,384; Dec. 12; Gaz. vol. 233; p. 753.
Wm. E. Hooper & Sons Co., Baltimore, Md. Cotton duck. No. 114,476; Dec. 19; Gaz. vol. 233; p. 1101.
Wolf & Taylor, Monongahela, Pa. Medicine for certain named diseases. No. 114,608; Dec. 19; Gaz. vol. 233; p. 1105.
Woodard, Clarke & Co., Portland, Oreg. Surgical apparatus in the treatment of disease by artificial heat. No. 114,313; Dec. 5; Gaz. vol. 233; p. 350.
Worsdell & Co., New York, N. Y. Leather. No. 114,609; Dec. 19; Gaz. vol. 233; p. 1105.
Wortendyke Manufacturing Co., Richmond, Va. Toilet-paper and paper towels. No. 114,610; Dec. 19; Gaz. vol. 233; p. 1105.
Wróblewski, David, New York, N. Y. Tonic for certain named physical conditions. No. 114,611; Dec. 19; Gaz. vol. 233; p. 1105.
Yellin & Amsterdam, Philadelphia, Pa. Shirt-waists. No. 114,665; Dec. 26; Gaz. vol. 233; p. 1400.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Albano, Francesco, New York, N. Y. "Albano's." (For Tomatoes.) No. 19,791; Dec. 26; Gaz. vol. 233; p. 1401.

Austin, Nichols & Co., Inc., Brooklyn and New York, N. Y. "Coffee." (For Coffee.) No. 19,792; Dec. 26; Gaz. vol. 233; p. 1401.

Autoyre Co., The, Oakville, Conn. "Turtle Back." (For Snap-Fasteners.) No. 19,793; Dec. 26; Gaz. vol. 233; p. 1401.

Beech-Nut Packing Company, Canajoharie, N. Y. "Beech-Nut Brand Mints." (For Mint-Flavored Candies and Confections.) No. 19,768; Dec. 12; Gaz. vol. 233; p. 754.

Brierre, George E., New Orleans, La. "Pano-Vinum." (For a Medicinal Compound.) No. 19,794; Dec. 26; Gaz. vol. 233; p. 1401.

Brierre, George E., New Orleans, La. "Sal-Laxive." (For a Medicinal Compound.) No. 19,795; Dec. 26; Gaz. vol. 233; p. 1401.

Burkhardt Brewing Company, Boston, Mass. "Roundhead." (For Beer.) No. 19,796; Dec. 26; Gaz. vol. 233; p. 1401.

Community Coffee and Spice Company, Alliance, Ohio. "Community." (For Coffee.) No. 19,769; Dec. 12; Gaz. vol. 233; p. 754.

Consolidated Bottling Co., Newark, N. J. "Bob." (For Stock-Ale and Extra Porter.) No. 19,797; Dec. 26; Gaz. vol. 233; p. 1401.

Corn Belt Serum Company, East St. Louis, Ill. "Anti-Hog-Cholera Serum." (For a Remedy for Hog-Cholera.) No. 19,798; Dec. 26; Gaz. vol. 233; p. 1401.

Earl Cowan Company, Los Angeles, Cal. "Reward." (For Coffee.) No. 19,805; Dec. 26; Gaz. vol. 233; p. 1401.

Erwood, Arthur F., Green Bay, Wis. "Cigars." (For Cigars.) No. 19,770; Dec. 12; Gaz. vol. 233; p. 754.

F. F. Dalley Co. of New York, Inc., Buffalo, N. Y. "2 in 1 Black Combination." (For a Preparation for Cleaning and Polishing Black Shoes and Leather Goods.) No. 19,799; Dec. 26; Gaz. vol. 233; p. 1401.

F. F. Dalley Co. of New York, Inc., Buffalo, N. Y. "2 in 1 Tan Combination." (For a Preparation for Cleaning and Polishing Tan and Russet Leather Shoes and Leather Goods.) No. 19,800; Dec. 26; Gaz. vol. 233; p. 1401.

F. F. Dalley Co. of New York, Inc., Buffalo, N. Y. "2 in 1 White Liquid Shoe Dressing." (For a Preparation for Cleaning Shoes and Leather Goods Made of White Canvas, White Leather, and the Like.) No. 19,801; Dec. 26; Gaz. vol. 233; p. 1401.

F. F. Dalley Co. of New York, Inc., Buffalo, N. Y. "2 in 1 Tan Cleaner." (For a Preparation for Cleaning and Polishing Tan and Russet Leather Shoes and Leather Goods.) No. 19,802; Dec. 26; Gaz. vol. 233; p. 1401.

F. F. Dalley Co. of New York, Inc., Buffalo, N. Y. "2 in 1 White Liquid Shoe Dressing." (For a Preparation for Cleaning Shoes and other Articles.) No. 19,803; Dec. 26; Gaz. vol. 233; p. 1401.

F. F. Dalley Co. of New York, Inc., Buffalo, N. Y. "2 in 1 Black Dressing." (For a Preparation for Cleaning Black Leather Shoes and Black Leather Goods.) No. 19,804; Dec. 26; Gaz. vol. 233; p. 1401.

Fezzan Tobacco Co., Inc., New York, N. Y. "El-Mohada." (For Cigarettes.) No. 19,771; Dec. 12; Gaz. vol. 233; p. 754.

Gangelhoff Bros., Minneapolis, Minn. "Never-Sag." (For Bed-Springs.) No. 19,772; Dec. 12; Gaz. vol. 233; p. 754.

Garten & Sons, A., New York, N. Y. "Observa." (For Cigars.) No. 19,773; Dec. 12; Gaz. vol. 233; p. 754.

Geisenberger, Alex J., Natchez, Miss. "Skipper." (For Coffee.) No. 19,806; Dec. 26; Gaz. vol. 233; p. 1401.

General Baking Company, New York, N. Y. "McKinney Bread." (For Bread.) No. 19,774; Dec. 12; Gaz. vol. 233; p. 754.

Giarratano, Salvatore, New York, N. Y. "Grencort." (For Cigars.) No. 19,775; Dec. 12; Gaz. vol. 233; p. 754.

Giarratano, Salvatore, New York, N. Y. "Aristo." (For Cigars.) No. 19,776; Dec. 12; Gaz. vol. 233; p. 754.

Henschel & Co., A. C., Chicago, Ill. "La Gerona." (For Cigars.) No. 19,807; Dec. 26; Gaz. vol. 233; p. 1401.

Holthoefer, Herman J., Chicago, Ill. "Holthoefer's Health Salt." (For a Medicinal Compound.) No. 19,777; Dec. 12; Gaz. vol. 233; p. 754.

Hood Tire Co. Inc., Watertown, Mass. "Hood Tirea." (For Motor-Vehicles.) No. 19,808; Dec. 26; Gaz. vol. 233; p. 1401.

Imperial Candy Co., Seattle, Wash. "Black & White." (For Confectionery.) No. 19,809; Dec. 26; Gaz. vol. 233; p. 1401.

Krank, Alfred J., St. Paul, Minn. "Krank's Hair-Root-Oil." (For a Preparation for Dandruff and Falling Hair.) No. 19,811; Dec. 26; Gaz. vol. 233; p. 1401.

Krasky, Mary B., Boulder Creek, Cal. "Eureka Rheumatism Cure." (For a Remedy.) No. 19,812; Dec. 26; Gaz. vol. 233; p. 1401.

Mariani, Martino, New York, N. Y. "Eubion." (For a Medical Preparation.) No. 19,813; Dec. 26; Gaz. vol. 233; p. 1401.

Mariani, Martino, New York, N. Y. "Duirogen." (For a Medical Preparation.) No. 19,814; Dec. 26; Gaz. vol. 233; p. 1401.

Mariani, Martino, New York, N. Y. "Mormogen." (For a Medical Preparation.) No. 19,815; Dec. 26; Gaz. vol. 233; p. 1401.

Mariani, Martino, New York, N. Y. "Tricophogen." (For a Hair-Tonic Preparation.) No. 19,816; Dec. 26; Gaz. vol. 233; p. 1401.

Mariani, Martino, New York, N. Y. "Nervogen." (For a Medical Preparation.) No. 19,817; Dec. 26; Gaz. vol. 233; p. 1401.

Murphy Oil Company, Whittier, Cal. "Murphy Ranch Two Crown." (For Lemons.) No. 19,778; Dec. 12; Gaz. vol. 233; p. 754.

Murphy Oil Company, Whittier, Cal. "Murphy Ranch Three Star." (For Lemons.) No. 19,779; Dec. 12; Gaz. vol. 233; p. 754.

National Clock and Manufacturing Co., The, Chicago, Ill. "Fluff." (For a Shampoo-Soap.) No. 19,818; Dec. 26; Gaz. vol. 233; p. 1401.

National Independent Fisheries Co., Seattle, Wash. "Suffragette." (For Canned Salmon.) No. 19,819; Dec. 26; Gaz. vol. 233; p. 1401.

North Atlantic Oyster Farms, Inc., Boston, Mass. "Sealshipt Oysters." (For Oysters.) No. 19,780; Dec. 12; Gaz. vol. 233; p. 754.

Porcela-Radax Company, Pittsburgh, Pa. "Porcela—The Bath Tub Cleanser." (For a Cleanser for Bath-Tubs.) No. 19,781; Dec. 12; Gaz. vol. 233; p. 754.

R. F. Johnston Paint Co., The, Cincinnati, Ohio. "Auto Finishes." (For a Finishing Material for Metal or Wood.) No. 19,810; Dec. 26; Gaz. vol. 233; p. 1401.

R. & G. Mineral Water Assn., Austin, Tex., and Kansas City, Mo. "R. & G. Mineral Water Assn." (For Mineral-Water Containers.) No. 19,782; Dec. 12; Gaz. vol. 233; p. 754.

Russell Playing Card Co., Millitown, N. J., and New York, N. Y. "Blue Ribbon." (For Playing-Cards.) No. 19,783; Dec. 12; Gaz. vol. 233; p. 754.

Saadi, John, Allentown, Pa. "Telamol." (For a Tonic and System-Purifier.) No. 19,820; Dec. 26; Gaz. vol. 233; p. 1401.

Schlesinger, Harry L., Atlanta, Ga. "Schlesinger's Charlies." (For Candy.) No. 19,784; Dec. 12; Gaz. vol. 233; p. 754.

Swope & Mangold Inc., Dallas, Tex. "S & M." (For Select-Stock Very Fine Old Whisky.) No. 19,827; Dec. 26; Gaz. vol. 233; p. 1401.

Testa Cigar Co., San Francisco, Cal. "Golden Poppy." (For Cigars.) No. 19,822; Dec. 26; Gaz. vol. 233; p. 1401.

Testa Cigar Co., San Francisco, Cal. "El Cerrido." (For Cigars.) No. 19,823; Dec. 26; Gaz. vol. 233; p. 1401.

Tonop Manufacturing Co., Chicago, Ill. "Tonop." (For a Medicinal Tonic.) No. 19,824; Dec. 26; Gaz. vol. 233; p. 1401.

Valle-Kimes Co., The, Dayton, Ohio. "Set-Length Pump." (For Electric Deep-Well Power-Head.) No. 19,825; Dec. 26; Gaz. vol. 233; p. 1401.

Vineland Preserving Company, Jersey City, N. J. "Martini." (For Spaghetti.) No. 19,826; Dec. 26; Gaz. vol. 233; p. 1401.

Western Clock Co., Peru, Ill. "A Westclox Alarm." (For Alarms.) No. 19,785; Dec. 12; Gaz. vol. 233; p. 754.

White Star Canning Co., East San Pedro, Cal. "North Star." (For Bonita Fish.) No. 19,786; Dec. 12; Gaz. vol. 233; p. 754.

White Star Canning Co., East San Pedro, Cal. "Black and White." (For Albacore Fish.) No. 19,787; Dec. 12; Gaz. vol. 233; p. 754.

White Star Canning Co., East San Pedro, Cal. "North Star." (For Yellowtail Fish.) No. 19,788; Dec. 12; Gaz. vol. 233; p. 754.

White Star Canning Co., East San Pedro, Cal. "Red Star." (For Canned Tuna Flakes.) No. 19,789; Dec. 12; Gaz. vol. 233; p. 754.

Williams, Joshua H., Greenville, S. C. "Yam Nuts." (For Yam Nuts.) No. 19,827; Dec. 26; Gaz. vol. 233; p. 1401.

Williams, Joshua H., Greenville, S. C. "Yam Flakes." (For a Food Product Having Its Principal Ingredients Sweet Potatoes and Flour.) No. 19,828; Dec. 26; Gaz. vol. 233; p. 1401.

Wilson, Orin B., Los Angeles, Cal. "Wilson's Pinaya Digestive Tablets." (For Digestive Tablets.) No. 19,829; Dec. 26; Gaz. vol. 233; p. 1401.

Winand, John P., Baltimore, Md. "Mack's Manhattan." (For Whisky.) No. 19,790; Dec. 12; Gaz. vol. 233; p. 754.

PRINTS.

Briskin Manufacturing Company, The, Indianapolis, Ind. "The Briskin Mfg. Co. (Inc.) Radiator Repair Specialists." (For the Manufacture and Repair of Radiators for Automobiles.) No. 4,580; Dec. 12; Gaz. vol. 233; p. 754.

Consolidated Bottling Co., Newark, N. J. "Try A Nip Of 'Bob.'" (For Stock-Ale and Extra Porter.) No. 4,589; Dec. 26; Gaz. vol. 233; p. 1402.

Cream of Wheat Co., Minneapolis, Minn. "Never Mind, Plenty Left Honey." (For Wheat Breakfast Food.) No. 4,581; Dec. 12; Gaz. vol. 233; p. 754.

Daggett & Ramsdell, New York, N. Y. "Time's advice to beauty." (For Cold-Cream.) No. 4,590; Dec. 26; Gaz. vol. 233; p. 1402.

Gallitzki, Leo, Chicago, Ill. "Styles for Season 1917." (For Hats.) No. 4,591; Dec. 26; Gaz. vol. 233; p. 1402.

Grain Products Co., St. Louis, Mo. "Bran—eata Biscuits." (For a Food in Biscuit or Cake Form.) No. 4,582; Dec. 12; Gaz. vol. 233; p. 754.

Gund Brewing Co., The, Cleveland, Ohio. "Gund's 'Clevelander.'" (For Beer.) No. 4,592; Dec. 26; Gaz. vol. 233; p. 1402.

Ideal Medical Appliance Co., New York, N. Y. "Ideal Internal Bath." (For Ideal Internal Bath.) No. 4,593; Dec. 26; Gaz. vol. 233; p. 1402.

Kellogg Toasted Corn Flake Co., Battle Creek, Mich. "Children like Krumbles and it Builds them up." (For Kellogg's Krumbles.) No. 4,583; Dec. 12; Gaz. vol. 233; p. 754.

Kohn, A. E., San Antonio, Tex. "Kohn's Trip Register for Traveling Men." (For Kohn's Trip-Register for Traveling Men.) No. 4,594; Dec. 26; Gaz. vol. 233; p. 1402.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Prince Albert just does this little old thing." (For Smoking-Tobacco.) No. 4,585; Dec. 12; Gaz. vol. 233; p. 754.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Prince Albert—the national joy smoke makes men tobacco happy because it can't bite tongues and can't parch throats; the patented process fixes that!" (For Smoking-Tobacco.) No. 4,586; Dec. 12; Gaz. vol. 233; p. 754.

Reuter, Clifford S., New York, N. Y. "Ther-Mo-Bilt." (For Ice-Cream Freezers.) No. 4,584; Dec. 12; Gaz. vol. 233; p. 754.

Roberti Bros., Los Angeles, Cal. "For A Sound Sleep A Sanotuf Mattress." (For a Mattress.) No. 4,595; Dec. 26; Gaz. vol. 233; p. 1402.

Rock Island Brewing Company, Rock Island, Ill. "Moltjoos." (For a Drink.) No. 4,587; Dec. 12; Gaz. vol. 233; p. 754.

Sandefur Julian Company, The, Memphis, Tenn. "The Arkansas House." (For Whisky.) No. 4,596; Dec. 26; Gaz. vol. 233; p. 1402.

Strauss & Company, Edward E., Chicago, Ill. "Edesco Finest Made-to-Measure Clothes." (For Custom-Made Clothing.) No. 4,588; Dec. 12; Gaz. vol. 233; p. 754.

Wilhelm, Edward, Stoneharbor, N. J. "Forest Hair Tonic." (For Hair-Tonic.) No. 4,598; Dec. 26; Gaz. vol. 233; p. 1402.

Young, Willis G., Chicago, Ill. "Smoky-Holler." (For Toy Games.) No. 4,597; Dec. 26; Gaz. vol. 233; p. 1402.

DISCLAIMERS.

Fuller, Louis E., New York, N. Y.; disclaimer filed by assignee, A. B. Dick Company. Stencil-sheet. No. 1,101,268; disclaimer filed Dec. 4, 1916; Gaz. vol. 233; p. 756.

Fuller, Louis E., New York, N. Y.; disclaimer filed by assignee, A. B. Dick Company. Forming stencil-sheets. No. 1,101,269; disclaimer filed Dec. 4, 1916; Gaz. vol. 233; p. 756.

Fuller, Louis E., New York, N. Y.; disclaimer filed by assignee, A. B. Dick Company. Preparing duplicating-stencils. No. 1,101,270; disclaimer filed Dec. 4, 1916; Gaz. vol. 233; p. 756.

Martin, Christensen, Racine, Wis.; disclaimer filed by patentee. Book-stitching machine. No. 1,165,749; disclaimer filed Dec. 8, 1916; Gaz. vol. 233; p. 759.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF DECEMBER, 1916.

[Abbreviations: "Gaz."—Official Gazette.]

Abrasive disks for disk grinders, Producing. F. E. Gardner. No. 1,209,831; Dec. 26; Gaz. vol. 233; p. 1175.

Abrasive wheels and product thereof, Forming. C. A. Pfanstiehl. No. 1,210,358; Dec. 26; Gaz. vol. 233; p. 1356.

Abrasive wheels, Making. C. R. King. No. 1,208,330; Dec. 12; Gaz. vol. 233; p. 584.

Account device, Savings-deposit-. T. H. Cook. No. 1,207,714; Dec. 12; Gaz. vol. 233; p. 363.

Acid ammonium phosphate, Manufacture of. W. Wollenweber. No. 1,208,877; Dec. 19; Gaz. vol. 233; p. 818.

Acids of high purity and melting-point, Producing fatty. J. Starrels. No. 1,209,512; Dec. 19; Gaz. vol. 233; p. 1035.

Adding and listing machine. G. D. Sundstrand. (Reissue.) No. 14,237; Dec. 26; Gaz. vol. 233; p. 1368.

Adding and recording machine. S. G. Dorman. No. 1,209,817; Dec. 26; Gaz. vol. 233; p. 1171.

Adding and recording machine. B. Dysart. No. 1,209,821; Dec. 26; Gaz. vol. 233; p. 1172.

Adding and recording machine. H. Landsiedel. No. 1,209,857; Dec. 26; Gaz. vol. 233; p. 1185.

Adding and recording machine. H. Landsiedel. No. 1,209,859; Dec. 26; Gaz. vol. 233; p. 1186.

Adding-machine. F. C. Rinsche. No. 1,208,376; Dec. 12; Gaz. vol. 233; p. 600.

Adding-machine motor mechanism. H. Landsiedel. No. 1,209,858; Dec. 26; Gaz. vol. 233; p. 1186.

Adding or type-writing machines, Line-spacing mechanism for. F. C. Rinsche. No. 1,208,375; Dec. 12; Gaz. vol. 233; p. 599.

Addressing-machine. J. S. Duncan. No. 1,209,414; Dec. 19; Gaz. vol. 233; p. 1000.

Addressing-machine, Hand. J. S. Duncan. No. 1,209,413; Dec. 19; Gaz. vol. 233; p. 1000.

Addressing-machines and the like, Automatic feeder for. D. C. Hughes. No. 1,209,411; Dec. 19; Gaz. vol. 233; p. 999.

Adjusting cutter. W. C. Sproul. No. 1,208,852; Dec. 19; Gaz. vol. 233; p. 809.

Advancing and speed-indicating coupling, Automatic. E. C. Newton. No. 1,209,323; Dec. 19; Gaz. vol. 233; p. 967.

Advertising apparatus. S. G. Boernstein. No. 1,208,462; Dec. 12; Gaz. vol. 233; p. 631.

Advertising attachment for tables. P. A. Zindel. No. 1,207,466; Dec. 5; Gaz. vol. 233; p. 234.

Advertising device. C. K. Fotheringham and A. R. Laing. No. 1,207,737; Dec. 12; Gaz. vol. 233; p. 373.

Advertising device. J. J. Lepper. No. 1,207,945; Dec. 12; Gaz. vol. 233; p. 445.

Advertising novelty. G. A. Morrow. No. 1,208,191; Dec. 12; Gaz. vol. 233; p. 533.

Advertising purposes or the like, Means for supplying designs for. A. Bonnet. No. 1,206,805; Dec. 5; Gaz. vol. 233; p. 8.

Aerating apparatus. C. H. Nordell. No. 1,208,821; Dec. 19; Gaz. vol. 233; p. 800.

Aerial croquet. H. D. Thayer. No. 1,208,235; Dec. 12; Gaz. vol. 233; p. 549.

Aerial navigation. R. W. Springer. No. 1,208,684; Dec. 12; Gaz. vol. 233; p. 706.

Aerial torpedoes and aeroplanes, Automatic gravity-stabilizer for. F. W. Buck. No. 1,207,492; Dec. 5; Gaz. vol. 233; p. 245.

Aerial vehicles, Landing-gear for. W. E. Hann. No. 1,207,690; Dec. 5; Gaz. vol. 233; p. 316.

Aeroplane. H. L. Coakley. No. 1,207,373; Dec. 5; Gaz. vol. 233; p. 202.

Aeroplane. H. E. Goldberg. No. 1,209,426; Dec. 19; Gaz. vol. 233; p. 1004.

Aeroplane. W. M. James. No. 1,210,376; Dec. 26; Gaz. vol. 233; p. 1361.

Aeroplane. C. A. Wragg. No. 1,209,923; Dec. 26; Gaz. vol. 233; p. 1210.

Agricultural machines, Riding attachment for. R. Schleusener. No. 1,207,225; Dec. 5; Gaz. vol. 233; p. 152.

Aileron system. H. Kleckler. No. 1,210,879; Dec. 26; Gaz. vol. 233; p. 1362.

Air-circulating apparatus. M. Montague. No. 1,207,816; Dec. 5; Gaz. vol. 233; p. 182.

Air-compressor. C. A. Herle. No. 1,207,165; Dec. 5; Gaz. vol. 233; p. 131.

Air-compressor. W. W. Swetland. No. 1,209,905; Dec. 26; Gaz. vol. 233; p. 1204.

Air-inlets, Exhaust-heater for. G. H. Curtiss. No. 1,210,373; Dec. 26; Gaz. vol. 233; p. 1360.

Air-line coupling, Automatic. F. J. Hollcroft. No. 1,209,965; Dec. 26; Gaz. vol. 233; p. 1224.

Air or gas compressor. T. D. Berkeley. No. 1,209,930; Dec. 26; Gaz. vol. 233; p. 1212.

Air to violet and ultra-violet rays, Machine for subjecting. N. W. Davis. No. 1,209,132; Dec. 19; Gaz. vol. 233; p. 903.

Airship. H. Jander. No. 1,209,301; Dec. 19; Gaz. vol. 233; p. 958.

Airship. A. P. Koch. No. 1,207,934; Dec. 12; Gaz. vol. 233; p. 442.

Airship. H. Leinweber. No. 1,208,337; Dec. 12; Gaz. vol. 233; p. 586.

Alarm: *See*—

Audible alarm.
Burglar-alarm.
Electrical alarm.
Fire-alarm.
Knob-alarm.

Alarm. O. C. Strohm. No. 1,206,939; Dec. 5; Gaz. vol. 233; p. 53.

Alarm apparatus, Automatic. L. E. Moore. No. 1,210,348; Dec. 26; Gaz. vol. 233; p. 1352.

Alarm-controller. J. B. Tibbs. No. 1,209,231; Dec. 19; Gaz. vol. 233; p. 935.

Alcohol from garbage, Method of and apparatus for manufacturing. F. E. Young. No. 1,210,250; Dec. 26; Gaz. vol. 233; p. 1323.

Alkaline compounds, Producing soluble. P. Radmann. No. 1,209,201; Dec. 19; Gaz. vol. 233; p. 926.

Alloy, Tool-steel. R. Furness and R. H. Patch. No. 1,206,833; Dec. 5; Gaz. vol. 233; p. 17.

Alloy, Tool-steel. R. Furness and R. H. Patch. No. 1,206,834; Dec. 5; Gaz. vol. 233; p. 17.

Alloy, Tool-steel. R. H. Patch and R. Furness. No. 1,206,902; Dec. 5; Gaz. vol. 233; p. 41.

Aluminum-chlorid residues, Utilization of. A. M. McAfee. No. 1,206,874; Dec. 5; Gaz. vol. 233; p. 31.

Aluminum, Flux for soldering. C. F. Kriews. No. 1,208,798; Dec. 19; Gaz. vol. 233; p. 789.

Aluminum, Flux for soldering. C. F. Kriews. No. 1,208,799; Dec. 19; Gaz. vol. 233; p. 789.

Amalgam-mixer. H. E. Bashore and E. L. Kraft. No. 1,207,703; Dec. 12; Gaz. vol. 233; p. 360.

Ambulance. R. Williams. No. 1,208,433; Dec. 12; Gaz. vol. 233; p. 621.

Ambulance. C. S. Wood. No. 1,208,260; Dec. 12; Gaz. vol. 233; p. 558.

Ambulance. C. S. Wood. No 1,208,261; Dec. 12; Gaz. vol. 233; p. 559.

Ammonia and compounds thereof, Making. H. W. Lamb. No. 1,207,567; Dec. 5; Gaz. vol. 233; p. 272.

Ammonia-condenser. L. Block. No. 1,210,142; Dec. 26; Gaz. vol. 233; p. 1284.

Ammonia-condensing apparatus. L. Block. No. 1,210,141; Dec. 26; Gaz. vol. 233; p. 1284.

Ammonia-generator. C. W. Vogt. No. 1,208,242; Dec. 12; Gaz. vol. 233; p. 551.

Amusement apparatus. J. D. Hazen. No. 1,207,914; Dec. 12; Gaz. vol. 233; p. 435.

Amusement device. C. G. Simonds and G. W. Doerr. No. 1,206,933; Dec. 5; Gaz. vol. 233; p. 51.

Anchoring means for heavy articles. F. S. Sammel. No. 1,208,667; Dec. 12; Gaz. vol. 233; p. 701.

Anhydrous hydrosulfite from aqueous hydrosulfite, Production of. E. Marburg and G. Münch. No. 1,207,782; Dec. 12; Gaz. vol. 233; p. 389.

Animal-shears. E. S. Bartlett, Sr. No. 1,209,379; Dec. 19; Gaz. vol. 233; p. 987.

Animal-stock. J. F. Massey. No. 1,209,004; Dec. 19; Gaz. vol. 233; p. 859.

Animal-trap. A. L. Darwin. No. 1,208,106; Dec. 12; Gaz. vol. 233; p. 501.

Animal-trap. E. C. Owen. No. 1,207,991; Dec. 12; Gaz. vol. 233; p. 461.

Animal-trap. J. W. Sharp. No. 1,207,087; Dec. 5; Gaz. vol. 233; p. 104.

Animal-trap. G. Stremberger. No. 1,210,114; Dec. 26; Gaz. vol. 233; p. 1276.
Annealing method for metallic tubes. A. O. Rutz. No. 1,209,888; Dec. 26; Gaz. vol. 233; p. 1197.
Annunciator. H. A. Stevens. No. 1,207,655; Dec. 5; Gaz. vol. 233; p. 302.
Annunciator. J. F. Webster. No. 1,207,823; Dec. 12; Gaz. vol. 233; p. 404.
Anticreeper. L. J. Riegler. No. 1,210,206; Dec. 26; Gaz. vol. 233; p. 1307.
Antifriction-hanger. C. T. Null and H. P. Raab. No. 1,207,985; Dec. 12; Gaz. vol. 233; p. 459.
Antilock-picking device. W. H. Draper. No. 1,208,930; Dec. 19; Gaz. vol. 233; p. 837.
Antiskid device for vehicle-wheels. C. P. Smith. No. 1,207,089; Dec. 5; Gaz. vol. 233; p. 104.
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Bag: *See*—
Dust-bag. Traveling-bag.
Feed-bag. Valve-bag.
Golf-bag. Water-bag.
Suspended bag.
Bag and supporting appliance therefor. W. H. Ross. No. 1,206,919; Dec. 5; Gaz. vol. 233; p. 46.

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Baling-press feeding and packing mechanism. G. V. Christopher. No. 1,209,812; Dec. 26; Gaz. vol. 233; p. 1169.
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Tea-ball.
Ball-grinding machine. E. Hanus. No. 1,207,691; Dec. 5; Gaz. vol. 233; p. 316.
Ball-trap. C. A. Rolfe. No. 1,208,838; Dec. 19; Gaz. vol. 233; p. 804.
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Bar: *See*—
Curb-bar. Roofing-bar.
Grate-bar.
Base-ball signaling and indicating system. S. L. Madden. No. 1,207,191; Dec. 5; Gaz. vol. 233; p. 140.
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Basket, Asbestos. M. J. O. Malley. No. 1,209,816; Dec. 19; Gaz. vol. 233; p. 964.
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Primary battery. Storage battery.
Battery cells, Ventilation system for storage-. A. S. Hubbard. No. 1,206,850; Dec. 5; Gaz. vol. 233; p. 23.
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Bit: *See*—
Underreaming-bit.
Blackboard, Spherical. T. G. Craighead. No. 1,207,868; Dec. 12; Gaz. vol. 233; p. 419.
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Building-block. Sewer-block.
Hat-pattern block. Toy block.
Pulley-block.

Block-mold. W. L. Cutler. No. 1,208,299; Dec. 12; Gaz. vol. 233; p. 573.

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Drawing-board. Shoveling-board.
Game-board. Sign-board.
Ironing-board. Teeter-board.
Lath-board. Washboard.

Board-sizing machine. H. J. Mitchell. No. 1,207,976; Dec. 12; Gaz. vol. 233; p. 455.

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Milk-boiler. Upright boiler.
Steam-boiler. Water-tube boiler.
Steam or hot-water boiler.

Boiler. E. C. Meier. No. 1,208,811; Dec. 19; Gaz. vol. 233; p. 795.

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Boiler stay-bolt connection. B. E. D. Stafford and F. K. Landgraf. No. 1,210,013; Dec. 26; Gaz. vol. 233; p. 1240.

Boiler-stay-bolt connection, Flexible. B. E. D. Stafford. No. 1,210,014; Dec. 26; Gaz. vol. 233; p. 1240.

Boiler-tubes, Tool for Removing Incrustation in. F. A. Plimley. No. 1,208,203; Dec. 12; Gaz. vol. 233; p. 537.

Boilers, Apparatus for removing scale from. W. B. Wilkinson. No. 1,207,113; Dec. 5; Gaz. vol. 233; p. 112.

Boll-breaker and cotton-cleaner. T. S. Peterman. No. 1,207,438; Dec. 5; Gaz. vol. 233; p. 227.

Boll-weevil exterminator. S. W. Williams and T. H. Martin. No. 1,209,528; Dec. 19; Gaz. vol. 233; p. 1040.

Bolt: *See*—
Boiler stay-bolt. Stay-bolt.
Rail-joint bolt.

Bolt. E. I. Dodds. No. 1,209,945; Dec. 26; Gaz. vol. 233; p. 1218.

Bolt. C. Giles. No. 1,210,302; Dec. 26; Gaz. vol. 233; p. 1338.

Bolt. T. Hand. No. 1,208,550; Dec. 12; Gaz. vol. 233; p. 660.

Bolt. D. F. Kellogg and C. M. Eckland. No. 1,207,562; Dec. 5; Gaz. vol. 233; p. 271.

Bolt and rivet cutter. F. B. Moudy. No. 1,207,601; Dec. 5; Gaz. vol. 233; p. 283.

Bolt-blanks, Bar for. E. I. Dodds. No. 1,209,948; Dec. 26; Gaz. vol. 233; p. 1218.

Bolts, Blanks for flexible. E. I. Dodds. No. 1,209,949; Dec. 26; Gaz. vol. 233; p. 1218.

Bolts, Manufacturing. E. I. Dodds. No. 1,209,947; Dec. 26; Gaz. vol. 233; p. 1218.

Book-cover protector. R. C. Howard. No. 1,209,967; Dec. 26; Gaz. vol. 233; p. 1225.

Book-holder. D. P. O'Brien. No. 1,207,434; Dec. 5; Gaz. vol. 233; p. 227.

Book-mark. W. M. Blatt. No. 1,209,252; Dec. 19; Gaz. vol. 233; p. 941.

Bookcase, Collapsible. O. C. Miller. No. 1,207,595; Dec. 5; Gaz. vol. 233; p. 282.

Bookkeeper's posting-guide. P. P. Gordon. No. 1,207,396; Dec. 5; Gaz. vol. 233; p. 211.

Boot, Adjustable hot-air. A. G. Scherer. No. 1,209,043; Dec. 19; Gaz. vol. 233; p. 872.

Boot and shoe edges, Finishing. A. B. Wales. No. 1,209,648; Dec. 19; Gaz. vol. 233; p. 1030.

Boot, Fowl-. M. G. Mueller. No. 1,207,196; Dec. 5; Gaz. vol. 233; p. 142.

Boots and shoes, Shank for use in the manufacture of. W. Shaw. No. 1,209,767; Dec. 26; Gaz. vol. 233; p. 1153.

Bootjack. C. A. Fogelstrom and E. J. Kuhn. No. 1,210,295; Dec. 26; Gaz. vol. 233; p. 1336.

Bore-holes from the vertical, Apparatus for determining deviations of. H. Anschütz-Kaempfe. No. 1,209,102; Dec. 19; Gaz. vol. 233; p. 892.

Boring-drill, Rotary. H. R. Hughes. No. 1,209,299; Dec. 19; Gaz. vol. 233; p. 957.

Boring-machine. A. Storm and E. C. O'Hair. No. 1,209,513; Dec. 19; Gaz. vol. 233; p. 1035.

Bosh-plates, Manufacture of. L. L. Knox. No. 1,208,574; Dec. 12; Gaz. vol. 233; p. 670.

Bottle attachment. W. L. Drouilhet. No. 1,210,281; Dec. 26; Gaz. vol. 233; p. 1331.

Bottle-blowing machines, Blow-head for. J. J. Meyer, Jr. No. 1,209,472; Dec. 19; Gaz. vol. 233; p. 1020.

Bottle-carrier. G. E. Brown. No. 1,209,807; Dec. 26; Gaz. vol. 233; p. 1107.

Bottle-case. F. Distler. No. 1,207,379; Dec. 5; Gaz. vol. 233; p. 204.

Bottle-closure. J. M. W. Kitchen. No. 1,207,933; Dec. 12; Gaz. vol. 233; p. 441.

Bottle, Drenching-. G. Dawkins. No. 1,208,922; Dec. 19; Gaz. vol. 233; p. 833.

Bottle-holder. D. E. Riggins. No. 1,210,102; Dec. 26; Gaz. vol. 233; p. 1271.

Bottle holder, Milk-. O. E. Paris. No. 1,208,633; Dec. 12; Gaz. vol. 233; p. 689.

Bottle-holder, Milk-. E. B. Parker. No. 1,207,994; Dec. 12; Gaz. vol. 233; p. 461.

Bottle-indicator. O. J. Aumuller. No. 1,206,792; Dec. 5; Gaz. vol. 233; p. 4.

Bottle, Non-refillable. W. J. Howe. No. 1,207,758; Dec. 12; Gaz. vol. 233; p. 381.

Bottle, Nursing-. W. M. Decker. No. 1,207,377; Dec. 5; Gaz. vol. 233; p. 203.

Bottle-opener. H. L. Vaughan. No. 1,207,100; Dec. 5; Gaz. vol. 233; p. 109.

Bottle rinsing and brushing mechanism. J. H. Kintzele. No. 1,209,850; Dec. 26; Gaz. vol. 233; p. 1183.

Bottle rinsing and conveying machine. C. A. Miller. No. 1,207,592; Dec. 5; Gaz. vol. 233; p. 281.

Bottle-stopper. C. Arnone. No. 1,208,447; Dec. 12; Gaz. vol. 233; p. 625.

Bottle-stopper, Sanitary. R. P. Buffington. No. 1,208,089; Dec. 12; Gaz. vol. 233; p. 494.

Bottle-washing machine. W. R. Coppage. No. 1,207,866; Dec. 12; Gaz. vol. 233; p. 418.

Bottle-washing machine. J. H. Kintzele. No. 1,209,849; Dec. 26; Gaz. vol. 233; p. 1182.

Bottles and other containers, Fibrous cap for. A. Westlake. No. 1,209,091; Dec. 19; Gaz. vol. 233; p. 888.

Bottles, Dispensing-stand for Inverted. H. G. Cordley. No. 1,207,505; Dec. 5; Gaz. vol. 233; p. 250.

Bottles, Jars, and the like, Machine for securing metallic screw-caps to. F. Evans. No. 1,208,529; Dec. 12; Gaz. vol. 233; p. 654.

Bow, Archer's. P. E. Kvistad. No. 1,210,332; Dec. 26; Gaz. vol. 233; p. 1347.

Bows or looped knots, Apparatus for making. C. Webb. No. 1,209,525; Dec. 19; Gaz. vol. 233; p. 1039.

Box: *See*—
Ballot-box. Outlet-box.
Berry-box. Paper box.
Building-box. Safety-box.
Friction-box. Shipping-box.
Journal-box. Signal-box.
Junction or outlet box. Vanity-box.
Mail-box. Vehicle-box.
Match-box. Water-meter box.
Miter-box.

Box. C. Q. C. Leigh. No. 1,209,178; Dec. 19; Gaz. vol. 233; p. 918.

Box and crate opener. D. Victor. No. 1,209,520; Dec. 19; Gaz. vol. 233; p. 1038.

Box and manufacture thereof. E. Craig. No. 1,208,297; Dec. 12; Gaz. vol. 233; p. 573.

Box-cutting machine. J. W. Schleicher and F. M. Boyer. No. 1,206,925; Dec. 5; Gaz. vol. 233; p. 48.

Box-filling machine. M. Paridon. No. 1,206,901; Dec. 5; Gaz. vol. 233; p. 40.

Box-header. E. C. Meier. No. 1,208,813; Dec. 19; Gaz. vol. 233; p. 796.

Box-lid opener. C. R. Allison. No. 1,209,794; Dec. 26; Gaz. vol. 233; p. 1163.

Box-making machine. M. Paridon. No. 1,206,899; Dec. 5; Gaz. vol. 233; p. 40.

Box-opener. A. L. Uberto. No. 1,210,021; Dec. 26; Gaz. vol. 233; p. 1243.

Box-pasting machine. R. B. Bohaker. No. 1,210,269; Dec. 26; Gaz. vol. 233; p. 1328.

Box-shucks, Treating wooden. M. Paridon. No. 1,206,900; Dec. 5; Gaz. vol. 233; p. 40.

Box-staying machines, Safety device for. J. O. Horton. No. 1,206,847; Dec. 5; Gaz. vol. 233; p. 22.

Boxes, Making reinforced. M. Paridon. No. 1,206,898; Dec. 5; Gaz. vol. 233; p. 39.

Boxes, Paper sheet material for. J. H. Greenstreet. No. 1,208,952; Dec. 19; Gaz. vol. 233; p. 842.

Brace: *See*—
Fence-post brace. Shoulder-brace.
Railway-track brace.

Brace and coat-stay. W. Levinson. No. 1,209,311; Dec. 19; Gaz. vol. 233; p. 962.

Bracelet. A. Hadley. No. 1,207,903; Dec. 12; Gaz. vol. 233; p. 431.

Bracelet, Expansible. S. Bruner. No. 1,207,366; Dec. 5; Gaz. vol. 233; p. 199.

Bracelet-link. M. L. Robbins. No. 1,207,627; Dec. 5; Gaz. vol. 233; p. 292.

Bracelet or chain, Expansible. H. Garabedian. No. 1,209,830; Dec. 26; Gaz. vol. 233; p. 1175.

Bracket: *See*—
Lamp-bracket. Scaffold-bracket.
Lamp and number-plate bracket.

Brake: *See*—
Automobile-brake. Spring-brake.
Band-brake. Talking-machine brake.
Car-brake. Vehicle-brake.
Elevator-brake. Wagon-brake.
Flim-roller brake.

Brake beam, Clasp-. C. H. Williams. No. 1,207,254; Dec. 5; Gaz. vol. 233; p. 102.

Brake-beam fulcrums having integral third-point support, Manufacturing. F. J. Schroeder. No. 1,206,928; Dec. 5; Gaz. vol. 233; p. 49.

Brake-beams, Safety-hanger for. C. H. Williams. No. 1,207,255; Dec. 5; Gaz. vol. 233; p. 102.

Brake-beams, Third-point support for. C. H. Williams. No. 1,207,253; Dec. 5; Gaz. vol. 233; p. 102.

Brake ratchet mechanism. W. J. Knox. No. 1,209,455; Dec. 19; Gaz. vol. 233; p. 1014.

Brake-shaft mounting for wagon-gear. A. F. Tonnemacher. No. 1,208,050; Dec. 12; Gaz. vol. 233; p. 481.

Brake-shoe. C. W. Armbrust. No. 1,210,384; Dec. 26; Gaz. vol. 233; p. 1364.

Brake-shoe and back therefor, Interlocking. J. D. Gallagher. No. 1,208,943; Dec. 19; Gaz. vol. 233; p. 839.

Brake-shoe back. C. W. Armbrust. No. 1,210,383; Dec. 26; Gaz. vol. 233; p. 1364.

Brake-shoes, Reinforcing-back for. J. Hoffhine. No. 1,208,782; Dec. 19; Gaz. vol. 233; p. 784.

Brake-shoes, Supporting-bracket for. T. F. Tomlinson. No. 1,209,232; Dec. 19; Gaz. vol. 233; p. 936.

Brass surfaces, Crystallizing. O. R. Basenohr. No. 1,207,910; Dec. 12; Gaz. vol. 233; p. 434.

Bread-cutter. T. W. Forster. No. 1,207,525; Dec. 5; Gaz. vol. 233; p. 256.

Bread holder or stand. M. L. Welsh. No. 1,207,106; Dec. 5; Gaz. vol. 233; p. 110.

Brick-machine. L. Buckley. No. 1,207,272; Dec. 5; Gaz. vol. 233; p. 168.

Brick-machine. C. H. Horton. No. 1,210,317; Dec. 26; Gaz. vol. 233; p. 1342.

Bricks, Plastic composition for making fire-. E. V. Wagner. No. 1,209,784; Dec. 26; Gaz. vol. 233; p. 1159.

Bridge-gate, Collapsible. S. L. Neely. No. 1,207,609; Dec. 5; Gaz. vol. 233; p. 286.

Bridle, Leading and subduing. F. L. Koepke. No. 1,209,724; Dec. 26; Gaz. vol. 233; p. 1138.

Briquets of coal, coke, turf, iron or other ores, or the like, Manufacture of. E. Kleinschmidt. No. 1,207,180; Dec. 5; Gaz. vol. 233; p. 136.

Brooder. W. E. Hill. No. 1,207,403; Dec. 5; Gaz. vol. 233; p. 214.

Brooder. H. W. McCrabbe and H. F. Norton. No. 1,207,424; Dec. 5; Gaz. vol. 233; p. 222.

Brooder, Chicken-. G. Jesse. No. 1,209,444; Dec. 19; Gaz. vol. 233; p. 1010.

Broom. H. J. Edlund. No. 1,208,523; Dec. 12; Gaz. vol. 233; p. 651.

Broom-. F. M. Williams. No. 1,207,457; Dec. 5; Gaz. vol. 233; p. 233.

Broom-bridle. C. Bouffier. No. 1,208,733; Dec. 19; Gaz. vol. 233; p. 765.

Broom, Detachable-handle. R. Houston. No. 1,210,319; Dec. 26; Gaz. vol. 233; p. 1343.

Broom-rack. T. C. Dell. No. 1,208,923; Dec. 19; Gaz. vol. 233; p. 834.

Brush. R. D. Leary. No. 1,209,176; Dec. 19; Gaz. vol. 233; p. 917.

Brush. G. K. Nakashima. No. 1,208,623; Dec. 12; Gaz. vol. 233; p. 686.

Brush cover, Tooth-. S. D. Brelsfoard. No. 1,209,111; Dec. 19; Gaz. vol. 233; p. 895.

Brush, Fabric-renovating. F. J. Prasil and J. G. Betar. No. 1,208,001; Dec. 12; Gaz. vol. 233; p. 463.

Brush-holder. J. Chabot. No. 1,209,557; Dec. 19; Gaz. vol. 233; p. 1049.

Brush-machine. H. A. Olsson. No. 1,209,194; Dec. 19; Gaz. Vol. 233; p. 923.

Brush, Rotary. T. M. Roland. No. 1,208,713; Dec. 12; Gaz. vol. 233; p. 717.

Brush, Shaving-. F. W. Zeidler. No. 1,207,121; Dec. 5; Gaz. vol. 233; p. 115.

Brush, Tooth-. C. E. Thompson. No. 1,209,516; Dec. 19; Gaz. vol. 233; p. 1036.

Bucket, Collapsible. N. P. Arnold. No. 1,208,445; Dec. 12; Gaz. vol. 233; p. 625.

Bucket, Concrete-. C. A. Nelson. No. 1,210,196; Dec. 26; Gaz. vol. 233; p. 1304.

Bucket, Dipper-. E. E. Vanderhoef. No. 1,208,055; Dec. 12; Gaz. vol. 233; p. 483.

Bucket, Excavating-. J. Matthews. No. 1,209,988; Dec. 26; Gaz. vol. 233; p. 1232.

Bucket for coal-barges, Coal-containing. H. Phillips. No. 1,207,208; Dec. 5; Gaz. vol. 233; p. 146.

Bucket-holder. G. W. Markwell. No. 1,209,184; Dec. 19; Gaz. vol. 233; p. 919.

Bucket, Well-. N. G. Bowles. No. 1,208,901; Dec. 19; Gaz. vol. 233; p. 827.

Buckets, Bail for dipper-. E. E. Vanderhoef. No. 1,207,245; Dec. 5; Gaz. vol. 233; p. 158.

Buckets, Pulley-block and connection for dipper-. E. E. Vanderhoef. No. 1,207,244; Dec. 5; Gaz. vol. 233; p. 158.

Buckle. P. W. Pearson. No. 1,209,017; Dec. 19; Gaz. vol. 233; p. 863.

Buckle. L. W. Thomas. No. 1,209,075; Dec. 19; Gaz. vol. 233; p. 883.

Buckle, Bale-band. W. C. Ragsdale. No. 1,209,496; Dec. 19; Gaz. vol. 233; p. 1028.

Buckle, Bale-tie. H. P. Childress. No. 1,209,119; Dec. 19; Gaz. vol. 233; p. 898.

Buckle, Garment-. C. Fasoldt. No. 1,208,531; Dec. 12; Gaz. vol. 233; p. 654.

Building-block. J. E. Exner. No. 1,210,287; Dec. 26; Gaz. vol. 233; p. 1338.

Building-box for erecting framework structures. A. Richter. No. 1,208,834; Dec. 19; Gaz. vol. 233; p. 803.

Building construction. T. H. Kane. No. 1,208,826; Dec. 12; Gaz. vol. 233; p. 582.

Building construction. T. H. Kane. No. 1,208,568; Dec. 12; Gaz. vol. 233; p. 667.

Buildings, Construction of. C. G. Gulbrand. No. 1,209,698; Dec. 26; Gaz. vol. 233; p. 1129.

Bull-ring. C. B. Wagner, Jr. No. 1,209,083; Dec. 19; Gaz. vol. 233; p. 885.

Bumper-bar support. R. B. Fageol. No. 1,207,007; Dec. 5; Gaz. vol. 233; p. 76.

Bumper, Spring-. J. H. Sager. No. 1,208,382; Dec. 12; Gaz. vol. 233; p. 602.

Burglar-alarm. D. Cruice. No. 1,208,503; Dec. 12; Gaz. vol. 233; p. 645.

Burglar-alarm. F. R. Kawahara. No. 1,207,559; Dec. 5; Gaz. vol. 233; p. 270.

Burglar-alarm. O. K. Reynolds. No. 1,208,007; Dec. 12; Gaz. vol. 233; p. 466.

Burner: *See*—
Hydrocarbon-burner. Vapor-burner.
Oil-burner.

Butter-forming machine. N. Choquette. No. 1,207,865; Dec. 12; Gaz. vol. 233; p. 418.

Button. A. Jonas. No. 1,208,323; Dec. 12; Gaz. vol. 233; p. 581.

Button. H. T. Kravik. No. 1,209,170; Dec. 19; Gaz. vol. 233; p. 915.

Button. O. A. Wyckoff. No. 1,206,969; Dec. 5; Gaz. vol. 233; p. 64.

Button, Collar-. J. E. Rusha. No. 1,209,624; Dec. 19; Gaz. vol. 233; p. 1071.

Button-fastening machines, Button-placing finger-guide for shoe-. F. G. Waltz. No. 1,206,957; Dec. 5; Gaz. vol. 233; p. 59.

Button for shoes, &c. W. E. Elliott. No. 1,209,418; Dec. 19; Gaz. vol. 233; p. 1002.

Button-hook. C. S. Fewell. No. 1,207,522; Dec. 5; Gaz. vol. 233; p. 256.

Button machines, Tool-post for pearl-. P. F. Dusha and A. Feyk. No. 1,210,153; Dec. 26; Gaz. vol. 233; p. 1290.

Button setting and riveting machine. F. E. Stanley. No. 1,207,652; Dec. 5; Gaz. vol. 233; p. 300.

Button-setting machines, Wire-feed stop mechanism for. L. R. Pomeroy. No. 1,206,913; Dec. 5; Gaz. vol. 233; p. 44.

Button, Shoe-. W. E. Elliott. No. 1,208,934; Dec. 19; Gaz. vol. 233; p. 837.

Button, Spring-hook collar-. M. Ruelas. No. 1,207,079; Dec. 5; Gaz. vol. 233; p. 101.

Buttoner. F. N. Sturgis. No. 1,208,043; Dec. 12; Gaz. vol. 233; p. 478.

Buttonhole cutting and stitching machine. E. B. Allen. No. 1,209,926; Dec. 26; Gaz. vol. 233; p. 1210.

Buttoning device, Renewable. R. F. Halladay. No. 1,208,148; Dec. 12; Gaz. vol. 233; p. 517.

Buttoning-machine. H. E. Enslin. No. 1,207,151; Dec. 5; Gaz. vol. 233; p. 126.

Buttoning-machine. H. E. Enslin. No. 1,207,729; Dec. 12; Gaz. vol. 233; p. 370.

Buttoning-machine. L. Farnum. No. 1,207,731; Dec. 12; Gaz. vol. 233; p. 371.

Buttoning machine, Shoe-. L. J. Bazzoni. No. 1,207,730; Dec. 12; Gaz. vol. 233; p. 370.

Cabinet, Card-index. F. S. Long. No. 1,207,949; Dec. 12; Gaz. vol. 233; p. 447.

Cabinet, Kitchen-. F. Coss. No. 1,209,129; Dec. 19; Gaz. vol. 233; p. 902.

Cabinet, Kitchen-. C. B. Heath. No. 1,208,153; Dec. 12; Gaz. vol. 233; p. 519.

Cabinet, Portable dark. G. Leachman. No. 1,208,586; Dec. 12; Gaz. vol. 233; p. 674.

Cable-lubricating wheel. W. M. Van Deusen and F. Persson. No. 1,207,447; Dec. 5; Gaz. vol. 233; p. 230.

Cable-making machines, Traverse mechanism for. W. N. Rettinger. No. 1,208,372; Dec. 12; Gaz. vol. 233; p. 598.

Cable-terminal-plug retainer. E. A. Hawthorne. No. 1,210,068; Dec. 26; Gaz. vol. 233; p. 1258.

Cable-tip, Universal. F. W. Smith. No. 1,210,110; Dec. 26; Gaz. vol. 233; p. 1274.

Cake, &c., coating machine. L. C. Reed and O. P. Smith. No. 1,210,002; Dec. 26; Gaz. vol. 233; p. 1237.

Calculating-machine. F. S. and G. H. Baldwin. No. 1,207,700; Dec. 12; Gaz. vol. 233; p. 358.

Calculating-machine. P. H. Berger. No. 1,208,271; Dec. 12; Gaz. vol. 233; p. 562.
Calculating-machine. P. H. Berger. No. 1,208,272; Dec. 12; Gaz. vol. 233; p. 562.
Calculating-machine. S. E. Carlin. No. 1,208,287; Dec. 12; Gaz. vol. 233; p. 568.
Calculating-machine. S. E. Carlin. No. 1,208,288; Dec. 12; Gaz. vol. 233; p. 568.
Calculating-machines, Carriage-lock for. J. R. Monroe. No. 1,208,190; Dec. 12; Gaz. vol. 233; p. 533.
Calculating system, Interest-. C. Gilbert. No. 1,208,538; Dec. 12; Gaz. vol. 233; p. 657.
Calculator. L. E. Picolet. No. 1,207,439; Dec. 5; Gaz. vol. 233; p. 227.
Calendar. B. A. Oehler. No. 1,207,987; Dec. 12; Gaz. vol. 233; p. 490.
Caliper, Direct-reading micrometer-. W. S. Davenport. No. 1,210,051; Dec. 26; Gaz. vol. 233; p. 1253.
Calling device, Multiple-dial. A. E. Keith. No. 1,209,303; Dec. 19; Gaz. vol. 233; p. 959.
Camera. F. J. Wende. No. 1,209,239; Dec. 19; Gaz. vol. 233; p. 937.
Camera. H. I. Williams. No. 1,208,066; Dec. 12; Gaz. vol. 233; p. 487.
Camera attachment. D. Palmer. No. 1,209,015; Dec. 19; Gaz. vol. 233; p. 862.
Camera-holding device. E. S. McAll. No. 1,208,344; Dec. 12; Gaz. vol. 233; p. 588.
Camera, Magazine-. J. P. Hansen. No. 1,210,164; Dec. 26; Gaz. vol. 233; p. 1293.
Camera-operating device. W. H. Morris. No. 1,209,745; Dec. 26; Gaz. vol. 233; p. 1145.
Camera, Photographic. H. L. Ide. No. 1,208,320; Dec. 12; Gaz. vol. 233; p. 580.
Camera, Photographic. H. L. Ide. No. 1,208,321; Dec. 12; Gaz. vol. 233; p. 580.
Camera tripping attachment. J. R. Montague. No. 1,208,617; Dec. 12; Gaz. vol. 233; p. 684.
Cameras, Magazine film-holder for. L. J. R. Holst. No. 1,208,558; Dec. 12; Gaz. vol. 233; p. 664.
Cameras, Shutter-operating attachment for. J. E. Payne. No. 1,208,711; Dec. 12; Gaz. vol. 233; p. 716.
Can: *See*—
Ash-can. Oil-can.
Garbage-can. Sheet-metal can.
Milk-can. Tobacco-can.
Can-capping machine. C. T. Small. No. 1,208,848; Dec. 19; Gaz. vol. 233; p. 808.
Can-cleaning machines, Spacing device for. W. A. Beckett. No. 1,209,801; Dec. 26; Gaz. vol. 233; p. 1165.
Can-heading machine. N. Troyer. No. 1,209,233; Dec. 19; Gaz. vol. 233; p. 936.
Can-opener. E. Crites and H. Gribler. No. 1,208,500; Dec. 12; Gaz. vol. 233; p. 644.
Cans, Lined end for sanitary. J. Cereghino. No. 1,207,500; Dec. 5; Gaz. vol. 233; p. 248.
Cans, Odorless cover for garbage-. H. F. Frederick. No. 1,208,766; Dec. 19; Gaz. vol. 233; p. 778.
Candy-cooling pan. J. C. Drew. No. 1,207,148; Dec. 5; Gaz. vol. 233; p. 124.
Cane-cutter, Rotary. W. A. Ramsay. No. 1,209,618; Dec. 19; Gaz. vol. 233; p. 1069.
Cane mills, Pressure-regulating device for the rollers of sugar-. B. W. Aitken. No. 1,210,254; Dec. 26; Gaz. vol. 233; p. 1324.
Cap, Automobile-. F. Raudnitz. No. 1,207,440; Dec. 5; Gaz. vol. 233; p. 228.
Cap, Automobile-. G. C. and E. T. Thomas. No. 1,208,403; Dec. 12; Gaz. vol. 233; p. 610.
Cap, Extractor-. H. D. Cornwall. No. 1,210,050; Dec. 26; Gaz. vol. 233; p. 1252.
Caps, Detachable resilient support for. M. Weber. No. 1,210,119; Dec. 26; Gaz. vol. 233; p. 1277.
Car and lock for freight-car doors, Freight-. A. W. Berresford. No. 1,210,264; Dec. 26; Gaz. vol. 233; p. 1327.
Car attachment, Freight-. D. H. Butts. No. 1,210,144; Dec. 26; Gaz. vol. 233; p. 1285.
Car brake, Railway-. N. B. Ayres. No. 1,208,705; Dec. 12; Gaz. vol. 233; p. 714.
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Bottle-carrier. Hay-carrier.
Child's carrier. Litter-carrier.
Dental-floss carrier. Mail-carrier.
Egg-carrier. Parcel-carrier.
Feed-carrier. Tire-carrier.
Fruit-carrier. Wheel-carrier.
Harvester bundle-carrier. Woven carrier.
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Bottle-case. Wall-case.
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Hoe-clamp.
Rail-clamp.
Record-disk clamp.
Rope-clamp.
Strap-clamp.
Clamp. J. Keiser. No. 1,209,593; Dec. 19; Gaz. vol. 233; p. 1061.
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Comb-cleaner.
Cotton-cleaner.
Floor-cleaner.
Pipe-cleaner.
Street-cleaner.
Suction-cleaner.
Vacuum-cleaner.
Wind-shield cleaner.
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Pen-clip.
Spoke-clip.
Wire-holding clip.
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Water-closet.
Closet-seat. M. J. Whelan. No. 1,208,869; Dec. 19; Gaz. vol. 233; p. 815.
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Concrete smoke-jack. R. T. Everett. No. 1,208,114; Dec. 12; Gaz. vol. 233; p. 504.
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Containers, Locking-closure for. A. Holtz. No. 1,207,044; Dec. 5; Gaz. vol. 233; p. 88.
Control system. R. C. Newhouse. No. 1,207,983; Dec. 12; Gaz. vol. 233; p. 458.
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Cooker, Electric. W. Richmond. No. 1,208,213; Dec. 12; Gaz. vol. 233; p. 540.
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Cooking apparatus, Electric. S. I. Phelps. No. 1,208,637; Dec. 12; Gaz. vol. 233; p. 690.
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Milk-cooler.
Cooling and humidifying apparatus. J. M. Seymour, Jr. No. 1,208,390; Dec. 12; Gaz. vol. 233; p. 605.
Coop. G. T. Royer. No. 1,209,022; Dec. 19; Gaz. vol. 233; p. 1071.
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Copy-holder. F. E. Steinbrunn. No. 1,208,087; Dec. 12; Gaz. vol. 233; p. 707.
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Corks, Making composite. H. F. Busch. No. 1,209,259; Dec. 19; Gaz. vol. 233; p. 944.
Corn husking and shredding machine. W. F. MacGregor. No. 1,207,189; Dec. 5; Gaz. vol. 233; p. 139.
Corn-popper and analogous device. F. A. Traver. No. 1,208,239; Dec. 12; Gaz. vol. 233; p. 550.
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Corset measuring and testing machine. H. C. Smith. No. 1,207,232; Dec. 5; Gaz. vol. 233; p. 154.
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Costs, Apparatus for recording and computing manufacturing. N. T. Ficker. No. 1,208,119; Dec. 12; Gaz. vol. 233; p. 506.
Cotton-chopper. G. J. Westphal. No. 1,207,455; Dec. 5; Gaz. vol. 233; p. 233.
Cotton-cleaner. E. E. Dickerson. No. 1,207,878; Dec. 12; Gaz. vol. 233; p. 422.
Cotton cleaner, Seed-. T. M. Cass. No. 1,200,114; Dec. 19; Gaz. vol. 233; p. 896.
Cotton-gin. L. L. Foss. No. 1,207,288; Dec. 5; Gaz. vol. 233; p. 173.
Cotton-gins, Self-adjusting feed attachment for. T. Wear. No. 1,208,423; Dec. 12; Gaz. vol. 233; p. 618.
Cotton scraper, chopper, and cultivator. W. H. Tipton. No. 1,207,094; Dec. 5; Gaz. vol. 233; p. 106.
Counter appliance. J. A. Clarke. No. 1,208,485; Dec. 12; Gaz. vol. 233; p. 639.
Counter-flashing attachment. H. S. Gardner. No. 1,210,060; Dec. 26; Gaz. vol. 233; p. 1256.
Counter-operating attachment. H. Ehlig. No. 1,206,825; Dec. 5; Gaz. vol. 233; p. 15.
Counting apparatus. V. T. Boreham. No. 1,208,465; Dec. 12; Gaz. vol. 233; p. 631.
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Counting-machine. H. Rawnsley. No. 1,209,203; Dec. 19; Gaz. vol. 233; p. 926.
Coupling: *See*—
Air-line coupling.
Boiler-coupling.
Car-coupling.
Chuck-coupling.
Hay-rack coupling.
Hose-coupling.
Pipe-coupling.
Shaft-coupling.
Coupling. G. Westinghouse. No. 1,208,252; Dec. 12; Gaz. vol. 233; p. 555.
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Couplings, Uncoupling device for. H. Vissering. No. 1,209,236; Dec. 19; Gaz. vol. 233; p. 937.
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Cradle, Folding. V. R. Johnson. No. 1,209,447; Dec. 19; Gaz. vol. 233; p. 1011.
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Crank-shaft connection. M. Elliott. No. 1,207,003; Dec. 5; Gaz. vol. 233; p. 75.
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Cream-separators, Skimming device for. L. J. Hedderich. No. 1,208,960; Dec. 19; Gaz. vol. 233; p. 844.
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Crochet-ball holder. C. H. Crowley. No. 1,208,502; Dec. 12; Gaz. vol. 233; p. 645.
Crochet-machine. J. M. Merrow. No. 1,207,314; Dec. 5; Gaz. vol. 233; p. 182.
Crocheting-needle. E. S. Hawkins. No. 1,208,958; Dec. 19; Gaz. vol. 233; p. 843.
Crocheting, Tensioning device for. F. S. Hughes. No. 1,210,320; Dec. 26; Gaz. vol. 233; p. 1343.
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Cuff-fastener. S. Kielar. No. 1,210,081; Dec. 26; Gaz. vol. 233; p. 1263.
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Culinary apparatus, Electrically-heated. W. S. Hadaway, Jr. No. 1,210,062; Dec. 26; Gaz. vol. 233; p. 1256.
Culinary articles, Lid for. V. Galletta. No. 1,210,301; Dec. 26; Gaz. vol. 233; p. 1337.
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Cultivator-fender. R. O. Hunter. No. 1,210,073; Dec. 26; Gaz. vol. 233; p. 1260.
Cultivator frame, Adjustable riding-. W. M. Willmore. No. 1,208,434; Dec. 12; Gaz. vol. 233; p. 621.
Culvert, Nestable. J. R. Freeze. No. 1,207,740; Dec. 12; Gaz. vol. 233; p. 375.
Cup: *See*—
Grease-cup.
Oil-cup.
Cup. F. B. Chesbrough. No. 1,208,483; Dec. 12; Gaz. vol. 233; p. 639.

Cup-holder. J. E. Sullivan. No. 1,207,092; Dec. 5; Gaz. vol. 233; p. 105.
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Curling-iron. S. Trood. No. 1,210,018; Dec. 26; Gaz. vol. 233; p. 1242.
Current-meter. H. E. Popp. No. 1,209,024; Dec. 19; Gaz. vol. 233; p. 865.
Current motor, Alternating-. H. W. Jeannin. No. 1,209,443; Dec. 19; Gaz. vol. 233; p. 1010.
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Current-reversing mechanism, Automatic. H. K. Sandell. No. 1,208,386; Dec. 12; Gaz. vol. 233; p. 603.
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Curtain-roller, Sheet-metal. J. F. Lemon and A. Warner. No. 1,207,943; Dec. 12; Gaz. vol. 233; p. 446.
Cushion: *See*—
Automobile air-cushion.
Pneumatic cushion.
Cutlery article. L. E. Young. No. 1,208,435; Dec. 12; Gaz. vol. 233; p. 622.
Cutter: *See*—
Adjusting cutter.
Bolt and rivet cutter.
Bread-cutter.
Cane-cutter.
Needle-cutter.
Paper-cutter.
Pattern-cutter.
Pipe-cutter.
Rotary cutter.
Shoe-sole cutter.
Wire-cutter.
Cutter-head and cutter. A. F. Preston. No. 1,208,371; Dec. 12; Gaz. vol. 233; p. 598.
Cutter-head for jointers. E. J. Lobdell. No. 1,209,180; Dec. 19; Gaz. vol. 233; p. 918.
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Cutting sheet-form material, Machine for. W. F. Simpson. No. 1,208,847; Dec. 19; Gaz. vol. 233; p. 807.
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Cycle-saddle. M. M. Deem. No. 1,209,564; Dec. 19; Gaz. vol. 233; p. 1051.
Cycle stand, Motor-. A. W. Moulton. No. 1,209,476; Dec. 19; Gaz. vol. 233; p. 1021.
Cycle support, Motor-. H. E. Reese. No. 1,209,029; Dec. 19; Gaz. vol. 233; p. 866.
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Cyclometer. F. W. Baumgaertner. No. 1,209,382; Dec. 19; Gaz. vol. 233; p. 988.
Cylinder, Steam-. A. N. Quickstad. No. 1,209,028; Dec. 19; Gaz. vol. 233; p. 866.
Damper, Flue-draft-controlling. H. H. Drew. No. 1,209,686; Dec. 26; Gaz. vol. 233; p. 1125.
Deal-plate. C. A. Fullerton. No. 1,207,532; Dec. 5; Gaz. vol. 233; p. 258.
Dehydrater. C. Robinson. No. 1,208,014; Dec. 12; Gaz. vol. 233; p. 468.
Dental-film-developing apparatus. H. F. Waite. No. 1,208,244; Dec. 12; Gaz. vol. 233; p. 552.
Dental-floss carrier. C. E. Richardson. No. 1,210,205; Dec. 26; Gaz. vol. 233; p. 1307.
Dental-floss holder. B. P. Roach. No. 1,210,207; Dec. 26; Gaz. vol. 233; p. 1308.
Dental instrument. W. E. Wilson. No. 1,209,789; Dec. 26; Gaz. vol. 233; p. 1161.
Dental-matrix retainer. N. B. Riddle. No. 1,209,499; Dec. 19; Gaz. vol. 233; p. 1030.
Dental tool. S. A. Crocker, Jr. No. 1,208,501; Dec. 12; Gaz. vol. 233; p. 644.
Dentists' use, Hot water and air tank for. H. W. Le Fevre. No. 1,209,599; Dec. 19; Gaz. vol. 233; p. 1063.
Depilatory apparatus. W. B. Hollingshead. No. 1,210,316; Dec. 26; Gaz. vol. 233; p. 1342.
Derail, Portable. E. R. Packer. No. 1,207,788; Dec. 12; Gaz. vol. 233; p. 391.
Desk and seat, Unitary writing-. H. M. Ragetlie. No. 1,208,003; Dec. 12; Gaz. vol. 233; p. 464.
Detachable handle. A. N. Cooper. No. 1,209,676; Dec. 26; Gaz. vol. 233; p. 1122.
Dial, Sun-. J. Hartness. No. 1,209,289; Dec. 19; Gaz. vol. 233; p. 955.
Diaphragms, Making. H. C. Miller. No. 1,206,881; Dec. 5; Gaz. vol. 233; p. 34.
Dictaphone attachment. J. J. Scully. No. 1,209,891; Dec. 26; Gaz. vol. 233; p. 1198.
Die-head attachment. W. H. Gates. No. 1,209,140; Dec. 19; Gaz. vol. 233; p. 905.
Die-stock. L. T. Hammond. No. 1,209,960; Dec. 26; Gaz. vol. 233; p. 1222.
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Peanut-digger.
Dimmer. W. E. Cochran. No. 1,208,487; Dec. 12; Gaz. vol. 233; p. 640.
Dipper-front. E. E. Vanderhoef. No. 1,208,054; Dec. 12; Gaz. vol. 233; p. 482.
Dipper-tooth. M. E. Reisinger. No. 1,210,366; Dec. 26; Gaz. vol. 233; p. 1358.
Directory-rack. J. R. Dumont. No. 1,209,818; Dec. 26; Gaz. vol. 233; p. 1171.
Directory-rack. J. R. Dumont. No. 1,209,819; Dec. 26; Gaz. vol. 233; p. 1171.
Dirt-machine. H. Davis. 1,206,819; Dec. 5; Gaz. vol. 233; p. 13.
Dish-washer. L. F. Clauss. No. 1,209,263; Dec. 19; Gaz. vol. 233; p. 945.
Dish-washing machine. W. B. Barley. No. 1,208,727; Dec. 19; Gaz. vol. 233; p. 763.
Disinfectant-distributer. T. C. Krings. No. 1,208,985; Dec. 19; Gaz. vol. 233; p. 852.
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Dispensing-cabinet. C. G. Lehmann. No. 1,207,942; Dec. 12; Gaz. vol. 233; p. 444.
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Drier: *See*—
Hair-drier.
Hygienic drier.
Drill: *See*—
Boring-drill.
Coal-drill.
Pneumatic or steam drill.
Rock-drill.
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Combustion-engine.
Fluid-engine.
Gas-engine.
Hydrocarbon-engine.
Internal-combustion engine.
Locomotive-engine.
Rotary engine.
Rotary explosive-engine.
Rotary internal-combustion engine.
Rotary steam-engine.
Steam-engine.
Traction-engine.
Turbine-engine.
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Automobile-extractor.
Weed-extractor.
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Coated fabric.
Knit fabric.
Mattress fabric.
Metal fabric.
Open-mesh fabric.
Pile fabric.
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Fan, Lawn-swing. H. B. Porter. No. 1,208,645; Dec. 12; Gaz. vol. 233; p. 694.
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Faucet. H. D. Kelly. No. 1,207,053; Dec. 5; Gaz. vol. 233; p. 91.
Faucet, Combined hot and cold water. J. B. Perry. No. 1,207,997; Dec. 12; Gaz. vol. 233; p. 462.
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Feed-water regulator. C. W. Sutherland. No. 1,209,355; Dec. 19; Gaz. vol. 233; p. 978.
Feeder, Poultry-. C. D. Karr. No. 1,209,973; Dec. 26; Gaz. vol. 233; p. 1226.
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Fence-post brace. L. Olson. No. 1,208,361; Dec. 12; Gaz. vol. 233; p. 595.
Fence-post, Extensible. N. Smith. No. 1,210,111; Dec. 26; Gaz. vol. 233; p. 1275.
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Fences, Combined post and wire-clamp for erecting wire. E. A. Thiele. No. 1,207,344; Dec. 5; Gaz. vol. 233; p. 191.
Fences, Repairing-tool for barb-wire. F. A. Buswell. No. 1,207,367; Dec. 5; Gaz. vol. 233; p. 200.
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Auto-fender.
Automobile-fender.
Cultivator-fender.
Vehicle-fender.
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Film-roller brake, Automatic. R. N. Wilkinson, Jr. No. 1,210,241; Dec. 26; Gaz. vol. 233; p. 1319.
Film-splicer. J. W. and L. P. Schippers. No. 1,209,339; Dec. 19; Gaz. vol. 233; p. 972.
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Filter. T. J. Loftus. No. 1,208,342; Dec. 12; Gaz. vol. 233; p. 588.
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Finder. J. Becker. No. 1,210,134; Dec. 26; Gaz. vol. 233; p. 1281.
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Finder. J. Becker. No. 1,210,137; Dec. 26; Gaz. vol. 233; p. 1282.
Finder, Focus and field. J. Becker. No. 1,210,136; Dec. 26; Gaz. vol. 233; p. 1282.
Finger-ring. A. T. Hunt. No. 1,207,047; Dec. 5; Gaz. vol. 233; p. 89.
Fire-alarm and watchman's signal-transmitter, Combined. C. E. Potter. No. 1,208,205; Dec. 12; Gaz. vol. 233; p. 538.
Fire-alarm or signaling system. J. M. Seymour, Jr. No. 1,208,889; Dec. 12; Gaz. vol. 233; p. 604.
Fire-alarm system. G. W. Hochsprung. No. 1,206,845; Dec. 5; Gaz. vol. 233; p. 21.
Fire-box construction. N. M. Rosendahl. No. 1,209,886; Dec. 26; Gaz. vol. 233; p. 1196.
Fire-curtain. E. H. Smith. No. 1,207,806; Dec. 12; Gaz. vol. 233; p. 397.
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Fire-extinguisher. J. R. Gammeter. No. 1,207,534; Dec. 5; Gaz. vol. 233; p. 259.
Fire-extinguisher. B. P. Hall. No. 1,207,398; Dec. 5; Gaz. vol. 233; p. 211.
Fire-extinguisher. P. M. Haller. No. 1,208,548; Dec. 12; Gaz. vol. 233; p. 660.
Fire-extinguisher. P. M. Haller. No. 1,208,549; Dec. 12; Gaz. vol. 233; p. 660.
Fire-extinguisher. W. L. Harrison. No. 1,207,752; Dec. 12; Gaz. vol. 233; p. 378.
Fire-extinguisher. R. N. A. Ickes. No. 1,208,562; Dec. 12; Gaz vol. 233; p. 665.
Fire-extinguishing apparatus. B. F. Moody. No. 1,208,349; Dec. 12; Gaz. vol. 233; p. 590.
Fire-pot. W. N. Sopher. No. 1,209,896; Dec. 26; Gaz. vol. 233; p. 1200.
Fire-service valve. E. V. Anderson. No. 1,209,797; Dec. 26; Gaz. vol. 233; p. 1163.
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Firearm. C. A. Nelson. No. 1,206,892; Dec. 5; Gaz. vol. 233; p. 37.

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Firearms, Extractor and ejector mechanism for. C. H. Barnes. No. 1,208,892; Dec. 19; Gaz. vol. 233; p. 823.
Firearms, Sight for. R. A. Moore. No. 1,210,191; Dec. 26; Gaz. vol. 233; p. 1302.
Fireplace. O. F. Hornschuch. No. 1,210,072; Dec. 26; Gaz. vol. 233; p. 1260.
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Fish, Packing and frying. F. P. McColl. No. 1,206,877; Dec. 5; Gaz. vol. 233; p. 32.
Fish-trough. E. L. Kelley. No. 1,207,561; Dec. 5; Gaz. vol. 233; p. 270.
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Fishing-reels, Throw-off mechanism for. L. Poeter. No. 1,208,370; Dec. 12; Gaz. vol. 233; p. 597.
Fishing-tool. R. B. Whiteside. No. 1,207,252; Dec. 5; Gaz. vol. 233; p. 161.
Flag-signal for use on railways. W. S. Leng. No. 1,208,172; Dec. 12; Gaz. vol. 233; p. 526.
Flags, Holder for crossed. F. F. Marquand. No. 1,209,000; Dec. 19; Gaz. vol. 233; p. 857.
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Flax-pulling machine. S. Vessot. No. 1,206,950; Dec. 5; Gaz. vol. 233; p. 57.
Floor-cleaner, Vacuum. A. E. Moorhead. No. 1,208,351; Dec. 12; Gaz. vol. 233; p. 591.
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Floors and other like surfaces, Machine for surfacing, smoothing, and polishing. W. H. Haight. No. 1,209,431; Dec. 19; Gaz. vol. 233; p. 1006.
Flow-meter. A. R. Dodge. No. 1,209,567; Dec. 19; Gaz. vol. 233; p. 1052.
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Fluid-delivery device for receptacles. G. E. Wack. No. 1,207,348; Dec. 5; Gaz. vol. 233; p. 193.
Fluid-distributer. H. T. Herr. No. 1,209,579; Dec. 19; Gaz. vol. 233; p. 1056.
Fluid engine and pump. H. A. Bullard. No. 1,210,042; Dec. 26; Gaz. vol. 233; p. 1249.
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Fluid-operated tool. L. W. Greve. No 1,208,140; Dec. 12; Gaz. vol. 233; p. 514.
Fluid-press. C. Rebbein. No. 1,207,624; Dec. 5; Gaz. vol. 233; p. 291.
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Flying-machine. J. Kreiter. No. 1,208,984; Dec. 19; Gaz. vol. 233; p. 852.
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Forceps. C. Gabel. No. 1,207,892; Dec. 12; Gaz. vol. 233; p. 427.
Forging-machine for making circular caps and analogous metal forms. F. R. Long. No. 1,207,948; Dec. 12; Gaz. vol. 233; p. 446.
Fork: *See*—
Sling-shot fork.
Forks and the like, Attachment for. C. E. Banks. No. 1,207,470; Dec. 5; Gaz. vol. 233; p. 237.
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Drinking-fountain.
Frame: *See*—
Cultivator-frame. Screen-frame.
Grindstone-frame. Truck side frame.
Hat-frame.
Frame. J. A. Nones. No. 1,207,432; Dec. 5; Gaz. vol. 233; p. 225.
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Fuel-distributer. N. M. Lower. No. 1,207,422; Dec. 5; Gaz. vol. 233; p. 221.
Fuel feeder and controller. C. K. Lassiter. No. 1,209,597; Dec. 19; Gaz. vol. 233; p. 1062.
Fuel-feeding apparatus. E. A. Riotte. No. 1,208,012; Dec. 12; Gaz. vol. 233; p. 467.
Fumigating apparatus. S. M. Hexter and F. E. Stewart. No. 1,208,315; Dec. 12; Gaz. vol. 233; p. 579.
Funnel, Collapsible. F. C. Shotwell. No. 1,209,051; Dec. 19; Gaz. vol. 233; p. 874.
Fur-beating machine. S. M. Jacoby. No. 1,209,300; Dec. 19; Gaz. vol. 233; p. 958.
Furnace: *See*—
Boiler-furnace. Hot-air furnace.
Boiler and other furnace. Hot-blast furnace.
Cupola-furnace. Metallurgical furnace.
Electric furnace. Wire-galvanizing furnace.
Furnace. J. A. Laszell. No. 1,208,585; Dec. 12; Gaz. vol. 233; p. 673.
Furnace. J. F. McIntire. No. 1,207,777; Dec. 12; Gaz. vol. 233; p. 387.
Furnace. A. W. Moyer. No. 1,209,321; Dec. 19; Gaz. vol. 233; p. 966.
Furnace. W. Troeller. No. 1,207,819; Dec. 12; Gaz. vol. 233; p. 402.

Furnace. U. Wedge. No. 1,208,247; Dec. 12; Gaz. vol. 233; p. 553.
Furnace and allied structure. U. Wedge. No. 1,208,246; Dec. 12; Gaz. vol. 233; p. 553.
Furnace appliance. I. W. Foltz. No. 1,208,123; Dec. 12; Gaz. vol. 233; p. 507.
Furnace attachment. E. J. Kubichek. No. 1,209,171; Dec. 19; Gaz. vol. 233; p. 915.
Furnace casting apparatus, Blast-. T. McDonald. No. 1,210,091; Dec. 26; Gaz. vol. 233; p. 1267.
Furnace-door and operating means therefor. A. E. Vesina. No. 1,209,082; Dec. 19; Gaz. vol. 233; p. 885.
Furnace-feeding device. U. Wedge. No. 1,208,248; Dec. 12; Gaz. vol. 233; p. 553.
Furnace fire-pot. H. E. Beck. No. 1,209,106; Dec. 19; Gaz. vol. 233; p. 894.
Furnace-hearths, Mounting. U. Wedge. No. 1,209,914; Dec. 26; Gaz. vol. 233; p. 1207.
Furnaces, Rabble-arm and rabble for metallurgical. U. Wedge. No. 1,206,960; Dec. 5; Gaz. vol. 233; p. 60.
Furnaces, Rabble-arm mounting for metallurgical. U. Wedge. No. 1,206,961; Dec. 5; Gaz. vol. 233; p. 61.
Furniture, Interchangeable. F. Blando. No. 1,209,664; Dec. 26; Gaz. vol. 233; p. 1117.
Furniture-tip. F. Hachmann. No. 1,208,546; Dec. 12; Gaz. vol. 233; p. 659.
Fuse. H. L. Reed. No. 1,208,004; Dec. 12; Gaz. vol. 233; p. 465.
Fuse, Detonating-. J. B. Des Rosiers. No. 1,207,511; Dec. 5; Gaz. vol. 233; p. 252.
Fuse, Electric. F. N. Wake. No. 1,207,351; Dec. 5; Gaz. vol. 233; p. 194.
Fuse, Projectile-. W. Dalton. No. 1,208,104; Dec. 12; Gaz. vol. 233; p. 500.
Fuse, Projectile-. W. Dalton. No. 1,208,105; Dec. 12; Gaz. vol. 233; p. 500.
Fuse, Vulcanizing-. L. Risk. No. 1,209,206; Dec. 19; Gaz. vol. 233; p. 927.
Gage: *See*—
Depth-gage. Liquid-gage.
Joint-gage. Oil-gage.
Key-gage. Water-gage.
Lens and strap gage.
Gage. E. H. Bristol. No. 1,208,905; Dec. 19; Gaz. vol. 233; p. 828.
Gaging manufactured parts, Device for. E. M. Winter. No. 1,208,258; Dec. 12; Gaz. vol. 233; p. 557.
Gambrel. J. C. Doby. No. 1,206,820; Dec. 5; Gaz. vol. 233; p. 13.
Game. C. S. Hill. No. 1,208,158; Dec. 12; Gaz. vol. 233; p. 521.
Game. E. C. Leonard. No. 1,208,992; Dec. 19; Gaz. vol. 233; p. 854.
Game and chance device. E. Harness. No. 1,207,908; Dec. 12; Gaz. vol. 233; p. 433.
Game apparatus. C. G. Ahlenius. No. 1,207,462; Dec. 5; Gaz. vol. 233; p. 235.
Game apparatus. A. A. Hallam. No. 1,207,905; Dec. 12; Gaz. vol. 233; p. 432.
Game apparatus. J. J. Zarker. No. 1,209,373; Dec. 19; Gaz. vol. 233; p. 985.
Game, Base-ball. J. H. McClelland. No. 1,208,594; Dec. 12; Gaz. vol. 233; p. 676.
Game-board. J. B. Baines. No. 1,207,466; Dec. 5; Gaz. vol. 233; p. 236.
Game device. W. H. Hefley. No. 1,209,963; Dec. 26; Gaz. vol. 233; p. 1223.
Garbage-can. C. Faerber and J. H. Smith. No. 1,207,006; Dec. 5; Gaz. vol. 233; p. 75.
Garbage-can, Odorless. E. A. T. Hockersmith. No. 1,207,918; Dec. 12; Gaz. vol. 233; p. 437.
Garbage-incinerator for furnaces. G. F. Wentz. No. 1,207,107; Dec. 5; Gaz. vol. 233; p. 110.
Garbage-separating apparatus. J. A. Anderson. No. 1,209,654; Dec. 26; Gaz. vol. 233; p. 1114.
Garment. B. H. Holley. No. 1,209,840; Dec. 26; Gaz. vol. 233; p. 1179.
Garment-hanger. M. J. Casey. No. 1,207,369; Dec. 5; Gaz. vol. 233; p. 200.
Garment-hanger. E. T. Palmenberg. No. 1,209,482; Dec. 19; Gaz. vol. 233; p. 1023.
Garment, Nether-. J. D. Belton. No. 1,206,979; Dec. 5; Gaz. vol. 233; p. 66.
Garment or other hook. E. W. Kite. No. 1,207,415; Dec. 5; Gaz. vol. 233; p. 218.
Garment, Outer. J. E. Merritt. No. 1,210,342; Dec. 26; Gaz. vol. 233; p. 1350.
Garment-stretcher. M. Carlson. No. 1,207,857; Dec. 12; Gaz. vol. 233; p. 415.
Garment-stretcher. W. B. Curtis. No. 1,208,506; Dec. 12; Gaz. vol. 233; p. 646.
Garment-turner. T. E. Scully. No. 1,208,888; Dec. 12; Gaz. vol. 233; p. 604.
Garter. E. O. Barette. No. 1,207,265; Dec. 5; Gaz. vol. 233; p. 166.
Gas, Absorbent medium for carbonic-acid. J. Cadman. No. 1,207,278; Dec. 5; Gaz. vol. 233; p. 168.
Gas and air mixing apparatus. E. A. Reeves. No. 1,208,654; Dec. 12; Gaz. vol. 233; p. 696.
Gas apparatus, Acetylene-. C. P. Vernier. No. 1,208,412; Dec. 12; Gaz. vol. 233; p. 613.
Gas, Apparatus for producing pressure-. J. A. Tillner. No. 1,208,407; Dec. 12; Gaz. vol. 233; p. 611.
Gas-engine. C. A. Lundy. No. 1,210,088; Dec. 26; Gaz. vol. 233; p. 1265.
Gas-engine. C. A. Lundy. No. 1,210,089; Dec. 26; Gaz. vol. 233; p. 1266.
Gas-engine, Two-cycle. R. F. Lonaberger and C. R. Balmer. No. 1,208,805; Dec. 19; Gaz. vol. 233; p. 793.
Gas-engine, Two-stroke. C. H. Taylor. No. 1,207,342; Dec. 5; Gaz. vol. 233; p. 190.
Gas-extinguisher, Automatic. G. P. Schmitt. No. 1,209,890; Dec. 26; Gaz. vol. 233; p. 1198.
Gas-generator. J. W. Connell. No. 1,207,502; Dec. 5; Gaz. vol. 233; p. 249.
Gas generator and burner. C. Sickert. No. 1,206,931; Dec. 5; Gaz. vol. 233; p. 50.
Gas-igniter. R. Kahn. No. 1,207,926; Dec. 12; Gaz. vol. 233; p. 439.
Gas, Making combustible. H. L. Doherty. No. 1,207,724; Dec. 12; Gaz. vol. 233; p. 868.
Gas-producer. J. and W. Stewart. No. 1,208,689; Dec. 12; Gaz. vol. 233; p. 708.
Gas, Producing a diffused flame with producer-. H. L. Doherty. No. 1,206,821; Dec. 5; Gaz. vol. 233; p. 13.
Gas-trap. P. Keever. No. 1,210,173; Dec. 26; Gaz. vol. 233; p. 1297.
Gaseous heater. F. W. Thurston. No. 1,207,664; Dec. 5; Gaz. vol. 233; p. 304.
Gasket. A. R. Mosier. No. 1,210,193; Dec. 26; Gaz. vol. 233; p. 1303.
Gate: *See*—
Bridge-gate. Nursery-gate.
End-gate. Railway-gate.
Flume-gate.
Gate-fastening device, Wire-. B. O. Hagelin. No. 1,207,543; Dec. 5; Gaz. vol. 233; p. 263.
Gate-opener. J. M. and J. A. Stafford. No. 1,207,651; Dec. 5; Gaz. vol. 233; p. 300.
Gate operating and locking means. J. H. Tausch. No. 1,208,231; Dec. 12; Gaz. vol. 233; p. 548.
Gate-operating mechanism. F. Dvorak. No. 1,209,271; Dec. 19; Gaz. vol. 233; p. 948.
Gate-operator. A. C. Cunningham. No. 1,208,103; Dec. 12; Gaz. vol. 233; p. 499.
Gear-cutting machine. C. E. Derr. No. 1,209,682; Dec. 26; Gaz. vol. 233; p. 1124.
Gear-cutting machine. T. Fawcus. No. 1,208,532; Dec. 12; Gaz. vol. 233; p. 655.
Gear-cutting machine. C. A. Parsons, A. Q. Carnegie, and S. S. Cook. No. 1,209,197; Dec. 19; Gaz. vol. 233; p. 924.
Gear-cutting machine. C. A. Parsons, A. Q. Carnegie, and S. S. Cook. No. 1,209,198; Dec. 19; Gaz. vol. 233; p. 924.
Gear-cutting machine. W. F. Zimmermann. No. 1,206,971; Dec. 5; Gaz. vol. 233; p. 64.
Gear, Differential. W. A. Mennie. No. 1,209,007; Dec. 19; Gaz. vol. 233; p. 859.
Gear mechanism, Reversible. W. C. Munday. No. 1,207,606; Dec. 5; Gaz. vol. 233; p. 285.
Gear mechanism, Transmission-. J. F. and H. E. Dodge. No. 1,207,722; Dec. 12; Gaz. vol. 233; p. 366.
Gear-shifting mechanism. H. C. Hays. No. 1,207,913; Dec. 12; Gaz. vol. 233; p. 435.
Gear-shifting mechanism. E. Planche. No. 1,209,754; Dec. 26; Gaz. vol. 233; p. 1149.
Gears, Accurately locating coöperating. W. C. Baker. No. 1,209,377; Dec. 19; Gaz. vol. 233; p. 986.
Gearing. O. v. Bohuszewicz. No. 1,209,108; Dec. 19; Gaz. vol. 233; p. 894.
Gearing. A. Loomis. No. 1,207,951; Dec. 12; Gaz. vol. 233; p. 448.
Gearing. M. Rakowsky. No. 1,209,884; Dec. 26; Gaz. vol. 233; p. 1196.
Gearing. H. F. Snyder. No. 1,209,893; Dec. 26; Gaz. vol. 233; p. 1199.
Gearing, Chain. J. F. Rude. No. 1,209,210; Dec. 19; Gaz. vol. 233; p. 928.
Gearing, Feeding-mechanism. W. J. Nesbitt. No. 1,208,856; Dec. 12; Gaz. vol. 233; p. 593.
Gearing, Variable-speed. G. Pollard. No. 1,208,644; Dec. 12; Gaz. vol. 233; p. 693.
Gem-setting. L. A. Larson. No. 1,207,773; Dec. 12; Gaz. vol. 233; p. 386.
Generator: *See*—
Ammonia-generator. Hand-generator.
Gas-generator. Steam-generator.
Glare-shield. O. A. Kubat. No. 1,209,854; Dec. 26; Gaz. vol. 233; p. 1184.
Glass, Apparatus for severing molten. O. A. Bridges. No. 1,207,363; Dec. 5; Gaz. vol. 233; p. 198.
Glass-article discharge and cut-off mechanism. A. Kadow. No. 1,208,978; Dec. 19; Gaz. vol. 233; p. 850.
Glass-blowing machine. L. Walford. No. 1,209,635; Dec. 19; Gaz. vol. 233; p. 1075.
Glass-casting table. J. W. Gordes. No. 1,207,867; Dec. 12; Gaz. vol. 233; p. 419.
Glass, Drawing. A. R. Spinasse. No. 1,208,851; Dec. 19; Gaz. vol. 233; p. 809.
Glass-drawing pot. J. A. Sweet. No. 1,207,659; Dec. 5; Gaz. vol. 233; p. 303.
Glass-forming apparatus, Cut-off mechanism for. A. Kadow. No. 1,208,791; Dec. 19; Gaz. vol. 233; p. 787.
Glass-grinding apparatus. W. J. Golightly. No. 1,207,896; Dec. 12; Gaz. vol. 233; p. 429.
Glass manufacture. A. Shuman. No. 1,207,643; Dec. 5; Gaz. vol. 233; p. 297.

Glass sheets, Apparatus for carrying. J. W. Cruikshank. No. 1,206,816; Dec. 5; Gaz. vol. 233; p. 11.
Glassware, Decorating. W. A. and A. W. Miksch. No. 1,207,972; Dec. 12; Gaz. vol. 233; p. 455.
Glazier's fastening device. J. P. and S. Punt. No. 1,208,368; Dec. 12; Gaz. vol. 233; p. 597.
Glove. E. T. Baskin. No. 1,209,380; Dec. 19; Gaz. vol. 233; p. 987.
Go-carts with sleds, Attachment for combining. F. D. Kendrick. No. 1,207,931; Dec. 12; Gaz. vol. 233; p. 441.
Goggles. J. R. Van Tassel. No. 1,208,410; Dec. 12; Gaz. vol. 233; p. 612.
Goggles, Safety-. H. J. Brennecke. No. 1,207,849; Dec. 12; Gaz. vol. 233; p. 413.
Gold inlays, Making. F. A. Thurston. No. 1,209,906; Dec. 26; Gaz. vol. 233; p. 1204.
Gold, Recovering. J. H. Alling. No. 1,207,261; Dec. 5; Gaz. vol. 233; p. 164.
Golf-bag. S. Smith. No. 1,208,031; Dec. 12; Gaz. vol. 233; p. 474.
Golf-club. P. H. Lynch. No. 1,210,182; Dec. 26; Gaz. vol. 233; p. 1300.
Golf-teaching instrument. W. A. Lyon. No. 1,208,995; Dec. 19; Gaz. vol. 233; p. 856.
Golf-training device. H. M. Rhind. No. 1,209,031; Dec. 19; Gaz. vol. 233; p. 867.
Goods holder, Sample-piece-. C. M. Silknitter. No. 1,207,644; Dec. 5; Gaz. vol. 233; p. 298.
Governor. E. A. Watts. No. 1,208,421; Dec. 12; Gaz. vol. 233; p. 617.
Grain-cleaning apparatus. F. C. Dickson. No. 1,207,512; Dec. 5; Gaz. vol. 233; p. 252.
Grain-dump and shoveling-board, Combined. P. J. Lawton. No. 1,207,182; Dec. 5; Gaz. vol. 233; p. 136.
Grain-sprouter. W. H. Collins. No. 1,209,938; Dec. 26; Gaz. vol. 233; p. 1215.
Grain-tank. J. A. Bergren. No. 1,207,842; Dec. 12; Gaz. vol. 233; p. 410.
Grain-treating apparatus. A. Jaeger. No. 1,207,763; Dec. 12; Gaz. vol. 233; p. 382.
Granular material, Grading and transferring mechanism for. B. H. Reddy. No. 1,207,794; Dec. 12; Gaz. vol. 233; p. 393.
Grape-juice and preparing same. A. Fonyó. No. 1,207,014; Dec. 5; Gaz. vol. 233; p. 78.
Graphite crucibles, Composition of matter to be used for preserving. J. B. Carmichael. No. 1,207,858; Dec. 12; Gaz. vol. 233; p. 416.
Graphophone. C. E. Woods. No. 1,210,248; Dec. 26; Gaz. vol. 233; p. 1322.
Grass-edge-trimming machine. J. Brown. No. 1,208,741; Dec. 19; Gaz. vol. 233; p. 768.
Grate. J. W. Reynolds. No. 1,209,334; Dec. 19; Gaz. vol. 233; p. 971.
Grate-bar. M. E. Hansell. No. 1,207,751; Dec. 12; Gaz. vol. 233; p. 378.
Grate-bar, Segmental. R. W. Minor. No. 1,208,614; Dec. 12; Gaz. vol. 233; p. 683.
Grate, Rotary. T. W. Atterbury and P. W. Matthews. No. 1,207,358; Dec. 5; Gaz. vol. 233; p. 196.
Grease-box-plug lock. J. W. Minderfer. No. 1,207,506; Dec. 5; Gaz. vol. 233; p. 282.
Grease-cup. L. A. Bockstahler. No. 1,208,732; Dec. 19; Gaz. vol. 233; p. 765.
Grease-cup. K. F. Lees. No. 1,207,302; Dec. 5; Gaz. vol. 233; p. 178.
Grease-cup. K. F. Lees. No. 1,207,303; Dec. 5; Gaz. vol. 233; p. 178.
Grease-cup. K. F. Lees. No. 1,207,304; Dec. 5; Gaz. vol. 233; p. 178.
Grease-cup cap. E. Nolan. No. 1,210,352; Dec. 26; Gaz. vol. 233; p. 1354.
Grease-gun. H. M. Boe. No. 1,209,805; Dec. 26; Gaz. vol. 233; p. 1166.
Grease-gun. W. H. Lewis. No. 1,210,179; Dec. 26; Gaz. vol. 233; p. 1298.
Grease-gun. C. E. Warwick. No. 1,208,865; Dec. 19; Gaz. vol. 233; p. 814.
Grinder, Disk-. F. E. Gardner. No. 1,207,535; Dec. 5; Gaz. vol. 233; p. 260.
Grinder, Joint-. E. L. Palmborg. No. 1,209,996; Dec. 26; Gaz. vol. 233; p. 1235.
Grinding. W. D. Gherky. No. 1,207,159; Dec. 5; Gaz. vol. 233; p. 129.
Grinding cylindrical rotating bodies by means of a plane grinding-tool, Device for. C. Blecker. No. 1,208,278; Dec. 12; Gaz. vol. 233; p. 565.
Grinding device. C. H. Davis. No. 1,210,052; Dec. 26; Gaz. vol. 233; p. 1253.
Grinding-machine. L. W. Bugbee. No. 1,208,907; Dec. 19; Gaz. vol. 233; p. 828.
Grinding-machines, Tool-rest for. C. A. and A. A. Anderson. No. 1,206,791; Dec. 5; Gaz. vol. 233; p. 4.
Grinding-mill. F. E. Young. No. 1,210,251; Dec. 26; Gaz. vol. 233; p. 1323.
Grinding-mill, Roller. H. Allen. No. 1,207,831; Dec. 12; Gaz. vol. 233; p. 406.
Grinding-tool. G. W. Boulds. No. 1,209,931; Dec. 26; Gaz. vol. 233; p. 1212.
Grindstone-frame, Folding. L. V. Calhoun. No. 1,210,145; Dec. 26; Gaz. vol. 233; p. 1286.
Gripper-pad, Adjustable. J. R. Blaine. No. 1,208,781; Dec. 19; Gaz. vol. 233; p. 764.
Gummed tapes, Machine for dispensing and moistening. S. C. Cary and C. S. Weeks. No. 1,208,745; Dec. 19; Gaz. vol. 233; p. 769.
Gun. J. Patten. No. 1,207,995; Dec. 12; Gaz. vol. 233; p. 462.
Gun-barrel-drilling machine. F. M. Carroll. No. 1,208,289; Dec. 12; Gaz. vol. 233; p. 569.
Gun-control system. A. H. Wegner. No. 1,208,425; Dec. 12; Gaz. vol. 233; p. 618.
Gun, Spring-. C. F. Lefever. No. 1,206,865; Dec. 5; Gaz. vol. 233; p. 28.
Gun with recoiling barrel. K. Völler. No. 1,208,414; Dec. 12; Gaz. vol. 233; p. 614.
Gun with sliding barrel. K. Völler. No. 1,209,521; Dec. 19; Gaz. vol. 233; p. 1038.
Guns and other pieces of ordnance, Sighting and aiming attachment for. E. Lazarte. No. 1,207,418; Dec. 5; Gaz. vol. 233; p. 219.
Guns, Gas-lever-operating mechanism for use in connection with certain types of machine-. H. R. Northover. No. 1,207,612; Dec. 5; Gaz. vol. 233; p. 287.
Guns, Saddle-mount for. F. Cecuga. No. 1,209,937; Dec. 26; Gaz. vol. 233; p. 1214.
Hair-band. J. D. Lewis. No. 1,207,574; Dec. 5; Gaz. vol. 233; p. 275.
Hair-curling apparatus. P. Roos. No. 1,206,917; Dec. 5; Gaz. vol. 233; p. 46.
Hair-drier. A. Keegan. No. 1,208,327; Dec. 12; Gaz. vol. 233; p. 583.
Hair, Machine for interlacing curled. F. Maussner. No. 1,208,719; Dec. 12; Gaz. vol. 233; p. 719.
Hair-pin. E. E. Taylor. No. 1,209,357; Dec. 19; Gaz. vol. 233; p. 979.
Hair-waving device. J. E. Plant. No. 1,208,369; Dec. 12; Gaz. vol. 233; p. 597.
Hammer-head. M. Holmdahl. No. 1,209,583; Dec. 19; Gaz. vol. 233; p. 1057.
Hammer, Mechanical. K. Kutschka. No. 1,207,417; Dec. 5; Gaz. vol. 233; p. 219.
Hams, shoulders, or joint-meat in general, Apparatus for treating. H. J. Flun. No. 1,209,276; Dec. 19; Gaz. vol. 233; p. 950.
Hand-generator. C. P. Bradley. No. 1,209,032; Dec. 26; Gaz. vol. 233; p. 1213.
Hand-operated signal. E. Auñero. No. 1,207,833; Dec. 12; Gaz. vol. 233; p. 407.
Hand-operated signal. E. Auñero. No. 1,207,834; Dec. 12; Gaz. vol. 233; p. 407.
Handle: *See*—
Bag-handle.
Controller-handle.
Latch-handle.
Tool-handle.
Handle connection. C. T. Wootten. No. 1,209,791; Dec. 26; Gaz. vol. 233; p. 1161.
Handle device. L. L. Salfisberg. No. 1,208,839; Dec. 19; Gaz. vol. 233; p. 805.
Hanger: *See*—
Antifriction-hanger.
Catenary hanger.
Coat-hanger.
Door-hanger.
Garment-hanger.
Picture-hanger.
Pipe-hanger.
Window-hanger.
Harness-chain. J. C. Proebstel. No. 1,208,651; Dec. 12; Gaz. vol. 233; p. 695.
Harness hip pad. J. C. Proebstel. No. 1,208,652; Dec. 12; Gaz. vol. 233; p. 695.
Harness-hook. H. Updegraph. No. 1,208,408; Dec. 12; Gaz. vol. 233; p. 612.
Harp. A. J. Strandberg and K. Breva. No. 1,210,015; Dec. 26; Gaz. vol. 233; p. 1240.
Harrow. K. R. Dickinson. No. 1,209,565; Dec. 19; Gaz. vol. 233; p. 1051.
Harrow. G. Gunderson. No. 1,210,162; Dec. 26; Gaz. vol. 233; p. 1293.
Harrow, Corn-planter. F. O. Beckman. No. 1,207,473; Dec. 5; Gaz. vol. 233; p. 238.
Harrow, Disk. C. S. Sharp. No. 1,206,930; Dec. 5; Gaz. vol. 233; p. 50.
Harrow, Disk. F. C. Warne. No. 1,207,672; Dec. 5; Gaz. vol. 233; p. 308.
Harrow, Rotary. J. D. Lowry. No. 1,207,579; Dec. 5; Gaz. vol. 233; p. 277.
Harrow-tooth and pivotal pin therefor. R. R. Crawford. No. 1,207,507; Dec. 5; Gaz. vol. 233; p. 251.
Harrows, Digger for self-propelled. E. M. Quellennec. No. 1,207,702; Dec. 12; Gaz. vol. 233; p. 392.
Harvester, Beet-. J. A. Fanger. No. 1,210,057; Dec. 26; Gaz. vol. 233; p. 1255.
Harvester, Beet-. F. Fletcher. No. 1,207,880; Dec. 12; Gaz. vol. 233; p. 426.
Harvester, Beet-. T. Slawson. No. 1,209,055; Dec. 19; Gaz. vol. 233; p. 876.
Harvester bundle-carrier, Corn-. F. D. Wilson. No. 1,208,873; Dec. 19; Gaz. vol. 233; p. 816.
Harvester, Cotton-. D. B. Lovejoy. No. 1,208,591; Dec. 12; Gaz. vol. 233; p. 676.
Harvesting machine, Flax-. T. H. Tombyll. No. 1,207,665; Dec. 5; Gaz. vol. 233; p. 305.
Harvesting-machines, Swathing attachment for. S. G. Miller. No. 1,207,065; Dec. 5; Gaz. vol. 233; p. 95.
Hat and cap. A. O. Levinson. No. 1,207,420; Dec. 5; Gaz. vol. 233; p. 220.
Hat-frame, Woman's. J. Hutter. No. 1,207,407; Dec. 5; Gaz. vol. 233; p. 216.
Hat-lining and bandeau, Combined. L. Cohen. No. 1,209,121; Dec. 19; Gaz. vol. 233; p. 899.

Hat-pattern block. I. K. Prescott. No. 1,209,756; Dec. 26; Gaz. vol. 233; p. 1149.
Hat-pin guard. G. Foster. No. 1,208,939; Dec. 19; Gaz. vol. 233; p. 838.
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Hat sweat-band. S. C. Whitlow. No. 1,209,093; Dec. 19; Gaz. vol. 233; p. 888.
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Headlight. C. W. Widney. No. 1,209,240; Dec. 19; Gaz. vol. 233; p. 938.
Headlight, Adjustable. A. Frakes. No. 1,207,015; Dec. 5; Gaz. vol. 233; p. 78.
Headlight, Automobile-. G. R. Matheson and J. B. Shaw. No. 1,210,987; Dec. 26; Gaz. vol. 233; p. 1231.
Headlight, Electric. H. J. Hoag. No. 1,206,844; Dec. 5; Gaz. vol. 233; p. 21.
Headlight-shield. J. Burn. No. 1,210,272; Dec. 26; Gaz. vol. 233; p. 1329.
Headlights for automobiles, &c., Means for controlling. S. N. Schwartz. No. 1,207,331; Dec. 5; Gaz. vol. 233; p. 187.
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Automobile-heater.
Electric heater.
Engine-heater.
Gaseous heater.
Rivet-heater.
Sad-iron heater.
Water-heater.
Watering-device heater.
Heater, J. W. Gallagher. No. 1,210,300; Dec. 26; Gaz. vol. 233; p. 1337.
Heater, L. L. Gorr. No. 1,210,161; Dec. 26; Gaz. vol. 233; p. 1292.
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Heating and cooling apparatus, H. Junkers. No. 1,208,790; Dec. 19; Gaz. vol. 233; p. 787.
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Heating system for incubators and other apparatus. F. E. Bowers. No. 1,208,280; Dec. 12; Gaz. vol. 233; p. 565.
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Heels, Machine for operating on. H. W. Kenway. No. 1,207,583; Dec. 5; Gaz. vol. 233; p. 271.
Heels, Making. E. E. Winkley. No. 1,209,531; Dec. 19; Gaz. vol. 233; p. 1041.
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Hickey. M. Robinson. No. 1,208,015; Dec. 12; Gaz. vol. 233; p. 469.
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High-tension rectifying-switch. H. F. Waite. No. 1,208,056; Dec. 12; Gaz. vol. 233; p. 488.
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Hinge, Adjustable. J. H. Way. No. 1,208,422; Dec. 12; Gaz. vol. 233; p. 617.
Hinge and rack, Combination. J. Krodel. No. 1,208,986; Dec. 19; Gaz. vol. 233; p. 853.
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Hoe. T. H. Russell. No. 1,207,636; Dec. 5; Gaz. vol. 233; p. 295.
Hoe, Adjustable. D. A. Pottorf. No. 1,210,100; Dec. 26; Gaz. vol. 233; p. 1270.
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Hog-cholera and product therefrom, Manufacturing a vaccin for the prevention of. C. W. Duval. No. 1,210,053; Dec. 26; Gaz. vol. 233; p. 1253.
Hog-trough. A. A. Fair. No. 1,207,733; Dec. 12; Gaz. vol. 233; p. 372.
Hog-trough, Sanitary. H. W. Hotchkiss and J. Mertz. No. 1,208,907; Dec. 19; Gaz. vol. 233; p. 847.
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Hood-fastener. T. M. Harrison. No. 1,207,547; Dec. 5; Gaz. vol. 233; p. 265.
Hook: *See*—
Hutton-hook.
Clothes-hook.
Coat-hook.
Draft-hook.
Fish-hook.
Garment or other hook.
Harness-hook.
Sheep-hook.
Spoon-hook.
Swingletree-hook.
Yieldable hook.
Hook-setting machine. F. W. Luscomb. No. 1,209,864; Dec. 26; Gaz. vol. 233; p. 1189.
Hopper, Feed-. F. N. Kohnen. No. 1,209,853; Dec. 26; Gaz. vol. 233; p. 1184.
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Horn, Automobile vibrating. S. Scognamillo. No. 1,209,629; Dec. 19; Gaz. vol. 233; p. 1078.
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Horseshoe-calk, Detachable. M. Hallaman. No. 1,207,030; Dec. 5; Gaz. vol. 233; p. 84.
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Hot-air furnace. A. D. Smith. No. 1,207,646; Dec. 5; Gaz. vol. 233; p. 298.
Hot-blast furnace. R. H. Vondenbosch. No. 1,209,522; Dec. 19; Gaz. vol. 233; p. 1038.
House: *See*—
Bird-house.
Hub construction. J. F. Vogel. No. 1,207,449; Dec. 5; Gaz. vol. 233; p. 231.
Hub for metal vehicle-wheels. T. E. Murray. No. 1,206,888; Dec. 5; Gaz. vol. 233; p. 36.
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Hub-liner. W. F. Baumeyer. No. 1,208,454; Dec. 12; Gaz. vol. 233; p. 628.
Hub, Vehicle-wheel. P. de Pfyffer. No. 1,210,151; Dec. 26; Gaz. vol. 233; p. 1288.
Humidifier. D. Van Evera. No. 1,208,409; Dec. 12; Gaz. vol. 233; p. 612.
Hydrocarbon-burner. J. W. Beard. No. 1,210,081; Dec. 26; Gaz. vol. 233; p. 1246.
Hydrocarbon-burner. L. P. Coulter. No. 1,210,276; Dec. 26; Gaz. vol. 233; p. 1330.
Hydrocarbon-engine. M. V. B. Ethridge. No. 1,209,827; Dec. 26; Gaz. vol. 233; p. 1174.
Hydrocarbon-motor. B. Huff. No. 1,208,969; Dec. 19; Gaz. vol. 233; p. 846.
Hydrocarbons, Improving the color and odor of crude aromatic. J. M. Weiss. No. 1,206,962; Dec. 5; Gaz. vol. 233; p. 61.
Hygienic drier. J. C. Fleming. No. 1,207,011; Dec. 5; Gaz. vol. 233; p. 77.
Ice breaking, salting, and feeding machine. A. H. Bradley. No. 1,208,469; Dec. 12; Gaz. vol. 233; p. 633.

Ice-conveyer. B. B. Phillips. No. 1,209,021; Dec. 19; Gaz. vol. 233; p. 864.
Ice-creeper. J. E. Ostrander. No. 1,208,828; Dec. 19; Gaz. vol. 233; p. 800.
Ice-creeper. F. W. Lake. No. 1,207,940; Dec. 12; Gaz. vol. 233; p. 444.
Ice, Cutting blocks of. H. D. Pratt. No. 1,208,649; Dec. 12; Gaz. vol. 233; p. 695.
Ice-sawing machine, Floating. H. D. Pratt. No. 1,208,648; Dec. 12; Gaz. vol. 233; p. 695.
Ignition device. B. Dick and W. A. Fynn. No. 1,208,926; Dec. 19; Gaz. vol. 233; p. 834.
Ignition-dynamo. C. Mason. No. 1,209,008; Dec. 19; Gaz. vol. 233; p. 858.
Ignition system. C. T. Mason. No. 1,207,193; Dec. 5; Gaz. vol. 233; p. 140.
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Immersing reproductions, Device for. N. C. Royem. No. 1,208,379; Dec. 12; Gaz. vol. 233; p. 601.
Impulse-transmitting device. J. G. Blessing. No. 1,209,253; Dec. 19; Gaz. vol. 233; p. 941.
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Incubators, &c., Device for regulating. T. J. Morrison. No. 1,208,619; Dec. 12; Gaz. vol. 233; p. 685.
Index. R. C. Russell. No. 1,207,220; Dec. 5; Gaz. vol. 233; p. 150.
Indicating system. A. Kern. No. 1,207,565; Dec. 5; Gaz. vol. 233; p. 272.
Indicator: *See*—
Automobile-indicator.
Bottle-indicator.
Fare-indicator.
Film-magazine indicator.
Item-indicator.
Liquid-level indicator.
Rubber-mill indicator.
Sparking indicator.
Speed-indicator.
Station-indicator.
Temperature-indicator.
Tire-deflating indicator.
Trump and bid indicator.
Vehicle direction-indicator.
Indicator. T. W. Varley. No. 1,207,099; Dec. 5; Gaz. vol. 233; p. 108.
Ingot-mold. G. A. Dornin. No. 1,208,519; Dec. 12; Gaz. vol. 233; p. 650.
Ingot-mold. E. Gathmann. No. 1,209,283; Dec. 19; Gaz. vol. 233; p. 953.
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Ingot-mold top. E. F. Kenney. No. 1,207,054; Dec. 5; Gaz. vol. 233; p. 91.
Ingot-molds, Feeder for standard. E. J. Turner and B. H. Howard. No. 1,208,703; Dec. 12; Gaz. vol. 233; p. 713.
Ink, Distributing. H. A. W. Wood. No. 1,207,258; Dec. 5; Gaz. vol. 233; p. 163.
Inking apparatus. E. D. Belknap. No. 1,208,270; Dec. 12; Gaz. vol. 233; p. 562.
Insect-destroyer. J. C. Bowerman. No. 1,208,467; Dec. 12; Gaz. vol. 233; p. 632.
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Insole. S. Hara. No. 1,210,066; Dec. 26; Gaz. vol. 233; p. 1258.
Insole. T. N. Phillips. No. 1,208,638; Dec. 12; Gaz. vol. 233; p. 691.
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Insulator. W. E. Wilson. No. 1,208,874; Dec. 19; Gaz. vol. 233; p. 817.
Insulator-support. C. L. Peirce, Jr. No. 1,207,321; Dec. 5; Gaz. vol. 233; p. 184.
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Interlocking mechanism. J. F. Ohmer and W. G. Orth. No. 1,208,860; Dec. 12; Gaz. vol. 233; p. 594.
Internal-combustion engine. J. S. Brown. No. 1,209,889; Dec. 19; Gaz. vol. 233; p. 991.
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Internal-combustion engine. W. W. Green and H. C. Richards. No. 1,207,290; Dec. 5; Gaz. vol. 233; p. 174.
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Internal-combustion engine. O. Lasche. No. 1,207,570; Dec. 5; Gaz. vol. 233; p. 273.
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Internal-combustion engine. E. S. Moore. No. 1,209,743; Dec. 26; Gaz. vol. 233; p. 1145.
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Internal-combustion engine. A. Rosner. No. 1,208,377; Dec. 12; Gaz. vol. 233; p. 600.
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Internal-combustion engine. F. J. C. Tesse. No. 1,208,401; Dec. 12; Gaz. vol. 233; p. 609.
Invalid-supporter. F. R. Allen. No. 1,208,442; Dec. 12; Gaz. vol. 233; p. 624.
Iron: *See*—
Chair-iron.
Curling-iron.
Sad-iron.
Iron for castings, Preparing. W. G. Kranz. No. 1,206,861; Dec. 5; Gaz. vol. 233; p. 27.
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Ironing-board, Built-in. A. E. Grimshaw. No. 1,207,747; Dec. 12; Gaz. vol. 233; p. 377.
Ironing-board, Cabinet. W. A. Noack. No. 1,210,095; Dec. 26; Gaz. vol. 233; p. 1268.
Ironing board, pad, and cover. R. Poll. No. 1,208,643; Dec. 12; Gaz. vol. 233; p. 693.
Ironing-machine. D. M. Cooper. No. 1,209,124; Dec. 19; Gaz. vol. 233; p. 900.
Ironing-machine. W. R. Hager. No. 1,208,811; Dec. 12; Gaz. vol. 233; p. 577.
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Ironing machine, Collar-. P. N. Braun. No. 1,208,086; Dec. 12; Gaz. vol. 233; p. 493.
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Irrigation apparatus. W. H. Coles. No. 1,209,813; Dec. 26; Gaz. vol. 233; p. 1169.
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Irrigation-ditches, Fish-deflecting means for the outlets of. J. W. Burgess. No. 1,210,271; Dec. 26; Gaz. vol. 233; p. 1329.
Item-indicator. H. Küntzler. No. 1,206,863; Dec. 5; Gaz. vol. 233; p. 28.
Jack: *See*—
Automobile-jack.
Concrete smoke-jack.
Lift-jack.
Lifting-jack.
Pump-jack.
Shoe-repair jack.
Tire-saving jack.
Window-jack.
Jack. C. V. Fowler. No. 1,207,526; Dec. 5; Gaz. vol. 233; p. 256.
Jack. C. J. Horn and W. E. Simmons. No. 1,207,167; Dec. 5; Gaz. vol. 233; p. 131.
Jar and closure therefor. G. Glocker. No. 1,207,748; Dec. 12; Gaz. vol. 233; p. 376.
Jars, bottles, &c., Cap and seal for. E. S. Richardson. No. 1,208,212; Dec. 12; Gaz. vol. 233; p. 540.
Jars, Supporting-case for vacuum-. F. W. Bartlett, E. B. Grant, and E. P. Cooke. No. 1,208,728; Dec. 19; Gaz. vol. 233; p. 763.
Jewelry, Link. J. Bonner. No. 1,207,844; Dec. 12; Gaz. vol. 233; p. 411.
Jewelry-pin and making same. B. E. Eldred. No. 1,209,824; Dec. 26; Gaz. vol. 233; p. 1173.
Jewelry, Safety coupling device for. T. M. Obsboum. No. 1,209,615; Dec. 19; Gaz. vol. 233; p. 1068.
Joint: *See*—
Corner-joint.
Friction-joint.
Pipe-joint.
Rail-joint.
Rod-joint.
Universal joint.
Joint. M. Birkigt. No. 1,207,478; Dec. 5; Gaz. vol. 233; p. 240.
Joint-gage, level, and miter-square. T. R. Maddox. No. 1,210,339; Dec. 26; Gaz. vol. 233; p. 1349.
Journal-box. R. E. Mathis. No. 1,209,005; Dec. 19; Gaz. vol. 233; p. 859.
Journal-box dust-guard. B. F. Lively. No. 1,207,183; Dec. 5; Gaz. vol. 233; p. 137.
Journal-box lid. A. C. McCord. No. 1,208,180; Dec. 12; Gaz. vol. 233; p. 529.
Journal-boxes. Babbitting-jig for. M. G. Bird. No. 1,207,128; Dec. 5; Gaz. vol. 233; p. 117.
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Kettle, Process-. C. B. Steere. No. 1,208,041; Dec. 12; Gaz. vol. 233; p. 477.
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Key-gage, Adjustable. J. C. Ross. No. 1,207,217; Dec. 5; Gaz. vol. 233; p. 149.
Key-holder. H. L. Vaughan. No. 1,206,949; Dec. 5; Gaz. vol. 233; p. 57.
Key-locking device. M. B. Petersen. No. 1,208,636; Dec. 12; Gaz. vol. 233; p. 690.
Key-ring. E. F. Reuckert. No. 1,208,663; Dec. 12; Gaz. vol. 233; p. 700.
Keyboard for guitars or similar instruments. E. Re. No. 1,207,213; Dec. 5; Gaz. vol. 233; p. 148.
Kiln: *See*—
Recuperative kiln.
Kitchen-knife. W. Kriz. No. 1,209,725; Dec. 26; Gaz. vol. 233; p. 1138.
Kneading machine, Dough-. L. De Francisci. No. 1,207,143; Dec. 5; Gaz. vol. 233; p. 122.
Knife: *See*—
Kitchen-knife.
Knit fabric. M. C. Miller. No. 1,210,344; Dec. 26; Gaz. vol. 233; p. 1351.
Knit fabric. M. C. Miller. No. 1,210,345; Dec. 26; Gaz. vol. 233; p. 1351.
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Knitting-machine. G. P. Bosworth. No. 1,209,257; Dec. 19; Gaz. vol. 233; p. 943.
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Knitting machine, Flat-. H. Schwartz and A. A. Grundy. No. 1,210,106; Dec. 26; Gaz. vol. 233; p. 1273.
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Pot-lifter. Stove-lid lifter.
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Automobile brake-lock. Sash-lock.
Automobile-hood lock. Switch-lock.
Door-lock. Turn-table lock.
Grease-box-plug lock. Vehicle-lock.
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Nut-lock.
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Current-meter. Parcel-postage meter.
Exposure-meter. Printing-meter.
Flow-meter. Water-meter.
Fluid-meter.
Meter apparatus. H. H. Mapelsden. No. 1,208,602; Dec. 12; Gaz. vol. 233; p. 679.
Meters, Maximum-indicator for. C. I. Hall. No. 1,208,146; Dec. 12; Gaz. vol. 233; p. 517.
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Milking-machine. J. N. Gilman. No. 1,210,304; Dec. 26; Gaz. vol. 233; p. 1338.
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Mill: *See*—
Crushing-mill. Sawmill.
Grinding-mill.
Mill-liner. F. E. Johnson. No. 1,207,173; Dec. 5; Gaz. vol. 233; p. 134.
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Mixer: *See*—
Amalgam-mixer. Water-mixer.
Mold: *See*—
Block-mold. Slug-mold.
Confectionery-mold. Tire-mold.
Ingot-mold.
Mold. H. L. W. and F. W. Bowler. No. 1,208,281; Dec. 12; Gaz. vol. 233; p. 566.
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Mop-wringer. J. R. Cochran. No. 1,207,374; Dec. 5; Gaz. vol. 233; p. 202.
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Mortising-machine. F. A. Bracket. No. 1,210,270; Dec. 26; Gaz. vol. 233; p. 1328.
Motor: *See*—
Asynchronous motor. Hydrocarbon-motor.
Current-motor. Outboard motor.
Duplex motor. Tide-motor.
Electric motor. Wave-motor.
Motor and pressure-distributer. S. T. Lestak. No. 1,207,306; Dec. 5; Gaz. vol. 233; p. 179.
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Gripper-pad. Recoil-pad.
Harness hip-pad.
Padlock. L. Snyder. No. 1,209,894; Dec. 26; Gaz. vol. 233; p. 1199.
Pail. G. Entwistle. No. 1,210,284; Dec. 26; Gaz. vol. 233; p. 1332.
Pail, Folding. J. M. Shook. No. 1,209,769; Dec. 26; Gaz. vol. 233; p. 1154.
Pail-lining. G. H. Rives. No. 1,209,207; Dec. 19; Gaz. vol. 233; p. 927.
Pail, Milk-. H. Ritchey. No. 1,207,625; Dec. 5; Gaz. vol. 233; p. 292.
Painting-machine. M. Ferrer. No. 1,207,886; Dec. 5; Gaz. vol. 233; p. 207.
Pan: *See*—
Baking-pan. Frying-pan.
Candy-cooling pan.
Pan greaser and scraper, Combined. W. F. Bailey. No. 1,209,927; Dec. 26; Gaz. vol. 233; p. 1211.
Panic-bolt holdback. N. B. Hurd. No. 1,207,921; Dec. 12; Gaz. vol. 233; p. 438.
Paper and coating composition therefor, Glazed. N. Statham. No. 1,209,222; Dec. 19; Gaz. vol. 233; p. 933.
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Paper, Apparatus for removing wall-. N. Rubenstein. No. 1,208,215; Dec. 12; Gaz. vol. 233; p. 541.
Paper-board, Joint for corrugated. F. G. Feeley. No. 1,207,734; Dec. 12; Gaz. vol. 233; p. 372.
Paper box, Folding. A. Von Schluembach. No. 1,209,363; Dec. 19; Gaz. vol. 233; p. 981.
Paper-box-making machine. M. B. Diskin. No. 1,207,378; Dec. 5; Gaz. vol. 233; p. 203.
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Paper-cutting mechanism, Automatic. A. H. Handy. No. 1,208,957; Dec. 19; Gaz. vol. 233; p. 843.
Paper-feed mechanism. A. C. Roebuck. No. 1,207,628; Dec. 5; Gaz. vol. 233; p. 293.
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Paper-making apparatus. S. R. Wagg. No. 1,207,401; Dec. 5; Gaz. vol. 233; p. 231.
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Paper pasting and trimming machine, Wall-. J. B. Austin. No. 1,208,890; Dec. 19; Gaz. vol. 233; p. 822.
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Paper-roll holder. G. F. Kearney. No. 1,208,163; Dec. 12; Gaz. vol. 233; p. 523.
Paper-roll holders, Paper-cutter attachment for. J. B. Hudgel. No. 1,206,968; Dec. 19; Gaz. vol. 233; p. 847.
Paper-spinning machine. E. Schmidt, W. Steffens, and F. F. Reinke. No. 1,206,926; Dec. 5; Gaz. vol. 233; p. 48.
Paper-treating apparatus. S. R. Wagg. No. 1,208,415; Dec. 12; Gaz. vol. 233; p. 614.
Paper-twine-machine dampening device. T. Scherf. No. 1,206,924; Dec. 5; Gaz. vol. 233; p. 48.
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Parcel-postage meter. A. H. Pitney. No. 1,208,642; Dec. 12; Gaz. vol. 233; p. 693.
Pattern-cutter. T. J. Fegley and G. O. Leopold. No. 1,209,571; Dec. 19; Gaz. vol. 233; p. 1053.
Pattern-cutting apparatus. O. B. Roney. No. 1,208,019; Dec. 12; Gaz. vol. 233; p. 470.
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Pavements and other structures, Surfacing mixture for. F. H. Welsh. No. 1,209,238; Dec. 19; Gaz. vol. 233; p. 937.
Pavements, Elastic bituminous spacing-plank for. C. N. Forrest. No. 1,207,524; Dec. 5; Gaz. vol. 233; p. 256.
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Pea-shooter, Magazine. L. A. Kerwin. No. 1,209,974; Dec. 26; Gaz. vol. 233; p. 1227.
Peanut-digger. W. L. Nelson. No. 1,206,893; Dec. 5; Gaz. vol. 233; p. 38.
Pedals, Tread-plate for. O. F. Sunden. No. 1,210,016; Dec. 26; Gaz. vol. 233; p. 1241.
Pen. R. R. MacKenzie. No. 1,209,602; Dec. 19; Gaz. vol. 233; p. 1064.
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Petroleum, Apparatus for converting the heavy products obtained from. P. Rath and M. E. Venturino. No. 1,208,214; Dec. 12; Gaz. vol. 233; p. 541.
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Phenols, Producing. A. S. Ramage. No. 1,208,833; Dec. 19; Gaz. vol. 233; p. 803.
Phonograph driving mechanism. F. Kraft. No. 1,209,307; Dec. 19; Gaz. vol. 233; p. 961.
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Phonographs, Automatic winding device for. G. Bedford. No. 1,208,455; Dec. 12; Gaz. vol. 233; p. 628.
Phonographs, Sound-box attachments for. S. E. Huff. No. 1,208,561; Dec. 12; Gaz. vol. 233; p. 665.
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Photographic apparatus. A. H. Wynkoop. No. 1,208,071; Dec. 12; Gaz. vol. 233; p. 488.
Photographic device. H. D. Farquhar. No. 1,209,419; Dec. 19; Gaz. vol. 233; p. 1002.
Photographic exposures, Composition of matter for developing and fixing. F. W. Hochstetter. No. 1,207,042; Dec. 5; Gaz. vol. 233; p. 87.
Photographic-film-drying apparatus. L. Gaumont. No. 1,209,696; Dec. 26; Gaz. vol. 233; p. 1128.
Photographic-printing machine. A. Sietten. No. 1,209,631; Dec. 19; Gaz. vol. 233; p. 1074.
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Photographing apparatus, Color-. W. H. Doherty. No. 1,207,513; Dec. 5; Gaz. vol. 233; p. 253.
Photographs, pictorial cards, and the like, Framing or mounting. A. E. B. Smith. No. 1,210,226; Dec. 26; Gaz. vol. 233; p. 1314.
Photography, Color. P. D. Brewster. No. 1,208,789; Dec. 19; Gaz. vol. 233; p. 767.
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Photometer. A. Blondel. No. 1,208,279; Dec. 12; Gaz. vol. 233; p. 565.
Piano-player, Pneumatic. E. C. Wamelink. No. 1,210,239; Dec. 26; Gaz. vol. 233; p. 1319.
Pianos, Accenting device for player-. G. H. Parsons. No. 1,209,199; Dec. 19; Gaz. vol. 233; p. 925.
Pianos and the like, Valve for player-. J. Giuliana. No. 1,208,138; Dec. 12; Gaz. vol. 233; p. 513.
Pianos, Top lid for horizontal grand. A. D. Ramsden. No. 1,208,211; Dec. 12; Gaz. vol. 233; p. 540.
Pick, Miner's. T. G. Jones, E. G. Cross, and D. J. Jones. No. 1,210,325; Dec. 26; Gaz. vol. 233; p. 1345.
Picker: *See*—
Fruit-picker.
Picture and making the same, Fiber. C. S. Bentley. No. 1,207,841; Dec. 12; Gaz. vol. 233; p. 410.
Picture apparatus having interlocking parts, Shutter for use with motion-. F. C. Hamilton. No. 1,210,063; Dec. 26; Gaz. vol. 233; p. 1256.
Picture-film holder, Motion-. W. W. Kircher. No. 1,207,298; Dec. 5; Gaz. vol. 233; p. 176.
Picture-film reels, Tension device for moving-. N. Power. No. 1,209,755; Dec. 26; Gaz. vol. 233; p. 1149.
Picture films, Driving mechanism for a moving-. L. Stanek. No. 1,208,685; Dec. 12; Gaz. vol. 233; p. 707.
Picture films, Reel for moving-. L. Sollisch. No. 1,210,113; Dec. 26; Gaz. vol. 233; p. 1275.
Picture-hanger. A. G. Bishop. No. 1,210,034; Dec. 26; Gaz. vol. 233; p. 1247.
Picture-hanger. K. W. A. Hoernegel. No. 1,209,582; Dec. 19; Gaz. vol. 233; p. 1057.
Picture machines, Film-winding device for motion-. N. Power. No. 1,207,211; Dec. 5; Gaz. vol. 233; p. 147.
Picture machines, Framing device for moving-. A. D. Brixey. No. 1,208,740; Dec. 19; Gaz. vol. 233; p. 768.
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Picture machines, Safety device for motion-. N. Power. No. 1,210,203; Dec. 26; Gaz. vol. 233; p. 1306.
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Picture-projection apparatus, Balancing means for shutters intended for use with motion-. F. C. Hamilton. No. 1,210,064; Dec. 26; Gaz. vol. 233; p. 1257.
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Pillow. N. K. Billow. No. 1,208,277; Dec. 12; Gaz. vol. 233; p. 564.
Pin: *See*—
Clothes-pin. Hair-pin.
Fastening-pin. Safety-pin.
Pin-fastener for tags and other articles. J. Abrahams. No. 1,208,073; Dec. 12; Gaz. vol. 233; p. 489.
Pins, Manufacturing drawing-. A. W. Krauss. No. 1,209,976; Dec. 26; Gaz. vol. 233; p. 1228.
Pipe: *See*—
Sectional pipe.
Pipe cleaner, Tobacco-. A. W. P. Cramer. No. 1,207,375; Dec. 5; Gaz. vol. 233; p. 203.
Pipe-coupling. A. McMurtrie. No. 1,207,959; Dec. 12; Gaz. vol. 233; p. 451.
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Pipe couplings, Gasket for train-. W. C. White. No. 1,209,788; Dec. 26; Gaz. vol. 233; p. 1161.
Pipe couplings, Spanner for hose-. H. J. M. Howard. No. 1,207,046; Dec. 5; Gaz. vol. 233; p. 89.
Pipe-cutter. H. E. Stratton. No. 1,207,339; Dec. 5; Gaz. vol. 233; p. 190.
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Pipe-hanger. H. E. Goodwin. No. 1,209,286; Dec. 19; Gaz. vol. 233; p. 954.
Pipe-joint. L. O. Markham. No. 1,210,090; Dec. 26; Gaz. vol. 233; p. 1266.
Pipe joint or coupling, Flexible. E. C. Ale. No. 1,209,243; Dec. 19; Gaz. vol. 233; p. 939.
Pipe-line trap. W. E. Davis. No. 1,208,509; Dec. 12; Gaz. vol. 233; p. 647.
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Pipe pushing and pulling machine. H. A. Brown. No. 1,208,472; Dec. 12; Gaz. vol. 233; p. 634.
Pipe-sealing cap, Lead-. S. D. Nechamkus. No. 1,208,355; Dec. 12; Gaz. vol. 233; p. 592.
Pipe-sleeve. G. W. Schodde. No. 1,210,217; Dec. 26; Gaz. vol. 233; p. 1311.
Pipe-union. G. E. R. Rothenbucher. No. 1,209,887; Dec. 26; Gaz. vol. 233; p. 1197.
Pipe-wrench. W. P. Sheets. No. 1,209,049; Dec. 19; Gaz. vol. 233; p. 874.
Pipe-wrench. J. Shostrom. No. 1,207,334; Dec. 5; Gaz. vol. 233; p. 188.
Pipes, Trap for waste-water. W. H. Perkins. No. 1,210,201; Dec. 26; Gaz. vol. 233; p. 1306.
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Piston-ring. L. Pondelick. No. 1,209,882; Dec. 26; Gaz. vol. 233; p. 1195.
Pitch, Process and apparatus for preparing hard commercial. R. P. Perry and E. F. Stewart. No. 1,210,097; Dec. 26; Gaz. vol. 233; p. 1269.
Pitcher attachment. W. M. Wemett. No. 1,210,240; Dec. 26; Gaz. vol. 233; p. 1319.
Plane, Carpenter's. G. D. Young. No. 1,207,357; Dec. 5; Gaz. vol. 233; p. 196.
Planers, Veneer-trimming and stick-jointing attachment for. C. R. Hooper. No. 1,209,966; Dec. 26; Gaz. vol. 233; p. 1224.
Plant-protector. C. Hildreth and J. T. Rabus. No. 1,207,039; Dec. 5; Gaz. vol. 233; p. 86.
Plants, Machine for removing surplus. B. F. Devendorf. No. 1,208,514; Dec. 12; Gaz. vol. 233; p. 640.

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Planters, Gage attachment for. B. F. Greimann. No. 1,209,430; Dec. 19; Gaz. vol. 233; p. 1005.
Planting machine, Potato-. C. R. L. Füglsang. No. 1,209,138; Dec. 19; Gaz. vol. 233; p. 905.
Plastic articles, Form for vulcanizable. M. H. Clark. No. 1,209,671; Dec. 26; Gaz. vol. 233; p. 1120.
Plastic composition. J. R. Sanford. No. 1,206,920; Dec. 5; Gaz. vol. 233; p. 47.
Plastic composition and making same. L. V. Redman. No. 1,209,833; Dec. 19; Gaz. vol. 233; p. 971.
Plate-holder. J. J. King. No. 1,208,982; Dec. 19; Gaz. vol. 233; p. 851.
Plate-piling mechanism. H. D. Cook. No. 1,210,274; Dec. 26; Gaz. vol. 233; p. 1329.
Platens, Work-holding device for flat. H. A. Foothorap. No. 1,207,153; Dec. 5; Gaz. vol. 233; p. 126.
Platform for doorways. J. B. Haberman. No. 1,207,902; Dec. 12; Gaz. vol. 233; p. 481.
Plow. E. C. F. Becker. No. 1,208,267; Dec. 12; Gaz. vol. 233; p. 561.
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Plow attachment for road-graders. J. R. Pile. No. 1,208,367; Dec. 12; Gaz. vol. 233; p. 597.
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Plow, Motor-. B. F. Gravely, Jr. No. 1,207,539; Dec. 5; Gaz. vol. 233; p. 262.
Plow, Rotary. W. F. MacGregor. No. 1,207,310; Dec. 5; Gaz. vol. 233; p. 180.
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Pneumatic-despatch apparatus. J. T. Cowley. No. 1,208,497; Dec. 12; Gaz. vol. 233; p. 643.
Pneumatic-despatch-tube apparatus. A. W. Pearsall. No. 1,208,195; Dec. 12; Gaz. vol. 233; p. 585.
Pneumatic or steam drill. R. C. Fraser. No. 1,210,299; Dec. 26; Gaz. vol. 233; p. 1387.
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Post: *See*—
Car side-door post. Fence-post.
Post. H. K. Bente. No. 1,210,372; Dec. 26; Gaz. vol. 233; p. 1360.
Postal card. H. Gernsback. No. 1,209,425; Dec. 19; Gaz. vol. 233; p. 1003.
Pot: *See*—
Fire-pot. Glass-drawing pot.
Furnace fire-pot.
Pot lifter, lid, and drainer. E. W. Pritchard. No. 1,209,026; Dec. 19; Gaz. vol. 233; p. 865.
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Power-machine, General-utility. H. Thomason. No. 1,207,663; Dec. 5; Gaz. vol. 233; p. 304.
Power-transmission device. L. R. Carroll. No. 1,208,290; Dec. 12; Gaz. vol. 233; p. 569.
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Baling-press. Hay-press.
Drawing-press. Seal-press.
Fluid-press.
Press. E. Johnson. No. 1,207,172; Dec. 5; Gaz. vol. 233; p. 133.
Press. C. Rehbein. No. 1,207,326; Dec. 5; Gaz. vol. 233; p. 186.
Press-button. M. Menkin and S. Fischer. No. 1,209,470; Dec. 19; Gaz. vol. 233; p. 1019.
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Press-feeding means, Pneumatic. J. Duvall. No. 1,207,149; Dec. 5; Gaz. vol. 233; p. 124.
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Protractor and T-square, Combined. R. A. Rohrich. No. 1,207,328; Dec. 5; Gaz. vol. 233; p. 186.
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Automobile-puller. Well-casing puller.
Root-puller.
Pulley-block. L. F. Slavens. No. 1,209,344; Dec. 19; Gaz. vol. 233; p. 974.
Pulley-guard. R. H. Bowen. No. 1,207,485; Dec. 5; Gaz. vol. 233; p. 243.
Pulleys, Back-stop for elevator-head. C. Gemlo. No. 1,208,537; Dec. 12; Gaz. vol. 233; p. 657.
Pulp-distributer. C. E. Rhodes. No. 1,208,373; Dec. 12; Gaz. vol. 233; p. 599.
Pulp, Treating. G. Moore. No. 1,207,978; Dec. 12; Gaz. vol. 233; p. 456.
Pulper for waste wood and waste paper. M. E. Park. No. 1,207,069; Dec. 5; Gaz. vol. 233; p. 98.
Pump. G. Dorffel. No. 1,210,152; Dec. 26; Gaz. vol. 233; p. 1289.
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Pump. W. A. Swan. No. 1,208,858; Dec. 19; Gaz. vol. 233; p. 811.
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Pump, Air-compressing. W. J. White and W. F. Neal. No. 1,208,426; Dec. 12; Gaz. vol. 233; p. 619.
Pump, Centrifugal. E. Hards. No. 1,207,546; Dec. 5; Gaz. vol. 233; p. 264.
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Pump, Deep-well. J. B. Sperry. No. 1,208,038; Dec. 12; Gaz. vol. 233; p. 476.
Pump, Double-acting. J. M. Jones. No. 1,208,977; Dec. 19; Gaz. vol. 233; p. 850.
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Pump, Lubricating-. E. W. Harmon. No. 1,209,433; Dec. 19; Gaz. vol. 233; p. 1007.
Pump, Measuring-. H. W. McCoy and W. H. Chapman. No. 1,210,183; Dec. 26; Gaz. vol. 233; p. 1300.
Pump-operating mechanism. W. A. Harris. No. 1,209,837; Dec. 26; Gaz. vol. 233; p. 1178.
Pump, Pneumatic. C. A. De Rigne. No. 1,209,944; Dec. 26; Gaz. vol. 233; p. 1217.
Pump-regulator, Automatic. J. L. Eslinger. No. 1,210,285; Dec. 26; Gaz. vol. 233; p. 1332.
Pump, Rotary. O. Wenslay. No. 1,209,916; Dec. 26; Gaz. vol. 233; p. 1208.
Pump, Tire-. H. F. Molkenbur. No. 1,207,427; Dec. 5; Gaz. vol. 233; p. 223.
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Pump, Water-operated. G. A. Wendt. No. 1,207,824; Dec. 12; Gaz. vol. 233; p. 404.
Punching-machine. G. H. Richardson. No. 1,208,374; Dec. 12; Gaz. vol. 233; p. 599.
Punching workmen's cards. J. W. Bryce. No. 1,207,491; Dec. 5; Gaz. vol. 233; p. 244.
Puzzle. M. Perricone. No. 1,207,996; Dec. 12; Gaz. vol. 233; p. 462.
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Pyrometer. J. W. Weltzenkorn. No. 1,209,915; Dec. 26; Gaz. vol. 233; p. 1207.
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Broom-rack. Display-rack.
Corn-rack. Hay-rack.
Directory-rack. Hose-rack.
Radiator. R. Bezvoda. No. 1,210,265; Dec. 26; Gaz. vol. 233; p. 1327.
Radiator. A. Kehm. No. 1,209,845; Dec. 26; Gaz. vol. 233; p. 1181.
Radiator. S. S. Petticord. No. 1,209,486; Dec. 19; Gaz. vol. 233; p. 1025.
Radiator. J. T. Schlacks. No. 1,209,044; Dec. 19; Gaz. vol. 233; p. 872.
Radiator head-sheet. J. T. Schlacks. No. 1,208,022; Dec. 12; Gaz. vol. 233; p. 471.
Radiator-protector. T. E. Pierce and J. J. Kerr. No. 1,207,620; Dec. 5; Gaz. vol. 233; p. 290.
Radio communication system. G. W. Pickard. No. 1,206,911; Dec. 5; Gaz. vol. 233; p. 43.
Rail-anchor. T. H. Alfreds. No. 1,209,653; Dec. 26; Gaz. vol. 233; p. 1114.
Rail-anchor. H. G. Gillmor. No. 1,206,836; Dec. 5; Gaz. vol. 233; p. 18.
Rail-anchor. H. G. Gillmor. No. 1,207,742; Dec. 12; Gaz. vol. 233; p. 375.
Rail-anchor. J. Herron. No. 1,208,779; Dec. 19; Gaz. vol. 233; p. 783.
Rail-anchor. J. M. Scott. No. 1,209,047; Dec. 19; Gaz. vol. 233; p. 873.
Rail-antispreading device. E. Sauvain. No. 1,207,223; Dec. 5; Gaz. vol. 233; p. 151.
Rail-clamp. W. McNorton. No. 1,207,961; Dec. 12; Gaz. vol. 233; p. 451.
Rail-clamp. F. O. Rush. No. 1,207,219; Dec. 5; Gaz. vol. 233; p. 150.
Rail clamp, Anticreeping-. C. F. Clawson. No. 1,207,136; Dec. 5; Gaz. vol. 233; p. 120.
Rail-joint. L. A. Andrews. No. 1,207,696; Dec. 12; Gaz. vol. 233; p. 357.
Rail-joint. H. C. Archer. No. 1,208,444; Dec. 12; Gaz. vol. 233; p. 625.
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Rail-joint. C. B. Counts. No. 1,206,992; Dec. 5; Gaz. vol. 233; p. 71.
Rail-joint. J. De Falco. No. 1,208,110; Dec. 12; Gaz. vol. 233; p. 502.
Rail-joint. T. Hand. No. 1,208,551; Dec. 12; Gaz. vol. 233; p. 661.
Rail-joint. M. A. Richardson. No. 1,208,008; Dec. 12; Gaz. vol. 233; p. 466.
Rail-joint. B. R. Swords. No. 1,207,093; Dec. 5; Gaz. vol. 233; p. 106.
Rail-joint. W. P. Thomson. No. 1,208,698; Dec. 12; Gaz. vol. 233; p. 711.
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Rail-joint bolt. W. F. McRae. No. 1,207,962; Dec. 12; Gaz. vol. 233; p. 451.
Rail-joint, Insulated. B. G. Braine. No. 1,207,181; Dec. 5; Gaz. vol. 233; p. 118.
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Rail-tie cover, Metallic. M. B. Edwards. No. 1,209,823; Dec. 26; Gaz. vol. 233; p. 1173.
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Railway-gate. J. J. Small. No. 1,209,056; Dec. 19; Gaz. vol. 233; p. 876.
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Railway safe-running device. A. R. Angus. No. 1,207,676; Dec. 5; Gaz. vol. 233; p. 309.
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Railway-switch. G. Mihara. No. 1,208,610; Dec. 12; Gaz. vol. 233; p. 682.
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Railway-tie. A. Chalasiewicz. No. 1,208,093; Dec. 12; Gaz. vol. 233; p. 495.
Railway-tie. P. O. Hanson and E. Sweeney. No. 1,207,545; Dec. 5; Gaz. vol. 233; p. 264.
Railway-tie. E. A. Muse. No. 1,209,477; Dec. 19; Gaz. vol. 233; p. 1021.
Railway-tie. G. F. A. Ochs. No. 1,208,630; Dec. 12; Gaz. vol. 233; p. 688.

Railway-tie. P. V. Troupe. No. 1,209,781; Dec. 26; Gaz. vol. 233; p. 1158.
Railway-tie. R. J. Updike. No. 1,207,670; Dec. 5; Gaz. vol. 233; p. 307.
Railway-tie and rail-fastener. C. E. Peterson. No. 1,206,908; Dec. 5; Gaz. vol. 233; p. 43.
Railway-tie, Metallic. W. Pennock. No. 1,208,363; Dec. 12; Gaz. vol. 233; p. 596.
Railway-tie plate and spike. J. Collins and A. Shepard. No. 1,209,396; Dec. 19; Gaz. vol. 233; p. 994.
Railway-ties, Antisplit device for wood. W. E. Williams. No. 1,208,255; Dec. 12; Gaz. vol. 233; p. 556.
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Railway-track spreader. O. C. Mann. No. 1,208,809; Dec. 19; Gaz. vol. 233; p. 794.
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Railways, Automatic highway-crossing warning-signal for. B. O. Darrow. No. 1,209,131; Dec. 19; Gaz. vol. 233; p. 902.
Railways, Permanent bed for. W. F. Kurtz, No. 1,209,172; Dec. 19; Gaz. vol. 233; p. 916.
Railways, Signal-staff for. F. S. Gregur. No. 1,207,898; Dec. 12; Gaz. vol. 233; p. 430.
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Rake: *See*—
Lawn-rake.
Rake. H. G. Kimber. No. 1,210,175; Dec. 26; Gaz. vol. 233; p. 1297.
Rake attachment. W. Stoffel. No. 1,208,855; Dec. 19; Gaz. vol. 233; p. 810.
Range, Coal and gas. G. E. Heidbreder. No. 1,208,314; Dec. 12; Gaz. vol. 233; p. 578.
Range, Combined coal and gas. A. F. Harter. No. 1,209,288; Dec. 19; Gaz. vol. 233; p. 955.
Range-finder. R. Bennett and R. E. Cox. No. 1,207,475; Dec. 5; Gaz. vol. 233; p. 239.
Ranges, Heating-system attachment for. R. De Polo. No. 1,208,300; Dec. 12; Gaz. vol. 233; p. 574.
Ratchet-wrench. D. Morneweck. No. 1,209,320; Dec. 19; Gaz. vol. 233; p. 906.
Razor. F. A. Shimans. No. 1,210,220; Dec. 26; Gaz. vol. 233; p. 1312.
Razor-blade-stropping device, Safety-. H. Hornick. No. 1,208,318; Dec. 12; Gaz. vol. 233; p. 579.
Razor-hone. F. A. Shimans. No. 1,210,221; Dec. 26; Gaz. vol. 233; p. 1313.
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Razor, Safety-. C. I. Matson. No. 1,210,340; Dec. 26; Gaz. vol. 233; p. 1350.
Razor, Safety-. F. Schlattau. No. 1,210,216; Dec. 26; Gaz. vol. 233; p. 1311.
Razor, Safety-. J. H. Schmitt. No. 1,210,006; Dec. 26; Gaz. vol. 233; p. 1238.
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Razor-strop. P. P. Schenk. No. 1,206,923; Dec. 5; Gaz. vol. 233; p. 48.
Razor-stropper. B. Trosky. No. 1,207,446; Dec. 5; Gaz. vol. 233; p. 230.
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Reapers, Switch-controlling mechanism for self-rake. L. Holland-Lutz. No. 1,207,405; Dec. 5; Gaz. vol. 233; p. 215.
Receiver. O. M. Leich and A. C. Reid. No. 1,207,419; Dec. 5; Gaz. vol. 233; p. 220.
Receptacle. J. E. Grant. No. 1,210,061; Dec. 26; Gaz. vol. 233; p. 1256.
Receptacle. M. McIntyre and J. H. Frohlin. No. 1,210,184; Dec. 26; Gaz. vol. 233; p. 1300.
Receptacle. G. C. Olmsted. No. 1,207,988; Dec. 12; Gaz. vol. 233; p. 460.
Receptacle. E. H. W. Ullrich. No. 1,208,240; Dec. 12; Gaz. vol. 233; p. 550.
Receptacle and match-holder. H. F. Richter. No. 1,209,759; Dec. 26; Gaz. vol. 233; p. 1151.
Receptacle caps or covers, Appliance for. C. R. Keeran. No. 1,207,500; Dec. 5; Gaz. vol. 233; p. 270.
Receptacle, Collapsible. L. F. Spoerr. No. 1,208,040; Dec. 12; Gaz. vol. 233; p. 477.
Receptacle, Duplex. G. P. Knapp. No. 1,210,176; Dec. 26; Gaz. vol. 233; p. 1297.
Receptacle for containing and discharging semisolid and pasty substances. J. F. Craven. No. 1,207,870; Dec. 12; Gaz. vol. 233; p. 419.
Receptacle for powdered materials, &c. H. O. Miller. No. 1,208,189; Dec. 12; Gaz. vol. 233; p. 532.
Receptacle-forming machine. C. T. Small. No. 1,209,217; Dec. 19; Gaz. vol. 233; p. 931.
Receptacle-inverting mechanism. G. D. Parker. No. 1,210,096; Dec. 26; Gaz. vol. 233; p. 1269.
Receptacle, Metallic. A. M. Kruse. No. 1,207,937; Dec. 12; Gaz. vol. 233; p. 443.
Receptacle-support, Adjustable. D. Dugan and J. Drought. No. 1,207,683; Dec. 12; Gaz. vol. 233; p. 424.
Receptacle support and cover. C. T. Moon. No. 1,207,598; Dec. 5; Gaz. vol. 233; p. 282.
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Receptacles, Machine for making ornamental linings for. W. E. Swartz. No. 1,209,904; Dec. 26; Gaz. vol. 233; p. 1203.
Recoil-pad. P. J. Krueger. No. 1,209,726; Dec. 26; Gaz. vol. 233; p. 1138.
Record-disk clamp. J. Brückner. No. 1,206,809; Dec. 5; Gaz. vol. 233; p. 9.
Record holder, Disk-. C. W. Marsh. No. 1,208,346; Dec. 12; Gaz. vol. 233; p. 589.
Recorder: *See*—
Time-recorder.
Recording apparatus. R. L. Eddy. No. 1,207,518; Dec. 5; Gaz. vol. 233; p. 254.
Recording instrument, Dead-beat. J. W. Esterline. No. 1,208,304; Dec. 12; Gaz. vol. 233; p. 575.
Recording-machine. S. G. Dorman and J. H. Magnus. No. 1,207,147; Dec. 5; Gaz. vol. 233; p. 124.
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Rectifier. H. K. Sandell. No. 1,208,884; Dec. 12; Gaz. vol. 233; p. 603.
Rectifier. H. K. Sandell. No. 1,208,885; Dec. 12; Gaz. vol. 233; p. 603.
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Reel: *See*—
Chain-reel. Spring-reel.
Chalk-line reel. Wire-reel.
Clothes-line reel. Wire-payout reel.
Reflector. H. D'Oller, Jr. No. 1,208,759; Dec. 19; Gaz. vol. 233; p. 776.
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Cash-register. Ringing-register.
Cash and credit register.
Registering, recording, and computing system. G. W. Lorimer. No. 1,209,735; Dec. 26; Gaz. vol. 233; p. 1142.
Regulator: *See*—
Electric regulator. Pump-regulator.
Feed-water regulator. Speed-regulator.
Feeder-regulator. Thermostatic regulator.
Relay, Circuit-breaking. R. C. Fryer. No. 1,207,016; Dec. 5; Gaz. vol. 233; p. 79.
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Bull-ring. Packing-ring.
Finger-ring. Piston-ring.
Key-ring.

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Rod: *See*—
Connecting-rod.
Rod-joint. D. W. Cooper. No. 1,209,125; Dec. 19; Gaz. vol. 233; p. 900.
Roll-support. A. P. F. Pico. No. 1,207,323; Dec. 5; Gaz. vol. 233; p. 185.
Roller: *See*—
Conveyer-roller. Curtain-roller.
Roller. J. S. Johnston. No. 1,208,567; Dec. 12; Gaz. vol. 233; p. 667.
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Roofing. S. M. Ford. No. 1,209,955; Dec. 26; Gaz. vol. 233; p. 1220.
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Rule and pencil holder, Combined. E. S. Goodnough. No. 1,207,746; Dec. 12; Gaz. vol. 233; p. 376.
Ruler. H. W. Olney. No. 1,208,631; Dec. 12; Gaz. vol. 233; p. 688.
Ruler, Parallel. E. Kimura. No. 1,208,569; Dec. 12; Gaz. vol. 233; p. 668.
Ruling-machine. S. H. Cobb. No. 1,206,989; Dec. 5; Gaz. vol. 233; p. 70.
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Sacks, Apparatus for feeding and sewing filled. D. S. Seymour. No. 1,210,218; Dec. 26; Gaz. vol. 233; p. 1312.
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Safety-box. J. B. Watling. No. 1,206,959; Dec. 5; Gaz. vol. 233; p. 60.
Safety-lock, Joint. C. J. Smith. No. 1,206,935; Dec. 5; Gaz. vol. 233; p. 52.
Safety-pin. E. F. Lally. No. 1,208,582; Dec. 12; Gaz. vol. 233; p. 673.
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Sash-fastener. A. E. Conrad. No. 1,208,495; Dec. 12; Gaz. vol. 233; p. 642.
Sash-holding device. J. H. Boye and E. S. Hagen. No. 1,208,734; Dec. 19; Gaz. vol. 233; p. 765.
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Sash-pulley. C. D. Shupp. No. 1,208,673; Dec. 12; Gaz. vol. 233; p. 703.
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Saw, Granite and stone. G. Griesche. No. 1,208,774; Dec. 19; Gaz. vol. 233; p. 781.
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Sawing-machine, Portable. A. Hagerman. No. 1,210,305; Dec. 26; Gaz. vol. 233; p. 1339.
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Scale. G. H. Kaiser. No. 1,207,410; Dec. 5; Gaz. vol. 233; p. 216.
Scale-hoppers, Tally for. O. A. Kneeland and L. A. Walling. No. 1,208,795; Dec. 19; Gaz. vol. 233; p. 788.
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Aquatic screen. Sanitary screen.
Centrifugal screen. Well-screen.
Coal-screen. Window-screen.
Screen. C. L. Davidson. No. 1,207,376; Dec. 5; Gaz. vol. 233; p. 203.
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Automobile-seat. Closet-seat.
Car-seat. Toilet-seat.
Seat. W. E. Johnson. No. 1,209,450; Dec. 19; Gaz. vol. 233; p. 1012.
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Section-liner. G. B. Beaumont. No. 1,208,266; Dec. 12; Gaz. vol. 233; p. 560.
Sectional pipe and clamp connection therefor. S. F. King. No. 1,208,708; Dec. 12; Gaz. vol. 233; p. 715.
Seed-tester. S. A. Floren. No. 1,207,013; Dec. 5; Gaz. vol. 233; p. 78.
Seesaw. E. Hardy. No. 1,207,309; Dec. 5; Gaz. vol. 233; p. 212.
Selective operating mechanism. J. H. Pillings. No. 1,208,641; Dec. 12; Gaz. vol. 233; p. 692.
Separating-trap. J. W. Newman. No. 1,208,820; Dec. 19; Gaz. vol. 233; p. 799.
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Battery-separator. Magnetic separator.
Fruit-separator.
Service switch and fuse mechanism. J. A. Jessen. No. 1,209,445; Dec. 19; Gaz. vol. 233; p. 1010.
Sewage, Disposing of. A. Potter. No. 1,207,621; Dec. 5; Gaz. vol. 233; p. 291.
Sewer-block. N. W. Trautner. No. 1,210,118; Dec. 26; Gaz. vol. 233; p. 1277.
Sewer construction, Reinforced. W. C. Ferguson. No. 1,209,693; Dec. 26; Gaz. vol. 233; p. 1127.
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Sewing-machine installation. J. W. Roberts, A. P. Brewster, and B. Bryson. No. 1,207,796; Dec. 12; Gaz. vol. 233; p. 394.
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Sewing-machine slack-thread controller. J. D. Karle. No. 1,209,972; Dec. 26; Gaz. vol. 233; p. 1226.
Sewing-machine thread-controlling device. D. S. Seymour. No. 1,207,228; Dec. 5; Gaz. vol. 233; p. 152.
Sewing-machine trimming mechanism. J. Berger, Jr. No. 1,209,541; Dec. 19; Gaz. vol. 233; p. 1044.
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Shaft-coupling. F. H. Cathcart. No. 1,208,481; Dec. 12; Gaz. vol. 233; p. 638.
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Sharpener, Saw-. C. H. Douglas. No. 1,208,521; Dec. 12; Gaz. vol. 233; p. 650.
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Sharpening-tool. F. Emminger. No. 1,207,282; Dec. 5; Gaz. vol. 233; p. 171.
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Animal-shears. Bloom-shears.
Shears. C. E. Woolf. No. 1,210,128; Dec. 26; Gaz. vol. 233; p. 1280.
Shears. C. E. Woolf. No. 1,210,129; Dec. 26; Gaz. vol. 233; p. 1280.
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Sheet-delivery receptacle. M. M. Marcuse. No. 1,209,317; Dec. 19; Gaz. vol. 233; p. 964.
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Sheet-metal-forming machine. C. D. Wagner. No. 1,207,349; Dec. 5; Gaz. vol. 233; p. 193.
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Shoe, Arch and ankle supporting. J. Altschul. No. 1,210,255; Dec. 26; Gaz. vol. 233; p. 1324.
Shoe attachment. P. Kenville. No. 1,208,792; Dec. 19; Gaz. vol. 233; p. 787.
Shoe construction. J. Buckley. No. 1,210,041; Dec. 26; Gaz. vol. 233; p. 1249.
Shoe-dressing machines, Cloth polisher for. C. F. Burkhart. No. 1,210,044; Dec. 26; Gaz. vol. 233; p. 1250.
Shoe-edging machine. F. B. Freeman. No. 1,209,277; Dec. 19; Gaz. vol. 233; p. 951.
Shoe-exhibiting device. V. W. Smith. No. 1,210,010; Dec. 26; Gaz. vol. 233; p. 1239.
Shoe-fastener. H. A. Fauteux. No. 1,206,829; Dec. 5; Gaz. vol. 233; p. 16.
Shoe-making machine. S. Strauss. No. 1,209,225; Dec. 19; Gaz. vol. 233; p. 933.
Shoe-polisher. A. C. Cogswell. No. 1,207,276; Dec. 5; Gaz. vol. 233; p. 169.
Shoe-polishing mechanism. F. G. Henry. No. 1,210,070; Dec. 26; Gaz. vol. 233; p. 1259.
Shoe-protector. O. B. Griffin. No. 1,207,024; Dec. 5; Gaz. vol. 233; p. 81.
Shoe-repair jack. J. H. O'Brien. No. 1,210,355; Dec. 26; Gaz. vol. 233; p. 1355.
Shoe-shank. E. B. Stimpson. No. 1,208,397; Dec. 12; Gaz. vol. 233; p. 608.
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Shoe-softening apparatus. F. M. Furber. No. 1,209,694; Dec. 26; Gaz. vol. 233; p. 1128.
Shoe-softening device. N. Scarponi. No. 1,209,889; Dec. 26; Gaz. vol. 233; p. 1198.
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Shoe-stiffener. H. H. Beckwith. No. 1,209,661; Dec. 26; Gaz. vol. 233; p. 1116.
Shoe-tip, Ventilating. G. S. Gumaer. No. 1,208,955; Dec. 19; Gaz. vol. 233; p. 843.
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Shoulder-brace. H. V. A. Loring. No. 1,209,601; Dec. 19; Gaz. vol. 233; p. 1064.
Shovel: *See*—
Steam-shovel.
Shovel. T. P. Barton. No. 1,207,472; Dec. 5; Gaz. vol. 233; p. 238.
Shovel. C. L. Beall. No. 1,209,248; Dec. 19; Gaz. vol. 233; p. 940.
Shovel. F. D. Rugg. No. 1,207,634; Dec. 5; Gaz. vol. 233; p. 295.
Shoveling-board. O. R. Manville. No. 1,209,866; Dec. 26; Gaz. vol. 233; p. 1189.
Shredding-machine. J. W. Keogh. No. 1,207,055; Dec. 5; Gaz. vol. 233; p. 92.
Sifter. G. B. Wheeler. No. 1,207,352; Dec. 5; Gaz. vol. 233; p. 194.
Sifter, Self-balancing. A. C. Brantingham. No. 1,207,847; Dec. 12; Gaz. vol. 233; p. 412.
Sifting or screening mechanism. R. A. Cummings. No. 1,207,139; Dec. 5; Gaz. vol. 233; p. 121.
Sign. J. J. Spinks. No. 1,208,683; Dec. 12; Gaz. vol. 233; p. 706.
Sign-board, Changeable. R. W. Clark. No. 1,207,711; Dec. 12; Gaz. vol. 233; p. 362.
Sign device, Illuminated-. A. F. Conner and G. L. Willett. No. 1,206,492; Dec. 12; Gaz. vol. 233; p. 642.
Sign-holder. F. H. Cosner. No. 1,209,560; Dec. 19; Gaz. vol. 233; p. 1050.
Signal: *See*—
Automobile-signal. Rain-signal.
Flag-signal. Track-signal.
Hand-operated signal. Traffic-signal.
Lamp-signal. Vehicle-signal.
Signal. C. O. Harrington. No. 1,207,291; Dec. 5; Gaz. vol. 233; p. 174.
Signal-box, Non-interference. C. E. Beach and L. J. Voorhees. No. 1,207,838; Dec. 12; Gaz. vol. 233; p. 409.
Signal mechanism and the like. H. S. Lycoe. No. 1,209,313; Dec. 19; Gaz. vol. 233; p. 963.
Signal system, Electric. N. H. Suren. No. 1,208,229; Dec. 12; Gaz. vol. 233; p. 546.
Signaling apparatus. C. G. Ender and G. A. Barber. No. 1,210,283; Dec. 26; Gaz. vol. 233; p. 1332.
Signaling device. T. Richardson. No. 1,208,656; Dec. 12; Gaz. vol. 233; p. 697.
Signaling device, Vehicle. R. F. Duryea. No. 1,208,302; Dec. 12; Gaz. vol. 233; p. 574.
Signaling, Method and apparatus for submarine. R. A. Fessenden. No. 1,207,388; Dec. 5; Gaz. vol. 233; p. 208.
Signaling system, Selective. R. C. Leake. No. 1,209,598; Dec. 19; Gaz. vol. 233; p. 1062.
Silicates, Manufacture of base-exchanging. H. Kriegsheim. No. 1,208,797; Dec. 19; Gaz. vol. 233; p. 789.
Silk, Weighting. P. Schmid and K. Gross. No. 1,207,800; Dec. 12; Gaz. vol. 233; p. 395.
Silk with hematoxylin, Weighting. F. Mueller. No. 1,207,784; Dec. 12; Gaz. vol. 233; p. 390.
Silo. S. F. F. Knepley. No. 1,208,332; Dec. 12; Gaz. vol. 233; p. 584.
Silo, Bottom-delivery. J. G. Swain. No. 1,210,116; Dec. 26; Gaz. vol. 233; p. 1276.
Silo construction. L. J. Krebs. No. 1,208,983; Dec. 19; Gaz. vol. 233; p. 852.
Silo-door operator. E. Cox. No. 1,209,400; Dec. 19; Gaz. vol. 233; p. 995.
Silvering or gilding metal articles, Preparation for. A. Dalby. No. 1,208,507; Dec. 12; Gaz. vol. 233; p. 646.
Siren. C. M. Anderson. No. 1,208,887; Dec. 19; Gaz. vol. 233; p. 821.
Siren with internal rotor, Subaqueous motor-driven. F. Schenkelberger. No. 1,209,503; Dec. 19; Gaz. vol. 233; p. 1031.
Skate. J. Lenhardt. No. 1,208,178; Dec. 12; Gaz. vol. 233; p. 526.
Skate, Ice-. A. Lange. No. 1,206,864; Dec. 5; Gaz. vol. 233; p. 28.
Skate, Roller-. T. Spacie. No. 1,208,681; Dec. 12; Gaz. vol. 233; p. 705.
Skee attachment. W. J. Brennan. No. 1,207,132; Dec. 5; Gaz. vol. 233; p. 119.
Skeleton lid. C. G. Manz. No. 1,207,586; Dec. 5; Gaz. vol. 233; p. 279.
Skirts, Apparatus for marking off the lower parts of. J. J. B. Tartara. No. 1,209,515; Dec. 19; Gaz. vol. 233; p. 1036.
Skiving-machine. H. Klaeger. No. 1,210,082; Dec. 26; Gaz. vol. 233; p. 1263.
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Skylight structure. C. M. Carll. No. 1,209,554; Dec. 19; Gaz. vol. 233; p. 1048.
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Sled, Motor-. J. O. Decker. No. 1,209,404; Dec. 19; Gaz. vol. 233; p. 996.
Sleeping-bag and knapsack, Combined. R. Skancke and J. F. Aasnæs. No. 1,209,771; Dec. 26; Gaz. vol. 233; p. 1154.
Sleigh-runner, Detachable. E. T. Carlisle. No. 1,207,856; Dec. 12; Gaz. vol. 233; p. 415.
Slicing-machine. R. S. Fow. No. 1,208,765; Dec. 19; Gaz. vol. 233; p. 778.
Slicing-machine. H. R. Goodfellow. No. 1,207,745; Dec. 12; Gaz. vol. 233; p. 376.
Sling-shot fork. W. W. Grigsby. No. 1,207,025; Dec. 5; Gaz. vol. 233; p. 82.
Slug-mold. J. Keenan. No. 1,210,077; Dec. 26; Gaz. vol. 233; p. 1261.
Slug-mold. J. Keenan. No. 1,210,078; Dec. 26; Gaz. vol. 233; p. 1262.
Smelting metallic ores. H. L. Doherty. No. 1,207,881; Dec. 12; Gaz. vol. 233; p. 423.
Smoke-abating device. T. R. Cook. No. 1,208,098; Dec. 12; Gaz. vol. 233; p. 497.
Snap. B. B. Wood. No. 1,209,369; Dec. 19; Gaz. vol. 233; p. 983.
Snap-switch for electric uses. W. C. Tregoning. No. 1,207,097; Dec. 5; Gaz. vol. 233; p. 107.
Soap-dish. C. C. Blake. No. 1,210,035; Dec. 26; Gaz. vol. 233; p. 1248.
Soap-dispensing device. E. F. Tawney. No. 1,210,231; Dec. 26; Gaz. vol. 233; p. 1316.
Soap-holder. A. D. Curry. No. 1,206,998; Dec. 5; Gaz. vol. 233; p. 73.
Soap-receptacle. M. C. Thieme. No. 1,209,074; Dec. 19; Gaz. vol. 233; p. 883.
Socket. J. Kennedy. No. 1,207,413; Dec. 5; Gaz. vol. 233; p. 218.
Soda-fountain draft-cock. W. E. La Rue. No. 1,208,709; Dec. 12; Gaz. vol. 233; p. 715.
Sodium salts of sulfonic acids, Manufacturing. A. P. Sachs and O. Byron. No. 1,207,798; Dec. 12; Gaz. vol. 233; p. 395.
Soil-treating apparatus. T. Kernan and W. J. Allen. No. 1,209,848; Dec. 26; Gaz. vol. 233; p. 1182.
Soldering-machine. A. L. Kronquest. No. 1,210,177; Dec. 26; Gaz. vol. 233; p. 1298.
Soldering-machine. F. P. McColl. No. 1,206,876; Dec. 5; Gaz. vol. 233; p. 32.
Sole cutter, Shoe-. E. Cesar. No. 1,210,148; Dec. 26; Gaz. vol. 233; p. 1287.
Sole-leveling machine. S. J. Wentworth. No. 1,209,089; Dec. 19; Gaz. vol. 233; p. 887.
Sole-making machine. A. E. Johnson. No. 1,207,409; Dec. 5; Gaz. vol. 233; p. 216.
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Sole, Slipper-. M. E. Schenke. No. 1,208,668; Dec. 12; Gaz. vol. 233; p. 702.
Soles and heels to footwear, Apparatus for applying. J. S. Busky. No. 1,209,552; Dec. 19; Gaz. vol. 233; p. 1048.
Soles, Attachment for shoe-. F. A. Hutchinson. No. 1,207,171; Dec. 5; Gaz. vol. 233; p. 133.
Soles, Holder for cemented. G. E. Brittain. No. 1,210,040; Dec. 26; Gaz. vol. 233; p. 1249.
Soles of boots and shoes, Machine for leveling the. W. H. Hooper. No. 1,208,966; Dec. 19; Gaz. vol. 233; p. 847.
Solenoid. F. Kraemer. No. 1,208,577; Dec. 12; Gaz. vol. 233; p. 671.
Solution-specific-gravity-regulating apparatus. L. Logan. No. 1,210,180; Dec. 26; Gaz. vol. 233; p. 1299.
Solutions, Portable apparatus for the instantaneous production of fresh. R. De Carvalho and J. G. Carreira. No. 1,207,860; Dec. 12; Gaz. vol. 233; p. 416.
Solvent-recovering apparatus. T. Baker. No. 1,209,657; Dec. 26; Gaz. vol. 233; p. 1115.
Sound-producer, Diaphragmatic. L. Grubman. No. 1,209,148; Dec. 19; Gaz. vol. 233; p. 908.
Sound-record tablet. T. A. Edison. No. 1,207,883; Dec. 5; Gaz. vol. 233; p. 206.
Sound-reproducing machines, Automatic stop for. R. O. May. No. 1,207,589; Dec. 5; Gaz. vol. 233; p. 280.
Sounder. F. W. Cole. No. 1,208,096; Dec. 12; Gaz. vol. 233; p. 496.
Spacing and clamping device, Combined. J. Kelsey. No. 1,206,857; Dec. 5; Gaz. vol. 233; p. 25.
Spark-plug. J. W. Baird. No. 1,206,794; Dec. 5; Gaz. vol. 233; p. 5.
Spark-plug. F. Carlson. No. 1,208,479; Dec. 12; Gaz. vol. 233; p. 637.

Spark-plug. D. M. Dunning, Jr. No. 1,209,820; Dec. 26; Gaz. vol. 233; p. 1172.
Sparking indicator. H. J. Sass and O. H. Shaw. No. 1,210,214; Dec. 26; Gaz. vol. 233; p. 1310.
Spectacles, eyeglasses, and the like, Mounting for. P. H. Johnston. No. 1,207,924; Dec. 12; Gaz. vol. 233; p. 439.
Speed and mileage register and recorder. A. J. Moeller and E. A. Rotter. No. 1,209,608; Dec. 19; Gaz. vol. 233; p. 1066.
Speed-indicator. N. Tesla. No. 1,209,359; Dec. 19; Gaz. vol. 233; p. 980.
Speed-operating mechanism. C. B. King and H. T. Gracely. No. 1,208,570; Dec. 12; Gaz. vol. 233; p. 668.
Speed-regulator, Centrifugal. S. L. Price. No. 1,208,208; Dec. 12; Gaz. vol. 233; p. 539.
Speed-selector. J. H. Stortz. No. 1,209,352; Dec. 19; Gaz. vol. 233; p. 977.
Speed-transmission mechanism, Variable-. R. D. King. No. 1,209,717; Dec. 26; Gaz. vol. 233; p. 1135.
Speedometer. C. G. Smith. No. 1,207,647; Dec. 5; Gaz. vol. 233; p. 299.
Speedometer. M. Smithey. No. 1,208,678; Dec. 12; Gaz. vol. 233; p. 705.
Speedometer. M. Smithey. No. 1,208,679; Dec. 12; Gaz. vol. 233; p. 705.
Speedometer, license-plate, signal, and tires, Combined carrier for a. W. E. Goldsworthy. No. 1,209,427; Dec. 19; Gaz. vol. 233; p. 1004.
Sphygmomanometer. R. F. Schneider. No. 1,209,213; Dec. 19; Gaz. vol. 233; p. 929.
Spinning artificial silk, Machine for. H. de Chardonnet. No. 1,209,133; Dec. 19; Gaz. vol. 233; p. 903.
Spinning or twisting strips of paper into yarn, Machine for. T. A. and H. A. Boyd. No. 1,209,545; Dec. 19; Gaz. vol. 233; p. 1045.
Spinning-top. E. S. Swanstrom. No. 1,206,942; Dec. 5; Gaz. vol. 233; p. 55.
Splitting-machine. J. Gouldbourn. No. 1,208,773; Dec. 19; Gaz. vol. 233; p. 781.
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Spoke. C. F. Menge. No. 1,208,609; Dec. 12; Gaz. vol. 233; p. 682.
Spoke-clip. J. A. King. No. 1,207,932; Dec. 12; Gaz. vol. 233; p. 441.
Spool. J. Flax. No. 1,207,010; Dec. 5; Gaz. vol. 233; p. 77.
Spoon-hook. C. T. Pflueger. No. 1,209,020; Dec. 19; Gaz. vol. 233; p. 864.
Spout, Sap-. G. H. Soule. No. 1,207,444; Dec. 5; Gaz. vol. 233; p. 229.
Spray-producer or atomizer, Liquid. D. H. Thomas, A. D. Berk, and F. J. Morgan. No. 1,210,232; Dec. 26; Gaz. vol. 233; p. 1316.
Sprayer and sprinkler, Combined. J. Peterson. No. 1,207,790; Dec. 12; Gaz. vol. 233; p. 392.
Sprayer, Mechanical. H. S. and L. F. Levy. No. 1,207,774; Dec. 12; Gaz. vol. 233; p. 387.
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Automobile-spring. Leaf-spring.
Bed-spring. Lubricated spring.
Elliptical spring. Vehicle-spring.
Spring. A. M. Laycock. No. 1,208,990; Dec. 19; Gaz. vol. 233; p. 854.
Spring attachment. T. Lindenberg. No. 1,207,307; Dec. 5; Gaz. vol. 233; p. 179.
Spring-brake for gears. E. E. Phinney. No. 1,208,366; Dec. 12; Gaz. vol. 233; p. 596.
Spring-fastening device. J. Schade, Jr. No. 1,208,217; Dec. 12; Gaz. vol. 233; p. 542.
Spring-reel. W. Schultz. No. 1,209,341; Dec. 19; Gaz. vol. 233; p. 973.
Spring suspension. M. P. Delory. No. 1,207,144; Dec. 5; Gaz. vol. 233; p. 123.
Spring-wheel. J. T. Crocker. No. 1,209,940; Dec. 26; Gaz. vol. 233; p. 1216.
Spring-wheel. R. M. Keating. No. 1,207,928; Dec. 12; Gaz. vol. 233; p. 440.
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Spring-wheel. M. Picciano and T. Rubino. No. 1,208,201; Dec. 12; Gaz. vol. 233; p. 537.
Springs, Tension-limit for. L. S. Cunny. No. 1,208,298; Dec. 12; Gaz. vol. 233; p. 573.
Sprinkler: *See*—
Automatic sprinkler. Lawn-sprinkler.
Sprinkler-heads, Fusible link for. W. A. Perry. No. 1,208,200; Dec. 12; Gaz. vol. 233; p. 536.
Sprinkler-heads, Link for. L. A. Grimes. No. 1,209,574; Dec. 19; Gaz. vol. 233; p. 1054.
Sprocket-wheel. J. Domerhuizen. No. 1,209,406; Dec. 19; Gaz. vol. 233; p. 997.
Square, Carpenter's. A. Krage. No. 1,207,935; Dec. 12; Gaz. vol. 233; p. 442.
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Stacker, Straw-. H. Landt. No. 1,208,988; Dec. 19; Gaz. vol. 233; p. 853.
Stackers, Hood for pneumatic. G. B. Nelson. No. 1,209,873; Dec. 26; Gaz. vol. 233; p. 1191.
Stacking or boxing machine, Automatic. J. H. Lienau and W. Steenken. No. 1,208,803; Dec. 19; Gaz. vol. 233; p. 791.
Stairs, Folding bunk-. E. E. Mey. No. 1,209,868; Dec. 26; Gaz. vol. 233; p. 1190.
Stalk-destroyer. J. Johnson. No. 1,208,976; Dec. 19; Gaz. vol. 233; p. 850.
Stall, Animal-. H. L. Ferris. No. 1,210,159; Dec. 26; Gaz. vol. 233; p. 1291.
Stall construction. H. J. Ferris. No. 1,207,286; Dec. 5; Gaz. vol. 233; p. 172.
Stall construction. H. J. Ferris. No. 1,208,118; Dec. 12; Gaz. vol. 233; p. 505.
Stall, Cow-. H. H. Drew. No. 1,209,688; Dec. 26; Gaz. vol. 233; p. 1126.
Stamp-affixing machine. T. Whaley. No. 1,209,919; Dec. 26; Gaz. vol. 233; p. 1209.
Stamp-holder. H. S. Folger. No. 1,208,533; Dec. 12; Gaz. vol. 233; p. 655.
Stamping-machine. J. E. Hires. No. 1,207,917; Dec. 12; Gaz. vol. 233; p. 436.
Stanchion. H. H. Drew. No. 1,209,687; Dec. 26; Gaz. vol. 233; p. 1126.
Stand: *See*—
Bicycle-stand. Display-stand.
Roller-stand. Folding stand.
Cycle-stand. Telephone-stand.
Dispensing-stand.
Staple-fastening machine. C. E. Grush. No. 1,207,749; Dec. 12; Gaz. vol. 233; p. 377.
Starch, Making soluble. J. Kantorowicz. No. 1,207,177; Dec. 5; Gaz. vol. 233; p. 135.
Starter. C. H. Taylor and B. B. Neuteboom. No. 1,209,229; Dec. 19; Gaz. vol. 233; p. 935.
Starting and lighting system. J. O. Heinze. No. 1,208,962; Dec. 19; Gaz. vol. 233; p. 845.
Starting mechanism. J. L. Adams, Jr. No. 1,210,028; Dec. 26; Gaz. vol. 233; p. 1245.
Static charges, Apparatus for neutralizing. H. C. Tooker and B. S. Hallenbeck. No. 1,208,238; Dec. 12; Gaz. vol. 233; p. 550.
Station-indicator. J. F. Bates. No. 1,208,729; Dec. 19; Gaz. vol. 233; p. 764.
Stay-bolt. J. A. Frauenheim. No. 1,207,391; Dec. 5; Gaz. vol. 233; p. 209.
Stay, Garment-. E. L. Hyde. No. 1,210,170; Dec. 26; Gaz. vol. 233; p. 1296.
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Stay, Garment-. W. J. Roche. No. 1,208,837; Dec. 19; Gaz. vol. 233; p. 804.
Stay, Garment-. W. J. Roche. No. 1,210,209; Dec. 26; Gaz. vol. 233; p. 1309.
Steam-boiler. C. K. E. Bildt. No. 1,208,082; Dec. 12; Gaz. vol. 233; p. 492.
Steam-engine. C. W. Smith. No. 1,208,027; Dec. 12; Gaz. vol. 233; p. 473.
Steam-generator. G. H. Sands. No. 1,209,211; Dec. 19; Gaz. vol. 233; p. 929.
Steam or hot-water boiler. J. M. Broherd. No. 1,207,489; Dec. 5; Gaz. vol. 233; p. 244.
Steam-shovel. E. J. Moynihan. No. 1,210,194; Dec. 26; Gaz. vol. 233; p. 1303.
Steaming and smoothing device. W. S. May. No. 1,209,466; Dec. 19; Gaz. vol. 233; p. 1018.
Steaming-plug. J. A. Murphy. No. 1,209,869; Dec. 26; Gaz. vol. 233; p. 1190.
Steel and producing ingots, bars, &c., Apparatus for pouring. J. T. Rowley. No. 1,209,039; Dec. 19; Gaz. vol. 233; p. 870.
Steel bars, Breaking. P. V. L. Bellanger. No. 1,209,250; Dec. 19; Gaz. vol. 233; p. 941.
Steering device, Automatic. P. Kotz. No. 1,210,084; Dec. 26; Gaz. vol. 233; p. 1264.
Steering device, Safety. H. J. Miller. No. 1,207,693; Dec. 5; Gaz. vol. 233; p. 317.
Steering-gear. S. C. Gordon. No. 1,209,144; Dec. 19; Gaz. vol. 233; p. 906.
Steering-gear-operating mechanism, Semi-automatic. F. W. Austin. No. 1,208,450; Dec. 12; Gaz. vol. 233; p. 626.
Steering-gear, Power. A. O. Leedy. No. 1,207,058; Dec. 5; Gaz. vol. 233; p. 93.
Steering-wheel. J. M. Fahnestock. No. 1,210,157; Dec. 26; Gaz. vol. 233; p. 1291.
Stereotype-plates, Machine for finishing and cooling curved. H. Pearce. No. 1,207,320; Dec. 5; Gaz. vol. 233; p. 184.
Sterilizer for removing cake-icing. E. E. Lawrence. No. 1,208,335; Dec. 12; Gaz. vol. 233; p. 583.
Sticker. W. G. Stringer. No. 1,210,230; Dec. 26; Gaz. vol. 233; p. 1315.
Stitch-separating machine. G. Basler. No. 1,208,079; Dec. 12; Gaz. vol. 233; p. 491.
Stitching and cutting machine, Buttonhole. J. G. Greene and L. F. A. Büchner. No. 1,208,951; Dec. 19; Gaz. vol. 233; p. 841.
Stock-dipping tank. E. F. Strong. No. 1,207,815; Dec. 12; Gaz. vol. 233; p. 400.
Stocking drying and shaping apparatus. W. D. Butz. No. 1,207,494; Dec. 5; Gaz. vol. 233; p. 245.
Stocking-drying form. W. D. Butz. No. 1,207,497; Dec. 5; Gaz. vol. 233; p. 247.
Stoker-controllers, Valve for automatic. W. J. Kenney. No. 1,207,769; Dec. 12; Gaz. vol. 233; p. 384.

Stoker, Underfeed. W. J. Kinney. No. 1,207,768; Dec. 12; Gaz. vol. 233; p. 384.
Stokers, Coal-agitator for mechanical. R. S. Riley. No. 1,208,011; Dec. 12; Gaz. vol. 233; p. 467.
Stone-cutting machine. E. M. King. No. 1,209,727; Dec. 26; Gaz. vol. 233; p. 1139.
Stool. A. J. Crease. No. 1,209,561; Dec. 19; Gaz. vol. 233; p. 1050.
Stop-motion. A. F. Waldow. No. 1,208,868; Dec. 19; Gaz. vol. 233; p. 813.
Stopper: *See*—
Bottle-stopper.
Storage apparatus, Cold-. C. L. Merithew. No. 1,209,471; Dec. 19; Gaz. vol. 233; p. 1020.
Storage battery. B. Ford. No. 1,207,287; Dec. 5; Gaz. vol. 233; p. 173.
Storage battery. C. Hodge. No. 1,207,293; Dec. 5; Gaz. vol. 233; p. 175.
Storage battery or housing. E. A. Hawthorne. No. 1,208,959; Dec. 19; Gaz. vol. 233; p. 844.
Storage-pit. E. A. Hollenbeck and W. G. Huff. No. 1,209,297; Dec. 19; Gaz. vol. 233; p. 957.
Stove. E. F. Hill and W. H. Myers. No. 1,210,312; Dec. 26; Gaz. vol. 233; p. 1340.
Stove, Camp-. N. Hill. No. 1,207,553; Dec. 5; Gaz. vol. 233; p. 268.
Stove, Camp-. A. Muehleisen. No. 1,209,610; Dec. 19; Gaz. vol. 233; p. 1067.
Stove, Gas-. H. A. Shunk. No. 1,209,215; Dec. 19; Gaz. vol. 233; p. 930.
Stove, Gas cooking-. F. V. Detwiler. No. 1,209,683; Dec. 26; Gaz. vol. 233; p. 1124.
Stove, Gas or vapor. A. T. Nye. No. 1,209,325; Dec. 19; Gaz. vol. 233; p. 968.
Stove-lid lifter. A. W. Deane. No. 1,208,510; Dec. 12; Gaz. vol. 233; p. 647.
Stove oven-door, Gas and vapor. A. T. Nye. No. 1,209,326; Dec. 19; Gaz. vol. 233; p. 968.
Stove oven, Gas and vapor. C. H. Steadman. No. 1,209,348; Dec. 19; Gaz. vol. 233; p. 976.
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Stoves, Ignition device for gas-. F. V. Knauss. No. 1,208,166; Dec. 12; Gaz. vol. 233; p. 524.
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Stovepipe. J. Messina. No. 1,209,006; Dec. 19; Gaz. vol. 233; p. 860.
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Strainer, Tea or coffee. J. Guinney. No. 1,209,149; Dec. 19; Gaz. vol. 233; p. 906.
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Strap-locking device. O. Smith and M. G. Nixon. No. 1,207,233; Dec. 5; Gaz. vol. 233; p. 154.
Straw and manure spreader. A. Wonderlich and H. A. Crozier. No. 1,209,582; Dec. 19; Gaz. vol. 233; p. 1041.
Straw-carrier and grain-separator. H. Hoepker. No. 1,208,707; Dec. 26; Gaz. vol. 233; p. 1132.
Straws, Cut-off mechanism for machines for making artificial. L. C. Maltby. No. 1,207,585; Dec. 5; Gaz. vol. 233; p. 278.
Straws, Cut-off mechanism for machines for making artificial. L. C. Maltby. No. 1,208,600; Dec. 12; Gaz. vol. 233; p. 678.
Street-cleaner. C. L. Talbot. No. 1,208,046; Dec. 12; Gaz. vol. 233; p. 479.
Street-sweeper. C. G. Thompson. No. 1,207,816; Dec. 12; Gaz. vol. 233; p. 400.
Street-sweeping machine. W. T. Blaney. No. 1,209,384; Dec. 19; Gaz. vol. 233; p. 989.
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Stropping-machine. F. A. Shimans. No. 1,210,222; Dec. 26; Gaz. vol. 233; p. 1313.
Studding, Metallic. T. J. Fraber. No. 1,210,297; Dec. 26; Gaz. vol. 233; p. 1336.
Stump-pulling apparatus. H. L. and F. W. Zimmerman. No. 1,206,970; Dec. 5; Gaz. vol. 233; p. 64.
Submerged metallic bodies, Method of and apparatus for detecting the presence and location of. P. B. Delany. No. 1,209,680; Dec. 26; Gaz. vol. 233; p. 1123.
Suckling device. C. B. Johnson. No. 1,207,052; Dec. 5; Gaz. vol. 233; p. 91.
Suction-cleaner. F. A. English. No. 1,209,272; Dec. 19; Gaz. vol. 233; p. 949.
Suction-cleaner, blower, and polishing device, Combined. B. F. Blake. No. 1,207,480; Dec. 5; Gaz. vol. 233; p. 241.
Sugar-beets and the product derived therefrom, Treating. G. H. Benjamin. No. 1,207,840; Dec. 12; Gaz. vol. 233; p. 410.
Sugar tablet or cube boxing machine. J. H. Lienau and W. Steenken. No. 1,208,802; Dec. 19; Gaz. vol. 233; p. 790.
Suit for women, Combination-. I. M. Stephenson. No. 1,207,654; Dec. 5; Gaz. vol. 233; p. 301.
Superheater element for flue-tube boilers. P. Thomsen. No. 1,208,405; Dec. 12; Gaz. vol. 233; p. 611.
Superheater-header. J. S. Chambers. No. 1,209,117; Dec. 19; Gaz. vol. 233; p. 897.
Supporter. M. Froese. No. 1,208,768; Dec. 19; Gaz. vol. 233; p. 779.
Supporting and hoisting loads and sundry articles, Mechanism for. I. Benjamins. No. 1,208,458; Dec. 12; Gaz. vol. 233; p. 629.
Supporting apparatus. R. A. W. Fox. No. 1,207,154; Dec. 5; Gaz. vol. 233; p. 127.
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Surveying instrument. L. H. Berger. No. 1,209,107; Dec. 19; Gaz. vol. 233; p. 894.
Suspended bag. F. X. Sandt. No. 1,207,638; Dec. 5; Gaz. vol. 233; p. 296.
Suspension device. J. W. Ridgway. No. 1,209,205; Dec. 19; Gaz. vol. 233; p. 927.
Suspensory. A. Deutsch. No. 1,206,758; Dec. 19; Gaz. vol. 233; p. 775.
Swimmers and like uses, Safety device for. F. W. Taylor. No. 1,208,232; Dec. 12; Gaz. vol. 233; p. 545.
Swing-joint connection. W. Queenan and J. F. Hansen. No. 1,208,002; Dec. 12; Gaz. vol. 233; p. 464.
Swingletree cushion device. H. A. Weeks. No. 1,207,453; Dec. 5; Gaz. vol. 233; p. 232.
Swingletree-hook. F. Lehman. No. 1,210,334; Dec. 26; Gaz. vol. 233; p. 1348.
Switch: *See*—
Automatic switch.
Electric switch.
Electrical switch.
Line-switch.
Oil-switch.
Railway-switch.
Service-switch.
Snap-switch.
Time-switch.
Trolley-switch.
Switch. H. W. Young. No. 1,209,792; Dec. 26; Gaz. vol. 233; p. 1162.
Switch casing, Electric-. J. F. McElroy. No. 1,207,956; Dec. 12; Gaz. vol. 233; p. 449.
Switch-controller, Automatic. G. A. Fritsch. No. 1,207,531; Dec. 5; Gaz. vol. 233; p. 258.
Switch-lock. E. K. Post. No. 1,207,325; Dec. 5; Gaz. vol. 233; p. 185.
Switch mechanism. D. C. Larson. No. 1,208,583; Dec. 12; Gaz. vol. 233; p. 673.
Switch-throwing apparatus, Automatic. F. Bida. No. 1,206,981; Dec. 5; Gaz. vol. 233; p. 67.
Switches, Selective means for. G. B. Gray. No. 1,209,146; Dec. 19; Gaz. vol. 233; p. 907.
Switchboard. J. P. Hayes. No. 1,208,151; Dec. 12; Gaz. vol. 233; p. 518.
Synchronizing apparatus. L. Janssens. No. 1,210,328; Dec. 26; Gaz. vol. 233; p. 1344.
Table: *See*—
Automobile dining-table.
Concentrating table.
Extension-table.
Folding-leaf table.
Glass-casting table.
Ironing-table.
Knockdown table.
Operating-table.
Table. J. Roggінger, No. 1,208,018; Dec. 12; Gaz. vol. 233; p. 470.
Table. B. Zimmer. No. 1,208,436; Dec. 12; Gaz. vol. 233; p. 622.
Table. B. Zimmer. No. 1,208,437; Dec. 12; Gaz. vol. 233; p. 622.
Table and settee, Combined. W. A. Decker. No. 1,207,510; Dec. 5; Gaz. vol. 233; p. 252.
Table attachment for beds. J. F. Kahre. No. 1,208,979; Dec. 19; Gaz. vol. 233; p. 851.
Table-top, Paper-hanger's. G. J. Ferguson. No. 1,209,421; Dec. 19; Gaz. vol. 233; p. 1003.
Tablet, Loose-sheet. W. S. Matthews. (Reissue.) No. 14,229; Dec. 12; Gaz. vol. 233; p. 722.
Tablet-wrapping machine. M. Chambon. No. 1,209,669; Dec. 26; Gaz. vol. 233; p. 1119.
Tagging-machine. H. G. Tissot. No. 1,207,818; Dec. 12; Gaz. vol. 233; p. 401.
Talking-machine. B. Benedict. No. 1,210,138; Dec. 26; Gaz. vol. 233; p. 1283.
Talking-machine amplifier. A. A. Huseby. No. 1,209,441; Dec. 19; Gaz. vol. 233; p. 1009.
Talking-machine automatic stop. C. H. Murphy. No. 1,210,195; Dec. 26; Gaz. vol. 233; p. 1304.
Talking-machine brake, Automatic. F. Cirelli. No. 1,208,749; Dec. 19; Gaz. vol. 233; p. 771.
Talking-machine brake mechanism. M. Nystrom. No. 1,207,986; Dec. 12; Gaz. vol. 233; p. 459.
Talking-machine-needle magazine. M. Blackman. No. 1,208,900; Dec. 19; Gaz. vol. 233; p. 826.
Talking-machine-record-illuminating device. C. A. Kotterman. No. 1,209,852; Dec. 26; Gaz. vol. 233; p. 1184.
Talking-machine records, Holder for. J. J. Scully. No. 1,208,844; Dec. 19; Gaz. vol. 233; p. 806.
Tamping-tool. C. A. De Lamater. No. 1,206,999; Dec. 5; Gaz. vol. 233; p. 73.
Tank: *See*—
Cycle fuel-tank.
Grain-tank
Stock-dipping tank.
Tank control, Flush-. W. J. Callow. No. 1,207,854; Dec. 12; Gaz. vol. 233; p. 414.
Tanning compound. G. T. Ball. No. 1,210,259; Dec. 26; Gaz. vol. 233; p. 1325.
Tap, Collapsible. W. H. Gates. No. 1,209,139; Dec. 19; Gaz. vol. 233; p. 905.

Tap, Collapsible. V. R. Koontz. No. 1,209,806; Dec. 19; Gaz. vol. 233; p. 960.
Target. M. J. Fitzgerald. No. 1,207,009; Dec. 5; Gaz. vol. 233; p. 77.
Target. C. H. Whitman. No. 1,208,254; Dec. 12; Gaz. vol. 233; p. 556.
Tea-ball. G. H. Peal. No. 1,209,485; Dec. 19; Gaz. vol. 233; p. 1024.
Tea-ball, Non-refillable. G. H. Peal. No. 1,209,484; Dec. 19; Gaz. vol. 233; p. 1024.
Teeter-board. G. S. Polley. No. 1,209,881; Dec. 26; Gaz. vol. 233; p. 1195.
Telegraph-transmitter. C. G. Taylor. No. 1,208,047; Dec. 12; Gaz. vol. 233; p. 480.
Telegraphs, Signaling device for writing or copying. A. Rappenecker. No. 1,209,332; Dec. 19; Gaz. vol. 233; p. 970.
Telemetric system. A. J. Smith. No. 1,208,026; Dec. 12; Gaz. vol. 233; p. 472.
Telephone apparatus. K. B. Hastings. No. 1,209,291; Dec. 19; Gaz. vol. 233; p. 956.
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Telephone repeater or relay. A. H. Johnson. No. 1,207,051; Dec. 5; Gaz. vol. 233; p. 90.
Telephone-stand. J. W. F. Blizard. No. 1,209,254; Dec. 19; Gaz. vol. 233; p. 942.
Telephone-stations, Connecting system for. L. D. Barrows. No. 1,207,836; Dec. 12; Gaz. vol. 233; p. 408.
Telephone switching system, Automatic. A. H. Dyson. No. 1,207,150; Dec. 5; Gaz. vol. 233; p. 125.
Telephone system. F. W. Dunbar. No. 1,209,689; Dec. 26; Gaz. vol. 233; p. 1126.
Telephone system. A. H. Dyson. No. 1,208,718; Dec. 12; Gaz. vol. 233; p. 718.
Telephone system. J. Erickson. No. 1,209,825; Dec. 26; Gaz. vol. 233; p. 1173.
Telephone system. J. Erickson. No. 1,209,826; Dec. 26; Gaz. vol. 233; p. 1174.
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Telephone system, Automatic. W. Kaisling. No. 1,210,356; Dec. 26; Gaz. vol. 233; p. 1365.
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Telpherage apparatus. I. B. Drinkard. No. 1,207,514; Dec. 5; Gaz. vol. 233; p. 253.
Temperature-controlling means. H. E. Gilbert. No. 1,207,536; Dec. 5; Gaz. vol. 233; p. 260.
Temperature-indicator. N. H. Suren. No. 1,208,228; Dec. 12; Gaz. vol. 233; p. 548.
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Tension device. E. J. Lipps. No. 1,209,179; Dec. 19; Gaz. vol. 233; p. 918.
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Thermometer, Adjustable-contact. A. T. Hespe. No. 1,207,754; Dec. 12; Gaz. vol. 233; p. 379.
Thermostat. M. Butts. No. 1,210,045; Dec. 26; Gaz. vol. 233; p. 1250.
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Tide-motor. J. A. Knowlton. No. 1,209,975; Dec. 26; Gaz. vol. 233; p. 1227.
Tie: *See*—
Metallic tie.
Rail-tie.
Railway-tie.
Tie-holding device. L. H. Martin. No. 1,209,001; Dec. 19; Gaz. vol. 233; p. 858.
Tie-plate. R. D. Hawley. No. 1,210,309; Dec. 26; Gaz. vol. 233; p. 1340.
Tile and wall thereof, Building-. R. E. Hunn. No. 1,208,785; Dec. 19; Gaz. vol. 233; p. 785.
Tile-measuring machine. F. E. Goldsmith. No. 1,207,161; Dec. 5; Gaz. vol. 233; p. 129.
Tillage implement. H. S. Dickinson. No. 1,207,146; Dec. 5; Gaz. vol. 233; p. 123.
Tillage implement. S. H. Tinsman. No. 1,206,945; Dec. 5; Gaz. vol. 233; p. 55.
Tilling-machine, Motor-driven. N. C. Storey. No. 1,208,856; Dec. 19; Gaz. vol. 233; p. 810.
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Time-controlled device. W. H. Greenleaf. No. 1,207,168; Dec. 5; Gaz. vol. 233; p. 130.
Time-controlled mechanism. J. J. Noeth. No. 1,209,748; Dec. 26; Gaz. vol. 233; p. 1146.
Time-recorder. C. E. Tomlinson. No. 1,210,233; Dec. 26; Gaz. vol. 233; p. 1316.
Time-switch, Electric pneumatic. O. Smiley, E. C. Applegate, and G. R. Bennett. No. 1,208,676; Dec. 12; Gaz. vol. 233; p. 704.
Timepiece-support. S. G. Lewis. (Reissue.) No. 14,232; Dec. 12; Gaz. vol. 233; p. 724.
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Tire and its attachment to wheels, Rubber. E. B. Killen. No. 1,209,715; Dec. 26; Gaz. vol. 233; p. 1134.
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Tire-filler. L. G. Gilghrist. No. 1,208,946; Dec. 19; Gaz. vol. 233; p. 839.
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Transportation system, Electrical. R. C. Weller, S. T. Hyde, and P. D. Naugle. No. 1,208,060; Dec. 12; Gaz. vol. 233; p. 485.
Trap: *See*—
Animal-trap. Pipe-line trap.
Ball-trap. Roach-trap.
Gas-trap. Roach, bug, and insect trap.
Insect-trap. Separating-trap.
Mouse-trap.
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Traveling-bag, Collapsible. H. C. Gamble. No. 1,207,533; Dec. 5; Gaz. vol. 233; p. 259.
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Shoe-tree.
Tree-trimmer. G. E. Powers. No. 1,209,999; Dec. 26; Gaz. vol. 233; p. 1236.
Triangle or square and protractor, Adjustable. J. Nash. No. 1,207,980; Dec. 12; Gaz. vol. 233; p. 457.
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Trimmer: *See*—
Tree-trimmer.
Trolley connections for bridges, Continuous. T. Jenkins. No. 1,208,564; Dec. 12; Gaz. vol. 233; p. 666.
Trolley-supporting mechanism. C. Kaspar. No. 1,206,855; Dec. 5; Gaz. vol. 233; p. 25.
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Fish-trough. Hog-trough.
Trousers. W. C. Pixley. No. 1,210,359; Dec. 26; Gaz. vol. 233; p. 1356.
Truck. R. L. Dorsey. No. 1,209,408; Dec. 19; Gaz. vol. 233; p. 998.
Truck. W. A. Norman. No. 1,207,433; Dec. 5; Gaz. vol. 233; p. 225.
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Truck, Warehouse-. H. Frost. No. 1,208,117; Dec. 12; Gaz. vol. 233; p. 595.
Trucks, Cable-grip for bogie-. W. Joyce. No. 1,209,591; Dec. 19; Gaz. vol. 233; p. 1060.
Trucks, Column of railway-car. R. W. Burnett. No. 1,209,392; Dec. 19; Gaz. vol. 233; p. 993.
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Trunks, Movable pad for. G. H. Wheary. No. 1,209,787; Dec. 26; Gaz. vol. 233; p. 1160.
Tub: *See*—
Washtub.
Tube: *See*—
Insulating-tube. X-ray tube.
Torpedo-tube.
Tubes, Apparatus for making annular. S. C. Hatfield. No. 1,208,777; Dec. 19; Gaz. vol. 233; p. 782.
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Turbine-engine. E. Anderson. No. 1,208,888; Dec. 19; Gaz. vol. 233; p. 821.
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Vacuum cleaning-machine. J. B. Kirby. No. 1,209,718; Dec. 26; Gaz. vol. 233; p. 1136.
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Vacuum cleaning-tool. G. E. Kent. No. 1,208,165; Dec. 12; Gaz. vol. 233; p. 524.
Valve. G. W. Coen. No. 1,208,292; Dec. 12; Gaz. vol. 233; p. 570.
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Valve, Combination wet and dry pipe. W. N. Ballard. No. 1,208,452; Dec. 12; Gaz. vol. 233; p. 627.
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Valve, Flush-. B. H. Mossinghoff. No. 1,208,621; Dec. 12; Gaz. vol. 233; p. 685.
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Nut-locking washer.
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Wheel: *See*—
Automobile-wheel.
Cable-lubricating wheel.
Logging-wheel.
Metal wheel.
Pneumatic wheel.
Resilient wheel.
Spring-wheel.
Sprocket-wheel.
Steering-wheel.
Traction-wheel.
Vehicle-wheel.
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Window. R. F. Colborne. No. 1,209,674; Dec. 26; Gaz. vol. 233; p. 1121.
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Window-jack. O. W. Sandholm. No. 1,207,442; Dec. 5; Gaz. vol. 233; p. 228.
Window-lock. O. A. Norring. No. 1,209,481; Dec. 19; Gaz. vol. 233; p. 1023.
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Window-screen, Adjustable. J. H. Snell. No. 1,210,012; Dec. 26; Gaz. vol. 233; p. 1239.
Window, screen, and awning, Combination. C. S. Johanson. No. 1,209,164; Dec. 19; Gaz. vol. 233; p. 918.
Window-ventilator. W. H. West. No. 1,209,866; Dec. 19; Gaz. vol. 233; p. 982.
Wire-coiling machine. E. F. Hathaway. No. 1,207,911; Dec. 12; Gaz. vol. 233; p. 434.
Wire-connector. O. E. Hunt. No. 1,209,842; Dec. 26; Gaz. vol. 233; p. 1180.
Wire-covering machine. F. S. Randall. No. 1,210,001; Dec. 26; Gaz. vol. 233; p. 1236.
Wire cutter, Safety hot-. H. B. Bush. No. 1,206,985; Dec. 5; Gaz. vol. 233; p. 69.
Wire-feeding machines, Clutch for. J. Pagliarul. No. 1,207,068; Dec. 5; Gaz. vol. 233; p. 97.
Wire-galvanizing furnace. G. L. Meaker. No. 1,208,185; Dec. 12; Gaz. vol. 233; p. 531.
Wire-holding clip. W. Callaway. No. 1,206,812; Dec. 5; Gaz. vol. 233; p. 10.
Wire-payout reel. J. P. Delphey. No. 1,207,874; Dec. 12; Gaz. vol. 233; p. 420.
Wire-reel. C. G. Reutter. No. 1,210,003; Dec. 26; Gaz. vol. 233; p. 1237.
Wire seams, Means for forming Fourdrinier-. A. B. Weissenborn. No. 1,209,364; Dec. 19; Gaz. vol. 233; p. 981.
Wire-stretcher. M. J. Begneaud. No. 1,210,261; Dec. 26; Gaz. vol. 233; p. 1326.
Wire-stretcher. J. A. Cecil. No. 1,209,556; Dec. 19; Gaz. vol. 233; p. 1049.
Wire-stretcher. D. H. and L. P. Groves. No. 1,206,838; Dec. 5; Gaz. vol. 233; p. 18.
Wire-stretcher. W. E. Johnson. No. 1,209,448; Dec. 19; Gaz. vol. 233; p. 1011.
Wire-stretcher, Registering. G. B. Williams. No. 1,208,065; Dec. 12; Gaz. vol. 233; p. 486.
Wire ties, Tool for twisting. D. H. Hayden. No. 1,209,434; Dec. 19; Gaz. vol. 233; p. 1007.
Wool and the like washing machine. F. B. Petrie. No. 1,207,207; Dec. 5; Gaz. vol. 233; p. 146.
Work-holder. J. F. Buhr. No. 1,209,867; Dec. 26; Gaz. vol. 233; p. 1119.
Work-holder. W. S. Snyder and J. B. Keesey. No. 1,209,633; Dec. 19; Gaz. vol. 233; p. 1074.
Woven carrier. V. H. Jennings. No. 1,210,377; Dec. 26; Gaz. vol. 233; p. 1362.
Wrench: *See*—
Flange-union wrench.
Monkey-wrench.
Pliers-wrench.
Pipe-wrench.
Ratchet-wrench.
Wrench. D. L. Boyer. No. 1,208,903; Dec. 19; Gaz. vol. 233; p. 827.
Wrench. A. Desormeau. No. 1,208,925; Dec. 19; Gaz. vol. 233; p. 834.
Wrench. P. A. Martin. No. 1,209,002; Dec. 19; Gaz. vol. 233; p. 858.
Wrench. E. Nilsson. No. 1,208,627; Dec. 12; Gaz. vol. 233; p. 687.
Wrench. W. S. Upson. No. 1,206,947; Dec. 5; Gaz. vol. 233; p. 56.
Wrench. W. R. Weller. No. 1,208,868; Dec. 19; Gaz. vol. 233; p. 815.
Wrench. J. E. Wortman. No. 1,207,118; Dec. 5; Gaz. vol. 233; p. 114.
Wringer: *See*—
Clothes-wringer.
Mop-wringer.
Wringer. G. W. Lewis. No. 1,208,330; Dec. 12; Gaz. vol. 233; p. 587.
Wringing, scouring, washing, paper-making, and similar machines, Tubular sleeve or cover for the rollers of. H. O. Brandt. No. 1,208,471; Dec. 12; Gaz. vol. 233; p. 634.
Wrist-pin connection. A. L. Campbell. No. 1,209,393; Dec. 19; Gaz. vol. 233; p. 993.
Writing instruments, Finger-support for. J. F. Barth. No. 1,206,976; Dec. 5; Gaz. vol. 233; p. 65.
Writing-machines, Line-space device for. E. B. Hess. No. 1,208,154; Dec. 12; Gaz. vol. 233; p. 519.
X-ray negatives, Support for. F. L. Satterlee, Jr. No. 1,210,215; Dec. 26; Gaz. vol. 233; p. 1311.
X-ray screening apparatus. E. W. Caldwell. No. 1,208,474; Dec. 12; Gaz. vol. 233; p. 635.
X-ray tube. C. A. Friedrich. No. 1,208,128; Dec. 12; Gaz. vol. 233; p. 509.
Yarn-beam, Lead-lined. E. and L. Holt. No. 1,207,043; Dec. 5; Gaz. vol. 233; p. 88.
Yarn elements from which a laminated cohesive interwound fabric is constructed, Device for automatically coating. L. A. Subers. No. 1,208,399; Dec. 12; Gaz. vol. 233; p. 609.
Yarn-handling process and apparatus. C. W. Hubbard. No. 1,209,968; Dec. 26; Gaz. vol. 233; p. 1225.
Yieldable hook. W. F. Schmidt. No. 1,208,841; Dec. 19; Gaz. vol. 233; p. 805.
Yoke, Coupler-. E. H. Schmidt. No. 1,208,669; Dec. 12; Gaz. vol. 233; p. 702.
Yoke for draft-gears. C. J. Nash. No. 1,208,818; Dec. 19; Gaz. vol. 233; p. 798.
Yoke, Neck-. C. F. McClure. No. 1,207,059; Dec. 5; Gaz. vol. 233; p. 93.
Yoke, Neck-. A. E. Metts. No. 1,208,816; Dec. 19; Gaz. vol. 233; p. 798.
Yokes, Carrier for draft-gear. P. B. Camp. No. 1,208,911; Dec. 19; Gaz. vol. 233; p. 830.
Yokes, Carrier for draft-gear. P. B. Camp. No. 1,208,912; Dec. 19; Gaz. vol. 233; p. 830.
Zinc from ores and other zinc-bearing materials, Electrolytic recovery of. U. C. Tainton. No. 1,210,017; Dec. 26; Gaz. vol. 233; p. 1241.
Zinc, Method of and apparatus for obtaining. E. S. Berglund. No. 1,207,127; Dec. 5; Gaz. vol. 233; p. 117.
Zither. M. Kahne. No. 1,207,765; Dec. 12; Gaz. vol. 233; p. 383.

ALPHABETICAL LIST OF DESIGNS.

Air-moistener. R. W. Hardie. No. 50,019; Dec. 12; Gaz. vol. 233; p. 727.
Automobile-body. W. J. P. Moore. Nos. 50,107–8; Dec. 26; Gaz. vol. 233; p. 1378.
Automobile-body. H. von Dewitz. No. 50,115; Dec. 26; Gaz. vol. 233; p. 1380.
Automobiles and other vehicles, Radiator for. W. J. P. Moore. Nos. 50,109–11; Dec. 26; Gaz. vol. 233; pp. 1378–9.
Badge, emblem, or similar article. G. B. Clay. No. 49,988; Dec. 5; Gaz. vol. 233; p. 323.
Baking-pan. P. Riess. No. 50,076; Dec. 19; Gaz. vol. 233; p. 1087.
Bedstead. A. Tonnele and W. J. Curtis. No. 50,000; Dec. 5; Gaz. vol. 233; p. 325.
Book-cover. C. C. Wilson. No. 50,087; Dec. 19; Gaz. vol. 233; p. 1089.
Bottle. R. E. Bell. Nos. 50,010–11; Dec. 12; Gaz. vol. 233; p. 725.
Bottles, Casing for vacuum-insulated. G. P. Altenberg. No. 49,978; Dec. 5; Gaz. vol. 233; p. 321.
Bow-holder. C. McLaughlin. No. 49,998; Dec. 5; Gaz. vol. 233; p. 325.
Bracket, Wall-. I. L. French. No. 50,099; Dec. 26; Gaz. vol. 233; p. 1376.
Butter-preserver. C. R. Chenery. No. 50,093; Dec. 26; Gaz. vol. 233; p. 1374.
Button-fastener. T. T. Lee. No. 49,997; Dec. 5; Gaz. vol. 233; p. 324.
Cards, Set of playing-. F. E. Williams. No. 50,003; Dec. 5; Gaz. vol. 233; p. 326.
Chain, Antiskid-. T. E. McCoy. No. 50,026; Dec. 12; Gaz. vol. 233; p. 728.
Chair. R. G. Kennedy. No. 50,066; Dec. 19; Gaz. vol. 233; p. 1085.
Chiffonnier. J. Booth. No. 50,091; Dec. 26; Gaz. vol. 233; p. 1374.
Cigar-cutter, knife, and bottle-opener, Combined. S. Firbas. No. 50,095; Dec. 26; Gaz. vol. 233; p. 1375.
Clock. W. T. and F. R. Hunter. No. 50,106; Dec. 26; Gaz. vol. 233; p. 1378.
Comb-rack. H. Egeberg. No. 50,016; Dec. 12; Gaz. vol. 233; p. 726.
Cork-extractor. A. Anderson. No. 50,051; Dec. 19; Gaz. vol. 233; p. 1082.
Crank-case. W. H. Butterfield. No. 50,057; Dec. 19; Gaz. vol. 233; p. 1083.
Culinary implement. J. C. Forster. No. 50,096; Dec. 26; Gaz. vol. 233; p. 1375.
Culinary utensil. H. P. Ball. No. 50,089; Dec. 26; Gaz. vol. 233; p. 1373.
Cutter. P. R. Woelz. No. 50,005; Dec. 5; Gaz. vol. 233; p. 326.
Cutting-tool. H. K. Porter. No. 50,029; Dec. 12; Gaz. vol. 233; p. 729.
Dish or similar article. T. B. Anderson. No. 50,052; Dec. 19; Gaz. vol. 233; p. 1082.
Display-rack or Christmas tree. E. Romm. No. 50,077; Dec. 19; Gaz. vol. 233; p. 1087.
Display-stand. M. Trattler. No. 50,085; Dec. 19; Gaz. vol. 233; p. 1089.
Doll. G. Averill. No. 50,088; Dec. 26; Gaz. vol. 233; p. 1373.
Doll. E. C. Hamilton. No. 49,993; Dec. 5; Gaz. vol. 233; p. 324.
Drawer-pull. W. G. Sherer. No. 50,040; Dec. 12; Gaz. vol. 233; p. 731.
Emblem. F. F. Bentley. No. 49,985; Dec. 5; Gaz. vol. 233; p. 323.
Emblem. P. Giusti. No. 49,992; Dec. 5; Gaz. vol. 233; p. 324.
Emblem or similar article. P. R. Smith. No. 50,084; Dec. 19; Gaz. vol. 233; p. 1089.
Flower-holder, Individual. R. S. Owens. No. 50,112; Dec. 26; Gaz. vol. 233; p. 1379.
Game-board. I. G. Maywald. No. 50,074; Dec. 19; Gaz. vol. 233; p. 1087.
Game-playing piece. J. L. Wright. No. 50,116; Dec. 26; Gaz. vol. 233; p. 1380.
Glove. R. E. Boiles. No. 49,986; Dec. 5; Gaz. vol. 233; p. 323.
Harp. D. Campbell. No. 50,012; Dec. 12; Gaz. vol. 233; p. 725.
Headlight-glare guard. F. W. Beauchamp. No. 50,090; Dec. 26; Gaz. vol. 233; p. 1374.
Hearse. J. Tchelebian. No. 50,047; Dec. 12; Gaz. vol. 233; p. 732.
Hearse-interior. J. Tchelebian. No. 50,046; Dec. 12; Gaz. vol. 233; p. 732.
Lace, Embroidered. H. Schwarber. Nos. 50,079–82; Dec. 19; Gaz. vol. 233; p. 1088.
Lace, Embroidered. H. Schwarber. No. 50,114; Dec. 26; Gaz. vol. 233; p. 1379.
Lamp. I. L. French. No. 50,100; Dec. 26; Gaz. vol. 233; p. 1376.
Lamp. E. W. Lamb. No. 49,996; Dec. 5; Gaz. vol. 233; p. 324.
Lamp bracket, Electric-. W. L. Kaufmann. No. 49,995; Dec. 5; Gaz. vol. 233; p. 324.
Lamp-casing. J. L. Dawes. No. 50,094; Dec. 26; Gaz. vol. 233; p. 1375.
Lamp-fixture, Adjustable. J. Moritz. No. 49,990; Dec. 5; Gaz. vol. 233; p. 325.
Lamp-font. I. L. French. No. 50,102; Dec. 26; Gaz. vol. 233; p. 1377.
Lamp-suspension device. I. L. French. No. 50,101; Dec. 26; Gaz. vol. 233; p. 1376.
Lamp, Vehicle-. E. A. Hawthorne. No. 50,063; Dec. 19; Gaz. vol. 233; p. 1084.
Lighting-fixture. R. Y. Barrows and G. V. Strahan. Nos. 49,980–4; Dec. 5; Gaz. vol. 233; p. 322.
Lighting-fixture bowl. R. Y. Barrows and G. V. Strahan. No. 49,979; Dec. 5; Gaz. vol. 233; p. 322.
Lighting-fixture bowl. R. Y. Barrows and G. V. Strahan. No. 50,009; Dec. 12; Gaz. vol. 233; p. 725.
Lighting-fixture shade. R. Y. Barrows and G. V. Strahan. Nos. 50,053–4; Dec. 19; Gaz. vol. 233; pp. 1082–3.
Lighting-fixture, Stationary. O. H. Mohr. No. 50,027; Dec. 12; Gaz. vol. 233; p. 728.
Lighting-fixtures, Bracket-back for. L. R. Wellman. Nos. 50,001–2; Dec. 5; Gaz. vol. 233; p. 325.
Liquid-dispenser. H. G. Cordley. Nos. 49,990–1; Dec. 5; Gaz. vol. 233; pp. 323–4.
Medal. I. V. Lakich. No. 50,023; Dec. 12; Gaz. vol. 233; p. 727.
Mirror, Hand-. L. Brown. No. 49,987; Dec. 5; Gaz. vol. 233; p. 323.
Paper-clip. F. A. Fuller. No. 50,061; Dec. 19; Gaz. vol. 233; p. 1084.
Paper-clip and pin box. F. A. Fuller. No. 50,060; Dec. 19; Gaz. vol. 233; p. 1084.
Paper-clip and pin cushion. F. A. Fuller. No. 50,062; Dec. 19; Gaz. vol. 233; p. 1084.
Paper-fastener. C. Ahrhart. No. 50,008; Dec. 12; Gaz. vol. 233; p. 725.
Piano-case. F. O. Pfannstiehl. No. 50,075; Dec. 19; Gaz. vol. 233; p. 1087.
Picture-frame. R. F. Clement. No. 50,058; Dec. 19; Gaz. vol. 233; p. 1083.
Pitchers, Casing for vacuum-insulated. G. P. Altenberg. No. 49,977; Dec. 5; Gaz. vol. 233; p. 321.
Plate or similar article. F. G. Holmes. No. 50,064; Dec. 19; Gaz. vol. 233; p. 1085.
Radiator-casing for automobiles. T. M. Pepperday. No. 50,007; Dec. 5; Gaz. vol. 233; p. 327.
Ring, Finger-. A. S. Bonnevier. No. 50,059; Dec. 19; Gaz. vol. 233; p. 1083.
Rug. A. Cook. Nos. 50,013–14; Dec. 12; Gaz. vol. 233; p. 726.
Rug. W. A. Elliot. No. 50,017; Dec. 12; Gaz. vol. 233; p. 726.
Rug. C. Forrester. No. 50,018; Dec. 12; Gaz. vol. 233; p. 726.
Rug. H. C. Lacouture. No. 50,022; Dec. 12; Gaz. vol. 233; p. 727.
Rug. C. Lehner. No. 50,024; Dec. 12; Gaz. vol. 233; p. 728.
Rug. W. McCabe. No. 50,025; Dec. 12; Gaz. vol. 233; p. 728.
Rug. J. G. Pegel. No. 50,028; Dec. 12; Gaz. vol. 233; p. 728.
Rug. R. F. Riddell. Nos. 50,031–7; Dec. 12; Gaz. vol. 233; pp. 729–30.
Rug. F. Schindler. No. 50,038; Dec. 12; Gaz. vol. 233; p. 731.
Rug. W. A. Spring. Nos. 50,043–4; Dec. 12; Gaz. vol 233; p. 732.
Rug. H. Ulmer. No. 50,086; Dec. 19; Gaz. vol. 233; p. 1089.
Saw-set. C. Bodmer. No. 50,055; Dec. 19; Gaz. vol. 233; p. 1083.

Scale-frame. A. A. Callie. No. 50,092; Dec. 26; Gaz. vol. 233; p. 1374.
Scraper. F. J. Schmitt. No. 50,078; Dec. 19; Gaz. vol. 233; p. 1088.
Shade. I. L. French. Nos. 50,097–8; Dec. 26; Gaz. vol. 233; p. 1375.
Shade-bowl, Gothic. E. W. Huttig. No. 50,065; Dec. 19; Gaz. vol. 233; p. 1085.
Shoe-fastener. E. Van Gofre. No. 50,006; Dec. 5; Gaz. vol. 233; p. 327.
Sideboard. B. M. Kish. No. 50,067; Dec. 19; Gaz. vol. 233; p. 1085.
Sign, Transparent. B. H. Rhodes. No. 50,030; Dec. 12; Gaz. vol. 233; p. 729.
Sound-producing instruments, Casing for. L. MacLachlan. Nos. 50,072–3; Dec. 19; Gaz. vol. 233; pp. 1086–7.
Spoon, fork, and the like. F. Kaupmann. No. 50,021; Dec. 12; Gaz. vol. 233; p. 727.
Spoon, fork, or similar article, Handle of a. J. H. Harmstone. No. 50,103; Dec. 26; Gaz. vol. 233; p. 1377.
Spoon, fork, or similar article. C. F. Simms. Nos. 50,041–2; Dec. 12; Gaz. vol. 233; p. 731.
Spoon, fork, or similar article, Handle for. S. J. Large. Nos. 50,068–71; Dec. 19; Gaz. vol. 233; pp. 1085–6.
Spoon, fork, or the like. F. Kaupmann. No. 50,020; Dec. 12; Gaz. vol. 233; p. 727.
Sweeper case, Suction-. H. E. Hoover. No. 50,104; Dec. 26; Gaz. vol. 233; p. 1377.
Sweeper converter, Suction-. H. E. Hoover. No. 50,105; Dec. 26; Gaz. vol. 233; p. 1377.
Tape-measure holder and pincushion. M. H. Slater. No. 50,083; Dec. 19; Gaz. vol. 233; p. 1088.
Tool, Combination-. B. H. Cooper. No. 50,015; Dec. 12; Gaz. vol. 233; p. 726.
Tool, Combination-. N. J. Hawks. No. 49,994; Dec. 5; Gaz. vol. 233; p. 324.
Tray, Metal. L. Wojidkow. No. 50,004; Dec. 5; Gaz. vol. 233; p. 326.
Trimming, Embroidered. A. S. Freed. No. 50,049; Dec. 12; Gaz. vol. 233; p. 733.
Truck-frame. J. Squires. No. 50,045; Dec. 12; Gaz. vol. 233; p. 732.
Tubing, Ornamental. P. N. Landine. No. 50,050; Dec. 12; Gaz. vol. 233; p. 733.
Violin. R. L. Yeakey. No. 50,048; Dec. 12; Gaz. vol. 233; p. 732.
Violin-bridge. E. G. Ressler. No. 50,113; Dec. 26; Gaz. vol. 233; p. 1379.
Washstick-hook. W. L. Clemens. No. 49,989; Dec. 5; Gaz. vol. 233; p. 323.

ALPHABETICAL LIST OF TRADE-MARKS.

Adhesive material for repairing rubber goods, especially tires. A. Swanson. No. 114,572; Dec. 19; Gaz. vol. 233; p. 1104.
Alimentary paste. Ravarino & Freschi Importing & Mfg. Co. No. 114,383; Dec. 12; Gaz. vol. 233; p. 753.
Alloys, Metal. The Haynes Stellite Co. No. 114,239; Dec. 5; Gaz. vol. 233; p. 348.
Ankle-supports, Athletic. H. J. Collis. No. 114,226; Dec. 5; Gaz. vol. 233; p. 348.
Antiseptic medicaments. The Abbott Laboratories. No. 114,403; Dec. 19; Gaz. vol. 233; p. 1099.
Apple-juice. F. Pyle. No. 114,277; Dec. 5; Gaz. vol. 233; p. 349.
Apples, Fresh. Boston-Okanogan Apple Co. No. 114,331; Dec. 12; Gaz. vol. 233; p. 751.
Apples, Fresh. Dufur Orchard Co-owners Co. No. 114,339; Dec. 12; Gaz. vol. 233; p. 751.
Asphaltum. Standard Oil Company. No. 114,563; Dec. 19; Gaz. vol. 233; p. 1103.
Athletic goods, Certain named. Freidenrich-Van Cott. No. 114,348; Dec. 12; Gaz. vol. 233; p. 752.
Automobile accessories, Certain named. Superior Lamp Mfg. Co. No. 114,571; Dec. 19; Gaz. vol. 233; p. 1104.
Automobile repair parts. The Hill-Smith Metal Goods Company. No. 114,637; Dec. 26; Gaz. vol. 233; p. 1099.
Automobile trucks and units and certain named parts thereof. Maxfer Truck Company. No. 114,170; Dec. 5; Gaz. vol. 233; p. 346.
Automobiles. American Motors. No. 114,406; Dec. 19; Gaz. vol. 233; p. 1099.
Baggage, portfolios, and pocket-books, Certain named. Geo. Borgfeldt & Co. No. 114,423; Dec. 19; Gaz. vol. 233; p. 1099.
Bagging-cloth. Werthan Bag Company. No. 114,600; Dec. 19; Gaz. vol. 233; p. 1104.
Balls, Golf-. W. T. Henley's Telegraph Works Co. Nos. 114,471–2; Dec. 19; Gaz. vol. 233; p. 1101.
Baskets. The Needham Basket Co. No. 114,528; Dec. 19; Gaz. vol. 233; p. 1102.
Beans, Dried. Judson Michigbean Company. No. 114,166; Dec. 5; Gaz. vol. 233; p. 346.
Bed-springs. The Lewis-Weller Mfg. Co. No. 114,364; Dec. 12; Gaz. vol. 233; p. 752.
Belting, Leather. Detroit Oak Belting Co. No. 114,229; Dec. 5; Gaz. vol. 233; p. 348.
Beverage, Certain non-alcoholic. L. Wallerstein. No. 114,204; Dec. 5; Gaz. vol. 233; p. 347.
Beverage, Grape. J. Grossman's Sons. No. 114,464; Dec. 19; Gaz. vol. 233; No. 1100.
Beverage, Non-alcoholic. Cham-Pay Products Company. No. 114,335; Dec. 12; Gaz. vol. 233; p. 751.
Beverages made partly or wholly of cereals. Kellogg Toasted Corn Flake Co. No. 114,248; Dec. 5; Gaz. vol. 233; p. 348.
Beverages, Non-intoxicating malt. A. G. Van Nostrand. No. 114,663; Dec. 26; Gaz. vol. 233; p. 1400.
Beverages sold as soft drinks, Non-alcoholic carbonated tonic. M. A. Flanagan. No. 114,346; Dec. 12; Gaz. vol. 233; p. 752.
Bicycles and motor-cycles. H. Perlman. No. 114,177; Dec. 5; Gaz. vol. 233; p. 346.
Billiard-cloth. The Brunswick-Balke-Collender Co. Nos. 114,222–3; Dec. 5; Gaz. vol. 233; p. 347.
Bleacher and water-softener. A. L. Rice. No. 114,548; Dec. 19; Gaz. vol. 233; p. 1103.
Blowers, turbo and grate blowers, turbines for turbo-blowers. Coppus Engineering and Equipment Company. No. 114,438; Dec. 19; Gaz. vol. 233; p. 1100.
Bonnets, hats, and hat-frames. Ogus, Rabinovich & Ogus Co. No. 114,269; Dec. 5; Gaz. vol. 233; p. 349.
Book-covers. The Holden Patent Book Cover Co. No. 114,475; Dec. 19; Gaz. vol. 233; p. 1101.
Books, periodicals, and pamphlets, Printed. United Brotherhood of Carpenters and Joiners of America. No. 114,305; Dec. 5; Gaz. vol. 233; p. 350.
Boot and shoe soles, partly of rubber. The B. F. Goodrich Company. Nos. 114,458–9; Dec. 19; Gaz. vol. 233; p. 1100.
Boots and shoes, Leather. A. Lagiglia. No. 114,361; Dec. 12; Gaz. vol. 233; p. 752.
Boots and shoes, Leather. Leonard & Barrows. No. 114,363; Dec. 12; Gaz. vol. 233; p. 752.
Boots and shoes, Leather and fabric. W. H. McElwain Company. No. 114,645; Dec. 26; Gaz. vol. 233; p. 1400.
Boots and shoes, Men's and boys' leather. Farmington Shoe Mfg. Co. No. 114,231; Dec. 5; Gaz. vol. 233; p. 348.
Boots and shoes of leather and leather and fabric. W. H. McElwain Company. No. 114,258; Dec. 5; Gaz. vol. 233; p. 348.
Boots and shoes of leather, rubber, felt, &c. Geo. E. Keith Company. Nos. 114,639–40; Dec. 26; Gaz. vol. 233; p. 1399.
Boots, shoes, and soles, Leather. Holland Shoe Co. No. 114,354; Dec. 12; Gaz. vol. 233; p. 752.
Boots, shoes, sandals, and slippers. Lee Brothers Company. No. 114,502; Dec. 19; Gaz. vol. 233; p. 1102.
Bowls and basins for use as bird-baths, Ornamental. J. C. Kraus Cast Stone Works. No. 114,249; Dec. 5; Gaz. vol. 233; p. 348.
Braid, Lingerie-. Samstag & Hilder Bros. No. 114,182; Dec. 5; Gaz. vol. 233; p. 346.
Brakelinings. Standard Woven Fabric Company. No. 114,296; Dec. 5; Gaz. vol. 233; p. 350.
Bread. The Lobaco Company. No. 114,367; Dec. 12; Gaz. vol. 233; p. 752.
Bread. Mary Gwenn's Bread Shop. No. 114,350; Dec. 12; Gaz. vol. 233; p. 752.
Bread, Chemical preparation used as an ingredient in making. Kellogg-Birge Co. No. 114,488; Dec. 19; Gaz. vol. 233; p. 1101.
Brick. J. Baker, Jr. No. 114,413; Dec. 19; Gaz. vol. 233; p. 1099.
Brick. North Bend Fire Brick Co. No. 114,535; Dec. 19; Gaz. vol. 233; p. 1103.
Brushes, Bottle-. G. S. Leiner & Company. No. 114,503; Dec. 19; Gaz. vol. 233; p. 1102.
Butter. A. A. Spaugh. No. 114,562; Dec. 19; Gaz. vol. 233; p. 1103.
Butter. Labows Specialty Co. No. 114,250; Dec. 5; Gaz. vol. 233; p. 348.
Butter. The Charles H. Hess Company. No. 114,352; Dec. 12; Gaz. vol. 233; p. 752.
Butter. Sugar Creek Creamery Company. No. 114,197; Dec. 5; Gaz. vol. 233; p. 347.
Butter. Union Meat Company. No. 114,200; Dec. 5; Gaz. vol. 233; p. 347.
Butter, Process-. Sulzberger & Sons Company. No. 114,570; Dec. 19; Gaz. vol. 233; p. 1104.
Buttons, Cuff-. Freeman-Daughaday Co. No. 114,453; Dec. 19; Gaz. vol. 233; p. 1100.
Buttons or clasps, Metal snap-fastening. Hero Snap Fastener Company. No. 114,163; Dec. 5; Gaz. vol. 233; p. 346.
Cakes. Abrams Sisters. No. 114,314; Dec. 12; Gaz. vol. 233; p. 751.
Candles. A. Baratta. No. 114,213; Dec. 5; Gaz. vol. 233; p. 347.
Candy. The Aromint Company. No. 114,321; Dec. 12; Gaz. vol. 233; p. 751.
Candy. Bishop & Company. No. 114,332; Dec. 12; Gaz. vol. 233; p. 751.
Candy. Blanke-Wenneker Candy Company. No. 114,420; Dec. 19; Gaz. vol. 233; p. 1099.
Candy. Loft, Incorporated. No. 114,368; Dec. 12; Gaz. vol. 233; p. 752.
Candy. Loose-Wiles Biscuit Company. No. 114,168; Dec. 5; Gaz. vol. 233; p. 346.
Candy. F. Marroquin & Co. No. 114,512; Dec. 19; Gaz. vol. 233; p. 1102.
Candy. The Pecanelle Company. No. 114,176; Dec. 5; Gaz. vol. 233; p. 346.
Candy. H. L. Schlesinger. Nos. 114,553–4; Dec. 19; Gaz. vol. 233; p. 1103.
Candy. The Von Brecht Candy Company. No. 114,594; Dec. 19; Gaz. vol. 233; p. 1104.
Candy. The Walter M. Lowney Company. No. 114,369; Dec. 12; Gaz. vol. 233; p. 752.
Candy, bonbons, chocolate, and cocoa. H. Mailliard. No. 114,509; Dec. 19; Gaz. vol. 233; p. 1102.
Candy, cocoa, and mustard. D. Ghirardelli Co. No. 114,160; Dec. 5; Gaz. vol. 233; p. 346.
Candy, tea, wafers, and crackers. The American Alfalfa Products Company. No. 114,317; Dec. 12; Gaz. vol. 233; p. 751.
Canned foods, Certain. A. Goodman & Sons. No. 114,162; Dec. 5; Gaz. vol. 233; p. 346.
Canned fruits and vegetables. M. O'Connor and Co. No. 114,175; Dec. 5; Gaz. vol. 233; p. 346.
Canned fruits, vegetables, salmon, and tomato-catsup. Nlese Grocer Company. No. 114,532; Dec. 19; Gaz. vol. 233; p. 1103.
Canned peas, corn, and tomatoes. Nau-Murray Co. No. 114,527; Dec. 19; Gaz. vol. 233; p. 1102.
Canned salmon. Brodsky Palman Gelber Co. No. 114,334; Dec. 12; Gaz. vol. 233; p. 751.
Canned salmon. Columbia River Packers Association. No. 114,436; Dec. 19; Gaz. vol. 233; p. 1100.
Canned salmon. Chinook Packing Company. Nos. 114,144–5; Dec. 5; Gaz. vol. 233; p. 345.
Canned salmon. Everett Packing Co. Nos. 114,341–3; Dec. 12; Gaz. vol. 233; pp. 751–2.

Canned salmon. G. W. Sanborn & Son. No. 114,183; Dec. 5; Gaz. vol. 233; p. 346.
Canned shrimp and oysters. Glynn Canning Company. No. 114,161; Dec. 5; Gaz. vol. 233; p. 346.
Canned tuna. The J. K. Armsby Co. No. 114,327; Dec. 12; Gaz. vol. 233; p. 751.
Canned vegetables. Bloomington Wholesale Grocery Co. No. 114,136; Dec. 5; Gaz. vol. 233; p. 345.
Canned vegetables and rolled oats. Bloomington Wholesale Grocery Co. No. 114,135; Dec. 5; Gaz. vol. 233; p. 345.
Canned vegetables, sauer-kraut, &c. The Sears & Nichols Co. No. 114,186; Dec. 5; Gaz. vol. 233; p. 346.
Cans, Shipping-. American Can Co. No. 114,405; Dec. 19; Gaz. vol. 233; p. 1099.
Carbon-remover. Timbrook & Crail. No. 114,580; Dec. 19; Gaz. vol. 233; p. 1104.
Cards, Playing-. D. M. Gottfried. No. 114,238; Dec. 5; Gaz. vol. 233; p. 348.
Carriage-cloth. American Rubber Company. No. 114,407; Dec. 19; Gaz. vol. 233; p. 1099.
Cement, Portland. Asano Cement Joint Stock Company. No. 114,324; Dec. 12; Gaz. vol. 233; p. 751.
Cereal products. Utah Cereal Food Company. No. 114,589; Dec. 19; Gaz. vol. 233; p. 1104.
Chains and bracelets, Solid-gold. Jos. Cohn & Bro. No. 114,435; Dec. 19; Gaz. vol. 233; p. 1100.
Charms, pendants for neck-chains and bracelets, brooch-pins, finger-rings. Eisenstadt Manufacturing Company. No. 114,153; Dec. 5; Gaz. vol. 233; p. 345.
Chemicals, dyestuffs, &c. John Campbell & Co. No. 114,430; Dec. 19; Gaz. vol. 233; p. 1099.
Chemicals, medicines, and pharmaceutical preparations, Certain named. Alexander Drug Co. No. 114,129; Dec. 5; Gaz. vol. 233; p. 345.
Cherries and bottled preserved fruits, Bottled Royal Anne. Long Fruit Products Co. No. 114,507; Dec. 19; Gaz. vol. 233; p. 1102.
Chick and egg carriers, parcel-post boxes, and egg-trays. O. B. Andrews' Company. No. 114,211; Dec. 5; Gaz. vol. 233; p. 347.
Cigarettes. J. L. & F. Pinkus, trading as Jayelpi Freres & Cie. No. 114,178; Dec. 5; Gaz. vol. 233; p. 346.
Cigarettes. L. N. Saras. No. 114,184; Dec. 5; Gaz. vol. 233; p. 346.
Cigars. American Exchange Cigar Company. No. 114,208; Dec. 5; Gaz. vol. 233; p. 347.
Cigars. Stoddard-Gilbert & Co. No. 114,298; Dec. 5; Gaz. vol. 233; p. 350.
Cigars. United Cigar Manufacturers Company. Nos. 114,585–6; Dec. 19; Gaz. vol. 233; p. 1104.
Cigars, cheroots, and little cigars. Jose Lovera Company. No. 114,256; Dec. 5; Gaz. vol. 233; p. 348.
Cigars, cheroots, and little cigars. Norman Bros. No. 114,534; Dec. 19; Gaz. vol. 233; p. 1103.
Cigars, cheroots, and little cigars. E. M. Schwarz & Co. Nos. 114,286-9; Dec. 5; Gaz. vol. 233; p. 349.
Cigars, cheroots, and little cigars. E. M. Schwarz & Co. Nos. 114,555–7; Dec. 19; Gaz. vol. 233; p. 1103.
Cigars, cigarettes, cheroots, and manufactured tobacco. H. Le Gris. No. 114,403; Dec. 19; Gaz. vol. 233; p. 1106.
Cleaning fluid. S. L. Hillman. No. 114,241; Dec. 5; Gaz. vol. 233; p. 348.
Cleaning preparation for household use. Fitzpatrick Bros. No. 114,233; Dec. 5; Gaz. vol. 233; p. 348.
Clocks and watches. Western Clock Co. Nos. 114,601–2; Dec. 19; Gaz. vol. 233; p. 1105.
Clothes-driers. Domestic Laundry Equipment Corporation. Nos. 114,150-1; Dec. 5; Gaz. vol. 233; p. 345.
Clothes-wringers and parts thereof. The American Wringer Company. No. 114,209; Dec. 5; Gaz. vol. 233; p. 347.
Clothing, Certain named. The Dunham Mills, Inc. No. 114,446; Dec. 19; Gaz. vol. 233; p. 1100.
Clothing, Certain named. Goldenberg's of Washington. No. 114,457; Dec. 19; Gaz. vol. 233; p. 1100.
Clothing, Certain named. The O. L. Hinds Company. No. 114,242; Dec. 5; Gaz. vol. 233; p. 348.
Clothing, Certain named. F. A. Patrick & Co. No. 114,541; Dec. 19; Gaz. vol. 233; p. 1103.
Coal. P. A. Coen. Nos. 114,146-7; Dec. 5; Gaz. vol. 233; p. 345.
Coal. The Gem Coal Co. No. 114,159; Dec. 5; Gaz. vol. 233; p. 346.
Coal and coke. Stonega Coke & Coal Co. No. 114,568; Dec. 19; Gaz. vol. 233; p. 1104.
Coffee. Jas. H. Forbes Tea & Coffee Co. No. 114,156; Dec. 5; Gaz. vol. 233; p. 345.
Coffee. Parsons & Scoville Co. Nos. 114,376–7; Dec. 12; Gaz. vol. 233; pp. 752–3.
Coffee. Stewart-Gwynne Company. No. 114,195; Dec. 5; Gaz. vol. 233; p. 347.
Coffee and chicory. United Coffee Company. No. 114,306; Dec. 5; Gaz. vol. 233; p. 350.
Coffee and tea. Lindley & Company. No. 114,366; Dec. 12; Gaz. vol. 233; p. 752.
Coffee substitute made of wheat. Whole Wheat Coffee Co. No. 114,603; Dec. 19; Gaz. vol. 233; p. 1105.
Compound for enriching and purifying the blood and relieving nervousness. J. E. Parent. No. 114,540; Dec. 19; Gaz. vol. 233; p. 1103.
Combustion-increasing and carbon-eliminating chemicals for hydrocarbon-motors. The Berg & Beard Manufacturing Co. No. 114,616; Dec. 26; Gaz. vol. 233; p. 1399.
Concrete-machines. Ransome Concrete Machinery Company. No. 114,279; Dec. 5; Gaz. vol. 233; p. 349.
Concrete-mixers, concrete distributing machines and chutes, &c. Koehring Machine Co. No. 114,495; Dec. 19; Gaz. vol. 233; p. 1101.
Construction materials, Certain named. Braden Manufacturing Company. No. 114,138; Dec. 5; Gaz. vol. 233; p. 345.
Construction materials, Certain named. Wm. Cameron & Co. No. 114,140; Dec. 5; Gaz. vol. 233; p. 345.
Construction materials, Certain named. Toch Brothers. No. 114,581; Dec. 19; Gaz. vol. 233; p. 1104.
Construction materials, Certain named. The A. Wilhelm Company. Nos. 114,604–5; Dec. 19; Gaz. vol. 233; p. 1105.
Cords, cables, and cordage in bulk. Stromberg-Carlson Telephone Manufacturing Co. No. 114,196; Dec. 5; Gaz. vol. 233; p. 347.
Cornmeal. Juliette Milling Co. No. 114,247; Dec. 5; Gaz. vol. 233; p. 348.
Cornmeal, cream and yellow meals, cracked corn, and hominy feed. Engelke & Feiner Mfg. Co. No. 114,230; Dec. 5; Gaz. vol. 233; p. 348.
Corsets. The Berger Bros. Co. No. 114,618; Dec. 26; Gaz. vol. 233; p. 1399.
Corsets. Lily of France Corset Co. Nos. 114,643–4; Dec. 26; Gaz. vol. 233; p. 1400.
Corsets. Marshall Field & Company. No. 114,345; Dec. 12; Gaz. vol. 233; p. 752.
Corsets. H. Raab. No. 114,382; Dec. 12; Gaz. vol. 233; p. 753.
Corsets and brassières. Wade Corset Company. No. 114,595; Dec. 19; Gaz. vol. 233; p. 1104.
Corsets, Apparel-. Kops Bros. No. 114,497; Dec. 19; Gaz. vol. 233; p. 1101.
Corsets, Maternity-. Berthe May, Inc. No. 114,515; Dec. 19; Gaz. vol. 233; p. 1102.
Cotton and mixed piece goods and draperies. Manville Company. No. 114,259; Dec. 5; Gaz. vol. 233; p. 348.
Cotton duck. Wm. E. Hooper & Sons Co. No. 114,476; Dec. 19; Gaz. vol. 233; p. 1101.
Cotton fabrics in the piece, Woven. G. A. Stafford. Nos. 114,659–60; Dec. 26; Gaz. vol. 233; p. 1400.
Cotton or silk piece goods, Corded. N. Erlanger, Blumgart & Co. No. 114,631; Dec. 26; Gaz. vol. 233; p. 1399.
Cotton piece goods. R. del Castillo & Company. No. 114,278; Dec. 5; Gaz. vol. 233; p. 349.
Cotton piece goods. S. Friedman & Co. No. 114,454; Dec. 19; Gaz. vol. 233; p. 1100.
Cotton piece goods. Charles L. Poor Co. No. 114,379; Dec. 12; Gaz. vol. 233; p. 753.
Cotton piece goods and ginghams. Elmira Cotton Mills Co. No. 114,447; Dec. 19; Gaz. vol. 233; p. 1100.
Cotton-waste. De Grauw, Aymar & Company. No. 114,440; Dec. 19; Gaz. vol. 233; p. 1100.
Crackers and biscuit. Johnson Educator Food Co. No. 114,165; Dec. 5; Gaz. vol. 233; p. 346.
Crape, Japanese. Nippon Dry Goods Co. Nos. 114,651–2; Dec. 26; Gaz. vol. 233; p. 1400.
Crayons, School-. Sears, Roebuck and Co. No. 114,200; Dec. 5; Gaz. vol. 233; p. 349.
Dentifrices and mouth-washes. H. Gruner. Nos. 114,465–7; Dec. 19; Gaz. vol. 233; p. 1101.
Disinfectant and antiseptic. The Bayer Company. No. 114,417; Dec. 19; Gaz. vol. 233; p. 1099.
Dress-shields. Forbes & Wallace. No. 114,452; Dec. 19; Gaz. vol. 233; p. 1100.
Drills, Air-feed hammer-. Ingersoll-Rand Company. No. 114,244; Dec. 5; Gaz. vol. 233; p. 348.
Drink and syrup for same. Non-alcoholic carbonated National Carbonating Syrup Company. No. 114,649; Dec. 26; Gaz. vol. 233; p. 1400.
Drinks or beverages containing extracts of roots and syrups therefor, Soft. F. C. Goodale. No. 114,236; Dec. 5; Gaz. vol. 233; p. 348.
Dyes. F. A. McJunkin. No. 114,508; Dec. 19; Gaz. vol. 233; p. 1102.
Dyes and ingredients thereof. Warren Dye Company. No. 114,400; Dec. 12; Gaz. vol. 233; p. 753.
Ear-phones. E. Baum. No. 114,327; Dec. 12; Gaz. vol. 233; p. 751.
Egg, Frozen. H. J. Keith Company. No. 114,486; Dec. 19; Gaz. vol. 233; p. 1101.
Elastic tapes and taffeta seam-bindings. Samstag & Hilder Bros. No. 114,551; Dec. 19; Gaz. vol. 233; p. 1103.
Electric band lights and lamp sockets. J. W. Wiedey. No. 114,401; Dec. 12; Gaz. vol. 233; p. 753.
Electrical attachment plugs and receptacles. The Bryant Electric Company. No. 114,429; Dec. 19; Gaz. vol. 233; p. 1099.
Emery, Artificial. Elektrizitatswerk Lonza. No. 114,255; Dec. 5; Gaz. vol. 233; p. 348.
Eye-lotion. W. Haidel. No. 114,351; Dec. 12; Gaz. vol. 233; p. 752.
Fasteners for wearing-apparel, Snap-. The Wilson Fastener Company. No. 114,606; Dec. 19; Gaz. vol. 233; p. 1105.

Feed, Cotton-seed. The Buckeye Cotton Oil Company. No. 114,139; Dec. 5; Gaz. vol. 233; p. 345.
Fertilizers. The J. E. Tygert Company. No. 114,583; Dec. 19; Gaz. vol. 233; p. 1104.
Finger-rings. V. L. Fulton. No. 114,455; Dec. 19; Gaz. vol. 233; p. 1100.
Flash-light batteries. E. W. Stevenson. No. 114,566; Dec. 19; Gaz. vol. 233; p. 1104.
Flavoring extracts, spices, cocoa, bird-seed. Alexander Drug Co. No. 114,206; Dec. 5; Gaz. vol. 233; p. 347.
Floor and roof construction, Nailing-base for. David E. Kennedy, Inc. No. 114,492; Dec. 19; Gaz. vol. 233; p. 1101.
Flour, Bran-. M. E. & E. A. Sieffert. No. 114,560; Dec. 19; Gaz. vol. 233; p. 1103.
Flour, Self-rising wheat-. Kirkland Distributing Co. No. 114,359; Dec. 12; Gaz. vol. 233; p. 752.
Flour, Wheat-. The Canadian-American Cereal Products Co. Nos. 114,142–3; Dec. 5; Gaz. vol. 233; p. 345.
Flour, Wheat-. Prange Milling Company. No. 114,380; Dec. 12; Gaz. vol. 233; p. 753.
Flour, Wheat-. Shepherd Milling Co. No. 114,388; Dec. 12; Gaz. vol. 233; p. 753.
Flour, Wheat-. L. G. Spindler. No. 114,394; Dec. 12; Gaz. vol. 233; p. 753.
Flour, Wheat-. S. Stewart. No. 114,395; Dec. 12; Gaz. vol. 233; p. 753.
Flour, Wheat-. W. G. Whitehead. No. 114,309; Dec. 5; Gaz. vol. 233; p. 350.
Flours, Buckwheat, self-raising, and pancake. F. V. Moffet. No. 114,521; Dec. 19; Gaz. vol. 233; p. 1102.
Flours, Wheat, rye, self-rising, and prepared. Southwestern Milling Co. Nos. 114,390–3; Dec. 12; Gaz. vol. 233; p. 753.
Flush-meters. Hobbs Manufacturing Company. No. 114,353; Dec. 12; Gaz. vol. 233; p. 752.
Food, Cattle. Spencer Kellogg and Sons. No. 114,358; Dec. 12; Gaz. vol. 233; p. 752.
Food, Cereal breakfast. The Nut Cereal Company. No. 114,375; Dec. 12; Gaz. vol. 233; p. 752.
Food, Prepared cereal. Ballard & Ballard Co. No. 114,414; Dec. 19; Gaz. vol. 233; p. 1099.
Food, Prepared cereal. P. V. Myatkowski. No. 114,173; Dec. 5; Gaz. vol. 233; p. 346.
Foods, Certain named. M. F. Baringer. No. 114,134; Dec. 5; Gaz. vol. 233; p. 345.
Foods, Certain named. A. F. Beckmann. No. 114,418; Dec. 19; Gaz. vol. 233; p. 1099.
Foods, Certain named. F. Briggs. No. 114,221; Dec. 5; Gaz. vol. 233; p. 347.
Foods, Certain named. Brodsky Palman Gelber Co. No. 114,333; Dec. 12; Gaz. vol. 233; p. 751.
Foods, Certain named. Citizens' Wholesale Supply Company. No. 114,336; Dec. 12; Gaz. vol. 233; p. 751.
Foods, Certain named. Drake & Company. No. 114,338; Dec. 12; Gaz. vol. 233; p. 751.
Foods, Certain named. Fairchild Bros. & Foster. No. 114,344; Dec. 12; Gaz. vol. 233; p. 752.
Foods, Certain named. The W. K. Jahn Company. No. 114,482; Dec. 19; Gaz. vol. 233; p. 1101.
Foods, Certain named. Jett and Wood. No. 114,483; Dec. 19; Gaz. vol. 233; p. 1101.
Foods, Certain named. Lindley & Company. No. 114,365; Dec. 12; Gaz. vol. 233; p. 752.
Foods, Certain named. Model Pickle & Vinegar Works. No. 114,520; Dec. 19; Gaz. vol. 233; p. 1102.
Foods, Certain named. Morris & Company. No. 114,523; Dec. 19; Gaz. vol. 233; p. 1102.
Foods, Certain named. Nave-McCord Mercantile Co. No. 114,174; Dec. 5; Gaz. vol. 233; p. 346.
Foods, Certain named. The Schuster Company. No. 114,285; Dec. 5; Gaz. vol. 233; p. 349.
Foods, Infant. R. Haughton. No. 114,470; Dec. 19; Gaz. vol. 233; p. 1101.
Foot-balm. Stocklin Laboratories Company. No. 114,567; Dec. 19; Gaz. vol. 233; p. 1104.
Fruits and vegetables, Fresh. Chase & Company. No. 114,433; Dec. 19; Gaz. vol. 233; p. 1100.
Fruits, Citrus. R. A. Smart. No. 114,187; Dec. 5; Gaz. vol. 233; p. 346.
Fruits, Citrus. Vero Citrus Growers Ass'n Co. No. 114,593; Dec. 19; Gaz. vol. 233; p. 1104.
Fruits, Fresh. Lake Keuka Fruit Sales Company. No. 114,167; Dec. 5; Gaz. vol. 233; p. 346.
Fuels for internal-combustion engines, Preparations for treating hydrocarbon. Gas Engine Efficiency Company. No. 114,158; Dec. 5; Gaz. vol. 233; p. 346.
Game apparatus. W. M. Grant. No. 114,460; Dec. 19; Gaz. vol. 233; p. 1100.
Games, toy, and sporting goods, Certain named. Schmeiser Arms Co. No. 114,657; Dec. 26; Gaz. vol. 233; p. 1400.
Garments, One-piece protective. La Crosse Clothing Company. No. 114,501; Dec. 19; Gaz. vol. 233; p. 1102.
Gasolene, Chemical preparation for enriching. Lenolite Accessories Co. No. 114,642; Dec. 26; Gaz. vol. 233; p. 1400.
Germicidal suture and ligature materials. Meinecke & Company. No. 114,516; Dec. 19; Gaz. vol. 233; p. 1102.
Gin. C. Schlinger's Sons. No. 114,559; Dec. 19; Gaz. vol. 233; p. 1103.
Gloves and mittens. The Boss Manufacturing Company. No. 114,219; Dec. 5; Gaz. vol. 233; p. 347.
Gloves and mittens. The Boss Manufacturing Company. No. 114,330; Dec. 12; Gaz. vol. 233; p. 751.
Gloves, Leather. L. Meyers & Son. No. 114,372; Dec. 12; Gaz. vol. 233; p. 752.
Gloves of canvas or cotton and in part of canvas or cotton. The Boss Manufacturing Company. No. 114,619; Dec. 26; Gaz. vol. 233; p. 1399.
Grape-fruit. S. J. Kelly. Nos. 114,490–1; Dec. 19; Gaz. vol. 233; p. 1101.
Grape-juice. R. C. Williams & Company. No. 114,402; Dec. 12; Gaz. vol. 233; p. 753.
Hair-dressing. A. Plough. No. 114,545; Dec. 19; Gaz. vol. 233; p. 1103.
Hair-dressing and growth-promoting preparation. A. D. Graves. No. 114,461; Dec. 19; Gaz. vol. 233; p. 1100.
Hair-dye. A. F. Haber. No. 114,636; Dec. 26; Gaz. vol. 233; p. 1399.
Hair, Ointment for straightening kinky. Dixie Manufacturing Co. No. 114,442; Dec. 19; Gaz. vol. 233; p. 1100.
Hair, Preparation for the growth, gloss, and shampoo of the. Mme. Walker West Mfg. Co. No. 114,597; Dec. 19; Gaz. vol. 233; p. 1104.
Hair-restorer. N. Bleau. No. 114,421; Dec. 19; Gaz. vol. 233; p. 1099.
Hair-tonic. R. Klein. No. 114,493; Dec. 19; Gaz. vol. 233; p. 1101.
Hair-tonics. J. M. Hall. No. 114,468; Dec. 19; Gaz. vol. 233; p. 1101.
Hair-tonics, scalp-stimulant, and dandruff-preventive. Matthews & Lively. No. 114,514; Dec. 19; Gaz. vol. 233; p. 1102.
Hames. U. S. Hame Company. No. 114,588; Dec. 19; Gaz. vol. 233; p. 1104.
Handkerchiefs, pillow-cases, &c., Cotton and linen. M. Fix. No. 114,632; Dec. 26; Gaz. vol. 233; p. 1399.
Hats. H. Goodman. No. 114,635; Dec. 26; Gaz. vol. 233; p. 1399.
Hats and caps. The Frankenberg & Lempert Hat Company. No. 114,235; Dec. 5; Gaz. vol. 233; p. 348.
Hats, Soft. E. A. Mallory and Sons, Incorporated. No. 114,646; Dec. 26; Gaz. vol. 233; p. 1400.
Heater, Gas water-. Jiffy Water Heater Company. No. 114,484; Dec. 19; Gaz. vol. 233; p. 1101.
Hepatic insufficiency, intestinal putrefaction, habitual constipation, and gall-stones. The P. Plessner Co. No. 114,543; Dec. 19; Gaz. vol. 233; p. 1103.
Herring, Preserved. Alaska Fish Salting & By-Products Co. No. 114,128; Dec. 5; Gaz. vol. 233; p. 345.
Hog-fattening preparation. E. J. Anderson. No. 114,409; Dec. 19; Gaz. vol. 233; p. 1099.
Honey. American Sugar Company. No. 114,130; Dec. 5; Gaz. vol. 233; p. 345.
Hosiery. Burd Knitting Mills Co. No. 114,224; Dec. 5; Gaz. vol. 233; p. 347.
Hosiery. Dreifus, Tichner & Eckstein. No. 114,630; Dec. 26; Gaz. vol. 233; p. 1399.
Hosiery. Oneida Knitting Company. No. 114,272; Dec. 5; Gaz. vol. 233; p. 349.
Hosiery. G. O. Runyeon, Jr. No. 114,282; Dec. 5; Gaz. vol. 233; p. 349.
Hosiery. E. M. Townsend & Co. No. 114,397; Dec. 12; Gaz. vol. 233; p. 753.
Hosiery and knitted underwear. Kuttner & Siegel, Inc. No. 114,641; Dec. 26; Gaz. vol. 233; p. 1399.
Hot-water bottles and syringes, Metal. Atlantic Sales Corporation. No. 114,212; Dec. 5; Gaz. vol. 233; p. 347.
Ignition-magnetos. Webster Electric Company. No. 114,599; Dec. 19; Gaz. vol. 233; p. 1104.
Indexes, files, record-cards, &c. Index Visible. No. 114,480; Dec. 19; Gaz. vol. 233; p. 1101.
Insulated wire and cables. The Okonite Company. Nos. 114,270–1; Dec. 5; Gaz. vol. 233; p. 349.
Jar rings, Red Mason-. R. E. Tongue & Bros. Co. No. 114,199; Dec. 5; Gaz. vol. 233; p. 347.
Jewelry and precious-metal ware, Certain named. Geo. Borgfeldt & Co. No. 114,422; Dec. 19; Gaz. vol. 233; p. 1099.
Jewelry and precious-metal ware, Certain named. The O. M. Draper Company. No. 114,444; Dec. 19; Gaz. vol. 233; p. 1100.
Knitted, netted, and textile fabrics, Certain named. J. A. Migel. No. 114,203; Dec. 5; Gaz. vol. 233; p. 349.
Knitted, netted, and textile goods. The Buckley-Newhall Company. Nos. 114,623–4; Dec. 26; Gaz. vol. 233; p. 1399.
Knitted, netted, and textile materials, Certain named. Lesher, Whitman & Co. No. 114,253; Dec. 5; Gaz. vol. 233; p. 348.
Knitted underwear. R. G. Jennings. No. 114,357; Dec. 12; Gaz. vol. 233; p. 752.
Knitted vests, union-suits, and pants. Berger Bros. No. 114,617; Dec. 26; Gaz. vol. 233; p. 1399.
Knives, forks, and spoons. W. H. Rogers. No. 114,549; Dec. 19; Gaz. vol. 233; p. 1103.
Knives, Pocket-. Valley Forge Cutlery Company. No. 114,590; Dec. 19; Gaz. vol. 233; p. 1104.
Ladders and scaffolds. The John S. Tilley Ladders Co. Nos. 114,578–9; Dec. 19; Gaz. vol. 233; p. 1104.
Lamps, Incandescent electric. The Metalyte Company. No. 114,172; Dec. 5; Gaz. vol. 233; p. 346.
Laxatives, Saline. N. Y. International Chemical Co. No. 114,530; Dec. 19; Gaz. vol. 233; p. 1102.

Leather. Penn Leather Co. No. 114,542; Dec. 19; Gaz. vol. 233; p. 1103.
Leather. Worsdell & Co. No. 114,609; Dec. 19; Gaz. vol. 233; p. 1105.
Leather, Sole-. G. C. Vaughan. No. 114,591; Dec. 19; Gaz. vol. 233; p. 1104.
Leather substitutes. Boston Belting Company. No. 114,426; Dec. 19; Gaz. vol. 233; p. 1099.
Letters, leaflets, pamphlets, bulletins, and books. The Goodyear Tire & Rubber Company. No. 114,237; Dec. 5; Gaz. vol. 233; p. 348.
Lime and fertilizer spreaders. H. M. Spahr. No. 114,294; Dec. 5; Gaz. vol. 233; p. 350.
Limestone. Michigan Limestone & Chemical Company. No. 114,262; Dec. 5; Gaz. vol. 233; p. 349.
Liniment. B. D. Williams. No. 114,626; Dec. 26; Gaz. vol. 233; p. 1399.
Linoleums and oil-cloths. The Buckley-Newhall Company. Nos. 114,621–2; Dec. 26; Gaz. vol. 233; p. 1399.
Liqueur, Klimmel. Amsterdamsche Likeurstokerij "T. Lootsje" der Erven Lucas Bols. No. 114,319; Dec. 12; Gaz. vol. 233; p. 751.
Lubricants. A. Warrell. No. 114,307; Dec. 5; Gaz. vol. 233; p. 350.
Lumber, Sawed. Ocean Lumber Company. No. 114,268; Dec. 5; Gaz. vol. 233; p. 349.
Macaroni. C. Maspero. No. 114,370; Dec. 12; Gaz. vol. 233; p. 752.
Macaroni. F. Romeo & Co. No. 114,385; Dec. 12; Gaz. vol. 233; p. 753.
Magazine or journal, Monthly. The Employer Publishing Company. No. 114,448; Dec. 19; Gaz. vol. 233; p. 1100.
Magazine-section issued monthly. T. A. Cawthra. No. 114,225; Dec. 5; Gaz. vol. 233; p. 347.
Malt tonic. Massachusetts Breweries Company. No. 114,513; Dec. 19; Gaz. vol. 233; p. 1102.
Matches. North American Mercantile Co. Nos. 114,265–7; Dec. 5; Gaz. vol. 233; p. 349.
Meat and fish preserver. B. R. Murphy. No. 114,525; Dec. 19; Gaz. vol. 233; p. 1102.
Meat-choppers. Husqvarna Vapenfabriks Aktiebolag. No. 114,356; Dec. 12; Gaz. vol. 233; p. 752.
Medicinal and pharmaceutical preparation. Certain named. O. B. Andrews Company. No. 114,320; Dec. 12; Gaz. vol. 233; p. 751.
Medicinal compounds for eczema, dandruff, and skin diseases. R. Torras. No. 114,582; Dec. 19; Gaz. vol. 233; p. 1104.
Medicinal preparation for constipation and diseases of the liver and stomach. R. Lich. No. 114,505; Dec. 19; Gaz. vol. 233; p. 1102.
Medicinal preparation for the treatment of certain named diseases. R. Lich. No. 114,506; Dec. 19; Gaz. vol. 233; p. 1102.
Medicine for certain named ailments. J. W. R. Laxton. No. 114,362; Dec. 12; Gaz. vol. 233; p. 752.
Medicine for certain named diseases. Christoe Chemical Company. No. 114,628; Dec. 26; Gaz. vol. 233; p. 1399.
Medicine for rheumatism. J. Clark. No. 114,434; Dec. 19; Gaz. vol. 233; p. 1100.
Medicine for the treatment of certain named diseases. Wolf & Taylor. No. 114,608; Dec. 19; Gaz. vol. 233; p. 1105.
Medicines and pharmaceutical preparations, Certain named. Associated Pharmacists. No. 114,412; Dec. 19; Gaz. vol. 233; p. 1099.
Medicines and pharmaceutical preparations, Certain named. S. S. Dworkin. No. 114,152; Dec. 5; Gaz. vol. 233; p. 345.
Medicines, Tonic. B. Leo. No. 114,504; Dec. 19; Gaz. vol. 233; p. 1102.
Milk with egg albumen, Prepared. Nezen Company. No. 114,531; Dec. 19; Gaz. vol. 233; p. 1103.
Mints and candies of all descriptions. A. M. Van Hoesen. No. 114,201; Dec. 5; Gaz. vol. 233; p. 347.
Music-playing instruments and music-sheets therefor, Mechanical. The Wilcox & White Company. No. 114,311; Dec. 5; Gaz. vol. 233; p. 350.
Musical instruments and supplies, Certain named. Sonora Phonograph Corporation. Nos. 114,188–93; Dec. 5; Gaz. vol. 233; pp. 346–7.
Necklaces. Powers & Mayer. No. 114,180; Dec. 5; Gaz. vol. 233; p. 346.
Neckwear for ladies, Certain named. Waldes & Company. No. 114,664; Dec. 26; Gaz. vol. 233; p. 1400.
Neckwear, Certain named ladies'. Waldes & Company. No. 114,596; Dec. 19; Gaz. vol. 233; p. 1104.
Newspaper-sections published periodically. K. Hubbard. No. 114,243; Dec. 5; Gaz. vol. 233; p. 348.
Newspapers. Star Chronicle Publishing Company. No. 114,564; Dec. 19; Gaz. vol. 233; p. 1103.
Nougat-bars and chocolate-covered candies. W. F. Schrafft & Sons Corporation. No. 114,185; Dec. 5; Gaz. vol. 233; p. 346.
Nuts, particularly cultivated pecans. S. J. Banning. No. 114,415; Dec. 19; Gaz. vol. 233; p. 1099.
Nuts, Salted. F. M. Hoyt. No. 114,355; Dec. 12; Gaz. vol. 233; p. 752.
Oats, Clipped white. Armour Grain Company. No. 114,131; Dec. 5; Gaz. vol. 233; p. 345.
Oats, Clipped white. Armour Grain Company. Nos. 114,410–11; Dec. 19; Gaz. vol. 233; p. 1099.
Oil compound for use in certain named diseases, Medicinal. G. C. Keith. No. 114,487; Dec. 19; Gaz. vol. 233; p. 1101.
Oil, Cotton-seed. The American Cotton Oil Company. No. 114,613; Dec. 26; Gaz. vol. 233; p. 1399.
Oil, Facial. L. L. Ruppel. No. 114,550; Dec. 19; Gaz. vol. 233; p. 1103.
Oil for cleaning and polishing veneered or varnished surfaces and woodwork generally. William Peterman, Inc. No. 114,544; Dec. 19; Gaz. vol. 233; p. 1103.
Oil for use in the manufacture of varnishes, &c., Cotton-seed. The American Cotton Oil Company. No. 114,318; Dec. 12; Gaz. vol. 233; p. 751.
Oil, Peanut-. Fidelity Cotton Oil Company. No. 114,155; Dec. 5; Gaz. vol. 233; p. 345.
Oil to be mixed with water and used as a lubricant for metal-cutting tools. Wm. C. Robinson & Son Co. No. 114,384; Dec. 12; Gaz. vol. 233; p. 753.
Oils and concentrated flavors, Synthetic perfume-. Fries & Fries. No. 114,633; Dec. 26; Gaz. vol. 233; p. 1399.
Oils and greases, Certain named. Tide Water Oil Co. No. 114,302; Dec. 5; Gaz. vol. 233; p. 350.
Oils, Automobile and separator. Northwestern Oil Co. No. 114,374; Dec. 12; Gaz. vol. 233; p. 752.
Oils, Heat-transmitting. Standard Oil Co. of New York. No. 114,295; Dec. 5; Gaz. vol. 233; p. 350.
Oils, Paint-. The Tower Varnish & Dryer Company. No. 114,396; Dec. 12; Gaz. vol. 233; p. 753.
Ointment and healing-salve, Pile-. Ko-Tyne Manufacturing Company. No. 114,498; Dec. 19; Gaz. vol. 233; p. 1102.
Ointments, Base for. The Bayer Company. No. 114,416; Dec. 19; Gaz. vol. 233; p. 1099.
Oranges and grape-fruit. A. J. Nye. No. 114,536; Dec. 19; Gaz. vol. 233; p. 1103.
Ornaments, Certain named. The Enterprise Manufacturing Company. No. 114,449; Dec. 19; Gaz. vol. 233; p. 1100.
Overalls. J. Kirschner. No. 114,360; Dec. 12; Gaz. vol. 233; p. 752.
Packing, Sheet-asbestos. Crane Company. No. 114,228; Dec. 5; Gaz. vol. 233; p. 348.
Packings, Certain named. Revere Rubber Company. No. 114,280; Dec. 5; Gaz. vol. 233; p. 349.
Paper and felt and prepared roofing, Roofing. Pioneer Paper Co. No. 114,378; Dec. 12; Gaz. vol. 233; p. 753.
Paper and paper towels, Toilet-. Wortendyke Manufacturing Co. No. 114,610; Dec. 19; Gaz. vol. 233; p. 1105.
Paper and type-writer ribbons, Carbon-. Remington Typewriter Company. No. 114,181; Dec. 5; Gaz. vol. 233; p. 346.
Paper bags. Crown Willamette Paper Co. No. 114,439; Dec. 19; Gaz. vol. 233; p. 1100.
Paper-board flooring. Schack Artificial Flower Co. No. 114,283; Dec. 5; Gaz. vol. 233; p. 349.
Paper, Bond, ledger, book, cover, and writing. Fischel Paper Co. No. 114,450; Dec. 19; Gaz. vol. 233; p. 1100.
Paper boxes. Milwaukee Paper Box Co. No. 114,518; Dec. 19; Gaz. vol. 233; p. 1102.
Paper, Enameled book-. Duboc Paper Co. No. 114,445; Dec. 19; Gaz. vol. 233; p. 1100.
Paper for press-printing trades, Printing-. The Mead Pulp and Paper Company. No. 114,519; Dec. 19; Gaz. vol. 233; p. 1102.
Paper, letter and bill heads, envelops, &c., Printing and writing. The Strobridge Lithographing Co. No. 114,569; Dec. 19; Gaz. vol. 233; p. 1104.
Paper, Onion-skin. Boston Index Card Company. No. 114,427; Dec. 19; Gaz. vol. 233; p. 1099.
Paper, Toilet-. The Meyer Bros. Paper Co. No. 114,517; Dec. 19; Gaz. vol. 233; p. 1102.
Paper, Toilet-. Sauquoit Toilet Paper Co. No. 114,552; Dec. 19; Gaz. vol. 233; p. 1103.
Paper, Writing-. Byron Weston Co. No. 114,308; Dec. 5; Gaz. vol. 233; p. 350.
Paper, Writing-. Byron Weston Co. No. 114,310; Dec. 5; Gaz. vol. 233; p. 350.
Parcel-post case. C. T. Goewey. No. 114,456; Dec. 19; Gaz. vol. 233; p. 1100.
Peanuts. The Bain Peanut Co. No. 114,326; Dec. 12; Gaz. vol. 233; p. 751.
Pens of all kinds, Writing-. The Esterbrook Steel Pen Mfg. Co. No. 114,154; Dec. 5; Gaz. vol. 233; p. 345.
Petticoats. Sterne & Klein Co. No. 114,661; Dec. 26; Gaz. vol. 233; p. 1400.
Pharmaceutical preparations, Certain named. S. Kaufman. No. 114,485; Dec. 19; Gaz. vol. 233; p. 1101.
Phonographs. The Artophone Company. No. 114,323; Dec. 12; Gaz. vol. 233; p. 751.
Phonographs. The Caroln Company. No, 114,431; Dec. 19; Gaz. vol. 233; p. 1099.
Phonographs. The Strobel & Wilken Company. No. 114,300; Dec. 5; Gaz. vol. 233; p. 350.
Phonographs and talking-machines. The Premier Cabinet Company. No. 114,546; Dec. 19; Gaz. vol. 233; p. 1103.
Photo-engravings, pamphlets, and periodicals, Monthly. International Photo-Engravers' Union of North America. No. 114,481; Dec. 19; Gaz. vol. 233; p. 1101.
Photographic prints. O. A. Hoffmann & Bro. No. 114,474; Dec. 19; Gaz. vol. 233; p. 1101.

Pianos and player-pianos. The Lindenberg Piano Company. No. 114,254; Dec. 5; Gaz. vol. 233; p. 348.
Pianos and player-pianos. Mathushek Piano Manufacturing Company. No. 114,261; Dec. 5; Gaz. vol. 233; p. 349.
Pianos, autopianos, and player-pianos. L. H. Abenheimer. No. 114,205; Dec. 5; Gaz. vol. 233; p. 347.
Picture photoplays, Series of different motion-. Universal Film Manufacturing Company. No. 114,399; Dec. 12; Gaz. vol. 233; p. 753.
Piece goods, Certain named. Lesher, Whitman & Co. No. 114,252; Dec. 5; Gaz. vol. 233; p. 348.
Pipe columns and column parts and fittings, Cast-iron-. United States Cast Iron Pipe and Foundry Company. No. 114,587; Dec. 19; Gaz. vol. 233; p. 1104.
Plasters, Corn-. A. Rathmyl. No. 114,547; Dec. 19; Gaz. vol. 233; p. 1103.
Plows. The Happy Farmer Tractor Co. No. 114,469; Dec. 19; Gaz. vol. 233; p. 1101.
Poultry, fresh and storage eggs. W. F. Gravins. No. 114,462; Dec. 19; Gaz. vol. 233; p. 1100.
Powder, Antiseptic. Sepco Chemical Company. No. 114,387; Dec. 12; Gaz. vol. 233; p. 753.
Powder, Face-. Hopfinger & Roth. No. 114,477; Dec. 19; Gaz. vol. 233; p. 1101.
Powder, Face-. W. Rizcallah & Co. No. 114,656; Dec. 26; Gaz. vol. 233; p. 1400.
Powder, Shampoo-. H. Tetlow Co. No. 114,575; Dec. 19; Gaz. vol. 233; p. 1104.
Powders, Face-. J. J. Nelson. No. 114,650; Dec. 26; Gaz. vol. 233; p. 1400.
Precious-metal and silver ware, Certain named. A. S. Morgan. No. 114,522; Dec. 19; Gaz. vol. 233; p. 1102.
Precious-metal-plated table and flat ware. Oneida Community. Nos. 114,537–9; Dec. 19; Gaz. vol. 233; p. 1103.
Preparation composed of honey and malt used in the making of bread. J. Lowe Co. No. 114,257; Dec. 5; Gaz. vol. 233; p. 348.
Preparation for neutralizing alkalinity, removing stains, and setting blue, Liquid. H. Kohnstamm & Co. No. 114,496; Dec. 19; Gaz. vol. 233; p. 1101.
Preparation for the treatment of rheumatism. F. A. Geiger. No. 114,634; Dec. 26; Gaz. vol. 233; p. 1399.
Preparation for toilet purposes, Certain pharmaceutical. George Borgfeldt & Co. No. 114,425; Dec. 19; Gaz. vol. 233; p. 1099.
Preparation for treatment of constipation. Kronberger's Polyglot Pharmacy. No. 114,499; Dec. 19; Gaz. vol. 233; p. 1102.
Publication, Advertising. The Phelps Publishing Company. No. 114,275; Dec. 5; Gaz. vol. 233; p. 349.
Publications, Monthly. School Arts Publishing Co. No. 114,284; Dec. 5; Gaz. vol. 233; p. 349.
Rain-coats. United States Rubber Company. No. 114,398; Dec. 12; Gaz. vol. 233; p. 753.
Rain-coats and overcoats. Motor Tailoring Co. No. 114,648; Dec. 26; Gaz. vol. 233; p. 1400.
Ranges, Gas-. H. J. Hoover. No. 114,164; Dec. 5; Gaz. vol. 233; p. 346.
Rat and mice exterminator. The Bayer Company Inc. No. 114,614; Dec. 26; Gaz. vol. 233; p. 1399.
Ravioli. Thomas-Body Co. No. 114,301; Dec. 5; Gaz. vol. 233; p. 350.
Reflectors, Glass. National X-Ray Reflector Company. No. 114,526; Dec. 19; Gaz. vol. 233; p. 1102.
Refrigerating units. Isko, Incorporated. Nos. 114,245–6; Dec. 5; Gaz. vol. 233; p. 348.
Remedies for Bright's disease, dropsy, &c. E. H. Taylor. No. 114,662; Dec. 26; Gaz. vol. 233; p. 1400.
Remedy for constipation. Frederick Stearns & Co. No. 114,565; Dec. 19; Gaz. vol. 233; p. 1103.
Remedy for eczema and other skin diseases. Taylor Chemical Co. No. 114,574; Dec. 19; Gaz. vol. 233; p. 1104.
Remedy for gonorrhea and gleet. Vegola Specialty Company. No. 114,592; Dec. 19; Gaz. vol. 233; p. 1104.
Rice. The Asia Company. No. 114,325; Dec. 12; Gaz. vol. 233; p. 751.
Roofing material in the form of waterproofed sheets. H. H. Hopkins Company. No. 114,478; Dec. 19; Gaz. vol. 233; p. 1101.
Rope and cordage, Fibrous. Wall Rope Works. No. 114,203; Dec. 5; Gaz. vol. 233; p. 347.
Rope, Cotton. Mount Vernon-Woodberry Mills. No. 114,264; Dec. 5; Gaz. vol. 233; p. 349.
Rubber amalgamating preparation. S. A. Conover. No. 114,148; Dec. 5; Gaz. vol. 233; p. 345.
Rubber boots and shoes, overshoes, &c. Hood Rubber Company. No. 114,638; Dec. 26; Gaz. vol. 233; p. 1399.
Rubber composition in the shape of soles and heels for shoes. The Manhattan Rubber Mfg. Co. No. 114,647; Dec. 26; Gaz. vol. 233; p. 1400.
Rubber gloves. F. Chapman. No. 114,627; Dec. 26; Gaz. vol. 233; p. 1399.
Rubber overshoes and boots. Sears, Roebuck and Co. No. 114,658; Dec. 26; Gaz. vol. 233; p. 1400.
Rubber water bottles and cushions, Surgical and invalid. Sangers No. 114,561; Dec. 19; Gaz. vol. 233; p. 1103.
Salve. F. W. Alden. No. 114,404; Dec. 19; Gaz. vol. 233; p. 1099.
Salve for the relief of piles and sores. W. E. Borland. No. 114,329; Dec. 12; Gaz. vol. 233; p. 751.
Sardines in salt, with head. G. B. Frabucco. No. 114,303; Dec. 5; Gaz. vol. 233; p. 350.
Seasoning for meats and gravies. C. Porsdal. No. 114,179; Dec. 5; Gaz. vol. 233; p. 346.
Separators and parts thereof, Cream-. The Champion Blower & Forge Co. No. 114,432; Dec. 19; Gaz. vol. 233; p. 1099.
Sewing-basket in table form, and footstools. Metalkraft-Rochester. No. 114,171; Dec. 5; Gaz. vol. 233; p. 346.
Sewing-basket in table form and footstools. Metalkraft-Rochester. No. 114,371; Dec. 12; Gaz. vol. 233; p. 752.
Sewing-machines and parts thereof. Union Special Machine Company. No. 114,584; Dec. 19; Gaz. vol. 233; p. 1104.
Sharpening and abrasive preparation for metal edge-tools. C. L. Barewald. No. 114,214; Dec. 5; Gaz. vol. 233; p. 347.
Sheets and pillow-cases. Wilson and Bradbury. No. 114,312; Dec. 5; Gaz. vol. 233; p. 350.
Shirt-waists. Yellin & Amsterdam. No. 114,665; Dec. 26; Gaz. vol. 233; p. 1400.
Shirt-waists, Ladies' and misses'. Samek Bros. No. 114,586; Dec. 12; Gaz. vol. 233; p. 753.
Shirts and athletic underwear, Negligée. Oppenheim, Oberndorf & Co. Inc. No. 114,653; Dec. 26; Gaz. vol. 233; p. 1400.
Shirts and boys' outer waists, Men's outer. M. E. Smith & Co. No. 114,389; Dec. 12; Gaz. vol. 233; p. 753.
Shirts, hosiery, underwear, clothing, and hats. Fifield & Stevenson. No. 114,232; Dec. 5; Gaz. vol. 233; p. 348.
Shirts, Men's outer. Freedman, Casper & Co. No. 114,347; Dec. 12; Gaz. vol. 233; p. 752.
Shirts, pajamas, under shirts and drawers, union-suits, Night-. Cluett, Peabody & Co. No. 114,337; Dec. 12; Gaz. vol. 233; p. 751.
Shirts, undershirts, overalls, shirt-waists, &c. Wise Brothers. No. 114,607; Dec. 19; Gaz. vol. 233; p. 1105.
Shoe-grease. The Leather Food Company. No. 114,251; Dec. 5; Gaz. vol. 233; p. 348.
Shortening composed of cotton-seed oil and cotton-seed-oil stearin. The Dixie Refining Co. No. 114,140; Dec. 5; Gaz. vol. 233; p. 345.
Shot, Steel. American Ball Company. No. 114,207; Dec. 5; Gaz. vol. 233; p. 347.
Shovels, spades, and scoops. Ames Shovel & Tool Company. No. 114,210; Dec. 5; Gaz. vol. 233; p. 347.
Silk and satin goods in the piece. Bentley & Twohey Silk Co. No. 114,419; Dec. 19; Gaz. vol. 233; p. 1099.
Silk and satin piece goods. Rogers & Thompson. No. 114,281; Dec. 5; Gaz. vol. 233; p. 349.
Silk fabrics in the piece. The Brainerd and Armstrong Co. No. 114,620; Dec. 26; Gaz. vol. 233; p. 1399.
Skates and parts and accessories thereof, Ice-. Canada Cycle & Motor Co. No. 114,141; Dec. 5; Gaz. vol. 233; p. 345.
Skin diseases, Treatment for. P. Cusanelli. No. 114,629; Dec. 26; Gaz. vol. 233; p. 1399.
Skin preparation. L. M. Buell. No. 114,625; Dec. 26; Gaz. vol. 233; p. 1399.
Skirts, collars, dresses, outer suits, hats, &c. The Tremont Stores. No. 114,304; Dec. 5; Gaz. vol. 233; p. 350.
Skirts, mackinaw coats, dresses, and capes, Ladies'. Sheuerman Brothers. No. 114,292; Dec. 5; Gaz. vol. 233; p. 349.
Snubbers or shock-absorbers. The Detroit Engineering Products Company. No. 114,441; Dec. 19; Gaz. vol. 233; p. 1100.
Soap. H. E. Heckinger & Company. No. 114,240; Dec. 5; Gaz. vol. 233; p. 348.
Sphygmomanometers. W. A. Baum. No. 114,215; Dec. 5; Gaz. vol. 233; p. 347.
Steel, Preparation for hardening high-speed. William R. Bennett. No. 114,615; Dec. 26; Gaz. vol. 233; p. 1399.
Stomachic and laxative. O. Adler. No. 114,315; Dec. 12; Gaz. vol. 233; p. 751.
Sugar-dispensing receptacles. The Sugar Dispenser Co. No. 114,299; Dec. 5; Gaz. vol. 233; p. 350.
Suits, coats, vests, trousers, overcoats. The Douglas Tailoring Co. No. 114,443; Dec. 19; Gaz. vol. 233; p. 1100.
Surgical apparatus in the treatment of diseases by artificial heat. Woodard, Clarke & Co. No. 114,313; Dec. 5; Gaz. vol. 233; p. 350.
Surgical covering, Protective. H. F. Kuhn. No. 114,500; Dec. 19; Gaz. vol. 233; p. 1102.
Syrups for food-flavoring. B. Berg. No. 114,328; Dec. 12; Gaz. vol. 233; p. 751.
Syrup for lemonade, limeade, and phosphate drinks. Garrett & Company. No. 114,157; Dec. 5; Gaz. vol. 233; p. 345.
Syrups for mixture with carbonated water. M. Getz & Co. No. 114,349; Dec. 12; Gaz. vol. 233; p. 752.
Tables, Extension-. Conrey-Davis Mf'g. Co. No. 114,227; Dec. 5; Gaz. vol. 233; p. 348.
Tablets, composition and note books. Osborn Paper Company No. 114,273; Dec. 5; Gaz. vol. 233; p. 349.
Talking-machines and parts. Majestic Phonograph Company. No. 114,510; Dec. 19; Gaz. vol. 233; p. 1102.
Tanning substances. Dr. G. Eberle & Cie. No. 114,340; Dec. 12; Gaz. vol. 233; p. 751.

Tea, canned foods, lemon extract, coffee, eggs, and butter. The Square Deal Market Company. No. 114,194; Dec. 5; Gaz. vol. 233; p. 347.
Tea-tonic plants and leaves for bladder, &c., affections, Prepared. W. Conklin. No. 114,437; Dec. 19; Gaz. vol. 233; p. 1100.
Teeth and backings, Interchangeable. Stewart Dental Mfg. Company. No. 114,297; Dec. 5; Gaz. vol. 233; p. 350.
Textiles of all kinds, Certain named. John Boyle & Company. No. 114,220; Dec. 5; Gaz. vol. 233; p. 347.
Thread-cutters. W-B Manufacturing Company. No. 114,202; Dec. 5; Gaz. vol. 233; p. 347.
Threads, Textile. Belding Bros. & Co. No. 114,216; Dec. 5; Gaz. vol. 233; p. 347.
Tire-tape, rubber and adhesive patches. Berrodin Rubber Company. No. 114,217; Dec. 5; Gaz. vol. 233; p. 347.
Tires and tubes for automobiles, aeroplanes, trucks, &c., Rubber. Automobile Sundries Company. No. 114,132; Dec. 5; Gaz. vol. 233; p. 345.
Tires, inner tubes, and patches, Certain named. Powell Supply Company. No. 114,276; Dec. 5; Gaz. vol. 233; p. 349.
Tires, Pneumatic rubber automobile-. Beacon Tire Company. No. 114,612; Dec. 19; Gaz. vol. 233; p. 1105.
Tires, tire-reliners, tire-patches, &c. Shadbolt & Boyd Iron Co. No. 114,291; Dec. 5; Gaz. vol. 233; p. 349.
Toilet-flush and pipe-cleaner compositions. D. Howarth. No. 114,479; Dec. 19; Gaz. vol. 233; p. 1101.
Tonic for certain named physical conditions. D. Wroblewski. No. 114,611; Dec. 19; Gaz. vol. 233; p. 1105.
Toy, Wood construction. Boston Novelty Co. No. 114,137; Dec. 5; Gaz. vol. 233; p. 345.
Toys and sporting goods, Certain named. George Borgfeldt & Co. No. 114,424; Dec. 19; Gaz. vol. 233; p. 1099.
Valves and repair parts for same for steam-heating systems, Kelly Brass Works. No. 114,489; Dec. 19; Gaz vol. 233; p. 1101.
Valves, Metallic. The Bishop-Babcock-Becker Co. No. 114,218; Dec. 5; Gaz. vol. 233; p. 347.
Valves, Metallic check-. J. E. Hoeken. No. 114,473; Dec. 19; Gaz. vol. 233; p. 1101.
Varnish. Floor-Shine Manufacturing Company. No. 114,451; Dec. 19; Gaz. vol. 233; p. 1100.
Varnish. Manhattan Varnish Co. No. 114,511; Dec. 19; Gaz. vol. 233; p. 1102.
Vaseline petrolatum or petroleum jelly. Warren Oil Company. No. 114,598; Dec. 19; Gaz. vol. 233; p. 1104.
Vermuth. Martini & Rossi. No. 114,260; Dec. 5; Gaz. vol. 233; p. 349.
Violin-mute. R. Briais. No. 114,428; Dec. 19; Gaz. vol. 233; p. 1099.
Violins. Lyon & Healy. No. 114,169; Dec. 5; Gaz. vol. 233; p. 346.
Washing compound, Soapless liquid. S. A. and F. Foster. No. 114,234; Dec. 5; Gaz. vol. 233; p. 348.
Washing machines, Laundry-. The Nineteen Hundred Washer Company. No. 114,533; Dec. 19; Gaz. vol. 233; p. 1103.
Watches. Knickerbocker Watch Co. No. 114,494; Dec. 19; Gaz. vol. 233; p. 1101.
Watches. M. Tigner. No. 114,577; Dec. 19; Gaz. vol. 233; p. 1104.
Water, Aerated. Puritan Ice Company. No. 114,381; Dec. 12; Gaz. vol. 233; p. 753.
Waterproof clothing, Certain named. Pearson Brothers. No. 114,654; Dec. 26; Gaz. vol. 233; p. 1400.
Waterproofed cords and twines. Tate Electrolytic Waterproofing Company. No. 114,198; Dec. 5; Gaz. vol. 233; p. 347.
Waterproofed skins and leathers. Tate Electrolytic Waterproofing Company. No. 114,573; Dec. 19; Gaz. vol. 233; p. 1104.
Weather-vanes. Nature Studio. No. 114,373; Dec. 12; Gaz. vol. 233; p. 752.
Whipped cream and eggs, Preparation for. L. H. Baker. No. 114,133; Dec. 5; Gaz. vol. 233; p. 345.
Whisky. James Thompson & Bro. No. 114,576; Dec. 19; Gaz. vol. 233; p. 1104.
Whisky. C. Schlinger's Sons. No. 114,558; Dec. 19; Gaz. vol. 233; p. 1103.
Whisky and cocktails. H. H. Netter. No. 114,529; Dec. 19; Gaz vol. 233; p. 1102.
Whisky, Irish. Park & Tilford. No. 114,274; Dec. 5; Gaz. vol. 233; p. 349.
Windows. Shrauger & Johnson. No. 114,293; Dec. 5; Gaz. vol. 233; p. 349.
Wine, Italian red and white. Pessagno & Montresor. No. 114,655; Dec. 26; Gaz. vol. 233; p. 1400.
Wood substitutes made from pulp. The Agasote Millboard Co. No. 114,316; Dec. 12; Gaz. vol. 233; p. 751.
Yarn and thread, Cotton. Mount Vernon-Woodberry Mills. No. 114,524; Dec. 19; Gaz. vol. 233; p. 1102.

ALPHABETICAL LIST OF LABELS.

"A Westclox Alarm." (For Alarms.) Western Clock Co. No. 19,785; Dec. 12; Gaz. vol. 233; p. 754.
"Albano's." (For Tomatoes.) F. Albano. No. 19,791; Dec. 26; Gaz. vol. 233; p. 1401.
"Anti-Hog-Cholera Serum." (For a Remedy for Hog-Cholera.) Corn Belt Serum Company. No. 19,798; Dec. 26; Gaz. vol. 233; p. 1401.
"Aristo." (For Cigars.) S. Glarratano. No. 19,776; Dec. 12; Gaz. vol. 233; p. 754.
"Auto Finishes." (For a Finishing Material for Metal or Wood.) The R. F. Johnston Paint Co. No. 19,810; Dec. 26; Gaz. vol. 233; p. 1401.
"Beech-Nut Brand Mints." (For Mint-Flavored Candies and Confections.) Beech-Nut Packing Company. No. 19,768; Dec. 12; Gaz. vol. 233; p. 754.
"Black and White." (For Albacore Fish.) White Star Canning Co. No. 19,787; Dec. 12; Gaz. vol. 233; p. 754.
"Black & White." (For Confectionery.) Imperial Candy Co. No. 19,809; Dec. 26; Gaz. vol. 233; p. 1401.
"Blue Ribbon." (For Playing-Cards.) Russell Playing Card Co. No. 19,783; Dec. 12; Gaz. vol. 233; p. 754.
"Bob." (For Stock-Ale and Extra Porter.) Consolidated Bottling Co. No. 19,797; Dec. 26; Gaz. vol. 233; p. 1401.
"Cigars." (For Cigars.) A. F. Erwood. No. 19,770; Dec. 12; Gaz. vol. 233; p. 754.
"Coffee." (For Coffee.) Austin, Nichols & Co. No. 19,792; Dec. 26; Gaz. vol. 233; p. 1401.
"Community." (For Coffee.) Community Coffee and Spice Company. No. 19,769; Dec. 12; Gaz. vol. 233; p. 754.
"Diurogen." (For a Medical Preparation.) M. Mariani. No. 19,814; Dec. 26; Gaz. vol. 233; p. 1401.
"El Cerrido." (For Cigars.) Testa Cigar Co. No. 19,823; Dec. 26; Gaz. vol. 233; p. 1401.
"El-Mohada." (For Cigarettes.) Fezzan Tobacco Co., Inc. No. 19,771; Dec. 12; Gaz. vol. 233; p. 754.
"Eubion." (For a Medical Preparation.) M. Mariani. No. 19,813; Dec. 26; Gaz. vol. 233; p. 1401.
"Eureka Rheumatism Cure." (For a Remedy.) M. B. Krasky. No. 19,812; Dec. 26; Gaz. vol. 233; p. 1401.
"Fluff." (For a Shampoo-Soap.) The National Clock and Manufacturing Co. No. 19,818; Dec. 26; Gaz. vol. 233; p. 1401.
"Golden Poppy." (For Cigars.) Testa Cigar Co. No. 19,822; Dec. 26; Gaz. vol. 233; p. 1401.
"Grencort." (For Cigars.) S. Glarratono. No. 19,775; Dec. 12; Gaz. 233; p. 754.
"Holthoefer's Health Salt." (For a Medicinal Compound.) H. J. Holthoefer. No. 19,777; Dec. 12; Gaz. vol. 233; p. 754.
"Hood Tires." (For Motor-Vehicles.) Hood Tire Co. No. 19,808; Dec. 26; Gaz. vol. 233; p. 1401.
"Krank's Hair-Root-Oil." (For a Preparation for Dandruff and Falling Hair.) A. J. Krank. No. 19,811; Dec. 26; Gaz. vol. 233; p. 1401.
"La Gerona." (For Cigars.) A. C. Henschel & Co. No. 19,807; Dec. 26; Gaz. vol. 233; p. 1401.
"Mack's Manhattan." (For Whisky.) J. P. Winand. No. 19,790; Dec. 12; Gaz. vol. 233; p. 754.
"Martini." (For Spaghetti.) Vineland Preserving Company. No. 19,826; Dec. 26; Gaz. vol. 233; p. 1401.
"McKinney Bread." (For Bread.) General Baking Company. No. 19,774; Dec. 12; Gaz. vol. 233; p. 754.
"Mermogen." (For a Medical Preparation.) M. Mariani. No. 19,815; Dec. 26; Gaz. vol. 233; p. 1401.
"Murphy Ranch Two Crown." (For Lemons.) Murphy Oil Company. No. 19,778; Dec. 12; Gaz. vol. 233; p. 754.
"Murphy Ranch Three Star." (For Lemons.) Murphy Oil Company. No. 19,779; Dec. 12; Gaz. vol. 233; p. 754.
"Nervogen." (For a Medical Preparation.) M. Mariani. No. 19,817; Dec. 26; Gaz. vol. 233; p. 1401.
"Never-Sag." (For Bed-Springs.) Gangelhoff Bros. No. 19,772; Dec. 12; Gaz. vol. 233; p. 754.
"North Star." (For Bonita Fish.) White Star Canning Co. No. 19,786; Dec. 12; Gaz. vol. 233; p. 754.
"North Star." (For Yellowtail Fish.) White Star Canning Co. No. 19,788; Dec. 12; Gaz. vol. 233; p. 754.
"Observa." (For Cigars.) A. Garten & Sons. No. 19,773; Dec. 12; Gaz. vol. 233; p. 754.
"Pano-Vinum." (For a Medicinal Compound.) G. E. Brierre. No. 19,794; Dec. 26; Gaz. vol. 233; p. 1401.
"Porcela—The Bath Tub Cleanser." (For a Cleanser for Bath-Tubs.) Porcela-Radax Company. No. 19,781; Dec. 12; Gaz. vol. 233; p. 754.
"R. & G. Mineral Water Assn." (For Mineral-Water Containers.) R. & G. Mineral Water Assn. No. 19,782; Dec. 12; Gaz. vol. 233; p. 754.
"Red Star." (For Canned Tuna Flakes.) White Star Canning Co. No. 19,789; Dec. 12; Gaz. vol. 233; p. 754.
"Reward." (For Coffee.) Earl Cowan Company. No. 19,805; Dec. 26; Gaz. vol. 233; p. 1401.
"Roundhead." (For Beer.) Barkhard Brewing Company. No. 19,796; Dec. 26; Gaz. vol. 233; p. 1401.
"S & M." (For Select-Stock Very Fine Old Whisky.) Swope & Mangold. No. 19,821; Dec. 26; Gaz. vol. 233; p. 1401.
"Sal-Laxive." (For a Medicinal Compound.) G. E. Brierre. No. 19,795; Dec. 26; Gaz. vol. 233; p. 1401.
"Schlesinger's Charlies." (For Candy.) H. L. Schlesinger. No. 19,784; Dec. 12; Gaz. vol. 233; p. 754.
"Sealshipt Oysters." (For Oysters.) "North Atlantic Oyster Farms, Inc. No. 19,780; Dec. 12; Gaz. vol. 233; p. 754.
"Set-Length Pump." (For Electric Deep-Well Power-Head.) The Valle Kimes Co. No. 19,825; Dec. 26; Gaz. vol. 233; p. 1401.
"Skipper." (For Coffee.) A. J. Geisenberger. No. 19,806; Dec. 26; Gaz. vol. 233; p. 1401.
"Suffragette." (For Canned Salmon.) National Independent Fisheries Co. No. 19,819; Dec. 26; Gaz. vol. 233; p. 1401.
"Telamol." (For a Tonic and System Purifier.) J. Saadi. No. 19,820; Dec. 26; Gaz. vol. 233; p. 1401.
"Tonop." (For a Medicinal Tonic.) Tonop Manufacturing Co. No. 19,824; Dec. 26; Gaz. vol. 233; p. 1401.
"Tricophogen." (For a Hair-Tonic Preparation.) M. Mariani. No. 19,816; Dec. 26; Gaz. vol. 233; p. 1401.
"Turtle Back." (For Snap-Fasteners.) The Autoyre Co. No. 19,793; Dec. 26; Gaz. vol. 233; p. 1401.
"2 in 1 Black Combination." (For a Preparation for Cleaning and Polishing Black Shoes and Leather Goods.) F. F. Dalley Co. of New York. No. 19,799; Dec. 26; Gaz. vol. 233; p. 1401.
"2 in 1 Black Dressing." (For a Preparation for Cleaning Black Leather Shoes and Black Leather Goods.) F. F. Dalley Co. of New York. No. 19,804; Dec. 26; Gaz. vol. 233; p. 1401.
"2 in 1 Tan Cleaner." (For a Preparation for Cleaning and Polishing Tan and Russet Leather Shoes and Leather Goods.) F. F. Dalley Co. of New York. No. 19,802; Dec. 26; Gaz. vol. 233; p. 1401.
"2 in 1 Tan Combination." (For a Preparation for Cleaning and Polishing Tan and Russet Leather Shoes and Leather Goods.) F. F. Dalley Co. of New York. No. 19,800; Dec. 26; Gaz. vol. 233; p. 1401.
"2 in 1 White Liquid Shoe Dressing." (For a Preparation for Cleaning Shoes and other Goods Made of White Canvas, White Leather, and the Like.) F. F. Dalley Co. of New York. No. 19,801; Dec. 26; Gaz. vol. 233; p. 1401.
"2 in 1 White Liquid Shoe Dressing." (For a Preparation for Cleaning Shoes and other Articles.) F. F. Dalley Co. of New York. No. 19,803; Dec. 26; Gaz. vol. 233; p. 1401.
"Wilsons Pinaya Digestive Tablets." (For Digestive Tablets.) O. B. Wilson. No. 19,829; Dec. 26; Gaz. vol. 233; p. 1401.
"Yam Flakes." (For a Food Product Having Its Principal Ingredients Sweet Potatoes and Flour.) J. H. Williams. No. 19,828; Dec. 26; Gaz. vol. 233; p. 1401.
"Yam Nuts." (For Yam Nuts.) J. H. Williams. No. 19,827; Dec. 26; Gaz. vol. 233; p. 1401.

PRINTS.

"Bran—Eata Biscuits." (For a Food in Biscuit or Cake Form.) Grain Products Co. No. 4,582; Dec. 12; Gaz. vol. 233; p. 754.

"Children like Krumbles and it Builds them up." (For Kellogg's Krumbles.) Kellogg Toasted Corn Flake Co. No. 4,583; Dec. 12; Gaz. vol. 233; p. 754.

"Edesco Finest Made-to-Measure Clothes." (For Custom-Made Clothing.) E. E. Strauss & Company. No. 4,588; Dec. 12; Gaz. vol. 233; p. 754.

"For A Sound Sleep A Sanotuf Mattress." (For a Mattress.) Robertl Bros. No. 4,595; Dec. 26; Gaz. vol. 233; p. 1402.

"Forest Hair Tonic." (For Hair-Tonic.) E. Wilhelm. No. 4,598; Dec. 26; Gaz. vol. 233; p. 1402.

"Gund's 'Clevelander.'" (For Beer.) The Gund Preserving Co. No. 4,592; Dec. 26; Gaz. vol. 233; p. 1402.

"Ideal Internal Bath." (For Ideal Internal Bath.) Ideal Medical Appliance Co. No. 4,593; Dec. 26; Gaz. vol. 233; p. 1402.

"Kohn's Trip Register for Traveling Men." (For Kohn's Trip-Register for Traveling Men.) A. E. Kohn. No. 4,594; Dec. 26; Gaz. vol. 233; p. 1402.

"Moltjoes." (For a Drink.) Rock Island Brewing Company. No. 4,587; Dec. 12; Gaz. vol. 233; p. 754.

"Never Mind, Plenty Left Honey." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 4,581; Dec. 12; Gaz. vol. 233; p. 754.

"Prince Albert just does this little old thing." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 4,585; Dec. 12; Gaz. vol. 233; p. 754.

"Prince Albert—the national joy smoke makes men tobacco happy because it can't bite tongues and can't parch throats; the patented process fixes that!" (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 4,586; Dec. 12; Gaz. vol. 233; p. 754.

"Smoky-Holler." (For Toy Games.) W. G. Young. No. 4,597; Dec. 26; Gaz. vol. 233; p. 1402.

"Styles For Season 1917." (For Hats.) L. Galitzki. No. 4,591; Dec. 26; Gaz. vol. 233; p. 1402.

"The Arkansas House." (For Whisky.) The Sandefur Jullan Company. No. 4,596; Dec. 26; Gaz. vol. 233; p. 1402.

"The Briskin Mfg. Co. (Inc.) Radiator Repair Specialists." (For the Manufacture and Repair of Radiators for Automobiles.) The Briskin Manufacturing Company. No. 4,580; Dec. 12; Gaz. vol. 233; p. 754.

"Ther-Mo-Beit." (For Ice-Cream Freezers.) C. S. Reuter. No. 4,584; Dec. 12; Gaz. vol. 233; p. 754.

"Time's advice to beauty." (For Cold-Cream.) Daggett & Ramsdell. No. 4,590; Dec. 26; Gaz. vol. 233; p. 1402.

"Try A Nip Of 'Bob.'" (For Stock-Ale and Extra Porter.) Consolidated Bottling Co. No. 4,589; Dec. 26; Gaz. vol. 233; p. 1402.

DISCLAIMERS.

Stencil-sheet. L. E. Fuller. No. 1,101,268; date of patent June 23, 1914; disclaimer filed Dec. 4, 1916; Gaz. vol. 233; p. 756.

Stencil-sheets, Forming. L. E. Fuller. No. 1,101,269; date of patent June 23, 1914; disclaimer filed Dec. 4, 1916; Gaz. vol. 233; p. 756.

Stencils, Preparing duplicating. L. E. Fuller. No. 1,101,270; date of patent June 23, 1914; disclaimer filed Dec. 4, 1916; Gaz. vol. 233; p. 756.

Stitching machine, Book-. M. Christensen. No. 1,165,749; date of patent Dec. 28, 1915; disclaimer filed Dec. 8, 1916; Gaz. vol. 233; p. 759.

CLASSIFICATION OF PATENTS

DECEMBER, 1916.

NOTE.—First number—class, second number—subclass, third number—patent number.

1— 3: 1,207,964
6: 1,209,681
20: 1,207,749
36: 1,207,563
1,207,564
1,208,853
2— 9: 1,209,380
11: 1,208,167
1,209,508
32: 1,207,137
34: 1,207,656
41: 1,208,193
1,209,488
51: 1,209,018
57: 1,208,148
61: 1,209,311
74: 1,207,231
1,207,637
76: 1,207,104
1,208,836
1,210,170
1,210,299
79: 1,209,798
1,210,081
91: 1,208,768
93: 1,209,601
96: 1,208,220
97: 1,208,661
98: 1,208,787
100: 1,209,763
106: 1,207,440
1,210,119
107: 1,207,420
108: 1,207,407
1,209,121
114: 1,209,093
118: 1,208,403
122: 1,206,979
143: 1,208,132
1,208,133
1,210,359
144: 1,207,125
1,207,654
1,208,715
1,210,342
145: 1,209,840
149: 1,208,410
1,209,264
1,209,854
153: 1,209,942
4— 5: 1,207,854
1,208,621
1,209,662
1,210,330
12: 1,206,921
1,208,675
18: 1,207,188
1,207,710
1,208,869
1,209,656
21: 1,207,605
26: 1,207,380
28: 1,208,894
30: 1,207,299
1,208,891
32: 1,208,181
1,210,186
5— 9: 1,207,187
1,209,447
10: 1,209,479
13: 1,208,889
1,210,019
15: 1,208,277
29: 1,208,094
41: 1,208,442
48: 1,209,664
55: 1,209,195
58: 1,209,679
59: 1,210,289
62: 1,208,592
63: 1,209,175
6— 2: 1,207,425
4: 1,208,482
7— 11: 1,208,435
8— 1: 1,207,762
1,207,981
1,207,982
1,209,154
1,209,212
8— 1: 1,209,580
5: 1,207,414
1,207,784
1,210,279
6: 1,209,423
13: 1,207,800
17: 1,207,043
19: 1,209,880
20: 1,209,465
9— 9: 1,208,365
13: 1,208,006
14: 1,208,257
17: 1,208,256
1,209,200
19: 1,208,232
20: 1,208,198
25: 1,207,584
10— 27: 1,209,947
28: 1,208,527
34: 1,209,976
78: 1,209,501
93: 1,209,140
114: 1,210,188
126: 1,207,887
127: 1,208,960
132: 1,209,677
143: 1,209,139
145: 1,209,306
11— 4: 1,209,967
7: 1,207,220
12: 1,207,396
1,209,252
13: 1,208,579
18: 1,207,434
19: 1,206,805
1,207,714
1,208,293
22: 1,206,883
12— 1: 1,207,151
1,207,729
1,207,730
1,207,731
1,209,225
1,209,694
1,209,889
2: 1,209,666
6: 1,209,659
20: 1,209,278
27: 1,207,409
1,207,435
33: 1,209,089
34: 1,208,895
1,209,552
35: 1,208,966
41: 1,208,079
48: 1,207,807
54: 1,207,941
55: 1,208,057
57: 1,210,054
67: 1,208,769
77: 1,207,879
78: 1,208,552
1,209,277
91: 1,207,474
123: 1,210,355
128: 1,206,835
136: 1,207,037
1,207,038
139: 1,207,864
142: 1,206,914
1,207,529
1,208,613
1,209,648
147: 1,208,760
1,209,531
13— 7: 1,207,288
9: 1,208,423
18: 1,208,152
19: 1,207,878
1,209,114
14— 71: 1,207,902
15— 7: 1,209,194
1,209,639
8: 1,206,856
12: 1,207,374
1,209,799
1,210,059
13: 1,208,623
16: 1,207,276
17: 1,207,816
15— 17: 1,208,046
1,208,493
1,209,384
19: 1,208,523
20: 1,207,457
23: 1,208,733
24: 1,210,319
37: 1,208,713
39: 1,209,176
1,209,516
43: 1,207,028
50: 1,207,121
54: 1,209,557
56: 1,208,443
59: 1,208,801
1,209,785
60: 1,207,480
1,208,165
1,208,251
1,208,735
1,209,272
1,209,718
1,209,719
1,209,720
1,209,721
1,209,722
61: 1,210,044
1,210,070
63: 1,209,260
66: 1,209,691
16— 5: 1,208,035
1,208,036
1,208,037
7: 1,209,923
8: 1,207,925
10: 1,209,791
17: 1,208,673
18: 1,208,307
19: 1,207,969
28: 1,210,341
47: 1,208,690
48: 1,207,471
52: 1,209,481
53: 1,207,095
54: 1,208,731
64: 1,210,302
65: 1,209,529
70: 1,208,496
83: 1,207,600
104: 1,206,817
107: 1,208,422
111: 1,207,270
1,210,234
145: 1,207,989
1,209,274
146: 1,208,336
163: 1,206,869
17— 10: 1,207,561
20: 1,207,632
24: 1,207,745
1,208,765
28: 1,208,953
30: 1,206,820
18— 1: 1,208,944
2: 1,206,894
6: 1,209,731
1,209,764
1,210,101
8: 1,209,133
17: 1,206,799
1,209,162
19: 1,207,673
1,209,308
34: 1,209,202
42: 1,209,358
1,209,607
45: 1,207,117
1,208,777
46: 1,209,671
48: 1,209,259
1,209,906
56: 1,207,372
1,209,118
58: 1,208,615
1,208,879
59: 1,209,644
19— 9: 1,207,438
15: 1,209,751
33: 1,206,811
20— 1.4: 1,208,332
1.4: 1,210,116
13: 1,207,389
16: 1,208,042
18: 1,206,824
20: 1,209,360
22: 1,210,067
36: 1,207,885
40: 1,209,164
42: 1,207,236
49: 1,208,495
52: 1,209,674
64: 1,207,827
66: 1,207,741
69: 1,209,514
71: 1,206,843
84: 1,208,849
87: 1,207,442
1,209,839
92: 1,209,032
94: 1,210,199
97: 1,210,333
21— 5: 1,206,134
1,210,308
7: 1,207,203
1,207,842
1,208,054
1,208,182
1,209,577
8: 1,206,818
1,207,650
1,207,785
1,208,036
1,208,128
1,208,375
9: 1,209,538
12: 1,207,343
1,208,109
19: 1,208,693
21: 1,207,182
1,207,266
1,209,523
1,209,866
1,209,481
23: 1,207,642
1,208,396
1,208,825
24: 1,209,921
28: 1,207,874
40: 1,209,585
1,209,971
43: 1,207,040
1,208,319
47: 1,209,401
61: 1,207,547
1,209,760
62: 1,207,082
1,209,285
1,209,417
65: 1,207,433
1,209,408
69: 1,206,886
1,206,887
1,206,888
1,206,889
1,208,609
1,209,181
1,209,261
1,210,229
74: 1,207,929
1,209,690
1,210,260
78: 1,207,453
1,208,635
79: 1,210,334
80: 1,207,750
1,208,260
1,208,261
1,208,433
81: 1,208,440
82: 1,208,794
90: 1,206,953
1,207,490
1,207,658
1,207,663
1,207,715
1,207,952
1,208,111
1,208,657
1,208,883
1,208,920
1,209,100
21— 90: 1,209,209
1,209,228
1,209,290
1,209,337
1,209,427
1,209,497
1,209,875
1,209,985
1,210,291
92: 1,210,211
94: 1,209,398
96: 1,207,856
1,207,891
1,207,931
105: 1,207,250
1,207,775
1,208,276
114: 1,206,895
1,207,058
1,207,335
1,207,539
1,207,695
1,207,875
1,208,062
1,208,381
1,208,703
1,209,495
1,209,964
1,207,705
1,207,707
1,207,708
1,207,890
1,210,173
1,210,180
1,206,796
1,206,797
1,206,798
1,207,416
1,207,782
1,207,797
1,208,797
1,209,245
1,209,246
1,209,258
1,209,291
1,207,284
23— 24: 1,207,798
1,207,802
1,208,833
1,209,163
28: 1,210,367
24— 3: 1,207,746
11: 1,209,953
1,209,977
22: 1,206,866
23: 1,209,119
26: 1,209,496
38: 1,207,853
40: 1,207,522
1,208,043
49: 1,209,158
56: 1,208,394
67: 1,210,230
73: 1,208,531
81: 1,209,697
1,210,303
84: 1,209,001
90: 1,208,934
1,209,418
97: 1,207,079
1,208,323
99: 1,209,624
109: 1,209,170
113: 1,208,969
121: 1,208,604
125: 1,207,401
139: 1,207,486
1,210,228
150: 1,209,824
155: 1,208,939
157: 1,209,422
159: 1,208,582
161: 1,208,073
170: 1,208,108
198: 1,209,075
201: 1,208,692
211: 1,209,369
1,210,337
216: 1,209,019
217: 1,208,829
1,208,009
1,208,010
1,208,601
1,208,612
218: 1,209,470
221: 1,209,783
228: 1,207,415
1,209,387
230: 1,209,083
231: 1,208,408
241: 1,209,615
243: 1,208,808
253: 1,208,379
265: 1,209,017
25— 1: 1,207,272
1,207,697
12: 1,208,593
41: 1,207,509
1,207,698
55: 1,208,090
83: 1,207,172
99: 1,208,557
103: 1,210,317
104: 1,210,318
121: 1,208,299
124: 1,208,398
131: 1,208,281
1,208,283
1,210,296
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R. 14,232
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